

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 = 328



09

DESIGN DESIGNATION	S OF STH 173 S	N OF STH 173 S
A.A.D.T. 2023	= 940	3,000
A.A.D.T. 2043	= 1,000	3,500
D.H.V.	=	
D.D.	= 50/50	50/50
T.	= 34.5%	39.3%
DESIGN SPEED	= 55 MPH	55 MPH/40 MPH
ESALS	= 1,100,000	2,900,000

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
	STORM SEWER
	TELEPHONE
	WATER
MARSH AREA	UTILITY PEDESTAL
	POWER POLE
WOODED OR SHRUB AREA	TELEPHONE POLE

# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

## PLAN OF PROPOSED IMPROVEMENT

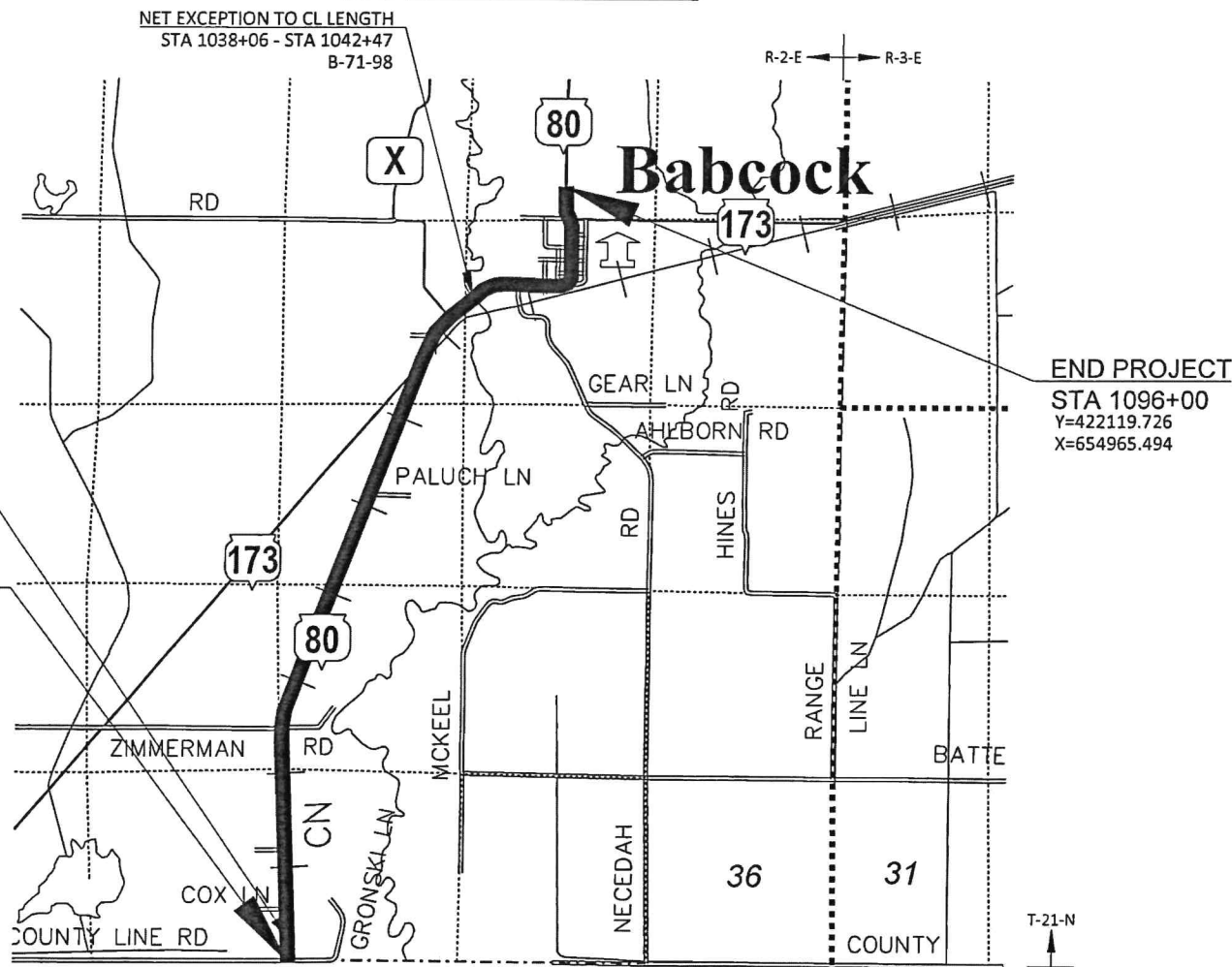
### NECEDAH - BABCOCK

JUNEAU CO LINE TO STH 173 N

STH 80

WOOD COUNTY

STATE PROJECT NUMBER  
1620-02-76



LAYOUT  
SCALE 0 1 MI  
TOTAL NET LENGTH OF CENTERLINE = 4.769 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), WOOD COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1620-02-76	WISC 2023616	1

COUNTY: WOOD

ORIGINAL PLANS PREPARED BY

## QUEST

Civil Engineers, LLC

WISCONSIN

ADAM J. OSYPOWSKI  
E-38889

STEVENS POINT  
WIS.

PROFESSIONAL ENGINEER

4-27-2023 (Date) (Signature)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	QUEST CIVIL ENGINEERS
Designer	QUEST CIVIL ENGINEERS
Project Manager	PRESTON BOHN
Regional Examiner	FRED SCHUNKE
Regional Supervisor	ELIZABETH NEMEC

APPROVED FOR THE DEPARTMENT

DATE: 4/28/2023 Preston Bohn (Signature)

## GENERAL NOTES

THE ALIGNMENT IN THIS PLAN IS BASED ON THE EXISTING AS BUILTS. THE ACTUAL ROADWAY CENTERLINE MAY DEVIATE FROM THE PLAN. NEW HMA PAVEMENT SHALL FOLLOW EXISTING ROADWAY CENTERLINE. ANY ADJUSTMENTS SHALL BE INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.

IN PULVERIZE AND RELAY AREA, CORRECT SUPERELEVATION BY MILLING AT PROPOSED SUPERELEVATION PRIOR TO PULVERIZING. THE EXISTING CURVE SUPER ELEVATION AND TRANSITIONS AT STH 173 N SHALL BE RESTORED IN-KIND.

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

WHEN THE QUANTITY OF BASE AGGREGATE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON THE DEPTH OR THICKNESS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL DEPTH WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL BY THE ENGINEER IN THE FIELD.

PURSUANT TO CHAPTER 59 OF THE WISCONSIN STATUTES, THE CONTRACTOR SHALL CAREFULLY MAKE A SEARCH FOR EVIDENCE OF ALL LANDMARKS, BENCHMARKS, AND OTHER CONTROL POINTS IN ALL AREAS WHERE SUCH LANDMARKS, BENCHMARKS, OR OTHER CONTROL POINTS MAY EXIST.

THE CONTRACTOR SHALL PROTECT ALL SURVEY MARKERS. SURVEY MARKERS SHALL NOT BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESHAPING AND RESTORATION (INCLUDING, BUT NOT LIMITED TO, SEED, FERTILIZER, MULCH, AND EROSION MAT) OF ANY DISTURBED AREAS OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AS DETERMINED BY THE ENGINEER.

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

EXACT LOCATION AND WIDTH OF ANY DRIVEWAY ENTRANCES TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

## RUNOFF COEFFICIENT TABLE

HYDROLOGIC SOIL GROUP												
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70-.95											
CONCRETE	.80-.95											
BRICK	.70-.80											
DRIVES, WALKS	.75-.85											
ROOFS	.75-.85											
GRAVEL ROADS, SHOULDERS	.40-.60											

TOTAL PROJECT AREA = 22.9 ac  
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES= 3.95 ac

## ORDER OF SECTION 2 SHEETS

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- INTERSECTION DETAILS
- PLAN DETAILS
- CURB RAMP DETAILS
- EROSION CONTROL
- STORM SEWER
- SIGNING PLAN
- PAVEMENT MARKING
- TRAFFIC CONTROL
- DETOUR PLAN

## HMA PAVEMENT LAYER THICKNESS

TOTAL LAYER THICKNESS	LAYERS	HMA PAVEMENT	LOCATIONS
5 ¾" MAINLINE (RURAL)	1.75" UPPER LAYER 1.75" MIDDLE LAYER 2.25" LOWER LAYER	4 MT 58-28 S 4 MT 58-28 S 3 MT 58-28 S	STH 80 STA 839+90 – STA 1035+25; STH 173 (SOUTH)
3 ½" SHOULDER	1.75" UPPER LAYER 1.75" LOWER LAYER	4 MT 58-28 S 4 MT 58-28 S	
7 ¾" MAINLINE (RURAL)	1.75" UPPER LAYER 2" MIDDLE LAYER 4" LOWER LAYER	4 MT 58-28 S 4 MT 58-28 S 3 MT 58-28 S	STH 80 STA 1035+25 – STA1053+25; STH 80 STA 1053+25 – STA 1055+00
3 ¾" SHOULDER	1.75" UPPER LAYER 2" LOWER LAYER	4 MT 58-28 S 4 MT 58-28 S	
7 ¾" MAINLINE (URBAN)	1.75" UPPER LAYER 2" MIDDLE LAYER 4" LOWER LAYER	4 MT 58-28 H 4 MT 58-28 S 3 MT 58-28 S	STH 80 STA 1055+00 – STA 1065+80; STH 80 STA 1065+80 - STA 1074+75;
3 ¾" SHOULDER	1.75" UPPER LAYER 2" LOWER LAYER	4 MT 58-28 H 4 MT 58-28 S	
2" MAINLINE AND SHOULDERS	2" UPPER LAYER	4 MT 58-28 H	STA 1074+75 – STA 1096+00; STH 173 (NORTH)
SIDE ROADS VARIABLE DEPTH 1 ¾" MIN	VARIABLE UPPER LAYER	4 MT 58-28 S or 4-MT 58-28 H	LOCAL ROADS (MATCH MAINLINE HMA PAVEMENT UPPER LAYER)
SIDE ROADS RECONSTRUCTION AREA	1.75" UPPER LAYER 2" LOWER LAYER	4 MT 58-28 H 4 MT 58-28 S	PINE STREET, JUNEAU AVENUE, CLARK AVENUE

## STH 80 BORING INFORMATION

BORING NO.	STATION	OFFSET FROM C/L	PAVEMENT THICKNESS ASPHALT (INCHES)	BASE COURSE THICKNESS (INCHES)	SUBGRADE MATERIAL	DEPTH TO ENCOUNTERED GROUNDWATER 7/13/2020 * (FT)
C-1	840+81	1.1 RT	6.5	5.5	Sand with some silt	---
C-2	857+84	9.7 LT	7.25	Pavement core only		---
C-3	873+20	1.7 LT	7	5	Sand with some silt	---
C-4	889+28	8.3 LT	7.25	Pavement core only		---
C-5	904+73	0.3 RT	7	Pavement core only		---
C-6	920+53	7.1 LT	7	8	Sand with some silt	---
C-7	936+63	2.0 RT	6.25	Pavement core only		---
C-8	952+35	10.7 LT	6.75	Pavement core only		---
C-9	967+82	1.0 LT	6.75	8	Sand with some silt	---
C-10	984+67	10.8 LT	7.25	Pavement core only		---
C-11	999+18	0.04 RT	7	Pavement core only		---
C-12	1015+72	20.1 LT	4.75	10	Sand with some silt	---
C-13	1031+90	1.5 RT	5.75	Pavement core only		---
C-14	1047+88	10.21 LT	5.75	Pavement core only		---
C-15	1064+28	0.5 RT	9.25	10	Sand with some silt	---
C-16	1078+29	10.5 LT	4 Asphalt Over 7.75 Concrete	0	Sand with some silt	---
N-1	1071+72	6.0 RT	4 Asphalt Over 9 Concrete	2	Sand with some silt	5.5
N-2	1069+39	0.1 LT	TOPSOIL	TOPSOIL	Sand with some silt	5
N-3	1067+48	2.5 LT	12	2	Sand with some silt	4.5
N-4	1069+05	104.3 LT	TOPSOIL	TOPSOIL	Sand with some silt	5
N-5	1016+30	8.3 LT	7.25	7.25	Sand with some silt	5
N-6	1036+47	8.3 LT	6.25	10.25	Sand with some silt	---
N-7	1044+31	7.2 RT	6.5	8.5	Sand with some silt	---
N-8	1055+12	5.6 LT	10	4	Sand with some silt	---
N-9	1082+02	3.9 RT	12	2	Sand with some silt	4.5

\*GROUNDWATER MAY BE ENCOUNTERED DURING STORM SEWER OR OUTFALL EXCAVATION

## UTILITY CONTACTS

OAKDALE ELECTRIC— ELECTRICITY TRANSMISSION  
Travis Champlin  
P.O. Box 40  
Oakdale, WI 54619  
608-372-8848  
travisc@oakdalerec.com

TDS TELECOM— COMMUNICATION LINE  
Rod Heinz  
211 W 3<sup>rd</sup> Street  
Necedah, WI 54646  
608-225-7090  
rod.heinz@tdstelecom.com

EVERSTREAM— COMMUNICATION LINE  
Shad Garcia  
324 E Wisconsin Ave, Suite 730  
Milwaukee, WI 53202  
414-522-6685  
sgarcia@everstream.net



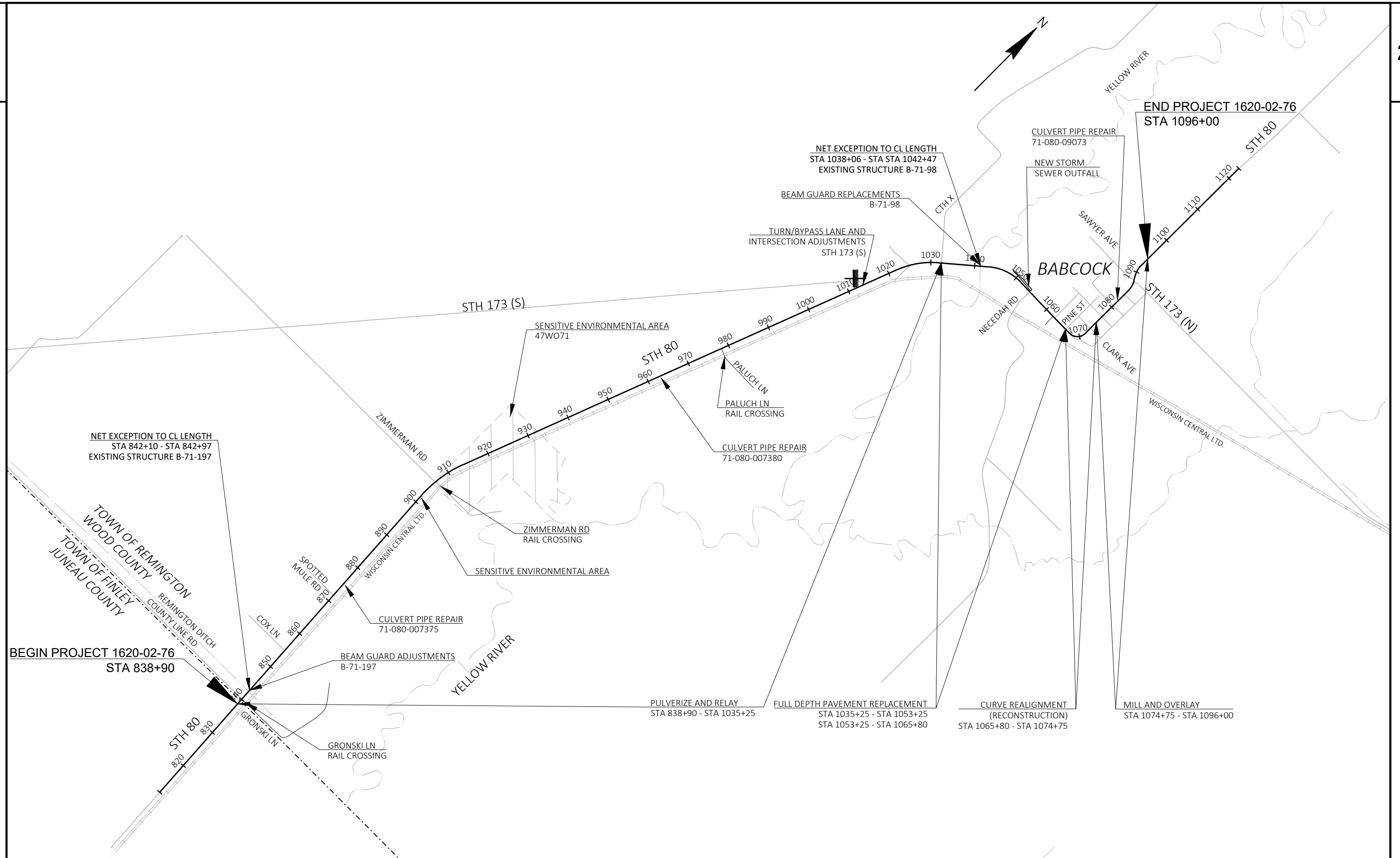
## RAILROAD CONTACT

WISCONSIN CENTRAL LTD.  
ATTN: JACKIE SAPP, MANAGER PUBLIC WORKS  
3192 S. POKEGAMA RD  
SUPERIOR, WI 54880  
OFFICE: 715-345-2503  
EMAIL: JACKIE.SAPP@CN.CA

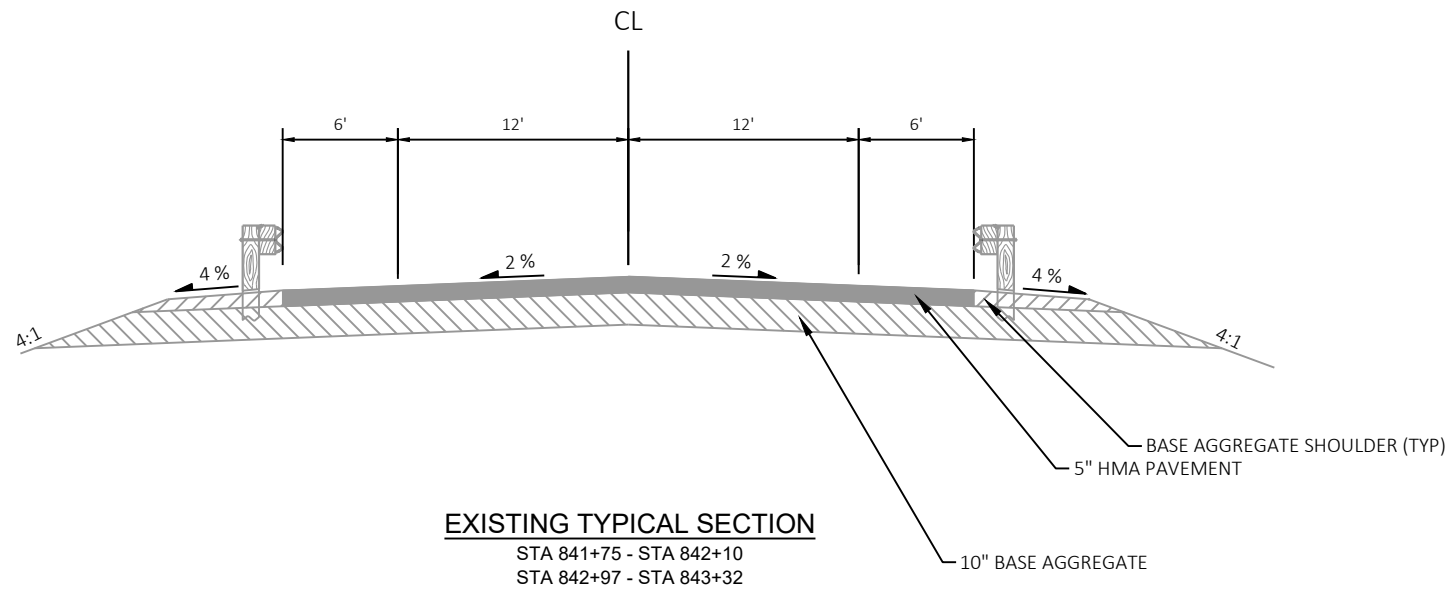
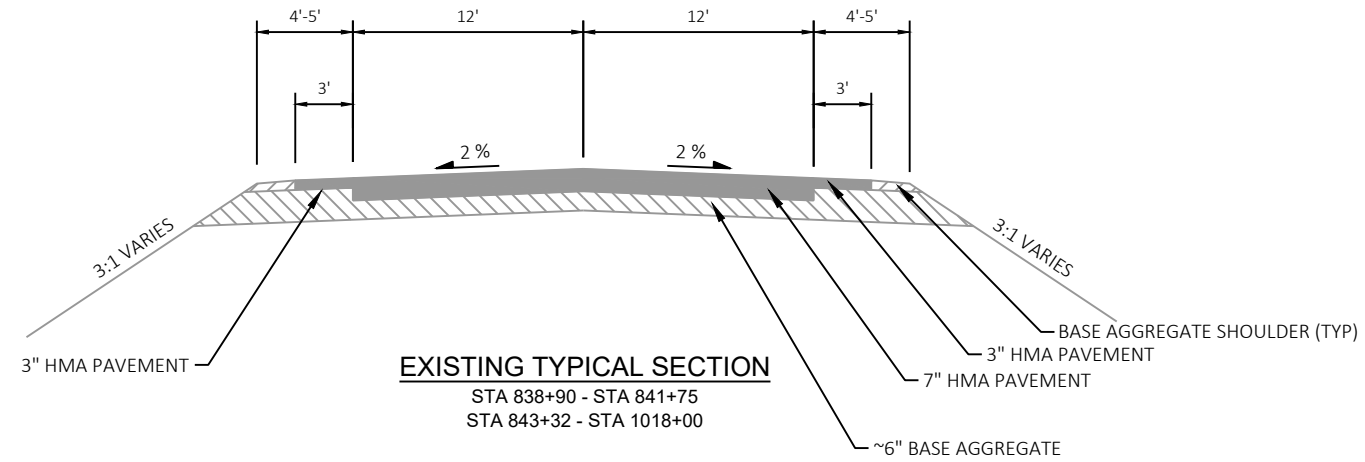
WISCONSIN CENTRAL LTD.  
CALL BEFORE YOU DIG LINE  
OFFICE: 248-914-9695  
\* RAILROAD IS NOT PART OF DIGGERS HOTLINE

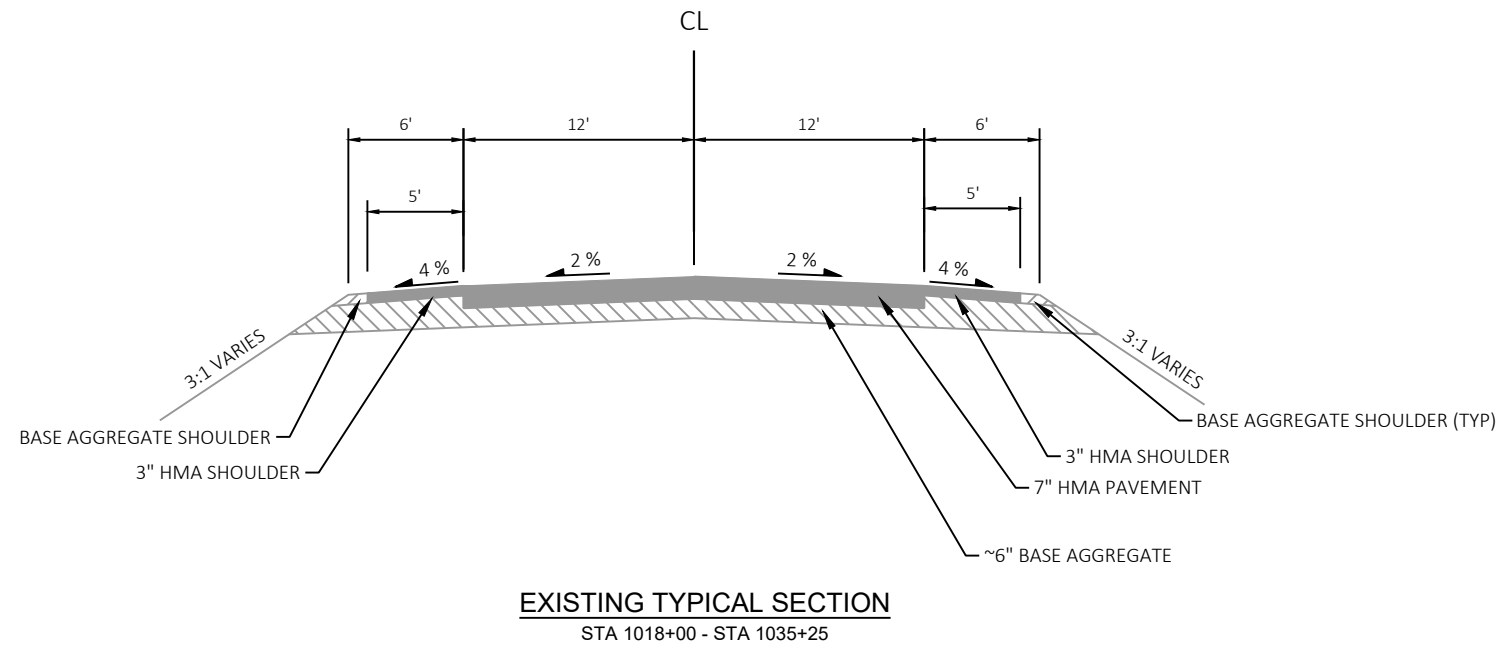
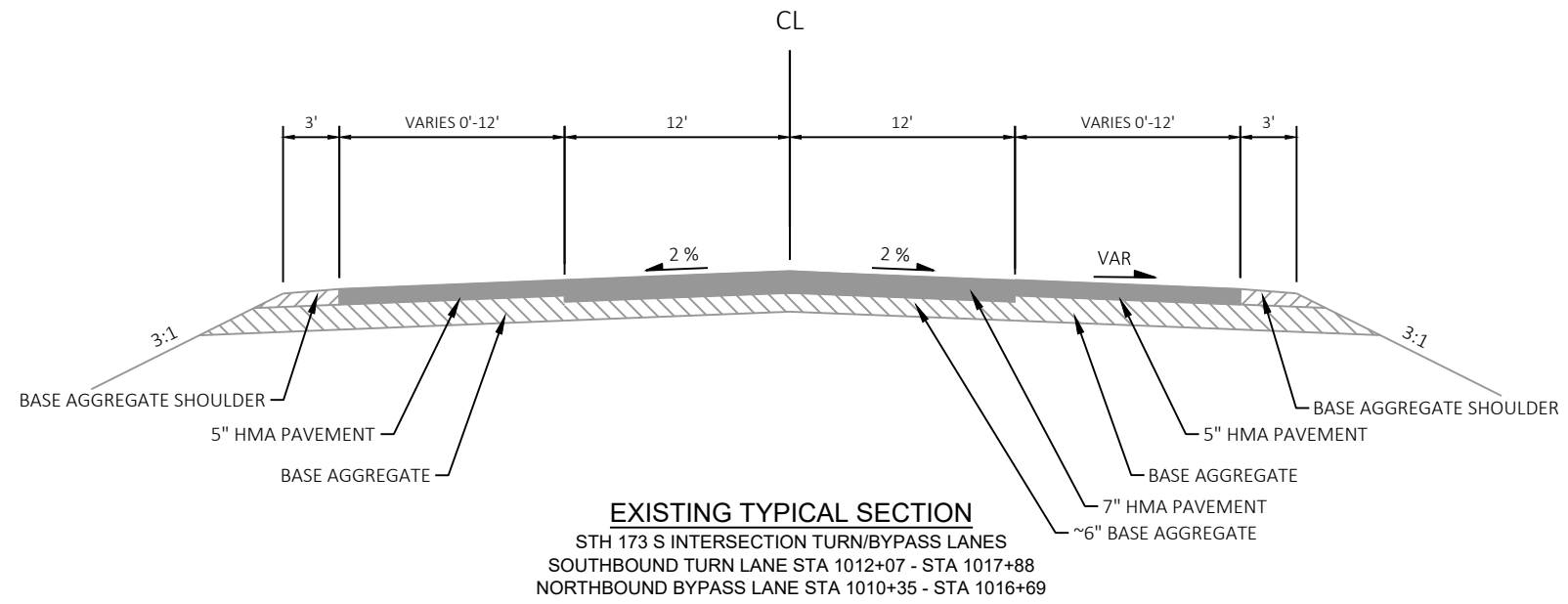
## DNR CONTACT

WISCONSIN DEPARTMENT OF NATURAL RESOURCES  
BRAD BETTHAUSER  
WEST CENTRAL REGION  
910 HWY54 E  
BLACK RIVER FALLS, WI 54615  
715-213-9064 (MOBILE)  
Bradley.betthausen@Wisconsin.gov



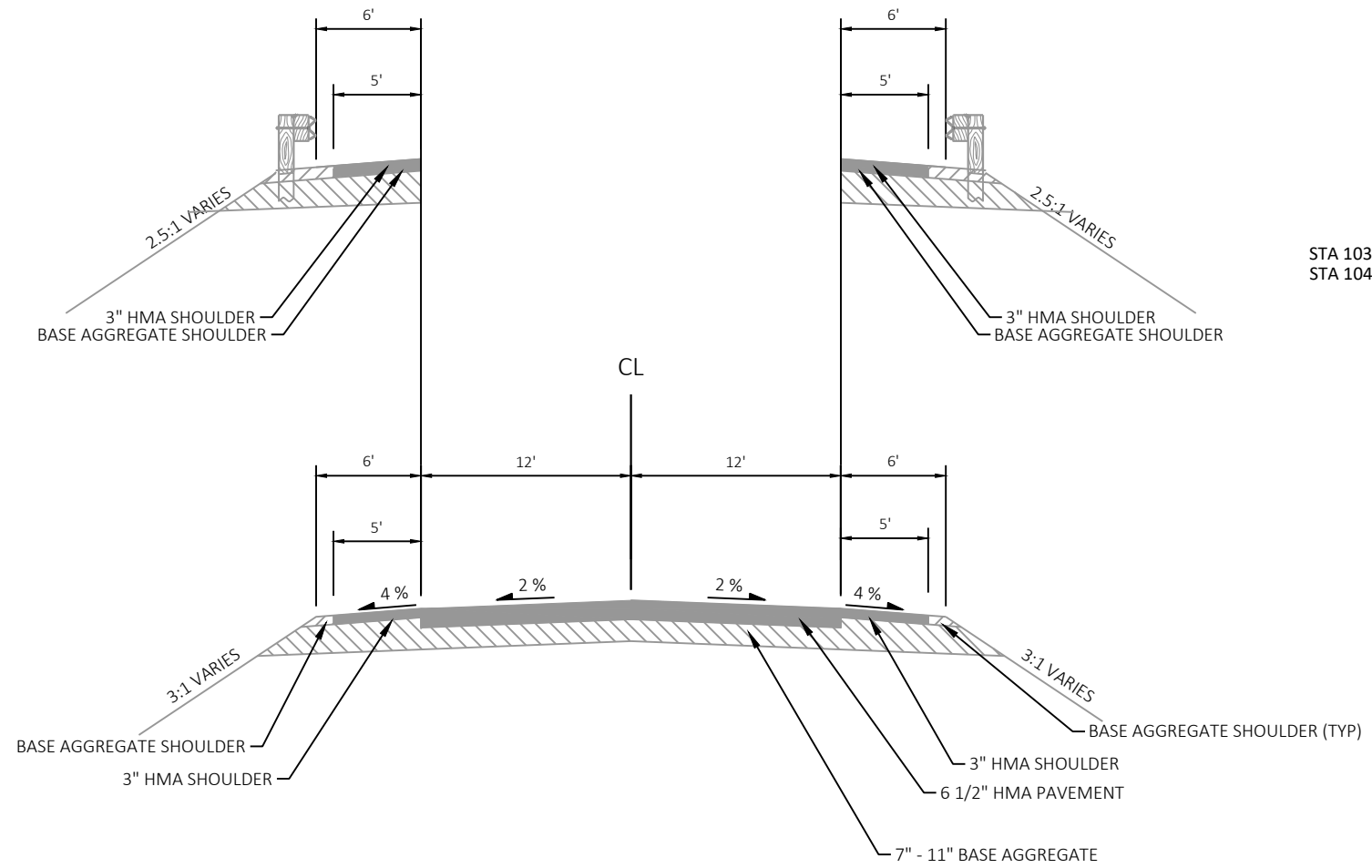
PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	PROJECT OVERVIEW	SHEET <b>E</b>
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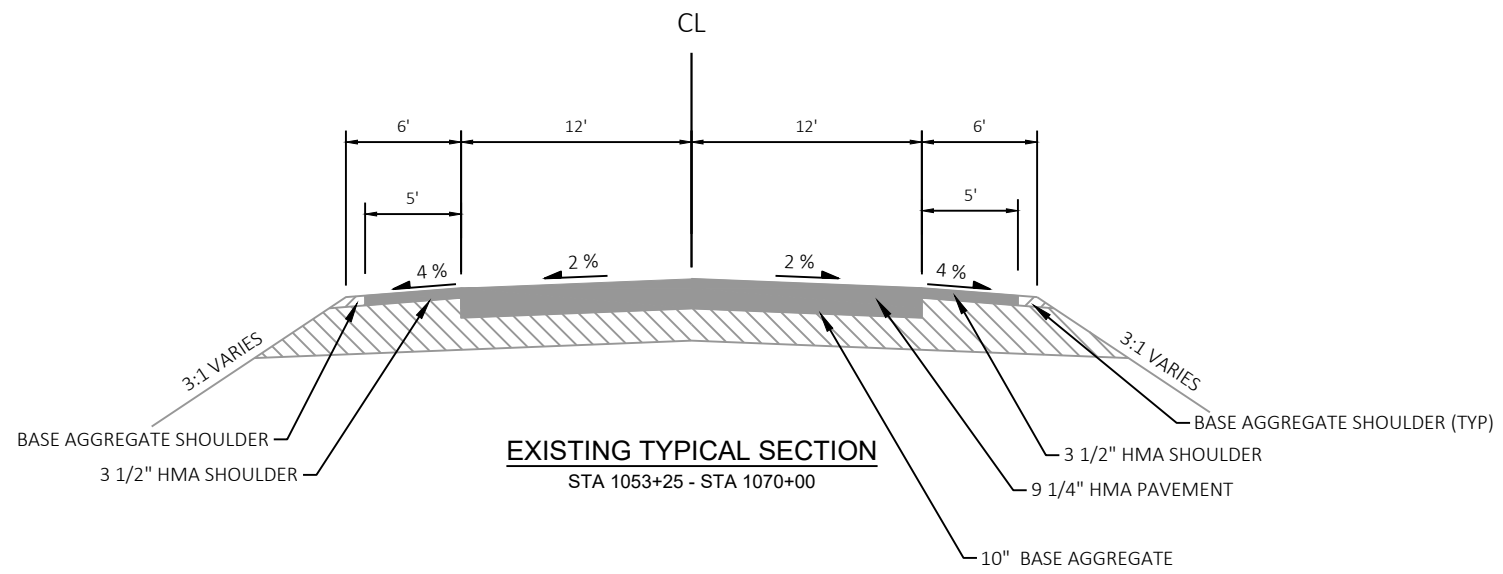
STA 1036+79 - STA 1038+13  
STA 1042+39 - STA 1051+22

STA 1036+67 - STA 1038+14  
STA 1042+39 - STA 1043+62



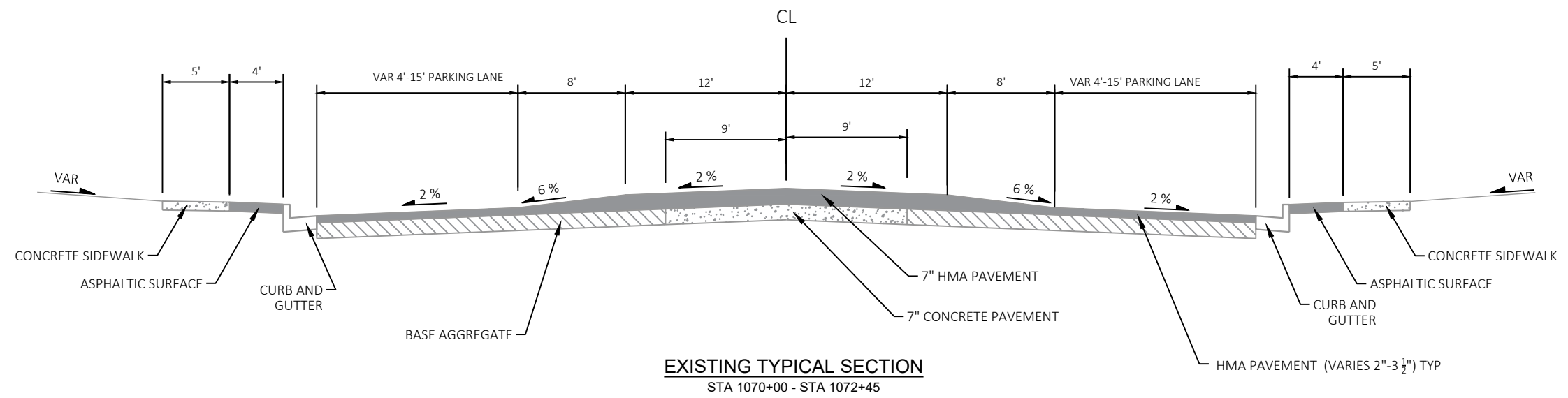
**EXISTING TYPICAL SECTION**

STA 1035+25 - STA 1038+06  
STA 1042+47 - STA 1053+25

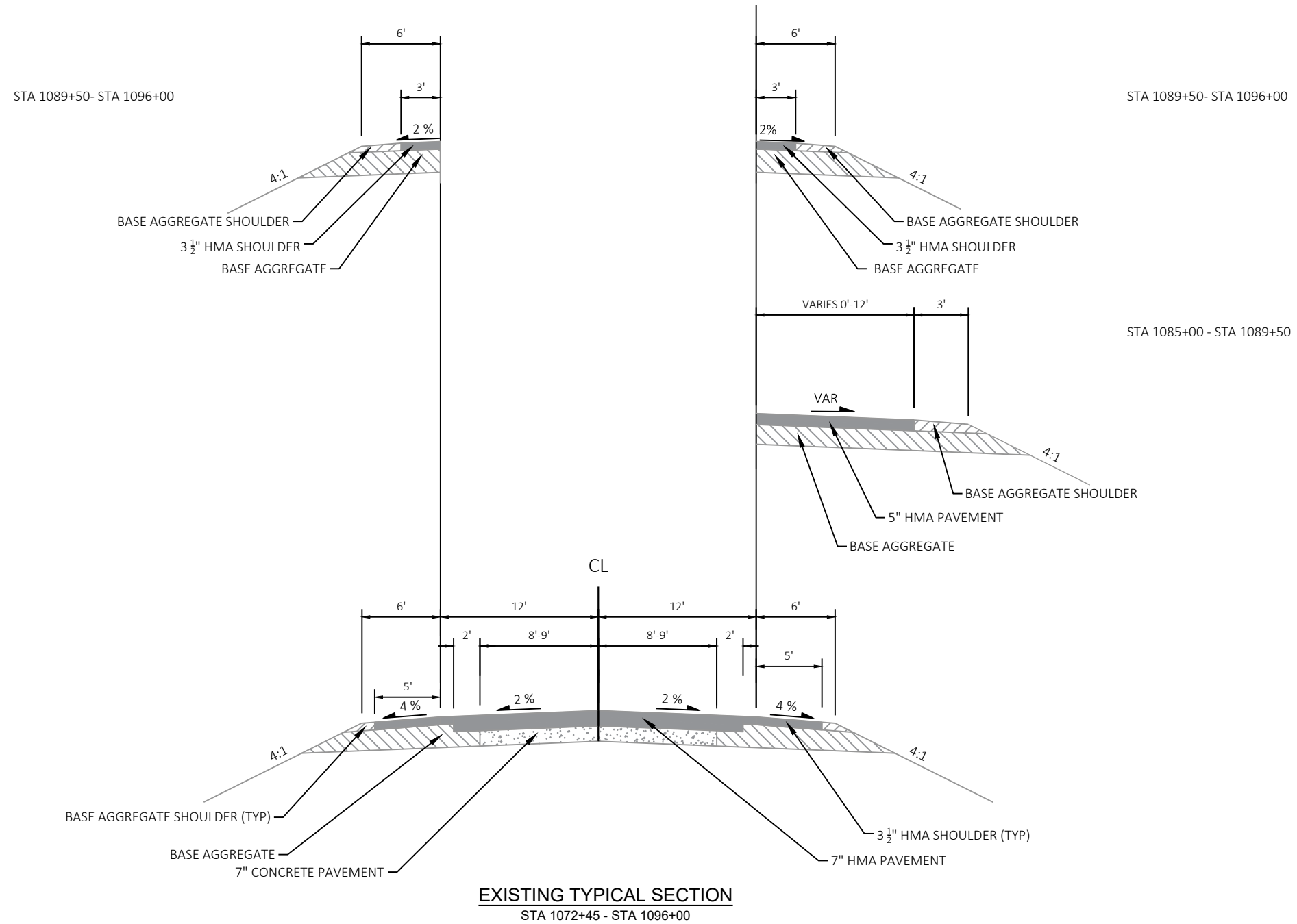


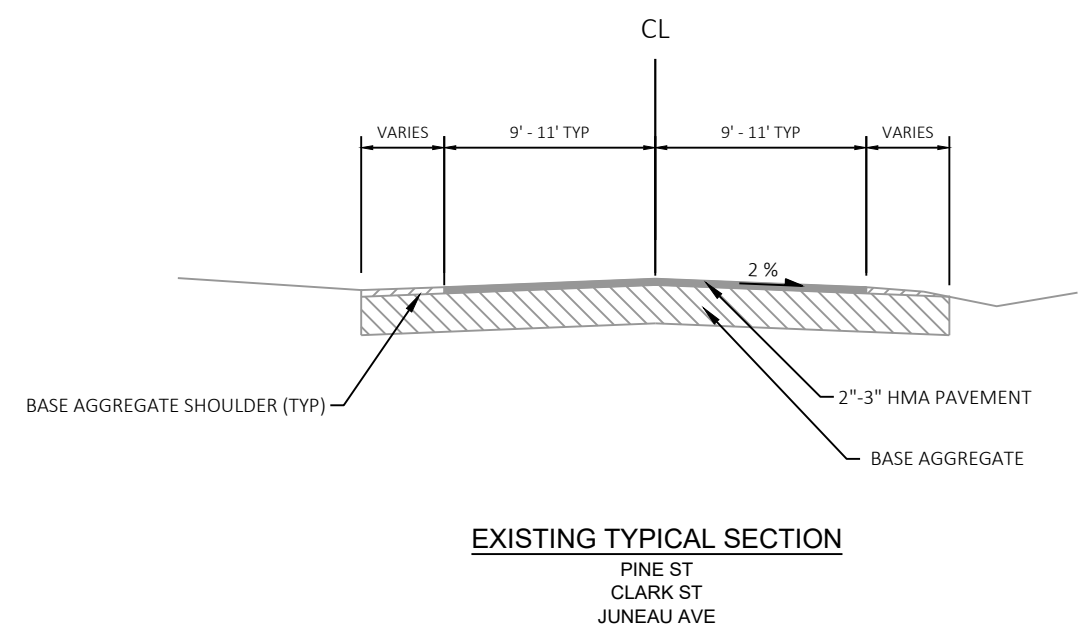
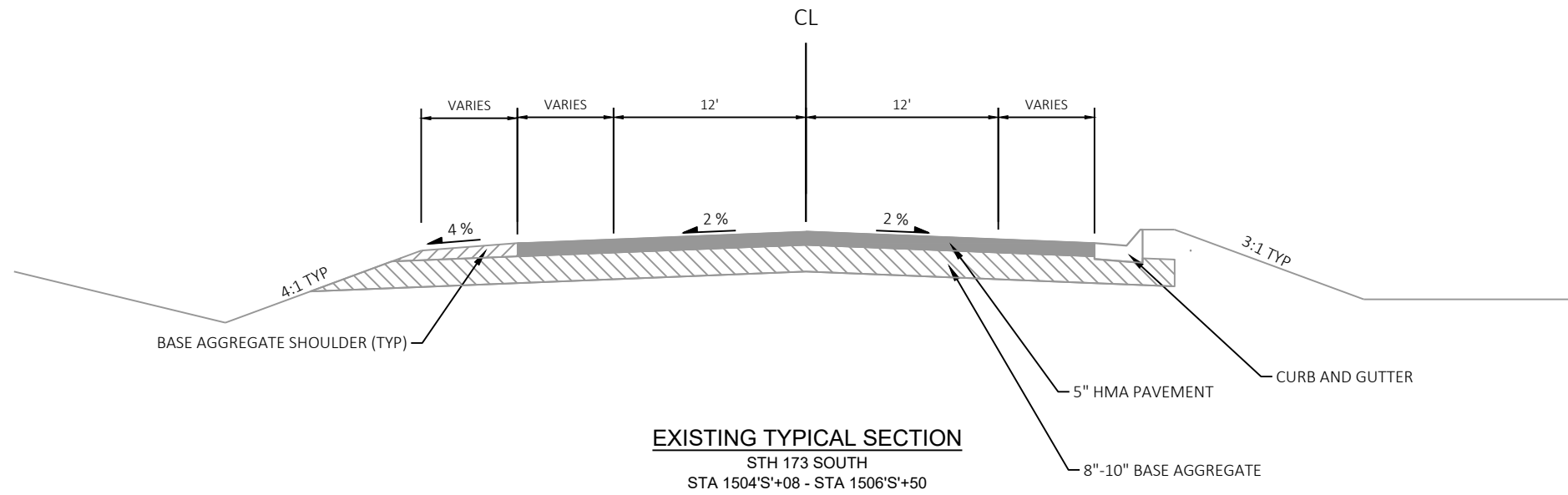
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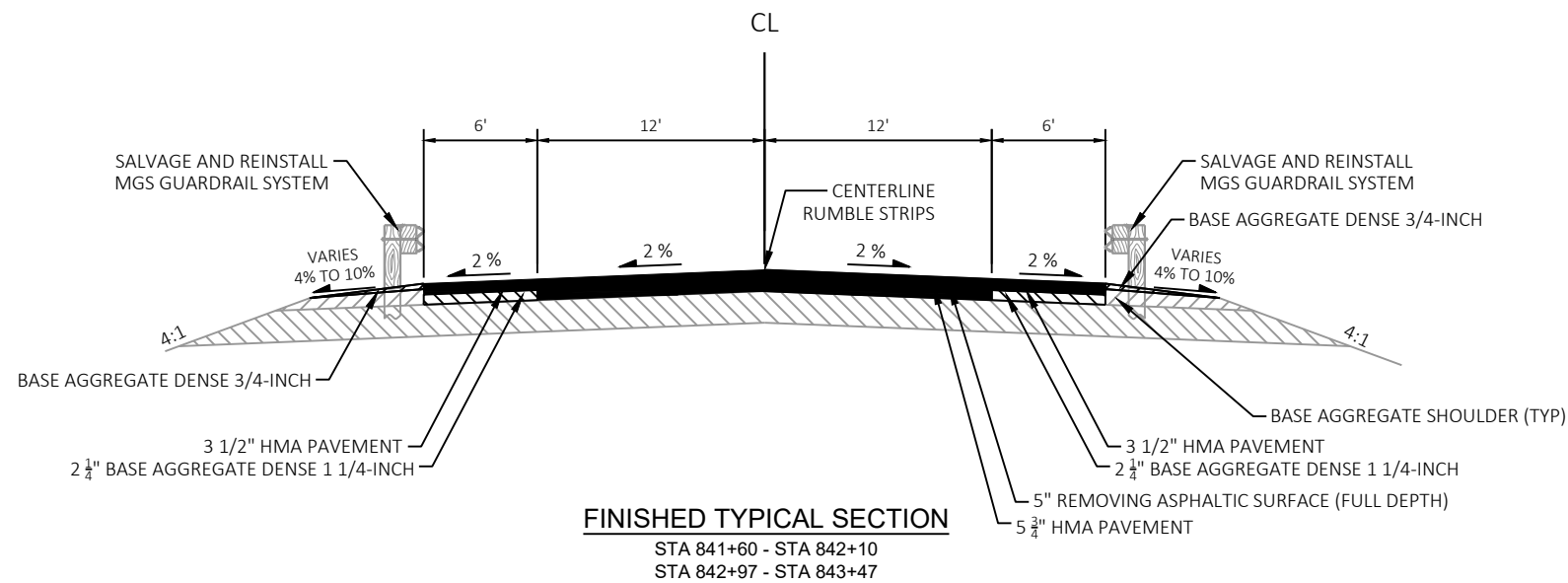
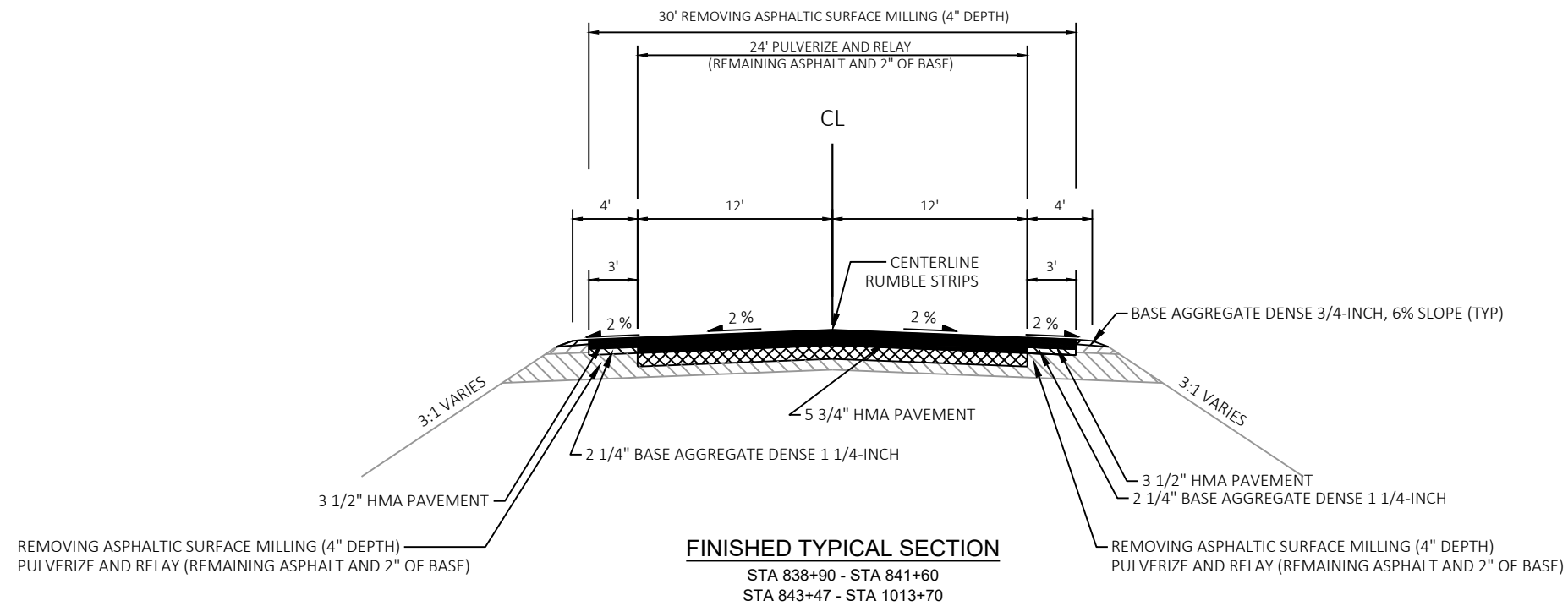
STA 1053+25 - STA 1070+00

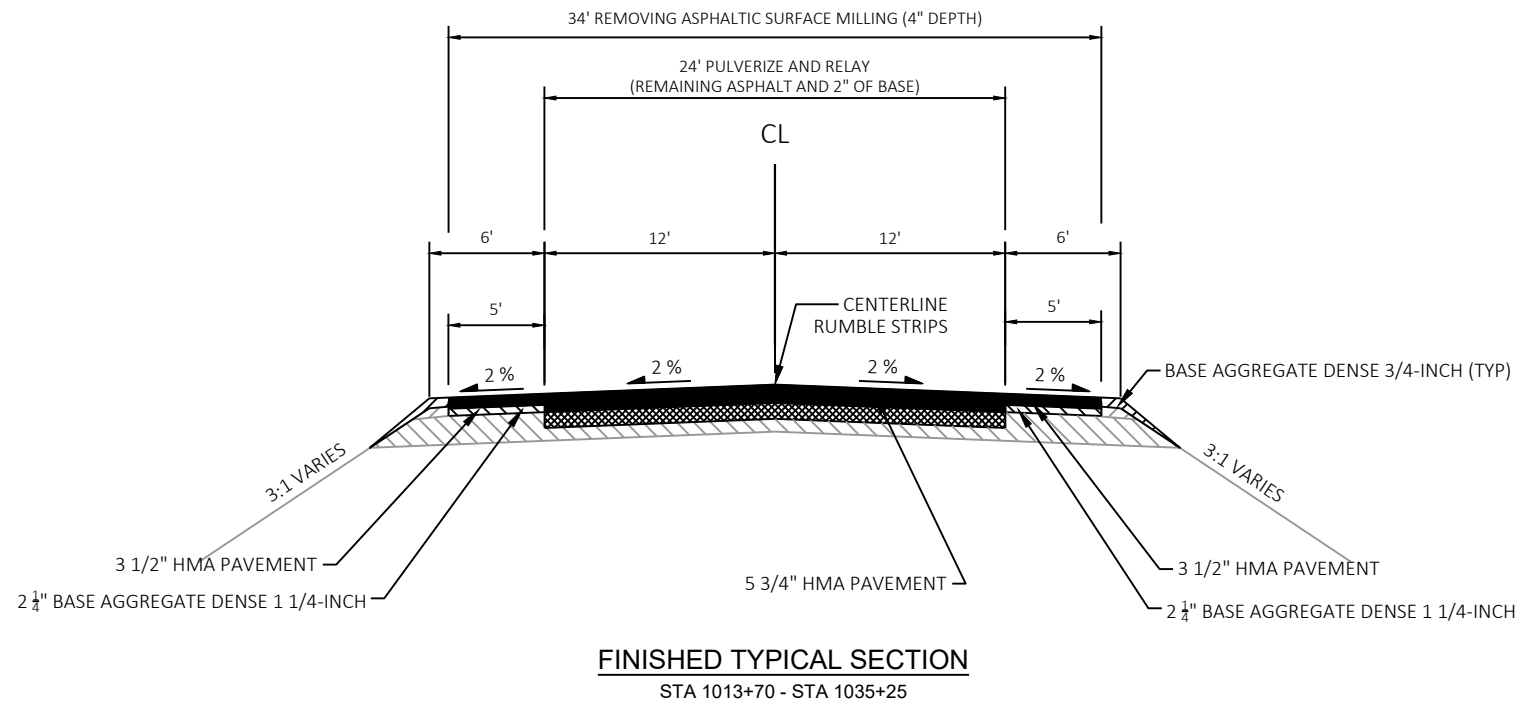
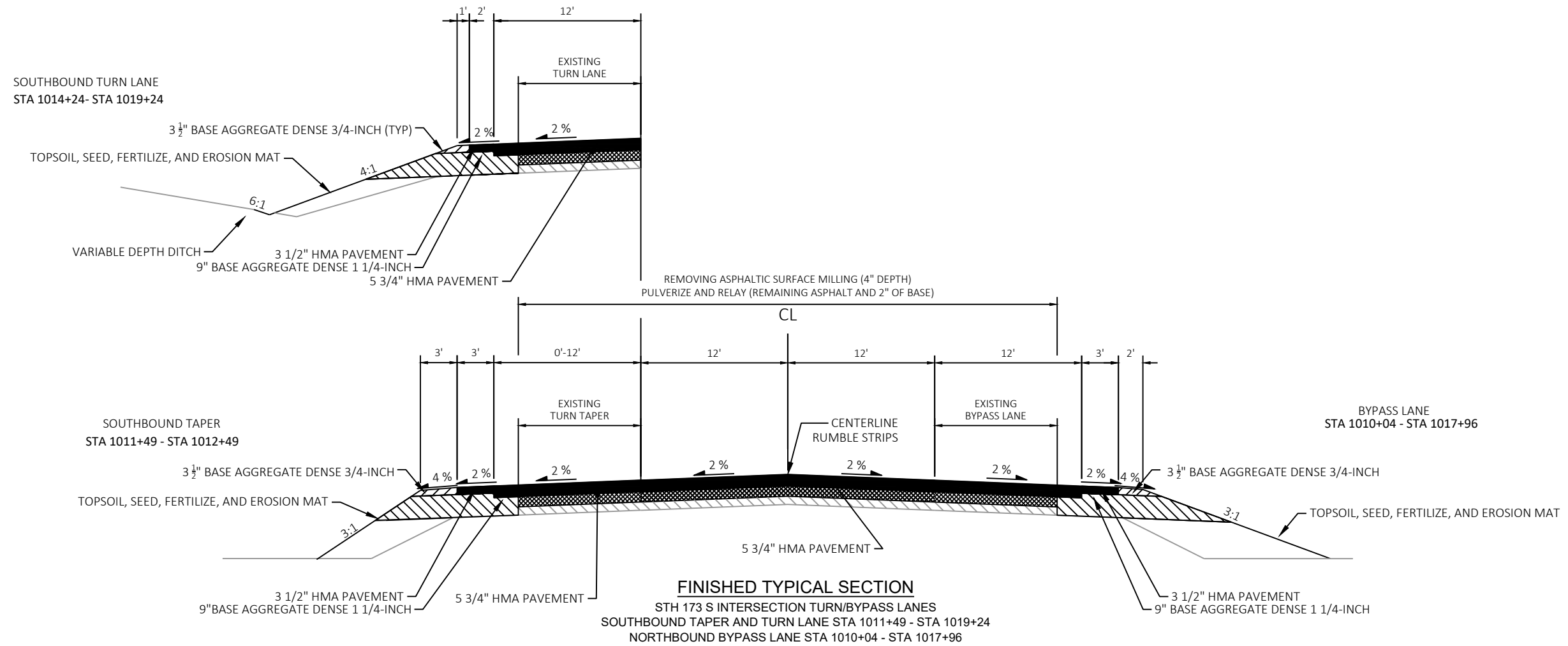




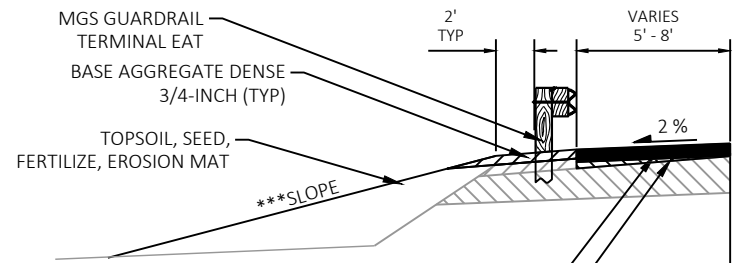




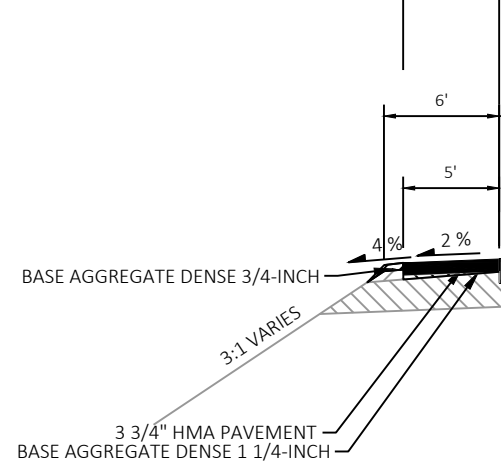
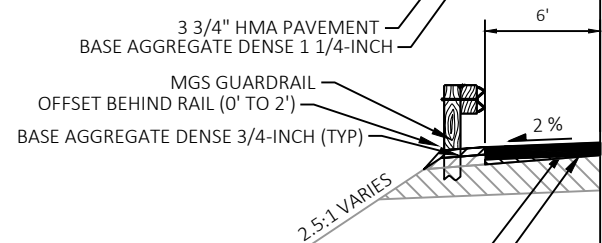




\*\*\* STA 1034+24 TO STA 1036+09 - 4:1 SLOPE  
STA 1051+06 TO STA 1052+75 - 4:1 SLOPE

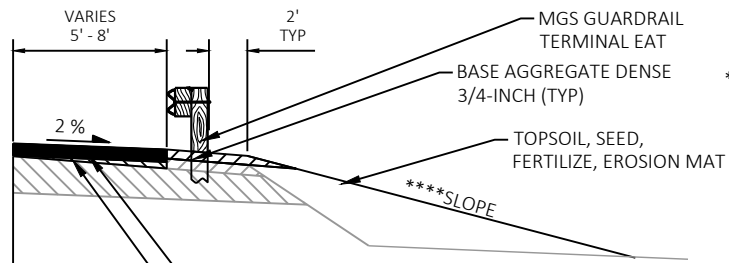


STA 1036+09 TO STA 1038+12 (2' OFFSET BEHIND RAIL)  
STA 1042+42 TO STA 1051+06 (0' OFFSET)

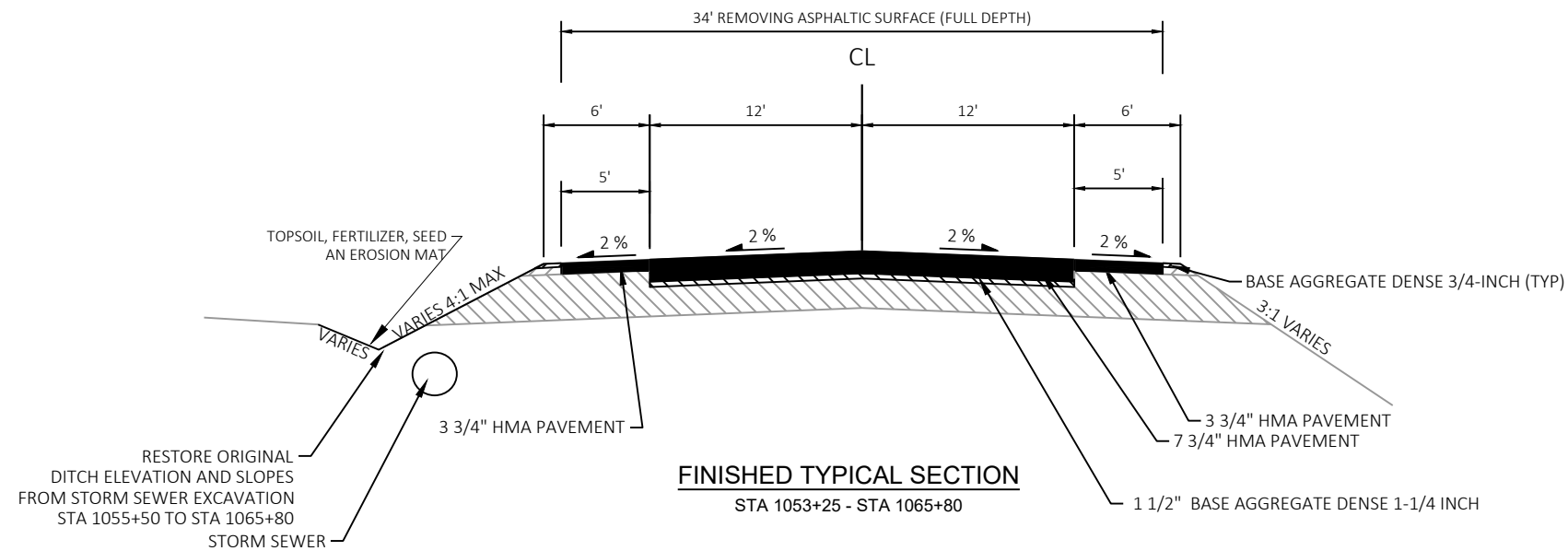
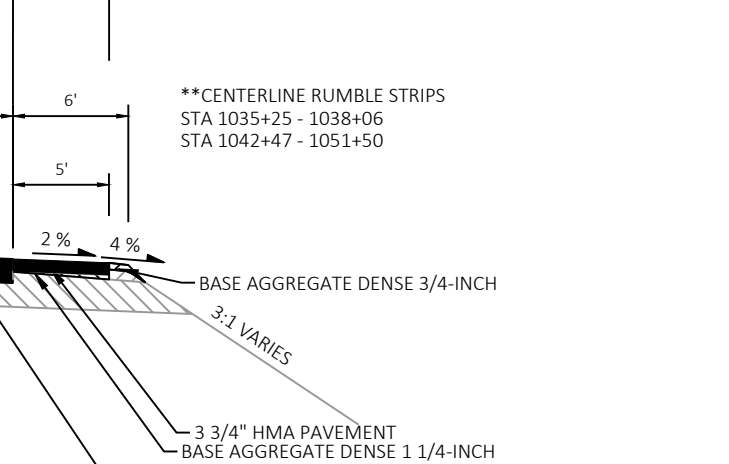
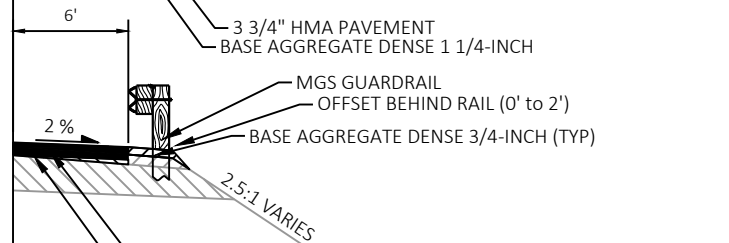


**FINISHED TYPICAL SECTION**

STA 1035+25 - STA 1038+06  
STA 1042+47 - STA 1053+25



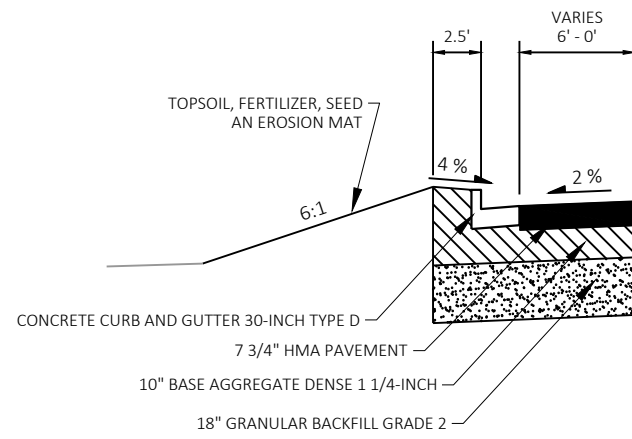
\*\*\*\* STA 1032+39 TO STA 1034+09 - 4:1 SLOPE  
STA 1043+16 TO STA 1044+90 - 3:1 SLOPE



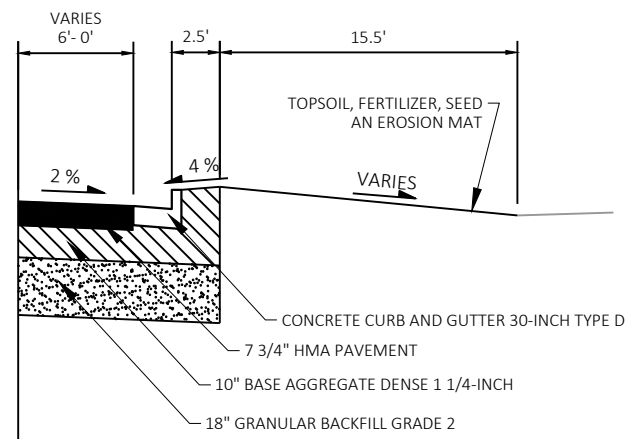
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STA 1053+25 - STA 1065+80

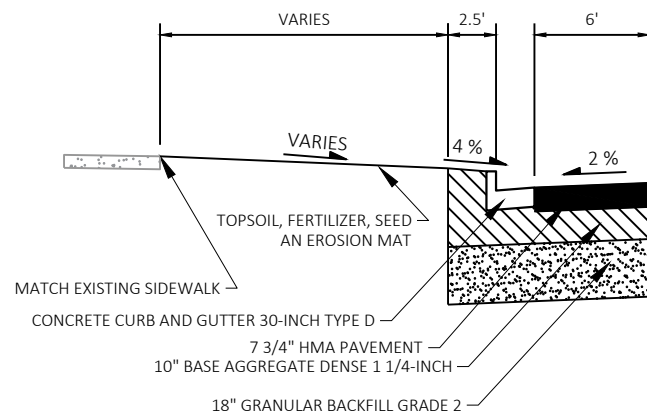
STA 1073+05 - STA 1074+75



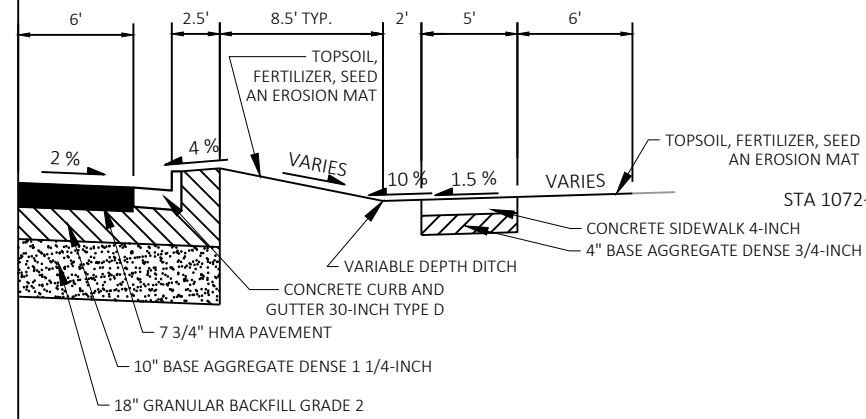
STA 1073+89 - STA 1074+75



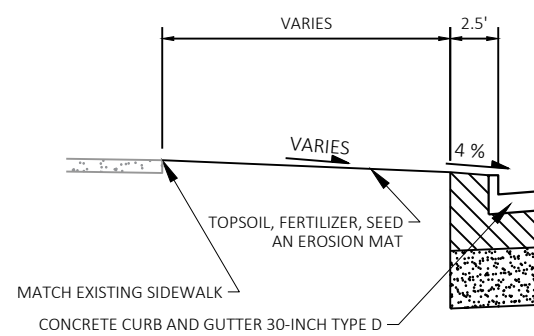
STA 1071+25 - STA 1073+05



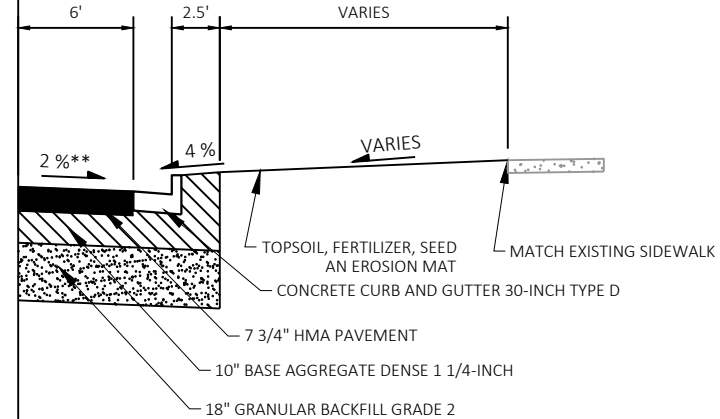
STA 1072+70 - STA 1073+89



STA 1070+76 - STA 1071+25

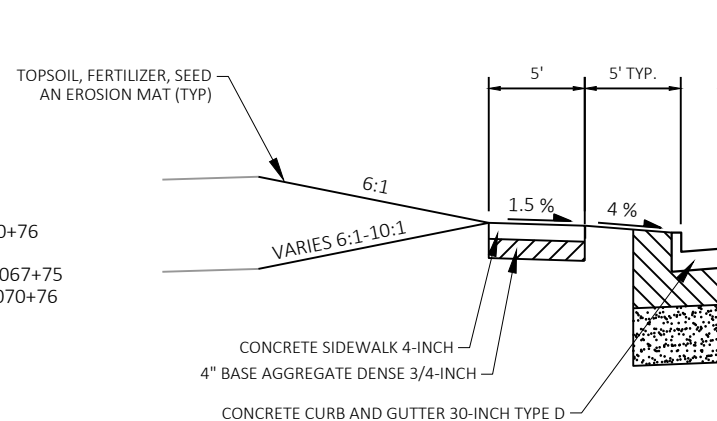


\*\*HOLD 2% PARKING LANE SLOPE THROUGH SUPERELEVATED ROADWAY

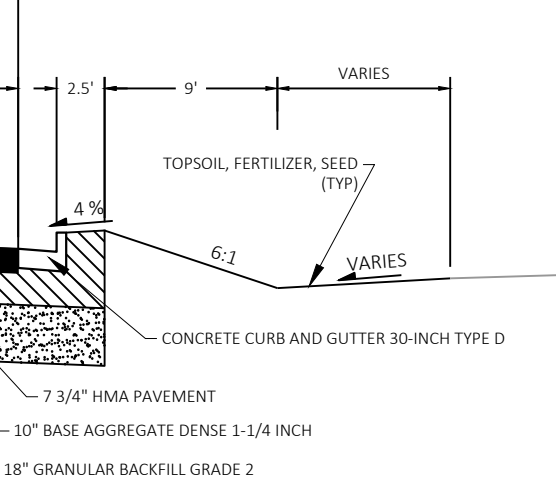


STA 1071+25 - STA 1072+70

STA 1065+80 - STA 1070+76  
10:1 STA 1066+50 - STA 1067+75  
6:1 STA 1068+00 - STA 1070+76



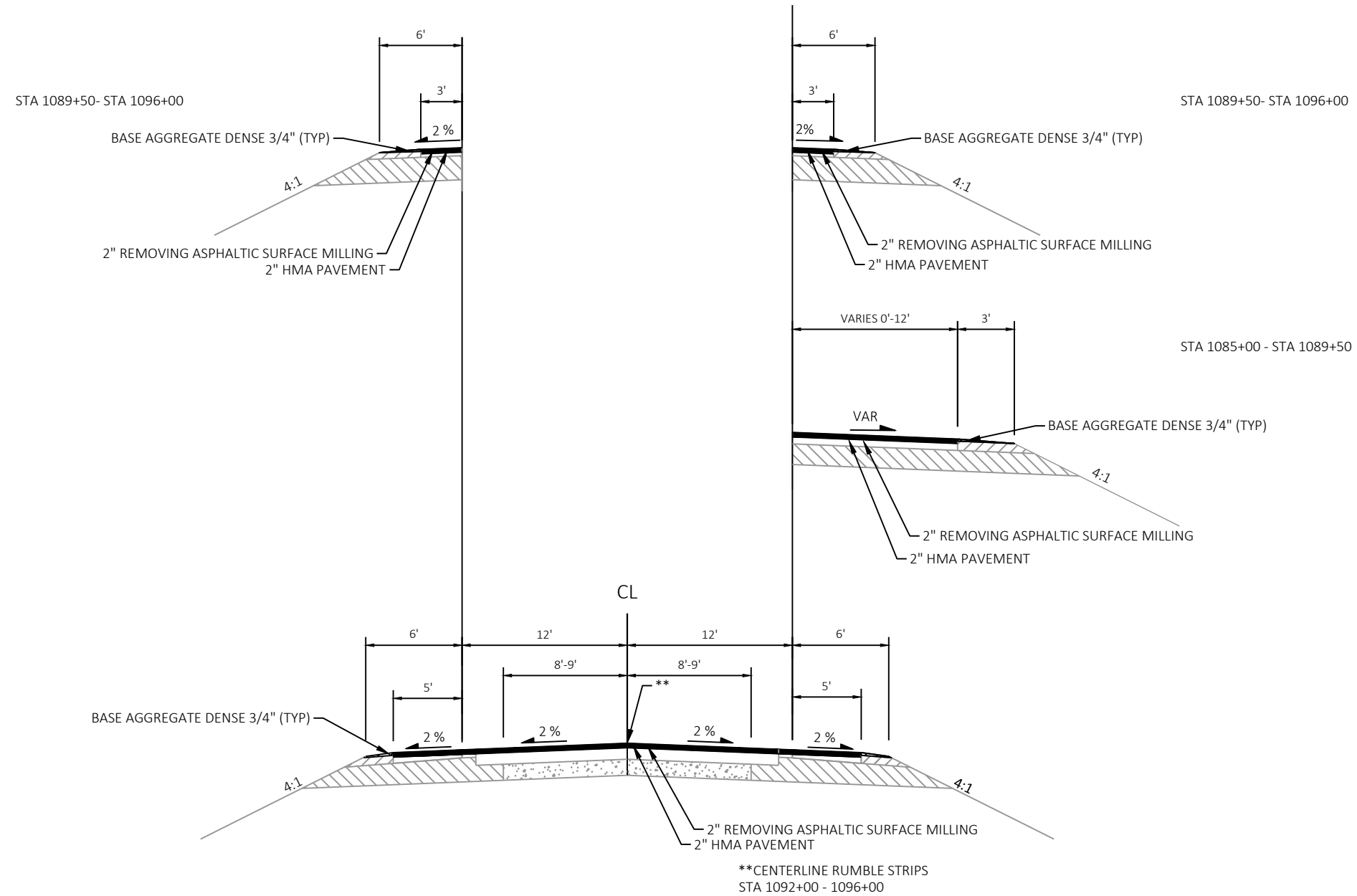
STA 1065+80 - STA 1071+25



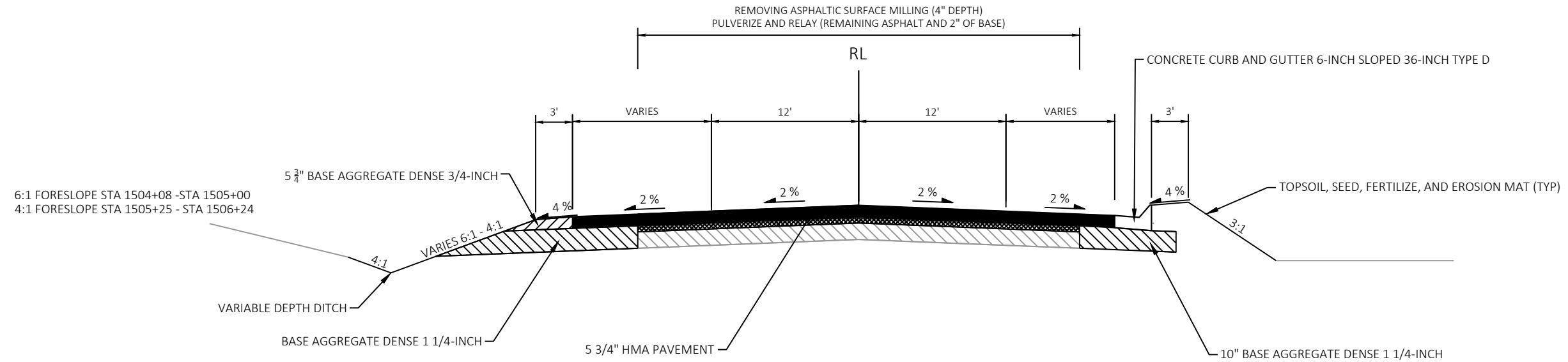
CL

POINT REFERRED TO ON CROSS SECTION

**FINISHED TYPICAL SECTION**  
STA 1065+80 - STA 1074+75

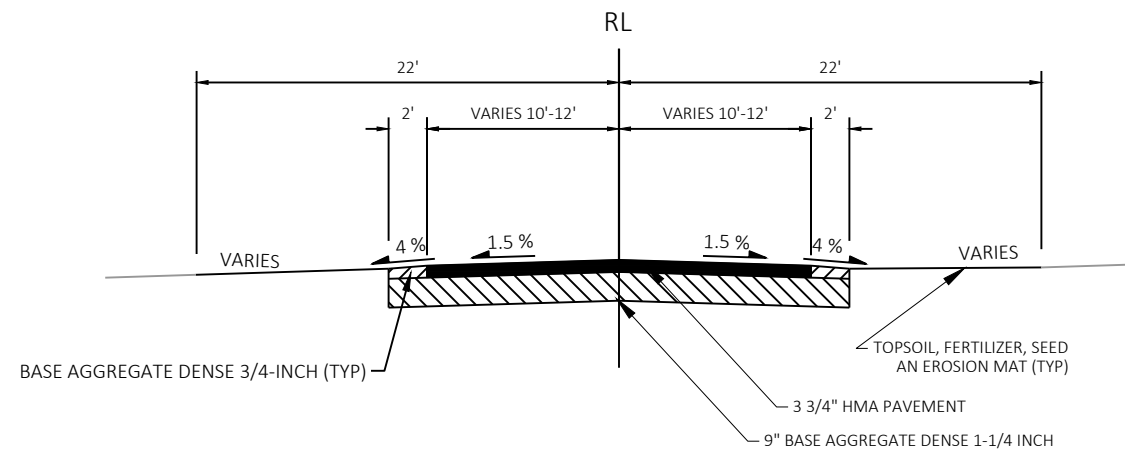


**FINISHED TYPICAL SECTION**  
 STA 1074+75 - STA 1096+00



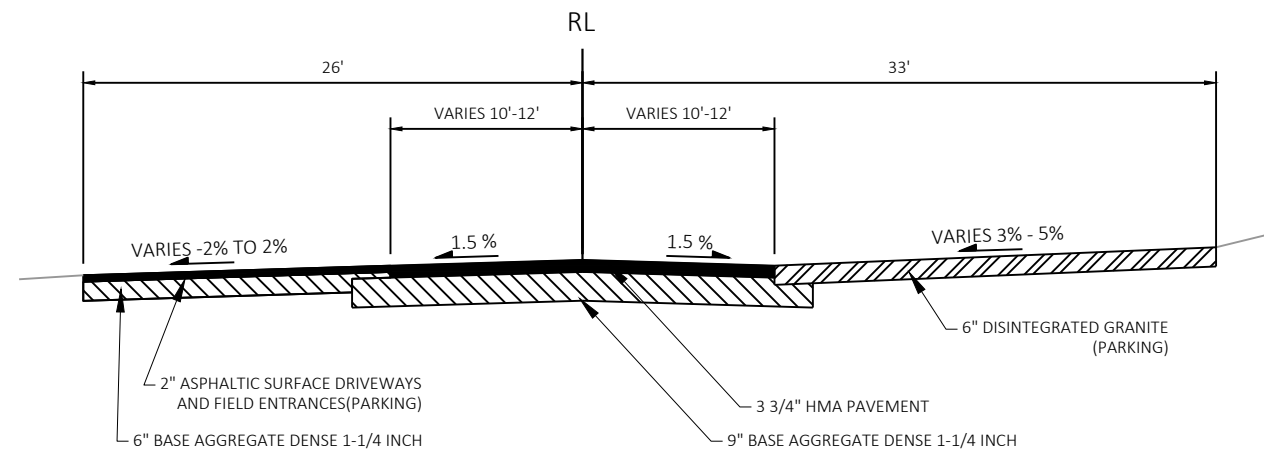
**FINISHED TYPICAL SECTION**

STH 173 SOUTH  
STA 1504'S+08 - STA 1506'S+50



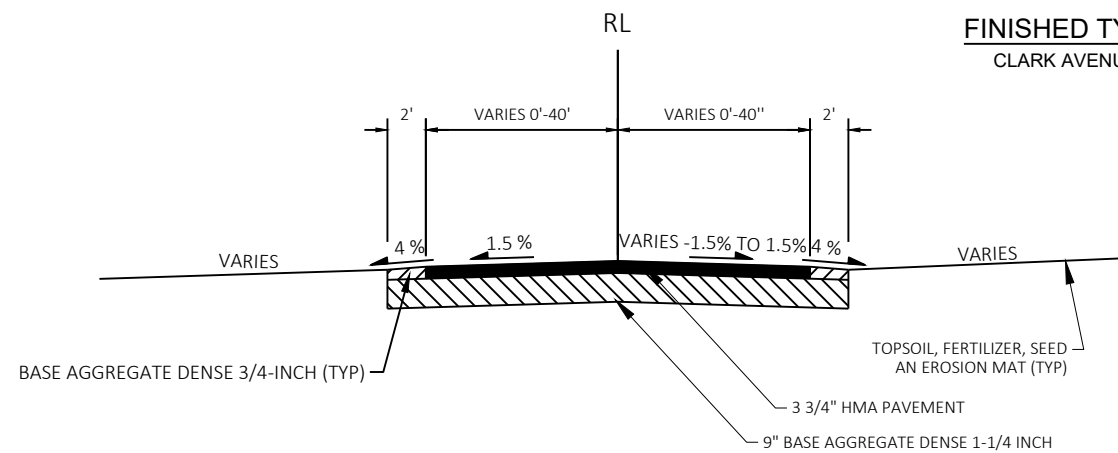
**FINISHED TYPICAL SECTION**

PINE STREET  
CLARK AVENUE (WEST OF STH 80)



**FINISHED TYPICAL SECTION**

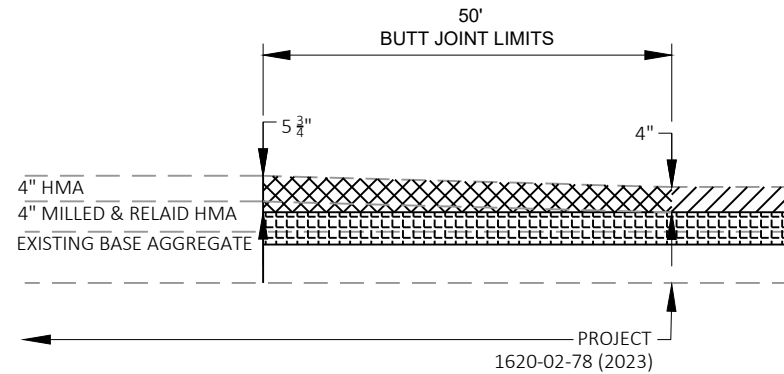
CLARK AVENUE (EAST OF STH 80)



**FINISHED TYPICAL SECTION**

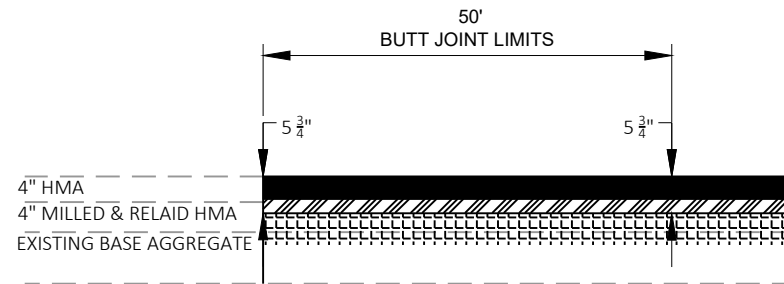
JUNEAU AVE





- REMOVING ASPHALTIC SURFACE BUTT JOINT
- REMOVING ASPHALTIC SURFACE MILLING
- PULVERIZE AND RELAY (5")

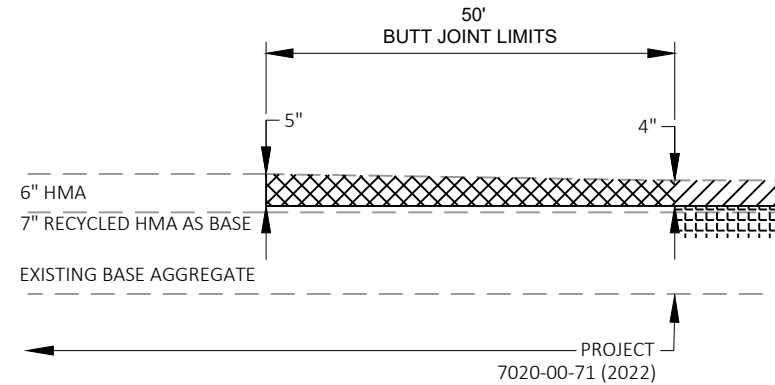
REMOVALS



- 1.75" UPPER AND 1.75" MIDDLE LAYERS HMA PAVEMENT 4 MT 58-28 S
- 2.25" LOWER LAYER HMA PAVEMENT 3 MT 58-28 S
- PULVERIZE AND RELAY (5")

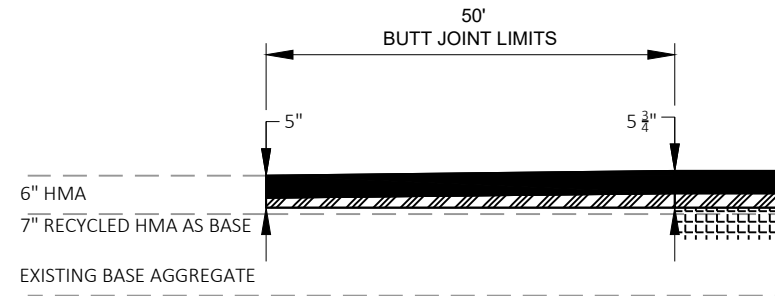
PAVING

BUTT JOINT  
STA 838+90 - STA 839+40



- REMOVING ASPHALTIC SURFACE BUTT JOINT
- REMOVING ASPHALTIC SURFACE MILLING
- PULVERIZE AND RELAY (5")

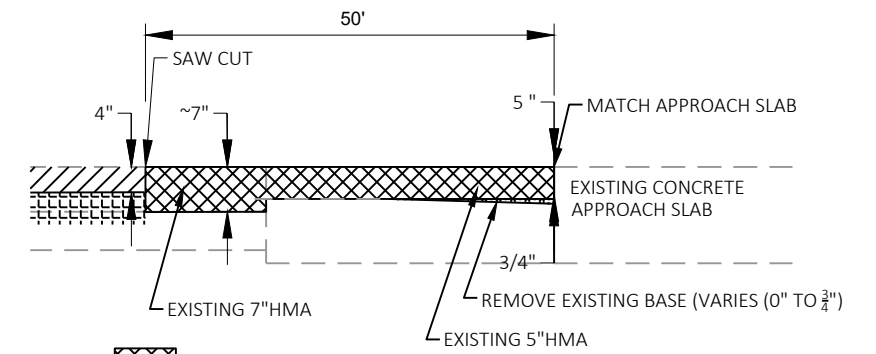
REMOVALS



- 1.75" UPPER AND 1.75" MIDDLE LAYERS HMA PAVEMENT 4 MT 58-28 S
- VARIABLE DEPTH LOWER LAYER HMA PAVEMENT 3 MT 58-28 S (1.5"-2.25")
- PULVERIZE AND RELAY (5")

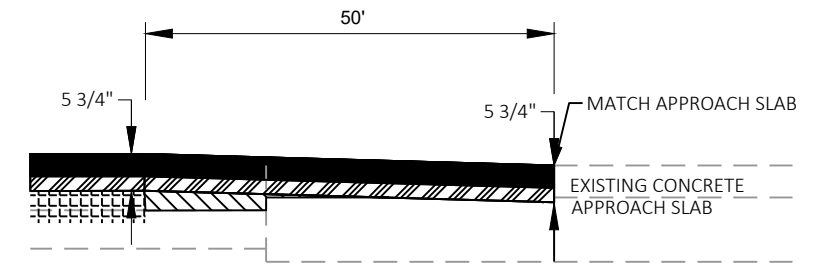
PAVING

STH 173 S BUTT JOINT  
STA 1504'S+08 - STA 1504'S+58



- REMOVING ASPHALTIC SURFACE (FULL DEPTH)
- REMOVING EXISTING BASE (INCLUDED IN PREPARE FOUNDATION FOR ASPHALTIC PAVING)
- REMOVING ASPHALTIC SURFACE MILLING
- PULVERIZE AND RELAY (5")

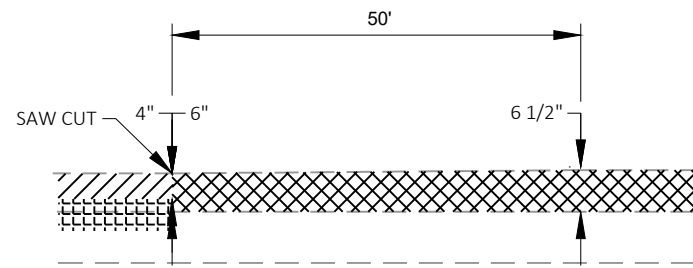
REMOVALS






- BASE AGGREGATE DENSE 1 1/4"
- 1.75" UPPER AND 1.75" MIDDLE LAYERS HMA PAVEMENT 4 MT 58-28 S
- 2.25" LOWER LAYER HMA PAVEMENT 3 MT 58-28 S
- PULVERIZE AND RELAY (5")

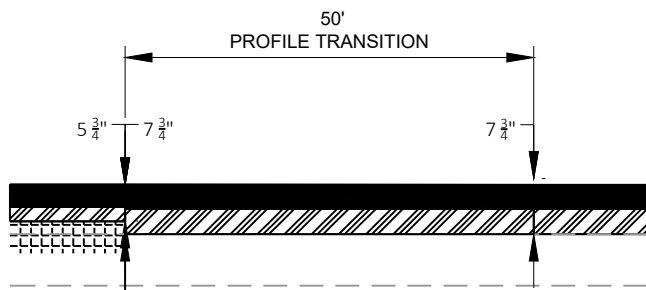
PAVING




BRIDGE APPROACH PROFILE TRANSITION  
B-71-197 (REMINGTON CREEK)  
STA 841+60 - STA 842+10  
STA 842+97 - STA 843+47 (REVERSED)



-  REMOVING ASPHALTIC SURFACE (FULL DEPTH)
-  REMOVING ASPHALTIC SURFACE MILLING
-  PULVERIZE AND RELAY (5")

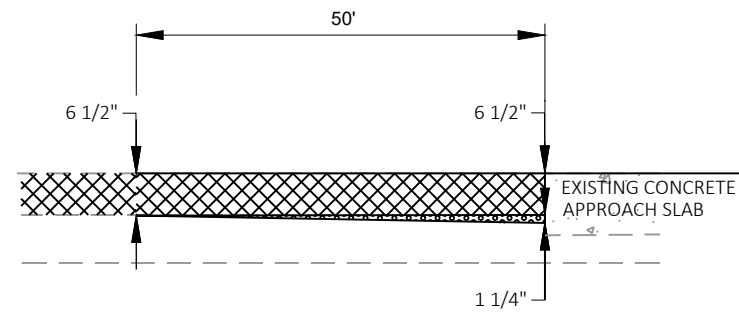
REMOVALS





-  1.75" UPPER AND 1.75" MIDDLE LAYERS HMA PAVEMENT  
4 MT 58-28 S
-  LOWER LAYER HMA PAVEMENT 3 MT 58-28 S
-  PULVERIZE AND RELAY (5")

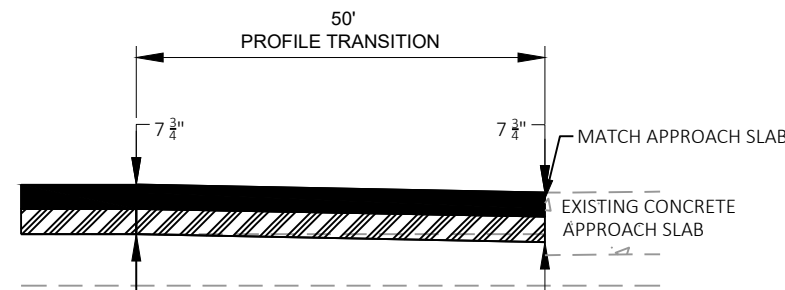
PAVING




PAVEMENT CHANGE PROFILE TRANSITION  
STA 1035+25 - STA 1035+75



-  REMOVING ASPHALTIC SURFACE (FULL DEPTH)
-  REMOVING EXISTING BASE  
(INCLUDED IN PREPARE FOUNDATION FOR ASPHALTIC PAVING)

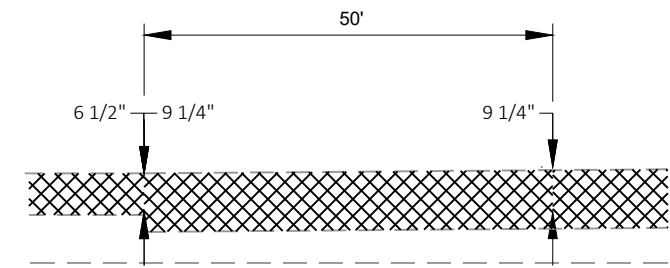
REMOVALS



-  1.75" UPPER AND 1.75" MIDDLE LAYERS HMA PAVEMENT  
4 MT 58-28 S
-  LOWER LAYER HMA PAVEMENT 3 MT 58-28 S
-  BASE AGGREGATE DENSE 1 1/4"

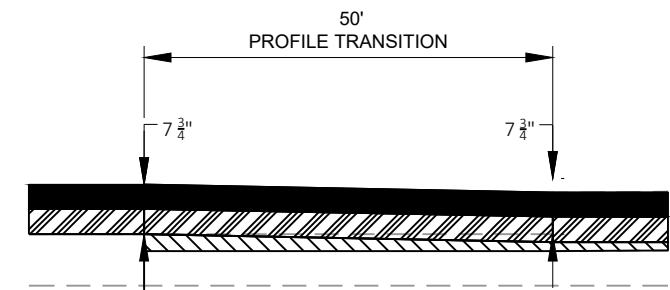
PAVING




BRIDGE APPROACH PROFILE TRANSITION  
B-71-98 (YELLOW RIVER)  
STA 1037+56 - STA 1038+06  
STA 1042+47 - STA 1042+97 (REVERSED)



-  REMOVING ASPHALTIC SURFACE (FULL DEPTH)

REMOVALS

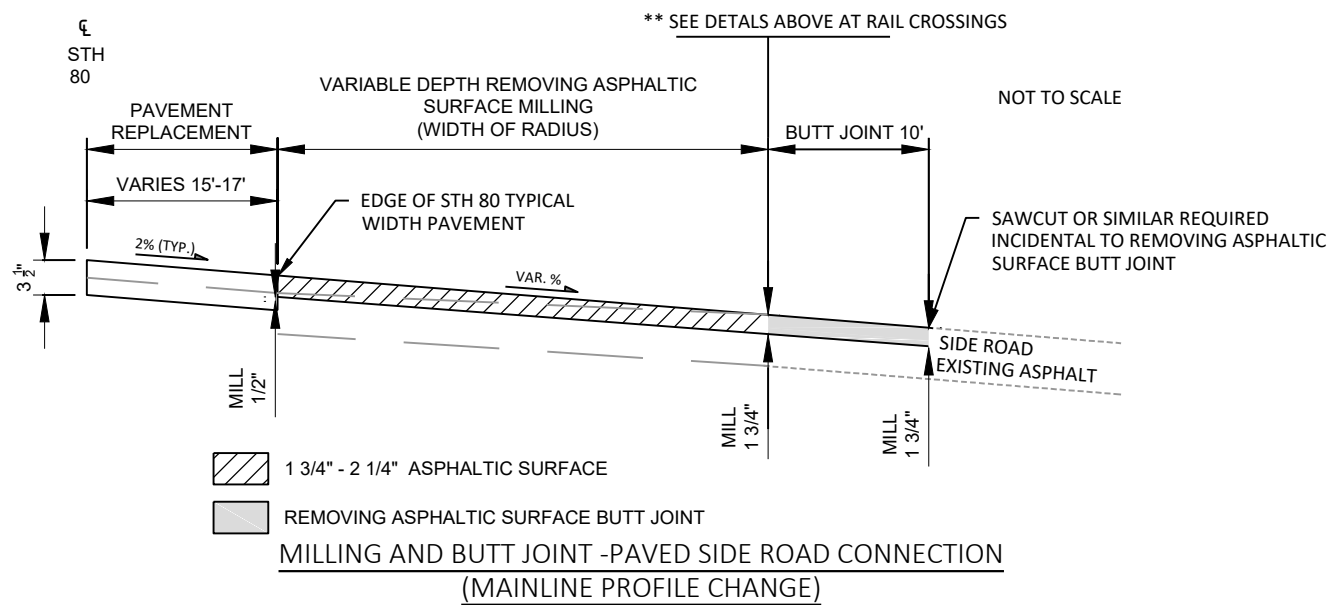
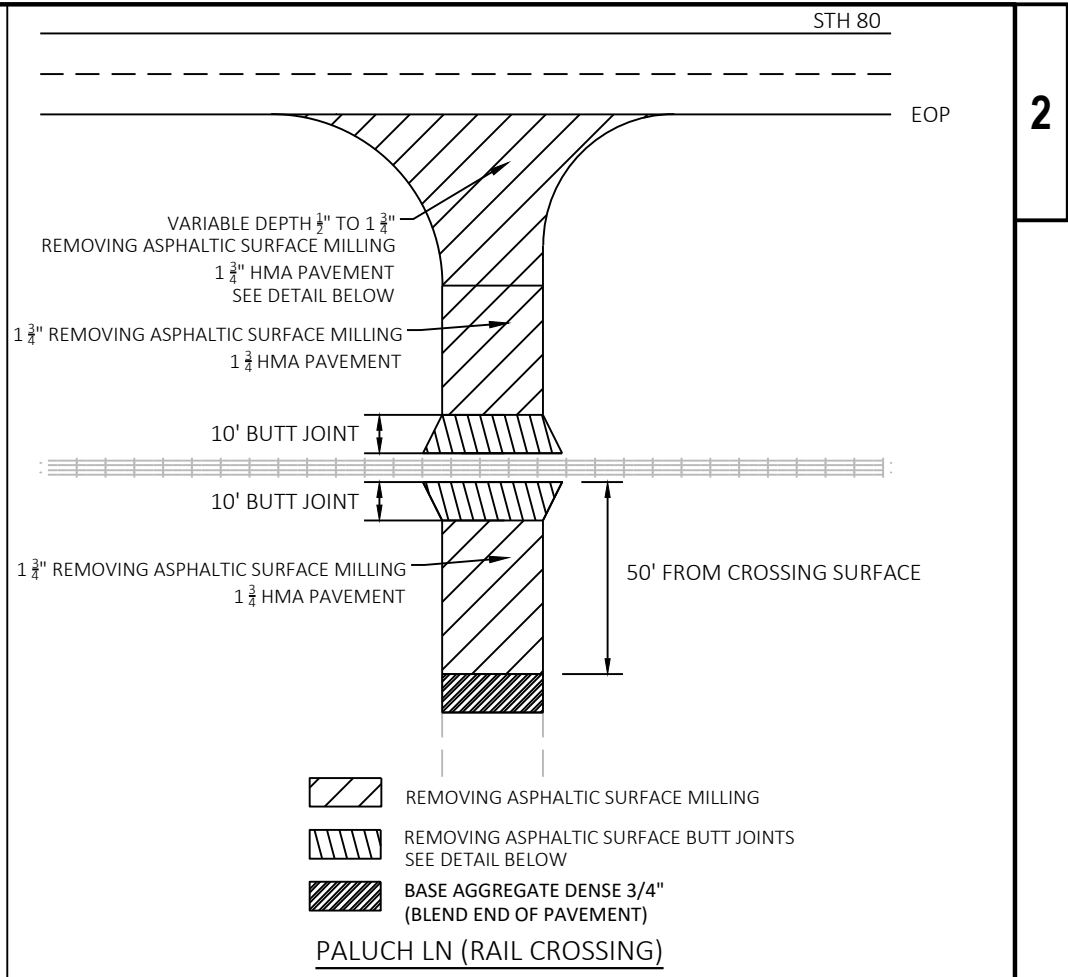
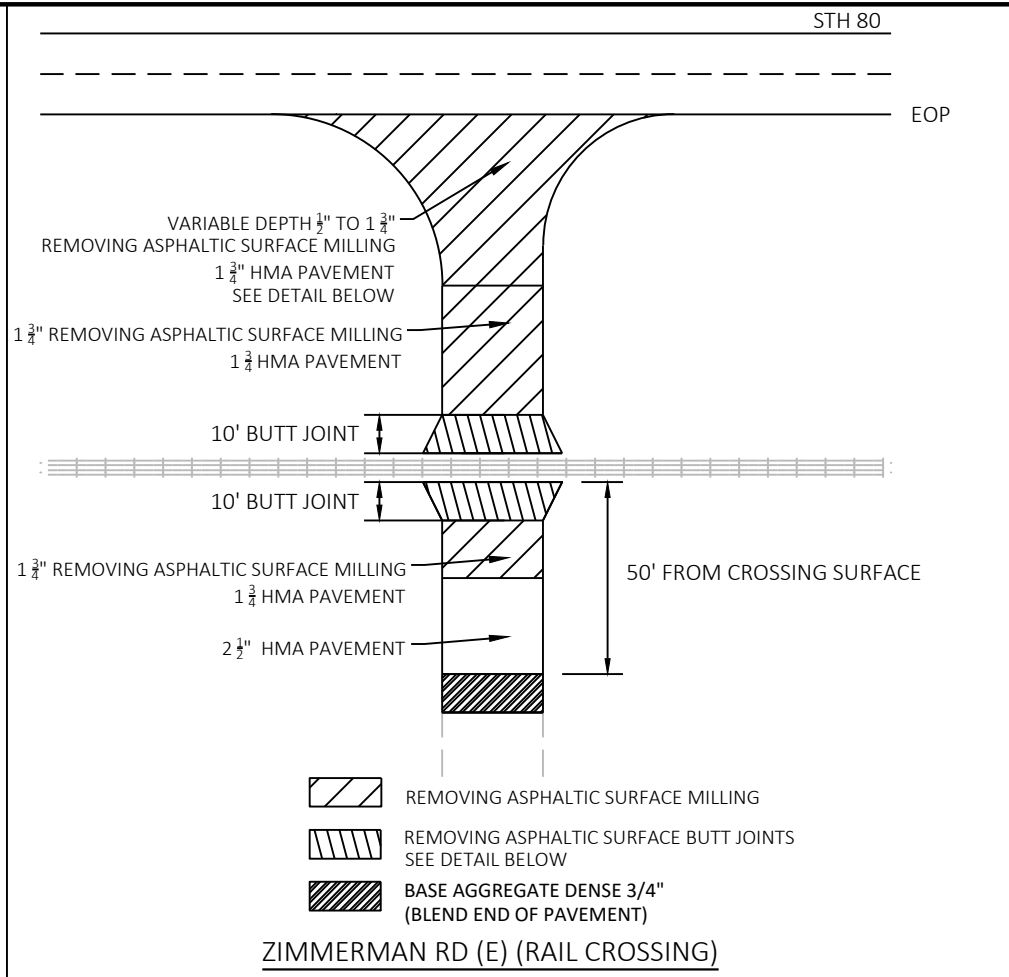
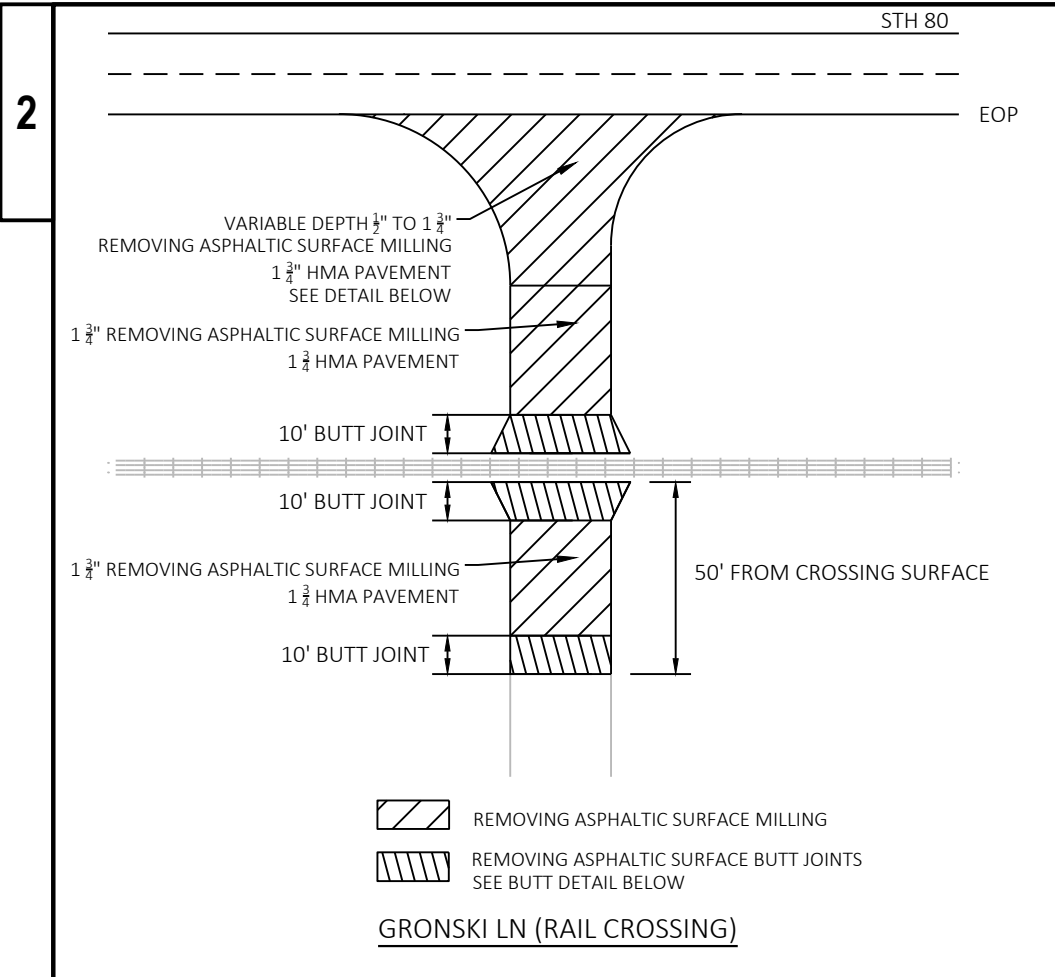


-  1.75" UPPER AND 1.75" MIDDLE LAYERS HMA PAVEMENT  
4 MT 58-28 S
-  LOWER LAYER HMA PAVEMENT 3 MT 58-28 S
-  BASE AGGREGATE DENSE 1 1/4"

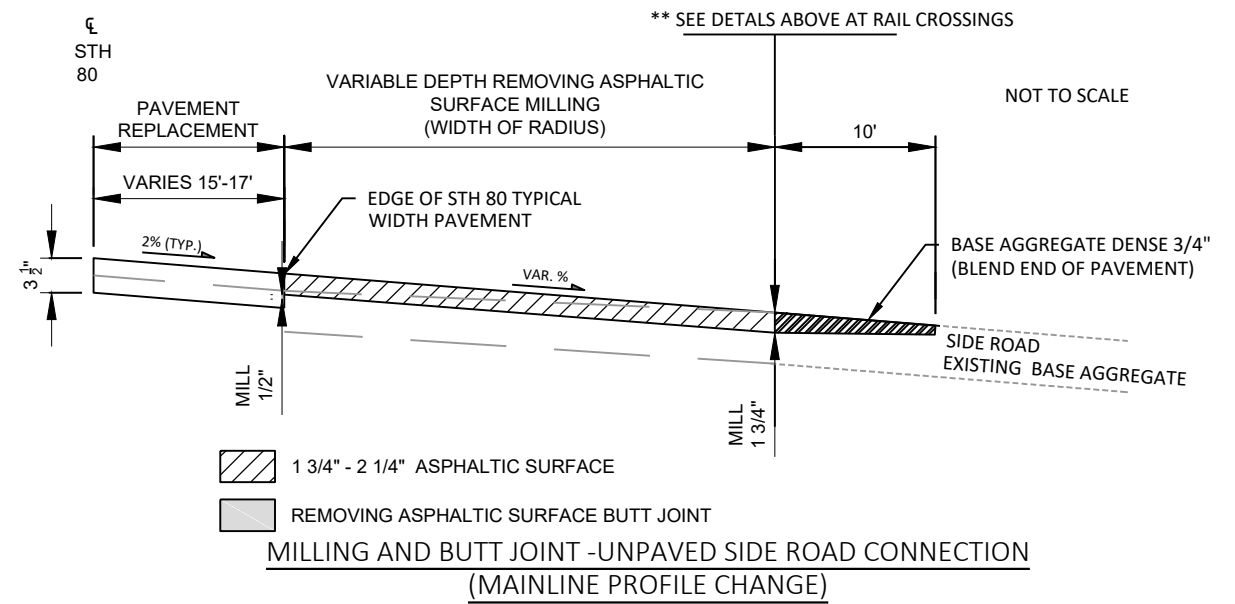
PAVING

PAVEMENT CHANGE PROFILE TRANSITION  
STA 1053+25 - STA 1053+75

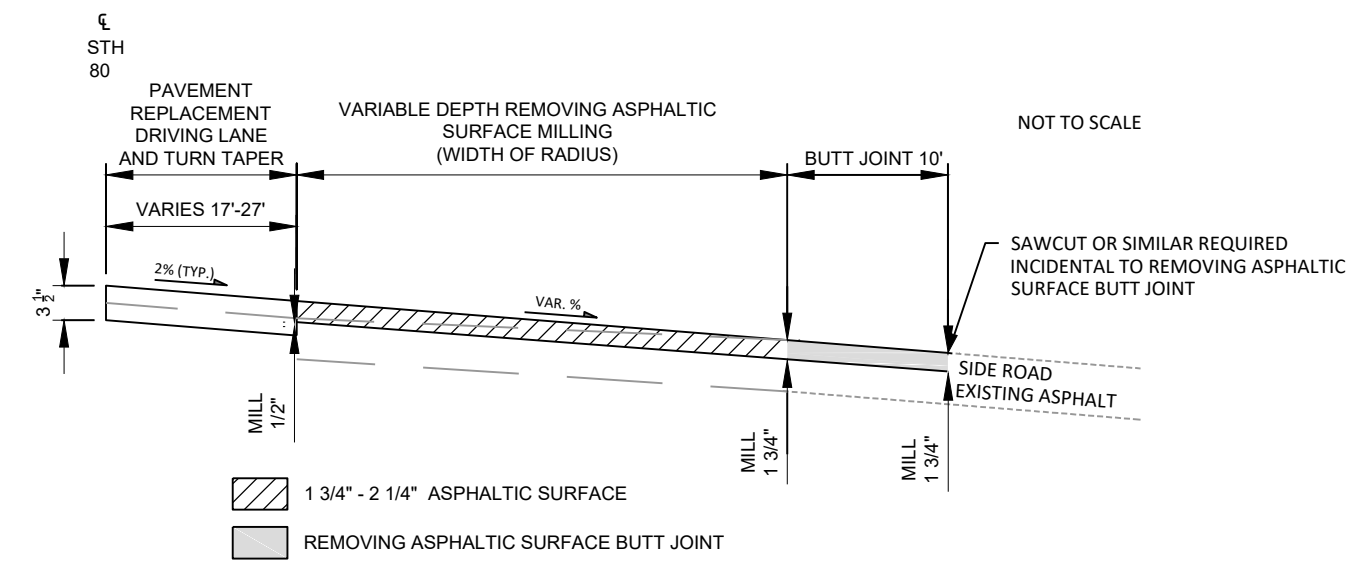
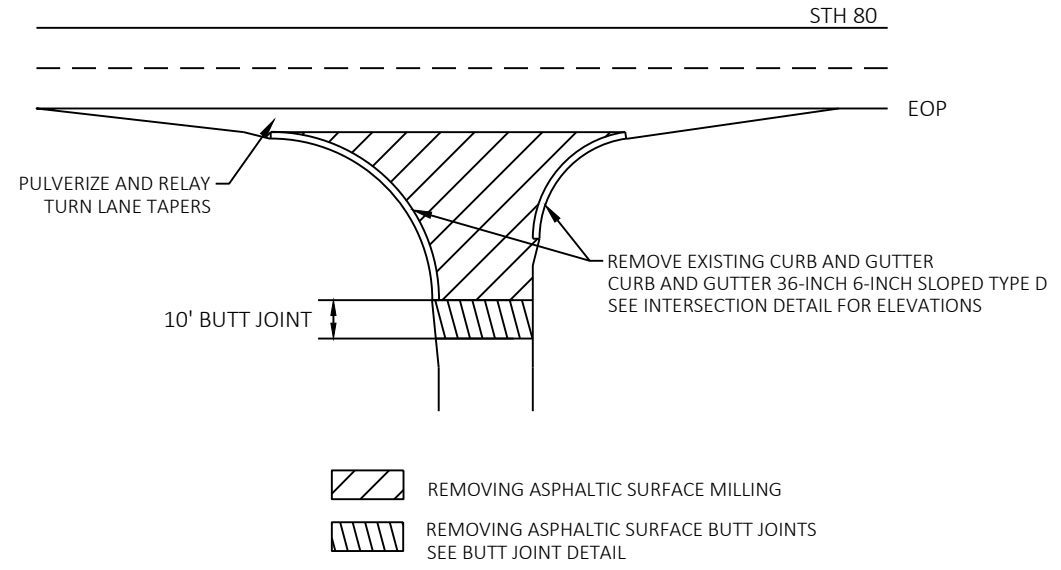
NOTE: DETERMINE ACTUAL LOCATION DURING ASPHALTIC PAVEMENT REMOVAL



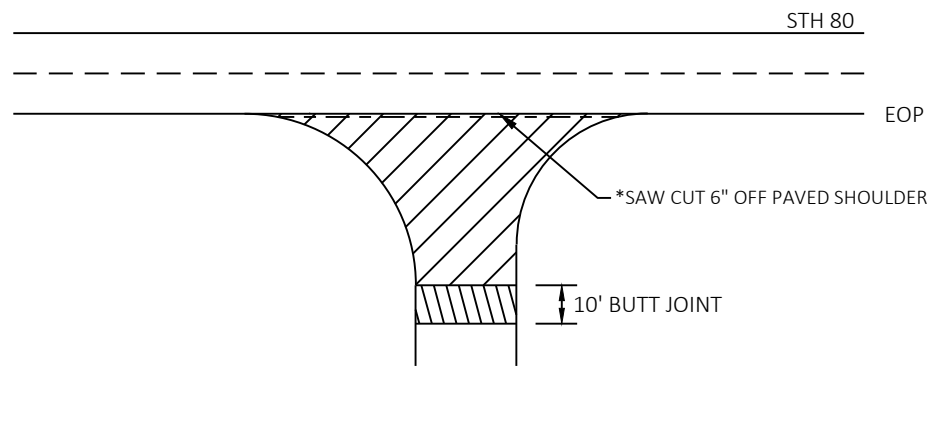
GRONSKI LN (RAIL CROSSING)\*\*  
ZIMMERMAN RD (W)  
WALKER LN



COUNTY LINE RD  
ZIMMERMAN RD (E) (RAIL CROSSING)\*\*  
PALUCH LN (RAIL CROSSING)\*\*  
COX LN  
WILL DR



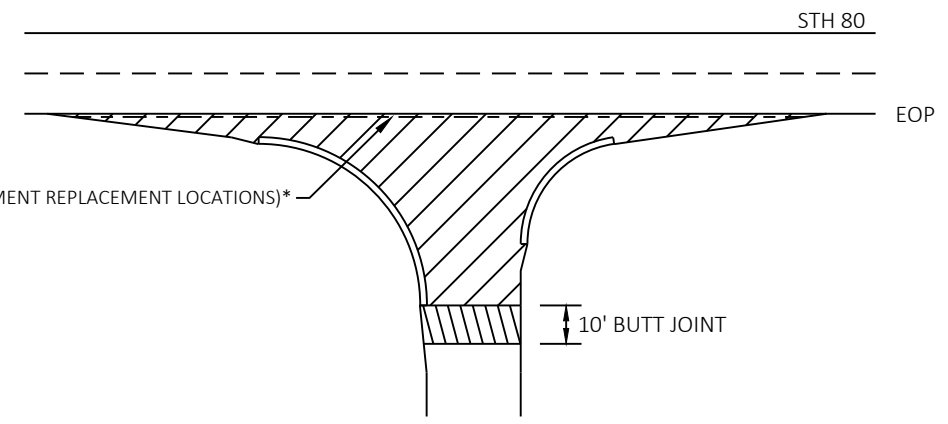
**MILLING AND BUTT JOINT -CTH X SIDE ROAD CONNECTION**  
 (MAINLINE PROFILE CHANGE)



- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE BUTT JOINTS SEE BUTT JOINT DETAIL

**WITHOUT CURB AND GUTTER**

- BIRCH ST (\*SAW CUT REQ'D)
- MARATHON AVE
- TAYLOR AVE
- CHIPPEWA AVE

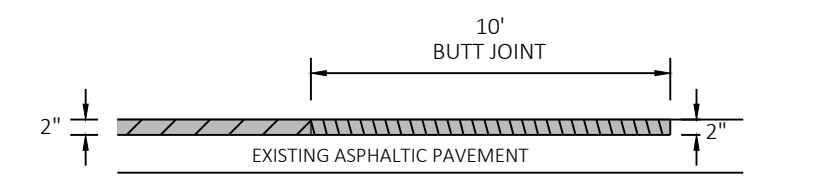


- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE BUTT JOINTS SEE BUTT JOINT DETAIL

**WITH CURB AND GUTTER**

- NECEDAH RD (\*SAW CUT REQ'D)
- SAWYER AVE
- STH 173 N

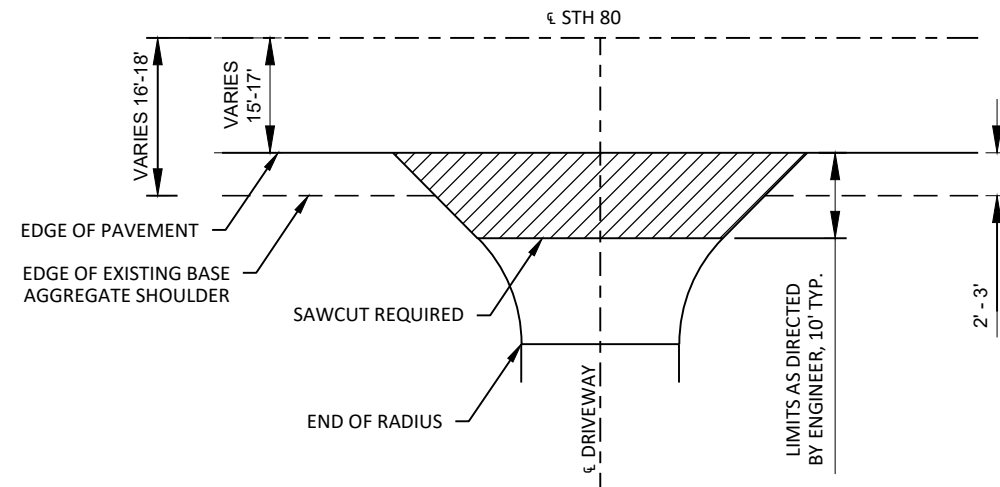
**SIDE ROADS (NO MAINLINE PROFILE CHANGE)**




- HMA PAVEMENT
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE BUTT JOINTS

**BUTT JOINT (NO MAINLINE PROFILE CHANGE)**

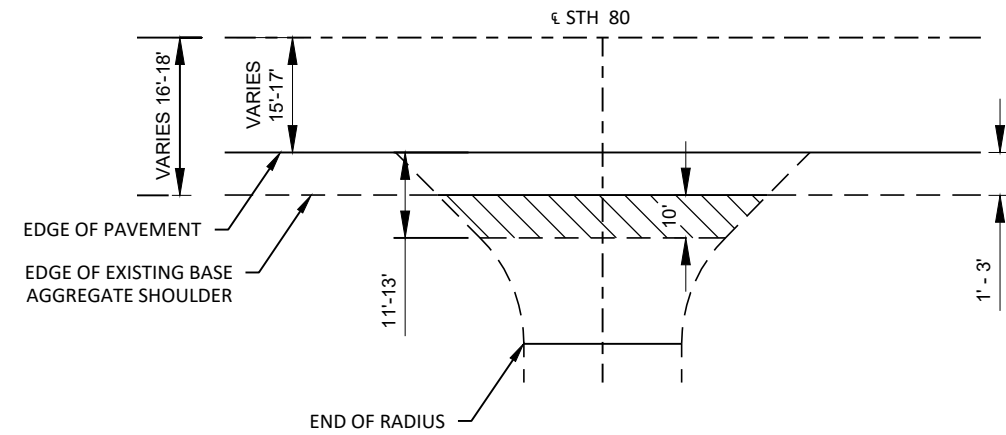
- BIRCH ST
- MARATHON AVE
- TAYLOR AVE
- CHIPPEWA AVE
- NECEDAH RD
- SAWYER AVE
- STH 173 N
- STA 1096+00 (END PROJECT)




-  REMOVING ASPHALTIC SURFACE (FULL DEPTH), REPLACE WITH 2" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES.
- MATCH EXISTING PAVED SURFACE WIDTH, RADII AND TAPERS.
- MATCH EXISTING PAVEMENT THICKNESS.
- ANY ADDITIONAL BASE AGG. DENSE REQUIRED SHALL BE PAID UNDER ITEM - "BASE AGGREGATE DENSE 3/4-INCH"
- SAWCUT PAID FOR UNDER ITEM "SAWING ASPHALT"

**PAVED RURAL DRIVEWAY RESTORATION DETAIL**

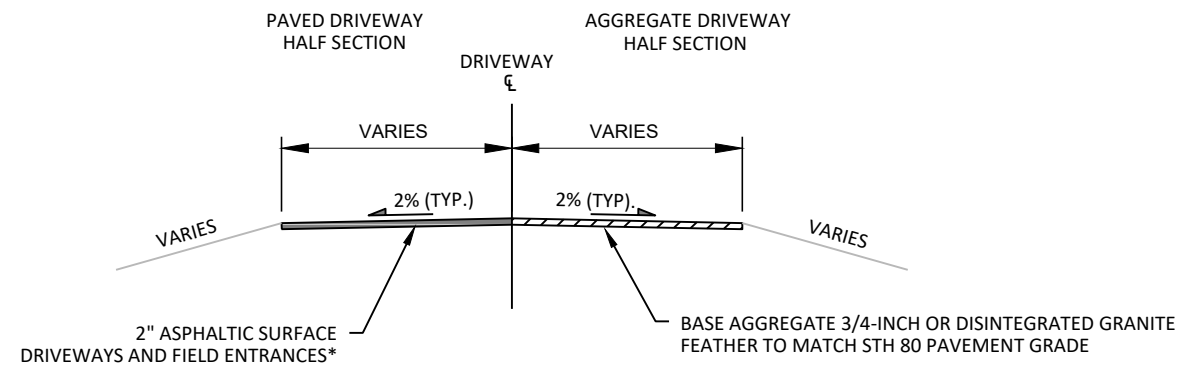
1058+69 RT



-  EACH ENTRANCE SHALL RECEIVE ADEQUATE 3/4-INCH BASE AGGREGATE DENSE OR DISINTEGRATED GRANITE AFTER MAINLINE PAVING AND SHAPING SHOULDERS TO BRING ENTRANCE UP TO SHOULDER PAVEMENT GRADE.
- MATCH EXISTING DRIVEWAY WIDTH AND RADII.

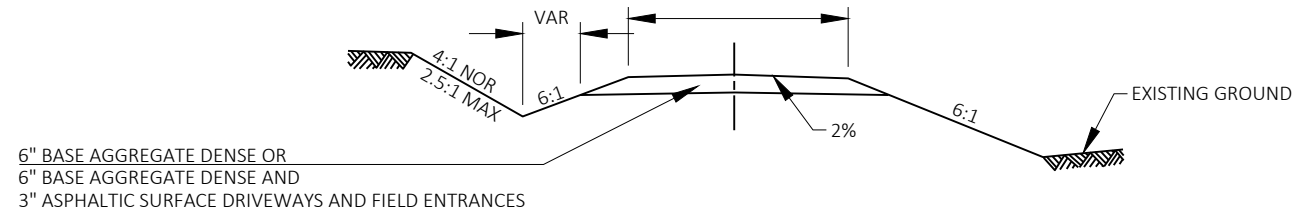
**AGGREGATE RURAL DRIVEWAY RESTORATION DETAIL**

845+95 LT	892+61 RT	948+09 LT	993+83 LT
866+23 LT	920+40 LT	957+09 LT	1035+02 LT
866+23 RT	927+63 RT	968+06 RT	1060+78 RT
872+74 LT	927+64 LT	968+71 LT	
891+26 LT	938+02 LT	977+61 LT	
892+44 LT	945+49 RT	982+71 LT	



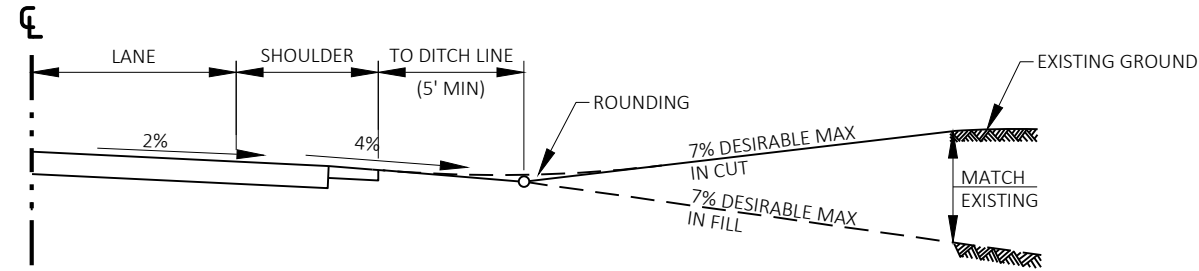
\* ADJUST THICKNESS AS REQUIRED IN FIELD TO MATCH EXISTING CONDITIONS

**TYPICAL DRIVEWAY RESTORATION SECTION**

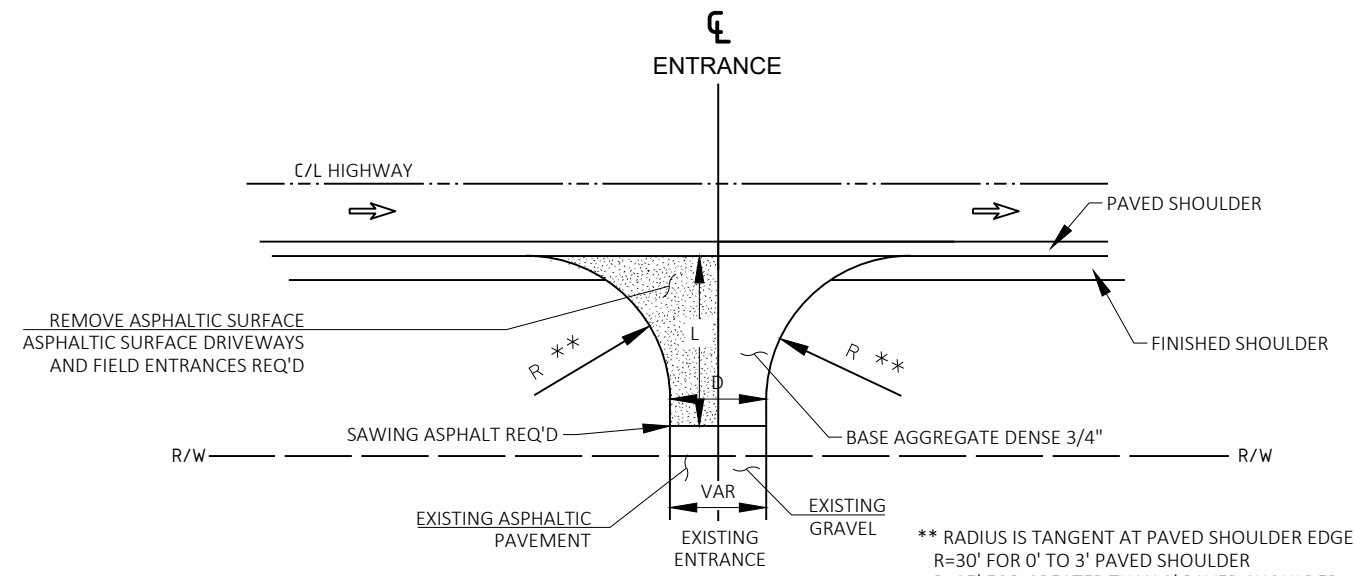


6" BASE AGGREGATE DENSE OR  
6" BASE AGGREGATE DENSE AND  
3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

TYPICAL CROSS SECTION



TYPICAL PROFILE VIEW



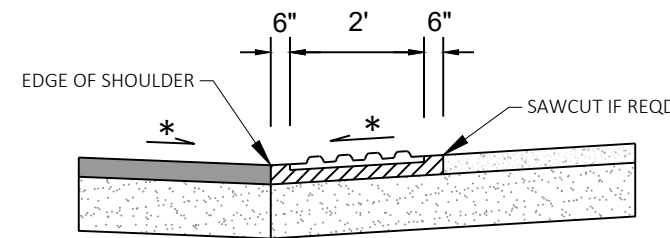
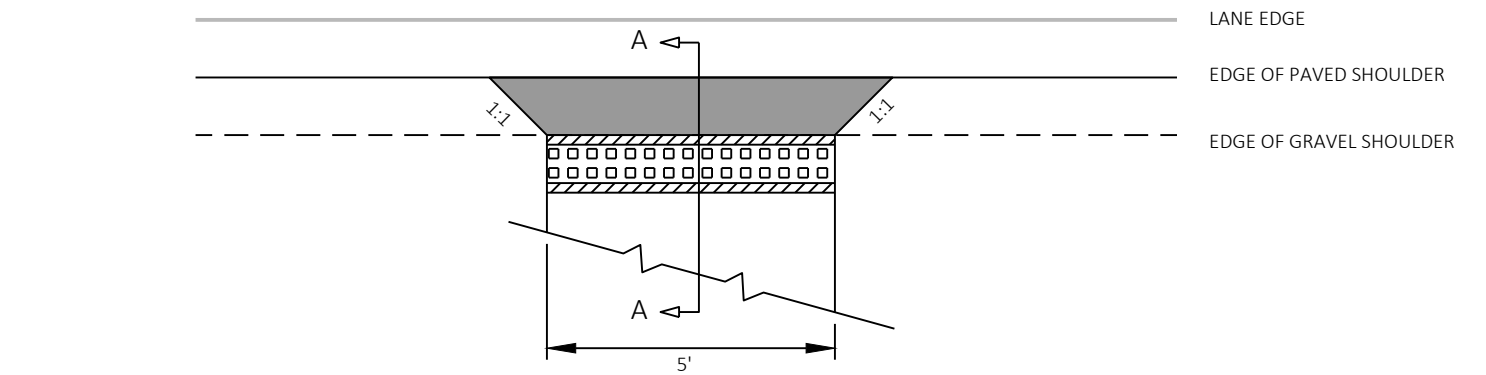
L=VARIABLE, EXACT LENGTH TO BE DETERMINED IN THE FIELD BY THE ENGINEER

D=DRIVEWAY WIDTH  
D=20'TYP(PE & FE) (16'MIN-24'MAX)  
D=28'TYP(CE & FARM ENT) (24'MIN-35'MAX)

PLAN VIEW

**RURAL DRIVEWAY RECONSTRUCTION**

LOCATION	WIDTH	RADIUS LT	RADIUS RT	LENGTH
1016+34 LT (AGGREGATE)	12'	30'	20'	30'
1054+62 LT (AGGREGATE)	9'	15'	15'	30'
1055+37 LT (PAVED)	15.5'	15'	15'	15.5'



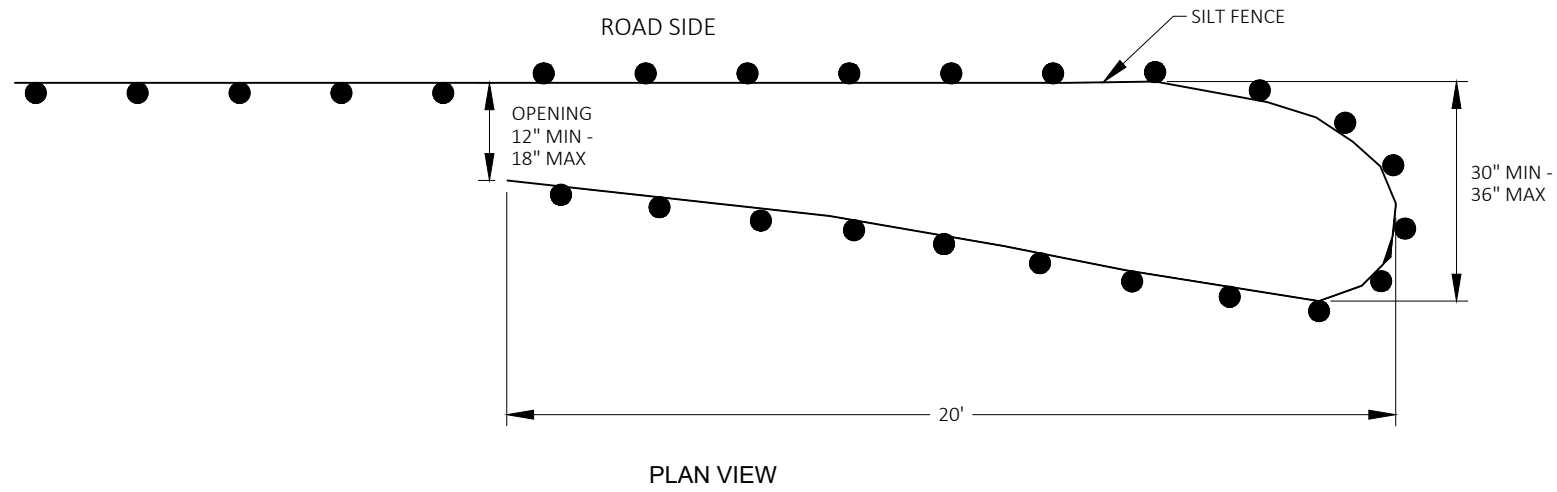
SECTION A-A

- DETECTABLE WARNING FIELD IN CONCRETE SIDEWALK
- HMA PAVEMENT WIDENING 2-INCHES
- CONCRETE SIDEWALK
- BASE AGGREGATE DENSE

\* ROLLOVER CANNOT EXCEED 11% BETWEEN SHARED-USE PATH AND PAVED SHOULDER  
NOTE: PREPARATION FOR PAVEMENT WIDENING FALLS UNDER PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

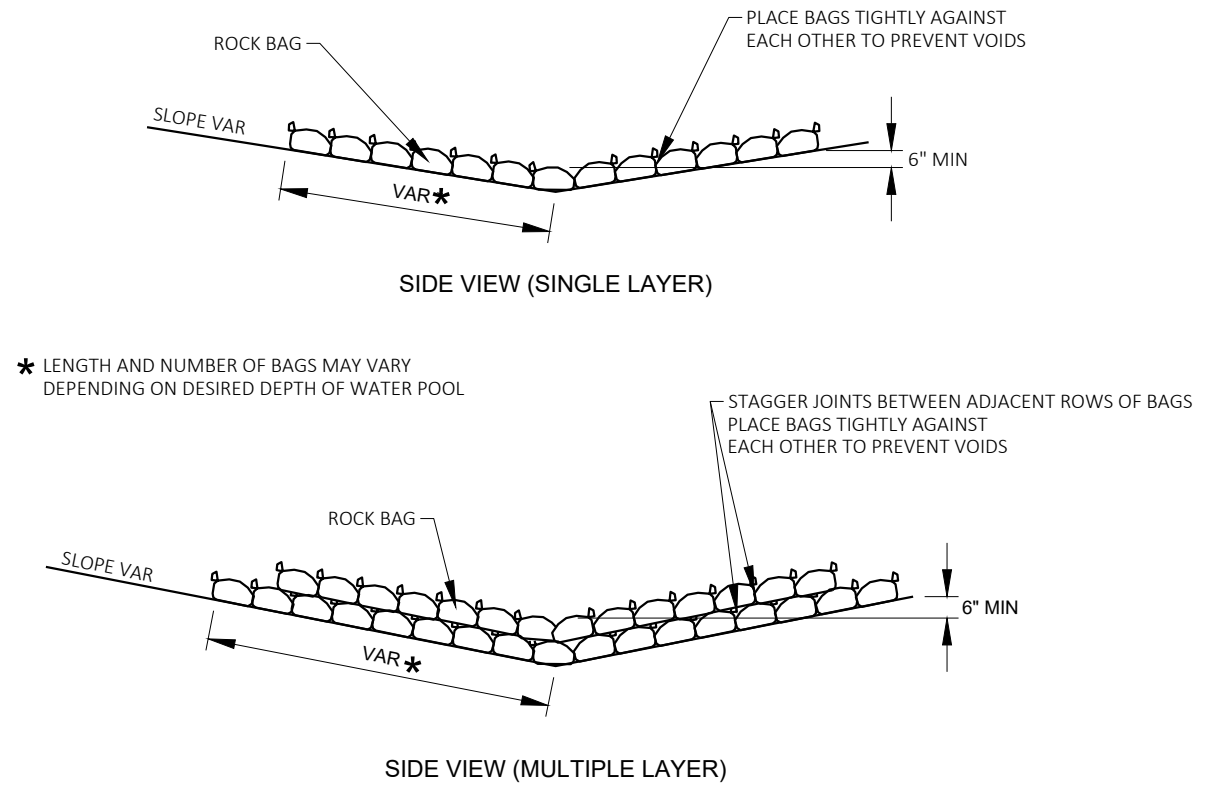
**RURAL SIDEWALK CROSSING WITH DETECTABLE WARNING FIELD**

MARATHON AVE;  
TAYLOR AVE



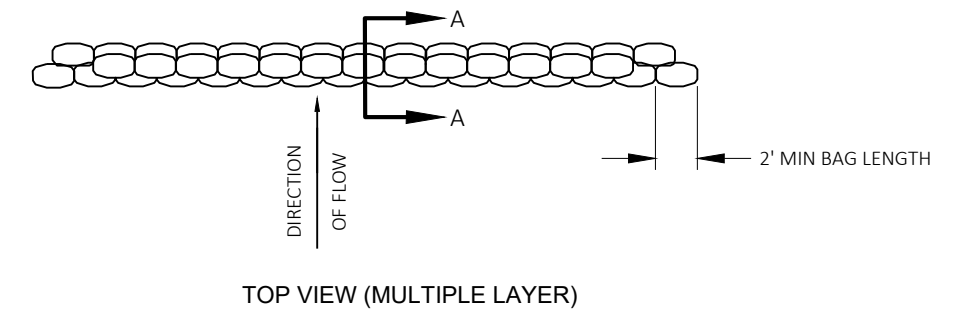
**TEMPORARY SMALL ANIMAL TURN-AROUND**

GENERAL NOTES:  
SILT FENCE POSTS FOR THE TURN-AROUND SHOULD BE ON THE OUTSIDE OF THE TURN-AROUND AND TRENCHED IN ACCORDING TO SILT FENCE REQUIREMENTS.

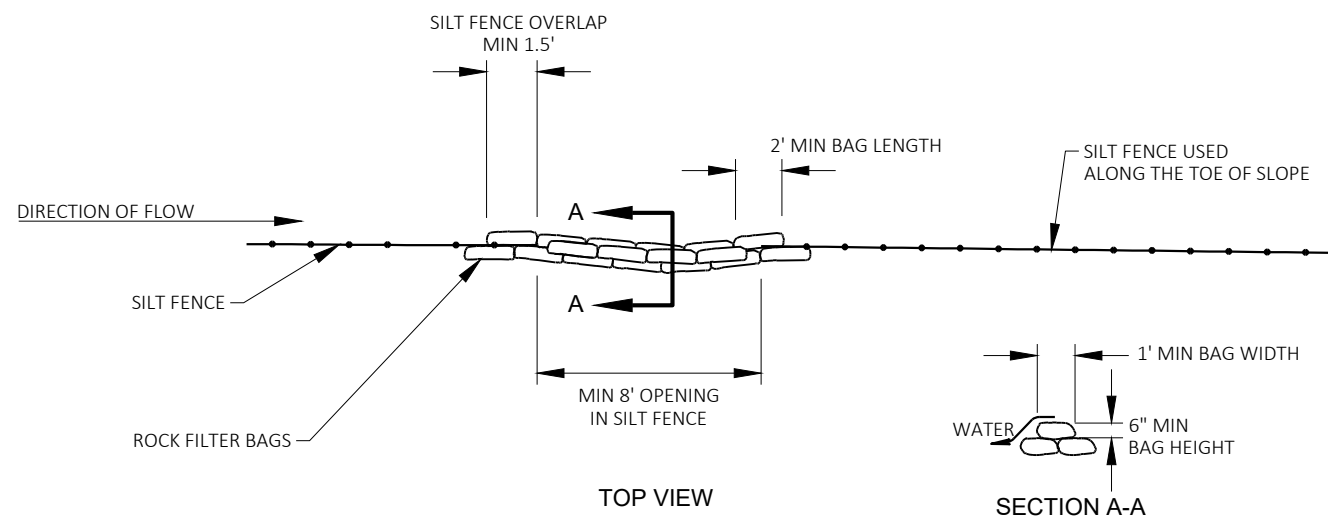


\* LENGTH AND NUMBER OF BAGS MAY VARY DEPENDING ON DESIRED DEPTH OF WATER POOL

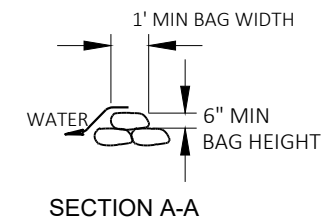
**SIDE VIEW (MULTIPLE LAYER)**



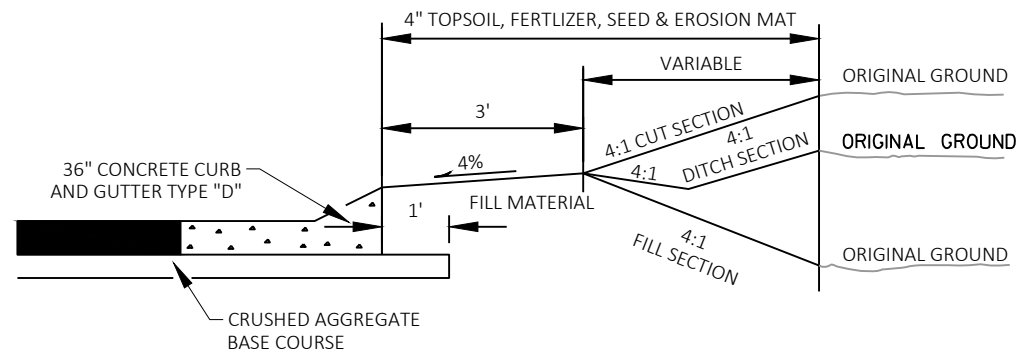
**TOP VIEW (MULTIPLE LAYER)**



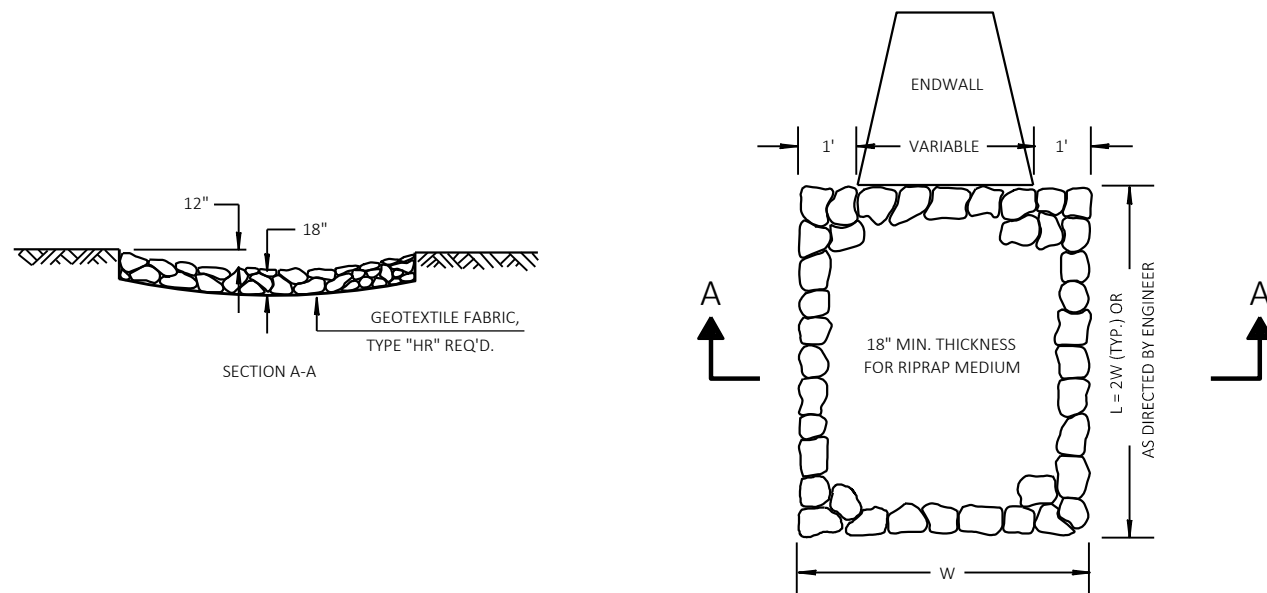
**ROCK BAGS USED FOR SILT FENCE RELIEF**



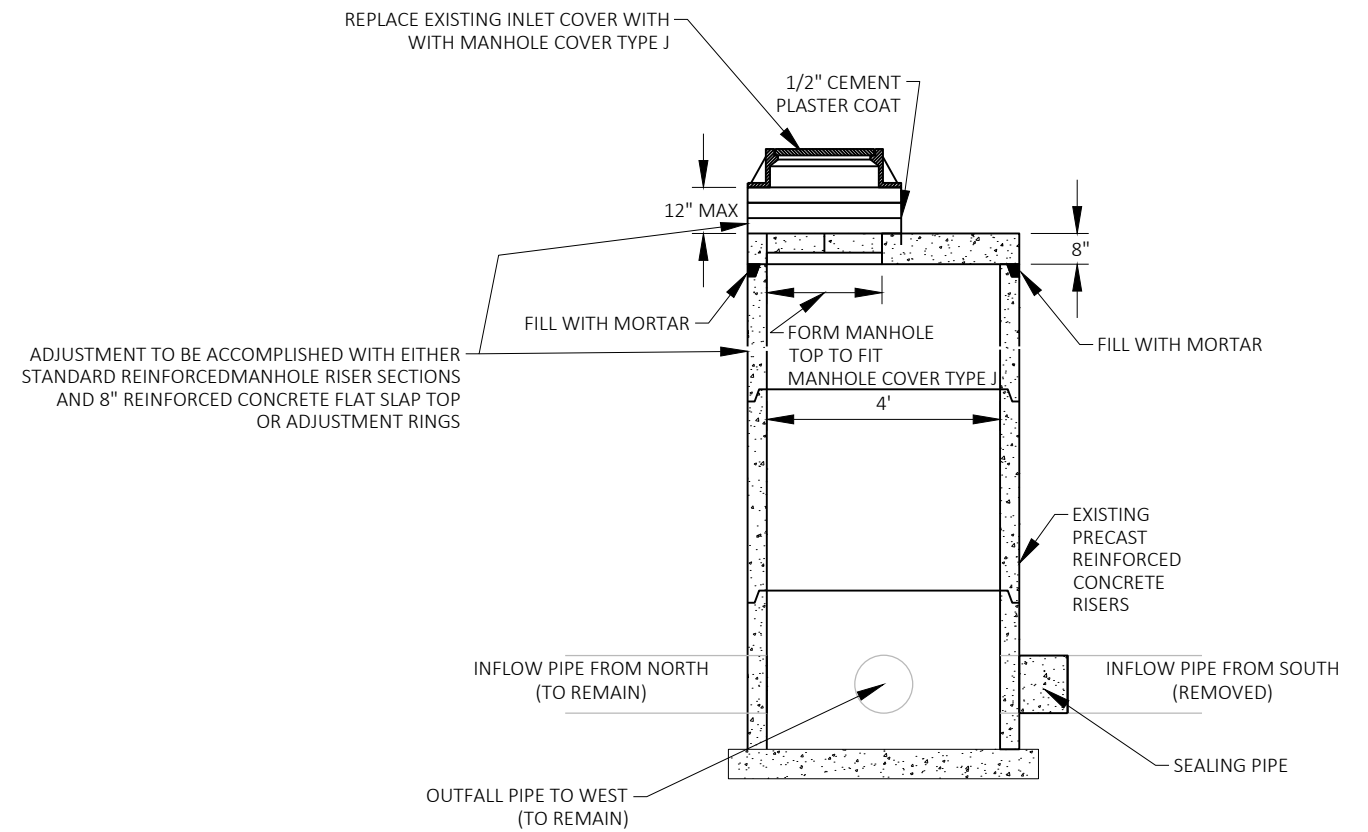
**ROCK BAGS USED FOR DITCH CHECKS**



TYPICAL FOR SLOPE TREATMENT BEHIND CURB AND GUTTER AT RURAL SIDEROAD INTERSECTIONS



RIPRAP MEDIUM TREATMENT AT CULVERTS

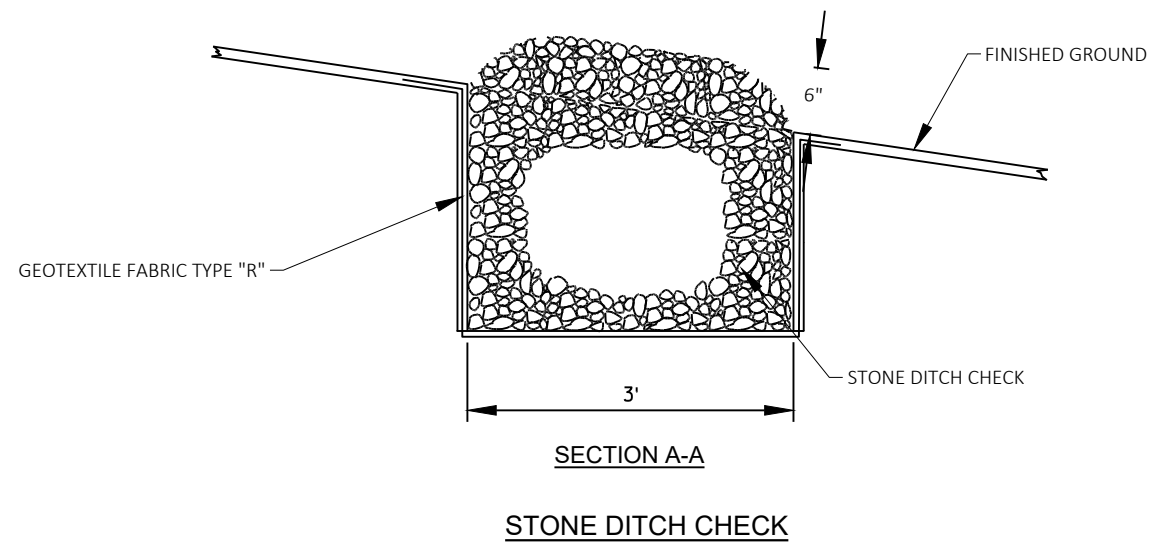
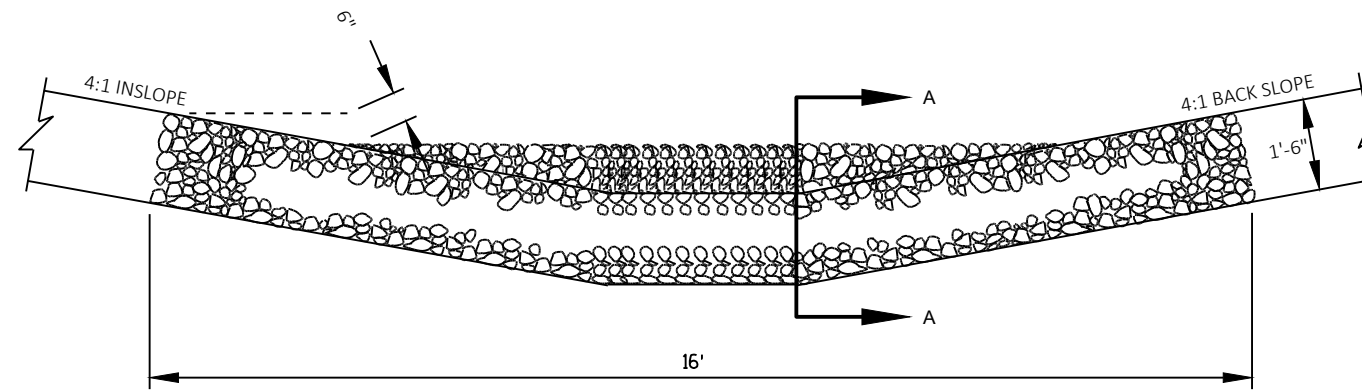


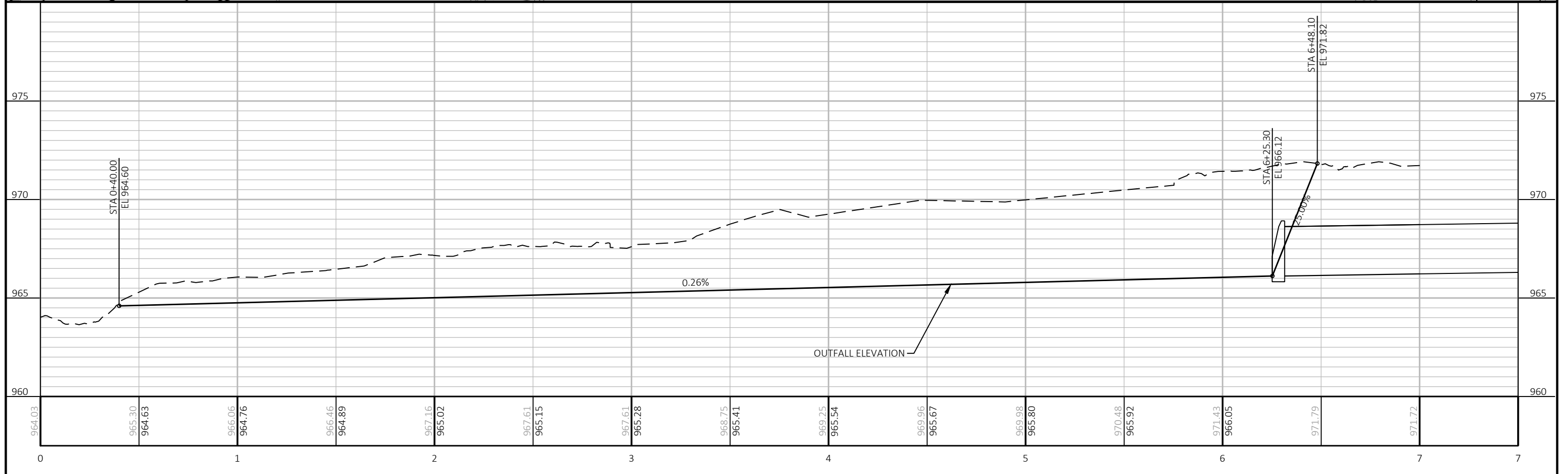
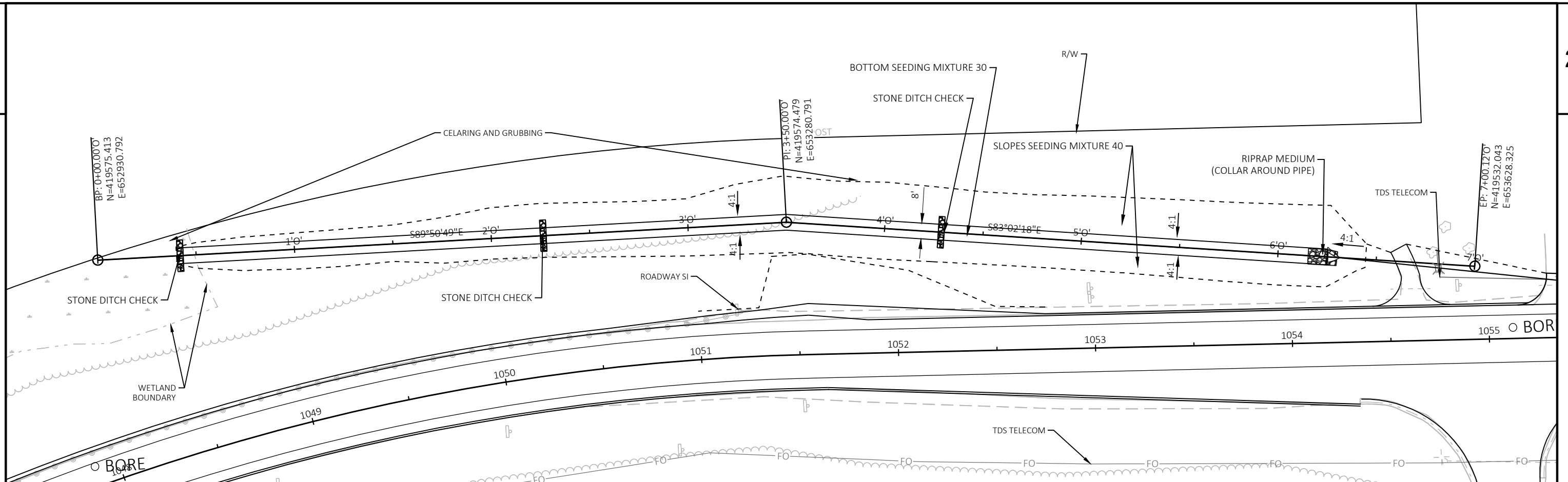
**RECONSTRUCTING MANHOLES**

EXISTING STRUCTURE F,  
STATION 1072+86 LT

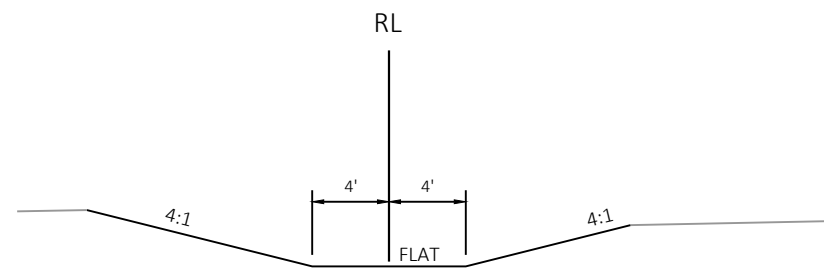
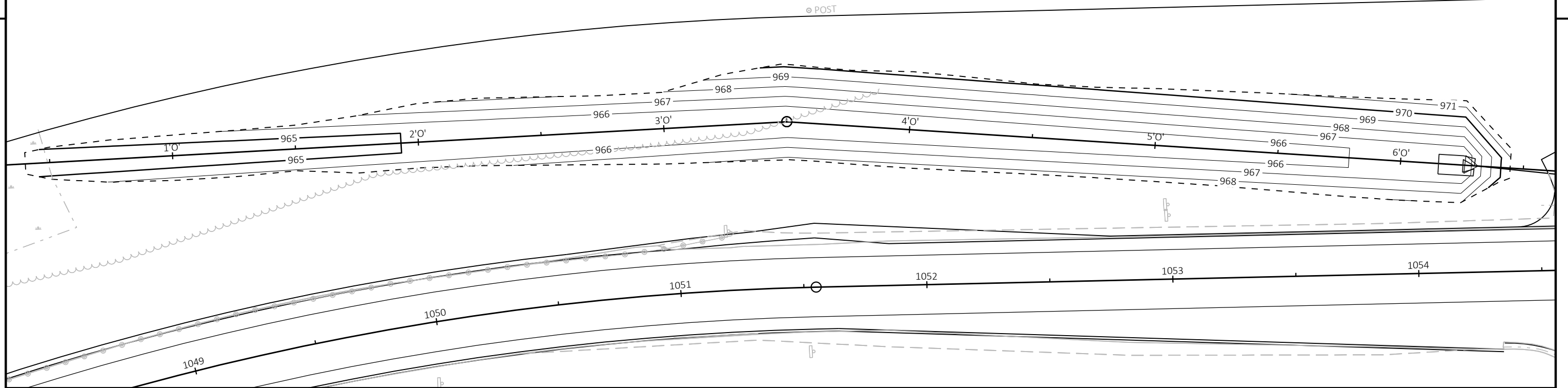
NOTE:  
DETAILS NOT SHOWN SHALL CONFORM TO STANDARD  
DETAIL DRAWING FOR MANHOLE D-FT DIAMETER



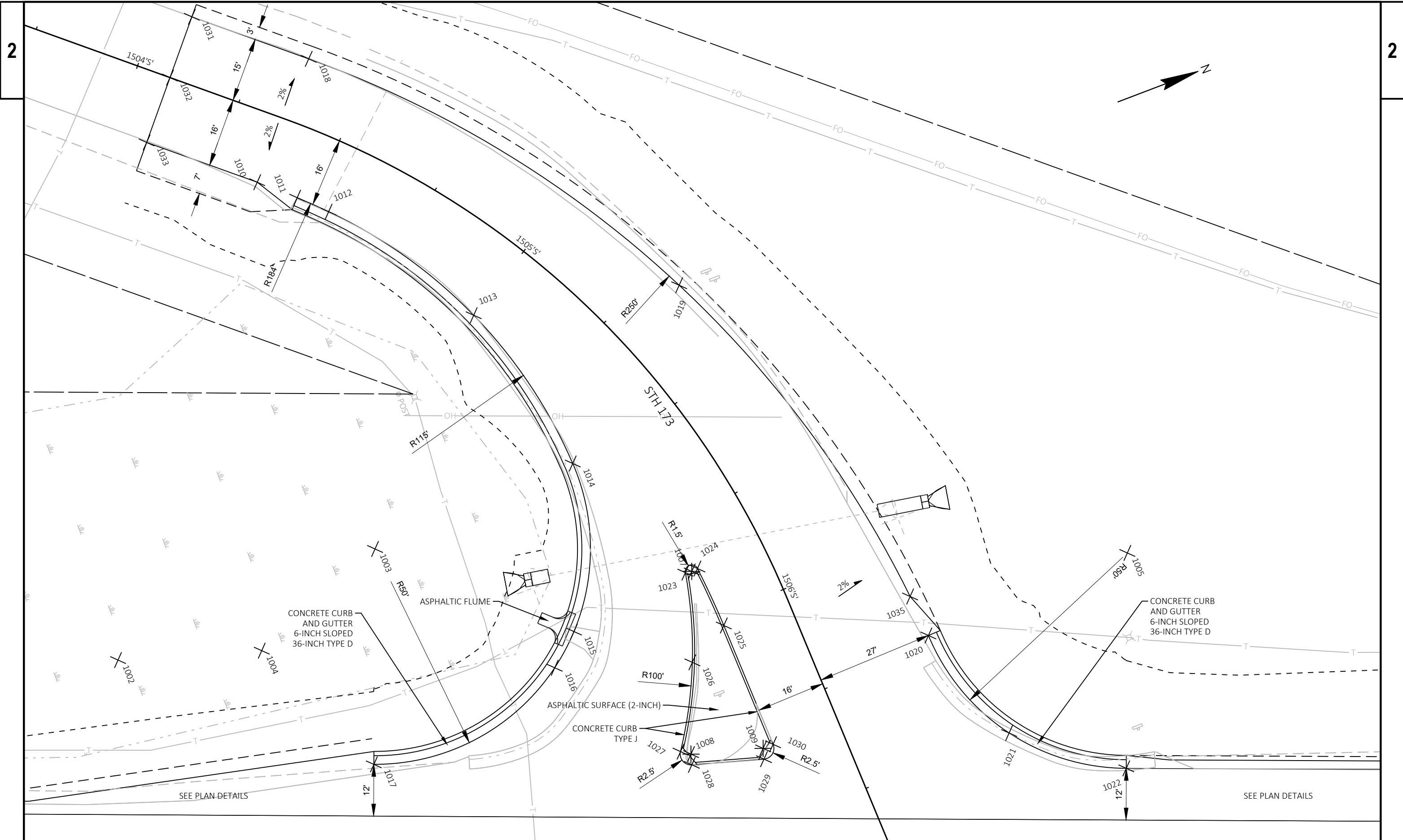




PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	CONSTRUCTION DETAILS - STORM SEWER OUTFALL LAYOUT	SHEET	<b>E</b>
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**OUTFALL TYPICAL SECTION**  
 STA 0'0"+40 - STA 6'0"+44



PROJECT NO: 1620-02-76

HWY: STH 80

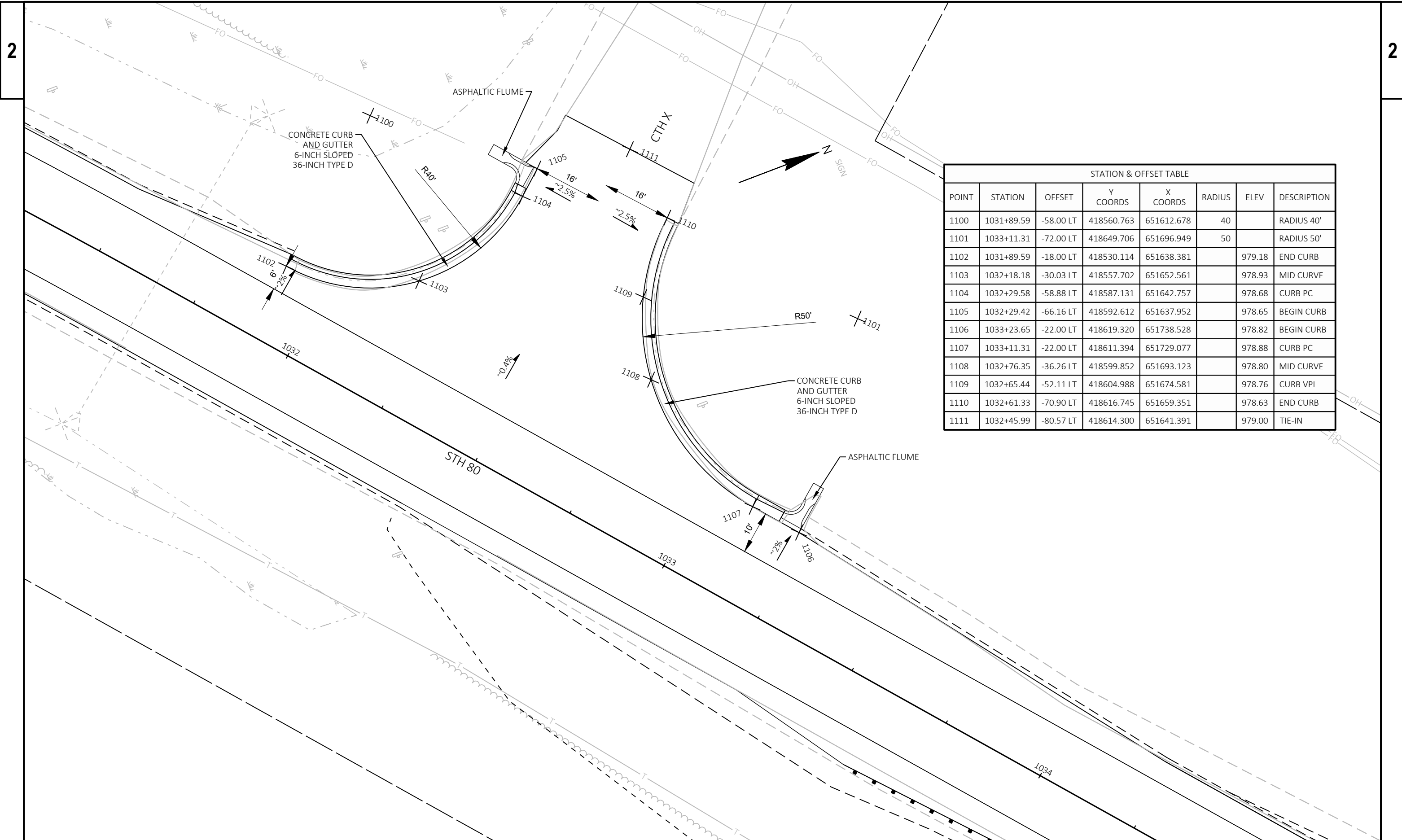
COUNTY: WOOD

INTERSECTION DETAILS - STH 173 (S)

SHEET

E

STATION & OFFSET TABLE									
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	ELEV	DESCRIPTION
1001	1011+60.65	14.73 RT	1504+48.55'S'	200.00 RT	416749.616	650713.275	184		RADIUS-NB 173 EP
1002	1011+89.64	47.89 LT	1504+54.71'S'	131.00 RT	416799.257	650665.351	115		RADIUS-NB 173 EP
1003	1012+49.16	74.00 LT	1505+24.83'S'	74.67 RT	416864.194	650662.490	50		RADIUS 50'
1004	1012+23.00	50.25 LT	1505+20.93'S'	109.95 RT	416831.215	650675.189	100		RADIUS-ISLAND CURB
1005	1014+23.86	74.00 LT	1506+22.77'S'	76.99 LT	417027.079	650725.516	50		RADIUS 50'
1006	1011+49.76	48.00 RT	1506+28.86'S'	222.95 RT	416727.447	650740.372	250		RADIUS -SB 173 EP
1007	1013+22.71	69.19 LT	1505+86.59'S'	17.50 RT	416931.044	650693.532	1.5		RADIUS - ISLAND
1008	1013+22.77	26.79 LT	1506+27.09'S'	34.47 RT	416915.792	650733.094	2.5		RADIUS - ISLAND
1009	1013+39.51	28.20 LT	1506+32.28'S'	18.50 RT	416931.911	650737.818	2.5		RADIUS - ISLAND
1010	1012+21.34	158.98 LT	1504+35.28'S'	16.00 RT	416868.930	650573.201		977.06	TAPER
1011	1012+30.64	155.44 LT	1504+46.03'S'	16.00 RT	416876.326	650579.857		977.08	END CURB/PT
1012	1012+37.97	152.24 LT	1504+54.72'S'	16.00 RT	416882.001	650585.486		977.06	PCC
1013	1012+71.77	128.38 LT	1505+00.03'S'	18.81 RT	416904.910	650619.936		976.91	MID CURVE
1014	1012+94.95	94.09 LT	1505+45.96'S'	27.15 RT	416914.145	650660.289		976.62	PCC
1015	1012+95.45	55.08 LT	1505+86.58'S'	48.20 RT	416900.523	650696.844		976.52	FLUME
1016	1012+91.02	46.65 LT	1505+94.14'S'	55.90 RT	416893.356	650703.105		976.62	PCC
1017	1012+49.16	24.00 LT	1505+99.66'S'	103.38 RT	416846.142	650709.117		977.16	BEGIN CURB/PC
1018	1012+33.15	187.68 LT	1504+36.77'S'	15.00 LT	416890.299	650550.690		977.08	PT
1019	1013+19.43	135.61 LT	1505+30.53'S'	18.66 LT	416951.963	650630.406		976.83	MID CURVE
1020	1013+77.77	54.62 LT	1506+22.77'S'	26.99 LT	416977.101	650726.979		976.69	END CURB/PT
1021	1013+96.62	32.07 LT	1506+50.86'S'	35.62 LT	416986.554	650754.803		977.26	MID CURVE
1022	1014+23.86	24.00 LT	1506+68.86'S'	57.61 LT	417009.056	650772.155		977.82	BEGIN CURB/PC
1023	1013+21.24	68.91 LT	1505+86.12'S'	18.94 RT	416929.568	650693.261		976.82	ISLAND NOSE/PC
1024	1013+24.04	69.88 LT	1505+86.59'S'	16.00 RT	416932.535	650693.370		976.87	ISLAND NOSE/ PC
1025	1013+30.23	56.68 LT	1506+02.43'S'	16.00 RT	416933.537	650707.906		976.96	ISLAND PT
1026	1013+22.97	48.09 LT	1506+07.54'S'	26.02 RT	416923.667	650713.303		976.92	ISLAND MID CURVE
1027	1013+20.34	27.36 LT	1506+25.62'S'	36.49 RT	416913.729	650731.682		977.30	ISLAND NOSE/PC
1028	1013+22.98	24.30 LT	1506+29.47'S'	35.25 RT	416915.089	650735.493		977.39	ISLAND NOSE/PC
1029	1013+39.72	25.71 LT	1506+34.66'S'	19.27 RT	416931.208	650740.217		977.41	ISLAND NOSE/PC
1030	1013+41.81	29.17 LT	1506+32.28'S'	16.00 RT	416934.410	650737.745		977.27	ISLAND NOSE/PC
1031	1012+05.97	197.30 LT	1504+08.00'S'	15.00 LT	416868.425	650531.910		977.15	TIE-IN
1032	1012+00.96	183.16 LT	1504+08.00'S'	0.00 RT	416858.654	650543.291		977.37	TIE-IN
1033	1011+95.63	168.08 LT	1504+08.00'S'	16.00 RT	416848.231	650555.430		976.82	TIE-IN
1035	1013+73.48	63.65 LT	1506+12.78'S'	26.53 LT	416976.353	650717.005		976.67	TAPER



STATION & OFFSET TABLE							
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	ELEV	DESCRIPTION
1100	1031+89.59	-58.00 LT	418560.763	651612.678	40		RADIUS 40'
1101	1033+11.31	-72.00 LT	418649.706	651696.949	50		RADIUS 50'
1102	1031+89.59	-18.00 LT	418530.114	651638.381		979.18	END CURB
1103	1032+18.18	-30.03 LT	418557.702	651652.561		978.93	MID CURVE
1104	1032+29.58	-58.88 LT	418587.131	651642.757		978.68	CURB PC
1105	1032+29.42	-66.16 LT	418592.612	651637.952		978.65	BEGIN CURB
1106	1033+23.65	-22.00 LT	418619.320	651738.528		978.82	BEGIN CURB
1107	1033+11.31	-22.00 LT	418611.394	651729.077		978.88	CURB PC
1108	1032+76.35	-36.26 LT	418599.852	651693.123		978.80	MID CURVE
1109	1032+65.44	-52.11 LT	418604.988	651674.581		978.76	CURB VPI
1110	1032+61.33	-70.90 LT	418616.745	651659.351		978.63	END CURB
1111	1032+45.99	-80.57 LT	418614.300	651641.391		979.00	TIE-IN

PROJECT NO: 1620-02-76

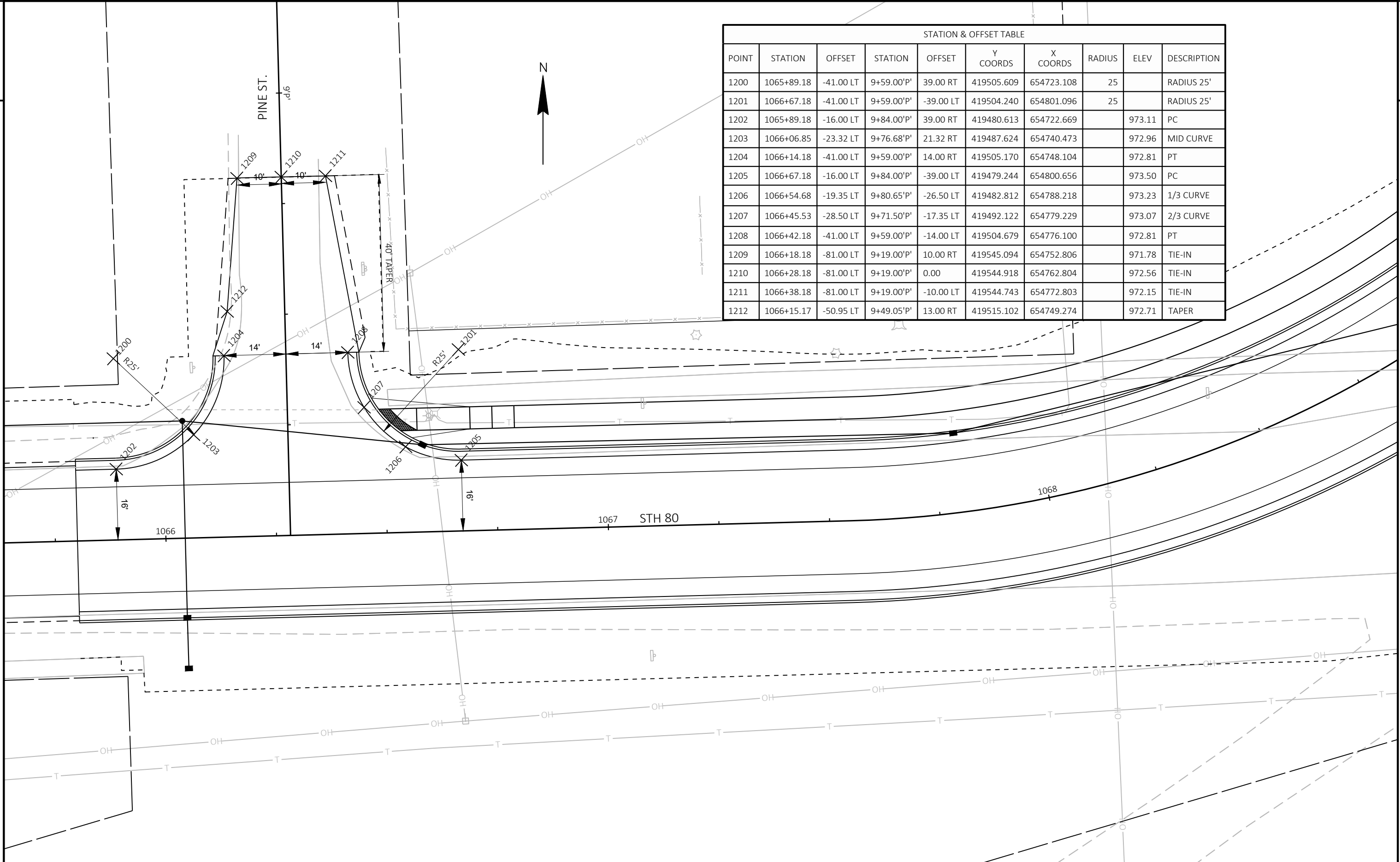
HWY: STH 80

COUNTY: WOOD

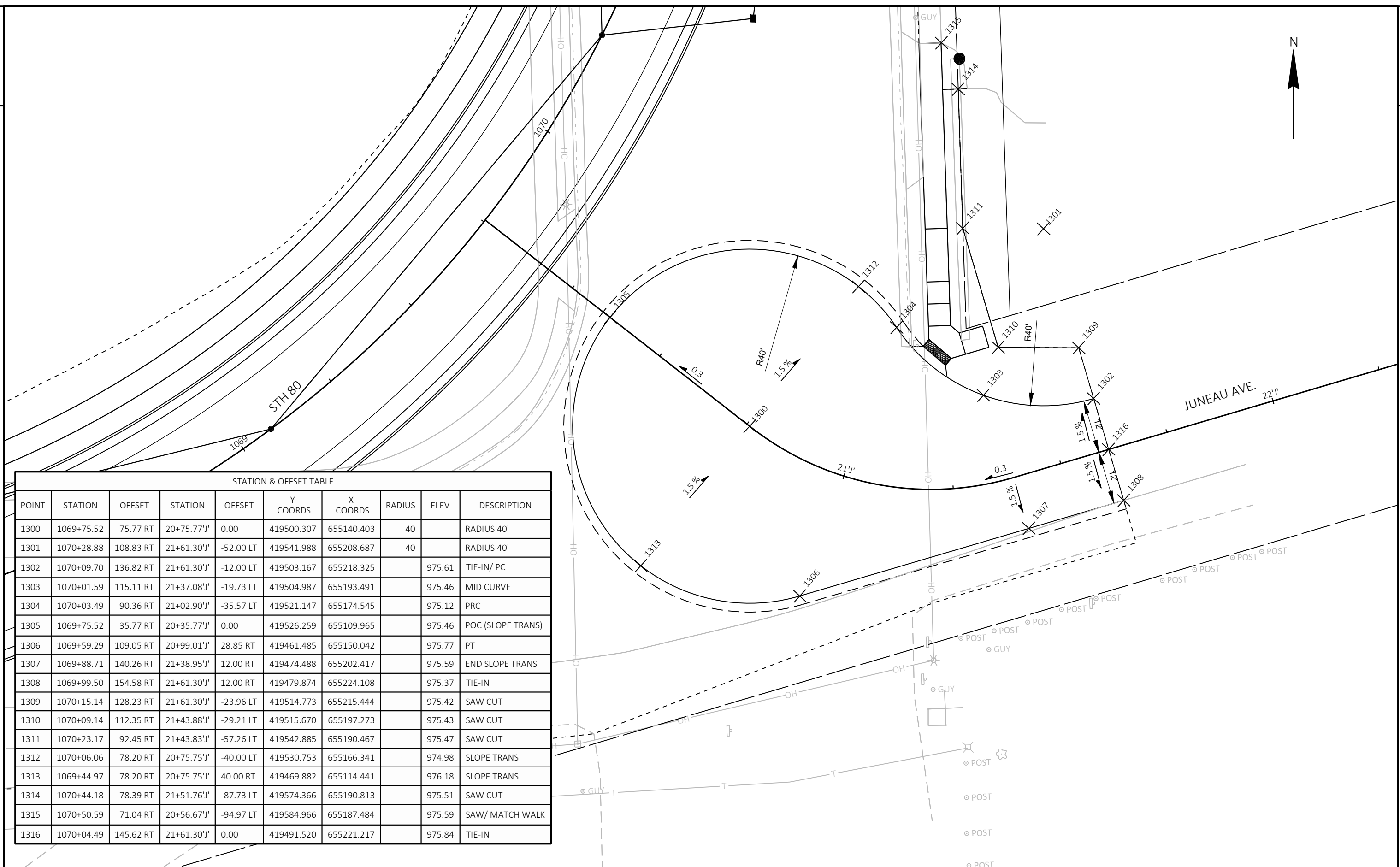
INTERSECTION DETAILS - CTH X

SHEET

E



STATION & OFFSET TABLE									
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	ELEV	DESCRIPTION
1200	1065+89.18	-41.00 LT	9+59.00'P'	39.00 RT	419505.609	654723.108	25		RADIUS 25'
1201	1066+67.18	-41.00 LT	9+59.00'P'	-39.00 LT	419504.240	654801.096	25		RADIUS 25'
1202	1065+89.18	-16.00 LT	9+84.00'P'	39.00 RT	419480.613	654722.669		973.11	PC
1203	1066+06.85	-23.32 LT	9+76.68'P'	21.32 RT	419487.624	654740.473		972.96	MID CURVE
1204	1066+14.18	-41.00 LT	9+59.00'P'	14.00 RT	419505.170	654748.104		972.81	PT
1205	1066+67.18	-16.00 LT	9+84.00'P'	-39.00 LT	419479.244	654800.656		973.50	PC
1206	1066+54.68	-19.35 LT	9+80.65'P'	-26.50 LT	419482.812	654788.218		973.23	1/3 CURVE
1207	1066+45.53	-28.50 LT	9+71.50'P'	-17.35 LT	419492.122	654779.229		973.07	2/3 CURVE
1208	1066+42.18	-41.00 LT	9+59.00'P'	-14.00 LT	419504.679	654776.100		972.81	PT
1209	1066+18.18	-81.00 LT	9+19.00'P'	10.00 RT	419545.094	654752.806		971.78	TIE-IN
1210	1066+28.18	-81.00 LT	9+19.00'P'	0.00	419544.918	654762.804		972.56	TIE-IN
1211	1066+38.18	-81.00 LT	9+19.00'P'	-10.00 LT	419544.743	654772.803		972.15	TIE-IN
1212	1066+15.17	-50.95 LT	9+49.05'P'	13.00 RT	419515.102	654749.274		972.71	TAPER



STATION & OFFSET TABLE

POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	ELEV	DESCRIPTION
1300	1069+75.52	75.77 RT	20+75.77'J'	0.00	419500.307	655140.403	40		RADIUS 40'
1301	1070+28.88	108.83 RT	21+61.30'J'	-52.00 LT	419541.988	655208.687	40		RADIUS 40'
1302	1070+09.70	136.82 RT	21+61.30'J'	-12.00 LT	419503.167	655218.325		975.61	TIE-IN/ PC
1303	1070+01.59	115.11 RT	21+37.08'J'	-19.73 LT	419504.987	655193.491		975.46	MID CURVE
1304	1070+03.49	90.36 RT	21+02.90'J'	-35.57 LT	419521.147	655174.545		975.12	PRC
1305	1069+75.52	35.77 RT	20+35.77'J'	0.00	419526.259	655109.965		975.46	POC (SLOPE TRANS)
1306	1069+59.29	109.05 RT	20+99.01'J'	28.85 RT	419461.485	655150.042		975.77	PT
1307	1069+88.71	140.26 RT	21+38.95'J'	12.00 RT	419474.488	655202.417		975.59	END SLOPE TRANS
1308	1069+99.50	154.58 RT	21+61.30'J'	12.00 RT	419479.874	655224.108		975.37	TIE-IN
1309	1070+15.14	128.23 RT	21+61.30'J'	-23.96 LT	419514.773	655215.444		975.42	SAW CUT
1310	1070+09.14	112.35 RT	21+43.88'J'	-29.21 LT	419515.670	655197.273		975.43	SAW CUT
1311	1070+23.17	92.45 RT	21+43.83'J'	-57.26 LT	419542.885	655190.467		975.47	SAW CUT
1312	1070+06.06	78.20 RT	20+75.75'J'	-40.00 LT	419530.753	655166.341		974.98	SLOPE TRANS
1313	1069+44.97	78.20 RT	20+75.75'J'	40.00 RT	419469.882	655114.441		976.18	SLOPE TRANS
1314	1070+44.18	78.39 RT	21+51.76'J'	-87.73 LT	419574.366	655190.813		975.51	SAW CUT
1315	1070+50.59	71.04 RT	20+56.67'J'	-94.97 LT	419584.966	655187.484		975.59	SAW/ MATCH WALK
1316	1070+04.49	145.62 RT	21+61.30'J'	0.00	419491.520	655221.217		975.84	TIE-IN



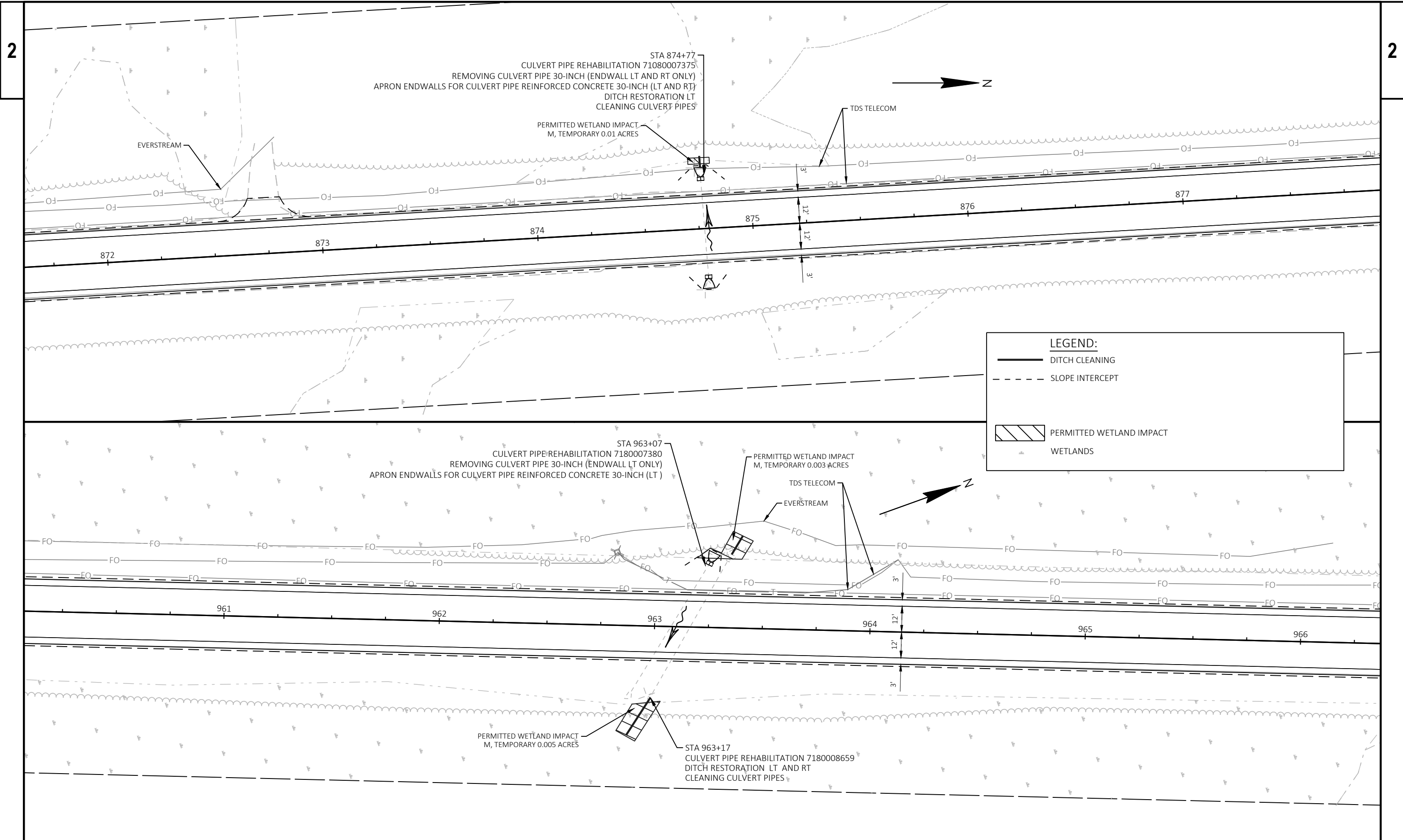


STATION & OFFSET TABLE									
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	ELEV	DESCRIPTION
1400	1072+34.38	-42.00 LT	29+57.99'CW'	32.00 RT	419794.445	655101.343	20		RADIUS 20'
1401	1073+03.38	-47.00 LT	29+53.02'CW'	-37.00 LT	419863.490	655097.034	25		RADIUS 25'
1402	1072+34.38	-22.00 LT	29+77.99'CW'	32.01 RT	419794.245	655121.342		974.51	PC
1403	1072+48.53	-27.86 LT	29+72.13'CW'	17.86 RT	419808.448	655115.623		974.57	MID CURVE
1404	1072+54.38	-42.01 LT	29+57.99'CW'	12.00 RT	419814.444	655101.535		974.47	PT
1405	1072+54.38	-49.70 LT	29+50.29'CW'	12.00 RT	419814.518	655093.844		974.43	END CURB
1406	1073+03.38	-22.00 LT	29+78.02'CW'	-36.99 LT	419863.240	655122.033		975.06	PC
1407	1072+85.70	-29.32 LT	29+70.69'CW'	-19.32 LT	419845.640	655114.537		974.68	MID CURVE
1408	1072+78.38	-46.99 LT	29+53.02'CW'	-12.00 LT	419838.491	655096.794		974.43	PT
1409	1072+78.38	-49.71 LT	29+50.30'CW'	-12.00 LT	419838.517	655094.078		974.41	END CURB
1410	1072+54.86	-59.70 LT	29+40.29'CW'	11.51 RT	419815.099	655083.849		974.35	TAPER
1411	1072+56.36	-90.00 LT	29+10.00'CW'	10.00 RT	419816.899	655053.655		974.14	TIE-IN
1412	1072+66.36	-90.00 LT	29+10.00'CW'	0.00	419826.904	655053.666		974.30	TIE-IN
1413	1072+76.36	-90.00 LT	29+10.00'CW'	-10.00 LT	419836.901	655053.762		973.87	TIE-IN

CLARK AVE. WEST

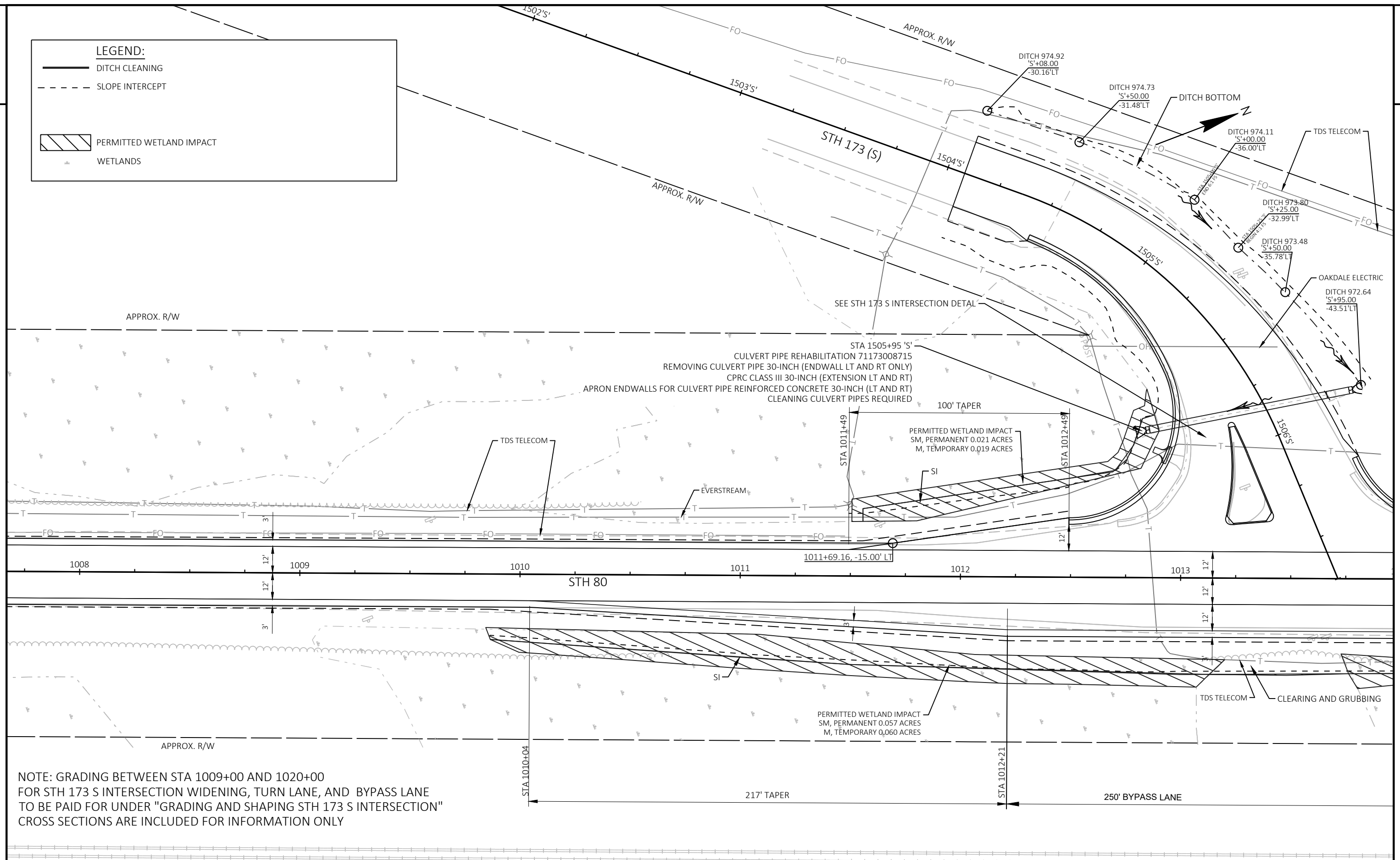
STATION & OFFSET TABLE									
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	ELEV	DESCRIPTION
1450	1073+05.89	42.00 RT	30+42.02'CE'	32.00 LT	419865.109	655186.054	20		RADIUS 20'
1451	1072+36.89	47.00 RT	30+46.99'CE'	37.00 RT	419796.064	655190.364	25		RADIUS 25'
1452	1072+36.89	22.00 RT	30+21.99'CE'	36.99 RT	419796.314	655165.365		974.58	PC
1453	1072+54.56	29.32 RT	30+29.31'CE'	19.32 RT	419813.914	655172.860		974.62	MID CURVE
1454	1072+61.89	46.99 RT	30+46.99'CE'	12.00 RT	419821.063	655190.604		974.66	PT
1455	1072+61.89	55.21 RT	30+55.21'CE'	12.00 RT	419820.984	655198.822		974.78	END CURB
1456	1072+85.89	55.20 RT	30+55.21'CE'	12.00 LT	419844.983	655199.052		974.78	END CURB
1457	1072+85.89	42.01 RT	30+42.02'CE'	12.00 LT	419845.109	655185.863		974.59	PT
1458	1072+87.49	34.15 RT	30+34.16'CE'	13.61 LT	419846.792	655178.022		974.57	SAG POINT/INL
1459	1072+91.74	27.86 RT	30+27.87'CE'	17.86 LT	419851.106	655171.774		974.73	MID CURVE
1460	1073+05.89	22.00 RT	30+22.02'CE'	32.01 LT	419865.309	655166.055		975.08	PC
1461	1072+63.91	95.21 RT	30+95.21'CE'	10.00 RT	419822.600	655238.840		975.39	TAPER
1462	1072+83.91	95.20 RT	30+95.21'CE'	10.00 LT	419842.599	655239.031		975.39	TAPER
1463	1072+63.92	130.00 RT	31+30.00'CE'	10.00 RT	419822.267	655273.631		976.18	TIE-IN
1464	1072+73.92	130.00 RT	31+30.00'CE'	0.00 RT	419832.266	655273.727		976.04	TIE-IN
1465	1072+83.92	129.99 RT	31+30.00'CE'	10.00 LT	419842.266	655273.823		975.88	TIE-IN
1466	1072+40.89	55.23 RT	30+55.22'CE'	33.00 RT	419799.985	655198.634		975.35	PARKING CORNER
1467	1072+40.92	127.52 RT	31+27.51'CE'	33.00 RT	419799.292	655270.922		976.79	PARKING CORNER
1468	1072+99.92	129.99 RT	31+30.00'CE'	26.00 LT	419858.265	655273.977		975.69	PARKING CORNER
1469	1072+99.89	55.21 RT	30+55.22'CE'	26.00 LT	419858.982	655199.200		975.15	PARKING CORNER

CLARK AVE EAST



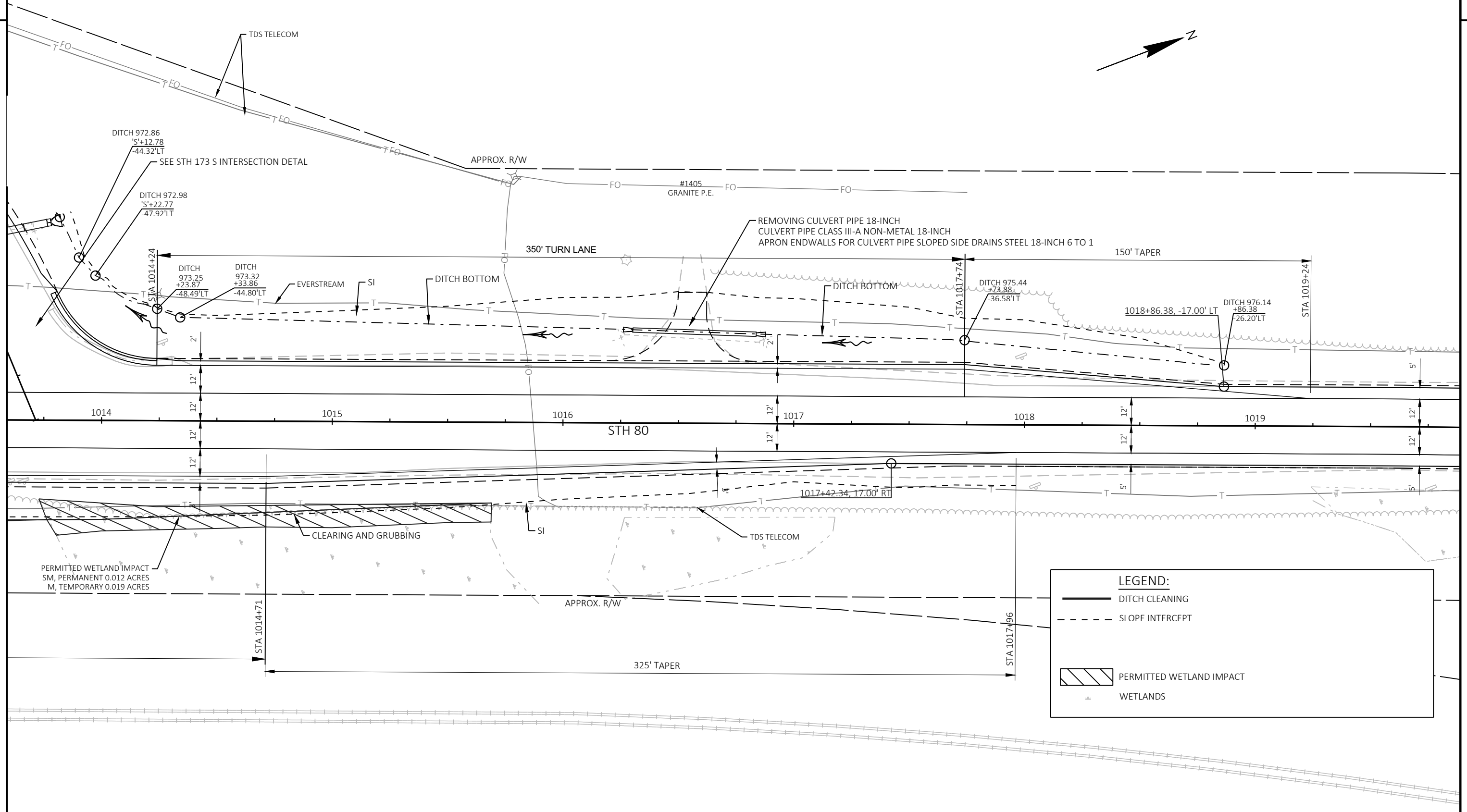
**LEGEND:**

- DITCH CLEANING
- SLOPE INTERCEPT
- PERMITTED WETLAND IMPACT
- WETLANDS



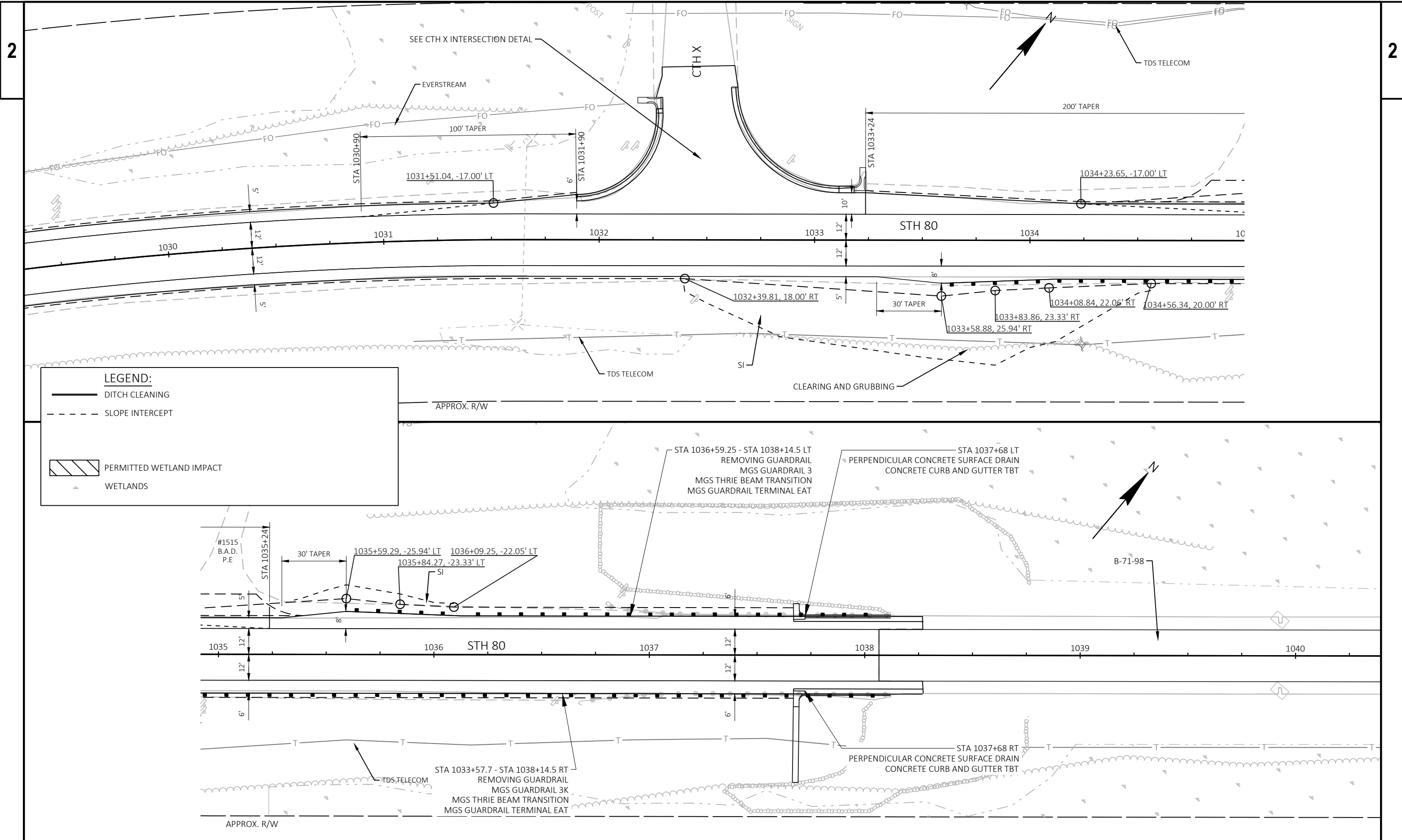
NOTE: GRADING BETWEEN STA 1009+00 AND 1020+00 FOR STH 173 S INTERSECTION WIDENING, TURN LANE, AND BYPASS LANE TO BE PAID FOR UNDER "GRADING AND SHAPING STH 173 S INTERSECTION" CROSS SECTIONS ARE INCLUDED FOR INFORMATION ONLY

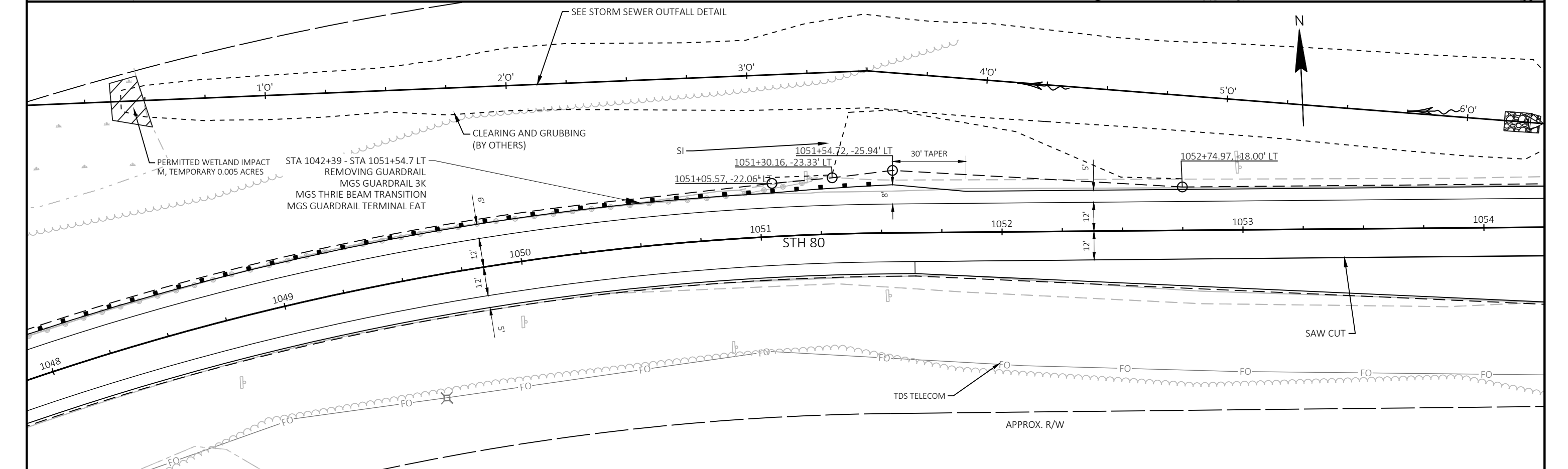
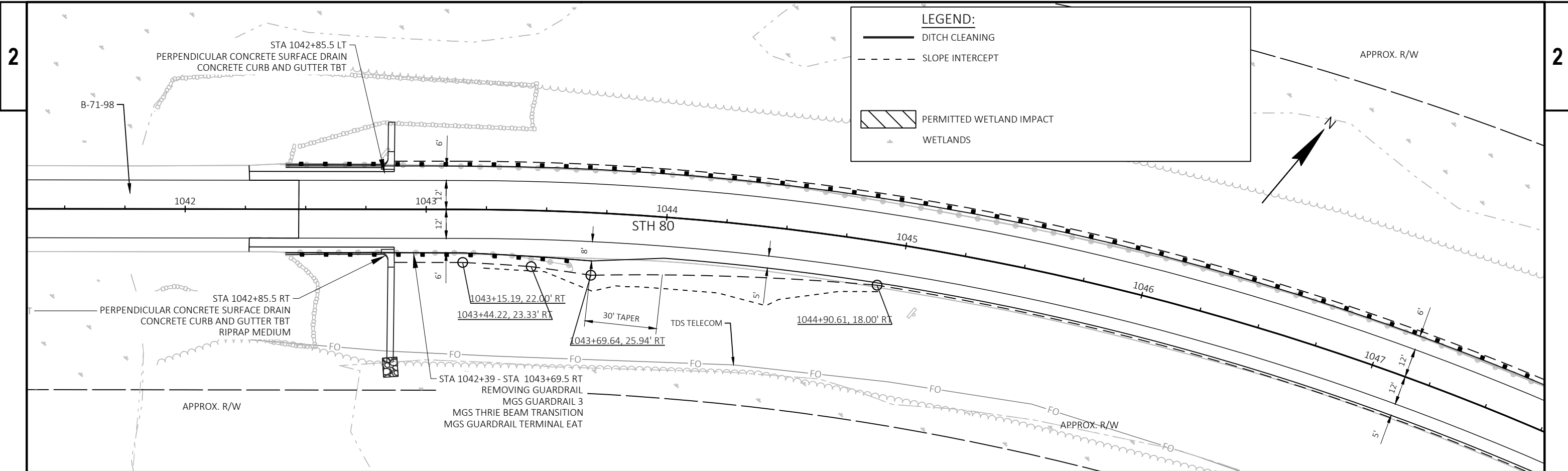
NOTE: GRADING BETWEEN STA 1009+00 AND 1020+00 FOR STH 173 S INTERSECTION WIDENING, TURN LANE, AND BYPASS LANE TO BE PAID FOR UNDER "GRADING AND SHAPING STH 173 S INTERSECTION" CROSS SECTIONS ARE INCLUDED FOR INFORMATION ONLY



**LEGEND:**

- DITCH CLEANING
- SLOPE INTERCEPT
- PERMITTED WETLAND IMPACT
- WETLANDS




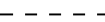
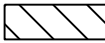



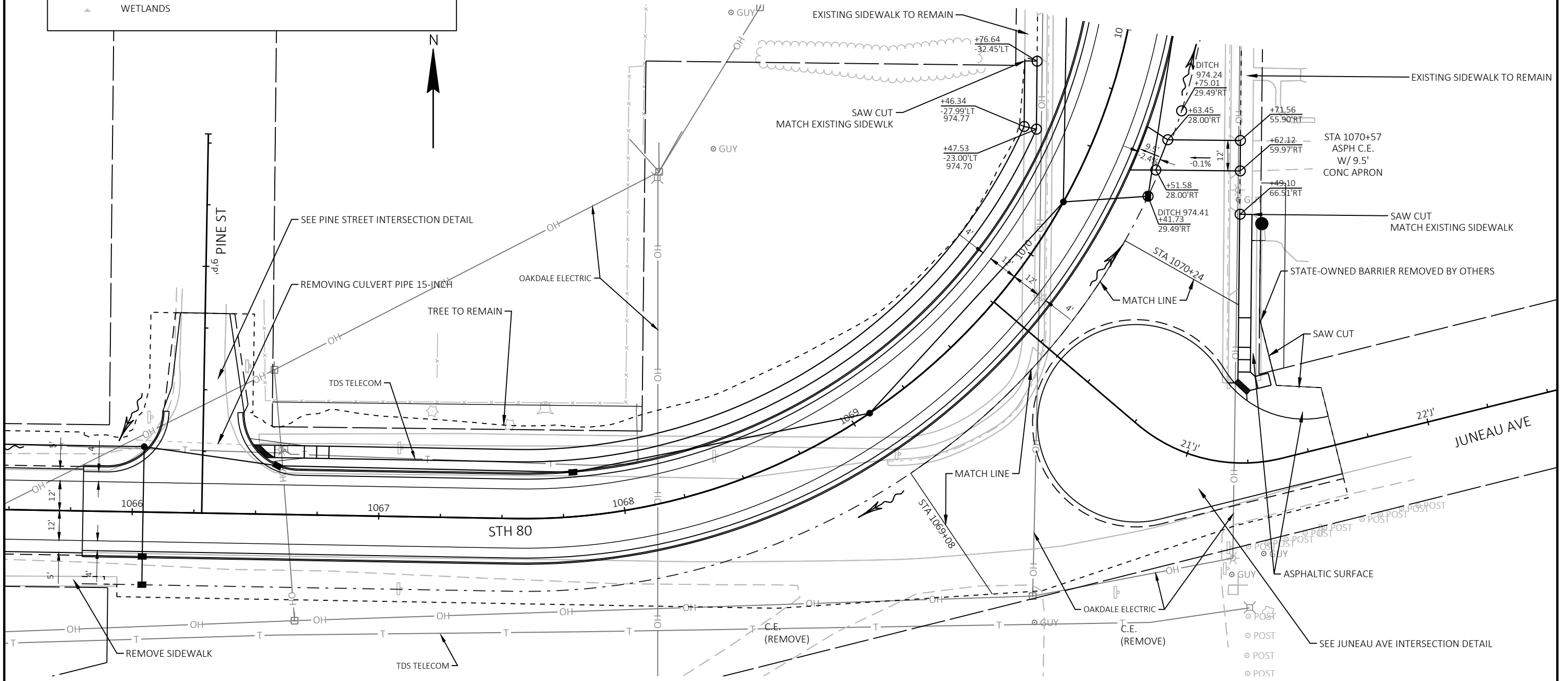
PROJECT NO:	1620-02-76	HWY:	STH 80	COUNTY:	WOOD	PLAN DETAILS	SHEET	E
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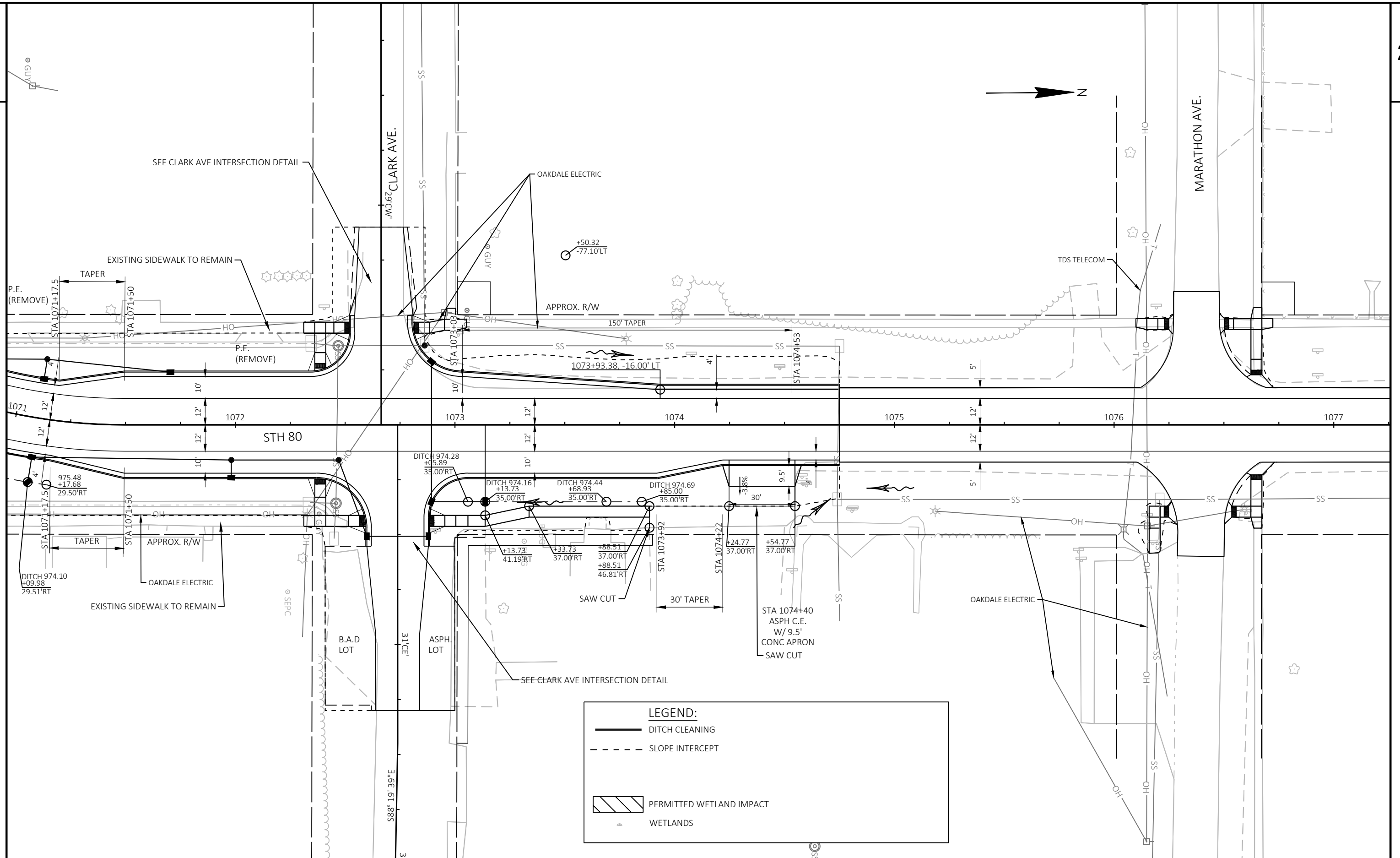




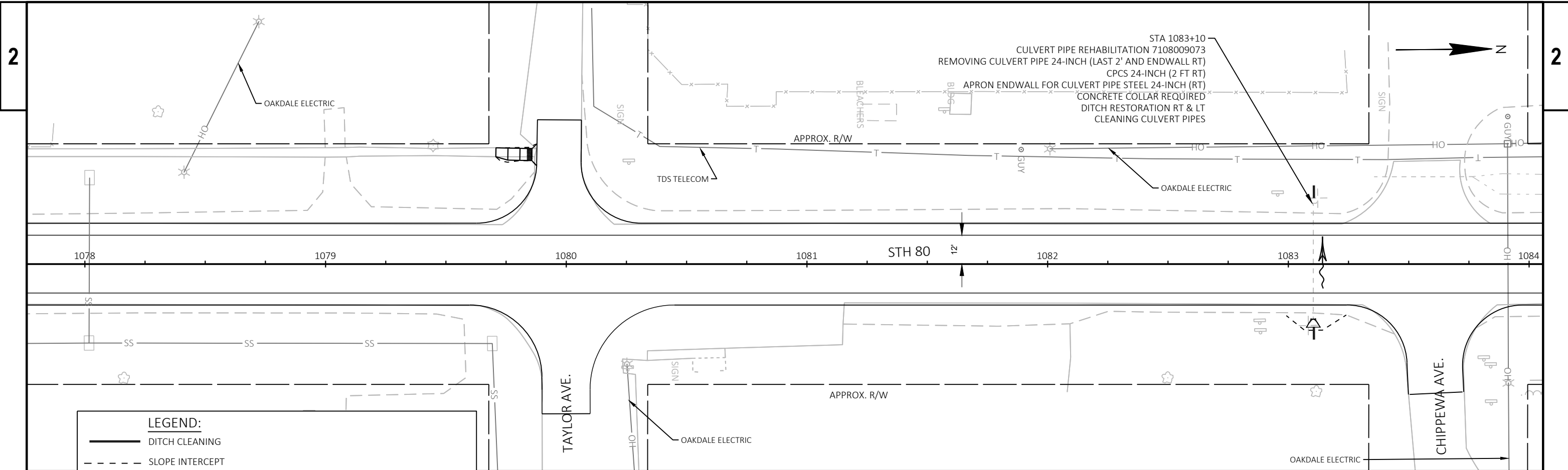
**LEGEND:**

-  DITCH CLEANING
-  SLOPE INTERCEPT
-  PERMITTED WETLAND IMPACT
-  WETLANDS





PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	PLAN DETAILS	SHEET	E
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THIS FRAME INTENTIONALLY LEFT BALNK

PINE STREET



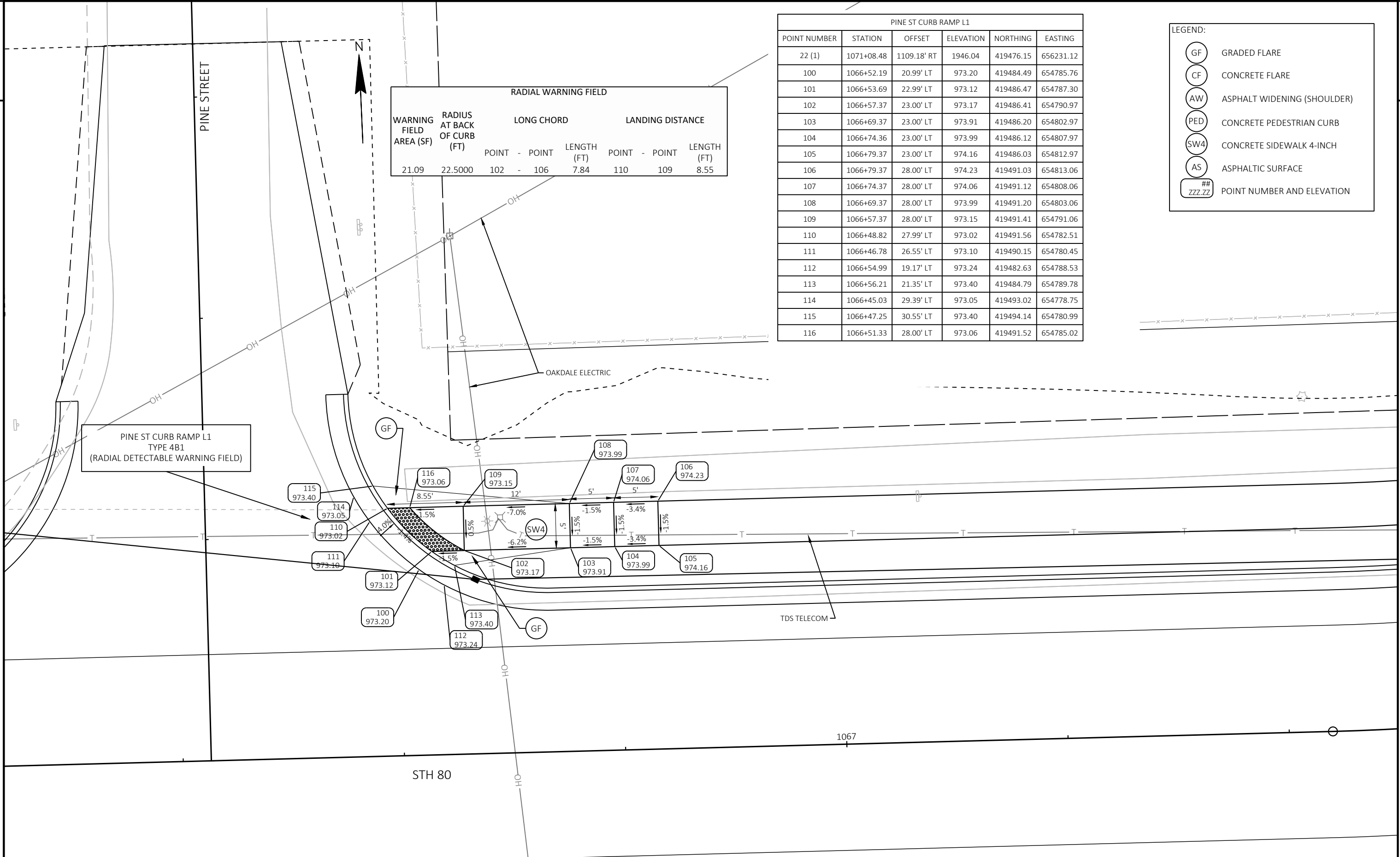
RADIAL WARNING FIELD							
WARNING FIELD AREA (SF)	RADIUS AT BACK OF CURB (FT)	LONG CHORD			LANDING DISTANCE		
		POINT	- POINT	LENGTH (FT)	POINT	- POINT	LENGTH (FT)
21.09	22.5000	102	- 106	7.84	110	- 109	8.55

PINE ST CURB RAMP L1					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
22 (1)	1071+08.48	1109.18' RT	1946.04	419476.15	656231.12
100	1066+52.19	20.99' LT	973.20	419484.49	654785.76
101	1066+53.69	22.99' LT	973.12	419486.47	654787.30
102	1066+57.37	23.00' LT	973.17	419486.41	654790.97
103	1066+69.37	23.00' LT	973.91	419486.20	654802.97
104	1066+74.36	23.00' LT	973.99	419486.12	654807.97
105	1066+79.37	23.00' LT	974.16	419486.03	654812.97
106	1066+79.37	28.00' LT	974.23	419491.03	654813.06
107	1066+74.37	28.00' LT	974.06	419491.12	654808.06
108	1066+69.37	28.00' LT	973.99	419491.20	654803.06
109	1066+57.37	28.00' LT	973.15	419491.41	654791.06
110	1066+48.82	27.99' LT	973.02	419491.56	654782.51
111	1066+46.78	26.55' LT	973.10	419490.15	654780.45
112	1066+54.99	19.17' LT	973.24	419482.63	654788.53
113	1066+56.21	21.35' LT	973.40	419484.79	654789.78
114	1066+45.03	29.39' LT	973.05	419493.02	654778.75
115	1066+47.25	30.55' LT	973.40	419494.14	654780.99
116	1066+51.33	28.00' LT	973.06	419491.52	654785.02

LEGEND:

- GRADED FLARE
- CONCRETE FLARE
- ASPHALT WIDENING (SHOULDER)
- CONCRETE PEDESTRIAN CURB
- CONCRETE SIDEWALK 4-INCH
- ASPHALTIC SURFACE
- POINT NUMBER AND ELEVATION

PINE ST CURB RAMP L1  
TYPE 4B1  
(RADIAL DETECTABLE WARNING FIELD)



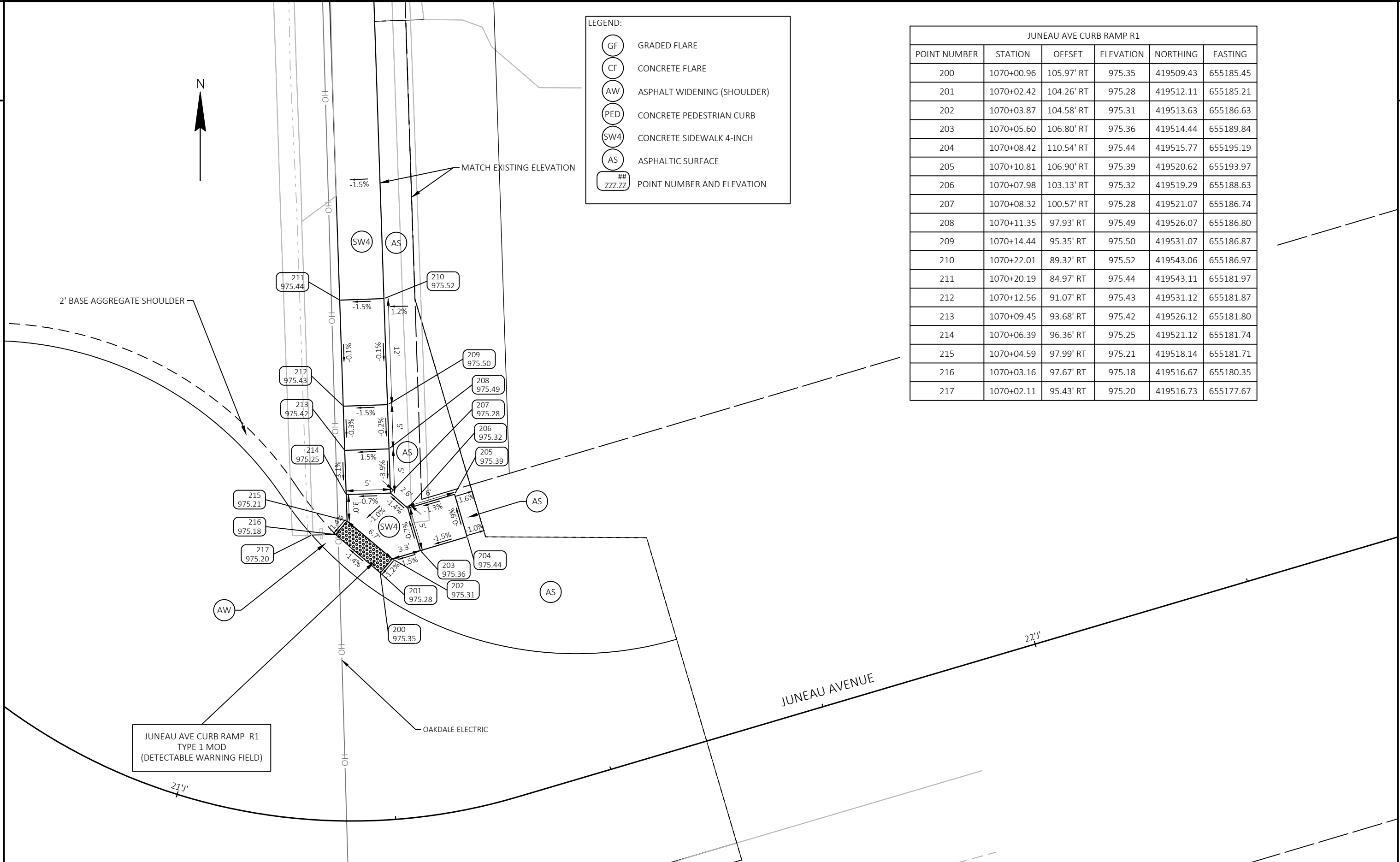
STH 80



LEGEND:

- (GF) GRADED FLARE
- (CF) CONCRETE FLARE
- (AW) ASPHALT WIDENING (SHOULDER)
- (PED) CONCRETE PEDESTRIAN CURB
- (SW4) CONCRETE SIDEWALK 4-INCH
- (AS) ASPHALTIC SURFACE
- ##  
ZZZ.ZZ POINT NUMBER AND ELEVATION

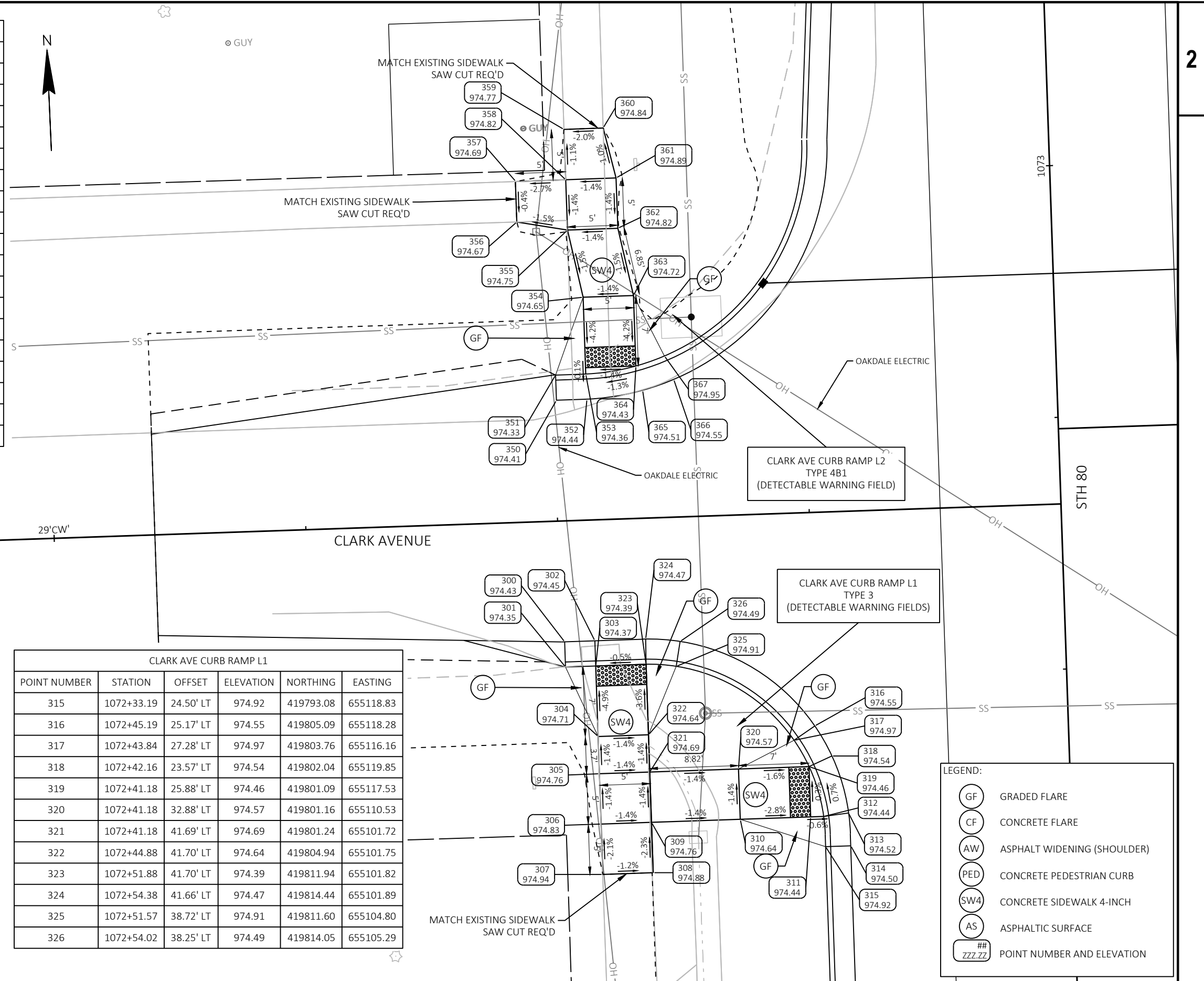
JUNEAU AVE CURB RAMP R1					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
200	1070+00.96	105.97' RT	975.35	419509.43	655185.45
201	1070+02.42	104.26' RT	975.28	419512.11	655185.21
202	1070+03.87	104.58' RT	975.31	419513.63	655186.63
203	1070+05.60	106.80' RT	975.36	419514.44	655189.84
204	1070+08.42	110.54' RT	975.44	419515.77	655195.19
205	1070+10.81	106.90' RT	975.39	419520.62	655193.97
206	1070+07.98	103.13' RT	975.32	419519.29	655188.63
207	1070+08.32	100.57' RT	975.28	419521.07	655186.74
208	1070+11.35	97.93' RT	975.49	419526.07	655186.80
209	1070+14.44	95.35' RT	975.50	419531.07	655186.87
210	1070+22.01	89.32' RT	975.52	419543.06	655186.97
211	1070+20.19	84.97' RT	975.44	419543.11	655181.97
212	1070+12.56	91.07' RT	975.43	419531.12	655181.87
213	1070+09.45	93.68' RT	975.42	419526.12	655181.80
214	1070+06.39	96.36' RT	975.25	419521.12	655181.74
215	1070+04.59	97.99' RT	975.21	419518.14	655181.71
216	1070+03.16	97.67' RT	975.18	419516.67	655180.35
217	1070+02.11	95.43' RT	975.20	419516.73	655177.67



CLARK AVE CURB RAMP L2					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
350	1072+78.38	49.71' LT	974.41	419838.52	655094.08
351	1072+80.88	49.71' LT	974.33	419841.02	655094.10
352	1072+78.38	46.68' LT	974.44	419838.49	655097.10
353	1072+80.88	46.71' LT	974.36	419840.99	655097.10
354	1072+88.51	46.72' LT	974.65	419848.62	655097.17
355	1072+95.22	48.04' LT	974.75	419855.34	655095.91
356	1072+96.19	53.04' LT	974.67	419856.37	655090.92
357	1073+00.22	53.01' LT	974.69	419860.39	655091.00
358	1073+00.22	48.05' LT	974.82	419860.34	655095.95
359	1073+05.22	48.06' LT	974.77	419865.34	655095.99
360	1073+05.23	44.16' LT	974.84	419865.31	655099.89
361	1073+00.23	43.05' LT	974.89	419860.30	655100.95
362	1072+95.23	43.04' LT	974.82	419855.31	655100.91
363	1072+88.51	41.72' LT	974.72	419848.57	655102.17
364	1072+81.51	41.71' LT	974.43	419841.57	655102.10
365	1072+79.08	41.12' LT	974.51	419839.13	655102.67
366	1072+80.06	38.00' LT	974.55	419840.08	655105.80
367	1072+82.41	38.85' LT	974.95	419842.44	655104.97

CLARK AVE CURB RAMP L1					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
300	1072+54.38	49.70' LT	974.43	419814.52	655093.84
301	1072+51.88	49.70' LT	974.35	419812.02	655093.82
302	1072+54.38	46.70' LT	974.45	419814.49	655096.84
303	1072+51.88	46.70' LT	974.37	419811.99	655096.82
304	1072+44.88	46.70' LT	974.71	419804.99	655096.75
305	1072+41.18	46.69' LT	974.76	419801.29	655096.72
306	1072+36.18	46.69' LT	974.83	419796.29	655096.67
307	1072+31.18	46.69' LT	974.94	419791.29	655096.62
308	1072+31.18	41.69' LT	974.88	419791.24	655101.62
309	1072+36.18	41.69' LT	974.76	419796.24	655101.67
310	1072+36.18	32.88' LT	974.64	419796.16	655110.49
311	1072+36.18	25.88' LT	974.44	419796.09	655117.49
312	1072+36.19	24.59' LT	974.44	419796.08	655118.77
313	1072+36.44	22.11' LT	974.52	419796.31	655121.26
314	1072+33.19	22.00' LT	974.50	419793.05	655121.33

CLARK AVE CURB RAMP L1					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
315	1072+33.19	24.50' LT	974.92	419793.08	655118.83
316	1072+45.19	25.17' LT	974.55	419805.09	655118.28
317	1072+43.84	27.28' LT	974.97	419803.76	655116.16
318	1072+42.16	23.57' LT	974.54	419802.04	655119.85
319	1072+41.18	25.88' LT	974.46	419801.09	655117.53
320	1072+41.18	32.88' LT	974.57	419801.16	655110.53
321	1072+41.18	41.69' LT	974.69	419801.24	655101.72
322	1072+44.88	41.70' LT	974.64	419804.94	655101.75
323	1072+51.88	41.70' LT	974.39	419811.94	655101.82
324	1072+54.38	41.66' LT	974.47	419814.44	655101.89
325	1072+51.57	38.72' LT	974.91	419811.60	655104.80
326	1072+54.02	38.25' LT	974.49	419814.05	655105.29

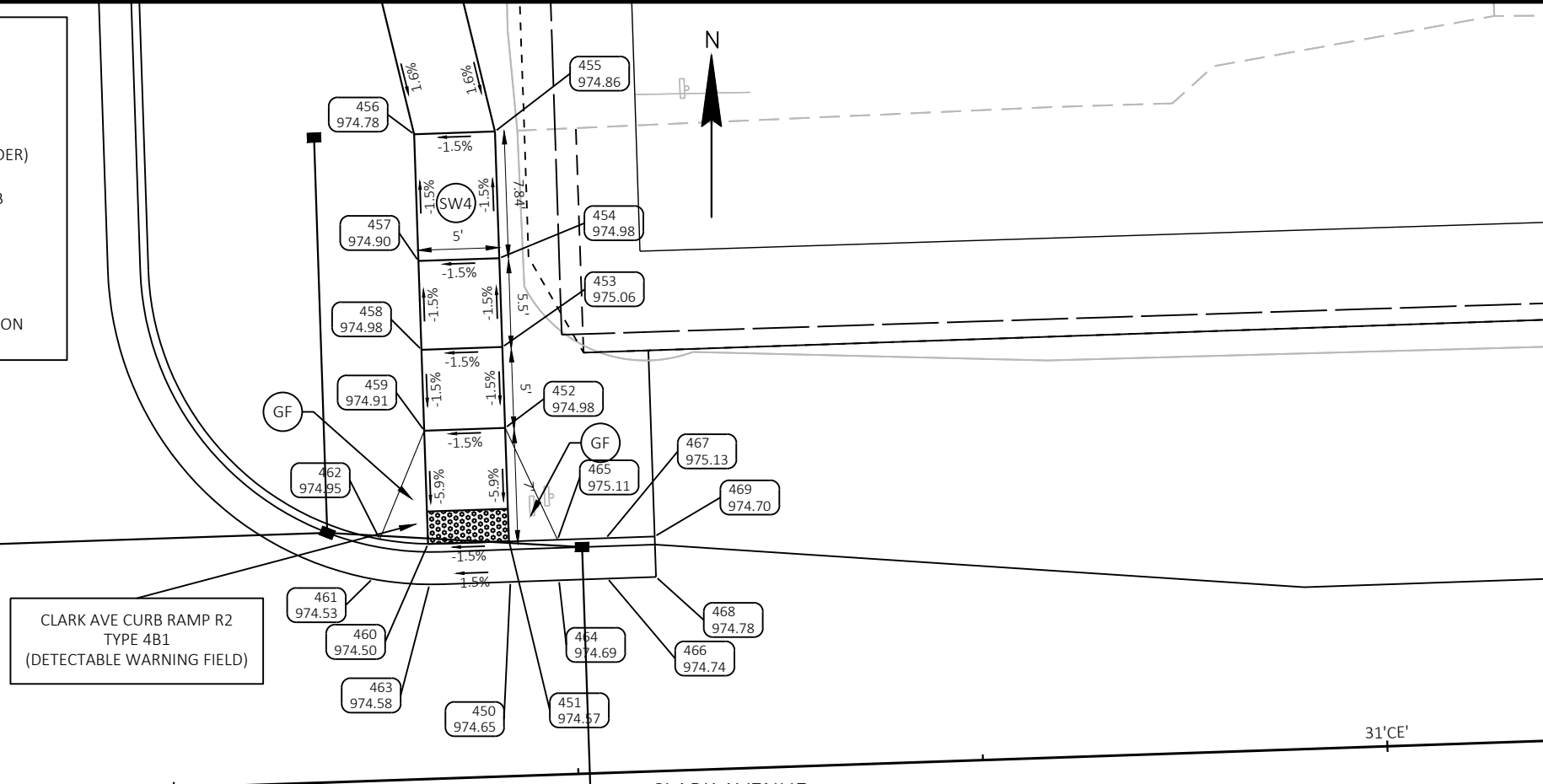


LEGEND:

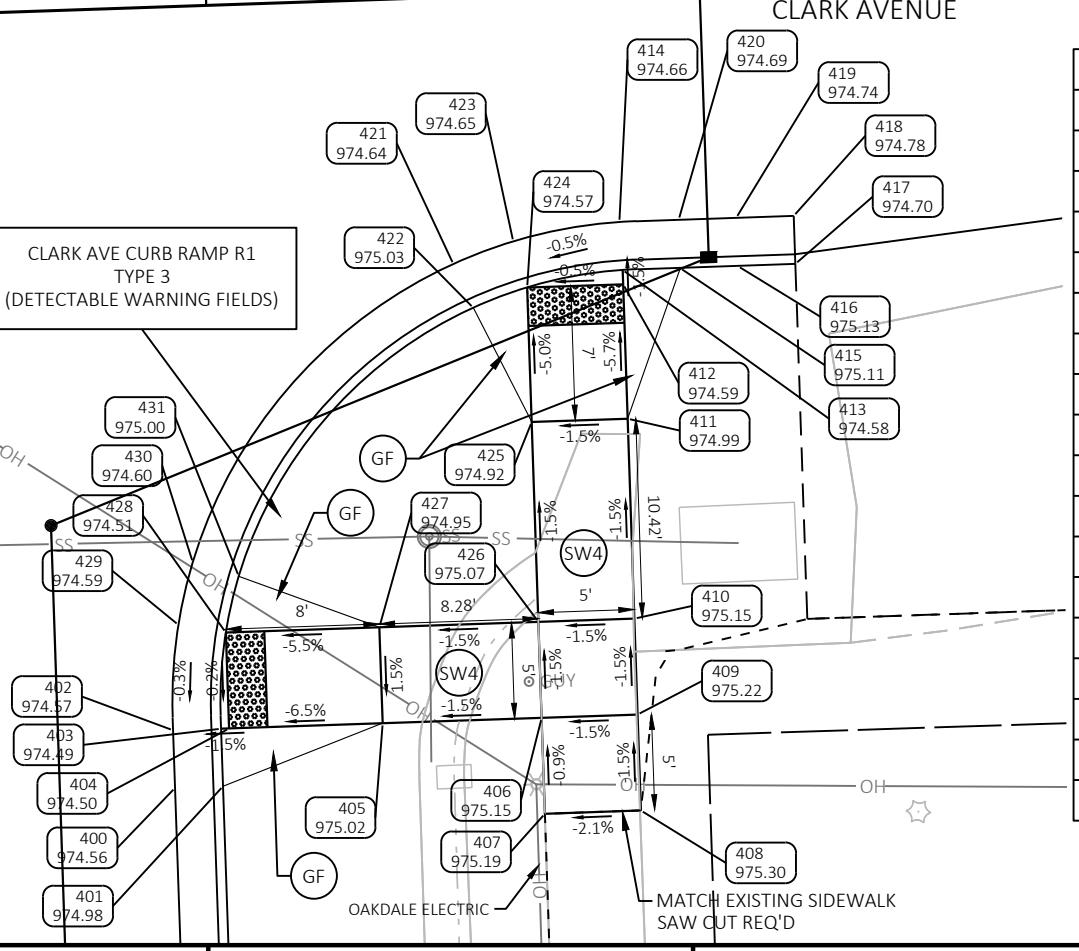
- GF GRADED FLARE
- CF CONCRETE FLARE
- AW ASPHALT WIDENING (SHOULDER)
- PED CONCRETE PEDESTRIAN CURB
- SW4 CONCRETE SIDEWALK 4-INCH
- AS ASPHALTIC SURFACE
- ##  
ZZZ.ZZ POINT NUMBER AND ELEVATION

LEGEND:

GF	GRADED FLARE
CF	CONCRETE FLARE
AW	ASPHALT WIDENING (SHOULDER)
PED	CONCRETE PEDESTRIAN CURB
SW4	CONCRETE SIDEWALK 4-INCH
AS	ASPHALTIC SURFACE
## ZZZ.ZZ	POINT NUMBER AND ELEVATION



CLARK AVE CURB RAMP R2					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
450	1072+85.89	46.20' RT	974.65	419845.07	655190.05
451	1072+88.41	46.20' RT	974.57	419847.59	655190.08
452	1072+95.41	46.19' RT	974.98	419854.59	655190.14
453	1073+00.41	46.19' RT	975.06	419859.59	655190.19
454	1073+05.90	46.19' RT	974.98	419865.08	655190.24
455	1073+13.73	46.19' RT	974.86	419872.91	655190.32
456	1073+13.73	41.19' RT	974.78	419872.96	655185.32
457	1073+05.89	41.19' RT	974.90	419865.12	655185.24
458	1073+00.40	41.19' RT	974.98	419859.63	655185.19
459	1072+95.40	41.19' RT	974.91	419854.63	655185.14
460	1072+88.41	41.20' RT	974.50	419847.64	655185.08
461	1072+86.36	37.68' RT	974.53	419845.62	655181.54
462	1072+88.80	38.22' RT	974.95	419848.06	655182.11
463	1072+85.89	41.20' RT	974.58	419845.12	655185.05
464	1072+85.89	49.20' RT	974.69	419845.04	655193.05
465	1072+88.39	49.20' RT	975.11	419847.54	655193.08
466	1072+85.89	52.20' RT	974.74	419845.01	655196.05
467	1072+88.39	52.20' RT	975.13	419847.51	655196.08
468	1072+85.89	55.20' RT	974.78	419844.98	655199.05
469	1072+88.39	55.20' RT	974.70	419847.48	655199.08



CLARK AVE CURB RAMP R1					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
400	1072+33.21	22.00' RT	974.56	419792.63	655165.33
401	1072+33.21	24.50' RT	974.98	419792.61	655167.83
402	1072+36.21	22.00' RT	974.57	419795.63	655165.36
403	1072+36.21	24.50' RT	974.49	419795.61	655167.86
404	1072+36.21	24.92' RT	974.50	419795.60	655168.28
405	1072+36.22	32.92' RT	975.02	419795.53	655176.28
406	1072+36.21	41.20' RT	975.15	419795.45	655184.56
407	1072+31.21	41.21' RT	975.19	419790.45	655184.51
408	1072+31.21	46.21' RT	975.30	419790.40	655189.51
409	1072+36.21	46.20' RT	975.22	419795.40	655189.56
410	1072+41.21	46.20' RT	975.15	419800.40	655189.61
411	1072+51.63	46.21' RT	974.99	419810.81	655189.72
412	1072+58.63	46.21' RT	974.59	419817.81	655189.79
413	1072+59.38	46.21' RT	974.58	419818.56	655189.80
414	1072+61.87	46.12' RT	974.66	419821.06	655189.74
415	1072+59.37	49.21' RT	975.11	419818.53	655192.80
416	1072+59.38	52.21' RT	975.13	419818.50	655195.80

CLARK AVE CURB RAMP R1					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
417	1072+59.39	55.21' RT	974.70	419818.48	655198.80
418	1072+61.89	55.21' RT	974.78	419820.98	655198.82
419	1072+61.89	52.21' RT	974.74	419821.01	655195.82
420	1072+61.89	49.21' RT	974.69	419821.04	655192.82
421	1072+59.98	37.41' RT	974.64	419819.25	655181.00
422	1072+57.67	38.37' RT	975.03	419816.93	655181.94
423	1072+61.05	40.57' RT	974.65	419820.29	655184.17
424	1072+58.63	41.21' RT	974.57	419817.86	655184.79
425	1072+51.63	41.21' RT	974.92	419810.86	655184.72
426	1072+41.21	41.20' RT	975.07	419800.45	655184.61
427	1072+41.21	32.92' RT	974.95	419800.52	655176.33
428	1072+41.21	24.92' RT	974.51	419800.60	655168.33
429	1072+41.69	22.46' RT	974.59	419801.11	655165.88
430	1072+44.91	23.32' RT	974.60	419804.32	655166.77
431	1072+44.11	25.69' RT	975.00	419803.49	655169.13

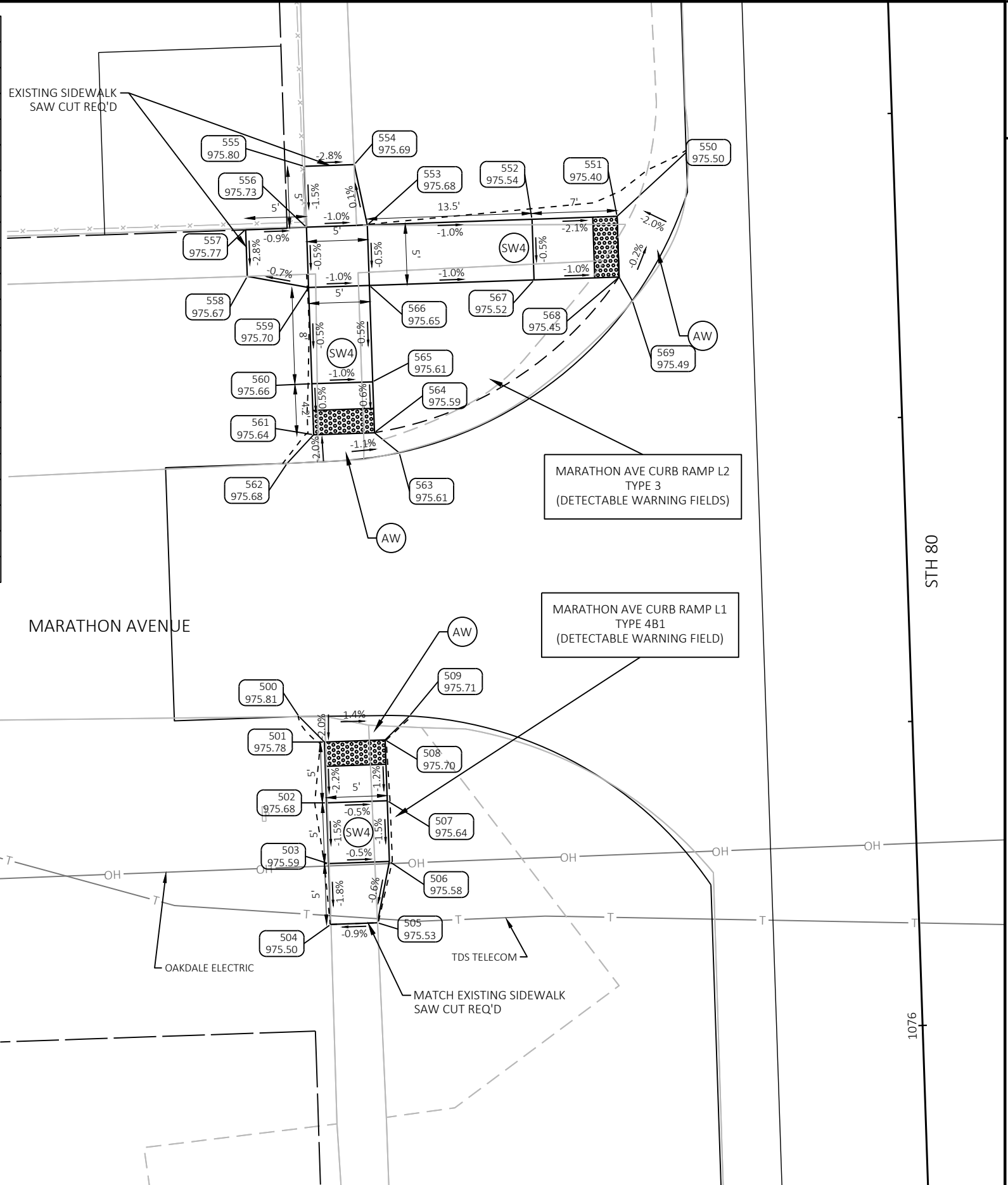


MARATHON AVE CURB RAMP L2					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
550	1076+72.36	17.00' LT	975.50	420232.15	655130.72
551	1076+67.31	22.85' LT	975.40	420227.16	655124.82
552	1076+67.31	29.85' LT	975.54	420227.23	655117.82
553	1076+67.28	43.40' LT	975.68	420227.34	655104.28
554	1076+72.28	44.31' LT	975.69	420232.35	655103.42
555	1076+72.28	48.41' LT	975.80	420232.39	655099.31
556	1076+67.28	48.41' LT	975.73	420227.39	655099.27
557	1076+67.27	53.41' LT	975.77	420227.43	655094.27
558	1076+63.40	53.40' LT	975.67	420223.56	655094.23
559	1076+62.32	48.40' LT	975.70	420222.43	655099.22
560	1076+54.40	48.41' LT	975.66	420214.51	655099.13
561	1076+50.21	48.39' LT	975.64	420210.31	655099.12
562	1076+47.93	50.64' LT	975.68	420208.06	655096.84
563	1076+48.49	41.41' LT	975.61	420208.53	655106.08
564	1076+50.21	43.39' LT	975.59	420210.27	655104.11
565	1076+54.38	43.41' LT	975.61	420214.44	655104.13
566	1076+62.32	43.39' LT	975.65	420222.37	655104.23
567	1076+62.31	29.86' LT	975.52	420222.23	655117.77
568	1076+62.31	22.86' LT	975.45	420222.16	655124.77
569	1076+60.34	21.84' LT	975.49	420220.18	655125.76

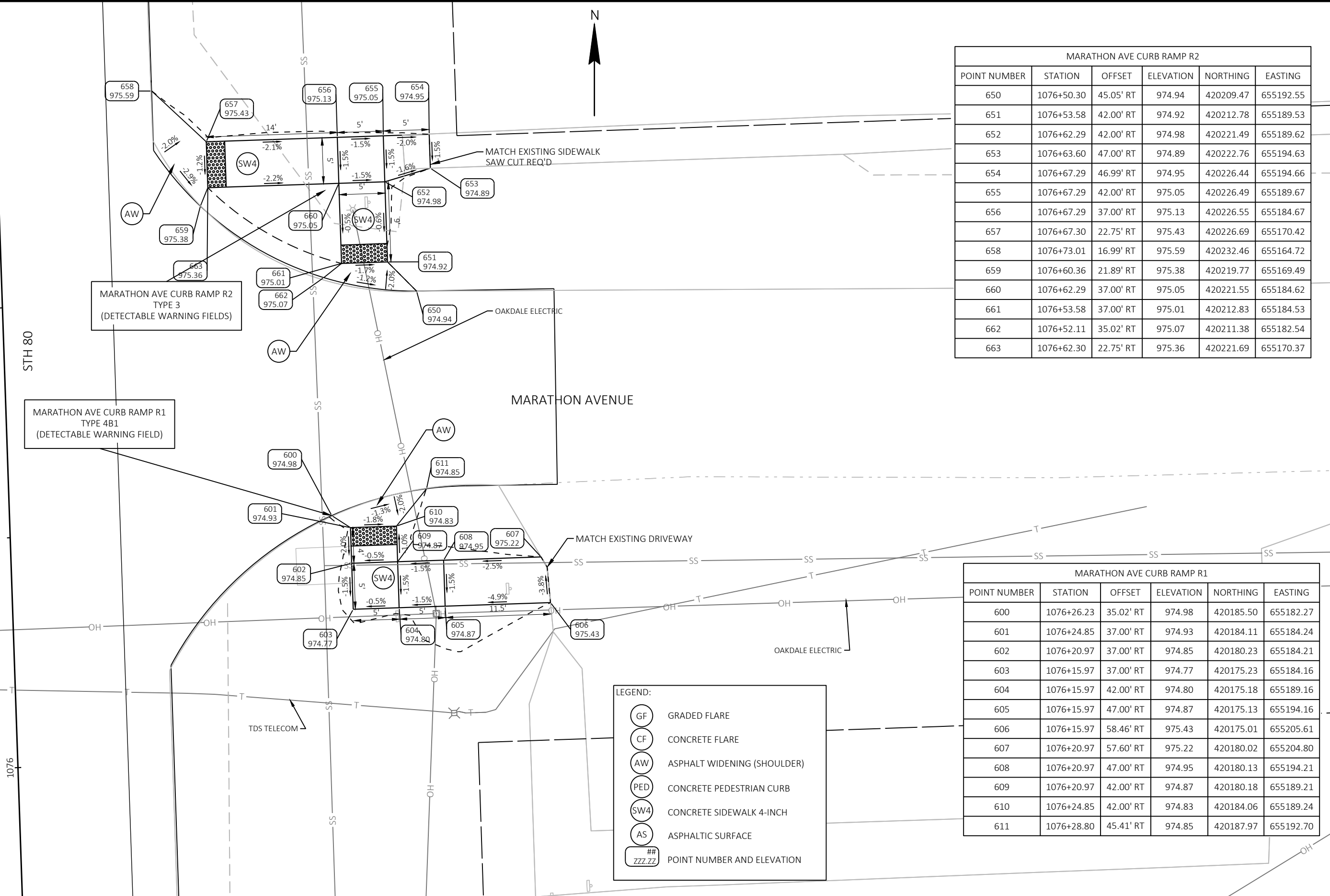
MARATHON AVE CURB RAMP L1					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
500	1076+27.10	50.36' LT	975.81	420187.23	655096.91
501	1076+24.94	48.36' LT	975.78	420185.05	655098.89
502	1076+19.94	48.35' LT	975.68	420180.05	655098.85
503	1076+14.94	48.35' LT	975.59	420175.05	655098.80
504	1076+09.94	48.34' LT	975.50	420170.05	655098.76
505	1076+09.94	44.50' LT	975.53	420170.01	655102.60
506	1076+14.94	43.35' LT	975.58	420175.00	655103.80
507	1076+19.94	43.35' LT	975.64	420180.00	655103.85
508	1076+24.94	43.36' LT	975.70	420185.00	655103.89
509	1076+26.84	41.30' LT	975.71	420186.88	655105.97

LEGEND:

- GRADED FLARE
- CONCRETE FLARE
- ASPHALT WIDENING (SHOULDER)
- CONCRETE PEDESTRIAN CURB
- CONCRETE SIDEWALK 4-INCH
- ASPHALTIC SURFACE
- POINT NUMBER AND ELEVATION







MARATHON AVE CURB RAMP R2					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
650	1076+50.30	45.05' RT	974.94	420209.47	655192.55
651	1076+53.58	42.00' RT	974.92	420212.78	655189.53
652	1076+62.29	42.00' RT	974.98	420221.49	655189.62
653	1076+63.60	47.00' RT	974.89	420222.76	655194.63
654	1076+67.29	46.99' RT	974.95	420226.44	655194.66
655	1076+67.29	42.00' RT	975.05	420226.49	655189.67
656	1076+67.29	37.00' RT	975.13	420226.55	655184.67
657	1076+67.30	22.75' RT	975.43	420226.69	655170.42
658	1076+73.01	16.99' RT	975.59	420232.46	655164.72
659	1076+60.36	21.89' RT	975.38	420219.77	655169.49
660	1076+62.29	37.00' RT	975.05	420221.55	655184.62
661	1076+53.58	37.00' RT	975.01	420212.83	655184.53
662	1076+52.11	35.02' RT	975.07	420211.38	655182.54
663	1076+62.30	22.75' RT	975.36	420221.69	655170.37

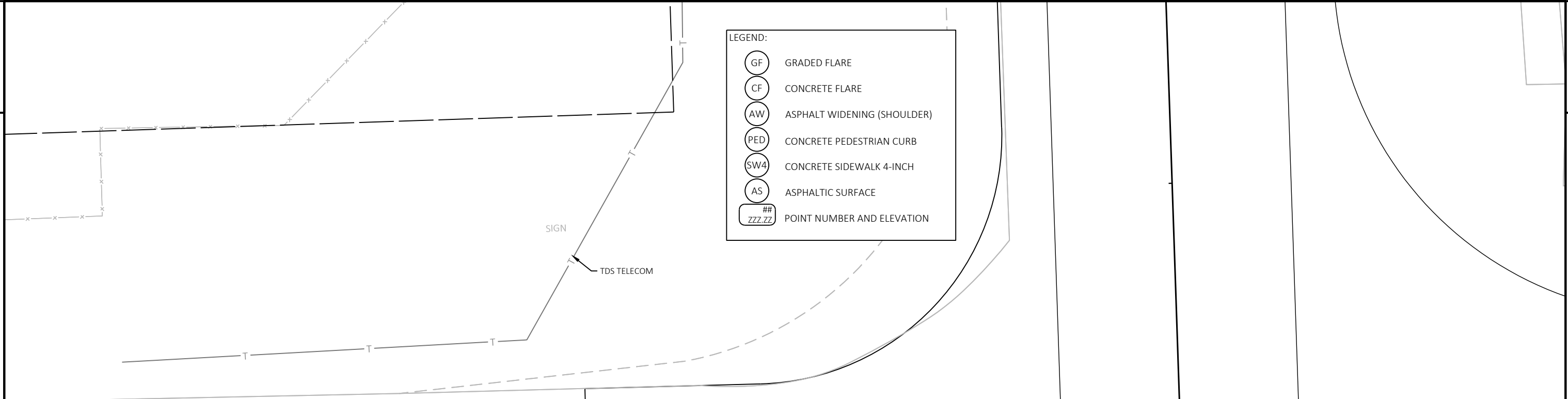
MARATHON AVE CURB RAMP R1					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
600	1076+26.23	35.02' RT	974.98	420185.50	655182.27
601	1076+24.85	37.00' RT	974.93	420184.11	655184.24
602	1076+20.97	37.00' RT	974.85	420180.23	655184.21
603	1076+15.97	37.00' RT	974.77	420175.23	655184.16
604	1076+15.97	42.00' RT	974.80	420175.18	655189.16
605	1076+15.97	47.00' RT	974.87	420175.13	655194.16
606	1076+15.97	58.46' RT	975.43	420175.01	655205.61
607	1076+20.97	57.60' RT	975.22	420180.02	655204.80
608	1076+20.97	47.00' RT	974.95	420180.13	655194.21
609	1076+20.97	42.00' RT	974.87	420180.18	655189.21
610	1076+24.85	42.00' RT	974.83	420184.06	655189.24
611	1076+28.80	45.41' RT	974.85	420187.97	655192.70

**LEGEND:**

- (GF) GRADED FLARE
- (CF) CONCRETE FLARE
- (AW) ASPHALT WIDENING (SHOULDER)
- (PED) CONCRETE PEDESTRIAN CURB
- (SW4) CONCRETE SIDEWALK 4-INCH
- (AS) ASPHALTIC SURFACE
- (##) POINT NUMBER AND ELEVATION

LEGEND:

- (GF) GRADED FLARE
- (CF) CONCRETE FLARE
- (AW) ASPHALT WIDENING (SHOULDER)
- (PED) CONCRETE PEDESTRIAN CURB
- (SW4) CONCRETE SIDEWALK 4-INCH
- (AS) ASPHALTIC SURFACE
- ##  
ZZZ.ZZ POINT NUMBER AND ELEVATION

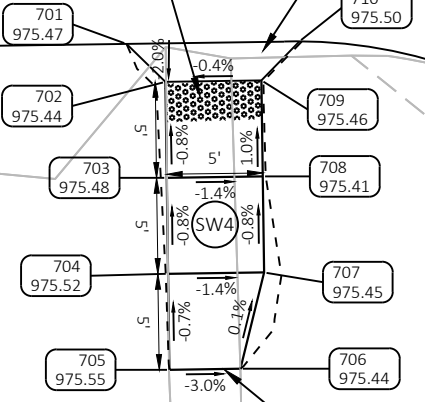


TAYLOR AVENUE

1080

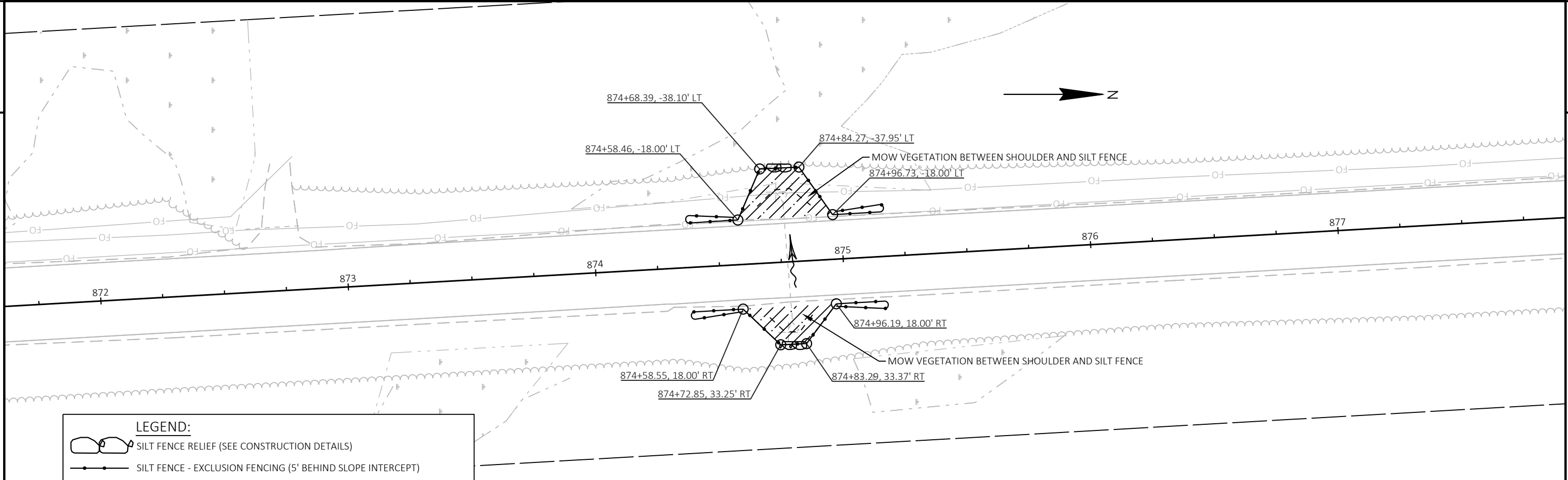
STH 80

TAYLOR AVE CURB RAMP L1  
TYPE 4B1  
(DETECTABLE WARNING FIELD)


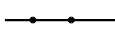

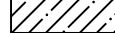
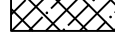



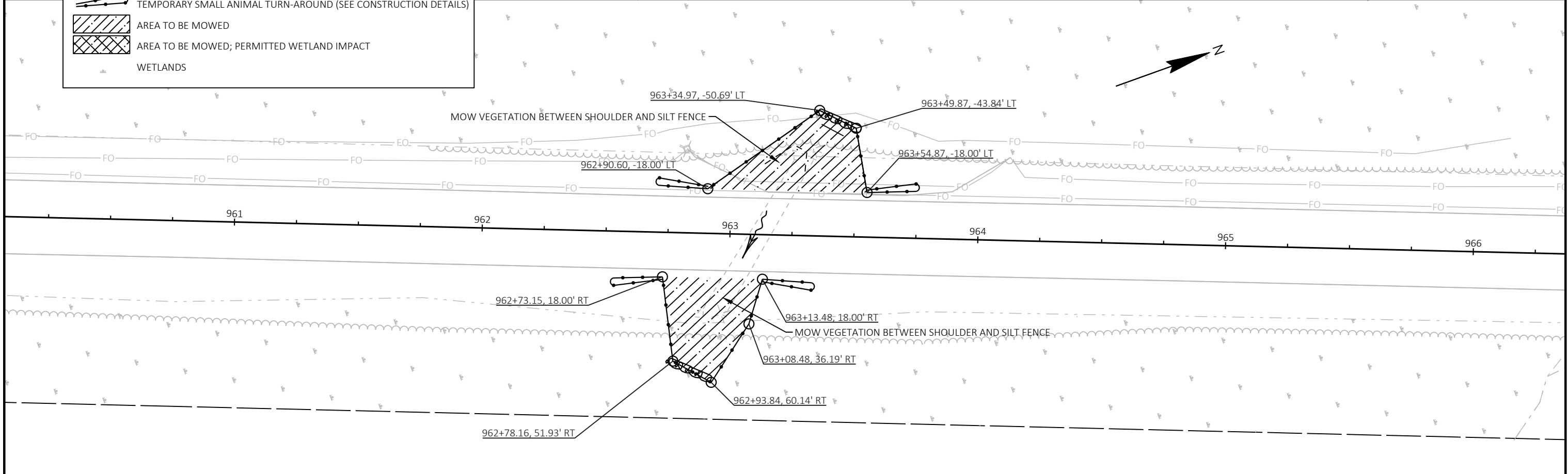
MATCH EXISTING SIDEWALK  
SAW CUT REQ'D

TAYLOR AVE CURB RAMP L1					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
701	1079+87.85	50.02' LT	975.47	420547.96	655100.86
702	1079+85.81	48.06' LT	975.44	420545.90	655102.80
703	1079+80.81	48.15' LT	975.48	420540.90	655102.66
704	1079+75.81	48.25' LT	975.52	420535.90	655102.51
705	1079+70.81	48.35' LT	975.55	420530.91	655102.36
706	1079+70.74	44.65' LT	975.44	420530.80	655106.06
707	1079+75.72	43.25' LT	975.45	420535.76	655107.50
708	1079+80.71	43.15' LT	975.41	420540.75	655107.65
709	1079+85.71	43.06' LT	975.46	420545.75	655107.80
710	1079+87.67	41.02' LT	975.50	420547.69	655109.86





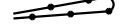



**LEGEND:**

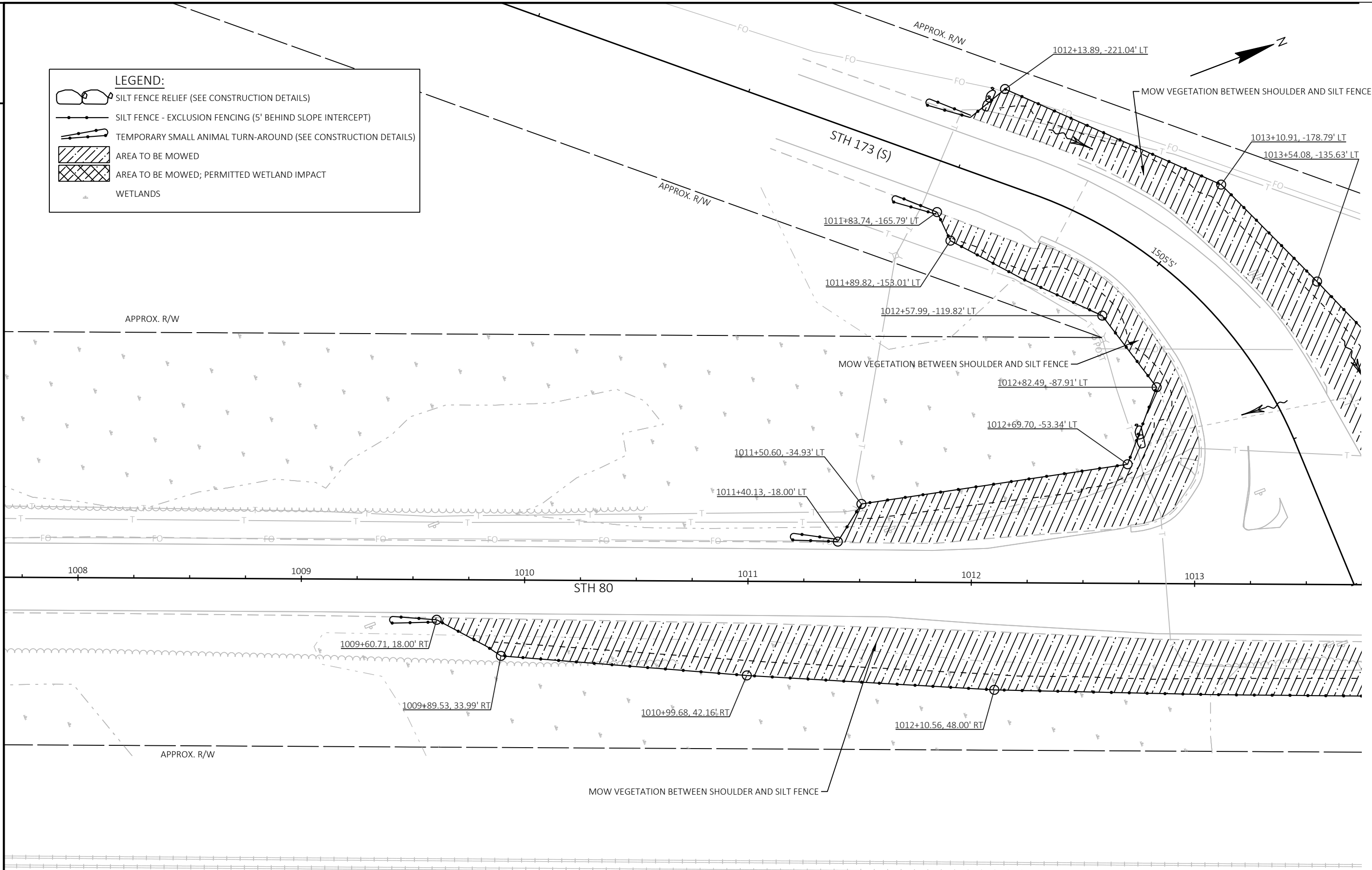
-  SILT FENCE RELIEF (SEE CONSTRUCTION DETAILS)
-  SILT FENCE - EXCLUSION FENCING (5' BEHIND SLOPE INTERCEPT)
-  TEMPORARY SMALL ANIMAL TURN-AROUND (SEE CONSTRUCTION DETAILS)
-  AREA TO BE MOWED
-  AREA TO BE MOWED; PERMITTED WETLAND IMPACT
-  WETLANDS



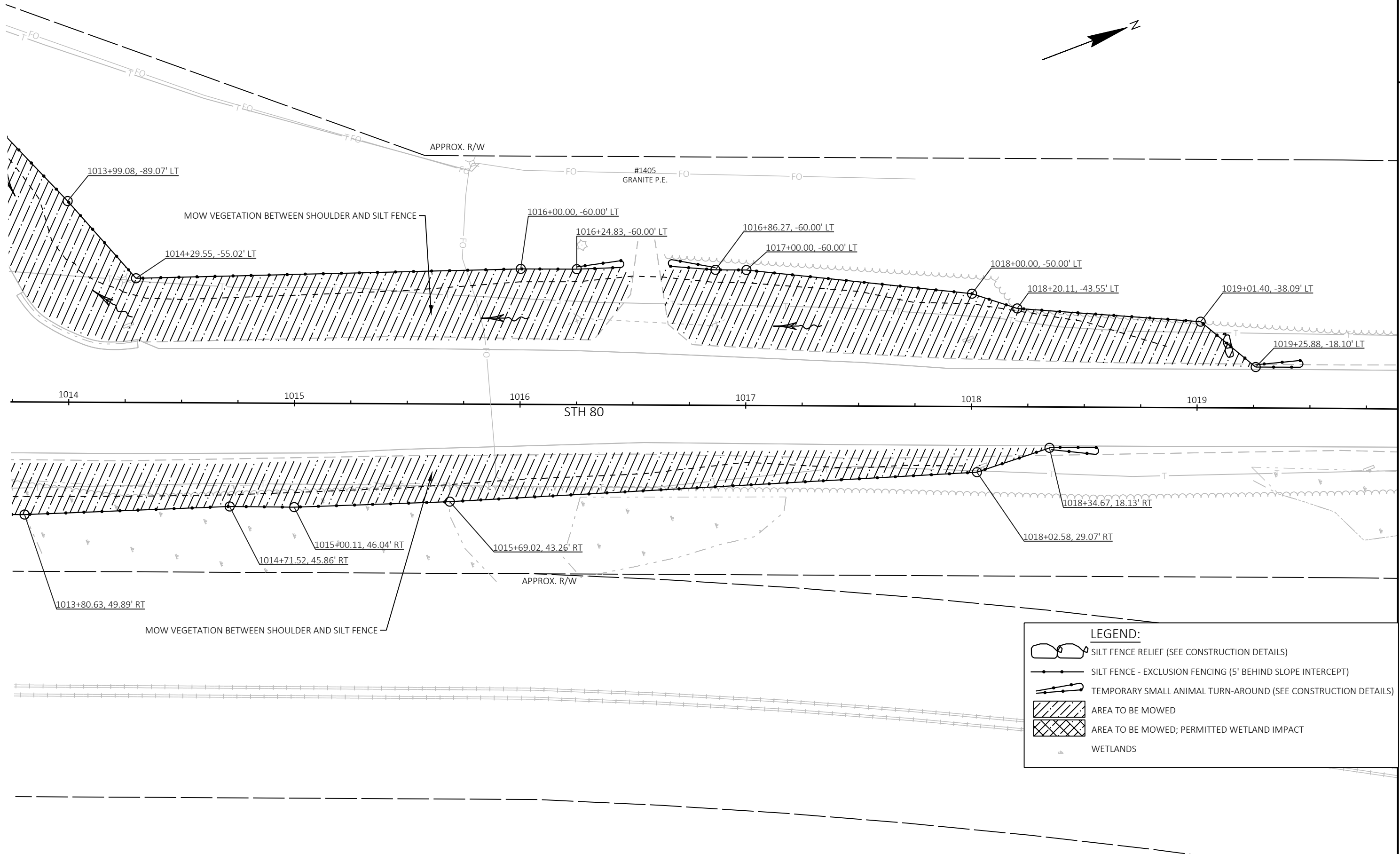
PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	EROSION CONTROL - EXCLUSION FENCING/SITE MOWING	SHEET	<b>E</b>
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**LEGEND:**

-  SILT FENCE RELIEF (SEE CONSTRUCTION DETAILS)
-  SILT FENCE - EXCLUSION FENCING (5' BEHIND SLOPE INTERCEPT)
-  TEMPORARY SMALL ANIMAL TURN-AROUND (SEE CONSTRUCTION DETAILS)
-  AREA TO BE MOWED
-  AREA TO BE MOWED; PERMITTED WETLAND IMPACT
-  WETLANDS

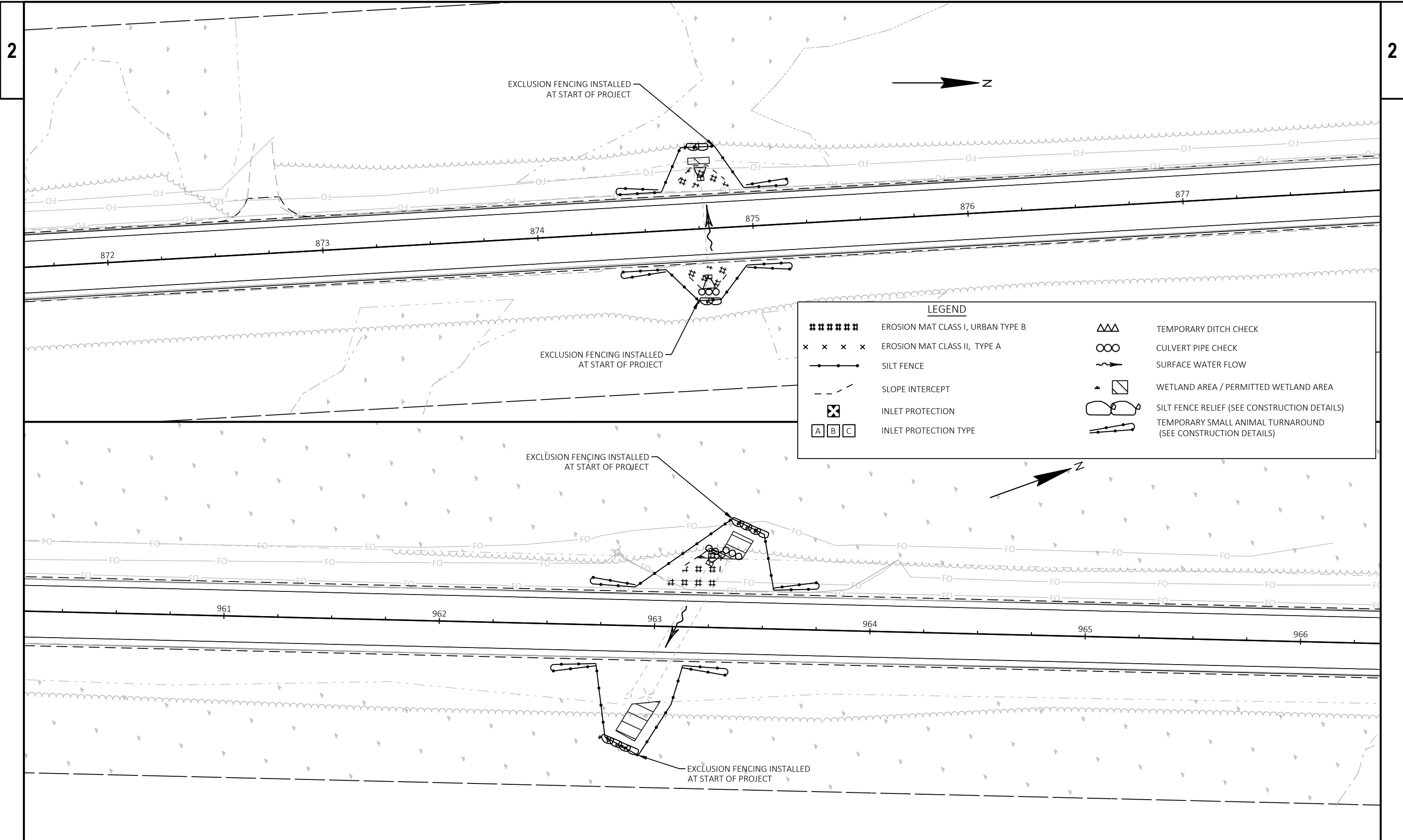


PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	EROSION CONTROL - EROSION CONTROL - EXCLUSION FENCING/SITE MOWING	SHEET	<b>E</b>
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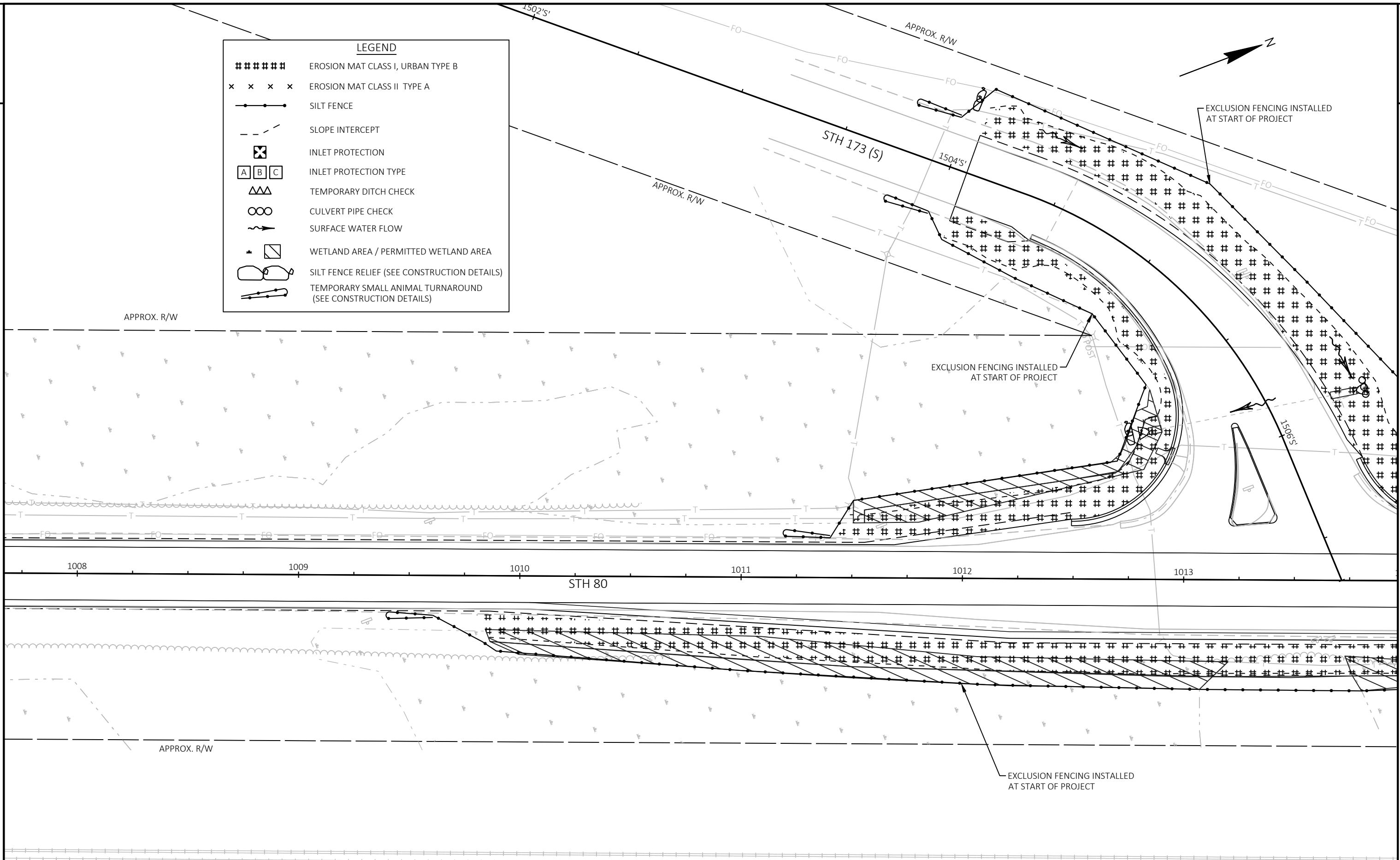


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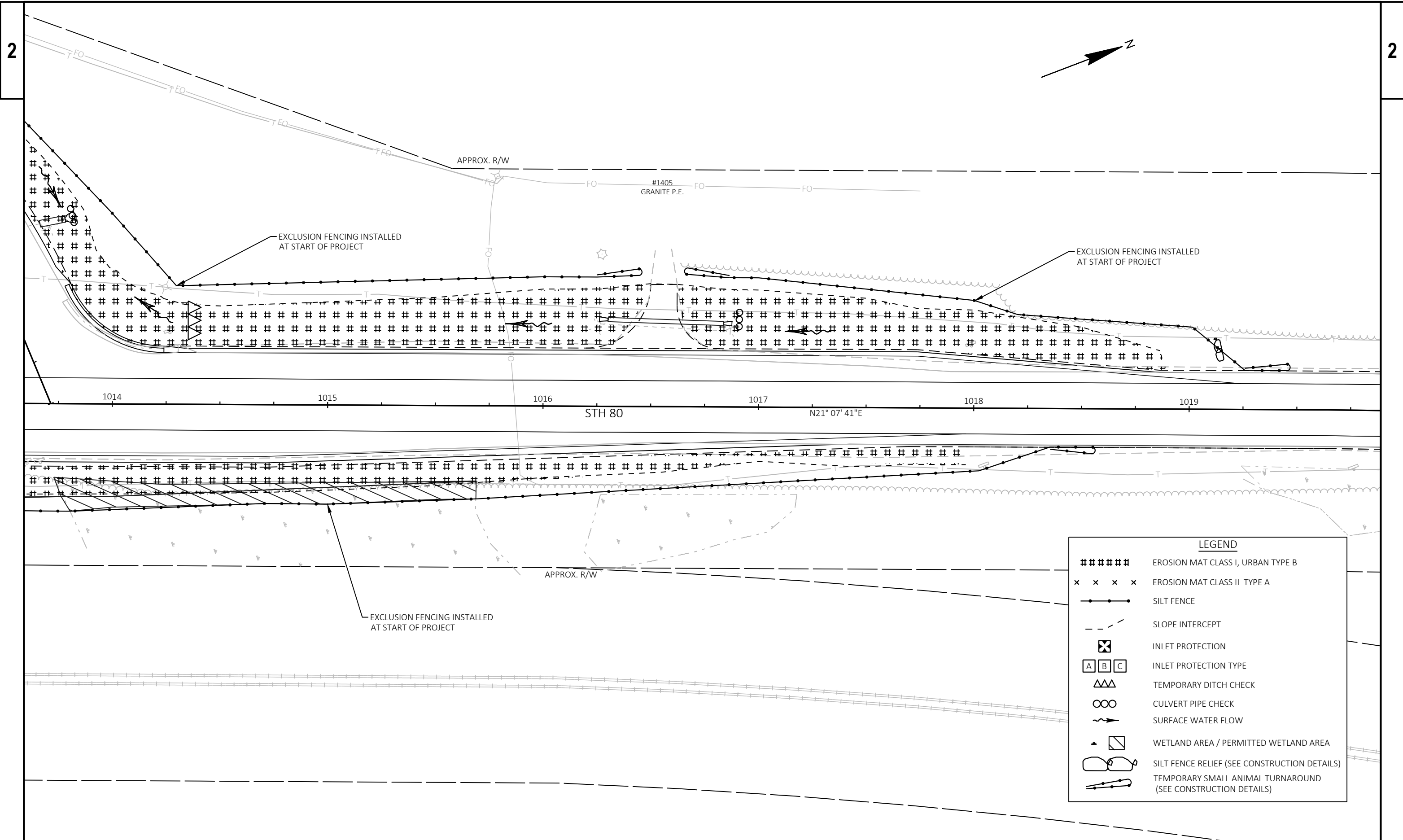
- SILT FENCE RELIEF (SEE CONSTRUCTION DETAILS)
- SILT FENCE - EXCLUSION FENCING (5' BEHIND SLOPE INTERCEPT)
- TEMPORARY SMALL ANIMAL TURN-AROUND (SEE CONSTRUCTION DETAILS)
- AREA TO BE MOWED
- AREA TO BE MOWED; PERMITTED WETLAND IMPACT
- WETLANDS



LEGEND	
#####	EROSION MAT CLASS I, URBAN TYPE B
x x x x	EROSION MAT CLASS II TYPE A
—●—●—●—●—	SILT FENCE
- - - -	SLOPE INTERCEPT
⊠	INLET PROTECTION
A B C	INLET PROTECTION TYPE
▲▲▲	TEMPORARY DITCH CHECK
∞∞	CULVERT PIPE CHECK
~>	SURFACE WATER FLOW
▨	WETLAND AREA / PERMITTED WETLAND AREA
⌒	SILT FENCE RELIEF (SEE CONSTRUCTION DETAILS)
↻	TEMPORARY SMALL ANIMAL TURNAROUND (SEE CONSTRUCTION DETAILS)

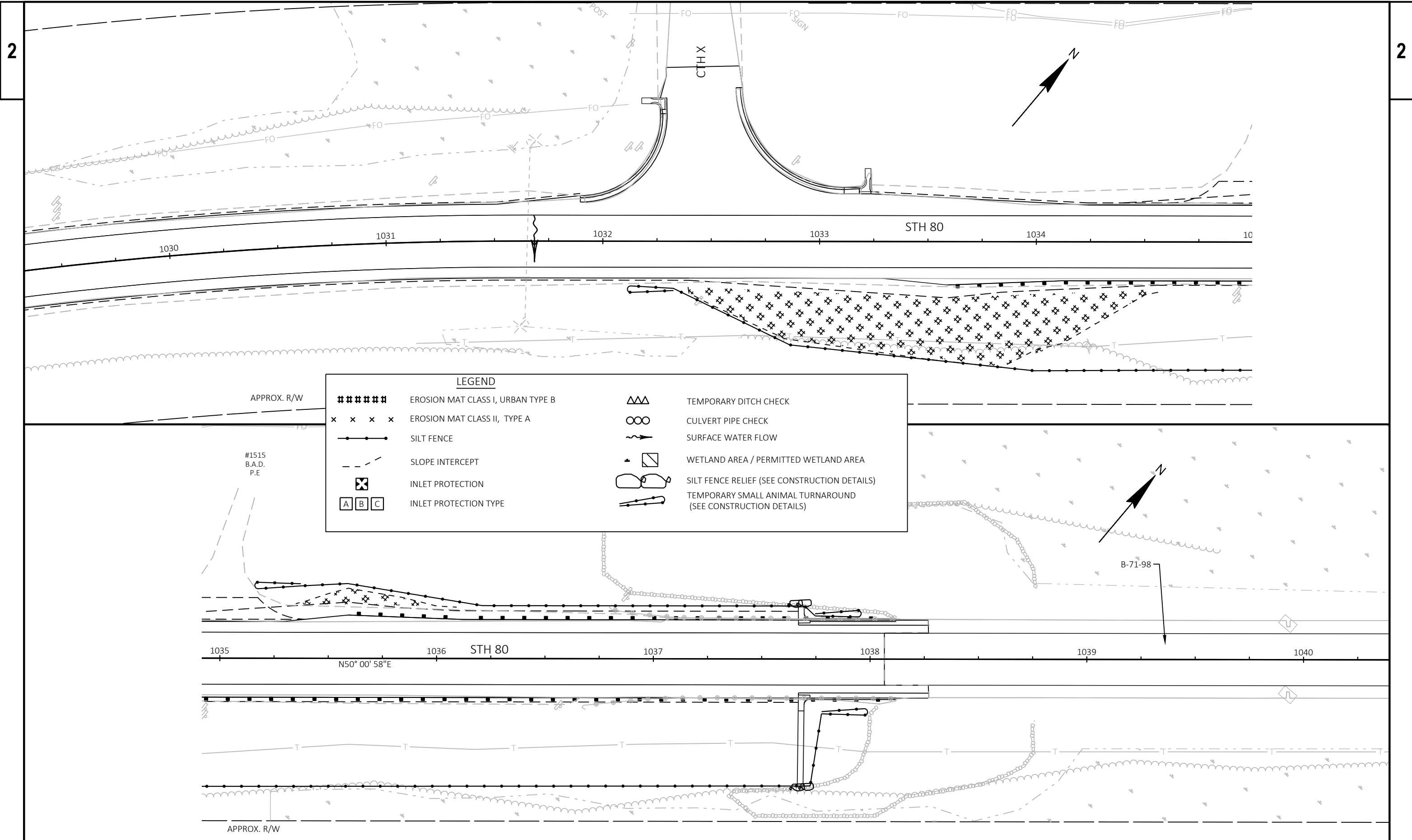


PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	EROSION CONTROL - CONSTRUCTION	SHEET	E
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LEGEND	
#####	EROSION MAT CLASS I, URBAN TYPE B
x x x x	EROSION MAT CLASS II TYPE A
—●—●—●—	SILT FENCE
- - - -	SLOPE INTERCEPT
⊗	INLET PROTECTION
A B C	INLET PROTECTION TYPE
△△△	TEMPORARY DITCH CHECK
∞∞	CULVERT PIPE CHECK
~>	SURFACE WATER FLOW
■ □	WETLAND AREA / PERMITTED WETLAND AREA
⌒	SILT FENCE RELIEF (SEE CONSTRUCTION DETAILS)
↺	TEMPORARY SMALL ANIMAL TURNAROUND (SEE CONSTRUCTION DETAILS)





LEGEND	
#####	EROSION MAT CLASS I, URBAN TYPE B
x x x x	EROSION MAT CLASS II, TYPE A
—●—●—●—	SILT FENCE
- - - -	SLOPE INTERCEPT
⊗	INLET PROTECTION
A B C	INLET PROTECTION TYPE
△△△	TEMPORARY DITCH CHECK
∞	CULVERT PIPE CHECK
~>	SURFACE WATER FLOW
▣	WETLAND AREA / PERMITTED WETLAND AREA
⌢	SILT FENCE RELIEF (SEE CONSTRUCTION DETAILS)
⌢	TEMPORARY SMALL ANIMAL TURNAROUND (SEE CONSTRUCTION DETAILS)

PROJECT NO: 1620-02-76

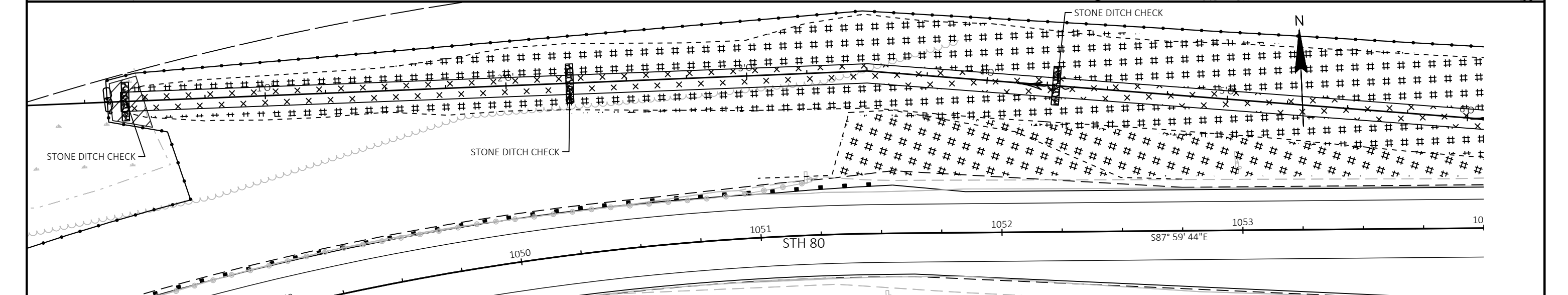
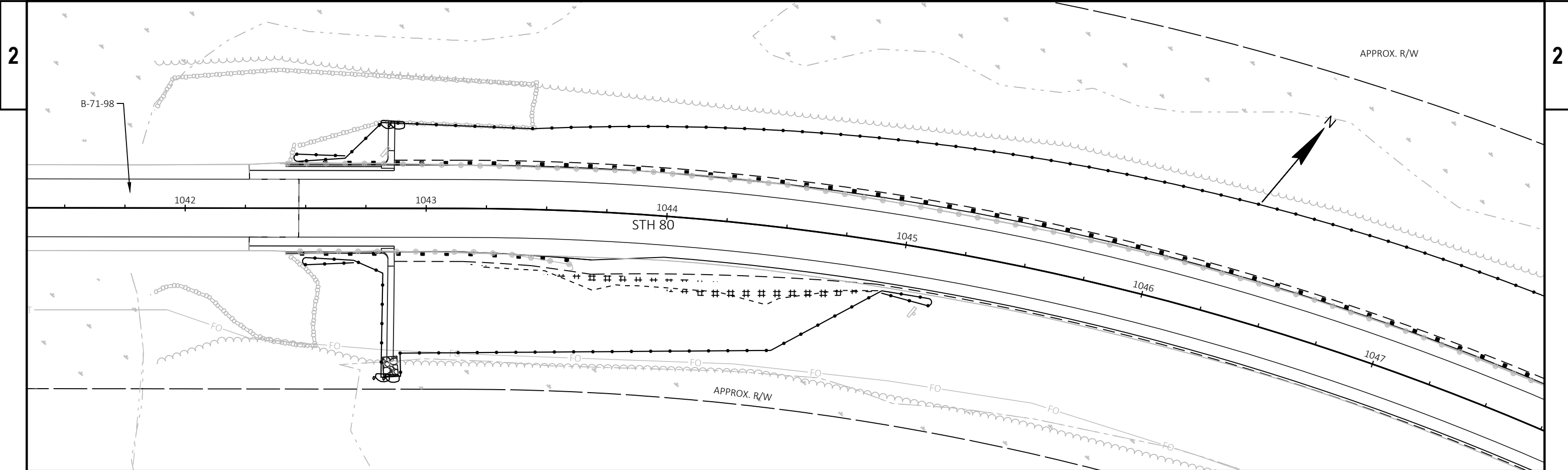
HWY: STH 80

COUNTY: WOOD

EROSION CONTROL - CONSTRUCTION

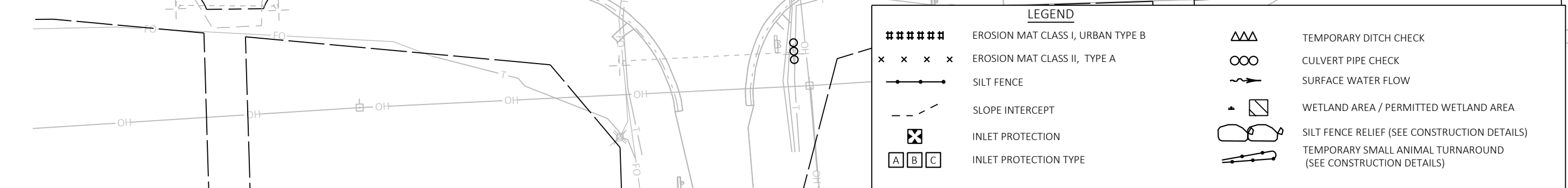
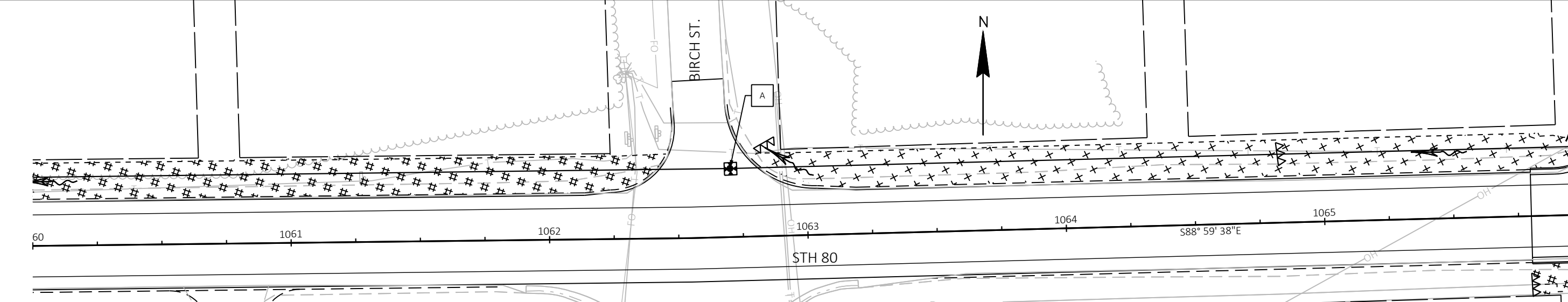
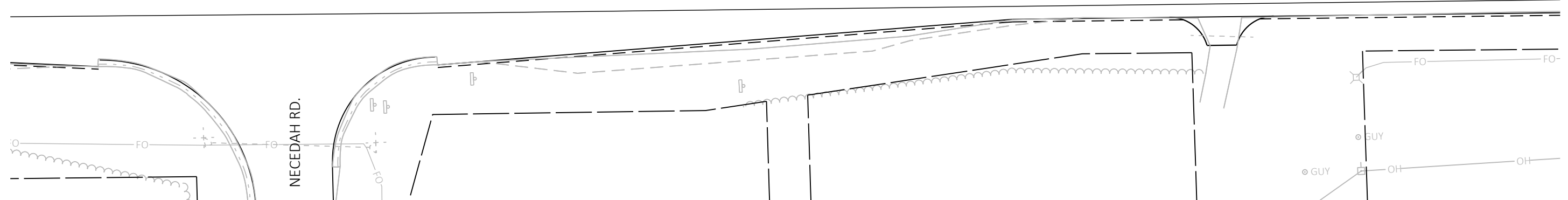
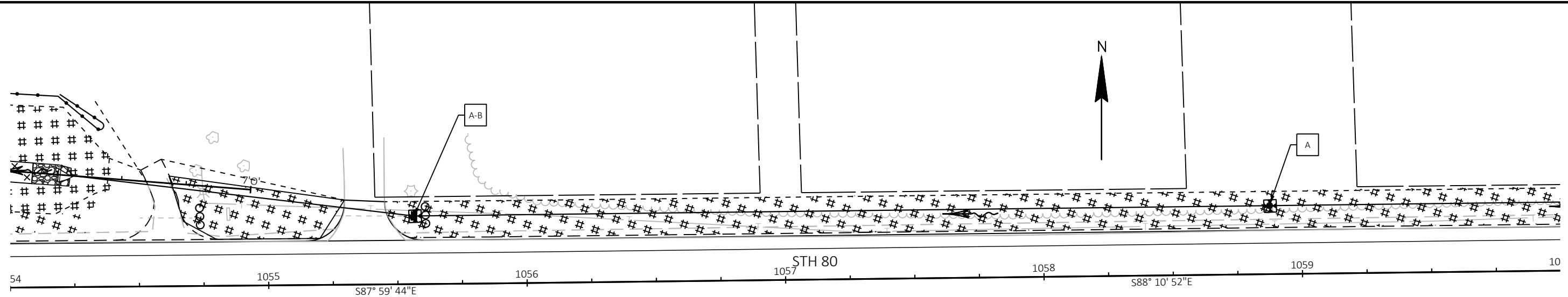
SHEET

E



LEGEND	
#####	EROSION MAT CLASS I, URBAN TYPE B
x x x x	EROSION MAT CLASS II, TYPE A
—●—●—●—	SILT FENCE
- - - -	SLOPE INTERCEPT
⊗	INLET PROTECTION
A B C	INLET PROTECTION TYPE
△△△	TEMPORARY DITCH CHECK
∞∞	CULVERT PIPE CHECK
~	SURFACE WATER FLOW
■	WETLAND AREA / PERMITTED WETLAND AREA
⎓	SILT FENCE RELIEF (SEE CONSTRUCTION DETAILS)
↔	TEMPORARY SMALL ANIMAL TURNAROUND (SEE CONSTRUCTION DETAILS)

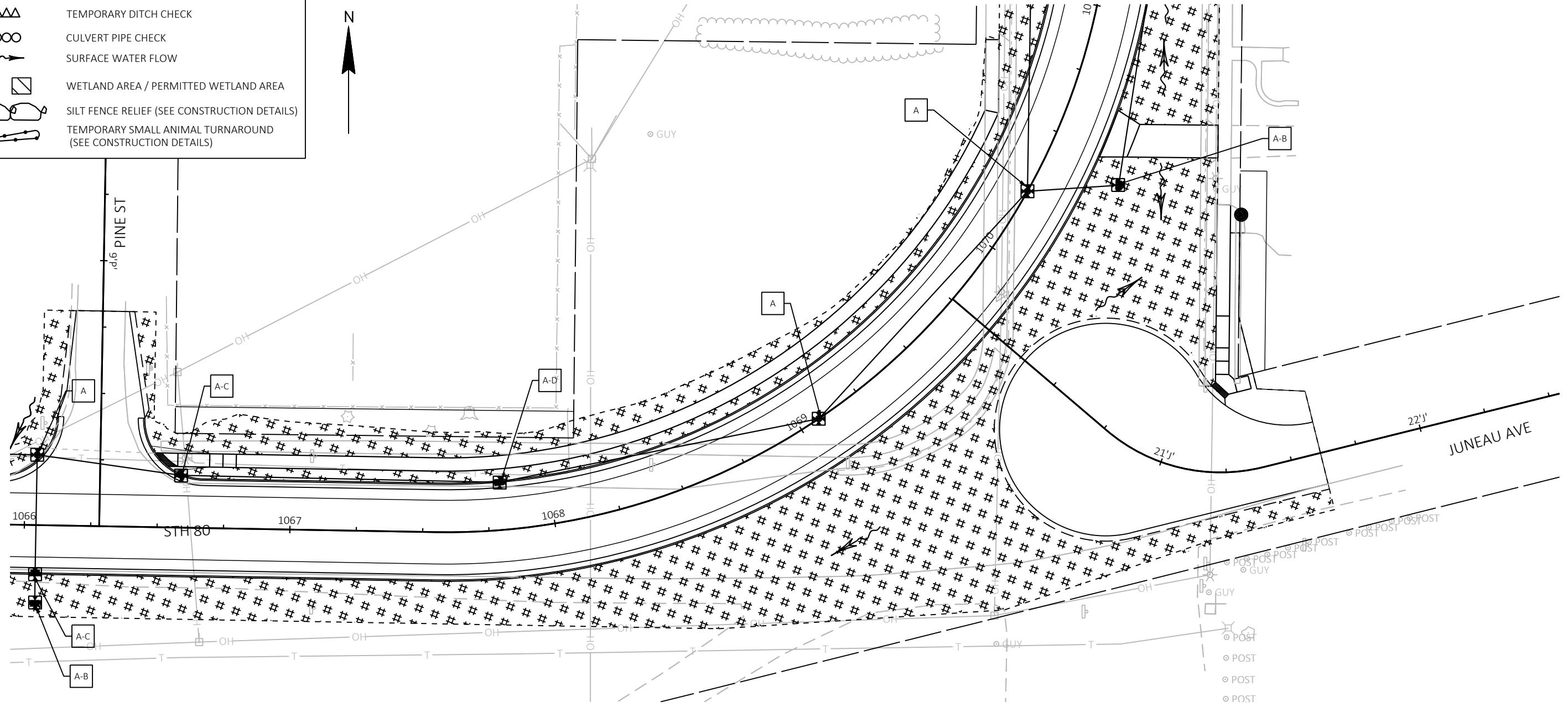
PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      EROSION CONTROL - CONSTRUCTION      SHEET E

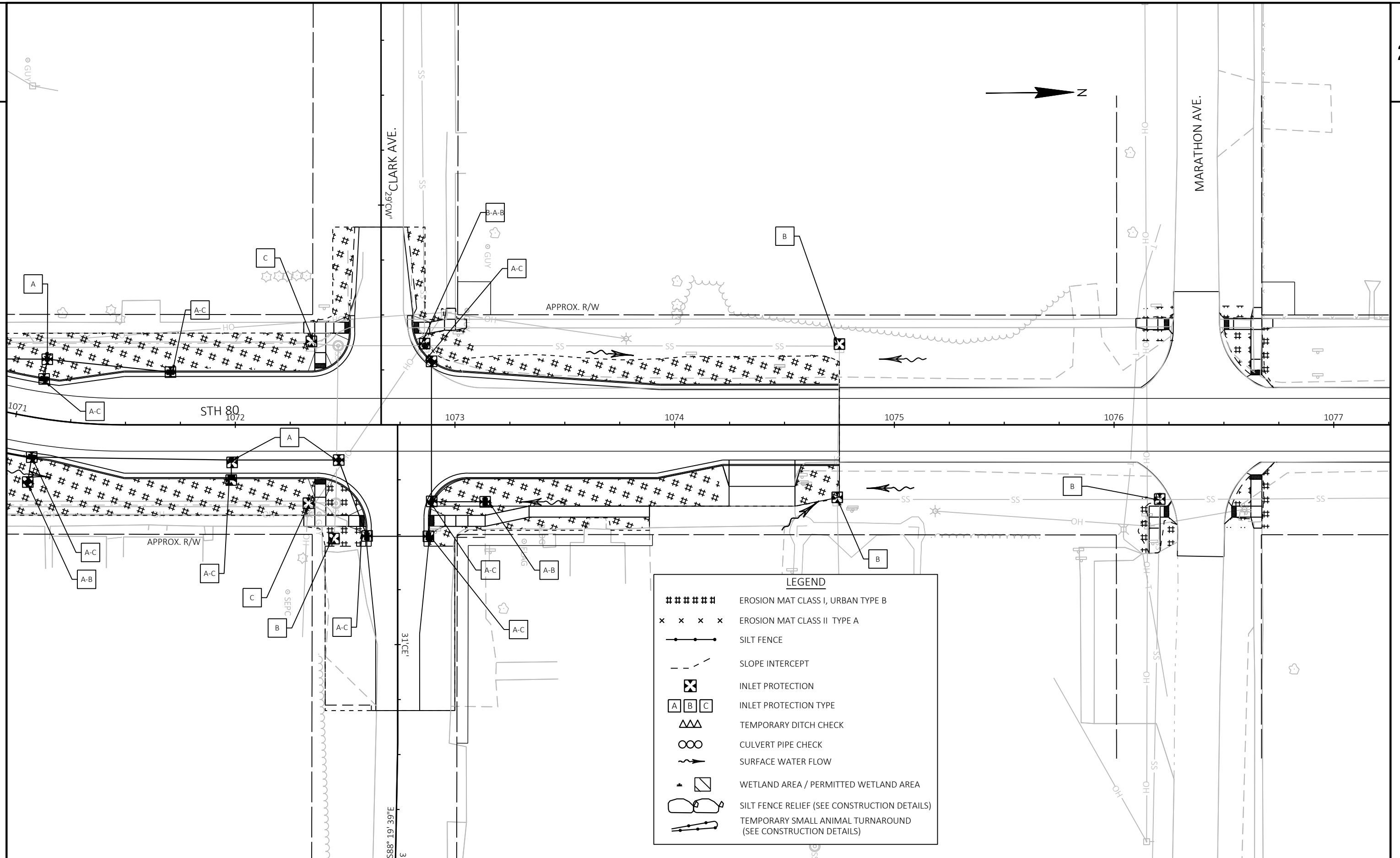


LEGEND	
#####	EROSION MAT CLASS I, URBAN TYPE B
x x x x	EROSION MAT CLASS II, TYPE A
—●—●—●—	SILT FENCE
- - - -	SLOPE INTERCEPT
⊗	INLET PROTECTION
A B C	INLET PROTECTION TYPE
△△△	TEMPORARY DITCH CHECK
∞∞	CULVERT PIPE CHECK
~>	SURFACE WATER FLOW
◻	WETLAND AREA / PERMITTED WETLAND AREA
⊕	SILT FENCE RELIEF (SEE CONSTRUCTION DETAILS)
—●—●—●—	TEMPORARY SMALL ANIMAL TURNAROUND (SEE CONSTRUCTION DETAILS)

LEGEND

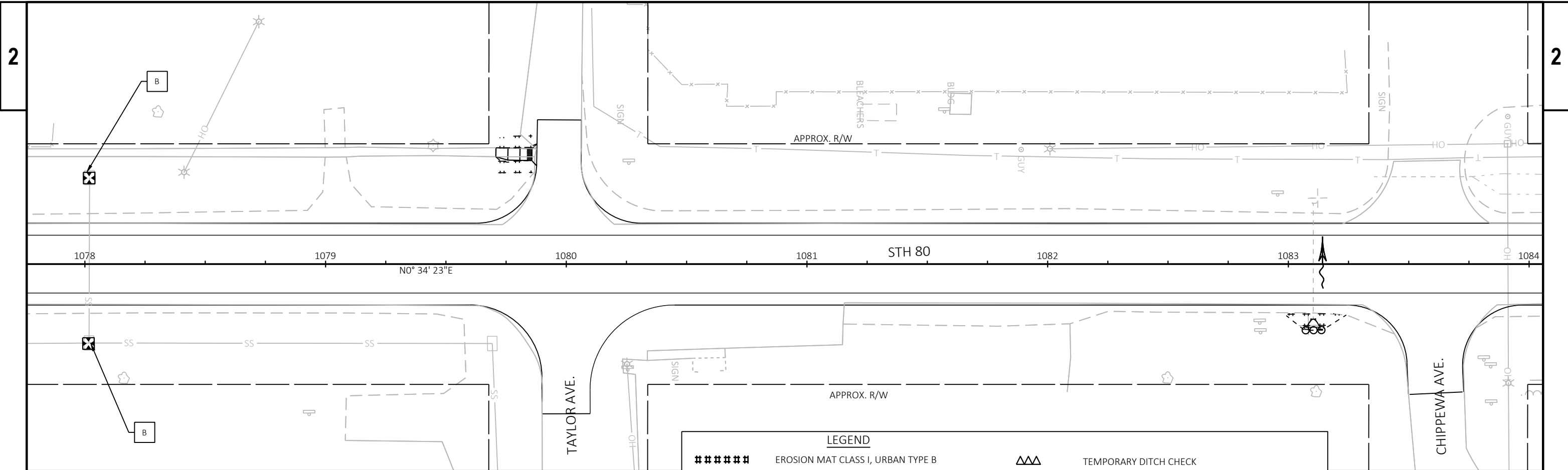
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- x x x x EROSION MAT CLASS II TYPE A
- SILT FENCE
- - - SLOPE INTERCEPT
- ⊗ INLET PROTECTION
- [A] [B] [C] INLET PROTECTION TYPE
- ▲▲▲ TEMPORARY DITCH CHECK
- ∞ CULVERT PIPE CHECK
- ↗ SURFACE WATER FLOW
- ◻ WETLAND AREA / PERMITTED WETLAND AREA
- 👁️ SILT FENCE RELIEF (SEE CONSTRUCTION DETAILS)
- 🔄 TEMPORARY SMALL ANIMAL TURNAROUND (SEE CONSTRUCTION DETAILS)





**LEGEND**

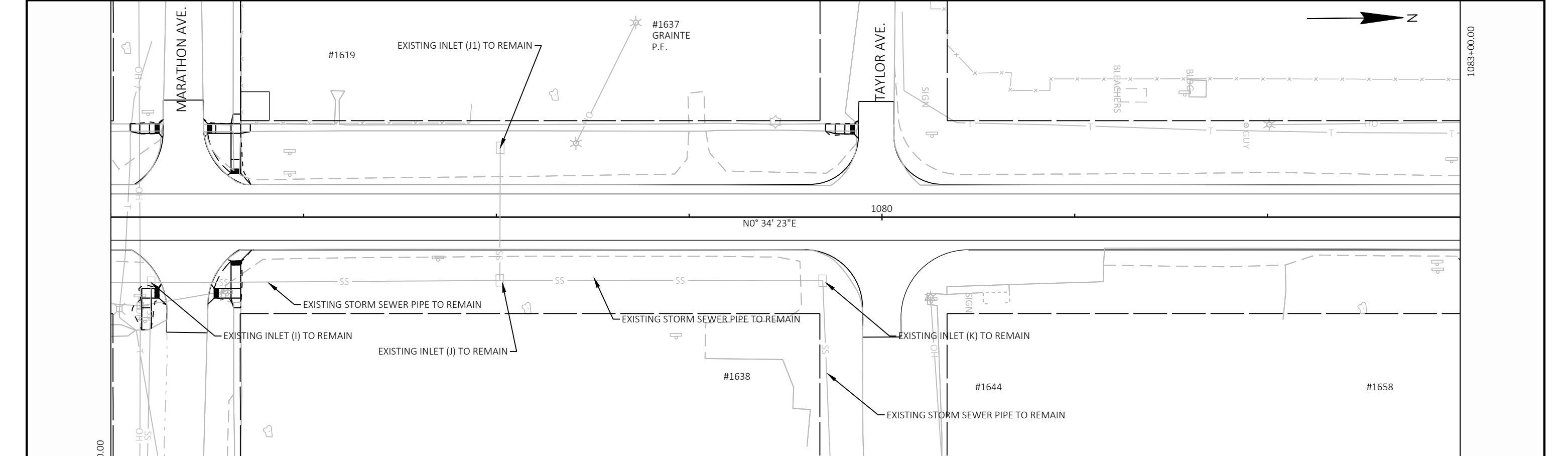
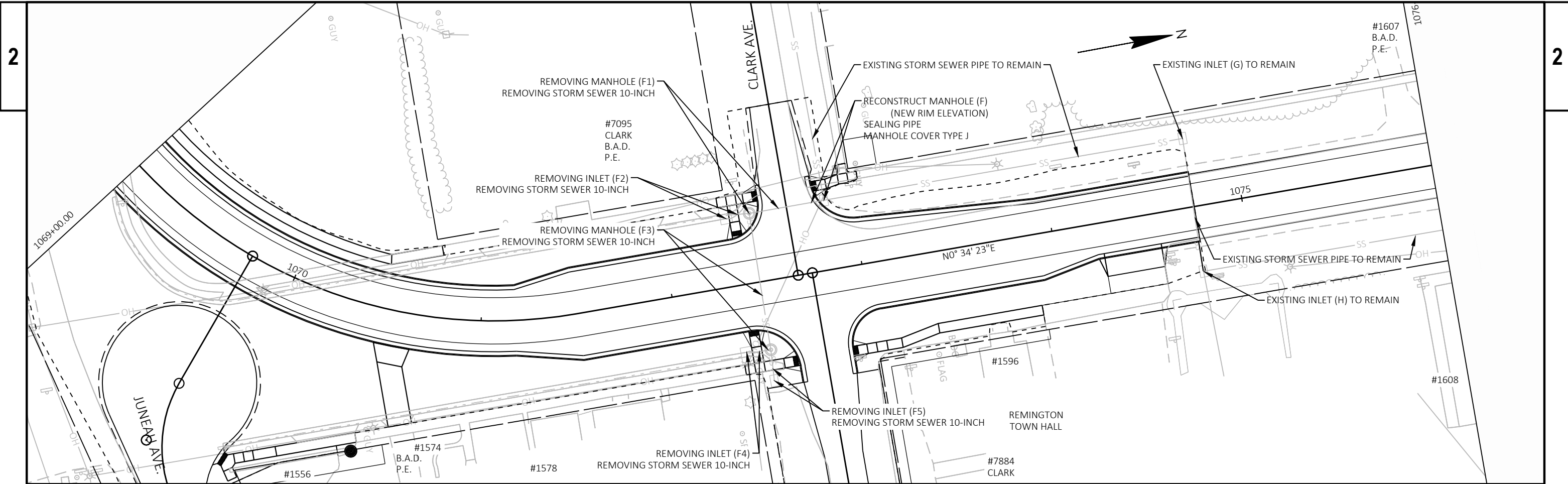
#####	EROSION MAT CLASS I, URBAN TYPE B
x x x x	EROSION MAT CLASS II TYPE A
—●—●—●—	SILT FENCE
- - -	SLOPE INTERCEPT
⊗	INLET PROTECTION
A B C	INLET PROTECTION TYPE
△△△	TEMPORARY DITCH CHECK
∞	CULVERT PIPE CHECK
~>	SURFACE WATER FLOW
⊠	WETLAND AREA / PERMITTED WETLAND AREA
⌋	SILT FENCE RELIEF (SEE CONSTRUCTION DETAILS)
↺	TEMPORARY SMALL ANIMAL TURNAROUND (SEE CONSTRUCTION DETAILS)



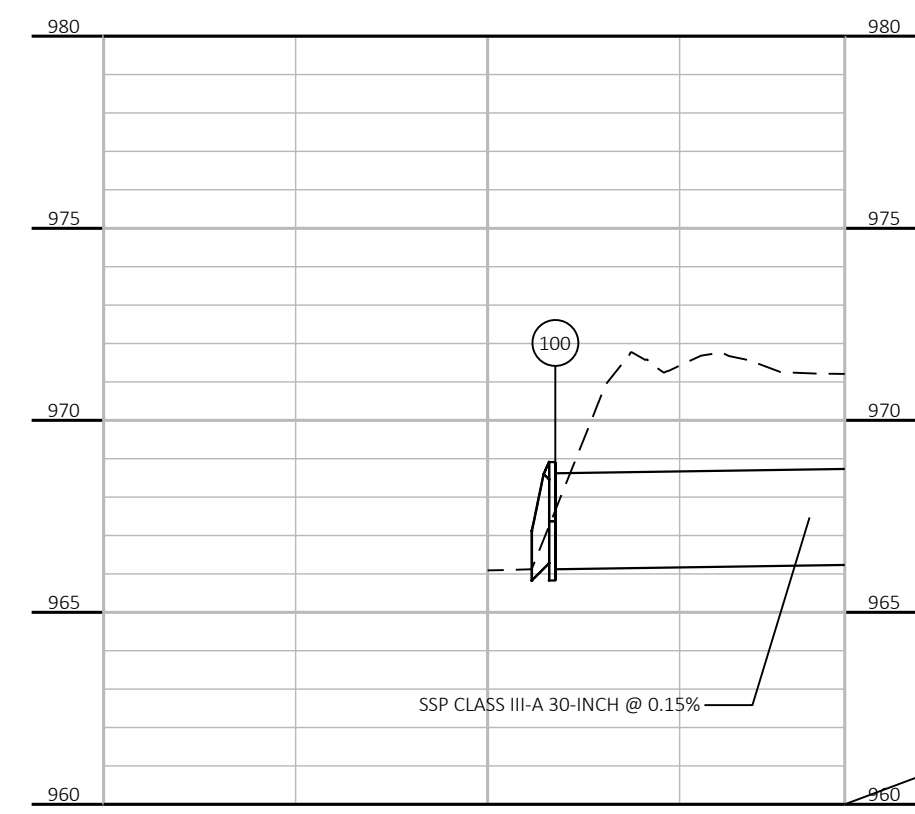
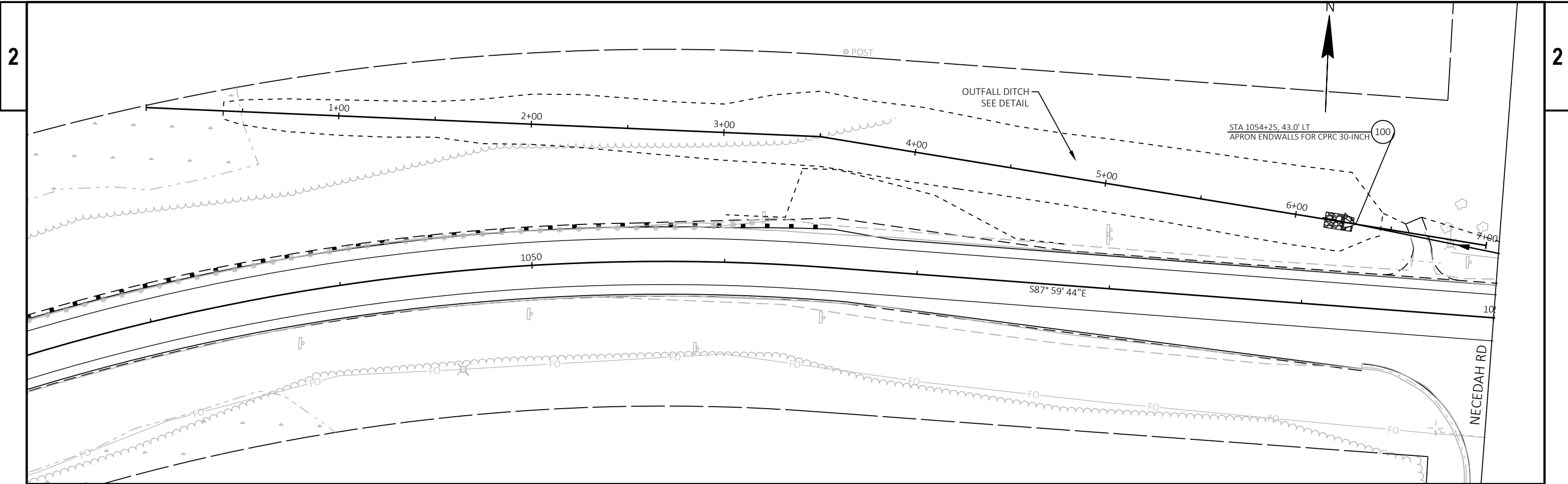
**LEGEND**

#####	EROSION MAT CLASS I, URBAN TYPE B	△△△	TEMPORARY DITCH CHECK
x x x x	EROSION MAT CLASS II, TYPE A	∞	CULVERT PIPE CHECK
—●—●—●—●—	SILT FENCE	~>	SURFACE WATER FLOW
- - -	SLOPE INTERCEPT	■	WETLAND AREA / PERMITTED WETLAND AREA
⊗	INLET PROTECTION	⌢	SILT FENCE RELIEF (SEE CONSTRUCTION DETAILS)
A B C	INLET PROTECTION TYPE	⌢	TEMPORARY SMALL ANIMAL TURNAROUND (SEE CONSTRUCTION DETAILS)

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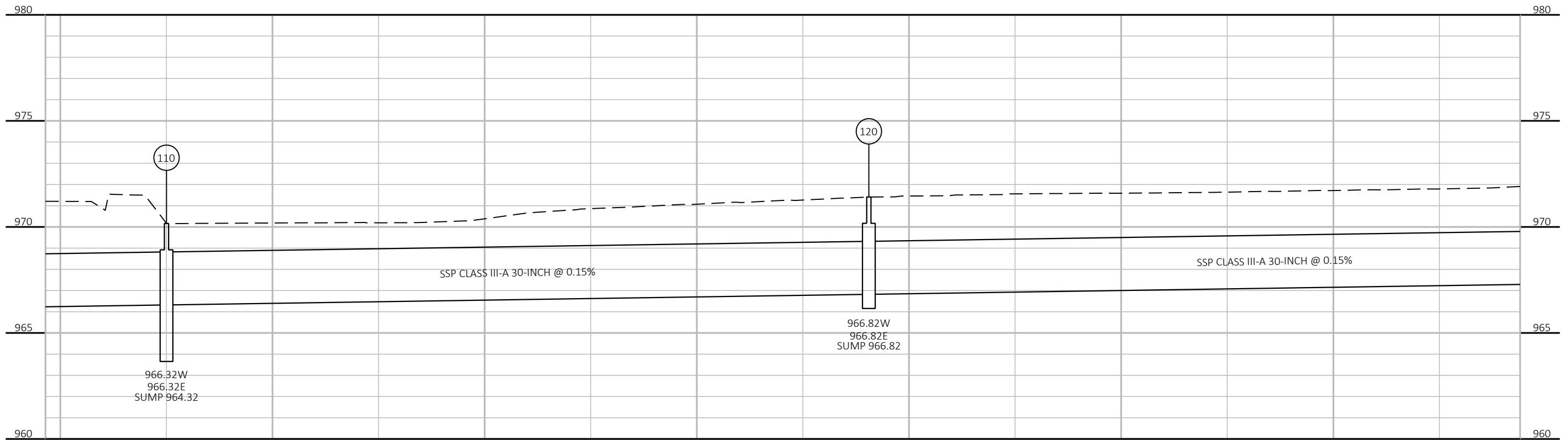
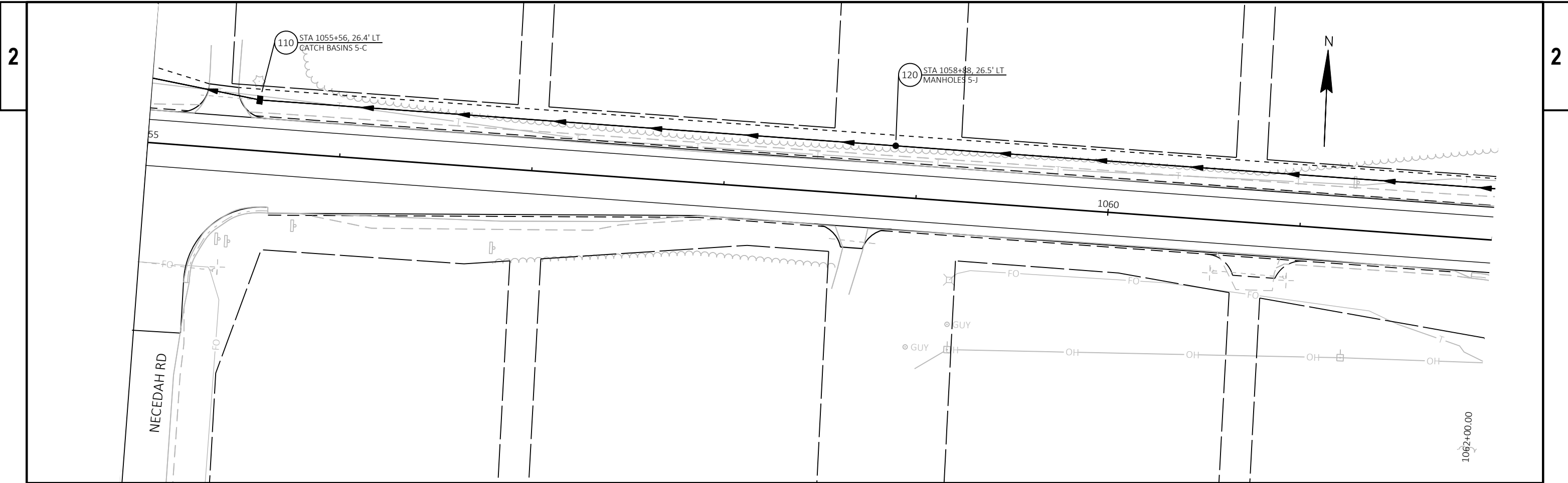


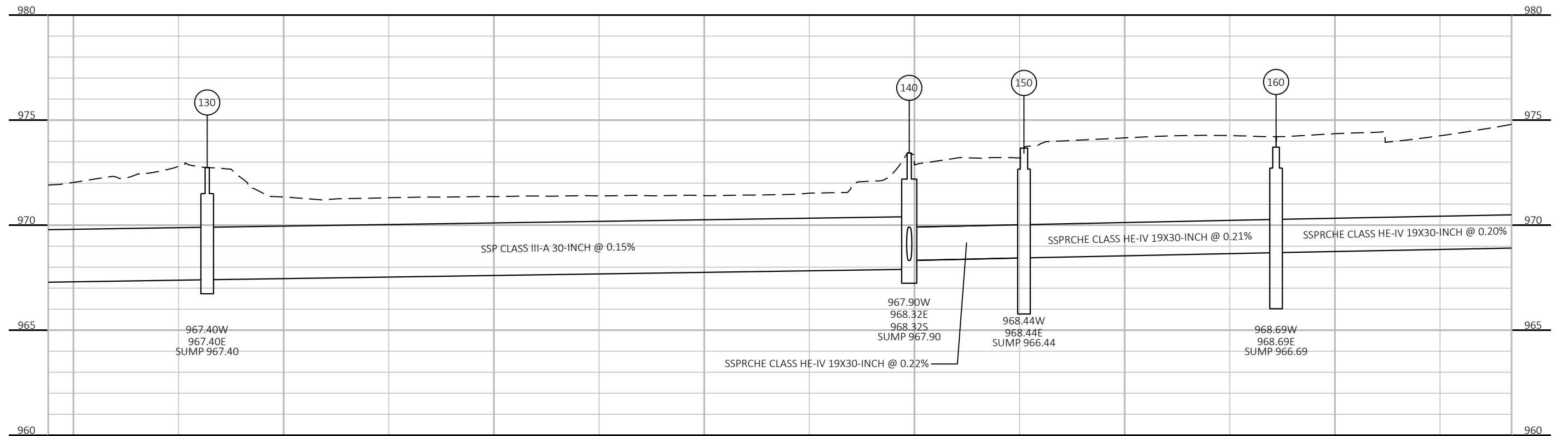
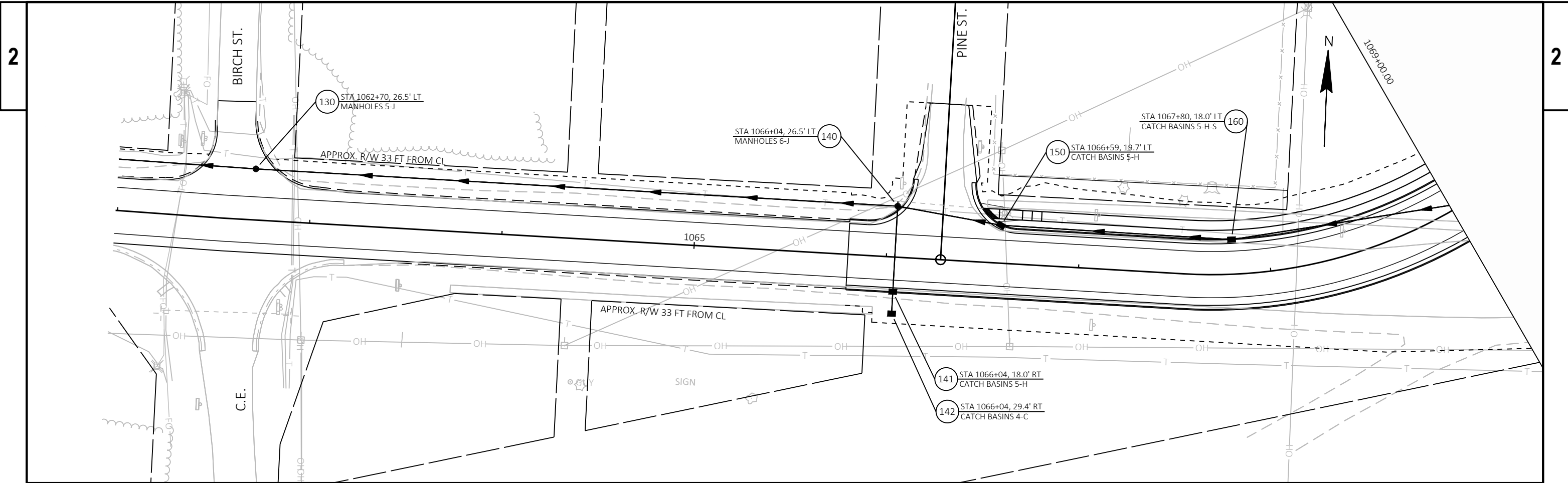
PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	STORM SEWER	STH 80 (EXISTING)	SHEET	E
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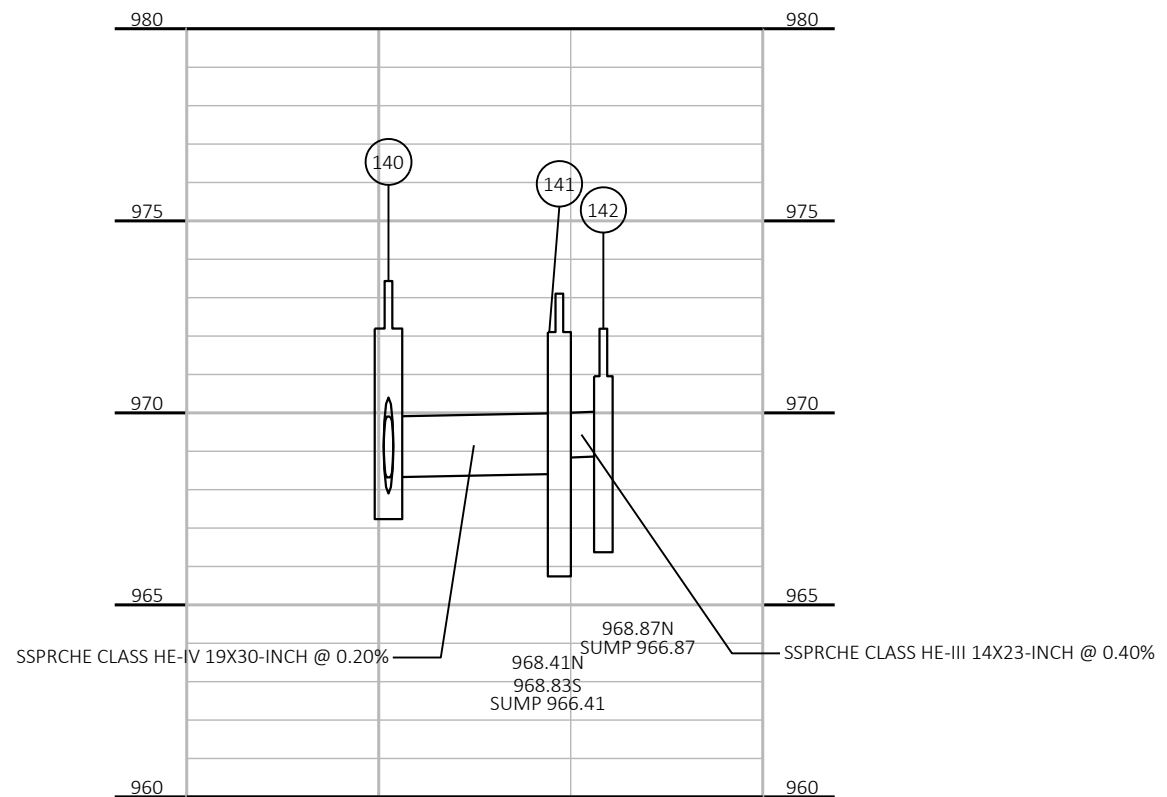
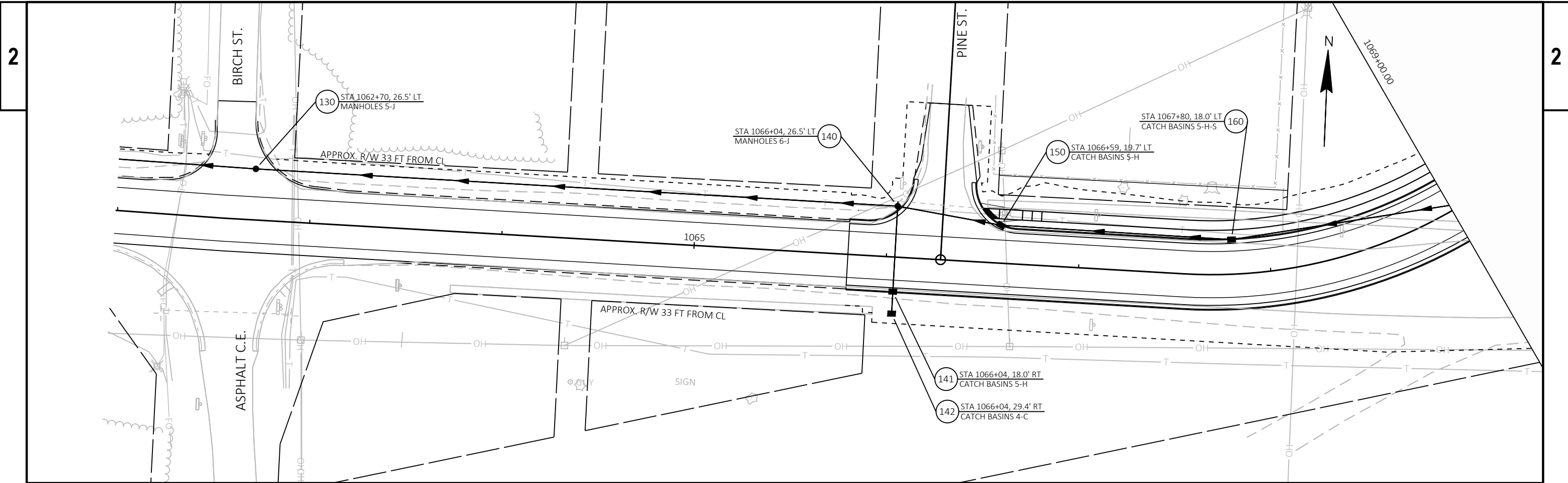


PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      STORM SEWER      STH 80      SHEET      E









PROJECT NO: 1620-02-76

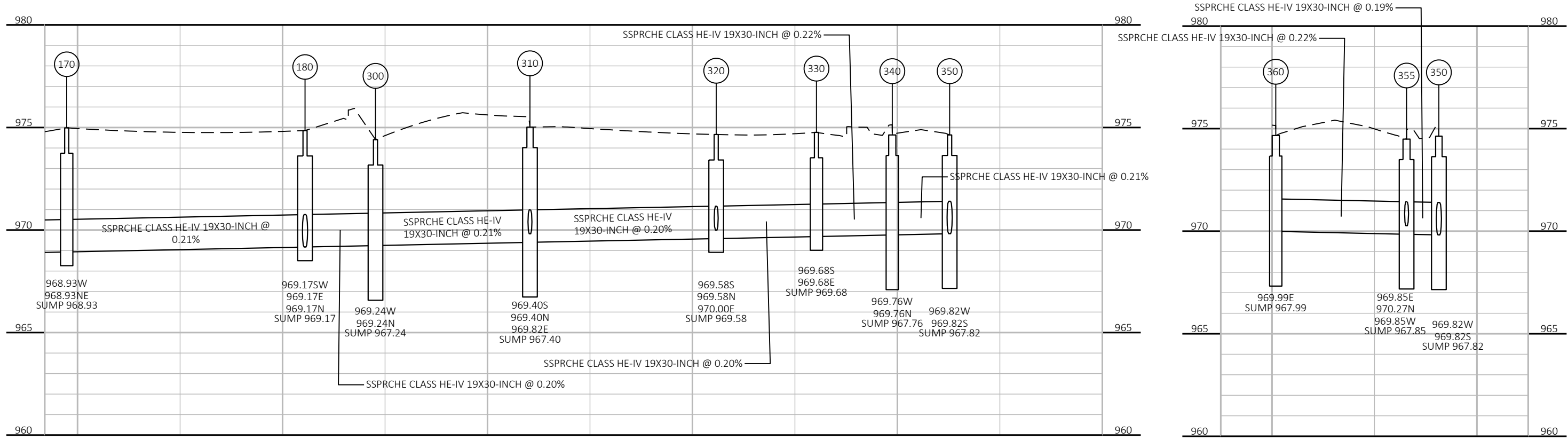
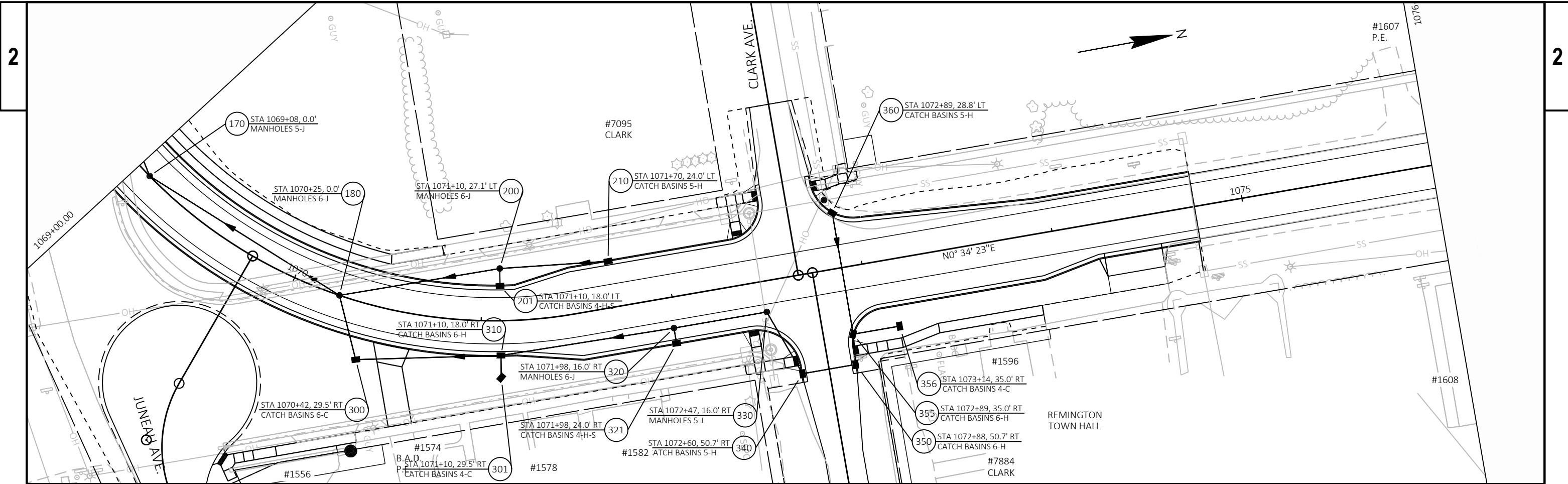
HWY: STH 80

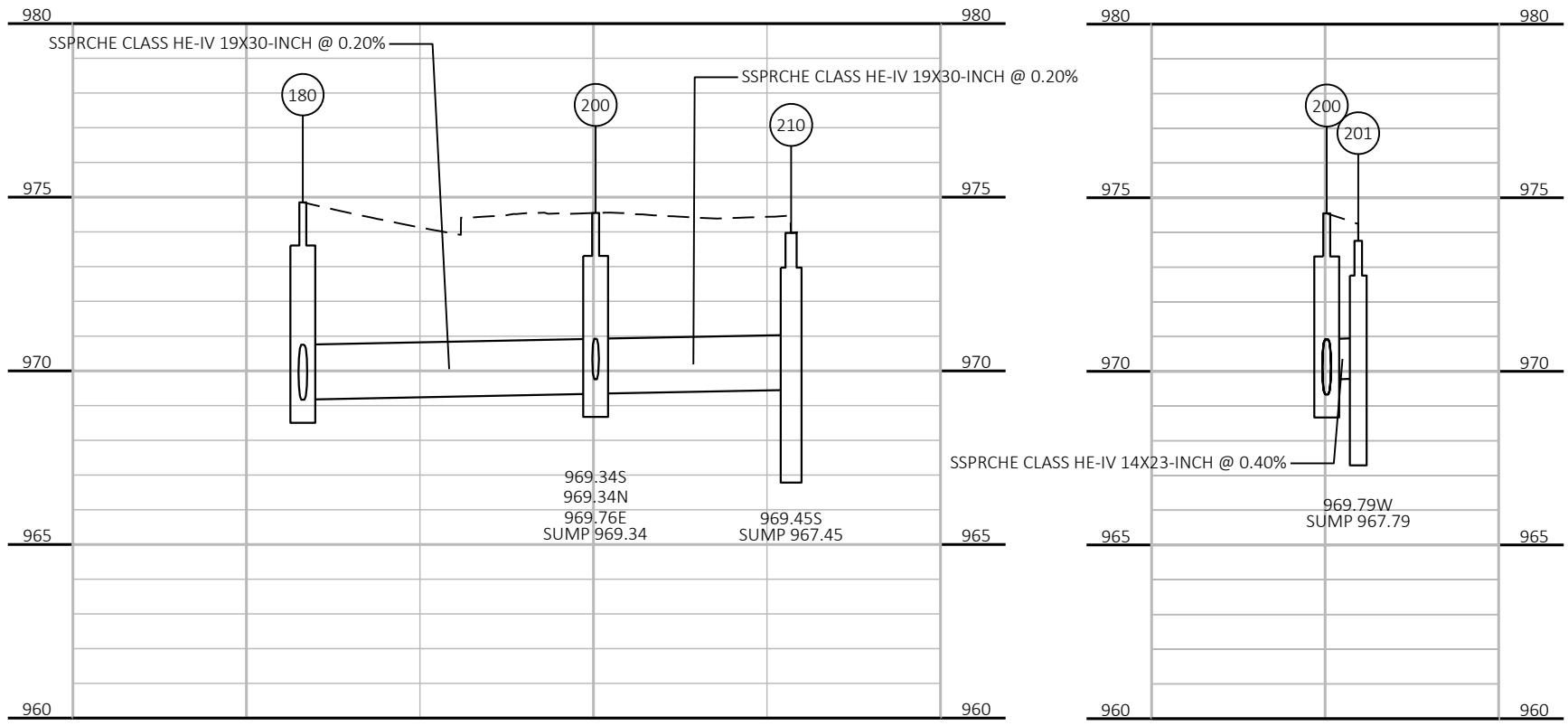
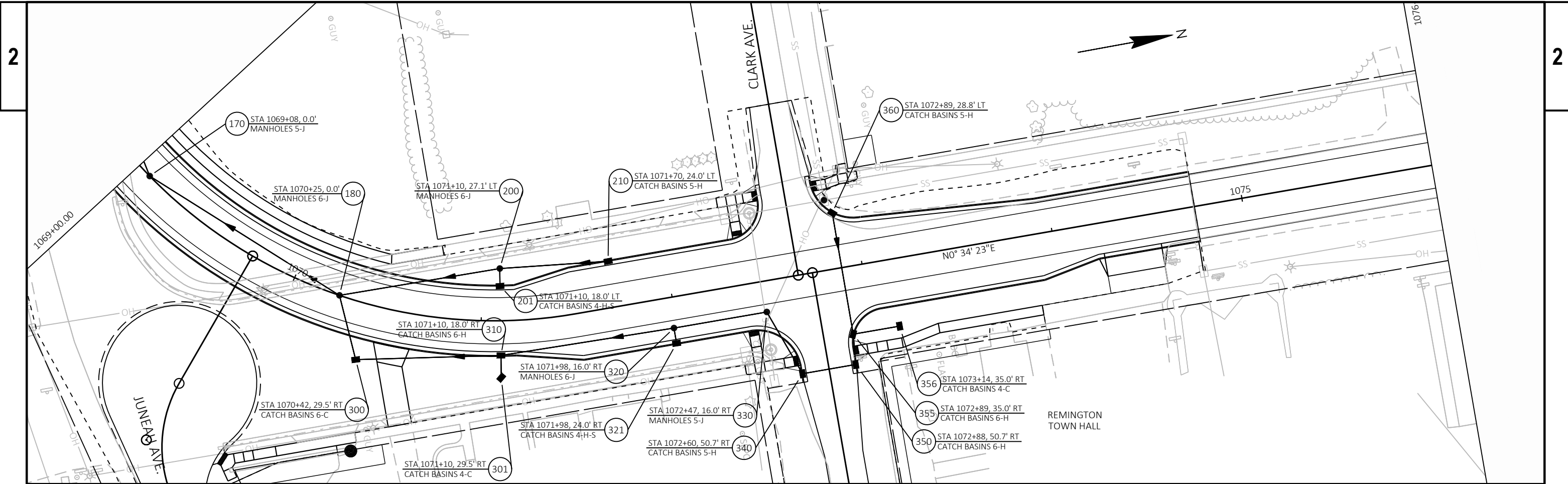
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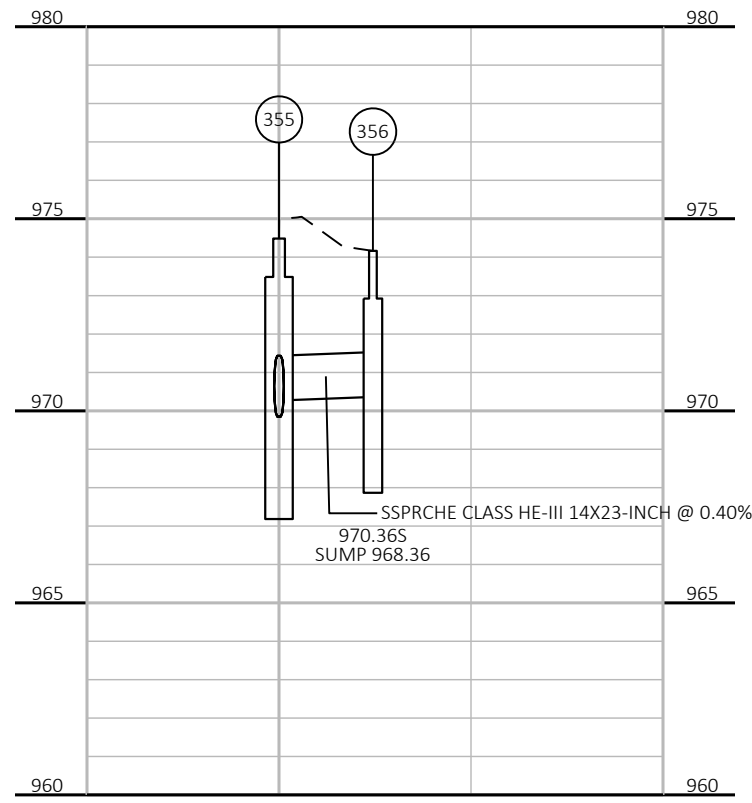
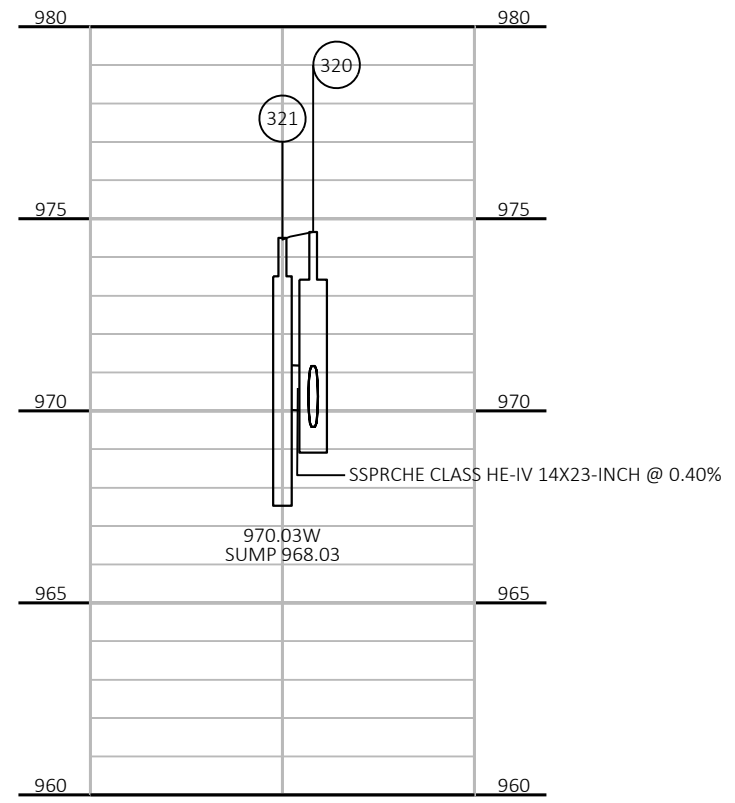
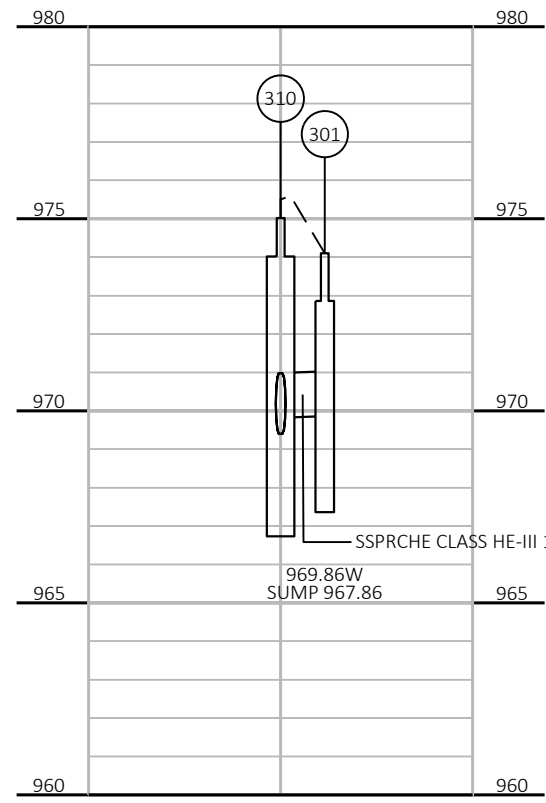
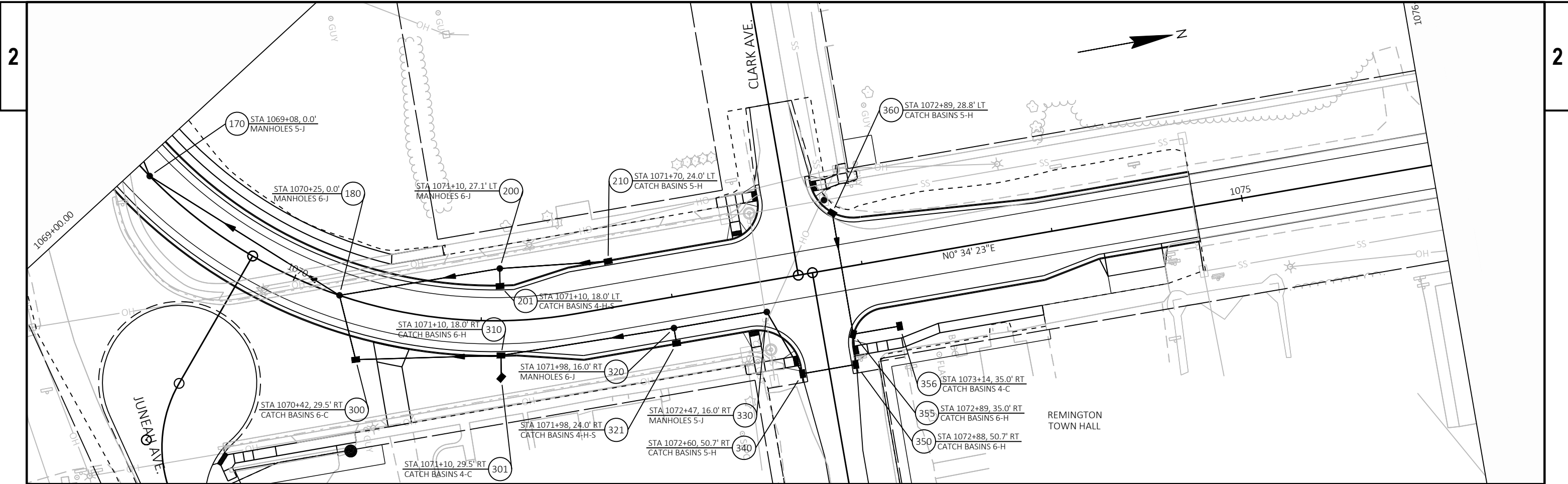
STORM SEWER STH 80

SHEET

E







EXACT LOCATIONS OF NO PASSING ZONE LIMITS AND MOVING OF EXISTING NO PASSING ZONE SIGNS TO BE DETERMINED BY THE ITEM "LOCATING NO PASSING ZONES". SEE STANDARD DETAIL DRAWINGS. ALL OTHER EXISTING SIGNS TO REMAIN UNLESS NOTED.

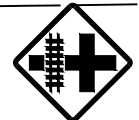
2

2



W10-1  
36\"X36\"

01-03



W10-2  
36\"X36\"

01-02



W10-2  
36\"X36\"

01-01



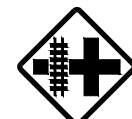
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01-04



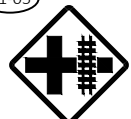
W10-1  
36\"X36\"

01-07



W10-2  
36\"X36\"

01-06

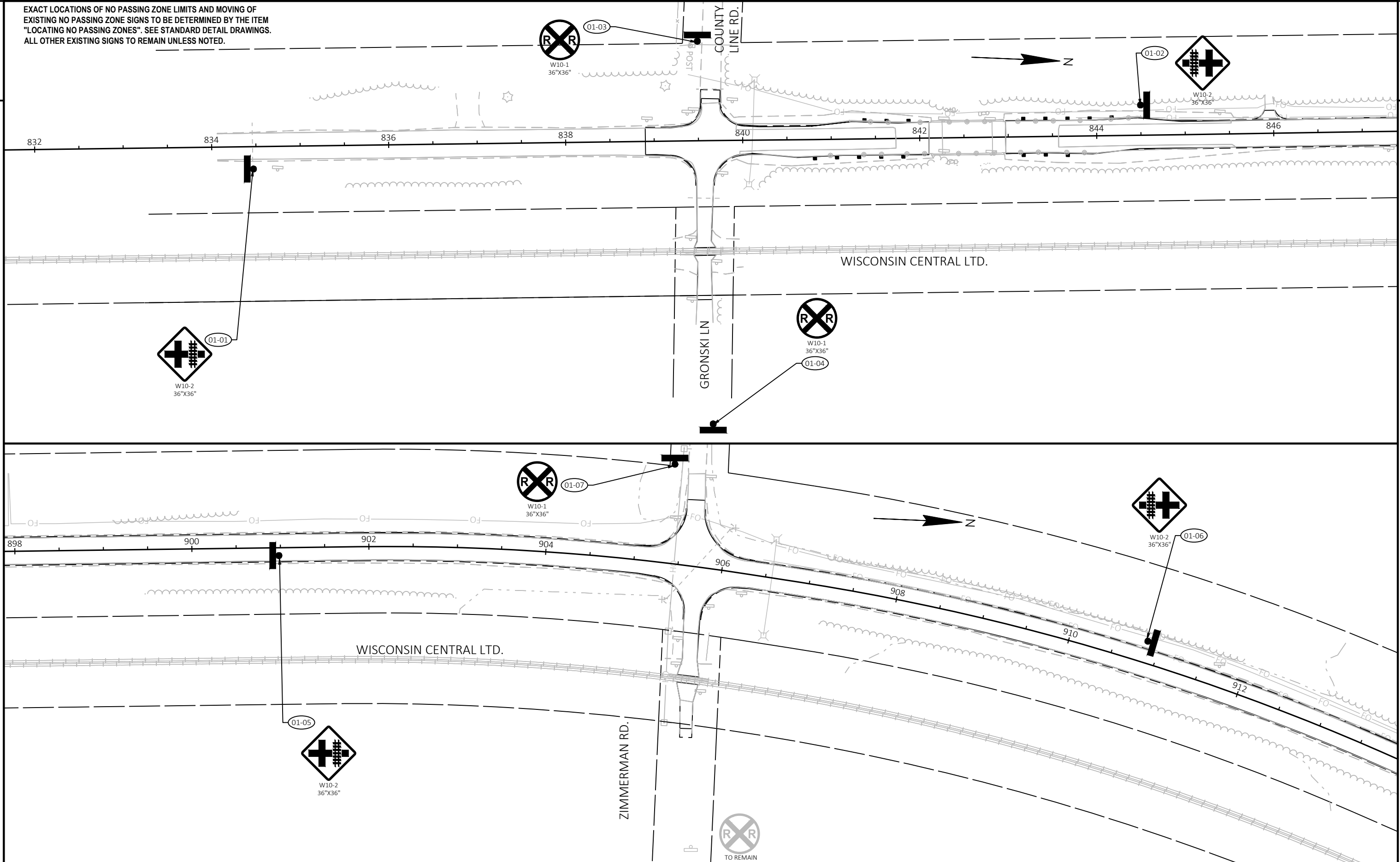


W10-2  
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01-05



TO REMAIN

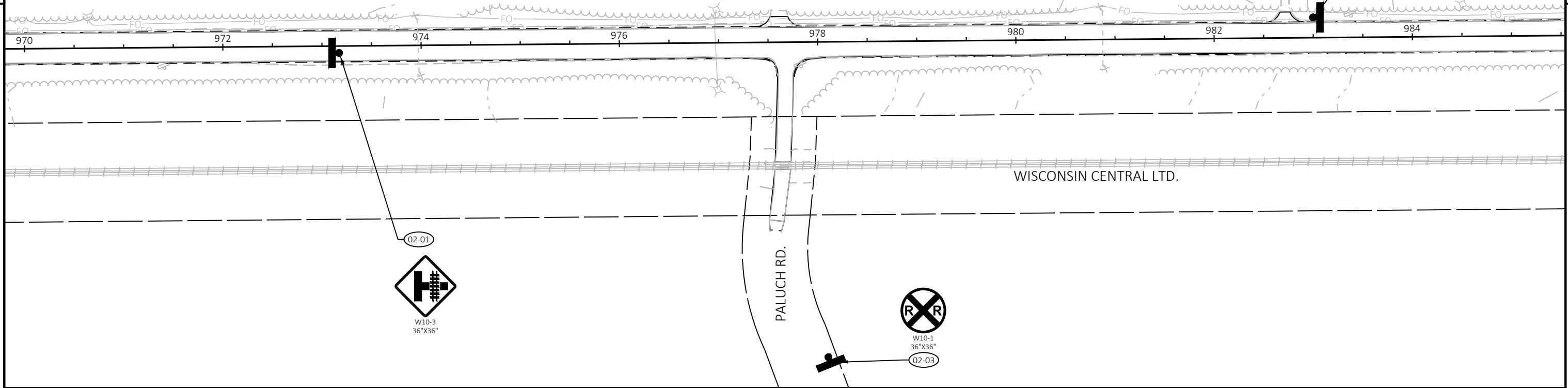


PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	SIGNING PLAN	SHEET	E
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EXACT LOCATIONS OF NO PASSING ZONE LIMITS AND MOVING OF EXISTING NO PASSING ZONE SIGNS TO BE DETERMINED BY THE ITEM "LOCATING NO PASSING ZONES". SEE STANDARD DETAIL DRAWINGS. ALL OTHER EXISTING SIGNS TO REMAIN UNLESS NOTED.

2

2



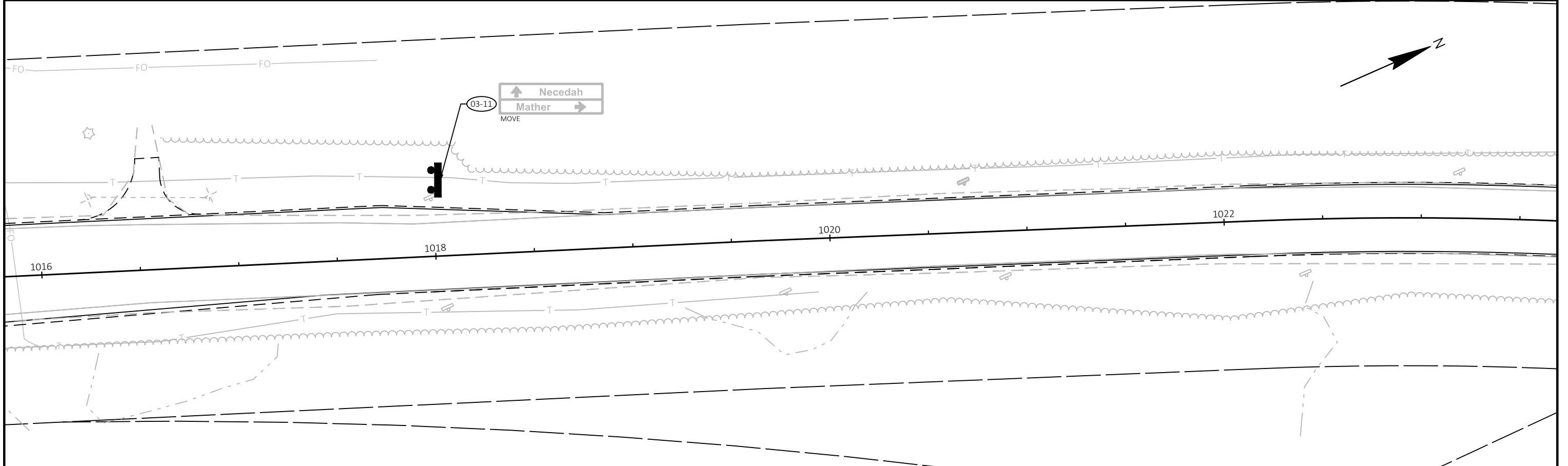
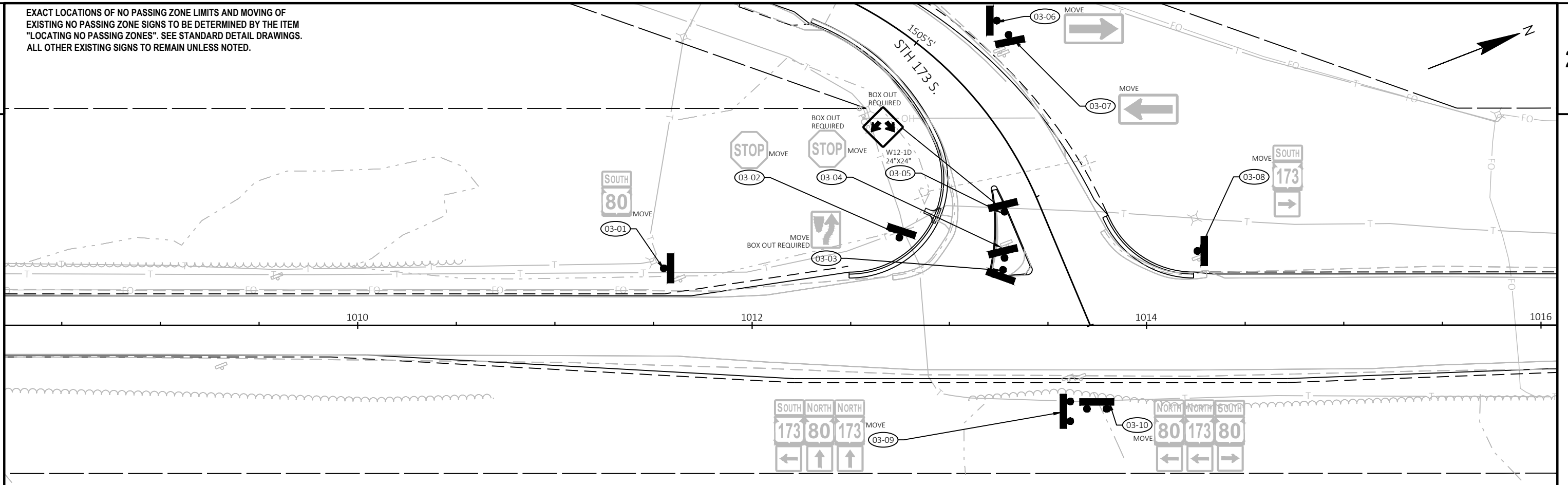
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EXACT LOCATIONS OF NO PASSING ZONE LIMITS AND MOVING OF EXISTING NO PASSING ZONE SIGNS TO BE DETERMINED BY THE ITEM "LOCATING NO PASSING ZONES". SEE STANDARD DETAIL DRAWINGS. ALL OTHER EXISTING SIGNS TO REMAIN UNLESS NOTED.

2

2



PROJECT NO: 1620-02-76

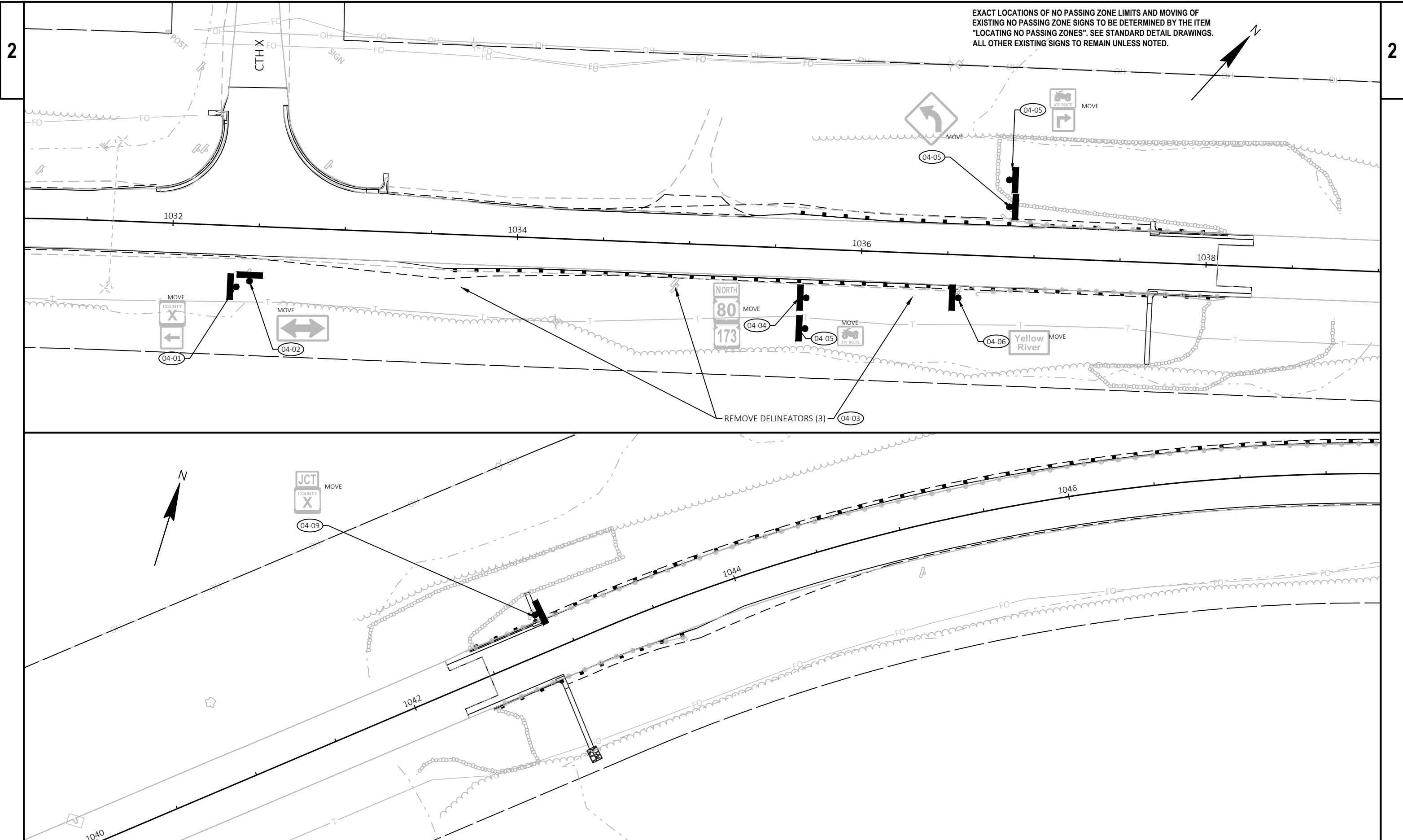
HWY: STH 80

COUNTY: WOOD

SIGNING PLAN

SHEET

E



PROJECT NO: 1620-02-76

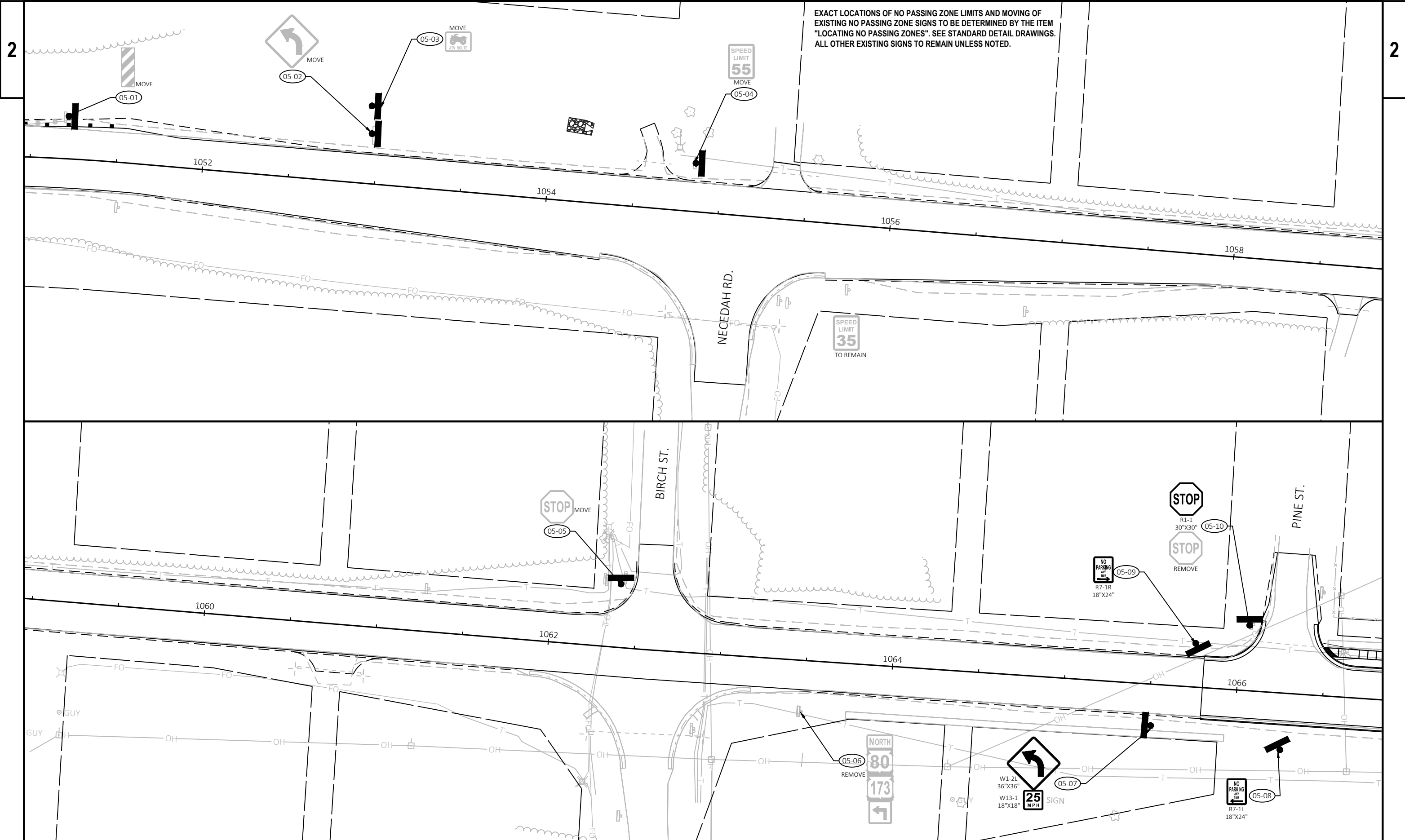
HWY: STH 80

COUNTY: WOOD

SIGNING PLAN

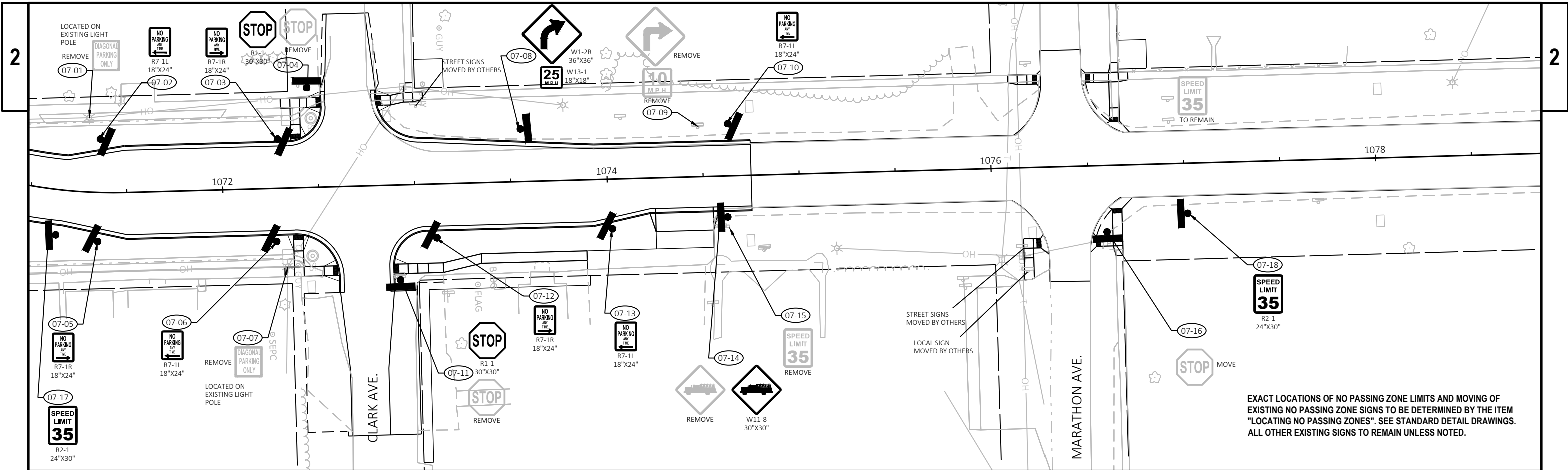
SHEET

E

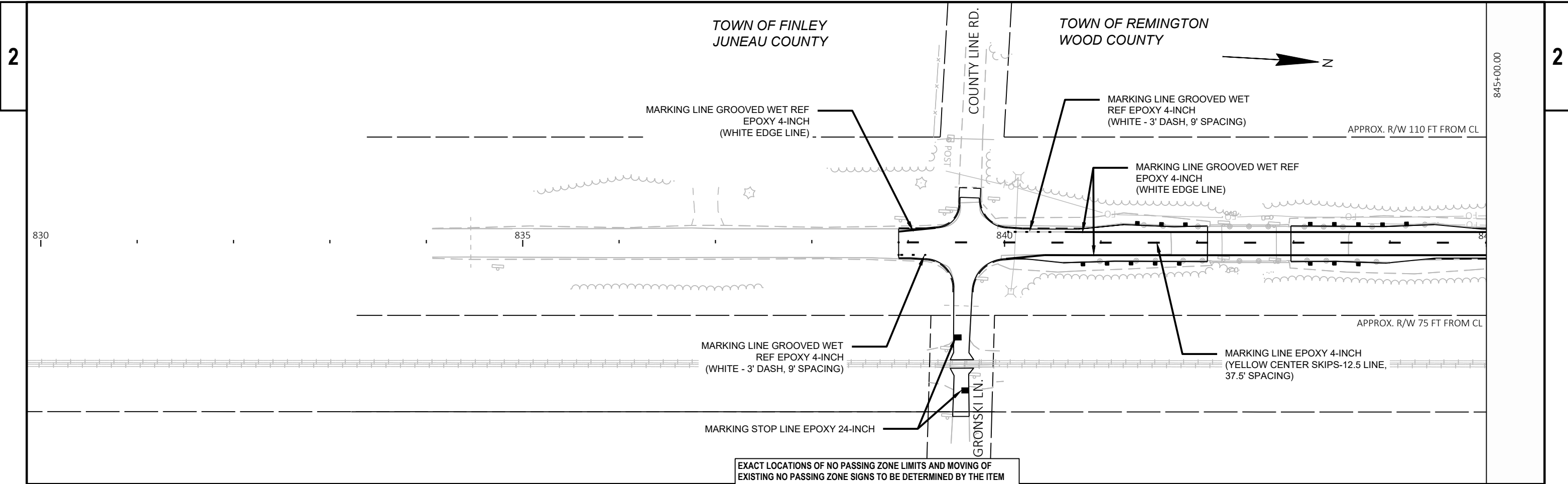


EXACT LOCATIONS OF NO PASSING ZONE LIMITS AND MOVING OF EXISTING NO PASSING ZONE SIGNS TO BE DETERMINED BY THE ITEM "LOCATING NO PASSING ZONES". SEE STANDARD DETAIL DRAWINGS. ALL OTHER EXISTING SIGNS TO REMAIN UNLESS NOTED.

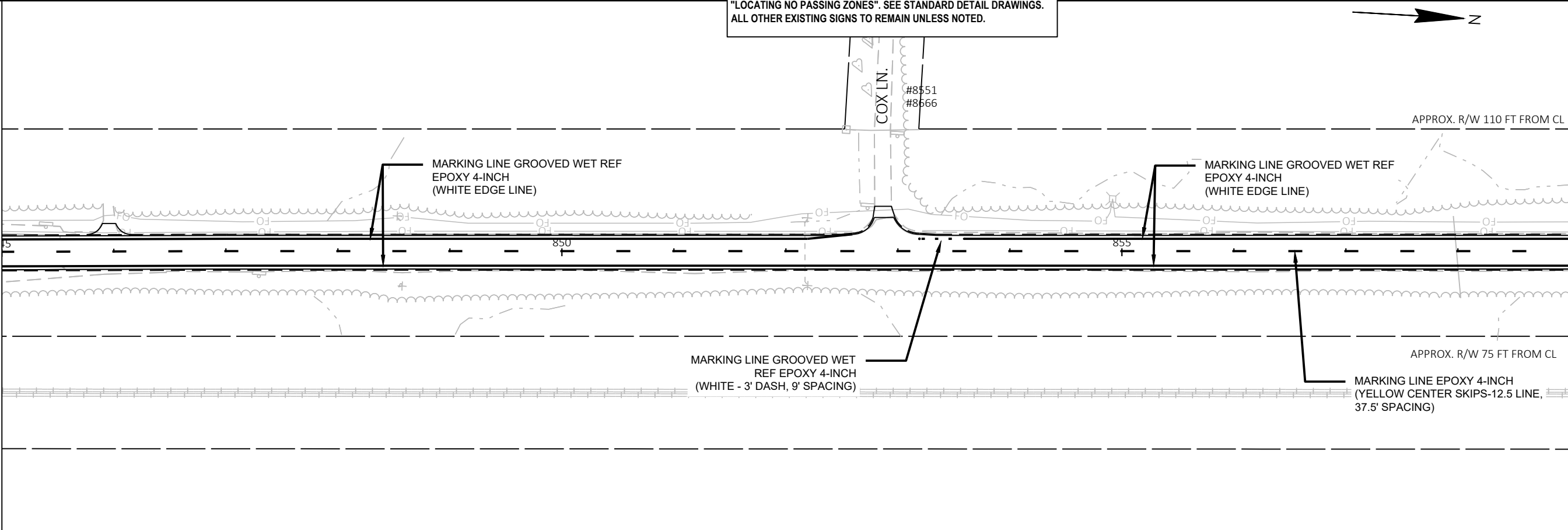




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EXACT LOCATIONS OF NO PASSING ZONE LIMITS AND MOVING OF EXISTING NO PASSING ZONE SIGNS TO BE DETERMINED BY THE ITEM "LOCATING NO PASSING ZONES". SEE STANDARD DETAIL DRAWINGS. ALL OTHER EXISTING SIGNS TO REMAIN UNLESS NOTED.



APPROX. R/W 110 FT FROM CL

APPROX. R/W 75 FT FROM CL

SPOTTED MULE RD.

#355  
GRANITE  
PE



873+00.00

859+00.00

MARKING LINE GROOVED WET REF  
EPOXY 4-INCH  
(WHITE EDGE LINE)

B.A.D.  
F.E.

MARKING LINE EPOXY 4-INCH  
(YELLOW CENTER SKIPS-12.5 LINE,  
37.5' SPACING)

EXACT LOCATIONS OF NO PASSING ZONE LIMITS AND MOVING OF  
EXISTING NO PASSING ZONE SIGNS TO BE DETERMINED BY THE ITEM  
"LOCATING NO PASSING ZONES". SEE STANDARD DETAIL DRAWINGS.  
ALL OTHER EXISTING SIGNS TO REMAIN UNLESS NOTED.



887+00.00

APPROX. R/W 110 FT FROM CL

MARKING LINE GROOVED WET REF  
EPOXY 4-INCH  
(WHITE EDGE LINE)

MARKING LINE EPOXY 4-INCH  
(YELLOW CENTER SKIPS-12.5 LINE,  
37.5' SPACING)

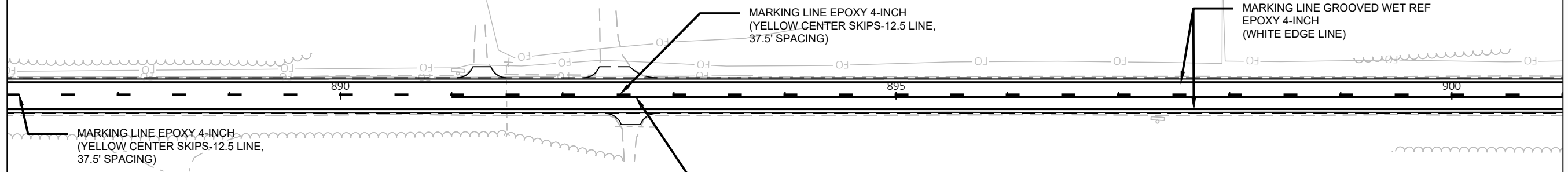
APPROX. R/W 75 FT FROM CL

873+00.00



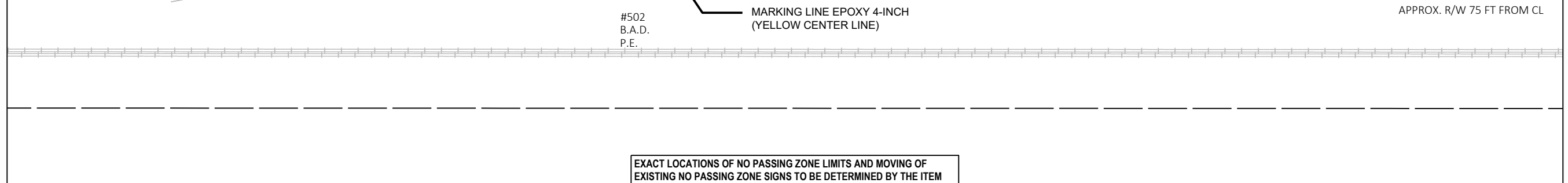
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B.A.D.  
P.E.      B.A.D.  
F.E.

APPROX. R/W 110 FT FROM CL

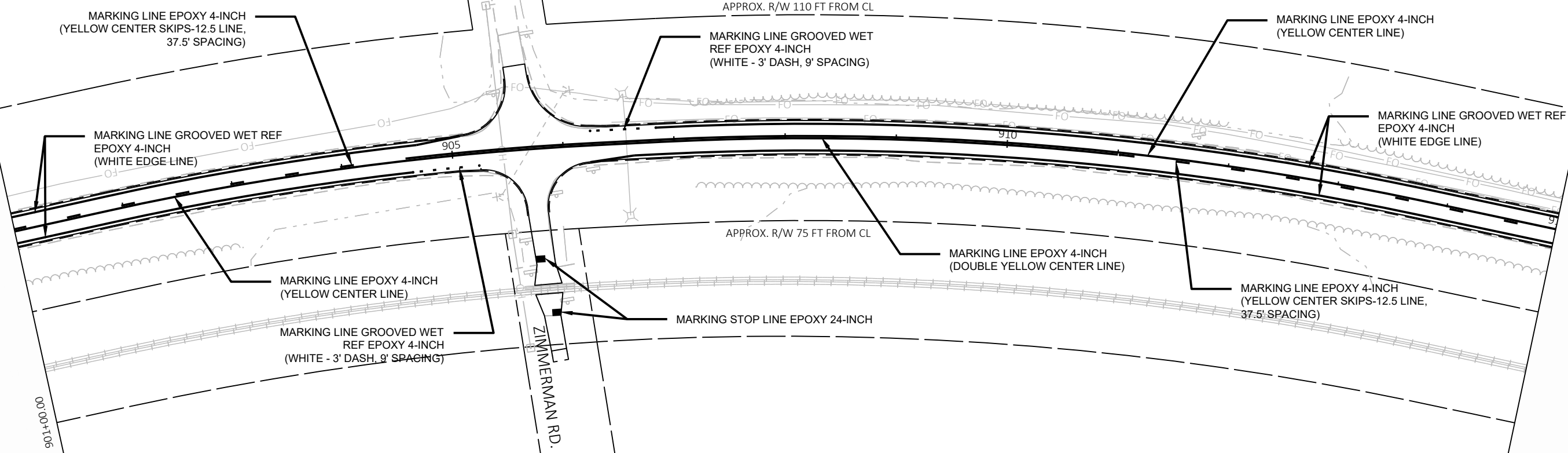


#502  
B.A.D.  
P.E.

APPROX. R/W 75 FT FROM CL



EXACT LOCATIONS OF NO PASSING ZONE LIMITS AND MOVING OF EXISTING NO PASSING ZONE SIGNS TO BE DETERMINED BY THE ITEM "LOCATING NO PASSING ZONES". SEE STANDARD DETAIL DRAWINGS. ALL OTHER EXISTING SIGNS TO REMAIN UNLESS NOTED.







#707  
B.A.D.  
P.E.

B.A.D.  
F.E.

929+00.00

APPROX. R/W 110 FT FROM CL

MARKING LINE EPOXY 4-INCH  
(YELLOW CENTER LINE)

MARKING LINE GROOVED WET REF  
EPOXY 4-INCH  
(WHITE EDGE LINE)

APPROX. R/W 75 FT FROM CL

MARKING LINE EPOXY 4-INCH  
(YELLOW CENTER SKIPS-12.5 LINE,  
37.5' SPACING)

MARKING LINE EPOXY 4-INCH  
(YELLOW CENTER SKIPS-12.5 LINE,  
37.5' SPACING)

915+00.00

#760  
B.A.D.  
P.E.

EXACT LOCATIONS OF NO PASSING ZONE LIMITS AND MOVING OF  
EXISTING NO PASSING ZONE SIGNS TO BE DETERMINED BY THE ITEM  
"LOCATING NO PASSING ZONES". SEE STANDARD DETAIL DRAWINGS.  
ALL OTHER EXISTING SIGNS TO REMAIN UNLESS NOTED.



943+00.00

APPROX. R/W 110 FT FROM CL

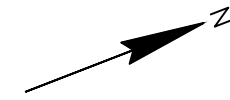
#4811  
B.A.D.  
P.E.

MARKING LINE GROOVED WET REF  
EPOXY 4-INCH  
(WHITE EDGE LINE)

MARKING LINE EPOXY 4-INCH  
(YELLOW CENTER SKIPS-12.5 LINE,  
37.5' SPACING)

APPROX. R/W 75 FT FROM CL

929+00.00



#855  
GRANITE  
P.E.

APPROX. R/W 110 FT FROM CL

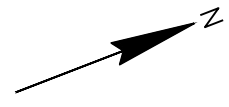
MARKING LINE GROOVED WET REF  
EPOXY 4-INCH  
(WHITE EDGE LINE)

MARKING LINE EPOXY 4-INCH  
(YELLOW CENTER SKIPS-12.5 LINE,  
37.5' SPACING)

APPROX. R/W 75 FT FROM CL

#848  
B.A.D.  
P.E.

EXACT LOCATIONS OF NO PASSING ZONE LIMITS AND MOVING OF  
EXISTING NO PASSING ZONE SIGNS TO BE DETERMINED BY THE ITEM  
"LOCATING NO PASSING ZONES". SEE STANDARD DETAIL DRAWINGS.  
ALL OTHER EXISTING SIGNS TO REMAIN UNLESS NOTED.



943+00.00

971+00.00

#941  
GRANITE  
P.E.

B.A.D.  
F.E.

APPROX. R/W 110 FT FROM CL

MARKING LINE GROOVED WET REF  
EPOXY 4-INCH  
(WHITE EDGE LINE)

MARKING LINE EPOXY 4-INCH  
(YELLOW CENTER SKIPS-12.5 LINE,  
37.5' SPACING)

APPROX. R/W 75 FT FROM CL

#1044  
#1044A  
GRANITE  
P.E.

957+00.00

B.A.D.  
F.E.

#1161  
B.A.D.  
F.E.



985+00.00

APPROX. R/W 110 FT FROM CL

MARKING LINE GROOVED WET REF  
EPOXY 4-INCH  
(WHITE EDGE LINE)

MARKING LINE GROOVED WET REF  
EPOXY 4-INCH  
(WHITE EDGE LINE)

MARKING LINE GROOVED WET  
REF EPOXY 4-INCH  
(WHITE - 3' DASH, 9' SPACING)

MARKING LINE EPOXY 4-INCH  
(YELLOW CENTER SKIPS-12.5 LINE,  
37.5' SPACING)

APPROX. R/W 75 FT FROM CL

MARKING STOP LINE EPOXY 24-INCH

PALUCH RD.

EXACT LOCATIONS OF NO PASSING ZONE LIMITS AND MOVING OF  
EXISTING NO PASSING ZONE SIGNS TO BE DETERMINED BY THE ITEM  
"LOCATING NO PASSING ZONES". SEE STANDARD DETAIL DRAWINGS.  
ALL OTHER EXISTING SIGNS TO REMAIN UNLESS NOTED.

971+00.00

GRANITE  
F.E.



999+00.00

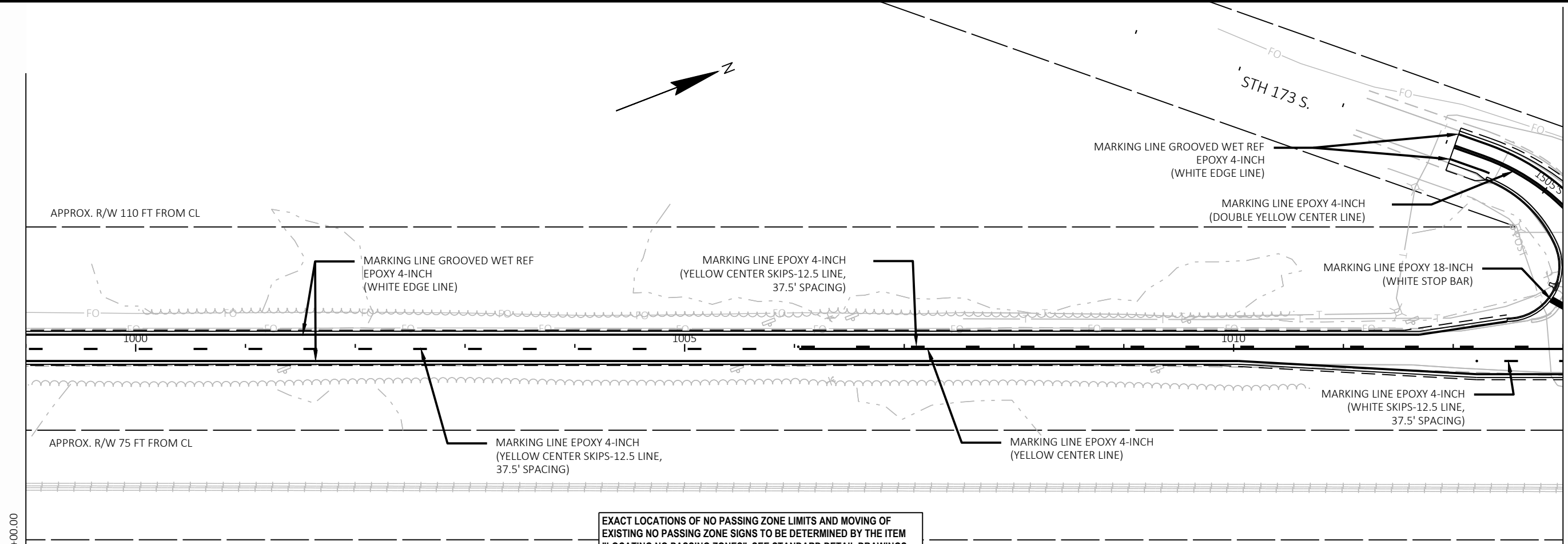
APPROX. R/W 110 FT FROM CL

MARKING LINE GROOVED WET REF  
EPOXY 4-INCH  
(WHITE EDGE LINE)

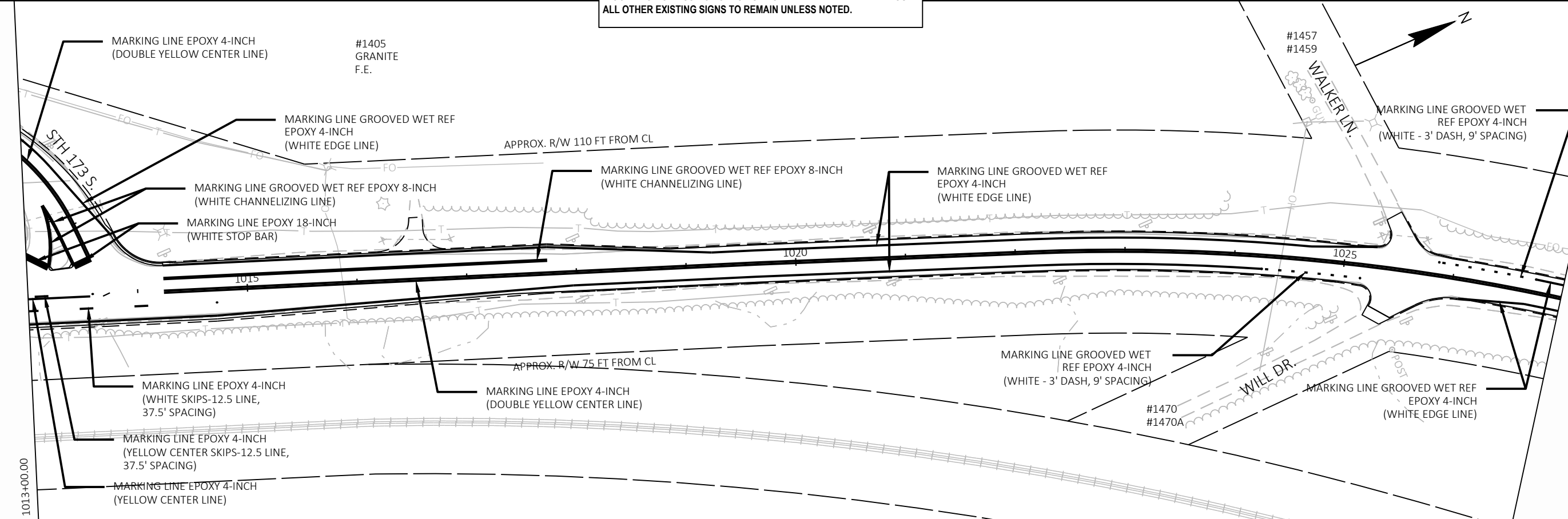
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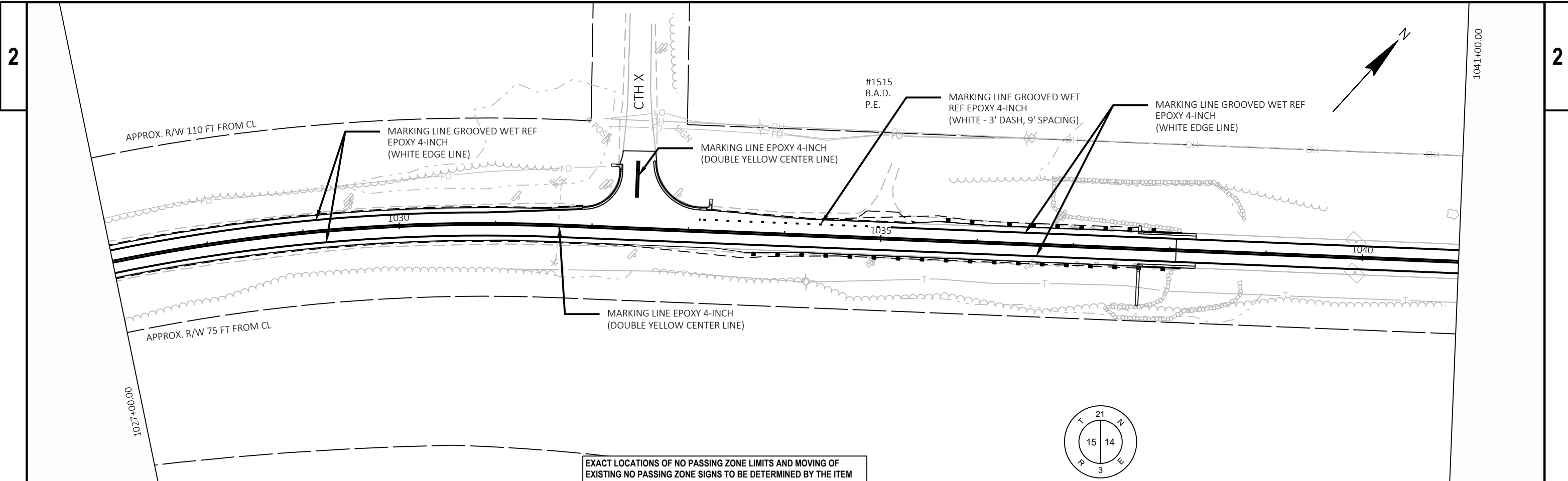
MARKING LINE EPOXY 4-INCH  
(YELLOW CENTER SKIPS-12.5 LINE,  
37.5' SPACING)

985+00.00

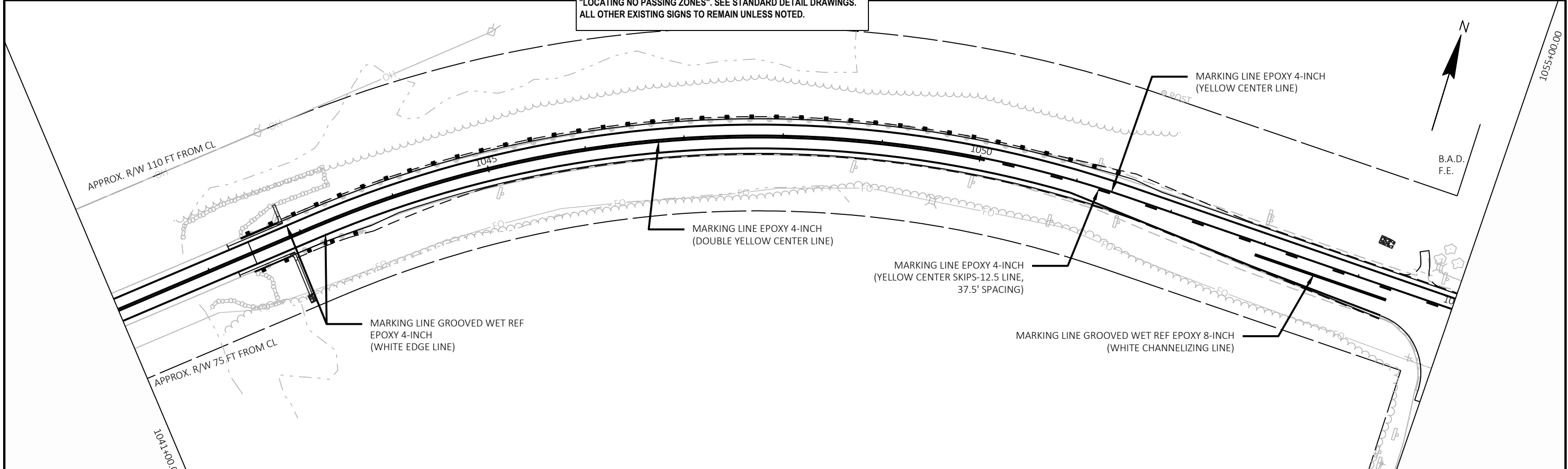


EXACT LOCATIONS OF NO PASSING ZONE LIMITS AND MOVING OF EXISTING NO PASSING ZONE SIGNS TO BE DETERMINED BY THE ITEM "LOCATING NO PASSING ZONES". SEE STANDARD DETAIL DRAWINGS. ALL OTHER EXISTING SIGNS TO REMAIN UNLESS NOTED.

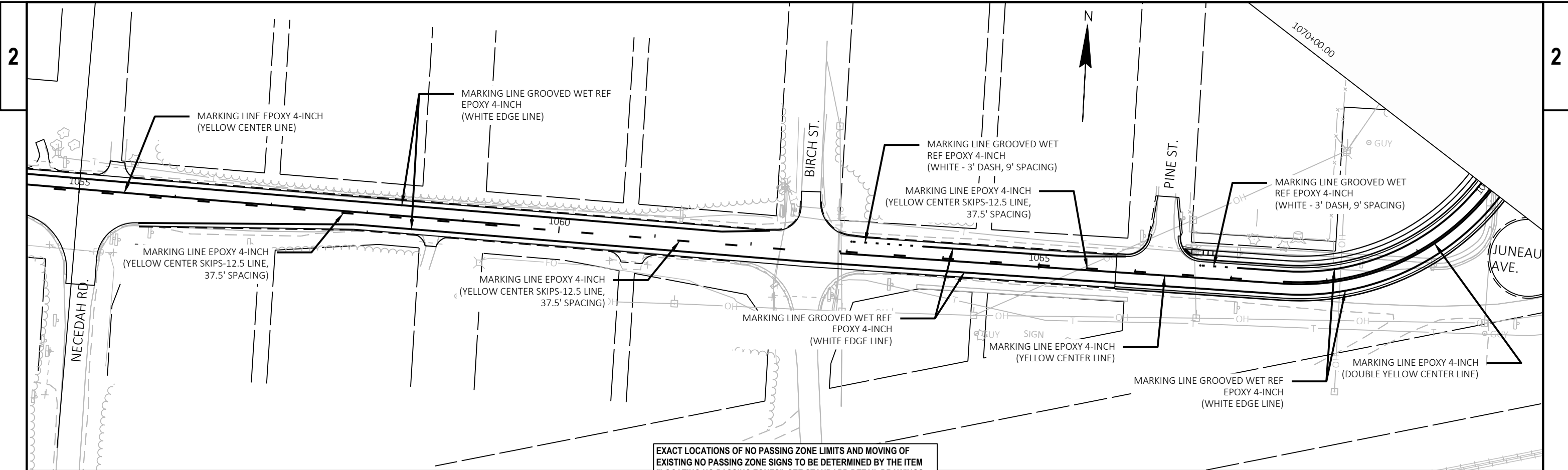




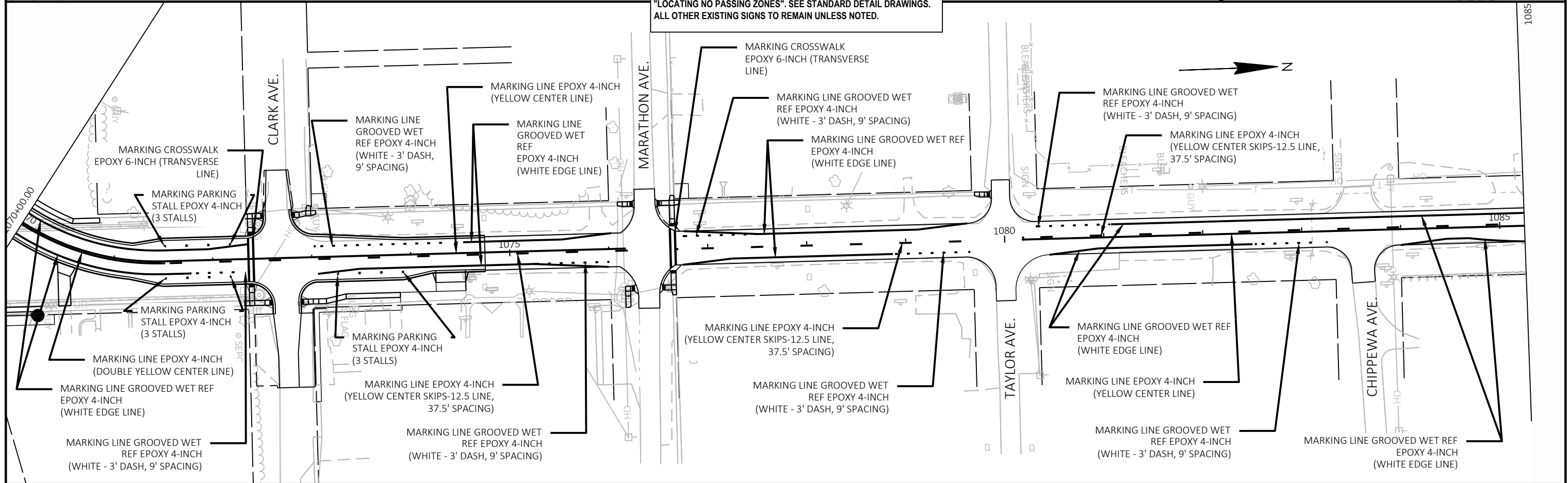
EXACT LOCATIONS OF NO PASSING ZONE LIMITS AND MOVING OF EXISTING NO PASSING ZONE SIGNS TO BE DETERMINED BY THE ITEM "LOCATING NO PASSING ZONES". SEE STANDARD DETAIL DRAWINGS. ALL OTHER EXISTING SIGNS TO REMAIN UNLESS NOTED.



PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	PAVEMENT MARKING	SHEET	E
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EXACT LOCATIONS OF NO PASSING ZONE LIMITS AND MOVING OF EXISTING NO PASSING ZONE SIGNS TO BE DETERMINED BY THE ITEM "LOCATING NO PASSING ZONES". SEE STANDARD DETAIL DRAWINGS. ALL OTHER EXISTING SIGNS TO REMAIN UNLESS NOTED.



PROJECT NO: 1620-02-76

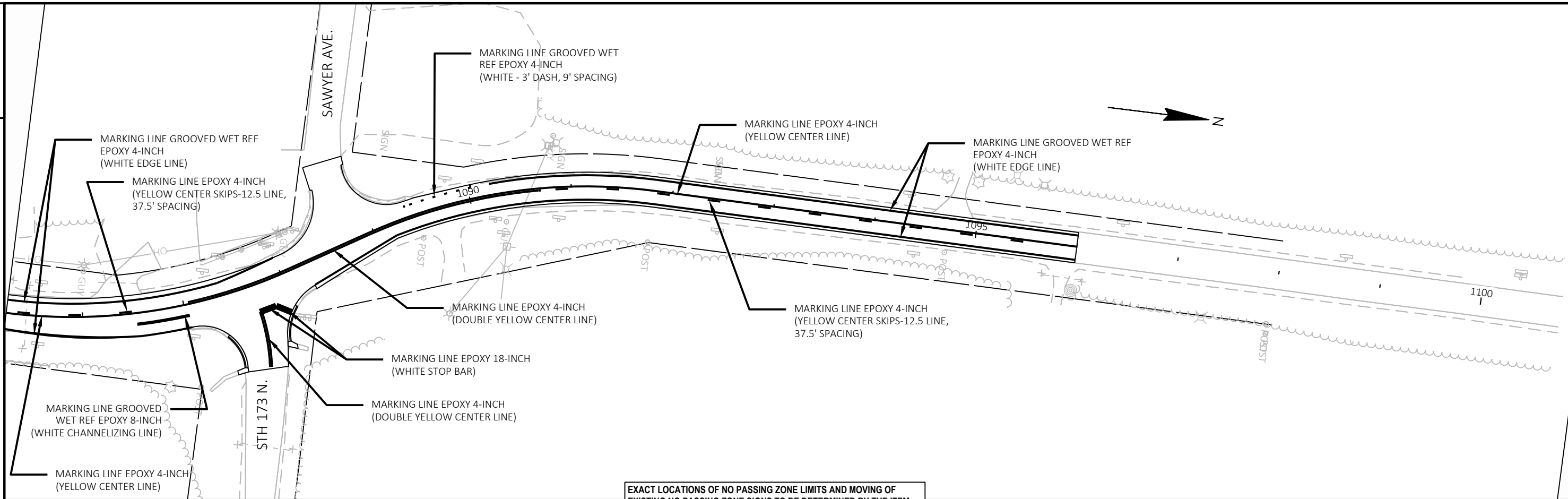
HWY: STH 80

COUNTY: WOOD

PAVEMENT MARKING

SHEET

E



EXACT LOCATIONS OF NO PASSING ZONE LIMITS AND MOVING OF EXISTING NO PASSING ZONE SIGNS TO BE DETERMINED BY THE ITEM "LOCATING NO PASSING ZONES". SEE STANDARD DETAIL DRAWINGS. ALL OTHER EXISTING SIGNS TO REMAIN UNLESS NOTED.

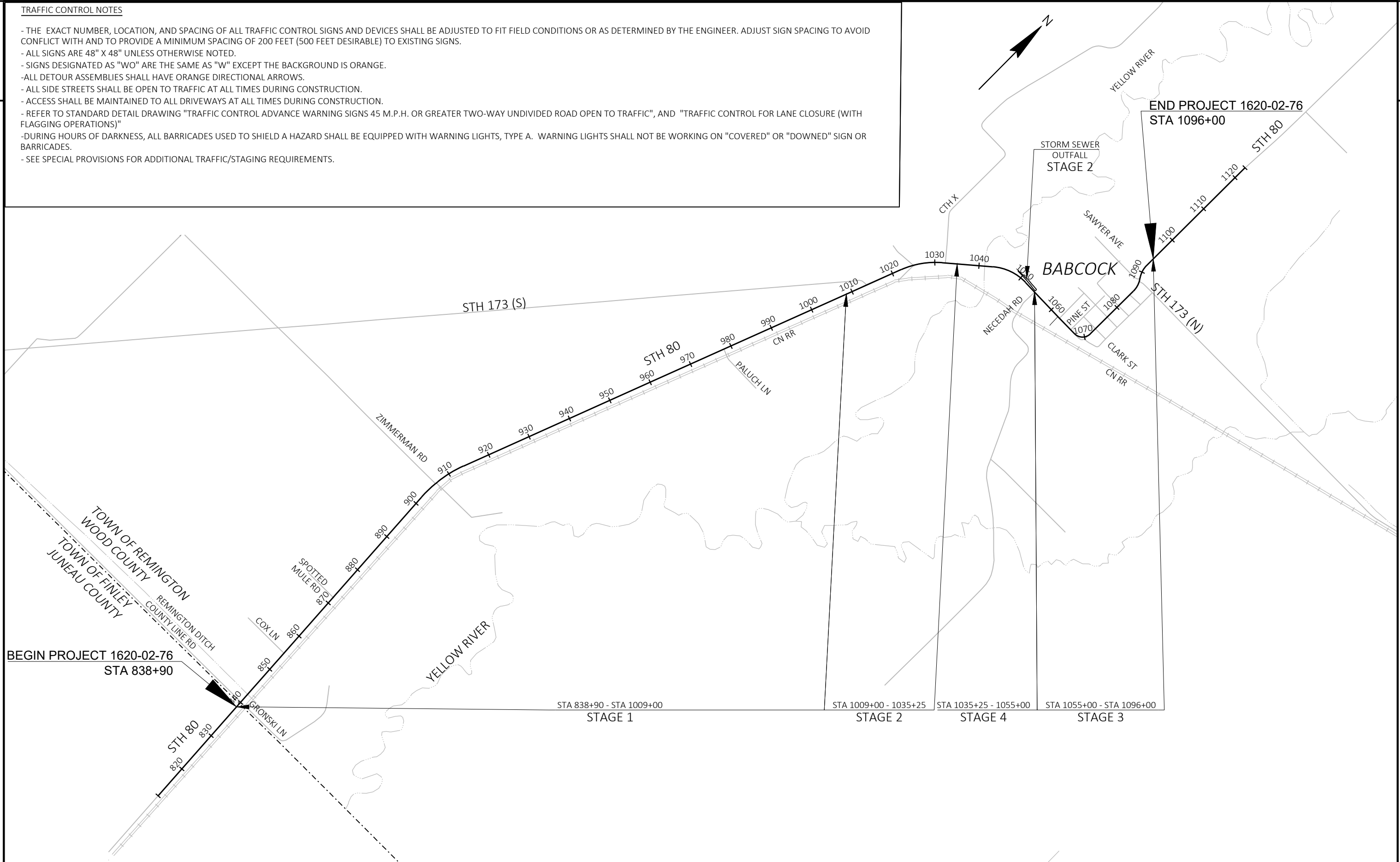
THIS FRAME INTENTIONALLY LEFT BLANK.

**TRAFFIC CONTROL NOTES**

- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS OR AS DETERMINED BY THE ENGINEER. ADJUST SIGN SPACING TO AVOID CONFLICT WITH AND TO PROVIDE A MINIMUM SPACING OF 200 FEET (500 FEET DESIRABLE) TO EXISTING SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- SIGNS DESIGNATED AS "WO" ARE THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- ALL DETOUR ASSEMBLIES SHALL HAVE ORANGE DIRECTIONAL ARROWS.
- ALL SIDE STREETS SHALL BE OPEN TO TRAFFIC AT ALL TIMES DURING CONSTRUCTION.
- ACCESS SHALL BE MAINTAINED TO ALL DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION.
- REFER TO STANDARD DETAIL DRAWING "TRAFFIC CONTROL ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC", AND "TRAFFIC CONTROL FOR LANE CLOSURE (WITH FLAGGING OPERATIONS)"
- DURING HOURS OF DARKNESS, ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A. WARNING LIGHTS SHALL NOT BE WORKING ON "COVERED" OR "DOWNED" SIGN OR BARRICADES.
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC/STAGING REQUIREMENTS.

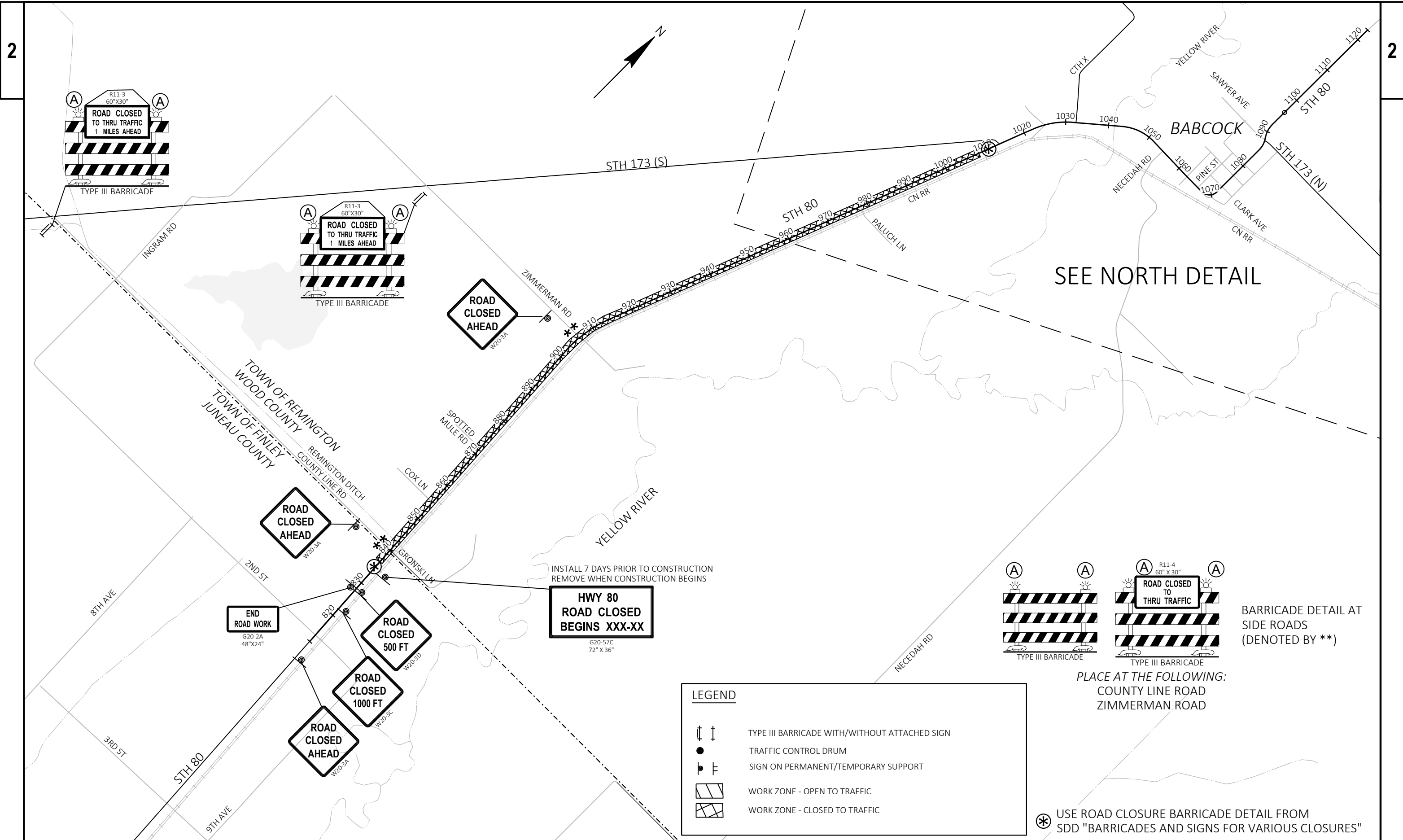
2

2



PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	CONSTRUCTION STAGING OVERVIEW	SHEET	<b>E</b>
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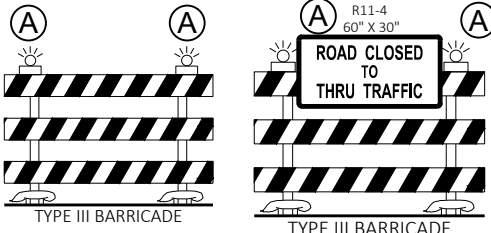


2

2

SEE NORTH DETAIL

INSTALL 7 DAYS PRIOR TO CONSTRUCTION  
REMOVE WHEN CONSTRUCTION BEGINS



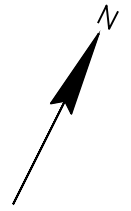
BARRICADE DETAIL AT  
SIDE ROADS  
(DENOTED BY \*\*)

PLACE AT THE FOLLOWING:  
COUNTY LINE ROAD  
ZIMMERMAN ROAD

⊛ USE ROAD CLOSURE BARRICADE DETAIL FROM  
SDD "BARRICADES AND SIGNS FOR VARIOUS CLOSURES"

**LEGEND**

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- WORK ZONE - OPEN TO TRAFFIC
- WORK ZONE - CLOSED TO TRAFFIC



INSTALL 7 DAYS PRIOR TO CONSTRUCTION  
REMOVE WHEN CONSTRUCTION BEGINS

**HWY 80  
ROAD CLOSED  
BEGINS XXX-XX**  
G20-57C  
72" X 36"

**ROAD CLOSED  
500 FT**  
W20-3D

**DETOUR** M4-8  
24"x12"  
SOUTH SOUTH  
80 173  
COVER W/  
M05-1R  
21"x21"

COVER ARROW  
PER SIGN PLATE  
A4-12 8 1/2"x8 1/2"  
Necedah  
Mather →

**DETOUR** M4-8  
24"x12"  
SOUTH SOUTH  
173 80  
M3-3  
24"x12"  
M1-6  
24"x24"  
M06-1  
21"x21"

**DETOUR** M4-8  
24"x12"  
SOUTH SOUTH  
80  
M3-3  
24"x12"  
M1-6  
24"x24"

**DETOUR** M4-8  
24"x12"  
NORTH NORTH  
173 80  
M3-1  
24"x12"  
M1-6  
24"x24"  
M05-1L  
21"x21"

**END  
ROAD WORK**  
G20-2A  
48"x24"

**DETOUR  
NEXT 40 MILES**  
G20-51  
60"x24"

**END  
DETOUR** M4-8A  
24"x18"  
NORTH  
80  
173

**DETOUR** M4-8  
24"x12"  
NORTH NORTH SOUTH  
80 173 80  
COVER

**DETOUR** M4-8  
24"x12"  
SOUTH NORTH NORTH  
173 80 173  
COVER

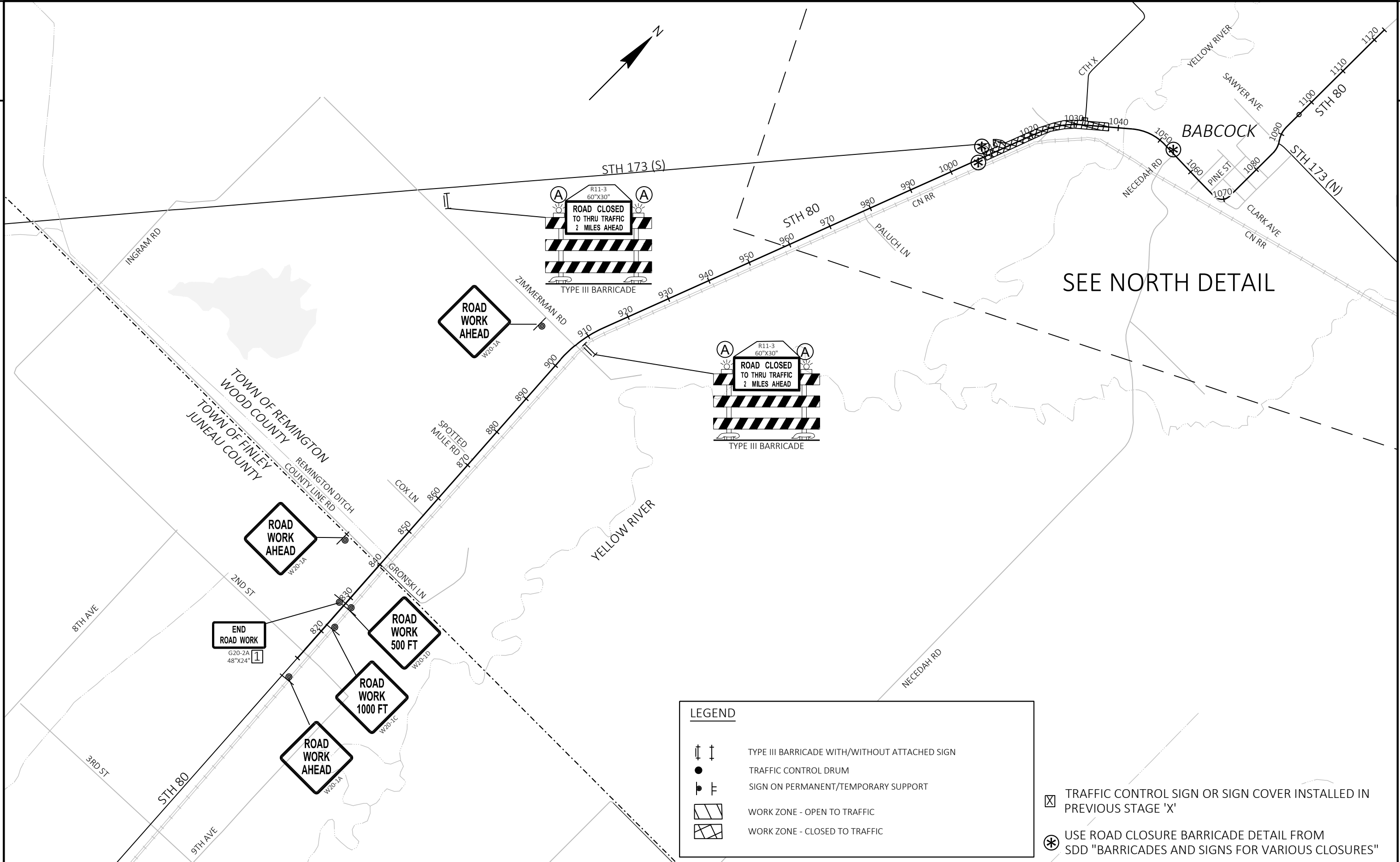
**JCT  
173**

Babcock  
Mather

**LEGEND**

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- WORK ZONE - OPEN TO TRAFFIC
- WORK ZONE - CLOSED TO TRAFFIC

USE ROAD CLOSURE BARRICADE DETAIL FROM  
SDD "BARRICADES AND SIGNS FOR VARIOUS CLOSURES"

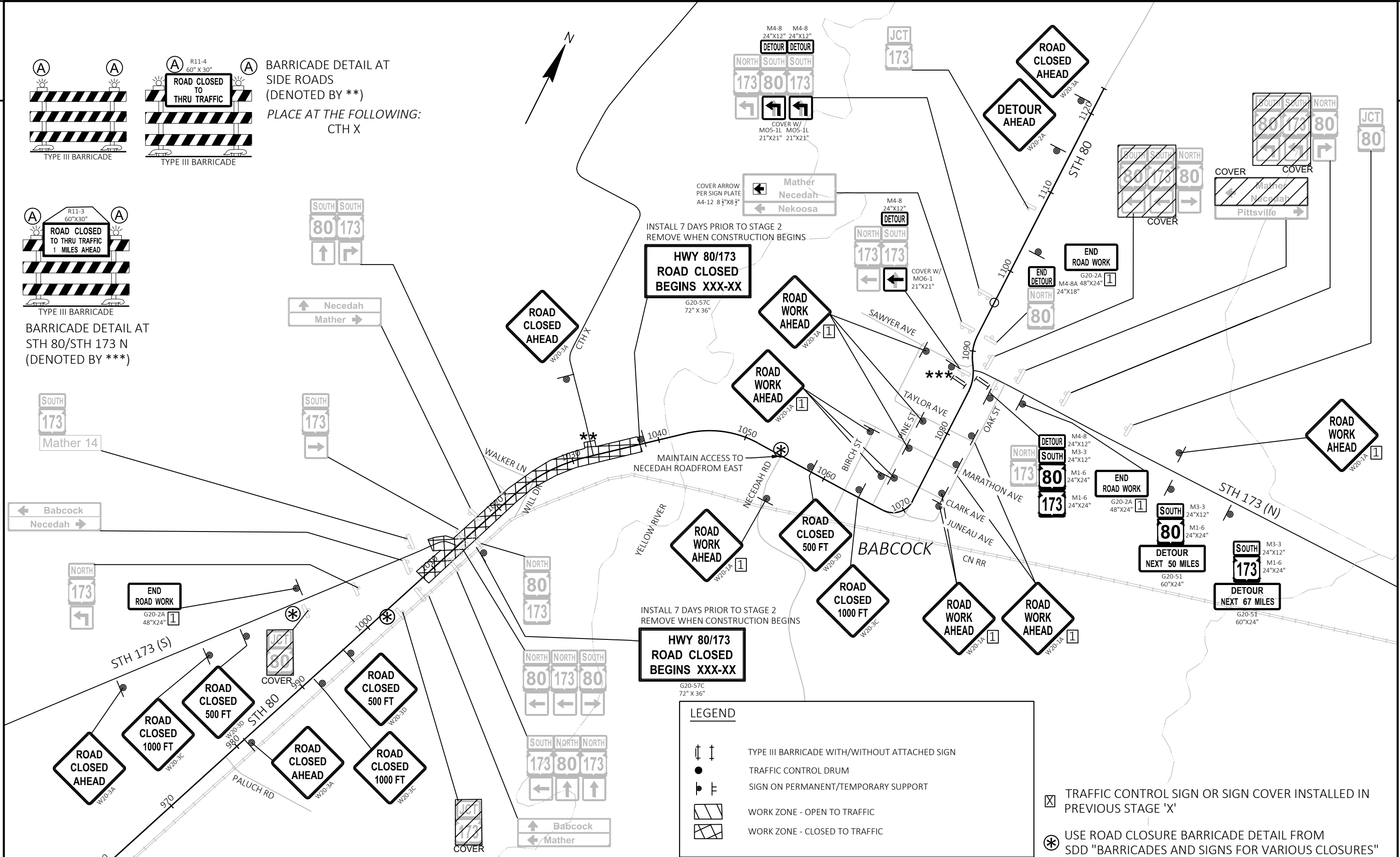
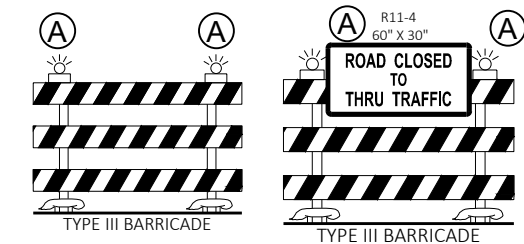


SEE NORTH DETAIL

**LEGEND**

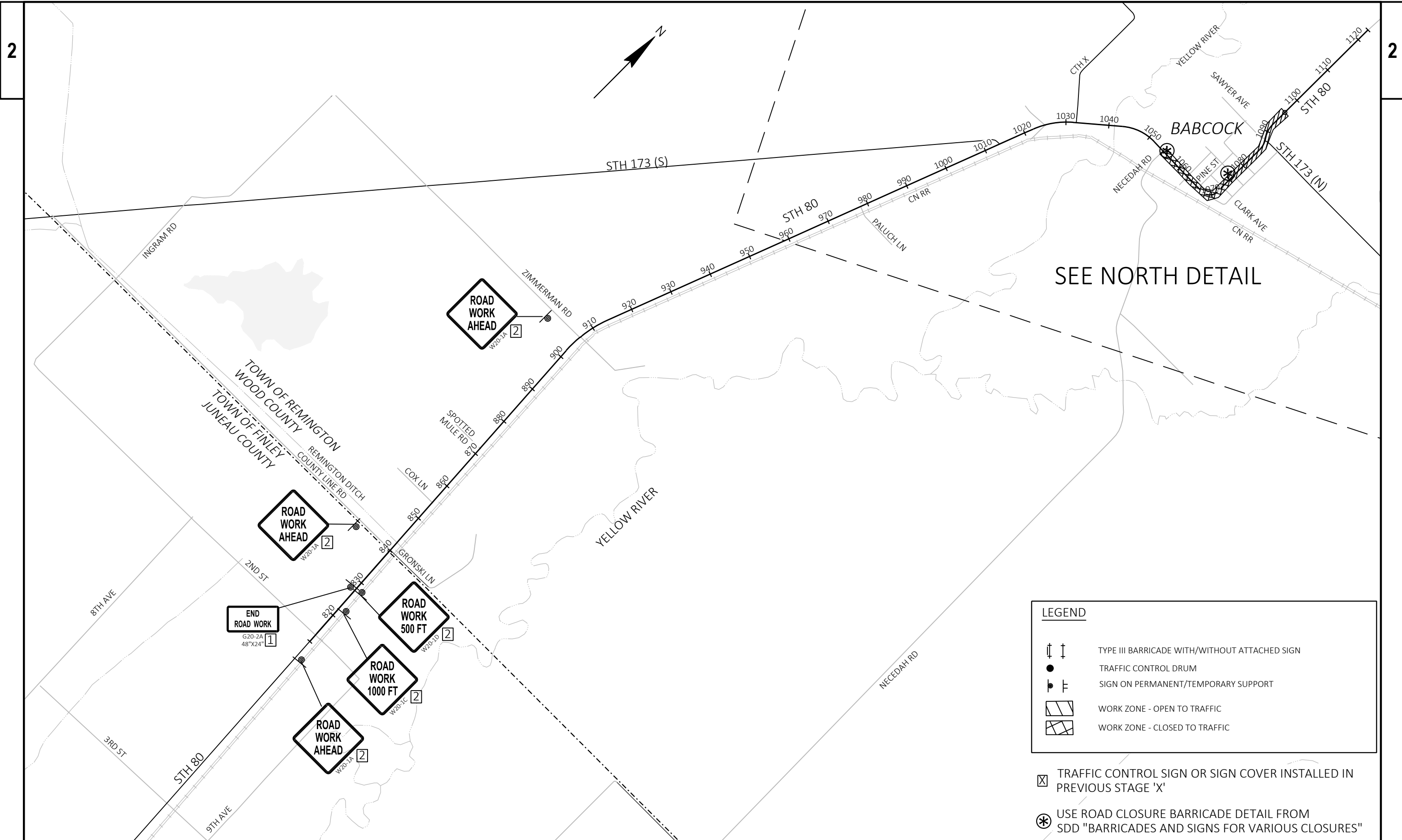
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- WORK ZONE - OPEN TO TRAFFIC
- WORK ZONE - CLOSED TO TRAFFIC
- TRAFFIC CONTROL SIGN OR SIGN COVER INSTALLED IN PREVIOUS STAGE 'X'
- USE ROAD CLOSURE BARRICADE DETAIL FROM SDD "BARRICADES AND SIGNS FOR VARIOUS CLOSURES"

PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	TRAFFIC CONTROL -STAGE 2 ADVANCED WARNING	SHEET	<b>E</b>
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**LEGEND**

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- WORK ZONE - OPEN TO TRAFFIC
- WORK ZONE - CLOSED TO TRAFFIC
- TRAFFIC CONTROL SIGN OR SIGN COVER INSTALLED IN PREVIOUS STAGE 'X'
- USE ROAD CLOSURE BARRICADE DETAIL FROM SDD "BARRICADES AND SIGNS FOR VARIOUS CLOSURES"



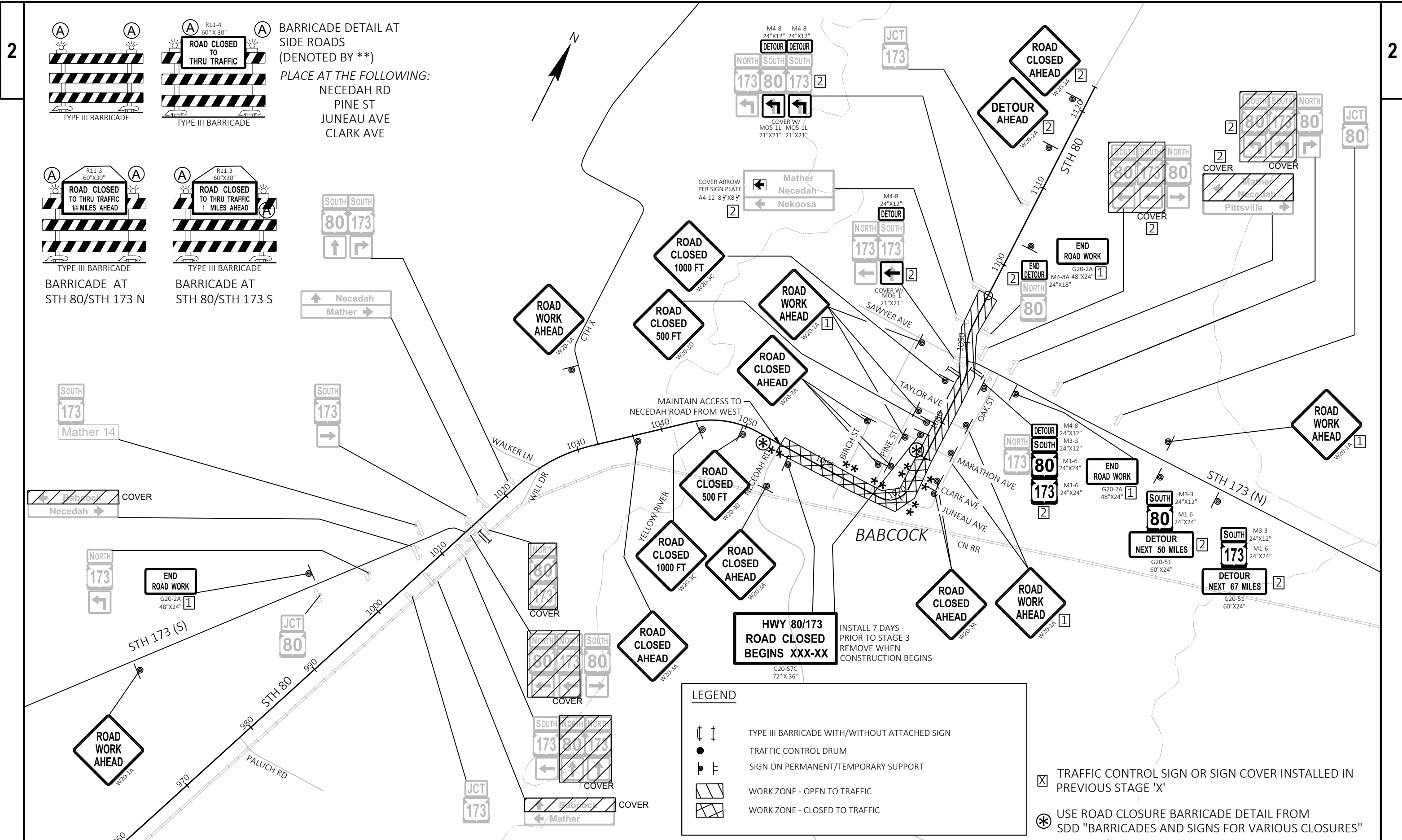
SEE NORTH DETAIL

**LEGEND**

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- WORK ZONE - OPEN TO TRAFFIC
- WORK ZONE - CLOSED TO TRAFFIC

TRAFFIC CONTROL SIGN OR SIGN COVER INSTALLED IN PREVIOUS STAGE 'X'

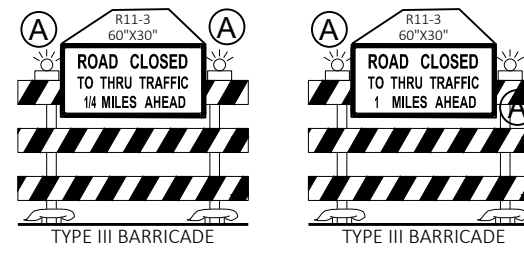
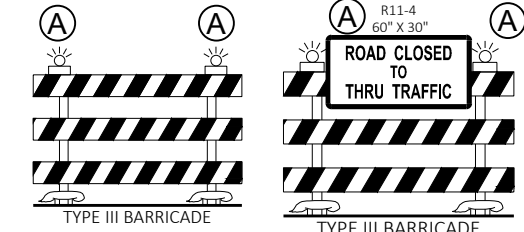
USE ROAD CLOSURE BARRICADE DETAIL FROM SDD "BARRICADES AND SIGNS FOR VARIOUS CLOSURES"



2

2

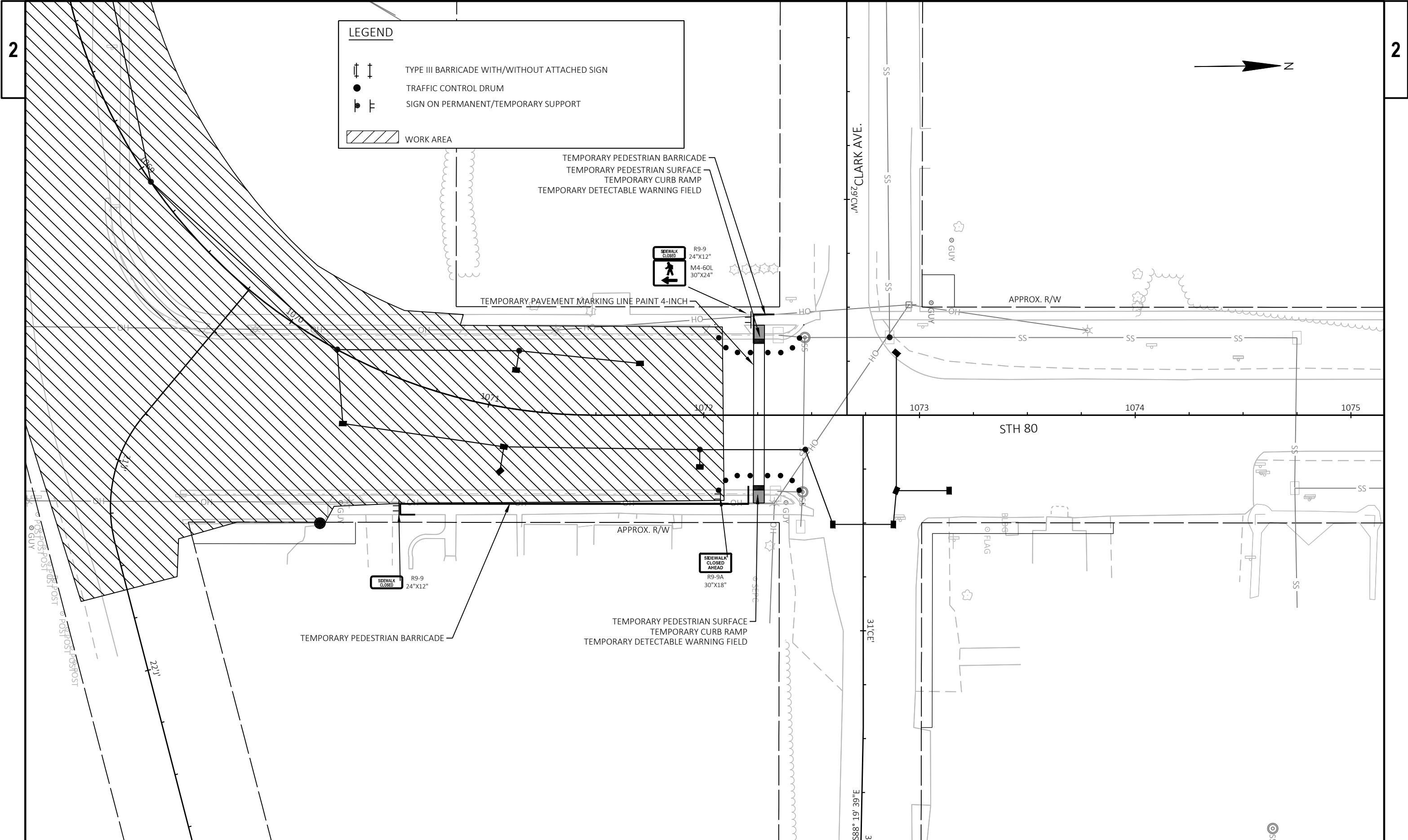
BARRICADE DETAIL AT SIDE ROADS (DENOTED BY \*\*)  
 PLACE AT THE FOLLOWING:  
 NECEDAH RD  
 PINE ST  
 JUNEAU AVE  
 CLARK AVE



BARRICADE AT STH 80/STH 173 N  
 BARRICADE AT STH 80/STH 173 S

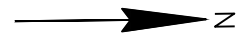
**LEGEND**

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- WORK ZONE - OPEN TO TRAFFIC
- WORK ZONE - CLOSED TO TRAFFIC
- TRAFFIC CONTROL SIGN OR SIGN COVER INSTALLED IN PREVIOUS STAGE 'X'
- USE ROAD CLOSURE BARRICADE DETAIL FROM SDD "BARRICADES AND SIGNS FOR VARIOUS CLOSURES"



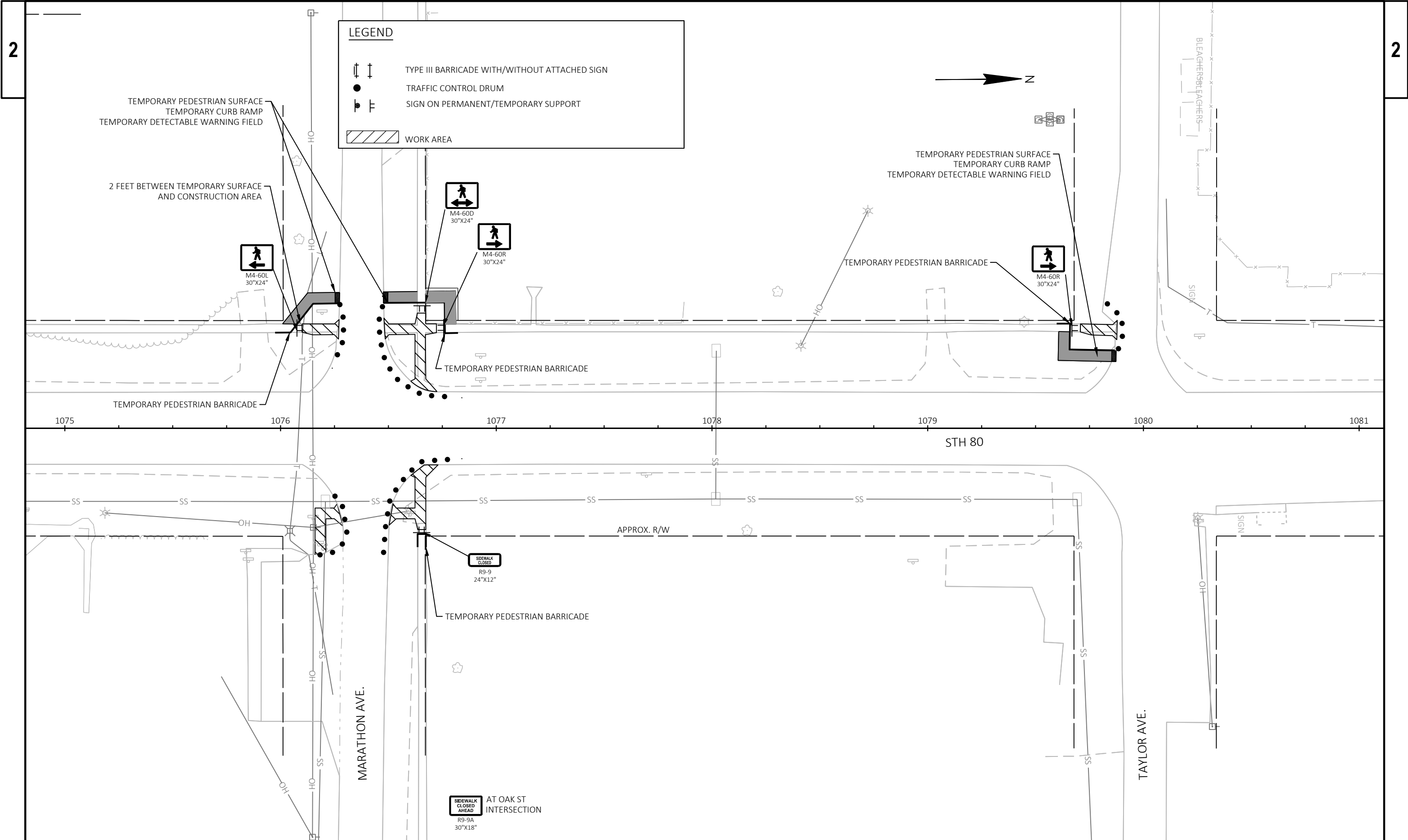
**LEGEND**

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- WORK AREA



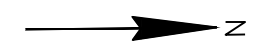
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2

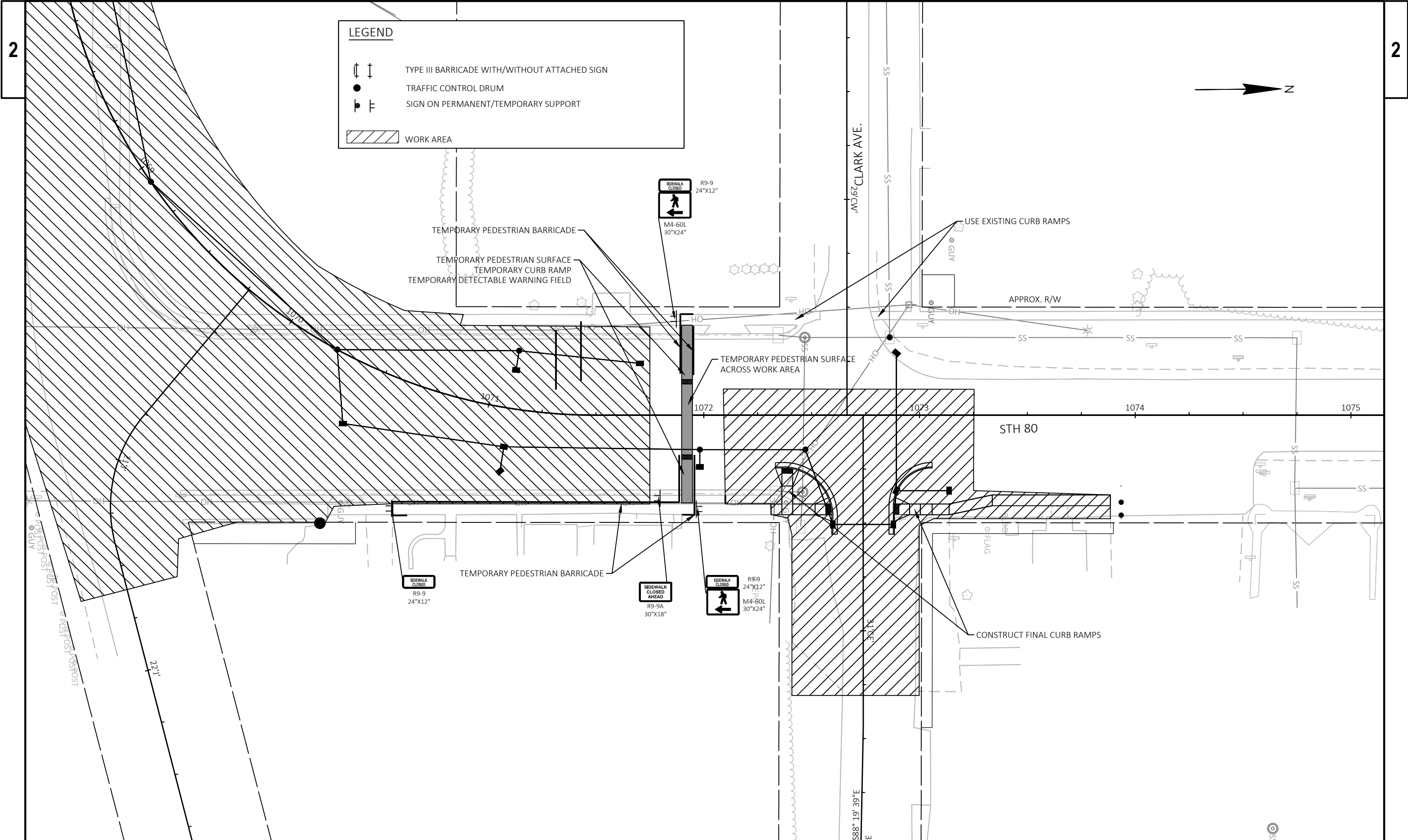


**LEGEND**

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- WORK AREA

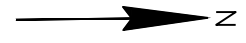


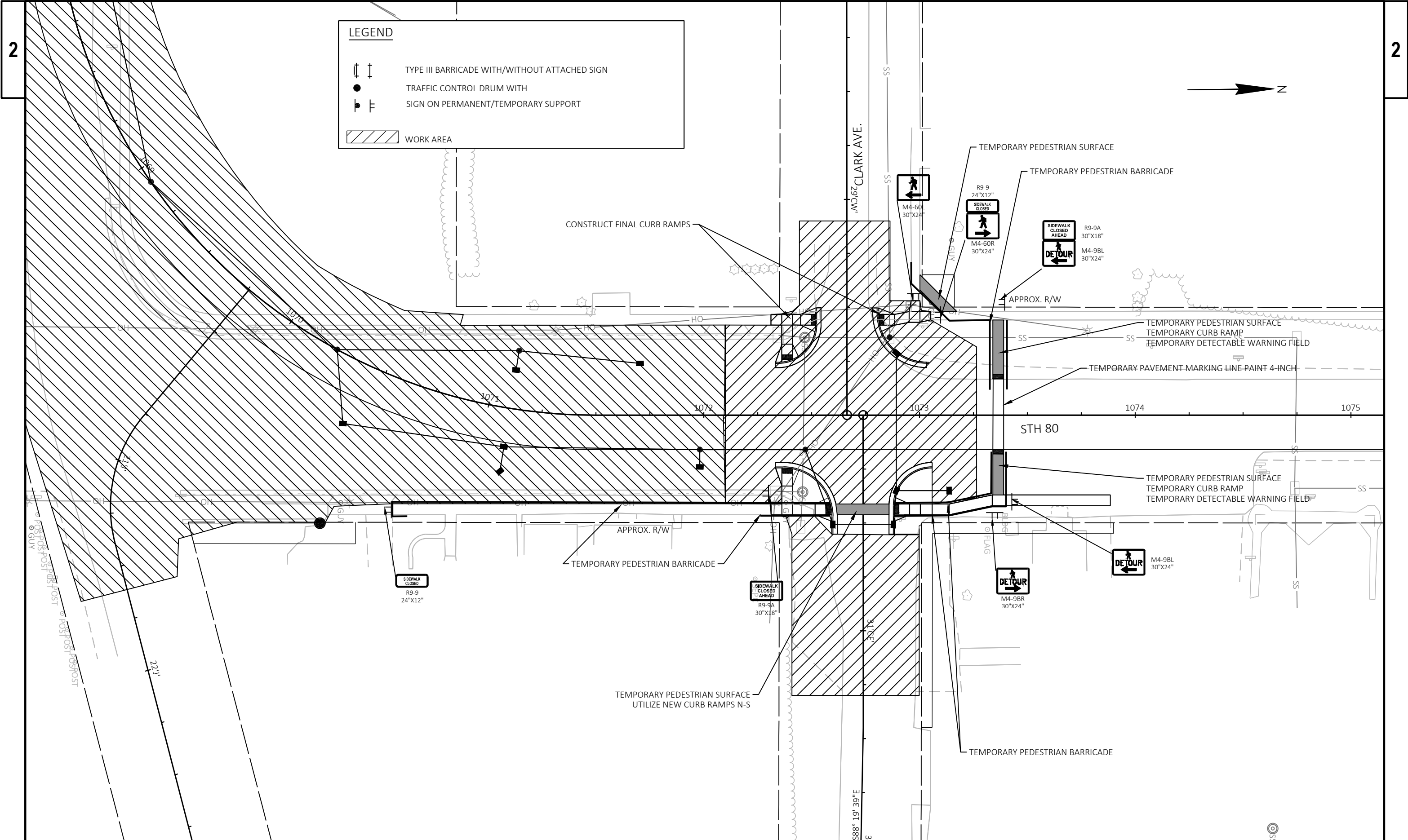




**LEGEND**

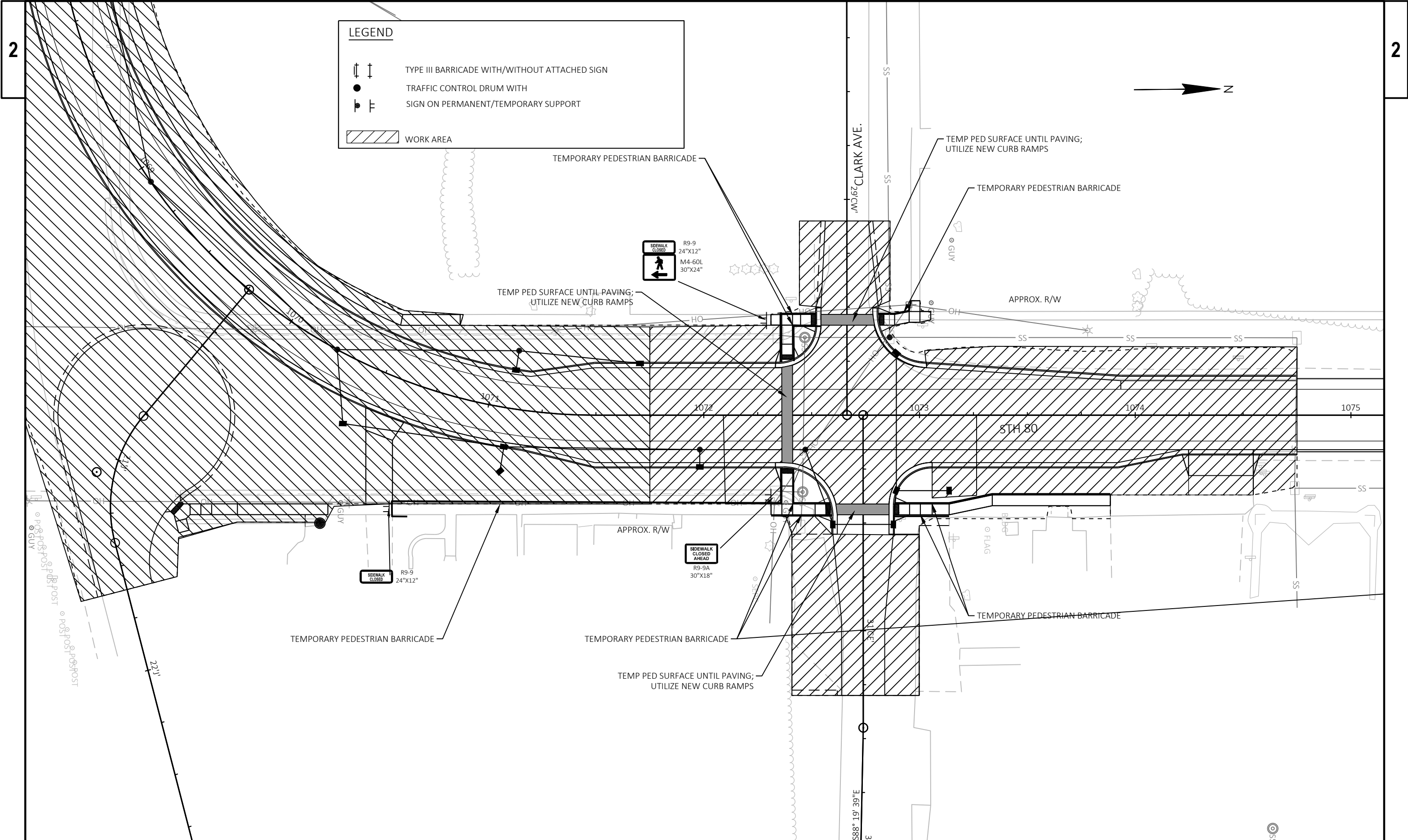
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- WORK AREA





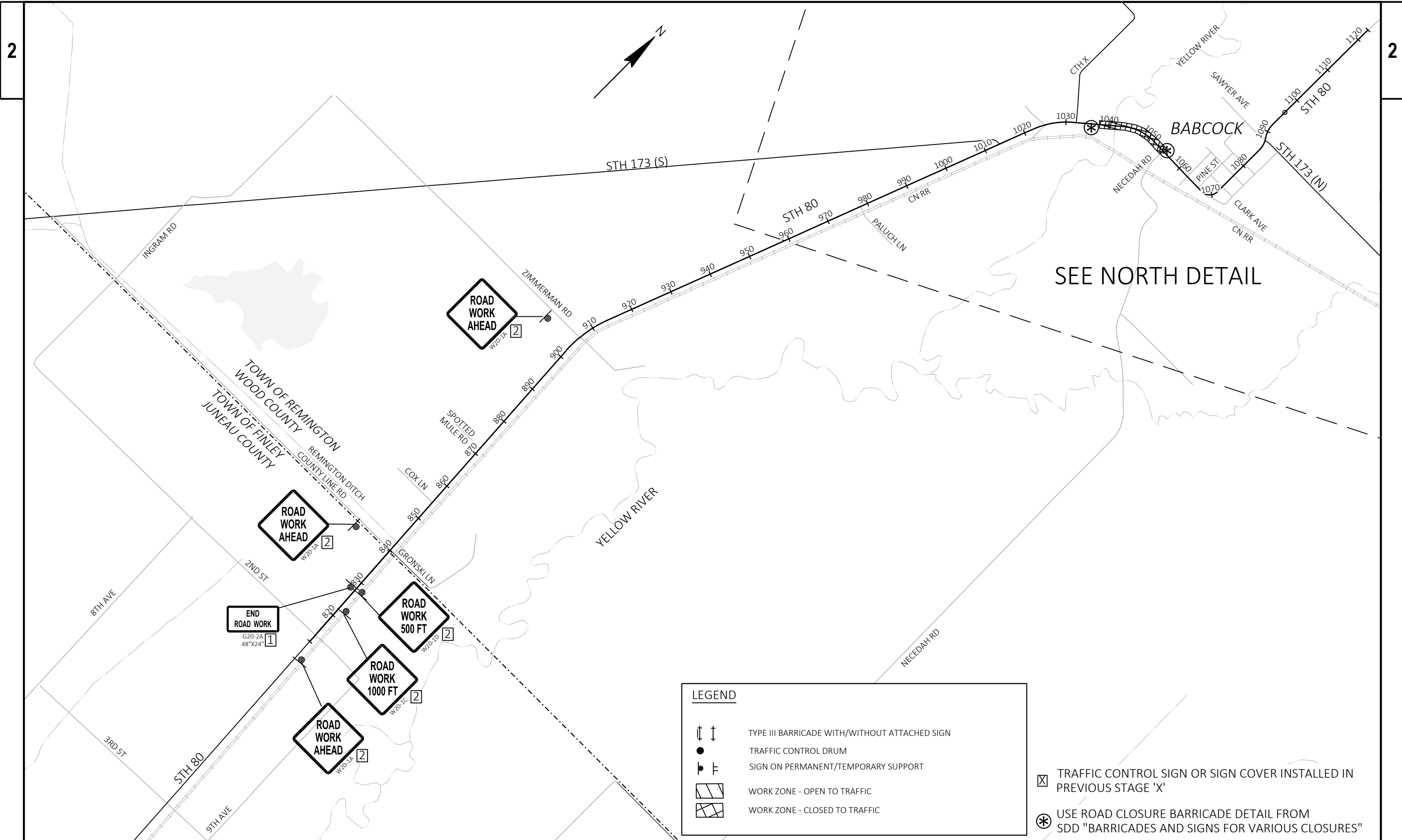
**LEGEND**

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- WORK AREA

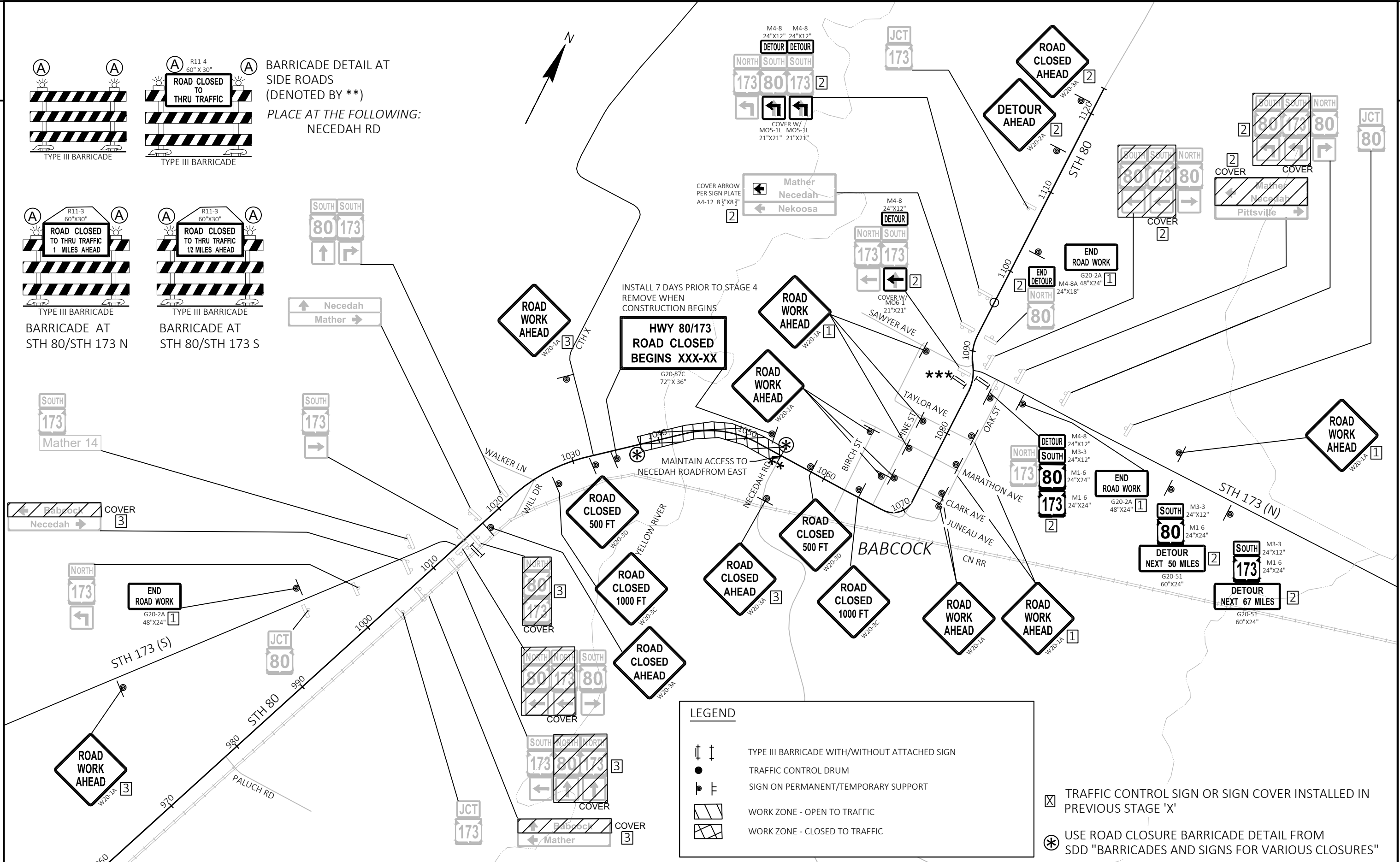
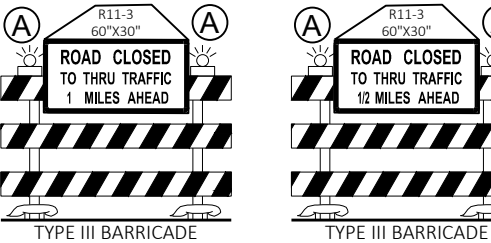
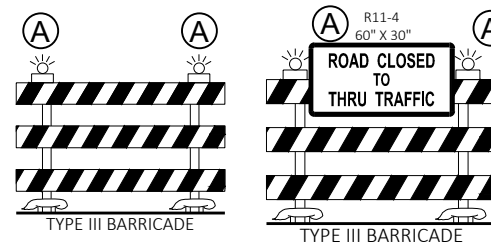


**LEGEND**

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- WORK AREA

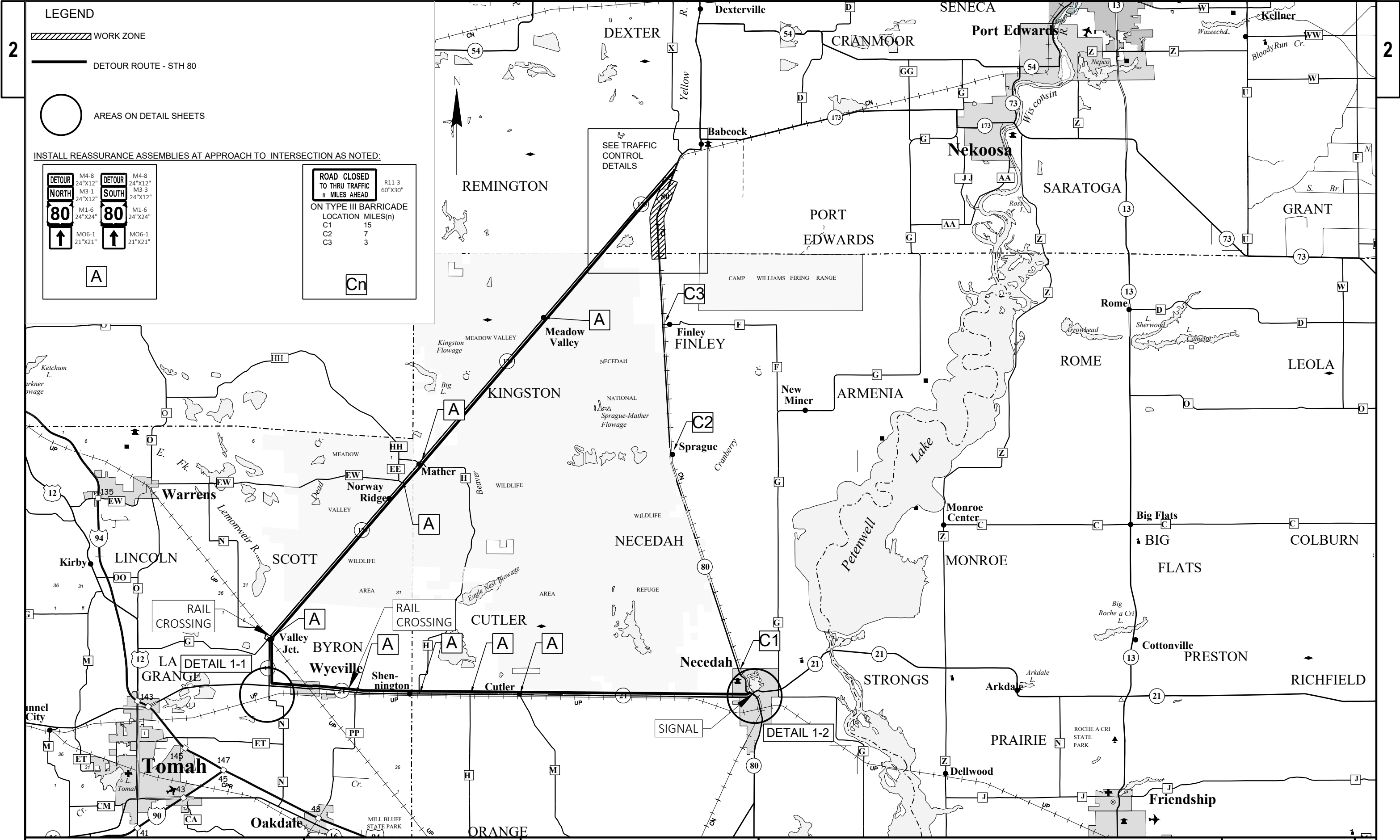


PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      TRAFFIC CONTROL -STAGE 4 ADVANCED WARNING      SHEET      **E**



**LEGEND**

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- WORK ZONE - OPEN TO TRAFFIC
- WORK ZONE - CLOSED TO TRAFFIC
- TRAFFIC CONTROL SIGN OR SIGN COVER INSTALLED IN PREVIOUS STAGE 'X'
- USE ROAD CLOSURE BARRICADE DETAIL FROM SDD "BARRICADES AND SIGNS FOR VARIOUS CLOSURES"



**LEGEND**

- WORK ZONE
- DETOUR ROUTE - STH 80
- AREAS ON DETAIL SHEETS

INSTALL REASSURANCE ASSEMBLIES AT APPROACH TO INTERSECTION AS NOTED:

M4-8 24"x12"	M4-8 24"x12"
M3-1 24"x12"	M3-3 24"x12"
M1-6 24"x24"	M1-6 24"x24"
MO6-1 21"x21"	MO6-1 21"x21"

**A**

ROAD CLOSED TO THRU TRAFFIC n MILES AHEAD	R11-3 60"x30"
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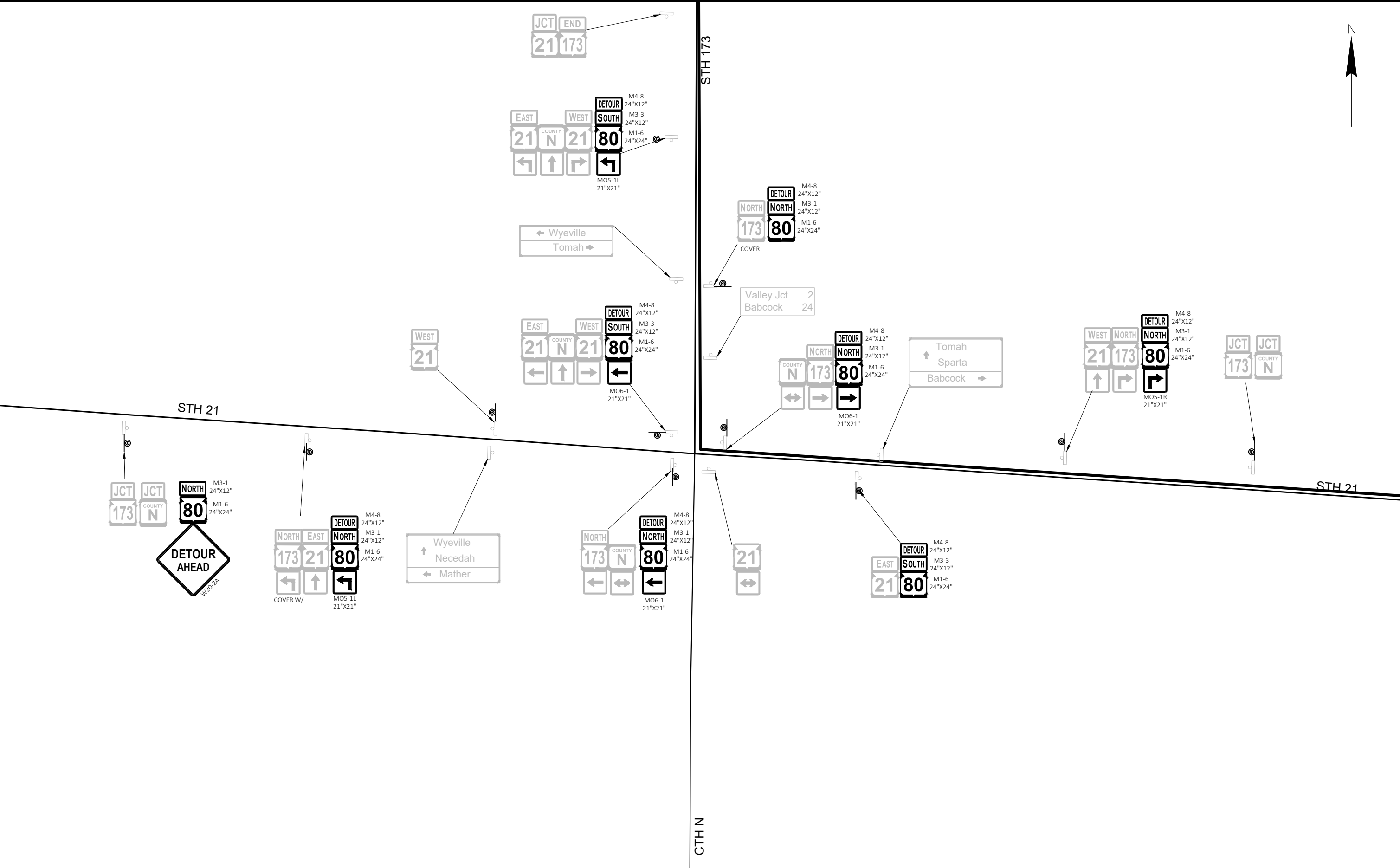
ON TYPE III BARRICADE

LOCATION	MILES (n)
C1	15
C2	7
C3	3

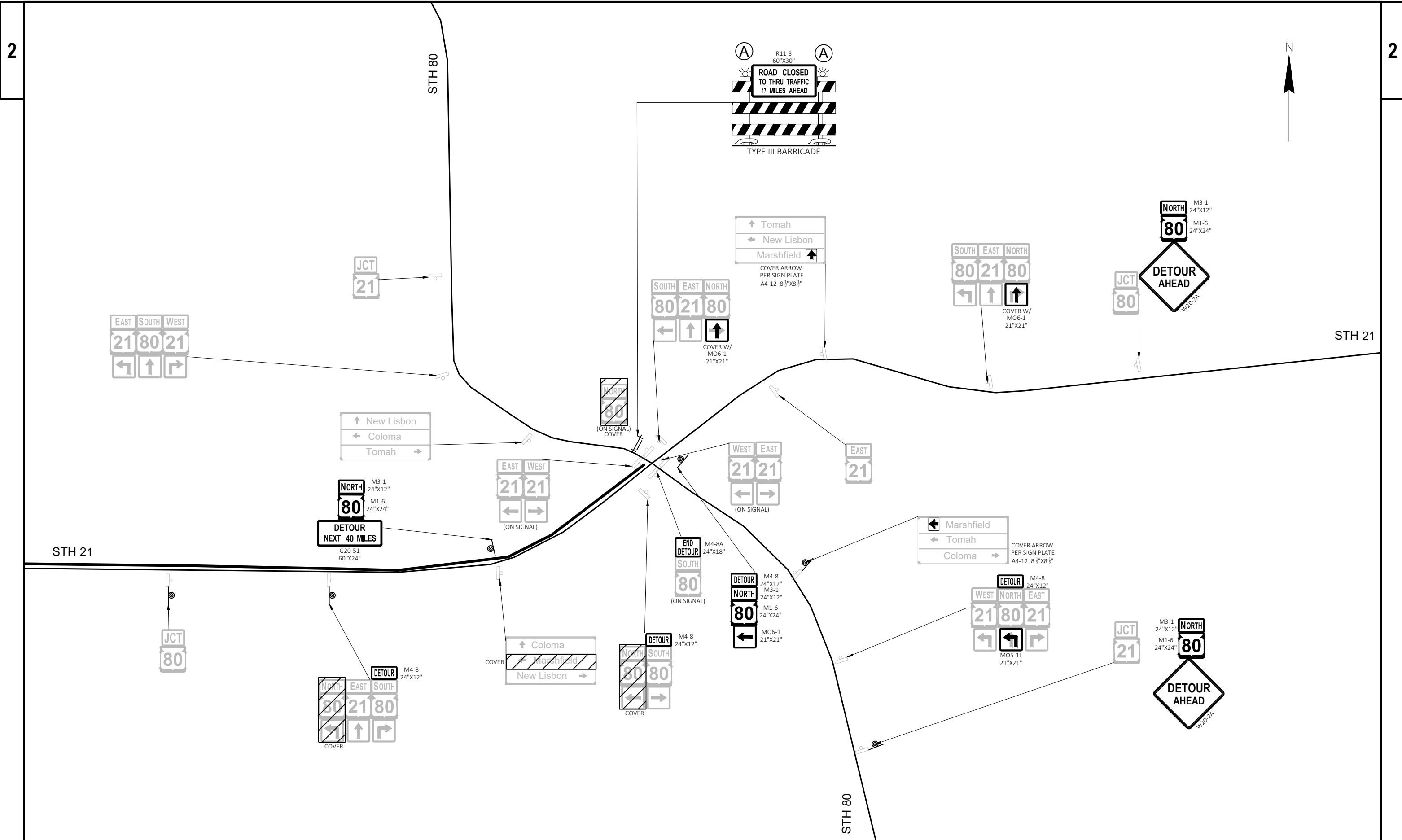
**Cn**

PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      DETOUR OVERVIEW - STAGE 1      SHEET **E**

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\027101\_DT-80-S1.DWG      PLOT DATE : 12/8/2022 9:10 AM      PLOT BY : ADAM OSYPOWSKI      PLOT NAME :      PLOT SCALE : 1: 3 mi      WISDOT/CADD SHEET 42



PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	DETOUR PLAN STAGE 1 : DETAIL 1-1	SHEET	E
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LEGEND

- WORK ZONE
- DETOUR ROUTE - STH 80
- DETOUR ROUTE - STH 173
- AREAS ON DETAIL SHEETS

INSTALL REASSURANCE ASSEMBLIES AT APPROACHES TO INTERSECTION AS NOTED:

**DETOUR NORTH 80**

M4-8 24"x12" M4-8 24"x12"  
 M3-1 24"x12" M3-3 24"x12"  
 M1-6 24"x24" M1-6 24"x24"  
 MO6-1 21"x21" MO6-1 21"x21"

**DETOUR SOUTH 80**

M4-8 24"x12" M4-8 24"x12"  
 M3-1 24"x12" M3-3 24"x12"  
 M1-6 24"x24" M1-6 24"x24"  
 MO6-1 21"x21" MO6-1 21"x21"

**A**

**DETOUR NORTH 173**

M4-8 24"x12" M4-8 24"x12"  
 M3-1 24"x12" M3-3 24"x12"  
 M1-6 24"x24" M1-6 24"x24"  
 MO6-1 21"x21" MO6-1 21"x21"

**DETOUR SOUTH 173**

M4-8 24"x12" M4-8 24"x12"  
 M3-1 24"x12" M3-3 24"x12"  
 M1-6 24"x24" M1-6 24"x24"  
 MO6-1 21"x21" MO6-1 21"x21"

**B**

**ROAD CLOSED TO THRU TRAFFIC n MILES AHEAD**

R11-3 60"x30"

ON TYPE III BARRICADE

LOCATION	MILES(n)
C1	15
C2	7
C3	3
C4	21
C5	13
C6	7

**Cn**

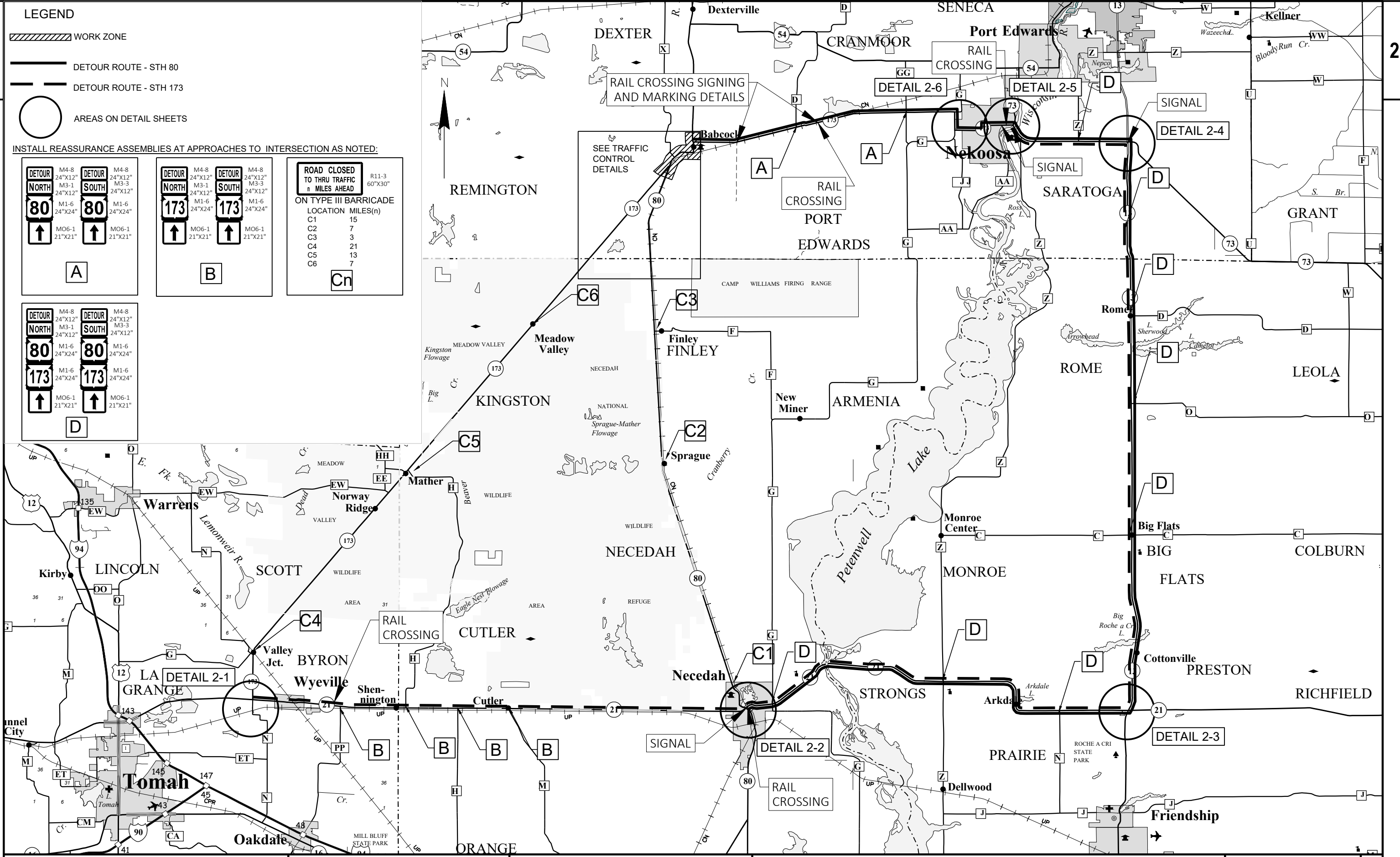
**DETOUR NORTH 80**

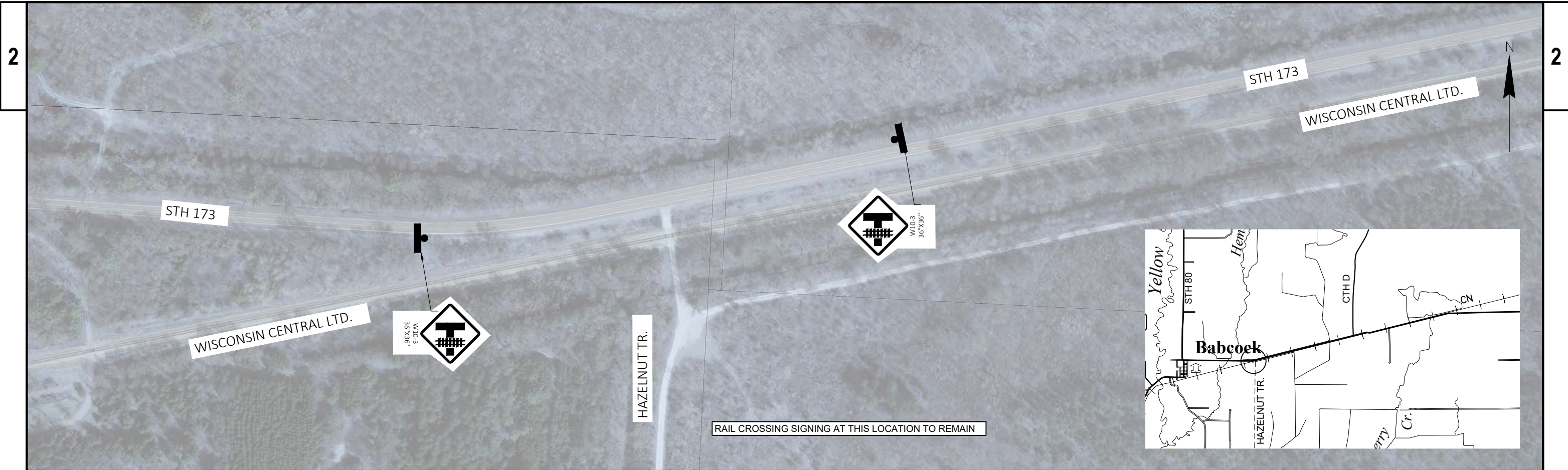
M4-8 24"x12" M4-8 24"x12"  
 M3-1 24"x12" M3-3 24"x12"  
 M1-6 24"x24" M1-6 24"x24"  
 MO6-1 21"x21" MO6-1 21"x21"

**DETOUR SOUTH 80**

M4-8 24"x12" M4-8 24"x12"  
 M3-1 24"x12" M3-3 24"x12"  
 M1-6 24"x24" M1-6 24"x24"  
 MO6-1 21"x21" MO6-1 21"x21"

**D**





PROJECT NO: 1620-02-76

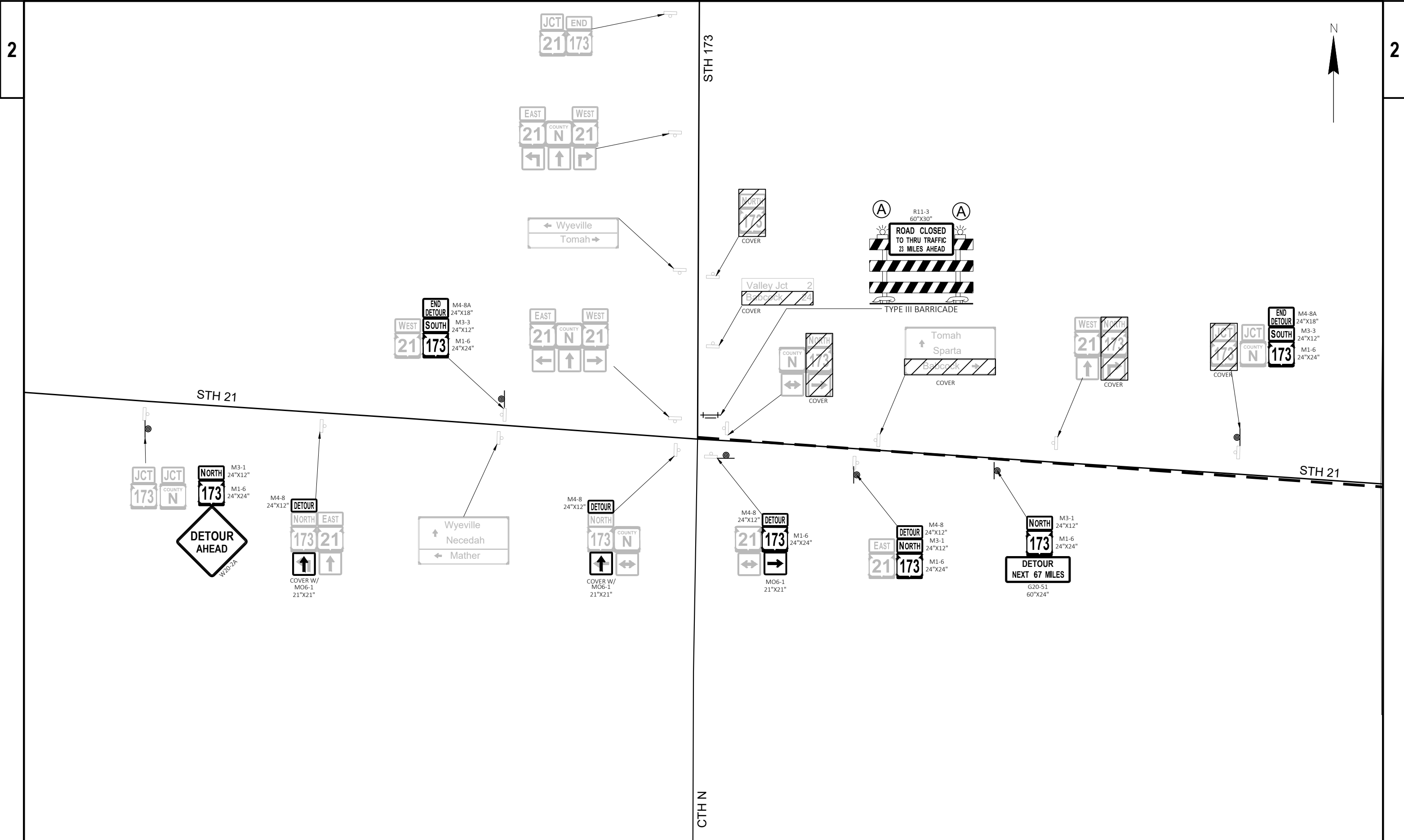
HWY: STH 80

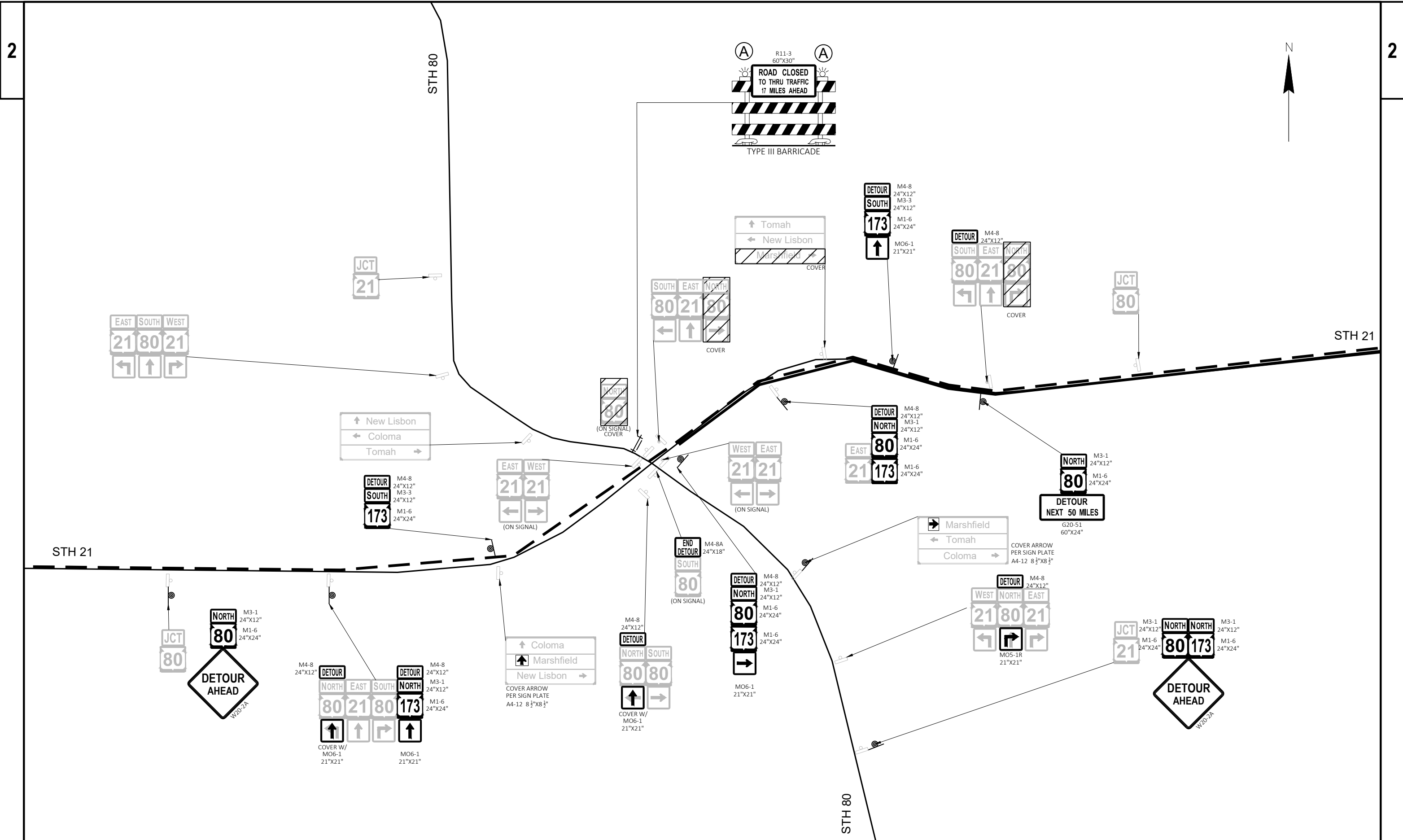
COUNTY: WOOD

DETOUR PLAN STAGES 2-4 RAIL CROSSING SIGNING AND MARKING

SHEET

E





PROJECT NO: 1620-02-76

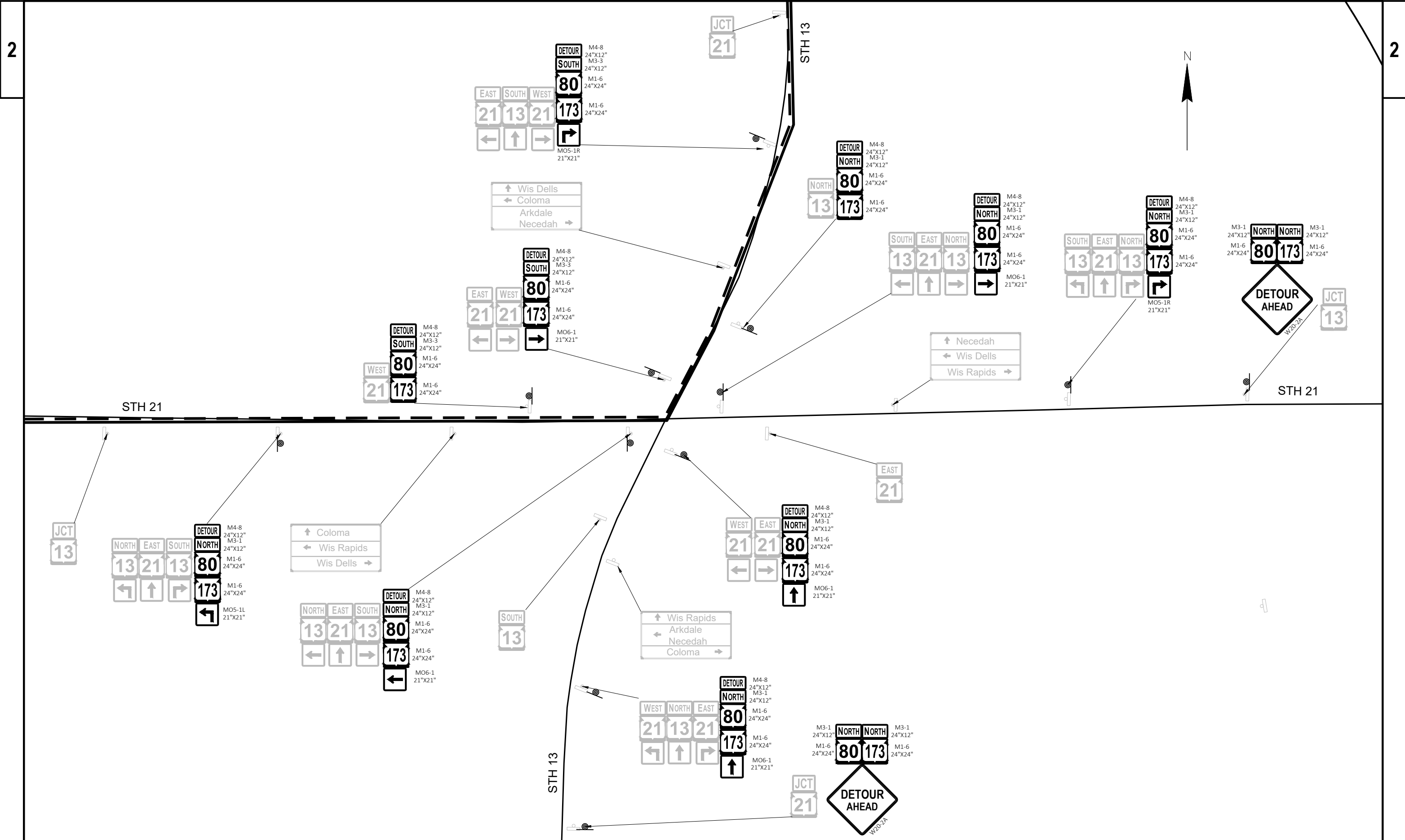
HWY: STH 80

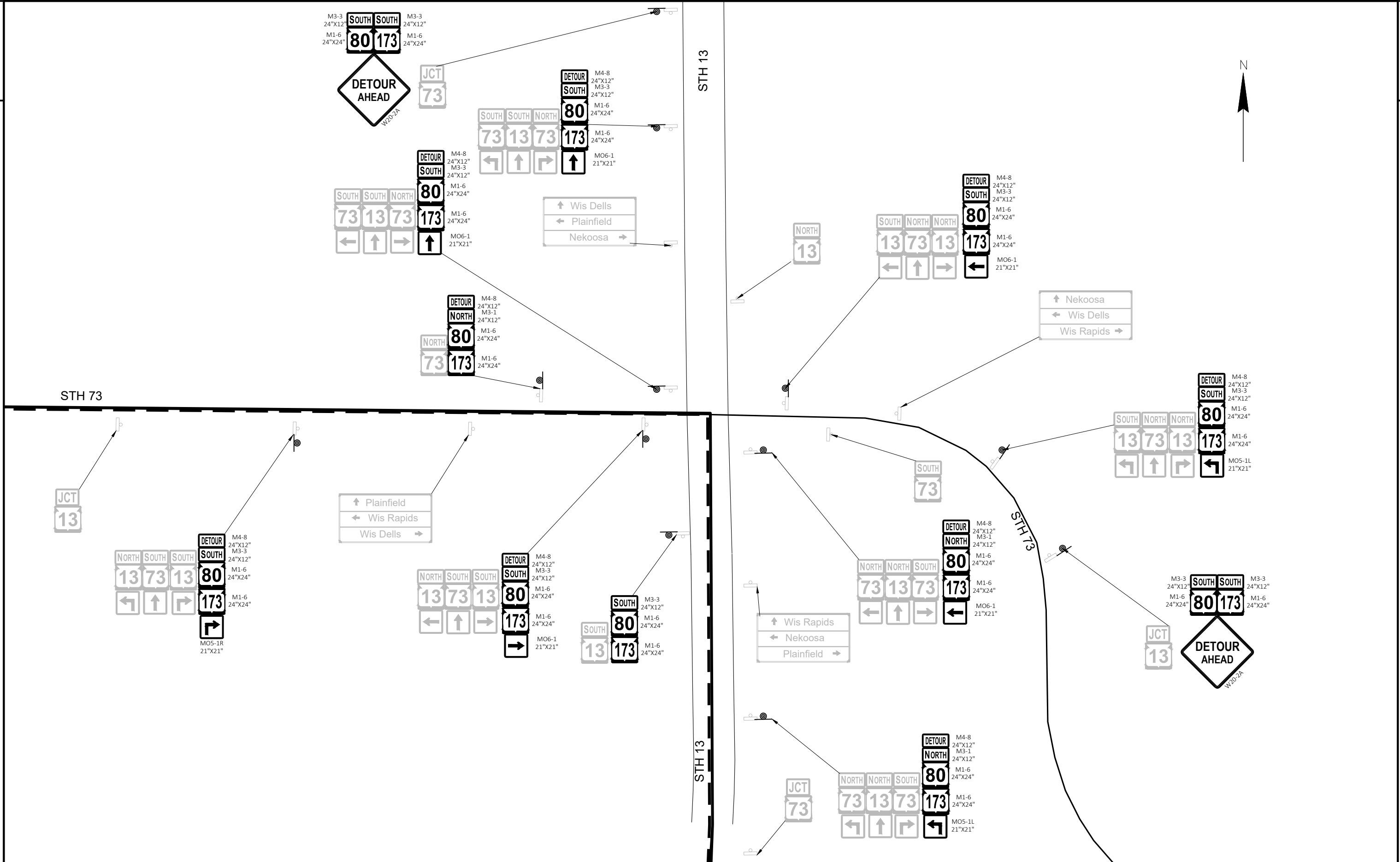
COUNTY: WOOD

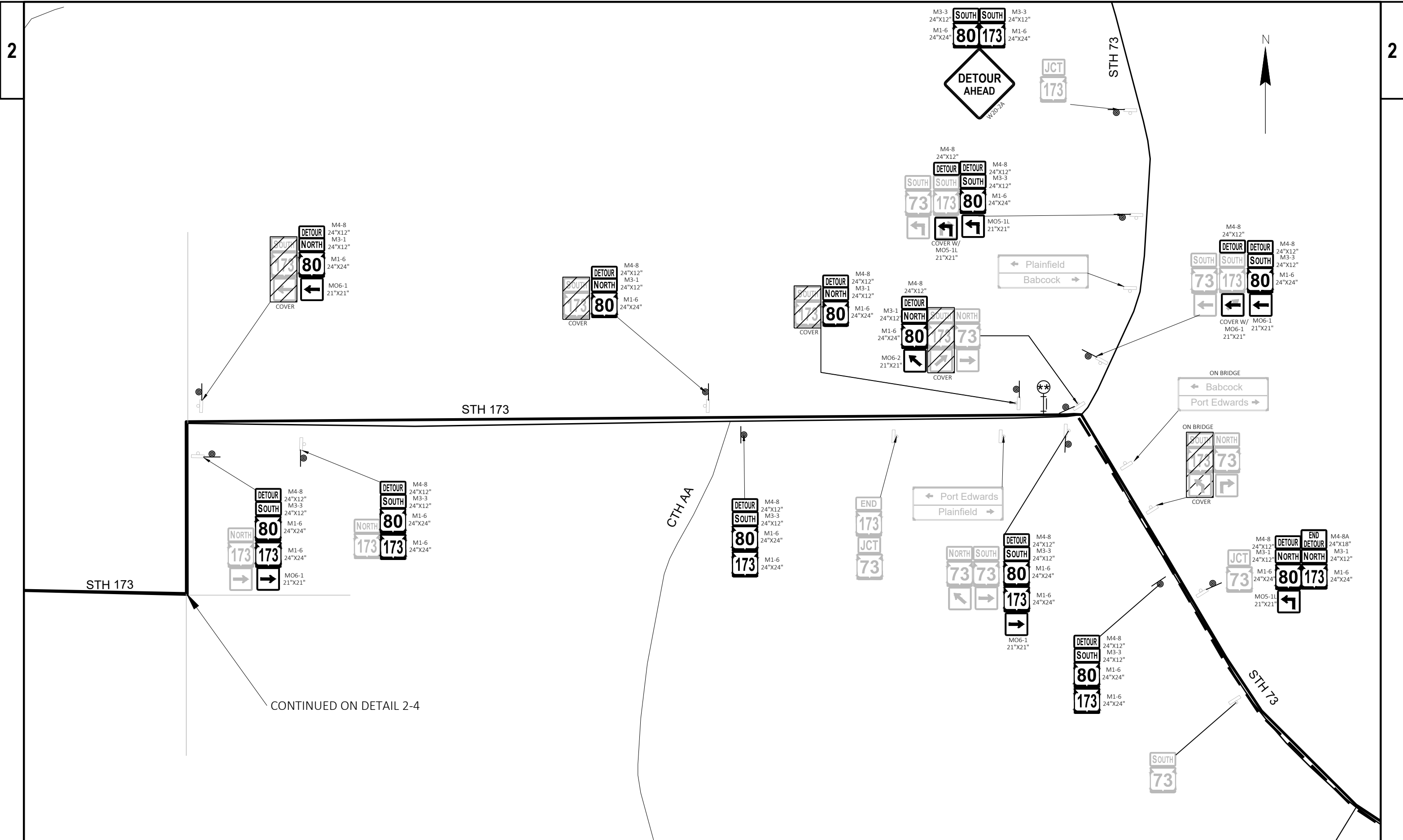
DETOUR PLAN STAGES : 2-4 DETAIL 2-2

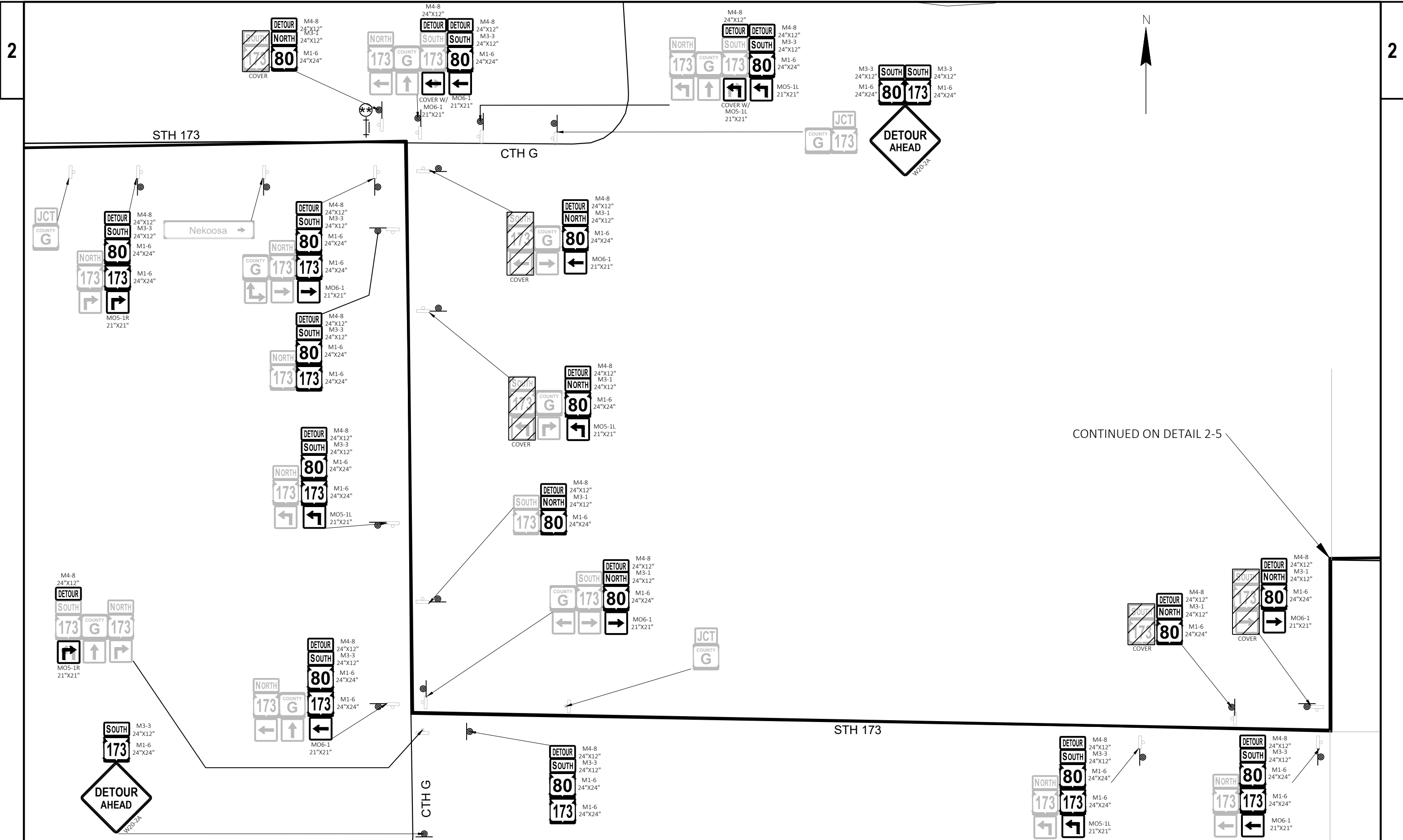
SHEET

E









PROJECT NO: 1620-02-76

HWY: STH 80

COUNTY: WOOD

DETOUR PLAN STAGES 2-4 : DETAIL 2-6

SHEET

E



Estimate Of Quantities

1620-02-76

Line	Item	Item Description	Unit	Total	Qty
0002	201.0110	Clearing	SY	6,751.000	6,751.000
0004	201.0210	Grubbing	SY	1,467.000	1,467.000
0006	203.0100	Removing Small Pipe Culverts	EACH	7.000	7.000
0008	204.0100	Removing Concrete Pavement	SY	1,248.000	1,248.000
0010	204.0110	Removing Asphaltic Surface	SY	10,365.000	10,365.000
0012	204.0115	Removing Asphaltic Surface Butt Joints	SY	821.000	821.000
0014	204.0120	Removing Asphaltic Surface Milling	SY	80,593.000	80,593.000
0016	204.0150	Removing Curb & Gutter	LF	1,181.000	1,181.000
0018	204.0155	Removing Concrete Sidewalk	SY	403.000	403.000
0020	204.0165	Removing Guardrail	LF	1,291.000	1,291.000
0022	204.0180	Removing Delineators and Markers	EACH	3.000	3.000
0024	204.0210	Removing Manholes	EACH	2.000	2.000
0026	204.0220	Removing Inlets	EACH	3.000	3.000
0028	204.0245	Removing Storm Sewer (size) 01. 10-Inch	LF	152.000	152.000
0030	204.0280	Sealing Pipes	EACH	1.000	1.000
0032	205.0100	Excavation Common	CY	7,408.000	7,408.000
0034	208.0100	Borrow	CY	261.000	261.000
0036	209.2500	Backfill Granular Grade 2	TON	3,826.000	3,826.000
0038	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 1620-02-76	EACH	1.000	1.000
0040	213.0100	Finishing Roadway (project) 01. 1620-02-76	EACH	1.000	1.000
0042	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,896.000	1,896.000
0044	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	6,741.000	6,741.000
0046	325.0100	Pulverize and Relay	SY	54,386.000	54,386.000
0048	374.1020.S	QMP Pulverize and Relay Compaction	SY	54,386.000	54,386.000
0050	416.0160	Concrete Driveway 6-Inch	SY	53.000	53.000
0052	416.1010	Concrete Surface Drains	CY	9.000	9.000
0054	450.4000	HMA Cold Weather Paving	TON	4,374.000	4,374.000
0056	455.0605	Tack Coat	GAL	10,645.000	10,645.000
0058	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0060	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0062	460.2000	Incentive Density HMA Pavement	DOL	1,670.000	1,670.000
0064	460.6223	HMA Pavement 3 MT 58-28 S	TON	9,478.000	9,478.000
0066	460.6224	HMA Pavement 4 MT 58-28 S	TON	16,467.000	16,467.000
0068	460.6424	HMA Pavement 4 MT 58-28 H	TON	2,041.000	2,041.000
0070	465.0105	Asphaltic Surface	TON	8.000	8.000
0072	465.0110	Asphaltic Surface Patching	TON	106.000	106.000
0074	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	54.000	54.000
0076	465.0315	Asphaltic Flumes	SY	22.000	22.000
0078	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	17,200.000	17,200.000
0080	520.1030	Apron Endwalls for Culvert Pipe 30-Inch	EACH	1.000	1.000
0082	520.3418	Culvert Pipe Class III-A Non-metal 18-Inch	LF	54.000	54.000
0084	520.8000	Concrete Collars for Pipe	EACH	6.000	6.000
0086	520.8700	Cleaning Culvert Pipes	EACH	3.000	3.000
0088	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	1.000	1.000
0090	521.1518	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 6 to 1	EACH	2.000	2.000
0092	521.3124	Culvert Pipe Corrugated Steel 24-Inch	LF	2.000	2.000
0094	522.0130	Culvert Pipe Reinforced Concrete Class III 30-Inch	LF	14.000	14.000
0096	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	5.000	5.000
0098	601.0120	Concrete Curb Type J	LF	110.000	110.000

Estimate Of Quantities

1620-02-76

Line	Item	Item Description	Unit	Total	Qty
0100	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	1,811.000	1,811.000
0102	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	521.000	521.000
0104	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	240.000	240.000
0106	602.0405	Concrete Sidewalk 4-Inch	SF	4,079.000	4,079.000
0108	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	100.000	100.000
0110	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	15.000	15.000
0112	606.0200	Riprap Medium	CY	13.000	13.000
0114	608.2314	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 14x23-Inch	LF	47.000	47.000
0116	608.2414	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 14x23-Inch	LF	17.000	17.000
0118	608.2419	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	LF	992.000	992.000
0120	608.3030	Storm Sewer Pipe Class III-A 30-Inch	LF	1,180.000	1,180.000
0122	611.0420	Reconstructing Manholes	EACH	1.000	1.000
0124	611.0530	Manhole Covers Type J	EACH	9.000	9.000
0126	611.0612	Inlet Covers Type C	EACH	5.000	5.000
0128	611.0624	Inlet Covers Type H	EACH	8.000	8.000
0130	611.0639	Inlet Covers Type H-S	EACH	3.000	3.000
0132	611.1004	Catch Basins 4-FT Diameter	EACH	5.000	5.000
0134	611.1005	Catch Basins 5-FT Diameter	EACH	7.000	7.000
0136	611.1006	Catch Basins 6-FT Diameter	EACH	4.000	4.000
0138	611.2005	Manholes 5-FT Diameter	EACH	4.000	4.000
0140	611.2006	Manholes 6-FT Diameter	EACH	4.000	4.000
0142	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	910.000	910.000
0144	614.2300	MGS Guardrail 3	LF	162.500	162.500
0146	614.2330	MGS Guardrail 3 K	LF	1,225.000	1,225.000
0148	614.2500	MGS Thrie Beam Transition	LF	150.000	150.000
0150	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0152	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1620-02-76	EACH	1.000	1.000
0154	619.1000	Mobilization	EACH	1.000	1.000
0156	624.0100	Water	MGAL	340.000	340.000
0158	625.0100	Topsoil	SY	12,510.000	12,510.000
0160	628.1504	Silt Fence	LF	5,835.000	5,835.000
0162	628.1520	Silt Fence Maintenance	LF	5,835.000	5,835.000
0164	628.1905	Mobilizations Erosion Control	EACH	7.000	7.000
0166	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0168	628.2008	Erosion Mat Urban Class I Type B	SY	11,970.000	11,970.000
0170	628.2021	Erosion Mat Class II Type A	SY	560.000	560.000
0172	628.7005	Inlet Protection Type A	EACH	27.000	27.000
0174	628.7010	Inlet Protection Type B	EACH	15.000	15.000
0176	628.7015	Inlet Protection Type C	EACH	12.000	12.000
0178	628.7020	Inlet Protection Type D	EACH	2.000	2.000
0180	628.7504	Temporary Ditch Checks	LF	50.000	50.000
0182	628.7515.S	Stone Ditch Checks	CY	12.000	12.000
0184	628.7555	Culvert Pipe Checks	EACH	29.000	29.000
0186	628.7570	Rock Bags	EACH	180.000	180.000
0188	629.0210	Fertilizer Type B	CWT	5.000	5.000
0190	630.0130	Seeding Mixture No. 30	LB	13.800	13.800
0192	630.0140	Seeding Mixture No. 40	LB	324.000	324.000
0194	630.0500	Seed Water	MGAL	279.000	279.000
0196	633.5200	Markers Culvert End	EACH	10.000	10.000

Estimate Of Quantities

1620-02-76

Line	Item	Item Description	Unit	Total	Qty
0198	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	1.000	1.000
0200	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	9.000	9.000
0202	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	31.000	31.000
0204	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	18.000	18.000
0206	634.0620	Posts Wood 4x6-Inch X 20-FT	EACH	5.000	5.000
0208	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	1.000	1.000
0210	637.2210	Signs Type II Reflective H	SF	91.280	91.280
0212	637.2230	Signs Type II Reflective F	SF	148.000	148.000
0214	638.2102	Moving Signs Type II	EACH	29.000	29.000
0216	638.2602	Removing Signs Type II	EACH	23.000	23.000
0218	638.3000	Removing Small Sign Supports	EACH	37.000	37.000
0220	638.4000	Moving Small Sign Supports	EACH	6.000	6.000
0222	642.5201	Field Office Type C	EACH	1.000	1.000
0224	643.0300	Traffic Control Drums	DAY	12,580.000	12,580.000
0226	643.0420	Traffic Control Barricades Type III	DAY	3,062.000	3,062.000
0228	643.0705	Traffic Control Warning Lights Type A	DAY	6,124.000	6,124.000
0230	643.0900	Traffic Control Signs	DAY	51,783.000	51,783.000
0232	643.0920	Traffic Control Covering Signs Type II	EACH	40.000	40.000
0234	643.1000	Traffic Control Signs Fixed Message	SF	144.000	144.000
0236	643.3105	Temporary Marking Line Paint 4-Inch	LF	22,505.000	22,505.000
0238	643.3120	Temporary Marking Line Epoxy 4-Inch	LF	16,735.000	16,735.000
0240	643.5000	Traffic Control	EACH	1.000	1.000
0242	644.1440	Temporary Pedestrian Surface Matting	SF	1,950.000	1,950.000
0244	644.1601	Temporary Pedestrian Curb Ramp	DAY	128.000	128.000
0246	644.1605	Temporary Pedestrian Detectable Warning Field	SF	90.000	90.000
0248	644.1810	Temporary Pedestrian Barricade	LF	1,635.000	1,635.000
0250	645.0120	Geotextile Type HR	SY	17.000	17.000
0252	645.0130	Geotextile Type R	SY	39.000	39.000
0254	646.1020	Marking Line Epoxy 4-Inch	LF	17,264.000	17,264.000
0256	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	48,924.000	48,924.000
0258	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	660.000	660.000
0260	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	5,016.000	5,016.000
0262	646.5320	Marking Railroad Crossing Epoxy	EACH	2.000	2.000
0264	646.6120	Marking Stop Line Epoxy 18-Inch	LF	85.000	85.000
0266	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	165.000	165.000
0268	646.8320	Marking Parking Stall Epoxy	LF	41.000	41.000
0270	648.0100	Locating No-Passing Zones	MI	4.900	4.900
0272	650.4000	Construction Staking Storm Sewer	EACH	26.000	26.000
0274	650.4500	Construction Staking Subgrade	LF	24,215.000	24,215.000
0276	650.5000	Construction Staking Base	LF	24,215.000	24,215.000
0278	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,790.000	1,790.000
0280	650.6000	Construction Staking Pipe Culverts	EACH	4.000	4.000
0282	650.8000	Construction Staking Resurfacing Reference	LF	25,077.000	25,077.000
0284	650.9000	Construction Staking Curb Ramps	EACH	11.000	11.000
0286	650.9500	Construction Staking Sidewalk (project) 01.1620-02-76	EACH	1.000	1.000
0288	650.9911	Construction Staking Supplemental Control (project) 01. 1620-02-76	EACH	1.000	1.000
0290	650.9920	Construction Staking Slope Stakes	LF	3,605.000	3,605.000
0292	690.0150	Sawing Asphalt	LF	2,050.000	2,050.000
0294	690.0250	Sawing Concrete	LF	119.000	119.000

Estimate Of Quantities

1620-02-76

Line	Item	Item Description	Unit	Total	Qty
0296	740.0440	Incentive IRI Ride	DOL	19,877.000	19,877.000
0298	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,400.000	2,400.000
0300	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,980.000	1,980.000
0302	SPV.0030	Special 01. Fertilizer for Lawn Type Turf	CWT	2.700	2.700
0304	SPV.0055	Special 01. Incentive Density PWL HMA Pavement	DOL	20,000.000	20,000.000
0306	SPV.0055	Special 02. Incentive Air Voids HMA Pavement	DOL	26,170.000	26,170.000
0308	SPV.0055	Special 03. Incentive Density HMA Pavement Longitudinal Joints	DOL	30,470.000	30,470.000
0310	SPV.0060	Special 01. Research and Locate Existing Land Parcel Monuments	EACH	7.000	7.000
0312	SPV.0060	Special 02. Verify and Replace Existing Land Parcel Monuments	EACH	7.000	7.000
0314	SPV.0060	Special 03. Site Mowing	EACH	8.000	8.000
0316	SPV.0060	Special 04. Grading and Shaping STH 173 S Intersection	EACH	1.000	1.000
0318	SPV.0060	Special 05. Grading and Shaping Curb Ramps	EACH	5.000	5.000
0320	SPV.0090	Special 01. Ditch Restoration	LF	45.000	45.000
0322	SPV.0090	Special 02. Construction Staking Outfall	LF	600.000	600.000
0324	SPV.0090	Special 03. Marking Stop Line Epoxy 24-Inch	LF	60.000	60.000
0326	SPV.0090	Special 04. Salvage and Reinstall MGS Guardrail System	LF	555.000	555.000
0328	SPV.0180	Special 01. Preparing Topsoil for Lawn Type Turf	SY	4,590.000	4,590.000
0330	SPV.0195	Special 01. Base Aggregate Disintegrated Granite	TON	157.000	157.000

**CLEARING AND GRUBBING**

		201.0110		201.0210		
		Clearing		Grubbing		
STA	- STA	Location	SY	SY	Notes	
<b>1620-02-76 CATEGORY 0010</b>						
836+30	- 837+50	RT	384	0	To Right of Way (Railroad Vision Corner)	
838+25	- 839+30	LT	435	0	To Right of Way (Railroad Vision Corner)	
839+83	- 841+30	LT	856	0	To Right of Way (Railroad Vision Corner)	
840+15	- 842+40	RT	946	0	To Right of Way (Railroad Vision Corner)	
906+85	- 908+70	RT	539	0	To Right of Way (Railroad Vision Corner)	
974+85	- 977+45	RT	1003	0	To Right of Way (Railroad Vision Corner)	
977+83	- 980+35	RT	1121	0	To Right of Way (Railroad Vision Corner)	
1013+05	- 1015+85	RT	163	163	TO 3' BEYOND SLOPE INTERCEPT RT	
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTAL</b>			<b>5447</b>	<b>163</b>		
<b>1620-02-76 CATEGORY 0020</b>						
1048+58	- 1051+86	LT	906	906	OUTFALL - TO 3' BEYOND SLOPE INTERCEPT	
1055+85	- 1061+15	LT	399	399	TO R/W LT	
<b>PROJECT 1620-02-76 CATEGORY 0020 TOTAL</b>			<b>1304</b>	<b>1304</b>		

**REMOVING CULVERTS**

						203.0100		
						Removing		
						Small Pipe		
						Culverts		
STA	LOC	Culvert #	Stage	Size IN	Removal Length FT	Type	EACH	Notes
<b>1620-02-76 CATEGORY 0010</b>								
874+77	STH 80	71-080-007375	1	30	8	RCCP	1	Both Endwalls
963+07	STH 80	71-080-007380	1	30	4	RCCP	1	Left Endwall
1016+50	STH 80	LT Drive Culvert	2	18	58	CPCS	1	Entire Drive Culvert
1083+10	STH 80	71-080-009073	3	24	4	CPCS	1	Right 2 FT and Endwall
1505+95	STH 173	71-173-008715	2	30	8	RCCP	1	Both Endwalls
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTALS</b>							<b>5</b>	
<b>1620-02-76 CATEGORY 0020</b>								
1055+37	STH 80	LT Drive Culvert	3	18	30	RCCP	1	Entire Drive Culvert
1066+28	STH 80	LT Pine St Culvert	3	15	48	RCCP	1	Entire Culvert
<b>PROJECT 1620-02-76 CATEGORY 0020 TOTALS</b>							<b>2</b>	

**REMOVING ASPHALTIC SURFACE**

STA	-	STA	Stage	SY	204.0110 Removing Asphaltic Surface
<b>1620-02-76 CATEGORY 0010</b>					
1035+25		1036+80	STH 80	4	586
1036+80		1038+06	STH 80	4	560
1042+47		1044+00	STH 80	4	680
1044+00		1051+20	STH 80	4	2,960
1051+20		1053+25	STH 80	4	774
1053+25		1055+00	STH 80	4	661
1055+00		1065+80	STH 80	3	4,080
		Island	STH 173 S INT	2	43
		Flume	STH 173 S INT	2	4
		Flume	CTH X INT S	2	3
		Flume	CTH X INT N	2	4
		Flume	STH 173 N INT N	3	5
		Flume	STH 173 N INT N	3	5
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTAL</b>				<b>10,365</b>	

**REMOVING PAVEMENT**

LOCATION	Stage	SY	204.0100 Removing Concrete Pavement
<b>1620-02-76 CATEGORY 0020</b>			
STH 80 Juneau Avenue - Clark Avenue	3	1,200	
Drive Apron STA 1069+80 LT	3	10	
Drive Apron STA 1070+37 RT	3	14	
Drive Apron STA 1070+67 RT	3	7	
Drive Apron STA 1070+90 LT	3	9	
Drive Apron STA 1072+10 LT	3	8	
<b>PROJECT 1620-02-76 CATEGORY 0020 TOTALS</b>		<b>1,248</b>	

**REMOVING ASPHALTIC SURFACE MILLING**

STA	-	STA	Stage	SY	204.0120 Removing Asphaltic Surface Milling
<b>1620-02-76 CATEGORY 0010</b>					
838+90		840+10	STH 80	1	400
840+10		842+10	STH 80	1	800
842+97		844+97	STH 80	1	800
844+97		1009+00	STH 80	1	54,677
1009+00		1013+70	STH 80	2	1,567
1013+70		1035+25	STH 80	2	8,141
1074+75		1089+00	STH 80	3	5,383
1089+00		1096+00	STH 80	3	2,333
		STH 173 S	Intersection/Turn Lane	2	1,705
		STH 173 S	Bypass Lane	2	251
		County Line Road	Intersection	1	106
		Gronski Lane	Intersection	1	261
		Cox Lane	Intersection	1	50
		Zimmerman Road Rt	Intersection	1	307
		Zimmerman Road Lt	Intersection	1	258
		Paluch Road	Intersection	1	207
		Walker Lane	Intersection	2	88
		Will Drive	Intersection	2	121
		CTH X	Intersection	2	380
		Necedah Road	Intersection	3/4	849
		Birch Street	Intersection	3	146
		Marathon Avenue Rt	Intersection	3	136
		Marathon Avenue Lt	Intersection	3	136
		Taylor Avenue Rt.	Intersection	3	152
		Taylor Avenue Lt.	Intersection	3	114
		Chippewa Avenue	Intersection	3	125
		Sawyer Avenue	Intersection	3	400
		STH 173 N	Intersection	3	700
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTAL</b>				<b>80,593</b>	

**BUTT JOINTS**

LOCATION	Stage	SY	204.0115 Removing Asphaltic Surface Butt Joints
<b>1620-02-76 CATEGORY 0010</b>			
Begin Project	1	167	
Gronski Lane (3)	1	67	
Zimmerman Road Rt. (2)	1	49	
Paluch Road (2)	1	31	
CTH X	2	39	
Necedah Road	3	34	
Birch Street	3	22	
Marathon Avenue Rt.	3	23	
Marathon Avenue Lt.	3	23	
Taylor Avenue Rt.	3	24	
Taylor Avenue along Parking Lot (3' wide)	3	11	
Taylor Avenue Lt.	3	21	
Chippewa Avenue	3	27	
Sawyer Avenue	3	39	
STH 173 N	3	43	
End Project	3	33	
Begin Construction STH 173 S	1	167	
<b>PROJECT 1620-02-76 CAT 0010 TOTAL</b>		<b>821</b>	

**REMOVING CURB AND GUTTER AND SIDEWALK**

STA	-	STA	LOCATION	Stage	LF	SY	204.0150 Removing Curb and Gutter	204.0155 Removing Concrete Sidewalk
<b>PROJECT 1620-02-76 CATEGORY 0010</b>								
			STH 173 S Intersection	1	240	---		
			CTH X Intersection	2	150	---		
			Marathon Ave Curb Ramp R2	3	---	1		
			Marathon Ave Curb Ramp L1	3	---	7		
			Marathon Ave Curb Ramp L2	3	---	21		
			Taylor Ave Curb Ramp L1	3	---	8		
			STH 173 N Intersection	3	80	---		
			Undistributed		50	5		
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTAL</b>					<b>520</b>	<b>42</b>		
<b>PROJECT 1620-02-76 CATEGORY 0020</b>								
1063+74		1065+94	STH 80 RT	3	---	95		
1066+50		1069+10	STH 80 LT	3	---	117		
1069+10		1070+73	STH 80 LT	3	203	103		
1070+73		1072+30	STH 80 LT	3	144	---		
			Clark Ave Curb Ramp L1	3	18	12		
1070+00		1072+30	STH 80 RT	3	275	---		
1070+46		1069+10	Clark Ave Curb Ramp R1	3	21	10		
			Clark Ave Curb Ramp L2	3	---	14		
			Undistributed		---	10		
<b>PROJECT 1620-02-76 CATEGORY 0020 TOTAL</b>					<b>661</b>	<b>361</b>		

**REMOVING GUARDRAIL**

STA	- STA	LOC	Stage	LF	Comment
1620-02-76 CATEGORY 0010					
1036+80	1038+15	LT STH 80	4	135	B-71-98 SW
1036+67	1038+15	RT STH 80	4	148	B-71-98 SE
1042+38	1051+22	LT STH 80	4	884	B-71-98 NW
1042+38	1043+62	RT STH 80	4	124	B-71-98 NE
<b>PROJECT 1620-02-76 CAT 0010 TOTAL</b>				<b>1,291</b>	

204.0165  
Removing  
Guardrail

**REMOVING STORM SEWER**

FROM	TO	Stage	Each	Each	LF
1620-02-76 CATEGORY 0020					
F5	F3	3	1	---	16
F4	F3	3	1	---	12
F3	F1	3	---	1	72
F2	F1	3	1	---	12
F1	F	3	---	1	40
<b>PROJECT 1620-02-76 CAT 0020 TOTALS</b>			<b>3</b>	<b>2</b>	<b>152</b>

204.0210  
Removing  
Inlets  
204.0220  
Removing  
Manholes  
204.0245  
Removing  
Storm Sewer  
01. 10-Inch

**GRADING AND SHAPING INTERSECTION**

INTERSECTION	CUT CY	EXPANDED FILL CY
PROJECT 1620-02-76 CATEGORY 0010		
STH 173 S Int NB Bypass Lane	117	488
STH 173 S Int SW	310	95
STH 173 S Turn Lane and INT NW	55	114
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTAL</b>		<b>1</b>

SPV.0060.04  
GRADING AND SHAPING  
STH 173 S  
INTERSECTION

THE ABOVE ITEMS ARE INCIDENTAL  
TO THE ITEM GRADING AND  
SHAPING INTERSECTION

**GRANULAR BACKFILL**

STA	- STA	LOCATION	Stage	TON
PROJECT 1620-02-76 CATEGORY 0020				
1065+80	- 1071+18	STH 80	3	2,132
1071+18	- 1071+50	STH 80	3	147
1071+50	- 1073+03	STH 80	3	780
1073+03	- 1073+93	STH 80	3	434
1073+93	- 1074+22	STH 80	3	123
1074+22	- 1074+75	STH 80	3	210
		Pine St Radius	3	89
		Clark West Radius	3	117
		Clark East Radius	3	102
<b>PROJECT 1620-02-76 CAT 0020 TOTALS</b>				<b>3826</b>

209.2500  
Backfill  
Granular  
Grade 2

PROJECT 1620-02-76 CATEGORY 0010												
DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)		SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
			CUT (2)	EBS EXCAVATION (3)				FACTOR 1.25				
DIVISION 4 YELLOW RIVER BEAM GUARD												
YELLOW-R1	1032+39.81/1034+56.36	YELLOW-R1	0	0	0	0	143	179	-179	0	179	
YELLOW-L1	1035+35.00/1036+64.26	YELLOW-L1	0	0	0	0	1	1	-1	0	1	
YELLOW-R2	1042+63.92/1044+91.49	YELLOW-R2	0	0	0	0	4	5	-5	0	5	
YELLOW-L2	1050+55.49/1052+74.97	YELLOW-L2	0	0	0	0	61	76	-76	0	76	
DIVISION 4 SUBTOTAL			0	0	0	0	209	261	-261	0	261	
GRAND TOTAL			0	0	0	0	209	261	-261	0	261	
PROJECT 1620-02-76 CATEGORY 0010 TOTAL COMMON EXC			0									

PROJECT 1620-02-76 CATEGORY 0020												
DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)		SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
			CUT (2)	EBS EXCAVATION (3)				FACTOR 1.25				
DIVISION 2 - STORM SEWER OUTFALL												
OUTFALL	0+40.04/6+44.62	STORM OUTFALL	1,470	0	0	1,470	0	0	1,470	1,470	0	
DIVISION 2 SUBTOTAL			1,470	0	0	1,470	0	0	1,470	1,470	0	
DIVISION 3 - STH 80 RECONSTRUCT AREA												
RCST-STH 80	1065+80.00/1074+74.99	STH 80	4,984	0	743	4,241	272	340	3,901	3,901	0	WASTE QUANTITY MAY BE REDUCED DUE TO AREAS OF FILL OVER REMOVED PAVEMENT
RCST-PINE	9+19.00/9+88.00	PINE STREET	127	0	13	114	5	6	108	108	0	
RCST-JUNEAU	20+29.50/21+61.30	JUNEAU AVE	376	0	198	178	8	10	168	168	0	
RCST-CLARK W	29+10.00/29+88.00	CLARK AVE W	193	0	17	176	1	1	175	175	0	
RCST-CLARK E	30+12.00/31+30.00	CLARK AVE E	258	0	46	212	0	0	212	212	0	
DIVISION 3 SUBTOTAL			5,938	0	1,017	4,921	286	358	4,564	4,564	0	
GRAND TOTAL			7,408	0	1,017	6,391	286	358	6,034	6,034	0	
TOTAL COMMON EXC			7,408									

**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 = 1.25
- (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.
- (15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.



**BASE AGGREGATE**

STA	-	STA	LOCATION	Stage	305.0110 Base Agg Dense 3/4-Inch TON	305.0120 Base Agg Dense 1 1/4-Inch TON	624.0100 Water MGAL	SPV.0195.01 Disnitrated Granite TON
<b>PROJECT 1620-02-76 CATEGORY 0010</b>								
838+90	-	841+75	STH 80	1	20	24	---	---
843+32	-	1009+00	STH 80	1	1,208	1,380	---	---
1009+00	-	1013+70	STH 80	2	34	40	---	---
1013+70	-	1035+25	STH 80	2	158	150	---	---
1035+25	-	1038+06	STH 80	4	6	---	---	---
1042+47	-	1053+25	STH 80	4	22	---	---	---
1053+25	-	1055+00	STH 80	3	4	39	---	---
1055+00	-	1065+80	STH 80	3	22	240	---	---
1053+25	-	1065+80	STH 80	3	24	279	---	---
1074+75	-	1096+00	STH 80	3	124	---	---	---
		Driveways			32	12	---	12
		Unpaved Road Tie-Ins			---	10	---	---
		STH 173 Shoulder	2		10	---	---	---
		STH 173 Widening	2		---	58	---	---
		Under Sidewalk	3		10	---	---	---
		From Pulverize and Relay			---	---	205	---
		UNDISTRIBUTED			85	110	65	5
<b>PROJECT 1620-02-76 CAT 0010 TOTALS</b>					<b>1759</b>	<b>2342</b>	<b>270</b>	<b>17</b>
<b>PROJECT 1620-02-76 CATEGORY 0020</b>								
1065+80	-	1071+25	STH 80	3	---	1,412	---	---
1071+25	-	1071+50	STH 80	3	---	74	---	---
1071+50	-	1073+00	STH 80	3	---	500	---	---
1073+00	-	1073+93	STH 80	3	---	293	---	---
1073+93	-	1074+17	STH 80	3	---	67	---	---
1074+17	-	1074+75	STH 80	3	---	150	---	---
		Pine	3		10	314	---	---
		Juneau	3		42	408	---	---
		Clark East	3		---	571	---	---
		Clark West	3		32	301	---	---
		Clark St Parking Lot SE	3		---	---	---	140
		Under Driveways and Parking Lots	3		---	104	---	---
		Under Sidewalk	3		48	---	---	---
		UNDISTRIBUTED			5	205	70	---
<b>PROJECT 1620-02-76 CAT 0020 TOTALS</b>					<b>137</b>	<b>4399</b>	<b>70</b>	<b>140</b>

**PULVERIZE AND RELAY**

STA	-	STA	Location	Stage	325.0100 Pulverize and Relay SY	374.1020.S QMP Pulverize and Relay Compaction SY	* Water MGAL
<b>1620-02-76 CATEGORY 0010</b>							
838+90	-	840+10	STH 80	1	320	320	5
840+10	-	841+75	STH 80	1	440	440	5
843+32	-	844+97	STH 80	1	440	440	5
844+97	-	1009+00	STH 80	1	43,741	43,741	150
1009+00	-	1013+70	STH 80	2	1,253	1,253	5
1013+70	-	1035+25	STH 80	2	5,747	5,747	20
		STH 173 S	Intersection/Turn Lane	2	1,962	1,962	10
		STH 173 S	Bypass Lane	2	483	483	5
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTAL</b>					<b>54,386</b>	<b>54,386</b>	<b>205</b>

\* See Base Aggregate for Totals

**CONCRETE DRIVEWAYS**

STATION	DIR	LOCATION	Stage	416.0160 Concrete Driveway 6-Inch SY
<b>PROJECT 1620-02-76 CATEGORY 0020</b>				
1070+57	RT	STH 80	Drive	3
1074+40	RT	STH 80	Drive	3
<b>PROJECT 1620-02-76 CAT 0020 TOTALS</b>				<b>53</b>

**CONCRETE SURFACE DRAINS**

STA	LOCATION	Stage	416.1010 Concrete Surface Drains CY
<b>1620-02-76 CATEGORY 0010</b>			
1037+68	B-71-98 S ABT L	4	1
1037+68	B-71-98 S ABT R	4	3
1042+85.5	B-71-98 N ABT L	4	2
1042+85.5	B-71-98 N ABT R	4	3
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTAL</b>			<b>9</b>

3

**HMA PAVEMENT**

STA	- STA	Stage	460.6223 HMA Pavement		460.6224 HMA Pavement		460.6424 HMA Pavement	450.4000 HMA Cold Weather Paving	
			Tack Coat	LOWER	MIDDLE	UPPER	UPPER	TON	
<b>PROJECT 1620-02-76 CATEGORY 0010</b>									
838+90	840+10	Lanes	1	42	41	32	32	27	
838+90	840+10	Shoulders	1	5	---	8	8	4	
840+10	842+10	Lanes	1	69	69	54	54	45	
840+10	842+10	Shoulders	1	35	---	27	27	14	
842+97	844+97	Lanes	1	69	69	54	54	45	
842+97	844+97	Shoulders	1	35	---	27	27	14	
844+97	1009+00	Lanes	1	5,686	5,659	4,401	4,401	3,616	
844+97	1009+00	Shoulders	1	711	---	1,100	1,100	550	
1009+00	1013+70	Lanes	2	163	162	126	126		
1009+00	1013+70	Shoulders	2	20	---	32	32		
	STH 173 S	Intersection	2	352	233	181	181		
	STH 173 S Bypass Lane	Intersection	2	75	50	39	39		
1013+70	1033+55	Lanes	2	688	685	533	533		
1013+70	1033+55	Shoulders	2	143	---	222	222		
1033+55	1035+25	Lanes	2	59	59	46	46		
1033+55	1035+25	Shoulders	2	14	---	21	21		
1035+25	1038+06	Lanes	4	97	172	86	75		
1035+25	1038+06	Shoulders	4	24	---	43	38		
1042+47	1043+75	Lanes	4	44	79	39	34		
1042+47	1043+75	Shoulders	4	11	---	20	17		
1043+75	1051+75	Lanes	4	277	491	245	215		
1043+75	1051+75	Shoulders	4	64	---	112	98		
1051+75	1053+25	Lanes	4	52	92	46	40		
1051+75	1053+25	Shoulders	4	11	---	19	17		
1053+25	1055+00	Lanes	4	61	107	54	47		
1053+25	1055+00	Shoulders	4	13	---	22	20		
1055+00	1065+25	Lanes	3	355	629	314	275		
1055+00	1065+80	Shoulders	3	78	---	138	121		
1074+75	1089+00	Lanes & Shoulders	3	350	---	---	619		
1089+00	1096+00	Lanes & Shoulders	3	152	---	---	268		
				---					
	County Line Road	Intersection	1	8	---	---	18	5	
	Gronski Lane	Intersection	1	24	---	---	55	14	
	Cox Lane	Intersection	1	4	---	---	8	2	
	Zimmerman Road Rt.	Intersection	1	26	---	---	61	16	
	Zimmerman Road Lt.	Intersection	1	17	---	---	39	10	
	Paluch Road	Intersection	1	19	---	---	45	12	
	Walker Lane	Intersection	2	6	---	---	14		
	Will Drive	Intersection	2	8	---	---	18		
	CTH X	Intersection	2	24	---	---	56		
	Necedah Road (Stage 4)	Intersection	4	33	---	---	52		
	Necedah Road (Stage 3)	Intersection	3	26	---	---	41		
	Birch Street	Intersection	3	10	---	---	15		
	Marathon Avenue Rt.	Intersection	3	9	---	---	16		
	Marathon Avenue Lt.	Intersection	3	9	---	---	16		
	Taylor Avenue Rt.	Intersection	3	10	---	---	18		
	Taylor Avenue Lt.	Intersection	3	7	---	---	13		
	Chippewa Avenue	Intersection	3	8	---	---	14		
	Sawyer Avenue	Intersection	3	26	---	---	46		
	STH 173 N	Intersection	3	46	---	---	81		
				---					
<b>PROJECT 1620-02-76 CAT 0010 TOTALS</b>				<b>10,075</b>	<b>8,597</b>	<b>8,041</b>	<b>7,870</b>	<b>1,543</b>	<b>4,374</b>
						<b>15,911</b>			

**HMA PAVEMENT CONTINUED**

STA	- STA	Stage	460.6223 HMA Pavement		460.6224 HMA Pavement		460.6424 HMA Pavement	450.4000 HMA Cold Weather Paving	
			Tack Coat	LOWER	MIDDLE	UPPER	UPPER	TON	
<b>PROJECT 1620-02-76 CATEGORY 0020</b>									
1065+80	1071+18		3	248	440	220	192		
1071+18	1071+50		3	18	32	16	14		
1071+50	1073+03		3	97	172	86	75		
1073+03	1073+93		3	53	94	47	41		
1073+93	1074+22		3	15	26	13	11		
1074+22	1074+75		3	24	43	22	19		
	Pine Street		3	7	---	---	11		
	Pine Street	Int. Radius	3	14	25	12	11		
	Clark Ave West		3	7	---	12	11		
	Clark Ave West	Int. Radius	3	13	23	11	10		
	Clark Ave East		3	12	---	21	19		
	Clark Ave East	Int. Radius	3	15	26	13	11		
	Juneau Ave			47	---	83	73		
<b>PROJECT 1620-02-76 CAT 0020 TOTALS</b>				<b>570</b>	<b>881</b>	<b>556</b>	<b>0</b>	<b>498</b>	<b>0</b>
						<b>556</b>			

3

STAGE	STATION	LOCATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
								MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
1	STA 838+90 - STA 1009+00	12 Foot Driving Lane	Lower Layer	Pulverized Base	3 MT 58-28 S	5838	2.25"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	(PWL Core Pilot) Incentive Density PWL HMA Pavement SPV.0055.01
			Middle Layer	Lower Layer HMA	4 MT 58-28 S	4541	1.75"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	(PWL Core Pilot) Incentive Density PWL HMA Pavement SPV.0055.01
			Upper Layer	Middle Layer HMA	4 MT 58-28 S	4541	1.75"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	(PWL Core Pilot) Incentive Density PWL HMA Pavement SPV.0055.01
		Shoulders	Lower Layer	Base Aggregate	4 MT 58-28 S	1,162	1.75"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance Testing by the Department; Not Eligible for incentive or disincentive
			Upper Layer	Lower Layer HMA	4 MT 58-28 S	1,162	1.75"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance Testing by the Department; Not Eligible for incentive or disincentive
2	STA 1009+00 - STA 1035+55	12 Foot Driving Lane	Lower Layer	Pulverized Base	3 MT 58-28 S	906	2.25"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	(PWL Core Pilot) Incentive Density PWL HMA Pavement SPV.0055.01
			Middle Layer	Lower Layer HMA	4 MT 58-28 S	705	1.75"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	(PWL Core Pilot) Incentive Density PWL HMA Pavement SPV.0055.01
			Upper Layer	Middle Layer HMA	4 MT 58-28 S	705	1.75"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	(PWL Core Pilot) Incentive Density PWL HMA Pavement SPV.0055.01
		Shoulders	Lower Layer	Base Aggregate	4 MT 58-28 S	275	1.75"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance Testing by the Department; Not Eligible for incentive or disincentive
			Upper Layer	Lower Layer HMA	4 MT 58-28 S	275	1.75"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance Testing by the Department; Not Eligible for incentive or disincentive
4	STA 1035+55 - STA 1055+00	12 Foot Driving Lane	Lower Layer	Base Aggregate	3 MT 58-28 S	941	4"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	(PWL Core Pilot) Incentive Density PWL HMA Pavement SPV.0055.01
			Middle Layer	Lower Layer HMA	4 MT 58-28 S	470	2"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	(PWL Core Pilot) Incentive Density PWL HMA Pavement SPV.0055.01
			Upper Layer	Middle Layer HMA	4 MT 58-28 S	411	1.75"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	(PWL Core Pilot) Incentive Density PWL HMA Pavement SPV.0055.01
		Shoulders	Lower Layer	Base Aggregate	4 MT 58-28 S	216	2"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance Testing by the Department; Not Eligible for incentive or disincentive
			Upper Layer	Lower Layer HMA	4 MT 58-28 S	190	1.75"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance Testing by the Department; Not Eligible for incentive or disincentive
3	STA 1055+00 - STA 1065+80	12 Foot Driving Lane	Lower Layer	Base Aggregate	3 MT 58-28 S	629	4"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	(PWL Core Pilot) Incentive Density PWL HMA Pavement SPV.0055.01
			Middle Layer	Lower Layer HMA	4 MT 58-28 S	314	2"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	(PWL Core Pilot) Incentive Density PWL HMA Pavement SPV.0055.01
			Upper Layer	Middle Layer HMA	4 MT 58-28 H	275	1.75"	QMP As Per SS 460	Incentive Density HMA Pavement 460.2000
		Shoulders	Lower Layer	Base Aggregate	4 MT 58-28 S	138	2"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance Testing by the Department; Not Eligible for incentive or disincentive
			Upper Layer	Lower Layer HMA	4 MT 58-28 H	121	1.75"	QMP As Per SS 460	Incentive Density HMA Pavement 460.2000
3	STA 1074+75 - STA 1096+00	12 Foot Driving Lane	Upper Layer	Milled Existing HMA Surface	4 MT 58-28 H	619	2"	QMP As Per SS 460	Incentive Density HMA Pavement 460.2000
		Shoulders	Upper Layer	Milled Existing HMA Surface	4 MT 58-28 H	268	2"	QMP As Per SS 460	Incentive Density HMA Pavement 460.2000
	Stages 1-2,4	Various Intersections	Upper Layer	Milled Existing HMA Surface	4 MT 58-28 S	366	2"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance Testing by the Department; Not Eligible for incentive or disincentive
	Stage 3	Various Intersections	Upper Layer	Milled Existing HMA Surface	4 MT 58-28 H	260	2"	QMP As Per SS 460	Incentive Density HMA Pavement 460.2000
2	STA 1054+08'S' - STA 1056+40'S'	STH 173 S Intersection And Bypass Lane	Lower Layer	Pulverized Base	3 MT 58-28 S	283	2.25"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance Testing by the Department; Not Eligible for incentive or disincentive
			Middle Layer	Lower Layer HMA	4 MT 58-28 S	220	1.75"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance Testing by the Department; Not Eligible for incentive or disincentive
			Upper Layer	Middle Layer HMA	4 MT 58-28 S	220	1.75"	(PWL Core Pilot) Incentive Air Voids HMA Pavement SPV.0055.02	Acceptance Testing by the Department; Not Eligible for incentive or disincentive

NOTE: Adjust Lot Sizes for 3 MT 58-28 to achieve the required number of tests for PWL F&T Testing.

**ASPHALTIC SURFACE DRIVEWAYS**

465.0120  
Asphaltic Surface  
Driveways and Field Entrances

LOCATION	Stage	TON
<b>PROJECT 1620-02-76 CATEGORY 0010</b>		
STA 1058+69 RT	3	3
<b>PROJECT 1620-02-76 CAT 0010 TOTALS</b>		<b>3</b>
<b>PROJECT 1620-02-76 CATEGORY 0020</b>		
Juneau Ave Lot	3	11
Clark Ave - Town Hall	3	21
STA 1070+57 RT	3	8
STA 1074+40 RT	3	5
STA 1055+37 LT (Storm Sewer)	3	6
<b>PROJECT 1620-02-76 CAT 0020 TOTALS</b>		<b>51</b>

**ASPHALTIC SURFACE**

465.0105  
Asphaltic Surface

STA - STA	LOCATION	Stage	TON
<b>PROJECT 1620-02-76 CATEGORY 0010</b>			
	STH 173 S Island	2	2
<b>PROJECT 1620-02-76 CAT 0010 TOTALS</b>			<b>2</b>
<b>PROJECT 1620-02-76 CATEGORY 0020</b>			
	Birch Street Pipe Patch	3	6
<b>PROJECT 1620-02-76 CAT 0020 TOTALS</b>			<b>6</b>

**ASPHALTIC SURFACE PATCHING**

465.0110  
Asphaltic Surface  
Patching

STA - STA	LOCATION	Stage	TON
<b>PROJECT 1620-02-76 CATEGORY 0010</b>			
	Subsurface Areas (Undistributed)		100
<b>PROJECT 1620-02-76 CAT 0010 TOTALS</b>			<b>100</b>
<b>PROJECT 1620-02-76 CATEGORY 0020</b>			
	Birch Street (Storm Sewer)	3	6
<b>PROJECT 1620-02-76 CAT 0020 TOTALS</b>			<b>6</b>

**CLEANING CULVERTS AND DITCHES**

520.8700  
Cleaning Culvert  
Pipes  
Ditch Restoration  
LF

Culvert	Station	Location	Stage	EACH	LT	RT
<b>PROJECT 1620-02-76 CATEGORY 0010</b>						
71-080-007375	874+77	STH 80	1	1	5	--
71-080-008659	963+17	STH 80	1	1	10	20
71-080-009073	1083+10	STH 80	3	1	5	5
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTALS</b>				<b>3</b>	<b>45</b>	

**ASPHALTIC FLUMES**

465.0315  
Asphaltic  
Flumes

STA	LOCATION	Stage	SY
<b>1620-02-76 CATEGORY 0010</b>			
1012+93	LT STH 173 S INT	2	3
	LT CTH X INT S	2	3
	LT CTH X INT N	2	3
	RT STH 173 N INT S	3	5
	RT STH 173 N INT N	3	5
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTAL</b>			<b>19</b>
<b>1620-02-76 CATEGORY 0020</b>			
1141+80	LT PINE ST INT W	3	3
<b>PROJECT 1620-02-76 CATEGORY 0020 TOTAL</b>			<b>3</b>

**ASPHALTIC CENTER LINE RUMBLE STRIP**

465.0475  
Asphaltic  
Centerline  
Rumble Strips  
2-Lane Rural

STA - STA	FT
<b>1620-02-76 CATEGORY 0010</b>	
838+90 - 1038+06	15,900
1042+47 - 1051+50	900
1092+00 - 1096+00	400
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTAL</b>	
	17,200

**CULVERT PIPE SUMMARY**

STATION	LOCATION	Stage	521.8000	521.1024	521.1518	521.3124	520.3418	522.0130	522.1030	JOINT TIES*	ALUMINUM	STEEL	INLET** ELEVATION	OUTLET** ELEVATION
			CONCRETE COLLARS FOR PIPE	APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH	APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 18-INCH 6 TO 1 EACH	CULVERT PIPE CORRUGATED STEEL 24-INCH	CULVERT PIPE CLASS III-A NON- METAL 18-INCH LF	CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH LF	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH		THICKNESS (INCHES)	THICKNESS (INCHES)		
<b>PROJECT 1620-02-76 CATEGORY 0010</b>														
874+77 LT/RT	STH 80	1	2						2	ALL	---	---	MATCH	EXISTING
963+07 LT	STH 80	1	1						1	ALL	---	---	MATCH	EXISTING
1012+87 LT	STH 80/STH 173 INT	2	1					4	1	ALL	---	---	972.60	972.60
1013+71 LT	STH 80/STH 173 INT	2	1					10	1	ALL	---	---	972.62	972.62
1016+56 LT	STH 80	2		2			54			ALL	0.060	0.064	974.93	974.57
1083+10 RT	STH 80	3	1	1		2				---	0.075	0.064	MATCH	EXISTING
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTALS</b>			6	1	2	2	54	14	5					

\*NON-BID ITEM: FOR INFORMATION ONLY. TIE ALL JOINTS IN CONCRETE PIPE  
 \*\*PIPE INVERT AT END OF PIPE FOR INFORMATION ONLY. FIELD VERIFY

**CONCRETE CURB AND GUTTER**

STA	- STA	LOC	Stage	601.0120	601.0411	601.0557	601.0588
				Concrete Curb Type J	Concrete Curb and Gutter 30-Inch Type D	Concrete Curb and Gutter 6-Inch Sloped 36-Inch Type D	Concrete Curb and Gutter 4-Inch Sloped 36-Inch Type TBT
				LF	LF	LF	LF
<b>PROJECT 1620-02-76 CATEGORY 0010</b>							
		STH 173 SSW	2	---	---	182	---
		STH 173 S NW	2	---	---	57	---
		STH 173 S Island	2	110	---	---	---
		CTH X NW	2	---	---	71	---
		CTH X NE	2	---	---	81	---
		B-71-98 S ABTL	4	---	---	---	60
		B-71-98 S ABTR	4	---	---	---	60
		B-71-98 N ABTL	4	---	---	---	60
		B-71-98 N ABTR	4	---	---	---	60
		STH 173 N	3	---	---	80	---
	UNDIST	CURB REPAIR		---	---	50	---
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTALS</b>				110	0	521	240
<b>PROJECT 1620-02-76 CATEGORY 0020</b>							
1066+73	- 1072+32	STH 80 SB	3	---	531	---	---
1073+10	- 1074+75	STH 80 SB	3	---	171	---	---
1065+80	- 1072+36	STH 80 NB	3	---	685	---	---
1073+11	- 1074+75	STH 80 NB	3	---	165	---	---
		Pine Street NW	3	---	48	---	---
		Pine Street NE	3	---	40	---	---
		W Clark Ave SW	3	---	41	---	---
		W Clark Ave NW	3	---	41	---	---
		E Clark Ave SE	3	---	45	---	---
		E Clark Ave NE	3	---	44	---	---
<b>PROJECT 1620-02-76 CATEGORT 0020 TOTALS</b>				0	1,811	0	0

**CONCRETE SIDEWALK**

Location	Stage	* BASE AGGREGATE	602.0405	602.0505	602.0605	SPV.0060.05
			CONCRETE SIDEWALK	CURB RAMP DETECTABLE WARNING FIELD RADIAL	GRADING AND SHAPING CURB RAMPS	
		DENSE 3/4" TON	4-INCH SF	YELLOW SF	YELLOW SF	EACH
<b>PROJECT 1620-02-76 CATEGORY 0021</b>						
Marathon	L1	3	2	71	10	1
Marathon	L2	3	7	234	10	1
Marathon	R1	3	3	125	10	1
Marathon	R2	3	5	163	10	1
Taylor	L1	3	2	71	10	1
<b>PROJECT 1620-02-76 CAT 0010 TOTALS</b>		10	664	50	0	5
<b>PROJECT 1620-02-76 CATEGORY 0020</b>						
Pine St	-- 1070+73	3	55	1,963	---	15
Juneau St	-- 1070+50	3	11	397	10	---
Clark	L1	3	5	190	10	---
Clark	L2	3	4	140	10	---
Clark	R1	3	6	225	10	---
Clark	R2	3	14	500	10	---
<b>PROJECT 1620-02-76 CAT 0020 TOTALS</b>		48	3,415	50	15	0

\*SEE BASE AGGREGATE TABLE FOR ITEM TOTALS

**RIPRAP**

STATION	LOCATION	Stage	606.0200 Riprap Medium CY	645.0120 Geotextile Fabric Type HR SY
<b>PROJECT 1620-02-76 CATEGORY 0010</b>				
1042+85	STH 80 RT	4	4	5
<b>PROJECT 1620-02-76 CATEGOTY 0010 TOTALS</b>			<b>4</b>	<b>5</b>
<b>PROJECT 1620-02-76 CATEGORY 0020</b>				
6'0'+15	Outfall	3	9	12
<b>PROJECT 1620-02-76 CATEGOTY 0020 TOTALS</b>			<b>9</b>	<b>12</b>

**STORM SEWER PIPES**

FROM - TO	LOCATION	Stage	608.2314 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 14X23-INCH LF	608.2414 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 14X23-INCH LF	608.2419 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH LF	608.3030 STORM SEWER PIPE CLASS III-A 30-INCH LF	JOINT TIES* EACH	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
<b>PROJECT 1620-02-76 CATEGORY 0020</b>										
100 - 110	ALIGNMENT - 80	3				132	ALL	966.32	966.12	0.0015
110 - 120	ALIGNMENT - 80	3				331	ALL	966.82	966.32	0.0015
120 - 130	ALIGNMENT - 80	3				383	ALL	967.40	966.82	0.0015
130 - 140	ALIGNMENT - 80	3				334	ALL	967.90	967.40	0.0015
140 - 141	ALIGNMENT - 80	3			44		ALL	968.41	968.32	0.0020
141 - 142	ALIGNMENT - 80	3	11				ALL	968.87	968.83	0.0040
140 - 150	ALIGNMENT - 80	3			55		ALL	968.44	968.32	0.0022
150 - 160	ALIGNMENT - 80	3			120		ALL	968.69	968.44	0.0021
160 - 170	ALIGNMENT - 80	3			123		ALL	968.93	968.69	0.0020
170 - 180	ALIGNMENT - 80	3			116		ALL	969.17	968.93	0.0021
180 - 200	ALIGNMENT - 80	3			84		ALL	969.34	969.17	0.0020
200 - 201	ALIGNMENT - 80	3		9			ALL	969.79	969.76	0.0040
200 - 210	ALIGNMENT - 80	3			56		ALL	969.45	969.34	0.0020
180 - 300	ALIGNMENT - 80	3			34		ALL	969.24	969.17	0.0020
310 - 301	ALIGNMENT - 80	3	12				ALL	969.86	969.82	0.0040
300 - 310	ALIGNMENT - 80	3			75		ALL	969.40	969.24	0.0021
310 - 320	ALIGNMENT - 80	3			91		ALL	969.58	969.40	0.0020
320 - 321	ALIGNMENT - 80	3		8			ALL	970.03	970.00	0.0040
320 - 330	ALIGNMENT - 80	3			49		ALL	969.68	969.58	0.0020
330 - 340	ALIGNMENT - 80	3			37		ALL	969.76	969.68	0.0022
340 - 350	ALIGNMENT - 80	3			28		ALL	969.82	969.76	0.0021
350 - 355	ALIGNMENT - 80	3			16		ALL	969.85	969.82	0.0019
355 - 356	ALIGNMENT - 80	3	24				ALL	970.36	970.27	0.0040
355 - 360	ALIGNMENT - 80	3			64		ALL	969.99	969.85	0.0022
<b>PROJECT 1620-02-76 CATEGORY 0020 TOTALS</b>			<b>47</b>	<b>17</b>	<b>992</b>	<b>1180</b>				

\*NON-BID ITEM: FOR INFORMATION ONLY. TIE ALL JOINTS

**STORM SEWER STRUCTURES**

STRUCTURE	STATION	OFFSET*	LOCATION	Stage	204.0280	520.1030	611.0420	611.0530	611.0612	611.0624	611.0639	611.1004	611.1005	611.1006	611.2005	611.2006	650.4000	RIM** ELEVATION	INVERT*** ELEVATION	DEPTH**** FT
					Sealing Pipes	Apron Endwalls for Culvert Pipe 30-Inch EACH	Reconstructing Manholes EACH	MANHOLE COVERS TYPE J EACH	INLET COVERS TYPE C EACH	INLET COVERS TYPE H EACH	INLET COVERS TYPE H-S EACH	CATCH BASINS 4-FT DIAMETER EACH	CATCH BASINS 5-FT DIAMETER EACH	CATCH BASINS 6-FT DIAMETER EACH	MANHOLES 5-FT DIAMETER EACH	MANHOLES 6-FT DIAMETER EACH	CONSTRUCTION STAKING EACH			
<b>PROJECT 1620-02-76 CATEGORY 0020</b>																				
EXIST (F)	1072+86.18	36.06' LT	ALIGNMENT - 80	3	1		1	1										975.10		
100	1054+25.07	43.03' LT	ALIGNMENT - 80	3		1													966.12	
110	1055+56.43	26.37' LT	ALIGNMENT - 80	3					1				1					970.16	964.32	4.60
120	1058+87.57	26.48' LT	ALIGNMENT - 80	3				1							1			971.41	966.82	3.66
130	1062+70.46	26.51' LT	ALIGNMENT - 80	3				1							1			972.74	967.40	4.41
140	1066+04.38	26.49' LT	ALIGNMENT - 80	3				1								1		973.43	967.90	4.61
141	1066+04.38	18.00' RT	ALIGNMENT - 80	3					1				1					973.10	966.41	5.69
142	1066+04.42	29.44' RT	ALIGNMENT - 80	3					1			1						972.19	966.87	4.08
150	1066+58.54	19.70' LT	ALIGNMENT - 80	3						1				1				973.23	966.44	5.79
160	1067+80.31	17.99' LT	ALIGNMENT - 80	3							1		1					973.71	966.69	6.02
170	1069+07.67	0	ALIGNMENT - 80	3				1							1			974.98	968.93	5.08
180	1070+25.00	0	ALIGNMENT - 80	3				1								1		974.85	969.17	4.71
200	1071+10.00	27.08' LT	ALIGNMENT - 80	3				1								1		974.55	969.34	4.24
201	1071+10.00	18.00' LT	ALIGNMENT - 80	3						1		1						973.76	967.79	4.96
210	1071+70.46	24.00' LT	ALIGNMENT - 80	3					1				1					973.97	967.45	5.52
300	1070+41.73	29.49' RT	ALIGNMENT - 80	3					1					1				974.41	967.24	5.93
301	1071+10.00	29.51' RT	ALIGNMENT - 80	3					1			1						974.10	967.86	5.00
310	1071+10.00	18.00' RT	ALIGNMENT - 80	3						1				1				975.02	967.40	6.62
320	1071+98.18	16.00' RT	ALIGNMENT - 80	3				1								1		974.66	969.58	4.11
321	1071+98.19	24.00' RT	ALIGNMENT - 80	3							1	1						974.50	968.03	5.47
330	1072+47.08	16.00' RT	ALIGNMENT - 80	3				1							1			974.76	969.68	4.11
340	1072+59.89	50.71' RT	ALIGNMENT - 80	3						1			1					974.64	967.76	5.88
350	1072+87.89	50.70' RT	ALIGNMENT - 80	3						1				1				974.64	967.82	5.82
355	1072+89.30	35.00' RT	ALIGNMENT - 80	3						1				1				974.49	967.85	5.64
356	1073+13.73	35.00' RT	ALIGNMENT - 80	3					1			1						974.16	968.36	4.56
360	1072+89.30	28.82' LT	ALIGNMENT - 80	3						1			1					974.66	967.99	5.67
<b>PROJECT 1620-02-76 CATEGORY 0020 TOTALS</b>						1	1	1	9	5	8	3	5	7	4	4	4	26		

REMARKS:

\*STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

\*\*RIM ELEV IS AT THE GUTTER FLOW LINE

\*\*\*FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE

\*\*\*\*DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

**BEAM GUARD**

STA	- STA	LOC	Stage	Width FT	Emulsified Asphalt SY	614.0397	614.2300	614.2330	614.2500	614.2610	SPV.0060.04
						Guardrail	MGS	MGS	MGS	MGS	Salvage and Reinstall
						Guardrail	Guardrail	Thrie Beam	Terminal	EAT	MGS Guardrail System
						3	3K	Transition	EACH	LF	
<b>PROJECT 1620-02-76 CATEGORY 0010</b>											
841+20	842+25	LT	1	3.5	40	---	---	---	---	---	105
840+60	842+25	RT	1	3.5	60	---	---	---	---	---	165
842+82	844+50	LT	1	3.5	70	---	---	---	---	---	168
842+82	843+99	RT	1	3.5	50	---	---	---	---	---	117
1035+59	1038+12	LT	4	3.5	100	162.5	---	37.5	1	---	---
1033+59	1038+12	RT	4	3.5	180	---	362.5	37.5	1	---	---
1042+40	1051+56	LT	4	3.5	360	---	825.0	37.5	1	---	---
1042+42	1043+70	RT	4	3.5	50	---	37.5	37.5	1	---	---
<b>PROJECT 1620-02-76 CAT 0010 TOTALS</b>						<b>910</b>	<b>162.5</b>	<b>1,225</b>	<b>150</b>	<b>4</b>	<b>555</b>

**MOWING**

SPV.0060.03  
Site  
Mowing  
EACH

PIPE		
<b>PROJECT 1620-02-76 CATEGORY 0010</b>		
STA 874+77 LT	STH 80 Pipe Crossing	1
STA 874+77 RT	STH 80 Pipe Crossing	1
STA 963+07 LT	STH 80 Pipe Crossing	1
STA 963+07 RT	STH 80 Pipe Crossing	1
STA 1012+70 LT	STH 80/STH 173 Int SW	1
STA 1013+80 RT	STH 80/STH 173 Int E	1
STA 1014+30 LT	STH 80/STH 173 Int NW	1
STA 1014+75 LT	STH 80/STH 173 Int W	1
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTAL</b>		<b>8</b>

**MOBILIZATION EROSION CONTROL**

628.1905  
Mobilization  
Erosion  
Control  
EACH

628.1910  
Mobilization  
Emergency  
Erosion  
Control  
EACH

LOCATION		
<b>PROJECT 1620-02-76 CATEGORY 0010</b>		
PROJECT		4
INTIAL	1	
STAGE 1	1	
STAGE 2	1	
STAGE 3	2	
STAGE 4	1	
FINAL RESTORATION	1	
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTALS</b>		<b>7</b>

**TOPSOIL, EROSION MAT, FERTILIZER, AND SEEDING**

STA	-	STA	LOC	Stage	SPV.0180.01									
					625.0100 Topsoil SY	629.0210 Fertilizer Type B CWT	SPV.0030.01 Fertilizer For Lawn Type Turf CWT	SPV.0180.01 Preparing Topsoil For Lawn Type Turf SY	630.0140 Seeding Mixture No. 40 LB	630.0130 Seeding Mixture No. 30 LB	630.0500 Seed Water MGAL	628.2008 Erosion Mat Urban Class I Type B SY	628.2021 Erosion Mat Class II Type A SY	
<b>PROJECT 1620-02-76 CATEGORY 0010</b>														
874+62	-	874+90	LT	1	20	0.0	--	--	0.5	--	--	20	--	
874+62	-	874+90	RT	1	20	0.0	--	--	0.5	--	--	20	--	
963+03	-	963+29	RT	1	30	0.0	--	--	0.8	--	1.0	30	--	
1009+80	-	1018+00	RT	2	1,025	0.6	--	--	27.7	--	23.0	1025	--	
1011+45	-	1011+93	LT	2	410	0.3	--	--	11.1	--	9.0	410	--	
1012+11	-	1016+45	LT	2	1,100	0.7	--	--	29.7	--	25.0	1100	--	
1016+61	-	1019+15	LT	2	500	0.3	--	--	13.5	--	11.0	500	--	
1035+15	-	1036+10	LT(BG)	4	30	0.0	--	--	0.8	--	1.0	30	--	
1032+40	-	1034+55	RT(BG)	4	510	0.3	--	--	13.8	--	11.0	510	--	
1050+00	-	1052+75	LT(BG)	4	555	0.3	--	--	15.0	--	12.0	555	--	
1043+15	-	1044+90	RT(BG)	4	80	0.1	--	--	2.2	--	2.0	80	--	
Curb Ramps (Marathon Ave and Taylor Ave)				3	170	--	0.1	170	4.6	--	4.0	170	--	
UNDISTRIBUTED					200	0.1	0.1		5.4	--	4.0	220	--	
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTALS</b>					<b>4,650</b>	<b>2.8</b>	<b>0.2</b>	<b>170</b>	<b>125.6</b>	<b>--</b>	<b>103</b>	<b>4670</b>	<b>0</b>	
<b>PROJECT 1620-02-76 CATEGORY 0020</b>														
00+40	-	06+50	Outfall (Sides)	1	1,650	1.0	--	--	44.5	--	37.0	1650	--	
00+40	-	06+15	Outfall (Bottom)	1	510	0.3	--	--	--	13.8	11.0	--	510	
1054+63	-	1055+28	LT	3	125	0.1	--	--	3.4	--	3.0	125	--	
1055+45	-	1062+45	LT	3	1,100	0.7	--	--	29.7	--	25.0	1100	--	
1062+80	-	1066+18	LT	3	55	0.0	--	--	1.5	--	1.0	55	--	
1065+80	-	1072+60	RT	3	2,535	--	1.6	2,535	68.4	--	57.0	2535	--	
1066+37	-	1072+53	LT	3	905	--	0.6	905	24.4	--	20.0	905	--	
1072+74	-	1074+75	LT	3	300	--	0.2	300	8.1	--	7.0	300	--	
1072+88	-	1074+75	LT	3	280	--	0.2	280	7.6	--	6.0	280	--	
UNDISTRIBUTED					400	0	0	400	10.8	--	9.0	350	50	
<b>PROJECT 1620-02-76 CATEGORY 0020 TOTALS</b>					<b>7,860</b>	<b>2.2</b>	<b>2.5</b>	<b>4,420</b>	<b>198.4</b>	<b>13.8</b>	<b>176</b>	<b>7300</b>	<b>560</b>	



**CULVERT PIPE CHECKS**

LOCATION		628.7555 Culvert Pipe Checks EACH
<b>PROJECT 1620-02-76 CATEGORY 0010</b>		
STA 874+77 RT	STH 80	5
STA 963+07 LT (2 Pipes)	STH 80	10
STA 1505+86 LT	STH 173	5
STA 1016+89 LT	STH 80	3
STA 1083+10 RT	STH 80	3
UNDISTRIBUTED		3
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTALS</b>		<b>29</b>

**DITCH CHECKS**

LOCATION		628.7504 Temporary Ditch Checks LF	628.7515.S Stone Ditch Checks CY	645.0130 GEOTEXTILE Fabric Type R SY
<b>PROJECT 1620-02-76 CATEGORY 0010</b>				
1014+50 LT	STH 80	10	---	---
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTALS</b>		<b>10</b>	<b>0</b>	<b>0</b>
<b>PROJECT 1620-02-76 CATEGORY 0020</b>				
0+40 'O'	Outfall	---	4	13
2+40 'O'	Outfall	---	4	13
4+40 'O'	Outfall	---	4	13
1062+75 LT	STH 80	10	---	---
1064+75 LT	STH 80	10	---	---
UNDISTRIBUTED		20	---	---
<b>PROJECT 1620-02-76 CATEGORY 0020 TOTALS</b>		<b>40</b>	<b>12</b>	<b>39</b>

**SILT FENCE**

STA	STA	LOC	628.1504 Silt Fence FT	628.1520 Silt Fence Maintenance FT	628.7570 Rock Bags EACH	Comments
<b>PROJECT 1620-02-76 CATEGORY 0010</b>						
874+58	- 874+96	LT	110	110	15	Exclusion Fencing
874+55	- 874+96	RT	100	100	15	Exclusion Fencing
962+90	- 963+55	LT	150	150	15	Exclusion Fencing
962+73	- 963+13	RT	150	150	15	Exclusion Fencing
1009+60	- 1018+35	RT	930	930	---	Exclusion Fencing
1011+40	- 1011+83	LT	355	355	15	Exclusion Fencing
1012+14	- 1016+24	LT	540	540	15	Exclusion Fencing
1035+37	- 1037+78	LT	290	290	15	
1032+38	- 1037+78	RT	625	625	15	
1042+70	1044+60	RT	735	735	15	
1042+70	1054+18	LT	1350	1350	30	
UNDISTRUBUTED			500	500	15	
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTALS</b>			<b>5835</b>	<b>5835</b>	<b>180</b>	

**INLET PROTECTION**

STA	LOC	Structure No. Type	628.7005 Inlet Protection Type A EACH	628.7010 Inlet Protection Type B EACH	628.7015 Inlet Protection Type C EACH	628.7020 Inlet Protection Type D EACH
<b>PROJECT 1620-02-76 CATEGORY 0020</b>						
		110 CB	1	1	---	---
		120 MH	1	---	---	---
		130 MH	1	---	---	---
		140 MH	1	---	---	---
		141 CB	1	---	1	---
		142 CB	1	1	---	---
		150 CB	1	---	1	---
		160 CB	1	---	---	1
		170 MH	1	---	---	---
		180 MH	1	---	---	---
		200 MH	1	---	---	---
		201 CB	1	---	1	---
		210 CB	1	---	1	---
		300 CB	1	1	---	---
		301 CB	1	1	---	---
		310 CB	1	---	1	---
		320 MH	1	---	---	---
		321 CB	1	---	1	---
		330 MH	1	---	---	---
		340 CB	1	---	1	---
		350 CB	1	---	1	---
		355 CB	1	---	1	---
		356 CB	1	1	---	---
		360 CB	1	---	1	---
		UNDISTRUBUTED	2	2	2	1
<b>PROJECT 1620-02-76 CAT 0020 TOTALS</b>			<b>27</b>	<b>15</b>	<b>12</b>	<b>2</b>

MARKERS CULVERT END

633.5200  
Markers  
Culvert End  
EACH

PIPE		
PROJECT 1620-02-76 CATEGORY 0010		
STA 874+77	STH 80	2
STA 963+07 (2 Pipes)	STH 80	4
STA 1505+86 LT	STH 173	2
STA 1083+10 RT	STH 80	2
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTAL</b>		<b>10</b>

TYPE II SIGNING

Sign #	Sign Code	Shape T,O,R,D	Sign Size			Sign Message	Reflective H SF	Reflective F SF	4X6 Inch 12 FT EACH	4X6 Inch 14 FT EACH	4X6 Inch 16 FT EACH	4X6 Inch 18 FT EACH	4X6 Inch 20 FT EACH	4X6 Inch 22 FT EACH	204.0180 Removing Delineators and Markers EACH	638.2102 Moving Signs Type II EACH	638.2602 Removing Signs Type II EACH	638.3000 Removing Small Sign Supports EACH	638.4000 Moving Small Sign Supports EACH
			IN	X	IN														
PROJECT 1620-02-76 CATEGORY 0010																			
01 - 01	W10-2	D	36	X	36	RAILROAD CROSSING (INT) - RT	---	9.00	---	---	---	1	---	---	---	---	---	---	---
01 - 02	W10-2	D	36	X	36	RAILROAD CROSSING (INT) - LT	---	9.00	---	---	---	1	---	---	---	---	---	---	---
01 - 03	W10-1	R	36	X	36	RR CROSSING AHEAD	---	9.00	---	---	---	1	---	---	---	---	---	---	---
01 - 04	W10-2	R	36	X	36	RR CROSSING AHEAD	---	9.00	---	---	---	1	---	---	---	---	---	---	---
01 - 05	W10-2	D	36	X	36	RAILROAD CROSSING (INT) - RT	---	9.00	---	---	---	1	---	---	---	---	---	---	---
01 - 06	W10-2	D	36	X	36	RAILROAD CROSSING (INT) - LT	---	9.00	---	---	---	1	---	---	---	---	---	---	---
01 - 07	W10-1	R	36	X	36	RR CROSSING AHEAD	---	9.00	---	---	---	1	---	---	---	---	---	---	---
02 - 01	W10-2	D	36	X	36	RAILROAD CROSSING (TEE INT) - RT	---	9.00	---	---	---	1	---	---	---	---	---	---	---
02 - 02	W10-2	D	36	X	36	RAILROAD CROSSING (TEE INT) - LT	---	9.00	---	---	---	1	---	---	---	---	---	---	---
02 - 03	W10-2	R	36	X	36	RR CROSSING AHEAD	---	9.00	---	---	---	1	---	---	---	---	---	---	---
03 - 01					EXIST	SOUTH 80	---	---	---	---	---	1	---	---	---	1	---	1	---
03 - 02					EXIST	STOP	---	---	---	1	---	---	---	---	---	1	---	1	---
03 - 03					EXIST	KEEP RIGHT	---	---	---	1	---	---	---	---	---	1	---	1	---
03 - 04					EXIST	STOP	---	---	---	1	---	---	---	---	---	1	---	1	---
03 - 05	W12-1D	D	24	X	24	DOUBLE DOWN ARROW	---	4.00	1	---	---	---	---	---	---	---	---	---	---
03 - 06					EXIST	ARROW	---	---	---	---	1	---	---	---	---	1	---	1	---
03 - 07					EXIST	ARROW	---	---	---	---	1	---	---	---	---	1	---	1	---
03 - 08					EXIST	SOUTH 173 RT	---	---	---	---	1	---	---	---	---	1	---	1	---
03 - 09					EXIST	S 173 LT N 80 AD N 173 AD	---	---	---	---	---	---	1	1	---	1	---	2	---
03 - 10					EXIST	N 80 LT N 173 LT S 80 RT	---	---	---	---	---	---	2	---	---	1	---	2	---
03 - 11					EXIST	NECEDAH AD MATHER RT	---	---	---	---	2	---	---	---	---	1	---	2	---
04 - 01					EXIST	X RT	---	---	---	---	1	---	---	---	---	1	---	1	---
04 - 02					EXIST	DOUBLE ARROW	---	---	---	---	1	---	---	---	---	1	---	1	---
04 - 03					EXIST	DELINEATOR POSTS	---	---	---	---	---	---	---	3	---	---	---	---	---
04 - 04					EXIST	N 80 173	---	---	---	---	---	---	1	---	---	2	---	1	---
04 - 05					EXIST	ATV ROUTE	---	---	---	---	---	---	---	---	---	1	---	---	1
04 - 06					EXIST	YELLOW RIVER	---	---	---	---	1	---	---	---	---	1	---	1	---
04 - 07					EXIST	CURVE LT	---	---	---	---	---	1	---	---	---	1	---	1	---
04 - 08					EXIST	ATV ROUTE RT	---	---	---	---	---	---	---	---	---	2	---	---	1
04 - 09					EXIST	JCT X	---	---	---	---	---	---	1	---	---	1	---	1	---
05 - 01					EXIST	OBJECT MARKER	---	---	---	1	---	---	---	---	---	1	---	1	---
05 - 02					EXIST	CURVE LT	---	---	---	---	---	1	---	---	---	1	---	1	---
05 - 03					EXIST	ATV ROUTE	---	---	---	---	---	---	---	---	---	1	---	---	1
05 - 04					EXIST	SPEED LIMIT 55	---	---	---	---	1	---	---	---	---	1	---	1	---
07 - 16					EXIST	STOP	---	---	---	1	---	---	---	---	---	1	---	1	---
ON DETOUR	W10-2	D	36	X	36	RAILROAD CROSSING (TEE INT) - RT	---	9.00	---	---	---	1	---	---	---	---	---	---	---
ON DETOUR	W10-2	D	36	X	36	RAILROAD CROSSING (TEE INT) - LT	---	9.00	---	---	---	1	---	---	---	---	---	---	---
-						UNDISTRIBUTED (NO PASSING ZONE)	---	---	---	---	---	---	---	---	---	3	---	---	3
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTALS</b>							<b>0.00</b>	<b>112.00</b>	<b>1</b>	<b>5</b>	<b>8</b>	<b>16</b>	<b>5</b>	<b>1</b>	<b>3</b>	<b>28</b>	<b>0</b>	<b>23</b>	<b>6</b>

**TYPE II SIGNING CONTINUED**

Sign #	Sign Code	Shape T,O,R,D	Sign Size			Sign Message	637.2210	637.2230	634.0612	634.0614	634.0616	634.0618	634.0620	634.0622	204.0180	638.2102	638.2602	638.3000	638.4000
			Reflective H	Reflective F	4X6 Inch		4X6 Inch	4X6 Inch	4X6 Inch	4X6 Inch	4X6 Inch	4X6 Inch	4X6 Inch	204.0180	638.2102	638.2602	638.3000	638.4000	
			IN	X	IN		Signs	Signs	12 FT	14 FT	16 FT	18 FT	20 FT	22 FT	Removing and Markers	Moving Signs	Removing Signs	Removing Small Sign Supports	Moving Small Sign Supports
							SF	SF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
PROJECT 1620-02-76 CATEGORY 0020																			
05	-	05				EXIST STOP	--	--	--	1	--	--	--	--	--	1	--	1	--
05	-	06				REMOVE J ASSEMBLY	--	--	--	--	--	--	--	--	--	--	1	--	--
05	-	07	W1-2L	D	36	X	36	CURVE LT	9.00	--	--	1	--	--	--	--	--	--	--
05	-	07A	W13-1	R	18	X	18	25 MPH	--	--	--	--	--	--	--	--	--	--	--
05	-	08	R7-1L	R	18	X	24	NO PARKING	--	3.00	--	--	--	--	--	--	--	--	--
05	-	09	R7-1R	R	18	X	24	NO PARKING	3.00	--	--	--	1	--	--	--	--	--	--
05	-	10	R1-1	O	30	X	30	STOP	5.18	--	--	--	1	--	--	--	--	--	--
06	-	01				REMOVE CURVE LT/10 MPH	--	--	--	--	--	--	--	--	--	--	2	1	--
06	-	02	R7-1D	R	18	X	24	NO PARKING	3.00	--	--	1	--	--	--	--	--	--	--
06	-	03				REMOVE S 80 173	--	--	--	--	--	--	--	--	--	--	1	1	--
06	-	04	R7-1D	R	18	X	24	NO PARKING	3.00	--	--	1	--	--	--	--	--	--	--
06	-	05				REMOVE CURVE LT/10 MPH	--	--	--	--	--	--	--	--	--	--	2	1	--
06	-	06	R7-1D	R	18	X	24	NO PARKING	3.00	--	--	1	--	--	--	--	--	--	--
06	-	07	W1-6	R	48	X	24	ARROW LT	--	8.00	--	--	--	--	--	--	--	--	--
06	-	08				REMOVE NO PARKING	--	--	--	--	--	--	--	--	--	--	1	1	--
06	-	09	R7-1D	R	18	X	24	NO PARKING	3.00	--	--	1	--	--	--	--	--	--	--
06	-	10				REMOVE NO PARKING	--	--	--	--	--	--	--	--	--	--	1	--	--
06	-	11				REMOVE DIAGONAL PARKING ONLY	--	--	--	--	--	--	--	--	--	--	1	--	--
06	-	12	W1-6	R	48	X	24	ARROW RT	--	8.00	--	--	1	--	--	--	--	--	--
06	-	13				REMOVE N 80 173	--	--	--	--	--	--	--	--	--	--	1	--	--
06	-	14				REMOVE DIAGONAL PARKING ONLY	--	--	--	--	--	--	--	--	--	--	1	--	--
06	-	15				REMOVE STOP	--	--	--	--	--	--	--	--	--	--	1	1	--
06	-	16				REMOVE STOP	--	--	--	--	--	--	--	--	--	--	1	1	--
06	-	17	W5-56	D	18	X	18	MARKER	2.25	--	--	1	--	--	--	--	--	--	--
06	-	18	W5-57	D	18	X	18	MARKER	2.25	--	--	1	--	--	--	--	--	--	--
06	-	19	W5-58	D	18	X	18	MARKER	2.25	--	--	1	--	--	--	--	--	--	--
06	-	20				REMOVE ARROW LT	--	--	--	--	--	--	--	--	--	--	1	1	--
06	-	21				REMOVE STOP	--	--	--	--	--	--	--	--	--	--	1	1	--
06	-	22				REMOVE ARROW RT	--	--	--	--	--	--	--	--	--	--	1	1	--
06	-	23				REMOVE SPEED LIMIT 25	--	--	--	--	--	--	--	--	--	--	1	1	--
06	-	24	W14-1	D	30	X	30	DEAD END	--	6.25	--	--	1	--	--	--	--	--	--
06	-	25	R2-1	R	24	X	30	SPEED LIMIT 35	5.00	--	--	1	--	--	--	--	--	--	--
07	-	01				REMOVE DIAGONAL PARKING ONLY	--	--	--	--	--	--	--	--	--	--	1	--	--
07	-	02	R7-1L	R	18	X	24	NO PARKING	3.00	--	--	1	--	--	--	--	--	--	--
07	-	03	R7-1R	R	18	X	24	NO PARKING	3.00	--	--	1	--	--	--	--	--	--	--
07	-	04	R1-1	O	30	X	30	STOP	5.18	--	--	1	--	--	--	--	1	1	--
07	-	05	R7-1R	R	18	X	24	NO PARKING	3.00	--	--	1	--	--	--	--	--	--	--
07	-	06	R7-1L	R	18	X	24	NO PARKING	3.00	--	--	1	--	--	--	--	--	--	--
07	-	07				REMOVE DIAGONAL PARKING ONLY	--	--	--	--	--	--	--	--	--	--	1	--	--
07	-	08	W1-2R	D	36	X	36	CURVE RT	9.00	--	--	1	--	--	--	--	--	--	--
07	-	08A	W13-1	R	18	X	18	25 MPH	--	2.25	--	--	--	--	--	--	--	--	--
07	-	09				REMOVE CURVE RT/10 MPH	--	--	--	--	--	--	--	--	--	--	2	1	--
07	-	10	R7-1L	R	18	X	24	NO PARKING	3.00	--	--	1	--	--	--	--	--	--	--
07	-	11	R1-1	O	30	X	30	STOP	5.18	--	--	1	--	--	--	--	1	1	--
07	-	12	R7-1R	R	18	X	24	NO PARKING	3.00	--	--	1	--	--	--	--	--	--	--
07	-	13	R7-1L	R	18	X	24	NO PARKING	3.00	--	--	1	--	--	--	--	--	--	--
07	-	14	W11-8	D	30	X	30	FIRE STATION	--	6.25	--	--	1	--	--	--	--	--	--
07	-	15	R2-1	R	24	X	30	SPEED LIMIT 35	5.00	--	--	1	--	--	--	--	--	--	--
07	-	17	R2-1	R	24	X	30	SPEED LIMIT 35	5.00	--	--	1	--	--	--	--	--	--	--
PROJECT 1620-02-76 CATEGORY 0020 TOTALS							91.28	36.00	0	4	23	2	0	0	0	1	23	14	0

3

3

**TRAFFIC CONTROL**

STAGE	DURATION DAYS	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 COVERING SIGNS TYPE II			644.1440 TEMPORARY PEDESTRIAN SURFACE MATTING	644.1601 TEMPORARY PEDESTRIAN CURB RAMP		644.1605 TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD	644.1810 TEMPORARY PEDESTRIAN BARRICADE	643.3105 TEMPORARY MARKING LINE PAINT 4-INCH (White)				
		#REQ'D	DAYS	#REQ'D	DAYS	#REQ'D	DAYS	#REQ'D	DAYS	CYCLES	#	EACH	SF	#REQ'D	DAYS	SF	LF	LF				
PROJECT 1620-02-76 CATEGORY 0010																						
PROJECT 1620-02-76.																						
Intial Erosion Control Installation	14	---	---	---	---	---	---	4	56	---	---	---	---	---	---	---	---	---				
Stage 1 Detour	44	---	---	4	176	8	352	123	5412	1	4	4	---	---	---	---	---	---				
Stage 1 Traffic Control	44	50	2200	12	528	24	1056	49	2156	1	2	2	---	---	---	---	---	---				
Stage 2-4 Detour	86	---	---	10	860	20	1720	448	38528	1	19	19	---	---	---	---	---	---				
Stage 2 Traffic Control	19	50	950	14	266	28	532	53	1007	1	5	5	---	---	---	---	---	---				
Stage 3 Traffic Control	52	150	7800	16	832	32	1664	56	2912	1	5	5	---	---	---	---	---	---				
Stage 3 - Pedestrian (Marathon/Taylor Ave)	16	35	560	---	---	---	---	6	96	---	---	---	590	3	48	30	130	---				
Stage 4 Traffic Control	15	50	750	10	150	20	300	48	720	---	---	---	---	---	---	---	---	---				
UNDISTRIBUTED	50	---	---	5	250	10	500	10	500	1	5	5	---	---	---	---	---	---				
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTALS</b>			<b>12,260</b>		<b>3,062</b>		<b>6,124</b>		<b>51,387</b>			<b>40</b>		<b>590</b>		<b>48</b>		<b>30</b>		<b>130</b>		<b>0</b>
PROJECT 1620-02-76 CATEGORY 0020																						
Stage 3A Pedestrian Traffic Control - Clark Ave	16	20	320	---	---	---	---	4	64	---	---	---	60	2	32	20	205	160				
Stage 3B Pedestrian Traffic Control - Clark Ave	12	---	---	---	---	---	---	6	72	---	---	---	380	2	24	20	310	---				
Stage 3C Pedestrian Traffic Control - Clark Ave	12	---	---	---	---	---	---	9	108	---	---	---	450	2	24	20	505	65				
Stage 3D Pedestrian Traffic Control - Clark Ave	12	---	---	---	---	---	---	4	48	---	---	---	470	---	---	---	485	---				
UNDISTRIBUTED	52	---	---	---	---	---	---	2	104	---	---	---	---	---	---	---	---	---				
<b>PROJECT 1620-02-76 CATEGORY 0020 TOTALS</b>			<b>320</b>		<b>0</b>		<b>0</b>		<b>396</b>			<b>0</b>		<b>1,360</b>		<b>80</b>		<b>60</b>		<b>1,505</b>		<b>225</b>

\* SEE PAVEMENT MARKING FOR TOTALS

\*

**TRAFFIC CONTROL SIGNS FIXED MESSAGE**

Station/Location	Sign Message	Size			SF	Notes
		IN	X	IN		
<b>PROJECT 1620-02-76 CATEGORY 0010</b>						
NB STH 80 South of Gronski Ln	HWY 80 ROAD CLOSED BEGINS XXX-XX	72	X	36	18.00	Install 7 Days prior to Stage 1 Remove when Stage 1 Begins
SB STH 80 South of STH 173	HWY 80 ROAD CLOSED BEGINS XXX-XX	72	X	36	18.00	Install 7 Days prior to Stage 1 Remove when Stage 1 Begins
NB STH 80 at STH 173	HWY 80/173 ROAD CLOSED BEGINS XXX-XX	72	X	36	18.00	Install 7 Days prior to Stage 2 Remove when Stage 2 Begins
SB STH 80 Between Yellow River and CTH X	HWY 80/173 ROAD CLOSED BEGINS XXX-XX	72	X	36	18.00	Install 7 Days prior to Stage 2 Remove when Stage 2 Begins
NB STH 80 East of Necedah Rd	HWY 80/173 ROAD CLOSED BEGINS XXX-XX	72	X	36	18.00	Install 7 Days prior to Stage 3 Remove when Stage 3 Begins
SB STH 80 at Marathon Ave	HWY 80/173 ROAD CLOSED BEGINS XXX-XX	72	X	36	18.00	Install 7 Days prior to Stage 3 Remove when Stage 3 Begins
NB STH 80 East of CTH X	HWY 80/173 ROAD CLOSED BEGINS XXX-XX	72	X	36	18.00	Install 7 Days prior to Stage 4 Remove when Stage 4 Begins
SB STH 80 West of Necedah Rd	HWY 80/173 ROAD CLOSED BEGINS XXX-XX	72	X	36	18.00	Install 7 Days prior to Stage 4 Remove when Stage 4 Begins
<b>PROJECT 1620-02-76 TOTAL</b>					<b>144.00</b>	

**LOCATE NO PASSING ZONE**

STATION	X	STATION	MILES
<b>PROJECT 1620-02-76 CATEGORY 0010</b>			
838+90.00		1096+00.00	4.9
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTALS</b>			<b>4.9</b>

648.0100  
Locating  
No Passing  
Zone  
MILES

**PAVEMENT MARKING (TRANSVERSE)**

STATION - STATION	LOCATION	MARKING				
		LF	LF	EACH	LF	LF
<b>PROJECT 1620-02-76 CATEGORY 0010</b>						
Gronski Road	RR Crossing E/W	---	20		---	---
Zimmerman Road	RR Crossing E/W	---	20		---	---
Paluch Ln	RR Crossing E/W	---	20		---	---
1076+65	STH 80 (Marathon Ave N)	---	---	---	75	---
1087+68 - 1087+96	STH 173	34	---		---	---
1012+89 - 1013+58	STH 173	52	---		---	---
STH 173 RAIL CROSSING ON DETOUR					2	
<b>PROJECT 1620-02-76 CATEGORT 0010 TOTALS</b>		<b>85</b>	<b>60</b>	<b>2</b>	<b>75</b>	<b>0</b>
<b>PROJECT 1620-02-76 CATEGORY 0020</b>						
1072+39	STH 80 (Clark Ave S)	---	---	---	90	---
1071+52 - 1072+18	LT/RT	---	---	---	---	27
1073+26 - 1073+92	RT	---	---	---	---	14
<b>PROJECT 1620-02-76 CATEGORT 0020 TOTALS</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>90</b>	<b>41</b>

**PAVEMENT MARKING (LONGITUDINAL)**

LOCATION	MARKING					
	LF	LF	LF	LF	LF	LF
<b>PROJECT 1620-02-06 CAT 0010</b>						
838+90 - 906+24	12892	---	3330	---	3330	3330
906+24 - 1024+25	23,445	350	7,595	---	7,595	7,595
1024+25 - 1035+12	1,617	---	2,150	---	2,150	2,150
1035+12 - 1051+50	3,276	---	3,160	---	3,160	3,160
1051+50 - 1055+64	698	140	---	520	520	---
1055+64 - 1065+80	1,890	---	---	940	940	---
1074+75 - 1092+00	2,666	50	---	2,035	2,035	---
1092+00 - 1096+00	800	---	500	---	500	500
STH 173 S	266	120	452	---	452	---
CTH X	---	---	77	---	77	---
STH 173 N	---	---	---	111	111	---
<b>PROJECT 1620-02-06 CAT 0010 TOTALS</b>		<b>47,551</b>	<b>660</b>	<b>17,264</b>	<b>3,606</b>	<b>20,870</b>
<b>PROJECT 1620-02-06 CAT 0020</b>						
1065+80 - 1074+75	1,373	---	---	1,410	1,410	---
White Paint from Traffic Control qtys					225	---
<b>PROJECT 1620-02-06 CAT 0020 TOTALS</b>		<b>1,373</b>	<b>0</b>	<b>0</b>	<b>1,410</b>	<b>1,635</b>

**CONSTRUCTION STAKING**

STA	- STA	LOCATION	Stage	650.6000 Construction Staking Pipe Culverts	650.4500 Construction Staking Subgrade	650.5000 Construction Staking Base	650.5500 Construction Staking Curb Gutter and Curb & Gutter	650.8000 Construction Staking Resurfacing Reference	650.9000 Construction Staking Curb Ramps	650.9500 Construction Staking Sidewalk 01. 1620-02-76	650.9911 Construction Staking Supplimental Control 01. 1620-02-76	650.9920 Construction Staking Slope Stakes	SPV.0090.02 Construction Staking Outfall
				EACH	LF	LF	LF	LF	EACH	EACH	EACH	LF	LF
<b>PROJECT 1620-02-76 CATEGORY 0010</b>													
PROJECT STH 80													
838+90	- 1009+00	STH 80	1	2	17,010	17,010	---	17,010	---	---	1	---	---
1009+00	- 1019+00	STH 80	2	---	1,000	1,000	---	1,000	---	---	---	1,000	---
1019+00	- 1035+25	STH 80	2	---	1,625	1,625	---	1,625	---	---	---	---	---
1035+25	- 1055+00	STH 80	4	---	1,975	1,975	---	1,975	---	---	---	---	---
1055+00	- 1065+80	STH 80	3	---	1,080	1,080	---	1,080	---	---	---	1,080	---
1074+75	- 1096+00	STH 80	3	1	---	---	---	2,125	5	---	---	---	---
1504+08	- 1506+70	STH 173 S	2	1	262	262	---	262	---	---	---	262	---
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTALS</b>				<b>4</b>	<b>22,952</b>	<b>22,952</b>	<b>0</b>	<b>25,077</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>2,342</b>	<b>0</b>
<b>PROJECT 1620-02-76 CATEGORY 0020</b>													
PROJECT STH 80													
1065+80	- 1074+75	STH 80	3	---	895	895	1,790	---	---	1	---	895	---
9+20	- 9+84	Pine Street	3	---	64	64	---	---	1	---	---	64	---
20+33	- 21+61	Juneau Ave	3	---	128	128	---	---	1	---	---	128	---
29+10	- 29+78	Clark Ave West	3	---	68	68	---	---	2	---	---	68	---
30+22	- 31+30	Clark Ave East	3	---	108	108	---	---	2	---	---	108	---
0+40	- 6+40	Outfall 'O'	1	---	---	---	---	---	---	---	---	---	600
<b>PROJECT 1620-02-76 CATEGORY 0020 TOTALS</b>				<b>0</b>	<b>1,263</b>	<b>1,263</b>	<b>1,790</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>1,263</b>	<b>600</b>

QUANTITY FOR CONSTRUCTION STAKING STORM SEWER SYSTEM SHOWN IN STORM SEWER ITEMS

**SAWING**

STA	LOCATION	Stage	690.0150 Sawing Asphalt LF	690.0250 Sawing Concrete LF
<b>PROJECT 1620-02-76 CATEGORY 0010</b>				
841.75	S Abt B-71-197 ProfTrans	1	36	---
844+32	N Abt B-71-197 ProfTrans	1	36	---
1009+00	Stage 1/2 Limit	1	30	---
1035+25	Pavement Change Profile Transition (Stage 2 Limit)	2	34	---
	Necedah Road	3/4	625	---
1058+68	Drive Rt	3	17	---
1062+60	Drive Rt	3	180	---
	Curb Ramps - Taylor/Marathon Ave	3	---	25
	STH 173 N Flume Repair	3	20	---
	Undistributed		22	10

**PROJECT 1620-02-76 CATEGORY 0010 TOTAL 1000 35**

**PROJECT 1620-02-76 CATEGORY 0020**

1065+80	Begin Reconstruct	3	34	---
1074+75	End Reconstruct	3	34	---
	Pine St	3	18	---
	Juneau Ave and Lot	3	125	---
	Clark St West	3	18	---
	Clark St East/Parking	3	118	---
	Birch St (Storm Sewer)	3	40	---
1055+40 LT	Driveway (Storm Sewer)	3	15	---
	Sidewalk / Curb Ramps	3	302	30
	Concrete Drive Removals	3	---	44
1073+88 RT	Town Hall Parking	3	324	---
	Undistributed	3	22	10

**PROJECT 1620-02-76 CATEGORY 0020 TOTAL 1050 84**

**LAND PARCEL MONUMENTS**

LOCATION	SPV.0060.01 RESEARCH AND LOCATE EXISTING LAND PARCEL MONUMENTS EA	SPV.0060.02 VERIFY AND REPLACE EA
<b>PROJECT 1620-02-76 CATEGORY 0010</b>		
PROJECT	7	7
<b>PROJECT 1620-02-76 CATEGORY 0010 TOTAL 7 7</b>		

SCHEDULE OF LANDS AND INTERESTS REQUIRED		OWNER NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT	
PARCEL NUMBER	OWNERS	INTEREST REQUIRED	TLE S.F. REQUIRED
1	CHARLES G. & DAWN ORGEL REEVES	TLE	1420

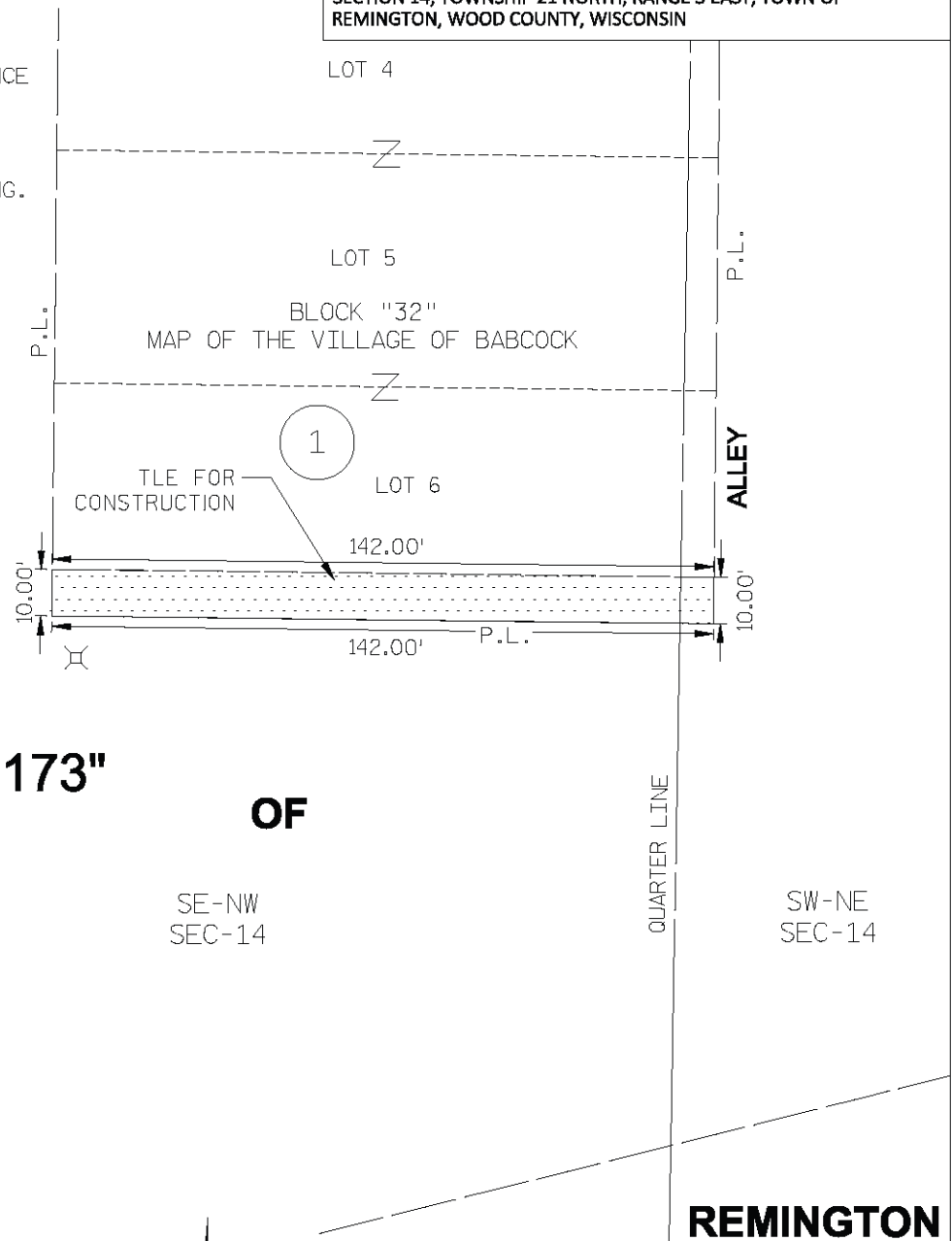
R/W PROJECT NUMBER: 1620-02-26 SHEET NUMBER: 1

**TLE ACQUISITION MAP  
NECEDAH - BABCOCK  
JUNEAU CO. LINE TO S.T.H. 173 N.**

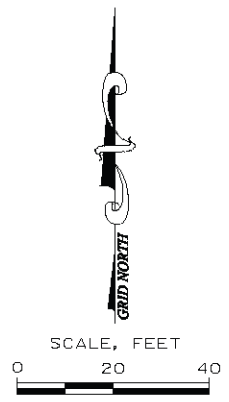
S.T.H. "80" WOOD COUNTY

PART OF LOT 6, BLOCK 32 OF THE MAP OF THE VILLAGE OF BABCOCK, LOCATED IN THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 14, TOWNSHIP 21 NORTH, RANGE 3 EAST, TOWN OF REMINGTON, WOOD COUNTY, WISCONSIN

NOTES:  
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.  
PURPOSE OF THIS TLE IS FOR GRADING.  
NO UTILITIES FOUND TO EFFECT TLE AREA.



LEGEND	
	INDICATES TELEPHONE PEDESTAL
	BURIED TELEPHONE LINE
	EXISTING R/W LINE
	LOT LINES
	MINOR LOT LINES
	TLE LINES
	PROPERTY CONNECTOR
	PROPERTY LINE



THIS MAP PREPARED BY QUEST CIVIL ENGINEERS, LLC, FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

THIS MAP APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTH CENTRAL REGION.

SIGNATURE: *Brent L Stella* DATE: 9/8/22

PRINT NAME: **Brent L Stella**

4

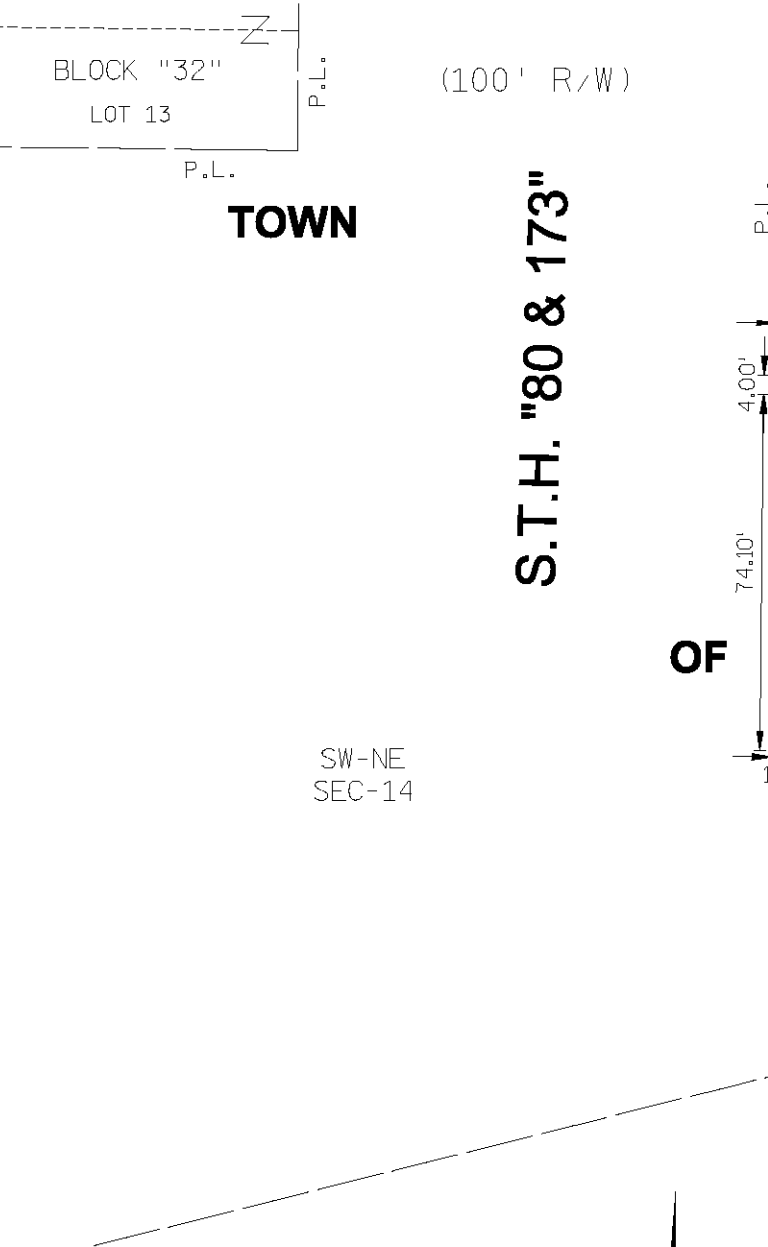
SCHEDULE OF LANDS AND INTERESTS REQUIRED		OWNER NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT	
PARCEL NUMBER	OWNERS	INTEREST REQUIRED	TLE S.F. REQUIRED
2	MAD MANAGEMENT LLC	TLE	728
3	JASON FROST & DANA B. BRASIER, FKA DANA B. FROST	TLE	40

R/W PROJECT NUMBER: 1620-02-26 SHEET NUMBER: 2

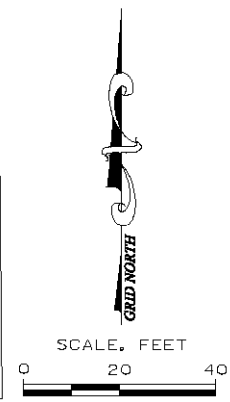
**TLE ACQUISITION MAP  
NECEDAH - BABCOCK  
JUNEAU CO. LINE TO S.T.H. 173 N.**

S.T.H. "80" WOOD COUNTY

PART OF LOT 5, 6 AND 7, BLOCK 31 OF THE MAP OF THE VILLAGE OF BABCOCK, LOCATED IN THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 14, TOWNSHIP 21 NORTH, RANGE 3 EAST, TOWN OF REMINGTON, WOOD COUNTY, WISCONSIN



LEGEND	
	INDICATES FOUND 1" IRON PIPE
	EXISTING R/W LINE
	LOT LINES
	MINOR LOT LINES
	TLE LINES
	PROPERTY CONNECTOR
	PROPERTY LINE



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THIS MAP APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTH CENTRAL REGION.

SIGNATURE: *Brent L Stella* DATE: 9/8/22

PRINT NAME: **Brent L Stella**

4

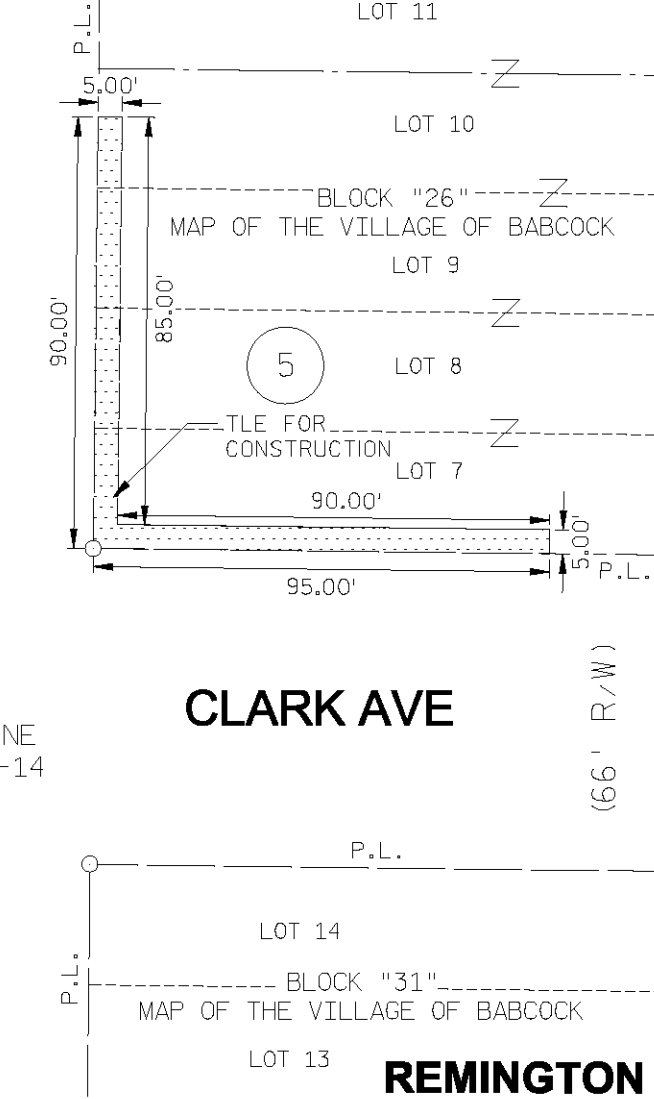
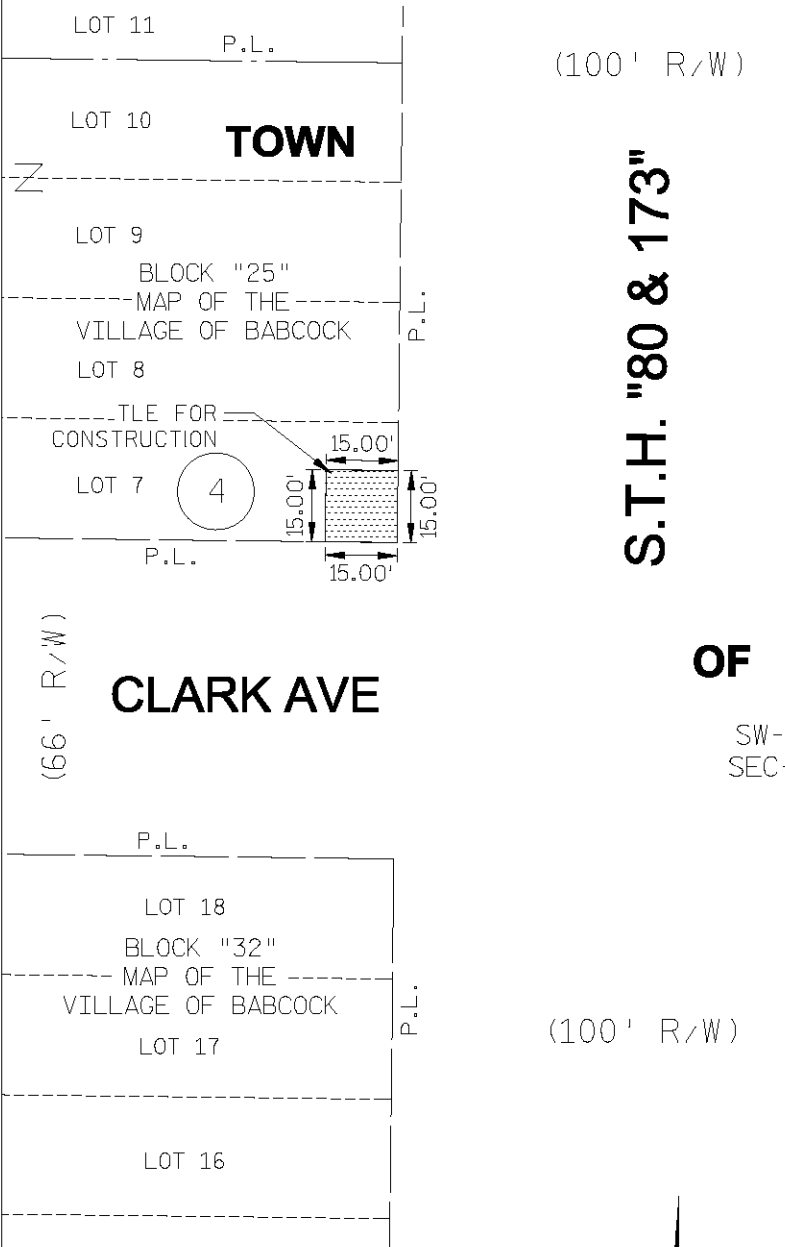


4

SCHEDULE OF LANDS AND INTERESTS REQUIRED			
PARCEL NUMBER	OWNERS	INTEREST REQUIRED	TLE S.F. REQUIRED
4	DARROW L. CATHER	TLE	225
5	TOWN OF REMINGTON	TLE	900

OWNER NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

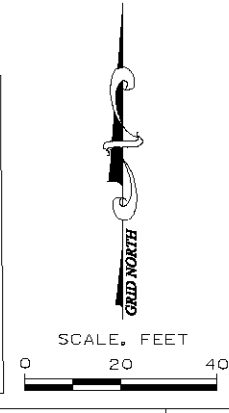
R/W PROJECT NUMBER: 1620-02-26	SHEET NUMBER: 3
<b>TLE ACQUISITION MAP NECEDAH - BABCOCK JUNEAU CO. LINE TO S.T.H. 173 N.</b>	
S.T.H. "80"	WOOD COUNTY
PART OF LOT 7, BLOCK 25 AND LOTS 7, 8, 9 AND 10, BLOCK 26 OF THE MAP OF THE VILLAGE OF BABCOCK, LOCATED IN THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 14, TOWNSHIP 21 NORTH, RANGE 3 EAST, TOWN OF REMINGTON, WOOD COUNTY, WISCONSIN	



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THIS MAP PREPARED BY QUEST CIVIL ENGINEERS, LLC, FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.  
THIS MAP APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTH CENTRAL REGION.  
SIGNATURE: *Brent L Stella* DATE: 9/8/22  
PRINT NAME: **Brent L Stella**

LEGEND	
⊙	INDICATES FOUND 1" IRON PIPE
—	EXISTING R/W LINE
- - -	LOT LINES
- - - - -	MINOR LOT LINES
- - - - -	TLE LINES
Z	PROPERTY CONNECTOR
P.L.	PROPERTY LINE

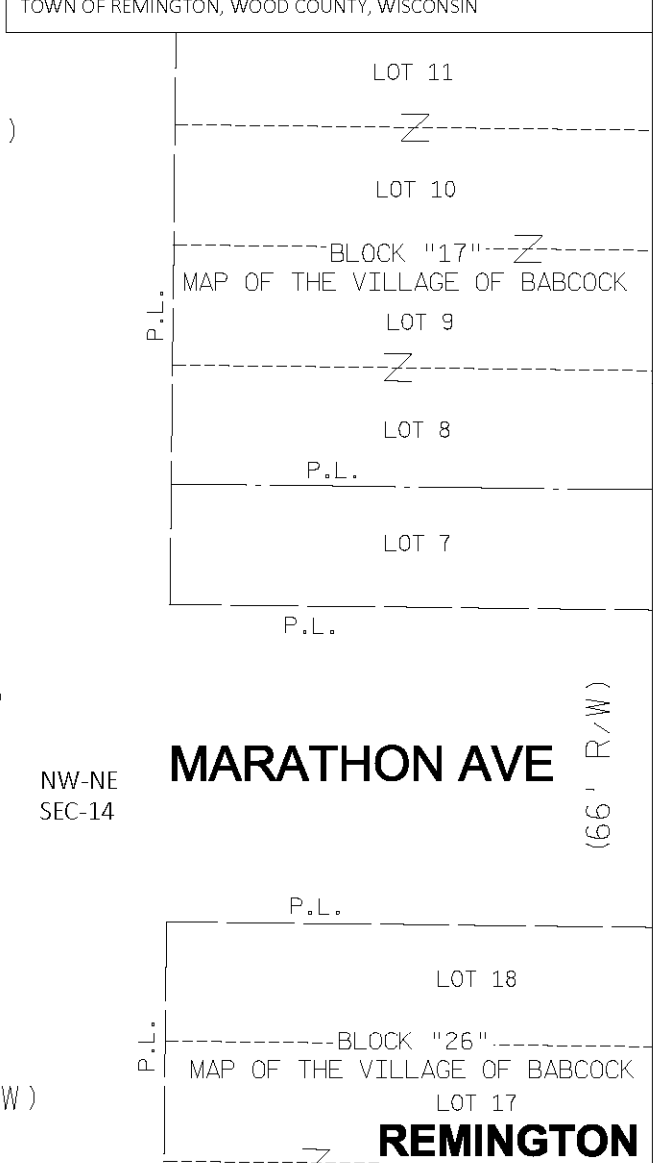
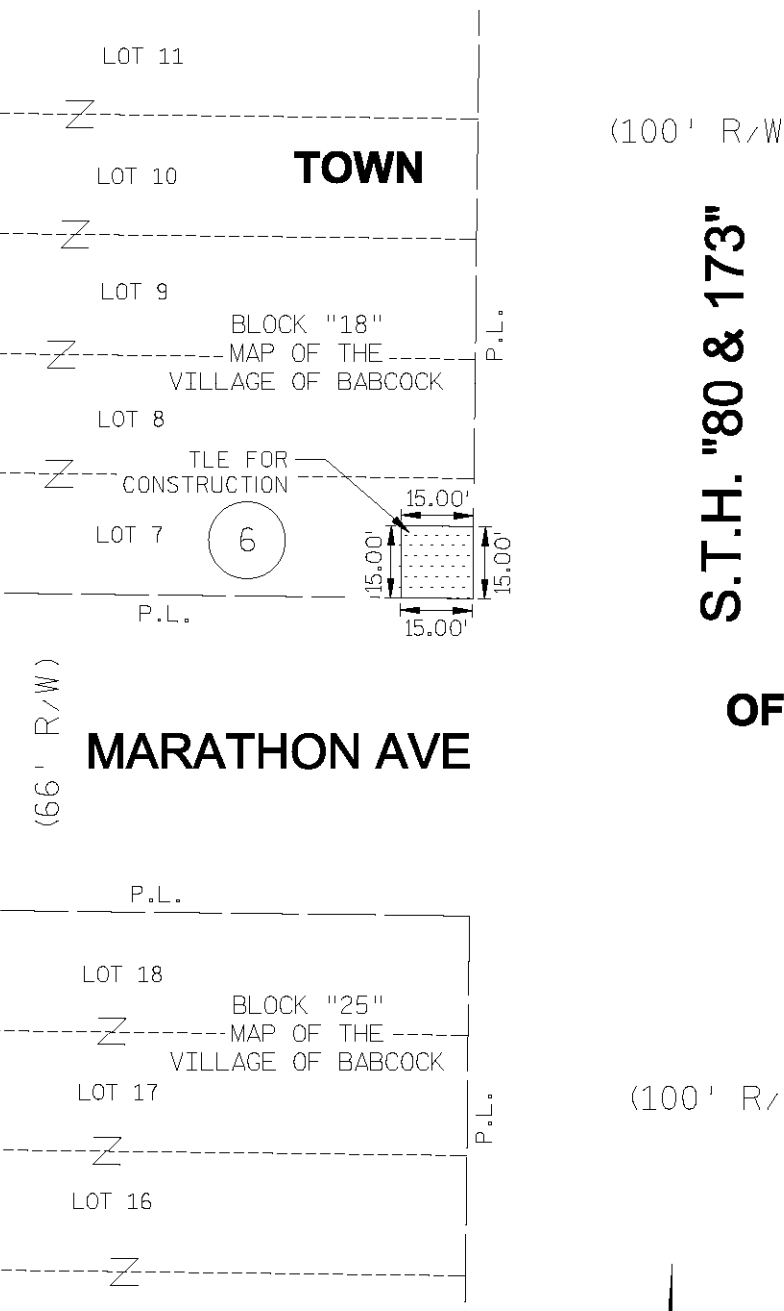


4

SCHEDULE OF LANDS AND INTERESTS REQUIRED			
PARCEL NUMBER	OWNERS	INTEREST REQUIRED	TLE S.F. REQUIRED
6	MICHAEL A. GLOVER	TLE	225

OWNER NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

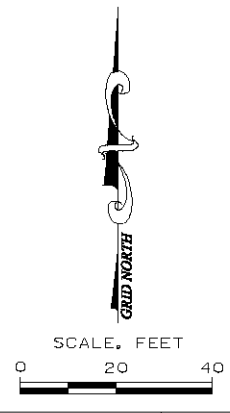
R/W PROJECT NUMBER: 1620-02-26	SHEET NUMBER: 4
<b>TLE ACQUISITION MAP NECEDAH - BABCOCK JUNEAU CO. LINE TO S.T.H. 173 N.</b>	
S.T.H. "80"	WOOD COUNTY
PART OF LOT 7, BLOCK 18 OF THE MAP OF THE VILLAGE OF BABCOCK, LOCATED IN THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 14, TOWNSHIP 21 NORTH, RANGE 3 EAST, TOWN OF REMINGTON, WOOD COUNTY, WISCONSIN	

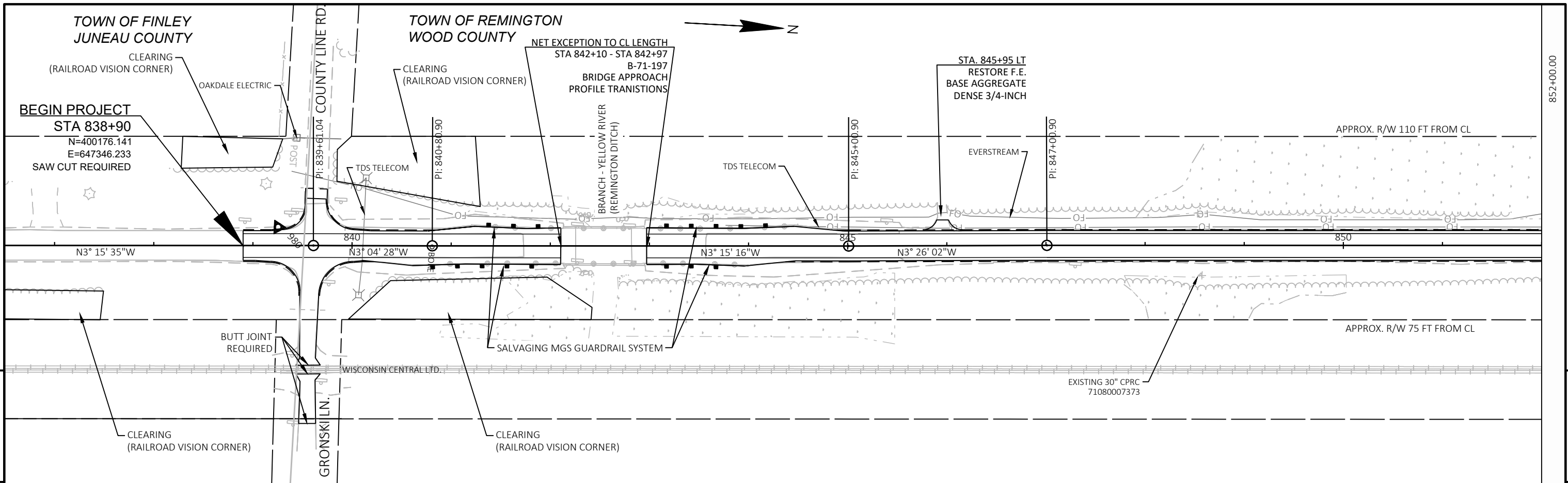


NOTES:  
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THIS MAP APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTH CENTRAL REGION.  
SIGNATURE: *Brent L Stella* DATE: 9/8/22  
PRINT NAME: **Brent L Stella**

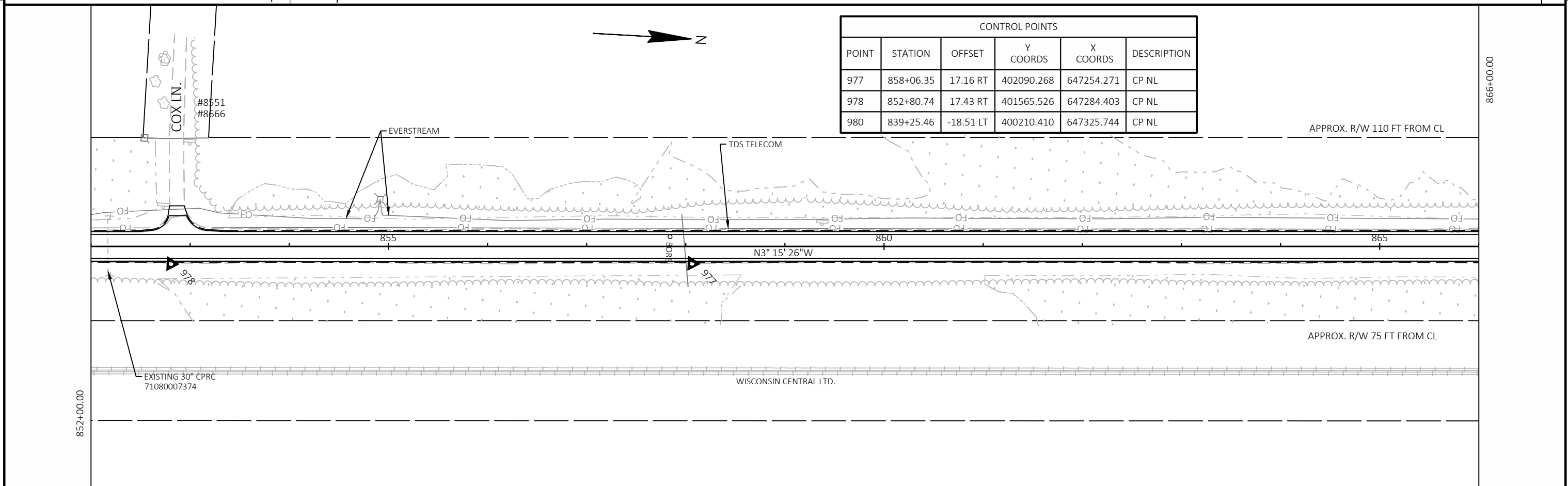
LEGEND	
—	EXISTING R/W LINE
- - -	LOT LINES
- - - - -	MINOR LOT LINES
- - - - -	TLE LINES
Z	PROPERTY CONNECTOR
P.L.	PROPERTY LINE





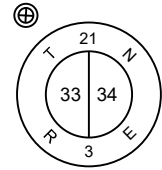
5

5



CONTROL POINTS					
POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
977	858+06.35	17.16 RT	402090.268	647254.271	CP NL
978	852+80.74	17.43 RT	401565.526	647284.403	CP NL
980	839+25.46	-18.51 LT	400210.410	647325.744	CP NL

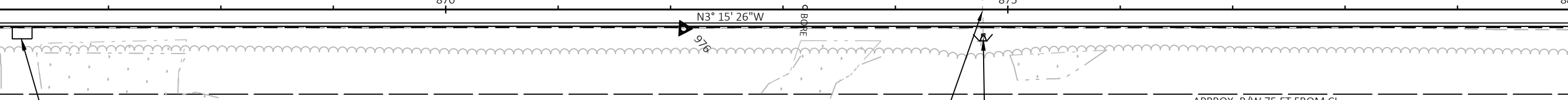
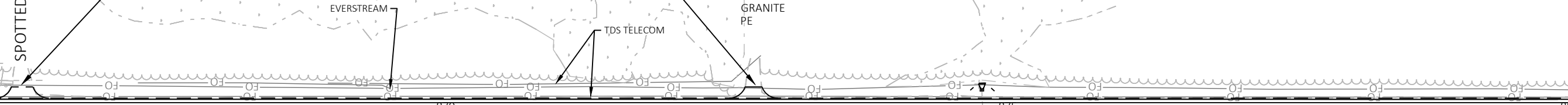
PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      PLAN - STH 80      SHEET      E



STA. 866+23 LT  
RESTORE F.E.  
BASE AGGREGATE  
DENSE 3/4-INCH

STA. 872+74 LT  
RESTORE P.E.  
BASE AGGREGATE  
DISINTEGRATED  
GRANITE

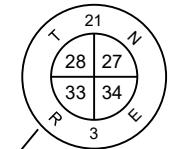
APPROX. R/W 110 FT FROM CL



5

5

CONTROL POINTS					
POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
975	884+98.15	-16.33 LT	404775.823	647067.885	CP NL
976	872+11.61	16.74 RT	403493.235	647174.005	CP NL



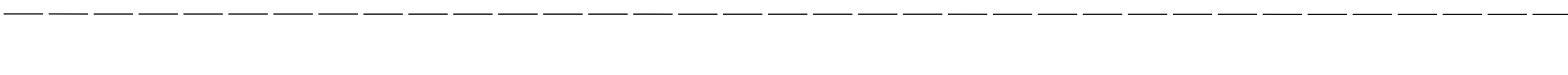
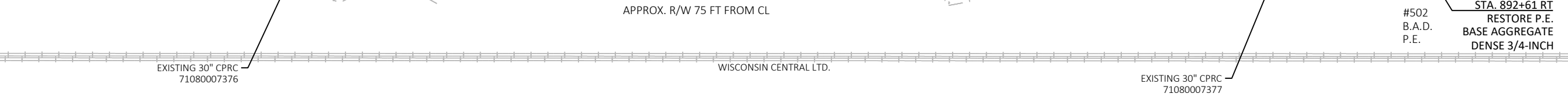
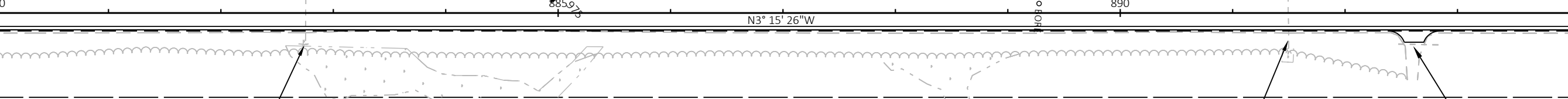
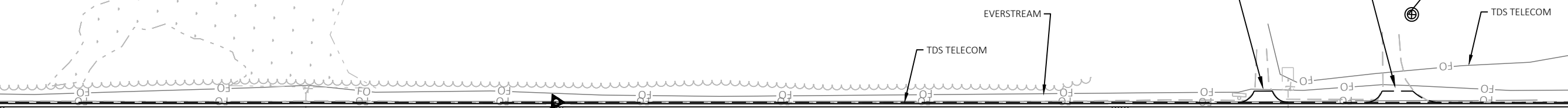
STA. 892+44 LT  
RESTORE F.E.  
BASE AGGREGATE  
DENSE 3/4-INCH

STA. 891+26 LT  
RESTORE P.E.  
BASE AGGREGATE  
DENSE 3/4-INCH

#493  
B.A.D.  
P.E.

B.A.D.  
F.E.

APPROX. R/W 110 FT FROM CL



#502  
B.A.D.  
P.E.

STA. 892+61 RT  
RESTORE P.E.  
BASE AGGREGATE  
DENSE 3/4-INCH

866+00.00

880+00.00

880+00.00

894+00.00

PROJECT NO: 1620-02-76

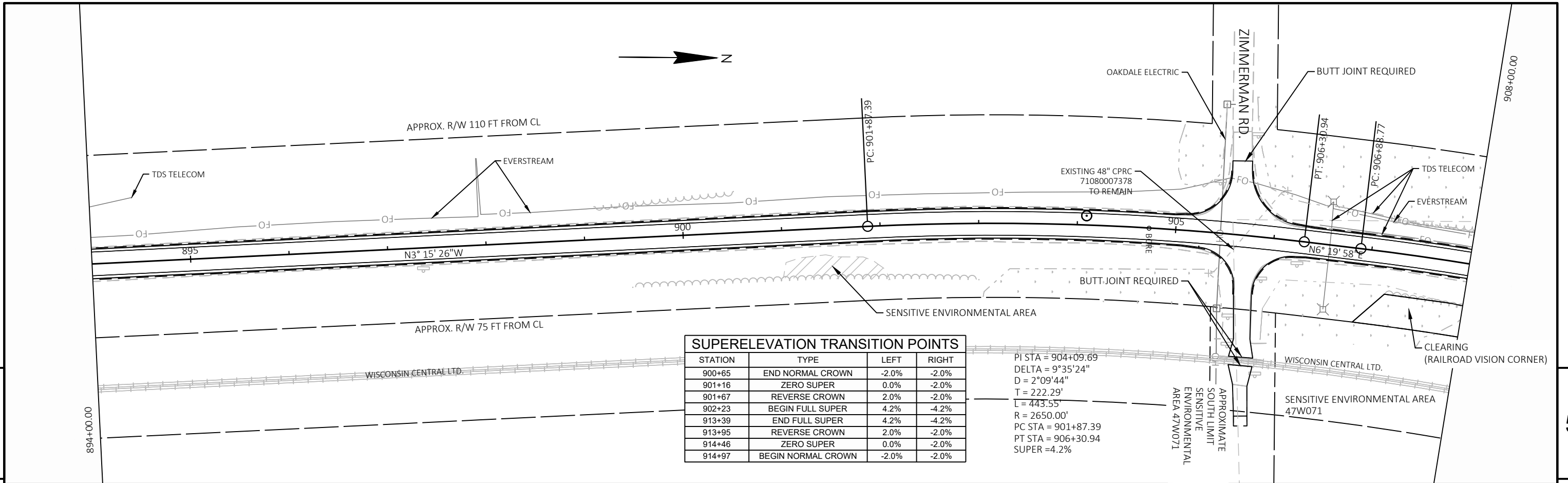
HWY: STH 80

COUNTY: WOOD

PLAN - STH 80

SHEET

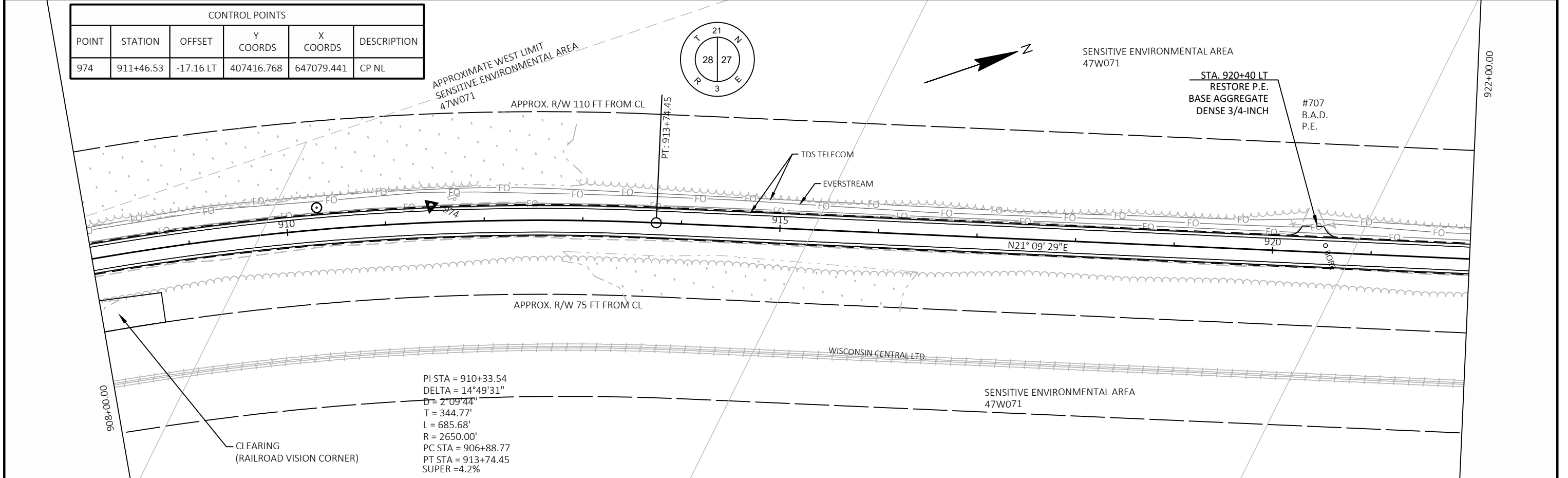
E



SUPERELEVATION TRANSITION POINTS			
STATION	TYPE	LEFT	RIGHT
900+65	END NORMAL CROWN	-2.0%	-2.0%
901+16	ZERO SUPER	0.0%	-2.0%
901+67	REVERSE CROWN	2.0%	-2.0%
902+23	BEGIN FULL SUPER	4.2%	-4.2%
913+39	END FULL SUPER	4.2%	-4.2%
913+95	REVERSE CROWN	2.0%	-2.0%
914+46	ZERO SUPER	0.0%	-2.0%
914+97	BEGIN NORMAL CROWN	-2.0%	-2.0%

PI STA = 904+09.69  
 DELTA = 9°35'24"  
 D = 2°09'44"  
 T = 222.29'  
 L = 443.55'  
 R = 2650.00'  
 PC STA = 901+87.39  
 PT STA = 906+30.94  
 SUPER = 4.2%

CONTROL POINTS					
POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
974	911+46.53	-17.16 LT	407416.768	647079.441	CP NL



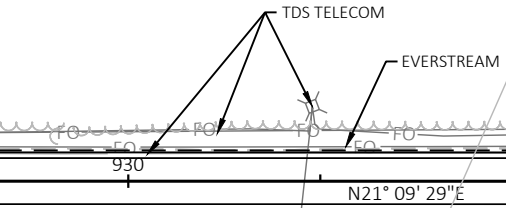
PI STA = 910+33.54  
 DELTA = 14°49'31"  
 D = 2°09'44"  
 T = 344.77'  
 L = 685.68'  
 R = 2650.00'  
 PC STA = 906+88.77  
 PT STA = 913+74.45  
 SUPER = 4.2%

SENSITIVE ENVIRONMENTAL AREA  
47W071

STA. 927+64 LT  
RESTORE F.E.  
BASE AGGREGATE  
DENSE 3/4-INCH

B.A.D.  
F.E.

APPROX. R/W 110 FT FROM CL



APPROXIMATE NORTH LIMIT  
SENSITIVE ENVIRONMENTAL AREA

PI: 934+14.59

936+00.00

5

922+00.00

STA. 927+63 RT  
RESTORE P.E.  
BASE AGGREGATE  
DENSE 3/4-INCH

#760  
B.A.D.  
P.E.

SENSITIVE ENVIRONMENTAL AREA  
47W071

APPROX. R/W 75 FT FROM CL

WISCONSIN CENTRAL LTD.

CONTROL POINTS					
POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
973	925+69.54	17.33 RT	408736.065	647616.471	CP NL

5

STA. 938+02 LT  
RESTORE P.E.  
BASE AGGREGATE  
DENSE 3/4-INCH

#4811  
B.A.D.  
P.E.

APPROX. R/W 110 FT FROM CL

EVERSTREAM

TDS TELECOM

STA. 948+09 LT  
RESTORE P.E.  
BASE AGGREGATE  
DISINTEGRATED  
GRANITE

#855  
GRANITE  
P.E.

N21° 07' 29"E

APPROX. R/W 75 FT FROM CL

TDS TELECOM

EXISTING 42" CPRC  
71080007379

WISCONSIN CENTRAL LTD.

#848  
B.A.D.  
P.E.

STA. 945+49 RT  
RESTORE P.E.  
BASE AGGREGATE  
DENSE 3/4-INCH

950+00.00

936+00.00

PROJECT NO: 1620-02-76

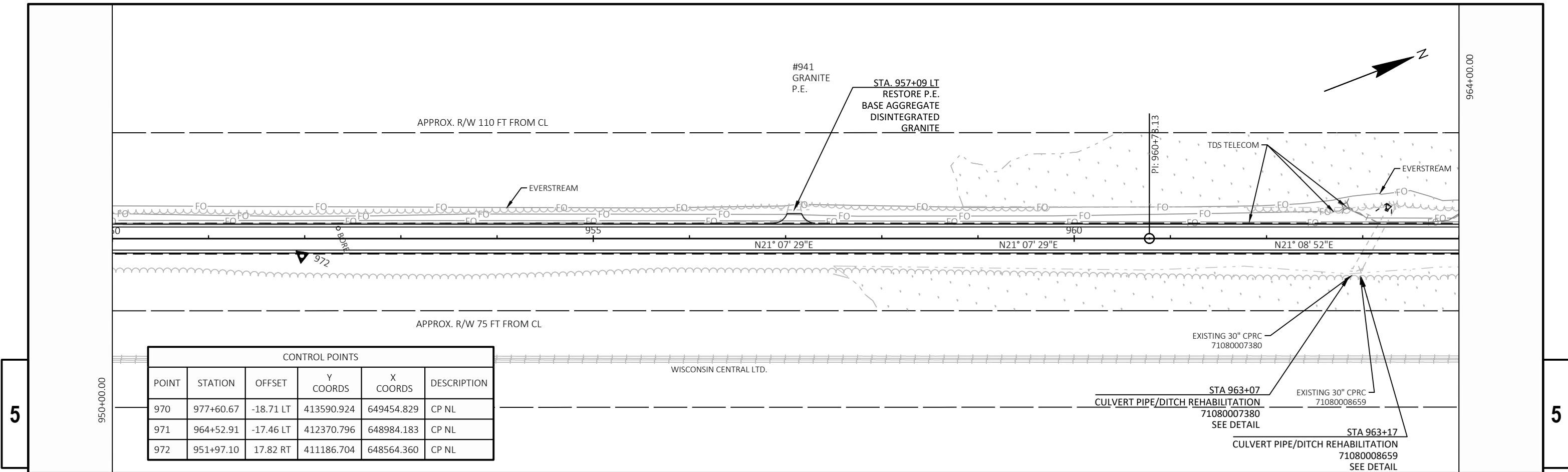
HWY: STH 80

COUNTY: WOOD

PLAN - STH 80

SHEET

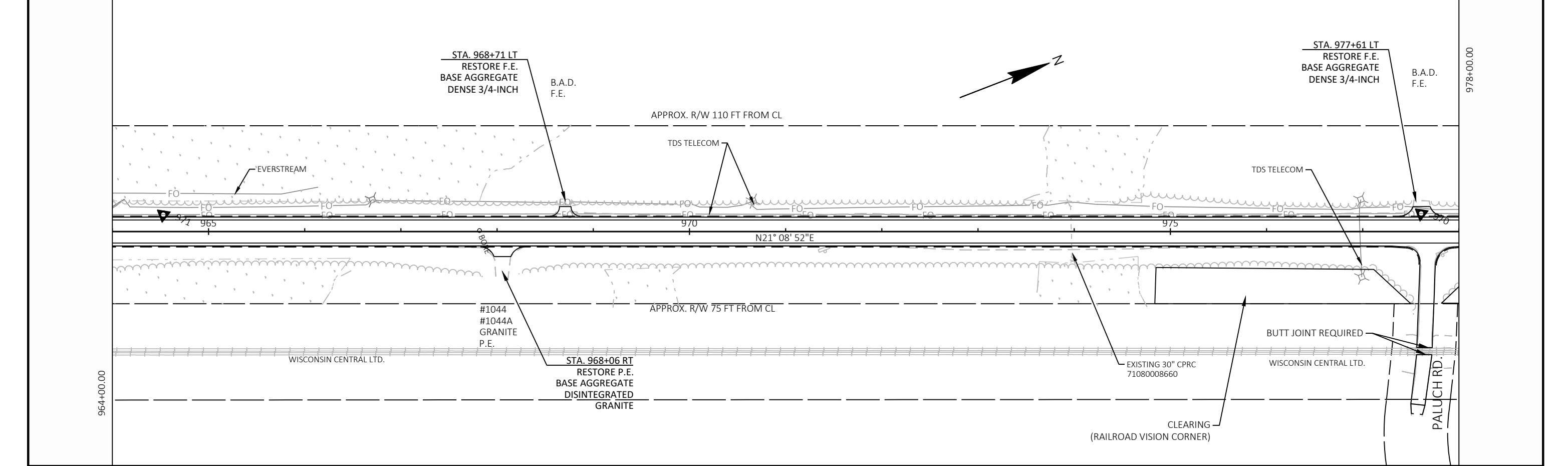
E



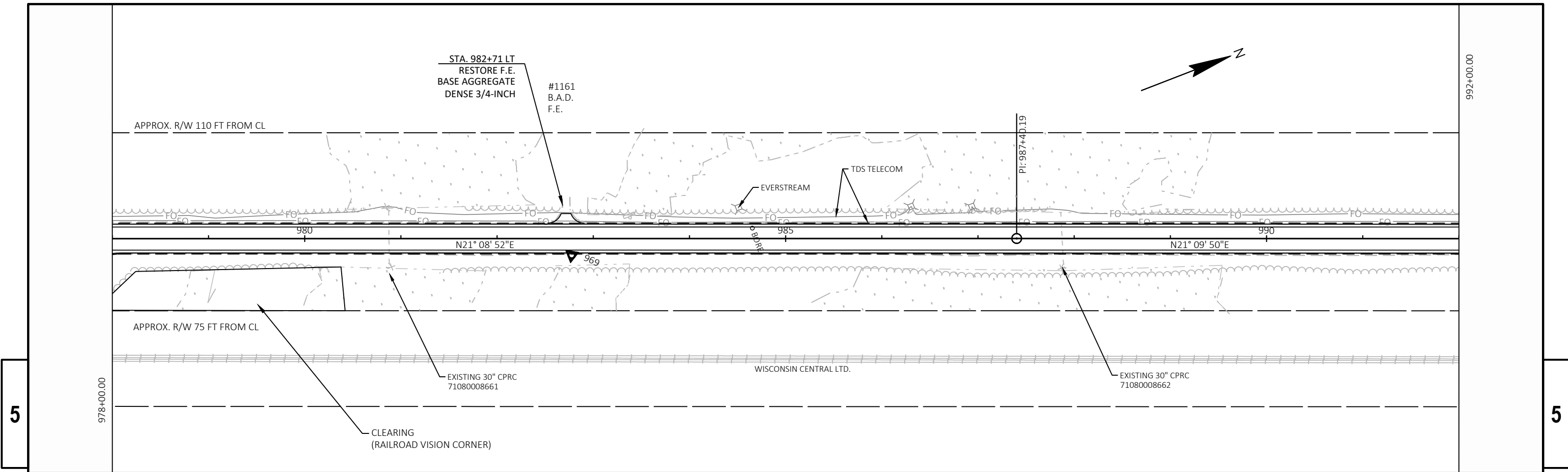
CONTROL POINTS					
POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
970	977+60.67	-18.71 LT	413590.924	649454.829	CP NL
971	964+52.91	-17.46 LT	412370.796	648984.183	CP NL
972	951+97.10	17.82 RT	411186.704	648564.360	CP NL

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5



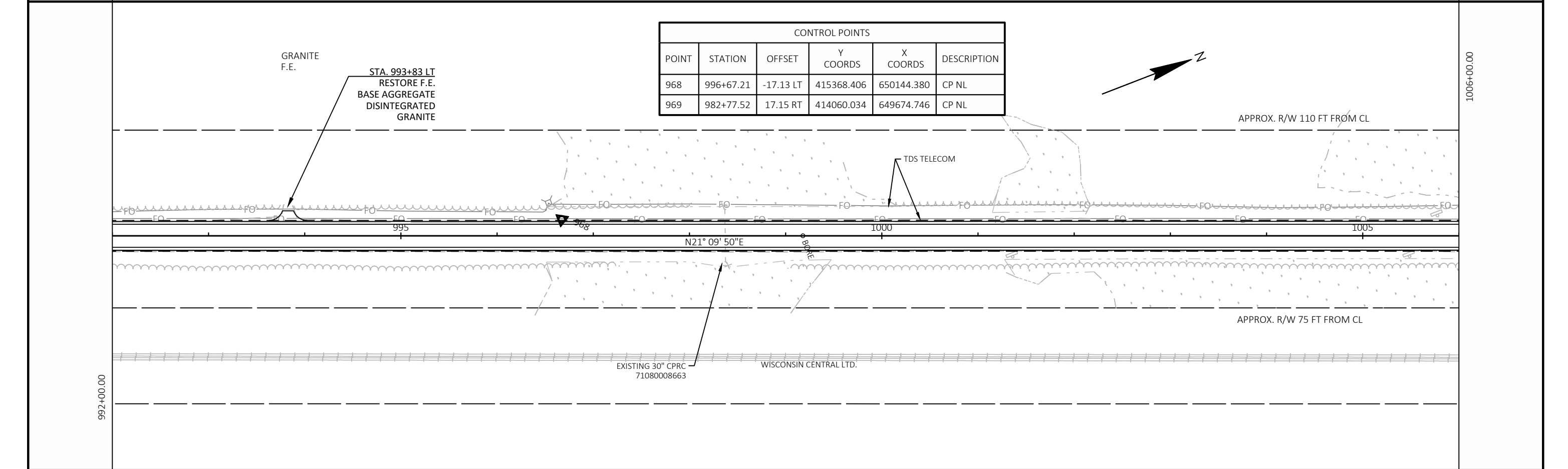
PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      PLAN - STH 80      SHEET      E



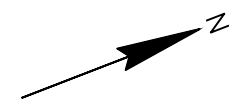
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5

CONTROL POINTS					
POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
968	996+67.21	-17.13 LT	415368.406	650144.380	CP NL
969	982+77.52	17.15 RT	414060.034	649674.746	CP NL



PI STA = 1505+24.37'S'  
 Y = 416946.947  
 X = 650619.095  
 DELTA = 47°40'37"  
 D = 28°38'52"  
 T = 88.37'  
 L = 166.42'  
 R = 200.00'  
 PC STA = 1504+36.00'S'  
 Y = 416879.897  
 X = 650561.530  
 PT STA = 1506+02.42'S'  
 Y = 416949.530  
 X = 650707.428  
 BK = N40°38'52.4"E  
 AH = N88°19'29.4"E



1020+00.00

5

5

CONTROL POINTS					
POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
967	1009+55.88	-17.74 LT	416570.382	650609.073	CP NL

STH 173 (S) INTERSECTION AND TURN/BYPASS LANE MODIFICATIONS  
 SEE DETAIL

STA 1006+35  
 CULVERT PIPE/DITCH REHABILITATION  
 71080008664  
 SEE DETAIL

EXISTING 30" CPRC  
 71080008664

STA 1505+95 'S'  
 CULVERT PIPE/DITCH REHABILITATION  
 71080008665  
 SEE DETAIL

STA. 1016+54 LT  
 RECONSTRUCT F.E.  
 BASE AGGREGATE  
 DISINTEGRATED  
 GRANITE

STA 1016+54 LT  
 DRIVEWAY CULVERT REPLACEMENT  
 SEE DETAIL

STA 1506+70.68' S' STH 173  
 =STA 1013+71.46 STH 80  
 N=416951.525  
 E=650775.652

CONTROL POINTS					
POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
964	1029+43.58	-20.00 LT	418362.493	651455.515	CP NL
966	1022+17.17	-17.86 LT	417746.261	651065.647	CP NL

PI STA = 1027+00.42  
 DELTA = 28°27'35"  
 D = 3°00'00"  
 T = 484.33'  
 L = 948.65'  
 R = 1909.86'  
 PC STA = 1022+16.10  
 PT STA = 1031+64.75  
 SUPER = 5.0%

SUPERELEVATION TRANSITION POINTS			
STATION	TYPE	LEFT	RIGHT
1020+80	END NORMAL CROWN	-2.0%	-2.0%
1021+31	ZERO SUPER	0.0%	-2.0%
1021+82	REVERSE CROWN	2.0%	-2.0%
1022+59	BEGIN FULL SUPER	5.0%	-5.0%
1030+10	END FULL SUPER	5.0%	-5.0%
1030+87	REVERSE CROWN	2.0%	-2.0%
1031+18	ZERO SUPER	0.0%	-2.0%
1031+89	BEGIN NORMAL CROWN	-2.0%	-2.0%

PROJECT NO: 1620-02-76

HWY: STH 80

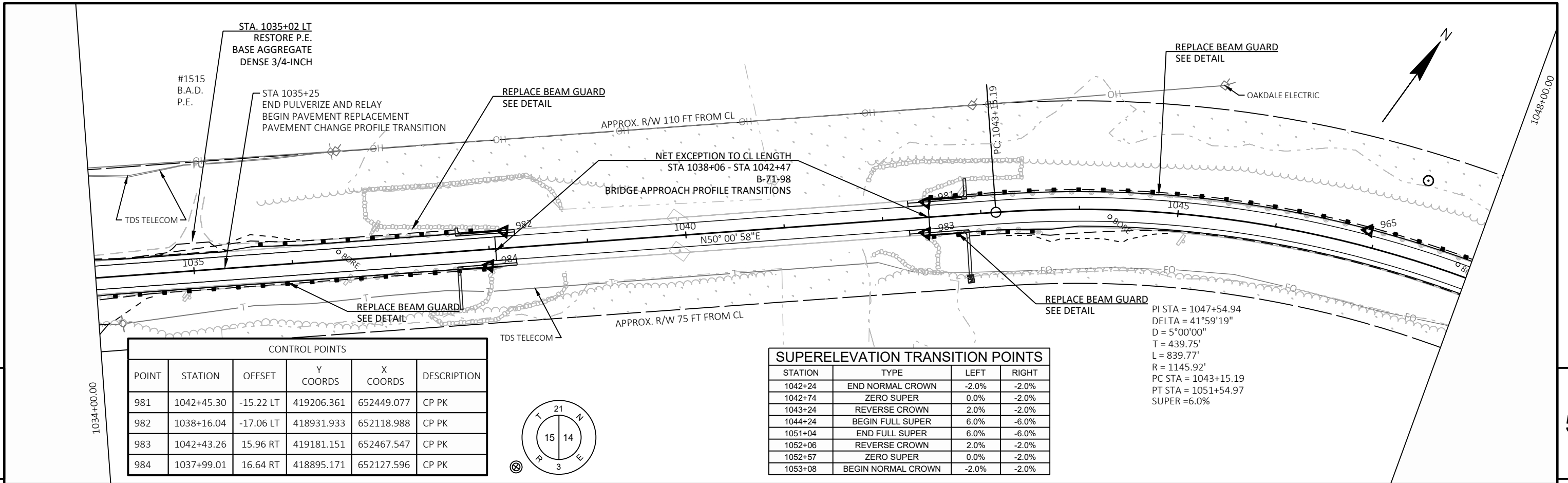
COUNTY: WOOD

PLAN - STH 80

SHEET

E





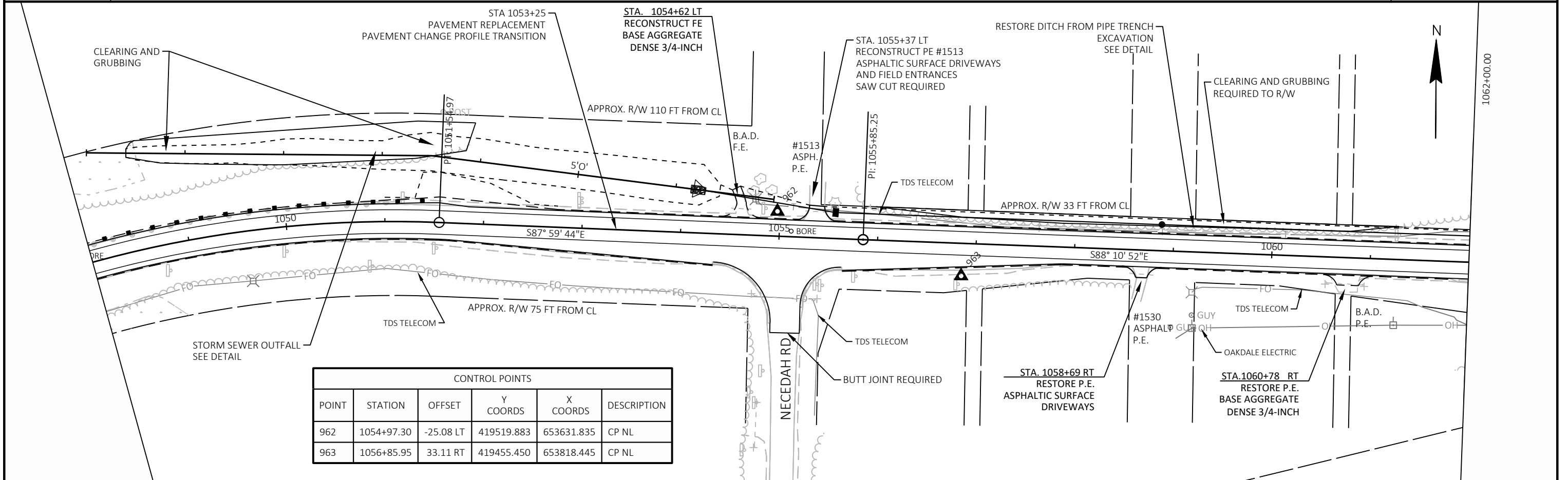
CONTROL POINTS

POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
981	1042+45.30	-15.22 LT	419206.361	652449.077	CP PK
982	1038+16.04	-17.06 LT	418931.933	652118.988	CP PK
983	1042+43.26	15.96 RT	419181.151	652467.547	CP PK
984	1037+99.01	16.64 RT	418895.171	652127.596	CP PK

SUPERELEVATION TRANSITION POINTS

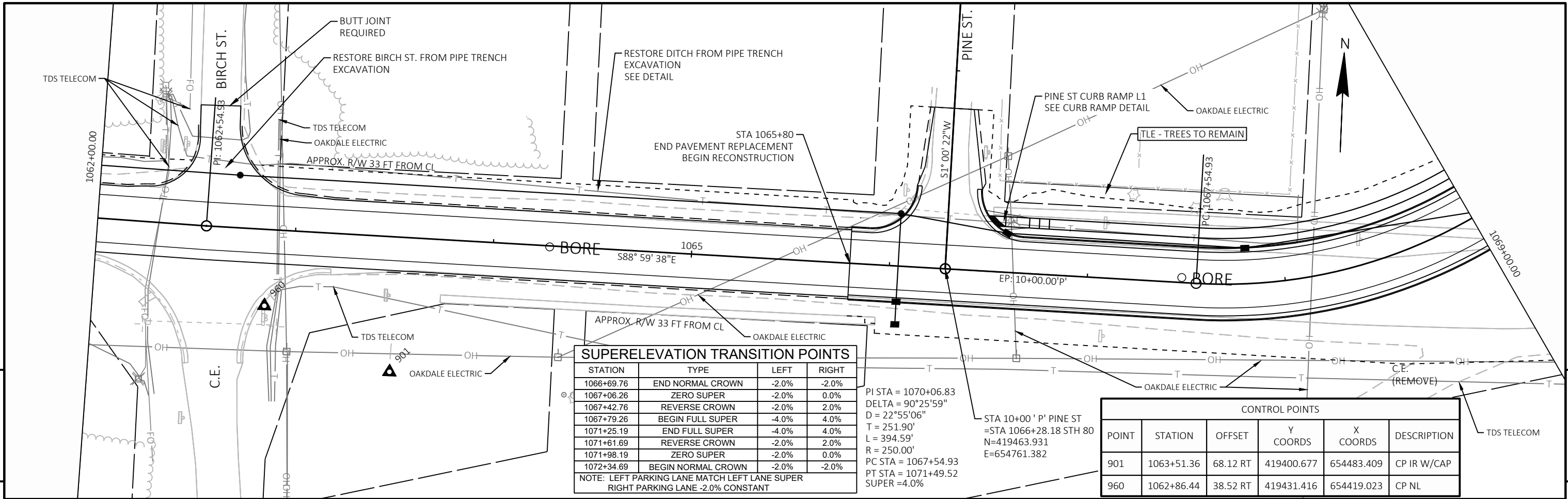
STATION	TYPE	LEFT	RIGHT
1042+24	END NORMAL CROWN	-2.0%	-2.0%
1042+74	ZERO SUPER	0.0%	-2.0%
1043+24	REVERSE CROWN	2.0%	-2.0%
1044+24	BEGIN FULL SUPER	6.0%	-6.0%
1051+04	END FULL SUPER	6.0%	-6.0%
1052+06	REVERSE CROWN	2.0%	-2.0%
1052+57	ZERO SUPER	0.0%	-2.0%
1053+08	BEGIN NORMAL CROWN	-2.0%	-2.0%

PI STA = 1047+54.94  
 DELTA = 41°59'19"  
 D = 5°00'00"  
 T = 439.75'  
 L = 839.77'  
 R = 1145.92'  
 PC STA = 1043+15.19  
 PT STA = 1051+54.97  
 SUPER = 6.0%



CONTROL POINTS

POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
962	1054+97.30	-25.08 LT	419519.883	653631.835	CP NL
963	1056+85.95	33.11 RT	419455.450	653818.445	CP NL



**SUPERELEVATION TRANSITION POINTS**

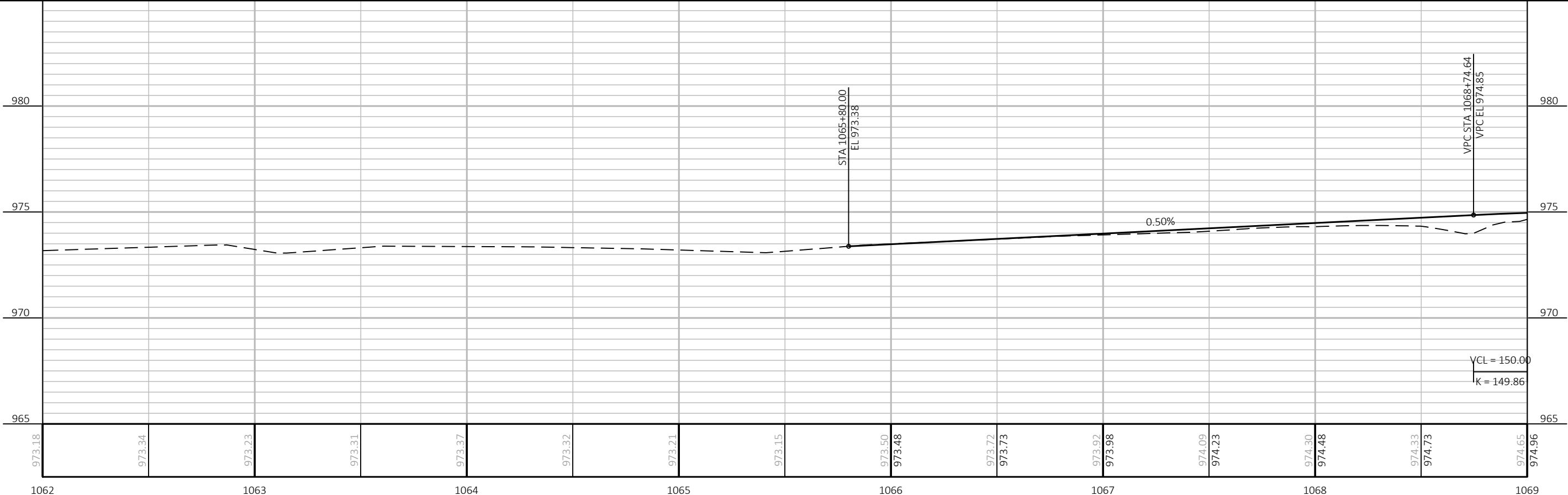
STATION	TYPE	LEFT	RIGHT
1066+69.76	END NORMAL CROWN	-2.0%	-2.0%
1067+06.26	ZERO SUPER	-2.0%	0.0%
1067+42.76	REVERSE CROWN	-2.0%	2.0%
1067+79.26	BEGIN FULL SUPER	-4.0%	4.0%
1071+25.19	END FULL SUPER	-4.0%	4.0%
1071+61.69	REVERSE CROWN	-2.0%	2.0%
1071+98.19	ZERO SUPER	-2.0%	0.0%
1072+34.69	BEGIN NORMAL CROWN	-2.0%	-2.0%

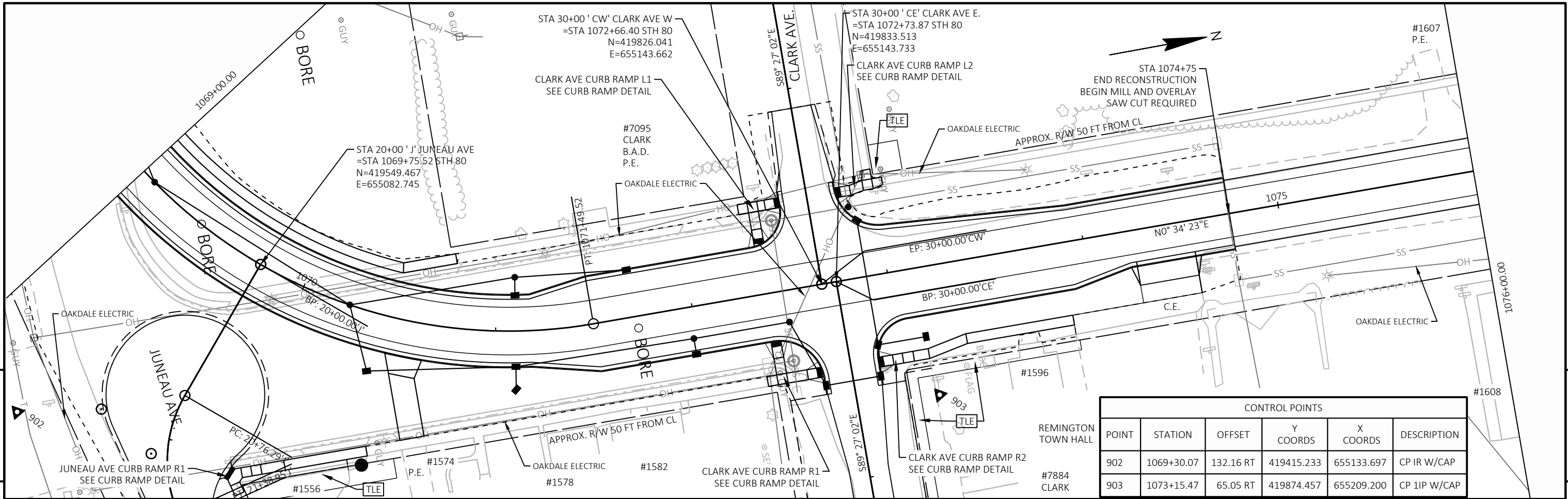
NOTE: LEFT PARKING LANE MATCH LEFT LANE SUPER  
RIGHT PARKING LANE -2.0% CONSTANT

PI STA = 1070+06.83  
 DELTA = 90°25'59"  
 D = 22°55'06"  
 T = 251.90'  
 L = 394.59'  
 R = 250.00'  
 PC STA = 1067+54.93  
 PT STA = 1071+49.52  
 SUPER = 4.0%

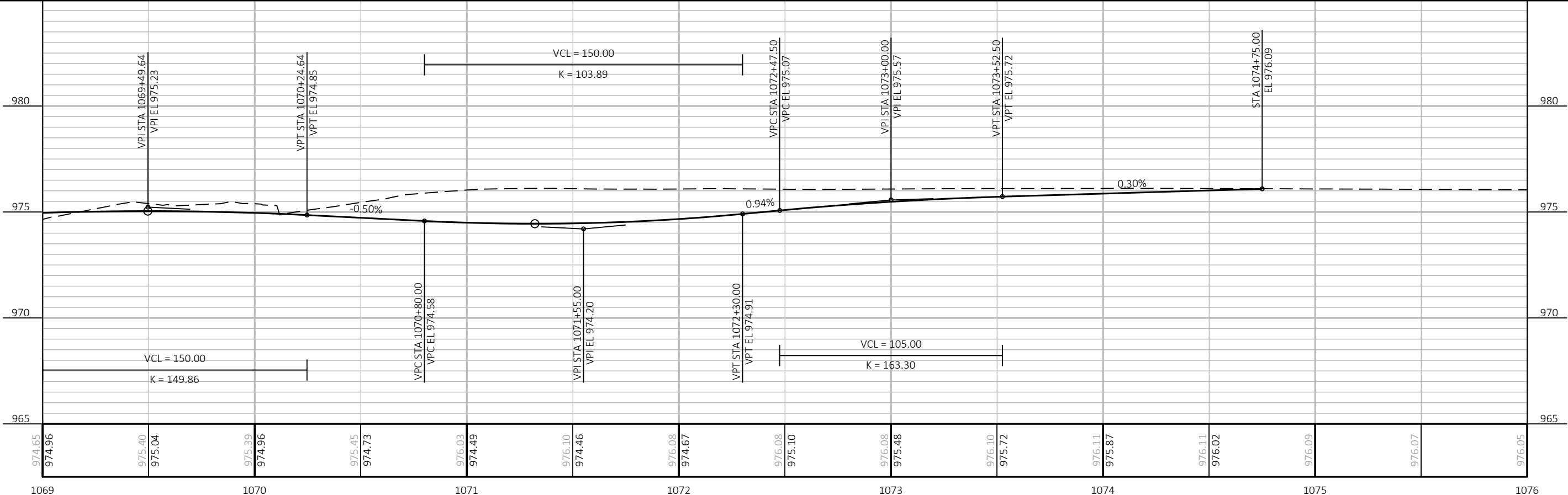
**CONTROL POINTS**

POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
901	1063+51.36	68.12 RT	419400.677	654483.409	CP IR W/CAP
960	1062+86.44	38.52 RT	419431.416	654419.023	CP NL

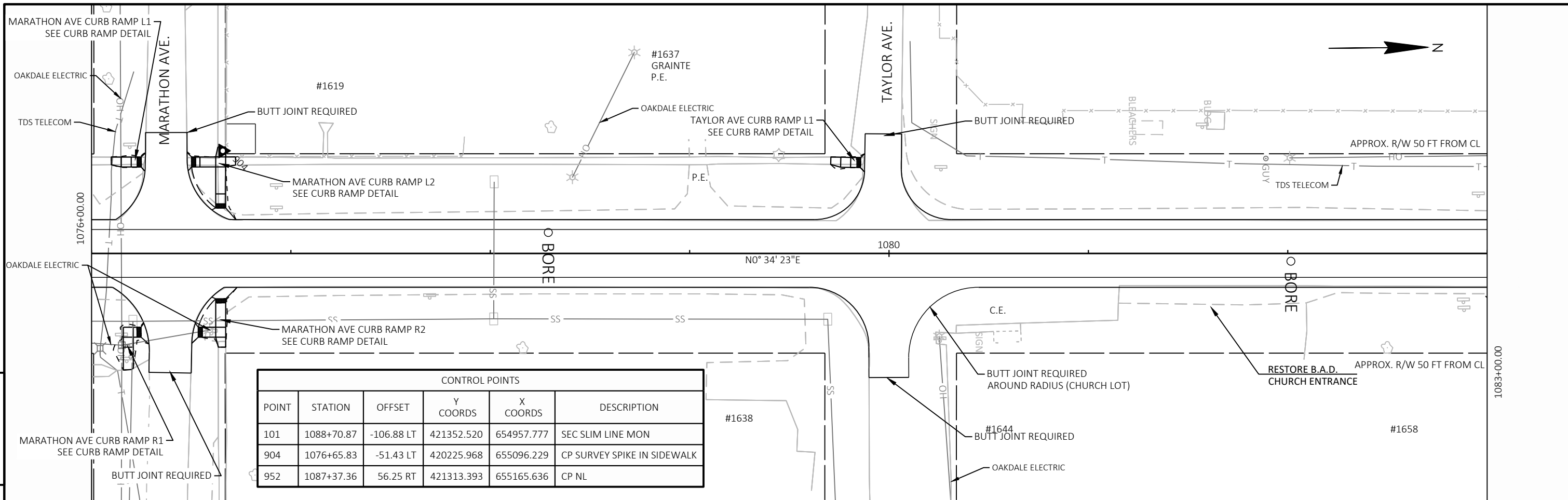




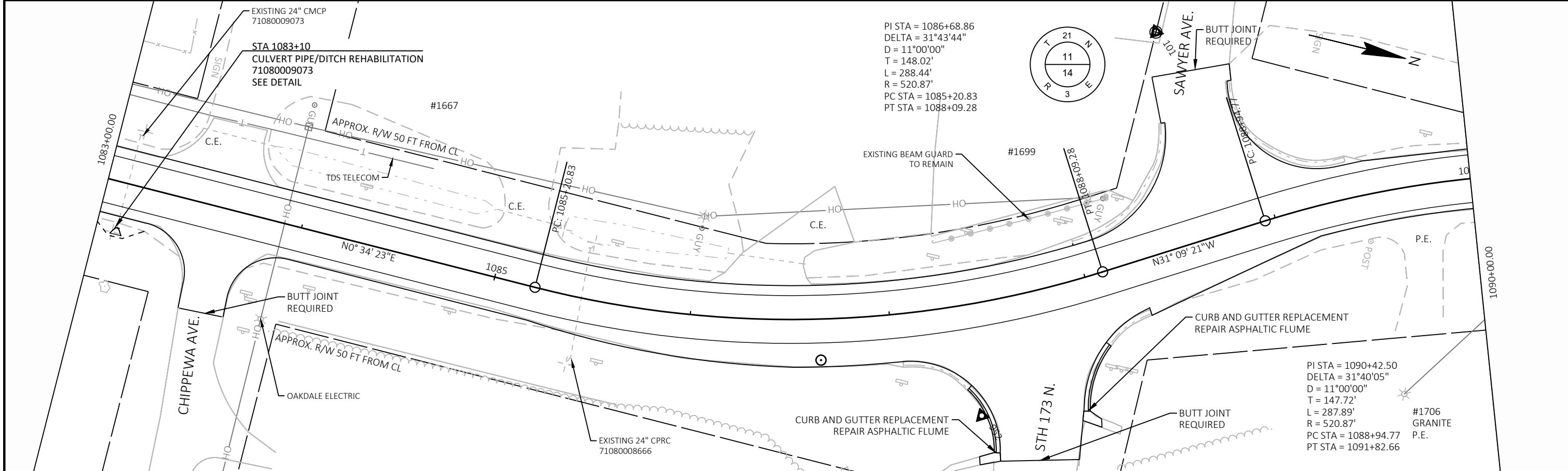
CONTROL POINTS					
POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
902	1069+30.07	132.16 RT	419415.233	655133.697	CP 1R W/CAP
903	1073+15.47	65.05 RT	419874.457	655209.200	CP 11P W/CAP



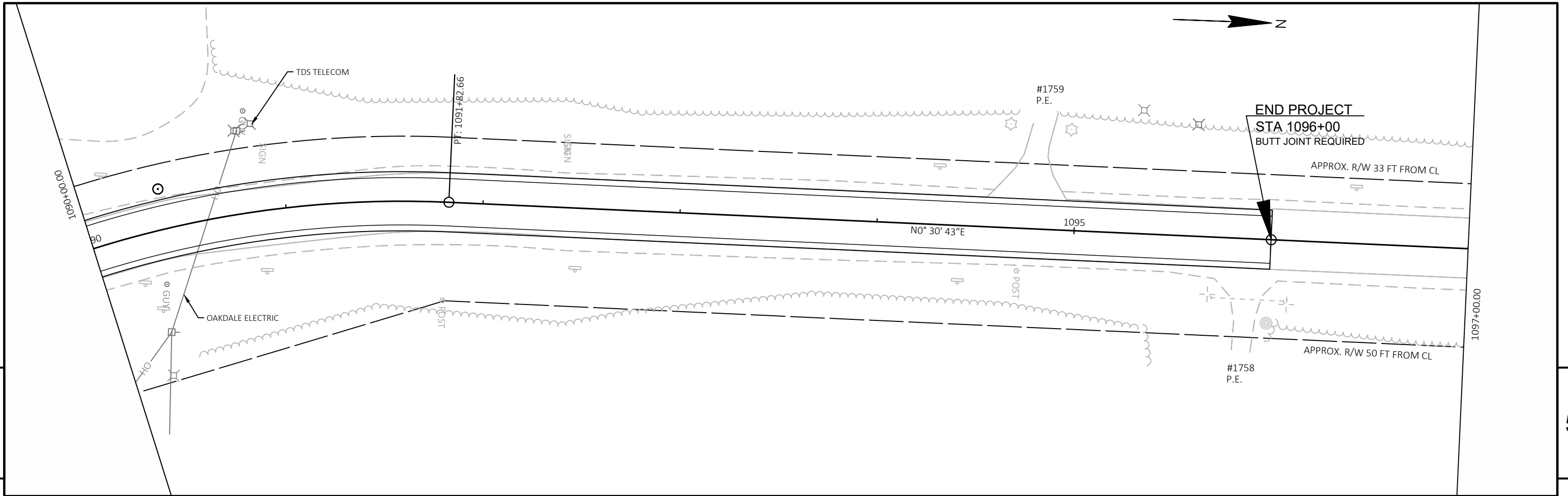
PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      PLAN AND PROFILE: STH 80      SHEET: E



CONTROL POINTS					
POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
101	1088+70.87	-106.88 LT	421352.520	654957.777	SEC SLIM LINE MON
904	1076+65.83	-51.43 LT	420225.968	655096.229	CP SURVEY SPIKE IN SIDEWALK
952	1087+37.36	56.25 RT	421313.393	655165.636	CP NL



PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	PLAN- STH 80	SHEET	<b>E</b>
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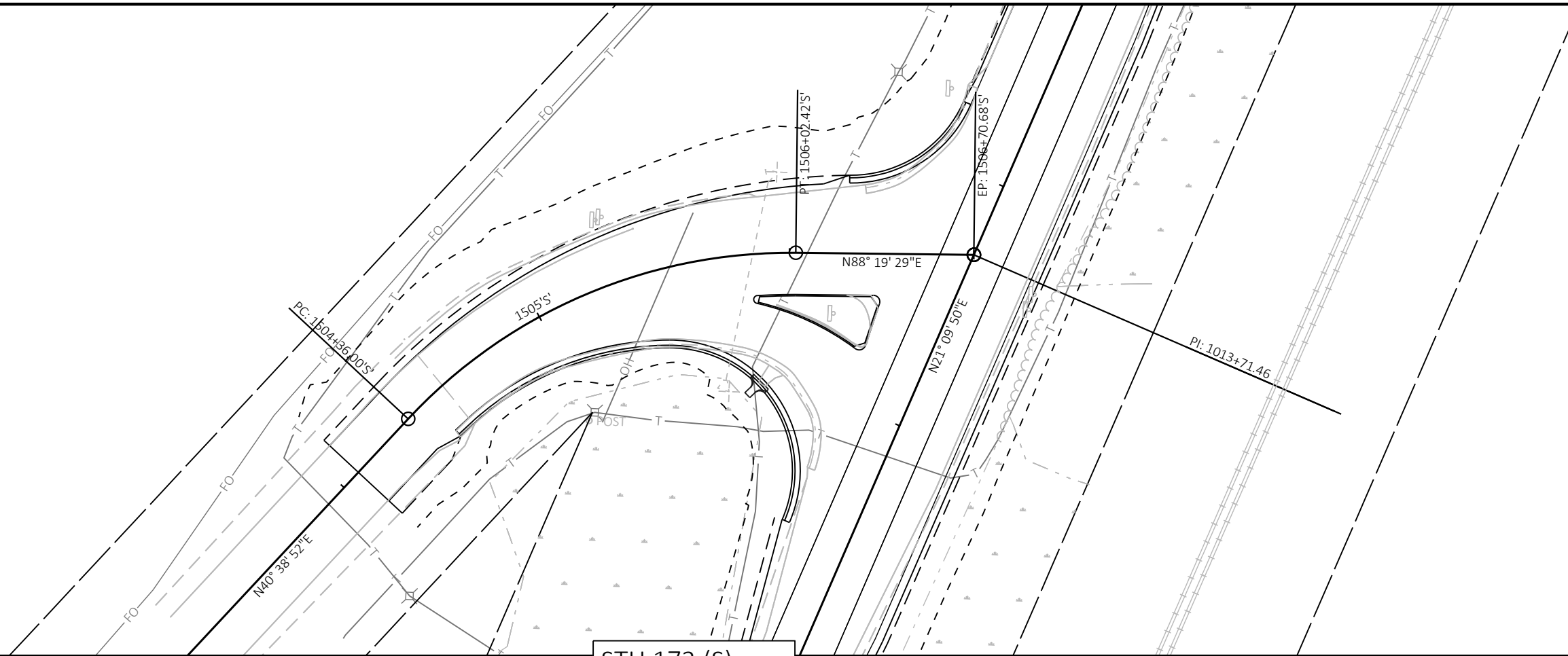
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5

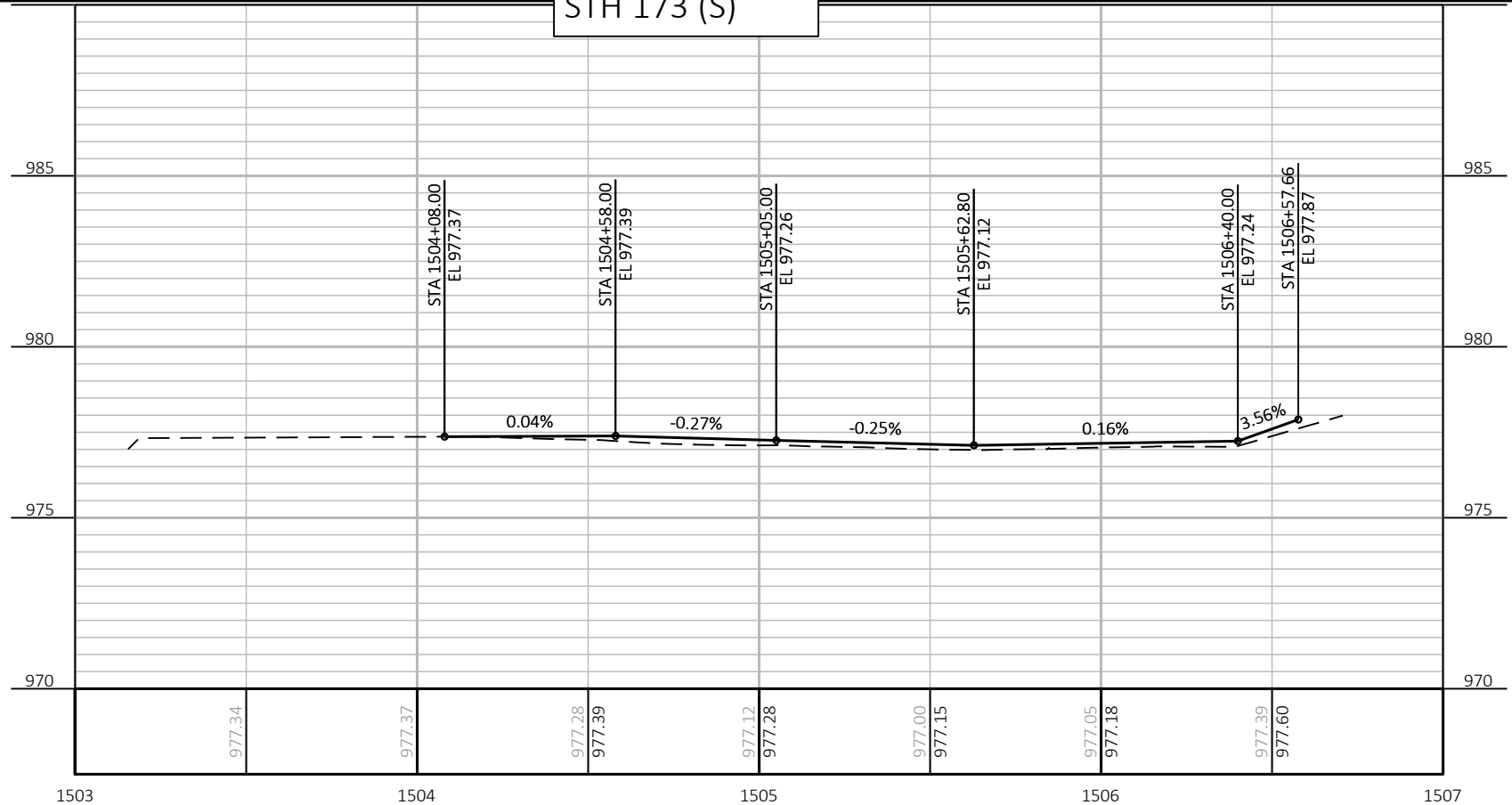
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PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	PLAN- STH 80	SHEET	<b>E</b>
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PI STA = 1505+24.37  
 Y = 416946.947  
 X = 650619.095  
 DELTA = 47°40'37"  
 D = 28°38'52"  
 T = 88.37'  
 L = 166.42'  
 R = 200.00'  
 PC STA = 1504+36.00  
 Y = 416879.897  
 X = 650561.530  
 PT STA = 1506+02.42  
 Y = 416949.530  
 X = 650707.428  
 BK = N40°38'52.4"E  
 AH = N88°19'29.4"E



STH 173 (S)



PROJECT NO: 1620-02-76

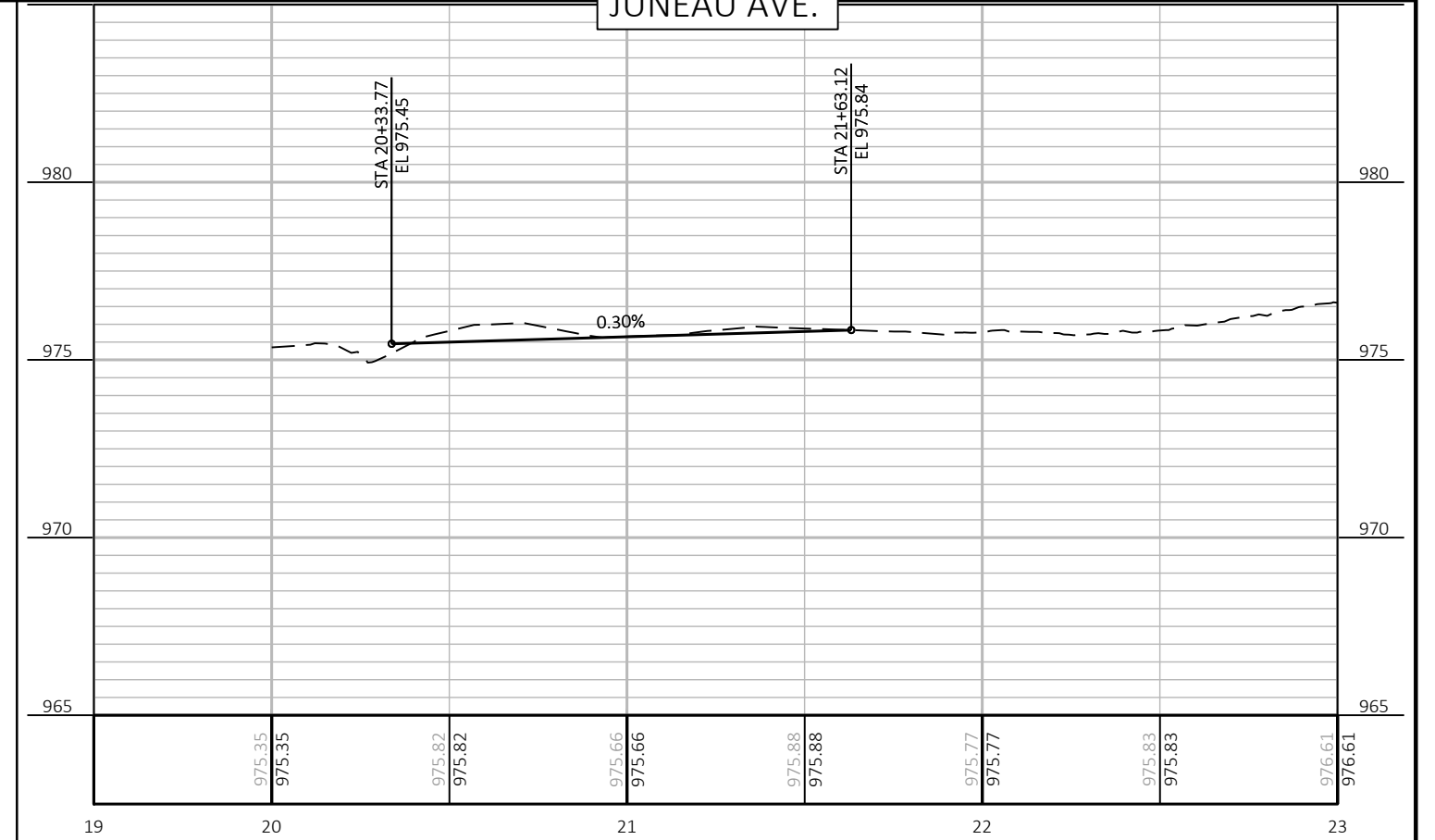
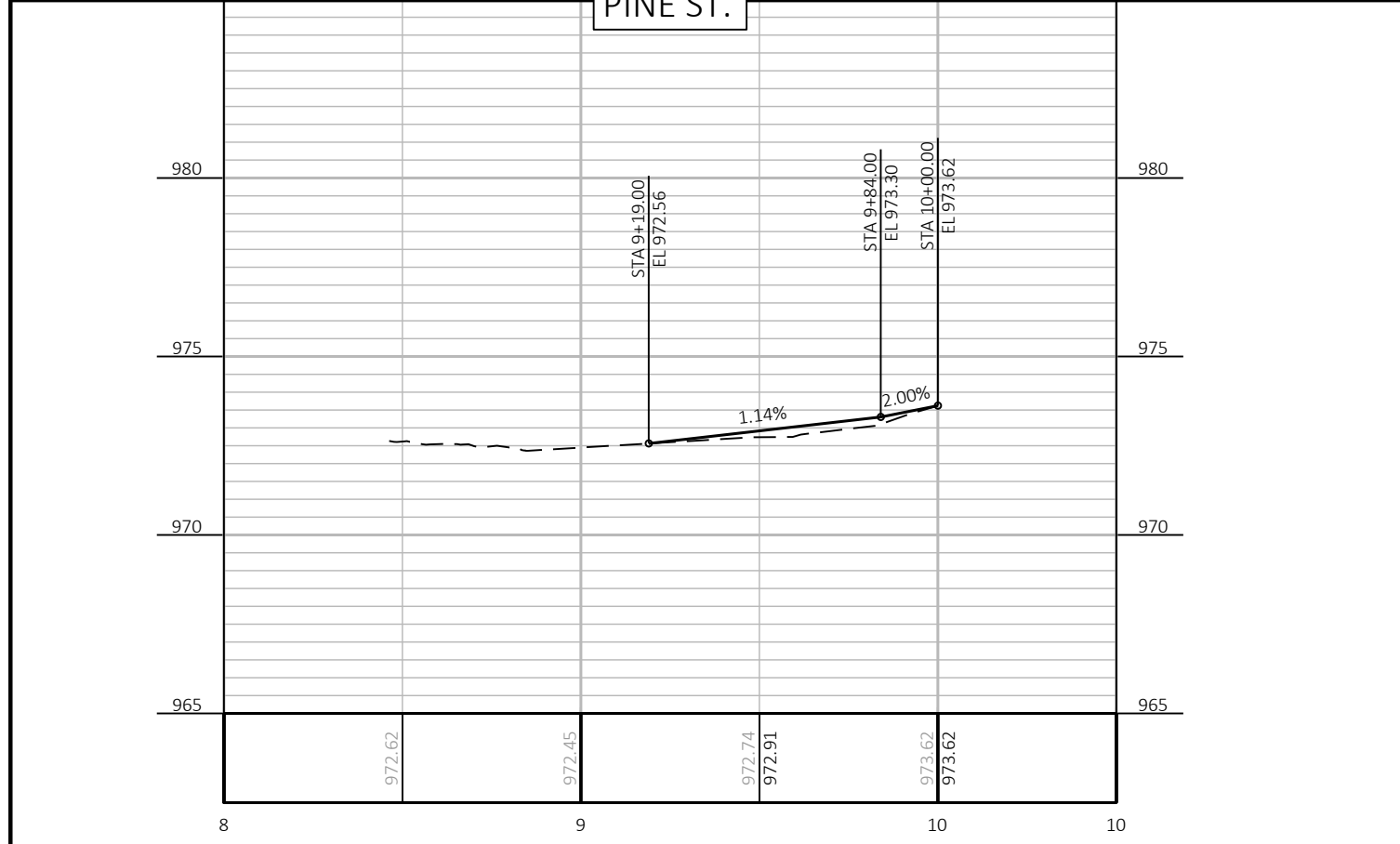
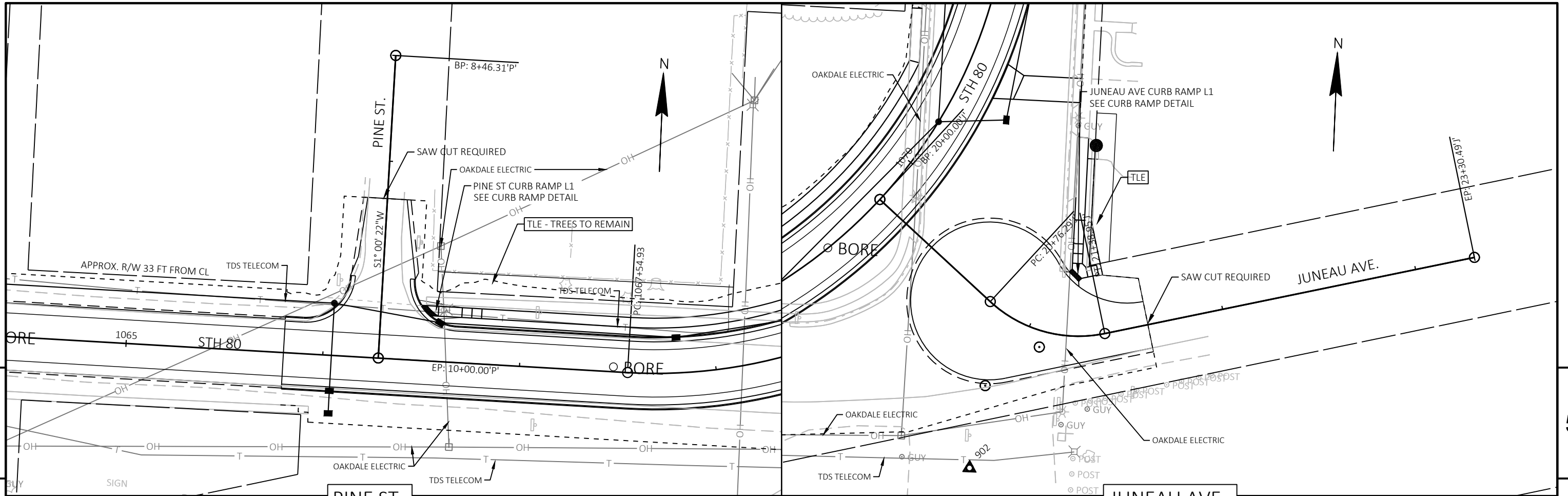
HWY: STH 80

COUNTY: WOOD

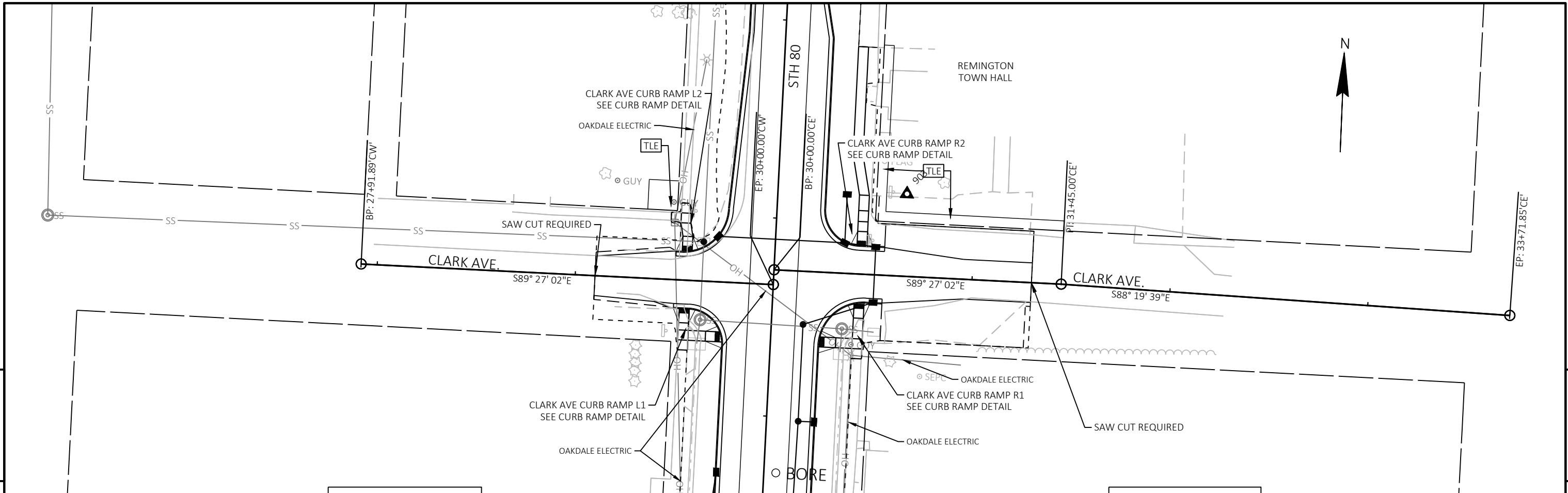
PLAN AND PROFILE: STH 173 (S)

SHEET

E

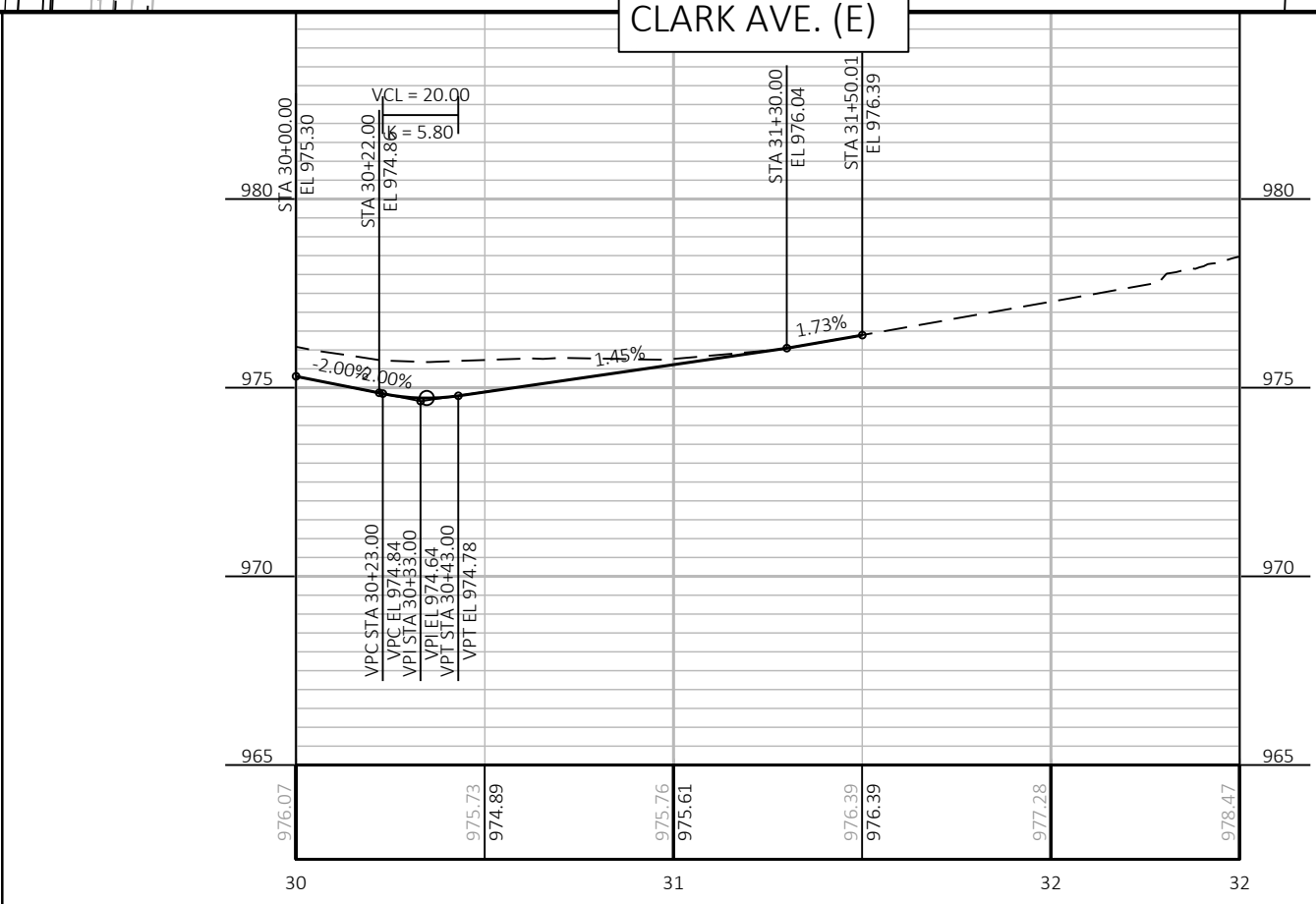
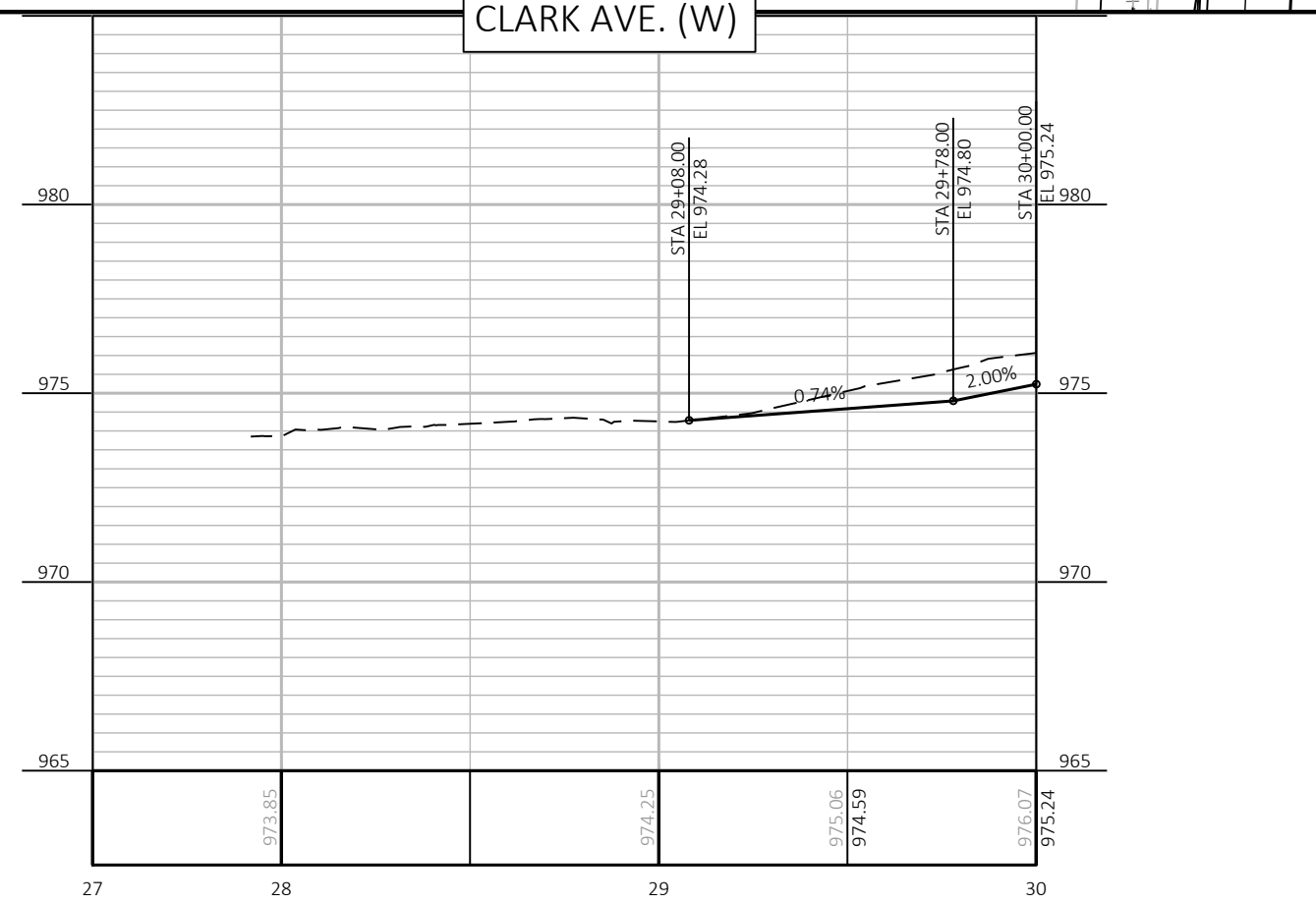


PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      PLAN AND PROFILE: PINE STREET & JUNEAU AVENUE      SHEET: 5



5

5



PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	PLAN AND PROFILE: CLARK AVENUE	SHEET E
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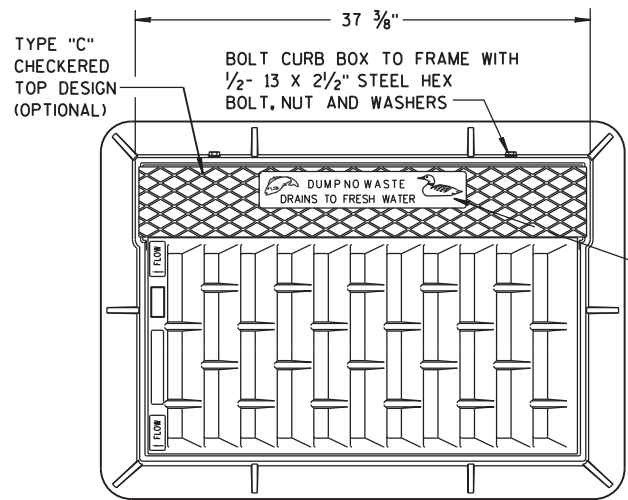


## Standard Detail Drawing List

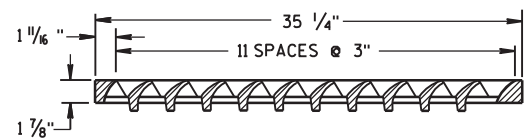
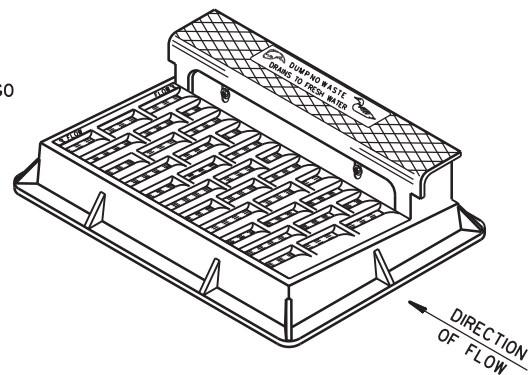
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-02	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08B09-03	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-07A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-07B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-07C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D04-06	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D19-03	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
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
08F07-05	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS
09A01-14A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-14B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13B01-10	PAVEMENT DETAILS FOR RAILROAD APPROACH
14B28-04A	GUARDRAIL MOW STRIP
14B28-04B	GUARDRAIL MOW STRIP
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THREE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THREE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THREE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THREE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THREE BEAM TRANSITION (MGS)
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
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS
15C08-22A	LONGITUDINAL MARKING (MAINLINE)
15C08-22B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C09-12A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C12-09B	TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE
15C19-08A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C26-04	END-OF-ROADWAY SIGNING
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-05A	PAVEMENT MARKING (INTERSECTIONS)
15C36-01	PARKING STALL MARKING
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

## Standard Detail Drawing List

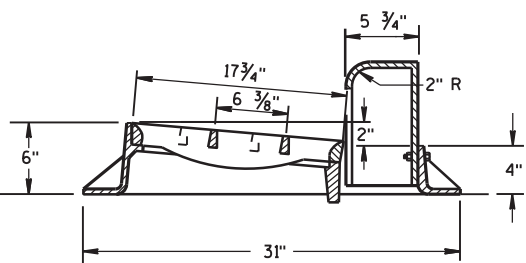
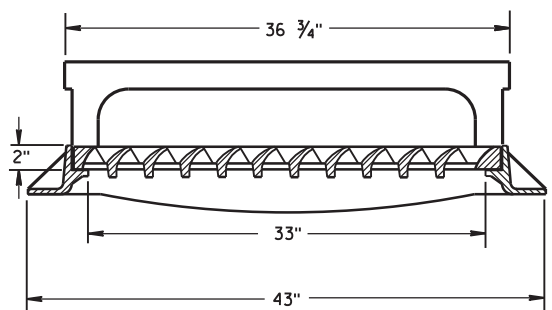
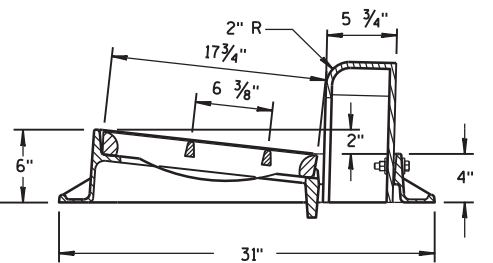
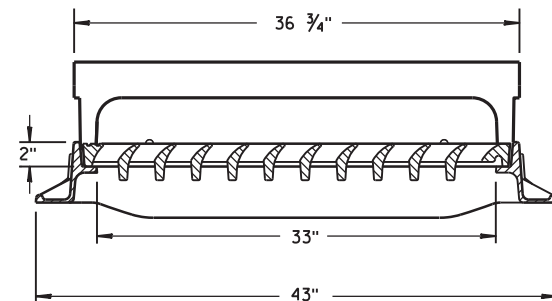
15D30-08A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-08B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-08C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-08D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-08E	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-08F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-08G	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-08H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-08I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-08J	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY



**NOTE:  
GRATE IS REVERSIBLE.**

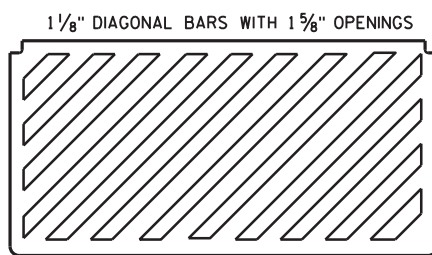


**NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"**

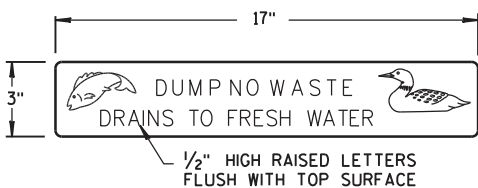


**TYPE "H"**

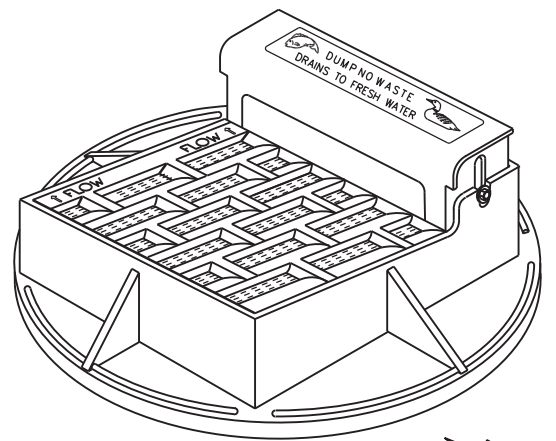
**NOTE: EITHER CASTING IS ACCEPTABLE**



**SPECIAL GRATE FOR  
TYPE "H" COVER**  
(MEASURES 35 1/4" X 17 3/4" X 2")  
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

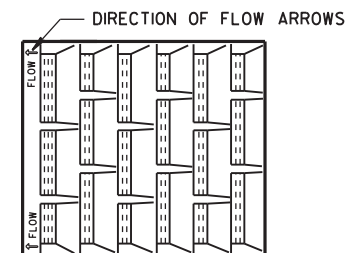


**LOGO DETAIL**

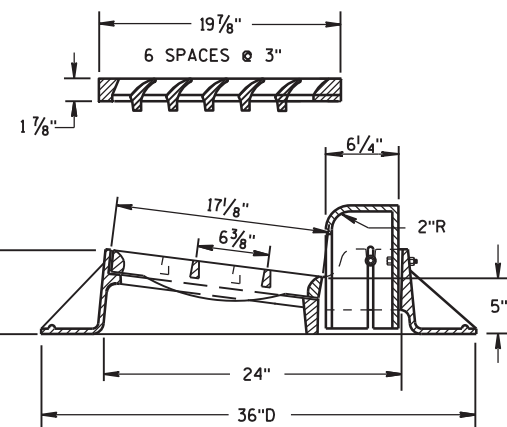
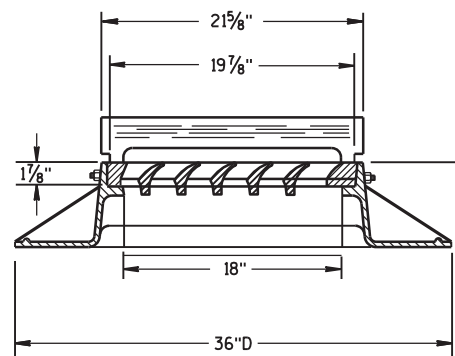


**NOTE: CURB BOX ADJUSTABLE 4" TO 9"**

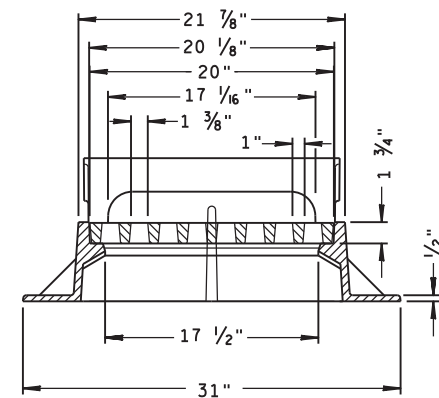
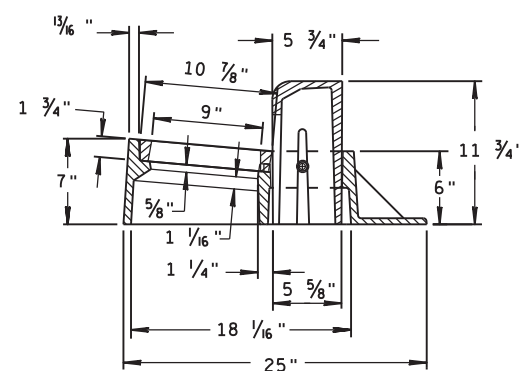
**NOTE:  
GRATE IS REVERSIBLE.**



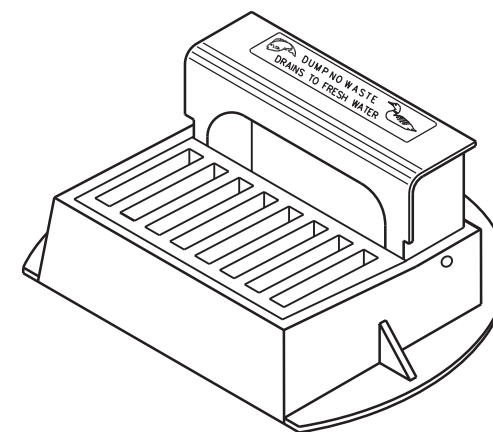
**SPECIAL GRATE FOR  
TYPE "A" COVER**  
(MEASURES 19 3/4" X 17" X 1 1/8")  
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



**TYPE "A"**



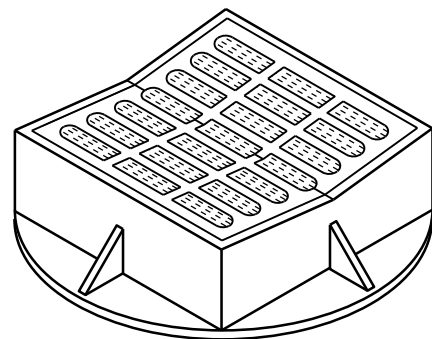
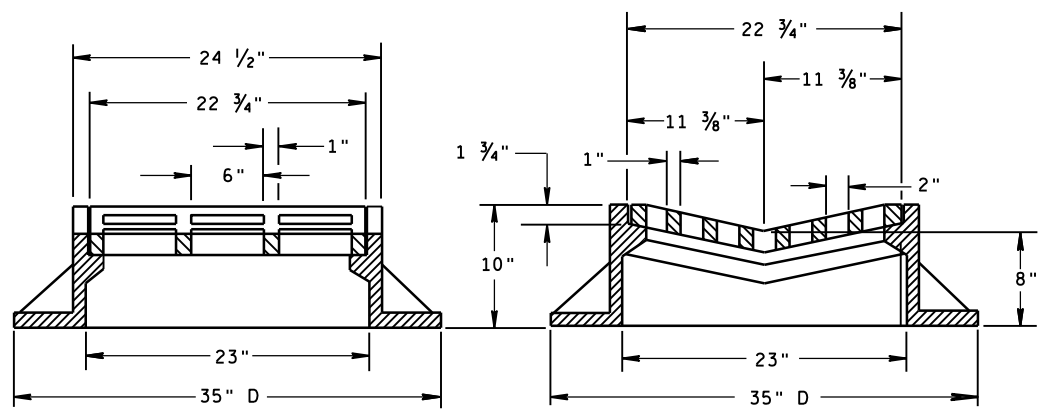
**TYPE "Z"**



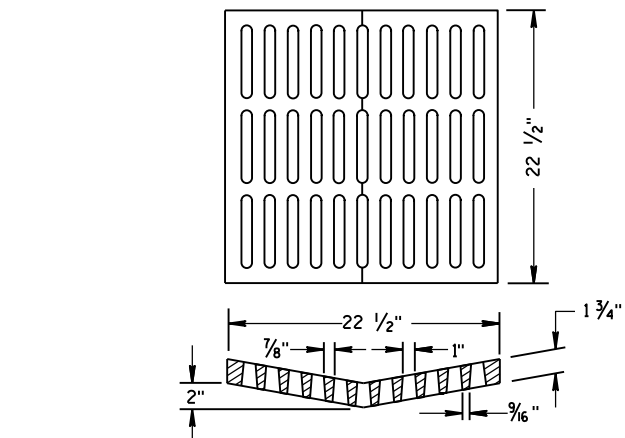
**INLET COVERS  
TYPE A, H, A-S, H-S & Z**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE: 11-27-13  
DATE: /S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT ENGINEER  
FHWA

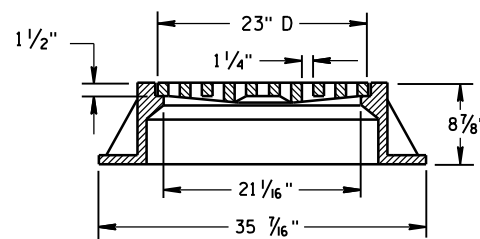
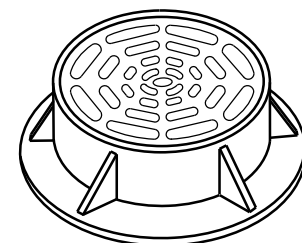
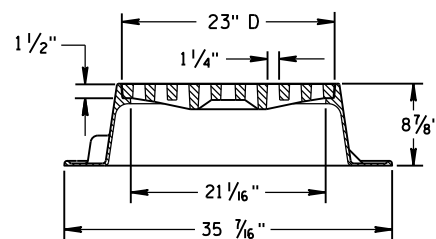
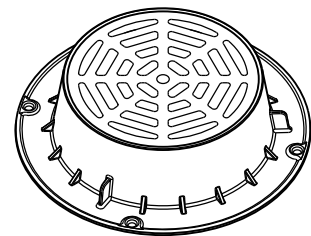


TYPE "B"



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"

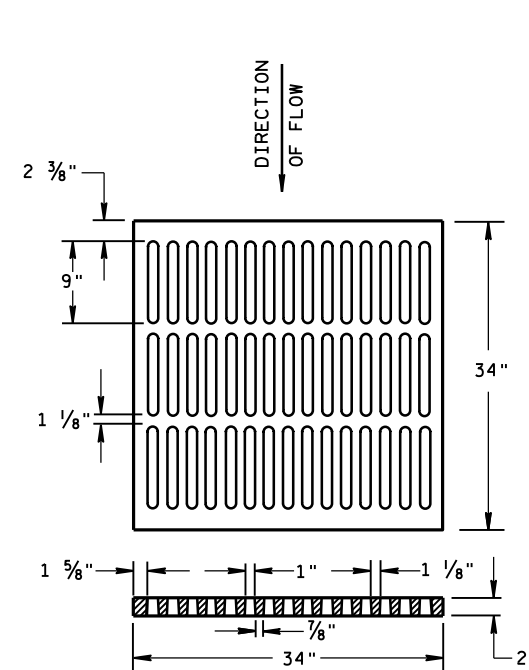
NOTE: EITHER CASTING IS ACCEPTABLE

**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.

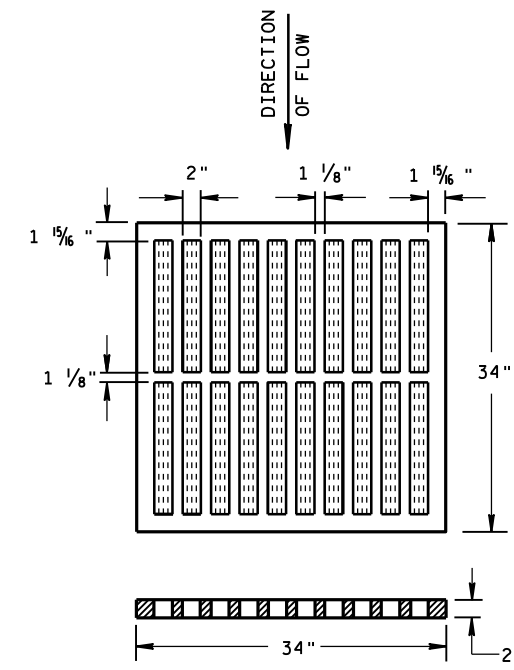
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



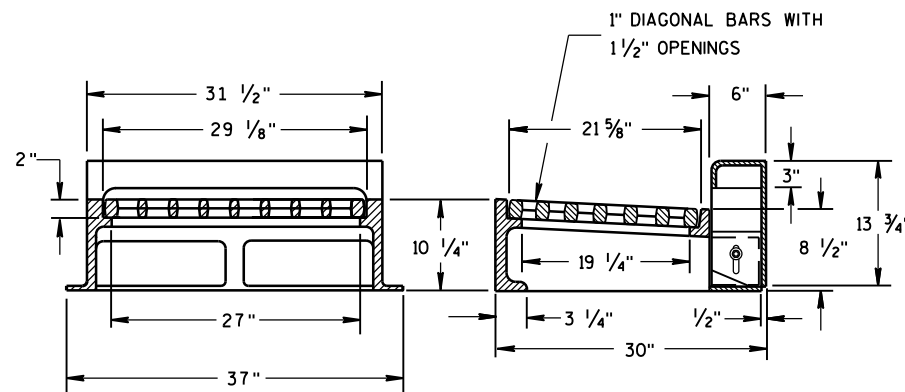
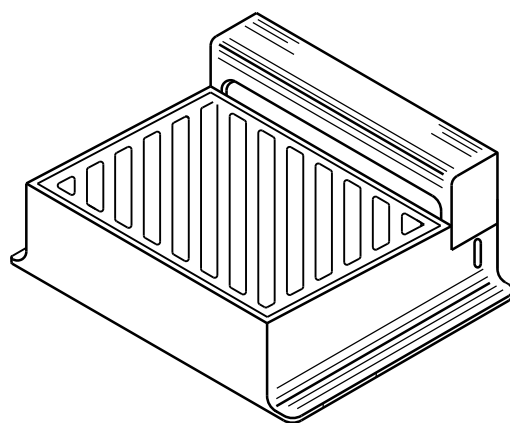
ALTERNATIVE TYPE "MS"

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"

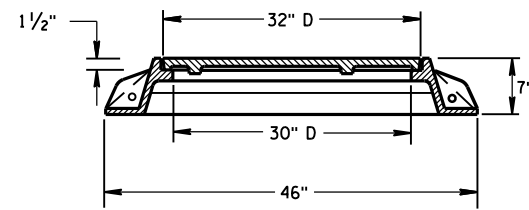
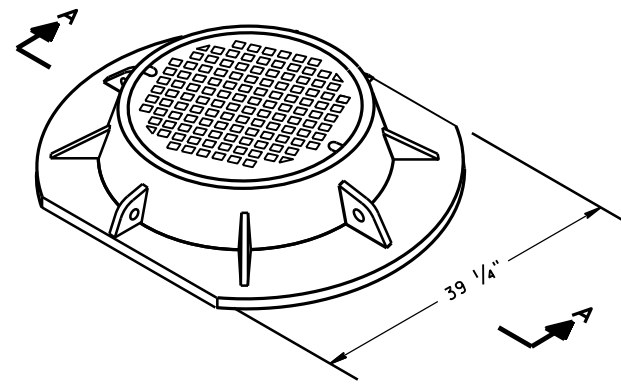
DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.

DIRECTION OF FLOW

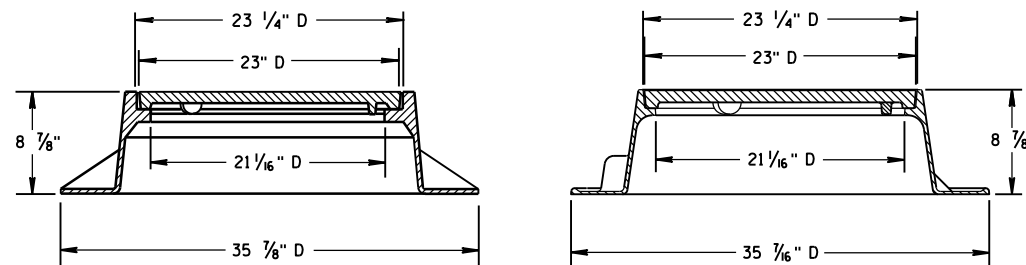
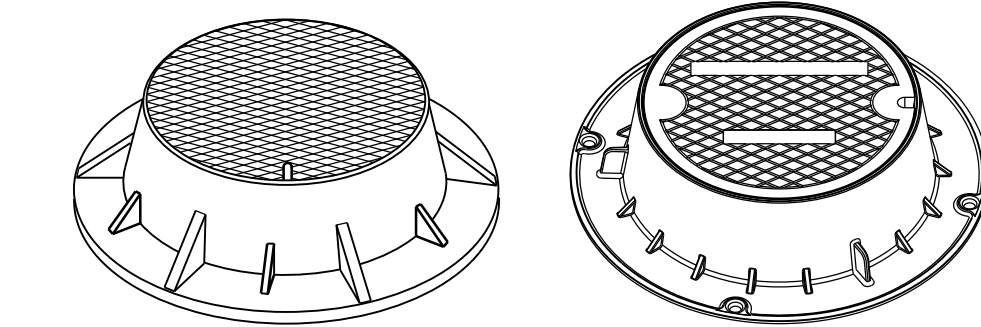
INLET COVERS  
TYPE B, B-A, C,  
MS, MS-A, & WM

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



SECTION A-A  
TYPE "K"



TYPE "J"

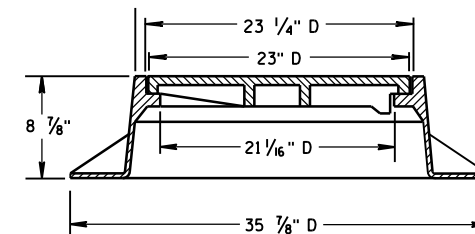
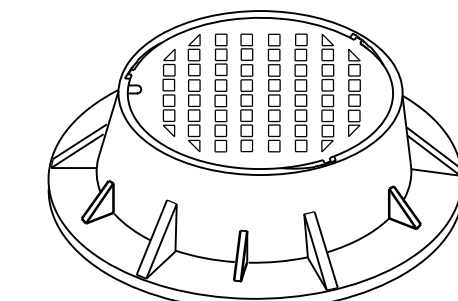
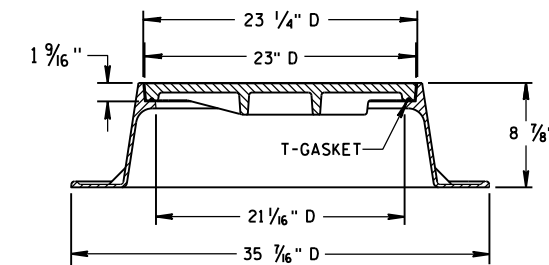
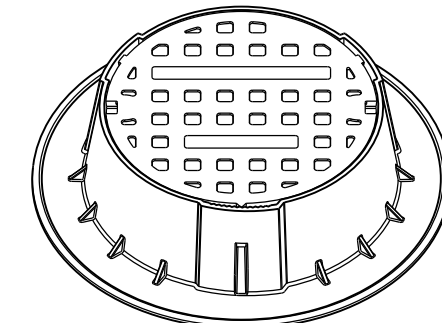
NOTE: EITHER CASTING IS ACCEPTABLE

**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 MANHOLE 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.

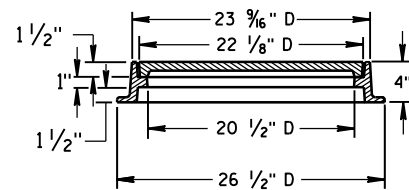
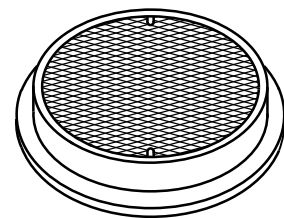


TYPE "J" SPECIAL

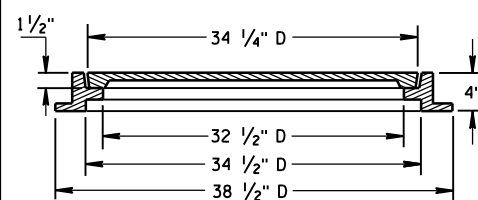
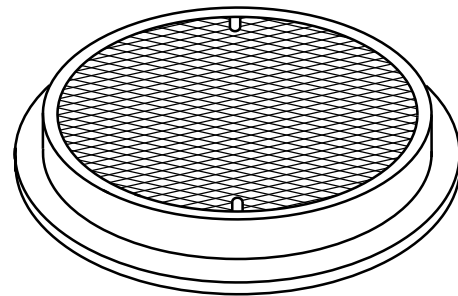
TYPE "B" NON-ROCKING SELF-SEAL LID  
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

NOTE: EITHER CASTING IS ACCEPTABLE

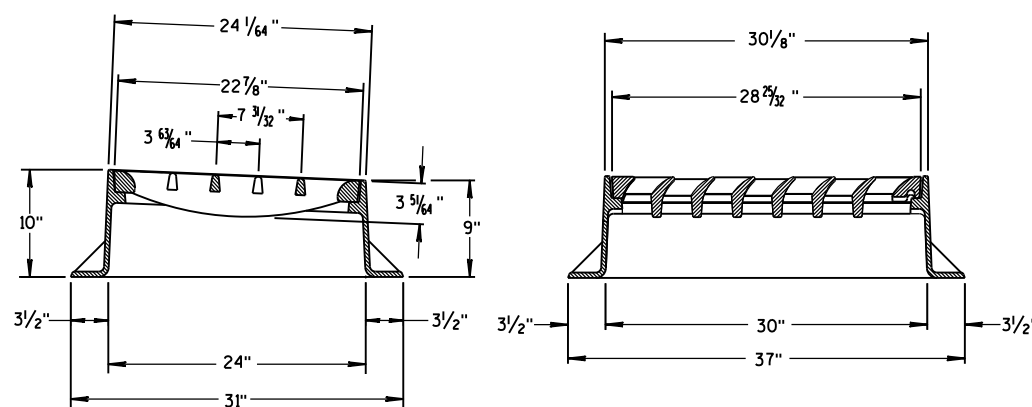
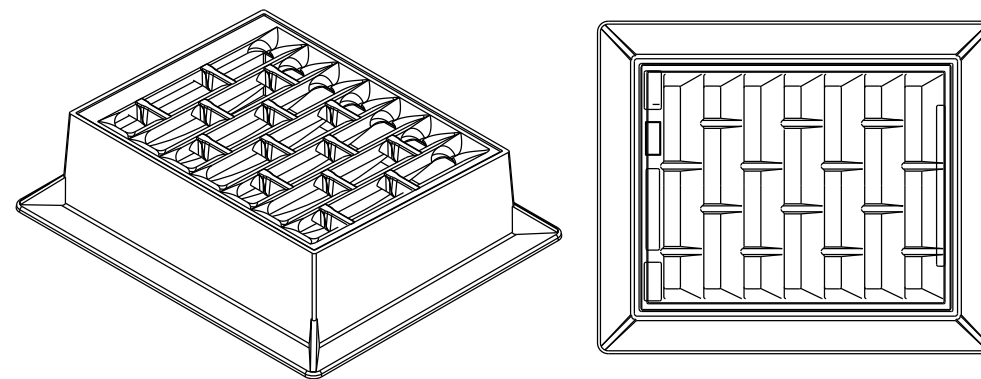
6



TYPE "L"



TYPE "M"



INLET COVER TYPE "BW"

6

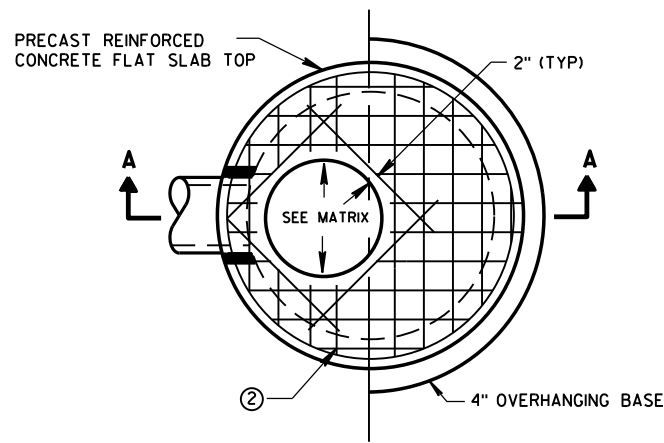
S.D.D. 8 A 5-19d

S.D.D. 8 A 5-19d

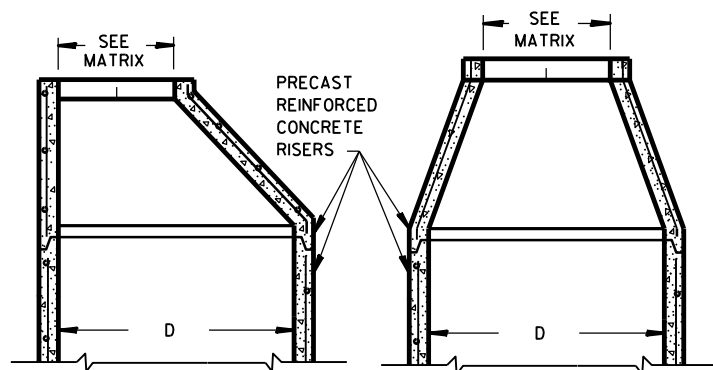
INLET COVER TYPE BW  
MANHOLE COVERS, TYPE K,  
J, J-S, L & M

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

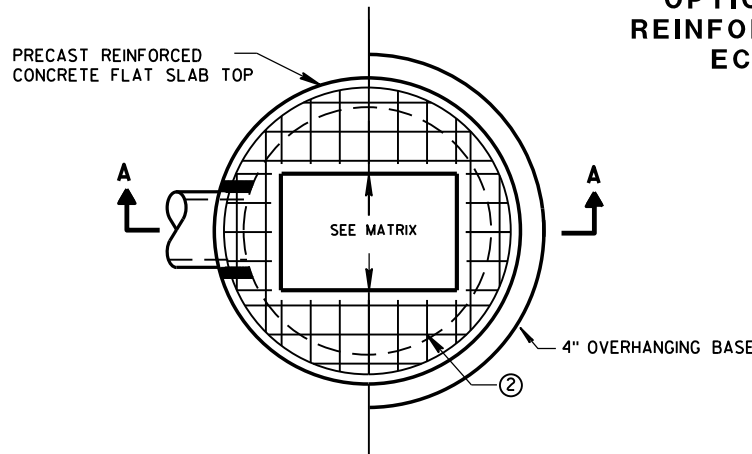


PLAN VIEW CIRCULAR OPENING

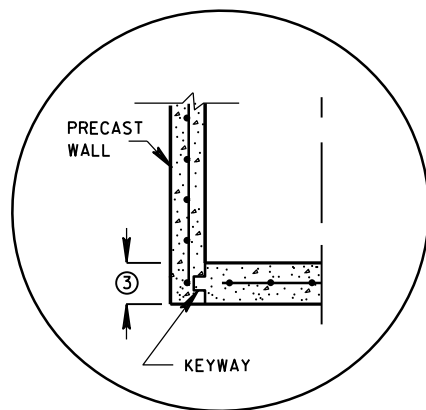


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

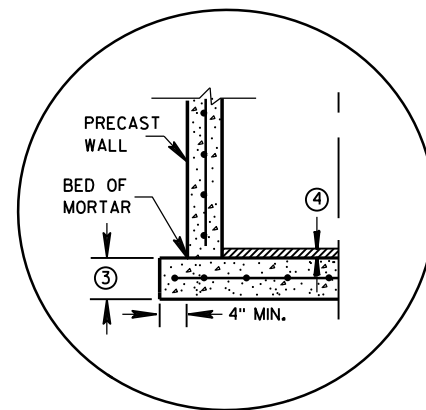
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



PLAN VIEW RECTANGULAR OPENING

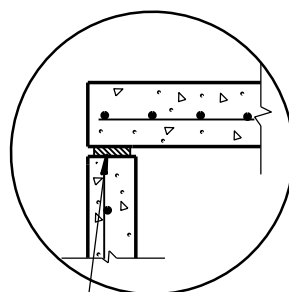


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

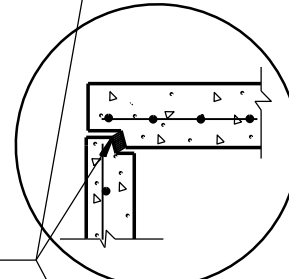


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

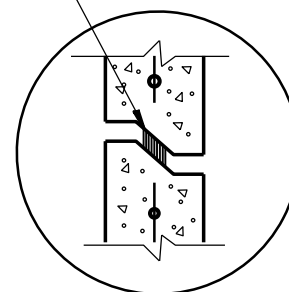
DETAIL "A"



TOP WITH PLAIN END JOINT

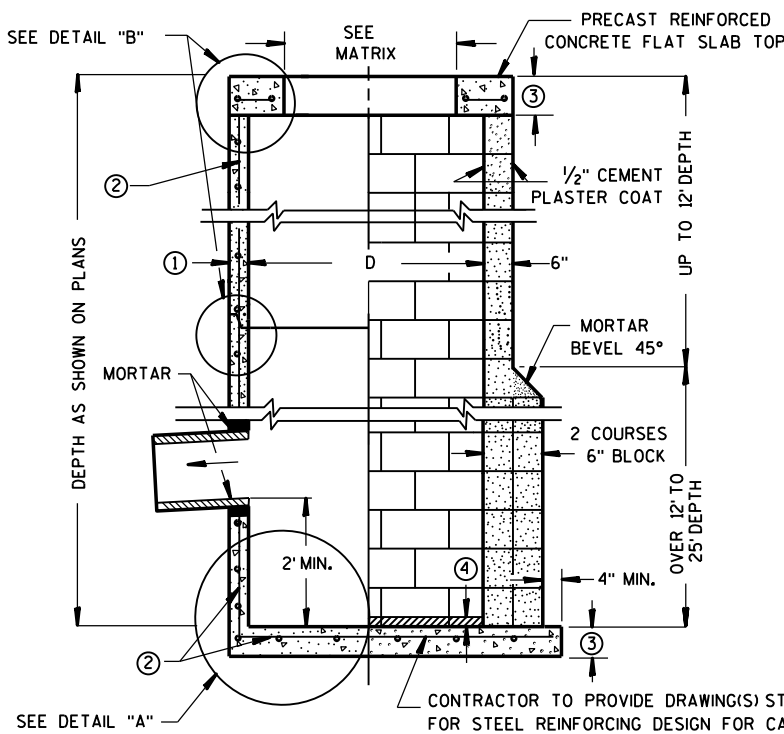


TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

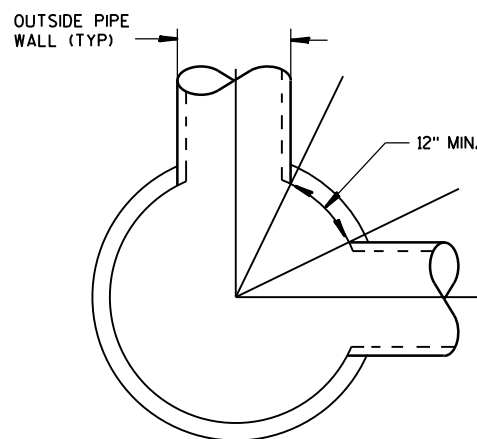


SECTION A-A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

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



DETAIL "C"

**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 CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES 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.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH; 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

- ① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.
- ② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".
- ④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2" SUMP MEASURED FROM TOP OF KEY.

**CATCH BASIN COVER OPENING MATRIX**

CATCH BASIN SIZE	INLET COVER TYPE OPENING SIZE (FT)	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
3-FT	2X2	X	X					X		X		
	2 DIA.				X					X		X
4-FT-6-FT	2X2	X	X					X		X	X	
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3											

**PIPE MATRIX**

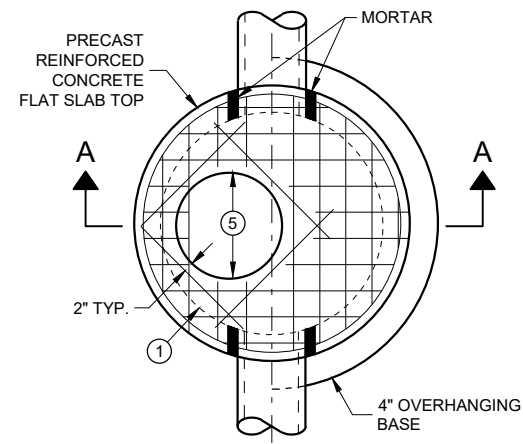
CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

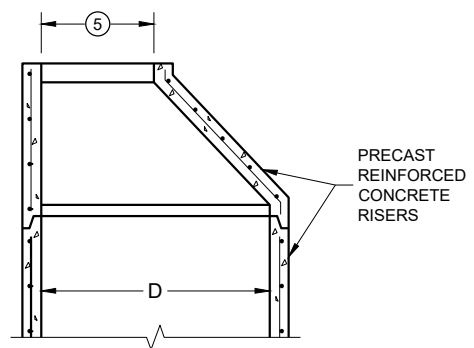
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED  
 Sep 1, 2016 /S/ Rodney Taylor  
 DATE ROADWAY STANDARDS DEVELOPMENT  
 FHWA UNIT SUPERVISOR

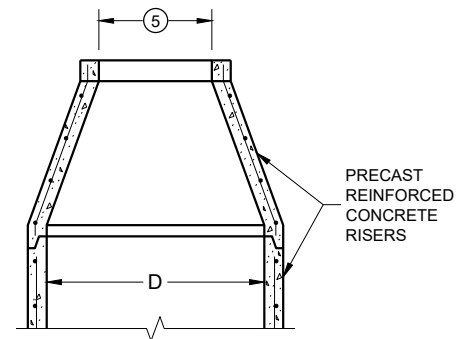
**CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER**



**PLAN VIEW  
CIRCULAR OPENING**



**OPTIONAL PRECAST  
REINFORCED CONCRETE  
ECCENTRIC TOP**



**OPTIONAL PRECAST  
REINFORCED CONCRETE  
CONCENTRIC TOP**

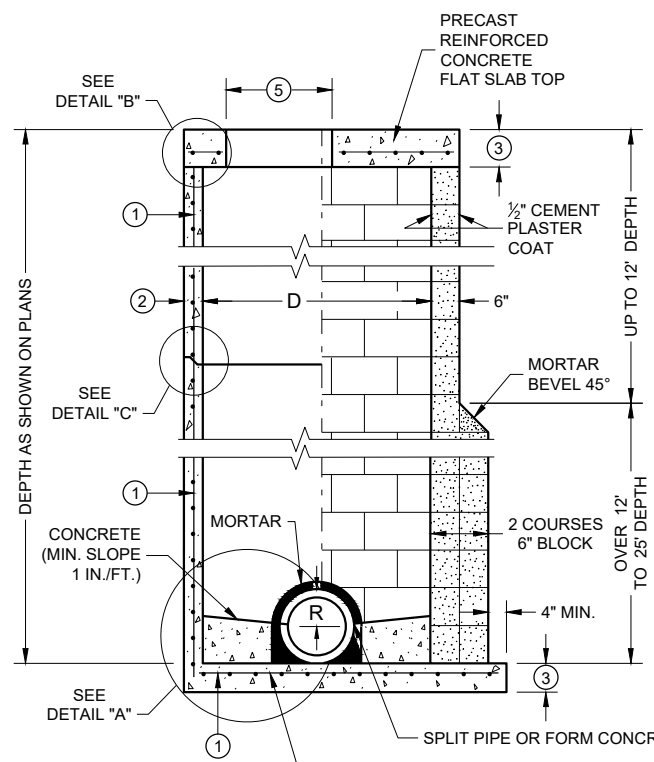
**MANHOLE COVER OPENING MATRIX**

MANHOLE COVER TYPE OPENING SIZE (FT.)	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

**PIPE MATRIX**

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42*	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

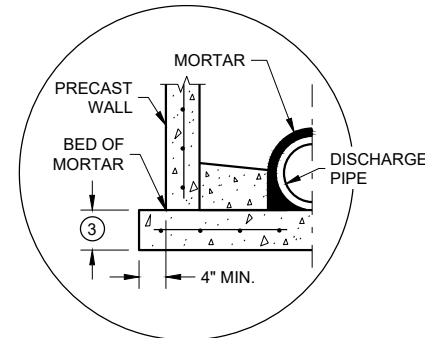
\*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.



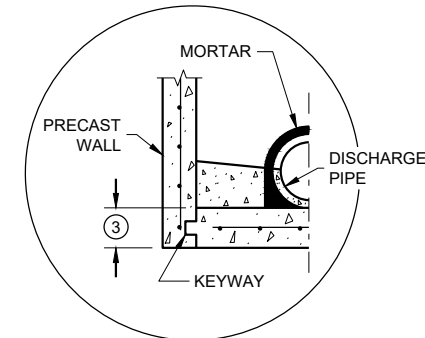
**SECTION A - A**

**PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE**

**CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE ①**

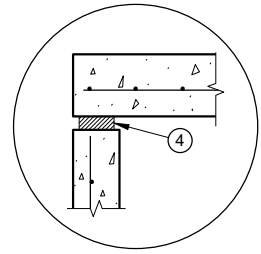


**SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION**

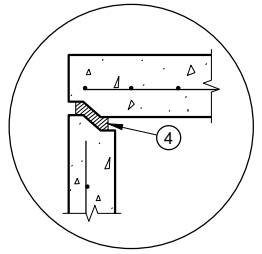


**PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION**

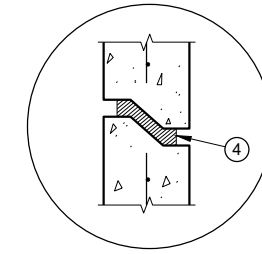
**DETAIL "A"**



**TOP WITH PLAIN END JOINT**



**TOP WITH TONGUE AND GROOVE JOINT**



**RISER WITH TONGUE AND GROOVE JOINT**

**DETAIL "B"**

**DETAIL "C"**

**MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER**

**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 MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES 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.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

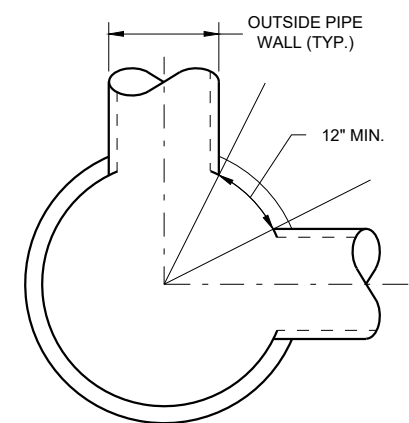
PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

- ① FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ② SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES
- ③ SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.
- ④ JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP.).
- ⑤ SEE MANHOLE COVER OPENING MATRIX.



**MINIMUM HORIZONTAL PIPE SEPARATION**

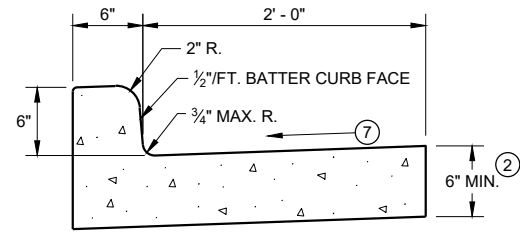
**MANHOLES, 3-FT, 4-FT  
5-FT, 6-FT, 7-FT, 8-FT, 9-FT  
AND 10-FT DIAMETER**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

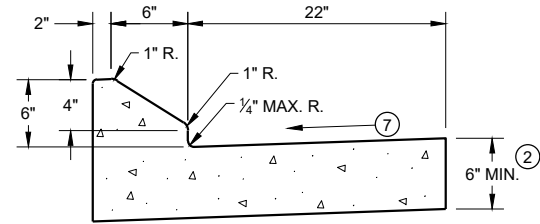
APPROVED  
November 2021 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER  
FHWA

SDD 08B09 - 03

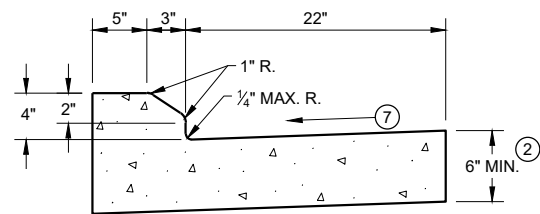
SDD 08B09 - 03



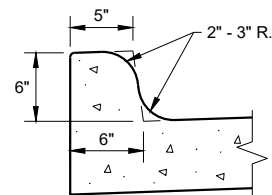
TYPES A<sup>①</sup> & D



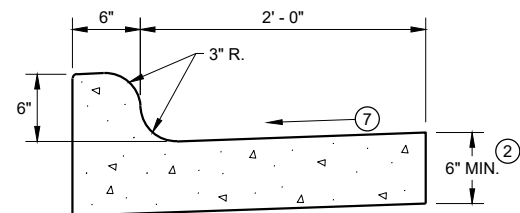
6" SLOPED CURB TYPES G<sup>①</sup> & J



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

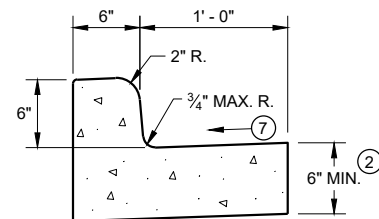


TYPES K<sup>①</sup> & L  
(OPTIONAL CURB SHAPE)



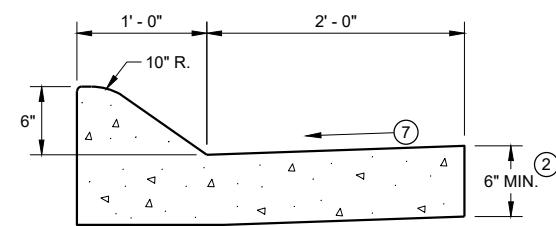
TYPES K<sup>①</sup> & L

CONCRETE CURB AND GUTTER 30"

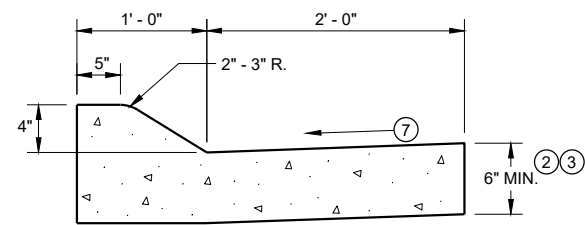


TYPES A<sup>①</sup> & D

CONCRETE CURB AND GUTTER 18"

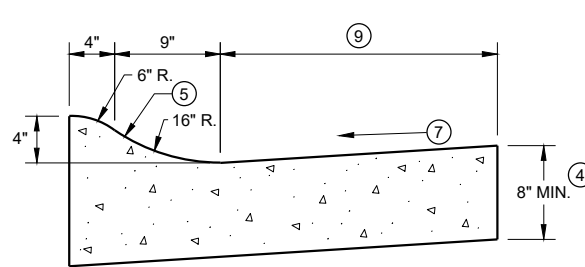


6" SLOPED CURB TYPES A<sup>①</sup> & D



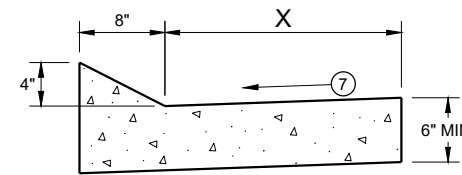
4" SLOPED CURB TYPES A<sup>①</sup> & D

CONCRETE CURB AND GUTTER 36"



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

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

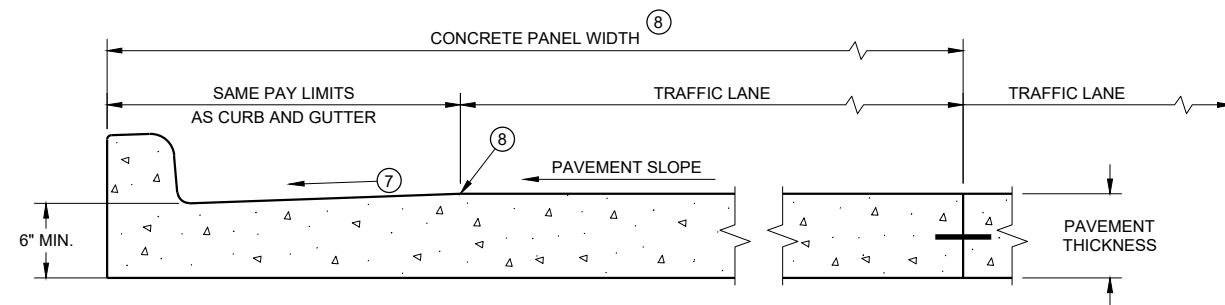


TYPES TBT & TBTT<sup>①</sup>

CONCRETE CURB AND GUTTER

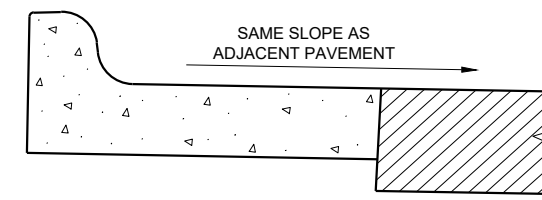
PAVEMENT THICKNESS  
AND MAXIMUM CONCRETE  
PANEL WIDTH TABLE

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.

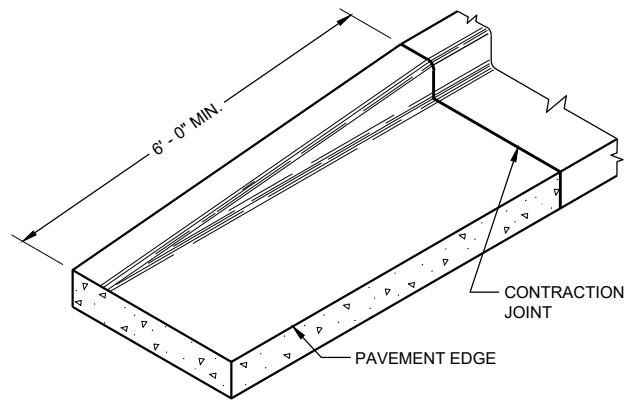
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

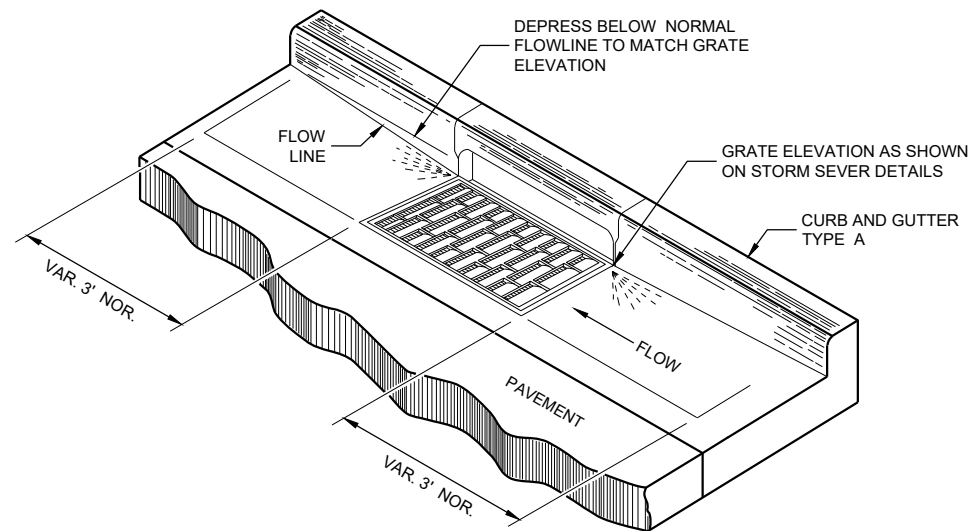
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

- 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)

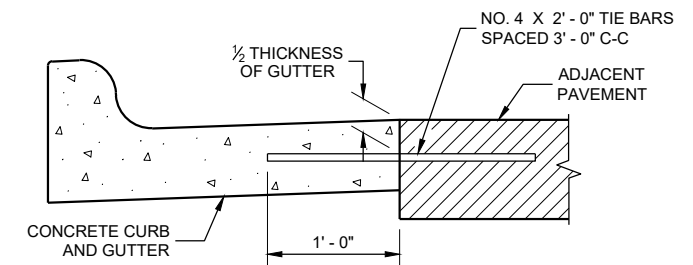
**GENERAL NOTES**

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

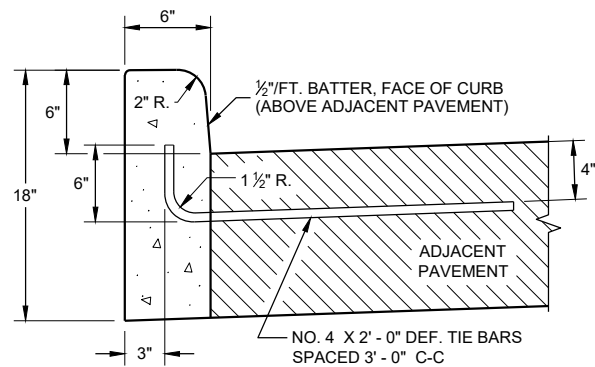
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

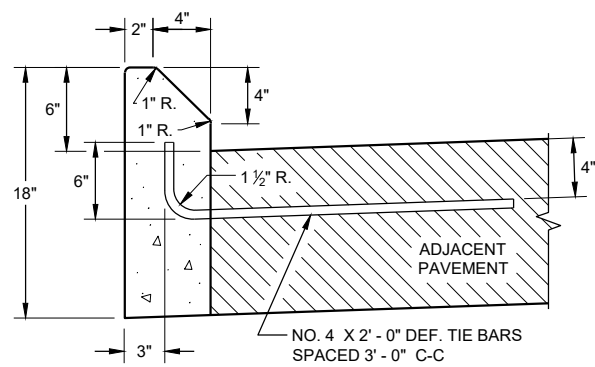
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑨ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL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



**TYPICAL TIE BAR LOCATION** ①

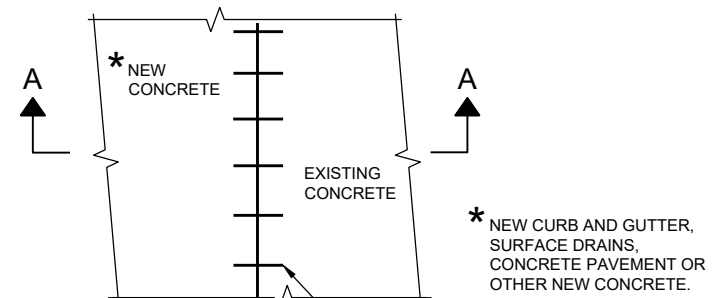


**TYPES A ① & D**

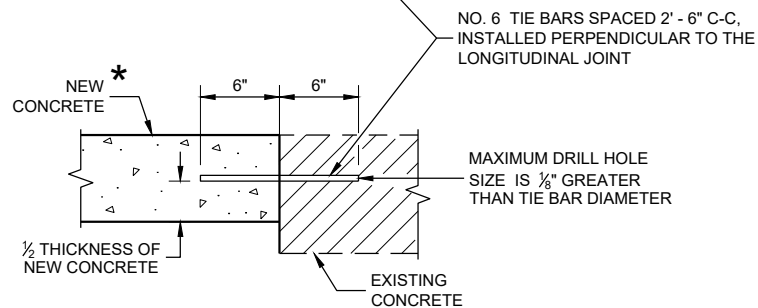


**TYPES G ① & J**

**CONCRETE CURB**

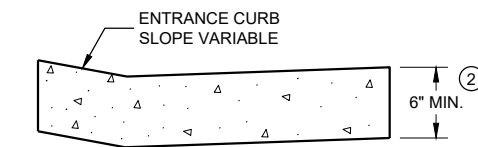


**PLAN VIEW**



**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

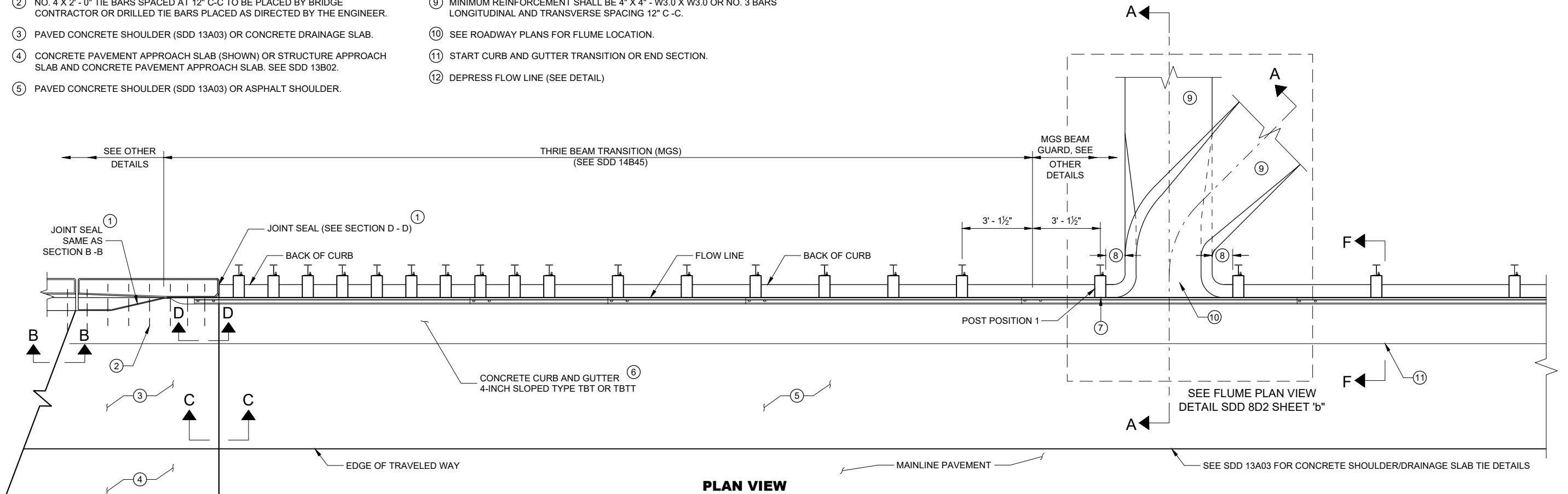
**GENERAL NOTES**

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.

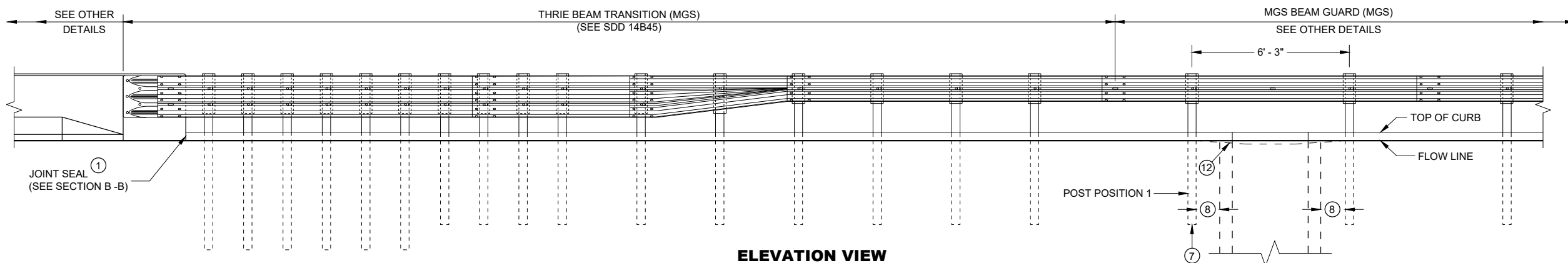
ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
- ⑦ PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- ⑧ CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
- ⑨ MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.
- ⑩ SEE ROADWAY PLANS FOR FLUME LOCATION.
- ⑪ START CURB AND GUTTER TRANSITION OR END SECTION.
- ⑫ DEPRESS FLOW LINE (SEE DETAIL)



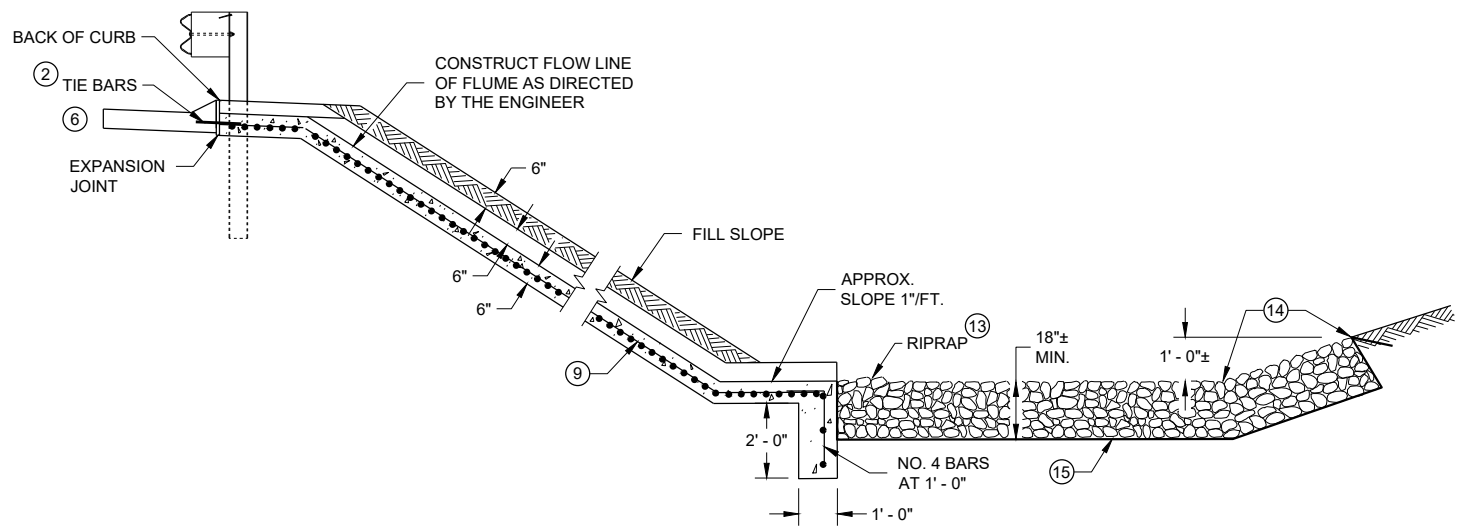
**PLAN VIEW**



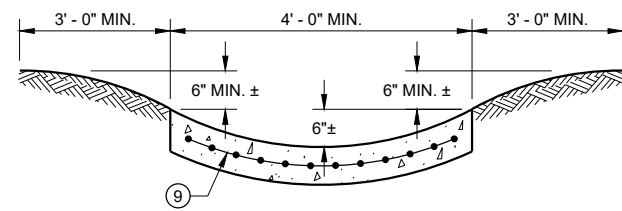
**ELEVATION VIEW**

**CONCRETE SURFACE  
DRAINS FLUME TYPE  
AT STRUCTURES**

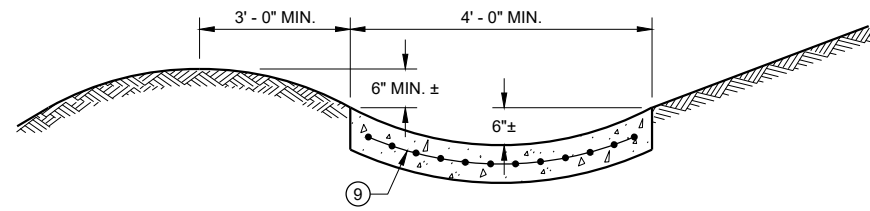
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



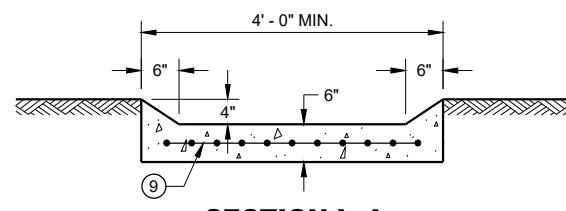
**SECTION A - A**



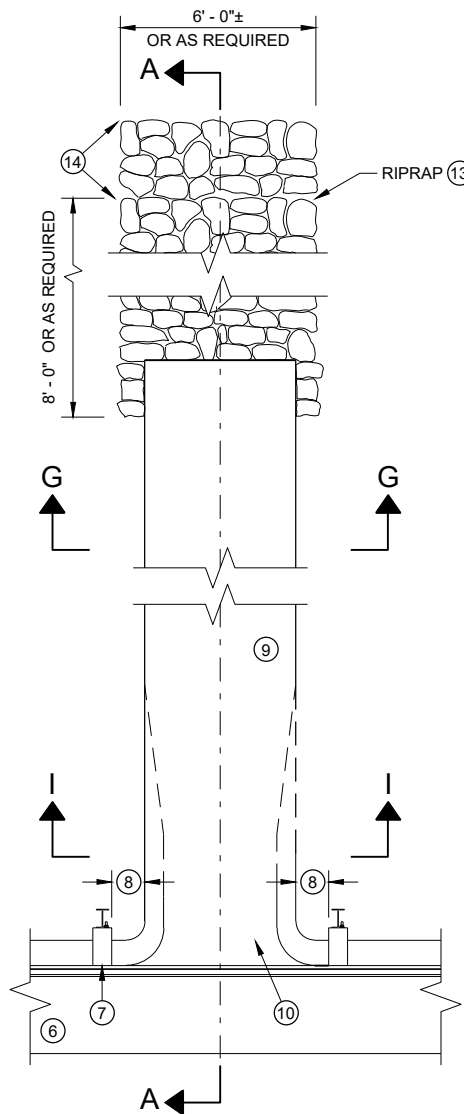
**SECTION G - G**



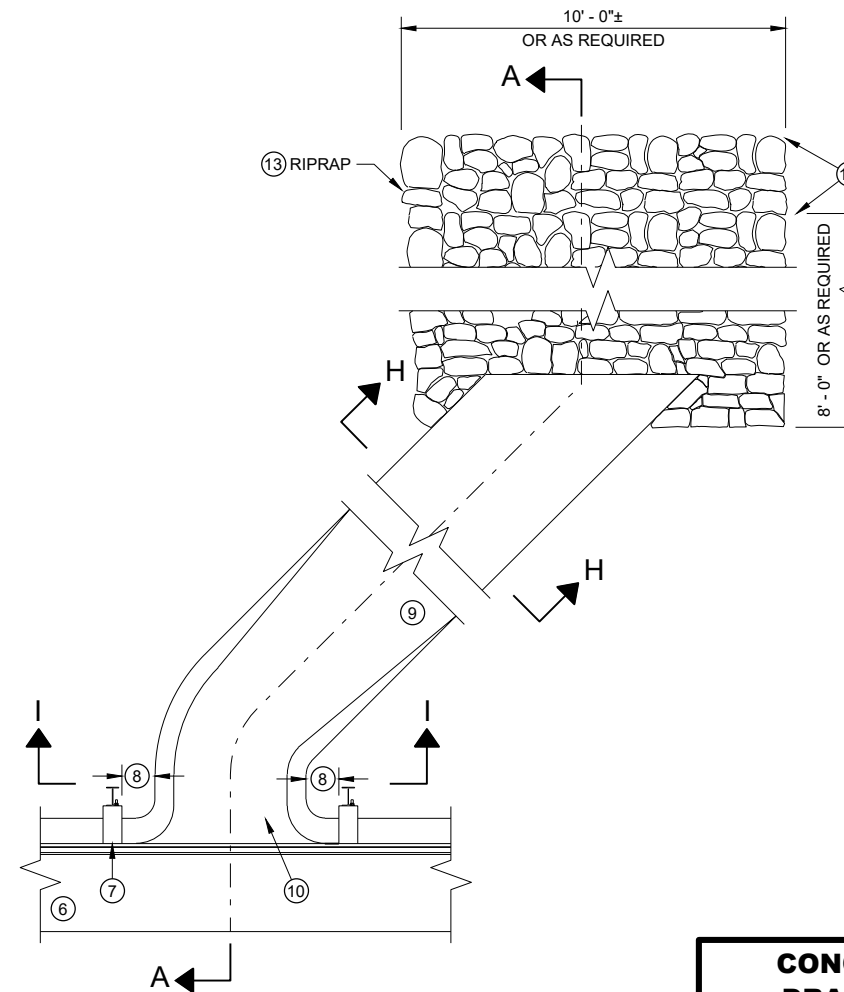
**SECTION H - H**



**SECTION I - I**



**PLAN VIEW PERPENDICULAR FLUME**



**PLAN VIEW SKEWED FLUME**

**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.

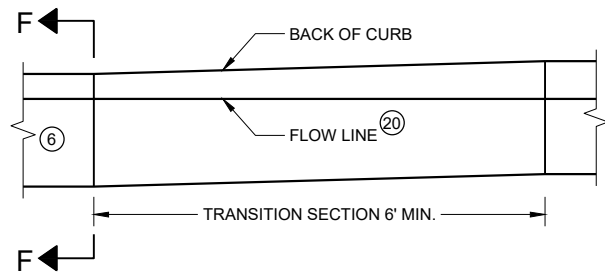
ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2'-0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

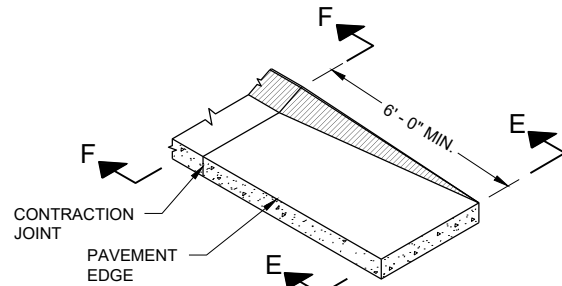
- ⑦ PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- ⑧ CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
- ⑨ MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.
- ⑩ SEE ROADWAY PLANS FOR FLUME LOCATION.
- ⑪ START CURB AND GUTTER TRANSITION OR END SECTION.
- ⑫ DEPRESS FLOW LINE (SEE DETAIL)
- ⑬ MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
- ⑭ LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED.
- ⑮ GEOTEXTILE FABRIC TYPE HR.

**CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES**

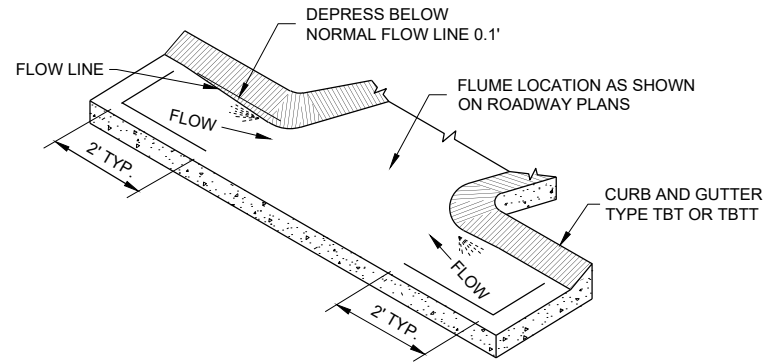
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**CURB AND GUTTER TRANSITION SECTION  
CONCRETE CURB AND GUTTER 4-INCH SLOPED  
36 INCH TYPE TBT OR TBTT**



**CURB AND GUTTER END SECTION  
CONCRETE CURB AND GUTTER 4-INCH SLOPED  
36 INCH TYPE TBT OR TBTT**



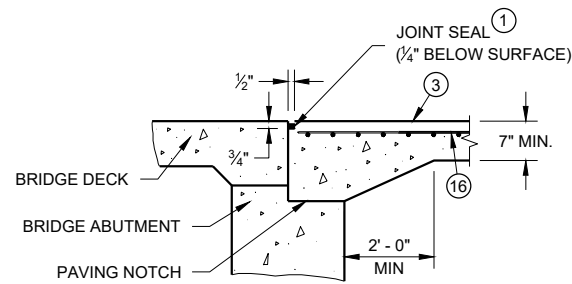
**CURB AND GUTTER FLOW LINE DEPRESSION  
AT FLUMES CONCRETE CURB AND GUTTER  
4-INCH SLOPED 36 INCH TYPE TBT OR TBTT**

**GENERAL NOTES**

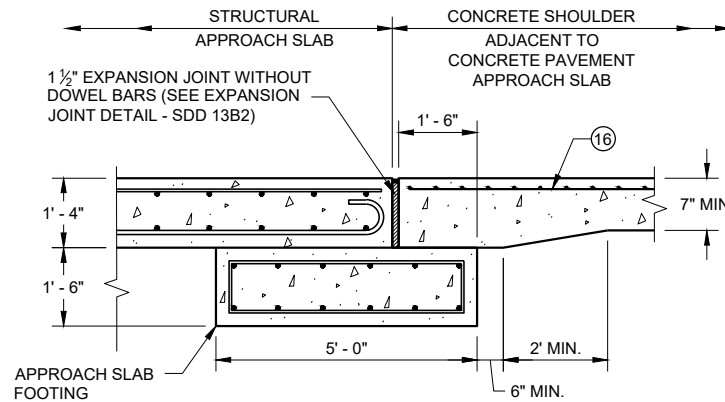
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

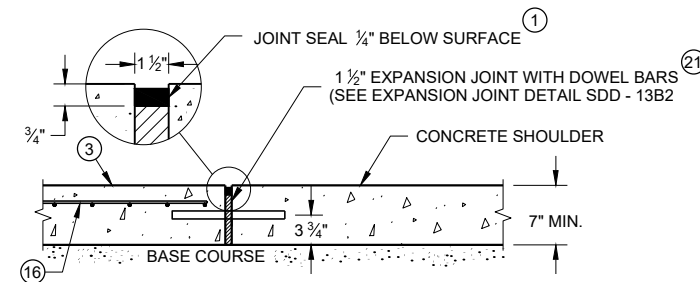
- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
- ⑦ PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- ⑧ CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
- ⑨ MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.
- ⑩ SEE ROADWAY PLANS FOR FLUME LOCATION.
- ⑪ START CURB AND GUTTER TRANSITION OR END SECTION.
- ⑫ DEPRESS FLOW LINE (SEE DETAIL)
- ⑬ MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
- ⑭ LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.
- ⑮ GEOTEXTILE FABRIC TYPE HR.
- ⑯ MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.
- ⑰ MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.
- ⑱ MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.
- ⑲ ALIGN FACE OF POST BLOCK WITH FLOW LINE.
- ⑳ MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.
- ㉑ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



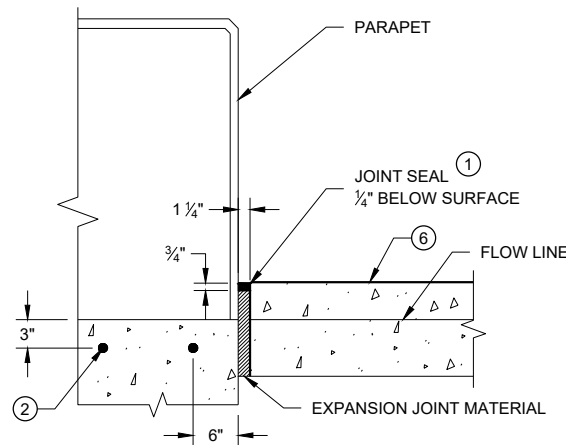
**SECTION B-B**



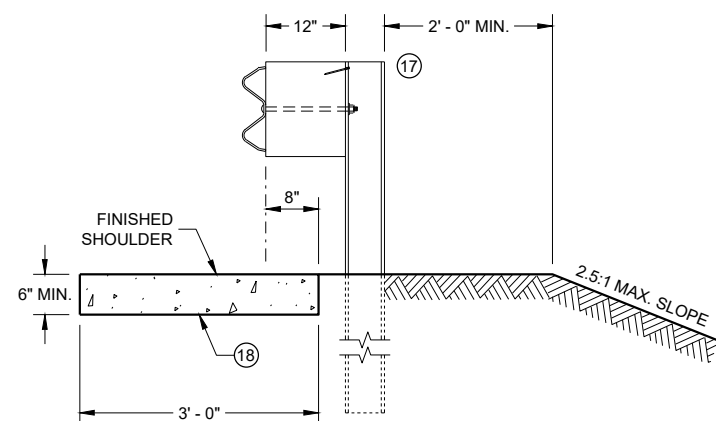
**SECTION C - C  
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL  
APPROACH SLAB AND CONCRETE APPROACH SLAB**



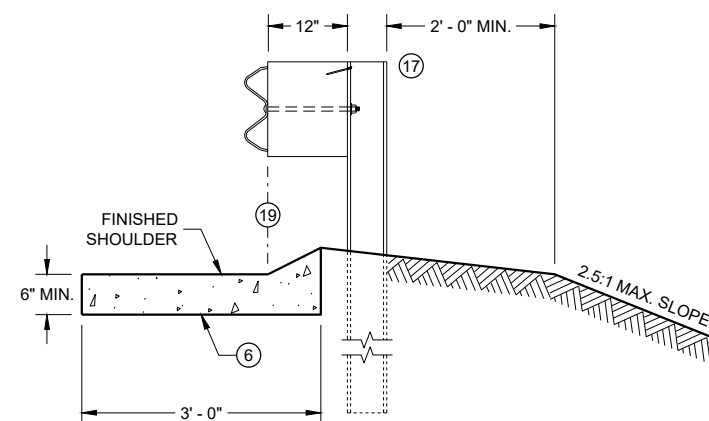
**SECTION C - C  
JOINT DETAIL FOR BRIDGE APPROACH  
WITH CONCRETE SHOULDERS**



**SECTION D - D**



**SECTION E - E**



**SECTION F - F**

6

6

SDD08D02 - 07C

SDD08D02 - 07C

**CONCRETE SURFACE  
DRAINS FLUME TYPE  
AT STRUCTURES**

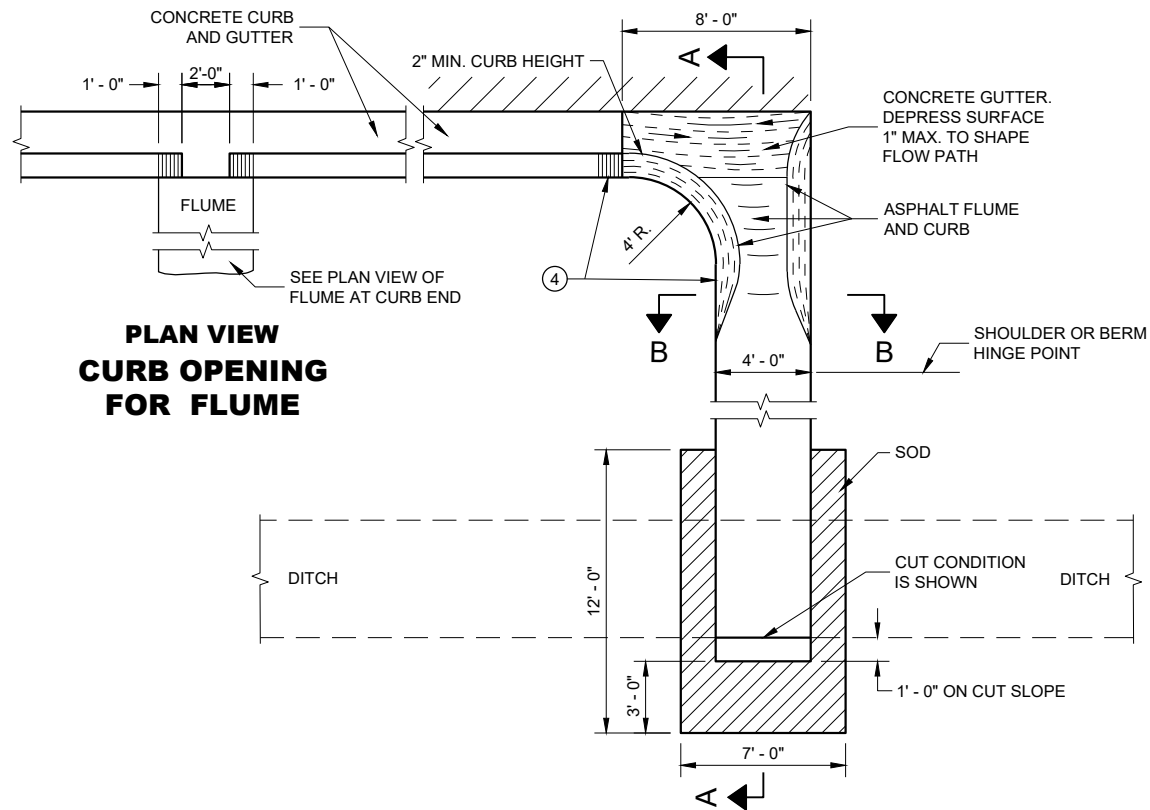
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 DATE /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

FHWA

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

### ASPHALTIC FLUME



**PLAN VIEW  
CURB OPENING  
FOR FLUME**

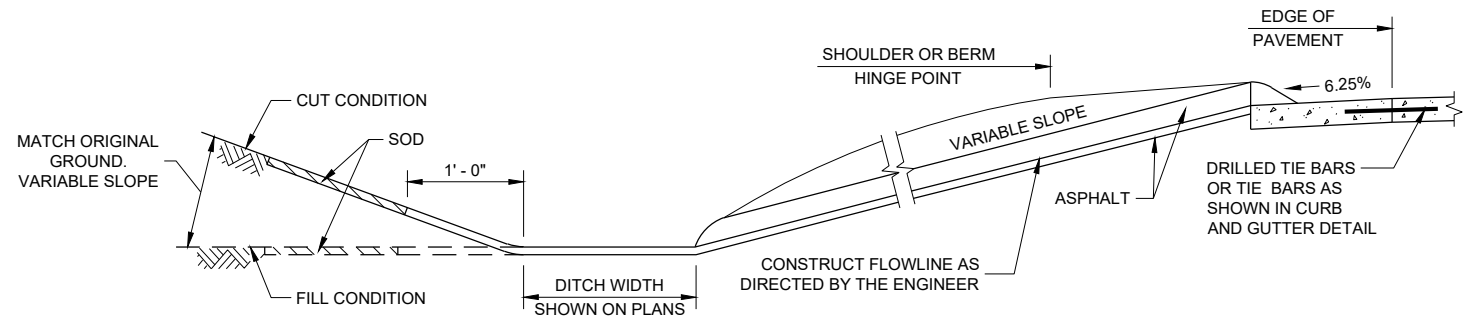
**PLAN VIEW  
FLUME AT CURB END**

### GENERAL NOTES

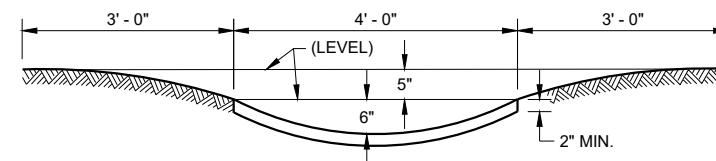
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

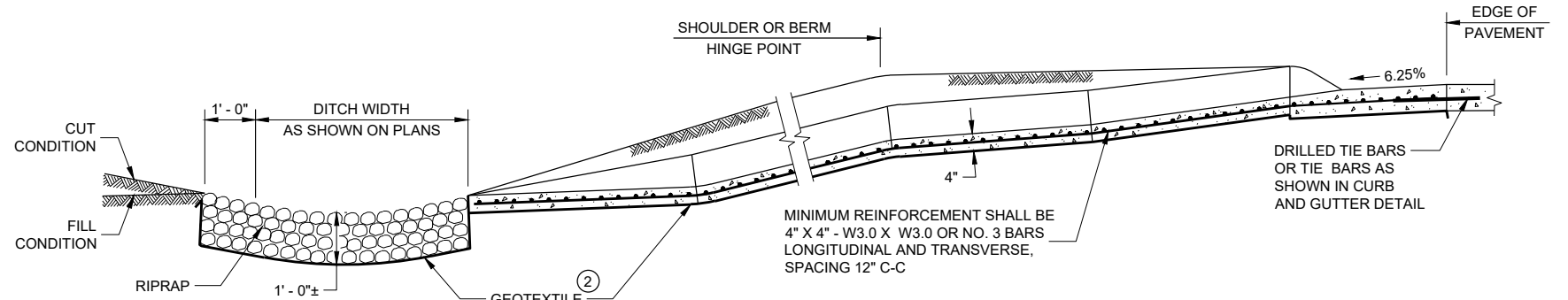
- ① JOINTS SHALL BE 1/8" TO 1/4" WIDE BY 1 1/2" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- 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.



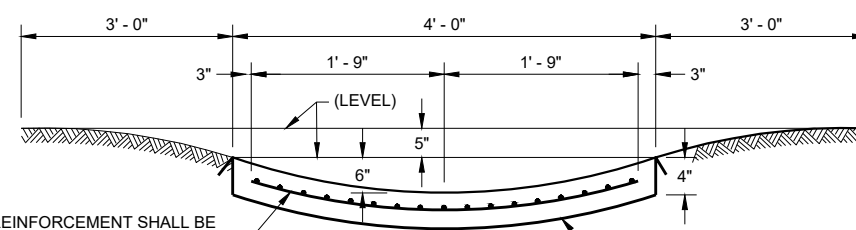
**SECTION A - A**



**SECTION B - B**

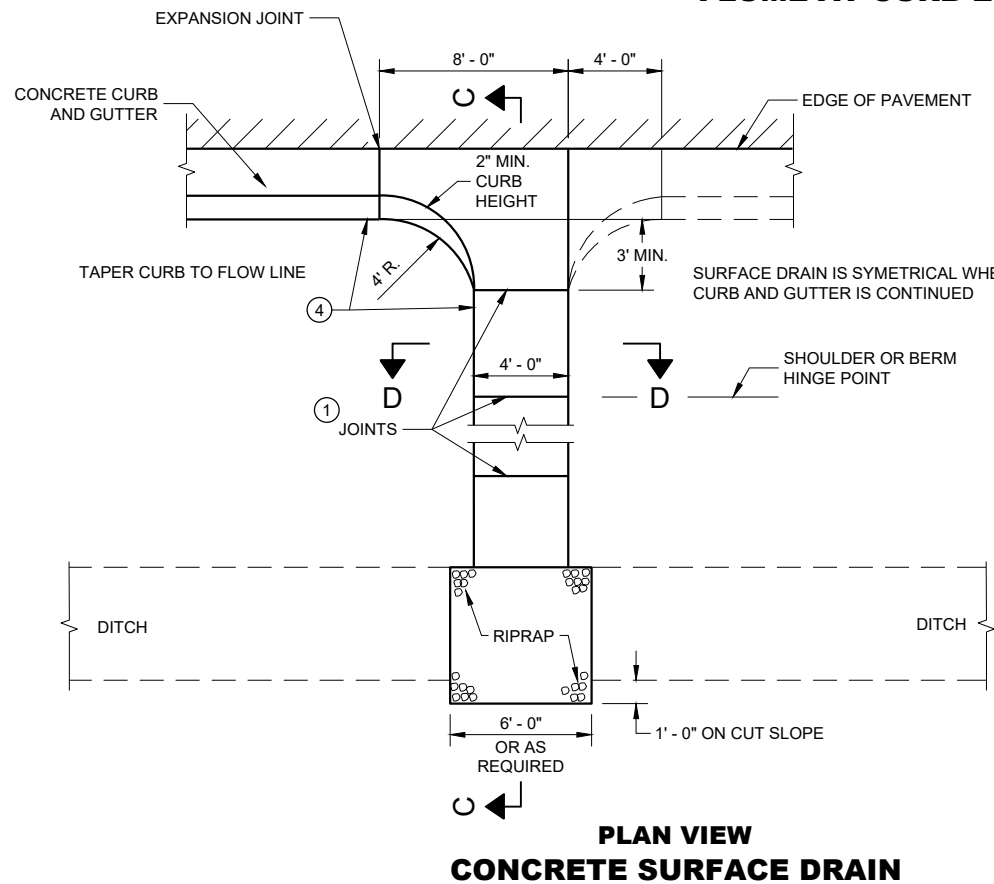


**SECTION C - C**



**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



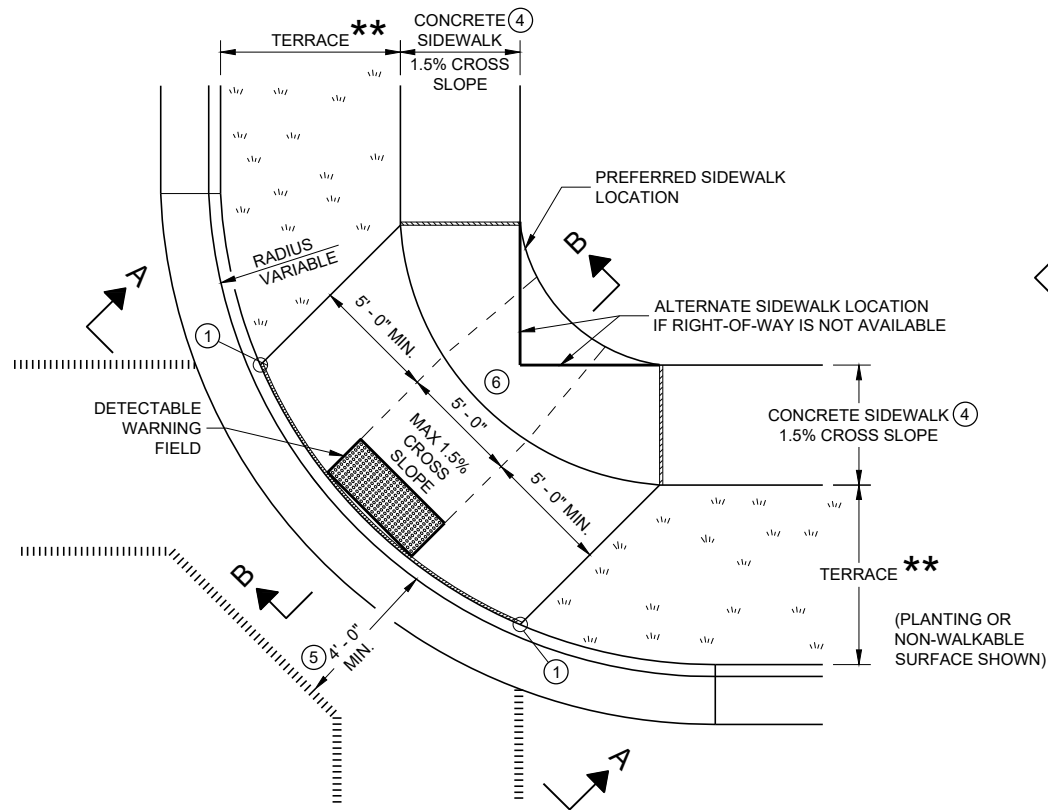
**PLAN VIEW  
CONCRETE SURFACE DRAIN**

### CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

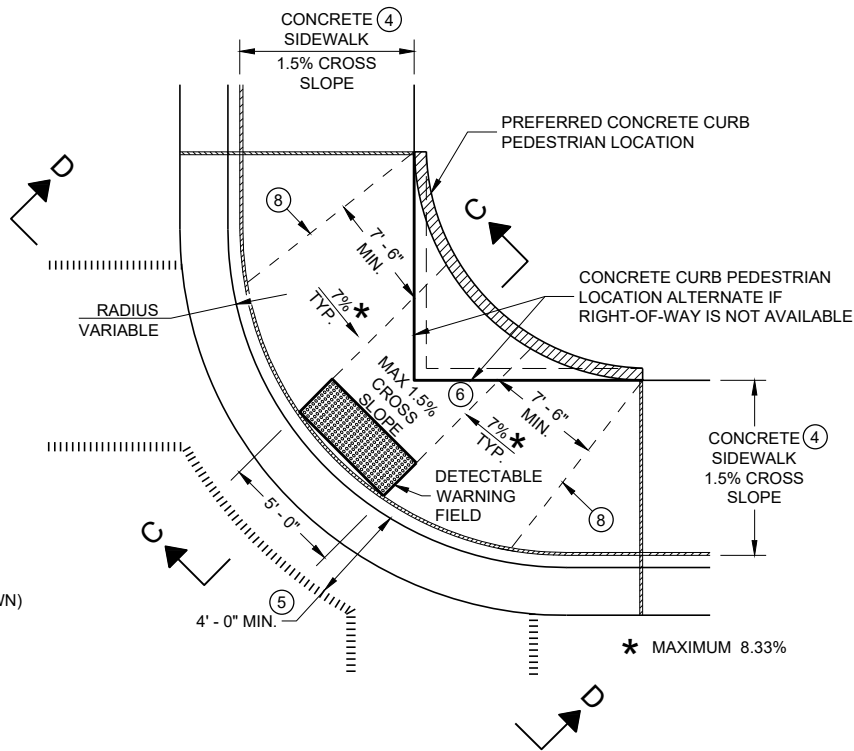
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

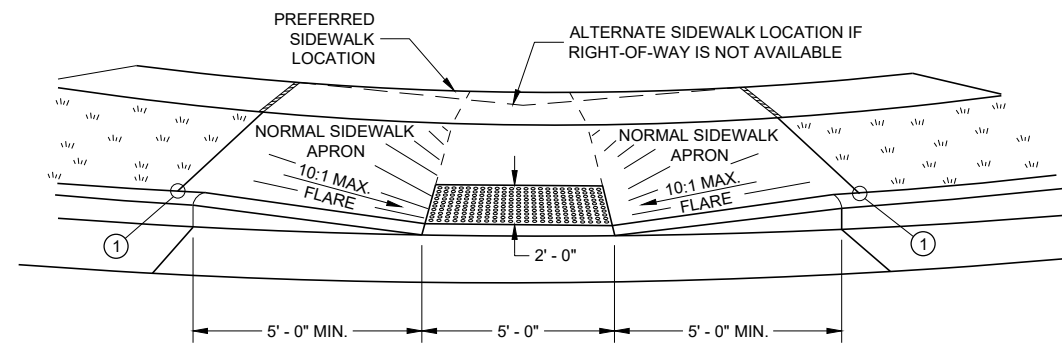
FHWA



**PLAN VIEW**  
**CURB RAMP TYPE 1**  
**(CENTER OF CORNER RADIUS)**

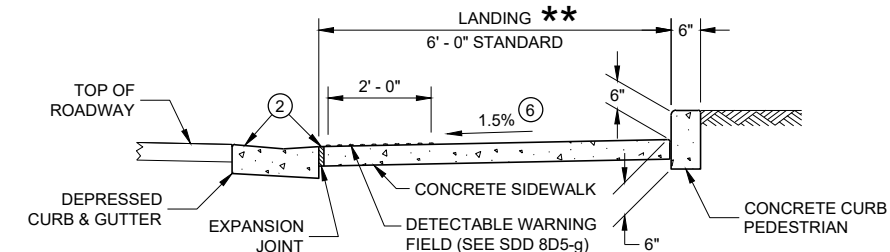


**PLAN VIEW**  
**CURB RAMP TYPE 1 - A**  
**(NO TERRACE)**

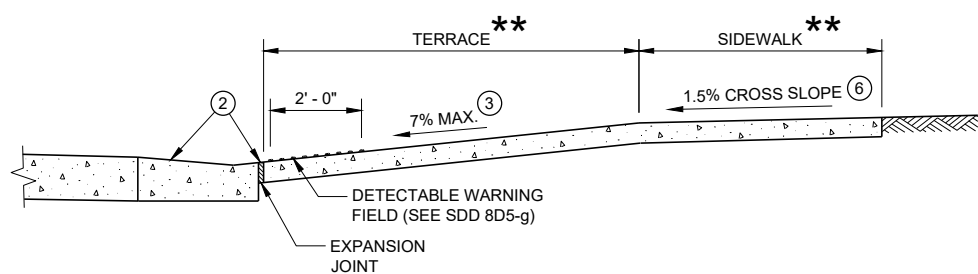


**VIEW A - A FOR TYPE 1**

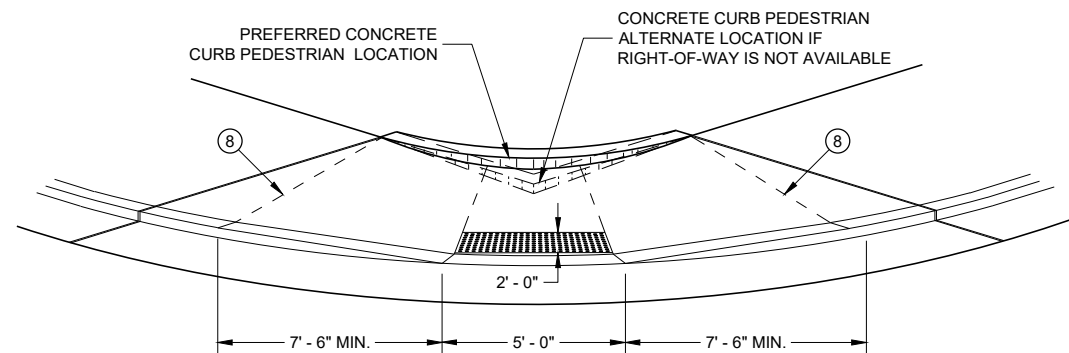
\*\* WIDTH SHOWN ELSEWHERE  
IN THE PLANS



**SECTION C - C FOR TYPE 1 - A**



**SECTION B - B FOR TYPE 1**



**VIEW D - D FOR TYPE 1 - A**

**GENERAL NOTES**

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.  
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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.  
TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

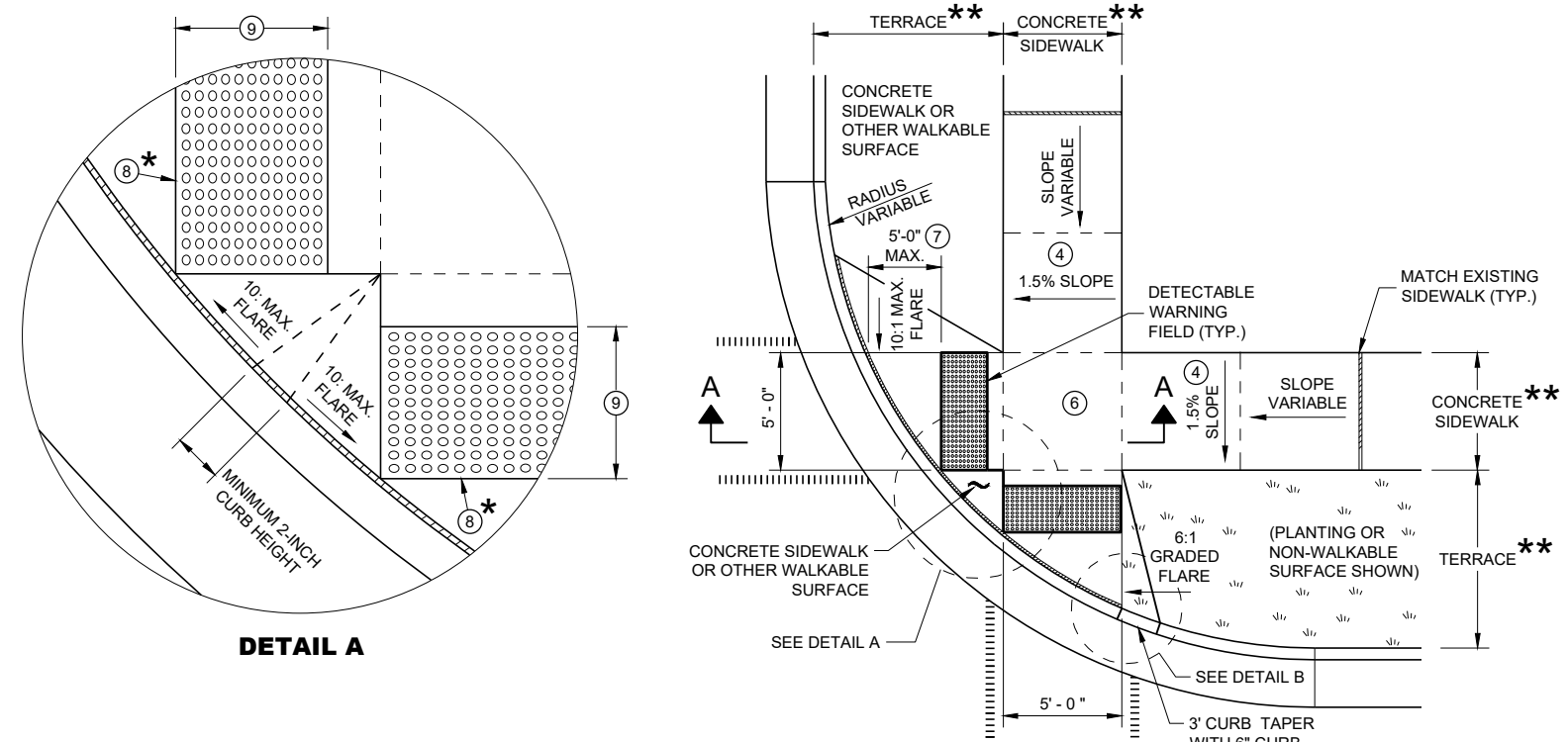
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

**LEGEND**

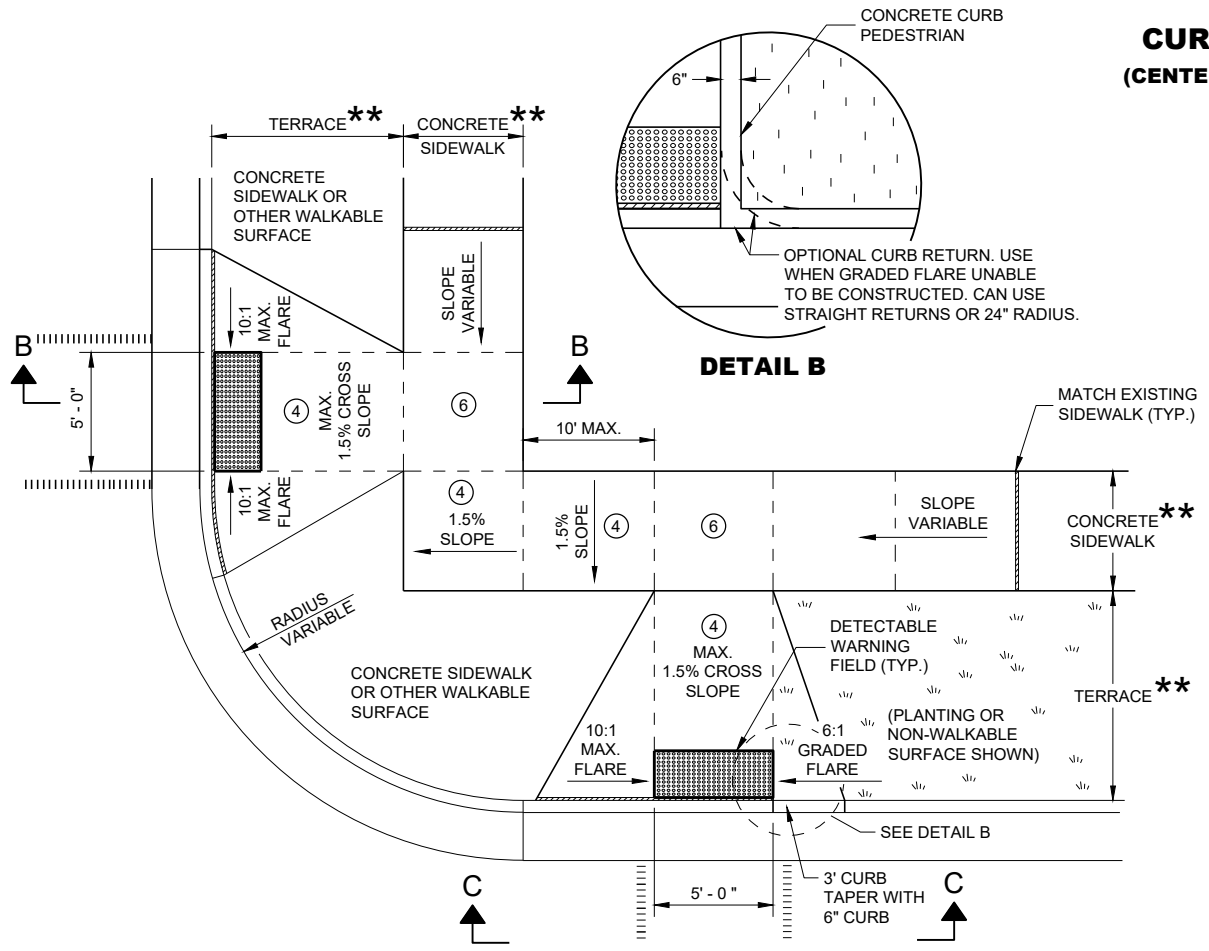
- 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS**  
**TYPE 1 AND 1-A**

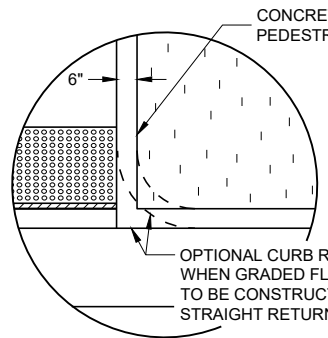
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**PLAN VIEW CURB RAMP TYPE 2 (CENTER OF CORNER RADIUS)**



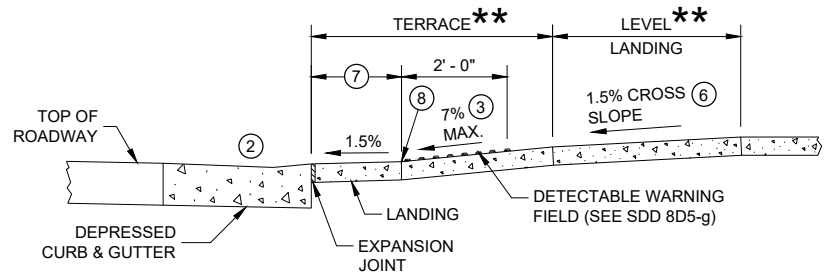
**PLAN VIEW CURB RAMP TYPE 3 (OUTSIDE OF CROSSWALK AREA)**



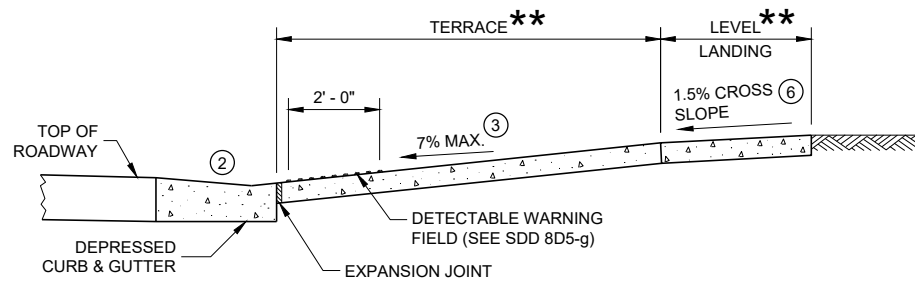
**DETAIL B**

**GENERAL NOTES**

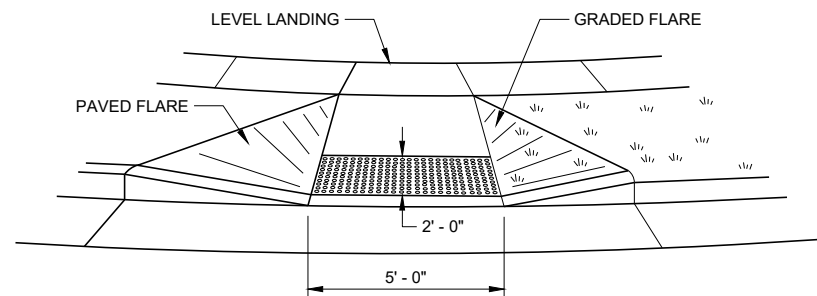
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



**SECTION A - A FOR TYPE 2**



**SECTION B - B FOR TYPE 3**



**VIEW C - C FOR TYPE 3**

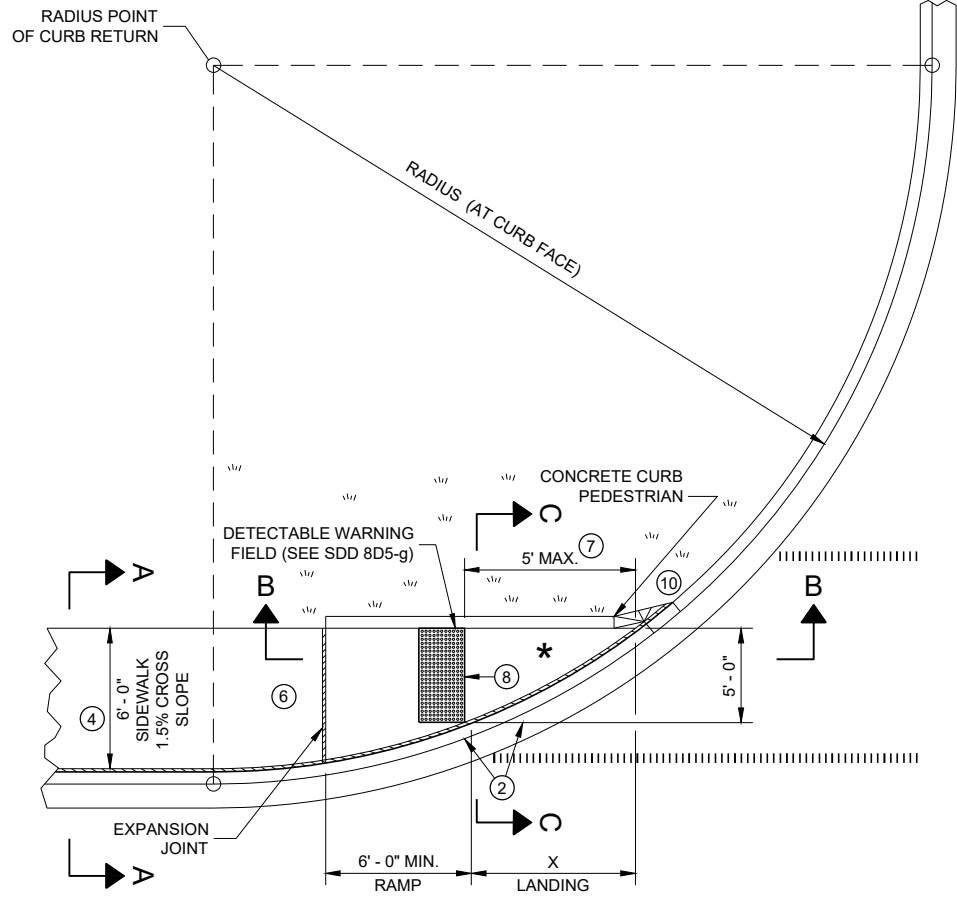
- \* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- \*\* WIDTH SHOWN ELSEWHERE IN THE PLANS

**LEGEND**

- 1/2" EXPANSION JOINT SIDEWALK
- - - CONTRACTION JOINT SIDEWALK
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS TYPE 2 AND 3**

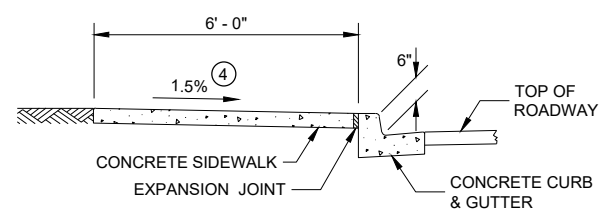
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**PLAN VIEW CURB RAMP TYPE 4A**

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



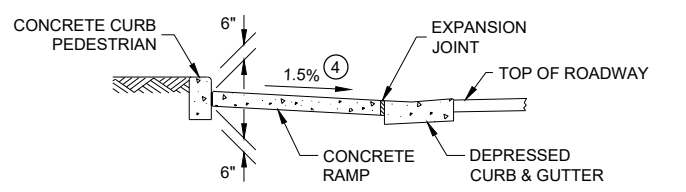
**SECTION A - A FOR TYPE 4A**

**GENERAL NOTES**

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- 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.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

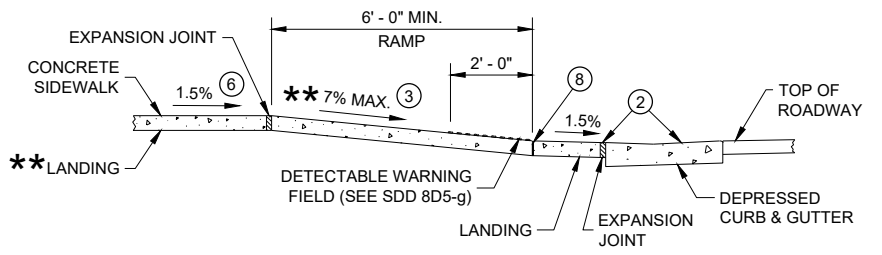
**LEGEND**

- 1/2" EXPANSION JOINT SIDEWALK
- - - CONTRACTION JOINT SIDEWALK
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)



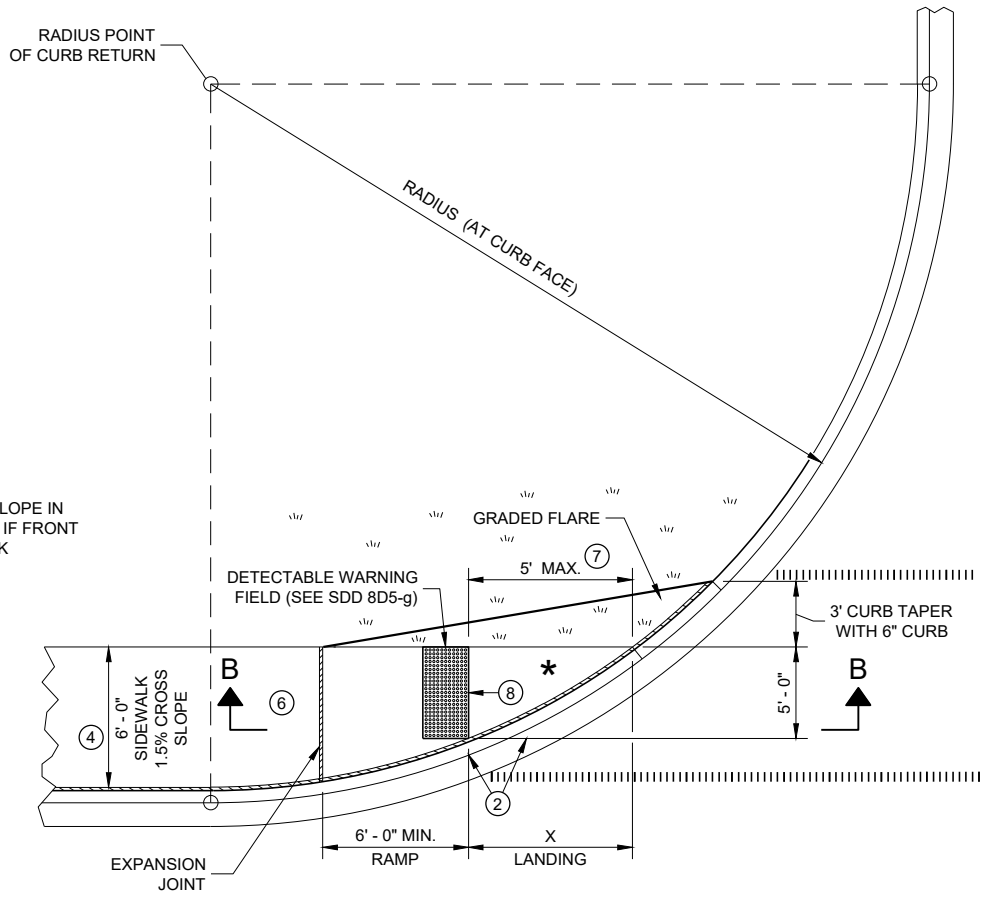
**SECTION C - C FOR TYPE 4A**

\* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

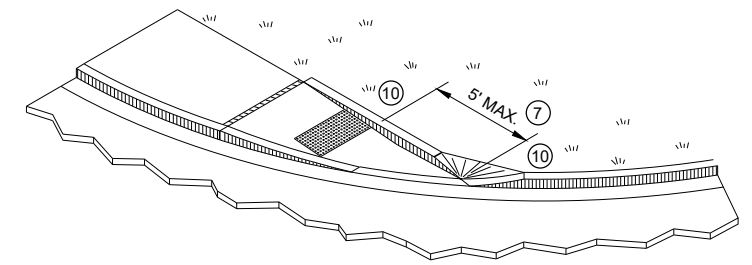


**SECTION B - B FOR TYPE 4A AND TYPE 4A1**

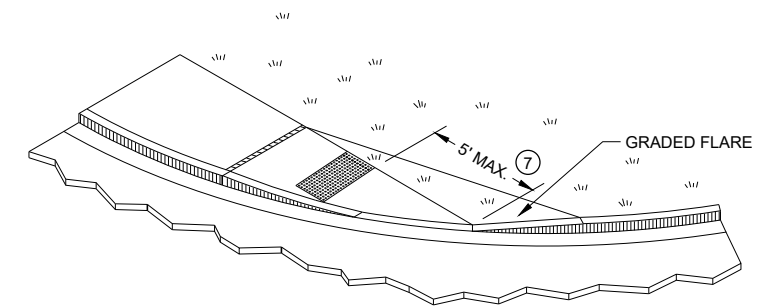
\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



**PLAN VIEW CURB RAMP TYPE 4A1**



**ISOMETRIC VIEW FOR TYPE 4A**

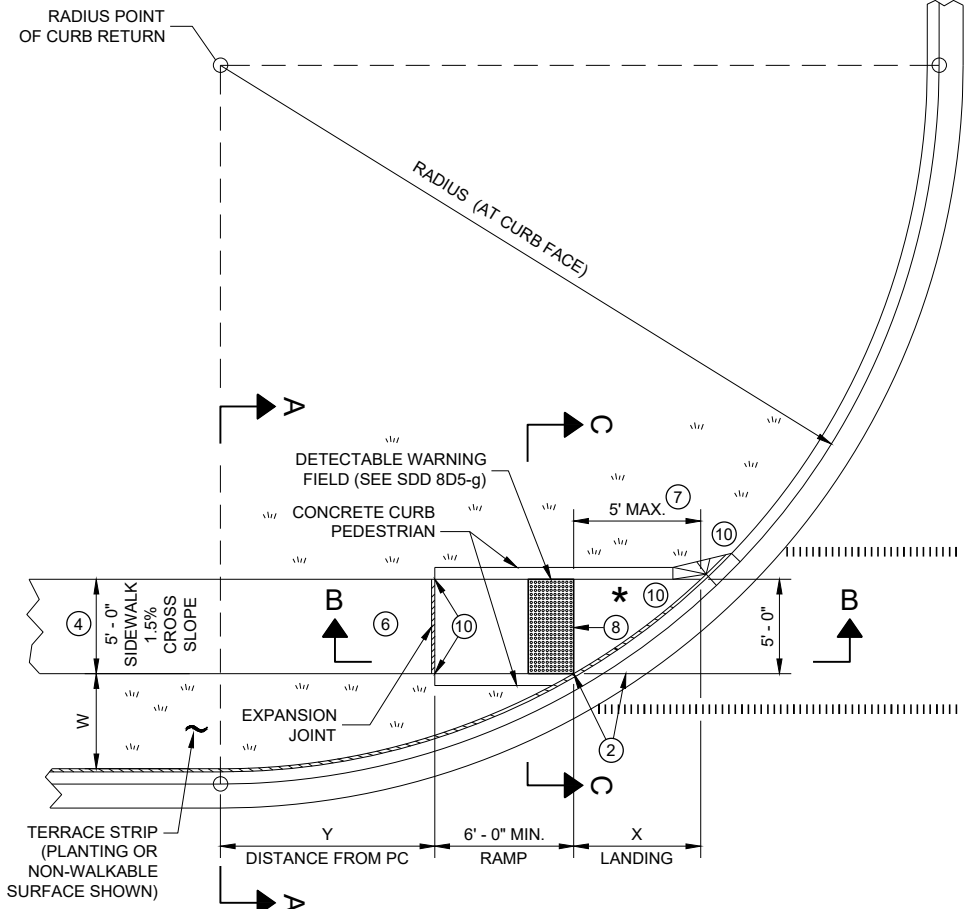


**ISOMETRIC VIEW FOR TYPE 4A1**

**CURB RAMPS TYPE 4A AND 4A1**

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RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 1/4"	0' - 5"	2' - 1"	1' - 4 1/2"	1' - 5"	2' - 1"	0' - 10"	2' - 7 1/2"	0' - 3 1/4"	3' - 0 1/4"						
15 FEET	4' - 6 3/4"	2' - 1 3/4"	3' - 9"	3' - 5 3/4"	3' - 1 1/4"	4' - 6"	2' - 6 3/4"	5' - 4 1/2"	2' - 1"	6' - 1"	1' - 8"	6' - 8 1/2"	1' - 3 1/4"	7' - 2 1/2"	0' - 10 3/4"	7' - 7 1/4"
20 FEET	5' - 9 3/4"	3' - 6 1/2"	4' - 11 1/2"	5' - 1 3/4"	4' - 3 3/4"	6' - 5 1/2"	3' - 8 3/4"	7' - 7"	3' - 3"	8' - 6 1/2"	2' - 10"	9' - 4 1/2"	2' - 5 1/2"	10' - 1 1/4"	2' - 1 1/4"	10' - 9"
30 FEET			6' - 9 1/4"	7' - 11 1/4"	6' - 0 1/4"	9' - 8"	5' - 5"	11' - 1 3/4"	4' - 10 3/4"	12' - 5 3/4"	4' - 5 1/2"	13' - 7 3/4"	4' - 0 3/4"	14' - 8 1/2"	3' - 8 1/2"	15' - 8 1/4"
40 FEET									6' - 1 3/4"	15' - 8 1/2"	5' - 8"	17' - 2"	5' - 3"	18' - 5 3/4"	4' - 10 3/4"	19' - 8 1/4"
50 FEET															5' - 10 1/4"	23' - 2"

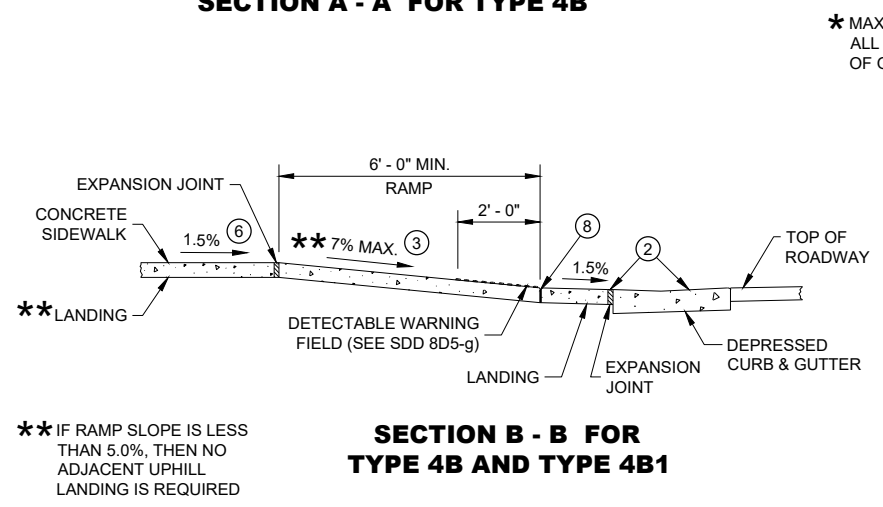
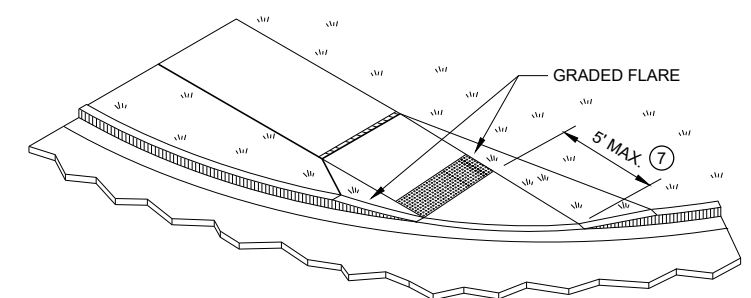
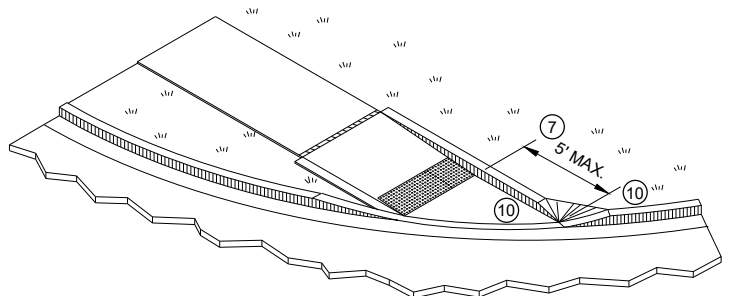
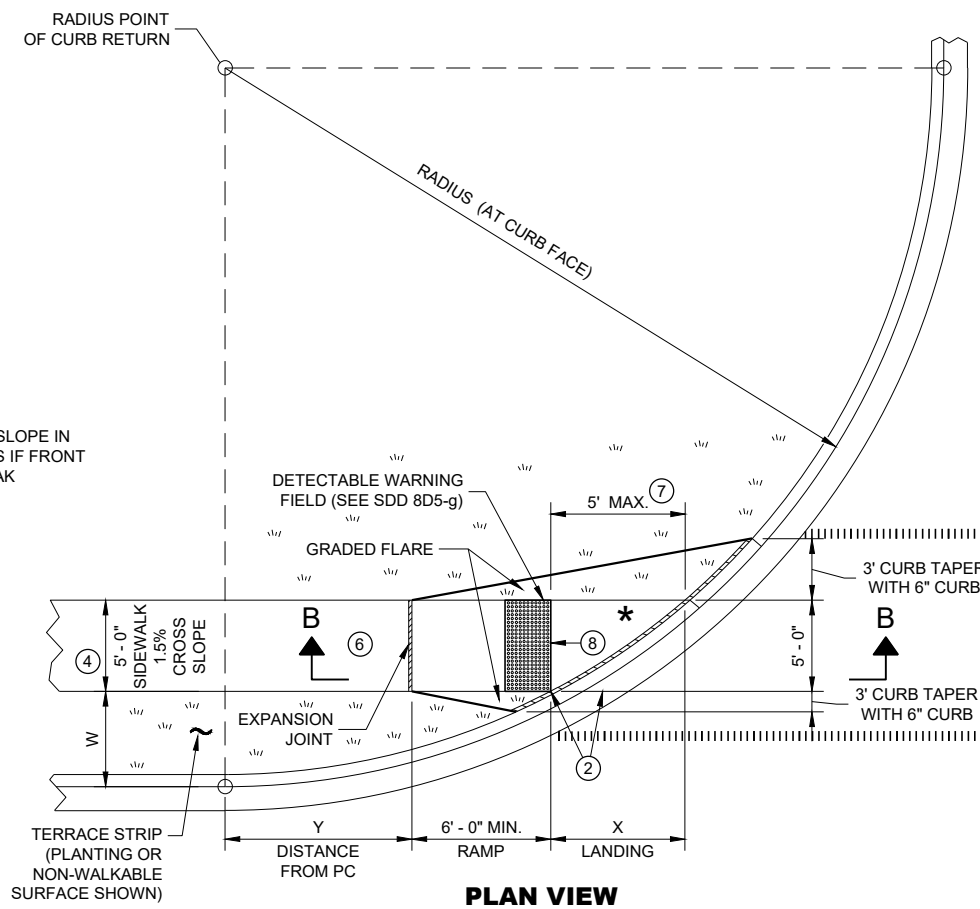
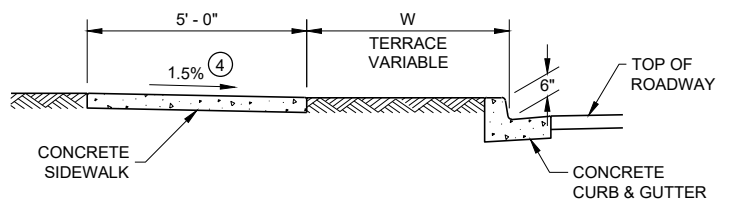
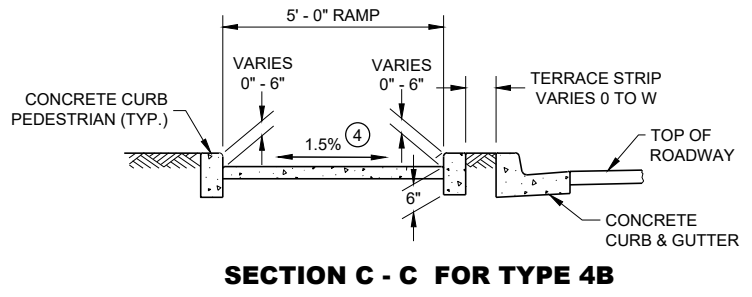
INTERMEDIATE RADII CAN BE INTERPOLATED  
 DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH  
 DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

**LEGEND**

- ===== 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT SIDEWALK
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)

**GENERAL NOTES**

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- 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.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/2 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



\* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

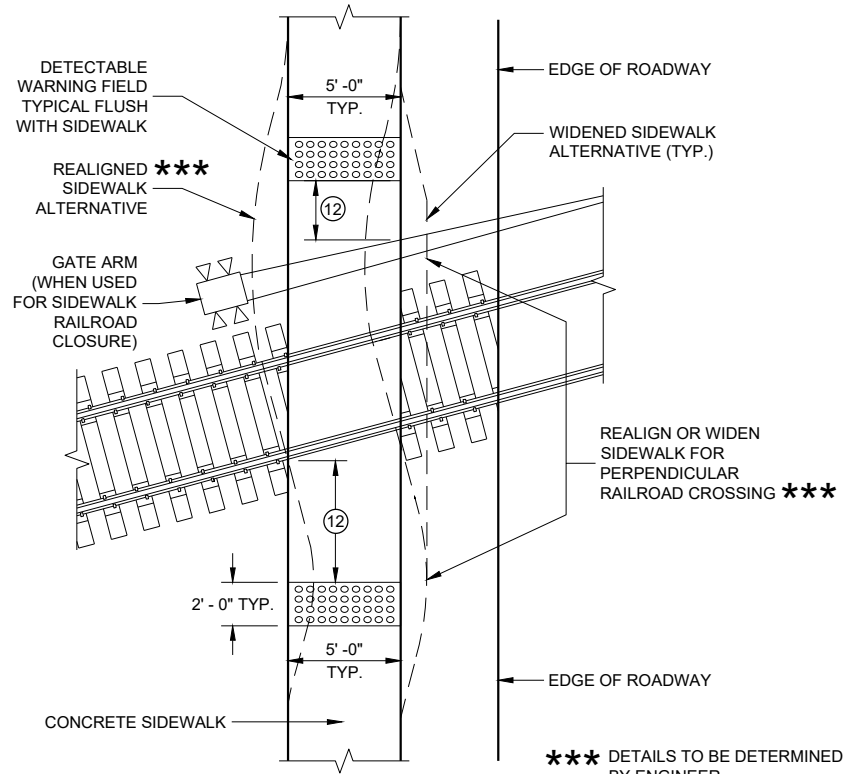
\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

**CURB RAMPS  
TYPE 4B AND 4B1**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

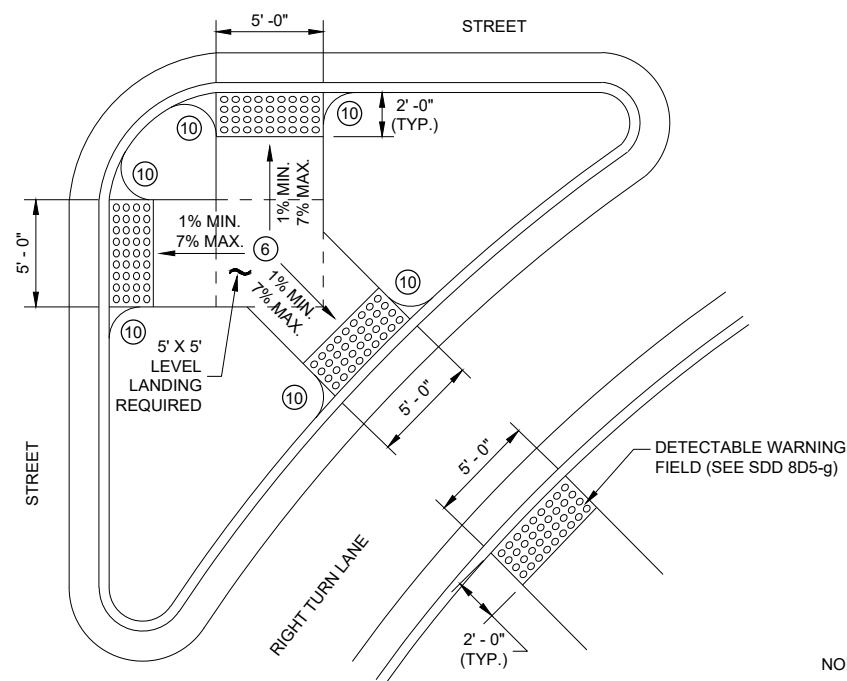
SDD08D05 - 20d

SDD08D05 - 20d



**CURB RAMP TYPE 8**

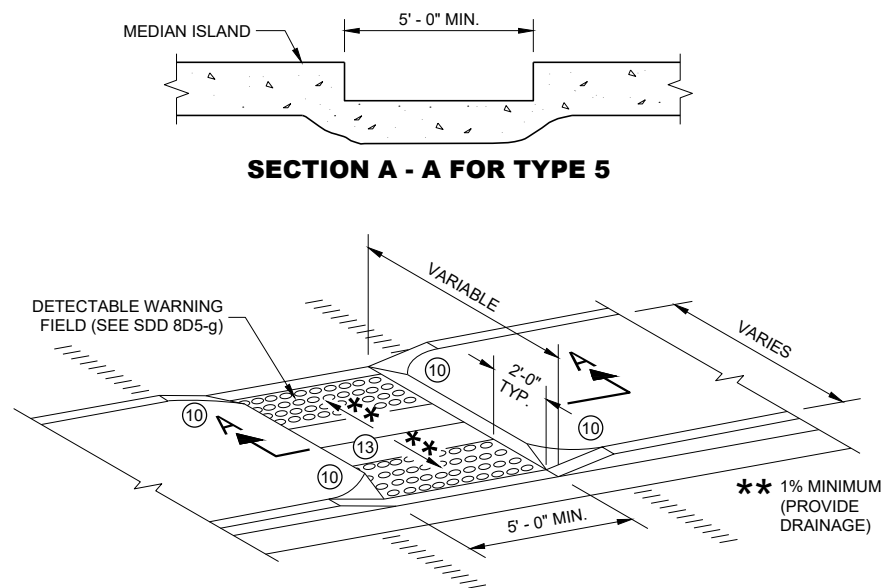
**DETECTABLE WARNINGS AT RAILROAD CROSSING**



**CURB RAMP TYPE 6**

**DETECTABLE WARNING AT ISLANDS**

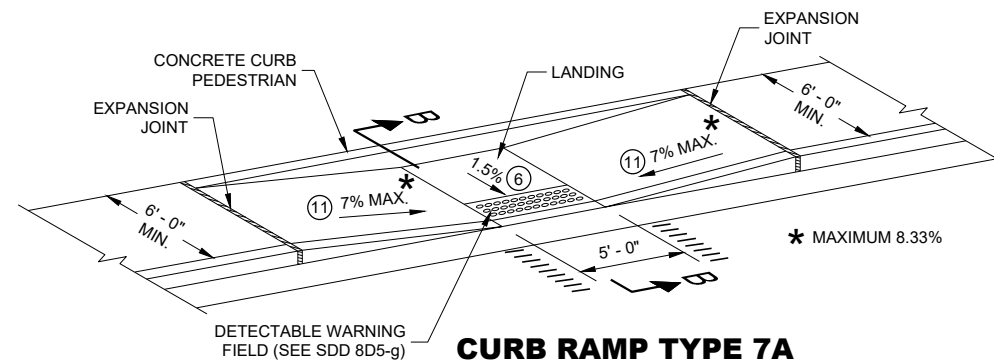
REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



**SECTION A - A FOR TYPE 5**

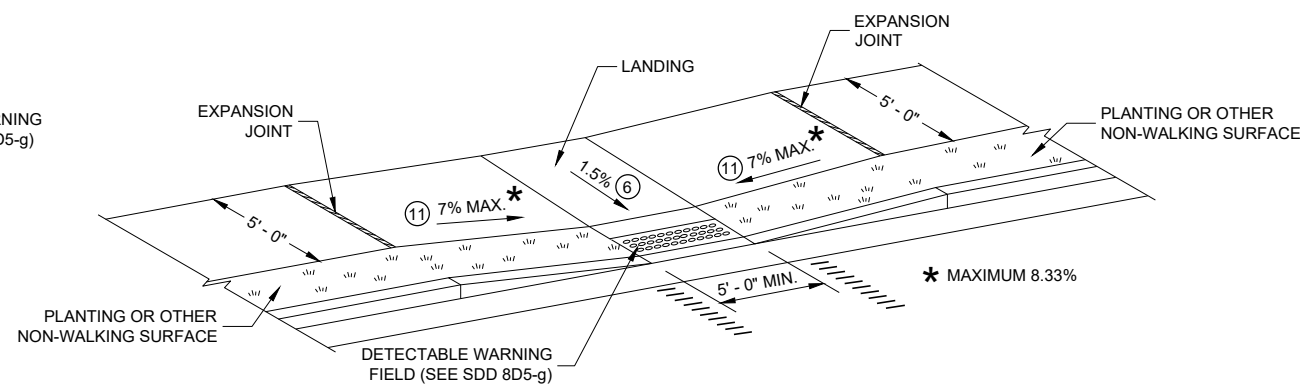
**CURB RAMP TYPE 5**

**MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING**



**CURB RAMP TYPE 7A**

**MID BLOCK CROSSING**



**CURB RAMP TYPE 7B**

**MID BLOCK CROSSING**

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

**GENERAL NOTES**

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

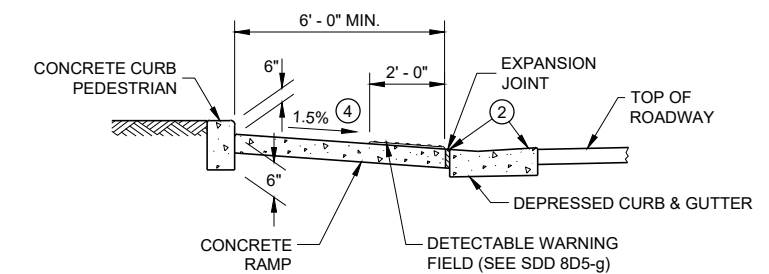
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- (2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- (3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- (4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- (6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- (10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- (11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- (12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- (13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

**LEGEND**

- ===== 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)

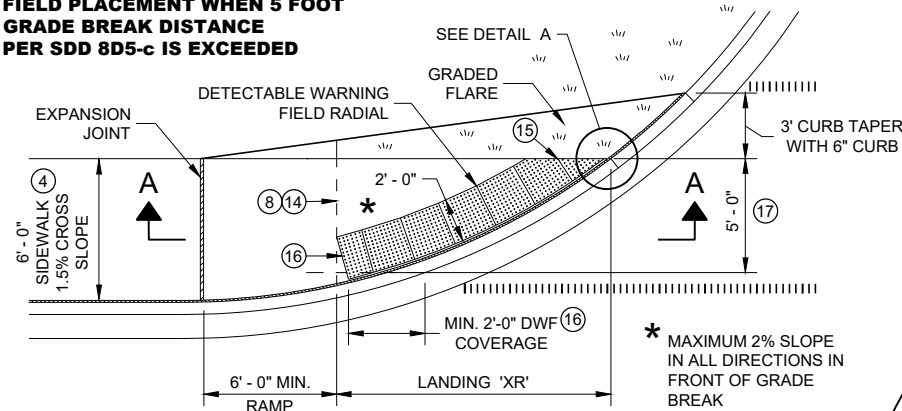


**SECTION B - B FOR TYPE 7A**

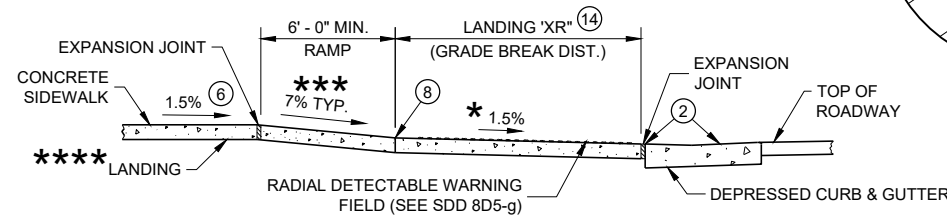
**CURB RAMPS  
TYPE 5, 6, 7A, 7B & 8**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED**



**PLAN VIEW CURB RAMP TYPE 4A1 (GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

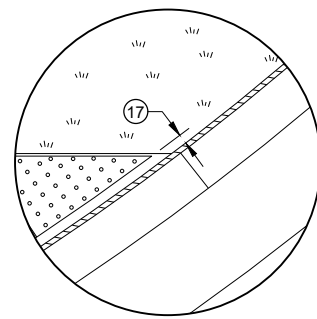


**SECTION A - A FOR TYPE 4A1**

\*\*\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

\*\*\* MAXIMUM 8.33%

- LEGEND**
- 1/2" EXPANSION JOINT SIDEWALK
  - - - - - CONTRACTION JOINT SIDEWALK
  - ||||| PAVEMENT MARKING CROSSWALK (WHITE)

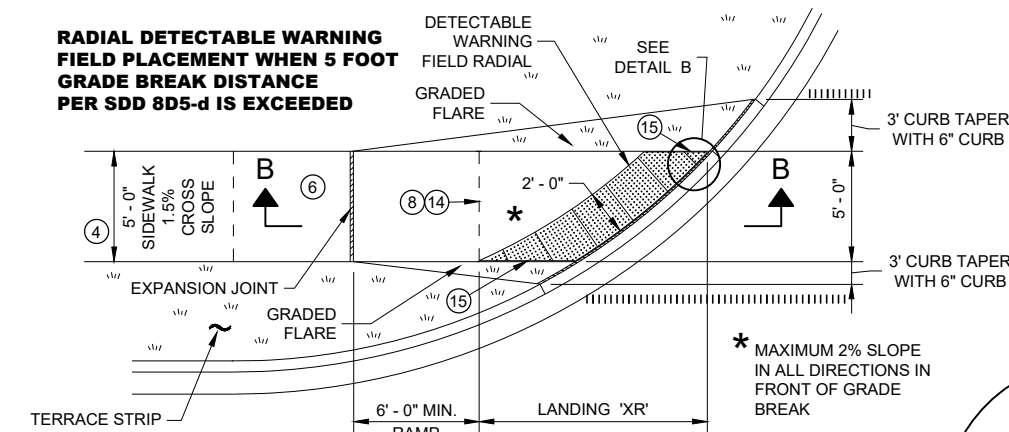


**DETAIL A**

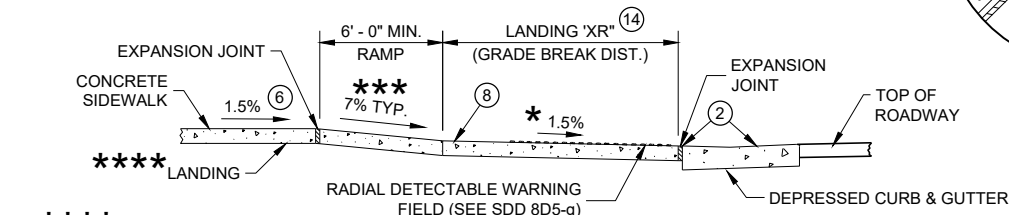
**GENERAL NOTES**

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- 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.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B RAMPS ARE NOT SHOWN.
- REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.
- FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.
- DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.
- 2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
  - 3 AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
  - 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
  - 6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
  - 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
  - 14 CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
  - 15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
  - 16 USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
  - 17 A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

**RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED**



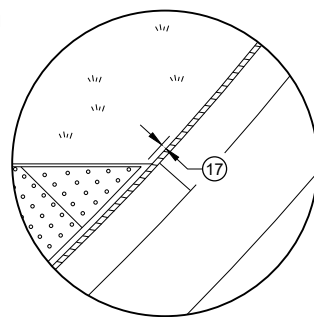
**PLAN VIEW CURB RAMP TYPE 4B1 (GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



**SECTION B - B FOR TYPE 4B1**

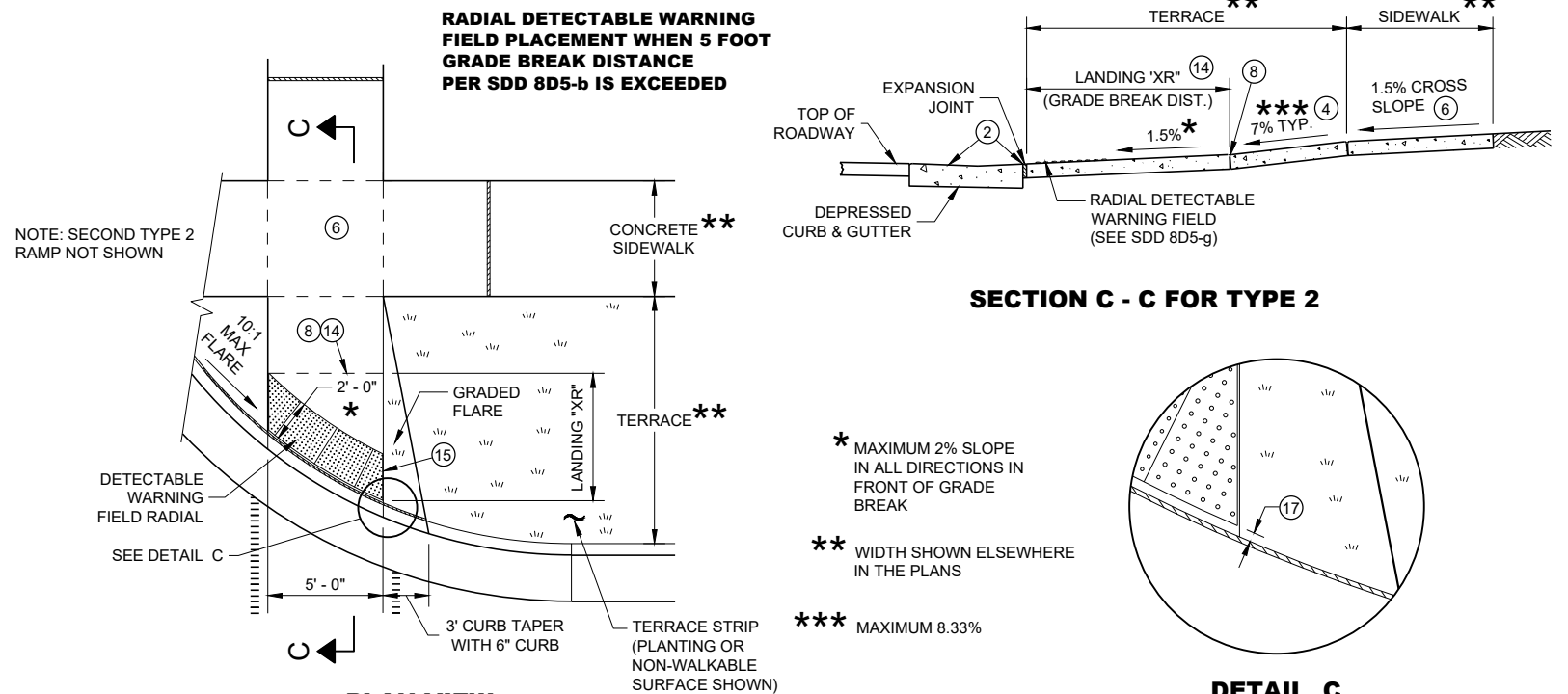
\*\*\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

\*\*\* MAXIMUM 8.33%



**DETAIL B**

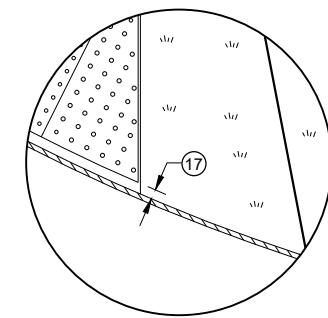
**RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED**



**PLAN VIEW CURB RAMP TYPE 2 (GRADE BREAK DISTANCE GREATER THAN 5 FEET) (ON LINE WITH SIDEWALK)**

NOTE: SECOND TYPE 2 RAMP NOT SHOWN

- \* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- \*\* WIDTH SHOWN ELSEWHERE IN THE PLANS
- \*\*\* MAXIMUM 8.33%



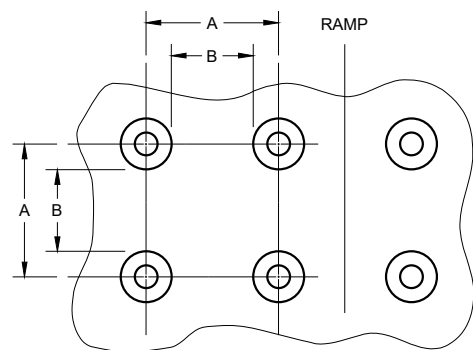
**DETAIL C**

**CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS**

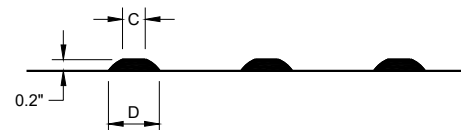
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

\* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

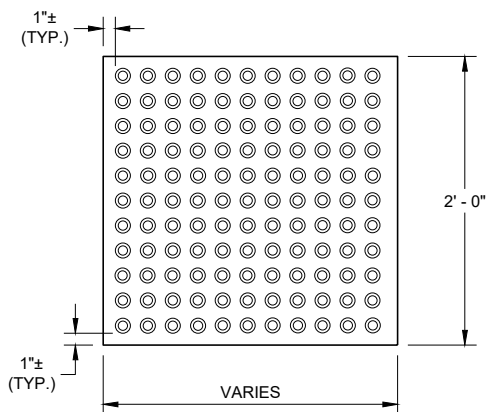


PLAN VIEW

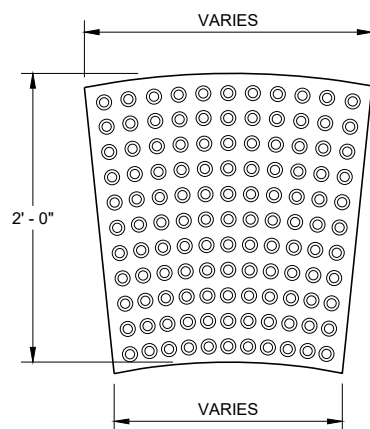


ELEVATION VIEW

**TRUNCATED DOMES  
DETECTABLE WARNING PATTERN DETAIL**

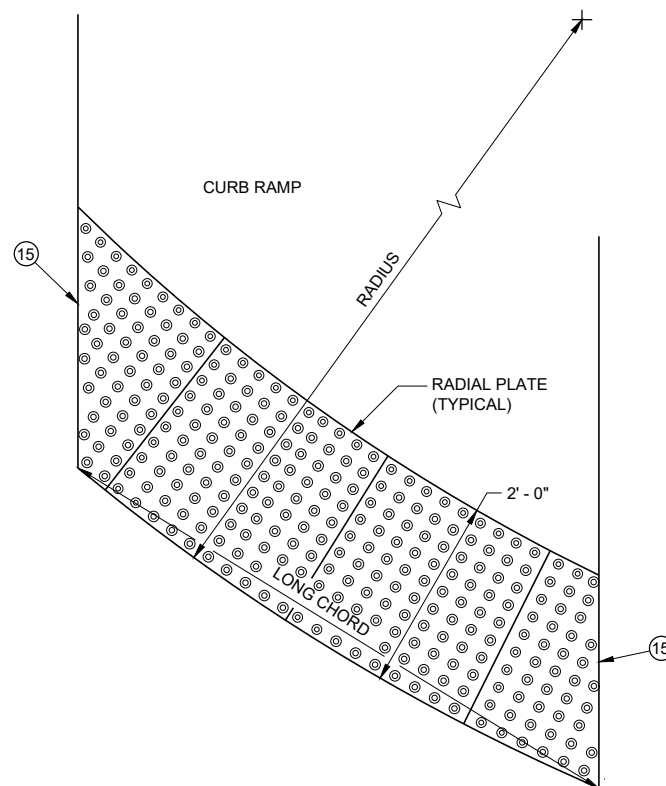


RECTANGULAR  
PLATES

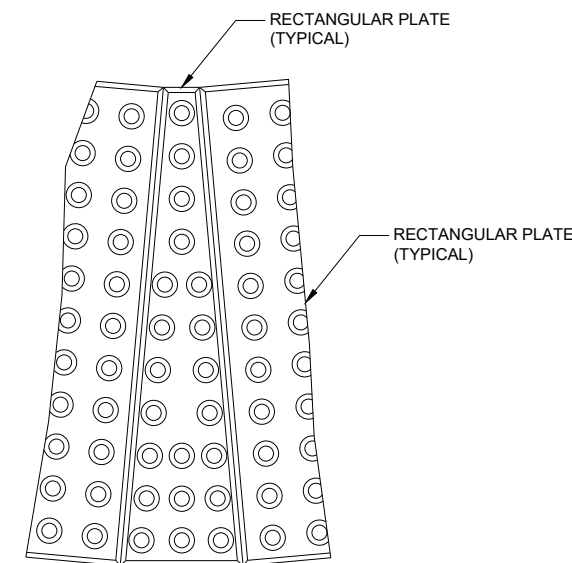


RADIAL  
PLATES

PLAN VIEW  
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW  
RADIAL DETECTABLE  
WARNING FIELD ATTRIBUTES



PLAN VIEW  
RADIAL WEDGE PLATE  
CONNECTION DETAIL

**GENERAL NOTES**

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

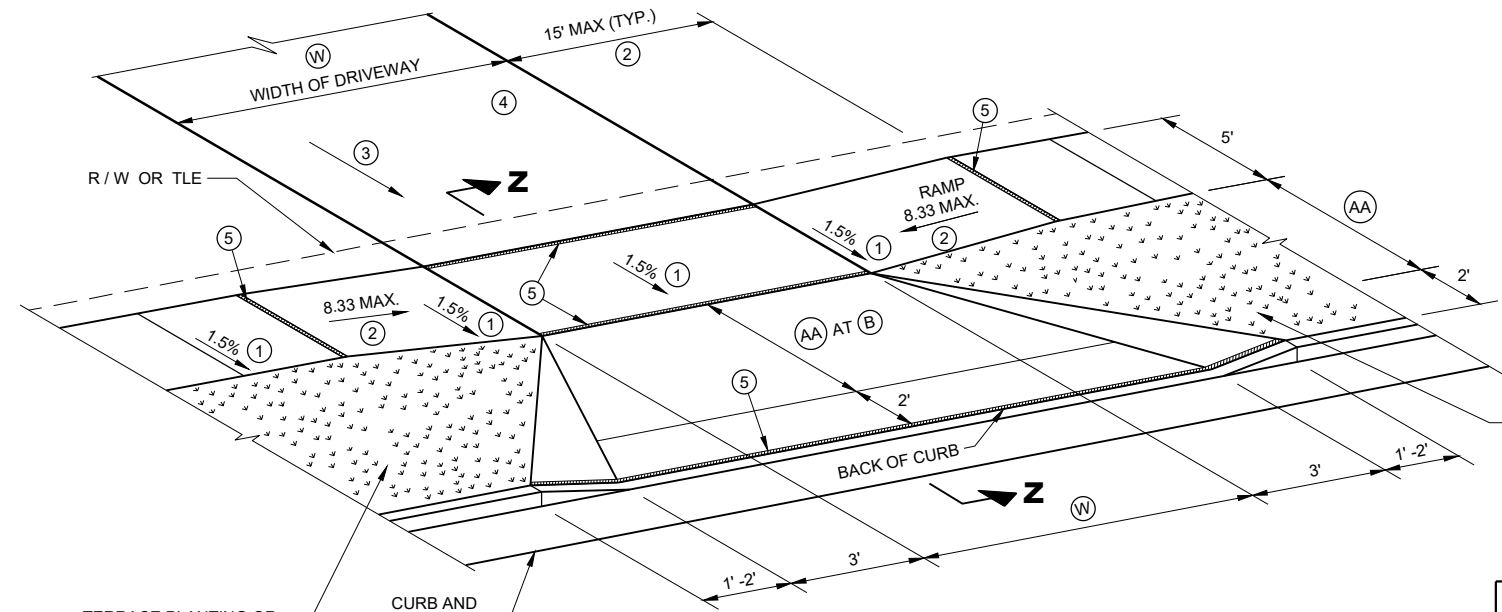
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

<b>CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
<small>FHWA</small>	



**TYPE Z**  
**SIDEWALK WITH WIDER TERRACE**  
**TERRACE VARIES 7 TO 12 FEET**

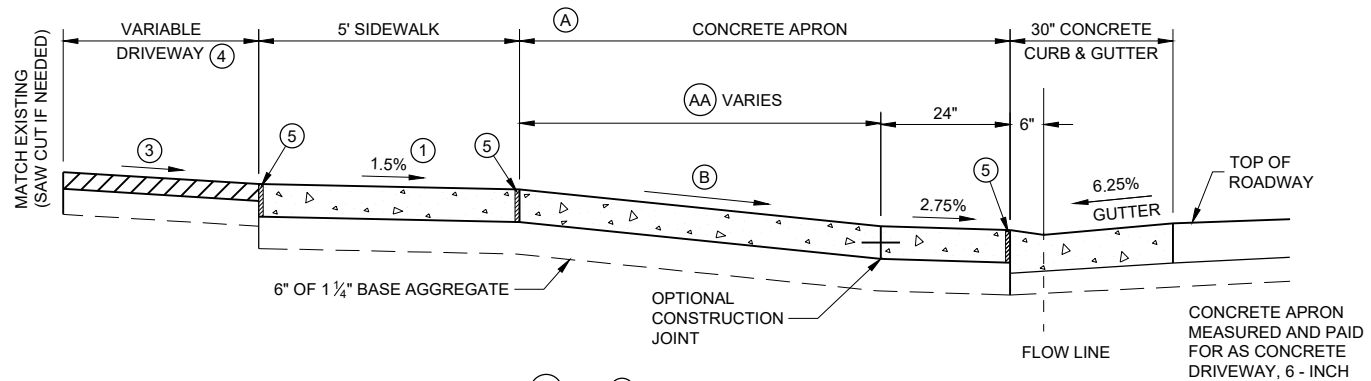
**GENERAL NOTES**

- PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.
- (W) IS SHOWN ON PLAN AND PROFILE SHEETS.
- OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.
- CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
  - THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.
  - DRIVEWAY SLOPES: DESIRABLE MAXIMUM**  
 10.5% UP AWAY FROM SIDEWALK (SAG)  
 8.5% DOWN AWAY FROM SIDEWALK (CREST)  
 ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG
  - DRIVEWAY TYPES**  
 · 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE  
 · 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE  
 · 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)
  - ½" EXPANSION JOINT FILLER.

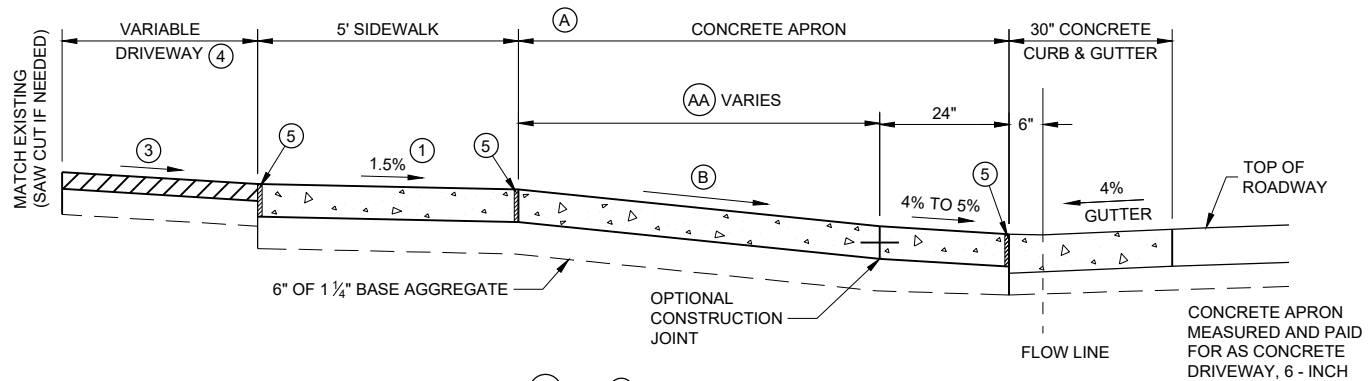
**TABLE Z**

(AA) FEET	(B) % 6.25% GUTTER	(B) % 4% GUTTER
4.5'	11.5%	9% TO 11.5%
5.5'	9% TO 11.5%	8% TO 11.5%
6.5'	8% TO 11.5%	6% TO 11.5%
7.5'	7% TO 11.5%	6% TO 11.5%
8.5'	6% TO 11.5%	5% TO 11.5%
9.5'	5% TO 11.5%	4% TO 11.5%

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)  
 16' MIN. - 35' MAX. COMMERCIAL (CE)



**6.25% GUTTER SLOPE**



**4% GUTTER SLOPE**

NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS FOR (B) VALUES NOT SHOWN IN TABLE Z.  
 SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.  
 SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

**SECTION Z - Z**  
**DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER**  
**(URBAN AND SUBURBAN)**

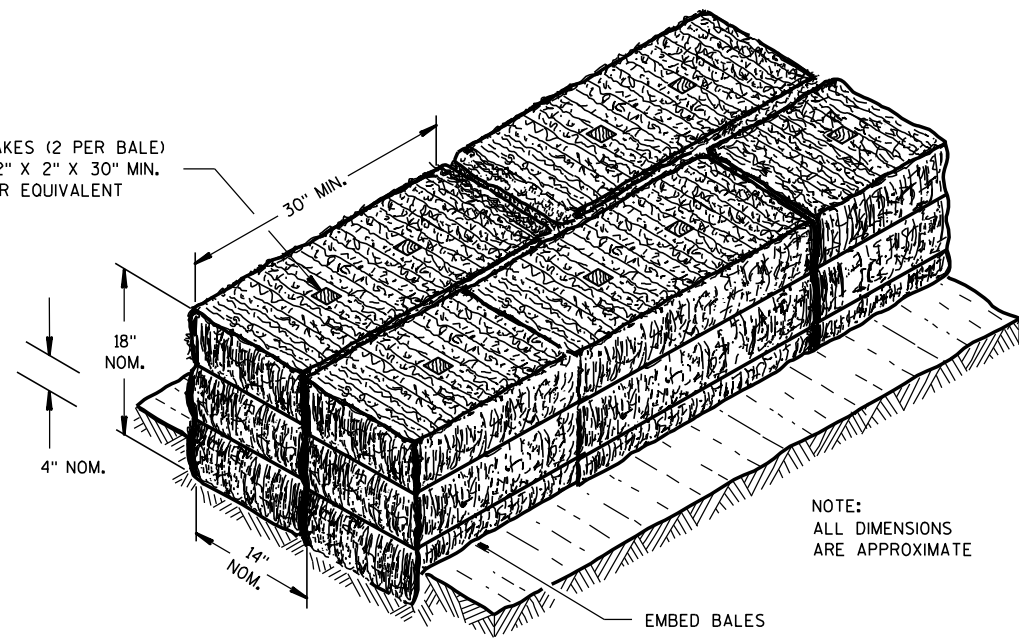
**DRIVEWAY AND SIDEWALK RAMPS TYPE Z**

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

APPROVED  
 February 2022 DATE /S/ Rodney Taylor  
 ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

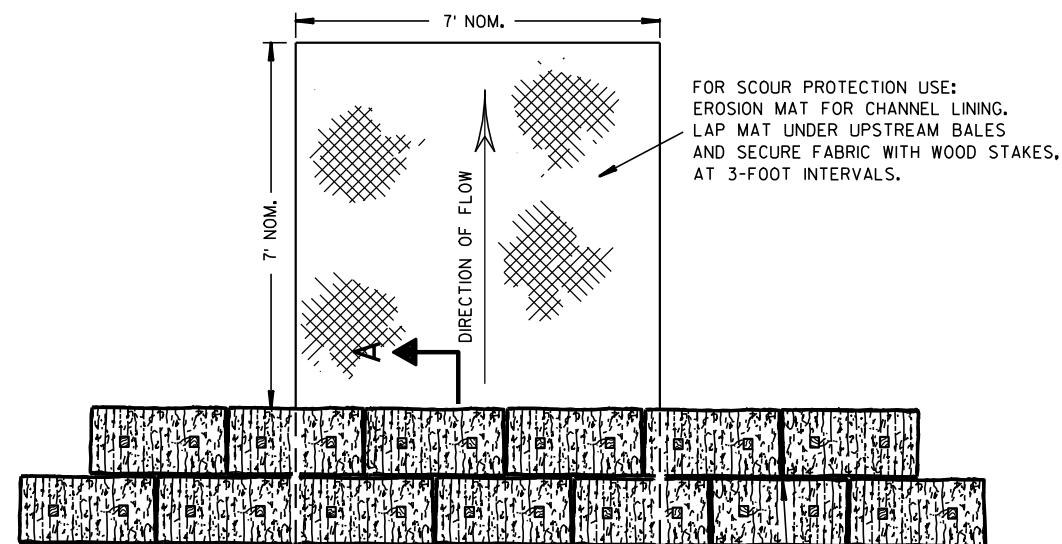
WOOD STAKES (2 PER BALE)  
NOMINAL 2" X 2" X 30" MIN.  
LENGTH OR EQUIVALENT



SECTION A-A

NOTE:  
ALL DIMENSIONS  
ARE APPROXIMATE

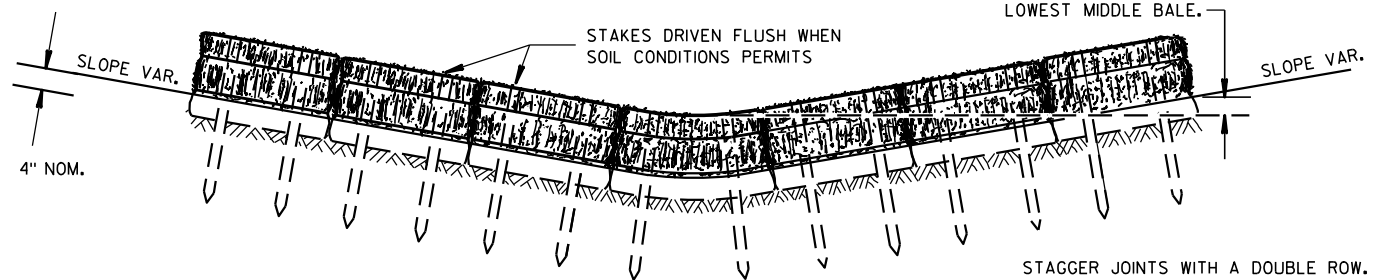
EMBED BALES



PLAN VIEW

STAGGER JOINTS BETWEEN ADJACENT  
ROWS OF BALES.

BOTTOM ELEVATION OF END BALE SHALL  
BE EQUAL TO OR GREATER THAN TOP OF  
LOWEST MIDDLE BALE.



FRONT ELEVATION

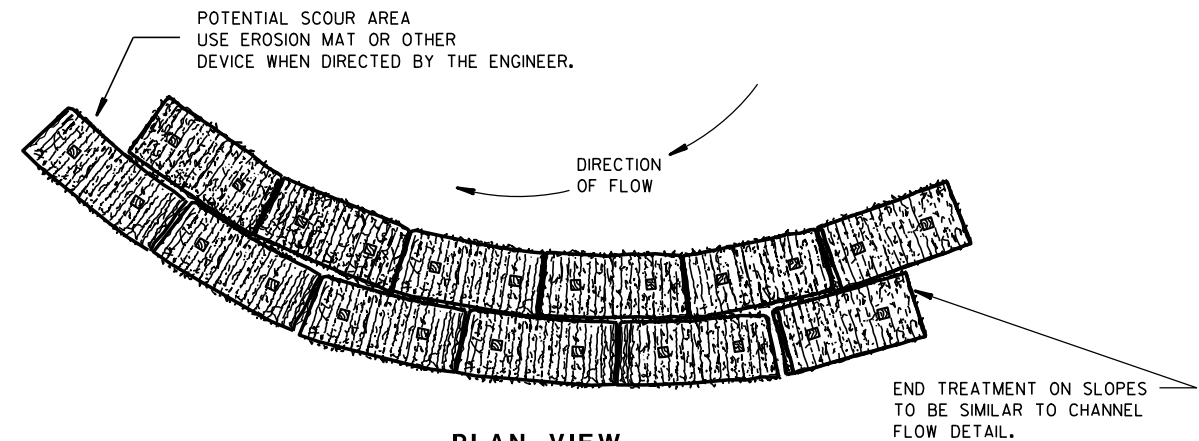
STAGGER JOINTS WITH A DOUBLE ROW.

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

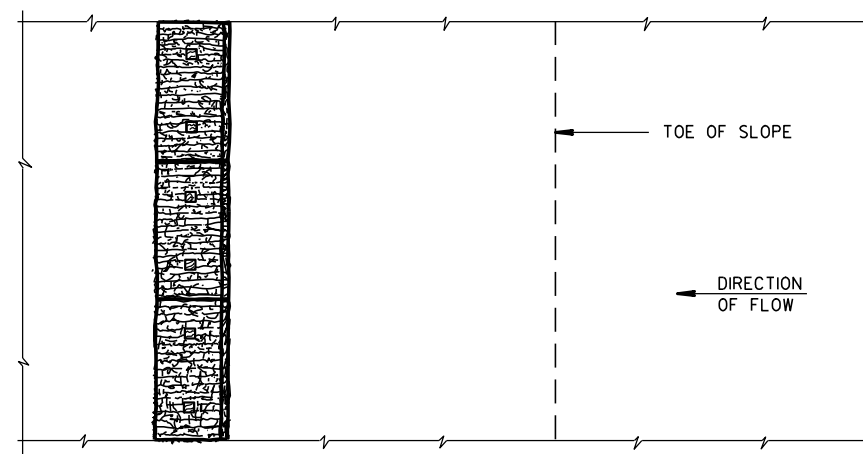
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

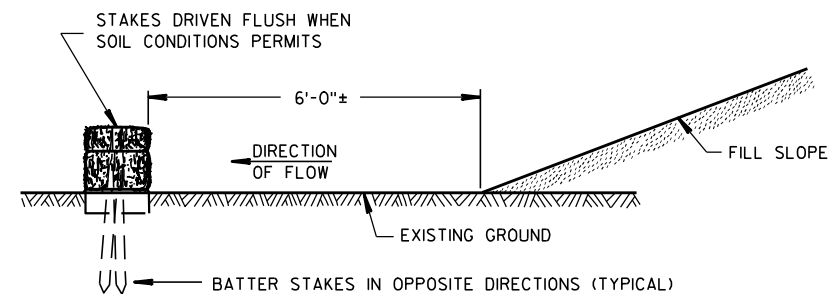


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

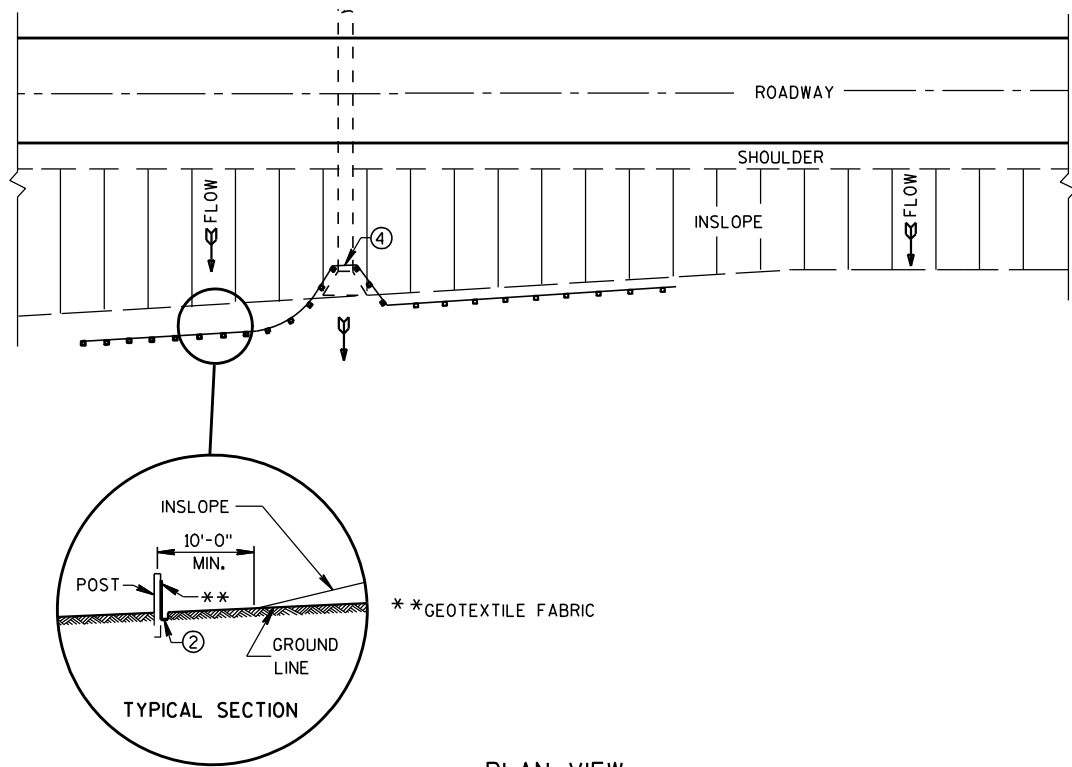
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

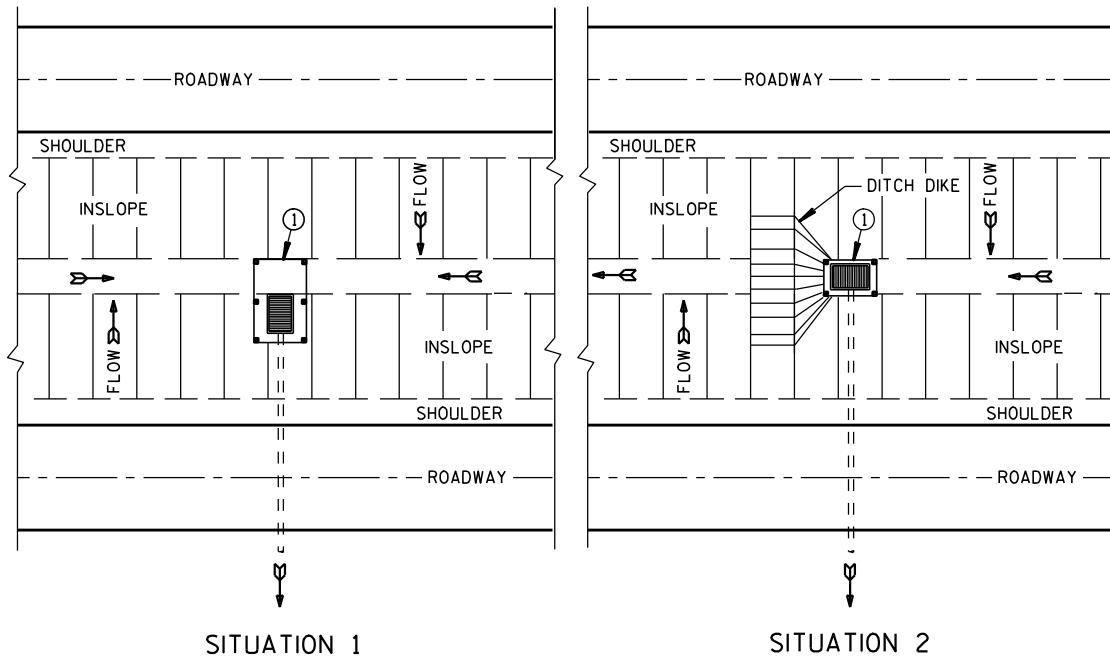
TYPICAL INSTALLATIONS OF  
EROSION BALES / TEMPORARY  
DITCH CHECKS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW  
TYPICAL APPLICATION OF SILT FENCE

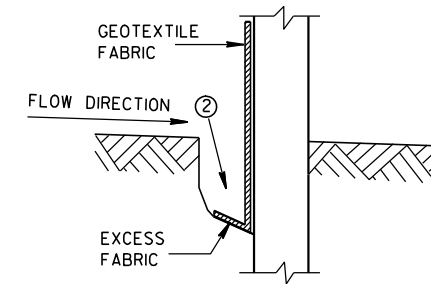


SITUATION 1 SITUATION 2  
PLAN VIEW  
SILT FENCE AT MEDIAN SURFACE DRAINS

**GENERAL NOTES**

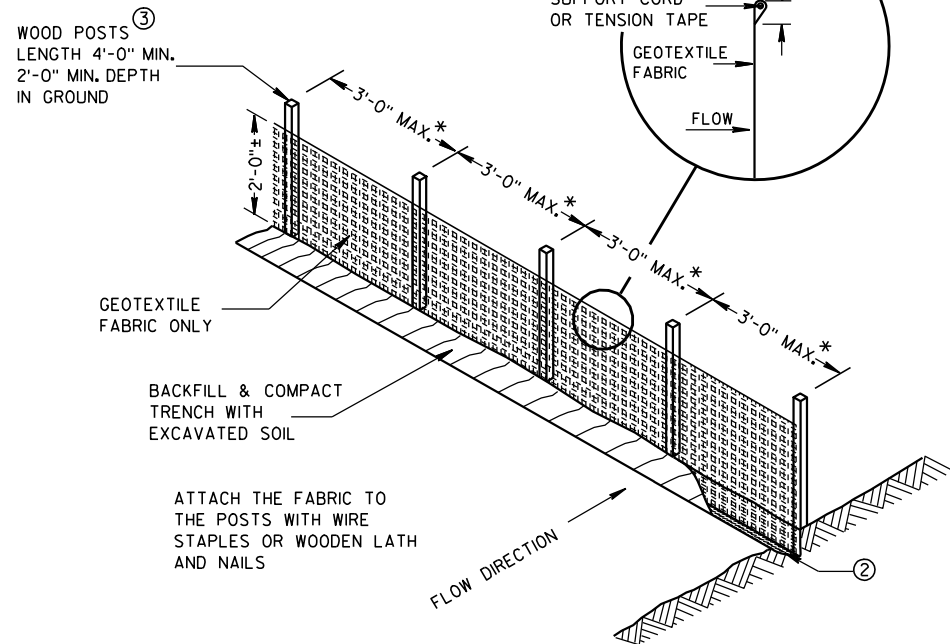
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

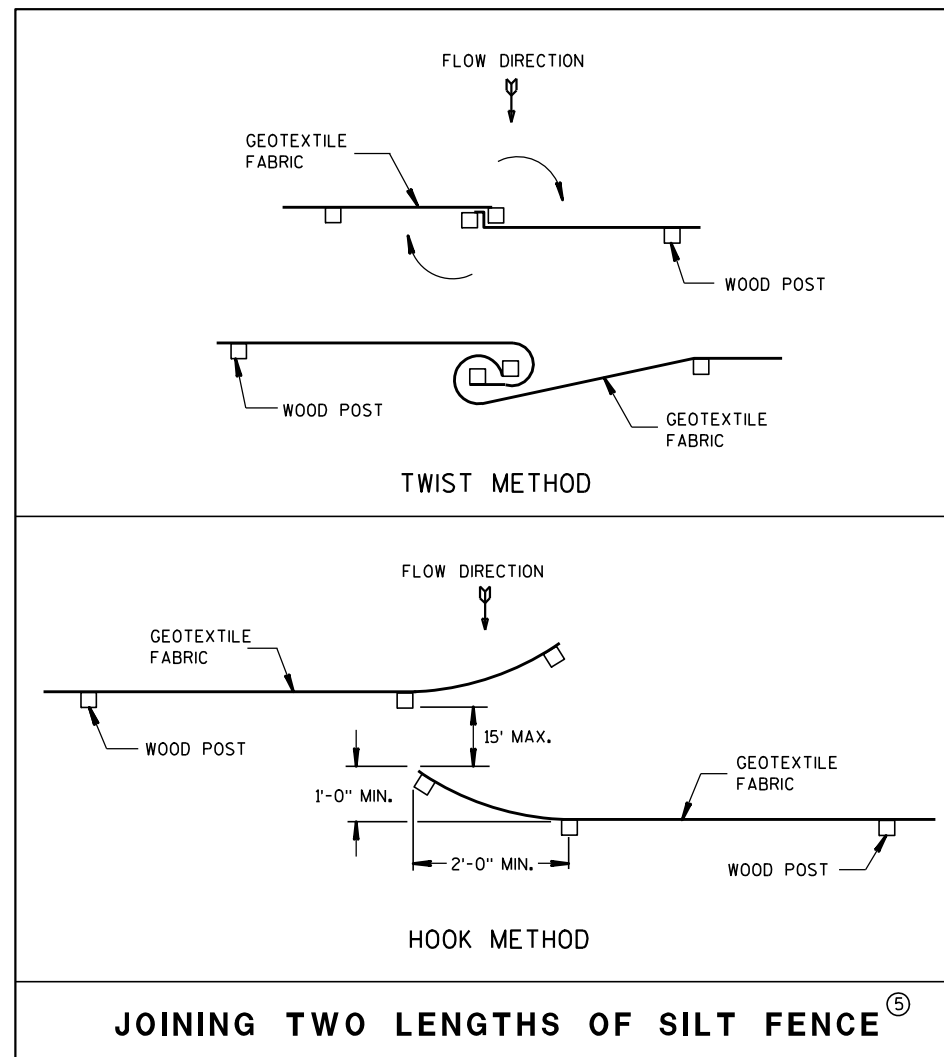


TRENCH DETAIL

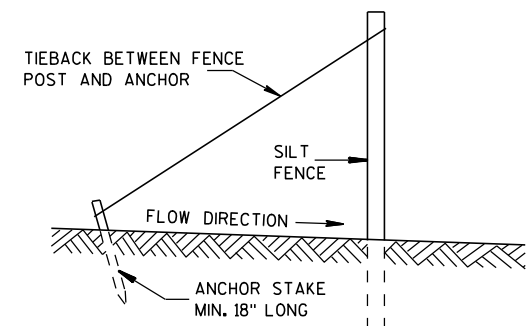
NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤

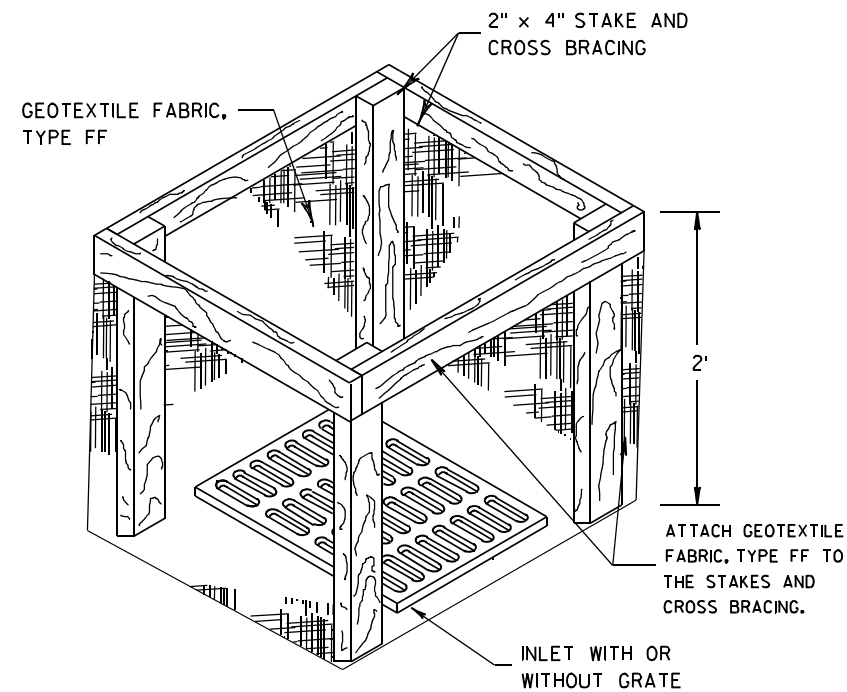
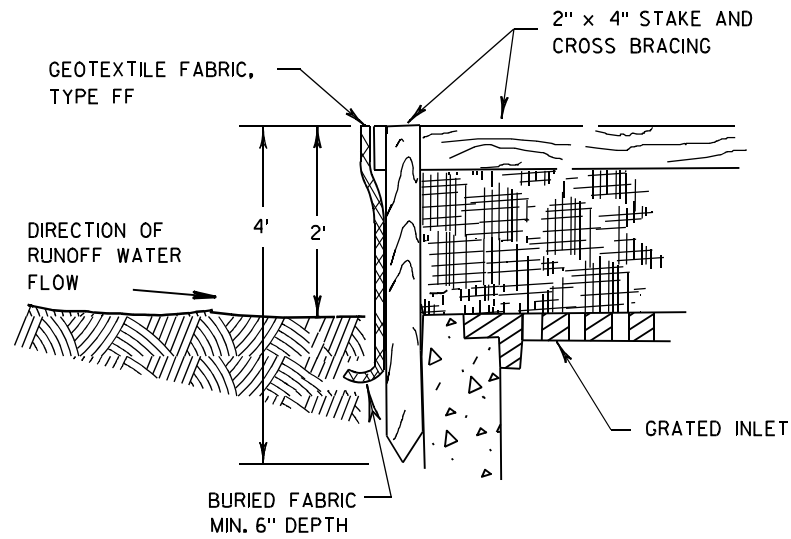


SILT FENCE TIE BACK  
(WHEN REQUIRED BY THE ENGINEER)

**SILT FENCE**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



**INLET PROTECTION, TYPE A**

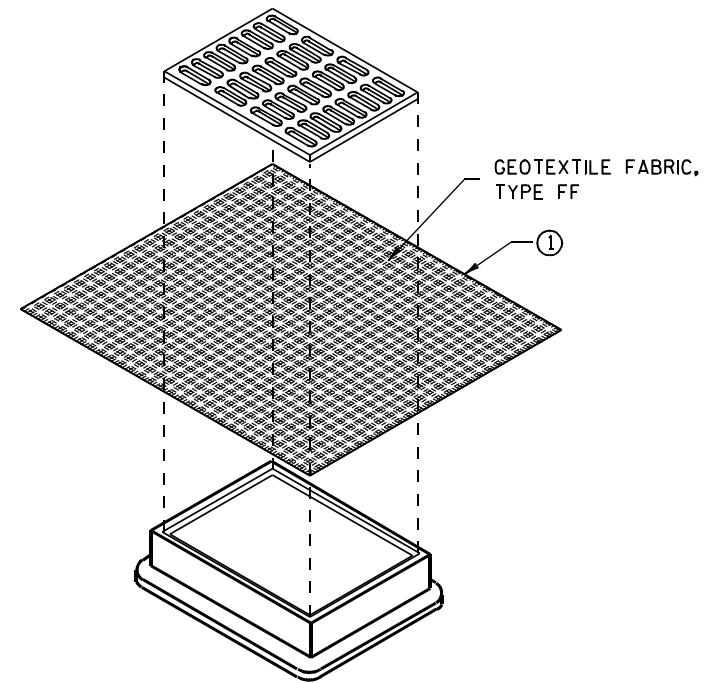
**GENERAL NOTES**

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.

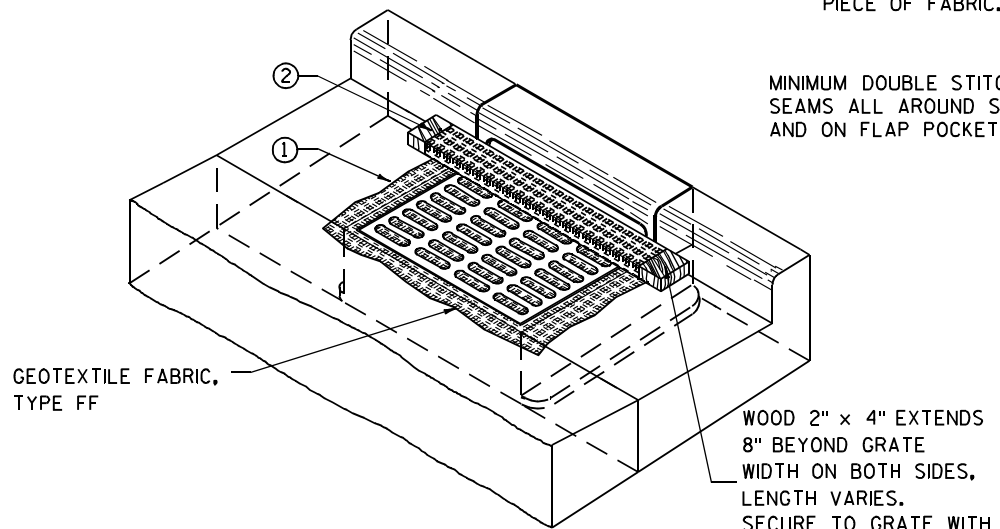
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

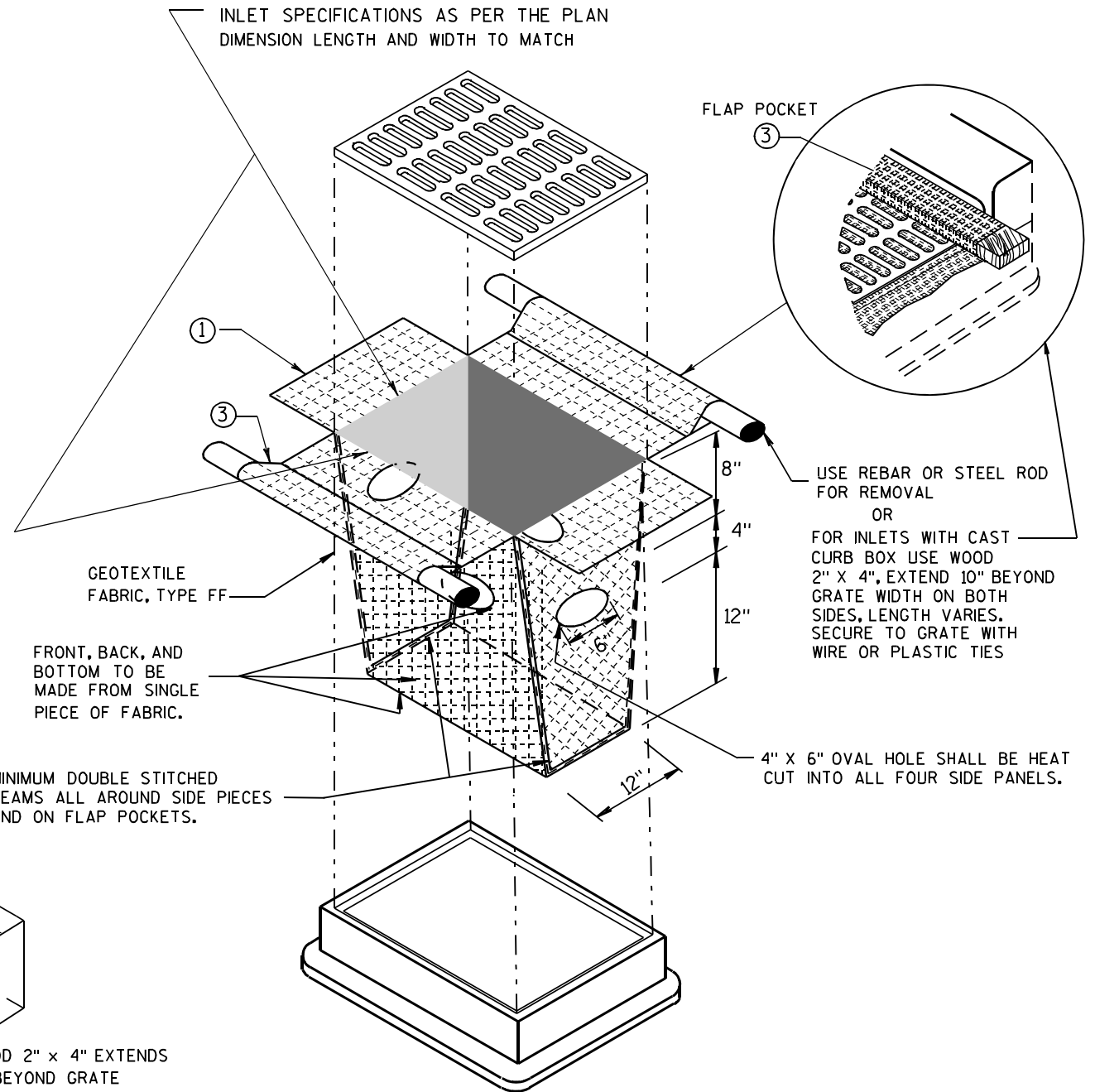
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

**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.

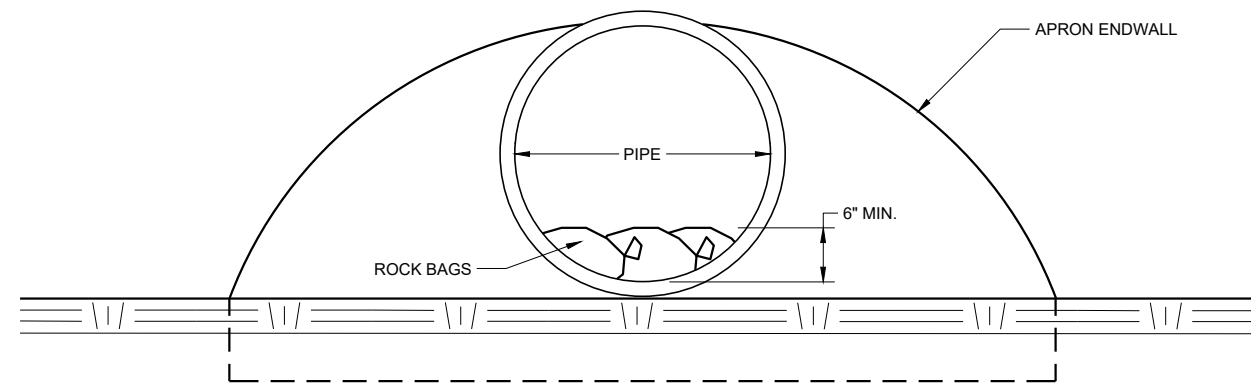


**INLET PROTECTION, TYPE D**

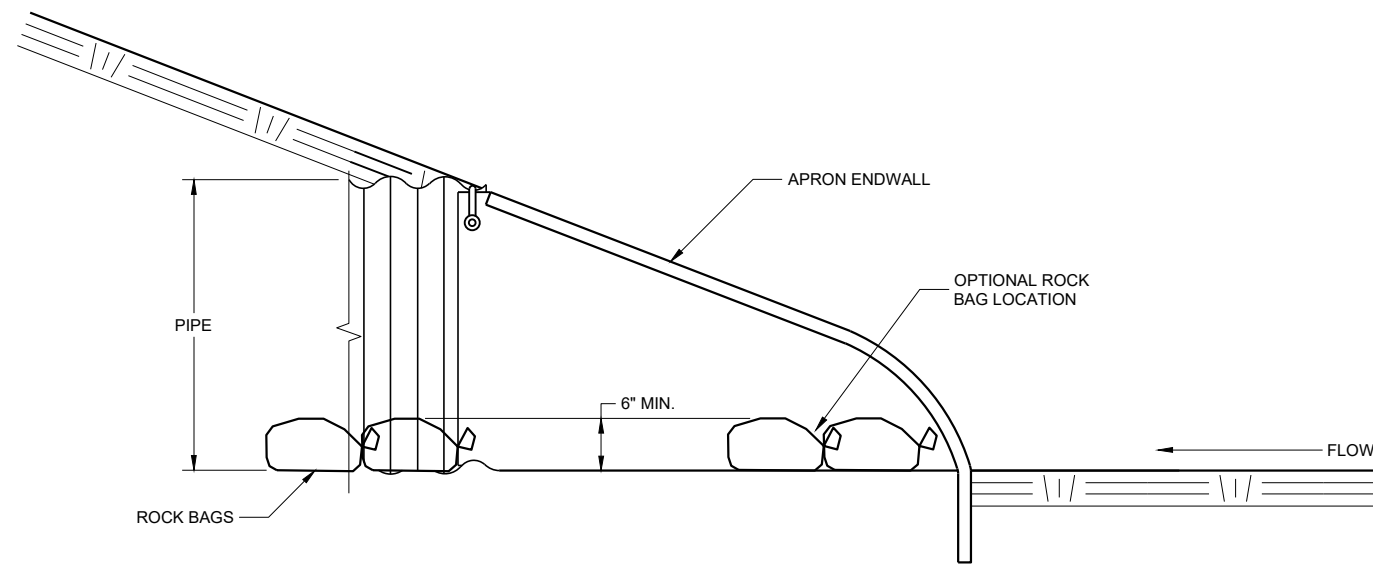
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

<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

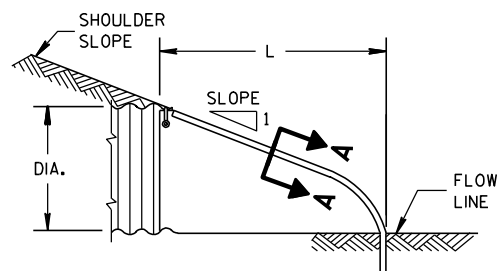
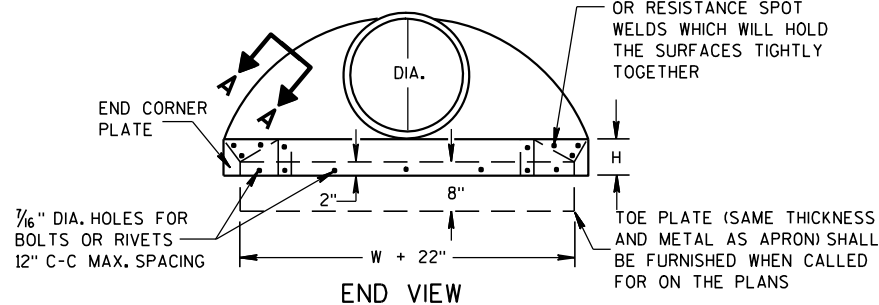
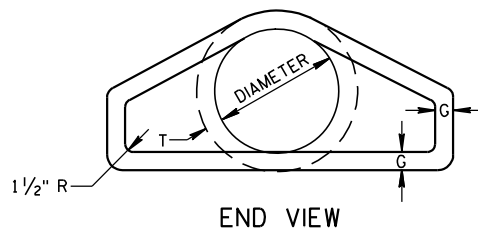
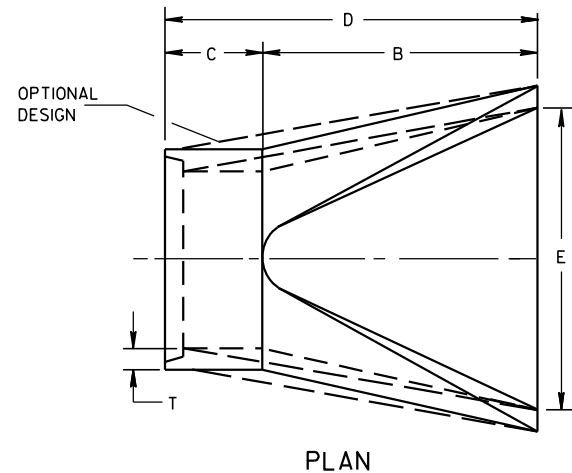
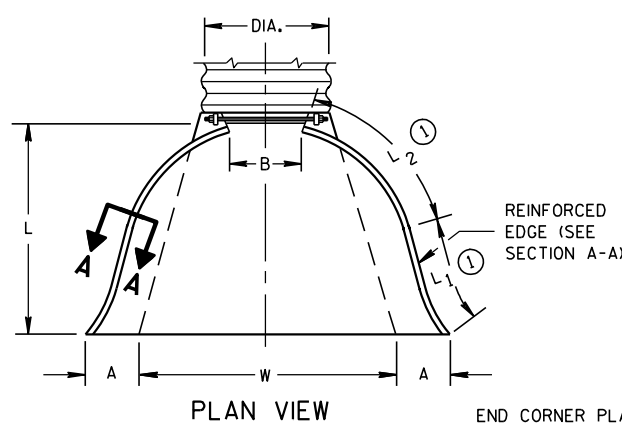
FHWA

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 (1)	L2 (1)	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.

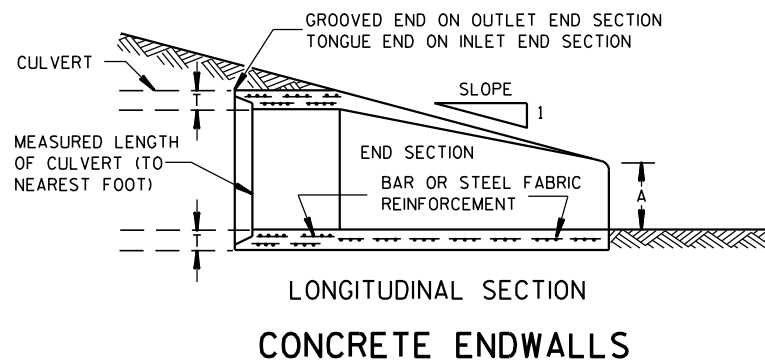
\* EXCEPT CENTER PANEL SEE GENERAL NOTES

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	30-35	72-78	21-27	99	102	5 1/2	2 to 1	
72	7	30-35	78	21	99	108	6	2 to 1	
78	7 1/2	30-35	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

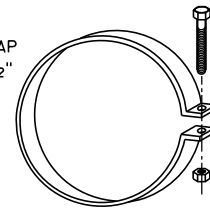


SIDE ELEVATION  
METAL ENDWALLS

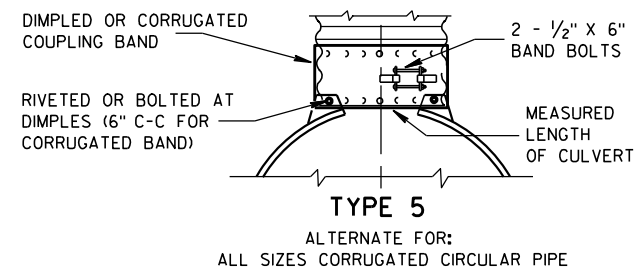
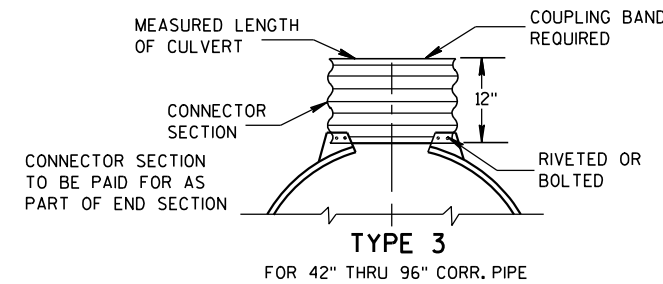
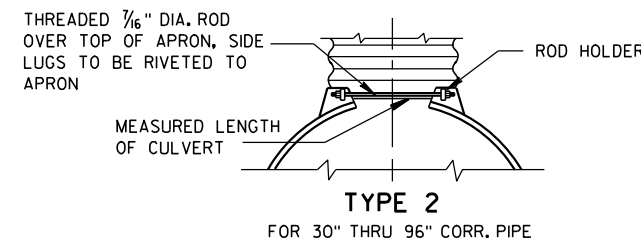
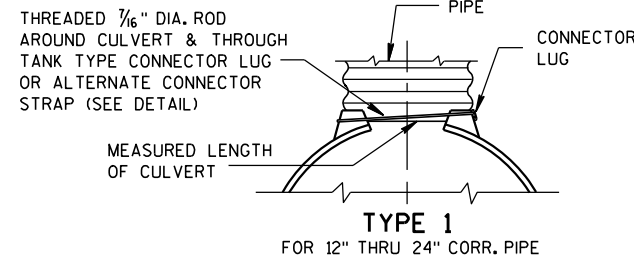


LONGITUDINAL SECTION  
CONCRETE ENDWALLS

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



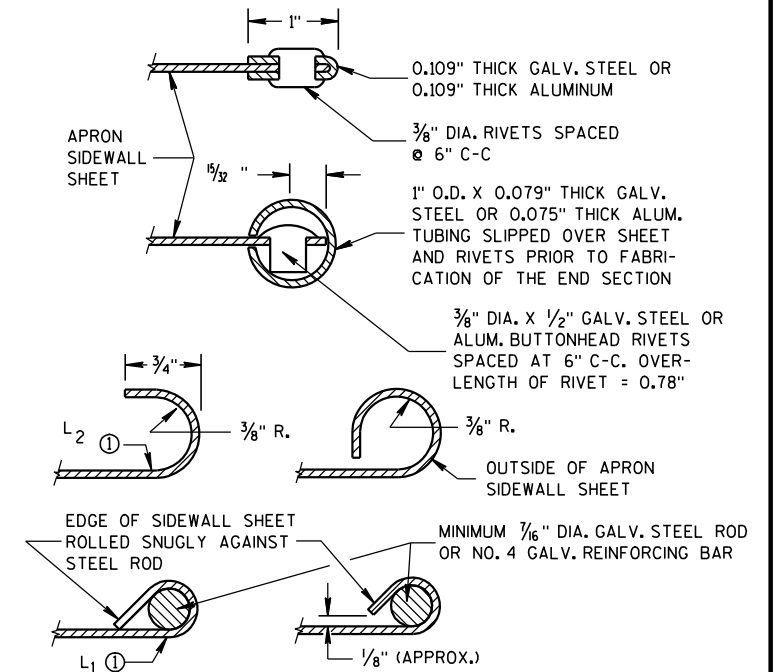
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

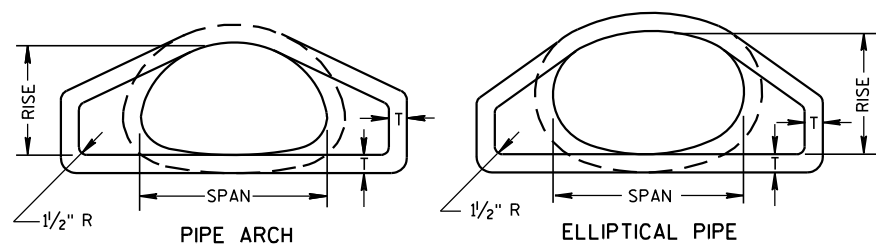
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

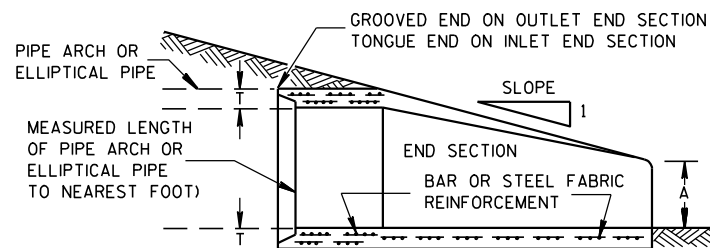
### APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

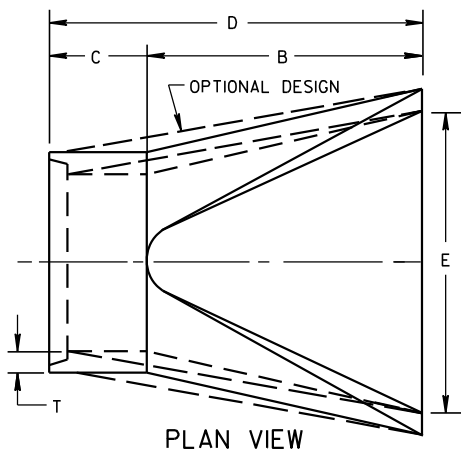


END VIEW



LONGITUDINAL SECTION

CONCRETE ENDWALLS



PLAN VIEW

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A	B	H	L	L1	L2	W		
					(±1")	(MAX.)	(±1")	(±1 1/2")	⊙	⊙	(±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.

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A	B	H	L	L1	L2	W		
					(±1")	(MAX.)	(±1")	(±1 1/2")	⊙	⊙	(±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

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	
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 5/16	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	

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	
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.

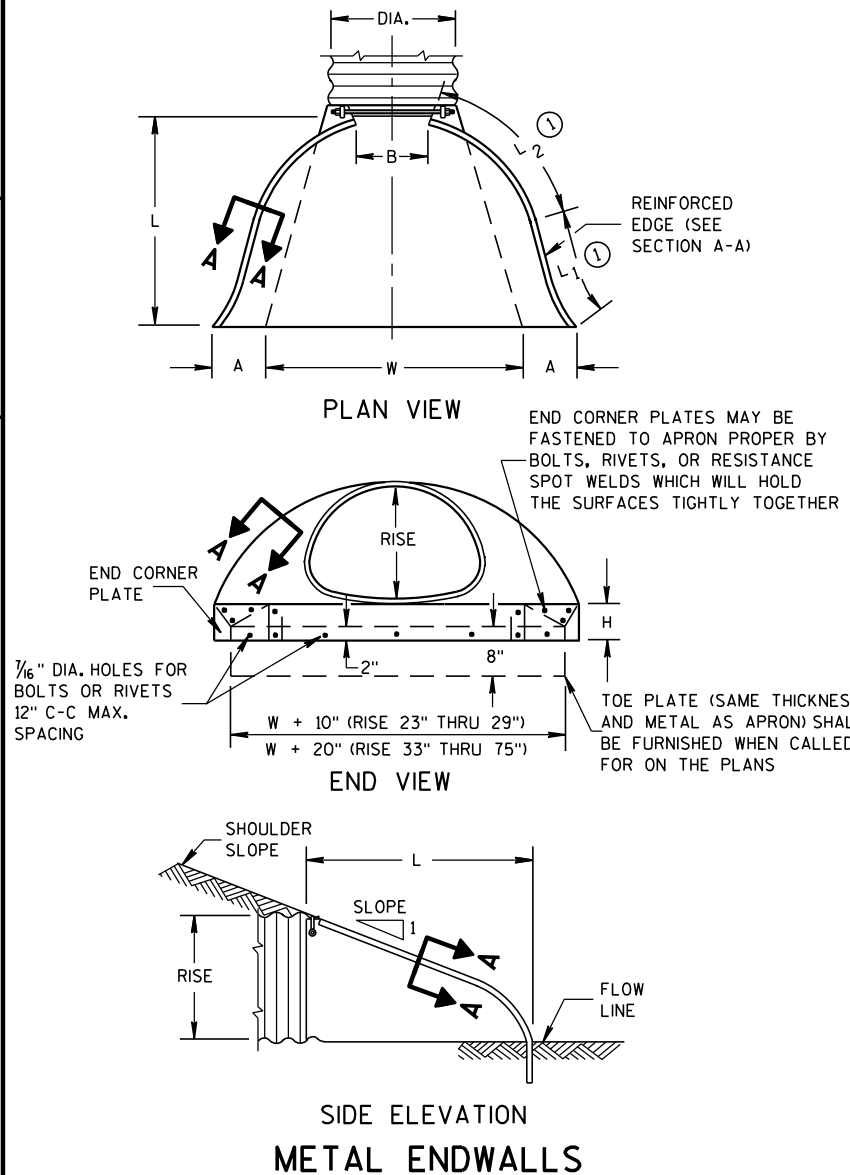
CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

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.

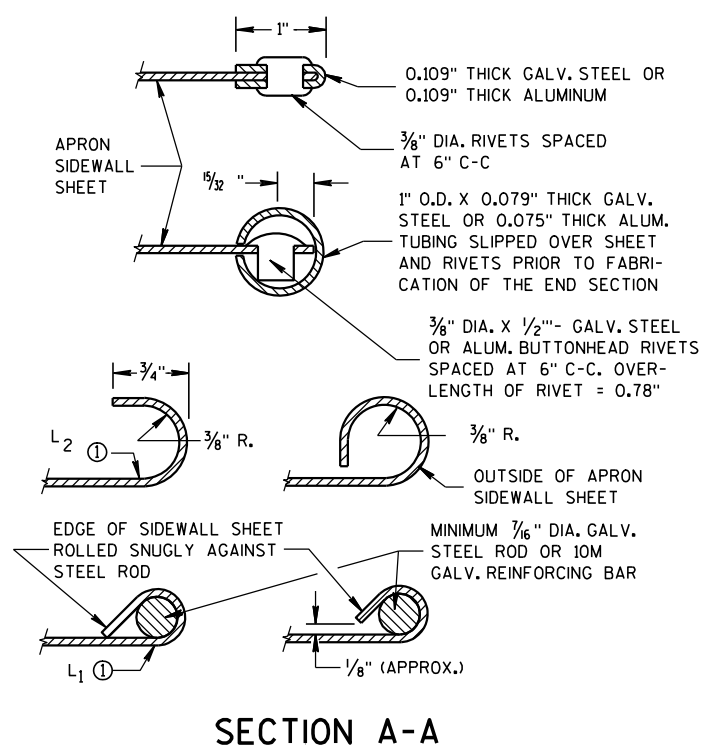
LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER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

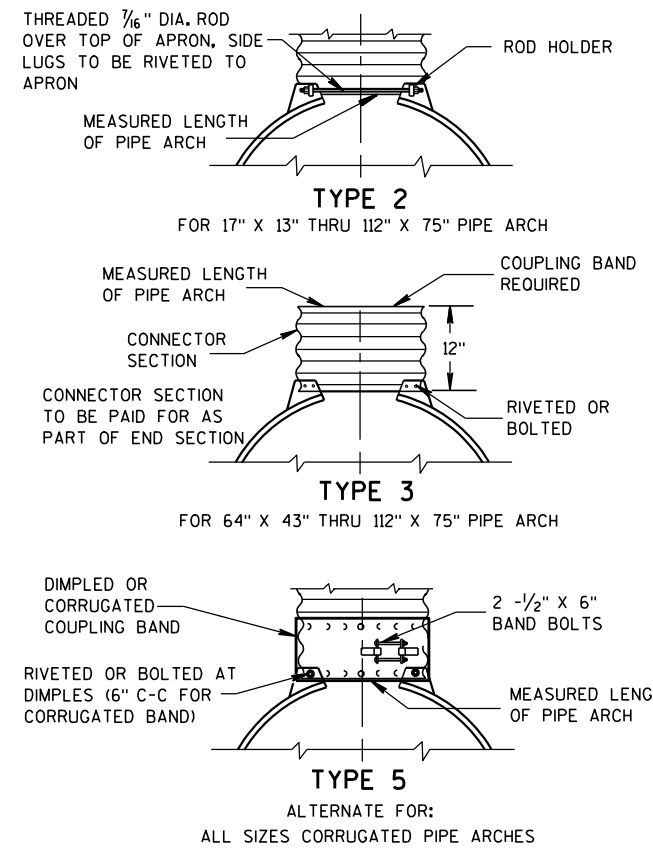
① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.



METAL ENDWALLS



SECTION A-A



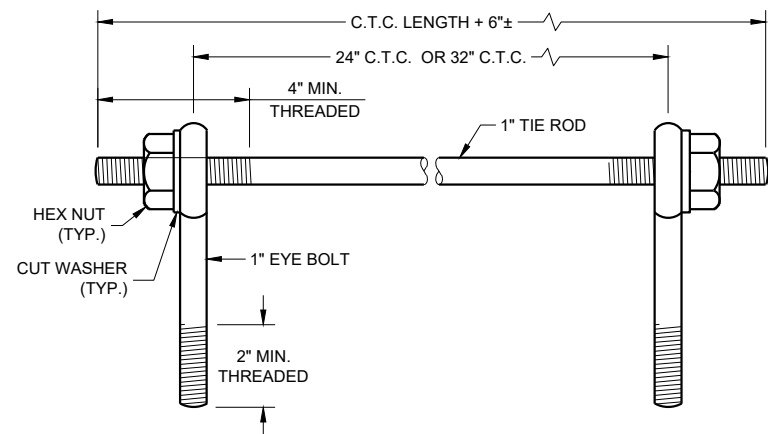
CONNECTION DETAILS

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

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

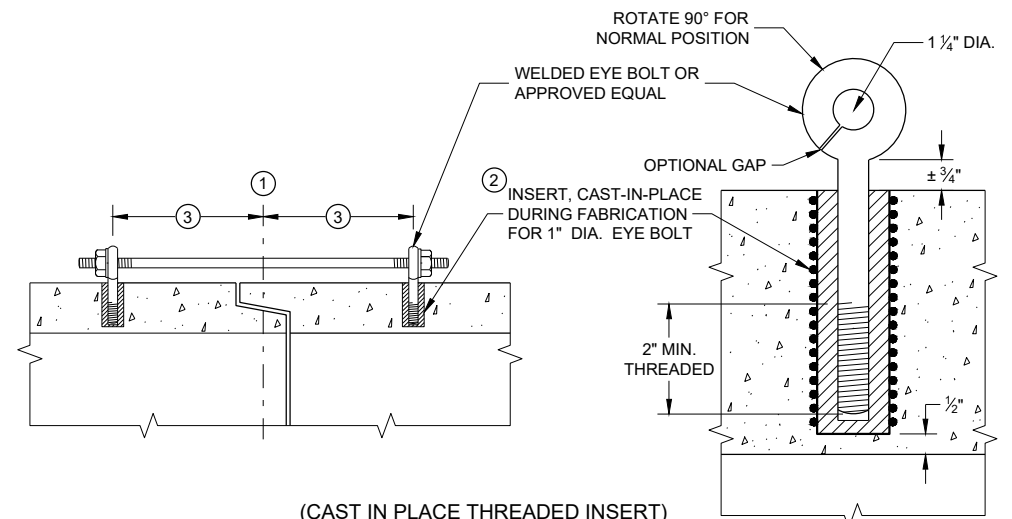
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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)**



(CAST IN PLACE THREADED INSERT)  
**LONGITUDINAL SECTIONS**

**GENERAL NOTES**

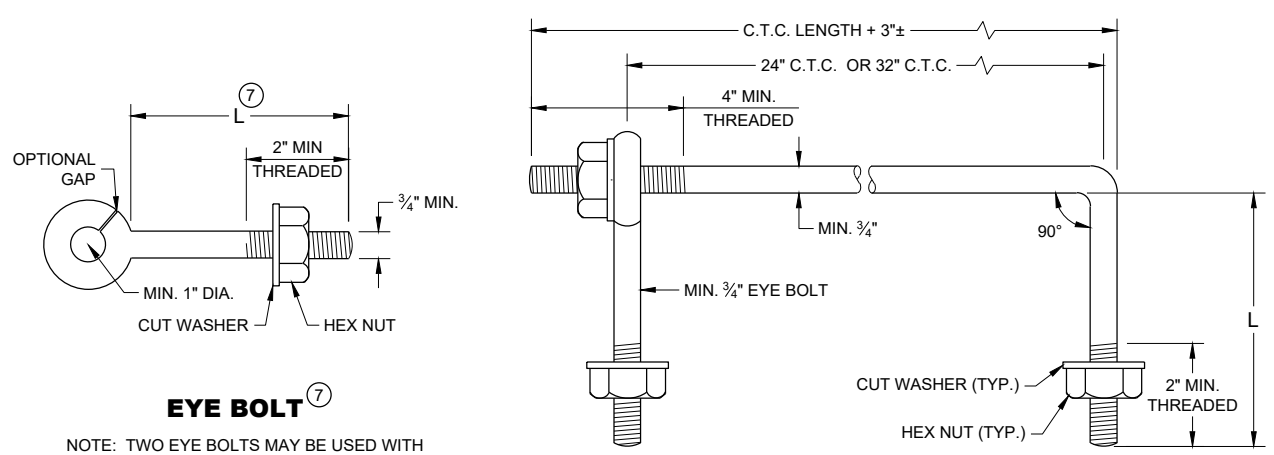
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

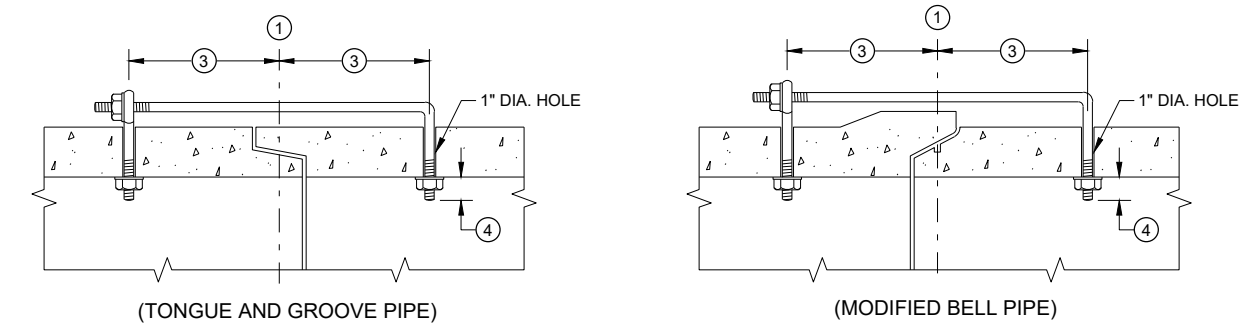


**EYE BOLT AND TIE ROD**

**EYE BOLT AND TIE ROD**

**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.



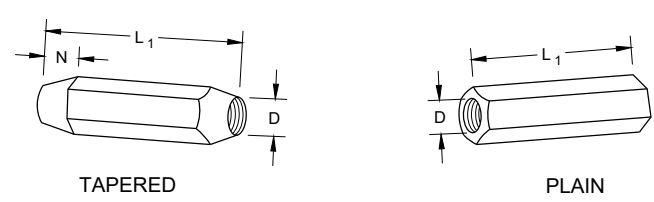
**LONGITUDINAL SECTION**  
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

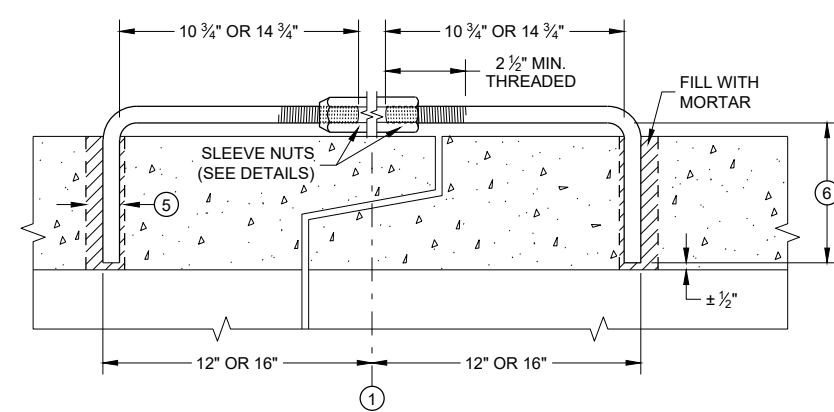
**ADJUSTABLE TIE ROD TABLE**

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

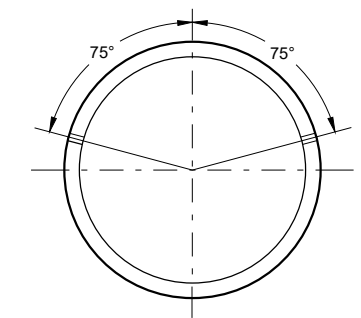


**RIGHT AND LEFT THREADS SLEEVE NUTS**



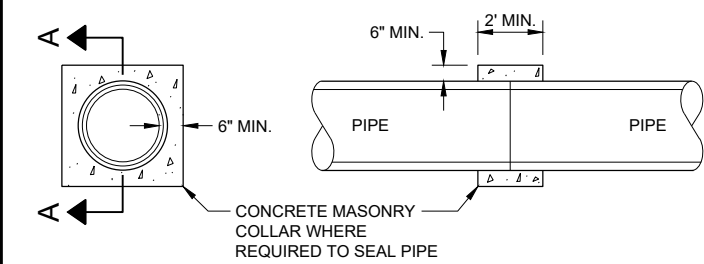
**LONGITUDINAL SECTION**

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



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

**TRANSVERSE SECTION**

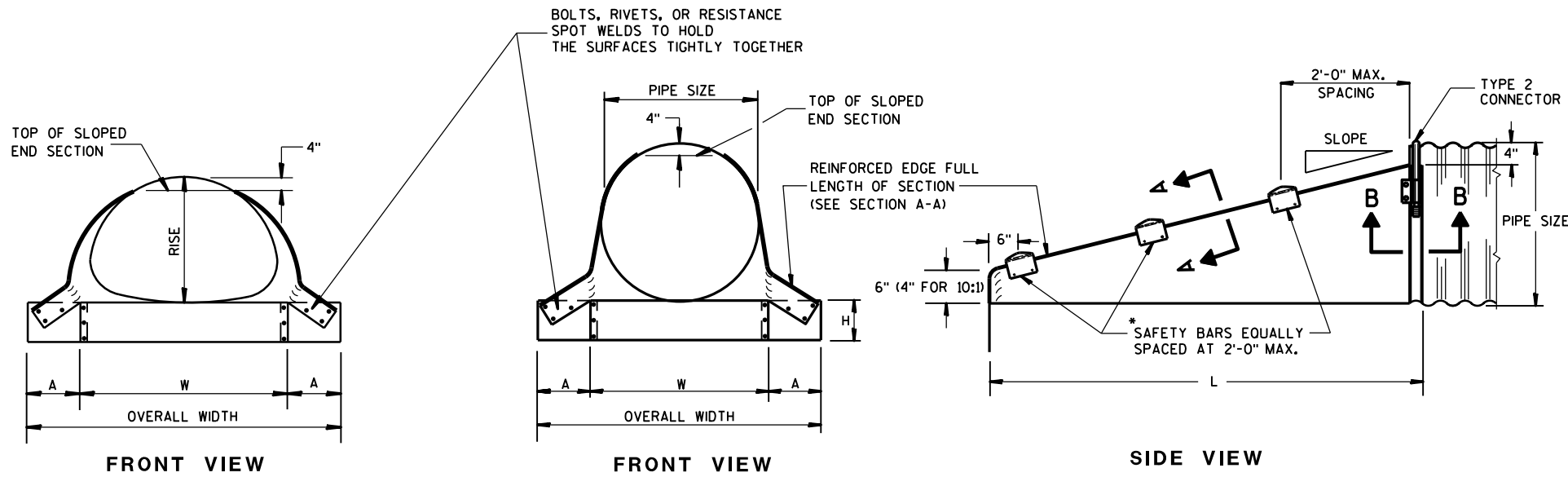


**SECTION A - A**  
**CONCRETE COLLAR DETAIL**

**JOINT TIES FOR 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**

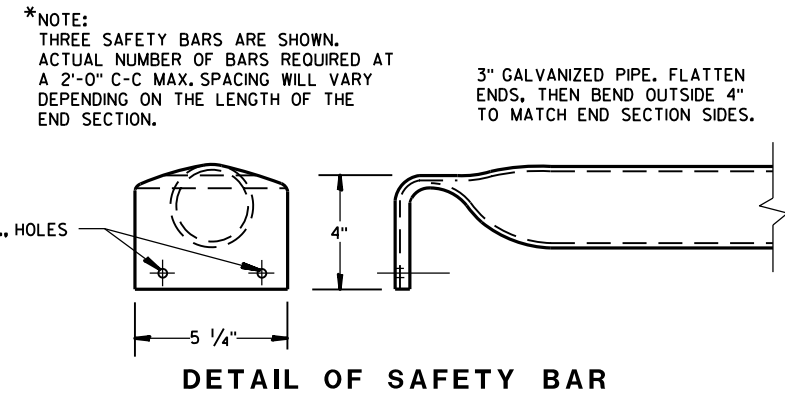
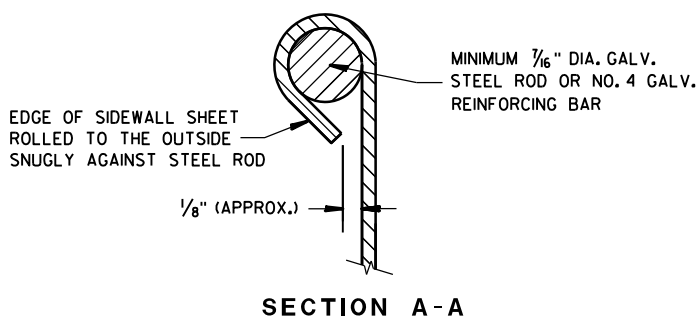
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SLOPED END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SECTION 521 FOR STEEL APRON ENDWALLS.

SAFETY BARS SHALL BE FABRICATED FROM GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL.

**STEEL APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS**

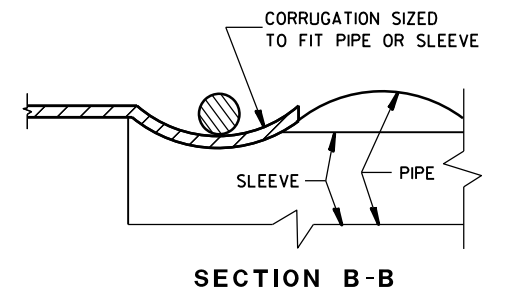
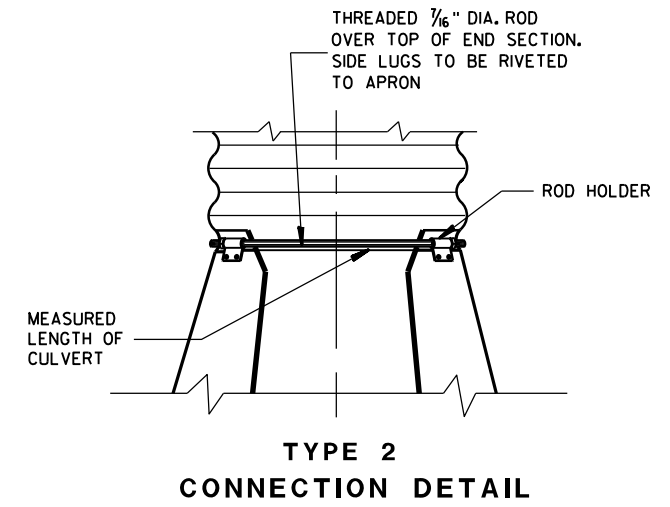
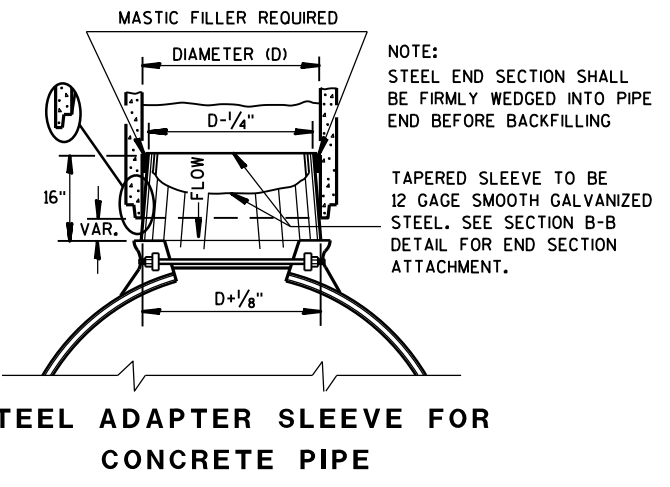
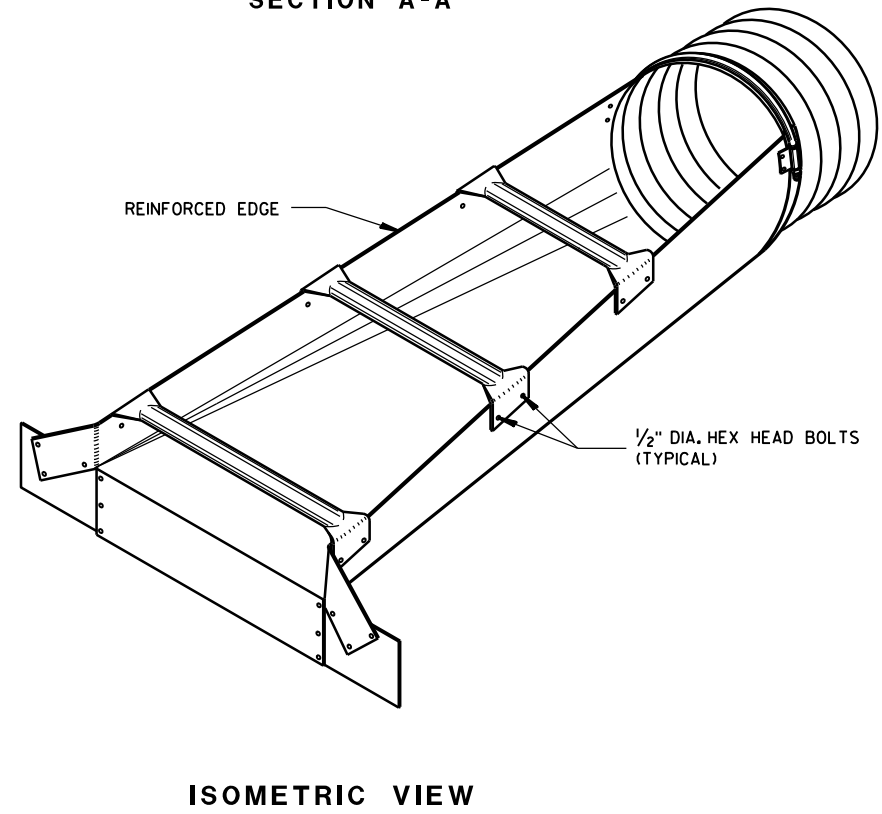
PIPE DIA. (IN.)	MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS					
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	.064	8	6	21	37	4:1	20	6:1	30	10:1	70
18	.064	8	6	24	40	4:1	32	6:1	48	10:1	100
21	.064	8	6	27	43	4:1	44	6:1	66	10:1	130
24	.064	8	6	30	46	4:1	56	6:1	84	10:1	160
30	.109	12	9	36	60	4:1	80	6:1	120	10:1	220
36	.109	12	9	42	66	4:1	104	6:1	156	10:1	280
42	.109	16	12	48	80	4:1	128	6:1	192	—	—
48	.109	16	12	54	86	4:1	152	6:1	228	—	—
54	.109	16	12	60	92	4:1	176	6:1	264	—	—
60	.109	16	12	66	98	4:1	200	6:1	300	—	—



**STEEL APRON ENDWALLS FOR PIPE ARCH SLOPED SIDE DRAINS**

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS					
	SPAN	RISE		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	17	13	.064 *	7	6	30	44	4:1	19	6:1	30	10:1 ②	70
18	21	15	.064 *	8	6	27	43	4:1	20	6:1	30	10:1	70
21	24	18	.064 *	8	6	30	46	4:1	32	6:1	48	10:1	100
24	28	20	.064 *	8	6	34	50	4:1	40	6:1	60	10:1	120
30	35	24	.079 *	12	9	41	65	4:1	56	6:1	84	10:1	160
36	42	29	.109 *	12	9	48	72	4:1	76	6:1	114	10:1	210
42	49	33	.109	16	12	55	87	4:1	92	6:1	138	—	—
48	57	38	.109	16	12	63	95	4:1	112	6:1	168	—	—
54	64	43	.109	16	12	70	102	4:1	132	6:1	198	—	—

① \* MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".  
 ② ACTUAL SLOPE GREATER THAN 10:1.

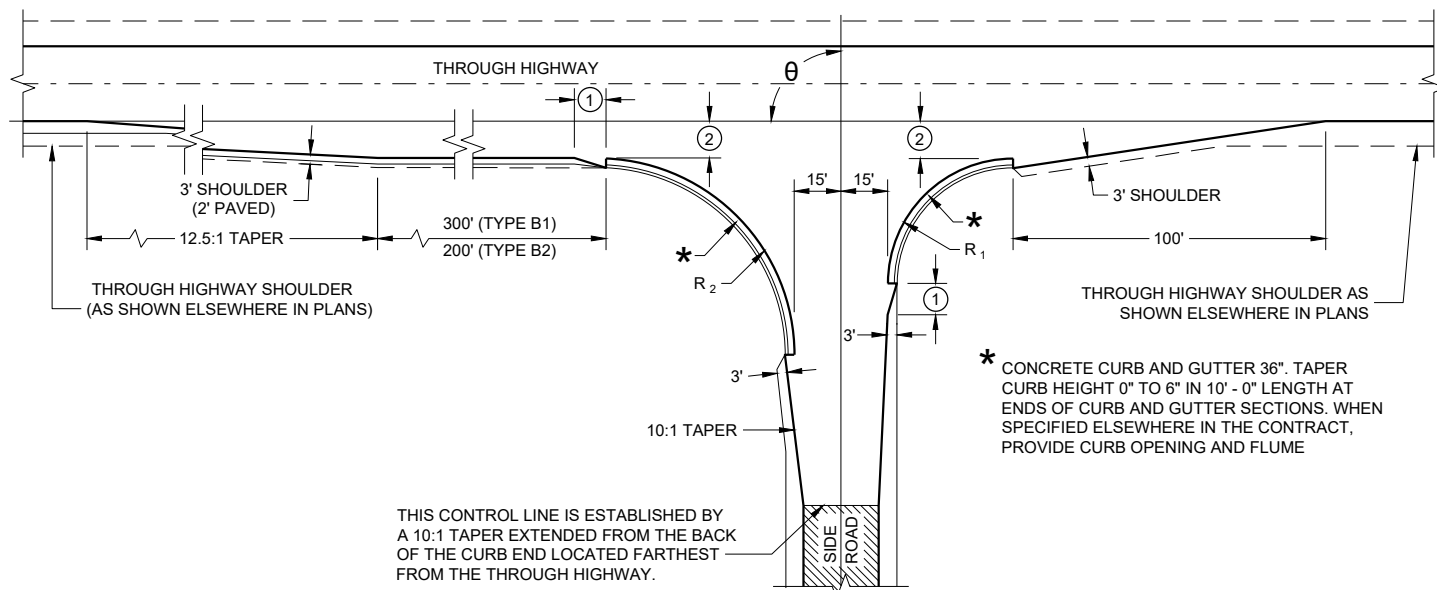


**STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE 9/14/2012 /S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



**TYPE "B1" AND "B2"**

**RADI DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS**

$\theta$	$R_1$	$R_2$
65 - 70	35	70
71 - 80	40	70
81 - 90	40	60
91 - 100	50	55
101 - 110	60	45

**GENERAL NOTES**

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

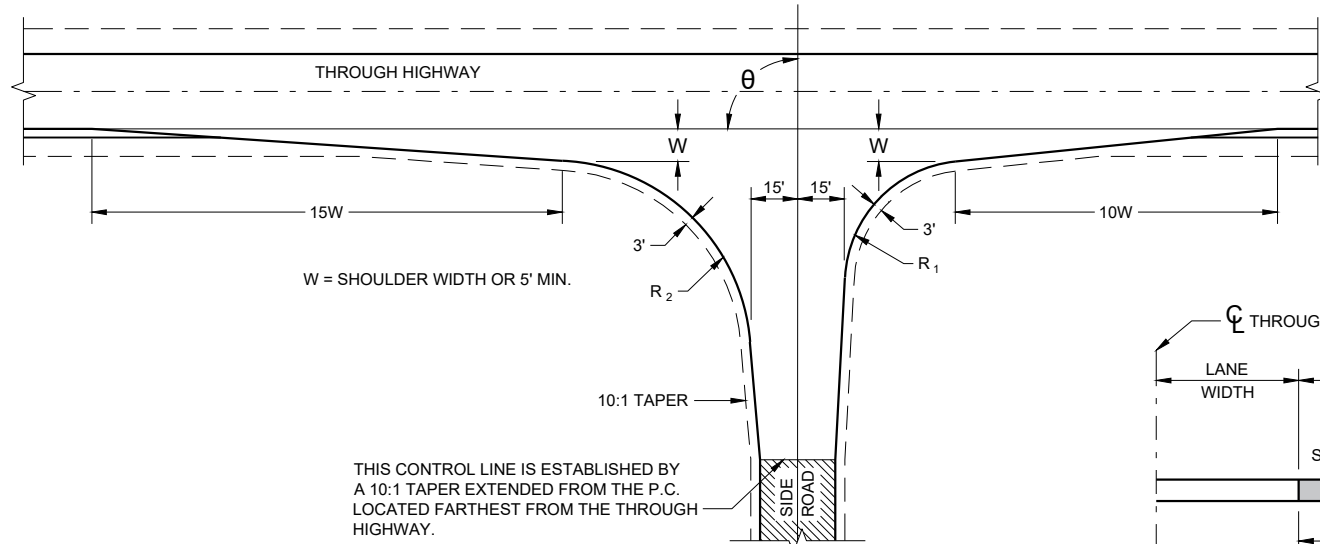
**SIDE ROAD SURFACING NOTE**

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

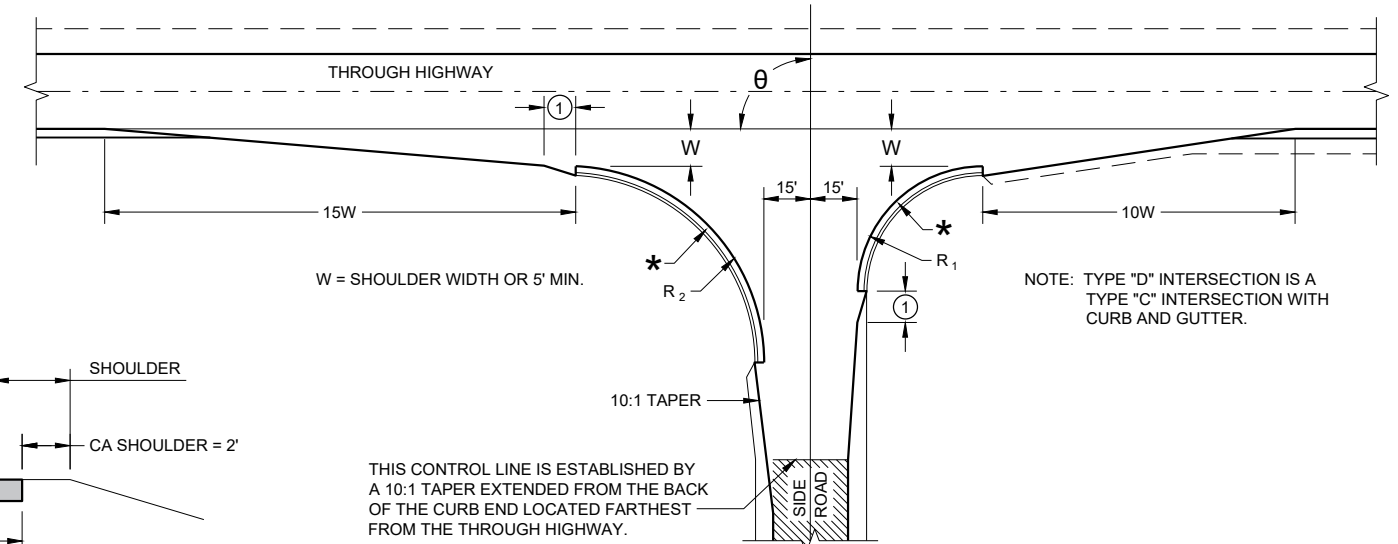
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

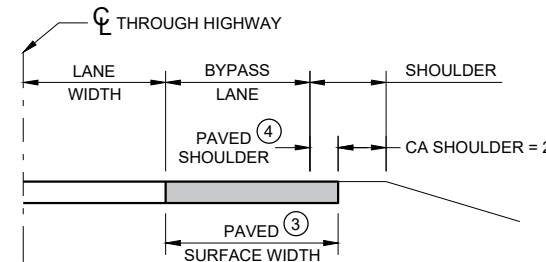
- ① 10-FT TYPICAL.
- ② 12-FT\*\* PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.  
\*\*10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- ③ BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE  
- ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH  
- PC CONCRETE = 13-FT PLUS PAVED SHOULDER WIDTH
- ④ BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



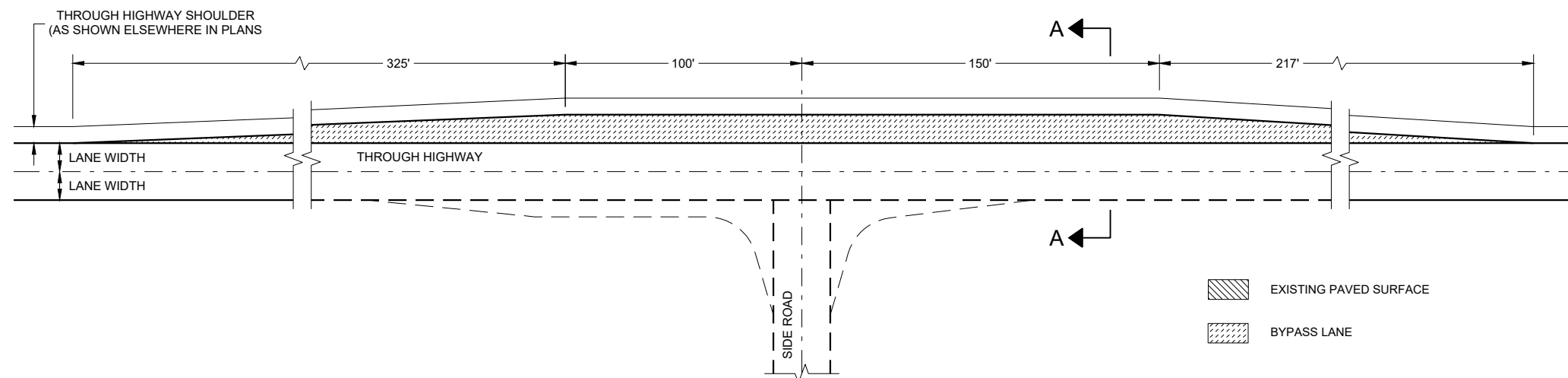
**TYPE "C"**



**TYPE "D"**



**SECTION A - A**  
(SHOWING BYPASS LANE AND SHOULDER)

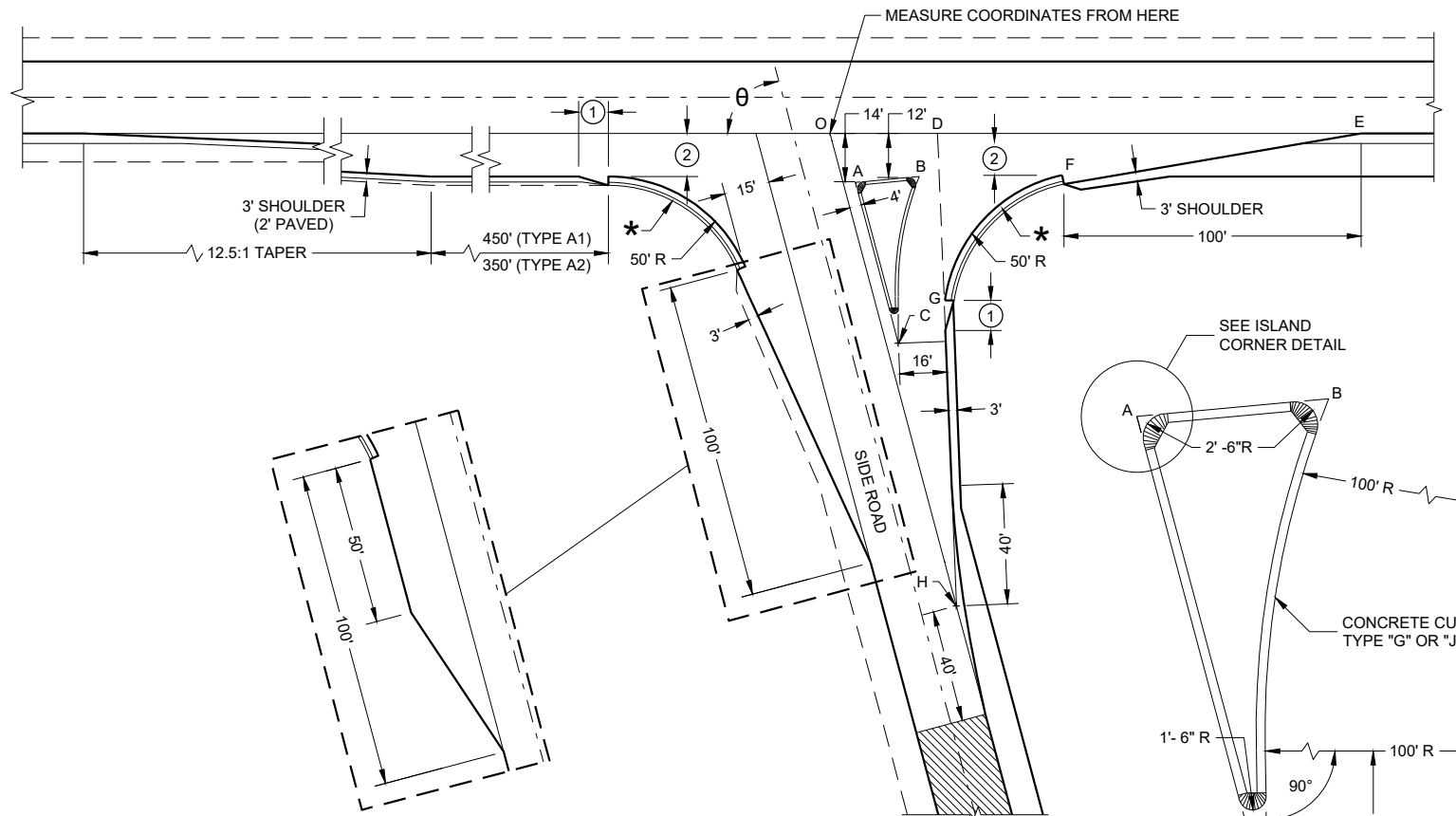
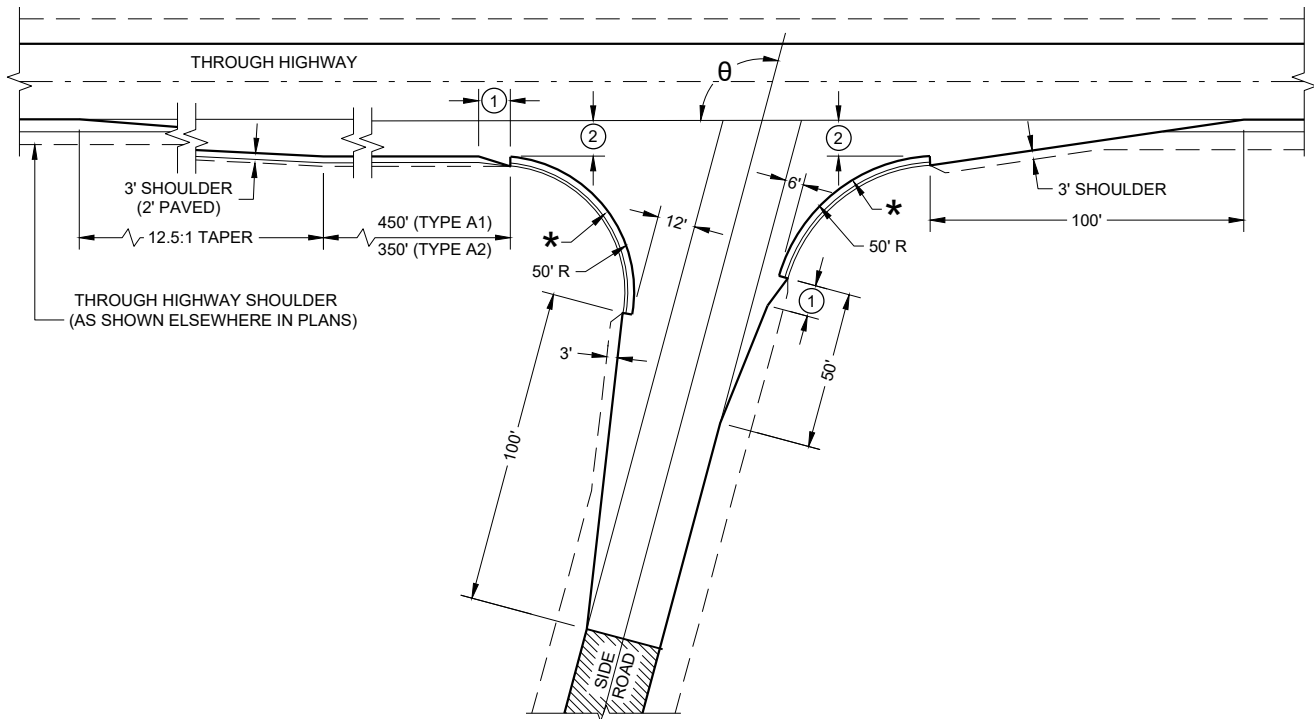


**TEE INTERSECTION BYPASS LANE DETAIL**

- EXISTING PAVED SURFACE
- BYPASS LANE

**AT GRADE SIDE ROAD INTERSECTION TYPES "B1", "B2", "C", "D" AND TEE INTERSECTION BYPASS LANE**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

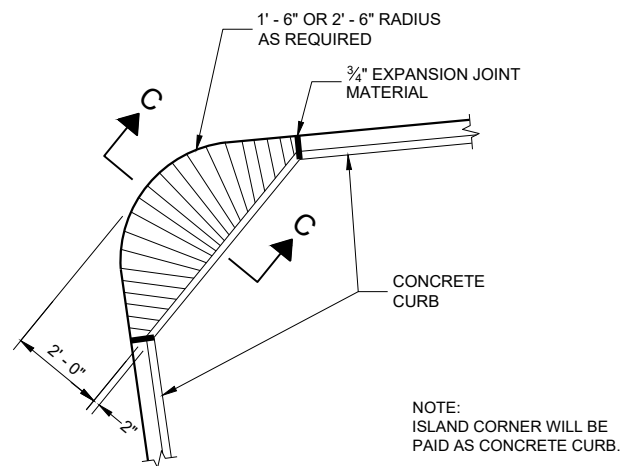


$\theta = \text{MORE THAN } 80^\circ$

SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC  
 $\theta = \text{ACUTE ANGLES } 70^\circ \text{ OR LESS}$

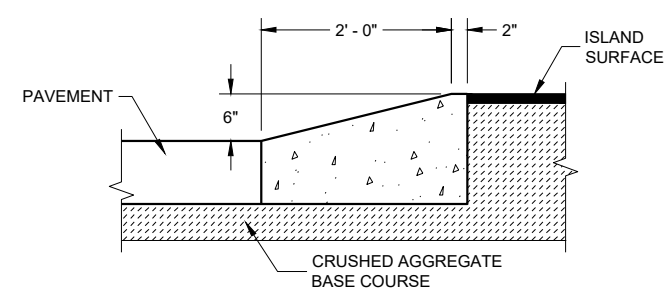
$\theta = \text{ACUTE ANGLES } 80^\circ \text{ OR LESS}$

EXISTING PAVED SURFACE



PLAN VIEW

NOTE: ISLAND CORNER WILL BE PAID AS CONCRETE CURB.



SECTION C - C

ISLAND CORNER DETAIL  
 (TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

TABLE OF DIMENSIONS FOR VARIABLE SIDE ROAD INTERSECTION ANGLES  
 (INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

ANGLE $\theta$ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT "O")								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7 -14.0	44.9 -12.0	46.4 -72.4	41.9 0.0	205.0 0.0	104.6 -12.0	64.0 -75.5	85.0 -147.1	32.3	67.4	4.9	85.9	169.9
65	10.9 -14.0	39.0 -12.0	37.8 -71.6	39.4 0.0	196.1 0.0	95.7 -12.0	54.1 -71.5	70.5 -151.3	28.2	63.6	8.5	80.9	166.9
70	9.4 -14.0	33.9 -12.0	29.8 -70.1	37.4 0.0	188.3 0.0	87.8 -12.0	45.6 -67.5	56.1 -154.2	24.6	59.7	11.5	76.1	164.1
75	7.9 -14.0	29.3 -12.0	22.3 -67.9	35.7 0.0	181.2 0.0	80.7 -12.0	38.2 -63.4	41.8 -155.9	21.5	55.8	13.8	71.4	161.4
80	6.5 -14.0	25.4 -12.0	15.6 -65.2	34.4 0.0	174.8 0.0	74.4 -12.0	31.8 -59.3	27.6 -156.5	18.9	52.0	15.6	66.9	158.9

TYPE 'A1" AND "A2" SIDE ROAD INTERSECTION DETAILS

**AT GRADE SIDE ROAD INTERSECTIONS  
 TYPES "A1" AND "A2"**

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

APPROVED  
 November 2022 /S/ John Jenkins  
 DATE ROADWAY STANDARDS DEVELOPMENT  
 ENGINEER  
 FHWA

**GENERAL NOTES**

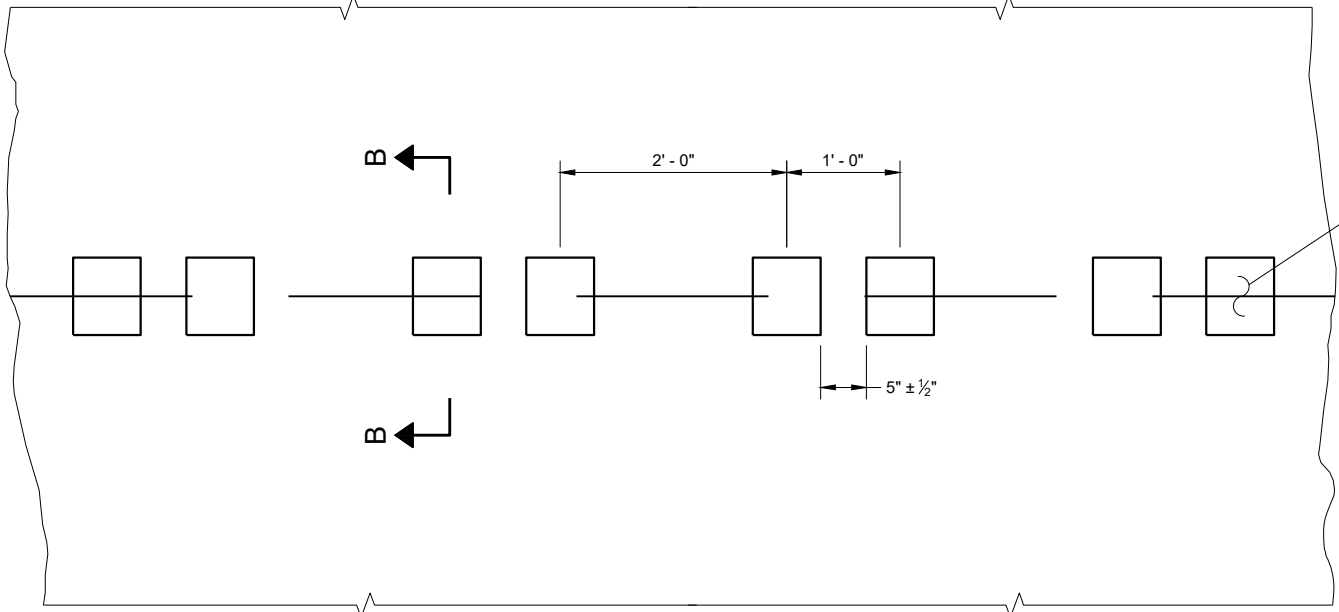
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

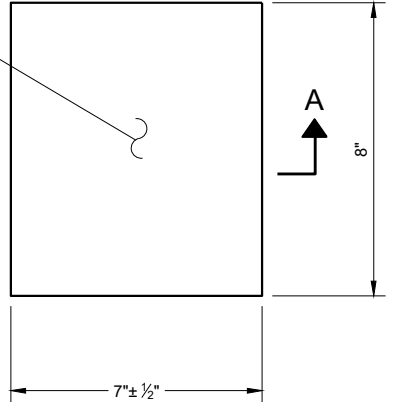
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

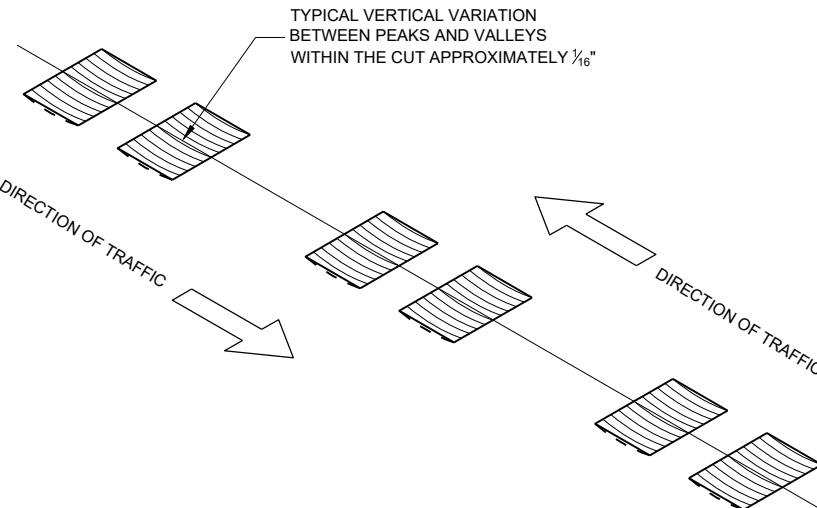
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



**PLAN VIEW  
SHOULDER WITH GROOVES**

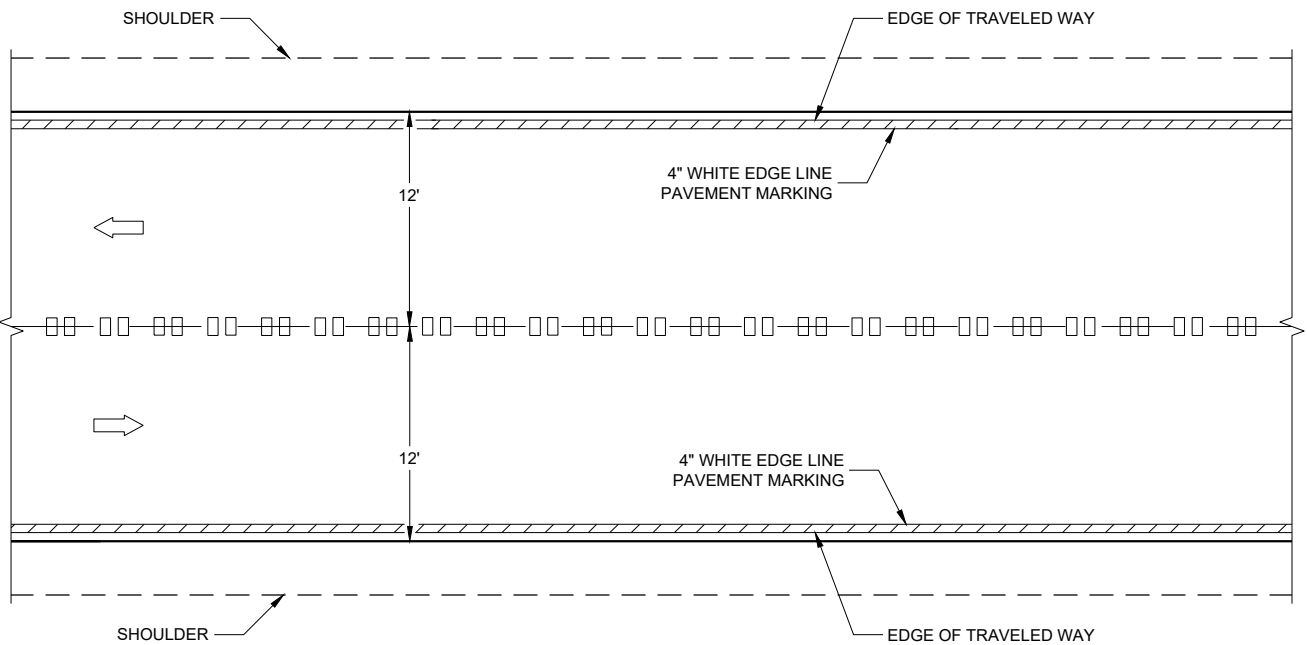


**PLAN VIEW  
(SINGLE GROOVE)**

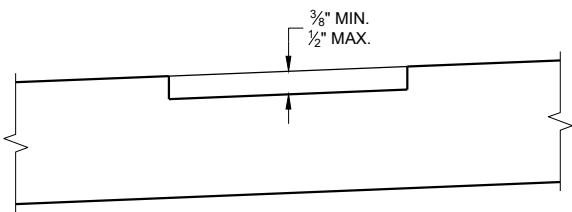


**ISOMETRIC**

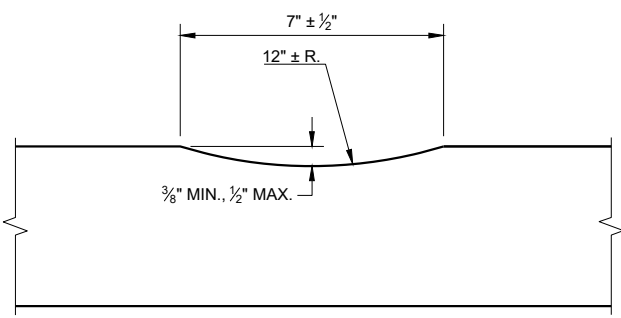
**PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP**



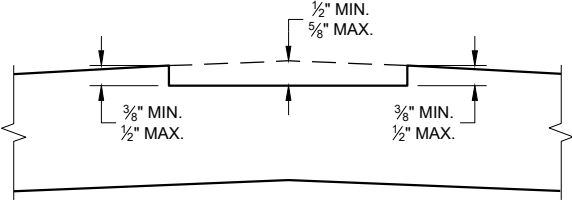
**CENTERLINE GROOVES ON TWO-WAY ROADWAYS**



**SECTION B - B  
SUPERELEVATED ROADWAY**



**SECTION A - A**

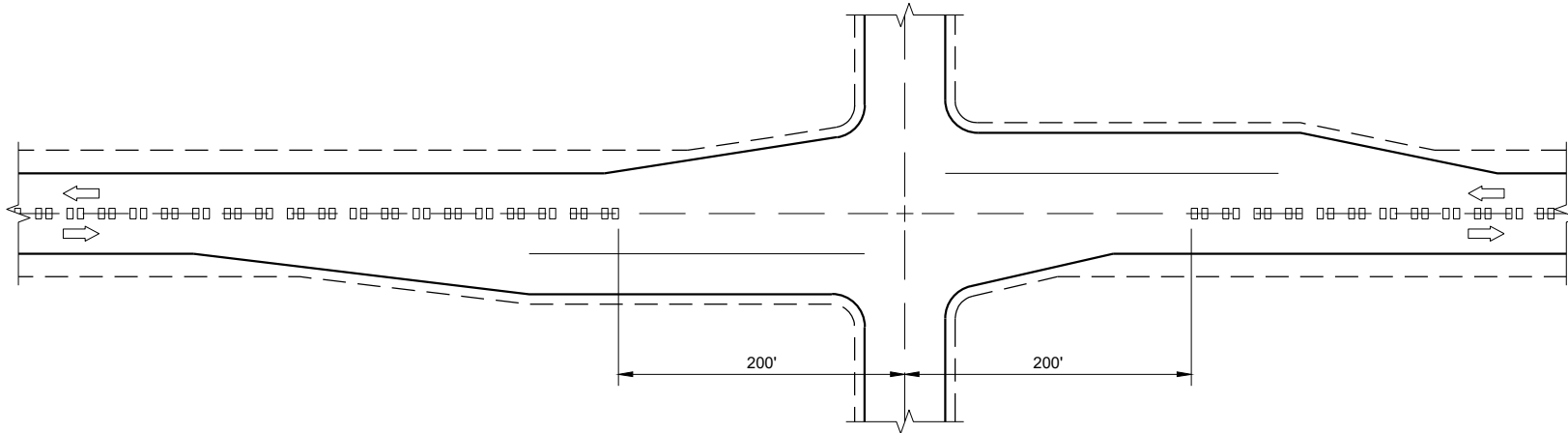


**SECTION B - B  
CROWNED ROADWAY**

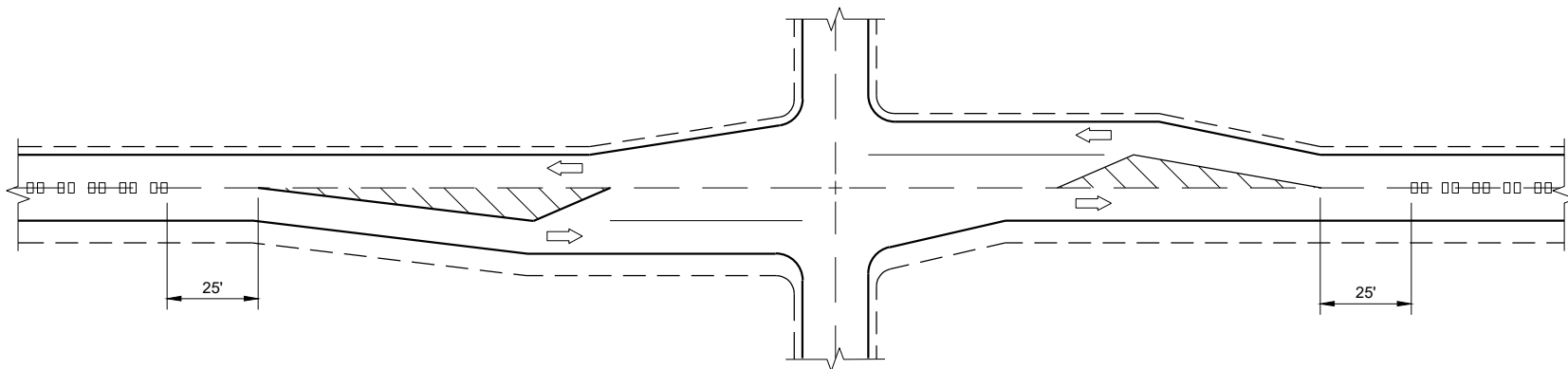
**2-LANE RURAL  
CENTER LINE RUMBLE STRIP,  
MILLING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

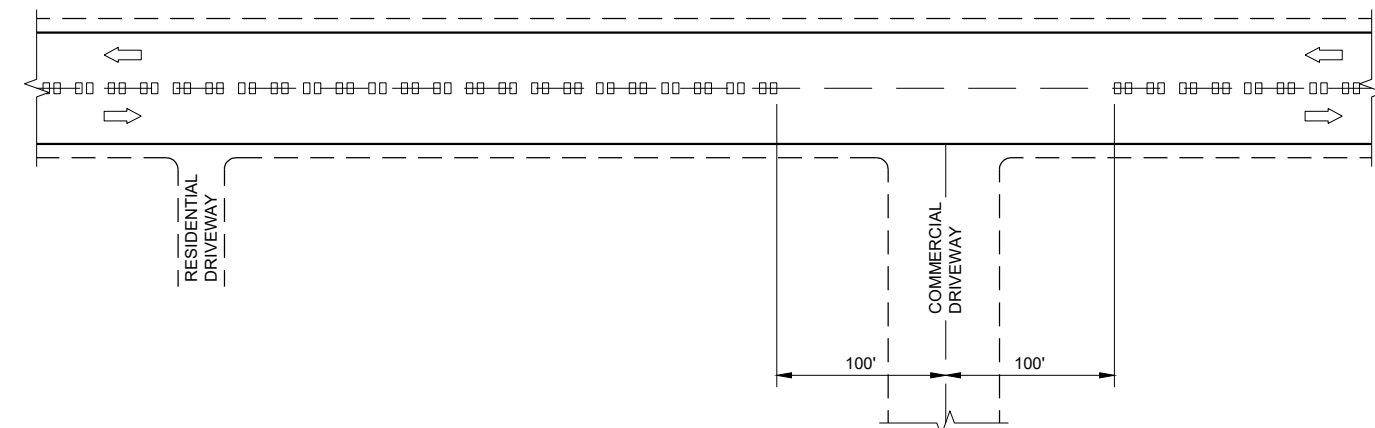




**CENTERLINE GROOVES AT INTERSECTIONS**



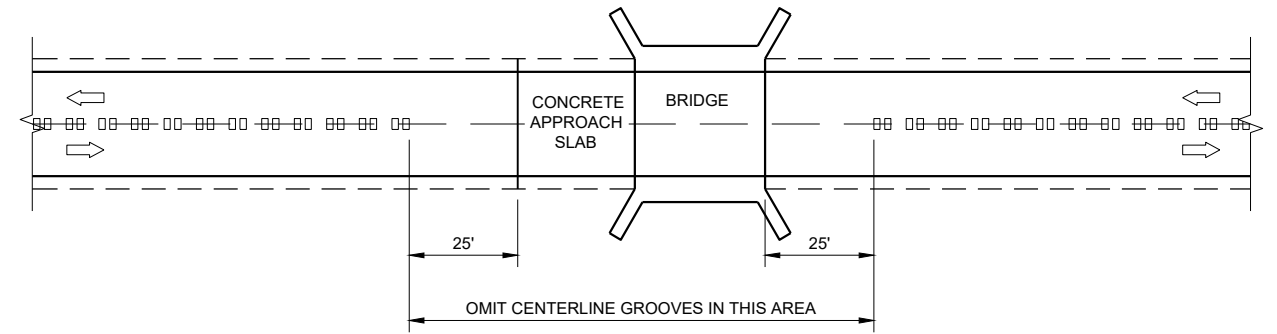
**CENTERLINE GROOVES AT INTERSECTIONS  
(WITH LEFT TURN LANES)**



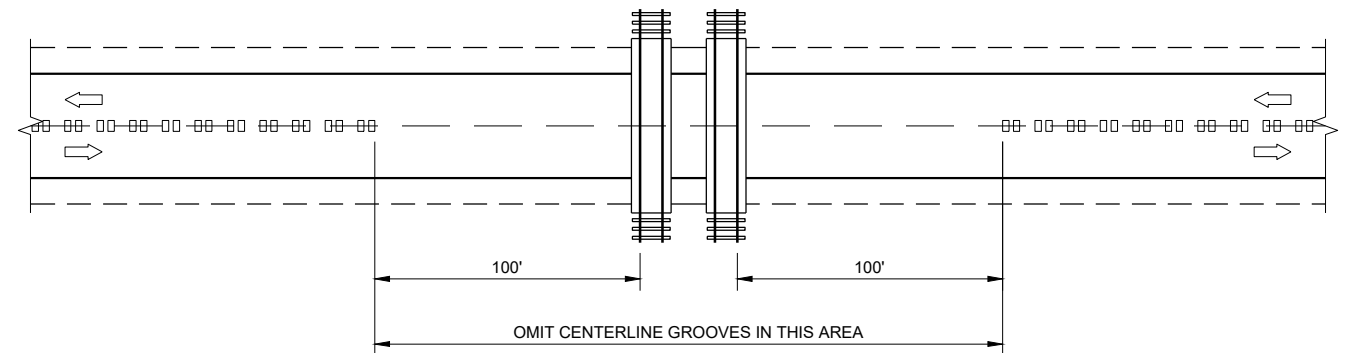
**CENTERLINE GROOVES AT DRIVEWAYS<sup>①</sup>**

**GENERAL NOTES**

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



**CENTERLINE GROOVES AT BRIDGES**

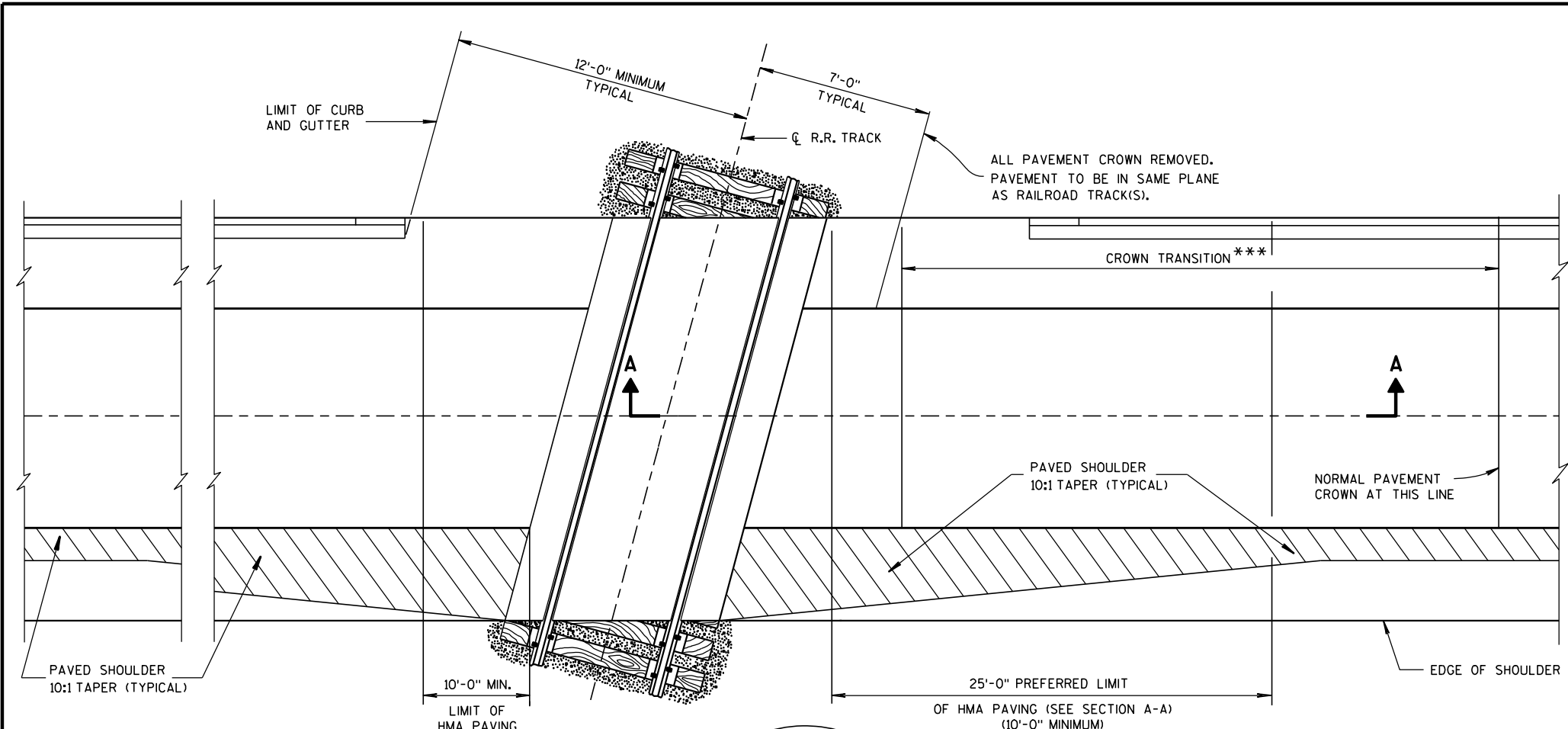


**CENTERLINE GROOVES AT RAILROADS**

6

6

<b>2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Rodney Taylor 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 THE APPLICABLE SPECIAL PROVISIONS.

TIMBER, CONCRETE OR RUBBER CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, GEOTEXTILE FABRIC AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS OTHERWISE PROVIDED.

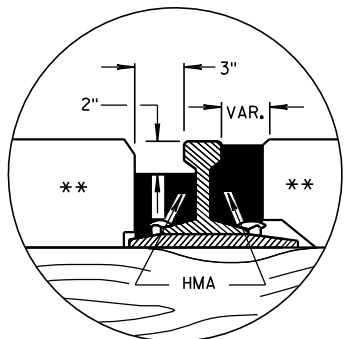
HMA PAVEMENT APPROACHES AND HMA PAVEMENT CROSSING SURFACES TO BE PLACED BY CONTRACTOR UNLESS OTHERWISE PROVIDED.

HMA FLANGEWAY AND FIELD FILLERS TO BE PLACED AND THOROUGHLY HAND COMPACTED BY THE CONTRACTOR WHEN NOT PROVIDED BY OTHERS. SEE DETAIL B. HMA FILLERS NOT REQUIRED WHEN RUBBER FILLERS ARE PROVIDED.

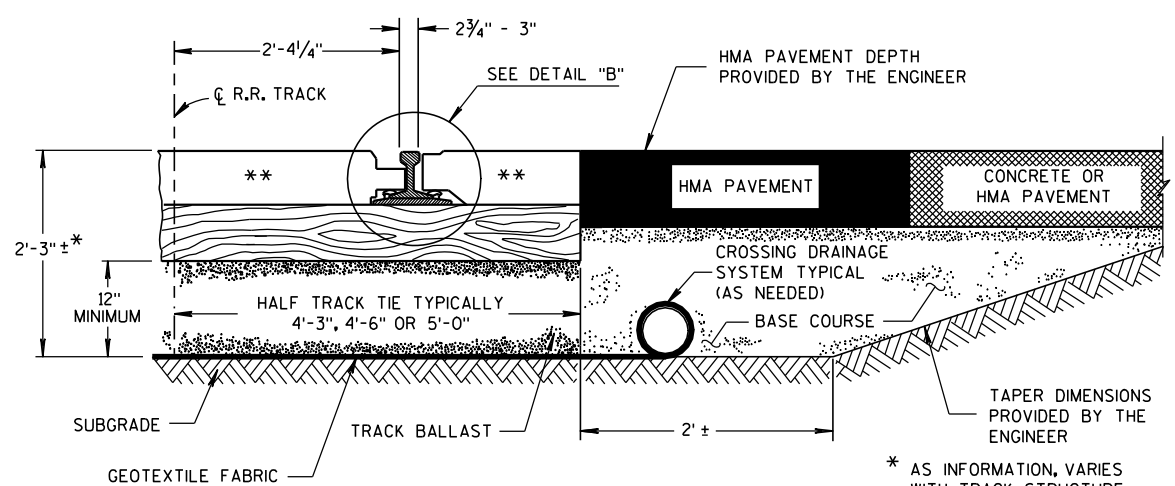
HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

\*\* CROSSING SURFACE MAY BE TIMBER, RUBBER, CONCRETE, HMA PAVEMENT OR A COMBINATION OF SUCH MATERIALS.

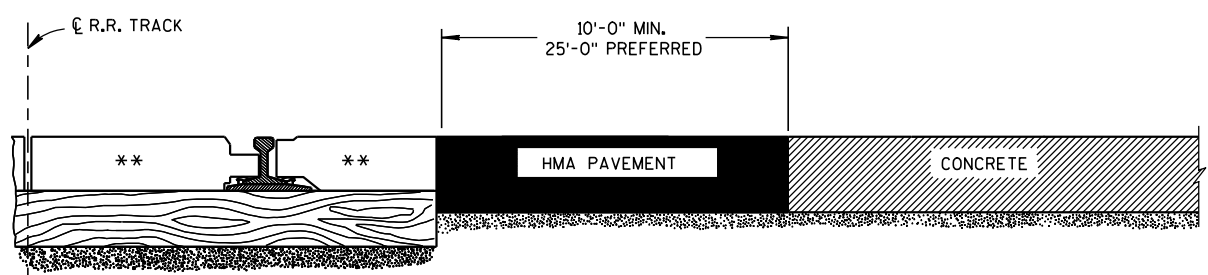
\*\*\* CROWN TRANSITION LENGTH SHOWN ELSEWHERE IN THE PLAN.



**DETAIL B  
HMA FLANGEWAY  
AND FIELD FILLERS**



**TYPICAL HALF SECTION**



**SECTION A-A  
CONCRETE PAVEMENT APPROACH**



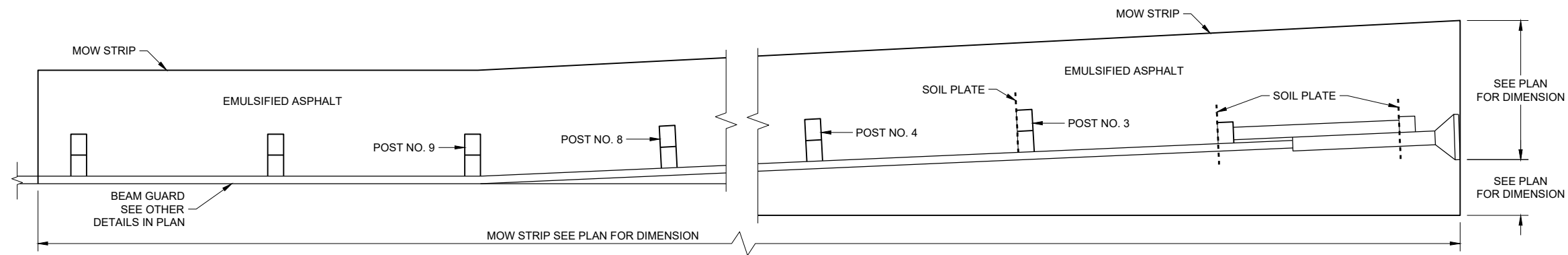
**SECTION A-A  
HMA PAVEMENT APPROACH**

**EXAMPLES OF PAVEMENT APPROACHES**

**PAVEMENT DETAILS  
FOR RAILROAD APPROACH**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
8-28-09 /S/ Ronald E. Adams  
DATE CHIEF, RAILROADS & HARBORS SECTION  
FHWA

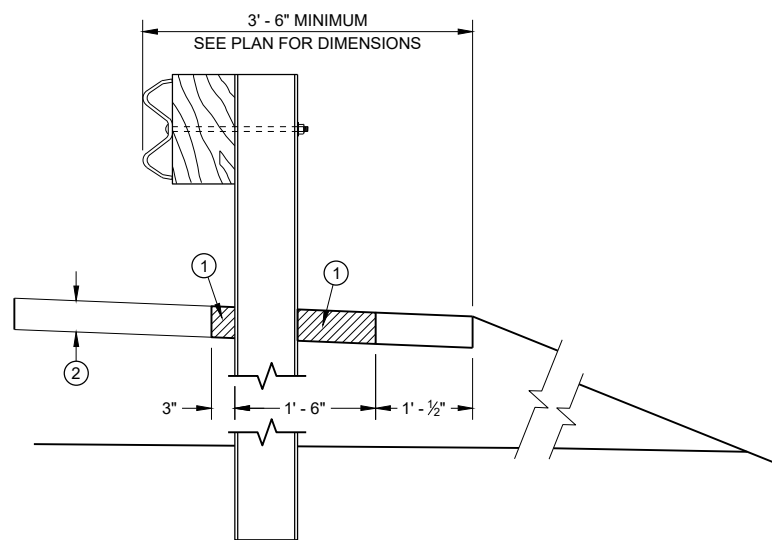


**PLAN VIEW**  
**MOW STRIP LAYOUT FOR ENERGY ABSORBING TERMINAL**

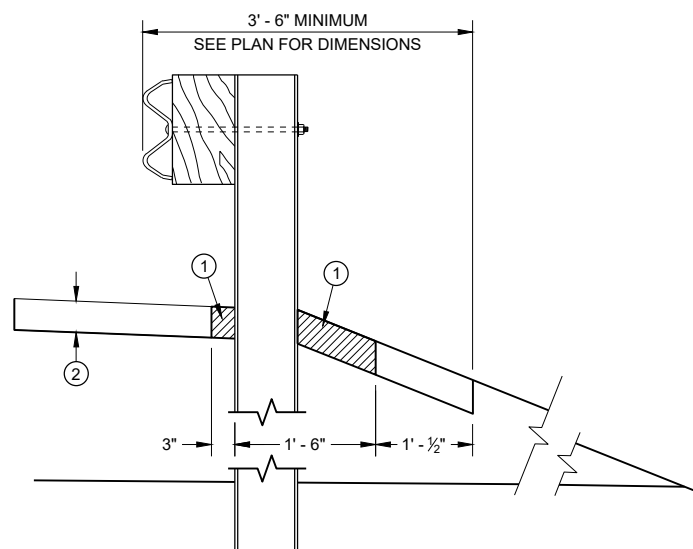
**GENERAL NOTES**

ONLY USE STEEL POSTS IN CONCRETE AND ASPHALT MOW STRIPS.

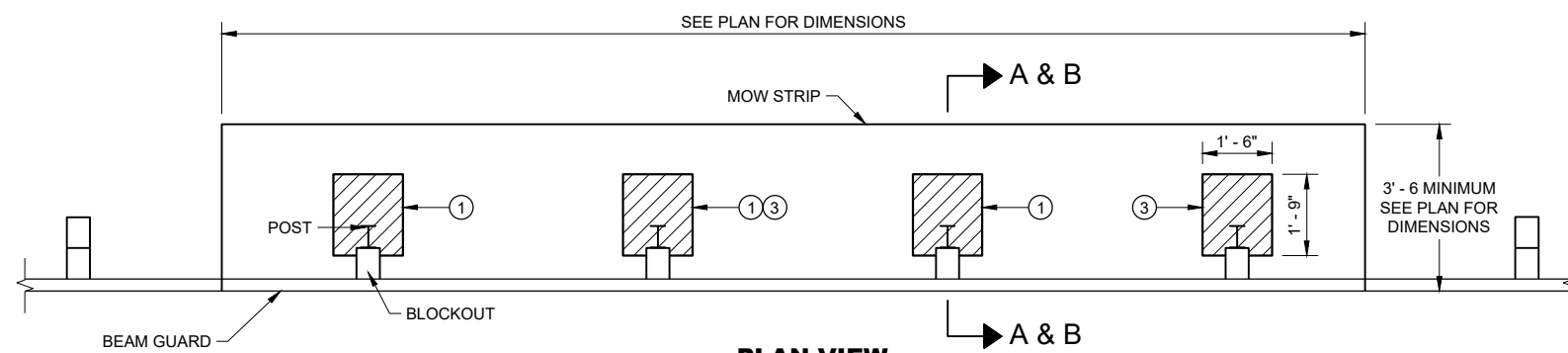
- ① CONTROLLED LOW-STRENGTH BACKFILL OR EMULSIFIED ASPHALT.
- ② DEPTH OF MOW STRIP:  
ASPHALT - 4"  
CONCRETE - 4"  
EMULSIFIED ASPHALT - 1" OR LESS
- ③ FOR EMULSIFIED ASPHALT, MOW STRIP STRIP LEAVE OUTS NOT REQUIRED. (TYPICAL FOR ALL POSTS)



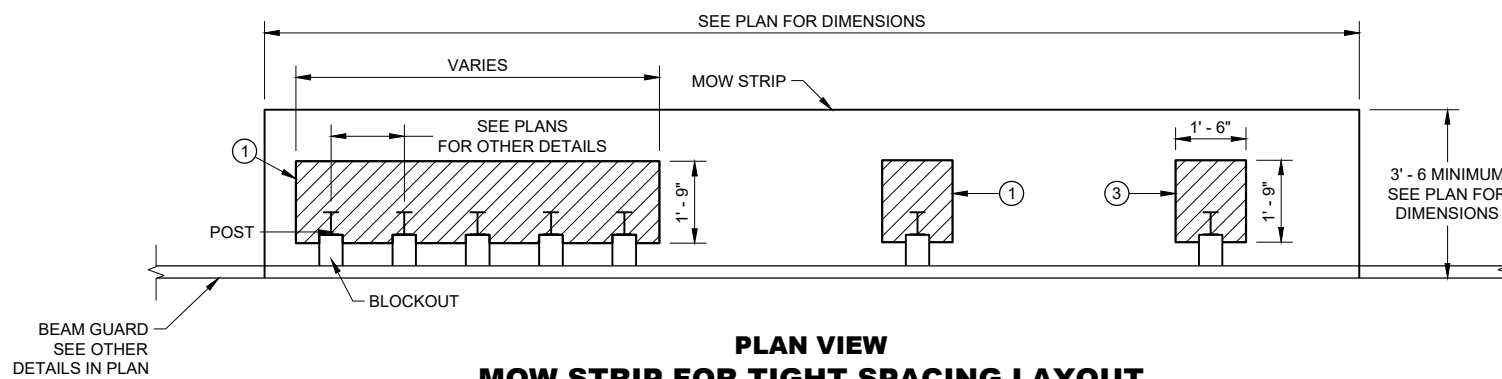
**SECTION A - A**



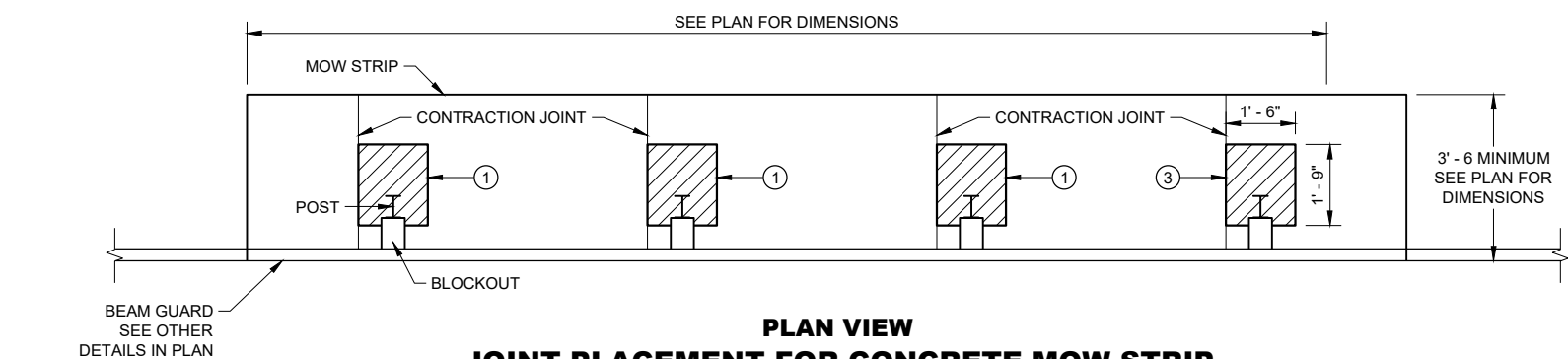
**SECTION B - B**



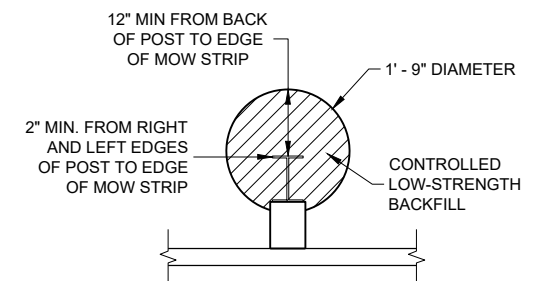
**PLAN VIEW**  
**MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT**



**PLAN VIEW**  
**MOW STRIP FOR TIGHT SPACING LAYOUT**



**PLAN VIEW**  
**JOINT PLACEMENT FOR CONCRETE MOW STRIP**



**ALTERNATIVE HMA**  
**MOW STRIP DESIGN**

**GUARDRAIL MOW STRIP**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

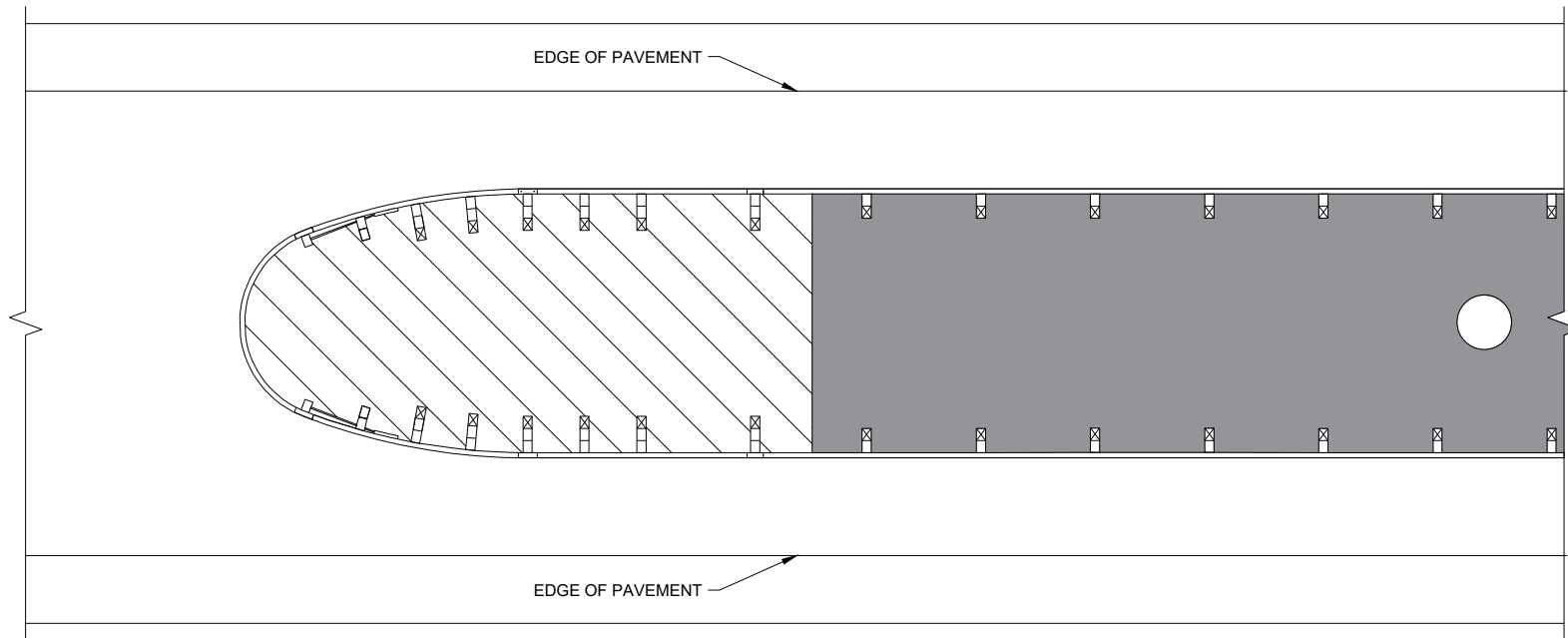
**LEGEND**

 CONCRETE, ASPHALT, OR EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

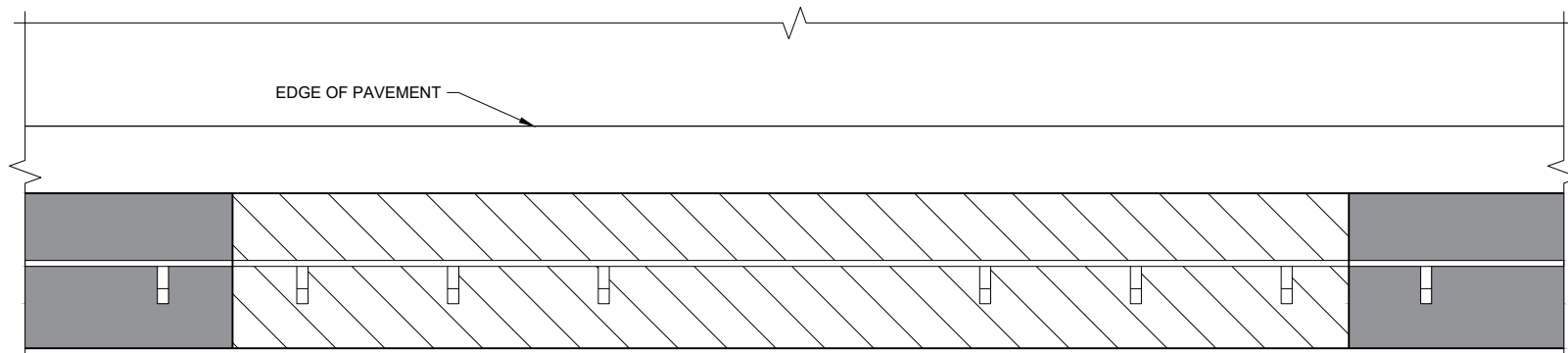
 EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

**GENERAL NOTES**

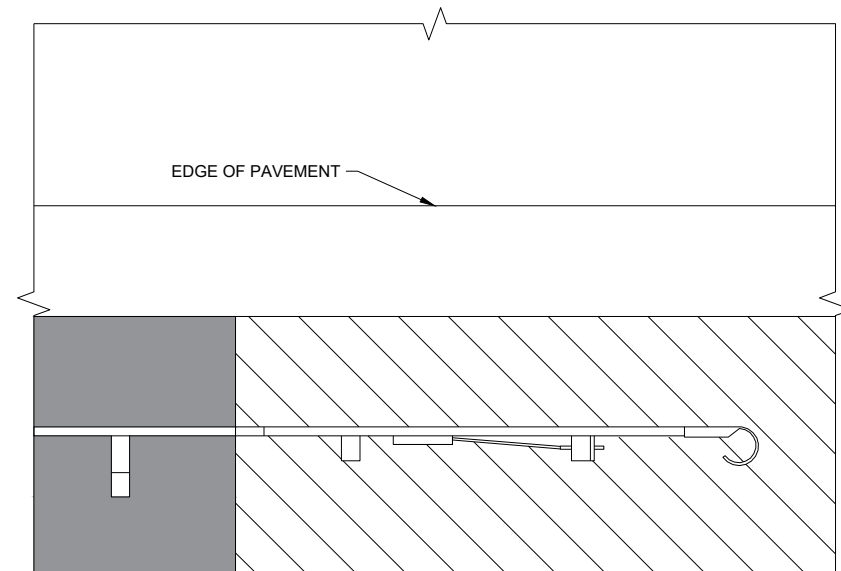
EXISTING THRIE BEAM BULLNOSES MAY HAVE WOOD POSTS. NEW THRIE BEAM BULLNOSE WILL HAVE STEEL POSTS.



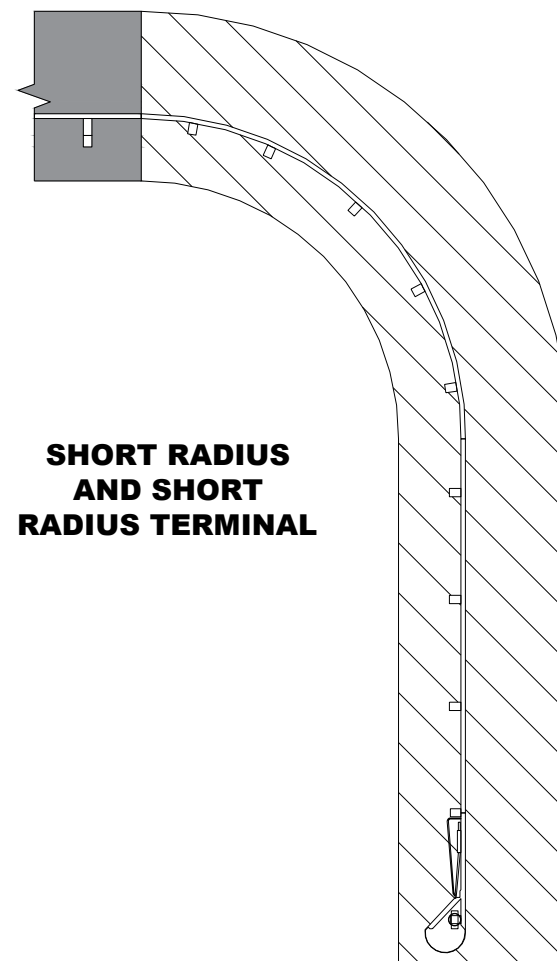
**THRIE BEAM BULLNOSE**



**LONG - SPAN**



**TYPE 2 TERMINAL**



**SHORT RADIUS  
AND SHORT  
RADIUS TERMINAL**

6

6

SDD 14B28 - 04b

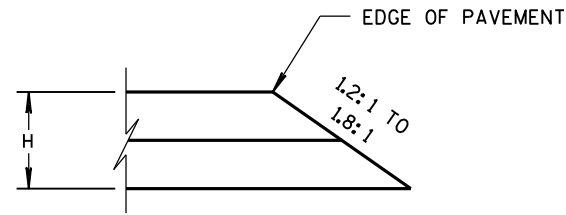
SDD 14B28 - 04b

**GUARDRAIL MOW STRIP**

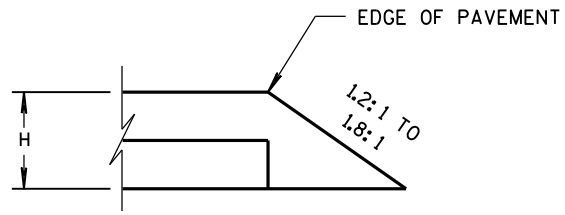
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
August 2020 DATE /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

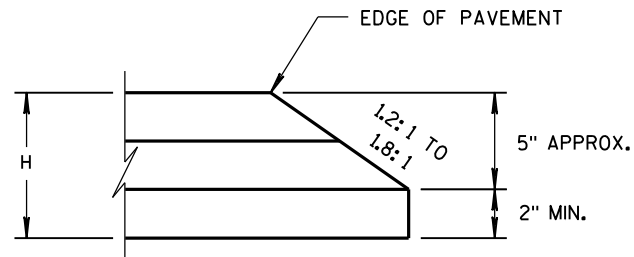
FHWA



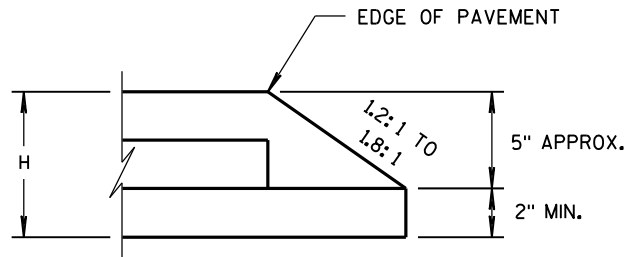
CONSTRUCTED WITH FINAL TWO LAYERS  
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER  
FOR H 5" OR LESS

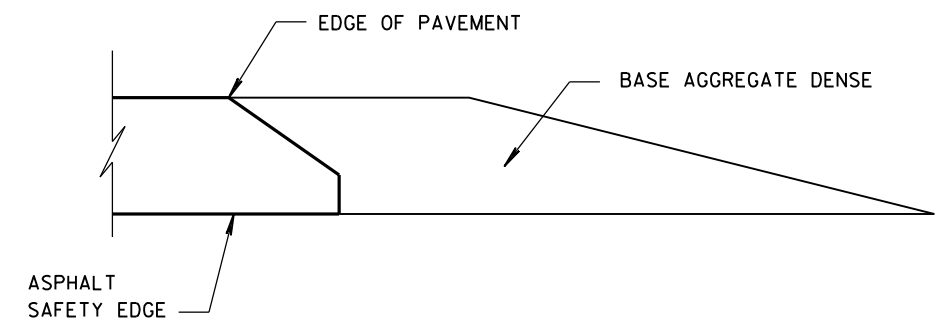


CONSTRUCTED WITH FINAL TWO LAYERS  
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER  
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

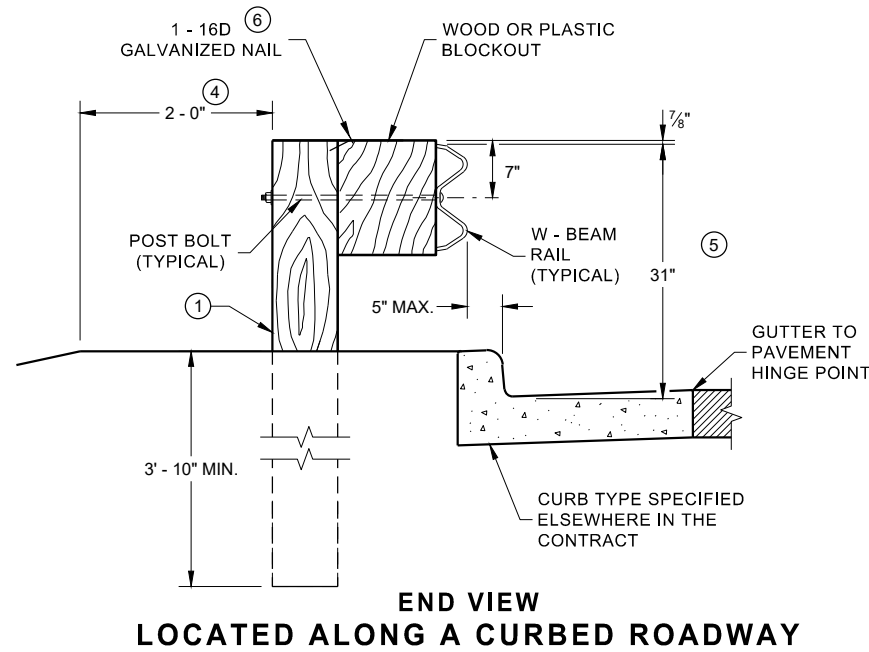
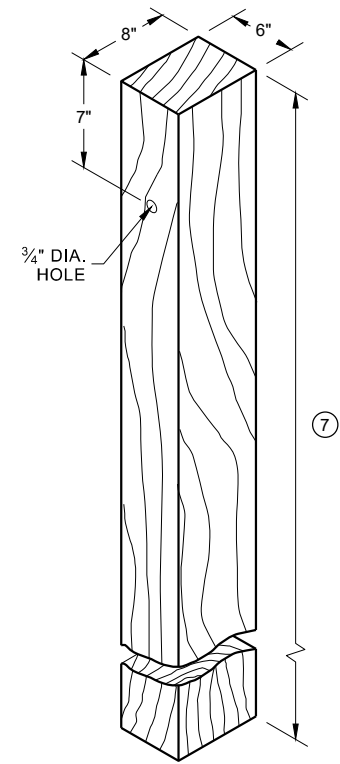
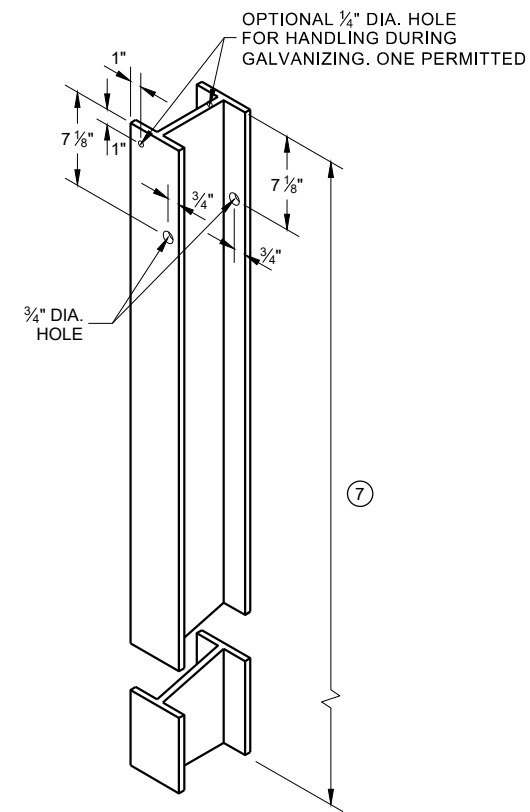
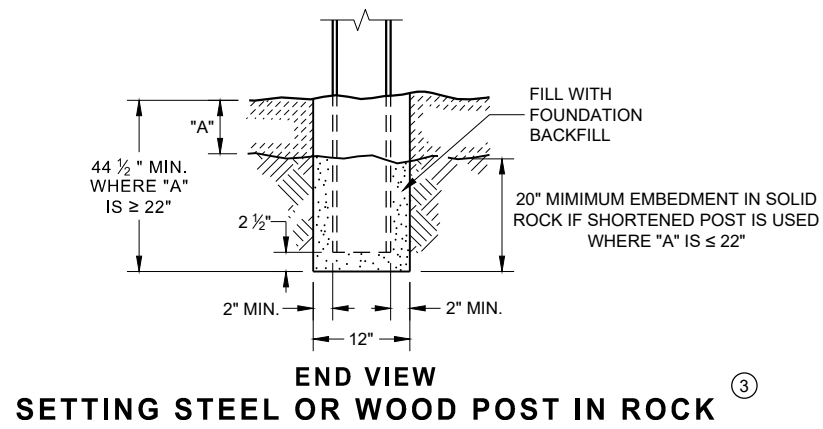
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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

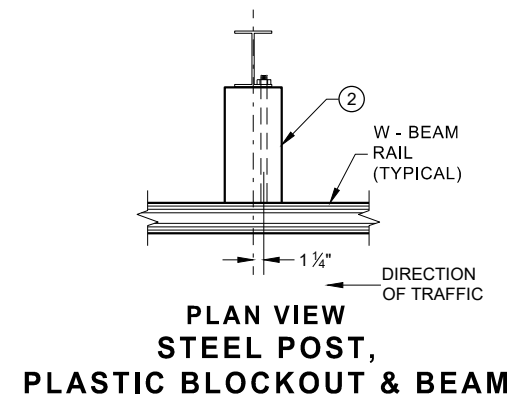
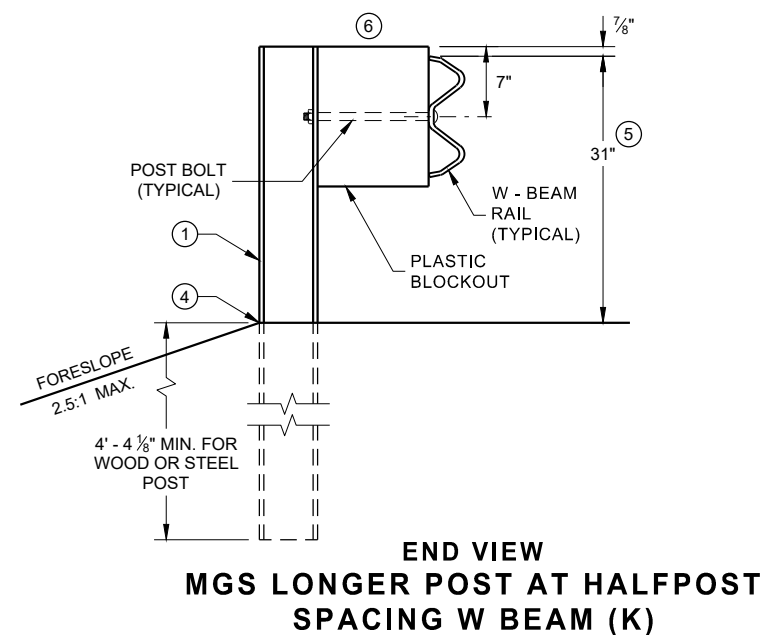
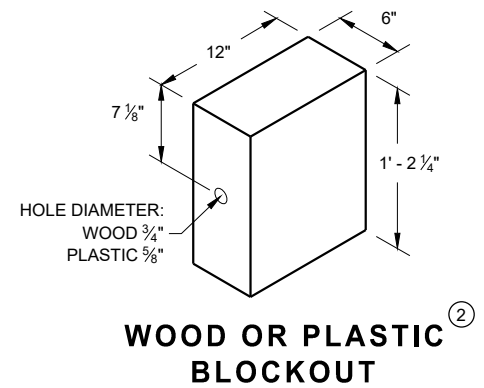
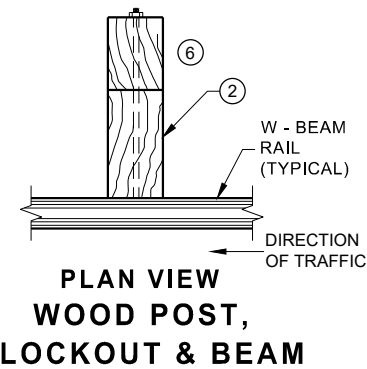
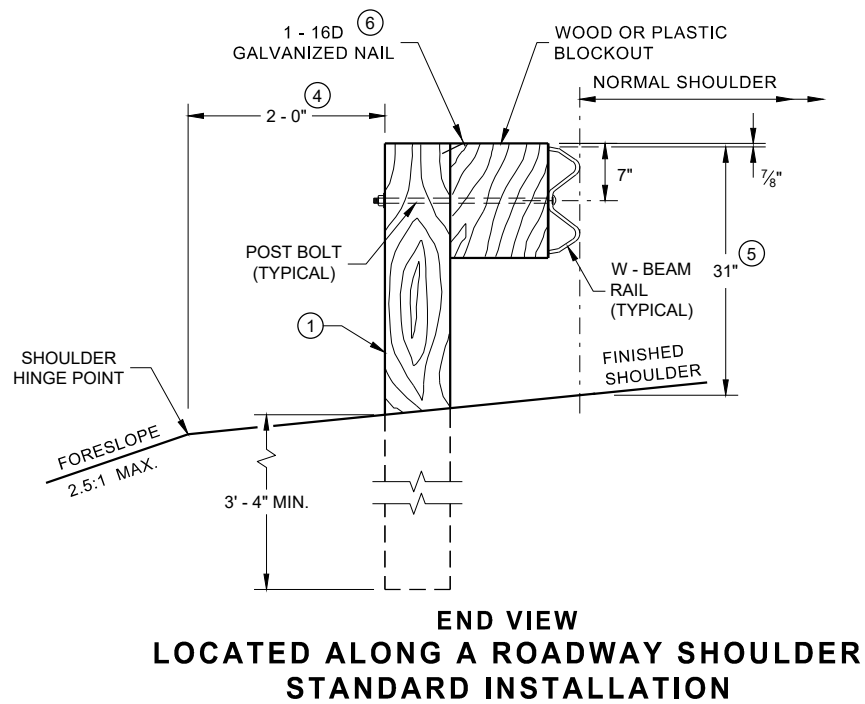
SAFETY EDGE <sub>SM</sub>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 11/30/2012	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- ③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AND INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.
- ④ WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
- ⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" TO 32".
- ⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- ⑦ TOTAL POST LENGTH FOR TYPE K IS 7' - 0". TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



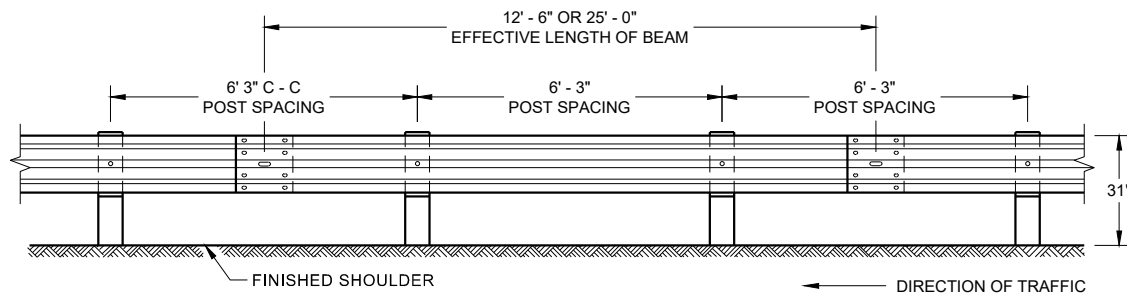
**STEEL POST & HOLE PUNCHING DETAIL  
(W 6 X 9)** ①

**WOOD POST  
(6" X 8") NOMINAL** ①

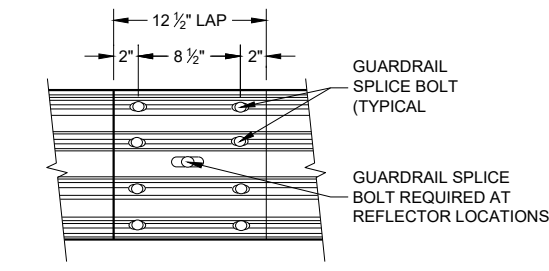


**MIDWEST GUARDRAIL SYSTEM  
(MGS) GUARDRAIL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



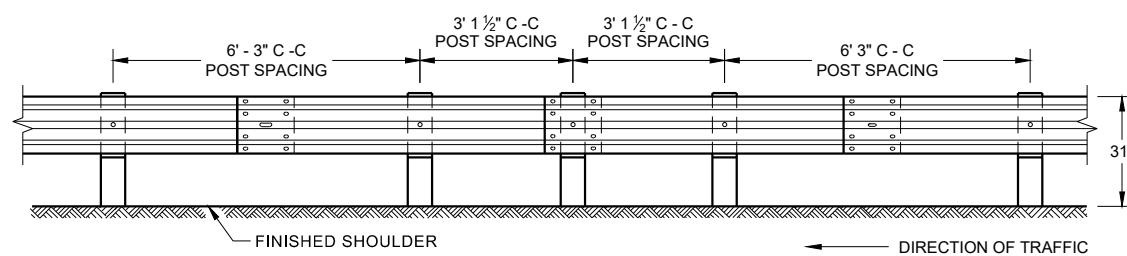
**FRONT VIEW  
POST SPACING STANDARD INSTALLATION**



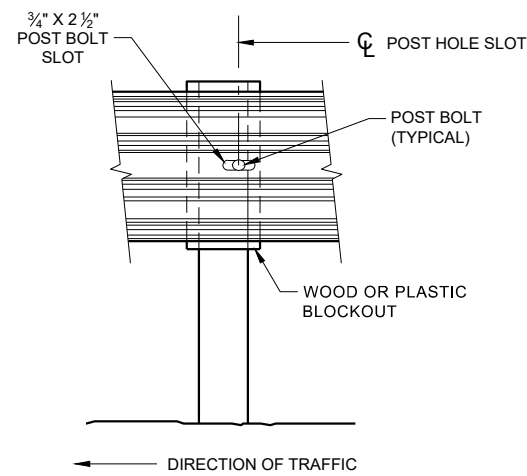
**FRONT VIEW  
MID-SPAN BEAM SPLICE**

**GENERAL NOTES**

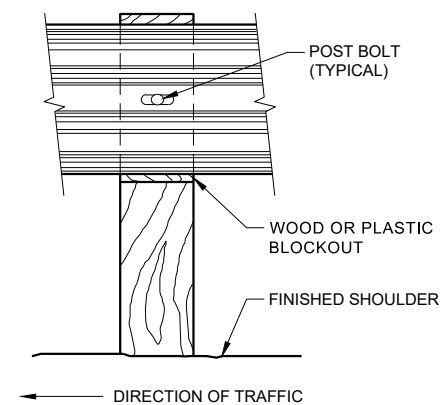
- ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
  - ⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.
- GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



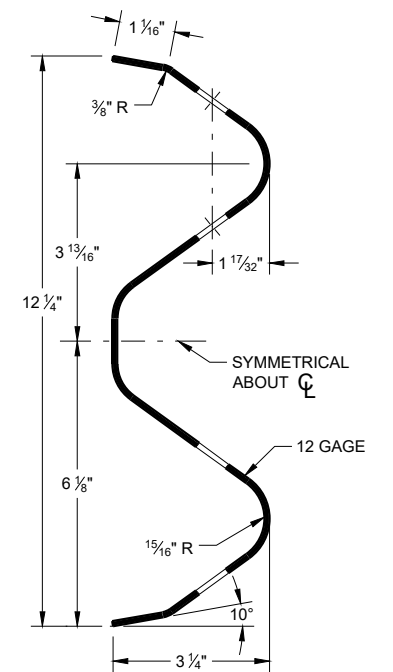
**FRONT VIEW  
HALF POST SPACING (HS) AND  
HALF POST SPACING WITH LONGER POSTS (K)**



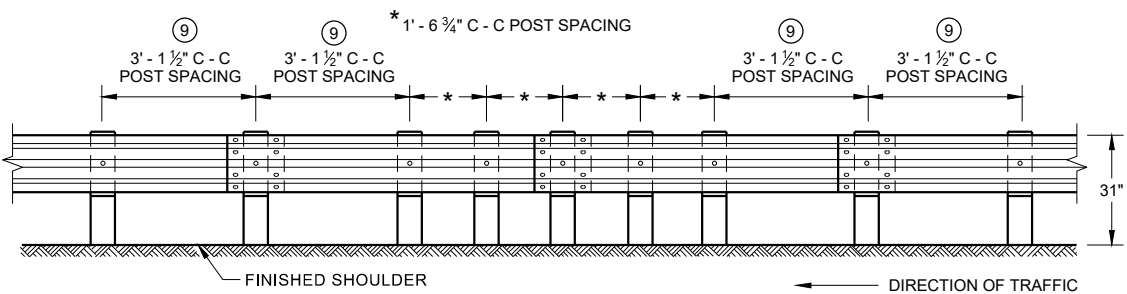
**FRONT VIEW AT STEEL POST**



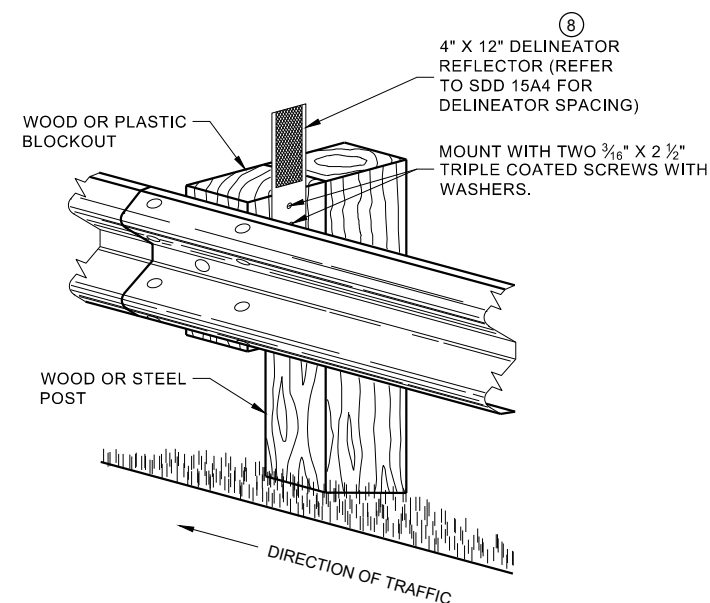
**FRONT VIEW AT WOOD POST**



**SECTION THRU W-BEAM RAIL**



**FRONT VIEW  
QUARTER POST SPACING (QS)**



**ONE SIDED REFLECTOR DETAIL  
AND TYPICAL INSTALLATION**

**MIDWEST GUARDRAIL SYSTEM  
(MGS) GUARDRAIL**

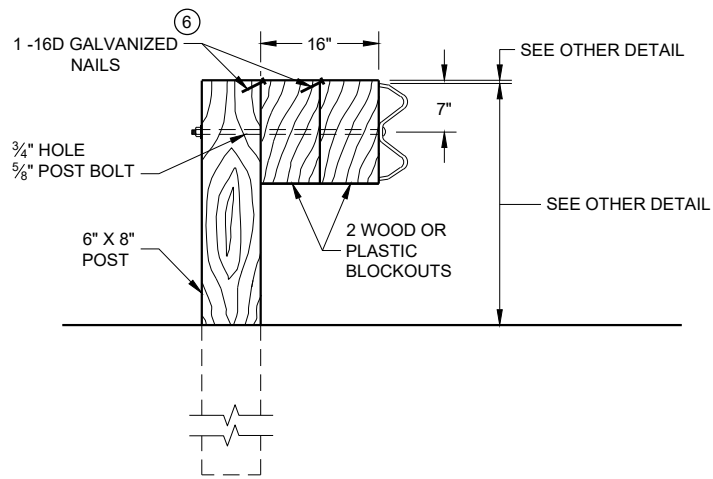
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

6

6

SDD 14B42 - 07b

SDD 14B42 - 07b

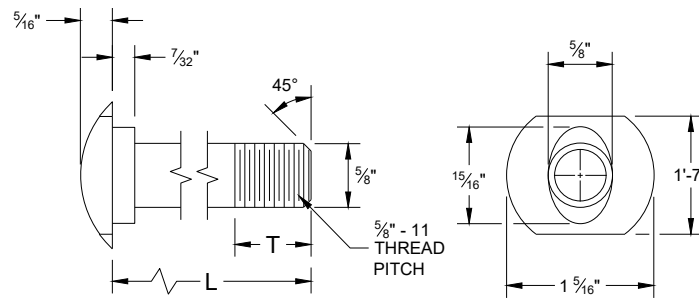


**DETAIL FOR 16" BLOCKOUT DEPTH**

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

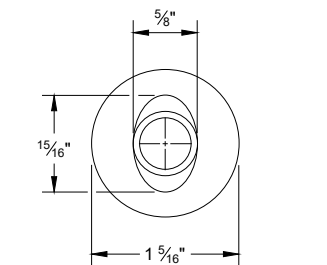
**NOTE:**

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

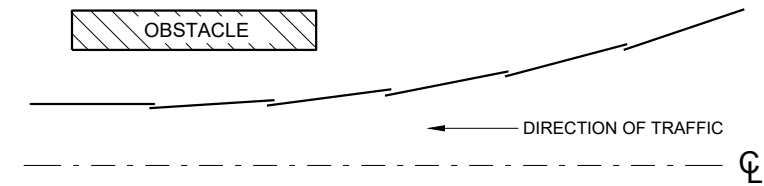


**POST BOLT TABLE**

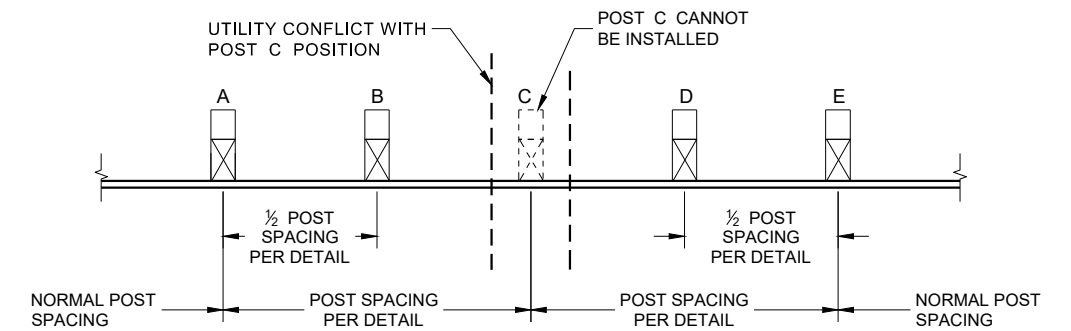
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



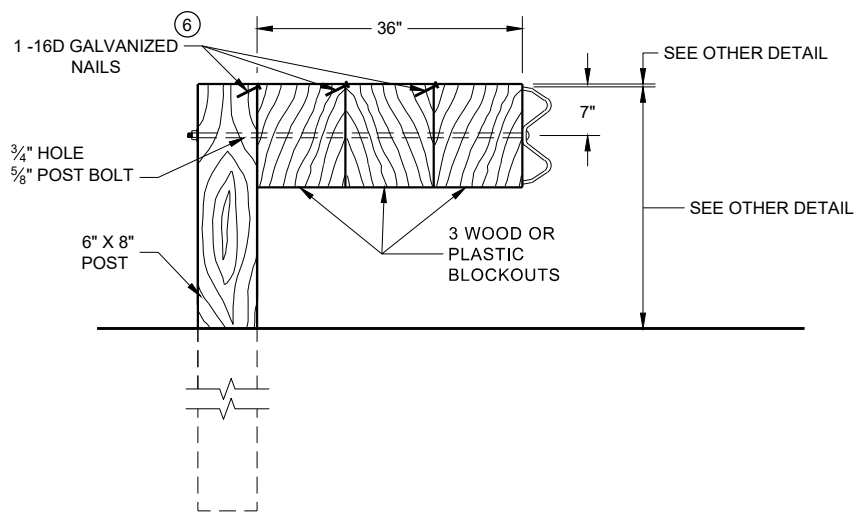
**ALTERNATE BOLT HEAD**



**PLAN VIEW  
BEAM LAPPING DETAIL**

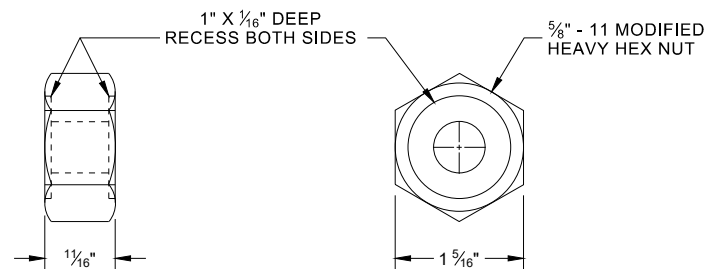


**POST DRIVING FOR CONTINUOUS  
UNDERGROUND OBSTRUCTION**

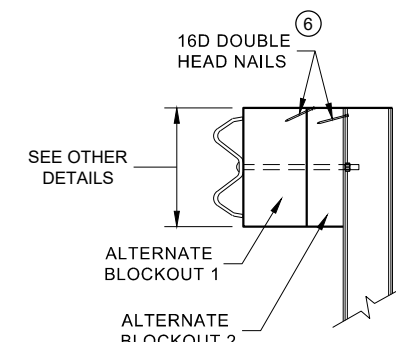


**DETAIL FOR 36" BLOCKOUT DEPTH**

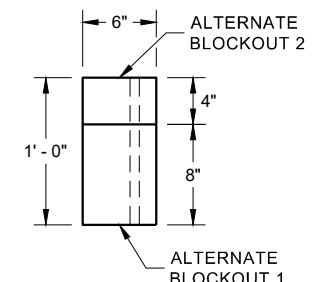
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.  
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



**POST BOLT, SPLICE BOLT  
AND RECESS NUT**



**SIDE VIEW**



**PLAN VIEW**

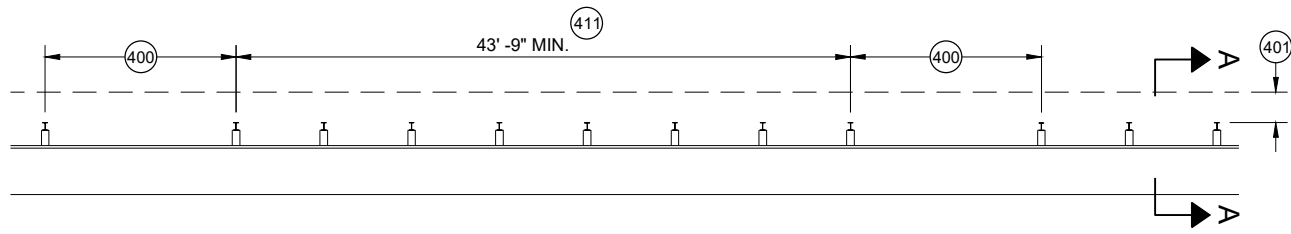
**ALTERNATE WOOD  
BLOCKOUT DETAIL**

6 WHEN USING STEEL POST AND WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

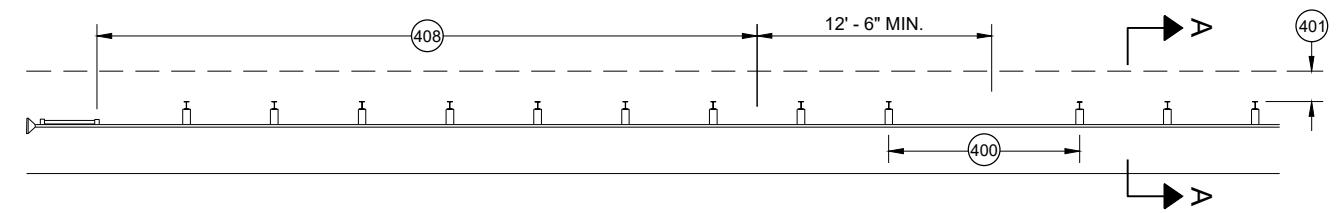
**MIDWEST GUARDRAIL SYSTEM  
(MGS) GUARDRAIL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

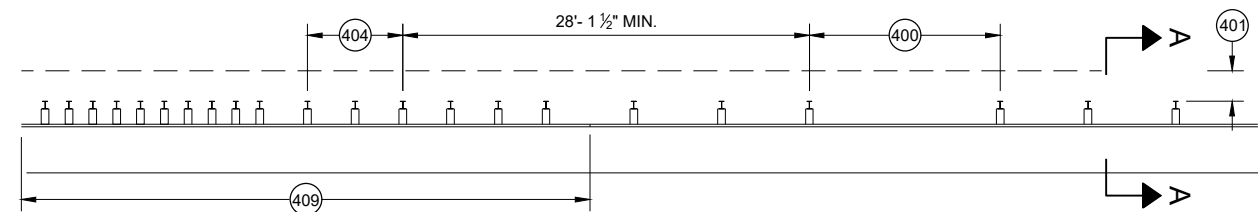




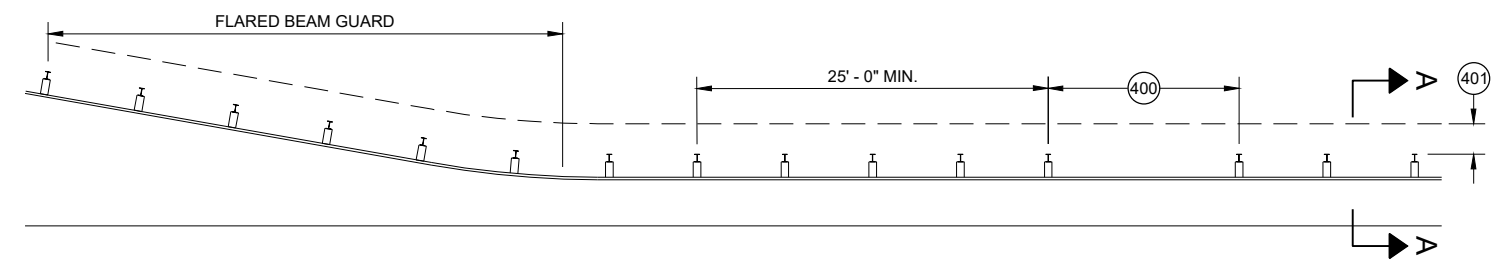
**MISSING POST IN MGS GUARDRAIL**



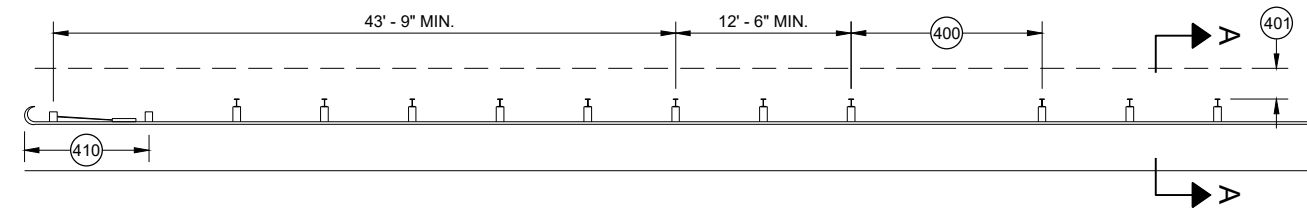
**MISSING POST IN MGS GUARDRAIL NEAR EAT**



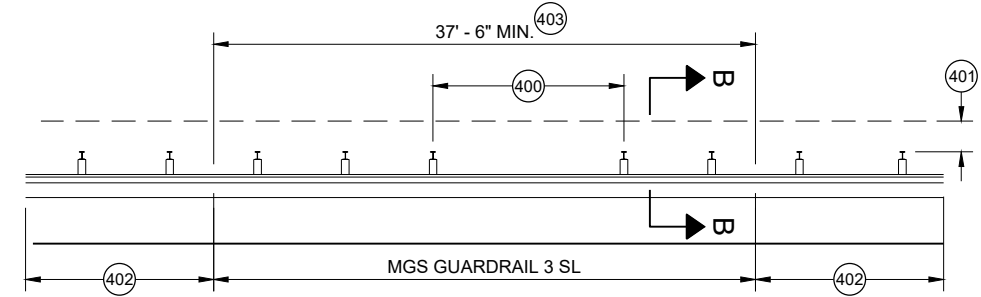
**MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION**



**MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD**

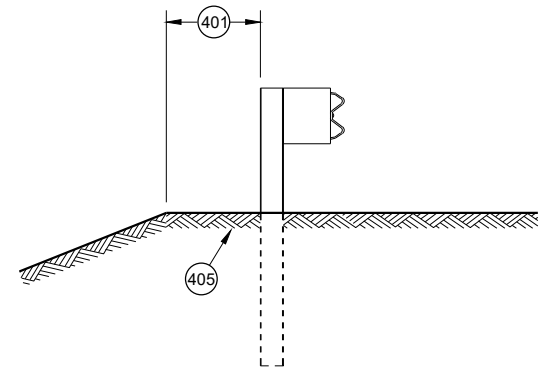


**MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL**

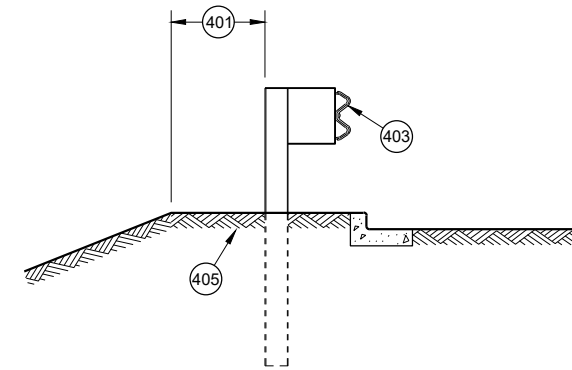


**MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)**

- ④00 MAX SPAN 12' - 6"
- ④01 2' MIN.
- ④02 MGS GUARDRAIL 3
- ④03 NESTING BEAM GUARD
- ④04 ASYMMETRIC TRANSITION
- ④05 SOIL WELL DRAINED AND COMPACTED
- ④06 SEE OTHER DRAWINGS IN THIS SDD
- ④07 SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
- ④08 SEE SDD 14B44
- ④09 SEE SDD 14B45
- ④10 SEE SDD 14B47
- ④11 MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



**SECTION A - A**



**SECTION B - B**

<b>MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
<small>FHWA</small>	

**GENERAL NOTES**

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
  - (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED
  - (C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.
  - (D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.
  - (E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.
- DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

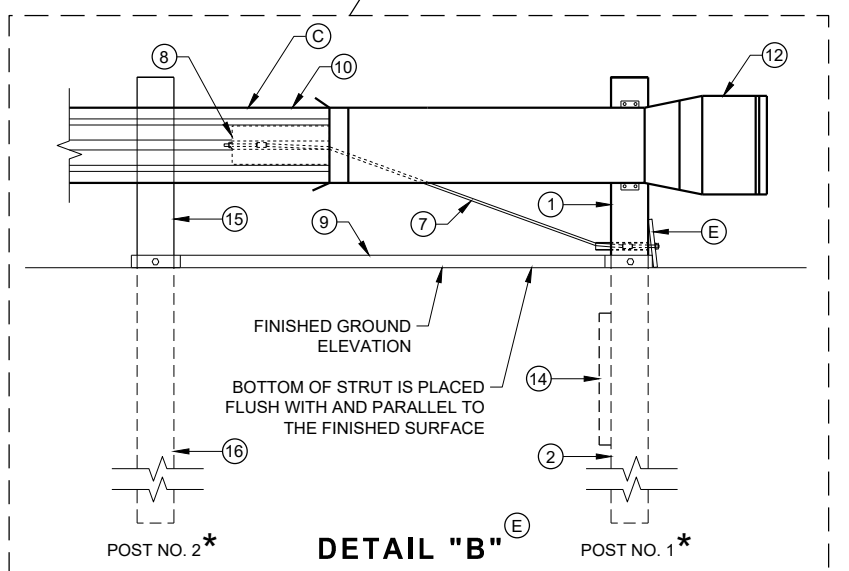
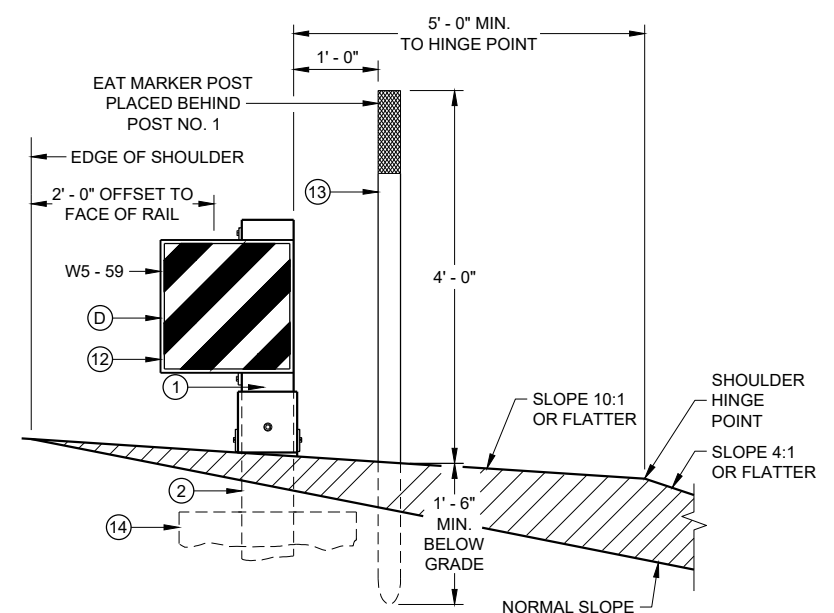
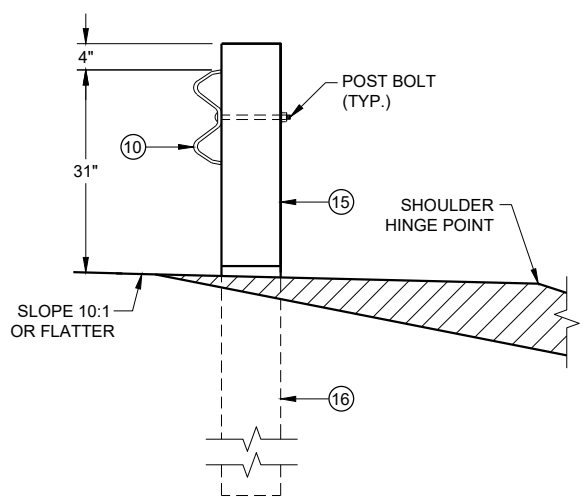
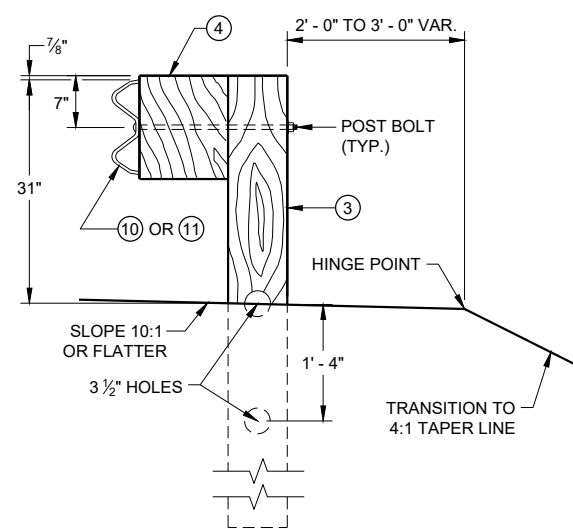
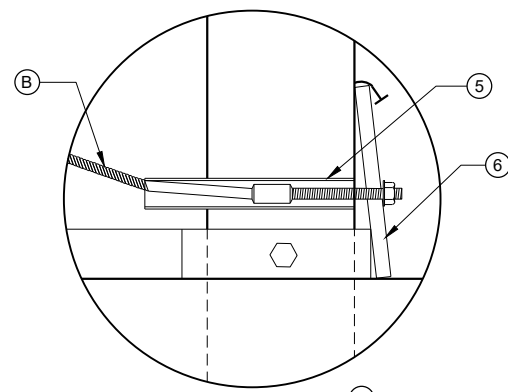
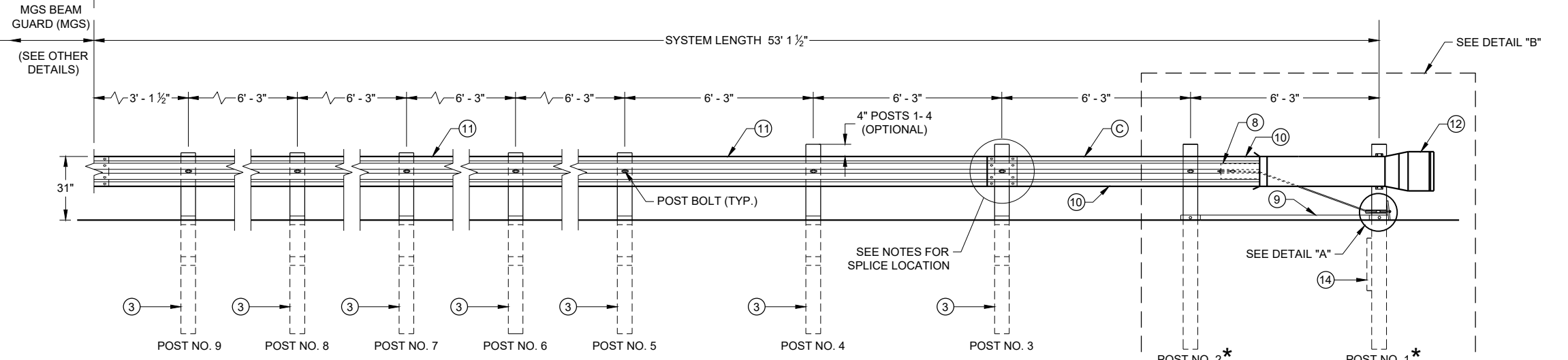
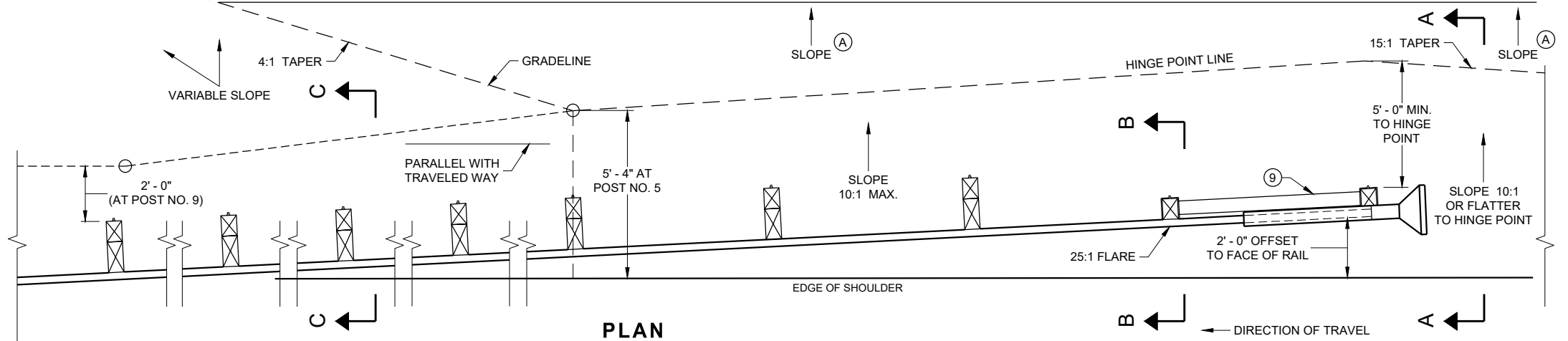
\* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

CLEAR ZONE LIMITS, EITHER AS SHOWN ELSEWHERE IN THE PLANS OR, IF NOT SHOWN ELSEWHERE IN THE PLANS, 15 FEET BEYOND THE HINGE POINT LINE



**MIDWEST GUARDRAIL SYSTEM  
ENERGY ABSORBING TERMINAL  
(MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

6

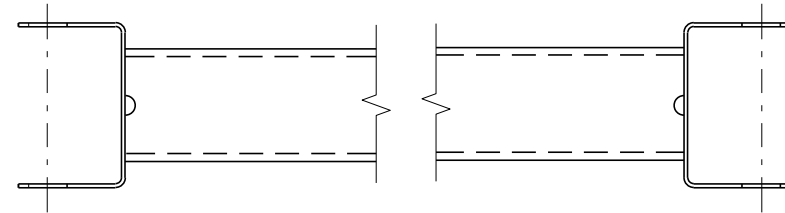
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SDD 14B44 - 04a

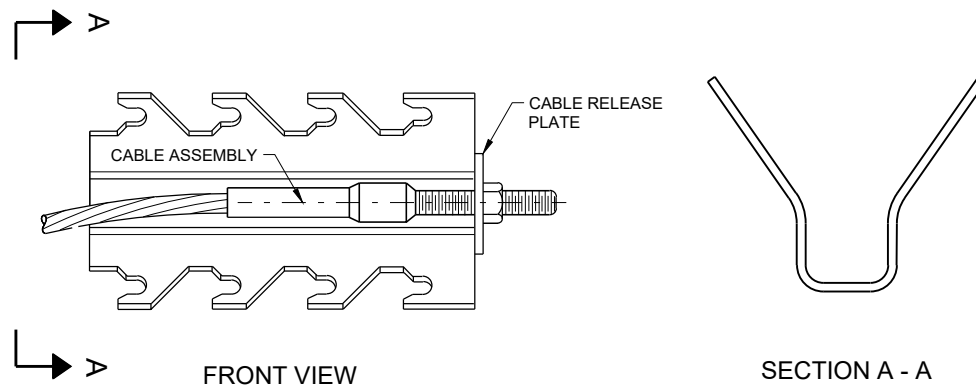
SDD 14B44 - 04a

**BILL OF MATERIALS**

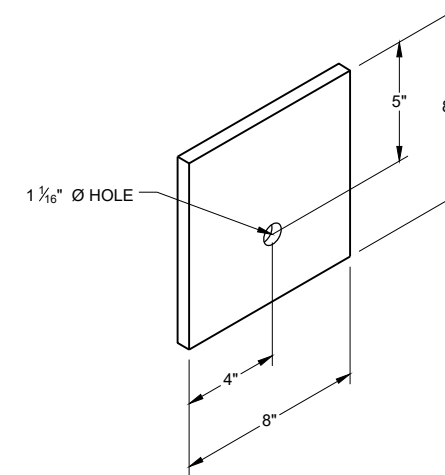
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



**GENERIC GROUND STRUT** ⑨ ⑤



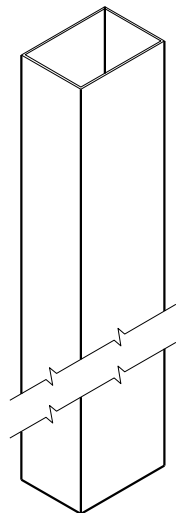
**GENERIC ANCHOR CABLE BOX** ⑨ ⑤



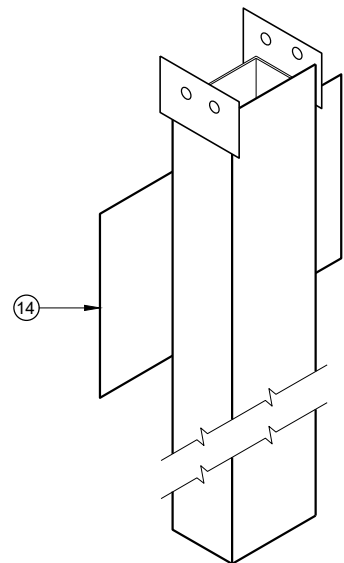
**BEARING PLATE** ⑥ ⑤

**MIDWEST GUARDRAIL SYSTEM  
ENERGY ABSORBING TERMINAL  
(MGS)**

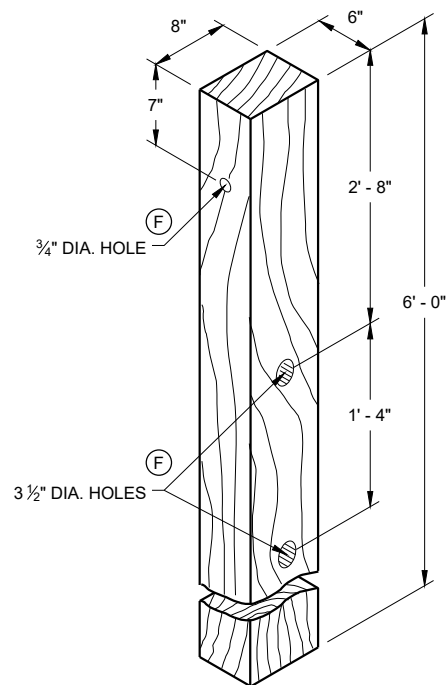
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



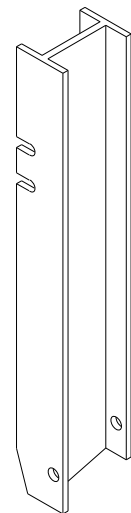
UPPER POST NO. 1 <sup>(1)</sup> (E)



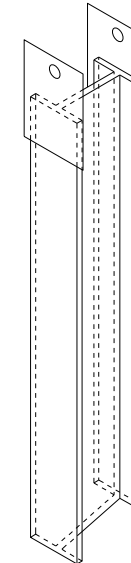
LOWER POST NO. 1 <sup>(2)</sup> (E)



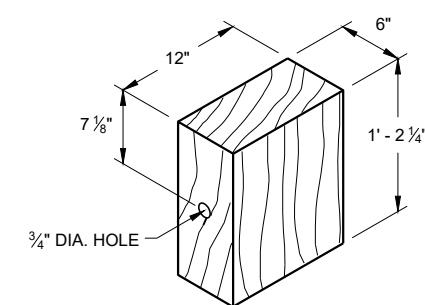
WOOD CRT POST <sup>(3)</sup> (E)  
POSTS NUMBER 3-9



UPPER POST NO. 2 <sup>(15)</sup> (E)

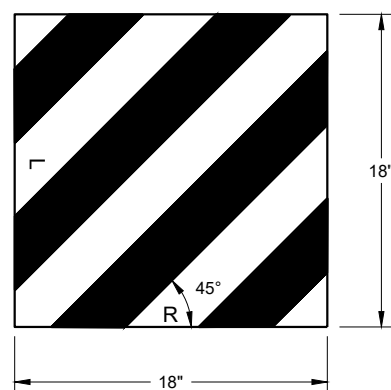


LOWER POST NO. 2 <sup>(16)</sup> (E)

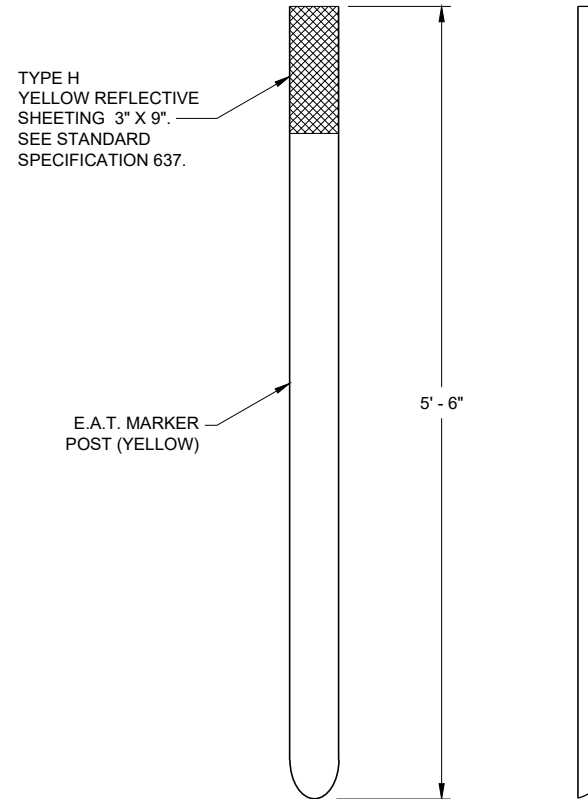


WOOD BLOCKOUT <sup>(4)</sup>  
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

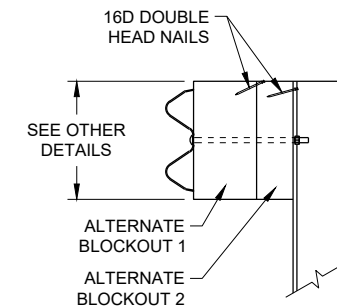
6



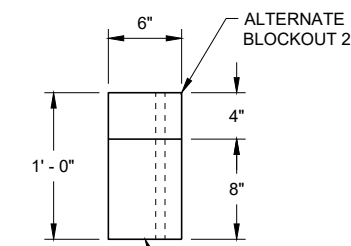
W5 - 59  
REFLECTIVE SHEETING DETAIL <sup>(E)</sup>



FRONT VIEW SIDE VIEW  
E.A.T. MARKER POST <sup>(13)</sup>



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

6

SDD 14B44 - 04c

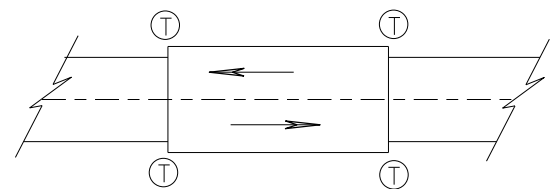
SDD 14B44 - 04c

**MIDWEST GUARDRAIL SYSTEM  
ENERGY ABSORBING TERMINAL  
(MGS)**

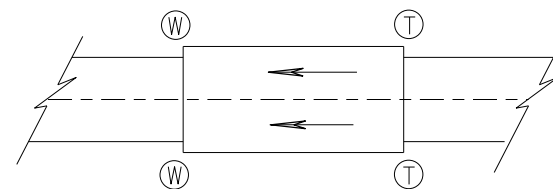
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
7/2018 DATE /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERVISOR

FHWA



**TWO WAY TRAFFIC**



**ONE WAY TRAFFIC**

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

**TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE**

**GENERAL NOTES**

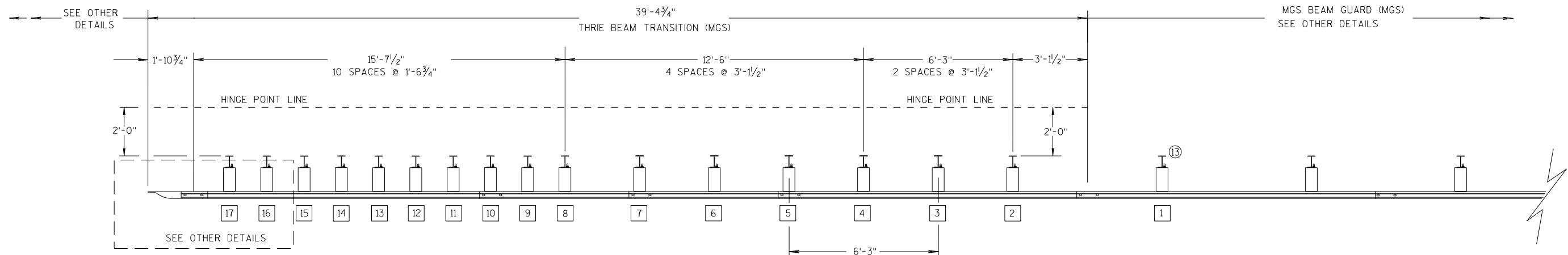
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

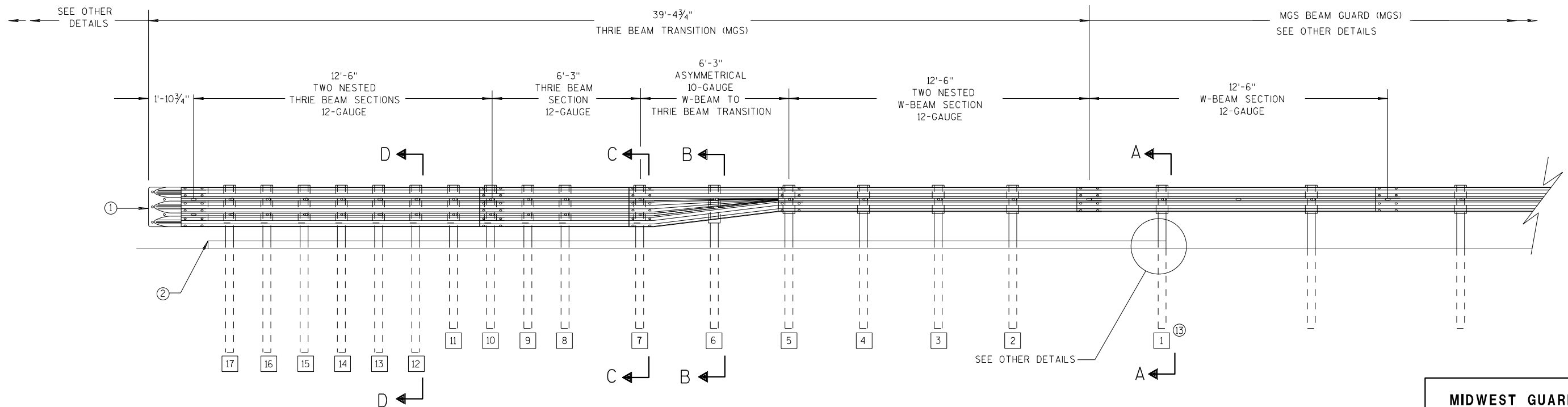
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

- ① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ⑬ STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



**PLAN VIEW**



**ELEVATION VIEW**

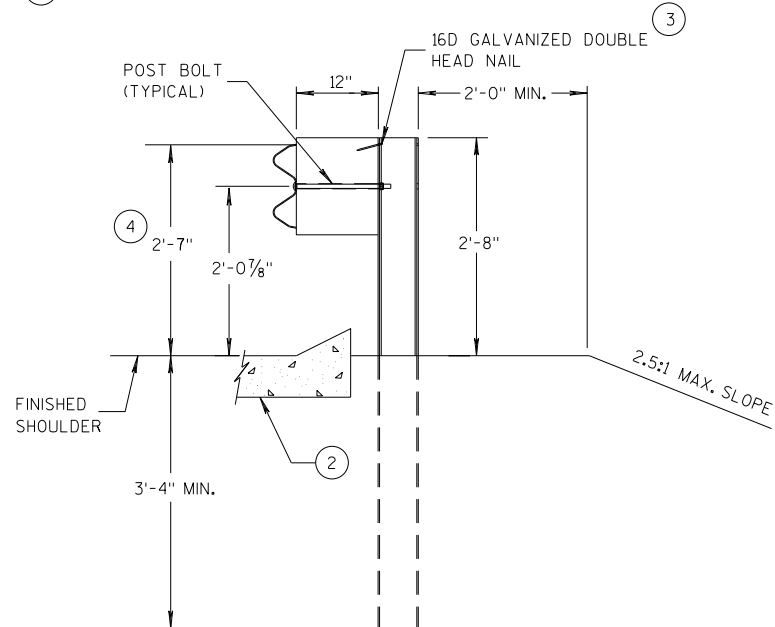
**MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION**

**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

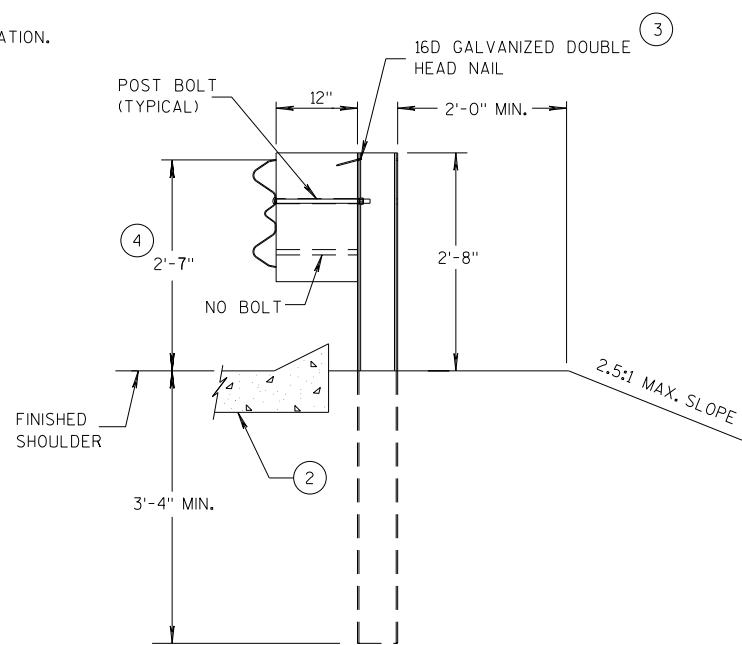
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

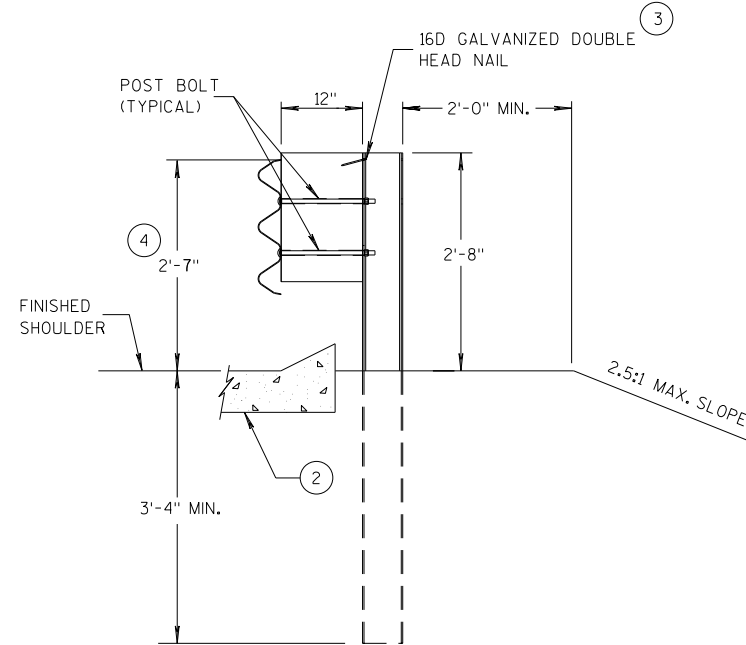
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ③ WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- ④ TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".
- ⑬ STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



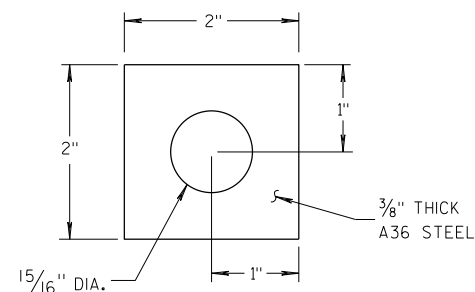
**SECTION A-A  
POSTS 1-5**



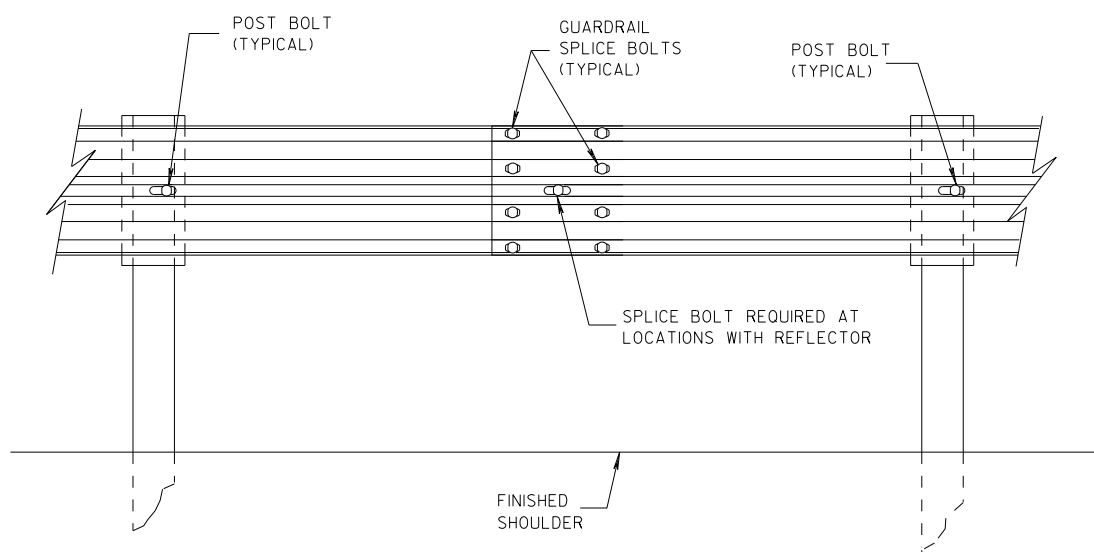
**SECTION B-B  
POST 6**



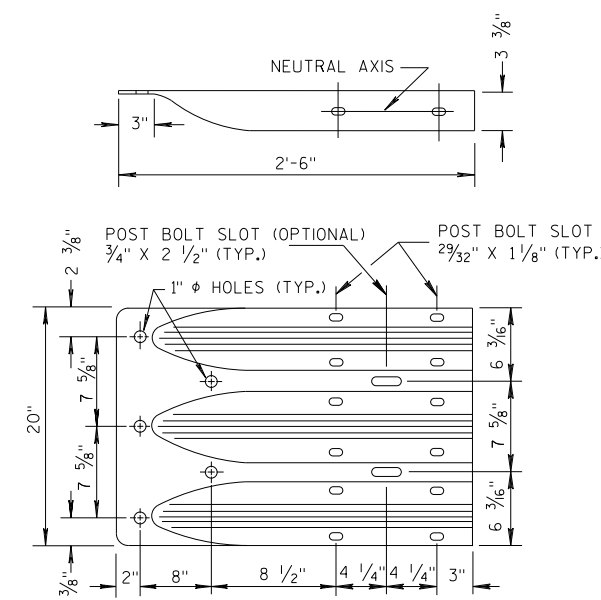
**SECTION C-C  
POSTS 7-11**



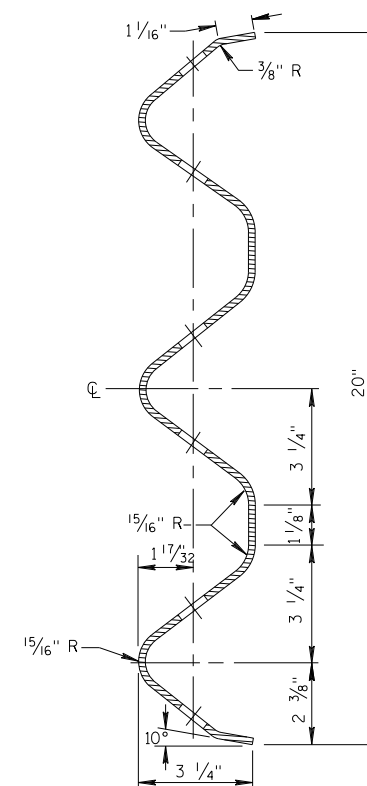
**PLATE WASHER DETAIL**



**SPLICE DETAIL**



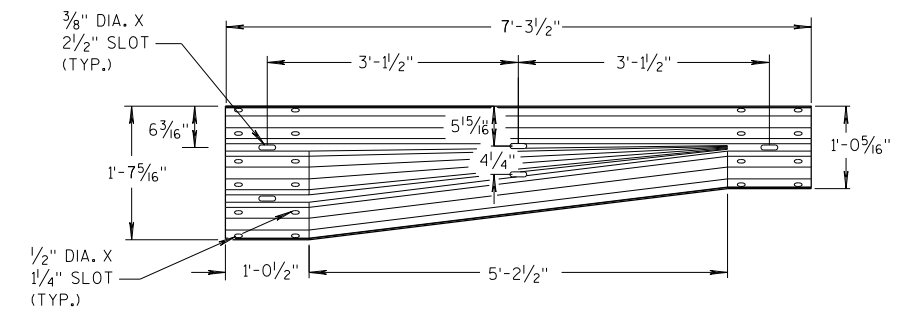
**THRIE BEAM  
TERMINAL CONNECTOR**



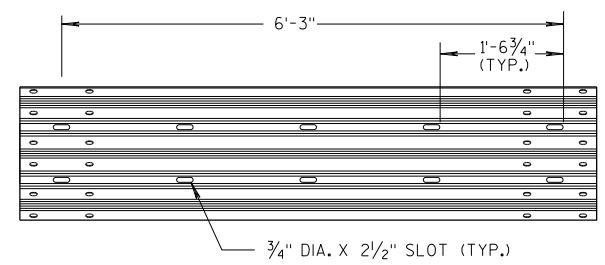
**SECTION THRU THRIE  
BEAM RAIL ELEMENT**

**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

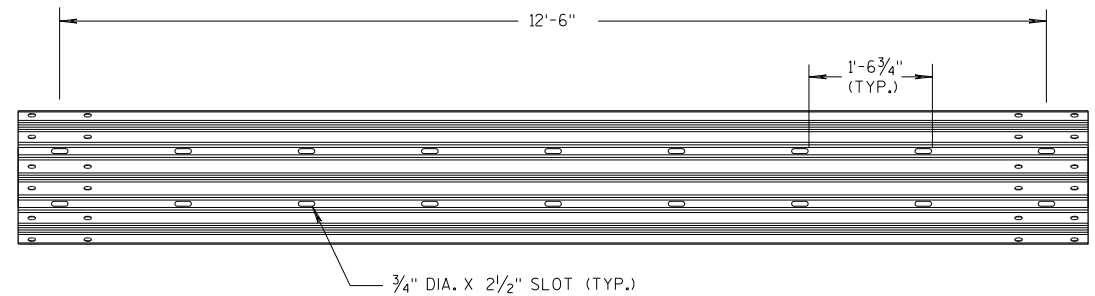
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



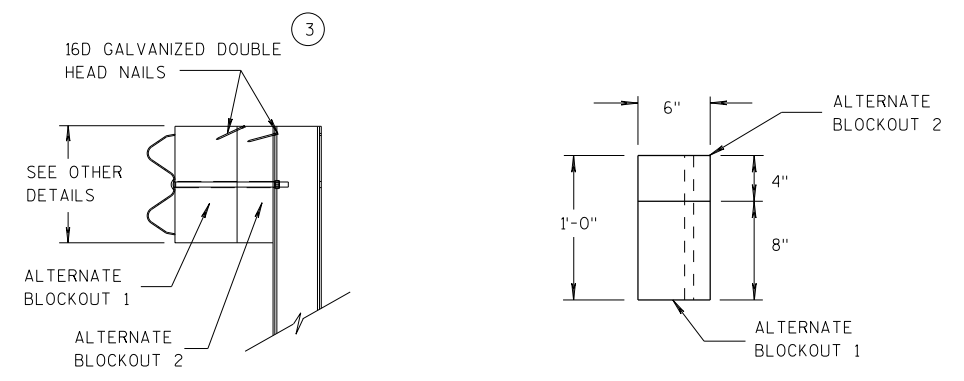
**W-BEAM TO THRIE BEAM TRANSITION SECTION**



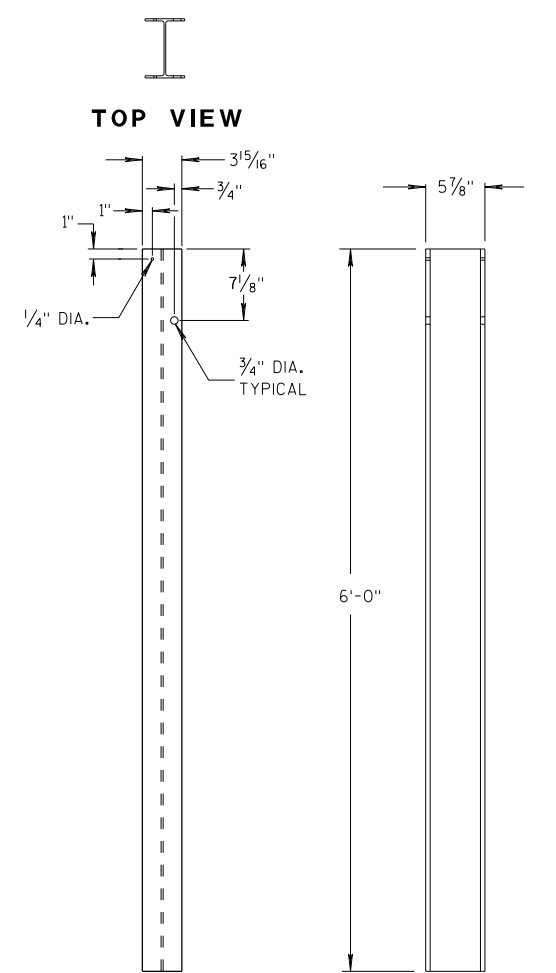
**6'-3" THRIE BEAM SECTION**



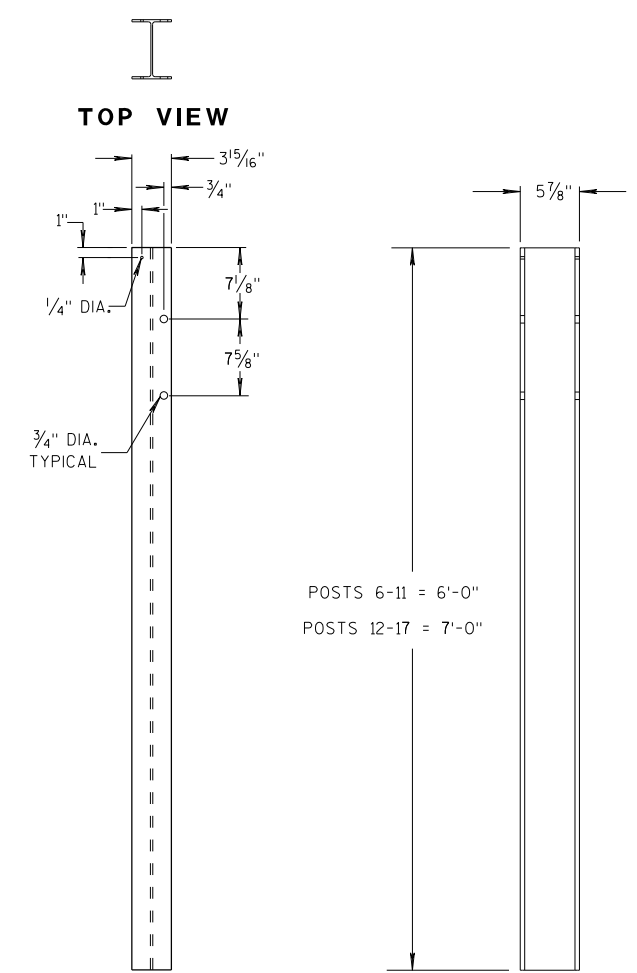
**12'-6" THRIE BEAM SECTION**



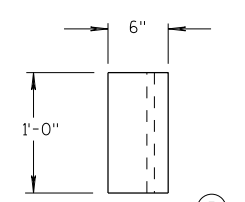
**ALTERNATE WOOD BLOCKOUT DETAIL**



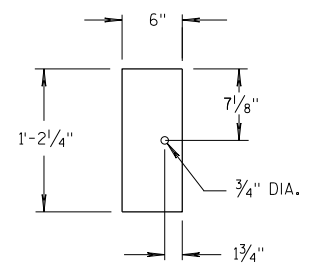
**STEEL POSTS 1-5**



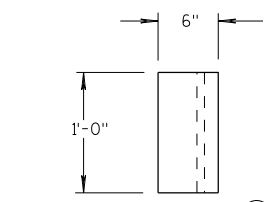
**STEEL POSTS 6-17**



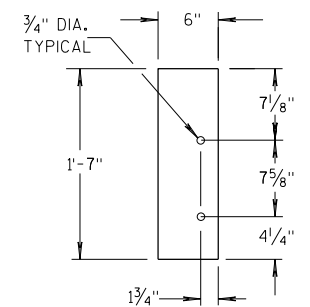
**TOP VIEW**



**FRONT VIEW  
BLOCKOUT  
POSTS 1-5**



**TOP VIEW**



**FRONT VIEW  
BLOCKOUT  
POSTS 6-17**

**GENERAL NOTES**

- STEEL POSTS ARE W6X9 OR W6X8.5.
- BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.
- (3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- (5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.
- (13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

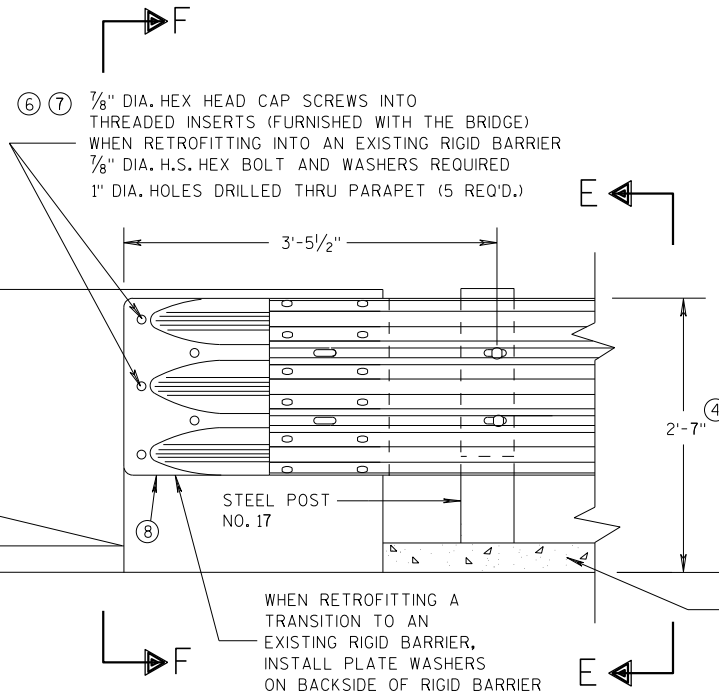
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

6

6

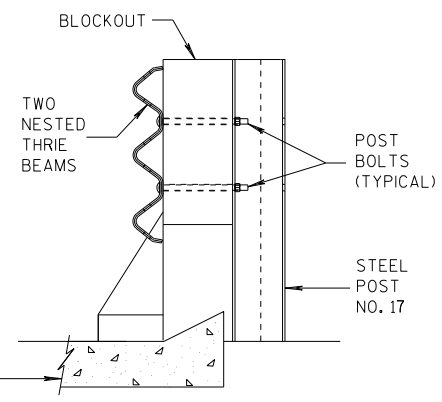
S.D.D. 14 B 45-5c

S.D.D. 14 B 45-5c



FRONT VIEW

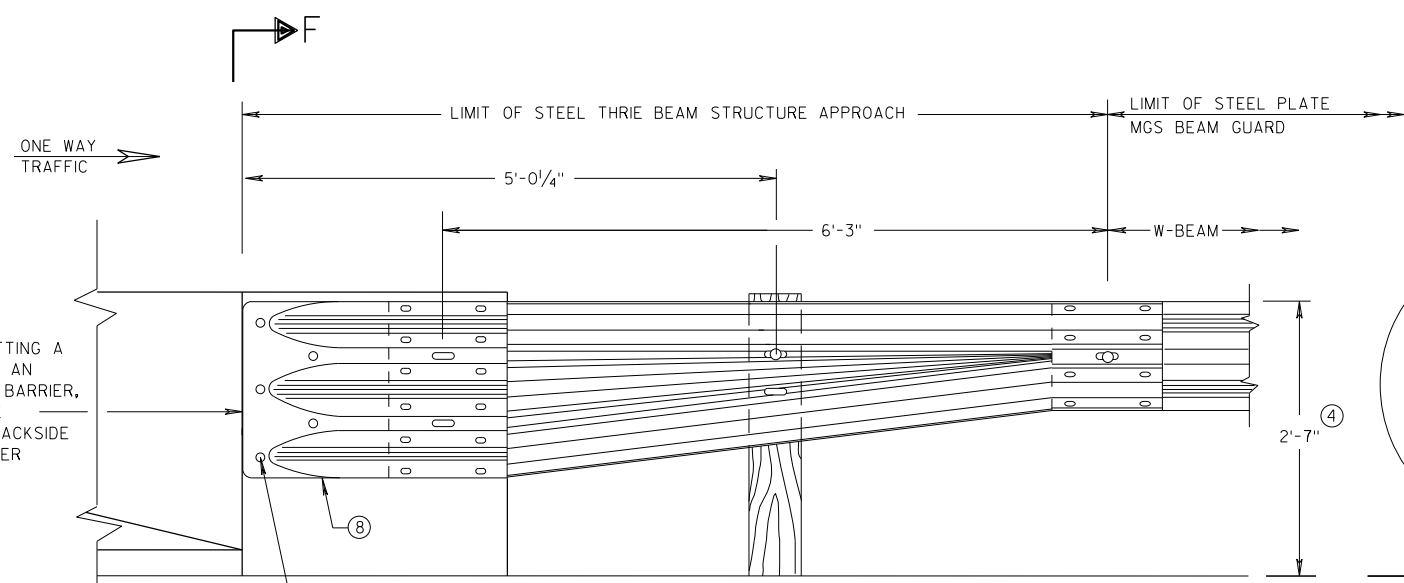
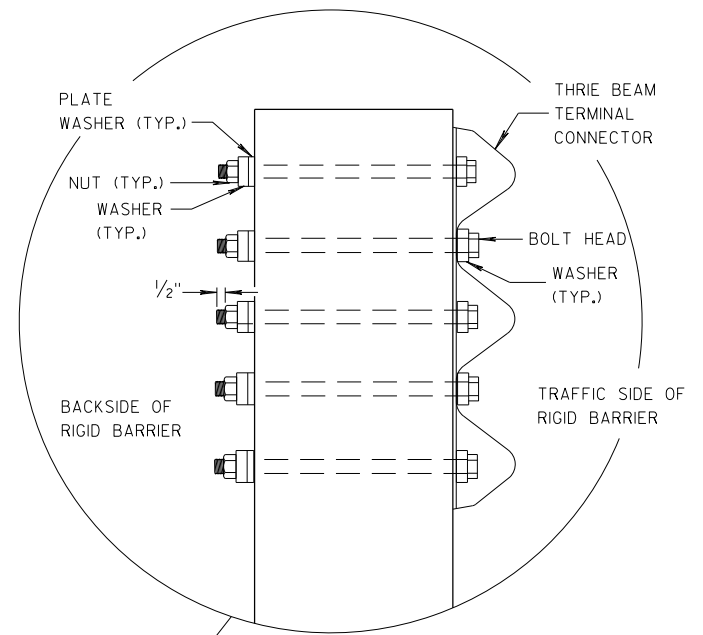
**THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS**



SECTION E-E

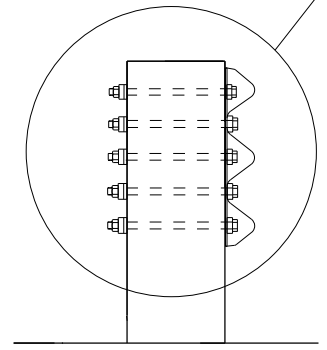
**GENERAL NOTES**

- THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSITION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.
- (2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- (4) TOLERANCE FOR TOP OF BEAM IS  $\pm 1"$ .
- (6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- (7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- (8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

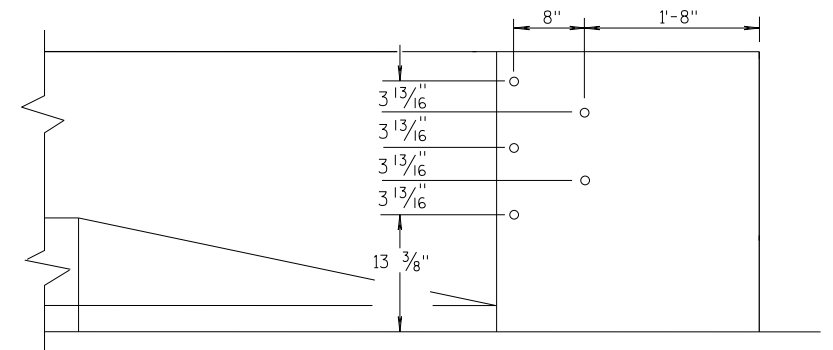


FRONT VIEW

**W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS**  
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



SECTION F-F



DRILL HOLE LOCATION

6

6

S.D.D. 14 B 45-5d

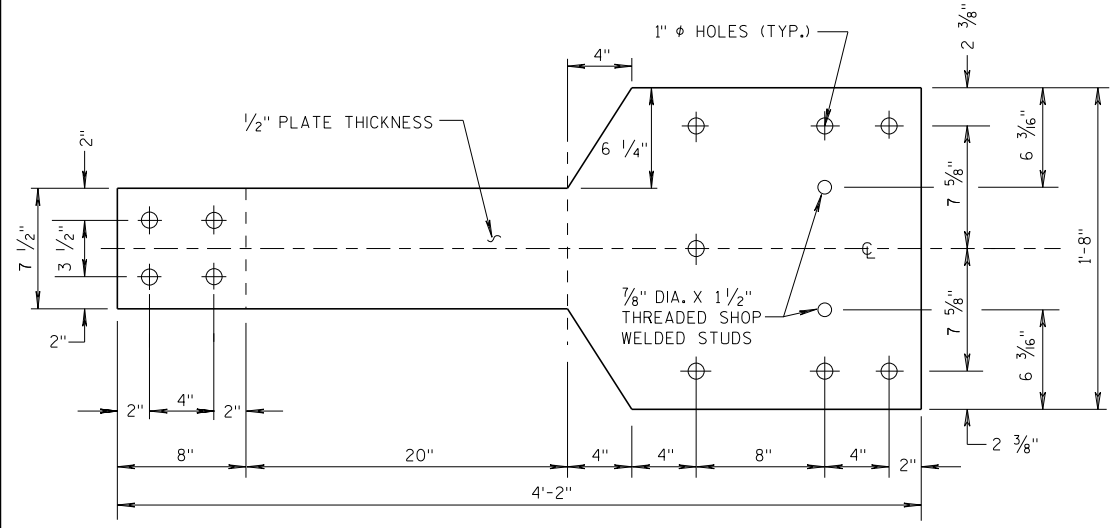
S.D.D. 14 B 45-5d

<b>MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 07/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	

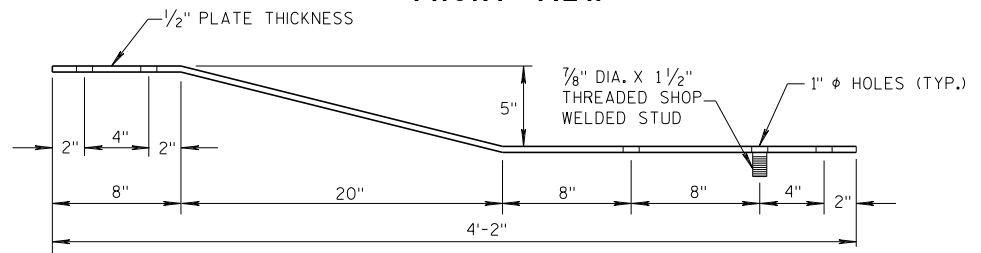


**GENERAL NOTES**

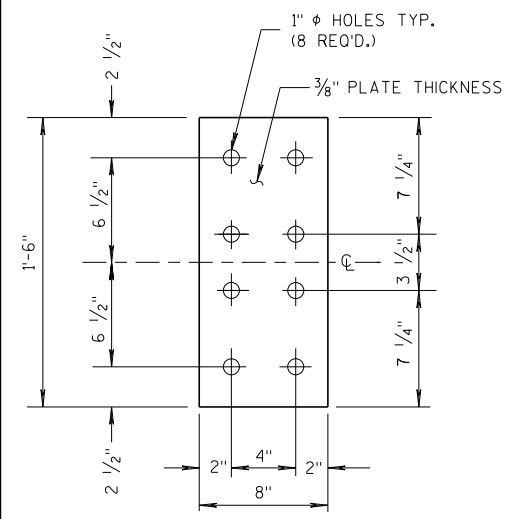
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



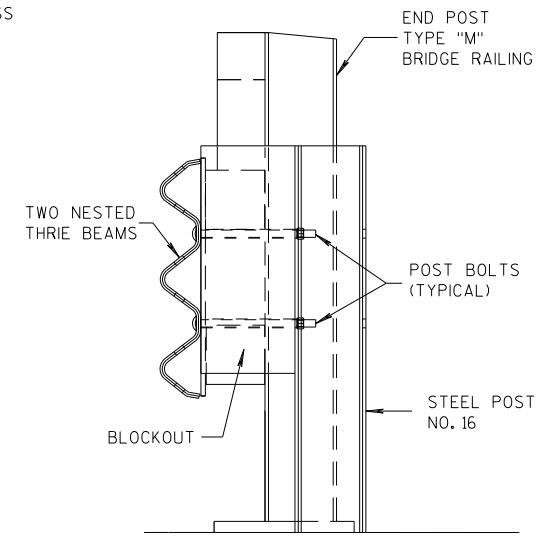
**FRONT VIEW**



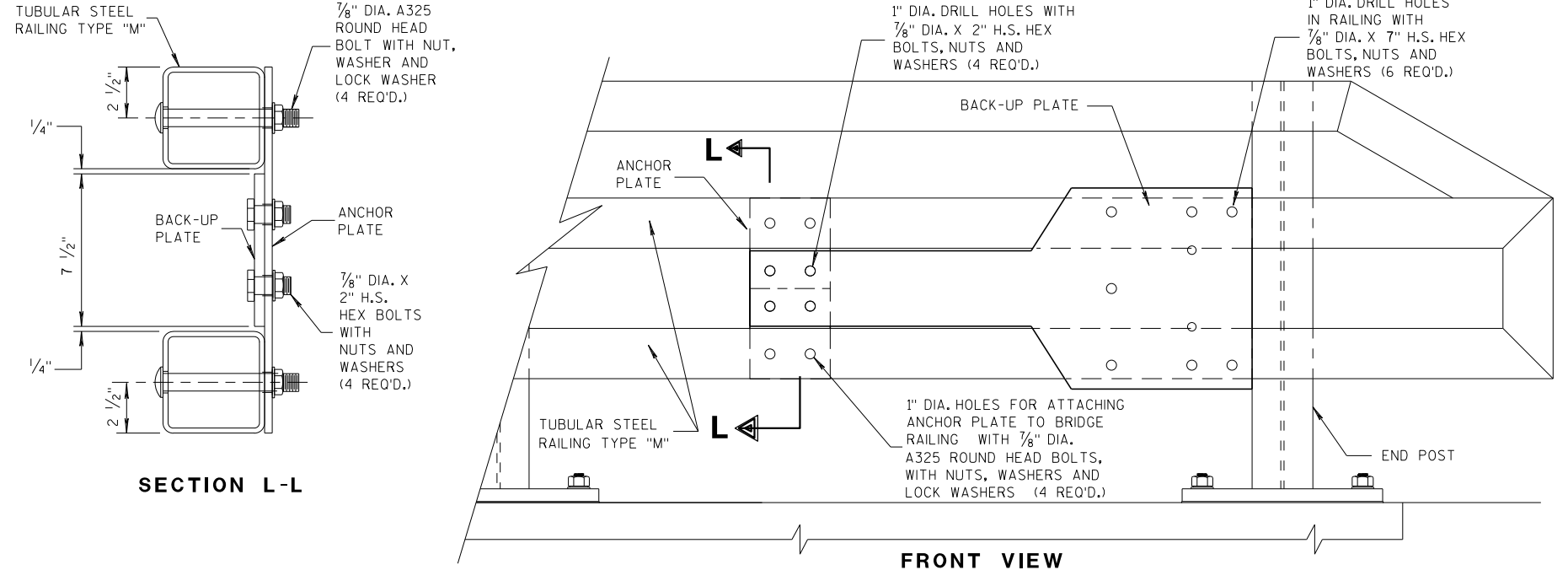
**PLAN VIEW  
BACK-UP PLATE DETAIL, TYPE "M"**



**FRONT VIEW  
ANCHOR PLATE DETAIL, TYPE "M"**



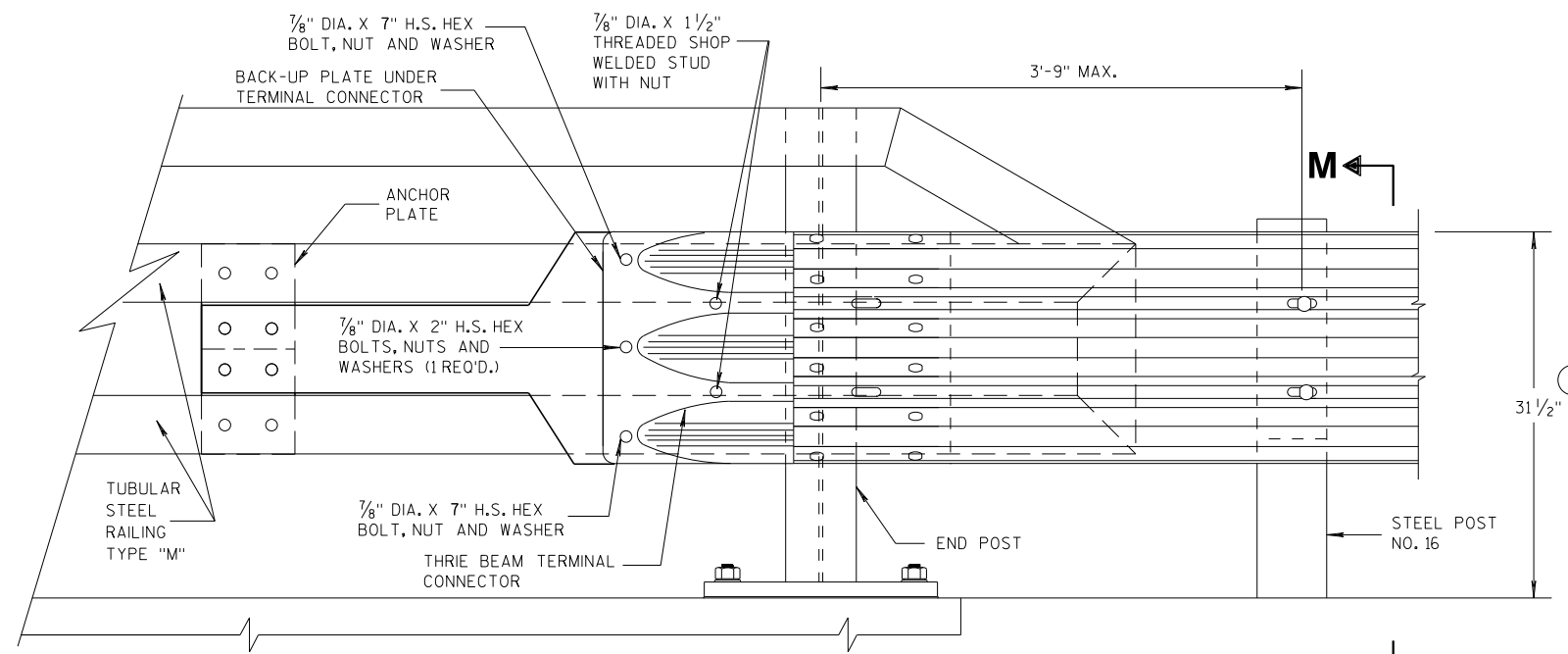
**SECTION M-M**



**SECTION L-L**

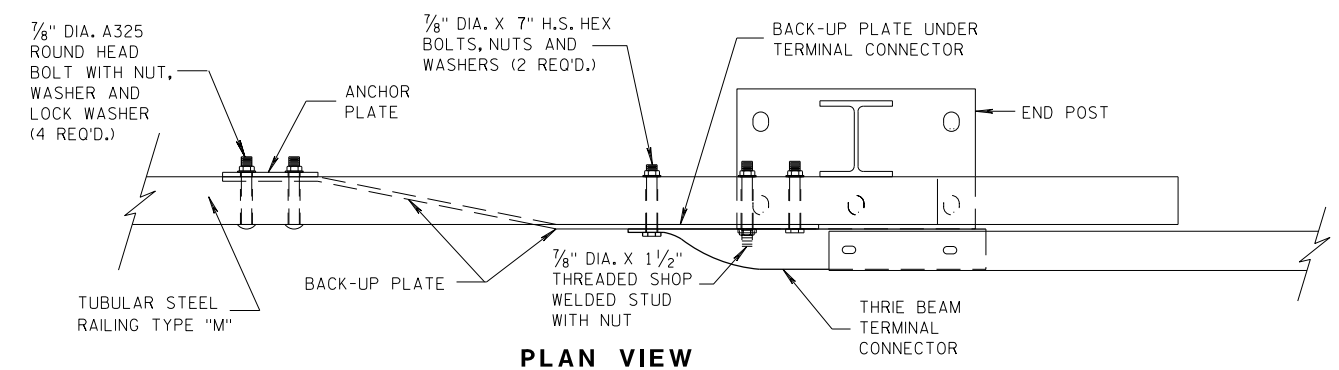
**FRONT VIEW**

**ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"**



**FRONT VIEW**

**M**



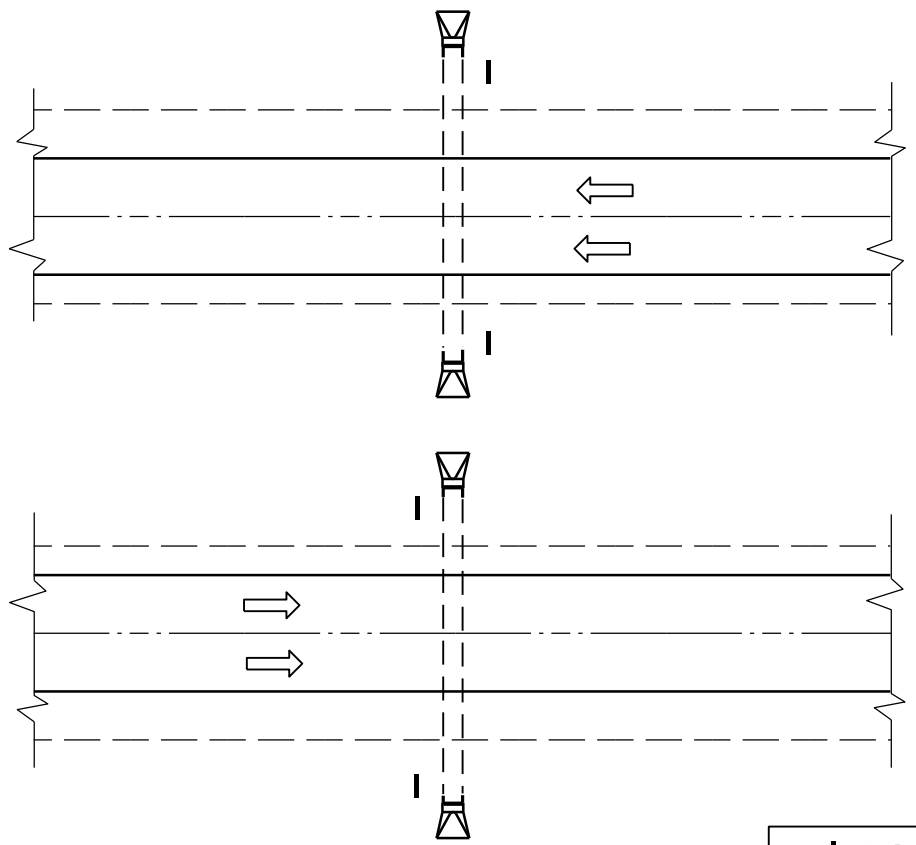
**PLAN VIEW**

**THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"**

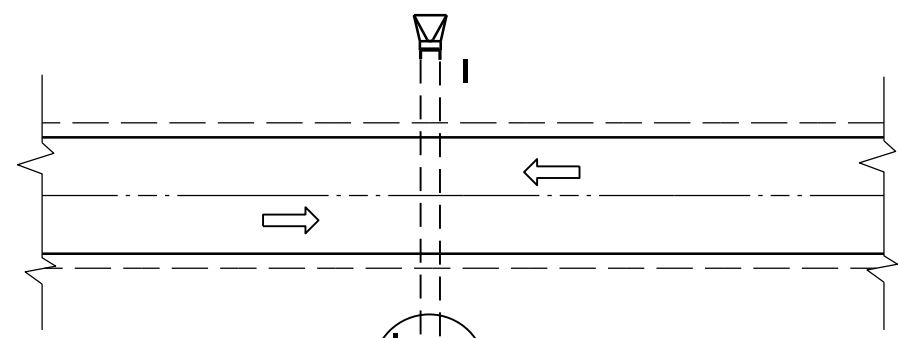
**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

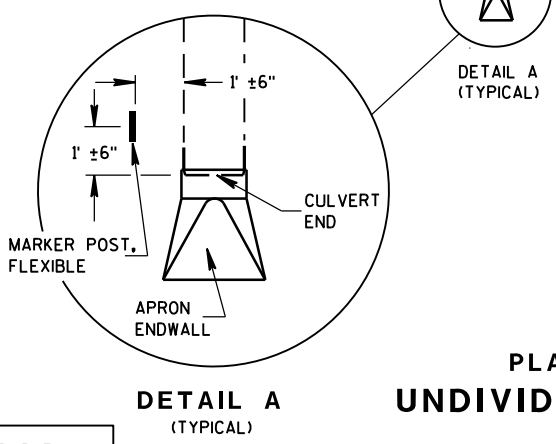
APPROVED  
DATE 07/2018 /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERVISOR  
FHWA



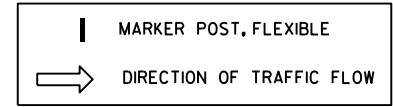
PLAN VIEW  
DIVIDED HIGHWAY



PLAN VIEW  
UNDIVIDED HIGHWAY



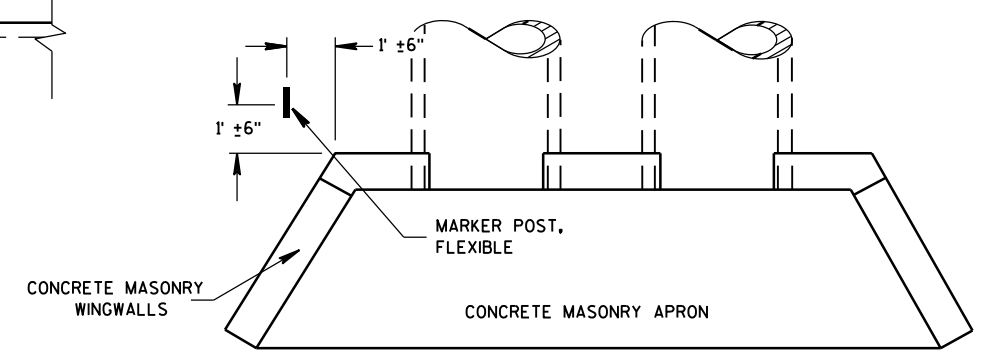
DETAIL A  
(TYPICAL)



**FLEXIBLE MARKER POST LOCATION**

**GENERAL NOTES**

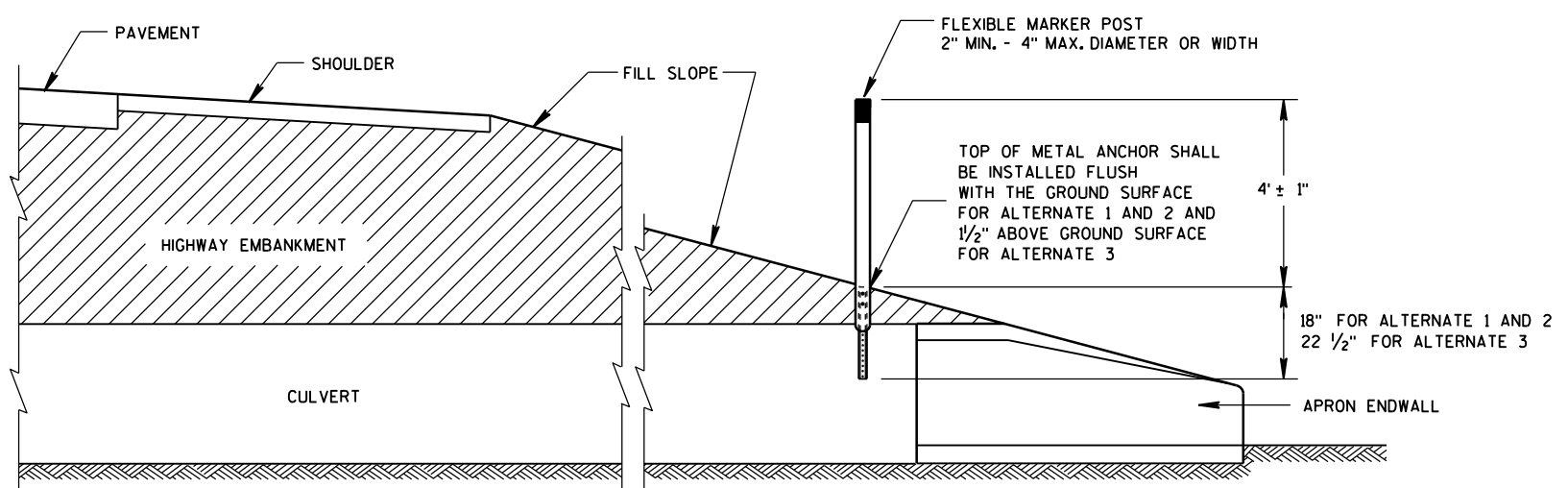
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW  
CONCRETE MASONRY ENDWALLS FOR  
CULVERT PIPE AND PIPE ARCH

6

6



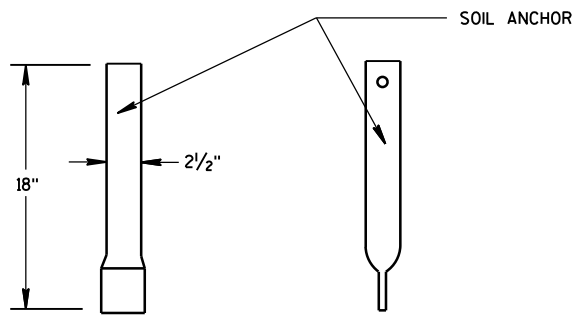
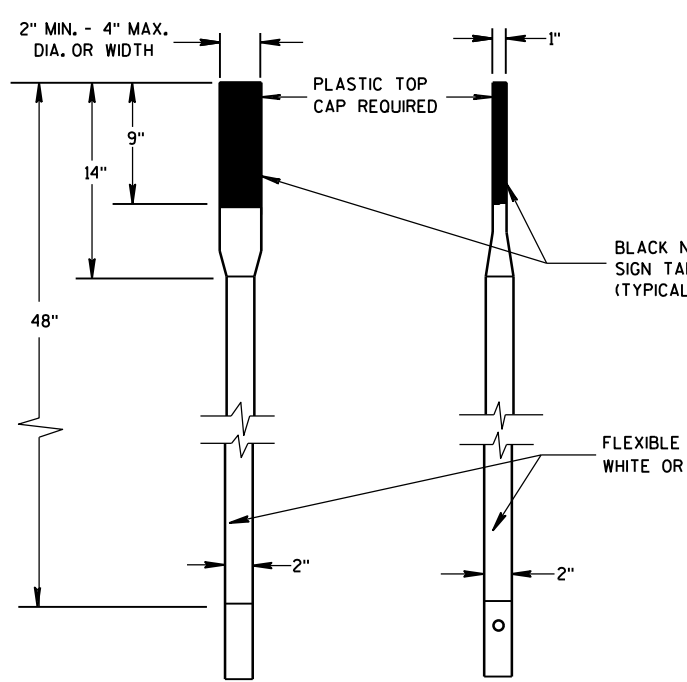
CROSS SECTION  
FLEXIBLE MARKER POST

**FLEXIBLE MARKER POST  
FOR CULVERT END**

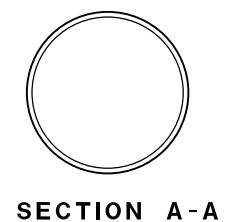
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

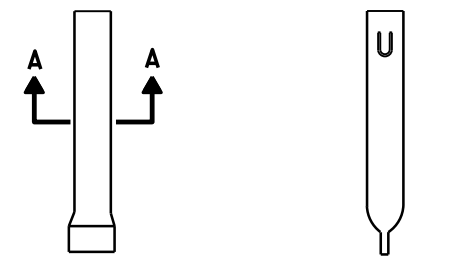
S.D.D. 15 A 3-2a



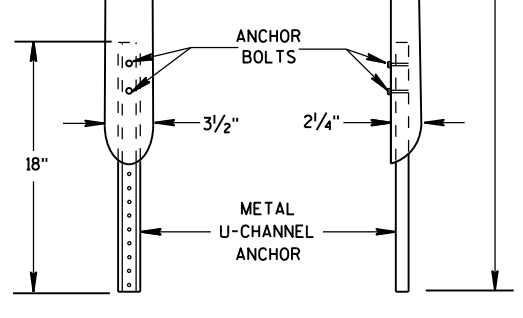
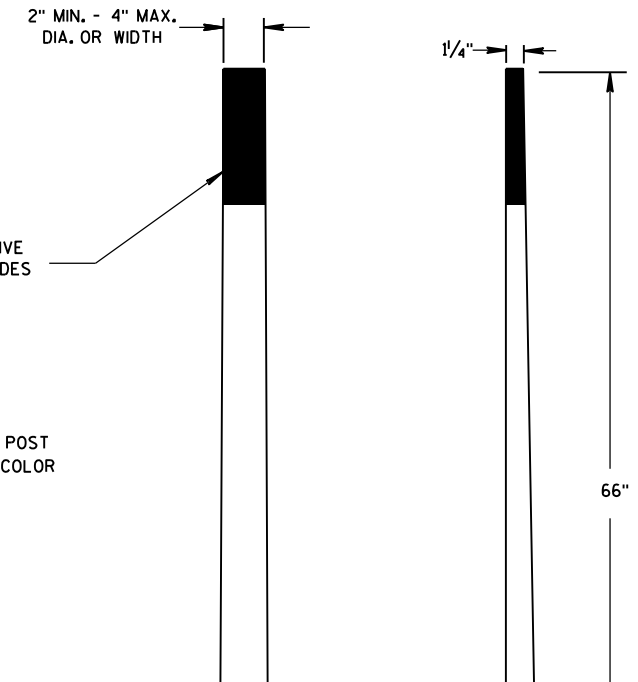
FRONT VIEW SIDE VIEW  
ALTERNATE 1



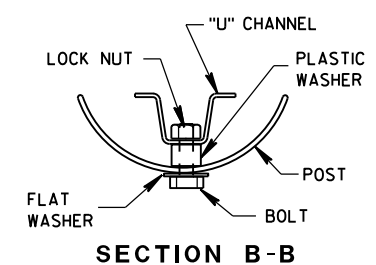
SECTION A-A



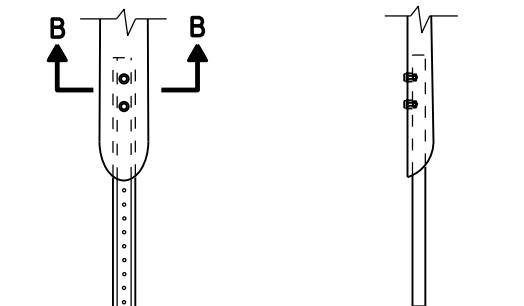
FRONT VIEW SIDE VIEW  
ALTERNATE 1



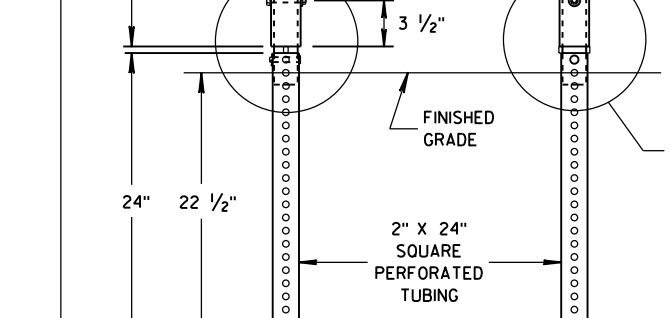
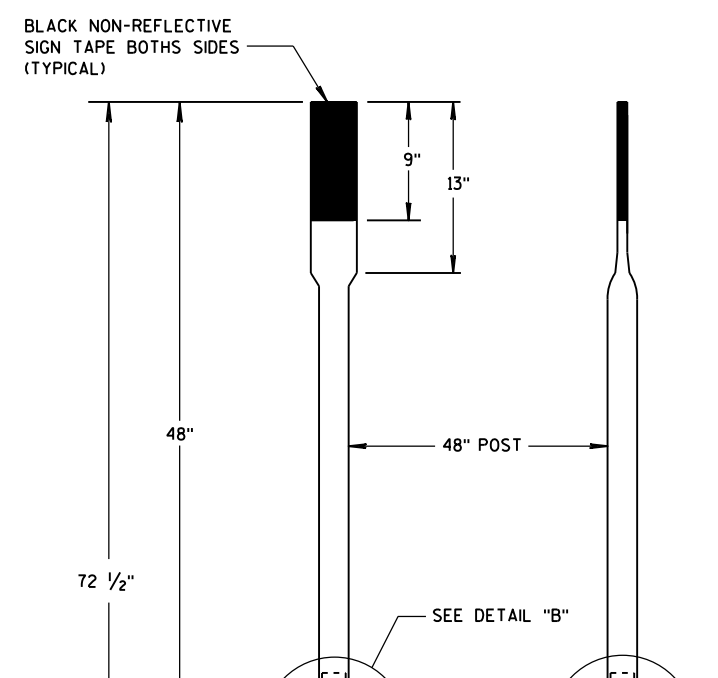
FRONT VIEW SIDE VIEW  
ALTERNATE 2



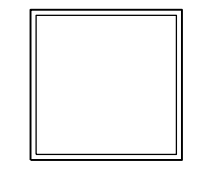
SECTION B-B



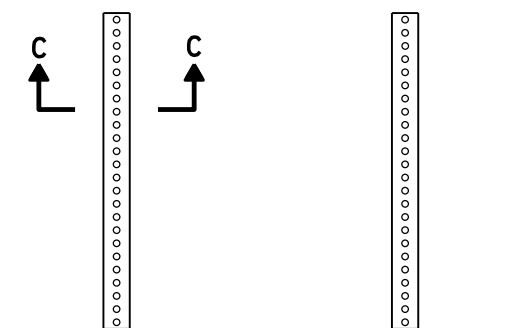
FRONT VIEW SIDE VIEW  
ALTERNATE 2  
FLEXIBLE MARKER POST ANCHORS



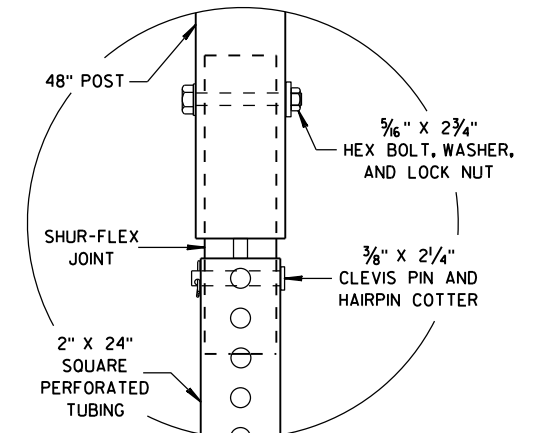
FRONT VIEW SIDE VIEW  
ALTERNATE 3



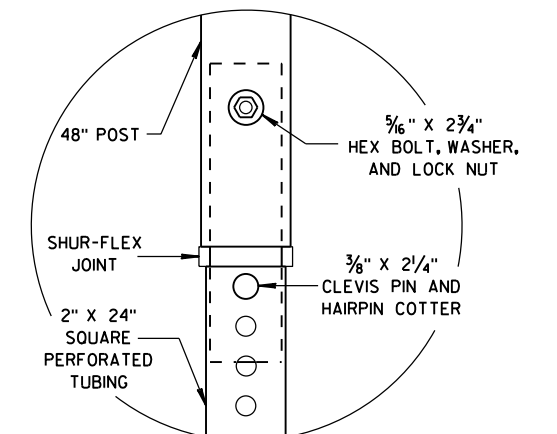
SECTION C-C



FRONT VIEW SIDE VIEW  
ALTERNATE 3



DETAIL B

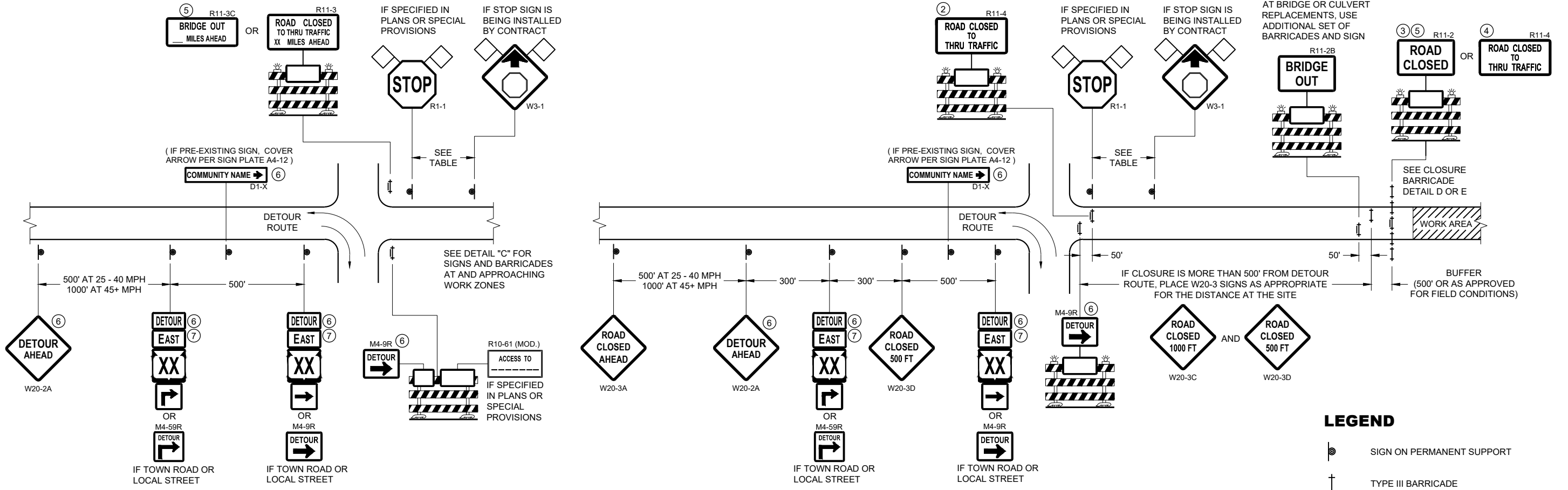


DETAIL C

**FLEXIBLE MARKER POST FOR CULVERT END**

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**

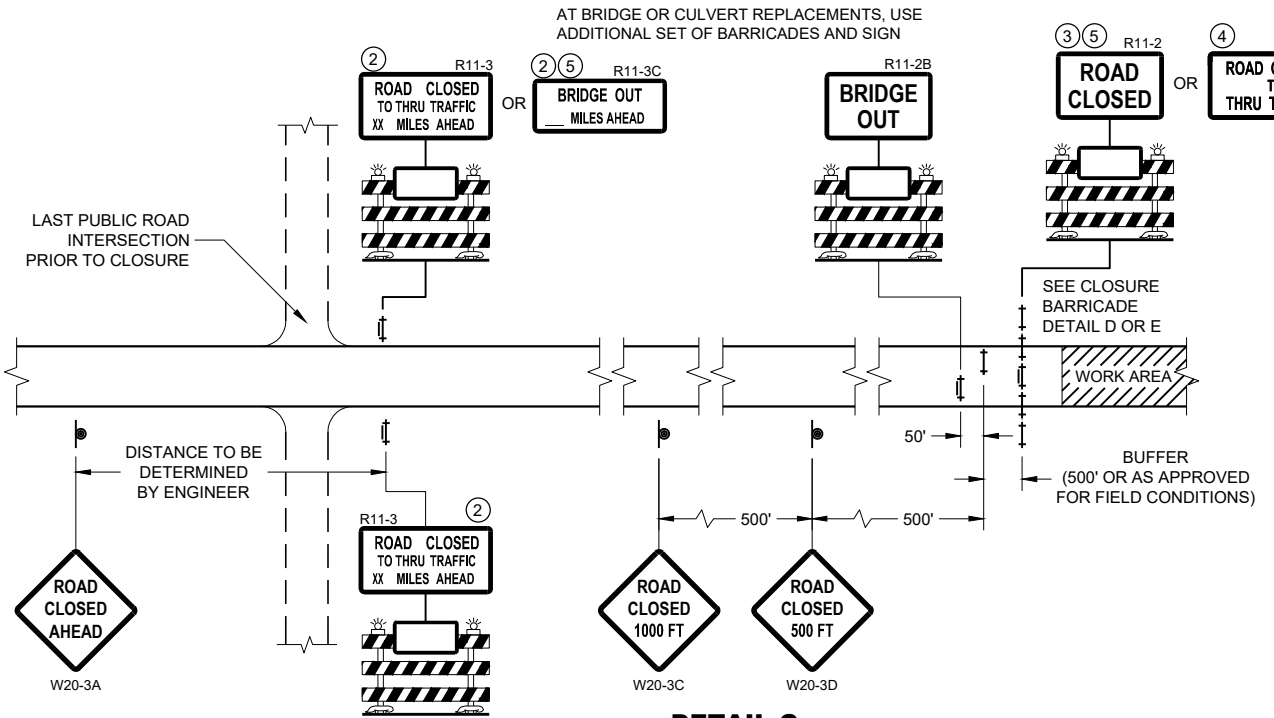
WORK ZONE LESS THAN 1/2 MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )

**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)

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

- M4 - 8
- M3 - X
- M1 - 4 OR M1 - 6 OR M1 - 5A
- M05 - 1 OR M06 - 1



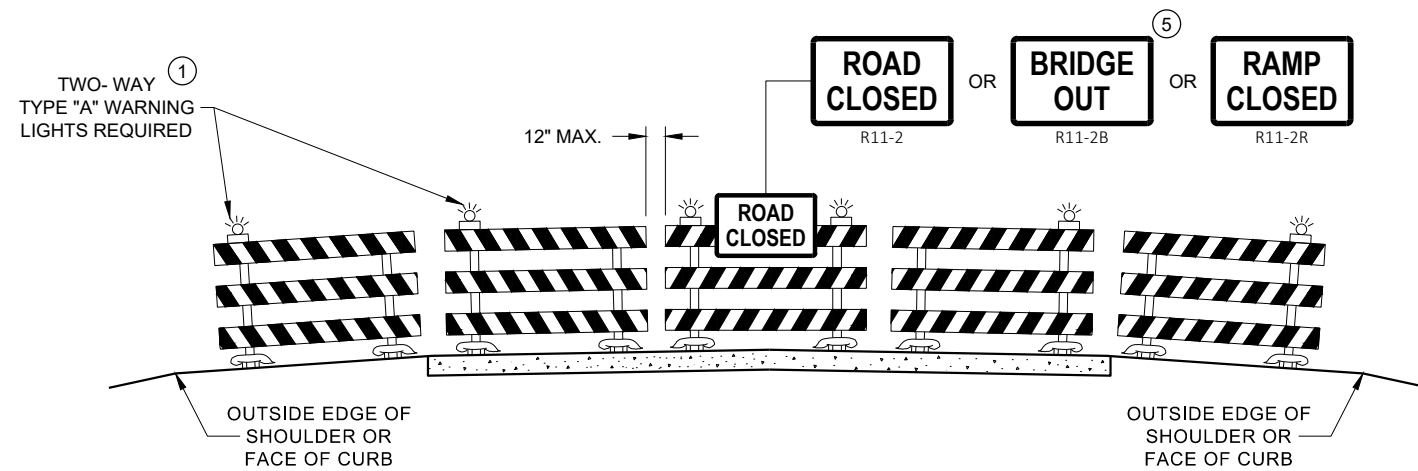
**DETAIL C  
MAINLINE CLOSURE, NO POSTED DETOUR**

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

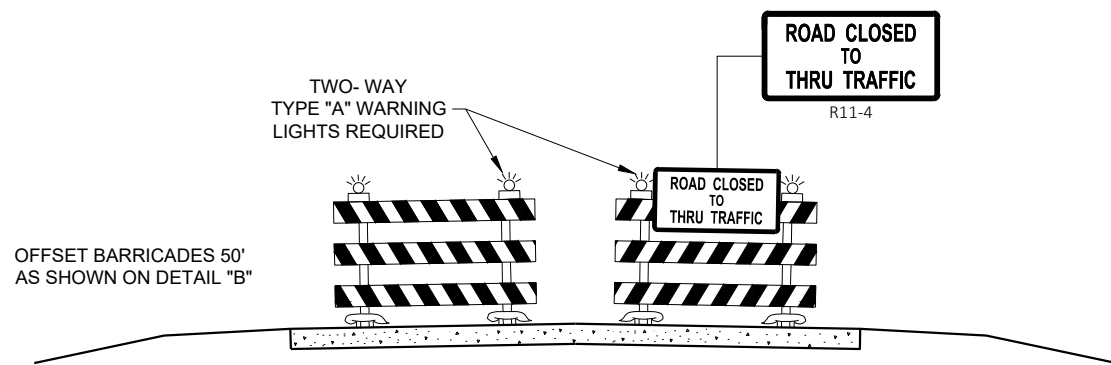
**BARRICADES AND SIGNS  
FOR MAINLINE CLOSURES**

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  
FHWA

**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:

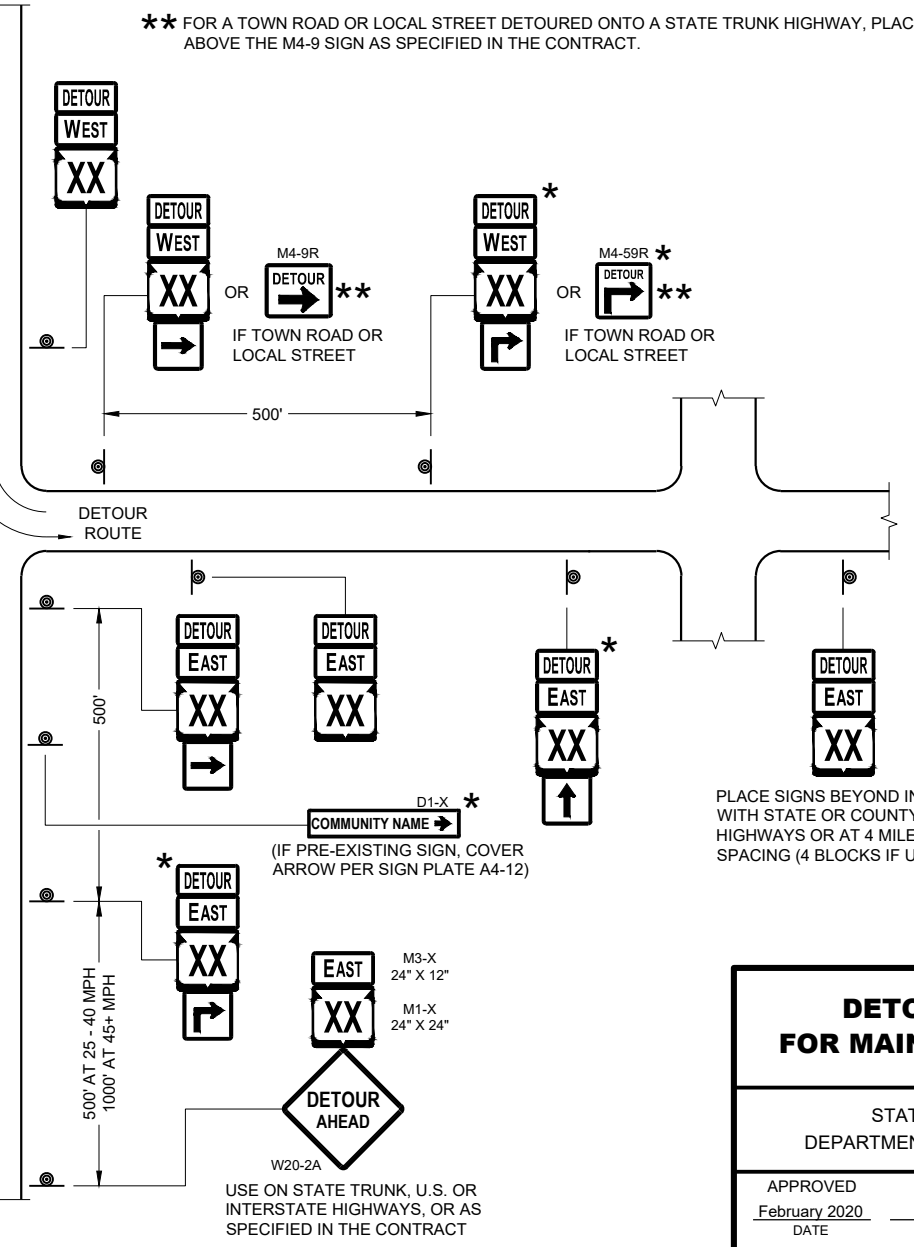
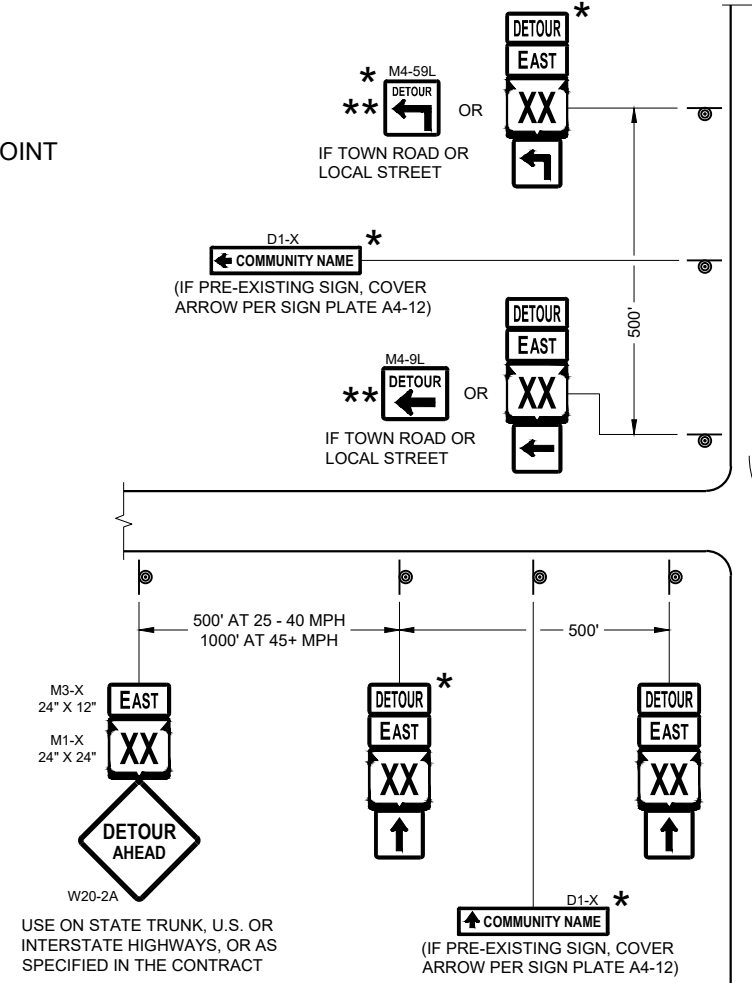
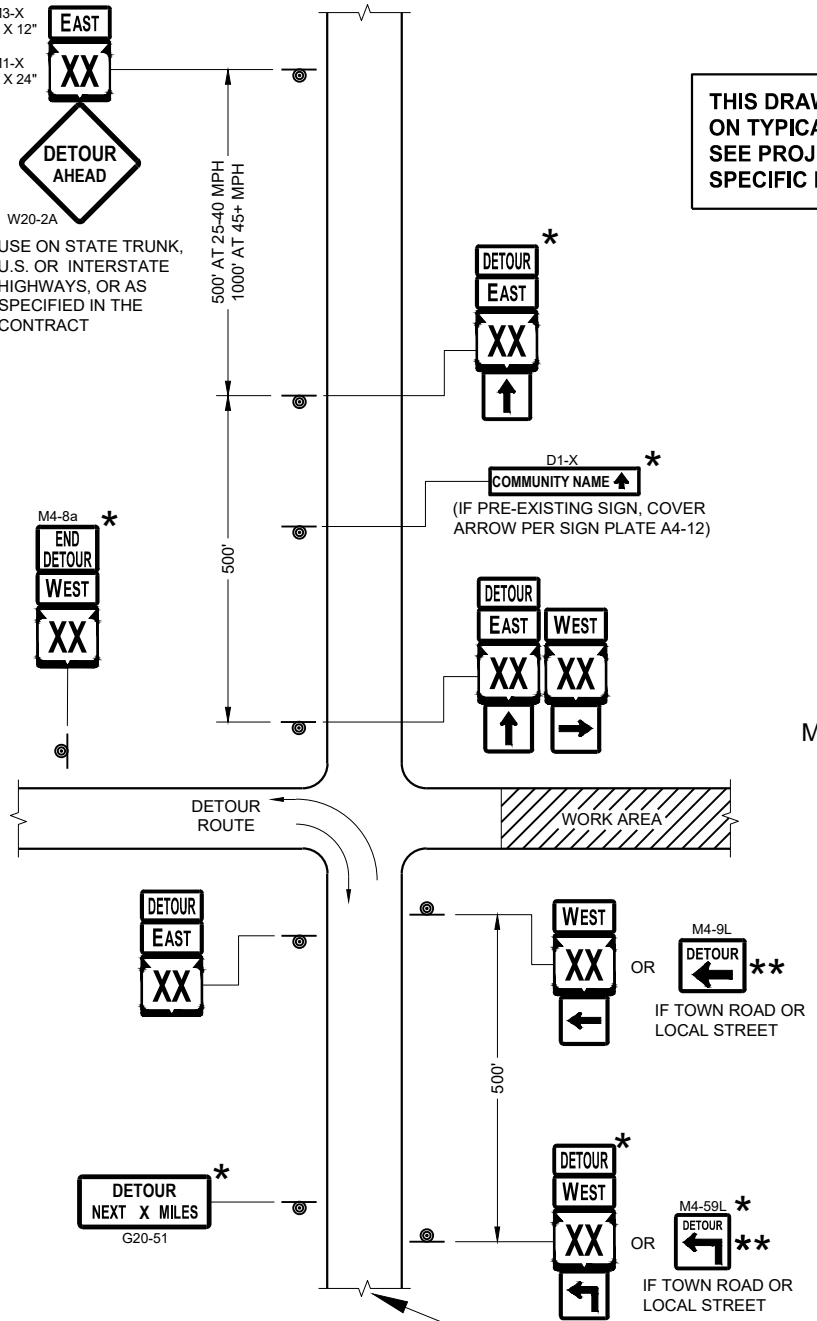
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING 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.

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

MATCH POINT

**DETAIL F  
DETOUR SIGNING**



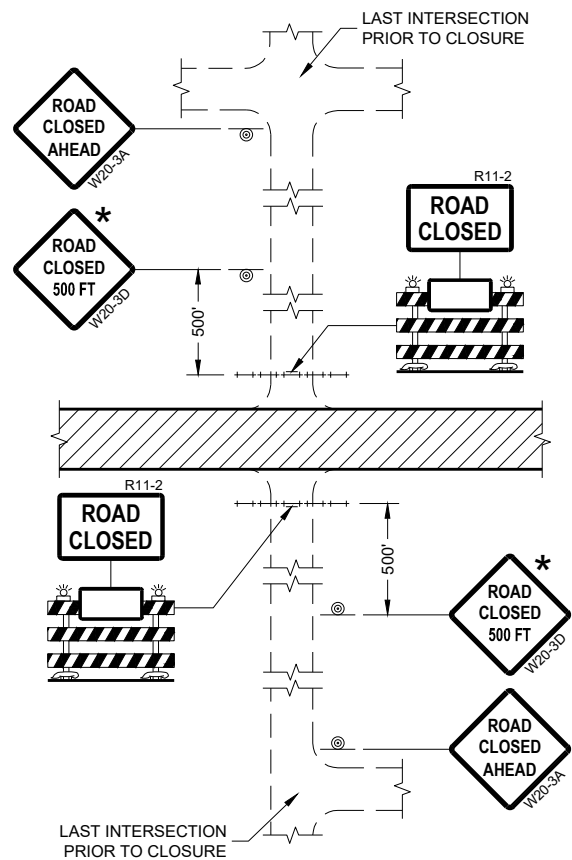
SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

**DETOUR SIGNING  
FOR MAINLINE CLOSURES**

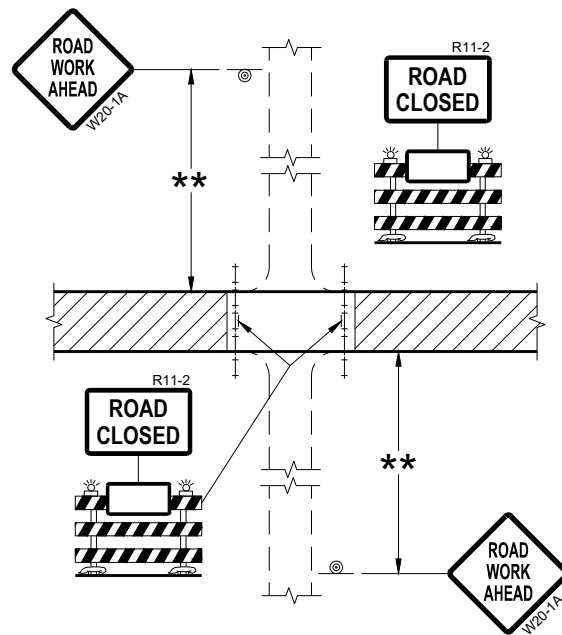
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

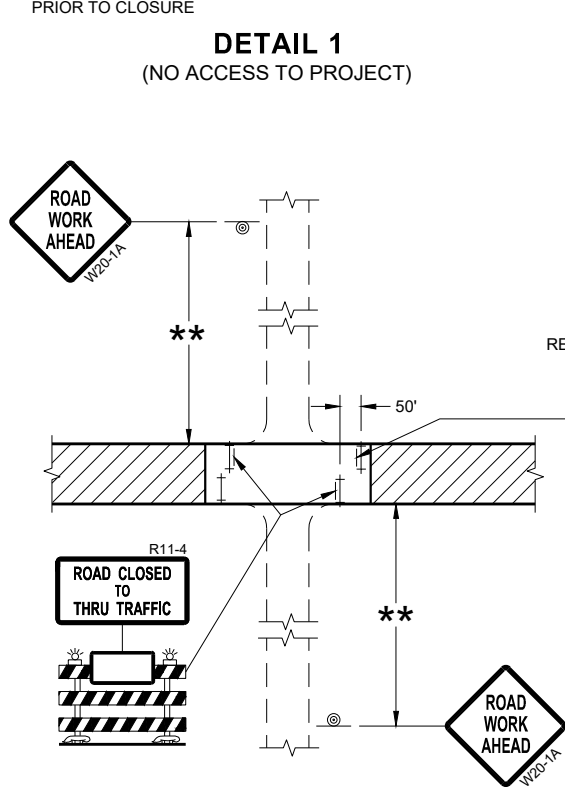
FHWA



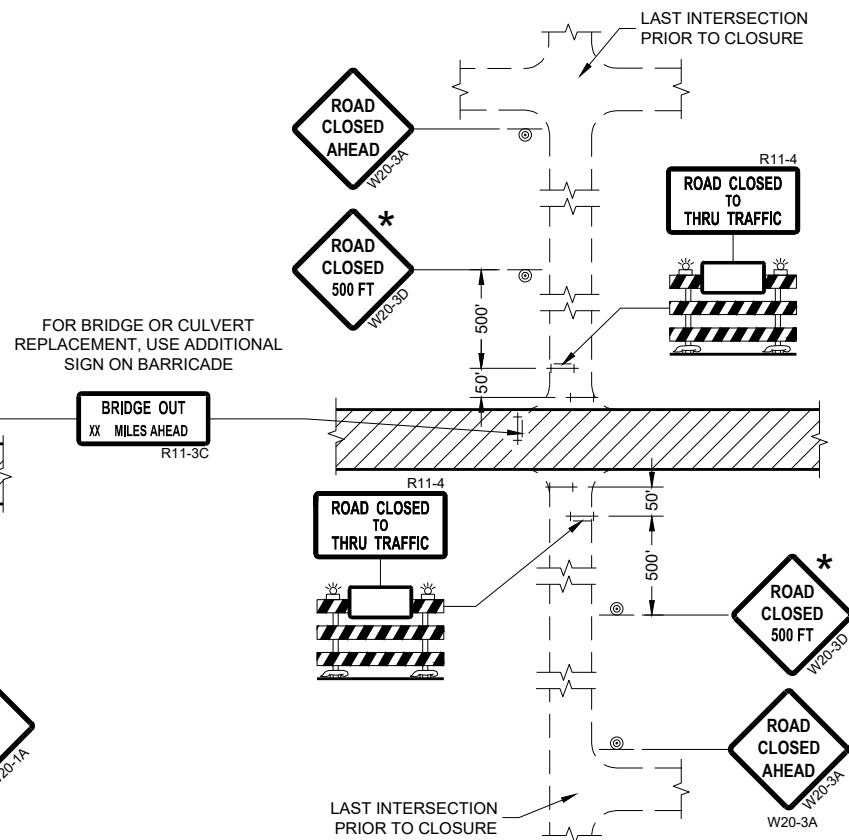
**DETAIL 1**  
(NO ACCESS TO PROJECT)



**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.

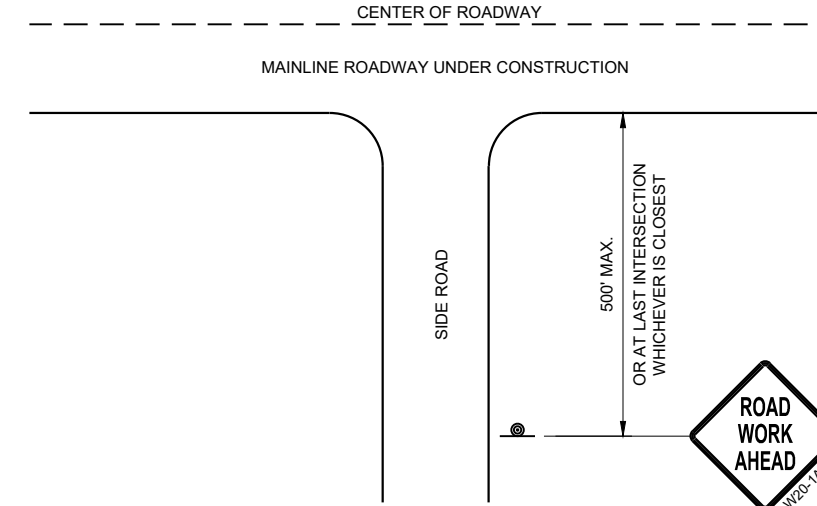
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

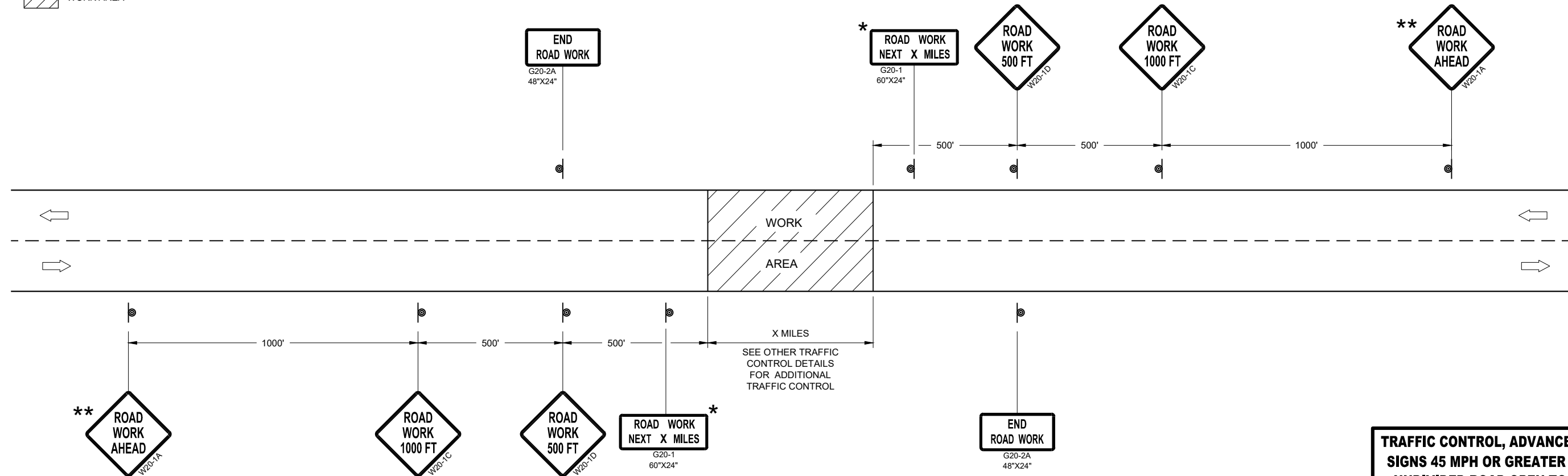
- \* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- \*\* PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

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

FHWA



**GENERAL NOTES**

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

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




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

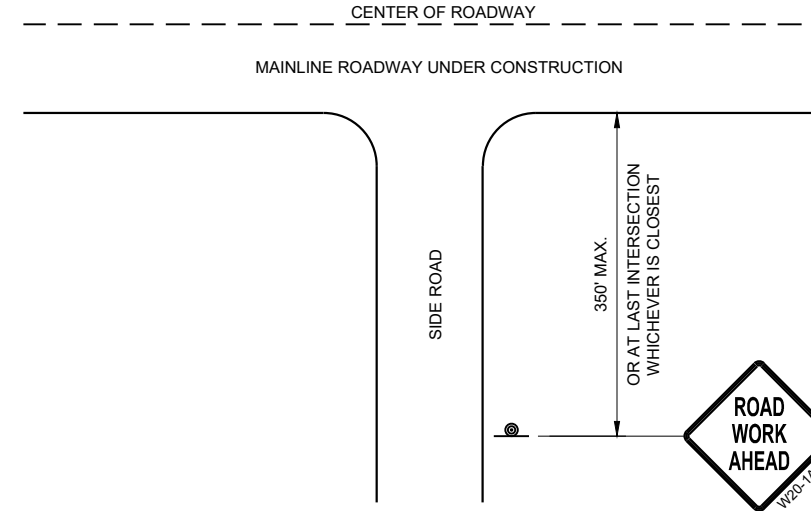
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

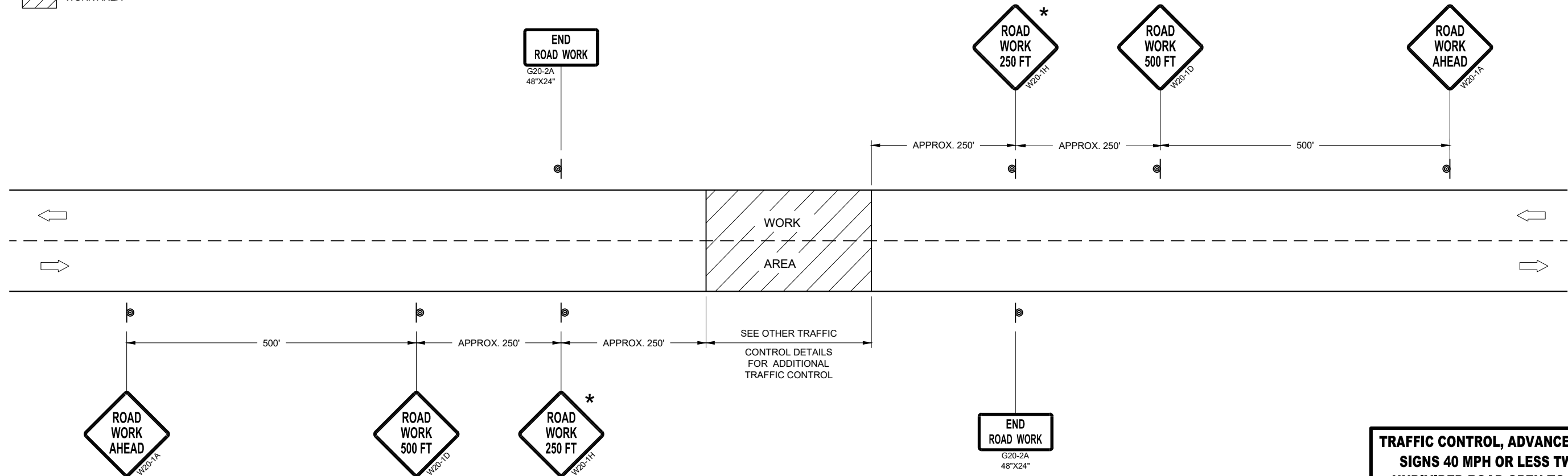
\* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

**LEGEND**

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



**TYPICAL SIDE ROAD APPROACH  
WARNING SIGN DETAIL**



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

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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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




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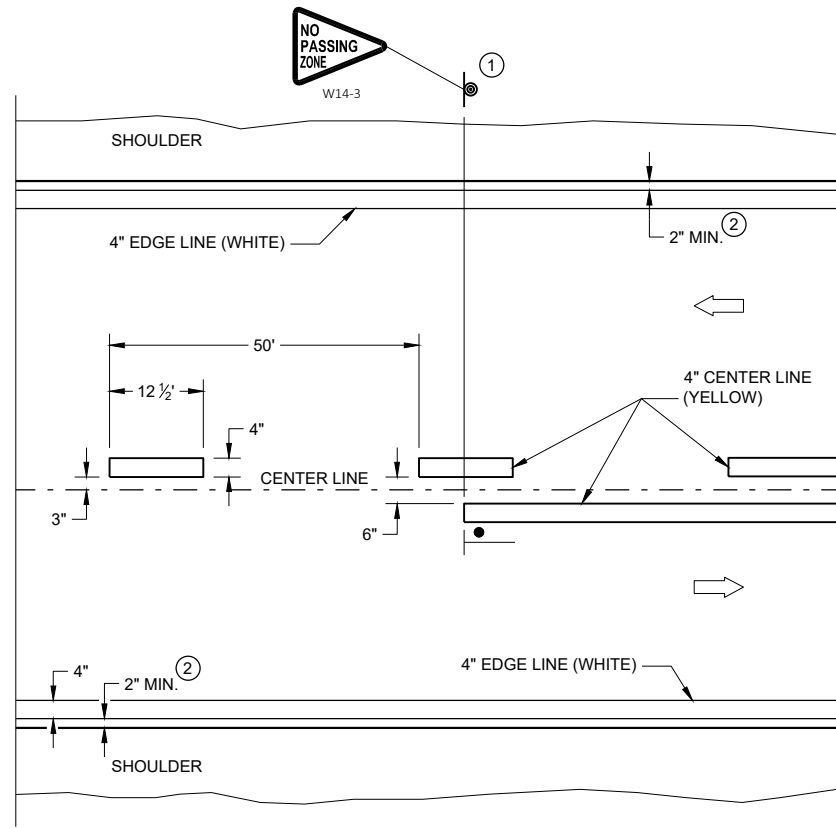
**GENERAL NOTES**

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

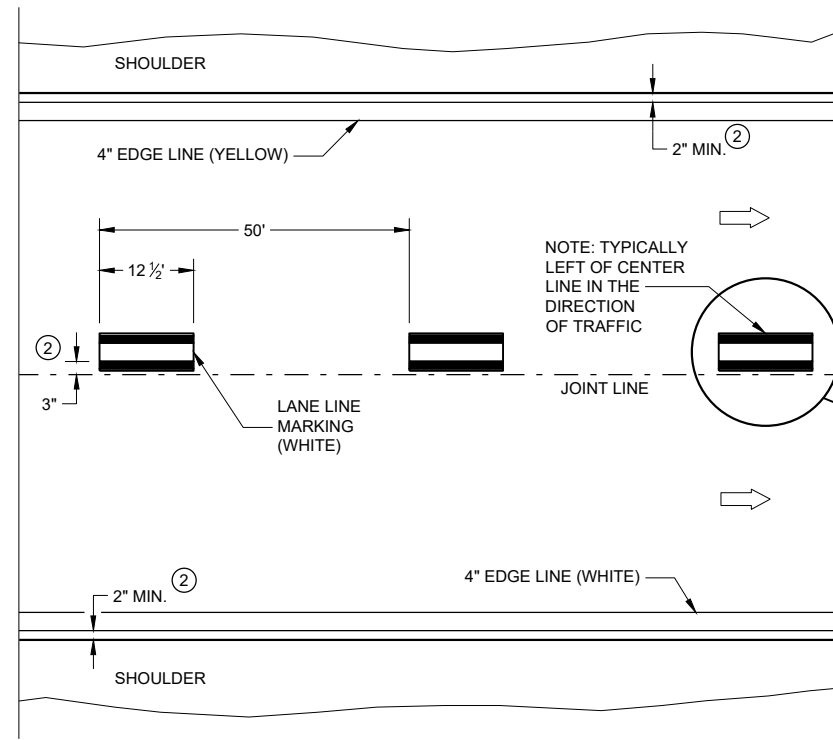
- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

**LEGEND**

-  "T" MARKING
-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC

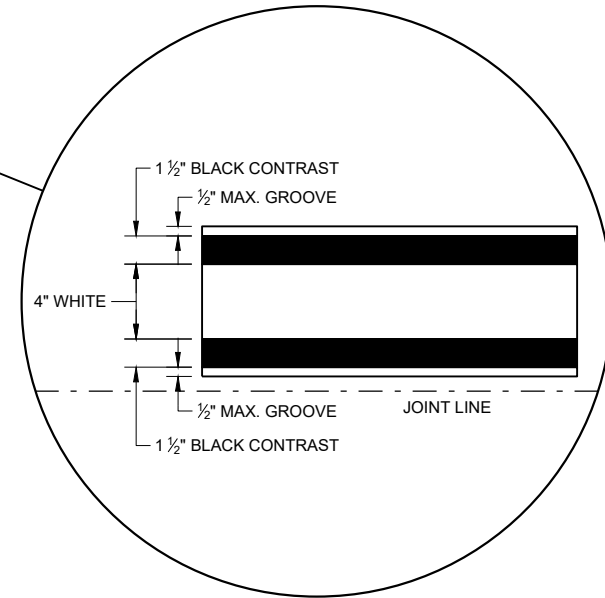


**TWO WAY TRAFFIC**



**ONE WAY TRAFFIC**

**PERMANENT PAVEMENT MARKING**



6

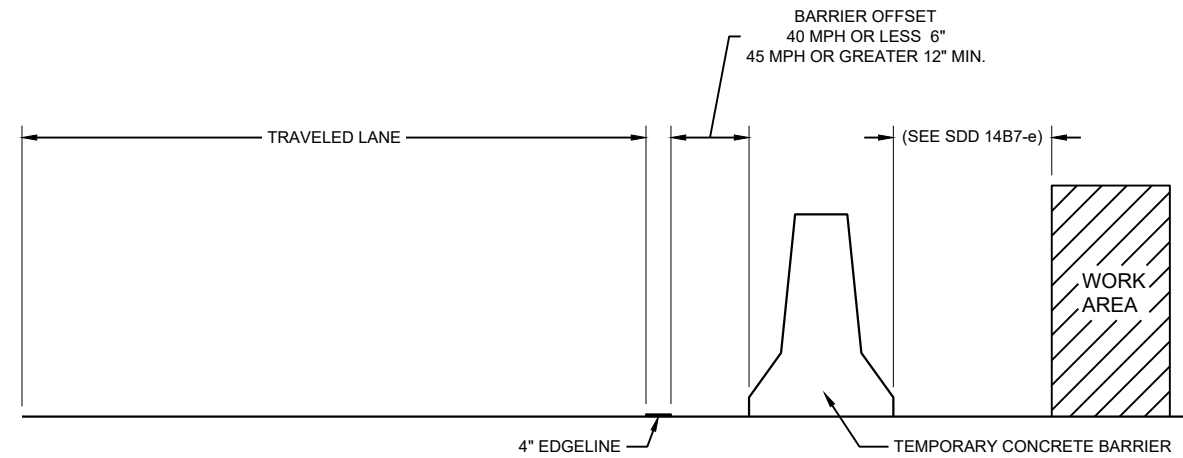
6

**PERMANENT LONGITUDINAL PAVEMENT MARKINGS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE: May 2022 /S/ Jeannie Silver  
STATEWIDE SIGNING AND MARKING ENGINEER

FHWA



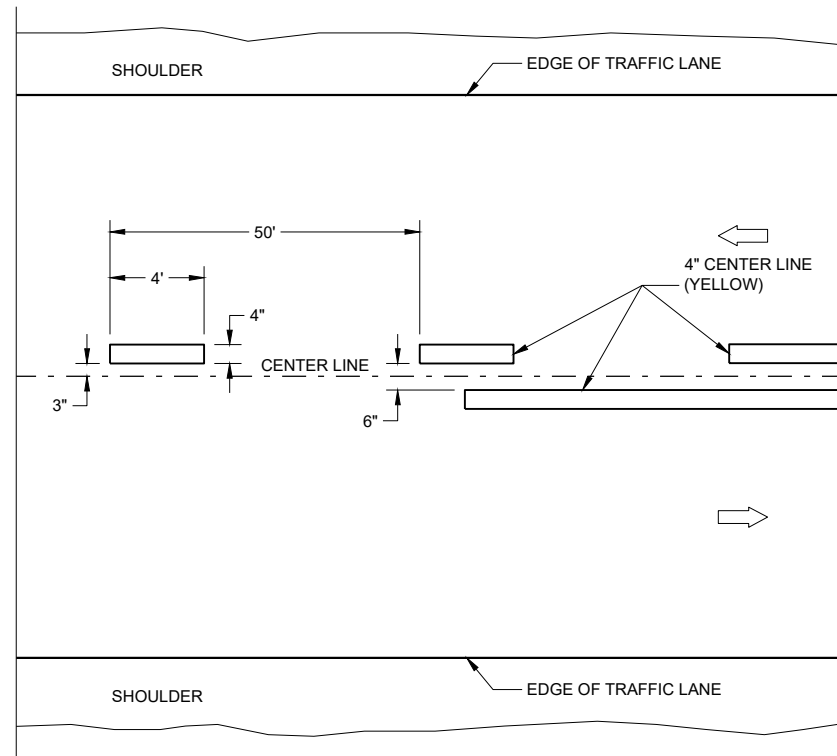
**TEMPORARY BARRIER OFFSET FROM EDGELINE**

**GENERAL NOTES**

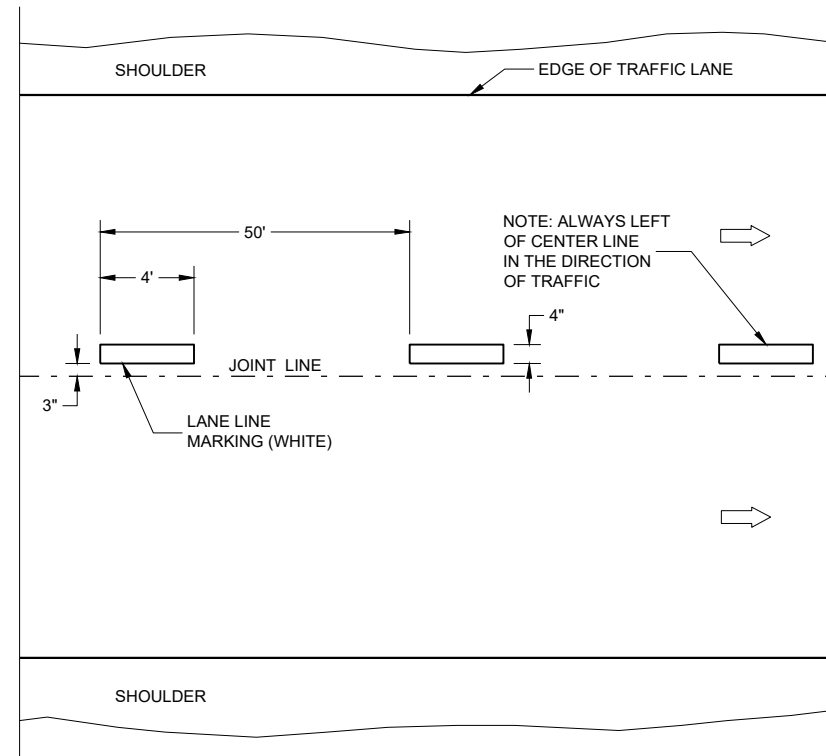
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

**LEGEND**

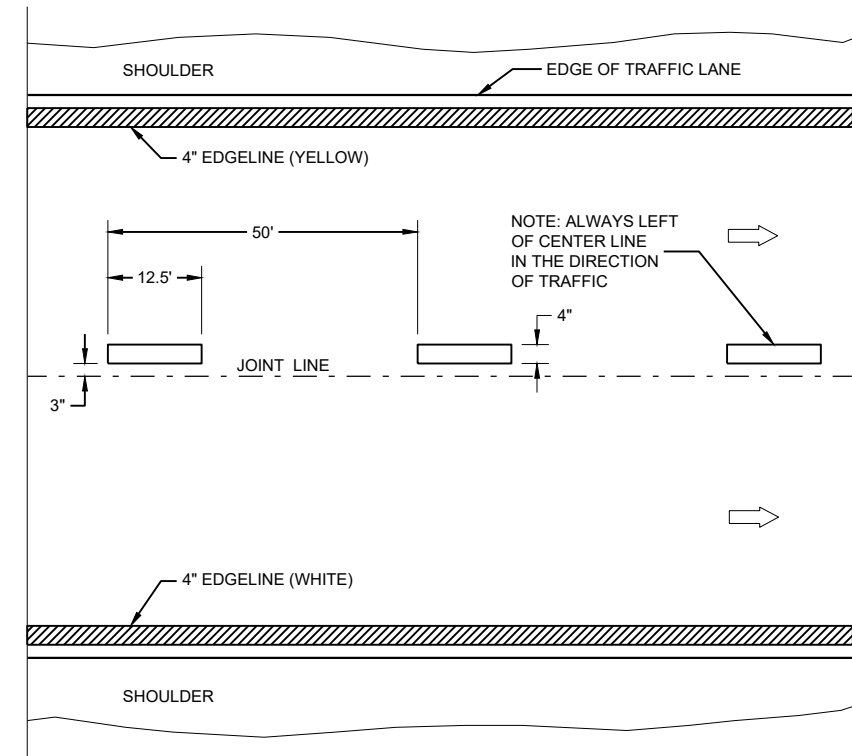
➡ DIRECTION OF TRAFFIC



**TWO WAY TRAFFIC**



**ONE WAY TRAFFIC**



**FREEWAYS AND EXPRESSWAYS**

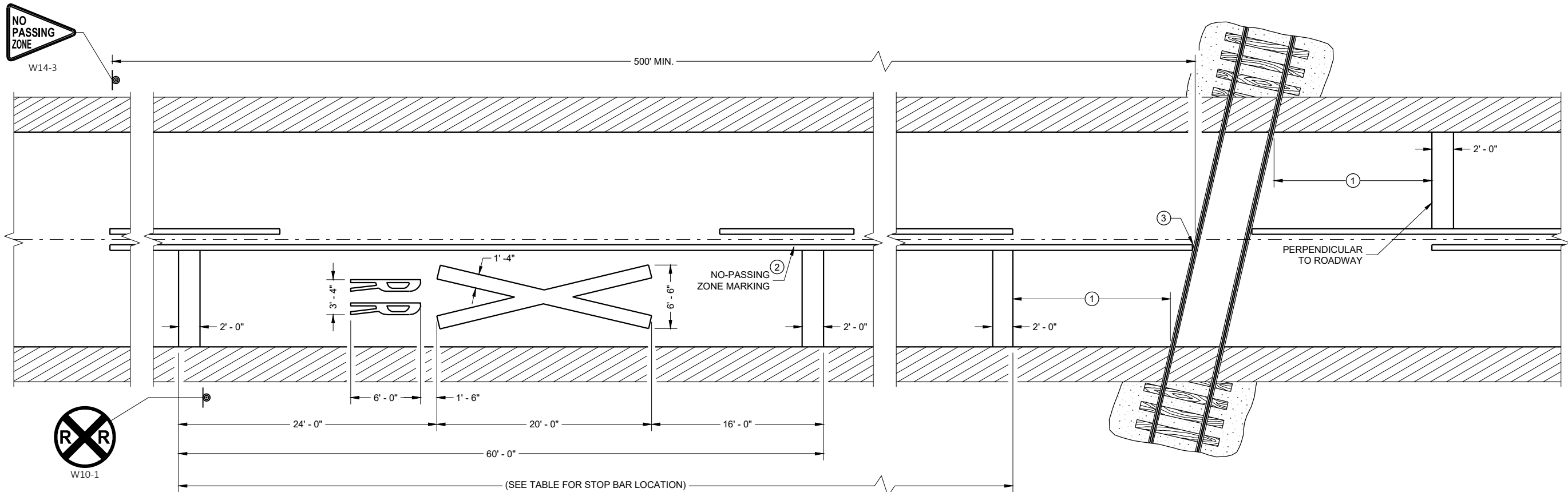
**TEMPORARY PAVEMENT MARKING**

**TEMPORARY LONGITUDINAL PAVEMENT MARKING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2022 /S/ Jeannie Silver  
DATE STATEWIDE SIGNING AND MARKING ENGINEER

FHWA



**PAVEMENT MARKING**

**LEGEND**

⊙ SIGN ON PERMANENT SUPPORT

**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.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

TRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

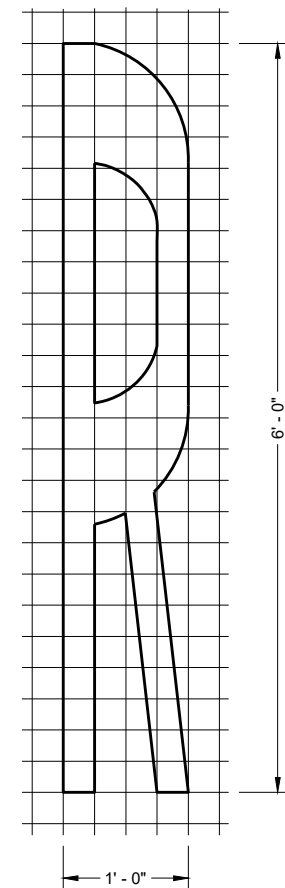
- ① MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNAL, GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.
- ② 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.
- ③ FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

**DISTANCE TABLE**

TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

POSTED SPEED (M.P.H.)	DIMENSION RANGE (FEET)
25	150* - 250'
30	200* - 300'
35	250* - 450'
40	300* - 500'
45	400* - 650'
50	550* - 800'
55	750* - 1000'
60	1000* - 1250'
65	1000* - 1250'

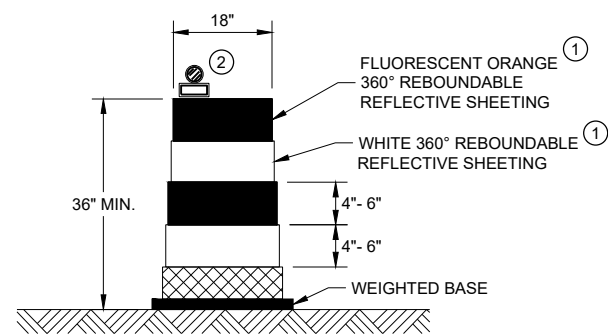
\* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSED PROXIMITY OF DRIVEWAYS, BRIDGES, SIDE ROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.



**SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS**

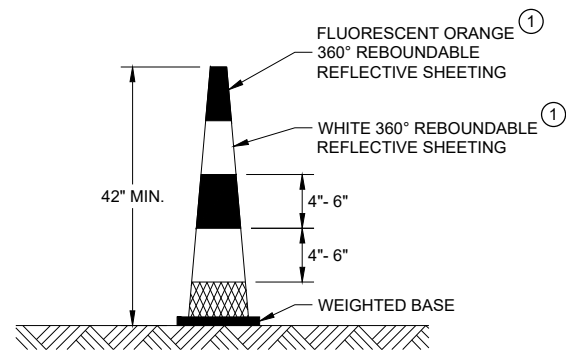
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



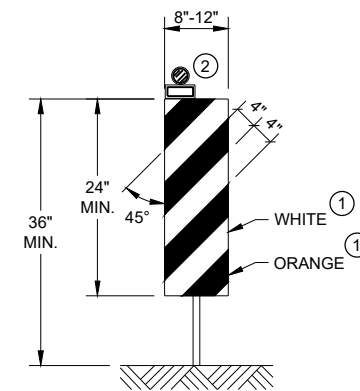
**DRUM**

BALLAST WIDTHS  
RANGE FROM 24"-36"



**42" CONE**

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

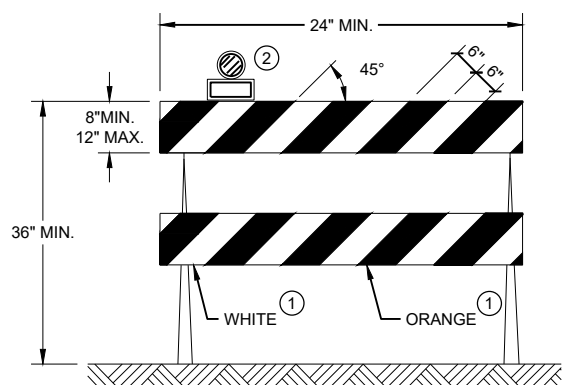


**VERTICAL PANEL**

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

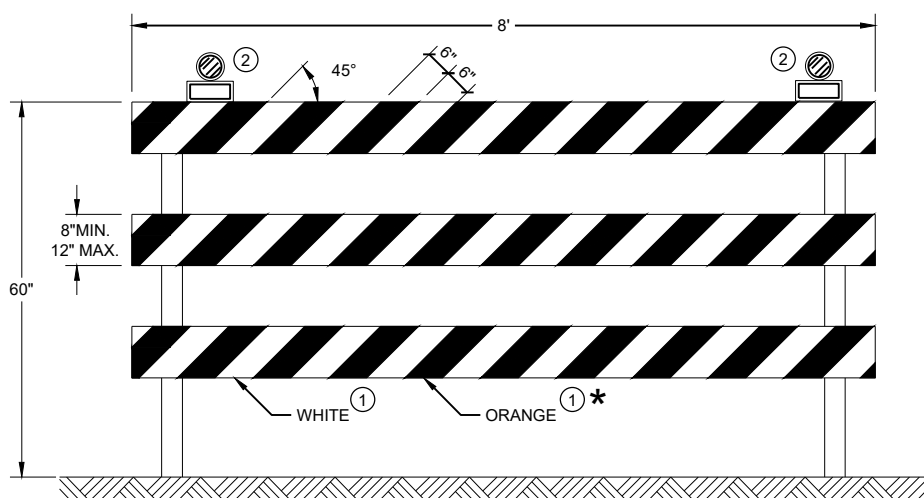
**GENERAL NOTES**

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



**TYPE II BARRICADE**

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



**TYPE III BARRICADE**

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

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






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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA

**LEGEND**

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

**GENERAL NOTES**

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

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

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

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

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

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

**FLAGGING**

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

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

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

**TEMPORARY PORTABLE RUMBLE STRIPS**

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

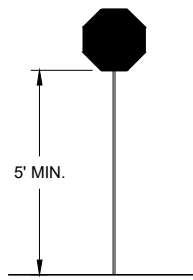
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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



**STOP/SLOW PADDLE ON SUPPORT STAFF**

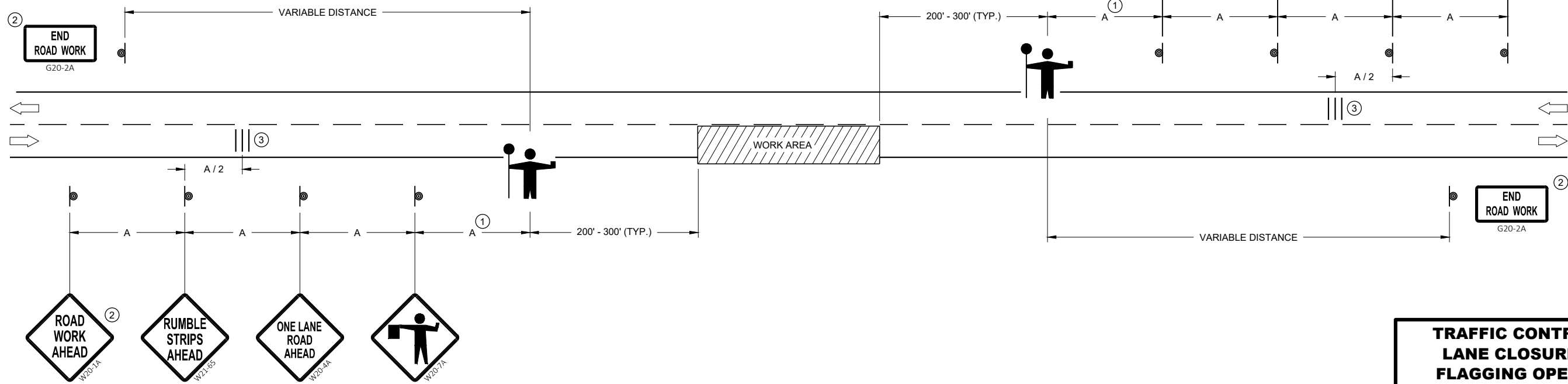
**SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE**

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



W03-4

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



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

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SDD 15C12 - 09a

SDD 15C12 - 09a

<b>TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

**GENERAL NOTES**

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL CONE 42-INCH
-  TRAFFIC CONTROL DRUM
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)

**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**

IF THE AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) STOPS WORKING, 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.

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.

- ① SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- ② IF FLAGGERS ARE PHYSICALLY NEEDED TO FLAG, REPLACE WO3-4 SIGNS WITH W20-7A SIGNS.

**TEMPORARY PORTABLE RUMBLE STRIPS**

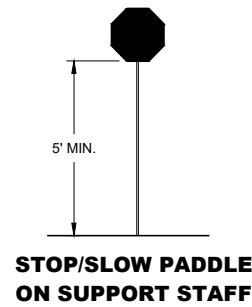
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

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

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

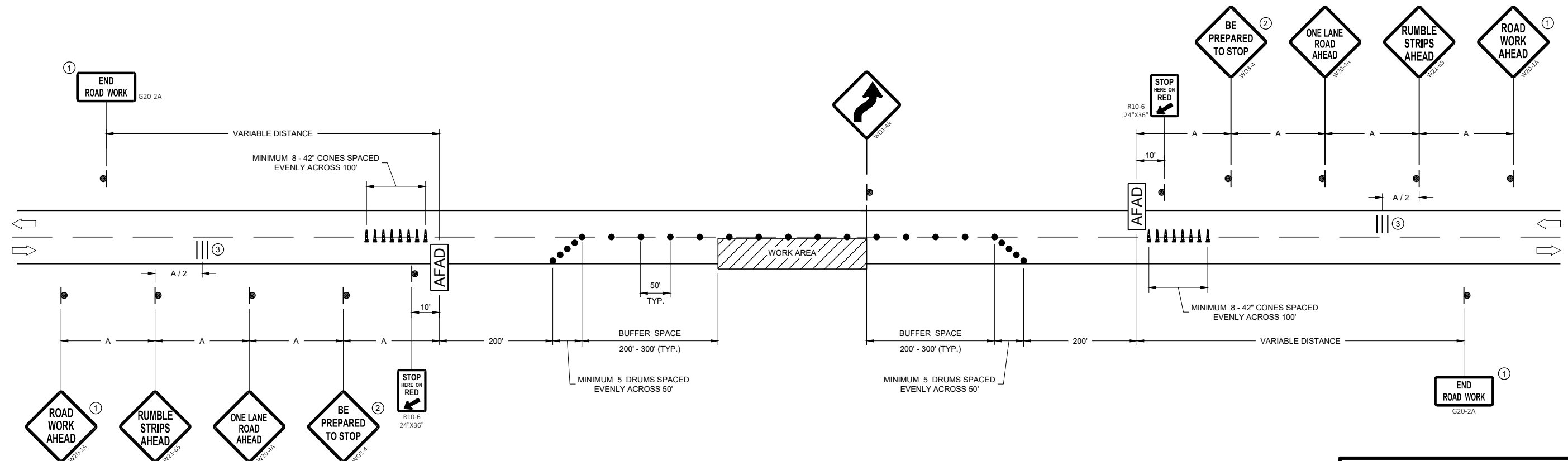
DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

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



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

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



**TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA





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SDD 15C12 - 09b

SDD 15C12 - 09b

**LEGEND**

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

**GENERAL NOTES**

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

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

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

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

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

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

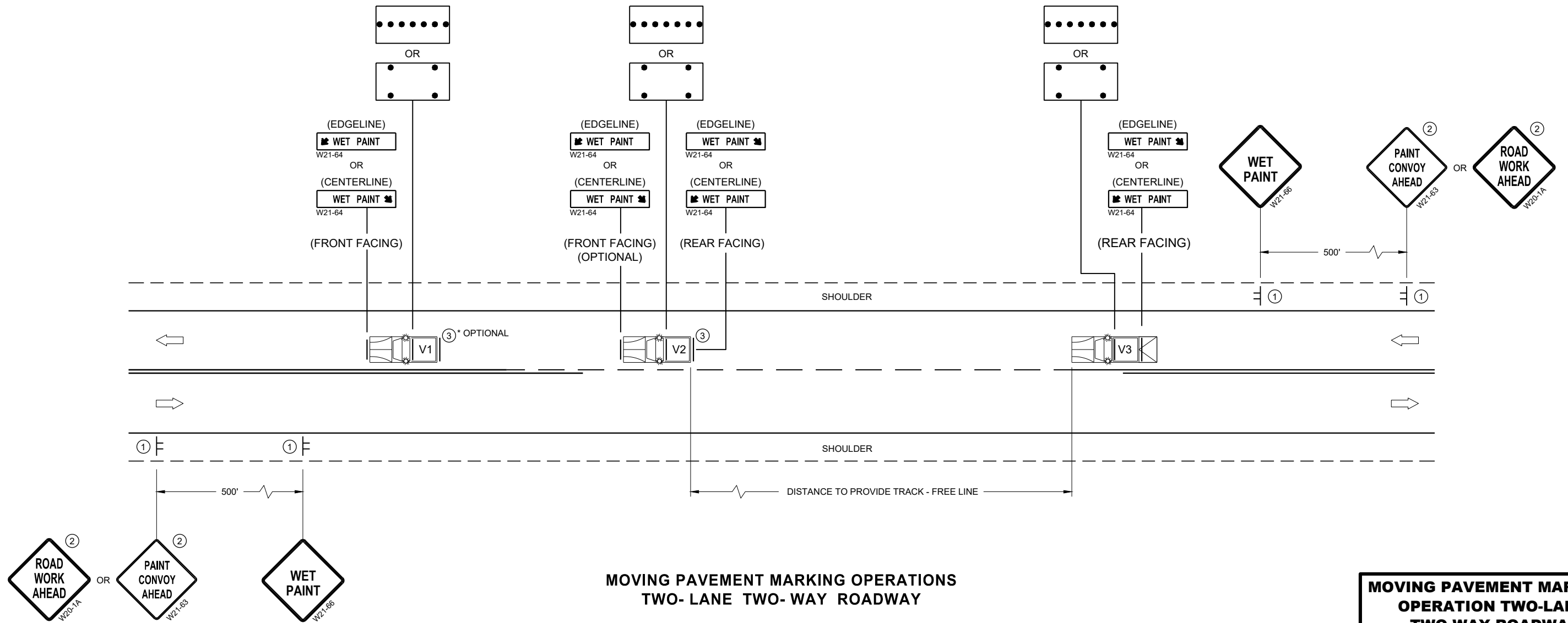
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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

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

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

SDD 15C19-08a

SDD 15C19-08a

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

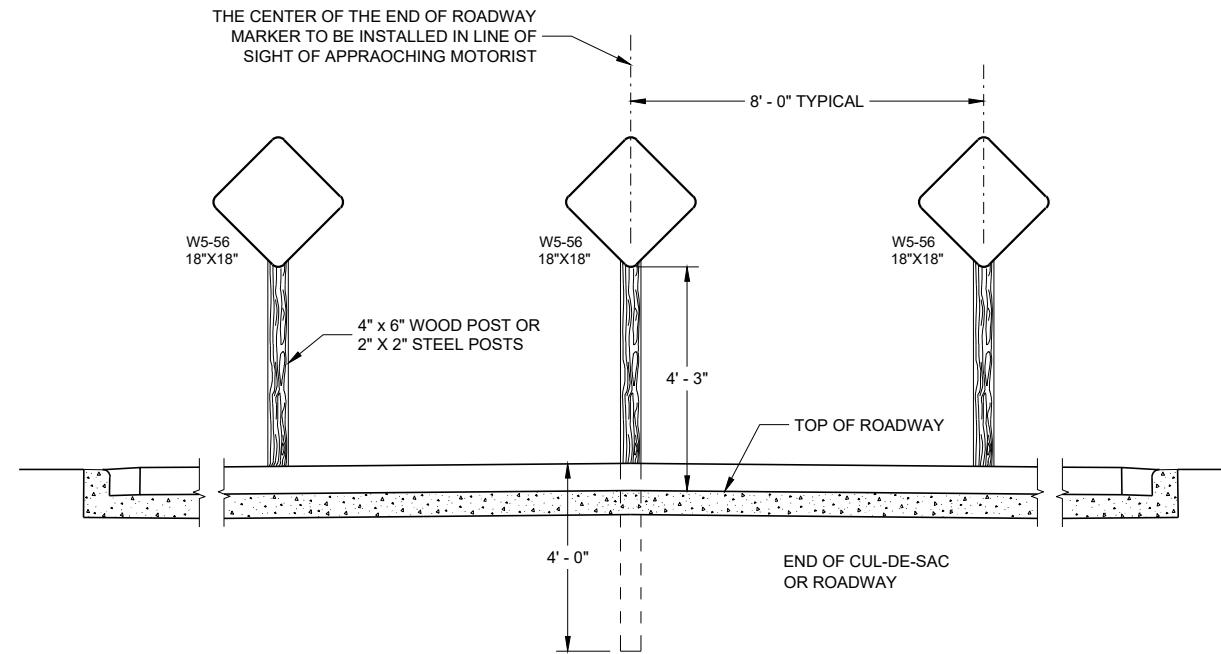


### GENERAL NOTES

SIGN LOCATIONS SHOWN ARE TYPICAL PLACEMENT AND MAY BE ADJUSTED BY THE ENGINEER AS FIELD CONDITIONS DICTATE.

THE MINIMUM NUMBER OF END-OF-ROADWAY SIGNS ARE THREE (AS SHOWN). ADDITIONAL END-OF-ROADWAY SIGNS MAY BE INSTALLED AS FIELD CONDITIONS DICTATE. (SEE SIGNING PLAN).

WHEN BEAMGUARD IS REQUIRED, PLACE END-OF-ROADWAY SIGNING BEHIND BEAMGUARD.



TYPICAL SIGN INSTALLATION

### END-OF-ROADWAY SIGNING

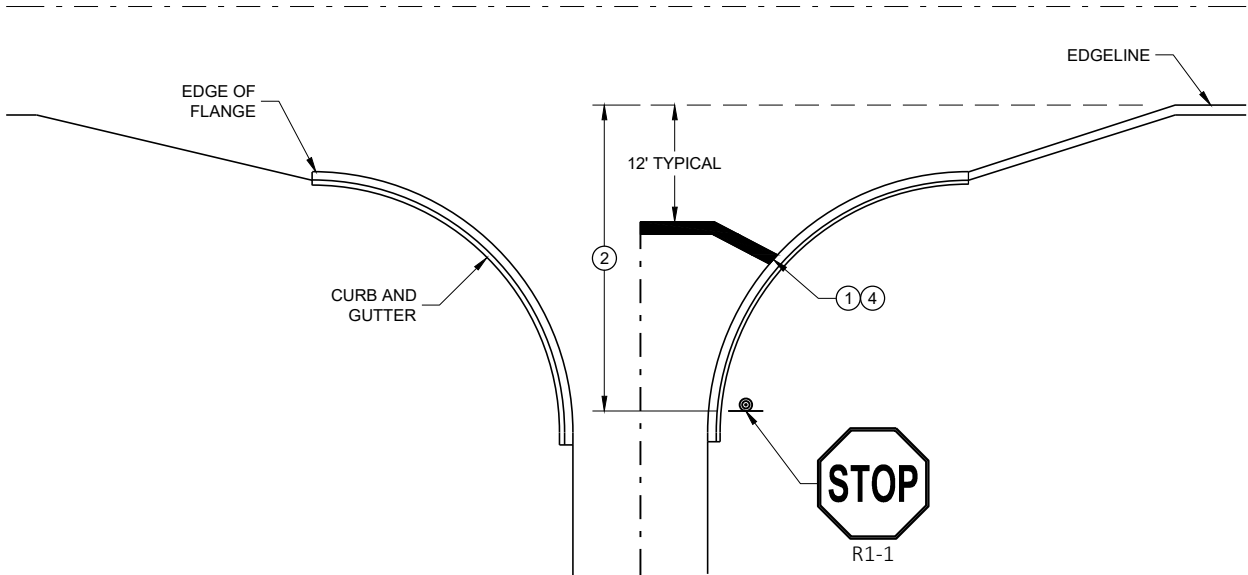
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

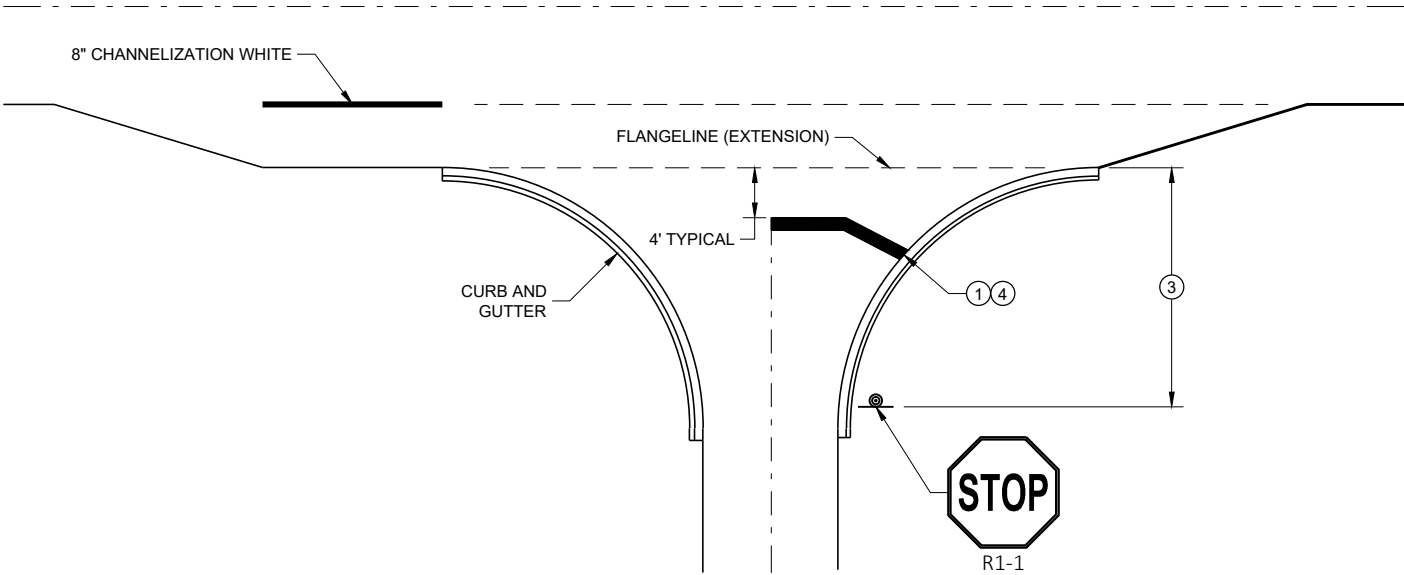
**GENERAL NOTES**

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

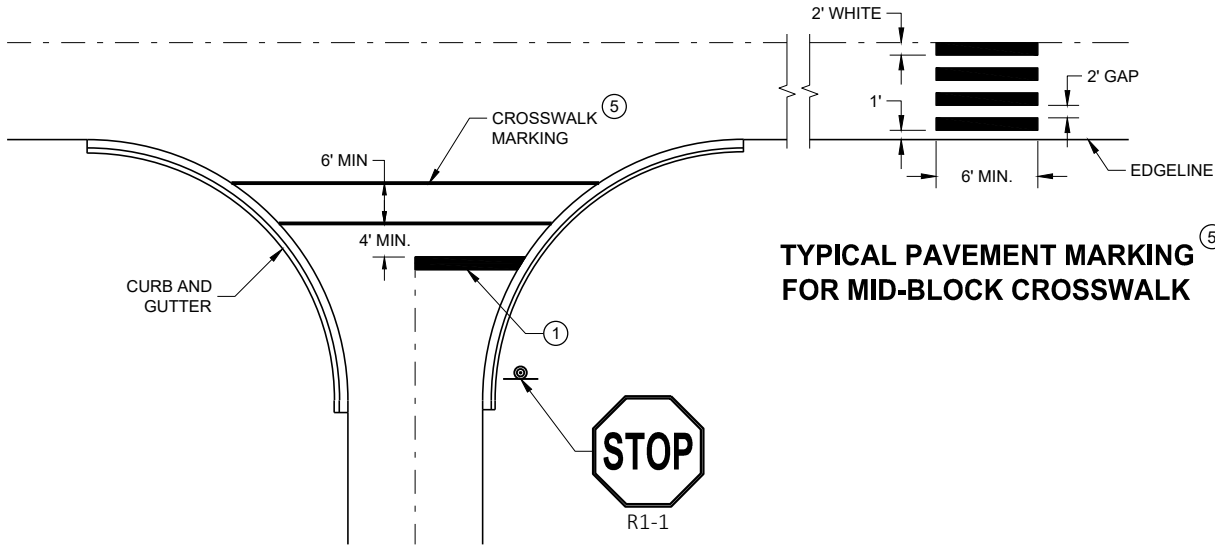
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE 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**

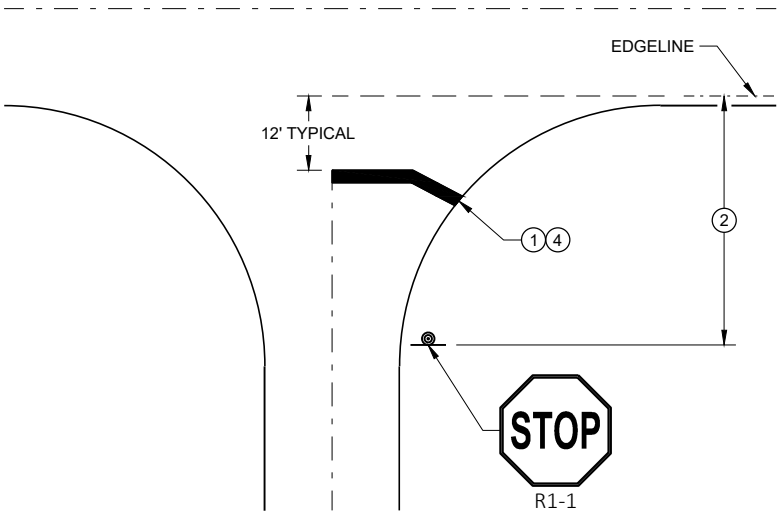


**TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE**



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

**TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK**



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

**STOP LINE AND CROSSWALK PAVEMENT MARKING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA

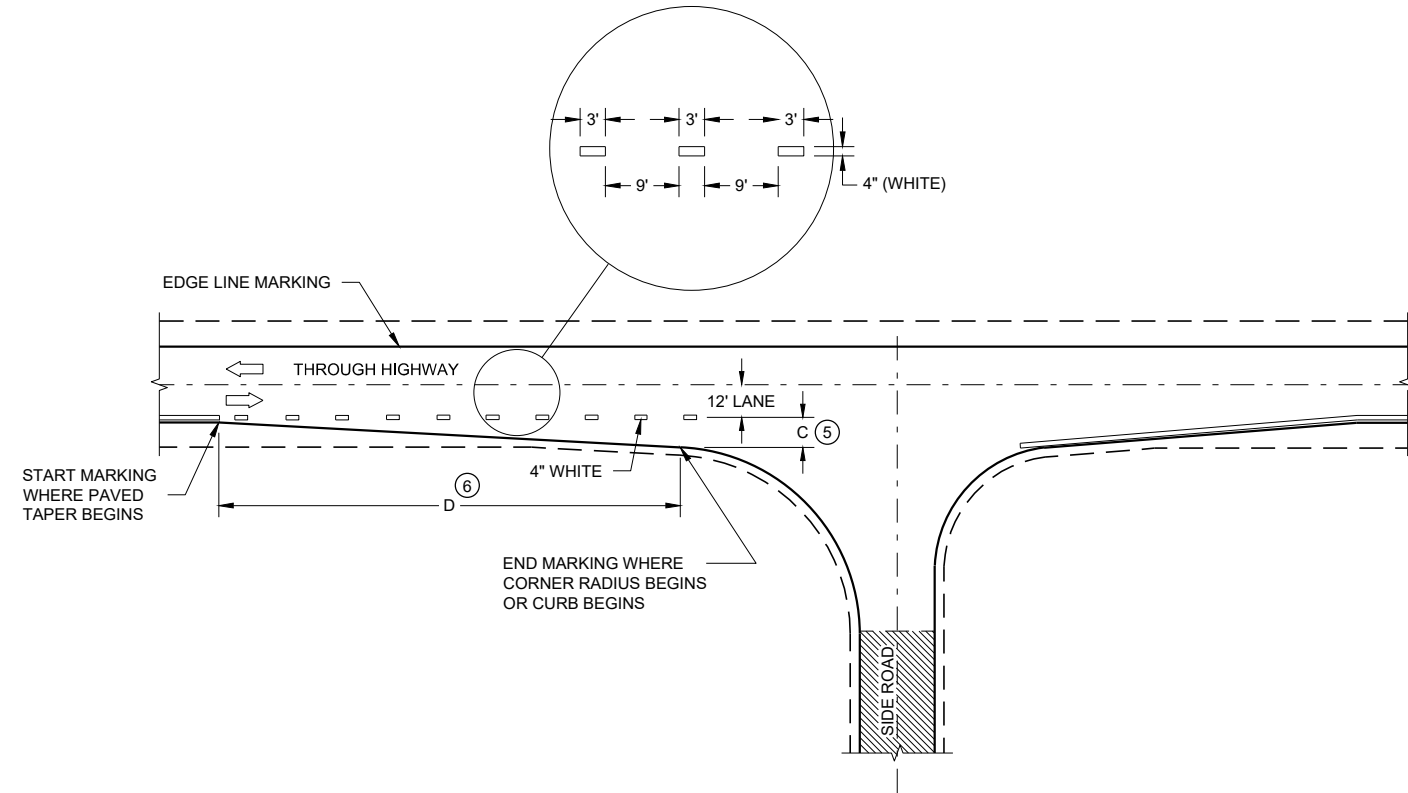
**GENERAL NOTES**

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

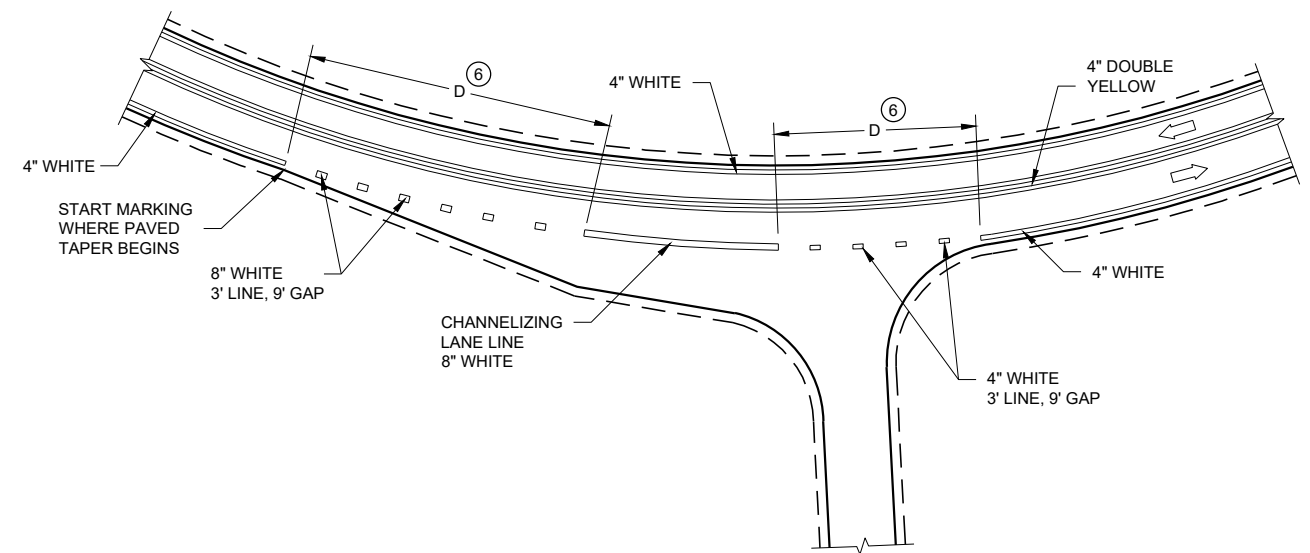
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

**LEGEND**

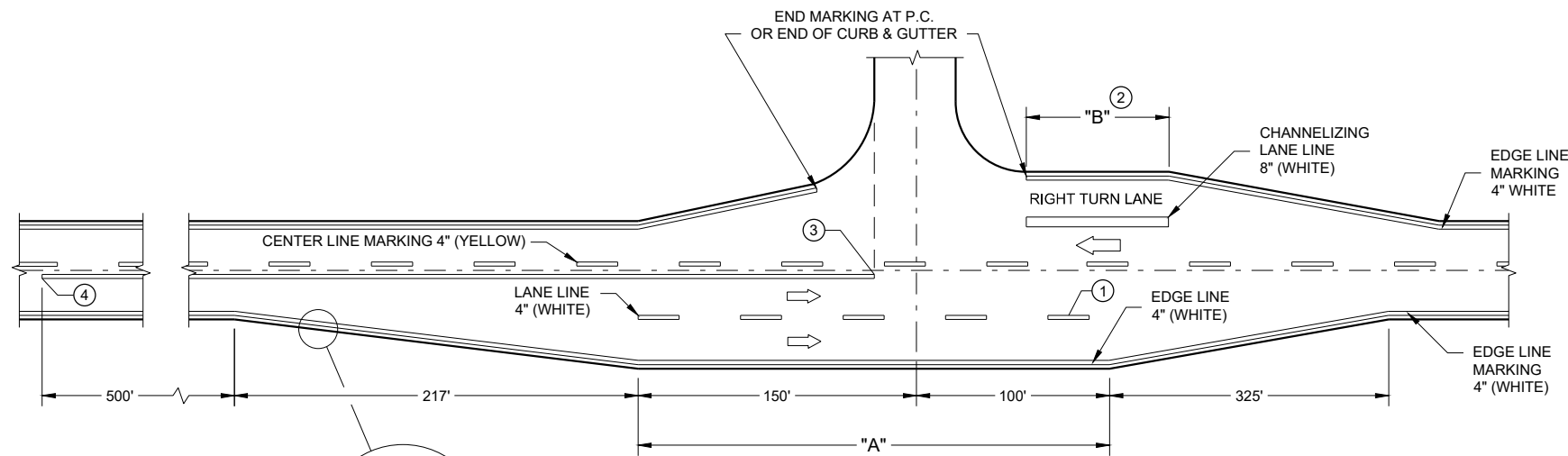
➡ DIRECTION OF TRAVEL



**MINOR INTERSECTION**

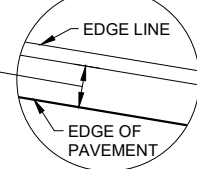


**INTERSECTION ON OUTSIDE OF CURVE**



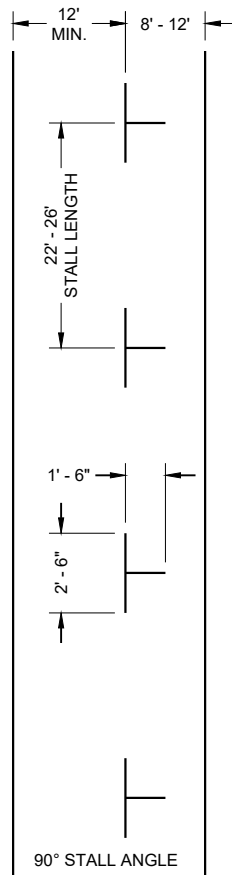
**MAJOR INTERSECTIONS  
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)**

BYPASS LANE PAVED SHOULDER WIDTH (AS SHOWN ELSEWHERE IN PLANS) - PLUS 2 INCHES

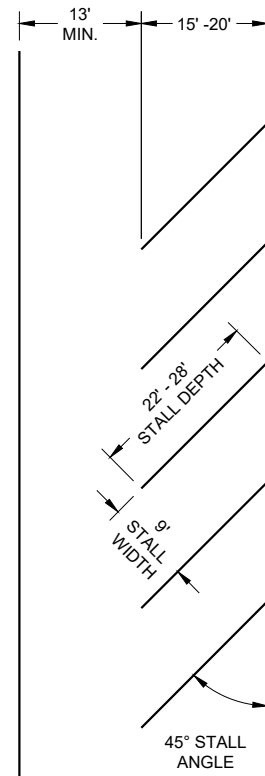


**PAVEMENT MARKING  
(INTERSECTIONS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

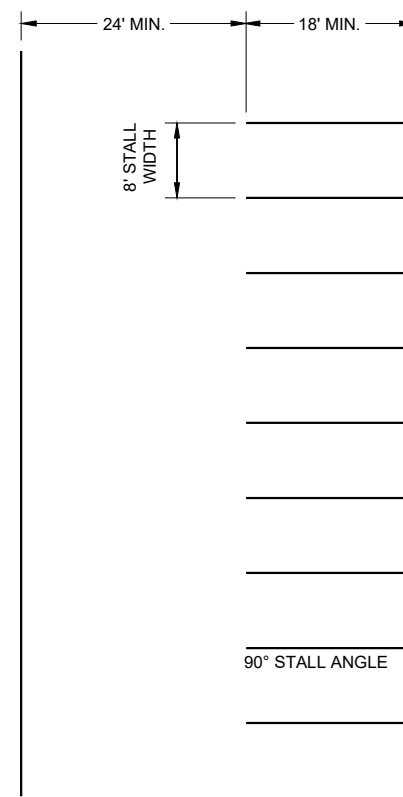
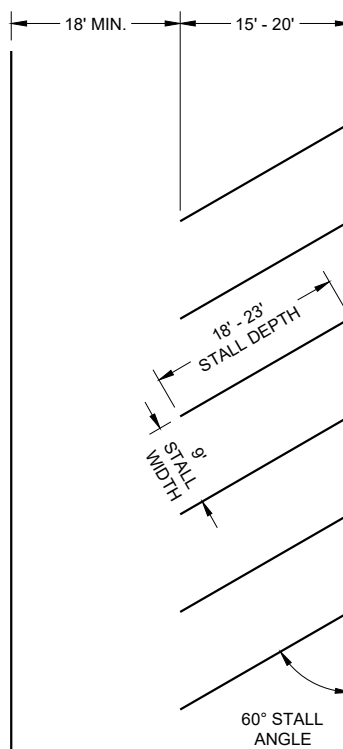


**PARALLEL PARKING**



**ANGLED PARKING**

(ANGLED PARKING IS NOT ALLOWED ON STATE HIGHWAYS UNLESS A DESIGN JUSTIFICATION HAS BEEN COMPLETED.)



**PARKING LOTS**

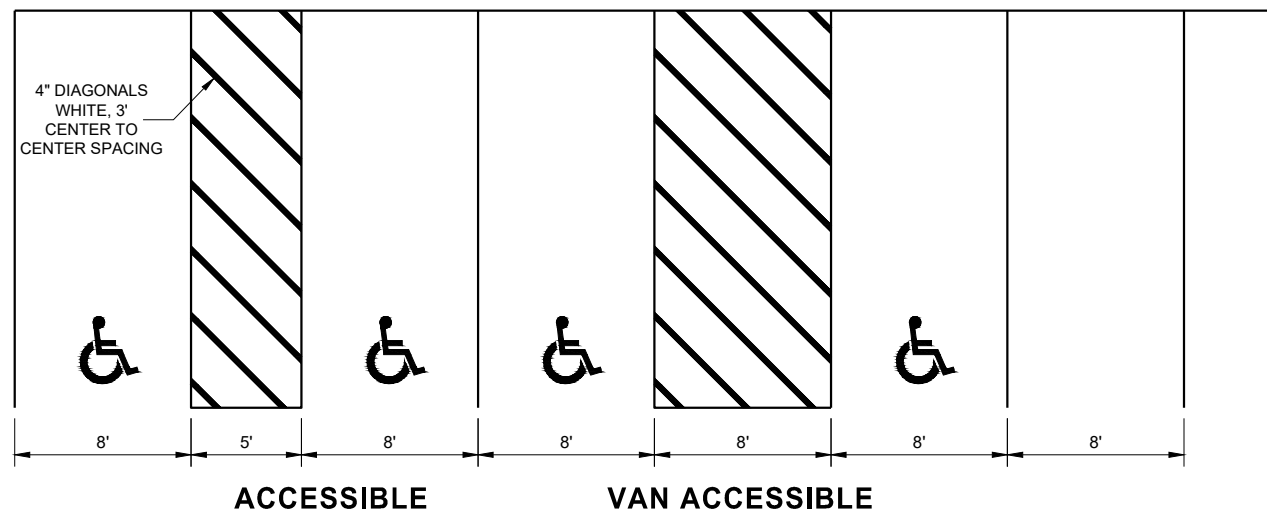
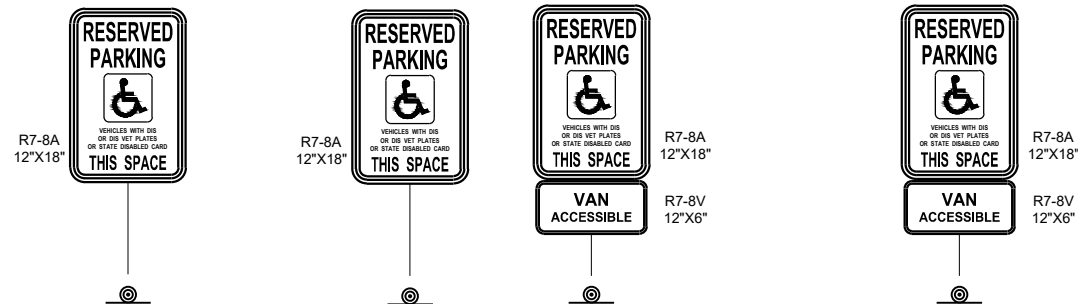
**GENERAL NOTES**

ALL LINES 4" WHITE (UNLESS OTHERWISE NOTED)

LAST PARKING STALL IS A MINIMUM OF 15' FROM THE CROSSWALK.





**LEGEND**

⊙ SIGN ON PERMANENT SUPPORT



<b>PARKING STALL MARKING</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2019 DATE	/s/ Matthew Rauch STATE SIGNING AND MARKING ENGINEER
<small>FHWA</small>	

**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.

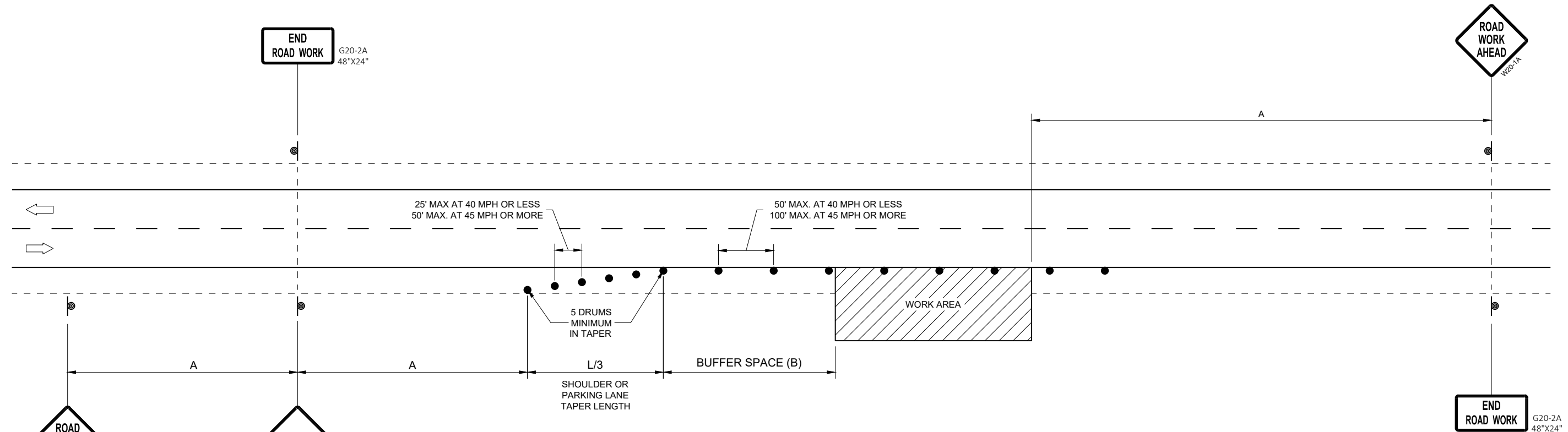
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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**

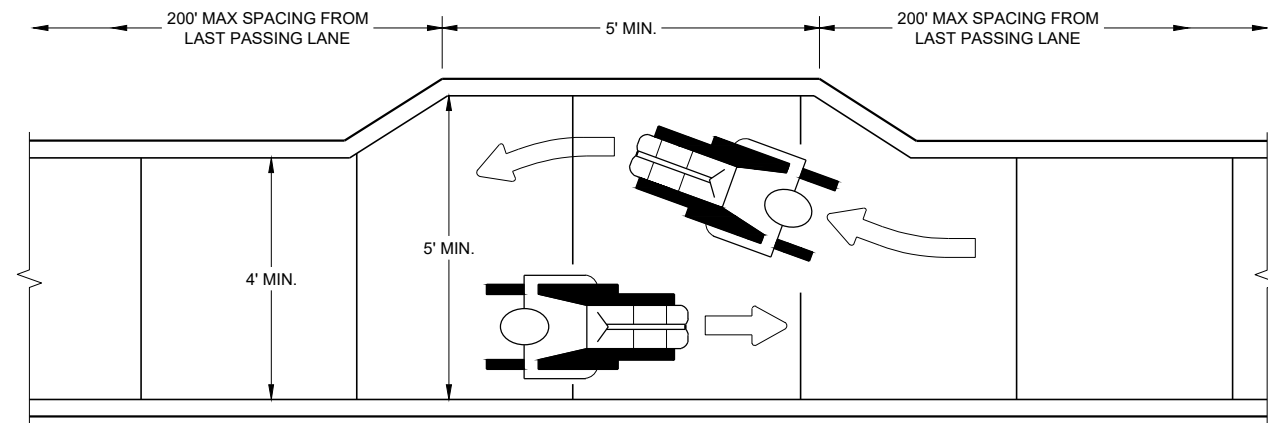
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

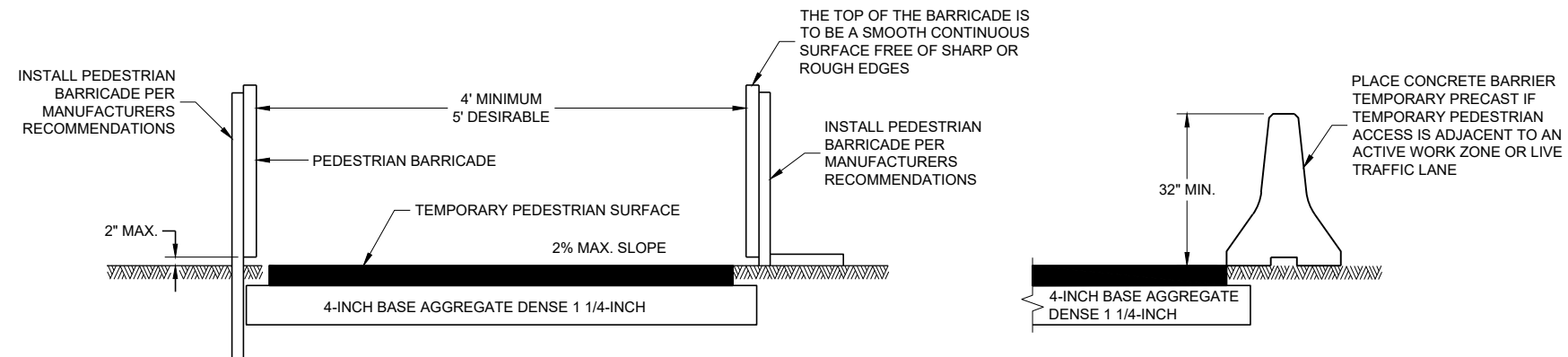
FHWA

SDD 15D28 - 04

SDD 15D28 - 04



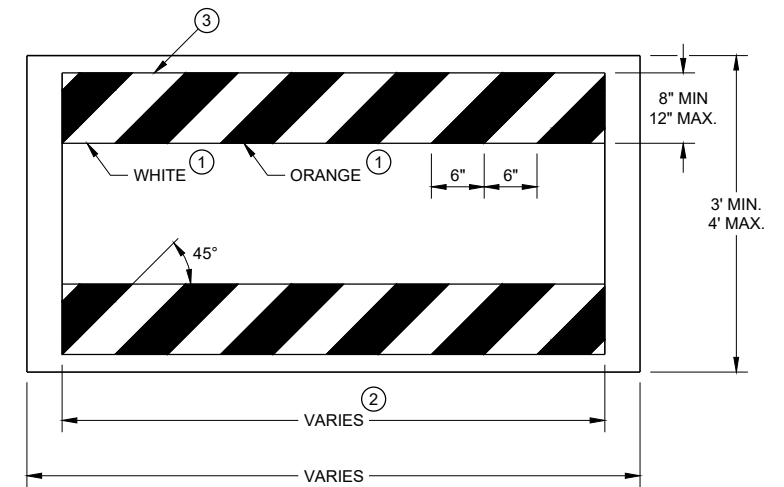
**NARROW SIDEWALK PASSING DETAIL**



**TEMPORARY PEDESTRIAN ACCESS**

**GENERAL NOTES**

- BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
- \* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

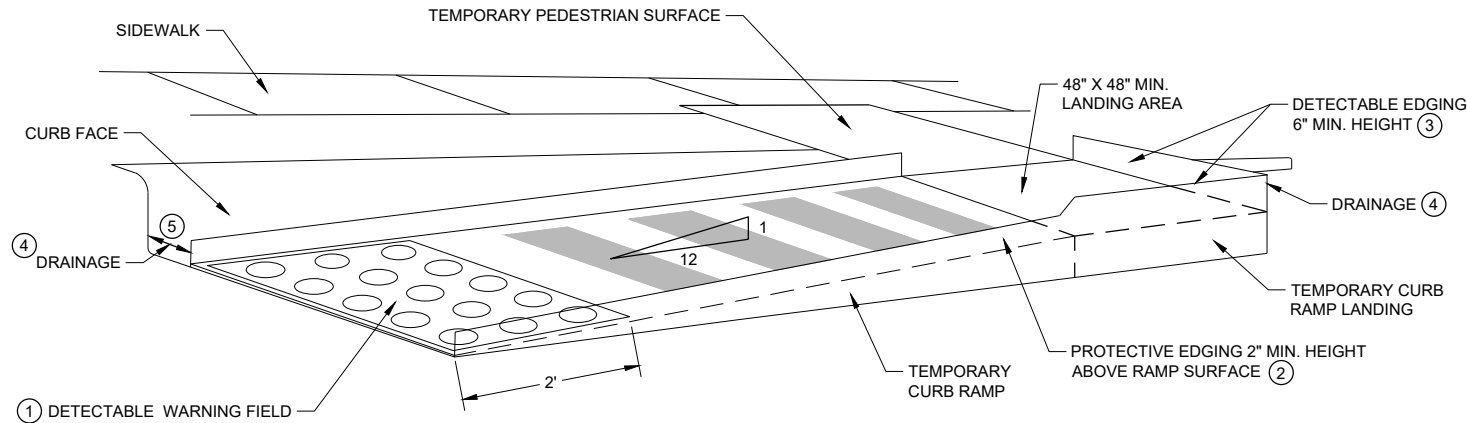


**TEMPORARY PEDESTRIAN BARRICADE\***

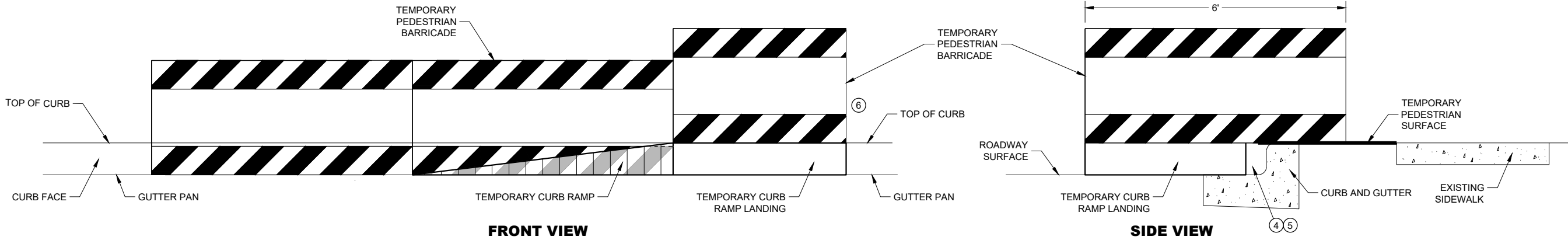
**GENERAL NOTES**

CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.  
 CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.  
 CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.  
 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.  
 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑤ ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.
- ⑥ IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.



**PERSPECTIVE VIEW**

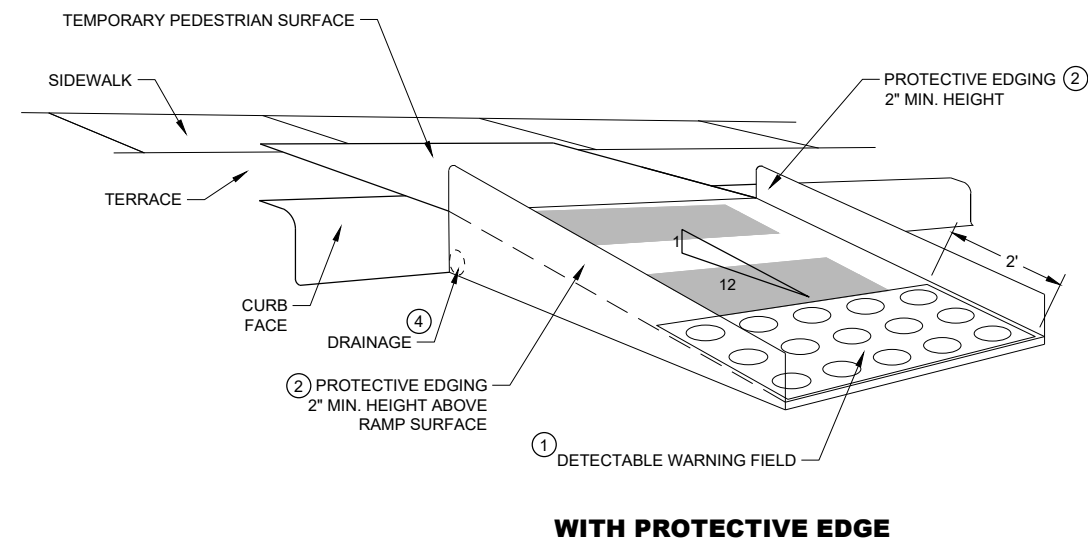
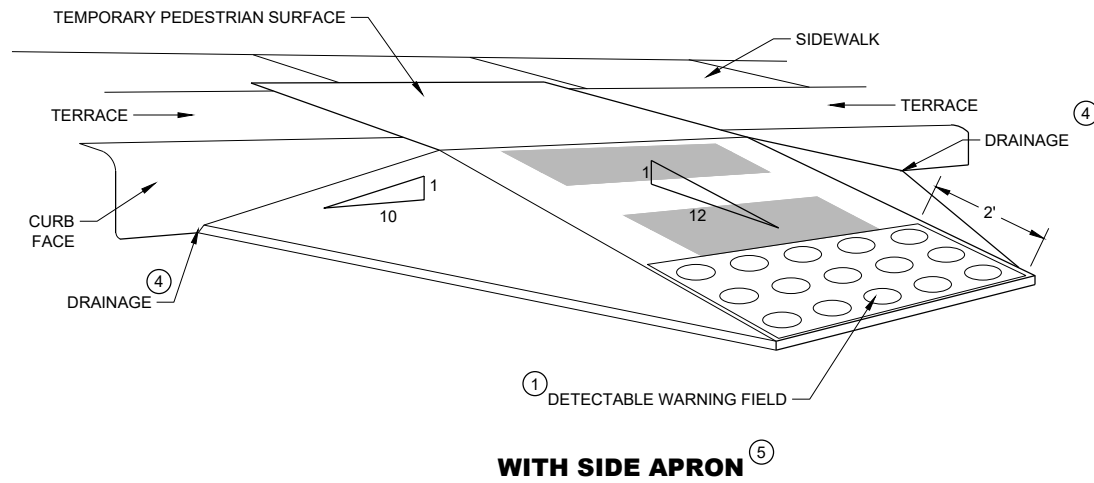


**FRONT VIEW**

**SIDE VIEW**

**TEMPORARY CURB RAMP PARALLEL TO CURB**

<p><b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b></p>
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>



**TEMPORARY CURB RAMP PERPENDICULAR TO CURB**

**GENERAL NOTES**

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

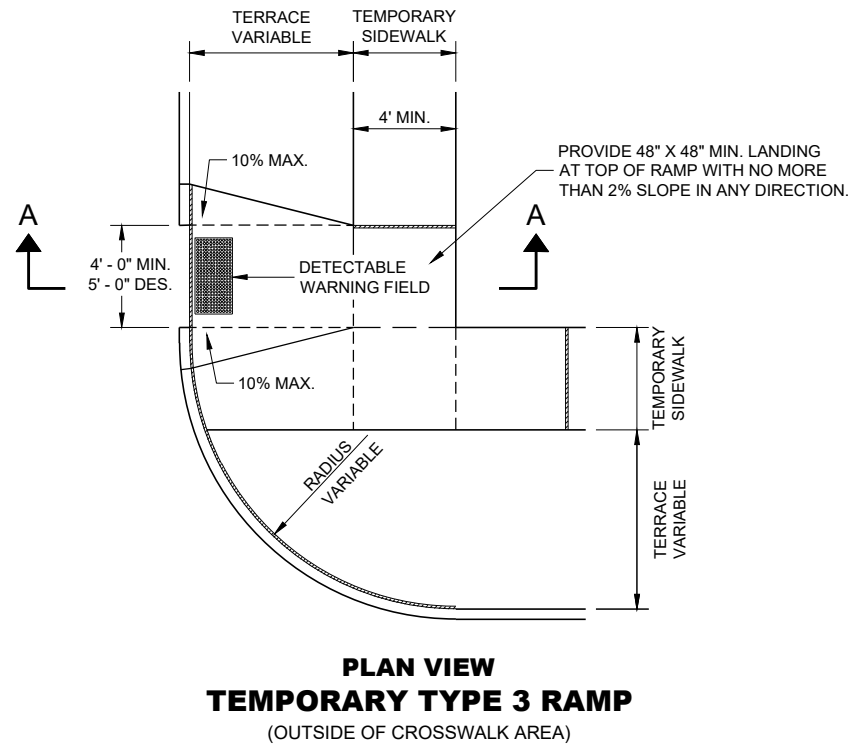
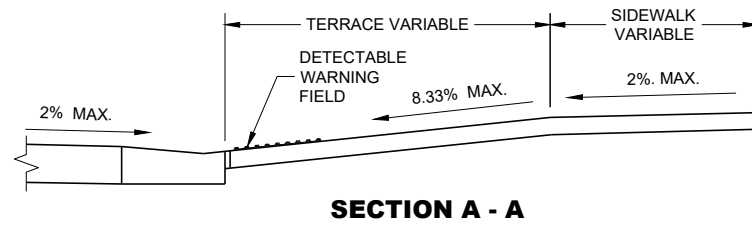
CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑤ CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.



**GENERAL NOTES**

- BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
- ★ USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



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SDD 15D30-08d

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<b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

**GENERAL NOTES**

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMP OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

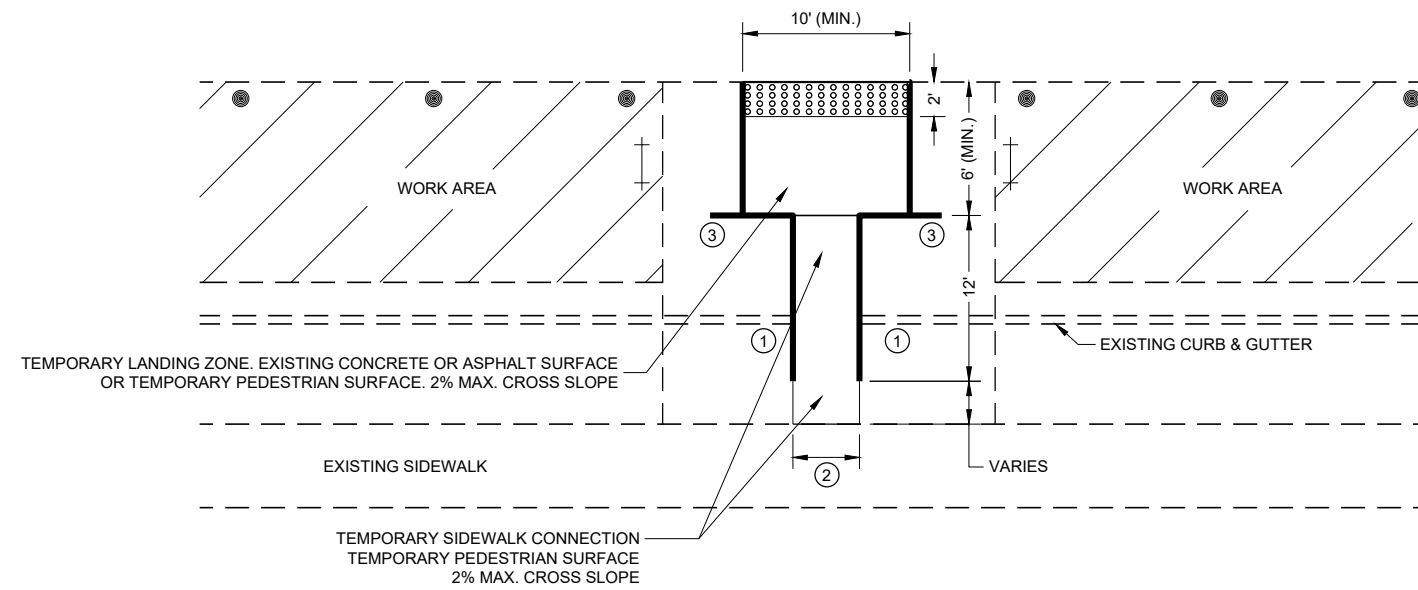
DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

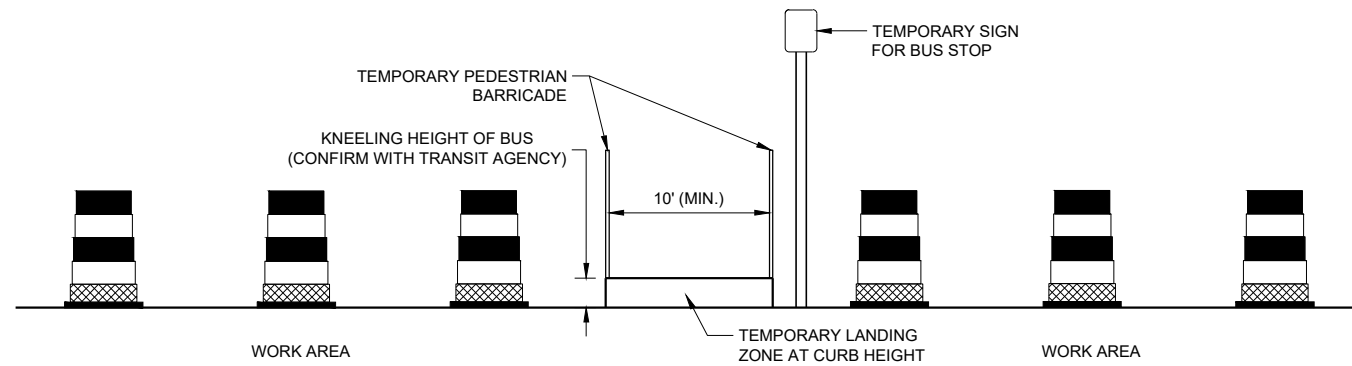
CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

- ① DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ② 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.
- ③ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.








**PLAN VIEW**



**PROFILE VIEW  
TEMPORARY BUS STOP PAD**







**LEGEND**

-  TRAFFIC CONTROL DRUM
-  TYPE III BARRICADE
-  TEMPORARY PEDESTRIAN BARRICADE
-  TEMPORARY DETECTABLE WARNING FIELD
-  WORK AREA

**TRAFFIC CONTROL,  
PEDESTRIAN ACCOMMODATION**

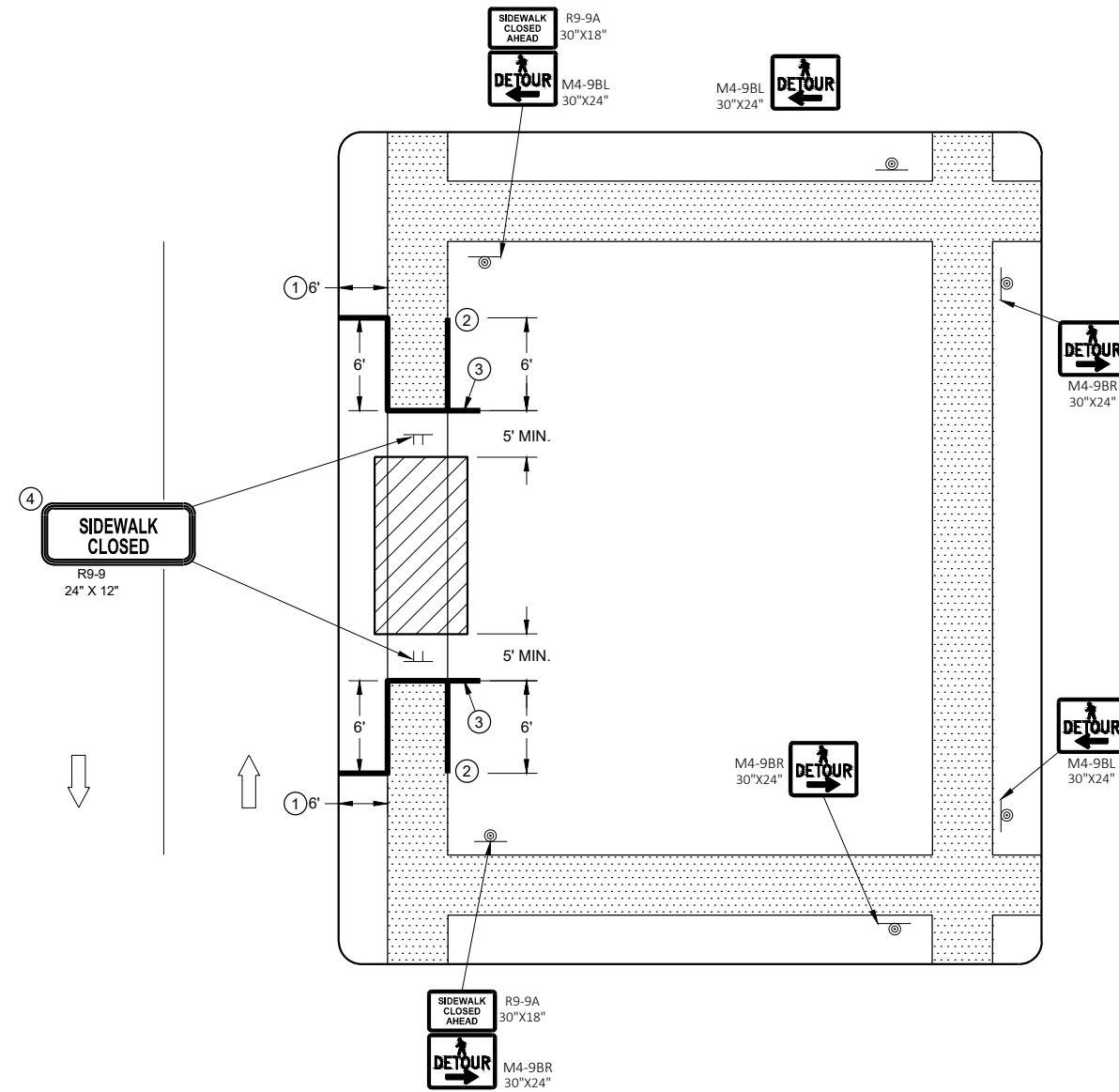
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**LEGEND**

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  UNDER PEDESTRIAN TRAFFIC
-  WORK AREA
-  TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC

**GENERAL NOTES**








- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.
- ① IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
  - ② PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
  - ③ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
  - ④ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



**SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE**

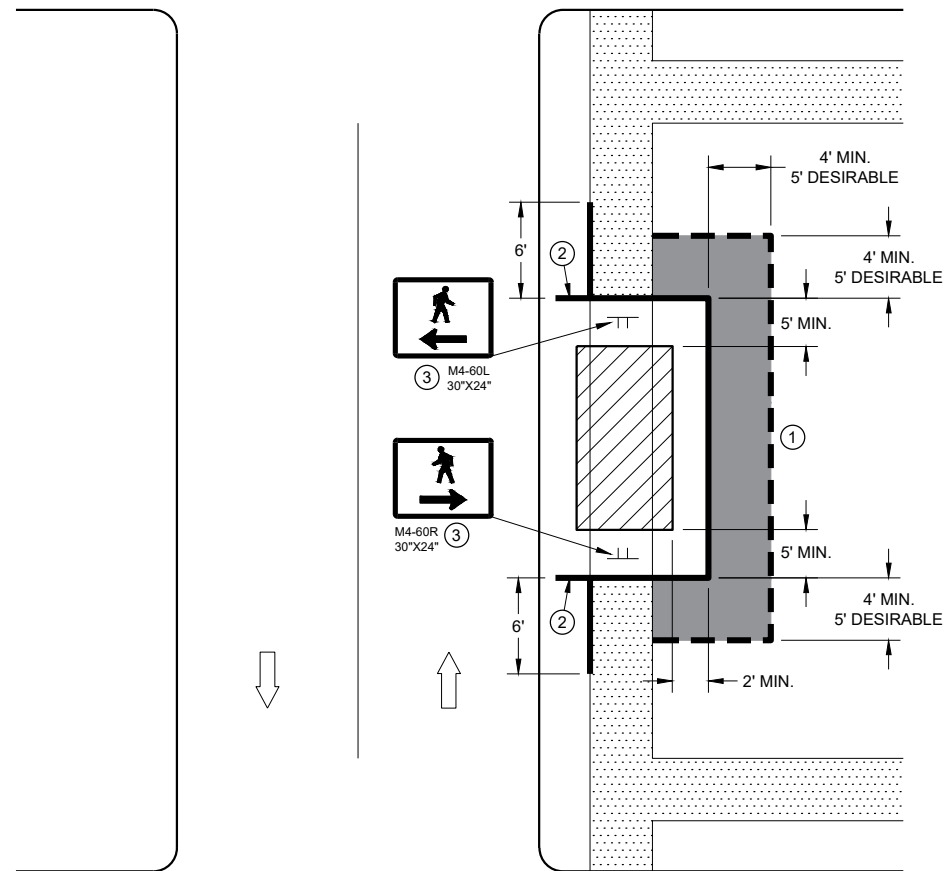
<b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

**LEGEND**

-  SIGN ON TEMPORARY SUPPORT
-  WORK AREA
-  UNDER PEDESTRIAN TRAFFIC
-  TEMPORARY PEDESTRIAN SURFACE
-  TEMPORARY PEDESTRIAN BARRICADE
-  OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC










**GENERAL NOTES**

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- ① USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ② IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ③ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



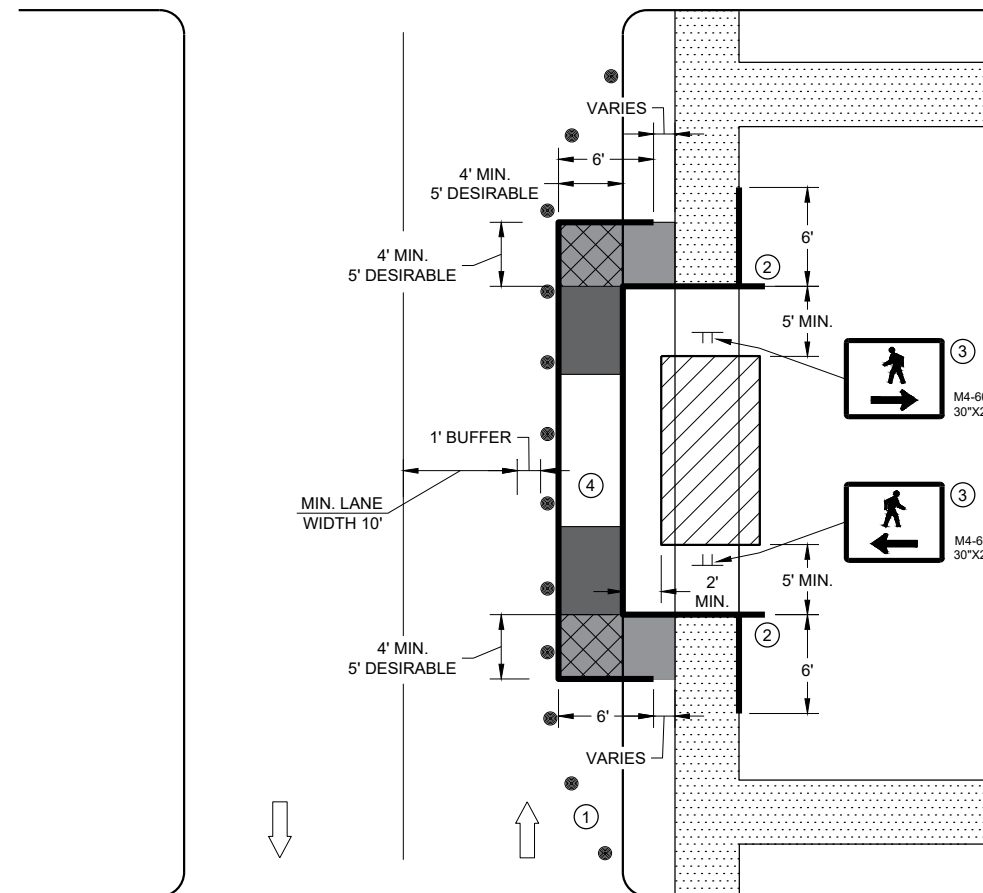
**SIDEWALK DIVERSION  
SINGLE SIDE**

**LEGEND**

-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  WORK AREA
-  UNDER PEDESTRIAN TRAFFIC
-  TEMPORARY CURB RAMP
-  TEMPORARY PEDESTRIAN SURFACE "A"
-  TEMPORARY PEDESTRIAN SURFACE "B"
-  TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC

**GENERAL NOTES**

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.
  - ② PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.
  - ③ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.
  - ④ USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURFACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE.



**SIDEWALK DIVERSION, SINGLE SIDE**

<b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

6

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SDD 15D30 - 08h

SDD 15D30 - 08h

### GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.











SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

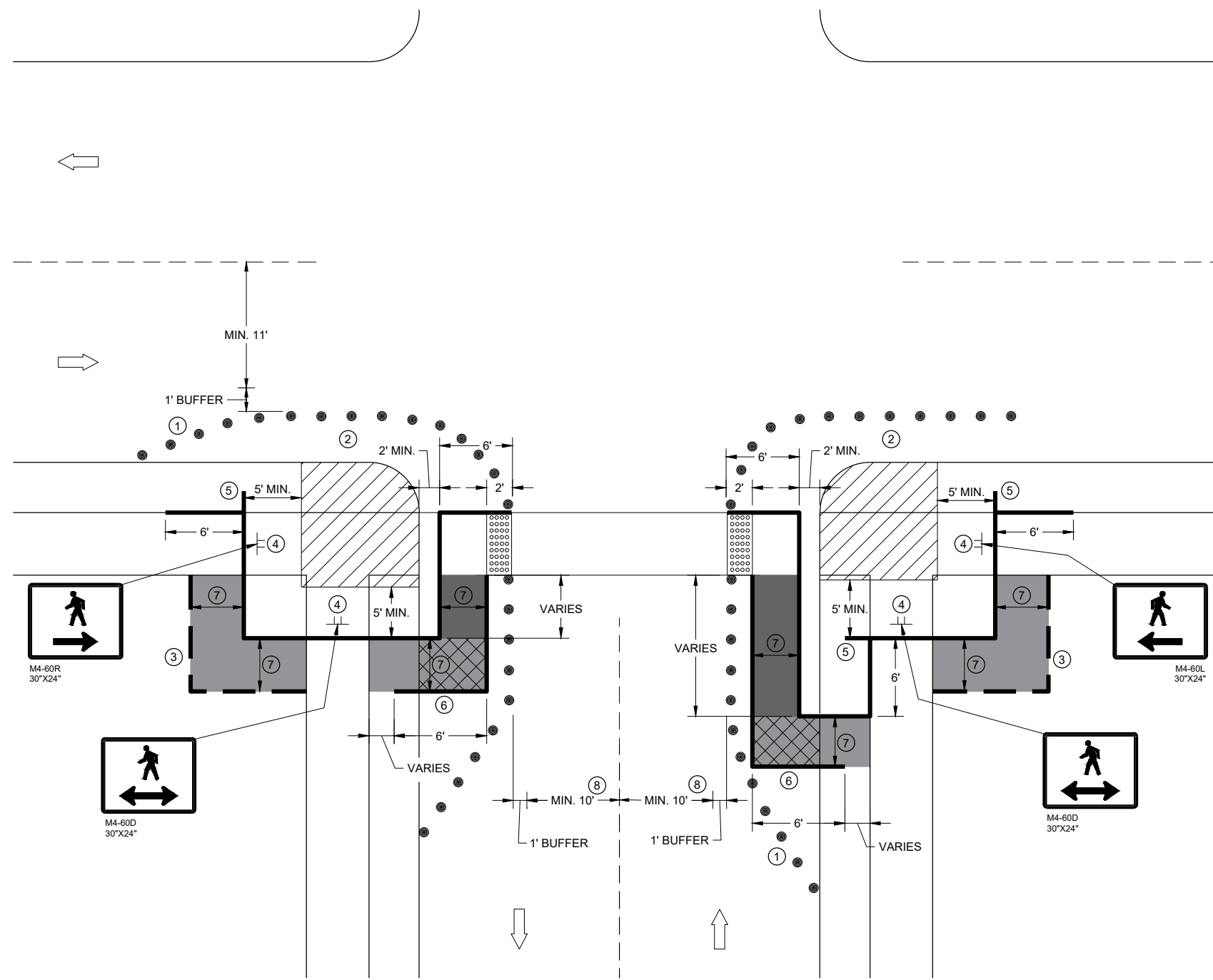
TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
- ② PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
- ③ USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ④ MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
- ⑤ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
- ⑥ IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
- ⑦ 4 FEET MINIMUM, 5 FEET DESIRABLE
- ⑧ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

### LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  WORK AREA
-  TEMPORARY CURB RAMP
-  TEMPORARY PEDESTRIAN SURFACE "A"
-  TEMPORARY PEDESTRIAN SURFACE "B"
-  TEMPORARY DETECTABLE WARNING FIELD
-  TEMPORARY PEDESTRIAN BARRICADE
-  OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC



**CURB RAMP PEDESTRIAN TRAFFIC CONTROL  
SIDEWALK ON SINGLE SIDE**

<b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

6

6

SDD 15D30 - 08i

SDD 15D30 - 08i

**GENERAL NOTES**

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.











SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

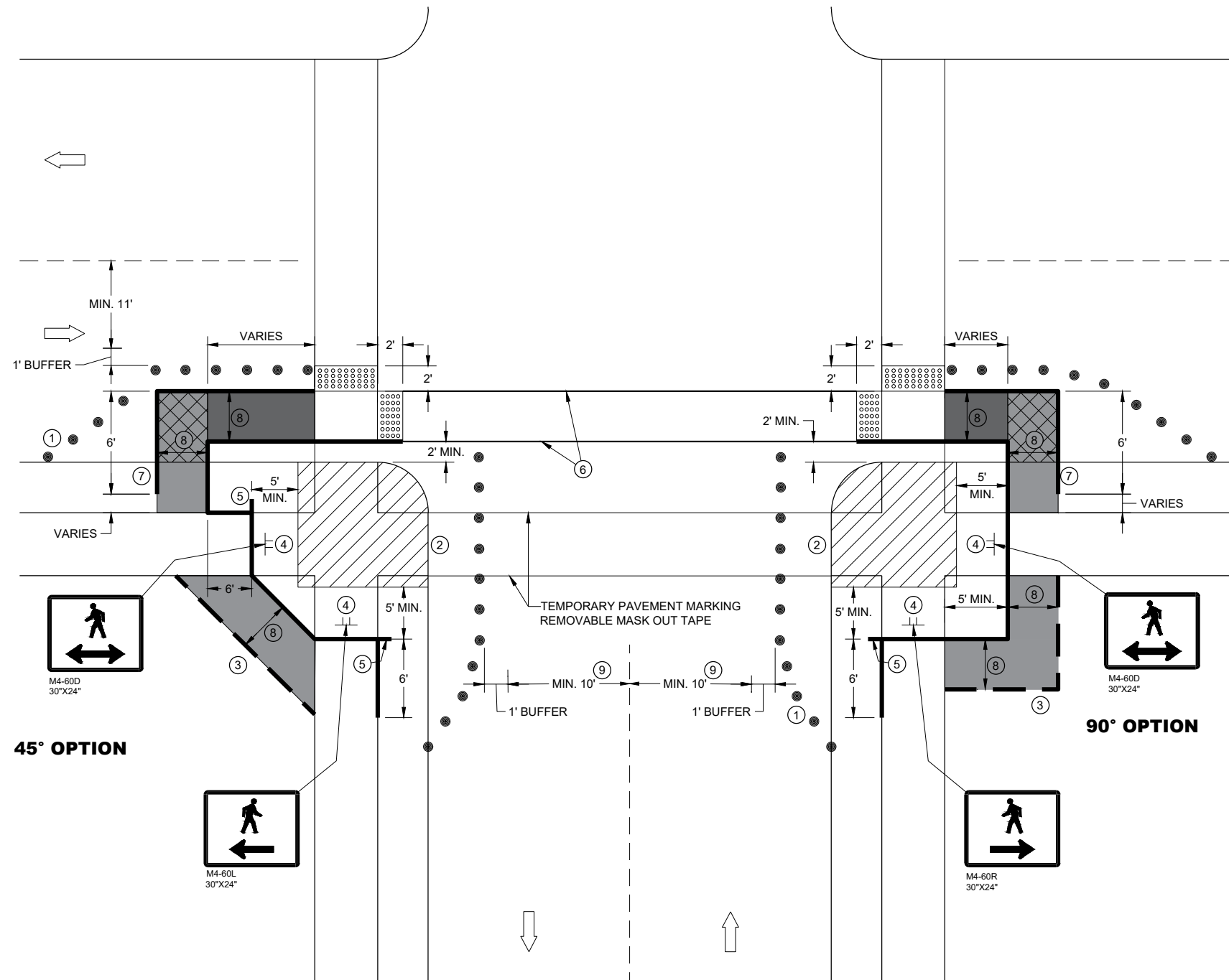
TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
- ② PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
- ③ USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ④ MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
- ⑤ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
- ⑥ WHITE 6" TEMPORARY PAVEMENT MARKING
- ⑦ IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
- ⑧ 4 FEET MINIMUM, 5 FEET DESIRABLE
- ⑨ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

**LEGEND**

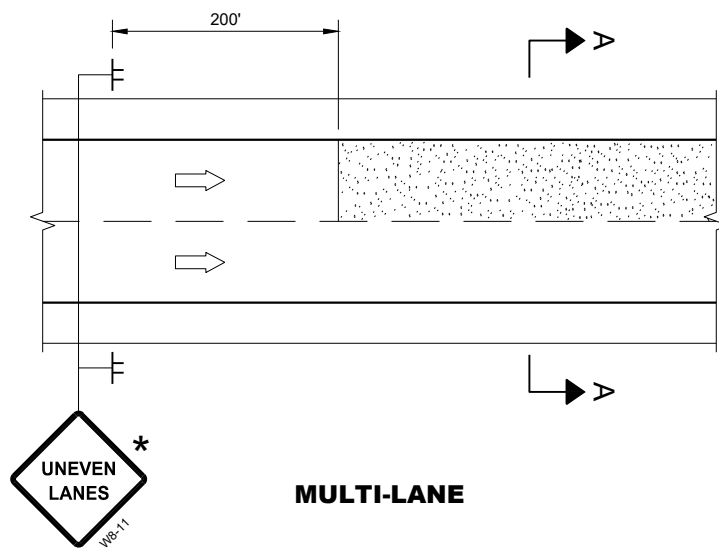
-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  WORK AREA
-  TEMPORARY CURB RAMP
-  TEMPORARY PEDESTRIAN SURFACE "A"
-  TEMPORARY PEDESTRIAN SURFACE "B"
-  TEMPORARY DETECTABLE WARNING FIELD
-  TEMPORARY PEDESTRIAN BARRICADE
-  OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC



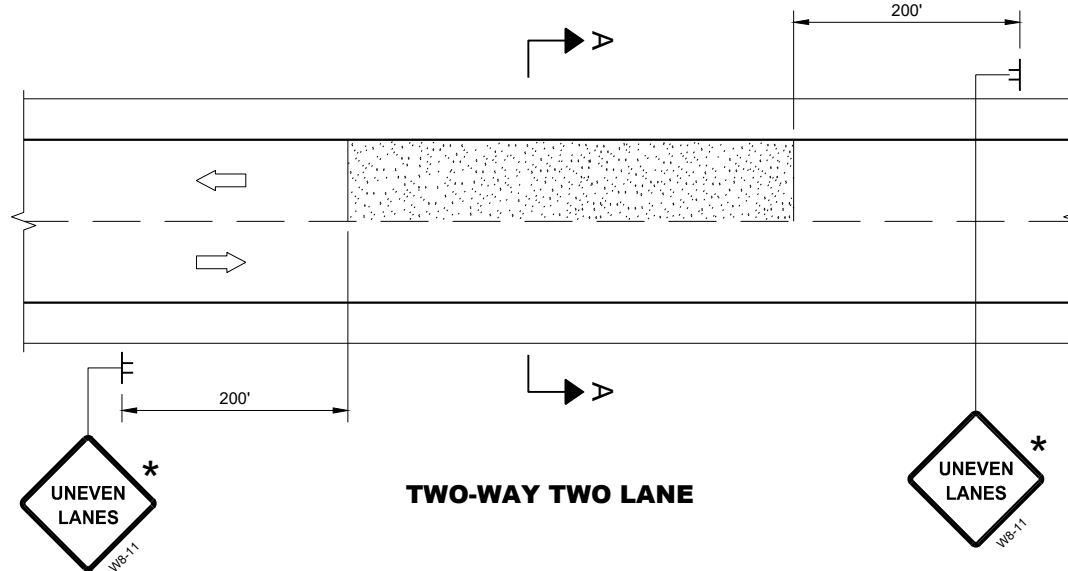
**CURB RAMP PEDESTRIAN TRAFFIC CONTROL**

**TRAFFIC CONTROL,  
PEDESTRIAN ACCOMMODATION**

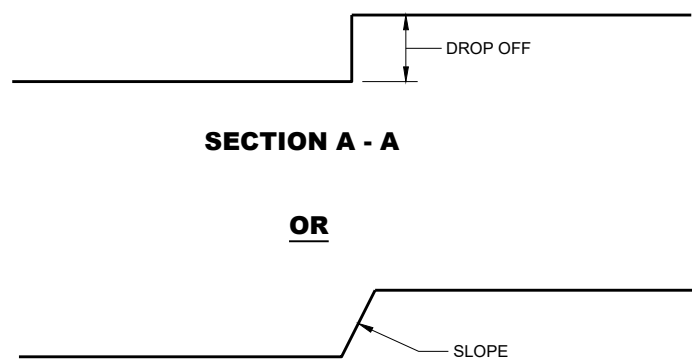
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**MULTI-LANE**



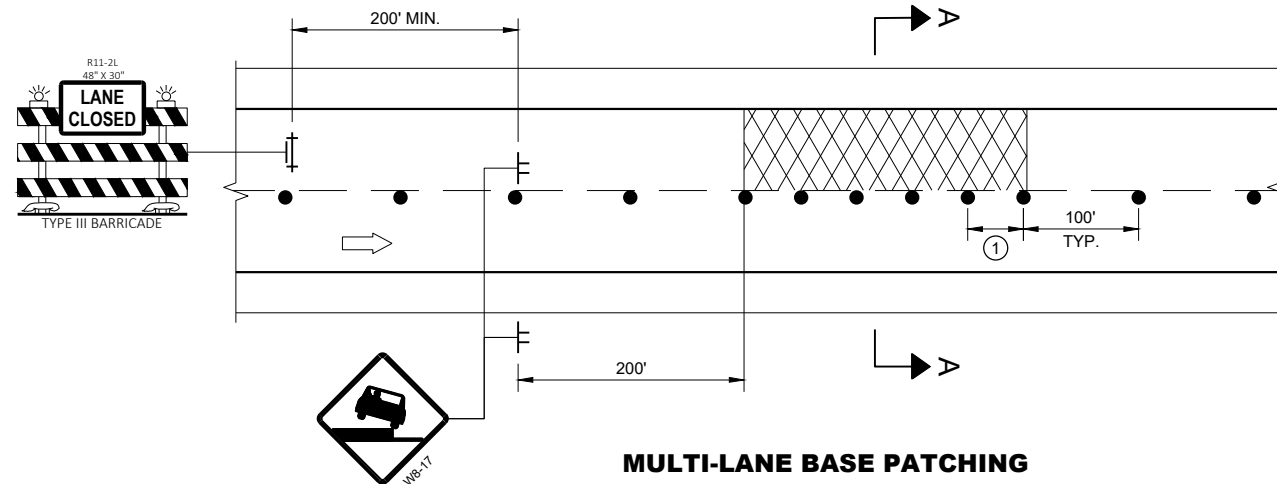
**TWO-WAY TWO LANE**



**SECTION A - A**

**OR**

**SECTION A - A**



**MULTI-LANE BASE PATCHING**

**ADJACENT LANE DROP-OFFS**

**GENERAL NOTES**

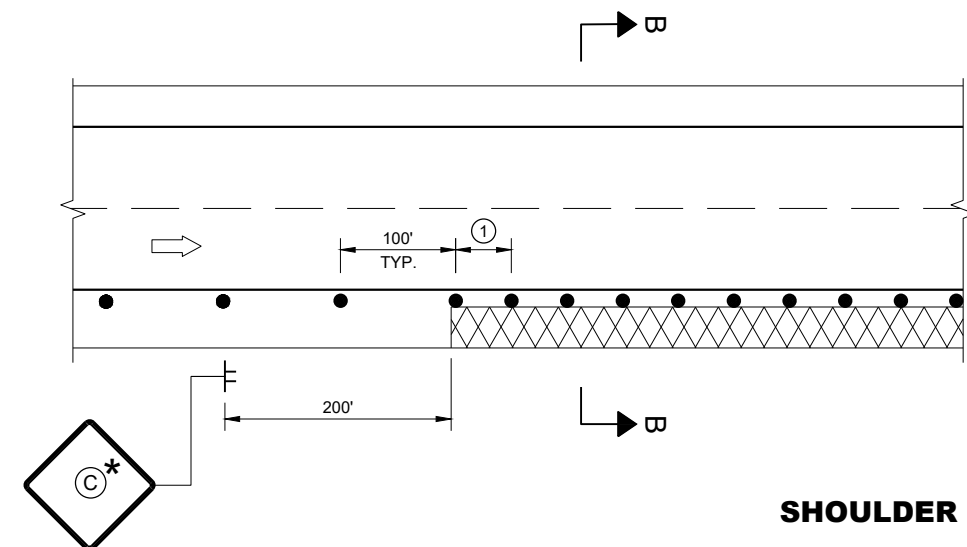
- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- \* IF THE DROP-OFF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

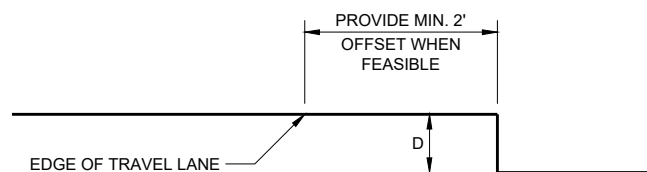
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

6

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**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

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**TRAFFIC CONTROL,  
DROP-OFF SIGNING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA



**GENERAL NOTES**

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

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

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

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

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

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

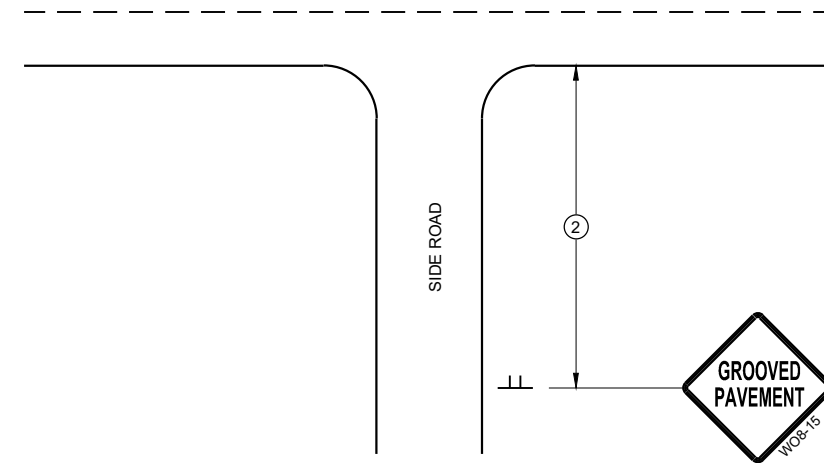
SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

- ① PLACE SIGNS 350' IN ADVANCE OF 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.

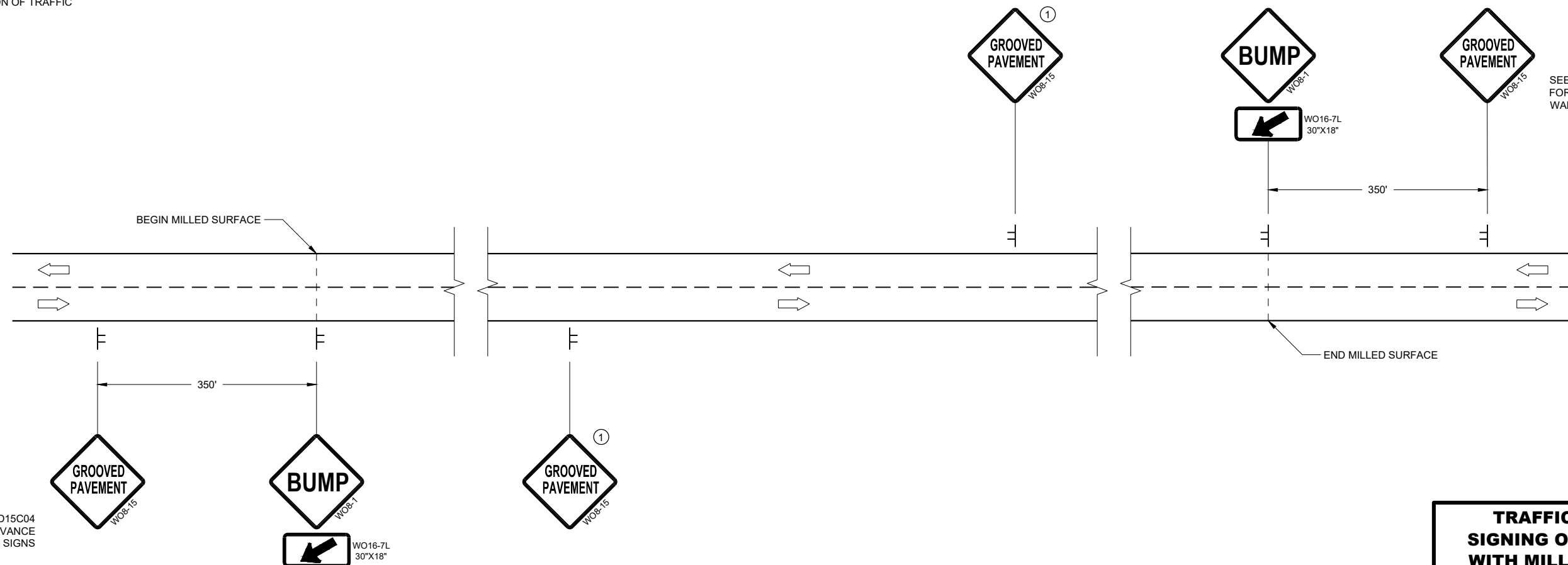
**LEGEND**

⊥ SIGN ON TEMPORARY SUPPORT

⇨ DIRECTION OF TRAFFIC



**TYPICAL SIDE ROAD APPROACH SIGN DETAIL**



SEE SDD15C04 FOR ADVANCE WARNING SIGNS

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

**DETAIL FOR SIGNING ON MILLED SURFACES**

**TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA

**GENERAL NOTES**

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

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

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

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

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

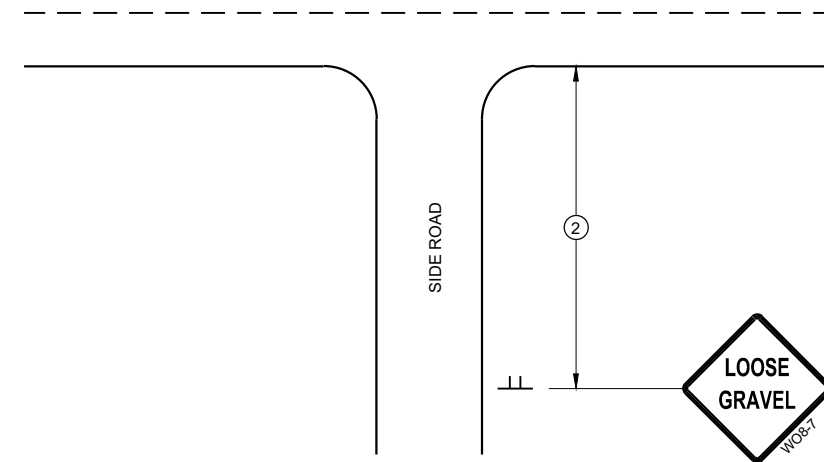
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

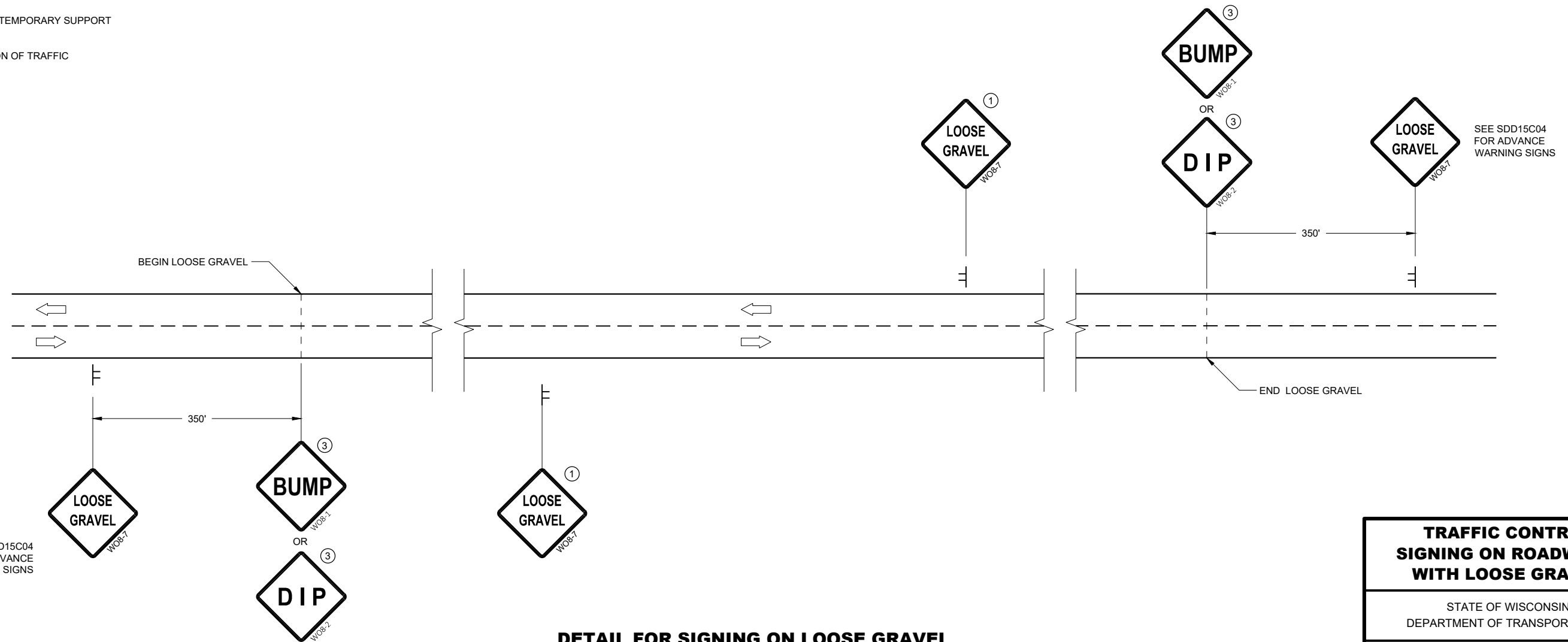
- ① PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- ③ ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

**LEGEND**

- ⊥ SIGN ON TEMPORARY SUPPORT
- ➡ DIRECTION OF TRAFFIC



**TYPICAL SIDE ROAD APPROACH SIGN DETAIL**



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





SEE SDD15C04 FOR ADVANCE WARNING SIGNS

**TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2021 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER  
FHWA

**LEGEND**

- V1 WORK VEHICLE
- V2 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  FLASHING ARROW PANEL (CAUTION)
-  WORK AREA
-  DIRECTION OF TRAFFIC

POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

**GENERAL NOTES**

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

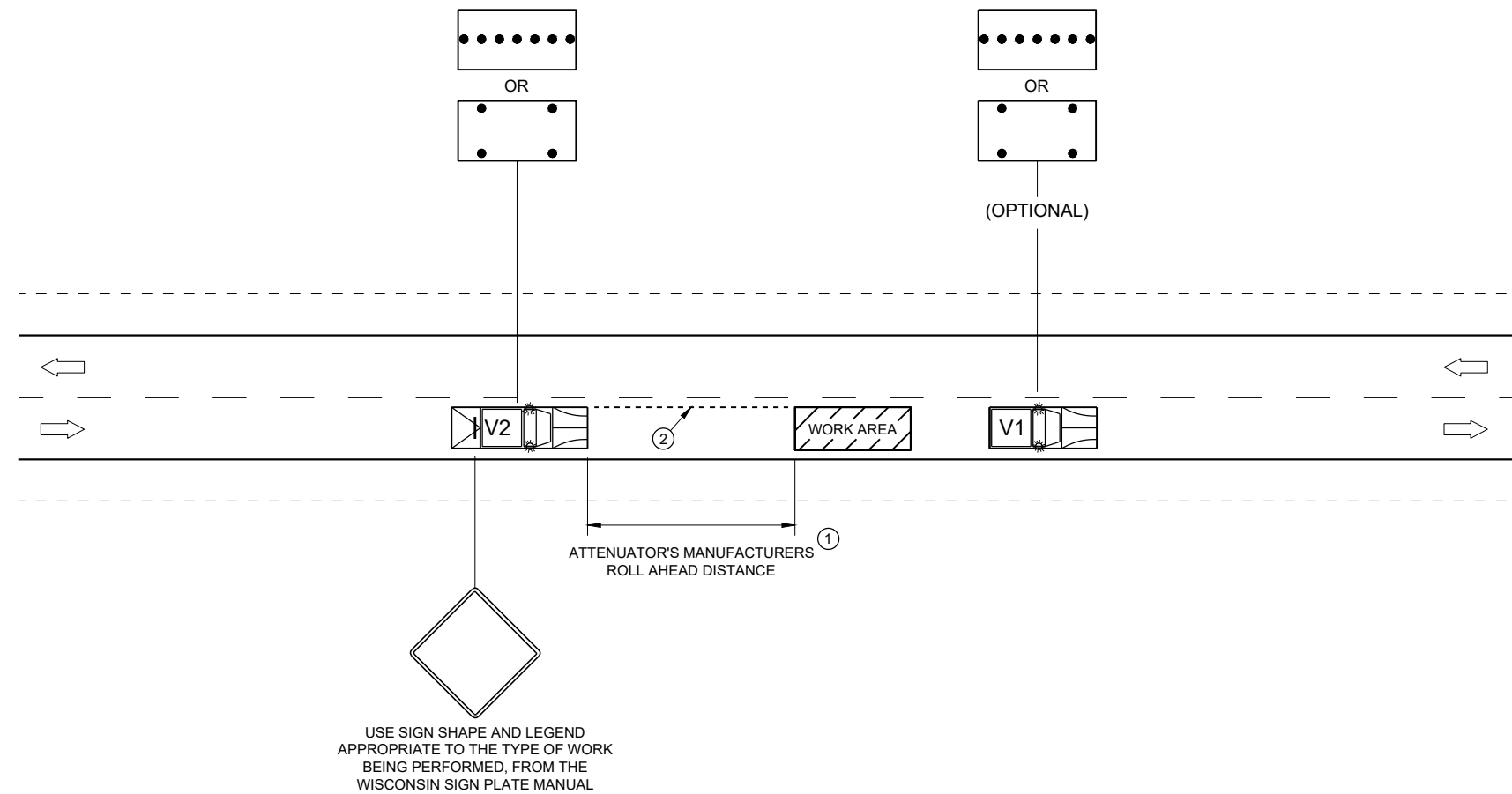
MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

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

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

- ① DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, 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 OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- ② ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



6

6

SDD 15D51 - 01

SDD 15D51 - 01

**TRAFFIC CONTROL,  
MOBILE OPERATIONS ON  
AN UNDIVIDED ROADWAY**

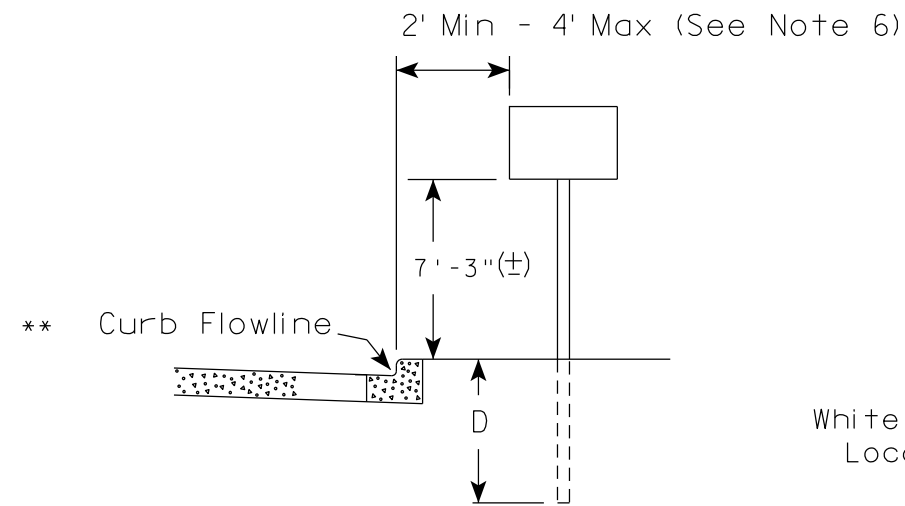
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2021 /S/ Andrew Heidtke  
DATE STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

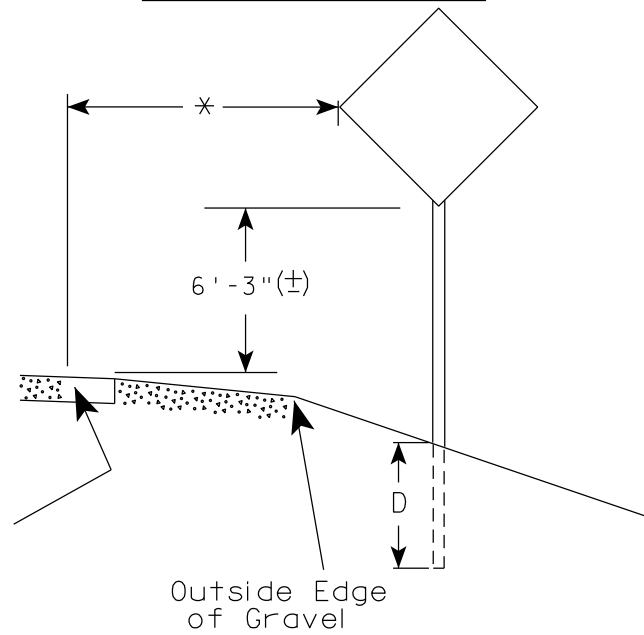
FHWA

URBAN AREA

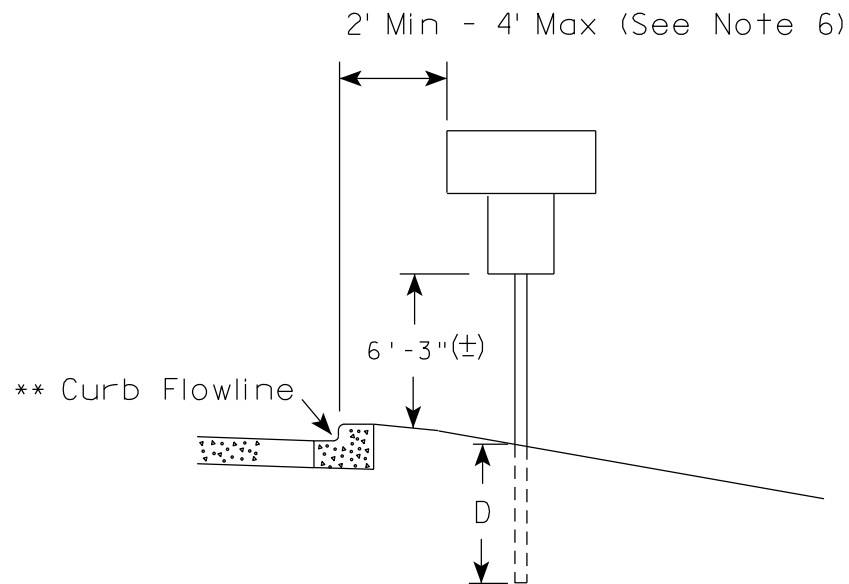
RURAL AREA (See Note 2)



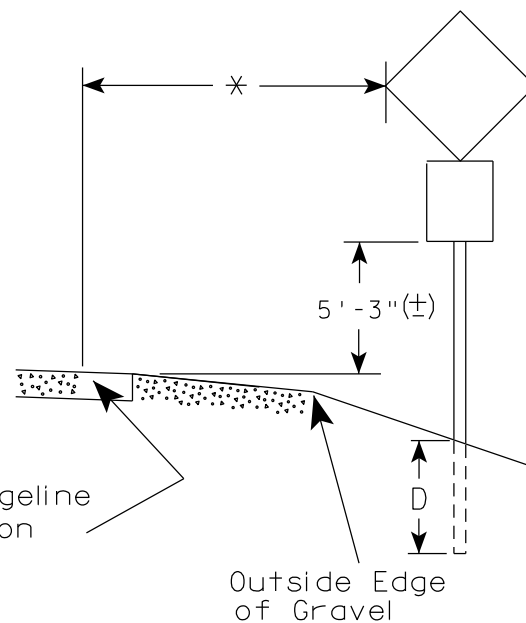
White Edgeline Location



Outside Edge of Gravel



White Edgeline Location



Outside Edge of Gravel

POST EMBEDMENT DEPTH

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

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.

\* \* 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.

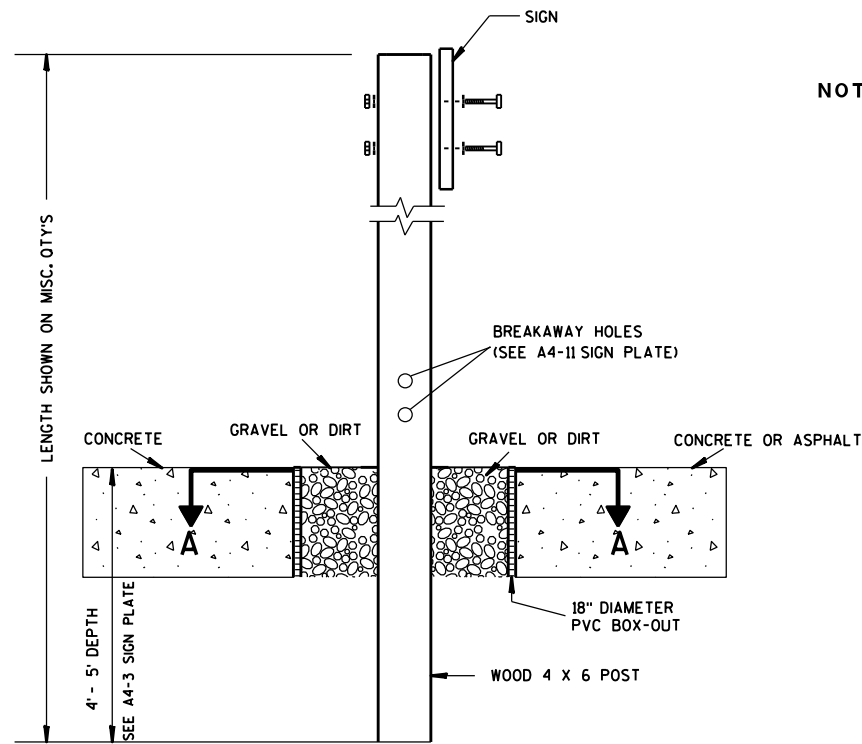
\* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

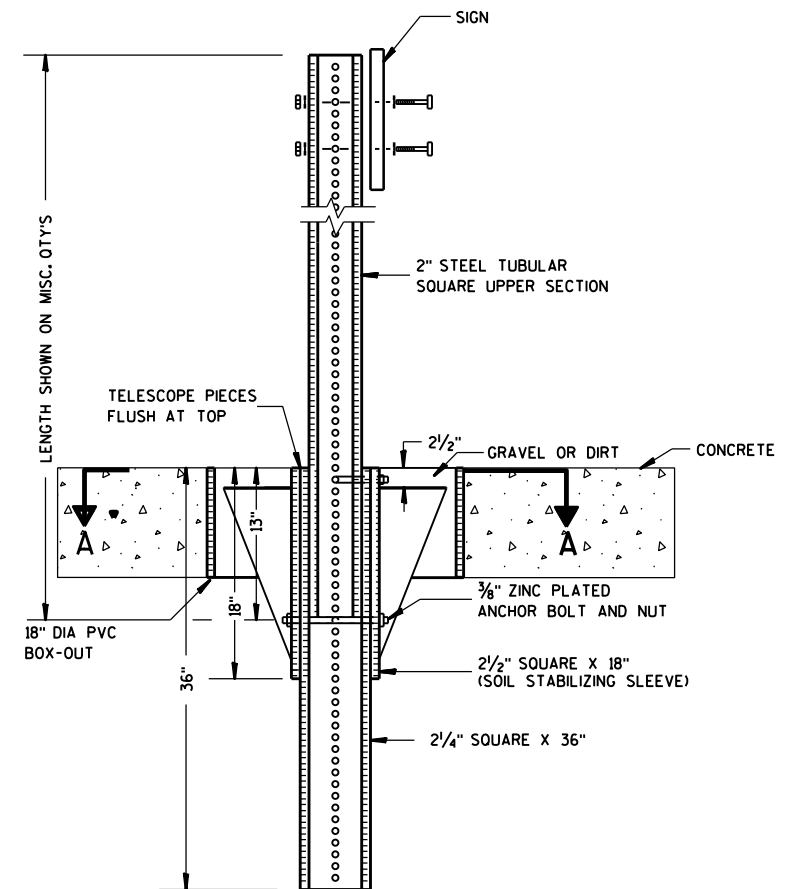
DATE 5/13/2020 PLATE NO. A4-3.22



**ELEVATION VIEW**

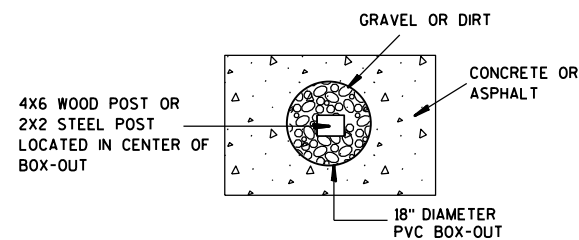
**DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT**

- 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**

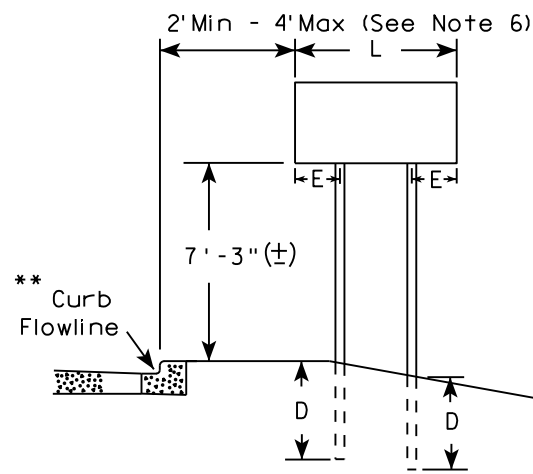
**FOR NEW CONCRETE/ASPHALT INSTALLATIONS**

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

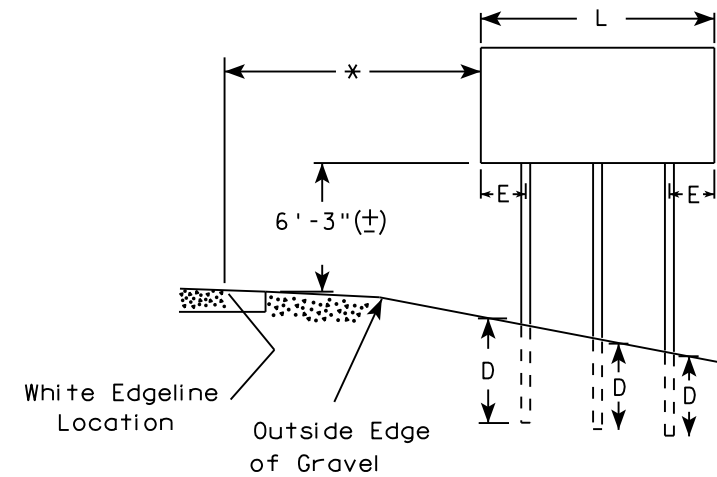
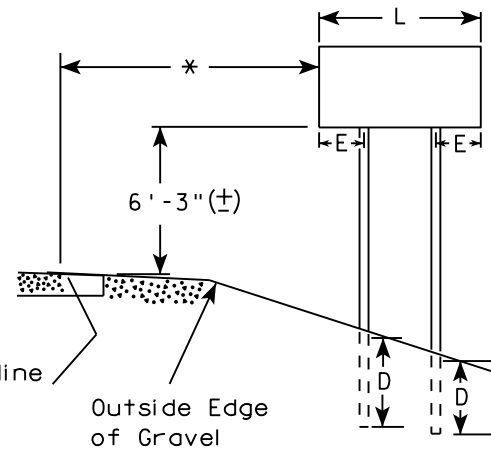
GENERAL NOTES

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" (±).

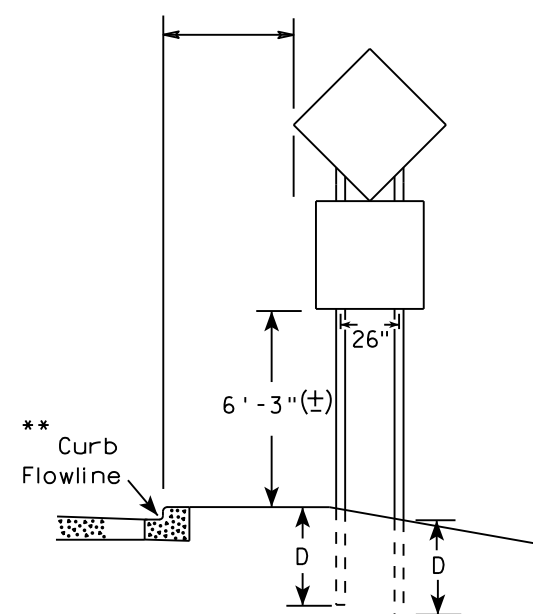
URBAN AREA



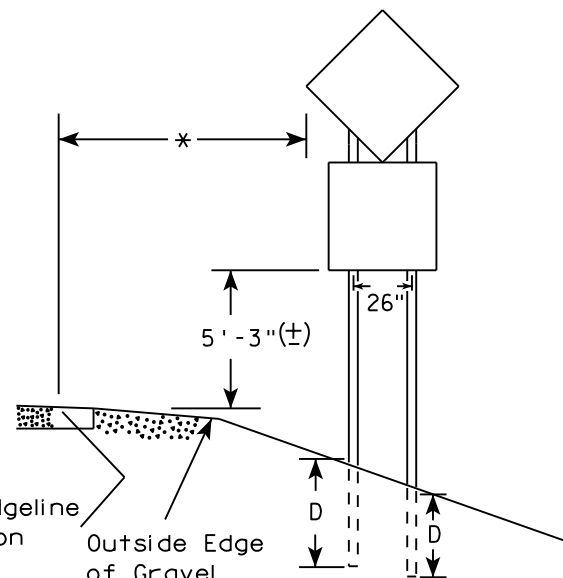
RURAL AREA (See Note 3)



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

\*\*\*

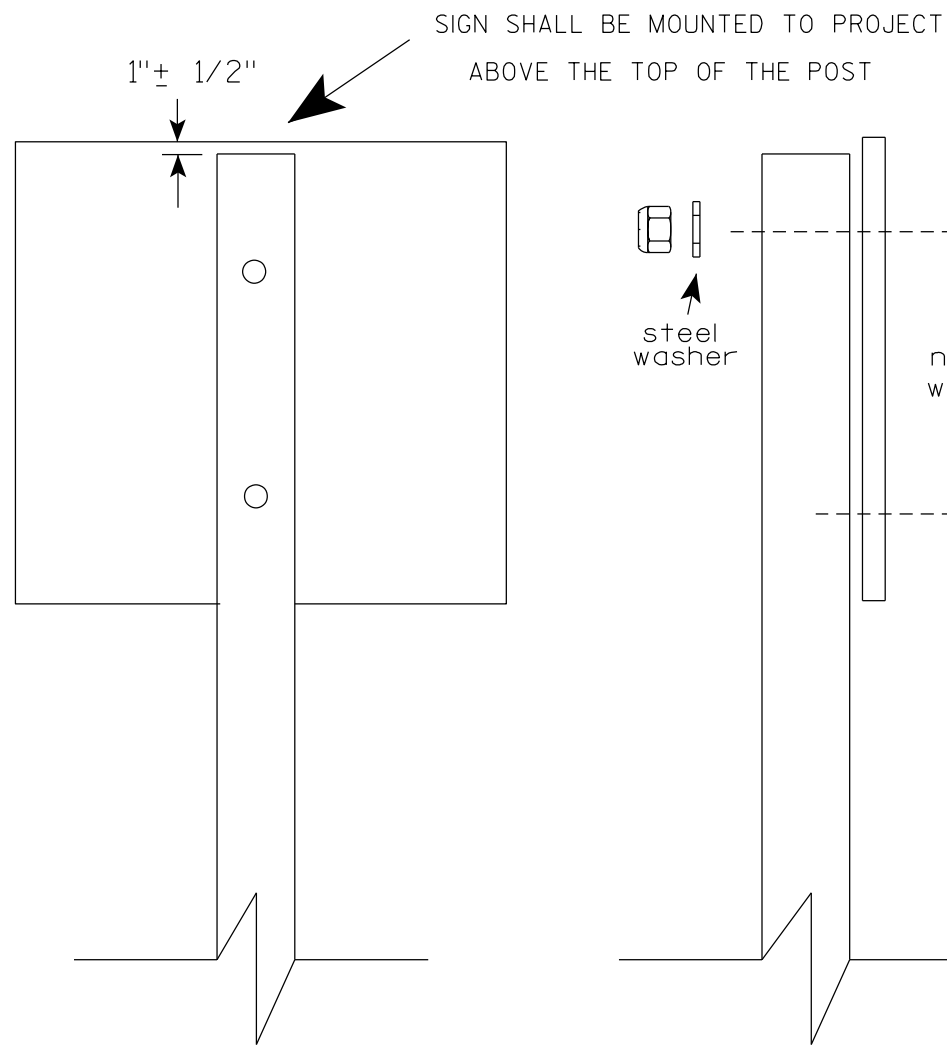
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

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 - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)  
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

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

RIVETS - 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 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 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

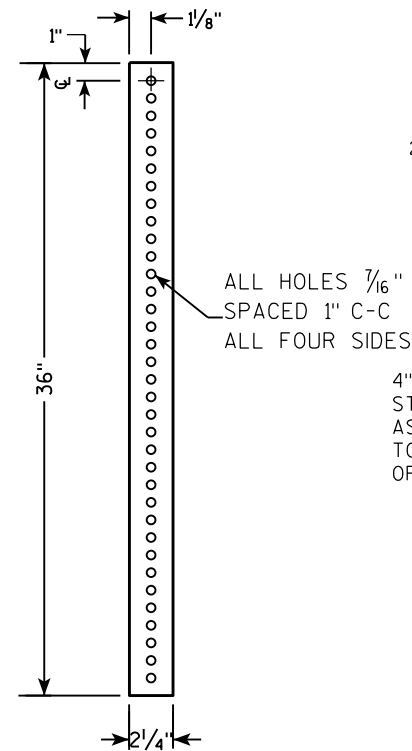
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
For State Traffic Engineer

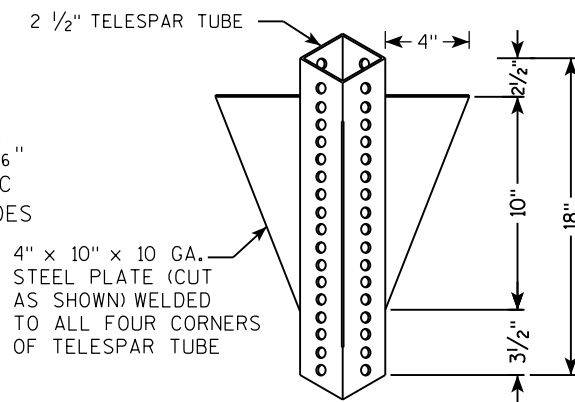
DATE 4/1/2020 PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS  
TWO PIECE SYSTEM**

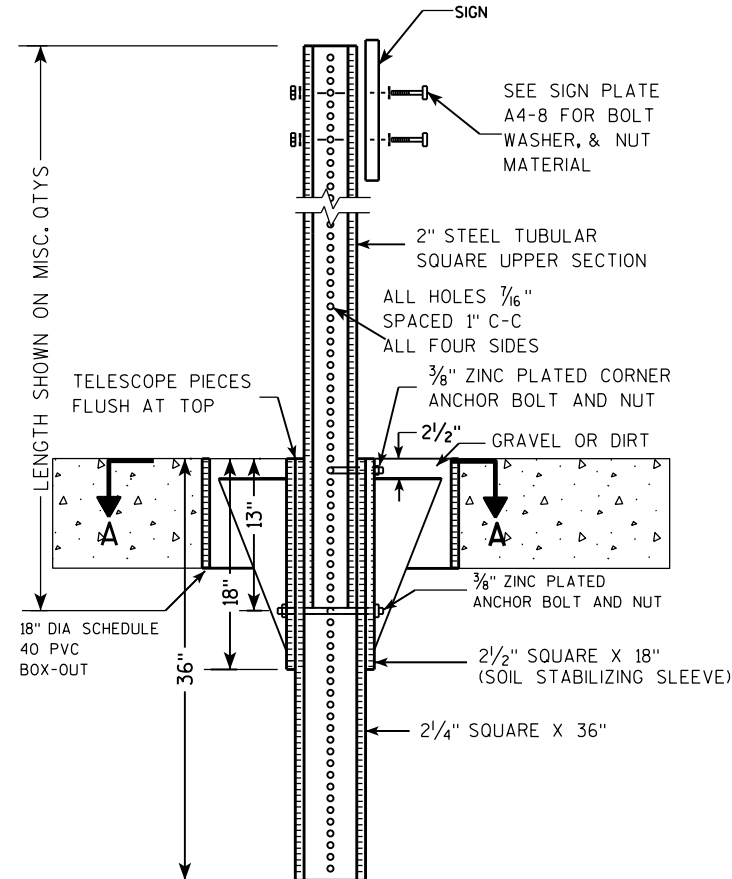
2 1/4" SQUARE  
12 GAUGE  
PERFORATED  
GALVANIZED FINISH



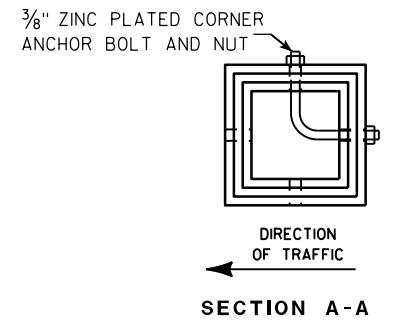
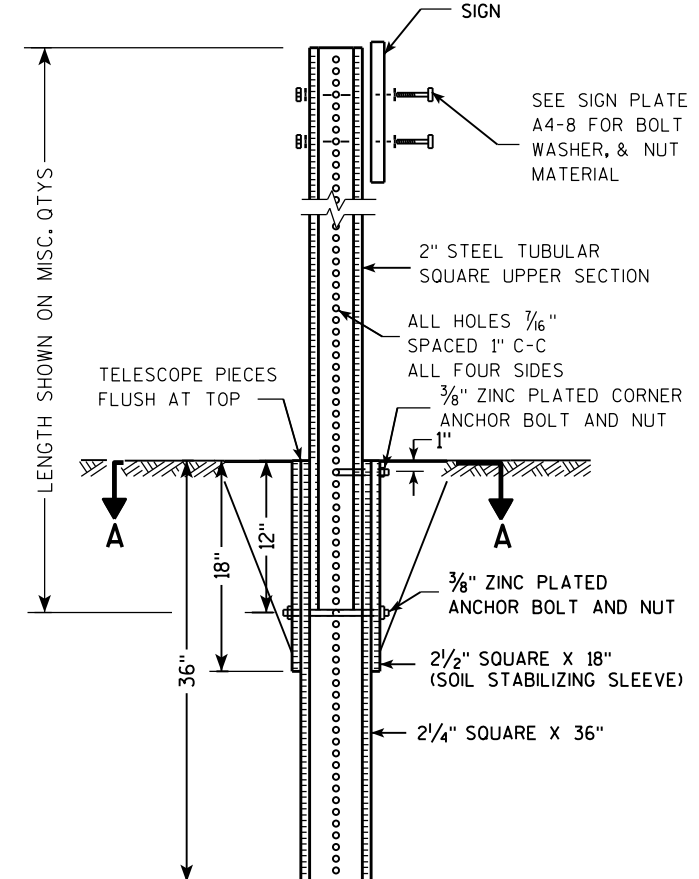
2 1/2" SQUARE  
12 GAUGE  
OMNI-DIRECTIONAL  
PERFORATED  
SOIL STABILIZING SLEEVE  
GALVANIZED FINISH



**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)**



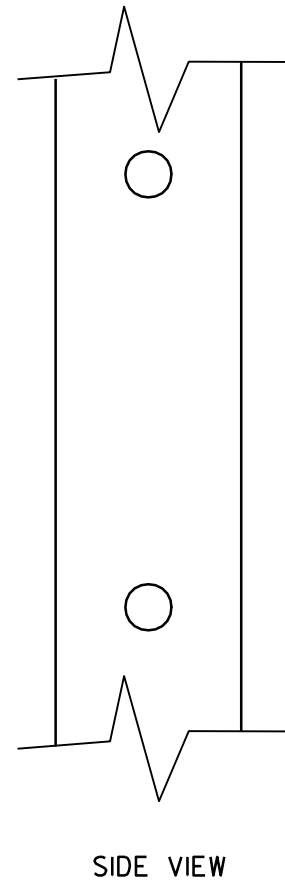
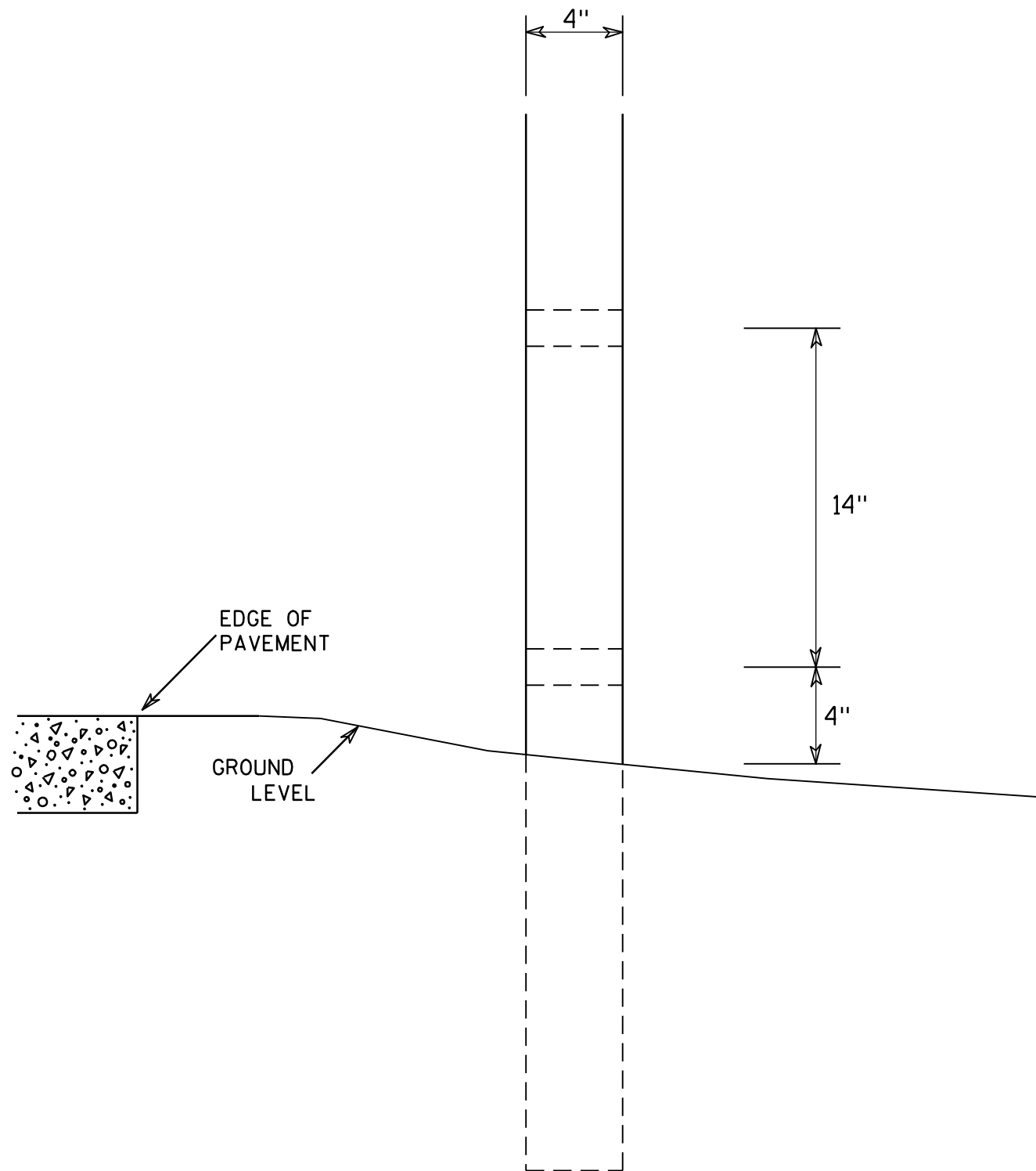
Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

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

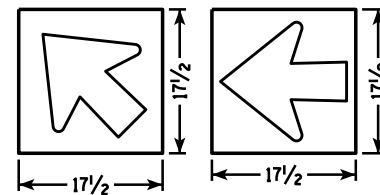
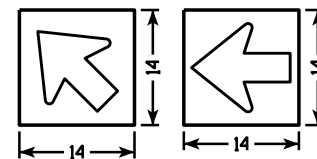
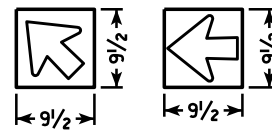
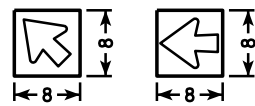
7

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

# SIGN LAYOUT WITH VARIOUS SIZED MESSAGES

## GENERAL NOTES

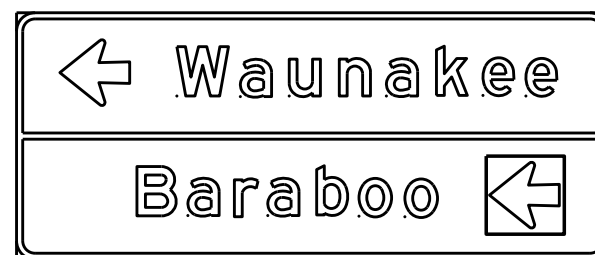
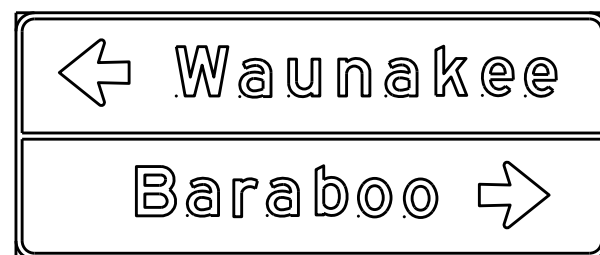
- Materials shall conform to Standard Specification Section 637.  
Base - Sheet Aluminum 0.040" Thickness  
Sheeting - Orange Type F Reflective  
Arrow - Black Non-Reflective
- Arrow signs shall be fastened to permanent sign by either aluminum rivets or aluminum self-tapping sheet metal screws. There shall be a minimum of 2 fasteners used per arrow sign.
- There shall be a spacer consisting of a 0.08" nylon washer between the back of the arrow sign and the face of the permanent sign.
- Arrows are per standard plate A1-2
- Use separate arrow sign for each destination
- Tilt arrow is always at 45 degrees
- Arrow is centered on arrow sign



Lower Case Copy Size	Standard Width (Single Arrow)	2 Line Tilt Arrow Cover Width	3 Line Tilt Arrow Cover Width	Height
3 3/4" Series C	8	9 1/2	14 1/2	8
4 1/2" Series D & E	9 1/2	10	15	9 1/2
6" Series D & E	14	16	20 1/2	14
8" Series E	17 1/2	20 1/2	25	17 1/2

**BEFORE**

**AFTER**



DESTINATION DIRECTIONAL ARROW  
FOR DETOUR SIGNS

WISCONSIN DEPT OF TRANSPORTATION

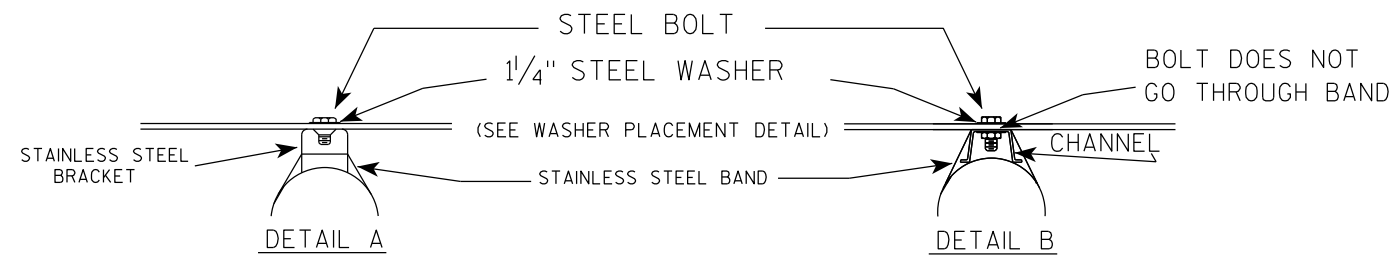
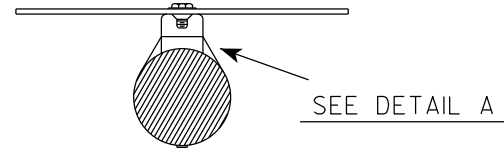
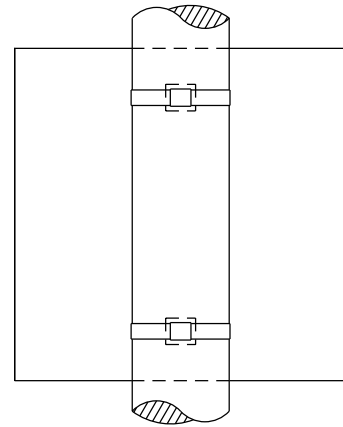
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 10/08/14

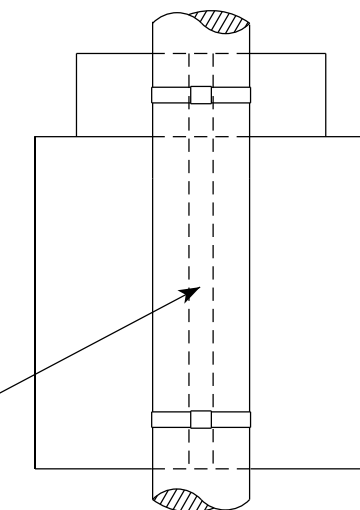
PLATE NO. A4-12.2

# BANDING

SINGLE SIGN



"J" ASSEMBLY

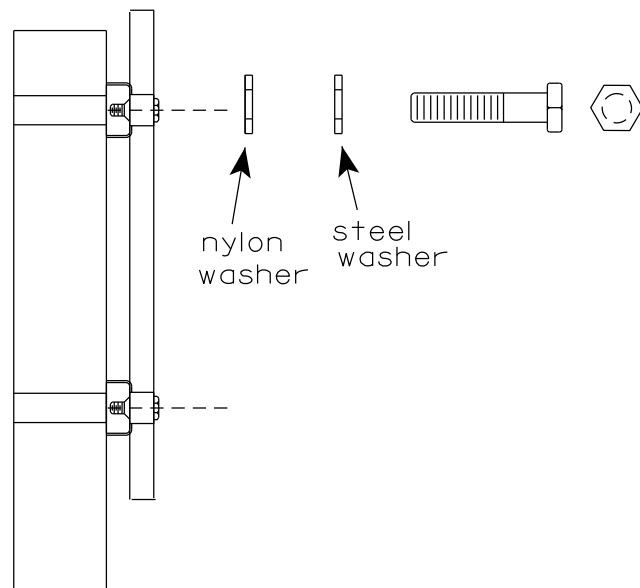


CHANNEL  
SEE TYPICAL PANEL  
INSTALLATION SHEET



- GENERAL NOTES**
1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
  2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
  3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
  4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
    - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
    - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

WASHER PLACEMENT



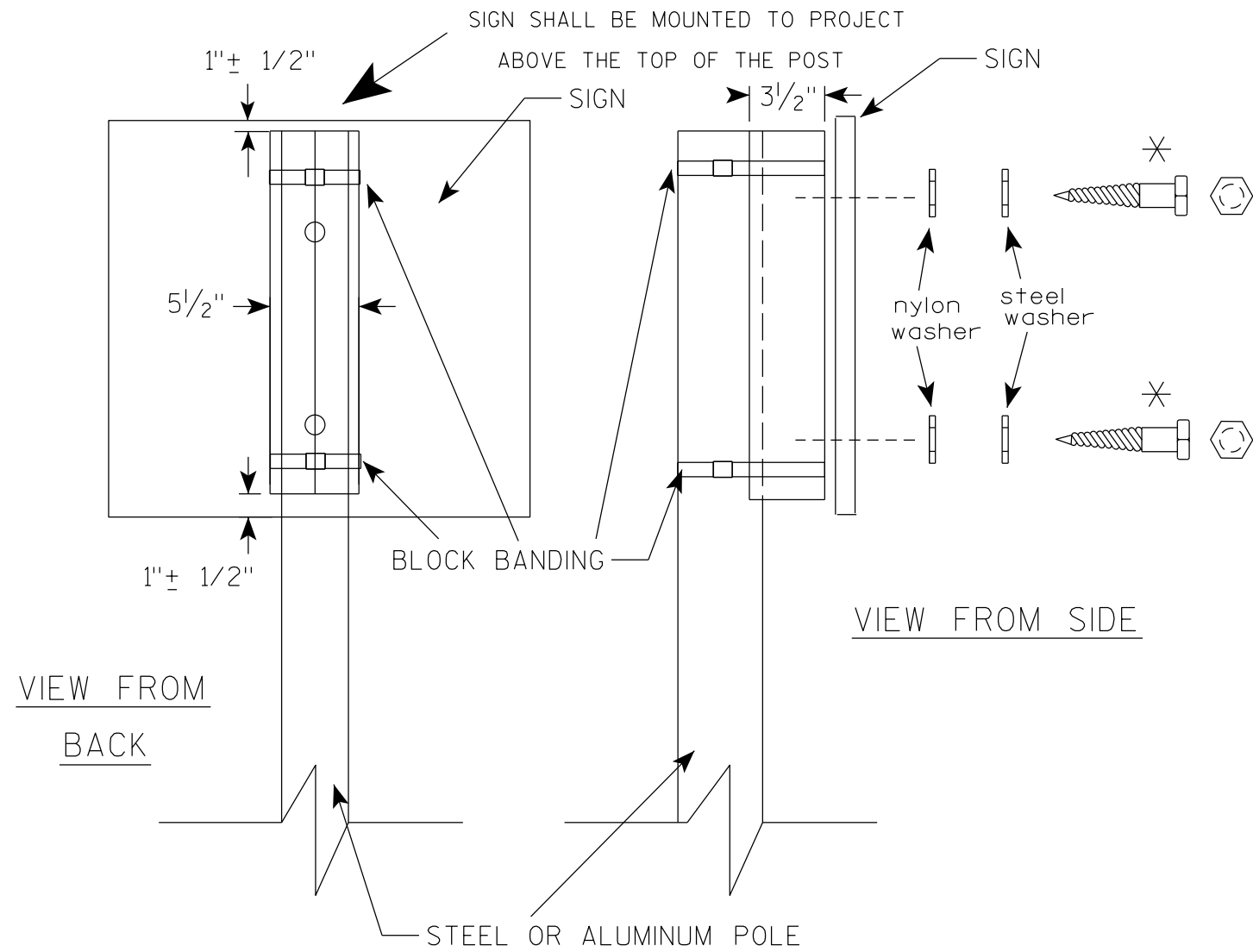
WASHERS (ALL POSTS) -  
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL  
1-1/4" O.D. X 3/8" I.D. X .080 NYLON  
FOR ALL TYPE H SIGNS

STANDARD SIGN  
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

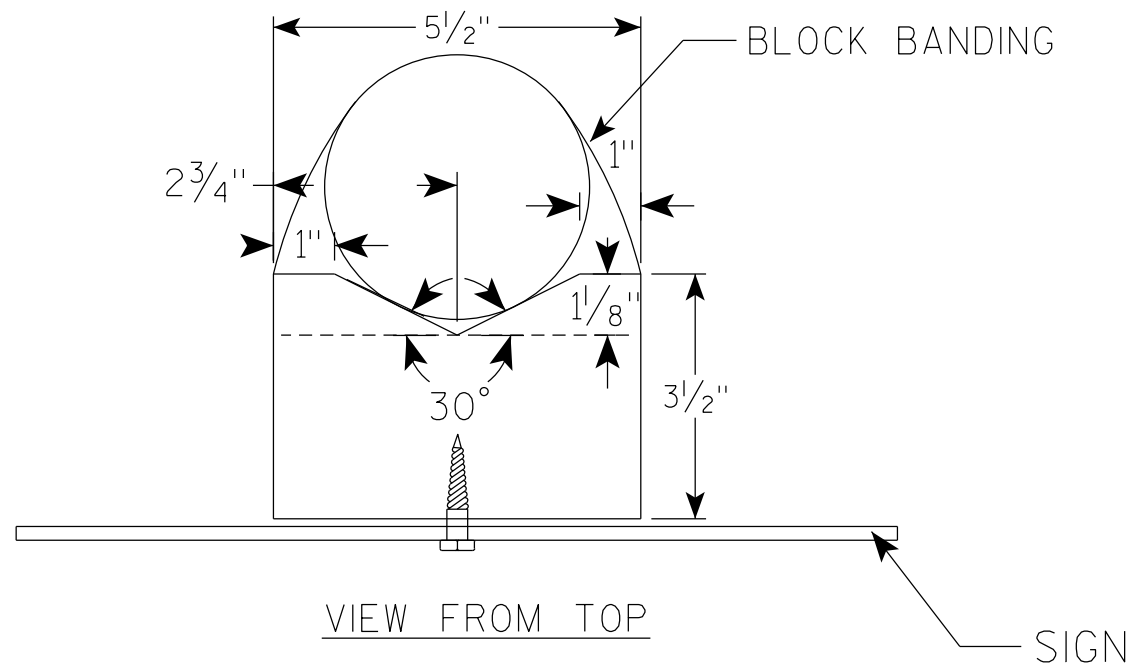
DATE 6/10/19 PLATE NO. A5-9.4



GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
  - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
  - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

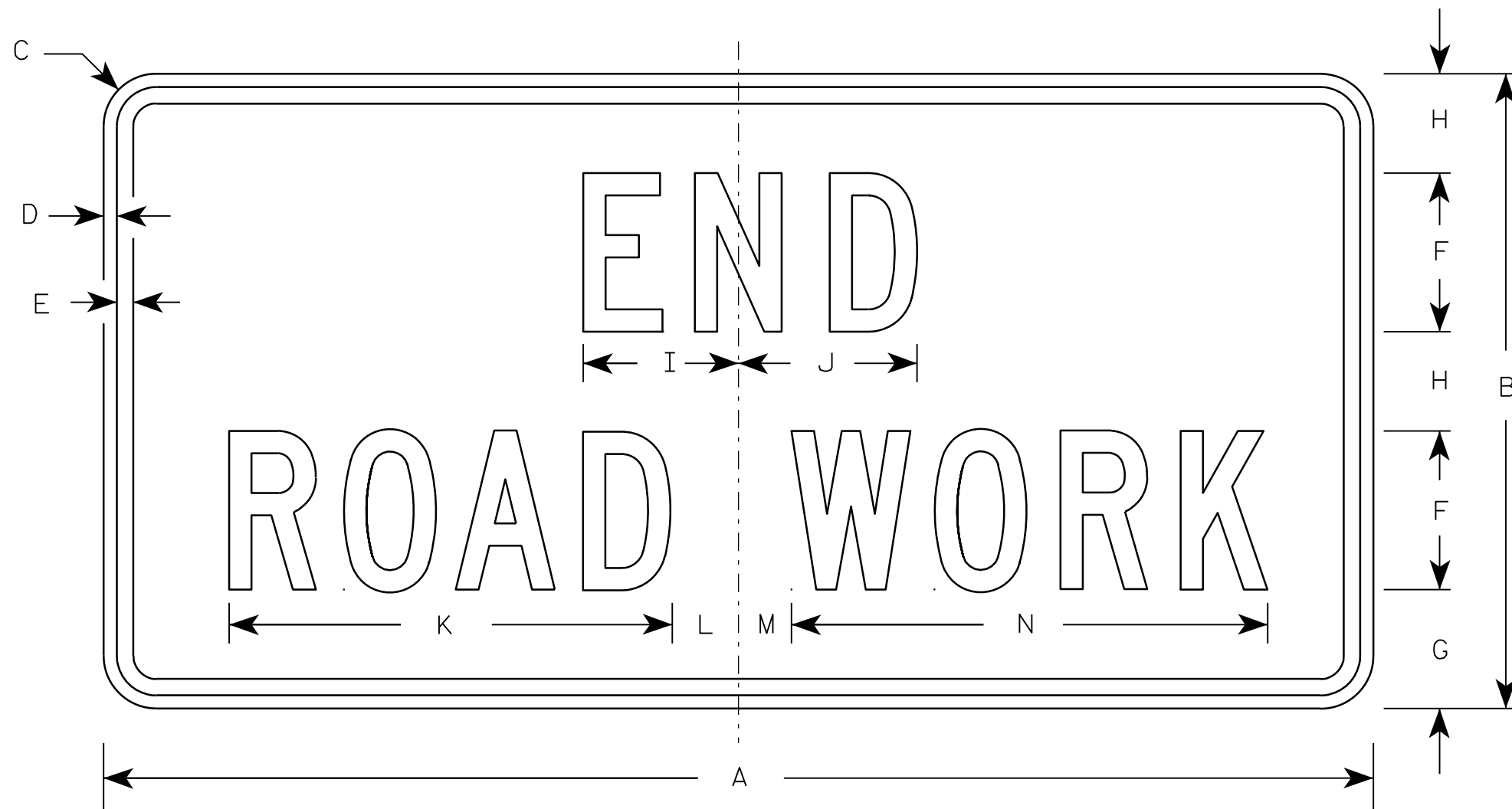
✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"



BLOCK BANDING DETAIL ( V-BLOCK OPTION )	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> for State Traffic Engineer
DATE 4/19/2022	PLATE NO. A5-10.3

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 - 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.



G20-2A

7

7

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

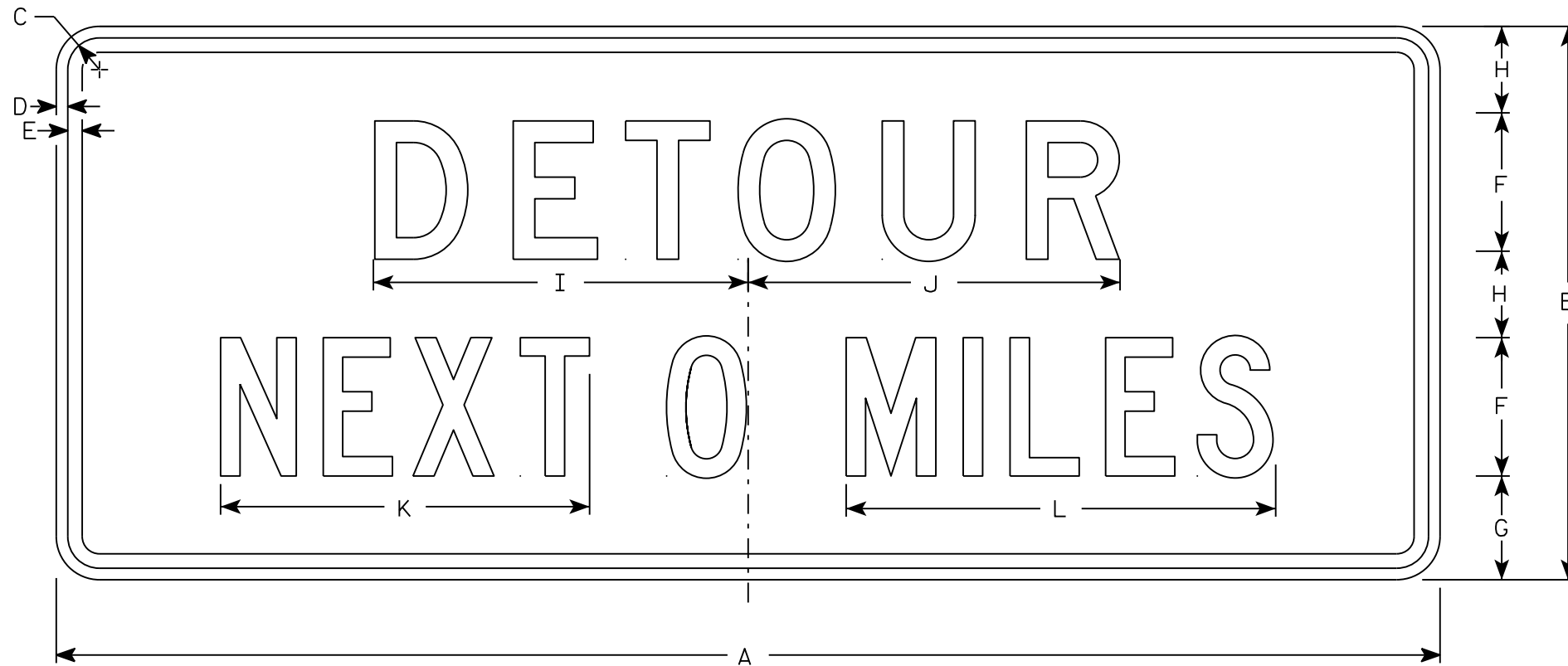
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN G20-2A	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 9/30/09	PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	<b>E</b>
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NOTES

1. Sign is Type II - Type F Reflective
2. Color:  
Background - Orange  
Message - Black
3. Message Series - Line 1 is D and Line 2 is 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. Round distance to nearest whole Mile and substitute appropriate numerals and optically adjust spacing to achieve proper balance



G20-51

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	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10
3																											
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10
5																											

STANDARD SIGN  
G20-51

WISCONSIN DEPT OF TRANSPORTATION

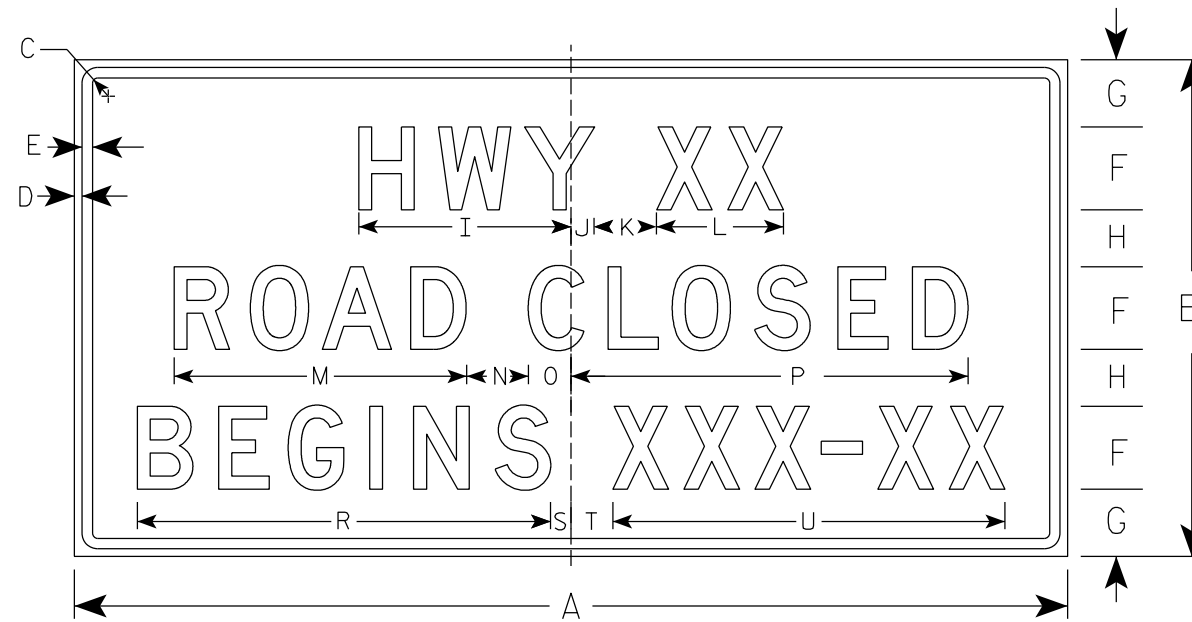
APPROVED *Matthew R Rauch*  
for State Traffic Engineer

DATE 3/14/17 PLATE NO. G20-51.2

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

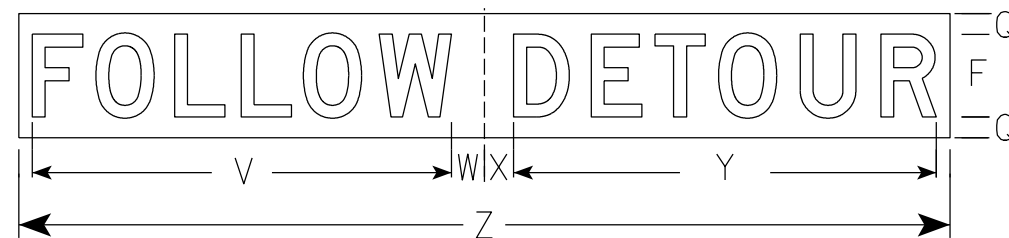
NOTES

1. Sign is Type II - Type F Reflective
2. Color:  
Background - Orange  
Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.



G20-57C

PLAQUE ON .040" ALUMINUM



USE ONLY ONCE WHEN ROAD IS CLOSED

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																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/8	5	2 7/8	29	2	30	1 3/4	3 1/4	28 3/8	40 1/2	2	2	29 3/4	66	18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	6	4 1/8	38 3/8	2	39 7/8	2	4	37 7/8	29 3/4	3 1/8	2 7/8	40 7/8	90	32.0
5																											

STANDARD SIGN

G20-57C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Matthew R. Rauch*  
For State Traffic Engineer

DATE 9/25/19

PLATE NO. G20-57C.1

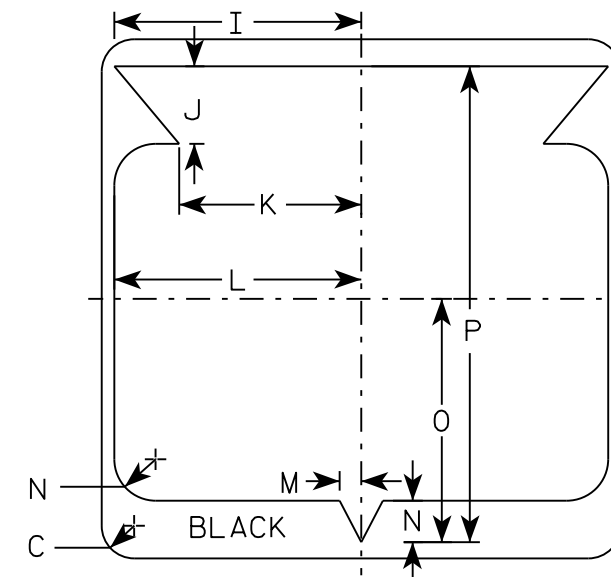
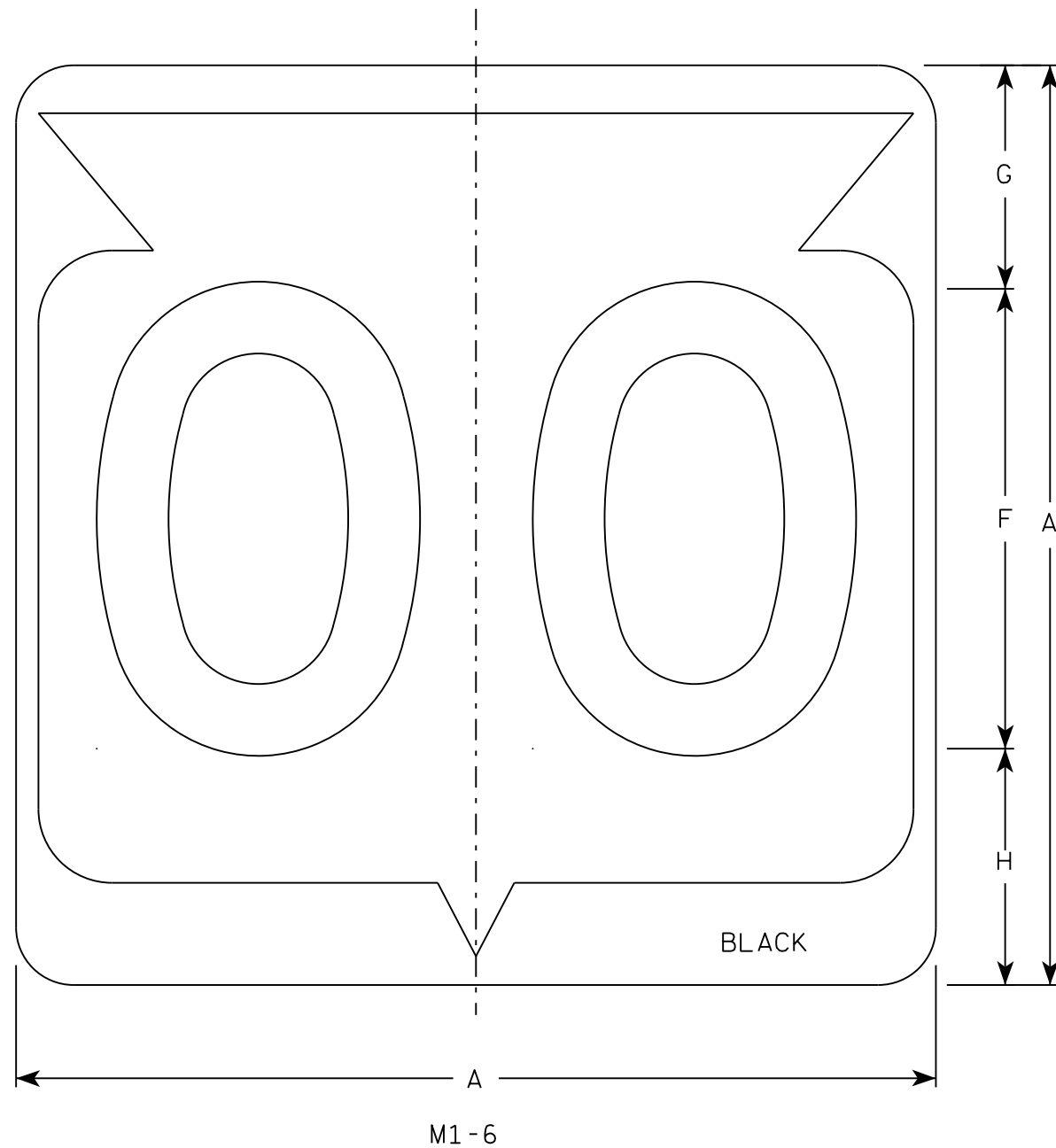
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

7

7

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.



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			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

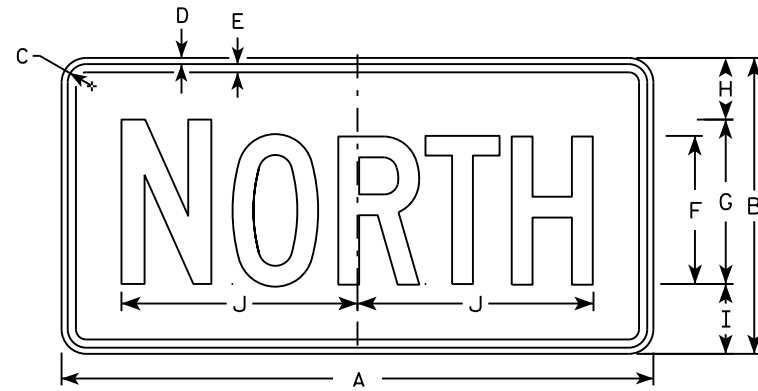
DATE 3/16/18 PLATE NO. M1-6.10

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

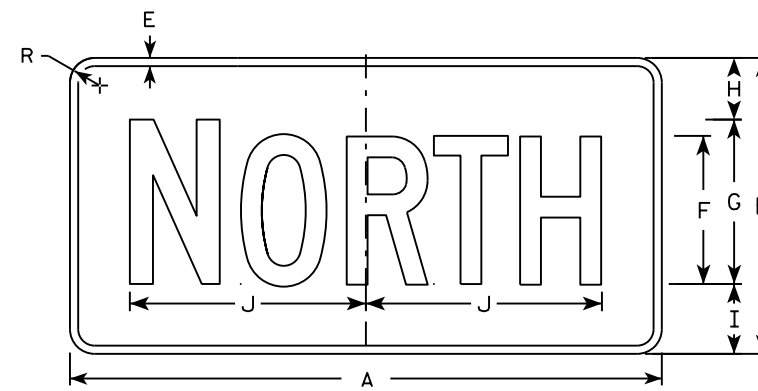


NOTES

- 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.



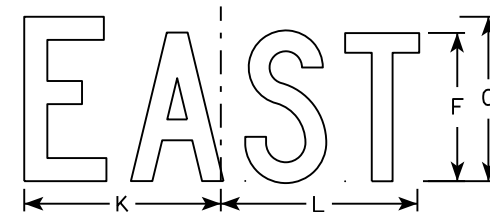
M3-1  
MM3-1  
MP3-1



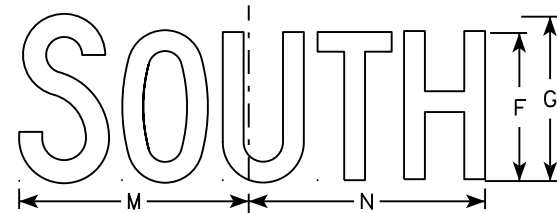
MB3-1  
MK3-1  
MN3-1



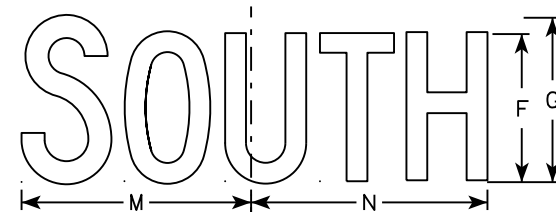
M3-2  
MM3-2  
MP3-2



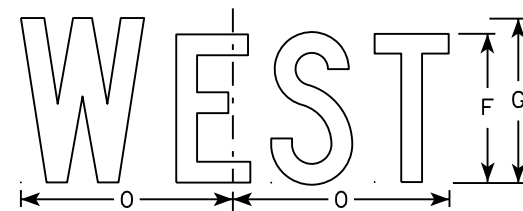
MB3-2  
MK3-2  
MN3-2



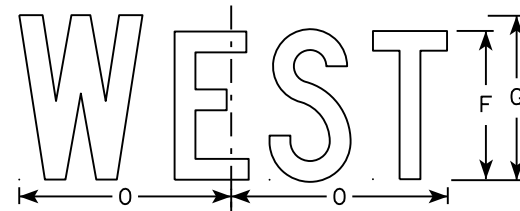
M3-3  
MM3-3  
MP3-3



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

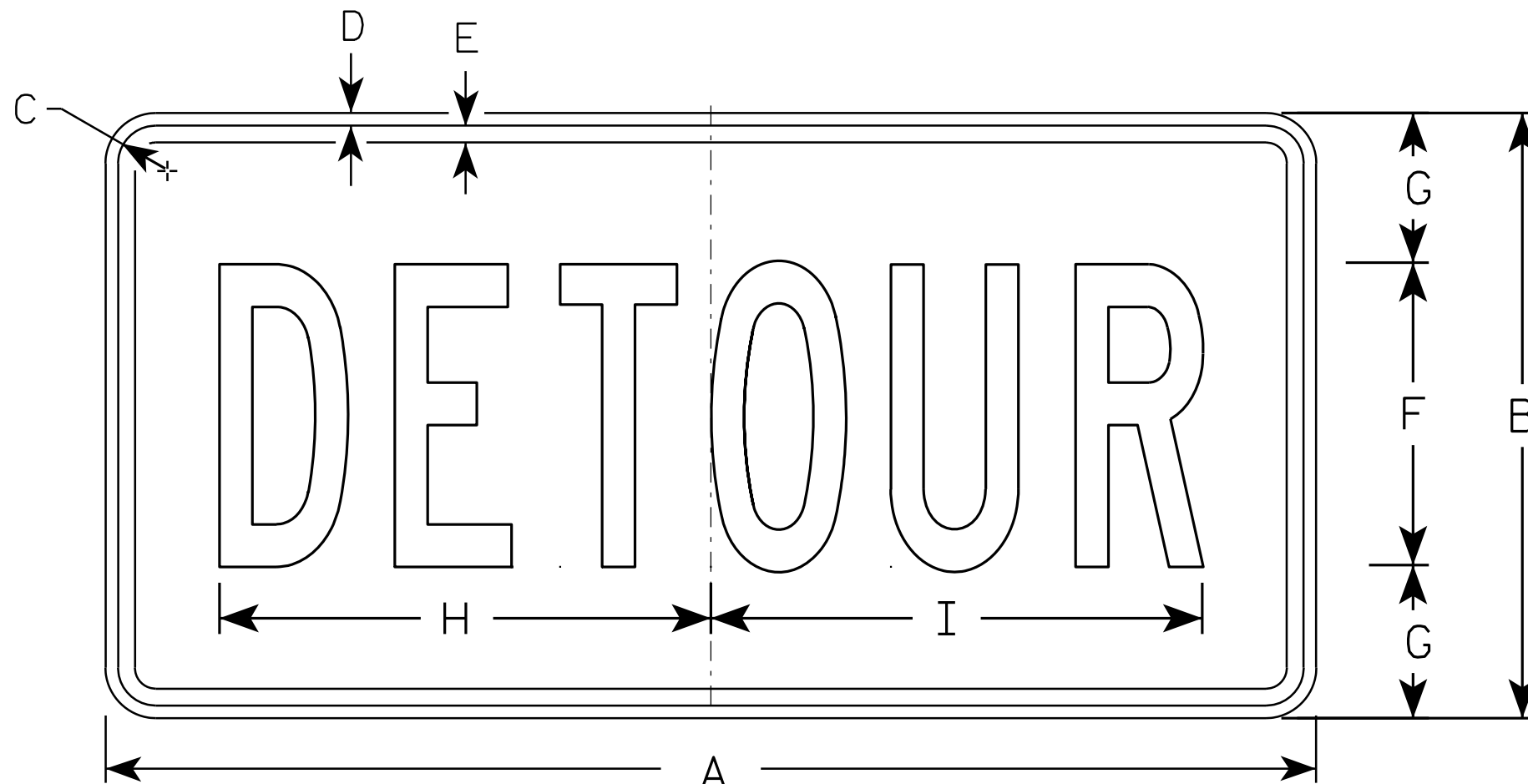
WISCONSIN DEPT OF TRANSPORTATION

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

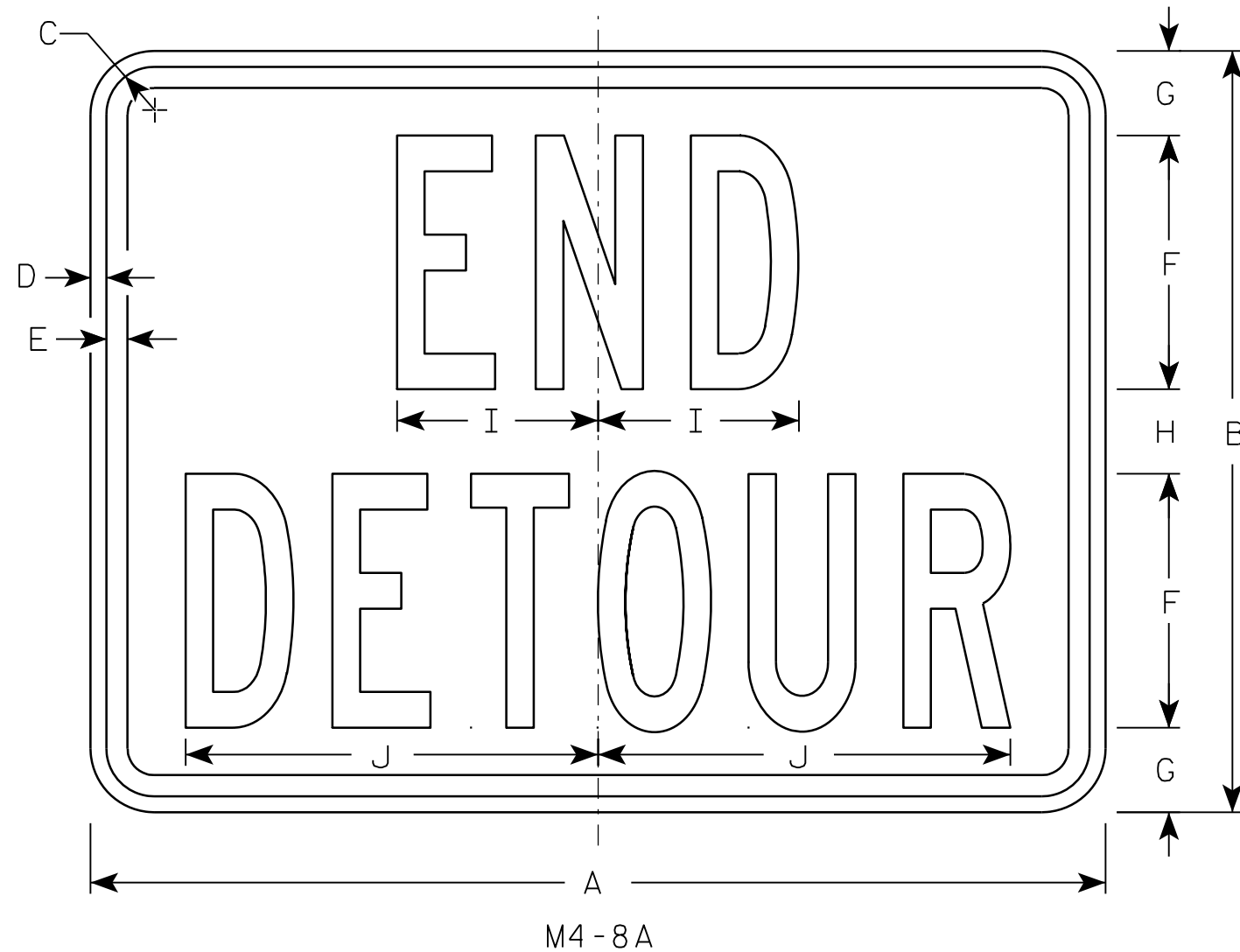
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

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

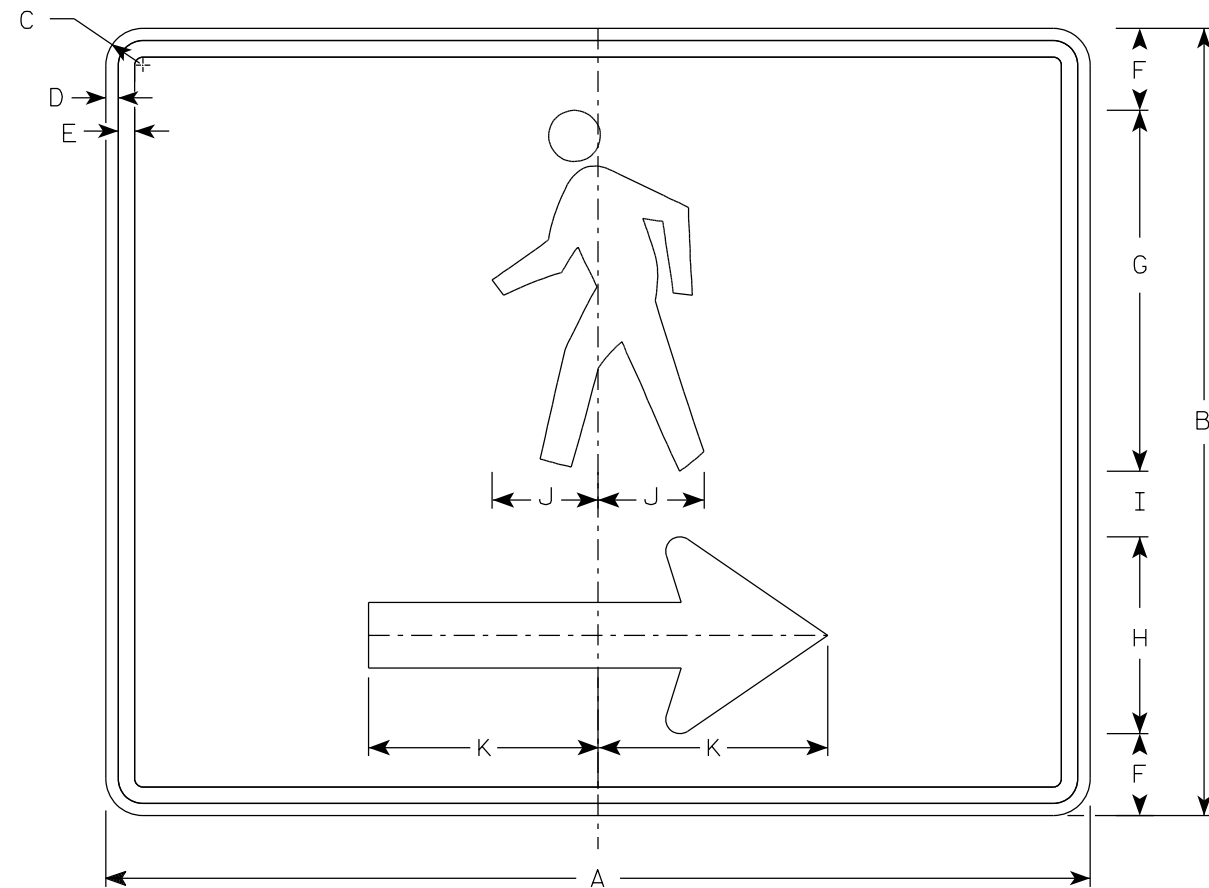
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

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

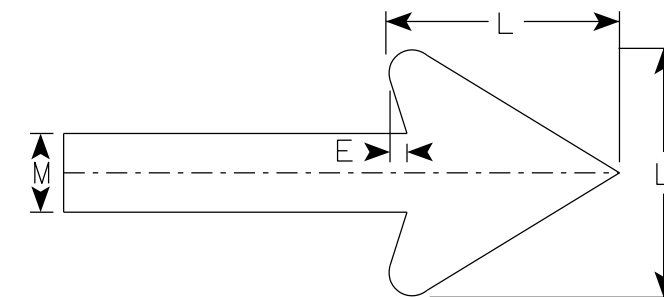
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

NOTES

1. Sign is Type II- Type F Reflective
2. Color:  
Background - Orange  
Message - Black
3. 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.
4. M4-60L is the same as M4-60R except the arrow is reversed.



M4-60R



Arrow Detail

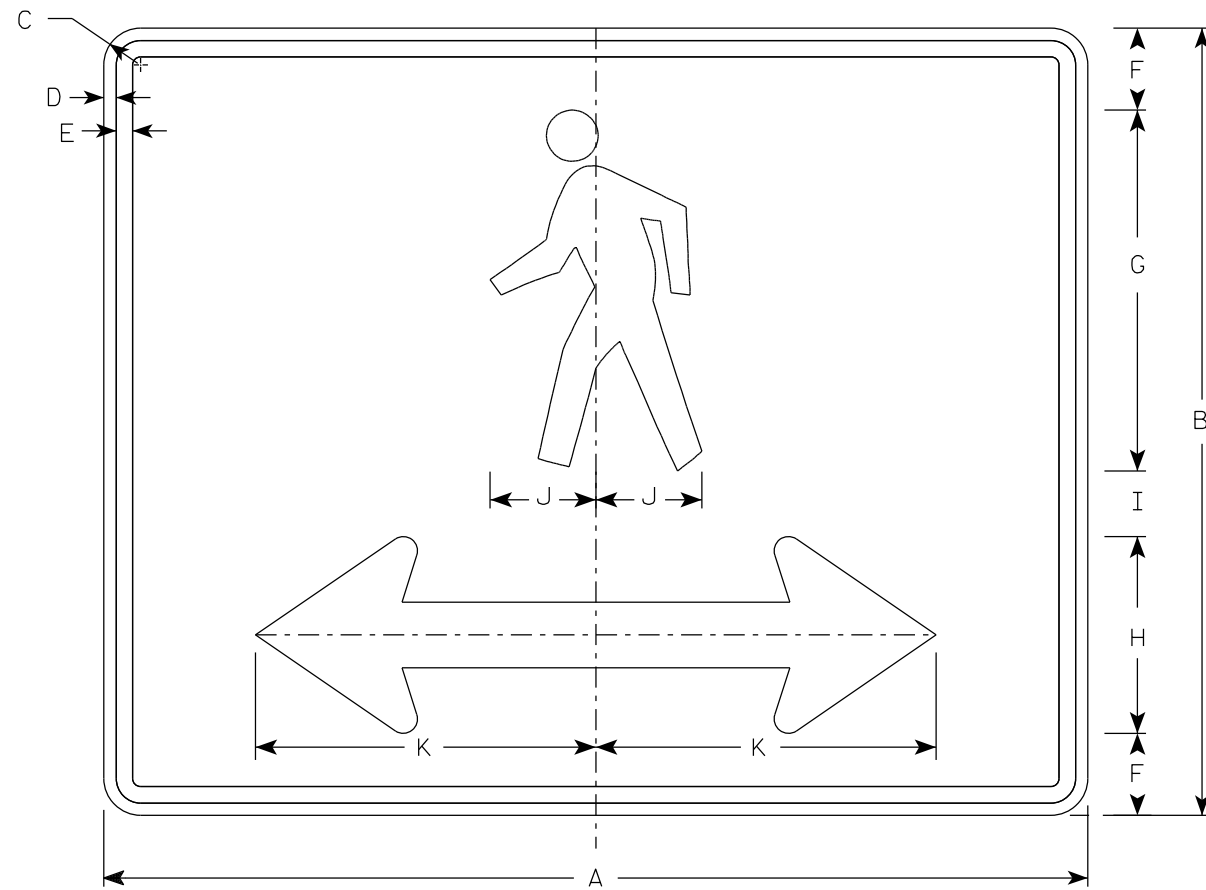
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	2 1/2	11	6	2	3 1/4	7	6	2														5.00
3																											
4																											
5																											

STANDARD SIGN  
M4-60 L&R

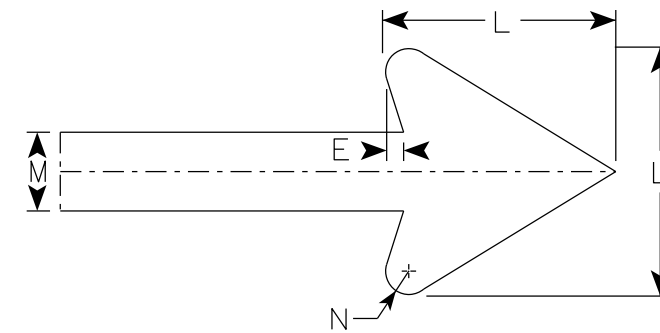
WISCONSIN DEPT OF TRANSPORTATION  
APPROVED *Matthew R Rauch*  
For State Traffic Engineer  
DATE 9/16/2021 PLATE NO. M4-60.1

NOTES

1. Sign is Type II- Type F Reflective
2. Color:  
Background - Orange  
Message - Black
3. 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.



M4-60D

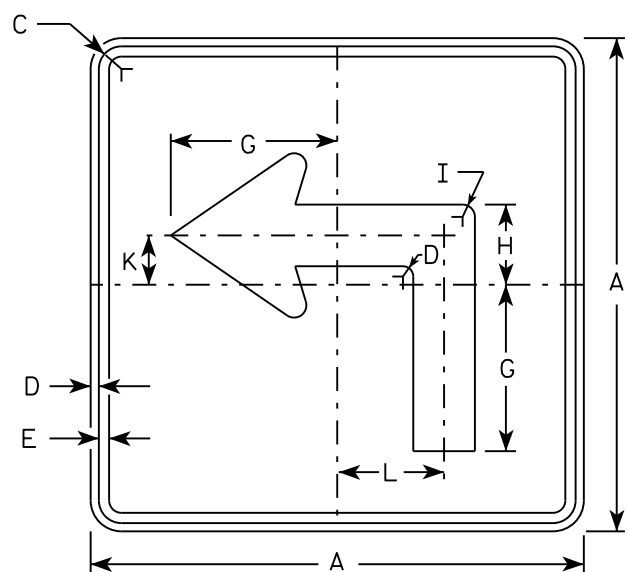


Arrow Detail

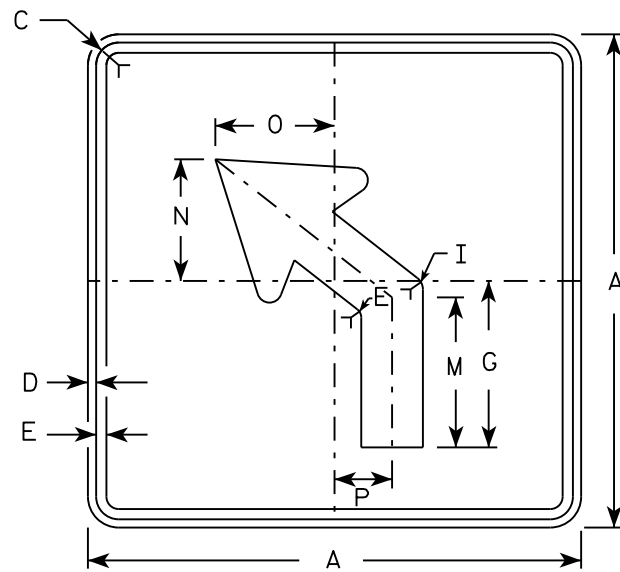
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	2 1/2	11	6	2	3 1/4	10 3/8	6	2	3/8													5.00
3																											
4																											
5																											

STANDARD SIGN  
M4-60D

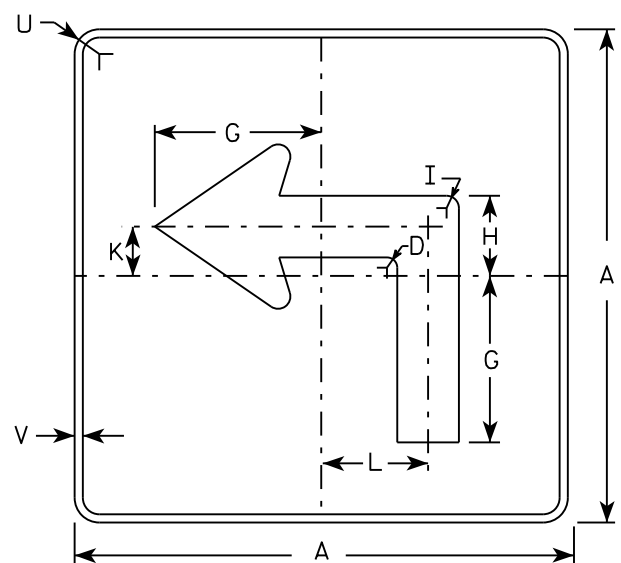
WISCONSIN DEPT OF TRANSPORTATION  
APPROVED *Matthew R Rauch*  
for State Traffic Engineer  
DATE 11/18/2021 PLATE NO. M4-60D.1



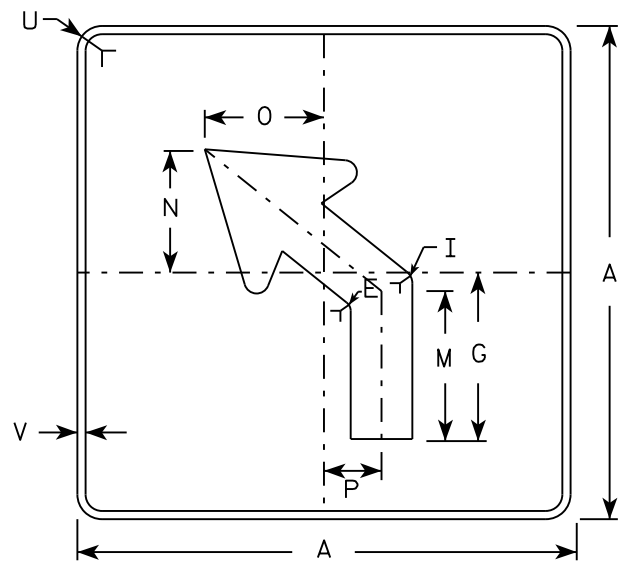
M5-1L  
MM5-1L  
M05-1L  
MP5-1L



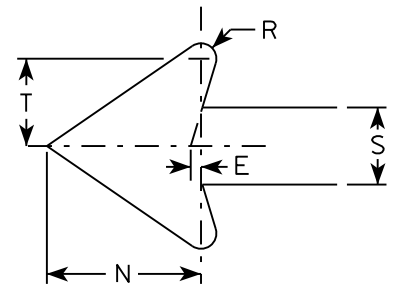
M5-2L  
MM5-2L  
M05-2L  
MP5-2L



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.

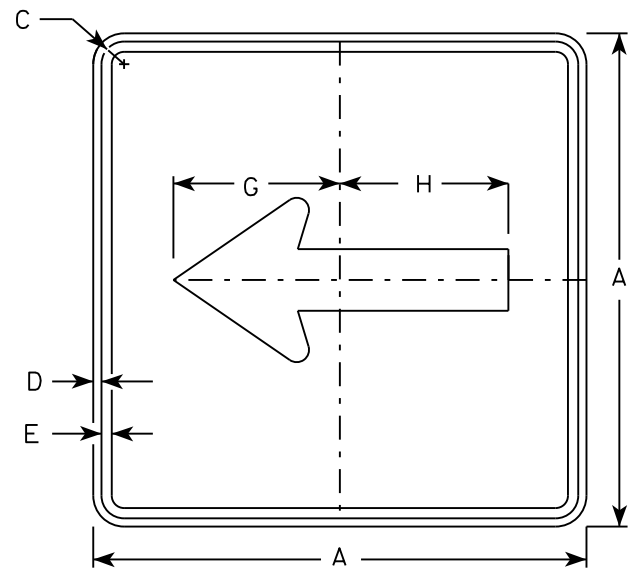
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25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

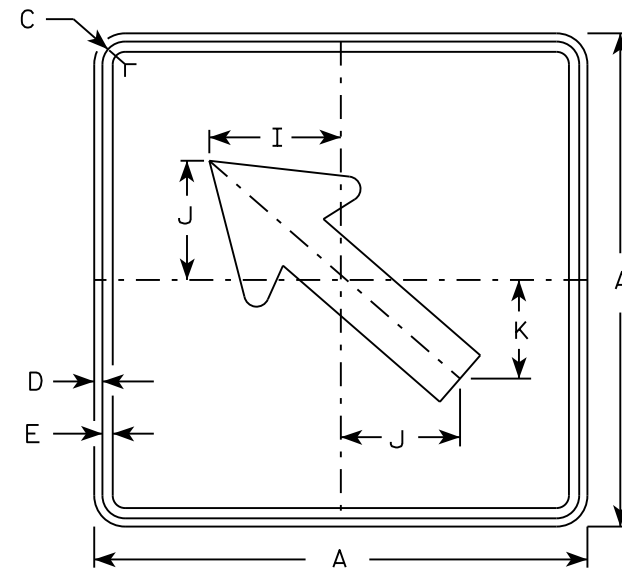
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

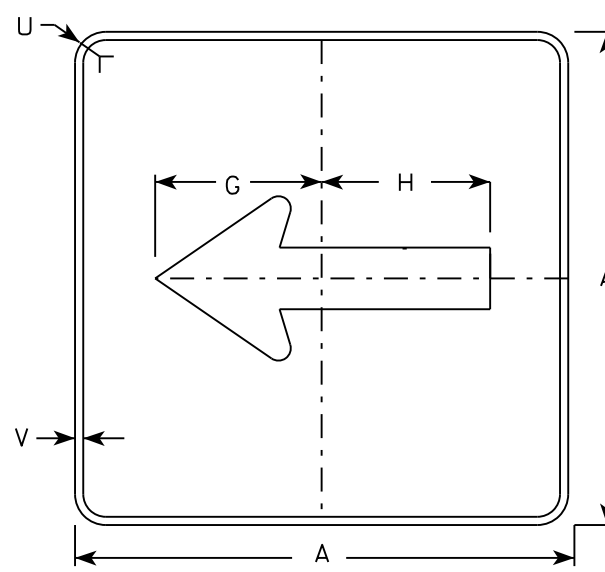
DATE 10/15/15 PLATE NO. M5-1.13



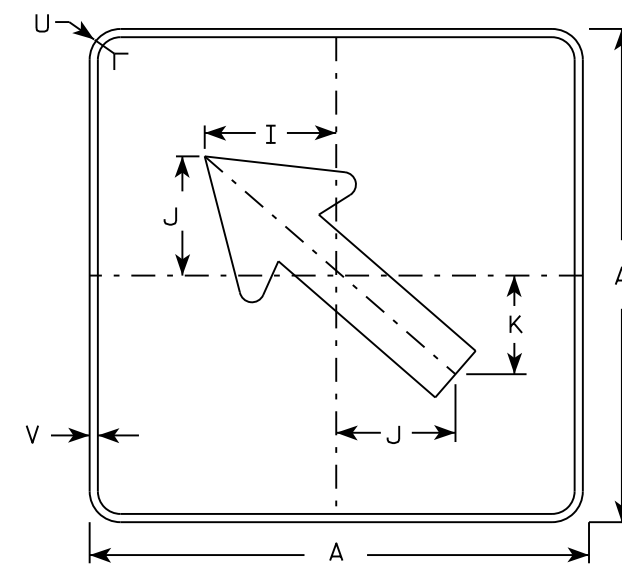
M6-1  
MM6-1  
M06-1  
MP6-1



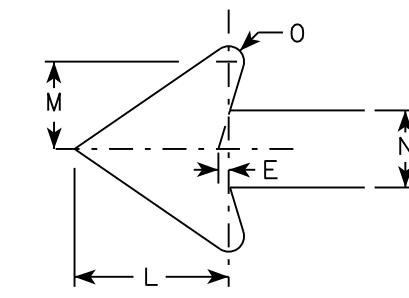
M6-2  
MM6-2  
M06-2  
MP6-2



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

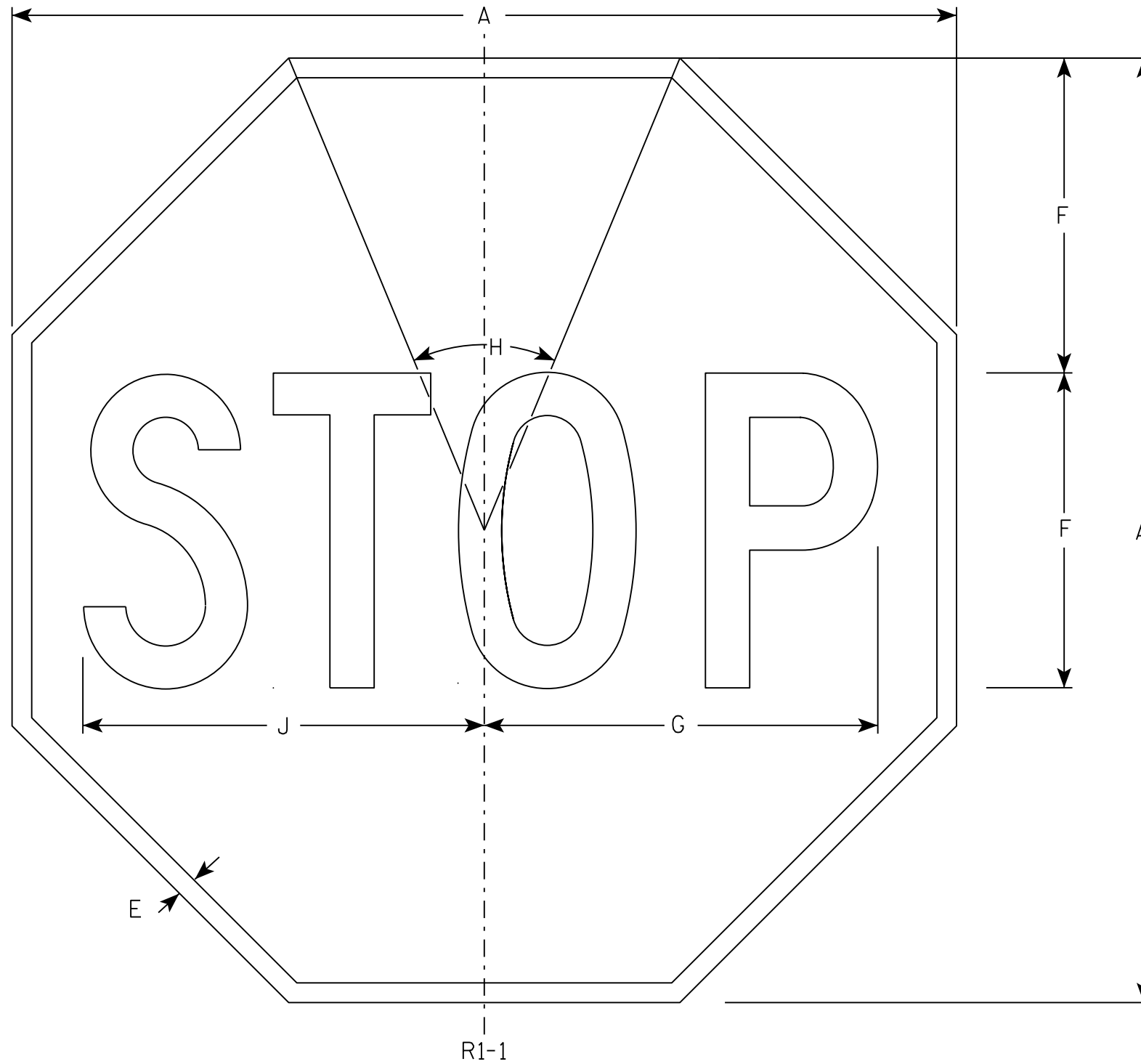
WISCONSIN DEPT OF TRANSPORTATION

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 - Red  
Message - White
3. Message Series - C



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	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

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

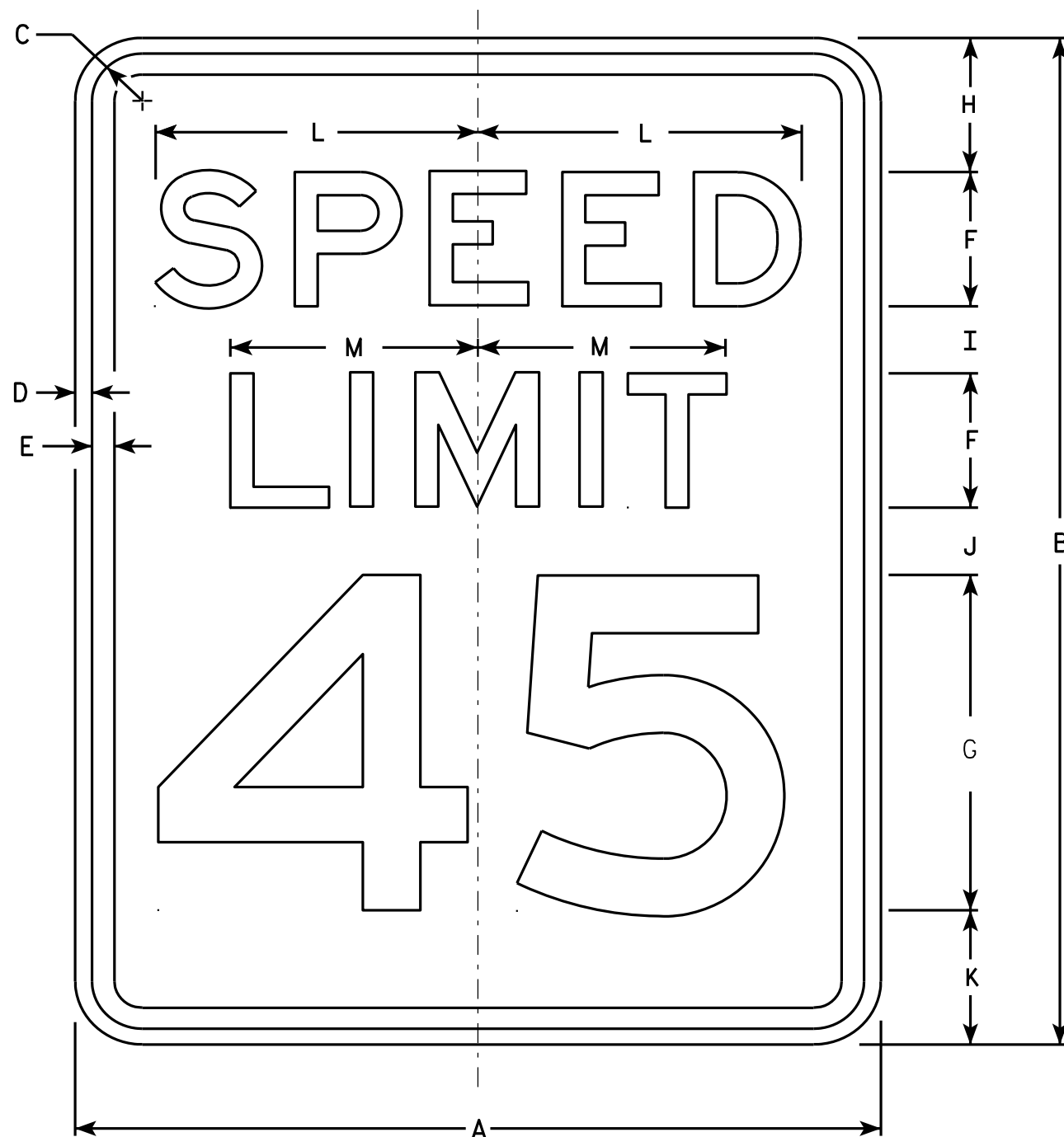
STANDARD SIGN  
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13





R2-1

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 - E
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 and optically adjust spacing to achieve proper balance.

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	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

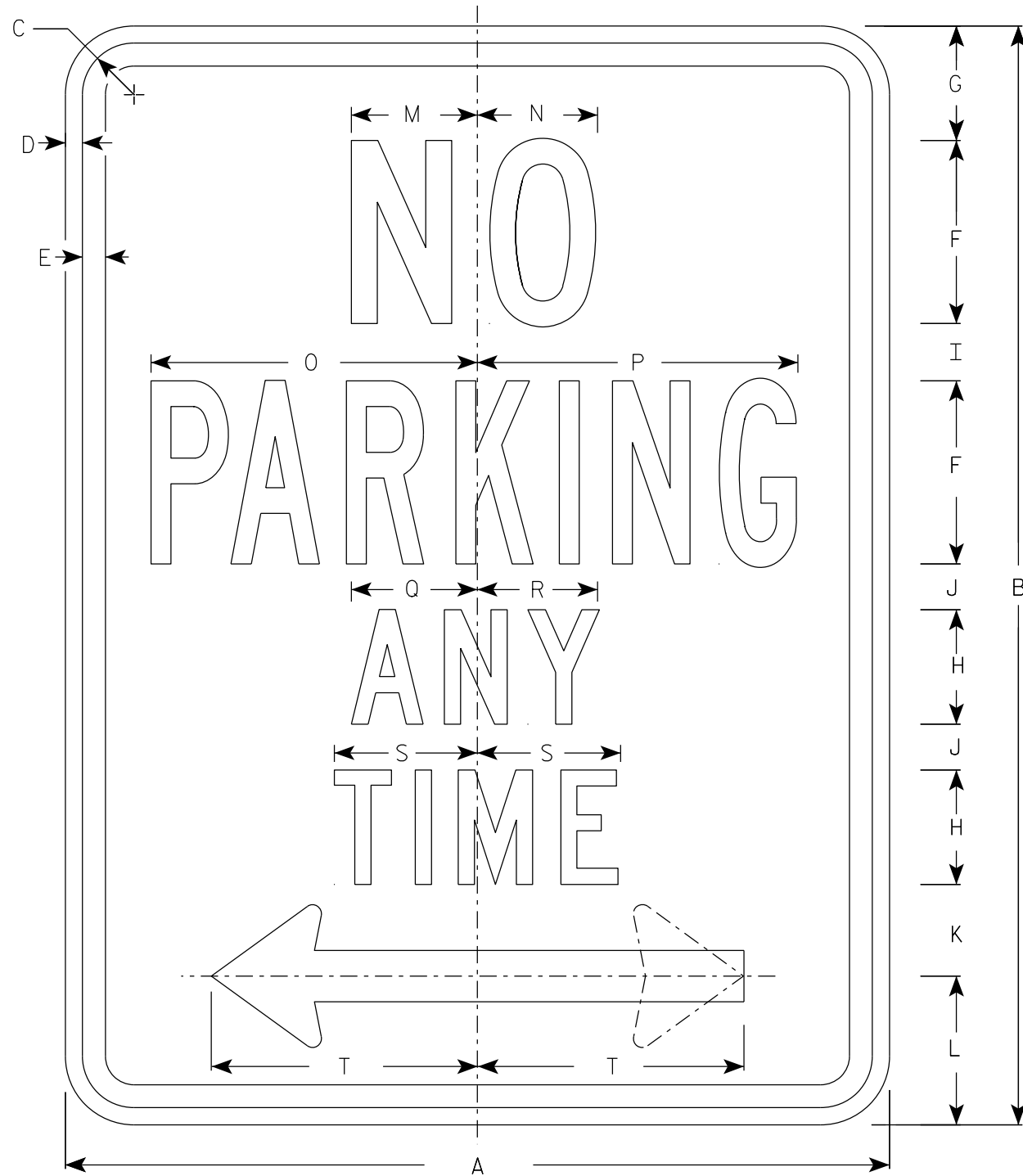
STANDARD SIGN  
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

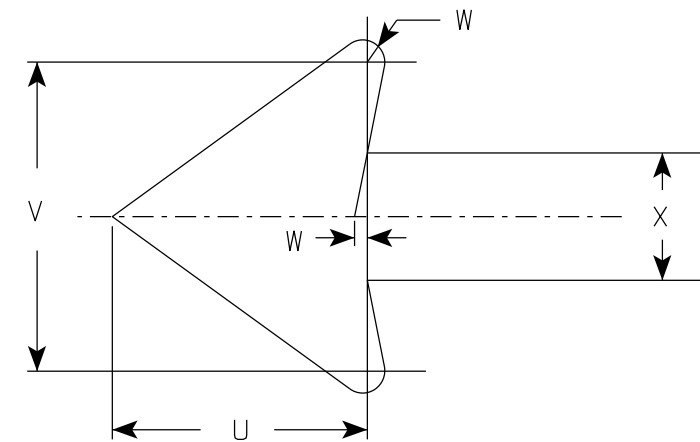
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E



R7-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Red
3. Message Series - See Note 5
4. Lines 1, 3 and 4 are series C, line 2 is series B.
5. R7-1D (double arrow)  
R7-1L (left arrow)  
R7-1R (right arrow)



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	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4		1.5	
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8		3.0	
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2		5.0	
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2		5.0	
4																											
5																											

STANDARD SIGN  
R7-1

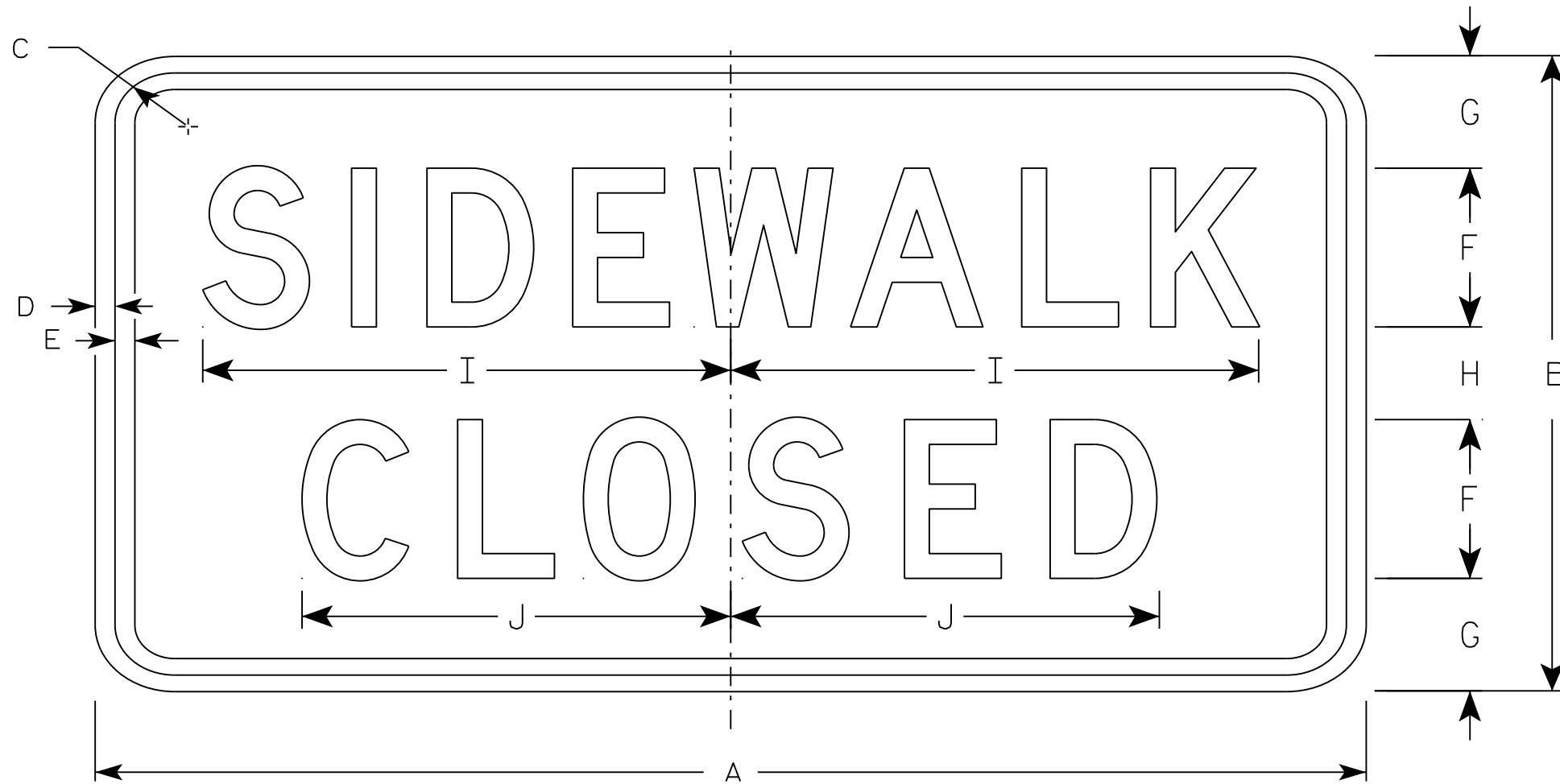
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
For State Traffic Engineer

DATE 3/31/2021 PLATE NO. R7-1.10

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 - 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. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.



R9-9

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																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN  
R9-9

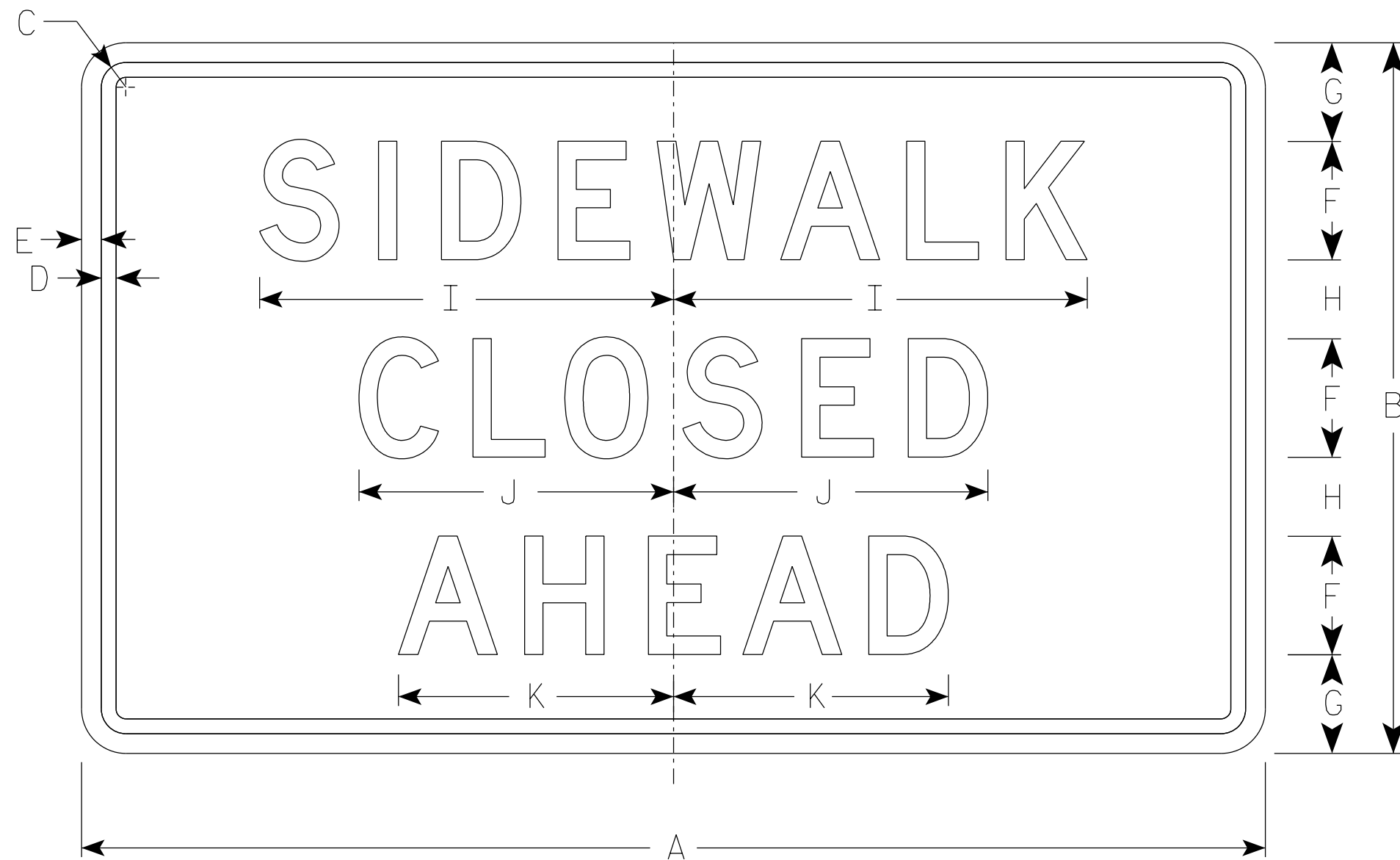
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 8/11/16 PLATE NO. R9-9.6

NOTES

1. Sign is Type II - Type H Reflective
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.



R9-9A

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	30	18	1 1/8	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
2M	30	18	1 1/8	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
3																											
4																											
5																											

STANDARD SIGN  
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

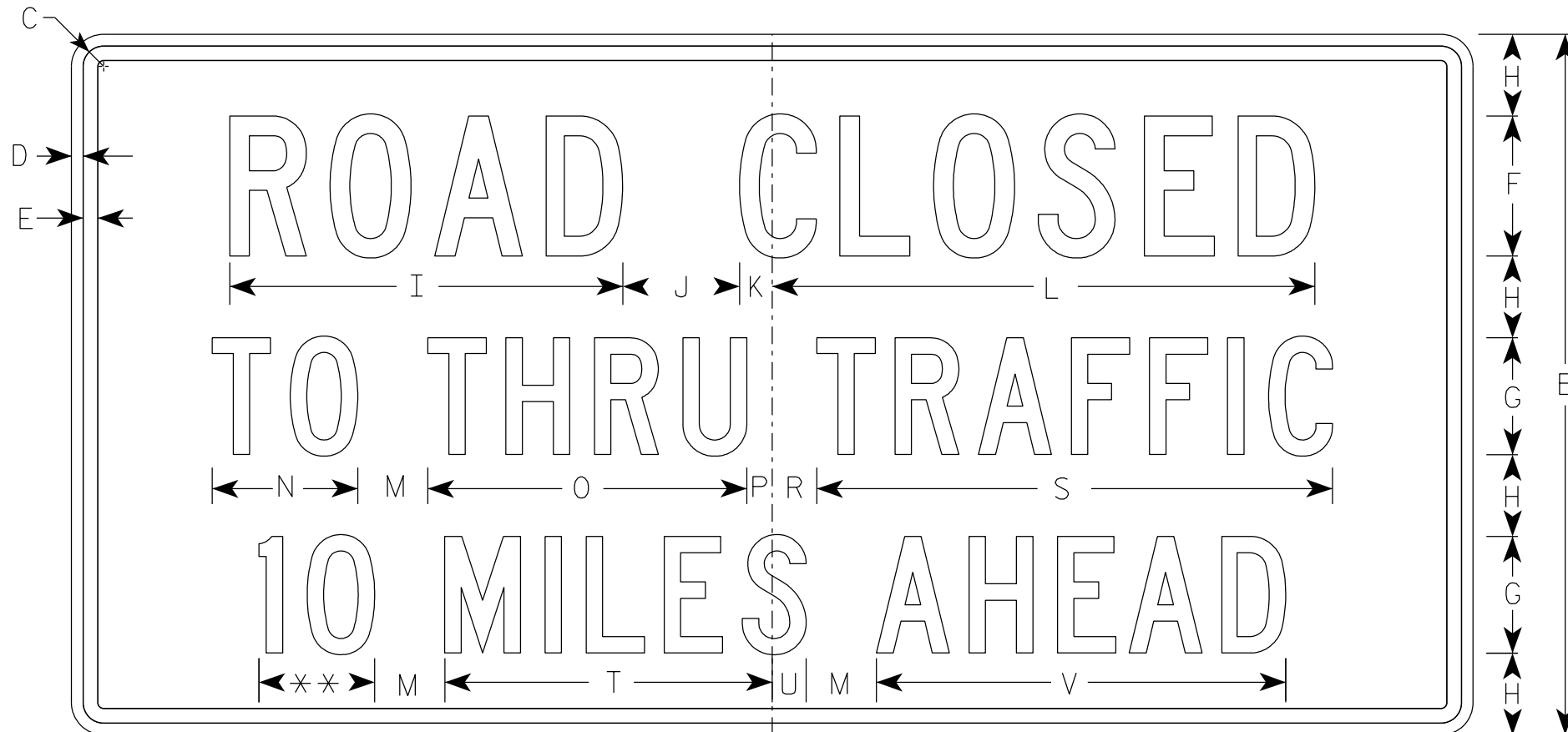
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 8/31/2020 PLATE NO. R9-9A.1

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

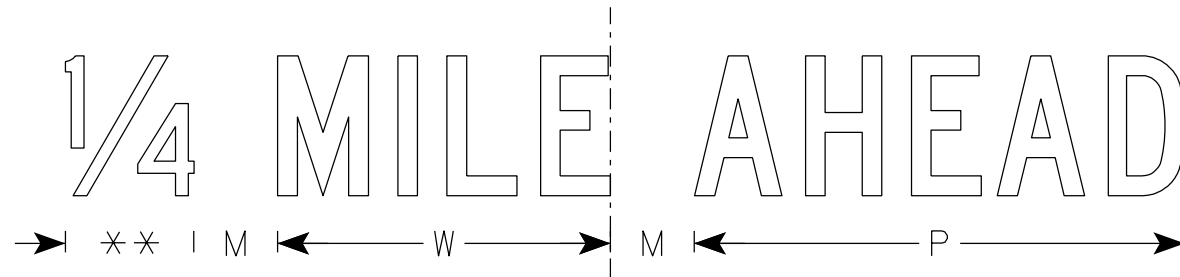
NOTES

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

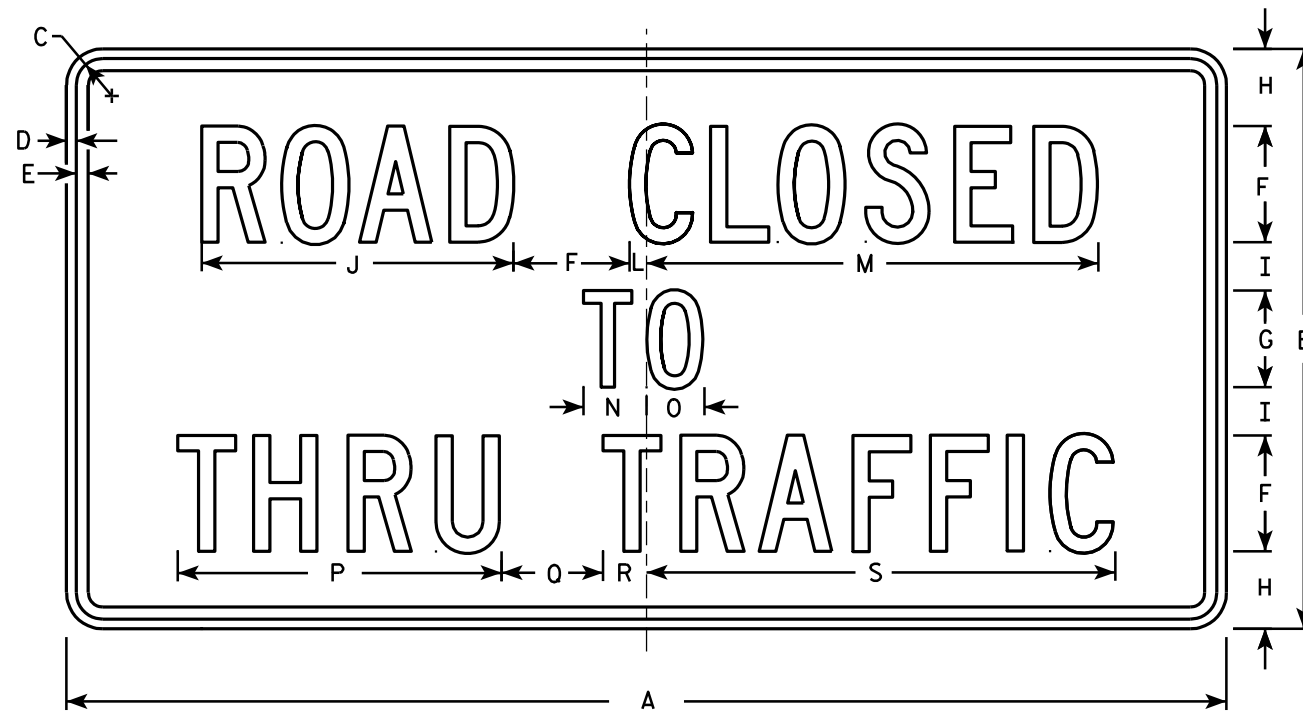
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

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

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

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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.



R11-4

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																											
2S	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

**STANDARD SIGN**  
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

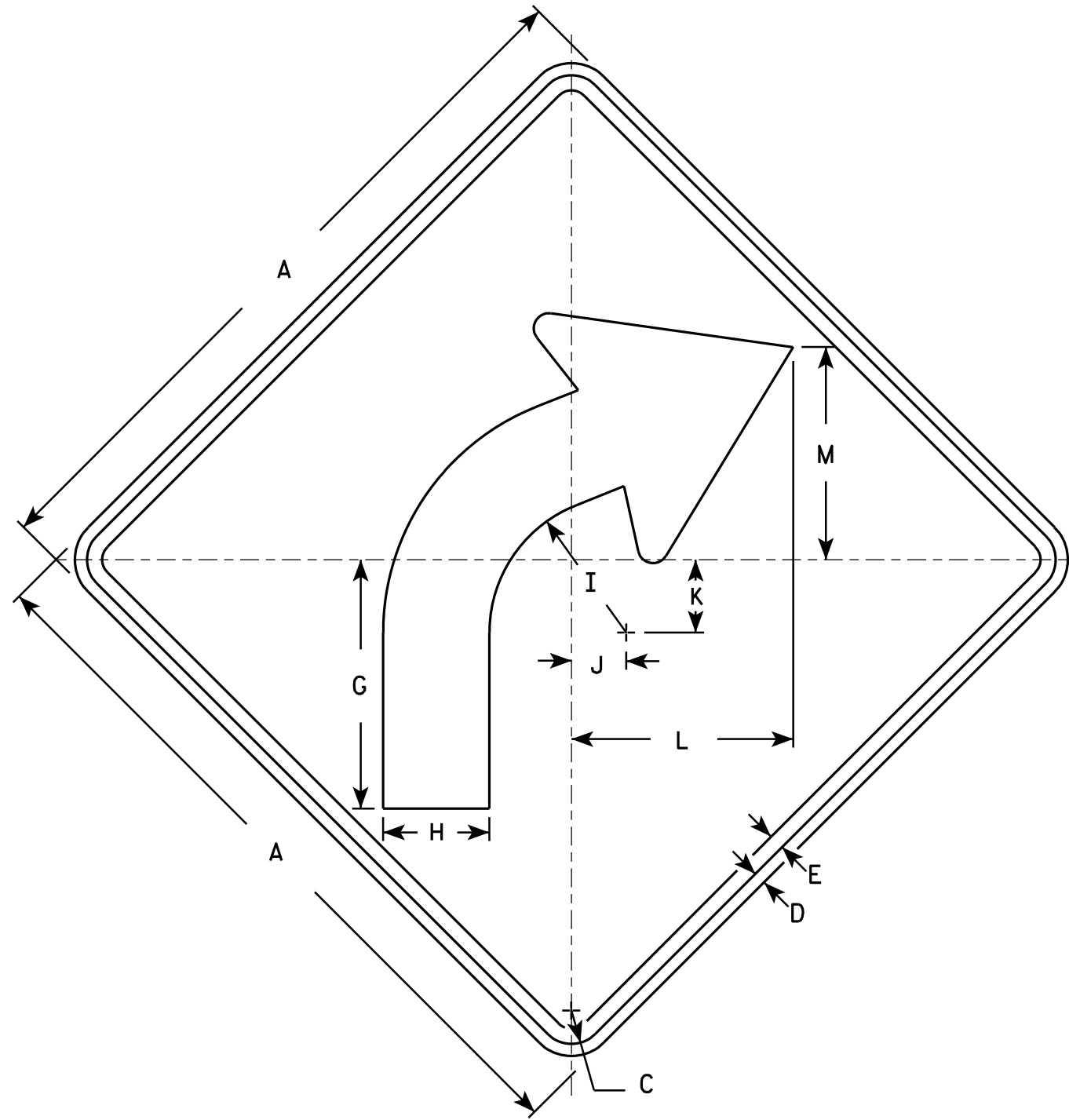
APPROVED *Matthew R. Raush*  
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

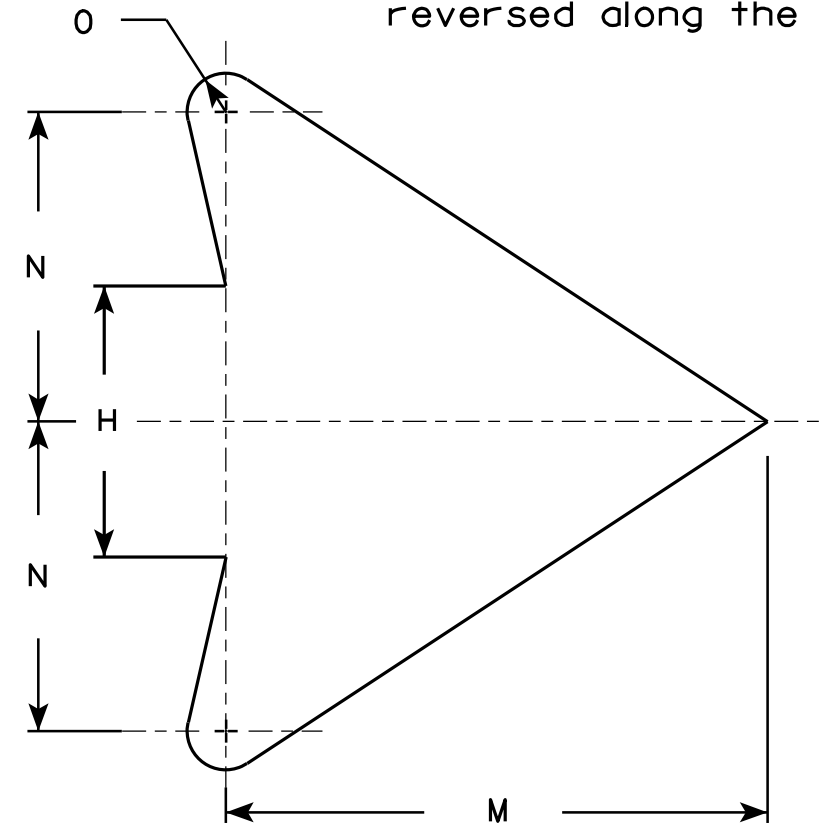
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Yellow  
Message - Black
3. 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.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



ARROW DETAIL

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	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

STANDARD SIGN  
W1-2

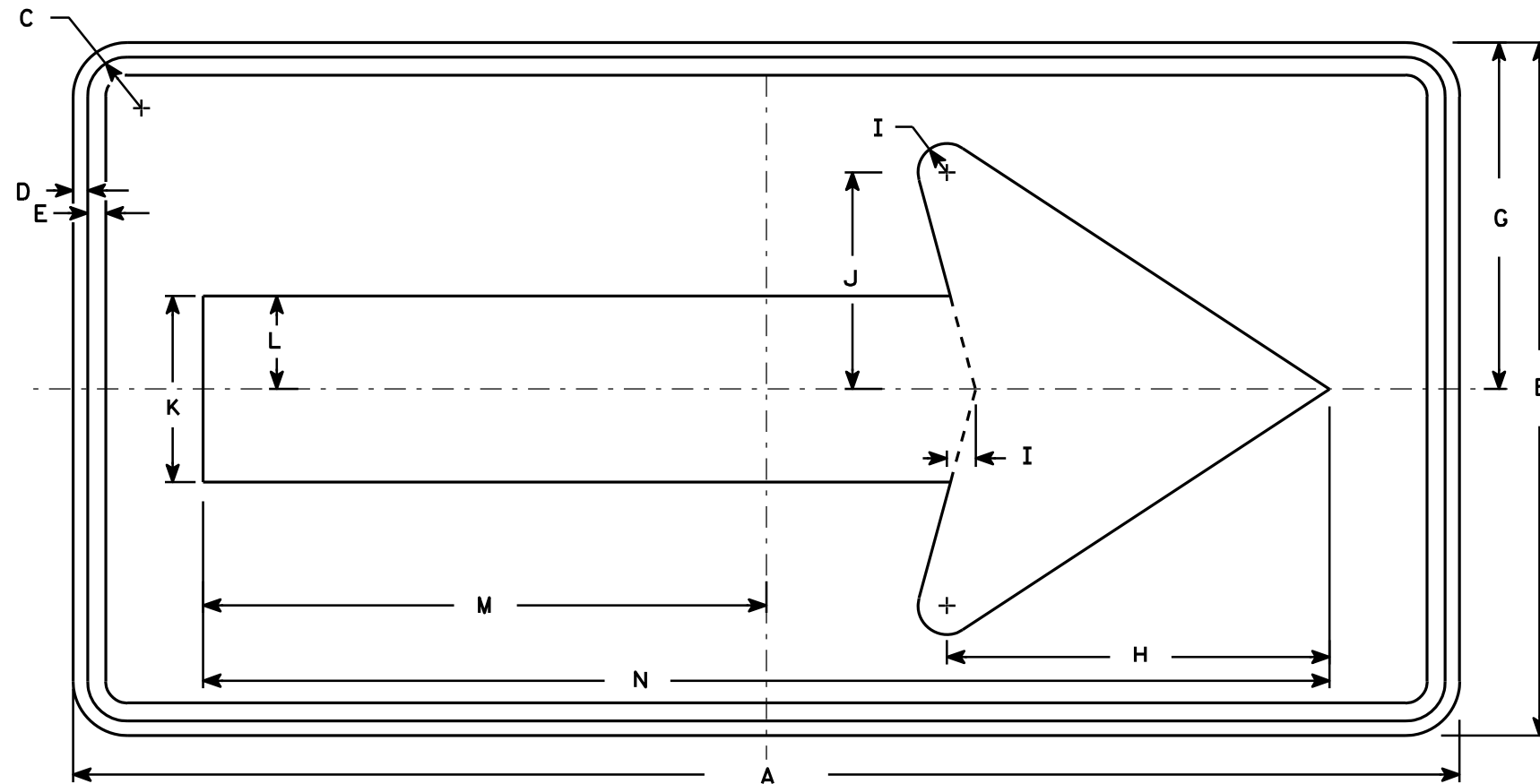
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Yellow  
Message - Black
3. 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.



W1-6

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	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

STANDARD SIGN  
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

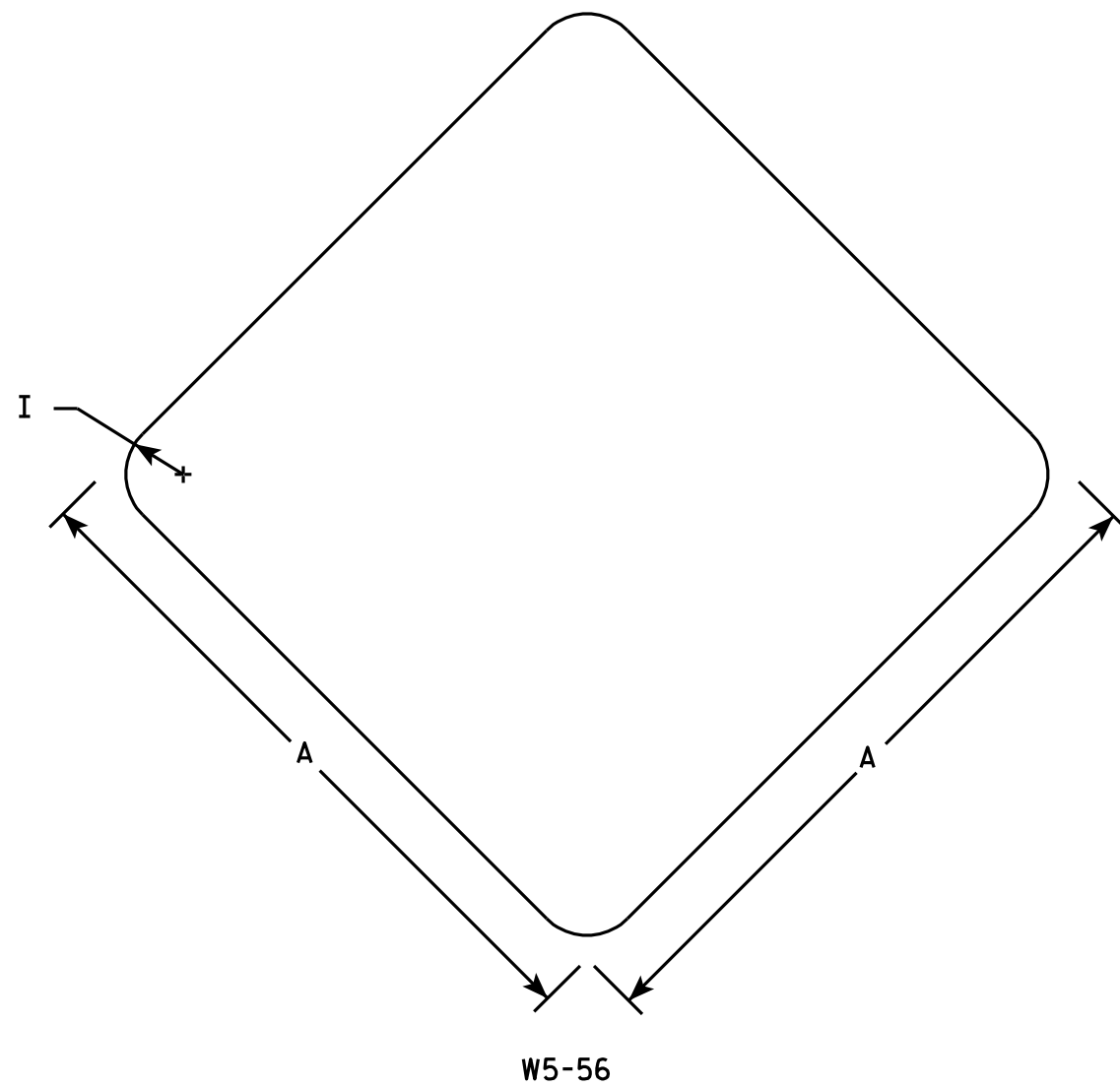
DATE 6/7/10 PLATE NO. W1-6.8

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



NOTES

1. Sign is Type II - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Red
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners 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	12								1																		1.0
2S	18								1 1/2																		2.25
2M	18								1 1/2																		2.25
3																											
4																											
5																											

**STANDARD SIGN**  
**W5-56**

WISCONSIN DEPT OF TRANSPORTATION

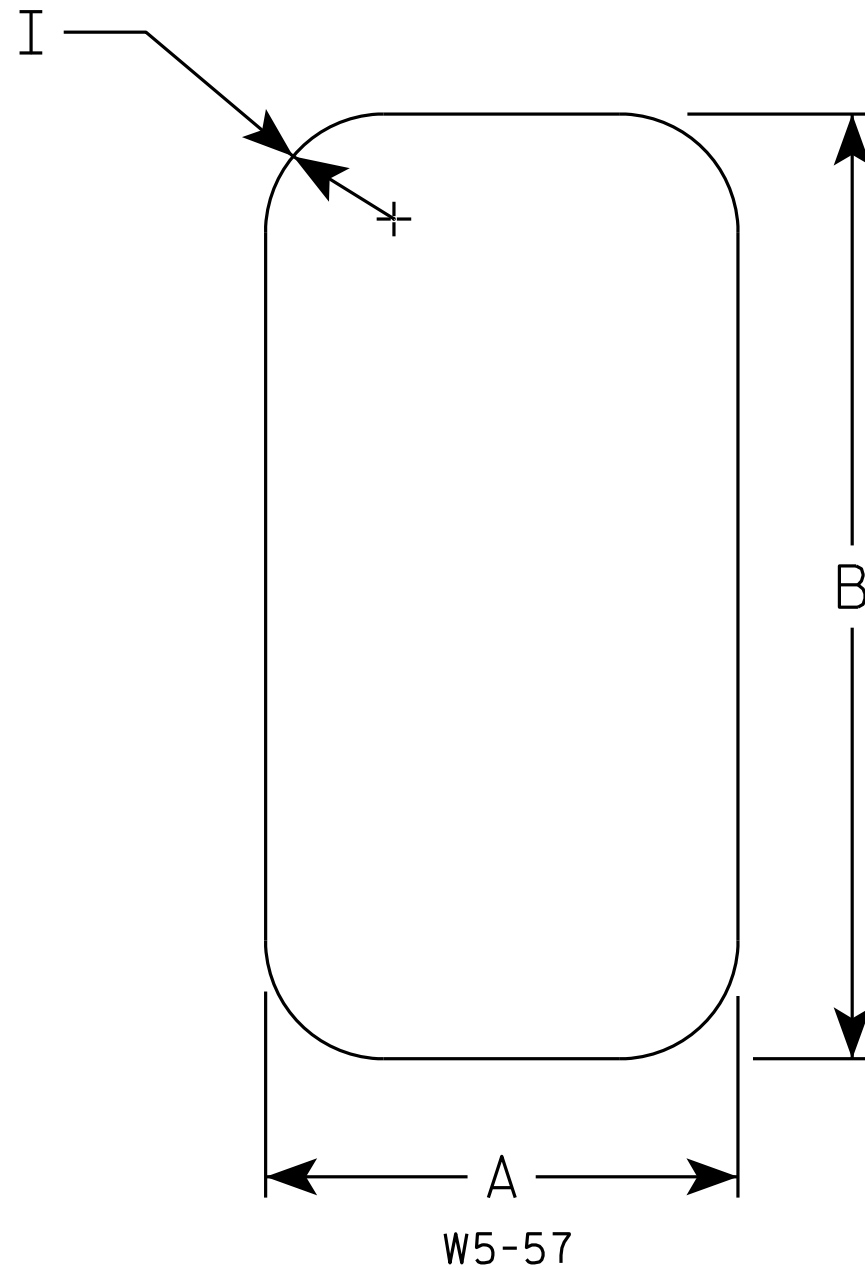
APPROVED *Matthew R Rauch*  
for State Traffic Engineer

DATE 11/2/10 PLATE NO. W5-56.6

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 - Yellow
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners 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																											
2S	6	12							1 1/2																		.5
2M	6	12							1 1/2																		.5
3																											
4																											
5																											

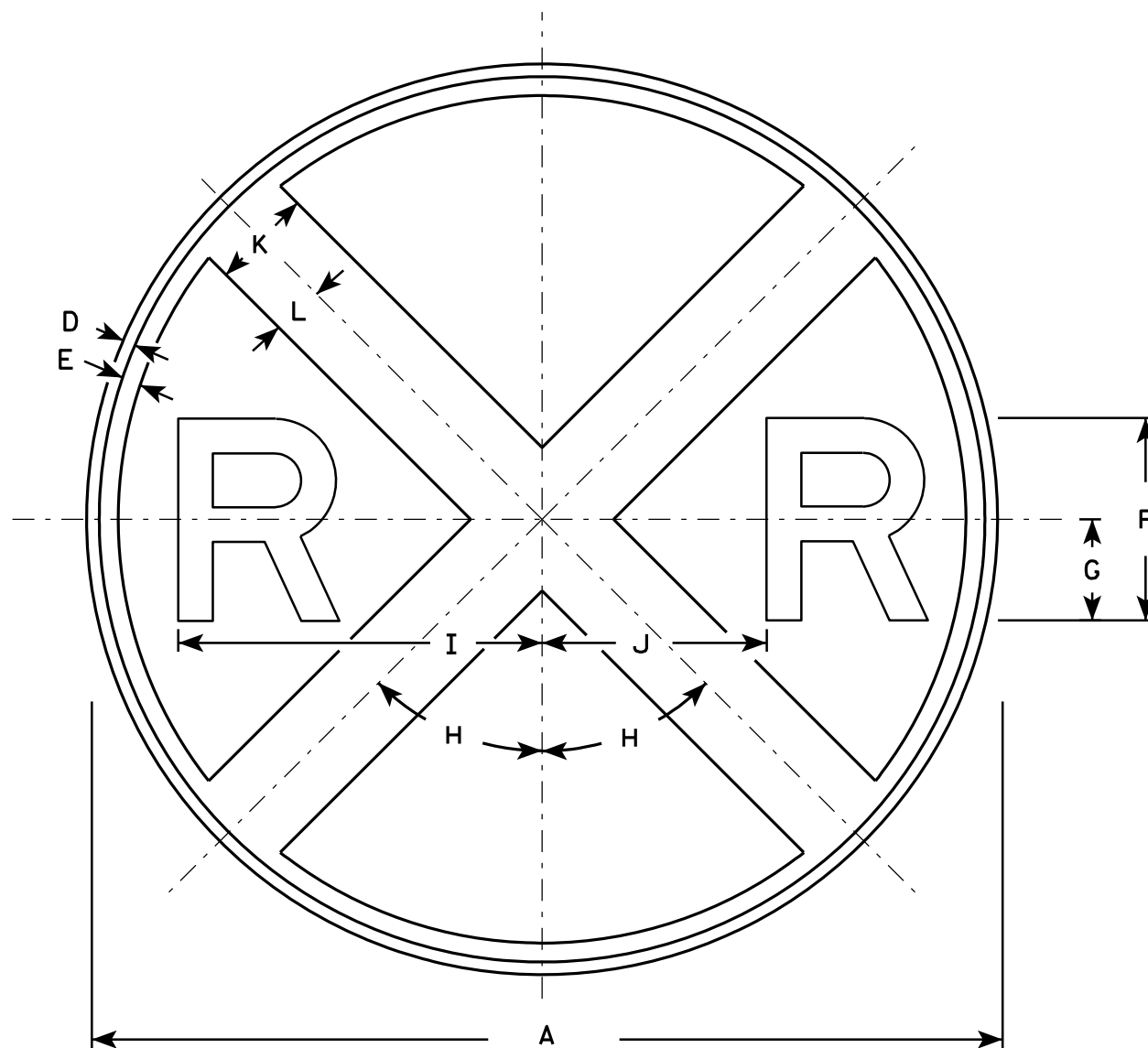
**STANDARD SIGN**  
**W5-57**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 8/17/12 PLATE NO. W5-57.1

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



W10-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Yellow  
Message - Black
3. Message Series - E

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	30			3/8	5/8	7	3 1/2	45°	12 3/8	7 1/8	3	1 1/2															4.91
2S	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07
2M	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07
3																											
4	48			3/4	1 1/4	10	5	45°	18 3/8	11 5/8	5	2 1/2															12.57
5																											

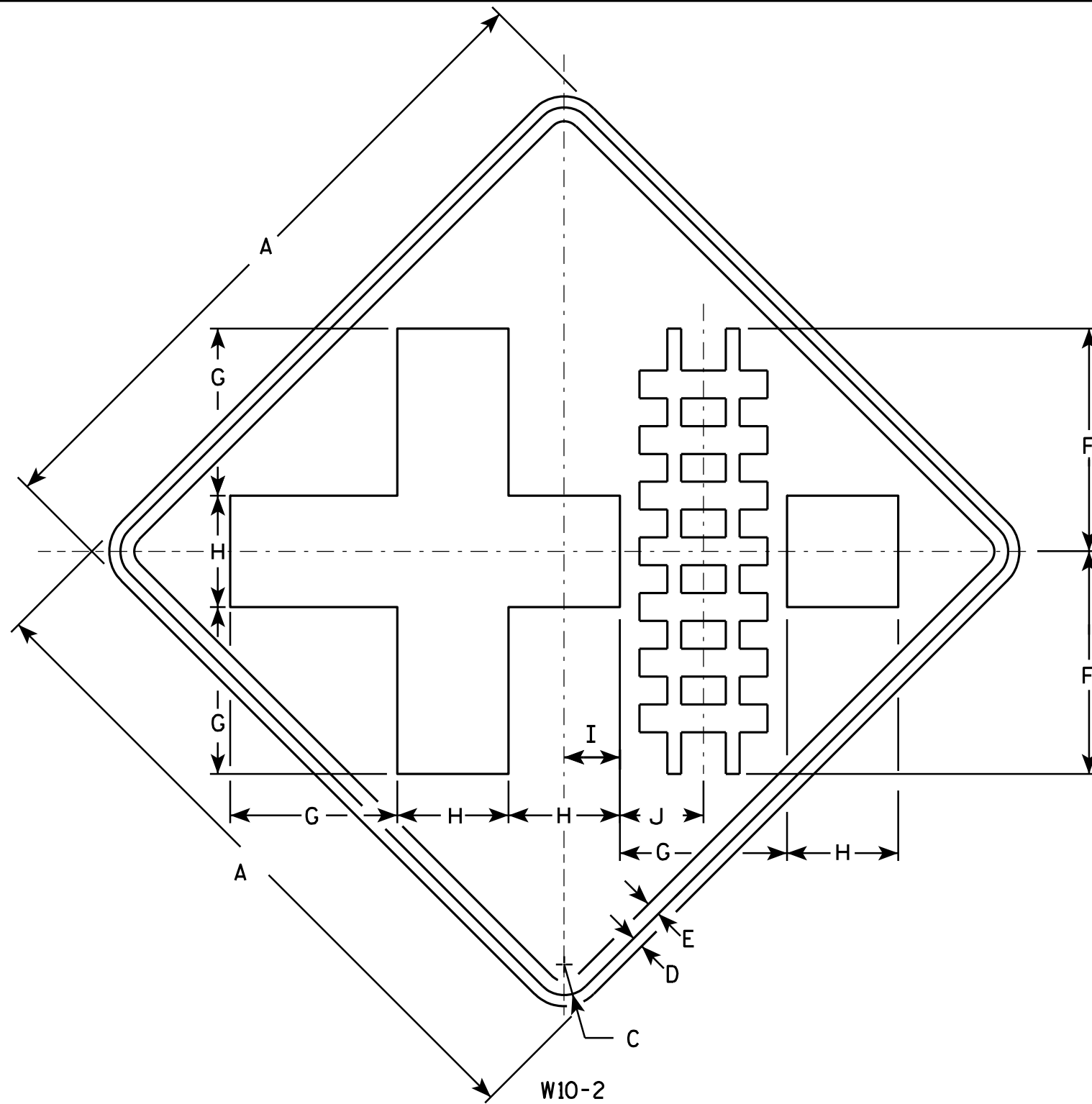
**STANDARD SIGN**  
W10-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

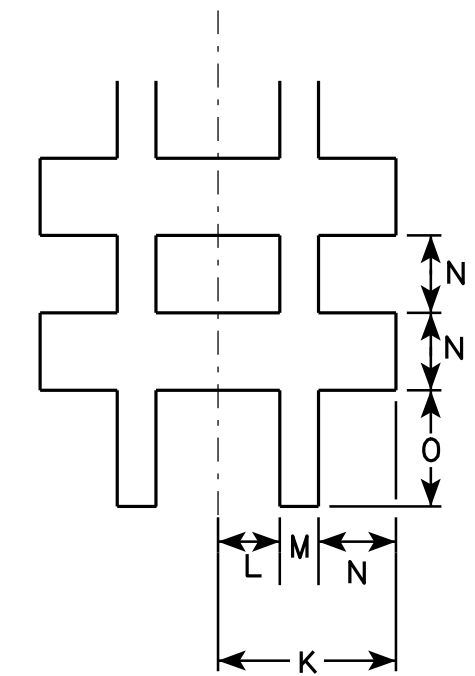
DATE 3/13/13 PLATE NO. W10-1.8

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 - Yellow  
Message - Black
3. 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	30		1 3/8	1/2	5/8	10	7 1/2	5	2 1/2	3 3/4	2 7/8	1	5/8	1 1/4	1 7/8												6.25
2S	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
2M	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
3	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
4	48		2 1/4	3/4	1	16	12	8	4	6	4 1/2	1 1/2	1	2	3												16.0
5																											

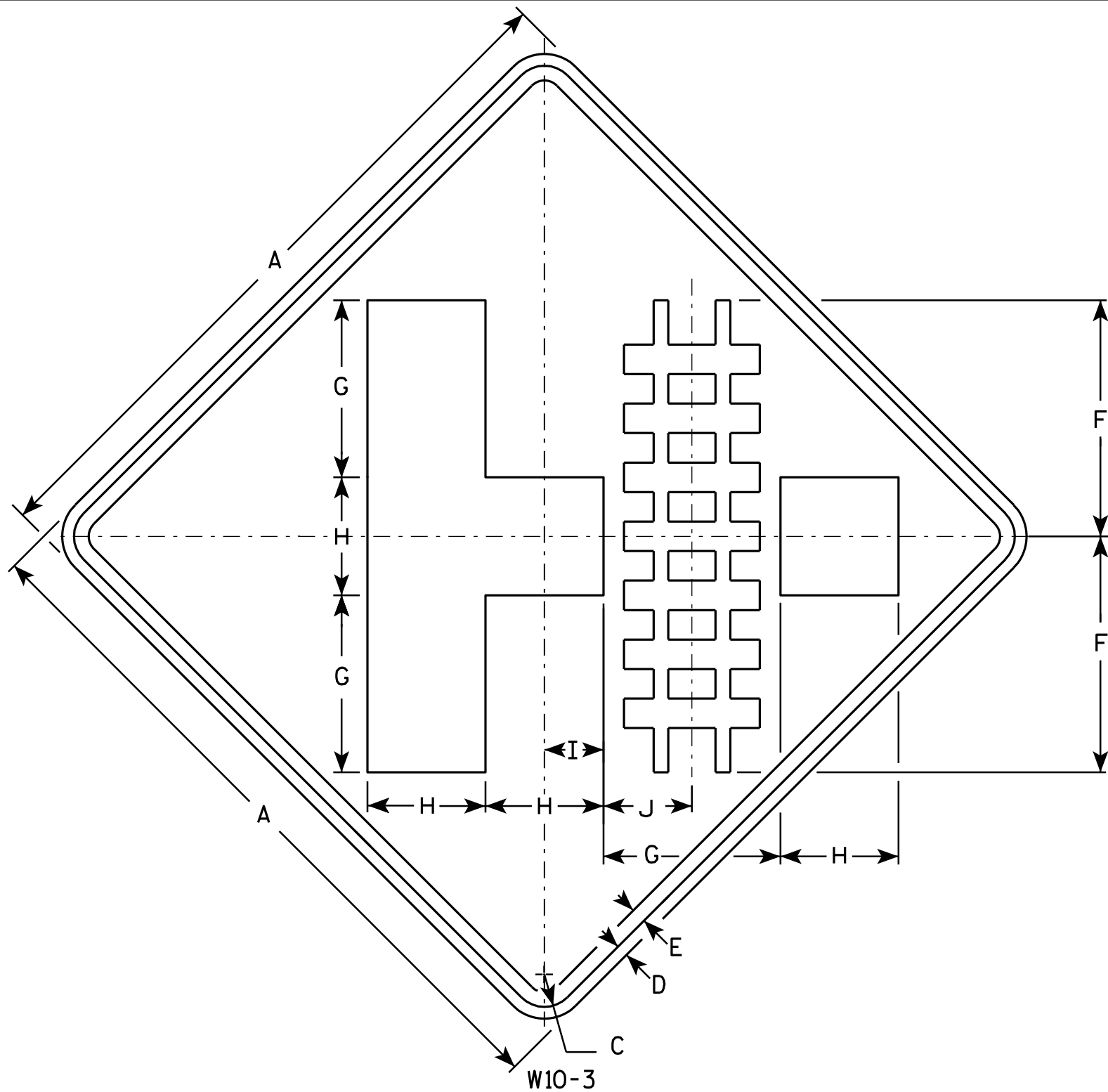
**STANDARD SIGN**  
**W10-2**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

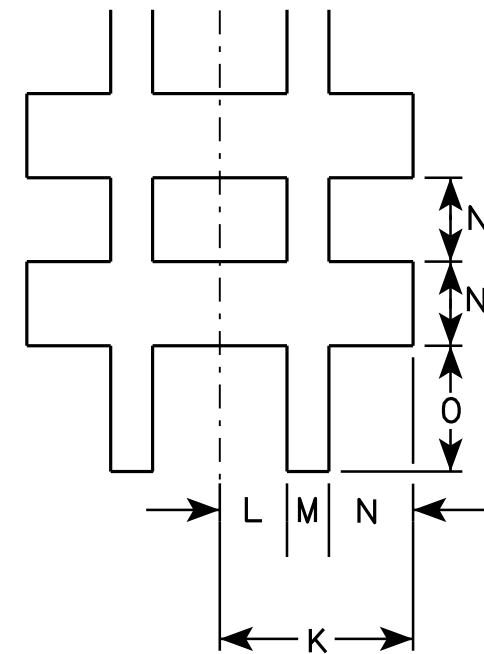
DATE 3/13/13 PLATE NO. W10-2.8

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 - Yellow  
Message - Black
3. 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

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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	30		1 3/8	1/2	5/8	10	7 1/2	5	2 1/2	3 3/4	2 7/8	1	5/8	1 1/4	1 7/8												6.25
2S	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
2M	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
3	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
4	48		2 1/4	3/4	1	16	12	8	4	6	4 1/2	1 1/2	1	2	3												16.0
5																											

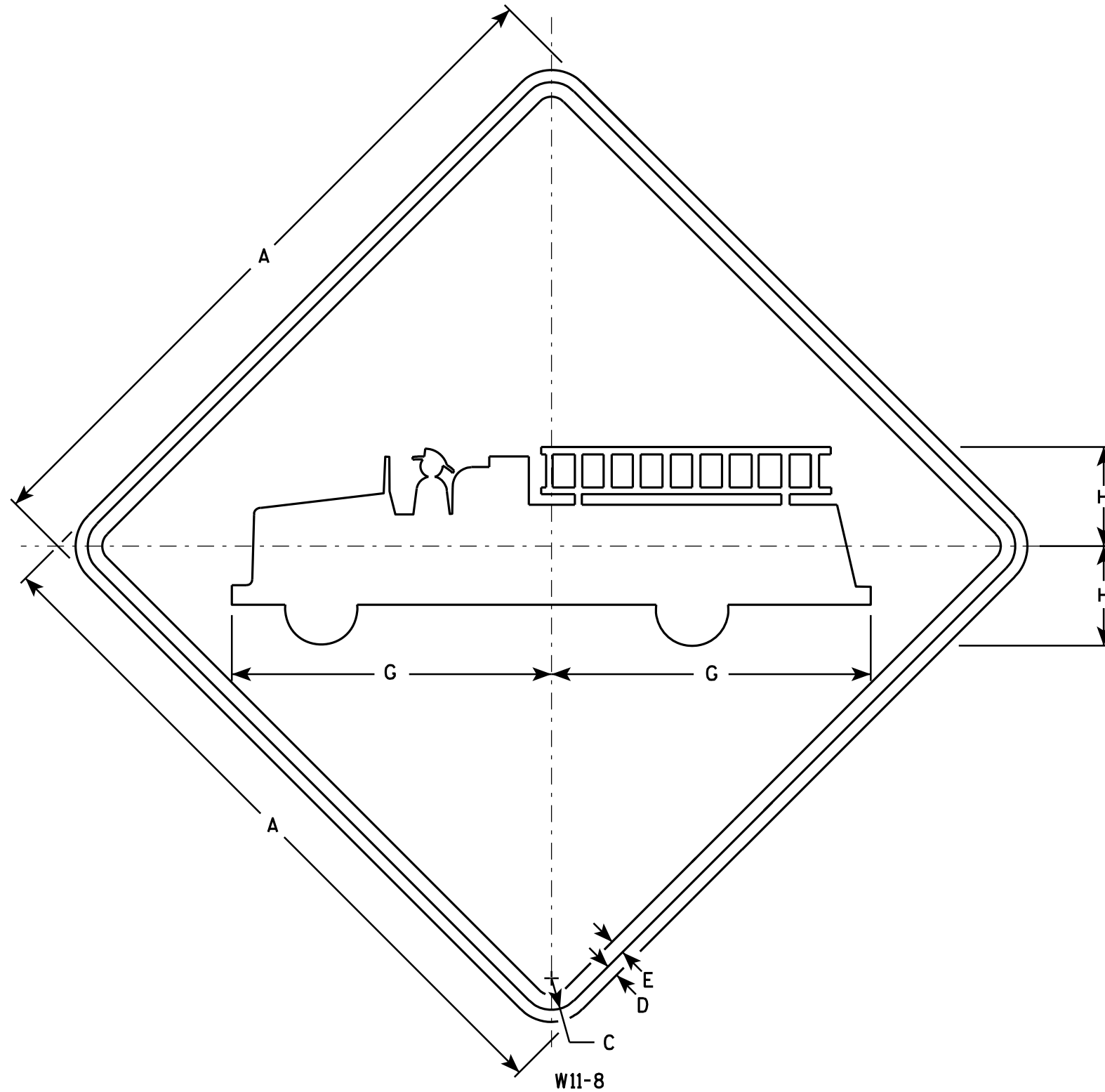
**STANDARD SIGN**  
**W10-3**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W10-3.8

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 - Yellow  
Message - Black
3. 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

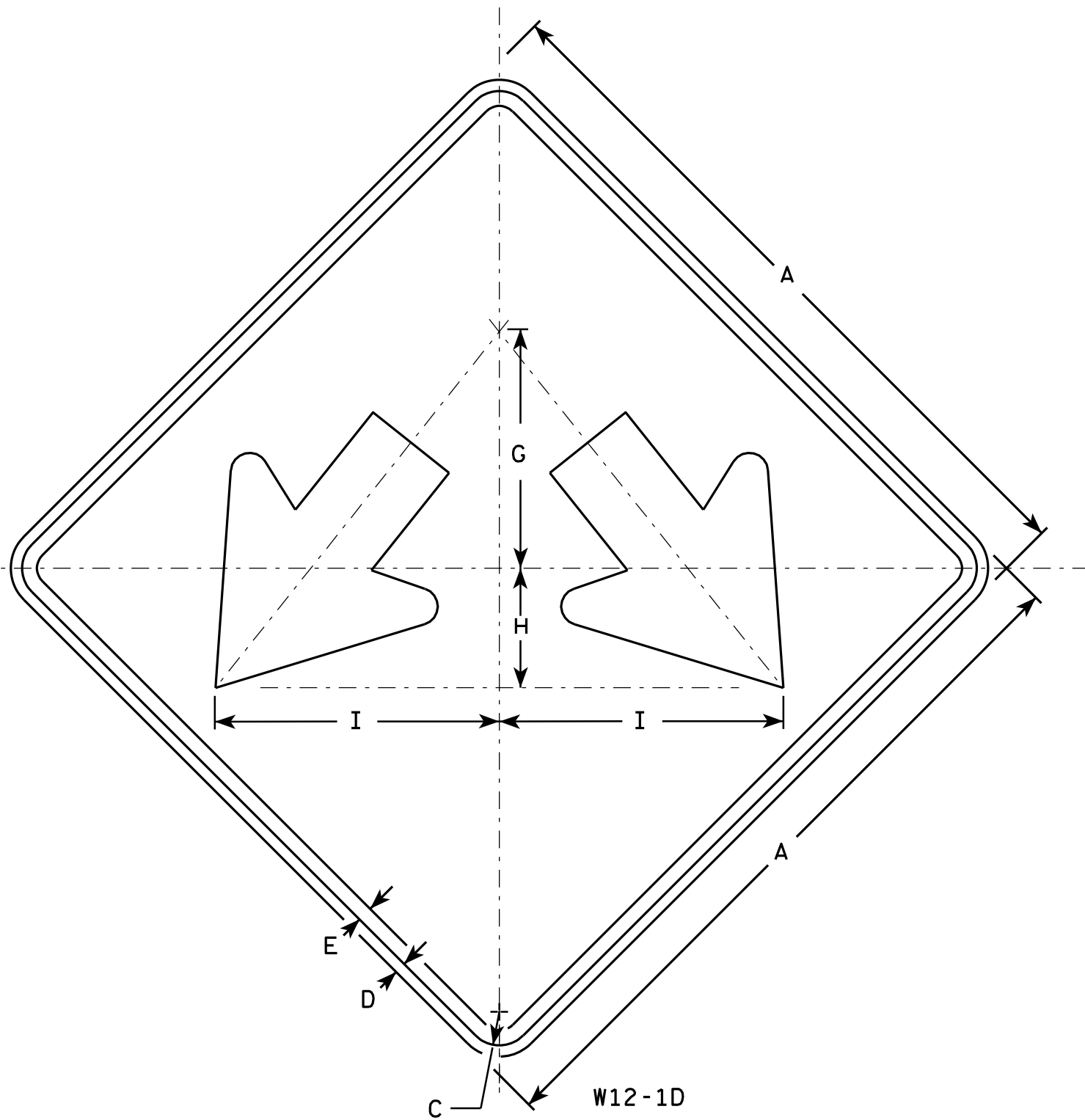
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		11	3 3/8																			4.0
2S	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
2M	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
3	36		1 5/8	5/8	3/4		16 1/2	5 1/4																			9.0
4	48		2 1/4	3/4	1		22	7																			16.0
5																											

**STANDARD SIGN**  
W11-8

WISCONSIN DEPT OF TRANSPORTATION

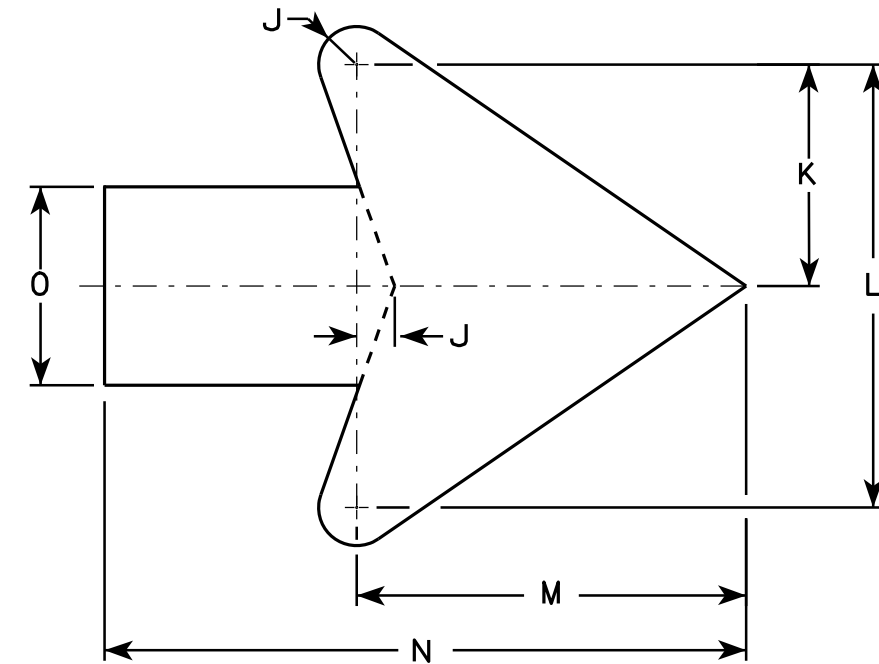
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W11-8.7



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Yellow  
Message - Black
3. 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.



Arrow Detail

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		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

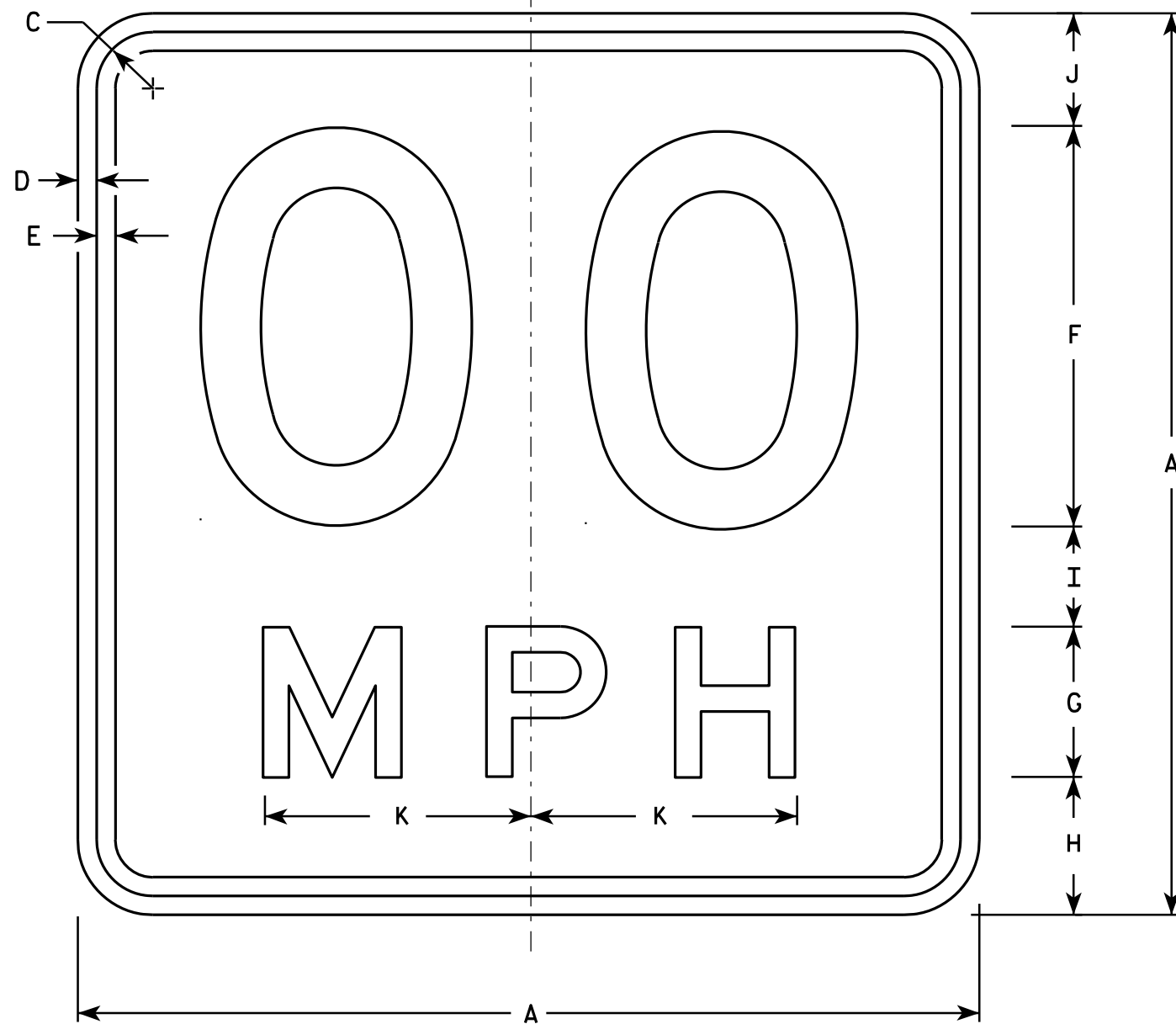
**STANDARD SIGN**  
**W12-1D**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

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 - Yellow  
Message - Black
3. Message Series - See Note 6
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 and optically space about centerline to achieve proper balance.
6. Line 1 is Series D  
Line 2 is Series E

W13-1

\* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.  
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

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	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN

W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO:

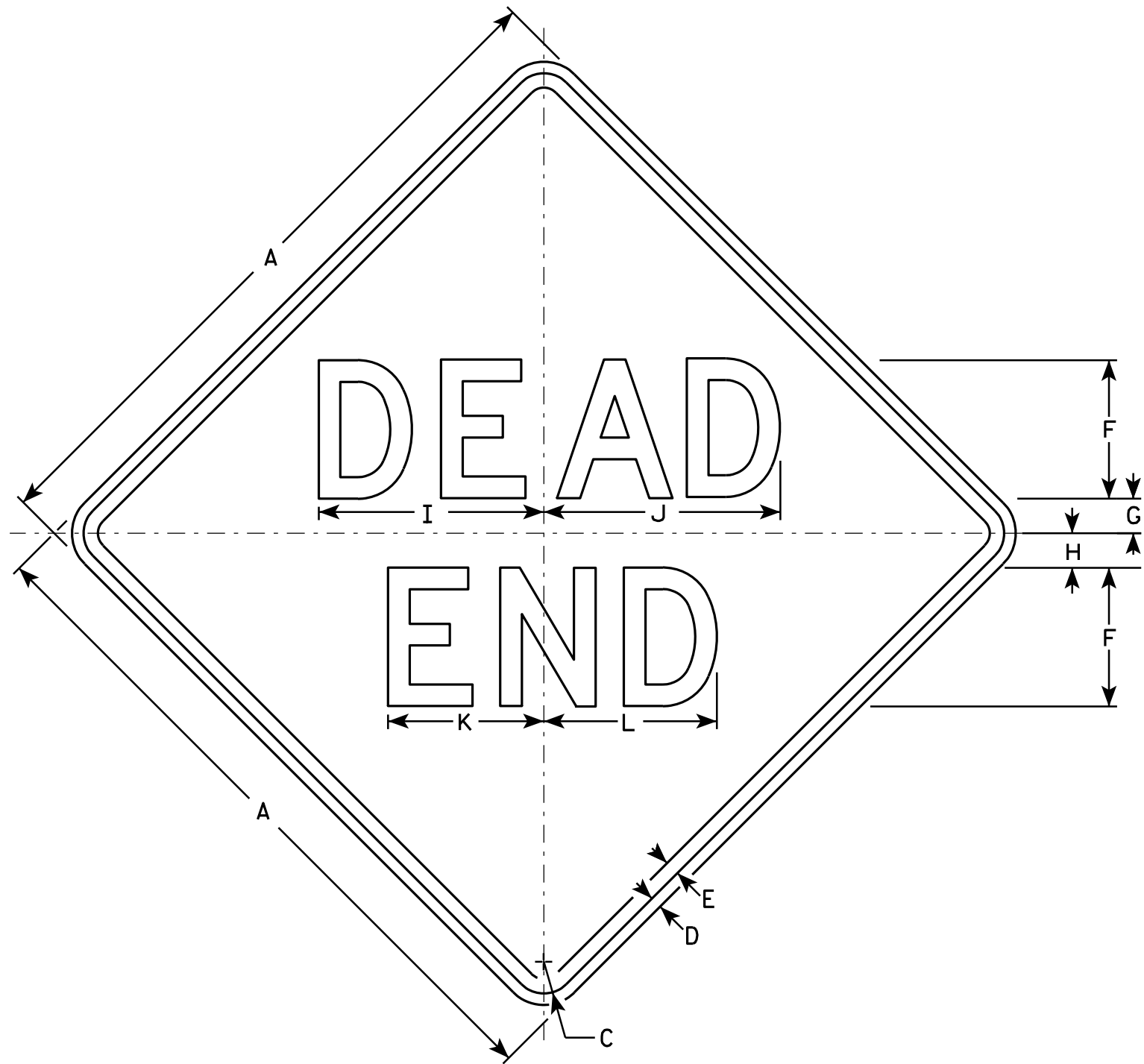
HWY:

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 - Yellow  
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.

W14-1

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	24		1 1/8	3/8	1/2	5	1	2	8 1/4	8 5/8	5 5/8	6 1/4															4.0
2S	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
2M	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
3	36		1 5/8	5/8	3/4	7	2	3	11 3/8	12	7 7/8	8 3/4															9.0
4																											
5																											

STANDARD SIGN  
W14-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W14-1.7

PROJECT NO:

HWY:

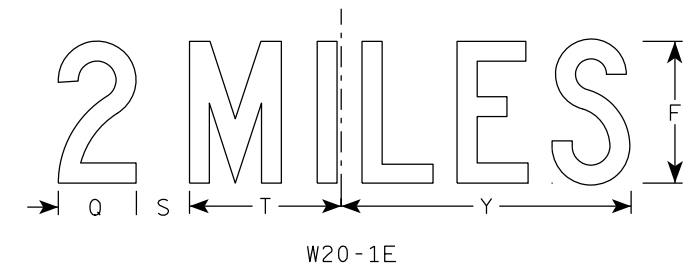
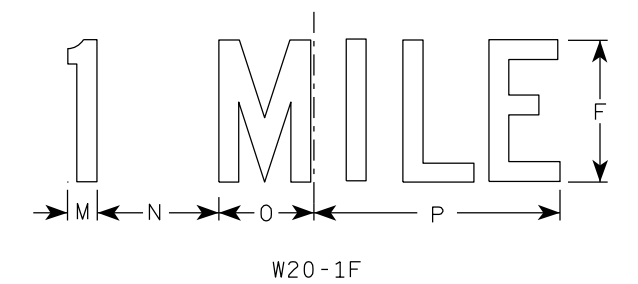
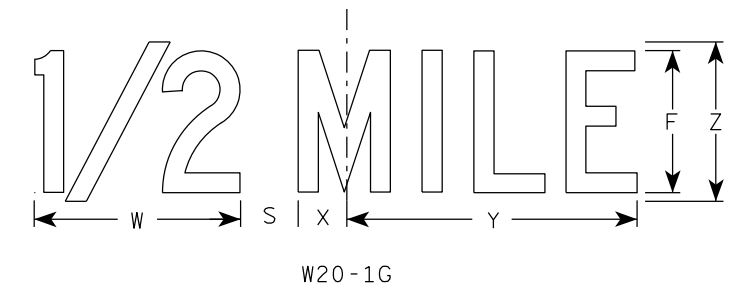
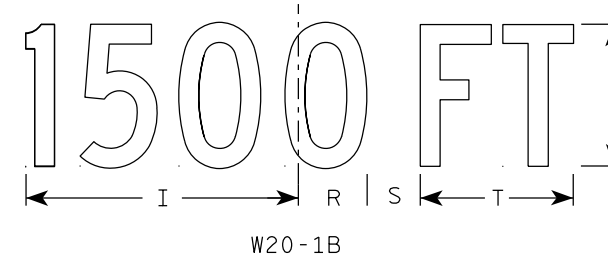
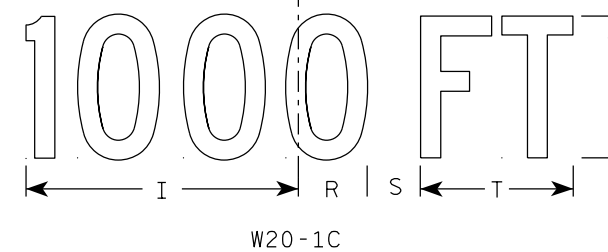
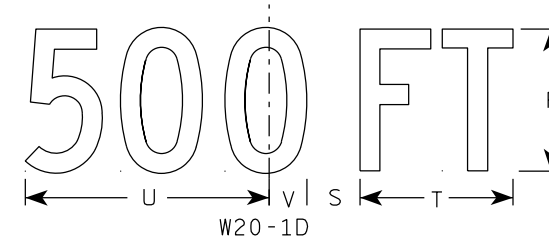
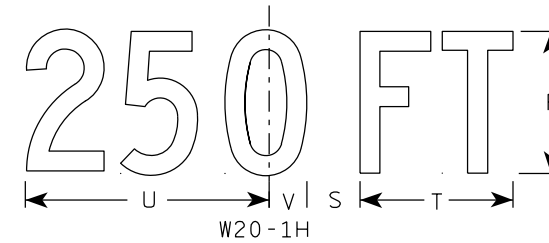
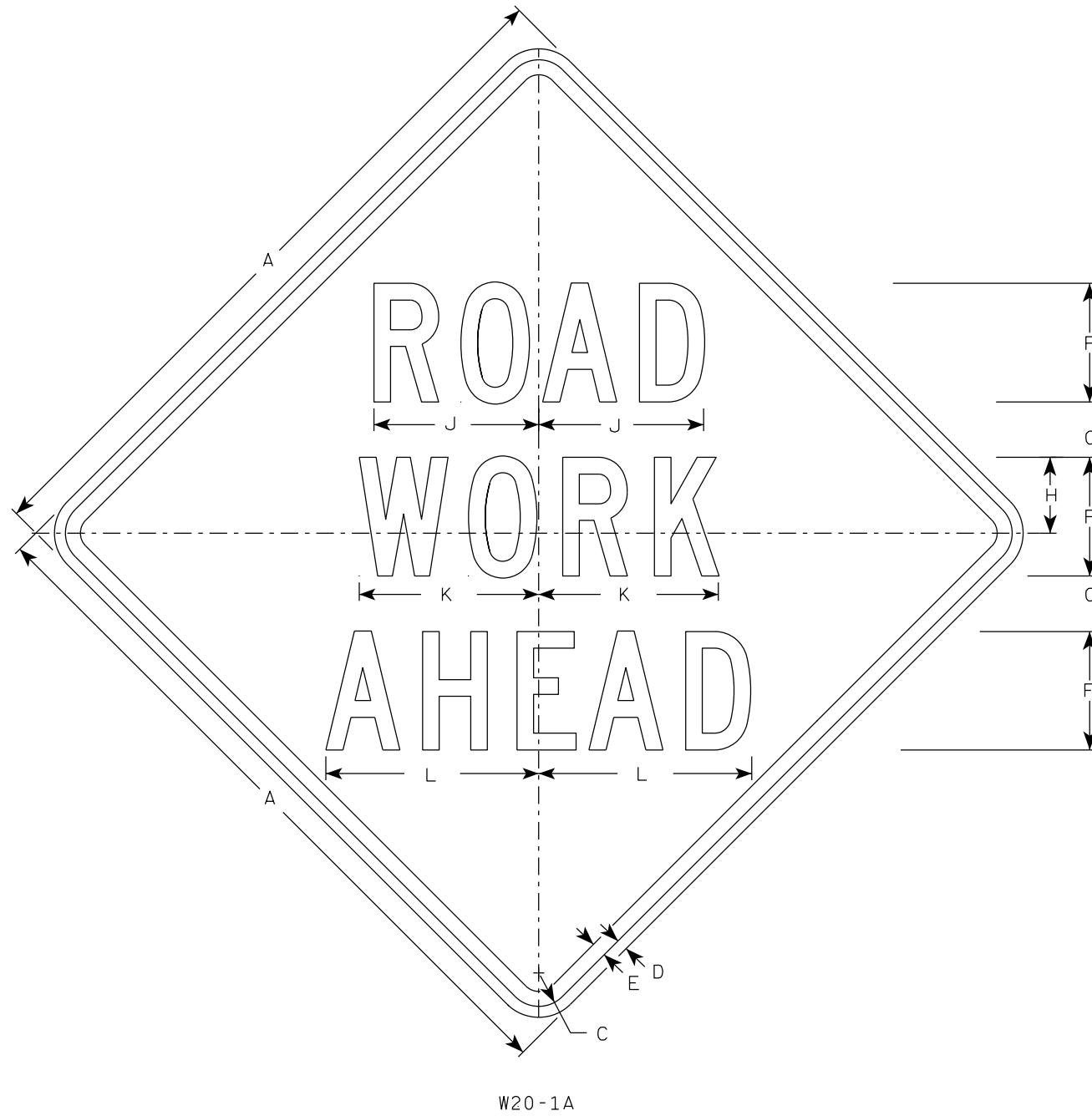
COUNTY:

SHEET NO:

E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:  
Background - Orange  
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.



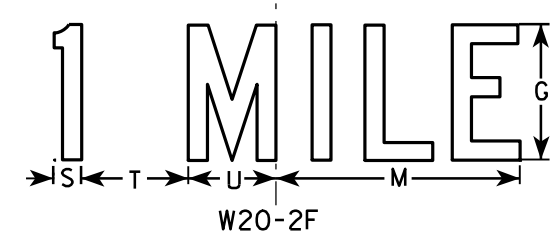
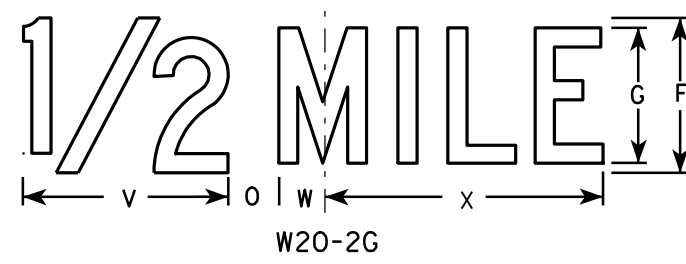
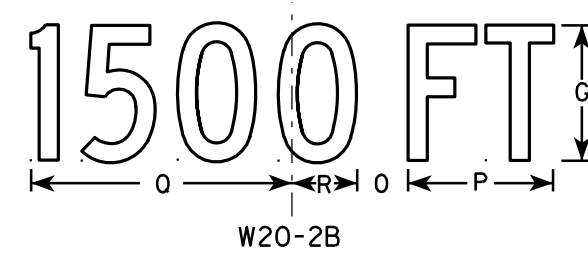
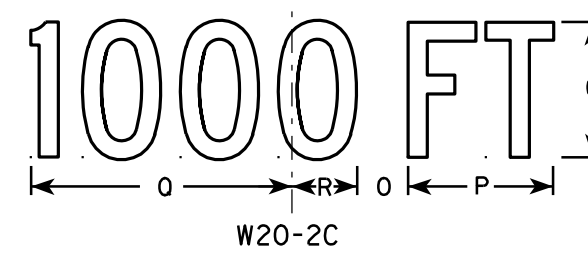
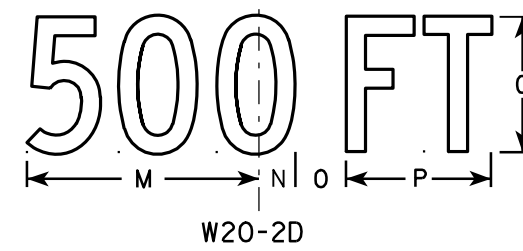
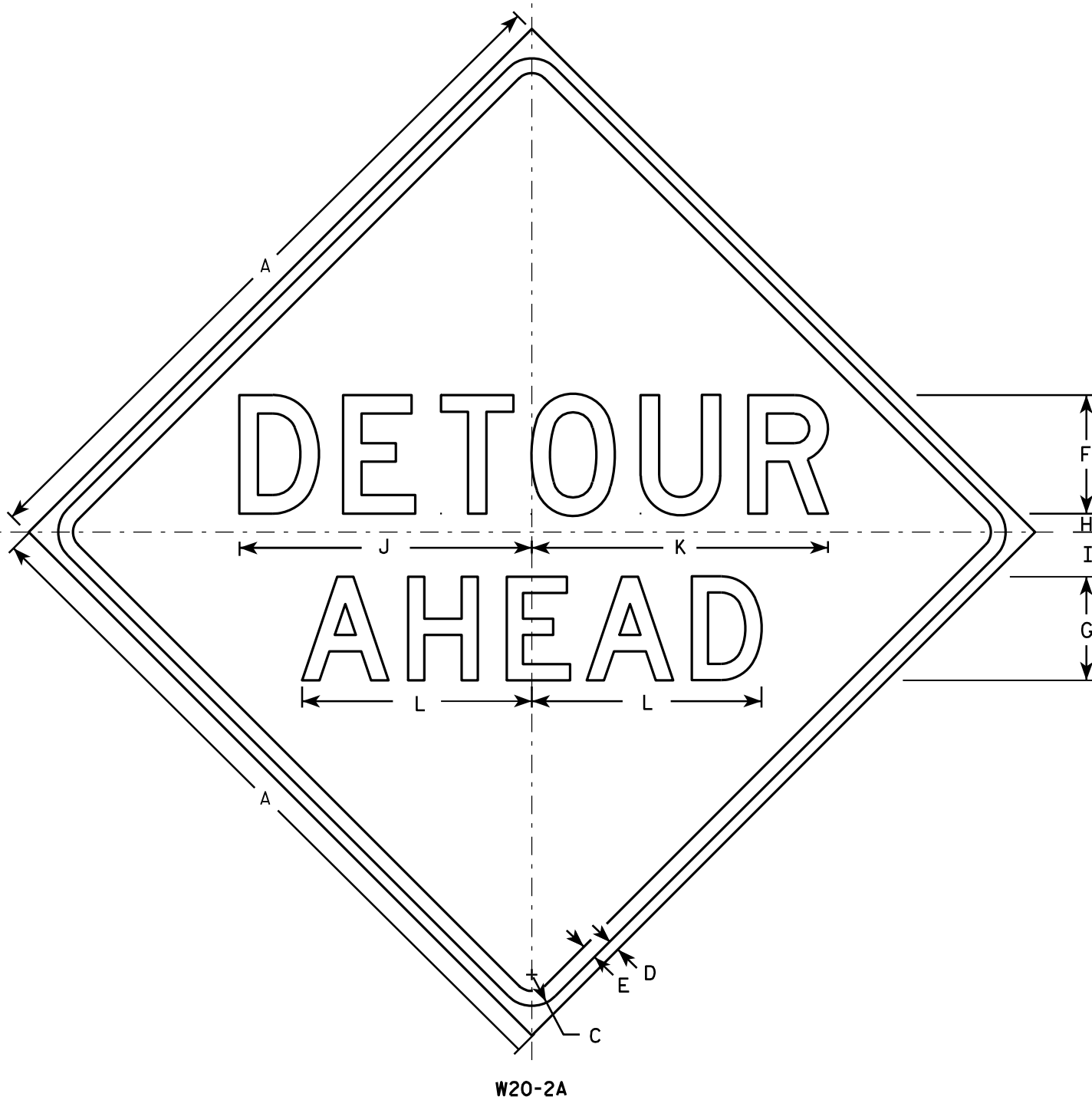
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN  
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11



**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

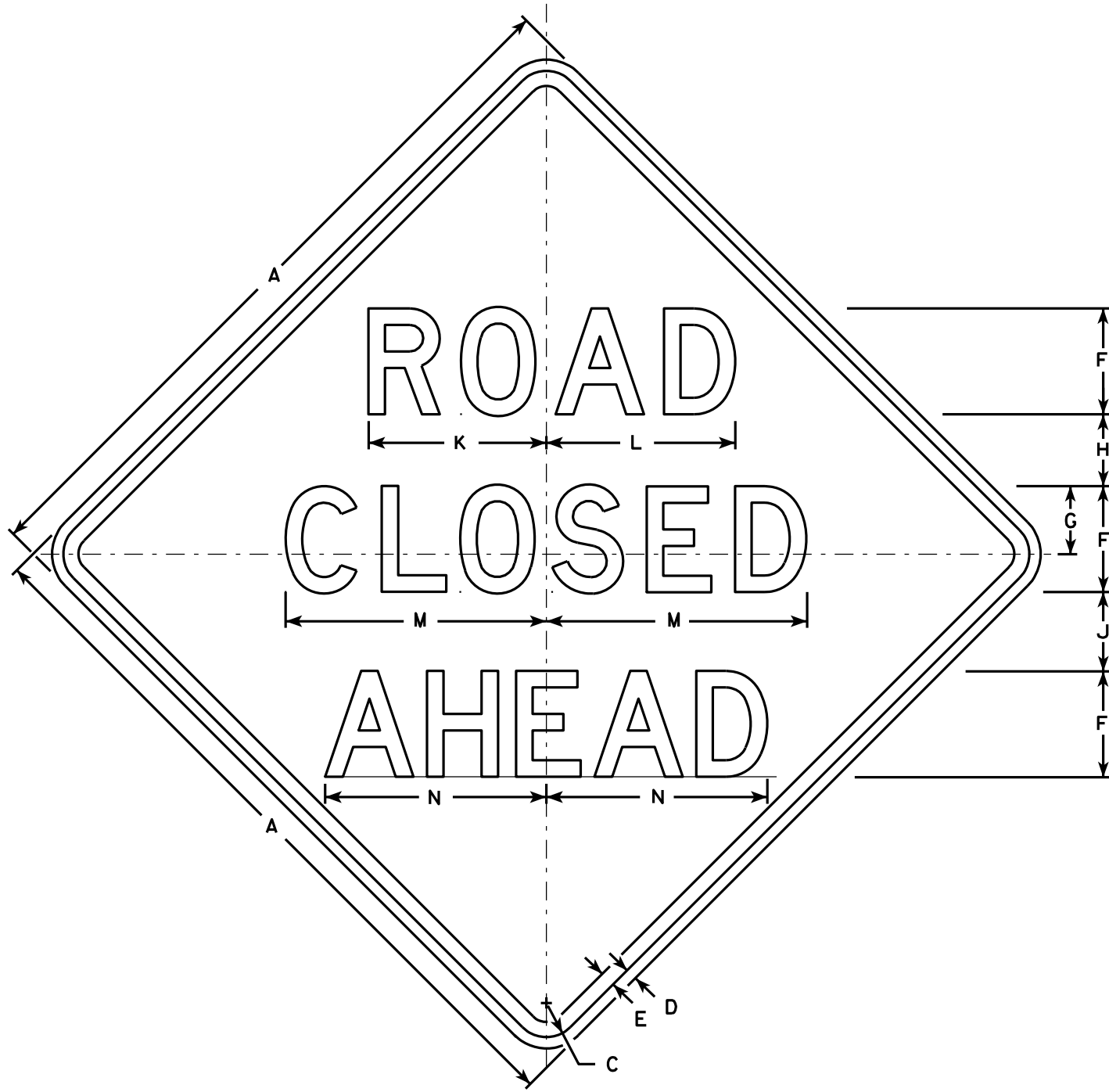
STANDARD SIGN  
W20-2A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

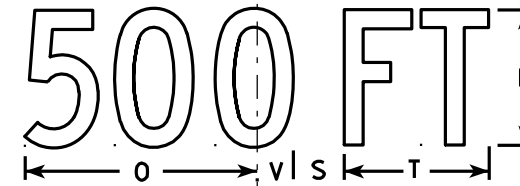
APPROVED *Matthew R. Raub*  
for State Traffic Engineer

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

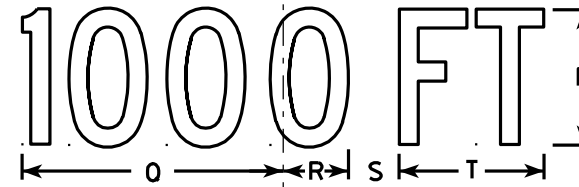
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E



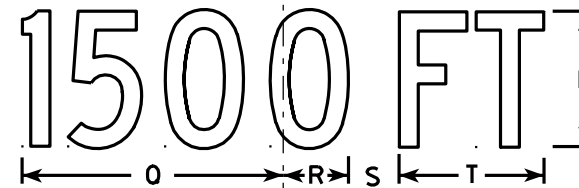
W20-3A



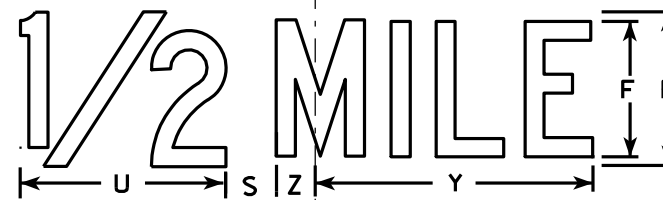
W20-3D



W20-3C



W20-3B



W20-3G



W20-3F

**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. Lines 1 and 2 are Series D.  
Line 3 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	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

**STANDARD SIGN**  
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

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

DIVISION 4 - YELLOW RIVER BEAM GUARD - YELLOW R1

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
1032+39.81	0.00	0.00	0.00	0.34	0	0	0	0	0	0
1032+50.00	10.19	0.00	0.00	1.38	0	0	0	0	0	0
1033+00.00	50.00	0.00	0.00	13.99	0	0	14	0	18	-18
1033+50.00	50.00	0.00	0.00	36.82	0	0	47	0	76	-76
1033+58.88	8.88	0.00	0.00	42.79	0	0	13	0	93	-93
1033+83.86	24.98	0.00	0.00	39.33	0	0	38	0	140	-140
1034+00.00	16.14	0.00	0.00	19.15	0	0	17	0	161	-161
1034+08.84	8.84	0.00	0.00	11.02	0	0	5	0	168	-168
1034+50.00	41.16	0.00	0.00	0.86	0	0	9	0	179	-179
1034+56.36	6.36	0.00	0.00	0.59	0	0	0	0	179	-179

DIVISION 4 - YELLOW RIVER BEAM GUARD - YELLOW R2

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
1042+63.92	0.00	0.00	0.00	0.02	0	0	0	0	0	0
1043+00.00	36.08	0.00	0.00	0.40	0	0	0	0	0	0
1043+19.78	19.78	0.00	0.00	0.16	0	0	0	0	0	0
1043+45.14	25.36	0.02	0.00	0.00	0	0	0	0	0	0
1043+50.00	4.86	0.02	0.00	0.00	0	0	0	0	0	0
1043+70.46	20.46	0.00	0.00	0.70	0	0	0	0	0	0
1044+00.00	29.54	0.00	0.00	0.71	0	0	1	0	1	-1
1044+50.00	50.00	0.00	0.00	1.41	0	0	2	0	4	-4
1044+91.49	41.49	0.01	0.00	0.00	0	0	1	0	5	-5

DIVISION 4 - YELLOW RIVER BEAM GUARD - YELLOW L1

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
1035+35.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
1035+50.00	15.00	0.00	0.00	0.74	0	0	0	0	0	0
1035+59.27	9.27	0.00	0.00	2.02	0	0	0	0	0	0
1035+84.27	25.00	0.00	0.00	0.07	0	0	1	0	1	-1
1036+00.00	15.73	0.01	0.00	0.00	0	0	0	0	1	-1
1036+09.24	9.24	0.03	0.00	0.00	0	0	0	0	1	-1
1036+50.00	40.76	0.03	0.00	0.00	0	0	0	0	1	-1
1036+64.26	14.26	0.09	0.00	0.00	0	0	0	0	1	-1

DIVISION 4 - YELLOW RIVER BEAM GUARD - YELLOW L2

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
1050+55.49	0.00	0.00	0.00	0.70	0	0	0	0	0	0
1051+00.00	44.51	0.00	0.00	0.22	0	0	1	0	1	-1
1051+02.50	2.50	0.00	0.00	0.16	0	0	0	0	1	-1
1051+30.16	27.66	0.53	0.00	0.00	0	0	0	0	1	-1
1051+50.00	19.84	0.00	0.00	29.96	0	0	11	0	15	-15
1051+54.67	4.67	0.00	0.00	32.27	0	0	5	0	21	-21
1052+00.00	45.33	0.00	0.00	9.22	0	0	35	0	65	-65
1052+50.00	50.00	0.00	0.00	0.00	0	0	9	0	76	-76
1052+74.97	24.97	0.00	0.00	0.00	0	0	0	0	76	-76

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: ((CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR))

DIVISION 3 - RECONSTRUCT - RCST-STH 80

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
1065+80.00	0.00	116.86	8.36	3.96	0	0	0	0	0	0
1065+89.18	9.18	117.29	8.37	9.30	40	3	2	40	3	35
1065+90.00	0.82	117.49	8.38	8.80	4	0	0	44	3	39
1065+95.00	5.00	121.78	8.92	7.58	22	2	2	66	5	56
1066+00.00	5.00	129.06	9.75	10.99	23	2	2	89	8	75
1066+05.00	5.00	140.73	10.72	4.38	25	2	1	114	9	96
1066+10.00	5.00	134.83	10.57	3.01	26	2	1	140	10	119
1066+15.00	5.00	125.07	9.64	2.88	24	2	1	164	11	140
1066+20.00	5.00	114.64	8.70	2.75	22	2	1	186	13	159
1066+25.00	5.00	104.15	7.77	2.63	20	2	0	206	13	177
1066+30.00	5.00	101.58	7.52	2.52	19	1	0	225	13	195
1066+35.00	5.00	112.68	8.48	2.40	20	1	0	245	13	214
1066+40.00	5.00	123.00	9.43	2.32	22	2	0	267	13	234
1066+45.00	5.00	134.11	10.38	2.25	24	2	0	291	13	256
1066+50.00	5.00	142.96	9.70	2.03	26	2	0	317	13	280
1066+55.00	5.00	133.58	8.84	1.85	26	2	0	343	13	304
1066+60.00	5.00	126.30	8.36	1.73	24	2	0	367	13	326
1066+65.00	5.00	123.04	8.37	1.64	23	2	0	390	13	347
1066+67.18	2.18	122.51	8.37	1.60	10	1	0	400	13	356
1066+69.76	2.58	122.58	8.37	21.88	12	1	1	412	14	365
1067+00.00	30.24	120.51	8.39	23.50	136	9	25	548	45	461
1067+06.26	6.26	119.16	8.39	23.28	28	2	5	576	51	481
1067+42.76	36.50	110.75	8.41	20.40	155	11	30	731	89	587
1067+50.00	7.24	108.75	8.41	20.71	29	2	6	760	96	607
1067+79.26	29.26	106.71	8.47	20.80	117	9	22	877	124	687
1068+00.00	20.74	106.97	8.55	19.87	82	7	16	959	144	742
1068+50.00	50.00	105.45	8.87	16.57	197	16	34	1,156	186	881
1069+00.00	50.00	123.87	11.39	15.10	212	19	29	1,368	223	1,038
1069+07.87	7.87	136.13	11.62	15.07	38	3	4	1,406	228	1,068
1069+07.97	0.10	115.76	4.43	15.04	0	0	0	1,406	228	1,068
1069+10.00	2.03	116.19	3.94	14.29	9	0	1	1,415	229	1,075
1069+15.00	5.00	117.71	2.73	11.58	22	1	2	1,437	231	1,094
1069+20.00	5.00	121.06	1.51	9.60	22	0	2	1,459	234	1,113
1069+25.00	5.00	125.56	0.89	7.75	23	0	2	1,482	236	1,134
1069+30.00	5.00	130.00	0.28	5.74	24	0	1	1,506	238	1,157
1069+35.00	5.00	134.15	0.00	4.12	24	0	1	1,530	239	1,179
1069+40.00	5.00	136.86	0.00	3.42	25	0	1	1,555	240	1,203
1069+45.00	5.00	138.11	0.00	2.84	25	0	1	1,580	241	1,227
1069+50.00	5.00	138.48	0.00	2.36	26	0	0	1,606	241	1,253
1069+55.00	5.00	137.62	0.00	2.07	26	0	0	1,632	241	1,279
1069+60.00	5.00	137.17	0.00	2.06	25	0	0	1,657	241	1,304
1069+65.00	5.00	136.16	0.00	2.12	25	0	0	1,682	241	1,329
1069+70.00	5.00	136.32	0.14	2.14	25	0	0	1,707	241	1,354
1069+75.00	5.00	135.46	2.07	3.18	25	0	0	1,732	241	1,379
1069+80.00	5.00	136.81	3.18	4.16	25	0	1	1,757	243	1,403
1069+85.00	5.00	137.96	4.25	3.47	25	1	1	1,782	244	1,425
1069+90.00	5.00	139.52	5.30	2.56	26	1	1	1,808	245	1,449

DIVISION 3 - RECONSTRUCT - RCST-STH 80

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 2	NOTE 3		
1069+95.00	5.00	141.22	6.32	1.87	26	1	0	1,834	245	1,474
1070+00.00	5.00	143.39	7.32	1.29	26	1	0	1,860	245	1,499
1070+05.00	5.00	145.64	8.30	0.82	27	1	0	1,887	245	1,525
1070+10.00	5.00	148.23	9.67	0.46	27	2	0	1,914	245	1,550
1070+15.00	5.00	151.36	13.08	0.21	28	2	0	1,942	245	1,576
1070+20.00	5.00	155.06	17.83	0.06	28	3	0	1,970	245	1,601
1070+23.49	3.49	157.89	21.10	0.02	20	3	0	1,990	245	1,618
1070+23.59	0.10	182.42	47.09	1.14	1	0	0	1,991	245	1,619
1070+41.73	18.14	184.96	44.25	1.83	123	31	1	2,114	246	1,710
1070+47.85	6.12	166.16	44.10	1.40	40	10	0	2,154	246	1,740
1070+50.00	2.15	165.23	43.05	3.84	13	3	0	2,167	246	1,750
1070+57.50	7.50	168.63	41.88	5.85	46	12	1	2,213	248	1,783
1070+65.43	7.93	168.72	41.64	6.69	50	12	2	2,263	250	1,818
1070+75.00	9.57	187.13	41.11	0.53	63	15	1	2,326	251	1,865
1071+00.00	25.00	192.41	40.07	0.24	176	38	0	2,502	251	2,003
1071+10.00	10.00	193.26	39.72	0.25	71	15	0	2,573	251	2,059
1071+17.68	7.68	184.50	39.34	7.85	54	11	1	2,627	253	2,101
1071+25.19	7.51	195.74	39.06	7.37	53	11	2	2,680	255	2,140
1071+50.00	24.81	225.36	38.88	4.75	193	36	6	2,873	263	2,290
1071+61.69	11.69	222.36	39.23	4.79	97	17	2	2,970	265	2,367
1071+98.19	36.50	217.15	38.60	5.07	297	53	7	3,267	274	2,602
1072+00.00	1.81	216.78	38.62	5.19	15	3	0	3,282	274	2,614
1072+34.38	34.38	210.04	41.74	5.00	272	51	6	3,554	281	2,828
1072+35.00	0.62	209.96	41.64	4.65	5	1	0	3,559	281	2,832
1072+40.00	5.00	213.84	39.27	0.00	39	7	0	3,598	281	2,864
1072+45.00	5.00	229.33	36.78	0.00	41	7	0	3,639	281	2,898
1072+50.00	5.00	237.29	34.44	0.00	43	7	0	3,682	281	2,934
1072+55.00	5.00	207.87	32.08	0.00	41	6	0	3,723	281	2,969
1072+60.00	5.00	168.63	29.65	0.00	35	6	0	3,758	281	2,998
1072+65.00	5.00	129.07	27.27	0.00	28	5	0	3,786	281	3,021
1072+70.00	5.00	117.99	26.66	0.00	23	5	0	3,809	281	3,039
1072+75.00	5.00	123.99	27.11	0.00	22	5	0	3,831	281	3,056
1072+80.00	5.00	159.56	29.65	0.00	26	5	0	3,857	281	3,077
1072+85.00	5.00	194.77	32.13	0.00	33	6	0	3,890	281	3,104
1072+90.00	5.00	223.82	33.12	0.13	39	6	0	3,929	281	3,137
1072+95.00	5.00	216.45	33.67	0.16	41	6	0	3,970	281	3,172
1073+00.00	5.00	199.22	34.74	0.22	38	6	0	4,008	281	3,204
1073+05.00	5.00	193.16	35.70	0.63	36	7	0	4,044	281	3,233
1073+05.89	0.89	192.51	35.86	0.71	6	1	0	4,050	281	3,238
1073+13.73	7.84	188.34	35.49	1.53	55	10	0	4,105	281	3,283
1073+50.00	36.27	168.30	35.39	5.71	240	48	5	4,345	288	3,469
1074+00.00	50.00	141.96	32.87	10.84	287	63	15	4,632	306	3,674
1074+39.77	39.77	122.65	33.31	10.68	195	49	16	4,827	326	3,800
1074+50.00	10.23	121.27	33.48	10.72	46	13	4	4,873	331	3,828
1074+74.99	24.99	119.50	28.18	5.39	111	29	7	4,984	340	3,901

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9

DIVISION 3 - RECONSTRUCT - RCST-PINE

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
9+19.00	0.00	18.14	4.52	4.86	0	0	0	0	0	0
9+49.05	30.05	19.56	4.86	0.30	21	5	3	21	4	12
9+59.00	9.95	96.38	5.68	2.11	21	2	0	42	4	31
9+60.00	1.00	97.25	5.82	2.20	4	0	0	46	4	35
9+65.00	5.00	103.88	6.96	5.45	19	1	1	65	5	52
9+70.00	5.00	114.95	8.29	2.15	20	1	1	85	6	70
9+75.00	5.00	94.99	8.62	0.00	19	2	0	104	6	87
9+80.00	5.00	59.78	5.30	0.00	14	1	0	118	6	100
9+85.00	5.00	22.87	1.99	0.00	8	1	0	126	6	107
9+88.00	3.00	0.01	0.00	0.00	1	0	0	127	6	108

DIVISION 3 - RECONSTRUCT - RCST-CLARK W

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
29+10.00	0.00	29.36	3.10	1.69	0	0	0	0	0	0
29+40.29	30.29	39.25	5.29	0.44	38	5	1	38	1	32
29+50.00	9.71	55.74	6.31	0.00	17	2	0	55	1	47
29+50.30	0.30	113.56	6.34	0.00	1	0	0	56	1	48
29+55.00	4.70	116.30	10.63	0.00	20	1	0	76	1	67
29+60.00	5.00	121.45	9.89	0.01	22	2	0	98	1	87
29+65.00	5.00	137.99	9.22	0.24	24	2	0	122	1	109
29+70.00	5.00	134.82	9.20	0.00	25	2	0	147	1	132
29+75.00	5.00	99.46	6.64	0.00	22	1	0	169	1	153
29+80.00	5.00	62.30	4.09	0.00	15	1	0	184	1	167
29+85.00	5.00	23.72	1.53	0.00	8	1	0	192	1	174
29+88.00	3.00	0.08	0.01	0.00	1	0	0	193	1	175

DIVISION 3 - RECONSTRUCT - RCST-JUNEAU

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
20+29.50	0.00	86.71	36.05	2.14	0	0	0	0	0	0
20+35.00	5.50	72.52	53.86	12.28	16	9	1	16	1	6
20+40.00	5.00	93.72	60.82	6.08	15	11	2	31	4	7
20+45.00	5.00	109.21	63.68	2.53	19	12	1	50	5	13
20+50.00	5.00	118.95	64.27	2.11	21	12	0	71	5	22
20+55.00	5.00	125.47	64.84	1.54	23	12	0	94	5	33
20+60.00	5.00	129.00	64.58	1.41	24	12	0	118	5	45
20+65.00	5.00	126.42	63.73	1.17	24	12	0	142	5	57
20+70.00	5.00	120.26	62.59	2.29	23	12	0	165	5	68
20+75.00	5.00	109.54	61.55	5.32	21	11	1	186	6	77
20+80.00	5.00	101.59	61.60	8.32	20	11	1	206	8	85
20+85.00	5.00	95.22	62.79	3.51	18	12	1	224	9	89
20+90.00	5.00	88.00	62.58	2.26	17	12	1	241	10	93
20+95.00	5.00	80.50	45.45	1.28	16	10	0	257	10	99
21+00.00	5.00	74.94	28.68	0.83	14	7	0	271	10	106
21+05.00	5.00	68.83	27.78	0.31	13	5	0	284	10	114
21+10.00	5.00	64.42	25.40	0.25	12	5	0	296	10	121
21+15.00	5.00	58.82	23.63	0.40	11	5	0	307	10	127
21+20.00	5.00	54.58	20.11	0.41	10	4	0	317	10	133
21+25.00	5.00	50.94	19.62	0.21	10	4	0	327	10	139
21+30.00	5.00	47.28	19.26	0.24	9	4	0	336	10	144
21+35.00	5.00	43.35	19.02	0.22	8	4	0	344	10	148
21+40.00	5.00	39.38	18.64	0.28	8	3	0	352	10	153
21+45.00	5.00	33.77	10.42	0.44	7	3	0	359	10	157
21+50.00	5.00	30.27	9.99	0.62	6	2	0	365	10	161
21+55.00	5.00	27.72	9.56	0.78	5	2	0	370	10	164
21+60.00	5.00	26.26	9.13	1.18	5	2	0	375	10	167
21+61.30	1.30	26.01	9.02	1.33	1	0	0	376	10	168

DIVISION 3 - RECONSTRUCT - RCST-CLARK E

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
30+12.00	0.00	0.08	0.01	0.00	0	0	0	0	0	0
30+15.00	3.00	23.41	1.53	0.00	1	0	0	1	0	1
30+20.00	5.00	62.94	4.09	0.00	8	1	0	9	0	8
30+25.00	5.00	102.96	6.64	0.00	15	1	0	24	0	22
30+30.00	5.00	143.96	9.20	0.00	23	1	0	47	0	44
30+35.00	5.00	153.06	11.75	0.00	28	2	0	75	0	70
30+40.00	5.00	138.40	14.31	0.00	27	2	0	102	0	95
30+42.02	2.02	134.14	15.34	0.01	10	1	0	112	0	104
30+46.99	4.97	70.98	16.84	0.33	19	3	0	131	0	120
30+47.09	0.10	70.72	16.61	0.34	0	0	0	131	0	120
30+55.21	8.12	62.03	14.95	0.01	20	5	0	151	0	135
30+95.21	40.00	31.22	9.09	0.11	69	18	0	220	0	186
31+30.00	34.79	27.77	8.91	0.64	38	12	0	258	0	212

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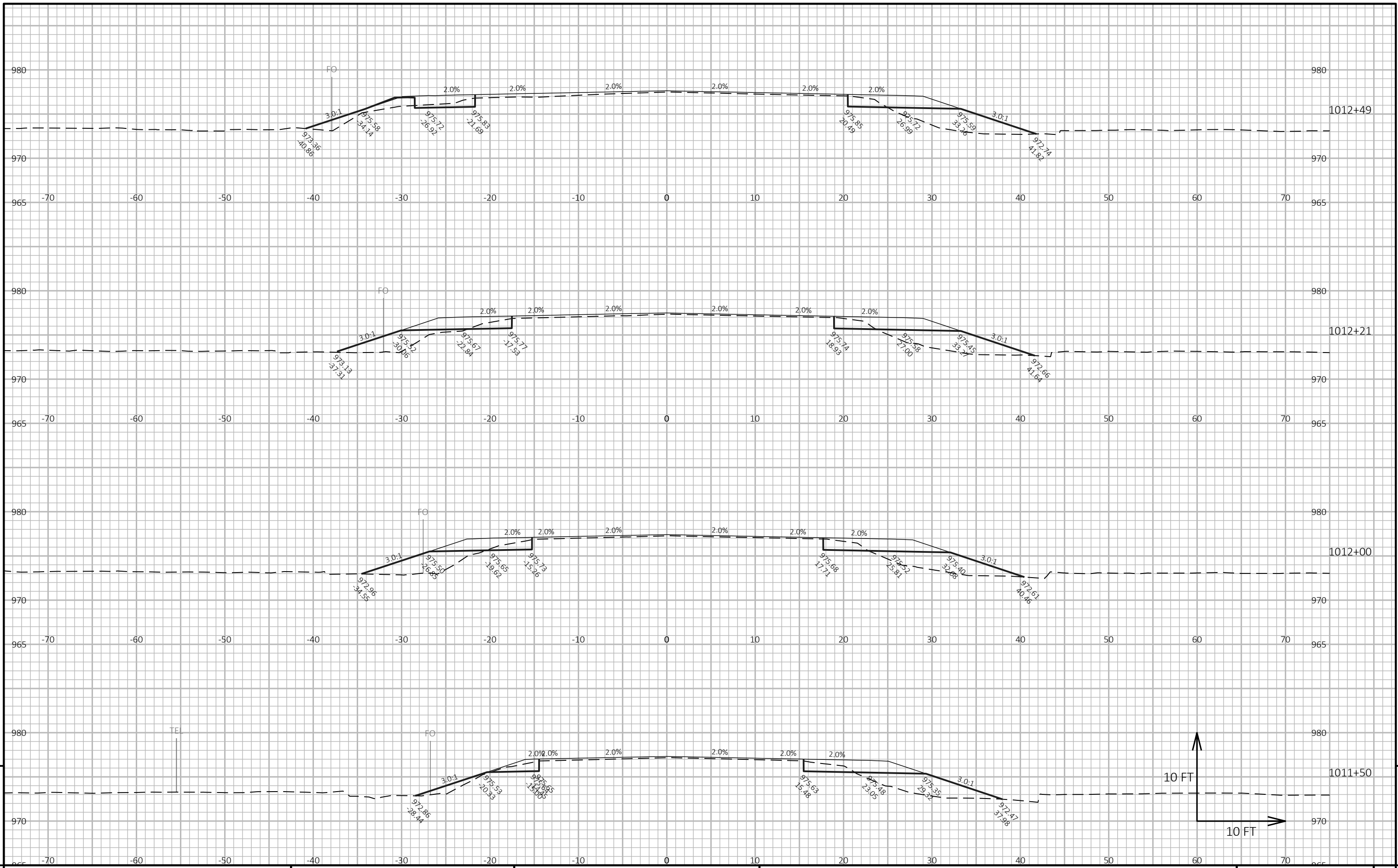
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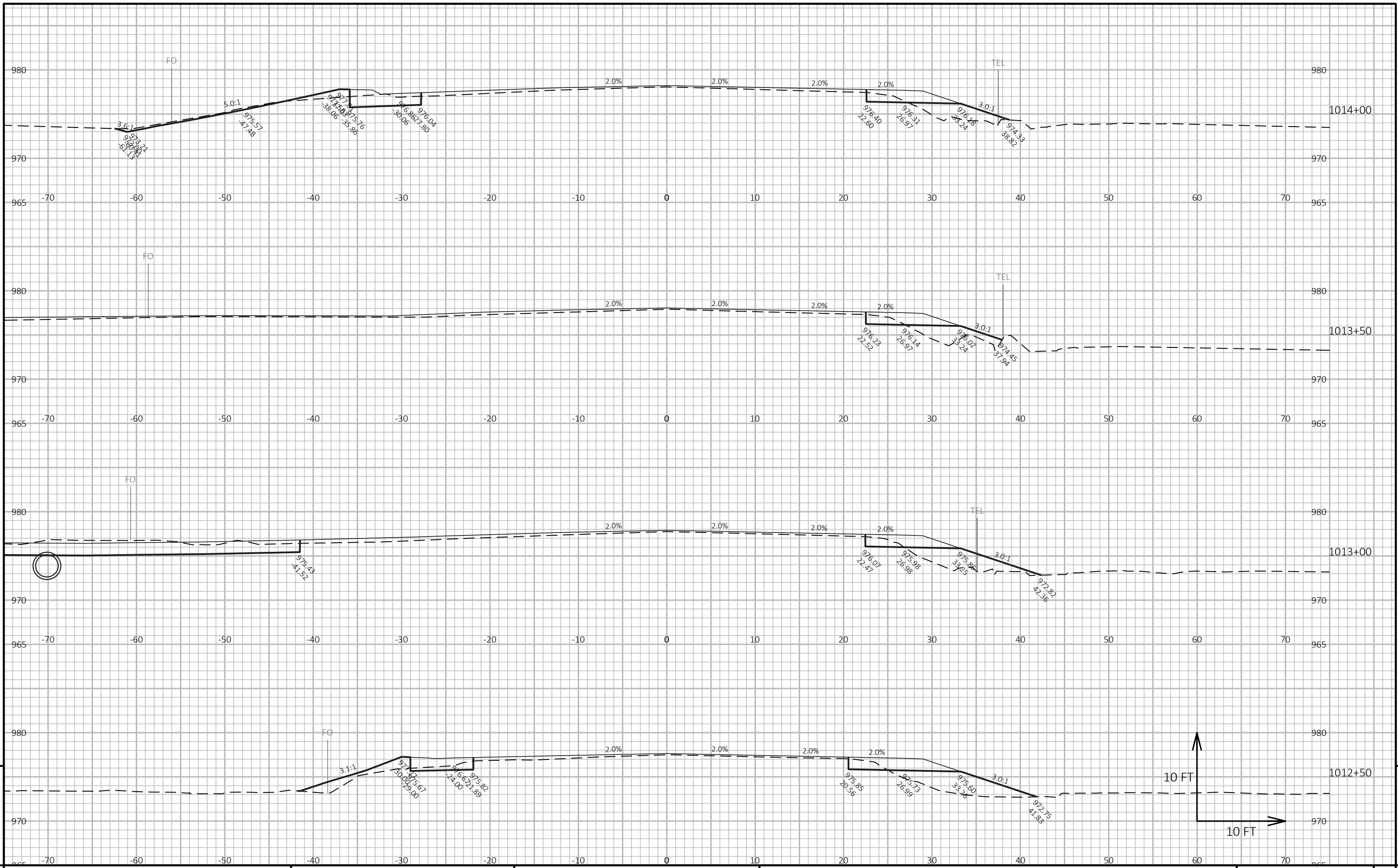
PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80 STH 173 S INTERSECTION (FOR INFORMATION ONLY)      SHEET      E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090101-XS-80-173S.DWG      PLOT DATE : 4/26/2023 7:53 AM      PLOT BY : ADAM OSYPOWSKI      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 173-1



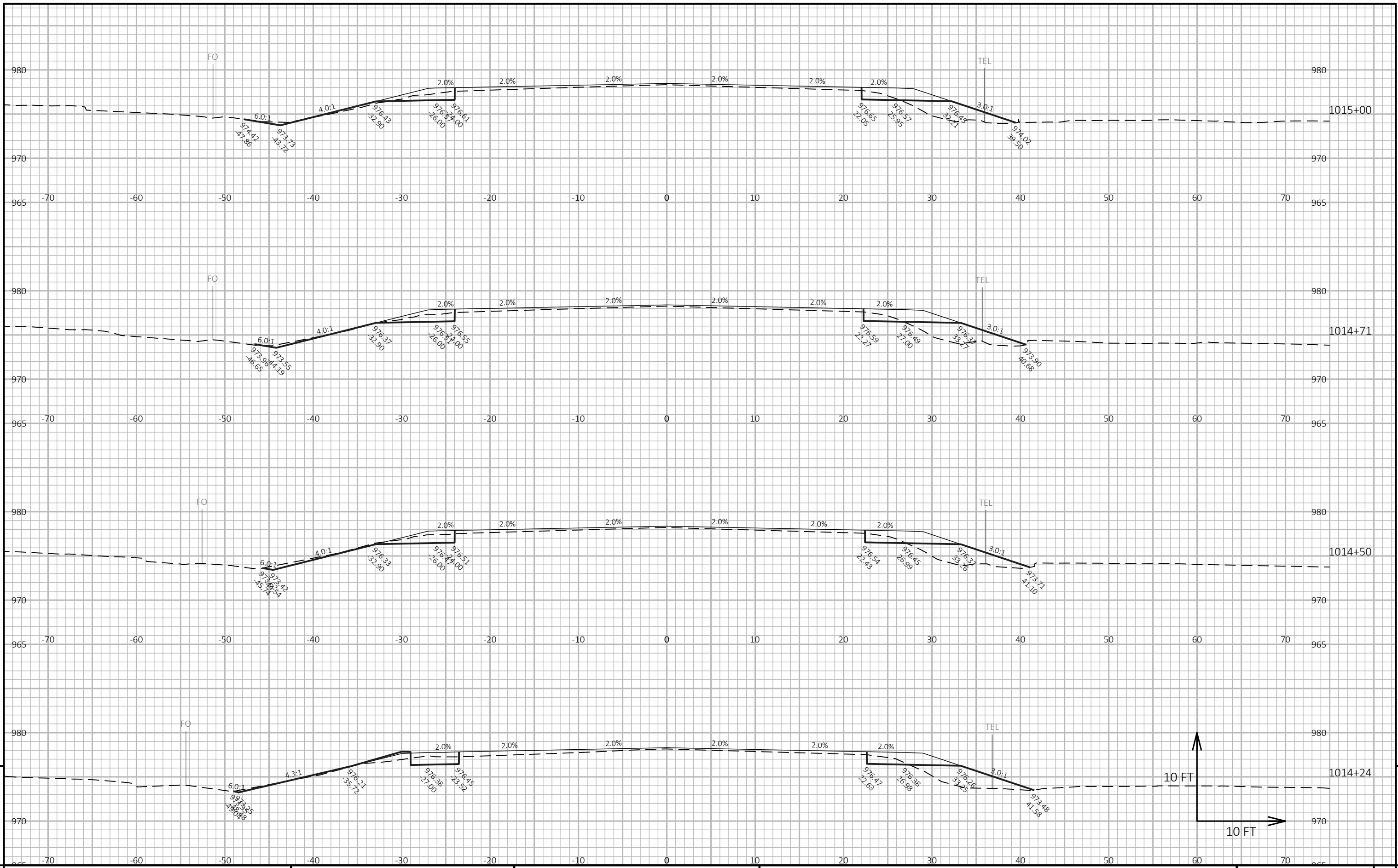
PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	CROSS SECTIONS: STH 80 STH 173 S INTERSECTION (FOR INFORMATION ONLY)	SHEET	<b>9</b>
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9

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PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	CROSS SECTIONS: STH 80 STH 173 S INTERSECTION (FOR INFORMATION ONLY)	SHEET E
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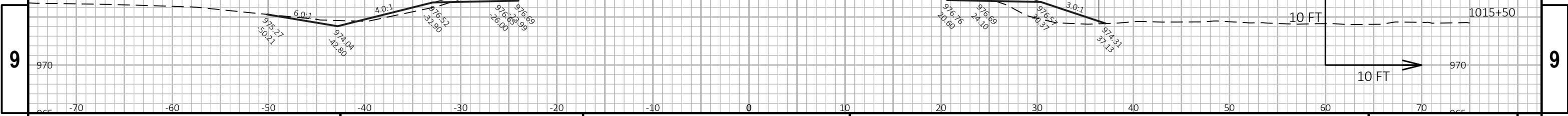
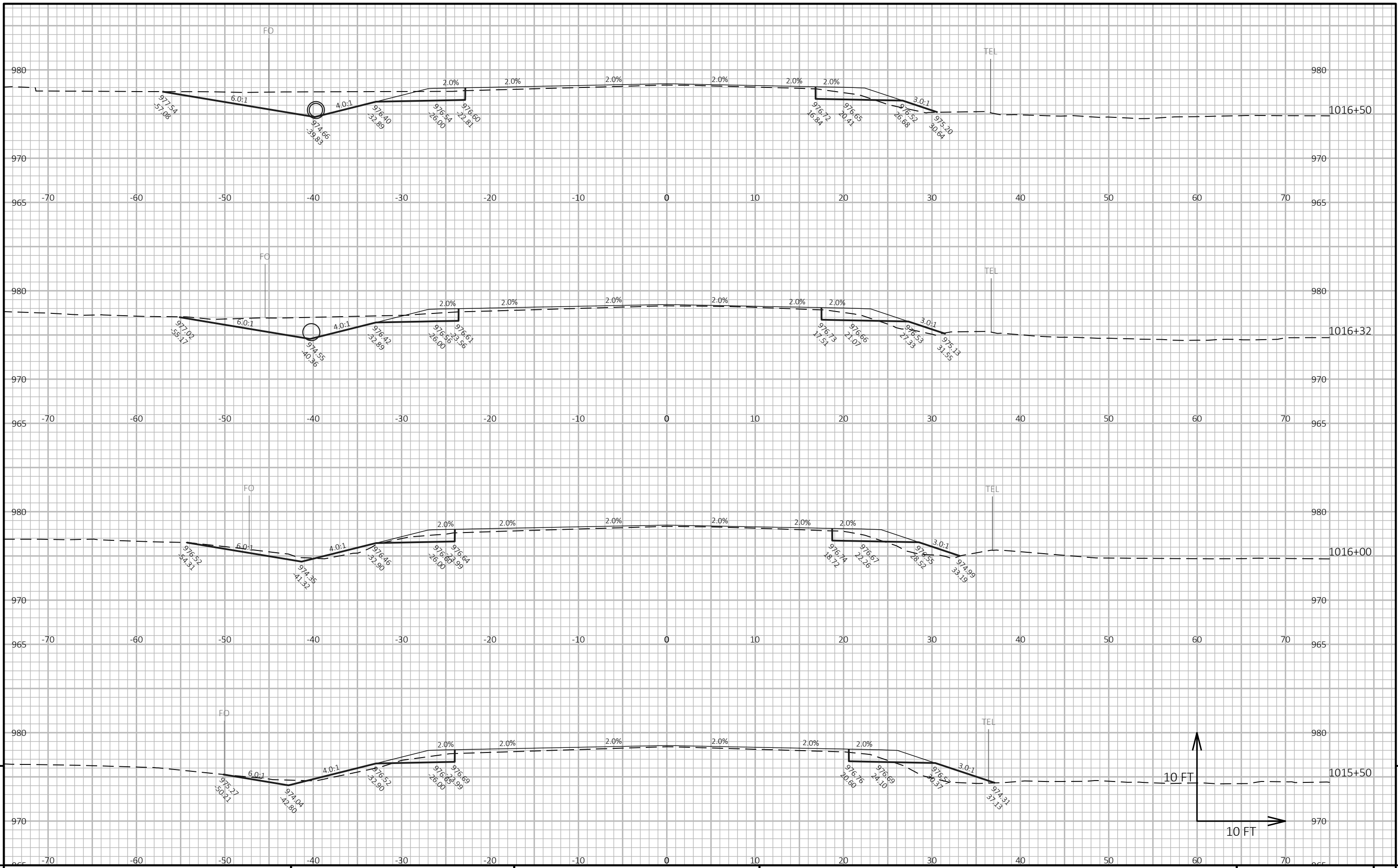
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PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80 STH 173 S INTERSECTION (FOR INFORMATION ONLY)      SHEET      E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090101-XS-80-173S.DWG      PLOT DATE : 4/26/2023 7:53 AM      PLOT BY : ADAM OSYPOWSKI      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

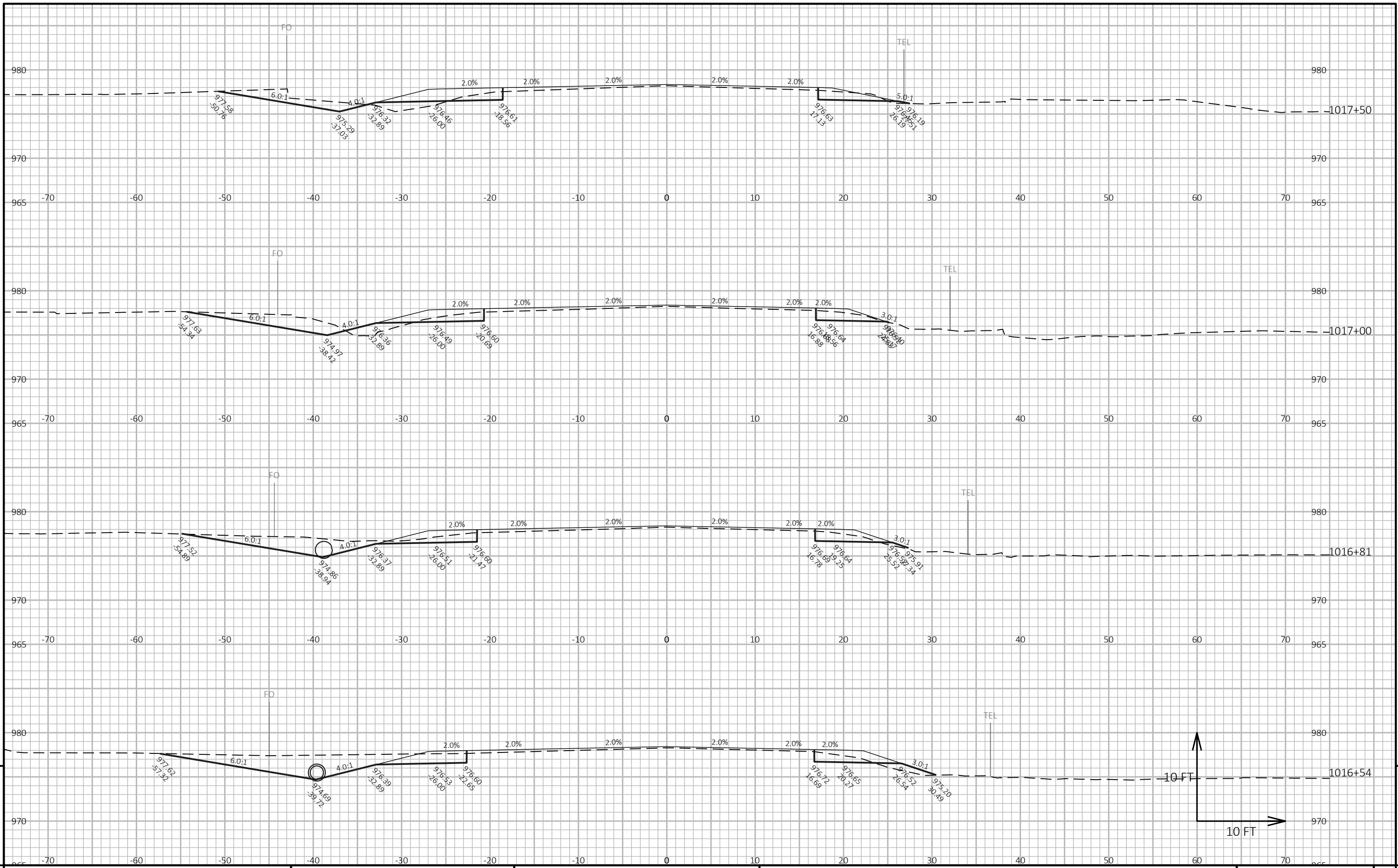
LAYOUT NAME - 173-4



PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80 STH 173 S INTERSECTION (FOR INFORMATION ONLY)      SHEET 9

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090101-XS-80-173S.DWG      PLOT DATE : 4/26/2023 7:53 AM      PLOT BY : ADAM OSYPOWSKI      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

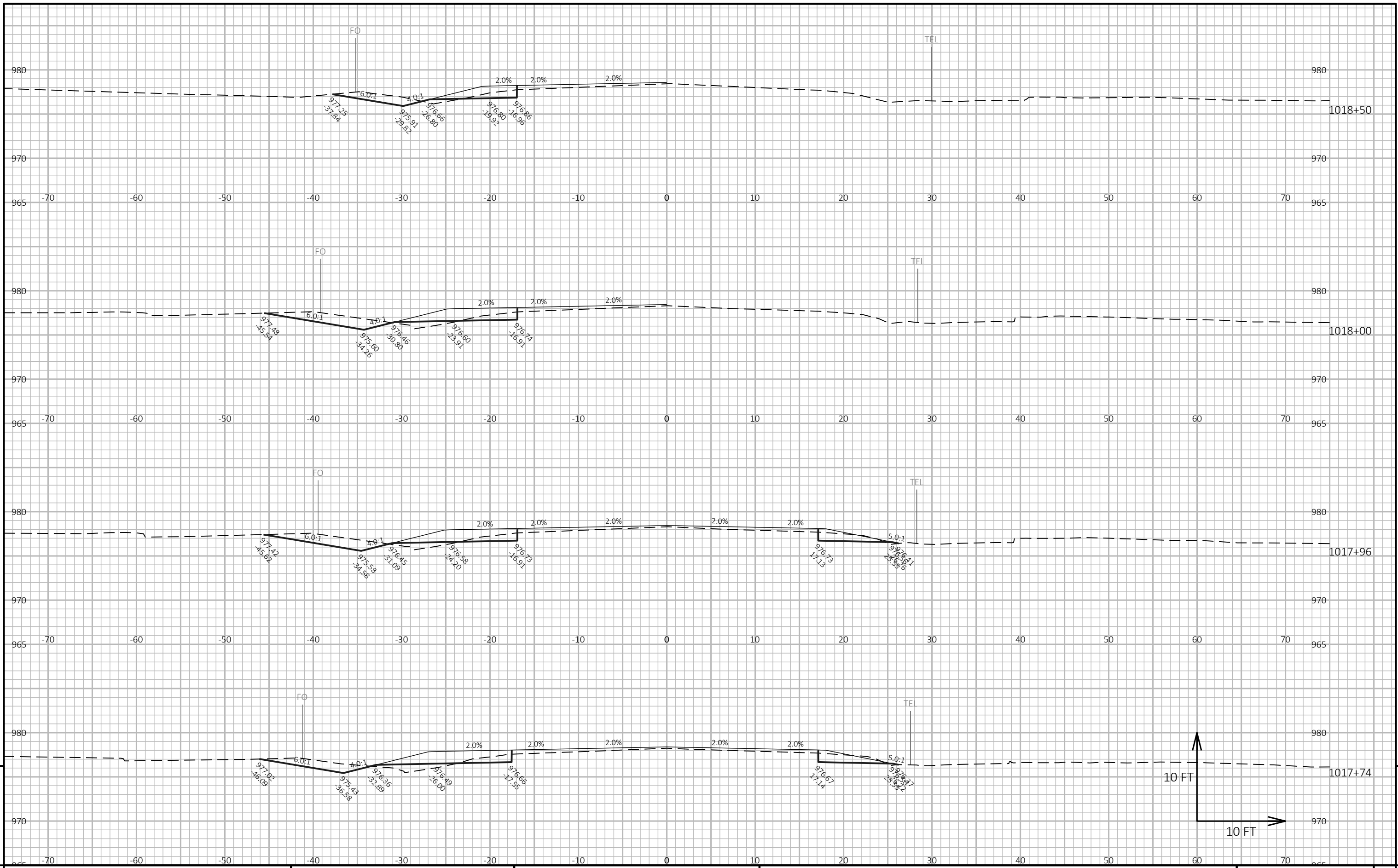
LAYOUT NAME - 173-5



9

9

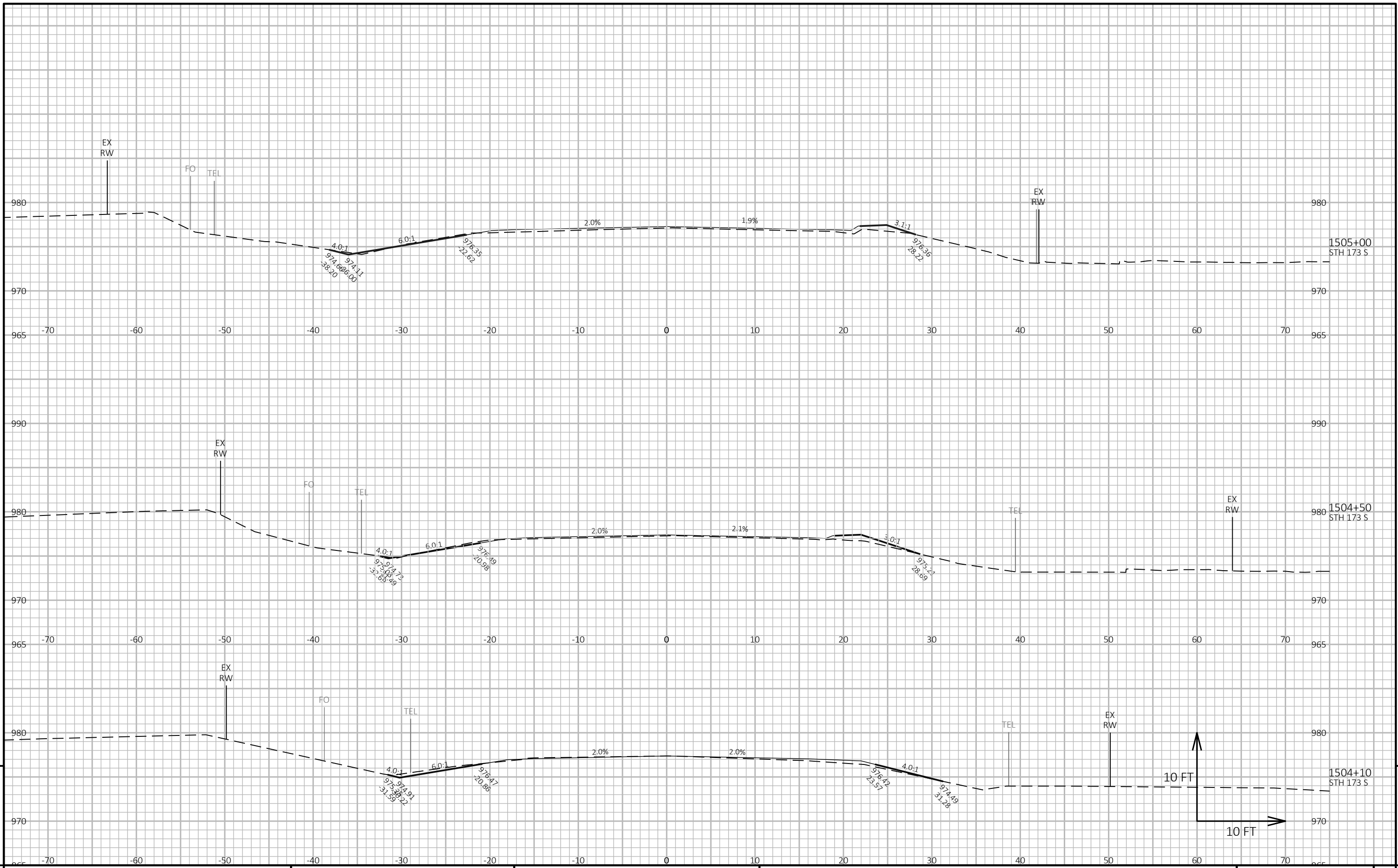
PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	CROSS SECTIONS: STH 80 STH 173 S INTERSECTION (FOR INFORMATION ONLY)	SHEET	E
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9

9

PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	CROSS SECTIONS: STH 80 STH 173 S INTERSECTION (FOR INFORMATION ONLY)	SHEET E
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9

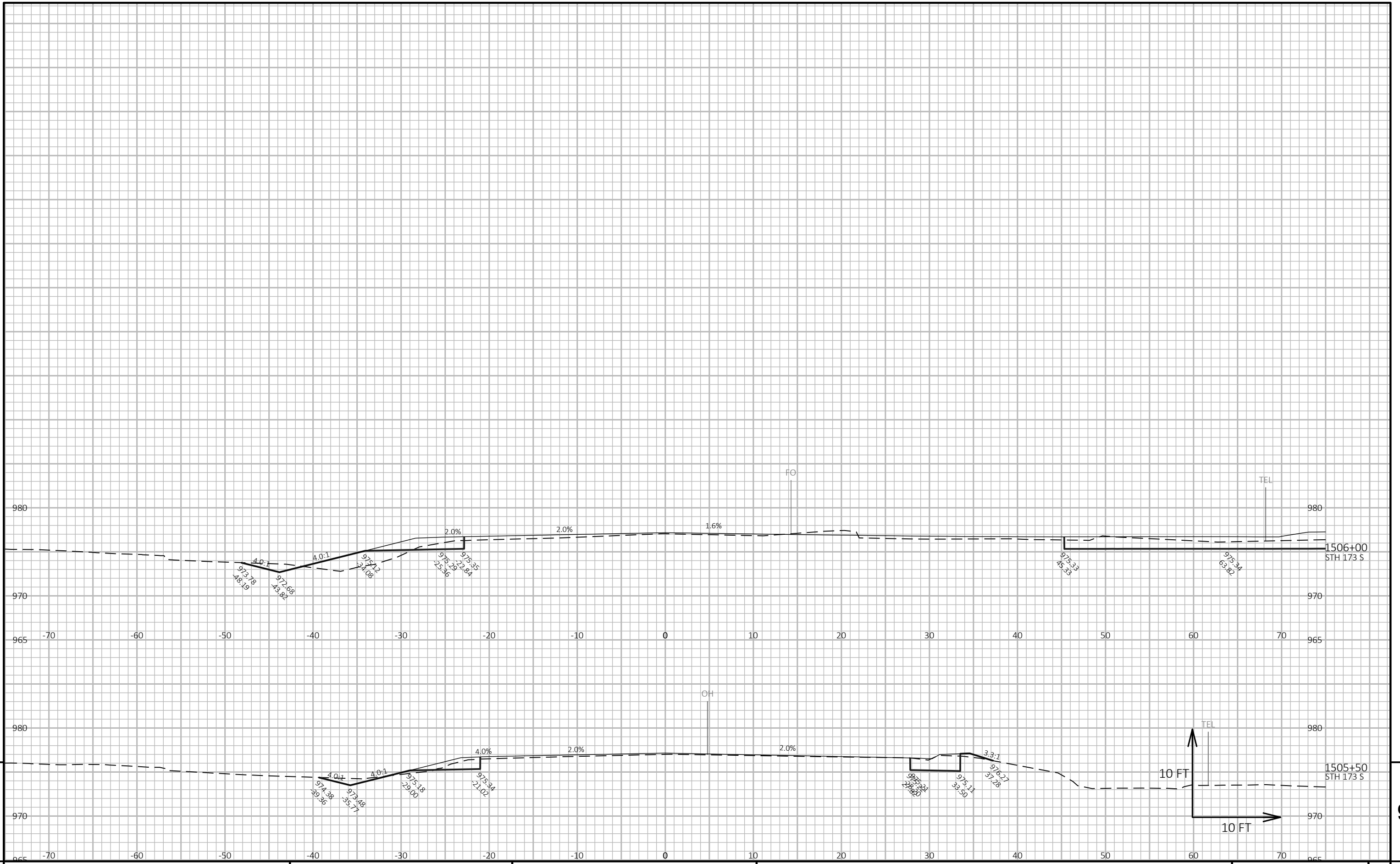
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PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80 STH 173 S INTERSECTION (FOR INFORMATION ONLY)      SHEET      E

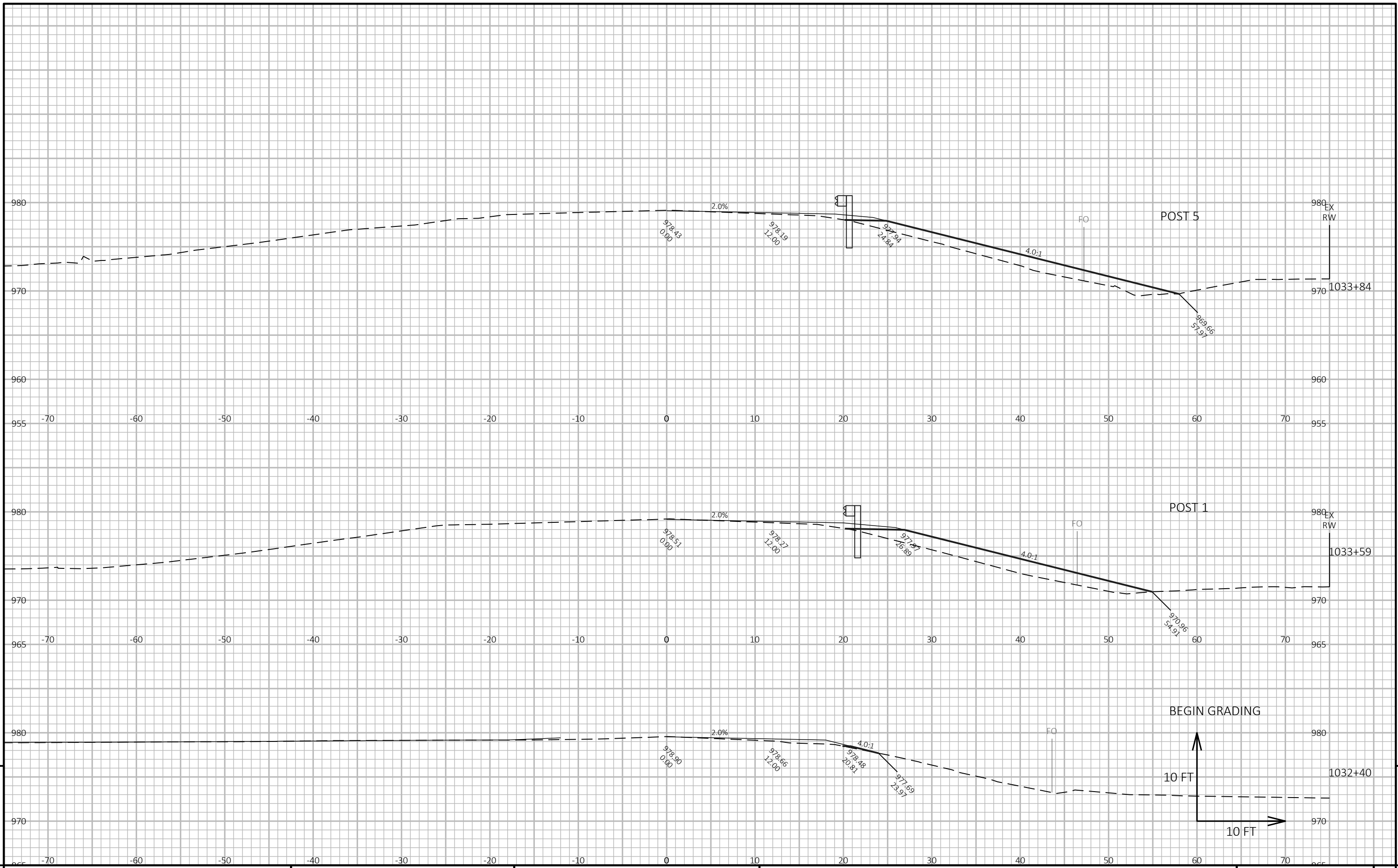
FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090101-XS-80-173S.DWG      PLOT DATE : 4/26/2023 7:54 AM      PLOT BY : ADAM OSYPOWSKI      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 173INT-1

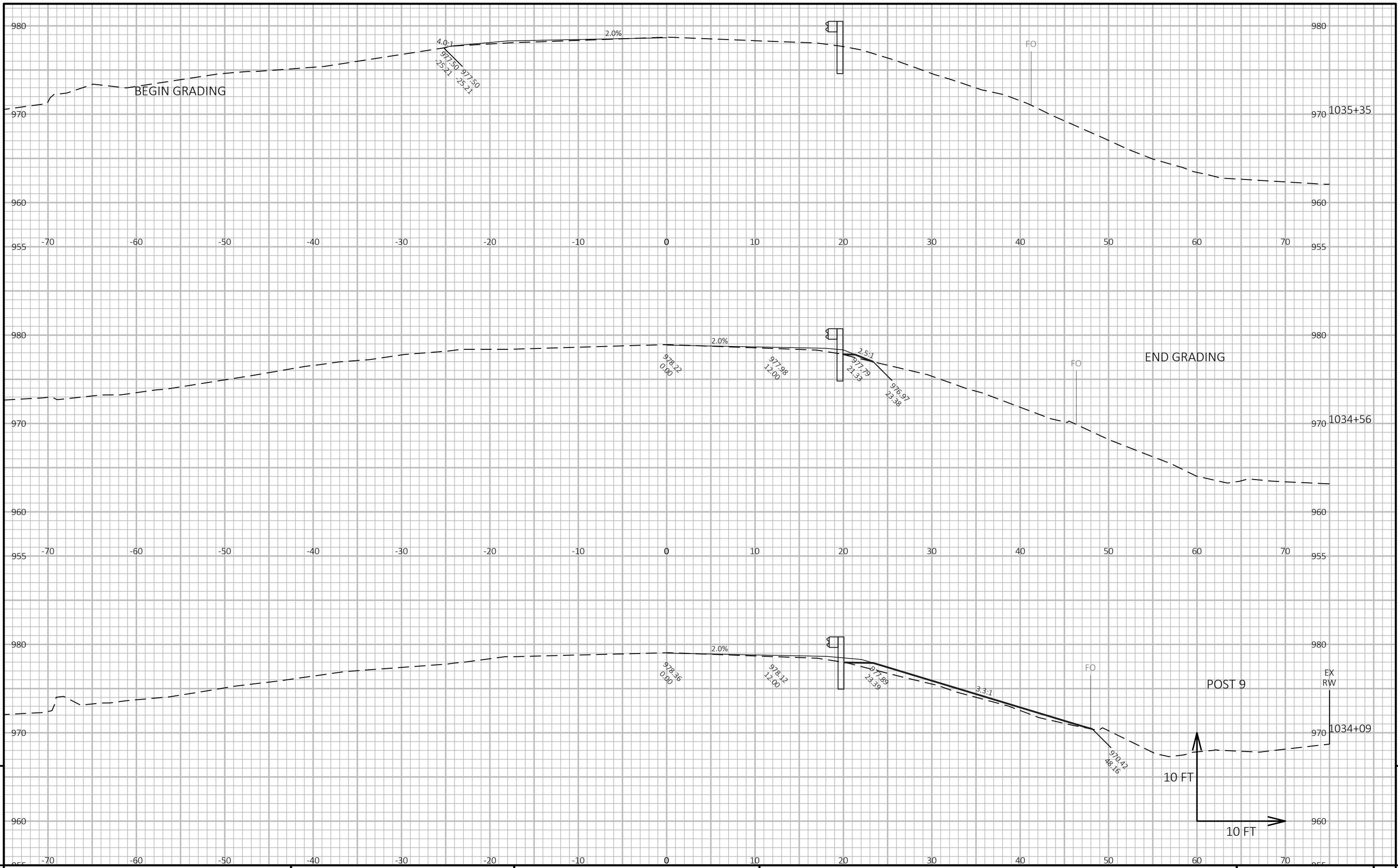




<b>9</b>	PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	CROSS SECTIONS: STH 80 STH 173 S INTERSECTION (FOR INFORMATION ONLY)	SHEET	<b>9</b>
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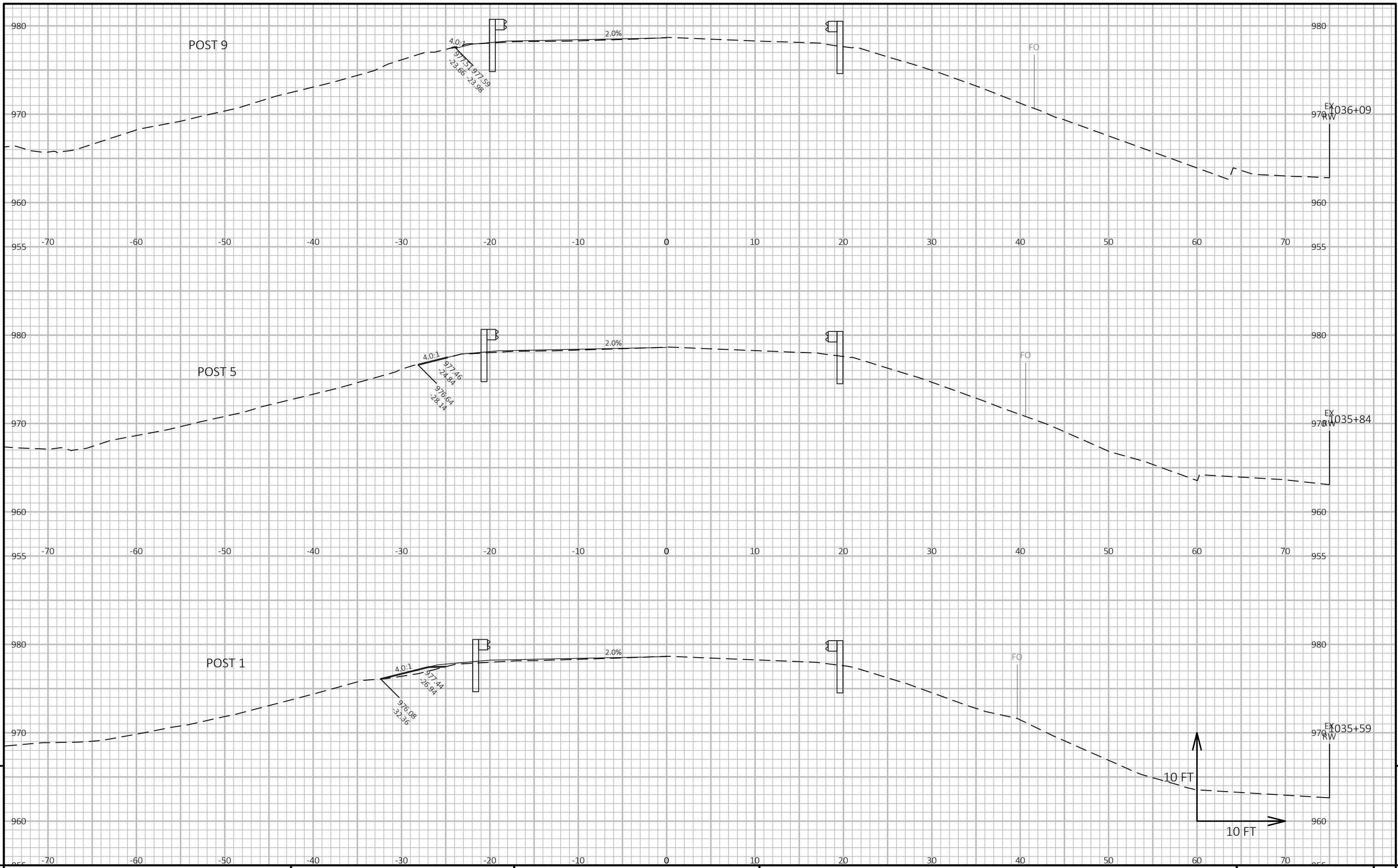
PROJECT NO: 1620-02-76 HWY: STH 80 COUNTY: WOOD CROSS SECTIONS: STH 80 - YELLOW RIVER GUARDRAIL SHEET E



9

9

PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	CROSS SECTIONS: STH 80 - YELLOW RIVER GUARDRAIL	SHEET	E
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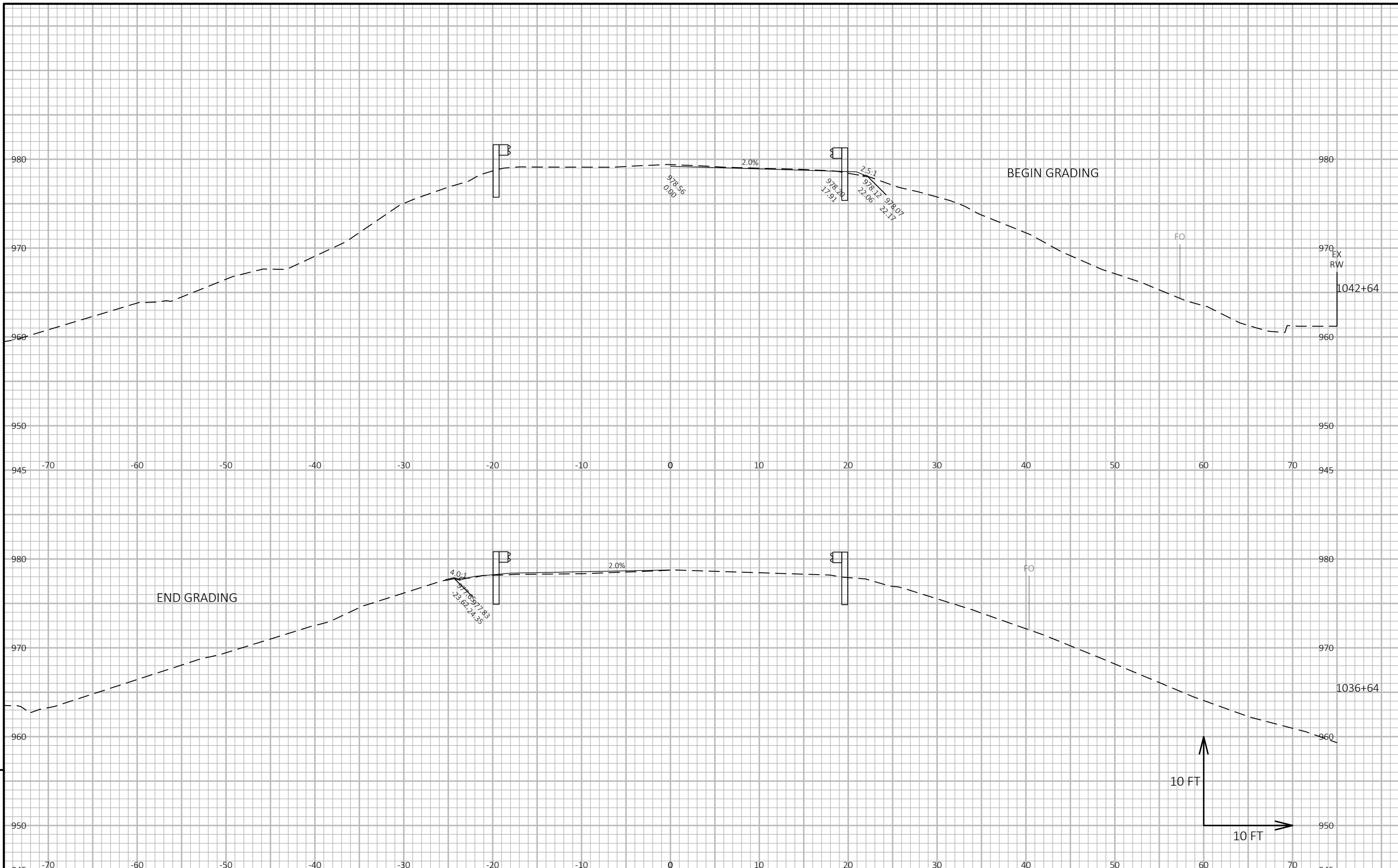
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PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80 - YELLOW RIVER GUARDRAIL      SHEET      E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090102-XS-80-RAIL.DWG      PLOT DATE : 4/26/2023 8:14 AM      PLOT BY : ADAM OSYPOWSKI      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 22



9

9

PROJECT NO: 1620-02-76

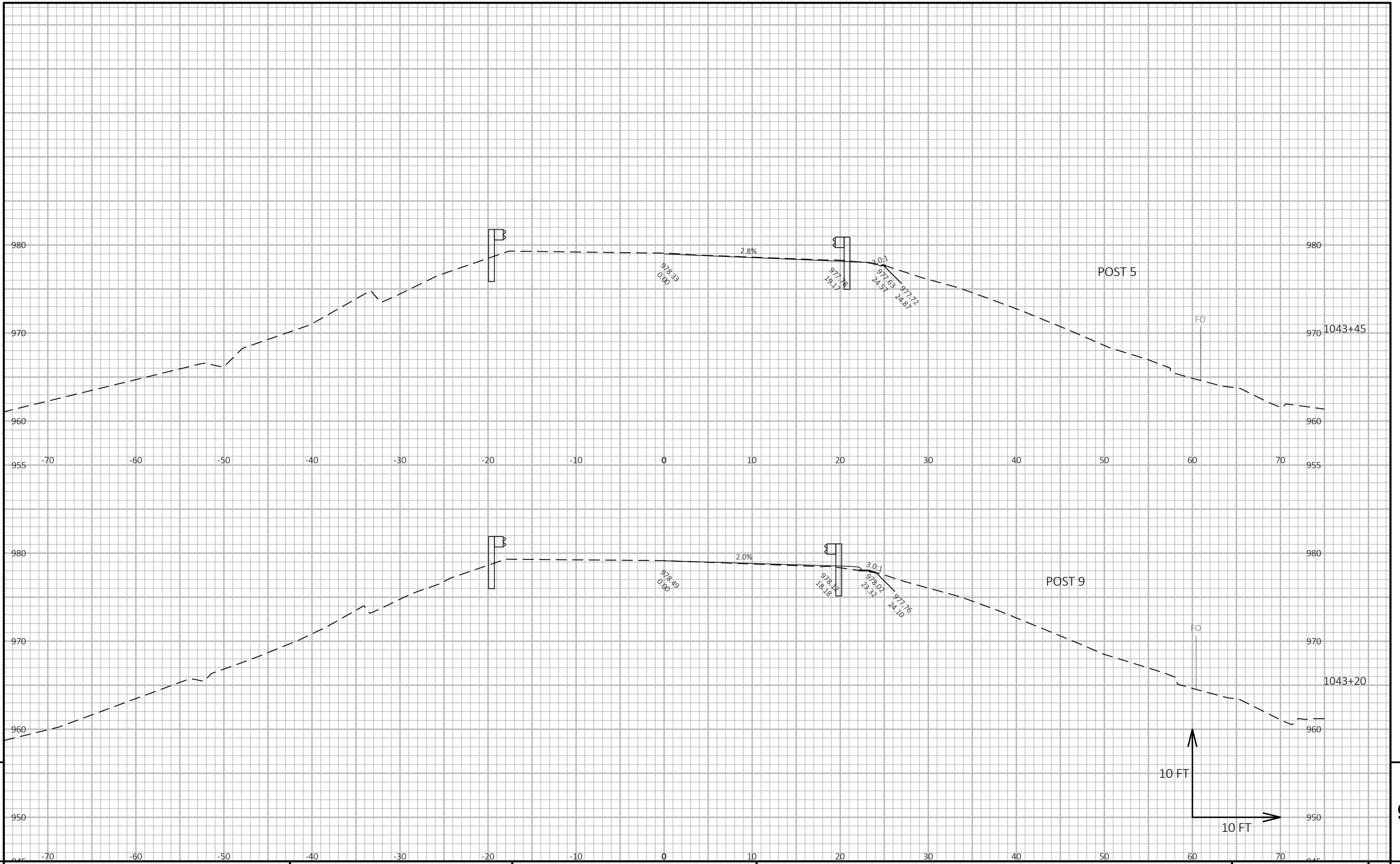
HWY: STH 80

COUNTY: WOOD

CROSS SECTIONS: STH 80 - YELLOW RIVER GUARDRAIL

SHEET

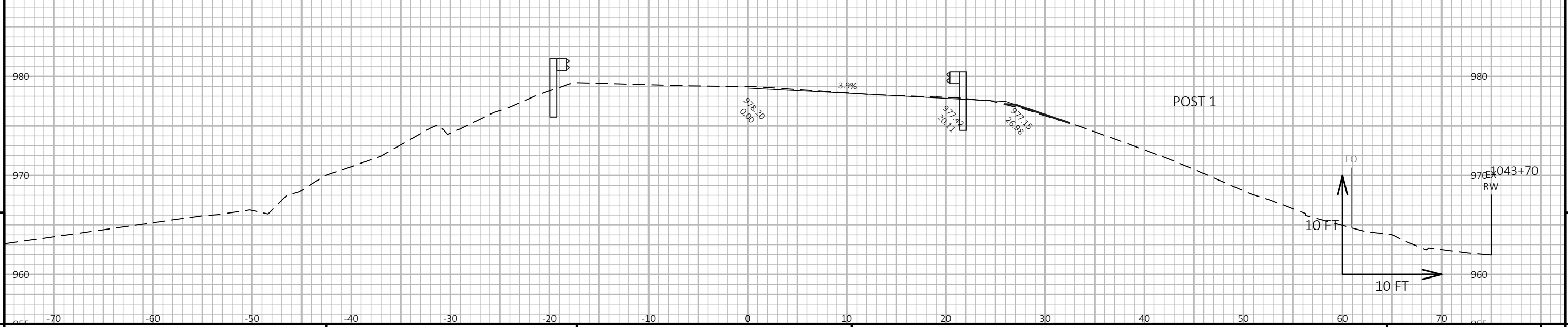
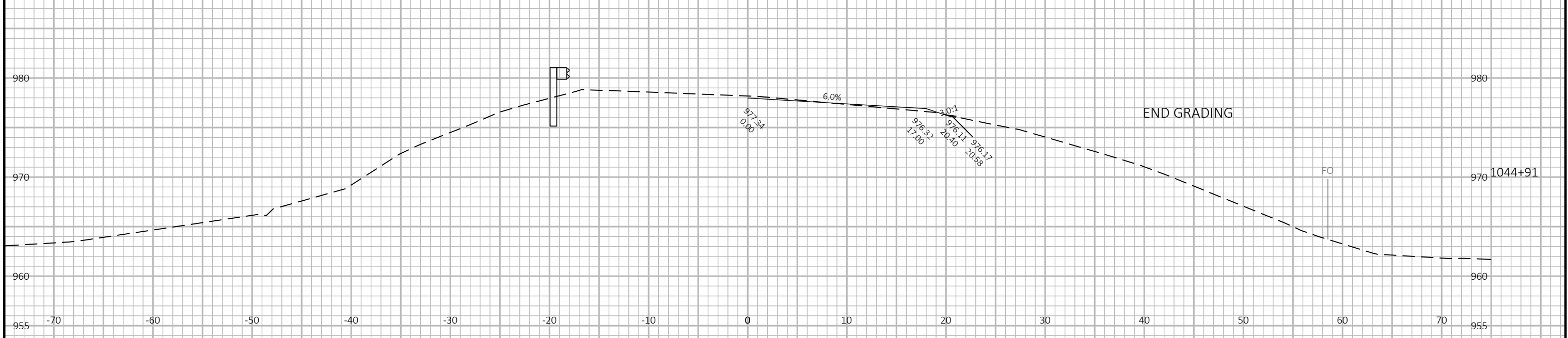
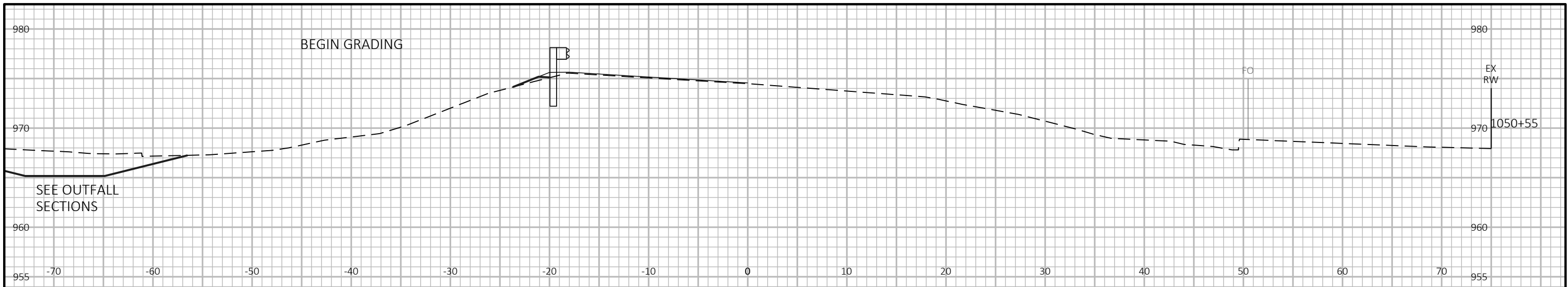
E



9

9

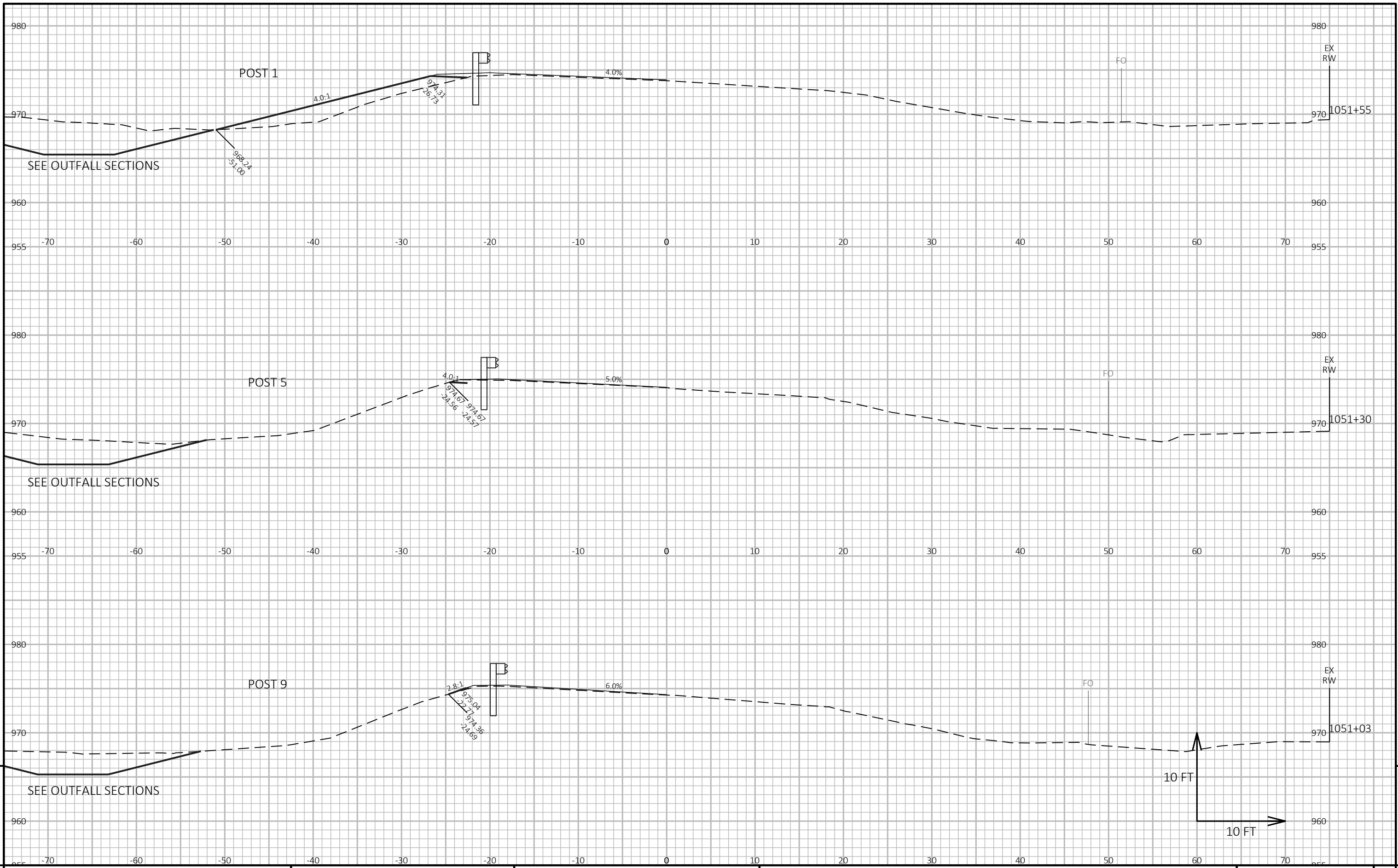
PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	CROSS SECTIONS: STH 80 - YELLOW RIVER GUARDRAIL	SHEET	E
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PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80 - YELLOW RIVER GUARDRAIL      SHEET      E

9

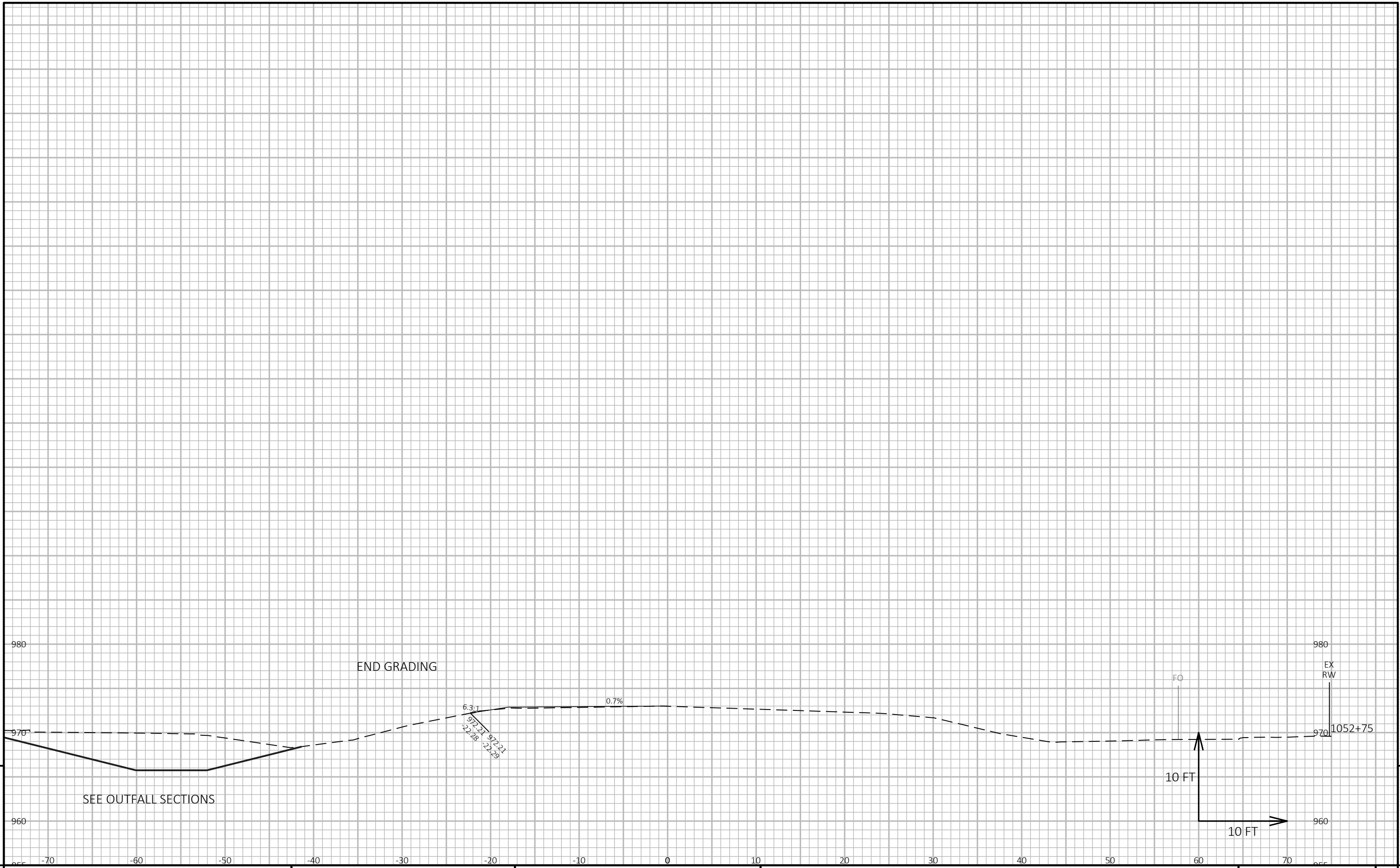
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PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80 - YELLOW RIVER GUARDRAIL      SHEET      E

9      9





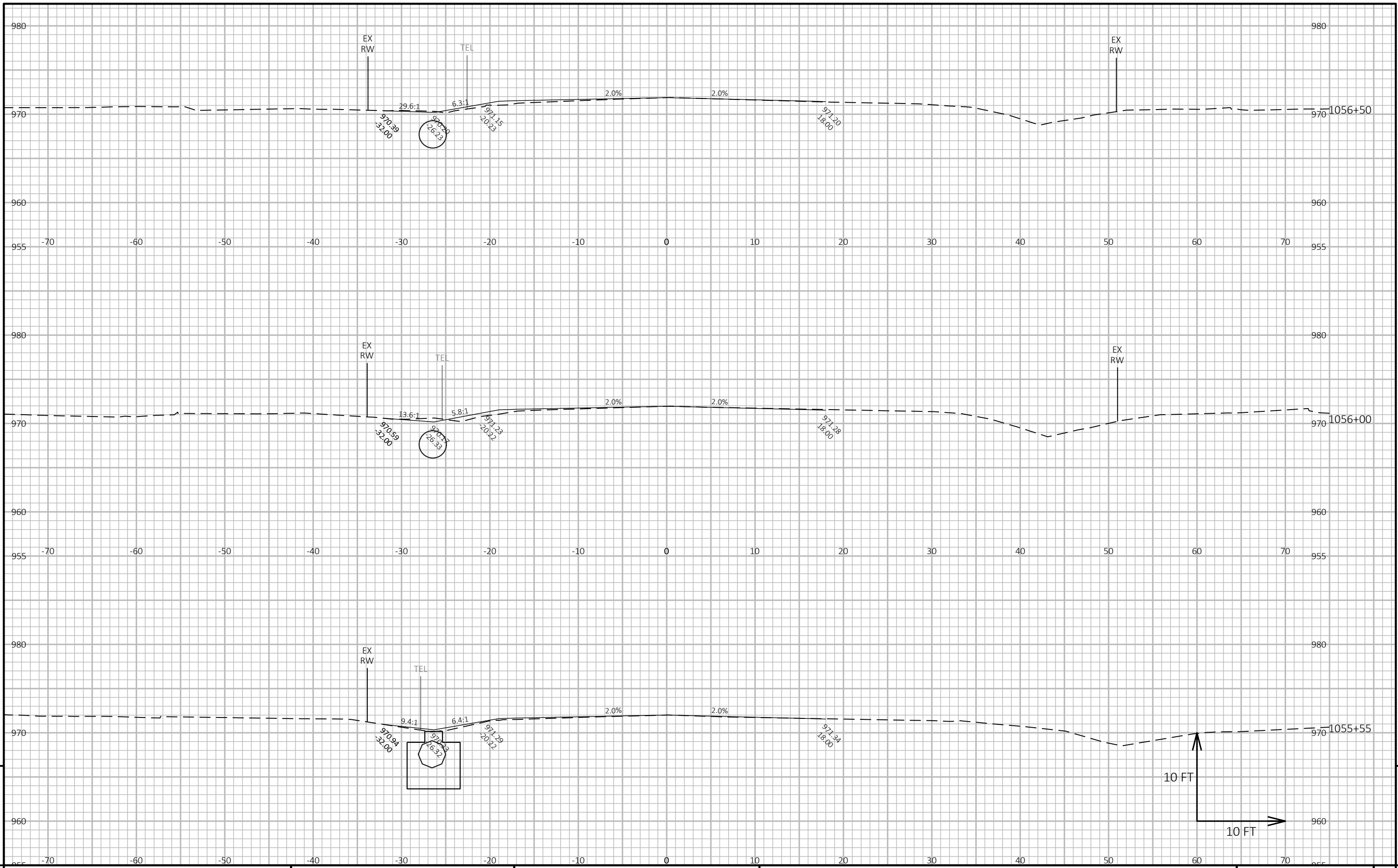
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9

PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	CROSS SECTIONS: STH 80 - YELLOW RIVER GUARDRAIL	SHEET	E
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FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090102-XS-80-RAIL.DWG PLOT DATE : 4/26/2023 8:15 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

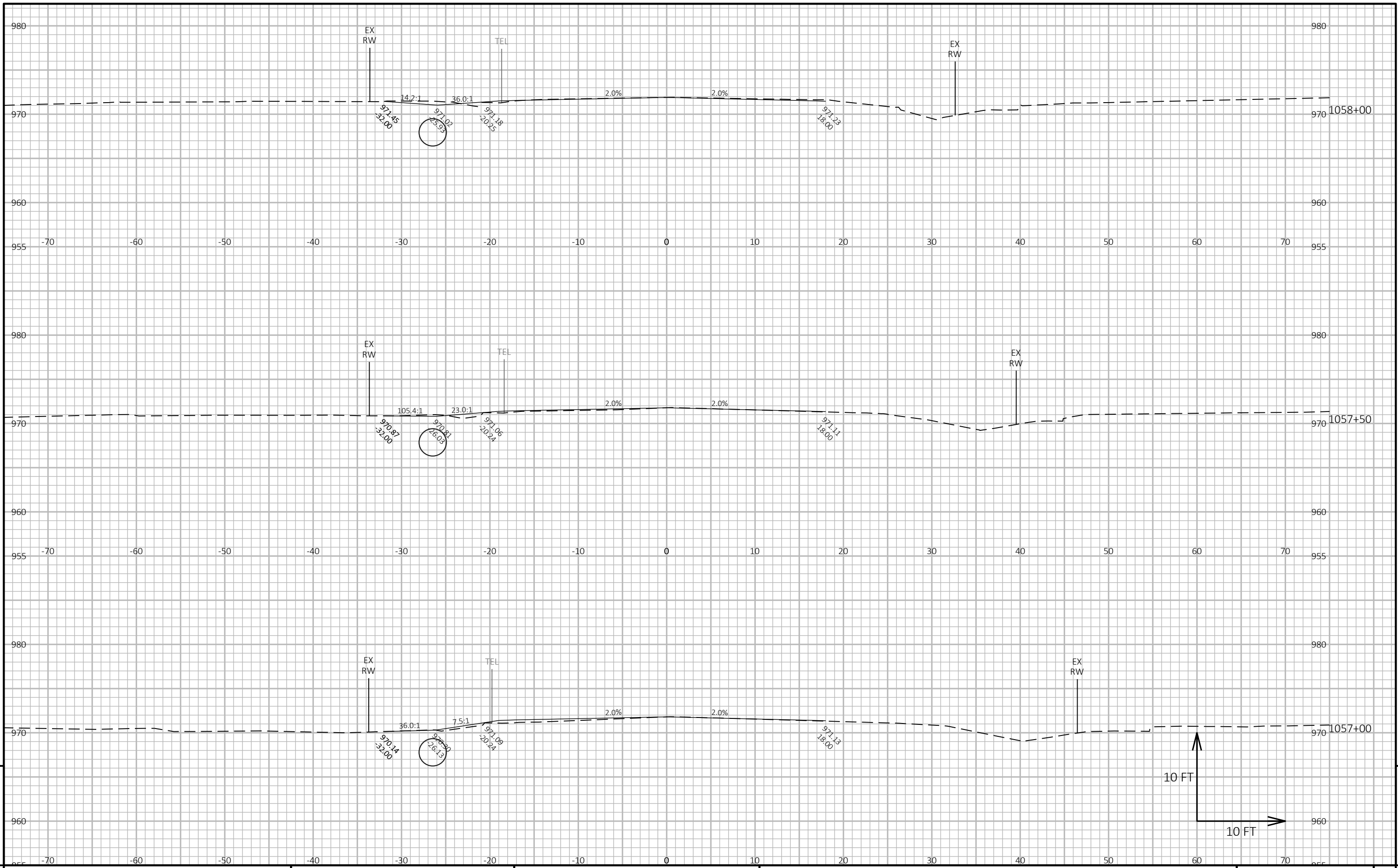
LAYOUT NAME - 27



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9

PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	CROSS SECTIONS: STH 80 - DITCH RESTORATION LT (FOR INFORMATION ONLY)	SHEET	E
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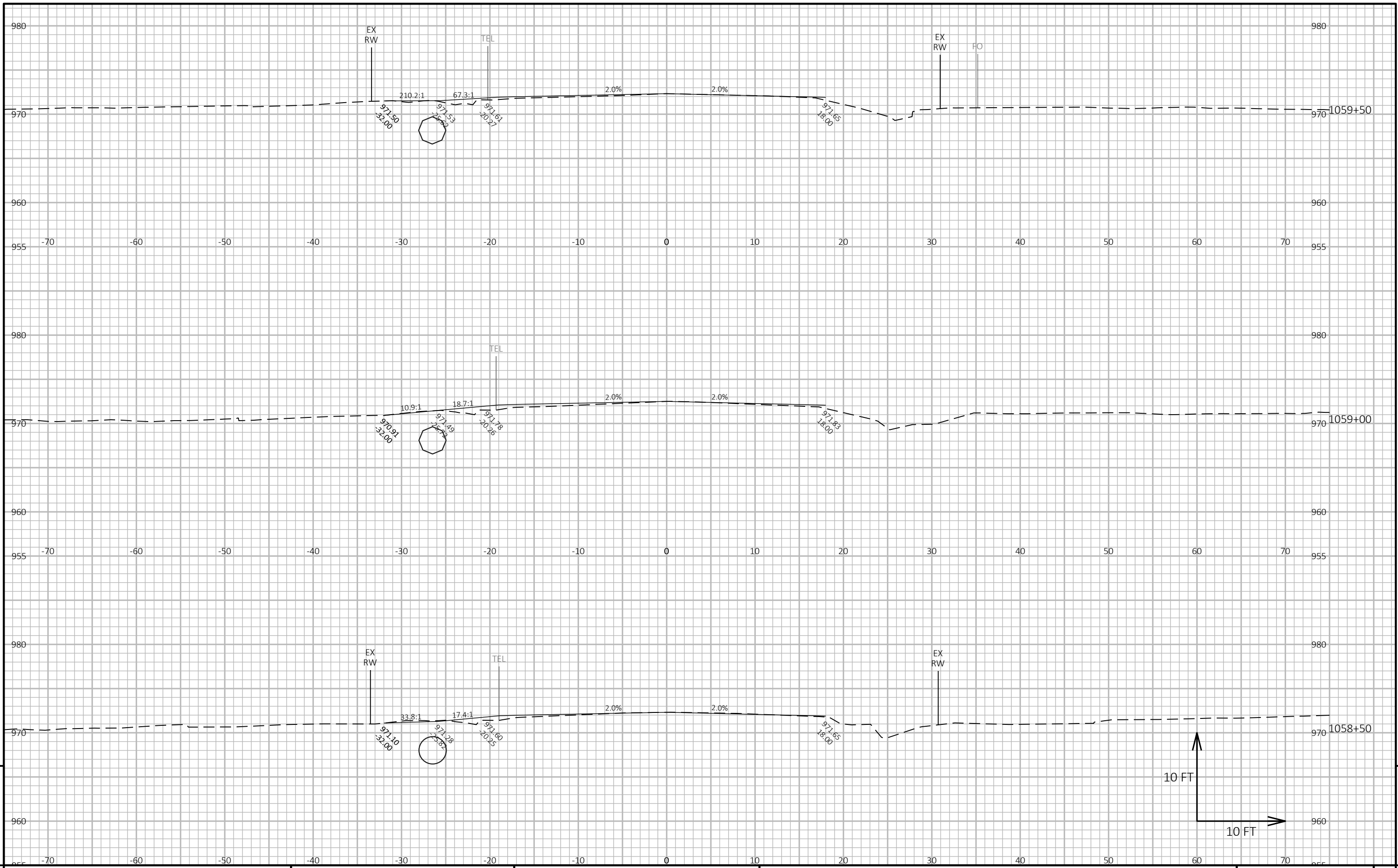
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PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80 - DITCH RESTORATION LT (FOR INFORMATION ONLY)      SHEET      E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090103-XS-80-DITCHT.DWG      PLOT DATE : 4/26/2023 8:20 AM      PLOT BY : ADAM OSYPOWSKI      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 13



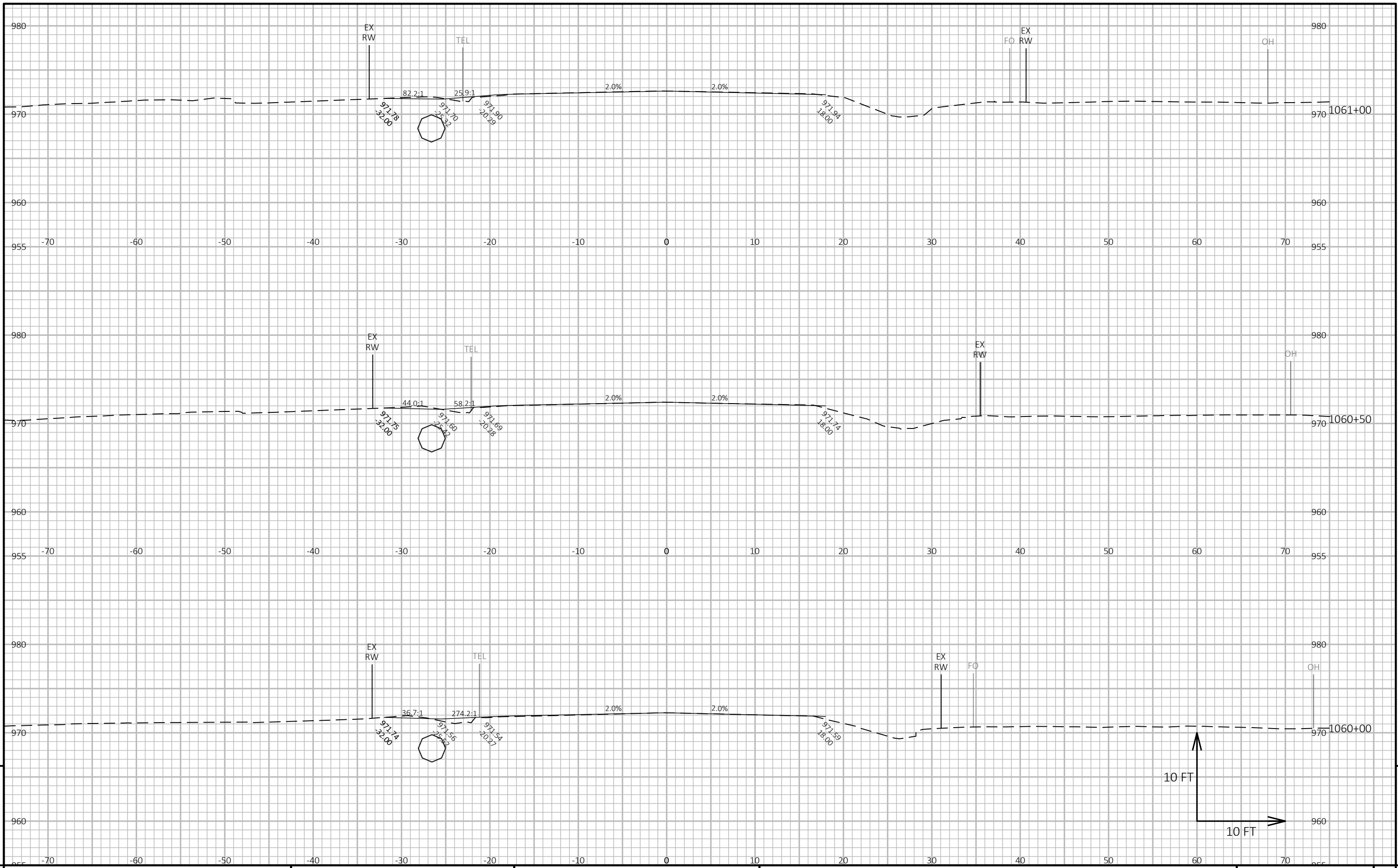
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PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80 - DITCH RESTORATION LT (FOR INFORMATION ONLY)      SHEET      E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090103-XS-80-DITCHT.DWG      PLOT DATE : 4/26/2023 8:20 AM      PLOT BY : ADAM OSYPOWSKI      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 14



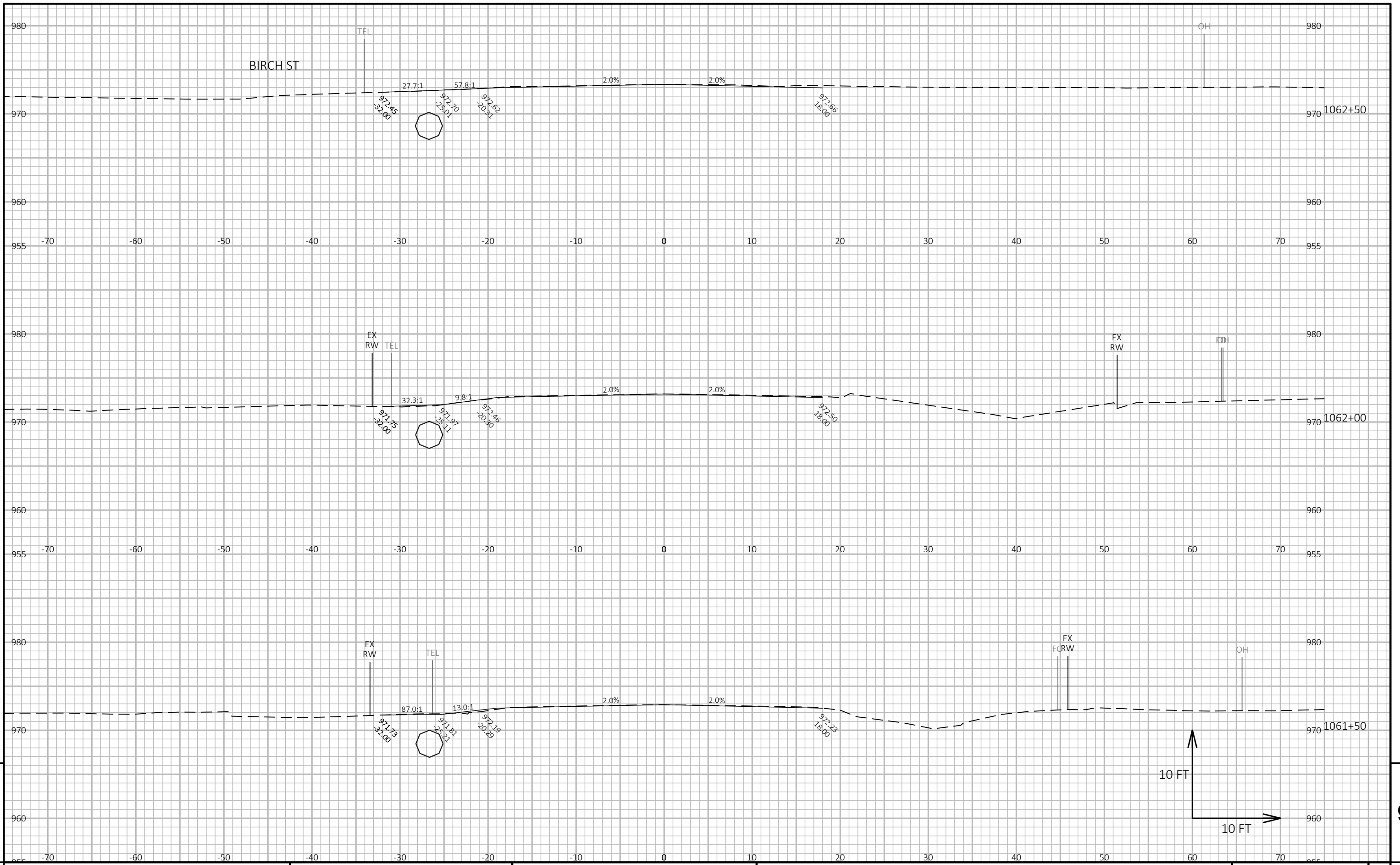
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9

PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80 - DITCH RESTORATION LT (FOR INFORMATION ONLY)      SHEET      E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090103-XS-80-DITCHT.DWG      PLOT DATE : 4/26/2023 8:20 AM      PLOT BY : ADAM OSYPOWSKI      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 15



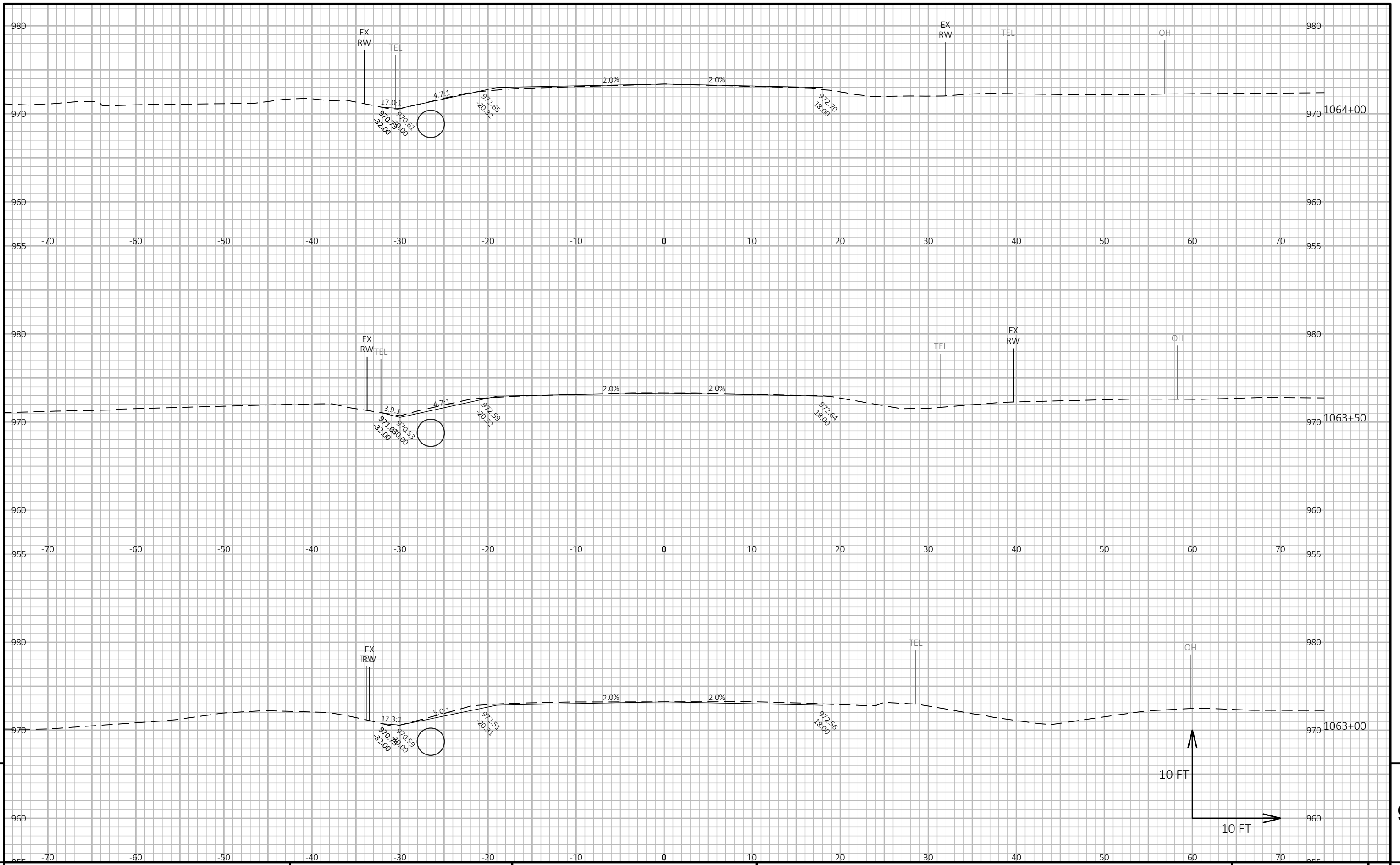
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PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80 - DITCH RESTORATION LT (FOR INFORMATION ONLY)      SHEET      E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090103-XS-80-DITCHT.DWG      PLOT DATE : 4/26/2023 8:20 AM      PLOT BY : ADAM OSYPOWSKI      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 16



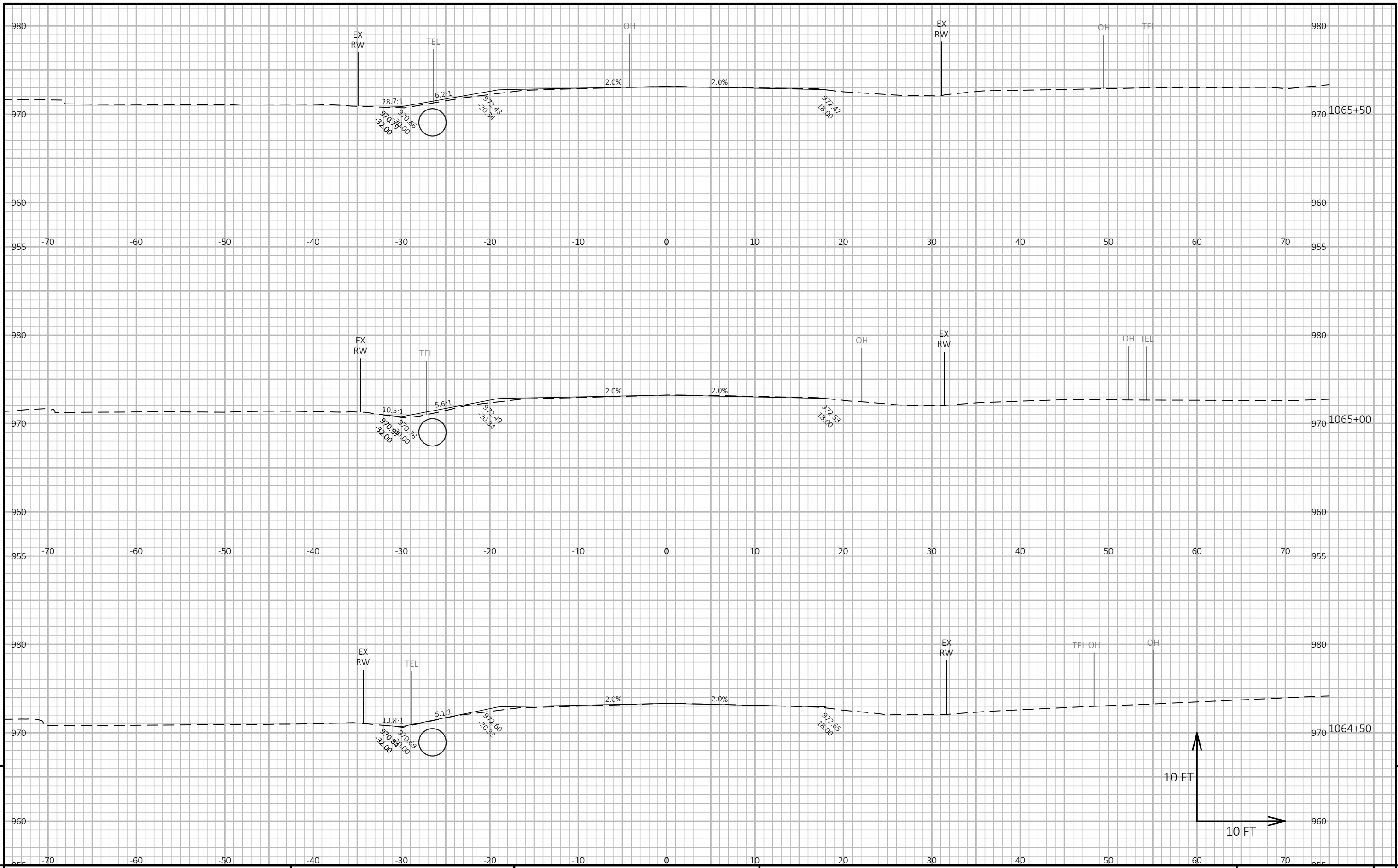
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PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	CROSS SECTIONS: STH 80 - DITCH RESTORATION LT (FOR INFORMATION ONLY)	SHEET	E
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FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090103-XS-80-DITCH.DWG PLOT DATE : 4/26/2023 8:21 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 17



9

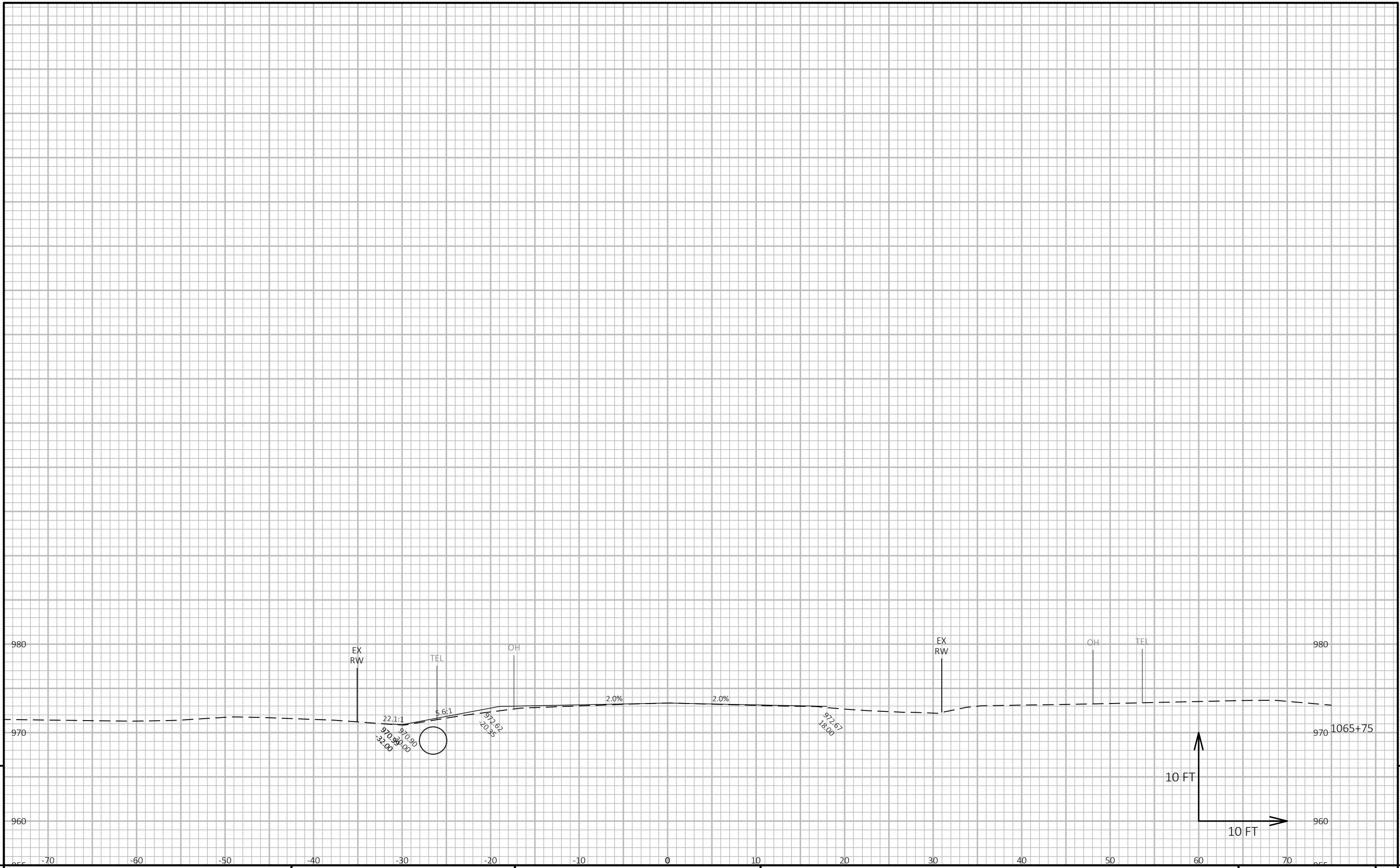
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PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80 - DITCH RESTORATION LT (FOR INFORMATION ONLY)      SHEET E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090103-XS-80-DITCH.DWG      PLOT DATE : 4/26/2023 8:21 AM      PLOT BY : ADAM OSYPOWSKI      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 18



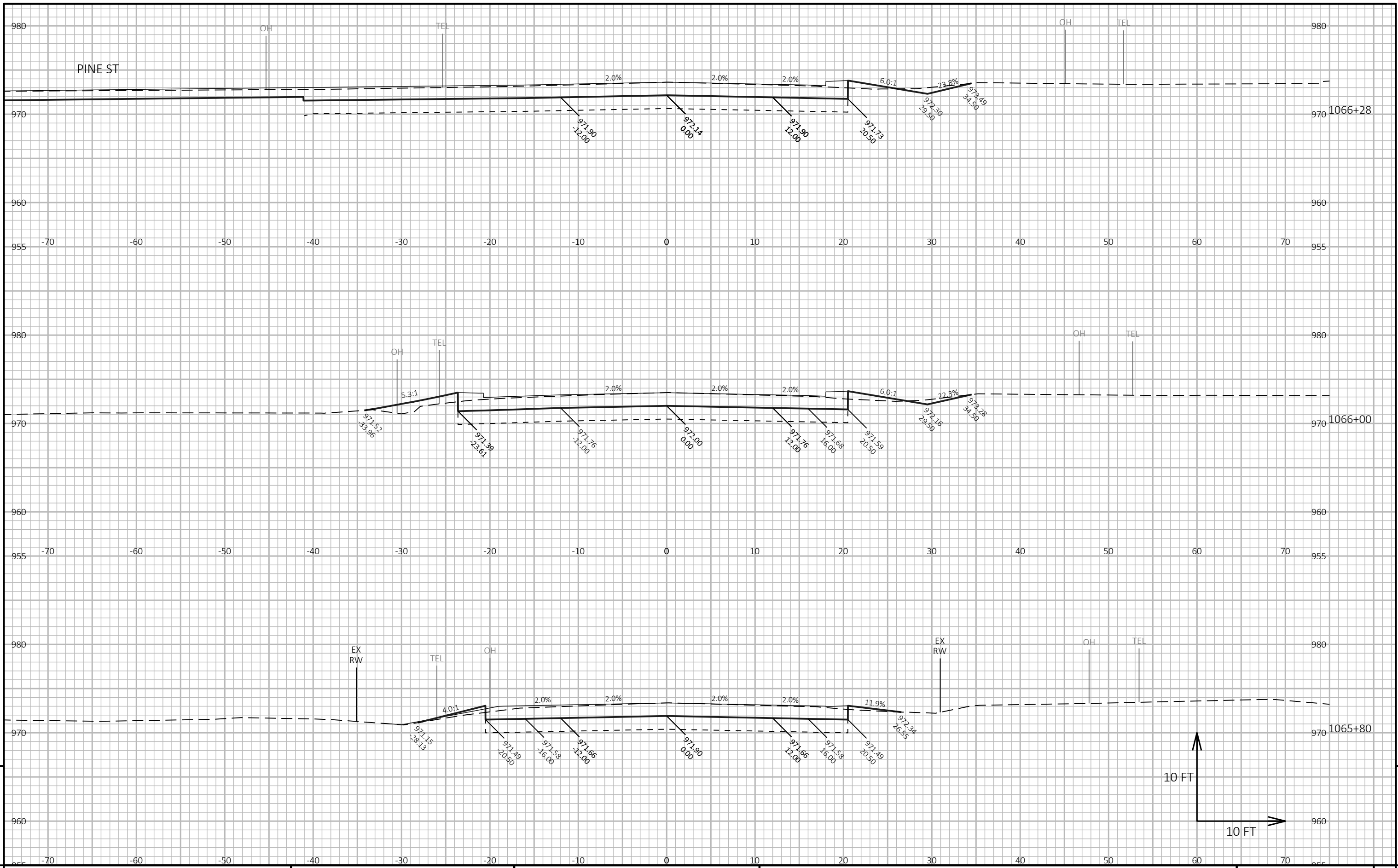


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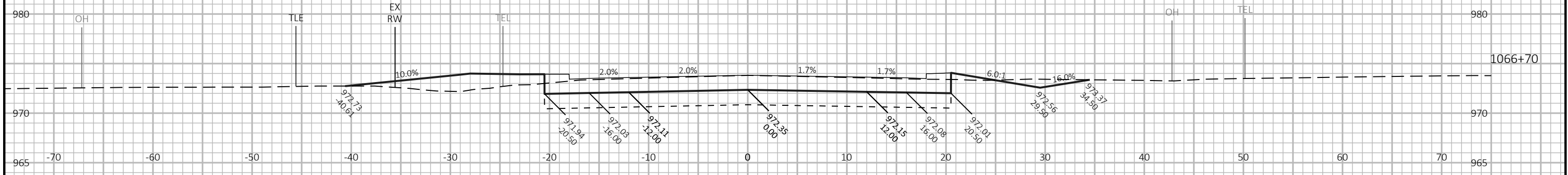
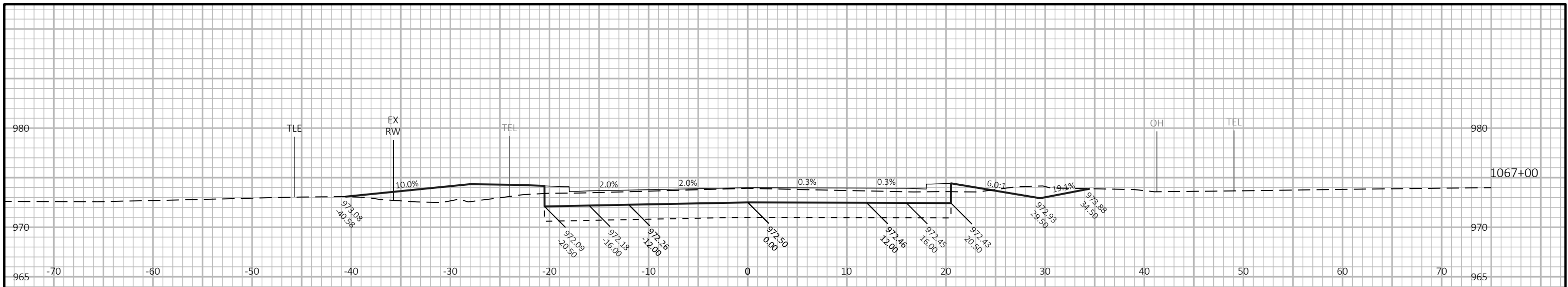
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PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	CROSS SECTIONS: STH 80 - DITCH RESTORATION LT (FOR INFORMATION ONLY)	SHEET E
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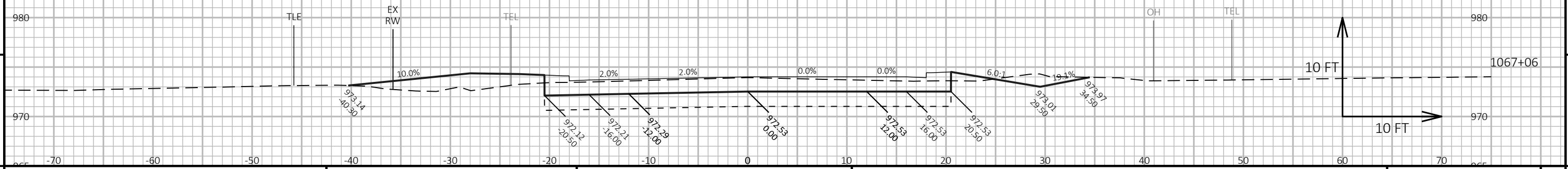
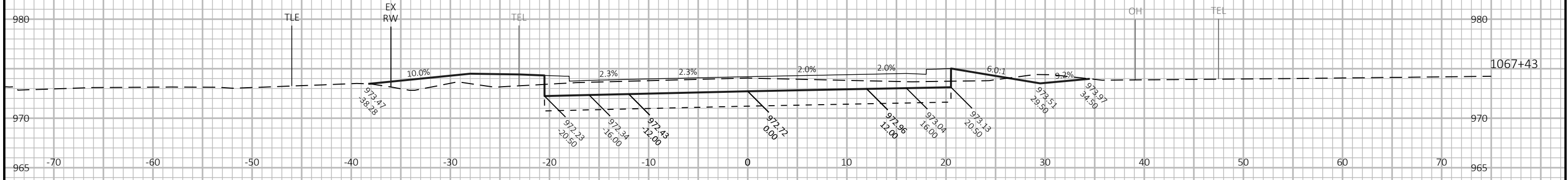
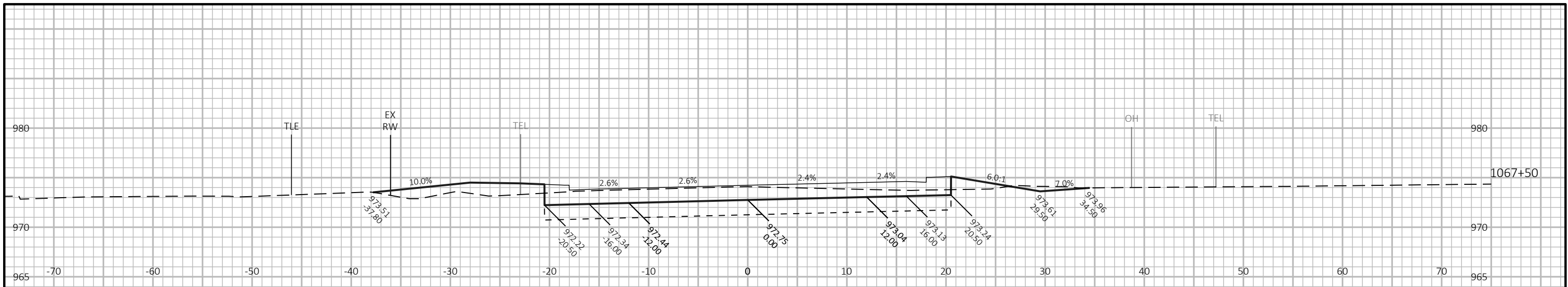
FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090103-XS-80-DITCH.DWG  
 PLOT DATE : 4/26/2023 8:21 AM  
 PLOT BY : ADAM OSYPOWSKI  
 PLOT NAME :  
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.  
 WISDOT/CADD SHEET 49



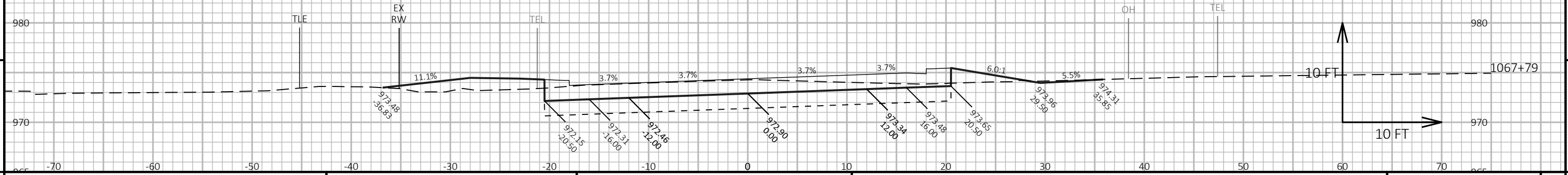
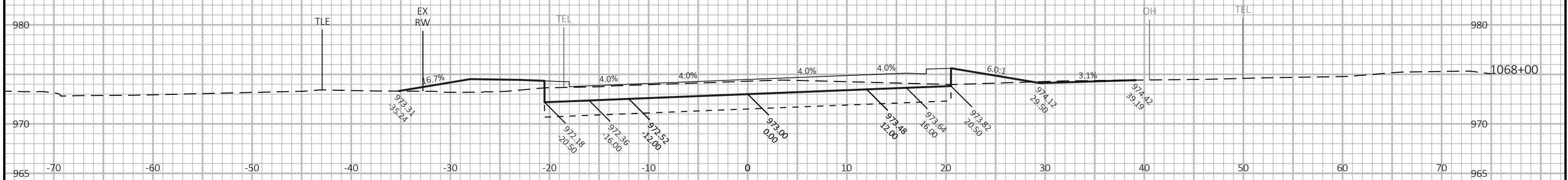
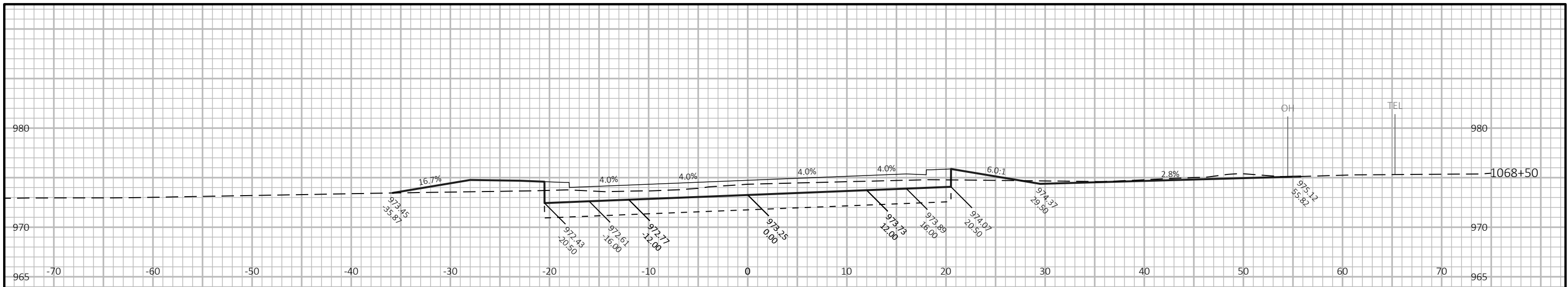
PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80      SHEET      E



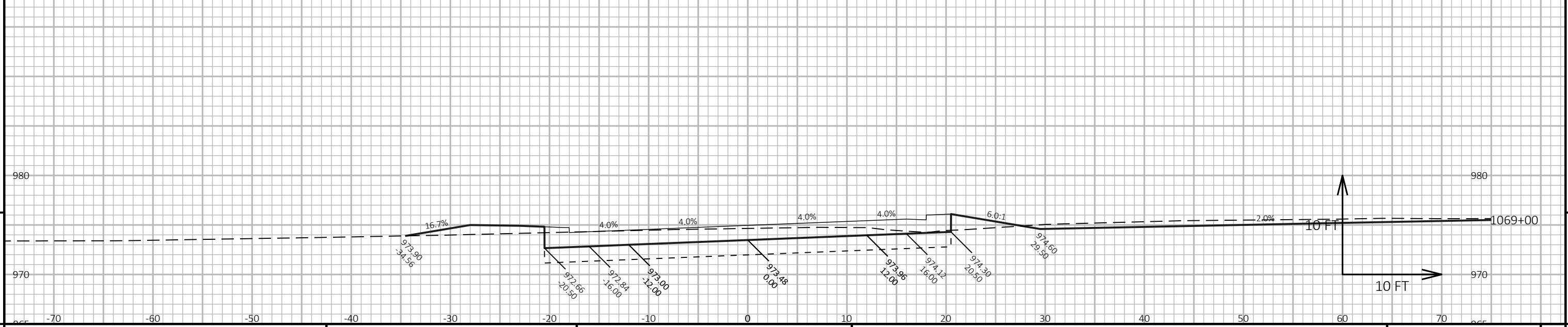
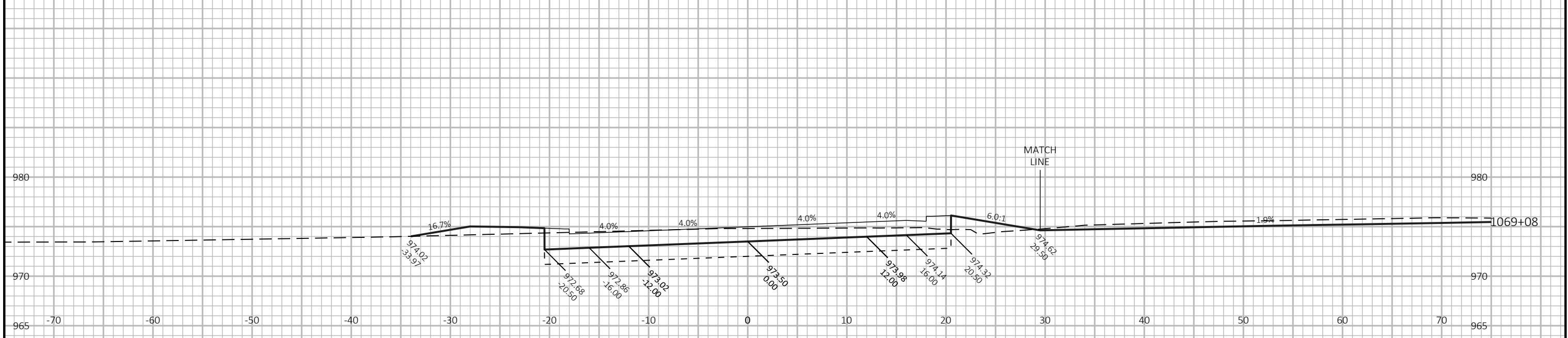
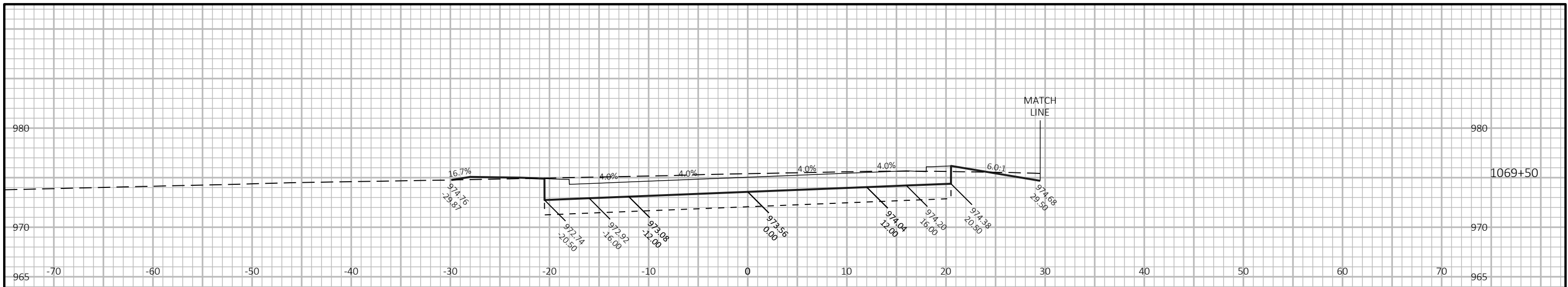
PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80      SHEET 9



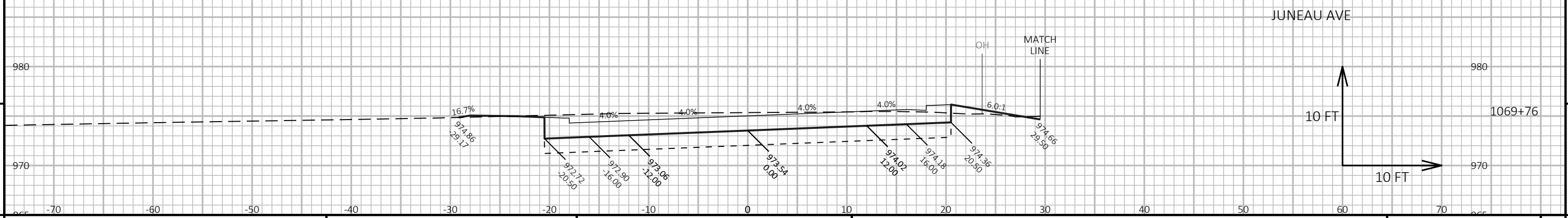
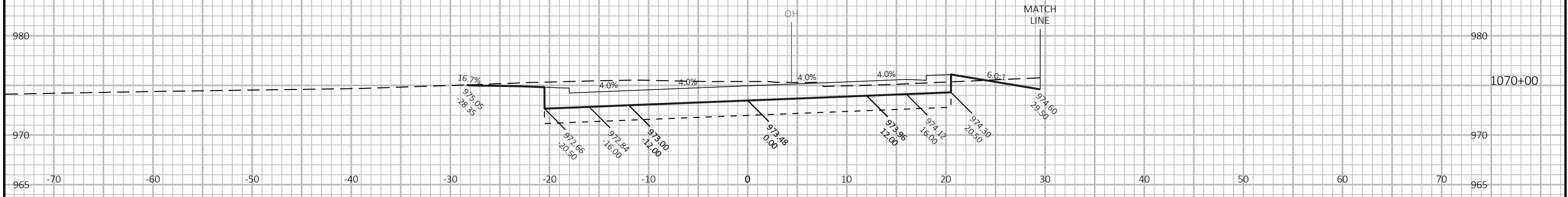
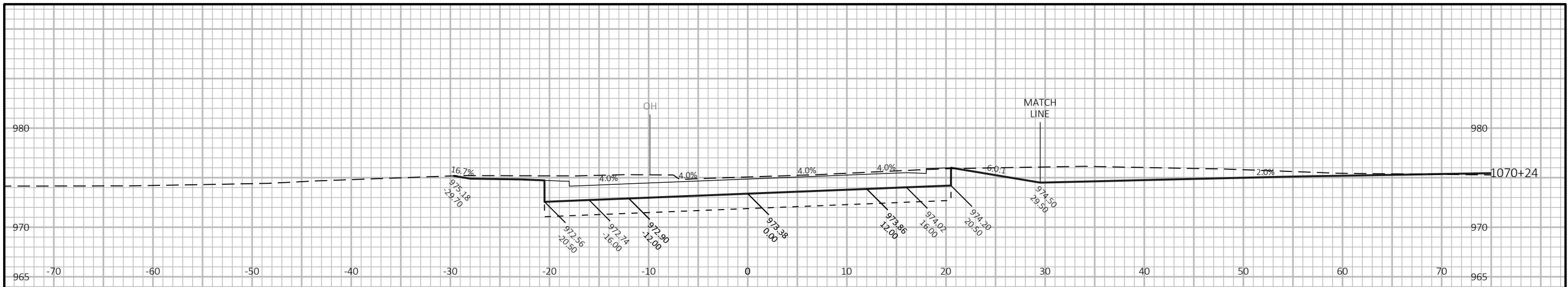
PROJECT NO: 1620-02-76    HWY: STH 80    COUNTY: WOOD    CROSS SECTIONS: STH 80    SHEET    E



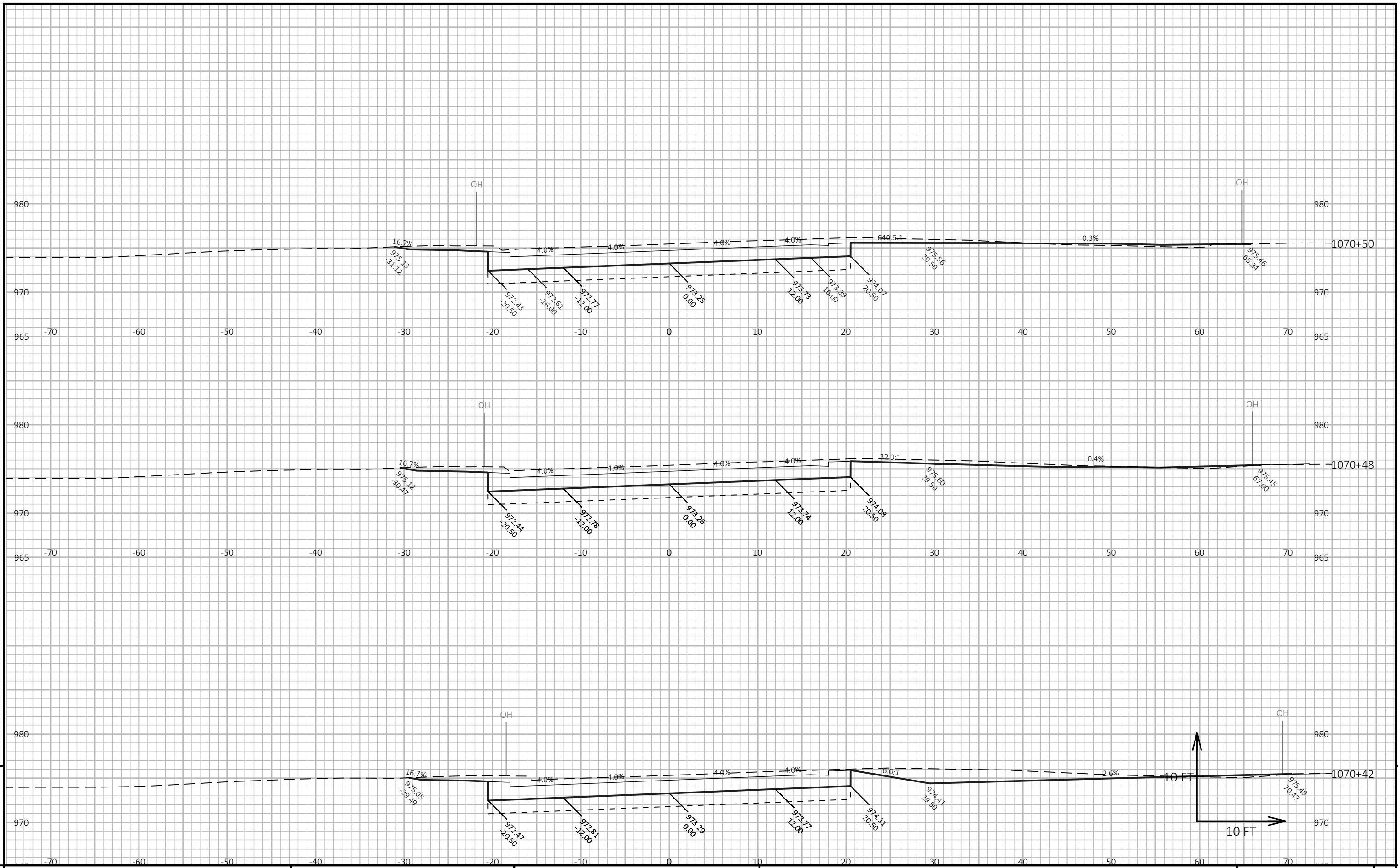
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PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80      SHEET      E



PROJECT NO: 1620-02-76 HWY: STH 80 COUNTY: WOOD CROSS SECTIONS: STH 80 SHEET 9

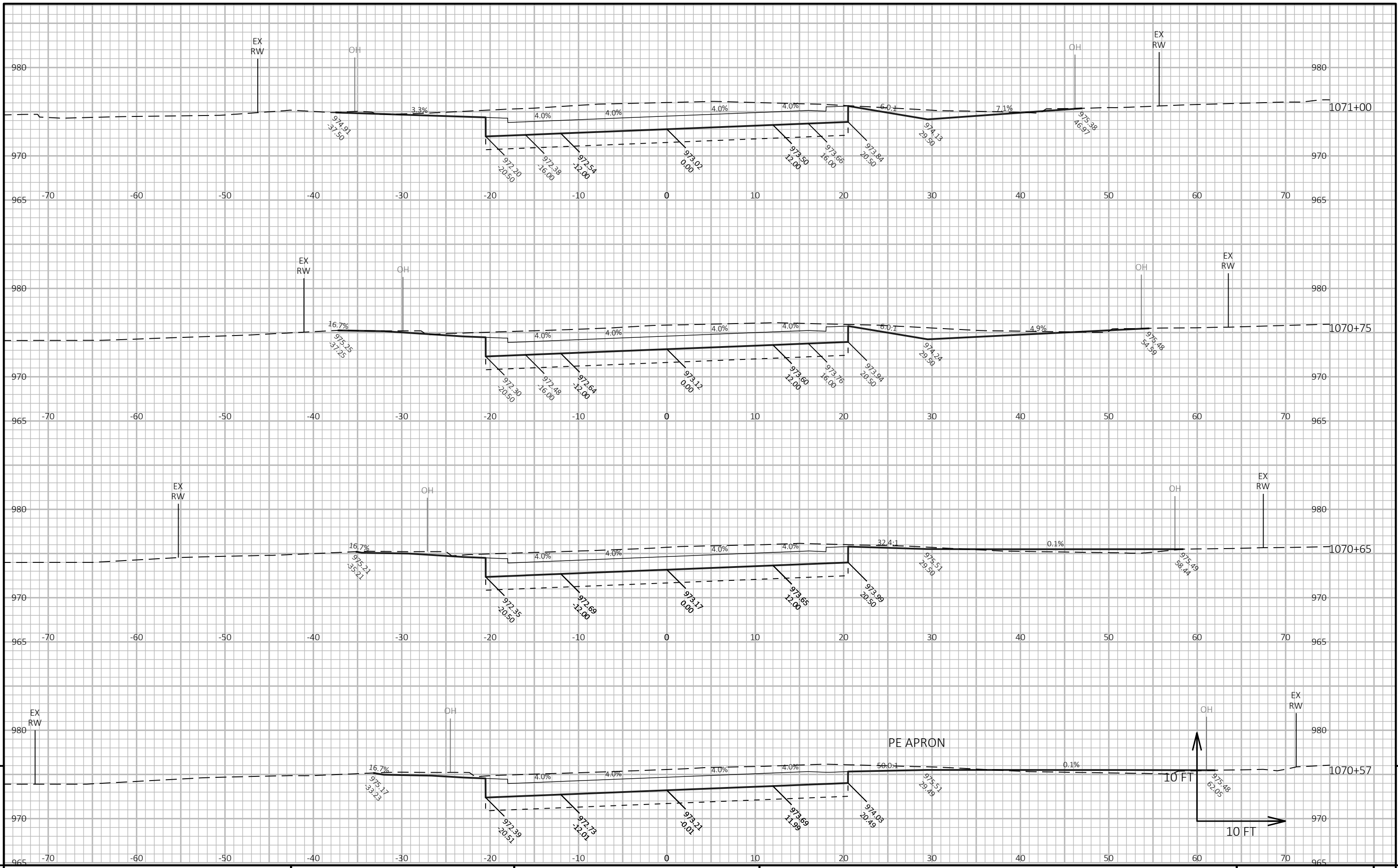


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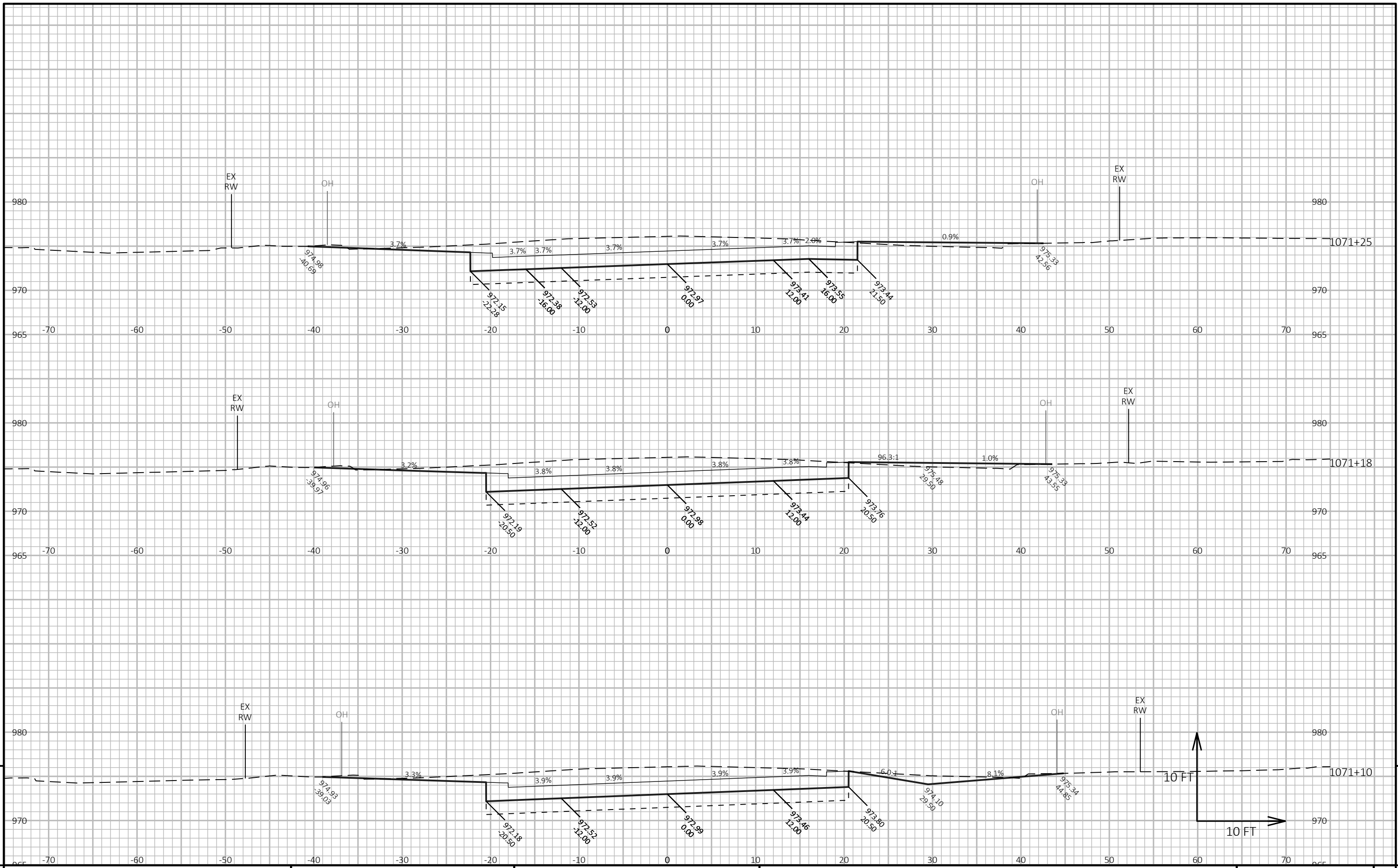
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PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80      SHEET      E



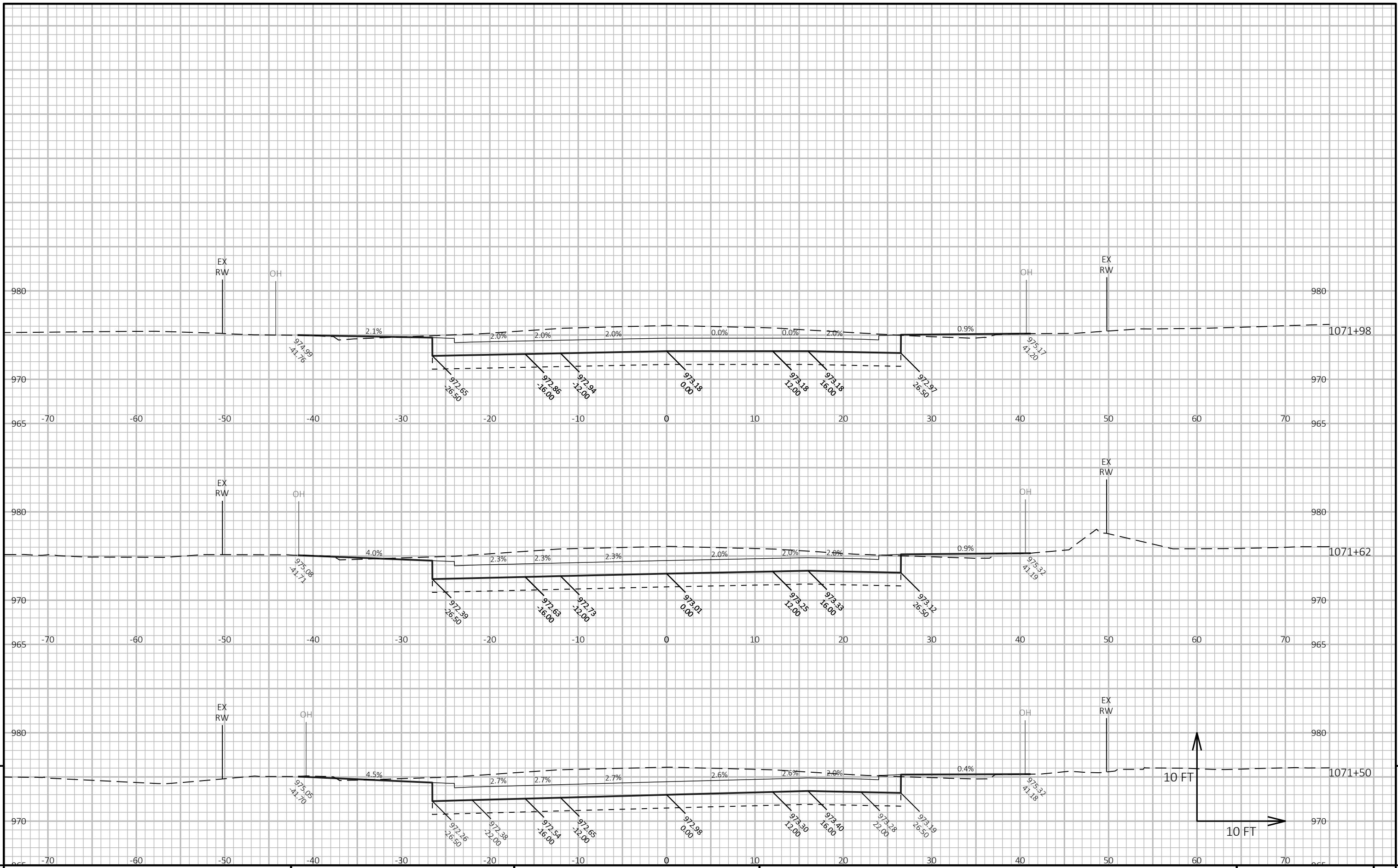
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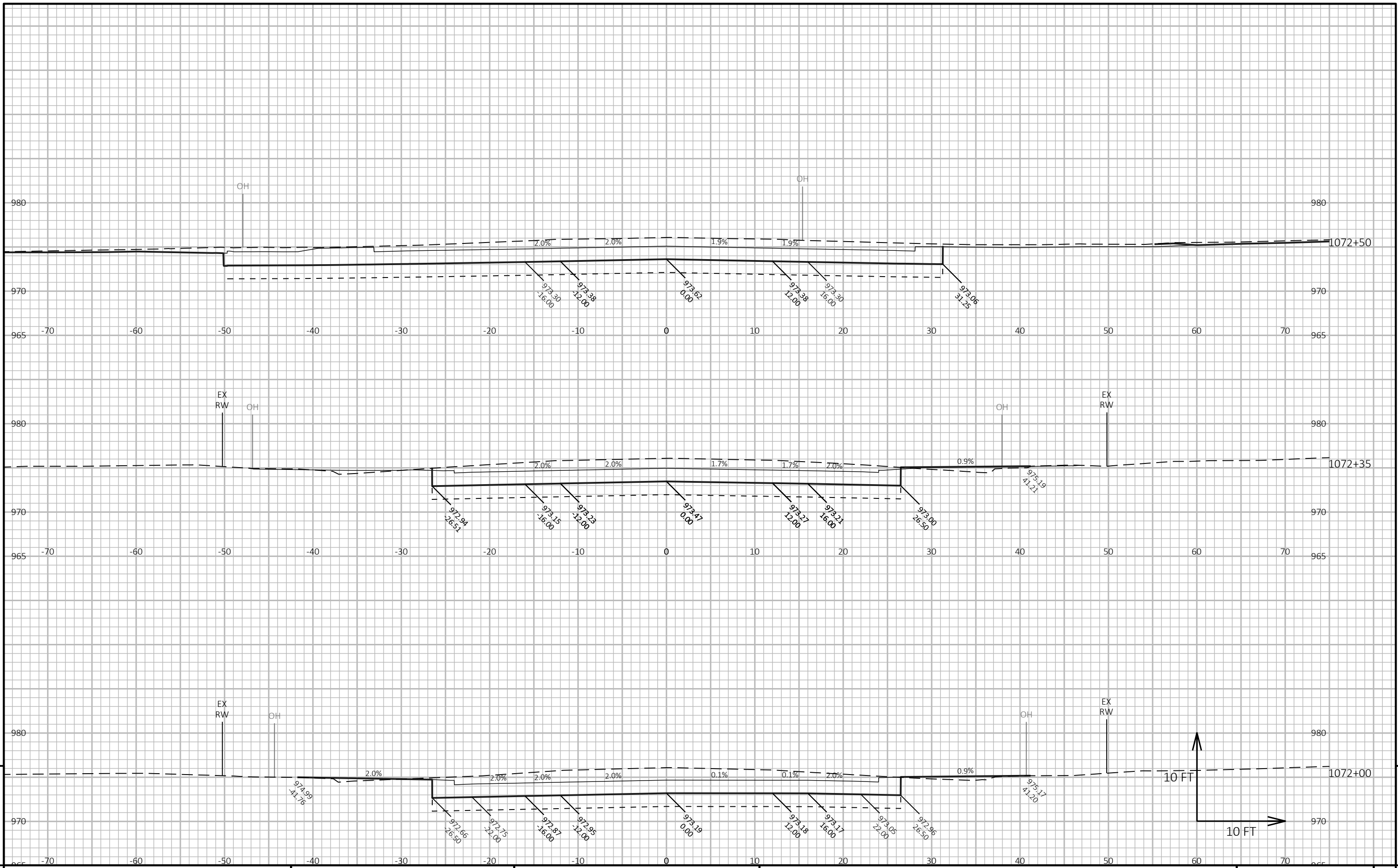
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FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090104-XS-80-RECST.DWG      PLOT DATE : 4/27/2023 2:14 PM      PLOT BY : ADAM OSYPOWSKI      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

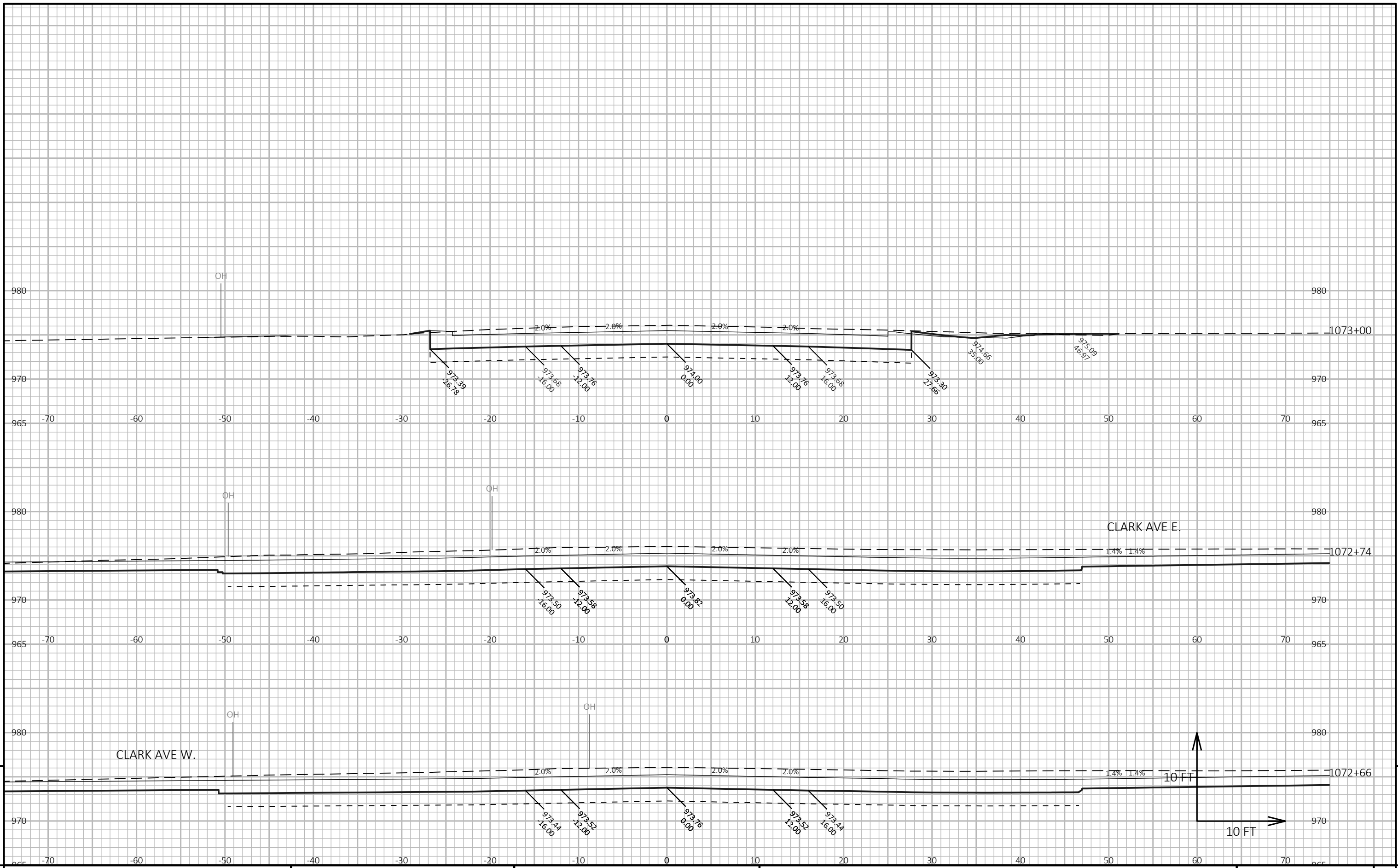
LAYOUT NAME - 11 (4)



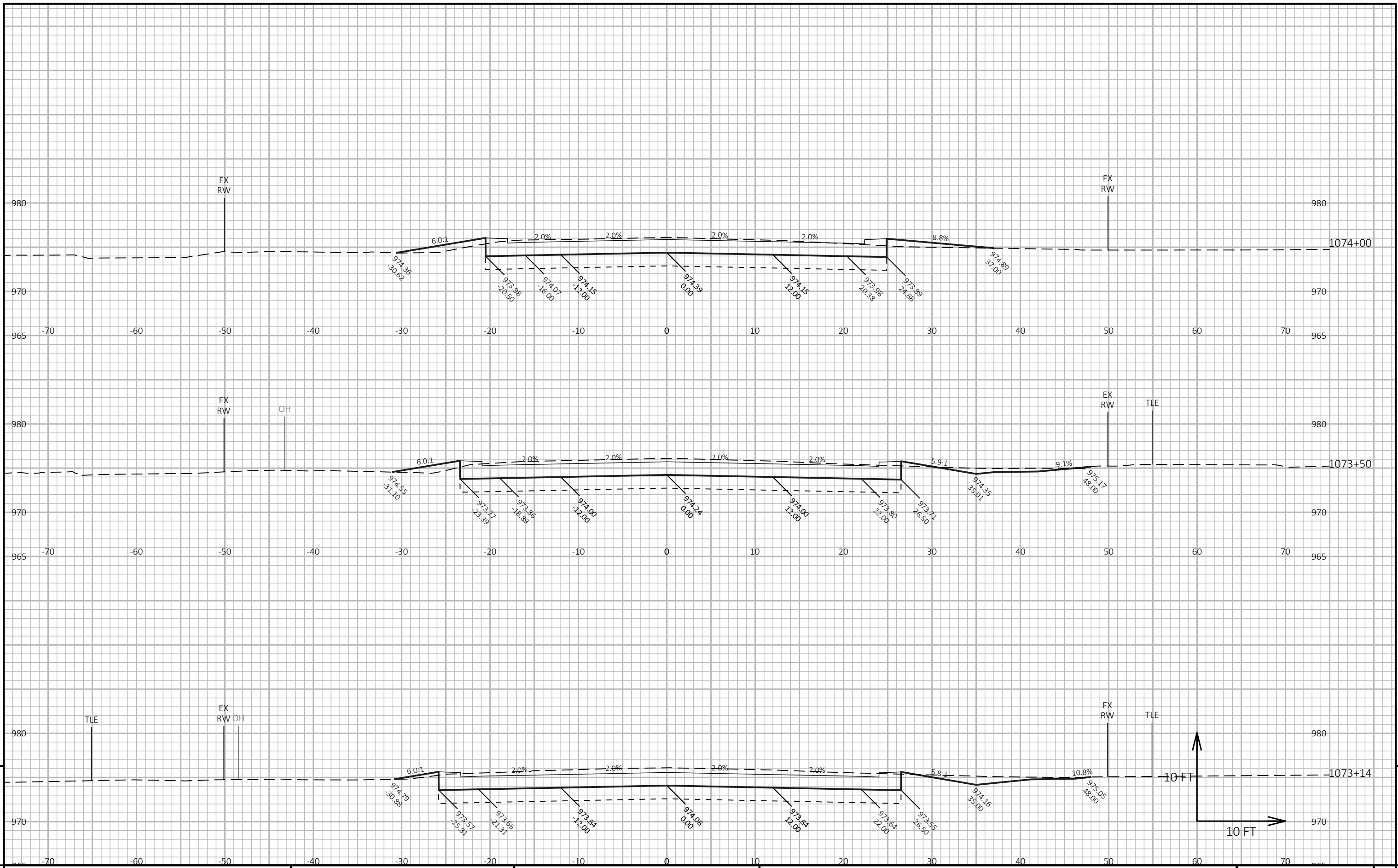
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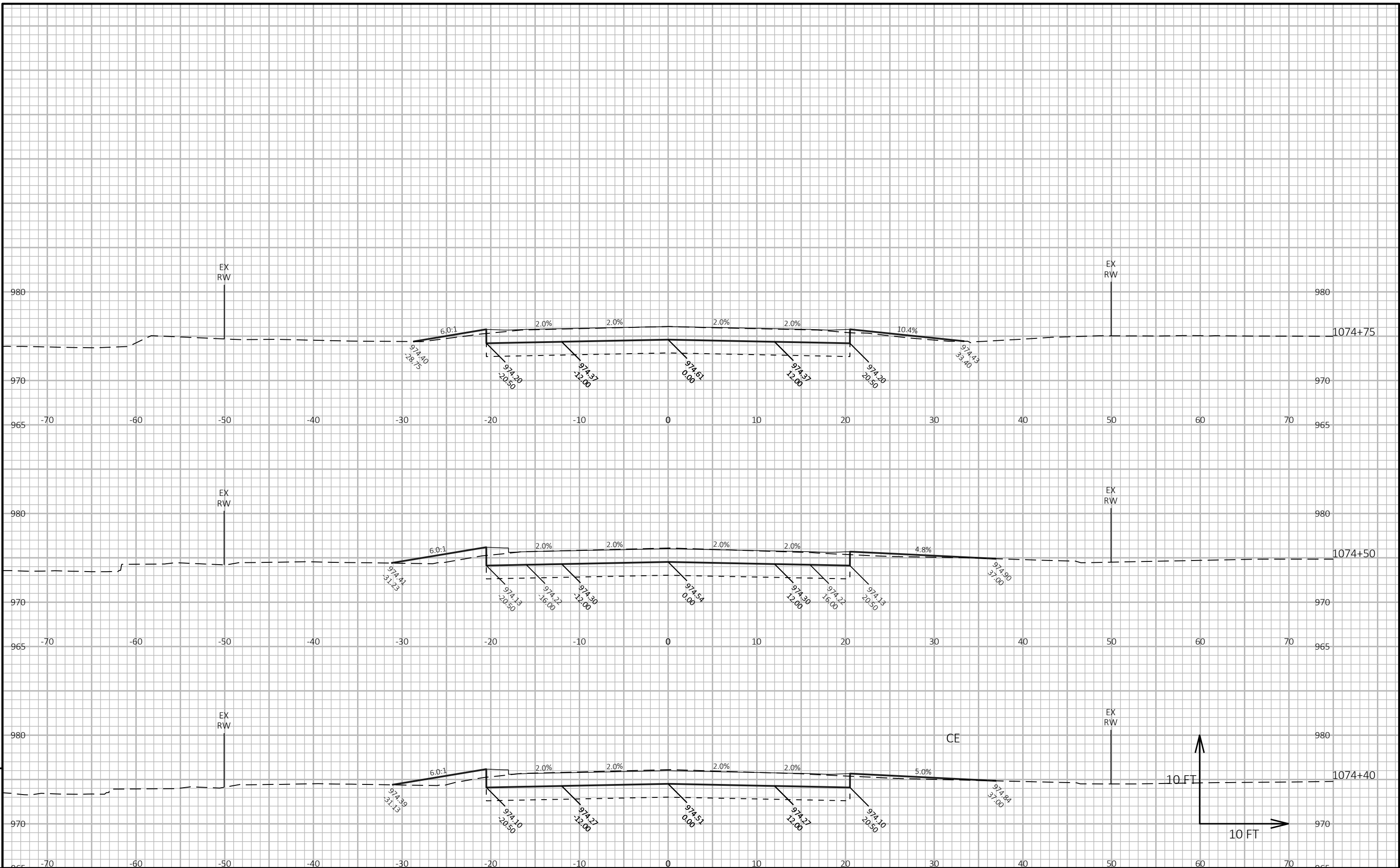
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PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STH 80      SHEET      E



PROJECT NO: 1620-02-76	HWY: STH 80	COUNTY: WOOD	CROSS SECTIONS: STH 80	SHEET 9
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PROJECT NO: 1620-02-76

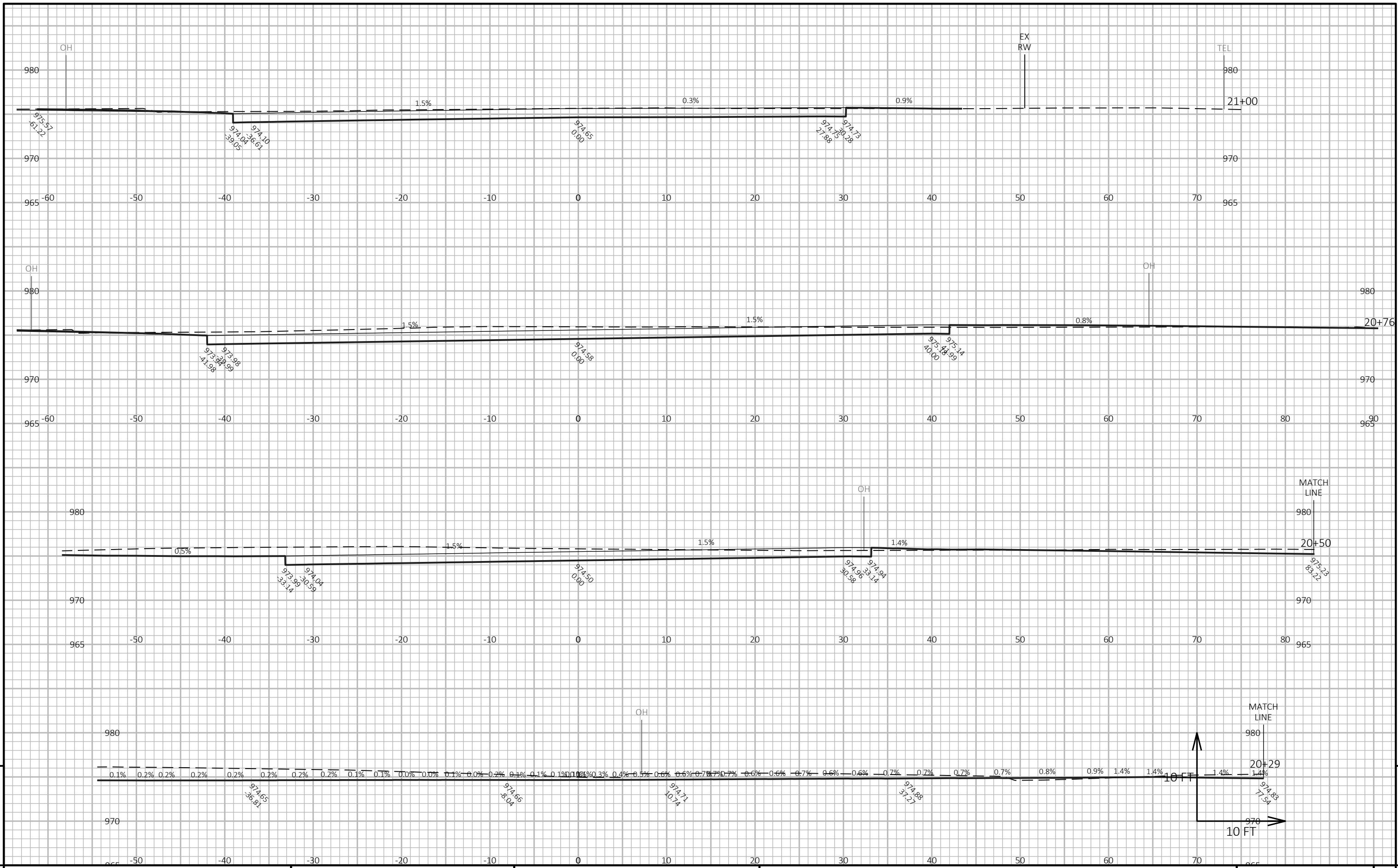
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COUNTY: WOOD

CROSS SECTIONS: STH 80

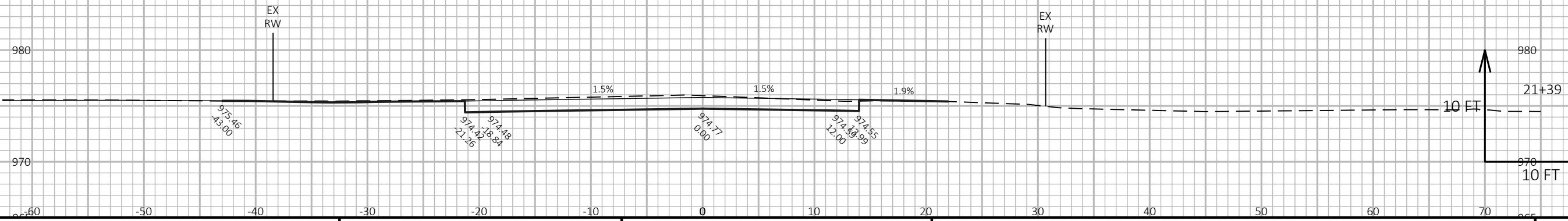
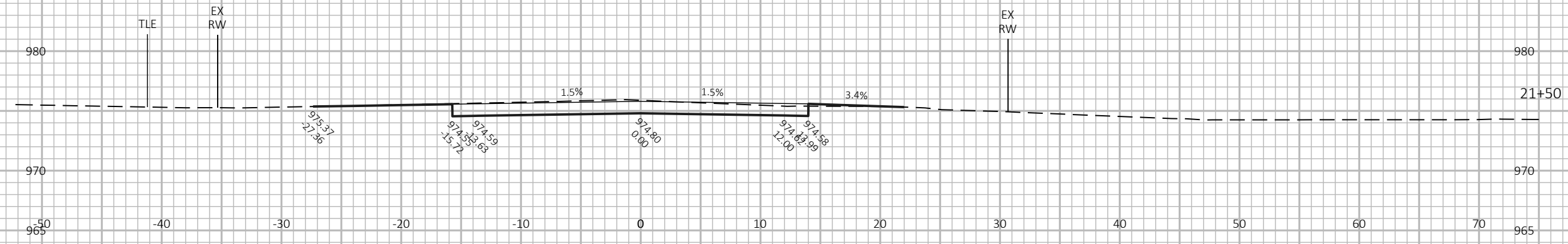
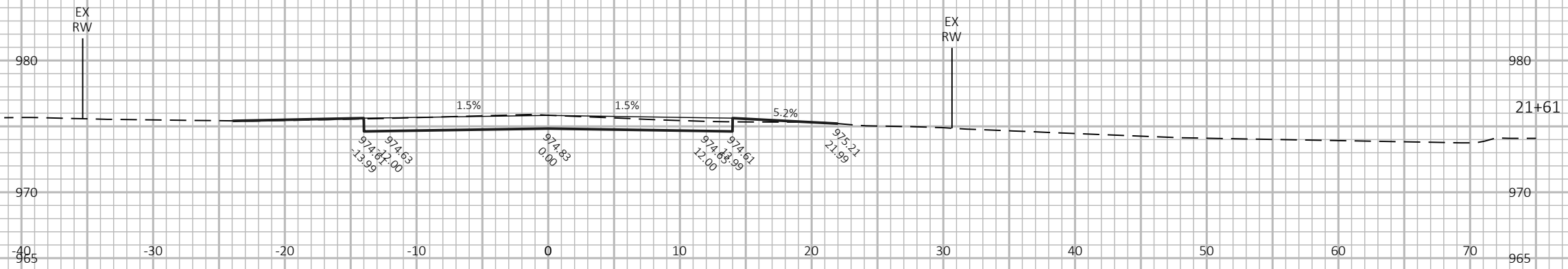
SHEET

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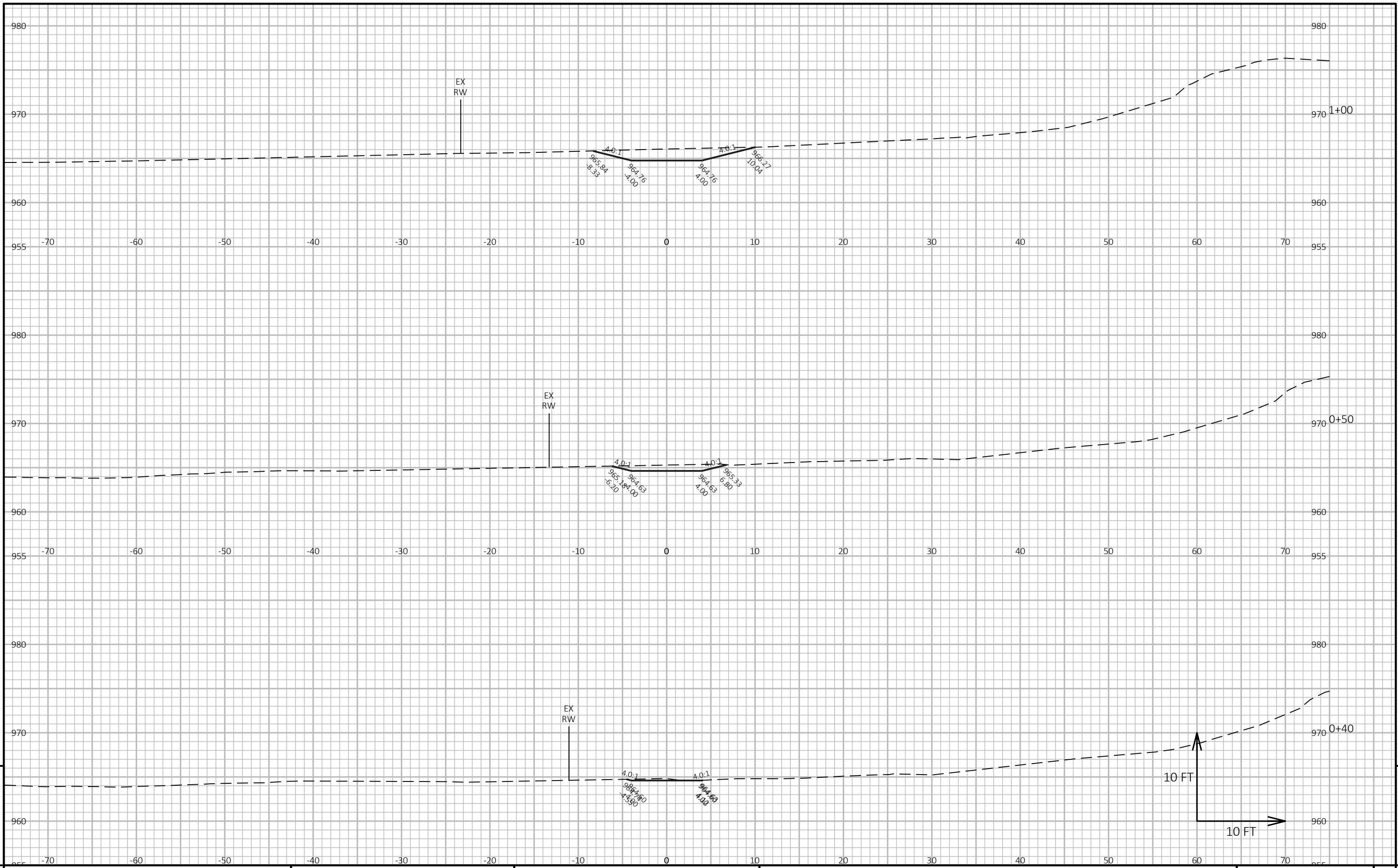


PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: JUNEAU AVE      SHEET      E





PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: JUNEAU AVE      SHEET      E



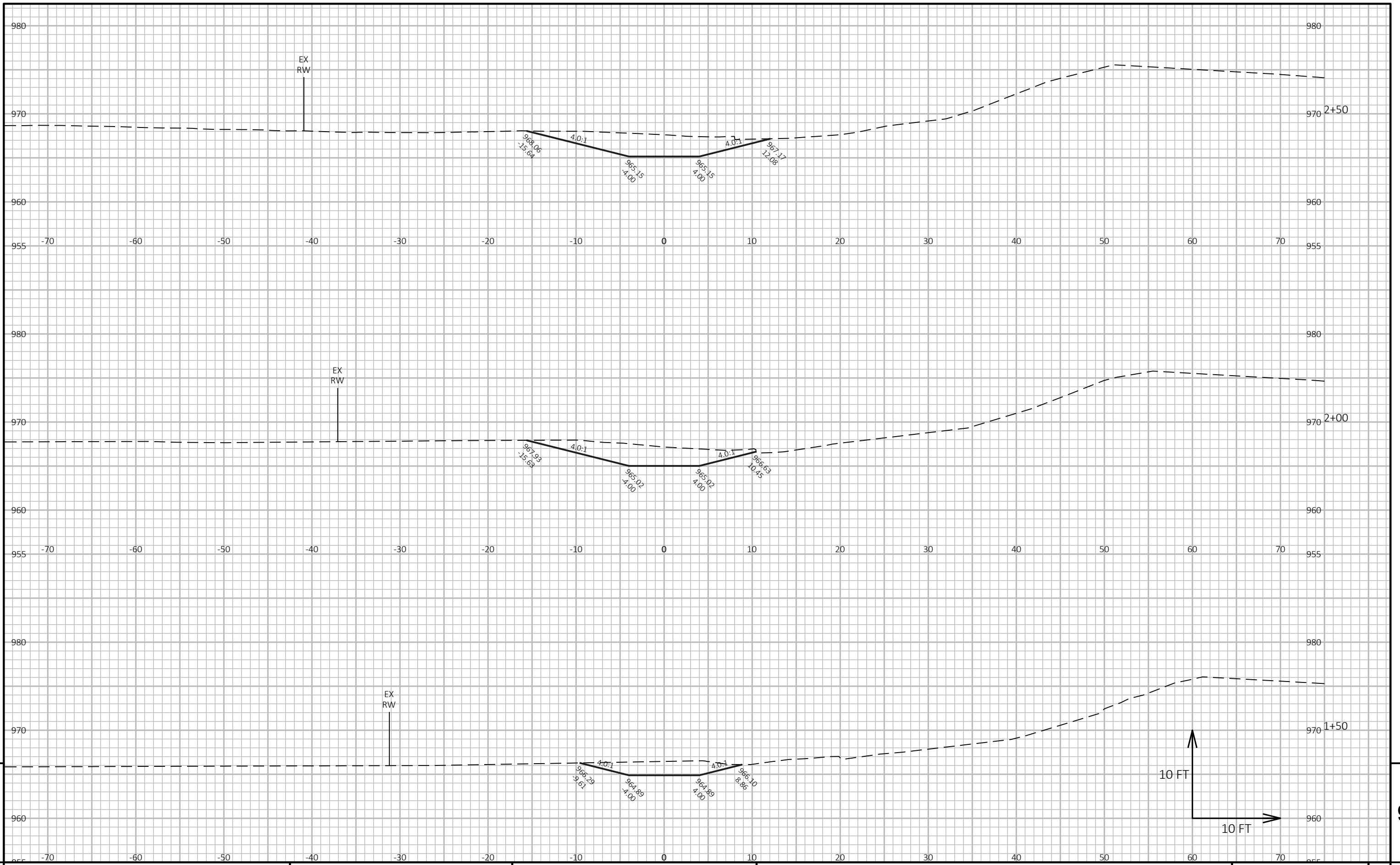
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PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STORM SEWER OUTFALL      SHEET      E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090110-XS-80-OUTFALL.DWG      PLOT DATE : 4/26/2023 9:46 AM      PLOT BY : ADAM OSYPOWSKI      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 28



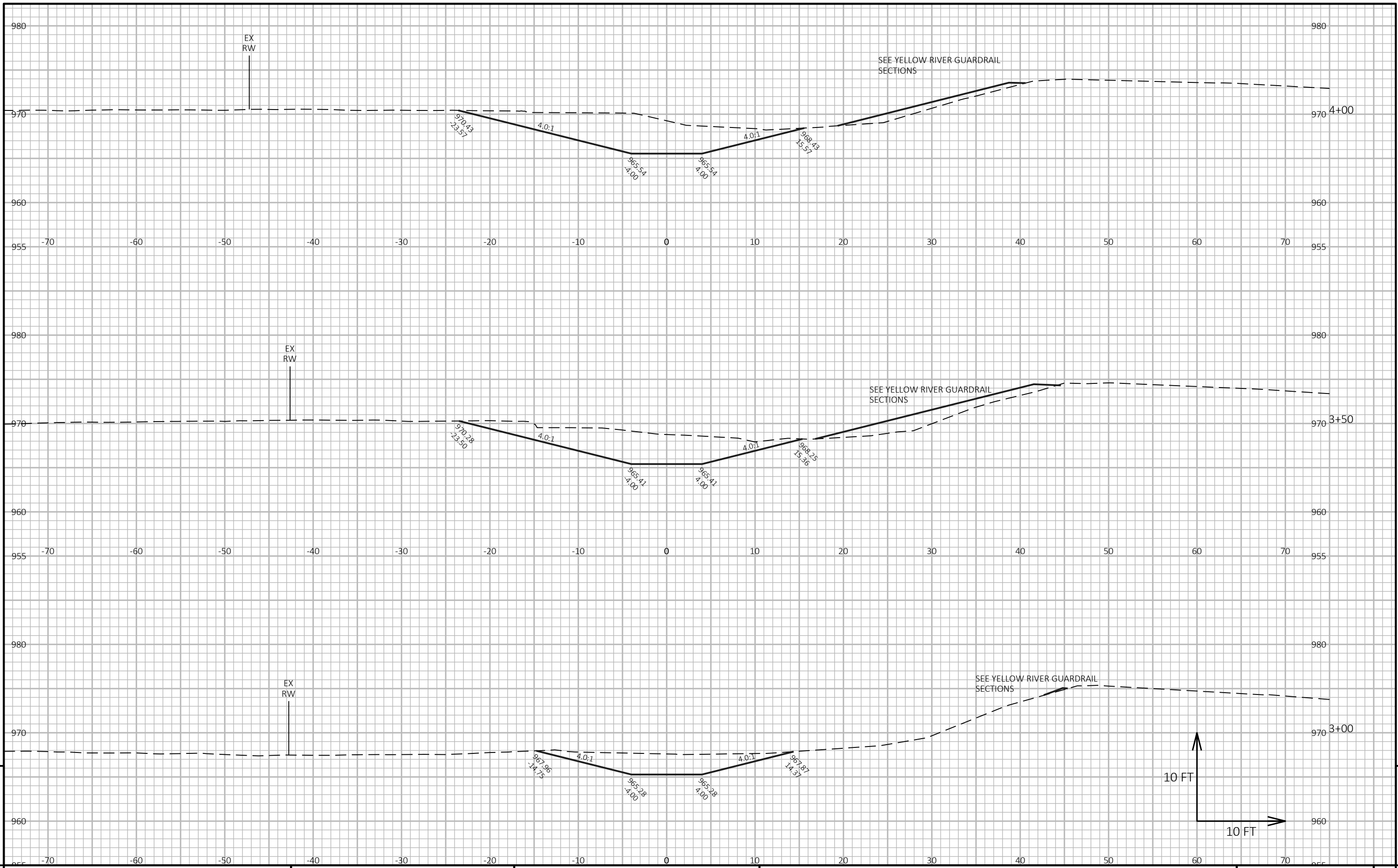
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PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STORM SEWER OUTFALL      SHEET      E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090110-XS-80-OUTFALL.DWG      PLOT DATE : 4/26/2023 9:46 AM      PLOT BY : ADAM OSYPOWSKI      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 29



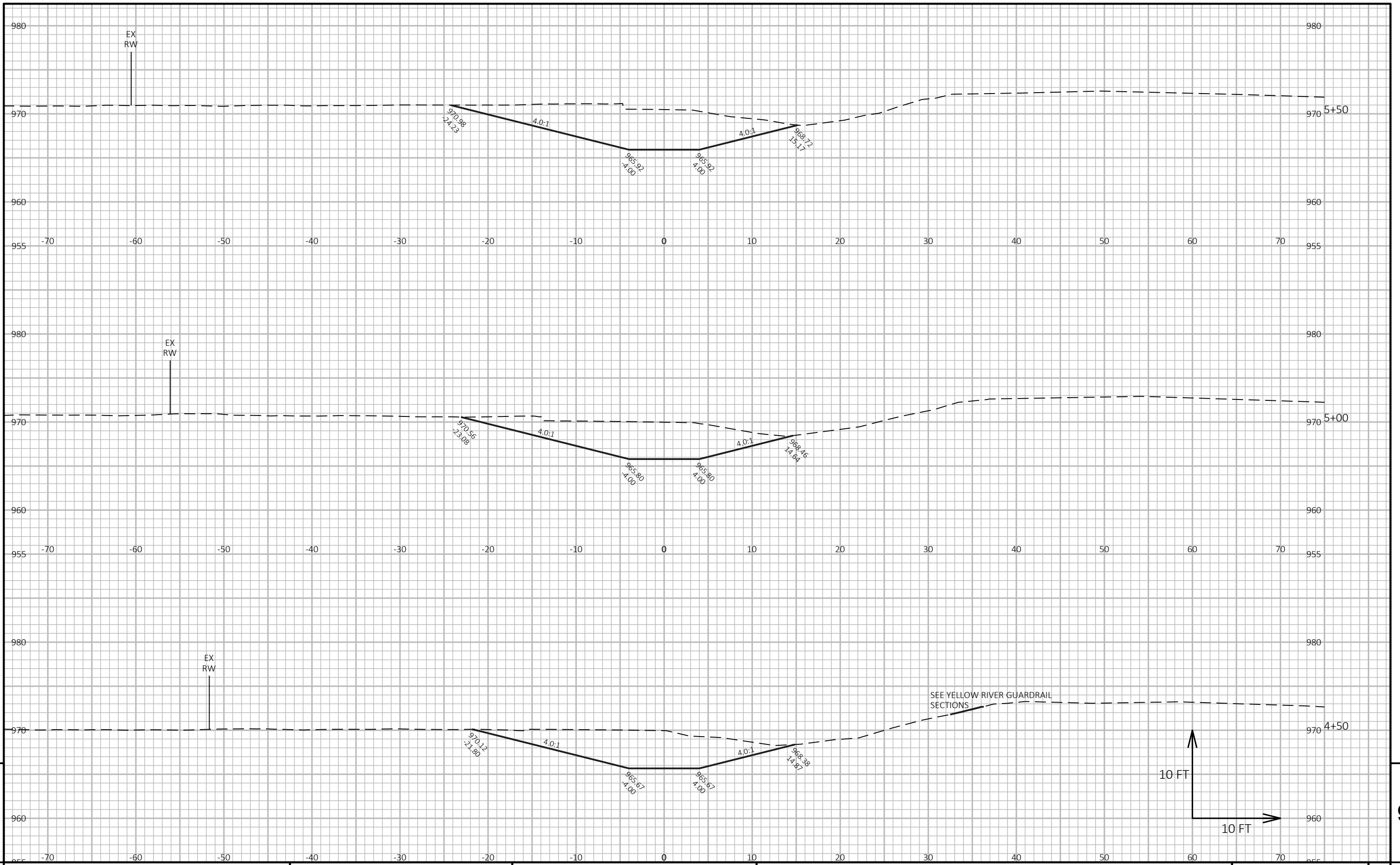
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PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STORM SEWER OUTFALL      SHEET      E

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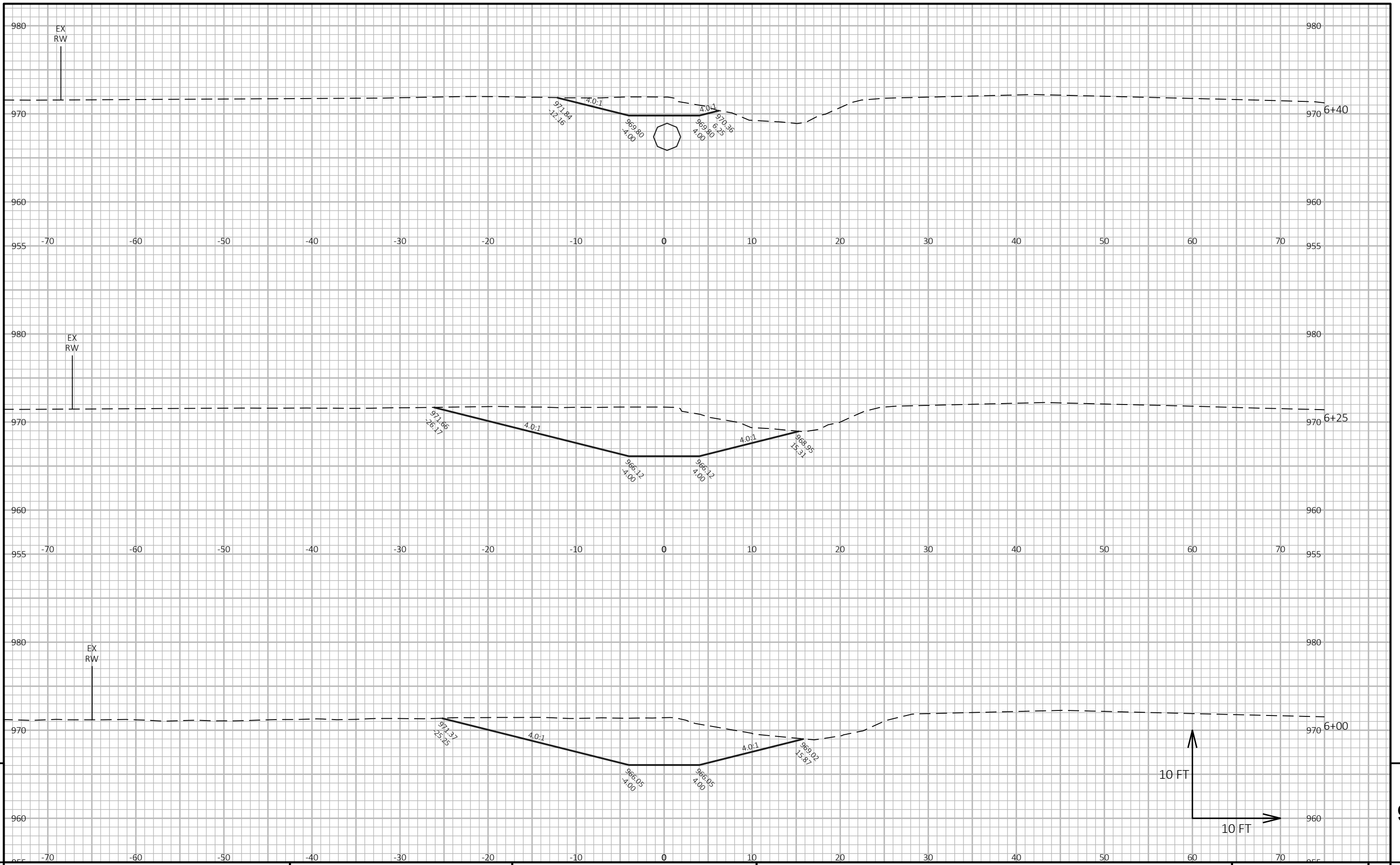
LAYOUT NAME - 30



PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STORM SEWER OUTFALL      SHEET      E

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PROJECT NO: 1620-02-76      HWY: STH 80      COUNTY: WOOD      CROSS SECTIONS: STORM SEWER OUTFALL      SHEET      E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\1620-02-06 (STH 80)\C3D\SHEETSPLAN\090110-XS-80-OUTFALL.DWG      PLOT DATE : 4/26/2023 9:46 AM      PLOT BY : ADAM OSYPOWSKI      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 32

# Notes



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