EAU

JULY 2021

PROJECT ID: 8949-00-71

WITH: 8949-00-74

COUNTY: ST CROIX

07

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 Sheets (Includes Erosion Control)
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 = 288

N

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

HUDSON - BALDWIN

(STH 65 NORTH - USH 63 NORTH)

USH 12

ST CROIX COUNTY

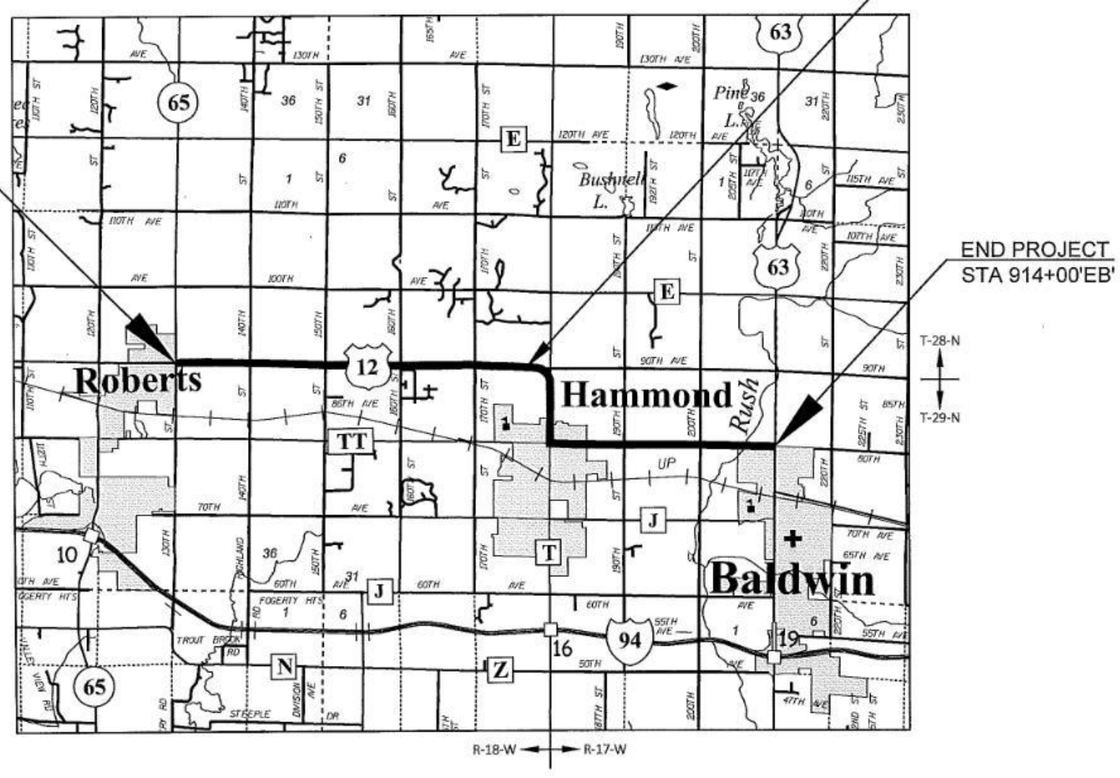
STATE PROJECT NUMBER
8949-00-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8949-00-71	WISC 2021386	1

B-55-0288

BEGIN PROJECT 8949-00-71
STA 458+44.40'EB'
Y=348,777.34
X=568,383.33

END PROJECT
STA 914+00'EB'



DESIGN DESIGNATION

A.A.D.T.	2015	=	2,800
A.A.D.T.	2041	=	5,000
D.H.V.		=	625
D.D.		=	60/40
T.		=	14.9%
DESIGN SPEED		=	30-60 MPH
ESALS		=	986,000

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (500'EB)
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 8.628 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), ST CROIX 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.

ACCEPTED FOR
VILLAGE OF HAMMOND
Date 2-10-21 (Signature and Title of Official) President

ORIGINAL PLANS PREPARED BY
KL Engineering
[A] Better Experience

WISCONSIN
JOSHUA P. MELBY
43963-6
MADISON, WI
PROFESSIONAL ENGINEER

02-01-21 (Date)
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	KL ENGINEERING
Designer	KL ENGINEERING
Project Manager	PAULA GROOM
Regional Examiner	
Regional Supervisor	JEFFREY OLSON

APPROVED FOR THE DEPARTMENT
DATE: 02/01/21 (Signature)

E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\010101-TI.DWG

PLOT DATE : 1/25/2021 1:56 PM PLOT BY : KL ENGINEERING PLOT NAME :

ABBREVIATIONS

A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC
A.E.W.	APRON ENDWALL
B.A.D.	BASE AGGREGATE DENSE
C/L	CENTERLINE
C.M.C.P.	CORRUGATED METAL CULVERT PIPE
C.P.	CULVERT PIPE
C.S.C.P.	CORRUGATED STEEL CULVERT PIPE
CY	CUBIC YARD
D.D.	DAILY DIRECTIONAL SPLIT (TRAFFIC VOLUME)
D.H.V.	DAILY HOURLY TRAFFIC
E.A.T.	ENERGY ABSORBING TERMINAL
EL.	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
FE	FIELD ENTRANCE
FO	FIBER OPTIC
INV.	INVERT
LB	POUND
LF	LINEAR FEET
LT.	LEFT
MAX.	MAXIMUM
MGS	MIDWEST GUARDRAIL SYSTEM
MIN.	MINIMUM
NOR.	NORMAL
NPZ	NO PASSING ZONE
OH	OVERHEAD
P.E.	PRIVATE ENTRANCE
P.I.	POINT OF INTERSECTION
PRW	PROPOSED RIGHT OF WAY
R	RADIUS
REQ'D	REQUIRED
R/L	REFERENCE LINE
RT.	RIGHT
RW	RIGHT OF WAY
S.D.D.	STANDARD DETAIL DRAWING
SE	SUPERELEVATION
STA.	STATION
SF	SQUARE FOOT
STH	STATE HIGHWAY
SY	SQUARE YARD
T.	PERCENT OF TRUCK TRAFFIC
TYP.	TYPICAL
VAR.	VARIES

UTILITIES

GAS/PETROLEUM

MIDWEST NATURAL GAS, INC.
RICK SCHERMERHORN
3600 STATE HIGHWAY 157
P.O. BOX 429
LA CROSSE, WI 54602-0429
(608) 781-1011 (OFFICE)
(608) 780-0210 (MOBILE)
ricks@midwestnaturalgas.com

ST. CROIX GAS
GREG LEE
415 S. SECOND STREET
RIVER FALLS, WI 54022
(715) 425-6177
greg@stcroixgas.com

WE ENERGIES
STEVEN CHAVERS
104 W. SOUTH STREET
RICE LAKE, WI 54868
(715) 234-9605 (OFFICE)
(715) 213-4327 (MOBILE)
steven.chavers@we-energies.com

COMMUNICATIONS LINE

AT&T WISCONSIN
RICK PODOLAK
304 S. DEWEY STREET
4TH FLOOR
EAU CLAIRE, WI 54701
(715) 839-5565 (OFFICE)
(715) 410-0656 (MOBILE)
rp4514@att.com

BALDWIN TELECOM, INC.
MATT KNEGENDORF
930 MAPLE STREET
BALDWIN, WI 54002
(715) 688-1034 (OFFICE)
(715) 760-0968 (MOBILE)
mknegendorf@lswi.net

CENTURYLINK
MICHAEL VANDEN BOS
2426 75TH AVE.
OSCEOLA, WI 54020
(715) 292-4278 (OFFICE)
(715) 292-4278 (MOBILE)
mike.vandenbos@centurylink.com

ELECTRICITY

DAIRYLAND POWER COOPERATIVE
ROB MALY
3200 EAST AVE S
P.O. BOX 817
LA CROSSE, WI 54602-0817
(608) 788-3200 (OFFICE)
(608) 518-2633 (MOBILE)
rob.maly@dairylandpower.com

ST CROIX ELECTRIC COOPERATIVE
ROB DOOLEY
1925 RIDGEWAY ST.
P.O. BOX 160
HAMMOND, WI 54015-0160
(715) 796-5637 (OFFICE)
(715) 781-2295 (MOBILE)
robd@scecnet.net

XCEL ENERGY
JAKE MILLER
801 KELLER AVE.
AMERY, WI 54001
(715) 268-3227
jake.i.miller@xcelenergy.com

SEWER & WATER

HAMMOND MUNICIPAL WATER UTILITY - WATER
HAMMOND WASTEWATER TREATMENT FACILITY - SEWER
CHUCK FEDIE
455 DAVIS STREET
P.O. BOX 337
HAMMOND, WI 54015
(715) 796-2727 (OFFICE)
(715) 760-1553 (MOBILE)
hammondww@hammondwi.org

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

GENERAL NOTES

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

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

UTILITY REFERENCE LINES ON THE CROSS SECTIONS ARE FOR APPROXIMATE HORIZONTAL REFERENCE ONLY.

REMOVAL ITEMS REQUIRING RESTORATION OF CONCRETE OR ASPHALT SHALL BE REMOVED TO AN EXISTING JOINT OR SAWED AS DETERMINED BY THE ENGINEER.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

DISTURBED AREAS WITHIN THE RIGHT OF WAY SHALL BE RESTORED AS DIRECTED BY THE ENGINEER.

EXCAVATION BELOW SUBGRADE (EBS) LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

RADIUS DIMENSIONS FOR CURB AND GUTTER ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.

A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

CONTRACTOR IS RESPONSIBLE FOR RESHAPING AND FINISHING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY THEIR OPERATION OUTSIDE THE PLAN CONSTRUCTION LIMITS.

THE EXACT LOCATION OF DRIVEWAYS IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER. ALL DRIVEWAYS ARE TO BE REPLACED IN KIND.

ALL GRADES PROVIDED ALONG RADII ARE ALONG THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

THE CONTRACTOR'S HMA PAVING OPERATION SHALL BE CONSISTENT WITH THE TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING LANE.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LBS/SY/IN.

HMA PAVEMENT WHEN INDICATED ON THE PLANS, SHALL CONSIST OF COURSES AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS.

SIDEWALK AND CURB & GUTTER REPLACEMENT SHOULD BE TO THE NEAREST JOINT. LIMITS ARE APPROXIMATE AND ARE TO BE VERIFIED IN THE FIELD BY THE ENGINEER. MATCH EXISTING SIDEWALK WIDTH.

STORM SEWER AND CULVERT ENDWALL LOCATIONS ARE MARKED ON THE PLANS WITH A STATION AND OFFSET TO THE END OF PIPE, WHERE IT MEETS THE ENDWALL. PIPE ENDWALLS SHALL BE LAID AT THE SAME SLOPE AS THE CONNECTING PIPE.

PIPE ELEVATIONS, LENGTHS, AND LOCATIONS AS SHOWN ON THE PLANS MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

PROPOSED INLET RIM ELEVATIONS ARE SHOWN AS FLANGE ELEVATION.

	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	0.70 - 0.95											
CONCRETE	0.80 - 0.95											
BRICK	0.70 - 0.80											
DRIVES, WALKS	0.75 - 0.85											
ROOFS	0.75 - 0.95											
GRAVEL ROADS, SHOULDERS	0.40 - 0.60											

TOTAL PROJECT AREA = 83.37 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 3.91 ACRES

ORDER OF DETAIL SHEETS

TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
CURB RAMP DETAILS
STORM SEWER
PERMANENT SIGNING
PERMANENT MARKING
TRAFFIC CONTROL
DETOUR PLAN

ROADWAY	TOTAL PAVEMENT THICKNESS	LOWER LAYER THICKNESS & TYPE	MIDDLE LAYER THICKNESS & TYPE	UPPER LAYER THICKNESS & TYPE
USH 12 (OVERLAY)	3.25"	1.75" (5MT58-34V)	N/A	1.5" (5MT58-34V)
USH 12 (RECONSTRUCTION AREAS)	6.75"	3.5" ASPHALTIC SURFACE	1.75" (5MT58-34V)	1.5" (5MT58-34V)
USH 12 (CULVERT REPLACEMENT)	6.75"	3.5" ASPHALTIC SURFACE	N/A	3.25" ASPHALTIC SURFACE

DNR LIASON

AMY CRONK
ENVIRONMENTAL ANALYSIS AND REVIEW SPECIALIST
DEPARTMENT OF NATURAL RESOURCES
1300 W. CLAIREMONT AVE.
EAU CLAIRE, WI 54702-4001
715-635-4229
Amy.Cronk@wisconsin.gov

DESIGN CONTACT

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MADISON, WI 53719
608-663-1218
jmelby@klengineering.com

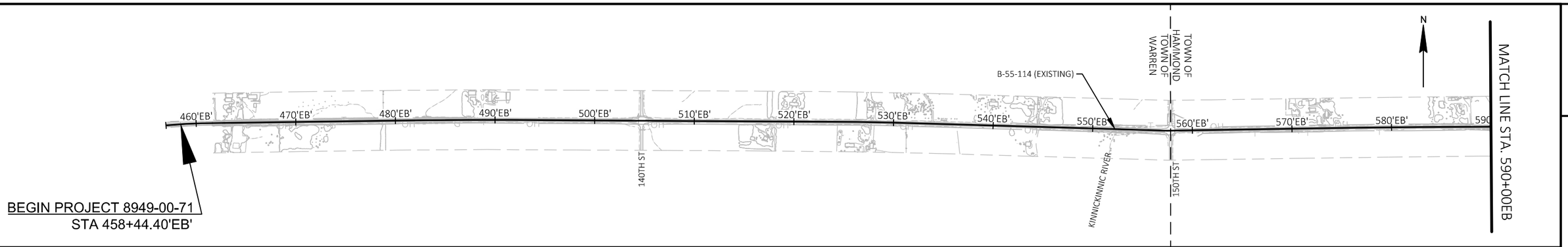
WISDOT

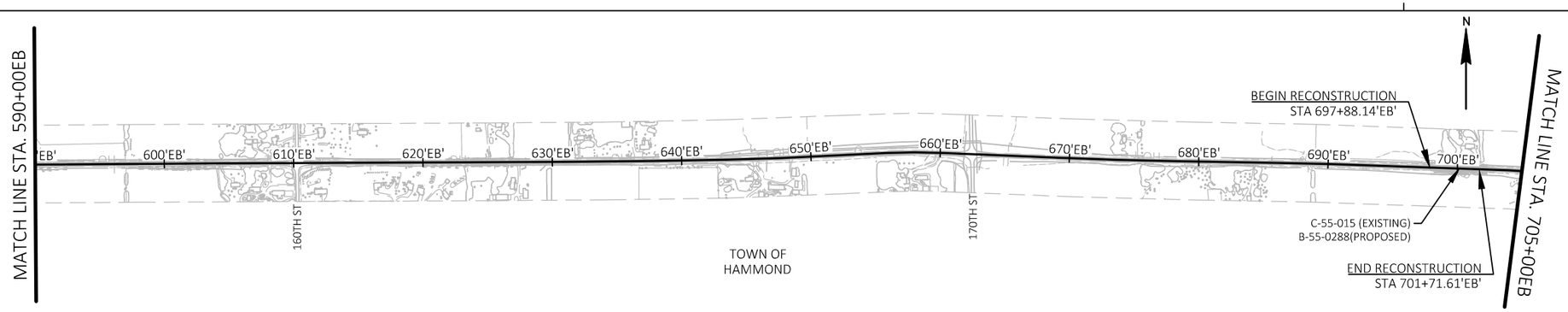
PAULA GROOM, P.E.
WISDOT PROJECT MANAGER
WISDOT NW REGION (EAU CLAIRE)
718 W. CLAIREMONT AVE.
EAU CLAIRE, WI 54701
715-579-6776
Paula.Groom@dot.wi.gov

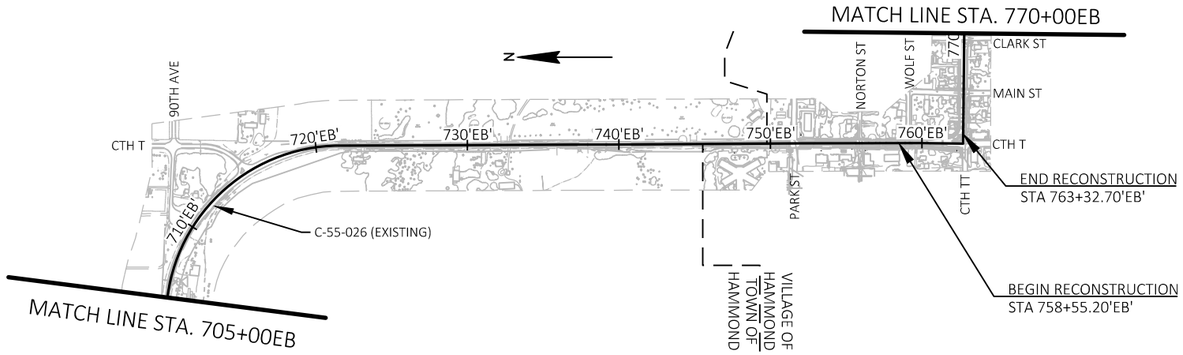
2

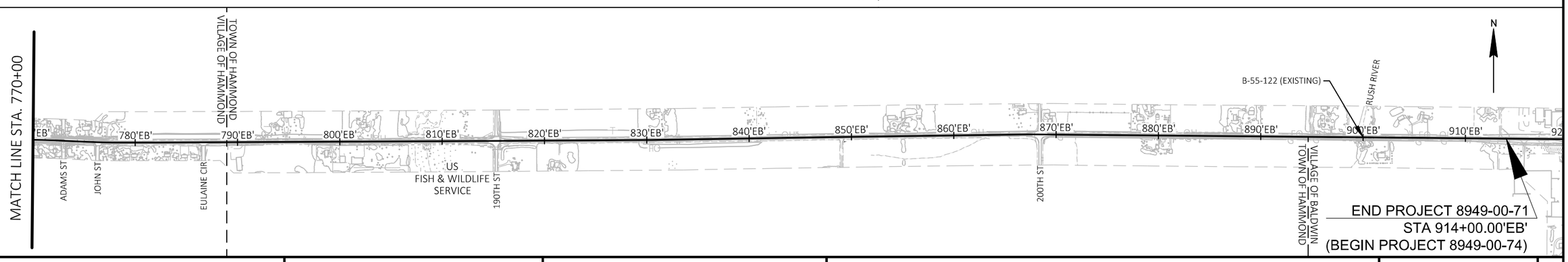
ROAD CORE LOG

BORING NO.	STATION	OFFSET	ASPHALT THICKNESS	CONCRETE THICKNESS	BASE THICKNESS	COMMENTS/SUBGRADE
B-01	464+00	7' RT	9"	5"	4"	LEAN CLAY WITH SAND
B-02	483+04	8' LT	8"	6"	24"	4" SILTY SAND ABOVE CONCRETE, LEAN CLAY BELOW
B-03	506+96	7' RT	6"	7.5"	---	6" SILTY SAND ABOVE CONCRETE, LEAN CLAY & CLAYEY SAND BELOW
B-04	531+02	10' LT	6"	7"	---	4" SILTY SAND ABOVE CONCRETE, LEAN CLAY W/SAND & SANDY LEAN CLAY BELOW
B-05	554+91	6' RT	11"	9.5"	---	LEAN CLAY & LEAN CLAY WITH SAND
B-06	589+00	7' LT	10"	9.5"	---	LEAN CLAY
B-07	600+95	9' RT	11"	9"	---	CLAYEY SAND
B-08	622+94	7' LT	6"	9.5"	---	4" SILTY SAND ABOVE CONCRETE, LEAN CLAY W/SAND BELOW
B-09	655+05	8' RT	4"	---	10"	8" SILTY SAND ABOVE BASE, POORLY GRADED SAND BELOW
B-10	682+02	6' LT	8"	6"	10"	LEAN CLAY, LEAN CLAY WITH SAND & CLAYEY SAND
B-11	699+07	7' RT	8.5"	8"	---	CLAYEY SAND & SANDY LEAN CLAY
B-12	727+98	8' LT	12"	8"	---	LEAN CLAY W/SAND & SILTY CLAY
B-13	743+97	7' RT	10.5"	9"	---	SILTY SAND, POORLY GRADED SAND W/SILT, LEAN CLAY
B-14	765+00	6' LT	11"	---	11"	SANDY LEAN CLAY
B-15	785+93	6' RT	12"	---	18"	SANDY LEAN CLAY
B-16	807+09	7' LT	15"	5"	7"	BASE IS ABOVE CONCRETE, SILTY SAND & SILTY CLAY BELOW
B-17	827+98	8' RT	13"	4"	5"	BASE IS ABOVE CONCRETE, LEAN CLAY W/SAND & CLAYEY SAND BELOW
B-18	848+94	8' LT	11.5"	5.5"	---	LEAN CLAY
B-19	869+98	7' RT	12"	5"	---	SILTY SAND
B-20	890+98	6' LT	11"	6"	---	SILTY CLAY & LEAN CLAY W/SAND
B-21	911+96	7' RT	12"	---	6"	SILTY SAND W/GRAVEL & SLIGHTLY ORGANIC SANDY LEAN CLAY
B-22	699+64	8' LT	10"	10"	---	LEAN CLAY W/ SAND, CLAYEY SAND & LEAN CLAY, POORLY GRADED SAND W/SILT
B-23	699+92	10' RT	4"	7"	---	8" SILTY SAND ABOVE CONCRETE, CLAYEY SAND, SANDY LEAN CLAY, LEAN CLAY WITH SAND, POORLY GRADED SAND W/CLAY, CLAYEY SAND, POORLY GRADED SAND W/SILT









PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PROJECT OVERVIEW	SHEET 4	E

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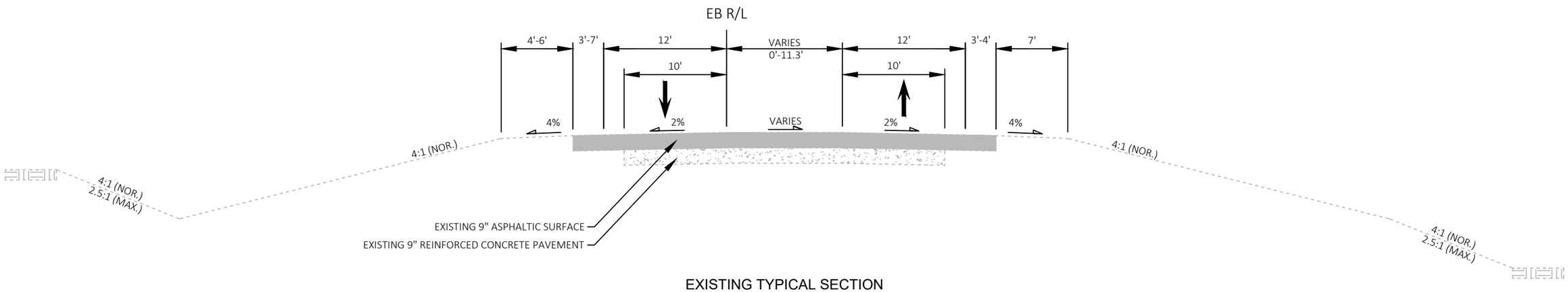
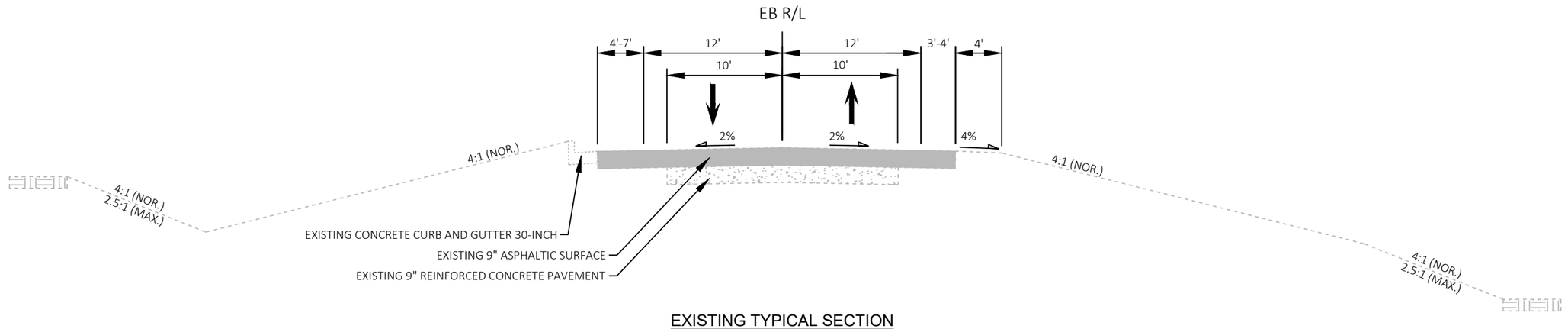
LAYOUT NAME - 020201-po
PLOT DATE : 1/31/2021 9:50 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 42



EXISTING TYPICAL SECTION

STA. 458+44.40 'EB' - 460+98.62 'EB'



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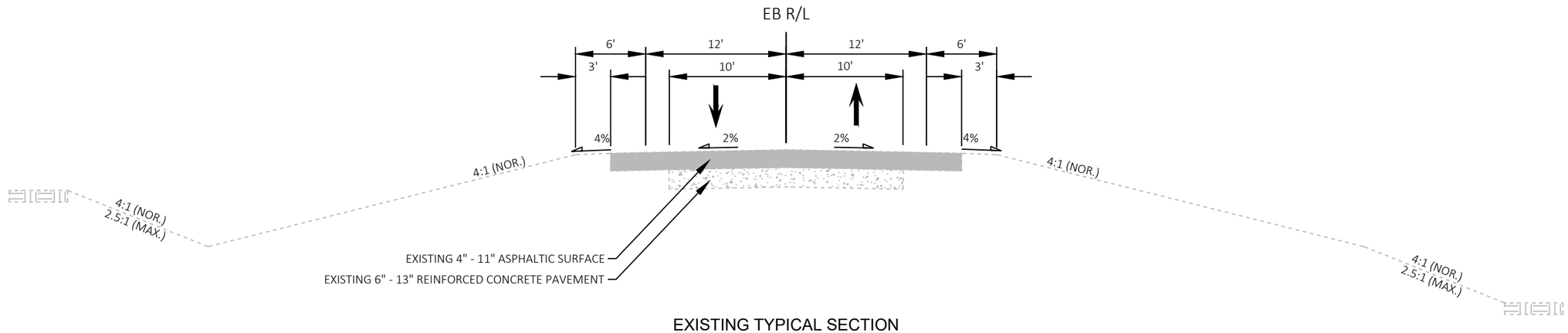
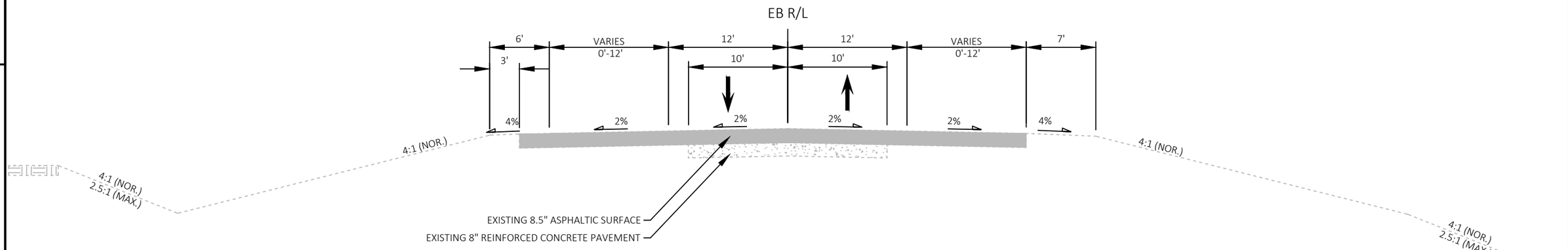


EXISTING TYPICAL SECTION

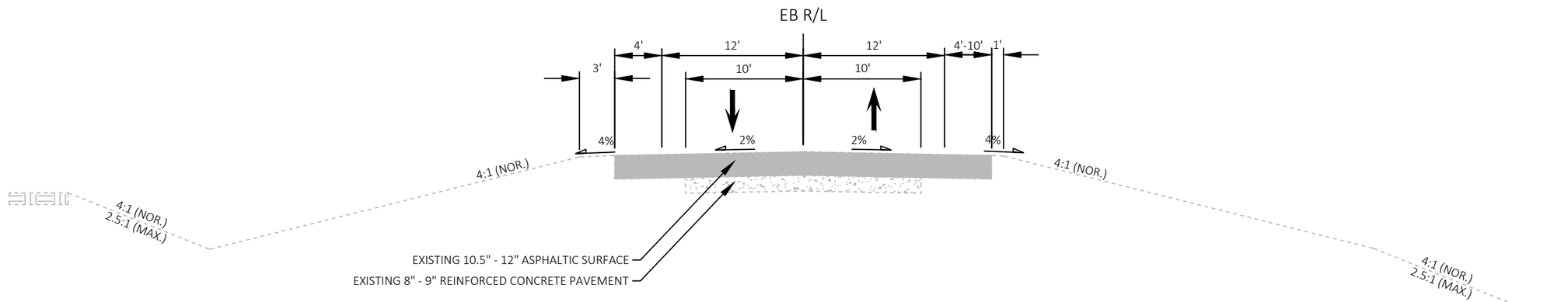
STA. 462+78.09 'EB' - 709+70.24 'EB'

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	EXISTING TYPICAL SECTIONS	SHEET 5	E



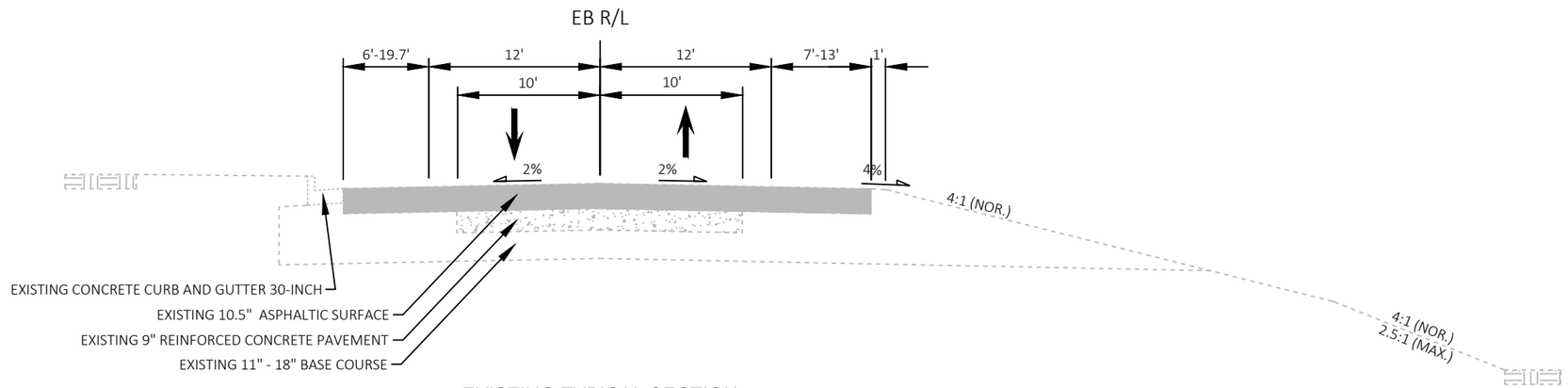
EXISTING TYPICAL SECTION

STA. 709+70.24 'EB' - 719+52.56 'EB'



EXISTING TYPICAL SECTION

STA. 719+52.56 'EB' - 760+10.13 'EB'

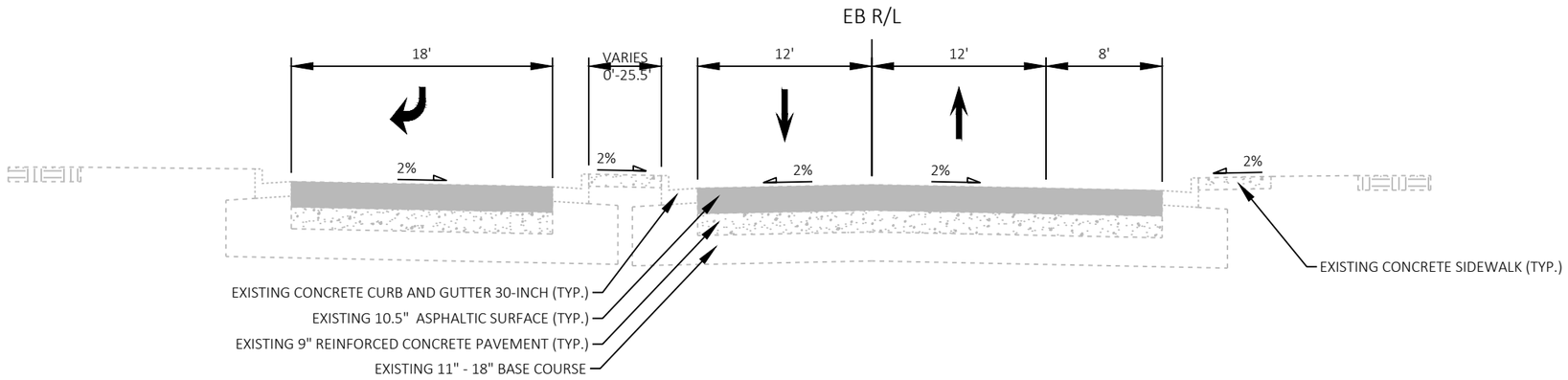


EXISTING TYPICAL SECTION

STA. 760+10.13 'EB' - 761+65.47 'EB'

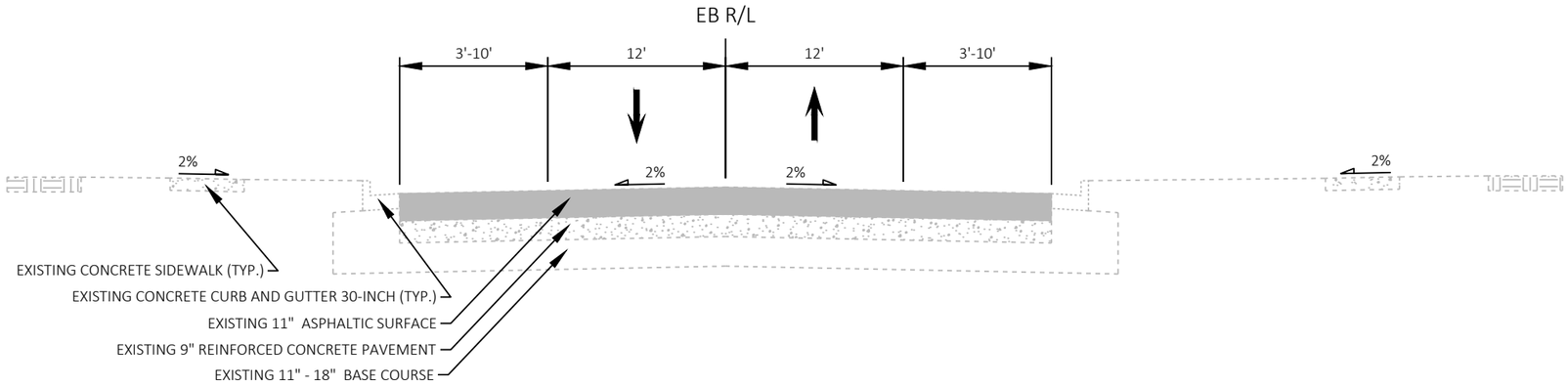
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	EXISTING TYPICAL SECTIONS	SHEET 6	E

2



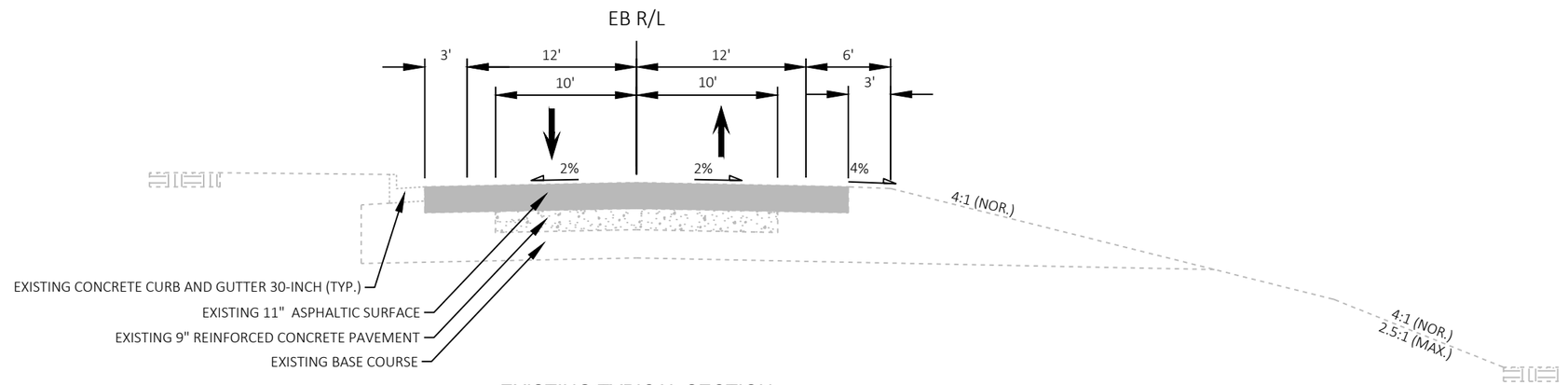
EXISTING TYPICAL SECTION

STA. 761+65.47 'EB' - 763+78.93 'EB'



EXISTING TYPICAL SECTION

STA. 763+78.93 'EB' - 776+75.43 'EB'

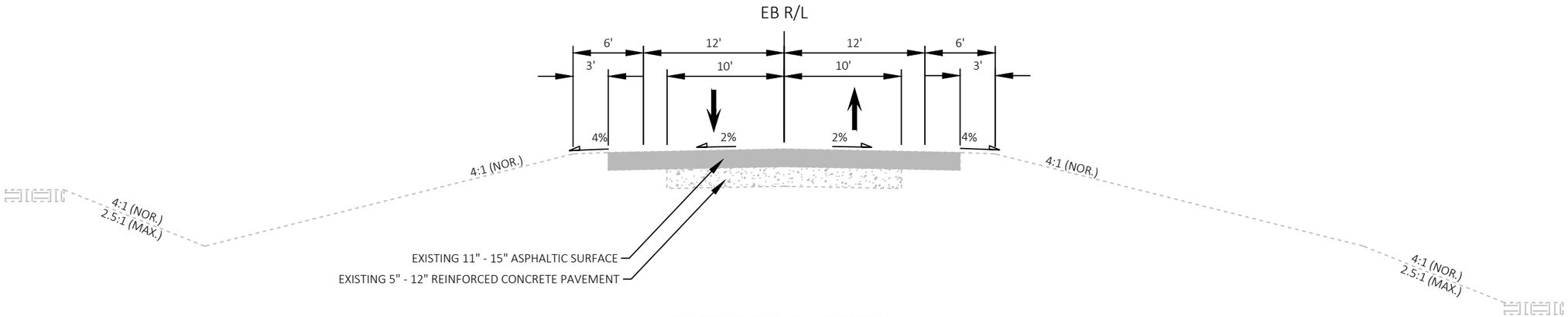


EXISTING TYPICAL SECTION

STA. 776+75.43 'EB' - 777+34.55 'EB'

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	EXISTING TYPICAL SECTIONS	SHEET 7	E

2

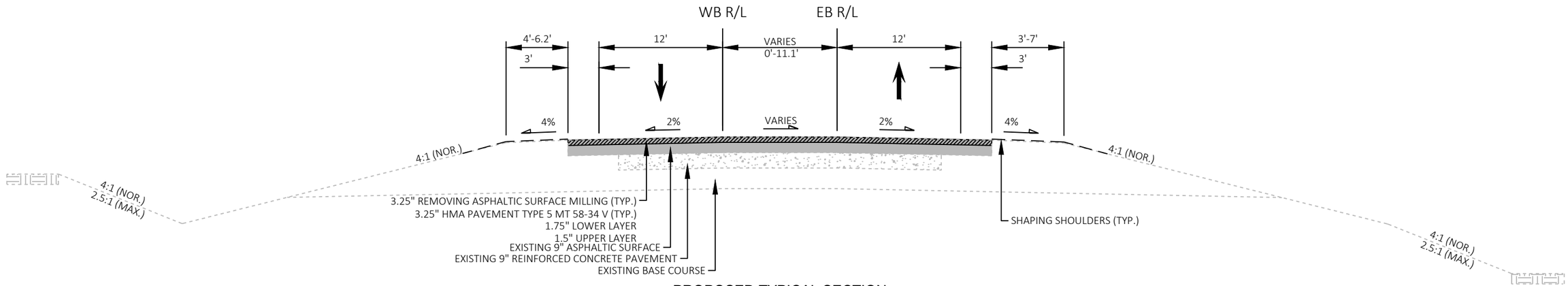


EXISTING TYPICAL SECTION

STA. 777+34.55 'EB' - 914+00.00 'EB'

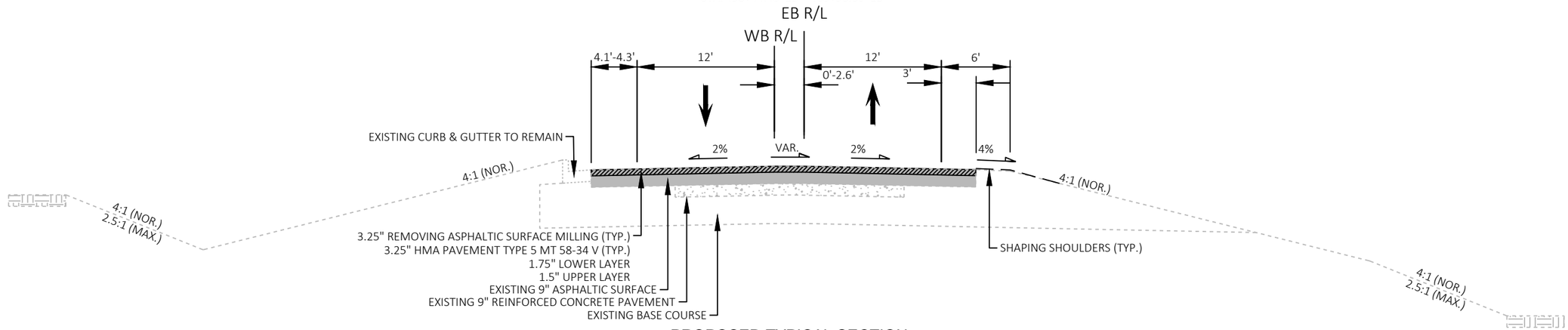
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	EXISTING TYPICAL SECTIONS	SHEET 8	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\020301_TS_EX.DWG
LAYOUT NAME - 04
PLOT DATE : 1/27/2021 7:16 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



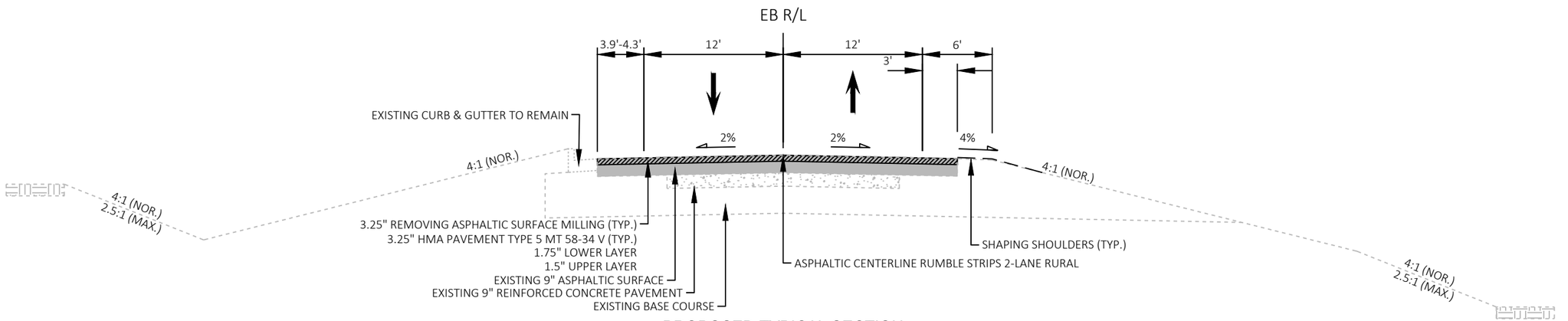
PROPOSED TYPICAL SECTION

STA. 458+44.40 'EB' - 460+98.60 'EB'



PROPOSED TYPICAL SECTION

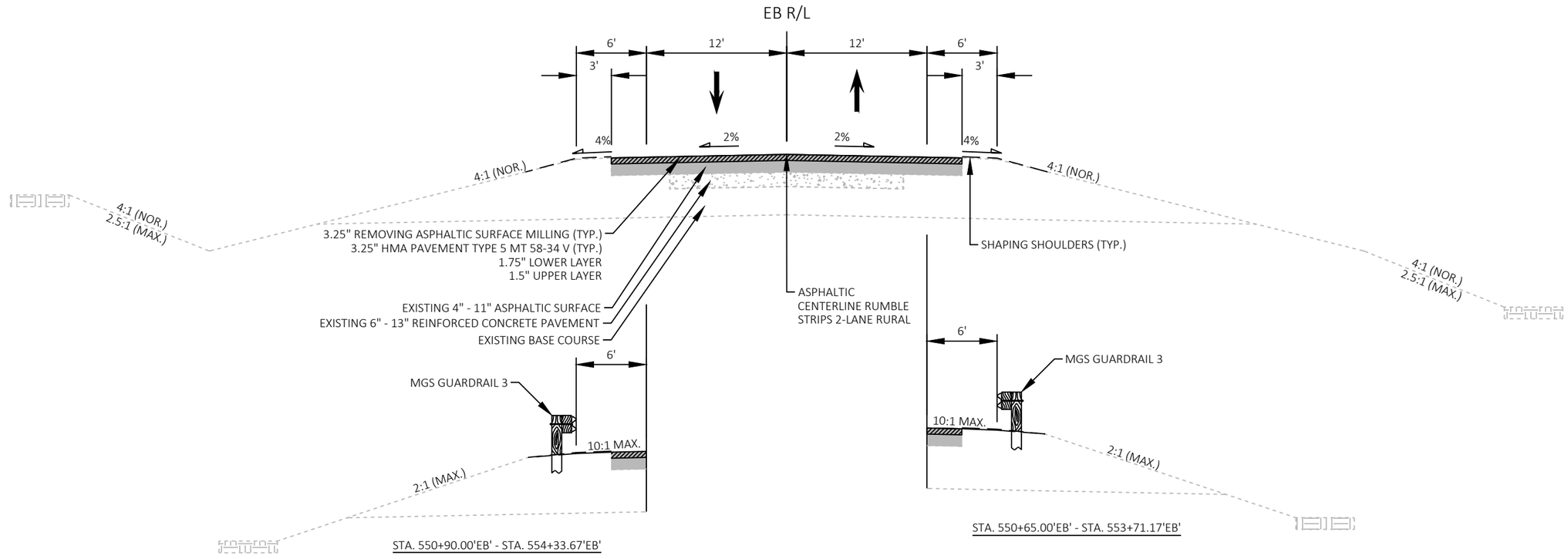
STA. 460+98.60 'EB' - 462+50.00 'EB'



PROPOSED TYPICAL SECTION

STA. 462+50.00 'EB' - 462+78.09 'EB'

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PROPOSED TYPICAL SECTIONS	SHEET 9	E

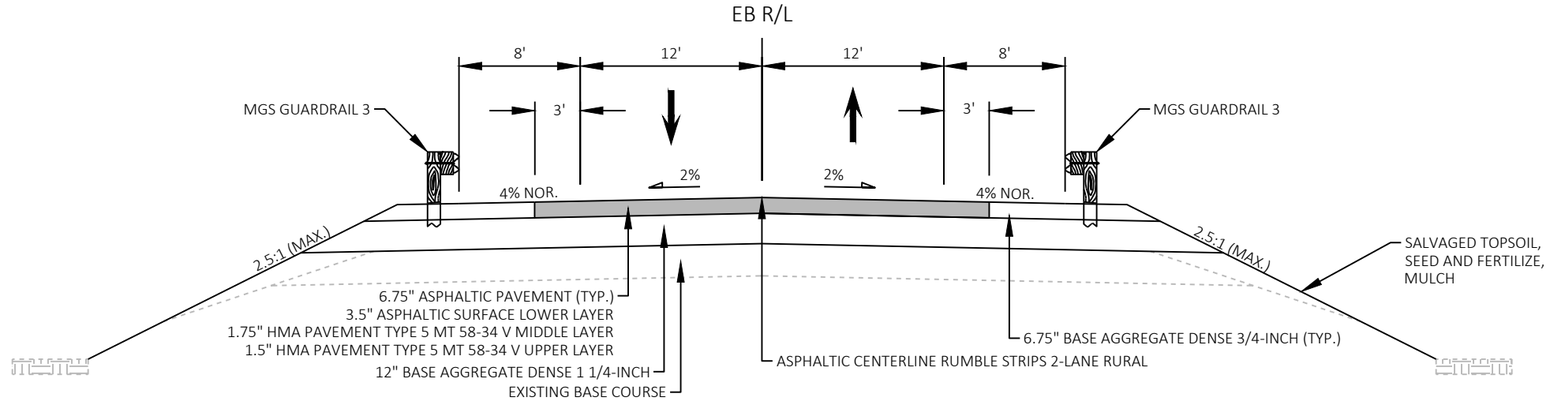


STA. 550+90.00'EB' - STA. 554+33.67'EB'

STA. 550+65.00'EB' - STA. 553+71.17'EB'

PROPOSED TYPICAL SECTION

STA. 462+78.09 'EB' - 697+22.10 'EB'
STA. 702+97.90 'EB' - 709+70.46 'EB'
STA. 719+24.64 'EB' - 746+57.26 'EB'

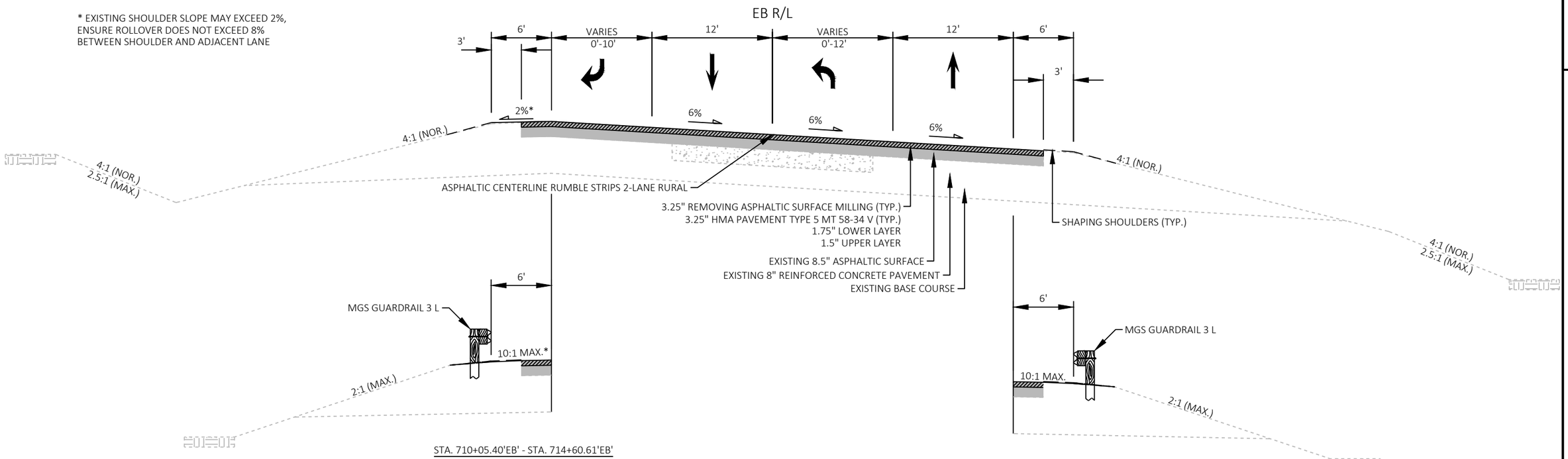


PROPOSED TYPICAL SECTION

STA. 697+22.10 'EB' - 699+98.88 'EB'
STA. 700+21.13 'EB' - 702+97.90 'EB'

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PROPOSED TYPICAL SECTIONS	SHEET 10	E

* EXISTING SHOULDER SLOPE MAY EXCEED 2%, ENSURE ROLLOVER DOES NOT EXCEED 8% BETWEEN SHOULDER AND ADJACENT LANE

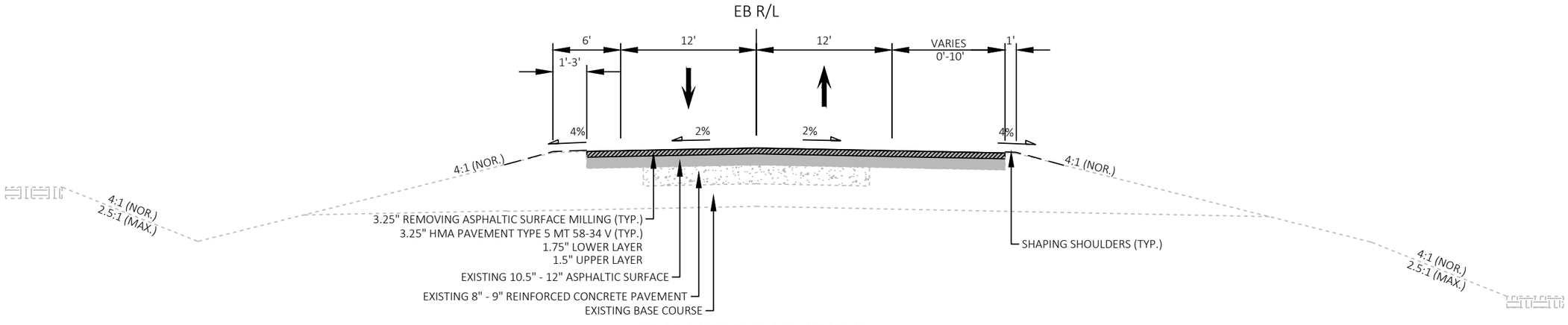


STA. 710+05.40'EB' - STA. 714+60.61'EB'

STA. 709+70.46'EB' - STA. 713+54.80'EB'

PROPOSED TYPICAL SECTION

STA. 709+70.46 'EB' - 719+24.64 'EB'

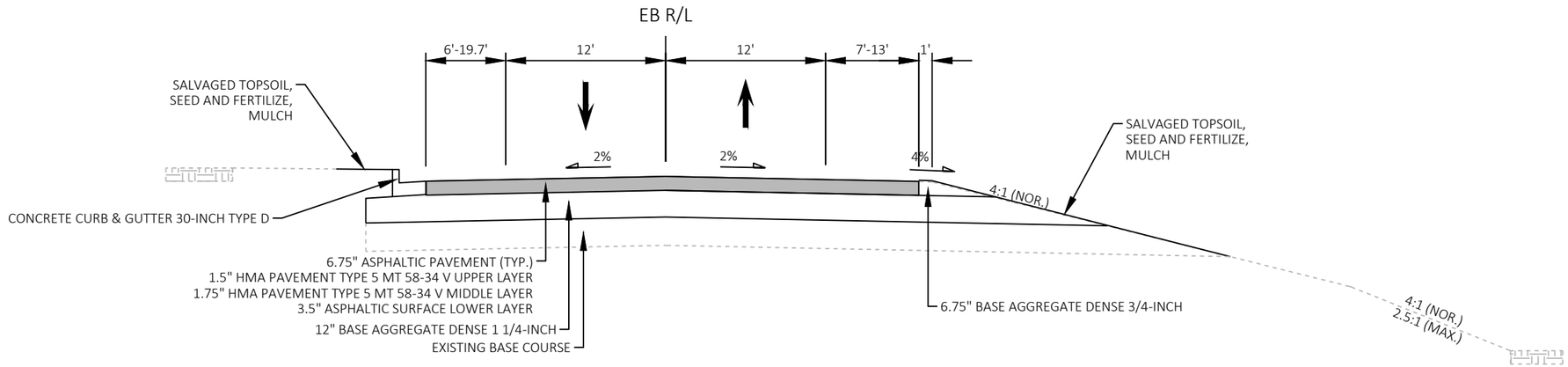


PROPOSED TYPICAL SECTION

STA. 746+57.26 'EB' - 758+55 'EB'

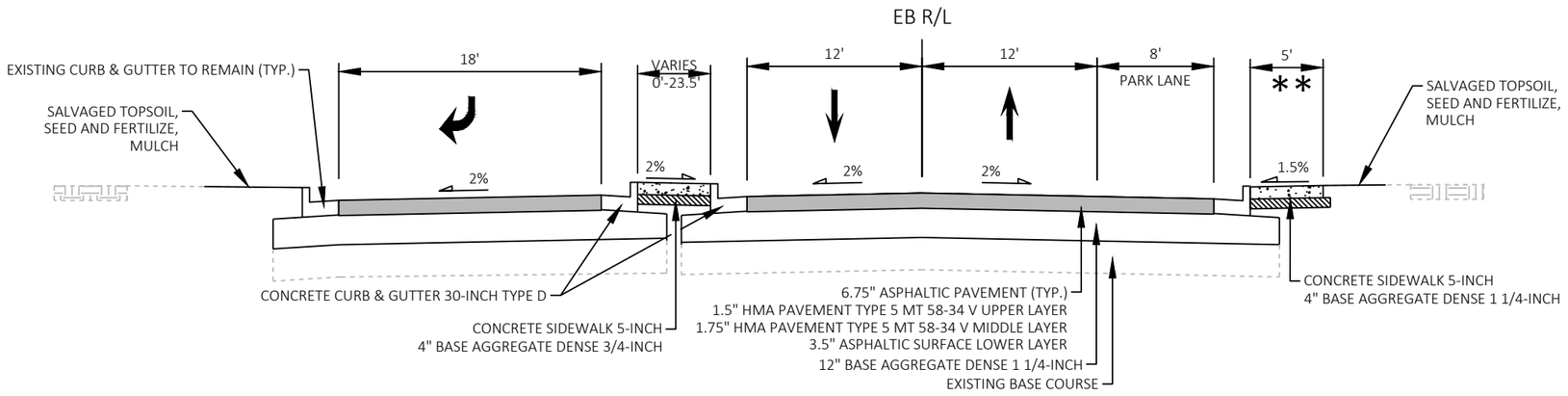
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PROPOSED TYPICAL SECTIONS	SHEET 11	E

2



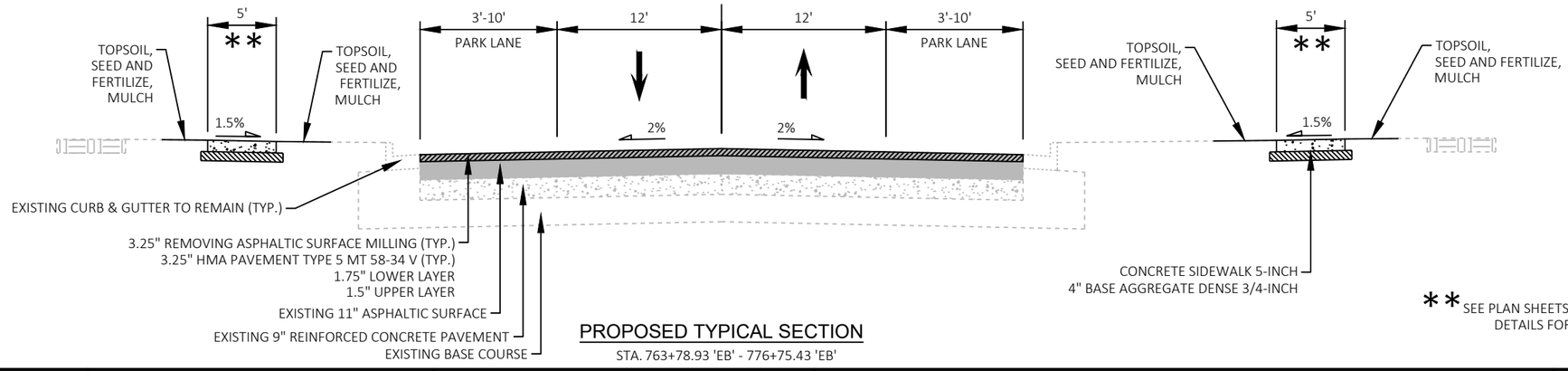
PROPOSED TYPICAL SECTION

STA. 758+55 'EB' - 761+65.47 'EB'



PROPOSED TYPICAL SECTION

STA. 761+65.47 'EB' - 763+78.93 'EB'

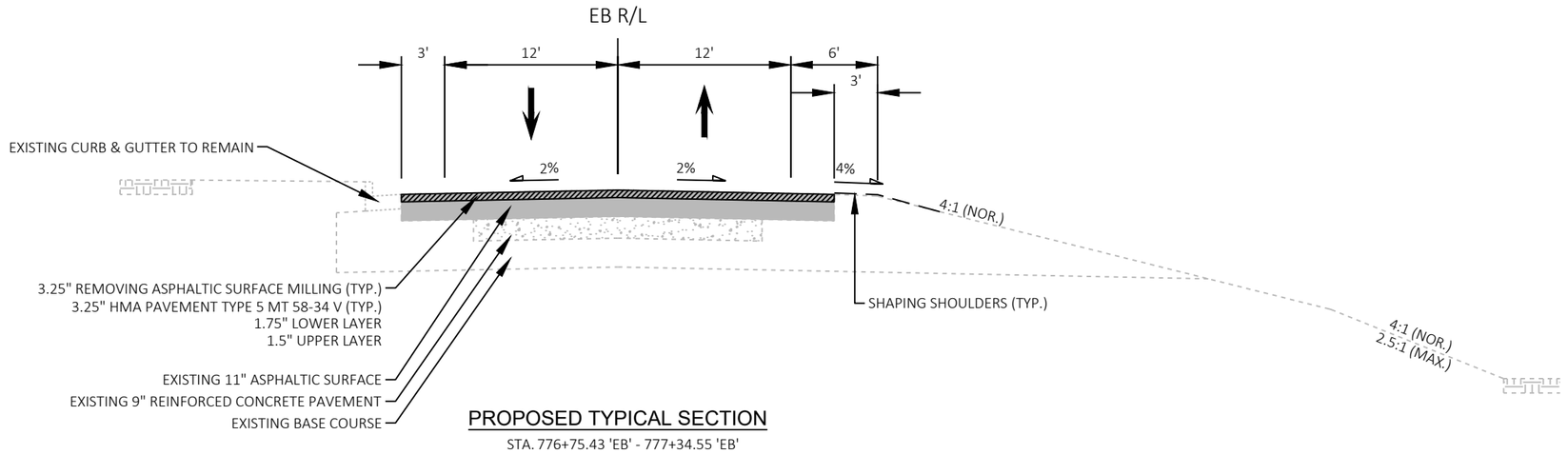


PROPOSED TYPICAL SECTION

STA. 763+78.93 'EB' - 776+75.43 'EB'

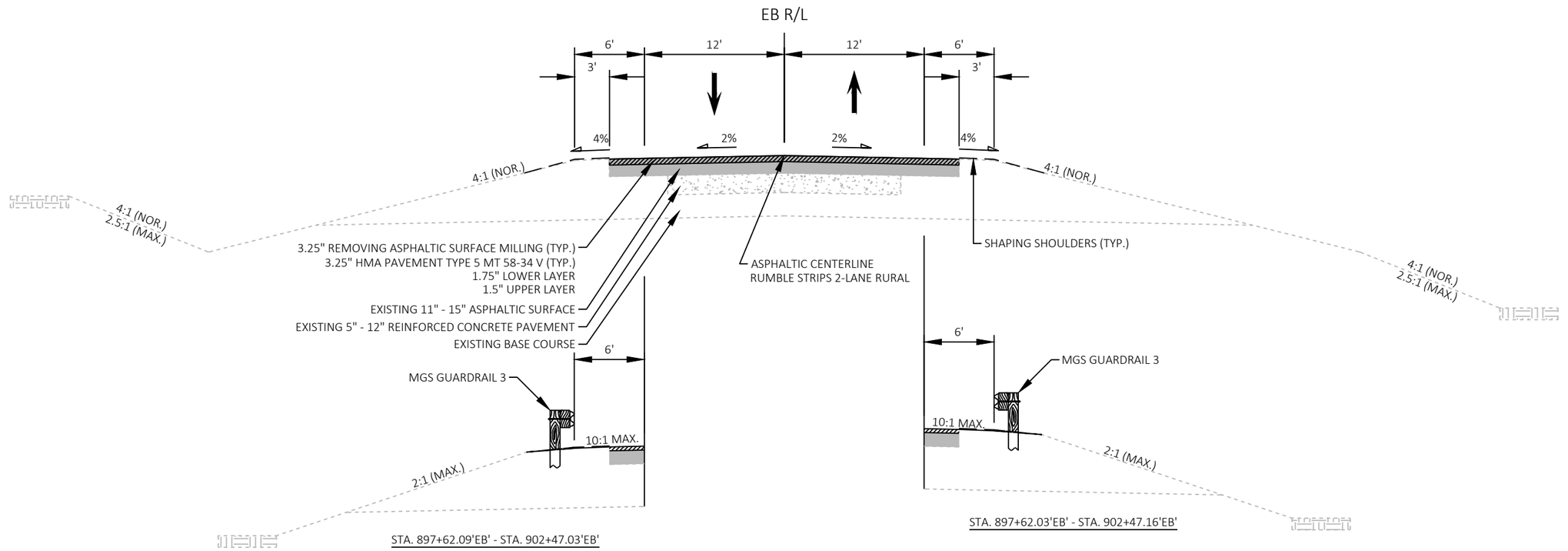
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PROPOSED TYPICAL SECTIONS	SHEET 12	E

2



PROPOSED TYPICAL SECTION

STA. 776+75.43 'EB' - 777+34.55 'EB'



STA. 897+62.09'EB' - STA. 902+47.03'EB'

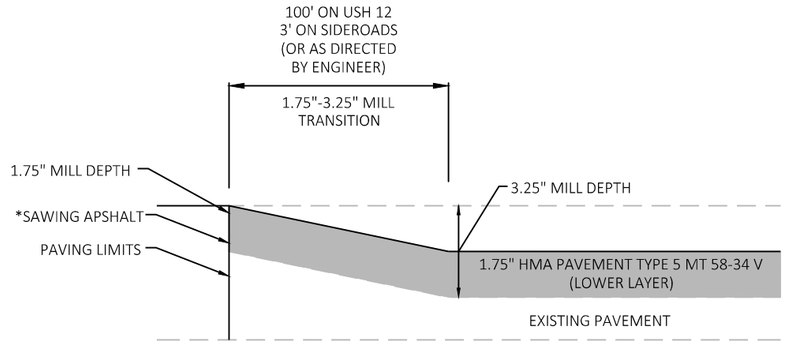
STA. 897+62.03'EB' - STA. 902+47.16'EB'

PROPOSED TYPICAL SECTION

STA. 777+34.55 'EB' - 914+00.00 'EB'

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PROPOSED TYPICAL SECTIONS	SHEET 13	E

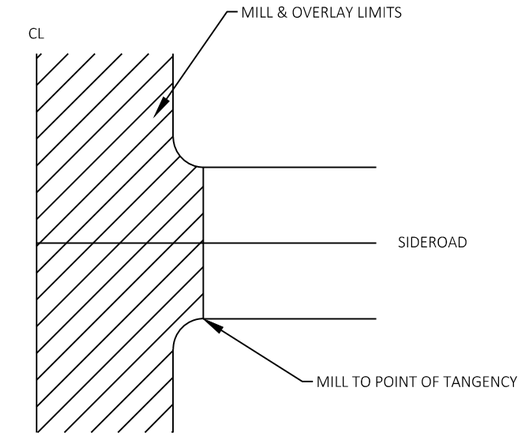
2



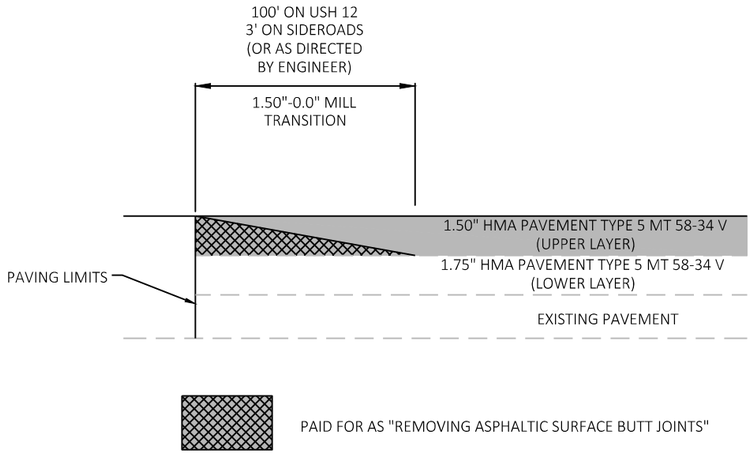
*REQUIRED AT BEGINNING AND END OF PROJECT. SIDEROADS AS DIRECTED BY ENGINEER.
MILL AND REMOVE 3.25" OF EXISTING SURFACE, EXCEPT IN TRANSITION AREA
MILL AND REMOVE 1.75" TO 3.25" OF EXISTING SURFACE IN TRANSITION AREA
OVERLAY 1.75" HMA PAVEMENT TYPE 5 MT 58-34 V (LOWER LAYER)

USH 12 JOINT TRANSITION DETAIL: LOWER LAYER

REQUIRED AT BEGINNING OF PROJECT
(EXACT LOCATION AND LENGTH TO BE DETERMINED BY THE ENGINEER)

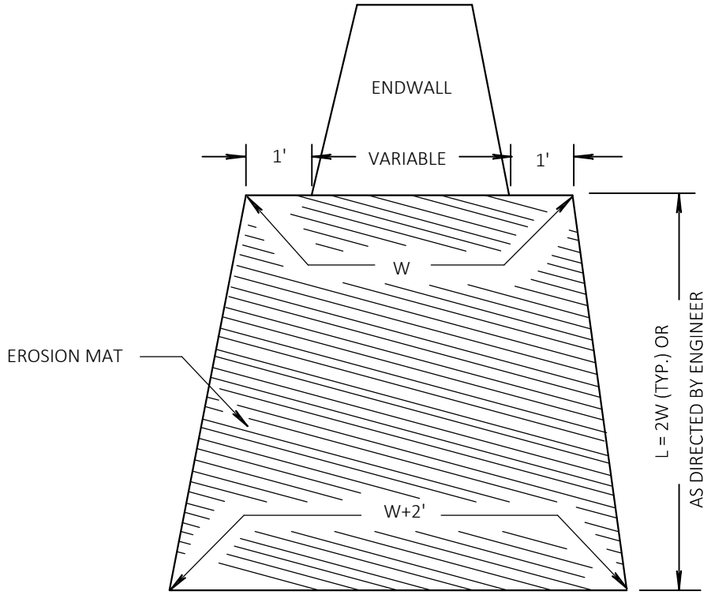


SIDEROAD DETAIL

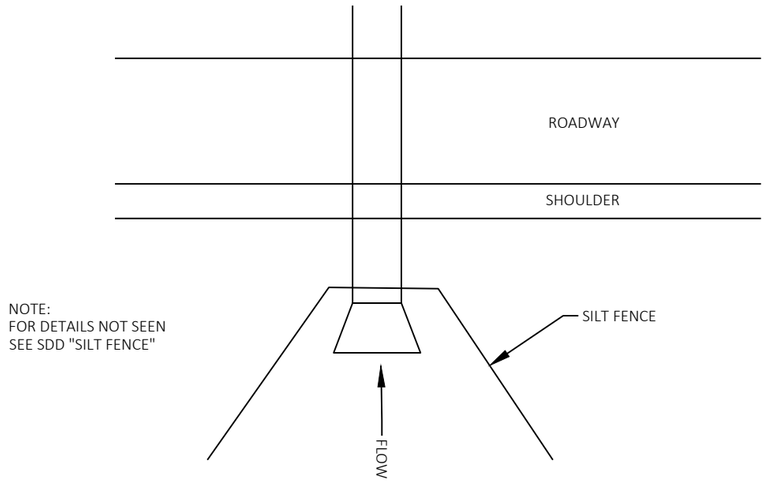


USH 12 REMOVING ASPHALTIC SURFACE BUTT JOINT DETAIL: UPPER LAYER

REQUIRED AT BEGINNING OF PROJECT AND AT SIDEROADS
(EXACT LOCATION AND LENGTH TO BE DETERMINED BY THE ENGINEER)

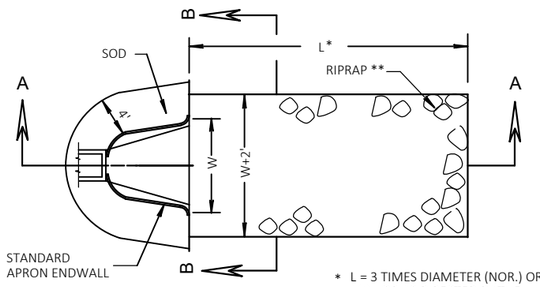


EROSION MAT TREATMENT AT CULVERTS

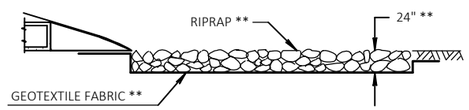


TYPICAL SILT FENCE DETAIL AT PIPE INLET

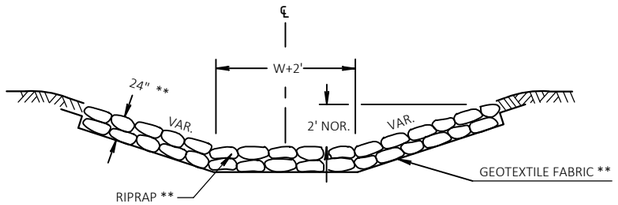
(SEE EROSION CONTROL PLAN FOR LOCATIONS)



* L = 3 TIMES DIAMETER (NOR.) OR 10' MIN. OR AS DIRECTED BY THE ENGINEER



SECTION A-A

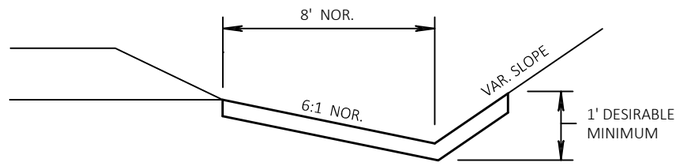


SECTION B-B

** FOR RIPRAP HEAVY, USE 24" DEPTH AND GEOTEXTILE FABRIC TYPE HR

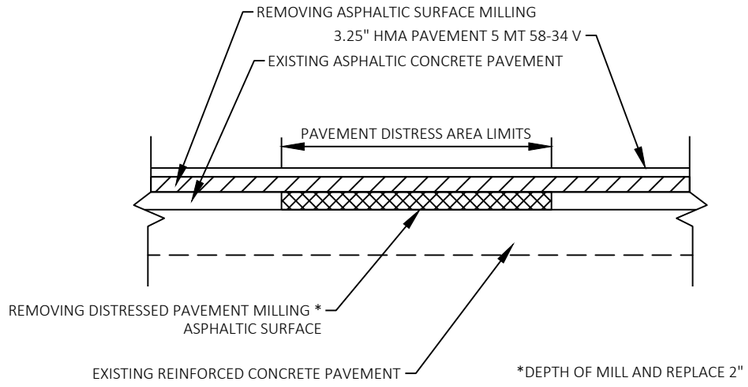
FOR RIPRAP MEDIUM, USE 18" DEPTH AND GEOTEXTILE FABRIC TYPE R

RIPRAP AND GEOTEXTILE FABRIC DETAIL AT APRON ENDWALLS



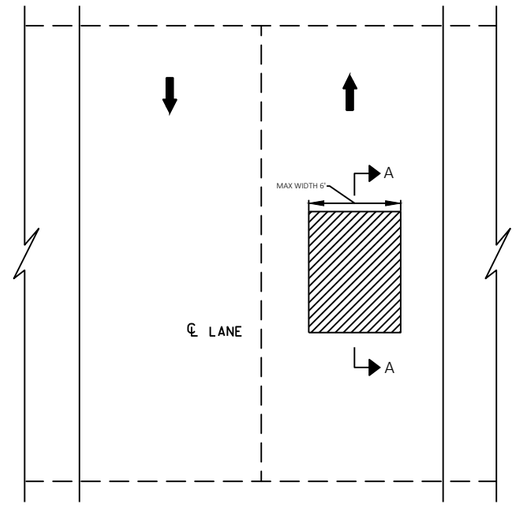
EROSION MAT DETAIL FOR DITCHES

2



PAVEMENT SECTION AT DISTRESS AREAS

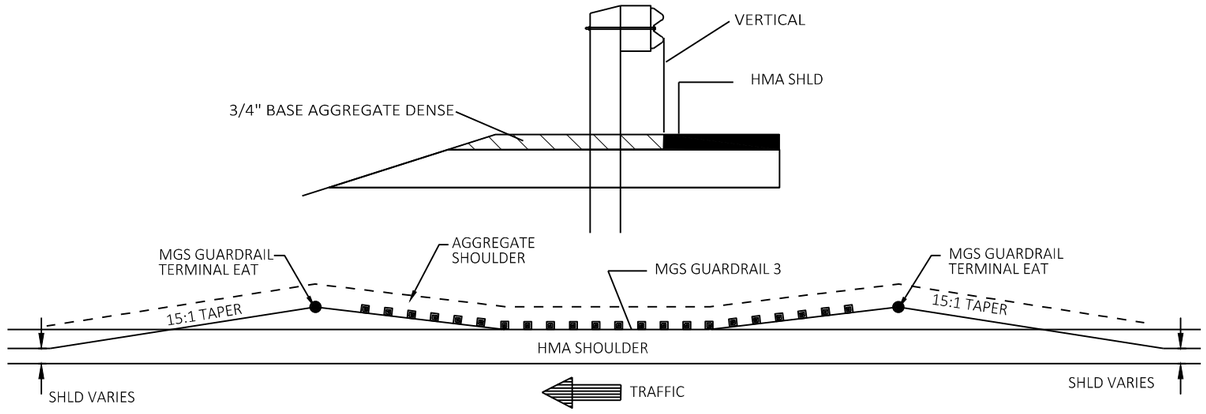
SECTION A-A



PLAN VIEW

LANE REPAIR DETAIL

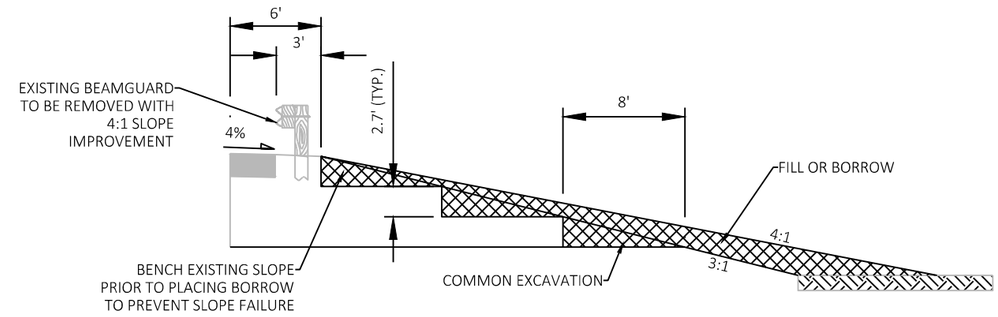
ITEM SPV.0090.005



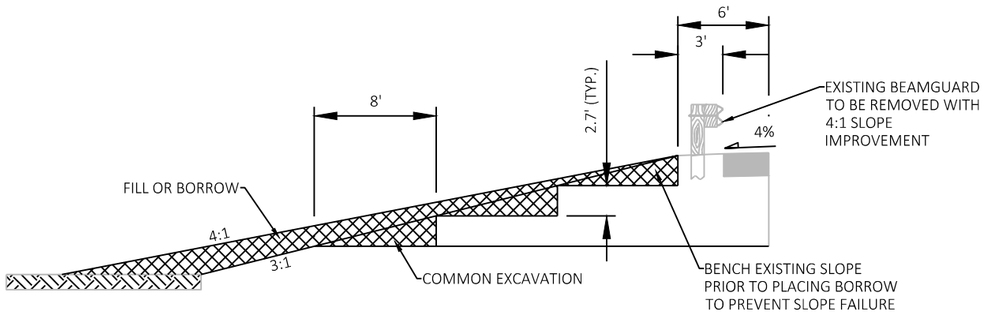
DETAIL FOR ASPHALTIC OR CONCRETE SHOULDER AT BEAM GUARD

(SEE PLAN AND PROFILES FOR LOCATIONS)

SEE S.D.D. "MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL",
"MIDWEST GUARDRAIL SYSTEM (MGS) EAT",
"MIDWEST GUARDRAIL SYSTEM (MGS) THRIE BEAM TRANSITION",
"MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL"
FOR DETAILS NOT SHOWN.



STA. 589+14.96'EB' - STA. 591+53.79'EB', RT
STA. 599+42.81'EB' - STA. 602+82.47'EB', RT
STA. 738+485.57'EB' - STA. 739+84.75'EB', RT



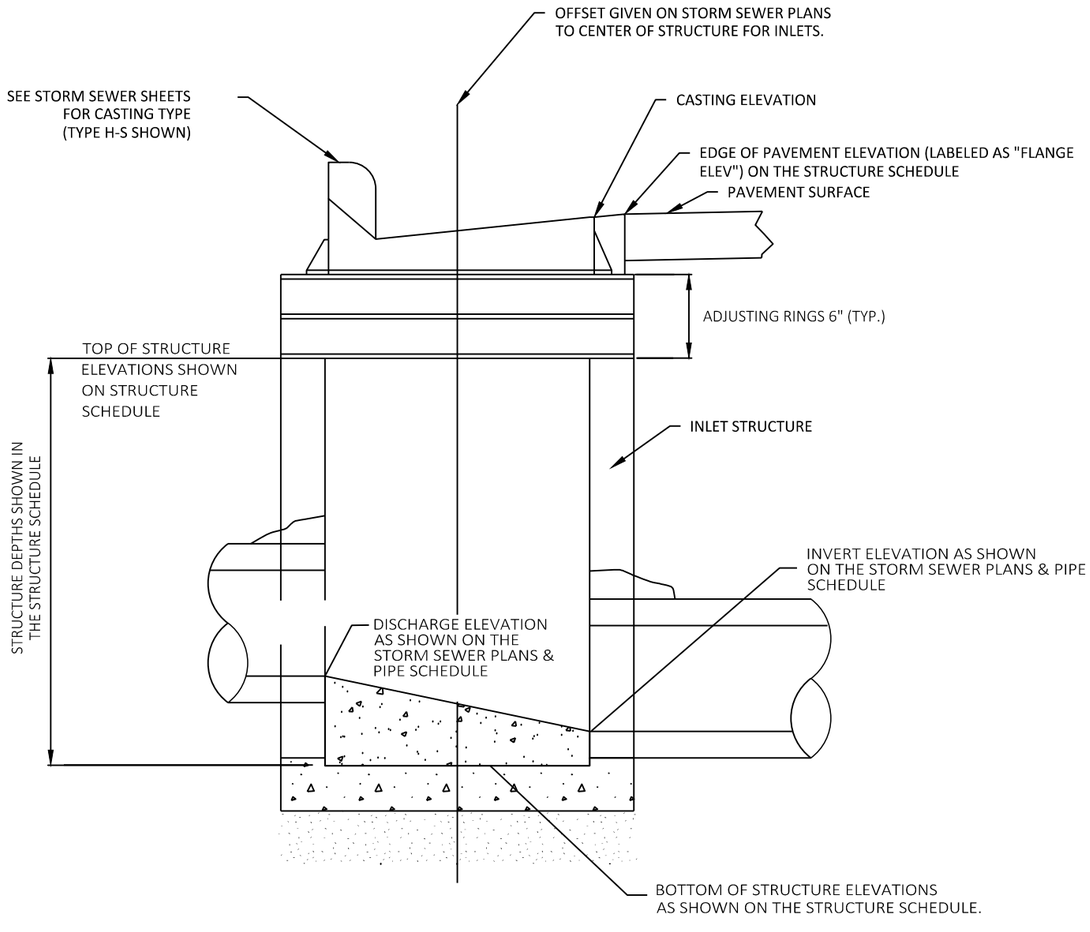
STA. 589+27.05'EB' - STA. 590+41.45'EB', LT
STA. 738+39.24'EB' - STA. 739+85.39'EB', LT

SLOPE IMPROVEMENT DETAIL

GENERAL NOTES:

GRANULAR BACKFILL REQUIRED AROUND INLET
(INCIDENTAL TO CONSTRUCTION OF INLET)

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



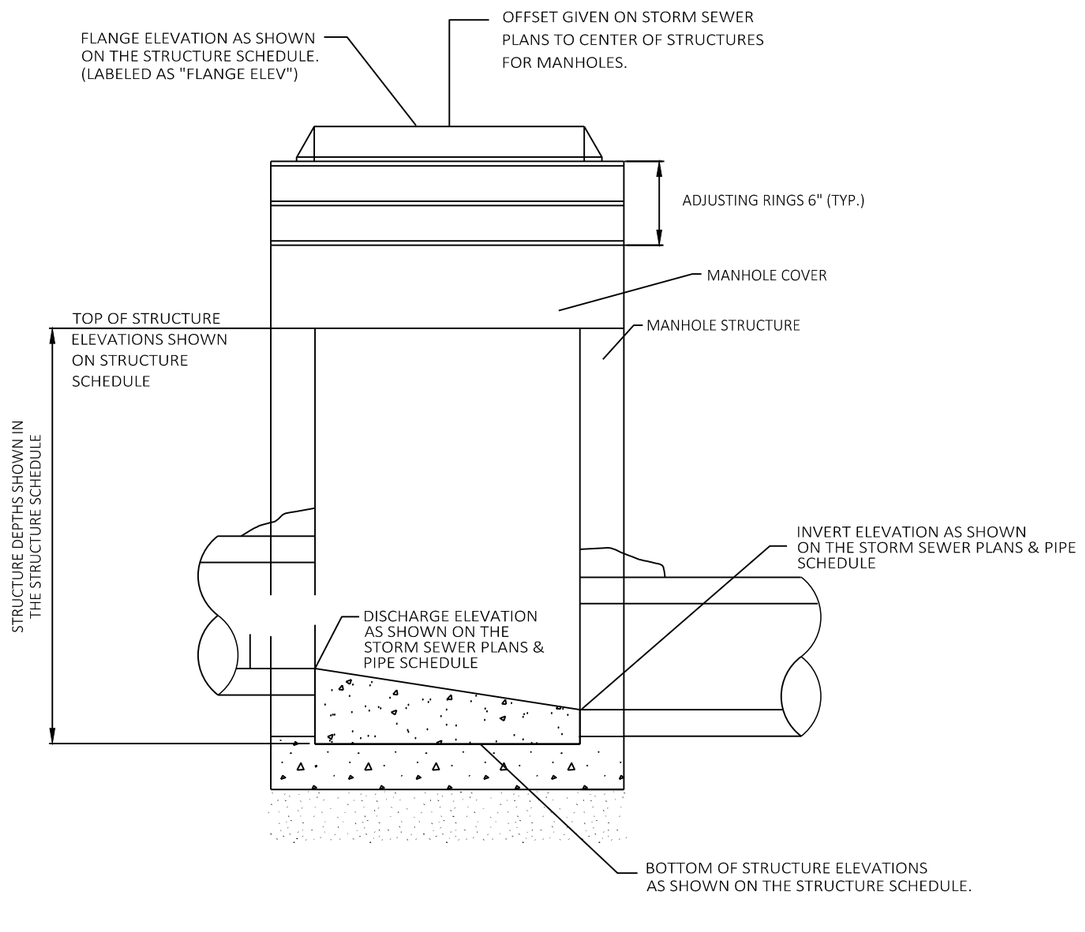
DETAIL OF INLET W/CASTING

(SEE STORM SEWER PLANS FOR LOCATIONS)

GENERAL NOTES:

GRANULAR BACKFILL REQUIRED AROUND MANHOLE
(INCIDENTAL TO CONSTRUCTION OF MANHOLE)

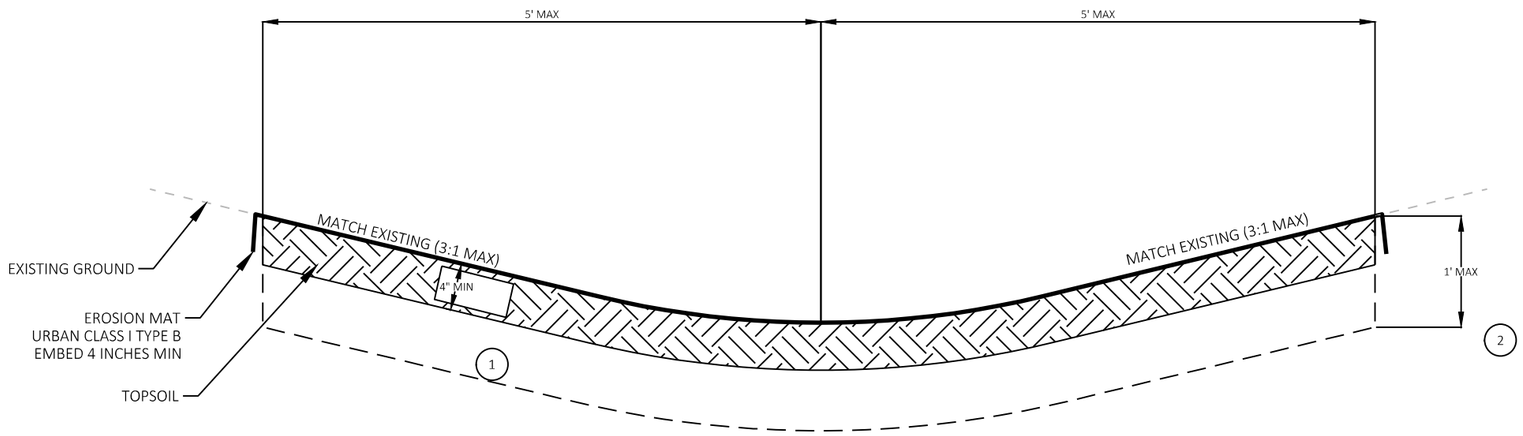
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPLICABLE SPECIAL PROVISIONS, AND WISDOT S.D.D. FOR MANHOLES.



DETAIL OF MANHOLE W/CASTING

(SEE STORM SEWER PLANS FOR LOCATIONS)

2



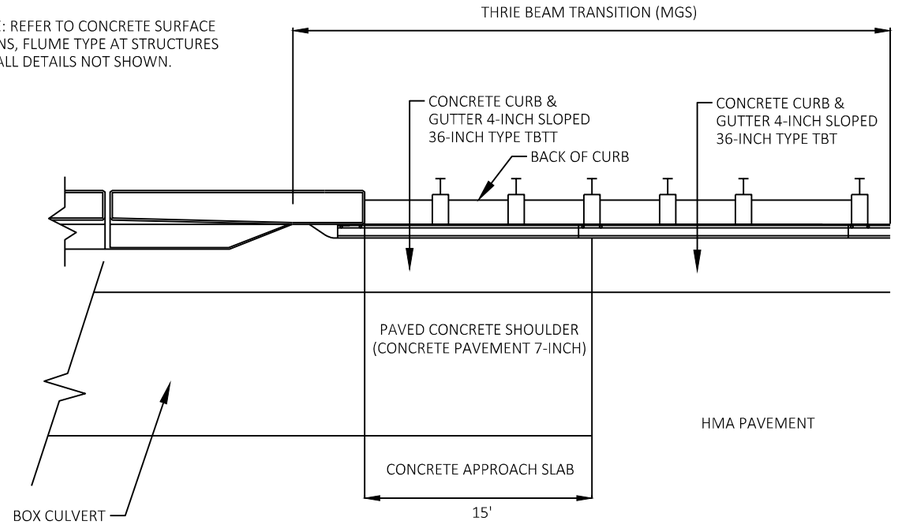
1 MINIMUM REMOVAL DEPTH

2 MAX DISTURBANCE DEPTH

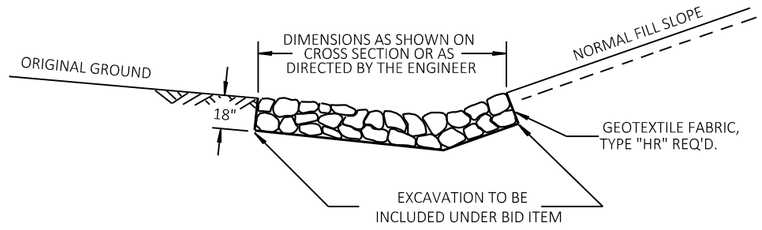
DITCH CLEANING
ITEM SPV.0090.004

STA. 519+12 - STA. 520+12 EB
STA. 600+57 - STA. 601+57 EB
STA. 623+71 - STA. 624+71 EB
STA. 807+94 - STA. 808+94 EB
STA. 883+54 - STA. 884+54 EB

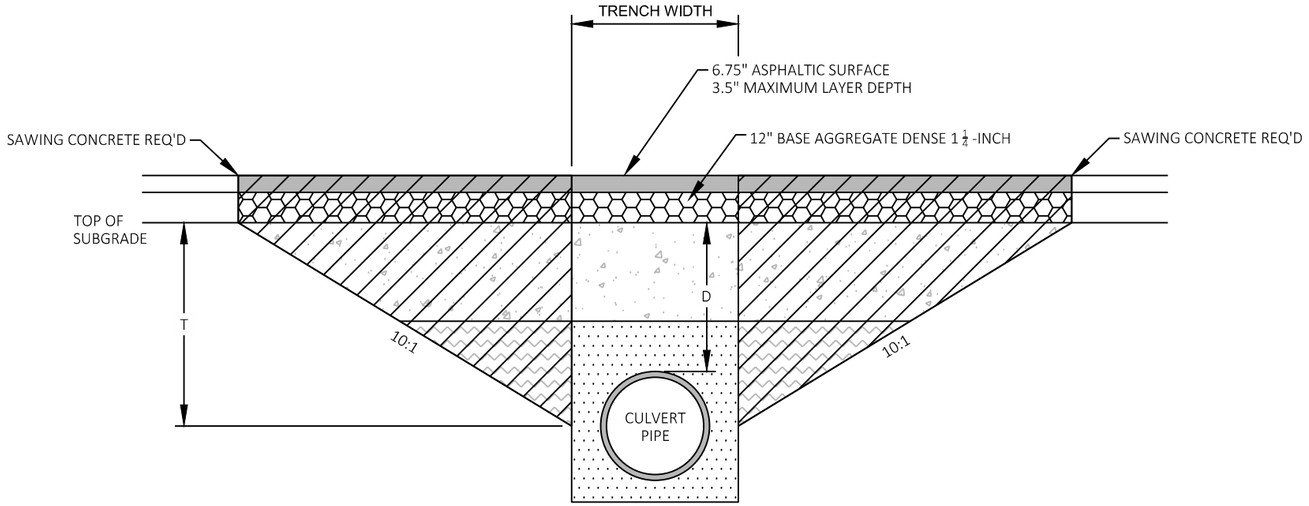
NOTE: REFER TO CONCRETE SURFACE DRAINS, FLUME TYPE AT STRUCTURES FOR ALL DETAILS NOT SHOWN.



BOX CULVERT CONCRETE SURFACE DRAIN DETAIL



DETAIL FOR RIPRAP MEDIUM IN DITCHES



DO NOT EXTEND TRANSITION CUT BELOW HORIZONTAL CENTER OF PIPE.

LEGEND

- PROPOSED SURFACE
- PROPOSED BASE
- TRENCH BACKFILL
- TRENCH OR FOUNDATION BACKFILL
- FOUNDATION BACKFILL
- TRANSITION CUT

CULVERT PIPE TRANSITION

ROUTE	STA. (CL)	DEPTH D (FT)	PIPE DIA. (IN)	REMARKS
USH 12	483+11	0	27X42 HE-IV	TOP OF PIPE IS AT BOTTOM OF BASE
USH 12	589+61	1.8	24X38 HE-IV	
USH 12	601+07	3.7	22X34 HE-IV	
USH 12	739+16	0.7	43X68 HE-IV	

NOTES

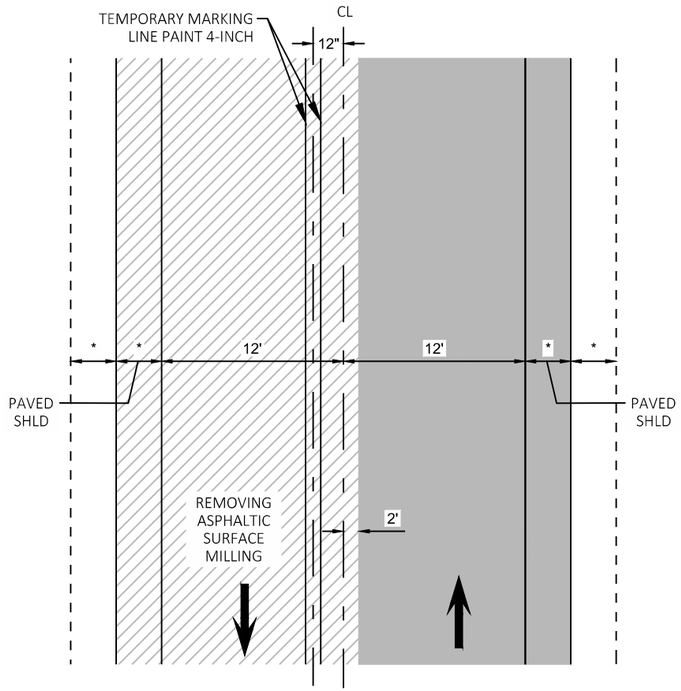
TRANSITION CIT IS INCIDENTAL TO CULVERT PIPE ITEM.

TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.

BACKFILL TRANSITION CUT AREAS WITH FOUNDATION AND TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520.

PERFORM CULVERT PIPE INSTALLATION BEFORE MILLING AND PAVING.

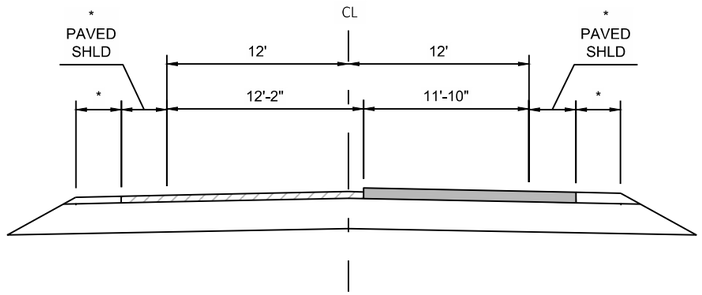
CULVERT REPLACEMENT DETAIL



PLAN VIEW

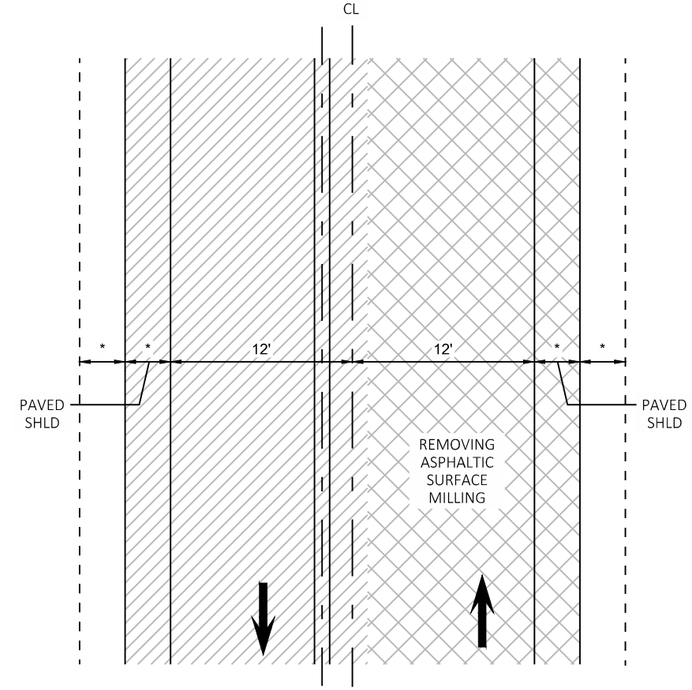
EXISTING ASPHALTIC SURFACE TO REMAIN

FIRST PASS 1.75" HMA PAVEMENT 5 MT 58-34 V



* SHOULDER WIDTHS VARY BASED ON TYPICAL SECTIONS

CROSS SECTION VIEW
FIRST PASS DETAIL

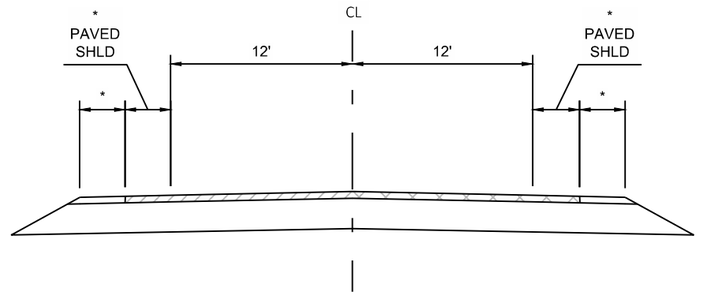


PLAN VIEW

EXISTING ASPHALTIC SURFACE TO REMAIN

FIRST PASS 1.75" HMA PAVEMENT 5 MT 58-34 V

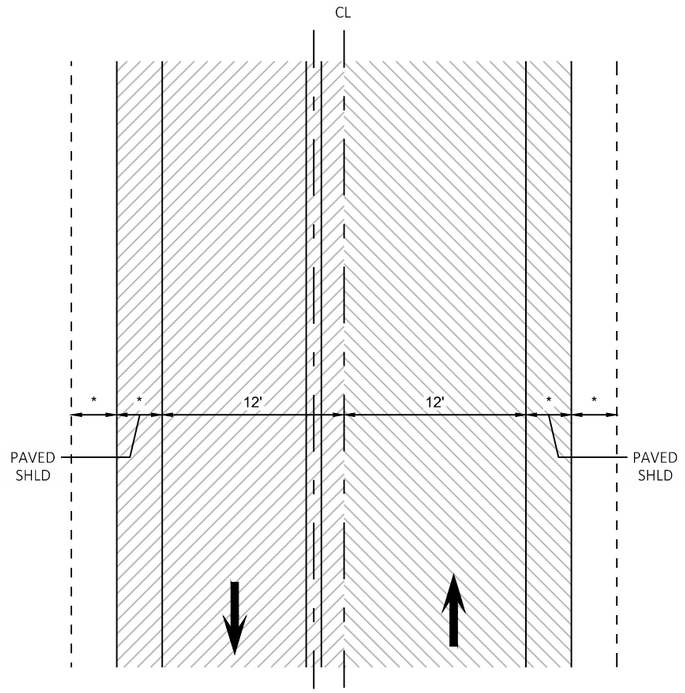
SECOND PASS 1.75" HMA PAVEMENT 5 MT 58-34 V



* SHOULDER WIDTHS VARY BASED ON TYPICAL SECTIONS

CROSS SECTION VIEW
SECOND PASS DETAIL

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN: CONSTRUCTION DETAILS	SHEET 21 E



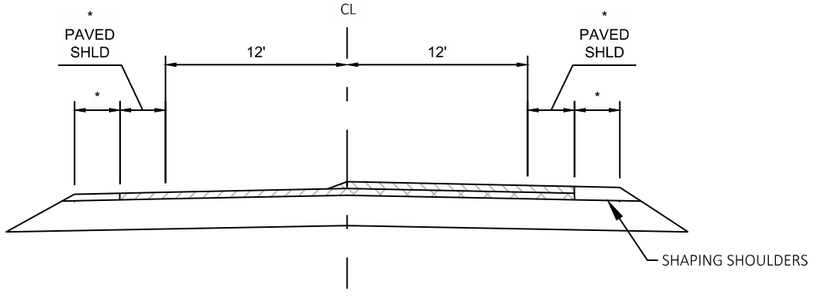
PLAN VIEW

EXISTING ASPHALTIC SURFACE TO REMAIN

FIRST PASS 1.75" HMA PAVEMENT 5 MT 58-34 V

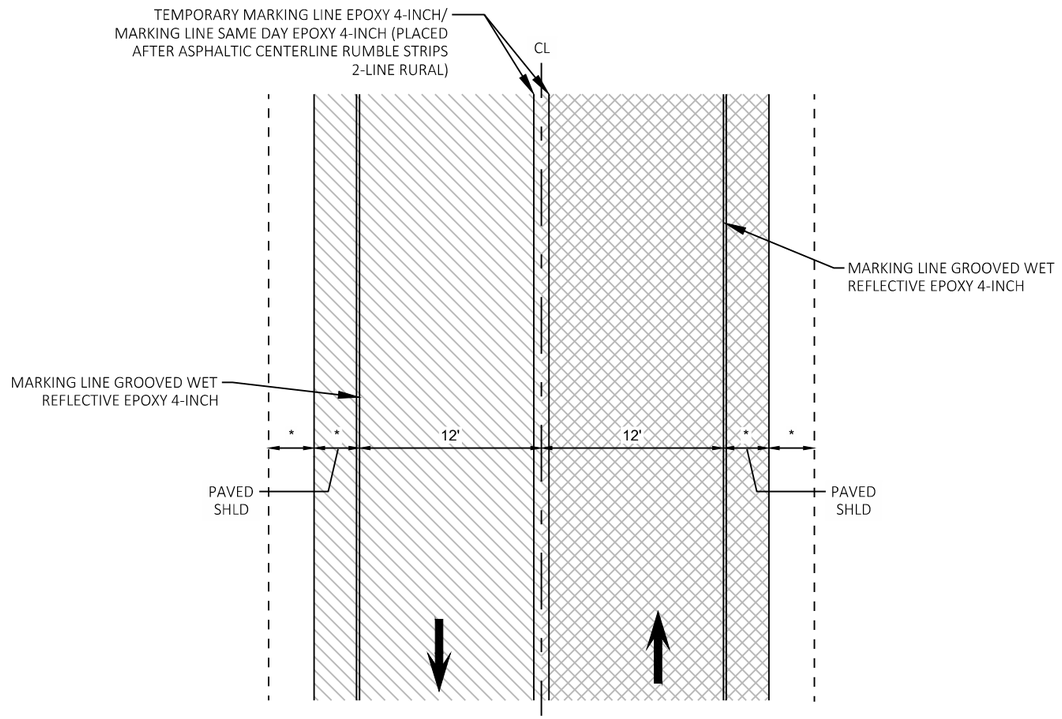
SECOND PASS 1.75" HMA PAVEMENT 5 MT 58-34 V

THIRD PASS 1.5" HMA PAVEMENT 5 MT 58-34 V



* SHOULDER WIDTHS VARY BASED ON TYPICAL SECTIONS

CROSS SECTION VIEW
THIRD PASS DETAIL



PLAN VIEW

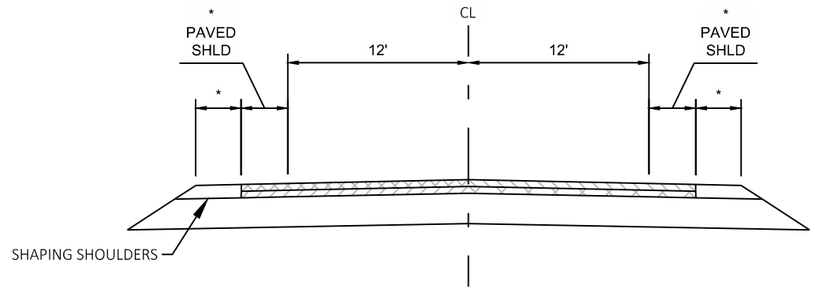
EXISTING ASPHALTIC SURFACE TO REMAIN

FIRST PASS 1.75" HMA PAVEMENT 5 MT 58-34 V

SECOND PASS 1.75" HMA PAVEMENT 5 MT 58-34 V

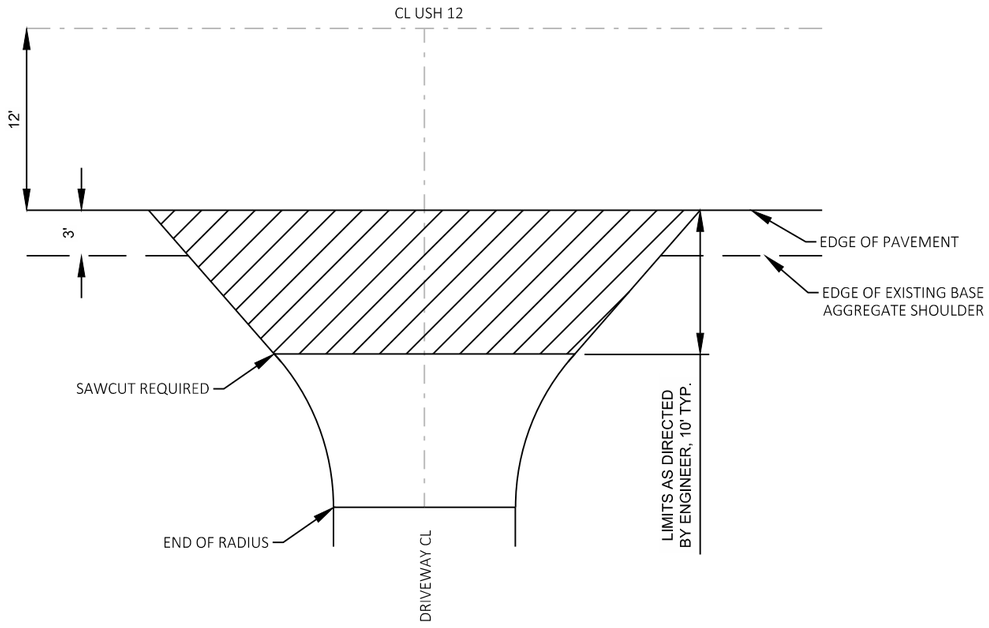
THIRD PASS 1.5" HMA PAVEMENT 5 MT 58-34 V

FOURTH PASS 1.5" HMA PAVEMENT 5 MT 58-34 V



CROSS SECTION VIEW
FOURTH PASS DETAIL

* SHOULDER WIDTHS VARY BASED ON TYPICAL SECTIONS



REMOVING ASPHALTIC SURFACE (FULL DEPTH), REPLACE WITH 2" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES.

MATCH EXISTING PAVED SURFACE WIDTH, RADII AND TAPERS.

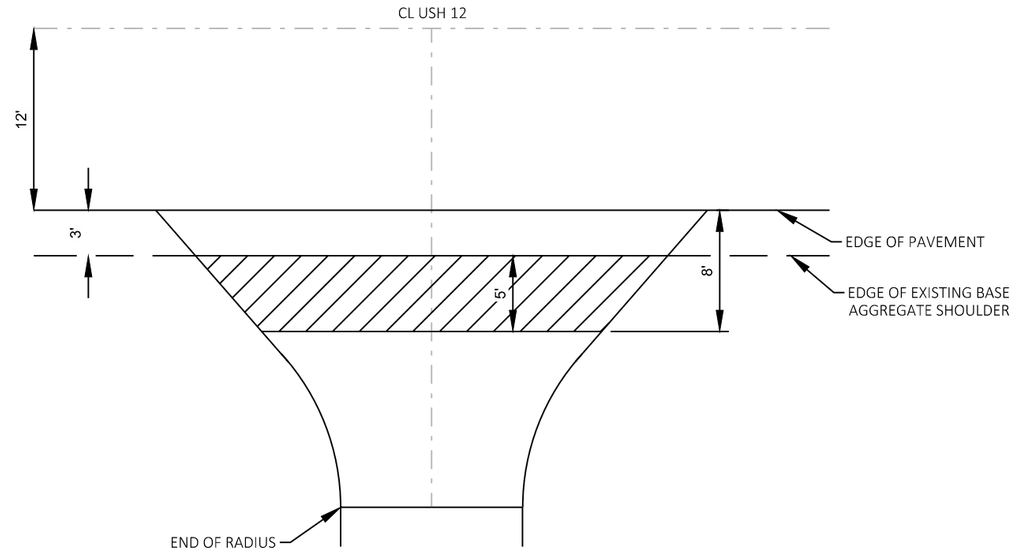
MATCH EXISTING PAVEMENT THICKNESS.

ANY ADDITIONAL BASE AGG. DENSE REQUIRED SHALL BE PAID UNDER ITEM. "BASE AGGREGATE DENSE $\frac{3}{4}$ -INCH"

SAWCUT PAID FOR UNDER ITEM "SAWING ASPHALT"

PAVED DRIVEWAY DETAIL

463+97 LT	706+58 RT
519+43 LT	732+75 RT
539+12 LT	747+95 RT
608+13 LT	749+58 LT
632+06 LT	754+30 RT
636+63 LT	755+36 RT
659+78 RT	790+60 RT
675+19 LT	902+52 RT



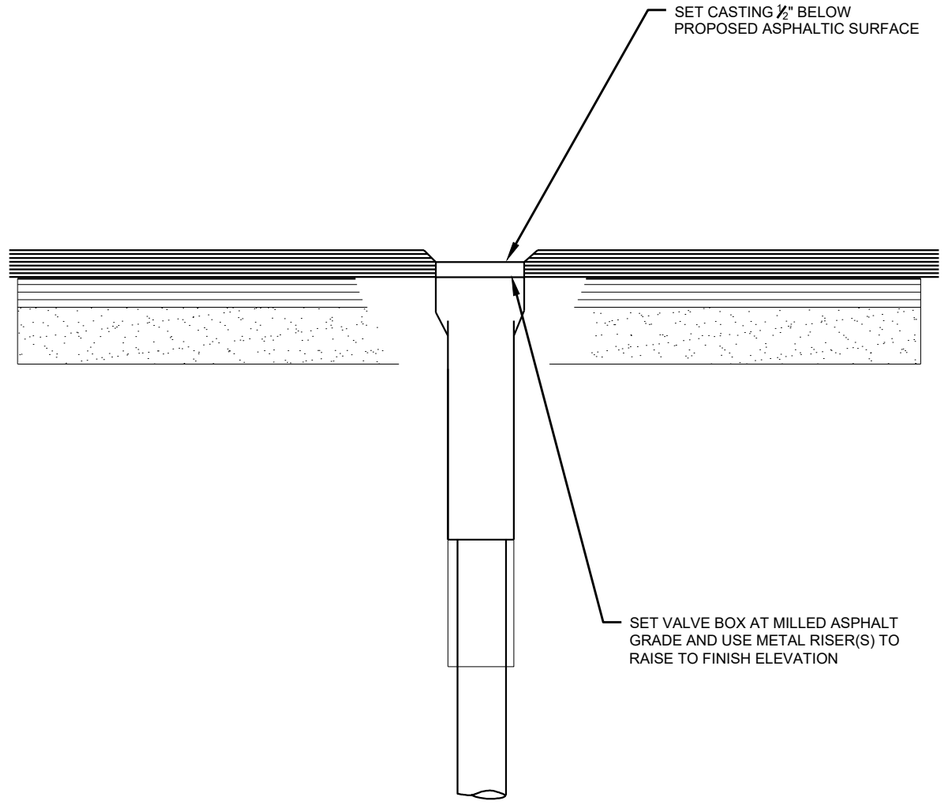
EACH ENTRANCE SHALL RECEIVE ADEQUATE $\frac{3}{4}$ -INCH BASE AGGREGATE DENSE AFTER MAINLINE PAVING AND SHAPING SHOULDERS TO BRING ENTRANCE UP TO SHOULDER PAVEMENT GRADE.

MATCH EXISTING DRIVEWAY WIDTH AND RADII.

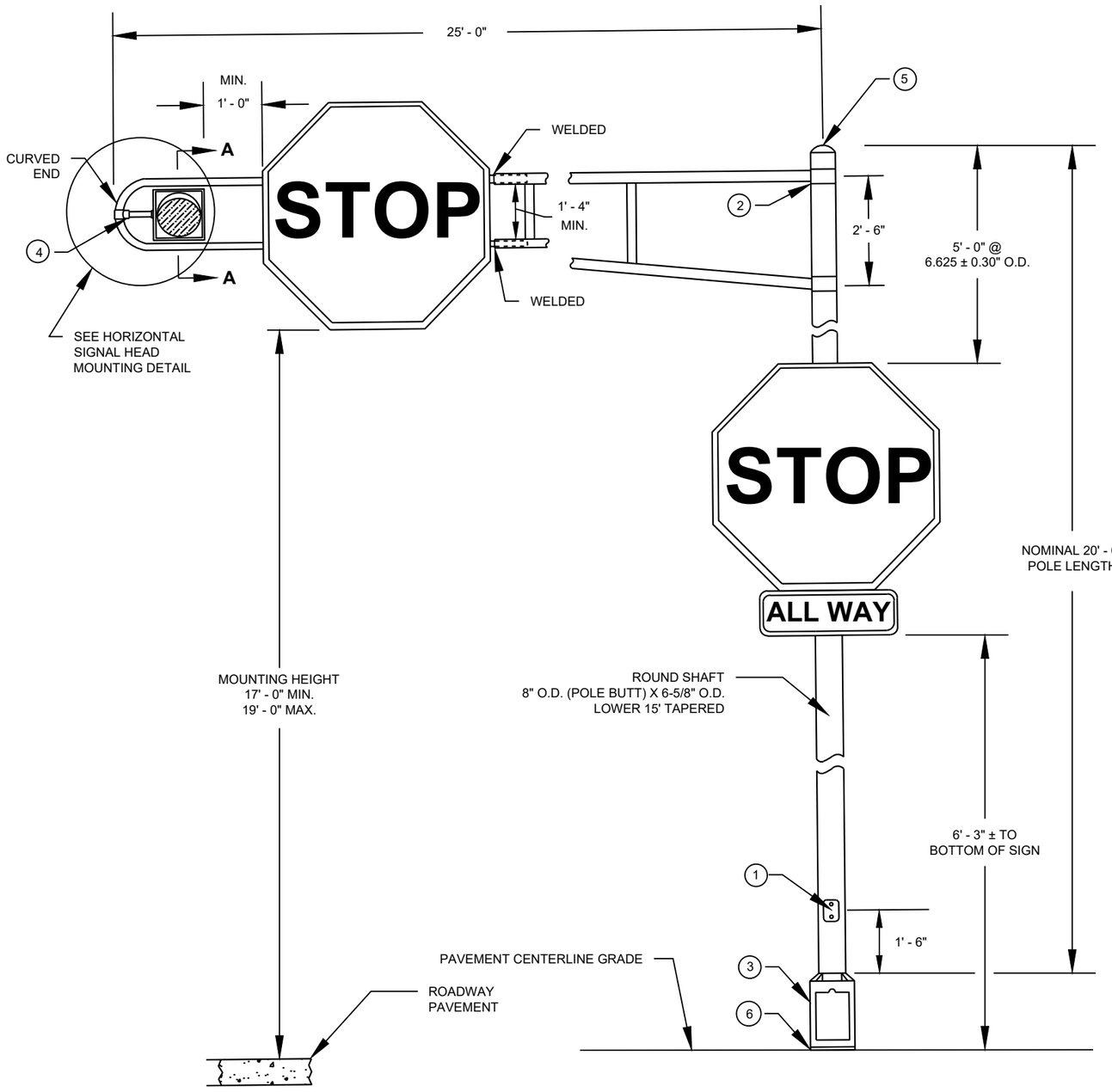
AGGREGATE DRIVEWAY DETAIL

463+55 LT	587+86 RT	732+83 LT	844+68 LT
478+54 RT	604+41 RT	737+38 RT	849+03 RT
488+72 RT	608+17 RT	753+24 LT	854+40 LT
488+73 LT	625+14 LT	758+13 LT	869+80 LT
517+89 RT	627+40 RT	788+90 LT	878+85 LT
527+62 RT	632+54 RT	794+75 LT	880+18 RT
528+10 LT	645+66 RT	796+58 LT	881+16 RT
533+92 LT	648+42 RT	797+12 RT	884+77 RT
543+43 LT	649+74 LT	799+22 RT	888+11 LT
544+51 RT	670+93 LT	802+48 RT	894+41 RT
544+55 LT	681+35 LT	803+09 LT	895+02 LT
570+50 RT	685+29 RT	821+46 LT	896+90 LT
570+95 LT	688+19 LT	821+46 RT	904+53 LT
573+08 LT	688+62 RT	831+62 LT	910+31 LT
579+24 RT	692+85 RT	833+07 RT	910+33 RT
587+80 LT	723+08 RT	833+11 LT	913+39 LT

2



ADJUSTING WATER VALVE BOX



OVERHEAD MOUNT FOR SOLAR FLASHER ASSEMBLY

NOT TO SCALE

GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
2. POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.
3. A PULL WIRE/ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.
4. TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY, SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.
5. CONCRETE BASE, TRANSFORMER BASE, TROMBONE ARM, TRAFFIC POLE, AND SIGNS PAID FOR UNDER SEPARATE ITEMS.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) 1/4" X 3/4" - 20 TPI, STAINLESS STEEL. HEX HEAD BOLTS.

(2) GROMMETS, 1" CHASE NIPPLES, OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1-3/8" HOLE IN POLE SHAFT FOR WIRING.

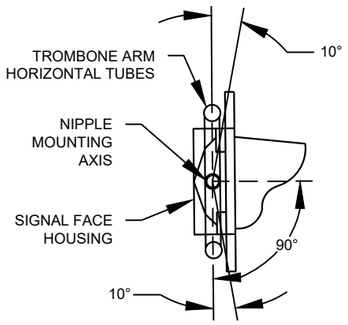
(3) CAST ALUMINUM TRANSFORMER BASE.

(4) USE 1-2" ID NIPPLES ZINC COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1-1/2" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(5) FURNISH AND INSTALL VENTILATED CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(6) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(7) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.



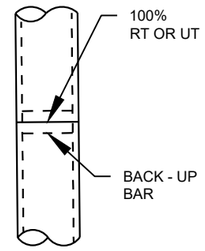
SECTION A-A

(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)

NOT TO SCALE

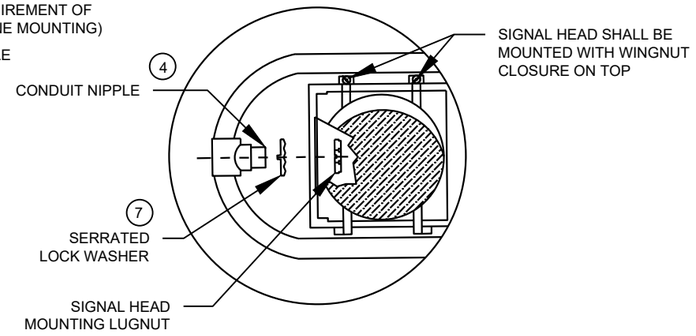
FOR MANUFACTURES USE ONLY

WELD TO BE 100% R.T OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE PROVIDED TO THE ENGINEER.



POLE SPLICE DETAIL

NOT TO SCALE

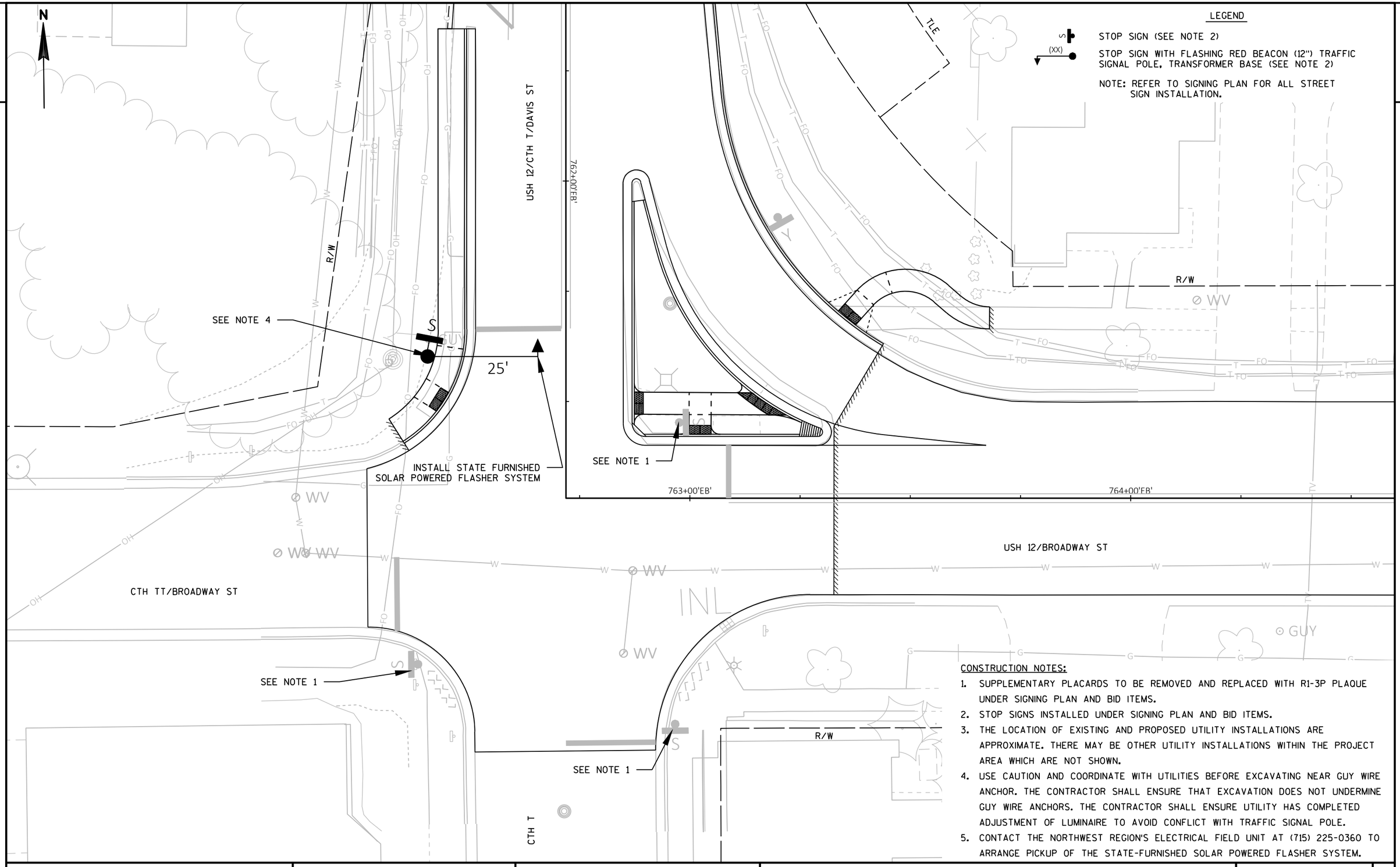


HORIZONTAL SIGNAL HEAD* MOUNTING DETAIL

*SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSSBAR

NOT TO SCALE

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CONSTRUCTION DETAILS - STOP SIGN - OVERHEAD MOUNT	SHEET 25	E



LEGEND

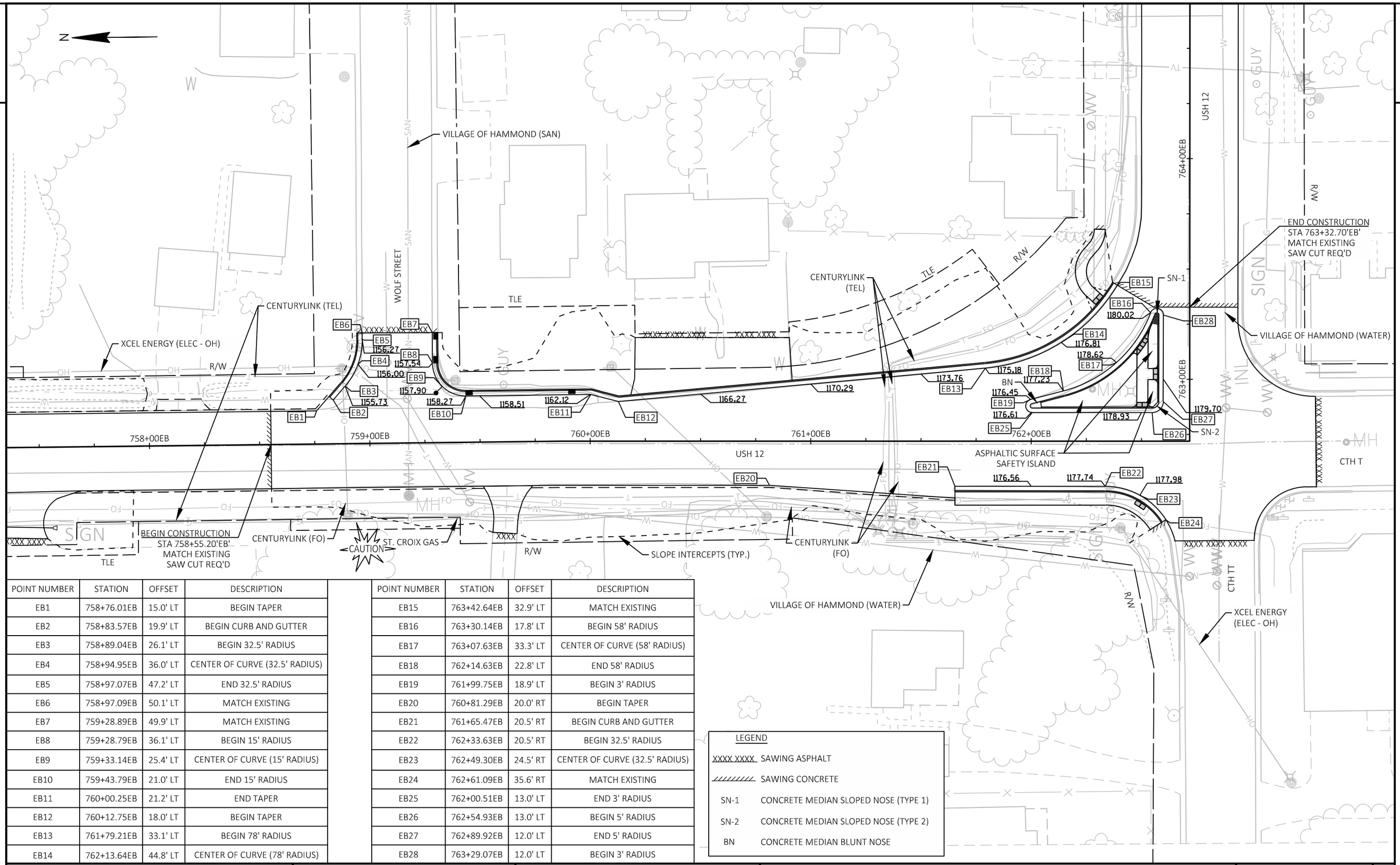
S — STOP SIGN (SEE NOTE 2)

S (XX) — STOP SIGN WITH FLASHING RED BEACON (12") TRAFFIC SIGNAL POLE, TRANSFORMER BASE (SEE NOTE 2)

NOTE: REFER TO SIGNING PLAN FOR ALL STREET SIGN INSTALLATION.

CONSTRUCTION NOTES:

1. SUPPLEMENTARY PLACARDS TO BE REMOVED AND REPLACED WITH R1-3P PLAQUE UNDER SIGNING PLAN AND BID ITEMS.
2. STOP SIGNS INSTALLED UNDER SIGNING PLAN AND BID ITEMS.
3. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
4. USE CAUTION AND COORDINATE WITH UTILITIES BEFORE EXCAVATING NEAR GUY WIRE ANCHOR. THE CONTRACTOR SHALL ENSURE THAT EXCAVATION DOES NOT UNDERMINE GUY WIRE ANCHORS. THE CONTRACTOR SHALL ENSURE UTILITY HAS COMPLETED ADJUSTMENT OF LUMINAIRE TO AVOID CONFLICT WITH TRAFFIC SIGNAL POLE.
5. CONTACT THE NORTHWEST REGION'S ELECTRICAL FIELD UNIT AT (715) 225-0360 TO ARRANGE PICKUP OF THE STATE-FURNISHED SOLAR POWERED FLASHER SYSTEM.



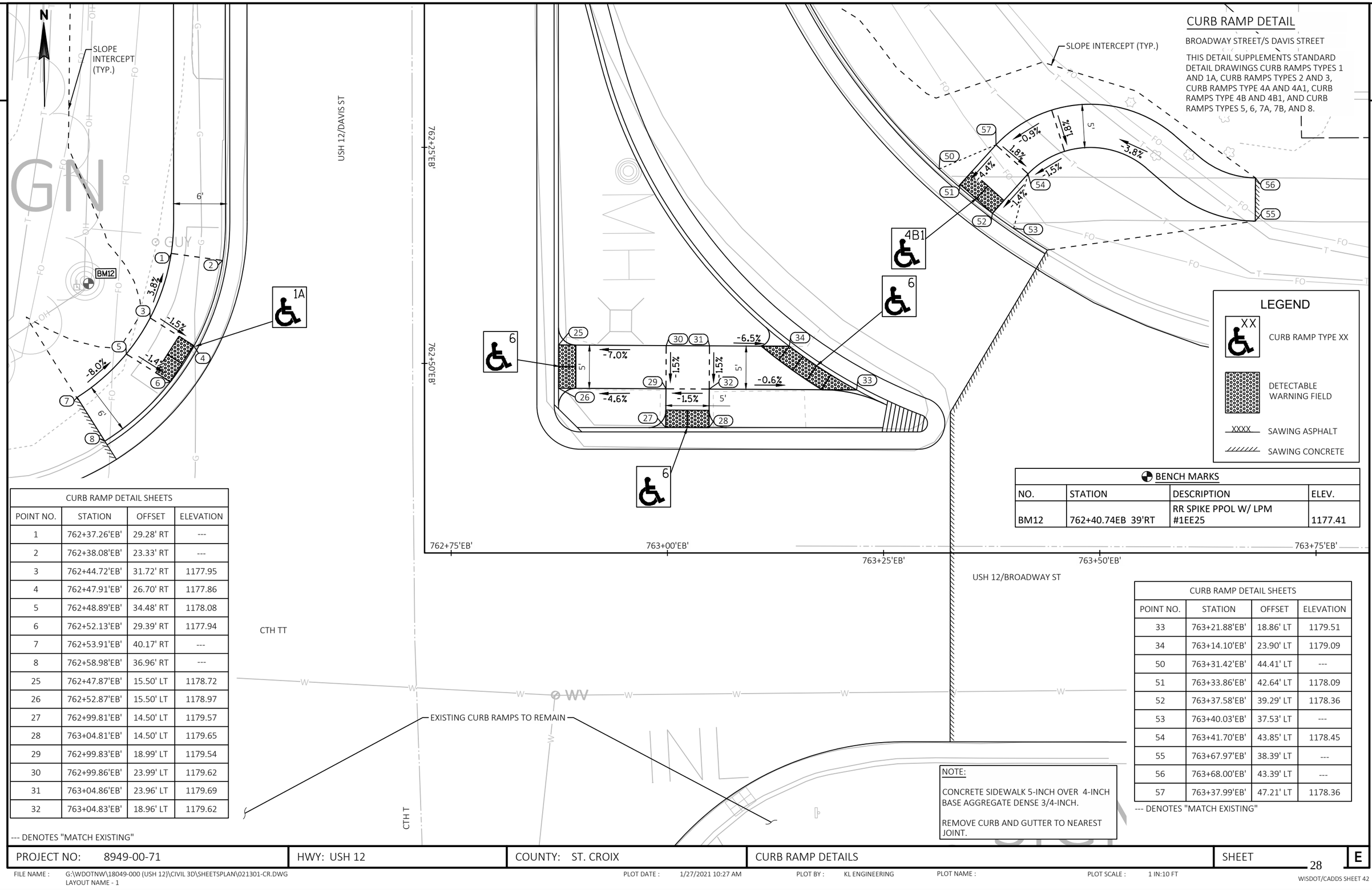
POINT NUMBER	STATION	OFFSET	DESCRIPTION
EB1	758+76.01EB	15.0' LT	BEGIN TAPER
EB2	758+83.57EB	19.9' LT	BEGIN CURB AND GUTTER
EB3	758+89.04EB	26.1' LT	BEGIN 32.5' RADIUS
EB4	758+94.95EB	36.0' LT	CENTER OF CURVE (32.5' RADIUS)
EB5	758+97.07EB	47.2' LT	END 32.5' RADIUS
EB6	758+97.09EB	50.1' LT	MATCH EXISTING
EB7	759+28.89EB	49.9' LT	MATCH EXISTING
EB8	759+28.79EB	36.1' LT	BEGIN 15' RADIUS
EB9	759+33.14EB	25.4' LT	CENTER OF CURVE (15' RADIUS)
EB10	759+43.79EB	21.0' LT	END 15' RADIUS
EB11	760+00.25EB	21.2' LT	END TAPER
EB12	760+12.75EB	18.0' LT	BEGIN TAPER
EB13	761+79.21EB	33.1' LT	BEGIN 78' RADIUS
EB14	762+13.64EB	44.8' LT	CENTER OF CURVE (78' RADIUS)

POINT NUMBER	STATION	OFFSET	DESCRIPTION
EB15	763+42.64EB	32.9' LT	MATCH EXISTING
EB16	763+30.14EB	17.8' LT	BEGIN 58' RADIUS
EB17	763+07.63EB	33.3' LT	CENTER OF CURVE (58' RADIUS)
EB18	762+14.63EB	22.8' LT	END 58' RADIUS
EB19	761+99.75EB	18.9' LT	BEGIN 3' RADIUS
EB20	760+81.29EB	20.0' RT	BEGIN TAPER
EB21	761+65.47EB	20.5' RT	BEGIN CURB AND GUTTER
EB22	762+33.63EB	20.5' RT	BEGIN 32.5' RADIUS
EB23	762+49.30EB	24.5' RT	CENTER OF CURVE (32.5' RADIUS)
EB24	762+61.09EB	35.6' RT	MATCH EXISTING
EB25	762+00.51EB	13.0' LT	END 3' RADIUS
EB26	762+54.93EB	13.0' LT	BEGIN 5' RADIUS
EB27	762+89.92EB	12.0' LT	END 5' RADIUS
EB28	763+29.07EB	12.0' LT	BEGIN 3' RADIUS

LEGEND

XXXX XXXX	SAWING ASPHALT
//////////	SAWING CONCRETE
SN-1	CONCRETE MEDIAN SLOPED NOSE (TYPE 1)
SN-2	CONCRETE MEDIAN SLOPED NOSE (TYPE 2)
BN	CONCRETE MEDIAN BLUNT NOSE

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN DETAILS	SHEET 27	E



CURB RAMP DETAIL

BROADWAY STREET/S DAVIS STREET

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 1 AND 1A, CURB RAMPS TYPES 2 AND 3, CURB RAMPS TYPE 4A AND 4A1, CURB RAMPS TYPE 4B AND 4B1, AND CURB RAMPS TYPES 5, 6, 7A, 7B, AND 8.

LEGEND

- XX — CURB RAMP TYPE XX
- DETECTABLE WARNING FIELD
- XXXX — SAWING ASPHALT
- SAWING CONCRETE

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
BM12	762+40.74EB 39'RT	RR SPIKE PPOL W/ LPM #1EE25	1177.41

CURB RAMP DETAIL SHEETS			
POINT NO.	STATION	OFFSET	ELEVATION
1	762+37.26'EB'	29.28' RT	---
2	762+38.08'EB'	23.33' RT	---
3	762+44.72'EB'	31.72' RT	1177.95
4	762+47.91'EB'	26.70' RT	1177.86
5	762+48.89'EB'	34.48' RT	1178.08
6	762+52.13'EB'	29.39' RT	1177.94
7	762+53.91'EB'	40.17' RT	---
8	762+58.98'EB'	36.96' RT	---
25	762+47.87'EB'	15.50' LT	1178.72
26	762+52.87'EB'	15.50' LT	1178.97
27	762+99.81'EB'	14.50' LT	1179.57
28	763+04.81'EB'	14.50' LT	1179.65
29	762+99.83'EB'	18.99' LT	1179.54
30	762+99.86'EB'	23.99' LT	1179.62
31	763+04.86'EB'	23.96' LT	1179.69
32	763+04.83'EB'	18.96' LT	1179.62

--- DENOTES "MATCH EXISTING"

CURB RAMP DETAIL SHEETS			
POINT NO.	STATION	OFFSET	ELEVATION
33	763+21.88'EB'	18.86' LT	1179.51
34	763+14.10'EB'	23.90' LT	1179.09
50	763+31.42'EB'	44.41' LT	---
51	763+33.86'EB'	42.64' LT	1178.09
52	763+37.58'EB'	39.29' LT	1178.36
53	763+40.03'EB'	37.53' LT	---
54	763+41.70'EB'	43.85' LT	1178.45
55	763+67.97'EB'	38.39' LT	---
56	763+68.00'EB'	43.39' LT	---
57	763+37.99'EB'	47.21' LT	1178.36

--- DENOTES "MATCH EXISTING"

NOTE:

CONCRETE SIDEWALK 5-INCH OVER 4-INCH BASE AGGREGATE DENSE 3/4-INCH.

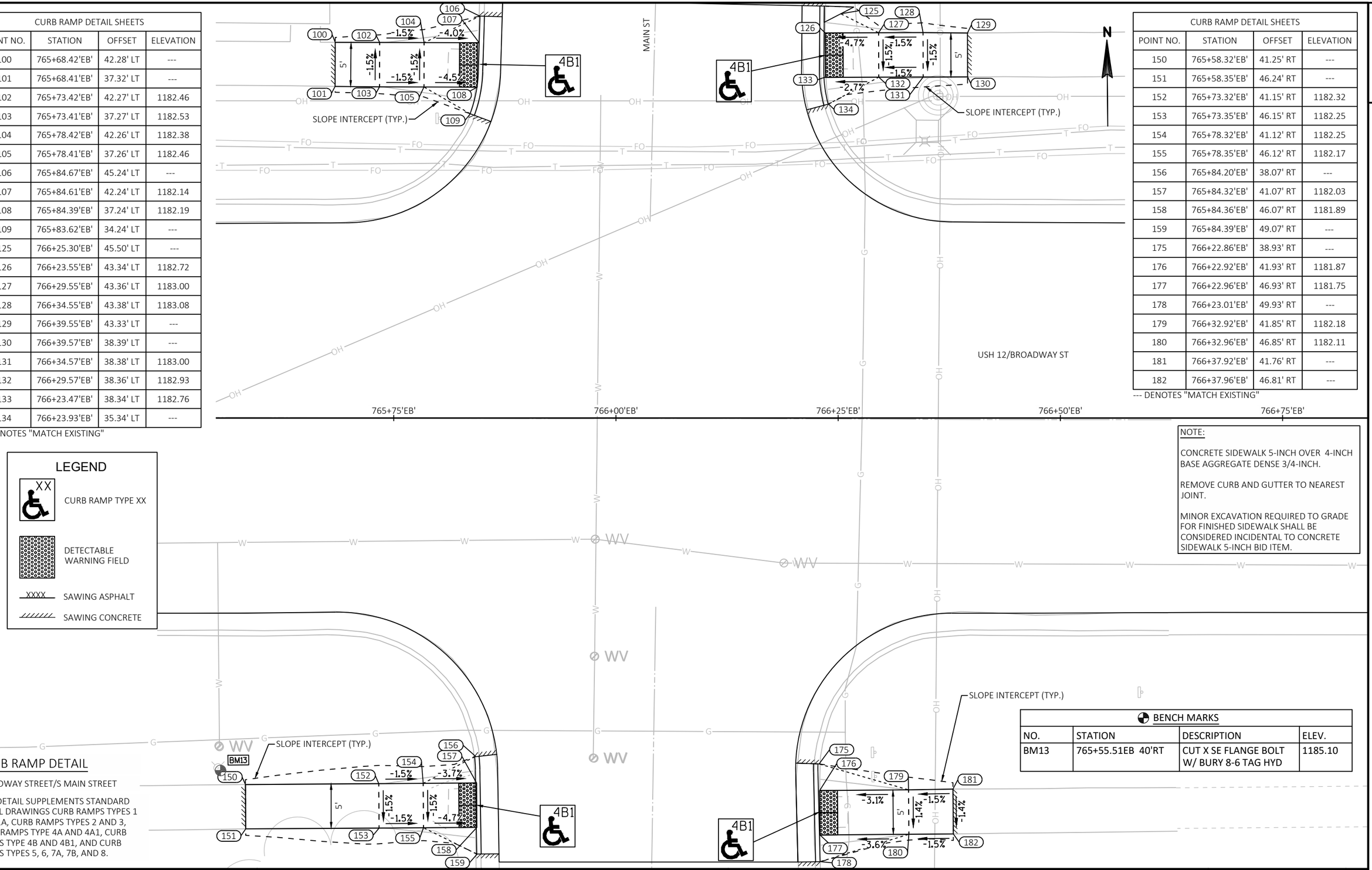
REMOVE CURB AND GUTTER TO NEAREST JOINT.

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CURB RAMP DETAILS	SHEET 28	E

2

CURB RAMP DETAIL SHEETS			
POINT NO.	STATION	OFFSET	ELEVATION
100	765+68.42'EB'	42.28' LT	---
101	765+68.41'EB'	37.32' LT	---
102	765+73.42'EB'	42.27' LT	1182.46
103	765+73.41'EB'	37.27' LT	1182.53
104	765+78.42'EB'	42.26' LT	1182.38
105	765+78.41'EB'	37.26' LT	1182.46
106	765+84.67'EB'	45.24' LT	---
107	765+84.61'EB'	42.24' LT	1182.14
108	765+84.39'EB'	37.24' LT	1182.19
109	765+83.62'EB'	34.24' LT	---
125	766+25.30'EB'	45.50' LT	---
126	766+23.55'EB'	43.34' LT	1182.72
127	766+29.55'EB'	43.36' LT	1183.00
128	766+34.55'EB'	43.38' LT	1183.08
129	766+39.55'EB'	43.33' LT	---
130	766+39.57'EB'	38.39' LT	---
131	766+34.57'EB'	38.38' LT	1183.00
132	766+29.57'EB'	38.36' LT	1182.93
133	766+23.47'EB'	38.34' LT	1182.76
134	766+23.93'EB'	35.34' LT	---

--- DENOTES "MATCH EXISTING"



CURB RAMP DETAIL SHEETS			
POINT NO.	STATION	OFFSET	ELEVATION
150	765+58.32'EB'	41.25' RT	---
151	765+58.35'EB'	46.24' RT	---
152	765+73.32'EB'	41.15' RT	1182.32
153	765+73.35'EB'	46.15' RT	1182.25
154	765+78.32'EB'	41.12' RT	1182.25
155	765+78.35'EB'	46.12' RT	1182.17
156	765+84.20'EB'	38.07' RT	---
157	765+84.32'EB'	41.07' RT	1182.03
158	765+84.36'EB'	46.07' RT	1181.89
159	765+84.39'EB'	49.07' RT	---
175	766+22.86'EB'	38.93' RT	---
176	766+22.92'EB'	41.93' RT	1181.87
177	766+22.96'EB'	46.93' RT	1181.75
178	766+23.01'EB'	49.93' RT	---
179	766+32.92'EB'	41.85' RT	1182.18
180	766+32.96'EB'	46.85' RT	1182.11
181	766+37.92'EB'	41.76' RT	---
182	766+37.96'EB'	46.81' RT	---

--- DENOTES "MATCH EXISTING"

NOTE:

CONCRETE SIDEWALK 5-INCH OVER 4-INCH BASE AGGREGATE DENSE 3/4-INCH.

REMOVE CURB AND GUTTER TO NEAREST JOINT.

MINOR EXCAVATION REQUIRED TO GRADE FOR FINISHED SIDEWALK SHALL BE CONSIDERED INCIDENTAL TO CONCRETE SIDEWALK 5-INCH BID ITEM.

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
BM13	765+55.51EB 40'RT	CUT X SE FLANGE BOLT W/ BURY 8-6 TAG HYD	1185.10

CURB RAMP DETAIL

BROADWAY STREET/S MAIN STREET

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 1 AND 1A, CURB RAMPS TYPES 2 AND 3, CURB RAMPS TYPE 4A AND 4A1, CURB RAMPS TYPE 4B AND 4B1, AND CURB RAMPS TYPES 5, 6, 7A, 7B, AND 8.

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CURB RAMP DETAILS	SHEET 29	E

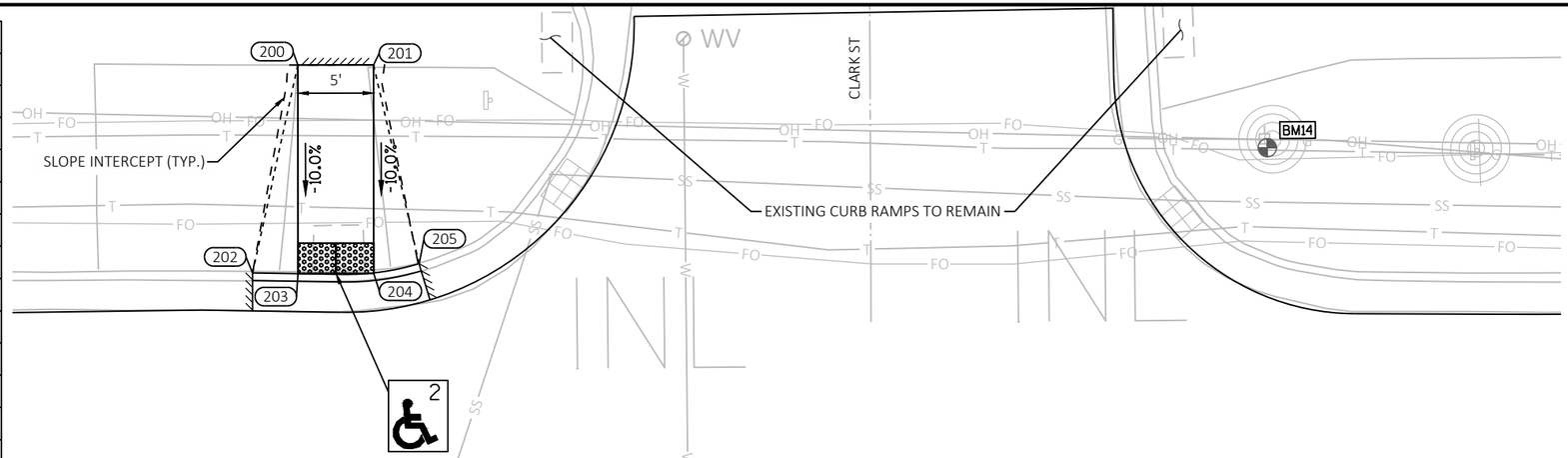
FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 2

PLOT DATE : 1/27/2021 10:27 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT

CURB RAMP DETAIL SHEETS			
POINT NO.	STATION	OFFSET	ELEVATION
200	769+30.29'EB'	38.04' LT	---
201	769+35.29'EB'	38.04' LT	---
202	769+27.30'EB'	24.32' LT	---
203	769+30.30'EB'	24.28' LT	1181.67
204	769+35.30'EB'	24.29' LT	1181.55
205	769+38.30'EB'	24.90' LT	---
225	769+30.63'EB'	24.59' RT	---
226	769+32.46'EB'	24.80' RT	1181.51
227	769+37.46'EB'	24.73' RT	1181.47
228	769+40.47'EB'	25.52' RT	---
229	769+27.70'EB'	43.72' RT	---
230	769+27.58'EB'	48.70' RT	---
231	769+32.70'EB'	43.86' RT	1180.41
232	769+32.58'EB'	48.85' RT	1180.33
233	769+37.70'EB'	43.97' RT	1180.33
234	769+37.58'EB'	48.97' RT	1180.26
235	769+49.93'EB'	41.27' RT	---
236	769+49.95'EB'	44.27' RT	1180.09
237	769+49.99'EB'	49.27' RT	1179.84
238	769+50.01'EB'	52.28' RT	---

--- DENOTES "MATCH EXISTING"

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
BM14	769+94.30EB 33'LT	RR SPIKE PPOL W/ LPM #2AA23	1182.80



CURB RAMP DETAIL SHEETS			
POINT NO.	STATION	OFFSET	ELEVATION
250	769+86.60'EB'	41.58' RT	---
251	769+86.66'EB'	44.58' RT	1180.14
252	769+86.74'EB'	49.58' RT	1179.90
253	769+86.79'EB'	52.58' RT	---
254	769+96.81'EB'	44.72' RT	1180.31
255	769+96.74'EB'	49.72' RT	1180.23
256	770+01.81'EB'	44.79' RT	1180.23
257	770+01.74'EB'	49.79' RT	1180.16
258	770+06.81'EB'	44.87' RT	---
259	770+06.74'EB'	49.88' RT	---

--- DENOTES "MATCH EXISTING"

NOTE:

CONCRETE SIDEWALK 5-INCH OVER 4-INCH BASE AGGREGATE DENSE 3/4-INCH.

REMOVE CURB AND GUTTER TO NEAREST JOINT.

MINOR EXCAVATION REQUIRED TO GRADE FOR FINISHED SIDEWALK SHALL BE CONSIDERED INCIDENTAL TO CONCRETE SIDEWALK 5-INCH BID ITEM.

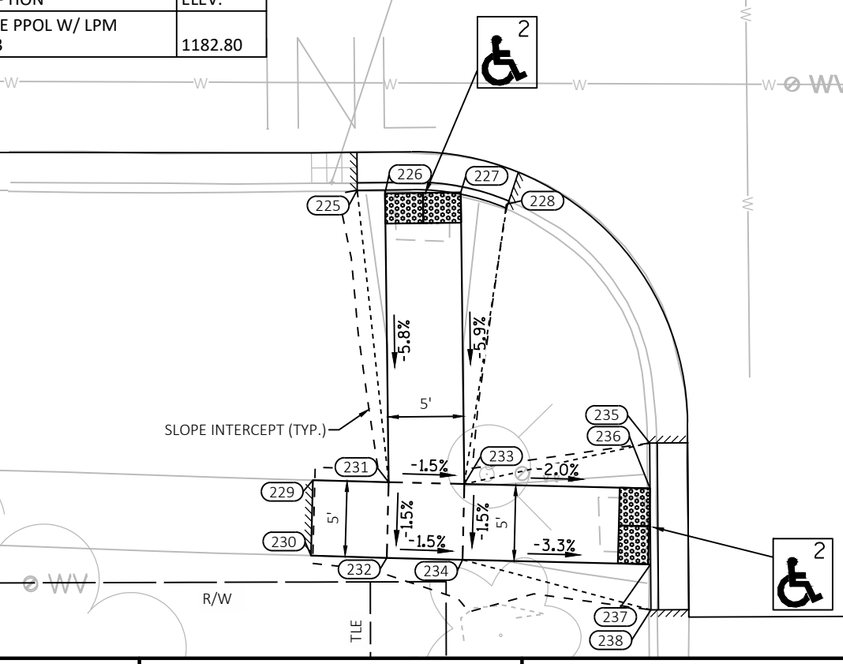
LEGEND

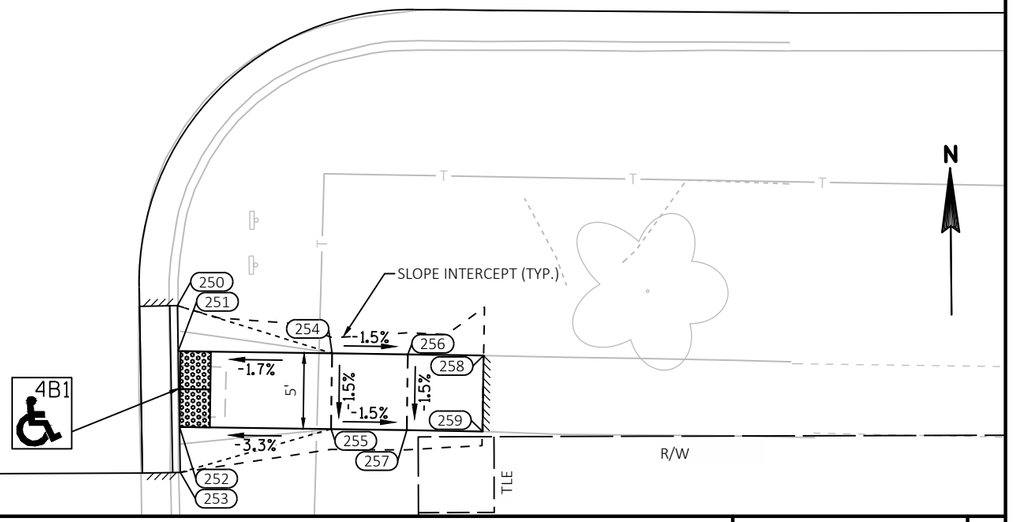
- XX — CURB RAMP TYPE XX
- DETECTABLE WARNING FIELD
- XXXX — SAWING ASPHALT
- SAWING CONCRETE

CURB RAMP DETAIL

BROADWAY STREET/S CLARK STREET

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 1 AND 1A, CURB RAMPS TYPES 2 AND 3, CURB RAMPS TYPE 4A AND 4A1, CURB RAMPS TYPE 4B AND 4B1, AND CURB RAMPS TYPES 5, 6, 7A, 7B, AND 8.





PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CURB RAMP DETAILS	SHEET 30	E

CURB RAMP DETAIL SHEETS			
POINT NO.	STATION	OFFSET	ELEVATION
300	772+64.71'EB'	24.36' RT	---
301	772+66.18'EB'	25.03' RT	1179.66
302	772+62.02'EB'	42.92' RT	---
303	772+62.26'EB'	47.92' RT	---
304	772+67.02'EB'	42.78' RT	1179.91
305	772+67.26'EB'	47.77' RT	1179.98
306	772+72.25'EB'	47.54' RT	1179.91
307	772+82.84'EB'	50.03' RT	---
308	772+82.72'EB'	47.04' RT	1179.57
309	772+82.48'EB'	42.04' RT	1179.61
310	772+82.40'EB'	39.04' RT	---
311	772+72.01'EB'	42.54' RT	1179.83
312	772+74.23'EB'	25.91' RT	---
313	772+71.17'EB'	24.79' RT	1179.65
325	773+19.47'EB'	37.74' RT	---
326	773+19.39'EB'	40.75' RT	1178.59
327	773+19.56'EB'	45.74' RT	1178.64
328	773+19.55'EB'	48.74' RT	---
329	773+26.24'EB'	40.51' RT	1178.89
330	773+26.41'EB'	45.50' RT	1178.96
331	773+26.64'EB'	50.49' RT	---
332	773+30.60'EB'	50.36' RT	---

--- DENOTES "MATCH EXISTING"

NOTE:

CONCRETE SIDEWALK 5-INCH OVER 4-INCH BASE AGGREGATE DENSE 3/4-INCH.

REMOVE CURB AND GUTTER TO NEAREST JOINT.

MINOR EXCAVATION REQUIRED TO GRADE FOR FINISHED SIDEWALK SHALL BE CONSIDERED INCIDENTAL TO CONCRETE SIDEWALK 5-INCH BID ITEM.

EXISTING CURB RAMP TO REMAIN

772+75'EB' 773+00'EB' 773+25'EB' 773+50'EB'

USH 12/BROADWAY ST

SLOPE INTERCEPT (TYP.)

SLOPE INTERCEPT (TYP.)

R/W

TLE

ADAMS ST

BM15

4B1

LEGEND

- CURB RAMP TYPE XX
- DETECTABLE WARNING FIELD
- XXXX SAWING ASPHALT
- SAWING CONCRETE

CURB RAMP DETAIL SHEETS			
POINT NO.	STATION	OFFSET	ELEVATION
333	773+31.41'EB'	45.33' RT	1179.04
334	773+31.24'EB'	40.34' RT	1178.96
335	773+36.24'EB'	40.19' RT	---
336	773+36.41'EB'	45.08' RT	---
350	773+54.87'EB'	24.48' RT	---
351	773+57.87'EB'	24.60' RT	1178.04
352	773+62.87'EB'	24.53' RT	1177.94
353	773+65.87'EB'	24.54' RT	---
354	773+53.12'EB'	39.48' RT	---
355	773+53.20'EB'	44.39' RT	---
356	773+58.36'EB'	54.46' RT	---
357	773+64.23'EB'	54.08' RT	---
358	773+58.19'EB'	44.21' RT	1178.79
359	773+63.19'EB'	44.13' RT	1178.71
360	773+68.19'EB'	43.96' RT	---
361	773+68.12'EB'	39.78' RT	---
362	773+63.11'EB'	39.13' RT	1178.64
363	773+58.11'EB'	39.21' RT	1178.71

--- DENOTES "MATCH EXISTING"

CURB RAMP DETAIL

BROADWAY STREET/S ADAMS STREET

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 1 AND 1A, CURB RAMPS TYPES 2 AND 3, CURB RAMPS TYPE 4A AND 4A1, CURB RAMPS TYPE 4B AND 4B1, AND CURB RAMPS TYPES 5, 6, 7A, 7B, AND 8.

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
BM15	772+72.75EB 67'RT	CUT X SW FLANGE BOLT W/ 8-0 TAG HYD	1181.25

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CURB RAMP DETAILS	SHEET 31	E

2

2

PROPOSED 24-INCH PIPE TO MATCH INVERT LOCATION IN EXISTING MANHOLE STRUCTURE

XCEL ENERGIES (OH)

PARK ST.

SIGN

N

TLE

R/W

STA 751+20, 28.3' LT
EXISTING MANHOLE 1.0

HAMMOND MUNICIPAL SANITARY UTILITY

750+00'EB'

751+00'EB'

752+00'EB'

753+00'EB'

ST. CROIX GAS
CAUTION

USH 12/CTH T/DAVIS ST.

STA 751+20, 26.2' RT
APRON ENDWALLS FOR CPRC 24-INCH 2.0

REMOVE EXISTING RIPRAP.
ADD RIPRAP MEDIUM
AT EXISTING RIPRAP LIMITS

SLOPE INTERCEPT (TYP.)

MATCH EXISTING CULVERT

CENTURYLINK (FO)

CENTURYLINK (TEL)

LEGEND

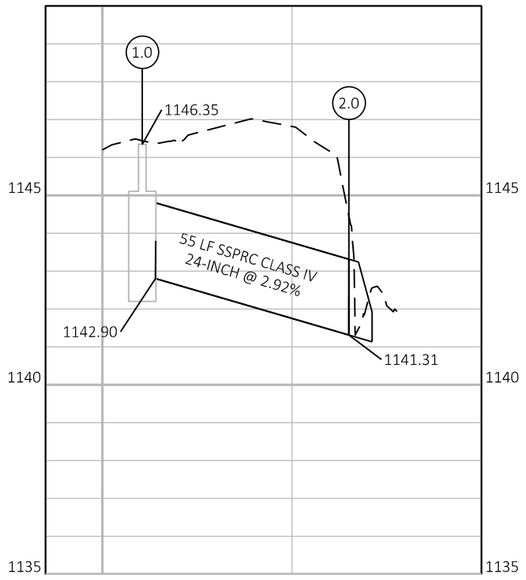
- MANHOLE
- INLET
- ENDWALL
- FLOW ARROW
- XXXX XXXX — SAWING ASPHALT
- SAWING CONCRETE

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	STORM SEWER PLAN	SHEET 32	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 1

PLOT DATE : 1/31/2021 9:56 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

2



PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	STORM SEWER PLAN	SHEET 33	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 2

PLOT DATE : 1/31/2021 9:56 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : Custom

2

N

NORTON ST.

STA 755+64, 23.5' LT
APRON ENDWALLS FOR CPRC 12-INCH (3.0)

STA 756+03, 23.8' LT
MANHOLES 4x4-FT - TYPE J (5.0)

STA 756+19, 24.1' LT
APRON ENDWALLS FOR CPRC 24-INCH (4.0)

REGRADE EXISTING LOW AREA
TO DRAIN TO PROPOSED CULVERT
10' FLAT BOTTOM DITCH - 35 LF
INVERTS: 1148.70 - 1147.02
PAID FOR AS "GRADING AND SHAPING DITCH"

REGRADE EXISTING DITCH
V-DITCH - 178 LF
1' MIN. DITCH DEPTH
INVERTS: 1150.64 - 1147.02
PAID FOR AS "GRADING AND SHAPING DITCH"

TLE

R/W

REGRADE THIS AREA
TO MATCH PROPOSED
ENDWALL
PAID FOR AS "GRADING
AND SHAPING DITCH"

CAUTION

ST. CROIX GAS

XCEL ENERGIES (OH)

MATCH EXISTING
CULVERT

CENTURYLINK (FO)

755+00'EB'

756+00'EB'

757+00'EB'

758+0

USH 12/CTH T/DAVIS ST.

XCEL ENERGIES (OH)

STA 756+03, 25.7' RT
APRON ENDWALLS FOR CPRC 24-INCH (6.0)

SLOPE INTERCEPT (TYP.)

CENTURYLINK (TEL)

SIGN

SIGN

SIGN

GRADE BERM AT DITCH BACKSLOPE
TO PREVENT WATER FROM ENTERING
ADJACENT PARKING LOT

TLE

HAMMOND MUNICIPAL
SANITARY UTILITY

REGRADE EXISTING DITCH
V-DITCH - 113 LF
1' MIN. DITCH DEPTH
INVERTS: 1147.00 - 1145.85
PAID FOR AS "GRADING AND SHAPING DITCH"

ST. CROIX GAS

CAUTION

REGRADE EXISTING DITCH
V-DITCH - 32 LF
1' MIN. DITCH DEPTH
INVERTS: 1149.46 - 1149.20
PAID FOR AS "GRADING AND SHAPING DITCH"

REGRADE EXISTING DITCH
10' FLAT BOTTOM DITCH - 72 LF
1' MIN. DITCH DEPTH
INVERTS: 1145.80 - 1144.00
PAID FOR AS "GRADING AND SHAPING DITCH"

MATCH EXISTING
DITCH

LEGEND

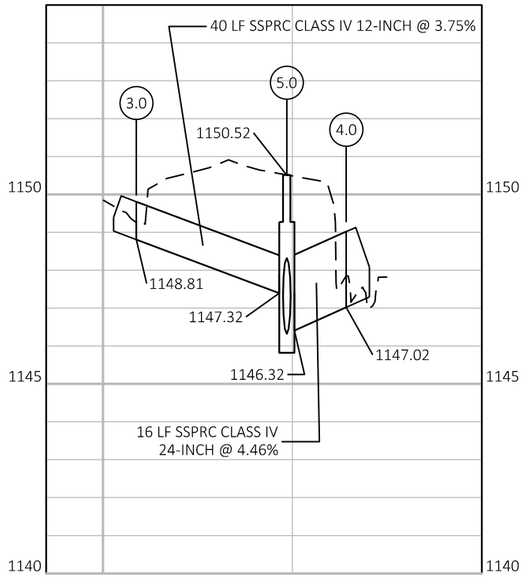
- MANHOLE
- INLET
- ENDWALL
- FLOW ARROW
- XXXX XXXX — SAWING ASPHALT
- SAWING CONCRETE

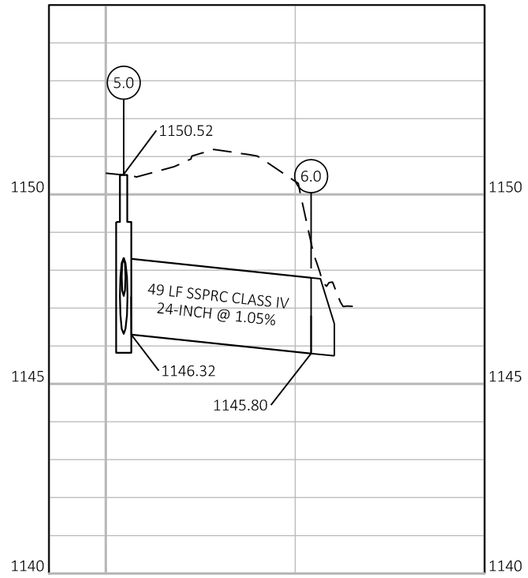
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	STORM SEWER PLAN	SHEET 34	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 3

PLOT DATE : 1/31/2021 9:57 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

2





PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	STORM SEWER PLAN	SHEET 35	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 4

PLOT DATE : 1/31/2021 9:57 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : Custom

2

2

N

WOLF ST.

SLOPE INTERCEPT (TYP.)

TLE

STA 759+30, 48.4' LT
INLETS 2x3-FT - TYPE H-S 9.0

XXXX XXXX XXXX XXXX XXXX XXXX

STA 758+82, 25.3' LT
APRON ENDWALLS FOR CPRC 18-INCH 12.0

STA 759+30, 37.6' LT
INLETS 2x3-FT - TYPE H 10.0

R/W

R/W

STA 759+92, 22.5' LT
INLETS 2x3-FT - TYPE H 7.0

STA 759+30, 22.5' LT
MANHOLES 4x4-FT - TYPE J 11.0

STA 759+45, 22.5' LT
INLETS 2x3-FT - TYPE H 8.0

USH 12/CTH T/DAVIS ST.

759+00'EB'

760+00'EB'

761+00'EB'

HAMMOND MUNICIPAL
SANITARY UTILITY

HAMMOND MUNICIPAL
WATER UTILITY

XCEL ENERGIES (OH)

CENTURYLINK (TEL)

CENTURYLINK (FO)

MH

R/W

TLE

XXXX XXXX

ST. CROIX GAS

CAUTION

LEGEND

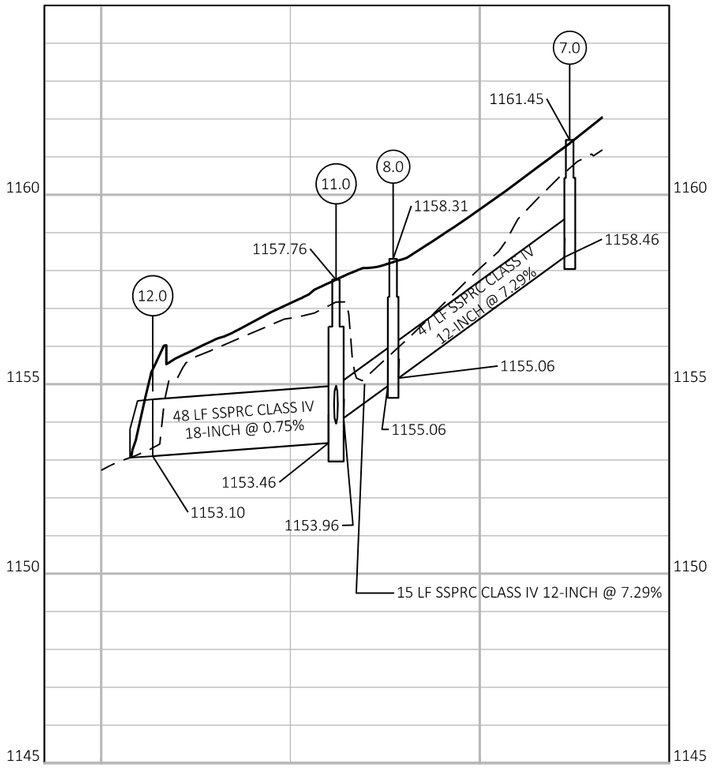
- MANHOLE
- INLET
- ENDWALL
- FLOW ARROW
- XXXX XXXX SAWING ASPHALT
- SAWING CONCRETE

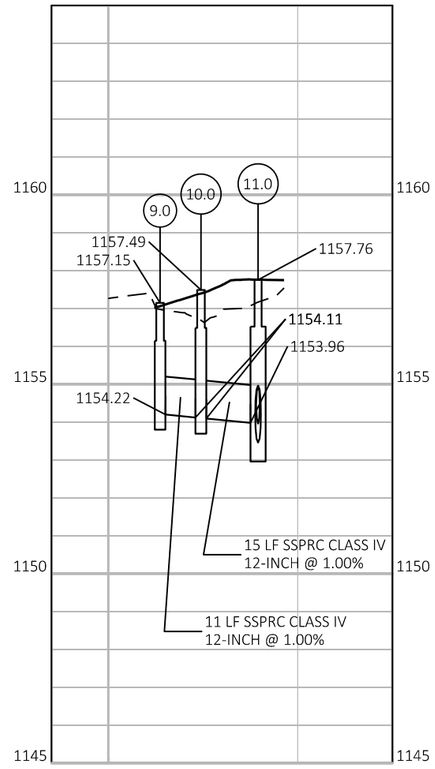
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	STORM SEWER PLAN	SHEET 36	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 5

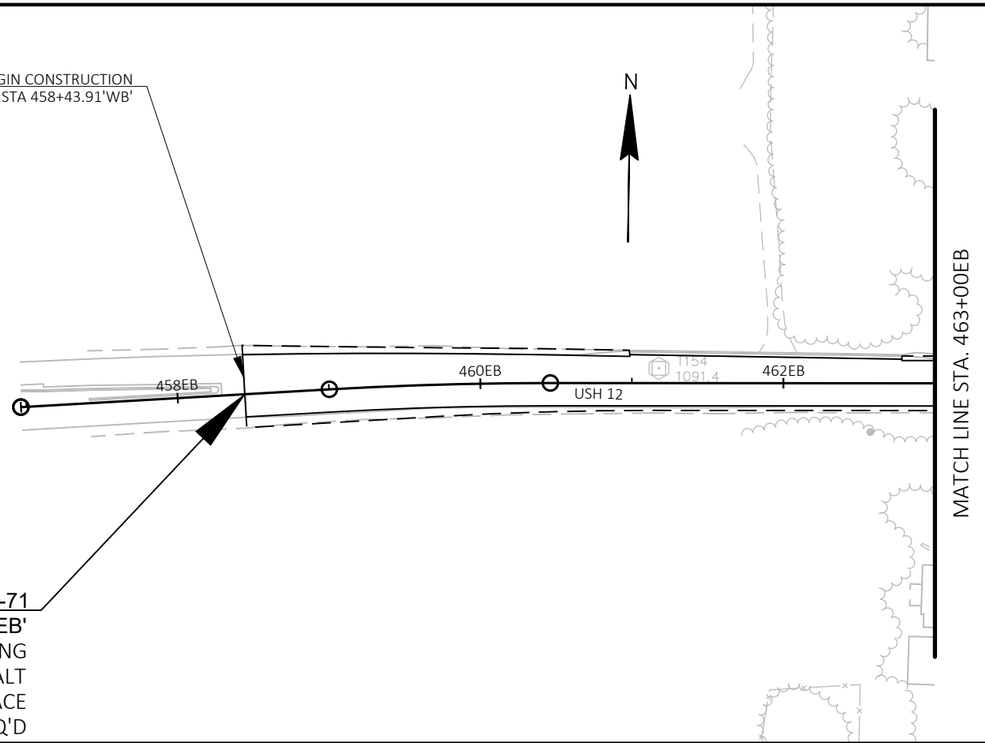
PLOT DATE : 1/31/2021 9:57 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

2


7.0
1161.45
11.0
8.0
1158.31
1157.76
1158.46
12.0
47 LF SSPRC CLASS IV
12-INCH @ 7.29%
1155.06
48 LF SSPRC CLASS IV
18-INCH @ 0.75%
1155.06
1153.46
1153.10
1153.96
15 LF SSPRC CLASS IV 12-INCH @ 7.29%
1160
1155
1150
1145


10.0
11.0
9.0
1157.49
1157.15
1157.76
1154.11
1153.96
1154.22
15 LF SSPRC CLASS IV
12-INCH @ 1.00%
11 LF SSPRC CLASS IV
12-INCH @ 1.00%
1160
1155
1150
1145

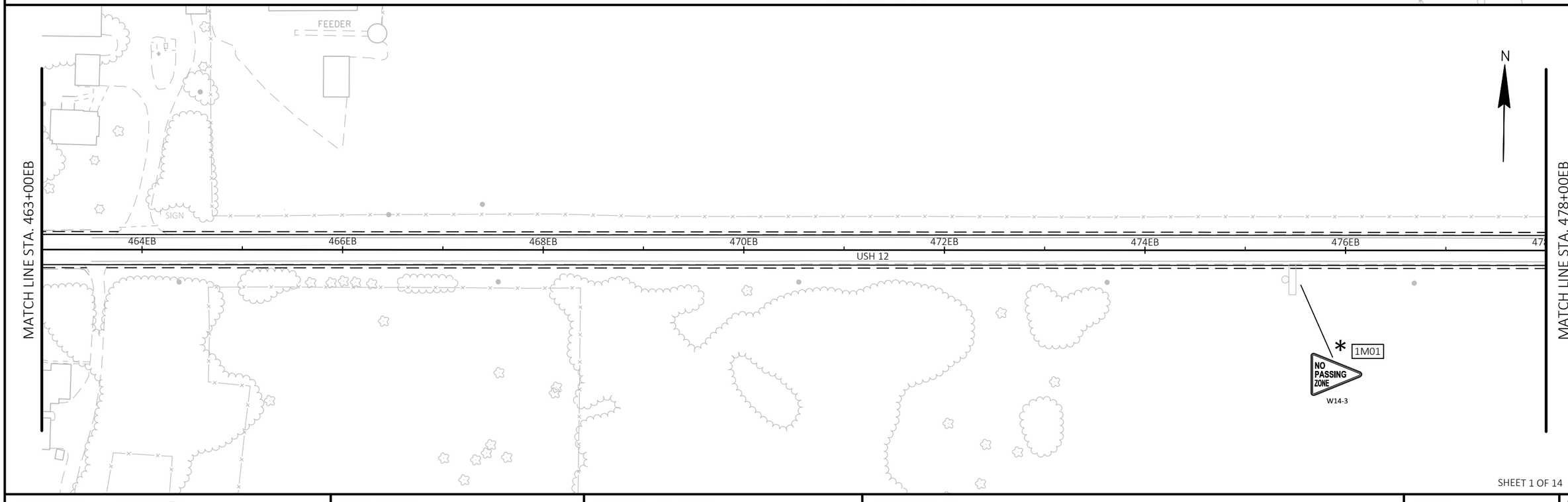
2



SIGNING LEGEND

X-XX	NEW SIGN NUMBER
XMXX	MOVE SIGN NUMBER
XRXX	REMOVING SIGN NUMBER
ESTR	EXISTING SIGN TO REMAIN
	EXISTING SIGN MOUNTED ON POST(S)
*	NO PASSING ZONE SIGN TO BE MOVED IF WARRANTED BASED ON NO PASSING ZONE SPOTTING. SOME SIGNS MAY NOT NEED TO BE MOVED.

BEGIN PROJECT 8949-00-71
STA 458+44.40'EB'
MATCH EXISTING
SAWING ASPHALT
REMOVING ASPHALTIC SURFACE
BUTT JOINTS REQ'D



SHEET 1 OF 14

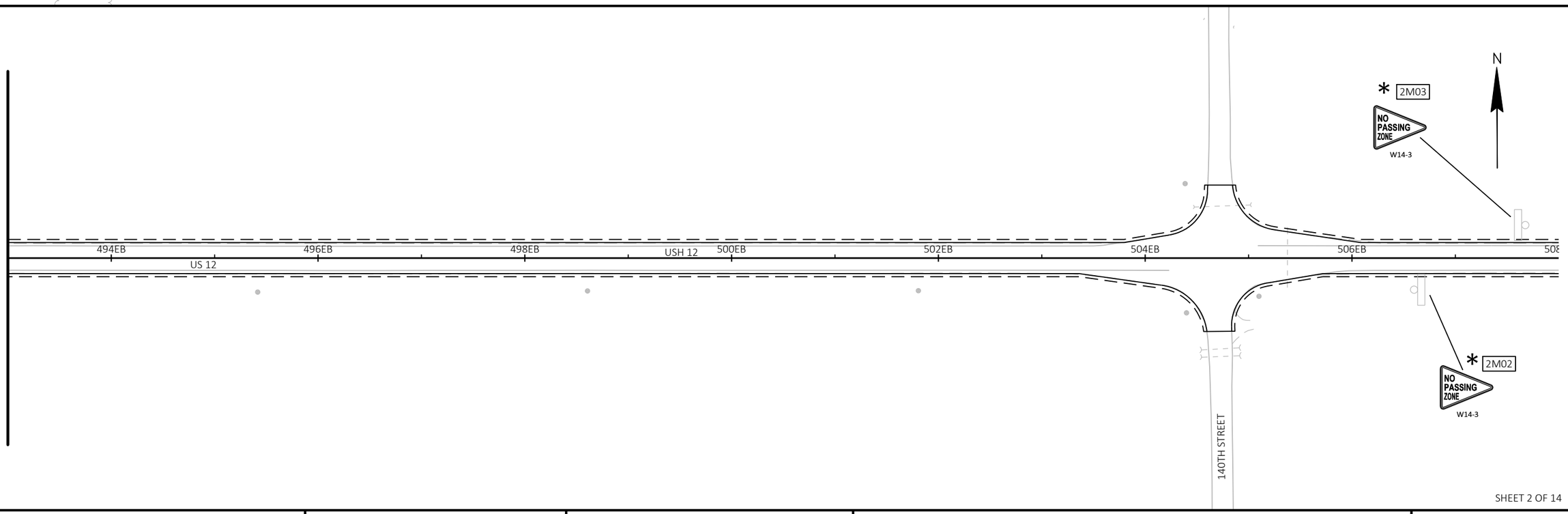
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	SIGNING PLAN	SHEET	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1881194\INPLACE SIGNING SHEETS.DWG
LAYOUT NAME - BOP - 478+00
PLOT DATE : 1/28/2021 12:45 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : ##########

2

SIGNING LEGEND

X-XX	NEW SIGN NUMBER
XMXX	MOVE SIGN NUMBER
XRXX	REMOVING SIGN NUMBER
ESTR	EXISTING SIGN TO REMAIN
	EXISTING SIGN MOUNTED ON POST(S)
*	NO PASSING ZONE SIGN TO BE MOVED IF WARRANTED BASED ON NO PASSING ZONE SPOTTING. SOME SIGNS MAY NOT NEED TO BE MOVED.



SHEET 2 OF 14

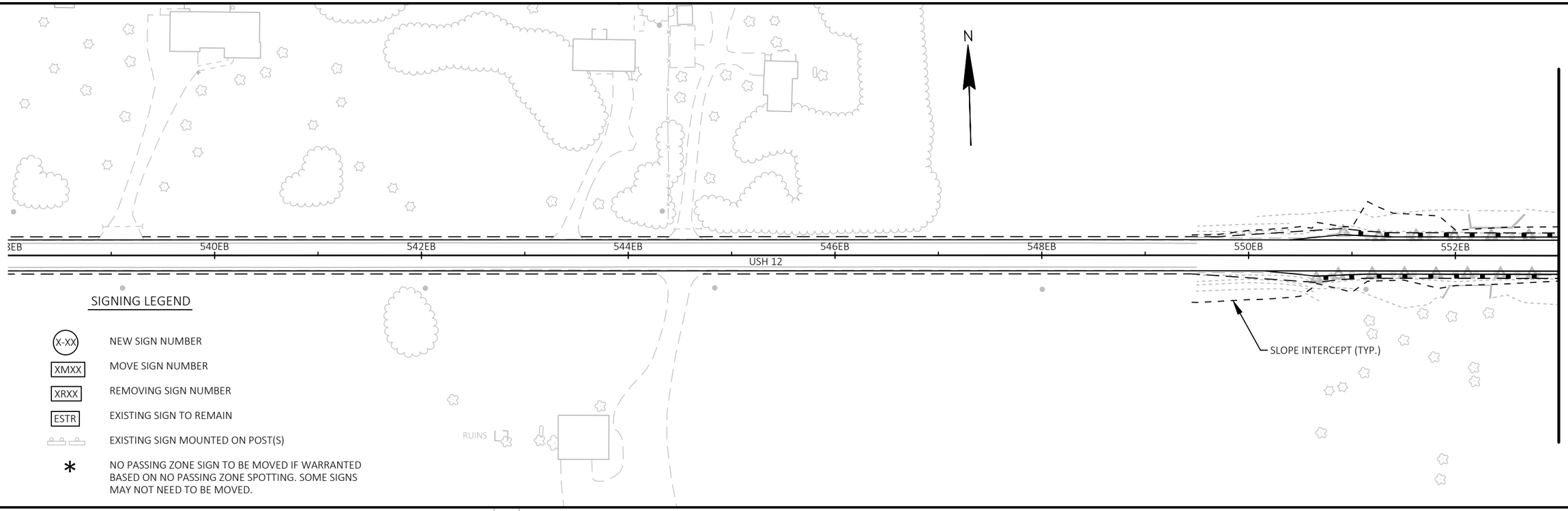
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	SIGNING PLAN	SHEET 39	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1881194\INPLACE SIGNING SHEETS.DWG
LAYOUT NAME - 478+00 - 508+00

PLOT DATE : 1/28/2021 12:45 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : ##########

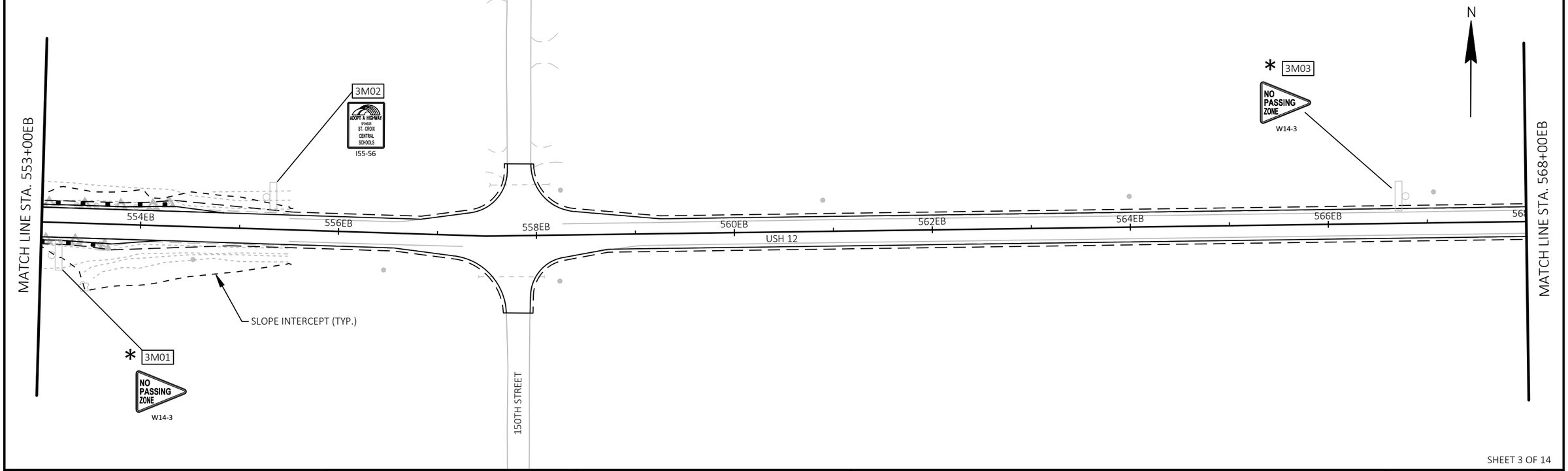
WISDOT/CADDS SHEET 44

2



SIGNING LEGEND

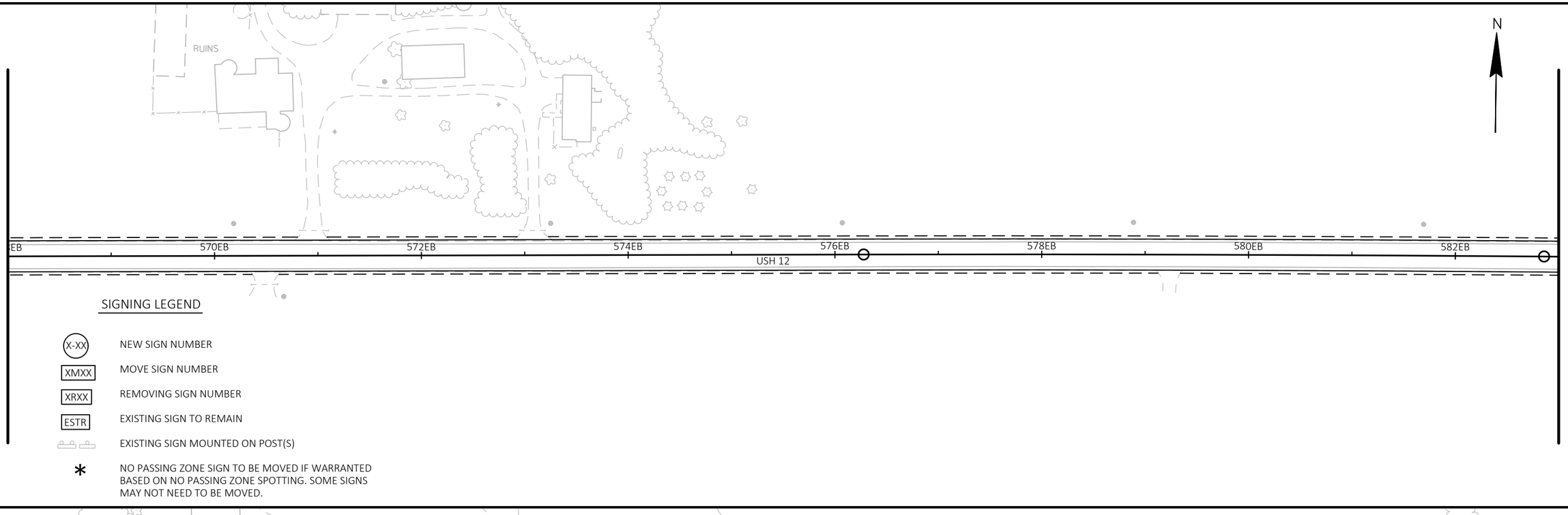
X-XX	NEW SIGN NUMBER
XMXX	MOVE SIGN NUMBER
XRXX	REMOVING SIGN NUMBER
ESTR	EXISTING SIGN TO REMAIN
	EXISTING SIGN MOUNTED ON POST(S)
*	NO PASSING ZONE SIGN TO BE MOVED IF WARRANTED BASED ON NO PASSING ZONE SPOTTING. SOME SIGNS MAY NOT NEED TO BE MOVED.



PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	SIGNING PLAN	SHEET 40	E

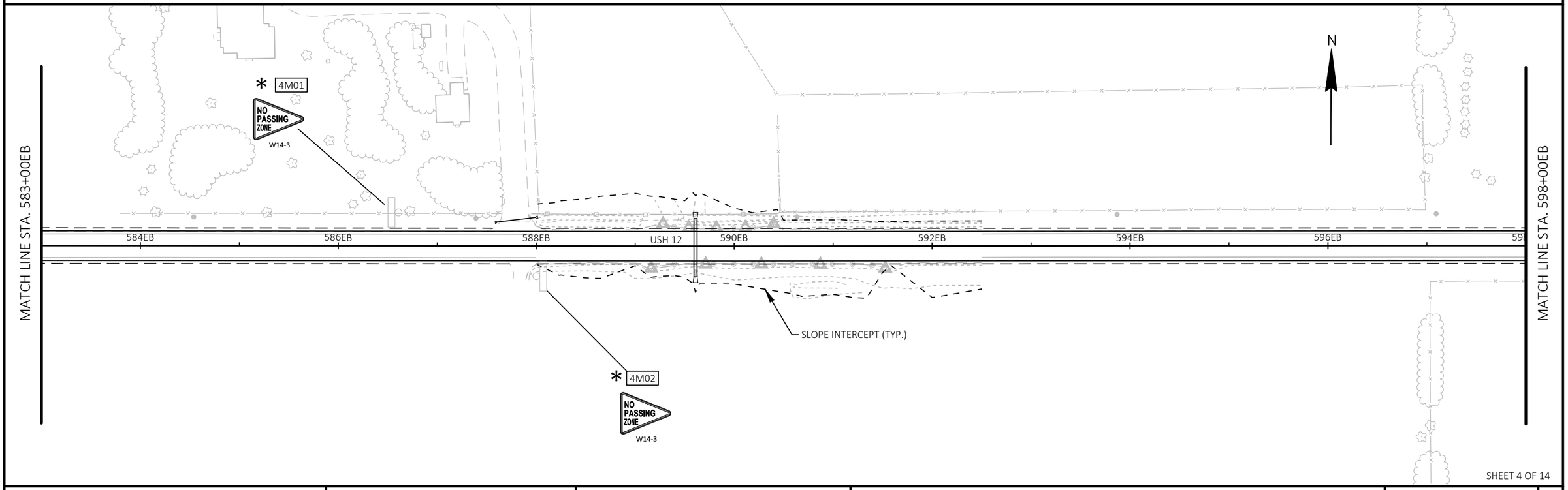
FILE NAME : C:\PWWORKING\CENTRAL01\D1881194\INPLACE SIGNING SHEETS.DWG
LAYOUT NAME - 538+00 - 568+00
PLOT DATE : 1/28/2021 12:45 PM
PLOT BY : HDR
PLOT NAME :
PLOT SCALE : ############
WISDOT/CADDS SHEET 44

2



SIGNING LEGEND

X-XX	NEW SIGN NUMBER
XMXX	MOVE SIGN NUMBER
XRXX	REMOVING SIGN NUMBER
ESTR	EXISTING SIGN TO REMAIN
	EXISTING SIGN MOUNTED ON POST(S)
*	NO PASSING ZONE SIGN TO BE MOVED IF WARRANTED BASED ON NO PASSING ZONE SPOTTING. SOME SIGNS MAY NOT NEED TO BE MOVED.



SHEET 4 OF 14

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	SIGNING PLAN	SHEET 41	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1881194\INPLACE SIGNING SHEETS.DWG
LAYOUT NAME - 568+00 - 598+00

PLOT DATE : 1/28/2021 12:45 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2

N

MATCH LINE STA. 598+00EB

600EB 602EB 604EB 606EB 608EB 610EB 612EB

MP

USH 12

160TH STREET

MATCH LINE STA. 613+00EB

SIGNING LEGEND

X-XX	NEW SIGN NUMBER
XMXX	MOVE SIGN NUMBER
XRXX	REMOVING SIGN NUMBER
ESTR	EXISTING SIGN TO REMAIN
	EXISTING SIGN MOUNTED ON POST(S)
*	NO PASSING ZONE SIGN TO BE MOVED IF WARRANTED BASED ON NO PASSING ZONE SPOTTING. SOME SIGNS MAY NOT NEED TO BE MOVED.

SLOPE INTERCEPT (TYP.)

5M01

W2-1

2

N

MATCH LINE STA. 613+00EB

614EB 616EB 618EB 620EB 622EB 624EB 626EB

USH 12

MATCH LINE STA. 628+00EB

* 5M02

NO PASSING ZONE

W14-3

SHEET 5 OF 14

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	SIGNING PLAN	SHEET 42	E

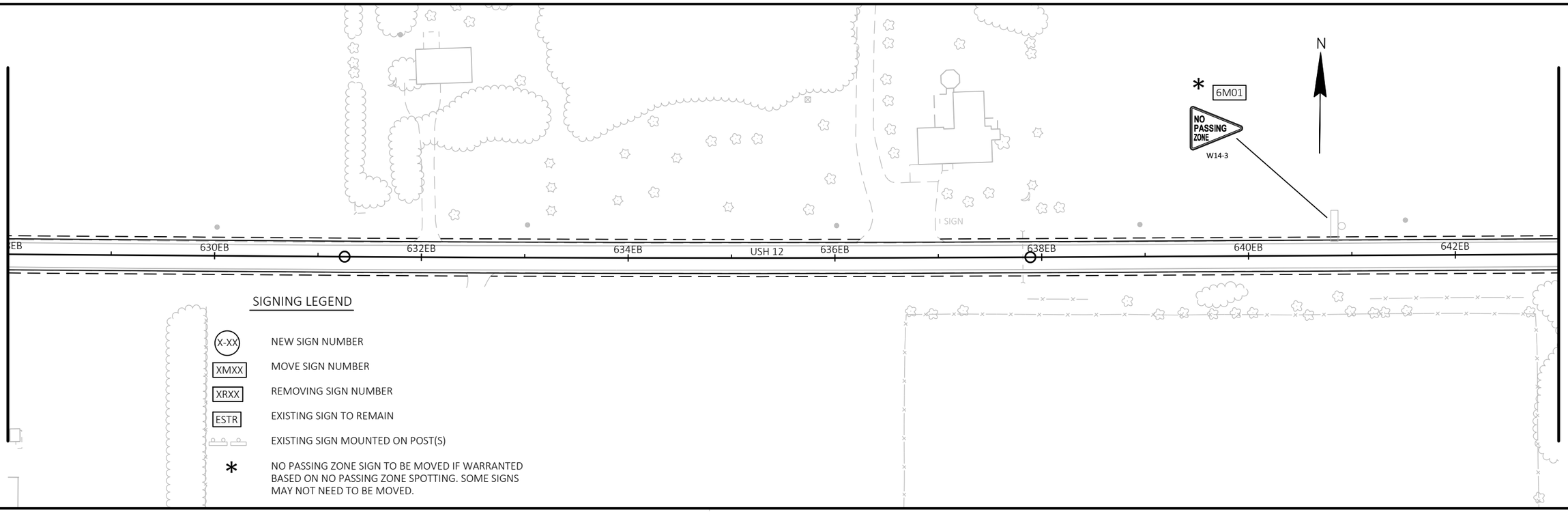
FILE NAME : C:\PWWORKING\CENTRAL01\D1881194\INPLACE SIGNING SHEETS.DWG
LAYOUT NAME - 598+00 - 628+00

PLOT DATE : 1/28/2021 12:46 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2

MATCH LINE STA. 628+00EB

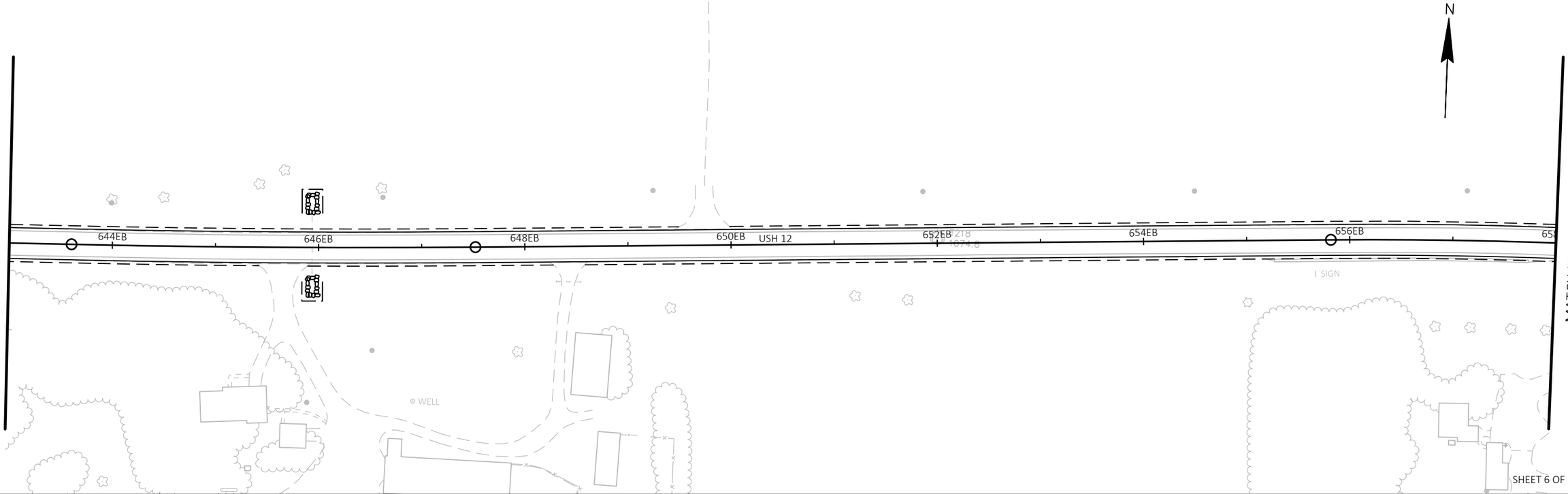


SIGNING LEGEND

X-XX	NEW SIGN NUMBER
XMXX	MOVE SIGN NUMBER
XRXX	REMOVING SIGN NUMBER
ESTR	EXISTING SIGN TO REMAIN
	EXISTING SIGN MOUNTED ON POST(S)
*	NO PASSING ZONE SIGN TO BE MOVED IF WARRANTED BASED ON NO PASSING ZONE SPOTTING. SOME SIGNS MAY NOT NEED TO BE MOVED.

MATCH LINE STA. 643+00EB

MATCH LINE STA. 658+00EB



SHEET 6 OF 14

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	SIGNING PLAN	SHEET 43	E

2

2

MATCH LINE STA. 658+00EB

MATCH LINE STA. 673+00EB

N

660EB 662EB 664EB USH 12 666EB 668EB 670EB 672EB

I SIGN

SIGNING LEGEND

X-XX	NEW SIGN NUMBER
XMXX	MOVE SIGN NUMBER
XRXX	REMOVING SIGN NUMBER
ESTR	EXISTING SIGN TO REMAIN
	EXISTING SIGN MOUNTED ON POST(S)
*	NO PASSING ZONE SIGN TO BE MOVED IF WARRANTED BASED ON NO PASSING ZONE SPOTTING. SOME SIGNS MAY NOT NEED TO BE MOVED.

170TH STREET

MATCH LINE STA. 673+00EB

MATCH LINE STA. 688+00EB

N

674EB 676EB 678EB 680EB USH 12 682EB 684EB 686EB

*7M01

NO PASSING ZONE

W14-3

SHEET 7 OF 14

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	SIGNING PLAN	SHEET 44	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1881194\INPLACE SIGNING SHEETS.DWG
LAYOUT NAME - 658+00 - 688+00

PLOT DATE : 1/28/2021 12:46 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2

MATCH LINE STA. 688+00EB

EVAN LEWIS

* 8M01

NO PASSING ZONE

W14-3

W5-60L 8M02

W5-60R 8M03

690EB 692EB 694EB 696EB 698EB 700EB 702EB

USH 12

SLOPE INTERCEPT (TYP.)

8M04 W5-60R

8M05 W5-60L

N

MATCH LINE STA. 703+00EB

2

SIGNING LEGEND

X-XX	NEW SIGN NUMBER
XMXX	MOVE SIGN NUMBER
XRXX	REMOVING SIGN NUMBER
ESTR	EXISTING SIGN TO REMAIN
	EXISTING SIGN MOUNTED ON POST(S)
*	NO PASSING ZONE SIGN TO BE MOVED IF WARRANTED BASED ON NO PASSING ZONE SPOTTING. SOME SIGNS MAY NOT NEED TO BE MOVED.

N

8M07 ADOPT A HIGHWAY I55-56

710EB 712EB 714EB 716EB

USH 12

CTH T

SLOPE INTERCEPT (TYP.)

8M06 WEST 12 ALT INTERSTATE 94 JV

8M08 ADOPT A HIGHWAY I55-56

706EB 708EB 704EB

MATCH LINE STA. 703+00EB

MATCH LINE STA. 718+00EB

SHEET 8 OF 14

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	SIGNING PLAN	SHEET 45	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1881194\INPLACE SIGNING SHEETS.DWG
LAYOUT NAME - 688+00 - 718+00

PLOT DATE : 1/28/2021 12:46 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2

N

MATCH LINE STA. 718+00EB

SIGN

720EB

722EB

724EB

726EB

USH 12

728EB

730EB

732EB

MATCH LINE STA. 733+00EB

RUINS

SIGNING LEGEND

X-XX	NEW SIGN NUMBER
XMXX	MOVE SIGN NUMBER
XRXX	REMOVING SIGN NUMBER
ESTR	EXISTING SIGN TO REMAIN
	EXISTING SIGN MOUNTED ON POST(S)
*	NO PASSING ZONE SIGN TO BE MOVED IF WARRANTED BASED ON NO PASSING ZONE SPOTTING. SOME SIGNS MAY NOT NEED TO BE MOVED.

2

N

MATCH LINE STA. 733+00EB

* 9M02

NO PASSING ZONE

W14-3

734EB

736EB

738EB

740EB

USH 12

742EB

744EB

746EB

MATCH LINE STA. 748+00EB

* 9M01

NO PASSING ZONE

W14-3

SLOPE INTERCEPT (TYP.)

9M03

SPEED LIMIT 30

W3-5

SHEET 9 OF 14

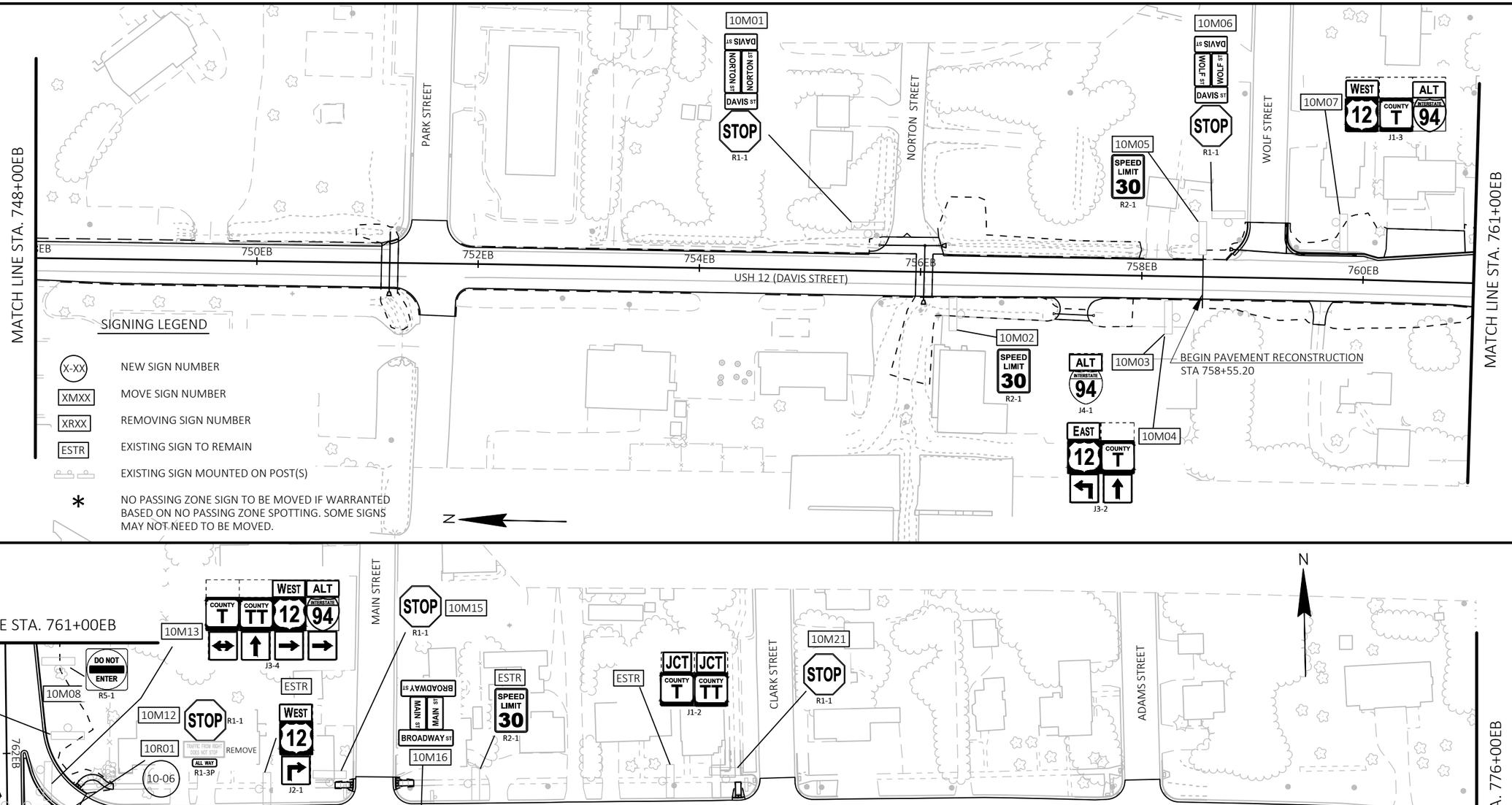
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	SIGNING PLAN	SHEET 46	E

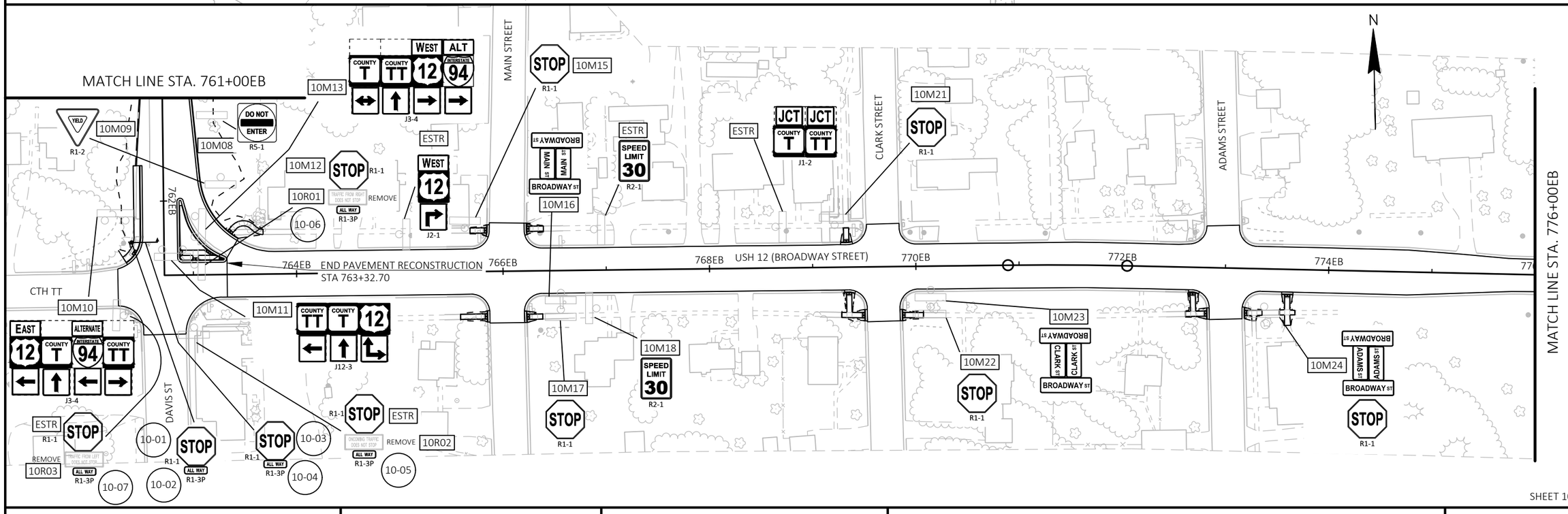
FILE NAME : C:\PWWORKING\CENTRAL01\D1881194\INPLACE SIGNING SHEETS.DWG
LAYOUT NAME - 718+00 - 748+00

PLOT DATE : 1/28/2021 12:46 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2





SHEET 10 OF 14

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	SIGNING PLAN	SHEET 47	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1881194\INPLACE SIGNING SHEETS.DWG
LAYOUT NAME - 748+00 - 776+00

PLOT DATE : 1/28/2021 12:46 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : ##########

2

2

MATCH LINE STA. 776+00EB

MATCH LINE STA. 791+00EB

N

RUINS

SIGN

778EB

780EB

782EB

784EB

USH 12

786EB

788EB

790EB

SIGNING LEGEND

X-XX NEW SIGN NUMBER

XMXX MOVE SIGN NUMBER

XRXX REMOVING SIGN NUMBER

ESTR EXISTING SIGN TO REMAIN

EXISTING SIGN MOUNTED ON POST(S)

* NO PASSING ZONE SIGN TO BE MOVED IF WARRANTED BASED ON NO PASSING ZONE SPOTTING. SOME SIGNS MAY NOT NEED TO BE MOVED.

JOHN STREET

ELAINE CIRCLE

SIREN

NO PASSING ZONE W14-3

* 11M01

MATCH LINE STA. 791+00EB

N

792EB

794EB

796EB

798EB

800EB

USH 12

802EB

804EB

SHEET 11 OF 14

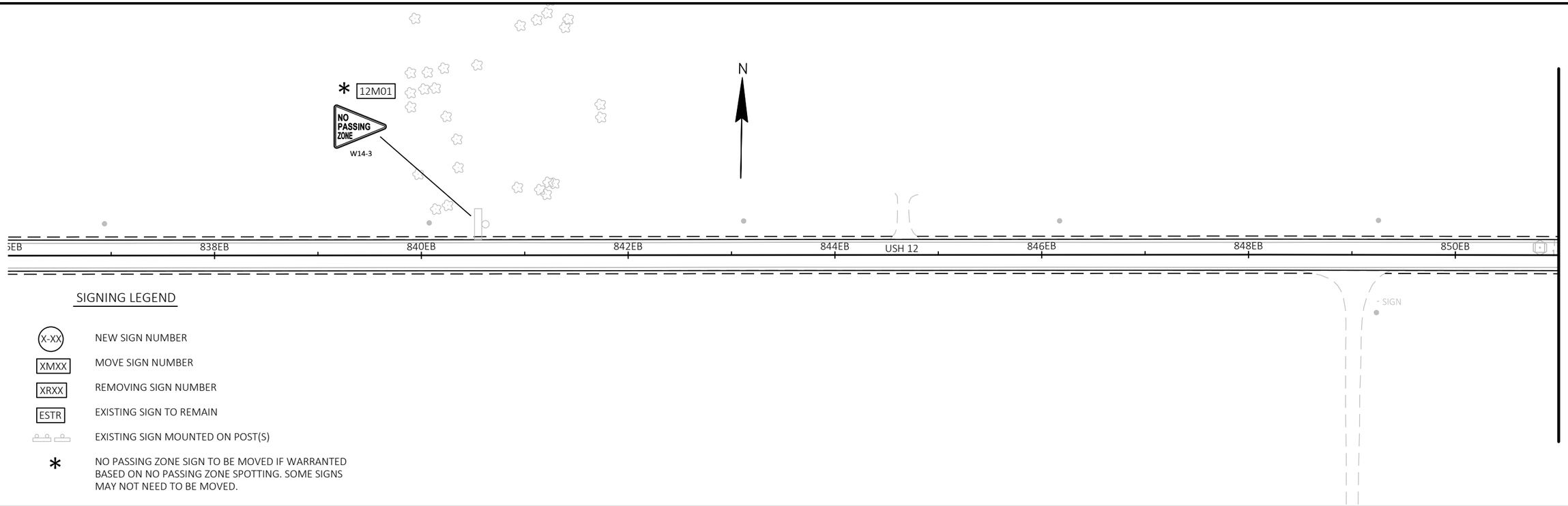
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	SIGNING PLAN	SHEET 48	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1881194\INPLACE SIGNING SHEETS.DWG
LAYOUT NAME - 776+00 - 806+00

PLOT DATE : 1/28/2021 12:47 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : ##########

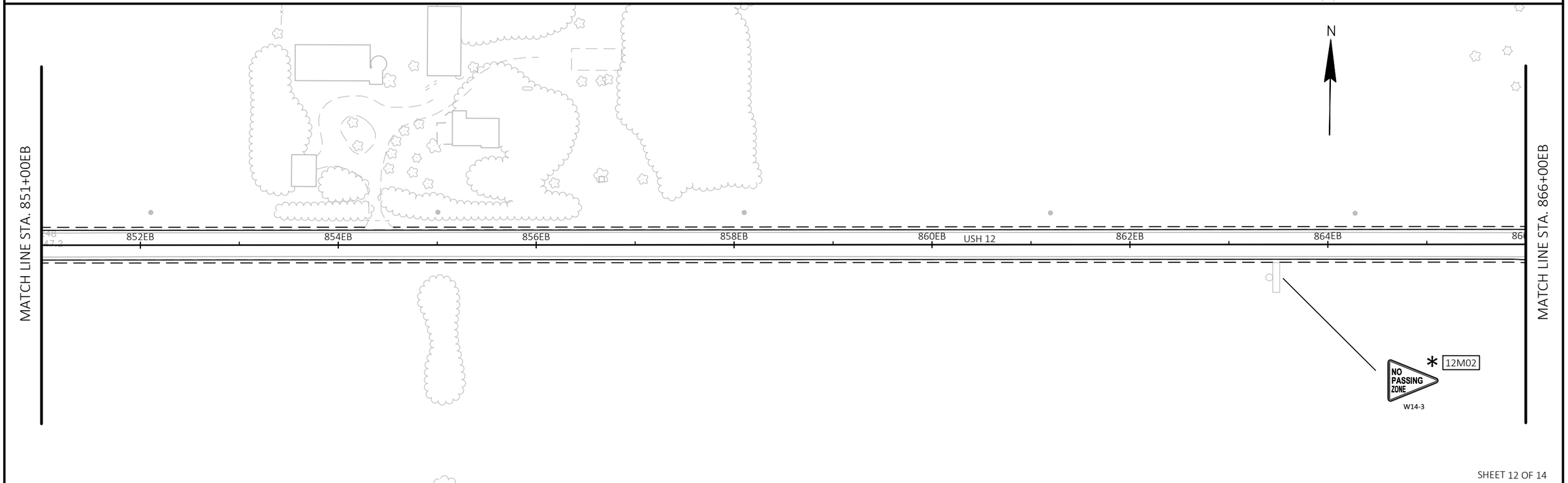
WISDOT/CADDS SHEET 44

2



SIGNING LEGEND

X-XX	NEW SIGN NUMBER
XMXX	MOVE SIGN NUMBER
XRXX	REMOVING SIGN NUMBER
ESTR	EXISTING SIGN TO REMAIN
	EXISTING SIGN MOUNTED ON POST(S)
*	NO PASSING ZONE SIGN TO BE MOVED IF WARRANTED BASED ON NO PASSING ZONE SPOTTING. SOME SIGNS MAY NOT NEED TO BE MOVED.



SHEET 12 OF 14

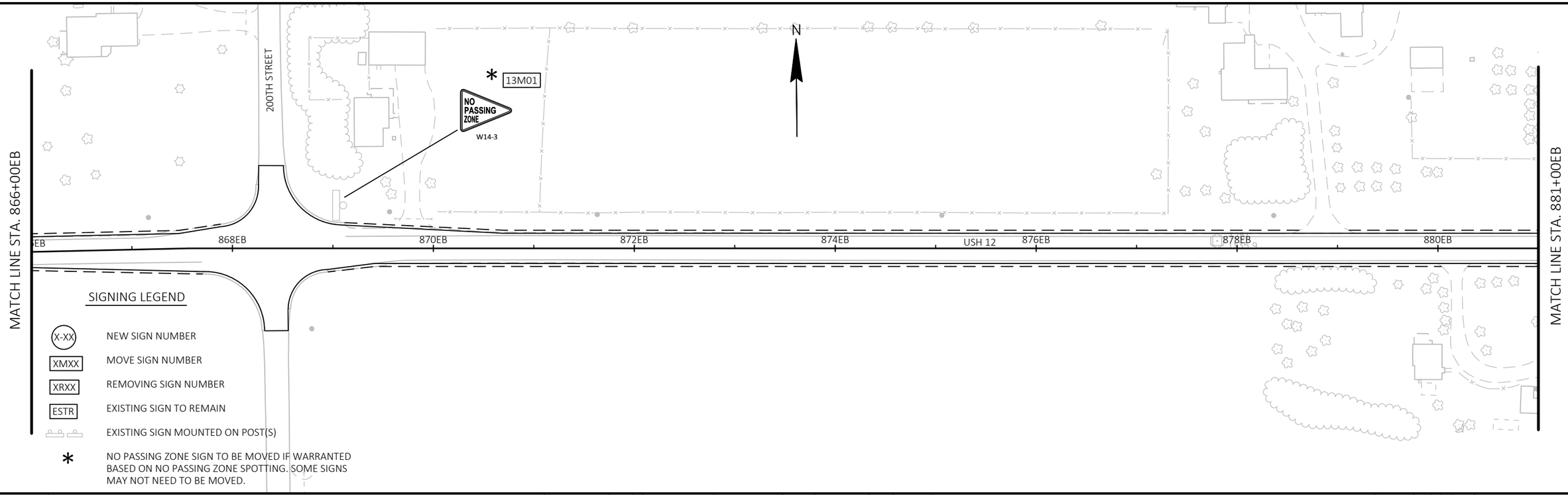
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	SIGNING PLAN	SHEET 49	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1881194\INPLACE SIGNING SHEETS.DWG
LAYOUT NAME - 836+00 - 866+00

PLOT DATE : 1/28/2021 12:47 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : ##########

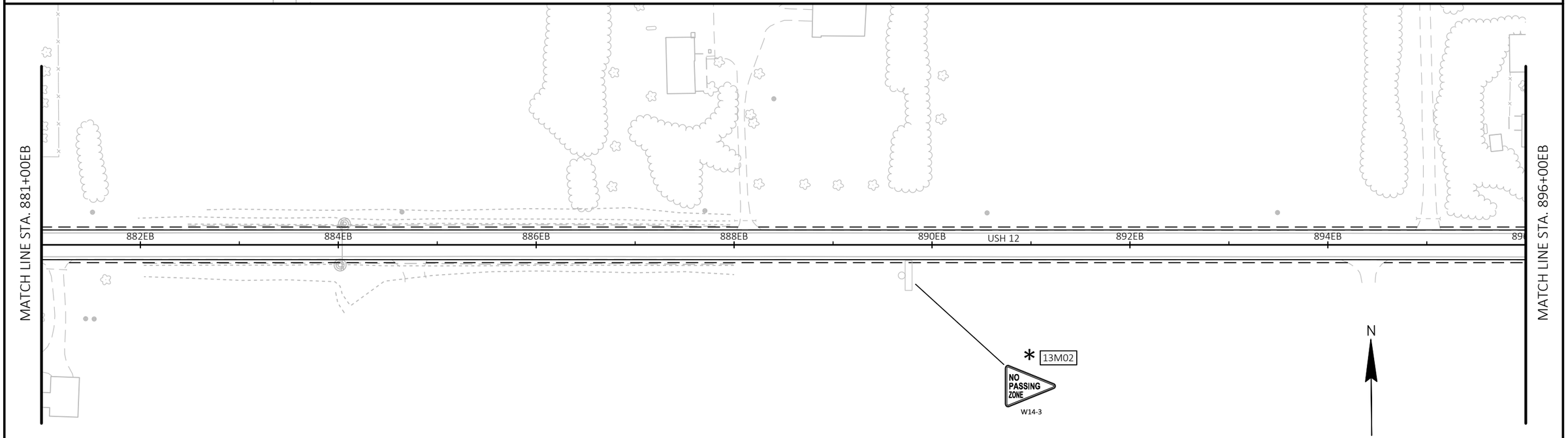
WISDOT/CADDS SHEET 44

2



SIGNING LEGEND

(X-XX)	NEW SIGN NUMBER
XMXX	MOVE SIGN NUMBER
XRXX	REMOVING SIGN NUMBER
ESTR	EXISTING SIGN TO REMAIN
	EXISTING SIGN MOUNTED ON POST(S)
*	NO PASSING ZONE SIGN TO BE MOVED IF WARRANTED BASED ON NO PASSING ZONE SPOTTING. SOME SIGNS MAY NOT NEED TO BE MOVED.

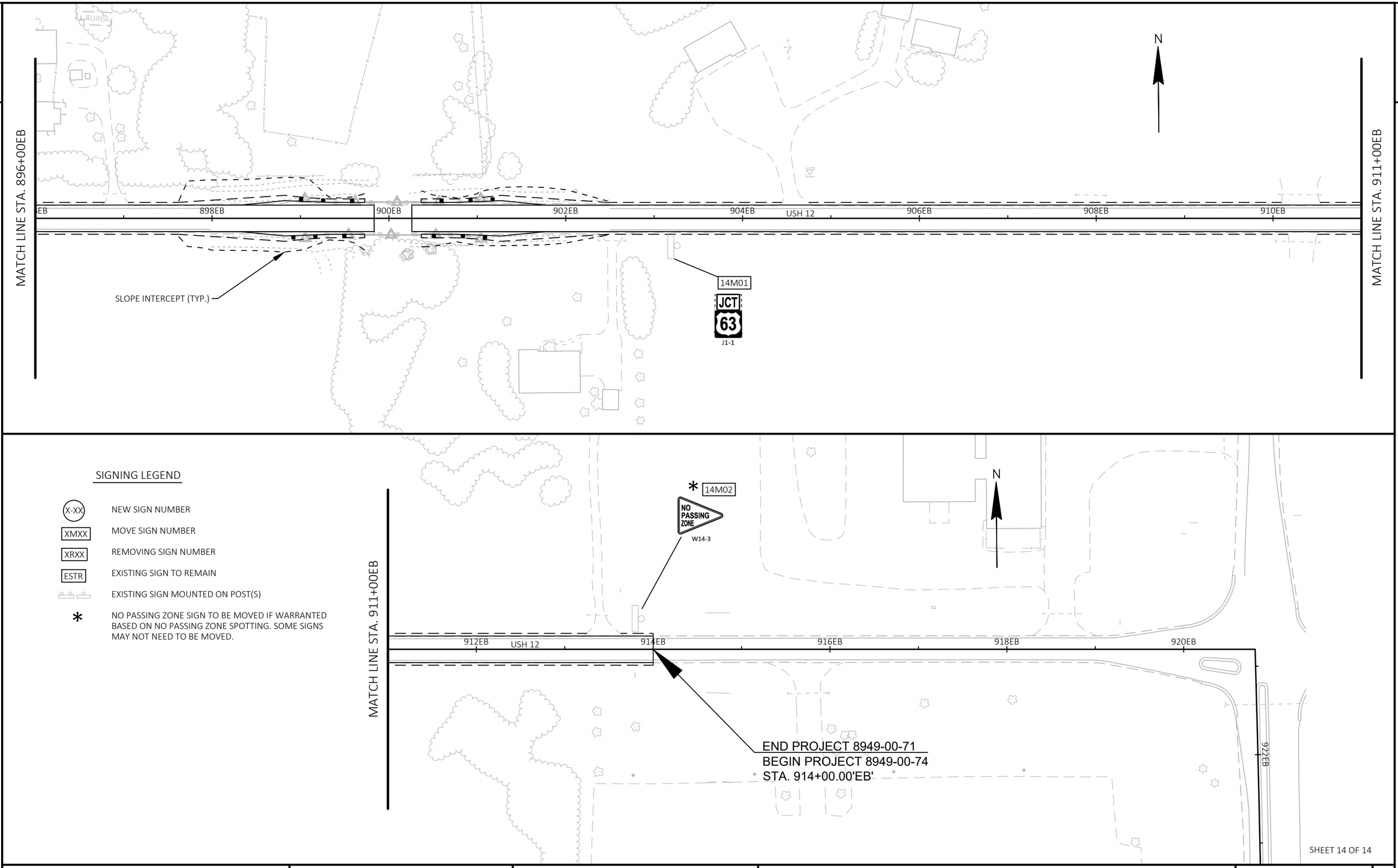


SHEET 13 OF 14

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	SIGNING PLAN	SHEET 50	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1881194\INPLACE SIGNING SHEETS.DWG
LAYOUT NAME - 866+00 - 896+00
PLOT DATE : 1/28/2021 12:47 PM
PLOT BY : HDR
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

2



SIGNING LEGEND

(X-XX)	NEW SIGN NUMBER
XMXX	MOVE SIGN NUMBER
XRXX	REMOVING SIGN NUMBER
ESTR	EXISTING SIGN TO REMAIN
	EXISTING SIGN MOUNTED ON POST(S)
*	NO PASSING ZONE SIGN TO BE MOVED IF WARRANTED BASED ON NO PASSING ZONE SPOTTING. SOME SIGNS MAY NOT NEED TO BE MOVED.

SHEET 14 OF 14

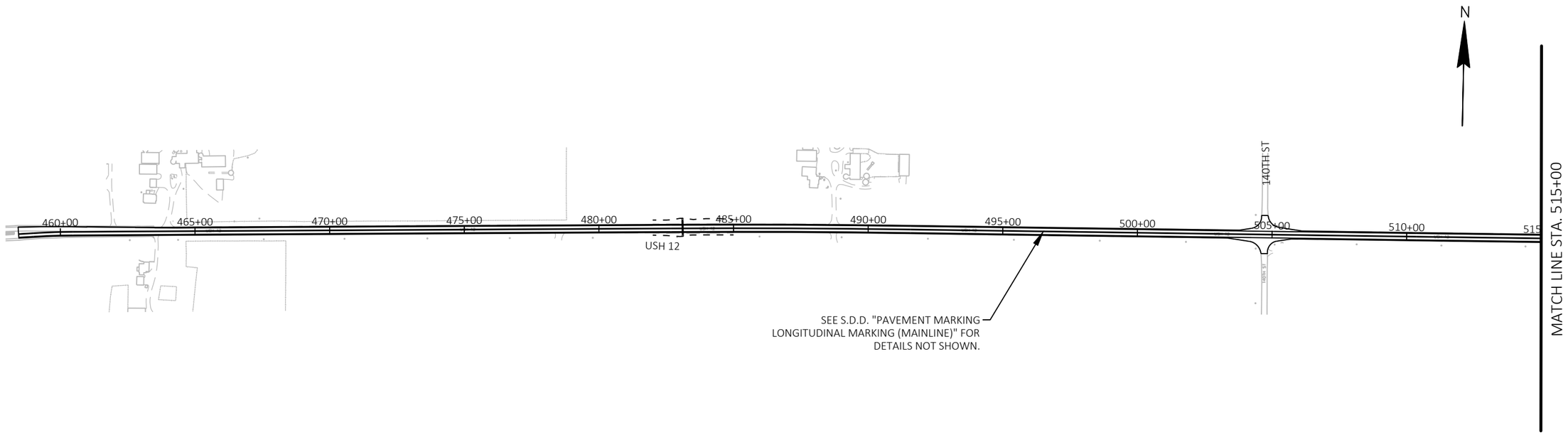
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	SIGNING PLAN	SHEET 51	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1881194\INPLACE SIGNING SHEETS.DWG
LAYOUT NAME - 896+00 - EOP

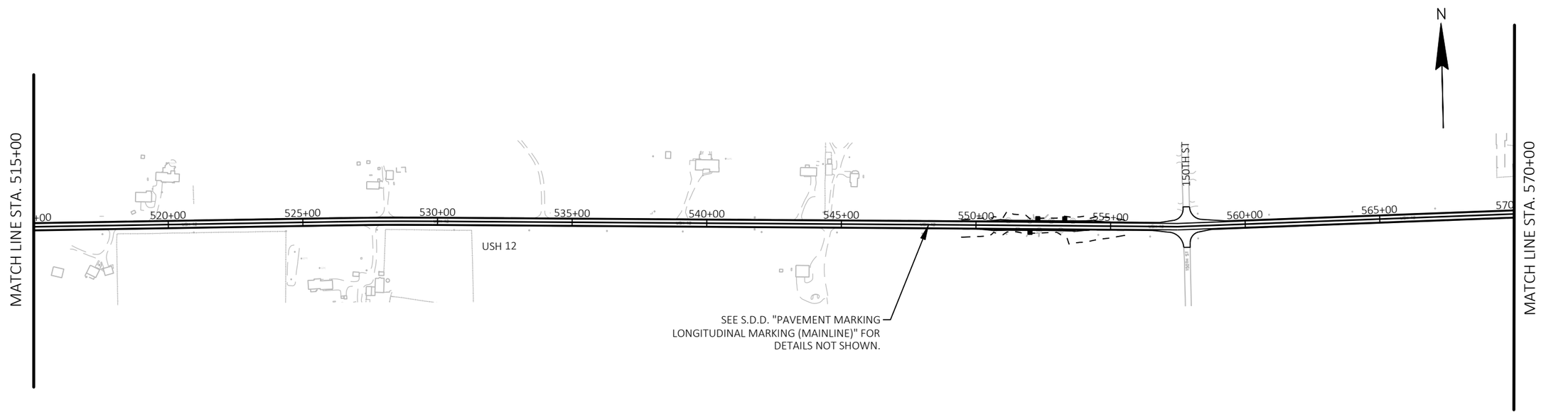
PLOT DATE : 1/28/2021 12:47 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2



NOTES:
- CENTERLINES SHALL BE EPOXY AND EDGELINES SHALL BE GROOVED WET REFLECTIVE EPOXY.

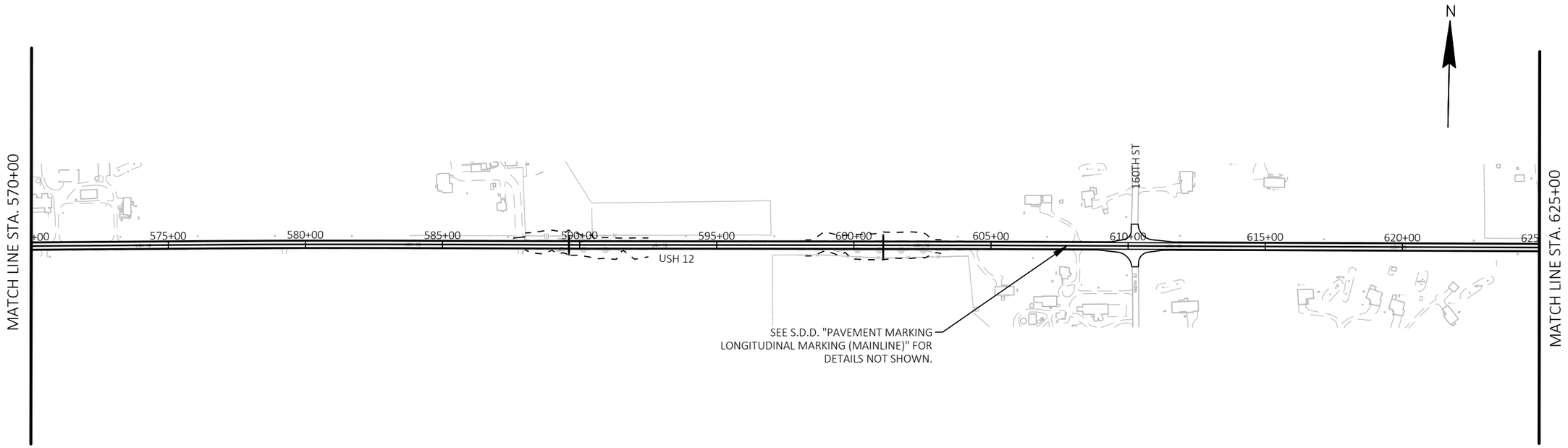


NOTES:
- CENTERLINES SHALL BE EPOXY AND EDGELINES SHALL BE GROOVED WET REFLECTIVE EPOXY.

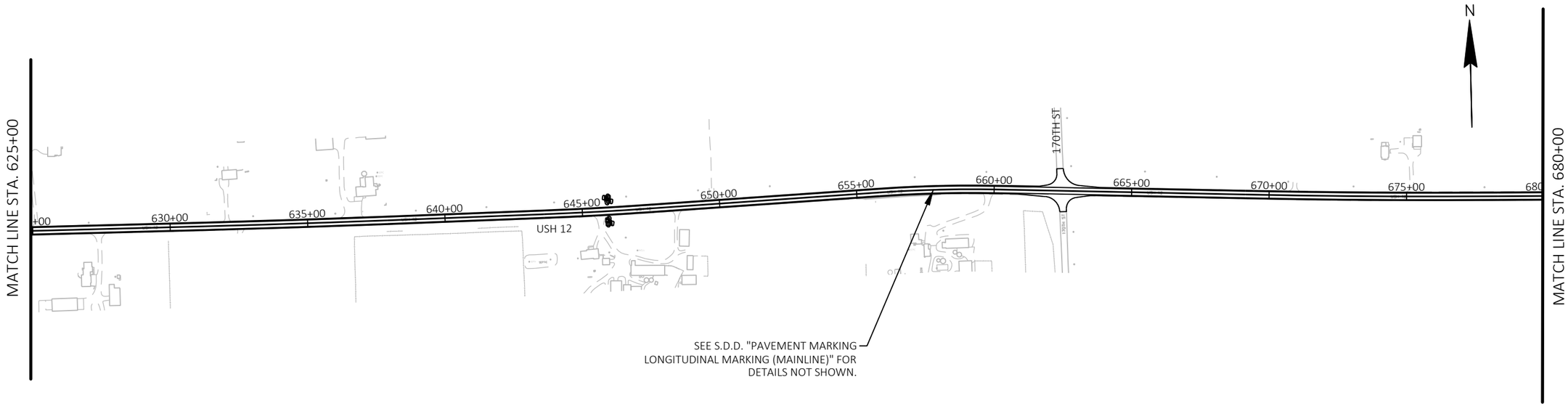
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PAVEMENT MARKING	SHEET 52	E

FILE NAME : C:\PWWORKING\CENTRALO1\D1881201\PAVEMENT MARKING OVERVIEW.DWG
LAYOUT NAME - Overview (1)
PLOT DATE : 1/27/2021 1:15 PM
PLOT BY : HDR
PLOT NAME :
PLOT SCALE : 1 IN: 400FT
WISDOT/CADDS SHEET 44

2



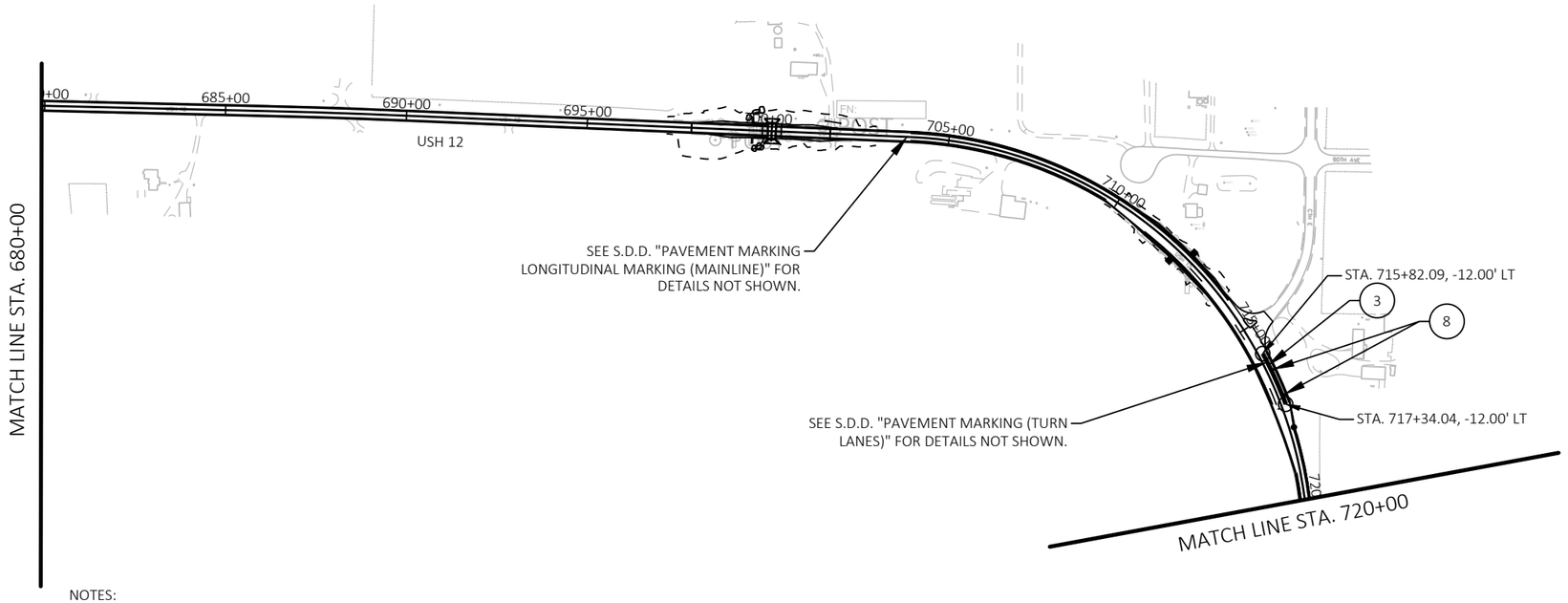
NOTES:
- CENTERLINES SHALL BE EPOXY AND EDGELINES SHALL BE GROOVED WET REFLECTIVE EPOXY.



NOTES:
- CENTERLINES SHALL BE EPOXY AND EDGELINES SHALL BE GROOVED WET REFLECTIVE EPOXY.

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PAVEMENT MARKING	SHEET 53	E

FILE NAME : C:\PWWORKING\CENTRALO1\D1881201\PAVEMENT MARKING OVERVIEW.DWG
LAYOUT NAME - Overview (2)
PLOT DATE : 1/27/2021 1:15 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : 1 IN: 400 FT
WISDOT/CADDS SHEET 44



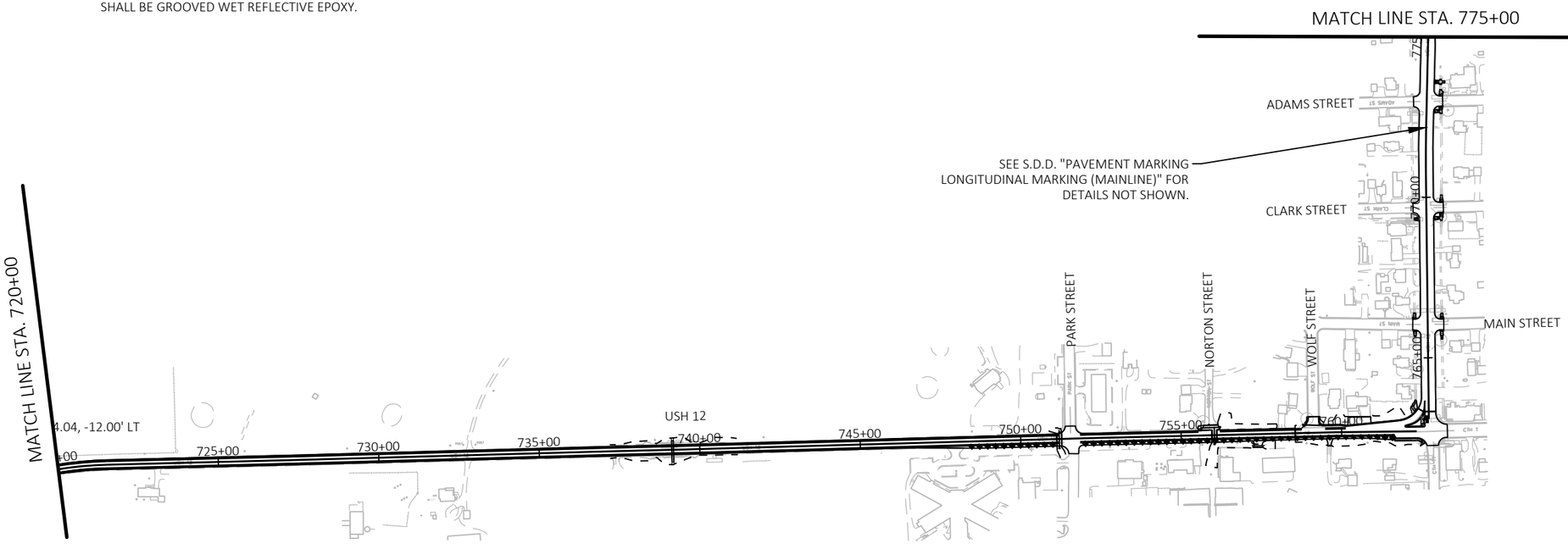
LEGEND

(3) MARKING LINE EPOXY 8-INCH, WHITE

(8) MARKING ARROW EPOXY

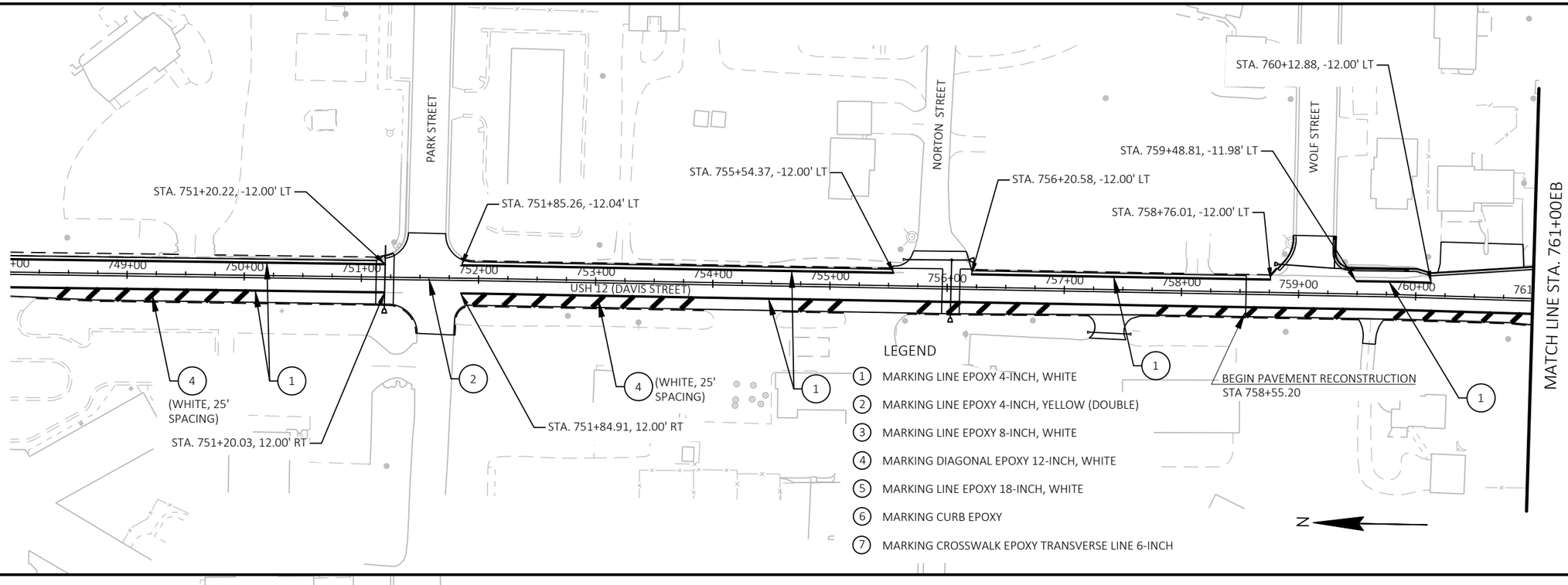
NOTES:
- CENTERLINES SHALL BE EPOXY AND EDGELINES SHALL BE GROOVED WET REFLECTIVE EPOXY.

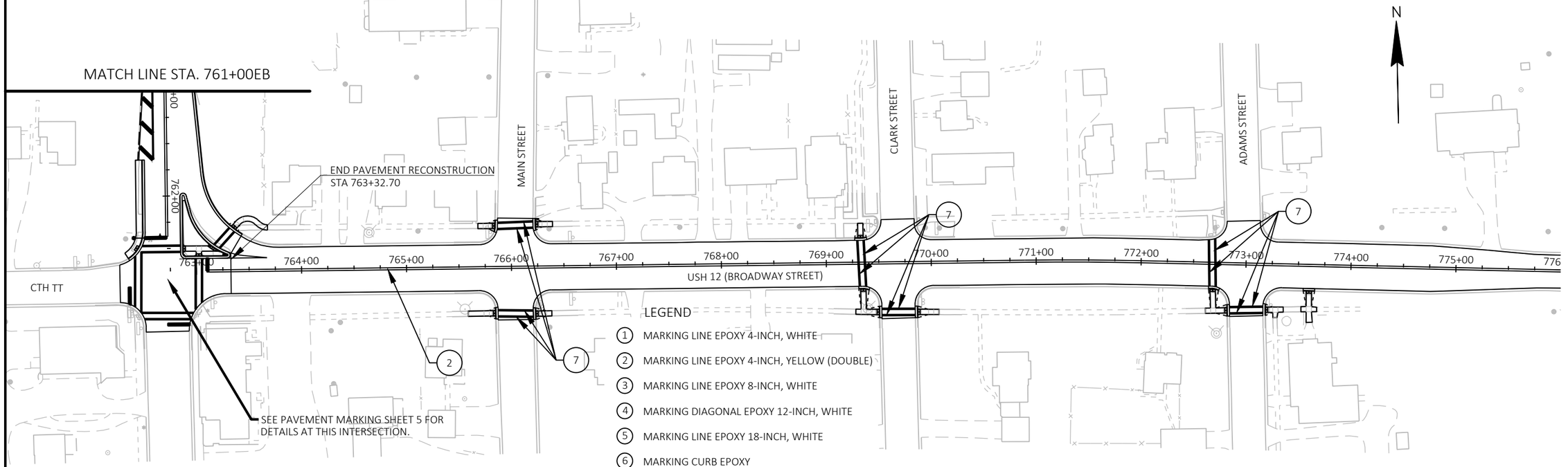
NOTES:
- CENTERLINES SHALL BE EPOXY AND EDGELINES SHALL BE GROOVED WET REFLECTIVE EPOXY.



PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PAVEMENT MARKING	SHEET 54	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1881201\PAVEMENT MARKING OVERVIEW.DWG
LAYOUT NAME - Overview (3)
PLOT DATE : 1/27/2021 1:16 PM
PLOT BY : HDR
PLOT NAME :
PLOT SCALE : 1 IN: 400 FT
WISDOT/CADDS SHEET 44





SHEET 4 OF 7

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PAVEMENT MARKING	SHEET 55	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1881201\PAVEMENT MARKING SHEETS.DWG
LAYOUT NAME - 748+00 - 776+00

PLOT DATE : 1/28/2021 1:23 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : ##########

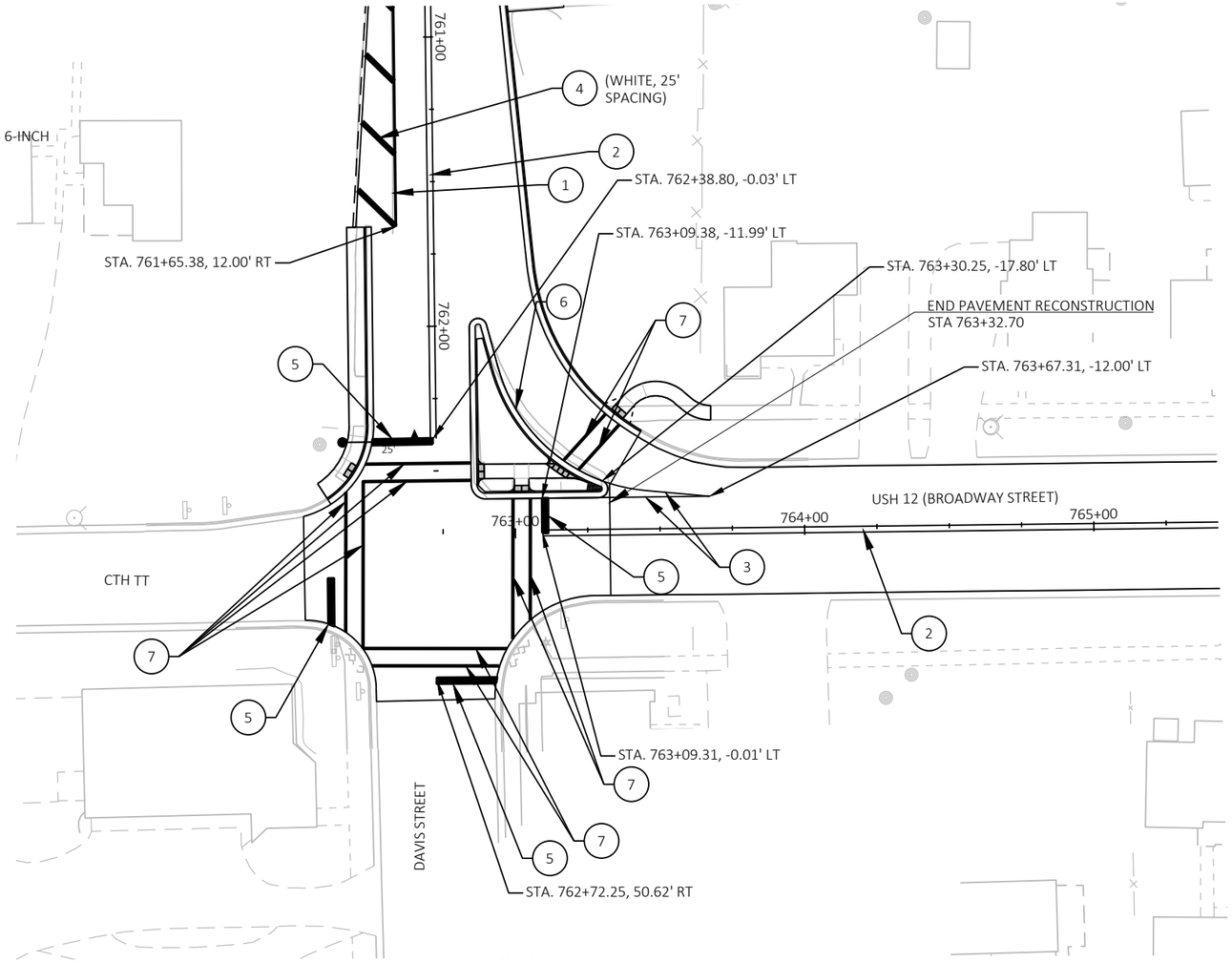
WISDOT/CADDS SHEET 44

2

LEGEND

1. MARKING LINE EPOXY 4-INCH, WHITE
2. MARKING LINE EPOXY 4-INCH, YELLOW (DOUBLE)
3. MARKING LINE EPOXY 8-INCH, WHITE
4. MARKING DIAGONAL EPOXY 12-INCH, WHITE
5. MARKING LINE EPOXY 18-INCH, WHITE
6. MARKING CURB EPOXY
7. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH

SEE S.D.D. STOP LINE AND CROSSWALK PAVEMENT MARKING.



N

2

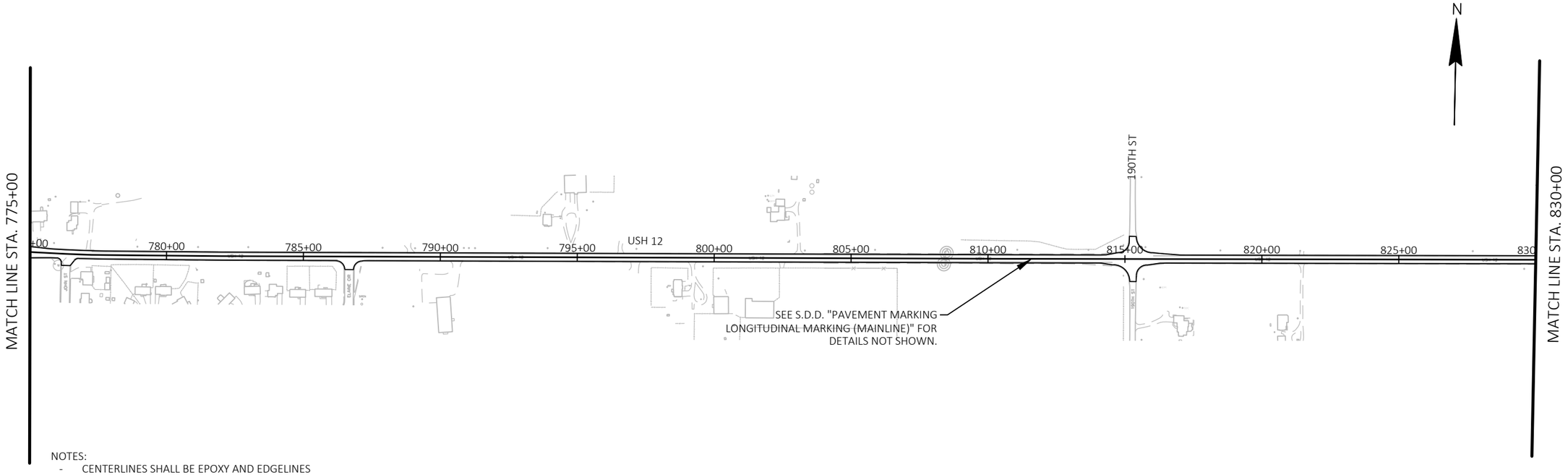
SHEET 5 OF 7

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PAVEMENT MARKING	SHEET 56	E

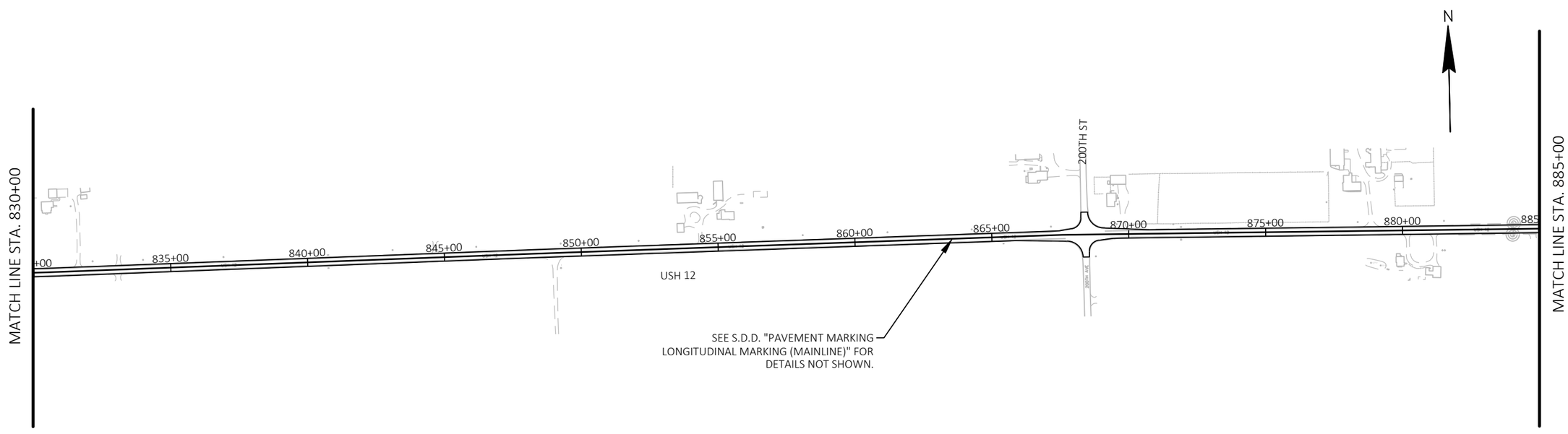
FILE NAME : C:\PWWORKING\CENTRAL01\D1881201\PAVEMENT MARKING SHEETS_2.DWG
LAYOUT NAME - INSET

PLOT DATE : 1/28/2021 1:23 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44



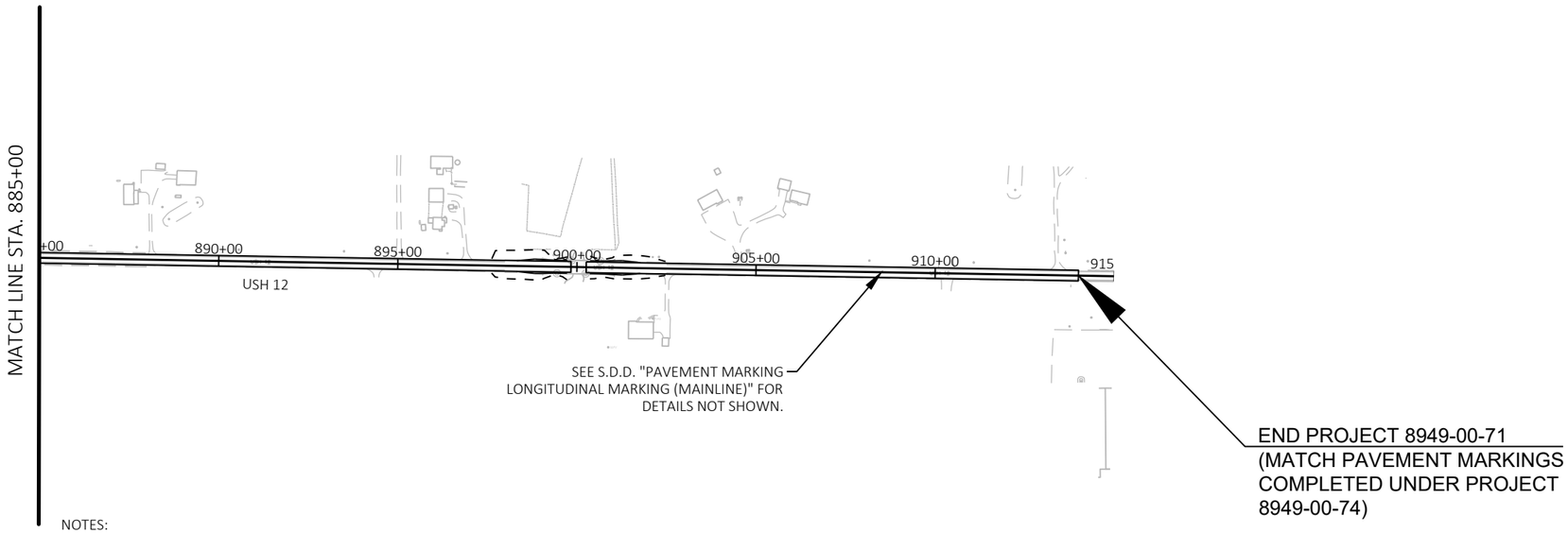
NOTES:
- CENTERLINES SHALL BE EPOXY AND EDGELINES SHALL BE GROOVED WET REFLECTIVE EPOXY.



NOTES:
- CENTERLINES SHALL BE EPOXY AND EDGELINES SHALL BE GROOVED WET REFLECTIVE EPOXY.

2

N



NOTES:
- CENTERLINES SHALL BE EPOXY AND EDGELINES SHALL BE GROOVED WET REFLECTIVE EPOXY.

2

TRAFFIC CONTROL GENERAL NOTES:

- 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. REMOVING/REPLACING OR COVERING/UNCOVERING SIGNS WILL BE INCIDENTAL TO OTHER TRAFFIC CONTROL ITEMS.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
- CONSIDER GEOMETRICS WHEN LOCATING SIGNS, ARROW BOARDS, AND SIGN MESSAGE BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE SIGNS, ARROW BOARDS, AND SIGN MESSAGE BOARDS.
- IF SIGNS ARE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS WITH A MINIMUM 5' MOUNTING HEIGHT.
- ALL TRAFFIC CONTROL SIGNING SHALL CONFIRM TO: PART VI OF THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD), TRAFFIC ENGINEERING, OPERATIONS AND SAFETY MANUAL, AND OTHER CONTRACT DOCUMENTS.
- THE TURNING OF TRAFFIC CONTROL DEVICES WHEN NOT IN USE TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.
- MOVE, REMOVE OR INSTALL ROUTE MARKER SIGNS AS REQUIRED TO MAINTAIN NECESSARY ROUTE GUIDANCE THROUGHOUT CONSTRUCTION.

MAINTENANCE OF TRAFFIC:

USH 12

- USH 12 SHALL REMAIN OPEN TO ALL EXISTING LANES AT ALL TIMES EXCEPT FOR FLAGGING OPERATIONS AND ROAD CLOSURES AS NOTED IN THE CONTRACT SPECIAL PROVISIONS.

LOCAL ROADS AND DRIVEWAYS

- PROTECT WORK ZONE WITH DRUMS AND MAINTAIN ACCESS TO LOCAL TRAFFIC AND PRIVATE DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION.

PEDESTRIANS

- CONTRACTOR SHALL MAINTAIN MINIMUM OF ONE PEDESTRIAN CROSSING ON NORTH SIDE OR SOUTH SIDE AT AN INTERSECTION, AT ALL TIMES DURING CURB RAMP CONSTRUCTION IN VILLAGE OF HAMMOND.

CONSTRUCTION ACTIVITIES:

USH 12

- MILL AND OVERLAY
- BRIDGE STRUCTURE
- ROADWAY RECONSTRUCTION AND ADA RAMPS IN VILLAGE OF HAMMOND

NOTES:

REFER TO THE FOLLOWING TRAFFIC CONTROL DETAILS, AS WELL AS STANDARD DETAIL DRAWINGS FOR TRAFFIC CONTROL DEVICES AS NECESSARY, UNLESS OTHERWISE DIRECTED BY THE ENGINEER:

- SEE S.D.D. "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"
- SEE S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION"
- SEE S.D.D. "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES"
- SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
- SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION"
- SEE S.D.D. "ADVANCED WIDTH RESTRICTION SIGNING"

2

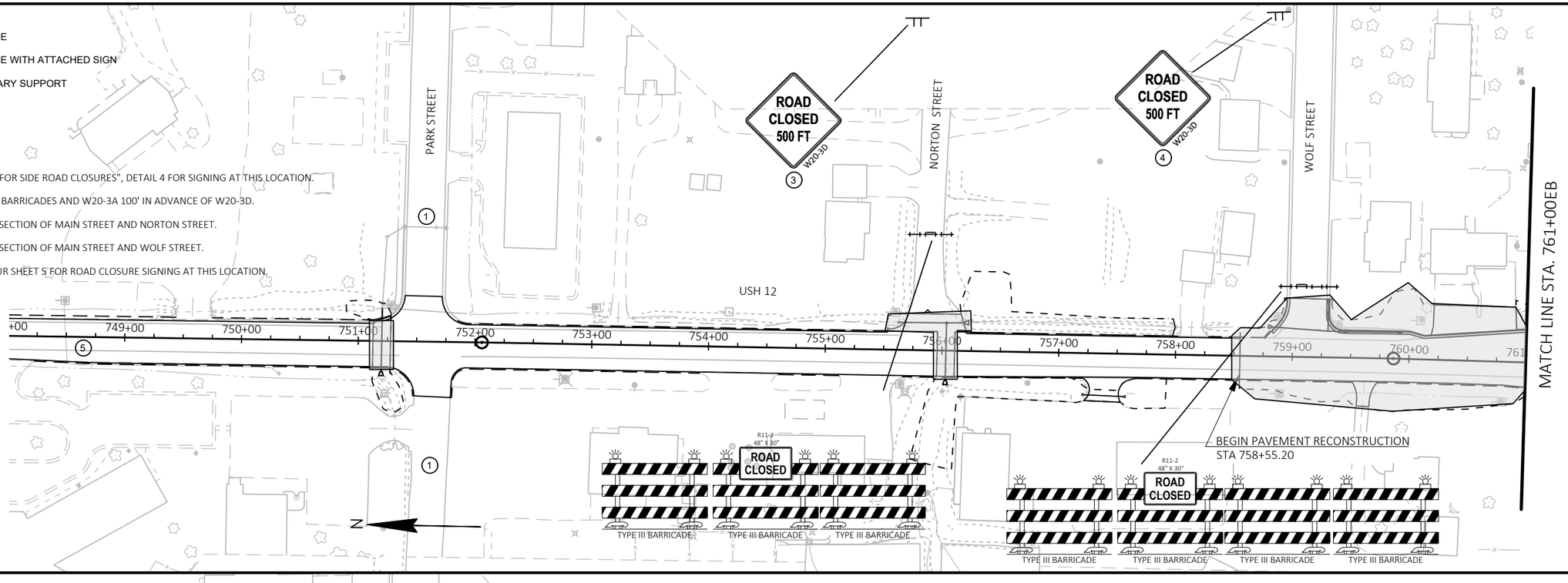
2

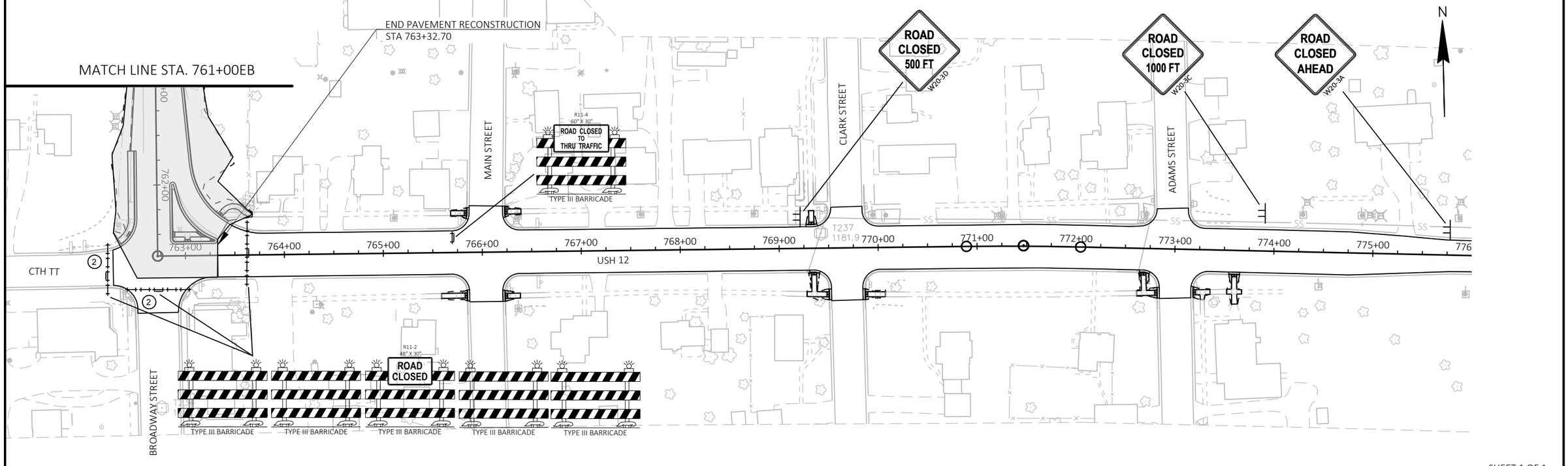
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- WORK AREA

SPECIFIC NOTES

1. SEE S.D.D. "BARRICADES AND SIGNS FOR SIDE ROAD CLOSURES", DETAIL 4 FOR SIGNING AT THIS LOCATION.
2. PLACE W20-3D 100' IN ADVANCE OF BARRICADES AND W20-3A 100' IN ADVANCE OF W20-3D.
3. PLACE W20-3D 50' FROM THE INTERSECTION OF MAIN STREET AND NORTON STREET.
4. PLACE W20-3D 50' FROM THE INTERSECTION OF MAIN STREET AND WOLF STREET.
5. SEE SHEET TRAFFIC CONTROL DETOUR SHEET 5 FOR ROAD CLOSURE SIGNING AT THIS LOCATION.





SHEET 1 OF 1

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	TRAFFIC CONTROL PLAN	SHEET 60	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1881192\TRAFFIC CONTROL SHEETS.DWG
LAYOUT NAME - 748+00 - 776+00

PLOT DATE : 1/27/2021 3:05 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

LEGEND

TYPE II / TYPE III BARRICADE WITH ATTACHED SIGN

NOTE: REFER TO S.D.D. " TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR ADDITIONAL GUIDANCE.

N

MAIN ST

USH 12

765+00

766+00

767+00

SIDEWALK CLOSED
CROSS HERE
R9-11A
24"X12"

SIDEWALK CLOSED
R9-9
24"X12"

WORK AREA

TEMPORARY PEDESTRIAN SURFACE PLYWOOD

TEMPORARY PEDESTRIAN BARRICADE (TYP.)

TEMPORARY CURB RAMP PARALLEL TO CURB REQ'D. DETECTABLE WARNING FIELD IS INCIDENTAL TO "TEMPORARY CURB RAMP" BID ITEM (TYP.)

TEMPORARY MARKING LINE EPOXY 4-INCH WHITE

5'

4'

12' LANE

20'

10'

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	TRAFFIC CONTROL - MAIN ST PEDESTRIAN ACCESS	SHEET 61	E

2

LEGEND

TYPE II / TYPE III BARRICADE WITH ATTACHED SIGN

(1) PLACE W011-2 AND W016-9P SIGN ASSEMBLY IN ADVANCE OF W011-2 AND W016-7L SIGN ASSEMBLY.

NOTE: REFER TO S.D.D. " TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR ADDITIONAL GUIDANCE.

N

CLARK ST

PEDESTRIAN CROSSWALK
R9-8
24"X12"

W11-2
48"X48"

WO16-7L
48"X24"

SIDEWALK CLOSED
CROSS HERE
R9-11A
24"X12"

WORK AREA

TEMPORARY CURB RAMP

TEMPORARY MARKING LINE EPOXY
4-INCH WHITE

USH 12

769+00

770+00

771+00

WO16-7R
48"X24"

TEMPORARY PEDESTRIAN
SURFACE PLYWOOD

TEMPORARY PEDESTRIAN
BARRICADE (TYP.)

5'

SIDEWALK CLOSED
R9-9
24"X12"

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	TRAFFIC CONTROL - CLARK ST PEDESTRIAN ACCESS	SHEET 62	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1881192\PED RAMP TRAFFIC CONTROL SHEETS.DWG
LAYOUT NAME - TC Ped ramp 2

PLOT DATE : 1/28/2021 1:14 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

LEGEND

TYPE II / TYPE III BARRICADE WITH ATTACHED SIGN

SPECIFIC NOTES

1. CONSTRUCT AFTER THE OTHER ADA RAMP AT THIS QUADRANT IS CONSTRUCTED.

NOTE: REFER TO S.D.D. " TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR ADDITIONAL GUIDANCE.

ADAMS ST

USH 12

N

TEMPORARY CURB RAMP PARALLEL TO CURB REQ'D. DETECTABLE WARNING FIELD IS INCIDENTAL TO "TEMPORARY CURB RAMP" BID ITEM.

TEMPORARY CURB RAMP PARALLEL TO CURB REQ'D. DETECTABLE WARNING FIELD IS INCIDENTAL TO "TEMPORARY CURB RAMP" BID ITEM.

772+00

773+00

774+00

TEMPORARY PEDESTRIAN BARRICADE (TYP.)

12' LANE

2'

5'

2'

WORK AREA

12' LANE

5'

2'

TEMPORARY PEDESTRIAN SURFACE PLYWOOD

TEMPORARY PEDESTRIAN SURFACE PLYWOOD

TEMPORARY CURB RAMP

SIDEWALK CLOSED CROSS HERE

R9-11A 24"X12"

SIDEWALK CLOSED

R9-9 24"X12"

SIDEWALK CLOSED

R9-9 24"X12"

SIDEWALK CLOSED

R9-9 24"X12"

SIDEWALK CLOSED CROSS HERE

R9-11A 24"X12"

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	TRAFFIC CONTROL - ADAMS ST PEDESTRIAN ACCESS	SHEET 63	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1881192\PED RAMP TRAFFIC CONTROL SHEETS.DWG
LAYOUT NAME - TC Ped ramp 3

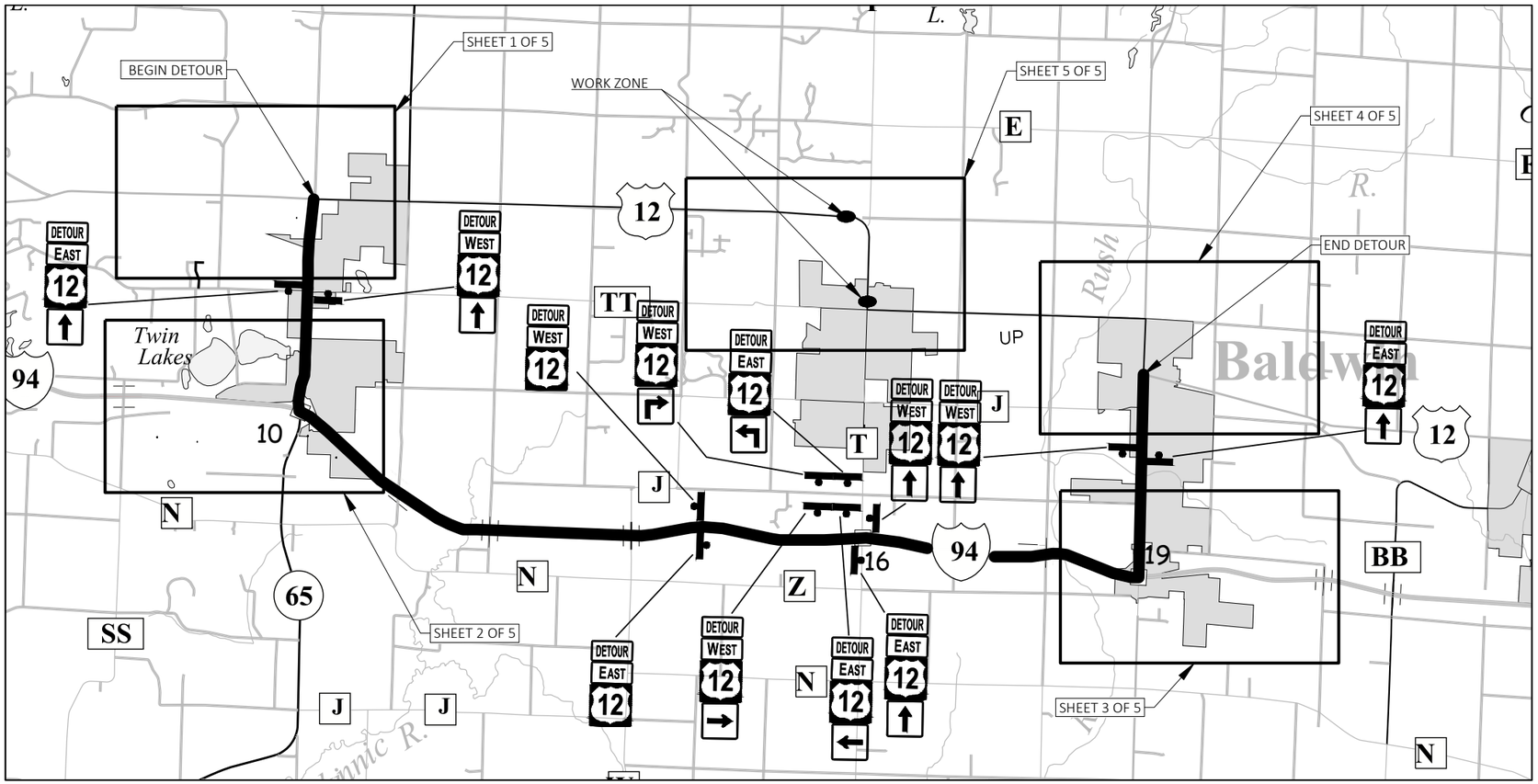
PLOT DATE : 1/28/2021 1:14 PM PLOT BY : HDR PLOT NAME : PLOT SCALE : ###########

WISDOT/CADDS SHEET 44

SIGN LEGEND

N

NTS



LEGEND

- EB & WB USH 12 DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- SIGN MOUNTED ON POST(S)
- TRAFFIC CONTROL COVERING SIGNS TYPE II

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES 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.

NOTE:
FOR DETAILS NOT SHOWN SEE SDD 'DETOUR SIGNING FOR MAINLINE CLOSURES' AND SDD 'BARRICADES AND SIGNS FOR MAINLINE CLOSURES.'

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	TRAFFIC CONTROL DETOUR PLAN OVERVIEW	SHEET 64	E

SIGN LEGEND

DETOUR AHEAD W20-2A
MO6-1 30"X30"
M1-4 36"X36"
M4-8 36"X18"
M3-2 36"X18"
M3-4 36"X18"
ROAD CLOSED 5.5 MILES AHEAD LOCAL TRAFFIC ONLY R11-3 60"X30"
M4-8A 36"X24"
MO5-1R 30"X30"
MO5-1L 30"X30"
DETOUR NEXT 14 MILES G20-51 60"X24"
MO6-2 21"X21"

96TH AVE

USH 12

120TH ST

110TH ST

STH 65

ROBERTS

R11-3 60" X 30" ROAD CLOSED 5.5 MILES AHEAD LOCAL TRAFFIC ONLY

TYPE III BARRICADE

COVER

DETOUR AHEAD

DETOUR NEXT 14 MILES G20-51

New Richmond
River Falls

Hudson
River Falls

Hudson
New Richmond
Hammond

Wis Indianhead Tech College

DO NOT ENTER

- SEE I-94 ALTERNATE ROUTE SIGNING SHEET FOR ALTERNATE ROUTE SIGNING DETAILS.

LEGEND

- EB & WB USH 12 DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- SIGN MOUNTED ON POST(S)
- TRAFFIC CONTROL COVERING SIGNS TYPE II

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	TRAFFIC CONTROL DETOUR PLAN DETAIL	SHEET 1 OF 5	SHEET	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1882947\DETOUR SHEETS.DWG
LAYOUT NAME - Detour Plan Detail (1)

PLOT DATE : 1/27/2021 3:59 PM PLOT BY : HDR PLOT NAME :

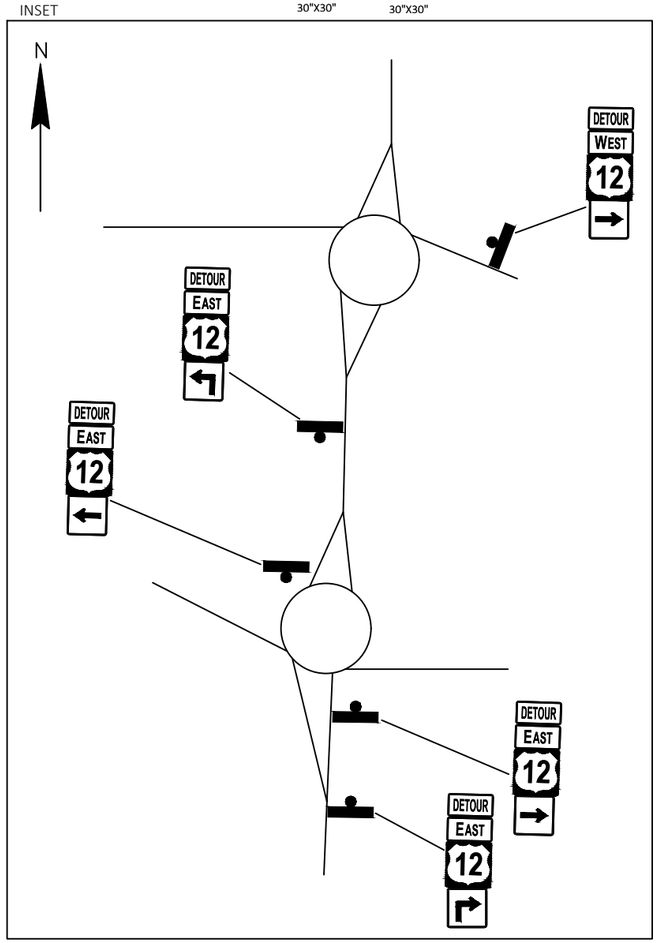
WISDOT/CADDS SHEET 44

2

SIGN LEGEND

M1-4 36"X36" | M4-8 36"X18" | M3-2 36"X18" | M3-4 36"X18" | MO5-1L 30"X30" | MO5-1R 30"X30" | MO6-1 30"X30" | MO6-2 30"X30" | MO5-2R 30"X30"

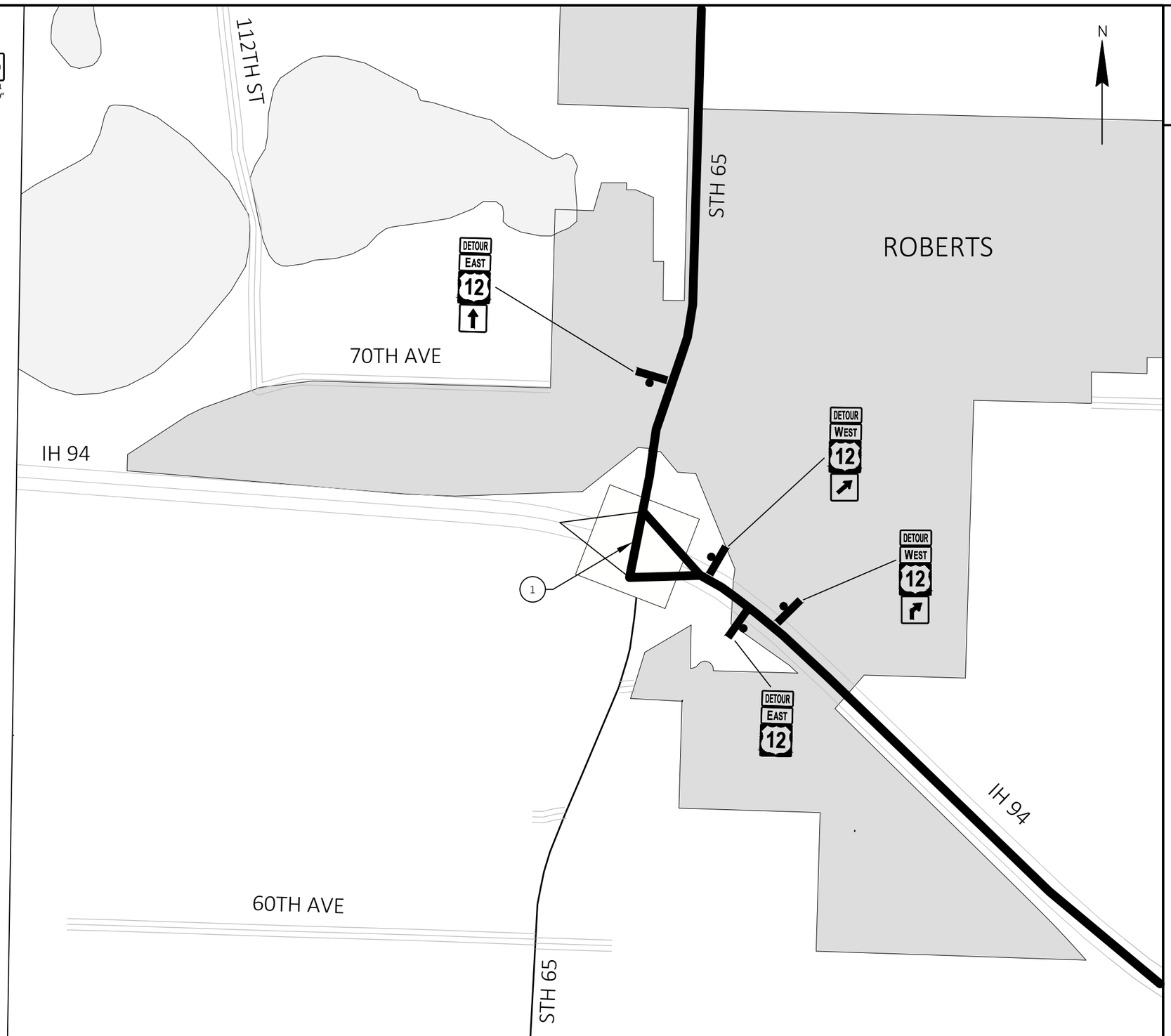
INSET



1 SEE INSET FOR DETAIL SIGNING AT THIS LOCATION.

LEGEND

- EB & WB USH 12 DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- SIGN MOUNTED ON POST(S)
- TRAFFIC CONTROL COVERING SIGNS TYPE II

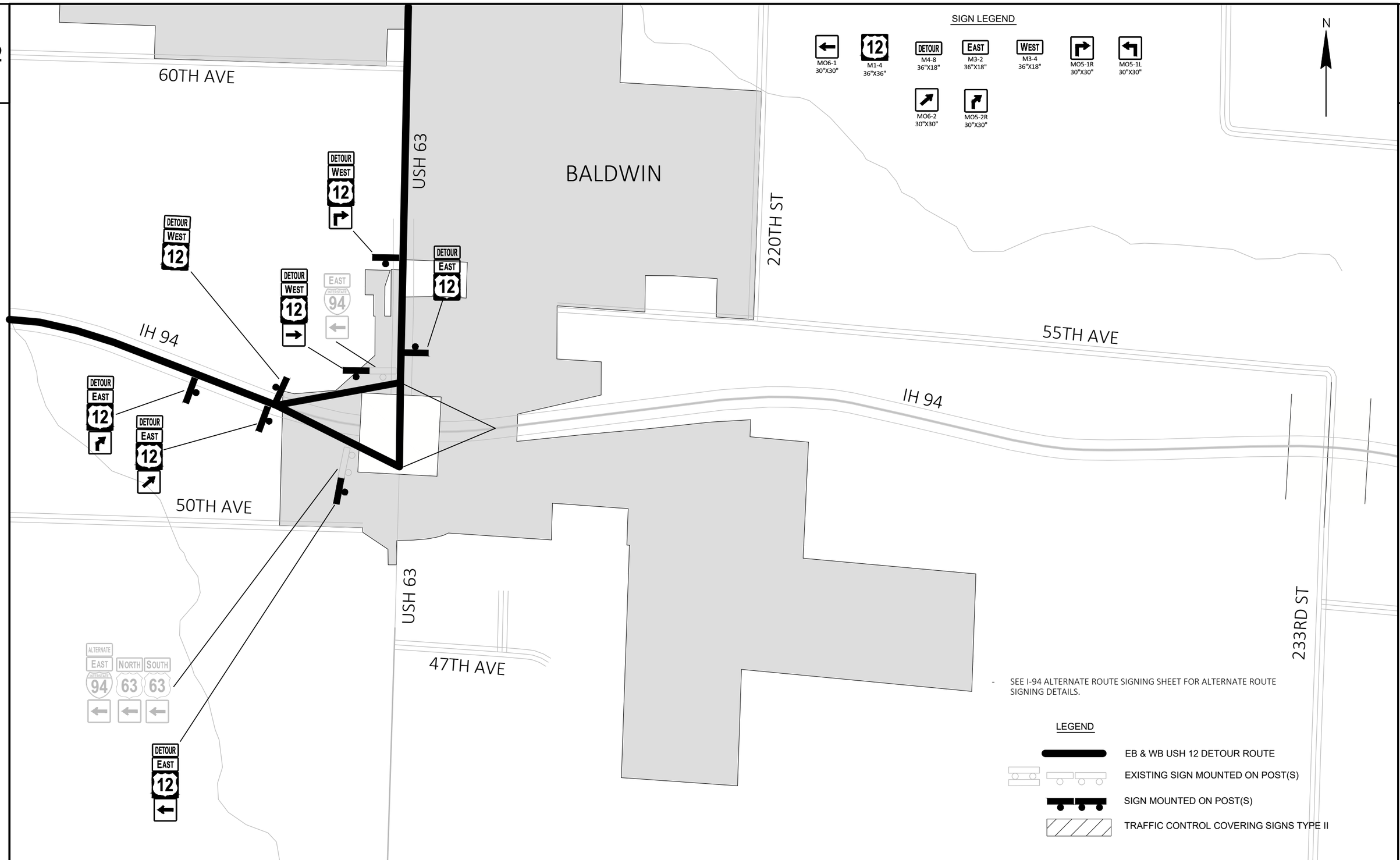


2

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	TRAFFIC CONTROL DETOUR PLAN DETAIL	SHEET 2 OF 5	SHEET 66	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1882947\DETOUR SHEETS.DWG
LAYOUT NAME - Detour Plan Detail (2)

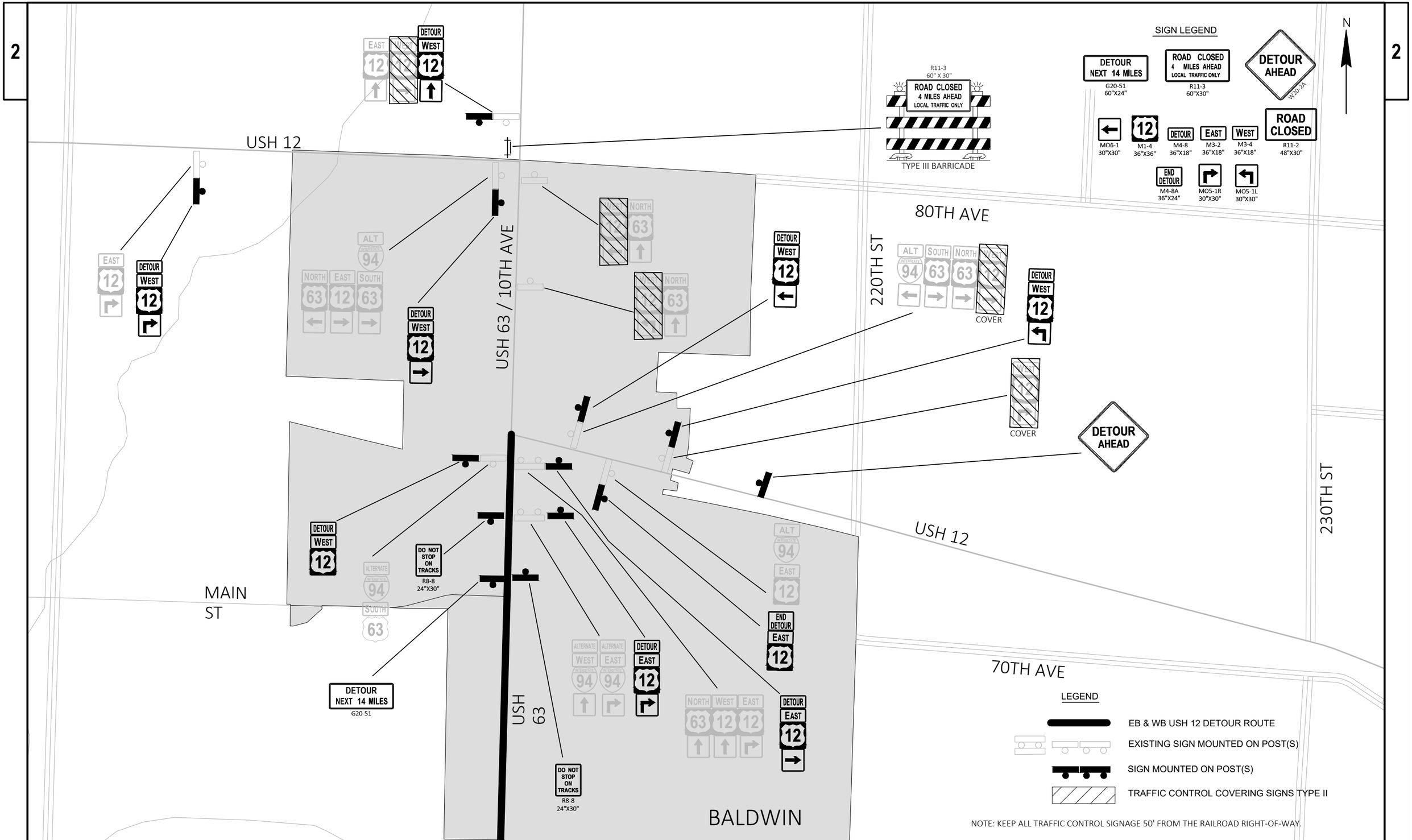
PLOT DATE : 1/27/2021 3:59 PM PLOT BY : HDR PLOT NAME :



PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST.CROIX	TRAFFIC CONTROL DETOUR PLAN DETAIL	SHEET 3 OF 5	SHEET 67	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1882947\DETOUR SHEETS.DWG
LAYOUT NAME - Detour Plan Detail (3)

PLOT DATE : 1/27/2021 3:59 PM PLOT BY : HDR PLOT NAME :



PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	TRAFFIC CONTROL DETOUR PLAN DETAIL	SHEET 4 OF 5	SHEET 68	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1882947\DETOUR SHEETS.DWG
LAYOUT NAME - Detour Plan Detail (4)

PLOT DATE : 1/27/2021 3:59 PM PLOT BY : HDR PLOT NAME :

SIGN LEGEND

ROAD CLOSED 1 MILES AHEAD LOCAL TRAFFIC ONLY
R11-3
60"X30"

ROAD CLOSED AHEAD
W20-3A

ROAD CLOSED 1000 FT
W20-3C

ROAD CLOSED 500 FT
W20-3D

BRIDGE OUT 1 MILES AHEAD LOCAL TRAFFIC ONLY
R11-3B
60"X30"

BRIDGE OUT
R11-2B
48"X30"

160TH ST

ROAD CLOSED AHEAD
W20-3A

170TH ST

R11-3B
60" X 30"
BRIDGE OUT 1 MILES AHEAD LOCAL TRAFFIC ONLY
TYPE III BARRICADE

ROAD CLOSED 1000 FT
W20-3C

R11-2B
48" X 30"
BRIDGE OUT
TYPE III BARRICADE

TYPE III BARRICADE

R11-2B
48" X 30"
BRIDGE OUT
TYPE III BARRICADE

N

ROAD CLOSED 500 FT
W20-3D

ROAD CLOSED 1000 FT
W20-3C

WORK ZONE

ROAD CLOSED AHEAD
W20-3A

R11-3B
60" X 30"
BRIDGE OUT 0.2 MILES AHEAD LOCAL TRAFFIC ONLY
TYPE III BARRICADE

ROAD CLOSED 500 FT
W20-3D

ROAD CLOSED 1000 FT
W20-3C

R11-3
60" X 30"
ROAD CLOSED 0.5 MILES AHEAD LOCAL TRAFFIC ONLY
TYPE III BARRICADE

ROAD CLOSED AHEAD
W20-3A

ROAD CLOSED 500 FT
W20-3D

R11-2B
48" X 30"
BRIDGE OUT
TYPE III BARRICADE

ALT INTERSTATE 94 EAST
12 COUNTY T

WEST 12
Roberts 6
Hudson 18
COVER

WEST ALT 12 COUNTY T
COUNTY TT
COVER COVER

WEST 12 18
COVER

USH 12

WORK ZONE

EAST 12 COUNTY T
ALTERNATE INTERSTATE 94 COUNTY TT

HAMMOND

LEGEND

EB & WB USH 12 DETOUR ROUTE

EXISTING SIGN MOUNTED ON POST(S)

SIGN MOUNTED ON POST(S)

TRAFFIC CONTROL COVERING SIGNS TYPE II

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	TRAFFIC CONTROL DETOUR PLAN DETAIL	SHEET 5 OF 5	SHEET	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1882947\DETOUR SHEETS.DWG
LAYOUT NAME - Detour Plan Detail (5)

PLOT DATE : 1/27/2021 3:59 PM PLOT BY : HDR PLOT NAME :

NOTES:
1. RELOCATED IH-94 ALTERNATE ROUTE SIGNING SHALL BE IN PLACE 1-WEEK PRIOR TO STARTING WORK ON USH 12.
2. ALL ALTERNATE ROUTE SIGNS TO BE PAID FOR AS TRAFFIC CONTROL DETOUR SIGNS.

N

ORIGINAL ALTERNATE IH-94 ROUTE (TYP.)

RELOCATED ALTERNATE IH-94 ROUTE (TYP.)

Roberts
Hammond
Rush
Twin Lakes
Town of Kinnickinnic
Town of Pleasant Valley
Town of Clifton
Town of Martell
ST. CROIX CO
PIERCE CO.
Kinnickinnic R.
Fk. Kinnickinnic R.
R-19-W
R-18-W
R-17-W
92 30'
1,350,000'
River Falls

ALTERNATE M4-1 36"X18" / INTERSTATE 94 M1-1 36"X36"
ALTERNATE M4-1 36"X18" / INTERSTATE 94 M1-1 36"X36" / MO6-1 30"X30"
ALTERNATE M4-1 36"X18" / INTERSTATE 94 M1-1 36"X36" / MO5-1L 30"X30"
ALTERNATE M4-1 36"X18" / INTERSTATE 94 M1-1 36"X36" / MO5-1R 30"X30"
ALTERNATE M4-1 36"X18" / INTERSTATE 94 M1-1 36"X36" / MO6-1 30"X30"
ALTERNATE M4-1 36"X18" / INTERSTATE 94 M1-1 36"X36" / MO6-2R 30"X30"

A B C D E F G

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST.CROIX	TRAFFIC CONTROL: I-94 ALTERNATE ROUTE SIGNING	SHEET 70	E

FILE NAME : C:\PWWORKING\CENTRAL01\D1882947\ALTERNATE ROUTE SHEETS.DWG
LAYOUT NAME - Alternative Route Signing
PLOT DATE : 1/27/2021 3:59 PM
PLOT BY : HDR
PLOT NAME :

NOTES:
1. RELOCATED IH-94 ALTERNATE ROUTE SIGNING SHALL BE IN PLACE 1-WEEK PRIOR TO STARTING WORK ON USH 12.
2. ALL ALTERNATE ROUTE SIGNS TO BE PAID FOR AS TRAFFIC CONTROL DETOUR SIGNS.

N

Roberts 6
Hudson 18

MO6-1
21"X21"

ORIGINAL ALTERNATE
IH-94 ROUTE (TYP.)

RELOCATED ALTERNATE
IH-94 ROUTE (TYP.)

Hammond
New Richmond

New Richmond
River Falls

Roberts
Hammond
River Falls
Twin Lakes
Kinnickinnic R.
S. Fk. Kinnickinnic R.
Rush R.
ST. CROIX CO
PIERCE CO.
Town of Kinnickinnic
Town of Pleasant Valley
Town of Clifton
Town of Martell
Town of Rush River
R-19-W
R-18-W
R-17-W
1,350,000'
UP

LEGEND

EXISTING SIGN COVERED

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST.CROIX	TRAFFIC CONTROL: I-94 ALTERNATE ROUTE SIGNING	SHEET E

FILE NAME : C:\PWWORKING\CENTRAL01\D1882947\ALTERNATE ROUTE SHEETS.DWG
LAYOUT NAME - Alternative Route Signing (2)
PLOT DATE : 1/27/2021 3:59 PM
PLOT BY : HDR
PLOT NAME :
WISDOT/CADDS SHEET 44

8949-00-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	4.000	4.000
0006	201.0205	Grubbing	STA	4.000	4.000
0010	203.0100	Removing Small Pipe Culverts	EACH	3.000	3.000
0012	203.0200	Removing Old Structure (station) 001. 438+11	LS	1.000	1.000
0014	203.0200	Removing Old Structure (station) 002. 601+07	LS	1.000	1.000
0016	203.0200	Removing Old Structure (station) 003. 739+16	LS	1.000	1.000
0018	203.0500.S	Removing Old Structure Over Waterway (station) 01. 699+80 'EB'	LS	1.000	1.000
0020	204.0100	Removing Concrete Pavement	SY	3,500.000	3,500.000
0022	204.0115	Removing Asphaltic Surface Butt Joints	SY	660.000	660.000
0024	204.0120	Removing Asphaltic Surface Milling	SY	152,900.000	152,900.000
0028	204.0150	Removing Curb & Gutter	LF	300.000	300.000
0030	204.0155	Removing Concrete Sidewalk	SY	220.000	220.000
0032	204.0165	Removing Guardrail	LF	2,760.000	2,760.000
0034	204.0245	Removing Storm Sewer (size) 001. 12-Inch	LF	86.000	86.000
0036	204.0245	Removing Storm Sewer (size) 002. 18-Inch	LF	48.000	48.000
0038	204.0245	Removing Storm Sewer (size) 003. 24-Inch	LF	54.000	54.000
0040	204.9105.S	Removing (item description) 001. Landscaping Block Retaining Wall STA 761+02 LT	LS	1.000	1.000
0042	205.0100	Excavation Common	CY	5,093.000	5,093.000
0044	206.2000	Excavation for Structures Culverts (structure) 01. B-55-288	LS	1.000	1.000
0046	206.5000	Cofferdams (structure) 01. B-55-288	LS	1.000	1.000
0048	208.0100	Borrow	CY	1,428.000	1,428.000
0050	210.2500	Backfill Structure Type B	TON	370.000	370.000
0052	213.0100	Finishing Roadway (project) 001. 8949-00-71	EACH	1.000	1.000
0056	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,750.000	2,750.000
0058	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	7,000.000	7,000.000
0060	305.0500	Shaping Shoulders	STA	880.000	880.000
0062	311.0110	Breaker Run	TON	495.000	495.000
0064	312.0110	Select Crushed Material	TON	750.000	750.000
0066	415.0070	Concrete Pavement 7-Inch	SY	30.000	30.000
0068	415.0410	Concrete Pavement Approach Slab	SY	100.000	100.000
0070	416.1010	Concrete Surface Drains	CY	3.000	3.000
0072	455.0605	Tack Coat	GAL	24,000.000	24,000.000
0074	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0076	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0078	460.2000	Incentive Density HMA Pavement	DOL	5,350.000	5,350.000
0080	460.2005	Incentive Density PWL HMA Pavement	DOL	23,071.000	23,071.000
0082	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	90,921.000	90,921.000

8949-00-71

Line	Item	Item Description	Unit	Total	Qty
0084	460.2010	Incentive Air Voids HMA Pavement	DOL	31,295.000	31,295.000
0086	460.6645	HMA Pavement 5 MT 58-34 V	TON	31,000.000	31,000.000
0088	465.0105	Asphaltic Surface	TON	400.000	400.000
0090	465.0110	Asphaltic Surface Patching	TON	100.000	100.000
0092	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	30.000	30.000
0094	465.0305	Asphaltic Surface Safety Islands	TON	2.000	2.000
0096	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	77,600.000	77,600.000
0098	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	40,300.000	40,300.000
0100	502.3200	Protective Surface Treatment	SY	183.000	183.000
0102	502.3210	Pigmented Surface Sealer	SY	22.000	22.000
0104	504.0100	Concrete Masonry Culverts	CY	171.000	171.000
0106	505.0400	Bar Steel Reinforcement HS Structures	LB	9,520.000	9,520.000
0108	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	15,480.000	15,480.000
0110	516.0500	Rubberized Membrane Waterproofing	SY	16.000	16.000
0112	520.8700	Cleaning Culvert Pipes	EACH	1.000	1.000
0114	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	2.000	2.000
0116	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	2.000	2.000
0118	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	2.000	2.000
0120	521.3112	Culvert Pipe Corrugated Steel 12-Inch	LF	34.000	34.000
0122	521.3118	Culvert Pipe Corrugated Steel 18-Inch	LF	38.000	38.000
0124	521.3124	Culvert Pipe Corrugated Steel 24-Inch	LF	38.000	38.000
0126	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	1.000	1.000
0128	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	1.000	1.000
0130	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	3.000	3.000
0132	522.2424	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 24x38-Inch	LF	60.000	60.000
0134	522.2624	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch	EACH	2.000	2.000
0136	522.2643	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 43x68-Inch	EACH	2.000	2.000
0138	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	790.000	790.000
0140	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	50.000	50.000
0142	601.0590	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBTT	LF	30.000	30.000
0144	602.0410	Concrete Sidewalk 5-Inch	SF	2,800.000	2,800.000
0146	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	160.000	160.000
0148	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	18.000	18.000

8949-00-71

Line	Item	Item Description	Unit	Total	Qty
0150	606.0200	Riprap Medium	CY	160.000	160.000
0152	606.0300	Riprap Heavy	CY	208.000	208.000
0154	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	128.000	128.000
0156	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	48.000	48.000
0158	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	120.000	120.000
0160	611.0530	Manhole Covers Type J	EACH	2.000	2.000
0162	611.0624	Inlet Covers Type H	EACH	3.000	3.000
0164	611.0639	Inlet Covers Type H-S	EACH	1.000	1.000
0166	611.2044	Manholes 4x4-FT	EACH	2.000	2.000
0168	611.3230	Inlets 2x3-FT	EACH	4.000	4.000
0170	611.8110	Adjusting Manhole Covers	EACH	3.000	3.000
0172	611.8120.S	Cover Plates Temporary	EACH	3.000	3.000
0174	614.0010	Barrier System Grading Shaping Finishing	EACH	8.000	8.000
0176	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0178	614.2300	MGS Guardrail 3	LF	537.500	537.500
0180	614.2340	MGS Guardrail 3 L	LF	250.000	250.000
0182	614.2500	MGS Thrie Beam Transition	LF	316.000	316.000
0184	614.2610	MGS Guardrail Terminal EAT	EACH	15.000	15.000
0186	614.2620	MGS Guardrail Terminal Type 2	EACH	1.000	1.000
0188	616.0700.S	Fence Safety	LF	200.000	200.000
0190	618.0100	Maintenance And Repair of Haul Roads (project) 001. 8949-00-71	EACH	1.000	1.000
0194	619.1000	Mobilization	EACH	0.920	0.920
0196	620.0200	Concrete Median Blunt Nose	SF	12.000	12.000
0198	620.0300	Concrete Median Sloped Nose	SF	16.000	16.000
0200	624.0100	Water	MGAL	800.000	800.000
0202	625.0100	Topsoil	SY	60.000	60.000
0204	625.0500	Salvaged Topsoil	SY	14,820.000	14,820.000
0206	627.0200	Mulching	SY	14,880.000	14,880.000
0208	628.1104	Erosion Bales	EACH	20.000	20.000
0210	628.1504	Silt Fence	LF	6,100.000	6,100.000
0212	628.1520	Silt Fence Maintenance	LF	18,060.000	18,060.000
0214	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0216	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0218	628.2004	Erosion Mat Class I Type B	SY	17,700.000	17,700.000
0220	628.2008	Erosion Mat Urban Class I Type B	SY	1,300.000	1,300.000
0222	628.2023	Erosion Mat Class II Type B	SY	400.000	400.000
0224	628.7020	Inlet Protection Type D	EACH	15.000	15.000

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Line	Item	Item Description	Unit	Total	Qty
0226	628.7504	Temporary Ditch Checks	LF	350.000	350.000
0228	628.7555	Culvert Pipe Checks	EACH	21.000	21.000
0230	629.0210	Fertilizer Type B	CWT	11.000	11.000
0232	630.0130	Seeding Mixture No. 30	LB	240.000	240.000
0234	630.0140	Seeding Mixture No. 40	LB	30.000	30.000
0236	630.0200	Seeding Temporary	LB	411.000	411.000
0238	630.0500	Seed Water	MGAL	1,011.000	1,011.000
0240	633.5200	Markers Culvert End	EACH	23.000	23.000
0242	637.2210	Signs Type II Reflective H	SF	19.500	19.500
0244	638.2102	Moving Signs Type II	EACH	52.000	52.000
0246	638.2602	Removing Signs Type II	EACH	3.000	3.000
0248	638.3000	Removing Small Sign Supports	EACH	3.000	3.000
0250	638.4000	Moving Small Sign Supports	EACH	51.000	51.000
0252	642.5001	Field Office Type B	EACH	0.920	0.920
0254	643.0300	Traffic Control Drums	DAY	105.000	105.000
0258	643.0420	Traffic Control Barricades Type III	DAY	751.000	751.000
0260	643.0705	Traffic Control Warning Lights Type A	DAY	760.000	760.000
0262	643.0900	Traffic Control Signs	DAY	6,089.000	6,089.000
0264	643.0910	Traffic Control Covering Signs Type I	EACH	3.000	3.000
0266	643.0920	Traffic Control Covering Signs Type II	EACH	13.000	13.000
0268	643.1050	Traffic Control Signs PCMS	DAY	20.000	20.000
0270	643.5000	Traffic Control	EACH	0.920	0.920
0272	644.1420	Temporary Pedestrian Surface Plywood	SF	800.000	800.000
0274	644.1601	Temporary Pedestrian Curb Ramp	DAY	28.000	28.000
0276	644.1810	Temporary Pedestrian Barricade	LF	250.000	250.000
0278	645.0105	Geotextile Type C	SY	412.000	412.000
0280	645.0120	Geotextile Type HR	SY	376.000	376.000
0282	645.0130	Geotextile Type R	SY	325.000	325.000
0284	646.1020	Marking Line Epoxy 4-Inch	LF	56,203.000	56,203.000
0286	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	96,098.000	96,098.000
0288	646.3020	Marking Line Epoxy 8-Inch	LF	255.000	255.000
0290	646.5020	Marking Arrow Epoxy	EACH	2.000	2.000
0294	646.6120	Marking Stop Line Epoxy 18-Inch	LF	72.000	72.000
0296	646.7120	Marking Diagonal Epoxy 12-Inch	LF	555.000	555.000
0298	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	1,050.000	1,050.000
0300	646.8120	Marking Curb Epoxy	LF	220.000	220.000
0302	648.0100	Locating No-Passing Zones	MI	8.000	8.000
0304	649.0105	Temporary Marking Line Paint 4-Inch	LF	56,803.000	56,803.000
0306	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	56,203.000	56,203.000
0310	650.4000	Construction Staking Storm Sewer	EACH	26.000	26.000

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Line	Item	Item Description	Unit	Total	Qty
0312	650.4500	Construction Staking Subgrade	LF	810.000	810.000
0314	650.5000	Construction Staking Base	LF	810.000	810.000
0316	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	790.000	790.000
0318	650.6000	Construction Staking Pipe Culverts	EACH	9.000	9.000
0320	650.6500	Construction Staking Structure Layout (structure) 01. B-55-288	LS	1.000	1.000
0322	650.8000	Construction Staking Resurfacing Reference	LF	44,180.000	44,180.000
0324	650.9000	Construction Staking Curb Ramps	EACH	17.000	17.000
0326	650.9910	Construction Staking Supplemental Control (project) 001. 8949-00-71	LS	1.000	1.000
0330	650.9920	Construction Staking Slope Stakes	LF	810.000	810.000
0332	654.0102	Concrete Bases Type 2	EACH	1.000	1.000
0334	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	1.000	1.000
0336	657.0305	Poles Type 2	EACH	1.000	1.000
0338	657.0595	Trombone Arms 25-FT	EACH	1.000	1.000
0340	658.0171	Traffic Signal Face 1S 12-Inch	EACH	1.000	1.000
0342	690.0150	Sawing Asphalt	LF	1,100.000	1,100.000
0344	690.0250	Sawing Concrete	LF	550.000	550.000
0346	715.0502	Incentive Strength Concrete Structures	DOL	1,026.000	1,026.000
0348	740.0440	Incentive IRI Ride	DOL	37,760.000	37,760.000
0350	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	800.000	800.000
0352	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0354	SPV.0060	Special 001. Apron Endwalls for Culvert Pipe Reinf Conc Horizontal Elliptical 27X42-Inch	EACH	2.000	2.000
0356	SPV.0060	Special 002. Apron Endwalls for Culvert Pipe Reinf Conc Horizontal Elliptical 22X34-Inch	EACH	2.000	2.000
0360	SPV.0060	Special 005. Install State-Furnished Solar Powered Flasher System	EACH	1.000	1.000
0362	SPV.0060	Special 006. Grading and Shaping Ditch	EACH	2.000	2.000
0364	SPV.0060	Special 007. Adjusting Water Valve Box	EACH	13.000	13.000
0366	SPV.0090	Special 001. Culvert Pipe Reinforced Conc Horizontal Elliptical Class HE-IV 27X42-Inch	LF	52.000	52.000
0368	SPV.0090	Special 002. Culvert Pipe Reinforced Conc Horizontal Elliptical Class HE-IV 22X34-Inch	LF	78.000	78.000
0370	SPV.0090	Special 003. Culvert Pipe Reinforced Conc Horizontal Elliptical Class HE-IV 43X68-Inch	LF	54.000	54.000
0372	SPV.0090	Special 004. Ditch Cleaning	LF	500.000	500.000
0374	SPV.0090	Special 005. Lane Repair	LF	4,500.000	4,500.000
0376	SPV.0105	Special 001. Material Transfer Vehicle (8949-00-71)	LS	1.000	1.000

CLEARING & GRUBBING

CATEGORY	LOCATION	STATION - STATION	201.0105 CLEARING (STA)	201.0205 GRUBBING (STA)
0010	USH 12	697+00 EB - 700+00 EB	3	3
CATEGORY 0010 SUBTOTAL			3	3
0030	USH 12	761+00 EB - 762+00 EB	1	1
CATEGORY 0030 SUBTOTAL			1	1
PROJECT 8949-00-71 TOTAL			**4**	**4**

REMOVING SMALL PIPE CULVERTS

CATEGORY	LOCATION	STATION	203.0100 (EACH)	NOTES
0010	USH 12	587+80 EB	1	18-INCH CSCP
	USH 12	589+61 EB	1	18-INCH CSCP
	USH 12	701+78 EB	1	24-INCH CMCP
CATEGORY 0010 SUBTOTAL			3	
PROJECT 8949-00-71 TOTAL			**3**	

REMOVING CONCRETE PAVEMENT

CATEGORY	LOCATION	STATION - STATION	204.0100 (SY)
0010	USH 12	697+88 - 699+84	440
	USH 12	700+36 - 701+72	305
CATEGORY 0010 SUBTOTAL			745
0030	USH 12	758+55 EB - 763+33 EB	2,755
CATEGORY 0030 SUBTOTAL			2,755
PROJECT 8949-00-71 TOTAL			**3,500**

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REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	LOCATION	STATION - STATION	204.0115 (SY)
0010	USH 12	458+44 EB - 699+84 EB	505
	USH 12	700+36 EB - 746+57 EB	12
	USH 12	746+57 EB - 758+55 EB	20
	USH 12	763+33 EB - 775+74 EB	65
	USH 12	775+74 EB - 899+83 EB	57
CATEGORY 0010 SUBTOTAL			660
PROJECT 8949-00-71 TOTAL			**660**

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	LOCATION	STATION - STATION	204.0120 (SY)
0010	USH 12	458+44 EB - 699+84 EB	74,895
	USH 12	700+36 EB - 746+57 EB	18,083
	USH 12	746+57 EB - 758+55 EB	3,898
	USH 12	763+33 EB - 775+74 EB	4,066
	USH 12	775+74 EB - 899+83 EB	43,606
	USH 12	900+26 EB - 914+00 EB	4,610
CATEGORY 0010 SUBTOTAL			149,158
0040	USH 12	746+57 EB - 758+55 EB	1,190
	USH 12	763+33 EB - 775+74 EB	2,552
CATEGORY 0040 SUBTOTAL			3,742
PROJECT 8949-00-71 TOTAL			**152,900**

REMOVING CURB & GUTTER

CATEGORY	LOCATION	STATION - STATION	204.0150 (LF)
0010	USH 12	746+57 EB - 758+55 EB	8
	USH 12	763+33 EB - 775+74 EB	131
CATEGORY 0010 SUBTOTAL			139
0030	USH 12	758+55 EB - 763+33 EB	161
CATEGORY 0030 SUBTOTAL			161
PROJECT 8949-00-71 TOTAL			**300**

REMOVING CONCRETE SIDEWALK

CATEGORY	LOCATION	STATION - STATION	204.0155 (SY)
0010	USH 12	763+33 EB - 775+74 EB	162
CATEGORY 0010 SUBTOTAL			162
0030	USH 12	758+55 EB - 763+33 EB	58
CATEGORY 0030 SUBTOTAL			58
PROJECT 8949-00-71 TOTAL			**220**

REMOVING GUARDRAIL

CATEGORY	LOCATION	STATION - STATION	204.0165 (LF)
0010	USH 12	458+44 EB - 699+84 EB	1,670
	USH 12	700+36 EB - 746+57 EB	814
	USH 12	775+74 EB - 899+83 EB	138
	USH 12	900+26 EB - 914+00 EB	138
CATEGORY 0010 SUBTOTAL			2,760
PROJECT 8949-00-71 TOTAL			**2,760**

REMOVING OLD STRUCTURE

CATEGORY	LOCATION	STATION - STATION	203.0200.001 REMOVING OLD STRUCTURE STA 438+11 (LS)	203.0200.002 REMOVING OLD STRUCTURE STA 601+07 (LS)	203.0200.003 REMOVING OLD STRUCTURE STA 739+16 (LS)
0010	USH 12	438+11	1	-	-
	USH 12	601+07	-	1	-
	USH 12	739+16	-	-	1
CATEGORY 0010 SUBTOTAL			1	1	1
PROPOSAL TOTAL			**1**	**1**	**1**

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REMOVING STORM SEWER

CATEGORY	LOCATION	STATION - STATION	204.0245.001 REMOVING STORM SEWER (12-INCH) (LF)	204.0245.002 REMOVING STORM SEWER (18-INCH) (LF)	204.0245.003 REMOVING STORM SEWER (24-INCH) (LF)
0010	USH 12	746+57 EB - 758+55 EB	-	-	54
CATEGORY 0010 SUBTOTAL			0	0	54
0030	USH 12	758+55 EB - 763+33 EB	86	48	-
CATEGORY 0030 SUBTOTAL			86	48	0
PROJECT 8949-00-71 TOTAL			**86**	**48**	**54**

SHAPING SHOULDERS

CATEGORY	LOCATION	STATION - STATION	305.0500 (STA)
0010	USH 12	458+44 EB - 699+84 EB	482
	USH 12	700+36 EB - 746+57 EB	94
	USH 12	746+57 EB - 758+55 EB	24
	USH 12	775+74 EB - 899+83 EB	248
	USH 12	900+26 EB - 914+00 EB	32
CATEGORY 0010 SUBTOTAL			880
PROJECT 8949-00-71 TOTAL			**880**

BASE AGGREGATE DENSE

CATEGORY	LOCATION	STATION - STATION	305.0110 3/4-INCH (TON)	305.0120 1 1/4-INCH (TON)	312.0110 SELECT CRUSHED MATERIAL (TON)	NOTES
0010	USH 12	458+44 EB - 699+84 EB	424	2,042	445	SELECT CRUSHED FOR INTENDED FOR EBS AREA IF PRESENT
	USH 12	700+36 EB - 746+57 EB	306	1,212	65	SELECT CRUSHED FOR INTENDED FOR EBS AREA IF PRESENT
	USH 12	746+57 EB - 758+55 EB	7	200	-	
	USH 12	763+33 EB - 775+74 EB	38	100	-	
	USH 12	775+74 EB - 899+83 EB	98	342	-	
	USH 12	900+26 EB - 914+00 EB	99	257	-	
	UNDISTRIBUTED		1,609	-	-	TO BE USED IN SHAPING SHOULDER AREAS WITH INSUFFICIENT BASE
	UNDISTRIBUTED		34	325	15	
CATEGORY 0010 SUBTOTAL			2,616	4,478	524	
0030	USH 12	758+55 EB - 763+33 EB	124	2,333	219	SELECT CRUSHED FOR INTENDED FOR EBS AREA IF PRESENT
	UNDISTRIBUTED		10	189	7	
CATEGORY 0030 SUBTOTAL			134	2,522	226	
PROJECT 8949-00-71 TOTAL			**2,750**	**7,000**	**750**	

EARTHWORK

CATEGORY	STAGE	DIVISION	LOCATION	STATION TO STATION	205.0100 Common Excavation (1) Cut (2) (CY)	205.0100 Common Excavation (1) EBS Excavation (3) (CY)	Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Marsh Excavation (6) (CY)	Reduced Marsh in Fill (7) Factor 0.60	Reduced EBS in Fill (8) Factor 0.80	Expanded Marsh Backfill (9) Factor 1.50	Unexpanded Fill	Expanded Fill (10) Factor 1.25	Mass Ordinate +/- (11)	Waste	208.0100 Borrow (CY)	Comment:
0010	1	1	USH 12	588+50 - 592+00	281	0	0	281	0	0	0	0	393	491	-210	0	210	
		2		599+00 - 603+00	210	0	0	210	0	0	0	0	794	992	-782	0	782	
		3		697+50 - 699+89	2,346	234	284	2,062	0	0	187	0	430	303	1,760	1,760	0	
		4		700+31 - 701+72	636	64	165	471	0	0	51	0	55	5	466	466	0	
		5		738+00 - 740+00	61	0	0	61	0	0	0	0	221	276	-216	0	216	
CATEGORY 0010 SUBTOTAL					3,833												1,208	
0030		6		758+55 - 763+33	1,145	115	1,223	-78	0	0	92	0	205	142	-220	0	220	
CATEGORY 0030 SUBTOTAL					1,260												220	
TOTAL					5,093												1,428	

1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS
2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT
3) EBS EXCAVATION TO BE BACKFILLED WITH SELECT CRUSHED MATERIAL
4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
6) MARSH EXCAVATION - TO BE BACKFILLED WITH BORROW MATERIAL
7) REDUCED MARSH IN FILL - EXCAVATED MARSH MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. MARSH IN FILL REDUC
8) REDUCED EBS IN FILL - EXCAVATED EBS MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. EBS IN FILL REDU(
9) EXPANDED MARSH BACKFILL - THIS IS TO BE FILLED WITH BORROW MATERIAL. MARSH BACKFILL FACTOR = 1.5
10) EXPANDED FILL/SELECT FILL FACTOR = 1.25
11) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATE

CONCRETE PAVEMENT

CATEGORY	LOCATION	STATION - STATION	415.0410 CONCRETE PAVEMENT APPROACH SLAB (SY)	415.0070 CONCRETE PAVEMENT 7-INCH (SY)	416.1010 CONCRETE SURFACE DRAINS (CY)
0010	USH 12	458+44 EB - 699+84 EB	50	10	3
	USH 12	700+36 EB - 746+57 EB	50	20	-
CATEGORY 0010 SUBTOTAL			100	30	3
PROJECT 8949-00-71 TOTAL			**100**	**30**	**3**

HMA ITEMS

CATEGORY	LOCATION	STATION - STATION	455.0605 TACK COAT (GAL)	460.6645 HMA PAVEMENT 5 MT 58-34 V (TON)	465.0105 ASPHALTIC SURFACE (TON)	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES (TON)	465.0305 ASPHALTIC SURFACE SAFETY ISLANDS (TON)	465.0425 ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL (TYPE 1) (LF)	465.0475 ASPHALTIC CENTER LINE RUMBLE STRIP 2 LANE RURAL (LF)	465.0110 ASPHALTIC SURFACE PATCHING (TON)	SPV.0090.005 LANE REPAIR (LF)	REMARKS
0010	USH 12	458+44 EB - 699+84 EB	11,835	15,527	253	4	-	43,600	23,034	-	-	
	USH 12	700+36 EB - 746+57 EB	2,480	3,294	82	1	-	8,729	4,390	-	-	
	USH 12	746+57 EB - 758+55 EB	571	766	-	18	-	-	-	-	-	
	USH 12	763+33 EB - 775+74 EB	569	740	-	-	-	-	-	-	-	
	USH 12	775+74 EB - 899+83 EB	6,090	7,917	-	1	-	22,739	11,485	-	-	
	USH 12	900+26 EB - 914+00 EB	641	834	-	1	-	2,532	1,391	-	-	
		UNDISTRIBUTED	-	-	45		-	-	-	-	-	ENDED FOR MAINLINE WEDGING AS NEEC
		UNDISTRIBUTED	-	-	2	-	-	-	-	88	4,500	INTENDED FOR REPAIRS AS NEEDED
		UNDISTRIBUTED	501	99	18	1				10		
CATEGORY 0010 SUBTOTAL			22,688	29,176	400	26	0	77,600	40,300	98	4,500	
0030	USH 12	758+55 EB - 763+33 EB	592	1,067	-	3	2	-	-	-	-	
		UNDISTRIBUTED	100	25	-	1				-		
CATEGORY 0030 SUBTOTAL			692	1,092	0	4	2	0	0	0	0	
0040	USH 12	746+57 EB - 758+55 EB	162	211	-	-	-	-	-	-	-	
	USH 12	763+33 EB - 775+74 EB	358	471	-	-	-	-	-	-	-	
		UNDISTRIBUTED	-	-	-	-	-	-	-	2	-	INTENDED FOR REPAIRS AS NEEDED
		UNDISTRIBUTED	100	50	-					-		
CATEGORY 0040 SUBTOTAL			620	732	0	0	0	0	0	2	0	
PROJECT 8949-00-71 TOTAL			**24,000**	**31,000**	**400**	**30**	**2**	**77,600**	**40,300**	**100**	**4,500**	

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PWL MIXTURE USE TABLE

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
							MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
12 FOOT DRIVING LANES, LT AND RT	458+44.40'EB' - 483+04'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	1204	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
3 FOOT PAVED SHOULDERS, LT AND RT	458+44.40'EB' - 483+04'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	475	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
CULVERT REPLACEMENT 12 FOOT DRIVING LANES, LT AND RT	VARIOUS	UPPER AND LOWER LAYERS	BASE AGGREGATE	HMA PAVEMENT 5 MT 58-34V	91	6.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
CULVERT REPLACEMENT 3 FOOT PAVED SHOULDERS, LT AND RT	VARIOUS	UPPER AND LOWER LAYERS	BASE AGGREGATE	HMA PAVEMENT 5 MT 58-34V	68	6.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
12 FOOT DRIVING LANES, LT AND RT	483+18'EB' - 589+54'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	5162	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
3 FOOT PAVED SHOULDERS, LT AND RT	483+18'EB' - 589+54'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	1578	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
12 FOOT DRIVING LANES, LT AND RT	589+69'EB' - 601+00'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	549	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
3 FOOT PAVED SHOULDERS, LT AND RT	589+69'EB' - 601+00'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	138	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
12 FOOT DRIVING LANES, LT AND RT	601+15'EB' - 697+88'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	4696	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
3 FOOT PAVED SHOULDERS, LT AND RT	601+15'EB' - 697+88'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	1320	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
RECONSTRUCTED AREA 12 FOOT DRIVING LANES, LT AND RT	697+88'EB' - 701+72'EB'	UPPER AND LOWER LAYERS	BASE AGGREGATE	HMA PAVEMENT 5 MT 58-34V	334	6.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
RECONSTRUCTED AREA VARIES 3-6 FOOT PAVED SHOULDERS, LT AND RT	697+88'EB' - 701+72'EB'	UPPER AND LOWER LAYERS	BASE AGGREGATE	HMA PAVEMENT 5 MT 58-34V	217	6.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
12 FOOT DRIVING LANES, LT AND RT	701+72'EB' - 739+08'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	1814	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
3 FOOT PAVED SHOULDERS, LT AND RT	701+72'EB' - 739+08'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	741	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
12 FOOT DRIVING LANES, LT AND RT	739+23'EB' - 751+12'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	579	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
VARIES 3 FOOT PAVED SHOULDERS - 10 FOOT PARKING LANE RT, VARIES 1-3 FOOT PAVED SHOULDER LEFT	739+23'EB' - 751+12'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	192	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
12 FOOT DRIVING LANES, LT AND RT	751+27'EB' - 755+95'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	228	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
10 FOOT PARKING LANE RT, VARIES 1-3 FOOT PAVED SHOULDER LEFT	751+27'EB' - 755+95'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	162	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
12 FOOT DRIVING LANES, LT AND RT	756+10'EB' - 758+55.20'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	119	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
10 FOOT PARKING LANE RT, VARIES 1-3 FOOT PAVED SHOULDER LEFT	756+10'EB' - 758+55.20'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	61	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
PAVEMENT REPLACEMENT 12 FOOT DRIVING LANES, LT AND RT	758+55.20'EB' - 763+32.70'EB'	UPPER AND LOWER LAYERS	BASE AGGREGATE	HMA PAVEMENT 5 MT 58-34V	650	6.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
PAVEMENT REPLACEMENT VARIES PAVED SHOULDERS, LT AND RT	758+55.20'EB' - 763+32.70'EB'	UPPER AND LOWER LAYERS	BASE AGGREGATE	HMA PAVEMENT 5 MT 58-34V	422	6.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
12 FOOT DRIVING LANES, LT AND RT	763.32+70'EB' - 775+75'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	622	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
VARIES 3-10 FOOT PARKING LANE LT AND RT	763.32+70'EB' - 775+75'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	579	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
12 FOOT DRIVING LANES, LT AND RT	775+75'EB' - 899+80'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	6022	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
3 FOOT PAVED SHOULDERS, LT AND RT	775+75'EB' - 899+80'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	1887	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
12 FOOT DRIVING LANES, LT AND RT	900+25'EB' - 914+00'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	667	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
3 FOOT PAVED SHOULDERS, LT AND RT	900+25'EB' - 914+00'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	167	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000

3

CULVERT PIPES

CATEGORY	ROADWAY	INLET STATION	INLET OFFSET	INLET ELEVATION	OUTLET STATION	OUTLET OFFSET	OUTLET ELEVATION	SKEW	SLOPE %	PIPE THICKNESS STEEL (IN)	521.1012 APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH (EACH)	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH (EACH)	521.1024 APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH (EACH)	521.3112 CULVERT PIPE CORRUGATED STEEL 12-INCH (LF)	521.3118 CULVERT PIPE CORRUGATED STEEL 18-INCH (LF)	521.3124 CULVERT PIPE CORRUGATED STEEL 24-INCH (LF)	522.2424 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 24X38-INCH (LF)	522.2624 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 24X38-INCH (EACH)	633.5200* MARKERS CULVERT END (EACH)
0010																			
	USH 12	587+61 EB	24.4' LT	1,026.76	587+99 EB	28.9' LT	1,026.65	83°14'24" LHF	0.29	0.064	-	2	-	-	38	-	-	-	2
	USH 12	589+61 EB	30.9' RT	1,022.06	589+61 EB	28.1' LT	1,022.77	0°	1.18	-	-	-	-	-	-	-	60	2	2
	USH 12	701+59 EB	34.4' LT	1,065.63	701+97 EB	30.0' LT	1,066.18	83°23'24" RHF	1.45	0.064	-	-	2	-	-	38	-	-	2
	USH 12	757+22 EB	35.7' RT	1,149.55	757+56 EB	36.7' RT	1,150.37	88°18'36" LHF	2.41	0.064	2	-	-	34	-	-	-	-	2
	CATEGORY 0010 SUBTOTAL										2	2	2	34	38	38	60	2	8
PROJECT 8949-00-71 TOTAL											**2**	**2**	**2**	**34**	**38**	**38**	**60**	**2**	**8**

*ADDITIONAL QUANTITY FOUND IN "STORM SEWER STRUCTURE SCHEDULE"

CULVERT PIPES CONTINUED

CATEGORY	ROADWAY	INLET STATION	INLET OFFSET	INLET ELEVATION	OUTLET STATION	OUTLET OFFSET	OUTLET ELEVATION	SKEW	SLOPE %	SPV.0090.001 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 27X42-INCH (LF)	SPV.0060.001 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 27X42-INCH (EACH)	SPV.0090.002 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 22X34-INCH (LF)	SPV.0060.002 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 22X34-INCH (EACH)	SPV.0090.003 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 43X68-INCH (LF)	522.2643 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 43X68-INCH (EACH)	633.5200* MARKERS CULVERT END (EACH)
0010																
	USH 12	483+11 EB	22.5' RT	1,032.11	483+10 EB	30.3' LT	1,030.31	1°5'24" RHF	3.46	52	2	-	-	-	-	2
	USH 12	519+62 EB	-	-	-	-	-	-	-	-	-	-	-	-	-	2
	USH 12	601+07 EB	44.2' RT	1,035.41	601+07 EB	33.0' LT	1,038.23	0°	3.62	-	-	78	2	-	-	2
	USH 12	739+16 EB	38.2' RT	1,102.08	739+16 EB	28.6' LT	1,103.64	0°	2.89	-	-	-	-	54	2	2
	USH 12	844+04 EB	-	-	-	-	-	-	-	-	-	-	-	-	-	2
	CATEGORY 0010 SUBTOTAL									52	2	78	2	54	2	10
PROJECT 8949-00-71 TOTAL										**52**	**2**	**78**	**2**	**54**	**2**	**10**

*ADDITIONAL QUANTITY FOUND IN "STORM SEWER STRUCTURE SCHEDULE"

CLEANING CULVERT PIPES

CATEGORY	LOCATION	STATION - STATION	520.8700 (EACH)
0010	USH 12	624+21 EB	1
CATEGORY 0010 SUBTOTAL			1
PROJECT 8949-00-71 TOTAL			**1**

CONCRETE CURB & GUTTER

CATEGORY	LOCATION	STATION - STATION	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D (LF)	601.0588 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBT (LF)	601.0590 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBTT (LF)	620.0200 CONCRETE MEDIAN BLUNT NOSE (SF)	620.0300 CONCRETE MEDIAN SLOPED NOSE (SF)
0010	USH 12	458+44 EB - 699+84 EB	-	50	30	-	-
	USH 12	746+57 EB - 758+55 EB	8	-	-	-	-
	USH 12	763+33 EB - 775+74 EB	132	-	-	-	-
CATEGORY 0010 SUBTOTAL			140	50	30	0	0
0030	USH 12	758+55 EB - 763+33 EB	650	-	-	12	16
CATEGORY 0030 SUBTOTAL			650	0	0	12	16
PROJECT 8949-00-71 SUBTOTAL			**790**	**50**	**30**	**12**	**16**

STORM SEWER STRUCTURE SCHEDULE - INLETS, MANHOLES, AND ENDWALLS

CATEGORY	STRUCT. NO.	STA	ALI	OFFSET	TOP STRUCT. ELEV	LOW STRUC. INV.	FLANGE ELEV	BOTTOM STRUCT. ELEV	DEPTH (FT)	ADJUST. RING HEIGHT (INCHES)	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH (EACH)	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH (EACH)	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH (EACH)	611.0530 MANHOLE COVERS TYPE J (EACH)	611.0624 INLET COVERS TYPE H (EACH)	611.0639 INLET COVERS TYPE H-S (EACH)	611.3230 INLET 2X3-FT (EACH)	611.2044 MANHOLES 4x4-FT (EACH)	633.5200* MARKERS CULVERT END (EACH)
0010																			
	1.0	751+20	EB	28.3' LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2.0	751+20	EB	26.2' RT	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
	4.0	756+19	EB	24.1' LT	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
	5.0	756+03	EB	23.8' LT	1148.94	1146.32	1150.52	1146.07	2.87	2	-	-	-	1	-	-	-	1	-
	6.0	756+03	EB	25.7' RT	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
CATEGORY 0010 SUBTOTAL											0	0	3	1	0	0	0	1	3
0030																			
	7.0	759+92	EB	22.5' LT	1160.45	1158.46	1161.45	1158.29	2.16	6	-	-	-	-	1	-	1	-	-
	8.0	759+45	EB	22.5' LT	1157.31	1155.06	1158.31	1154.89	2.42	6	-	-	-	-	1	-	1	-	-
	9.0	759+30	EB	48.4' LT	1156.17	1154.22	1157.17	1154.05	2.12	6	-	-	-	-	-	1	1	-	-
	10.0	759+30	EB	37.6' LT	1156.49	1154.11	1157.49	1153.94	2.55	6	-	-	-	-	1	-	1	-	-
	11.0	759+30	EB	22.5' LT	1155.84	1153.46	1157.76	1153.25	2.59	6	-	-	-	1	-	-	-	1	-
	12.0	758+82	EB	25.3' LT	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
CATEGORY 0030 SUBTOTAL											0	1	0	1	3	1	4	1	1
0040																			
	3.0	755+64	EB	23.5' LT	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
CATEGORY 0040 SUBTOTAL											1	0	0	0	0	0	0	0	1
PROJECT 8949-00-71 TOTAL											**1**	**1**	**3**	**2**	**3**	**1**	**4**	**2**	**5**

STORM SEWER PIPE SCHEDULE

CATEGORY	FROM STRUCT.	TO STRUCT.	INLET ELEV	OUTLET ELEV	SLOPE %	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH (LF)	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH (LF)	608.0424 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH (LF)
0010								
	1.0	2.0	1142.90	1141.31	2.92	-	-	55
	4.0	5.0	1147.02	1146.32	4.46	-	-	16
	5.0	6.0	1146.32	1145.80	1.05	-	-	49
CATEGORY 0010 SUBTOTAL						0	0	120
0030								
	7.0	8.0	1158.46	1155.06	7.29	47	-	-
	8.0	11.0	1155.06	1153.96	7.29	15	-	-
	9.0	10.0	1154.22	1154.11	1.00	11	-	-
	10.0	11.0	1154.11	1153.96	1.00	15	-	-
	11.0	12.0	1153.46	1153.10	0.75	-	48	-
CATEGORY 0030 SUBTOTAL						88	48	-
0040								
	3.0	5.0	1148.81	1147.32	3.75	40	-	-
CATEGORY 0040 SUBTOTAL						40	0	0
PROJECT 8949-00-71 TOTAL						**128**	**48**	**120**

CONCRETE SIDEWALK

CATEGORY	LOCATION	STATION - STATION	602.0410 CONCRETE SIDEWALK 5-INCH (SF)	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW (SF)	602.0605 CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW (SF)
0010	USH 12	763+33 EB - 775+74 EB	1,255	120	-
CATEGORY 0010 SUBTOTAL			1,255	120	0
0030	USH 12	758+55 EB - 763+33 EB	1,545	40	18
CATEGORY 0030 SUBTOTAL			1,545	40	18
PROJECT 8949-00-71 TOTAL			**2,800**	**160**	**18**

MOBILIZATIONS EROSION CONTROL

CATEGORY	LOCATION	STATION - STATION	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
0010	UNDISTRIBUTED		6	3
PROJECT 8949-00-71 TOTAL			**6**	**3**

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EROSION CONTROL

CATEGORY	LOCATION	STATION - STATION	606.0200 RIPRAP MEDIUM (CY)	606.0300* RIPRAP HEAVY (CY)	624.0100 WATER (MGAL)	628.1104 EROSION BALES (EACH)	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)	628.2004 EROSION MAT CLASS I TYPE B (SY)	628.2008 EROSION MAT URBAN CLASS I TYPE B (SY)	628.2023 EROSION MAT CLASS II TYPE B (SY)	628.7020 INLET PROTECTION TYPE D (EACH)	628.7504 TEMPORARY DITCH CHECKS (LF)	628.7555 CULVERT PIPE CHECKS (EACH)	645.0120* GEOTEXTILE TYPE HR (SY)	645.0130 GEOTEXTILE TYPE R (SY)
0010	USH 12	458+44 EB - 699+84 EB	47	28	225	12	2,628	7,884	9,151	-	-	-	150	9	40	40
	USH 12	700+36 EB - 746+57 EB	-	-	176	5	1,077	3,230	2,760	-	-	-	80	5	-	-
	USH 12	746+57 EB - 758+55 EB	113	-	17	-	144	433	1,032	150	-	-	50	6	-	260
	USH 12	763+33 EB - 775+74 EB	-	-	10	-	-	-	-	47	-	6	-	-	-	-
	USH 12	775+74 EB - 899+83 EB	-	-	73	1	243	728	637	-	-	2	20	-	-	-
	USH 12	900+26 EB - 914+00 EB	-	-	74	2	450	1,349	318	-	-	-	0	-	-	-
		UNDISTRIBUTED	-	-	-	-	1,199	3,407	3,543	73	-	1	5	-	10	25
CATEGORY 0010 SUBTOTAL			160	28	575	20	5,740	17,030	17,441	270	0	9	305	20	50	325
0030	USH 12	758+55 EB - 763+33 EB	-	-	225	-	274	821	187	824	290	5	40	1	-	-
		UNDISTRIBUTED	-	-	-	-	86	208	73	206	110	1	5	-	-	-
CATEGORY 0030 SUBTOTAL			0	0	225	0	360	1,030	259	1,030	400	6	45	1	0	0
PROJECT 8949-00-71 TOTAL			**160**	**28**	**800**	**20**	**6,100**	**18,060**	**17,700**	**1,300**	**400**	**15**	**350**	**21**	**50**	**325**

* ADDITIONAL QUANTITY FOUND IN STRUCTURES QUANTITIES

3

MGS GUARDRAIL

CATEGORY	LOCATION	STATION - STATION	OFFSET	614.2300 MGS GUARDRAIL 3 (LF)	614.2340 MGS GUARDRAIL 3 L (LF)	614.2500 MGS THRIE BEAM TRANSITION (LF)	614.2610 MGS GUARDRAIL TERMINAL EAT (EACH)	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 (EACH)
0010	USH 12	550+90 EB - 554+34 EB	LT	237.5	-	-	2	-
	USH 12	550+65 EB - 553+71 EB	RT	200	-	-	2	-
	USH 12	698+72 EB - 701+23 EB	LT	50	-	79	2	-
	USH 12	698+97 EB - 701+48 EB	RT	50	-	79	2	-
	USH 12	711+25 EB - 713+41 EB	LT	-	113	-	2	-
	USH 12	711+08 EB - 713+04 EB	RT	-	137.5	-	1	1
	USH 12	898+82 EB - 899+73 EB	LT	-	-	39.5	1	-
	USH 12	898+82 EB - 899+73 EB	RT	-	-	39.5	1	-
	USH 12	900+37 EB - 901+27 EB	LT	-	-	39.5	1	-
	USH 12	900+37 EB - 901+27 EB	RT	-	-	39.5	1	-
CATEGORY 0010 SUBTOTAL				537.5	250	316	15	1
PROJECT 8949-00-71 TOTAL				**537.5**	**250**	**316**	**15**	**1**

BARRIER SYSTEM GRADING, SHAPING, AND FINISHING

CATEGORY	LOCATION	STATION - STATION	OFFSET	EXCAVATION COMMON CY	BORROW CY	SALVAGED TOPSOIL SY	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 30 LB	MULCHING SY	614.0010 EACH
0010	USH 12	550+90 EB - 554+34 EB	LT	109	36	565	0.36	10	565	1
	USH 12	550+65 EB - 553+71 EB	RT	260	0	1191	0.75	21	1191	1
	USH 12	711+25 EB - 713+41 EB	LT	97	0	334	0.21	6	334	1
	USH 12	711+08 EB - 713+04 EB	RT	39	0	229	0.14	4	229	1
	USH 12	898+82 EB - 899+73 EB	LT	38	19	384	0.24	7	384	1
	USH 12	898+82 EB - 899+73 EB	RT	25	13	248	0.16	4	248	1
	USH 12	900+37 EB - 901+27 EB	LT	27	0	174	0.11	3	174	1
	USH 12	900+37 EB - 901+27 EB	RT	33	0	142	0.09	3	142	1
PROJECT 8949-00-71 TOTAL										**8**

FENCE SAFETY

CATEGORY	LOCATION	STATION - STATION	616.0700.S (LF)
0010	UNDISTRIBUTED		200
PROJECT 8949-00-71 TOTAL			**200**

LANDSCAPING

CATEGORY	LOCATION	STATION - STATION	625.0100 TOPSOIL (SY)	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0130 SEEDING MIXTURE NO. 30 (LB)	630.0140 SEEDING MIXTURE NO. 40 (LB)	630.0200 SEEDING TEMPORARY (LB)	630.0500 SEED WATER (MGAL)
0010	USH 12	458+44 EB - 699+84 EB	-	7,295	7,295	5	131	-	197	492
	USH 12	700+36 EB - 746+57 EB	-	2,124	2,124	1	38	-	57	143
	USH 12	746+57 EB - 758+55 EB	-	1,202	1,202	1	22	-	32	81
	USH 12	763+33 EB - 775+74 EB	47	-	47	1	-	1	1	3
	UNDISTRIBUTED		12	2,657	2,670	2	49	-	79	187
CATEGORY 0010 SUBTOTAL			60	13,278	13,338	9	240	1	367	906
0030	USH 12	758+55 EB - 763+33 EB	-	1,230	1,230	1	-	22	33	83
	UNDISTRIBUTED		-	312	312	1	-	7	10	22
CATEGORY 0030 SUBTOTAL			0	1,542	1,542	2	0	29	44	105
PROJECT 8949-00-71 TOTAL			**60**	**14,820**	**14,880**	**11**	**240**	**31**	**410**	**1,010**

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PERMANENT SIGNING TYPE II

					637.2210		
CATEGORY	SIGN #	SIGN CODE	SIGN SIZE	SIGN SIZE WXH IN	SIGNS TYPE II REFLECTIVE H SF	SIGN MOUNTED ON/SAME POST AS	REMARKS
0010							
	10-01	R1-1	2M	36X36	9	MAST ARM POLE	STOP
	10-02	R1-3P	2M	24X9	1.5	10-01	ALL WAY
	10-03	R1-1	2M	36X36	9	MAST ARM	STOP
	10-04	R1-3P	2M	24X9	1.5	10-03	ALL WAY
	10-05	R1-3P	2M	24X9	1.5	R1-1 ON DAVIS ST	ALL WAY
	10-06	R1-3P	2M	24X9	1.5	10M12	ALL WAY
	10-07	R1-3P	2M	24X9	1.5	R1-1 ON CTH TT	ALL WAY
8949-00-71 TOTAL					19.5		

SIGNING REMOVALS

				638.2602	638.3000		
CATEGORY	SIGN #	LOCATION	SIGN CODE	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	REMARKS
0010							
	10R01	US12	W4-4AR	1	1	--	TRAFFIC FROM RIGHT DOES NOT STOP
	10R02	DAVIS ST	W4-4B	1	1	--	ONCOMING TRAFFIC DOES NOT STOP
	10R03	CTH TT	W4-4AL	1	1	--	TRAFFIC FROM LEFT DOES NOT STOP
PROJECT 8949-00-71 TOTAL				3	3		

MOVING SIGNS TYPE II & MOVING SMALL SIGN SUPPORTS

CATEGORY	SIGN #	LOCATION	SIGN CODE	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	REMARKS
0010							
	1M01	US12	W14-3	1	1	--	NO PASSING ZONE
	2M01	US12	W14-3	1	1	--	NO PASSING ZONE
	2M02	US12	W14-3	1	1	--	NO PASSING ZONE
	2M03	US12	W14-3	1	1	--	NO PASSING ZONE
	3M01	US12	W14-3	1	1	--	NO PASSING ZONE
	3M02	US12	I55-56	1	1	--	ADOPT A HIGHWAY, ST.CROIX CENTRAL SCHOOLS
	3M03	US12	W14-3	1	1	--	NO PASSING ZONE
	4M01	US12	W14-3	1	1	--	NO PASSING ZONE
	4M02	US12	W14-3	1	1	--	NO PASSING ZONE
	5M01	US12	W2-1	1	1	--	CROSS ROAD
	5M02	US12	W14-3	1	1	--	NO PASSING ZONE
	6M01	US12	W14-3	1	1	--	NO PASSING ZONE
	7M01	US12	W14-3	1	1	--	NO PASSING ZONE
	8M01	US12	W14-3	1	1	--	NO PASSING ZONE
	8M02	US12	W5-60L	1	1	--	BEAM GUARD REFLECTIVE END MARKER (LEFT)
	8M03	US12	W5-60R	1	1	--	BEAM GUARD REFLECTIVE END MARKER (RIGHT)
	8M04	US12	W5-60R	1	1	--	BEAM GUARD REFLECTIVE END MARKER (RIGHT)
	8M05	US12	W5-60L	1	1	--	BEAM GUARD REFLECTIVE END MARKER (LEFT)
	8M06	US12	JV	1	1	--	JUNCTION OR END ASSEMBLY
	8M07	US12	I55-56	1	1	--	ADOPT A HIGHWAY SPONSOR
	8M08	US12	I55-56	1	1	--	ADOPT A HIGHWAY SPONSOR
	9M01	US12	W14-3	1	1	--	NO PASSING ZONE
	9M02	US12	W14-3	1	1	--	NO PASSING ZONE
	9M03	US12	W3-5	1	1	--	SPEED LIMIT 30 MPH AHEAD [ARROW]
	10M01	NORTON ST	R1-1	1	1	--	STOP, DAVIS ST, NORTON ST
	10M02	US12	R2-1	1	1	--	SPEED LIMIT 30 MPH
	10M03	US12	J4-1	1	1	--	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
	10M04	US12	J3-2	1	--	6R03	DIRECTIONAL ASSEMBLY (2 HEADED ROUTE PANEL)
	10M05	US12	R2-1	1	1	--	SPEED LIMIT 30 MPH
	10M06	WOLF ST	R1-1	1	1	--	STOP, DAVIS ST, WOLF ST
PROJECT 8949-00-71 SUBTOTAL				30	29		

MOVING SIGNS TYPE II & MOVING SMALL SIGN SUPPORTS

CATEGORY	SIGN #	LOCATION	SIGN CODE	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	REMARKS
0010							
	10M07	US12	J1-3	1	1	--	JUNCTION OR END ASSEMBLY (3 HEADED PANEL)
	10M08	US12	R5-1	1	1	--	DO NOT ENTER
	10M09	US12	R1-2	1	1	--	YIELD
	10M10	US12	J3-4	1	1	--	DIRECTIONAL ASSEMBLY (4 HEADED ROUTE PANEL)
	10M11	US12	J12-3	1	1	--	ROUTE TURN WITHOUT CARDINAL (3 HEADED ROUTE PANEL)
	10M12	US12	R1-1	1	1	--	STOP
	10M13	US12	J3-4	1	1	--	DIRECTIONAL ASSEMBLY (4 HEADED ROUTE PANEL)
	10M15	MAIN ST	R1-1	1	1	--	STOP
	10M16	MAIN ST		1	1	--	MAIN ST, BROADWAY ST
	10M17	MAIN ST	R1-1	1	1	--	STOP
	10M18	US12	R2-1	1	1	--	SPEED LIMIT 30 MPH
	10M21	CLARK ST	R1-1	1	1	--	STOP
	10M22	CLARK ST		1	1	--	CLARK ST, BROADWAY ST
	10M23	CLARK ST	R1-1	1	1	--	STOP
	10M24	ADAMS ST	R1-1	1	1	--	STOP, ADAMS ST, BROADWAY ST
	11M01	US12	W14-3	1	1	--	NO PASSING ZONE
	12M01	US12	W14-3	1	1	--	NO PASSING ZONE
	12M02	US12	W14-3	1	1	--	NO PASSING ZONE
	13M01	US12	W14-3	1	1	--	NO PASSING ZONE
	13M02	US12	W14-3	1	1	--	NO PASSING ZONE
	14M01	US12	J1-1	1	1	--	JUNCTION OR END ASSEMBLY
	14M02	US12	W14-3	1	1	--	NO PASSING ZONE
PROJECT 8949-00-71 SUBTOTAL				22	22		
PROJECT 8949-00-71 TOTAL				52	51		

TRAFFIC CONTROL DEVICES

CATEGORY	LOCATION	643.0300 TRAFFIC CONTROL DRUMS (DAYS)	643.0420 TRAFFIC CONTROL BARRICADES TYPE III (DAYS)	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A (DAYS)	643.0900 TRAFFIC CONTROL SIGNS (DAYS)	(1) 643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I (EACH)	(1) 643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II (EACH)	643.1050 TRAFFIC CONTROL SIGNS PCMS (DAYS)	644.1420 TEMPORARY PEDESTRIAN SURFACE PLYWOOD (SF)	644.1601 TEMPORARY PEDESTRIAN CURB RAMP (DAYS)	644.1810 TEMPORARY PEDESTRIAN BARRICADE (LF)	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH (LF)	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH (LF)
0010													
USH 12													
	VILLAGE OF HAMMOND	105	245	420	245				800	28	250	3400	
	BRIDGE CULVERT		420	168	630	1	3						
	MILL AND OVERLAY USH 12				966							53403	56203
	USH 12 SUBTOTAL	105	665	588	1841	1	3		800	28	250	56803	56203
DETOURS													
	USH 12 DETOUR		84	168	2814	2	2	20					
	USH 12 ALTERNATE ROUTE				1428		8						
	DETOURS SUBTOTAL		84	168	4246	2	10	20					
	PROJECT 8949-00-71 TOTAL	105	751	760	6089	3	13	20	800	28	250	56803	56203

(1) ONE CYCLE

PAVEMENT MARKING

CATEGORY	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH YELLOW SOLID (LF)	646.1020 MARKING LINE EPOXY 4-INCH YELLOW 12.5 SEG,37.5 GAP (LF)	646.1020 MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE SOLID (LF)	646.1020 MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE 12.5' SEG,37.5' GAP (LF)	646.3020 MARKING LINE EPOXY 8-INCH WHITE (LF)	646.5020 MARKING ARROW EPOXY (EACH)	646.6120 MARKING STOP LINE EPOXY 18-INCH (LF)	646.7120 MARKING DIAGONAL EPOXY 12-INCH WHITE (LF)	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (LF)	646.8120 MARKING CURB EPOXY (LF)	648.0100 LOCATING NO-PASSING ZONES (MI)
0010	USH 12											
		45740	7663	92862	155.75		2					8
	CITY OF HAMMOND											
		2800		3080		255		72	555	1050	220	
	PROJECT 8949-00-71 TOTAL	48540	7663	95942	156	255	2	72	555	1050	220	8

CONSTRUCTION STAKING

CATEGORY	LOCATION	STATION - STATION	650.4000 CONSTRUCTION STAKING STORM SEWER (EACH)	650.4500 CONSTRUCTION STAKING SUBGRADE (LF)	650.5000 CONSTRUCTION STAKING BASE (LF)	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER (LF)	650.6000 CONSTRUCTION STAKING PIPE CULVERTS (EACH)	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE (LF)	650.9000 CONSTRUCTION STAKING CURB RAMPS (EACH)	650.9920 CONSTRUCTION STAKING SLOPE STAKES (LF)
0010	USH 12	458+44 EB - 699+84 EB	-	196	196	-	5	23,517	-	196
	USH 12	700+36 EB - 746+57 EB	-	136	136	-	2	4,470	-	136
	USH 12	746+57 EB - 758+55 EB	9	-	-	8	1	1,168	-	-
	USH 12	763+33 EB - 775+74 EB	11	-	-	132	-	1,241	12	-
	USH 12	775+74 EB - 899+83 EB	-	-	-	-	1	12,410	-	-
	USH 12	900+26 EB - 914+00 EB	-	-	-	-	-	1,374	-	-
CATEGORY 0010 SUBTOTAL			20	332	332	140	9	44,180	12	332
0030	USH 12	758+55 EB - 763+33 EB	6	478	478	650	-	0	5	478
CATEGORY 0030 SUBTOTAL			6	478	478	650	0	0	5	478
PROJECT 8949-00-71 TOTAL			**26**	**810**	**810**	**790**	**9**	**44,180**	**17**	**810**

TRAFFIC SIGNAL HEADS

CATEGORY	LOCATION / BASE NUMBER	658.0171 TRAFFIC SIGNAL FACE 1S 12-INCH (EACH)
0010	CTH TT & USH 12 / SB1	1
CATEGORY 0010 SUBTOTAL		1
PROJECT 8949-00-71 TOTAL		**1**

3

TRAFFIC SIGNAL STRUCTURES

CATEGORY	LOCATION / BASE NUMBER	STATION - STATION	OFFSET	654.0102 CONCRETE BASES TYPE 2 (EACH)	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE (EACH)	657.0305 POLES TYPE 2 (EACH)	657.0595 TROMBONE ARMS 25-FT (EACH)
0010	SB1	762+40 EB	31.4' RT	1	1	1	1
CATEGORY 0010 SUBTOTAL				1	1	1	1
PROJECT 8949-00-71 TOTAL				**1**	**1**	**1**	**1**

STOP SIGN FLASHER

CATEGORY	LOCATION	STATION - STATION	SPV.0060.005 INSTALL STATE FURNISHED SOLAR POWERED FLASHER SYSTEM (EACH)
0010	CTH TT & USH 12	762+40 EB	1
CATEGORY 0010 SUBTOTAL			1
PROJECT 8949-00-71 TOTAL			**1**

SAWING

CATEGORY	LOCATION	STATION - STATION	690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)
0010	USH 12	458+44 EB - 699+84 EB	309	140
	USH 12	700+36 EB - 746+57 EB	88	60
	USH 12	746+57 EB - 758+55 EB	363	80
	USH 12	763+33 EB - 775+74 EB	-	124
	USH 12	775+74 EB - 899+83 EB	31	-
	USH 12	900+26 EB - 914+00 EB	17	-
	UNDISTRIBUTED		75	25
CATEGORY 0010 SUBTOTAL			883	429
0030	USH 12	758+55 EB - 763+33 EB	188	108
	UNDISTRIBUTED		29	13
CATEGORY 0030 SUBTOTAL			217	121
PROJECT 8949-00-71 TOTAL			**1,100**	**550**

DITCH CLEANING

CATEGORY	LOCATION	STATION - STATION	SPV.0090.004 (LF)
0010	USH 12	458+44 EB - 699+84 EB	300
	USH 12	775+74 EB - 899+83 EB	200
CATEGORY 0010 SUBTOTAL			500
PROJECT 8949-00-71 TOTAL			**500**

GRADING AND SHAPING DITCH

CATEGORY	LOCATION	STATION - STATION	OFFSET	SPV.0060.006 (EACH)
0010	USH 12	754+74 EB - 757+93 EB	RT	1
	USH 12	755+53 EB - 757+99 EB	LT	1
CATEGORY 0010 SUBTOTAL				2
PROPOSAL 8949-00-71 TOTAL				**2**

ADJUSTING UTILITIES

CATEGORY	LOCATION	STATION - STATION	611.8110 ADJUSTING MANHOLE COVERS (EACH)	611.8120.S COVER PLATES TEMPORARY (EACH)	SPV.0060.007 ADJUSTING WATER VALVES BOX (EACH)
0040	USH 12	755+87 EB	1	1	-
	USH 12	758+96 EB	-	-	1
	USH 12	759+08 EB	-	-	1
	USH 12	759+17 EB	-	-	1
	USH 12	762+85 EB	-	-	1
	USH 12	762+87 EB	-	-	1
	USH 12	765+98 EB	-	-	3
	USH 12	766+19 EB	-	-	1
	USH 12	769+56 EB	-	-	1
	USH 12	769+59 EB	-	-	1
	USH 12	771+20 EB	1	1	-
	USH 12	772+88 EB	-	-	1
	USH 12	772+99 EB	1	1	-
	USH 12	776+16 EB	-	-	1
PROJECT 8949-00-71 SUBTOTAL			**3**	**3**	**13**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
8949-00-21
HUDSON TO BALDWIN
(STH 65 NORTH - USH 63 NORTH)
USH 12
ST. CROIX COUNTY

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING — TO BE REMOVED
BRIDGE

SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN

R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED) IP

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)

PARCEL NUMBER (25) UTILITY NUMBER (40)
PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

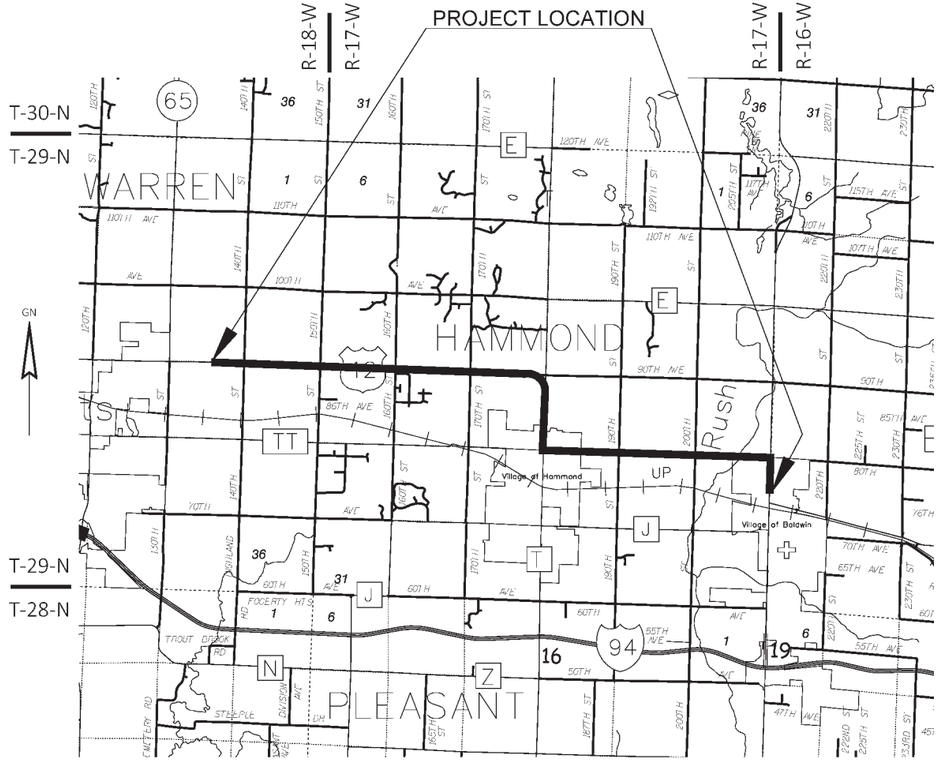
ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTICTIVE DEVELOPMENT EASEMENT	RDE
CENTERLINE	C/L	RIGHT	RT
CERTIFIED SURVEY MAP	CSM	RIGHT OF WAY	R/W
CONCRETE	CONC	SECTION	SEC
COUNTY	CO	SEPTIC VENT	SEPV
COUNTY TRUNK HIGHWAY	CTH	SQUARE FEET	SF
DISTANCE	DIST	STATE TRUNK HIGHWAY	STH
CORNER	COR	STATION	STA
DOCUMENT NUMBER	DOC	TELEPHONE PEDESTAL	TP
EASEMENT	EASE	TEMPORARY LIMITED EASEMENT	TLE
EXISTING	EX	TRANSPORTATION PROJECT PLAT	TPP
GAS VALVE	GV	UNITED STATES HIGHWAY	USH
GRID NORTH	GN	VOLUME	V
LIMITED HIGHWAY EASEMENT	LHE		
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

W — WATER
G — GAS
T — TELEPHONE
OH — OVERHEAD TRANSMISSION LINES
E — ELECTRIC
TV — CABLE TELEVISION
FO — FIBER OPTIC
SAN — SANITARY SEWER
SS — STORM SEWER



LAYOUT
SCALE 0 1.0 MI.

THE NOTES,CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 8949-00-21.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM CORRINDATES (WISCRS), ST. CROIX COUNTY, NAD83(2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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

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

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

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN THE NW REGION, EAU CLAIRE OFFICE.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

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

4

PROJECT NUMBER 8949-00-21 - 4.01
SHEET 2 OF 2
AMENDMENT NO:

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\RW\TITLE SHEET.DWG
LAYOUT NAME: TPP Title 34x22
PLOT DATE : ----
PLOT BY : ----
PLOT NAME : _____
APPRAISAL PLAT DATE : 08/25/2020

TRANSPORTATION PROJECT PLAT NO: 8949-00-21 - 4.01

THAT PART OF THE SW 1/4 OF THE SE 1/4 OF SECTION 14, T29N, R18W, TOWN OF WARREN, ST. CROIX COUNTY, WISCONSIN

RELOCATION ORDER USH 12, HUDSON TO BALDWIN, STH 65 NORTH - USH 63 NORTH, ST. CROIX COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
100	101	N00° 42' 33"W	10.00'
101	102	N89° 17' 27"E	216.16'
102	103	S00° 42' 33"E	10.00'

R/W Station & Offset Table		
Point No.	Station	Offset
100	482+70.00	32.69'
101	482+70.01	42.69'
102	484+85.96	42.94'
103	484+86.00	32.94'

UTILITY INTERESTS REQUIRED		
UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
100	ST. CROIX ELECTRIC COOPERATIVE	RELEASE OF RIGHTS

EASEMENT TABLE			
	OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
100	ST. CROIX ELECTRIC COOPERATIVE	BLANKET EASEMENT V. 251, P. 452, DOC. NO. 190342A	1

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ST. CROIX COUNTY, NAD 83(2011) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION EAU CLAIRE OFFICE.

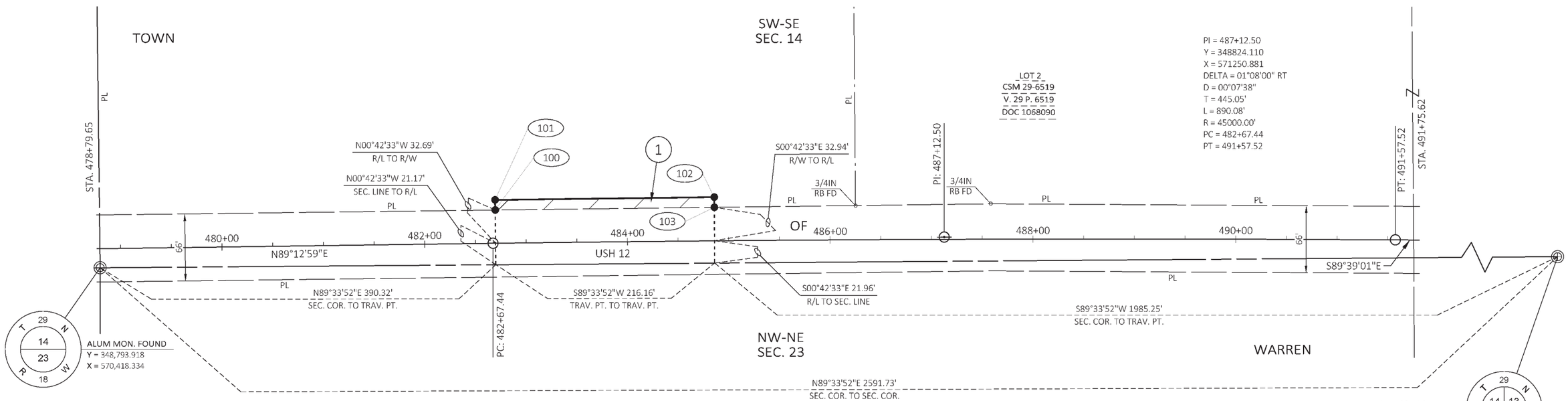
FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY AS SHEET 2 OF 2.

1110221
BETH PABST
REGISTER OF DEEDS
ST. CROIX CO., WI
RECEIVED FOR RECORD
08/26/2020 02:47 PM
EXEMPT #
PLAT FEE 25.00
VOLUME: TPP1
PAGES: 191
PAGES: 2
****The above recording information verifies that this document has been electronically recorded & returned to the submitter**

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8949-00-21 - 4.01
SHEET 1 OF 2
AMENDMENT NO:___

GN

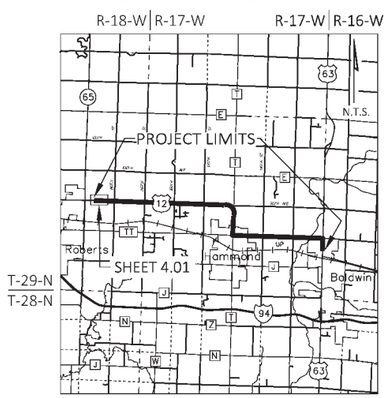
SCALE, FEET
0 50 100



SCHEDULE OF LANDS & INTERESTS REQUIRED	OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO THE STATE OF WISCONSIN ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED					
PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	EXISTING	TOTAL	TLE S.F.
1	THE JERRY L. EMMERT AND NICOLLE L. EMMERT LIVING TRUST, AND JAMES A. EMMERT LIVING TRUST	FEE	2162	----	2162	----

HIGHWAY	BASIS
USH 12	R/W PROJECTS 6674, 6990, 8949-03-22, CSM 29-6519

LOCATION SKETCH



KL Engineering
(A) Better Experience

I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 8949-00-21-4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN TIMOTHY M. HELD S-2591 MADISON, WI LAND SURVEYOR

08/25/2020
TIMOTHY M. HELD — DATE
AGENT FOR KL ENGINEERING, INC.
P.L.S. NUMBER 2591

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

8/25/2020
DEBRA B. STENSLAND — DATE

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\RW\040101-RP.DWG
PLOT DATE : 8/25/2020 2:02 PM
PLOT BY : TIMOTHY HELD
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
APPRAISAL PLAT DATE : 08/25/2020

TRANSPORTATION PROJECT PLAT NO: 8949-00-21 - 4.02

THAT PART OF THE SE 1/4 OF THE SE 1/4 OF SECTION 13 AND THAT PART OF THE NE 1/4 OF THE NE 1/4 OF SECTION 24, ALL IN T29N, R18W, TOWN OF WARREN, ST. CROIX COUNTY, WISCONSIN

RELOCATION ORDER USH 12, HUDSON TO BALDWIN, STH 65 NORTH - USH 63 NORTH, ST. CROIX COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
200	201	S88° 20' 31"E	133.05'
201	202	N70° 22' 32"E	79.46'
202	203	S76° 18' 24"E	56.79'
203	204	S85° 14' 11"E	291.08'
204	205	N66° 38' 13"E	37.67'
205	206	S01° 39' 28"W	99.00'
206	207	S82° 36' 33"W	162.94'
207	208	N67° 23' 12"W	68.40'
208	209	N88° 20' 32"W	150.00'
209	210	N88° 20' 32"W	187.69'
210	211	N54° 03' 04"W	30.18'
211	200	N01° 39' 29"E	66.00'

R/W Station & Offset Table		
Point No.	Station	Offset
200	549+20.00	32.90'
201	550+53.00	33.06'
202	551+27.00	62.00'
203	551+82.55	50.24'
204	554+73.23	34.87'
205	555+07.34	50.84'
206	555+07.48	48.15'
207	553+46.60	74.00'
208	552+82.69	49.63'
209	551+32.69	49.83'
210	549+45.00	50.09'
211	549+20.00	33.10'

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ST. CROIX COUNTY, NAD 83(2011) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

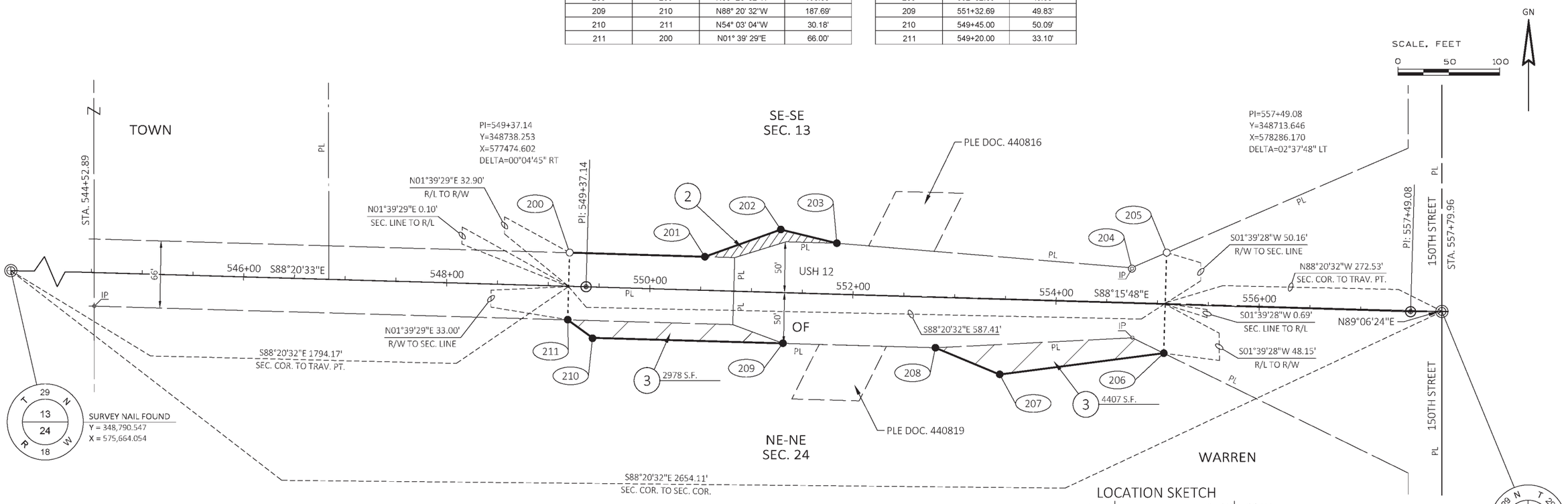
FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION EAU CLAIRE OFFICE.

FOUND PROPERTY PIPES ARE 1" IRON PIN, UNLESS OTHERWISE NOTED.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1110221.

1112702
BETH PABST
REGISTER OF DEEDS
ST. CROIX CO., WI
RECEIVED FOR RECORD
09/28/2020 09:33 AM
EXEMPT #
PLAT FEE 25.00
VOLUME: TPP1
PAGES: 197
PAGES: 1
**The above recording information verifies that this document has been electronically recorded & returned to the submitter

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8949-00-21 - 4.02
AMENDMENT NO:___



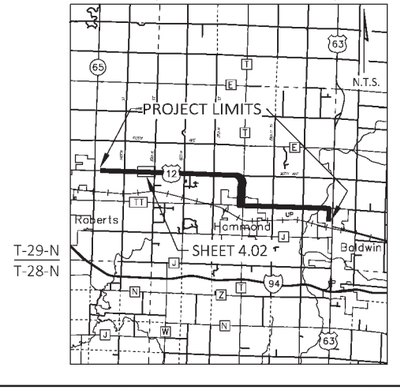
SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO THE STATE OF WISCONSIN
ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED			TLE S.F.
			NEW	EXISTING	TOTAL	
2	GILLIS FARM INC.	FEE	1066	5359	6425	----
3	DIANE L. RODE	FEE	7385	5367	12752	----

HIGHWAY	BASIS
USH 12	R/W PROJECT 8949-03-22, 8949-09-21

LOCATION SKETCH



KL Engineering
(A) Better Experience

I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 8949-00-21-4.02 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

09/25/2020
TIMOTHY M. HELD — DATE
AGENT FOR KL ENGINEERING, INC.
P.L.S. NUMBER 2591

WISCONSIN — TIMOTHY M. HELD S-2591 MADISON, WI — LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

9-25-2020
DEBRA B. STENSLAND

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\RW\040101-RP.DWG
APPRAISAL PLAT DATE : 09/25/2020
PLOT DATE : 9/25/2020 8:57 AM
PLOT BY : TIMOTHY HELD
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

8949-00-21 - 4.02

TRANSPORTATION PROJECT PLAT NO: 8949-00-21 - 4.03

THAT PART OF THE SW 1/4 OF THE SE 1/4 OF SECTION 18 AND THAT PART OF THE NW 1/4 OF THE NE 1/4 OF SECTION 19, ALL IN T29N, R17W, TOWN OF HAMMOND, ST. CROIX COUNTY, WISCONSIN

RELOCATION ORDER USH 12, HUDSON TO BALDWIN, STH 65 NORTH - USH 63 NORTH, ST. CROIX COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

EASEMENT TABLE			
OWNER		RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
101	CENTURYLINK	NO EASEMENT OF RECORD FOUND	6

R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
300	301	N89° 39' 40"E	79.03'
301	302	N00° 20' 20"W	17.00'
302	303	N84° 48' 18"E	153.56'
303	304	S78° 01' 32"E	140.68'
304	305	N89° 39' 40"E	181.95'
305	306	N00° 53' 15"W	5.00'
306	307	N89° 39' 40"E	32.66'
307	308	S00° 20' 20"E	71.00'
308	309	S68° 41' 00"W	101.71'
309	310	N86° 04' 52"W	490.44'
310	300	N00° 20' 20"W	66.00'

R/W Station & Offset Table		
Point No.	Station	Offset
300	587+15.97	32.50'
301	587+95.00	32.53'
302	587+94.99	49.53'
303	589+48.00	62.60'
304	590+85.50	32.53'
305	592+67.45	32.35'
306	592+67.41	37.35'
307	593+00.07	37.32'
308	593+00.00	33.68'
309	592+05.00	70.00'
310	587+16.00	33.50'

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ST. CROIX COUNTY, NAD 83(2011) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

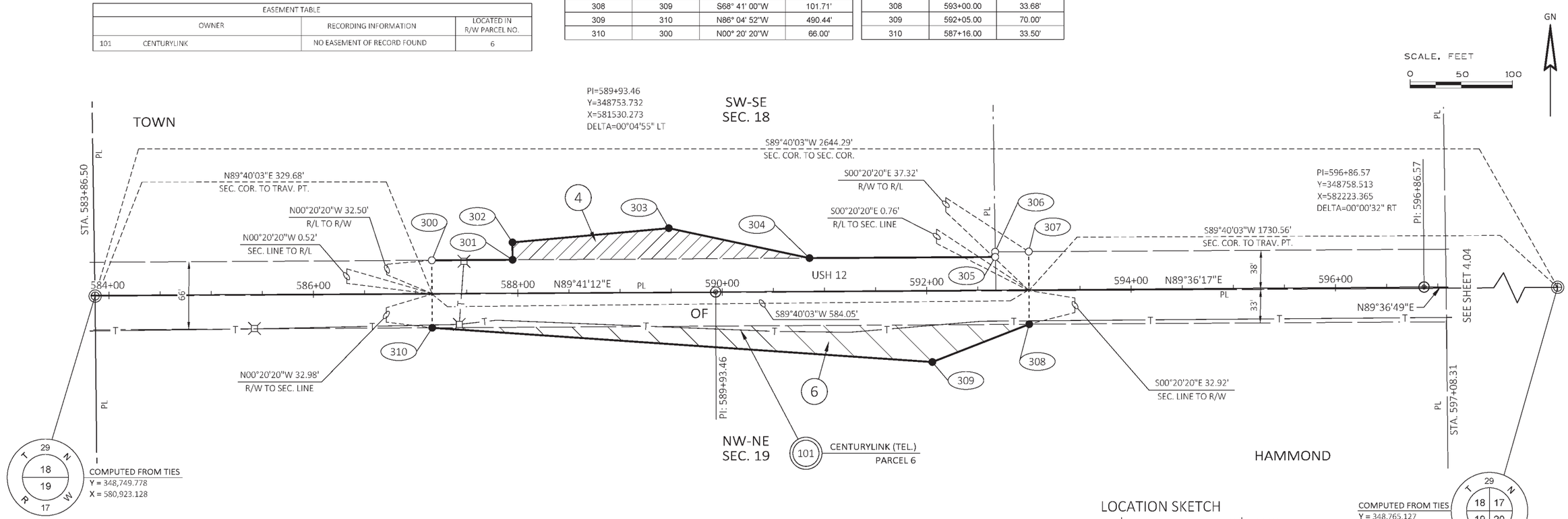
ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION EAU CLAIRE OFFICE.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1110221.

1112589
BETH PABST
REGISTER OF DEEDS
ST. CROIX CO., WI
RECEIVED FOR RECORD
09/25/2020 08:04 AM
EXEMPT #
PLAT FEE 25.00
VOLUME: TPP1
PAGES: 192
PAGES: 1
****The above recording information verifies that this document has been electronically recorded & returned to the submitter**

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8949-00-21 - 4.03
AMENDMENT NO:___

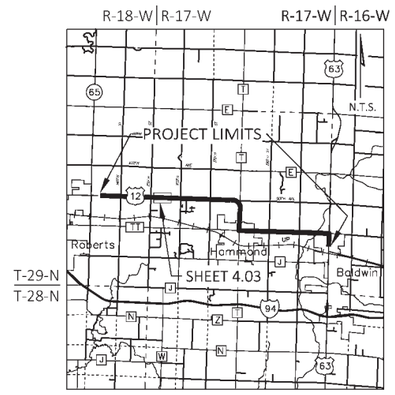


UTILITY INTERESTS REQUIRED		
UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
101	CENTURYLINK	RELEASE OF RIGHTS

HIGHWAY	BASIS
USH 12	R/W PROJECTS 6674, 6990

SCHEDULE OF LANDS & INTERESTS REQUIRED	OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO THE STATE OF WISCONSIN ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED					
PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	EXISTING	TOTAL	TLE S.F.
4	THOMAS R. ROUGHTON AND BARBARA. ROUGHTON (DECEASED)	FEE	5657	18230	23887	----
6	JOHN E. SEE	FEE	10633	19245	29878	----

LOCATION SKETCH



KL Engineering (A) Better Experience

I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 8949-00-21-4.03 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN TIMOTHY M. HELD S-2591 MADISON, WI LAND SURVEYOR

09/23/2020
TIMOTHY M. HELD — DATE
AGENT FOR KL ENGINEERING, INC.
P.L.S. NUMBER 2591

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

9-23-2020
DEBRA B. STENSLAND

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\RW\040101-RP.DWG
APPRAISAL PLAT DATE : 09/23/2020
PLOT DATE : 9/23/2020 1:51 PM
PLOT BY : TIMOTHY HELD
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

TRANSPORTATION PROJECT PLAT NO: 8949-00-21 - 4.04

THAT PART OF OUTLOT 1 OF CERTIFIED SURVEY MAP RECORDED IN VOLUME 25 OF CERTIFIED SURVEY MAPS, PAGE 5857 AS DOCUMENT NUMBER 957353 LOCATED IN THE THE SE 1/4 OF THE SE 1/4 OF SECTION 18 AND THAT PART OF THE NE 1/4 OF THE NE 1/4 OF SECTION 19, ALL IN T29N, R17W, TOWN OF HAMMOND, ST. CROIX COUNTY, WISCONSIN

RELOCATION ORDER USH 12, HUDSON TO BALDWIN, STH 65 NORTH - USH 63 NORTH, ST. CROIX COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
400	401	N89° 37'19"E	158.51'
401	402	N00° 22' 24"W	17.00'
402	403	N89° 34' 28"E	410.00'
403	404	S00° 22' 41"E	22.00'
404	405	N89° 37' 19"E	133.51'
405	406	S00° 22' 41"E	66.01'
406	407	S00° 22' 41"E	25.00'
407	408	S89° 35' 45"W	701.53'
408	409	N00° 31' 46"W	24.98'

R/W Station & Offset Table		
Point No.	Station	Offset
400	597+07.99	36.90'
401	598+66.50	36.88'
402	598+66.50	53.88'
403	602+76.50	54.16'
404	602+76.50	32.16'
405	604+10.01	32.14'
406	604+10.00	33.86'
407	604+09.99	58.86'
408	597+08.47	59.08'
409	597+08.41	34.10'

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ST. CROIX COUNTY, NAD 83(2011) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION EAU CLAIRE OFFICE.

EXISTING ACCESS CONTROL ALONG USH 12 ESTABLISHED FROM PREVIOUS PROJECT 8949-06-21.

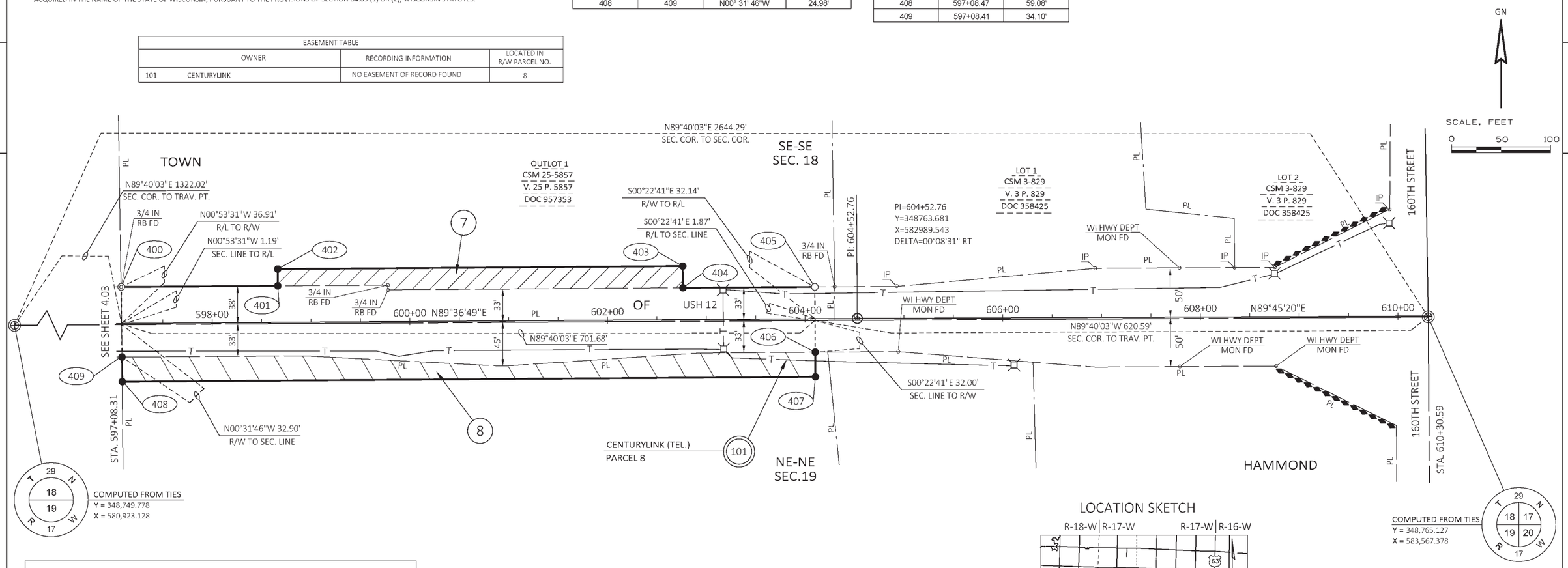
FOUND PROPERTY PIPES ARE 1" IRON PIN, UNLESS OTHERWISE NOTED.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1110221.

1112590
BETH PABST
REGISTER OF DEEDS
ST. CROIX CO., WI
RECEIVED FOR RECORD
09/25/2020 08:04 AM
EXEMPT #
PLAT FEE 25.00
VOLUME: TPP1
PAGES: 193
PAGES: 1
**The above recording information verifies that this document has been electronically recorded & returned to the submitter

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8949-00-21 - 4.04
AMENDMENT NO:___

EASEMENT TABLE			
	OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
101	CENTURYLINK	NO EASEMENT OF RECORD FOUND	8



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X = 580,923.128

COMPUTED FROM TIES
Y = 348,765.127
X = 583,567.378

GN
SCALE. FEET
0 50 100

UTILITY INTERESTS REQUIRED		
UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
101	CENTURYLINK	RELEASE OF RIGHTS

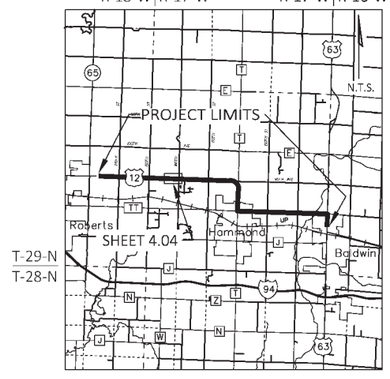
HIGHWAY	BASIS
USH 12	R/W PROJECT 8949-06-21, CSM 3-829, CSM 25-5857

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO THE STATE OF WISCONSIN
ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	EXISTING	TOTAL	TLE S.F.
7	RICHARD KUEBKER AND ROSEMARIE KUEBKER	FEE	8432	24933	33365	----
8	DONALD H. RODE AND SHIRLEY M. RODE AS TRUSTEES AND SUCCESSOR TRUSTEES OF THE DONALD H. RODE AND SHIRLEY M. RODE REVOCABLE LIVING TRUST DATED MARCH 28, 2006 ½ INTEREST AND WARREN A. RODE AND DIANE L. RODE REVOCABLE LIVING TRUST DATED MAY 20, 2013, 1/2 INTEREST	FEE	15159	----	15159	----

LOCATION SKETCH



KL Engineering
(A) Better Experience

I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 8949-00-21-4.04 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN
TIMOTHY M. HELD
S-2591
MADISON, WI
LAND SURVEYOR

09/23/2020
DATE
TIMOTHY M. HELD
AGENT FOR KL ENGINEERING, INC.
P.L.S. NUMBER 2591

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

9-23-2020
DEBRA B. STENSLAND

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\RW\040101-RP.DWG
APPRAISAL PLAT DATE : 09/23/2020
PLOT DATE : 9/23/2020 1:51 PM
PLOT BY : TIMOTHY HELD
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

TRANSPORTATION PROJECT PLAT NO: 8949-00-21 - 4.05

THAT PART OF LOT 5 OF CERTIFIED SURVEY MAP RECORDED IN VOLUME 10 OF CERTIFIED SURVEY MAPS, PAGE 2887 AS DOCUMENT NUMBER 526518 LOCATED IN THE SE 1/4 OF THE SE 1/4 AND PART OF THE SW 1/4 OF THE SE 1/4 ALL IN SECTION 16 AND THAT PART OF THE NW 1/4 OF THE NE 1/4 AND THE NE 1/4 OF THE NE 1/4 OF SECTION 21, ALL IN T29N, R17W, TOWN OF HAMMOND, ST. CROIX COUNTY, WISCONSIN

RELOCATION ORDER USH 12, HUDSON TO BALDWIN, STH 65 NORTH - USH 63 NORTH, ST. CROIX COUNTY

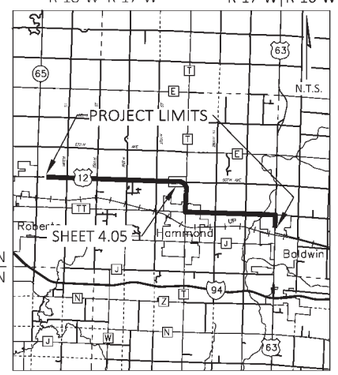
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

HIGHWAY	BASIS
USH 12	R/W PROJECT 6990, CSM 10-2887

EASEMENT TABLE			
	OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
101	CENTURYLINK	10' WIDE EASEMENT V. 1149, P. 219, DOC. 536333	10
102	XCEL ENERGY	NO EASEMENT OF RECORD FOUND	9

LOCATION SKETCH



NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ST. CROIX COUNTY, NAD 83(2011) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

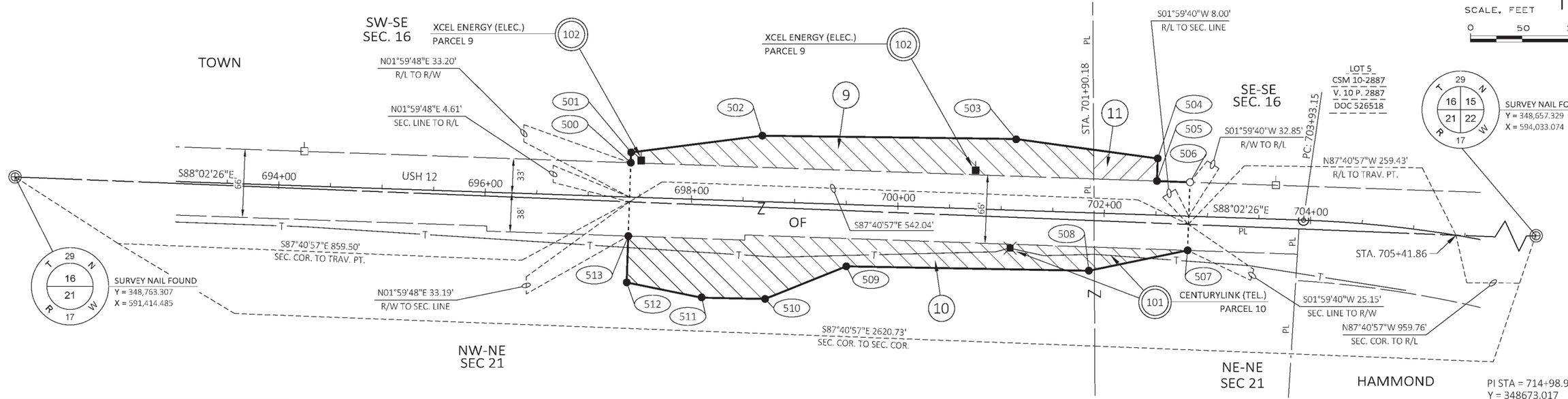
ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION EAU CLAIRE OFFICE.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1110221.

1112591
BETH PABST
REGISTER OF DEEDS
ST. CROIX CO., WI
RECEIVED FOR RECORD
09/25/2020 08:04 AM
EXEMPT #
PLAT FEE 25.00
VOLUME: TPP1
PAGES: 194
PAGES: 1
****The above recording information verifies that this document has been electronically recorded & returned to the submitter**

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8949-00-21 - 4.05
AMENDMENT NO:___



R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
500	501	N01° 59' 48"E	10.00'
501	502	N82° 44' 20"E	128.05'
502	503	S89° 15' 46"E	245.66'
503	504	S82° 12' 42"E	138.71'
504	505	S01° 59' 40"W	22.00'
505	506	S88° 00' 20"E	32.04'
506	507	S01° 59' 40"W	66.00'
507	508	S78° 20' 10"W	97.75'
508	509	N88° 57' 29"W	235.03'
509	510	S68° 13' 55"W	84.65'
510	511	N88° 58' 20"W	61.51'
511	512	N78° 33' 28"W	74.08'
512	513	N01° 59' 48"E	45.00'
513	500	N01° 59' 48"E	71.00'

R/W Station & Offset Table		
Point No.	Station	Offset
500	697+40.01	33.20'
501	697+40.01	43.20'
502	698+66.41	63.72'
503	701+12.01	68.96'
504	702+50.01	54.87'
505	702+50.00	32.87'
506	702+82.04	32.85'
507	702+82.00	33.15'
508	701+87.00	56.17'
509	699+52.00	59.94'
510	698+74.50	94.00'
511	698+13.00	95.00'
512	697+39.93	82.80'
513	697+39.96	37.80'

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO THE STATE OF WISCONSIN
ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	EXISTING	TOTAL	TLE S.F.
9	EVAN LEWIS	FEE	13195	17570	30765	----
10	JOHNSON DAIRY ENTERPRISES LLC	FEE	17718	15020	32738	----
11	SCOTT A. MADSEN AND WANDA M. MADSEN, AS TRUSTEES OF THE TRUST AGREEMENT OF SCOTT AND WANDA MADSEN	FEE	1552	3750	5302	----

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
101	CENTURYLINK	RELEASE OF RIGHTS
102	XCEL ENERGY	RELEASE OF RIGHTS

PI STA = 714+98.96
Y = 348673.017
X = 594031.391
DELTA = 87°52'50" RT
D = 4°59'35"
T = 1105.82'
L = 1760.04'
PC STA = 703+93.15
PT STA = 721+53.19
DA = S00°09'36"E

PC TO R/L
R = 1147.50'
LCH=148.61'
LCB=S84°19'41"E
L=148.71'

R/L TO PT
R = 1147.50'
LCH=1482.17'
LCB=S40°23'16"E
L=1611.33'

KL Engineering
(A) Better Experience

I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 8949-00-21-4.05 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN TIMOTHY M. HELD S-2591 MADISON, WI LAND SURVEYOR

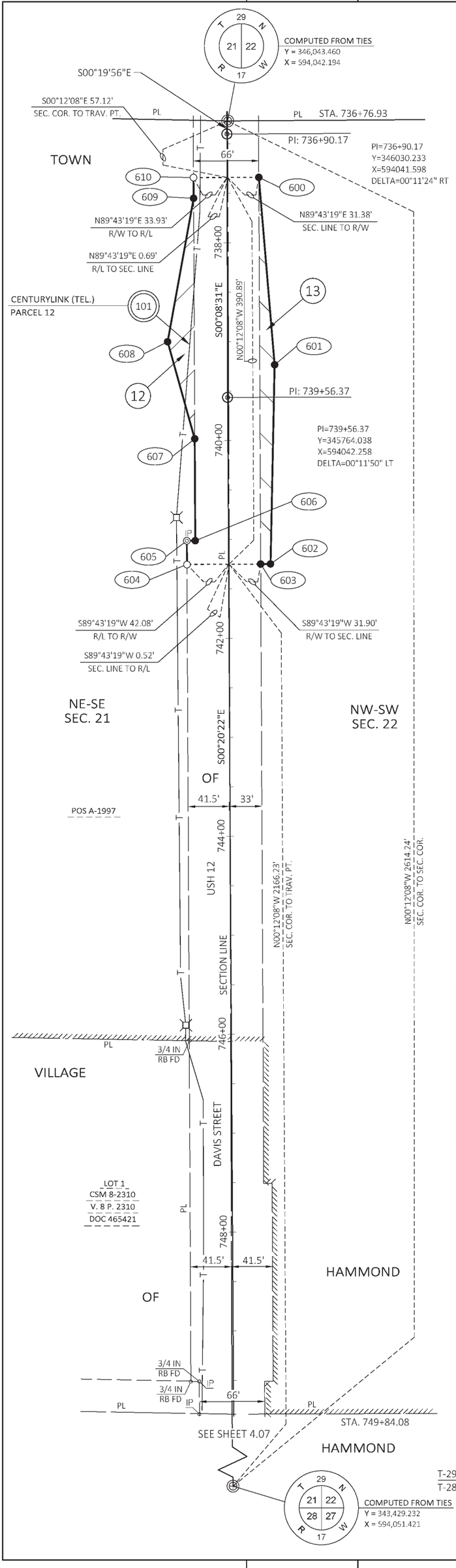
09/23/2020
TIMOTHY M. HELD — DATE
AGENT FOR KL ENGINEERING, INC.
P.L.S. NUMBER 2591

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

9-23-2020
DEBRA B. STENSLAND — DATE

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\RW\040101-RP.DWG
APPRAISAL PLAT DATE : 09/23/2020
PLOT DATE : 9/23/2020 1:51 PM
PLOT BY : TIMOTHY HELD
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

8949-00-21 - 4.05



NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ST. CROIX COUNTY, NAD 83(2011) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES. GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION EAU CLAIRE OFFICE.

FOUND PROPERTY PIPES ARE 1" IRON PIN, UNLESS OTHERWISE NOTED.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1110221.

1112592
BETH PABST
REGISTER OF DEEDS
ST. CROIX CO., WI
RECEIVED FOR RECORD
09/25/2020 08:04 AM
EXEMPT #
PLAT FEE 25.00
VOLUME: TPP1
PAGES: P195
PAGES: 1
****The above recording information verifies that this document has been electronically recorded & returned to the submitter**

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8949-00-21 - 4.06
AMENDMENT NO:__

97

TRANSPORTATION PROJECT PLAT NO: 8949-00-21 - 4.06

THAT PART OF THE NE 1/4 OF THE SE 1/4 OF SECTION 21 AND THAT PART OF THE NW 1/4 OF THE SW 1/4 OF SECTION 22, ALL IN T29N, R17W, TOWN OF HAMMOND, ST. CROIX COUNTY, WISCONSIN

RELOCATION ORDER USH 12, HUDSON TO BALDWIN, STH 65 NORTH - USH 63 NORTH, ST. CROIX COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO THE STATE OF WISCONSIN
ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	EXISTING	TOTAL	TLE S.F.
12	JORDAN RIVER LAND, LLC	FEE	3278	13634	16912	----
13	HAMMOND GOLF CLUB, INC.	FEE	3938	12369	16307	----

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
101	CENTURYLINK	RELEASE OF RIGHTS

EASEMENT TABLE			
OWNER		RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
101	CENTURYLINK	20' WIDE EASEMENT V. 1149, P. 217, DOC. 536332	12

HIGHWAY	BASIS
DAVIS STREET/USH 12	R/W PROJECT 6990, PLAT OF SURVEY A-1997

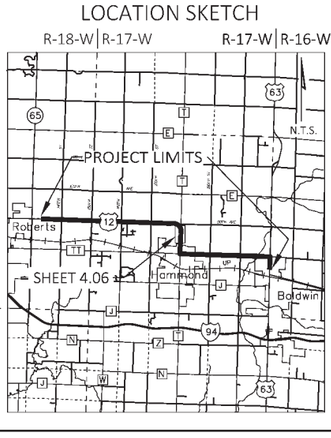
GN

SCALE, FEET
0 50 100

R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
600	601	S04° 48' 11"E	190.13'
601	602	S01° 08' 40"W	201.40'
602	603	S89° 39' 38"W	10.00'
603	604	S89° 43' 19"W	74.50'
604	605	N00° 16' 41"W	23.92'
605	606	N89° 42' 44"E	8.50'
606	607	N00° 16' 41"W	103.01'
607	608	N15° 38' 11"W	101.82'
608	609	N10° 15' 42"E	147.42'
609	610	N00° 16' 41"W	20.84'
610	600	N89° 43' 19"E	66.00'

R/W Station & Offset Table		
Point No.	Station	Offset
600	737+34.00	32.07'
601	739+23.50	47.52'
602	741+25.00	42.42'
603	741+25.00	32.42'
604	741+24.92	42.08'
605	741+01.00	42.05'
606	741+01.01	33.55'
607	739+98.00	33.44'
608	739+00.00	60.50'
609	737+55.00	33.88'
610	737+34.16	33.93'

LOCATION SKETCH



KL Engineering
[A] Better Experience

I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 8949-00-21-4.06 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

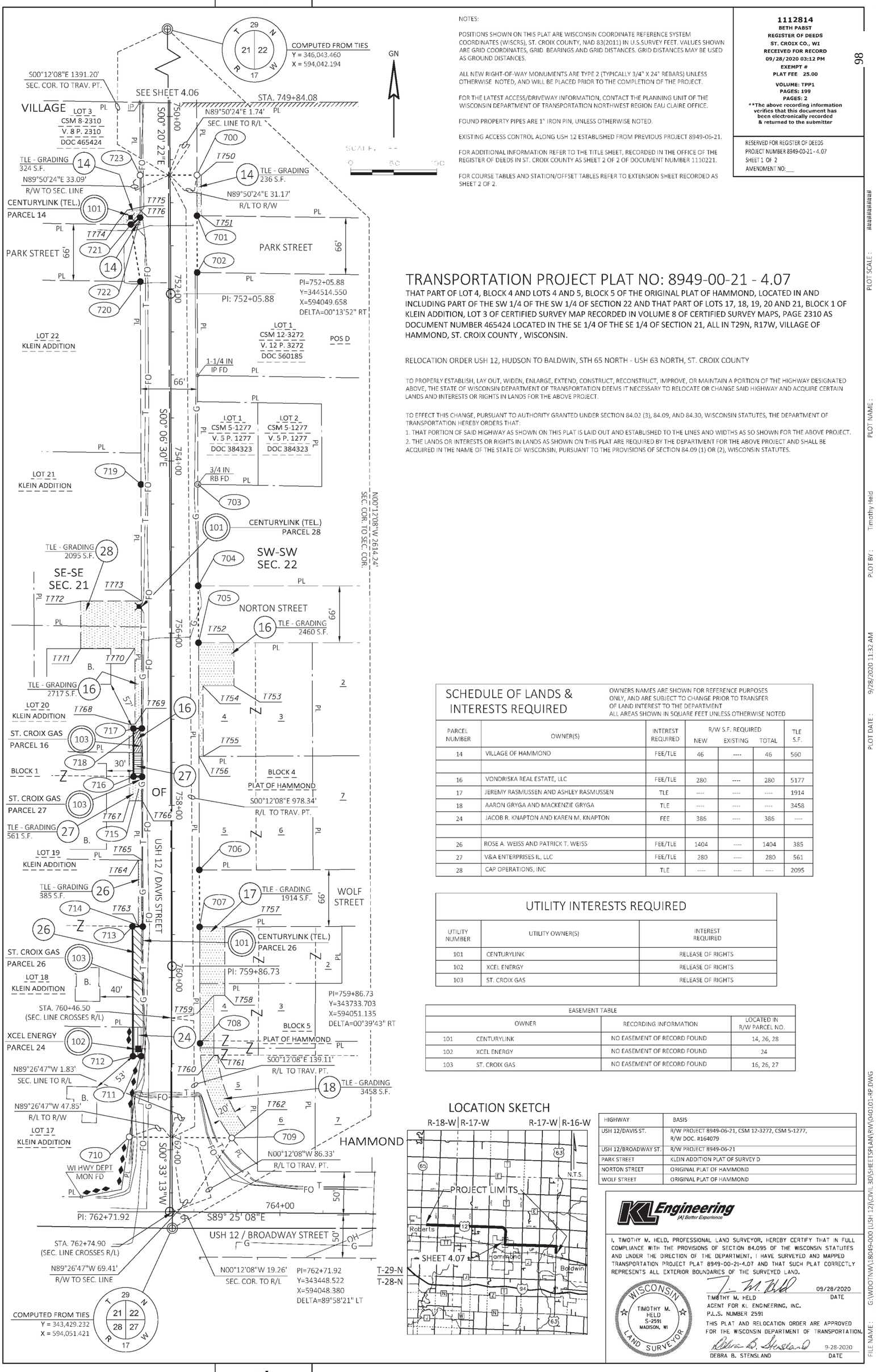
WISCONSIN
TIMOTHY M. HELD
S-2591
MADISON, WI
LAND SURVEYOR

09/23/2020
TIMOTHY M. HELD — DATE
AGENT FOR KL ENGINEERING, INC.
P.L.S. NUMBER 2591

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

9-23-2020
DEBRA B. STENSLAND — DATE

8949-00-21 - 4.06
PLOT SCALE : ##########
PLOT NAME : Timothy Held
PLOT BY : 9/23/2020 1:51 PM
PLOT DATE :
FILE NAME : G:\WDOT\NW\18049-000 (USH 12)\CIVIL 3D\SHEETS\PLAN\RW\040101-RP.DWG
APPRAISAL PLAT DATE : 09/23/2020



NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ST. CROIX COUNTY, NAD 83(2011) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION EAU CLAIRE OFFICE.

FOUND PROPERTY PIPES ARE 1" IRON PIN, UNLESS OTHERWISE NOTED.

EXISTING ACCESS CONTROL ALONG USH 12 ESTABLISHED FROM PREVIOUS PROJECT 8949-06-21.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1110221.

FOR COURSE TABLES AND STATION/OFFSET TABLES REFER TO EXTENSION SHEET RECORDED AS SHEET 2 OF 2.

1112814
BETH PABST
REGISTER OF DEEDS
ST. CROIX CO., WI
RECEIVED FOR RECORD
09/28/2020 03:12 PM
EXEMPT #
PLAT FEE 25.00
VOLUME: TPP1
PAGES: 199
PAGES: 2
****The above recording information verifies that this document has been electronically recorded & returned to the submitter**

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8949-00-21 - 4.07
SHEET 1 OF 2
AMENDMENT NO:___

TRANSPORTATION PROJECT PLAT NO: 8949-00-21 - 4.07

THAT PART OF LOT 4, BLOCK 4 AND LOTS 4 AND 5, BLOCK 5 OF THE ORIGINAL PLAT OF HAMMOND, LOCATED IN AND INCLUDING PART OF THE SW 1/4 OF THE SW 1/4 OF SECTION 22 AND THAT PART OF LOTS 17, 18, 19, 20 AND 21, BLOCK 1 OF KLEIN ADDITION, LOT 3 OF CERTIFIED SURVEY MAP RECORDED IN VOLUME 8 OF CERTIFIED SURVEY MAPS, PAGE 2310 AS DOCUMENT NUMBER 465424 LOCATED IN THE SE 1/4 OF THE SE 1/4 OF SECTION 21, ALL IN T29N, R17W, VILLAGE OF HAMMOND, ST. CROIX COUNTY , WISCONSIN.

RELOCATION ORDER USH 12, HUDSON TO BALDWIN, STH 65 NORTH - USH 63 NORTH, ST. CROIX COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO THE DEPARTMENT
ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	EXISTING	TOTAL	TLE S.F.
14	VILLAGE OF HAMMOND	FEE/TLE	46	----	46	560
16	VONDRISKA REAL ESTATE, LLC	FEE/TLE	280	----	280	5177
17	JEREMY RASMUSSEN AND ASHLEY RASMUSSEN	TLE	----	----	----	1914
18	AARON GRYGA AND MACKENZIE GRYGA	TLE	----	----	----	3458
24	JACOB R. KNAPTON AND KAREN M. KNAPTON	FEE	386	----	386	----
26	ROSE A. WEISS AND PATRICK T. WEISS	FEE/TLE	1404	----	1404	385
27	V&A ENTERPRISES IL, LLC	FEE/TLE	280	----	280	561
28	CAP OPERATIONS, INC	TLE	----	----	----	2095

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
101	CENTURYLINK	RELEASE OF RIGHTS
102	XCEL ENERGY	RELEASE OF RIGHTS
103	ST. CROIX GAS	RELEASE OF RIGHTS

EASEMENT TABLE			
OWNER		RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
101	CENTURYLINK	NO EASEMENT OF RECORD FOUND	14, 26, 28
102	XCEL ENERGY	NO EASEMENT OF RECORD FOUND	24
103	ST. CROIX GAS	NO EASEMENT OF RECORD FOUND	16, 26, 27

LOCATION SKETCH

HIGHWAY	BASIS
USH 12/DAVIS ST.	R/W PROJECT 8949-06-21, CSM 12-3272, CSM 5-1277, R/W DOC. #164079
USH 12/BROADWAY ST.	R/W PROJECT 8949-06-21
PARK STREET	KLEIN ADDITION PLAT OF SURVEY D
NORTON STREET	ORIGINAL PLAT OF HAMMOND
WOLF STREET	ORIGINAL PLAT OF HAMMOND

KL Engineering
[A] Better Experience

I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 8949-00-21-4.07 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN TIMOTHY M. HELD S-2591 MADISON, WI LAND SURVEYOR

09/28/2020
TIMOTHY M. HELD — DATE
AGENT FOR KL ENGINEERING, INC.
P.L.S. NUMBER 2591
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

9-28-2020
DEBRA B. STENSLAND — DATE

8949-00-21 - 4.07
98
PLOT SCALE : ##########
PLOT NAME : Timothy Held
PLOT BY : 9/28/2020 11:32 AM
PLOT DATE :
FILE NAME : G:\WDOT\NW\18049-000 (USH 12)\CIVIL 3D\SHEETS\PLAN\RW\040101-RP.DWG
APPRAISAL PLAT DATE : 09/28/2020

TRANSPORTATION PROJECT PLAT NO: 8949-00-21 - 4.07
EXTENSION SHEET

RELOCATION ORDER USH 12, HUDSON TO BALDWIN, STH 65 NORTH - USH 63 NORTH, ST. CROIX COUNTY

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ST. CROIX COUNTY, NAD 83(2011) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1110221.

SHEET 2 OF 2 COURSE TABLES AND OFFSET TABLES

CURVE 708-709
R=179.00'
LCH=115.90'
LCB=S18°30'09"E
L=118.03'

R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
700	701	S00° 09' 36"E	47.02'
701	702	S00° 09' 36"E	66.01'
702	703	S00° 09' 36"E	245.94'
703	704	S00° 14' 02"E	118.10'
704	705	S00° 14' 02"E	66.00'
705	706	S00° 14' 02"E	264.00'
706	707	S00° 14' 02"E	66.00'
707	708	S00° 14' 02"E	135.23'
708	709	SEE CURVE NOTE	
709	710	N89° 26' 47"W	119.09'
710	711	N08° 28' 23"E	94.87'
711	712	S89° 45' 58"W	9.62'
712	713	N00° 14' 02"W	150.77'
713	714	S89° 09' 32"E	12.00'
714	715	N00° 14' 02"W	174.00'
715	716	N89° 09' 32"W	10.00'
716	717	N00° 14' 02"W	55.90'
717	718	N89° 45' 58"E	10.00'
718	719	N00° 14' 02"W	283.38'
719	720	N00° 09' 36"W	235.57'
720	721	N09° 31' 28"W	67.06'
721	722	N52° 55' 57"E	13.65'
722	723	N00° 09' 36"W	49.07'
723	700	N89° 50' 24"E	66.00'

R/W Station & Offset Table		
Point No.	Station	Offset
700	750+68.25	31.17'
701	751+15.27	31.02'
702	751+81.28	30.82'
703	754+27.10	30.94'
704	755+45.19	31.20'
705	756+11.19	31.34'
706	758+75.19	31.92'
707	759+41.19	32.06'
708	760+76.05	33.39'
709	761+85.60	71.23'
710	761+85.60	47.85'
711	760+91.63	34.78'
712	760+91.76	44.40'
713	759+40.47	45.94'
714	759+40.67	33.94'
715	757+66.67	34.32'
716	757+66.50	44.32'
717	757+10.60	44.44'
718	757+10.58	34.44'
719	754+27.20	35.06'
720	751+91.48	35.22'
721	751+25.28	45.92'
722	751+17.12	34.98'
723	750+68.05	34.83'

TLE Station & Offset Table		
Point No.	Station	Offset
T750	750+68.27	36.17'
T751	751+15.37	36.02'
T752	756+11.27	72.34'
T753	756+61.27	72.45'
T754	756+61.20	36.45'
T755	757+43.18	36.63'
T756	757+43.19	31.63'
T757	759+41.13	61.06'
T758	760+20.14	61.63'
T759	760+20.31	48.63'
T760	760+90.15	49.59'
T761	760+90.09	54.06'
T762	761+73.30	87.01'
T763	759+40.59	38.94'
T764	758+63.59	39.11'
T765	758+63.67	34.11'
T766	757+94.67	34.26'
T767	757+94.42	49.26'
T768	757+05.62	49.45'
T769	757+05.60	42.45'
T770	756+17.39	42.65'
T771	756+17.56	105.41'
T772	755+62.56	105.53'
T773	755+62.41	34.77'
T774	751+24.92	63.33'
T775	751+08.22	49.96'
T776	751+08.27	34.96'

99
8949-00-21 - 4.07
PLOT SCALE : ##########
PLOT NAME : Timothy Held
PLOT BY : 9/28/2020 11:30 AM
PLOT DATE :
FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\RW\040101-RP.DWG
APPRAISAL PLAT DATE : 09/28/2020

TRANSPORTATION PROJECT PLAT NO: 8949-00-21 - 4.08

THAT PART OF LOT 1 OF CERTIFIED SURVEY MAP RECORDED IN VOLUME 2 OF CERTIFIED SURVEY MAPS, PAGE 545 AS DOCUMENT NUMBER 346360; LOT 1 OF CERTIFIED SURVEY MAP RECORDED IN VOLUME 3 OF CERTIFIED SURVEY MAPS, PAGE 854 AS DOCUMENT NUMBER 359281 LOCATED IN THE SW 1/4 OF THE SE 1/4 OF SECTION 24, TOWN OF HAMMOND AND ALSO PART OF LOT 1 OF CERTIFIED SURVEY MAP RECORDED IN VOLUME 15 OF CERTIFIED SURVEY MAPS, PAGE 4210 AS DOCUMENT NUMBER 663196 LOCATED IN AND INCLUDING THE NW 1/4 OF THE NE 1/4 OF SECTION 25, VILLAGE OF BALDWIN, ALL IN T29N, R17W, ST. CROIX COUNTY, WISCONSIN

RELOCATION ORDER USH 12, HUDSON TO BALDWIN, STH 65 NORTH - USH 63 NORTH, ST. CROIX COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
800	801	N00° 28' 36"E	8.00'
801	802	N88° 42' 22"E	129.57'
802	803	S82° 59' 55"E	35.22'
803	804	S00° 28' 36"W	15.00'
804	805	S89° 31' 24"E	97.50'
805	806	N00° 28' 36"E	7.00'
806	807	S89° 31' 24"E	200.00'
807	808	S00° 28' 36"W	7.00'
808	809	S00° 28' 36"W	66.00'
809	810	N89° 31' 24"W	250.05'
810	811	S00° 28' 36"W	6.00'
811	812	S86° 42' 17"W	91.21'
812	813	N89° 31' 24"W	109.00'
813	814	N00° 28' 36"E	5.00'
814	815	N89° 31' 24"W	11.95'
815	800	N00° 28' 36"E	80.00'

R/W Station & Offset Table		
Point No.	Station	Offset
800	897+63.00	38.83'
801	897+63.00	46.83'
802	898+92.50	50.92'
803	899+27.49	46.94'
804	899+27.50	31.94'
805	900+25.01	32.01'
806	900+25.00	39.01'
807	902+25.00	39.14'
808	902+25.00	32.14'
809	902+25.04	33.86'
810	899+75.00	34.03'
811	899+75.00	40.03'
812	898+84.00	46.09'
813	897+75.00	46.16'
814	897+75.00	41.16'
815	897+63.05	41.17'

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ST. CROIX COUNTY, NAD 83(2011) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION EAU CLAIRE OFFICE.

FOUND PROPERTY PIPES ARE 1" IRON PIN, UNLESS OTHERWISE NOTED.

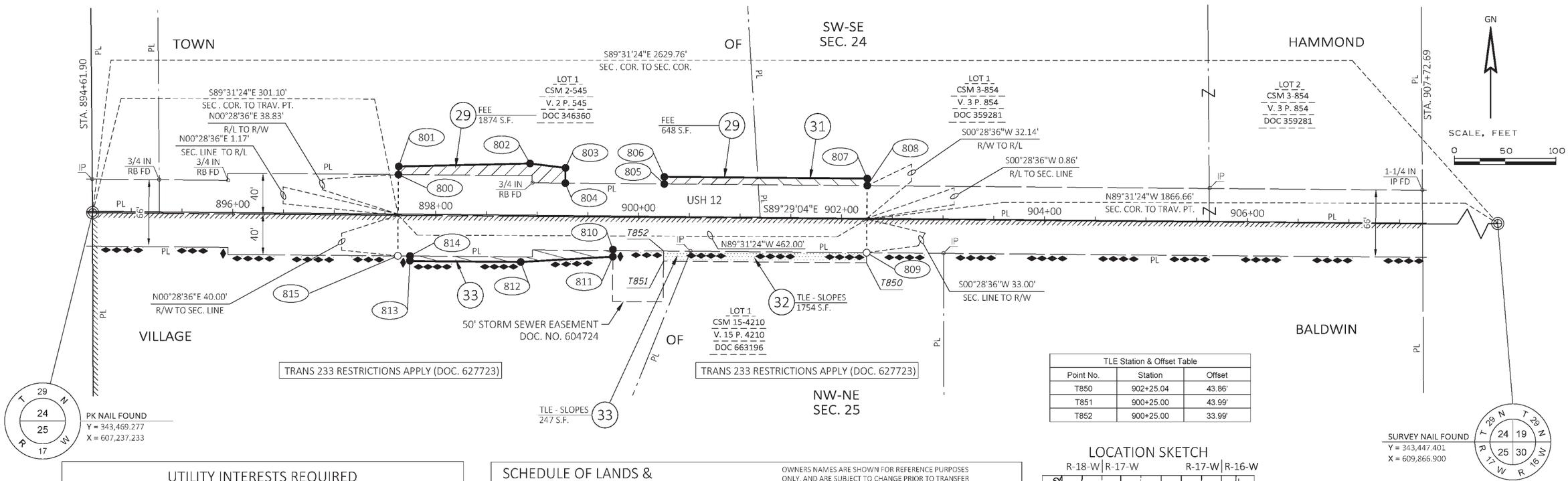
EXISTING ACCESS CONTROL ALONG USH 12 ESTABLISHED FROM PREVIOUS PROJECT DOC. 627723.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1110221.

1112593
BETH PABST
REGISTER OF DEEDS
ST. CROIX CO., WI
RECEIVED FOR RECORD
09/25/2020 08:05 AM
EXEMPT #
PLAT FEE 25.00

VOLUME: TPP1
PAGES: 196
PAGES: 1
**The above recording information verifies that this document has been electronically recorded & returned to the submitter

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8949-00-21 - 4.08
AMENDMENT NO:___



TLE Station & Offset Table		
Point No.	Station	Offset
T850	902+25.04	43.86'
T851	900+25.00	43.99'
T852	900+25.00	33.99'

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
104	BALDWIN LIGHTSTREAM	RELEASE OF RIGHTS

EASEMENT TABLE			
	OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
104	BALDWIN LIGHTSTREAM	BLANKET EASEMENT V. 525, P. 546, DOC. NO. 328000	32, 33

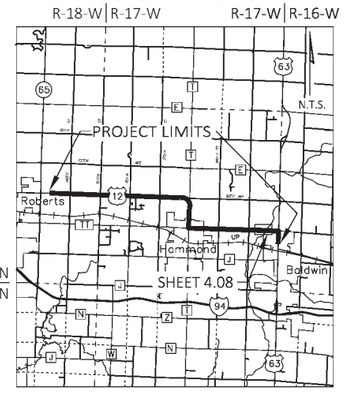
SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO THE STATE OF WISCONSIN
ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	EXISTING	TOTAL	TLE S.F.
29	PEDER A. PARIZEK AND TASHIA L. PARIZEK	FEE	2522	----	2522	----
31	FAITH BAPTIST CHURCH OF BALDWIN	FEE	753	3505	4258	----
32	MICHAEL W. JOHNSON AND DEBORAH J. JOHNSON	TLE	----	----	----	1754
33	JAMES EMMERT AND JERRY EMMERT	FEE/TLE	1282	----	1282	247

HIGHWAY	BASIS
USH 12	R/W PROJECT 6934, CSM 2-545, CSM 3-854, CSM 15-4210

LOCATION SKETCH



KL Engineering (A) Better Experience

I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 8949-00-21-4.08 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN TIMOTHY M. HELD S-2591 MADISON, WI LAND SURVEYOR

09/23/2020
TIMOTHY M. HELD — DATE
AGENT FOR KL ENGINEERING, INC.
P.L.S. NUMBER 2591

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

9-23-2020
DEBRA B. STENSLAND — DATE

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\RW\040101-RP.DWG
APPRAISAL PLAT DATE : 09/23/2020
PLOT DATE : 9/23/2020 1:51 PM
PLOT BY : TIMOTHY HELD
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
BM1	699+76.08EB 17'RT	CUT SQ TOP N CONC PARAPET C-55-015	1066.88
BM19	703+65.30EB 33'LT	RR SPIKE PPOL#7520VV18	1072.84

N

STA. 697+00'EB' - 700+00'EB' LT
CLEARING AND GRUBBING REQ'D.

STA. 701+78'EB' LT
RECONSTRUCT P.E.
1 EACH REMOVE SMALL PIPE CULVERT
38 LF CULVERT PIPE CORRUGATED STEEL 24-INCH
2 APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH REQ'D.

SLOPE INTERCEPTS (TYP.)

XCEL ENERGY (ELEC)

R/W

CONCRETE PAVEMENT APPROACH SLAB

B.A.D.

BM19

15.0'

15.0'

698+00'EB' 699+00'EB' 700+00'EB' 701+00'EB' 702+00'EB' 703+00'EB'

USH 12

BM1

POST

SEE CONSTRUCTION DETAIL 'BOX CULVERT CONCRETE SURFACE DRAIN DETAIL'

B.A.D.

BEGIN CONSTRUCTION
STA 697+88.14'EB'
MATCH EXISTING
SAW CUT REQ'D

CENTURYLINK (TEL)

R/W

STA. 699+80'EB'
REMOVE STRUCTURE C-55-0015
SINGLE SPAN CONCRETE SLAB
19' OVERALL LENGTH
34' OVERALL WIDTH

STA. 700+10'EB'
STRUCTURE B-55-0288 REQ'D.
2-CELL BOX CULVERT, 40' CLEAR ROADWAY
SKEW 0°
(SEE STRUCTURE PLANS)

STA. 701+81 'EB', RT
RECONSTRUCT F.E.

END CONSTRUCTION
STA 701+71.61'EB'
MATCH EXISTING
SAW CUT REQ'D

LEGEND
XXXX XXXX SAWING ASPHALT
SAWING CONCRETE

5 5

1072 1070 1068 1066 1064 1062 1060 1058

STA 697+88.14
EL 1063.85

STA 701+71.61
EL 1067.62

PROPOSED R/L PROFILE

0.98%

EXISTING R/L PROFILE

STA. 700+10'EB'
2-CELL 10' x 5' x 46.5' BOX CULVERT REQ'D.
(B-55-0288)
(SEE STRUCTURE PLANS)

EXISTING WB PROFILE ELEVATION

PROPOSED WB PROFILE ELEVATION

698+00'EB'	698+50'EB'	699+00'EB'	699+50'EB'	700+00'EB'	700+50'EB'	701+00'EB'	701+50'EB'	702+00'EB'	702+50'EB'	703+00'EB'	703+50'EB'
1063.70	1063.97	1064.21	1064.46	1064.70	1064.95	1065.20	1065.44	1065.69	1065.93	1066.18	1066.42
1066.67	1066.92	1067.16	1067.41	1067.68	1068.12	1068.57	1069.06	1069.54	1069.94	1070.35	1070.77

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN AND PROFILE: USH 12	SHEET 101	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 1

PLOT DATE : 4/28/2021 1:49 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
BM12	762+40.74EB 39'RT	RR SPIKE PPOL W/ LPM #1EE25	1177.41

HAMMOND WASTEWATER TREATMENT FACILITY (SAN)

STA. 761+00'EB' - 762+00'EB' LT CLEARING AND GRUBBING REQ'D.

STA. 760+55 'EB', LT RECONSTRUCT P.E.

STA. 761+02 'EB', LT REMOVING LANDSCAPING BLOCK RETAINING WALL

SLOPE INTERCEPT

CENTURYLINK (TEL)

ST. CROIX GAS

HAMMOND MUNICIPAL WATER UTILITY (WATER)

XCEL ENERGY (ELEC - OH)

REMOVING MANHOLES

757+00'EB' 758+00'EB' 759+00'EB' 760+00'EB' 761+00'EB' 762+00'EB'

USH 12

CTH T

CTH TT

BM12

END CONSTRUCTION
STA 763+32.70'EB'
MATCH EXISTING
SAW CUT REQ'D

STA. 757+39'EB' RT
RECONSTRUCT P.E.
34 LF CULVERT PIPE CORRUGATED METAL 12-INCH
2 APRON ENDWALLS FRO CULVERT PIPE STEEL 12-INCH REQ'D

BEGIN CONSTRUCTION
STA 758+55.20'EB'
MATCH EXISTING
SAW CUT REQ'D

REPLACE CULVERT UNDER DRIVEWAY

STA. 759+61 'EB', RT RECONSTRUCT P.E.

HAMMOND MUNICIPAL WATER UTILITY (WATER)

LEGEND
- XXXX XXXX SAWING ASPHALT
- SAWING CONCRETE
- ADJUSTING WATER VALVE BOX

VPC STA 758+85.99
VPC EL 1155.90

VPT STA 760+02.83
VPT EL 1162.99

VPI STA 761+50.00
VPI EL 1175.22

STA 758+55.20
EL 1154.73

VPI STA 759+44.41
VPI EL 1158.13

VPC STA 761+04.30
VPC EL 1171.42

VPT STA 761+95.70
VPT EL 1176.82

STA 762+71.92
EL 1179.49

STA 763+32.70
EL 1180.44

VCL = 116.83
K = 26.00

VCL = 91.40
K = 19.00

3.82% 8.31% 3.50% 1.57%

EXISTING WB PROFILE ELEVATION

PROPOSED WB PROFILE ELEVATION

1180 1178 1176 1174 1172 1170 1168 1166 1164 1162 1160 1158 1156 1154 1152

1151.94 1152.21 1152.48 1152.84 1153.29 1153.87 1154.55 1155.40 1155.48 1156.36 1156.48 1157.52 1157.69 1158.82 1159.14 1160.27 1160.83 1161.87 1162.76 1163.57 1164.83 1165.38 1166.91 1167.25 1168.99 1169.14 1171.06 1171.02 1173.03 1172.86 1174.67 1174.57 1175.98 1176.08 1176.97 1177.55 1177.84 1178.93 1178.72 1179.87 1179.54 1180.04 1179.93 1180.36 1180.32 1180.64 1180.95 1181.25

757+00'EB' 757+50'EB' 758+00'EB' 758+50'EB' 759+00'EB' 759+50'EB' 760+00'EB' 760+50'EB' 761+00'EB' 761+50'EB' 762+00'EB' 762+50'EB' 763+00'EB' 763+50'EB' 764+00'EB'

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN AND PROFILE: USH 12	SHEET 102 E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\050101-PP (HSIP).DWG
LAYOUT NAME - 1

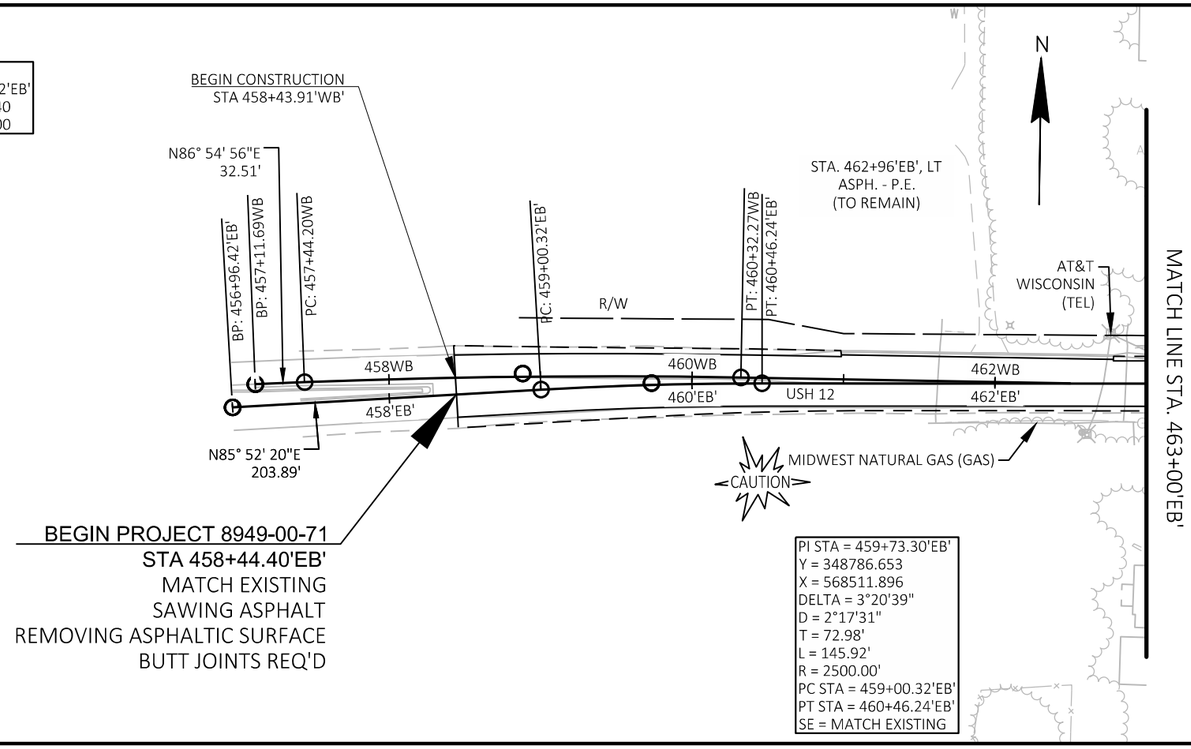
PLOT DATE : 4/28/2021 2:05 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

LEGEND

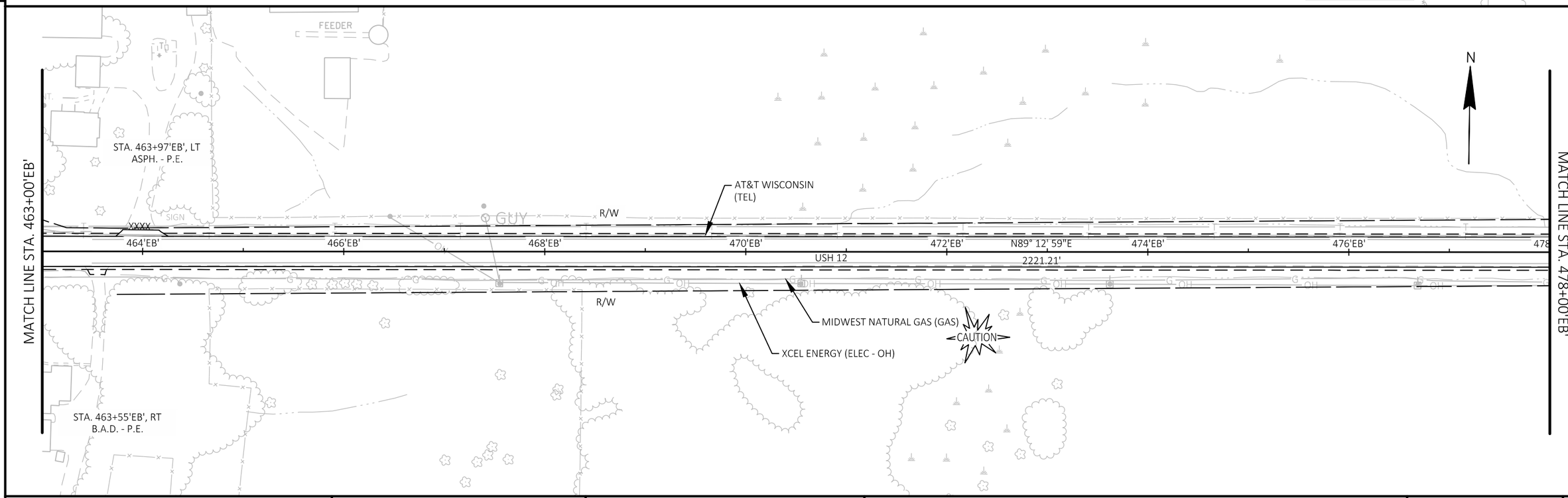
- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- TYPE D INLET PROTECTION
- XXXX XXXX SAWING ASPHALT
- SAN● ADJUSTING MANHOLE COVERS
- SURFACE WATER FLOW
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK (# BAGS)
- EROSION BALES
- RIPRAP W/ GEOTEXTILE FABRIC
- SAWING CONCRETE
- ADJUSTING WATER VALVE BOX

USH 12
PI STA = 456+96.42'EB'
Y = 348766.7240
X = 568235.7400



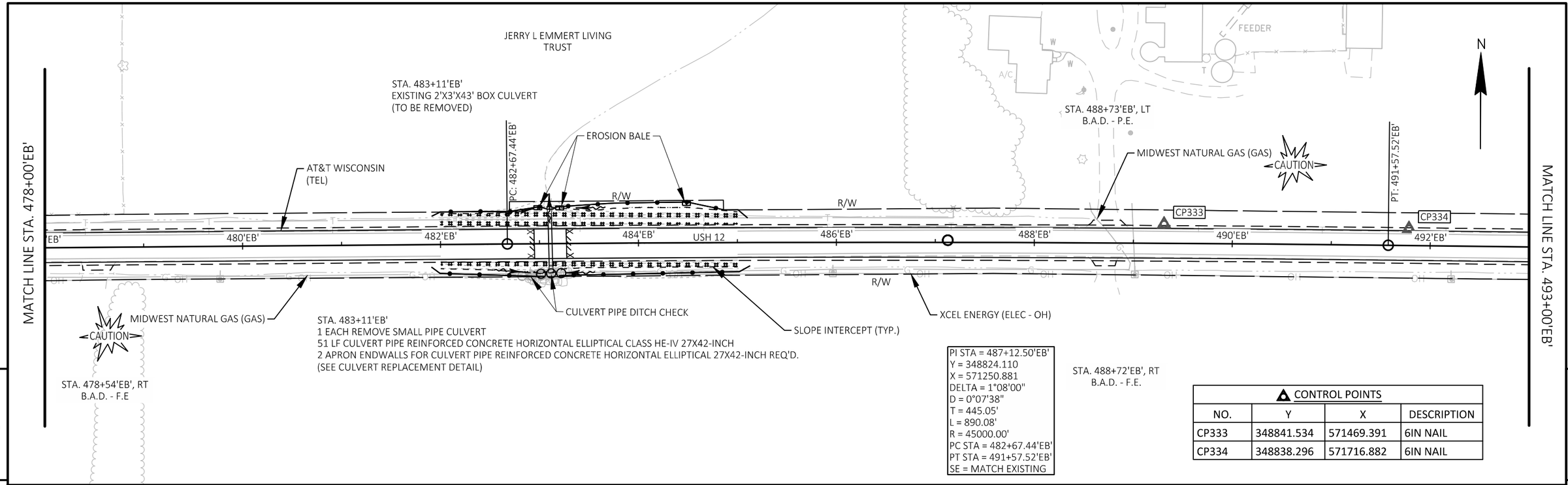
BEGIN PROJECT 8949-00-71
STA 458+44.40'EB'
MATCH EXISTING
SAWING ASPHALT
REMOVING ASPHALTIC SURFACE
BUTT JOINTS REQ'D

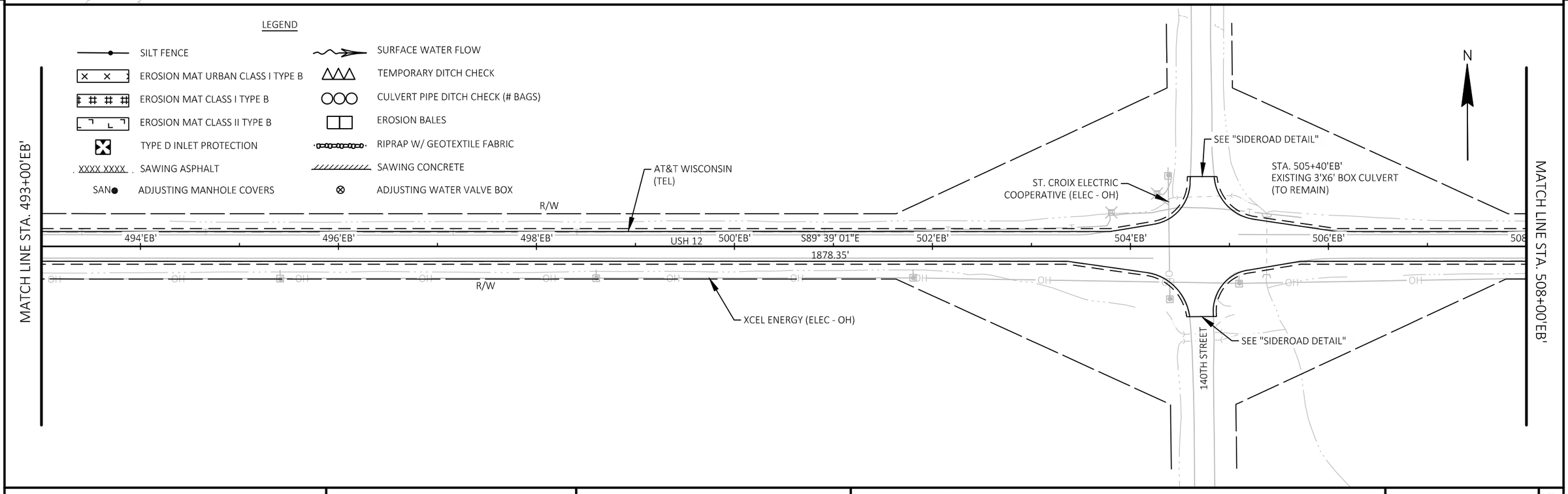
PI STA = 459+73.30'EB'
Y = 348786.653
X = 568511.896
DELTA = 3°20'39"
D = 2°17'31"
T = 72.98'
L = 145.92'
R = 2500.00'
PC STA = 459+00.32'EB'
PT STA = 460+46.24'EB'
SE = MATCH EXISTING



PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS / EROSION CONTROL	SHEET 103 E

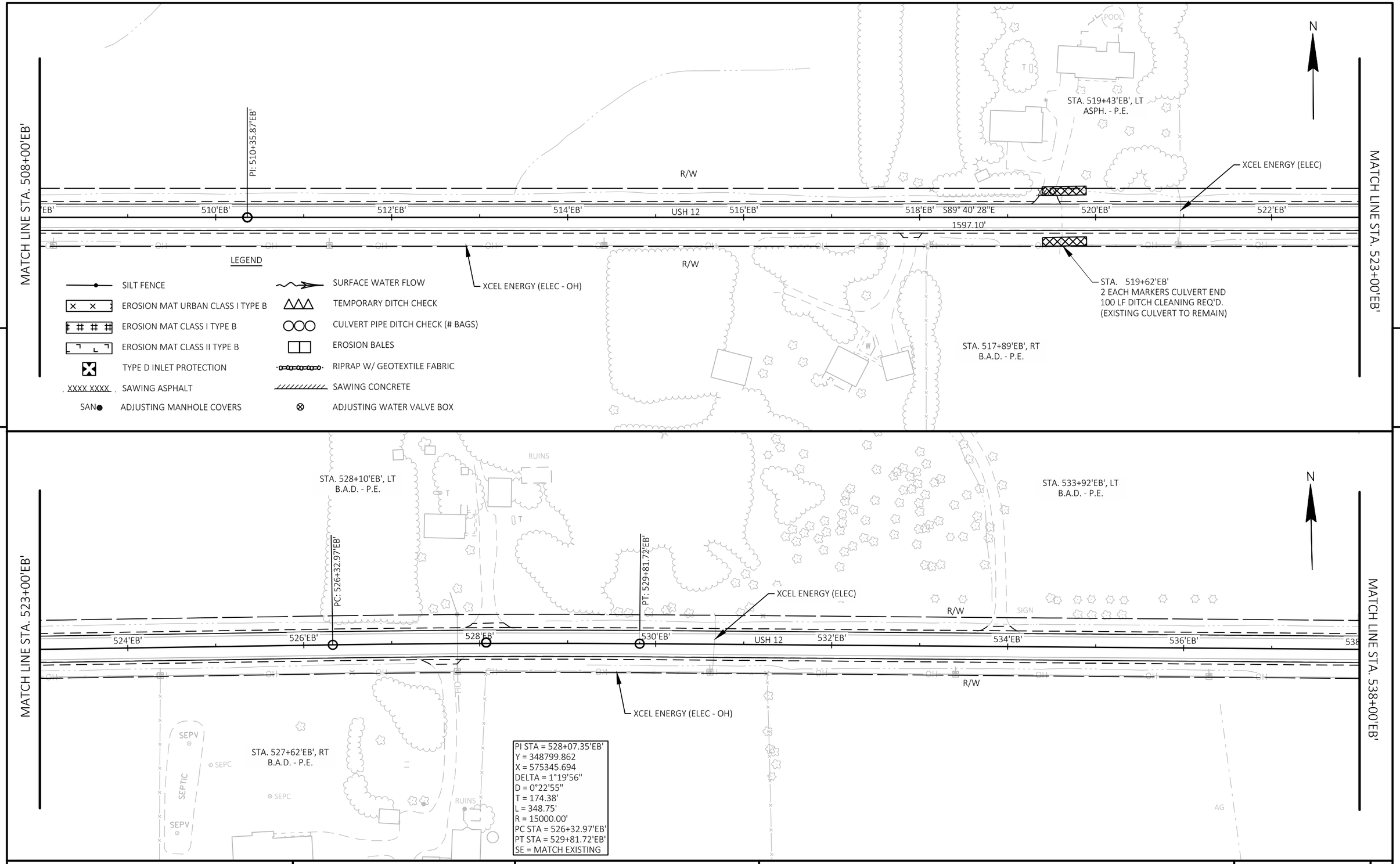
FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - BOP - 478+00
PLOT DATE : 1/31/2021 10:05 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ##########





PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS / EROSION CONTROL	SHEET 104	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 478+00 - 508+00
PLOT DATE : 1/31/2021 10:05 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

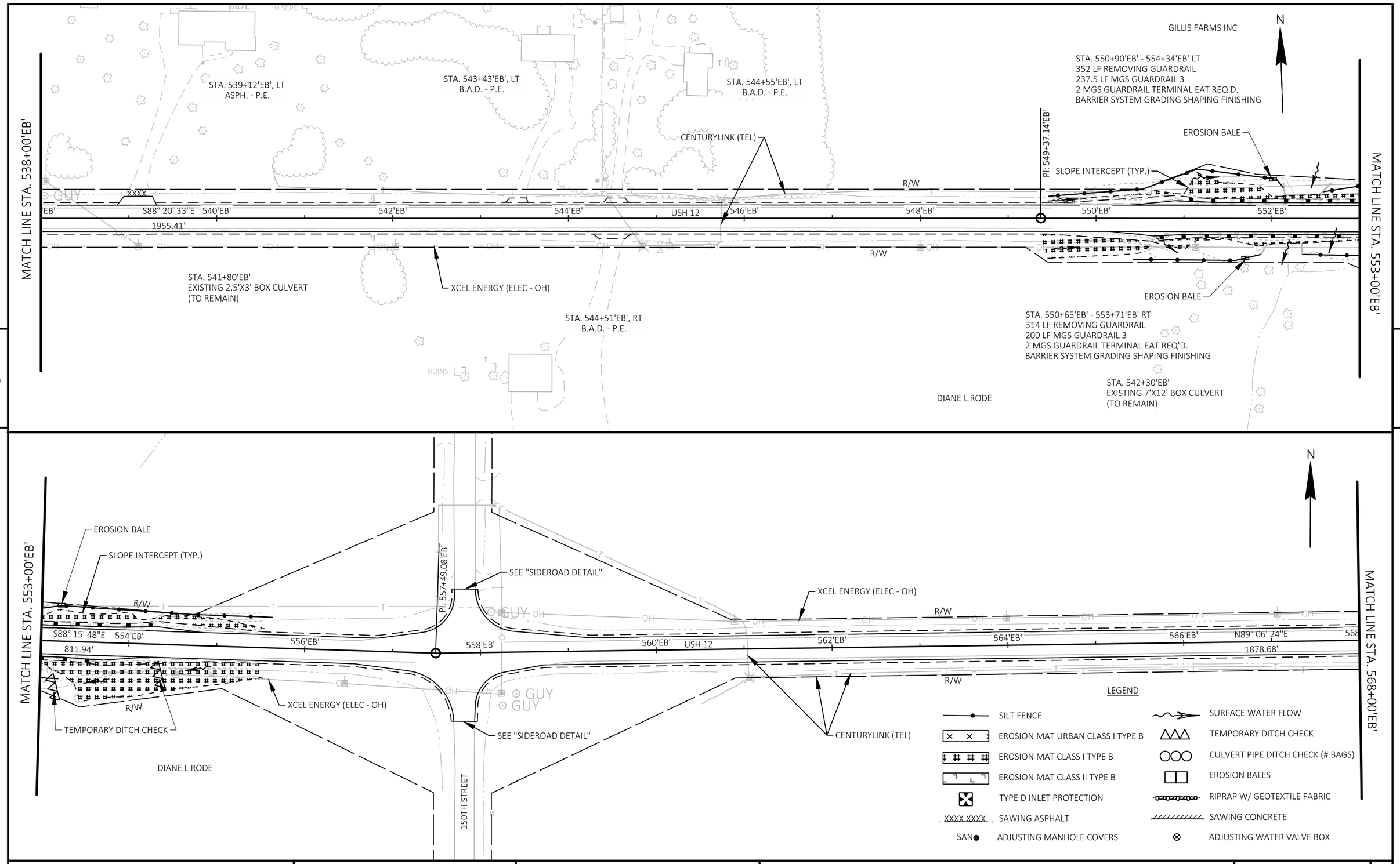


PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS / EROSION CONTROL	SHEET 105 E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 508+00 - 538+00

PLOT DATE : 1/31/2021 10:06 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

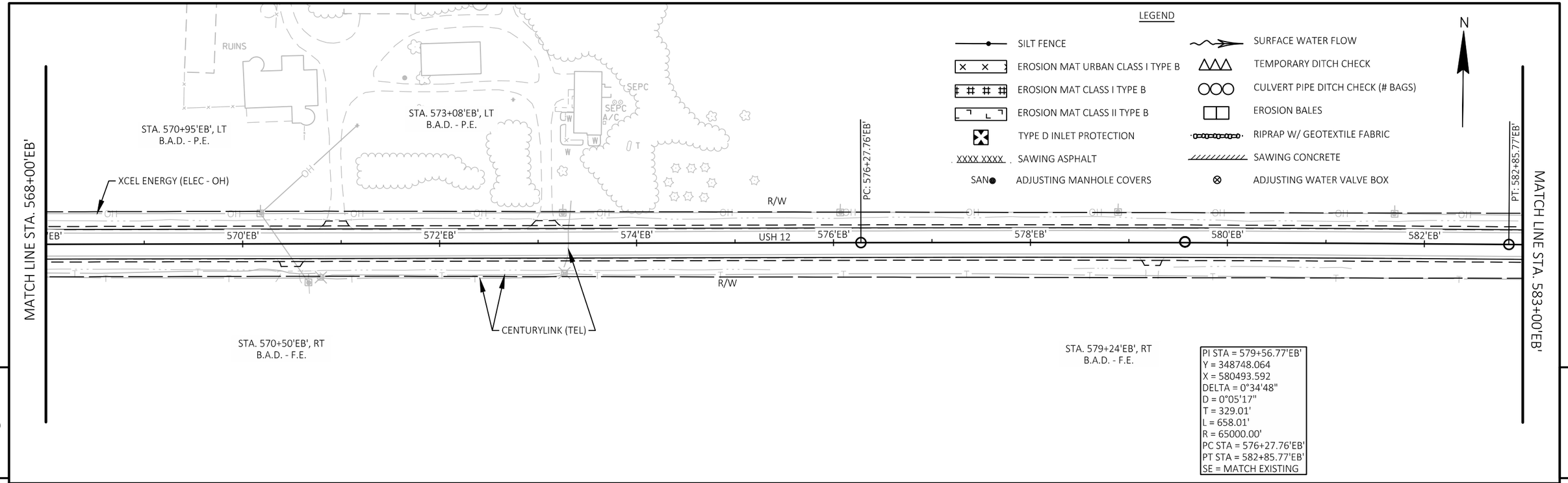


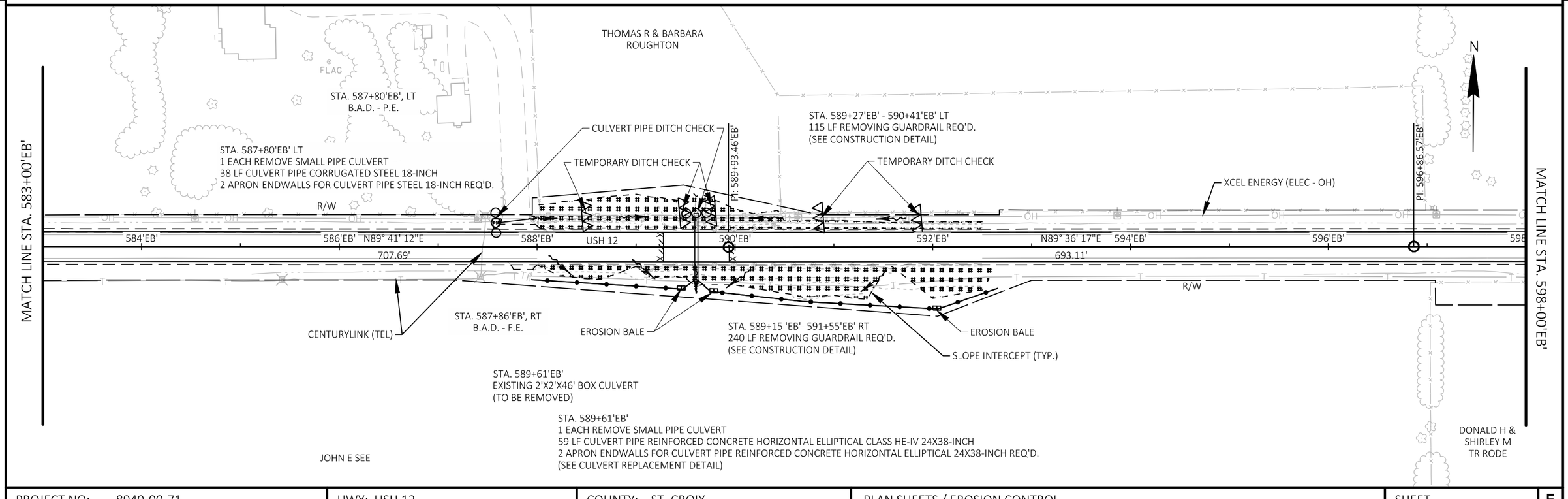
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS / EROSION CONTROL	SHEET 106	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 538+00 - 568+00

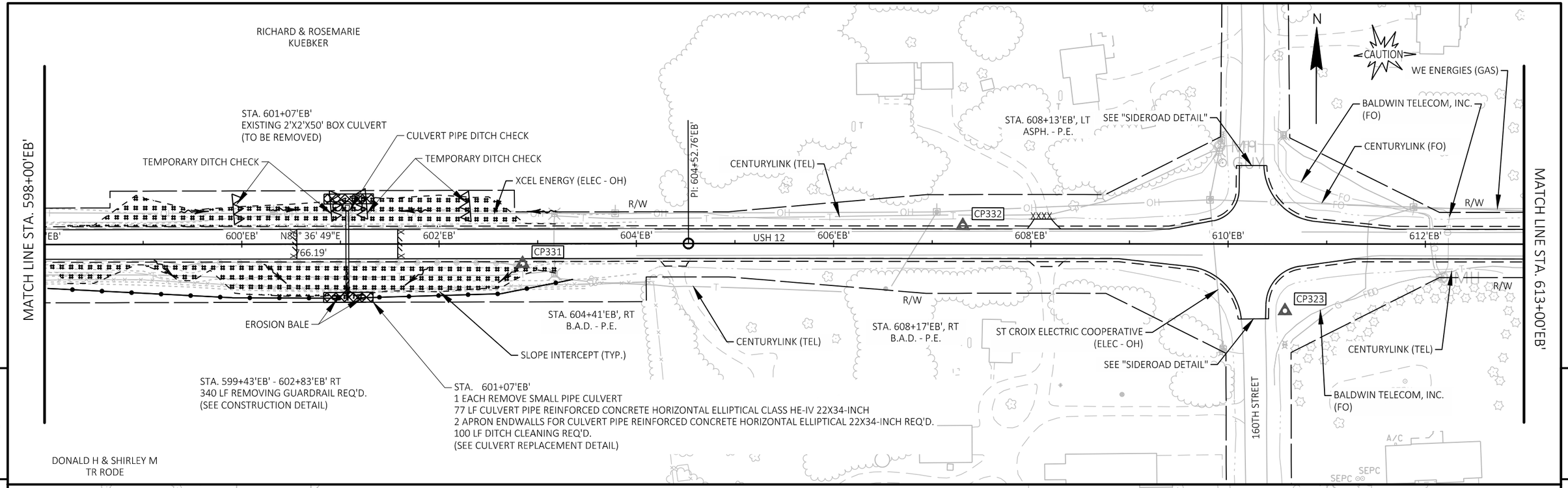
PLOT DATE : 1/31/2021 10:06 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44





PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS / EROSION CONTROL	SHEET 107	E



PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS / EROSION CONTROL	SHEET 108 E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 598+00 - 628+00
PLOT DATE : 1/31/2021 10:06 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

CONTROL POINTS			
NO.	Y	X	DESCRIPTION
CP307	348756.123	585462.47	6IN NAIL

MATCH LINE STA. 628+00'EB'

MATCH LINE STA. 643+00'EB'

STA. 636+63'EB', LT
ASPH. - P.E.

STA. 632+06'EB', LT
ASPH. - P.E.

PC: 631+25.74'EB'

PT: 637+89.00'EB'

CAUTION
WE ENERGIES (GAS)

XCEL ENERGY (ELEC - OH)

R/W

630'EB' 632'EB' 634'EB' USH 12 636'EB' 638'EB' 640'EB' 642'EB'

CP307

N89° 02' 19"E
571.37'

R/W

CENTURYLINK (TEL)

STA. 632+54'EB', RT
B.A.D. - F.E.

STA. 637+80'EB'
EXISTING 30" CMCP
(TO REMAIN)

PI STA = 634+57.37'EB'
Y = 348776.502
X = 585994.123
DELTA = 0°43'01"
D = 0°06'29"
T = 331.63'
L = 663.26'
R = 53000.00'
PC STA = 631+25.74'EB'
PT STA = 637+89.00'EB'
SE = MATCH EXISTING

LEGEND

- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- TYPE D INLET PROTECTION
- XXXX XXXX SAWING ASPHALT
- SAN● ADJUSTING MANHOLE COVERS
- SURFACE WATER FLOW
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK (# BAGS)
- EROSION BALES
- RIPRAP W/ GEOTEXTILE FABRIC
- SAWING CONCRETE
- ⊗ ADJUSTING WATER VALVE BOX

5

5

MATCH LINE STA. 643+00'EB'

MATCH LINE STA. 658+00'EB'

STA. 649+74'EB', LT
B.A.D. - F.E.

STA. 645+94'EB'
28 CY RIPRAP HEAVY
40 SY GEOTEXTILE TYPE HR REQ'D.

PC: 643+60.36'EB'

PT: 647+52.05'EB'

PC: 655+81.61'EB'

CENTURYLINK (TEL)

CAUTION
WE ENERGIES (GAS)

XCEL ENERGY (ELEC - OH)

R/W

644'EB' 646'EB' 648'EB' 650'EB' USH 12 N87° 16' 42"E 652'EB' 654'EB' 656'EB'

829.56'

R/W

CENTURYLINK (TEL)

STA. 645+66'EB', RT
B.A.D. - P.E.

STA. 645+94'EB'
EXISTING 36" CMCP
(TO REMAIN)

STA. 648+42'EB', RT
B.A.D. - F.E.

PI STA = 645+56.22'EB'
Y = 348794.942
X = 587092.827
DELTA = 1°45'37"
D = 0°26'58"
T = 195.86'
L = 391.69'
R = 12750.00'
PC STA = 643+60.36'EB'
PT STA = 647+52.05'EB'
SE = MATCH EXISTING

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS / EROSION CONTROL	SHEET 109	E

PI STA = 658+02.39'EB'
Y = 348854.116
X = 588337.624
DELTA = 5°09'35"
D = 1°10'09"
T = 220.78'
L = 441.26'
R = 4900.00'
PC STA = 655+81.61'EB'
PT STA = 660+22.88'EB'
SE = MATCH EXISTING

MATCH LINE STA. 658+00'EB'

CENTURYLINK (TEL)

SEE "SIDEROAD DETAIL"

CAUTION

WE ENERGIES (GAS)

XCEL ENERGY (ELEC - OH)

PT: 660+22.88'EB'

660'EB'

662'EB'

664'EB'

S87° 33' 43"E

890.57'

666'EB'

USH 12

668'EB'

PC: 669+13.45'EB'

670'EB'

672'EB'

R/W

STA. 670+93EB', LT
B.A.D. - F.E.

MATCH LINE STA. 673+00'EB'

STA. 659+78'EB', RT
ASPH. - P.E.

SEE "SIDEROAD DETAIL"

CENTURYLINK (TEL)

170TH STREET

STA. 665+35'EB'
EXISTING 36" RCCP
(TO REMAIN)

LEGEND

- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- TYPE D INLET PROTECTION
- XXXX XXXX SAWING ASPHALT
- SAN● ADJUSTING MANHOLE COVERS
- SURFACE WATER FLOW
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK (# BAGS)
- EROSION BALES
- RIPRAP W/ GEOTEXTILE FABRIC
- SAWING CONCRETE
- ⊗ ADJUSTING WATER VALVE BOX

MATCH LINE STA. 673+00'EB'

STA. 675+19'EB', LT
ASPH. - P.E.

PT: 678+33.17'EB'

STA. 681+35'EB', LT
B.A.D. - F.E.

XCEL ENERGY (ELEC - OH)

PC: 686+11.04'EB'

674'EB'

676'EB'

678'EB'

680'EB'

USH 12

682'EB'

S89° 06' 43"E

777.87'

684'EB'

686'EB'

R/W

STA. 684+29'EB', RT
B.A.D. - P.E.

CENTURYLINK (TEL)

PI STA = 673+73.34'EB'
Y = 348787.278
X = 589907.444
DELTA = 1°33'00"
D = 0°10'07"
T = 459.89'
L = 919.72'
R = 34000.00'
PC STA = 669+13.45'EB'
PT STA = 678+33.17'EB'
SE = MATCH EXISTING

STA. 678+90'EB'
EXISTING 36"x54" CMCP
(TO REMAIN)

STA. 685+65'EB'
EXISTING 36"x72" CMCP
(TO REMAIN)

MATCH LINE STA. 688+00'EB'

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS / EROSION CONTROL	SHEET 110 E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 658+00 - 688+00

PLOT DATE : 1/31/2021 10:07 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

CONTROL POINTS			
NO.	Y	X	DESCRIPTION
CP300	348733.99	592796.853	5/8IN RB KL CAP
CP301	348693.474	592409.181	5/8IN RB KL CAP

N

STA. 688+19'EB', LT
B.A.D. - F.E.

MATCH LINE STA. 688+00'EB'

PT: 690+03.69'EB'

XCEL ENERGY (ELEC - OH)

R/W

OH

688'EB'

690'EB'

692'EB'

694'EB'

USH 12

696'EB'

S88° 02' 26"E

1389.46'

698'EB'

700'EB'

702'EB'

CP300

CP301

R/W

STA. 688+62'EB', RT
B.A.D. - F.E.

STA. 692+85'EB', RT
B.A.D. - F.E.

PI STA = 688+07.37'EB'
Y = 348765.049
X = 591341.358
DELTA = 1°04'17"
D = 0°16'22"
T = 196.33'
L = 392.65'
R = 21000.00'
PC STA = 686+11.04'EB'
PT STA = 690+03.69'EB'
SE = MATCH EXISTING

STA. 689+30'EB'
EXISTING 30"X48" CMCP
(TO REMAIN)

LEGEND

- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- TYPE D INLET PROTECTION
- XXXX XXXX SAWING ASPHALT
- SAN● ADJUSTING MANHOLE COVERS
- SURFACE WATER FLOW
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK (# BAGS)
- EROSION BALES
- RIPRAP W/ GEOTEXTILE FABRIC
- SAWING CONCRETE
- ADJUSTING WATER VALVE BOX

CENTURYLINK (TEL)

EVAN LEWIS

STA. 698+72'EB' - 701+23'EB' LT
252 LF REMOVING GUARDRAIL
50 LF MGS GUARDRAIL 3
79 LF MGS THRIE BEAM TRANSITION
2 MGS GUARDRAIL TERMINAL EAT REQ'D.

STA. 701+78'EB' LT
1 EACH REMOVE SMALL PIPE CULVERT
38 LF CULVERT PIPE CORRUGATED STEEL 24-INCH
2 APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH REQ'D.

STA. 701+74'EB', LT
B.A.D. - P.E.

STA. 697+88'EB' - STA. 701+72'EB'
(SEE PLAN & PROFILE SHEET FOR
DETAILS NOT SHOWN)

SCOTT & WANDA
MADSEN TRUST
AGREEMENT

TEMPORARY DITCH CHECK

RIPRAP HEAVY
GEOTEXILE TYPE HR

CULVERT PIPE
DITCH CHECK

SLOPE INTERCEPT (TYP.)

R/W

EROSION BALE

STRUCTURE C-55-0015
TO BE REMOVED
CONSTRUCT B-55-0288
(SEE STRUCTURE PLANS)

STA. 701+81'EB', RT
B.A.D. - F.E.
(TO REMAIN)

MATCH LINE STA. 703+00'EB'

TEMPORARY DITCH CHECK

RIPRAP HEAVY
GEOTEXILE TYPE HR

STA. 698+97'EB' - 701+48'EB' RT
240 LF REMOVING GUARDRAIL
50 LF MGS GUARDRAIL 3
79 LF MGS THRIE BEAM TRANSITION
2 MGS GUARDRAIL TERMINAL EAT REQ'D.

EVAN LEWIS

5

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R/W

XCEL ENERGY (ELEC - OH)

PC: 703+93.15'EB'

704'EB'

706'EB'

708'EB'

710'EB'

USH 12

712'EB'

714'EB'

716'EB'

XXXX

R/W

BERM

SEPV

SEPC

CENTURYLINK (TEL)

TEMPORARY DITCH CHECK

SLOPE INTERCEPT (TYP.)

STA. 711+25'EB' - 713+41'EB' LT
164 LF REMOVING GUARDRAIL
112.5 LF MGS GUARDRAIL 3 L
2 MGS GUARDRAIL TERMINAL EAT REQ'D.
BARRIER SYSTEM GRADING SHAPING FINISHING

CTH T

SEE "SIDEROAD DETAIL"

XCEL ENERGY
(ELEC - OH)

CENTURYLINK (TEL)

STA. 711+08'EB' - 713+04'EB' RT
177 LF REMOVING GUARDRAIL
137.5 LF MGS GUARDRAIL 3 L
1 MGS GUARDRAIL TERMINAL EAT
1 MGS GUARDRAIL TERMINAL TYPE 2 REQ'D.
BARRIER SYSTEM GRADING SHAPING FINISHING

STA. 706+58'EB', RT
ASPH. - P.E.

STRUCTURE C-55-26
EXISTING 3'X6' BOX CULVERT
(TO REMAIN)

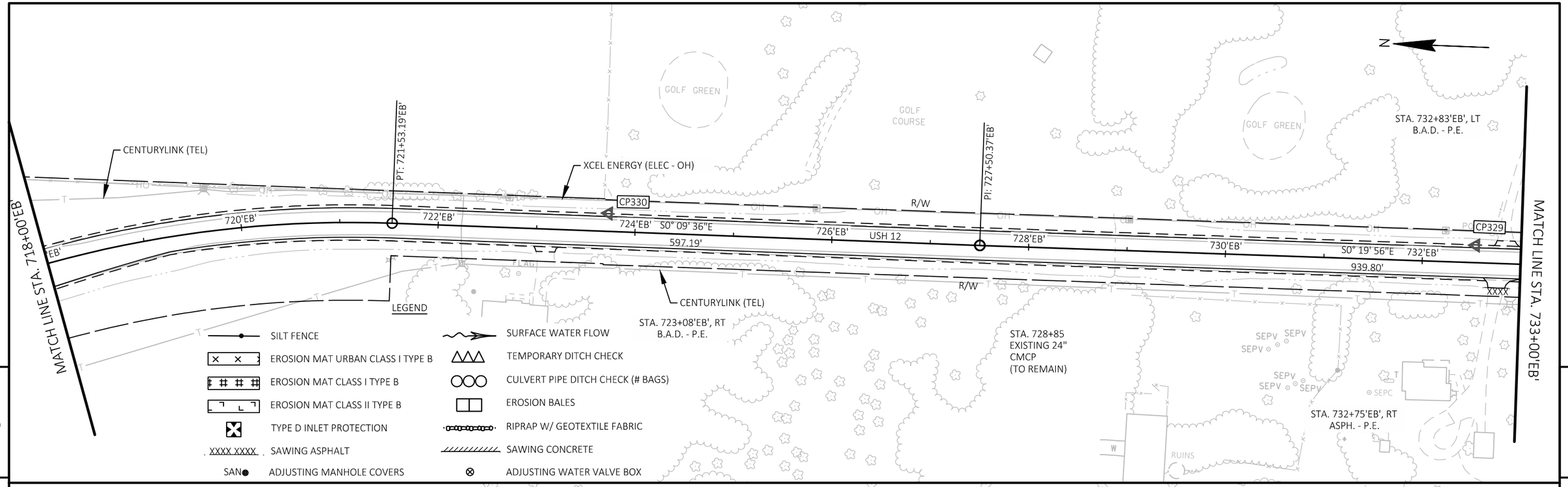
STA. 709+35'EB'
EXISTING 24" CMCP
(TO REMAIN)

PI STA = 714+98.96'EB'
Y = 348673.017
X = 594031.391
DELTA = 87°52'50"
D = 4°59'35"
T = 1105.82'
L = 1760.04'
R = 1147.50'
PC STA = 703+93.15'EB'
PT STA = 721+53.19'EB'
SE = MATCH EXISTING

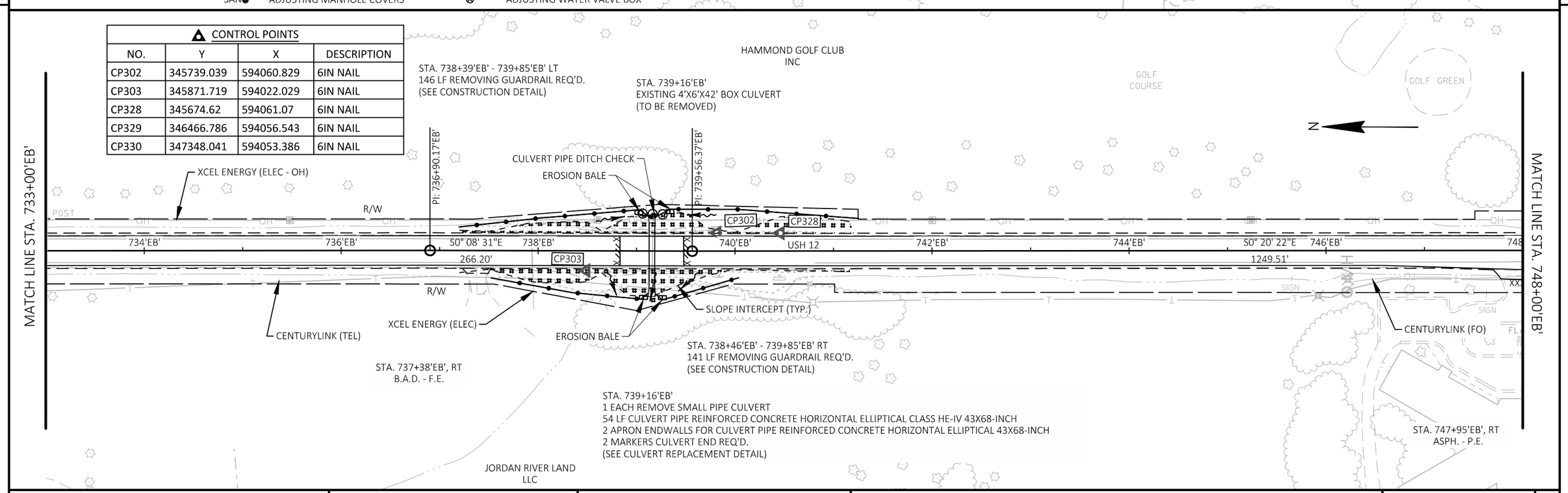
MATCH LINE STA. 703+00'EB'

MATCH LINE STA. 718+00'EB'

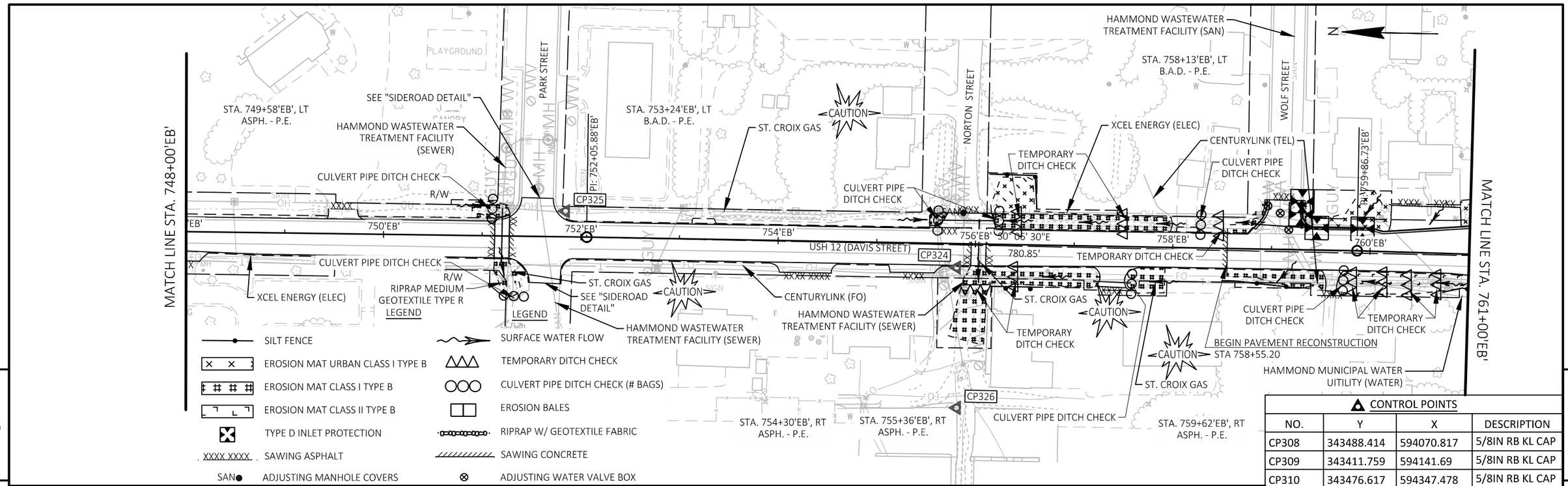
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS / EROSION CONTROL	SHEET 111	E



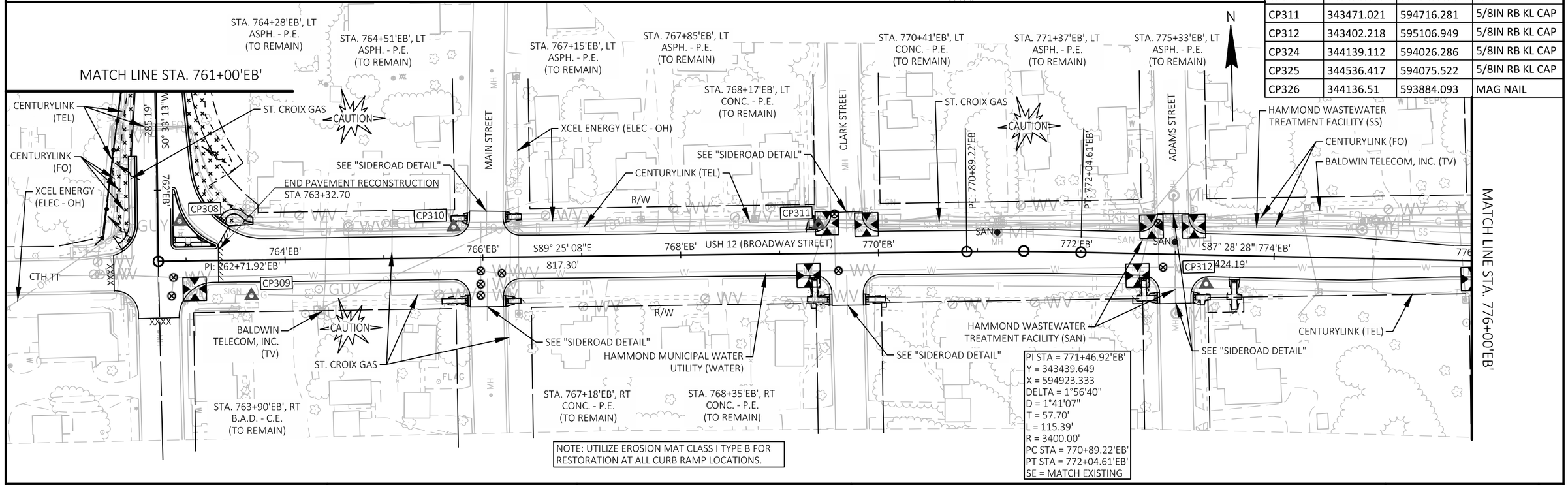
CONTROL POINTS			
NO.	Y	X	DESCRIPTION
CP302	345739.039	594060.829	6IN NAIL
CP303	345871.719	594022.029	6IN NAIL
CP328	345674.62	594061.07	6IN NAIL
CP329	346466.786	594056.543	6IN NAIL
CP330	347348.041	594053.386	6IN NAIL



PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS / EROSION CONTROL	SHEET 112	E



CONTROL POINTS			
NO.	Y	X	DESCRIPTION
CP308	343488.414	594070.817	5/8IN RB KL CAP
CP309	343411.759	594141.69	5/8IN RB KL CAP
CP310	343476.617	594347.478	5/8IN RB KL CAP
CP311	343471.021	594716.281	5/8IN RB KL CAP
CP312	343402.218	595106.949	5/8IN RB KL CAP
CP324	344139.112	594026.286	5/8IN RB KL CAP
CP325	344536.417	594075.522	5/8IN RB KL CAP
CP326	344136.51	593884.093	MAG NAIL



NOTE: UTILIZE EROSION MAT CLASS I TYPE B FOR RESTORATION AT ALL CURB RAMP LOCATIONS.

PI STA = 771+46.92'EB'
Y = 343439.649
X = 594923.333
DELTA = 1°56'40"
D = 1°41'07"
T = 57.70'
L = 115.39'
R = 3400.00'
PC STA = 770+89.22'EB'
PT STA = 772+04.61'EB'
SE = MATCH EXISTING

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS / EROSION CONTROL	SHEET 113 E

CONTROL POINTS			
NO.	Y	X	DESCRIPTION
CP313	343440.03	595410.411	5/8IN RB KL CAP

ST. CROIX GAS
CAUTION
STA. 777+14'EB', LT
B.A.D. - P.E.
(TO REMAIN)
HAMMOND WASTEWATER
TREATMENT FACILITY (SS)
PC: 776+28.80'EB'
PT: 777+73.62'EB'
CP313
CENTURYLINK (FO)
XCEL ENERGY (ELEC - OH)
PI: 782+02.85'EB'
STA. 788+90'EB', LT
B.A.D. - F.E.
CENTURYLINK (TEL)
CENTURYLINK (FO)
R/W
MATCH LINE STA. 776+00'EB'
MATCH LINE STA. 791+00'EB'
778'EB'
S89° 54' 54"E
780'EB'
782'EB'
784'EB'
USH 12
786'EB'
788'EB'
790'EB'
429.23'
HAMMOND MUNICIPAL WATER
UTILITY (WATER)
SEE "SIDEROAD DETAIL"
JOHN STREET
ELAINE CIRCLE
BALDWIN TELECOM, INC. (TV)
BALDWIN TELECOM, INC. (TEL)
SEE "SIDEROAD DETAIL"
STA. 790+60'EB', RT
ASPH. - P.E.
SIREN
FLAG

PI STA = 777+01.22'EB'
Y = 343415.225
X = 595477.105
DELTA = 2°26'26"
D = 1°41'07"
T = 72.42'
L = 144.82'
R = 3400.00'
PC STA = 776+28.80'EB'
PT STA = 777+73.62'EB'
SE = MATCH EXISTING

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STA. 794+75'EB', LT
B.A.D. - P.E.
STA. 796+58'EB', LT
B.A.D. - F.E.
STA. 803+09'EB', LT
B.A.D. - P.E.
CENTURYLINK (FO)
CENTURYLINK (TEL)
XCEL ENERGY (ELEC - OH)
R/W
MATCH LINE STA. 791+00'EB'
MATCH LINE STA. 806+00'EB'
792'EB'
794'EB'
796'EB'
N89° 43' 49"E
798'EB'
800'EB'
USH 12
802'EB'
804'EB'
2843.45'
CENTURYLINK (TEL)
STA. 797+12'EB', RT
B.A.D. - F.E.
CENTURYLINK (TEL)
STA. 802+48'EB', RT
B.A.D. - F.E.
STA. 799+22'EB', RT
B.A.D. - P.E.
BALDWIN
TELECOM,
INC. (TEL)

LEGEND

SILT FENCE	SURFACE WATER FLOW
EROSION MAT URBAN CLASS I TYPE B	TEMPORARY DITCH CHECK
EROSION MAT CLASS I TYPE B	CULVERT PIPE DITCH CHECK (# BAGS)
EROSION MAT CLASS II TYPE B	EROSION BALES
TYPE D INLET PROTECTION	RIPRAP W/ GEOTEXTILE FABRIC
XXXX XXXX SAWING ASPHALT	SAWING CONCRETE
SAN● ADJUSTING MANHOLE COVERS	ADJUSTING WATER VALVE BOX

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PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS / EROSION CONTROL	SHEET 114	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 776+00 - 806+00
PLOT DATE : 1/31/2021 10:08 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ##########

MATCH LINE STA. 806+00'EB'

STA. 808+44'EB'
100 LF DITCH CLEANING REQ'D.

PI: 810+46.31'EB'

XCEL ENERGY (ELEC - OH)

SEE "SIDEROAD DETAIL"

CENTURYLINK (FO)

CENTURYLINK (TEL)

R/W

808'EB' 810'EB' 812'EB' 814'EB' 816'EB' 818'EB' 820'EB'

USH 12

N89° 38' 43"E
2002.17'

MATCH LINE STA. 821+00'EB'

STA. 808+44'EB'
EXISTING 4'X3' BOX CULVERT
(TO REMAIN)

SEE "SIDEROAD DETAIL"

190TH STREET

CENTURYLINK (TEL)

SEPV

SEPC

5

5

N

MATCH LINE STA. 821+00'EB'

STA. 821+46'EB', LT
B.A.D. - F.E.

CENTURYLINK (FO)

CENTURYLINK (TEL)

XCEL ENERGY (ELEC - OH)

CENTURYLINK (TEL)

R/W

822'EB' 824'EB' 826'EB' 828'EB' 830'EB' 832'EB' 834'EB'

USH 12

STA. 831+62'EB', LT
B.A.D. - P.E.

PI: 830+48.47'EB'

STA. 833+11'EB', LT
B.A.D. - F.E.

GUY

STA. 833+07'EB', RT
B.A.D. - F.E.

CENTURYLINK (TEL)

CENTURYLINK (FO)

MATCH LINE STA. 836+00'EB'

STA. 821+46'EB', RT
B.A.D. - P.E.

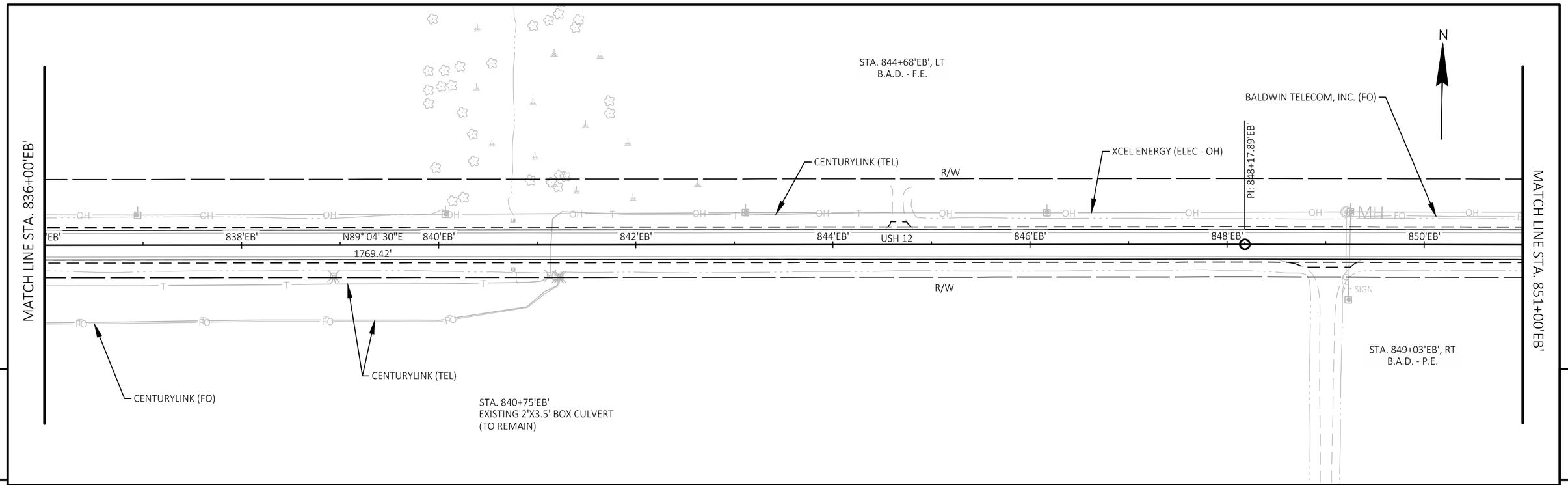
LEGEND

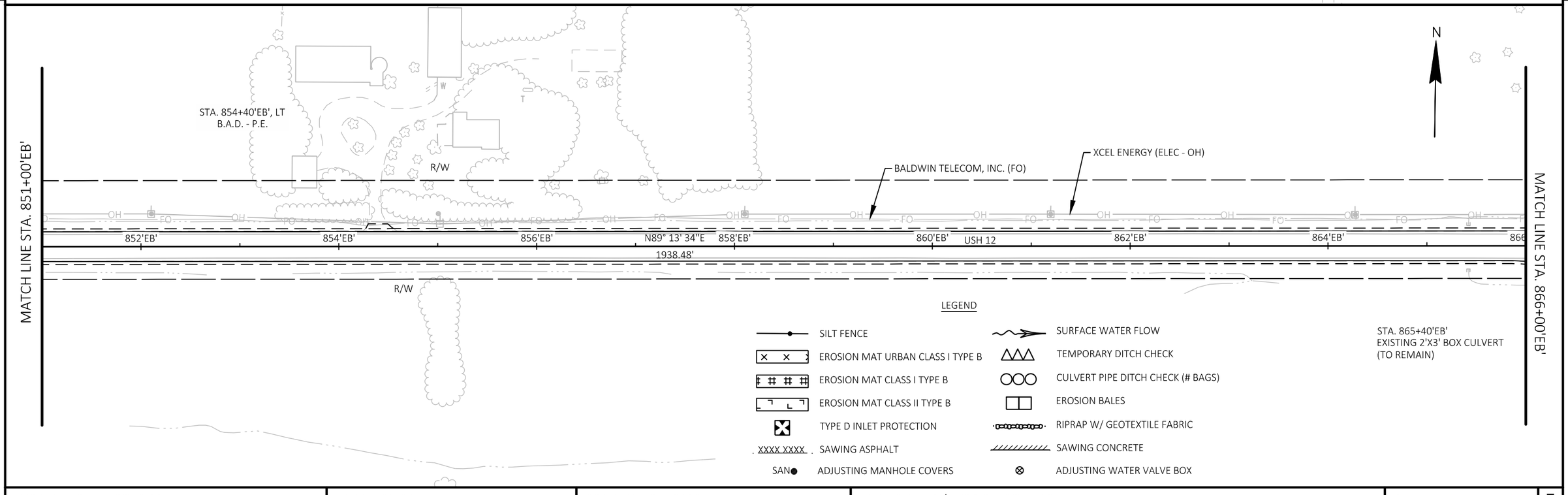
SILT FENCE	SURFACE WATER FLOW
EROSION MAT URBAN CLASS I TYPE B	TEMPORARY DITCH CHECK
EROSION MAT CLASS I TYPE B	CULVERT PIPE DITCH CHECK (# BAGS)
EROSION MAT CLASS II TYPE B	EROSION BALES
TYPE D INLET PROTECTION	RIPRAP W/ GEOTEXTILE FABRIC
XXXX XXXX SAWING ASPHALT	SAWING CONCRETE
SAN● ADJUSTING MANHOLE COVERS	ADJUSTING WATER VALVE BOX

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS / EROSION CONTROL	SHEET 115	E

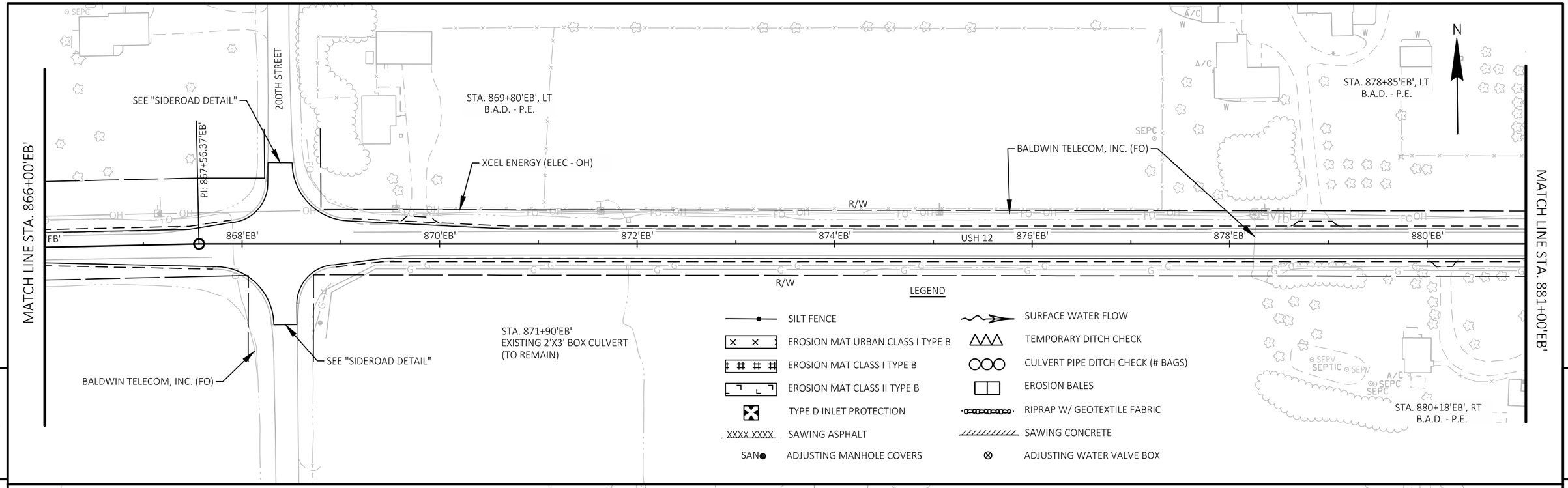
FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 806+00 - 836+00

PLOT DATE : 1/31/2021 10:08 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########





PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS / EROSION CONTROL	SHEET 116 E



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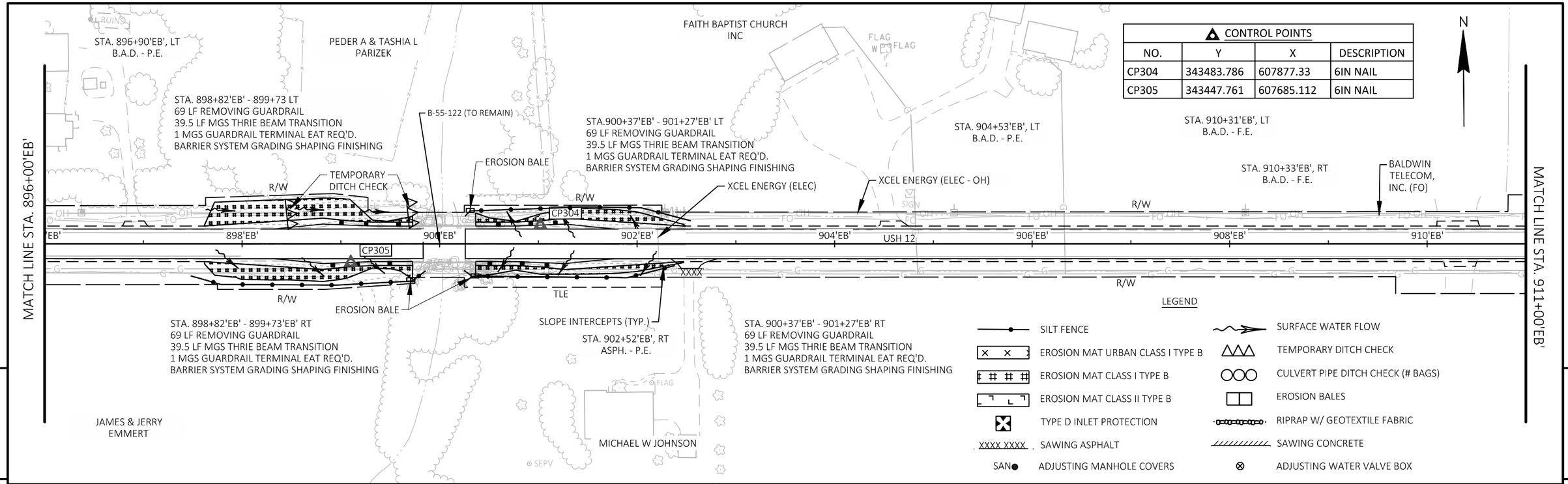
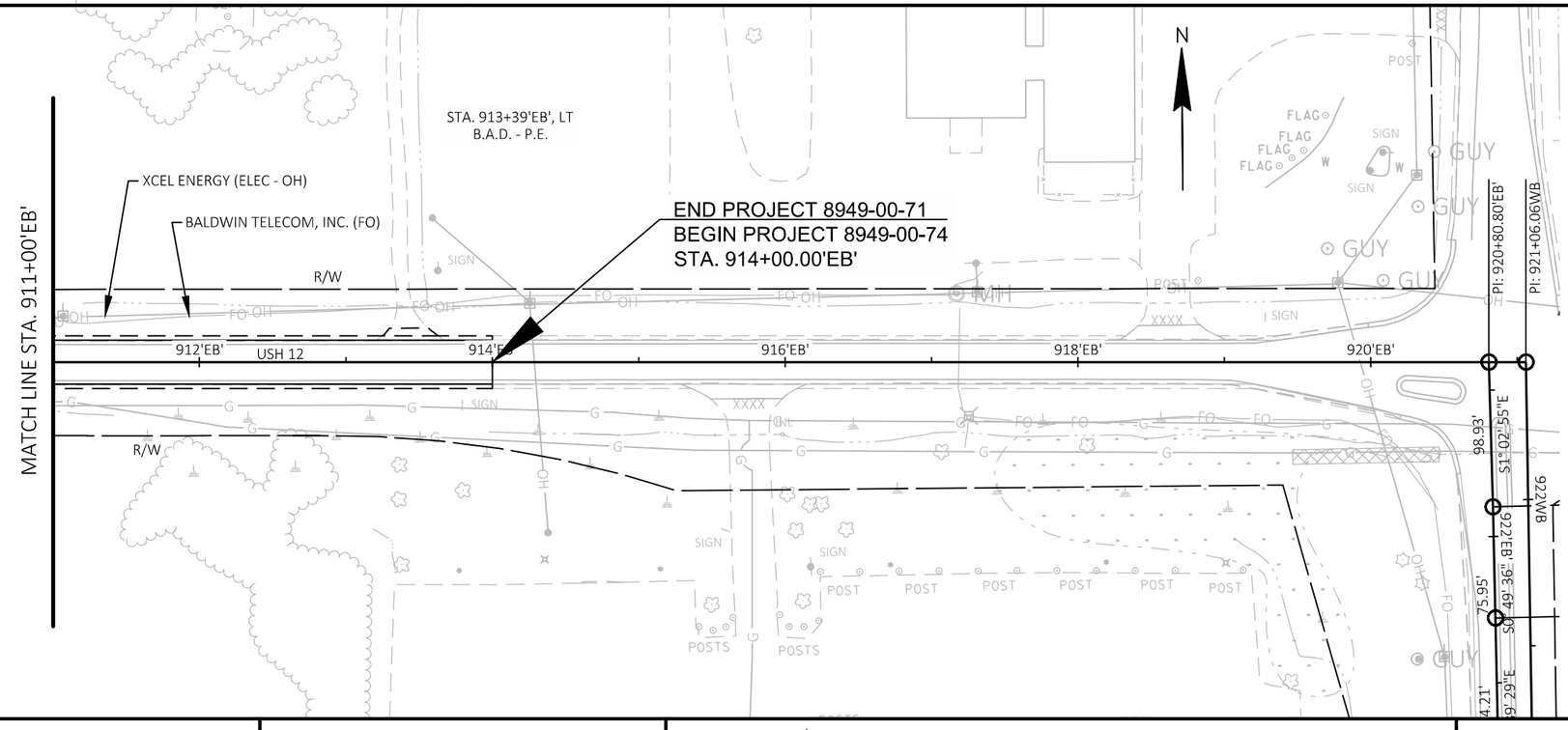
CONTROL POINTS			
NO.	Y	X	DESCRIPTION
CP327	343449.667	607337.541	6IN NAIL

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS / EROSION CONTROL	SHEET 117	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 866+00 - 896+00

PLOT DATE : 1/31/2021 10:08 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########





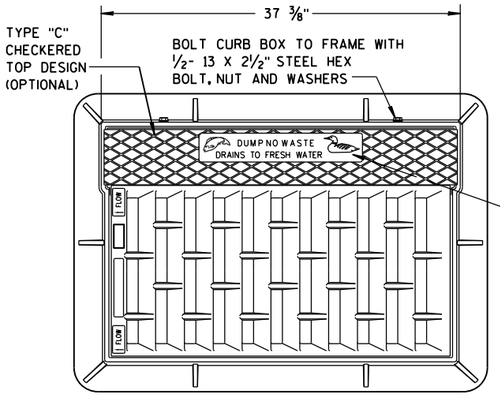
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS / EROSION CONTROL	SHEET 118	E

Standard Detail Drawing ListStandard Detail Drawing List

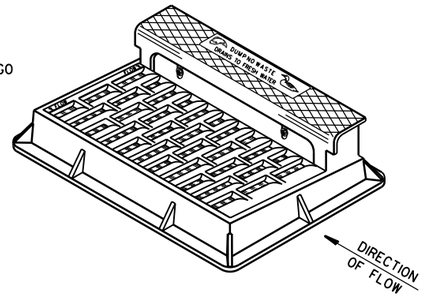
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B10-02	MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
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
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
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
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
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09E01-15A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
13A03-06	CONCRETE PAVEMENT SHOULDERS
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C19-03	HMA LONGITUDINAL JOINTS
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B43-04A	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-04B	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-04C	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
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 THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-02A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END

Standard Detail Drawing ListStandard Detail Drawing List

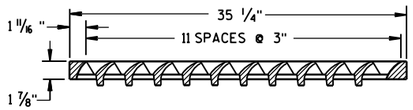
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 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
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-08A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-08B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-05A	PAVEMENT MARKINGS, MEDIAN ISLANDS
15C18-05B	PAVEMENT MARKINGS, MEDIAN ISLAND NOSE
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-06B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C19-06C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15C35-04B	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15C35-04C	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

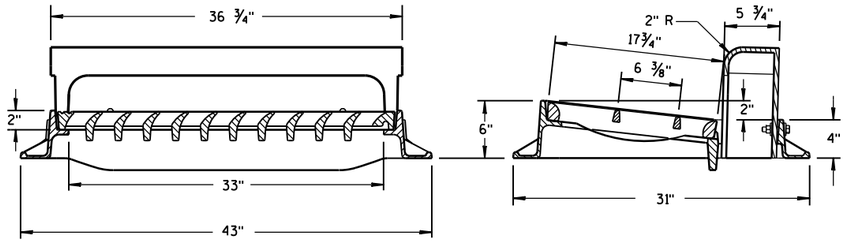


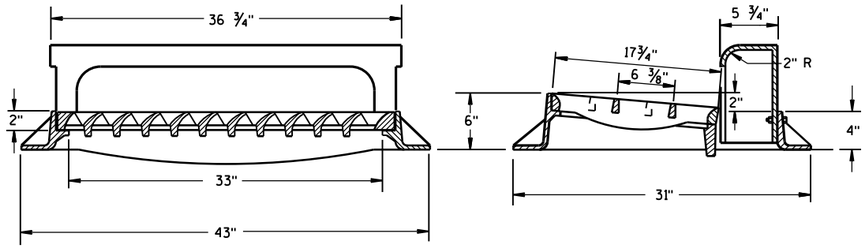
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

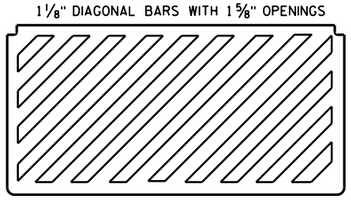






TYPE "H"

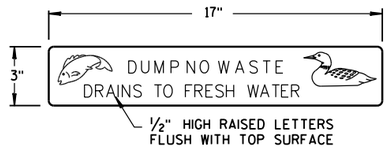
NOTE: EITHER CASTING IS ACCEPTABLE



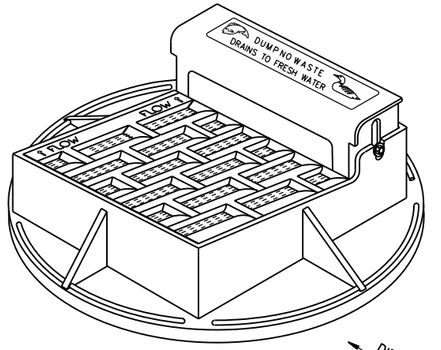
SPECIAL GRATE FOR TYPE "H" COVER

(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"

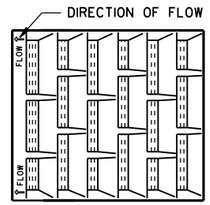
NOTE:
GRATE IS REVERSIBLE.

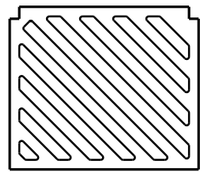
GENERAL NOTES

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.

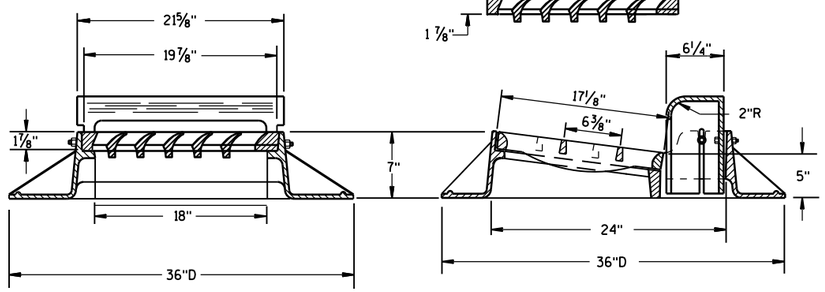




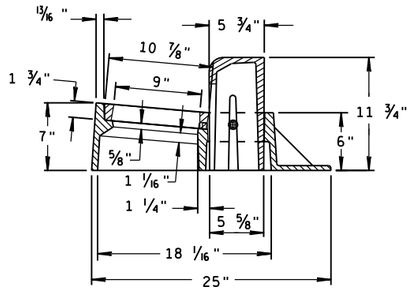
SPECIAL GRATE FOR TYPE "A" COVER

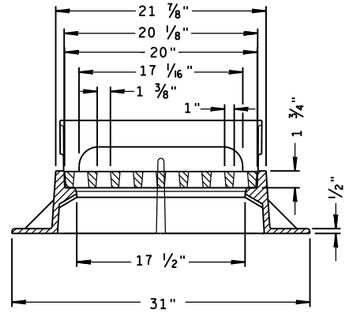
(MEASURES 19 3/4" X 17" X 1 7/8")

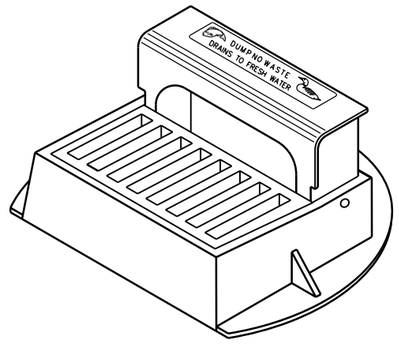
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"







TYPE "Z"

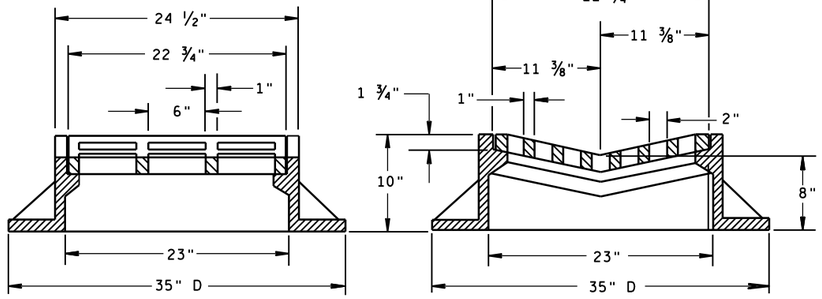
INLET COVERS
TYPE A, H, A-S, H-S & Z

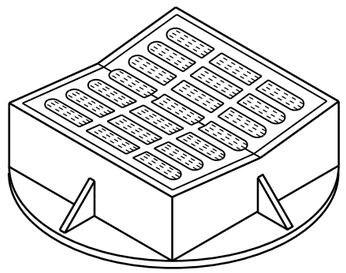
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

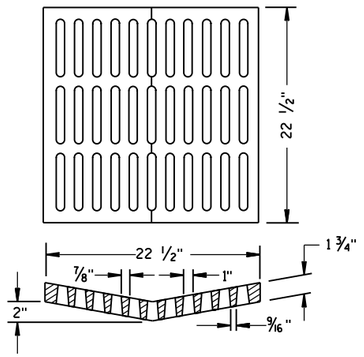
6

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



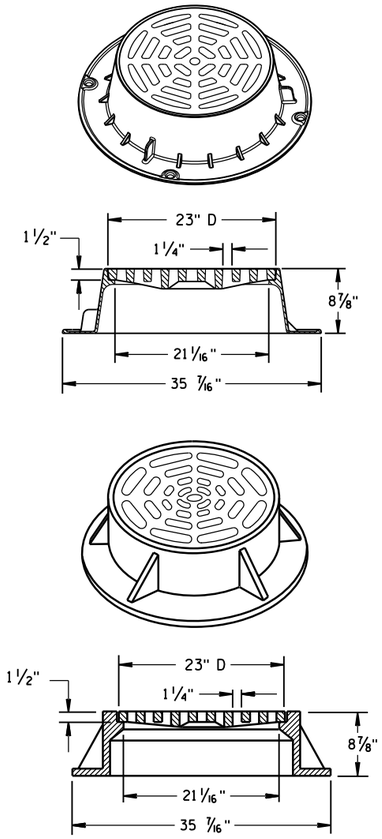


TYPE "B"



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"

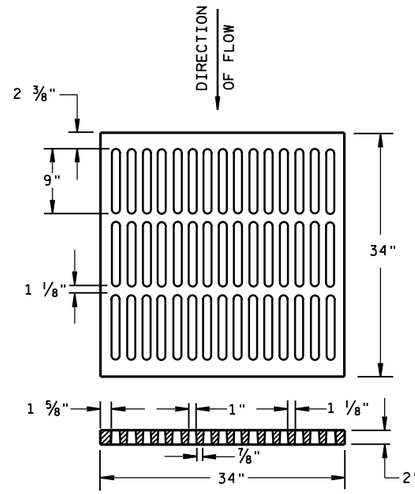
NOTE: EITHER CASTING IS ACCEPTABLE

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.

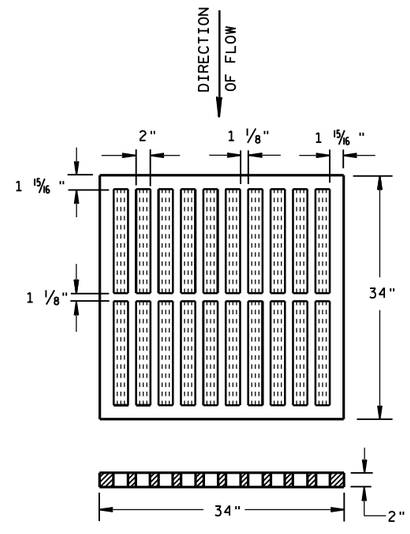
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



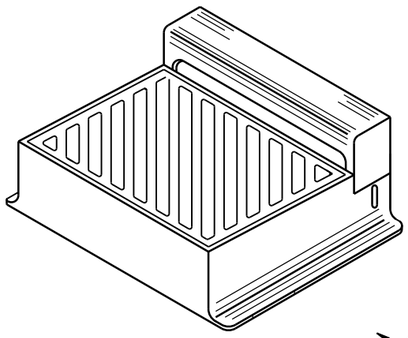
ALTERNATIVE TYPE "MS"

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

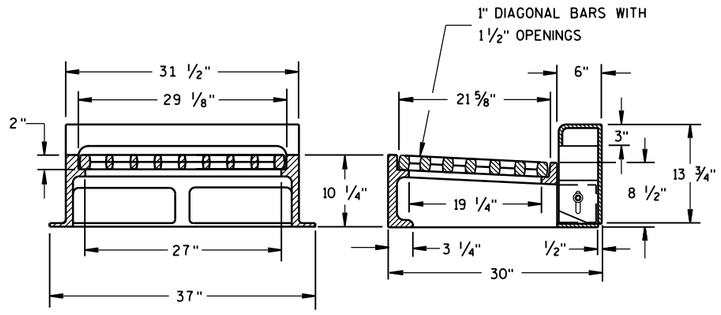


TYPE "MS"

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



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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

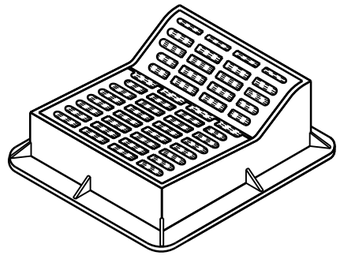
INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

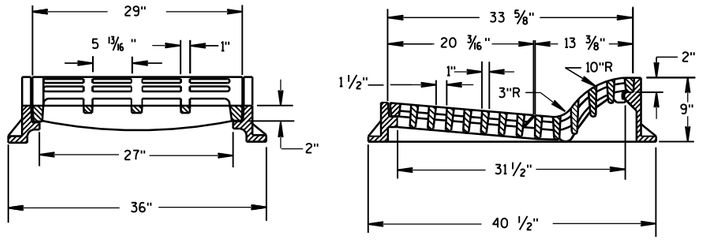
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

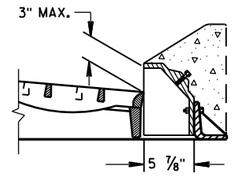
S.D.D. 8 A 5-19b





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

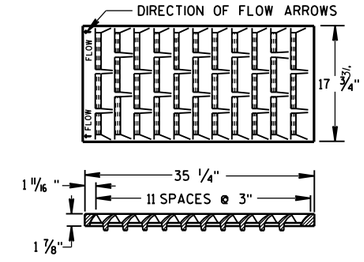
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

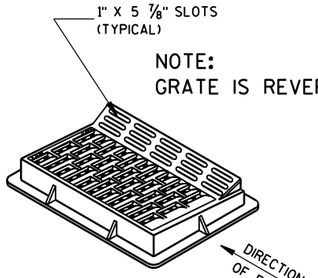
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

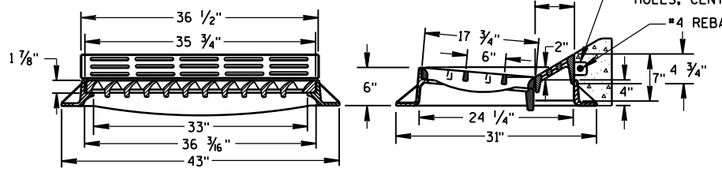
GENERAL NOTES

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 INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



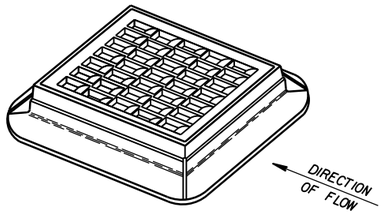


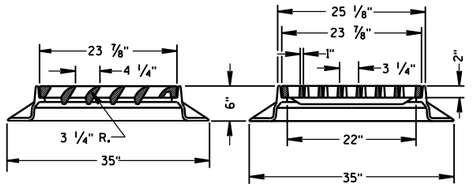


TYPE "HM"

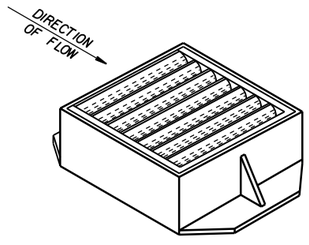
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

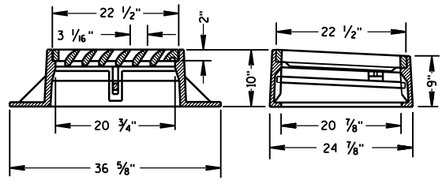
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



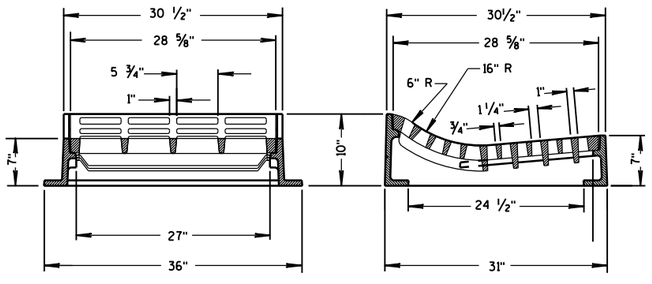


TYPE "S"



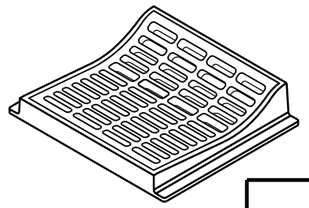


TYPE "V"



TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



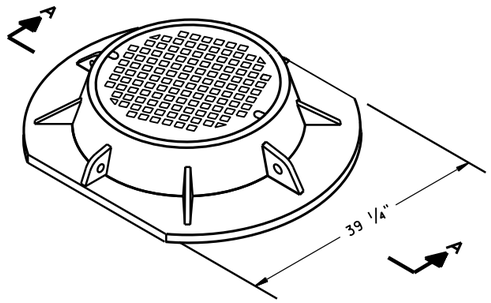
INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

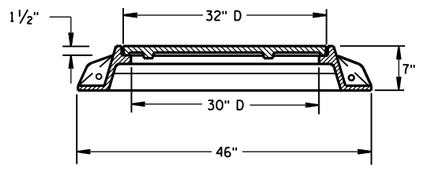
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

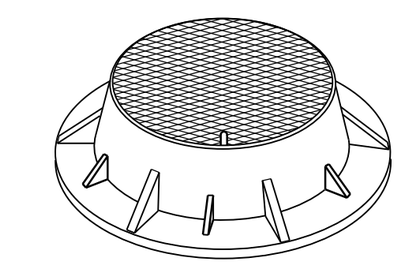
6

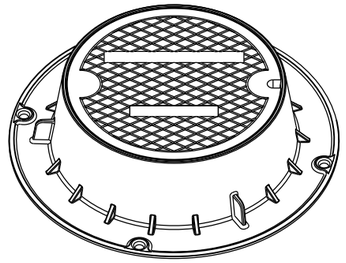
S.D.D. 8 A 5-19c

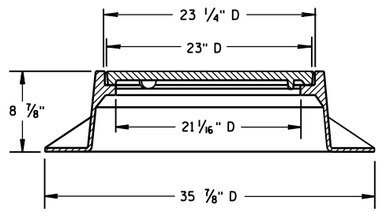


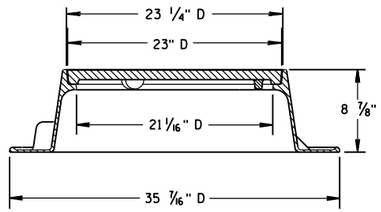


SECTION A-A
TYPE "K"









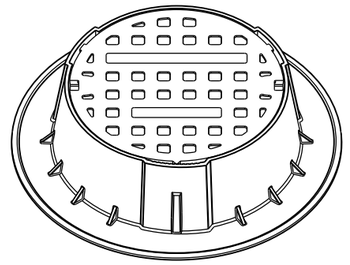
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

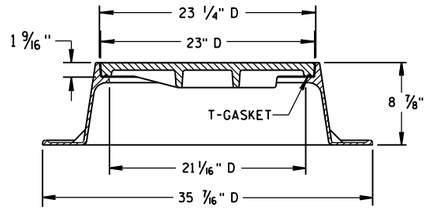
GENERAL NOTES

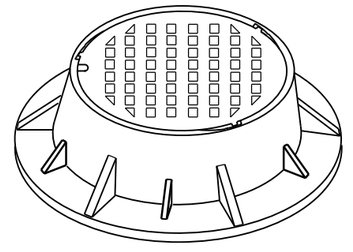
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

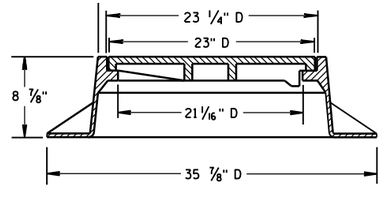
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

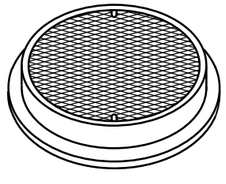


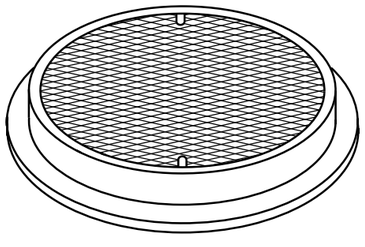


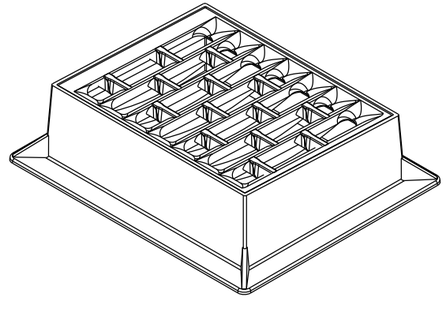


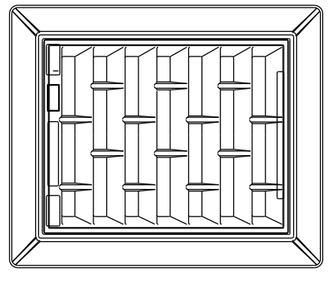


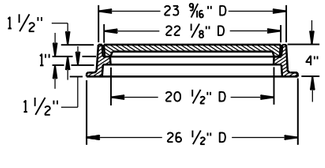
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



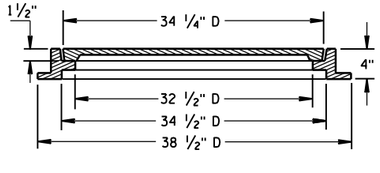








TYPE "L"



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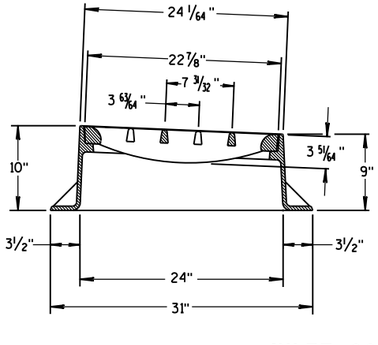
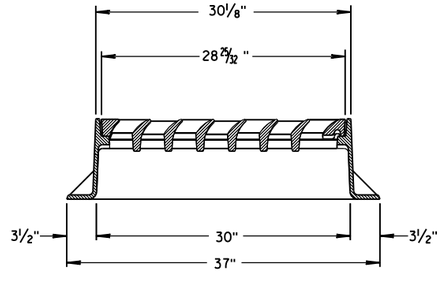




INLET COVER TYPE "BW"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

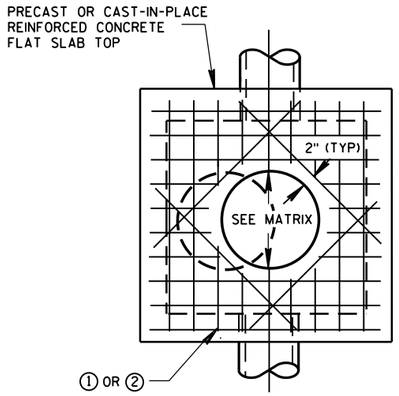
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

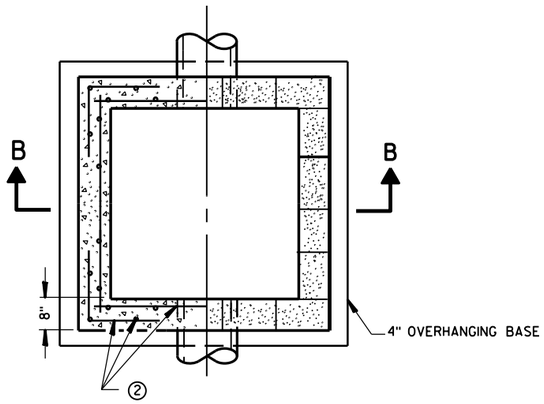
S.D.D. 8 A 5-19d

6

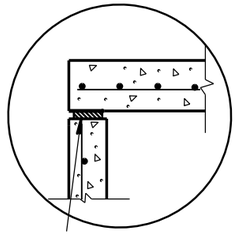
S.D.D. 8 A 5-19d



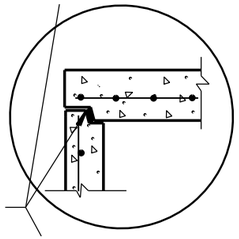
PLAN VIEW
CIRCULAR OPENING



SECTION A-A
PLAN VIEW

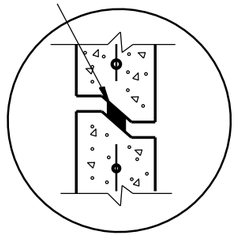


TOP WITH PLAIN END JOINT



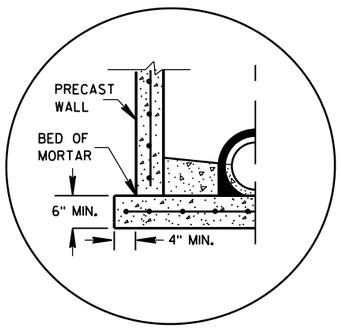
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

SECTION B-B

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

CAST-IN-PLACE REINFORCED CONCRETE

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

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 FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

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 ½ 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.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN WIDTH.

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

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

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.

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

① FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

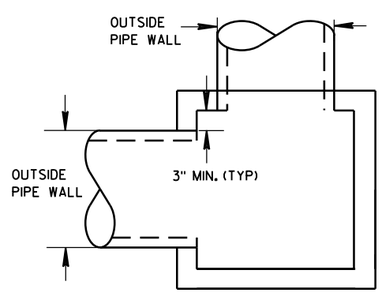
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (W) (IN)	LENGTH (L) (IN)
3X3-FT	24	24
4X4-FT	30	30
5X5-FT	42	42
6X6-FT	54	54



DETAIL "C"

SQUARE MANHOLES W/ FLAT TOP

MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT

MANHOLES 3X3-FT, 4X4-FT 5X5-FT AND 6X6-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
FHWA

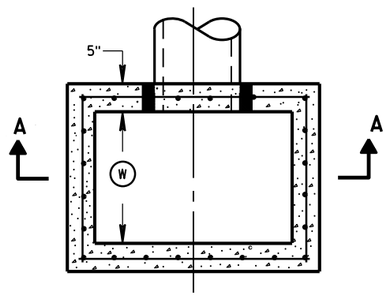
/S/ Rodney Taylor
ROADWAY STANDARDS
UNIT SUPERV

6

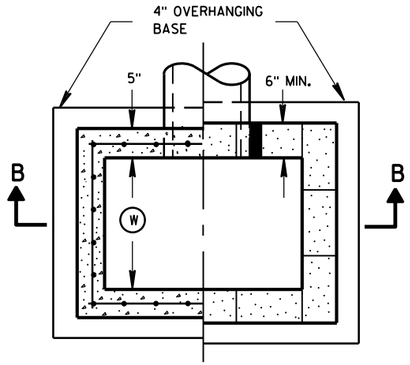
S.D.D. 8 B 10-2

6

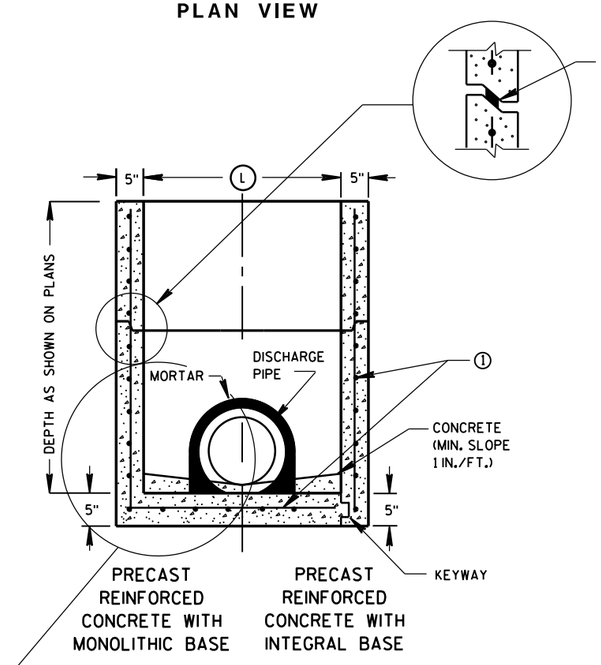
S.D.D. 8 B 10-2



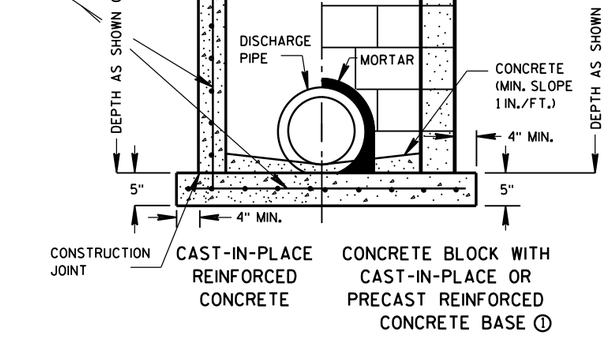
PLAN VIEW



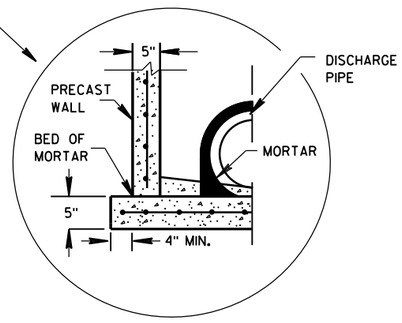
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

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

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

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

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

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND 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.

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

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

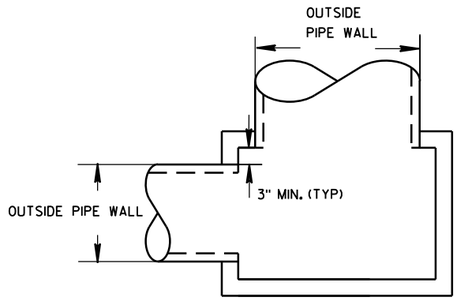
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D IT
UNIT SUPERVIS
FHWA

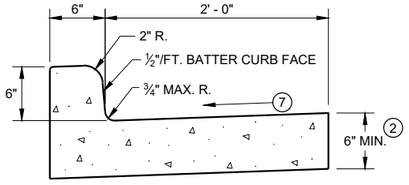
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

6

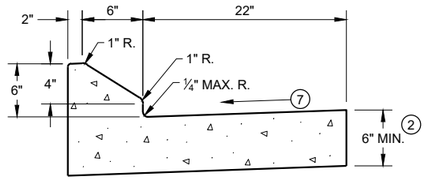
S.D.D. 8 C 7-2

6

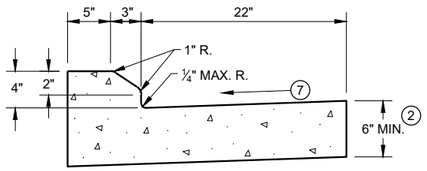
S.D.D. 8 C 7-2



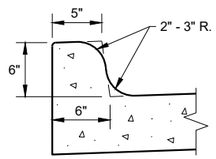
TYPES A (1) & D



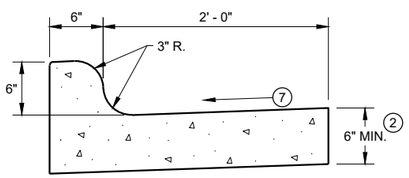
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

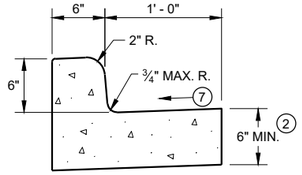


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



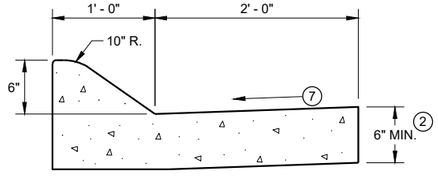
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

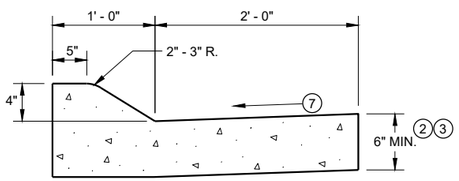


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

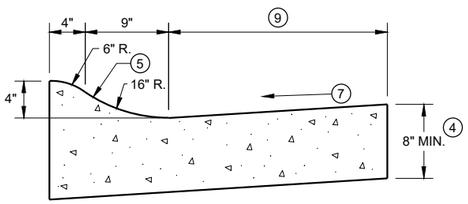


6" SLOPED CURB TYPES A (1) & D



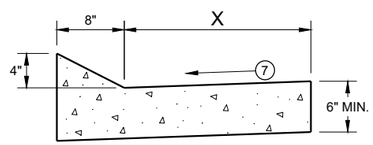
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

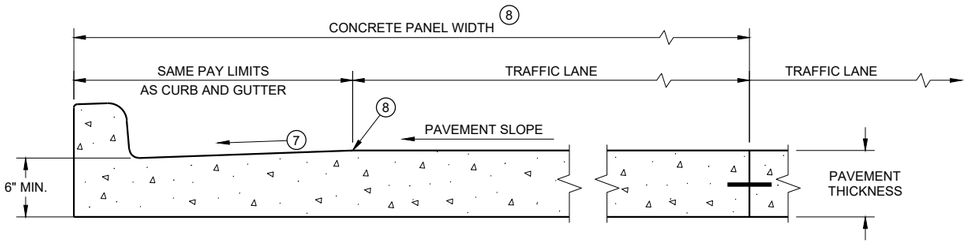


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

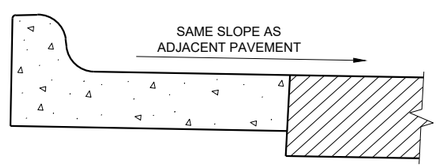
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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 (6)
(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.

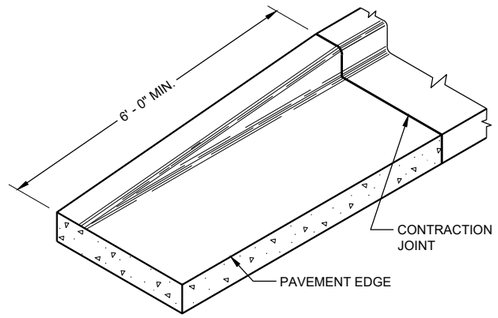
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

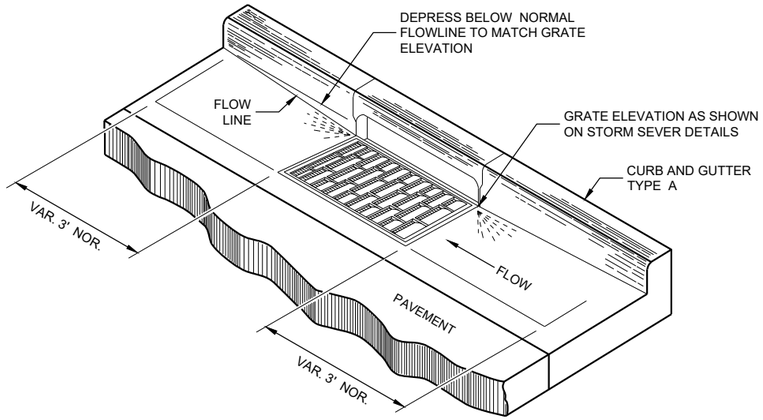
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 22a
SDD 08D01 - 22a



END SECTIONCURB 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.

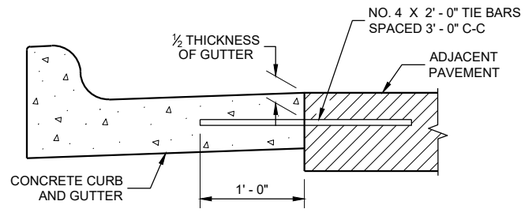
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

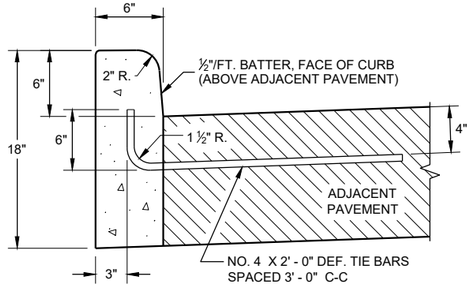
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(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.

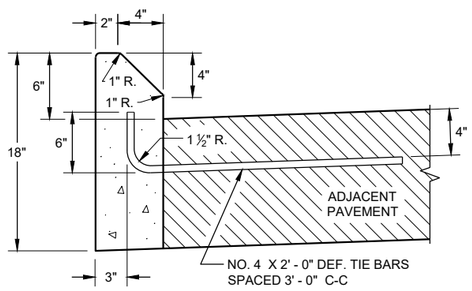
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

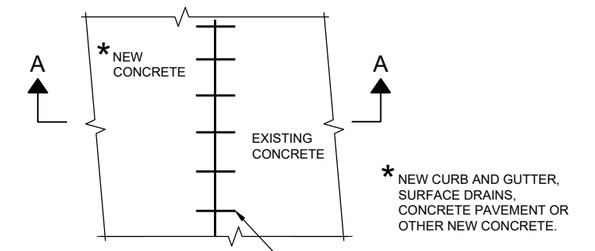


TYPES A (1) & D

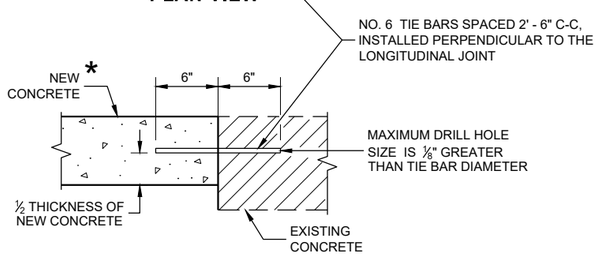


TYPES G (1) & J

CONCRETE CURB

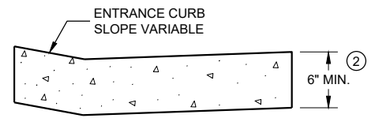


PLAN VIEW



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 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

SDD08D01 - 22b

6

SDD08D01 - 22b

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)

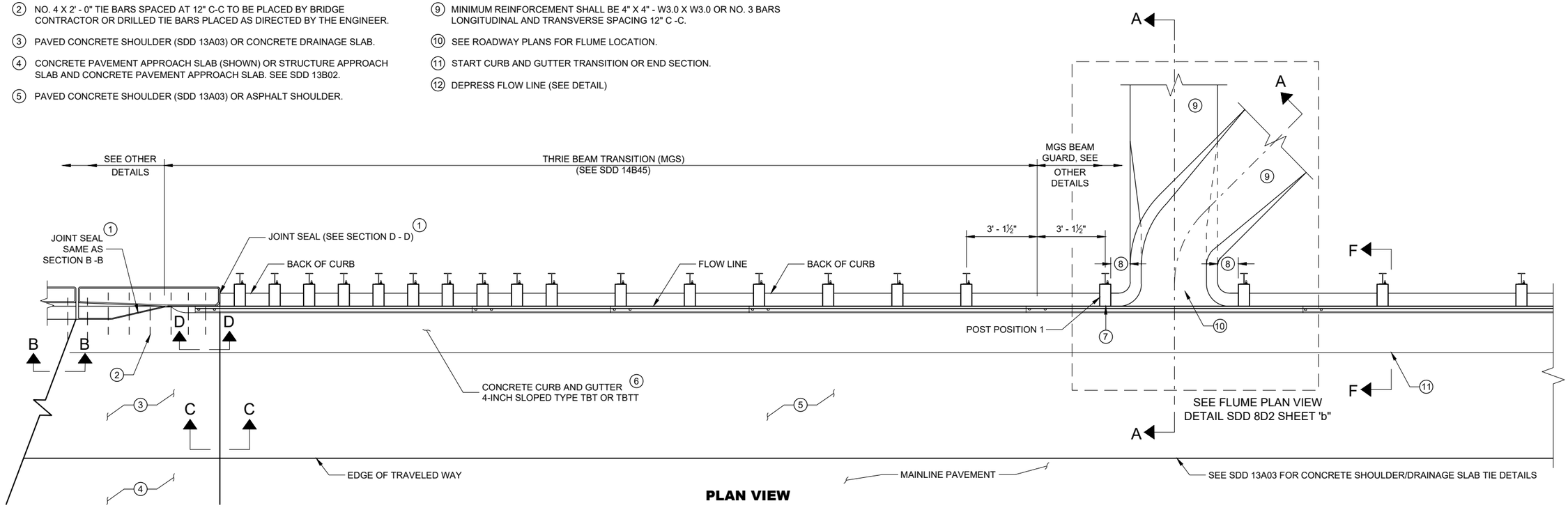
(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

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

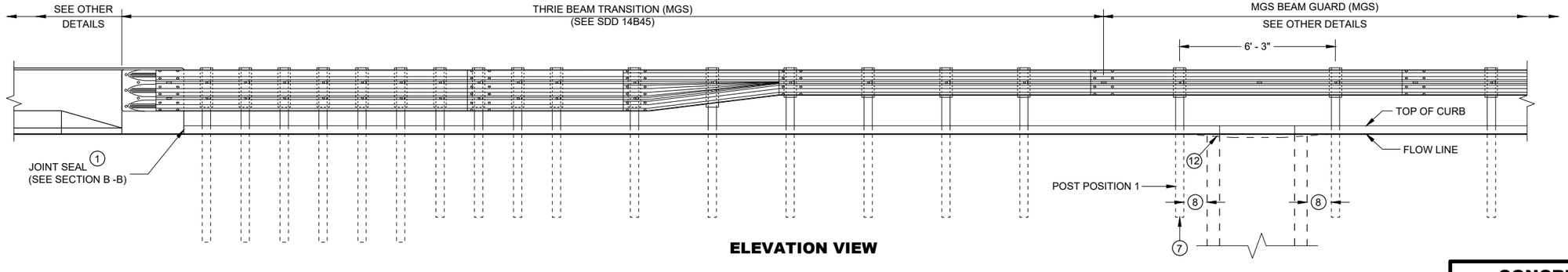
(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)



PLAN VIEW



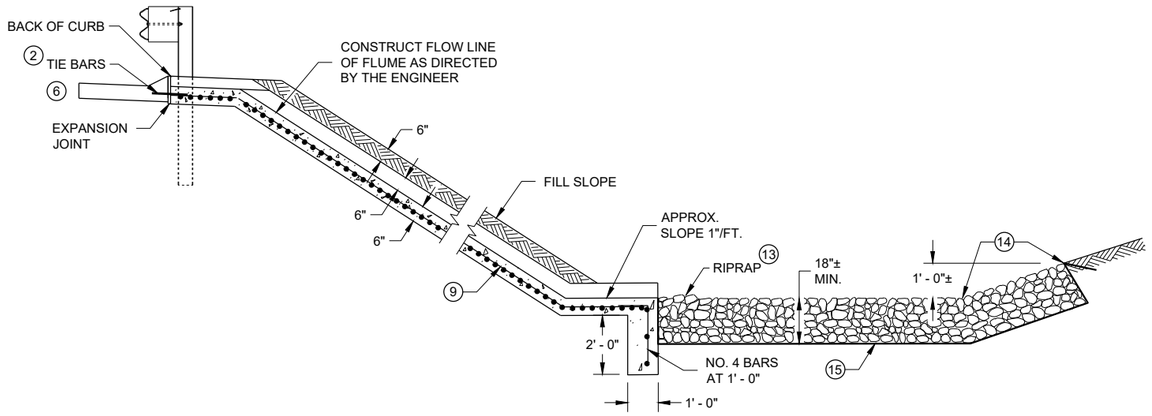
ELEVATION VIEW

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

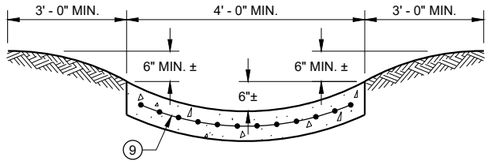
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D02 - 07a

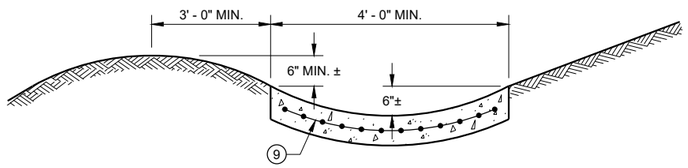
SDD 08D02 - 07a



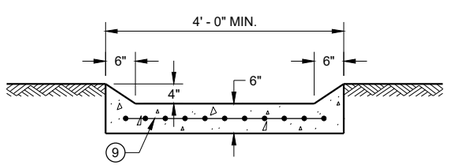
SECTION A - A



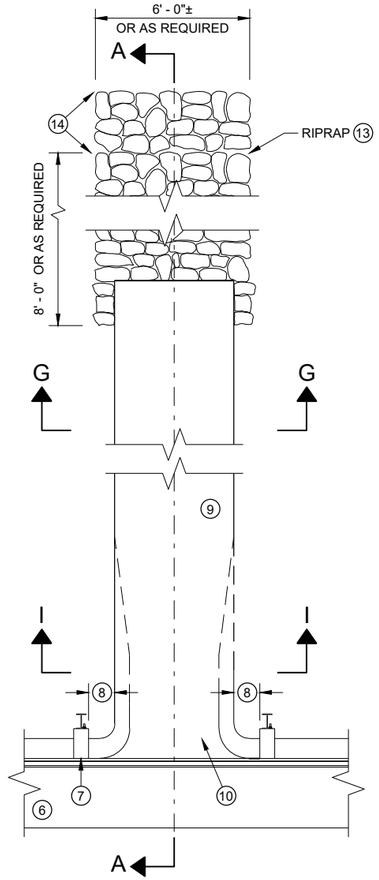
SECTION G - G



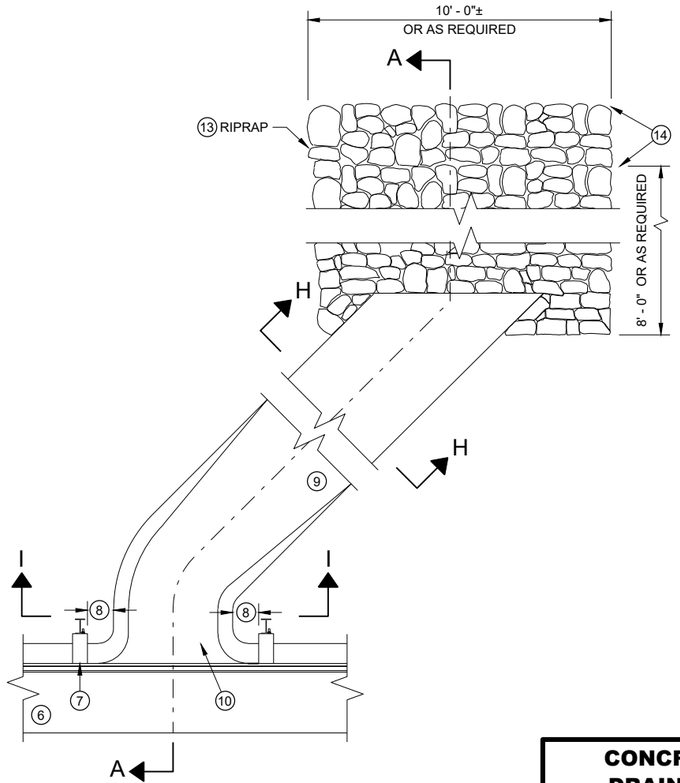
SECTION H - H



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

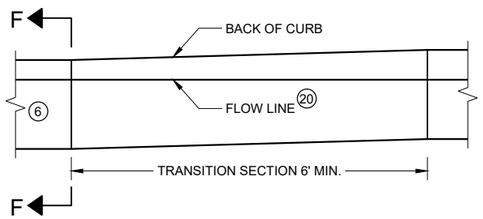
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

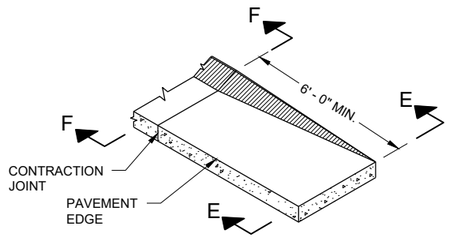
SDD 08D02 - 07b

6

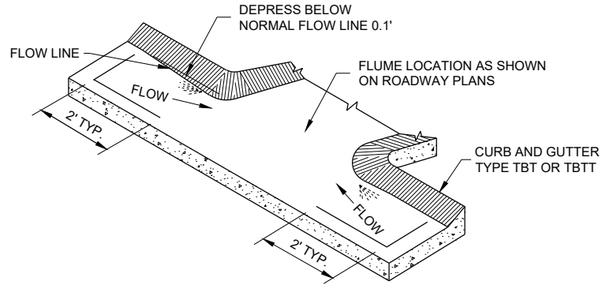
SDD 08D02 - 07b



**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.

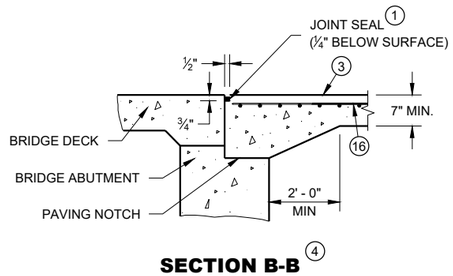
(17) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

(18) MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.

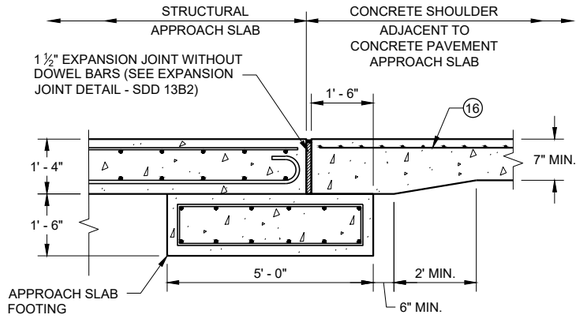
(19) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

(20) MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.

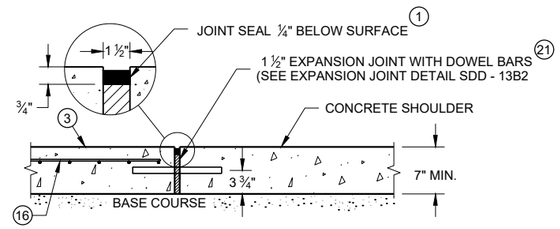
(21) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



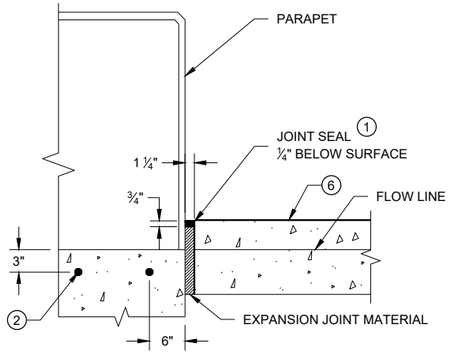
SECTION B-B



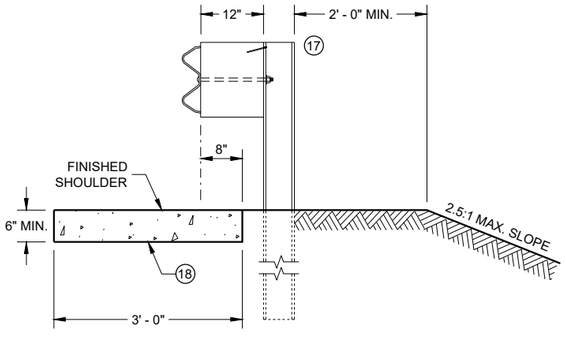
SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



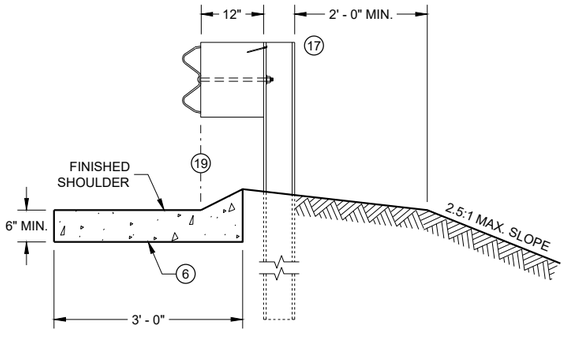
SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



SECTION D - D



SECTION E - E



SECTION F - F

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

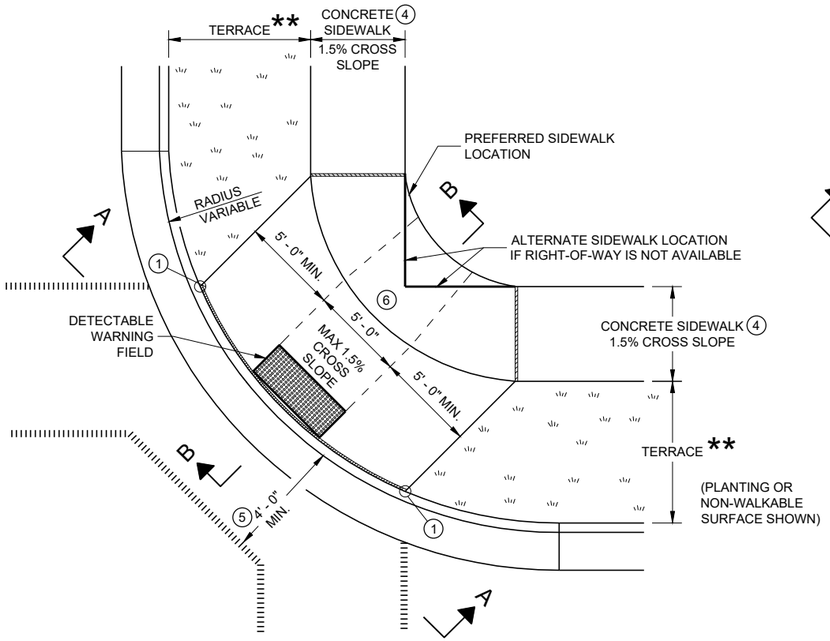
APPROVED
February 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

SDD 08D02 - 07c

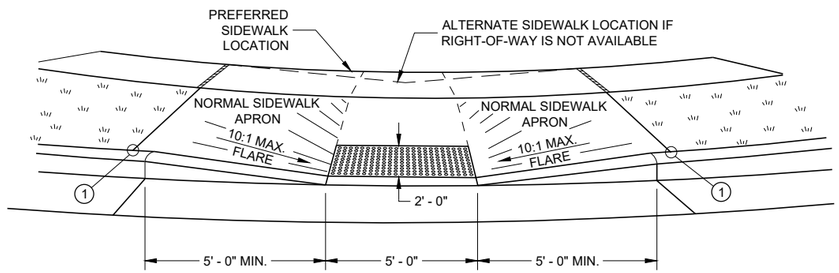
SDD 08D02 - 07c



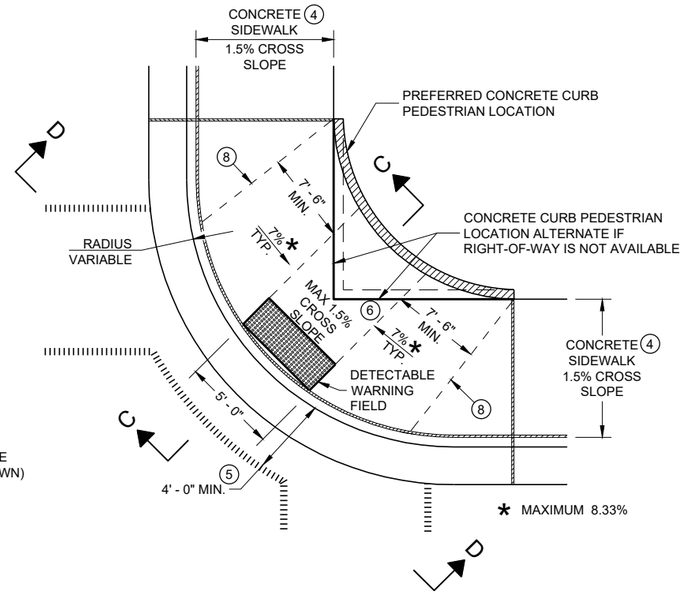
PLAN VIEW

CURB RAMP TYPE 1

(CENTER OF CORNER RADIUS)



VIEW A - A FOR TYPE 1



PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

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 FILED 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 ¼ - 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.

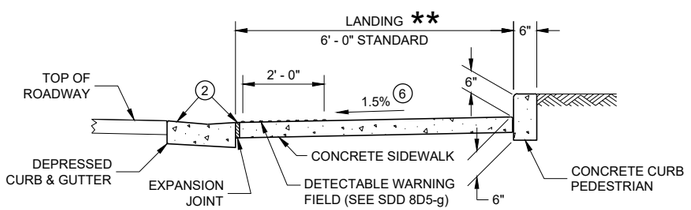
(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(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.

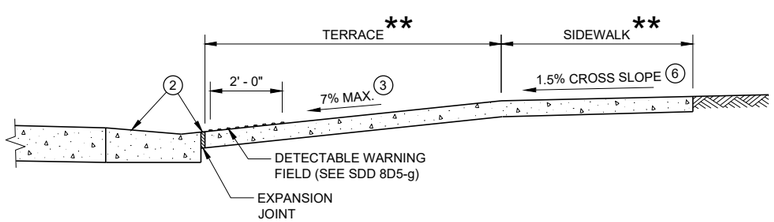


SECTION C - C FOR TYPE 1 - A

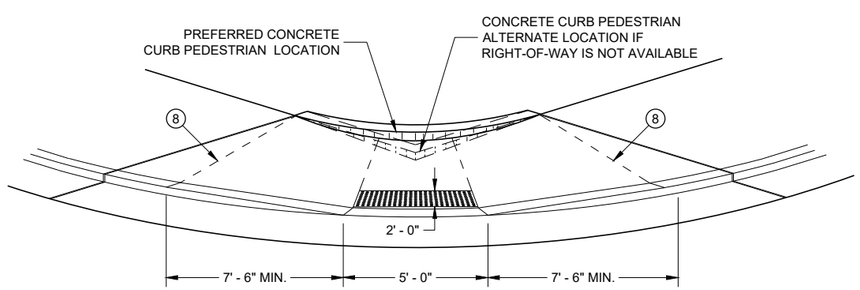
LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



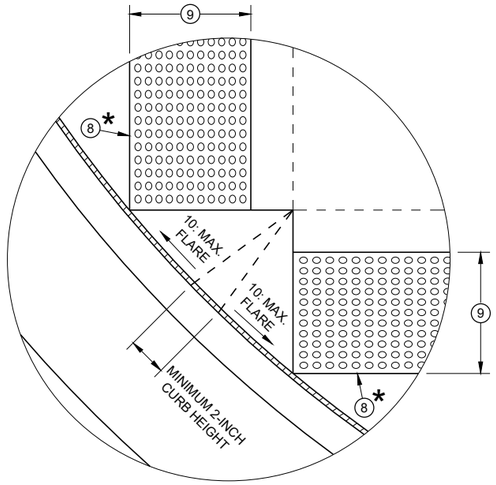
VIEW D - D FOR TYPE 1 - A

CURB RAMPS TYPE 1 AND 1-A

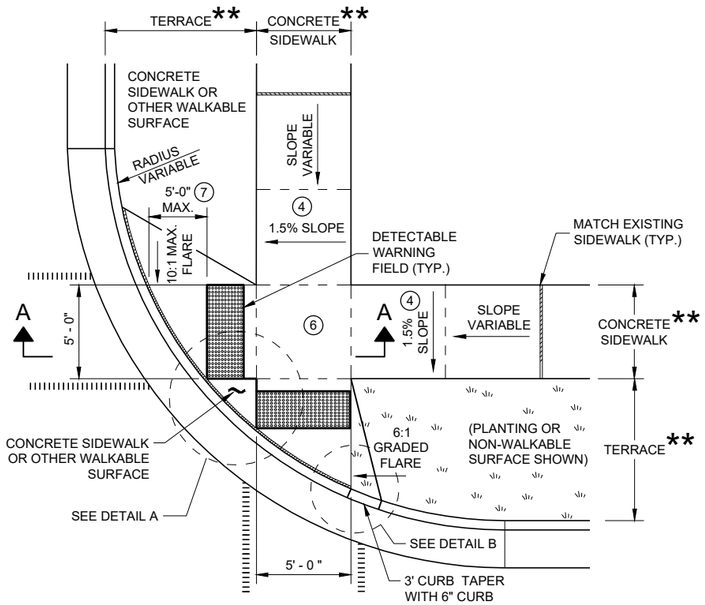
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20a



DETAIL A



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

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 ¼ - 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.

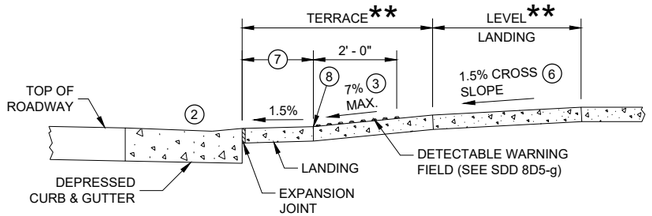
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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.

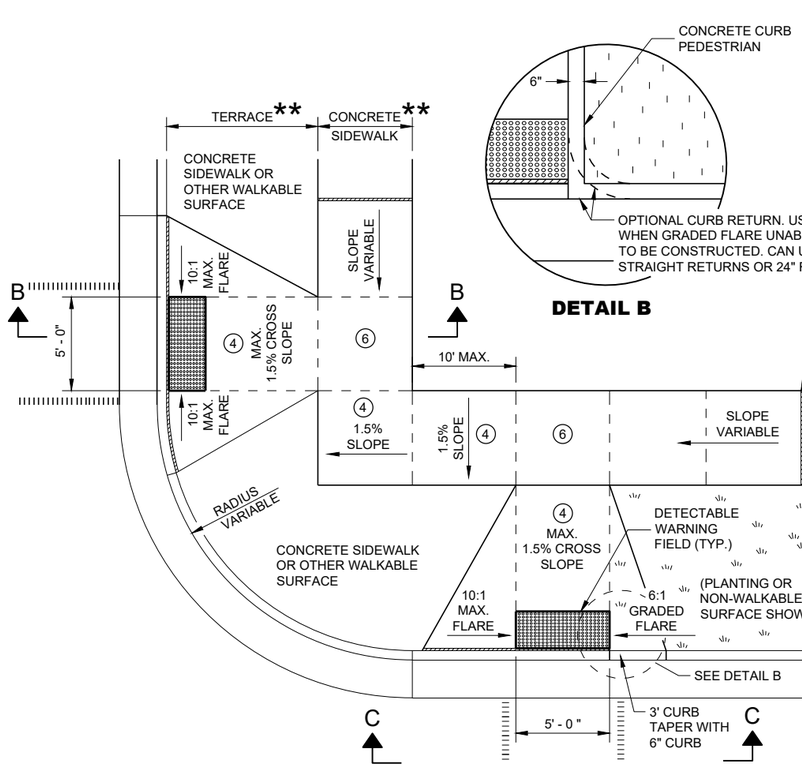
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2

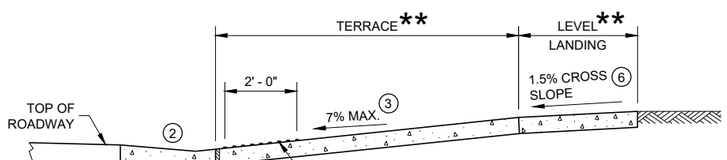
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

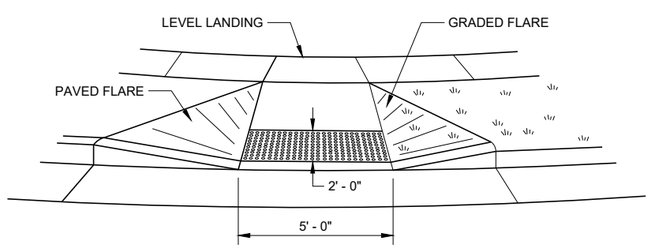


DETAIL B

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



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

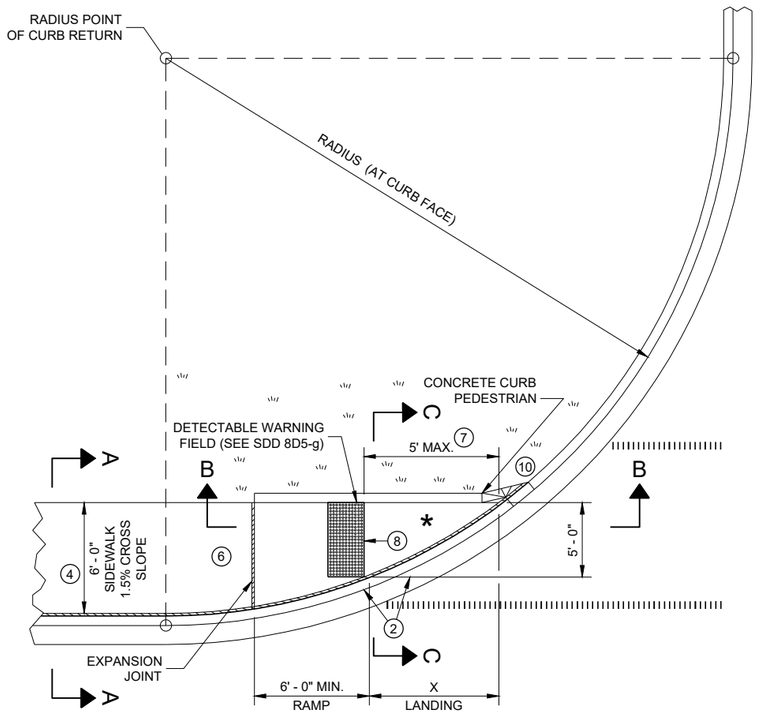
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20b

6

SDD 08D05 - 20b

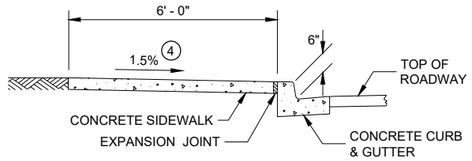


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5½"

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 ¼ - 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.

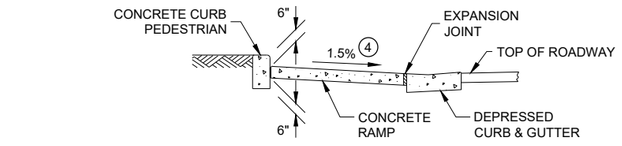
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

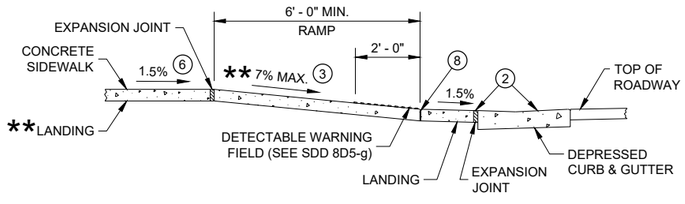
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



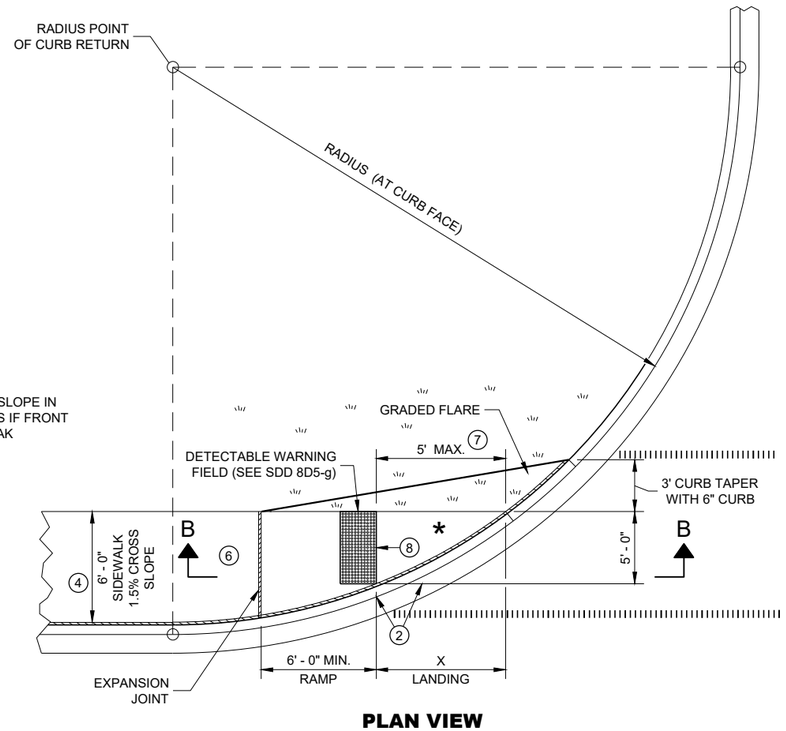
SECTION C - C FOR TYPE 4A



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

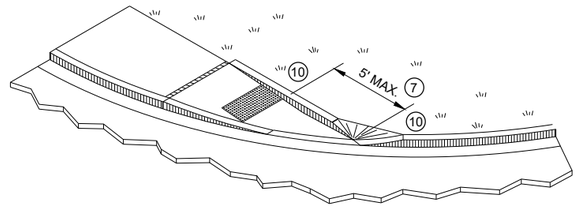
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

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

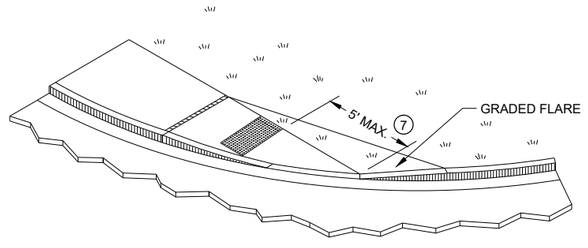


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



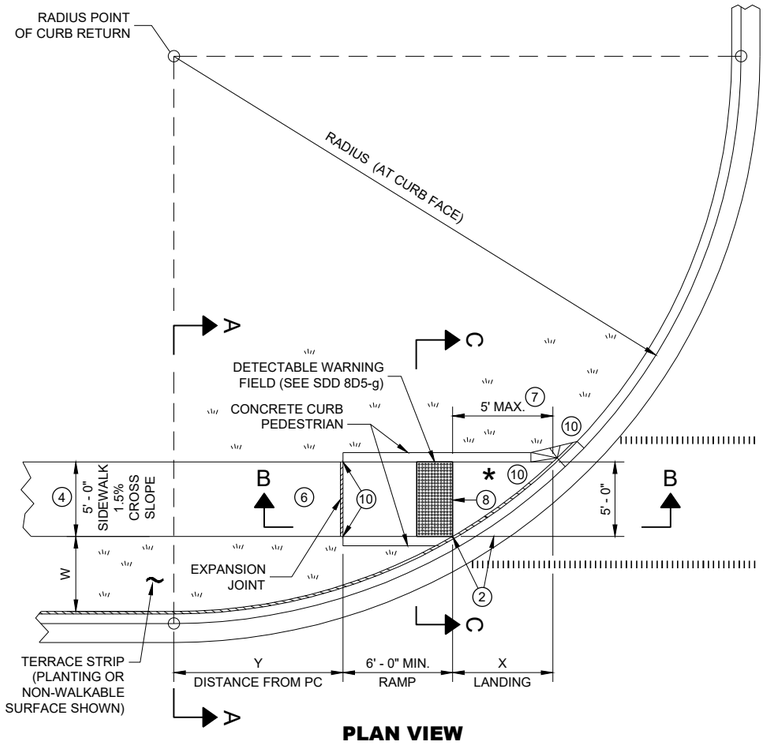
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20c

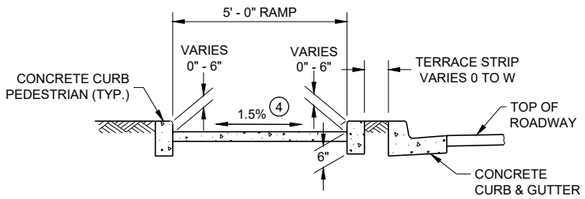


PLAN VIEW

CURB RAMP TYPE 4B

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 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET	5' - 9 ¾"	3' - 6 ½"	4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET			6' - 9 ¼"	7' - 11 ¼"	6' - 0 ¼"	9' - 8"	5' - 5"	11' - 1 ¾"	4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET									6' - 1 ¾"	15' - 8 ½"	5' - 8"	17' - 2"	5' - 3"	18' - 5 ¾"	4' - 10 ¾"	19' - 8 ¼"
50 FEET															5' - 10 ¼"	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



SECTION C - C FOR TYPE 4B

LEGEND

- ½" 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.

(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 ¼ - 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.

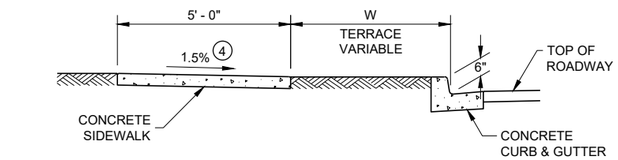
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

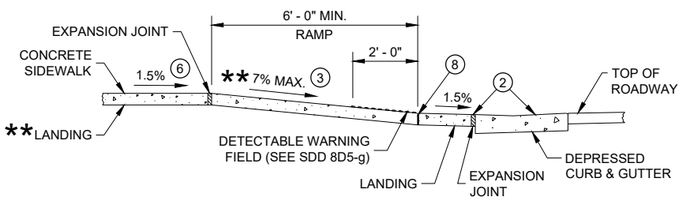
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



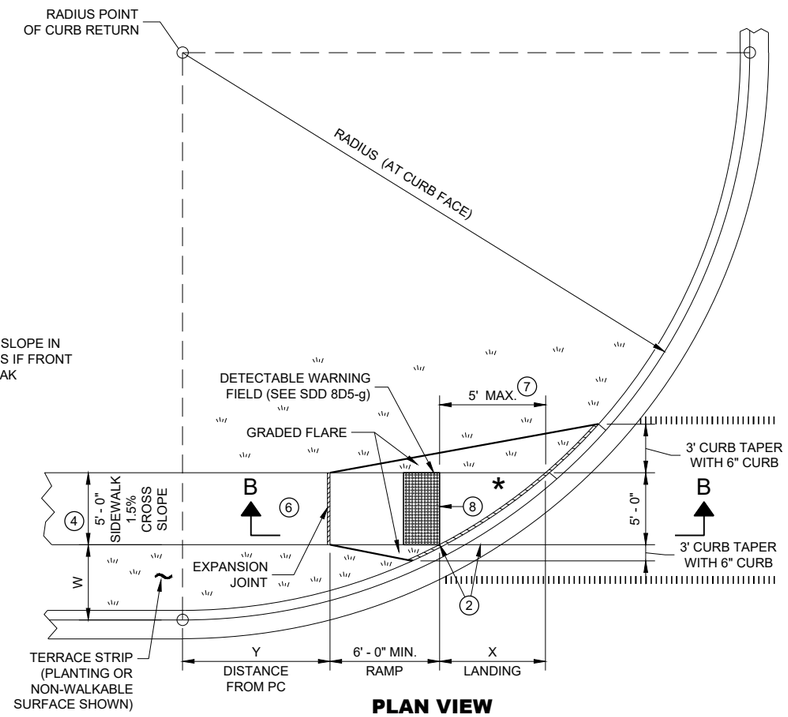
SECTION A - A FOR TYPE 4B



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

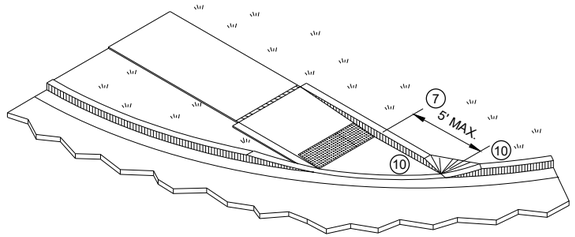
SECTION B - B FOR TYPE 4B AND TYPE 4B1

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

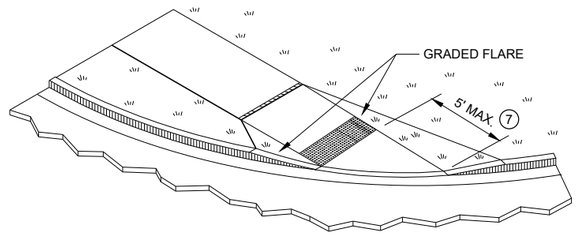


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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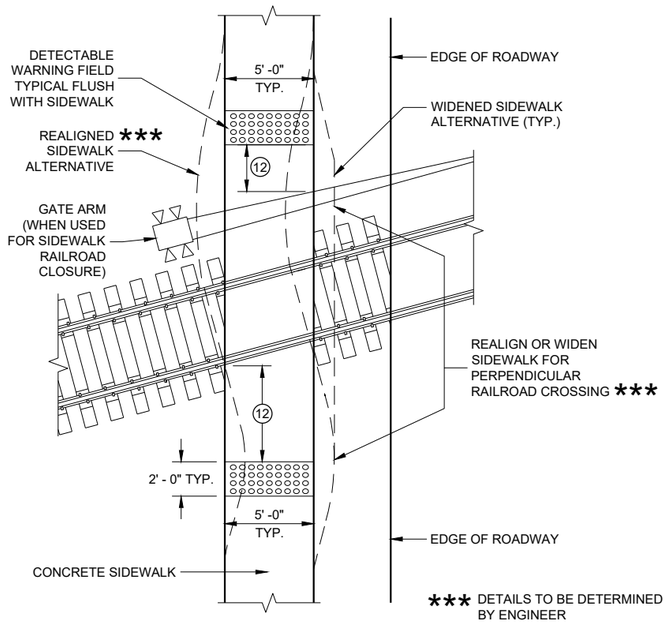
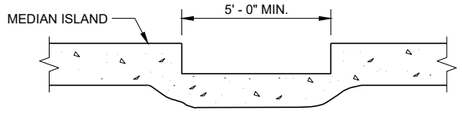
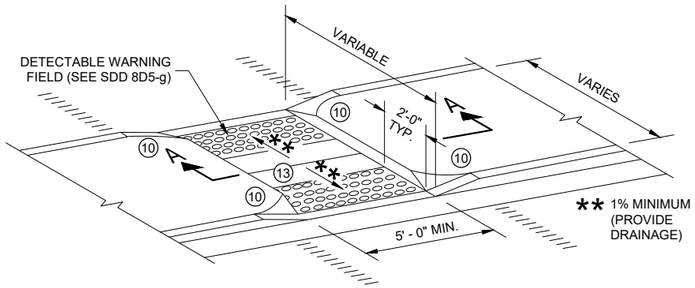


CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

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 ½ - 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.

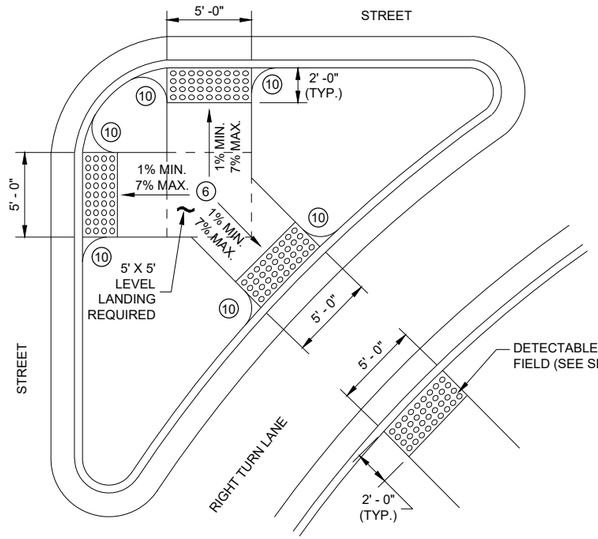
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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 STEET-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

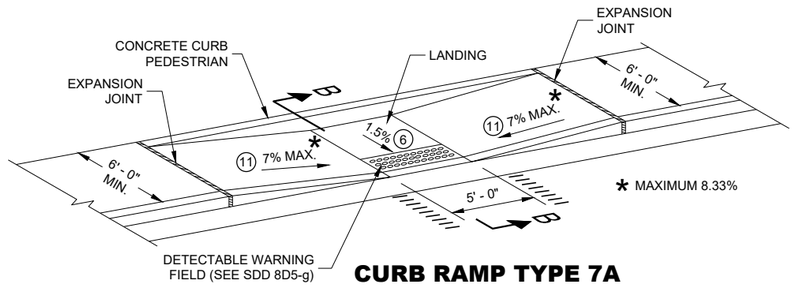
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

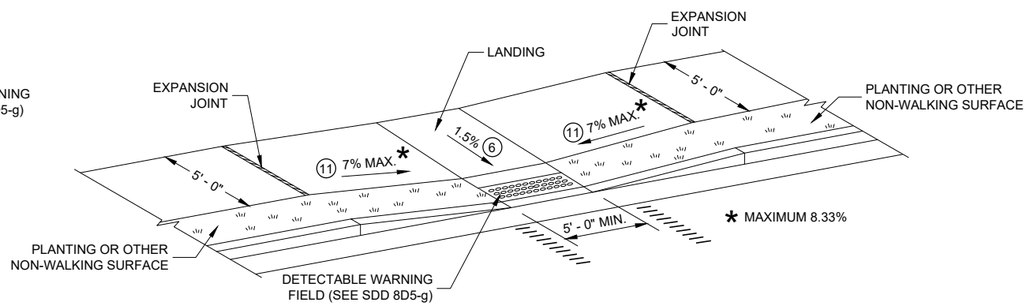
DETECTABLE WARNING AT ISLANDS

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



CURB RAMP TYPE 7A

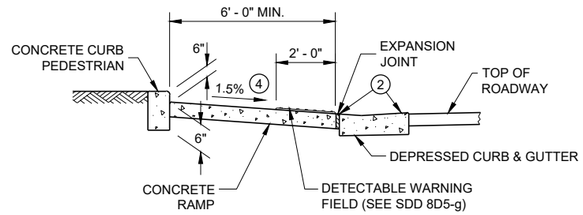
MID BLOCK CROSSING



CURB RAMP TYPE 7B

MID BLOCK CROSSING

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



SECTION B - B FOR TYPE 7A

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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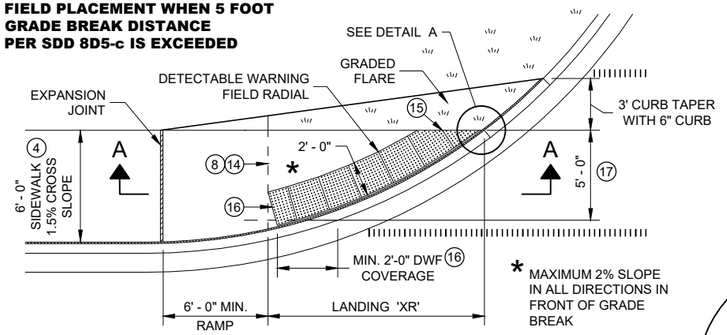
SDD 08D05 - 20e

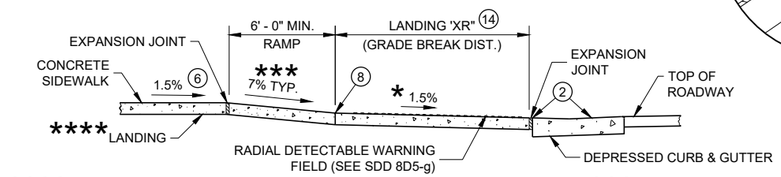
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



PLAN VIEW

CURB RAMP TYPE 4A1

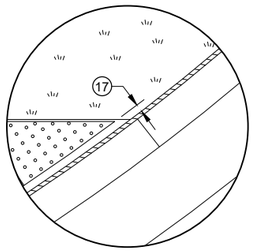
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



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

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1



DETAIL A

LEGEND

- ½" 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.

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 CURB 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 AD 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 ¼ - 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.

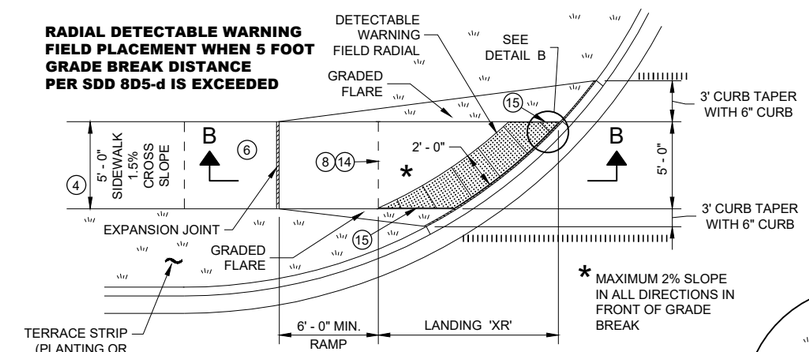
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(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 ⅛" 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.

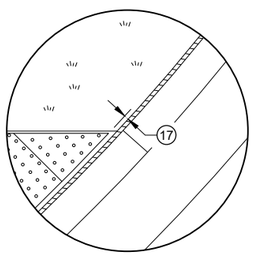
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



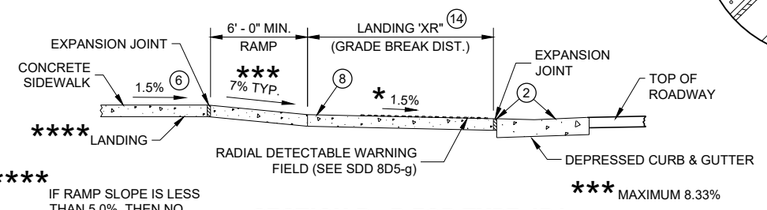
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B

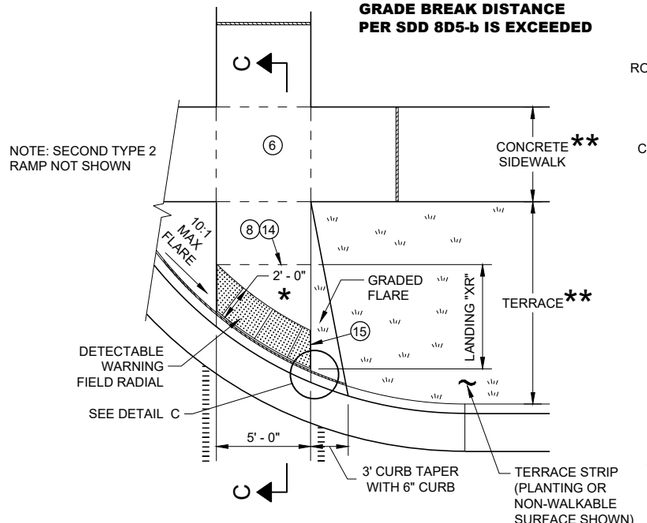


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

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

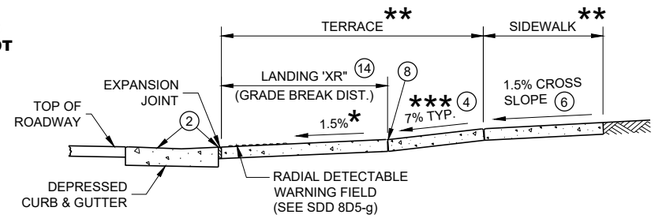


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

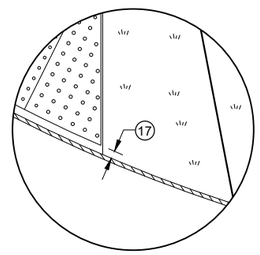


SECTION C - C FOR TYPE 2

* 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

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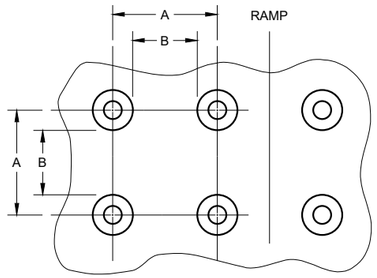
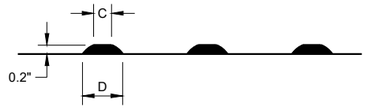
SDD 08D05 - 20f

	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.

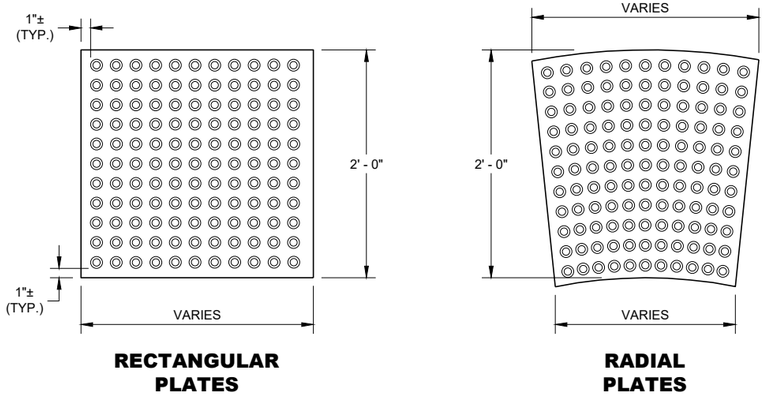


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)

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 FILED ARE PROHIBITED.

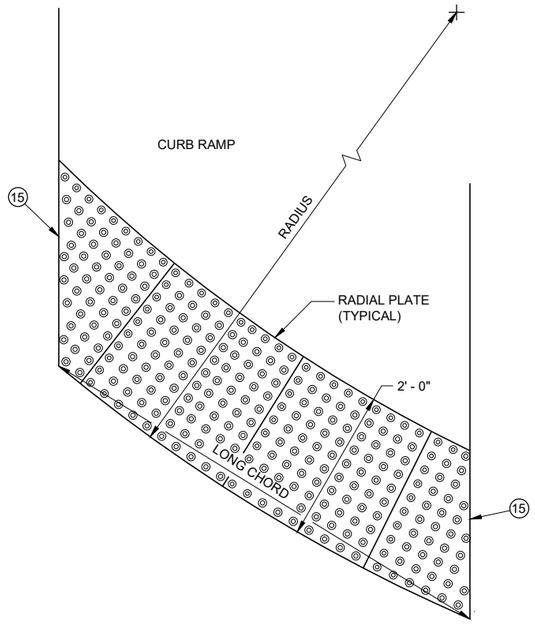
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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.

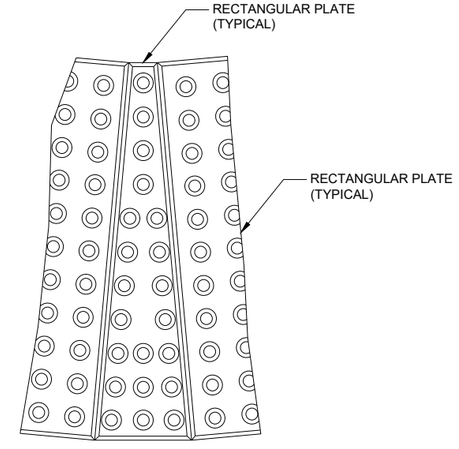
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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 ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

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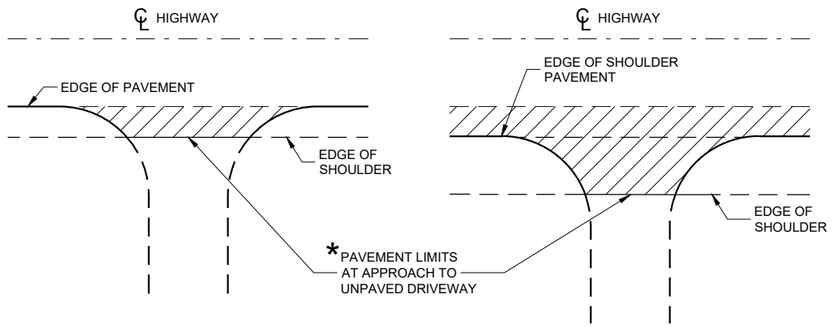
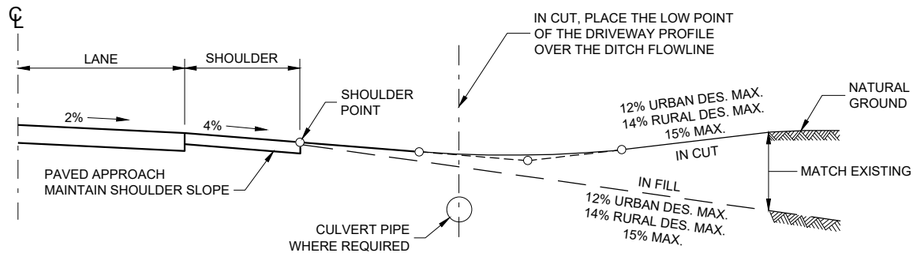
SDD 08D05 - 20g



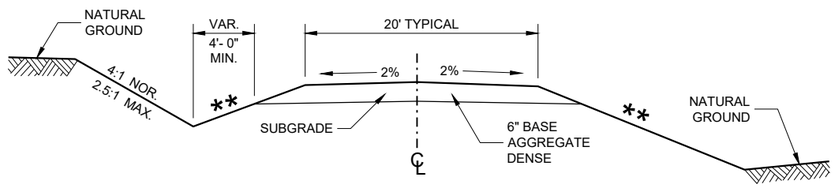
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

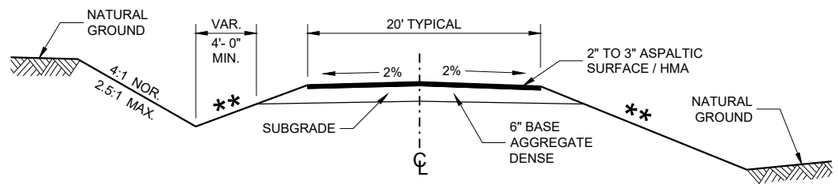


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

DRIVEWAYS WITHOUT CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

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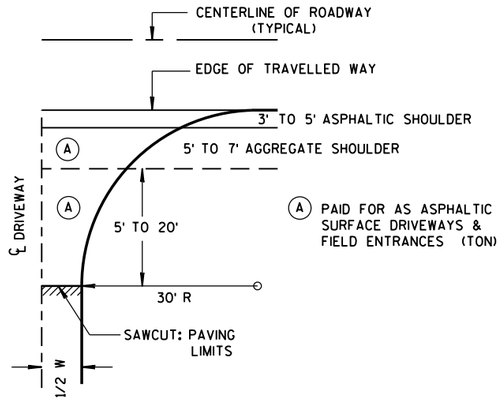
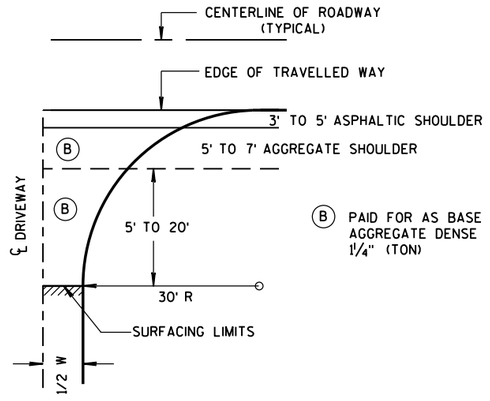
SDD 08D21 - 01



PLAN VIEW
HALF SECTION

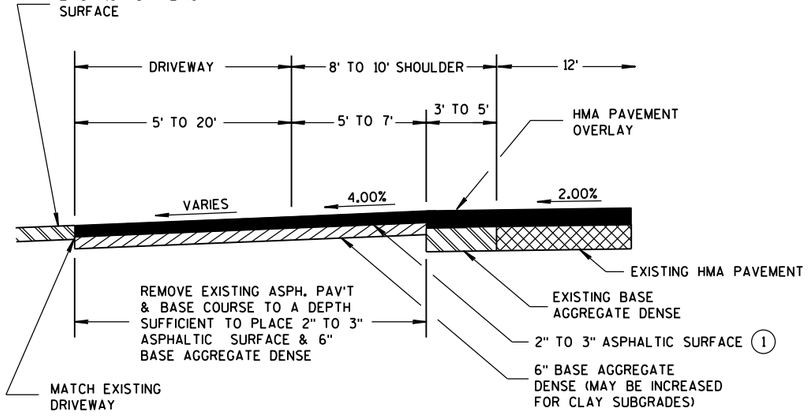
W MIN. = 16'
W MAX. = 24'



PLAN VIEW
HALF SECTION

GENERAL NOTES

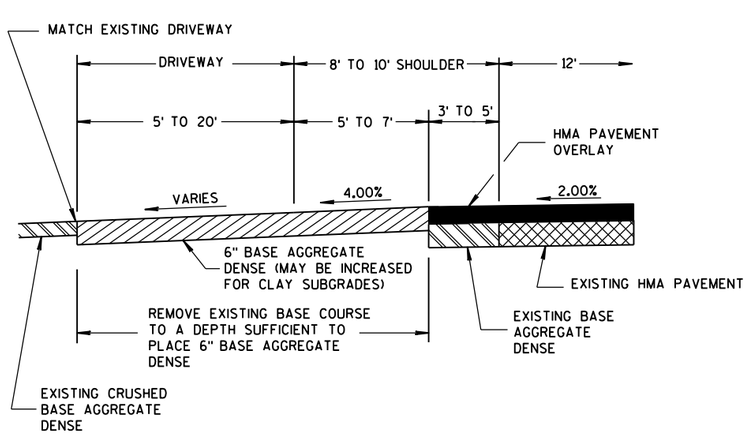
(1) DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.



PROFILE VIEW

RURAL ENTRANCE WITH ASPHALTIC SURFACE

RESURFACING PROJECTS



PROFILE VIEW

RURAL ENTRANCE WITH AGGREGATE SURFACE

6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
ENT
FHWA

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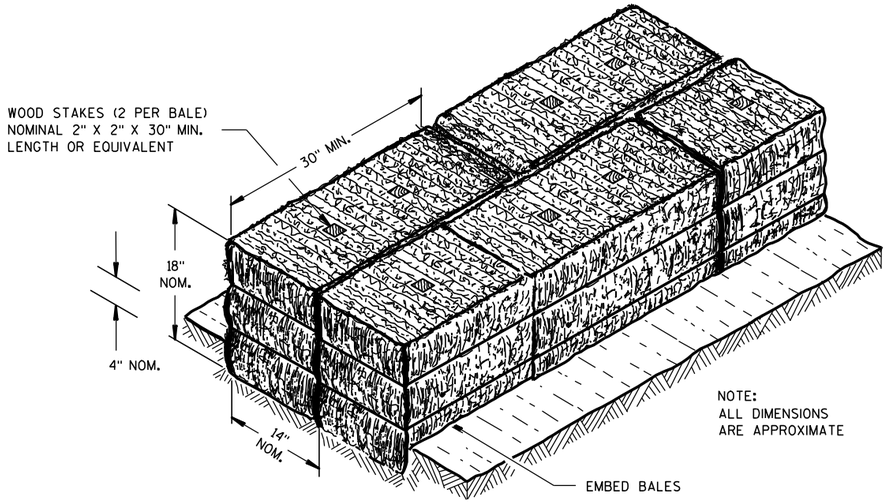
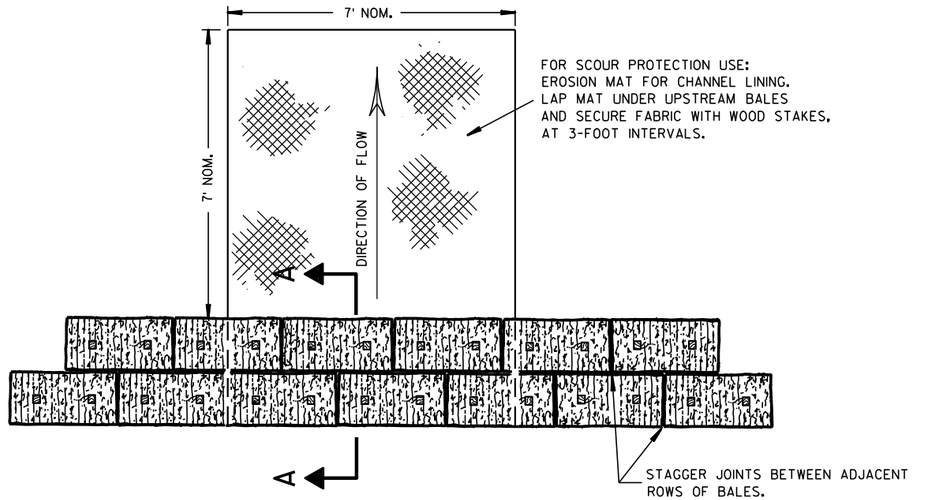
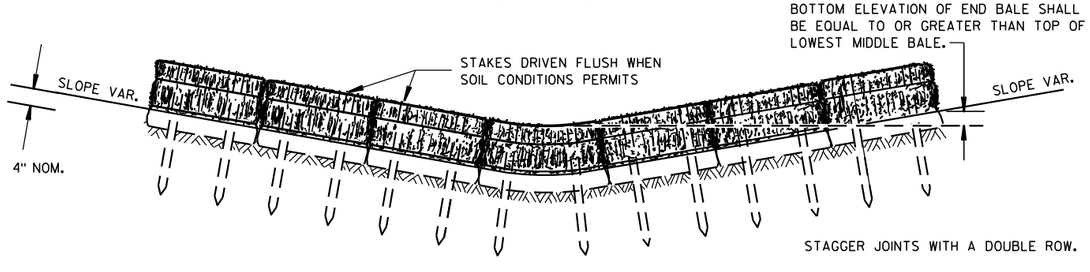


SECTION A-A



PLAN VIEW



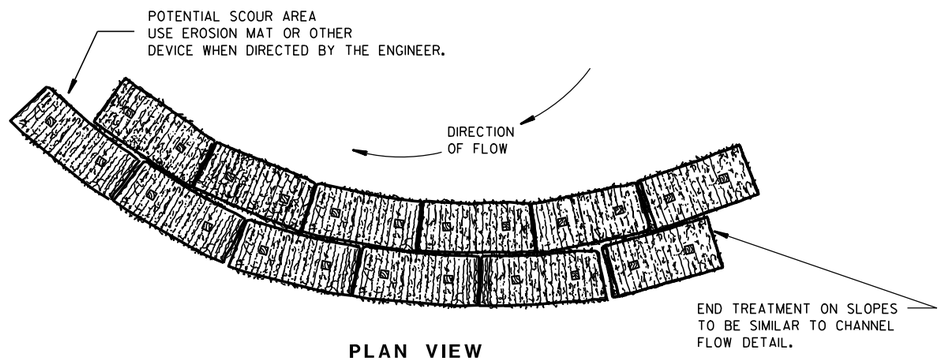
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

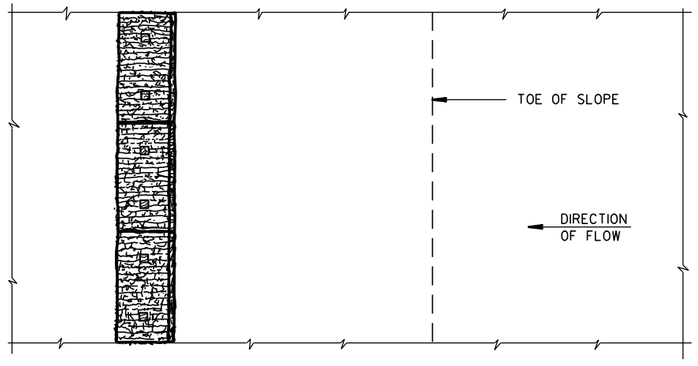
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

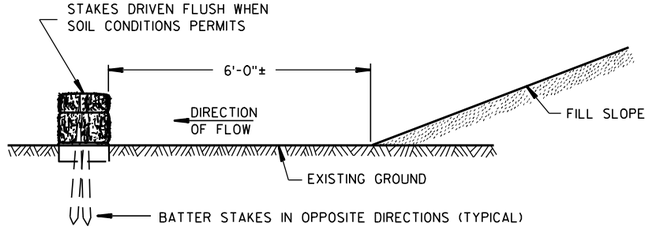


PLAN VIEW

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 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 E 8-3

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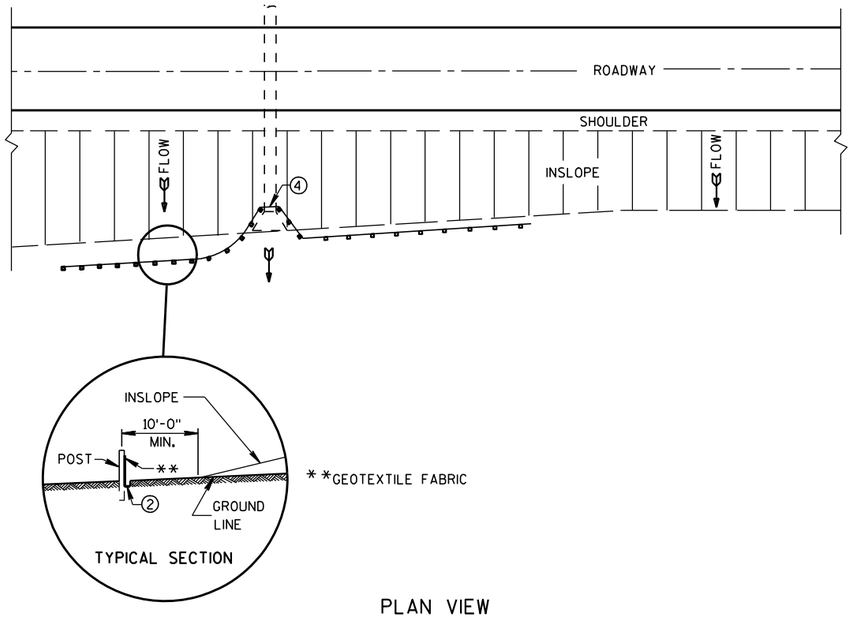
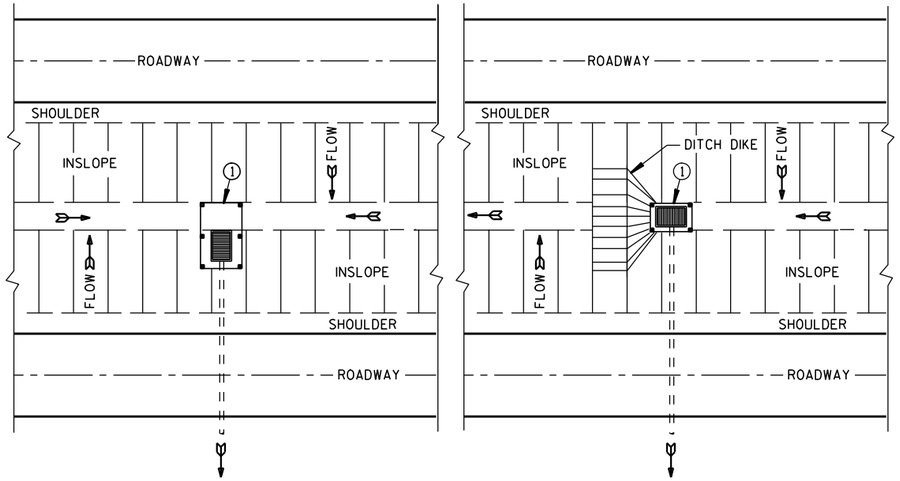
S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



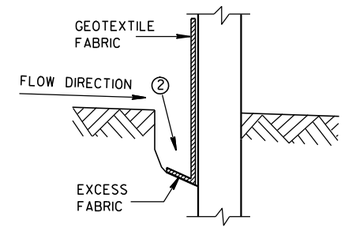
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

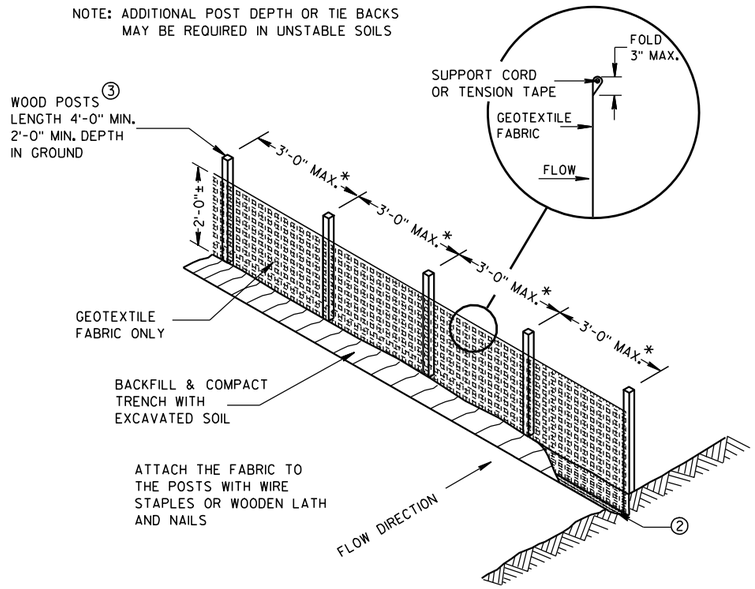
GENERAL NOTES

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

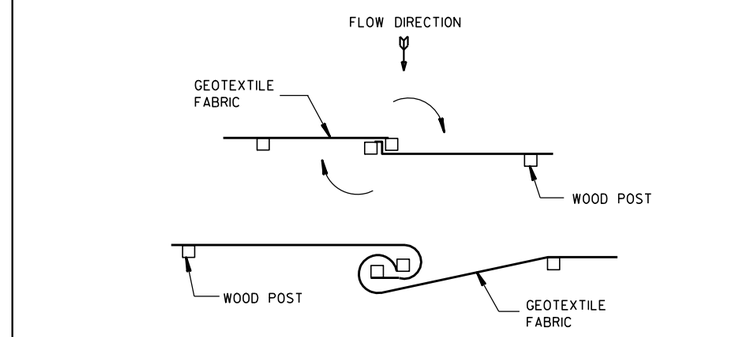
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



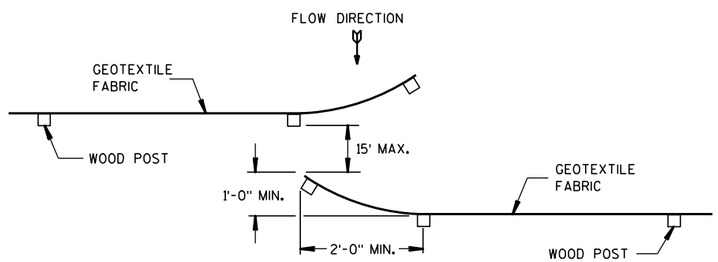
TRENCH DETAIL



SILT FENCE

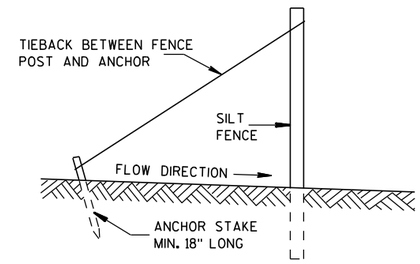


TWIST METHOD



HOOK METHOD

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 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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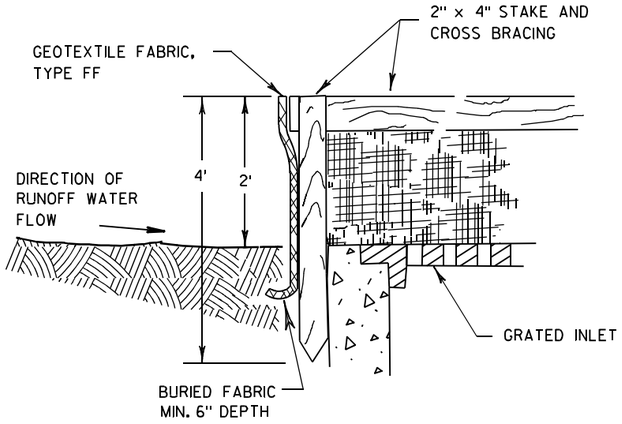
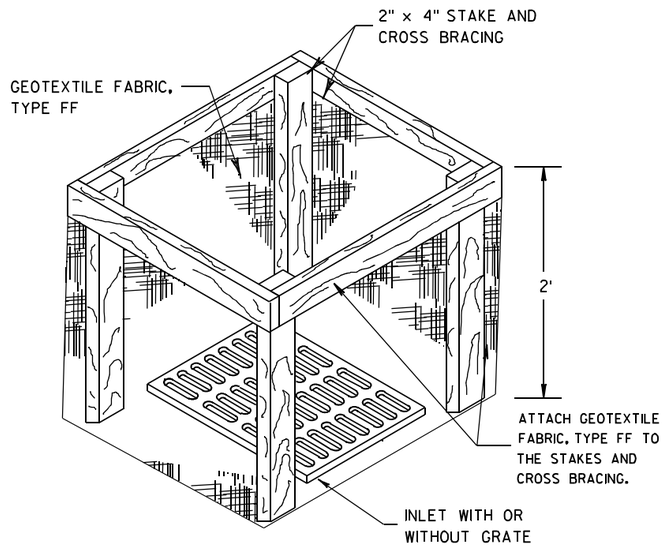
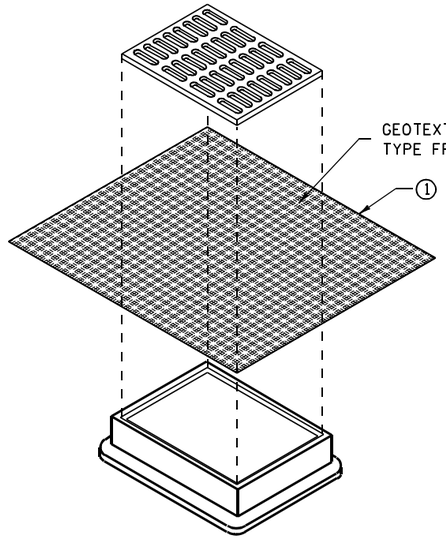
S.D.D. 8 E 9-6



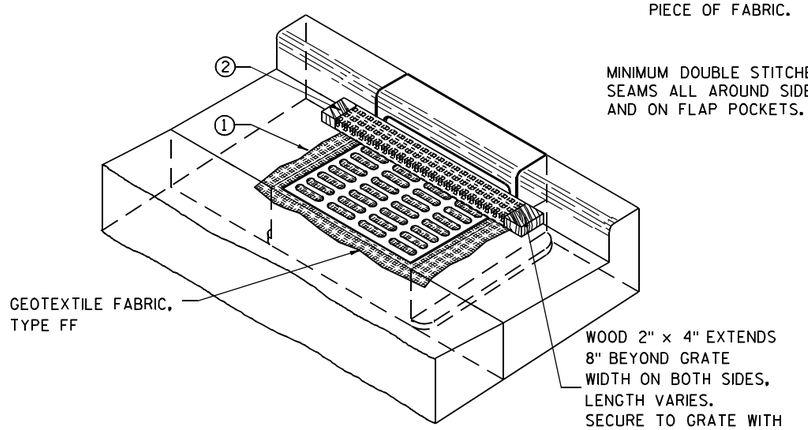


INLET PROTECTION, TYPE A

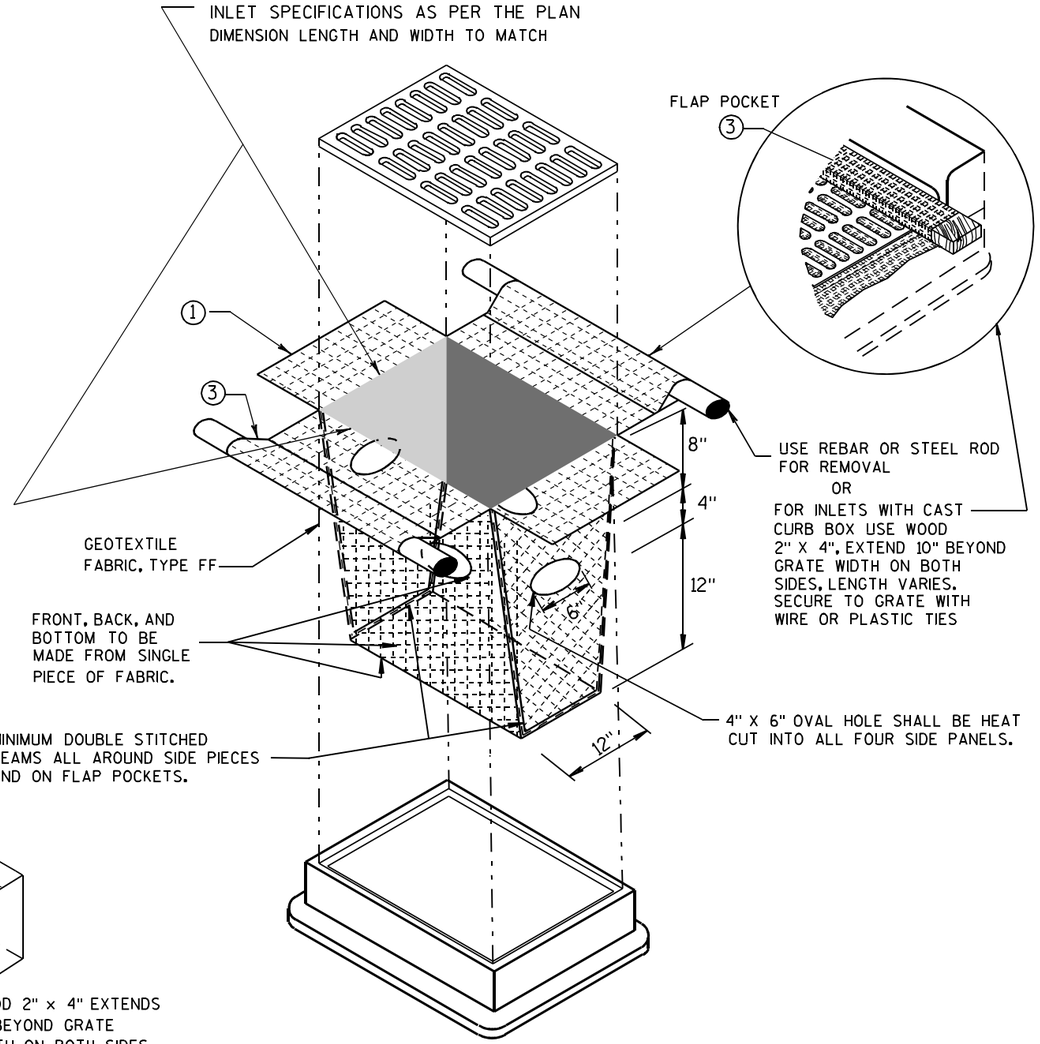


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

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.

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 A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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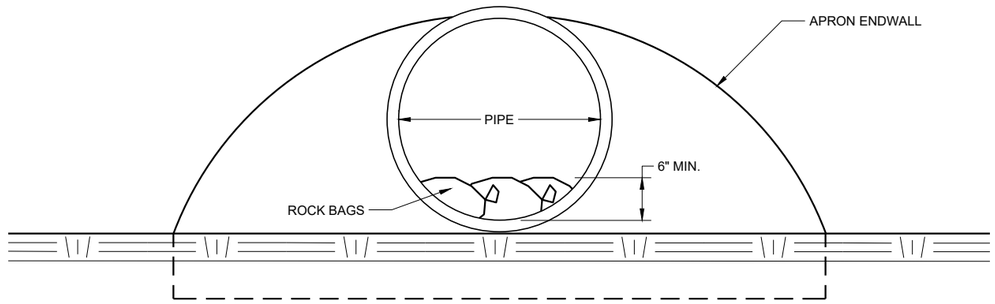
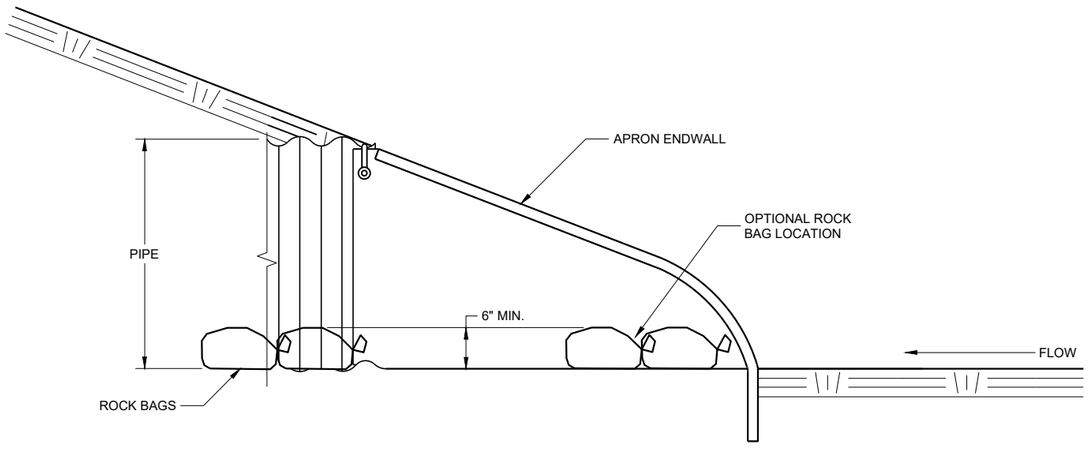
S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Daniel Schave
EROSION CONTROL ENGI

FHWA

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SDD 08E15 - 01

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SDD 08E15 - 01

METAL APRON ENDWALLS

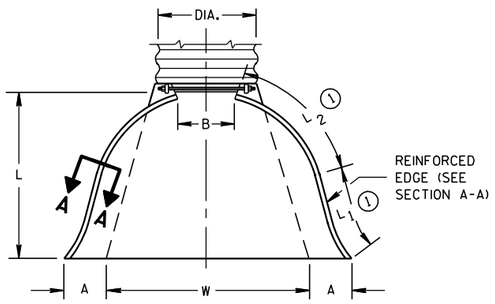
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

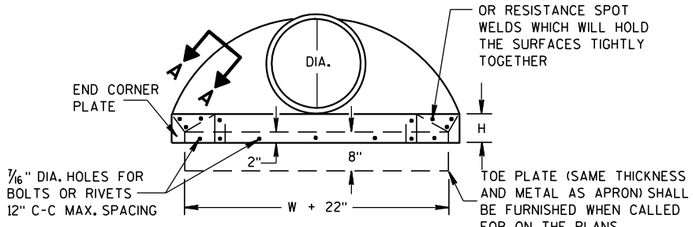
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	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 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

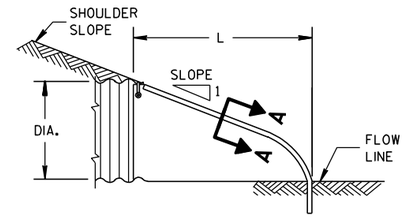
*MINIMUM
**MAXIMUM



PLAN VIEW

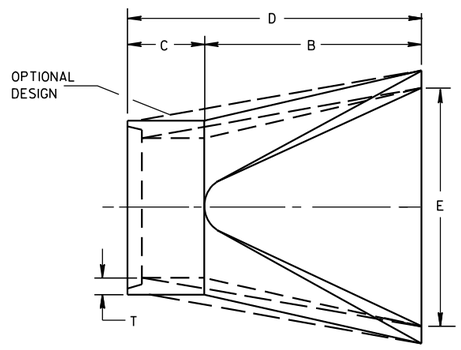


END VIEW

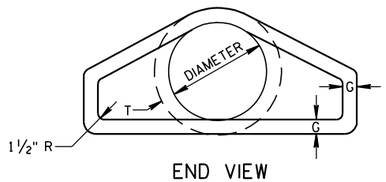


SIDE ELEVATION

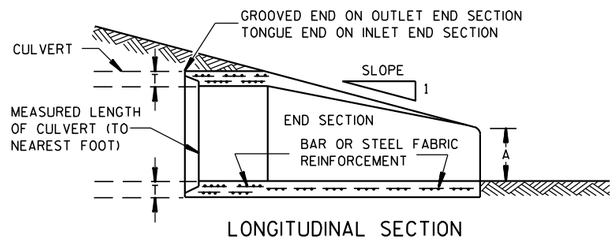
METAL ENDWALLS



PLAN

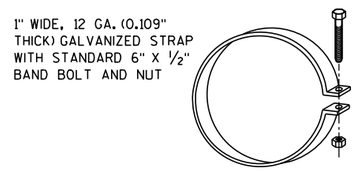


END VIEW



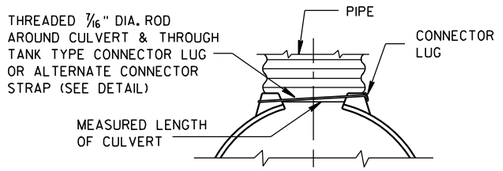
LONGITUDINAL SECTION

CONCRETE ENDWALLS

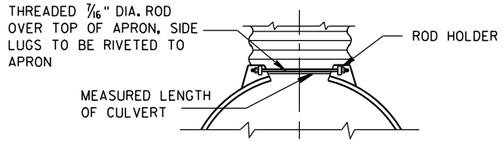


ALTERNATE FOR TYPE 1 CONNECTION

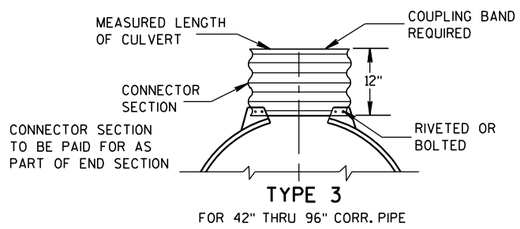
END SECTION CONNECTOR STRAP



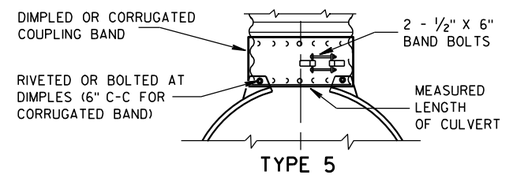
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

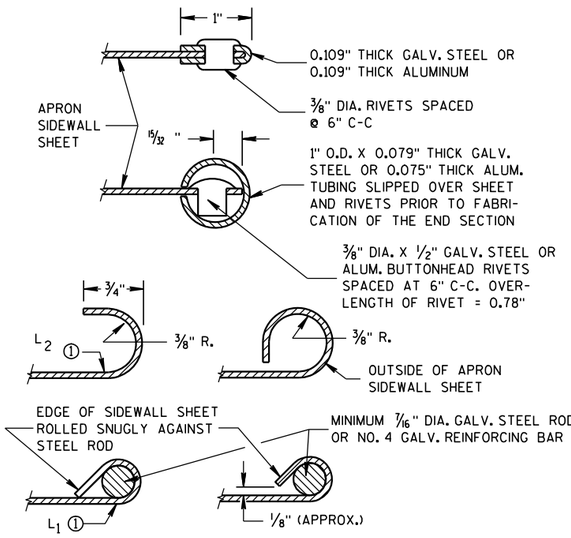
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE 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.

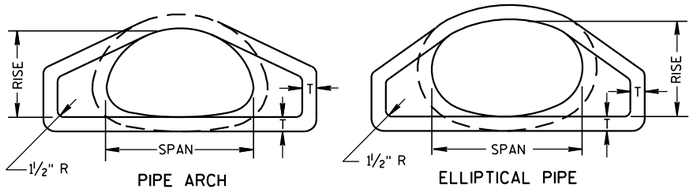
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

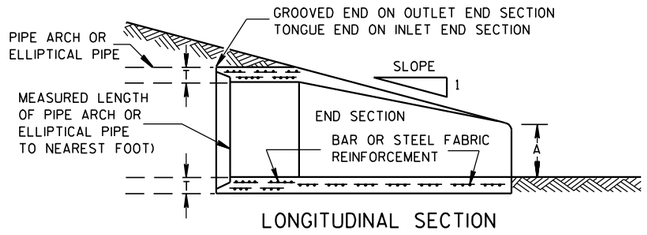
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

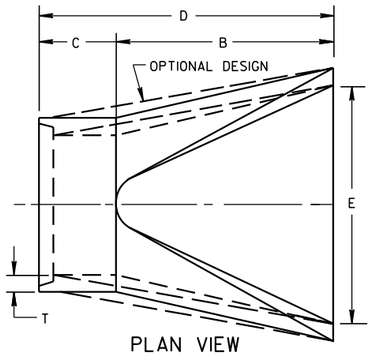
6
S.D.D. 8 F 1-11



END VIEW

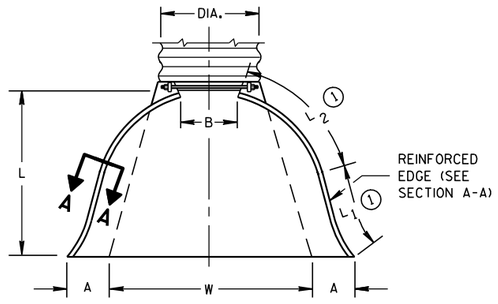


LONGITUDINAL SECTION

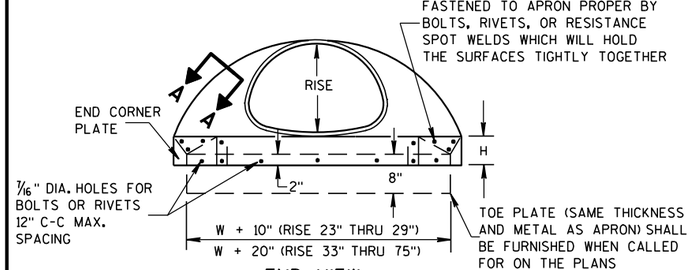


PLAN VIEW

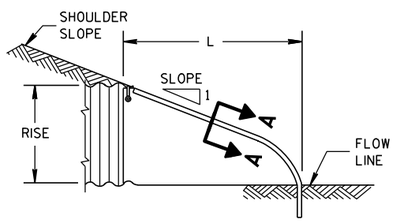
CONCRETE ENDWALLS



PLAN VIEW

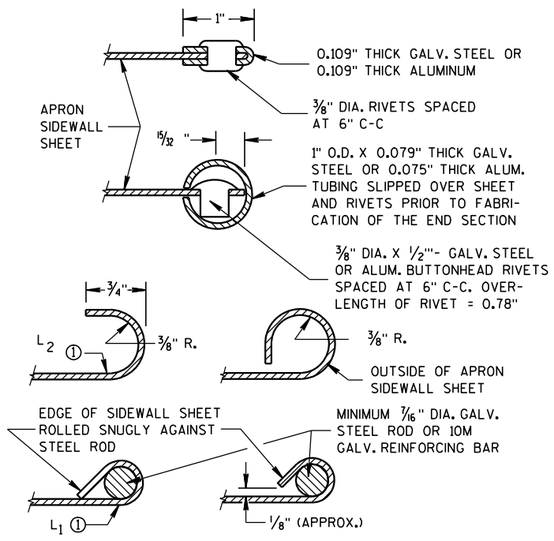


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

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

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ 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	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

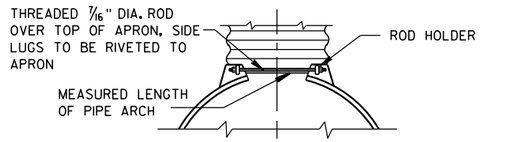
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	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	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

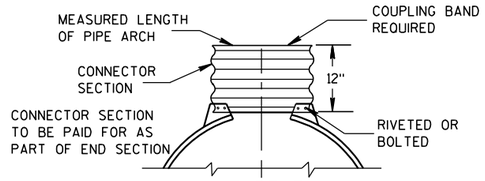
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



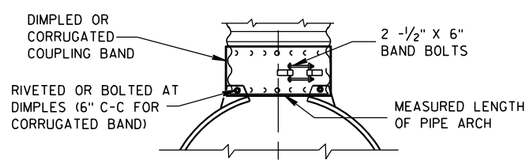
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

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

CONNECTION DETAILS

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.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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S.D.D. 8 F 2-1

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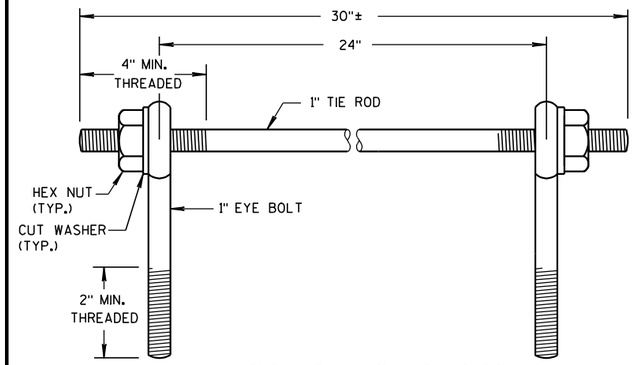
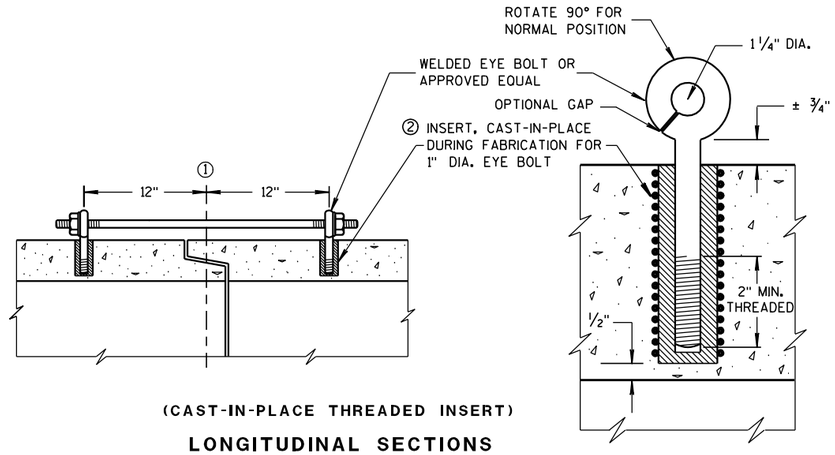
S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 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 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 ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

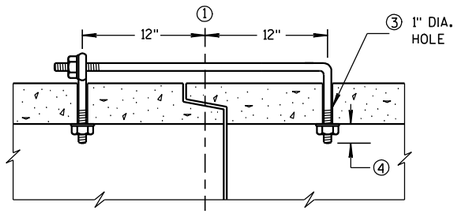
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

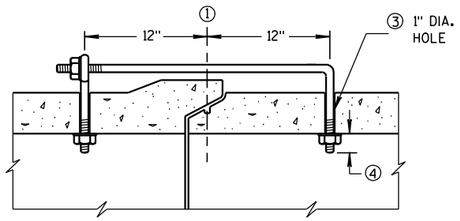
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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.



(TONGUE & GROOVE PIPE)

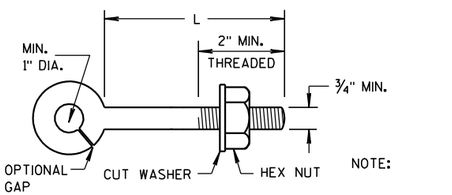


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

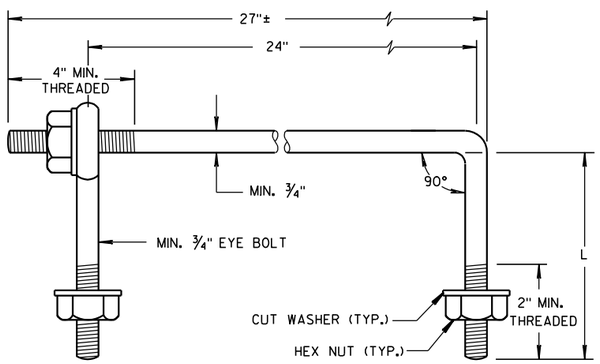
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

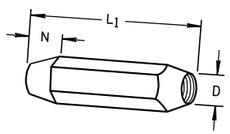
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES



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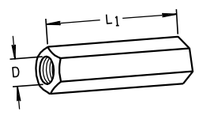
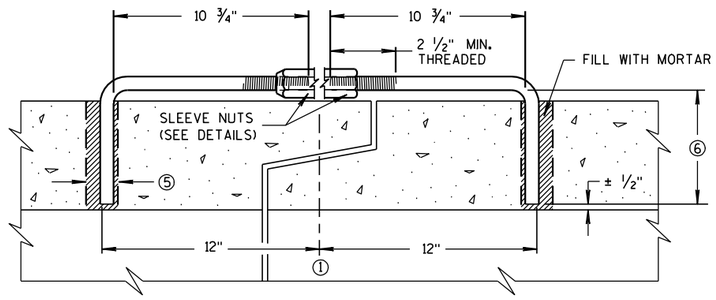


PLAIN

RIGHT AND LEFT THREADS

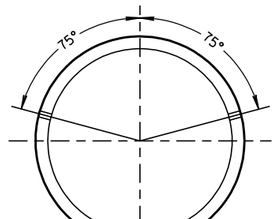
SLEEVE NUTS



LONGITUDINAL SECTION

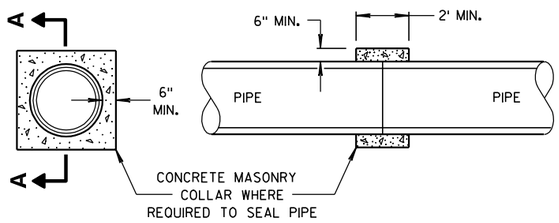
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
147
FHWA

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S.D.D. 8 F 4-7

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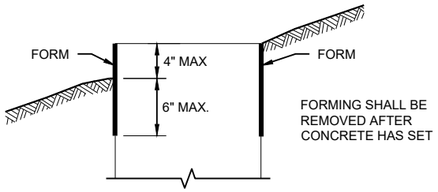
S.D.D. 8 F 4-7

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWINGSHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

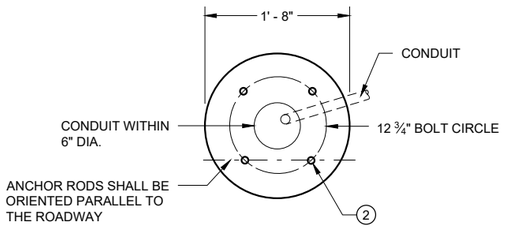
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

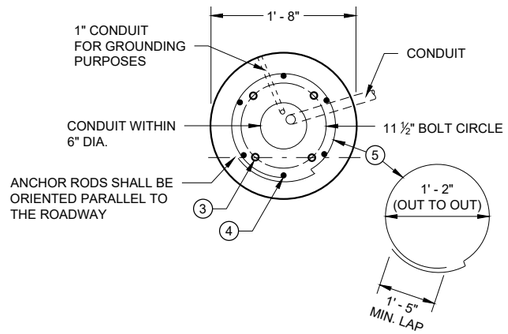
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

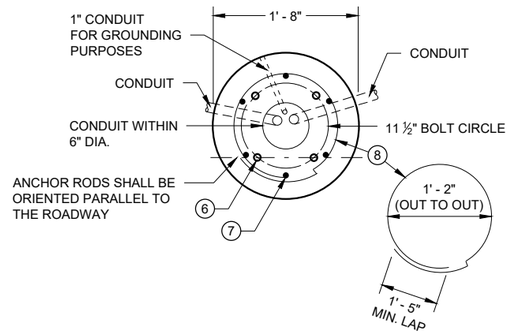
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).







1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

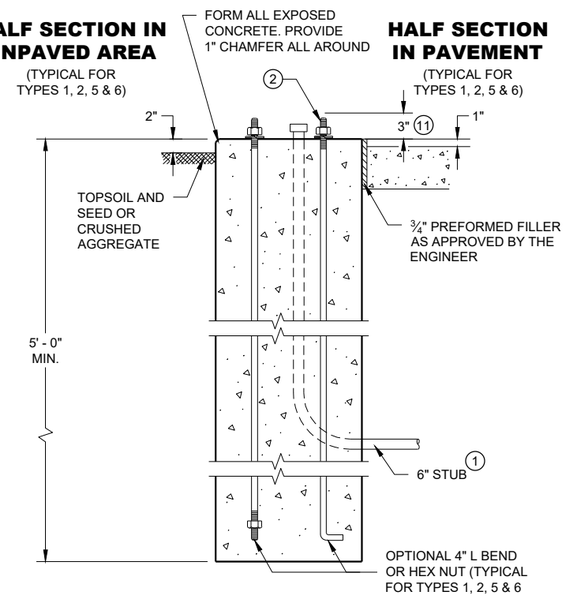
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

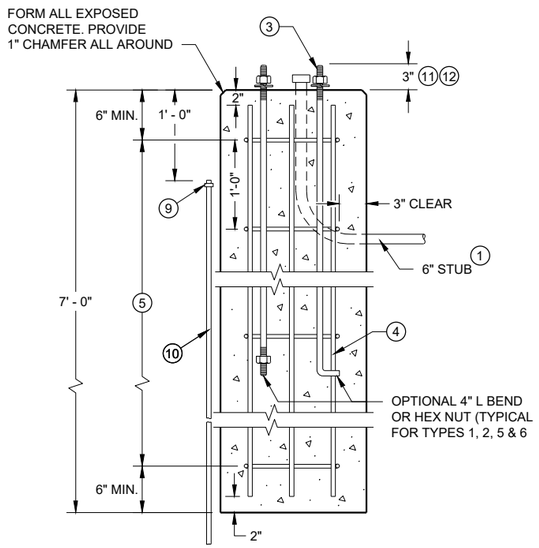
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

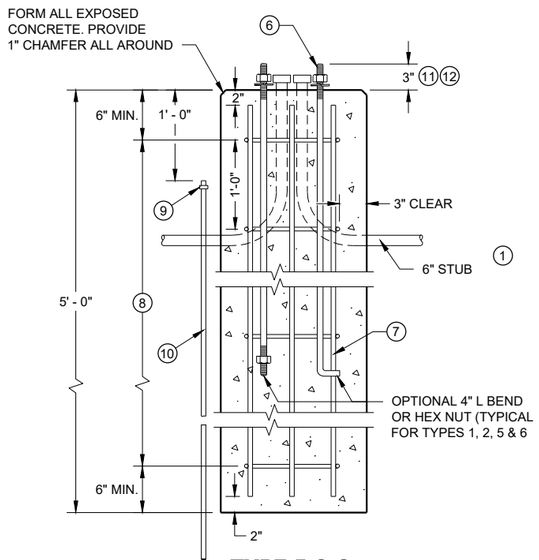
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

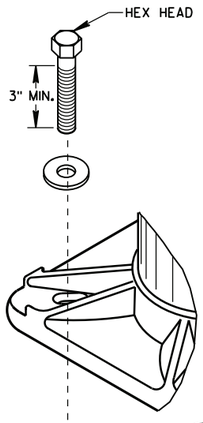
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

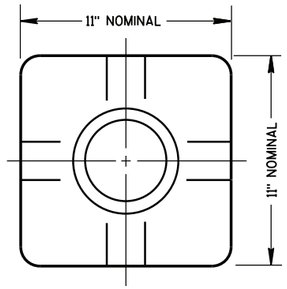
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

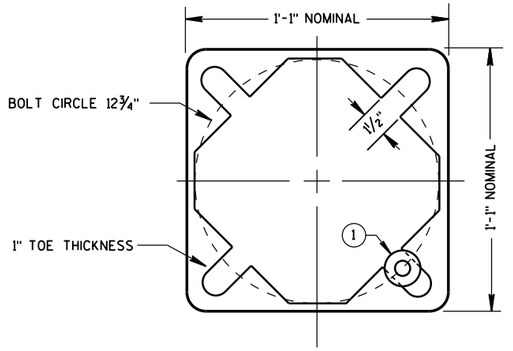
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

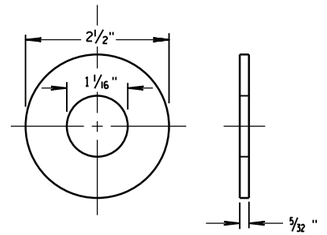




TOP VIEW
(PEDESTAL BASE)

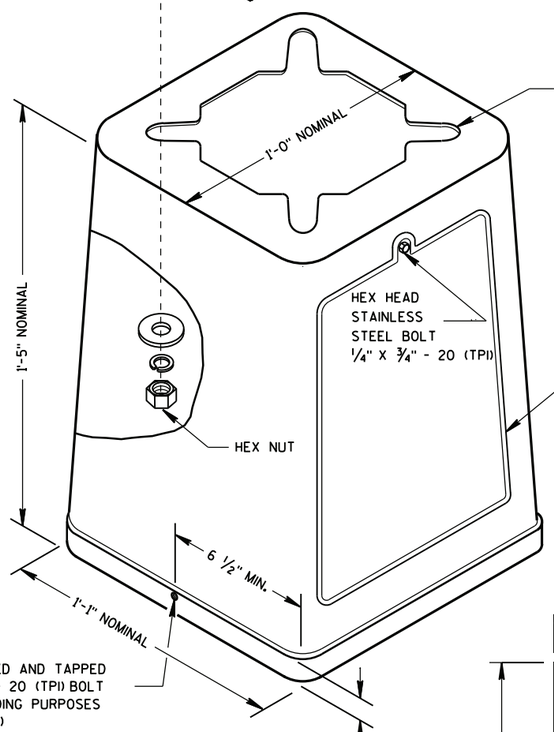


BOTTOM VIEW
(PEDESTAL BASE)

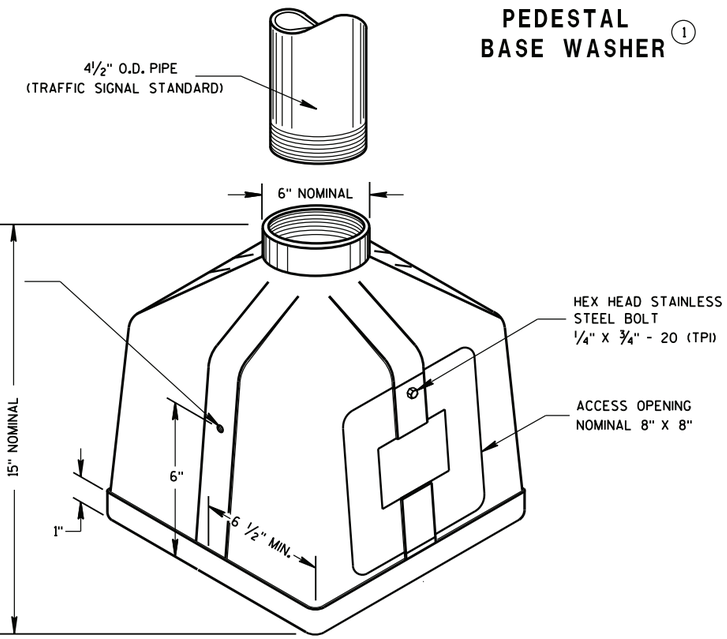


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

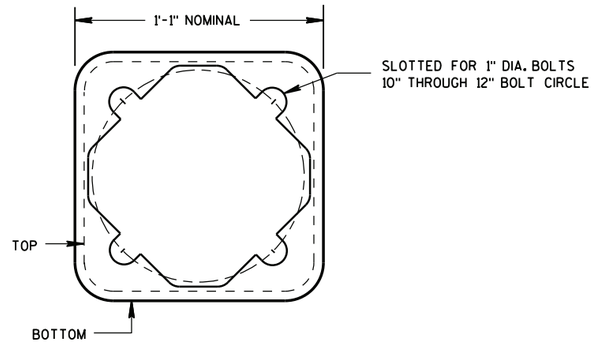
PEDESTAL BASE WASHER (1)



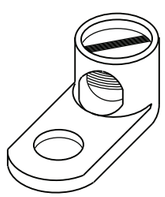
ISOMETRIC VIEW



ISOMETRIC VIEW
PEDESTAL BASE

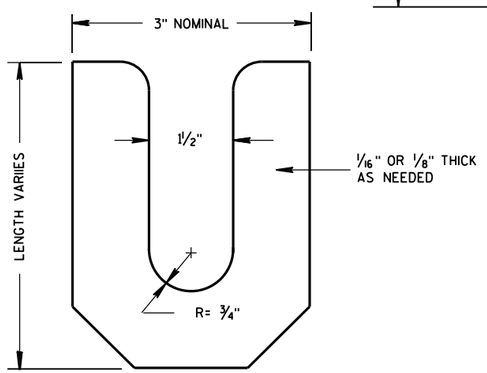


BOTTOM VIEW
(TRANSFORMER BASE)



TYPICAL MECHANICAL CONNECTOR LUG
TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE
INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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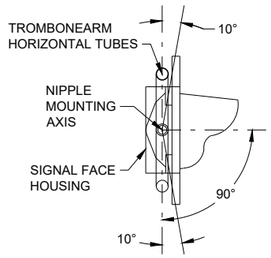
S.D.D. 9 C 3-4

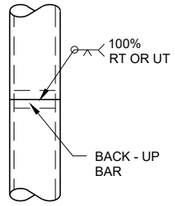


SECTION A-A

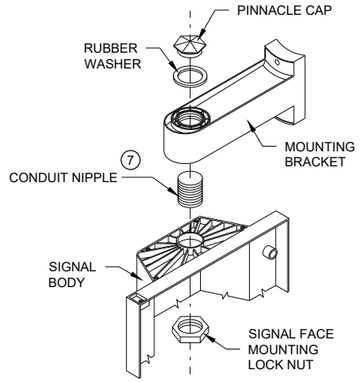
(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)

FOR MANUFACTURERS USE ONLY

WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.



POLE SPLICE DETAIL



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

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

POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING,PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) ASREQUIRED, TO PLUMB THE SIGNAL FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

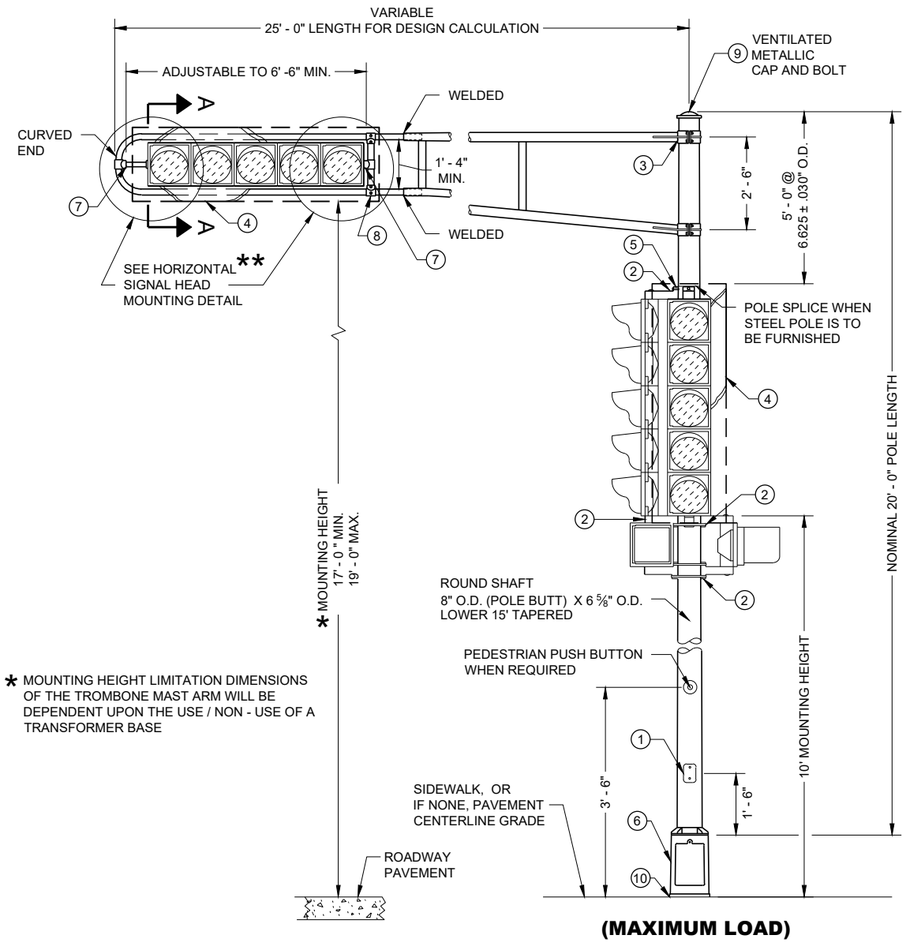
(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOTINTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUTIS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

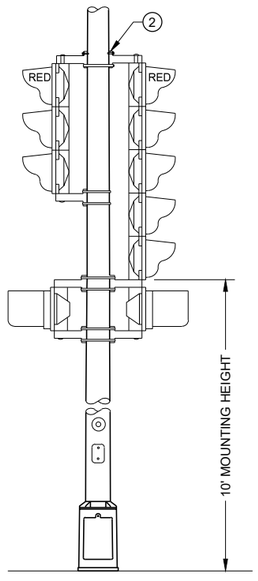
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

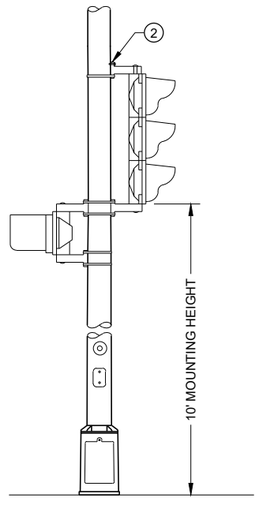


* MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE / NON - USE OF A TRANSFORMER BASE

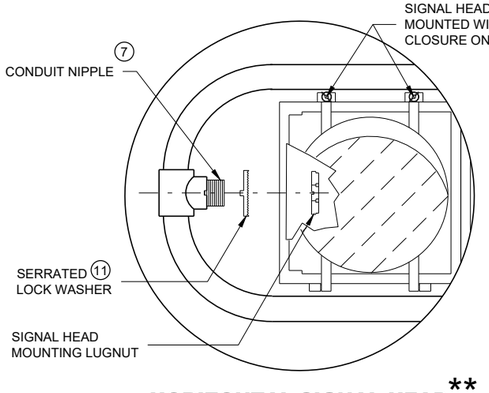
(MAXIMUM LOAD)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

TYPE 2 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

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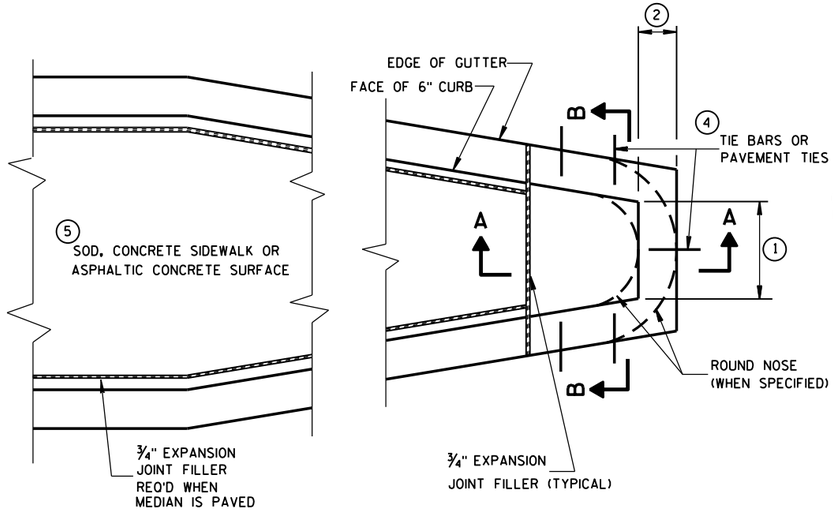
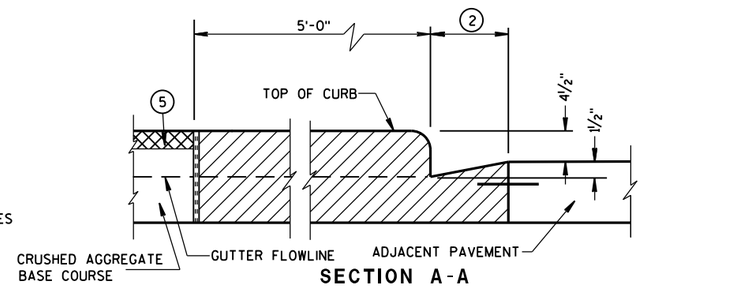




CONCRETE MEDIAN BLUNT NOSE DETAIL

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) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

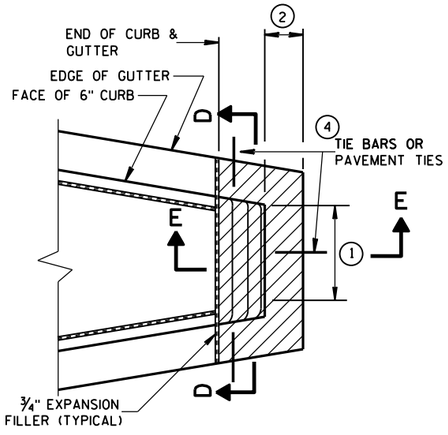
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

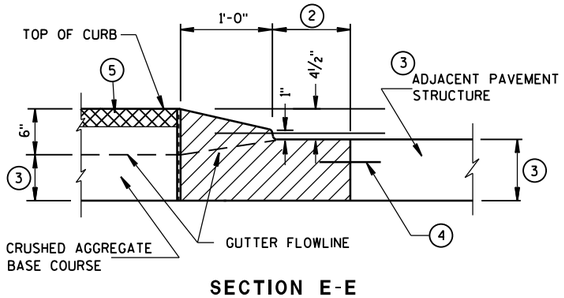
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

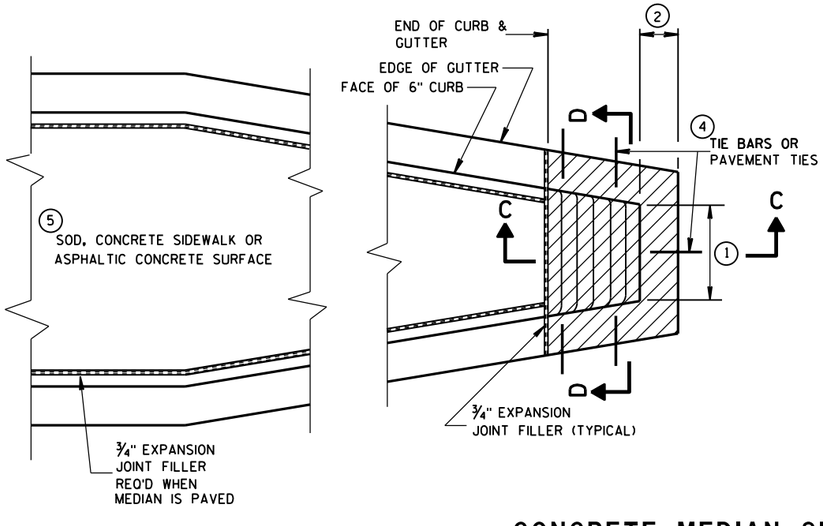
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

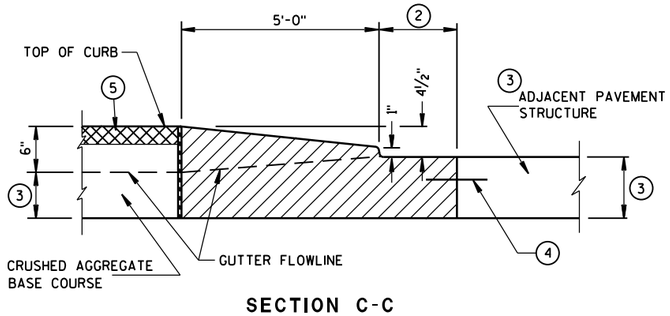




SECTION E-E

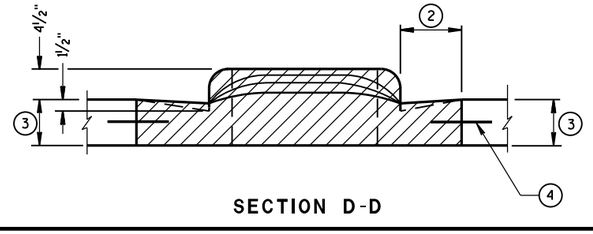
CONCRETE MEDIAN SLOPED NOSE TYPE 2





SECTION C-C

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER
FHWA

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S.D.D. 11 B 2-2

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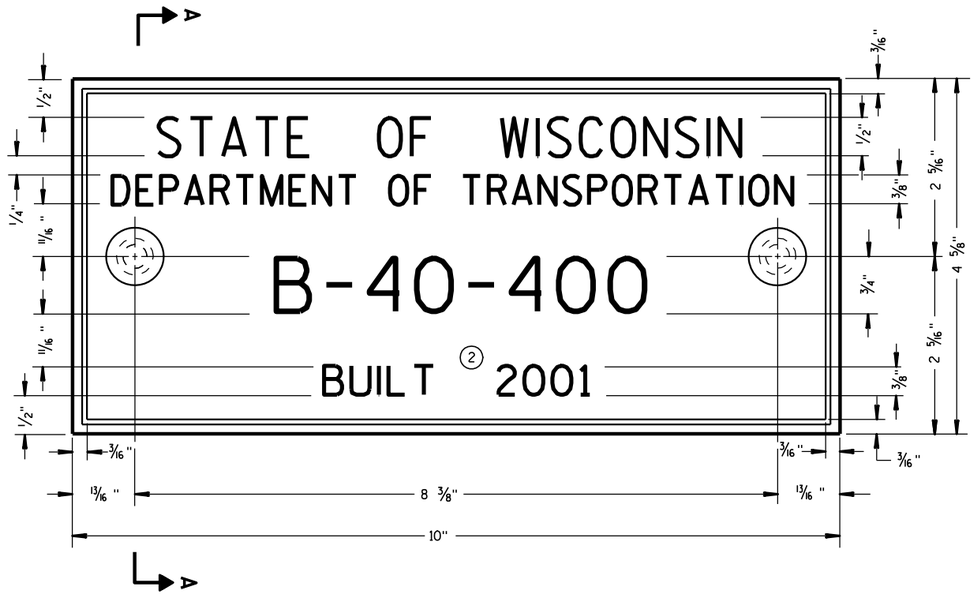
S.D.D. 11 B 2-2



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

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

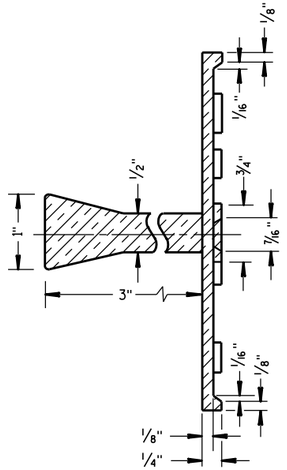
GENERAL NOTES

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

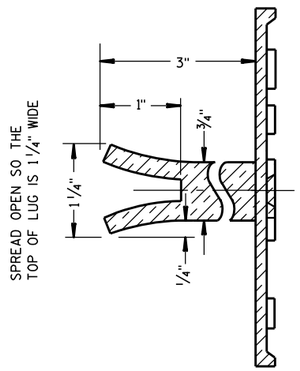
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

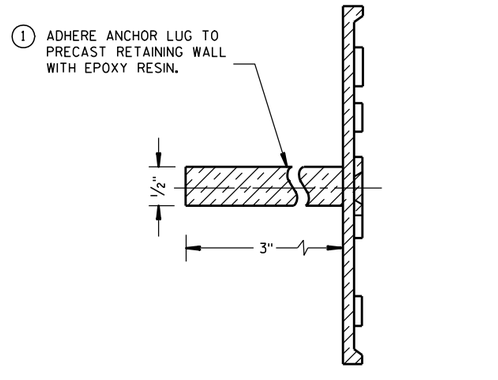
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

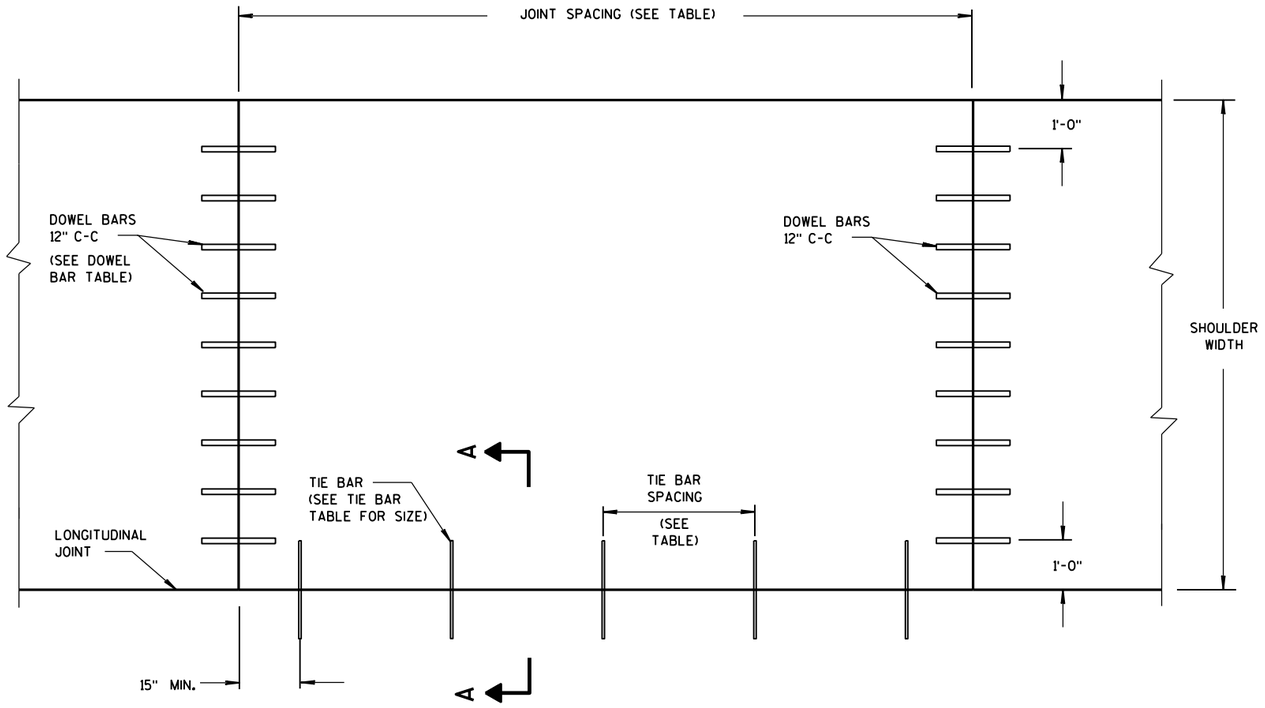
APPROVED

3/26/10 DATE — /S/ Scot Beck — CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 12 A 3-10



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

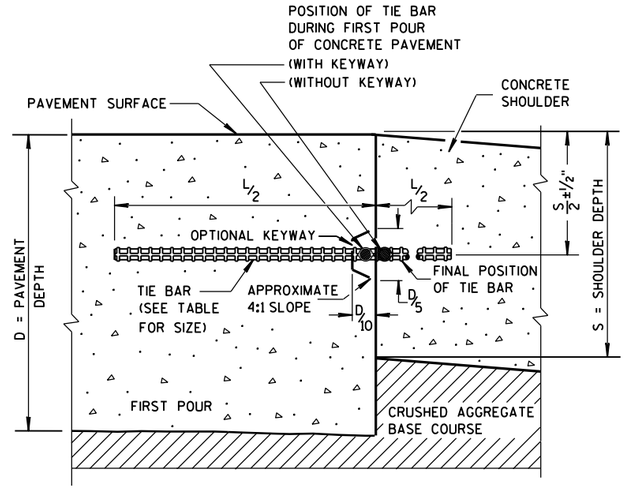
GENERAL NOTES

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.

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER***	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FOR THE AVERAGE THICKNESS OF THE CROSS SECTION.

CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPEF
FHWA

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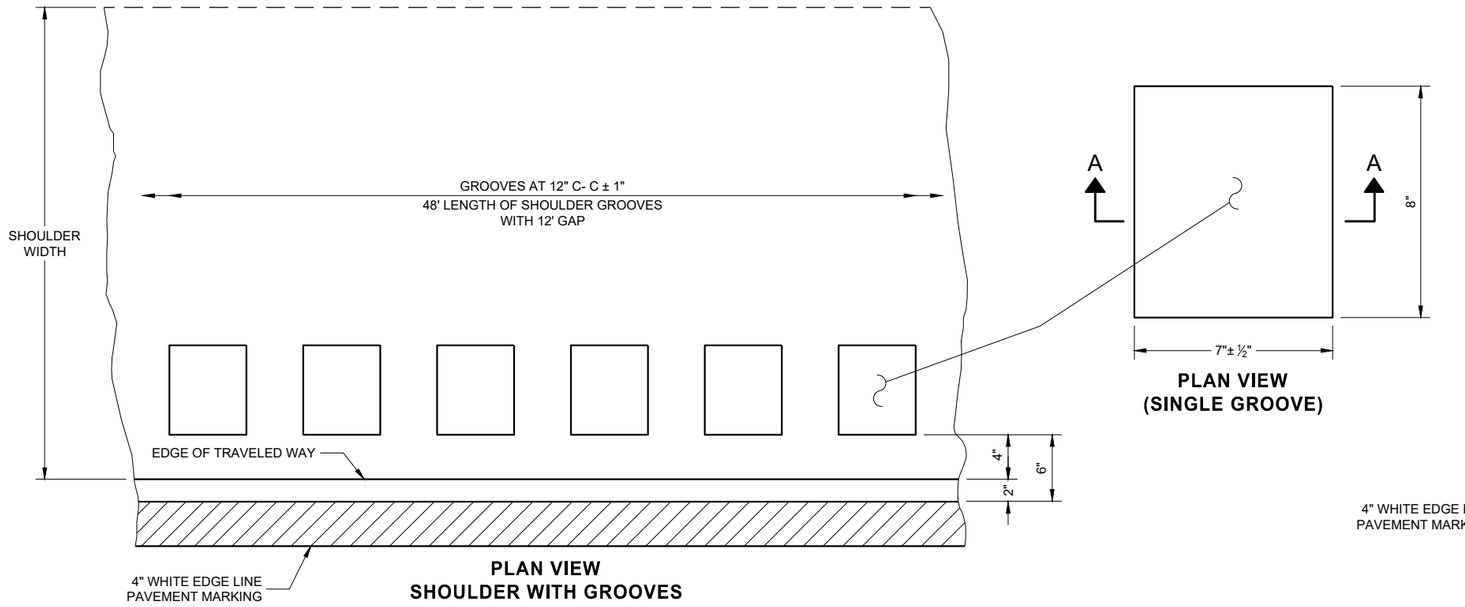
S.D.D. 13 A 3-6



PLAN VIEW
SHOULDER WITH GROOVES

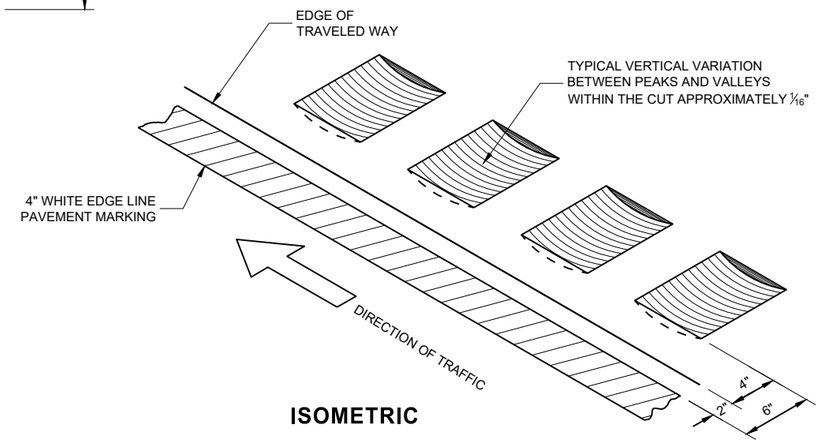
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

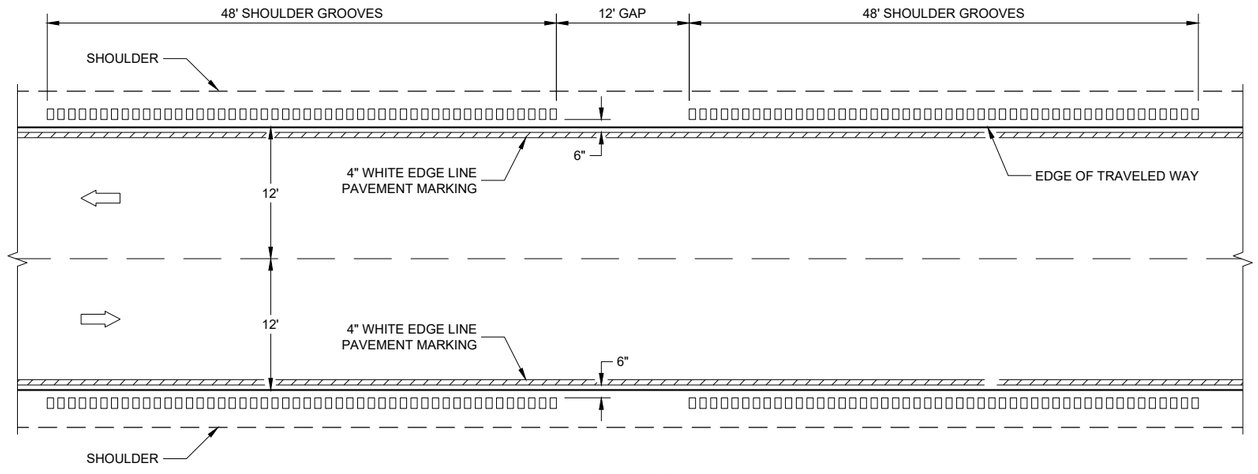
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

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

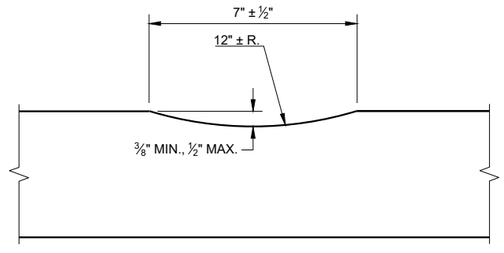


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



TYPE 1
2 - LANE SHOULDER RUMBLE STRIP



SECTION A - A

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 13A10 - 02a

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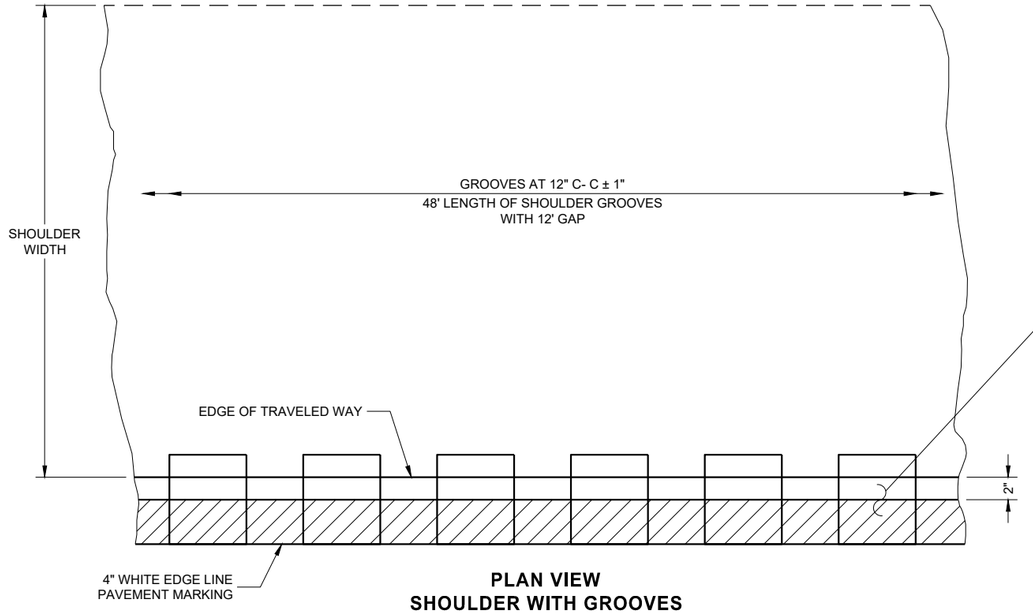
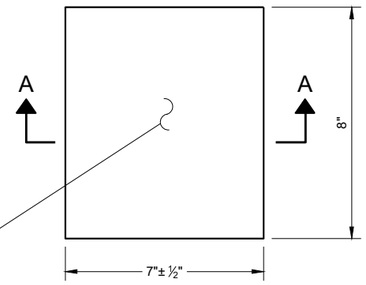
SDD 13A10 - 02a



PLAN VIEW
SHOULDER WITH GROOVES



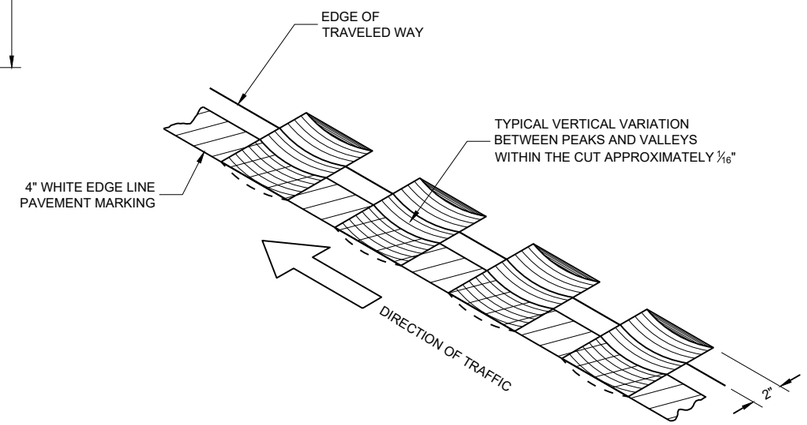
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

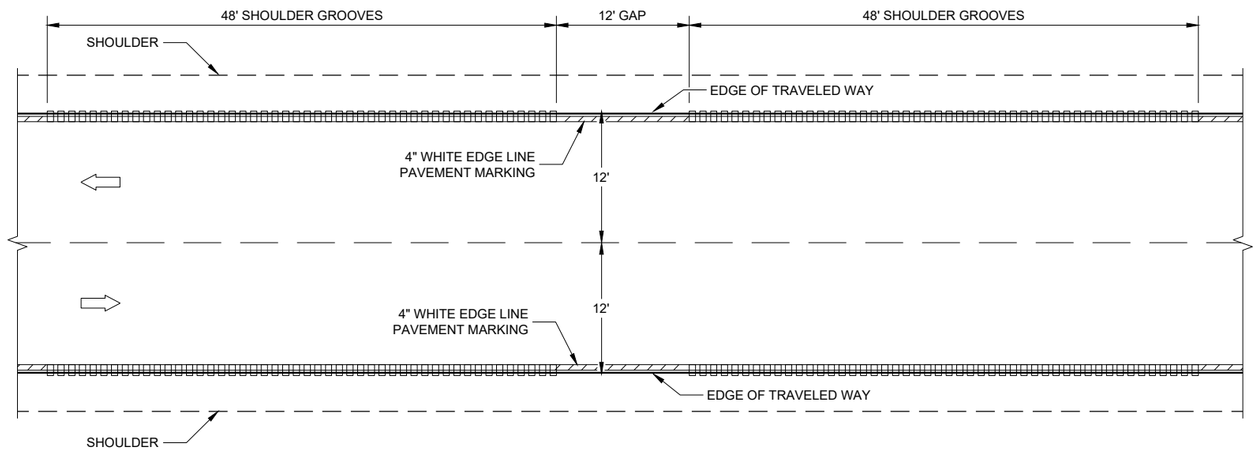
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

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

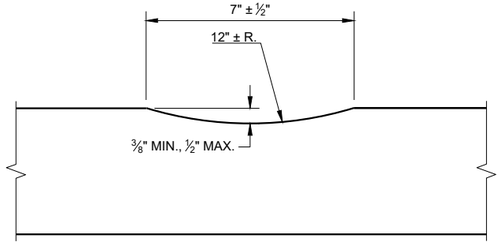


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP



TYPE 2
2 - LANE SHOULDER RUMBLE STRIP



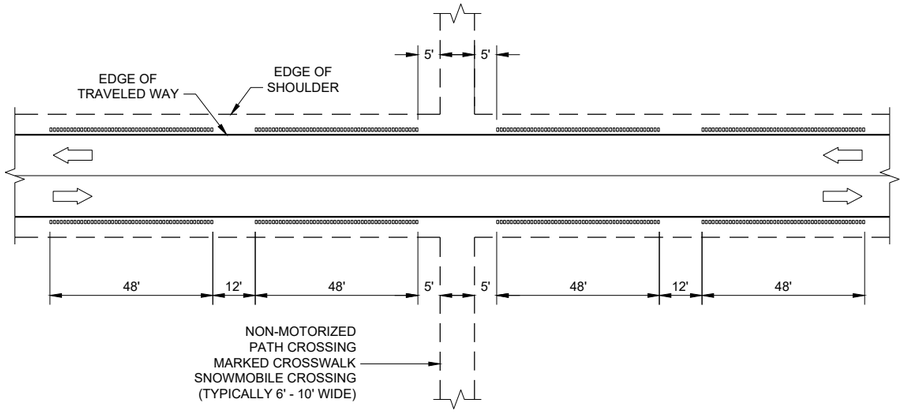
SECTION A - S

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

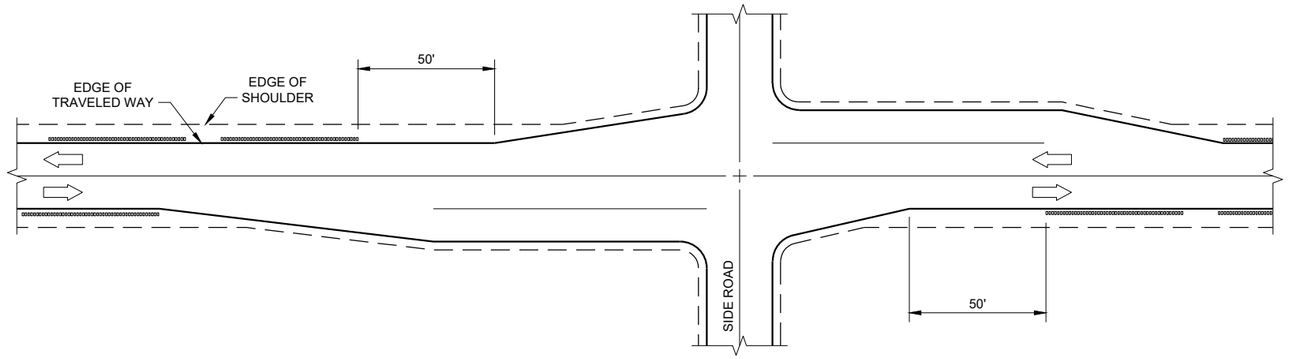
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 13A10 - 02b

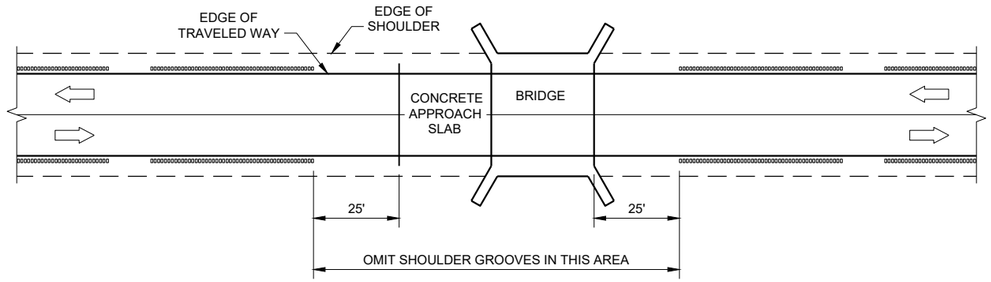
SDD 13A10 - 02b



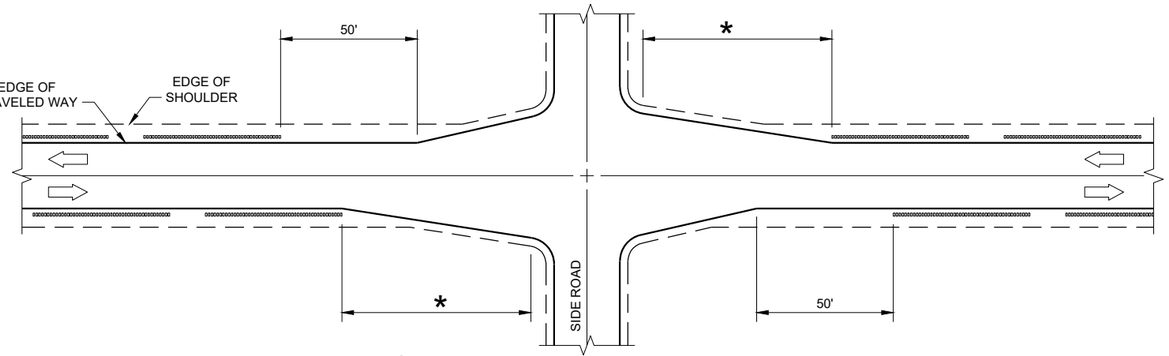
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



SHOULDER GROOVES AT RIGHT TURN LANE

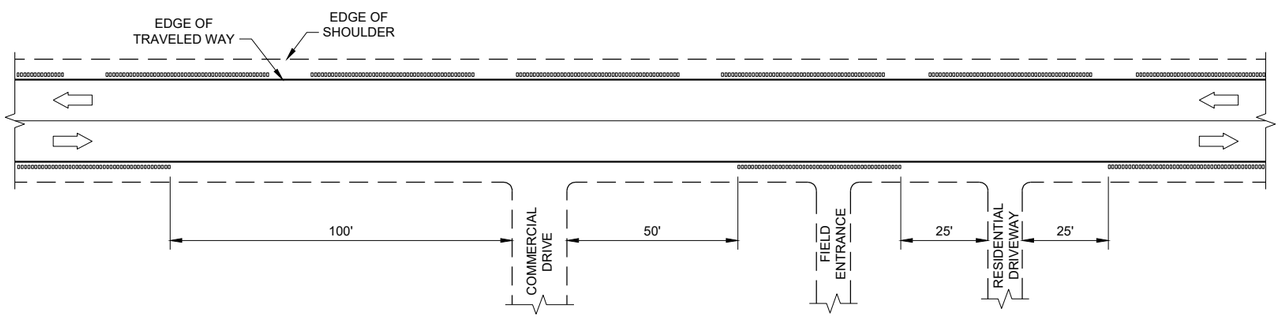


SHOULDER GROOVES AT BRIDGES



* GREATER OF 100' OR APPROACH TAPER LENGTH

SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER



SHOULDER GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

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

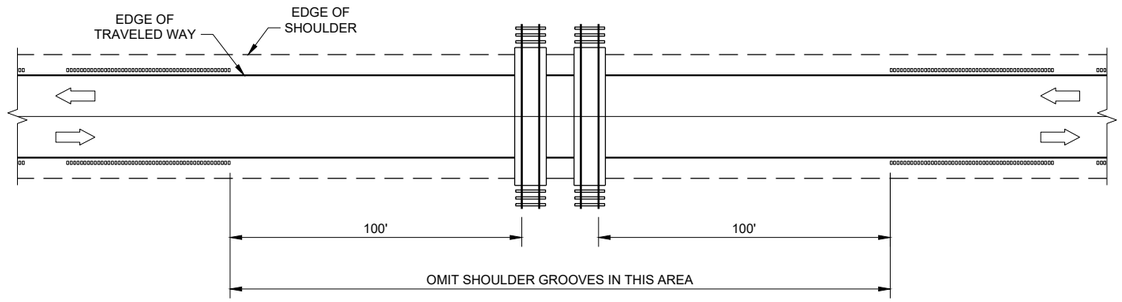
2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

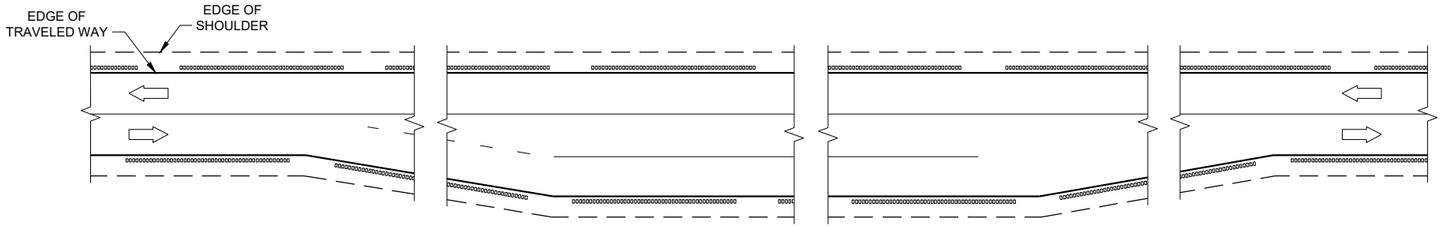
6

SDD 13A10 - 02c

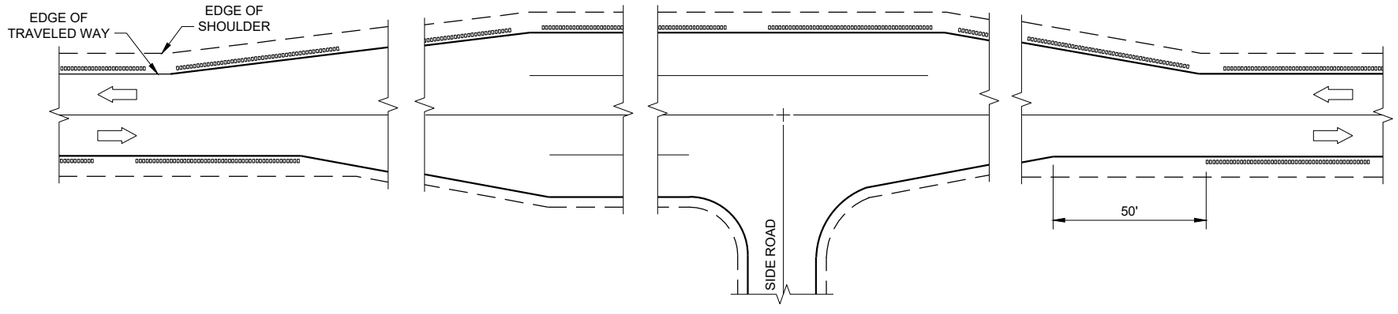
SDD 13A10 - 02c



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

6

6

SDD 13A10 - 02d

SDD13A10 - 02d

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

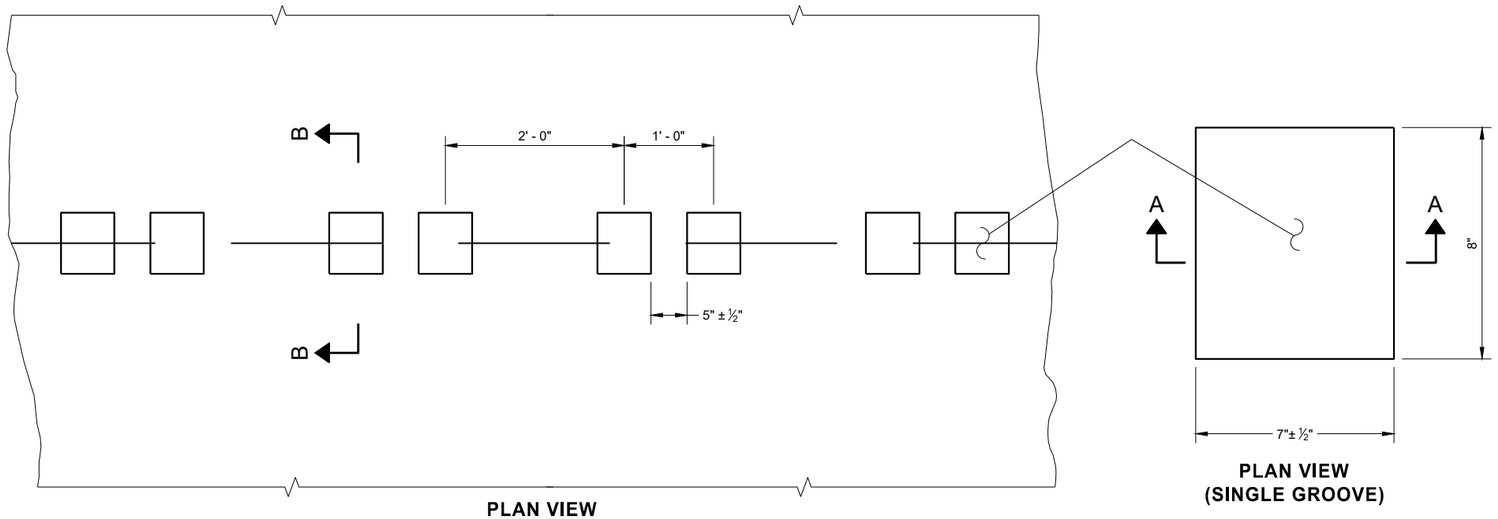
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

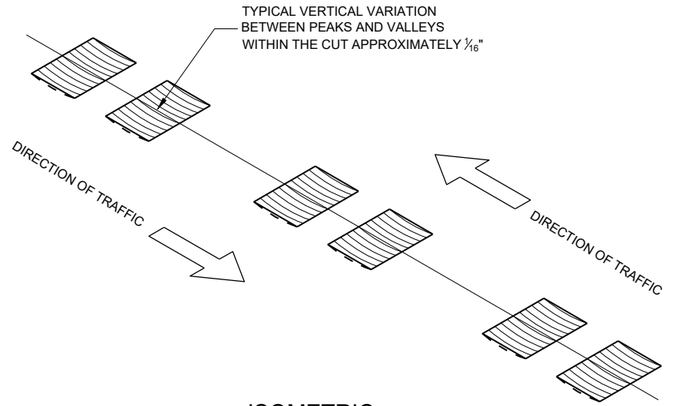
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.



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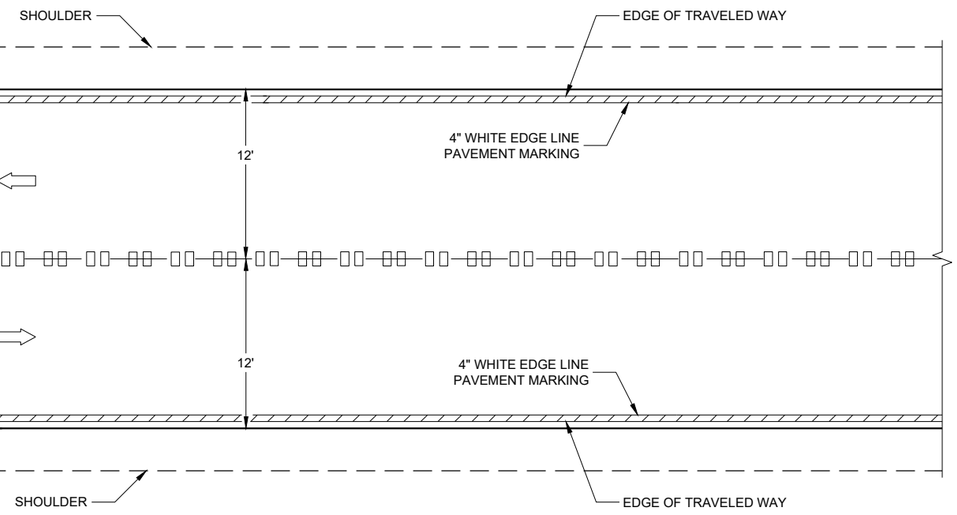
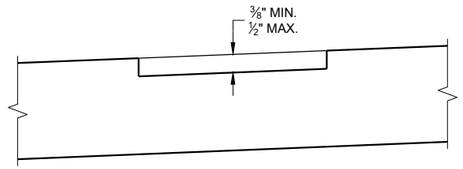
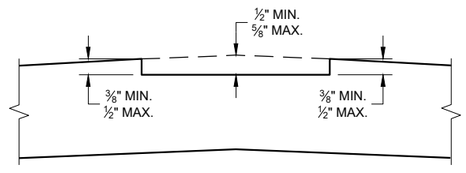


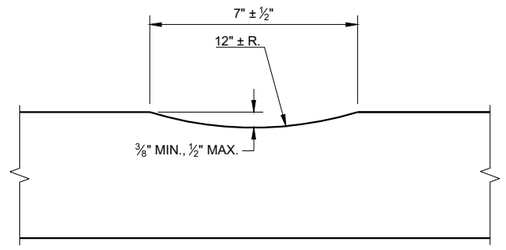
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



SECTION A - A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

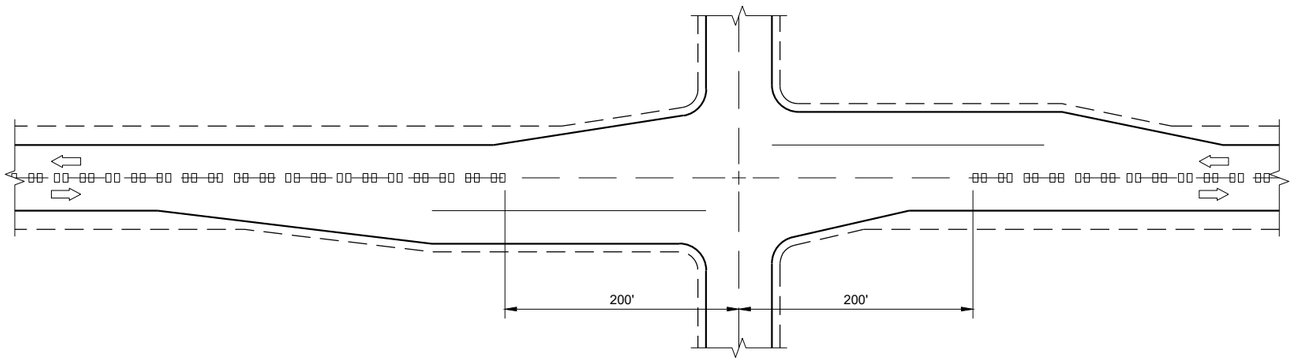
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

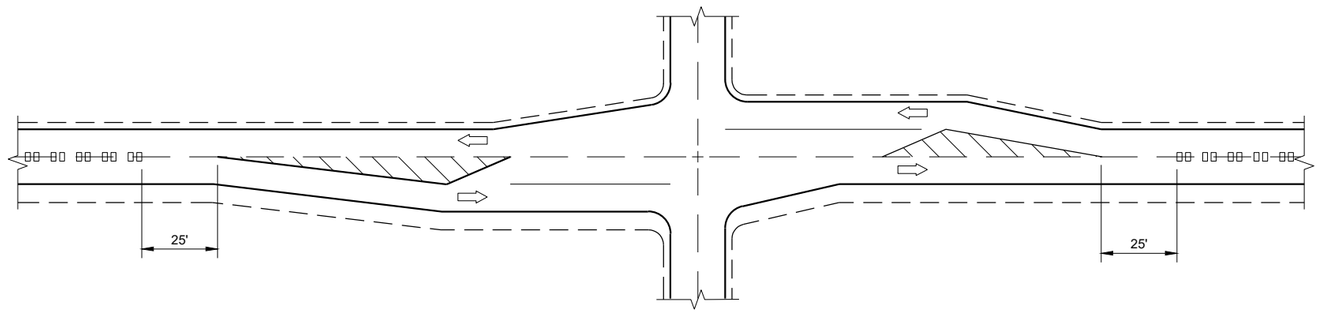
SDD 13A11 - 03a

6

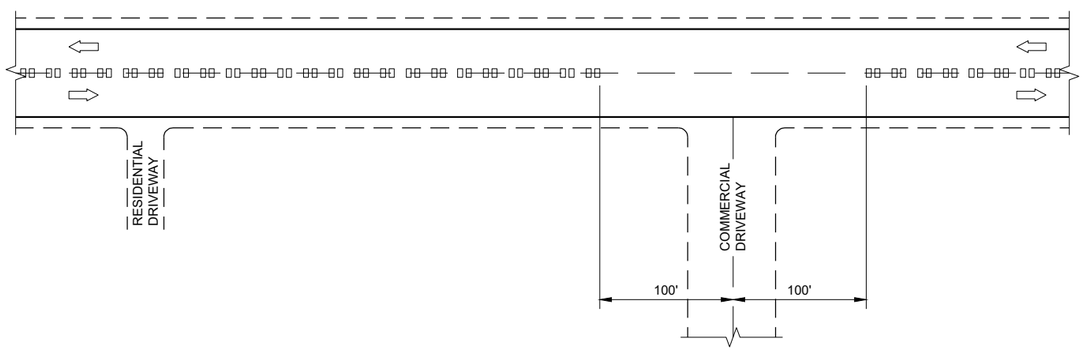
SDD 13A11 - 03a



CENTERLINE GROOVES AT INTERSECTIONS



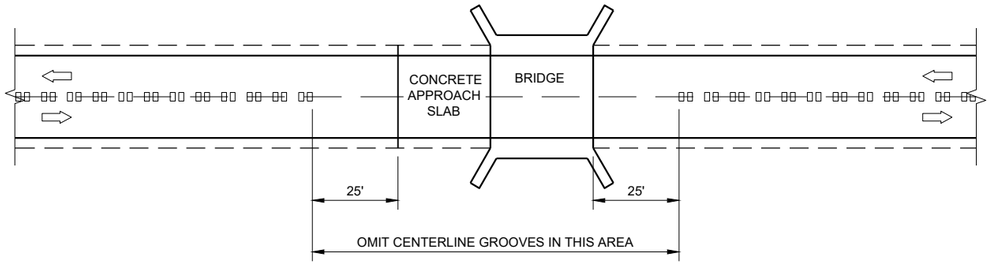
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



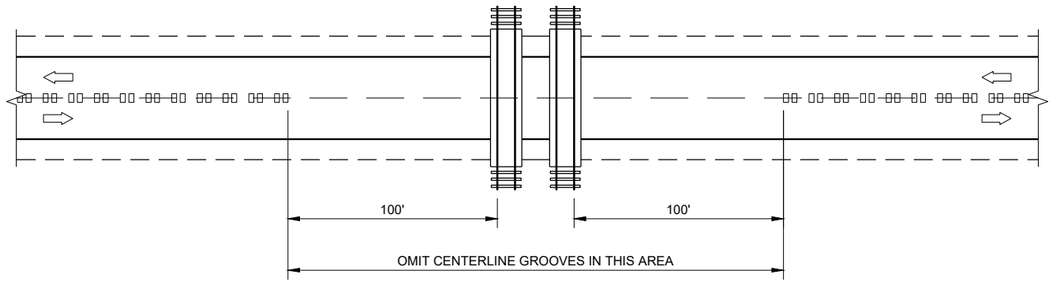
CENTERLINE GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

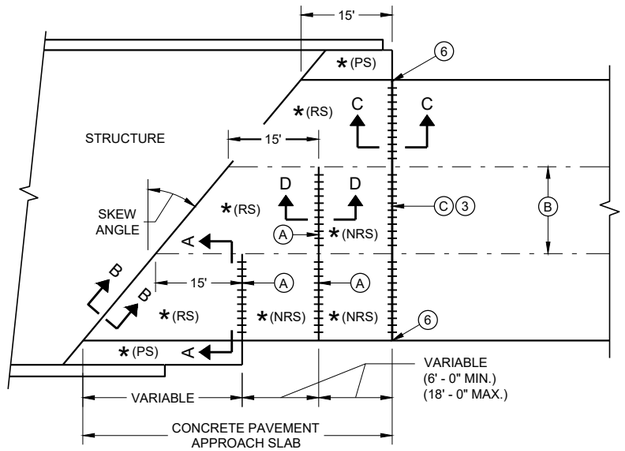
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE

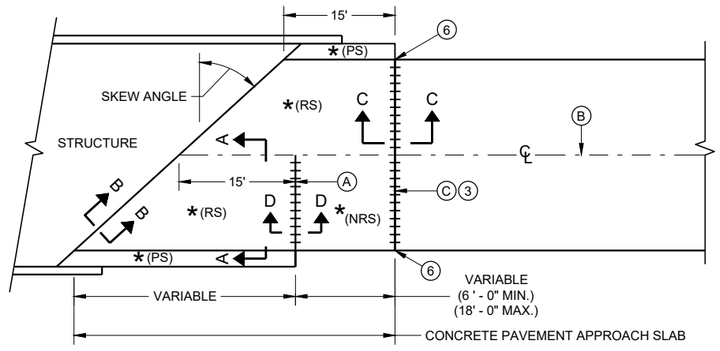
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

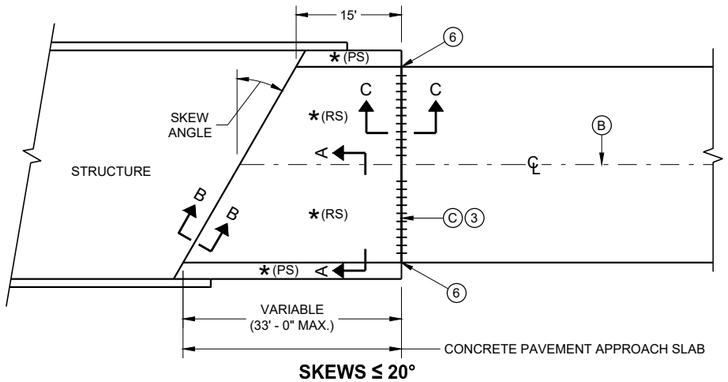
6
SDD 13A11 - 03b



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

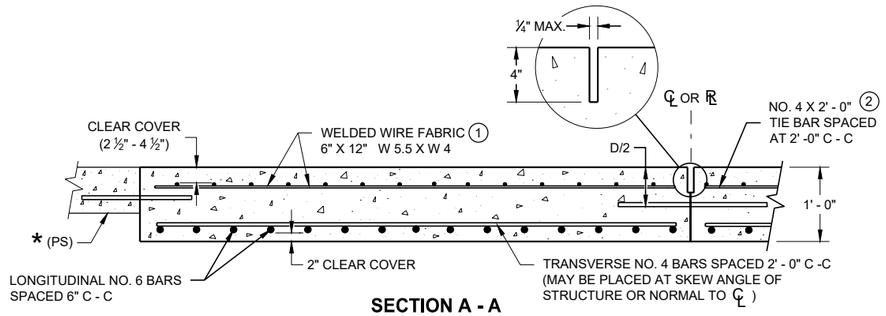
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

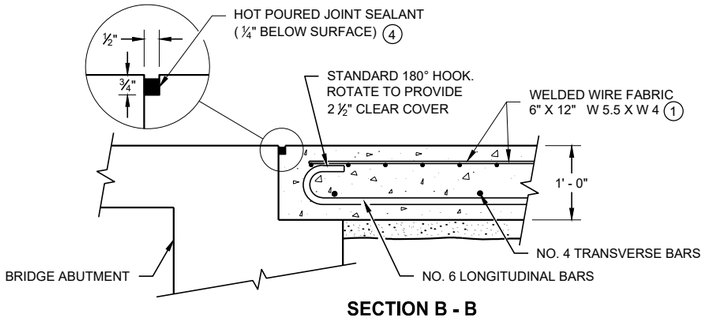
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

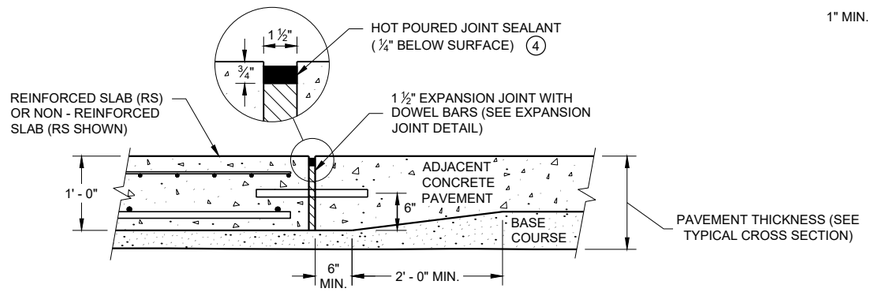
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

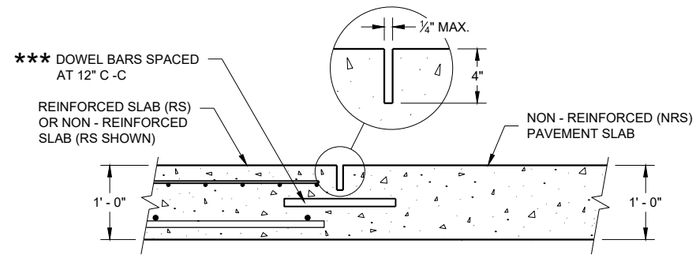
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

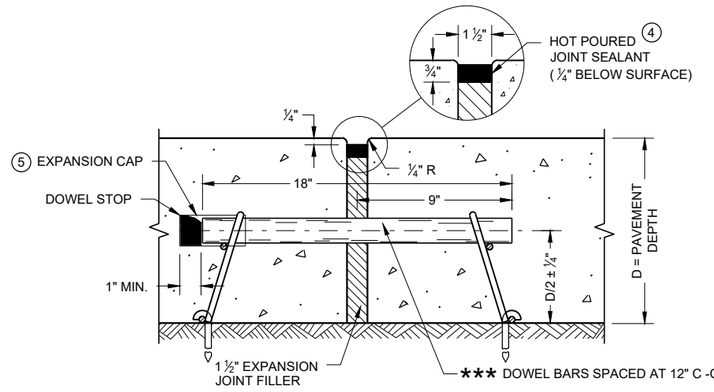
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞ .



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

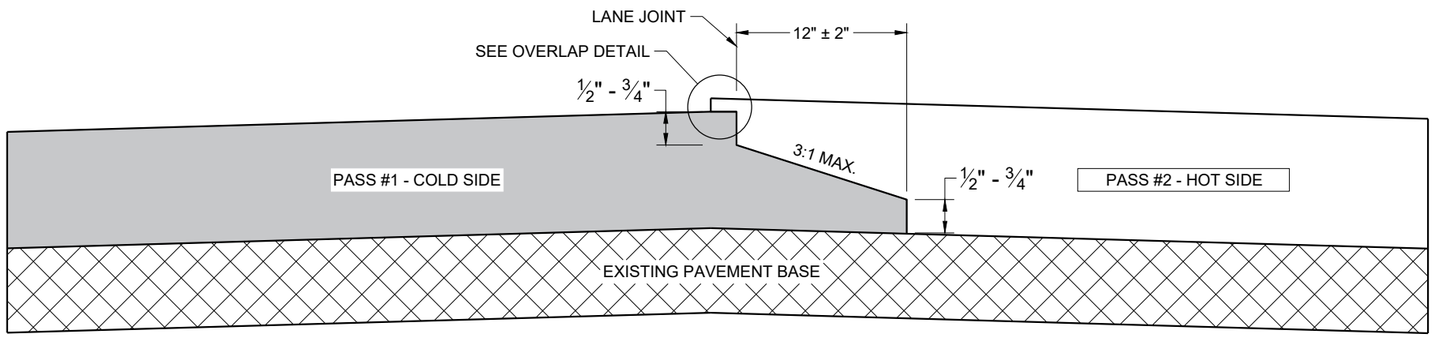
APPROVED
November 2018
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVISO

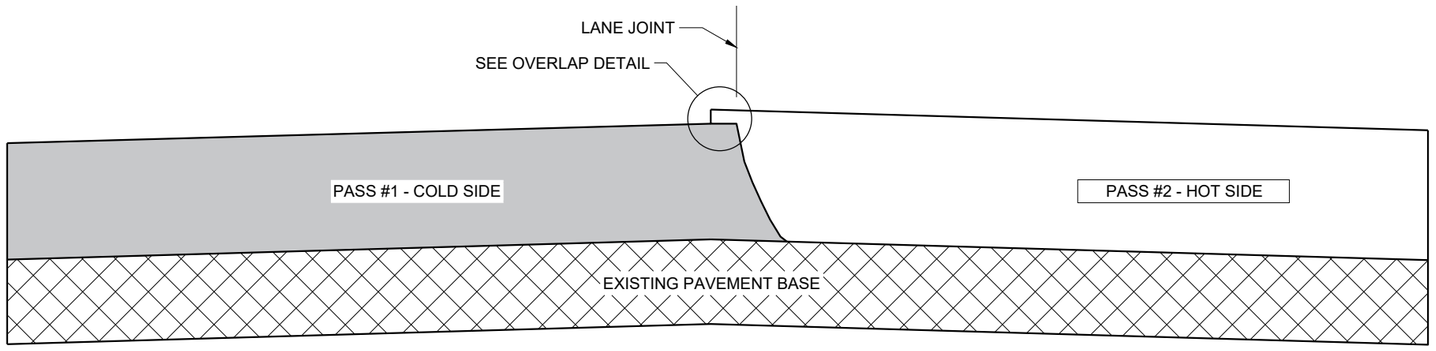
FHWA

6

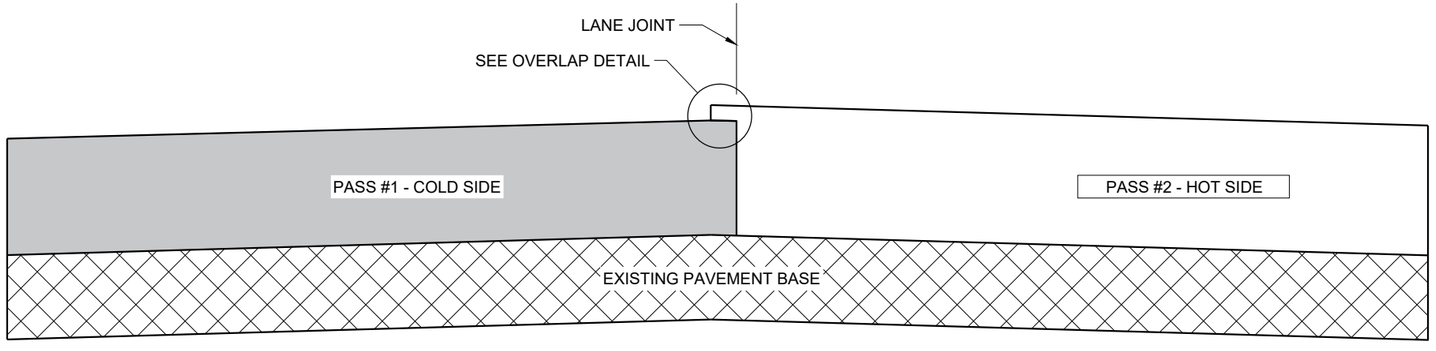
SDD 13B02 - 09a



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

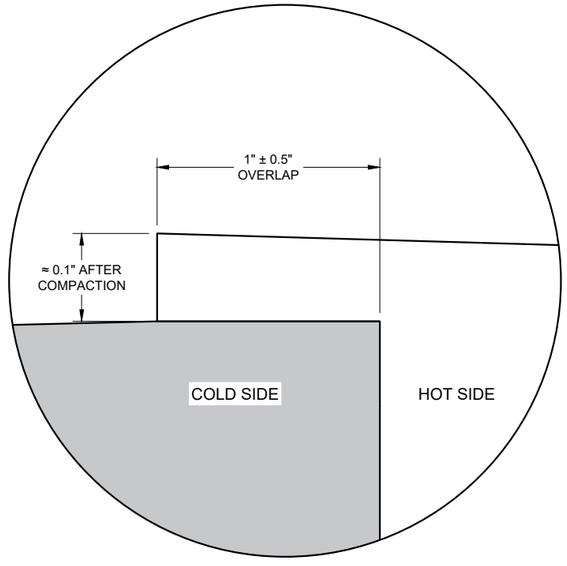
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

6

SDD 13C19 - 03

6

SDD 13C19 - 03

(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.

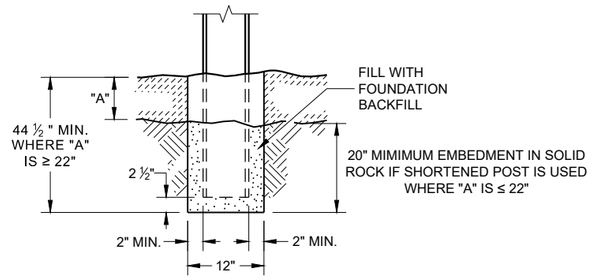
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL 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).

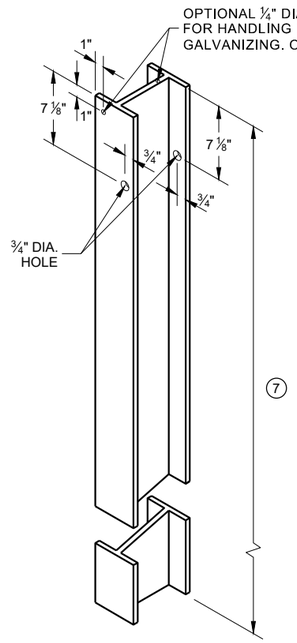
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

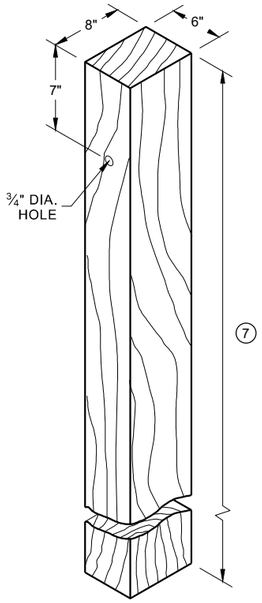
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



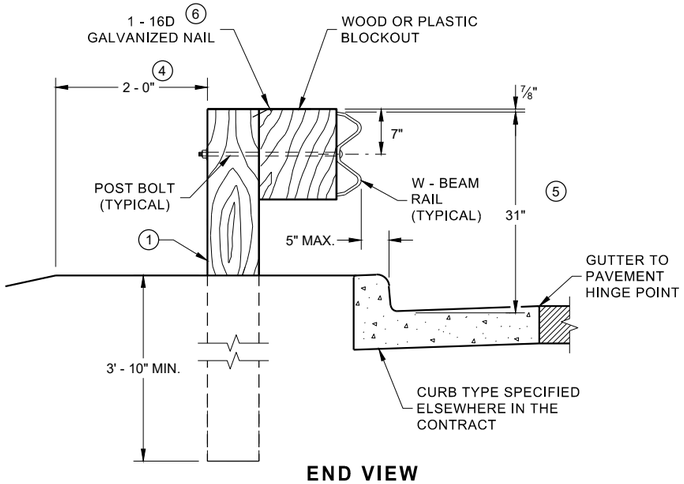
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



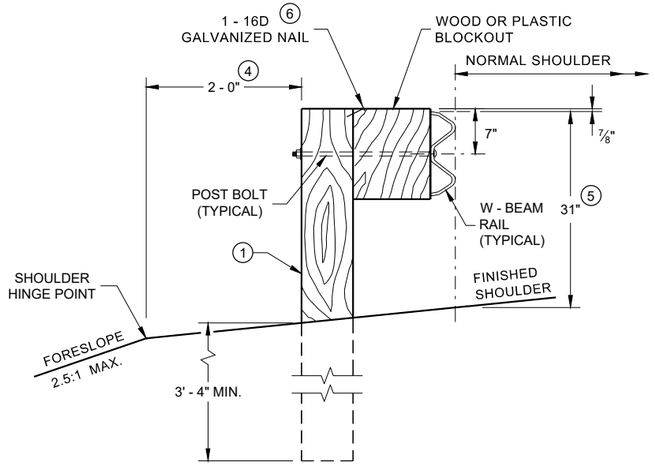
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



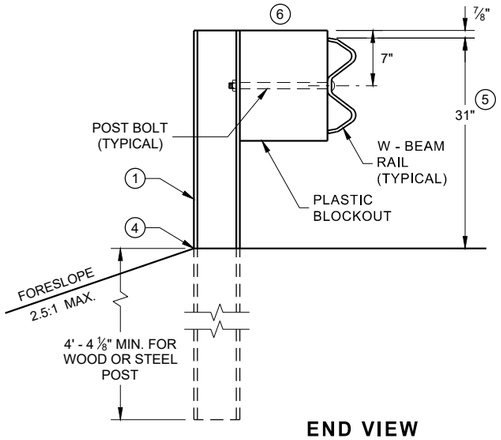
WOOD POST (6" X 8") NOMINAL (1)



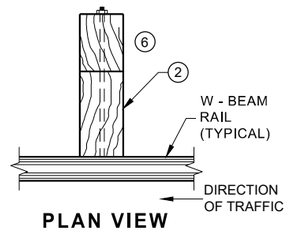
END VIEW
LOCATED ALONG A CURBED ROADWAY



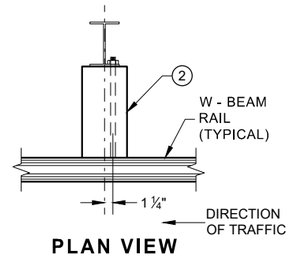
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



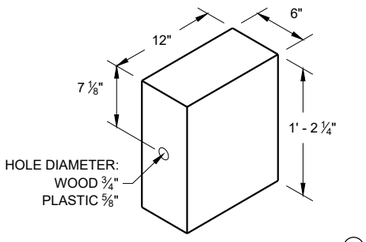
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM

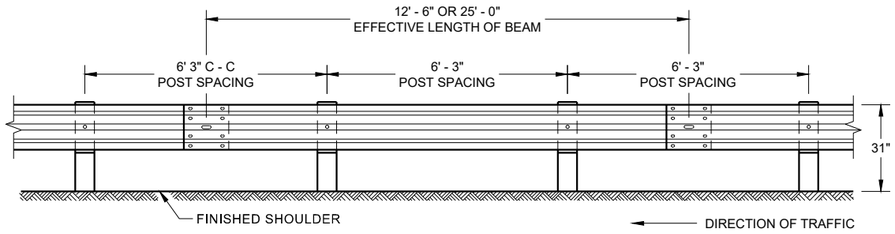


WOOD OR PLASTIC BLOCKOUT (2)

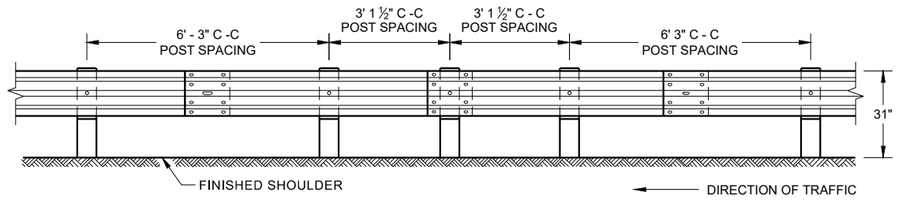
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

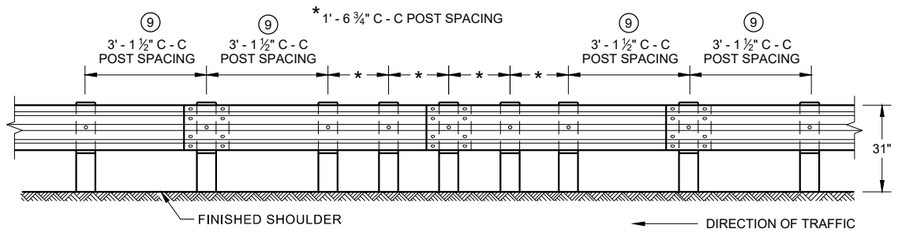
6
SDD 14B42 - 06a



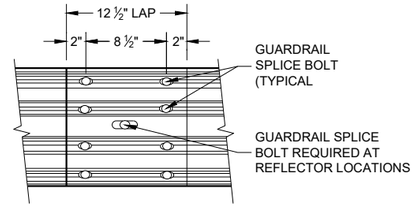
FRONT VIEW
POST SPACING STANDARD INSTALLATION



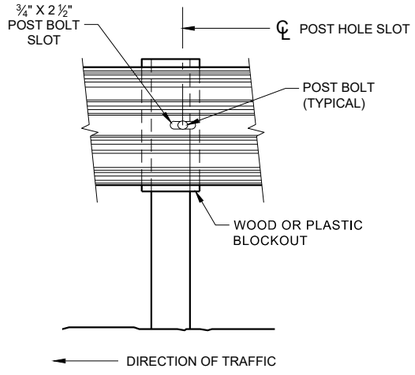
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



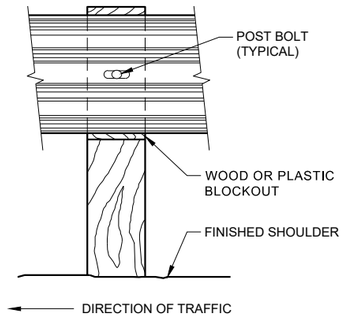
FRONT VIEW
QUARTER POST SPACING (QS)



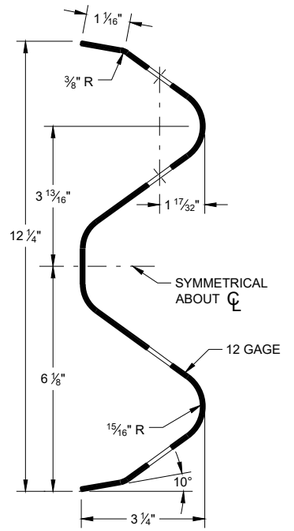
FRONT VIEW
MID-SPAN BEAM SPLICE



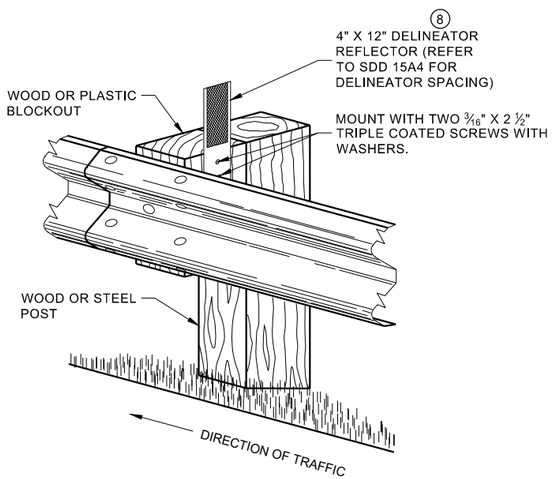
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

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 ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

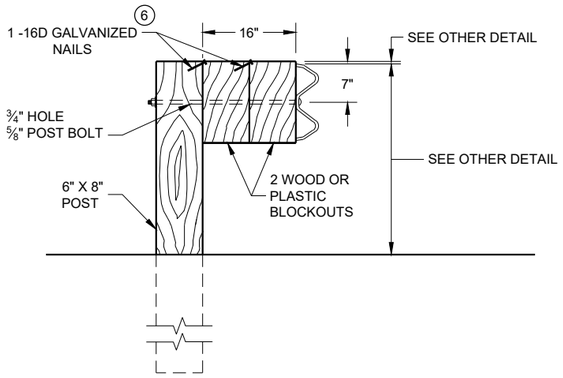
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 06b

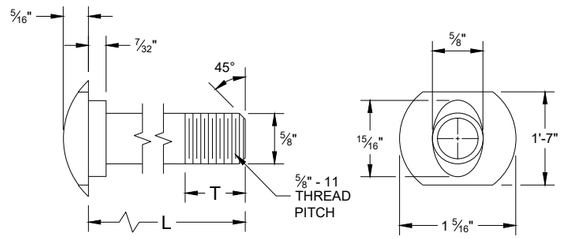


DETAIL FOR 16" BLOCKOUT DEPTH

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.

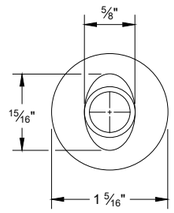
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

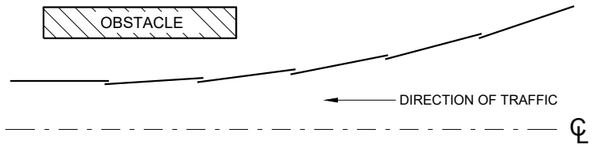


POST BOLT TABLE

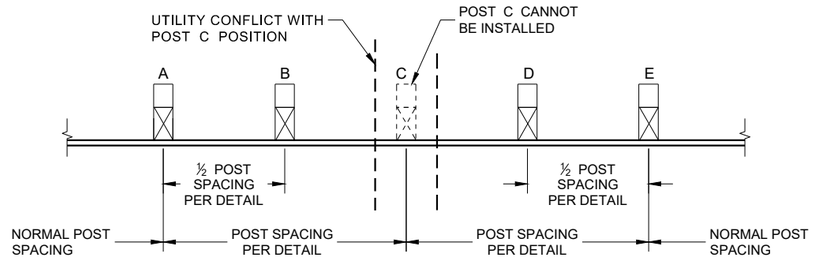
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



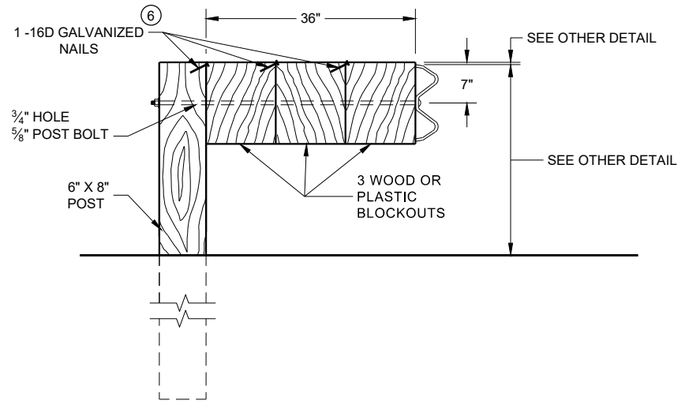
ALTERNATE BOLT HEAD



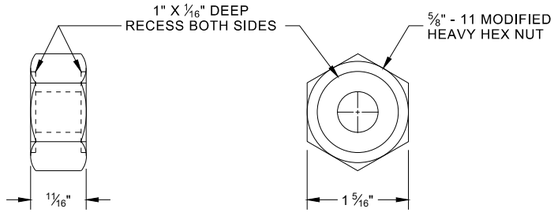
PLAN VIEW
BEAM LAPPING DETAIL



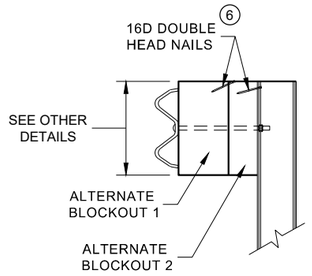
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



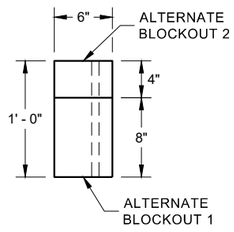
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

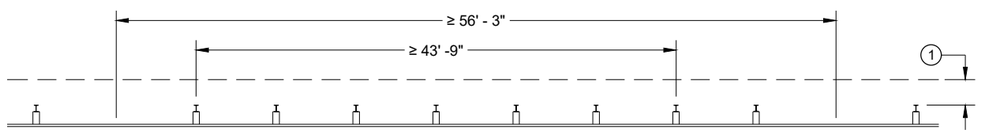
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

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.

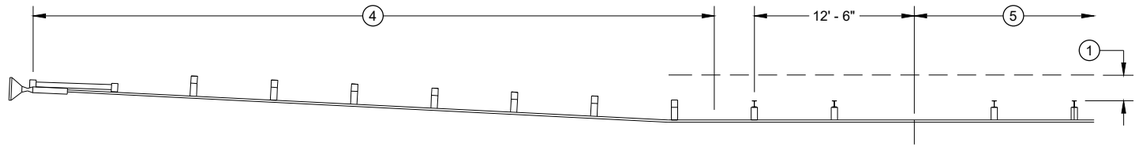
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

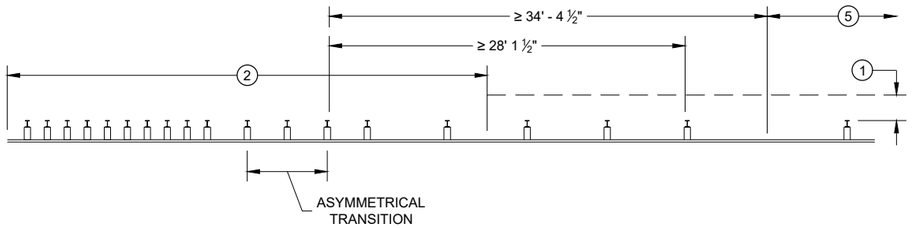
6
SDD 14B42 - 06c



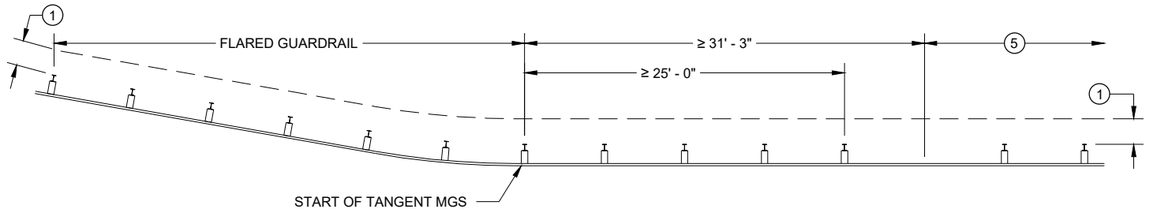
MISSING POST IN NORMAL BEAM GUARD RUN



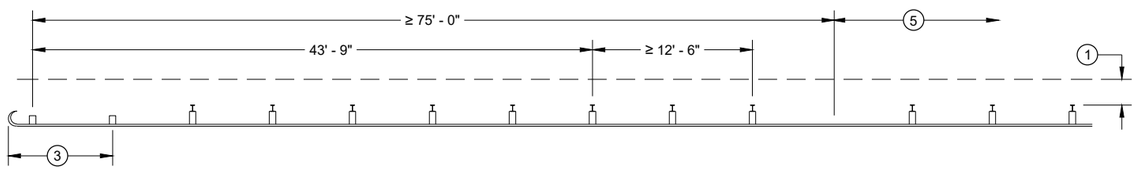
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



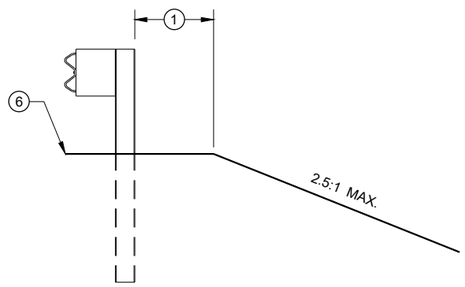
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

1. MINIMUM OF 2 FEET OF GRADING BEHIND POST.
2. SEE SDD 14B45 FOR MORE DETAILS.
3. SEE SDD 14B47 FOR MORE DETAILS.
4. SEE SDD 14B44 FOR MORE DETAILS.
5. SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
6. SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

SDD 14B42 - 06d

SDD 14B42 - 06d

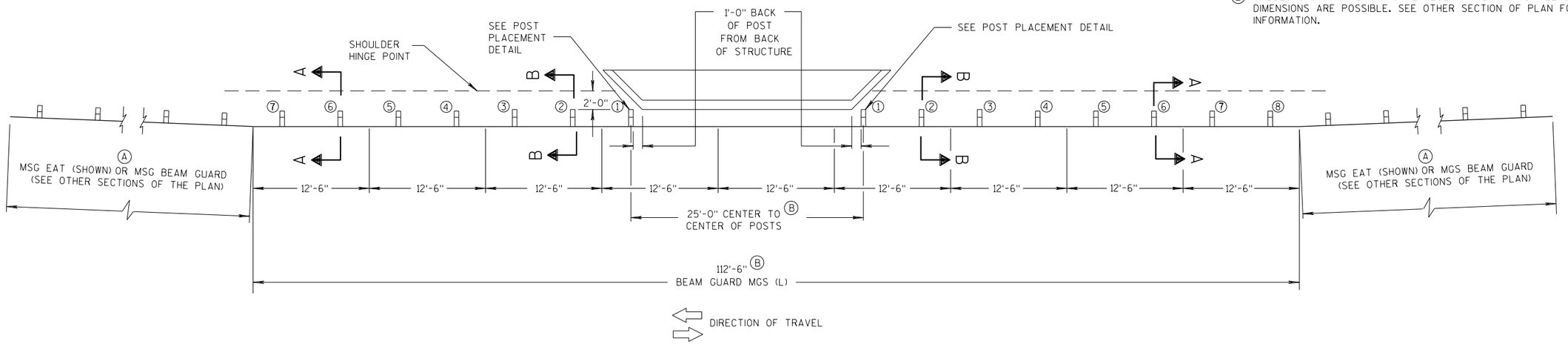
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

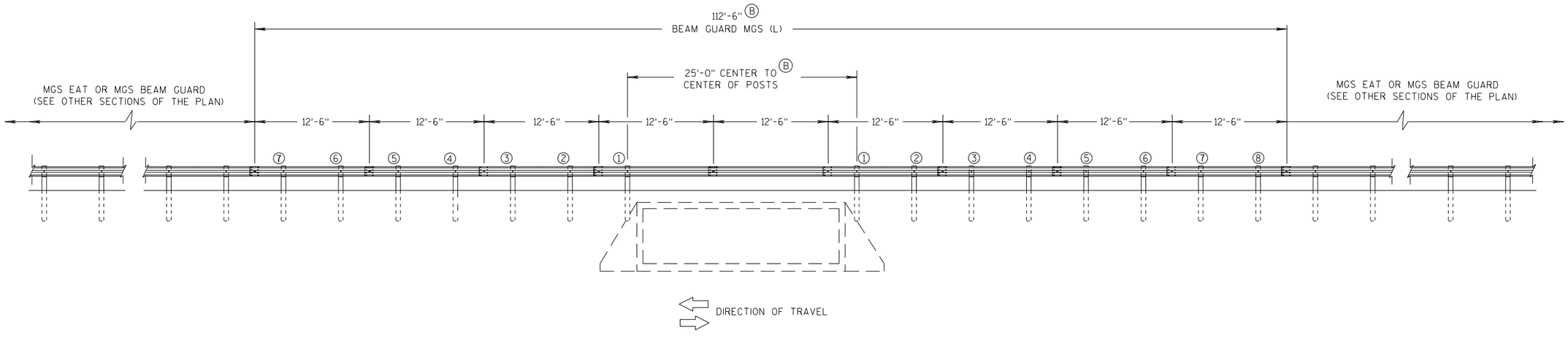
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) TWO-WAY TRAFFIC

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 43-4a

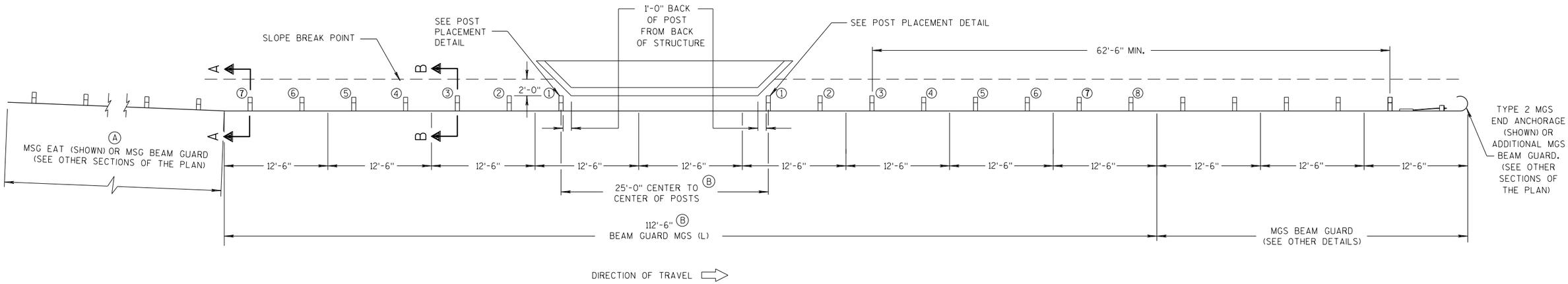
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

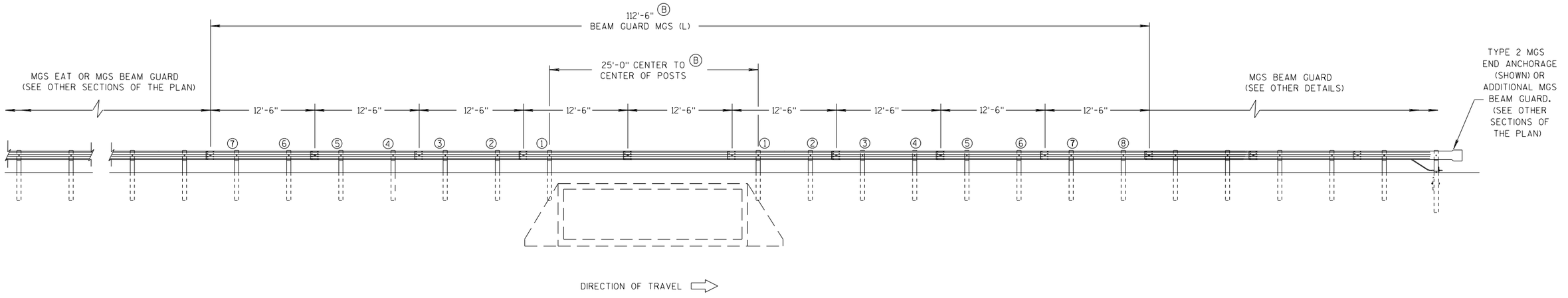
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



ELEVATION VIEW

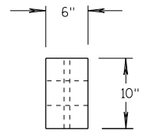
MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) ONE-WAY TRAFFIC

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)

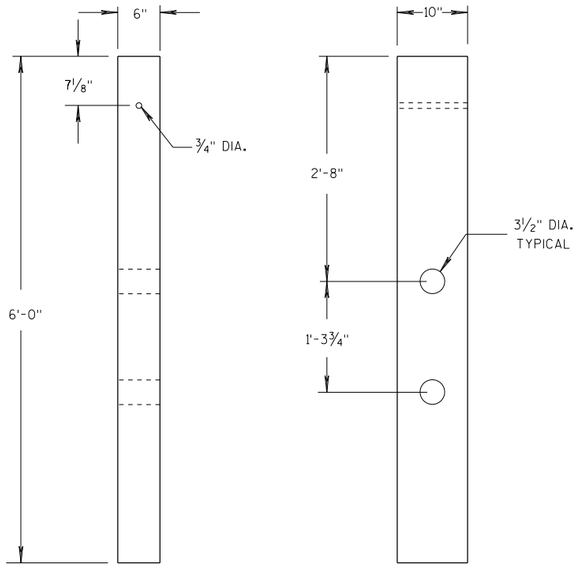
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 43-4b

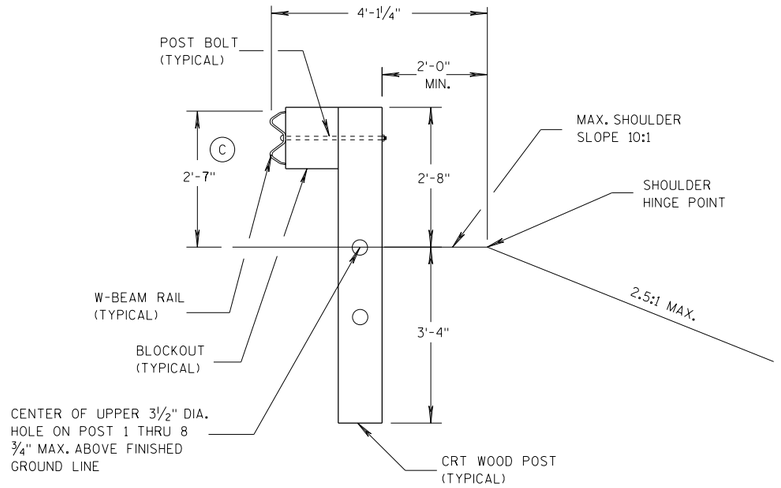


PLAN VIEW



FRONT VIEW SIDE VIEW

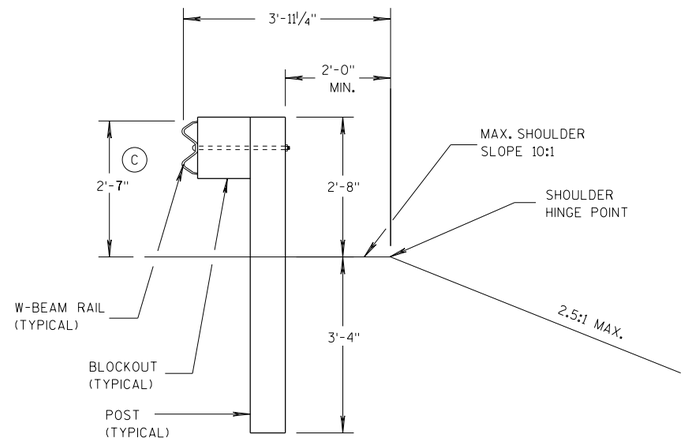
CRT WOOD POST



SECTION B-B

POSTS NO. 1-3

SEE OTHER DETAILS



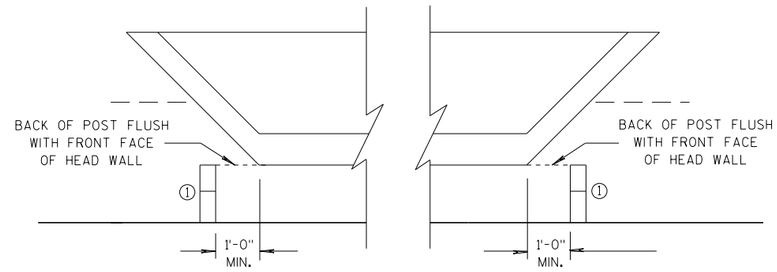
SECTION A-A

POSTS NO. 4-8

SEE OTHER DETAILS

GENERAL NOTES

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



POST PLACEMENT DETAIL

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER

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S.D.D. 14 B 43-4c

6

S.D.D. 14 B 43-4c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) 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.

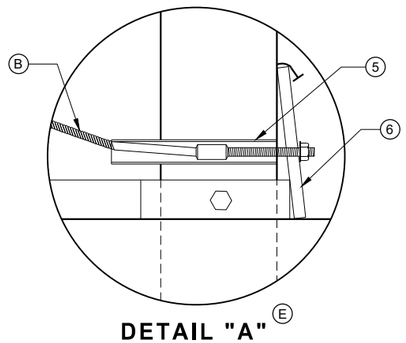
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

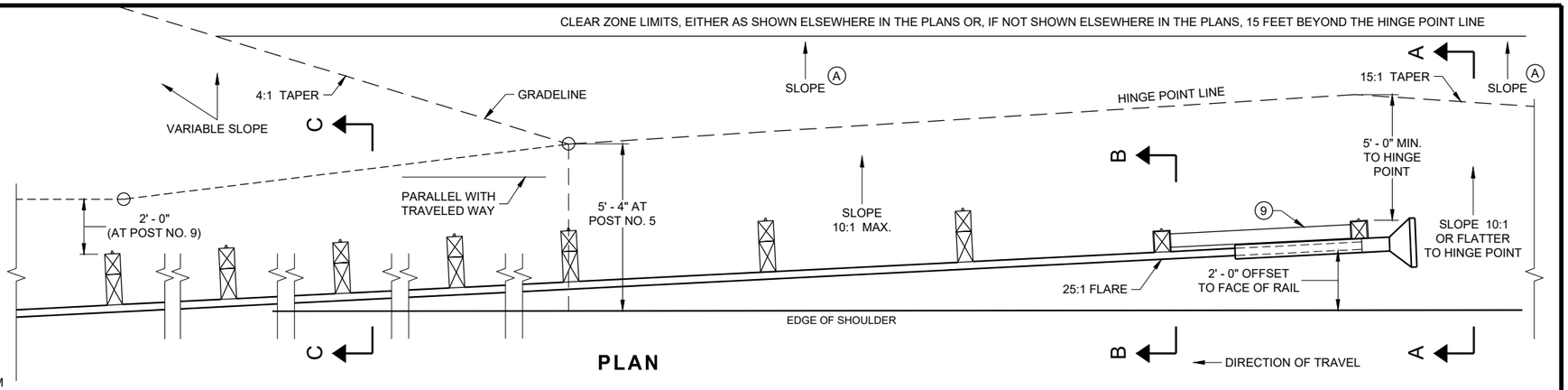
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

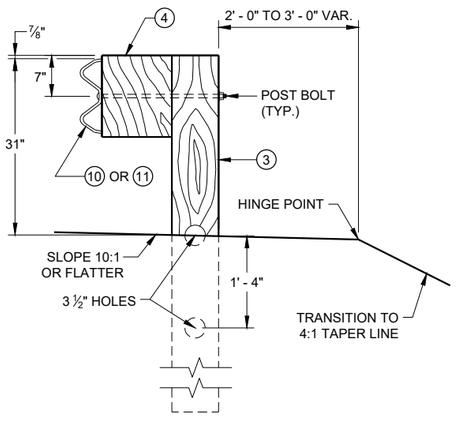
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

THE CENTER OF THE UPPER 3 ½" 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.

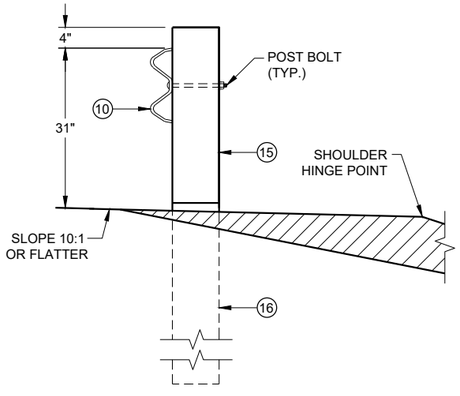


DETAIL "A" (E)

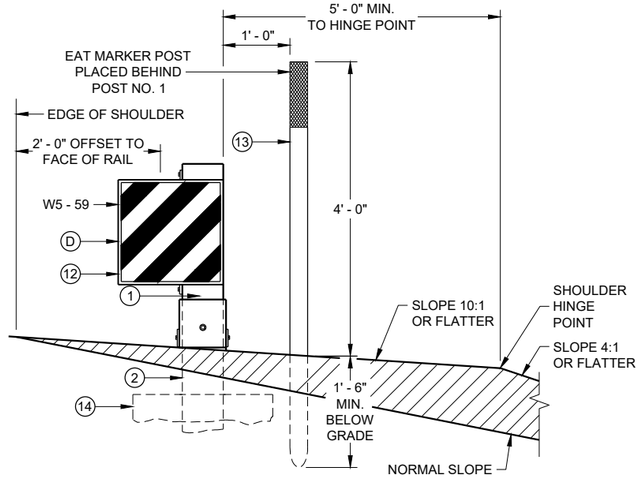




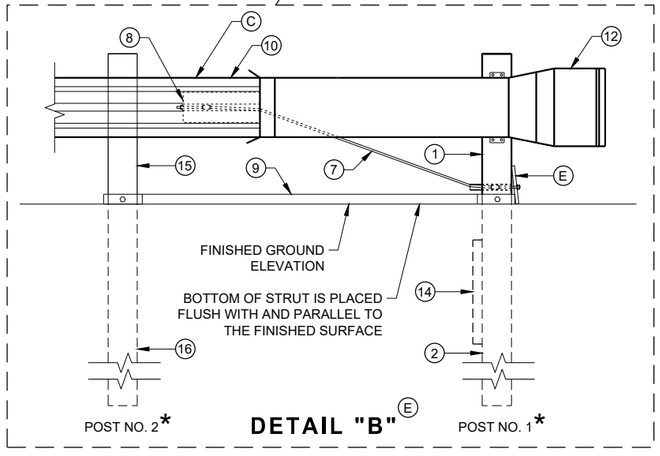
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

SDD 14B44 - 04a

6

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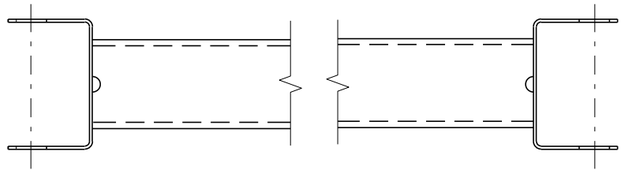
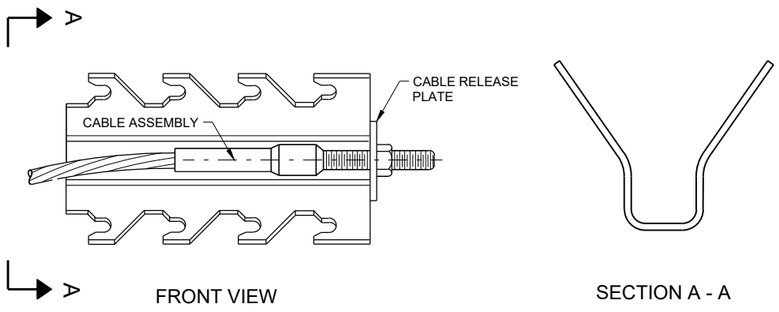


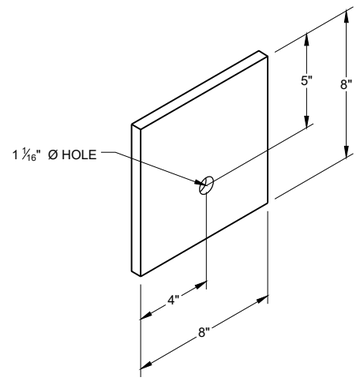
GENERIC GROUND STRUT (9) (E)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'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 ANCHOR CABLE BOX (9) (E)



BEARING PLATE (6) (E)

6

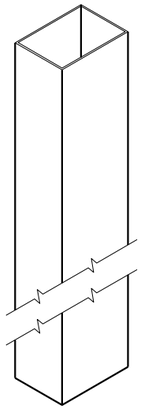
6

SDD 14B44 - 04b

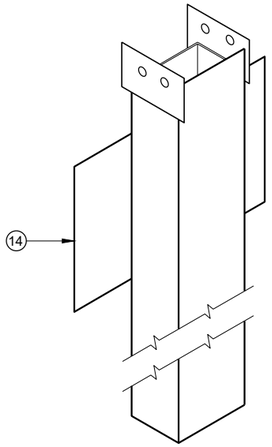
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

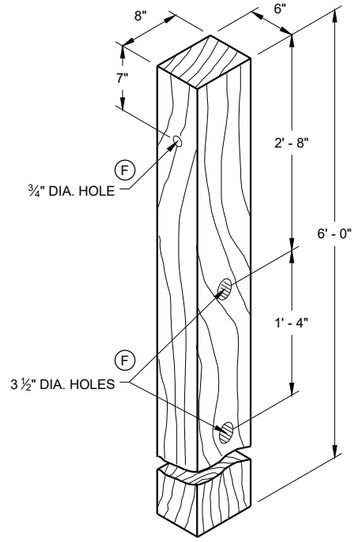
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



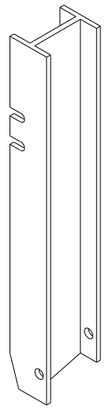
UPPER POST NO. 1 (1) (E)



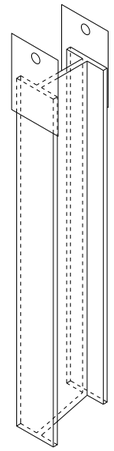
LOWER POST NO. 1 (2) (E)



WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



UPPER POST NO. 2 (15) (E)



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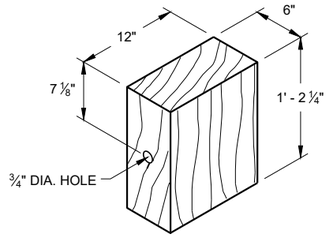
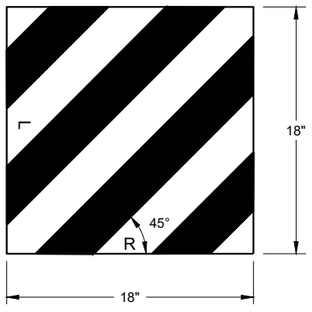
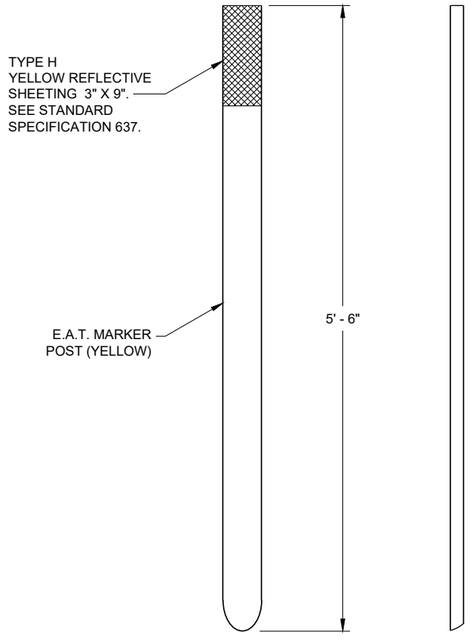


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



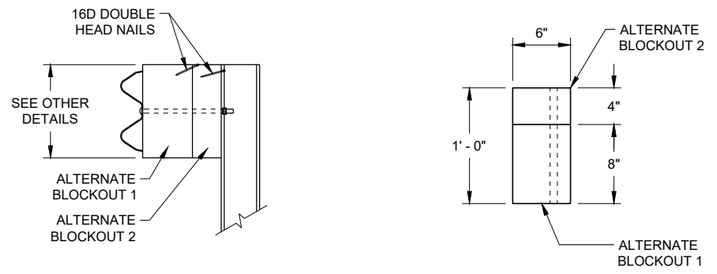
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

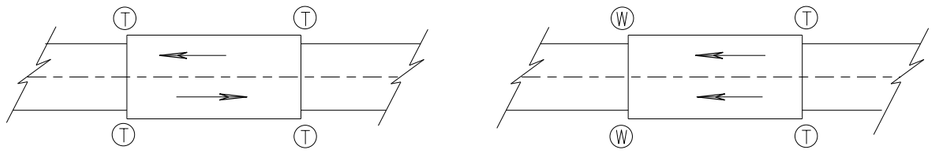
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



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 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

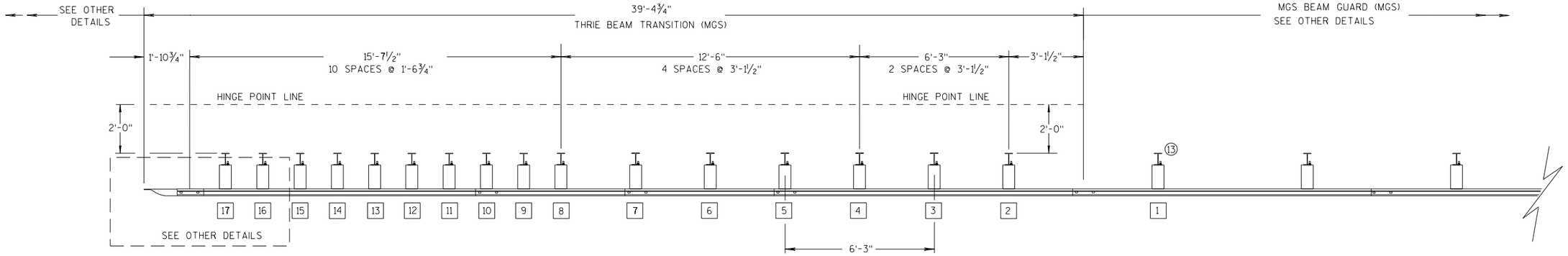
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

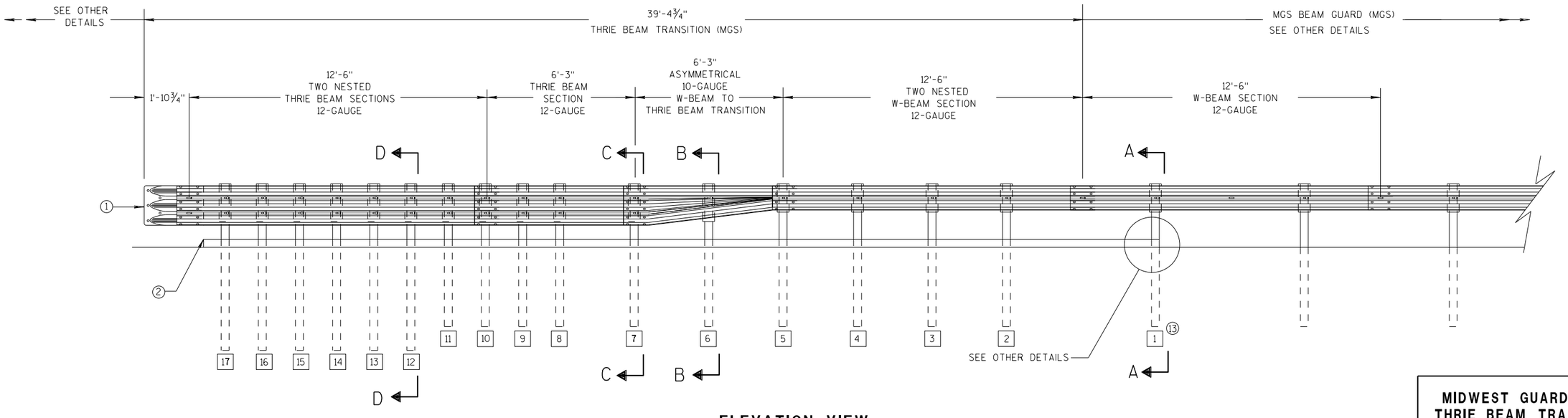
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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 TRANSPOR

6

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

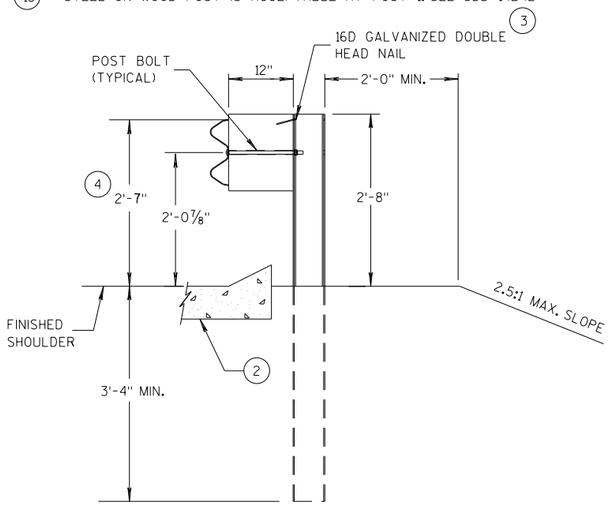
GENERAL NOTES

(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.

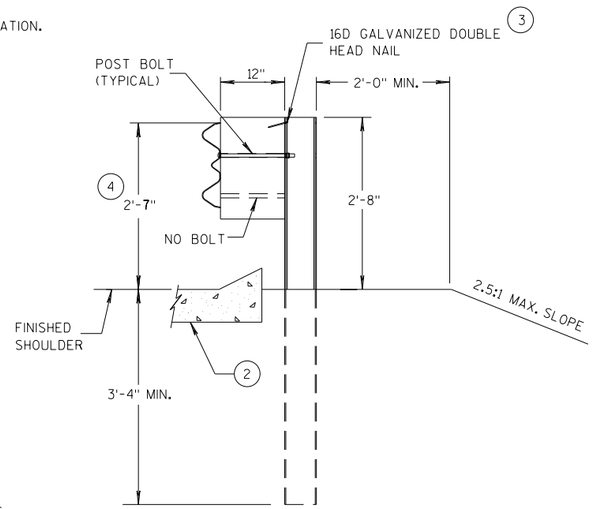
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



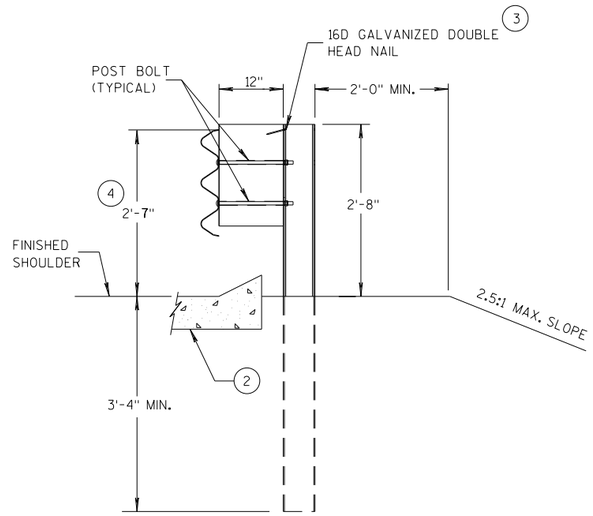
SECTION A-A (13)

POSTS 1-5



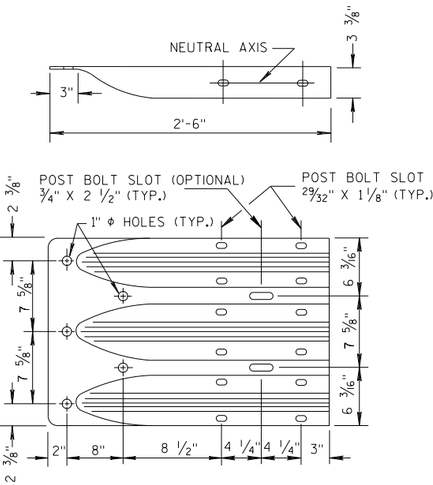
SECTION B-B

POST 6

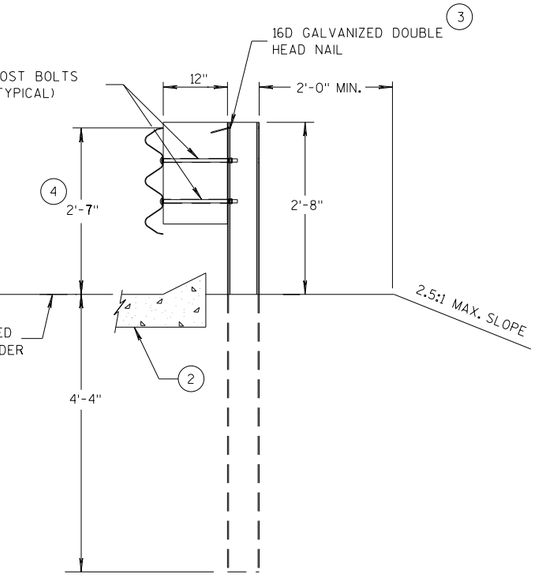


SECTION C-C

POSTS 7-11

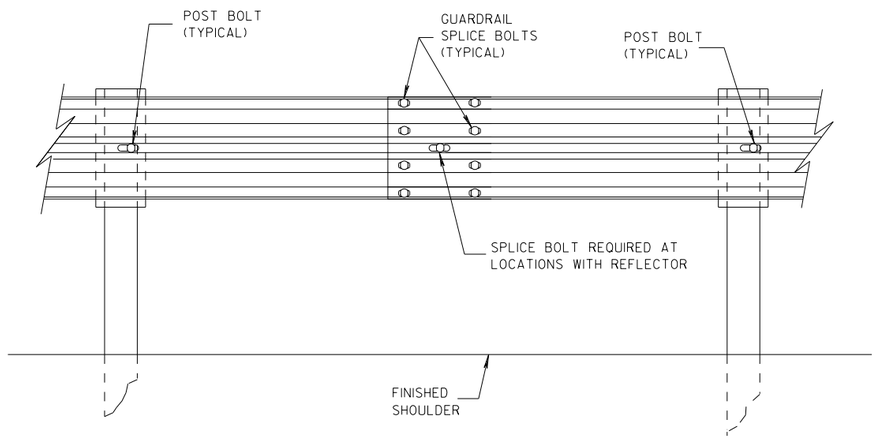


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

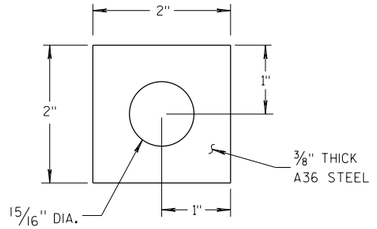
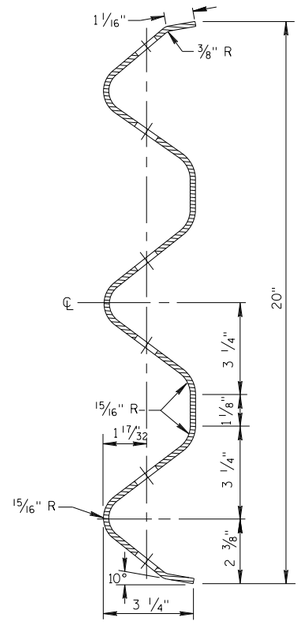


PLATE WASHER DETAIL

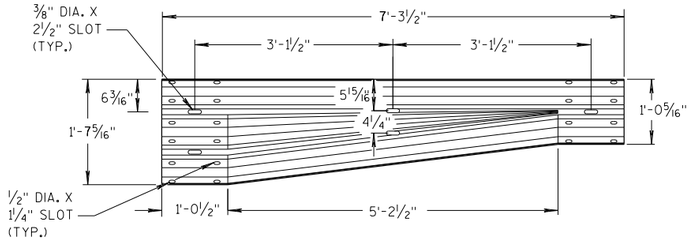


SECTION THRU THRIE BEAM RAIL ELEMENT

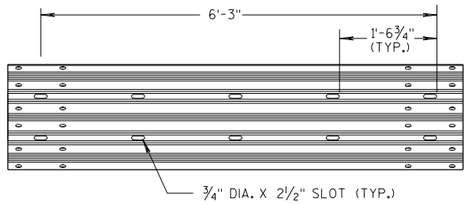
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

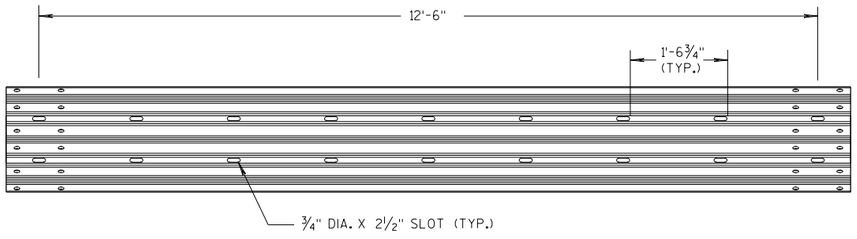
6
S.D.D. 14 B 45-5b



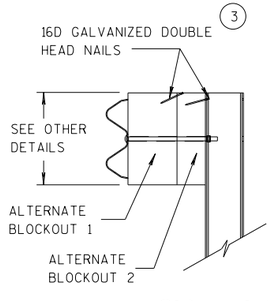
W-BEAM TO THRIE BEAM TRANSITION SECTION



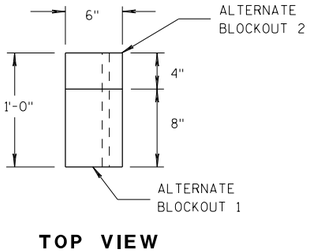
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

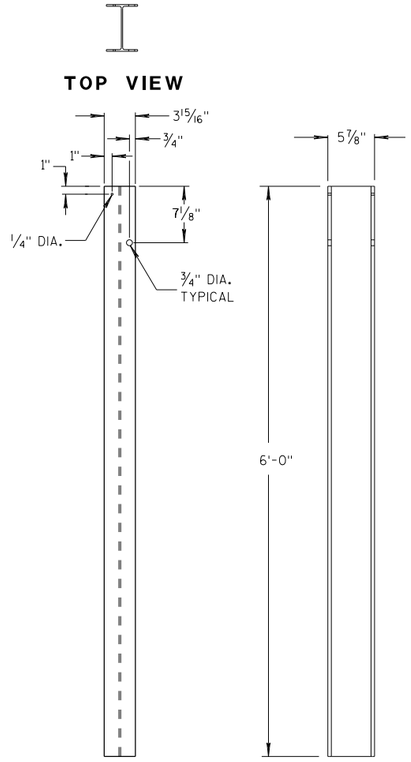


SIDE VIEW



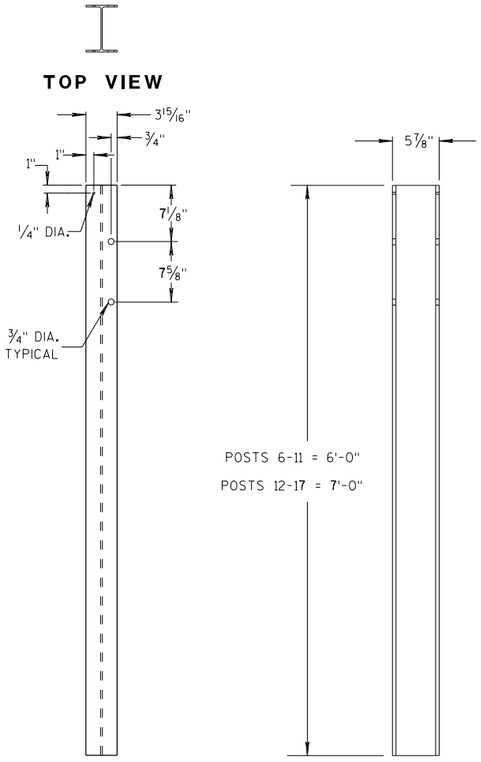
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



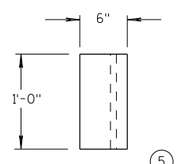
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

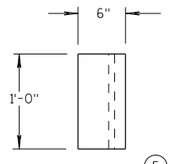


FRONT VIEW SIDE VIEW

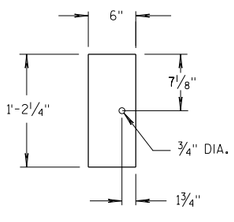
STEEL POSTS 6-17



TOP VIEW (5)

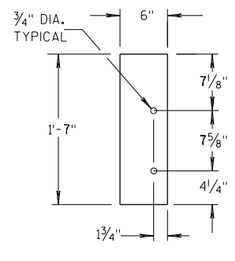


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



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
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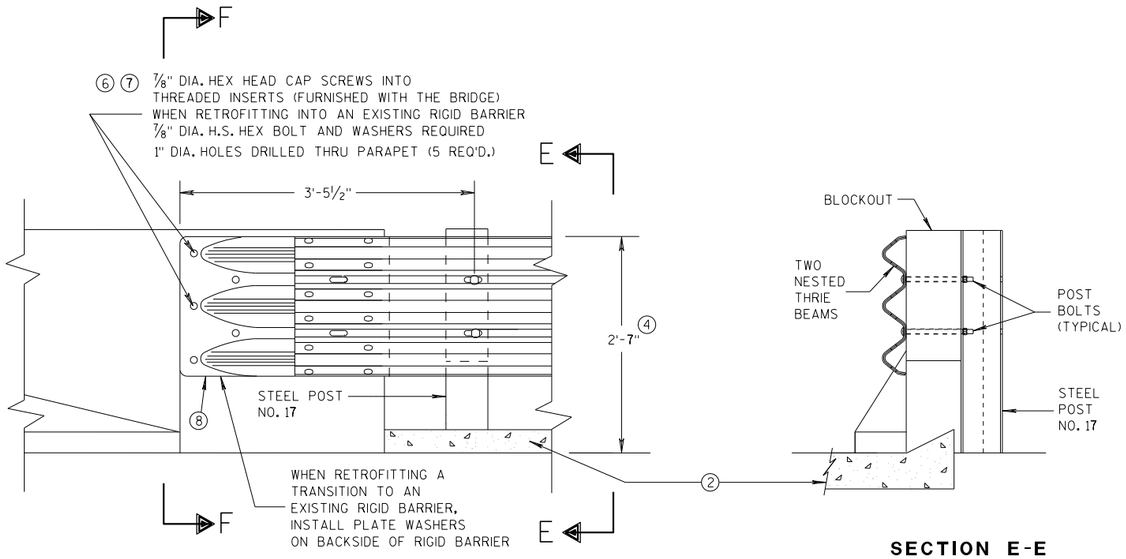


FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

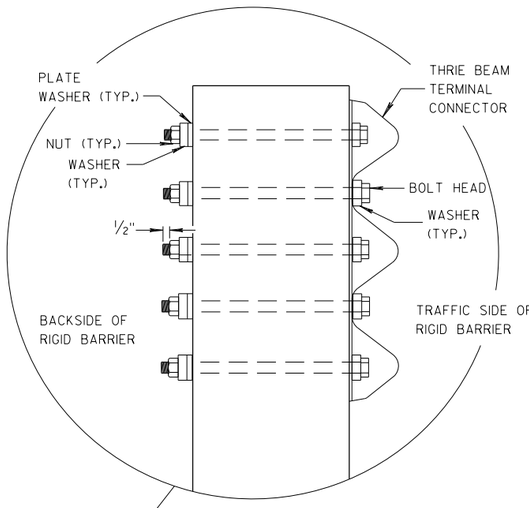
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

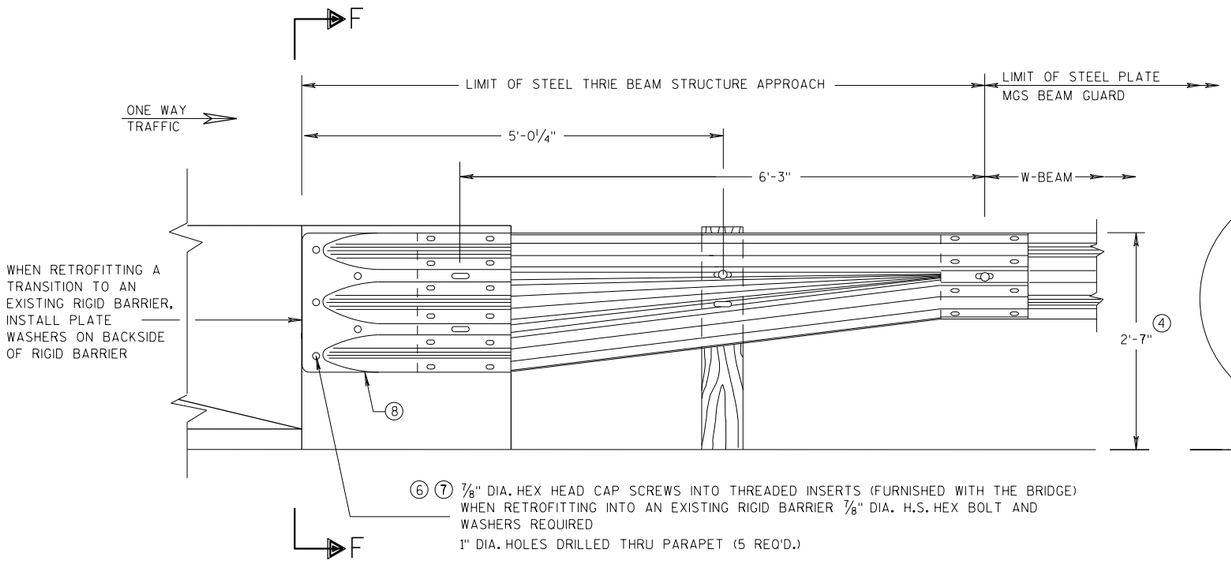
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

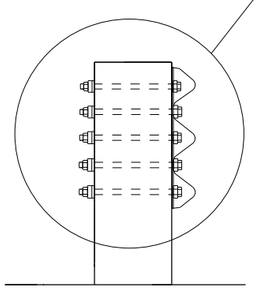
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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".

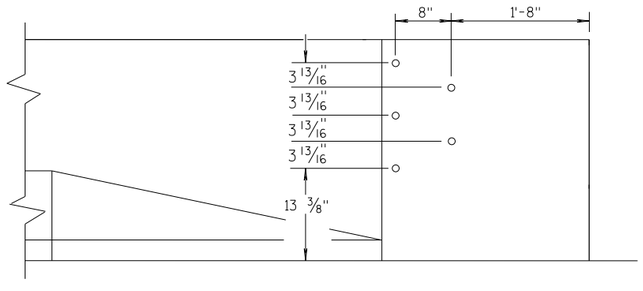




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D UNIT SUPERVIS NT
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GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION 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.

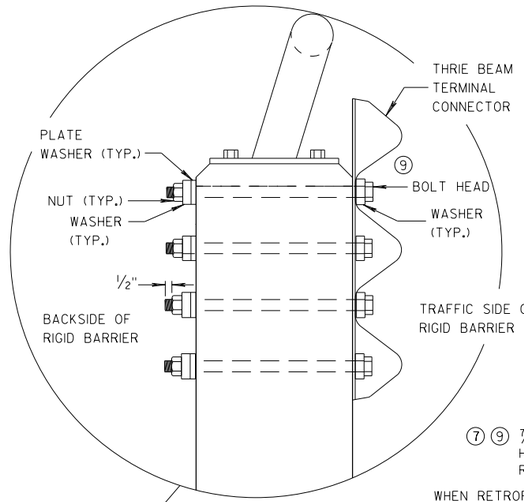
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

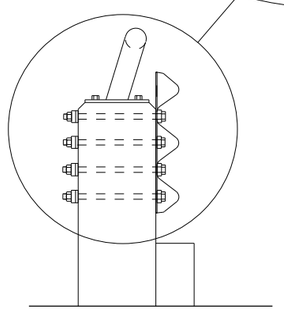
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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.

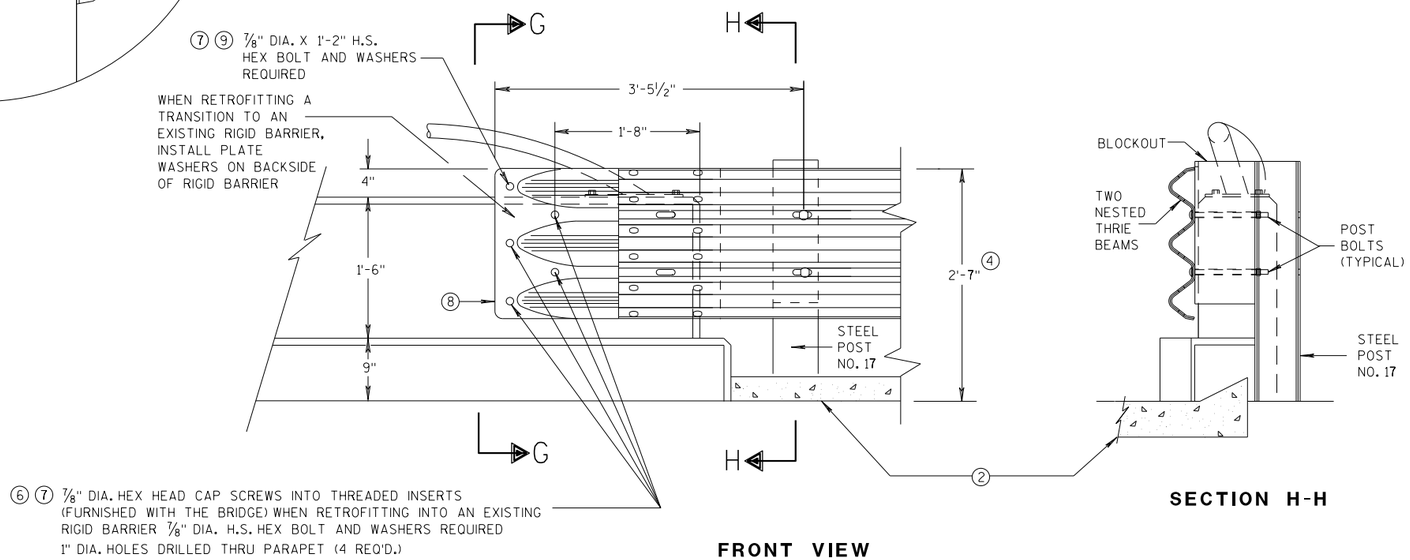
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





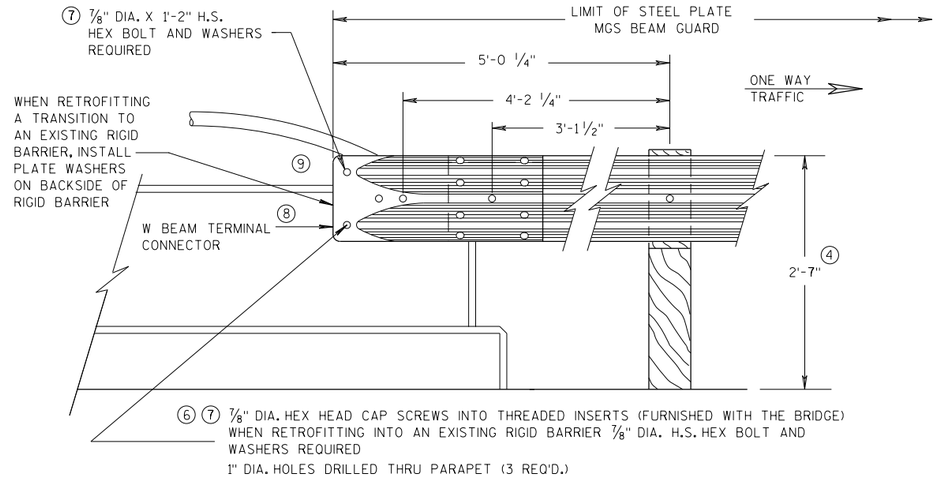
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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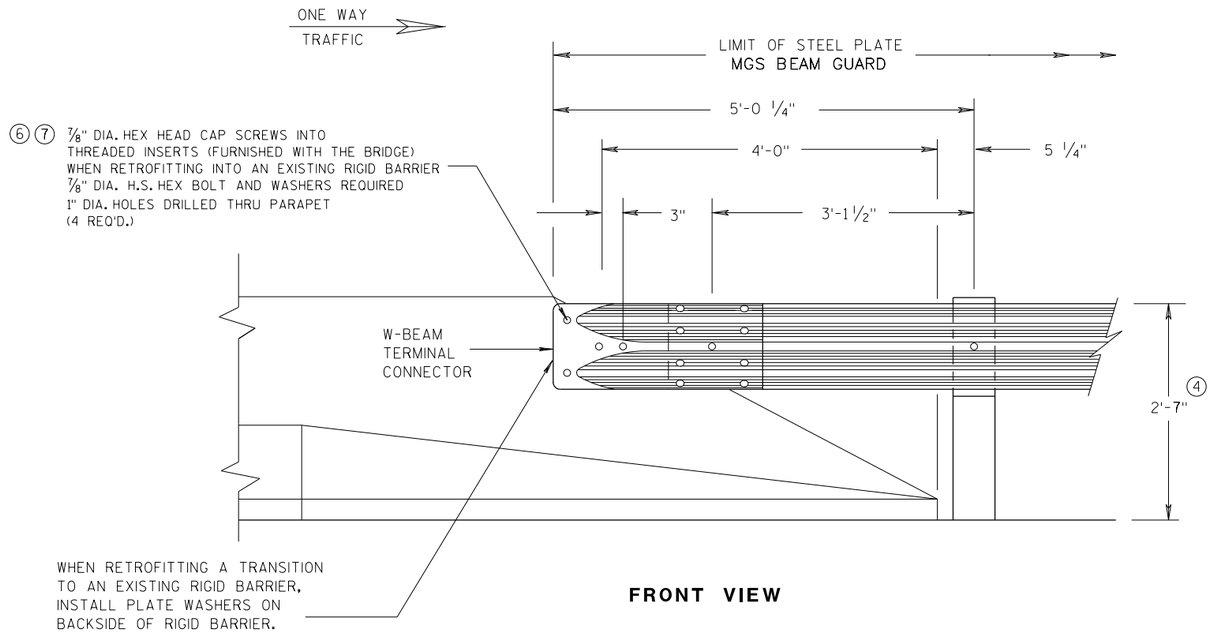


FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

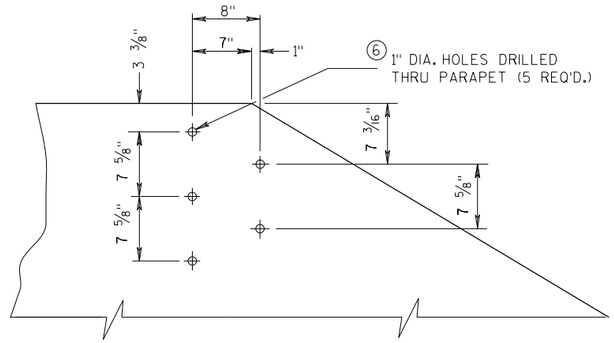
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

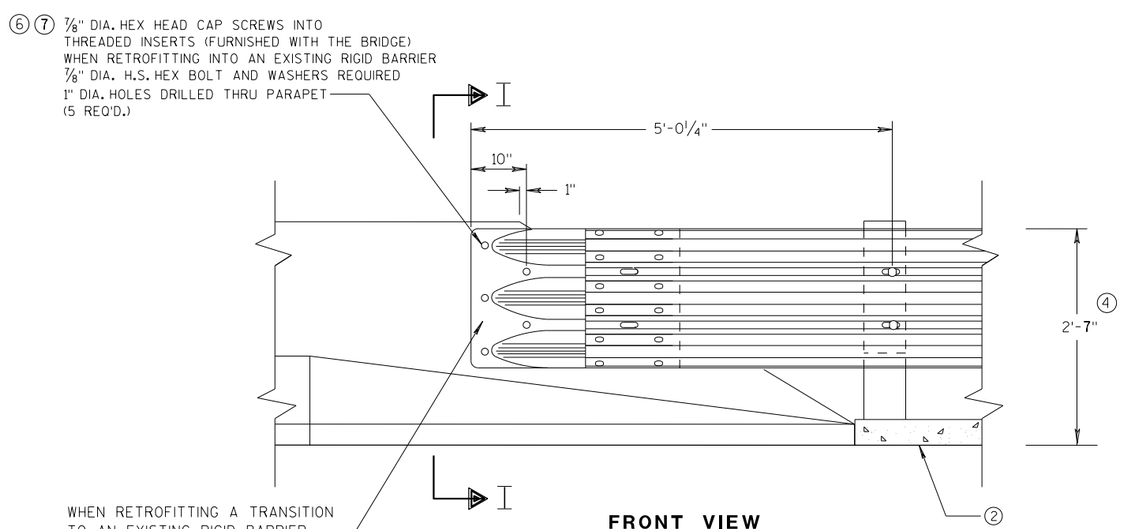
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

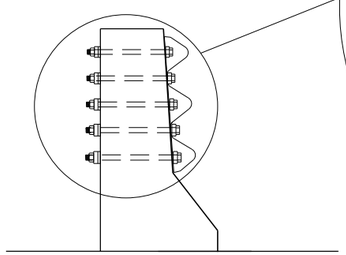
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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.



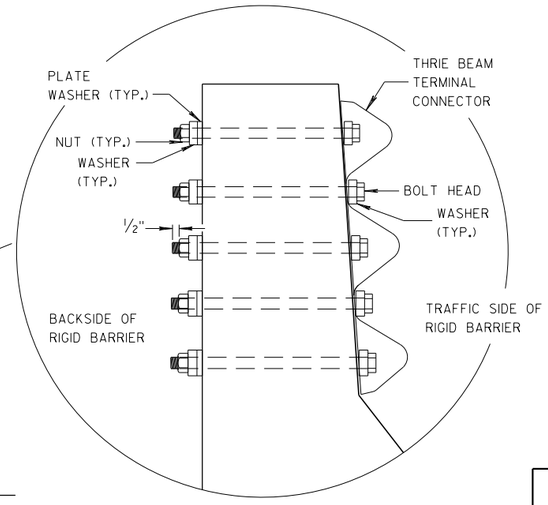
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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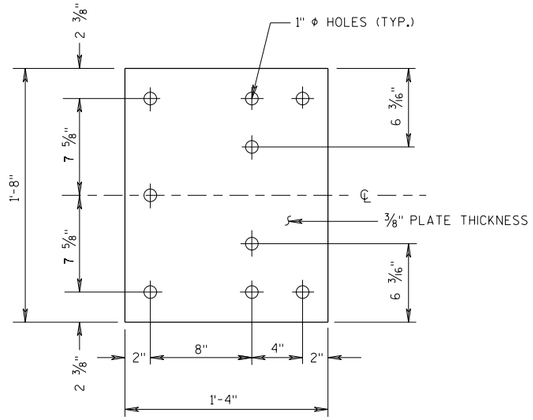
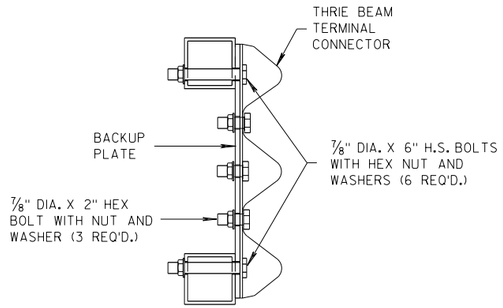


BACK-UP PLATE DETAIL

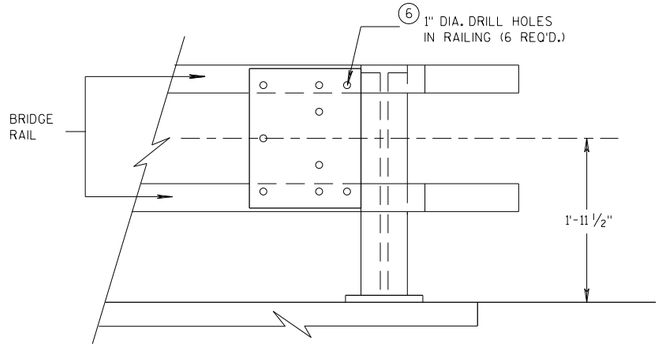


SECTION J-J

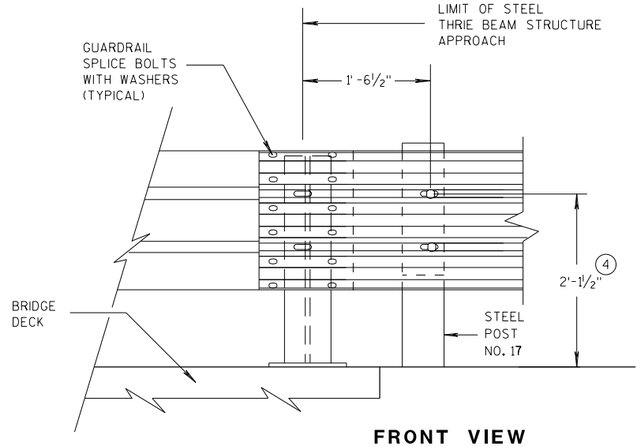
GENERAL NOTES

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

(6) DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

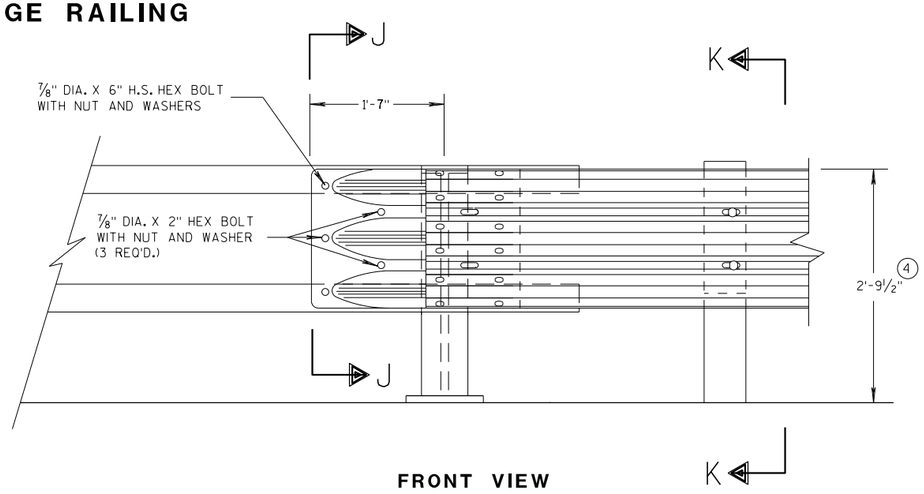


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

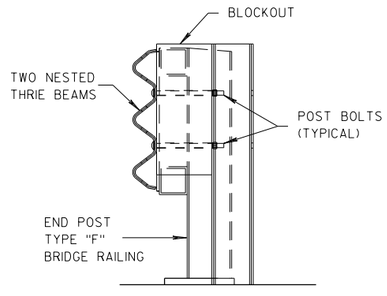


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE
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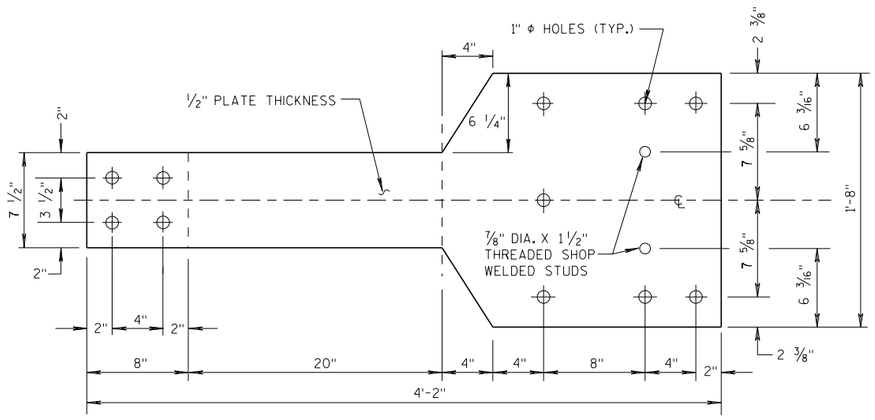
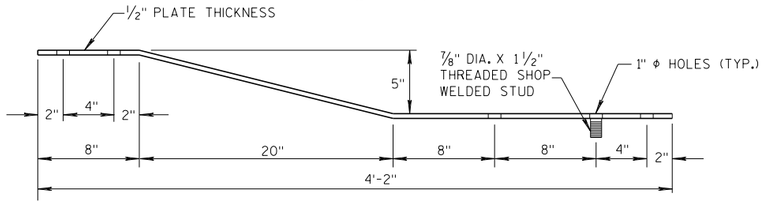
GENERAL NOTES

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

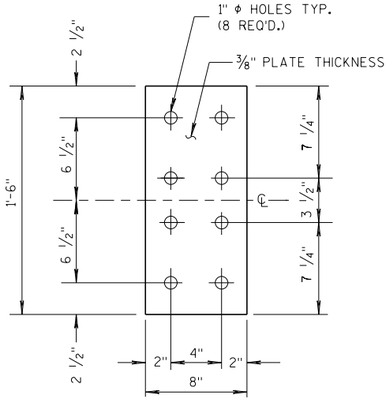


FRONT VIEW

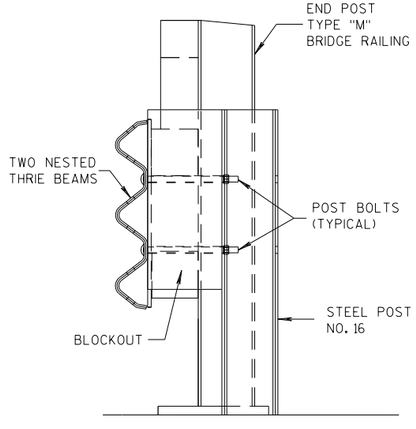


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

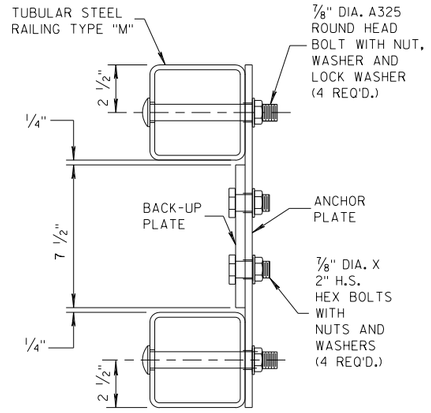


FRONT VIEW

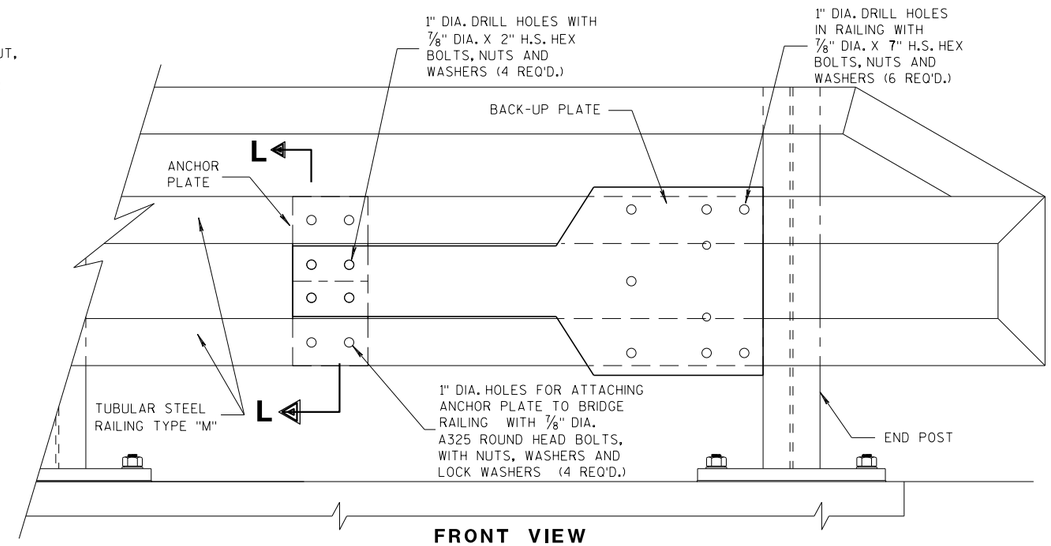


SECTION M-M

ANCHOR PLATE DETAIL, TYPE "M"

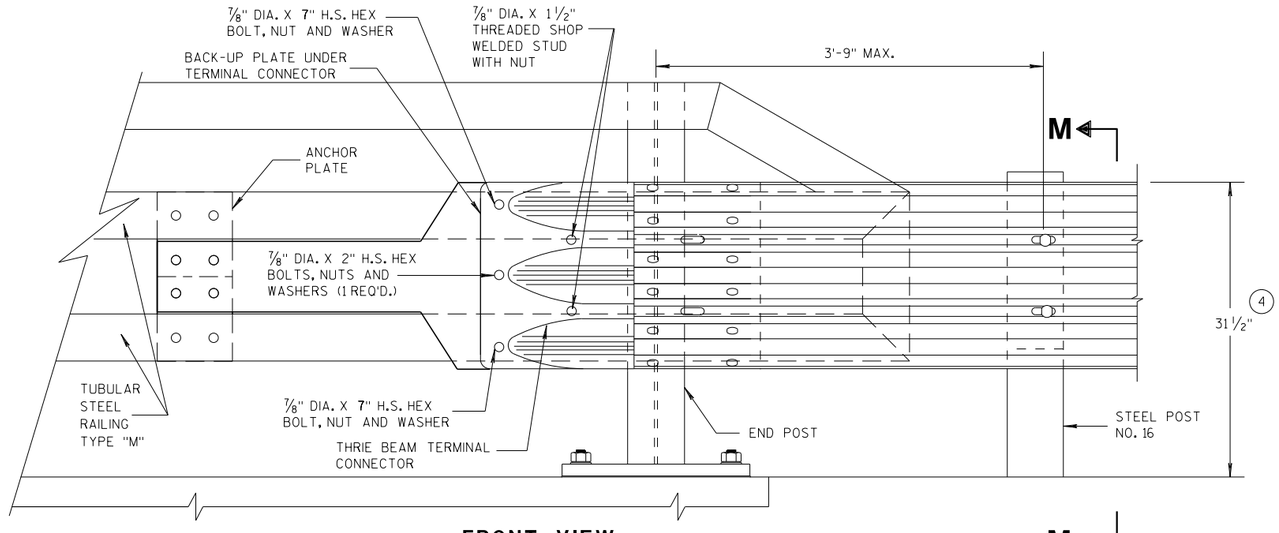


SECTION L-L

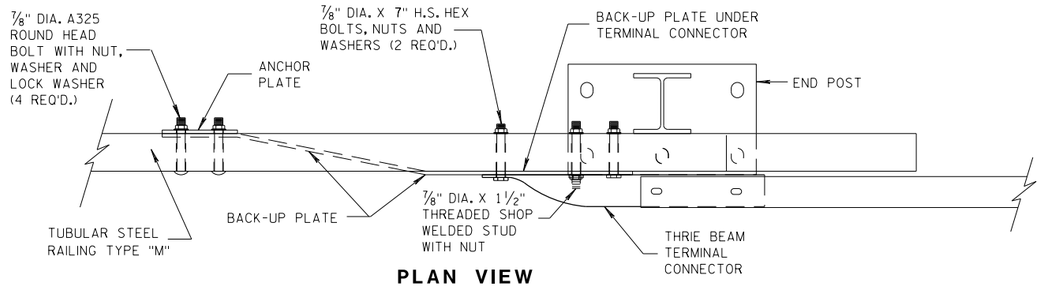


FRONT VIEW

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



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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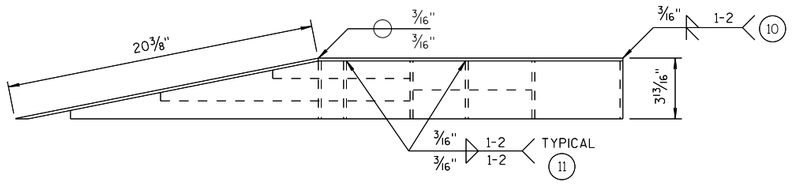
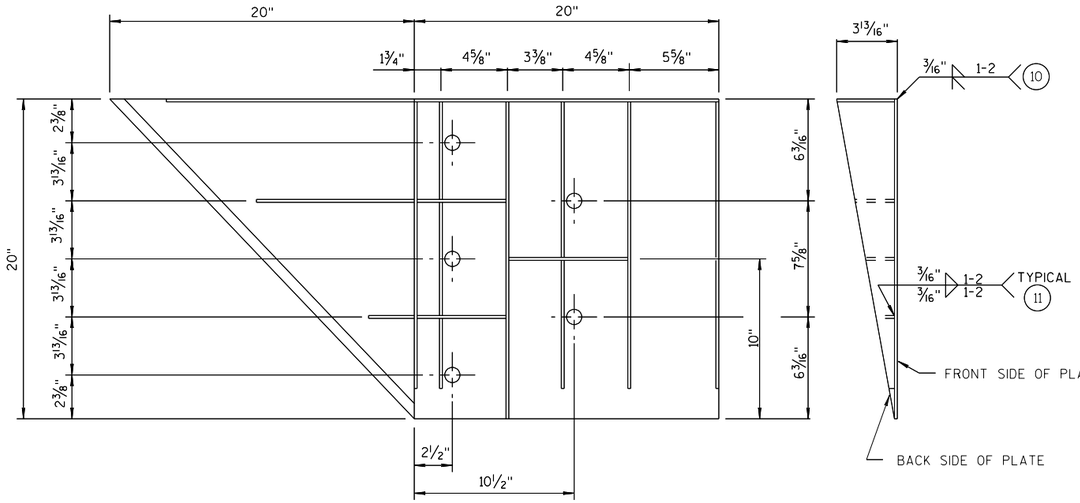
S.D.D. 14 B 45-5h





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

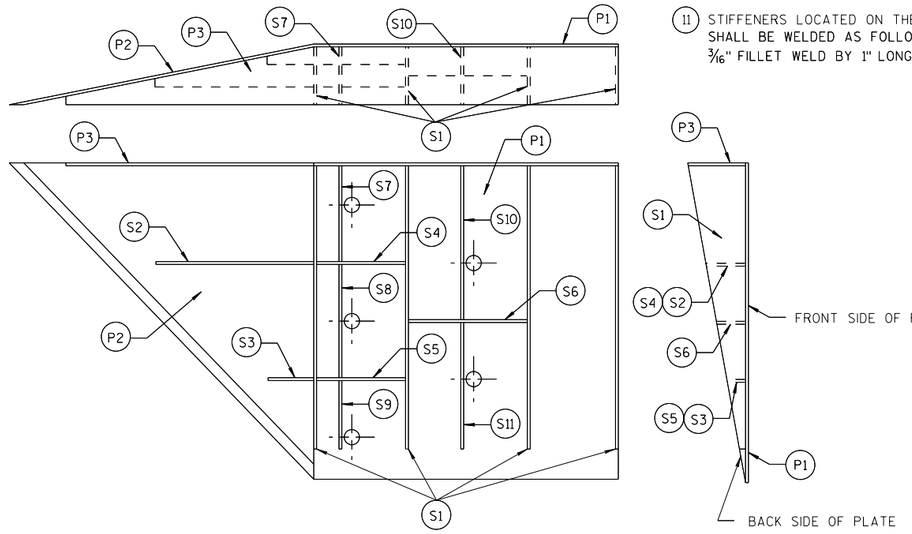


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS I
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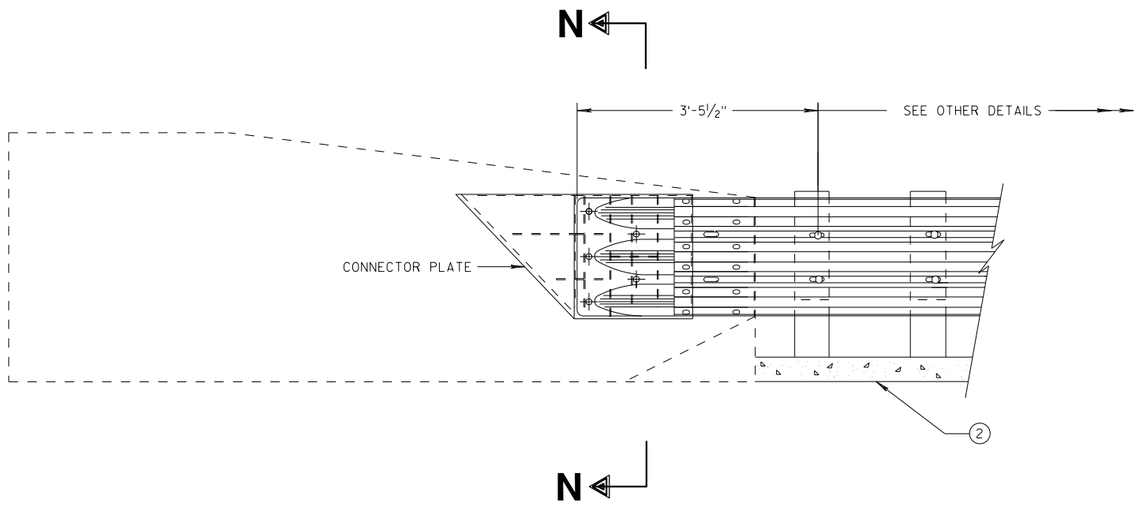
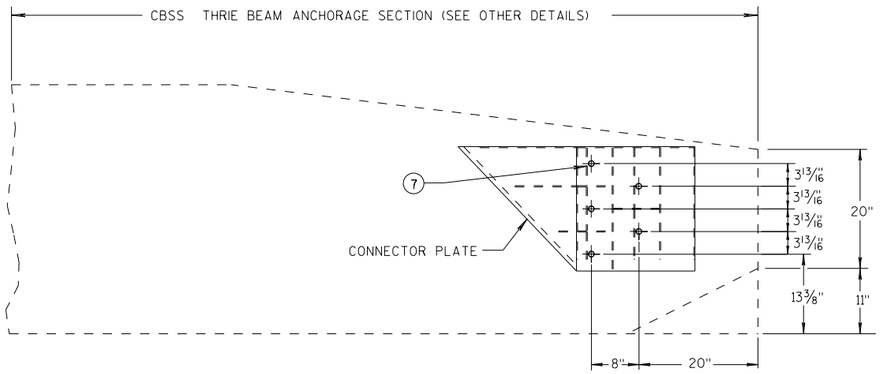
S.D.D. 14 B 45-5i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



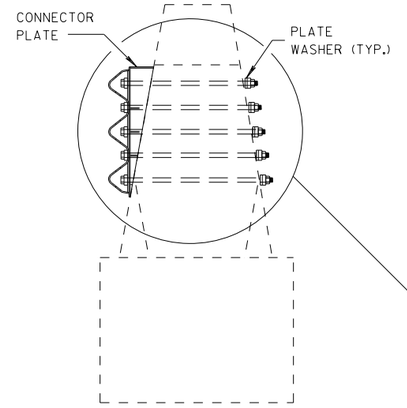
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

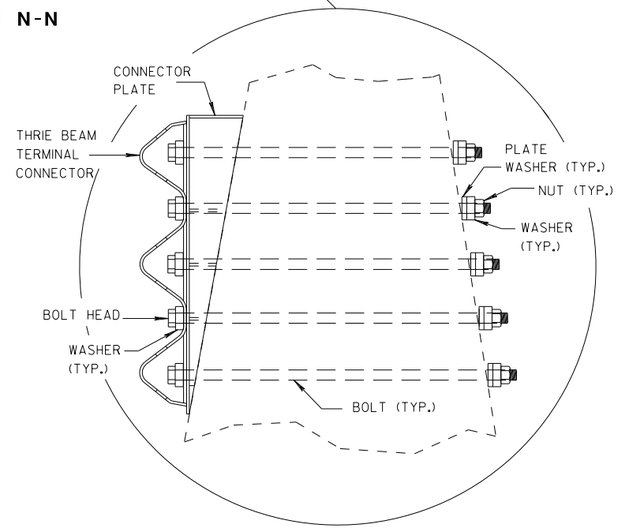
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(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.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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ROADWAY STANDARDS DI UNIT SUPERVIS NT

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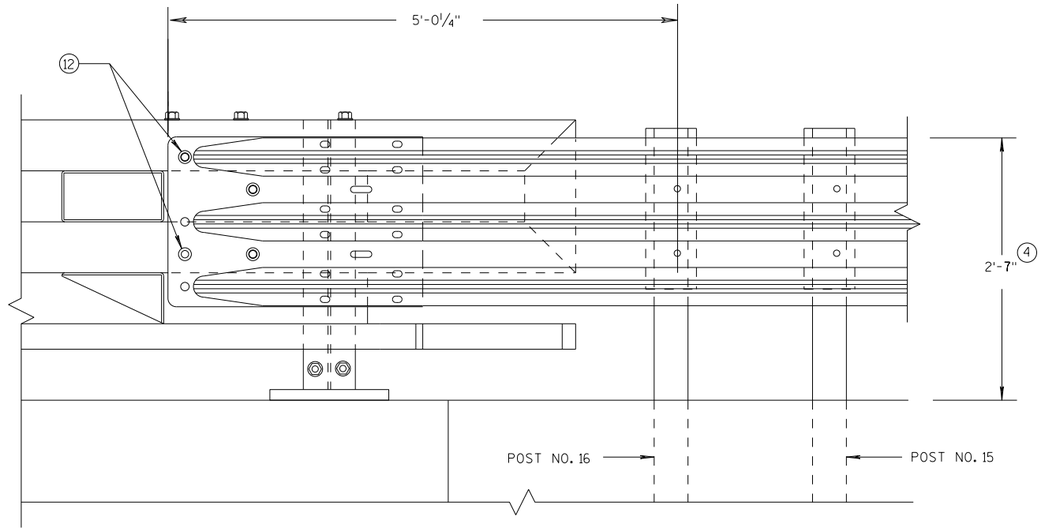
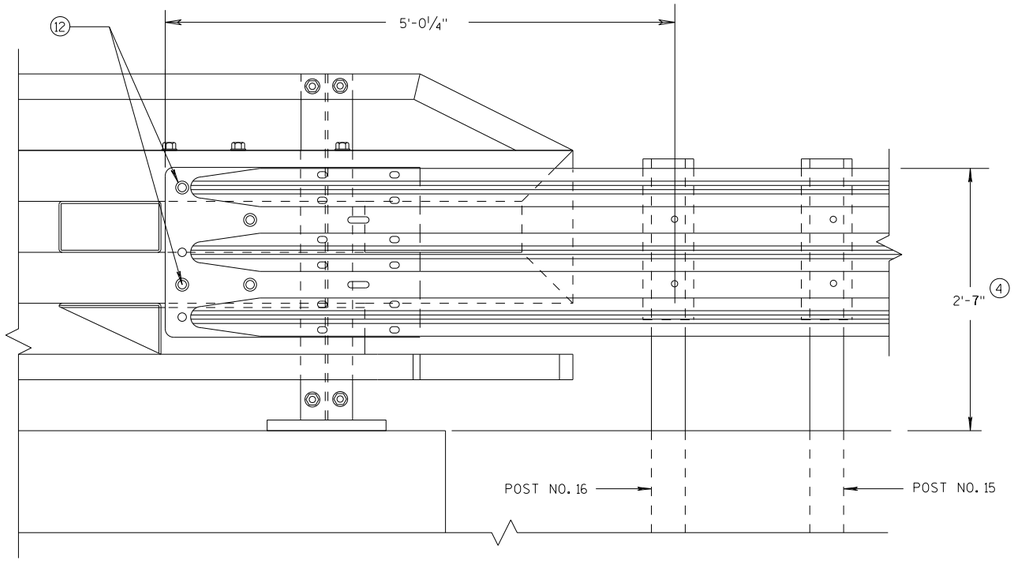


ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

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

(12) 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. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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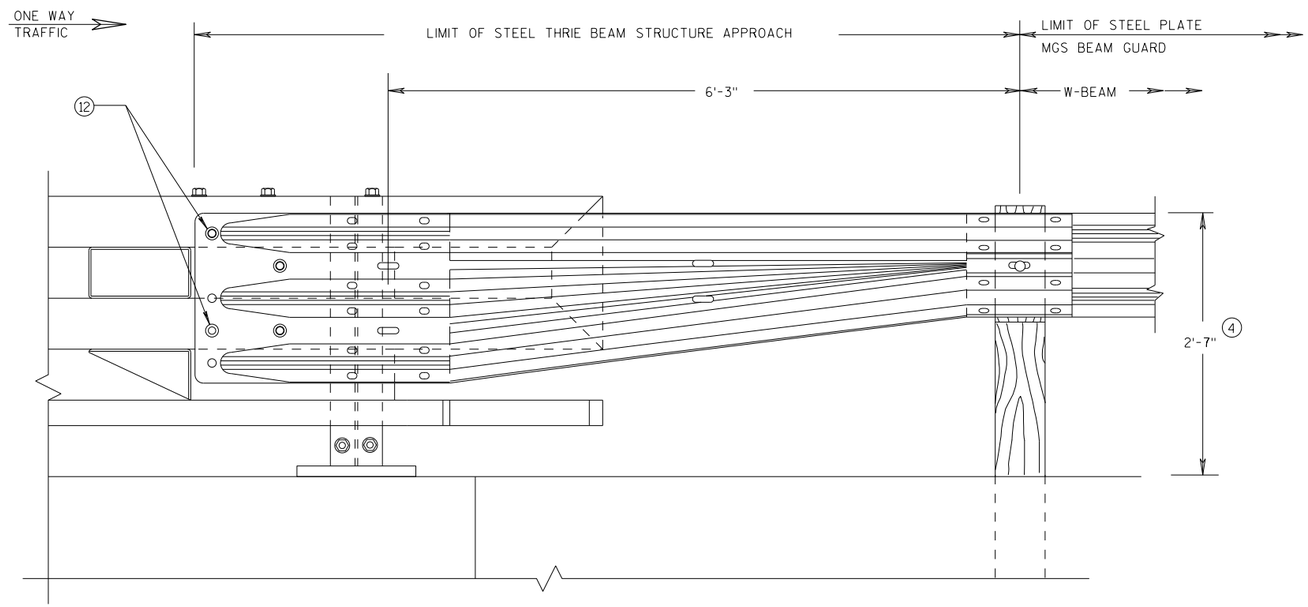


FRONT VIEW

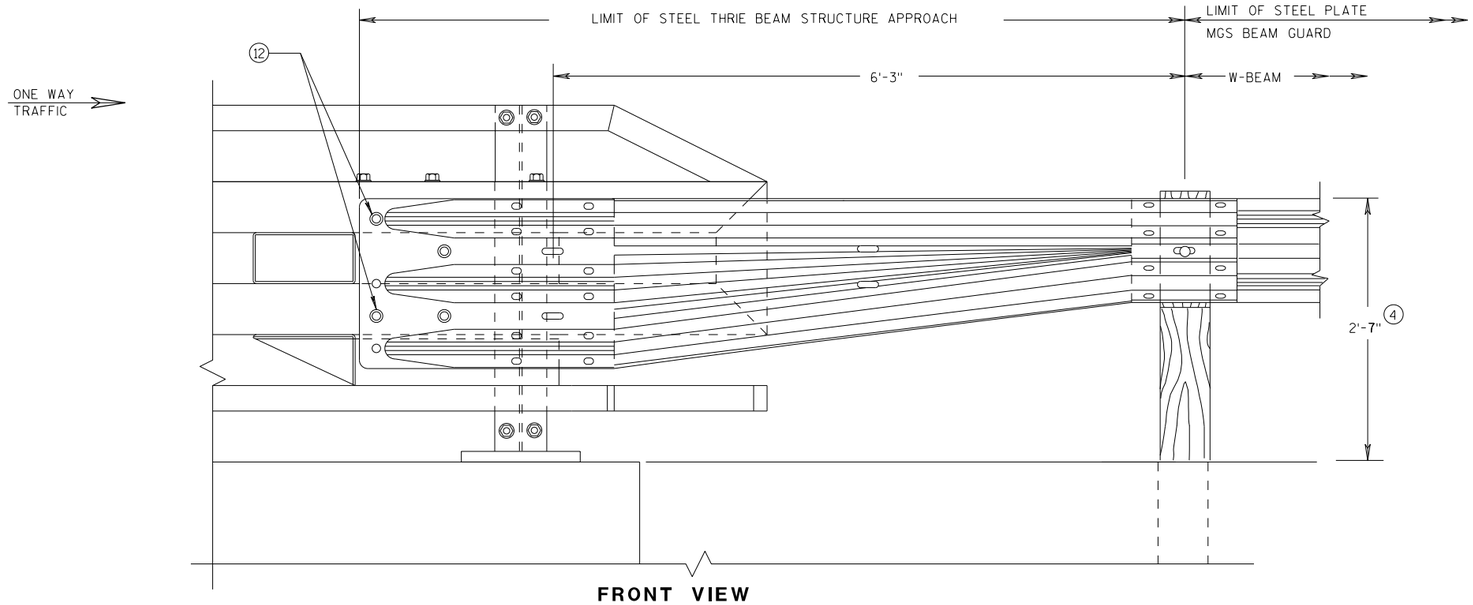
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

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

(12) 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. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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APPROVED
7/2018 DATE
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/S/ Rodney Taylor
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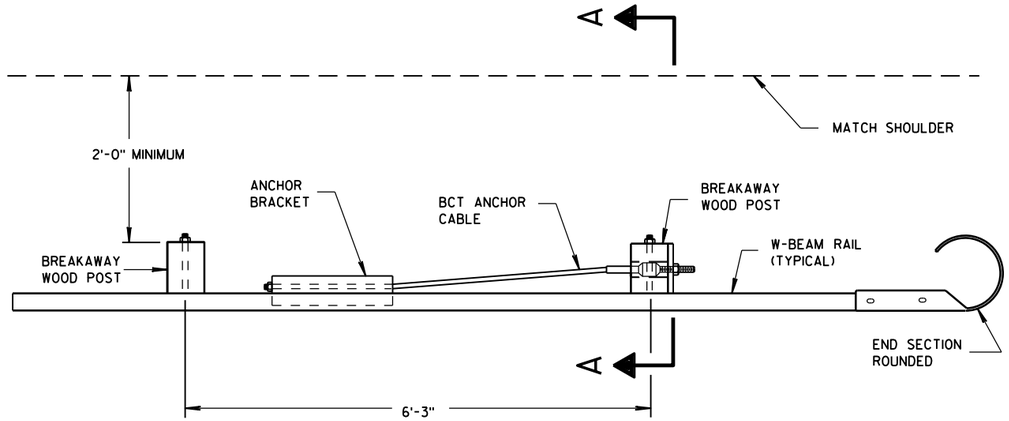
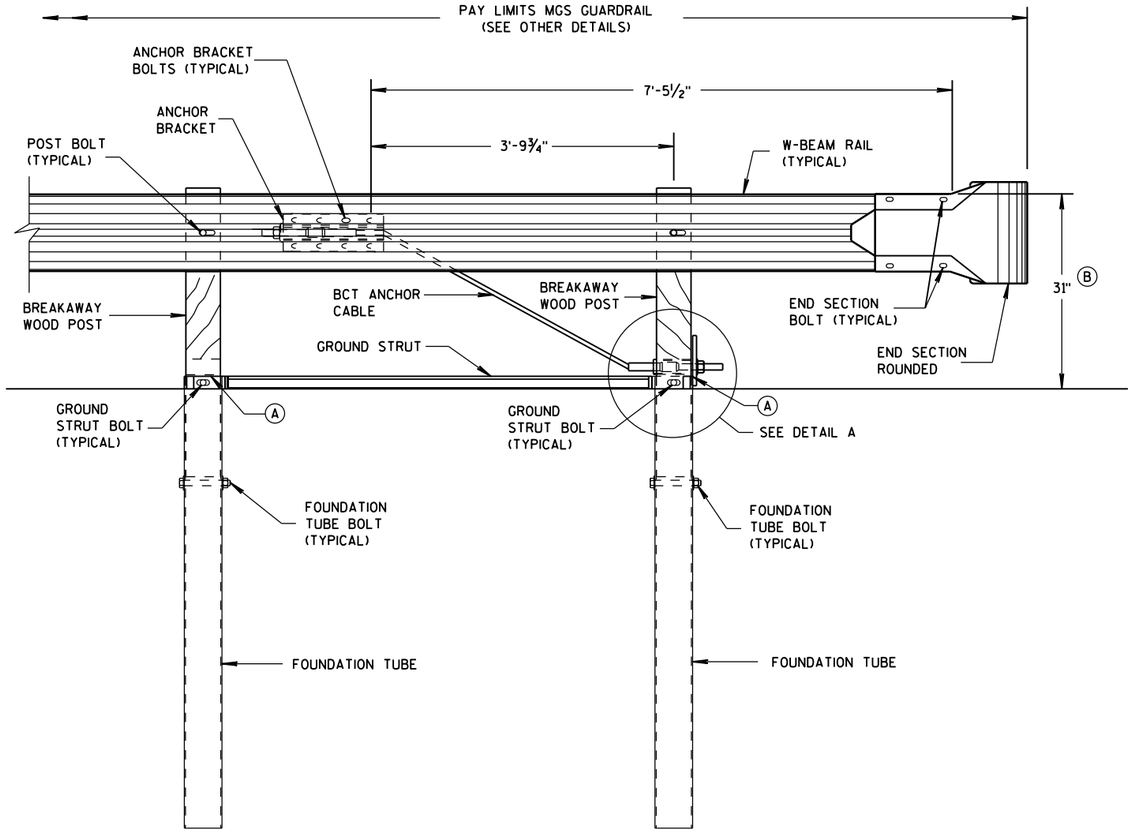
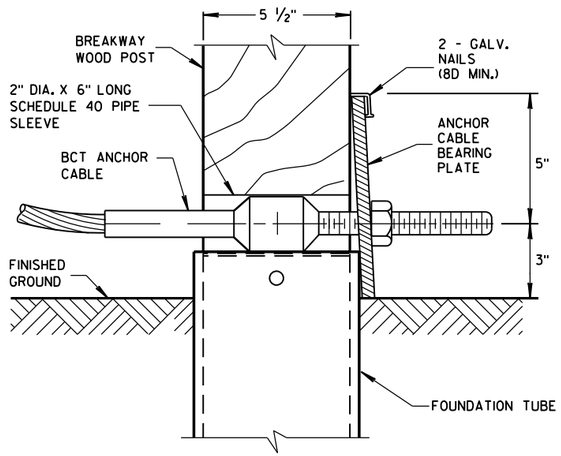


PLAN VIEW



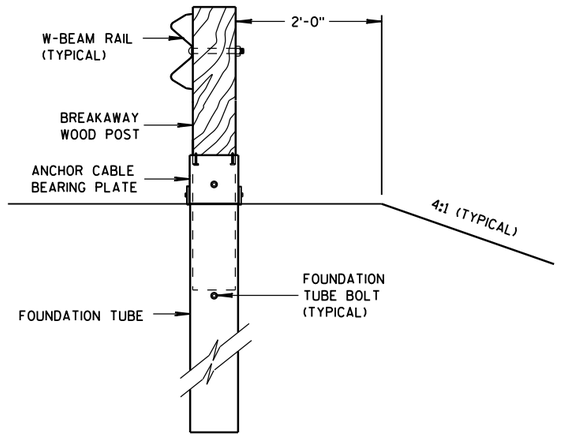
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.

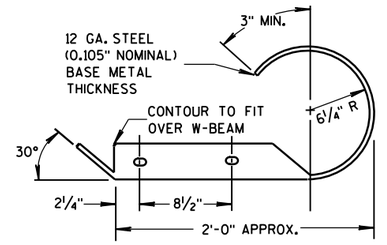
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

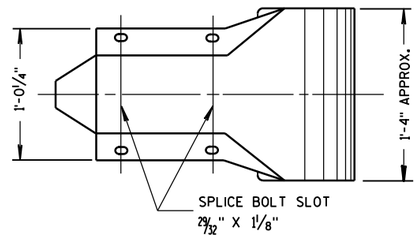
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



FRONT VIEW

W BEAM END SECTION ROUNDED

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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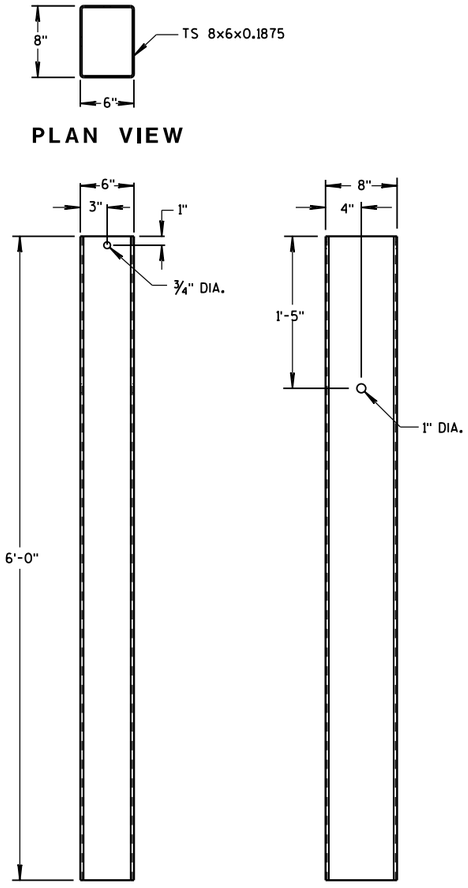
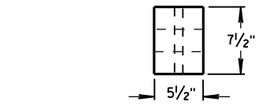
S.D.D. 14 B 47-2a



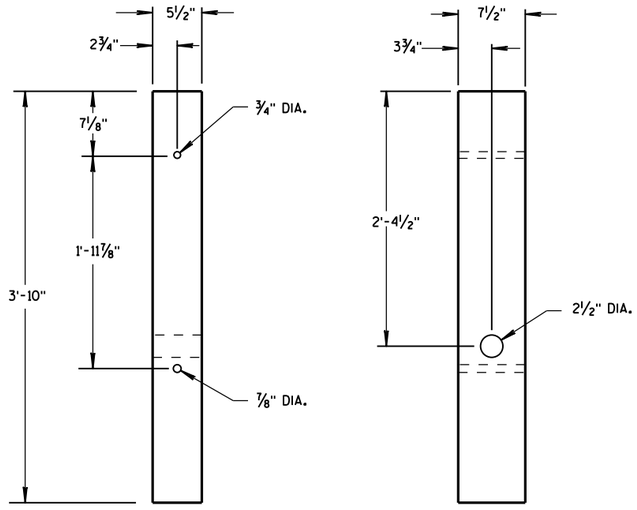
PLAN VIEW

FRONT VIEW SIDE VIEW

FOUNDATION TUBE



PLAN VIEW



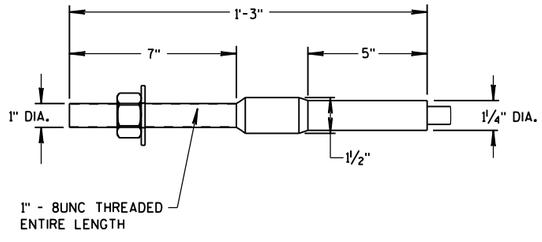
FRONT VIEW SIDE VIEW

BREAKAWAY WOOD POST

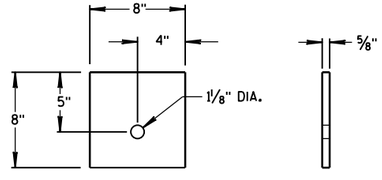
GENERAL NOTES

BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.

BCT ANCHOR CABLE



DETAIL B



SIDE VIEW FRONT VIEW

ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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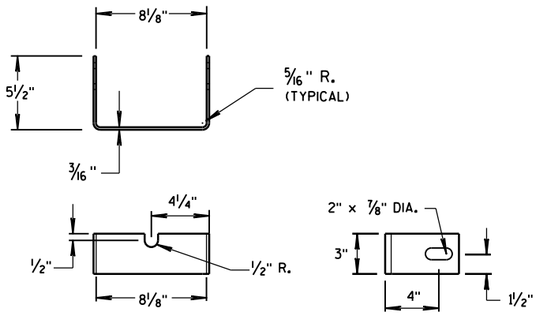
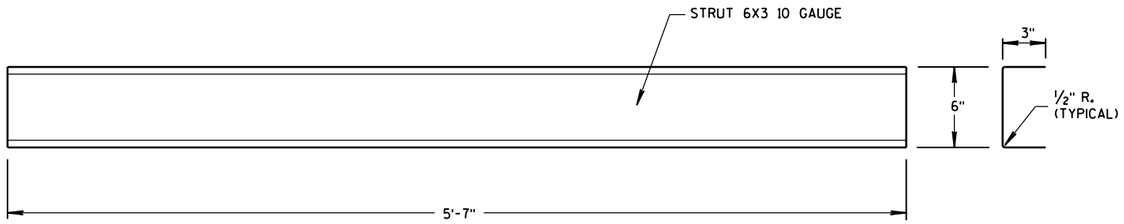
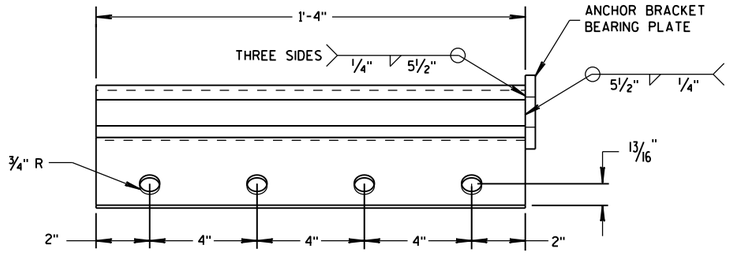
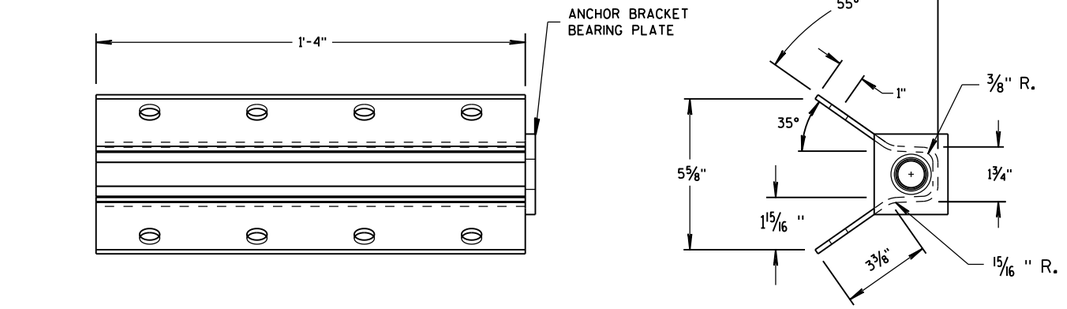


YOKE DETAIL

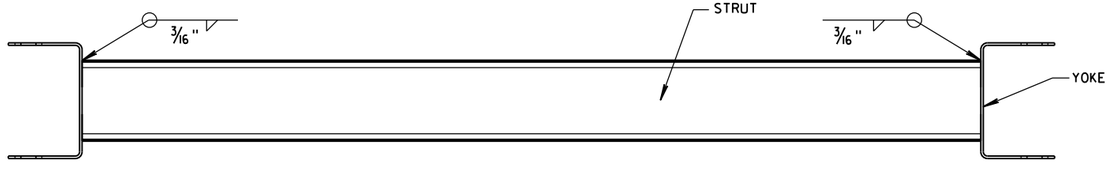


STRUT DETAIL

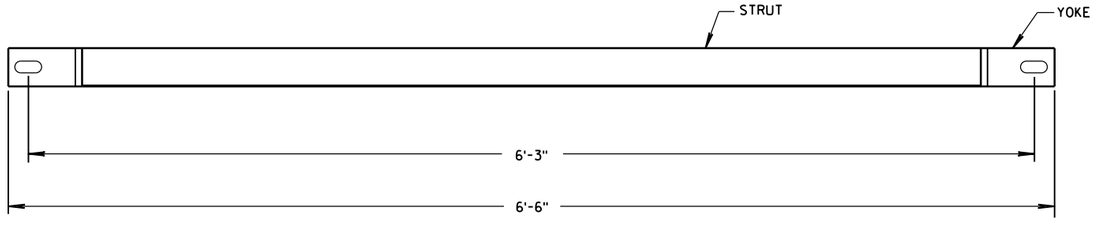




ANCHOR BRACKET

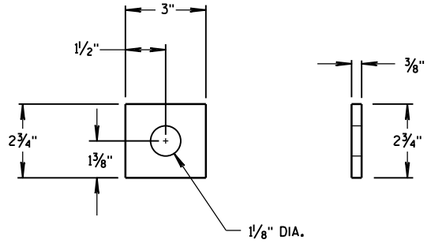


PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET BEARING PLATE

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

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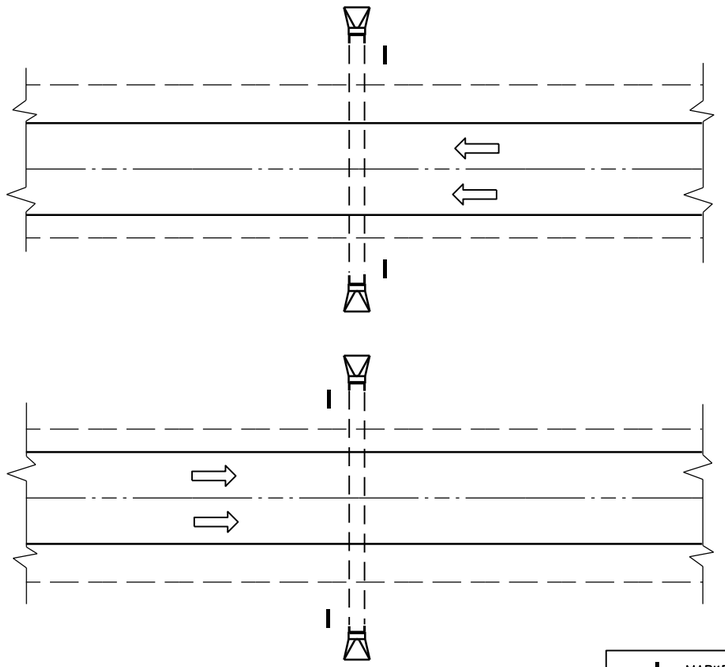
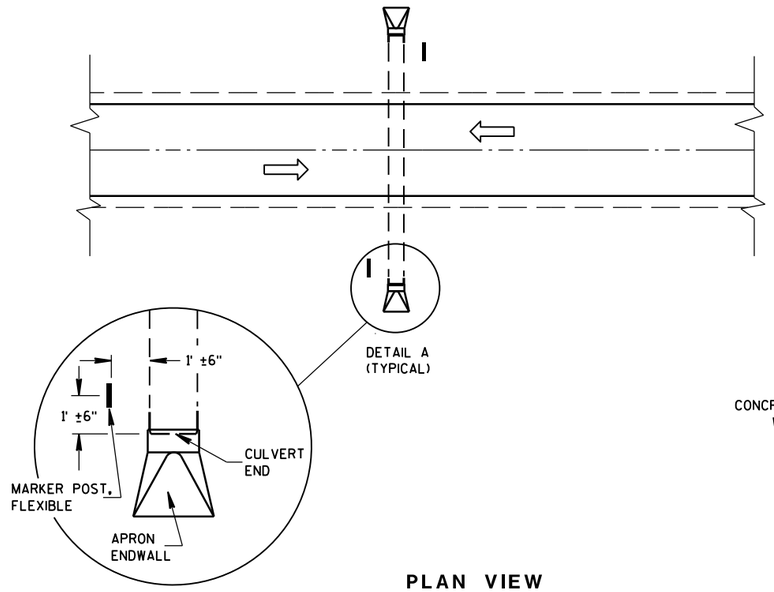


PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

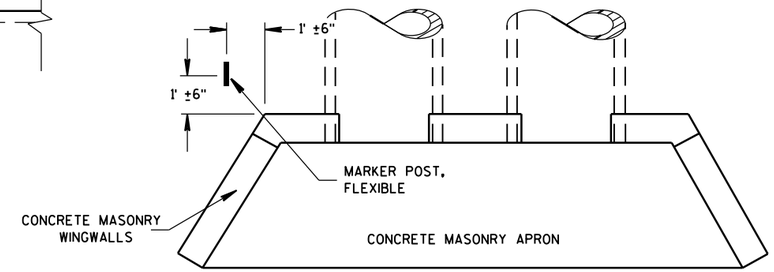
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

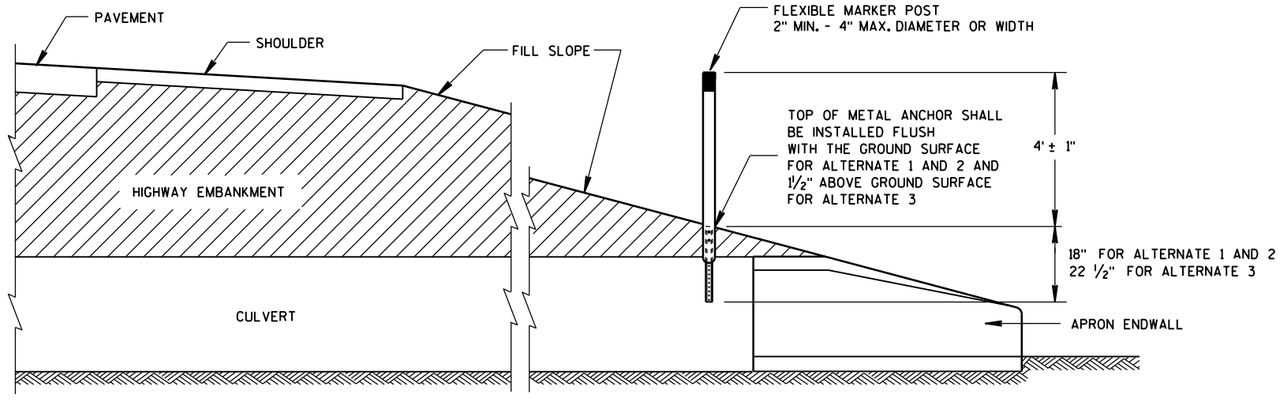
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

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DEPARTMENT OF TRANSPOI

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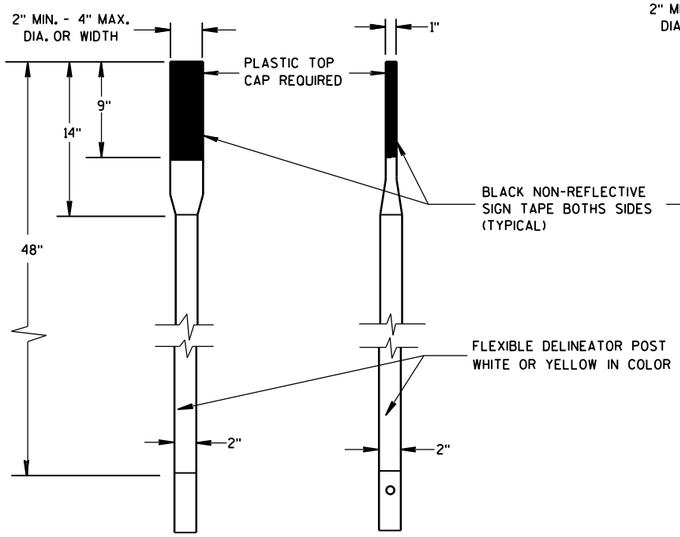
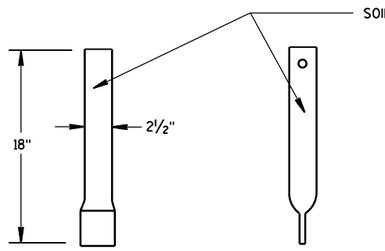
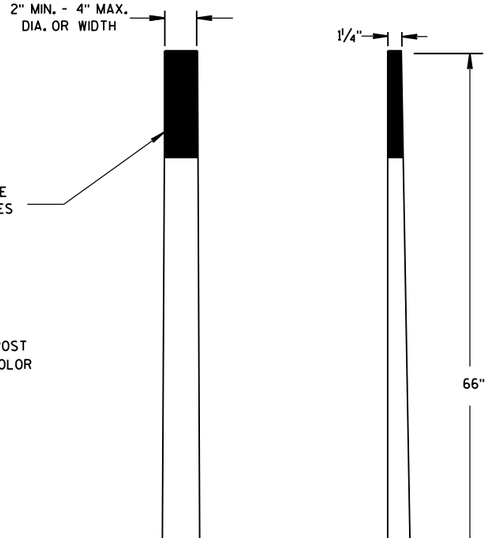




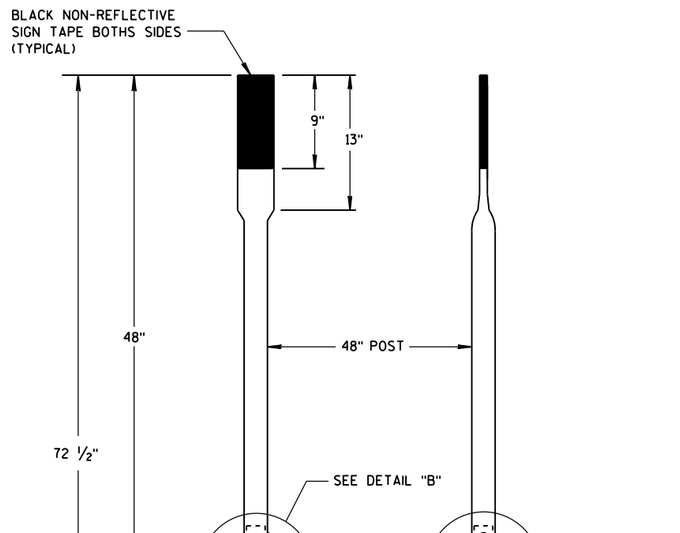
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

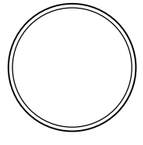
ALTERNATE 2



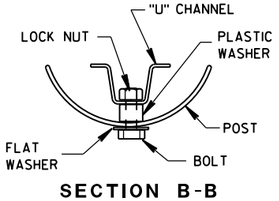
FRONT VIEW SIDE VIEW

ALTERNATE 3

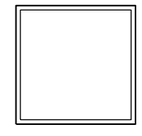
FLEXIBLE MARKER POSTS



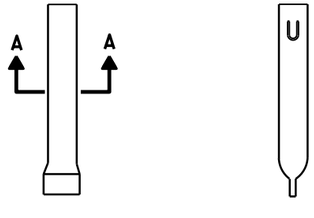
SECTION A-A



SECTION B-B

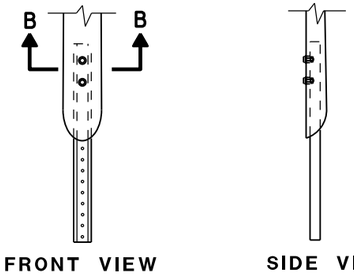


SECTION C-C



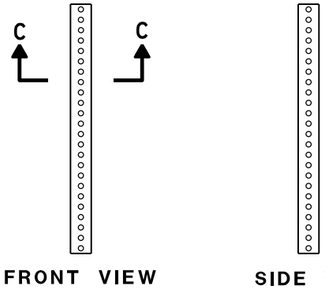
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

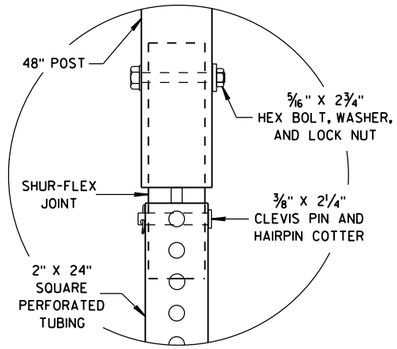
ALTERNATE 2



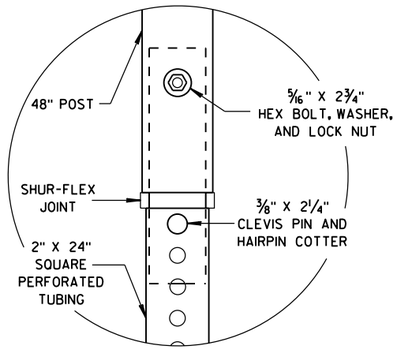
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



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
FHWA

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

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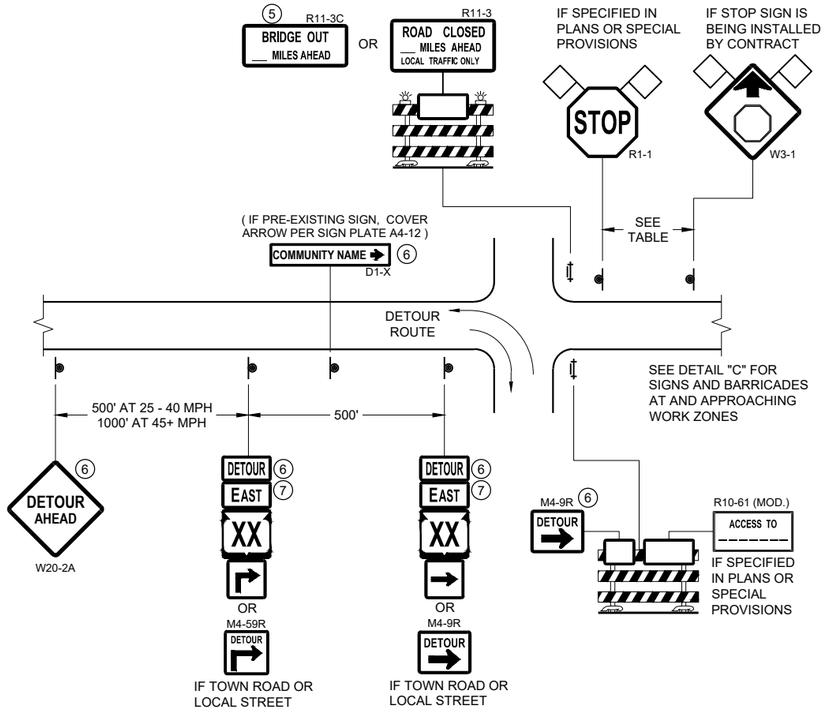
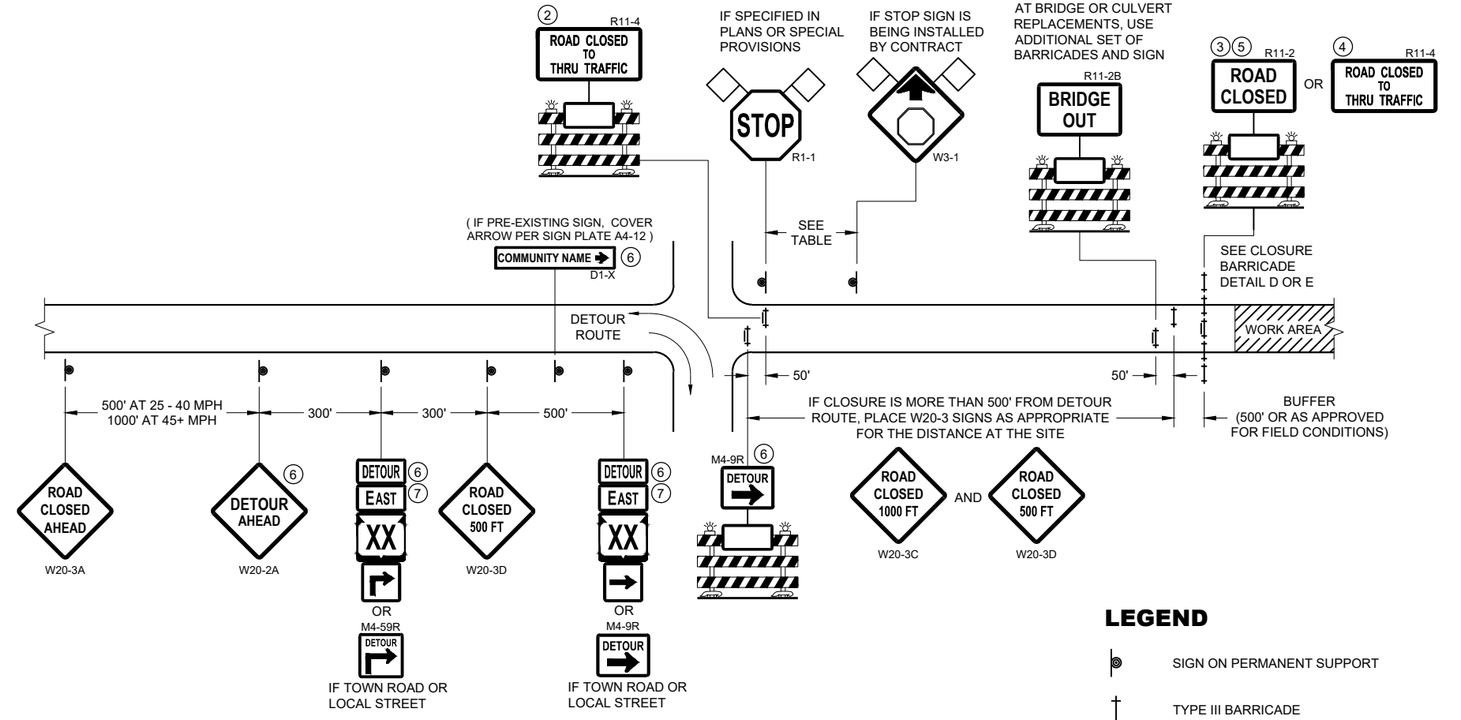
S.D.D. 15 A 3-2b



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



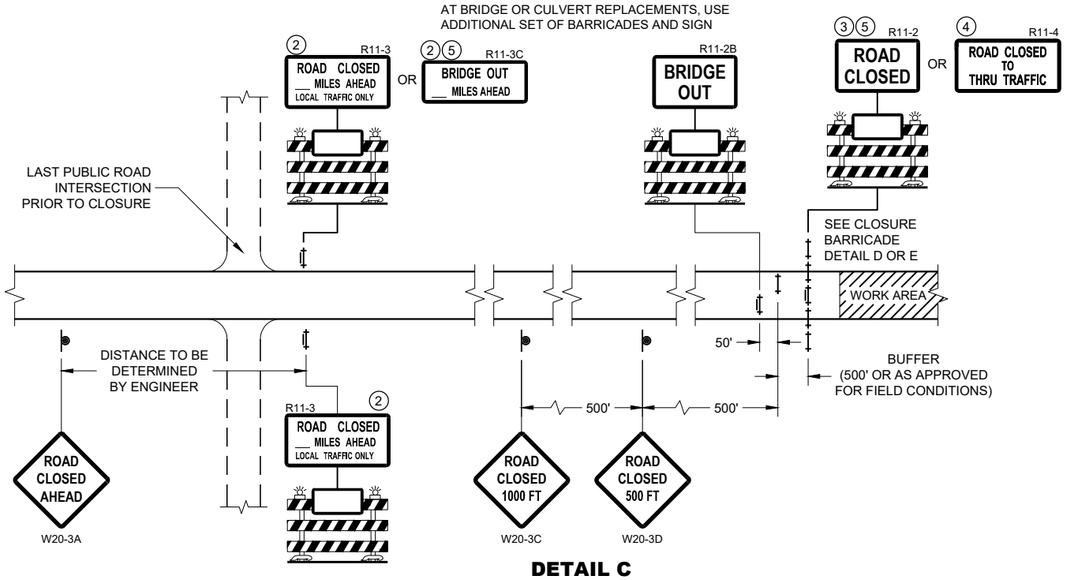
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ 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)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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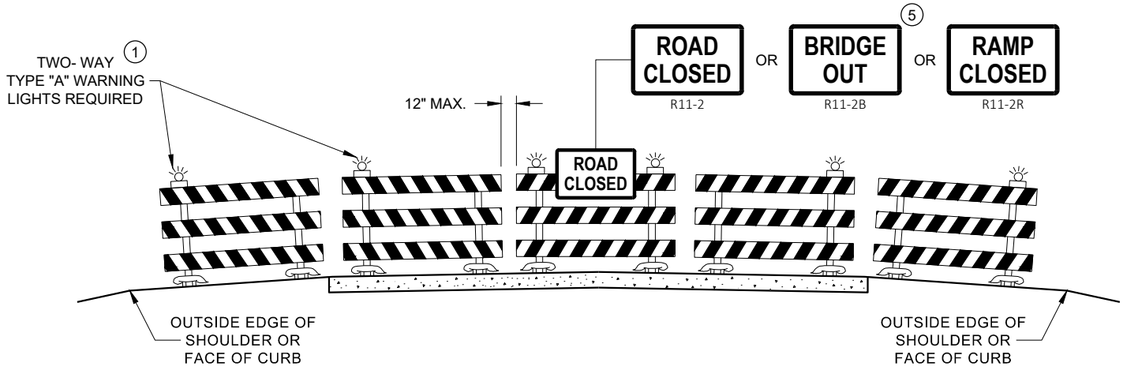
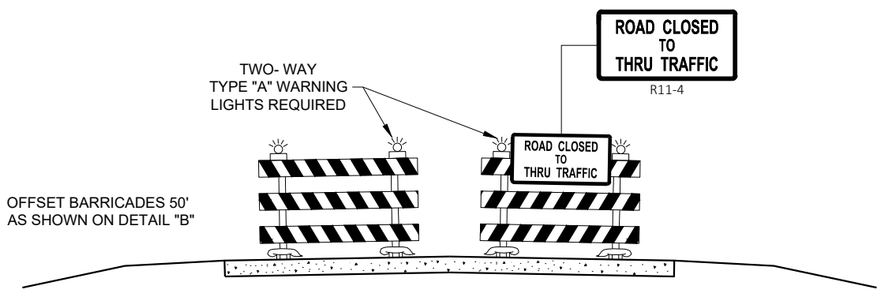
SDD 15C02 - 08a

SDD 15C02 - 08a



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
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

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SDD 15C02 - 08b

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SDD 15C02 - 08b

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1 OR 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.

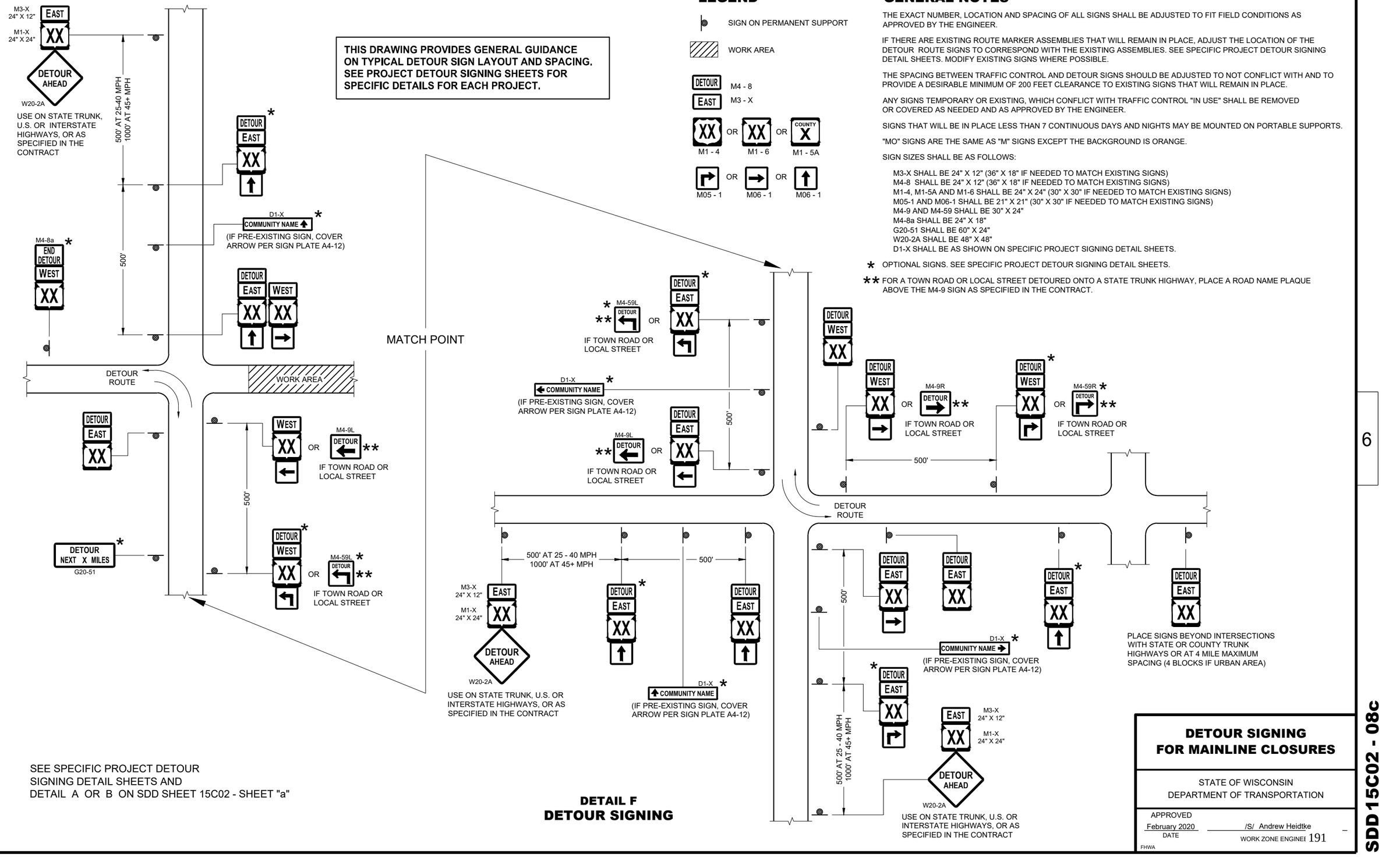
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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" (30" X 30" 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.



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

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 08c

SDD 15C02 - 08c

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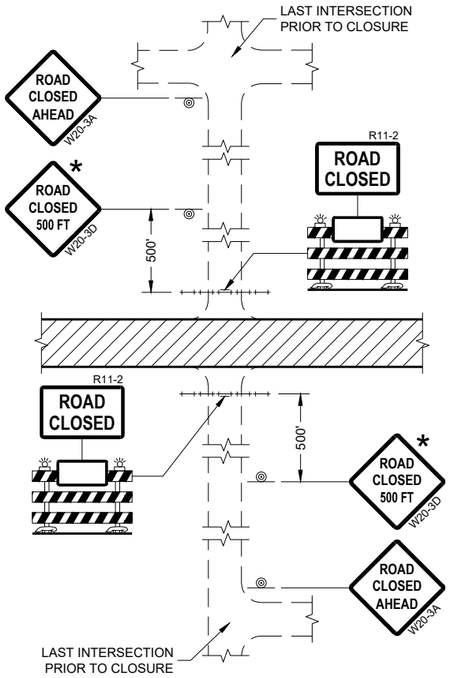
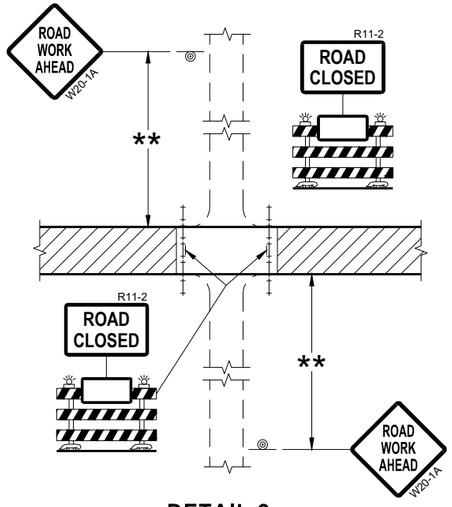


DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO 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.

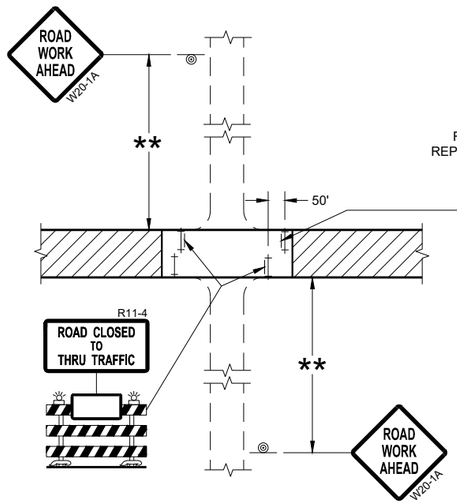
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

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

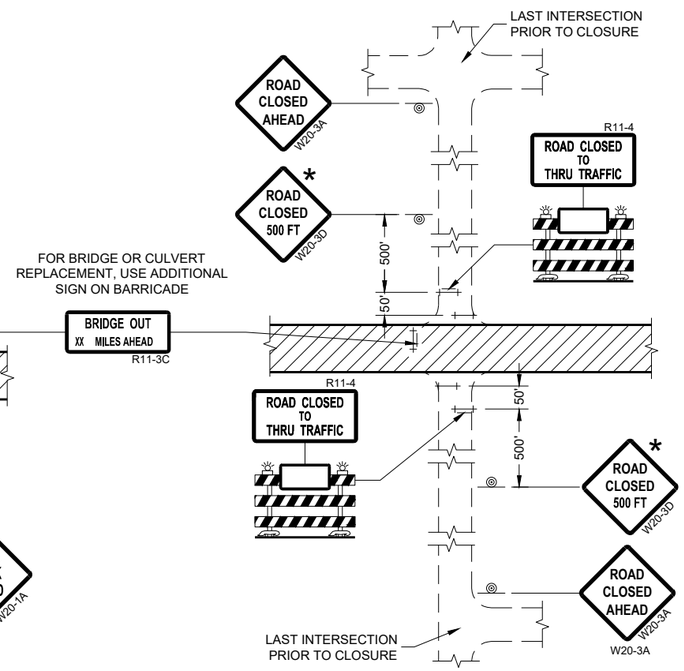
** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

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



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



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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C03 - 05

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.

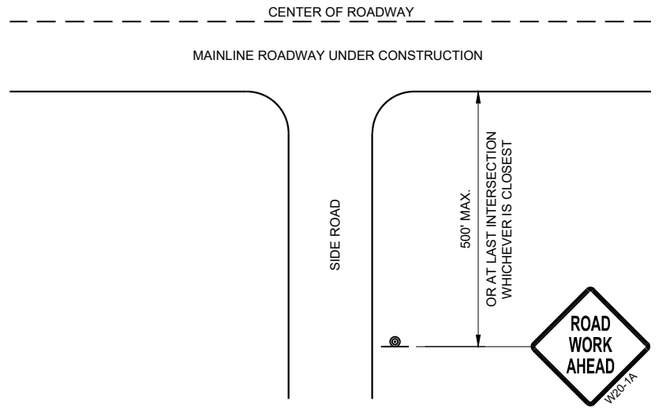
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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.



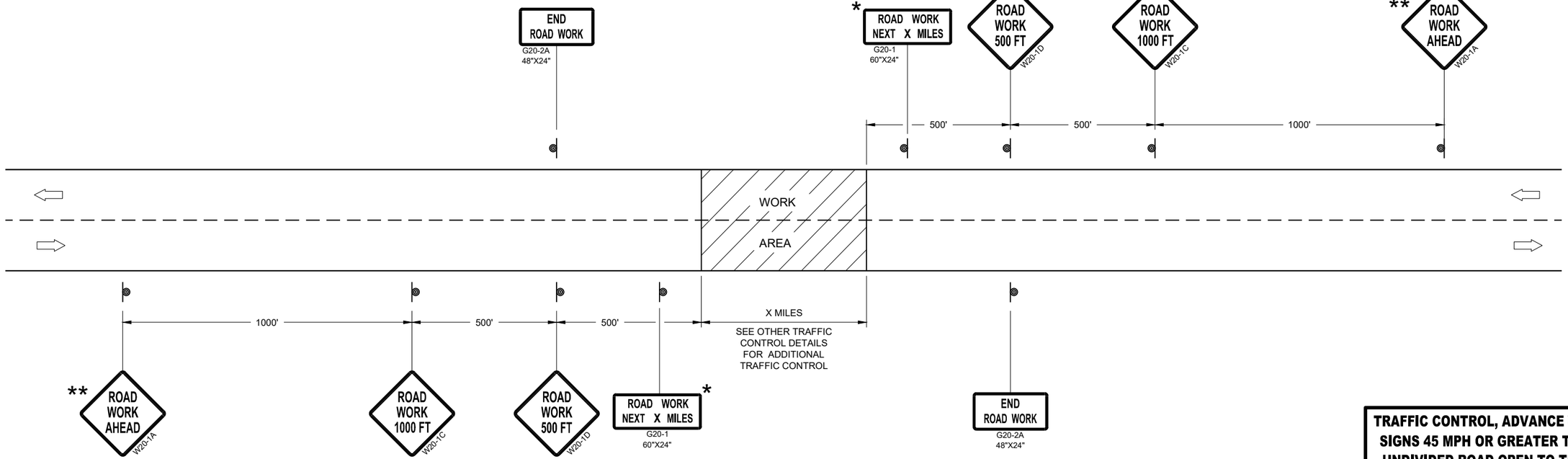
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C04 - 05

GENERAL NOTES

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

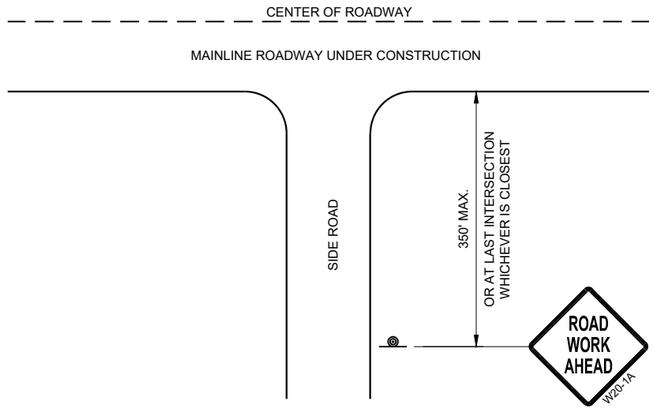
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.



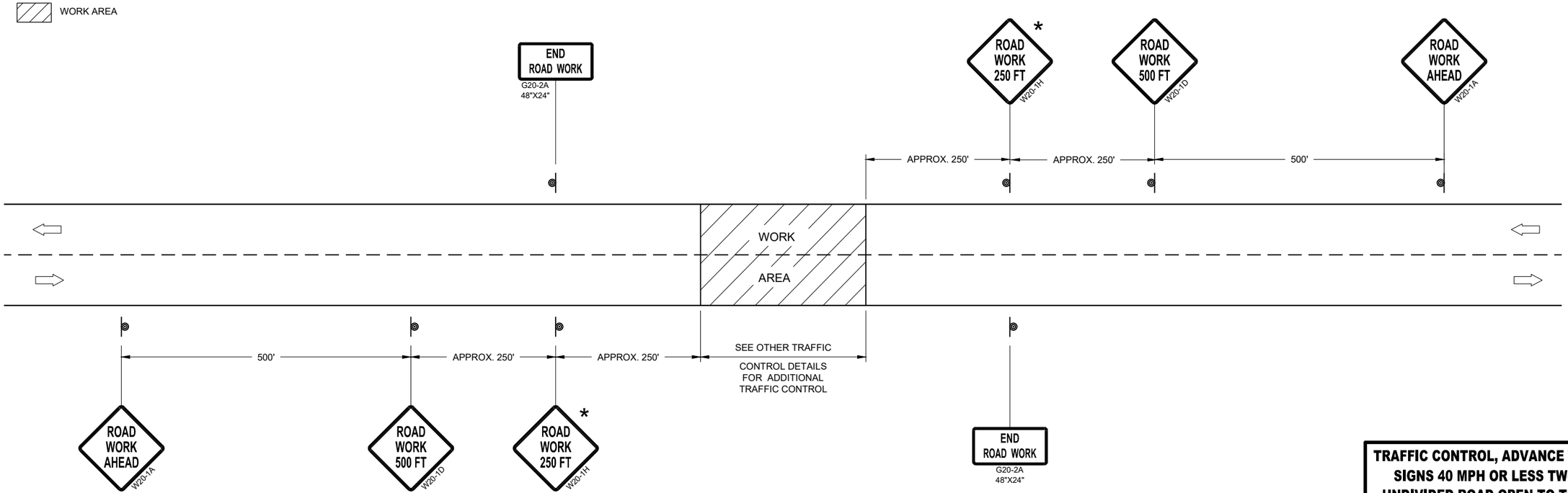
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

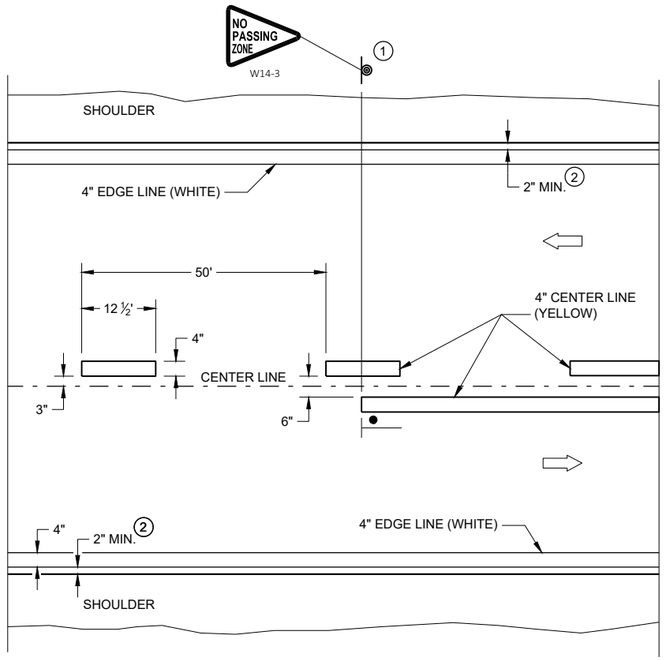
APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

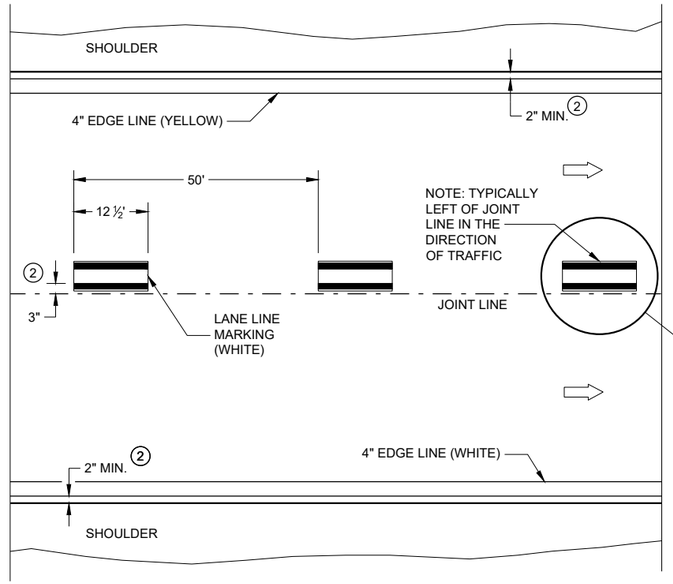
FHWA

6

SDD 15C05 - 05

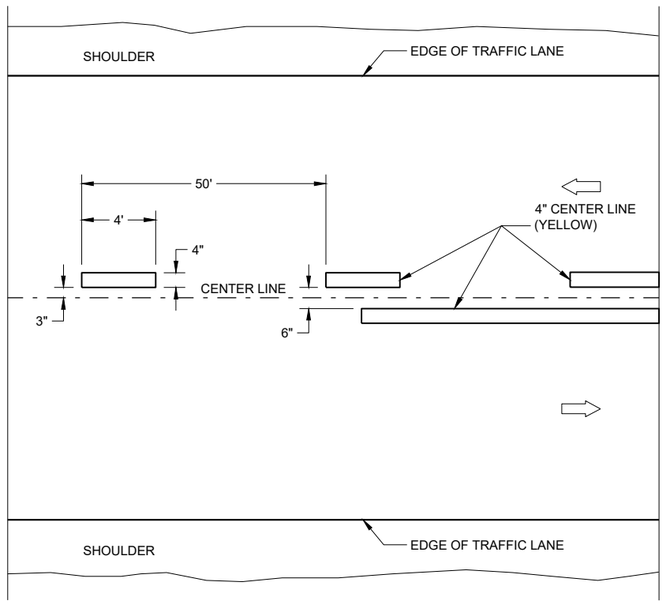


TWO WAY TRAFFIC

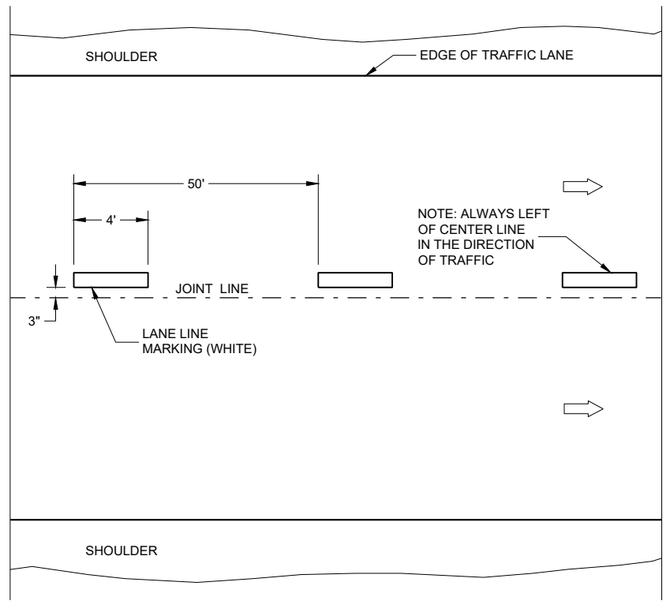


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

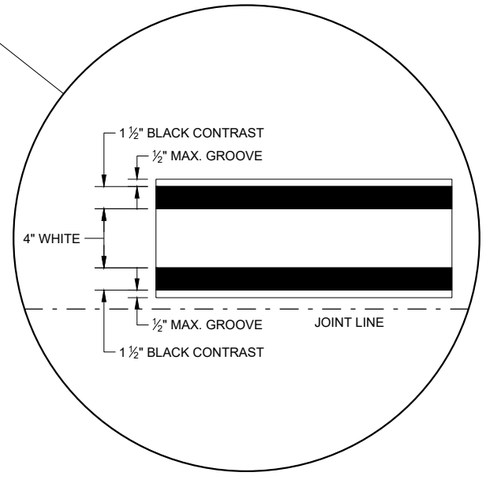
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

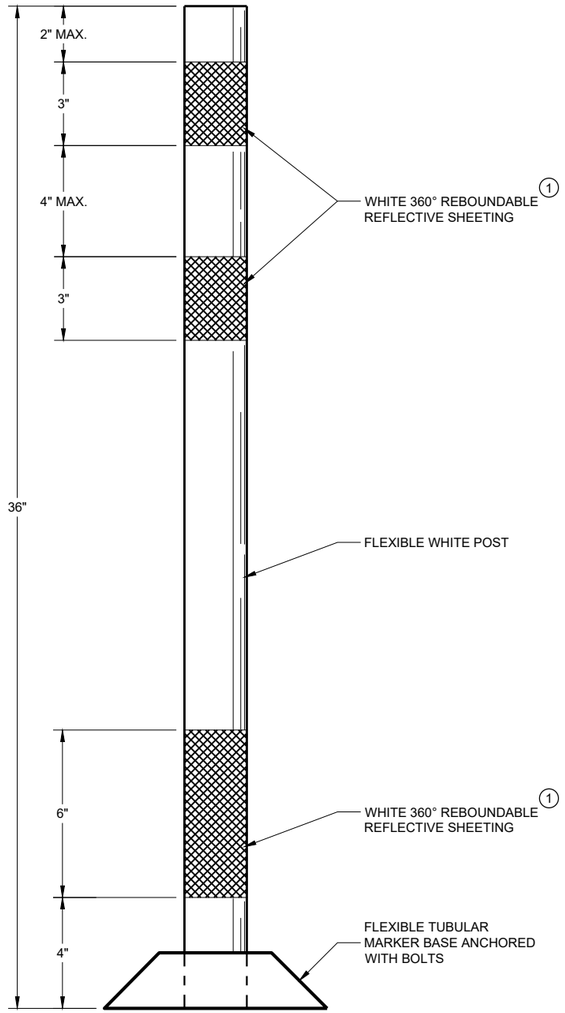
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

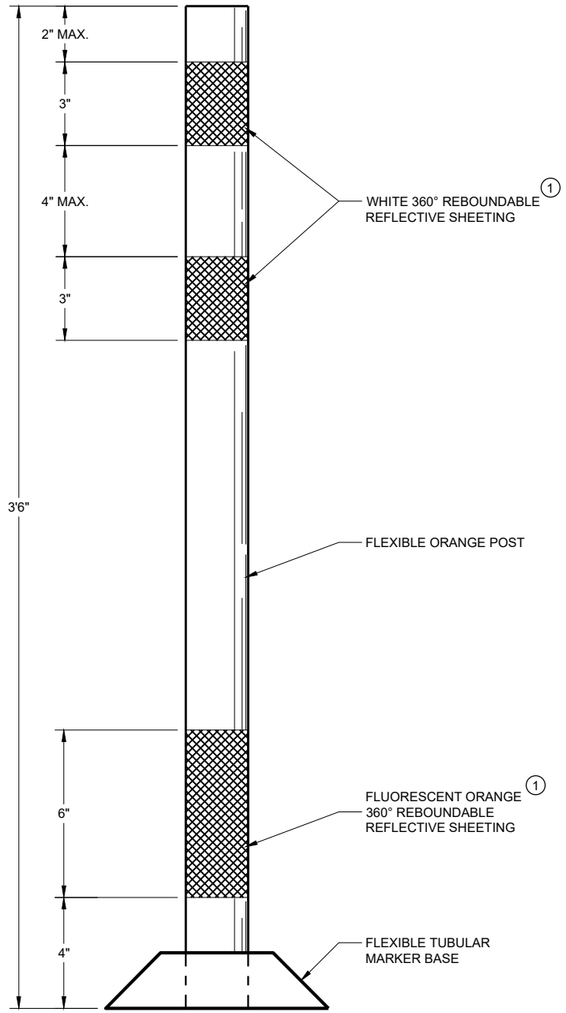
FHWA

SDD 15C08 - 20a

SDD 15C08 - 20a



FLEXIBLE TUBULAR MARKER POST PERMANENT CROSSOVER



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

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SDD 15C11 - 08a

CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

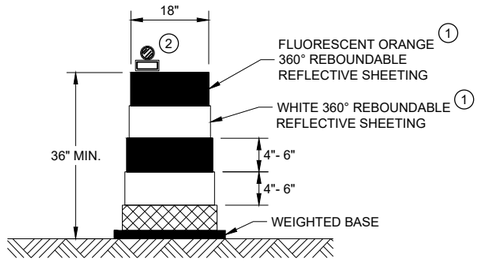
FHWA

6

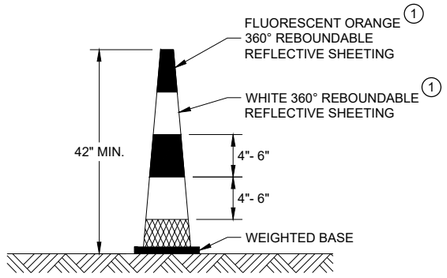
SDD 15C11 - 08a

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.

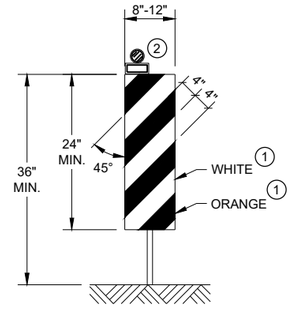


DRUM



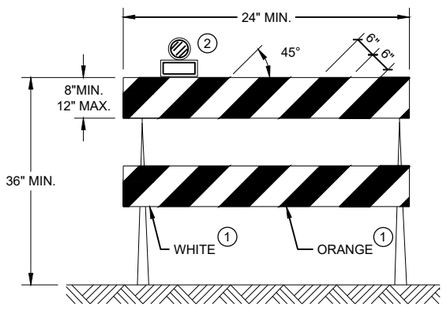
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



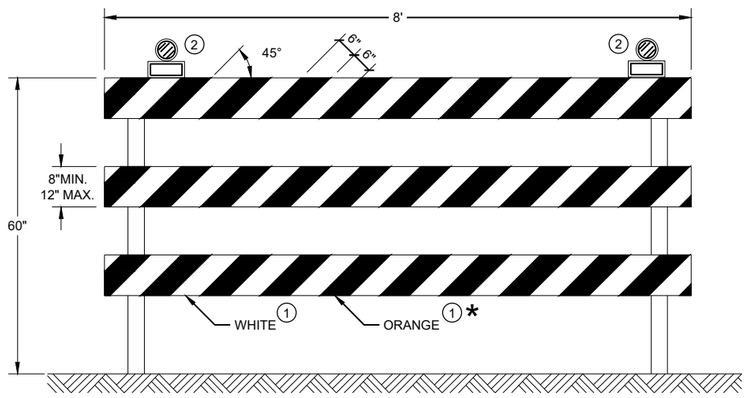
VERTICAL PANEL

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



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 2020 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE
FHWA

6

SDD 15C11 - 08b

6

SDD 15C11 - 08b

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.

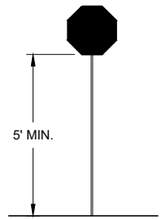
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR 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.



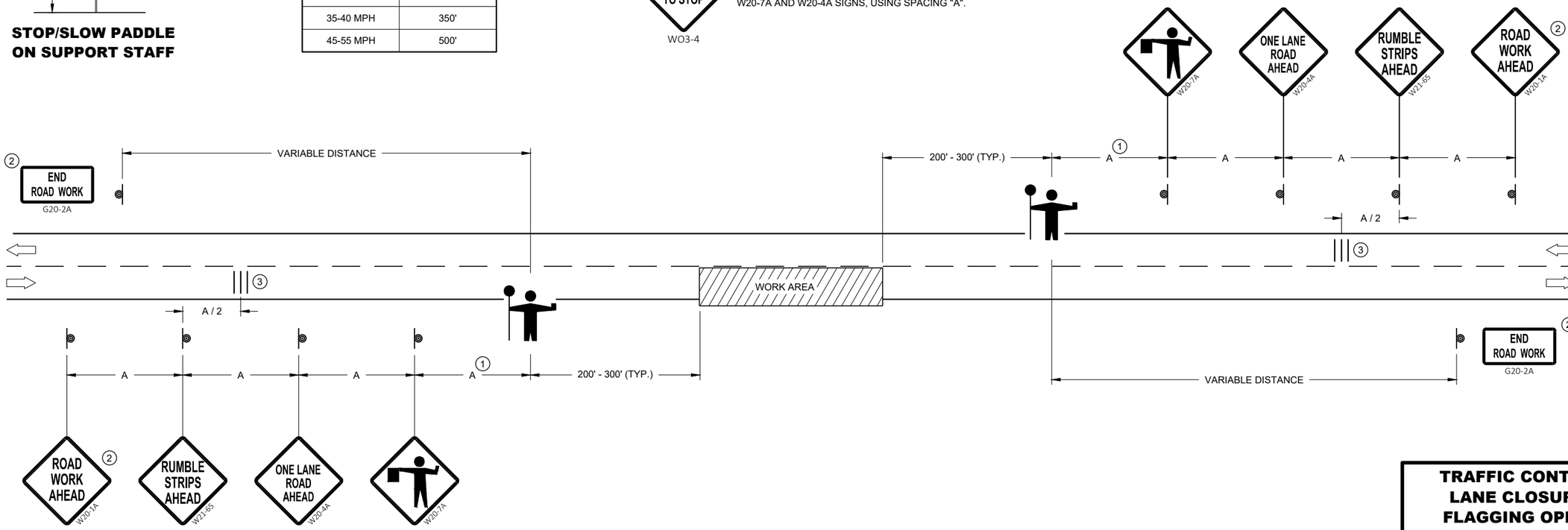
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

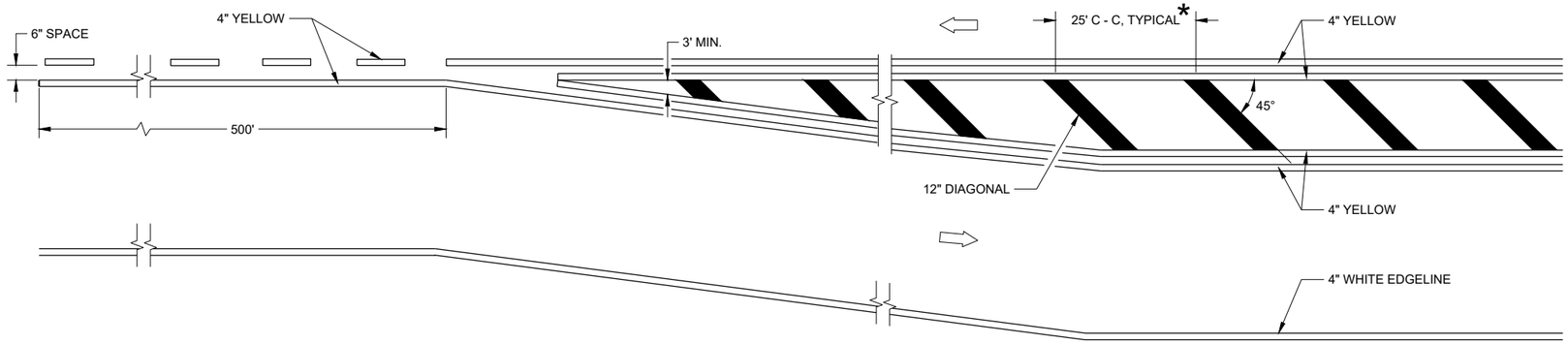
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C12 - 07

SDD 15C12 - 07

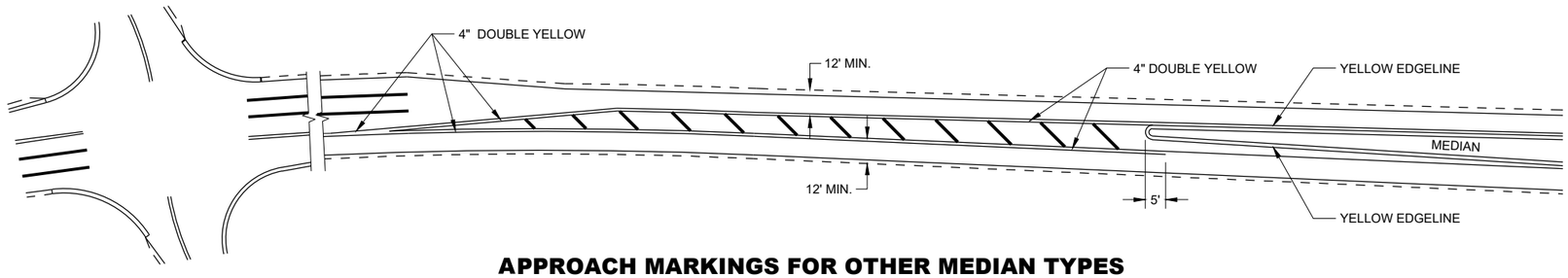


MEDIAN ISLAND DETAIL

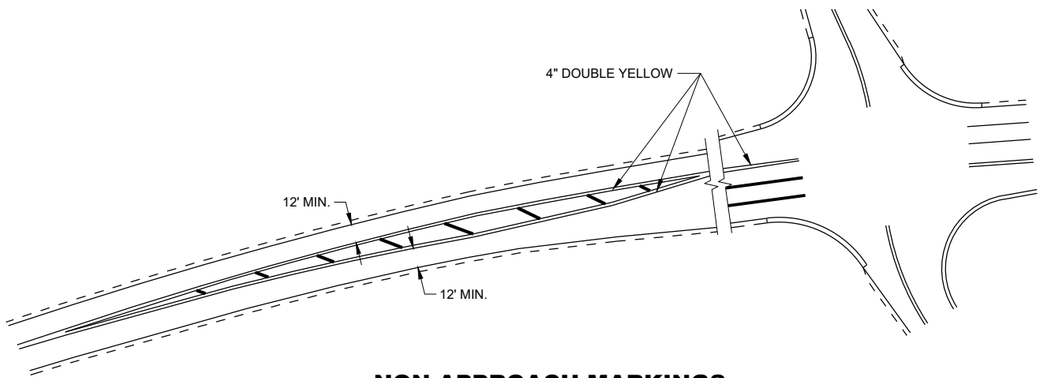
GENERAL NOTES

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

DIRECTION OF TRAVEL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2021
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

6

SDD 15C18 - 05a

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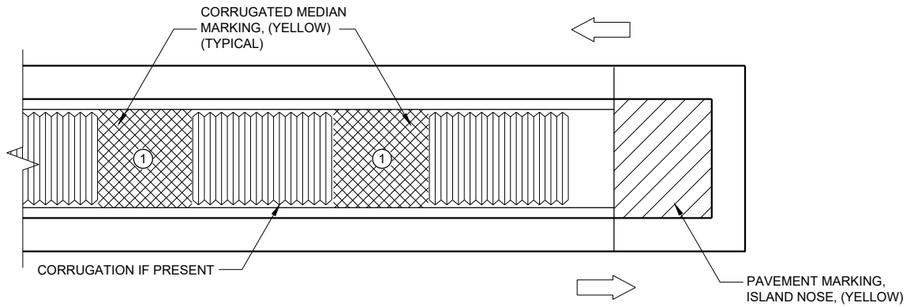
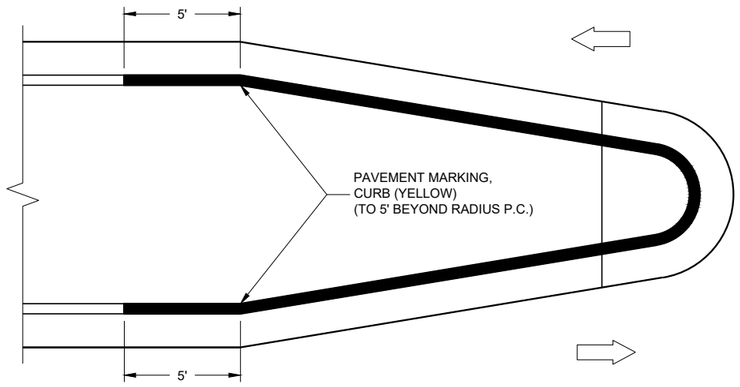
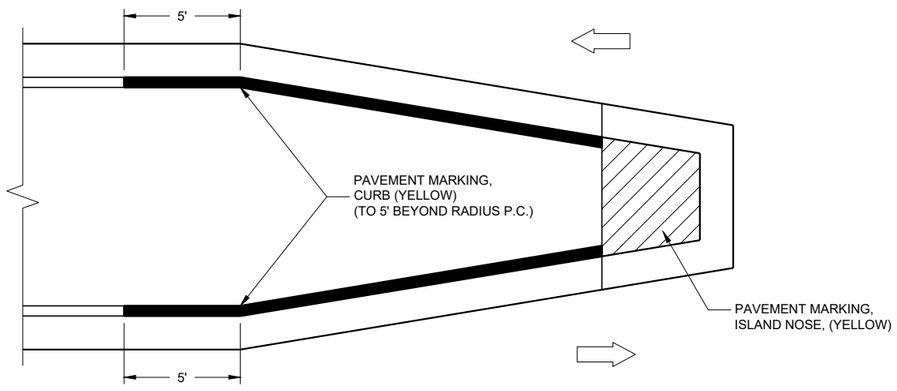
SDD 15C18 - 05a



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

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

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

**PAVEMENT MARKINGS,
MEDIAN ISLAND NOSE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2021
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR
ENGINEER

FHWA

6

SDD 15C18 - 05b

6

SDD15C18 - 05b

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.

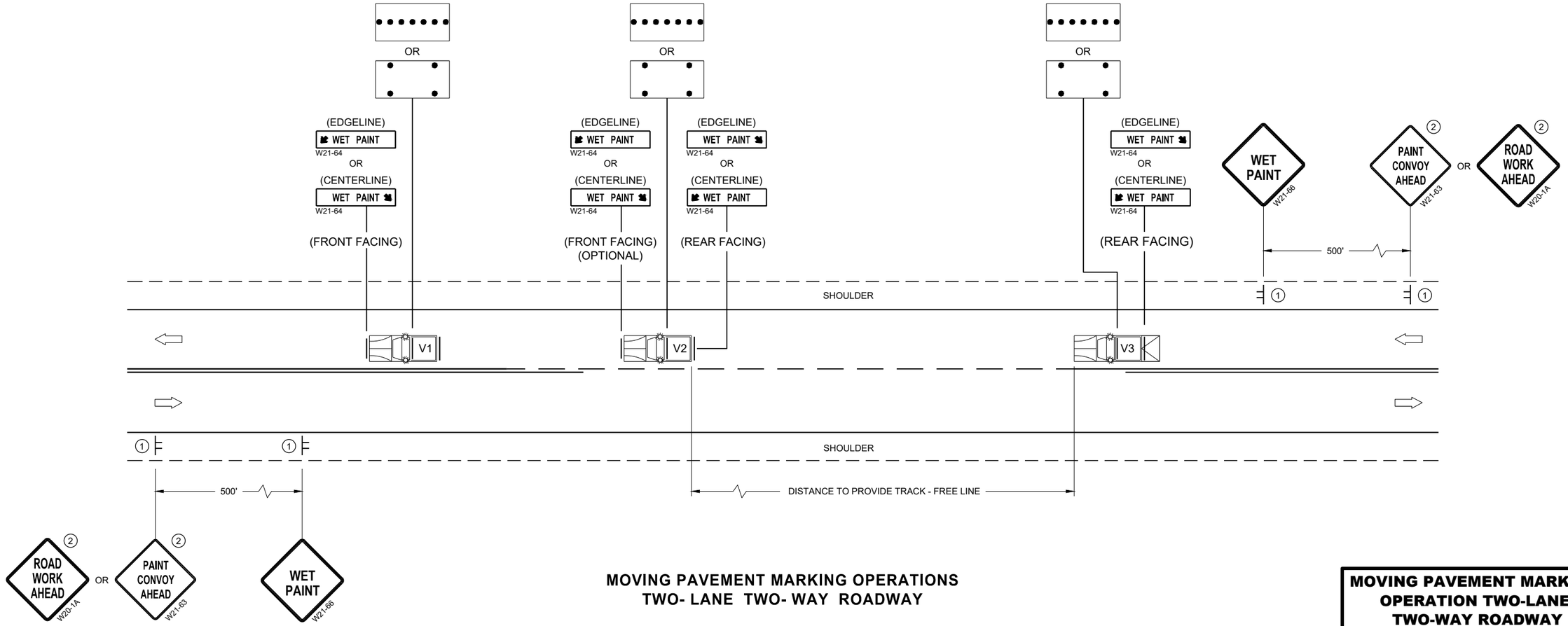
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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 18" 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.



MOVING PAVEMENT MARKING OPERATIONS TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15C19 - 06a

SDD 15C19 - 06a

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (MERGE)

FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

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

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

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

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

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

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

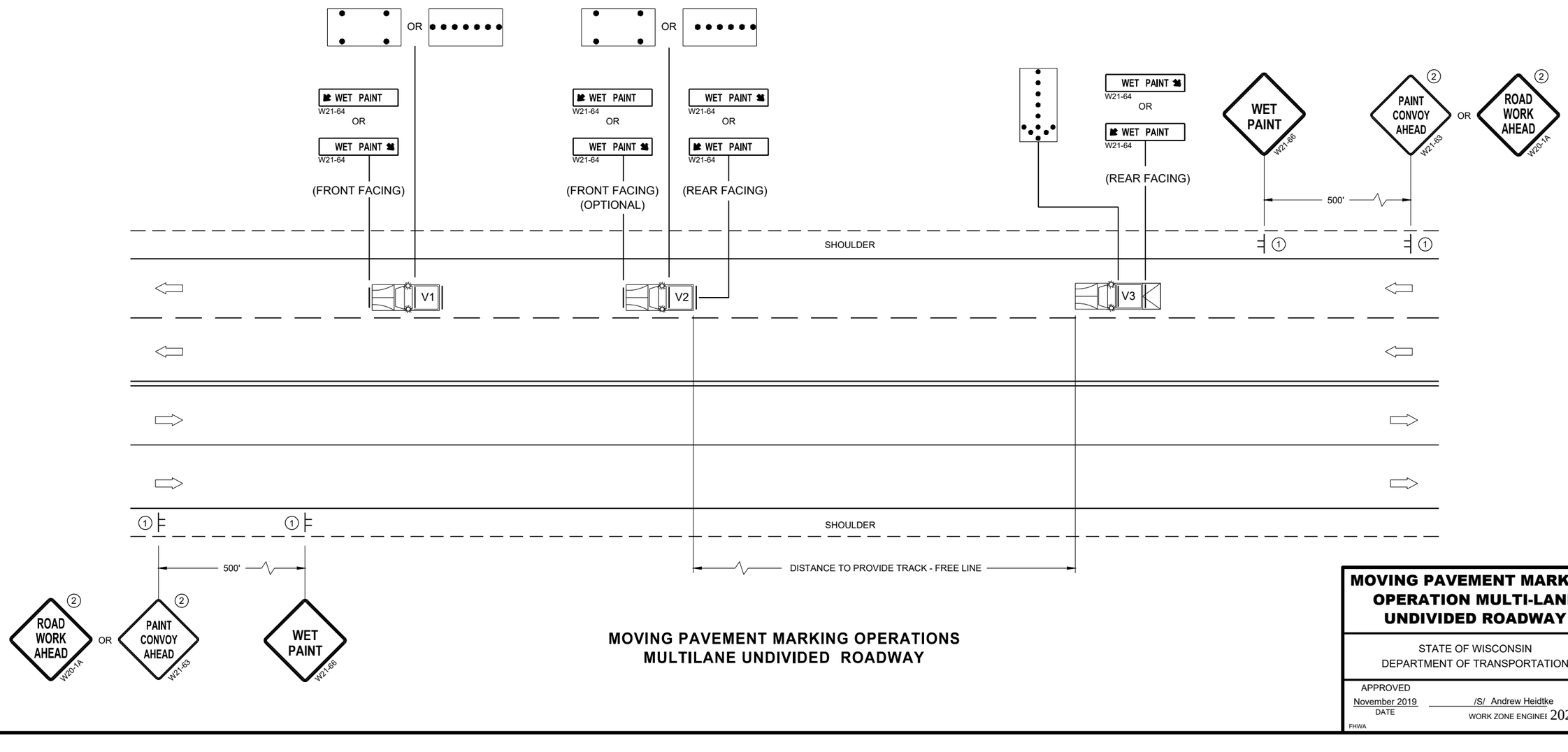
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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

CONES SHALL HAVE A MINIMUM HEIGHT OF 18" FOR WET PAVEMENT MARKINGS.

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS
MULTILANE UNDIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

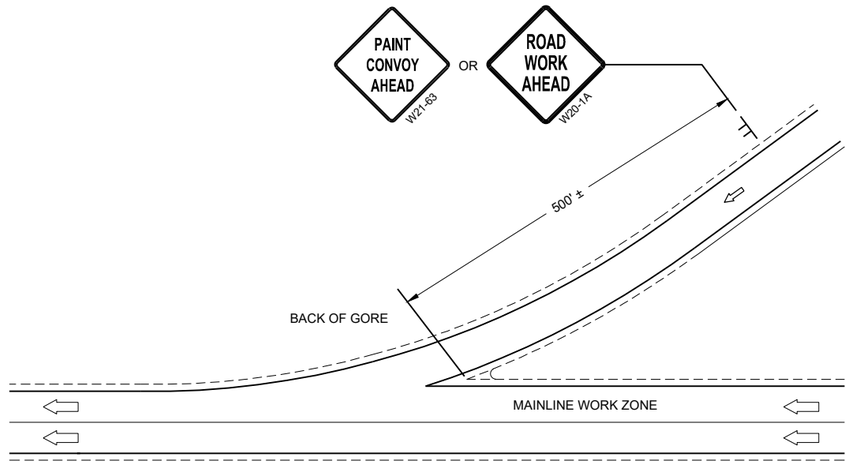
APPROVED
November 2019 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD 15C19 - 06b

LEGEND

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



GENERAL NOTES

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

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

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

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

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

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

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.

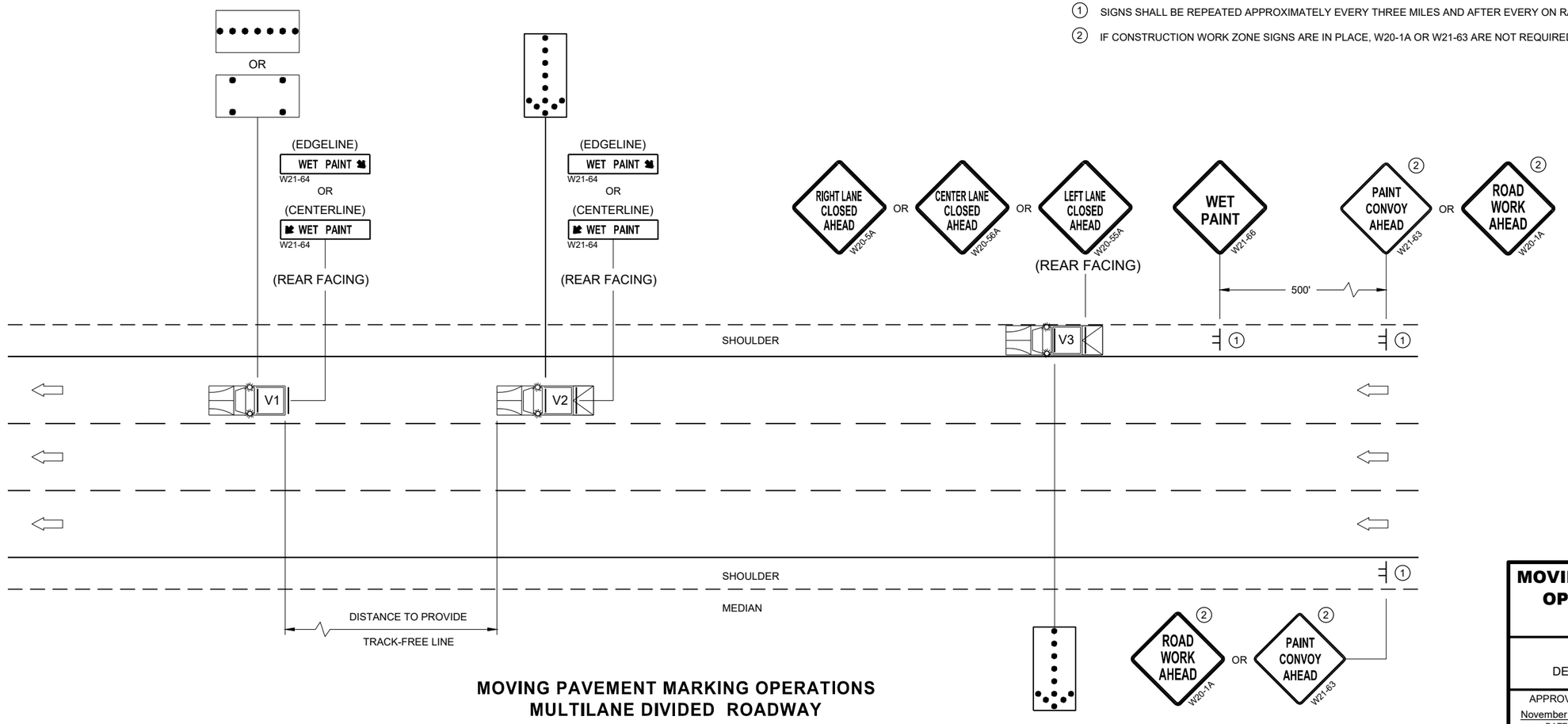
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

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 HEIGHT OF 18" FOR WET PAVEMENT MARKINGS

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY ON RAMP.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS
MULTILANE DIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C19 - 06c

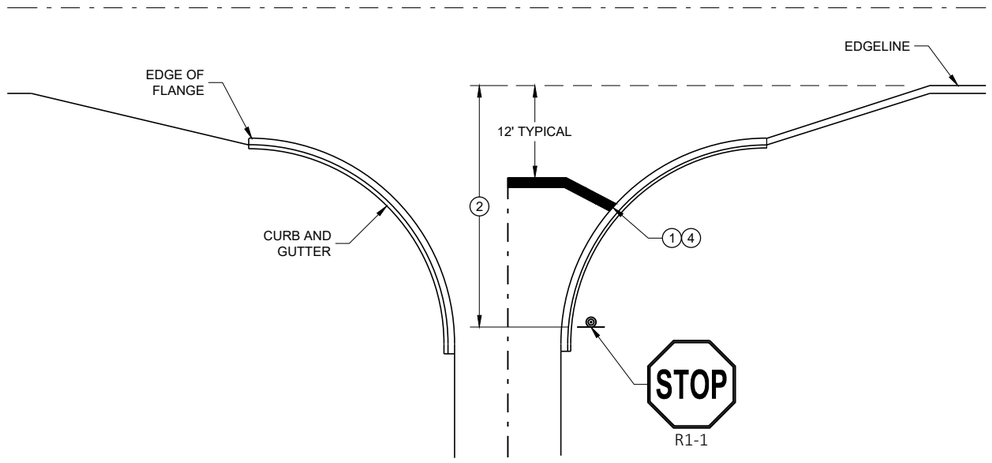
6

SDD 15C19 - 06c

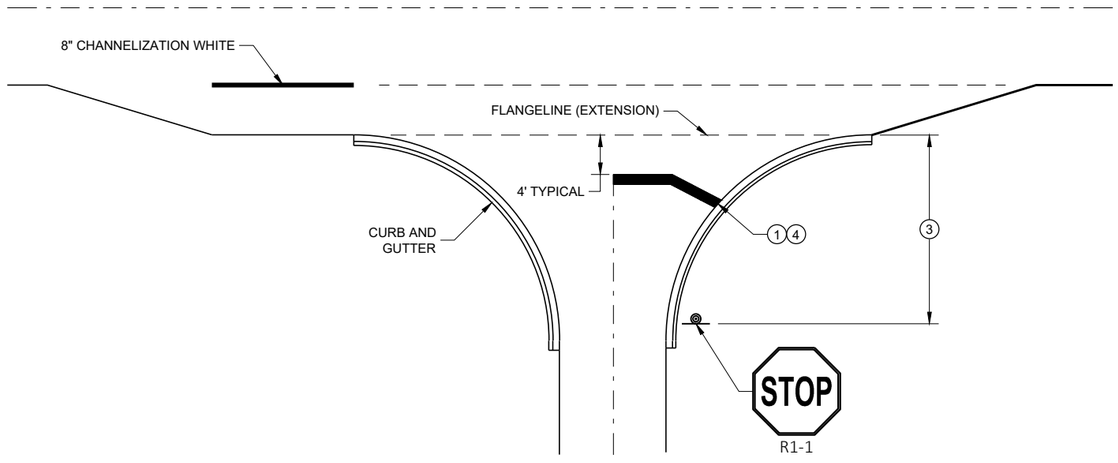
GENERAL NOTES

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

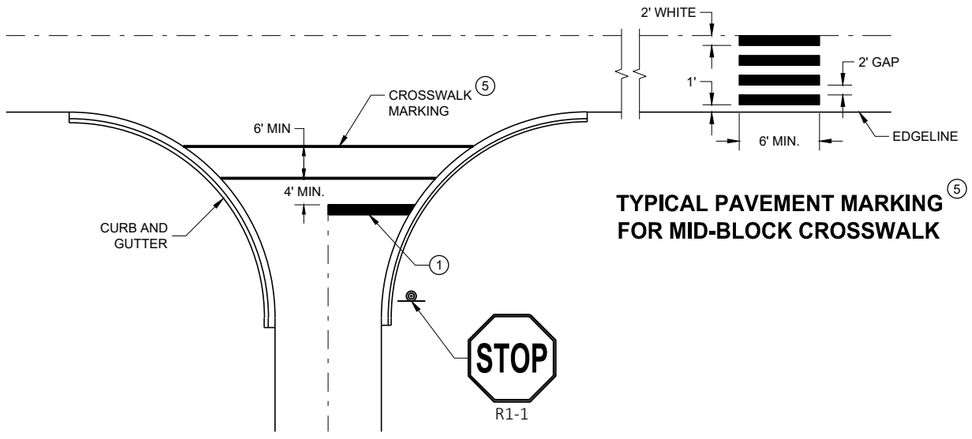
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE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

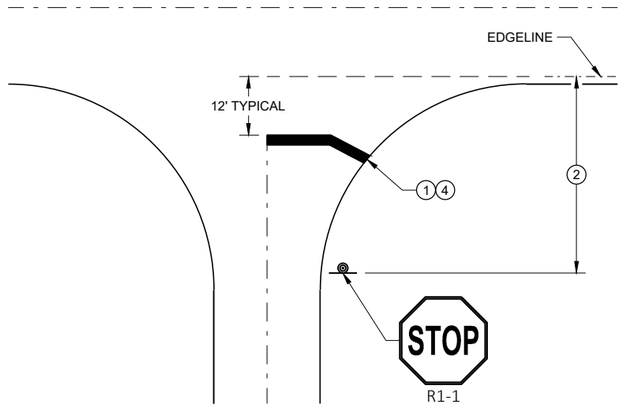


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 15C33 - 04

6

SDD 15C33 - 04

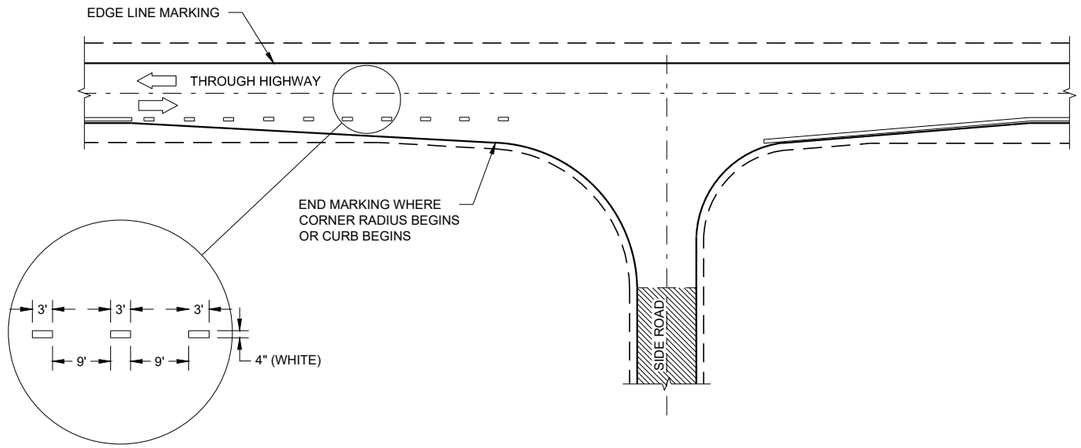
GENERAL NOTES

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

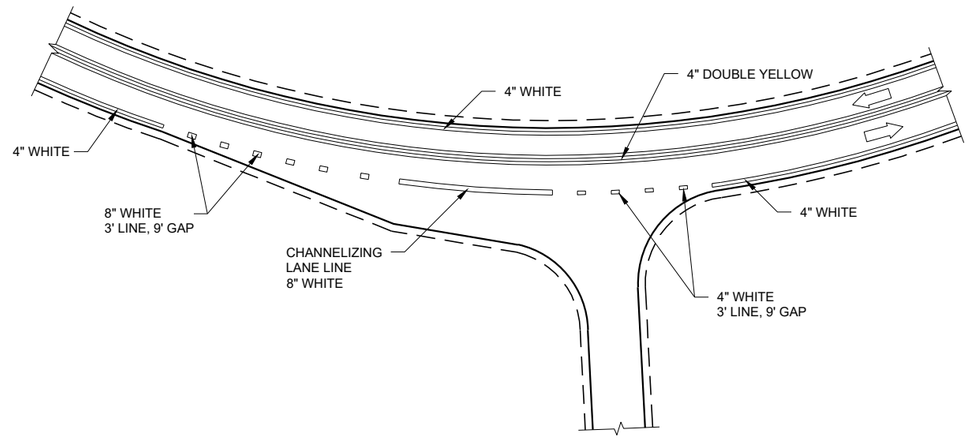
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

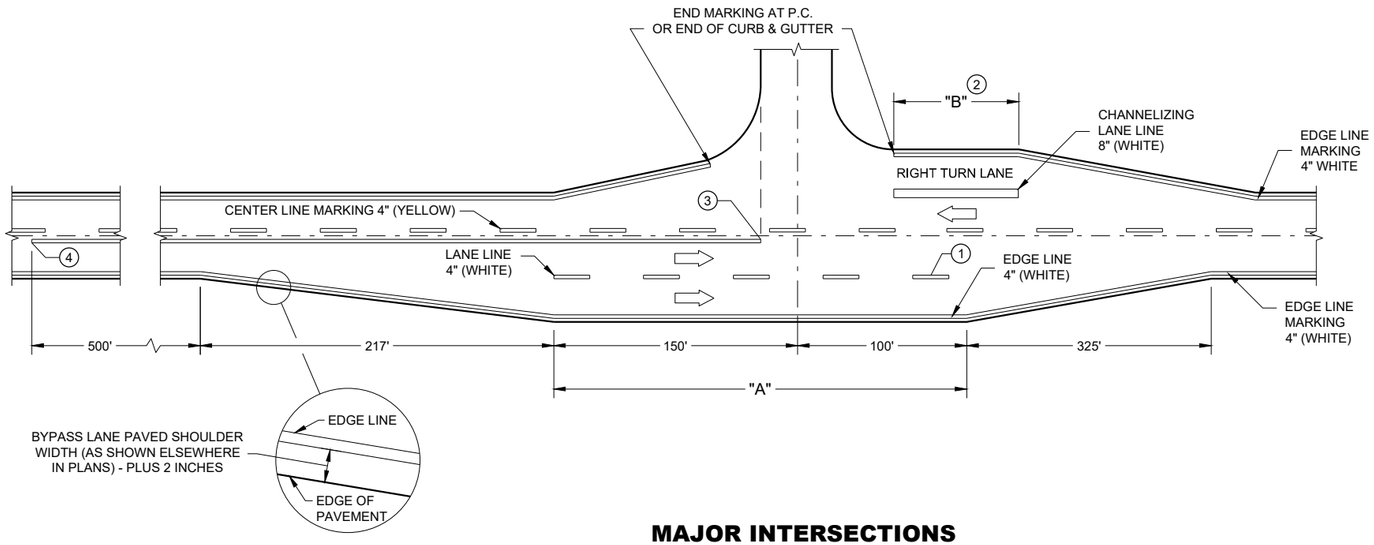
DIRECTION OF TRAVEL



MINOR INTERSECTION



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C35 - 04a

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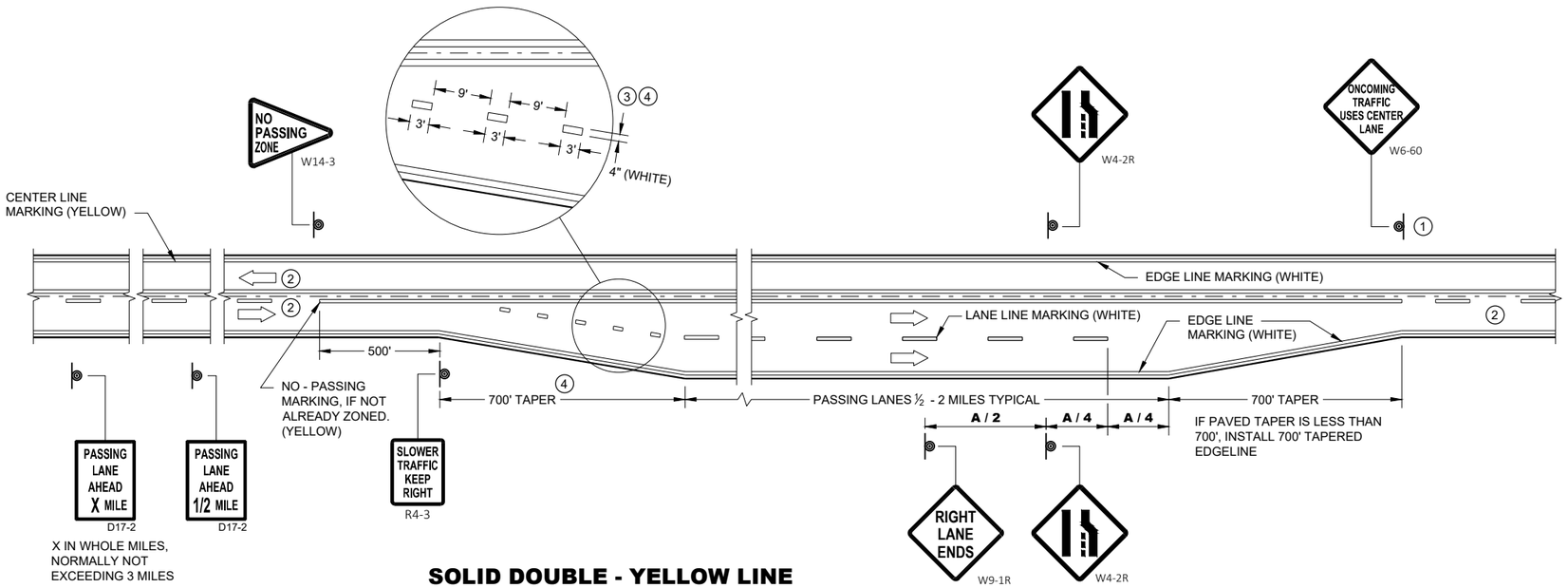
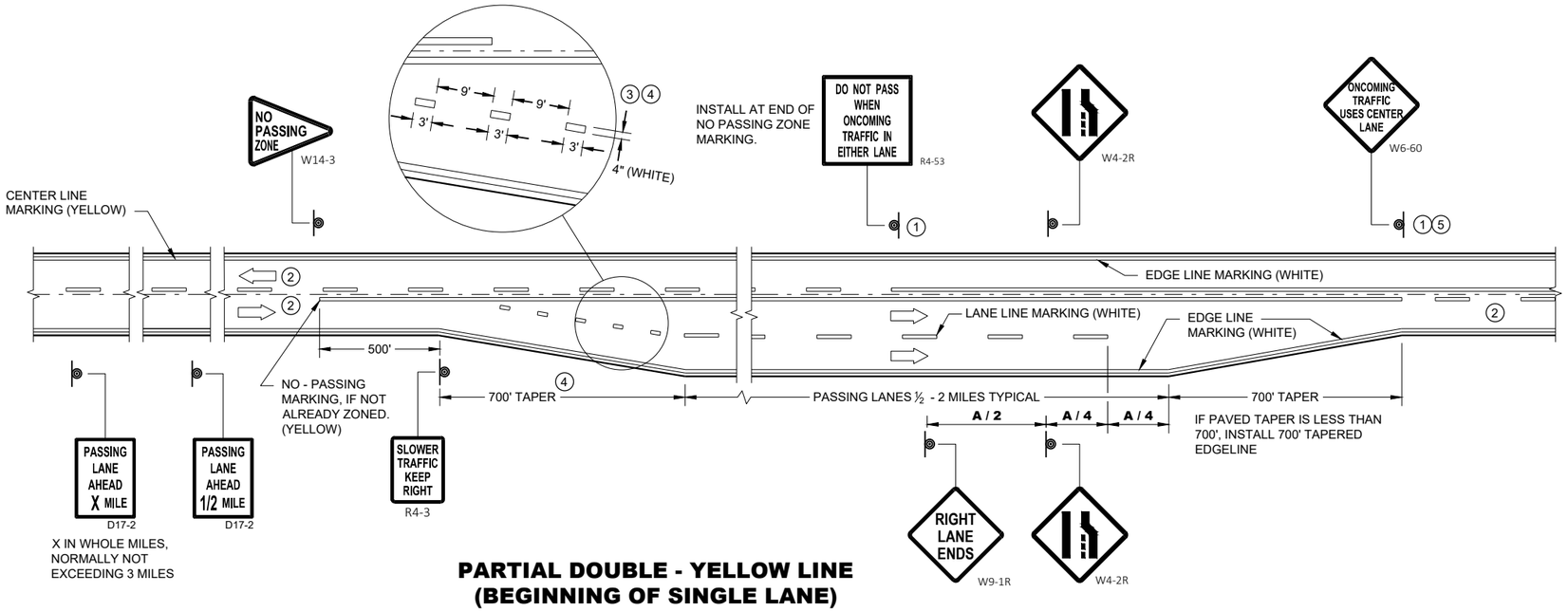
SDD 15C35 - 04a



SOLID DOUBLE - YELLOW LINE
(THROUGHOUT ENTIRE PASSING / CLIMBING LANE)



PARTIAL DOUBLE - YELLOW LINE
(BEGINNING OF SINGLE LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
5. REPEAT EVERY 1 MILE UP UNTIL R4-53.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

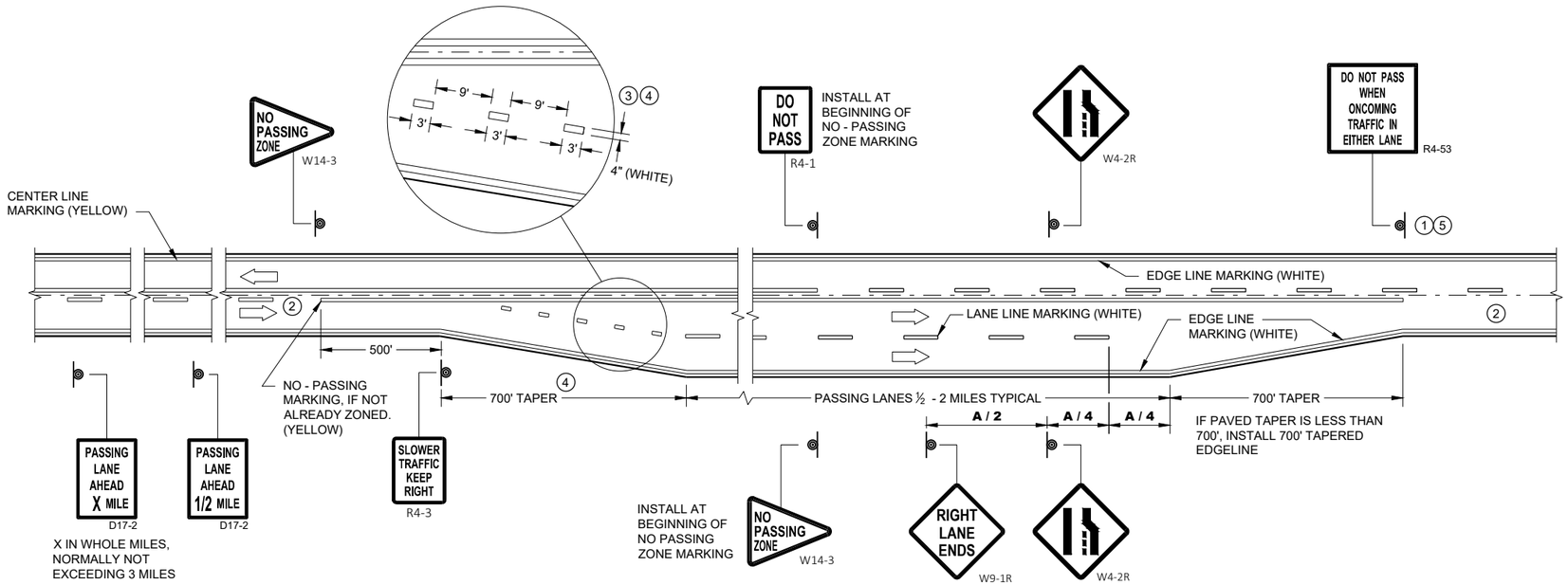
POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990

PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

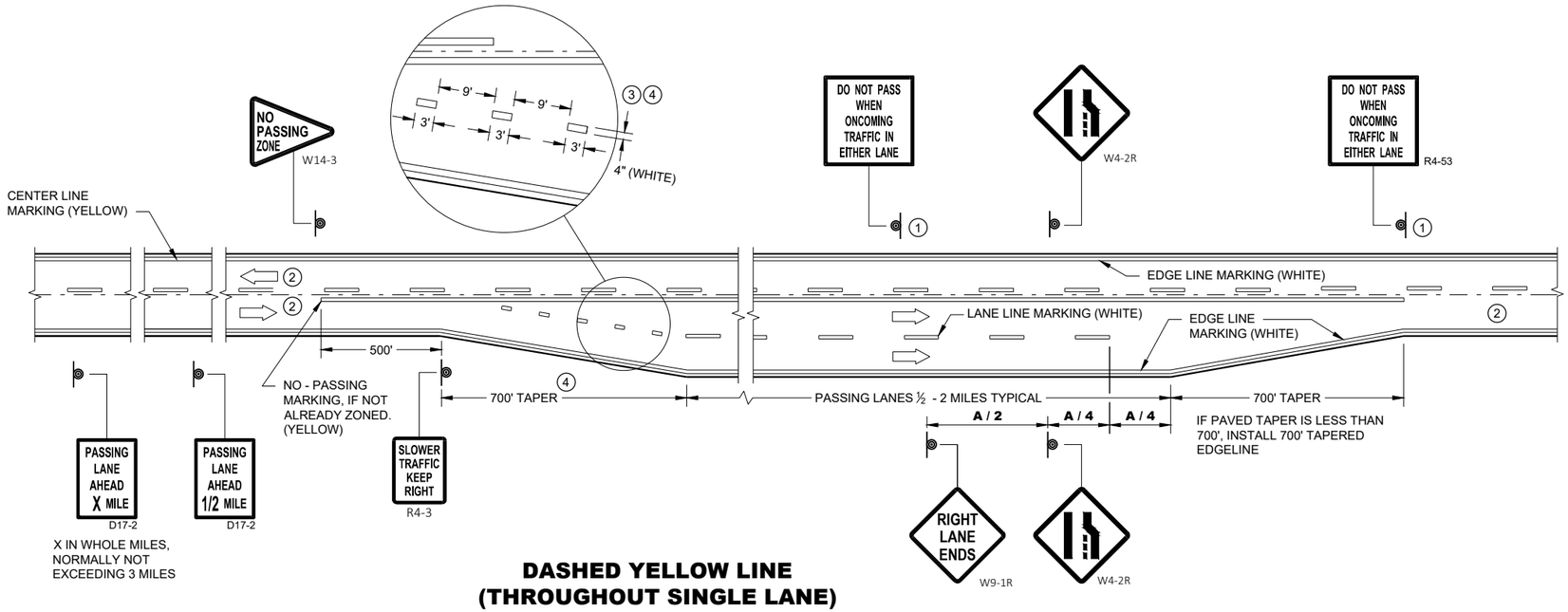
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C35 - 04b
SDD 15C35 - 04b



SOLID DOUBLE - YELLOW LINE
(END OF SINGLE LANE)



DASHED YELLOW LINE
(THROUGHOUT SINGLE LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
5. REPEAT EVERY ONE MILE UP UNTIL NO PASSING ZONE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990

PAVEMNET MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 15C35 - 04c

SDD 15C35 - 04c

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.

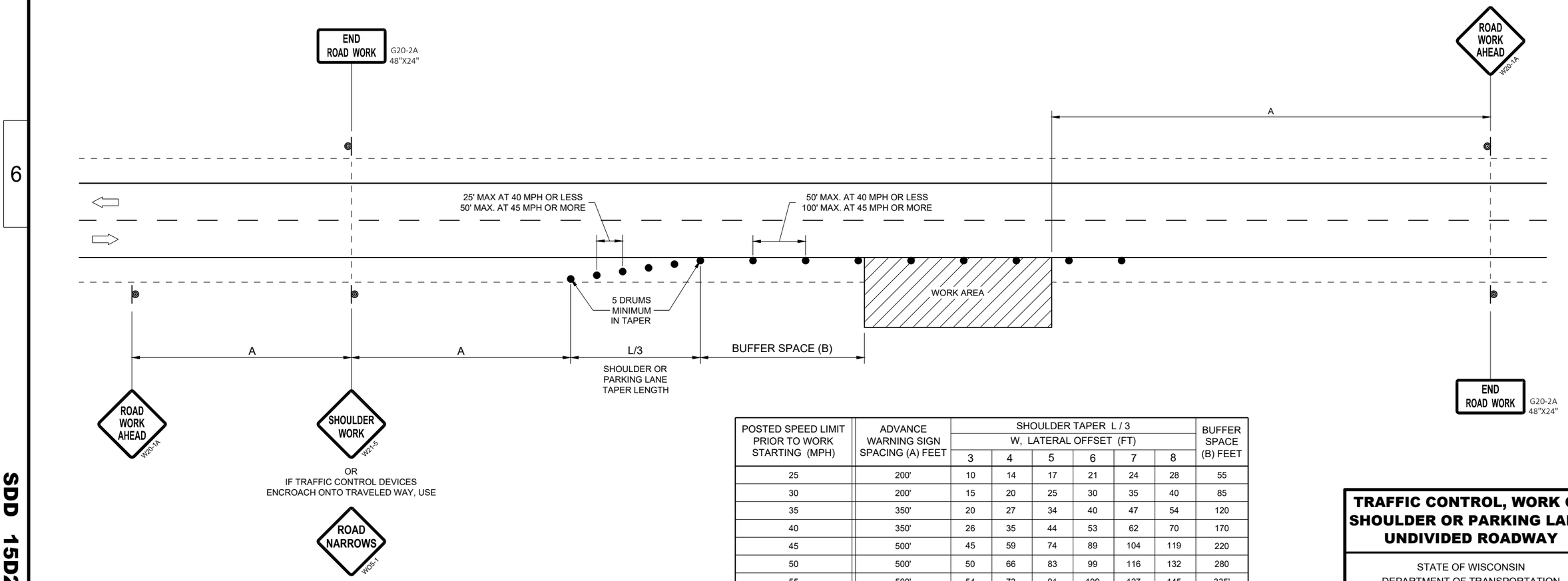
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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.



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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

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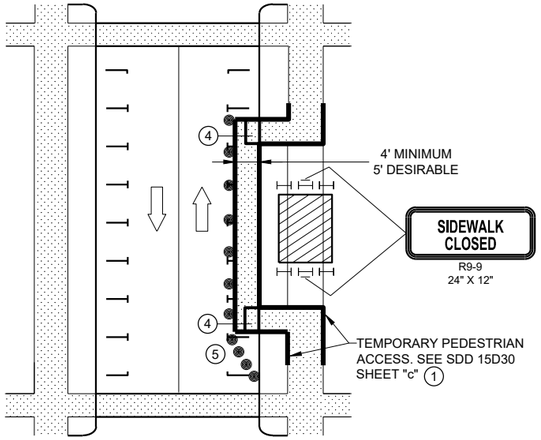
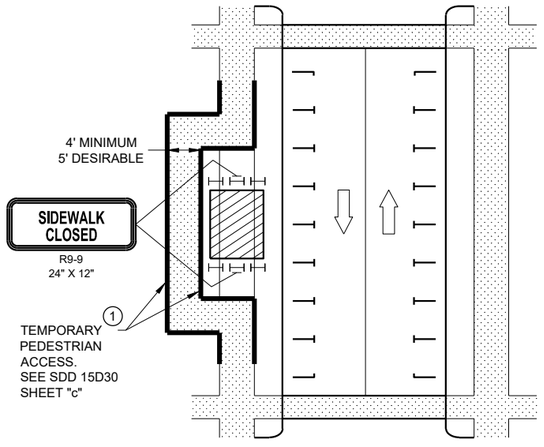
SDD 15D28 - 04

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

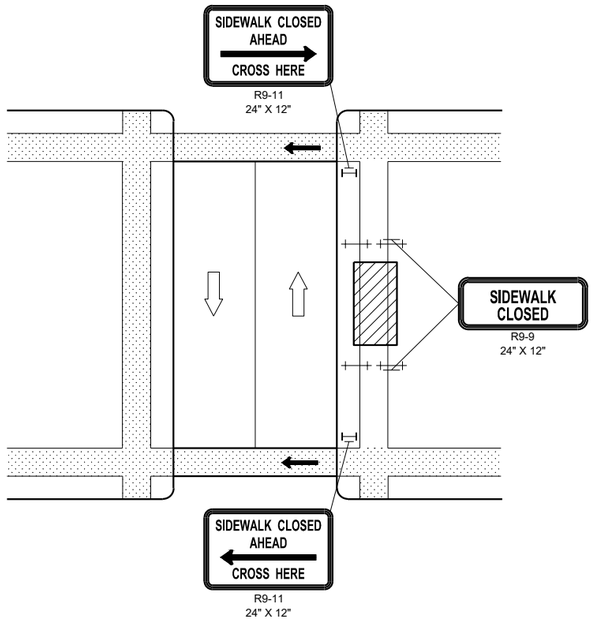


MID-BLOCK SIDEWALK SIDEWALK CLOSURE IN PARKING LANE

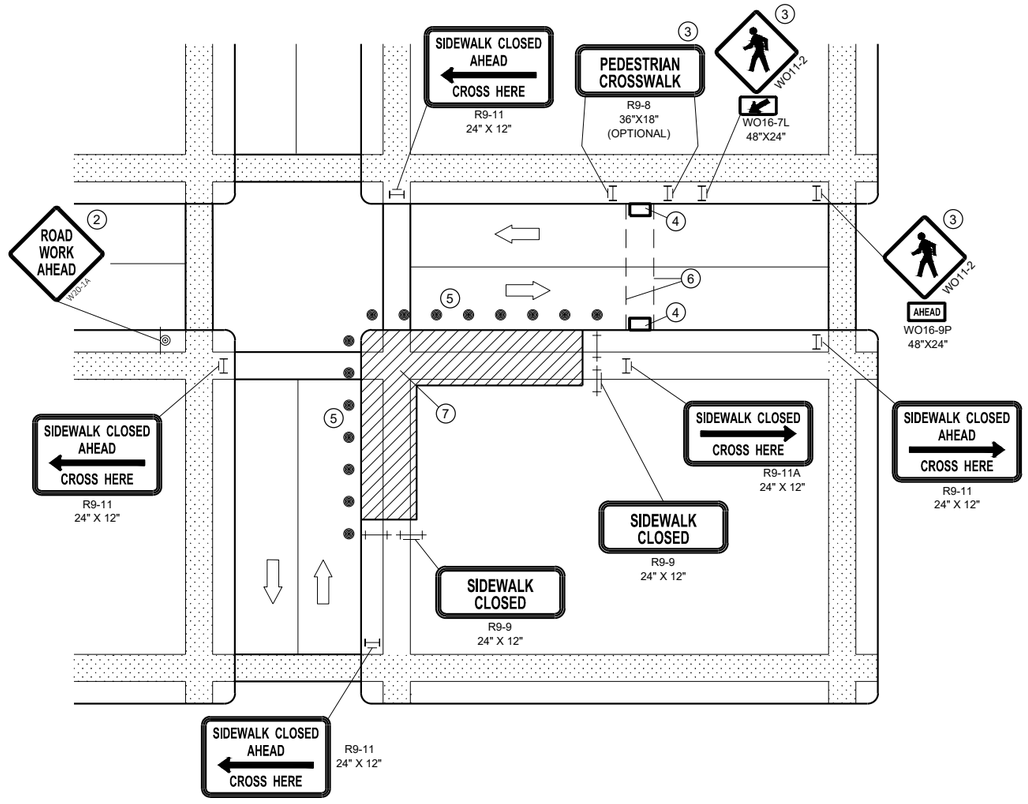
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

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

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

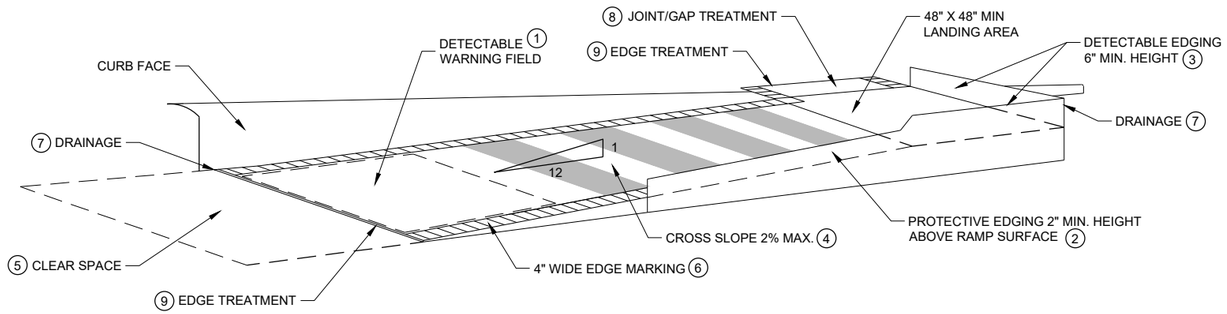
(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

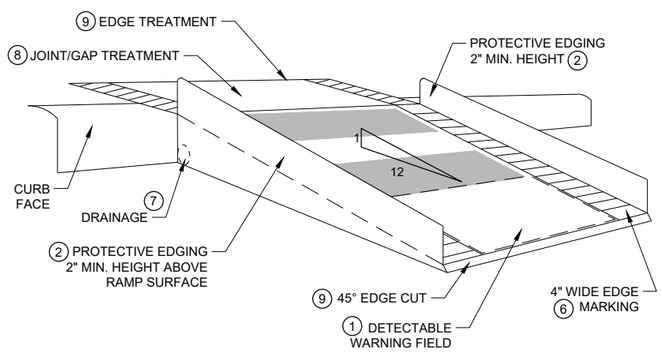
LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

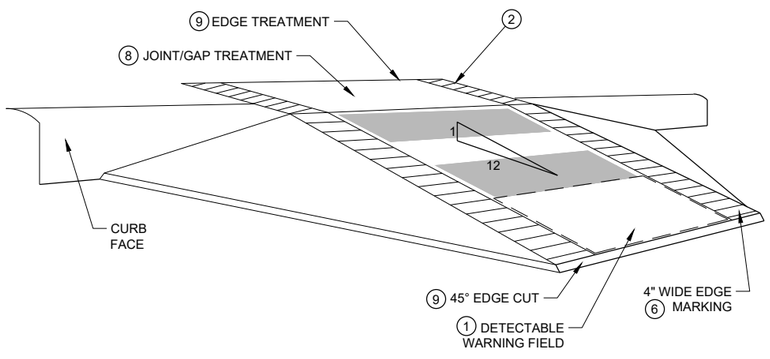
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE



WITH SIDE APRON

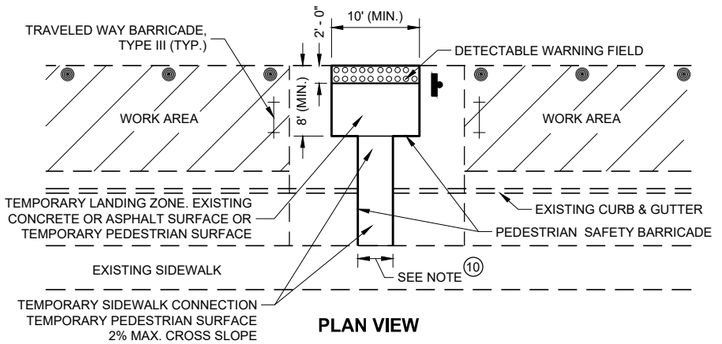
TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

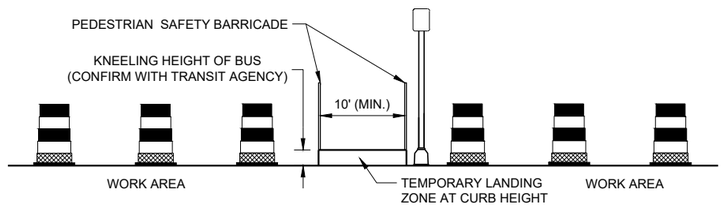
NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

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

1. CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
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. CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
5. CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
6. THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
7. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES SHALL BE VERTICAL UP TO ¼" HIGH AND BEVELED AT 1:2 BETWEEN ¼" AND ½".
10. 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.



PLAN VIEW



PROFILE VIEW

TEMPORARY BUS STOP PAD

LEGEND

- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- WORK AREA

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 15D30 - 06b

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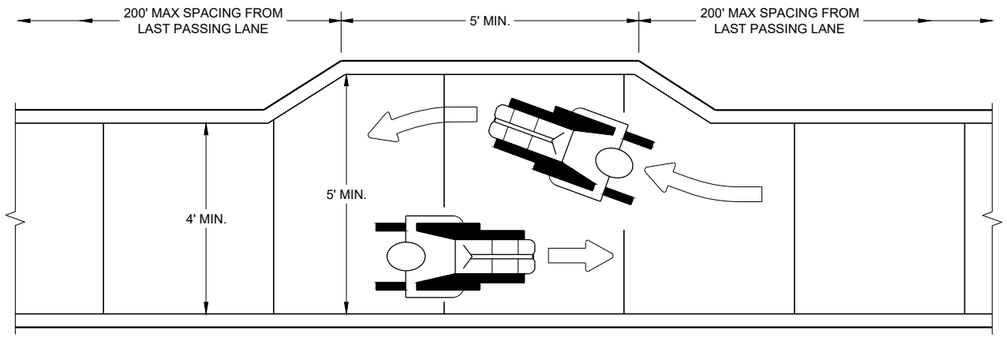
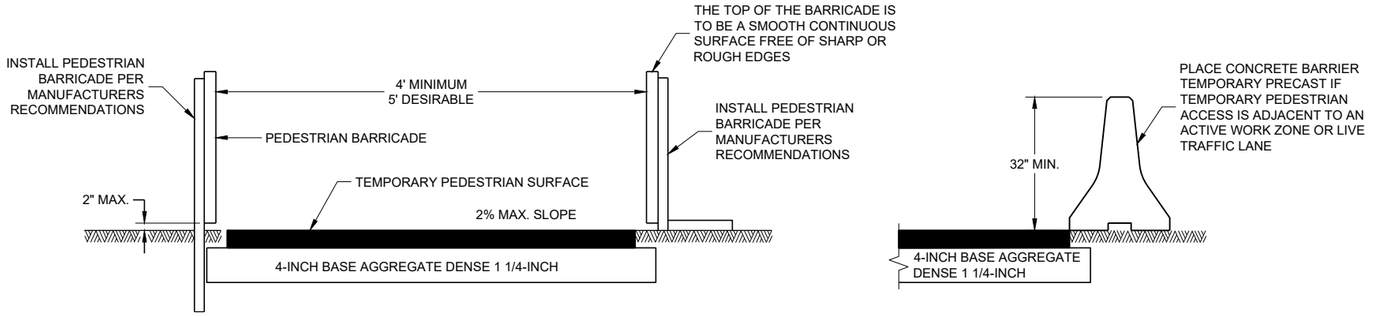
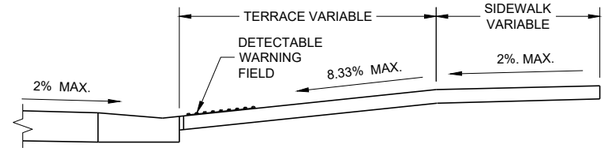


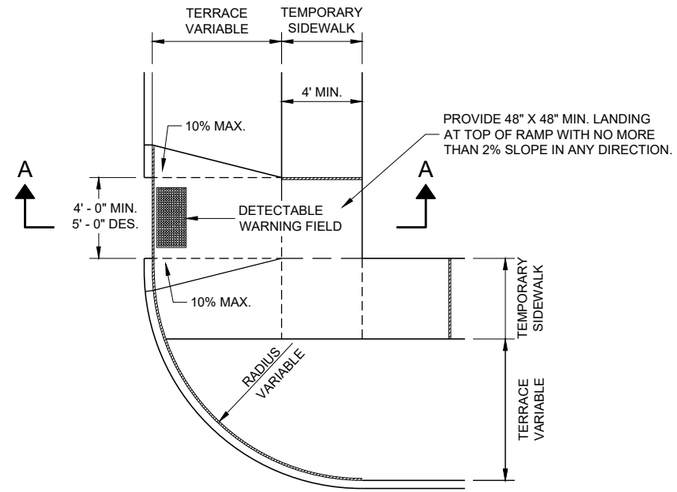
NARROW SIDEWALK PASSING DETAIL



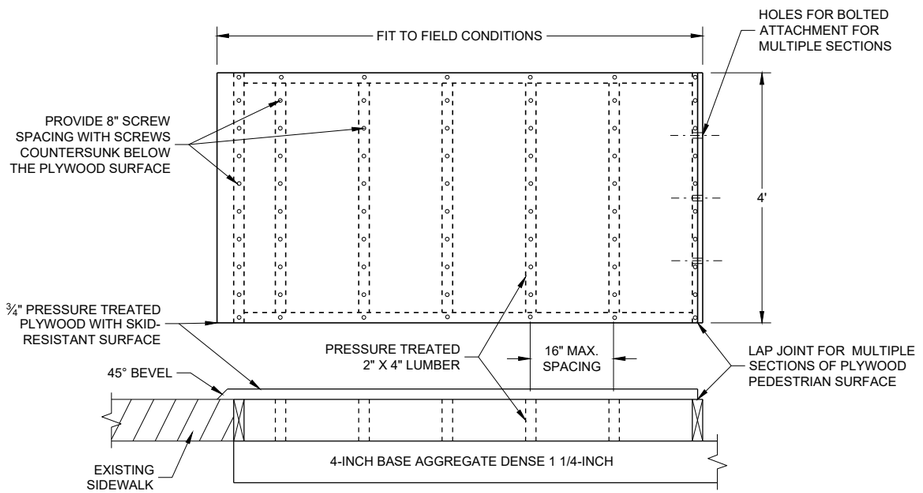
TEMPORARY PEDESTRIAN ACCESS



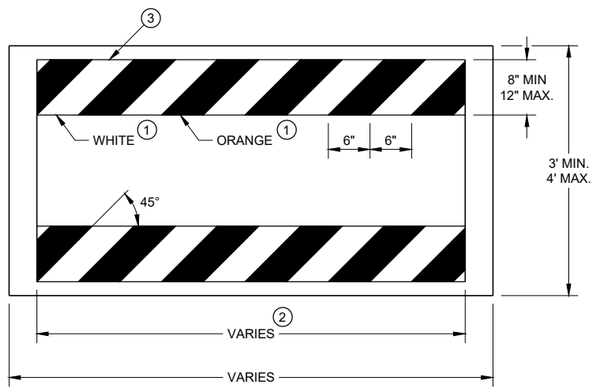
SECTION A - A



PLAN VIEW
TEMPORARY TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



TEMPORARY PEDESTRIAN BARRICADE *

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.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

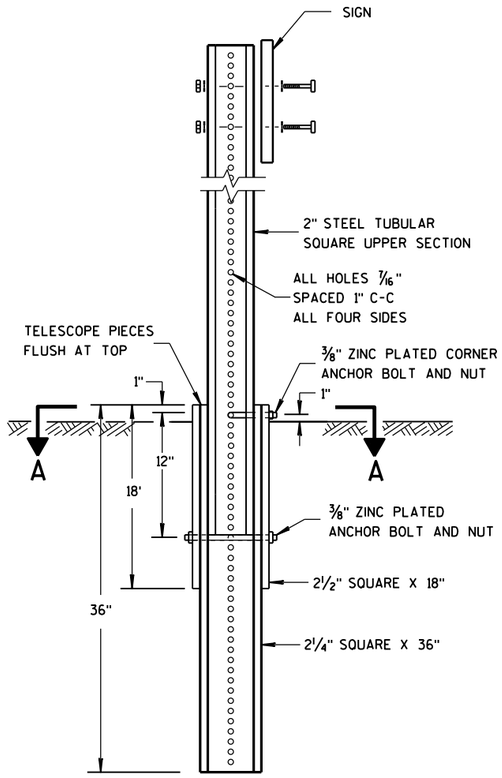
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

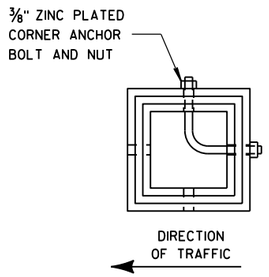
SDD 15D30 - 06c

6

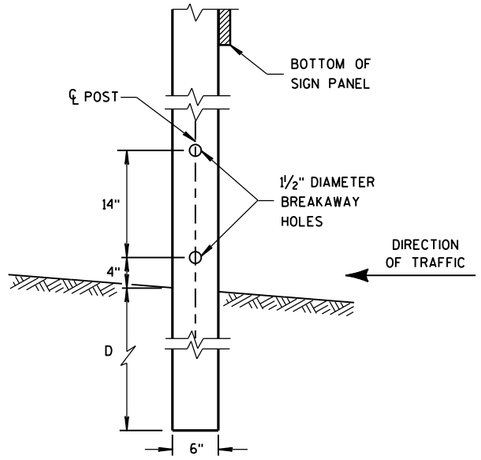
SDD 15D30 - 06c



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



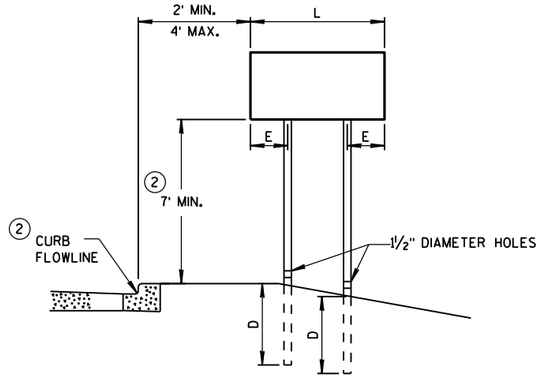
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

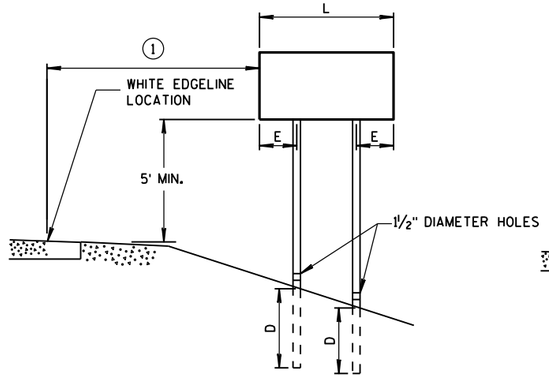
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

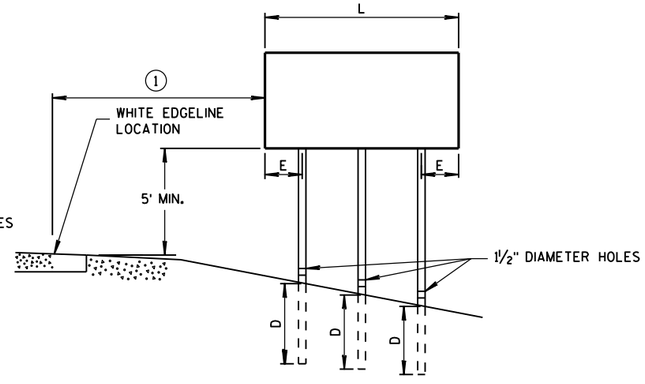
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

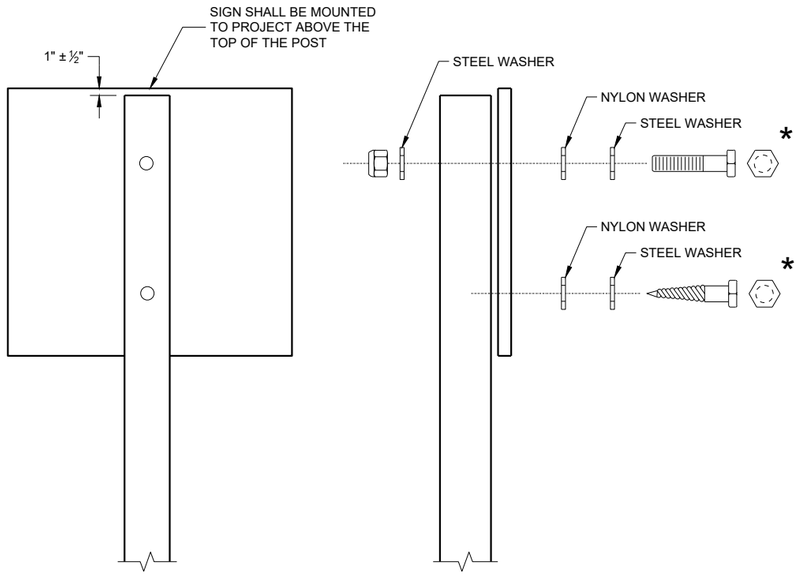
POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 15 D 38-2a



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.

WOOD POST (4" x 6")
LAG SCREWS - ⅜" x 3"
MACHINE BOLTS - 5/16" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH, GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x 1/16" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

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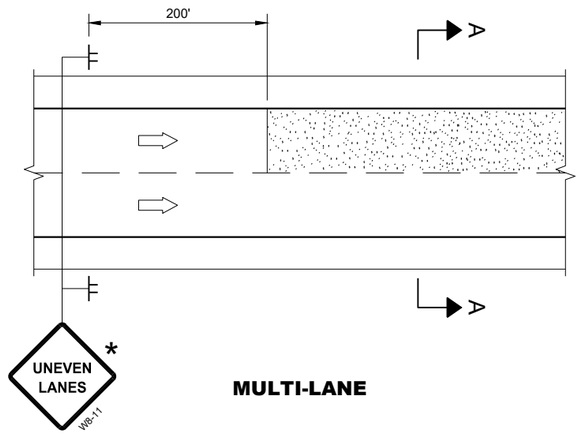
SDD 15D38 - 02b

SDD15D38 - 02b

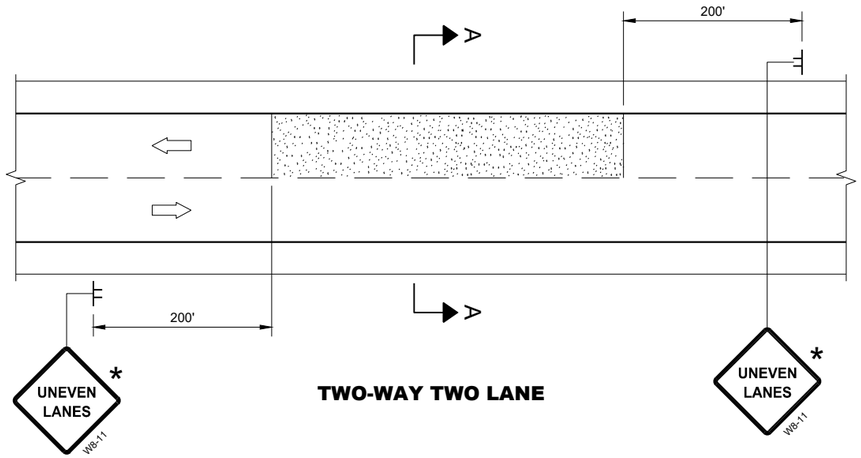
ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA



MULTI-LANE



TWO-WAY TWO LANE

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.

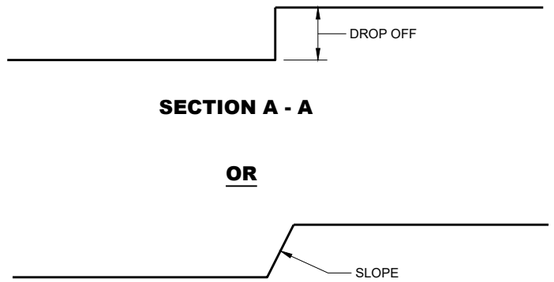
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* 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

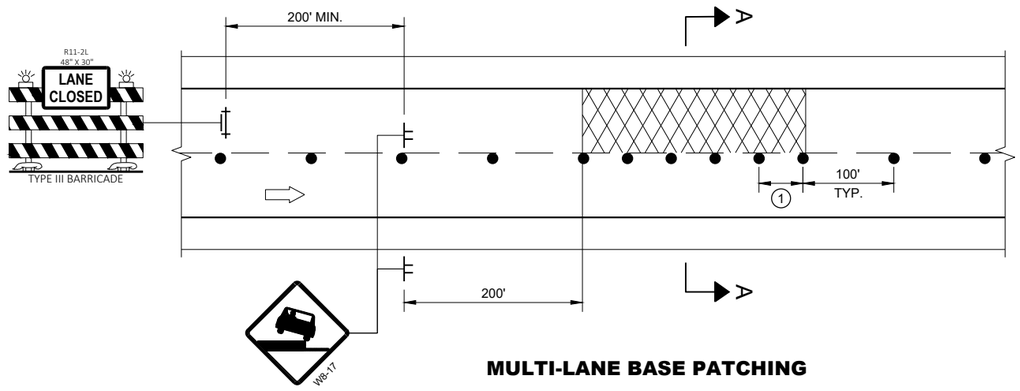
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE



SECTION A - A

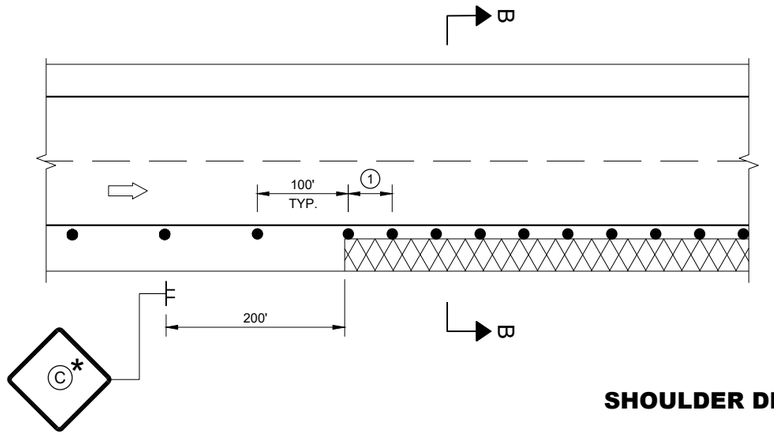
OR

SECTION A - A

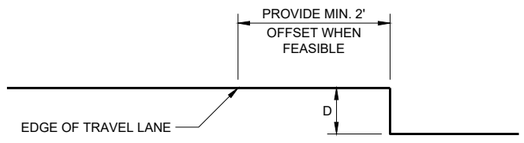


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D39 - 02

GENERAL NOTES

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

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

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

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

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

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

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

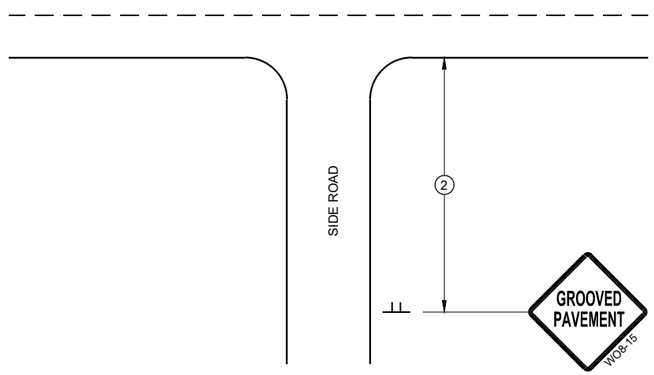
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

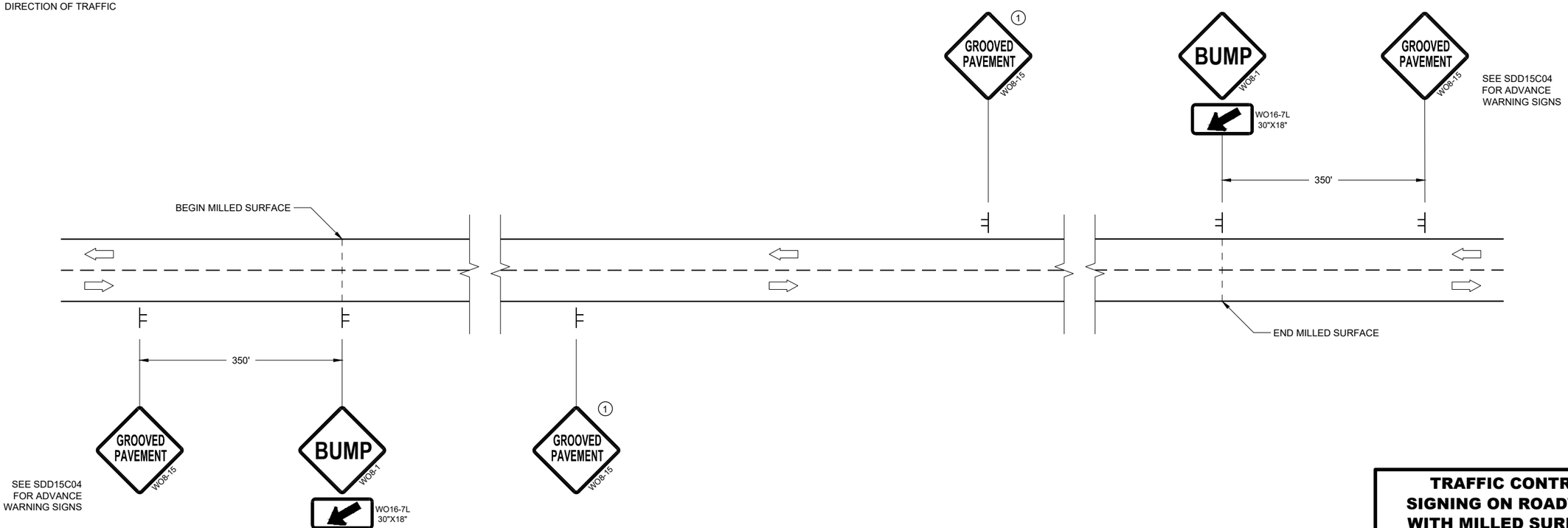
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15D44 - 02

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.

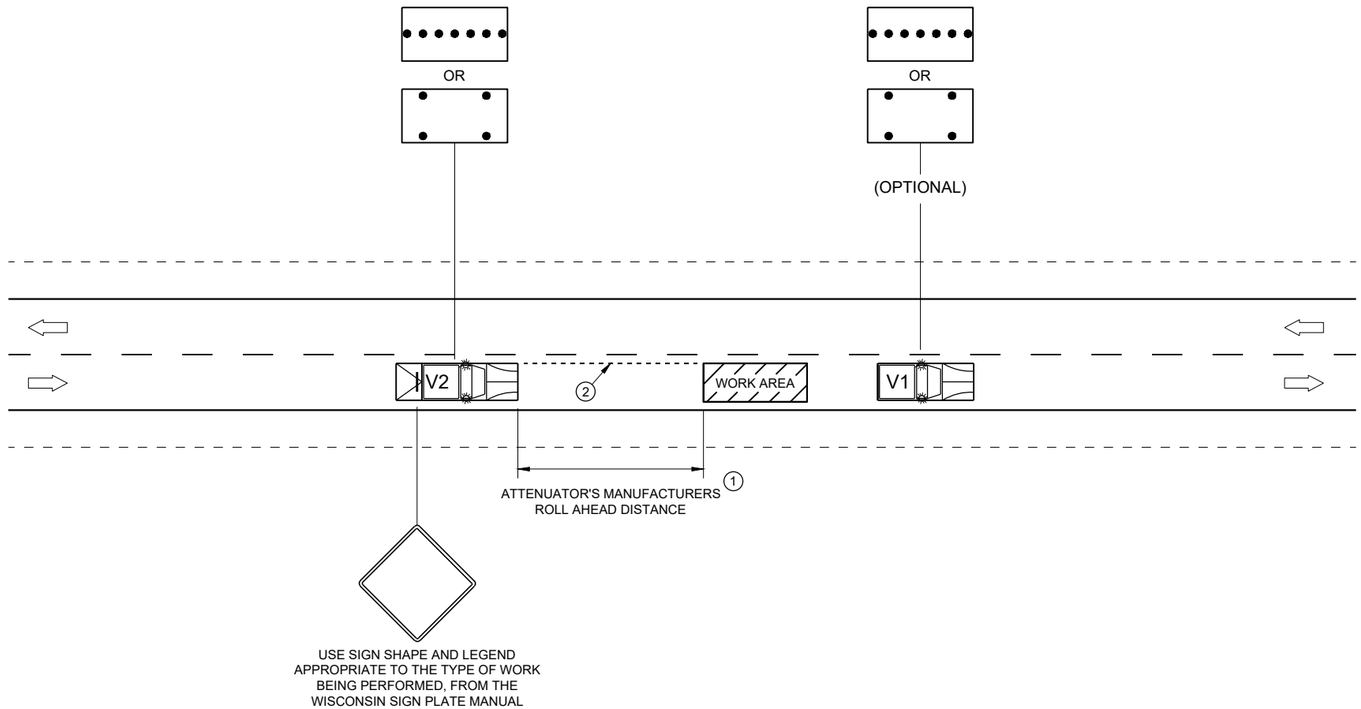
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

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.



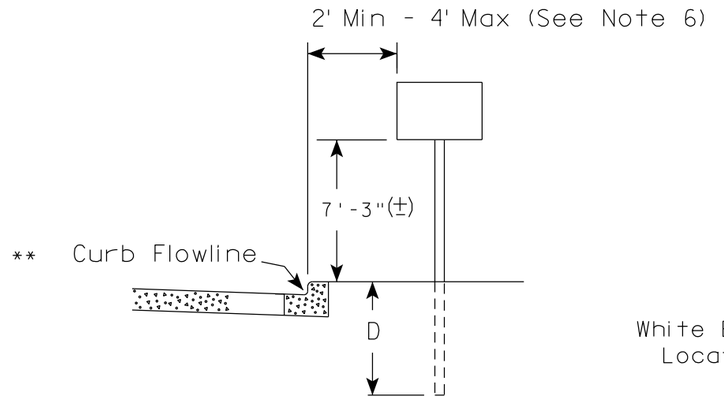
TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

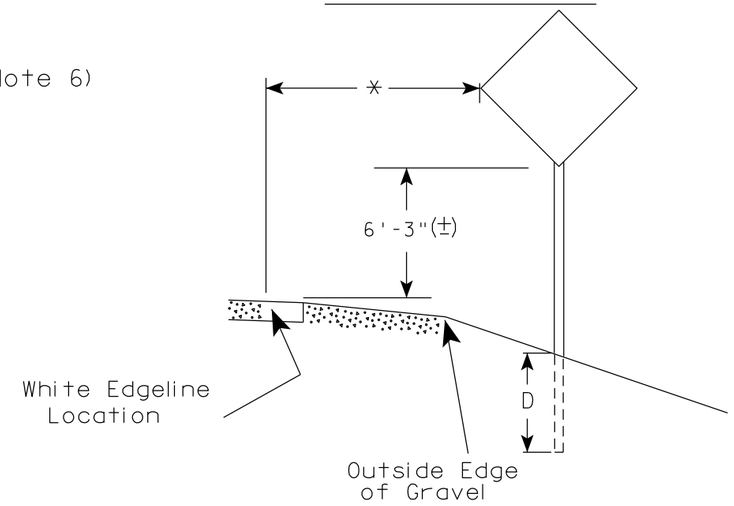
APPROVED
February 2021 — DATE
/S/ Andrew Heidtke — STATEWIDE WORK ZONE T SAFETY ENGINEER
FHWA

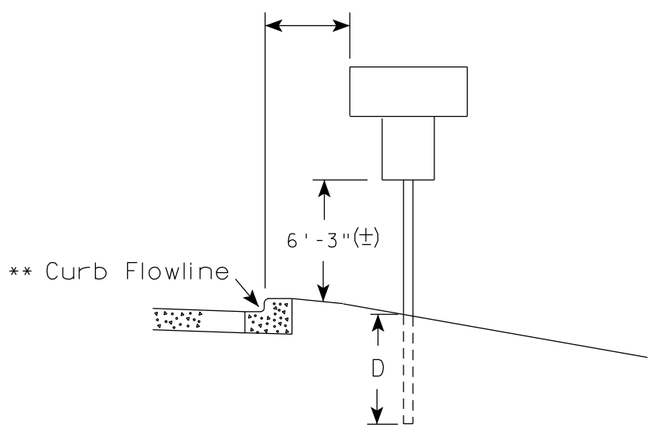
6
SDD 15D51 - 01

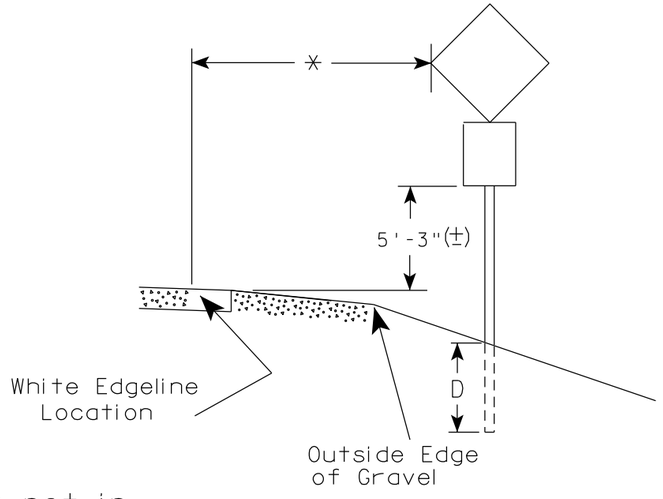
URBAN AREA



RURAL AREA (See Note 2)







** 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.

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 directd by the Engineer.

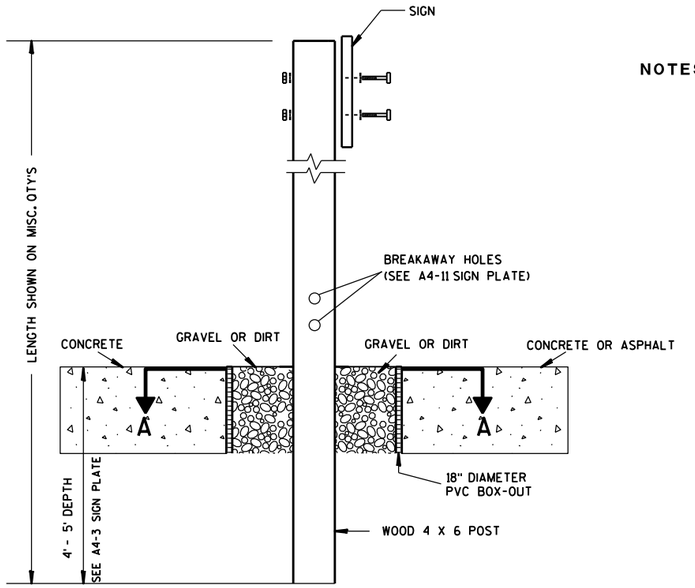
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

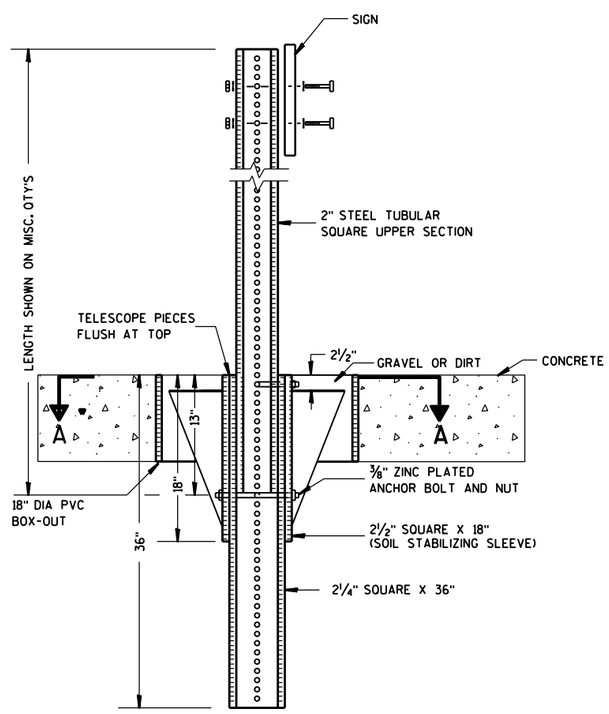
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 217	E



ELEVATION VIEW

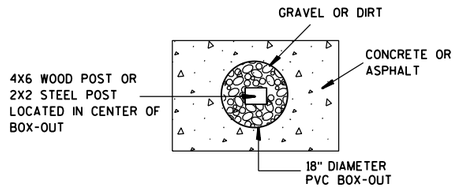
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

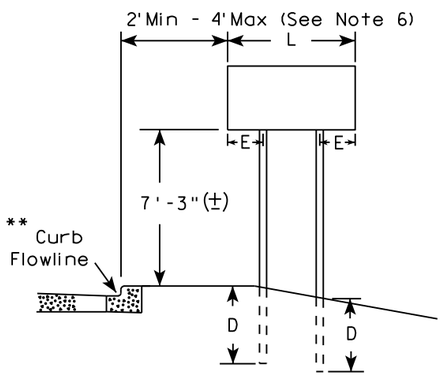
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

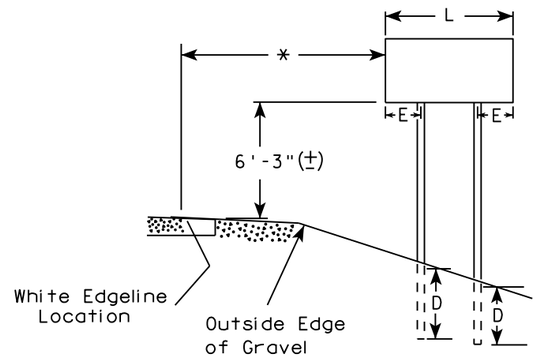
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

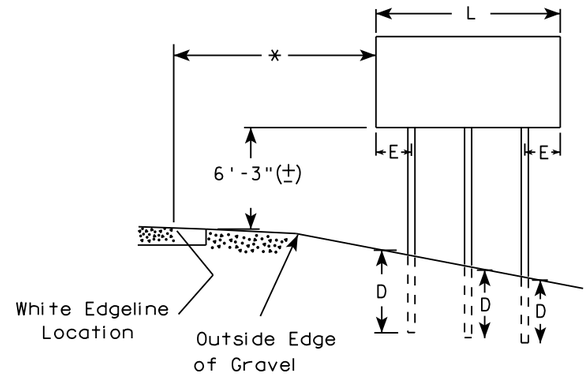
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

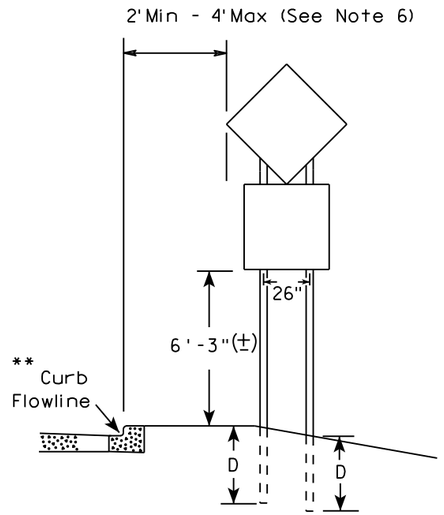
URBAN AREA



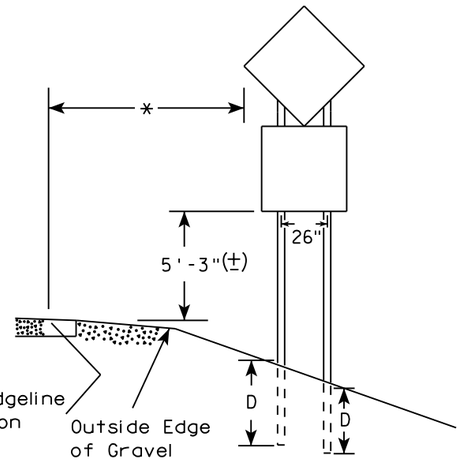
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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"

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" (±).

* 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.

POST EMBEDMENT DEPTH

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

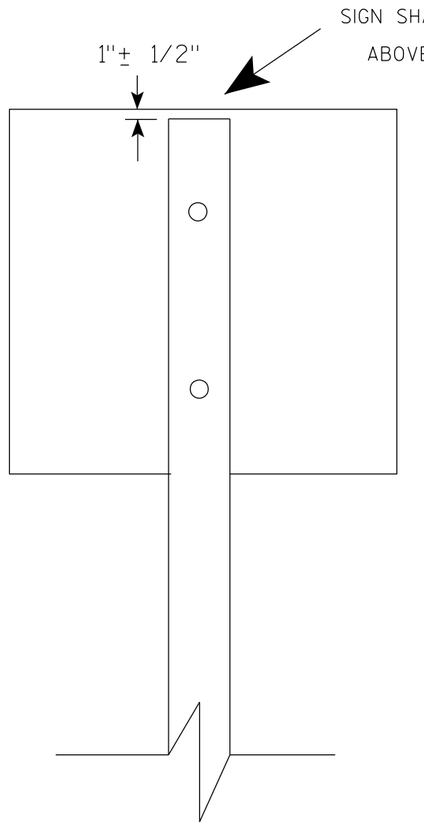
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

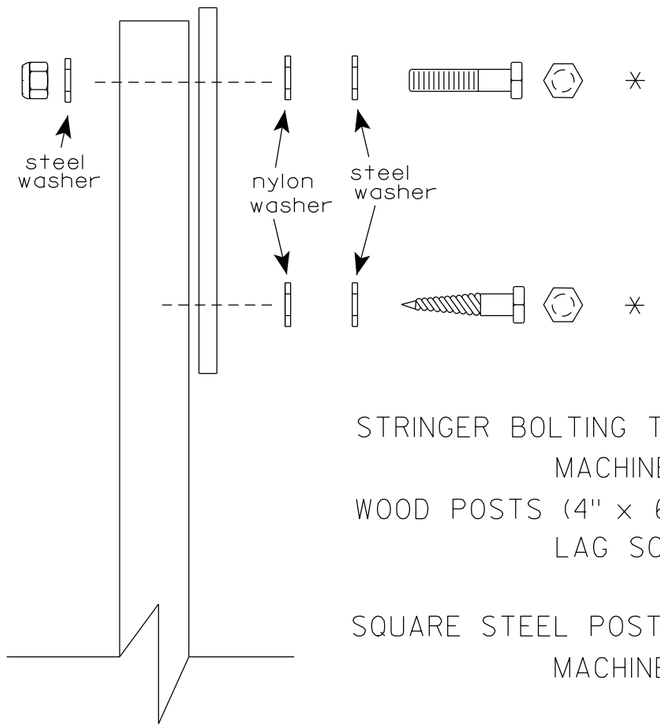
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 219	E





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

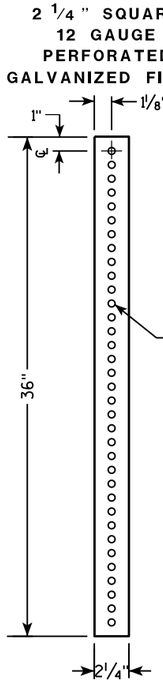
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

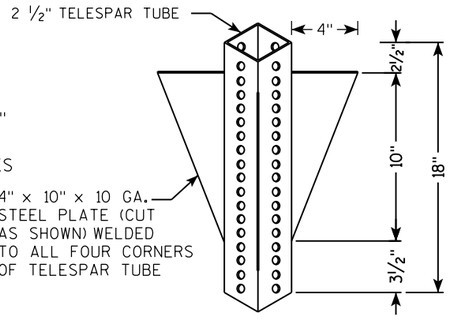
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

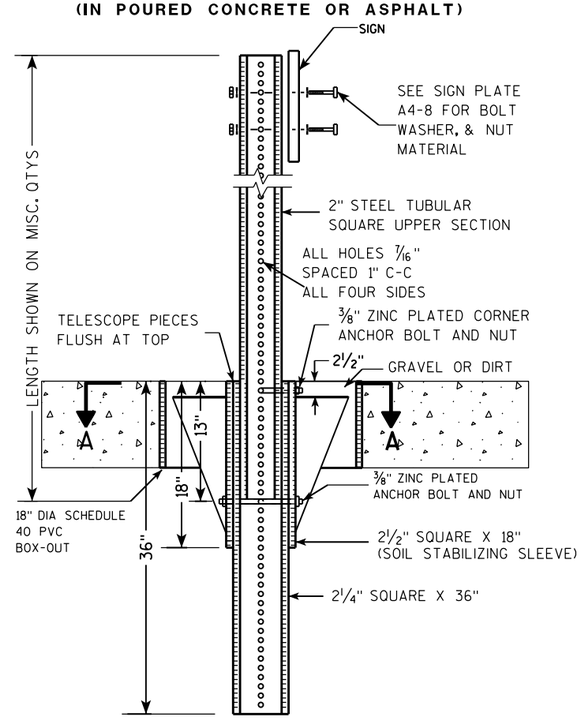
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



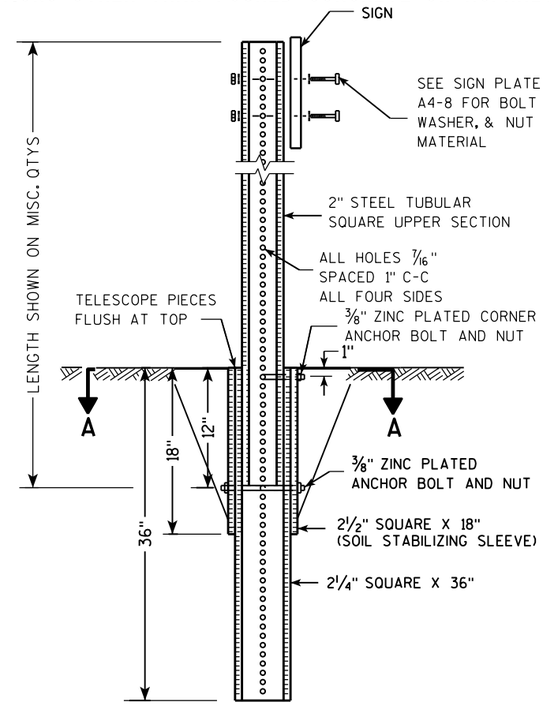
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

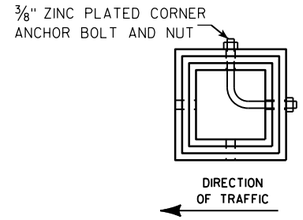


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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).

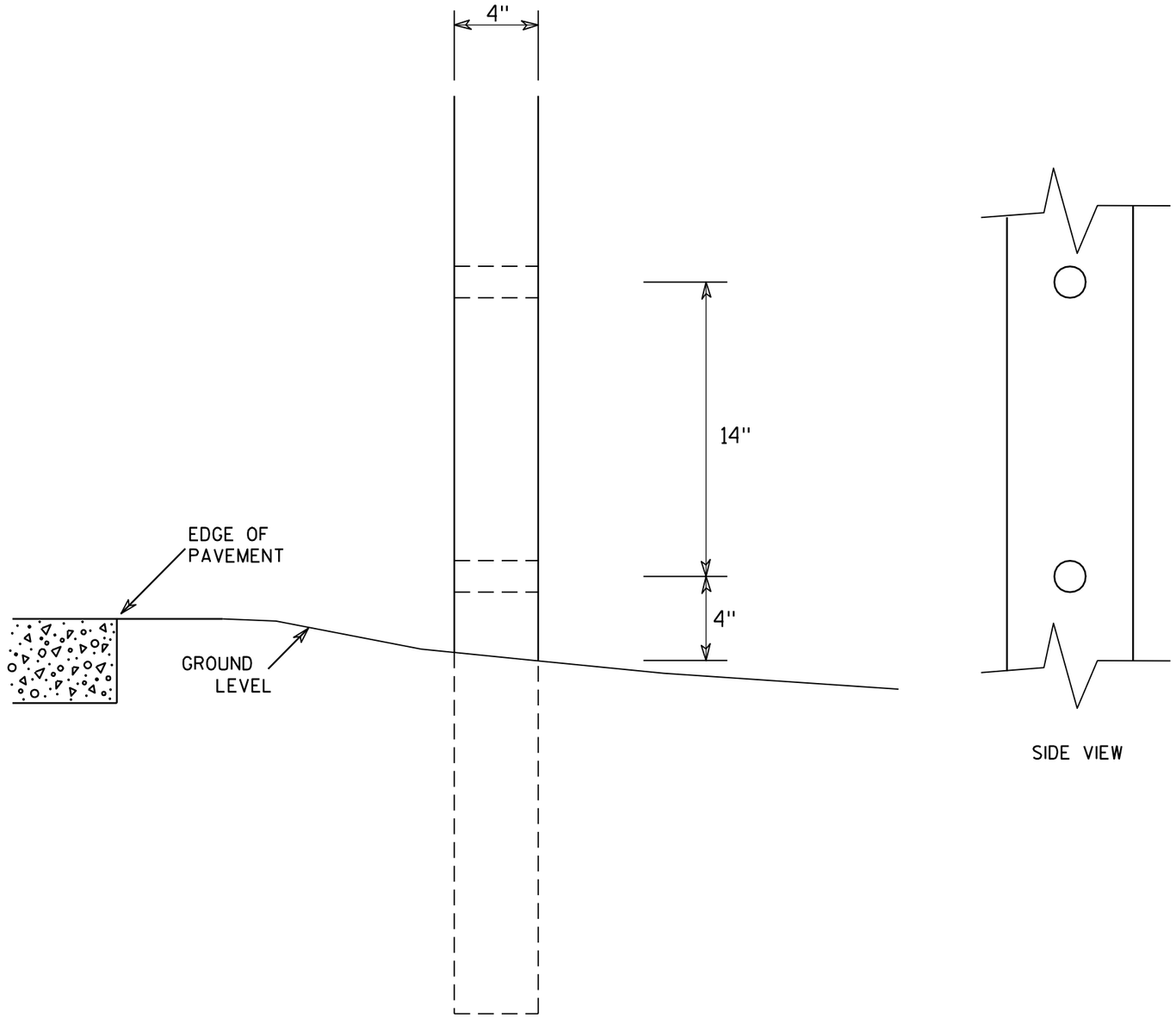
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 221 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

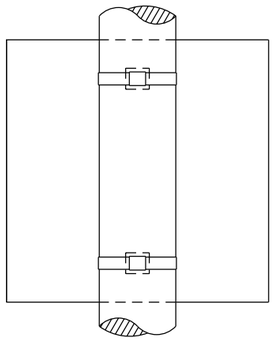
APPROVED Chester J Spang for State Traffic Engineer

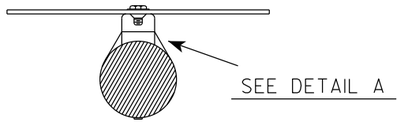
DATE 3/27/97 PLATE NO. A4-11.2

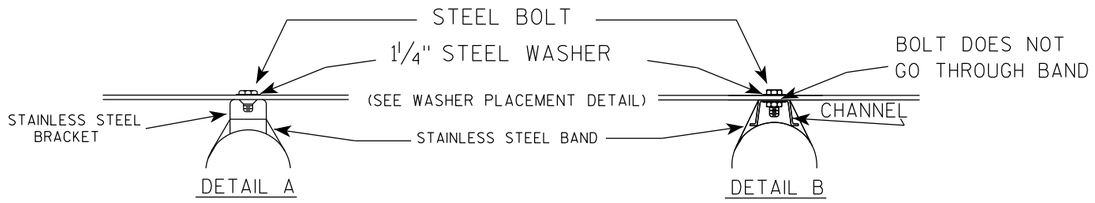
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 222	E

BANDING

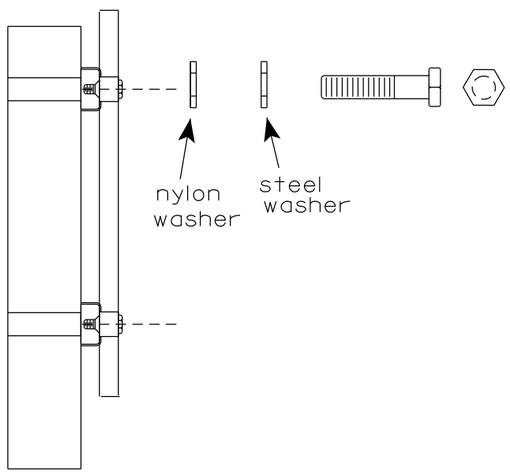
SINGLE SIGN







WASHER PLACEMENT

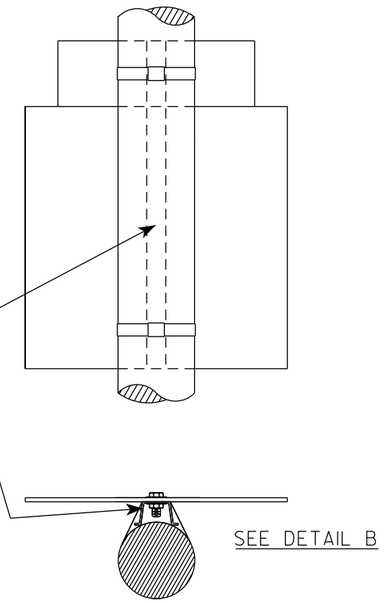


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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 ¾" 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

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

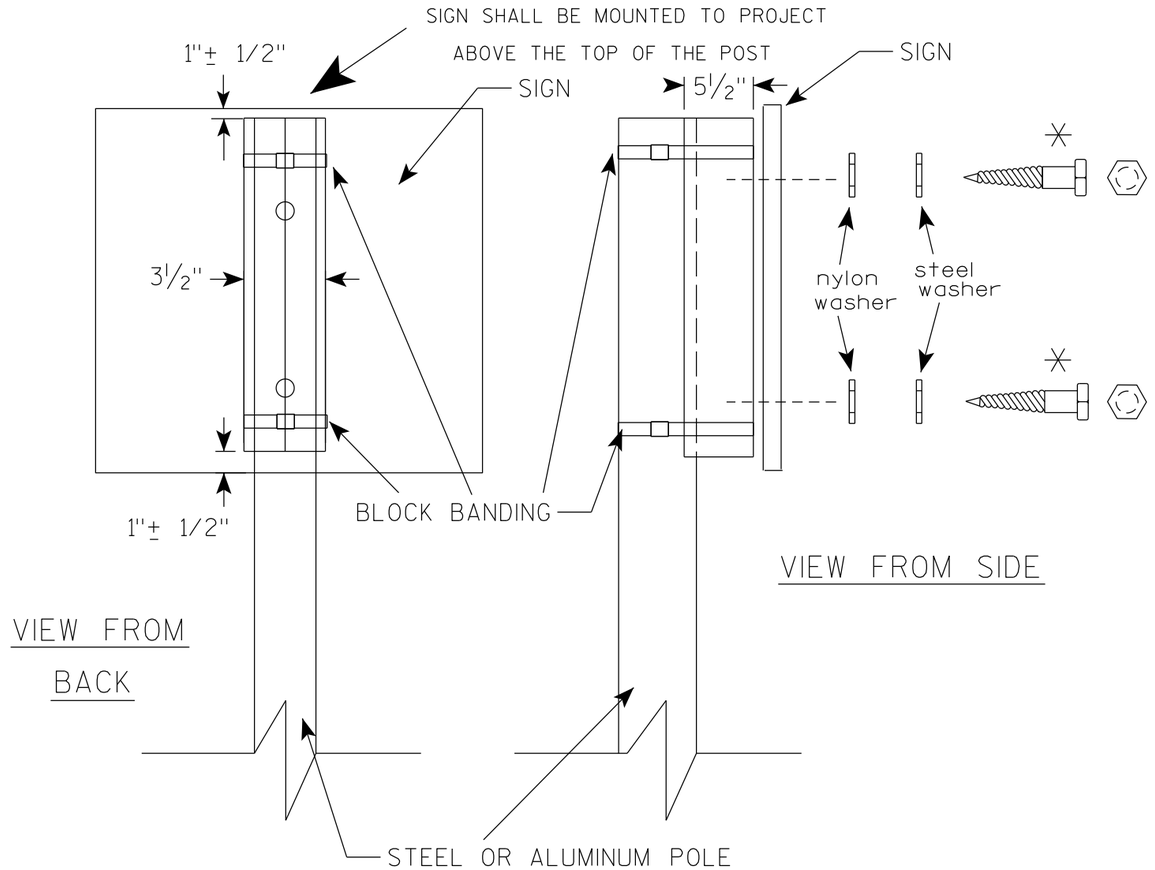
DATE 6/10/19 PLATE NO. A5-9.4

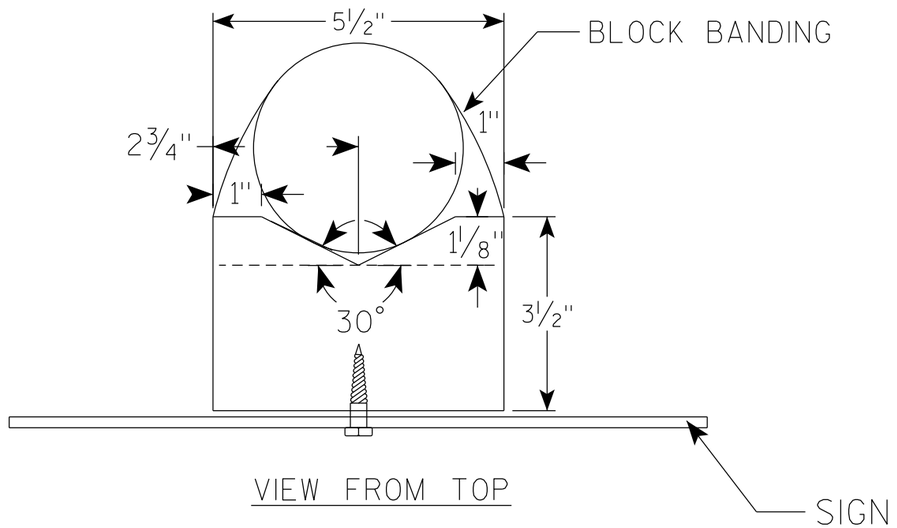
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 223	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





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, ¾" 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 NORNALLY 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 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

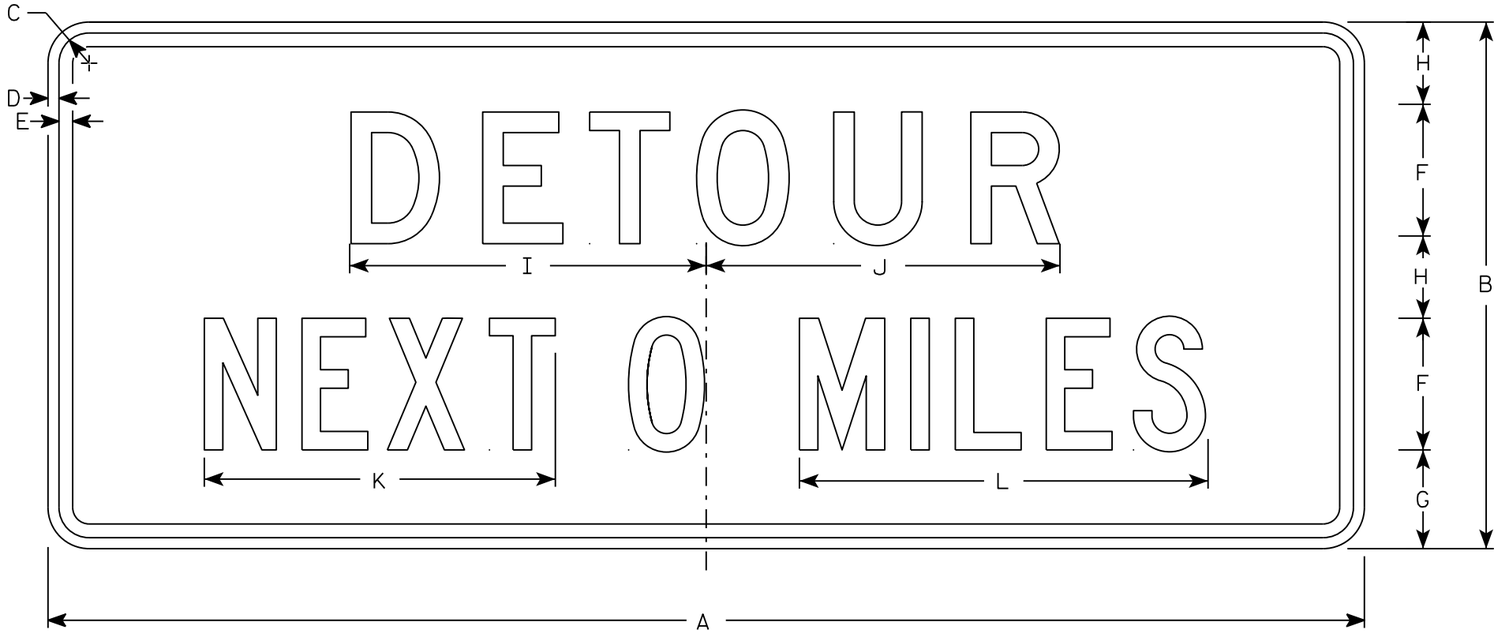
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO:

SHEET NO: 224 E



G20-51

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

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																											

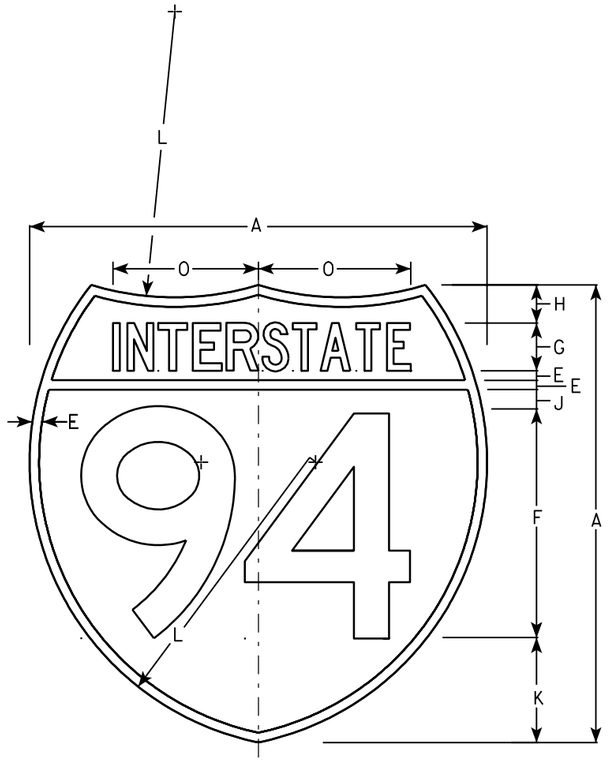
STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

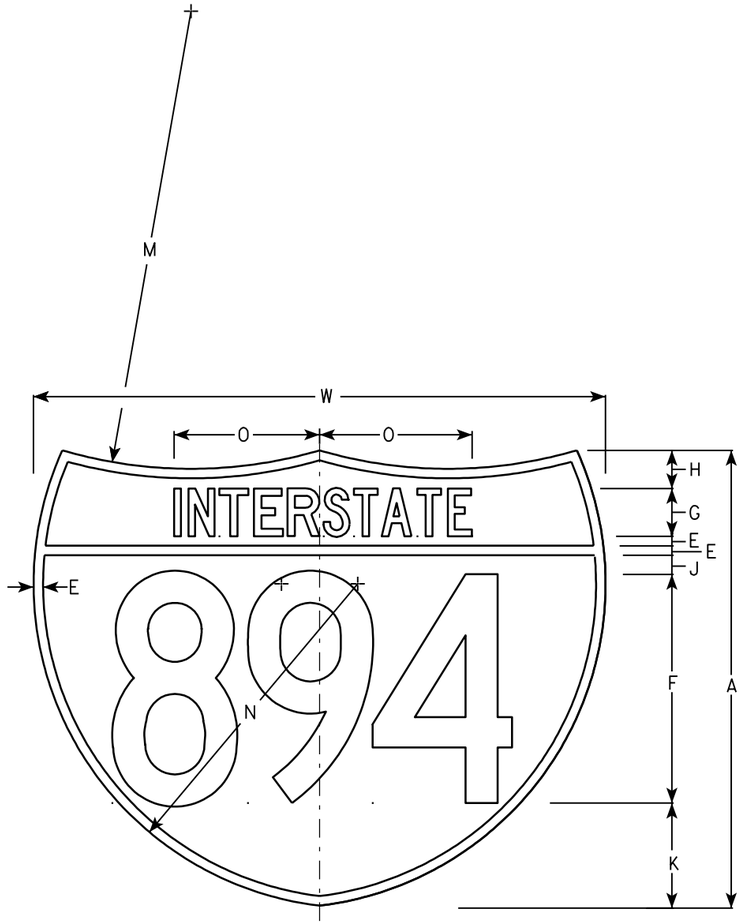
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/14/17 PLATE NO. G20-51.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 225 | E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 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	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

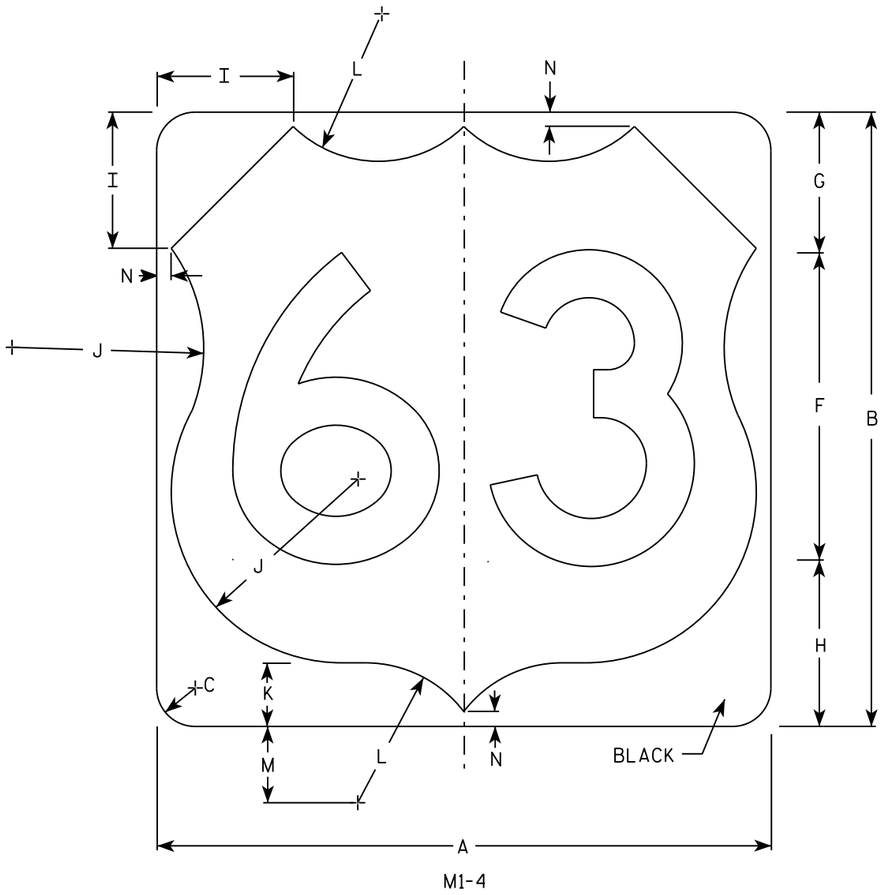
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

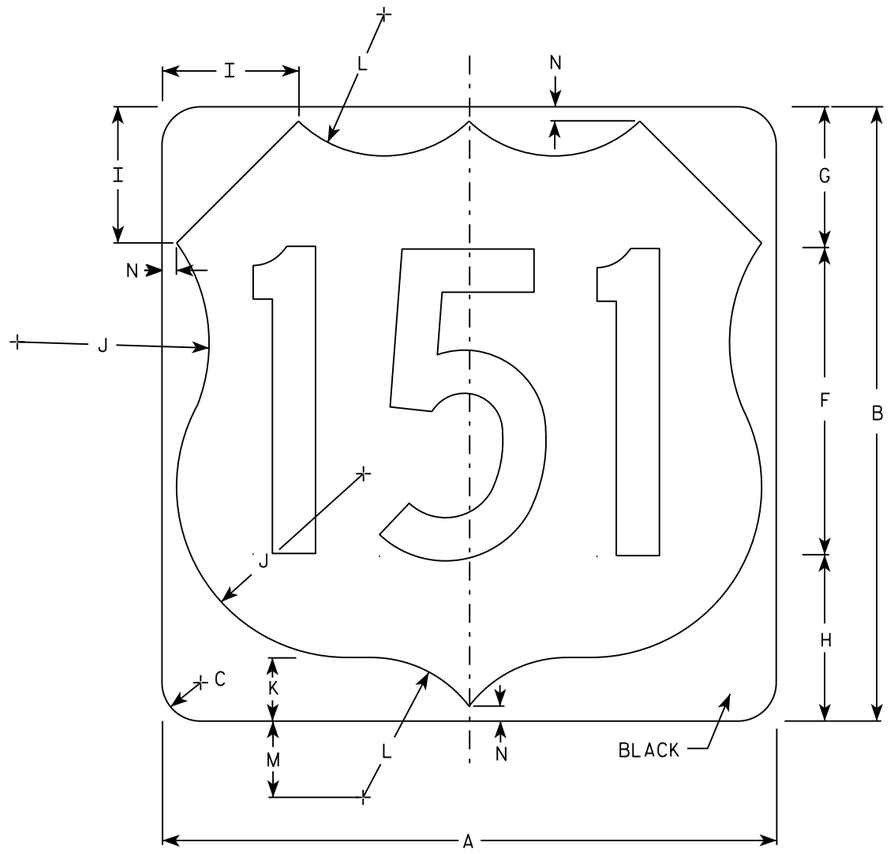
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 226	E

NOTES

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



M1-4



M1-4

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	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0

USH MARKER
M1-4 FOR ASSEMBLIES

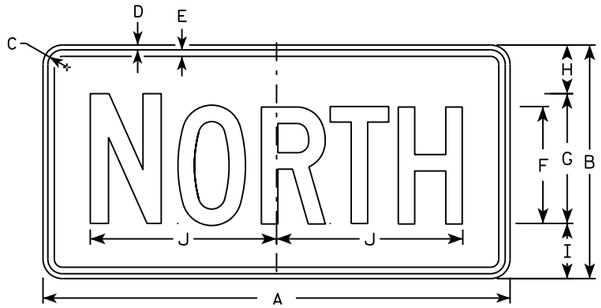
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

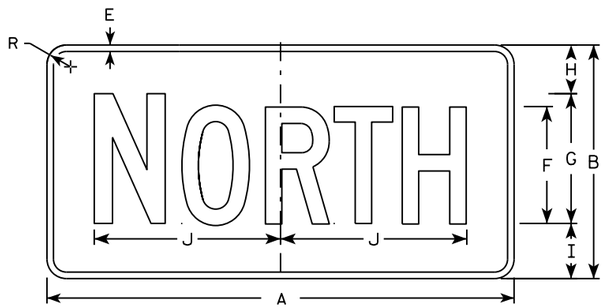
DATE 3/16/18 PLATE NO. M1-4.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 227 | E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M14.DGN PLOT DATE : 16-MAR-2018 14:06 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 5.918903:1.000000
WISDOT/CADDS SHEET 42



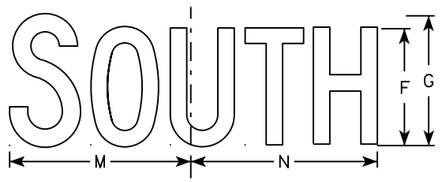
M3-1
MM3-1
MP3-1



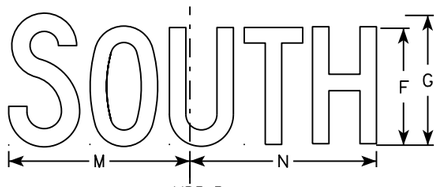
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

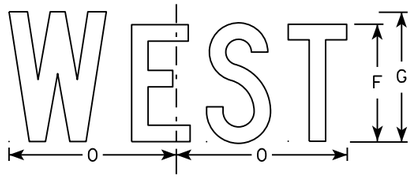
MB3-2
MK3-2
MN3-2



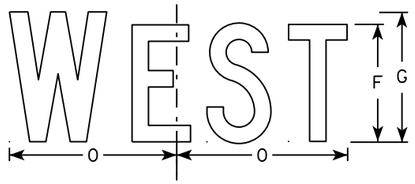
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
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. 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
6. Note the first letter of each direction is larger than the remainder of the message.

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 thur M3-4
SERIES

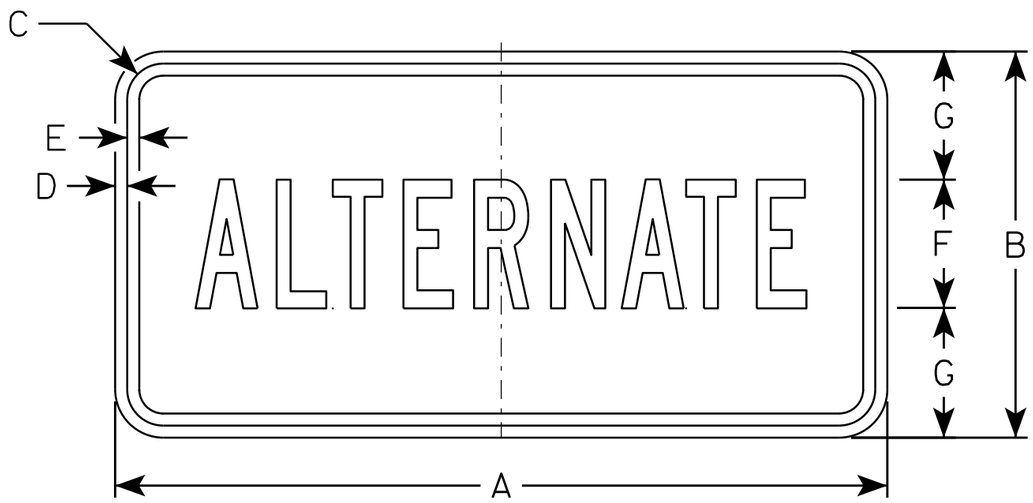
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

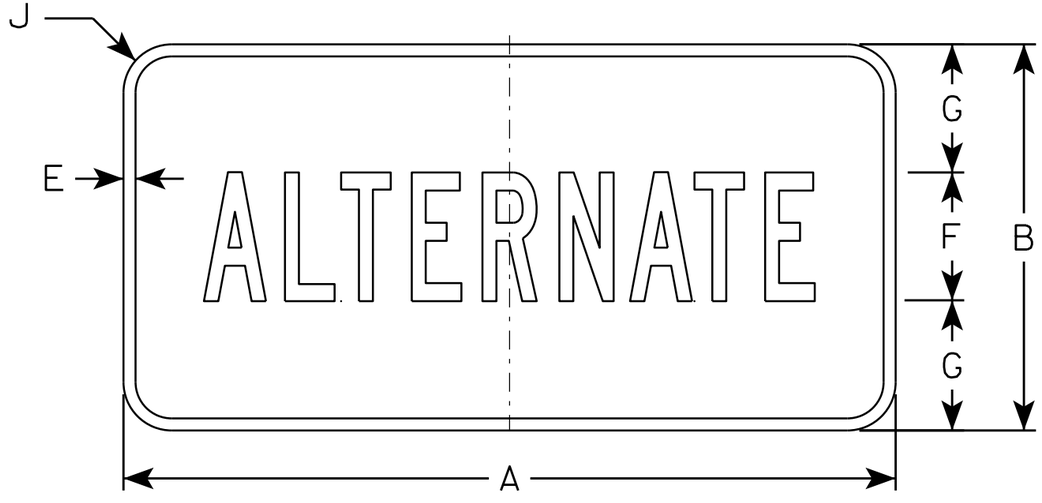
DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-1
M04-1



MB4-1

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See Note 5
   Message - See note 5
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.
5. M4-1 Background - White
   Message - Black

   MB4-1 Background - Blue
   Message - White

   M04-1 Background - Orange - Type F
   Message - Black

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	4	4	9 3/4	9 1/2	1 1/2																	2.00
3	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
4	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
5	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5

STANDARD SIGN
M4-1

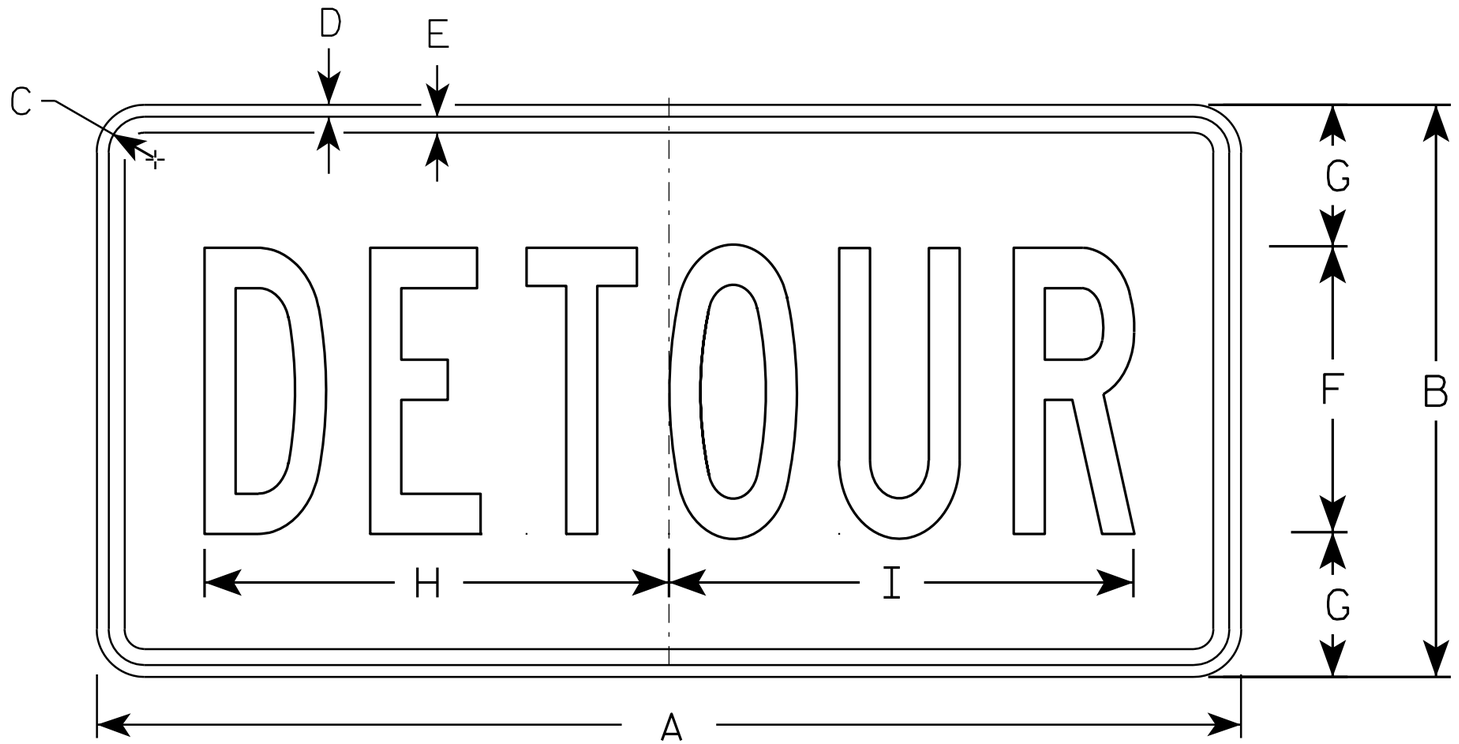
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/14 PLATE 14-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M41.DGN PLOT DATE : 30-JUN-2014 15:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.708937:1.000000
WISDOT/CADDS SHEET 42



M4-8

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.

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																											

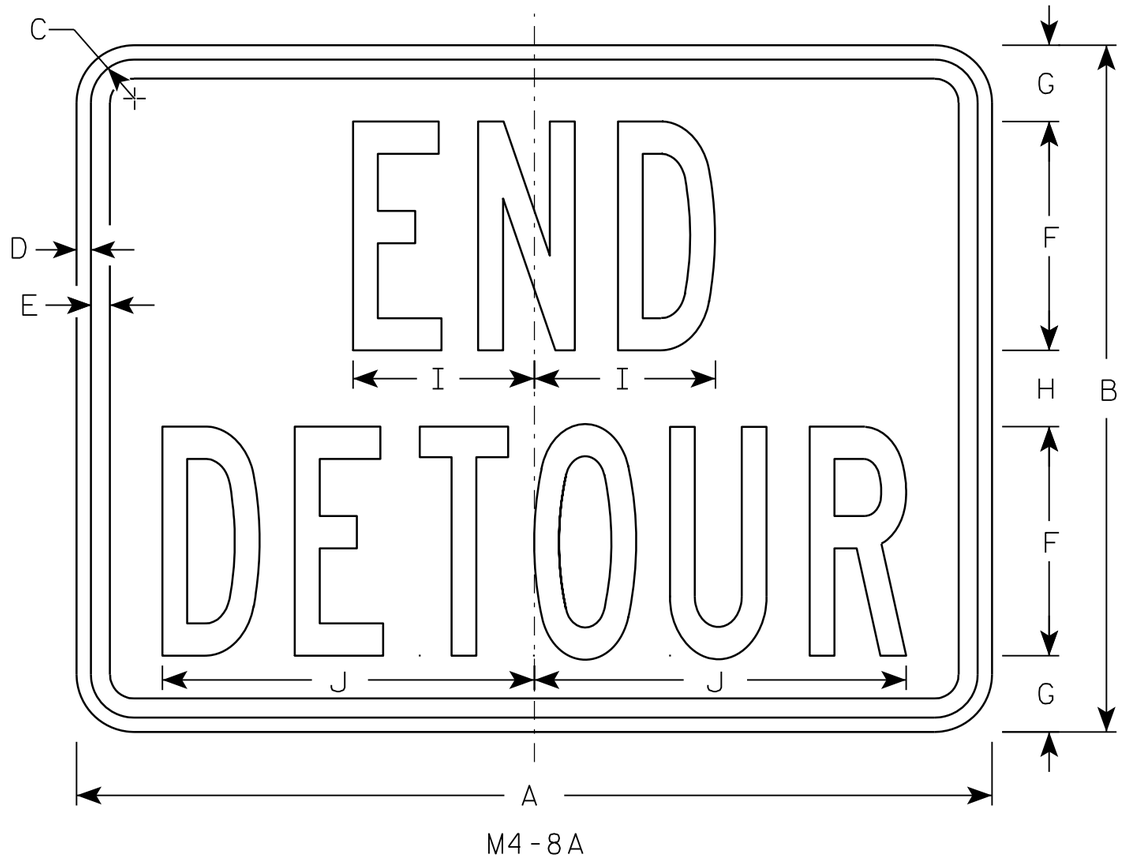
STANDARD SIGN
M4-8

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: 230	E



M4-8A

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.

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																											

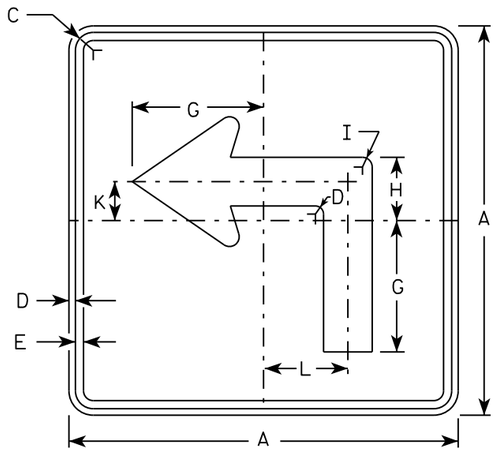
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

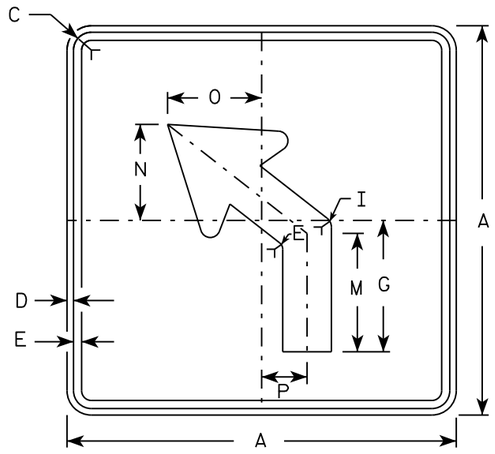
APPROVED Matthew R Rauch
for State Traffic Engineer

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

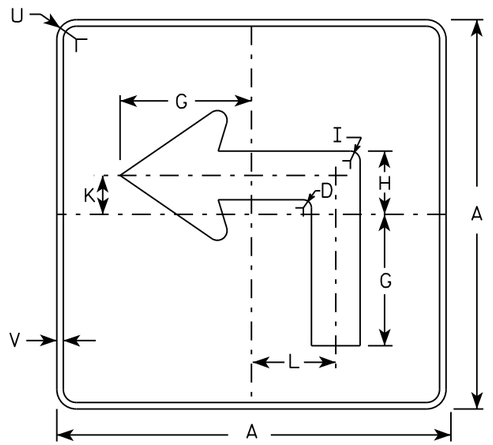
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 231	E



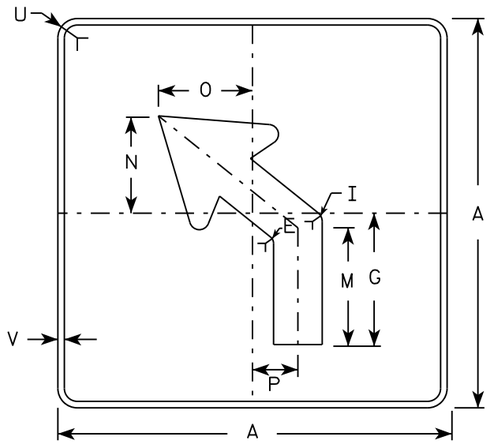
M5-1L
MM5-1L
MO5-1L
MP5-1L



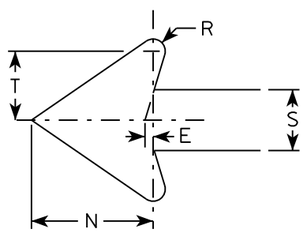
M5-2L
MM5-2L
MO5-2L
MP5-2L



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



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



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
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. 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
   MO5-1 and MO5-2 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
5. M5-1R same as M5-1L except arrow points right.
6. 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

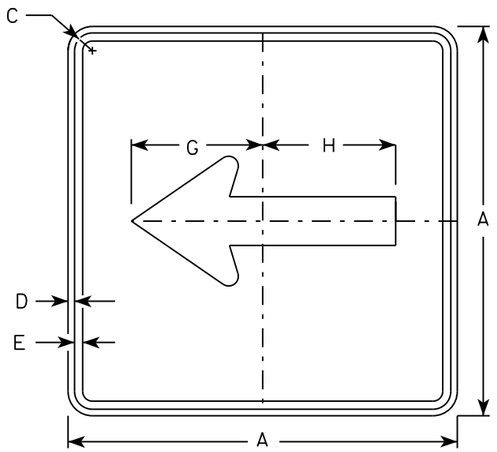
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

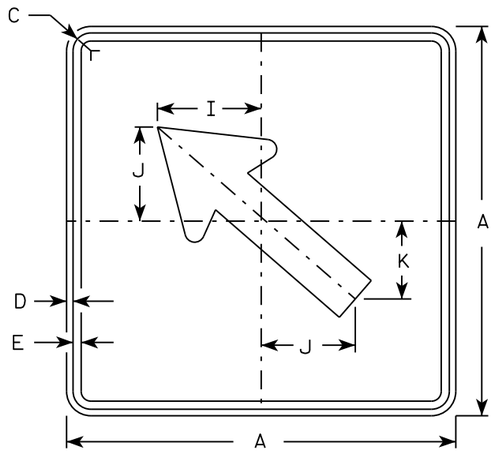
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



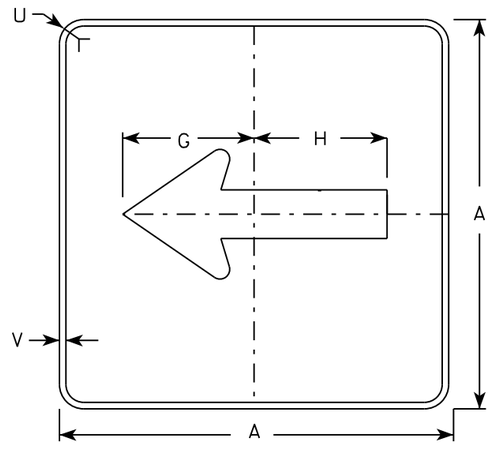
M6-1
MM6-1
MO6-1
MP6-1



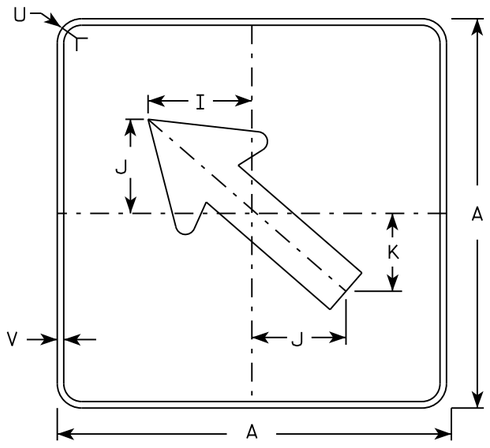
M6-2
MM6-2
MO6-2
MP6-2

NOTES

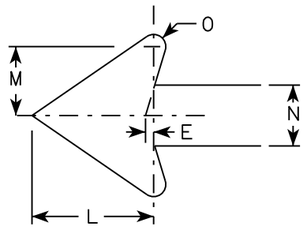
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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
   MO6-1 and MO6-2 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



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



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



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

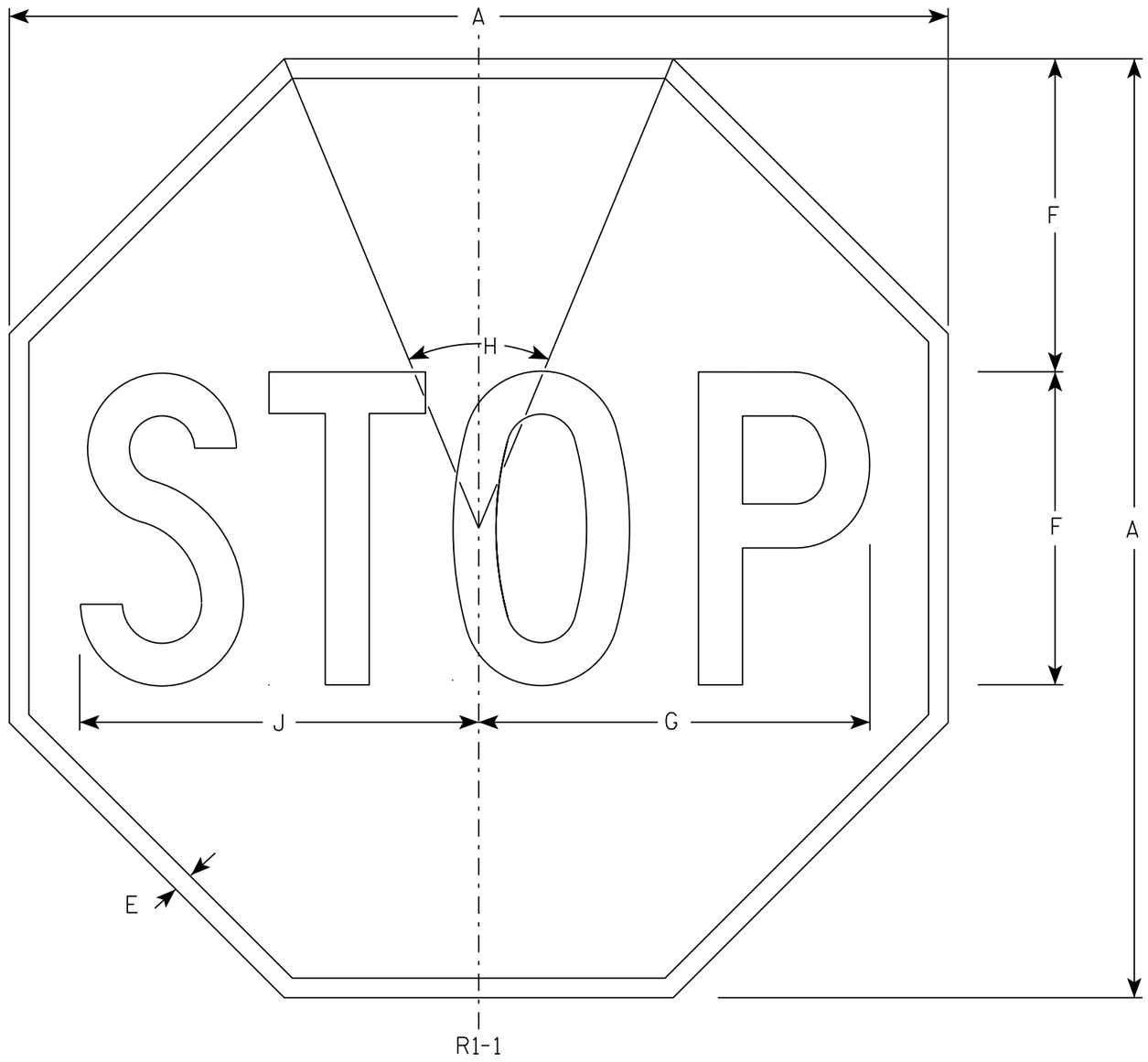
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 233 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



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

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

STANDARD SIGN

R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

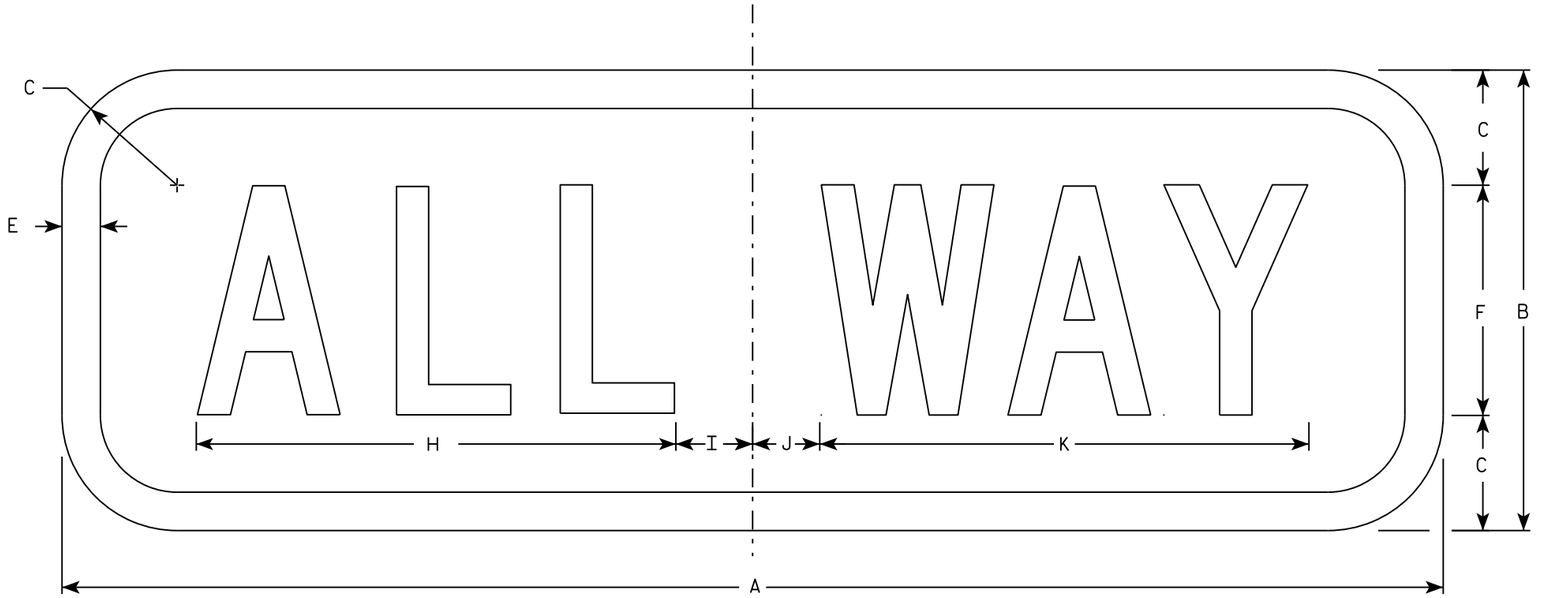
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 234	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. For 30"x30" R1-1 use 18"x6" R1-3P sign
   For 36"x36" R1-1 use 24"x9" R1-3P sign
   For 48"x48" R1-1 use 30"x12" R1-3P sign



R1-3P

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	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																0.75
2S	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																1.5
2M	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
3	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
4	30	12	2 1/4		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5
5	30	12	2 1/4		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5

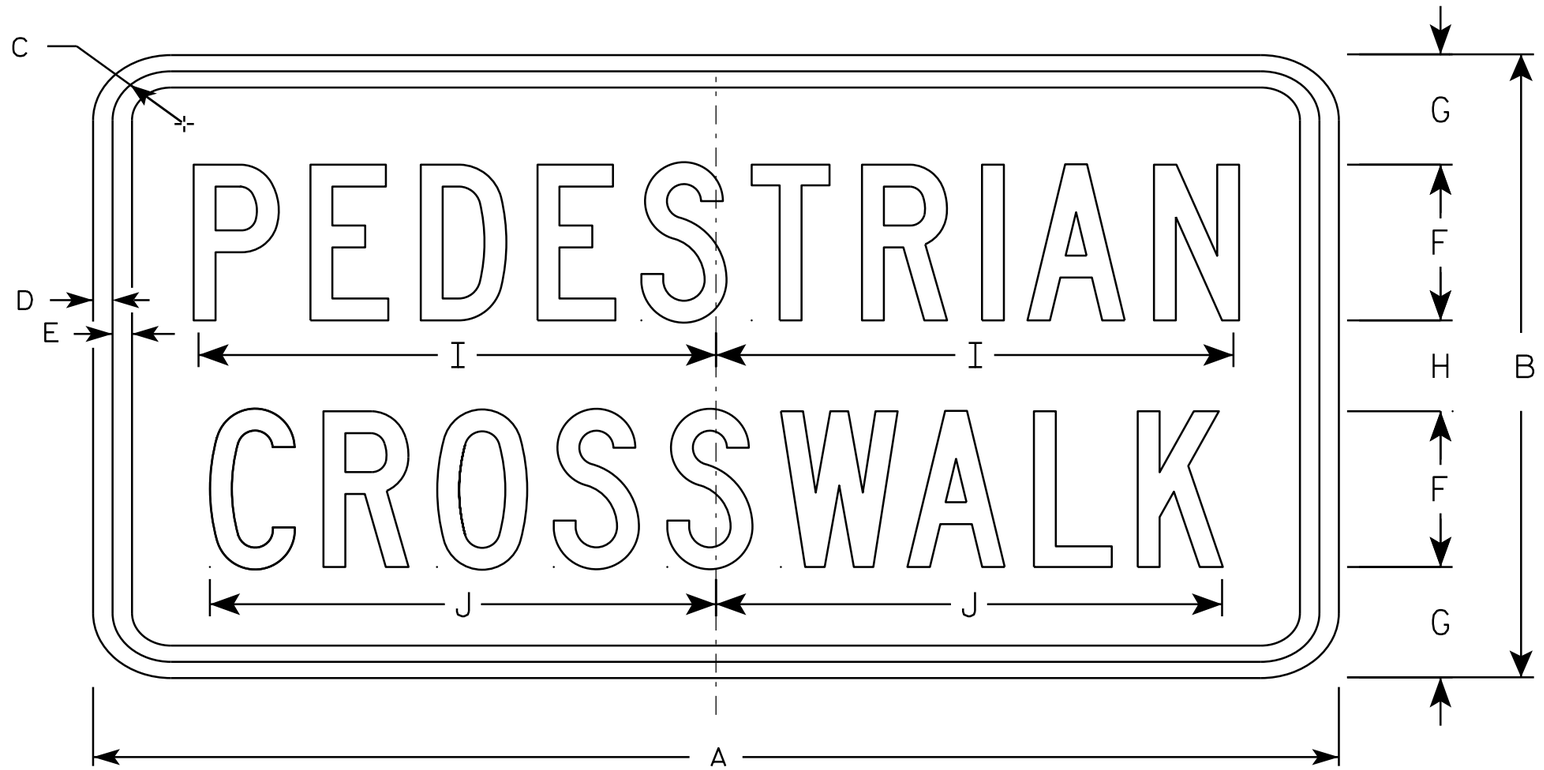
STANDARD SIGN
R1-3P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/29/16 PLATE NO. R1-3P.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 235 | E



R9-8

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.

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	9 3/4																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	9 3/4																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	13	13																	3.75
4																											
5																											

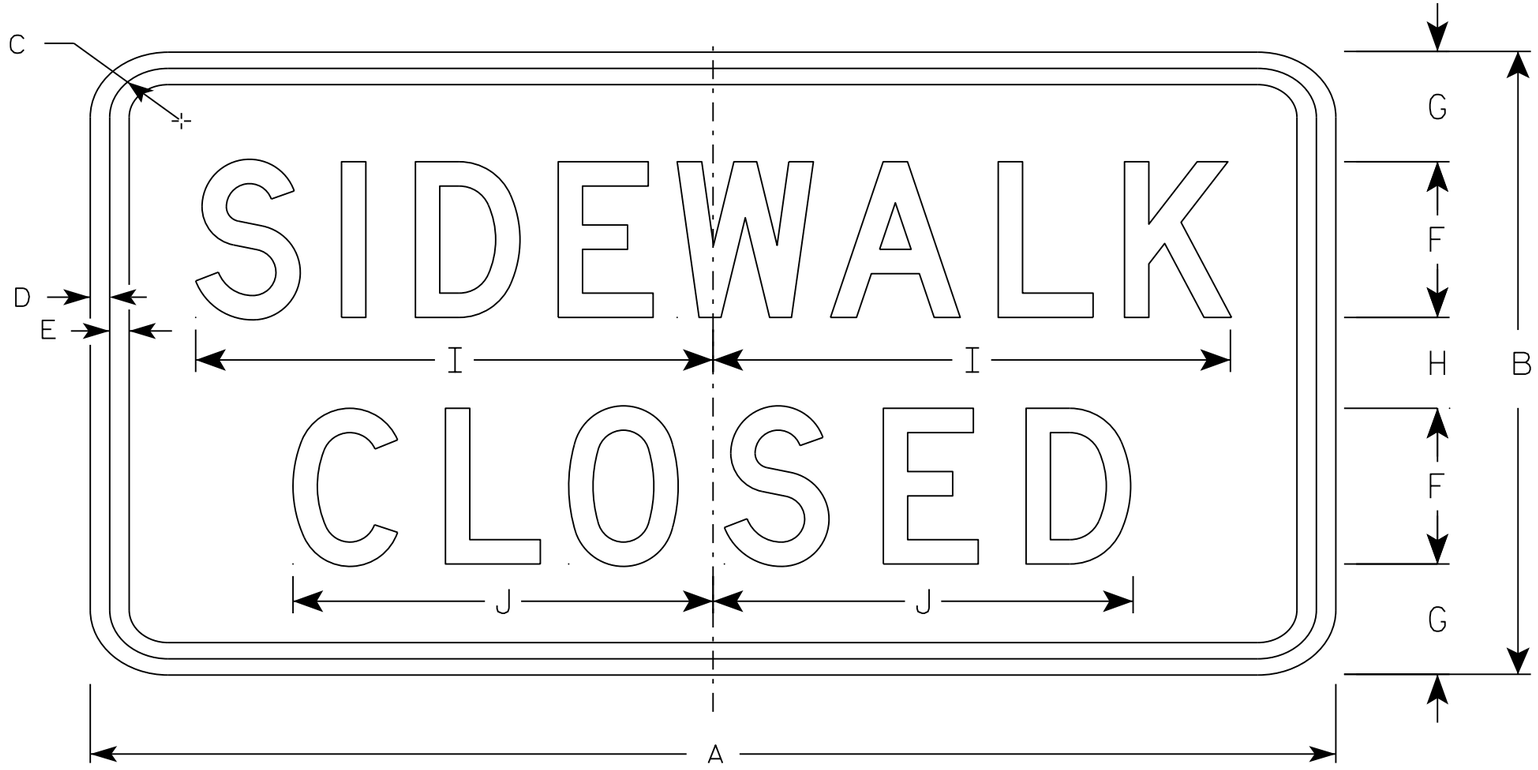
STANDARD SIGN
R9-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/17/16 PLATE 236 R9-8.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



R9-9

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.

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

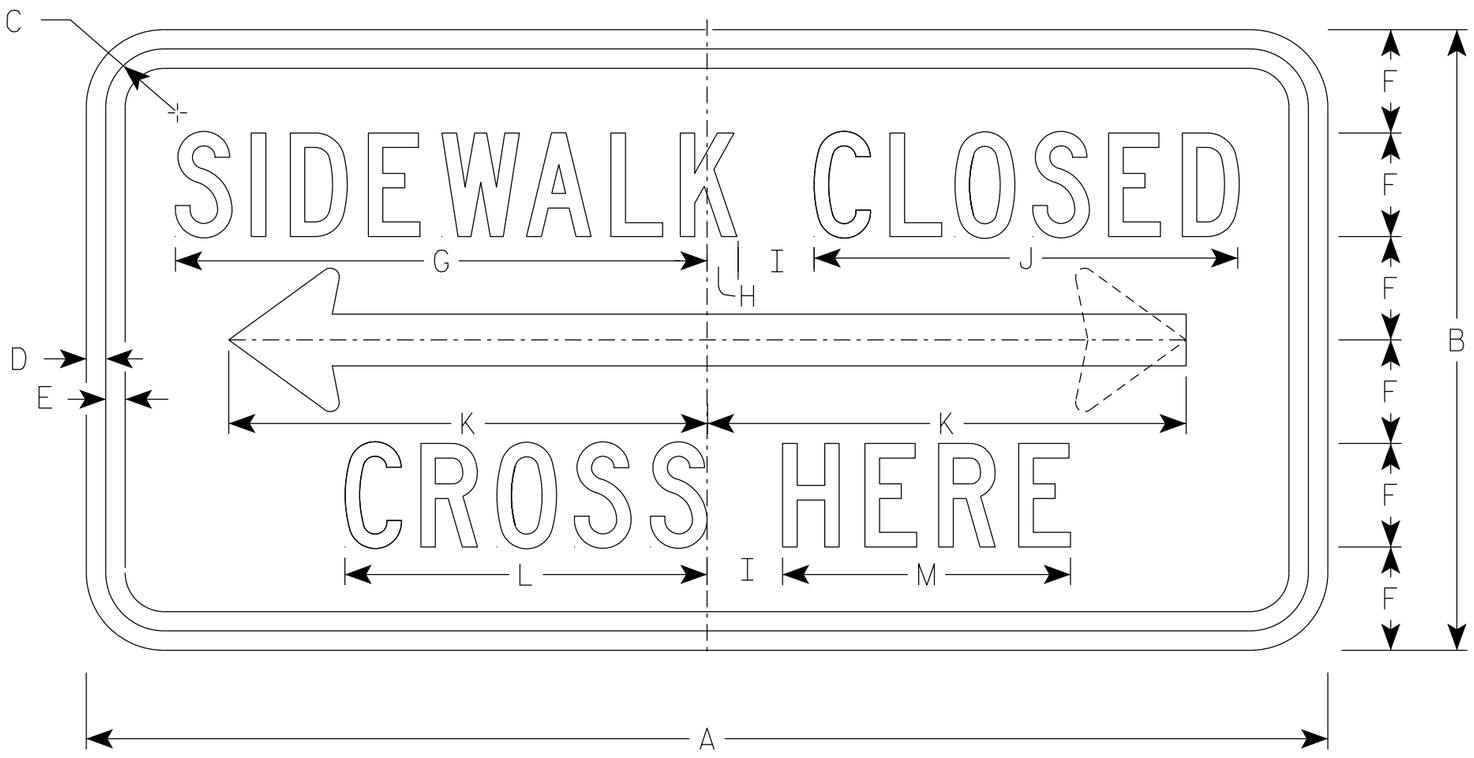
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 237 R9-9.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

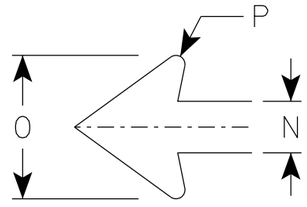
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



R9-11A

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. Use Size 2 for Sidewalks. Use Size 3 for paths and Trails.
6. R9-11AD (double arrow)
   R9-11AL (left arrow)
   R9-11AR (right arrow)



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	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
2M	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
3	30	15	1 1/8	3/8	1/2	2 1/2	12 3/4	1/2	2	10 1/4	12 3/8	8 5/8	6 3/4	1 1/4	3 5/8	1/4											3.125
4																											
5																											

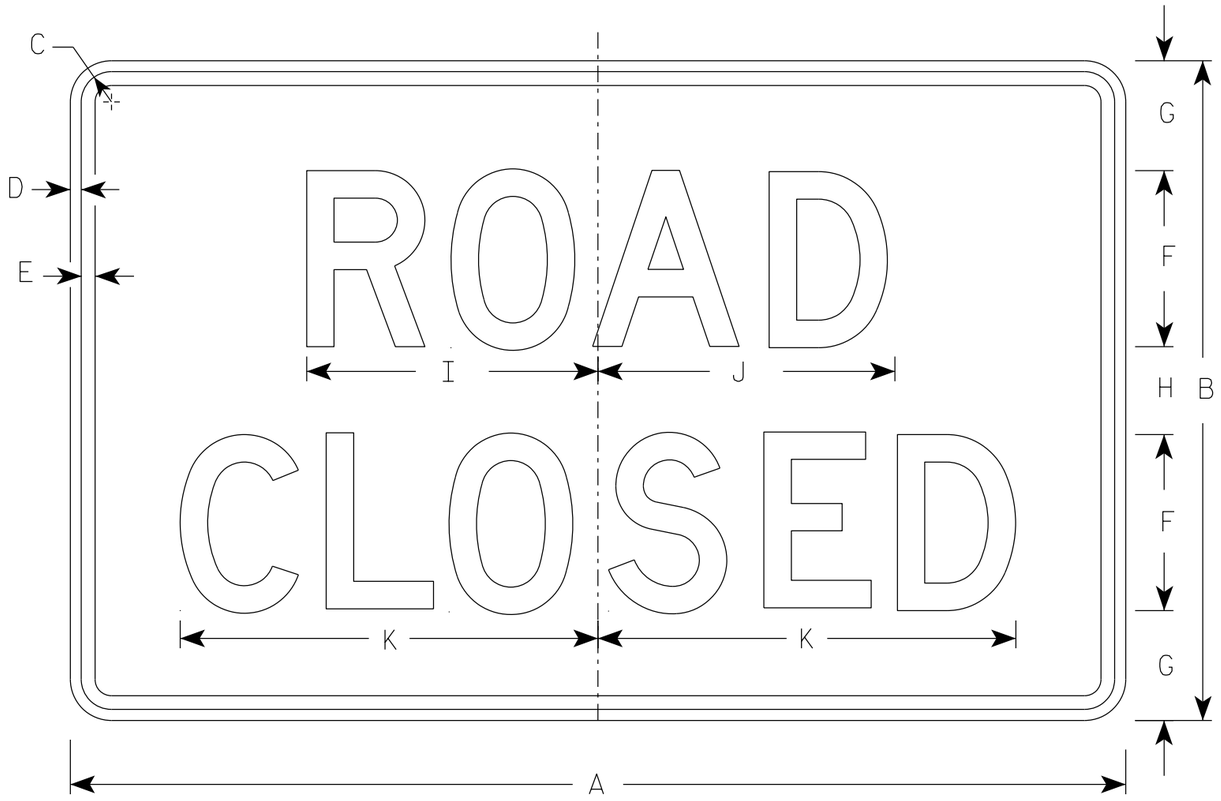
STANDARD SIGN
R9-11A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. R9-11A.5

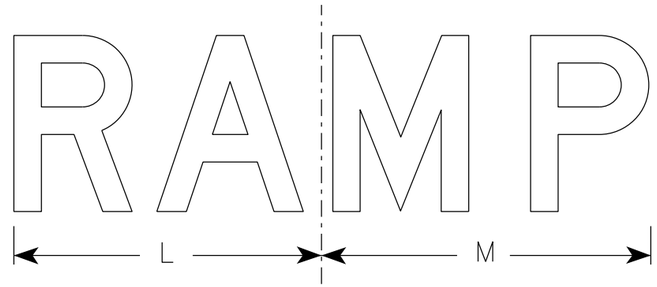
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 238 | E



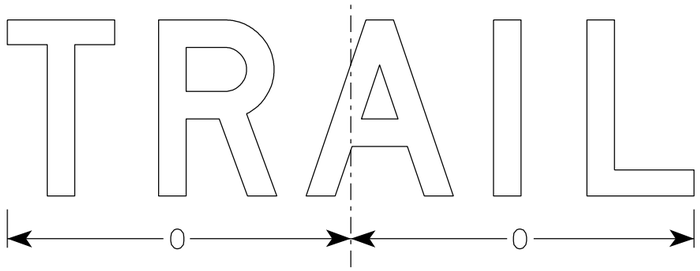
R11-2

NOTES

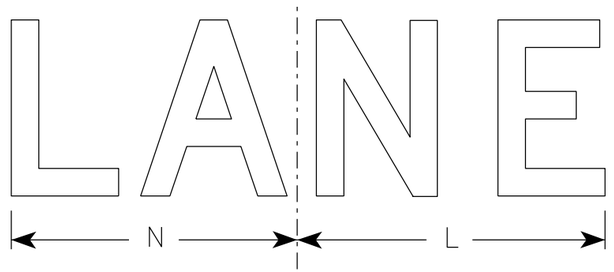
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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



R11-2R



R11-2T



R11-2L

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	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

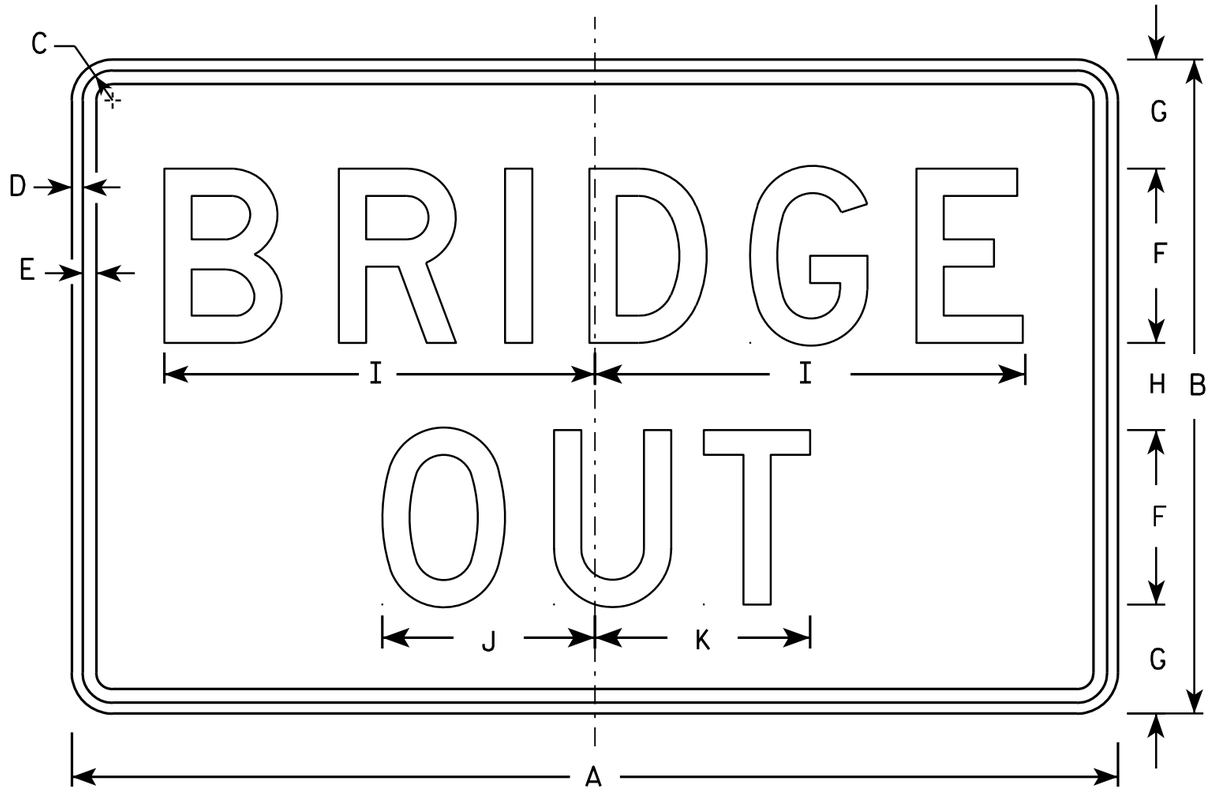
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 239 E



R11-2B

NOTES

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

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	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2B.2

PROJECT NO:

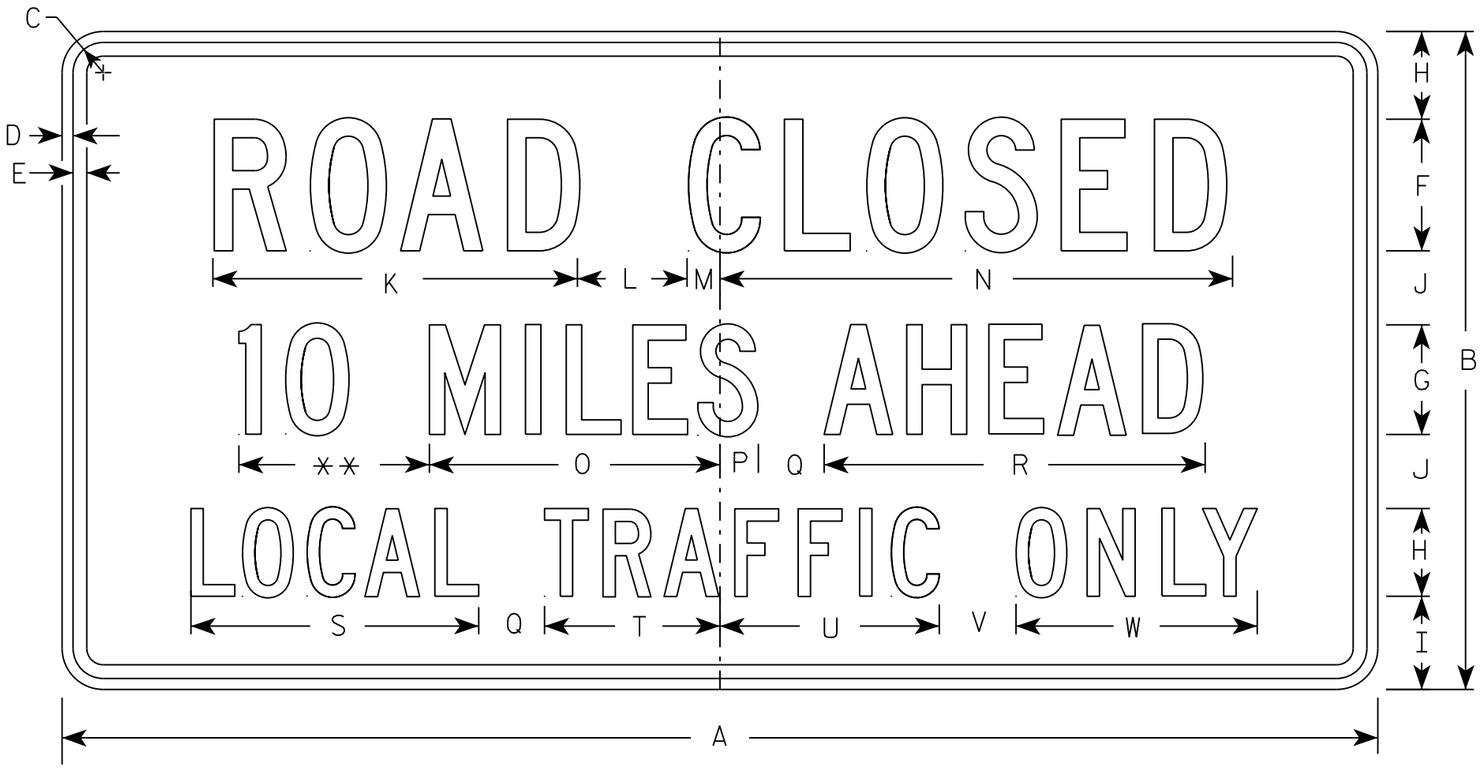
SHEET NO: 240 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112B.DGN PLOT DATE : 01-APR-2011 14:23 PLOT BY : mscj9h

WISDOT/CADDS SHEET 42

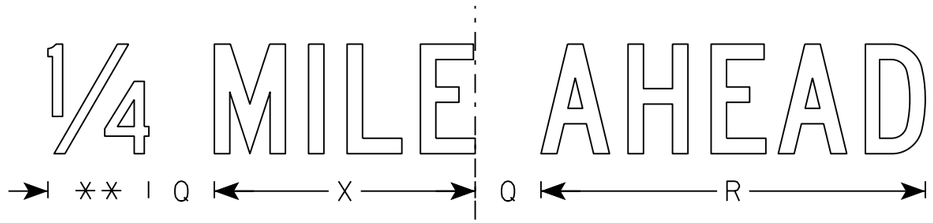
NOTES

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 3/8	1/2	5/8	4	3	2 1/2	2	2	11 1/8	3	1 1/8	15 1/4	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4	7 1/8			4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
3																											
4																											
5																											

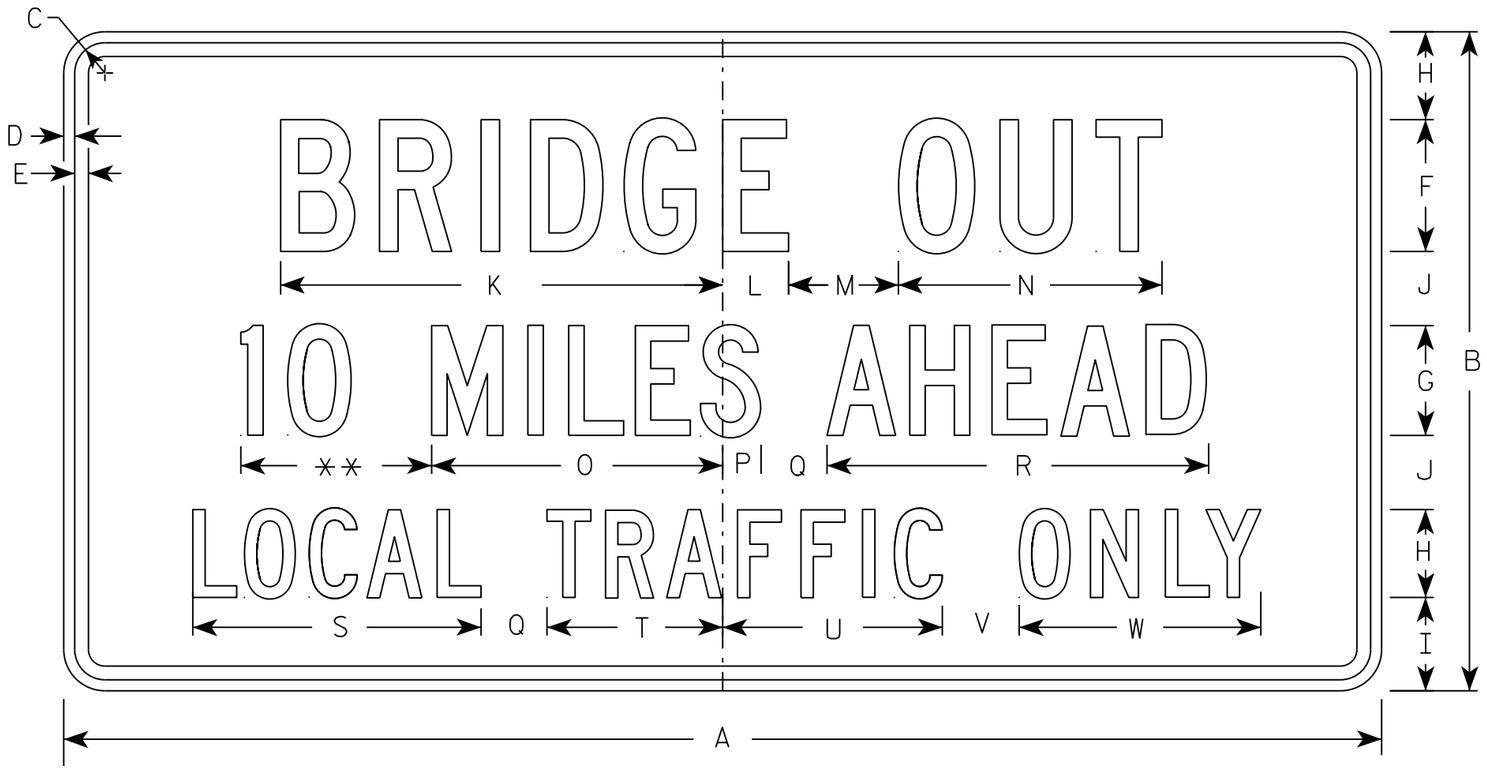
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

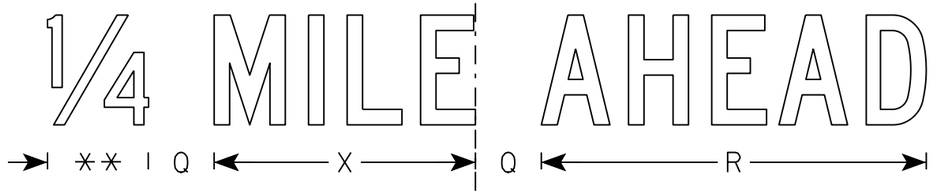
DATE 3/15/17 PLATE NO. R11-3.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 241	E



R11-3B

** See Note 5



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.

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 3/8	1/2	5/8	4	3	2 1/2	2	2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4	7 1/8			4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
3																											
4																											
5																											

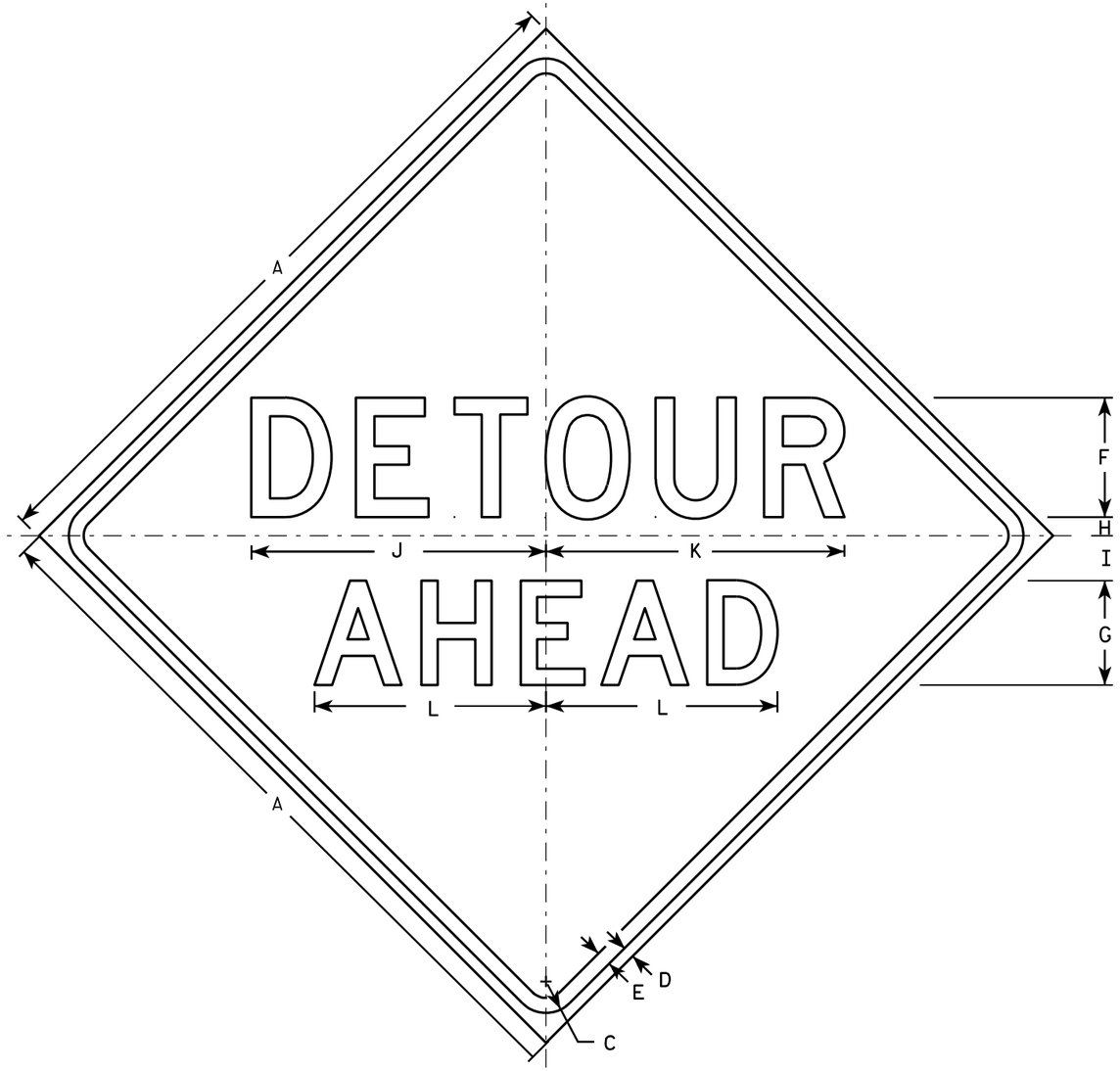
STANDARD SIGN
R11-3B

WISCONSIN DEPT OF TRANSPORTATION

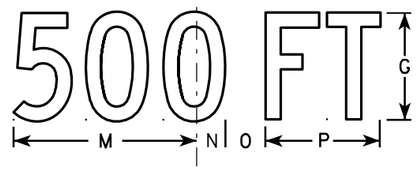
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. R11-3B.3

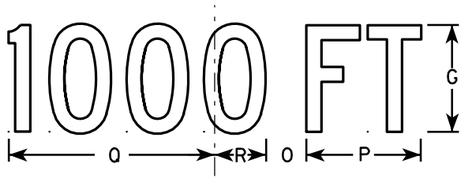
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 242 | E



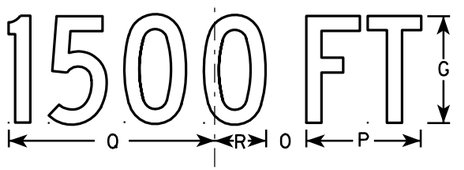
W20-2A



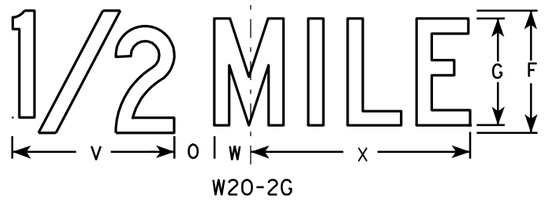
W20-2D



W20-2C



W20-2B



W20-2G

W20-2F

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.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	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

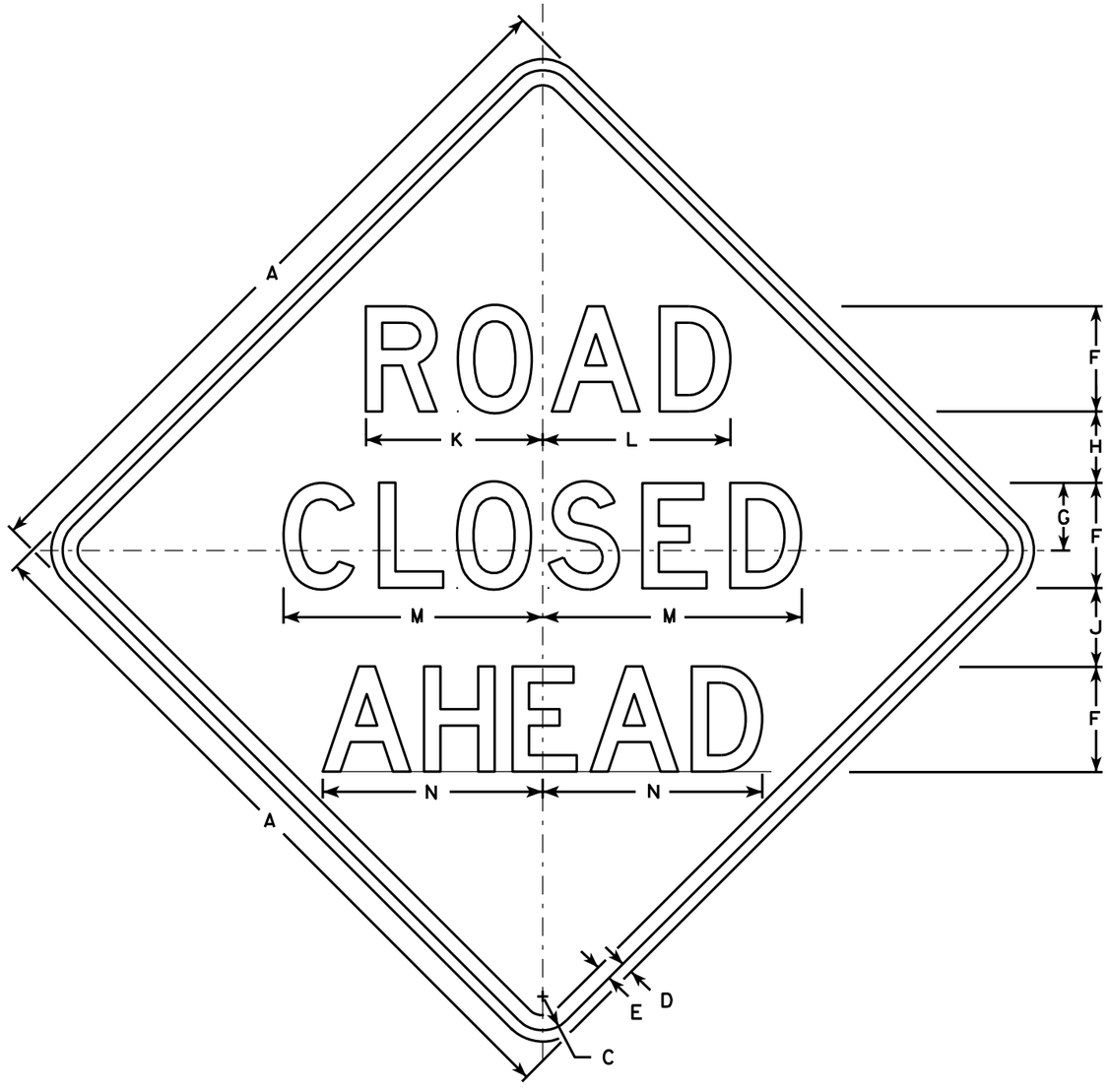
APPROVED Matthew R Rauch
for State Traffic Engineer

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

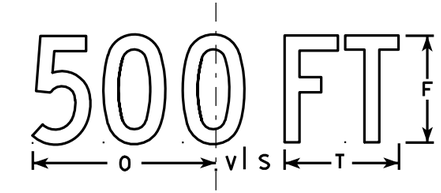
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 243 | E

7

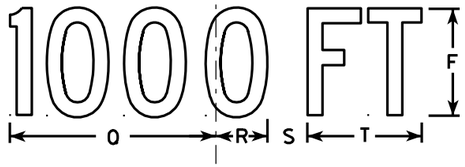
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W202.DGN PLOT DATE : 18-MAR-2011 10:00 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



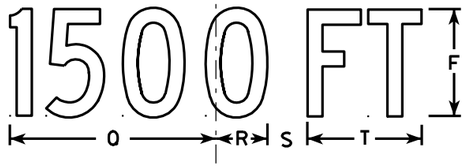
W20-3A



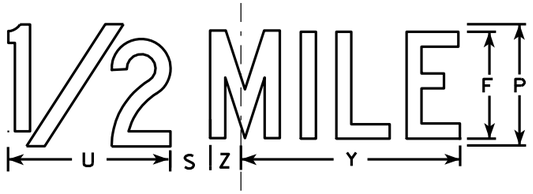
W20-3D



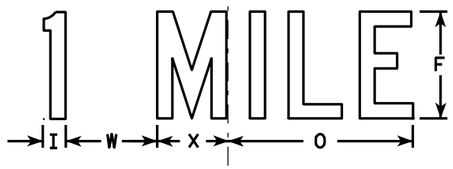
W20-3C



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.

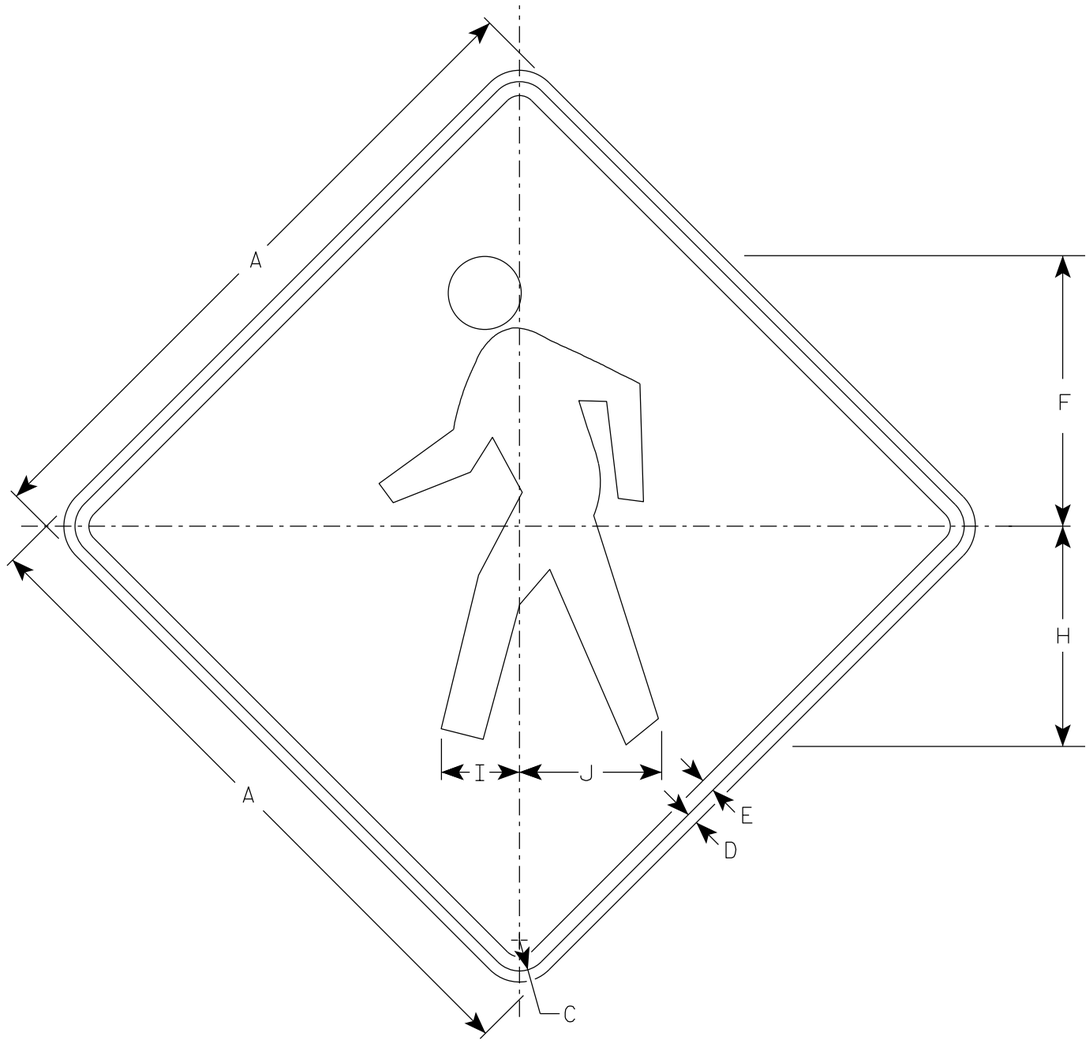
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	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: 244 | E



WO11-2

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.

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	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
2S	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
2M	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
3	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

STANDARD SIGN

WO11-2

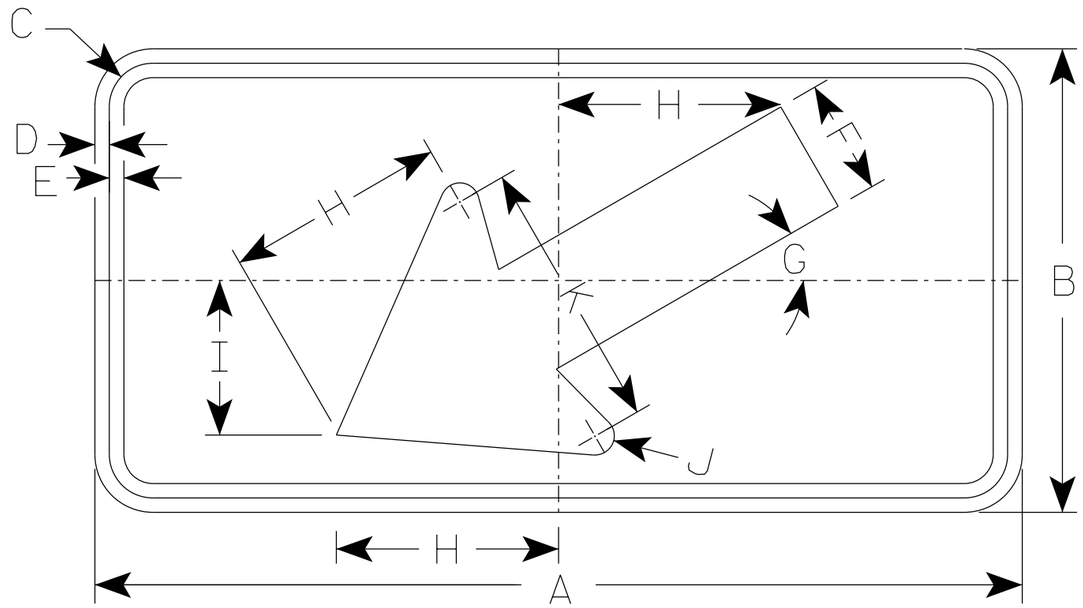
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

DATE 4/8/2020 PLATE NO. WO11-2.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 245	E



W016-7L

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded but corners shall be rounded when base material is metal.
4. W016-7R is the same as W016-L except the arrow is reversed along the vertical centerline.

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	18	1 1/8	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
2S	48	24	1 3/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
2M	48	24	1 3/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
3	48	24	1 3/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
4	48	24	1 3/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
5	48	24	1 3/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0

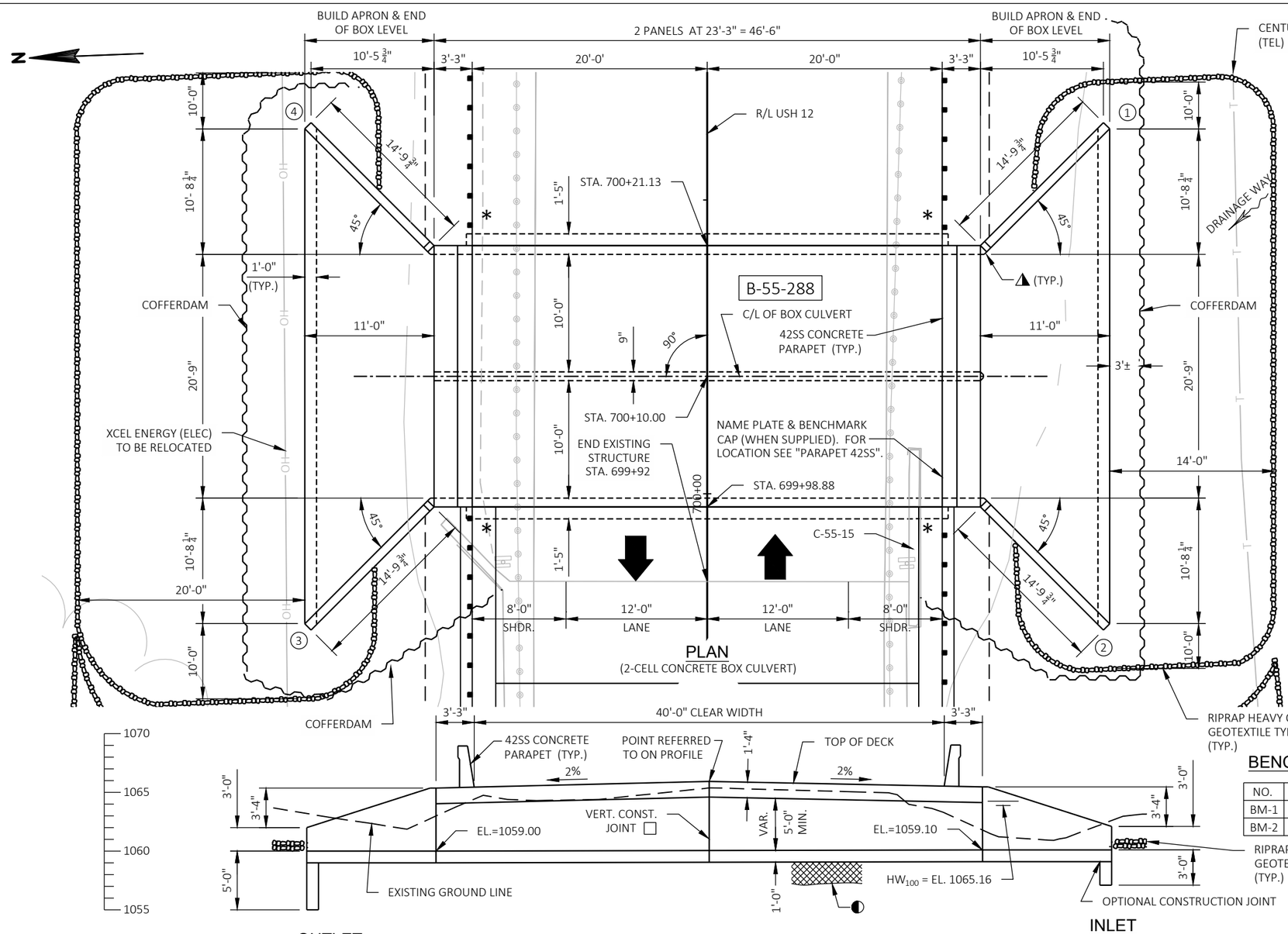
STANDARD SIGN
W016-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/2021 PLATE NO. W016-7.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 246	E



GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

THE CONCRETE IN THE CUT OFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

THE EXISTING STRUCTURE C-55-15, IS A 30' WIDE CONCRETE SLAB APPROXIMATELY 13 FEET IN LENGTH.

CULVERT INVERT SET 1'-0" BELOW CHANNEL FLOWLINE.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP SURFACE OF THE TOP SLAB, BACK FACE OF THE PARAPETS, THE VERTICAL FACE OF THE SLAB AND OUTSIDE 1'-0" OF THE UNDERSIDE OF THE SLAB AND BARREL WALLS, AND TO THE TOP AND FRONT FACES OF WINGS.

HAND HELD FINISHING MACHINES MAY BE USED FOR THE TOP SLAB.

LEGEND

- ① INDICATES WING NUMBER
- ◭ FOR CORNER DETAILS, SEE "APRON DETAILS" SHEET
- ◐ UNDERCUT 3'-0" INCLUDED IN EXCAVATION FOR STRUCTURES, PLACE GEOTEXTILE FABRIC TYPE 'C' AND BACKFILL WITH "BREAKER RUN". EXTEND 3'-0" BEYOND THE FOOTPRINT OF THE CULVERT.
- ☐ PLACE AN 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROFFING" ON ALL VERT. CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS.
- ✱ PROVIDE ANCHOR ASSEMBLY FOR THRIE BEAM GUARD RAIL ATTACHMENT.

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR RF: 1.72
OPERATING RATING FACTOR RF: 2.22
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 255 KIPS

EARTH LOAD: DESIGNED FOR FILL HEIGHT OF 0.0 FEET

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY CULVERT.....f'c = 3500 P.S.I.

BAR STEEL REINFORCEMENT HIGH STRENGTH GRADE 60 fy = 60000 P.S.I.

FOUNDATION DATA:

ALLOWABLE SOIL BEARING CAPACITY.....3,000 PSF

HYDRAULIC DATA:

Q(100)= 400 C.F.S.
VELOCITY - THROUGH STRUCTURE = 4.9 F.P.S.
HIGH WATER ELEVATION, Q(100) = 1065.16
WATERWAY AREA = 82 SQ. FT.
DRAINAGE AREA = 0.9 SQ. MI.
ROADWAY OVERTOPPING FREQUENCY = N/A
SCOUR CRITICAL CODE = 8
Q(2) = 85 C.F.S.
HIGH WATER EL. Q(2) = 1062.21
Q(2) VELOCITY = 2.1 F.P.S.

TEMP CONSTRUCTION:
HIGH WATER EL. Q(2) = 1062.60
VELOCITY Q(2) = 3.9 F.P.S.

TRAFFIC DATA:

USH 12
A.A.D.T. = 2800 (2015)
A.A.D.T. = 5000 (2041)
RDS = 60 MPH
T = 14.9%

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. BOX CULVERT DETAILS
3. BOX CULVERT DETAILS 2
4. APRON DETAILS
5. APRON DETAILS 2
6. SINGLE SLOPE PARAPET 42SS
7. SUBSURFACE EXPLORATION

BENCH MARKS

NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM-1	348708.221	592508.825	1066.882	BMCUT SQ TOP N CONC PARAPET C-55-015
BM-2	348758.081	592608.435	1066.706	BMRR SPIKE PPOL #ABJ139

WISCONSIN
CHAD D. HALVERSON
E-34364
MADISON, WI
PROFESSIONAL ENGINEER
01/22/2021

STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
CHAD HALVERSON (608) 663-1218

STATE PROJECT NUMBER
8949-00-71

NO.	DATE	REVISION	BY

KL Engineering
[A] Better Experience

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 02/11/21
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-55-288

USH 12 OVER DRAINAGE WAY

COUNTY	TOWN ~~/CITY/VILLAGE~~
ST. CROIX	HAMMOND

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
CDH	CAH	STD	CAH

GENERAL PLAN & ELEVATION

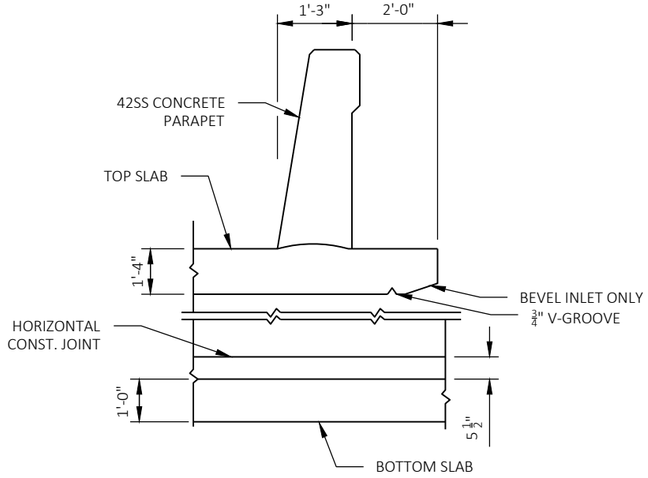
SHEET 1 OF 7
247

STATE PROJECT NUMBER

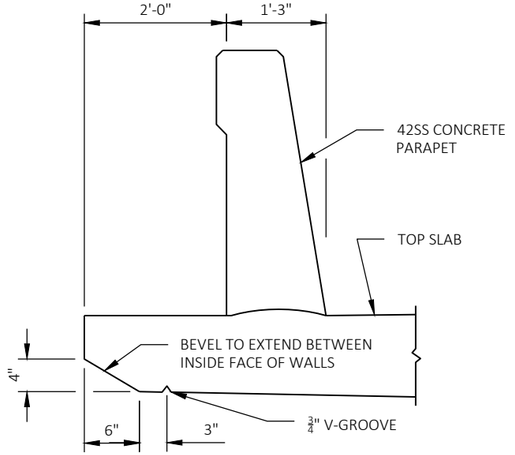
8949-00-71

TOTAL ESTIMATED QUANTITIES

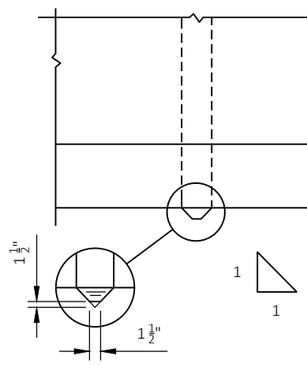
BID ITEM NO.	BID ITEM	UNIT	INLET	OUTLET	BARREL	TOTALS
203.0500.S	REMOVING OLD STRUCTURE OVER WATERWAY STA. 699+80	LS	---	---	---	1
206.2000	EXCAVATION FOR STRUCTURES CULVERTS B-55-288	LS	---	---	---	1
206.5000	COFFERDAMS B-55-288	LS	---	---	---	1
210.2500	BACKFILL STRUCTURES TYPE B	TON	37	37	296	370
311.0110	BREAKER RUN	TON	110	110	275	495
502.3200	PROTECTIVE SURFACE TREATMENT	SY	18	18	147	183
502.3210	PIGMENTED SURFACE SEALER	SY	---	---	22	22
504.0100	CONCRETE MASONRY CULVERTS	CY	19	22	130	171
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	790	900	7,830	9,520
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	660	660	14,160	15,480
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	7	7	2	16
606.0300	RIPRAP HEAVY	CY	76	104	---	180
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	---	---	4	4
645.0105	GEOTEXTILE TYPE C	SY	104	104	204	412
645.0120	GEOTEXTILE TYPE HR	SY	141	185	---	326
	NON-BID ITEMS					
	FILLER	SIZE	3/4"	3/4"		



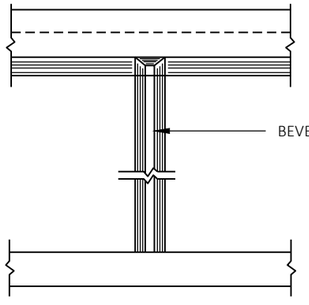
TYPICAL SECTION THRU END OF CULVERT



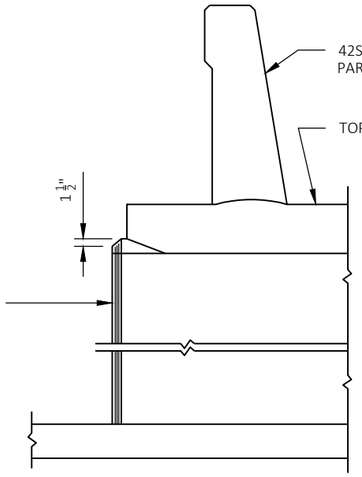
SECTION THRU INLET END OF CULVERT



PLAN

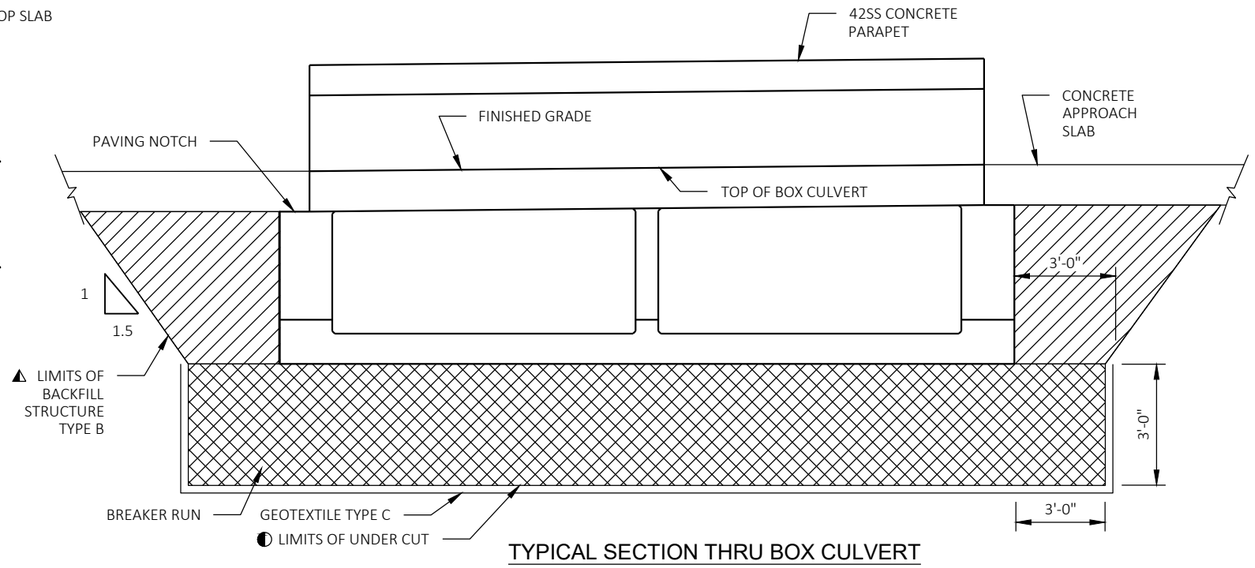


ELEVATION



SECTION

INLET NOSE CENTERWALL DETAILS



TYPICAL SECTION THRU BOX CULVERT

NOTES

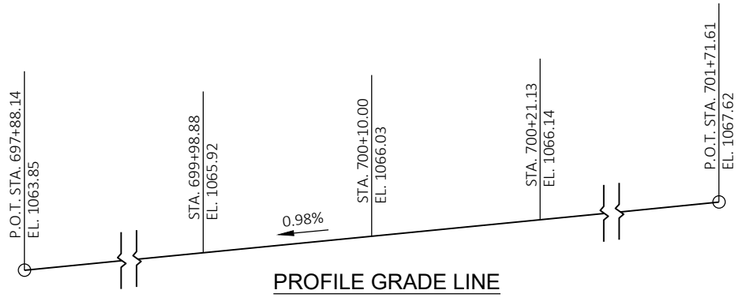
THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS B-55-288" SHALL BE THE EXISTING GROUND LINE.

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

BACKFILL WITH "BACKFILL STRUCTURE TYPE B" ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND WILL NOTE BE OCCUPIED BY THE NEW STRUCTURE. BACKFILL WITHIN THE LENGTH OF THE BOX INCLUDING THE APRON WING WALLS.

◐ UNDER CUT 3'-0". INCLUDE THE EXCAVATION FOR UNDER CUT IN THE "EXCAVATION FOR STRUCTURES CULVERT B-55-288". PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".

IN LIEU OF USING BREAKER RUN FOR THE BOX CONSTRUCTION PLATFORM, THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COURSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL. THE REGION GEOTECHNICAL ENGINEER MAY BE CONTACTED TO DETERMINE IF "OTHER GRANULAR MATERIAL" IS ACCEPTABLE.



PROFILE GRADE LINE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

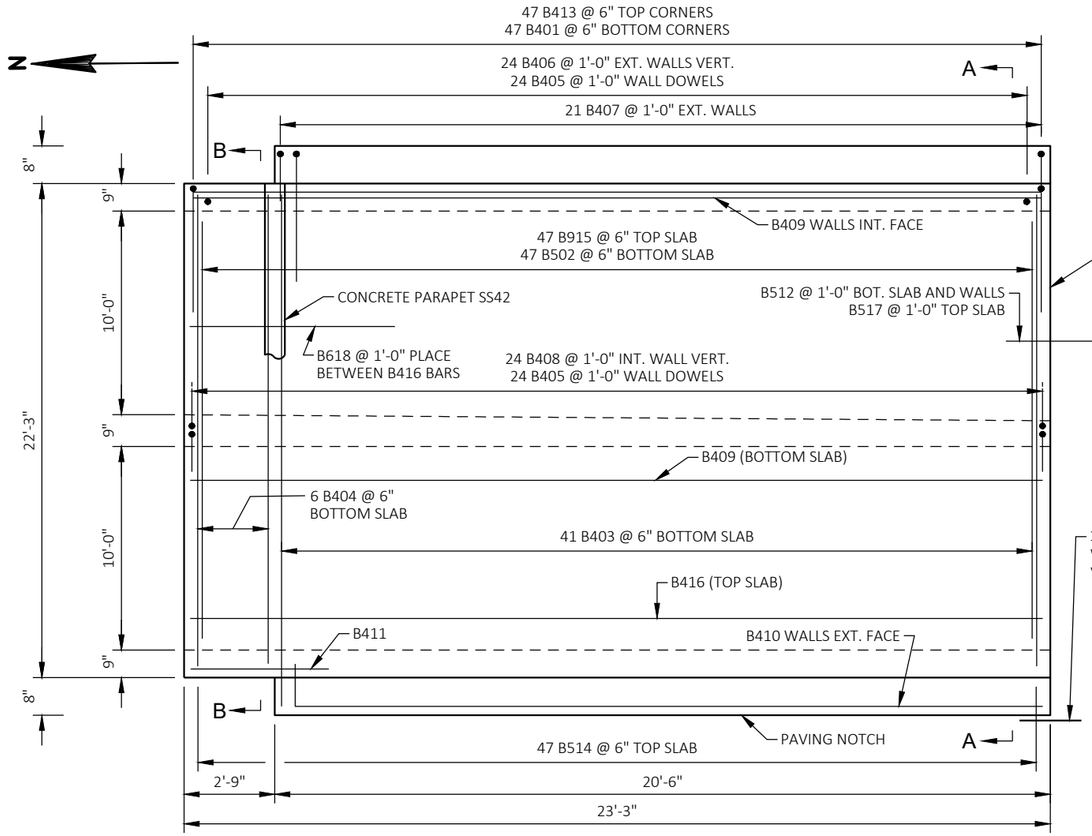
STRUCTURE B-55-288

DRAWN BY STD | PLANS CK'D. CAH

BOX CULVERT DETAILS

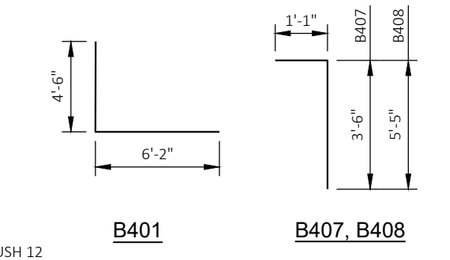
SHEET 2 OF 7

248



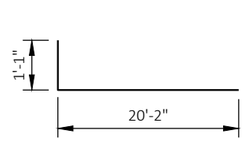
PLAN VIEW OF OULET PANEL

USE IDENTICAL STEEL IN INLET PANEL, HEADERS BARS & APRON NOT SHOWN FOR CLARITY

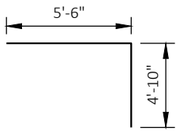


B401

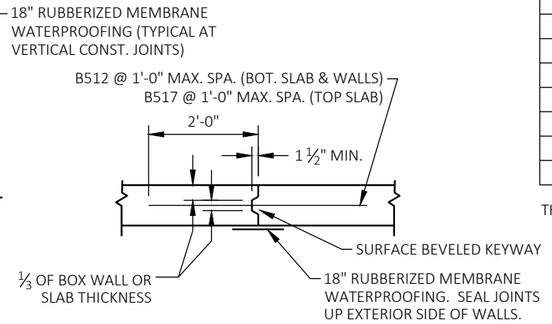
B407, B408



B410



B413



VERTICAL CONSTRUCTION JOINT

2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONSTRUCTION JOINT IN BOTTOM SLAB. #5 BARS @ 1'-0" CENTERS REQUIRED

TOP OF DECK ELEVATIONS

	OUTLET 23'-3"LT	C/L USH 12	INLET 23'-3" RT
EAST WALL	1065.68	1066.14	1065.68
CENTER WALL	1065.57	1066.03	1065.57
WEST WALL	1065.46	1065.92	1065.46

STATE PROJECT NUMBER

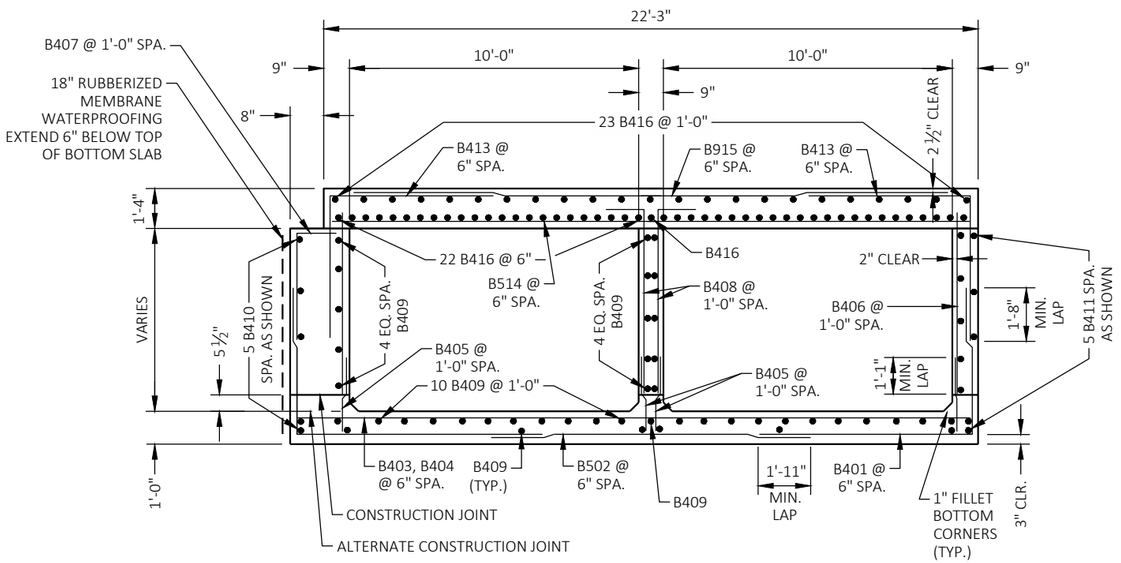
8949-00-71

BILL OF BARS

COATED TOTAL = 12,770 LBS
UNCOATED TOTAL = 7,830 LBS

BAR MARK	NO. REQ'D.	LENGTH	COAT	BENT	LOCATION
B401	188	10'-7"		X	BOTTOM - CORNER BARS
B502	94	14'-9"			BOTTOM - HORIZ TRANS
B403	82	23'-3"			BOTTOM - HORIZ TRANS
B404	12	21'-11"			BOTTOM - HORIZ TRANS
B405	192	3'-3"			WALL - DOWELS VERT
B406	96	4'-11"			EXT WALLS - VERT
B407	84	4'-6"		X	EXT WALLS - VERT
B408	96	6'-5"		X	INT WALLS - VERT
B409	98	22'-11"			BOTTOM SLAB & WALLS - LONGIT
B410	20	21'-3"		X	BOTTOM SLAB & EXT WALLS - LONGIT
B411	20	4'-3"			EXTERIOR WALLS - LONGIT
B512	88	4'-0"			BOTTOM SLAB & WALLS - CONST JT DOWELS
B413	188	10'-3"	X	X	TOP - CORNER BARS
B514	94	21'-11"	X		TOP SLAB - BOTTOM TRANSVERSE
B915	94	20'-9"	X		TOP SLAB - TRANSVERSE
B416	136	22'-11"	X		TOP SLAB - LONGIT
B517	23	4'-0"	X		TOP SLAB - CONST JOINT DOWELS
B618	46	7'-7"	X		TOP SLAB - TRANS @ PARAPETS

THE FIRST OR FIRST AND SECOND DIGIT OF THE MARK SIGNIFIES THE BAR SIZE.



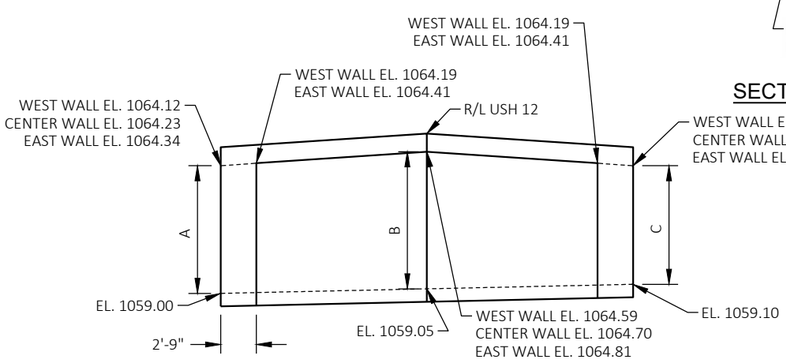
SECTION A-A

SECTION B-B

TYPICAL SECTION THRU BOX

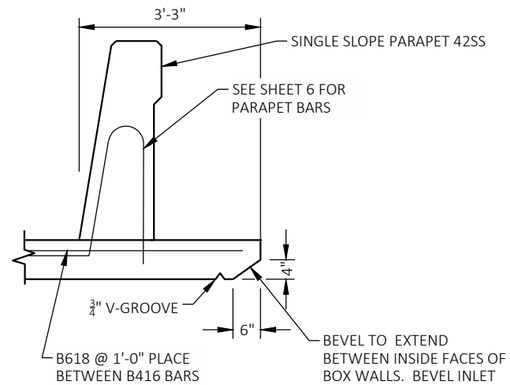
WALL HEIGHT TABLE

	A	B	C
EAST WALL	5' - 4"	5' - 9"	5' - 3"
CENTER WALL	5' - 3"	5' - 8"	5' - 1 ½"
WEST WALL	5' - 1 ½"	5' - 6 ½"	5' - 0"



ELEVATION OF BOX CULVERT

(LOOKING EAST)



SECTION THRU TOP END OF CULVERT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-55-288

DRAWN BY STD | PLANS CK'D. CAH

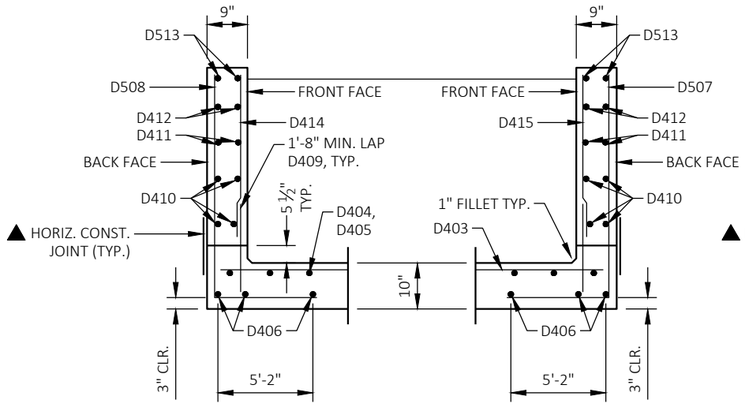
BOX CULVERT DETAILS 2

SHEET 3 OF 7

249

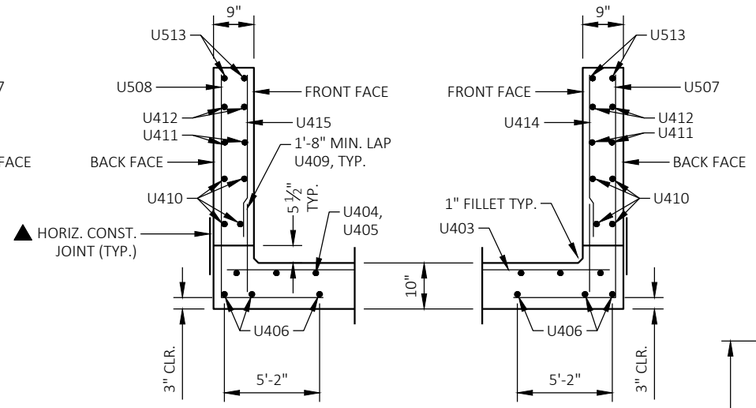
STATE PROJECT NUMBER

8949-00-71



WING 3 AND WING 4 SECTIONS

AT RIGHT ANGLES TO WING WALLS



WING 1 AND WING 2 SECTIONS

AT RIGHT ANGLES TO WING WALLS

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING. PLACE ALONG HORIZ. CONSTRUCTION JOINT FOR ENTIRE WING LENGTH. TYP.

WING 4

WING 1

WING 3

WING 2

OUTLET APRON REINF. PLAN

INLET APRON REINF. PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-55-288

DRAWN BY STD | PLANS CK'D. CAH

APRON DETAILS

SHEET 4 OF 7

250

STATE PROJECT NUMBER

8949-00-71

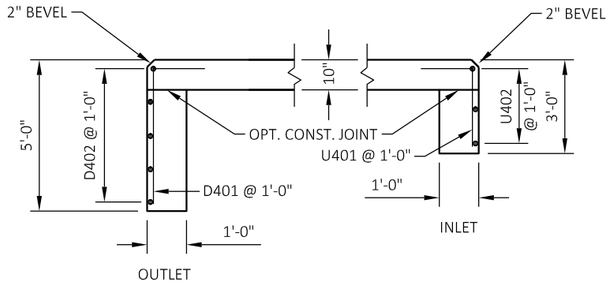
BILL OF BARS

COATED TOTAL = 1,320 LBS
UNCOATED TOTAL = 1,690 LBS

BAR MARK	NO. REQ'D.	LENGTH	COAT	BENT	BAR ⚠ SERIES	LOCATION
U401	42	3'-7"		X		INLET APRON CUTOFF WALL VERT
U402	3	40'-8"				INLET APRON CUTOFF WALL HORIZ
U403	15	32'-4"			X	INLET APRON SLAB TRANS HORIZ
U404	21	10'-8"				INLET APRON SLAB LONGIT HORIZ
U405	18	6'-4"			X	INLET APRON SLAB LONGIT HORIZ
U406	6	14'-4"				INLET APRON SLAB BTM
U507	16	11'-2"	X	X	X	INLET WING 1 VERT B.F.
U508	16	11'-0"	X	X	X	INLET WING 2 VERT B.F.
U409	22	2'-6"	X			INLET WINGS DOWELS VERT F.F.
U410	8	14'-5"	X			INLET WINGS HORIZ F.F. & B.F.
U411	4	11'-9"	X			INLET WINGS HORIZ F.F & B.F.
U412	4	5'-11"	X			INLET WINGS HORIZ F.F & B.F.
U513	4	14'-11"	X			INLET WINGS HORIZ F.F & B.F. TOP
U414	11	4'-0"	X		X	INLET WING 1 VERT F.F.
U415	11	3'-11"	X		X	INLET WING 2 VERT F.F.
D401	42	5'-7"		X		OUTLET APRON CUTOFF WALL VERT
D402	5	40'-8"				OUTLET APRON CUTOFF WALL HORIZ
D403	15	32'-4"			X	OUTLET APRON SLAB TRANS HORIZ
D404	21	10'-8"				OUTLET APRON SLAB LONGIT HORIZ
D405	18	6'-4"			X	OUTLET APRON SLAB LONGIT HORIZ
D406	6	14'-4"				OUTLET APRON SLAB BTM
D507	16	11'-1"	X	X	X	OUTLET WING 3 VERT B.F.
D508	16	11'-2"	X	X	X	OUTLET WING 4 VERT B.F.
D409	22	2'-6"	X			OUTLET WINGS DOWELS VERT F.F.
D410	8	14'-5"	X			OUTLET WINGS HORIZ F.F. & B.F.
D411	4	11'-9"	X			OUTLET WINGS HORIZ F.F & B.F.
D412	4	5'-11"	X			OUTLET WINGS HORIZ F.F & B.F.
D513	4	14'-11"	X			OUTLET WINGS HORIZ F.F & B.F. TOP
D414	11	3'-11"	X		X	OUTLET WING 3 VERT F.F.
D415	11	4'-0"	X		X	OUTLET WING 4 VERT F.F.

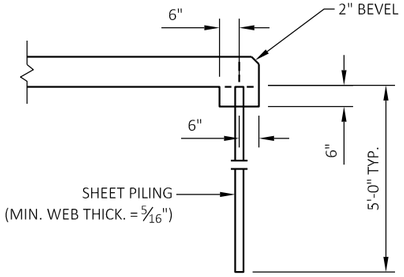
THE FIRST OR FIRST AND SECOND DIGIT OF THE MARK SIGNIFIES THE BAR SIZE.

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



CUT-OFF WALLS

SECTION THRU WALLS



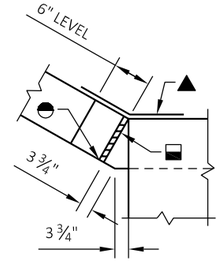
ALTERNATE CUT-OFF WALLS

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

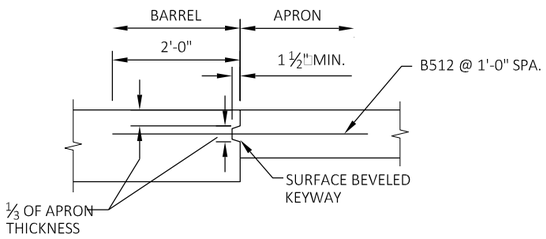
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
U403	1 SERIES OF 15	21'-10" TO 42'-10"
U405	2 SERIES OF 9	2'-0" TO 10'-8"
U507	1 SERIES OF 16	9'-4" TO 12'-11"
U508	1 SERIES OF 16	9'-4" TO 12'-8"
U414	1 SERIES OF 11	2'-2" TO 5'-9"
U415	1 SERIES OF 11	2'-2" TO 5'-7"
D403	1 SERIES OF 15	21'-10" TO 42'-10"
D405	2 SERIES OF 9	2'-0" TO 10'-8"
D507	1 SERIES OF 16	9'-4" TO 12'-10"
D508	1 SERIES OF 16	9'-4" TO 13'-0"
D414	1 SERIES OF 11	2'-2" TO 5'-8"
D415	1 SERIES OF 11	2'-2" TO 5'-10"

BUNDLE AND TAG EACH SERIES SEPARATELY

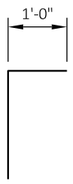


TYPICAL CORNER DETAIL

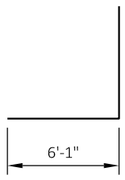


APRON CONNECTION DETAIL

2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONST. JT. IN BOTTOM SLAB.
#5 BARS @ 1'-0" CENTERS REQUIRED



U401, D401



U507, U508, D507, D508

▬ 3/4" FILLER. TYP. EXTEND FILLER FROM HORIZ. CONSTRUCTION JOINT TO TOP OF WING.

◓ 1" BEVEL TYP.

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-55-288

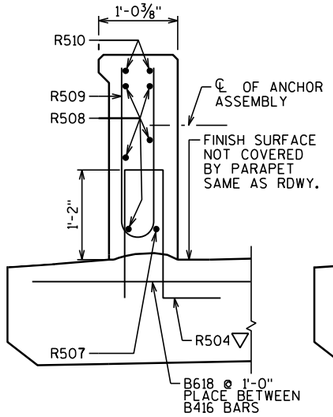
DRAWN BY STD | PLANS CK'D. CAH

APRON DETAILS 2

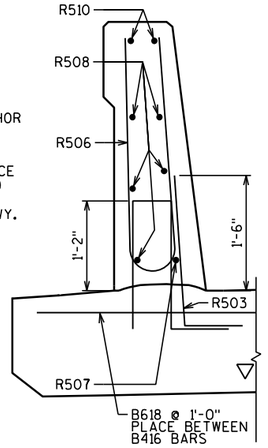
SHEET 5 OF 7
251

STATE PROJECT NUMBER

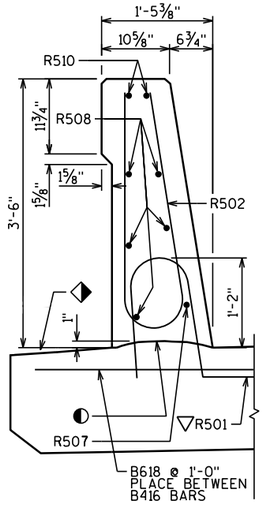
8949-00-71



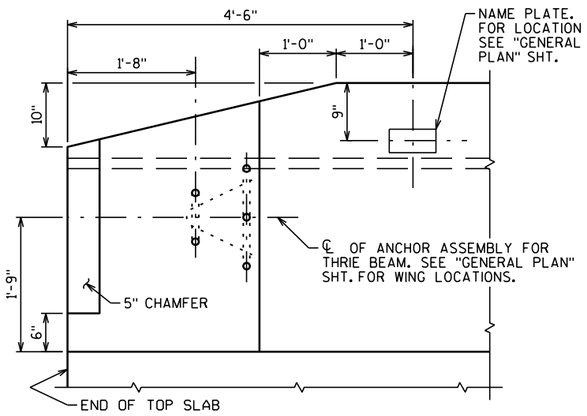
SECTION A-A



SECTION B-B



SECTION C-C



PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET

BILL OF BARS TOTAL = 1,390 LBS (COATED)

PARAPETS

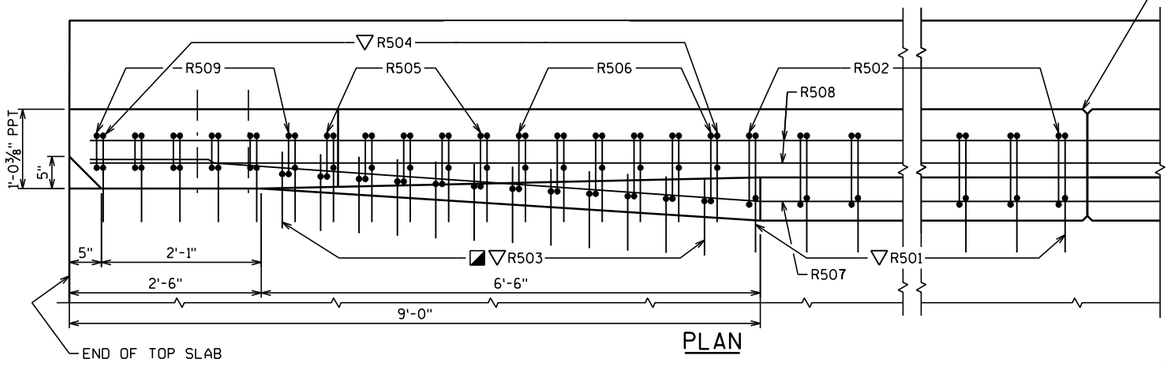
BAR MARK	COAT	NO.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	16	4'-5"	X		PARAPET VERT.
R502	X	16	6'-8"	X		PARAPET VERT.
R503	X	48	2'-9"	X		PARAPET VERT.
R504	X	68	4'-4"	X		PARAPET VERT.
R505	X	20	6'-5"	X		PARAPET VERT.
R506	X	24	6'-6"	X		PARAPET VERT.
R507	X	4	11'-9"	X		PARAPET HORIZ.
R508	X	10	21'-11"			PARAPET HORIZ.
R509	X	24	5'-5"	X	⚠	PARAPET VERT.
R510	X	4	12"-0"	X		PARAPET HORIZ.

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

BAR SERIES TABLE

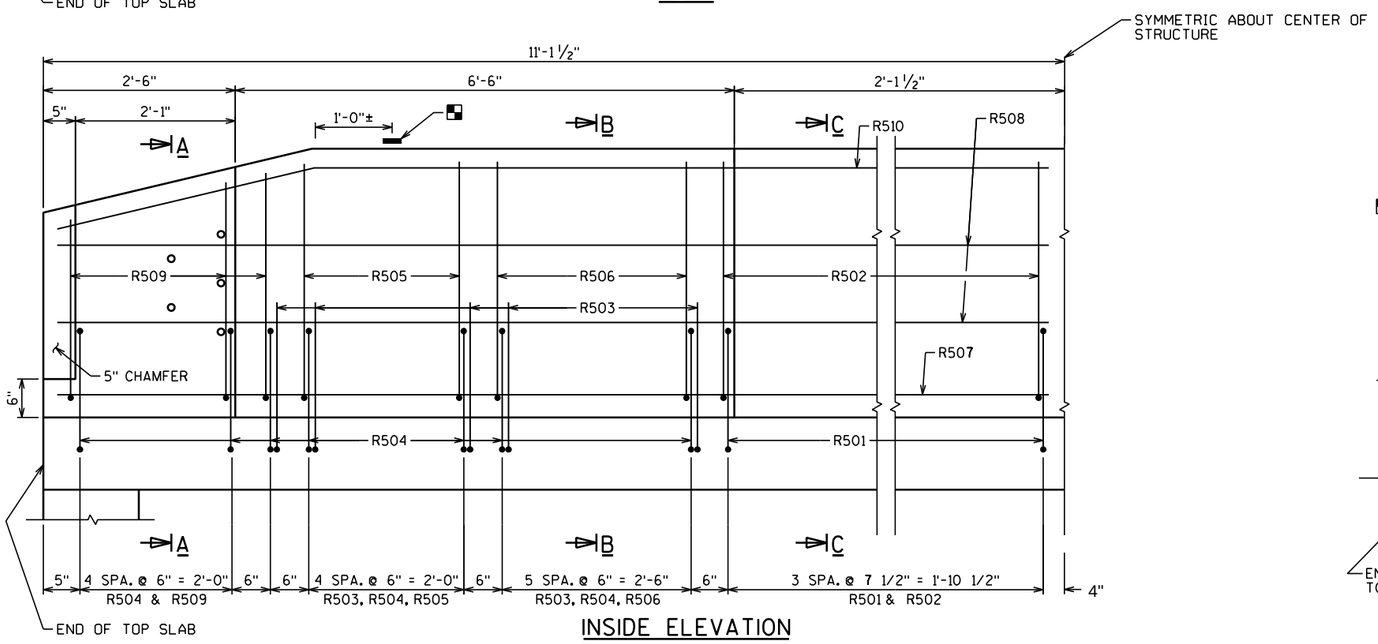
BAR MARK	NO. REQ'D	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.

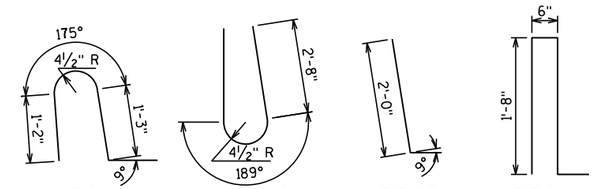


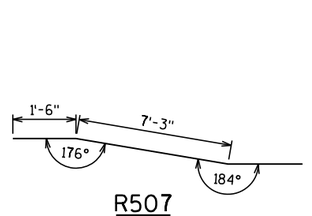
PLAN

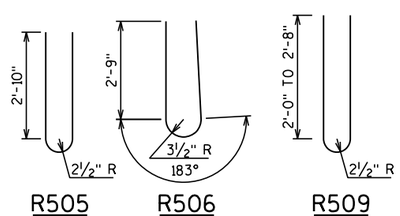
ONE OPTIONAL CONSTRUCTION JOINT IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.

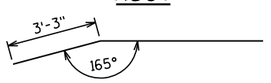


INSIDE ELEVATION









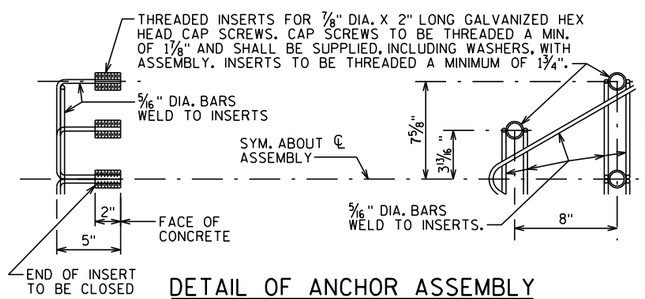
BENCH MARK CAP (WHEN SUPPLIED). AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.

◐ CONST. JOINT - STRIKE OFF AS SHOWN

◆ SLOPE FOR DRAINAGE

◪ USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501, R503, AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-288

DRAWN BY STD | PLANS CK'D. CAH

SINGLE SLOPE PARAPET 42SS

SHEET 6 OF 7

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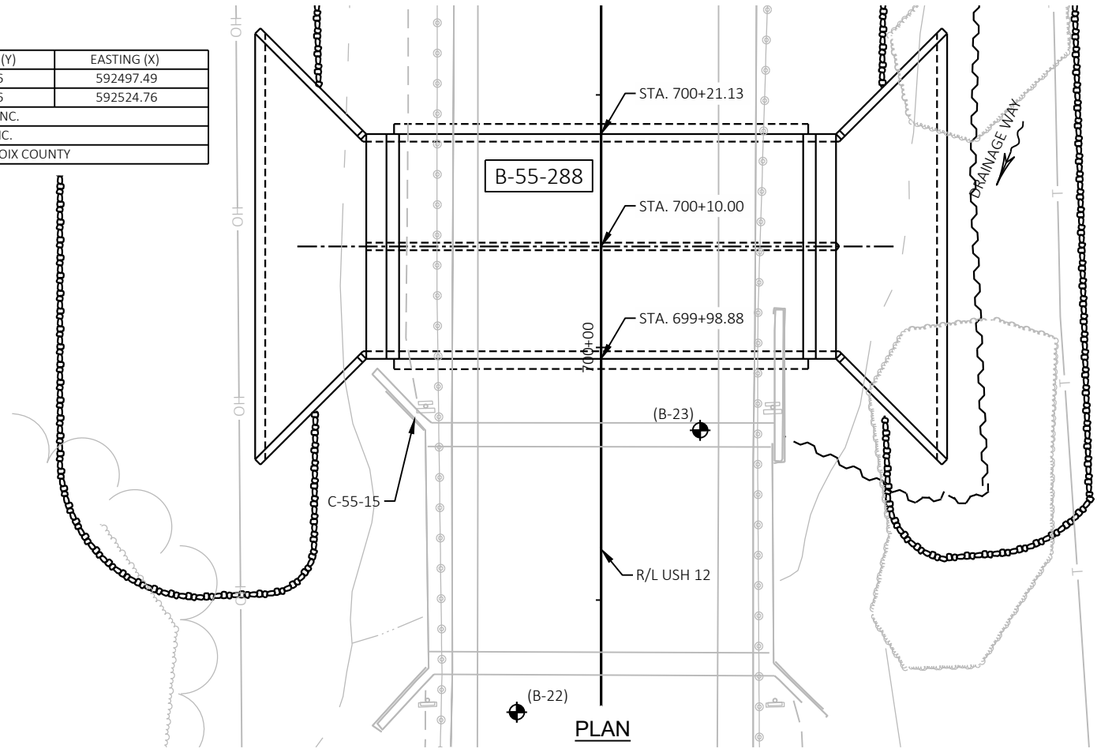
8

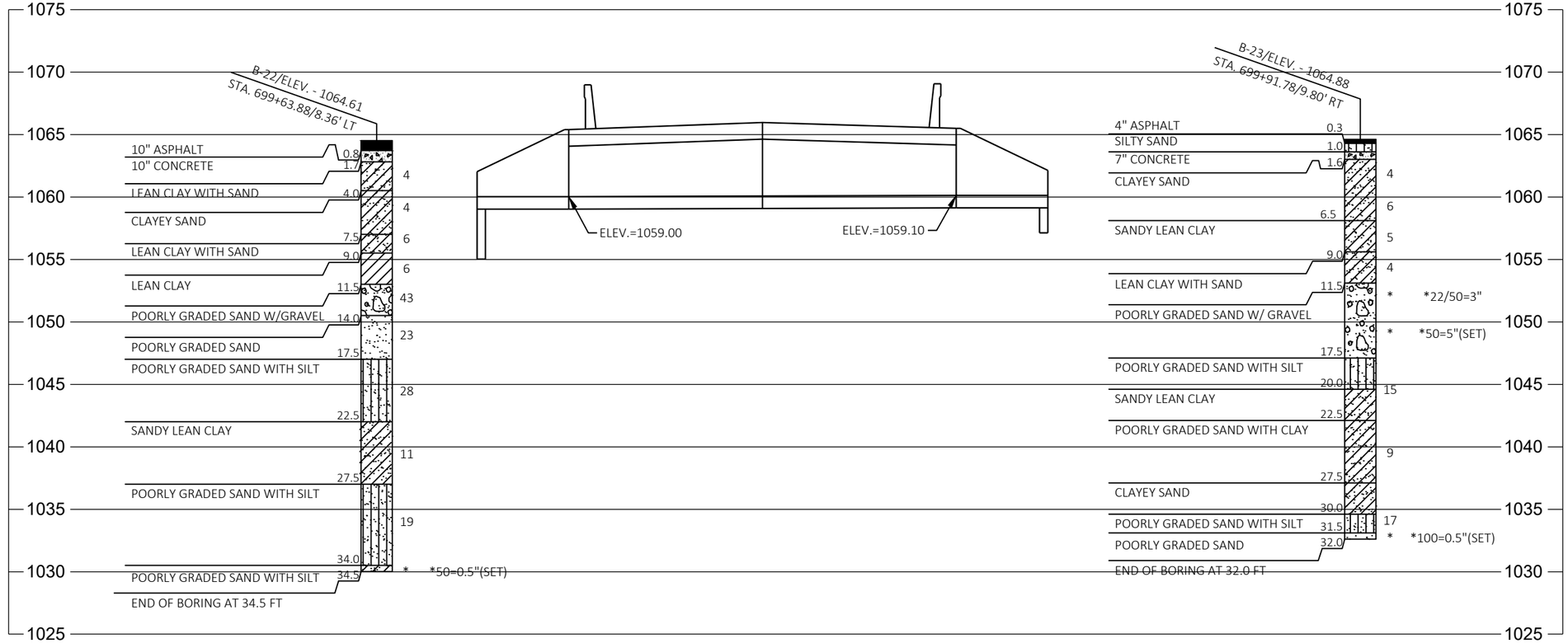
8

SCALE = 1.00

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-22	11/30/2018	348733.86	592497.49
B-23	11/29/2018	348714.76	592524.76
BORINGS COMPLETED BY: CHOSEN VALLEY TESTING, INC.			
REPORT COMPLETED BY: CHOSEN VALLEY TESTING, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD ST. CROIX COUNTY			



PLAN



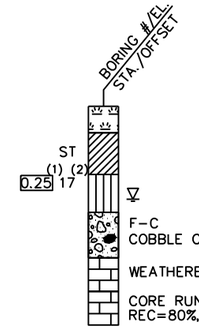
STATE PROJECT NUMBER

8949-00-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

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

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-55-288

DRAWN BY	STD	PLANS CK'D.	CAH

SUBSURFACE EXPLORATION

SHEET 7 OF 7
253

STAGE 1 (STA 588+50 - STA 592+00): USH 12

STATION	Distance	Area					Incremental Volume (Unadjusted)					Cumulative Vol (CY)					Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	
		(SF)	(SF)	(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	(CY)	(CY)	1.00 Note 1	1.25	1.50 Note 4	0.60 Note 5	0.80 Note 6	Note 7
588+50		32.6	0.0	7.2	0.0	0.0											
589+00	50	50.1	0.0	10.1	0.0	0.0	77	0	16	0	0	77	20	0	0	0	57
589+50	50	23.6	0.0	14.5	0.0	0.0	68	0	23	0	0	145	48	0	0	0	96
589+61	11	55.7	0.0	41.3	0.0	0.0	16	0	11	0	0	161	63	0	0	0	98
590+00	39	16.7	0.0	16.6	0.0	0.0	52	0	42	0	0	213	115	0	0	0	98
590+50	50	8.3	0.0	48.4	0.0	0.0	23	0	60	0	0	236	190	0	0	0	46
591+00	50	7.3	0.0	77.7	0.0	0.0	14	0	117	0	0	251	336	0	0	0	-85
591+50	50	10.0	0.0	0.1	0.0	0.0	16	0	72	0	0	267	426	0	0	0	-159
592+00	50	5.9	0.0	56.3	0.0	0.0	15	0	52	0	0	281	491	0	0	0	-210
							281	0	393	0	0						

STAGE 1 (STA 599+00 - STA 603+00): USH 12

STATION	Distance	Area					Incremental Volume (Unadjusted)					Cumulative Vol (CY)					Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	
		(SF)	(SF)	(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	(CY)	(CY)	1.00 Note 1	1.25	1.50 Note 4	0.60 Note 5	0.80 Note 6	Note 7
599+00		46.4	0.0	13.3	0.0	0.0											
599+50	50	27.6	0.0	15.1	0.0	0.0	69	0	26	0	0	69	33	0	0	0	36
600+00	50	10.1	0.0	8.3	0.0	0.0	35	0	22	0	0	103	60	0	0	0	43
600+50	50	8.4	0.0	26.4	0.0	0.0	17	0	32	0	0	121	100	0	0	0	20
601+00	50	11.2	0.0	28.4	0.0	0.0	18	0	51	0	0	139	164	0	0	0	-25
601+07	7	14.7	0.0	27.0	0.0	0.0	3	0	7	0	0	142	172	0	0	0	-30
601+50	43	7.8	0.0	21.3	0.0	0.0	18	0	38	0	0	160	221	0	0	0	-61
602+00	50	8.9	0.0	35.1	0.0	0.0	15	0	52	0	0	175	286	0	0	0	-110
602+50	50	8.6	0.0	188.7	0.0	0.0	16	0	207	0	0	192	545	0	0	0	-353
603+00	50	11.2	0.0	197.9	0.0	0.0	18	0	358	0	0	210	992	0	0	0	-782
							210	0	794	0	0						

STAGE 1 (STA 697+50 - STA 699+89): USH 12

STATION	Distance	Area					Incremental Volume (Unadjusted)					Cumulative Vol (CY)					Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	
		(SF)	(SF)	(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	(CY)	(CY)	1.00 Note 1	1.25	1.50 Note 4	0.60 Note 5	0.80 Note 6	Note 7
697+50		5.6	0.0	8.0	0.0	0.0											
697+88	38	346.3	0.0	20.1	0.0	34.6	249	0	20	0	24	249	0	0	0	20	248
697+88	0	404.2	38.1	13.3	0.0	40.4	0	0	0	0	0	249	0	0	0	20	248
698+00	12	430.5	38.1	15.1	0.0	43.1	183	17	6	0	18	432	-10	0	0	34	425
698+50	50	468.5	38.1	8.3	0.0	46.8	832	71	22	0	83	1264	-66	0	0	101	1243
698+72	22	377.7	38.1	26.4	0.0	37.8	346	31	14	0	35	1611	-83	0	0	129	1576
698+97	25	240.6	38.1	28.4	0.0	24.1	286	35	25	0	29	1897	-80	0	0	151	1823
699+00	3	227.3	38.1	27.0	0.0	22.7	25	4	3	0	3	1922	-79	0	0	153	1843
699+22	22	143.1	38.1	21.3	0.0	14.3	152	31	20	0	15	2074	-70	0	0	166	1954
699+47	25	113.7	38.1	35.1	0.0	11.4	119	35	26	0	12	2193	-49	0	0	175	2017
699+50	3	103.6	38.1	188.7	0.0	10.4	12	4	12	0	1	2204	-35	0	0	176	2011
699+89	39	91.6	38.1	197.9	0.0	9.2	142	56	282	0	14	2346	303	0	0	187	1760
							2346	284	430	0	234						

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 or Select Fill
4 - Expanded Marsh Backfill	Will be backfilled with Cut or Borrow
5 - Reduced Marsh in Fill	Reduced Marsh Excavation that can be used in Fill
6 - Reduced EBS in Fill	Reduced EBS Excavation that can be used in Fill
7 - Mass Ordinate	If Marsh and EBS to be backfilled with Cut or Borrow: [(Cut) - ((Fill - Expanded Rock) * Fill Factor))]

STAGE 1 (STA 700+31 - STA 701+72): USH 12

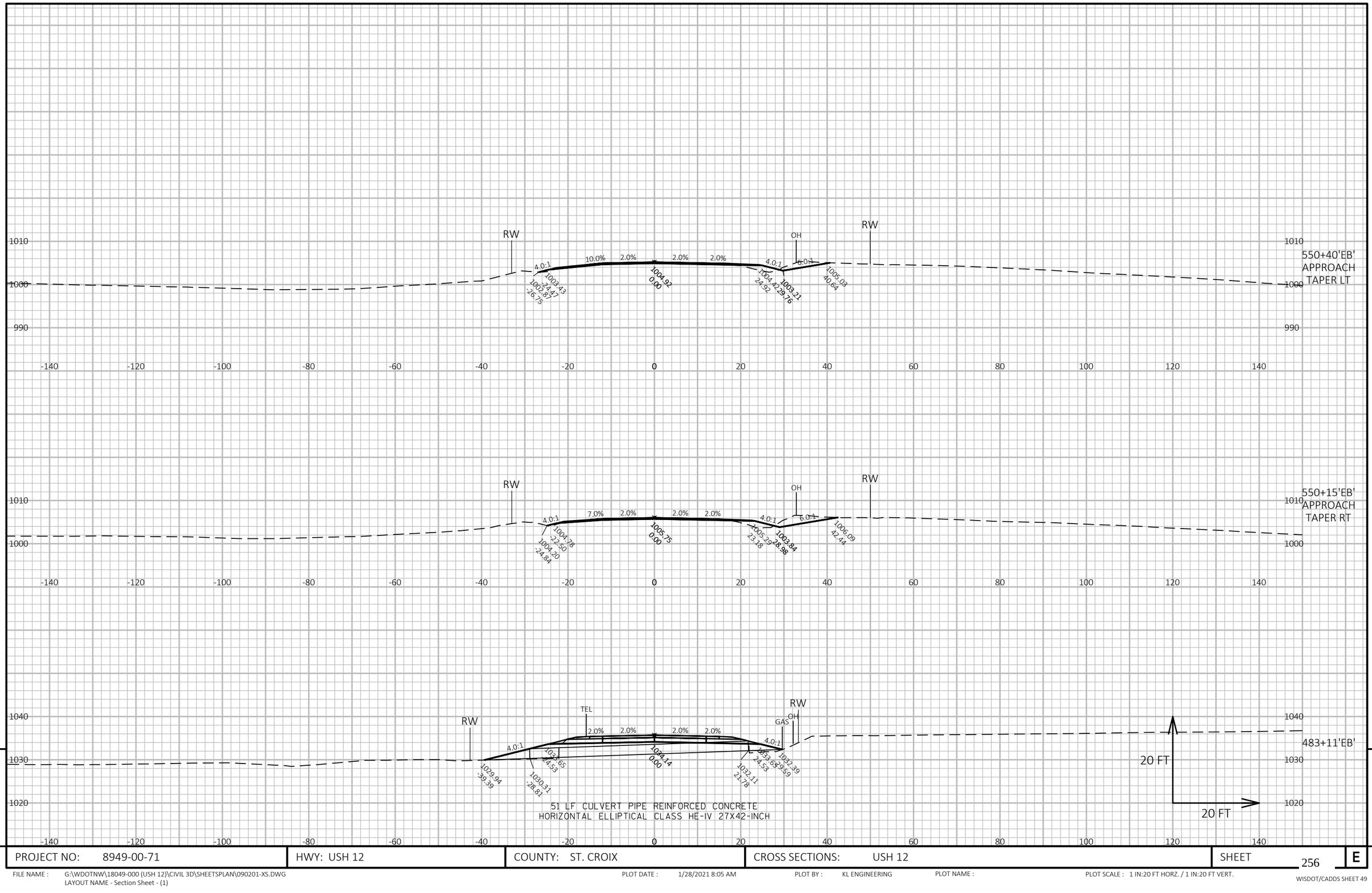
STATION	Distance	Area					Incremental Volume (Unadjusted)					Cumulative Vol (CY)					Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	
		(SF)	(SF)	(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	(CY)	(CY)	1.00 Note 1	1.25	1.50 Note 4	0.60 Note 5	0.80 Note 6	Note 7
700+31		125.3	31.7	24.6	0.0	12.5											
700+50	19	120.3	31.7	26.7	0.0	12.0	88	23	18	0	9	88	14	0	0	7	51
700+73	23	95.9	31.7	16.9	0.0	9.6	92	27	18	0	9	180	28	0	0	14	102
700+98	25	120.6	31.7	2.7	0.0	12.1	100	29	9	0	10	280	29	0	0	22	172
701+00	2	120.1	31.7	2.7	0.0	12.0	9	2	0	0	1	289	29	0	0	23	179
701+23	23	123.0	31.7	6.2	0.0	12.3	103	27	4	0	10	392	23	0	0	31	261
701+48	25	149.4	31.7	2.9	0.0	14.9	126	29	4	0	13	518	16	0	0	41	365
701+50	2	150.7	31.7	2.5	0.0	15.1	12	2	0	0	1	530	15	0	0	42	375
701+72	22	115.2	31.7	0.0	0.0	11.5	106	25	1	0	11	636	5	0	0	51	466
							636	165	55	0	64						

STAGE 1 (STA 738+00 - STA 740+00): USH 12

STATION	Distance	Area					Incremental Volume (Unadjusted)					Cumulative Vol (CY)					Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	
		(SF)	(SF)	(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	(CY)	(CY)	1.00 Note 1	1.25	1.50 Note 4	0.60 Note 5	0.80 Note 6	Note 7
738+00		7.6	0.0	10.7	0.0	0.0											
738+50	50	13.8	0.0	0.0	0.0	0.0	20	0	10	0	0	20	12	0	0	0	7
739+00	50	5.5	0.0	50.2	0.0	0.0	18	0	47	0	0	38	70	0	0	0	-33
739+16	16	5.0	0.0	113.6	0.0	0.0	3	0	47	0	0	41	130	0	0	0	-89
739+50	34	6.3	0.0	28.9	0.0	0.0	7	0	91	0	0	48	243	0	0	0	-195
740+00	50	7.7	0.0	0.0	0.0	0.0	13	0	27	0	0	61	276	0	0	0	-216
							61	0	221	0	0						

STAGE 1 (STA 758+55 - STA 763+33): USH 12

STATION	Distance	Area					Incremental Volume (Unadjusted)					Cumulative Vol (CY)					Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	
		(SF)	(SF)	(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	(CY)	(CY)	1.00 Note 1	1.25	1.50 Note 4	0.60 Note 5	0.80 Note 6	Note 7
758+55		68.5	45.6	0.6	0.0	6.8											
758+75	20	65.1	45.6	0.7	0.0	6.5	49	33	0	0	5	49	-4	0	0	4	20
759+00	25	107.9	76.3	0.0	0.0	10.8	80	56	0	0	8	129	-12	0	0	10	51
759+50	50	62.4	53.6	9.1	0.0	6.2	158	120	8	0	16	287	-17	0	0	23	94
759+61	11	68.7	53.5	6.0	0.0	6.9	27	22	3	0	3	314	-16	0	0	25	98
760+00	39	57.8	52.4	23.6	0.0	5.8	91	76	21	0	9	405	2	0	0	32	95
760+50	50	33.7	52.7	0.0	0.0	3.4	85	97	22	0	8	490	20	0	0	39	63
761+00	50	0.9	57.8	26.7	0.0	0.1	32	102	25	0	3	522	48	0	0	42	-35
761+50	50	3.2	64.8	35.0	0.0	0.3	4	114	57	0	0	525	119	0	0	42	-215
762+00	50	67.0	91.3	14.7	0.0	6.7	65	145	46	0	6	590	170	0	0	47	-346
762+25	25	127.1	104.2	8.2	0.0	12.7	90	90	11	0	9	680	174	0	0	54	-351
763+00	75	110.0	79.1	0.0	0.0	11.0	329	254	11	0	33	1009	155	0	0	81	-257
763+33	33	114.8	106.4	0.0	0.0	11.5	136	112	0	0	14	1145	142	0	0	92	-220
							1145	1223	205	0	115						



9

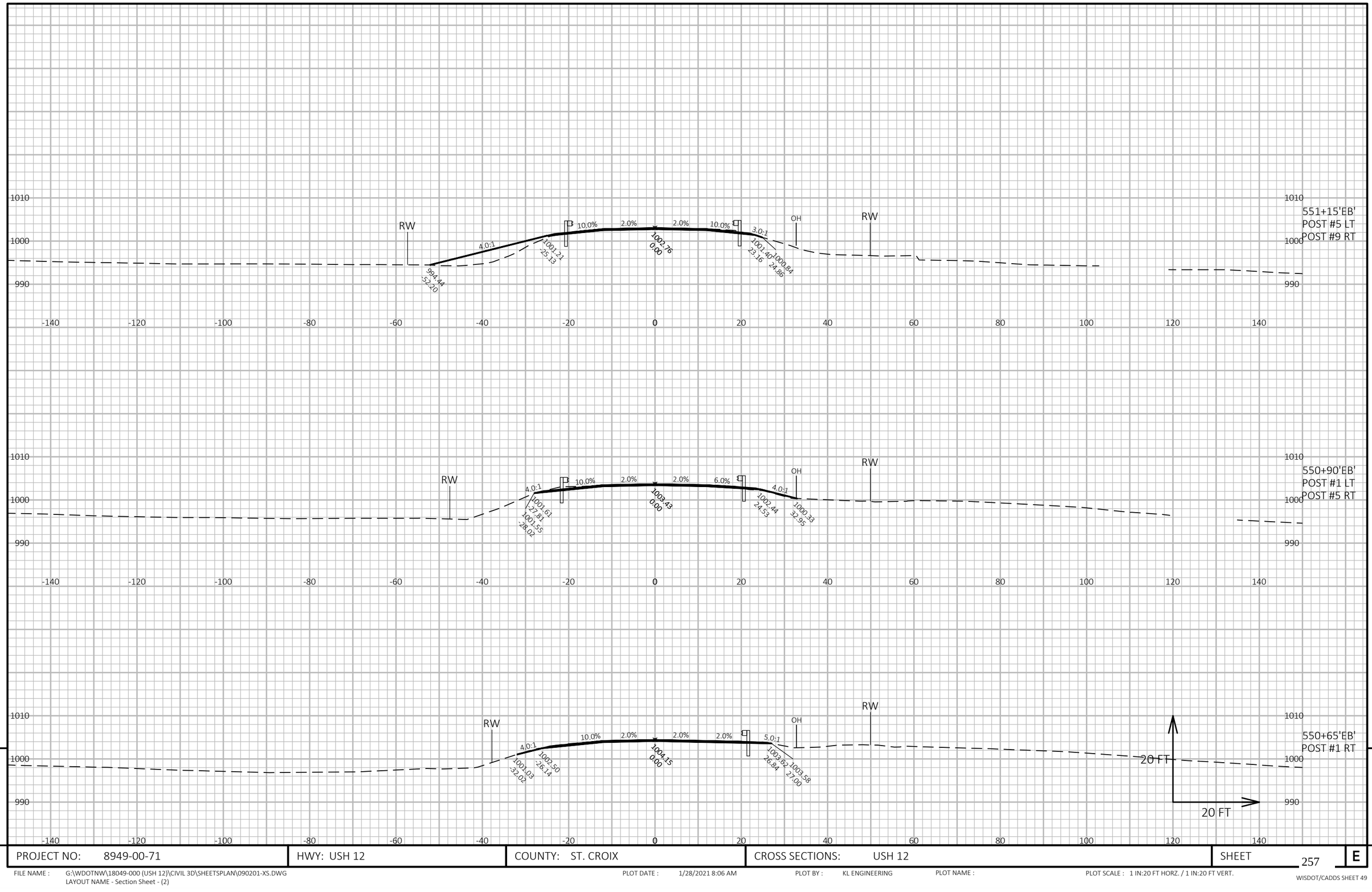
9

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 256	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (1)

PLOT DATE : 1/28/2021 8:05 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

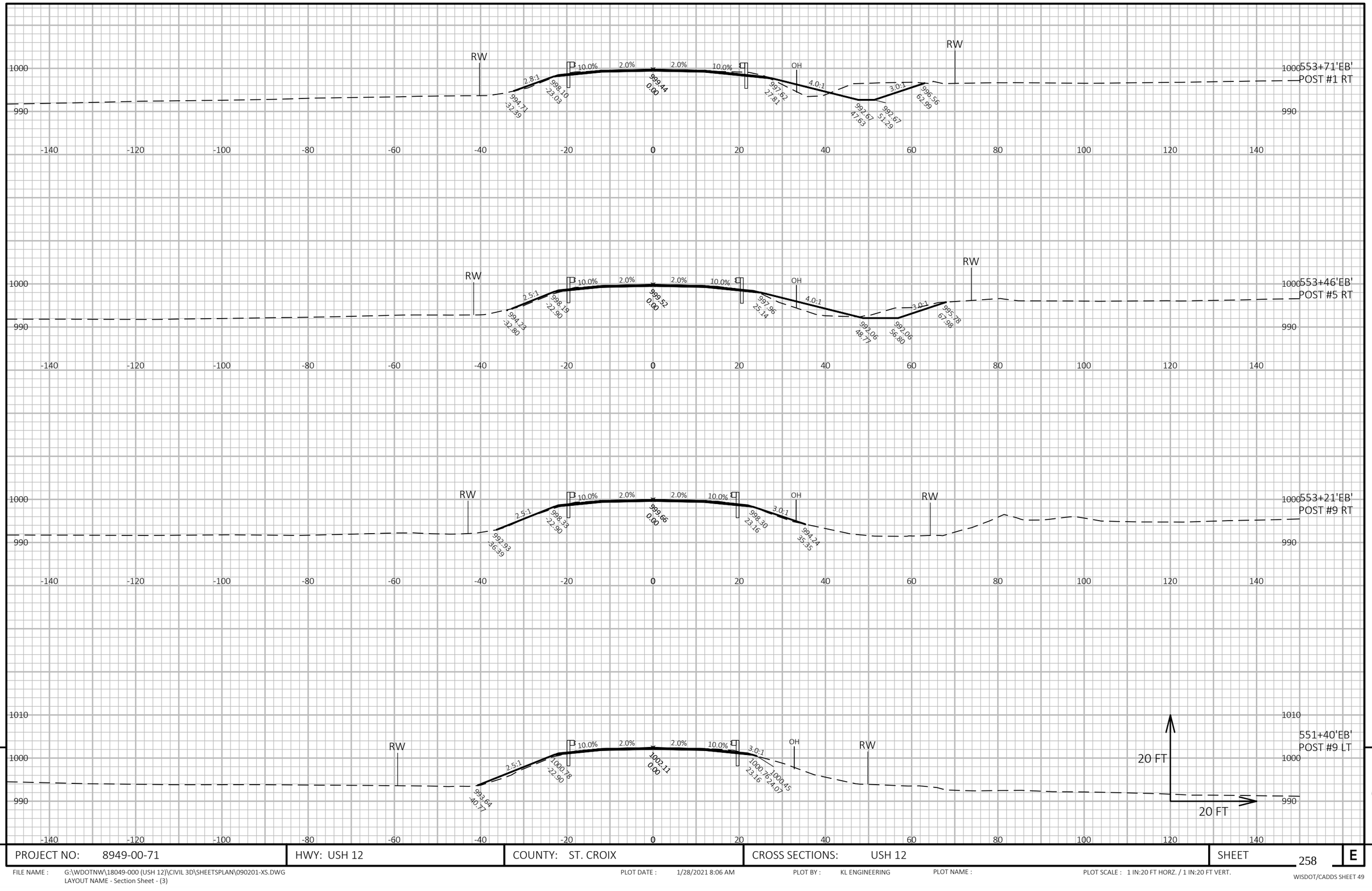
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 257	E



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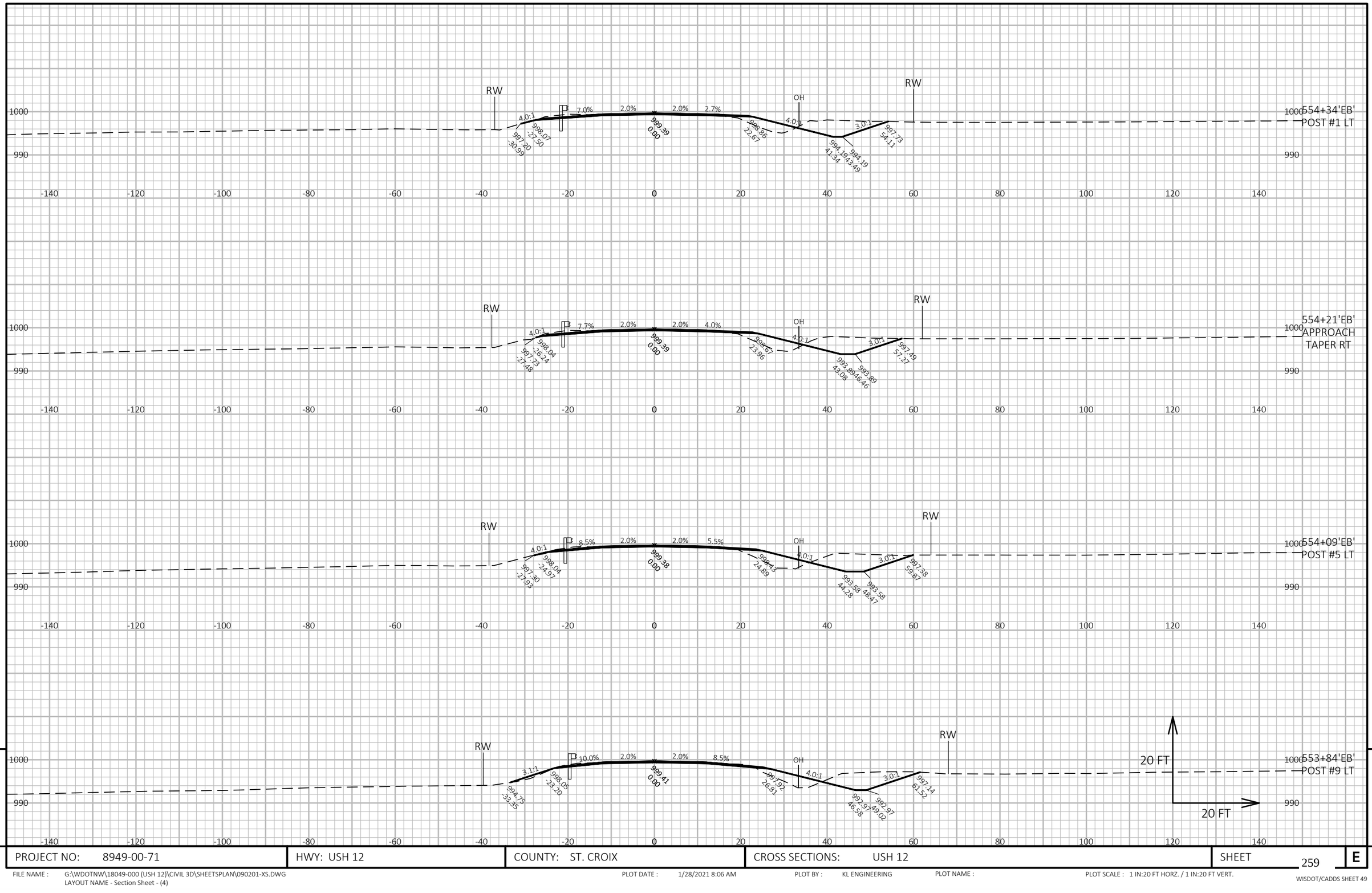
9

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 258	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (3)

PLOT DATE : 1/28/2021 8:06 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

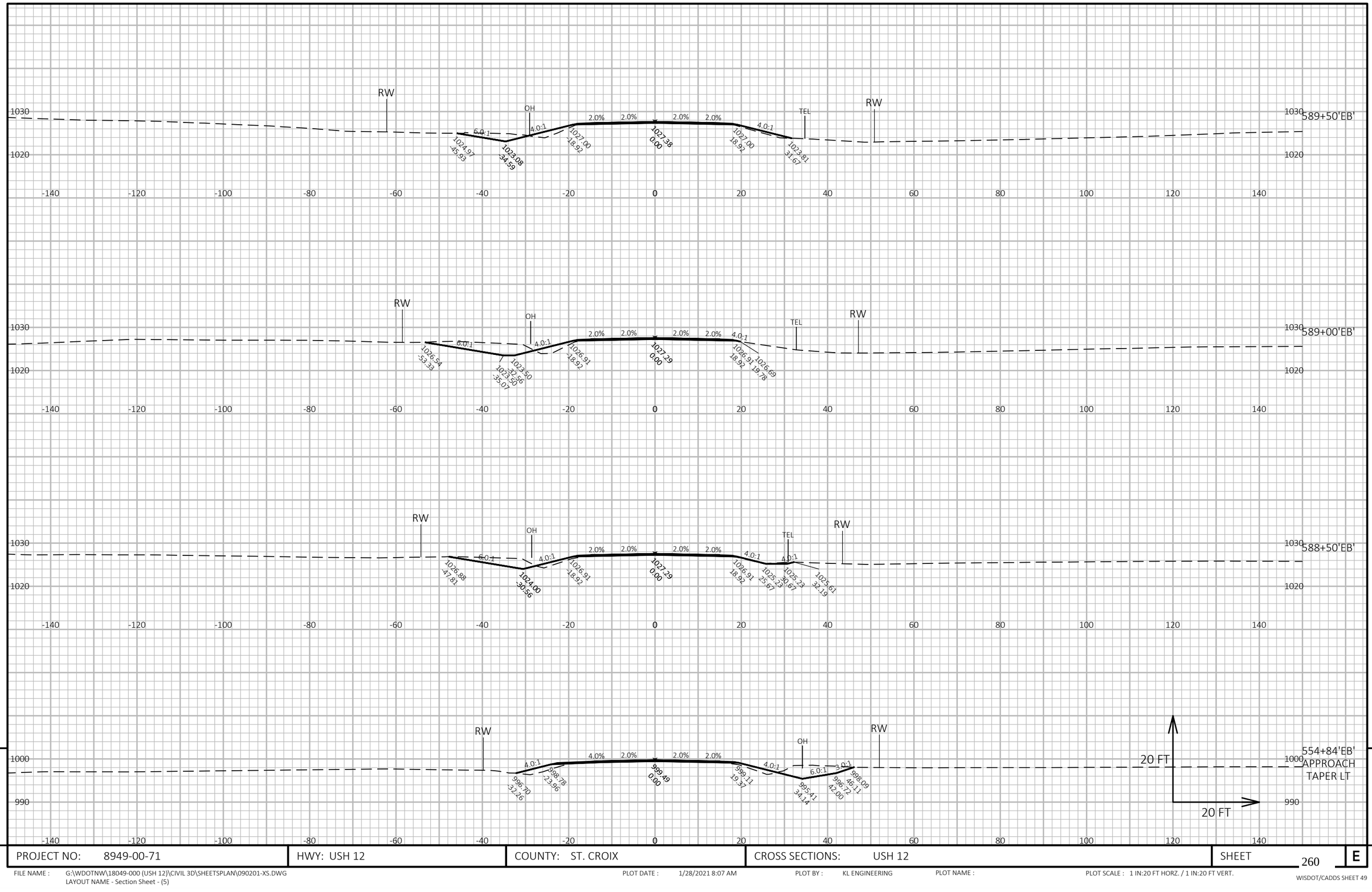


PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 259	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (4)

PLOT DATE : 1/28/2021 8:06 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 260	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (5)

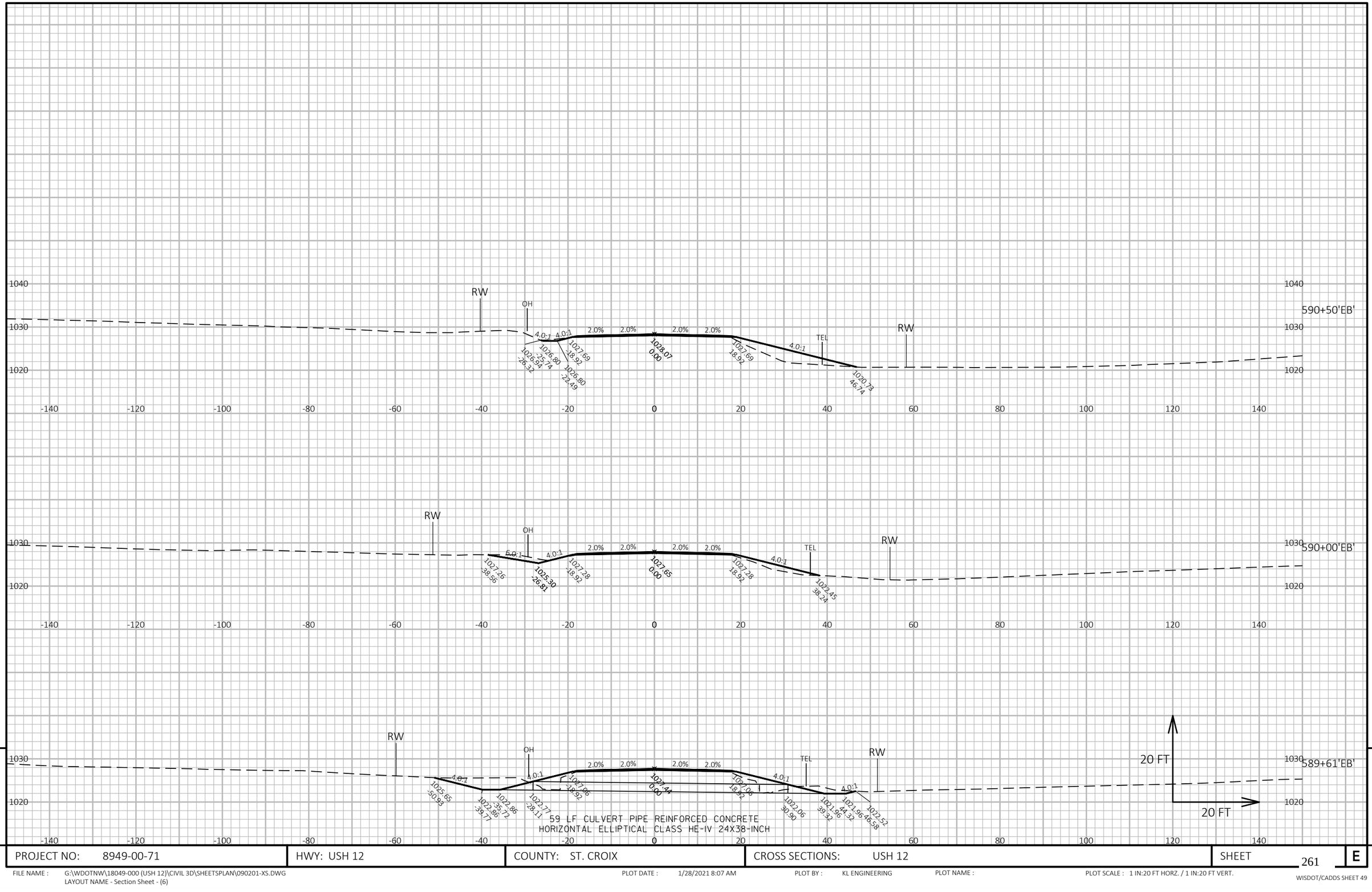
PLOT DATE : 1/28/2021 8:07 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 261	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (6)

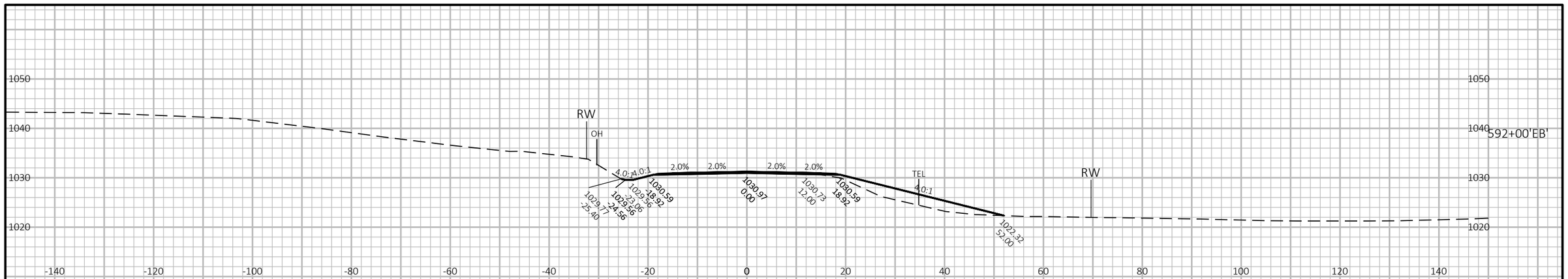
PLOT DATE : 1/28/2021 8:07 AM

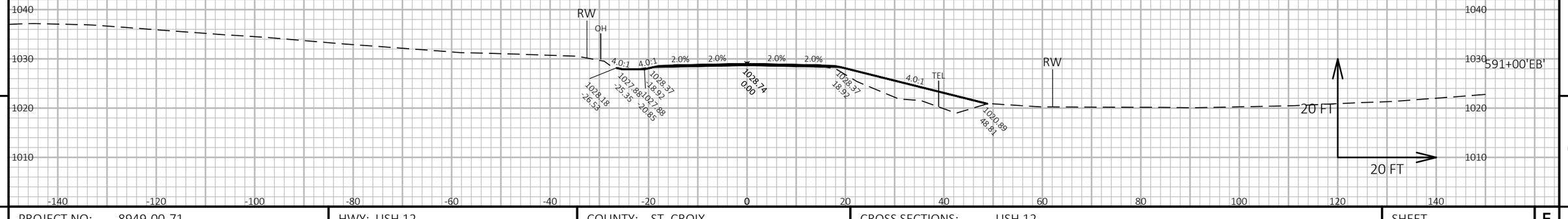
PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49





9

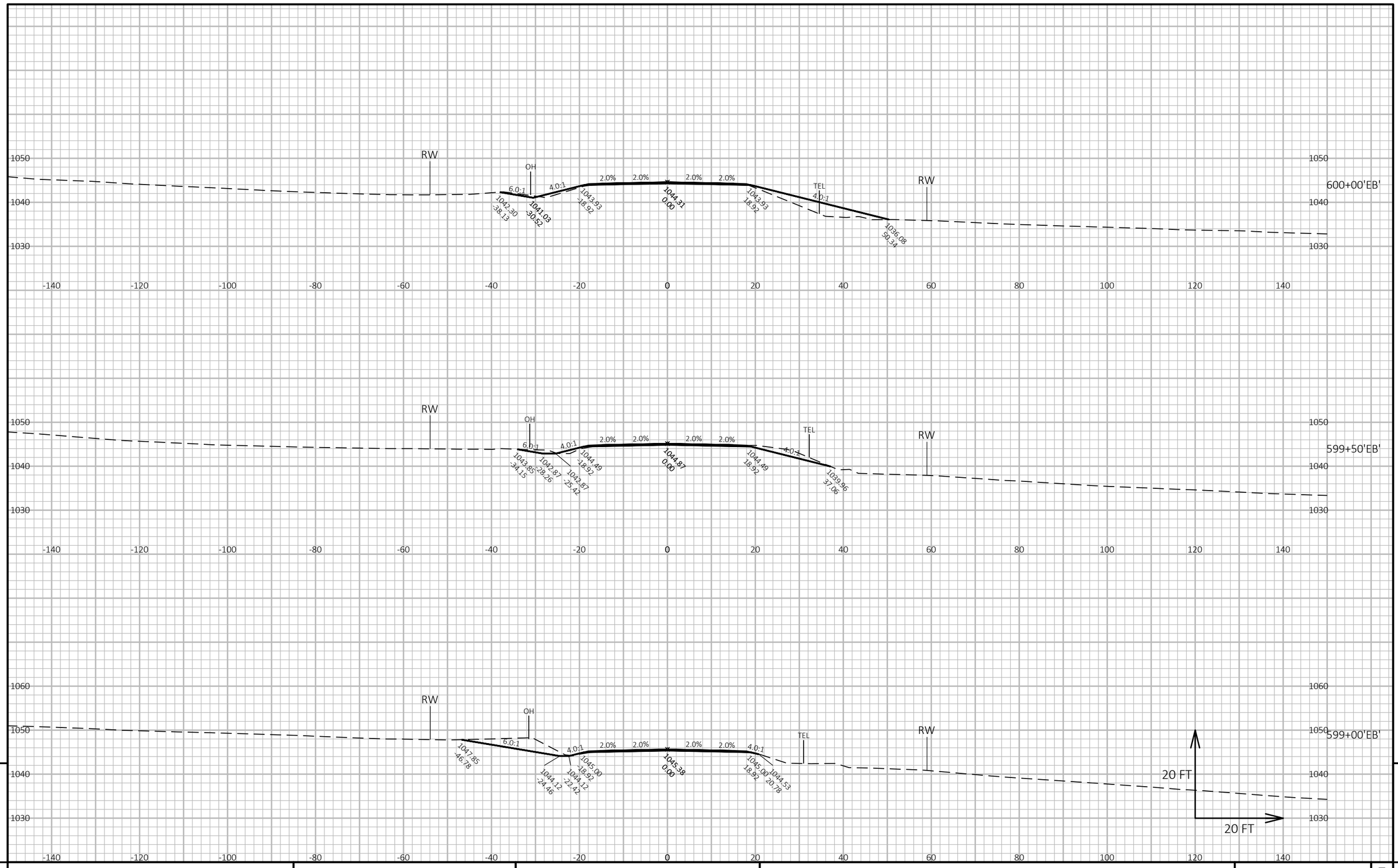
9

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 262	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (7)

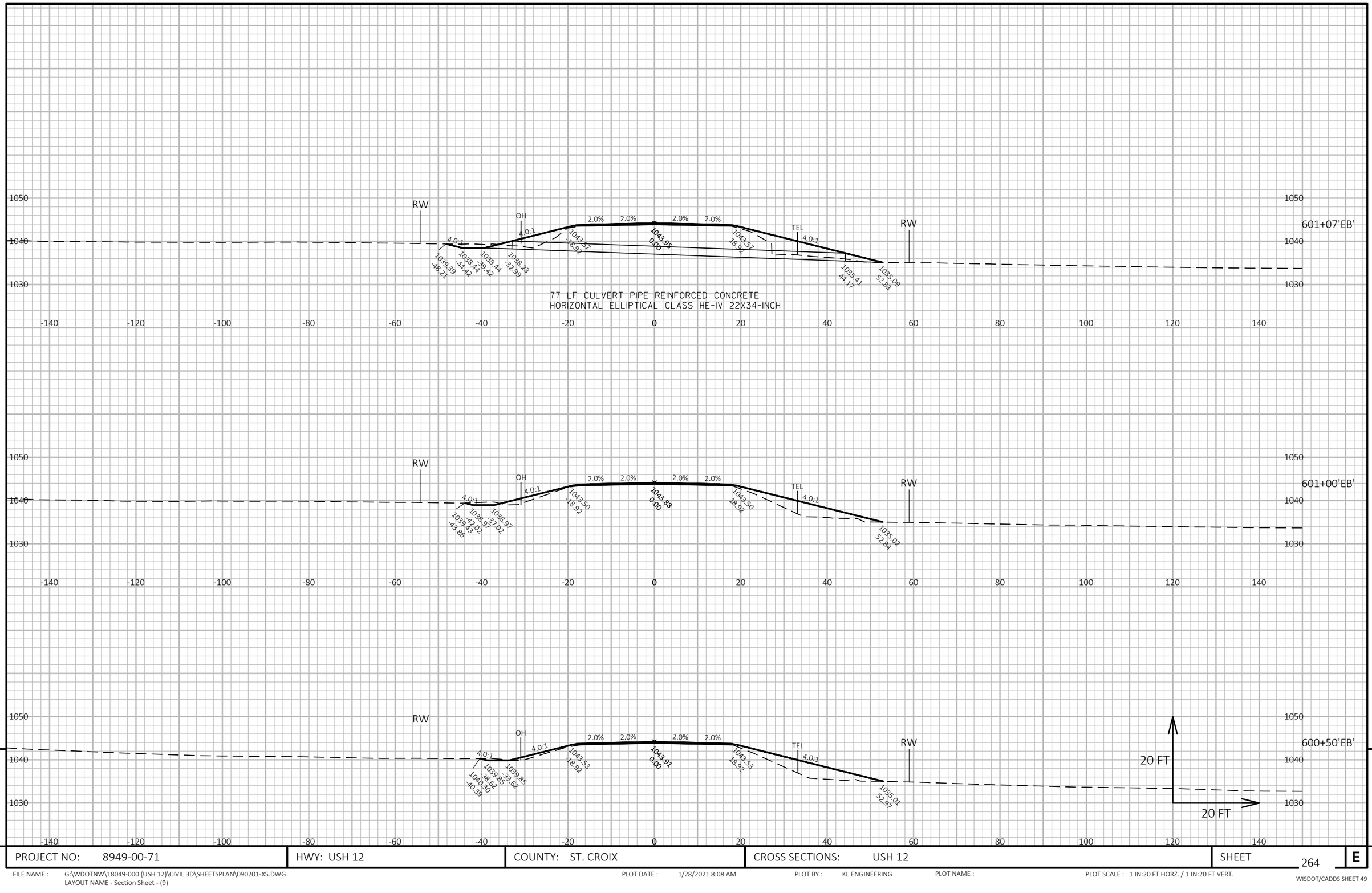
PLOT DATE : 1/28/2021 8:07 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 263	E

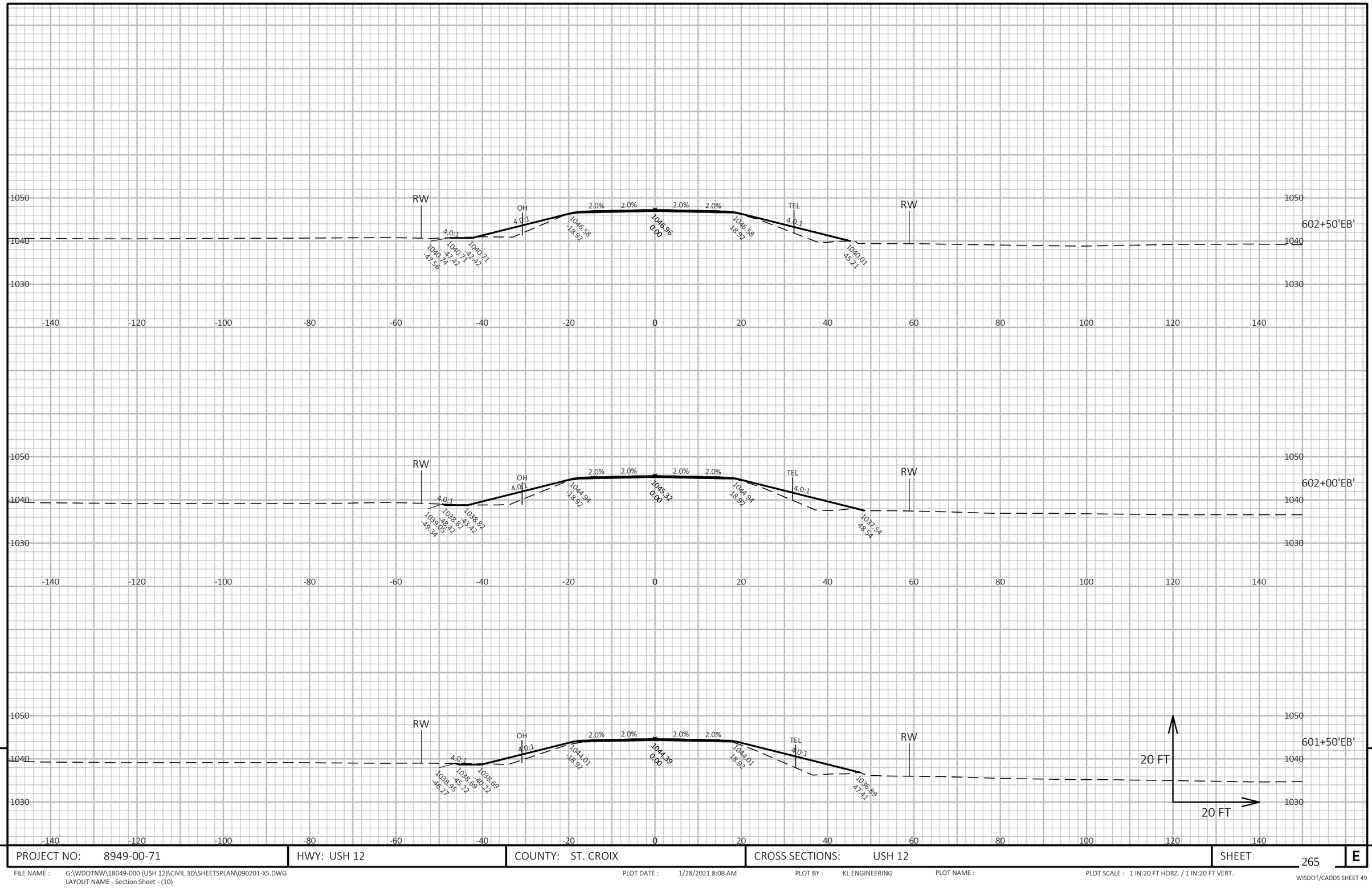


PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 264	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (9)

PLOT DATE : 1/28/2021 8:08 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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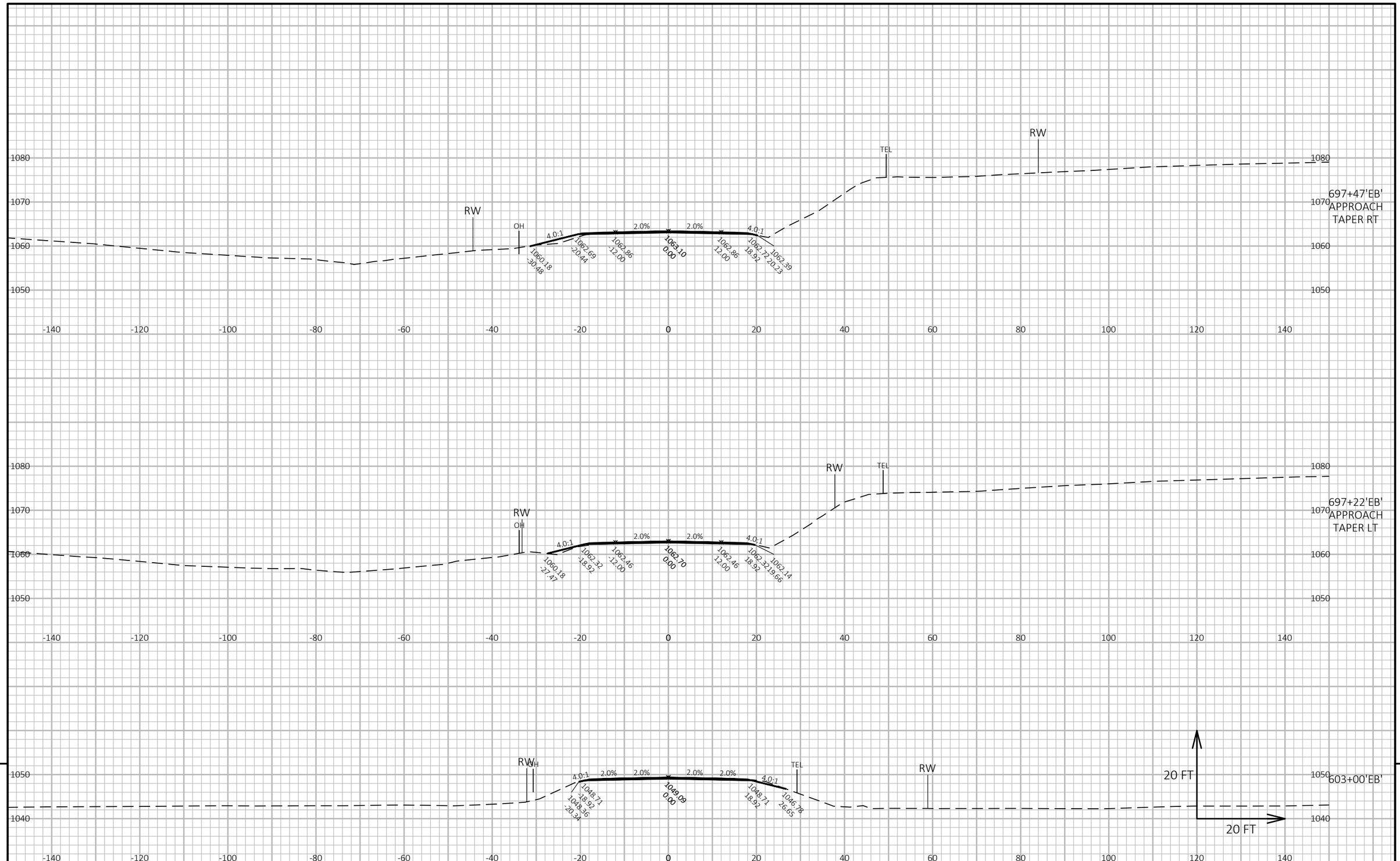
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 265	E

9

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (10)

PLOT DATE : 1/28/2021 8:08 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 266	E

9

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (11)

PLOT DATE : 1/28/2021 8:08 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

9

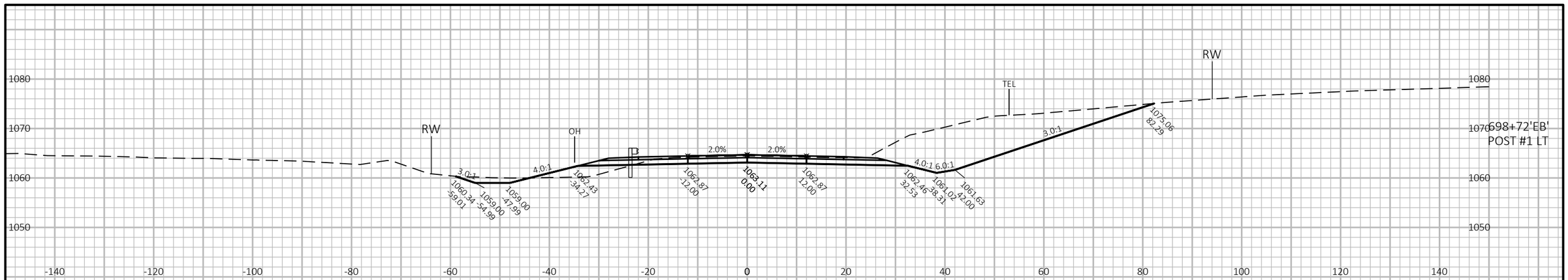
9

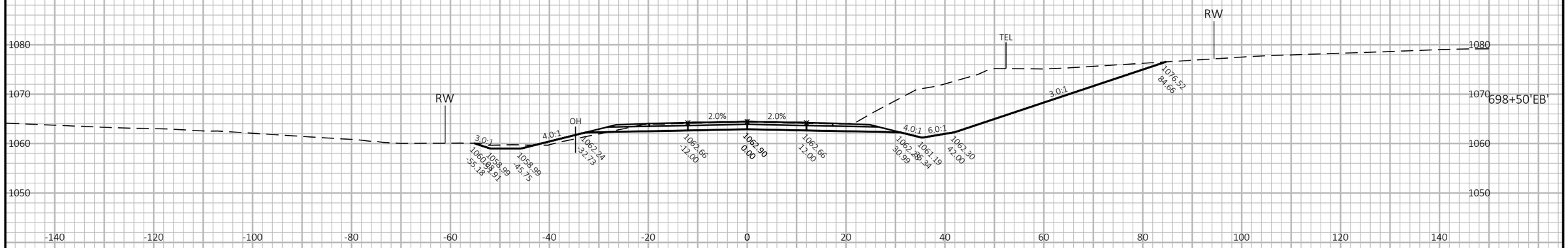
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 267	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (12)

PLOT DATE : 1/28/2021 8:08 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49





MATCH STRUCTURE B-55-0288

9

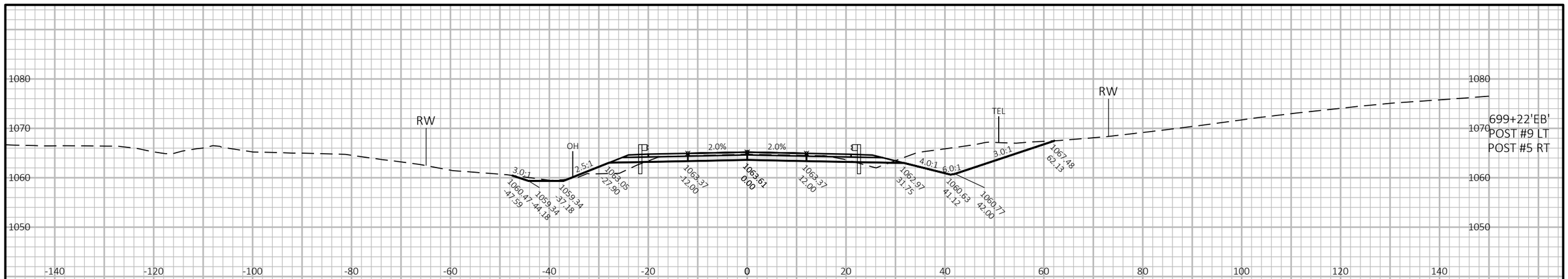
9

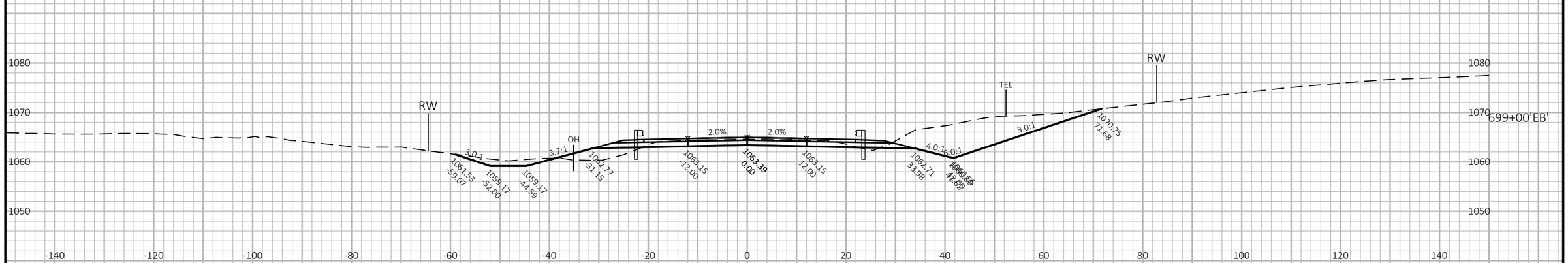
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 268	E

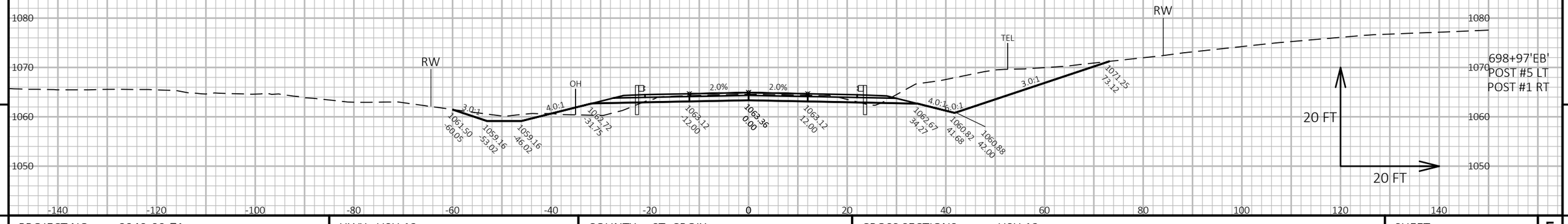
FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (13)

PLOT DATE : 1/28/2021 8:09 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49







9

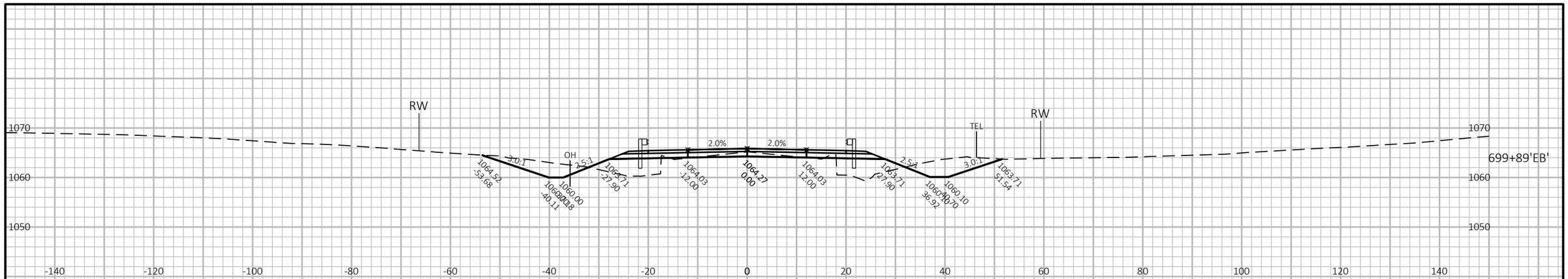
9

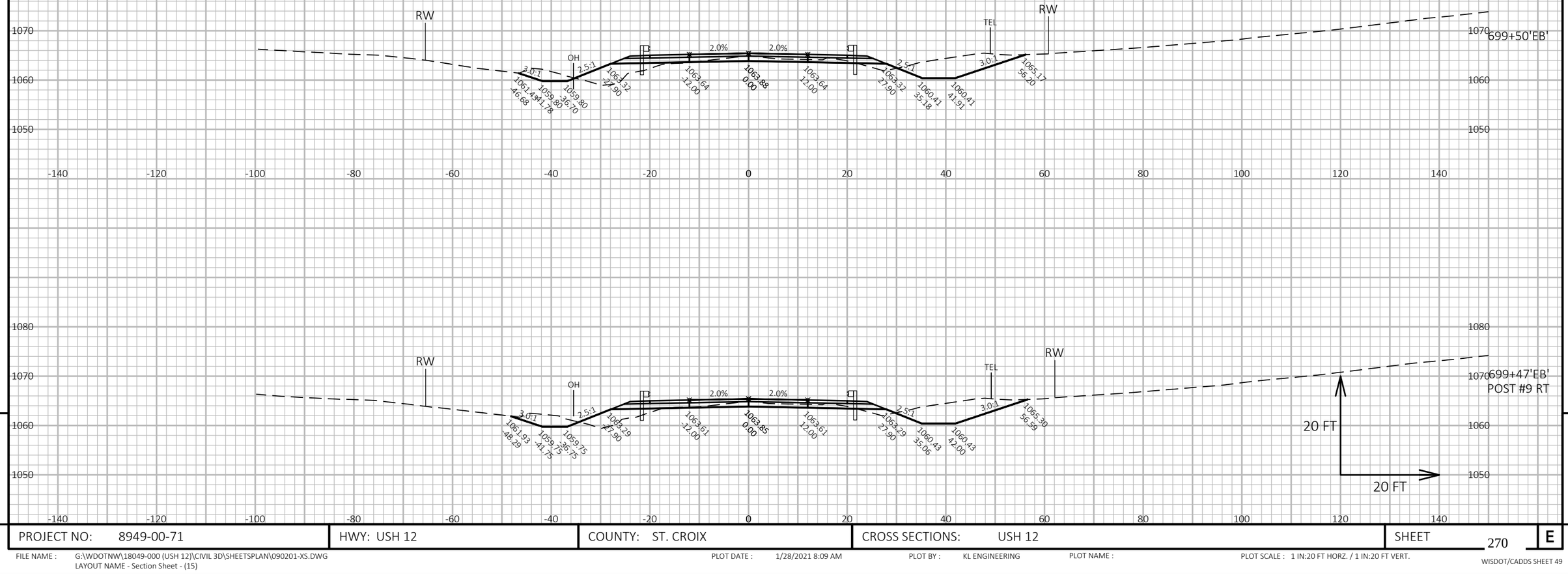
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 269	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (14)

PLOT DATE : 1/28/2021 8:09 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49





9

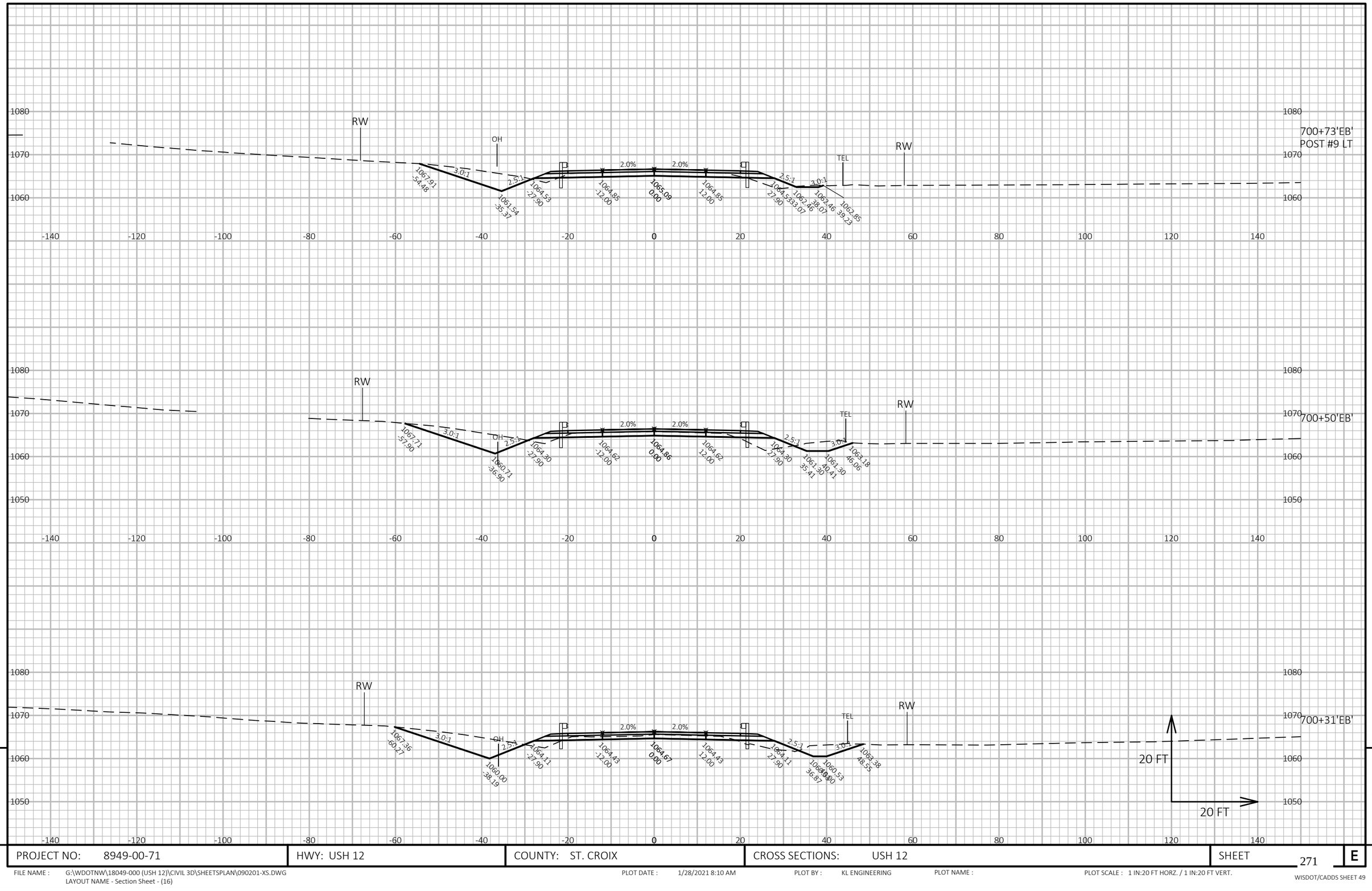
9

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 270	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (15)

PLOT DATE : 1/28/2021 8:09 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

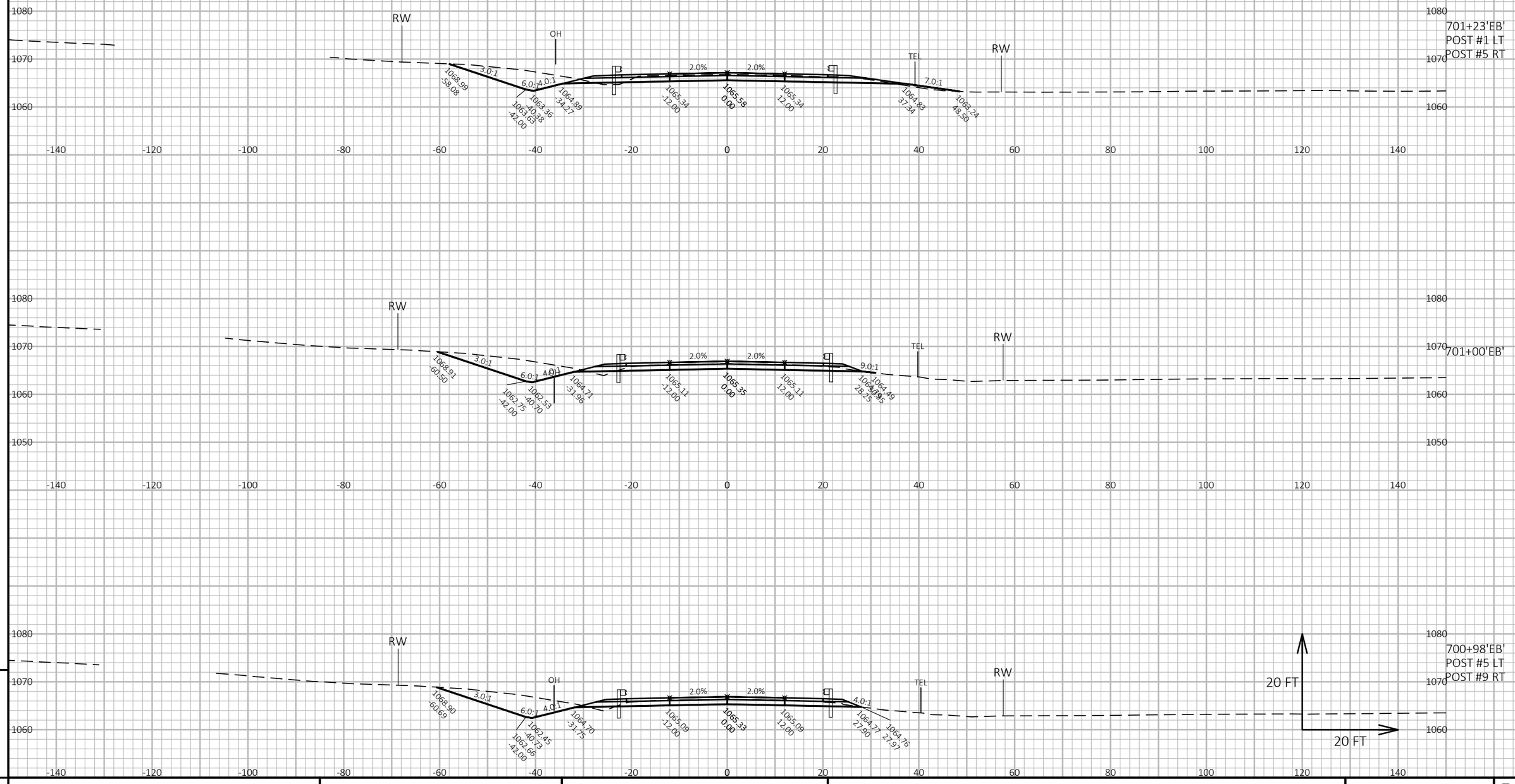
9

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 271	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (16)

PLOT DATE : 1/28/2021 8:10 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



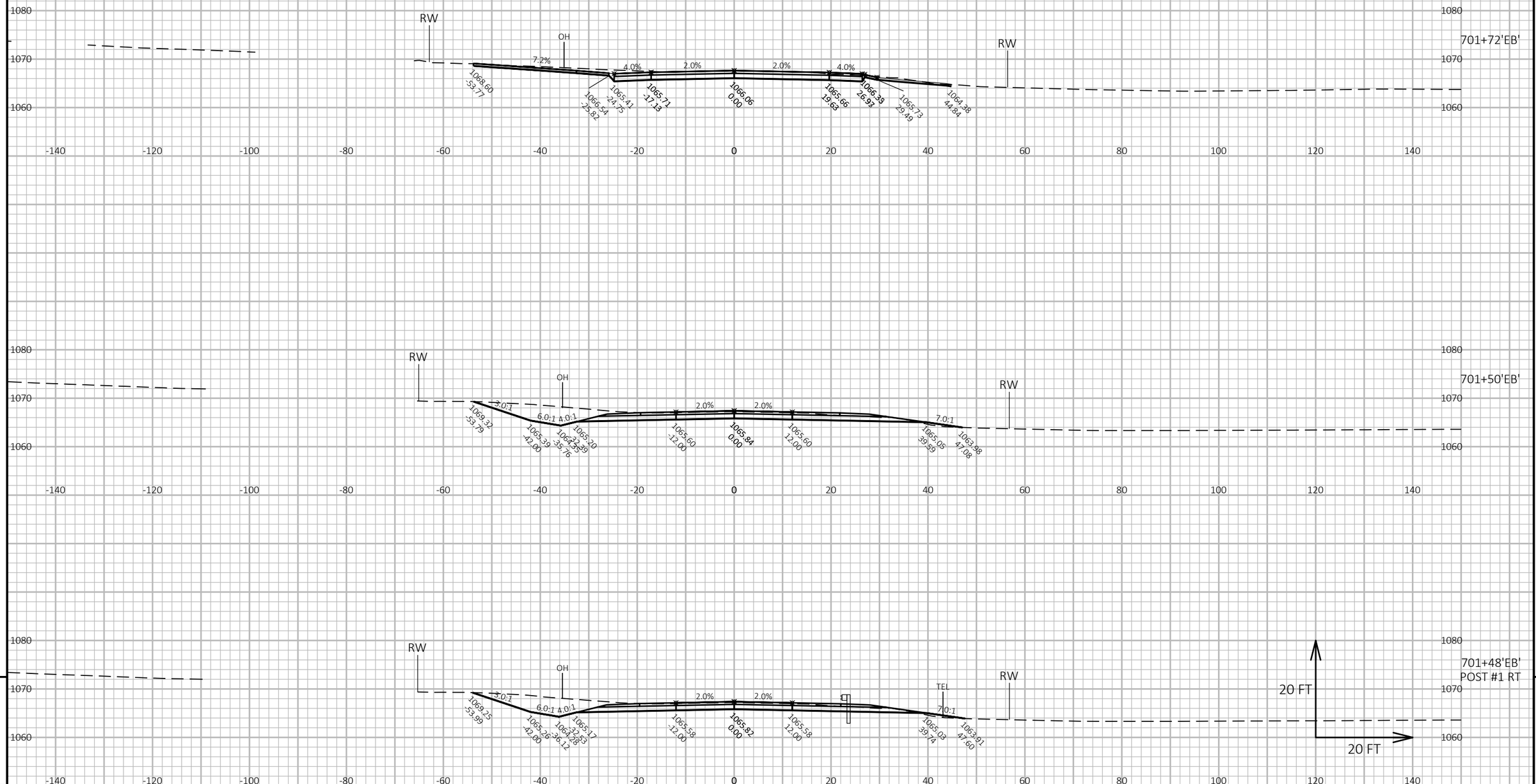
9

9

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 272	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (17)

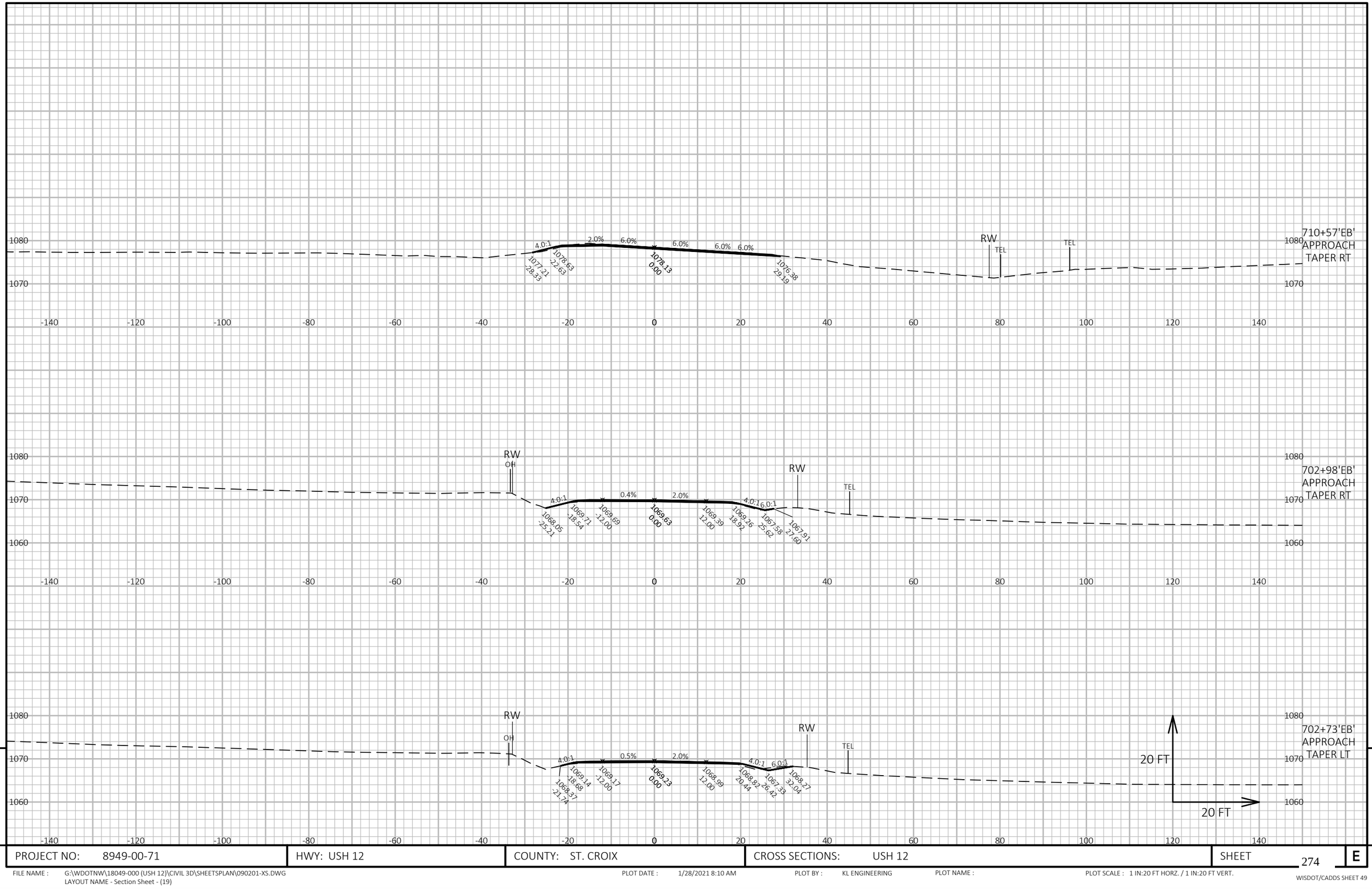
PLOT DATE : 1/28/2021 8:10 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 273	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (18)

PLOT DATE : 1/28/2021 8:10 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

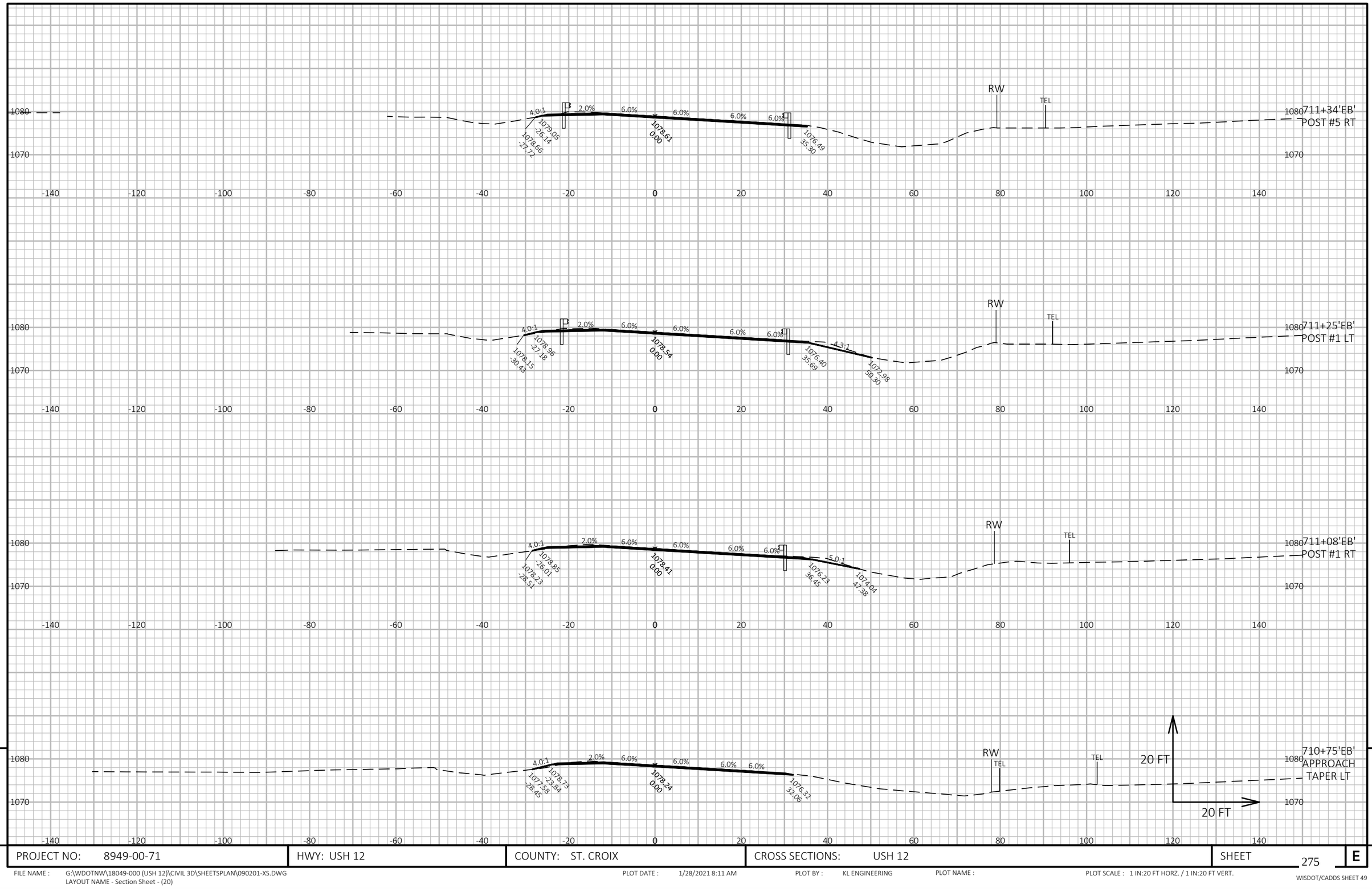
9

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 274	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (19)

PLOT DATE : 1/28/2021 8:10 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

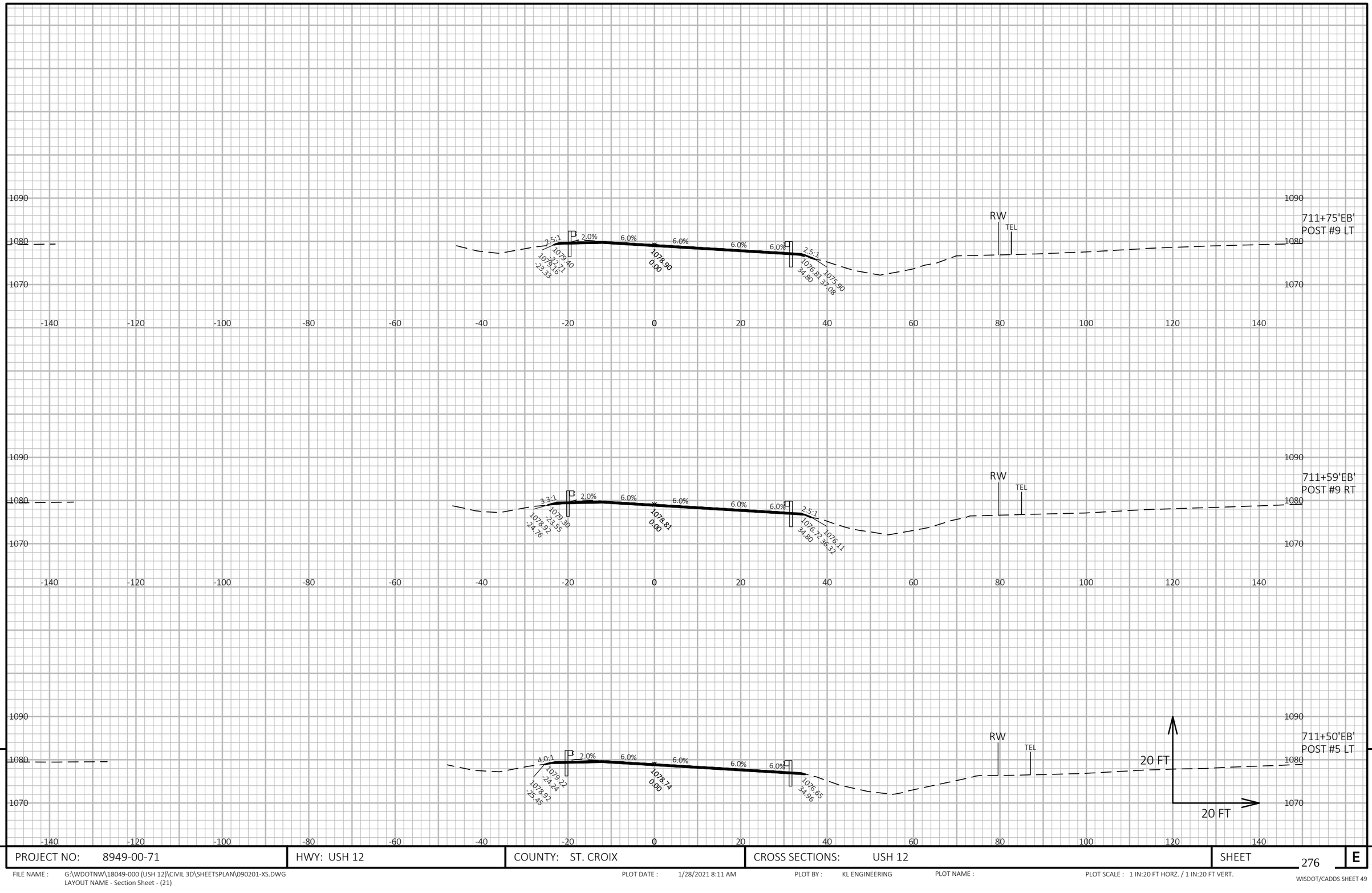
9

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 275	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (20)

PLOT DATE : 1/28/2021 8:11 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

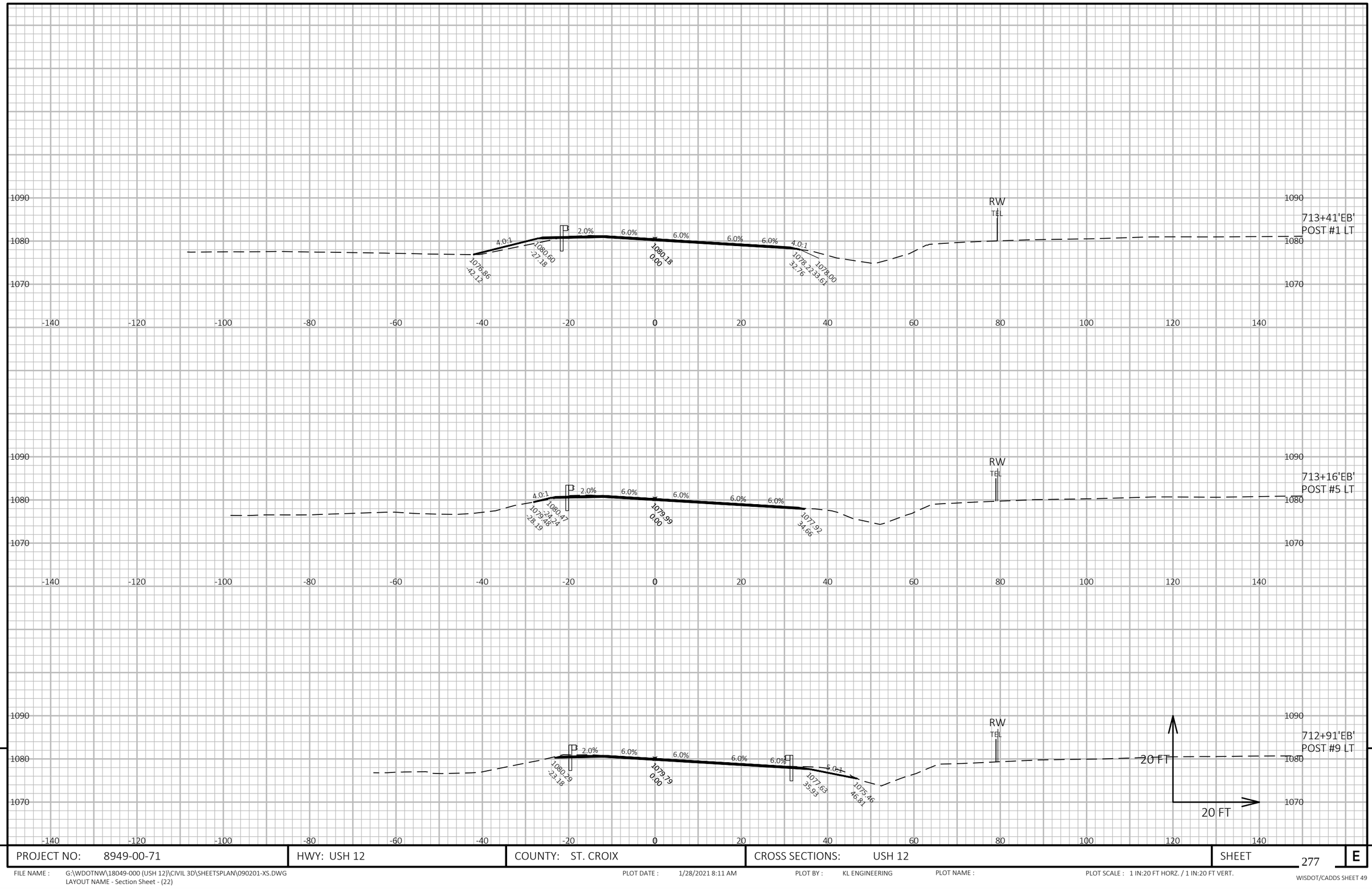


9

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 276	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (21)

PLOT DATE : 1/28/2021 8:11 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



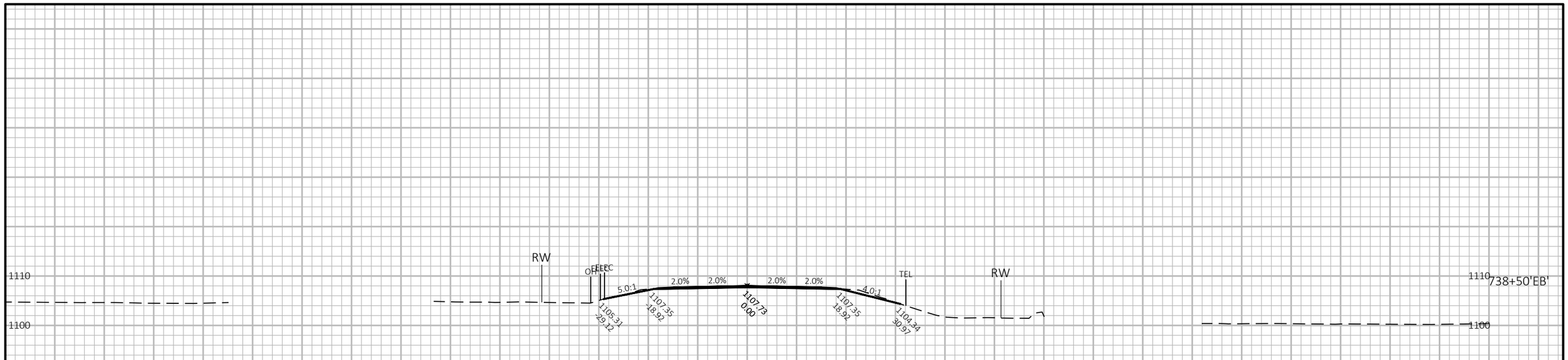
9

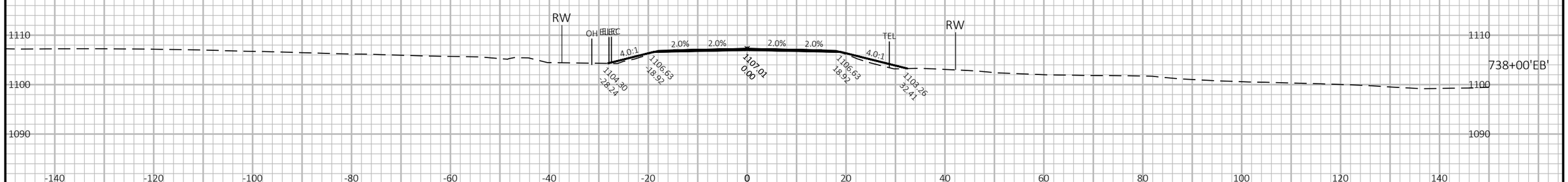
9

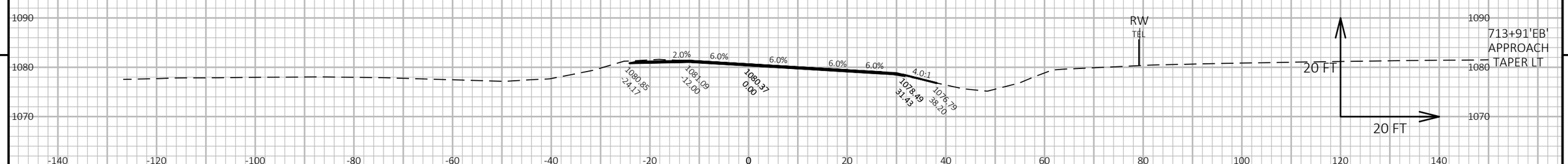
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 277	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (22)

PLOT DATE : 1/28/2021 8:11 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.







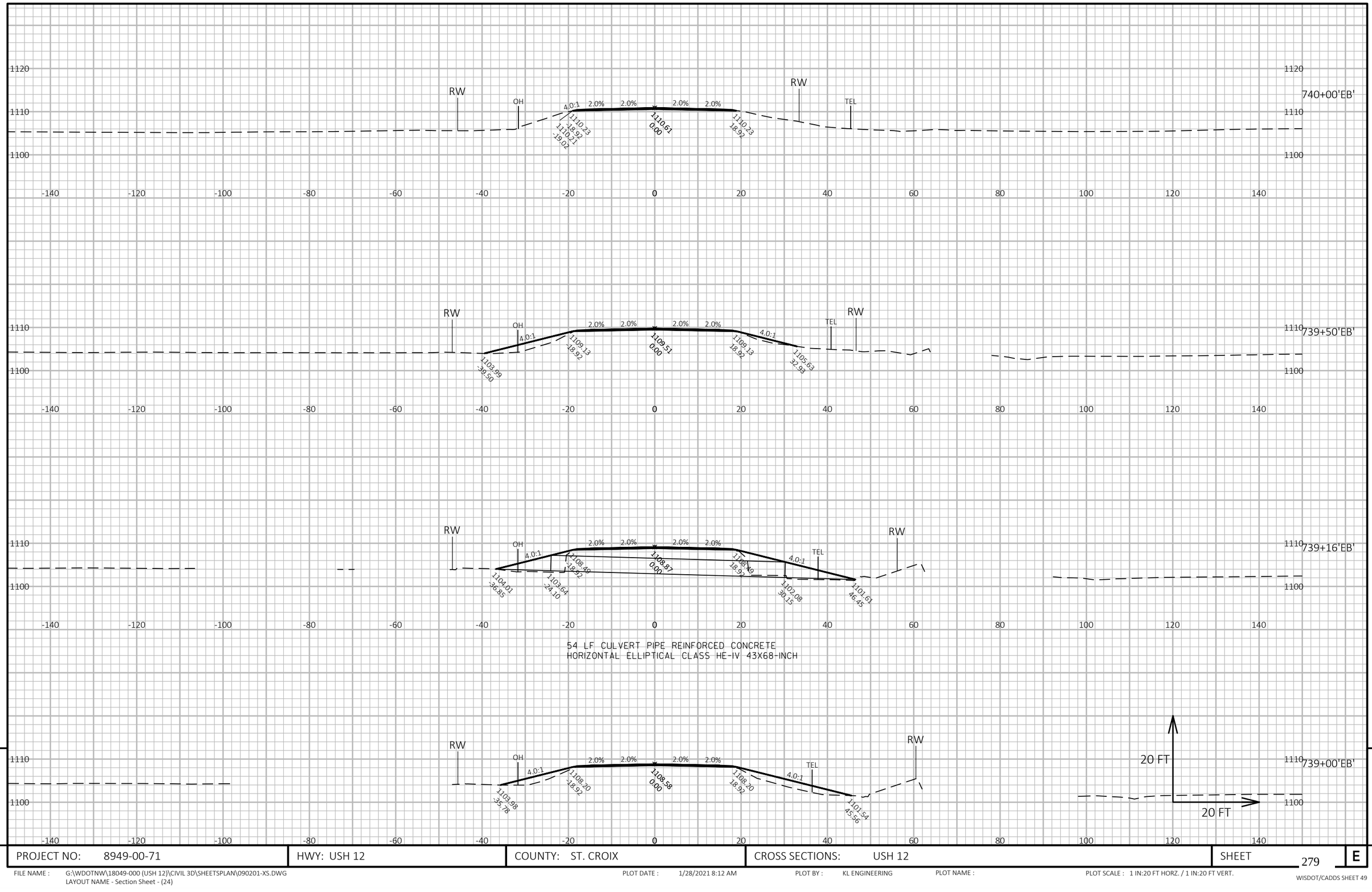
9

9

PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 278	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (23)

PLOT DATE : 1/28/2021 8:12 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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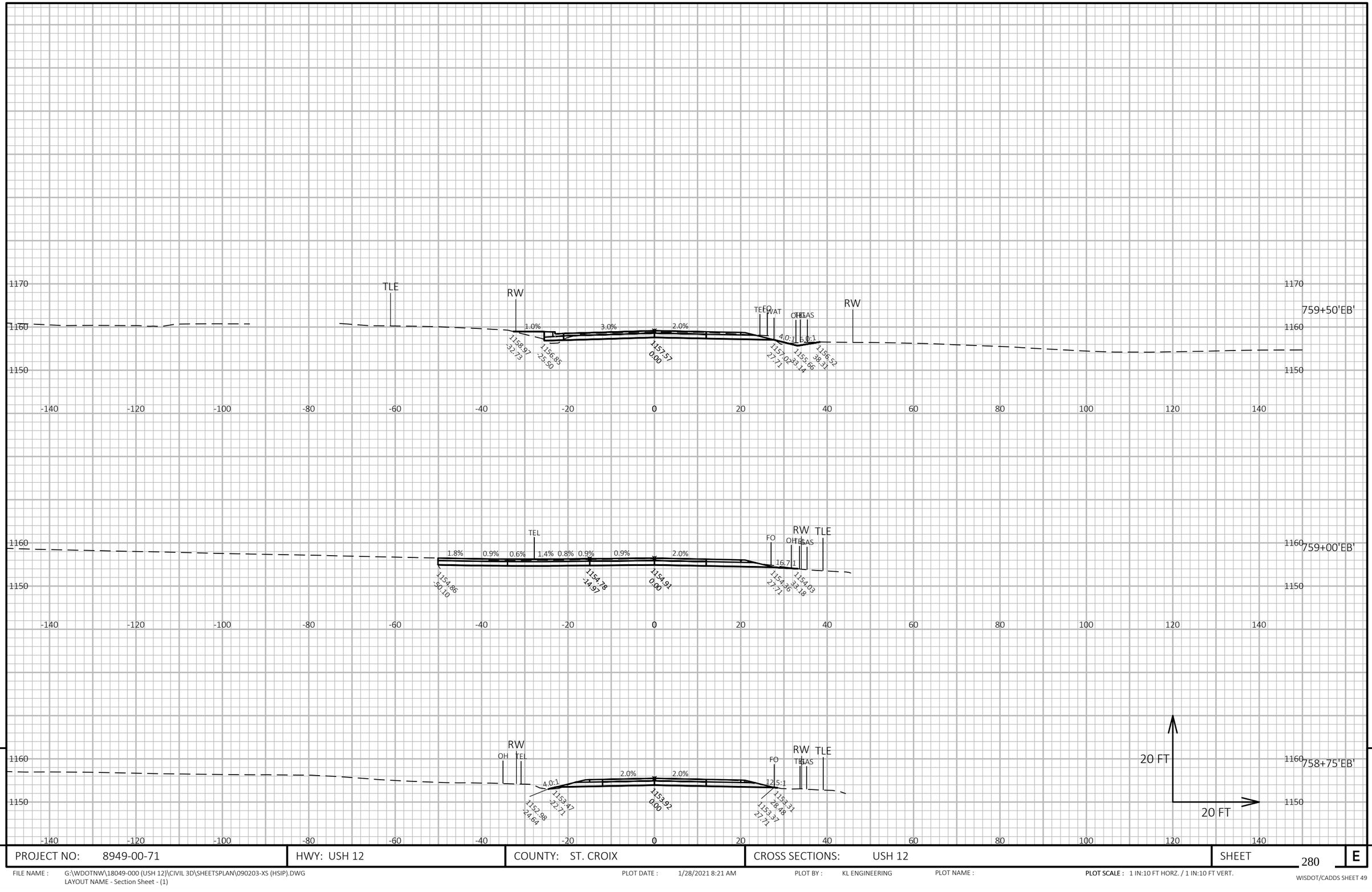
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 279	E



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PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 280	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090203-XS (HSIP).DWG
LAYOUT NAME - Section Sheet - (1)

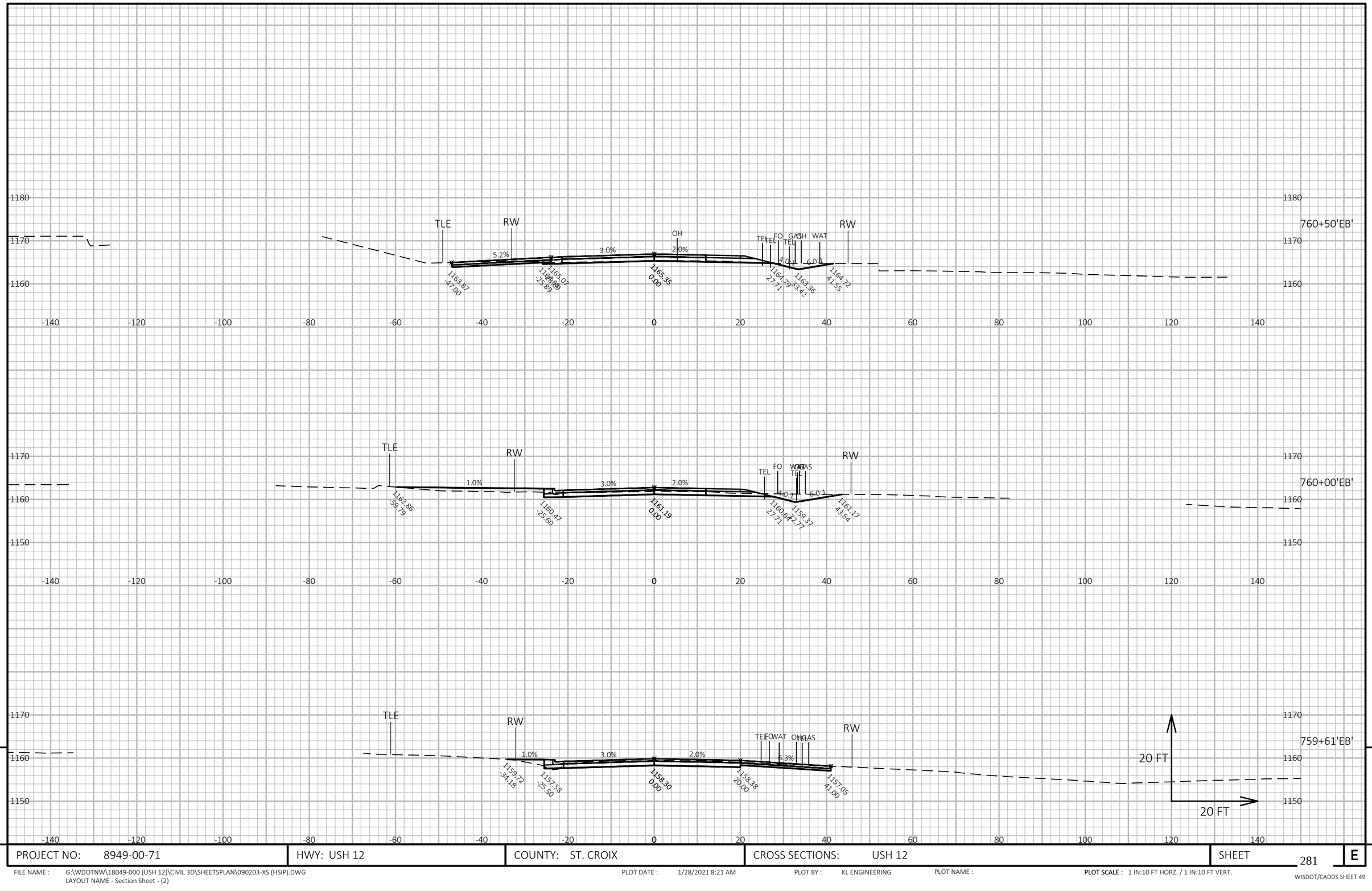
PLOT DATE : 1/28/2021 8:21 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 281	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090203-XS (HSIP).DWG
LAYOUT NAME - Section Sheet - (2)

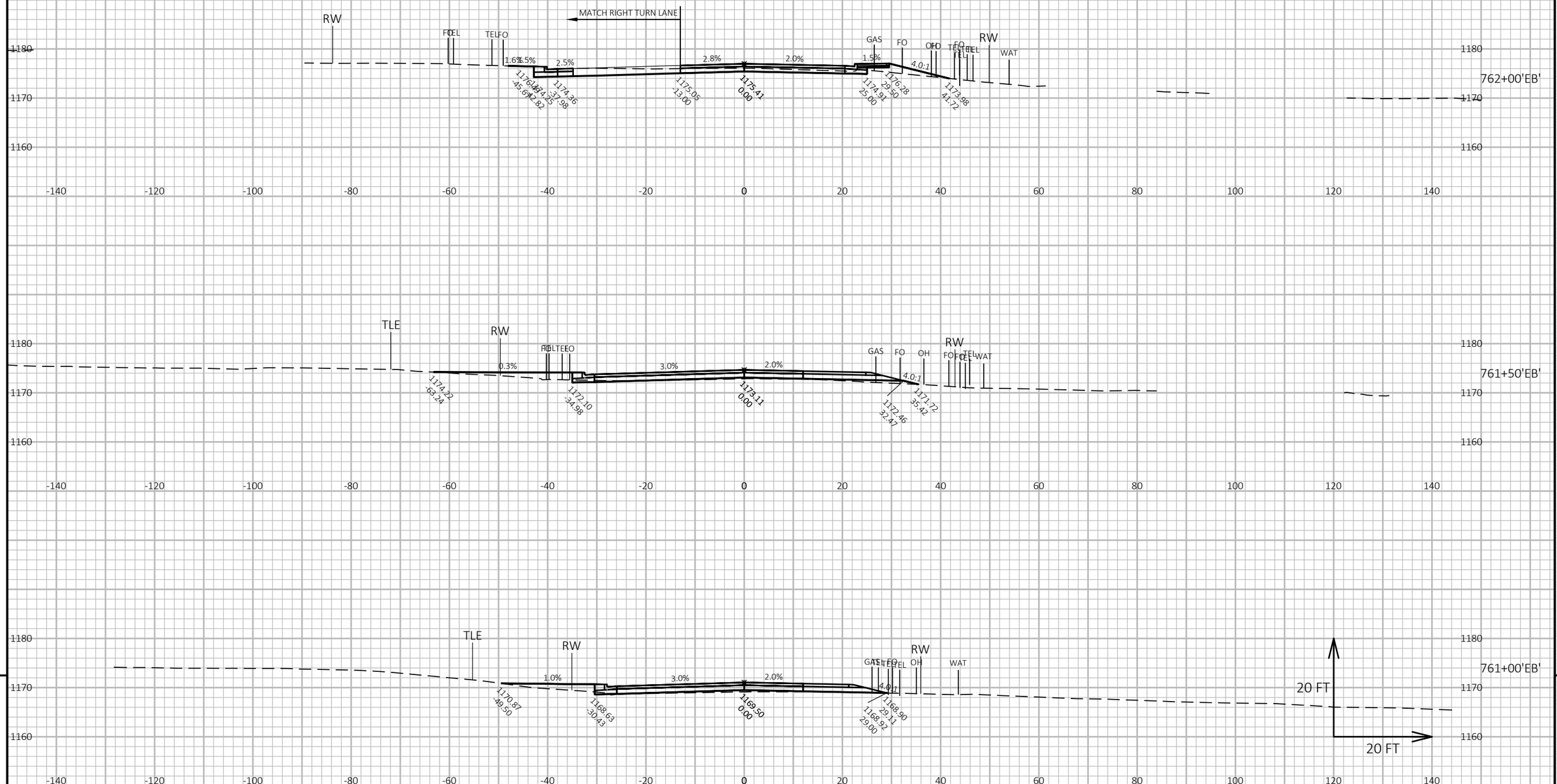
PLOT DATE : 1/28/2021 8:21 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 282	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090203-XS (HSIP).DWG
LAYOUT NAME - Section Sheet - (3)

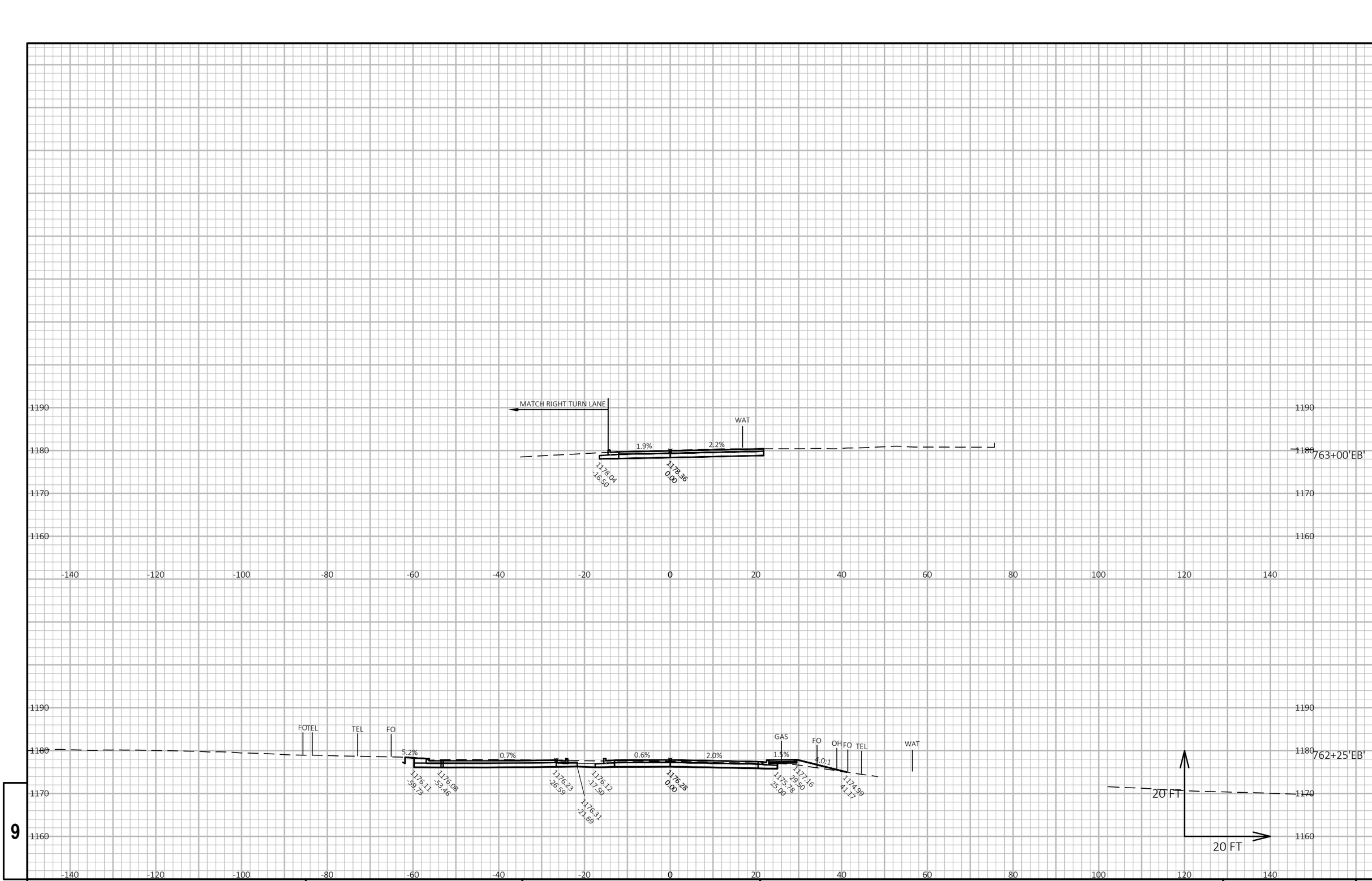
PLOT DATE : 1/28/2021 8:22 AM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

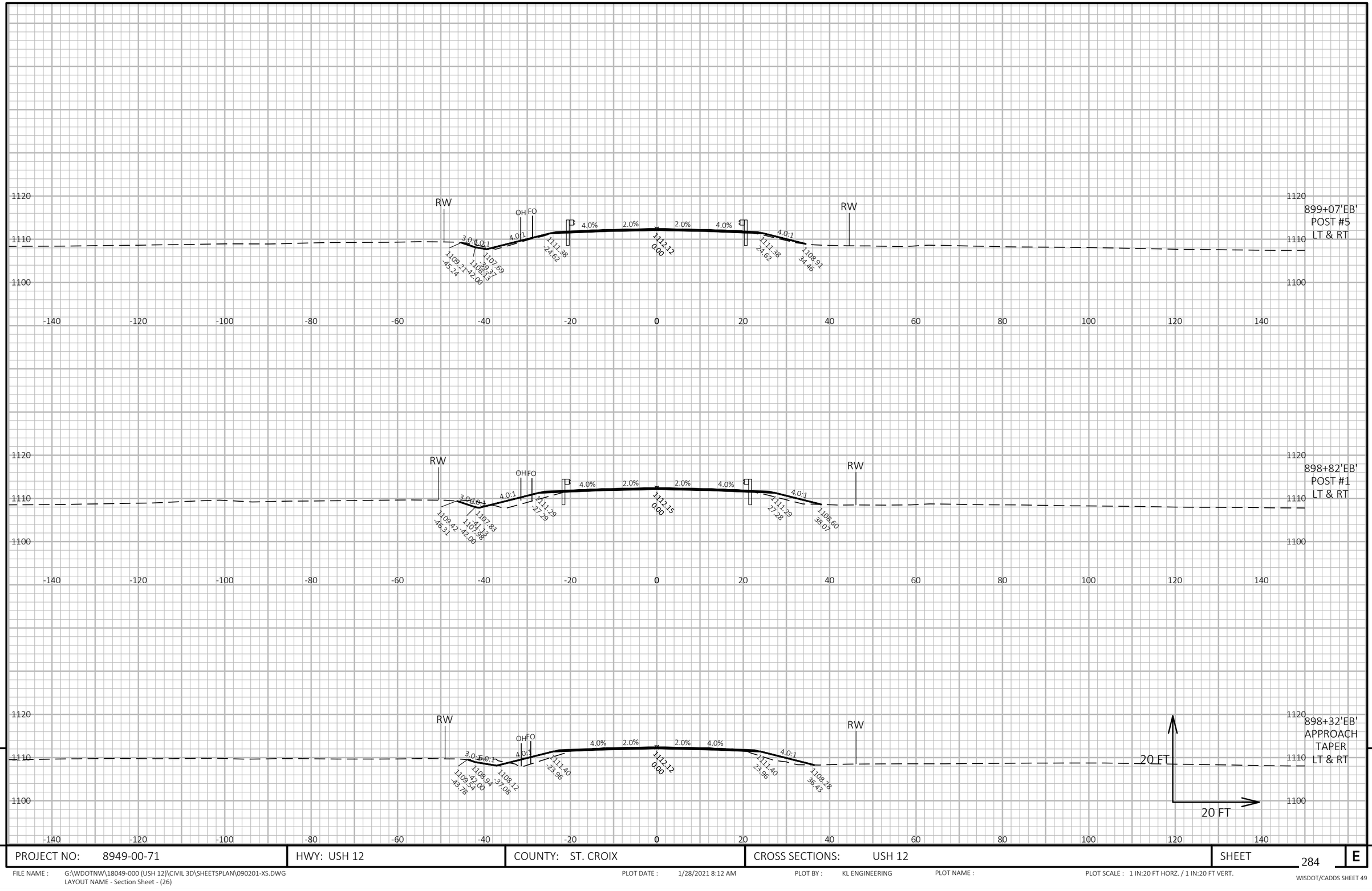
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 283	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090203-XS (HSIP).DWG
LAYOUT NAME - Section Sheet - (4)

PLOT DATE : 1/28/2021 8:22 AM PLOT BY : KL ENGINEERING PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

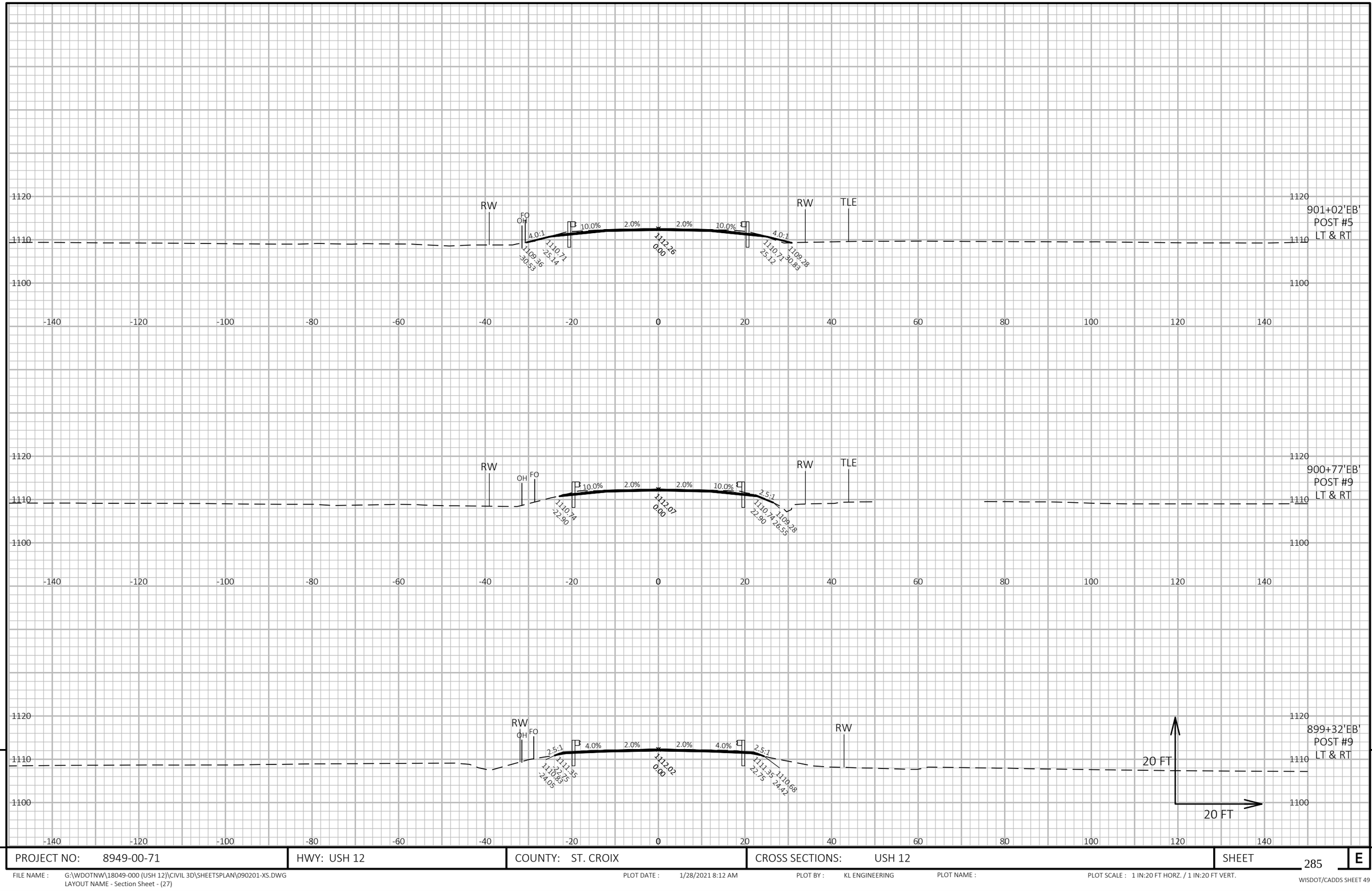


PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 284 E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (26)

PLOT DATE : 1/28/2021 8:12 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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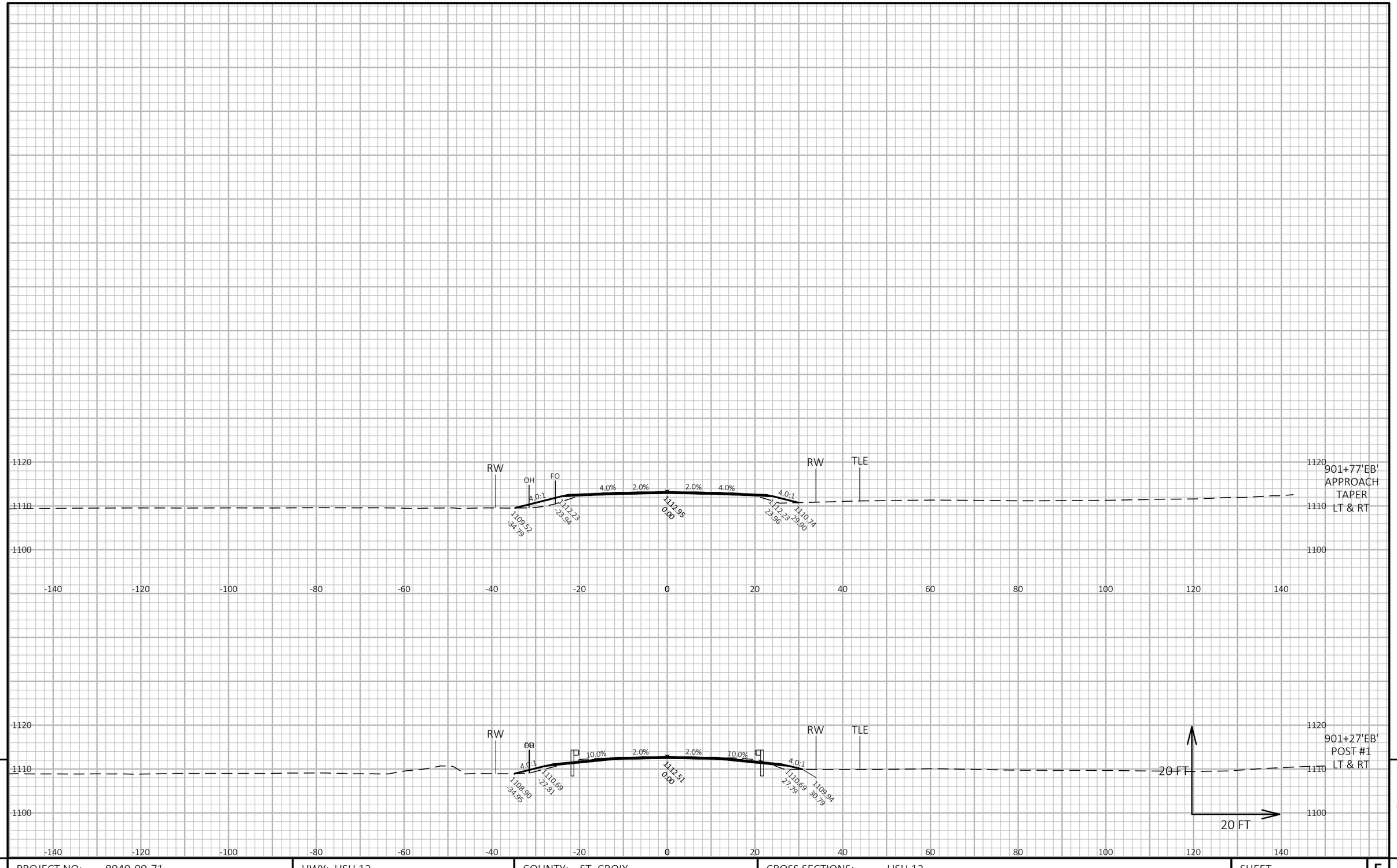
PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 285	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (27)

PLOT DATE : 1/28/2021 8:12 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 8949-00-71	HWY: USH 12	COUNTY: ST. CROIX	CROSS SECTIONS: USH 12	SHEET 286	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - Section Sheet - (28)

PLOT DATE : 1/28/2021 8:13 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

EAU

JULY 2021

PROJECT ID: 8949-00-74

WITH: 8949-00-71

COUNTY: ST CROIX

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 Sheets (Includes Erosion Control)
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 = 104

07

N

DESIGN DESIGNATION

A.A.D.T.	2015	=	9,160
A.A.D.T.	2041	=	9,160
D.H.V.		=	970
D.D.		=	60/40
T.		=	14.5%
DESIGN SPEED		=	30-60 MPH
ESALS		=	986,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE	300'EB'	ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
WOODED OR SHRUB AREA		POWER POLE	
		TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

HUDSON - BALDWIN

(USH 63 NORTH TO USH 63 SOUTH)

USH 12

ST CROIX COUNTY

STATE PROJECT NUMBER
8949-00-74

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8949-00-74	WISC 2021387	1

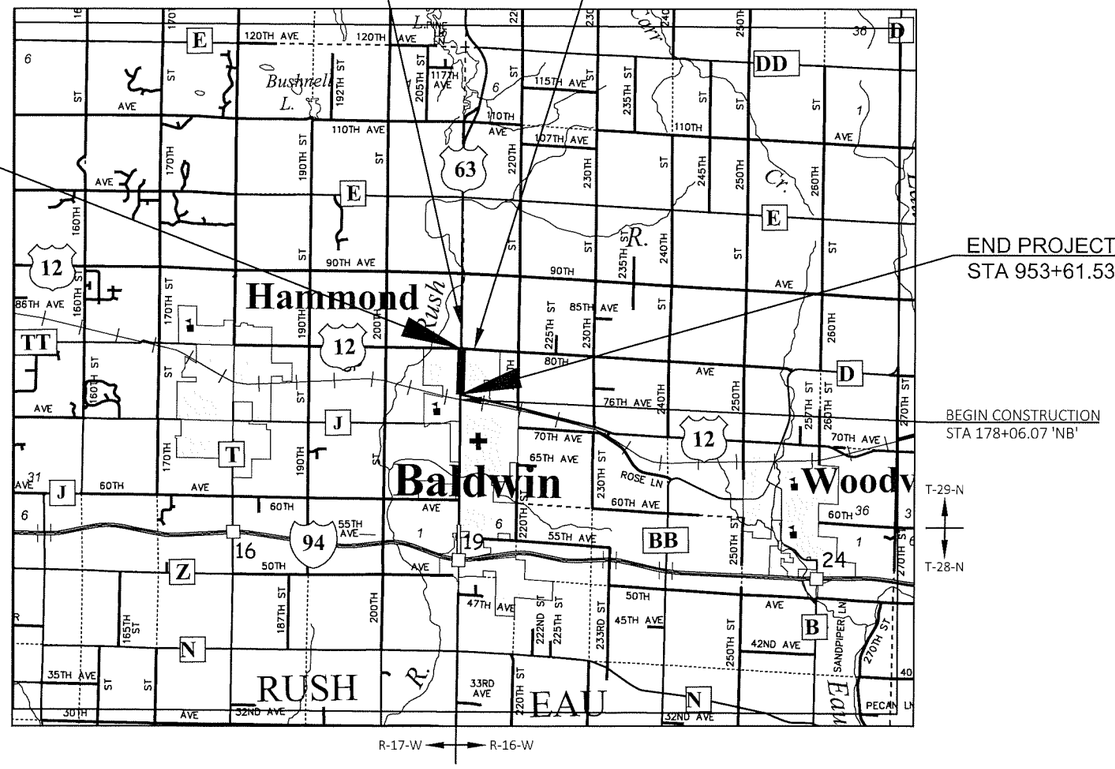
END CONSTRUCTION
STA 215+44.04 'NB'

END CONSTRUCTION
STA 08+81.73 'EA'

BEGIN PROJECT 8949-00-71
STA 914+00 'EB'
Y=343,453.21
X=609,175.24

END PROJECT
STA 953+61.53 'EB'

BEGIN CONSTRUCTION
STA 178+06.07 'NB'



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.750 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), ST CROIX 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.

ACCEPTED FOR

VILLAGE OF BALDWIN

Date 01-27-21 (Signature and Title of Official)

ORIGINAL PLANS PREPARED BY

KL Engineering
[A] Better Experience

WISCONSIN
JOSHUA P. MELBY
43963-6
MADISON, WI
PROFESSIONAL ENGINEER

02-01-21 (Date)

(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	KL ENGINEERING
Designer	KL ENGINEERING
Project Manager	PAULA GROOM
Regional Examiner	
Regional Supervisor	JEFFREY OLSON

APPROVED FOR THE DEPARTMENT

DATE: 1/28/21 (Signature)

E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\8949-00-74\010101-TI.DWG

PLOT DATE : 1/25/2021 8:40 PM

PLOT BY : KL ENGINEERING

PLOT NAME :

ABBREVIATIONS

A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC
A.E.W.	APRON ENDWALL
B.A.D.	BASE AGGREGATE DENSE
C/L	CENTERLINE
C.M.C.P.	CORRUGATED METAL CULVERT PIPE
C.P.	CULVERT PIPE
C.S.C.P.	CORRUGATED STEEL CULVERT PIPE
CY	CUBIC YARD
D.D.	DAILY DIRECTIONAL SPLIT (TRAFFIC VOLUME)
D.H.V.	DAILY HOURLY TRAFFIC
E.A.T.	ENERGY ABSORBING TERMINAL
EL.	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
FE	FIELD ENTRANCE
FO	FIBER OPTIC
INV.	INVERT
LB	POUND
LF	LINEAR FEET
LT.	LEFT
MAX.	MAXIMUM
MGS	MIDWEST GUARDRAIL SYSTEM
MIN.	MINIMUM
NOR.	NORMAL
NPZ	NO PASSING ZONE
OH	OVERHEAD
P.E.	PRIVATE ENTRANCE
P.I.	POINT OF INTERSECTION
PRW	PROPOSED RIGHT OF WAY
R	RADIUS
REQ'D	REQUIRED
R/L	REFERENCE LINE
RT.	RIGHT
RW	RIGHT OF WAY
S.D.D.	STANDARD DETAIL DRAWING
SE	SUPERELEVATION
STA.	STATION
SF	SQUARE FOOT
STH	STATE HIGHWAY
SY	SQUARE YARD
T.	PERCENT OF TRUCK TRAFFIC
TYP.	TYPICAL
VAR.	VARIES

UTILITIES

GAS/PETROLEUM

WE ENERGIES
STEVEN CHAVERS
104 W. SOUTH STREET
RICE LAKE, WI 54868
(715) 234-9605 (OFFICE)
(715) 213-4327 (MOBILE)
steven.chavers@we-energies.com

COMMUNICATIONS LINE

BALDWIN TELECOM, INC.
MATT KNEGENDORF
930 MAPLE STREET
BALDWIN, WI 54002
(715) 688-1034 (OFFICE)
(715) 760-0968 (MOBILE)
mkengendorf@lswi.net

ELECTRICITY

XCEL ENERGY
JAKE MILLER
801 KELLER AVENUE
AMERY, WI 54001
(715) 268-3227
jake.i.miller@xcelenergy.com

SEWER & WATER

VILLAGE OF BALDWIN - SEWER
VILLAGE OF BALDWIN - WATER
BRAD BOLDT
400 CEDAR STREET
BALDWIN, WI 54002
(715) 684-2535
brad@villageofbaldwin.com

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

GENERAL NOTES

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

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

REMOVAL ITEMS REQUIRING RESTORATION OF CONCRETE OR ASPHALT SHALL BE REMOVED TO AN EXISTING JOINT OR SAWED AS DETERMINED BY THE ENGINEER.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

DISTURBED AREAS WITHIN THE RIGHT OF WAY SHALL BE RESTORED AS DIRECTED BY THE ENGINEER.

RADIUS DIMENSIONS FOR CURB AND GUTTER ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.

A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

CONTRACTOR IS RESPONSIBLE FOR RESHAPING AND FINISHING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY THEIR OPERATION OUTSIDE THE PLAN CONSTRUCTION LIMITS.

THE EXACT LOCATION OF DRIVEWAYS IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER. ALL DRIVEWAYS ARE TO BE REPLACED IN KIND.

ALL GRADES PROVIDED ALONG RADII ARE ALONG THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

THE CONTRACTOR'S HMA PAVING OPERATION SHALL BE CONSISTENT WITH THE TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING LANE.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LBS/SY/IN.

HMA PAVEMENT WHEN INDICATED ON THE PLANS, SHALL CONSIST OF COURSES AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS.

SIDEWALK AND CURB & GUTTER REPLACEMENT SHOULD BE TO THE NEAREST JOINT. LIMITS ARE APPROXIMATE AND ARE TO BE VERIFIED IN THE FIELD BY THE ENGINEER. MATCH EXISTING SIDEWALK WIDTH.

ROADWAY	TOTAL PAVEMENT THICKNESS	LOWER LAYER THICKNESS & TYPE	UPPER LAYER THICKNESS & TYPE
USH 12	2"	N/A	2" (5 MT 58-34V)

	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	0.70 - 0.95											
CONCRETE	0.80 - 0.95											
BRICK	0.70 - 0.80											
DRIVES, WALKS	0.75 - 0.85											
ROOFS	0.75 - 0.95											
GRAVEL ROADS, SHOULDERS	0.40 - 0.60											

TOTAL PROJECT AREA = 9.38 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.05 ACRES

ORDER OF DETAIL SHEETS

TYPICAL SECTIONS
CONSTRUCTION DETAILS
CURB RAMP DETAILS
PAVEMENT MARKING
TRAFFIC CONTROL

DNR LIASON

AMY CRONK
ENVIRONMENTAL ANALYSIS AND REVIEW SPECIALIST
DEPARTMENT OF NATURAL RESOURCES
1300 W. CLAIREMONT AVE.
EAU CLAIRE, WI 54702-4001
715-635-4229
Amy.Cronk@wisconsin.gov

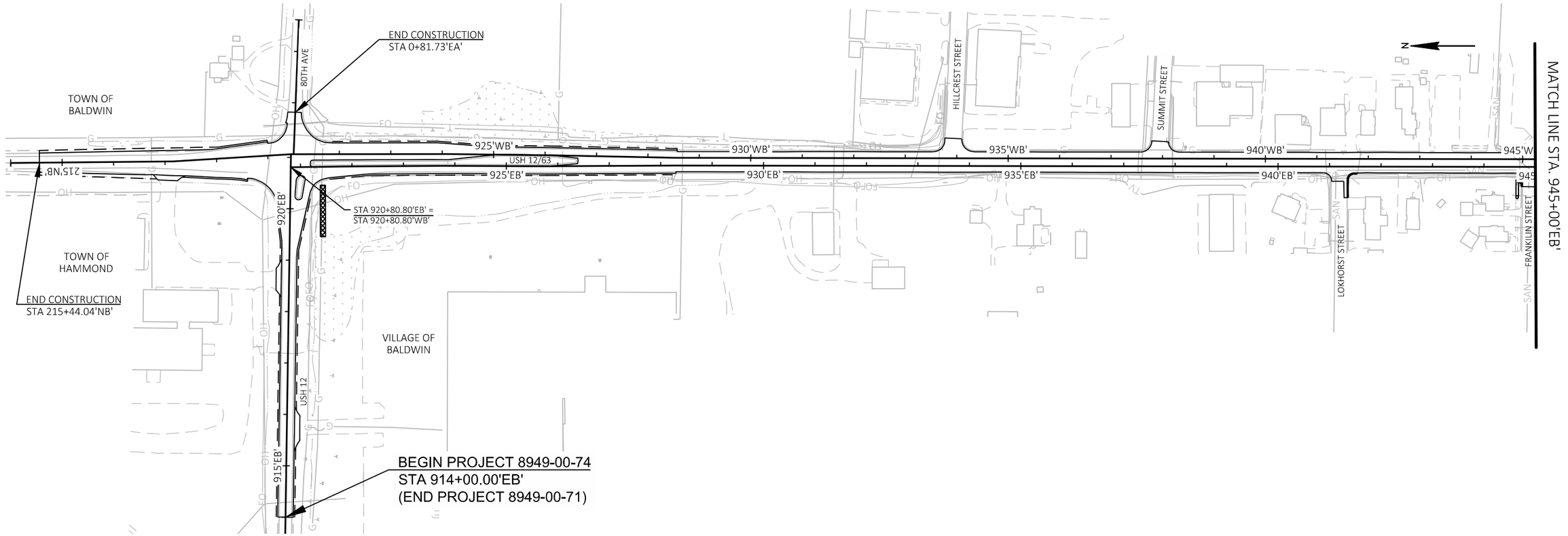
DESIGN CONTACT

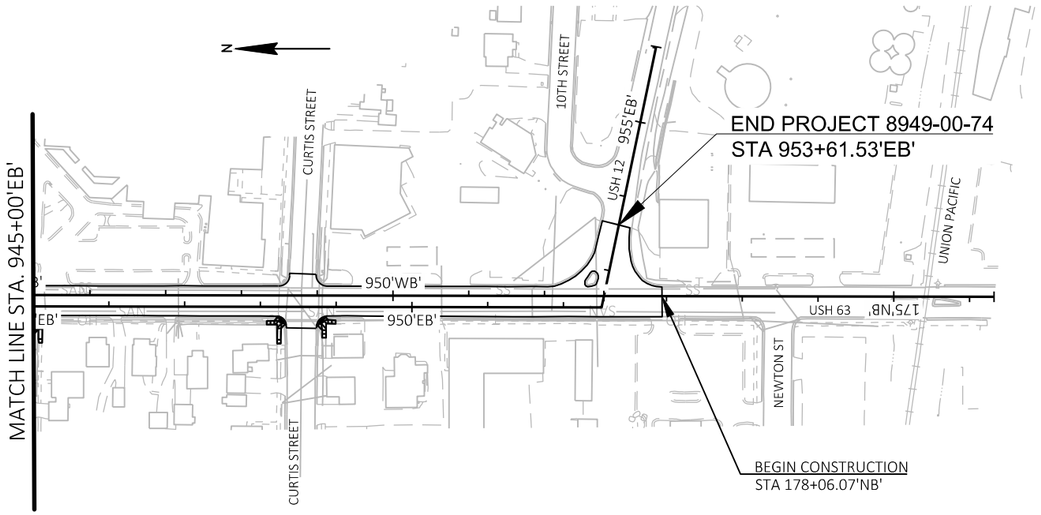
JOSHUA MELBY, P.E.
KL ENGINEERING, INC.
5400 KING JAMES WAY, SUITE 200
MADISON, WI 53719
608-663-1218
jmelby@klengineering.com

WISDOT

PAULA GROOM, P.E.
WISDOT PROJECT MANAGER
WISDOT NW REGION (EAU CLAIRE)
718 W. CLAIREMONT AVE.
EAU CLAIRE, WI 54701
715-579-6776
Paula.Groom@dot.wi.gov

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\8949-00-74\020101-GN.DWG
LAYOUT NAME - 020101-gn
PLOT DATE : 1/27/2021 6:59 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

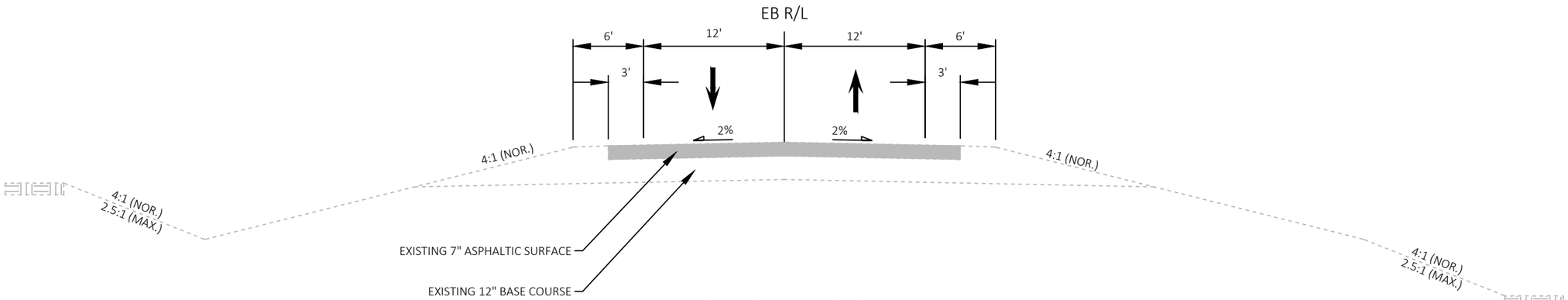




PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	PROJECT OVERVIEW	SHEET 3	E

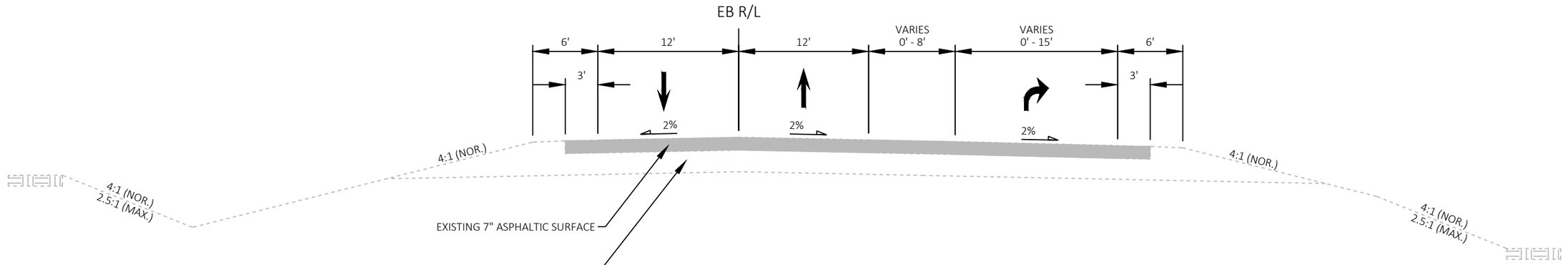
FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\8949-00-74\020201-PO.DWG
LAYOUT NAME - 020201-po

PLOT DATE : 1/25/2021 2:24 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:200 FT



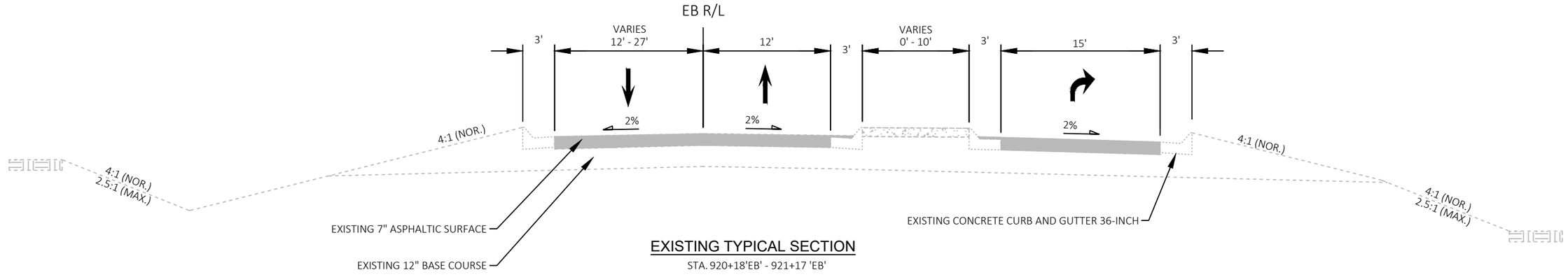
EXISTING TYPICAL SECTION

STA. 914+00'EB' - 919+20 'EB'



EXISTING TYPICAL SECTION

STA. 919+20 'EB' - 920+18 'EB'

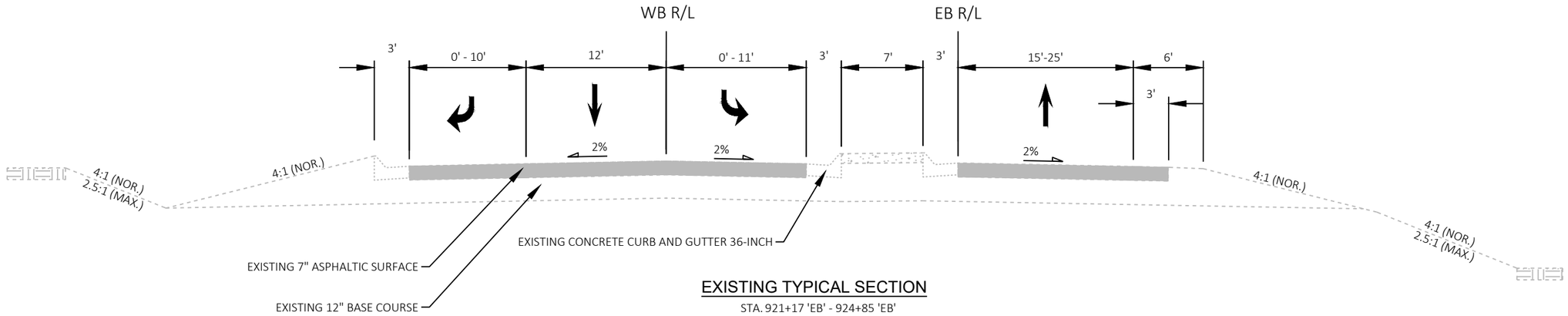


EXISTING TYPICAL SECTION

STA. 920+18'EB' - 921+17 'EB'

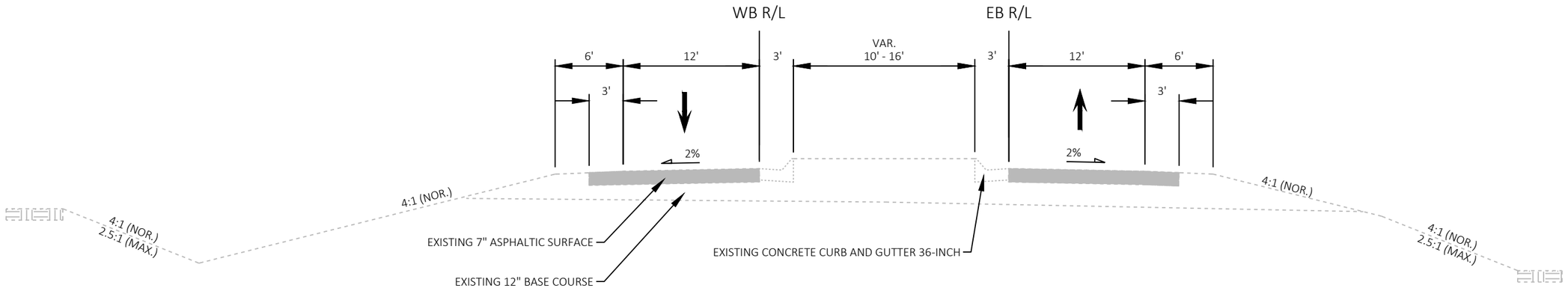
PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	EXISTING TYPICAL SECTIONS	SHEET 4	E

2



EXISTING TYPICAL SECTION

STA. 921+17 'EB' - 924+85 'EB'

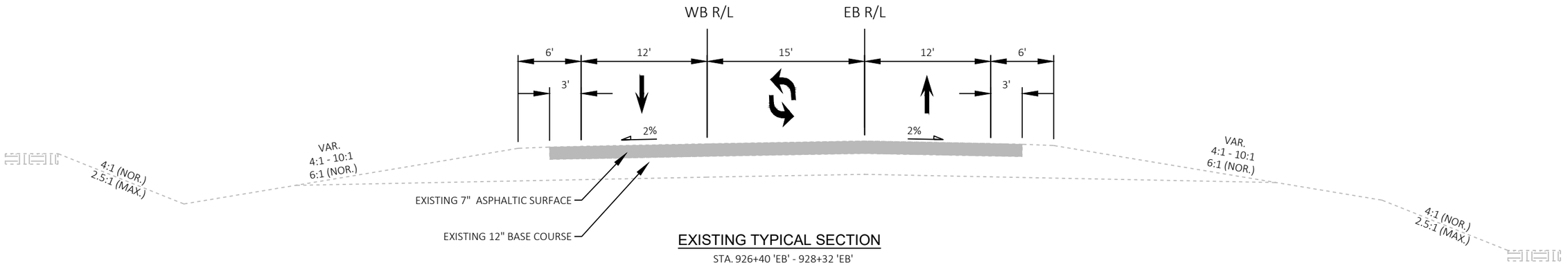


EXISTING TYPICAL SECTION

STA. 924+85 'EB' - 926+40 'EB'

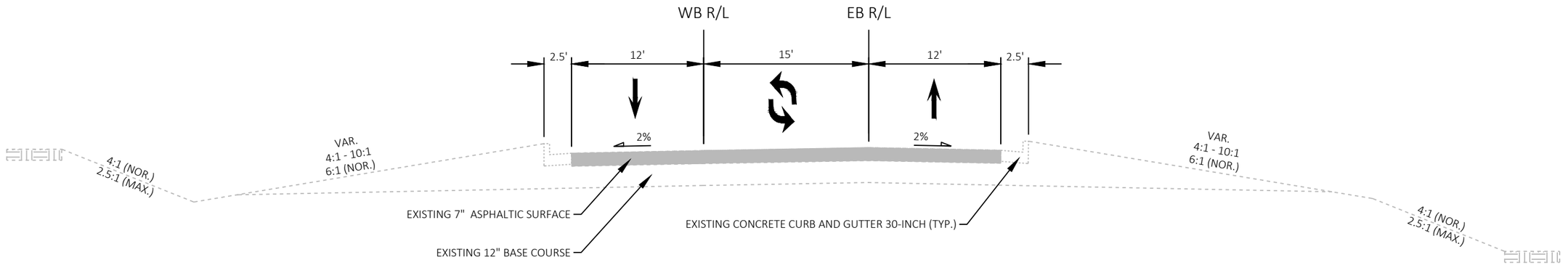
PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	EXISTING TYPICAL SECTIONS	SHEET 5	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\8949-00-74\020301_TS_EX.DWG
LAYOUT NAME - 02
PLOT DATE : 1/26/2021 1:56 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



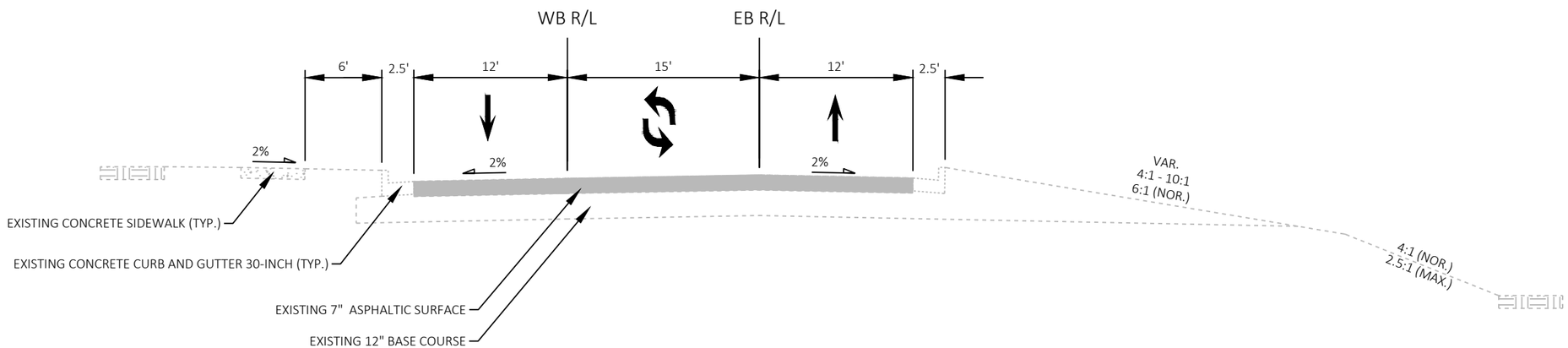
EXISTING TYPICAL SECTION

STA. 926+40 'EB' - 928+32 'EB'



EXISTING TYPICAL SECTION

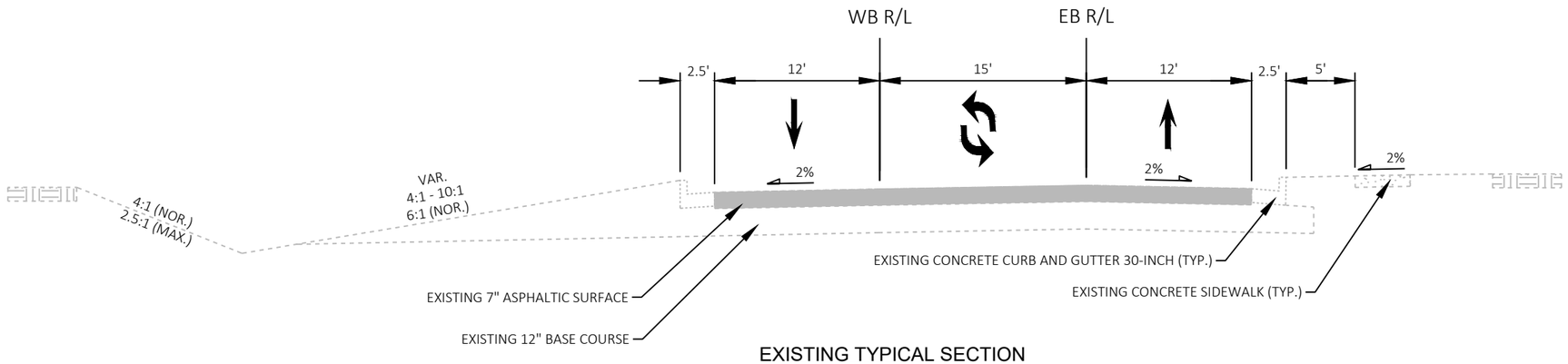
STA. 928+32 'EB' - 943+39 'EB'



EXISTING TYPICAL SECTION

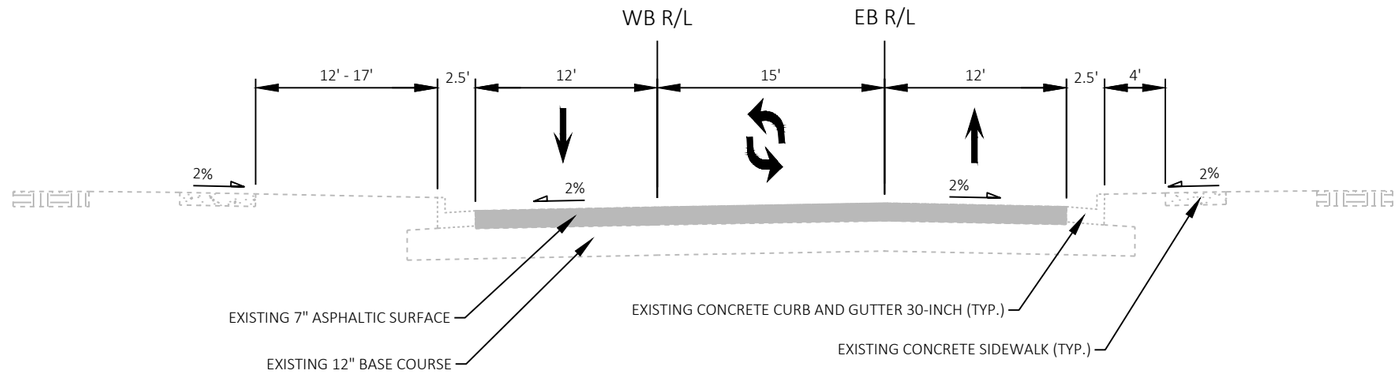
STA. 943+39 'EB' - 944+99 'EB'

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	EXISTING TYPICAL SECTIONS	SHEET 6	E



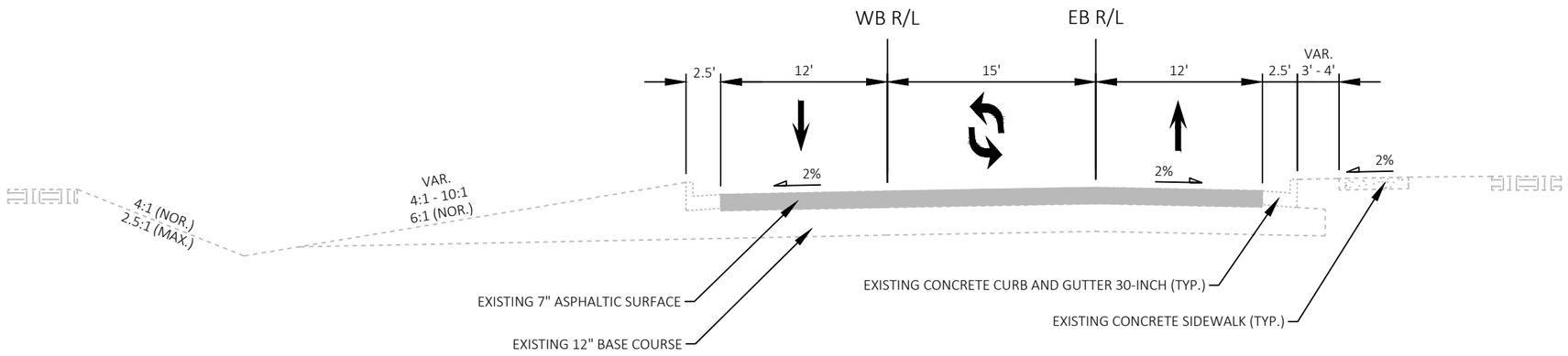
EXISTING TYPICAL SECTION

STA. 944+99 'EB' - 947+20 'EB'



EXISTING TYPICAL SECTION

STA. 947+20 'EB' - 948+75 'EB'

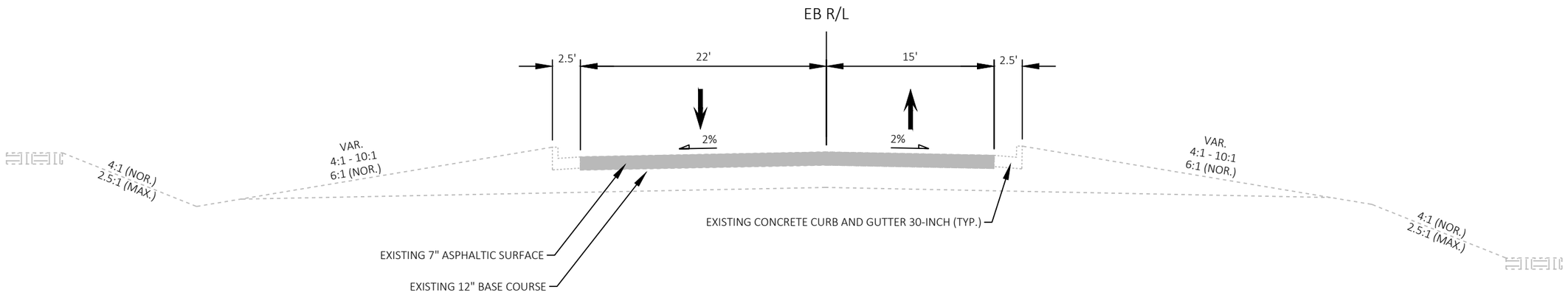


EXISTING TYPICAL SECTION

STA. 948+75 'EB' - 951+87 'EB'

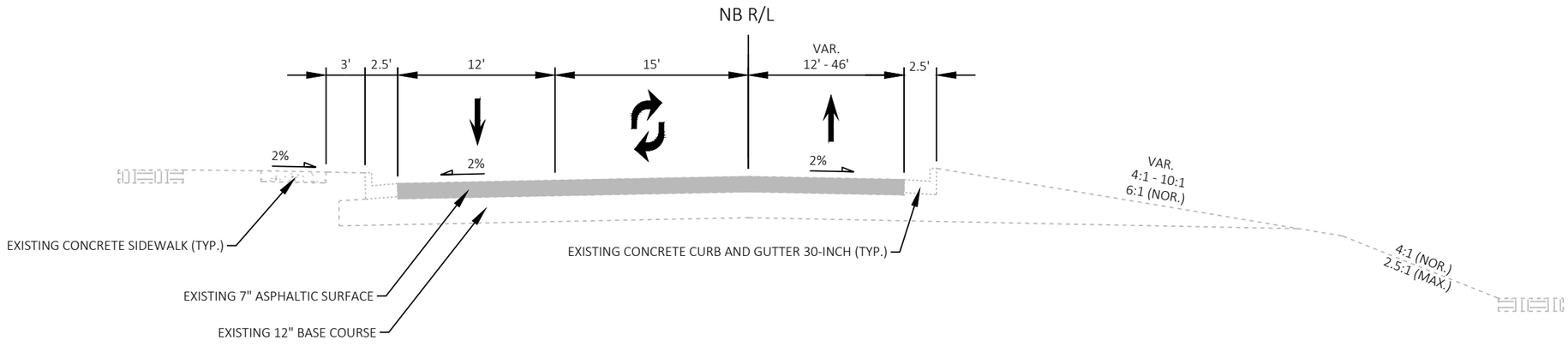
PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	EXISTING TYPICAL SECTIONS	SHEET 7	E

2



EXISTING TYPICAL SECTION

STA. 951+87 'EB' - 953+61 'EB'

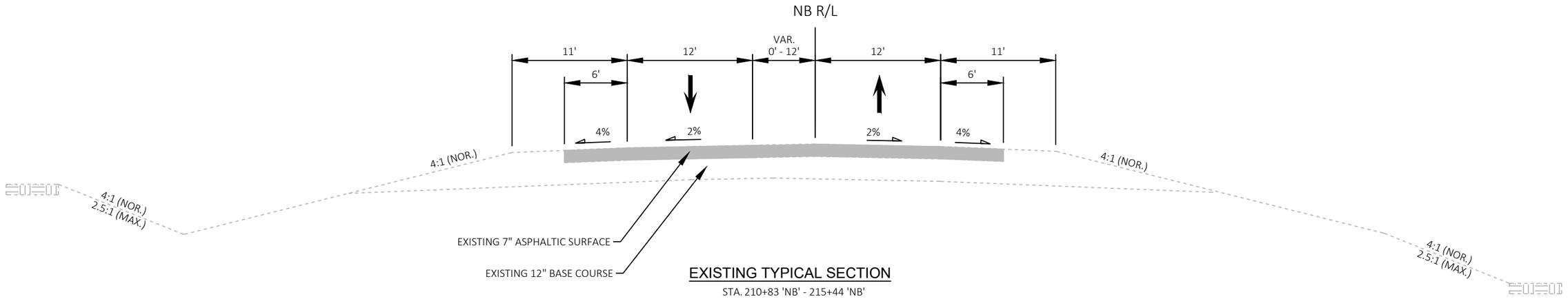


EXISTING TYPICAL SECTION

STA. 178+06 'NB' - 178+47 'NB'

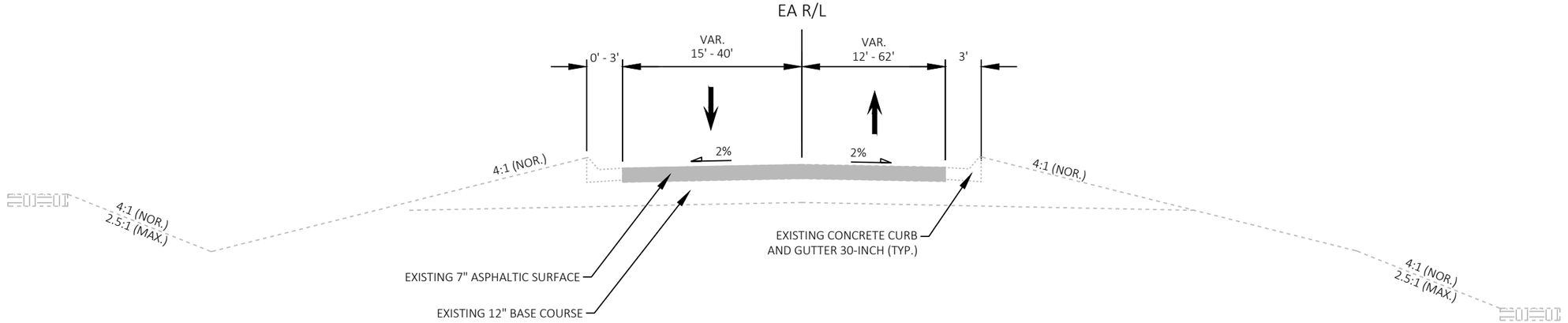
PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	EXISTING TYPICAL SECTIONS	SHEET 8	E

2



EXISTING TYPICAL SECTION

STA. 210+83 'NB' - 215+44 'NB'

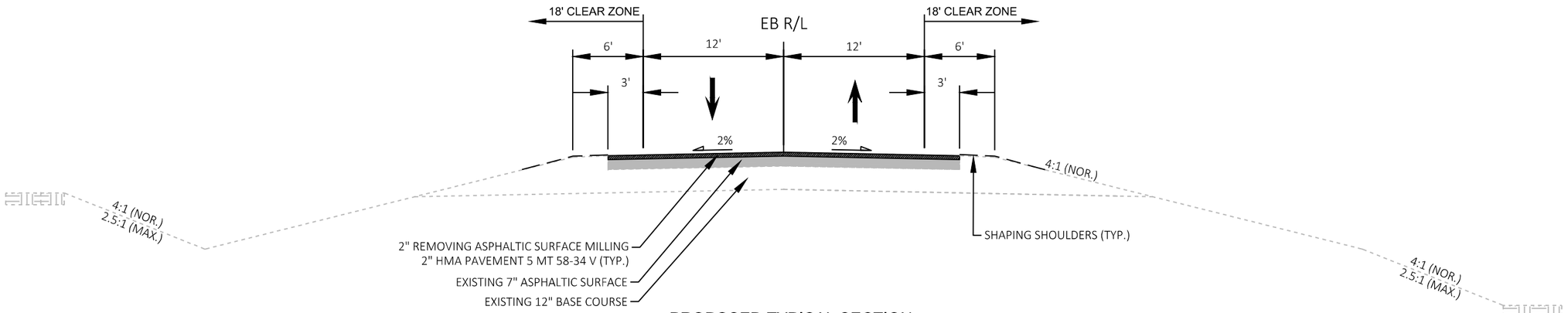


EXISTING TYPICAL SECTION

STA. 0+21 'EA' - 0+82 'EA'

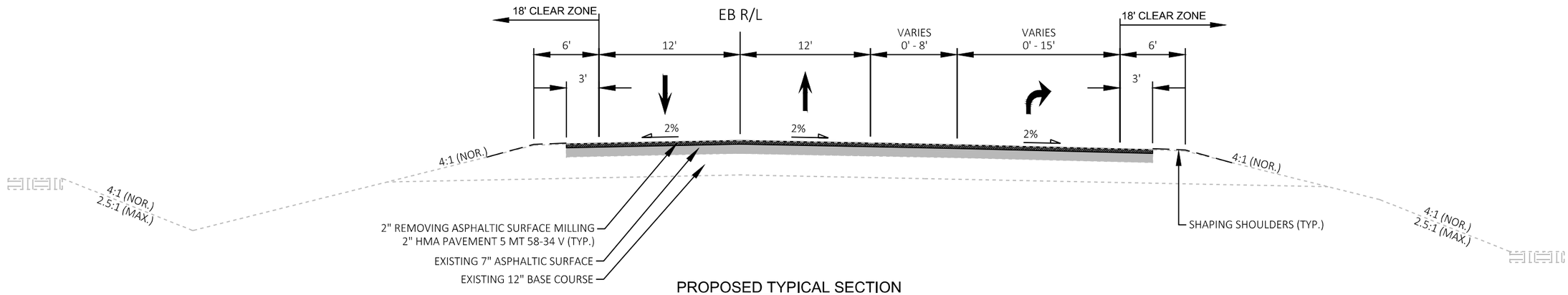
PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	EXISTING TYPICAL SECTIONS	SHEET 9	E

2



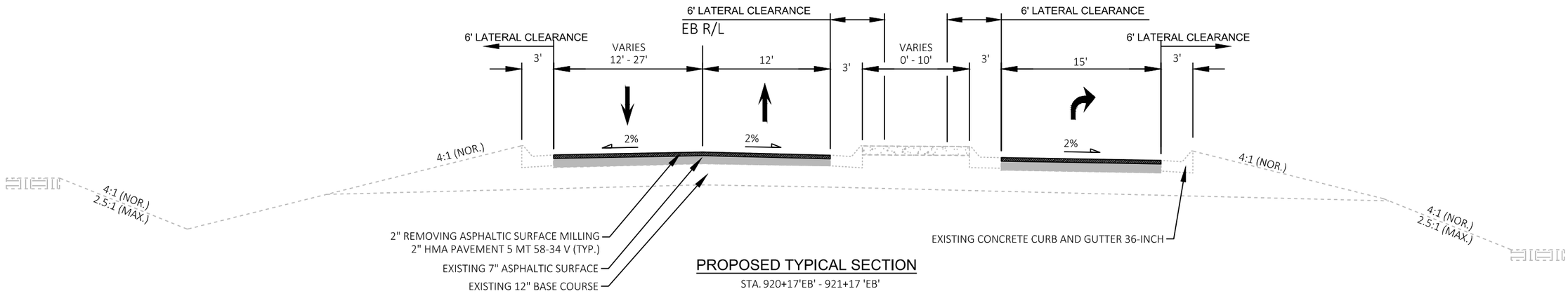
PROPOSED TYPICAL SECTION

STA. 914+00'EB' - 919+20 'EB'



PROPOSED TYPICAL SECTION

STA. 919+20 'EB' - 920+18 'EB'

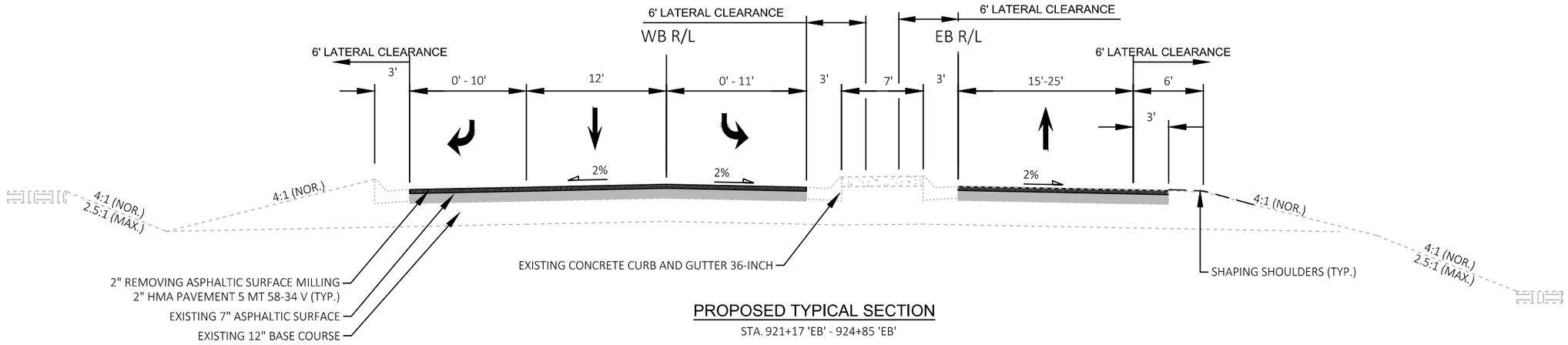


PROPOSED TYPICAL SECTION

STA. 920+17'EB' - 921+17 'EB'

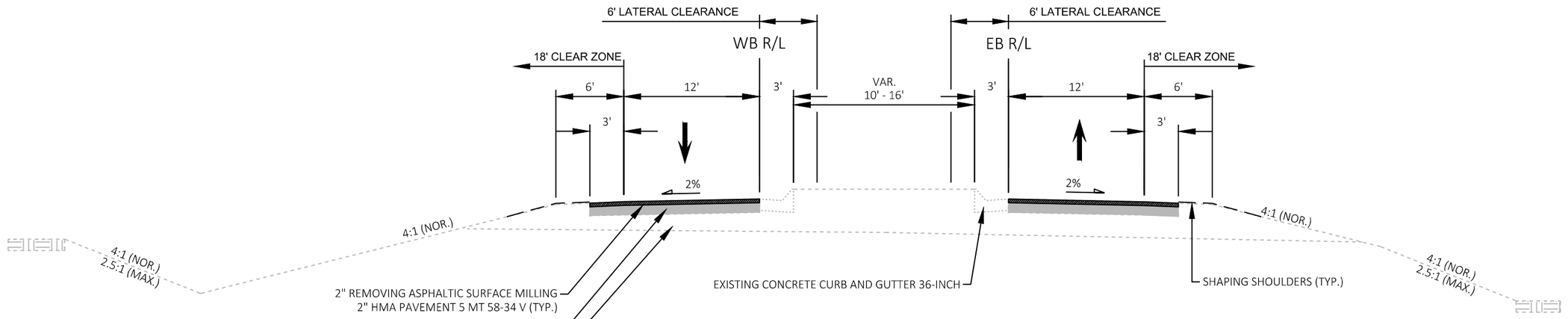
PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	PROPOSED TYPICAL SECTIONS	SHEET 10	E

2



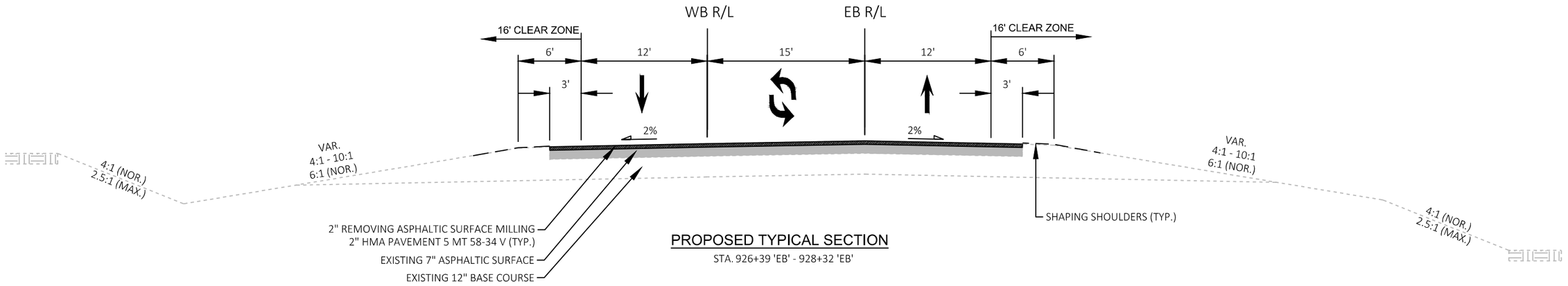
PROPOSED TYPICAL SECTION

STA. 921+17 'EB' - 924+85 'EB'



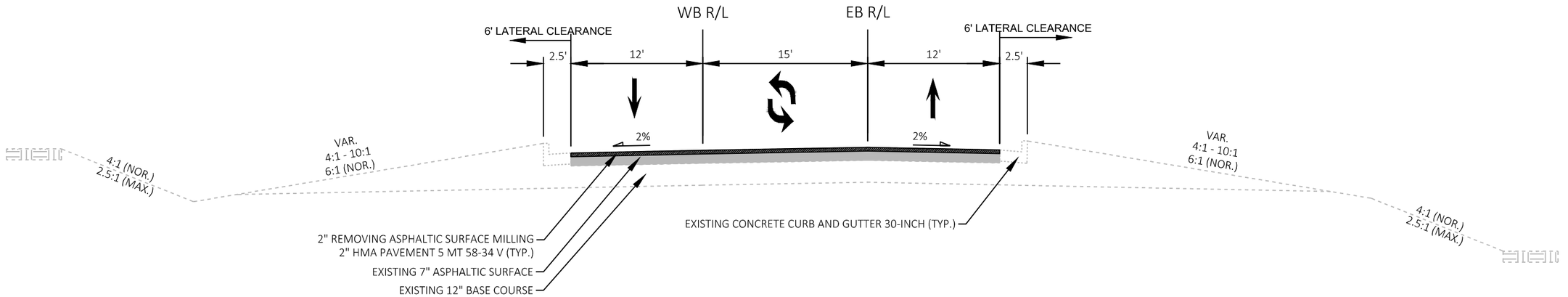
PROPOSED TYPICAL SECTION

STA. 924+85 'EB' - 926+40 'EB'



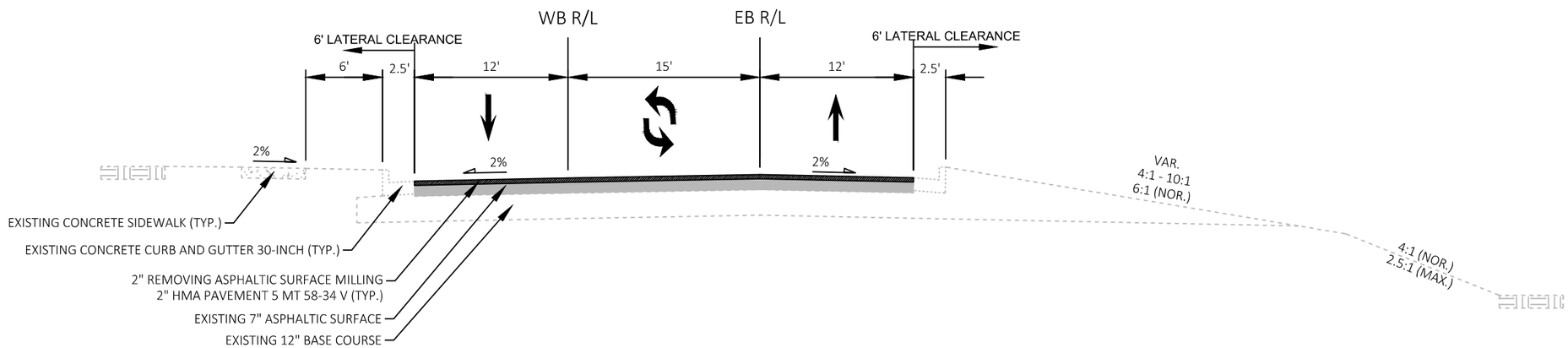
PROPOSED TYPICAL SECTION

STA. 926+39 'EB' - 928+32 'EB'



PROPOSED TYPICAL SECTION

STA. 928+32 'EB' - 943+39 'EB'

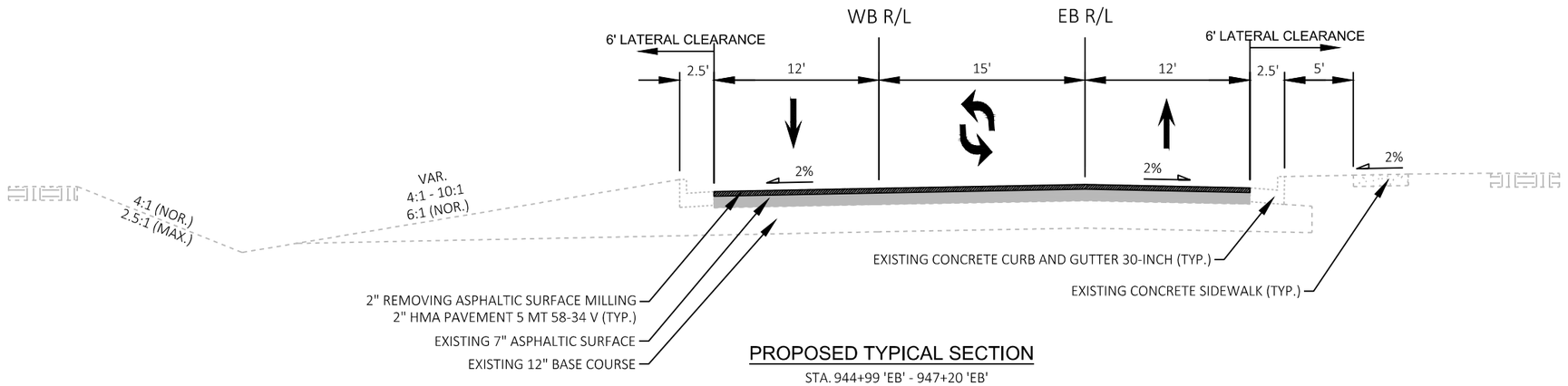


PROPOSED TYPICAL SECTION

STA. 943+39 'EB' - 944+99 'EB'

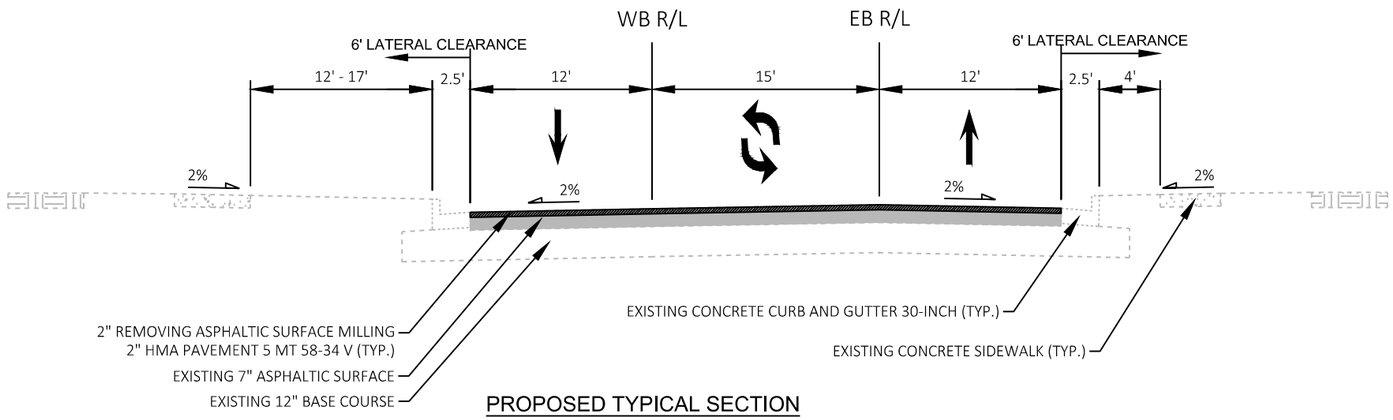
PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	PROPOSED TYPICAL SECTIONS	SHEET 12	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\8949-00-74\020301_TS_PR.DWG
LAYOUT NAME - 03
PLOT DATE : 1/31/2021 7:50 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



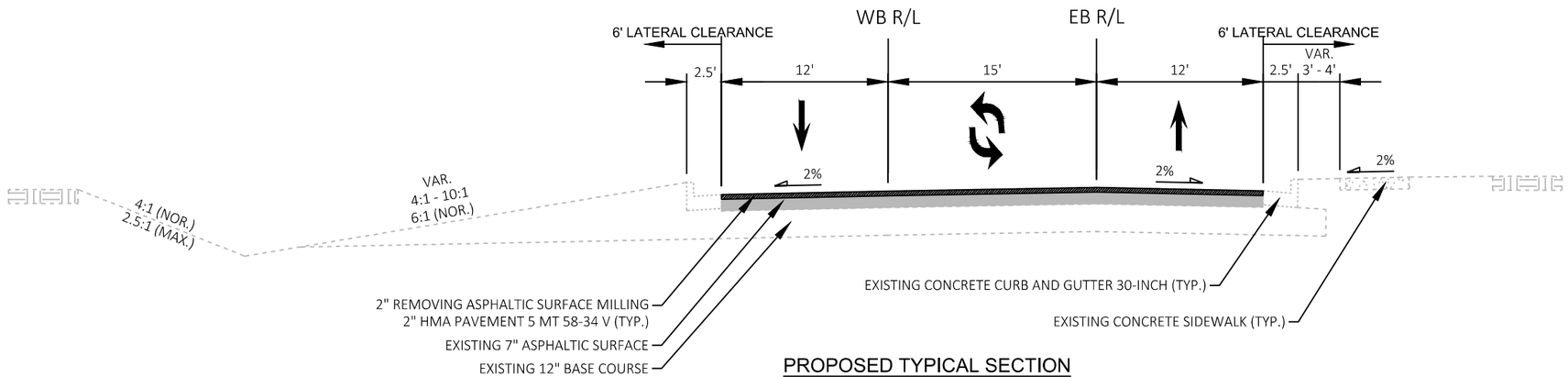
PROPOSED TYPICAL SECTION

STA. 944+99 'EB' - 947+20 'EB'



PROPOSED TYPICAL SECTION

STA. 947+20 'EB' - 948+75 'EB'



PROPOSED TYPICAL SECTION

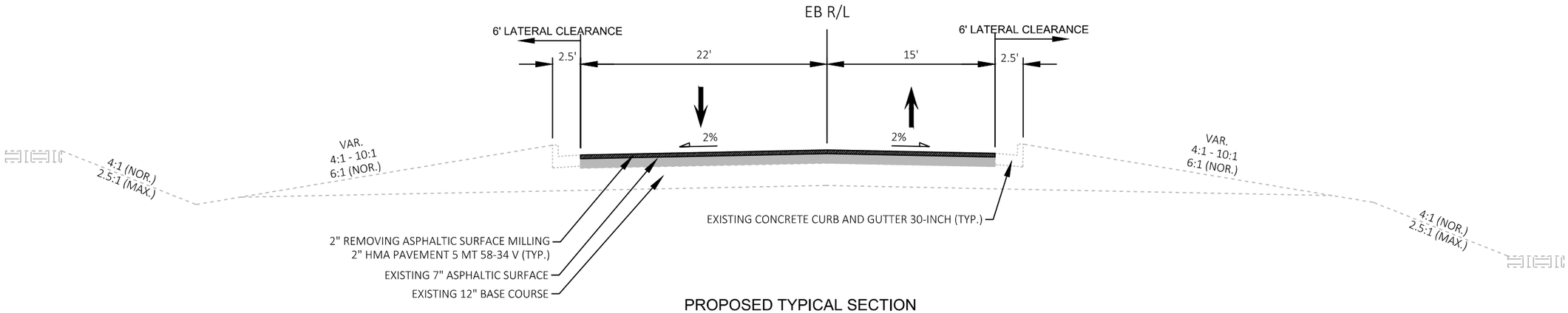
STA. 948+75 'EB' - 951+87 'EB'

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	PROPOSED TYPICAL SECTIONS	SHEET 13	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\8949-00-74\020301_TS_PR.DWG
LAYOUT NAME - 04

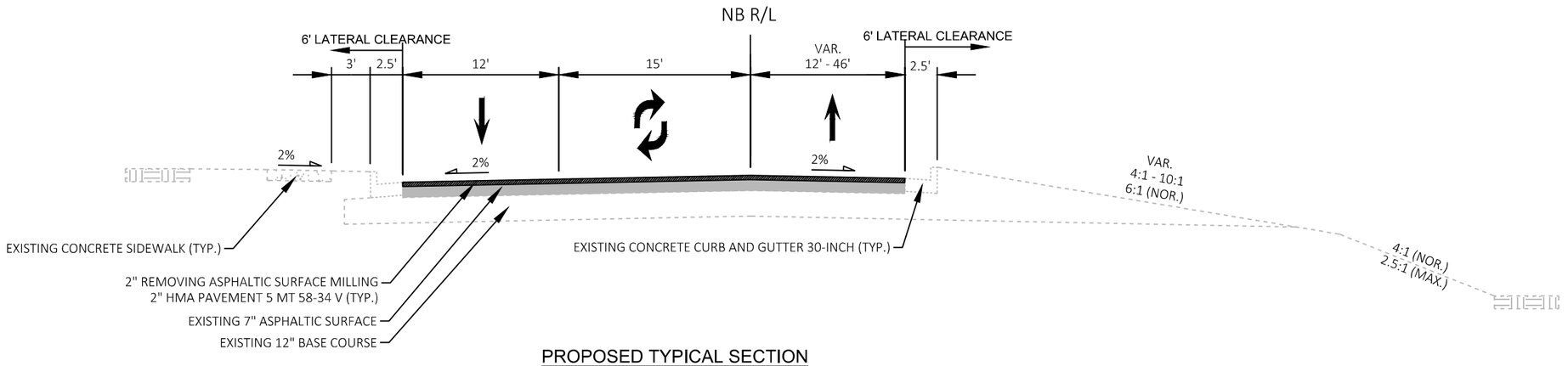
PLOT DATE : 1/31/2021 7:50 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT

2



PROPOSED TYPICAL SECTION

STA. 951+87 'EB' - 953+61 'EB'

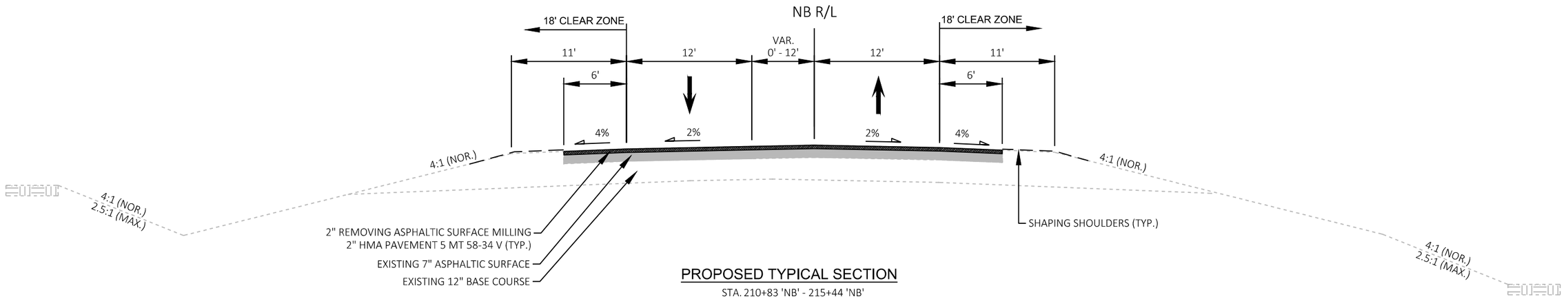


PROPOSED TYPICAL SECTION

STA. 178+06 'NB' - 178+47 'NB'

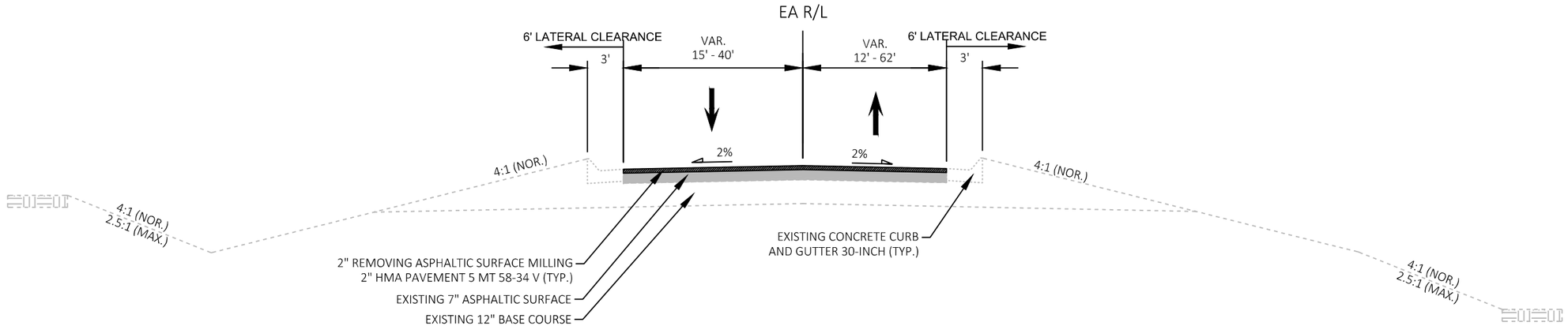
PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	PROPOSED TYPICAL SECTIONS	SHEET 14	E

2



PROPOSED TYPICAL SECTION

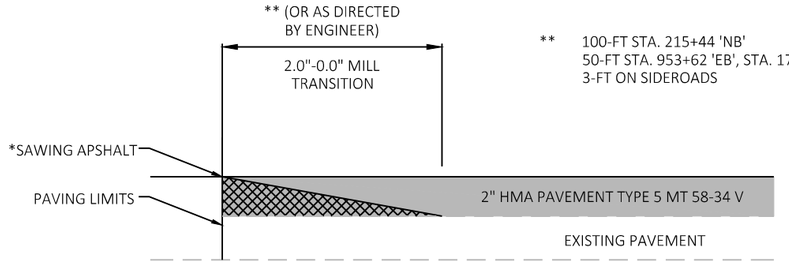
STA. 210+83 'NB' - 215+44 'NB'



PROPOSED TYPICAL SECTION

STA. 0+21 'EA' - 0+82 'EA'

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	PROPOSED TYPICAL SECTIONS	SHEET 15	E



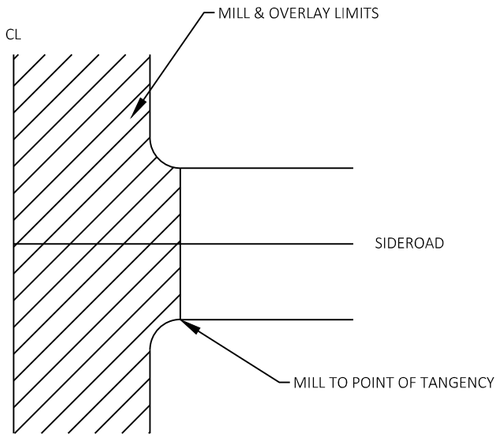
** 100-FT STA. 215+44 'NB'
50-FT STA. 953+62 'EB', STA. 178+06 'NB', & STA. 0+82 'EB'
3-FT ON SIDEROADS

*REQUIRED AT BEGINNING AND END OF PROJECT. SIDEROADS AS DIRECTED BY THE ENGINEER.

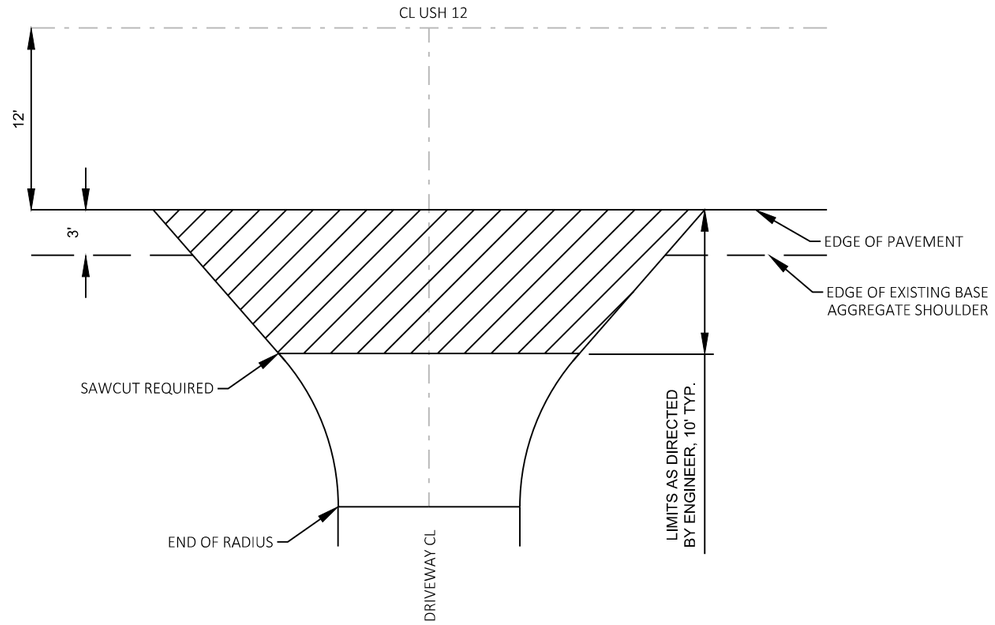
PAID FOR AS "REMOVING ASPHALTIC SURFACE BUTT JOINTS"

USH 12 MAINLINE REMOVING ASPHALTIC SURFACE BUTT JOINT DETAIL

REQUIRED AT BEGIN AND END OF PROJECT AND AT SIDEROADS
(EXACT LOCATION AND LENGTH TO BE DETERMINED BY THE ENGINEER)



SIDEROAD DETAIL



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 $\frac{3}{4}$-INCH"

SAWCUT PAID FOR UNDER ITEM "SAWING ASPHALT"

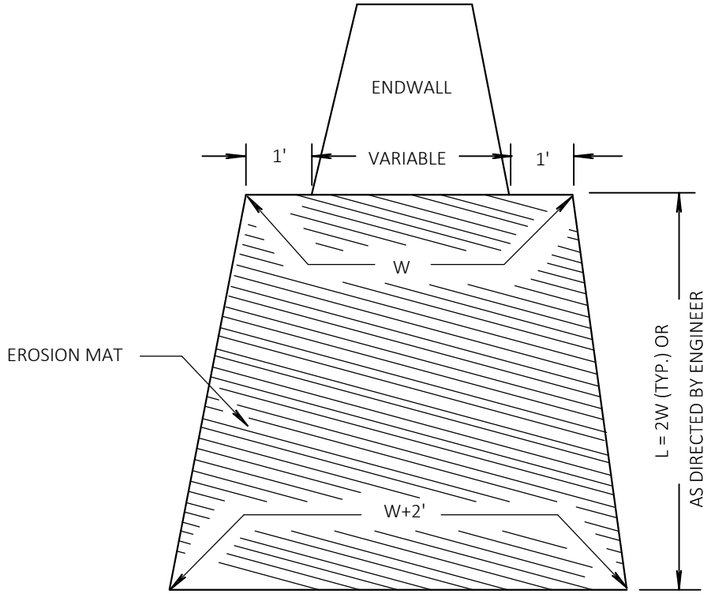
PAVED DRIVEWAY DETAIL

915+76'EB' RT
918+65'EB' LT
212+92'NB' LT

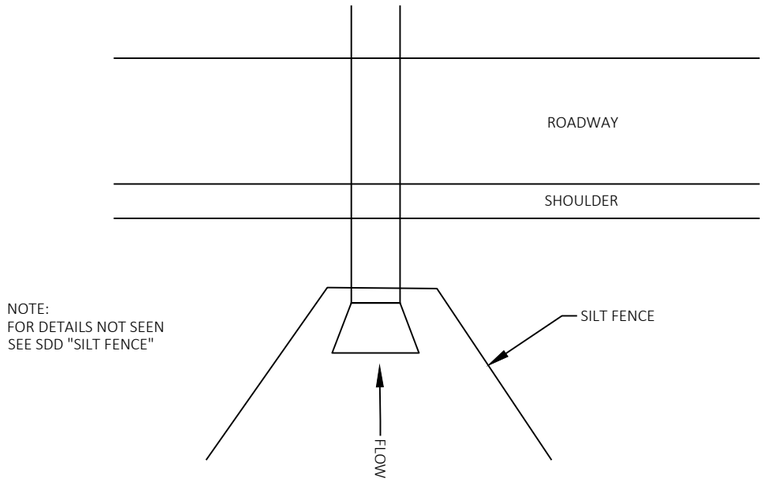
2

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	CONSTRUCTION DETAILS	SHEET E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\8949-00-74\021001-CD.DWG
LAYOUT NAME - 01
PLOT DATE : 1/31/2021 8:34 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

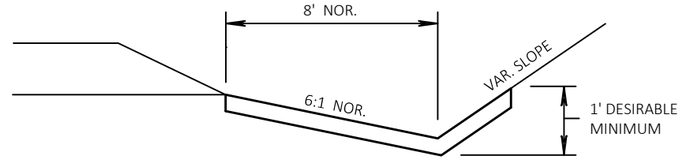


EROSION MAT TREATMENT AT CULVERTS



TYPICAL SILT FENCE DETAIL AT PIPE INLET

(SEE EROSION CONTROL PLAN FOR LOCATIONS)

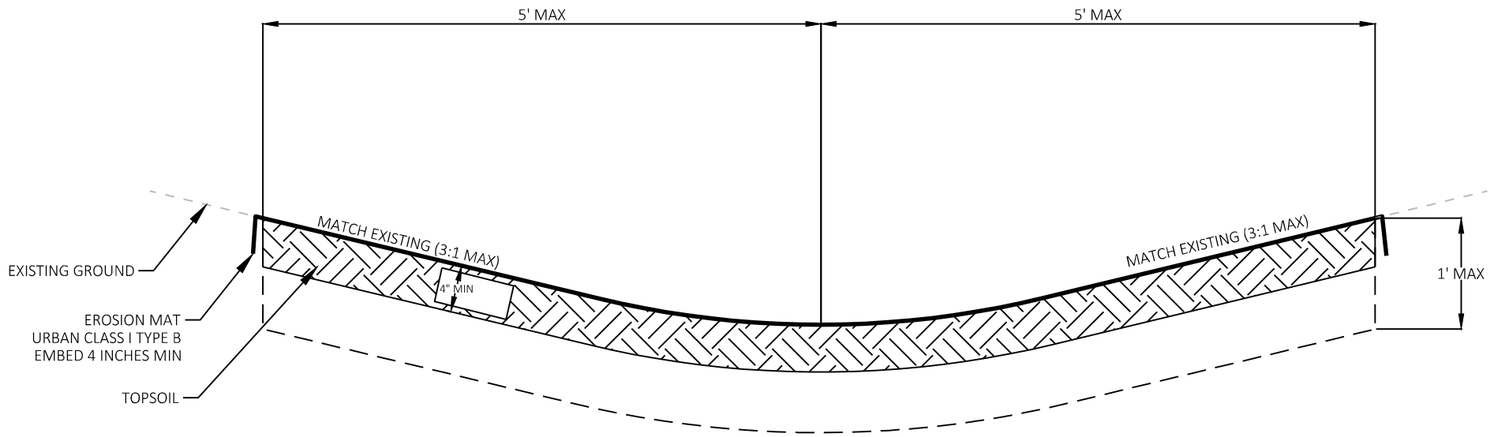


EROSION MAT DETAIL FOR DITCHES

2

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	CONSTRUCTION DETAILS	SHEET 17	E

2



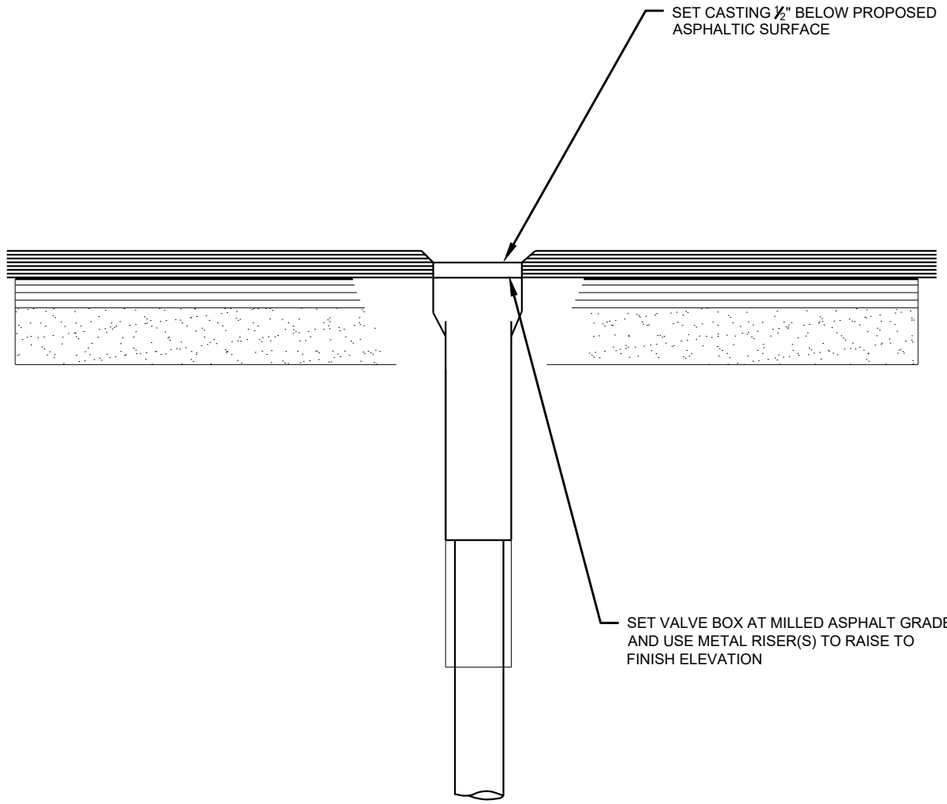
DITCH CLEANING

SPV.0090.004

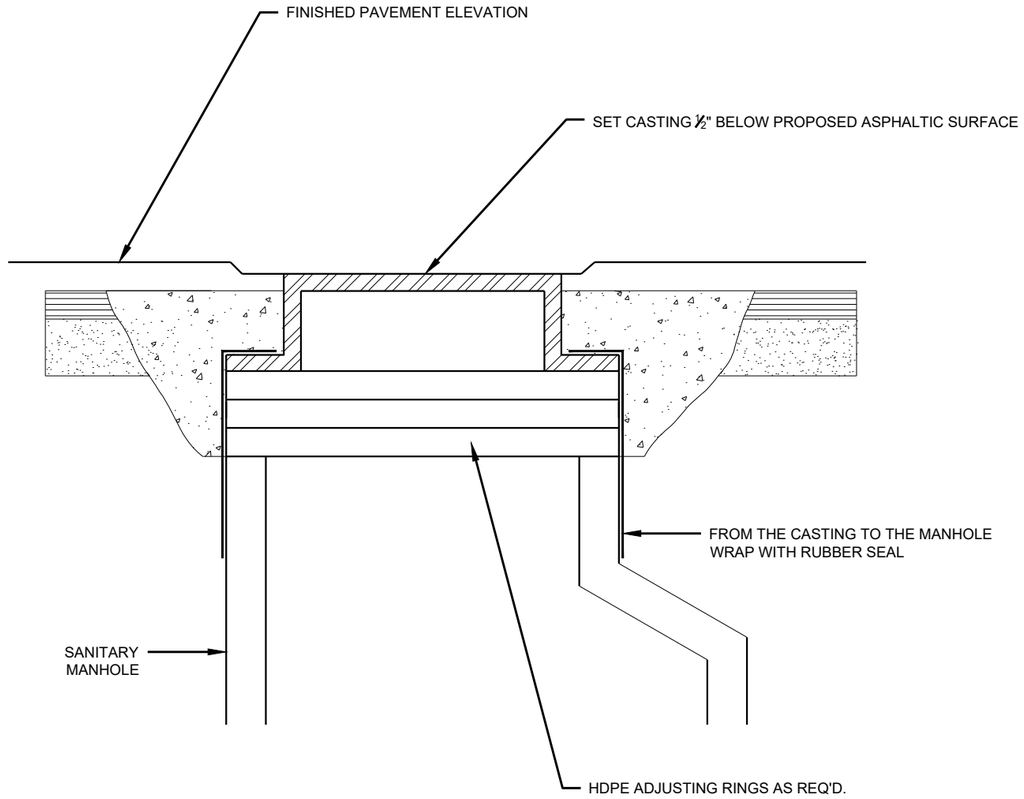
STA. 919+46.87 'EB' - STA. 920+46.67 'EB', RT

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	CONSTRUCTION DETAILS	SHEET 18	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\8949-00-74\021001-CD.DWG
LAYOUT NAME - 03
PLOT DATE : 1/31/2021 8:34 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

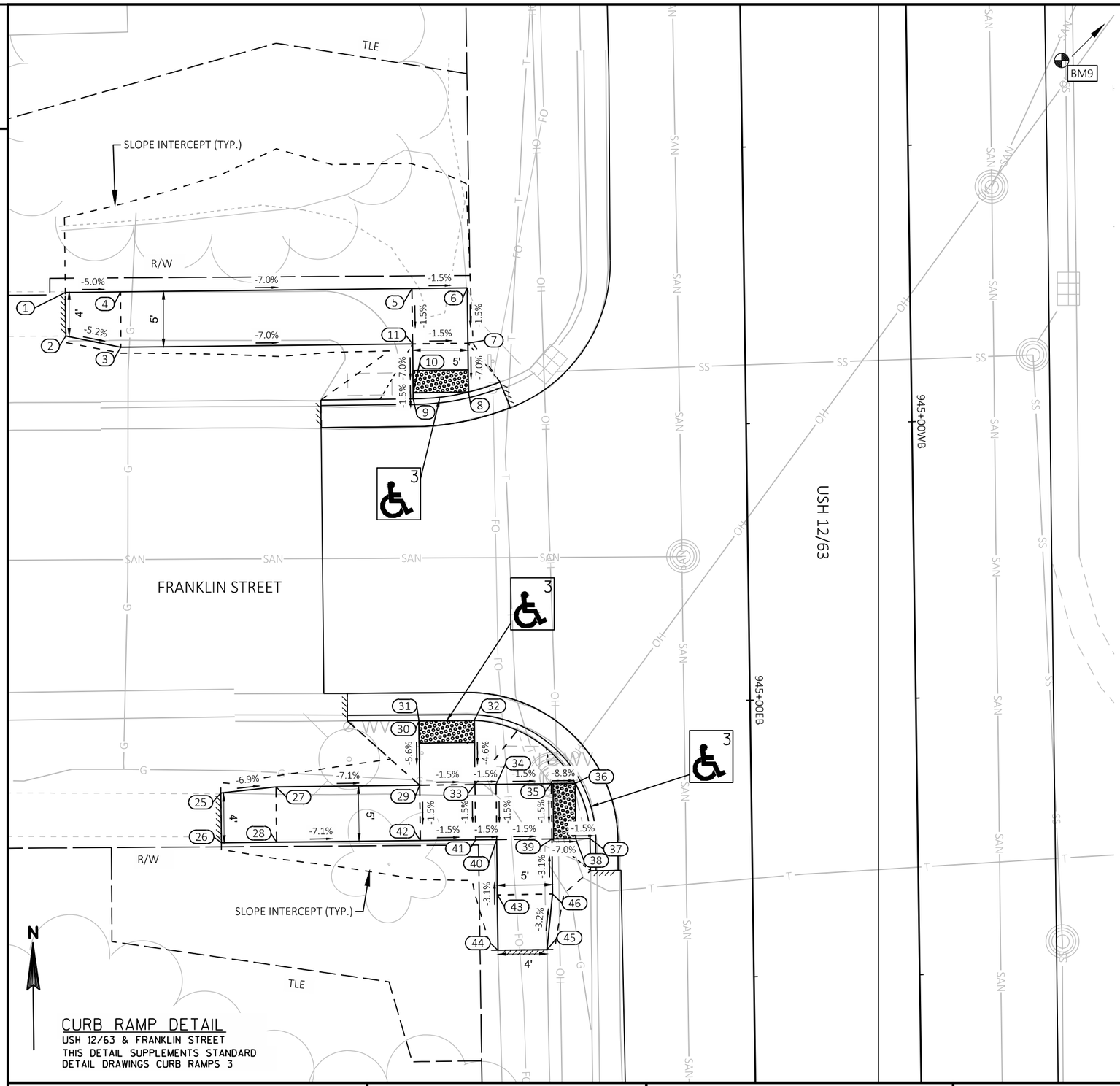


ADJUSTING WATER VALVE BOX



NOTE: CASTING ELEVATION TO BE SET TO MILLED ELEVATION AND RAISED TO SURFACE WITH METAL RISER(S).

RESETTING AND ADJUSTING MANHOLE CASTING



CURB RAMP DETAIL

USH 12/63 & FRANKLIN STREET
THIS DETAIL SUPPLEMENTS STANDARD
DETAIL DRAWINGS CURB RAMPS 3

Franklin NW			
POINT NO.	STATION	OFFSET	ELEVATION
1	944+62.27EB	61.39' RT	---
2	944+66.20EB	61.40' RT	---
3	944+67.29EB	56.43' RT	1148.59
4	944+62.29EB	56.38' RT	1148.66
5	944+62.36EB	30.03' RT	1146.82
6	944+62.38EB	25.03' RT	1146.74
7	944+67.37EB	25.04' RT	1146.67
8	944+71.79EB	25.06' RT	1146.36
9	944+72.33EB	30.06' RT	1146.42
10	944+71.78EB	30.06' RT	1146.43
11	944+67.36EB	30.04' RT	1146.74

--- DENOTES "MATCH EXISTING"

NOTE:

CONCRETE SIDEWALK 5-INCH OVER 4-INCH BASE AGGREGATE DENSE 3/4-INCH

REMOVE CURB AND GUTTER TO NEAREST JOINT.

MINOR EXCAVATION REQUIRED TO GRADE FOR FINISHED SIDEWALK SHALL BE CONSIDERED INCIDENTAL TO CONCRETE SIDEWALK 5-INCH BID ITEM.

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
BM9	944+27.34EB 42'RT	RR SPIKE PPOL #1FF26	1147.61

NOTE: BM9 NOT SHOWN ON THE PLANS

Franklin SW			
POINT NO.	STATION	OFFSET	ELEVATION
25	945+07.72EB	47.97' RT	---
26	945+12.21EB	47.98' RT	---
27	945+07.22EB	42.97' RT	1146.56
28	945+12.22EB	42.98' RT	1146.49
29	945+07.26EB	29.97' RT	1145.64
30	945+01.46EB	29.96' RT	1145.97
31	945+01.41EB	29.95' RT	1145.97
32	945+01.47EB	24.96' RT	1145.89
33	945+07.27EB	24.97' RT	1145.57
34	945+07.28EB	23.06' RT	1145.54
35	945+07.29EB	18.06' RT	1145.46
36	945+07.30EB	15.91' RT	1145.31
37	945+12.30EB	14.63' RT	1145.22
38	945+12.30EB	15.92' RT	1145.24
39	945+12.29EB	18.08' RT	1145.39
40	945+12.28EB	23.08' RT	1145.46
41	945+12.27EB	24.98' RT	1145.49
42	945+12.26EB	29.98' RT	1145.57
43	945+17.28EB	23.09' RT	1145.62
44	945+22.28EB	23.11' RT	---
45	945+22.29EB	18.67' RT	---
46	945+17.26EB	18.09' RT	1145.54

--- DENOTES "MATCH EXISTING"

LEGEND

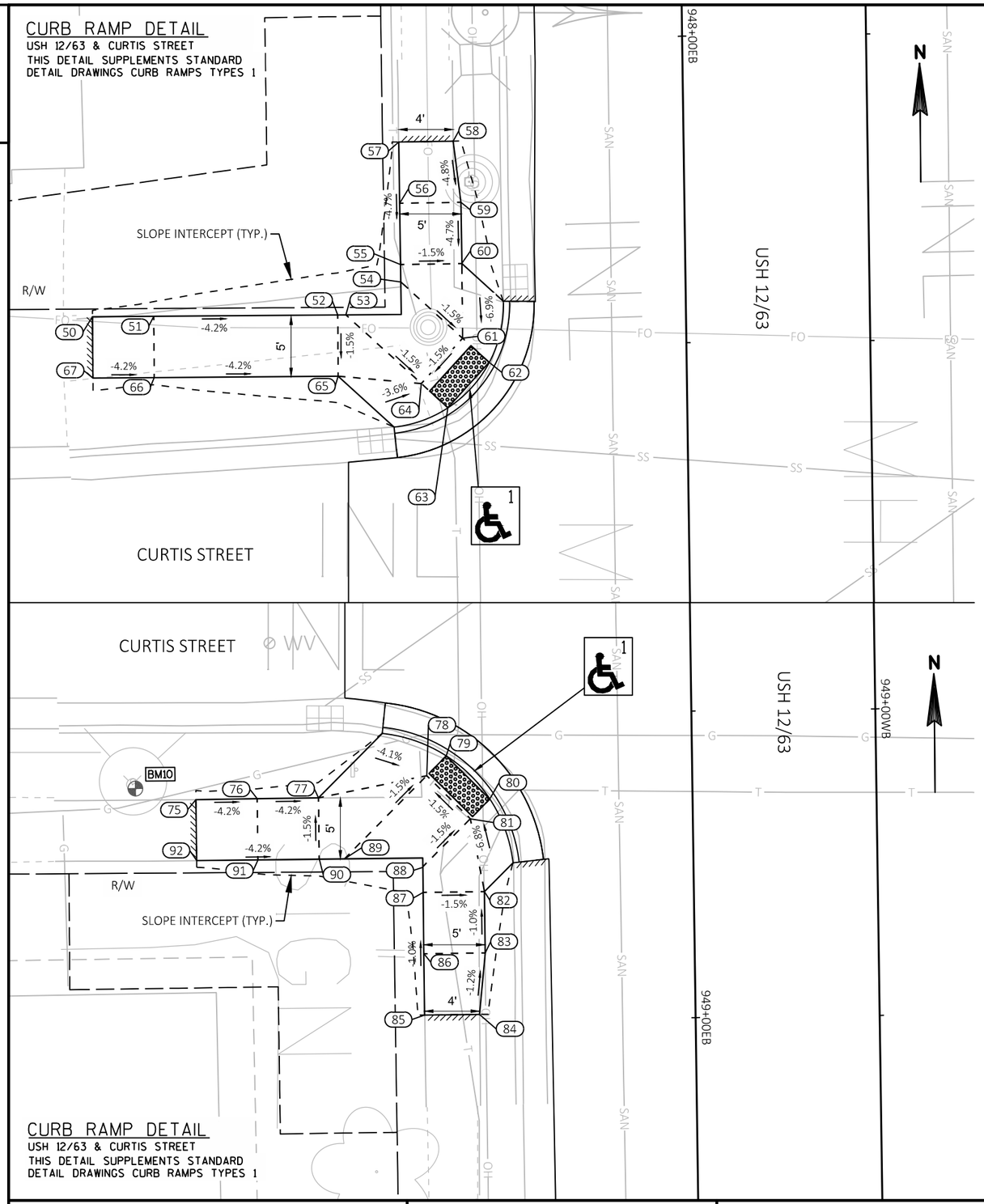
- XX — CURB RAMP TYPE XX
- DETECTABLE WARNING FIELD
- SAWING CONCRETE

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	CURB RAMP DETAILS	SHEET 20	E

2

CURB RAMP DETAIL

USH 12/63 & CURTIS STREET
THIS DETAIL SUPPLEMENTS STANDARD
DETAIL DRAWINGS CURB RAMPS TYPES 1



Curtis NW			
POINT NO.	STATION	OFFSET	ELEVATION
50	948+22.19EB	48.40' RT	---
51	948+22.22EB	43.40' RT	1141.30
52	948+22.32EB	28.40' RT	1140.67
53	948+22.33EB	27.74' RT	1140.69
54	948+19.71EB	23.21' RT	1140.99
55	948+18.29EB	23.21' RT	1141.06
56	948+13.29EB	23.22' RT	1141.29
57	948+08.29EB	23.22' RT	---
58	948+08.29EB	18.78' RT	---
59	948+13.29EB	18.22' RT	1141.21
60	948+18.25EB	18.21' RT	1141.12
61	948+24.37EB	18.24' RT	1140.85
62	948+26.37EB	16.11' RT	1140.84
63	948+30.02EB	19.52' RT	1140.52
64	948+28.02EB	21.66' RT	1140.77
65	948+27.32EB	28.43' RT	1140.57
66	948+27.22EB	43.43' RT	1141.22
67	948+27.19EB	48.43' RT	---

--- DENOTES "MATCH EXISTING"

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
BM10	948+80.67EB 45'RT	CUT X SE FLANGE BOLT W/ 7-6 TAG HYD	1142.10

NOTE:

CONCRETE SIDEWALK 5-INCH OVER 4-INCH BASE AGGREGATE DENSE 3/4-INCH

REMOVE CURB AND GUTTER TO NEAREST JOINT.

MINOR EXCAVATION REQUIRED TO GRADE FOR FINISHED SIDEWALK SHALL BE CONSIDERED INCIDENTAL TO CONCRETE SIDEWALK 5-INCH BID ITEM.

2

CURTIS STREET
USH 12/63
949+00EB
949+00WB
N
SLOPE INTERCEPT (TYP.)
R/W
BM10
1

Curtis SW			
POINT NO.	STATION	OFFSET	ELEVATION
75	948+81.65EB	40.50' RT	---
76	948+81.63EB	35.50' RT	1140.54
77	948+81.65EB	30.50' RT	1140.26
78	948+79.96EB	21.65' RT	1140.19
79	948+78.38EB	20.04' RT	1140.23
80	948+81.94EB	16.53' RT	1140.25
81	948+83.53EB	18.14' RT	1140.26
82	948+89.48EB	17.07' RT	1140.29
83	948+94.48EB	17.09' RT	1140.35
84	948+99.48EB	17.62' RT	---
85	948+99.47EB	22.10' RT	---
86	948+94.47EB	22.09' RT	1140.43
87	948+89.47EB	22.07' RT	1140.38
88	948+87.42EB	22.07' RT	1140.37
89	948+86.65EB	28.46' RT	1140.41
90	948+86.65EB	30.51' RT	1140.40
91	948+86.63EB	35.51' RT	1140.61
92	948+86.62EB	40.51' RT	---

--- DENOTES "MATCH EXISTING"

LEGEND

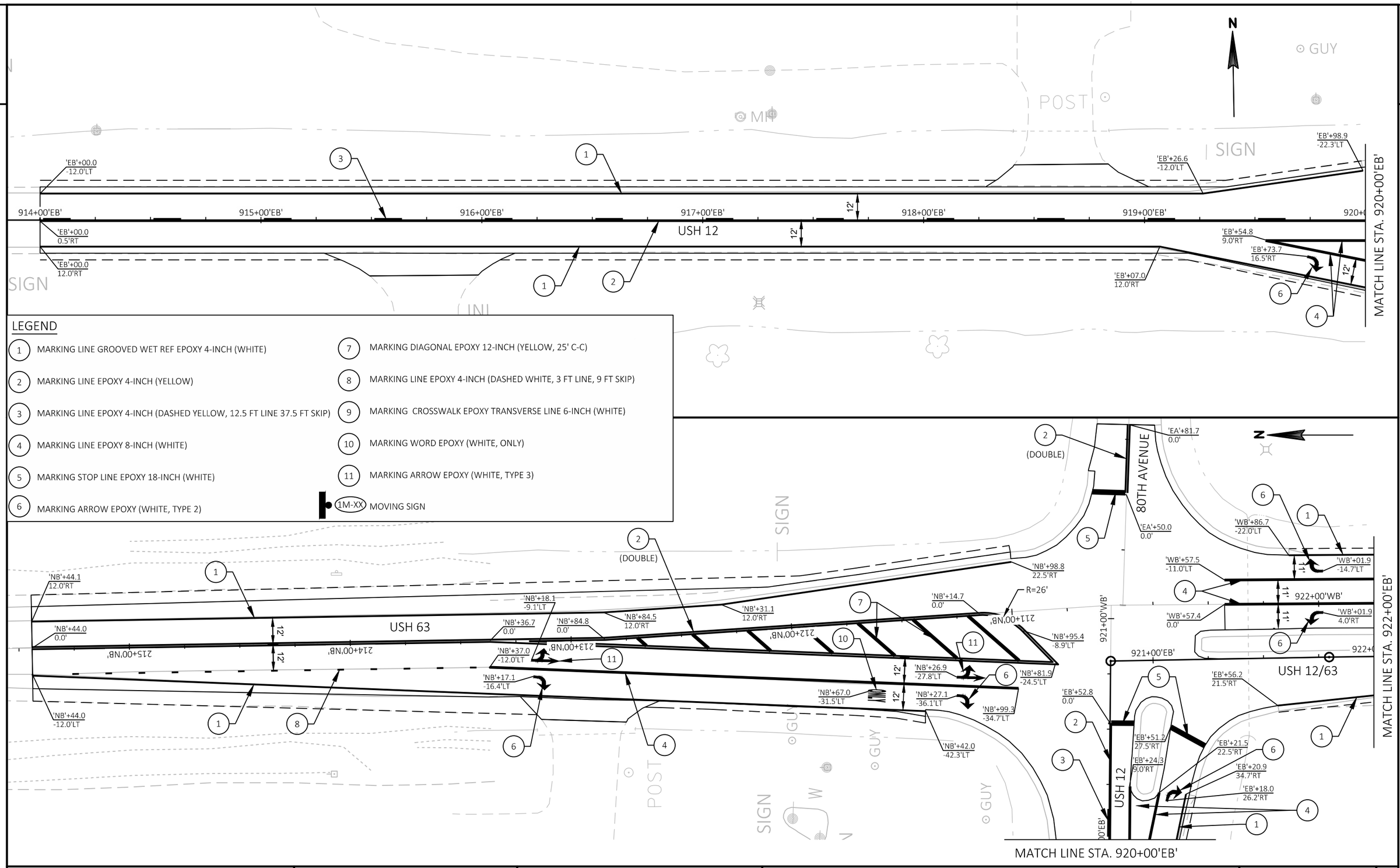
- XX — CURB RAMP TYPE XX
- DETECTABLE WARNING FIELD
- SAWING CONCRETE

CURB RAMP DETAIL
USH 12/63 & CURTIS STREET
THIS DETAIL SUPPLEMENTS STANDARD
DETAIL DRAWINGS CURB RAMPS TYPES 1

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	CURB RAMP DETAILS	SHEET 21	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\8949-00-74\021301-CR.DWG
LAYOUT NAME - 2
PLOT DATE : 1/31/2021 9:36 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

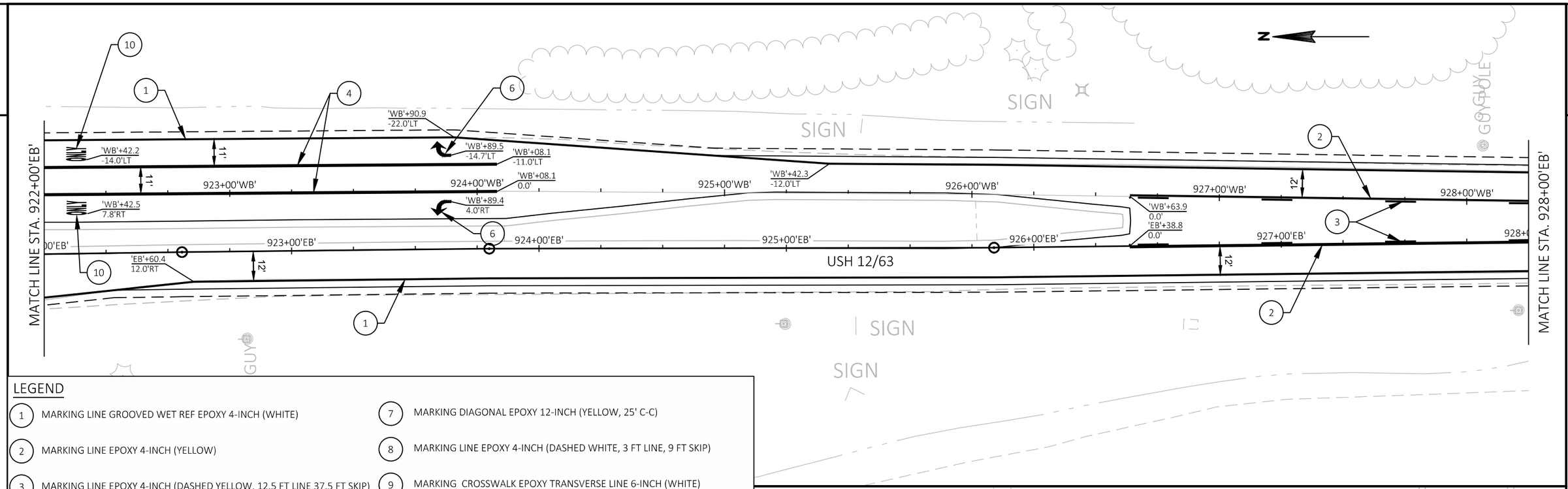


LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2. MARKING LINE EPOXY 4-INCH (YELLOW)
3. MARKING LINE EPOXY 4-INCH (DASHED YELLOW, 12.5 FT LINE 37.5 FT SKIP)
4. MARKING LINE EPOXY 8-INCH (WHITE)
5. MARKING STOP LINE EPOXY 18-INCH (WHITE)
6. MARKING ARROW EPOXY (WHITE, TYPE 2)
7. MARKING DIAGONAL EPOXY 12-INCH (YELLOW, 25' C-C)
8. MARKING LINE EPOXY 4-INCH (DASHED WHITE, 3 FT LINE, 9 FT SKIP)
9. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
10. MARKING WORD EPOXY (WHITE, ONLY)
11. MARKING ARROW EPOXY (WHITE, TYPE 3)

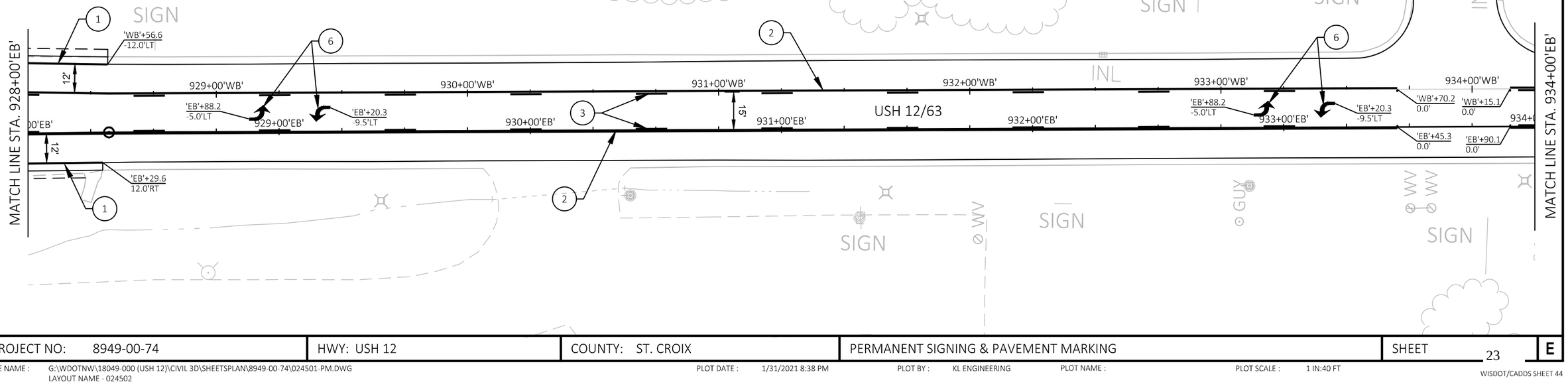
1M-XX MOVING SIGN

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	PERMANENT SIGNING & PAVEMENT MARKING	SHEET 22	E



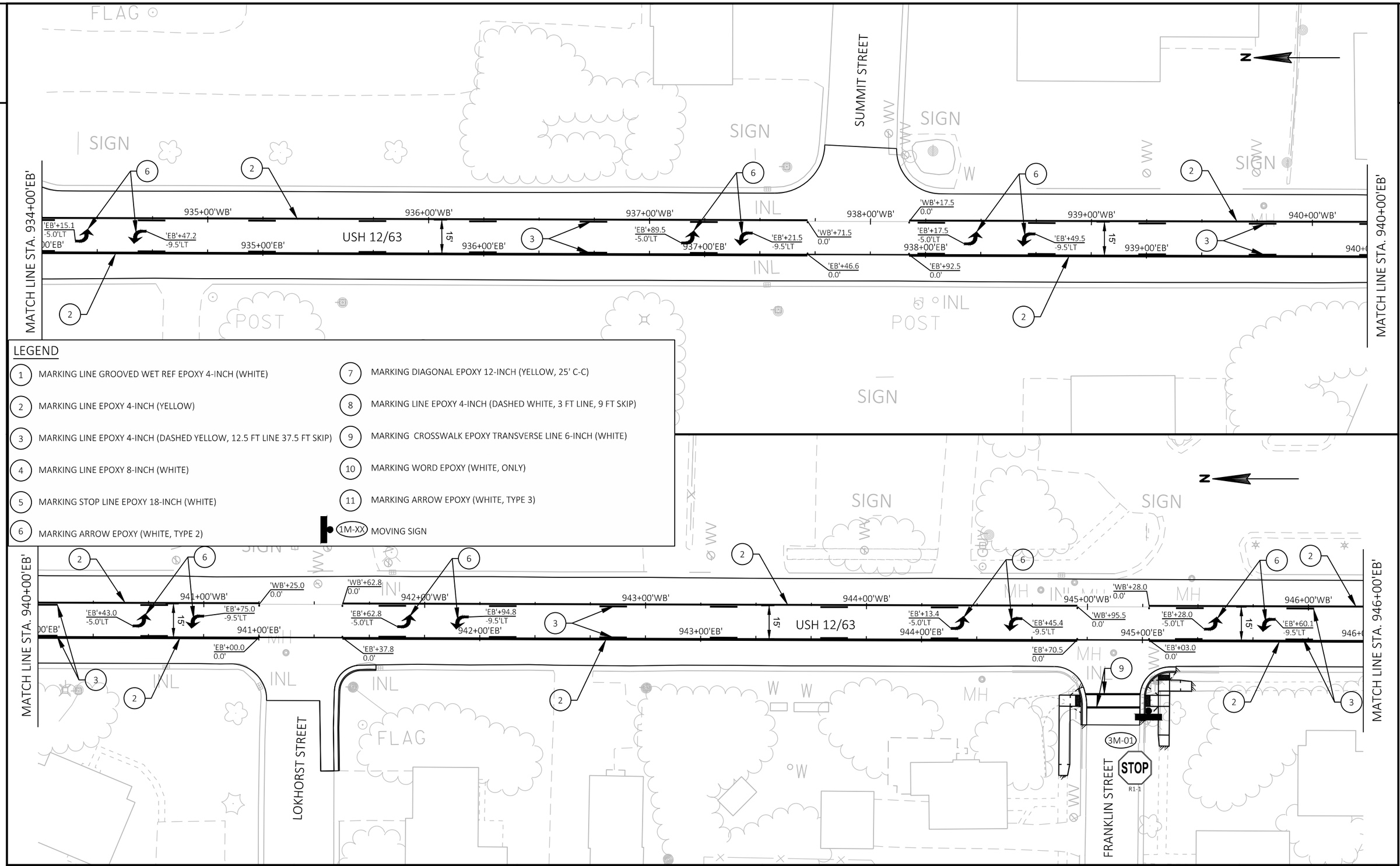
LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2. MARKING LINE EPOXY 4-INCH (YELLOW)
3. MARKING LINE EPOXY 4-INCH (DASHED YELLOW, 12.5 FT LINE 37.5 FT SKIP)
4. MARKING LINE EPOXY 8-INCH (WHITE)
5. MARKING STOP LINE EPOXY 18-INCH (WHITE)
6. MARKING ARROW EPOXY (WHITE, TYPE 2)
7. MARKING DIAGONAL EPOXY 12-INCH (YELLOW, 25' C-C)
8. MARKING LINE EPOXY 4-INCH (DASHED WHITE, 3 FT LINE, 9 FT SKIP)
9. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
10. MARKING WORD EPOXY (WHITE, ONLY)
11. MARKING ARROW EPOXY (WHITE, TYPE 3)
- 1M-XX MOVING SIGN



PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	PERMANENT SIGNING & PAVEMENT MARKING	SHEET 23	E

2



LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2. MARKING LINE EPOXY 4-INCH (YELLOW)
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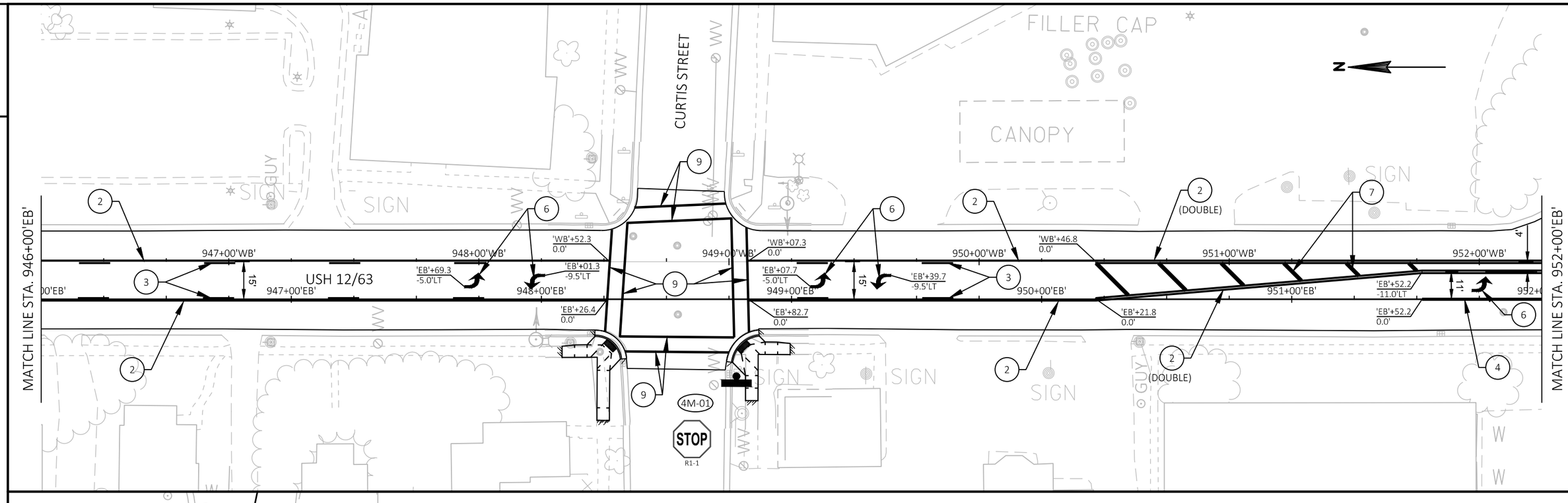
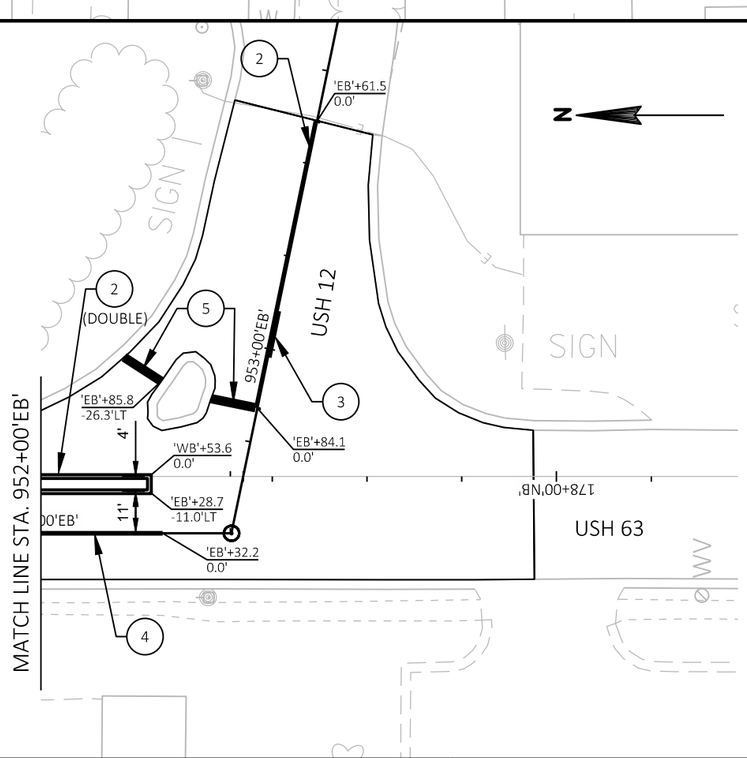
9. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
10. MARKING WORD EPOXY (WHITE, ONLY)
11. MARKING ARROW EPOXY (WHITE, TYPE 3)

1M-XX MOVING SIGN

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	PERMANENT SIGNING & PAVEMENT MARKING	SHEET 24 E





LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2. MARKING LINE EPOXY 4-INCH (YELLOW)
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8. MARKING LINE EPOXY 4-INCH (DASHED WHITE, 3 FT LINE, 9 FT SKIP)
9. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
10. MARKING WORD EPOXY (WHITE, ONLY)
11. MARKING ARROW EPOXY (WHITE, TYPE 3)

1M-XX MOVING SIGN

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	PERMANENT SIGNING & PAVEMENT MARKING	SHEET 25	E

2

MAINTENANCE OF TRAFFIC:

USH 12

- USH 12 SHALL REMAIN OPEN TO ALL EXISTING LANES AT ALL TIMES EXCEPT FOR FLAGGING OPERATIONS AS NOTED IN THE CONTRACT SPECIAL PROVISIONS

LOCAL ROADS AND DRIVEWAYS

- MAINTAIN LOCAL ACCESS AT ALL TIMES

PEDESTRIANS

- CONTRACTOR SHALL MAINTAIN MINIMUM OF ONE PEDESTRIAN CROSSING ON THE NORTH SIDE OR SOUTH SIDE AT AN INTERSECTION, AT ALL TIMES DURING CURB RAMP CONSTRUCTION IN VILLAGE OF BALDWIN.

CONSTRUCTION TO BE COMPLETED:

USH 12

- MILL & OVERLAY
- CURB RAMP AND CURB & GUTTER IMPROVEMENTS

NOTES:

REFER TO THE FOLLOWING TRAFFIC CONTROL DETAILS, AS WELL AS STANDARD DETAIL DRAWINGS FOR TRAFFIC CONTROL DEVICES AS NECESSARY, UNLESS OTHERWISE DIRECTED BY THE ENGINEER:

- SEE S.D.D. "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"
- SEE S.D.D. "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"
- SEE S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION"
- SEE S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"
- SEE S.D.D. "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES"
- SEE S.D.D. "TRAFFIC CONTROL, ADVANCED WIDTH RESTRICTION SIGNING"
- SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION"

TRAFFIC CONTROL GENERAL NOTES:

- 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. REMOVING/REPLACING OR COVERING/UNCOVERING SIGNS WILL BE INCIDENTAL TO OTHER TRAFFIC CONTROL ITEMS.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
- CONSIDER GEOMETRICS WHEN LOCATING SIGNS, ARROW BOARDS, AND SIGN MESSAGE BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE SIGNS, ARROW BOARDS, AND SIGN MESSAGE BOARDS.
- IF SIGNS ARE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS WITH A MINIMUM 5' MOUNTING HEIGHT.
- ALL TRAFFIC CONTROL SIGNING SHALL CONFORM TO: PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE WISCONSIN SUPPLEMENT TO THE MUTCD, TRAFFIC ENGINEERING, OPERATIONS AND SAFETY MANUAL, AND OTHER CONTRACT DOCUMENTS.
- THE TURNING OF TRAFFIC CONTROL DEVICES WHEN NOT IN USE TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED

2

2

2

N

MATCH LINE STA. 930+00'EB'

80TH AVENUE

USH 63

USH 12

USH 12/63

R/W

214'NB'

212'NB'

922'WB'

924'WB'

926'WB'

928'WB'

930'WB'

922'EB'

924'EB'

926'EB'

928'EB'

920'EB'

918'EB'

916'EB'

914'EB'

1'EA'

BEGIN PROJECT 8949-00-74
STA 914+00
(MATCH PROJECT 8949-00-71)

LEGEND

A SIDEWALK CLOSURE
-SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR DETAILS NOT SHOWN

B SIDEROAD SIGNING
-SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR DETAILS NOT SHOWN
-SEE S.D.D. "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES" FOR DETAILS NOT SHOWN

C SIDEROAD SIGNING
-SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR DETAILS NOT SHOWN
-SEE S.D.D. "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES" FOR DETAILS NOT SHOWN

D FLAGGING
-SEE S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" FOR DETAILS NOT SHOWN

E WIDTH RESTRICTION SIGNING
-SEE S.D.D. "TRAFFIC CONTROL, ADVANCED WIDTH RESTRICTION SIGNING" FOR DETAILS NOT SHOWN

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	TRAFFIC CONTROL	SHEET 27	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\8949-00-74\025100-TC.DWG
LAYOUT NAME - 66
PLOT DATE : 1/31/2021 8:41 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

MATCH LINE STA. 930+00'EB'

MATCH LINE STA. 945+00'EB'

HILLCREST STREET

SUMMIT STREET

LOKHORST STREET

FRANKLIN STREET

USH 12/63

R/W

932'WB' 934'WB' 936'WB' 938'WB' 940'WB' 942'WB' 944'WB'

932'EB' 934'EB' 936'EB' 938'EB' 940'EB' 942'EB' 944'EB'

LEGEND

A SIDEWALK CLOSURE
-SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR DETAILS NOT SHOWN

B SIDEROAD SIGNING
-SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR DETAILS NOT SHOWN
-SEE S.D.D. "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES" FOR DETAILS NOT SHOWN

C SIDEROAD SIGNING
-SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR DETAILS NOT SHOWN
-SEE S.D.D. "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES" FOR DETAILS NOT SHOWN

D FLAGGING
-SEE S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" FOR DETAILS NOT SHOWN

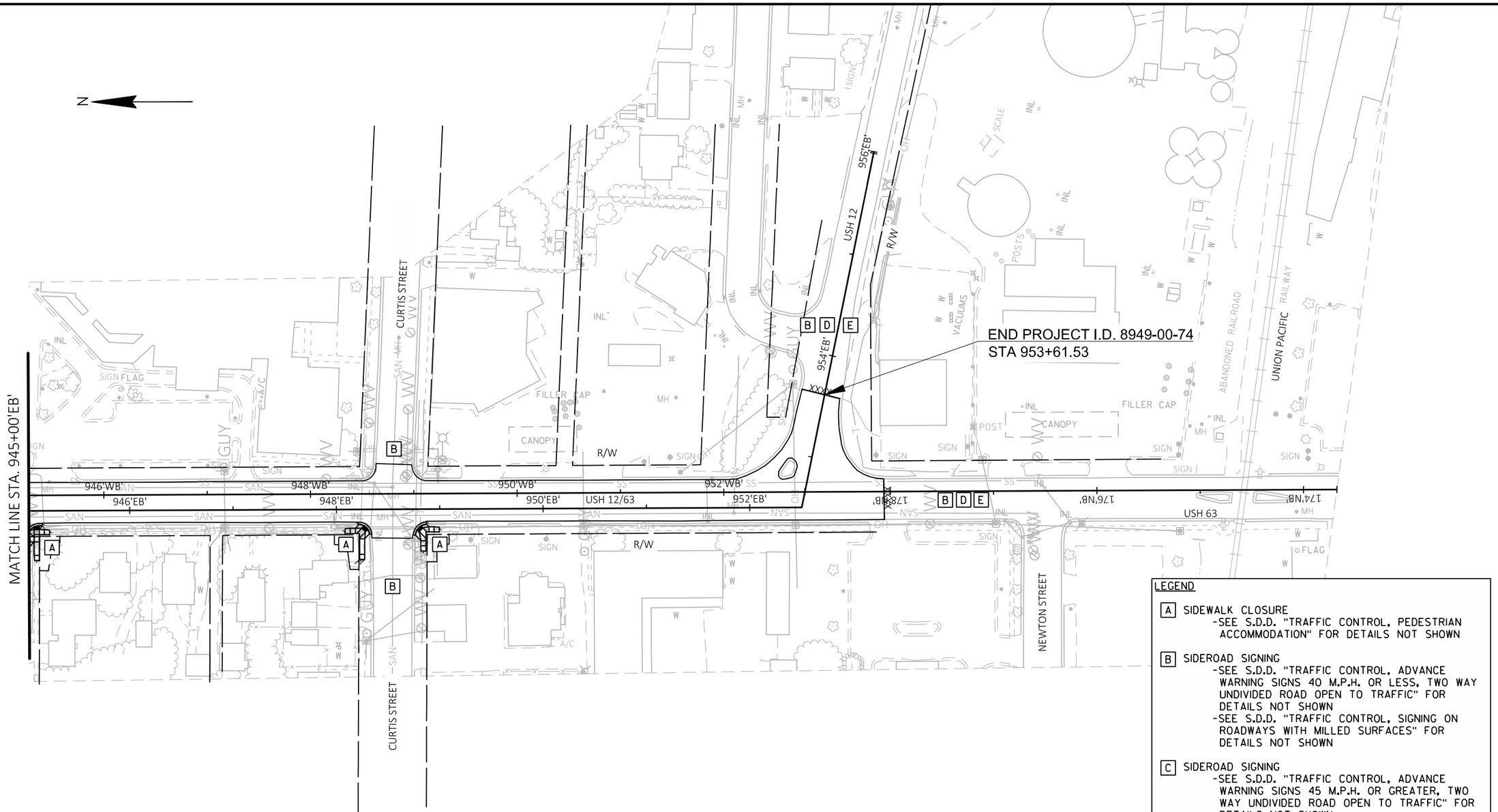
E WIDTH RESTRICTION SIGNING
-SEE S.D.D. "TRAFFIC CONTROL, ADVANCED WIDTH RESTRICTION SIGNING" FOR DETAILS NOT SHOWN

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	TRAFFIC CONTROL	SHEET 28	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\8949-00-74\025100-TC.DWG
LAYOUT NAME - 67

PLOT DATE : 1/31/2021 8:41 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



LEGEND

A SIDEWALK CLOSURE
- -SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR DETAILS NOT SHOWN

B SIDEROAD SIGNING
- -SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR DETAILS NOT SHOWN
- -SEE S.D.D. "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES" FOR DETAILS NOT SHOWN

C SIDEROAD SIGNING
- -SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR DETAILS NOT SHOWN
- -SEE S.D.D. "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES" FOR DETAILS NOT SHOWN

D FLAGGING
- -SEE S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" FOR DETAILS NOT SHOWN

E WIDTH RESTRICTION SIGNING
- -SEE S.D.D. "TRAFFIC CONTROL, ADVANCED WIDTH RESTRICTION SIGNING" FOR DETAILS NOT SHOWN

2

2

SIGN

SIGN

N

R/W

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH
WHITE

944'WB'

945'WB'

946'WB'

12'

15'

USH 12/63

944'EB'

945'EB'

946'EB'

12'

SIDEWALK CLOSED
R9-9
24"X12"

TEMPORARY PEDESTRIAN
CURB RAMP

R/W

R/W

TLE

MILLING LIMITS

TLE

SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR DETAILS NOT SHOWN.

SIDEWALK CLOSED
R9-9
24"X12"

SIDEWALK CLOSED
CROSS HERE
R9-11A
48"X24"

SIDEWALK CLOSED
R9-9
24"X12"

TEMPORARY PEDESTRIAN
CURB RAMP

FRANKLIN STREET

A/C

LEGEND

- TRAFFIC CONTROL BARRICADES TYPE II WITH ATTACHED SIGN AND TRAFFIC CONTROL WARNING LIGHT TYPE A
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED SIGN AND TRAFFIC CONTROL WARNING LIGHT TYPE A
- TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- TEMPORARY PEDESTRIAN BARRICADE
- WORK ZONE

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	TRAFFIC CONTROL - TEMPORARY PEDESTRIAN ACCESS	SHEET 30	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\8949-00-74\025101-TC -PED.DWG
LAYOUT NAME - 68 (2)

PLOT DATE : 1/26/2021 2:37 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

2

N

CANOPY

MILLING LIMITS

R/W

SIGN

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH
WHITE

948'WB'

949'WB'

950'WB'

12'

15'

12'

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH
WHITE

USH 12/63

947'EB'

948'EB'

949'EB'

950'EB'

TEMPORARY PEDESTRIAN
CURB RAMP

TEMPORARY PEDESTRIAN
CURB RAMP

R/W

SIDEWALK CLOSED
CROSS HERE
R9-11A
48"X24"

TLE

SIDEWALK
CLOSED
R9-9
24"X12"

MILLING LIMITS

SIDEWALK
CLOSED
R9-9
24"X12"

TEMPORARY PEDESTRIAN
CURB RAMP

SIDEWALK CLOSED
CROSS HERE
R9-11A
48"X24"

R/W

SIDEWALK CLOSED
CROSS HERE
R9-11A
48"X24"

TLE

SIDEWALK
CLOSED
R9-9
24"X12"

SIDEWALK CLOSED
CROSS HERE
R9-11A
48"X24"

SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR DETAILS NOT SHOWN.

LEGEND

- TRAFFIC CONTROL BARRICADES TYPE II WITH ATTACHED SIGN AND TRAFFIC CONTROL WARNING LIGHT TYPE A
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED SIGN AND TRAFFIC CONTROL WARNING LIGHT TYPE A
- TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- TEMPORARY PEDESTRIAN BARRICADE
- WORK ZONE

CURTIS STREET

NOTE: CONSTRUCT ONE CURB RAMP AT A TIME.

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	TRAFFIC CONTROL - TEMPORARY PEDESTRIAN ACCESS	SHEET 31	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\8949-00-74\025101-TC -PED.DWG
LAYOUT NAME - 68

PLOT DATE : 1/26/2021 2:37 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

8949-00-74

Line	Item	Item Description	Unit	Total	Qty
0004	201.0120	Clearing	ID	24.000	24.000
0008	201.0220	Grubbing	ID	24.000	24.000
0022	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,150.000	1,150.000
0024	204.0120	Removing Asphaltic Surface Milling	SY	23,000.000	23,000.000
0026	204.0130	Removing Curb	LF	60.000	60.000
0028	204.0150	Removing Curb & Gutter	LF	90.000	90.000
0030	204.0155	Removing Concrete Sidewalk	SY	100.000	100.000
0054	213.0100	Finishing Roadway (project) 002. 8949-00-74	EACH	1.000	1.000
0056	305.0110	Base Aggregate Dense 3/4-Inch	TON	110.000	110.000
0058	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	100.000	100.000
0060	305.0500	Shaping Shoulders	STA	45.000	45.000
0072	455.0605	Tack Coat	GAL	1,550.000	1,550.000
0074	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0076	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000	1.000
0078	460.2000	Incentive Density HMA Pavement	DOL	140.000	140.000
0080	460.2005	Incentive Density PWL HMA Pavement	DOL	2,189.000	2,189.000
0082	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	3,961.000	3,961.000
0084	460.2010	Incentive Air Voids HMA Pavement	DOL	2,394.000	2,394.000
0086	460.6645	HMA Pavement 5 MT 58-34 V	TON	2,500.000	2,500.000
0090	465.0110	Asphaltic Surface Patching	TON	10.000	10.000
0092	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	5.000	5.000
0096	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	1,460.000	1,460.000
0098	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	780.000	780.000
0138	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	140.000	140.000
0144	602.0410	Concrete Sidewalk 5-Inch	SF	1,000.000	1,000.000
0146	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	50.000	50.000
0170	611.8110	Adjusting Manhole Covers	EACH	4.000	4.000
0172	611.8120.S	Cover Plates Temporary	EACH	4.000	4.000
0192	618.0100	Maintenance And Repair of Haul Roads (project) 002. 8949-00-74	EACH	1.000	1.000
0194	619.1000	Mobilization	EACH	0.080	0.080
0200	624.0100	Water	MGAL	10.000	10.000
0202	625.0100	Topsoil	SY	100.000	100.000
0210	628.1504	Silt Fence	LF	450.000	450.000
0212	628.1520	Silt Fence Maintenance	LF	1,350.000	1,350.000
0214	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0216	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0220	628.2008	Erosion Mat Urban Class I Type B	SY	150.000	150.000
0224	628.7020	Inlet Protection Type D	EACH	15.000	15.000
0226	628.7504	Temporary Ditch Checks	LF	15.000	15.000

8949-00-74

Line	Item	Item Description	Unit	Total	Qty
0230	629.0210	Fertilizer Type B	CWT	1.000	1.000
0234	630.0140	Seeding Mixture No. 40	LB	1.000	1.000
0236	630.0200	Seeding Temporary	LB	3.000	3.000
0238	630.0500	Seed Water	MGAL	6.000	6.000
0244	638.2102	Moving Signs Type II	EACH	2.000	2.000
0250	638.4000	Moving Small Sign Supports	EACH	2.000	2.000
0252	642.5001	Field Office Type B	EACH	0.080	0.080
0254	643.0300	Traffic Control Drums	DAY	50.000	50.000
0256	643.0410	Traffic Control Barricades Type II	DAY	15.000	15.000
0258	643.0420	Traffic Control Barricades Type III	DAY	21.000	21.000
0260	643.0705	Traffic Control Warning Lights Type A	DAY	36.000	36.000
0262	643.0900	Traffic Control Signs	DAY	5,500.000	5,500.000
0270	643.5000	Traffic Control	EACH	0.080	0.080
0272	644.1420	Temporary Pedestrian Surface Plywood	SF	270.000	270.000
0274	644.1601	Temporary Pedestrian Curb Ramp	DAY	21.000	21.000
0276	644.1810	Temporary Pedestrian Barricade	LF	40.000	40.000
0284	646.1020	Marking Line Epoxy 4-Inch	LF	8,720.000	8,720.000
0286	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	3,420.000	3,420.000
0288	646.3020	Marking Line Epoxy 8-Inch	LF	960.000	960.000
0290	646.5020	Marking Arrow Epoxy	EACH	33.000	33.000
0292	646.5120	Marking Word Epoxy	EACH	3.000	3.000
0294	646.6120	Marking Stop Line Epoxy 18-Inch	LF	68.000	68.000
0296	646.7120	Marking Diagonal Epoxy 12-Inch	LF	210.000	210.000
0298	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	350.000	350.000
0302	648.0100	Locating No-Passing Zones	MI	0.120	0.120
0308	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	280.000	280.000
0316	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	140.000	140.000
0322	650.8000	Construction Staking Resurfacing Reference	LF	4,620.000	4,620.000
0324	650.9000	Construction Staking Curb Ramps	EACH	5.000	5.000
0328	650.9910	Construction Staking Supplemental Control (project) 002. 8949-00-74	LS	1.000	1.000
0342	690.0150	Sawing Asphalt	LF	320.000	320.000
0344	690.0250	Sawing Concrete	LF	60.000	60.000
0348	740.0440	Incentive IRI Ride	DOL	3,500.000	3,500.000
0358	SPV.0060	Special 004. Resetting and Adjusting Manhole Casting	EACH	7.000	7.000
0364	SPV.0060	Special 007. Adjusting Water Valve Box	EACH	3.000	3.000
0372	SPV.0090	Special 004. Ditch Cleaning	LF	100.000	100.000
0374	SPV.0090	Special 005. Lane Repair	LF	500.000	500.000
0378	SPV.0105	Special 002. Material Transfer Vehicle (8949-00-74)	LS	1.000	1.000

CLEARING & GRUBBING

CATEGORY	LOCATION	STATION	OFFSET	201.0120 CLEARING (ID)	201.0220 GRUBBING (ID)
0010	USH 12	944+75 EB	RT	24	24
CATEGORY 0010 SUBTOTAL				24	24
PROJECT 8949-00-74 TOTAL				**24**	**24**

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	LOCATION	STATION - STATION	204.0115 (SY)
0010	USH 12	920+80 EB - 953+62 EB	278
	USH 63	178+06 NB - 178+83 NB	219
	USH 63	210+55 NB - 215+44 NB	440
	80TH AVE	0+00 EA - 0+82 EA	213
CATEGORY 0010 SUBTOTAL			1,150
PROJECT 8949-00-74 TOTAL			**1,150**

REMOVING CURB

CATEGORY	LOCATION	STATION - STATION	204.0130 (LF)
0010	USH 12	920+80 EB - 953+62 EB	60
CATEGORY 0010 SUBTOTAL			60
PROJECT 8949-00-74 TOTAL			**60**

REMOVING CONCRETE SIDEWALK

CATEGORY	LOCATION	STATION - STATION	204.0155 (SY)
0010	USH 12	920+80 EB - 953+62 EB	100
CATEGORY 0010 SUBTOTAL			100
PROJECT 8949-00-74 TOTAL			**100**

3

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	LOCATION	STATION - STATION	204.0120 (SY)
0010	USH 12	914+00 EB - 920+80 EB	2,436
	USH 12	920+80 EB - 953+62 EB	16,526
	USH 63	178+06 NB - 178+83 NB	464
	USH 63	210+55 NB - 215+44 NB	3,145
	80TH AVE	0+00 EA - 0+82 EA	430
CATEGORY 0010 SUBTOTAL			23,000
PROJECT 8949-00-74 TOTAL			**23,000**

REMOVING CURB & GUTTER

CATEGORY	LOCATION	STATION - STATION	204.0150 (LF)
0010	USH 12	920+80 EB - 953+62 EB	90
CATEGORY 0010 SUBTOTAL			90
PROJECT 8949-00-74 TOTAL			**90**

BASE AGGREGATE DENSE

CATEGORY	LOCATION	STATION - STATION	305.0110 3/4-INCH (TON)	305.0120 1 1/4-INCH (TON)	NOTES
0010	USH 12	920+80 EB - 953+62 EB	29	100	
	UNDISTRIBUTED		81	-	TO BE USED IN SHAPING SHOULDER AREAS WITH INSUFFICIENT BASE
CATEGORY 0010 SUBTOTAL			110	100	
PROJECT 8949-00-74 TOTAL			**110**	**100**	

SHAPING SHOULDERS

CATEGORY	LOCATION	STATION - STATION	305.0500 (STA)
0010	USH 12	914+00 EB - 920+80 EB	15
	USH 12	920+80 EB - 953+62 EB	17
	USH 63	210+55 NB - 215+44 NB	13
CATEGORY 0010 SUBTOTAL			45
PROJECT 8949-00-74 TOTAL			**45**

HMA ITEMS

CATEGORY	LOCATION	STATION - STATION	455.0605 TACK COAT (GAL)	460.6645 HMA PAVEMENT 5 MT 58-34 V (TON)	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES (TON)	465.0425 SHOULDER RUMBLE STRIPS 2-LANE RURAL (LF)	465.0475 ASPHALTIC CENTER LINE RUMBLE STRIP 2 LANE RURAL (LF)	465.0110 ASPHALTIC SURFACE PATCHING (TON)	SPV.0090.005 LANE REPAIR (LF)	REMARKS
0010	USH 12	914+00 EB - 920+80 EB	179	286	2	940	520	-	-	
	USH 12	920+80 EB - 953+62 EB	1,082	1,716	-	-	-	-	-	
	USH 63	178+06 NB - 178+83 NB	24	38	-	-	-	-	-	
	USH 63	210+55 NB - 215+44 NB	194	311	1	520	260	-	-	
	80TH AVE	0+00 EA - 0+82 EA	28	45	-	-	-	-	-	
	UNDISTRIBUTED		43	103	2	-	-	10	500	INTENDED FOR REPAIRS AS NEEDED
CATEGORY 0010 SUBTOTAL			1,550	2,500	5	1,460	780	10	500	
PROJECT 8949-00-74 TOTAL			**1,550**	**2,500**	**5**	**1,460**	**780**	**10**	**500**	

3

PWL MIXTURE USE TABLE

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR: MIXTURE ACCEPTANCE	QUALITY MANAGEMENT PROGRAM TO BE USED FOR: DENSITY ACCEPTANCE
12 FOOT DRIVING LANES, LT AND RT	914+00'EB' - 920+80.80'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	247	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
3 FOOT PAVED SHOULDERS, LT AND RT	914+00'EB' - 920+80.80'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	39	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
12 FOOT DRIVING LANES, LT AND RT	210+50'NB' - 215+44.04'NB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	231	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
3 FOOT PAVED SHOULDERS, LT AND RT	210+50'NB' - 215+44.04'NB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	81	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
12 FOOT DRIVING LANES, LT AND RT	0+00'EA' - 0+81.73'EA'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	45	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANES, LT AND RT. VARIES 0-15 FOOT TWLTL LT	920+80.80'EB' - 928+32'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	384	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
3 FOOT PAVED SHOULDERS, LT AND RT	920+80.80'EB' - 928+32'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	85	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
12 FOOT DRIVING LANES, LT AND RT. 15 FOOT TWLTL LT	928+32'EB' - 953+61.53'EB'	UPPER AND LOWER LAYERS	EXISTING MILLED SURFACE	HMA PAVEMENT 5 MT 58-34V	1282	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005

CONCRETE CURB & GUTTER

CATEGORY	LOCATION	STATION - STATION	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D (LF)
0010	USH 12	920+80 EB - 953+62 EB	140
CATEGORY 0010 SUBTOTAL			140
PROJECT 8949-00-74 TOTAL			**140**

CONCRETE SIDEWALK

CATEGORY	LOCATION	STATION - STATION	602.0410 CONCRETE SIDEWALK 5-INCH (SF)	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW (SF)
0010	USH 12	920+80 EB - 953+62 EB	1,000	50
CATEGORY 0010 SUBTOTAL			1,000	50
PROJECT 8949-00-74 TOTAL			**1,000**	**50**

ADJUSTING UTILITIES

CATEGORY	LOCATION	STATION	611.8110 ADJUSTING MANHOLE COVERS (EACH)	611.8120.S COVER PLATES TEMPORARY (EACH)	SPV.0060.004 RESETTING AND ADJUSTING MANHOLE CASTING (EACH)	SPV.0060.007 ADJUSTING WATER VALVES BOX (EACH)
0010	USH 12	944+94 WB	1	1	-	-
0010	USH 12	945+47 WB	1	1	-	-
0010	USH 12	948+62 WB	1	1	-	-
0010	USH 12	951+83 WB	1	1	-	-
CATEGORY 0010 SUBTOTAL			4	4	0	0
0020	USH 12	939+78 WB	-	-	1	-
0020	USH 12	941+12 EB	-	-	1	-
0020	USH 12	941+51 WB	-	-	-	1
0020	USH 12	944+79 WB	-	-	1	-
0020	USH 12	944+87 EB	-	-	1	-
0020	USH 12	948+79 WB	-	-	1	-
0020	USH 12	948+55 EB	-	-	1	-
0020	USH 12	948+92 WB	-	-	-	1
0020	USH 12	948+94 WB	-	-	-	1
0020	USH 12	951+85 EB	-	-	1	-
CATEGORY 0020 SUBTOTAL			0	0	7	3
PROJECT 8949-00-74 TOTAL			**4**	**4**	**7**	**3**

EROSION CONTROL

CATEGORY	LOCATION	STATION - STATION	624.0100 WATER (MGAL)	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)	628.2008 EROSION MAT URBAN CLASS I TYPE B (SY)	628.7020 INLET PROTECTION TYPE D (EACH)	628.7504 TEMPORARY DITCH CHECKS (LF)
0010	USH 12	914+00 EB - 920+80 EB	-	185	555	-	-	10
	USH 12	920+80 EB - 953+62 EB	9	150	450	117	14	-
		UNDISTRIBUTED	1	115	345	33	1	5
CATEGORY 0010 SUBTOTAL			10	450	1,350	150	15	15
PROJECT 8949-00-74 TOTAL			**10**	**450**	**1,350**	**150**	**15**	**15**

MOBILIZATIONS EROSION CONTROL

CATEGORY	LOCATION	STATION - STATION	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
	UNDISTRIBUTED		6	3
PROJECT 8949-00-74 TOTAL			**6**	**3**

LANDSCAPING

CATEGORY	LOCATION	STATION - STATION	625.0100 TOPSOIL (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0140 SEEDING MIXTURE NO. 40 (LB)	630.0200 SEEDING TEMPORARY (LB)	630.0500 SEED WATER (MGAL)
0010	USH 12	920+80 EB - 953+62 EB	78	1	1	2	5
	UNDISTRIBUTED		22	-	-	1	1
CATEGORY 0010 SUBTOTAL			100	1	1	3	6
PROJECT 8949-00-71 TOTAL			**100**	**1**	**1**	**3**	**6**

MOVING SIGNS

CATEGORY	SIGN NO.	CODE	SIGN MESSAGE	WIDTH (INCH)	HEIGHT (INCH)	638.2102 MOVING SIGNS TYPE II (EACH)	638.4000 MOVING SMALL SIGN SUPPORTS (EACH)
0010	3M-01	R1-1	STOP SIGN	18	18	1	1
	4M-01	R1-1	STOP SIGN	18	18	1	1
CATEGORY 0010 SUBTOTAL						2	2
PROJECT 8949-00-74 TOTAL						**2**	**2**

TRAFFIC CONTROL DEVICES

CATEGORY	LOCATION	STATION - STATION	643.0300 TRAFFIC CONTROL DRUMS (DAYS)	643.0410 TRAFFIC CONTROL BARRICADES TYPE II (DAYS)	643.0420 TRAFFIC CONTROL BARRICADES TYPE III (DAYS)	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A (DAYS)	643.0900 TRAFFIC CONTROL SIGNS (DAYS)	644.1420 TEMPORARY PEDESTRIAN SURFACE PLYWOOD (SF)	644.1601 TEMPORARY PEDESTRIAN CURB RAMP (DAY)	644.1810 TEMPORARY PEDESTRIAN BARRICADE (LF)
0010	USH 12	914+00 EB - 920+80 EB	-	-	-	-	-	-	-	-
	USH 12	920+80 EB - 953+62 EB	50	15	21	36	2,423	270	21	40
	USH 63	178+06 NB - 178+83 NB	-	-	-	-	945	-	-	-
	USH 63	210+55 NB - 215+44 NB	-	-	-	-	1,066	-	-	-
	80TH AVE	0+00 EA - 0+82 EA	-	-	-	-	1,066	-	-	-
CATEGORY 0010 SUBTOTAL			50	15	21	36	5,500	270	21	40
PROJECT 8949-00-74 TOTAL			**50**	**15**	**21**	**36**	**5,500**	**270**	**21**	**40**

MARKING

CATEGORY	LOCATION	STATION - STATION	646.1020 MARKING LINE EPOXY 4-INCH YELLOW SOLID (LF)	646.1020 MARKING LINE EPOXY 4-INCH YELLOW 12.5 FT LINE, 37.5 FT SKIP (LF)	646.1020 MARKING LINE EPOXY 4-INCH WHITE 3 FT LINE, 9 FT SKIP (LF)	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE SOLID (LF)	646.3020 MARKING LINE EPOXY 8-INCH WHITE SOLID (LF)	646.5020 MARKING ARROW EPOXY WHITE TYPE 2 (EACH)	646.5020 MARKING ARROW EPOXY WHITE TYPE 3 (EACH)	646.5120 MARKING WORD EPOXY WHITE ONLY (EACH)	646.6120 MARKING STOP LINE EPOXY 18-INCH WHITE (LF)	646.7120 MARKING DIAGONAL EPOXY 12-INCH YELLOW (LF)	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE (LF)	648.0100 LOCATING NO-PASSING ZONES (MI)	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE (LF)
0010	USH 12	914+00 EB - 920+80 EB	653	163	-	1,224	138	1	-	-	29	-	-	0.12	-
	USH 12	920+80 EB - 953+62 EB	5,262	1,106	-	1,346	582	28	-	2	24	71	350	-	280
	USH 63	210+55 NB - 215+44 NB	1,421	-	52	850	240	2	2	1	-	139	-	-	-
	80TH AVE	0+00 EA - 0+82 EA	62	-	-	-	-	-	-	-	15	-	-	-	-
CATEGORY 0010 SUBTOTAL			7,398	1,270	52	3,420	960	31	2	3	68	210	350	0.12	280
PROJECT 8949-00-74 TOTAL				**8,720**		**3,420**	**960**	**33**		**3**	**68**	**210**	**350**	**0.12**	**280**

CONSTRUCTION STAKING

CATEGORY	LOCATION	STATION - STATION	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER (LF)	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE (LF)	650.9000 CONSTRUCTION STAKING CURB RAMPS (EACH)
0010	USH 12	914+00 EB - 920+80 EB	-	600	-
	USH 12	920+80 EB - 953+62 EB	140	3,370	5
	USH 63	178+06 NB - 178+83 NB	-	74	-
	USH 63	210+55 NB - 215+44 NB	-	494	-
	80TH AVE	0+00 EA - 0+82 EA	-	82	-
CATEGORY 0010 SUBTOTAL			140	4,620	5
PROJECT 8949-00-74 TOTAL			**140**	**4,620**	**5**

SAWING

CATEGORY	LOCATION	STATION - STATION	690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)
0010	USH 12	914+00 EB - 920+80 EB	92	-
	USH 12	920+80 EB - 953+62 EB	76	55
	USH 63	178+06 NB - 178+83 NB	39	-
	USH 63	210+55 NB - 215+44 NB	75	-
	80TH AVE	0+00 EA - 0+82 EA	26	-
UNDISTRIBUTED			12	5
CATEGORY 0010 SUBTOTAL			320	60
PROJECT 8949-00-74 TOTAL			**320**	**60**

DITCH CLEANING

CATEGORY	LOCATION	STATION - STATION	SPV.0090.004 (LF)
0010	USH 12	914+00 EB - 920+80 EB	100
CATEGORY 0010 SUBTOTAL			100
PROJECT 8949-00-74 TOTAL			**100**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
8949-00-21
HUDSON TO BALDWIN
(STH 65 NORTH - USH 63 NORTH)
USH 12
ST. CROIX COUNTY

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING — TO BE REMOVED
BRIDGE

SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN

R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED) IP

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
PARCEL NUMBER (25) UTILITY NUMBER (40)
PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

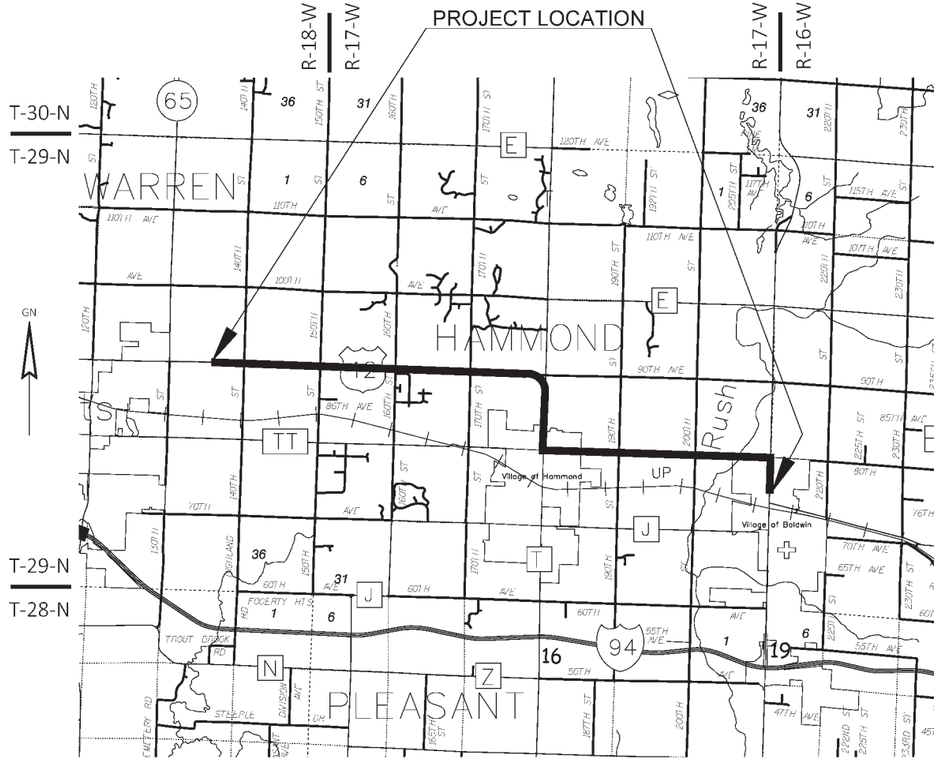
ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTICTIVE DEVELOPMENT EASEMENT	RDE
CENTERLINE	C/L	RIGHT	RT
CERTIFIED SURVEY MAP	CSM	RIGHT OF WAY	R/W
CONCRETE	CONC	SECTION	SEC
COUNTY	CO	SEPTIC VENT	SEPV
COUNTY TRUNK HIGHWAY	CTH	SQUARE FEET	SF
DISTANCE	DIST	STATE TRUNK HIGHWAY	STH
CORNER	COR	STATION	STA
DOCUMENT NUMBER	DOC	TELEPHONE PEDESTAL	TP
EASEMENT	EASE	TEMPORARY LIMITED EASEMENT	TLE
EXISTING	EX	TRANSPORTATION PROJECT PLAT	TPP
GAS VALVE	GV	UNITED STATES HIGHWAY	USH
GRID NORTH	GN	VOLUME	V
LIMITED HIGHWAY EASEMENT	LHE		
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

W — WATER
G — GAS
T — TELEPHONE
OH — OVERHEAD TRANSMISSION LINES
E — ELECTRIC
TV — CABLE TELEVISION
FO — FIBER OPTIC
SAN — SANITARY SEWER
SS — STORM SEWER



LAYOUT
SCALE 0 1.0 MI.

THE NOTES,CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 8949-00-21.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM CORRINDATES (WISCRS), ST. CROIX COUNTY, NAD83(2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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

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

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

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN THE NW REGION, EAU CLAIRE OFFICE.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

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

PROJECT NUMBER 8949-00-21 - 4.01
SHEET 2 OF 2
AMENDMENT NO:

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\RW\TITLE SHEET.DWG
LAYOUT NAME: TPP Title 34x22
PLOT DATE : ----
PLOT BY : ----
PLOT NAME : _____
APPRAISAL PLAT DATE : 08/25/2020

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ST. CROIX COUNTY, NAD 83(2011) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION EAU CLAIRE OFFICE.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1110221.

GN

SCALE: --

0 50 100

1112704
BETH PABST
REGISTER OF DEEDS
ST. CROIX CO., WI
RECEIVED FOR RECORD
09/28/2020 09:36 AM
EXEMPT #
PLAT FEE 25.00
VOLUME: TPP1
PAGES: 198
PAGES: 1
****The above recording information verifies that this document has been electronically recorded & returned to the submitter**

40

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8949-00-21 - 4.09
AMENDMENT NO.___

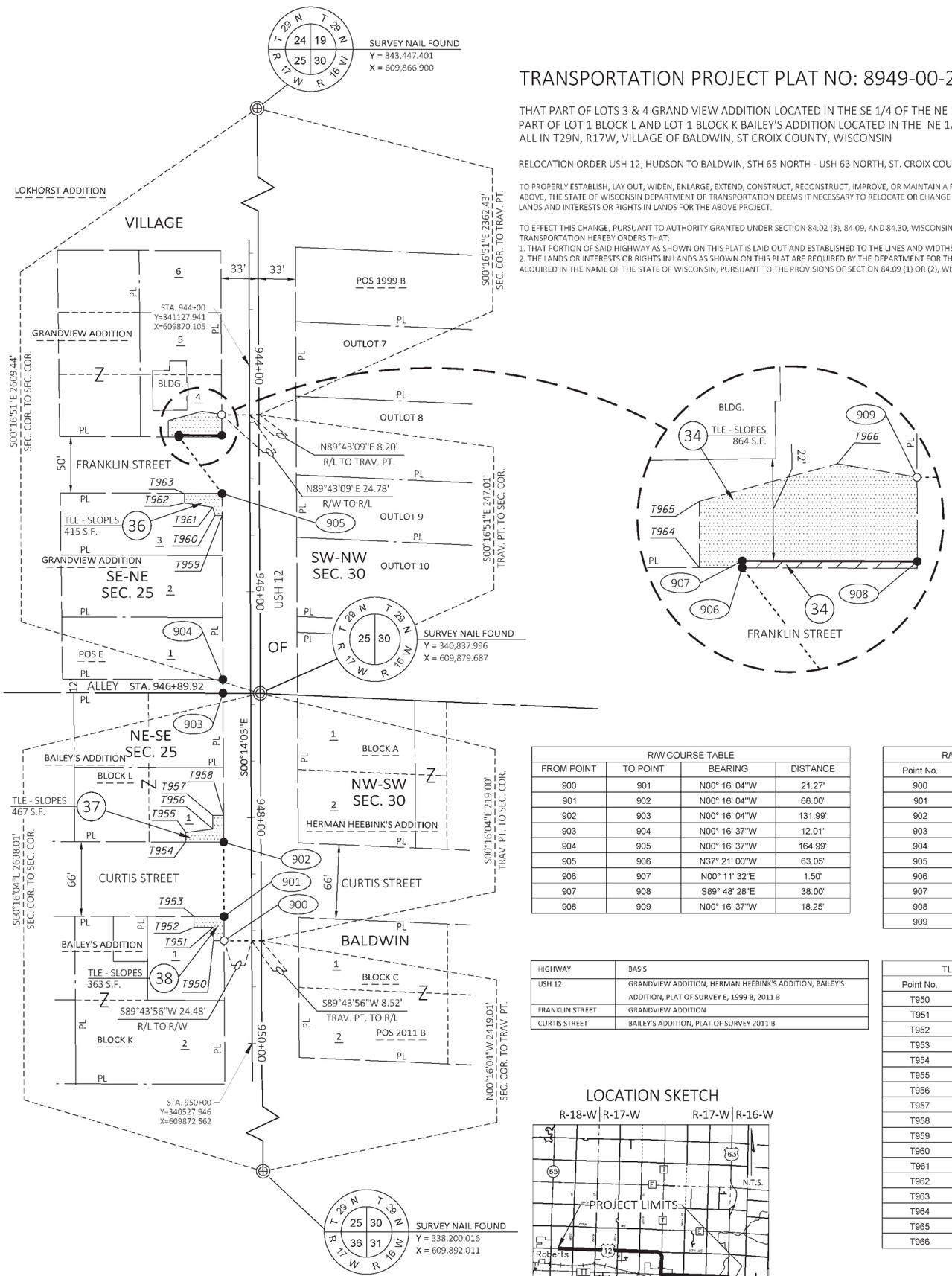
TRANSPORTATION PROJECT PLAT NO: 8949-00-21 - 4.09

THAT PART OF LOTS 3 & 4 GRAND VIEW ADDITION LOCATED IN THE SE 1/4 OF THE NE 1/4 OF SECTION 25 AND THAT PART OF LOT 1 BLOCK L AND LOT 1 BLOCK K BAILEY'S ADDITION LOCATED IN THE NE 1/4 OF THE SE 1/4 SECTION 25, ALL IN T29N, R17W, VILLAGE OF BALDWIN, ST CROIX COUNTY, WISCONSIN

RELOCATION ORDER USH 12, HUDSON TO BALDWIN, STH 65 NORTH - USH 63 NORTH, ST. CROIX COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.



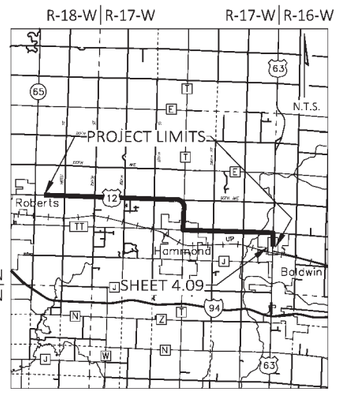
R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
900	901	N00° 16' 04"W	21.27'
901	902	N00° 16' 04"W	66.00'
902	903	N00° 16' 04"W	131.99'
903	904	N00° 16' 37"W	12.01'
904	905	N00° 16' 37"W	164.99'
905	906	N37° 21' 00"W	63.05'
906	907	N00° 11' 32"E	1.50'
907	908	S89° 48' 28"E	38.00'
908	909	N00° 16' 37"W	18.25'

R/W Station & Offset Table		
Point No.	Station	Offset
900	949+09.00	24.48'
901	948+87.74	24.49'
902	948+21.74	24.53'
903	946+89.75	24.60'
904	946+77.74	24.61'
905	945+12.75	24.73'
906	944+62.47	62.78'
907	944+60.97	62.77'
908	944+61.25	24.77'
909	944+43.00	24.79'

HIGHWAY	BASIS
USH 12	GRANDVIEW ADDITION, HERMAN HEEBINK'S ADDITION, BAILEY'S ADDITION, PLAT OF SURVEY E, 1999 B, 2011 B
FRANKLIN STREET	GRANDVIEW ADDITION
CURTIS STREET	BAILEY'S ADDITION, PLAT OF SURVEY 2011 B

TLE Station & Offset Table		
Point No.	Station	Offset
T950	949+09.00	34.00'
T951	948+97.00	34.00'
T952	948+97.00	51.00'
T953	948+87.54	50.93'
T954	948+21.50	58.06'
T955	948+13.01	58.00'
T956	948+10.01	34.00'
T957	947+98.01	34.00'
T958	947+98.00	24.54'
T959	945+32.25	24.72'
T960	945+32.25	31.00'
T961	945+25.00	33.00'
T962	945+21.00	58.00'
T963	945+12.50	57.94'
T964	944+62.40	72.11'
T965	944+48.00	72.00'
T966	944+40.00	42.00'

LOCATION SKETCH



SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO THE STATE OF WISCONSIN
ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	EXISTING	TOTAL	TLE S.F.
34	FRANKLIN RENTAL 1010, LLC	FEE/TLE	58	----	58	864
36	BRIAN W. HEUTMAKER AND TAMARA HEUTMAKER	TLE	----	----	----	415
37	FORTRESS PROPERTIES LLC	TLE	----	----	----	467
38	B.L. LARSON INVESTMENTS, LLC	TLE	----	----	----	363

KL Engineering
[A] Better Experience

I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 8949-00-21-4.09 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN
TIMOTHY M. HELD
S-2591
MADISON, WI
LAND SURVEYOR

09/25/2020
TIMOTHY M. HELD — DATE
AGENT FOR KL ENGINEERING, INC.
P.L.S. NUMBER 2591

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

9-25-2020
DEBRA B. STENSLAND — DATE

8949-00-21 - 4.09
PLOT SCALE : ##########
PLOT NAME : Timothy Held
PLOT BY : 9/25/2020 9:01 AM
PLOT DATE :
FILE NAME : G:\WDOT\NW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\RW\040101-RP.DWG
APPRAISAL PLAT DATE : 09/25/2020

USH 63 NB
PI STA = 216+00.00 'NB'
Y = 343,991.3047
X = 609,860.9841

80th Avenue
PI STA = 0+00.00 'EA'
Y = 343,441.5776
X = 609,881.3142

80th Avenue
PI STA = 2+00.00 'EA'
Y = 343,434.9886
X = 610,081.2056

END CONSTRUCTION
STA 215+44.04'NB'
MATCH EXISTING
SAW CUT REQ'D

END CONSTRUCTION
STA 0+81.73'EA'
MATCH EXISTING
SAW CUT REQ'D

MATCH LINE STA. 930+00'EB'

N

CAUTION

WE ENERGIES (GAS)

BALDWIN TELECOM, INC. (FO)

BALDWIN TELECOM, INC. (TEL)

XCEL ENERGY (ELEC - OH)

TEMPORARY DITCH CHECK

STA. 919+46.87 'EB' - STA. 920+46.67 'EB', RT
1 EACH - DITCH CLEANING REQ'D

STA. 212+92'NB', LT.
ASPH. - C.E.

STA. 918+65'EB', LT.
ASPH. - C.E.

STA. 915+76'EB', RT.
ASPH. - C.E.

BEGIN PROJECT 8949-00-74
STA 914+00
(MATCH PROJECT 8949-00-71)

EP: 2+00.00'EA'
BP: 0+00.00'EA'
EP: 216+00.00'NB'
PI: 212+84.83'NB'
PI: 921+06.06'WB'
PI: 920+80.80'EB'
PI: 921+79.73'EB'
PI: 922+55.68'EB'
PI: 923+79.89'EB'
PI: 924+11.68'WB'
PI: 925+83.91'EB'
PI: 926+10.46'WB'
PI: 928+32.21'EB'
PI: 928+56.96'WB'

S88° 06' 43"E
N3° 48' 01"W
N0° 55' 11"W
S1° 02' 55"E
S0° 49' 36"E
S0° 39' 29"E
S0° 25' 13"E
S0° 22' 16"W
S0° 06' 39"E
S0° 49' 27"W
S0° 40' 51"E
S0° 14' 05"E
S89° 29' 04"E

USH 63
USH 12
80TH AVENUE
R/W

CONTROL POINTS

NO.	Y	X	DESCRIPTION
CP314	343483.011	609910.31	5/8IN RB KL CAP
CP315	343979.462	609835.681	5/8IN RB KL CAP
CP316	342808.517	609838.805	5/8IN RB KL CAP

LEGEND

- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS I TYPE B
- XXXX XXXX SAWING ASPHALT
- SS ADJUSTING MANHOLE COVERS
- SURFACE WATER FLOW
- TEMPORARY DITCH CHECK
- TYPE D INLET PROTECTION
- SAN RESETTING AND ADJUSTING MANHOLE CASTING
- ADJUSTING WATER VALVE BOX

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS	SHEET 41	E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\8949-00-74\050201-PN.DWG
LAYOUT NAME - 63
PLOT DATE : 4/28/2021 4:51 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

NOTE: UTILIZE EROSION MAT CLASS I TYPE B FOR RESTORATION AT ALL CURB RAMP LOCATIONS.

N

MATCH LINE STA. 930+00'EB'

MATCH LINE STA. 945+00'EB'

5

5

HILLCREST STREET

SUMMIT STREET

XCEL ENERGY (ELEC - OH)

BALDWIN TELECOM, INC. (TEL)

BALDWIN TELECOM, INC. (FO)

WE ENERGIES (GAS)

CAUTION

VILLAGE OF BALDWIN (SS)

WE ENERGIES (GAS)

CAUTION

322 CP

320 CP

321 CP

R/W

USH 12/63

S0° 14' 05"E

932'WB' 932'EB' 934'WB' 934'EB' 936'WB' 936'EB' 938'WB' 938'EB' 940'WB' 940'EB' 942'WB' 942'EB' 944'WB' 944'EB'

BALDWIN TELECOM, INC. (FO)

BALDWIN TELECOM, INC. (TEL)

XCEL ENERGY (ELEC - OH)

BALDWIN TELECOM, INC. (TV)

VILLAGE OF BALDWIN (SAN)

EROSION MAT URBAN CLASS I TYPE B

RECONSTRUCT CURB RAMP (SEE CURB RAMP DETAILS)

LOKHORST STREET

FRANKLIN STREET

STA. 944+75 'EB' RT CLEARING AND GRUBBING REQ'D.

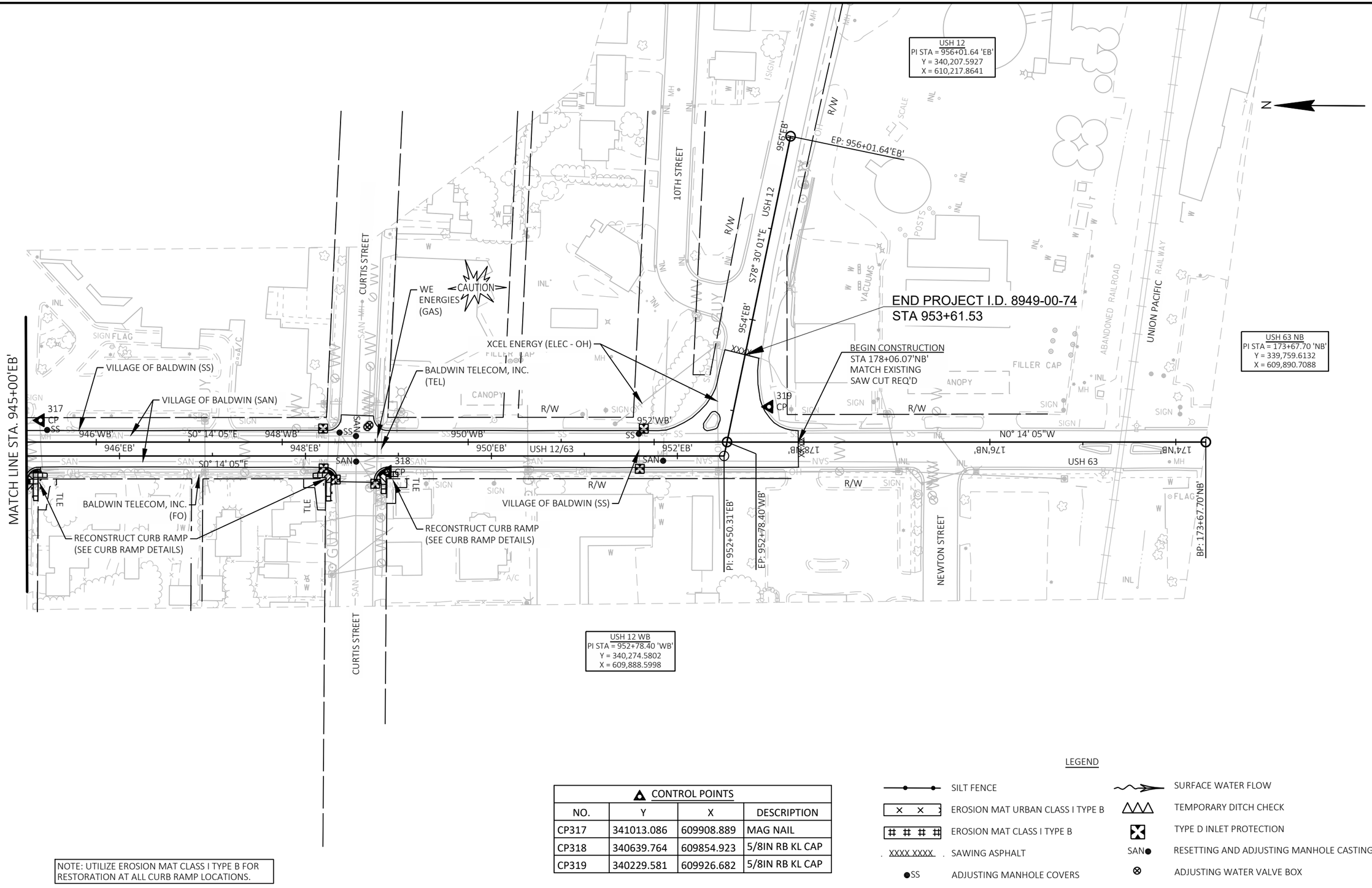
STA. 941+32 'EB' - STA. 941+53 'EB' REPLACE ASPHALTIC CURB WITH CURB AND GUTTER 30-INCH TYPE D

CONTROL POINTS			
NO.	Y	X	DESCRIPTION
CP320	341371.893	609903.582	5/8IN RB KL CAP
CP321	341760.832	609846.064	5/8IN RB KL CAP
CP322	342191.478	609901.582	5/8IN RB KL CAP

LEGEND

- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS I TYPE B
- XXXX XXXX SAWING ASPHALT
- SS ADJUSTING MANHOLE COVERS
- SURFACE WATER FLOW
- TEMPORARY DITCH CHECK
- TYPE D INLET PROTECTION
- SAN RESETTING AND ADJUSTING MANHOLE CASTING
- ADJUSTING WATER VALVE BOX

PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS	SHEET 42	E



CONTROL POINTS			
NO.	Y	X	DESCRIPTION
CP317	341013.086	609908.889	MAG NAIL
CP318	340639.764	609854.923	5/8IN RB KL CAP
CP319	340229.581	609926.682	5/8IN RB KL CAP

NOTE: UTILIZE EROSION MAT CLASS I TYPE B FOR RESTORATION AT ALL CURB RAMP LOCATIONS.

LEGEND

- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS I TYPE B
- XXXX XXXX SAWING ASPHALT
- SS ADJUSTING MANHOLE COVERS
- SURFACE WATER FLOW
- TEMPORARY DITCH CHECK
- TYPE D INLET PROTECTION
- SAN RESETTING AND ADJUSTING MANHOLE CASTING
- ADJUSTING WATER VALVE BOX

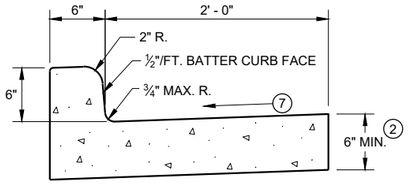
PROJECT NO: 8949-00-74	HWY: USH 12	COUNTY: ST. CROIX	PLAN SHEETS	SHEET 43 E

FILE NAME : G:\WDOTNW\18049-000 (USH 12)\CIVIL 3D\SHEETSPLAN\8949-00-74\050201-PN.DWG
LAYOUT NAME - 65
PLOT DATE : 4/28/2021 4:51 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

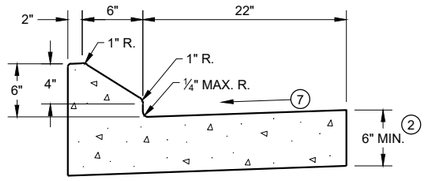
Standard Detail Drawing List

08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
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
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
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
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
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-08B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-06B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C19-06C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15C35-04B	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15C35-04C	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

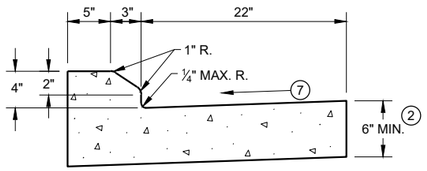
6



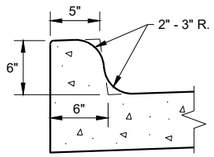
TYPES A (1) & D



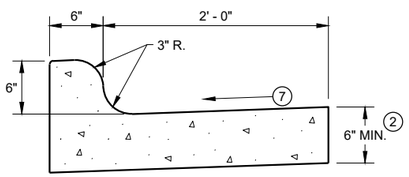
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

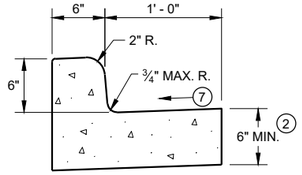


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



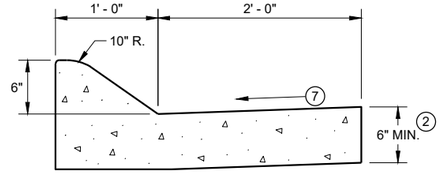
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"



TYPES A (1) & D

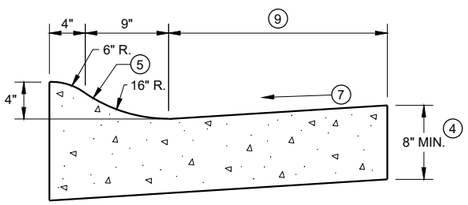
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

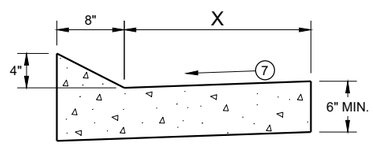
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

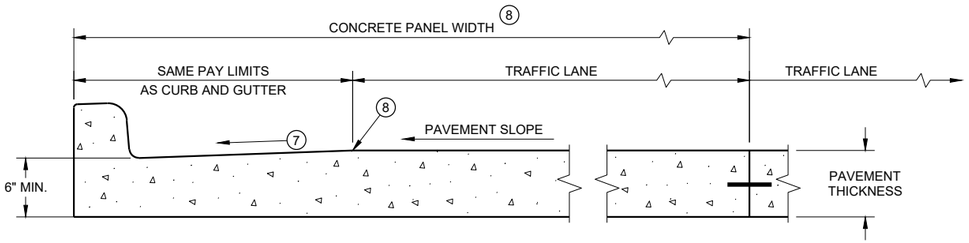


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

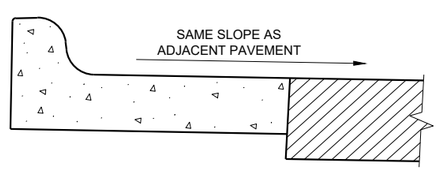
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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 (6)
(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.

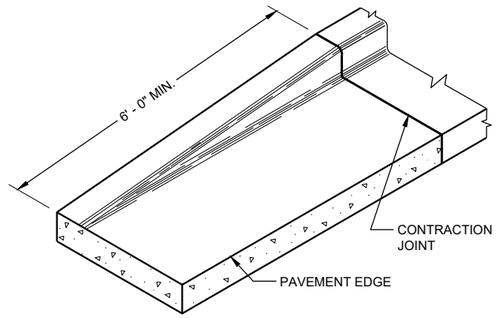
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

(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

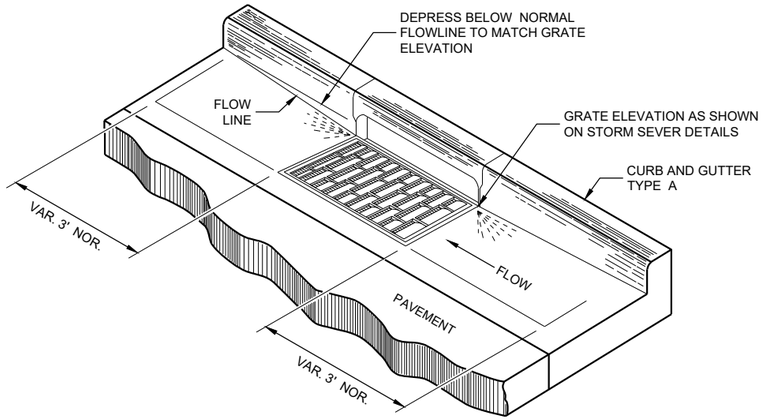
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 08D01 - 22a



END SECTIONCURB 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.

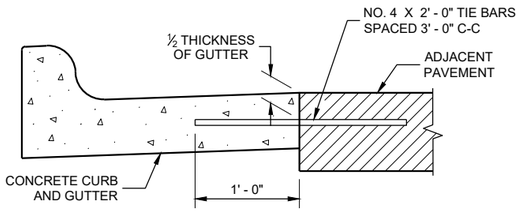
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

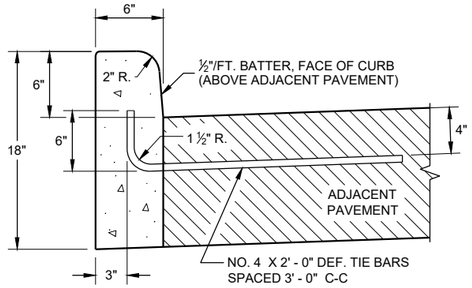
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(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.

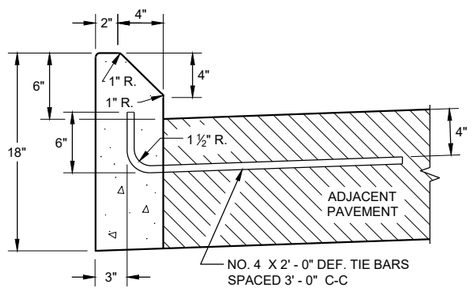
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

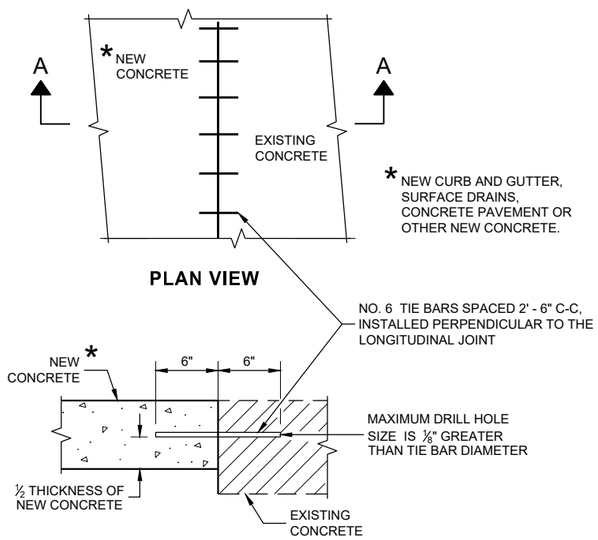


TYPES A (1) & D



TYPES G (1) & J

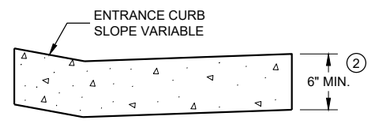
CONCRETE CURB



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

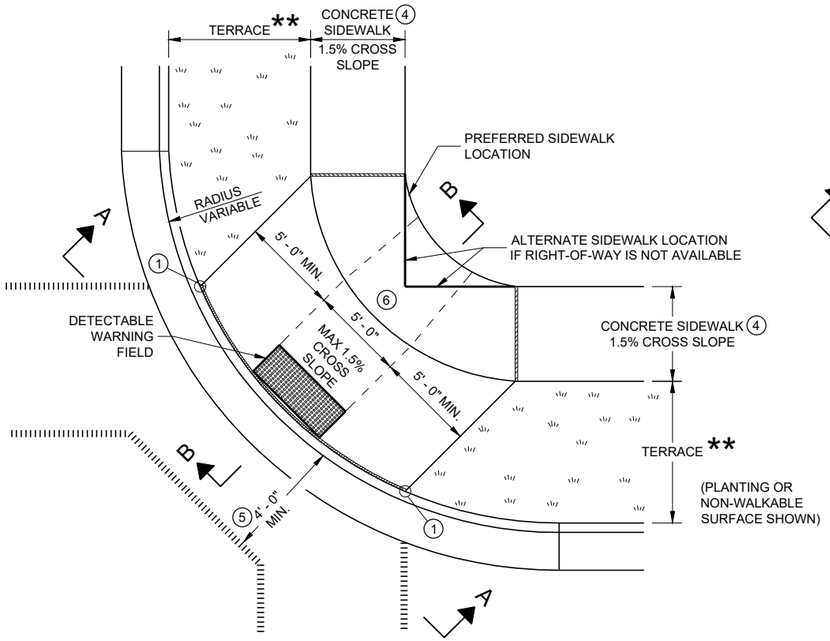
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

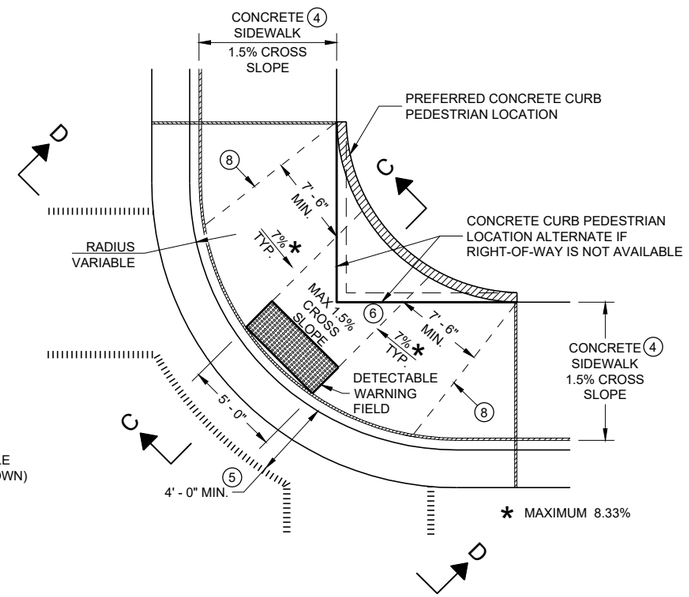
SDD08D01 - 22b



PLAN VIEW

CURB RAMP TYPE 1

(CENTER OF CORNER RADIUS)



PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

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 FILED 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 ¼ - 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.

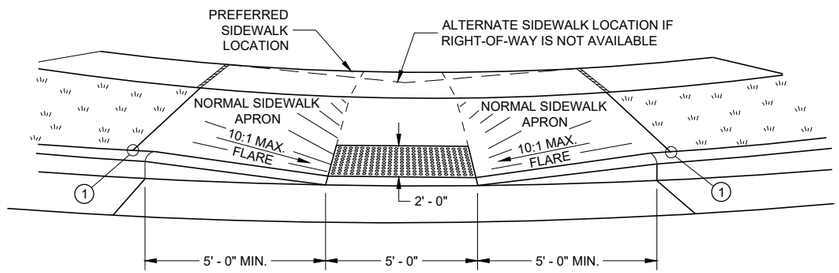
(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

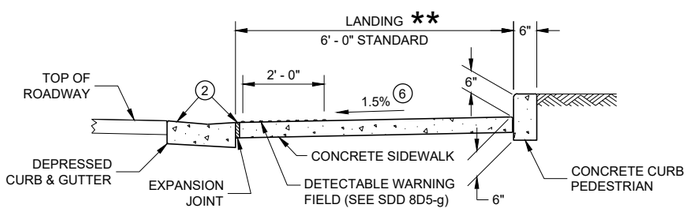
(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(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.

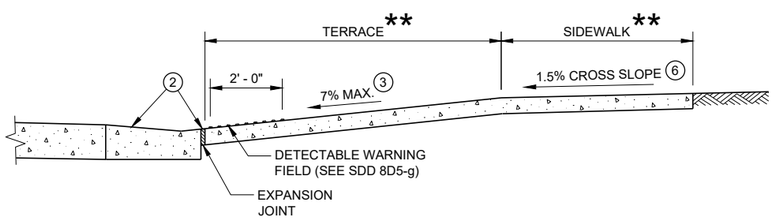


VIEW A - A FOR TYPE 1

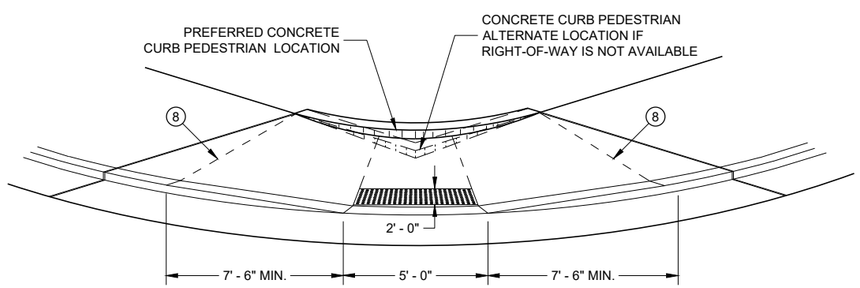


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

LEGEND

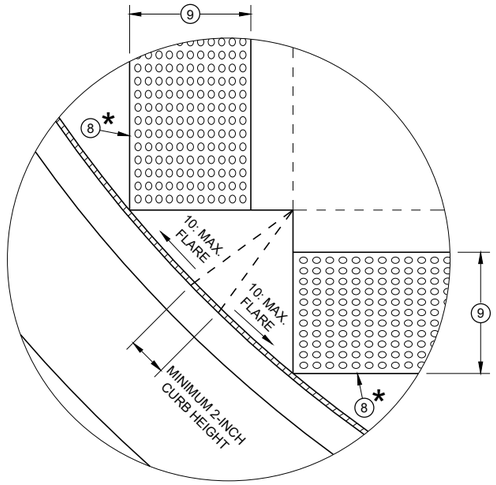
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 1 AND 1-A

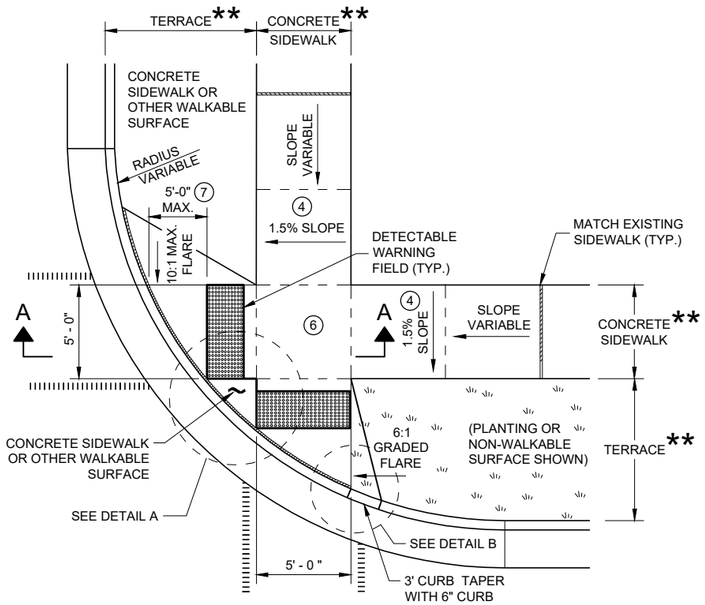
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20a



DETAIL A



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

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 ¼ - 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.

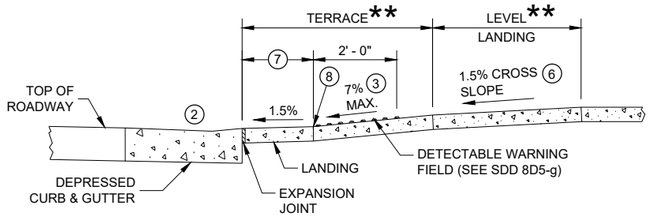
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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.

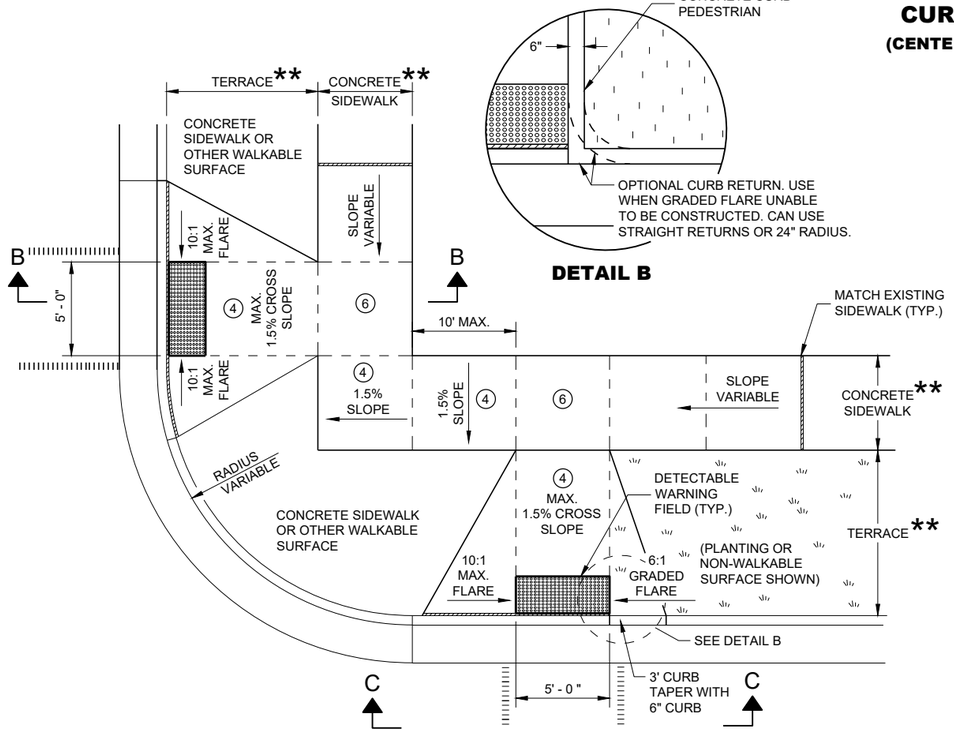
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2

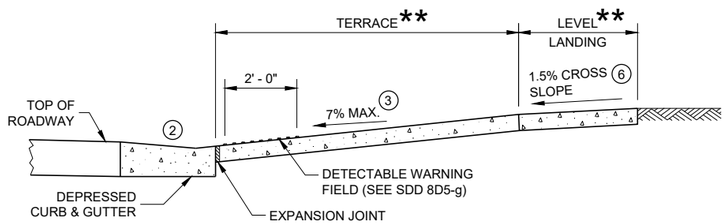
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

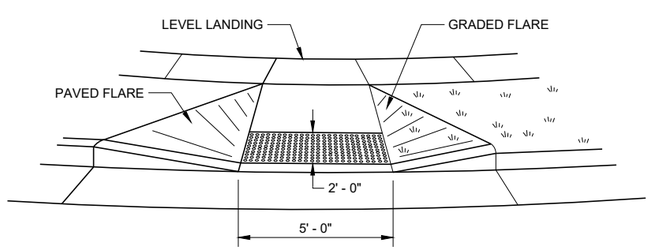


DETAIL B

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



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

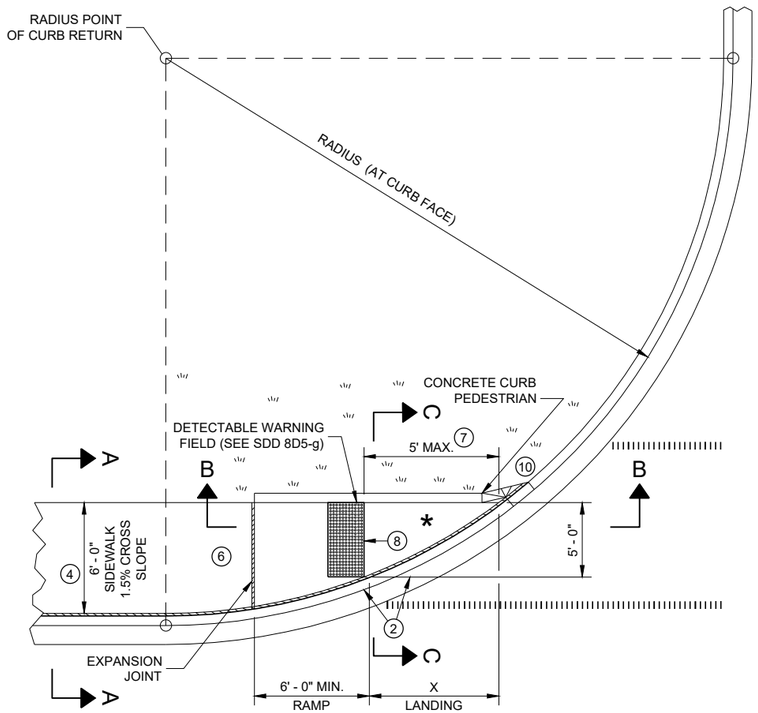
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20b

6

SDD 08D05 - 20b

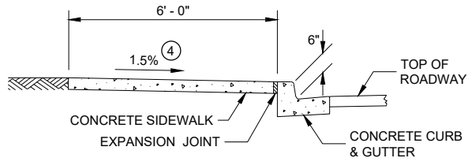


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5½"

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 ¼ - 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.

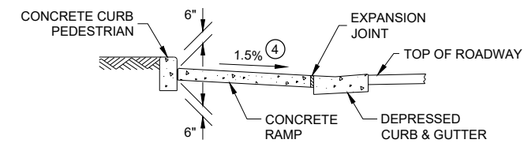
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

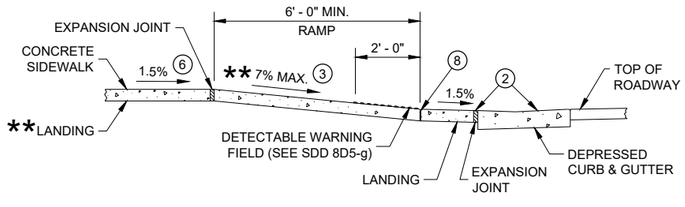
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)

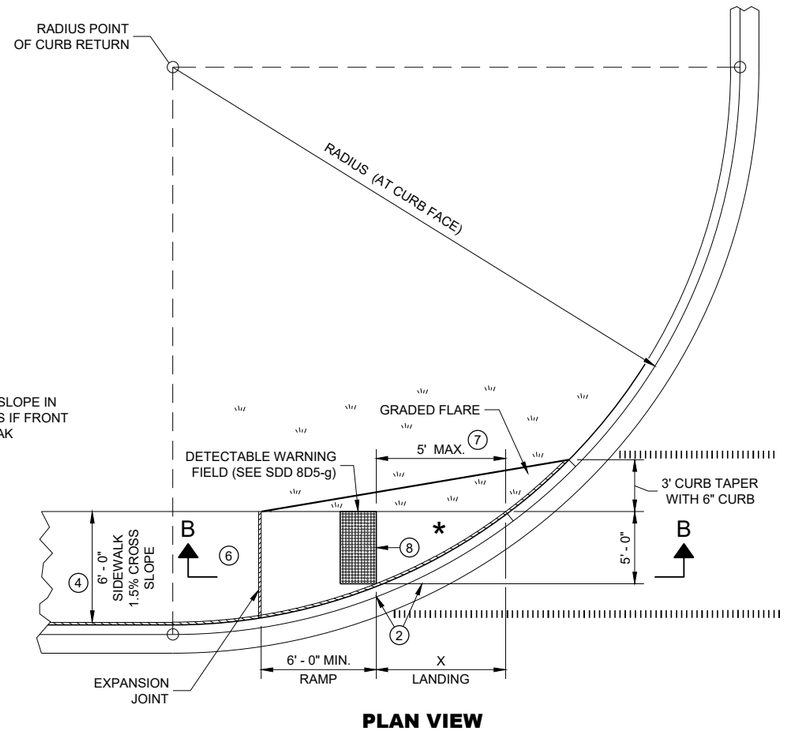


SECTION C - C FOR TYPE 4A



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

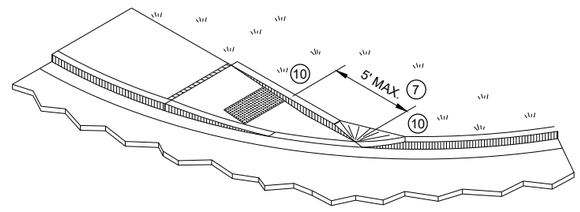
SECTION B - B FOR TYPE 4A AND TYPE 4A1



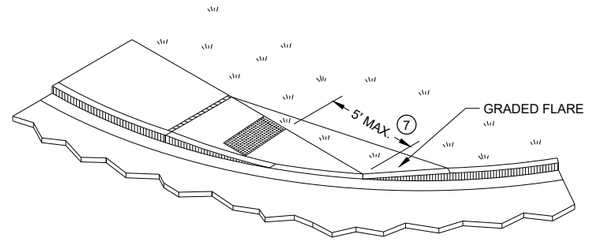
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



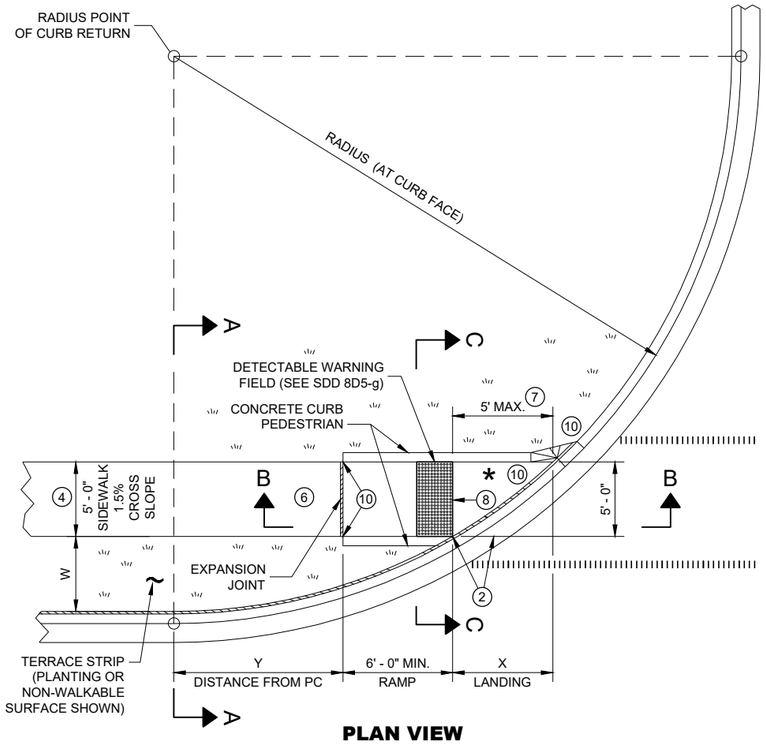
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20c

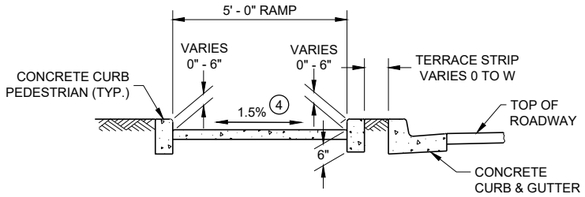


PLAN VIEW

CURB RAMP TYPE 4B

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 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET	5' - 9 ¾"	3' - 6 ½"	4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET			6' - 9 ¼"	7' - 11 ¼"	6' - 0 ¼"	9' - 8"	5' - 5"	11' - 1 ¾"	4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET									6' - 1 ¾"	15' - 8 ½"	5' - 8"	17' - 2"	5' - 3"	18' - 5 ¾"	4' - 10 ¾"	19' - 8 ¼"
50 FEET															5' - 10 ¼"	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



SECTION C - C FOR TYPE 4B

LEGEND

- ½" 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.

(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 ¼ - 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.

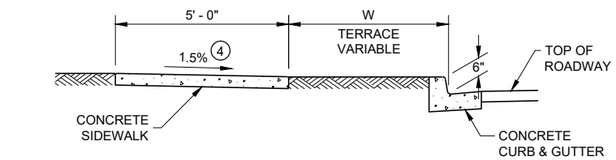
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

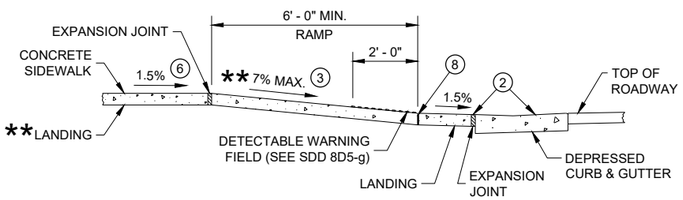
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



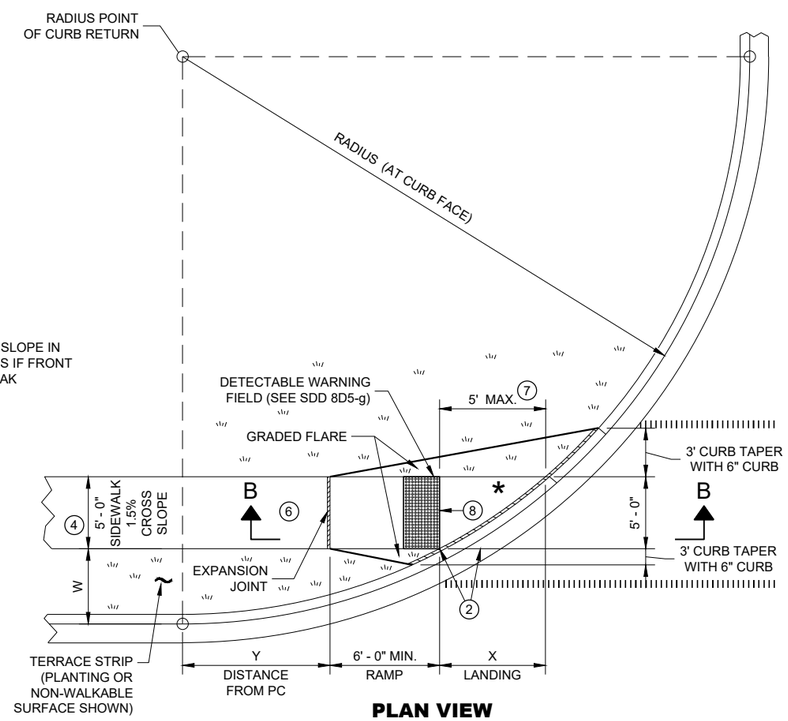
SECTION A - A FOR TYPE 4B



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

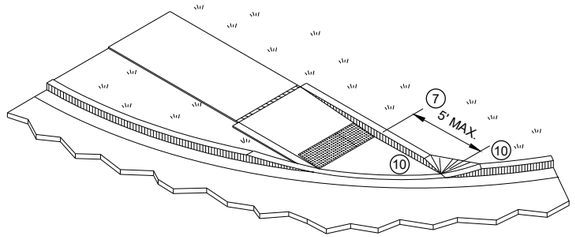
SECTION B - B FOR TYPE 4B AND TYPE 4B1

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

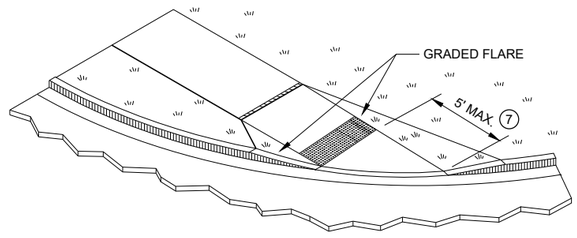


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



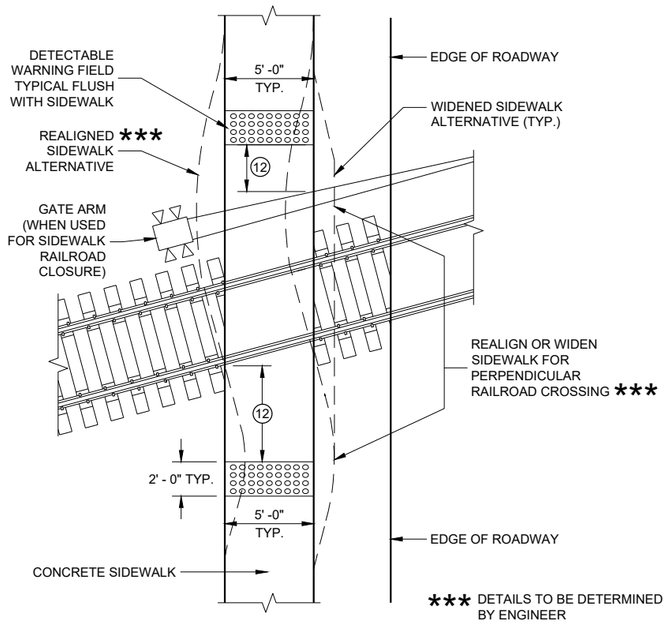
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

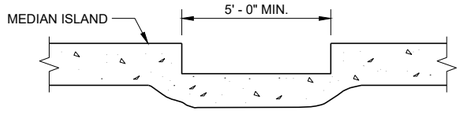
6

SDD 08D05 - 20d

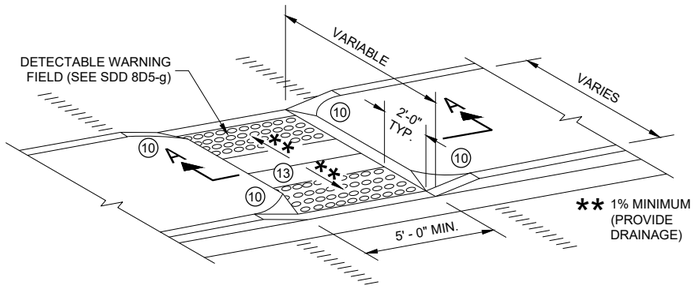


CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

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 ¼ - 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.

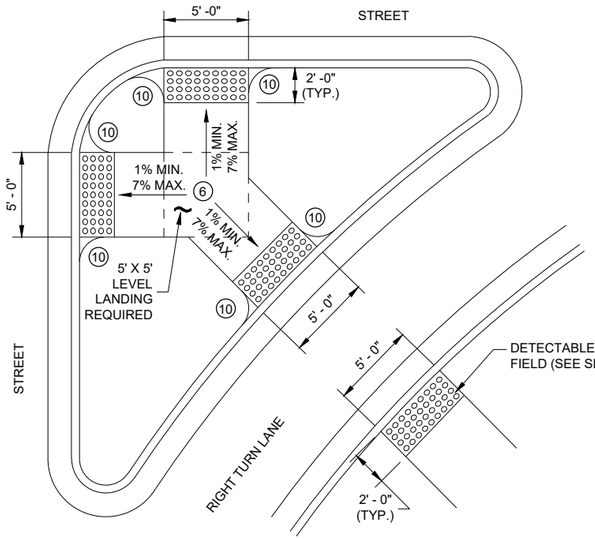
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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 STEET-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

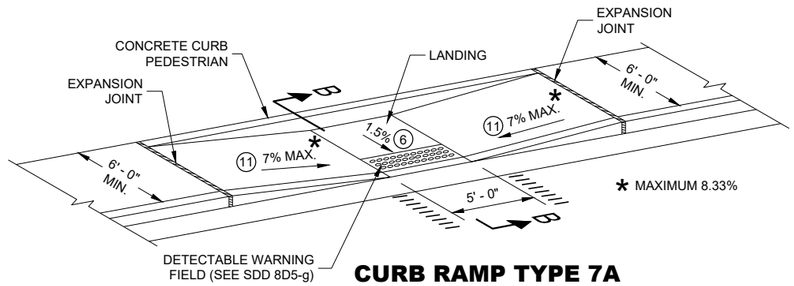
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

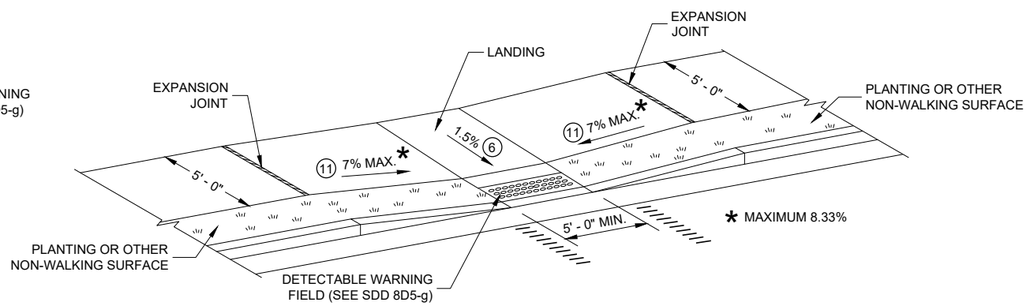
DETECTABLE WARNING AT ISLANDS

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



CURB RAMP TYPE 7A

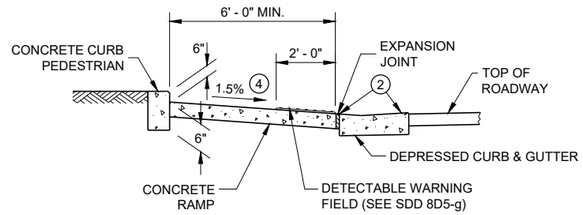
MID BLOCK CROSSING



CURB RAMP TYPE 7B

MID BLOCK CROSSING

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



SECTION B - B FOR TYPE 7A

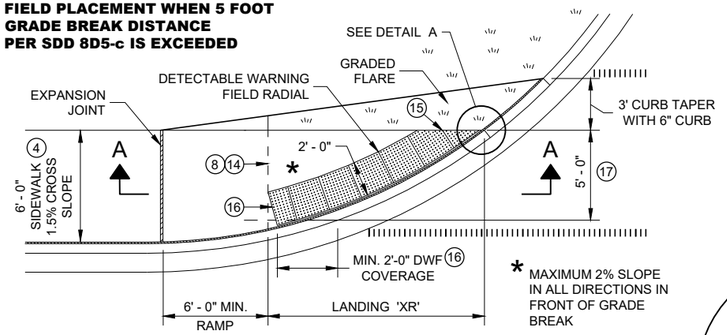
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20e

SDD 08D05 - 20e

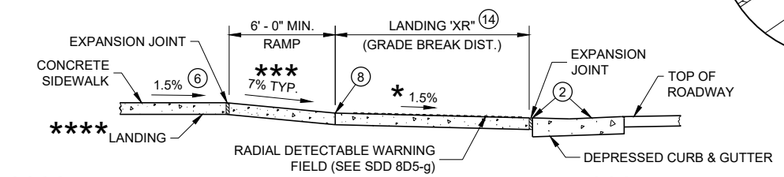
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



PLAN VIEW

CURB RAMP TYPE 4A1

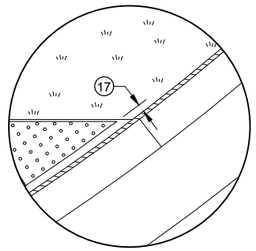
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



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

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1



DETAIL A

LEGEND

- ½" 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.

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 CURB 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 AD 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 ¼ - 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.

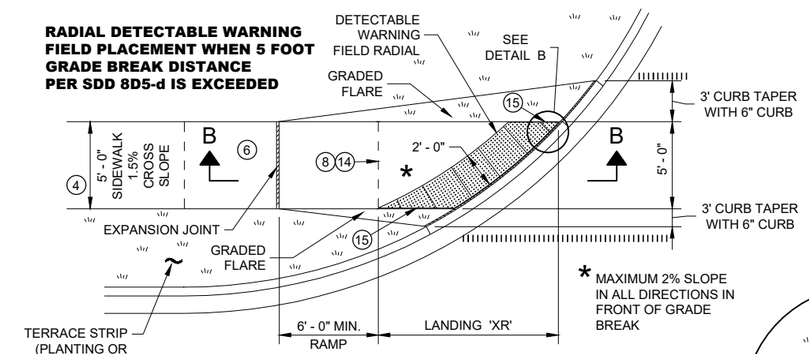
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(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 ⅛" 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.

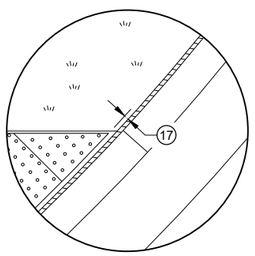
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



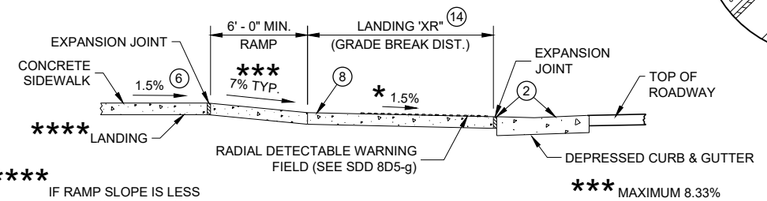
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B

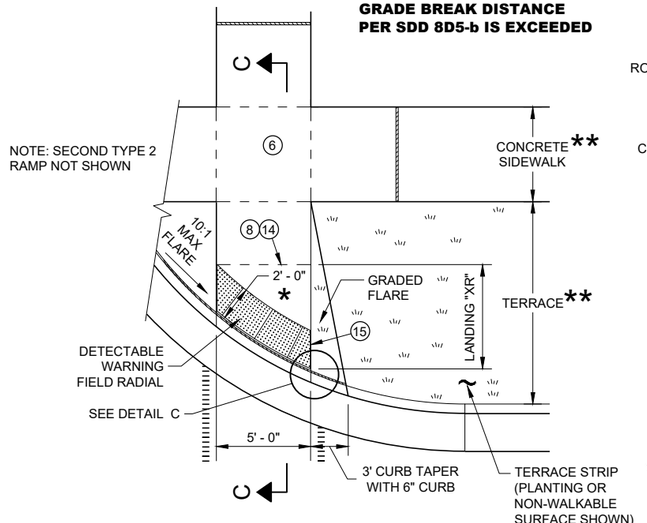


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

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

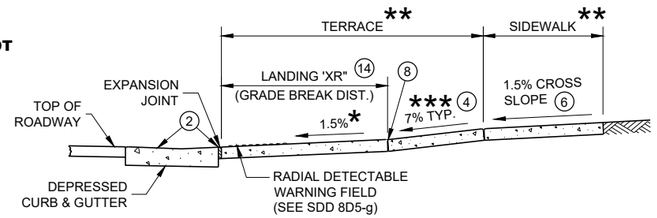


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

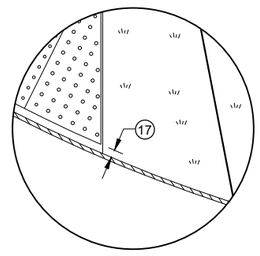


SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



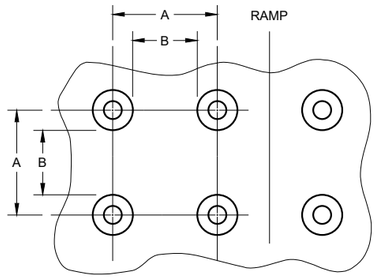
DETAIL C

CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS

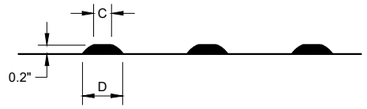
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

	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.

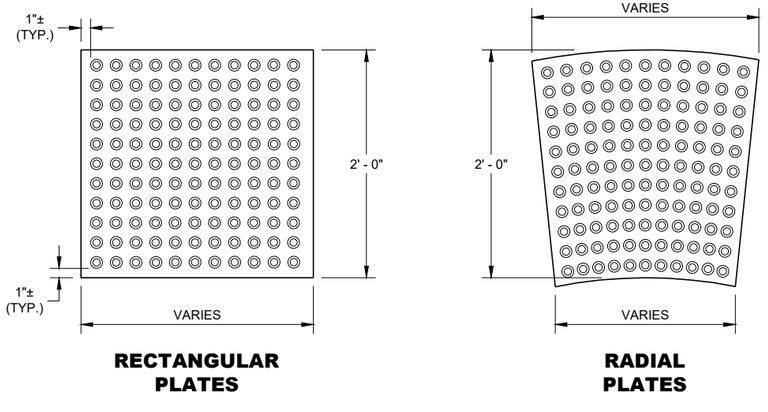


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)

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 FILED ARE PROHIBITED.

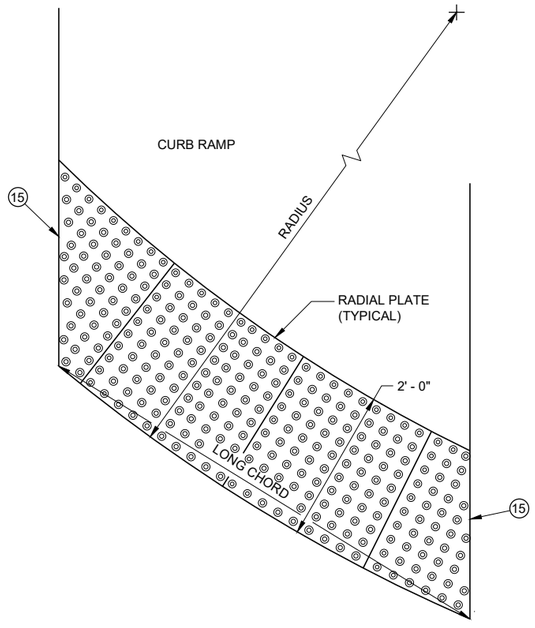
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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.

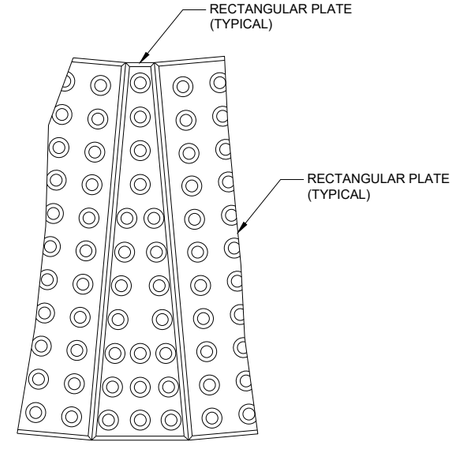
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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 ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

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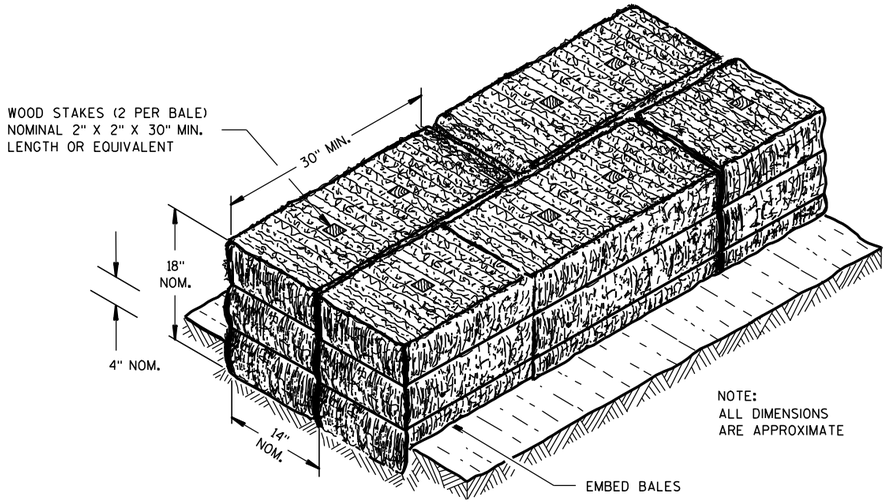
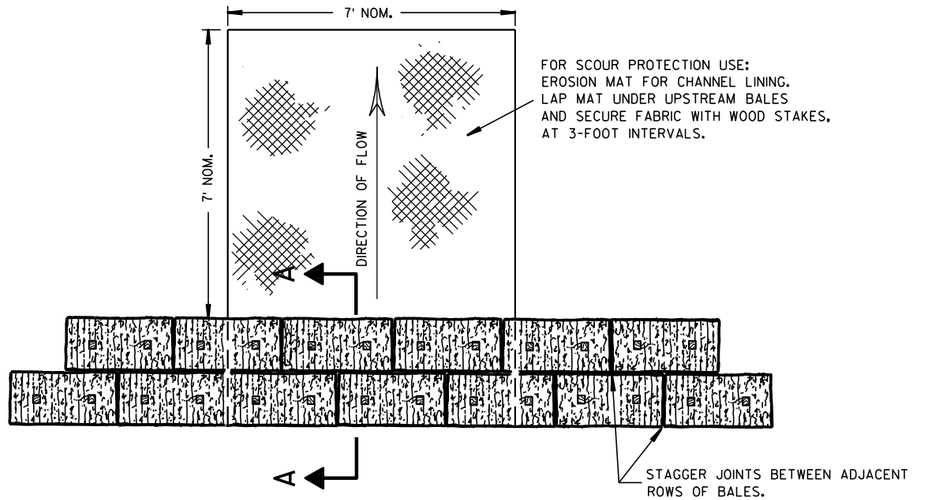
SDD 08D05 - 20g

6

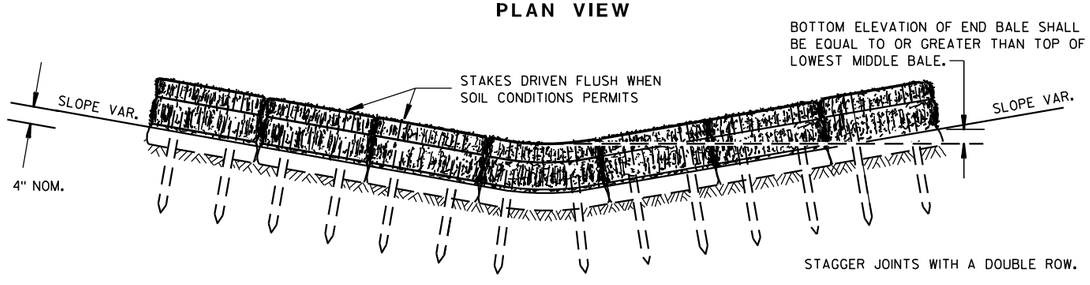
SDD 08D05 - 20g



SECTION A-A



PLAN VIEW



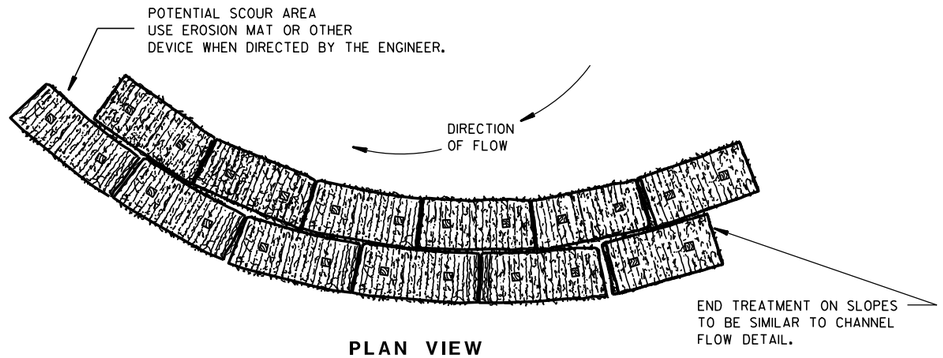
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

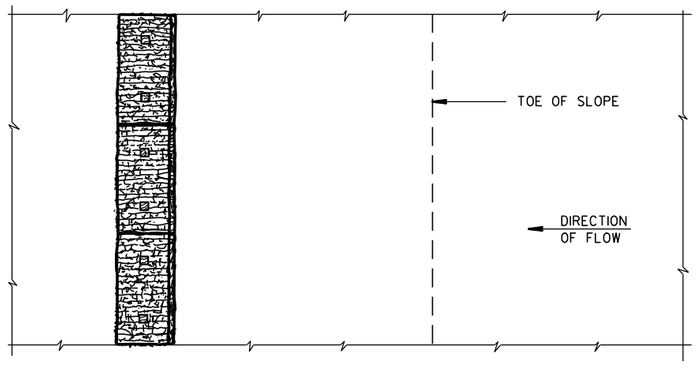
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

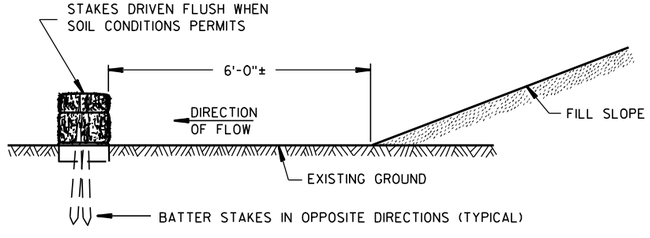


PLAN VIEW

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

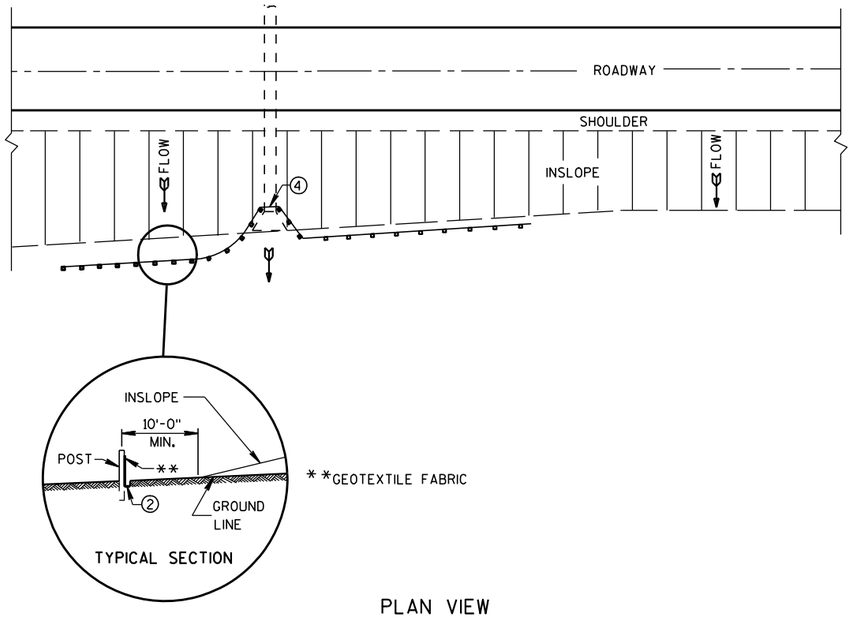
APPROVED

6/04/02 DATE — /S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

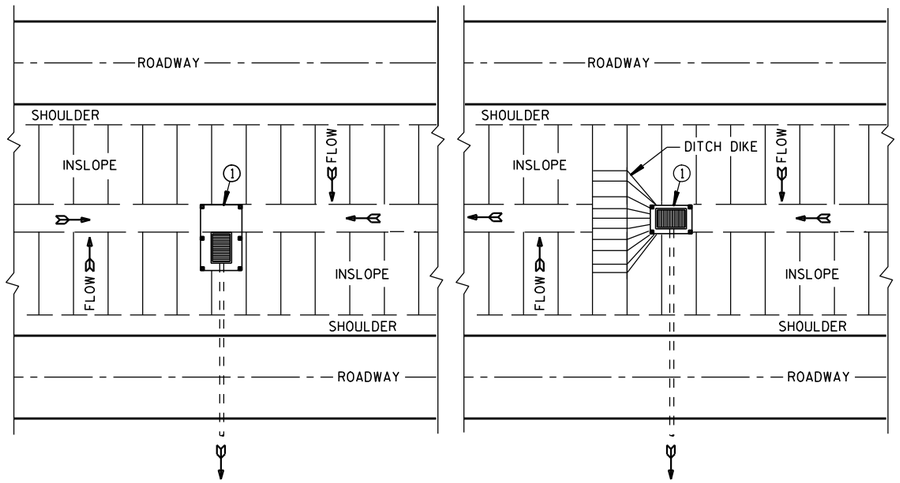
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



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.

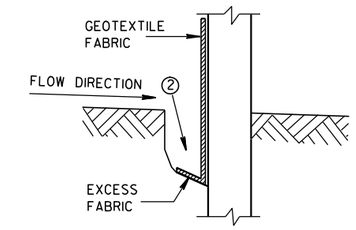
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

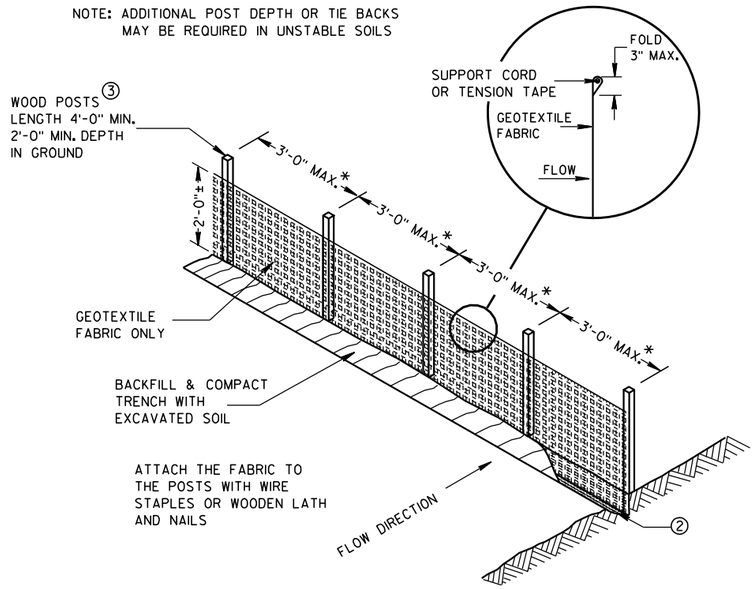
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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.

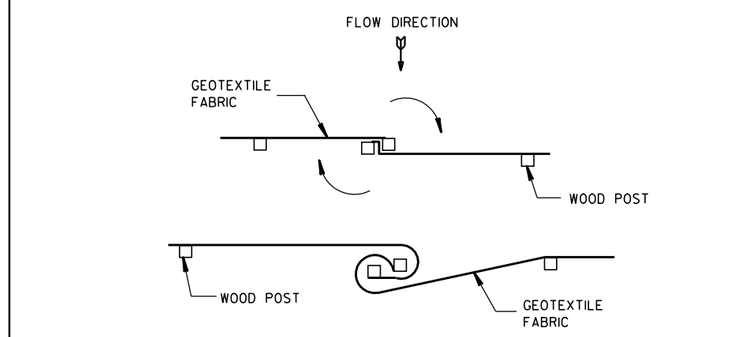


TRENCH DETAIL

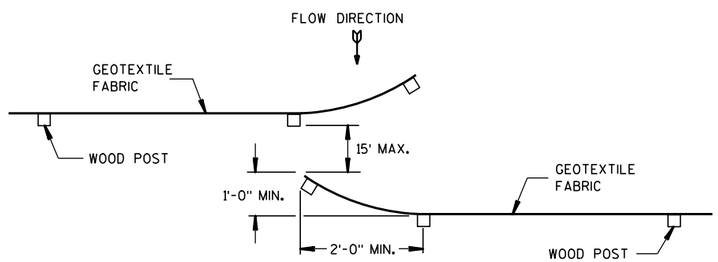


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

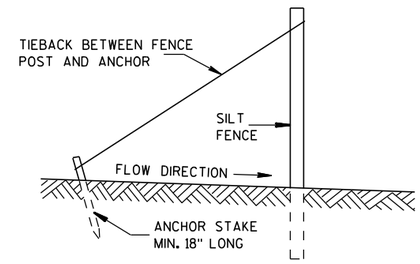


TWIST METHOD



HOOK METHOD

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 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 9-6

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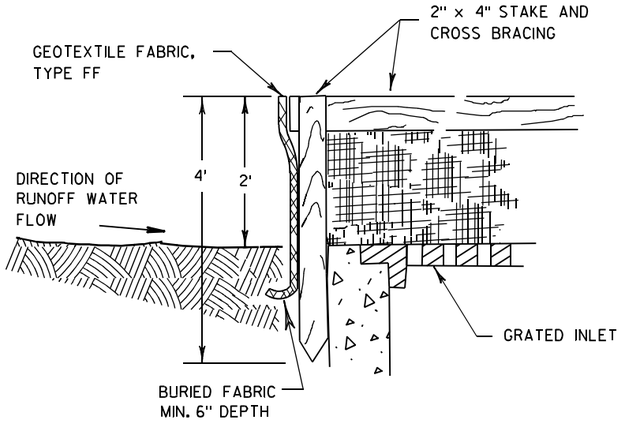
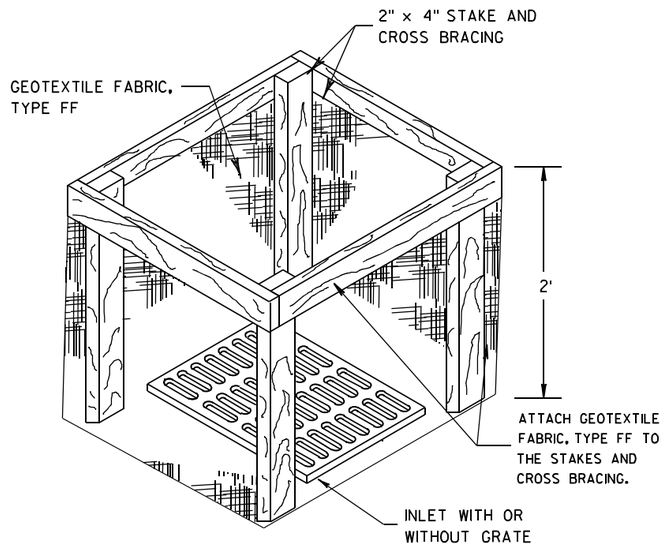
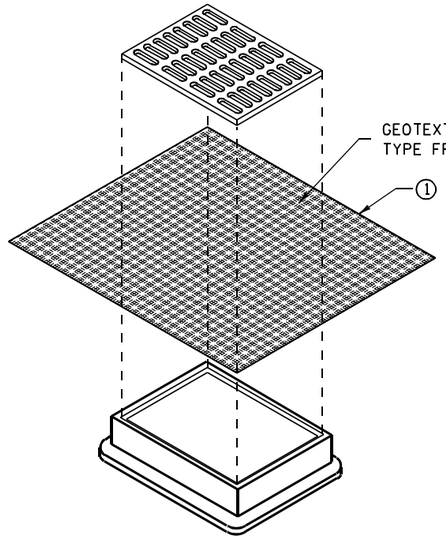
S.D.D. 8 E 9-6



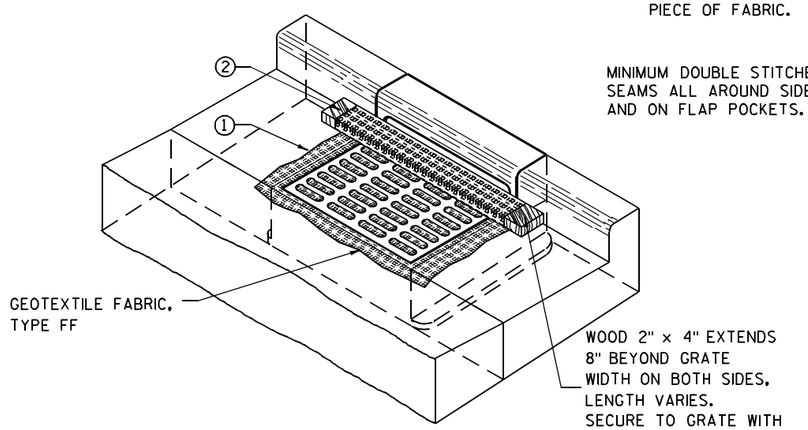


INLET PROTECTION, TYPE A

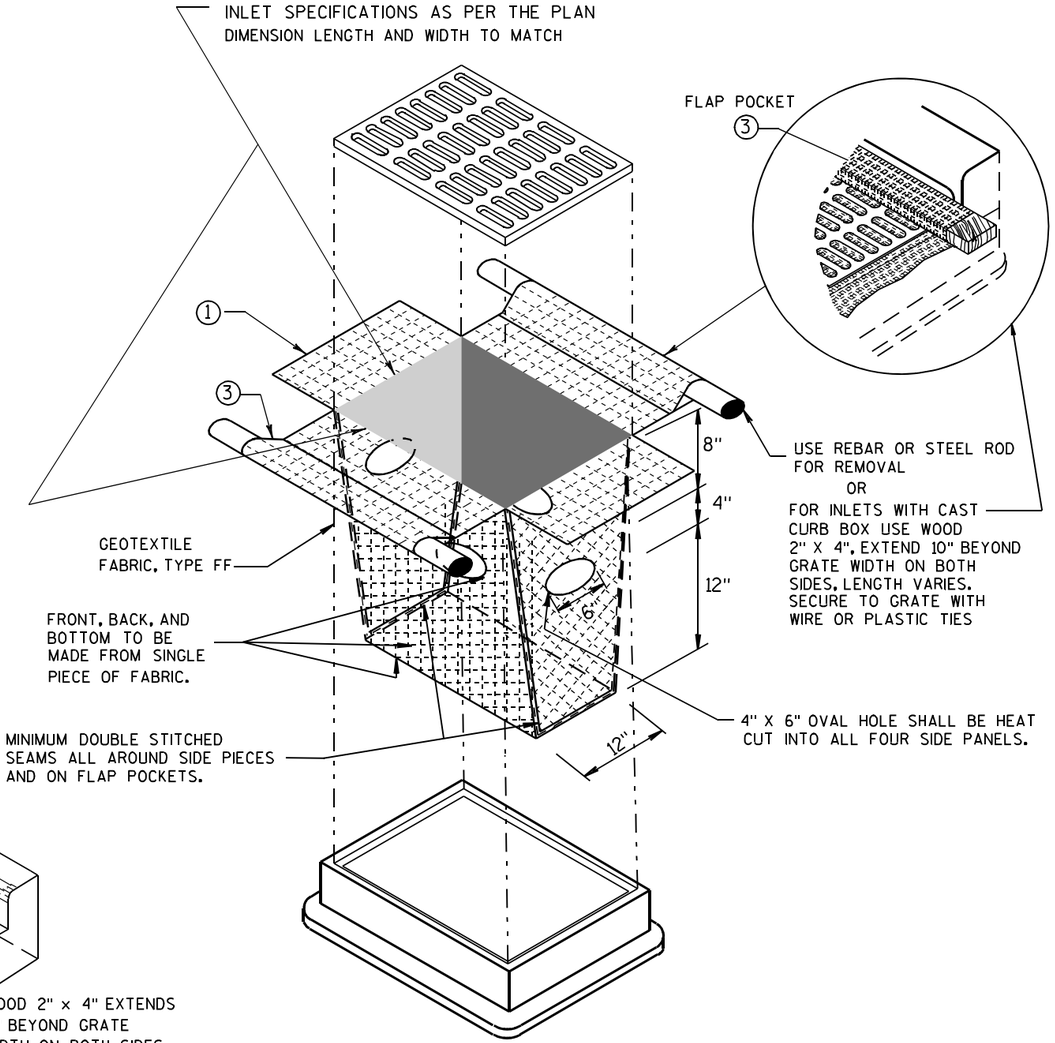


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

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.

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.

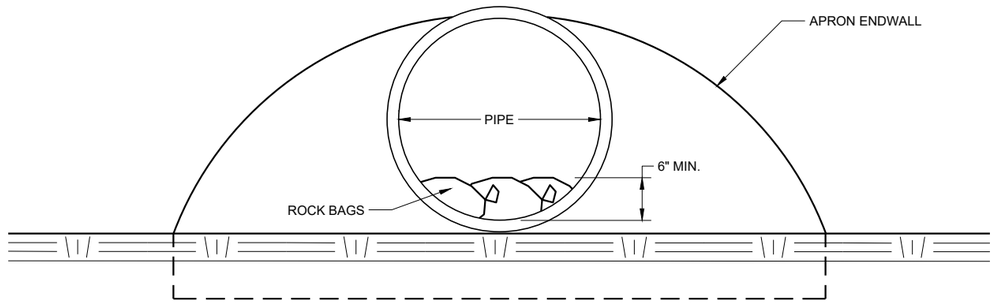
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

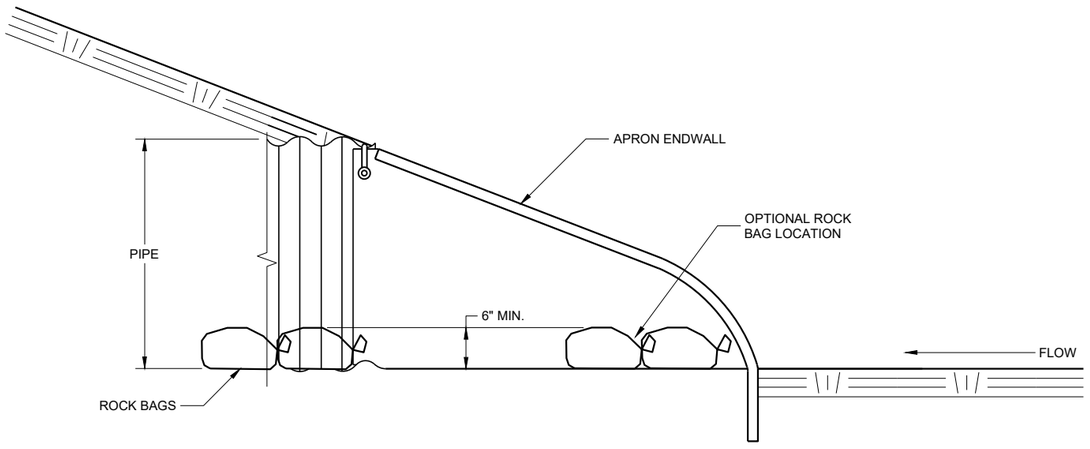
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI
FHWA	

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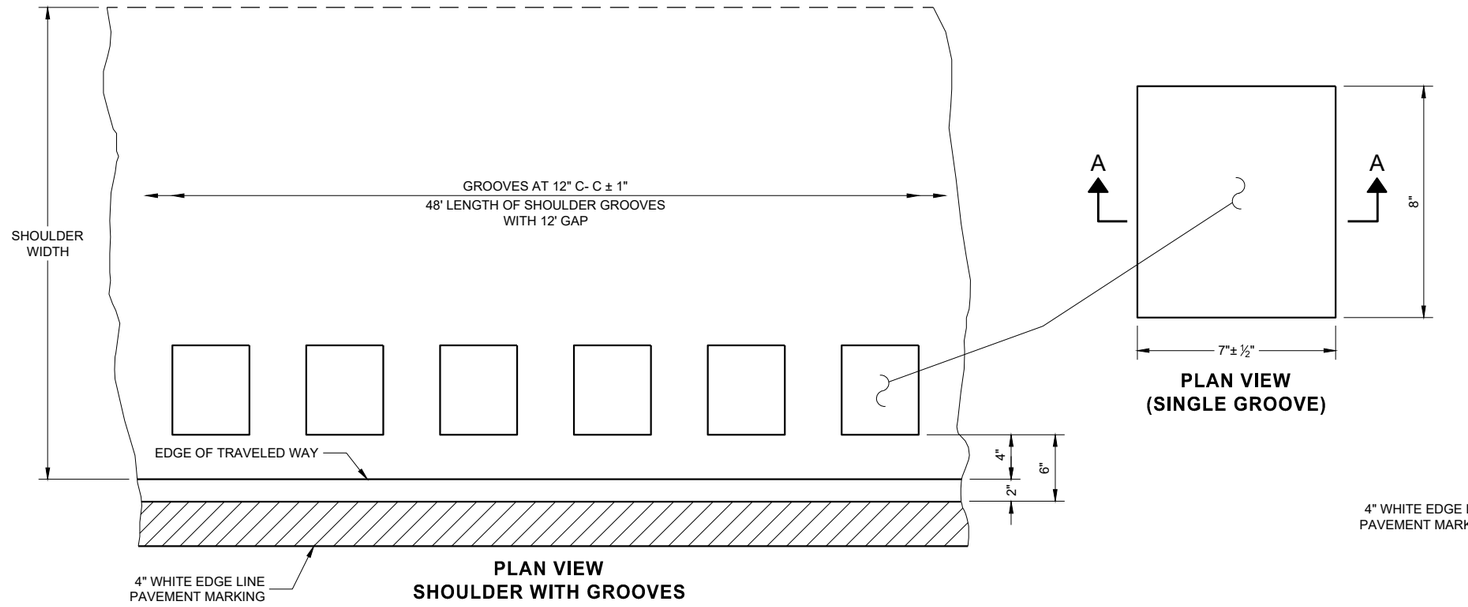
SDD 08E15 - 01

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

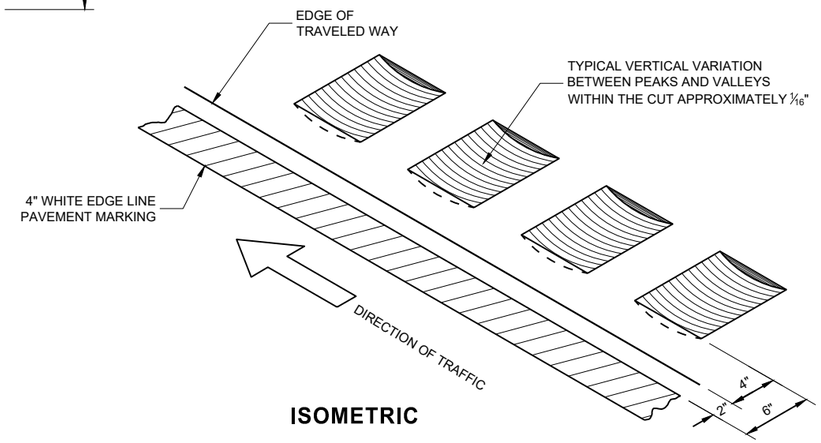
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



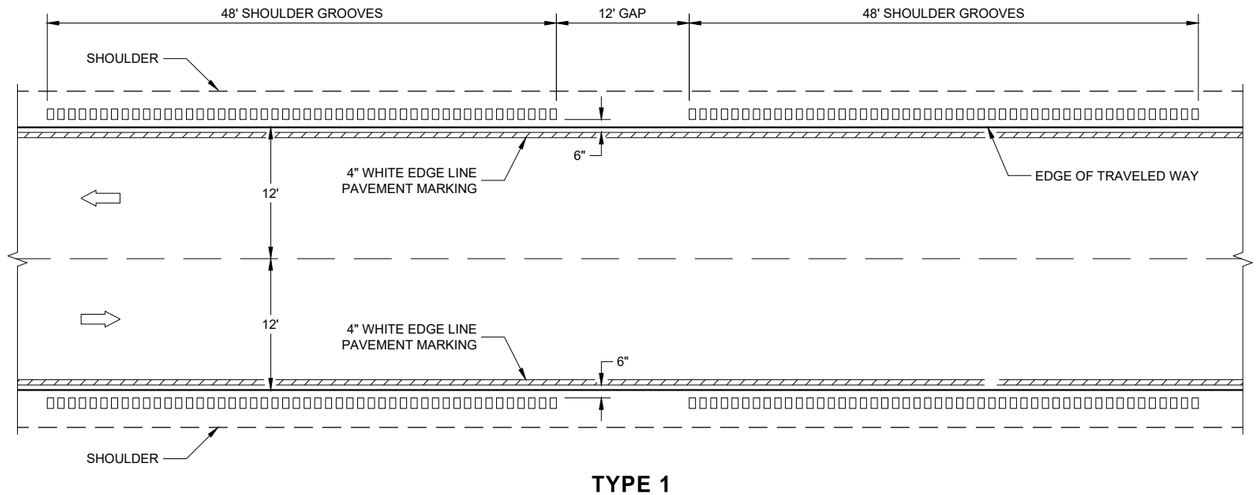
PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

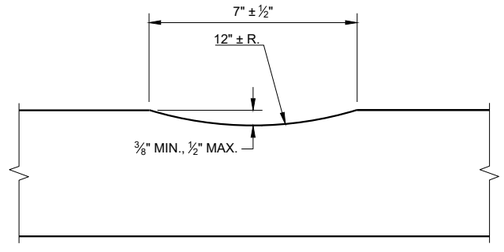
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



ISOMETRIC



TYPE 1
2 - LANE SHOULDER RUMBLE STRIP



SECTION A - A

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 13A10 - 02a

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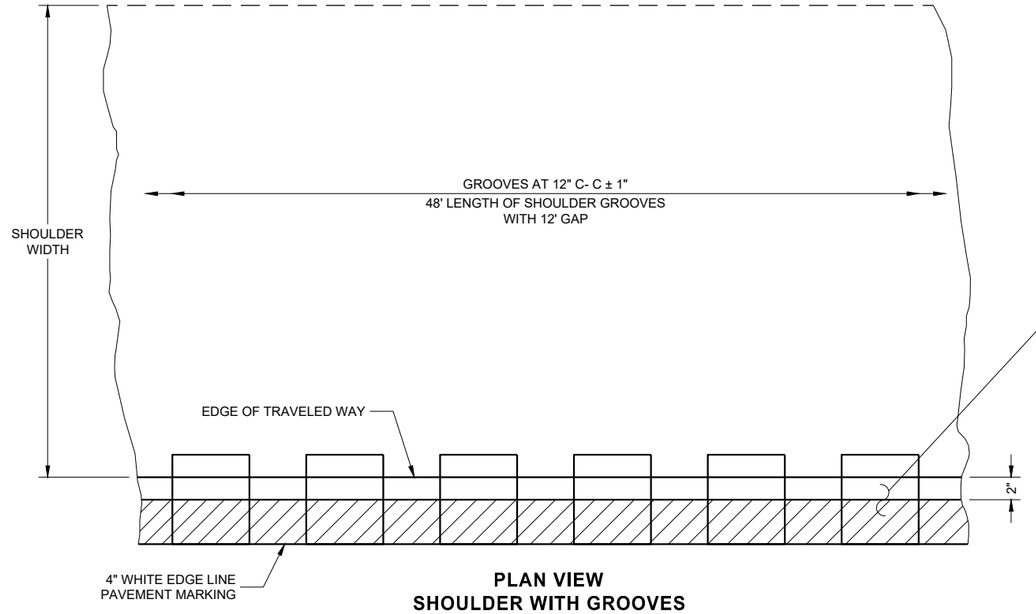
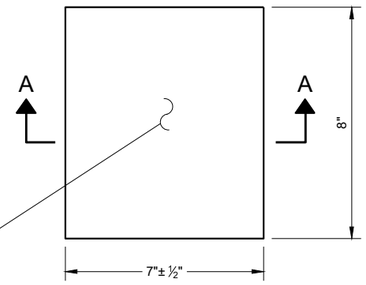
SDD 13A10 - 02a



PLAN VIEW
SHOULDER WITH GROOVES



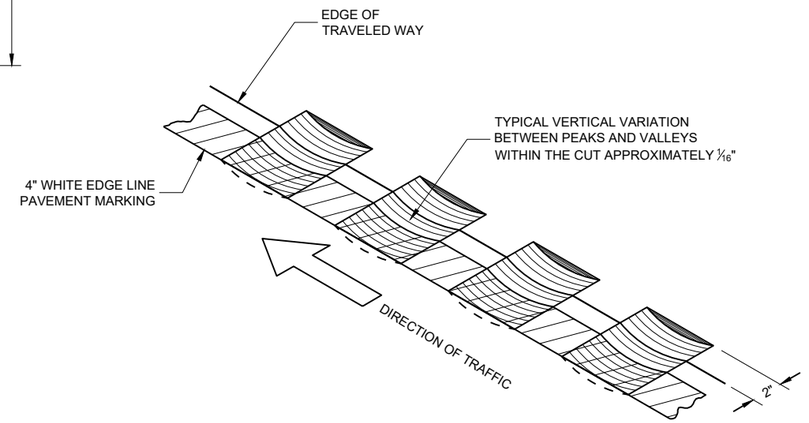
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

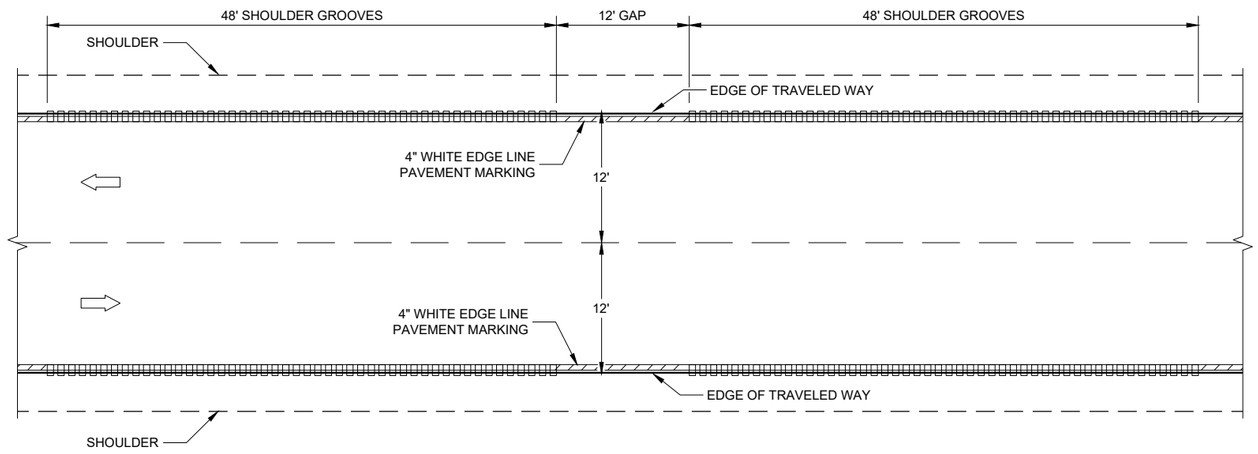
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

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

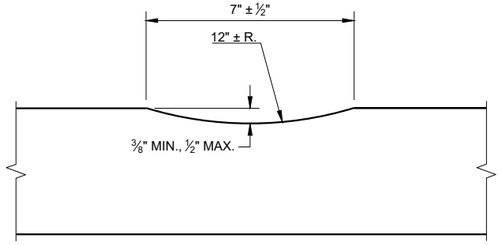


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP



TYPE 2
2 - LANE SHOULDER RUMBLE STRIP



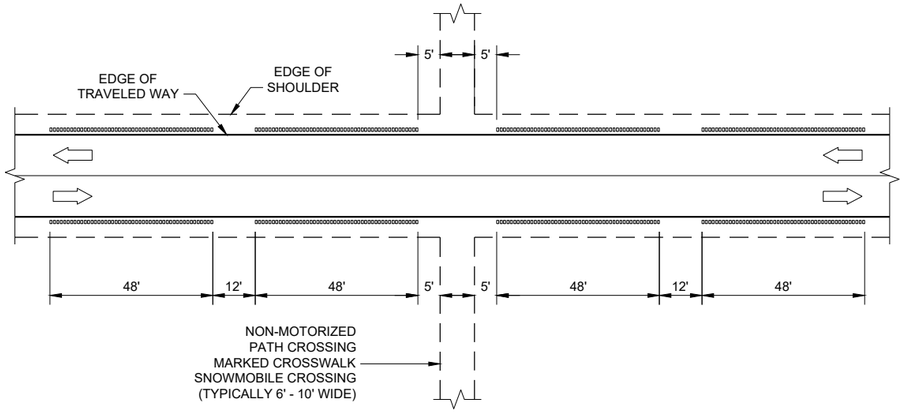
SECTION A - A

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

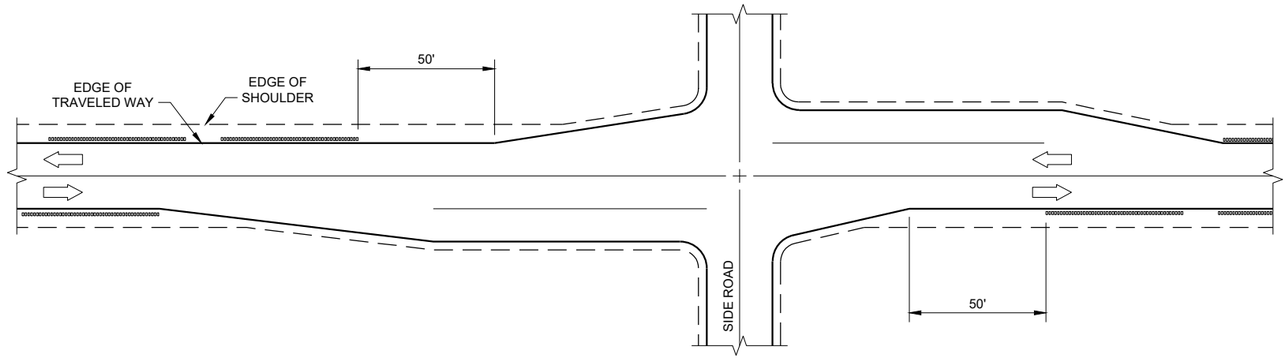
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 13A10 - 02b

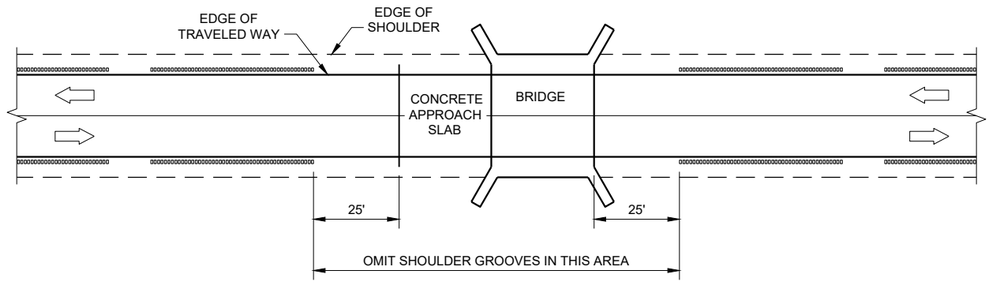
SDD 13A10 - 02b



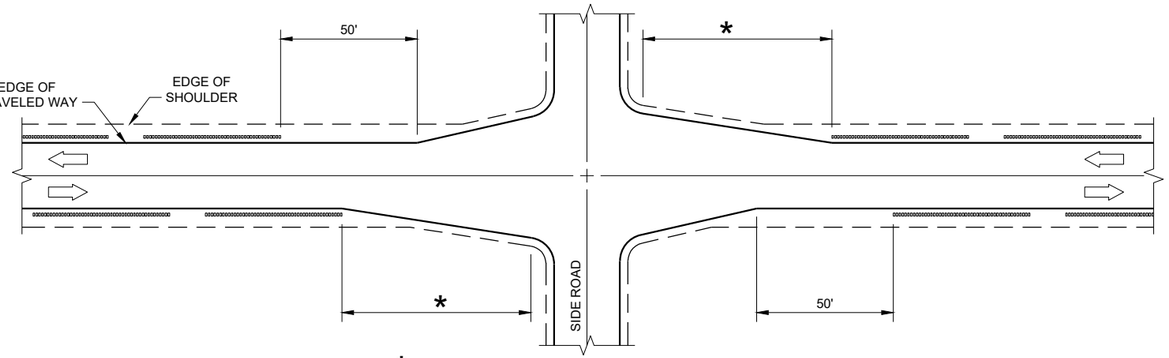
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



SHOULDER GROOVES AT RIGHT TURN LANE

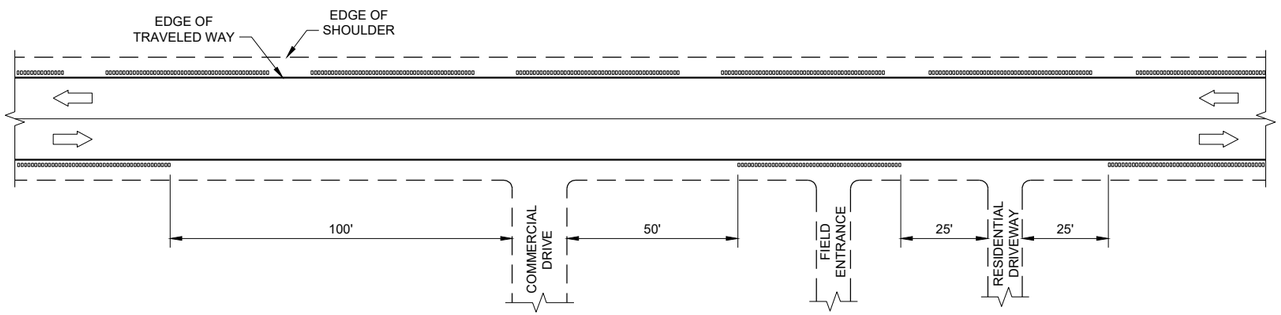


SHOULDER GROOVES AT BRIDGES



* GREATER OF 100' OR APPROACH TAPER LENGTH

SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER



SHOULDER GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

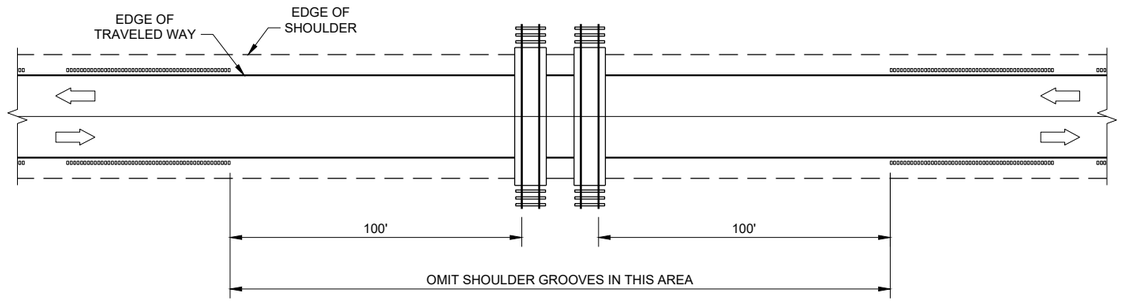
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

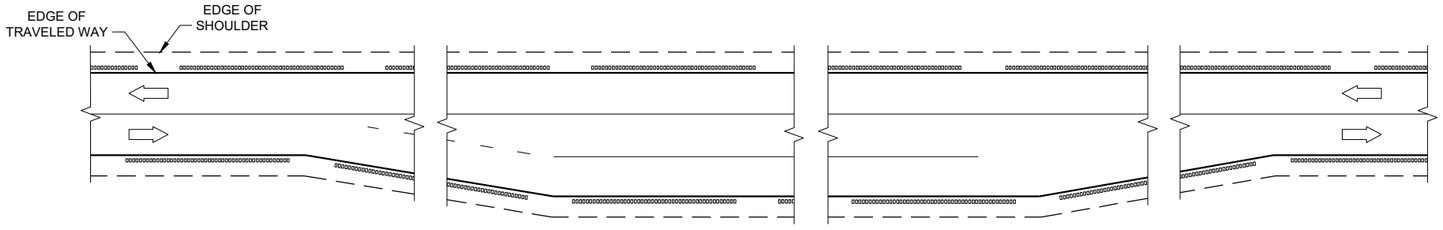
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

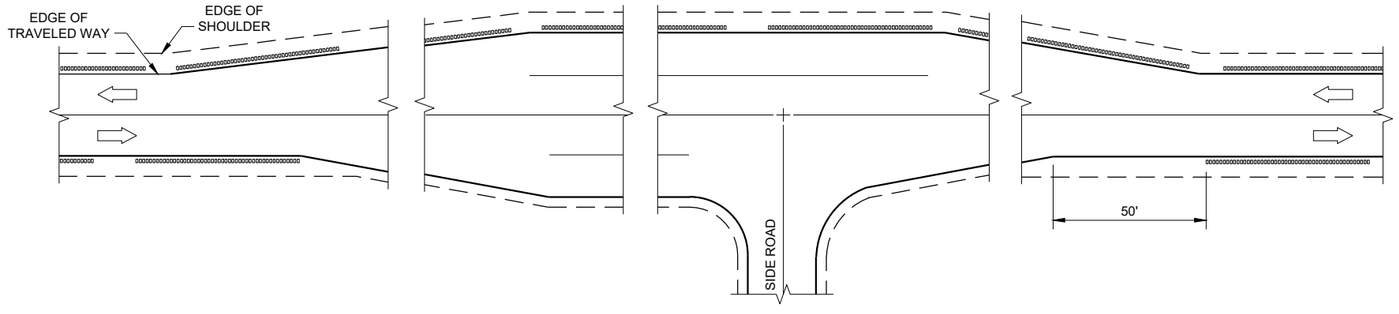
SDD 13A10 - 02c



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

6

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SDD 13A10 - 02d

SDD13A10 - 02d

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

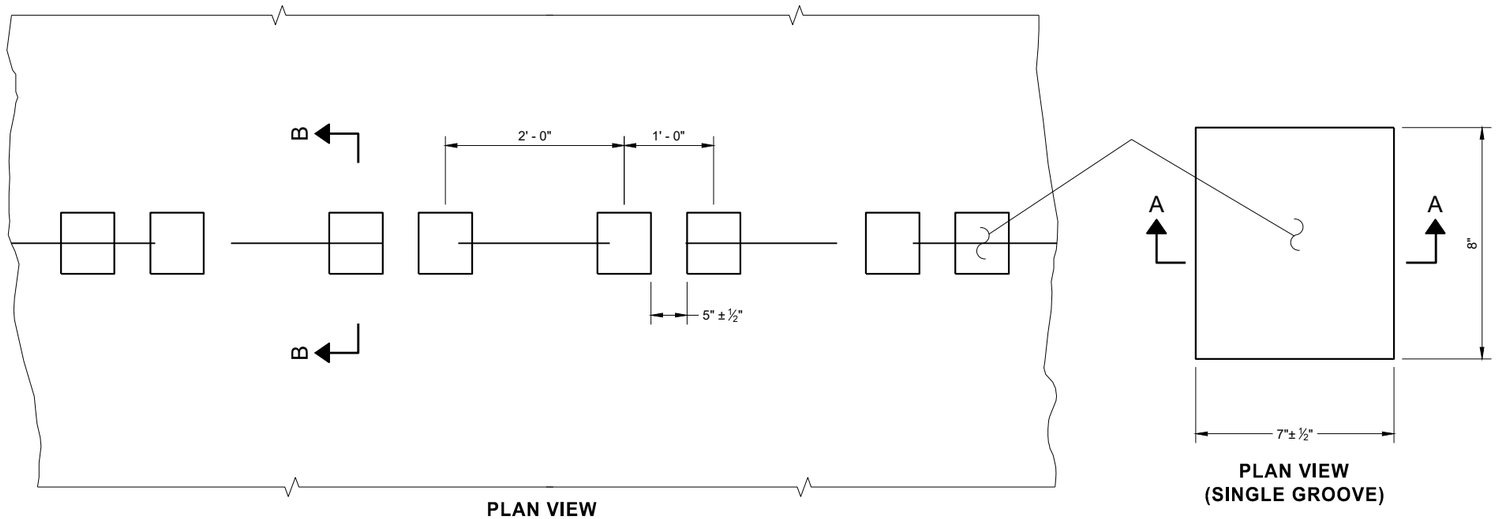
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

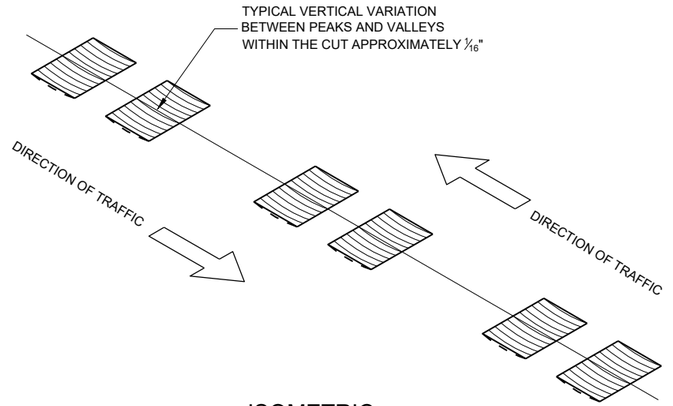
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.



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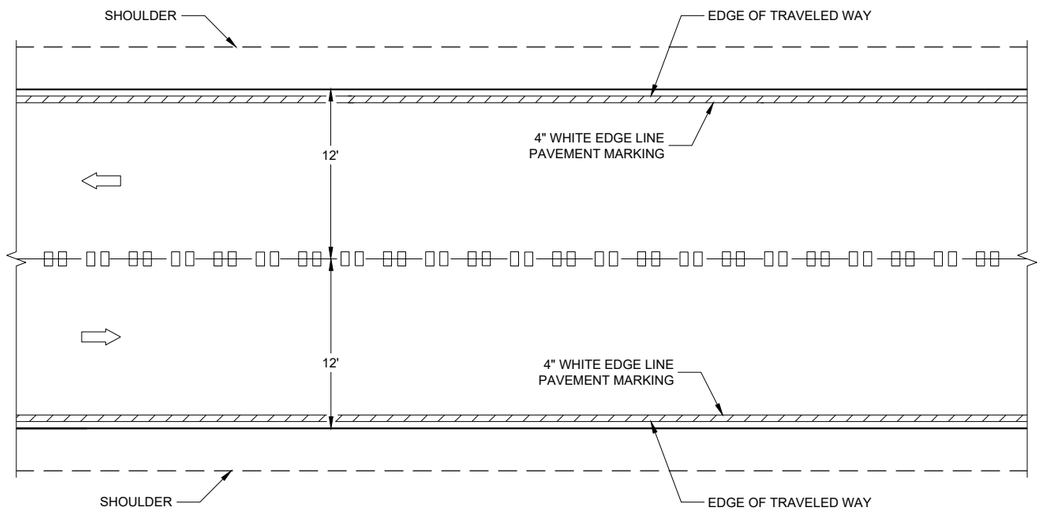
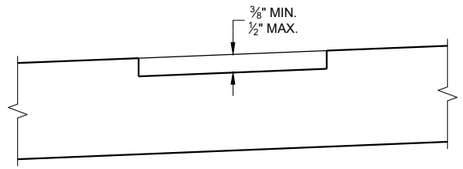
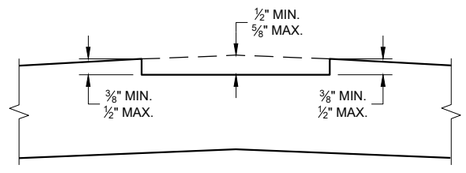


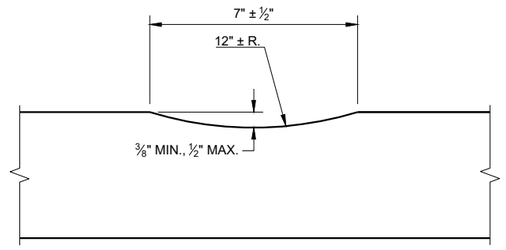
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



SECTION A - A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13A11 - 03a

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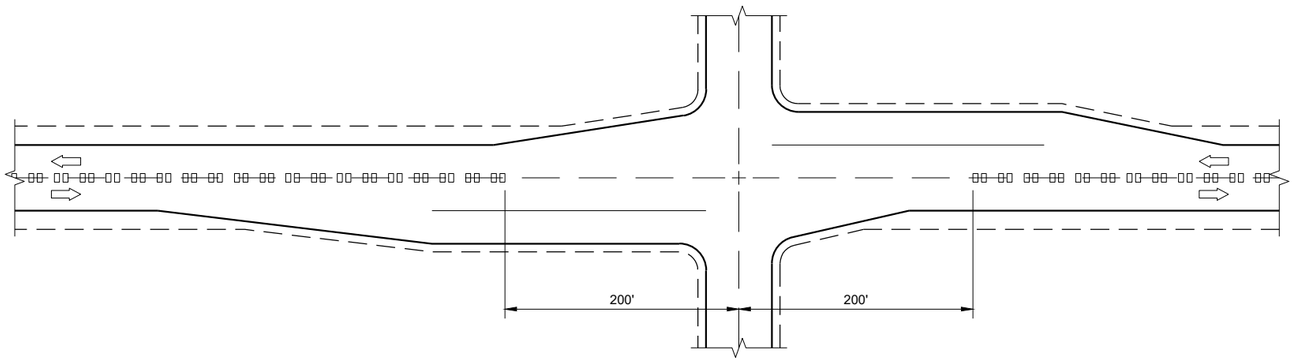
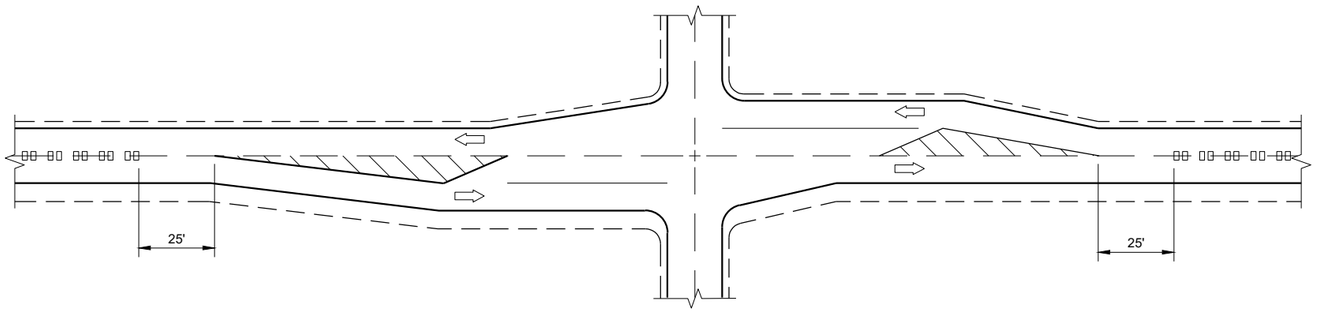
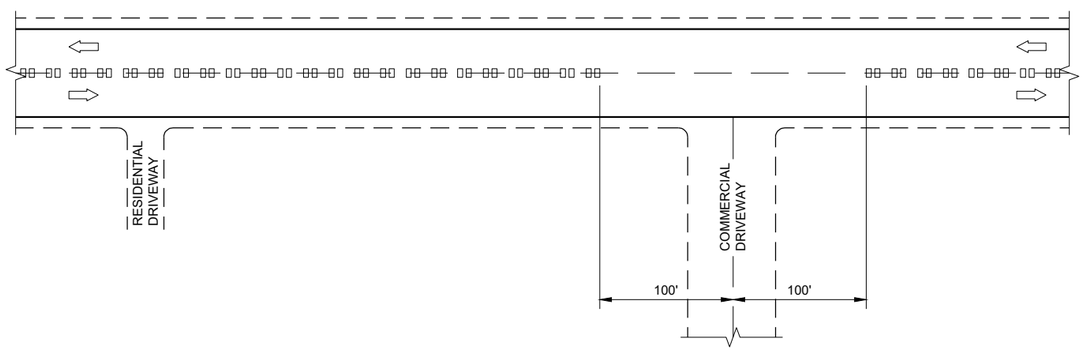
SDD 13A11 - 03a



CENTERLINE GROOVES AT INTERSECTIONS



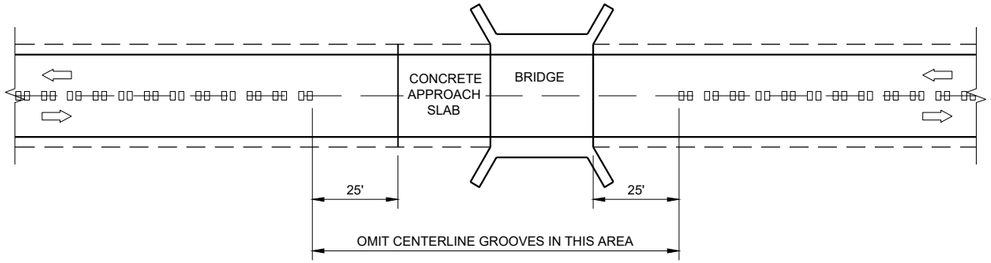
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



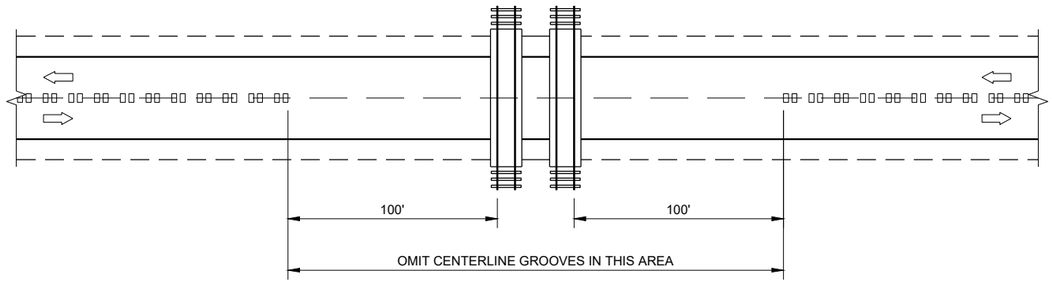
CENTERLINE GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

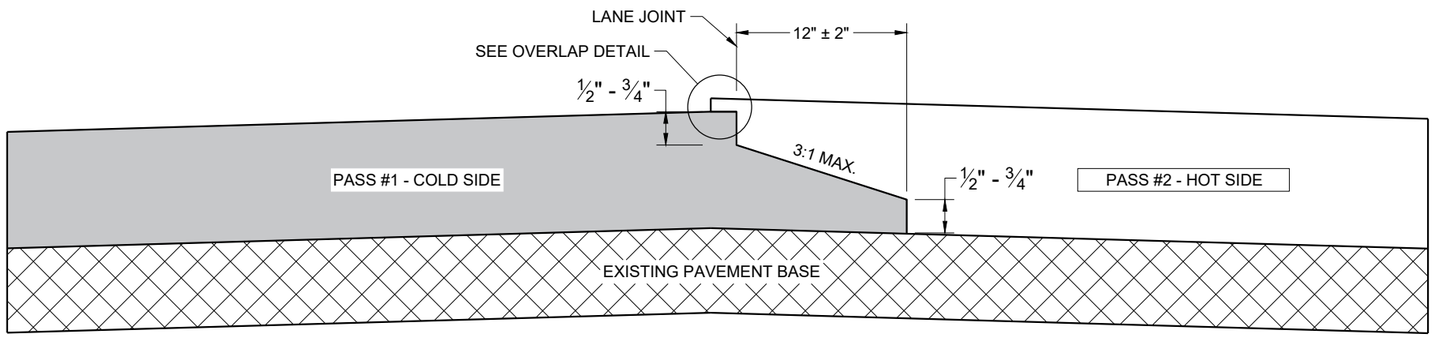
2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

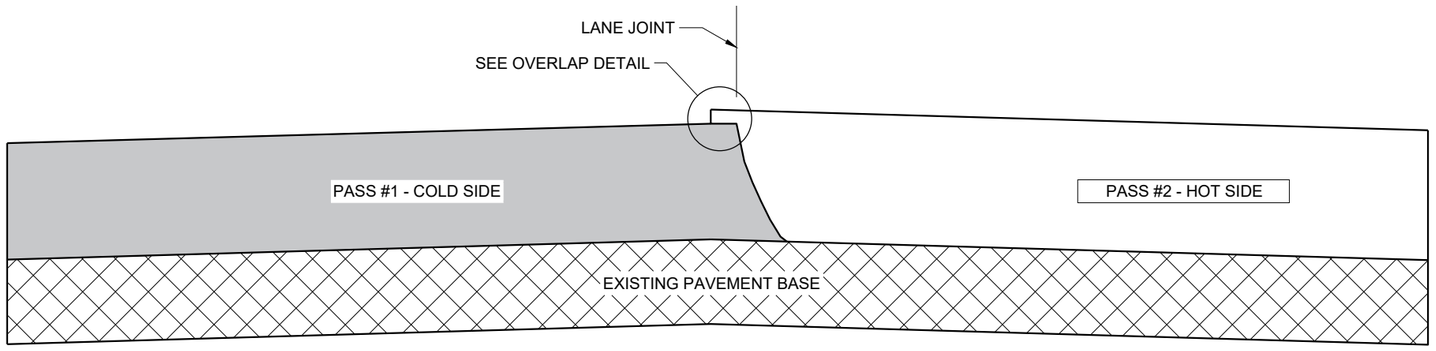
APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

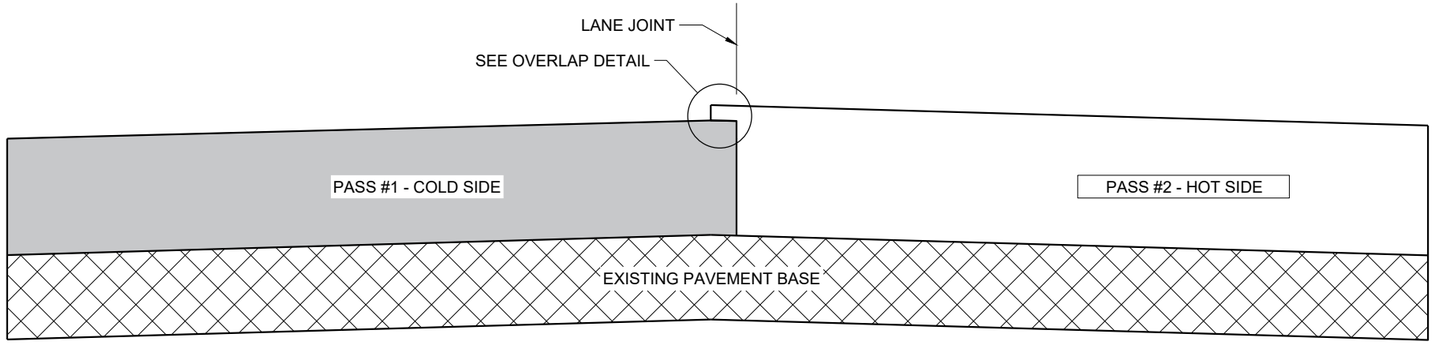
6
SDD 13A11 - 03b



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

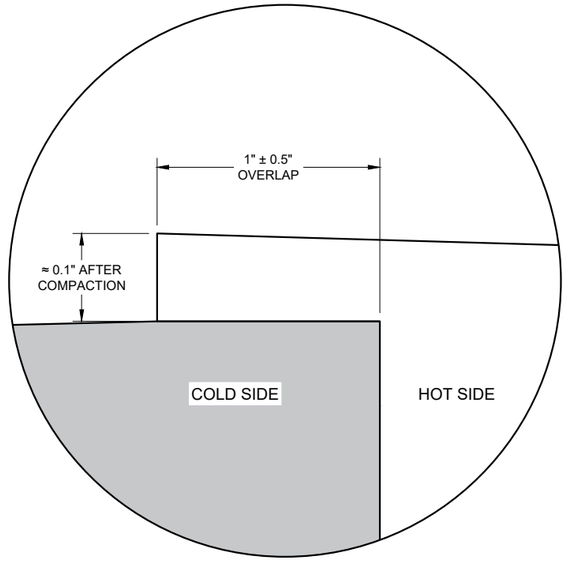
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

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SDD 13C19 - 03

SDD 13C19 - 03

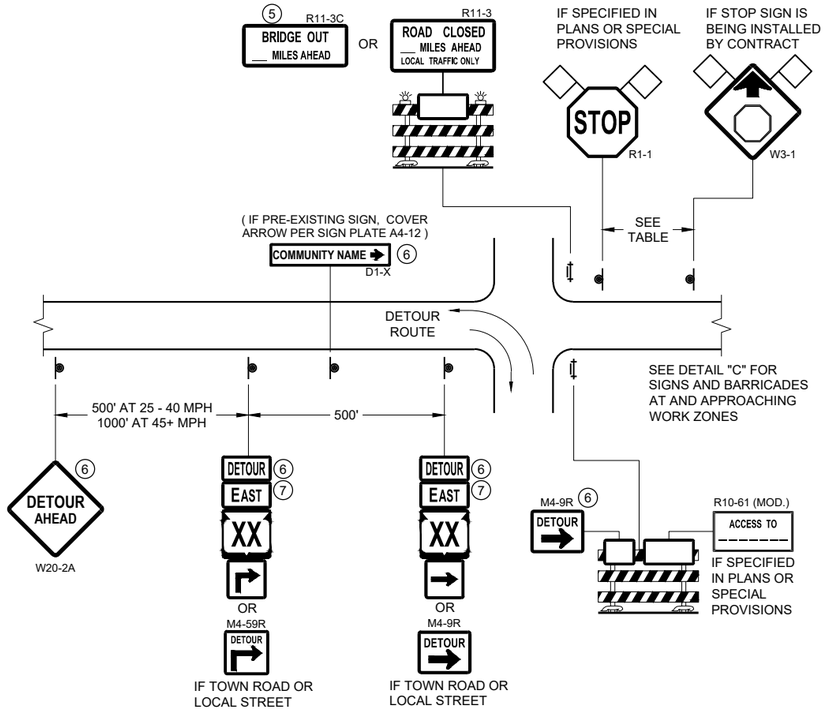
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

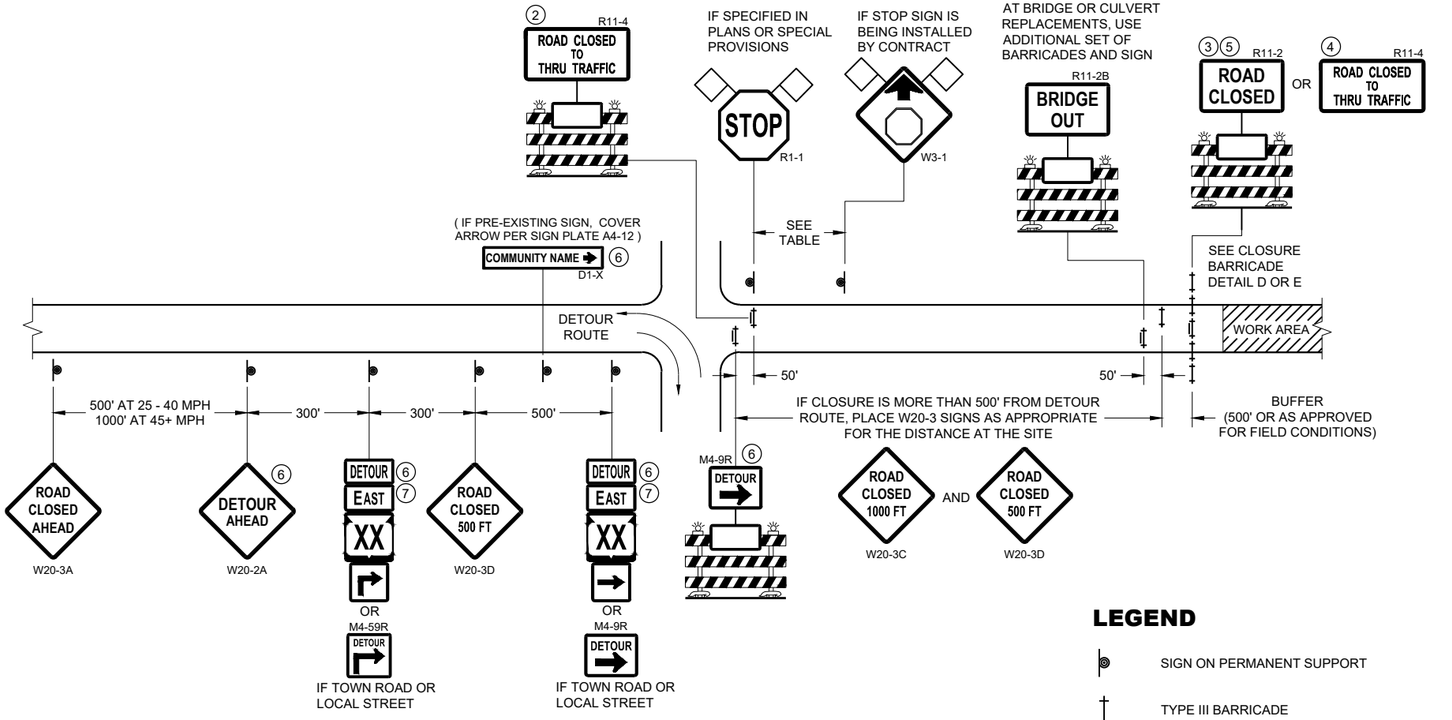
/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



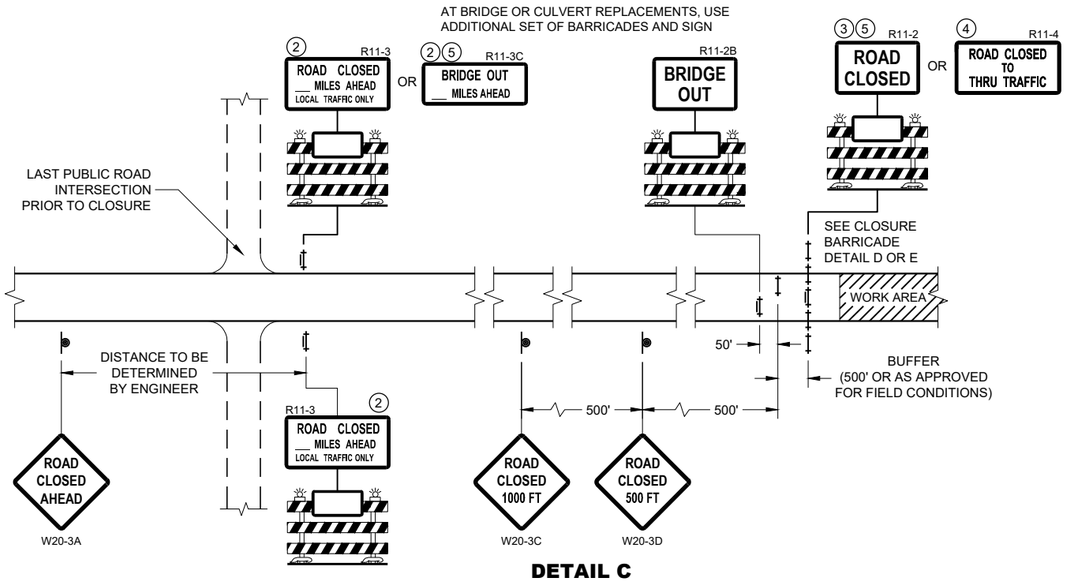
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ 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)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

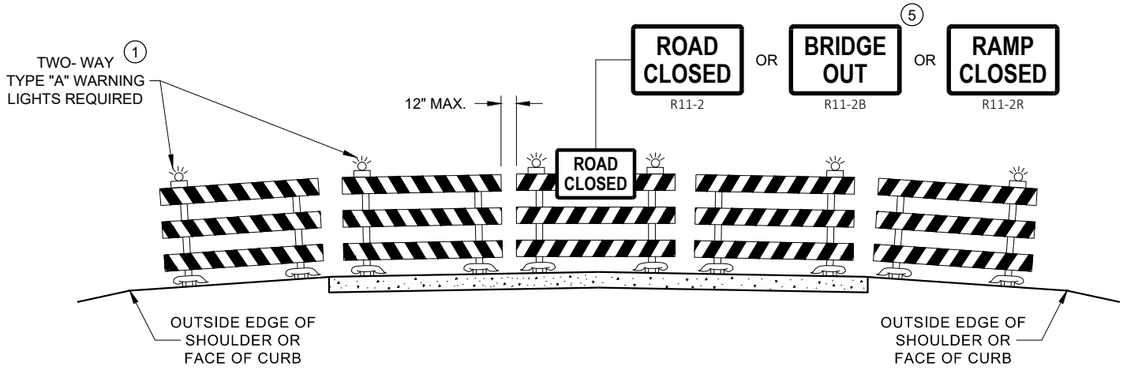
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

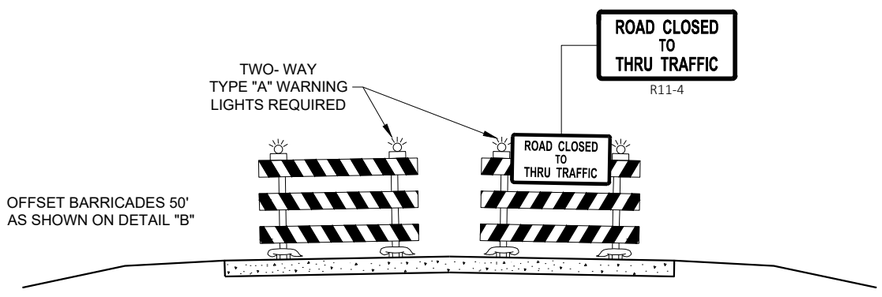
6

SDD 15C02 - 08a

SDD 15C02 - 08a



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
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C02 - 08b

6

SDD 15C02 - 08b

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1 OR 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.

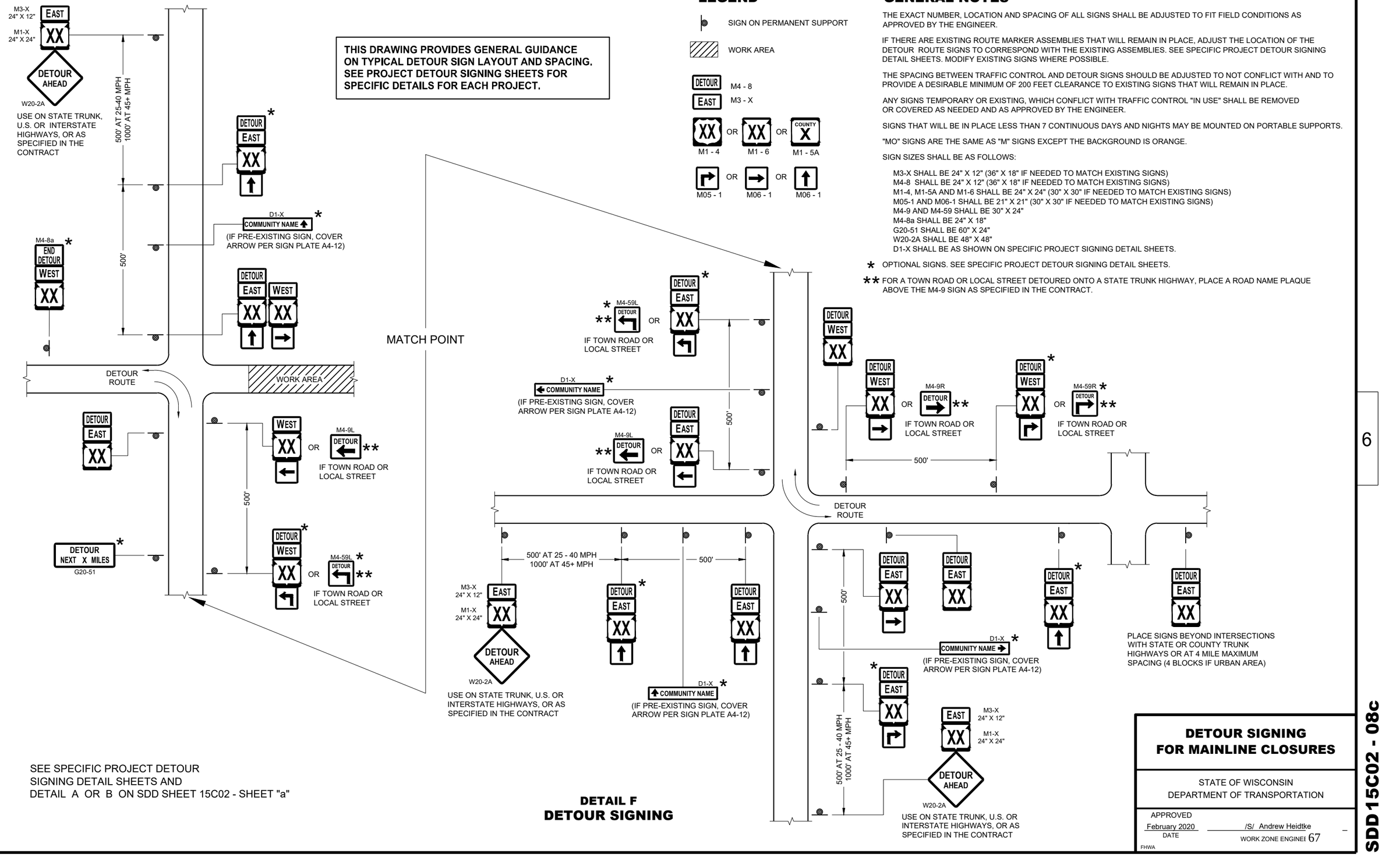
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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" (30" X 30" 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.



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

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 08c

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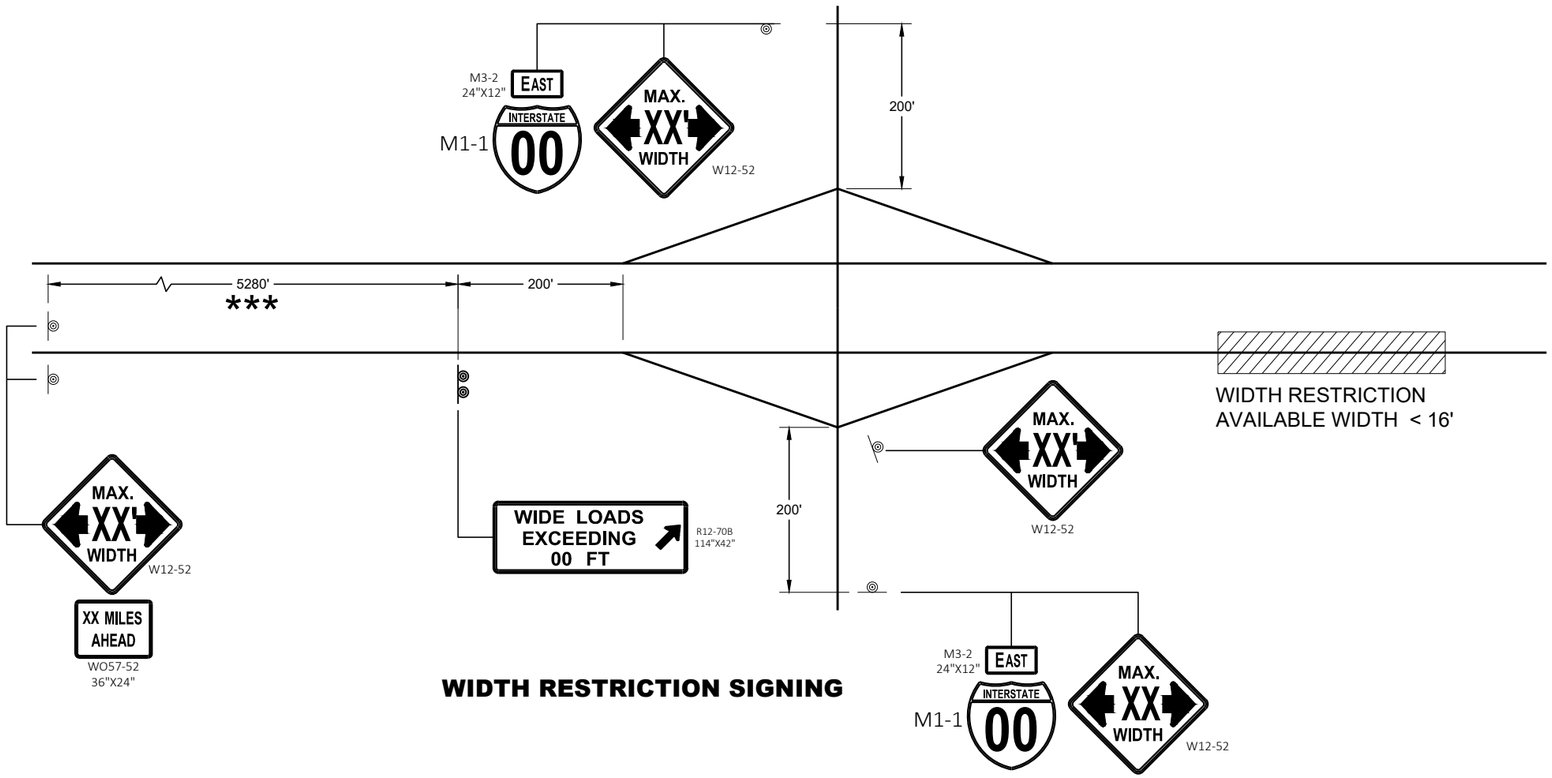


WIDTH RESTRICTION SIGNING

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

THE SPACING BETWEEN 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.

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

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

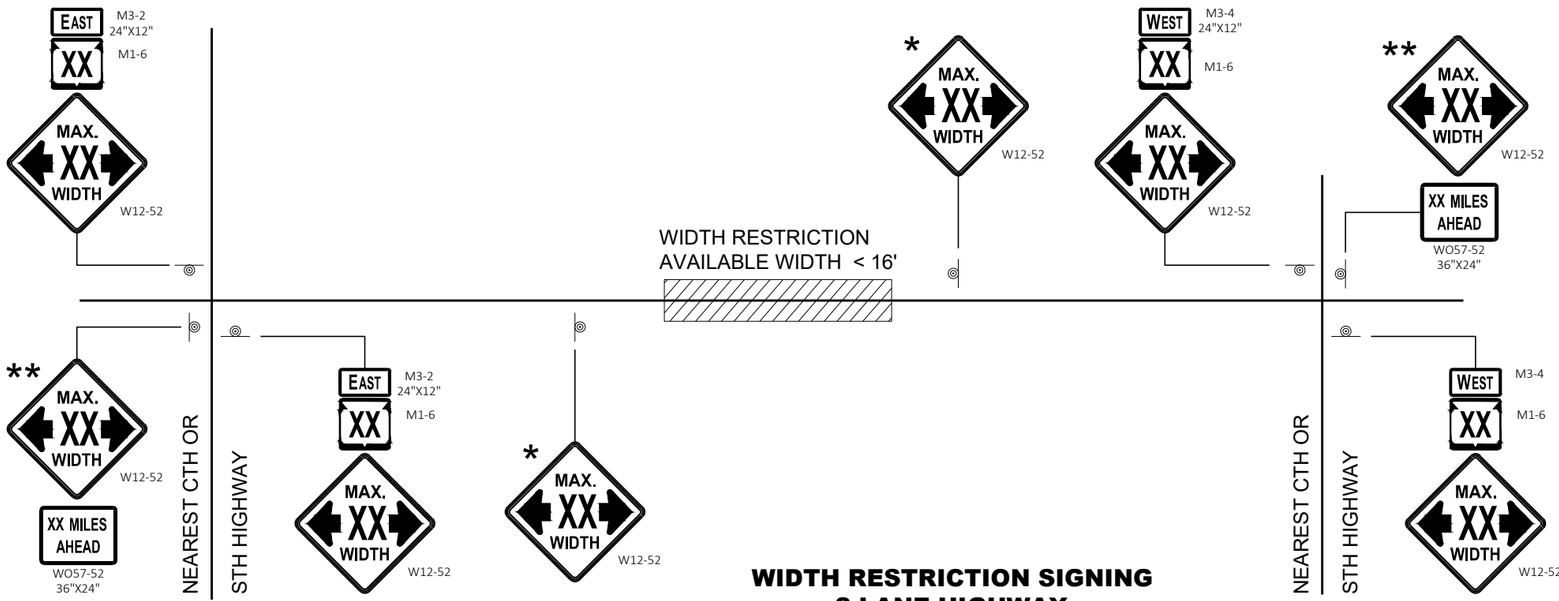
WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.

WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

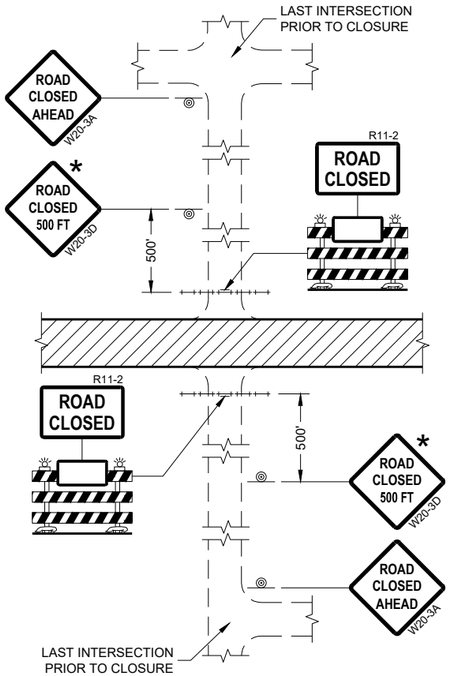
APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

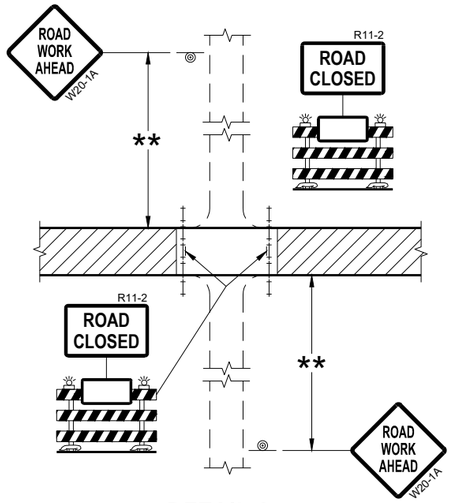
FHWA

6

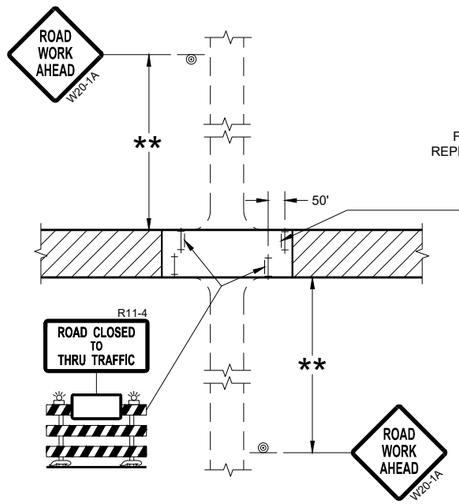
SDD 15C02 - 08f



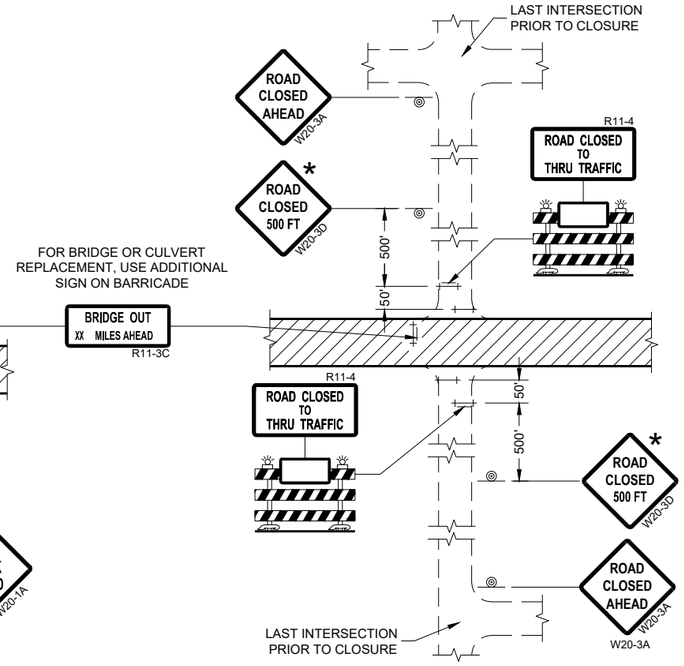
DETAIL 1
(NO ACCESS TO PROJECT)



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
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C03 - 05

SDD 15C03 - 05

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.

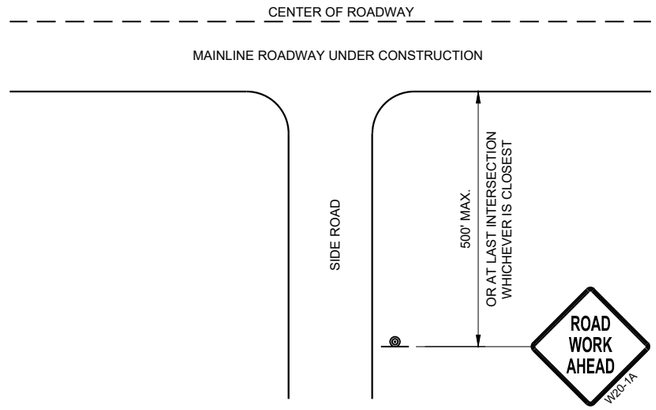
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

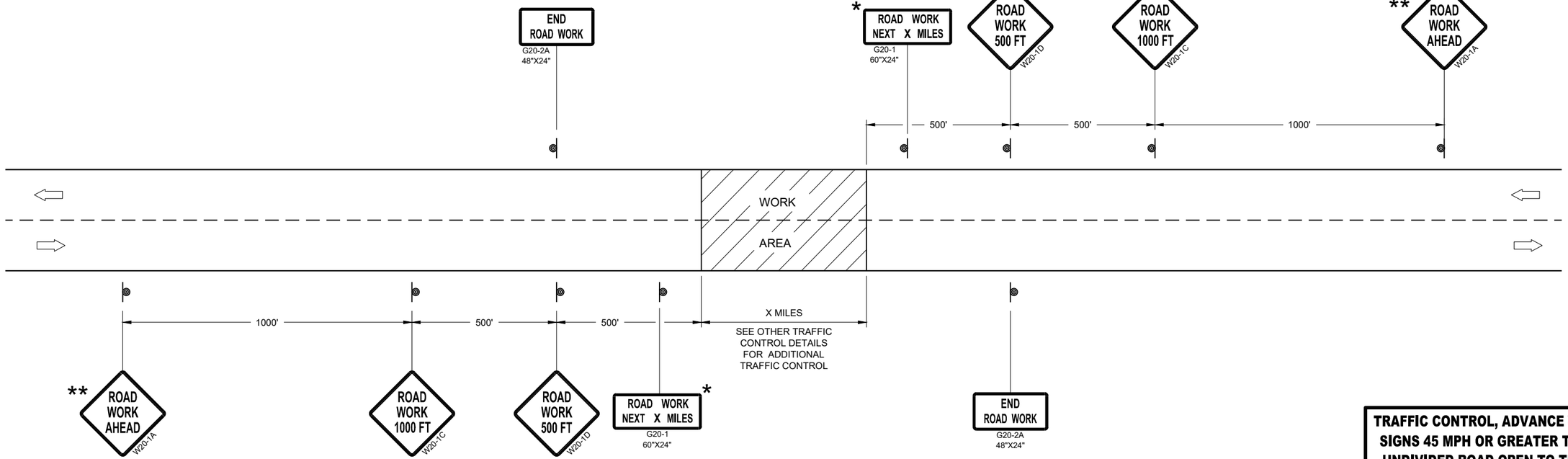
** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

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



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C04 - 05

GENERAL NOTES

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

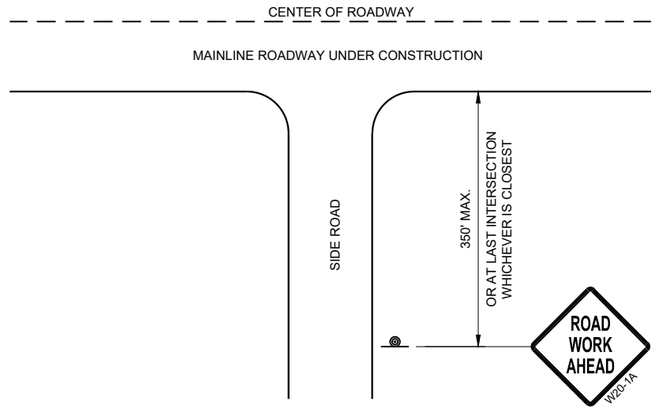
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.



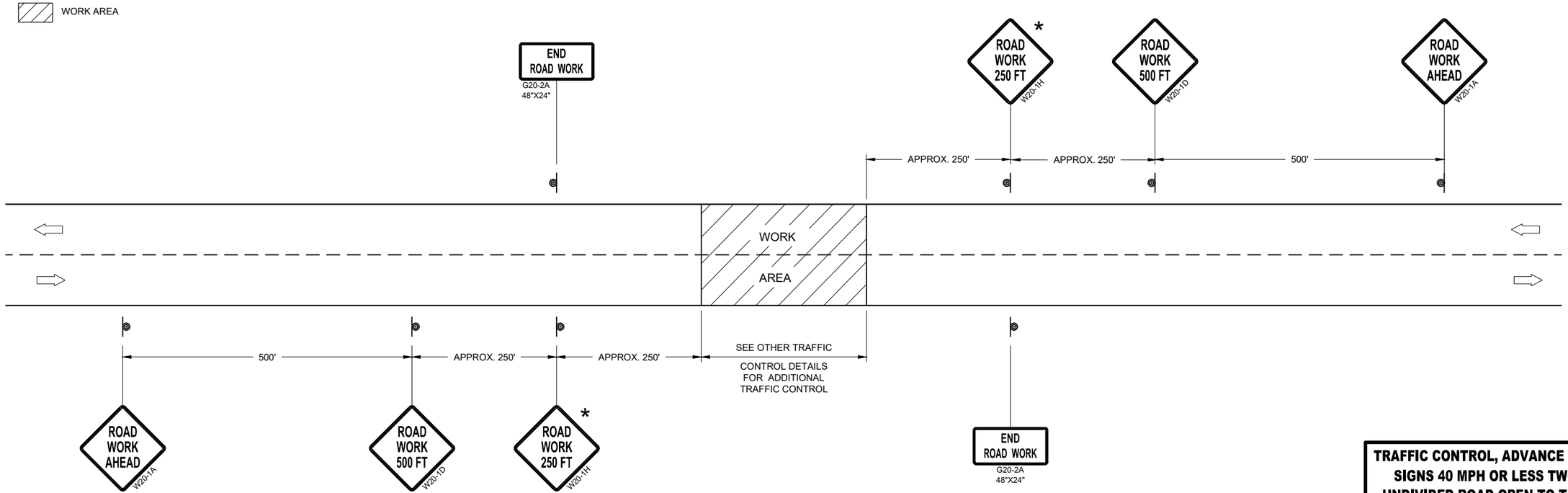
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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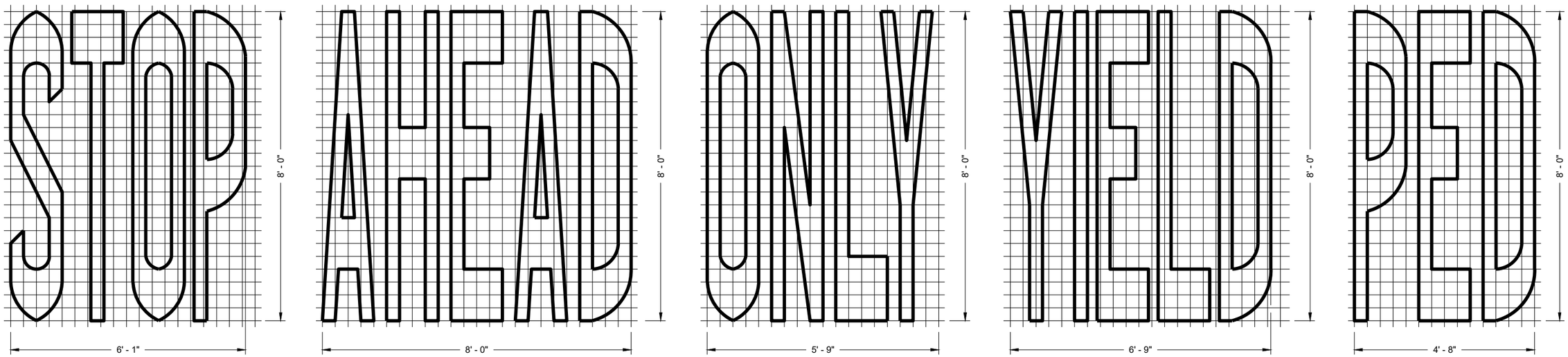
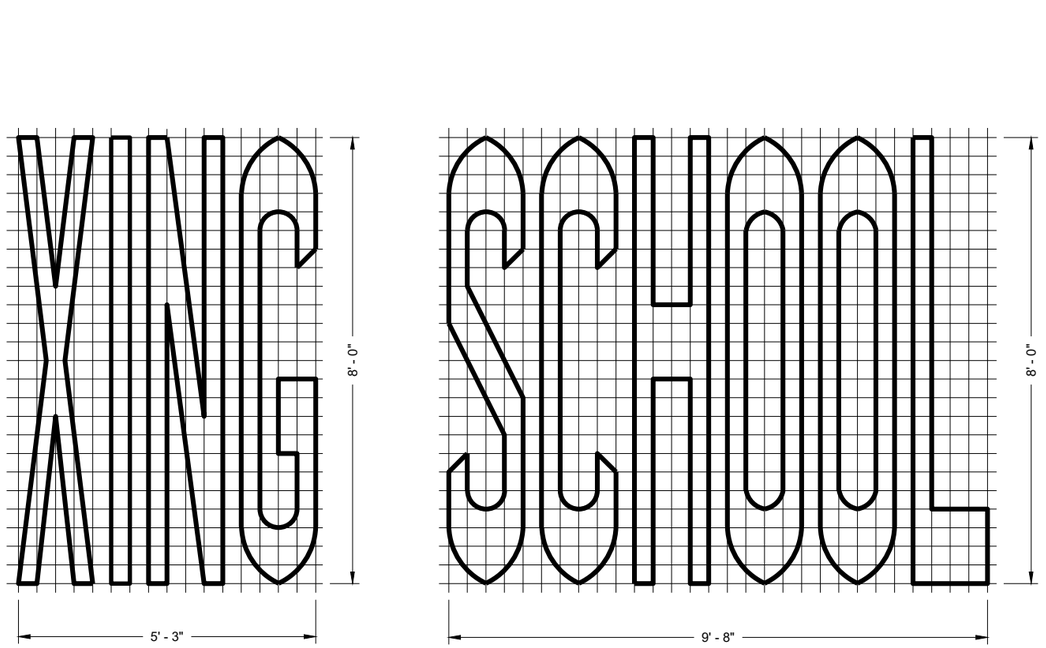
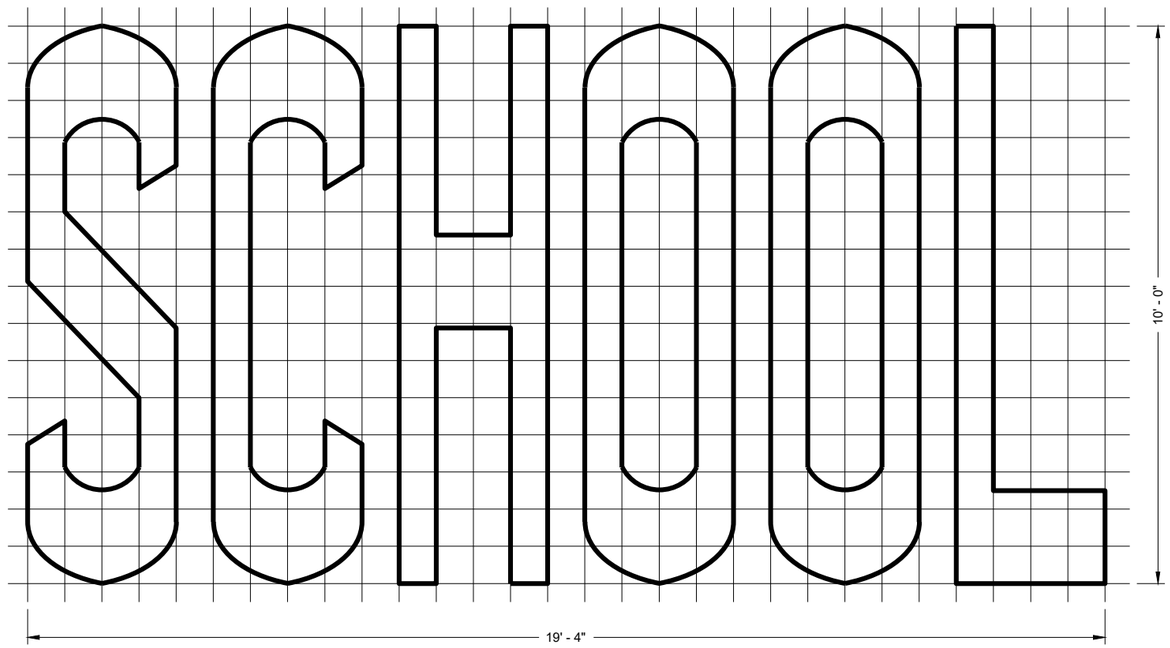
SDD 15C05 - 05





SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF
ENGINEER

FHWA

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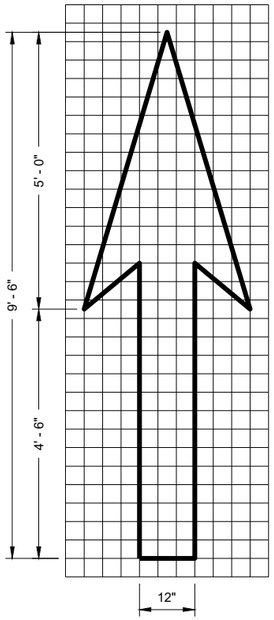
SDD 15C07 - 15b

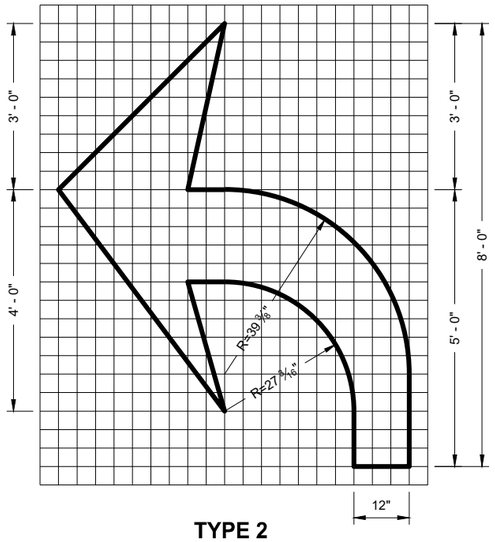
SDD 15C07 - 15b

GENERAL NOTES

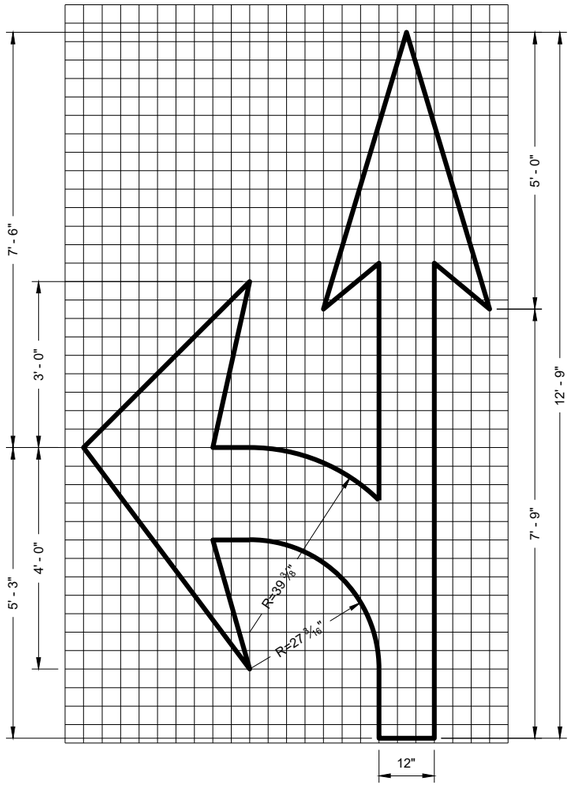
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



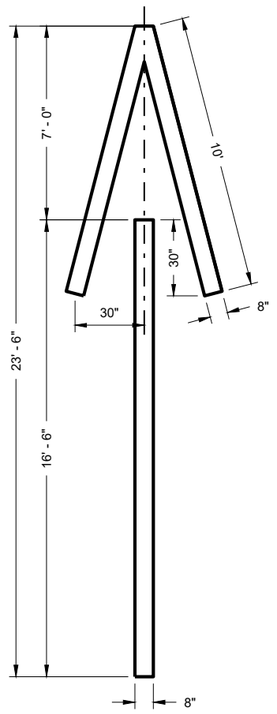
TYPE 1



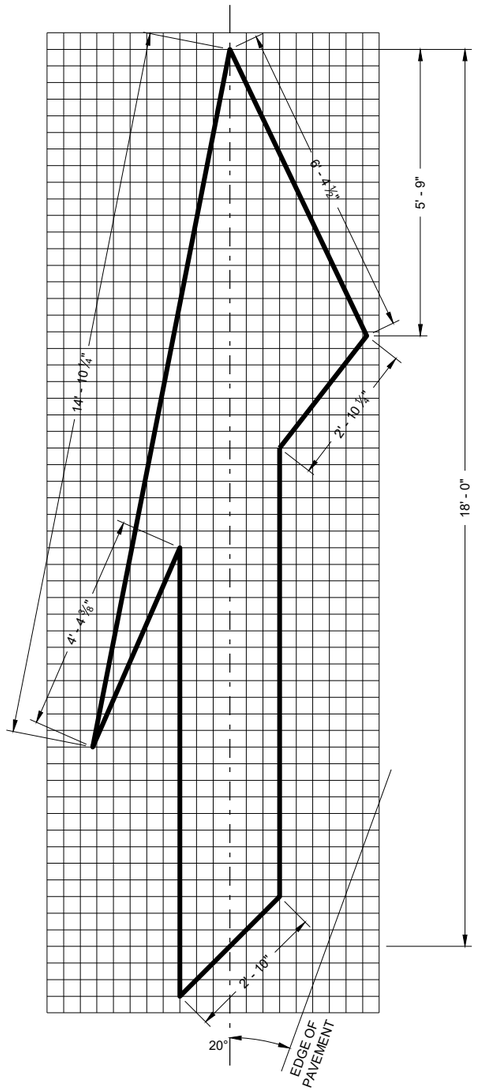
TYPE 2



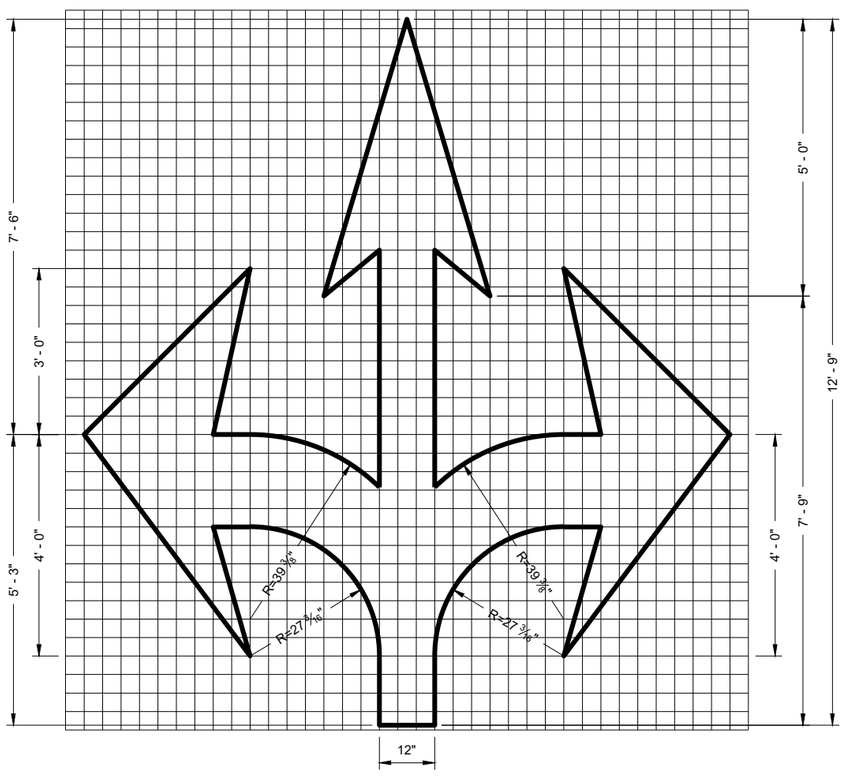
TYPE 3



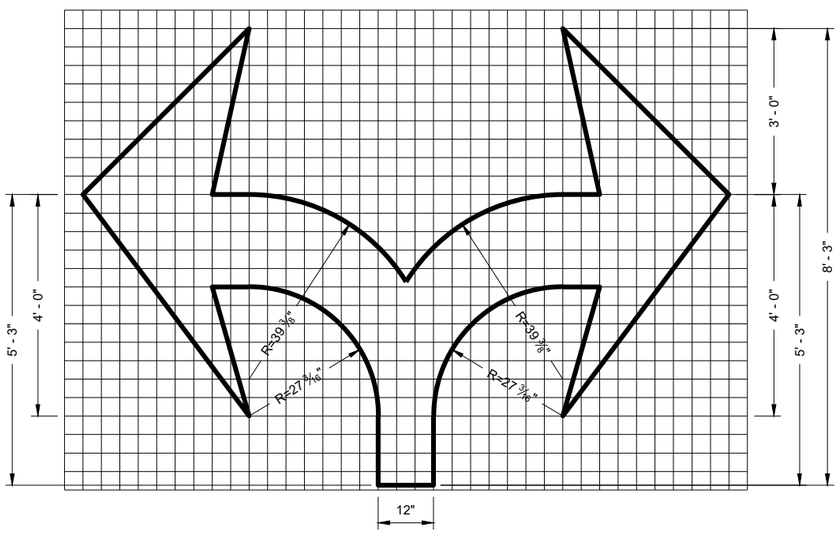
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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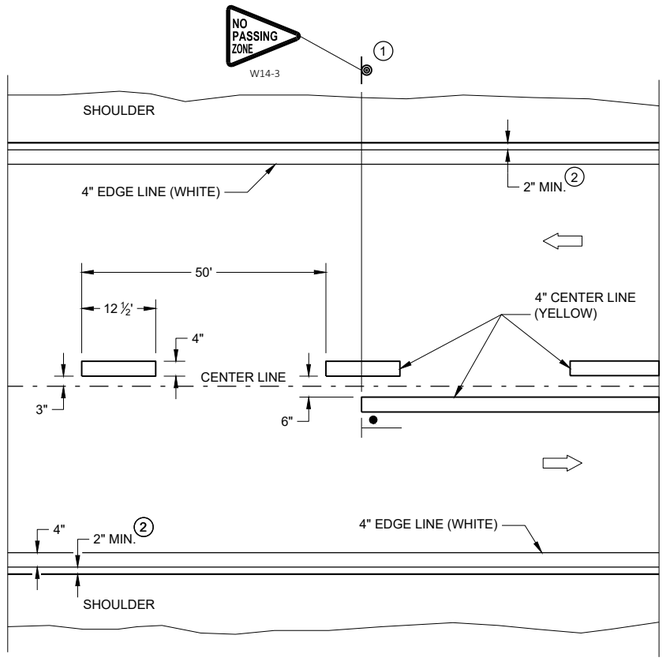
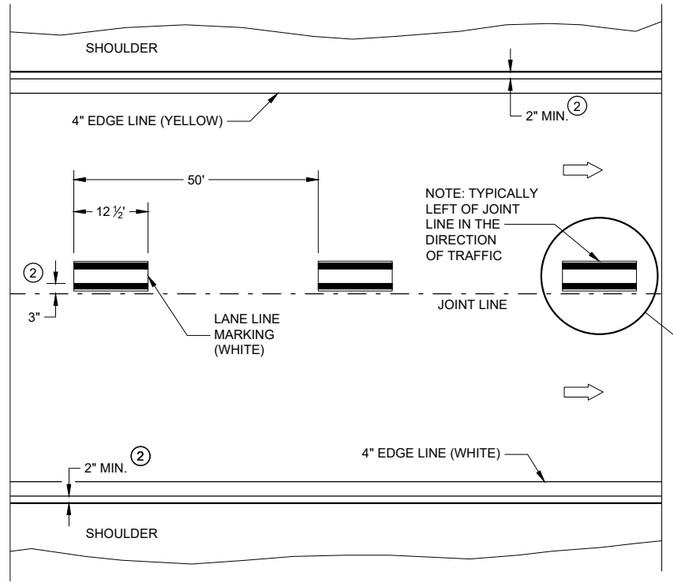
SDD 15C07 - 15c

6

SDD 15C07 - 15c

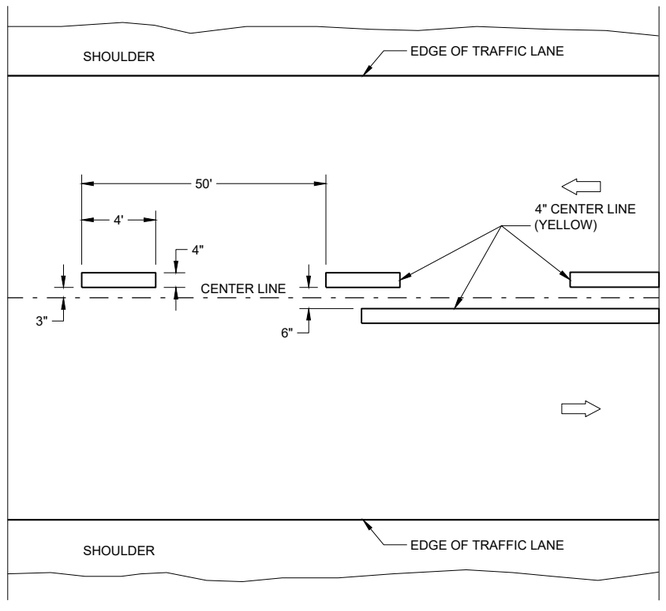


TWO WAY TRAFFIC

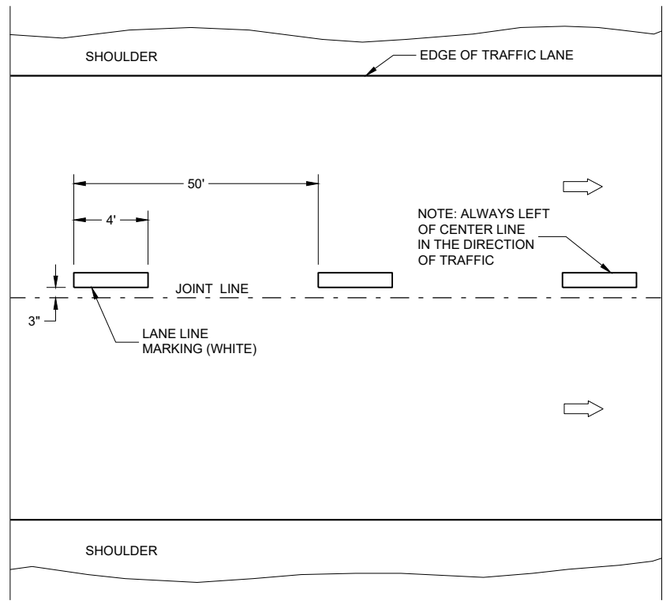


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

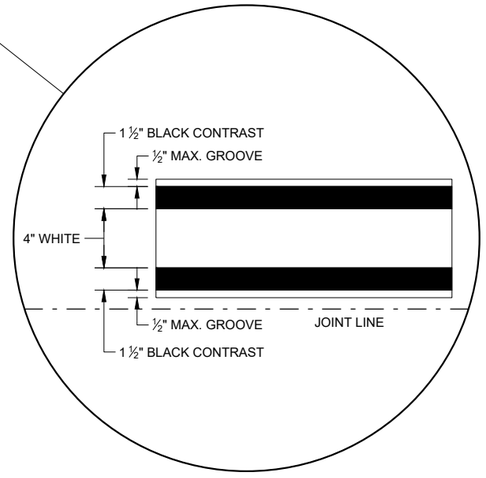
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Matthew Rauch
STATEWIDE SIGNING AND M
ENGINEER

FHWA

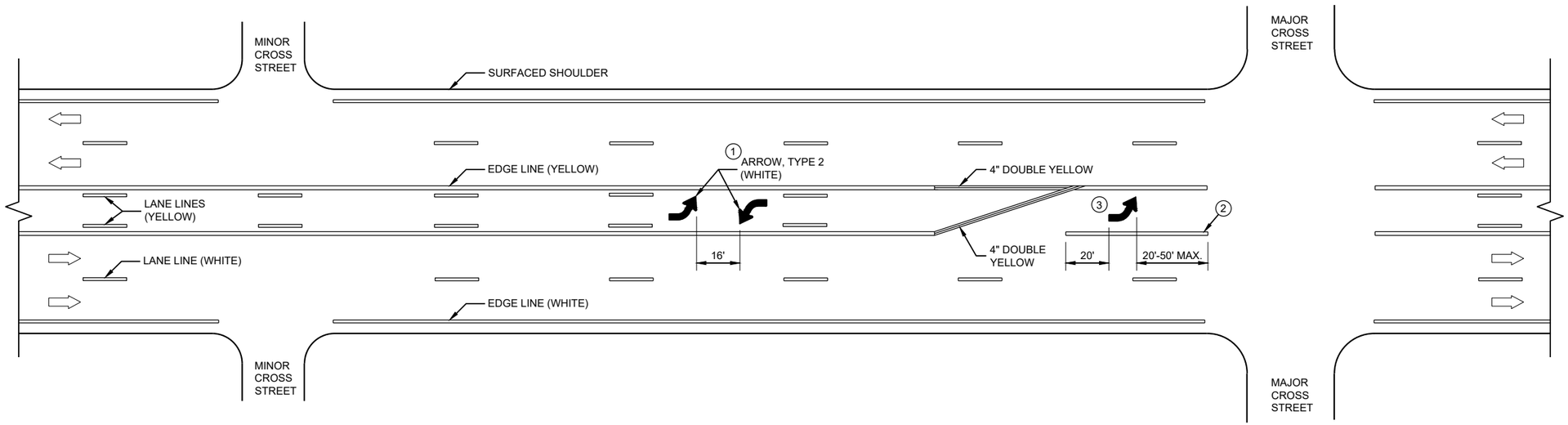
SDD 15C08 - 20a

SDD 15C08 - 20a

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

6

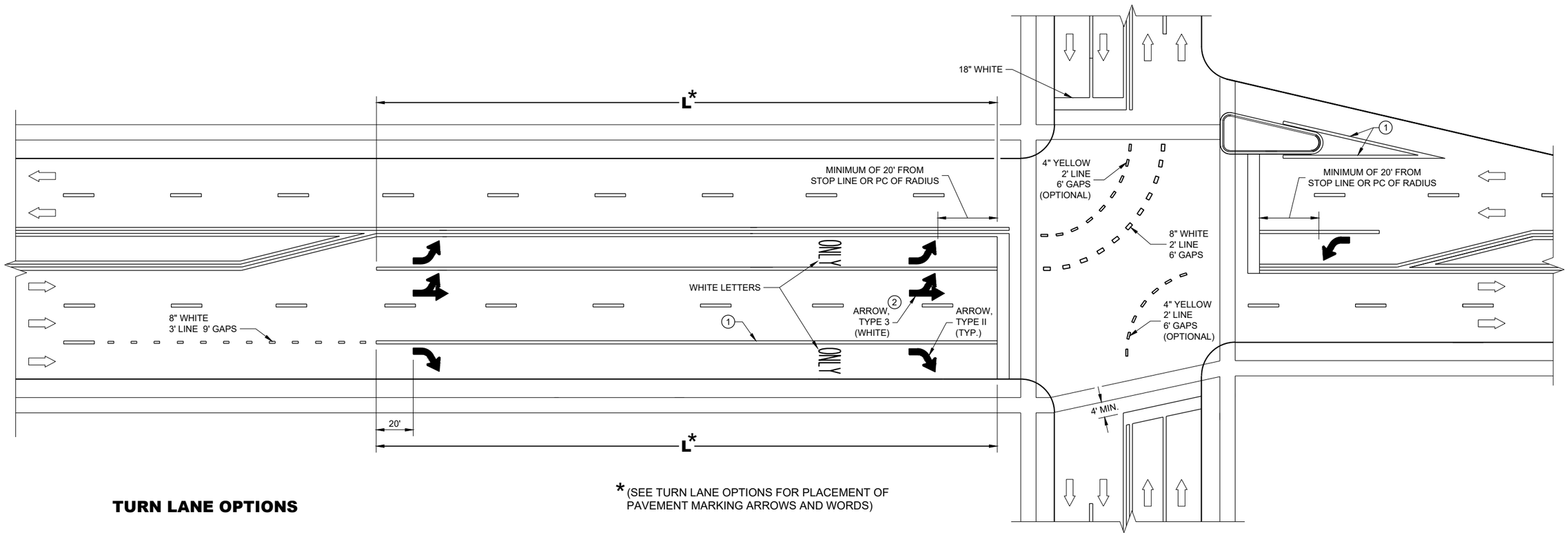
SDD 15C08 - 20b

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

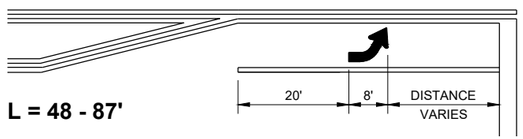
SDD 15C08 - 20b



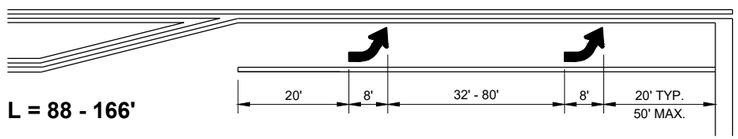
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

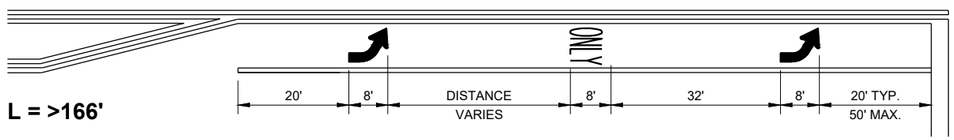
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

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

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

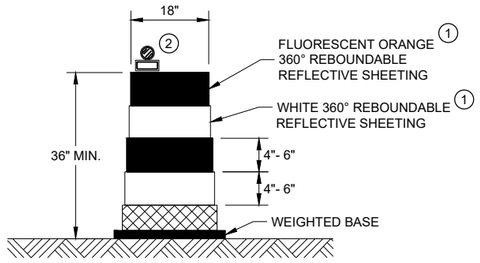
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

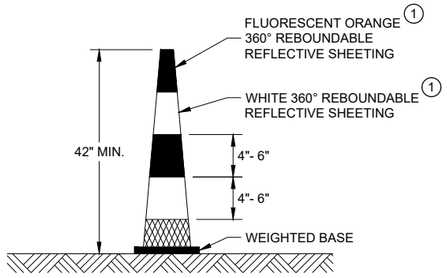
SDD 15C08 - 20c

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.

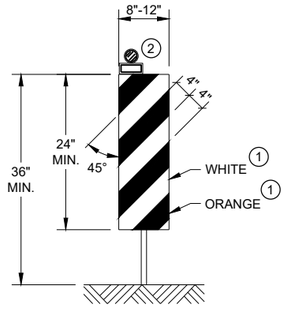


DRUM



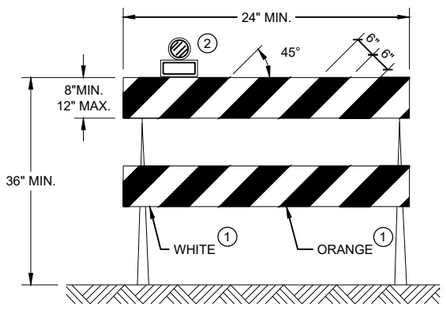
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



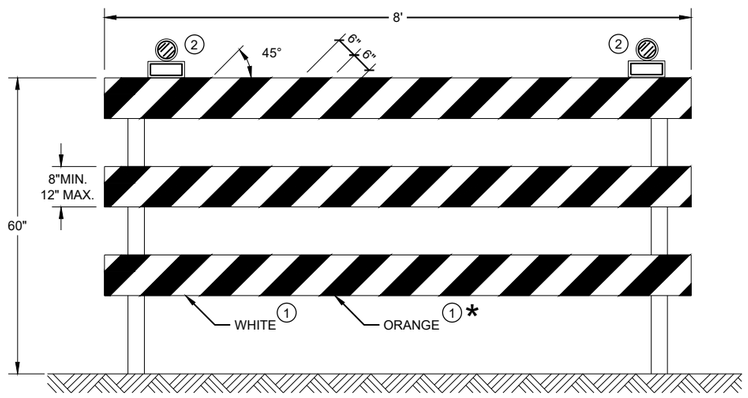
VERTICAL PANEL

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



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 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C11 - 08b

6

SDD 15C11 - 08b

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.

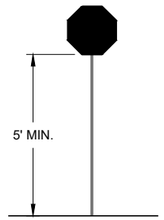
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR 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.



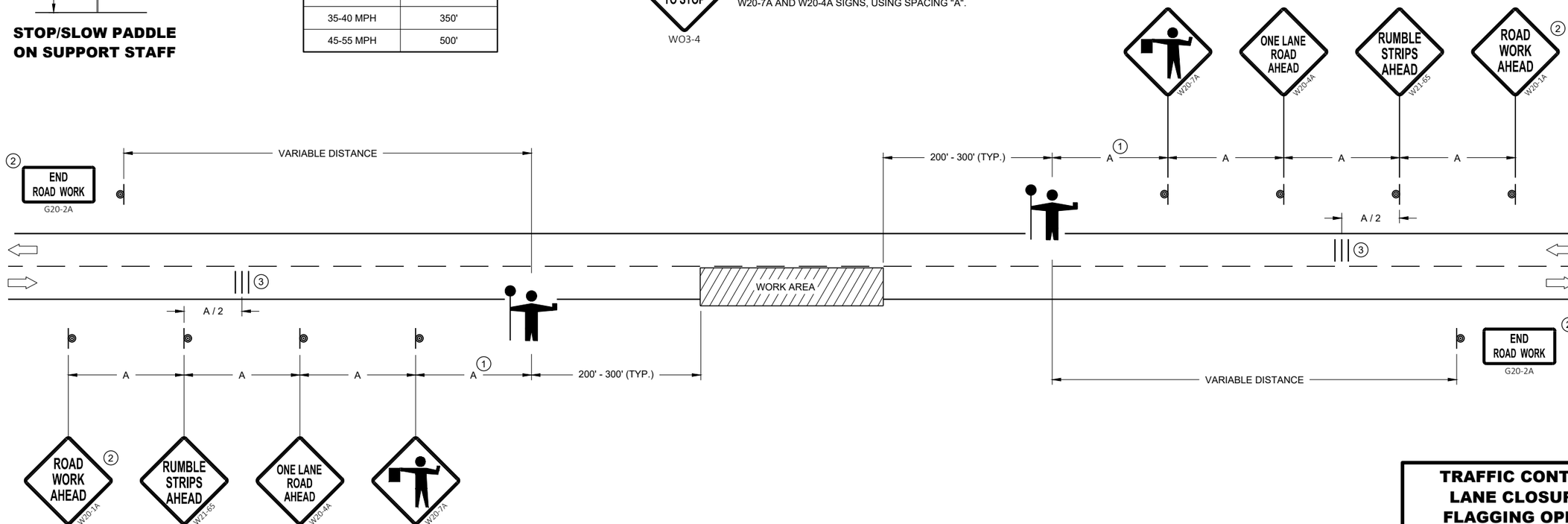
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15C12 - 07

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.

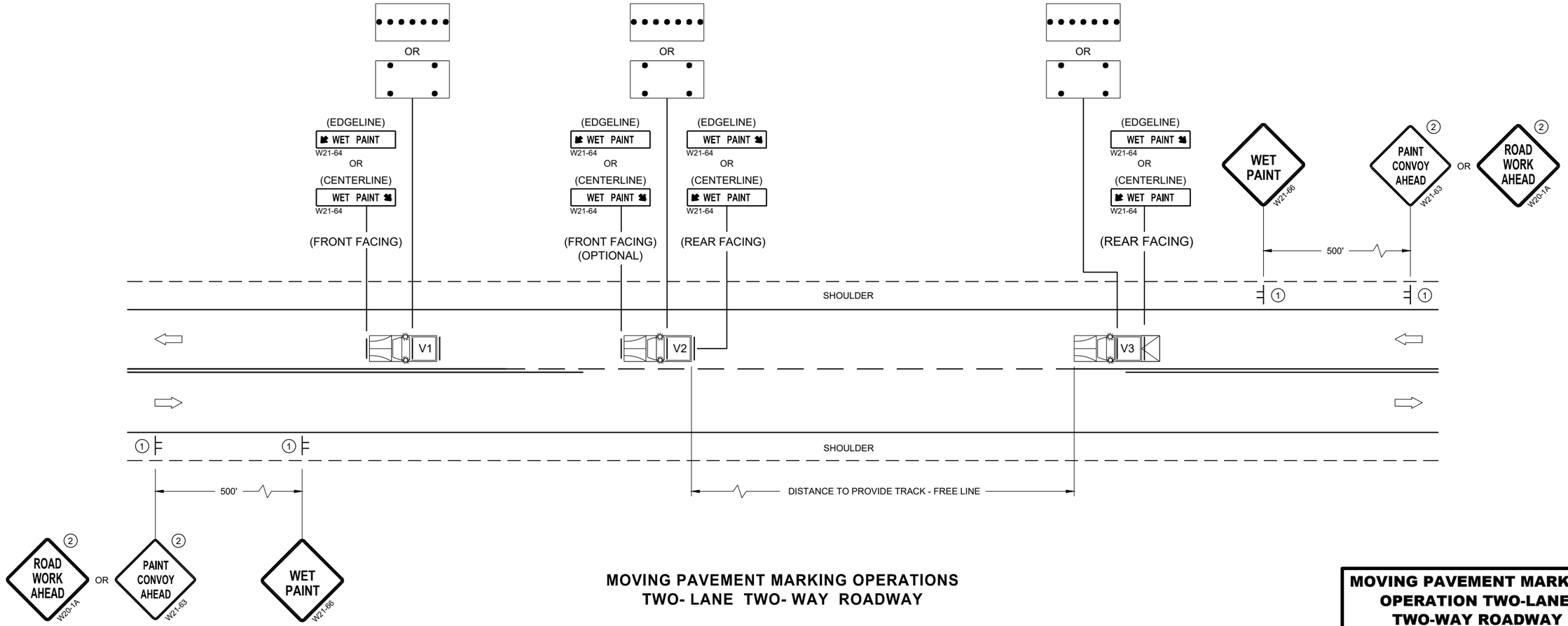
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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 18" 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.



MOVING PAVEMENT MARKING OPERATIONS TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15C19 - 06a

SDD 15C19 - 06a

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (MERGE)

FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

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

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

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

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

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

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

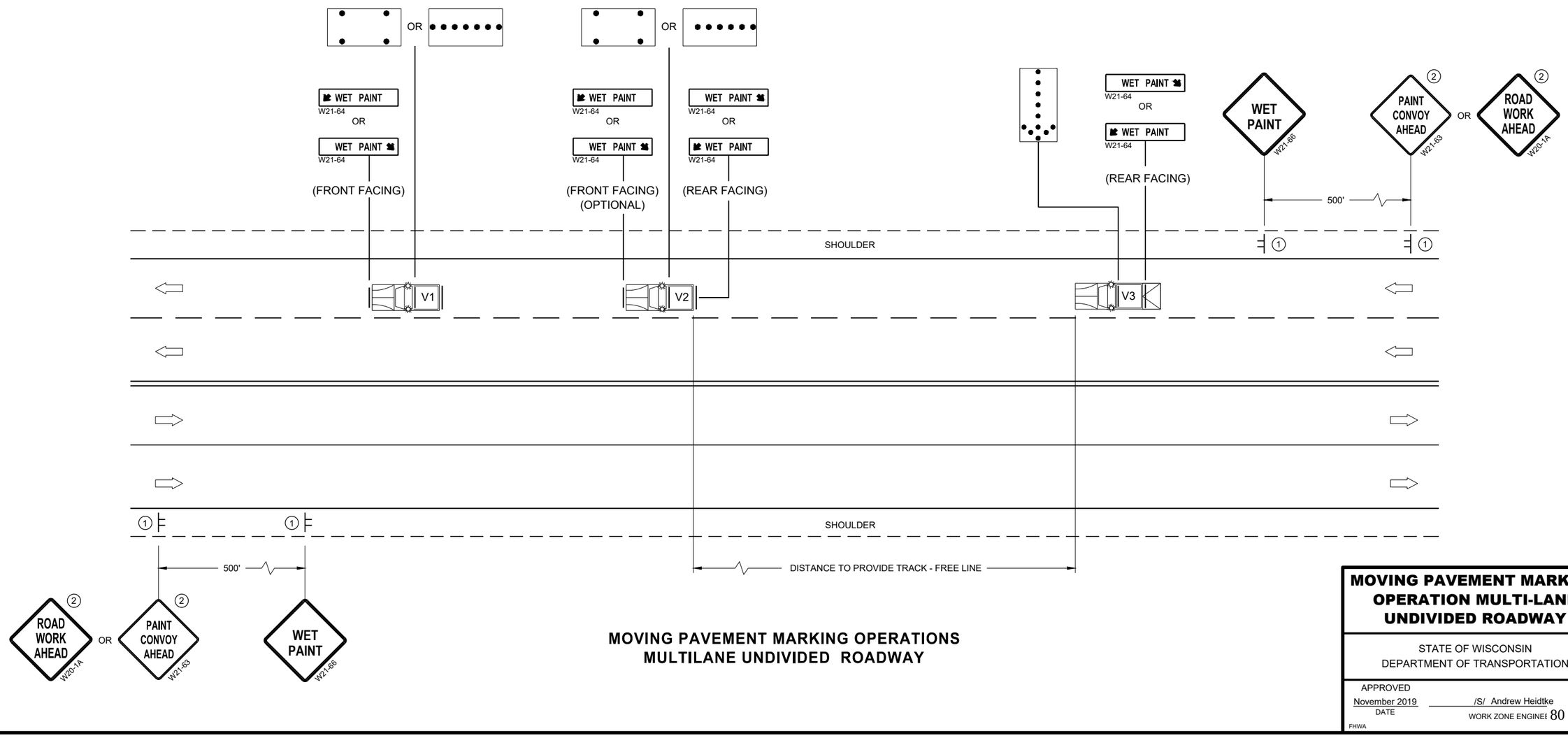
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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

CONES SHALL HAVE A MINIMUM HEIGHT OF 18" FOR WET PAVEMENT MARKINGS.

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS MULTILANE UNDIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD 15C19 - 06b

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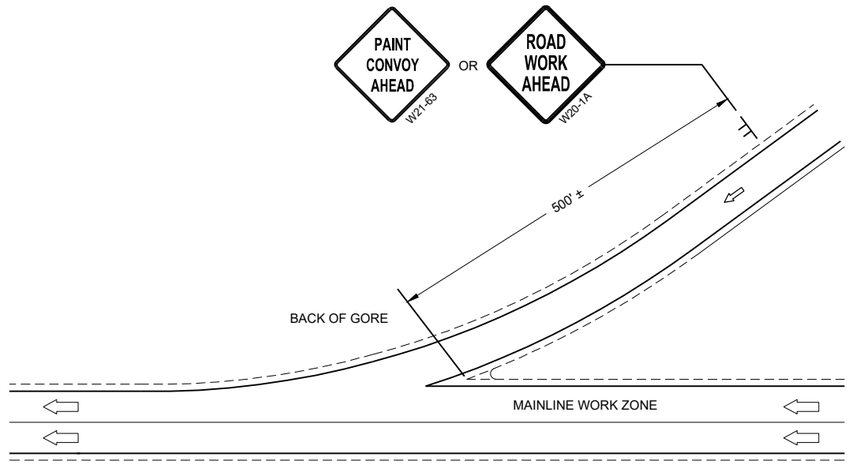
SDD 15C19 - 06b

LEGEND

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



GENERAL NOTES

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

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

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

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

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

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

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.

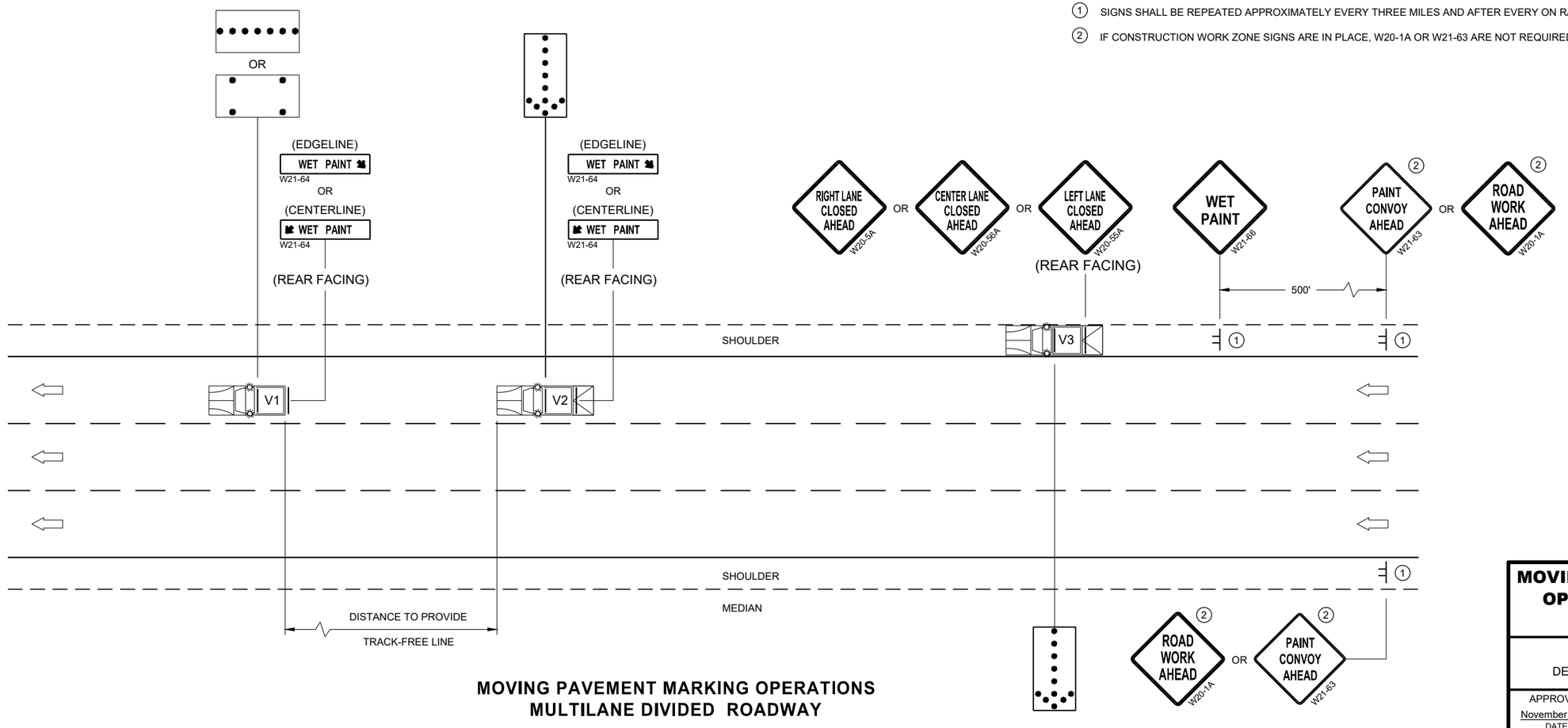
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

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 HEIGHT OF 18" FOR WET PAVEMENT MARKINGS

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY ON RAMP.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS
MULTILANE DIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C19 - 06c

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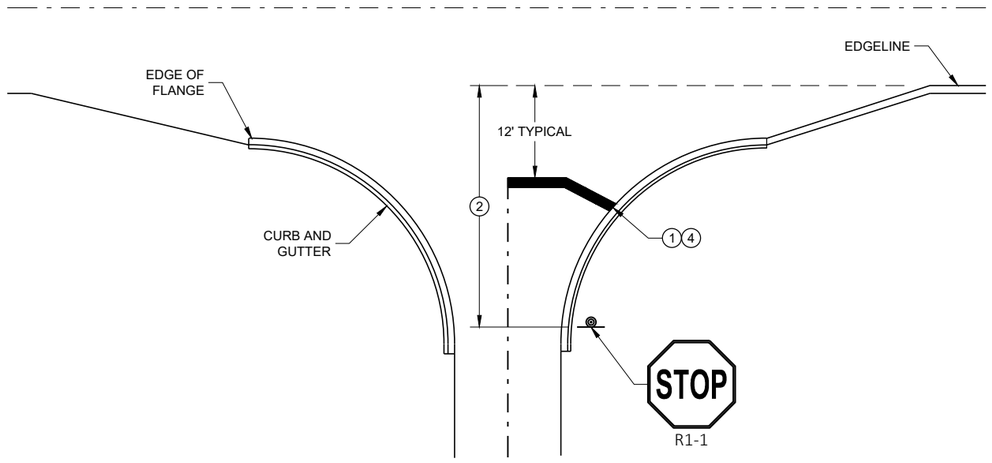
SDD 15C19 - 06c

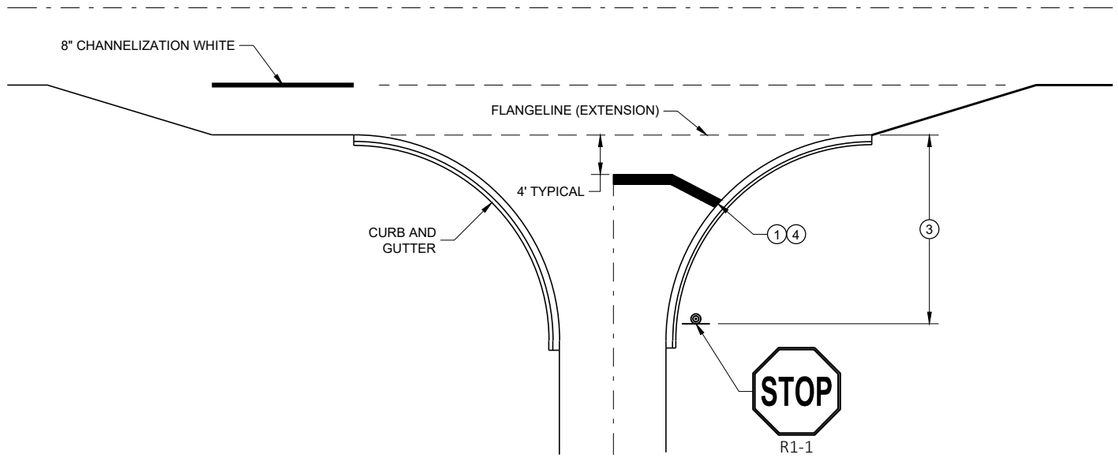
GENERAL NOTES

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

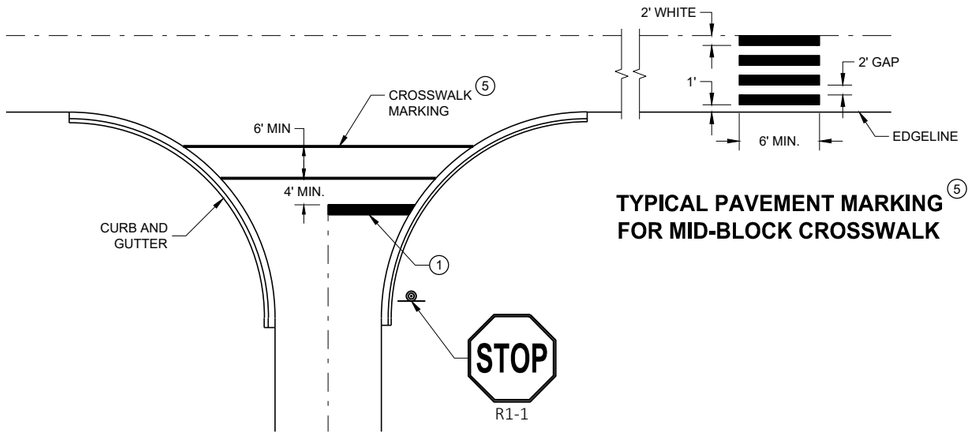
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE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

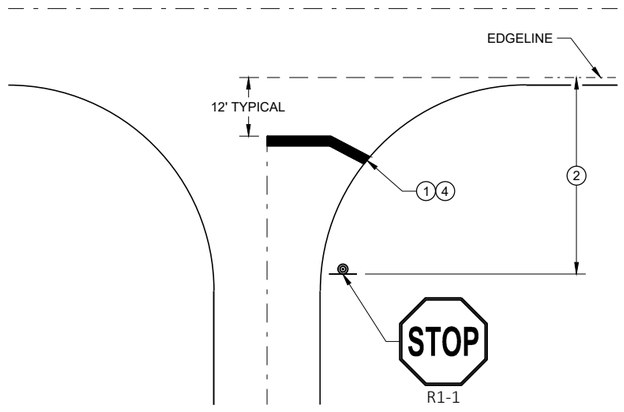


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

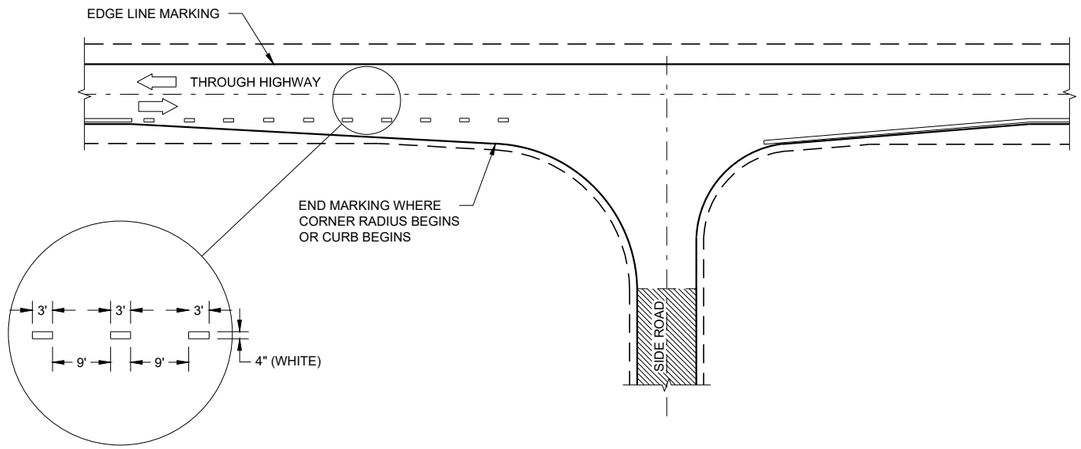
STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

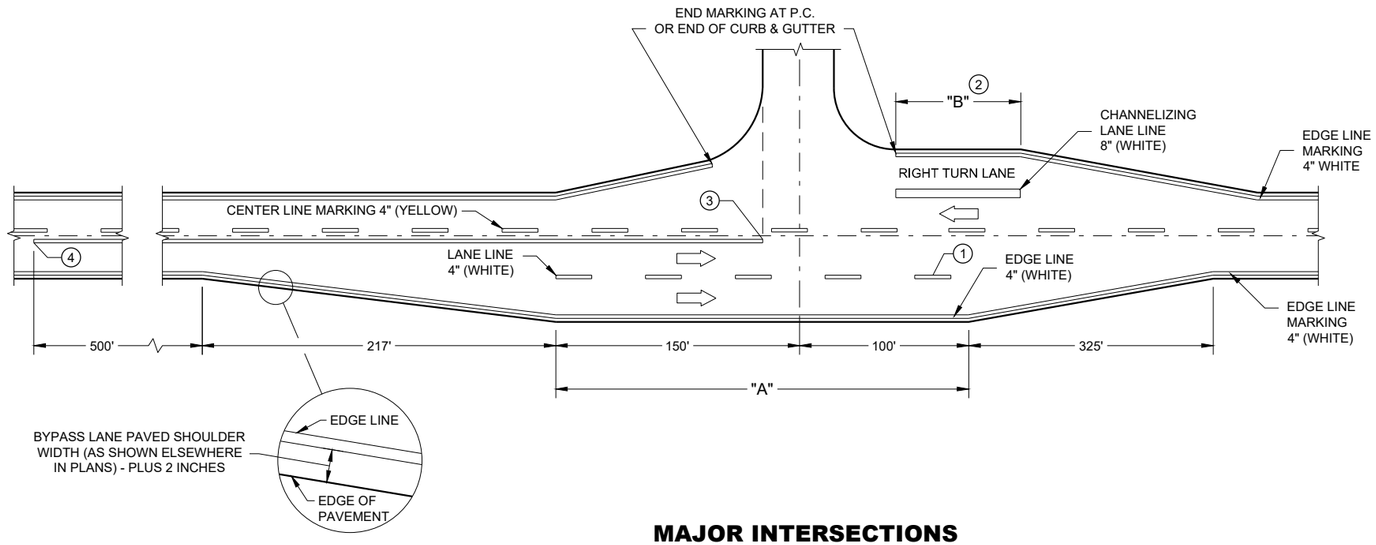
APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

6
SDD 15C33 - 04



MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

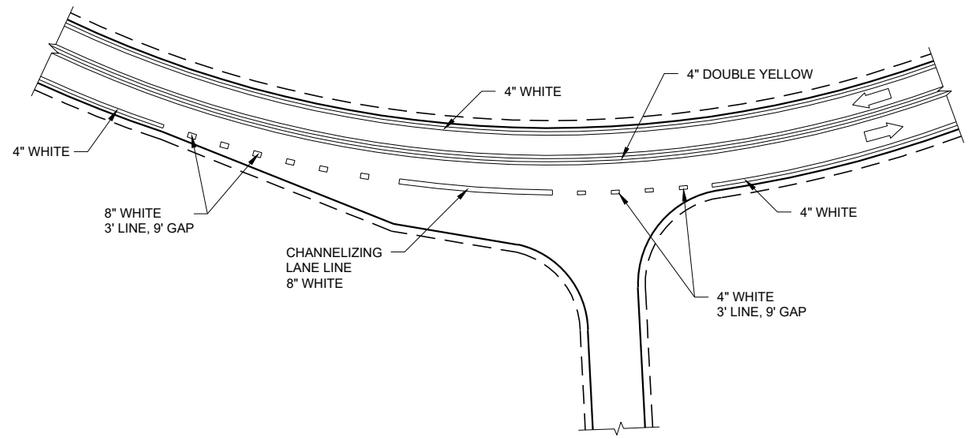
GENERAL NOTES

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

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

LEGEND

DIRECTION OF TRAVEL



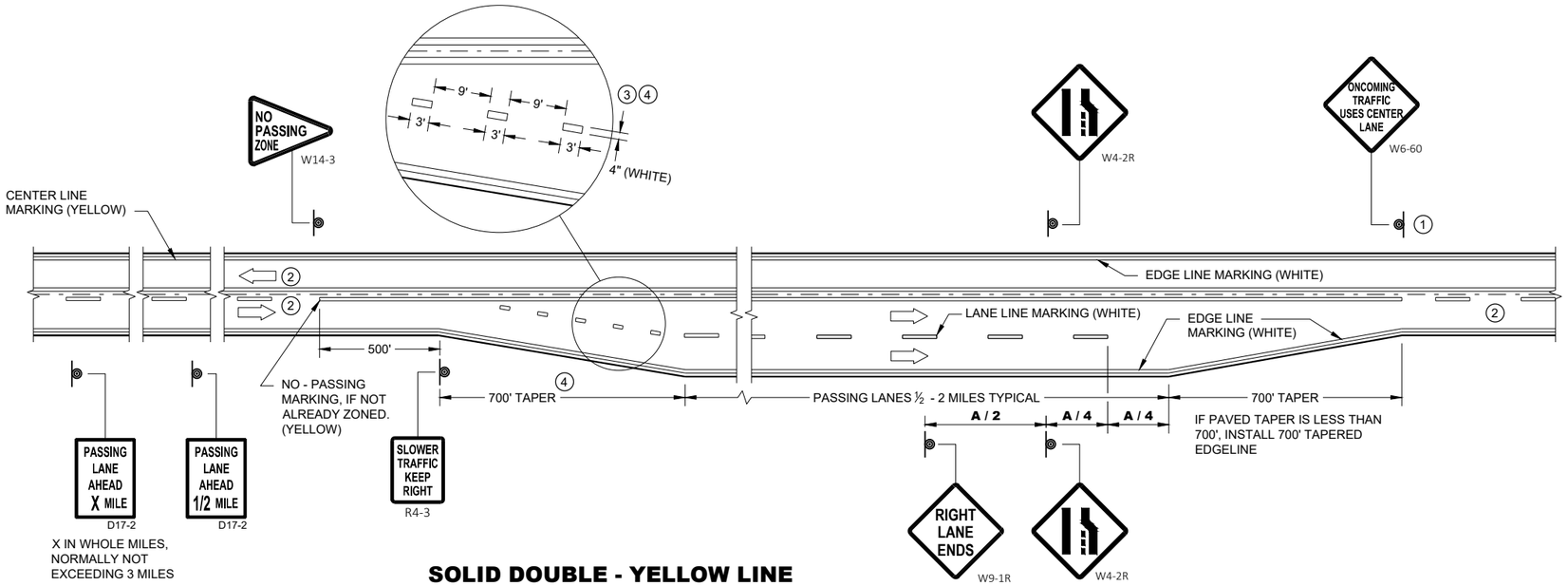
INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 15C35 - 04a

SDD 15C35 - 04a



SOLID DOUBLE - YELLOW LINE
(THROUGHOUT ENTIRE PASSING / CLIMBING LANE)

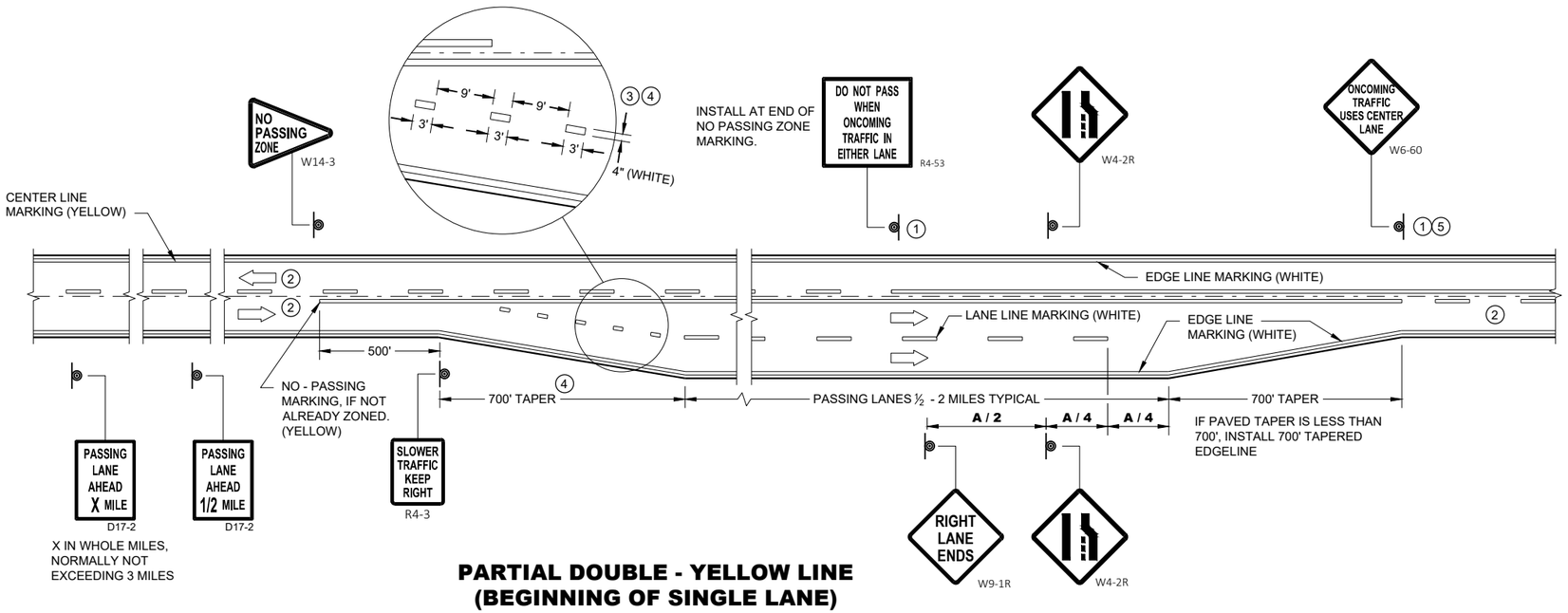
GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
5. REPEAT EVERY 1 MILE UP UNTIL R4-53.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990



PARTIAL DOUBLE - YELLOW LINE
(BEGINNING OF SINGLE LANE)

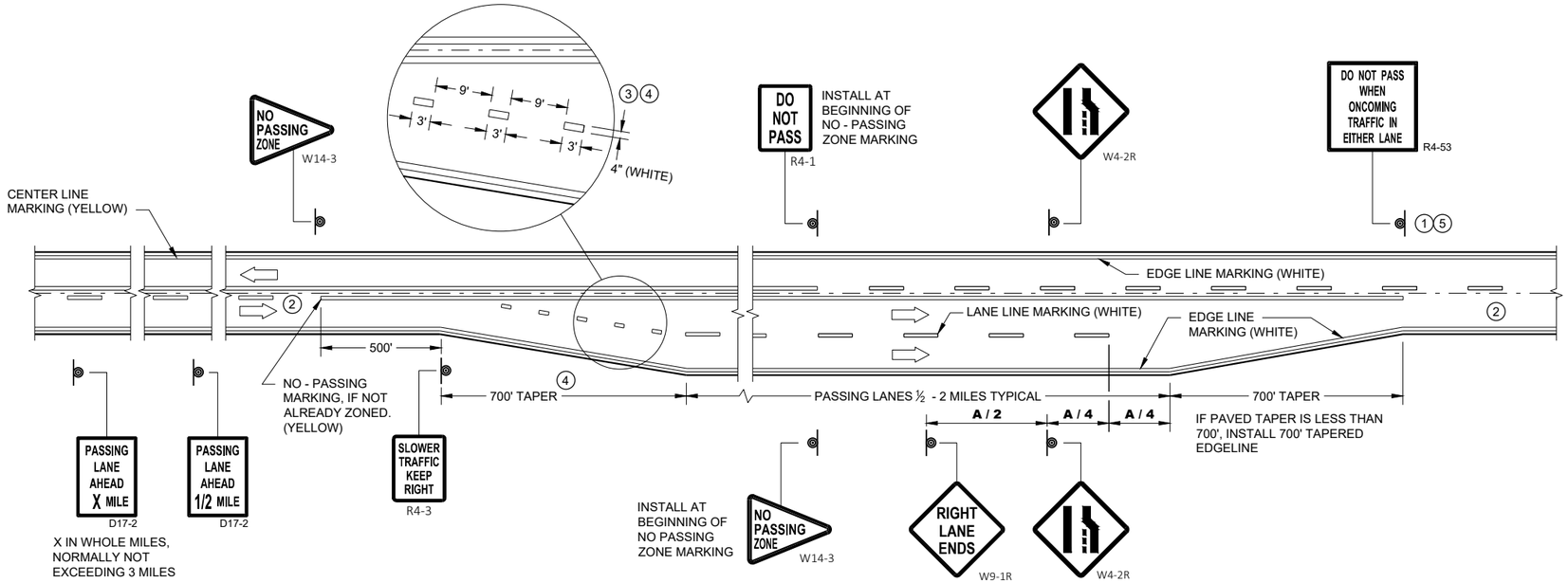
6

SDD 15C35 - 04b

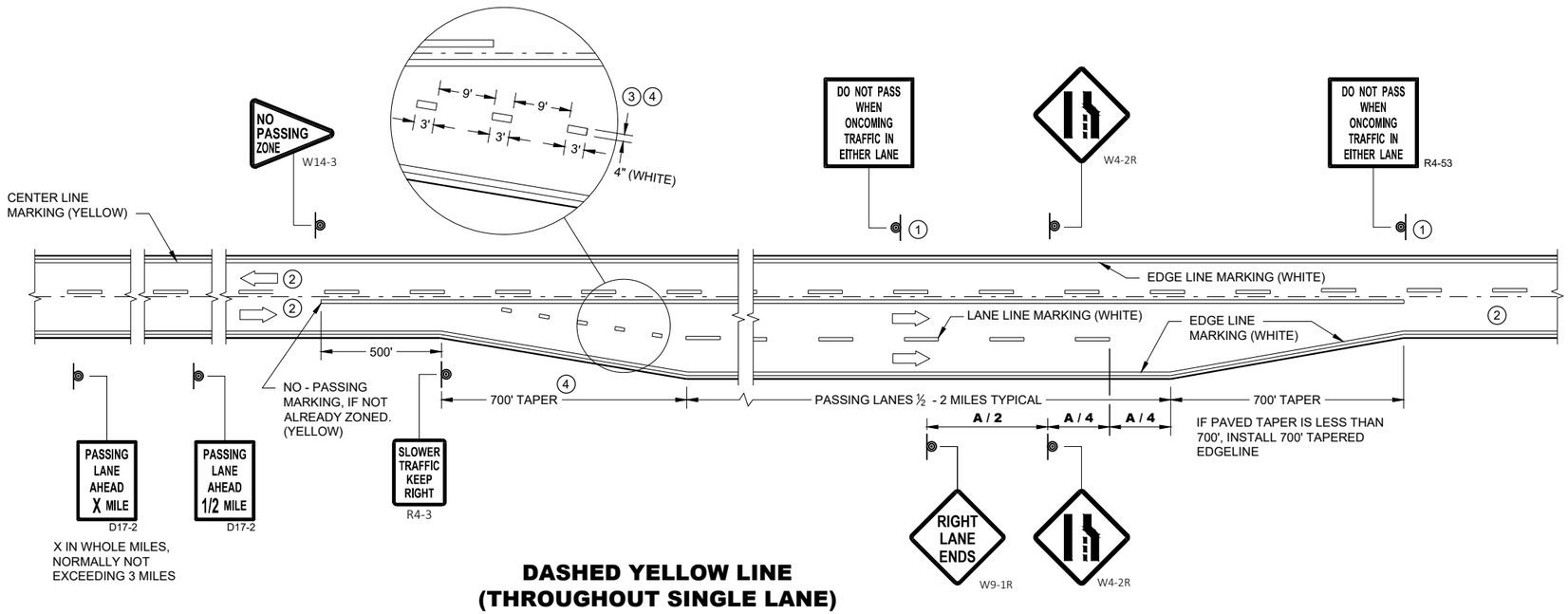
PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

6

SDD 15C35 - 04b



SOLID DOUBLE - YELLOW LINE
(END OF SINGLE LANE)



DASHED YELLOW LINE
(THROUGHOUT SINGLE LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
5. REPEAT EVERY ONE MILE UP UNTIL NO PASSING ZONE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990

PAVEMNET MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 15C35 - 04c

SDD 15C35 - 04c

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.

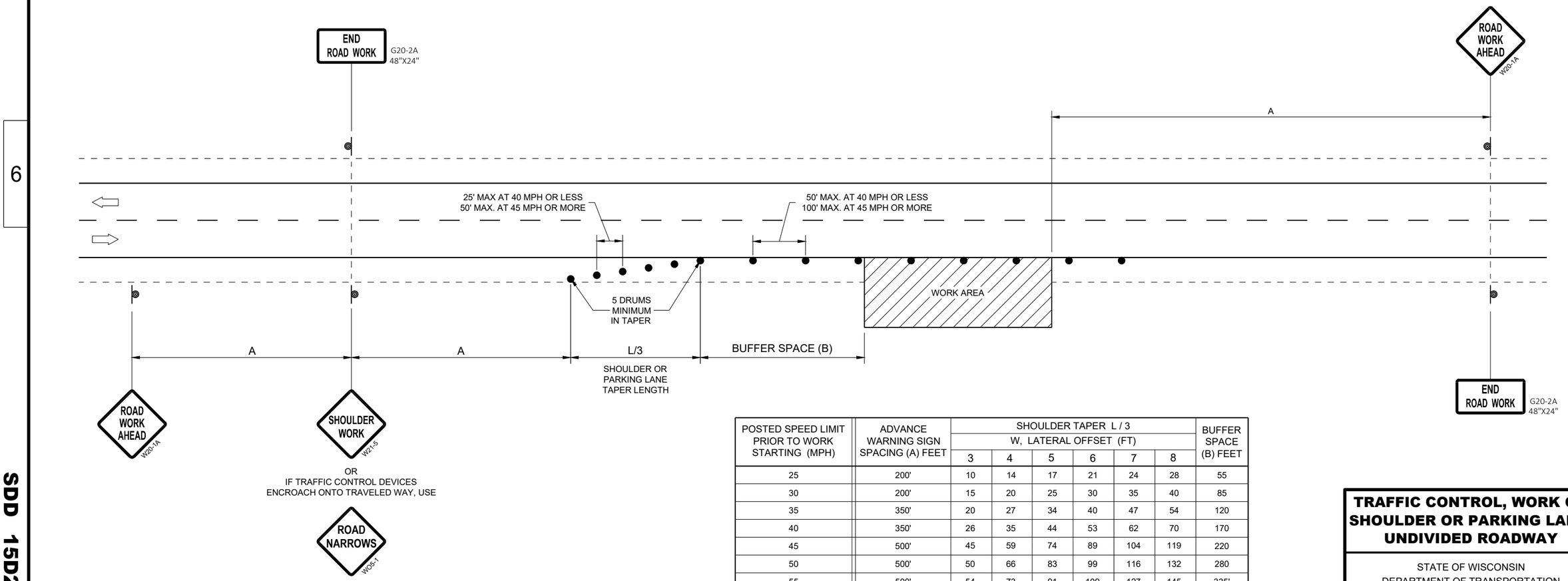
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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.



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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

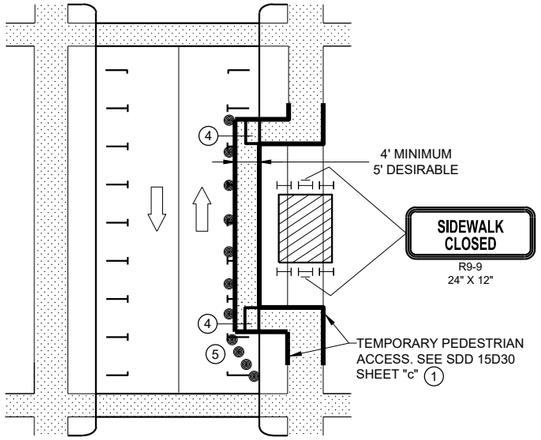
/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

SDD 15D28 - 04

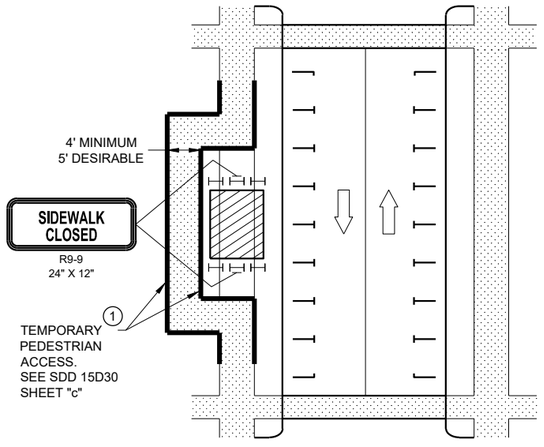
SDD 15D28 - 04

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

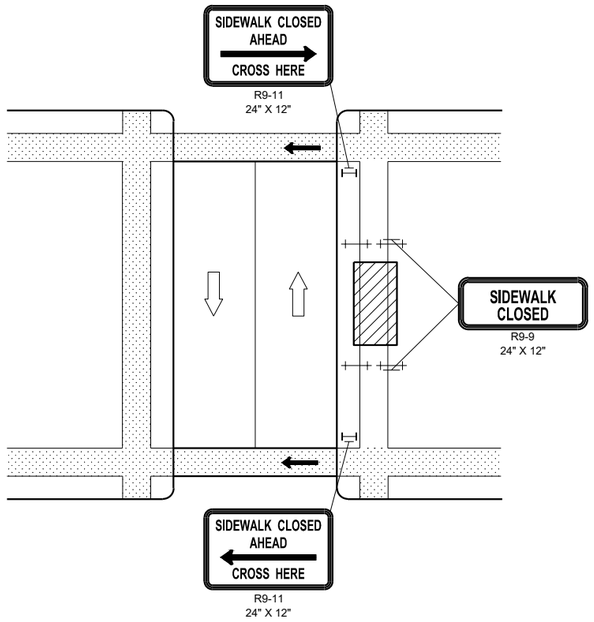


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

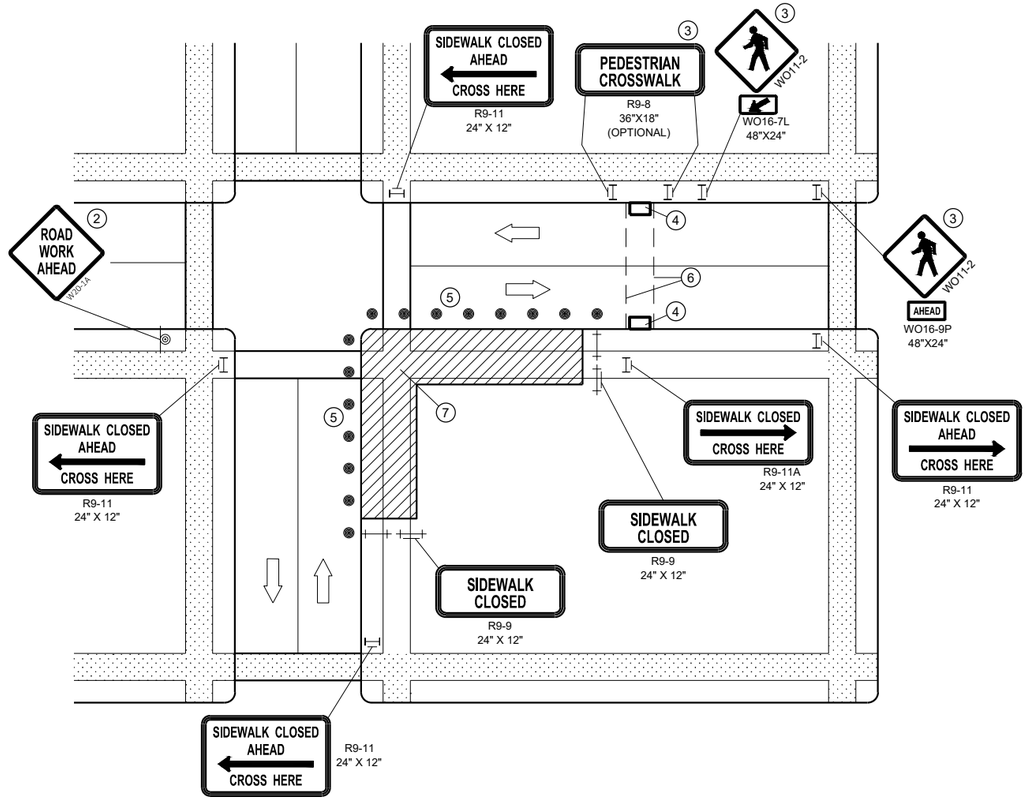
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

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

1. IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
2. "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
3. IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
4. TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.
5. DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
6. TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
7. LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

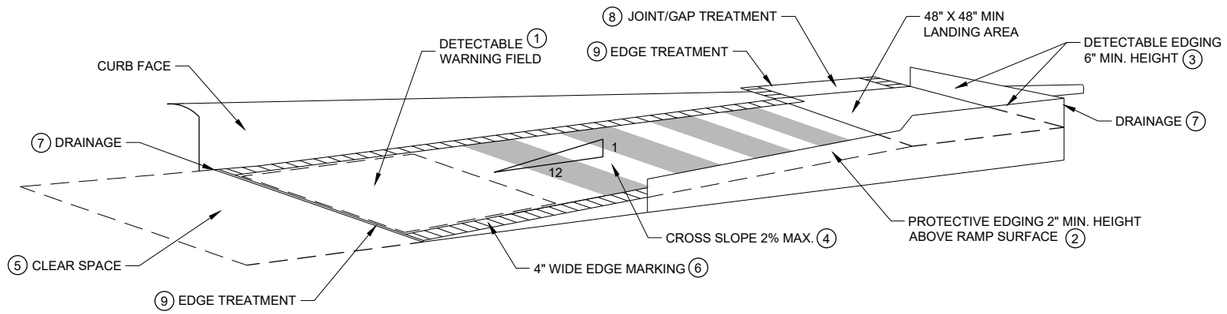
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

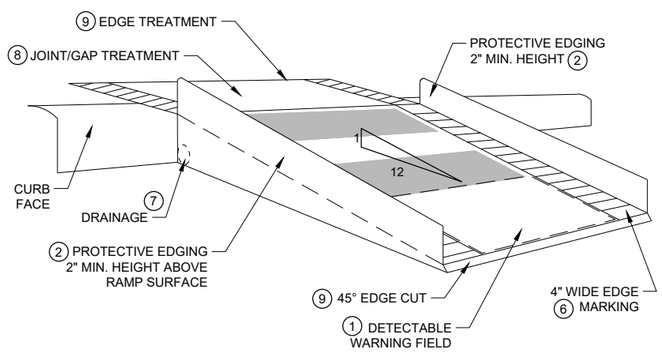
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

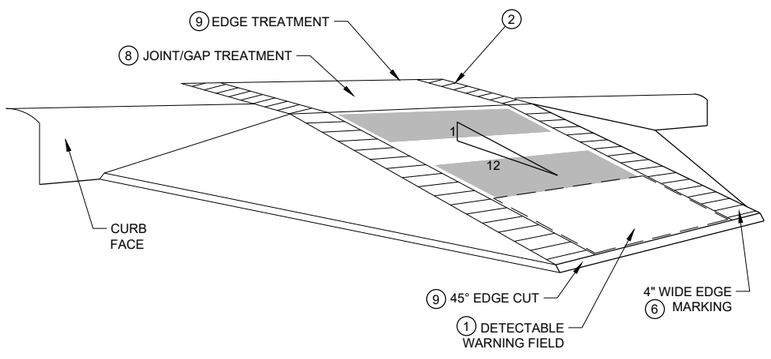
SDD15D30 - 06a



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE



WITH SIDE APRON

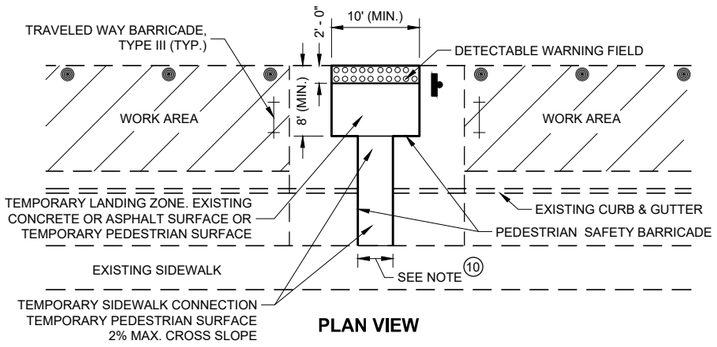
TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

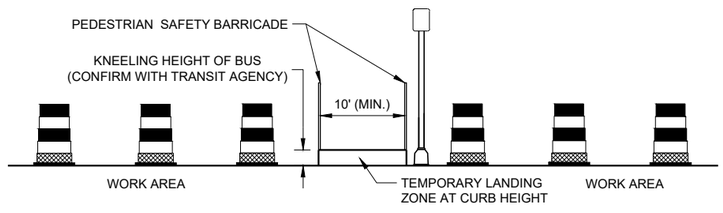
NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

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

1. CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
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. CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
5. CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
6. THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
7. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES SHALL BE VERTICAL UP TO ¼" HIGH AND BEVELED AT 1:2 BETWEEN ¼" AND ½".
10. 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.



PLAN VIEW



PROFILE VIEW

TEMPORARY BUS STOP PAD

LEGEND

- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- WORK AREA

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 15D30 - 06b

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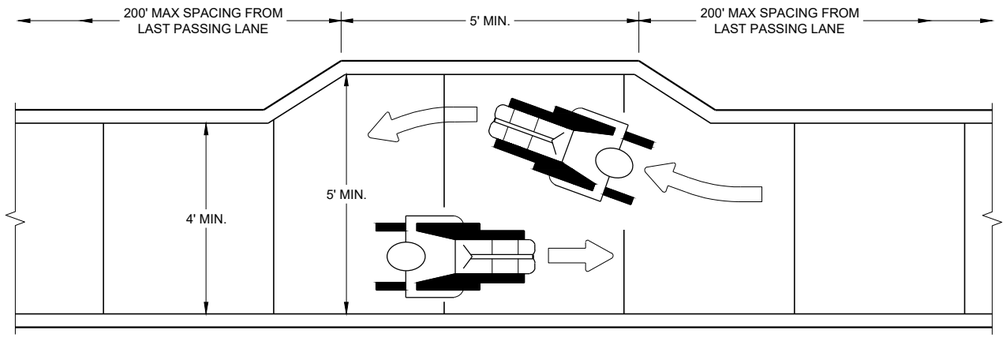
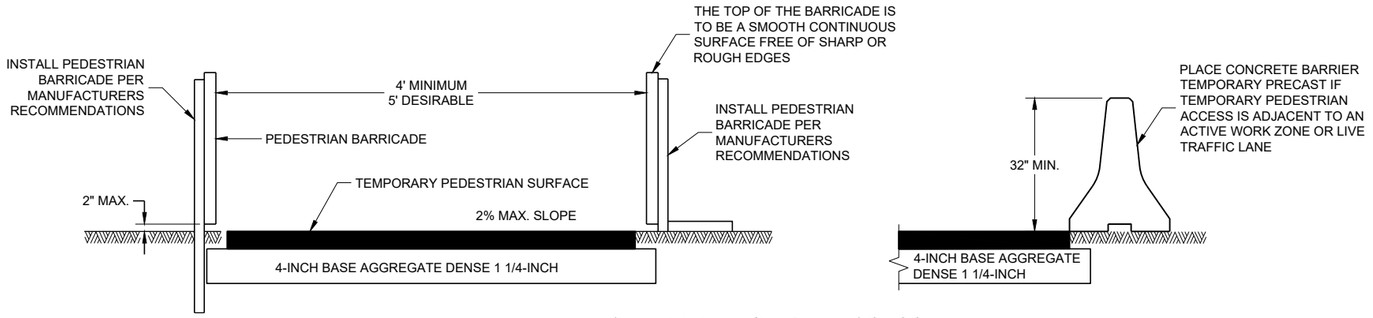
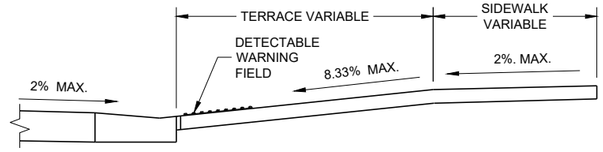


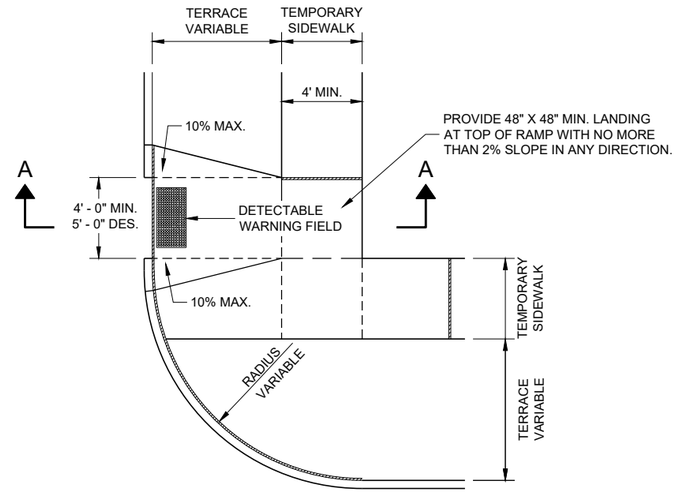
NARROW SIDEWALK PASSING DETAIL



TEMPORARY PEDESTRIAN ACCESS



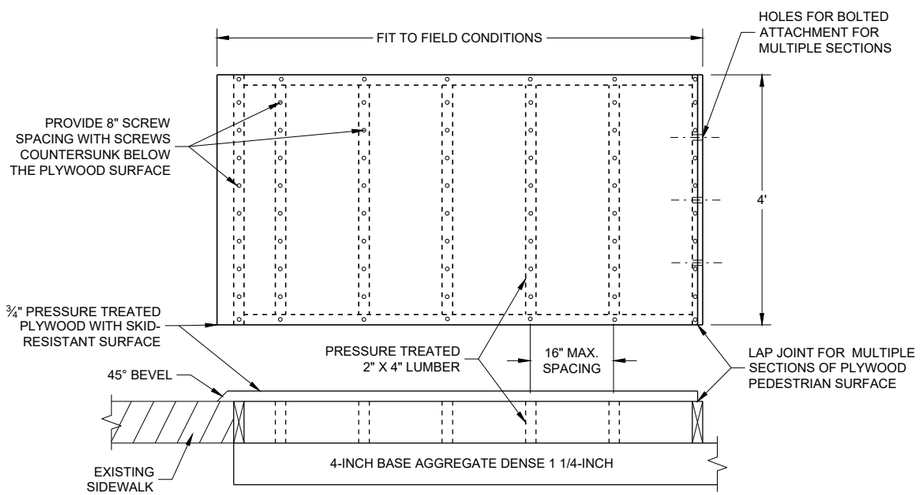
SECTION A - A



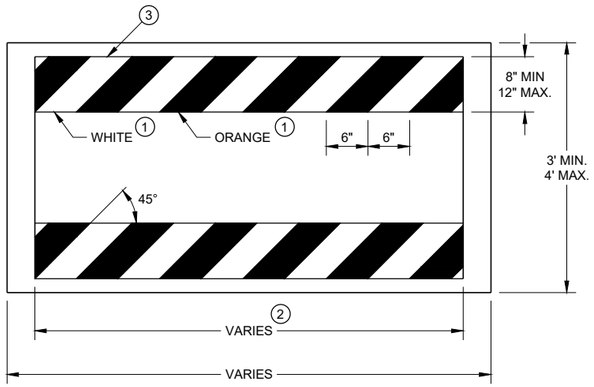
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



TEMPORARY PEDESTRIAN BARRICADE *

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.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

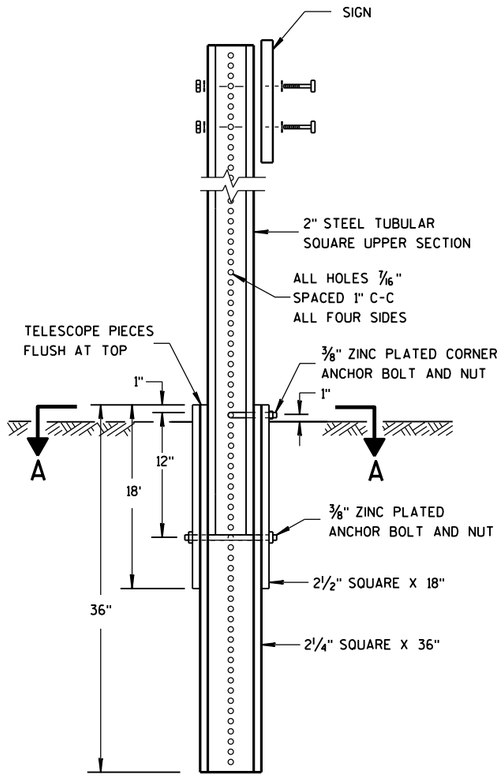
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

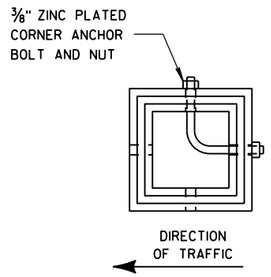
SDD 15D30 - 06c

6

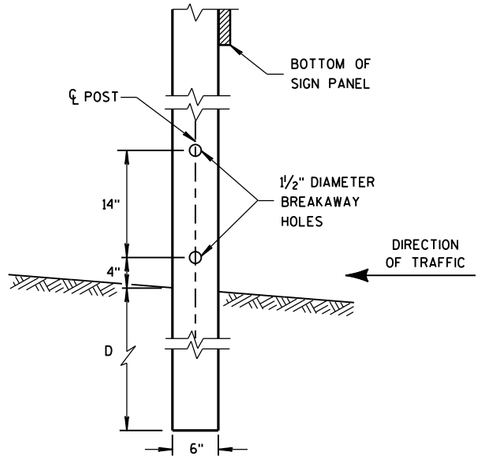
SDD 15D30 - 06c



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



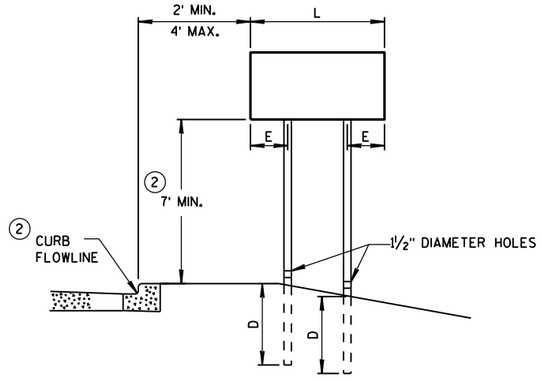
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

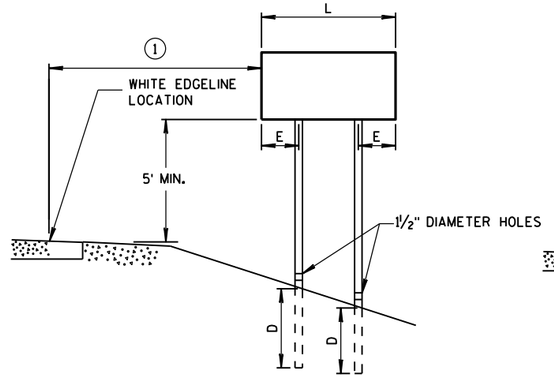
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

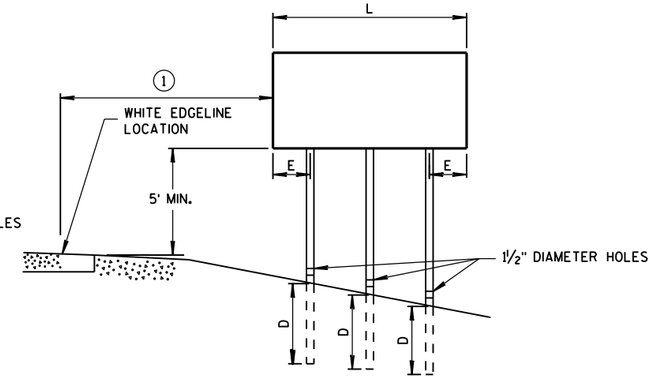
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

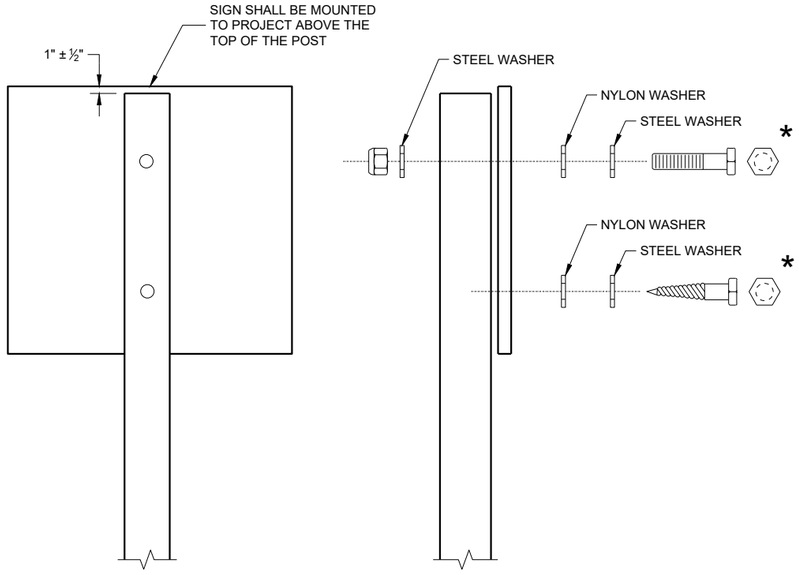
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-2a



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.

WOOD POST (4" x 6")
LAG SCREWS - ⅜" x 3"
MACHINE BOLTS - 5/16" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH, GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x 1/16" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

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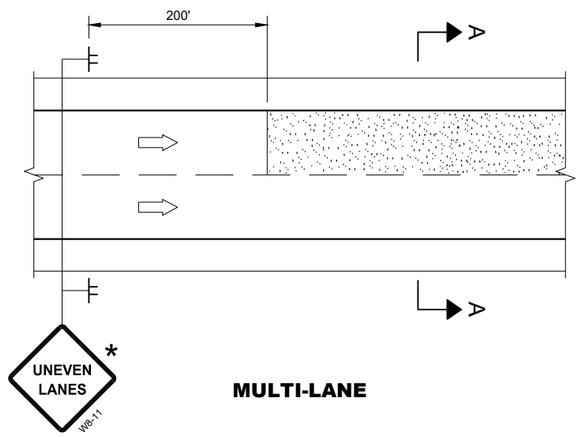
SDD 15D38 - 02b

SDD 15D38 - 02b

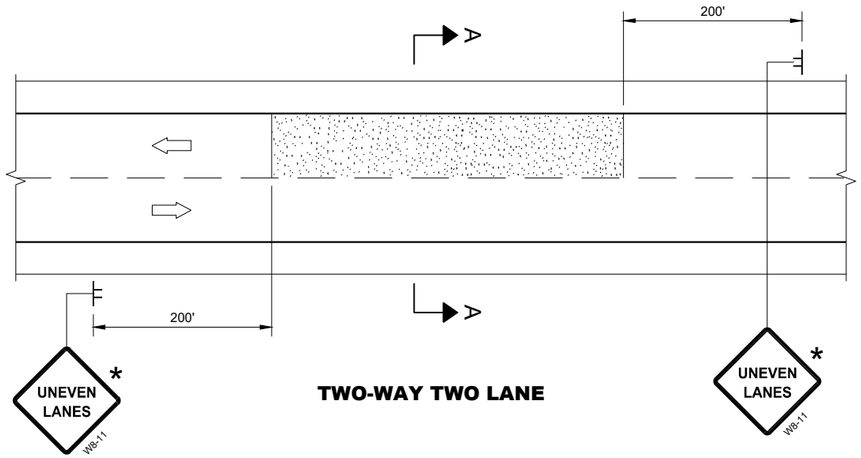
ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA



MULTI-LANE



TWO-WAY TWO LANE

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.

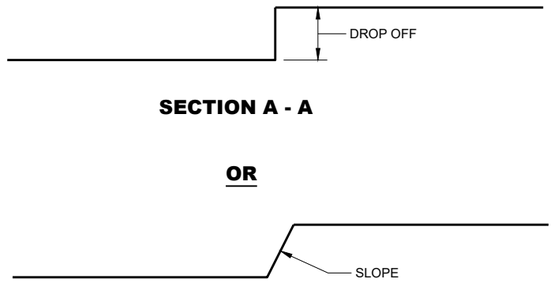
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* 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.

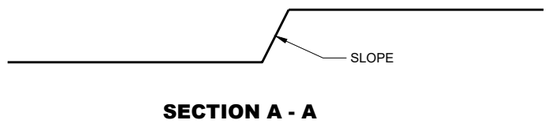
LEGEND

- 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

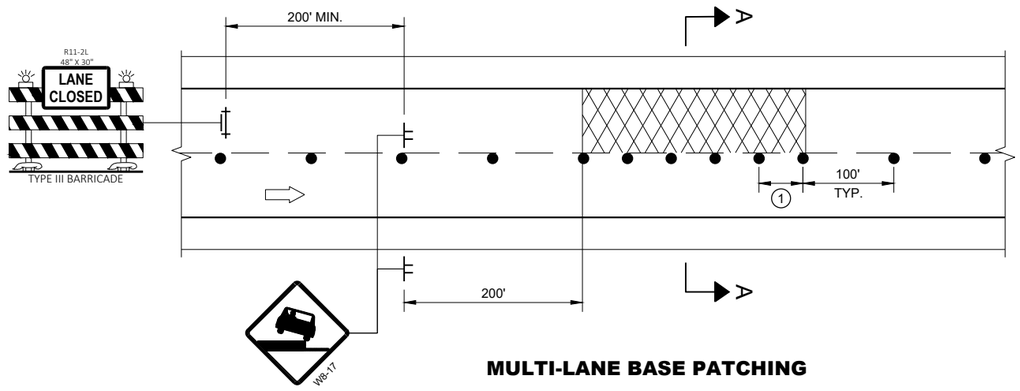


SECTION A - A

OR

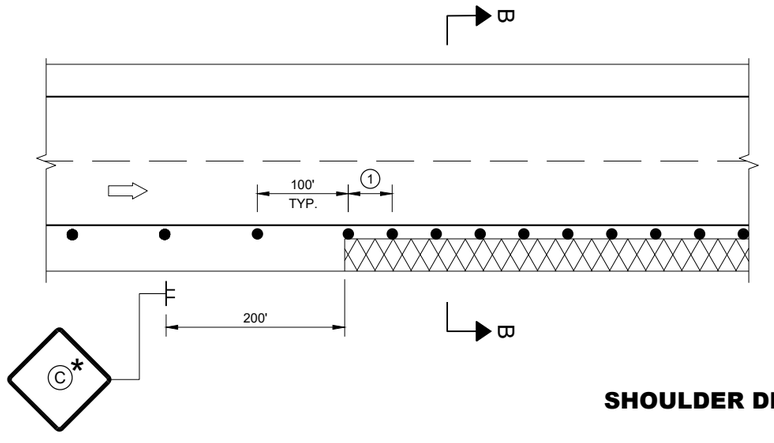


SECTION A - A

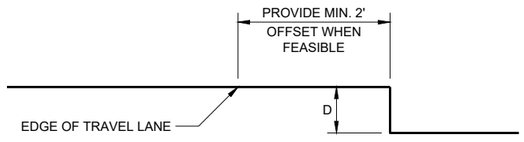


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D39 - 02

GENERAL NOTES

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

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

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

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

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

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

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

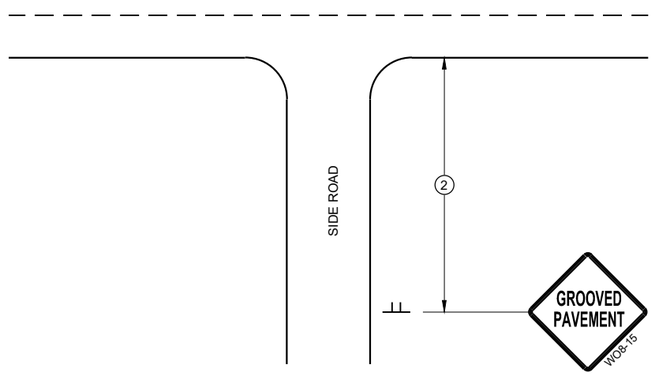
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

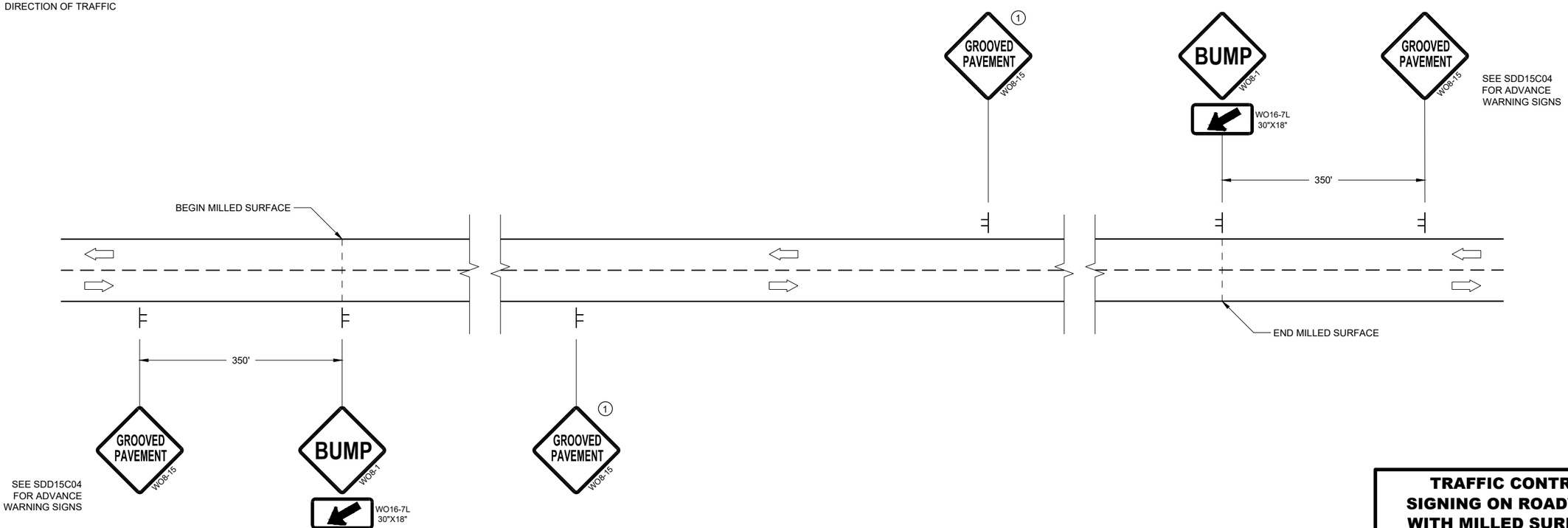
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

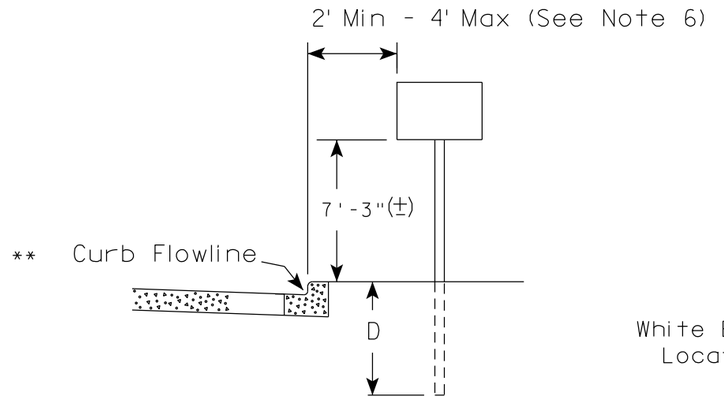
APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

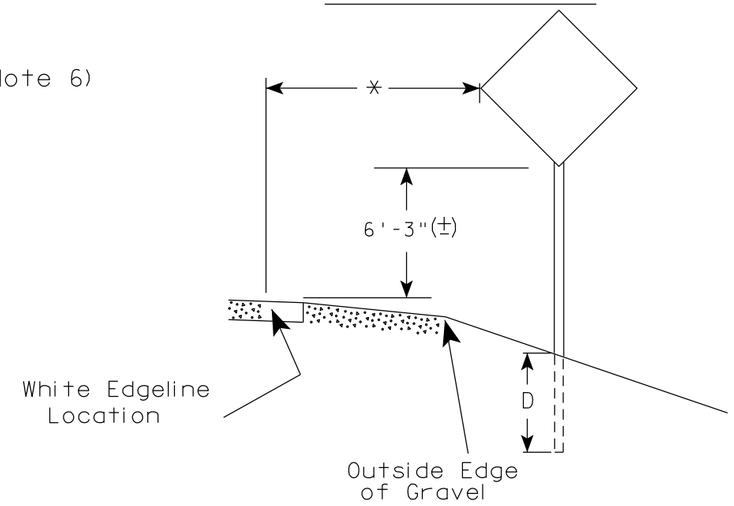
FHWA

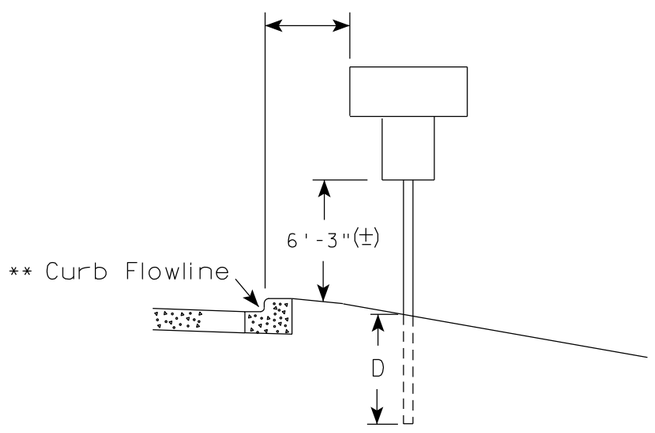
6
SDD 15D44 - 02

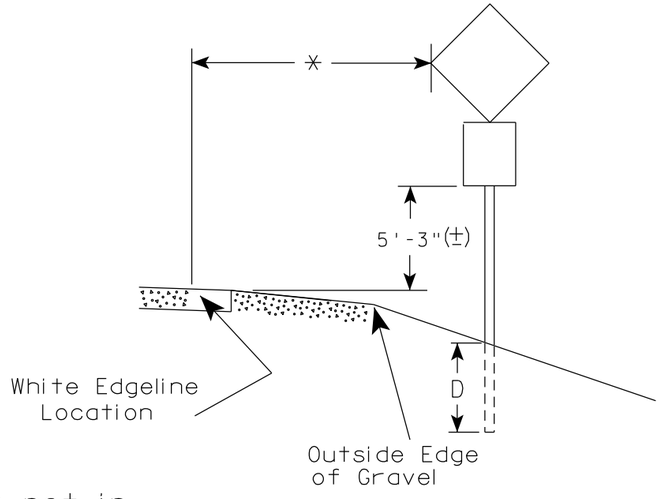
URBAN AREA



RURAL AREA (See Note 2)







** 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.

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 directd by the Engineer.

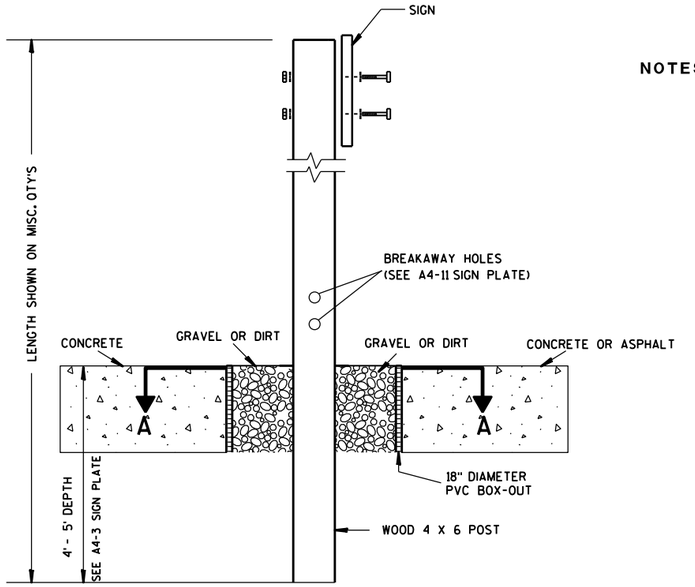
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

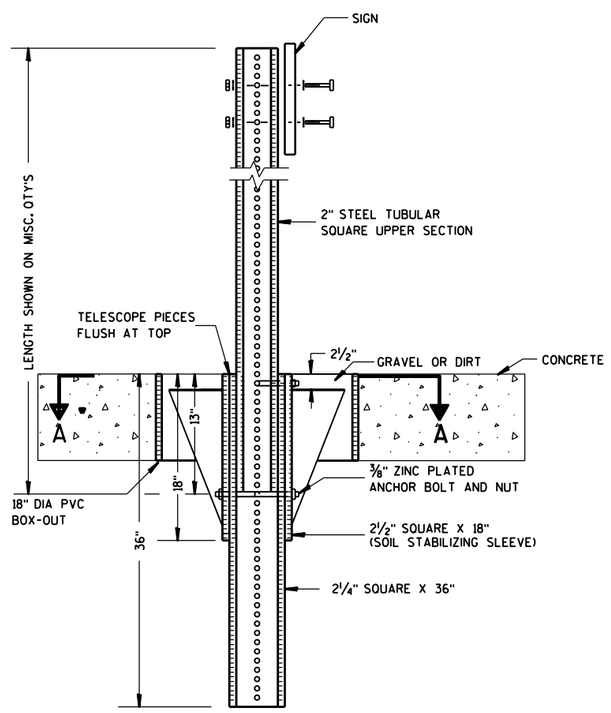
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 94	E



ELEVATION VIEW

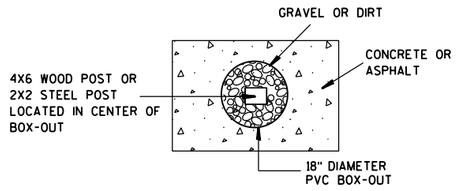
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

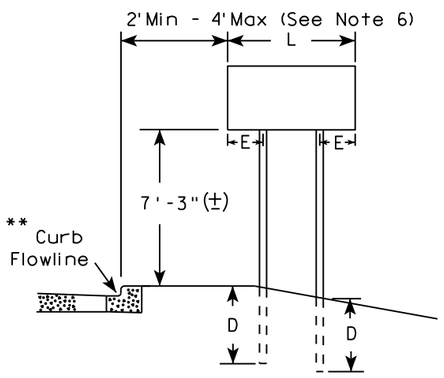
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

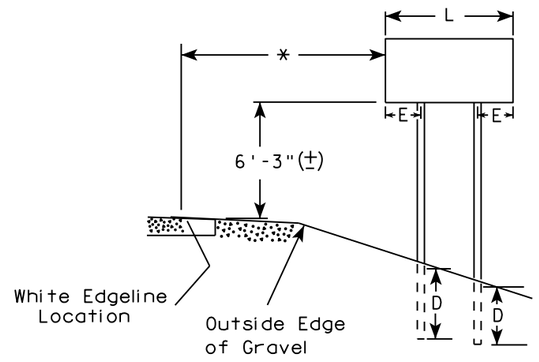
DATE 1/27/14 PLATE NO. A4-3B.1

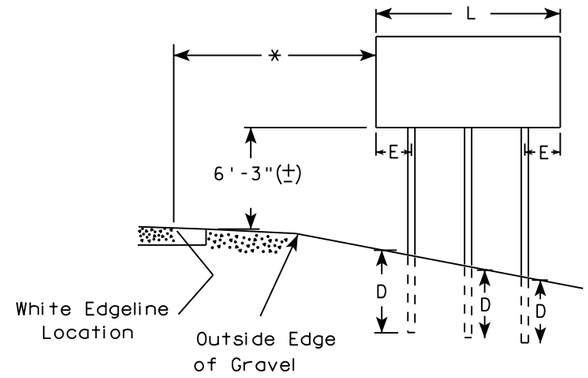
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

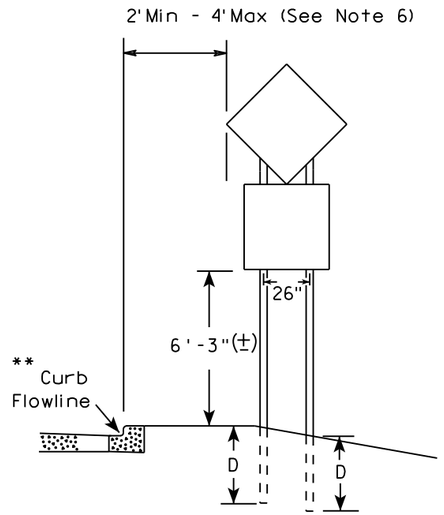
URBAN AREA



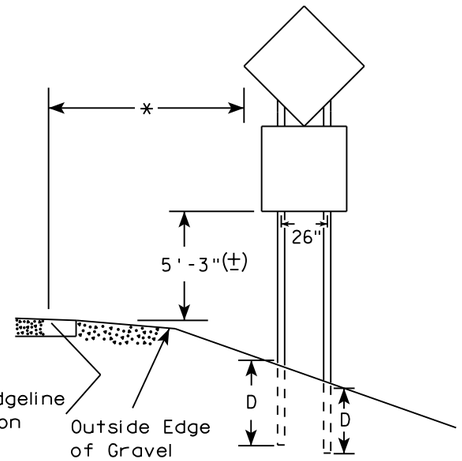
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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"

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" (±).

* 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.

POST EMBEDMENT DEPTH

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

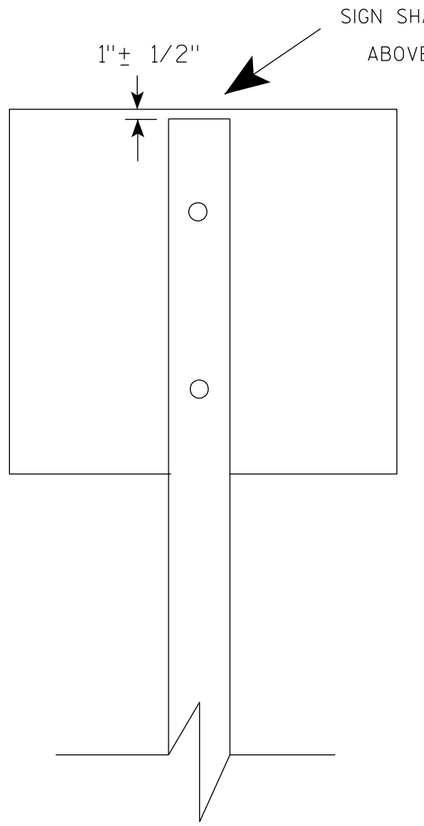
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

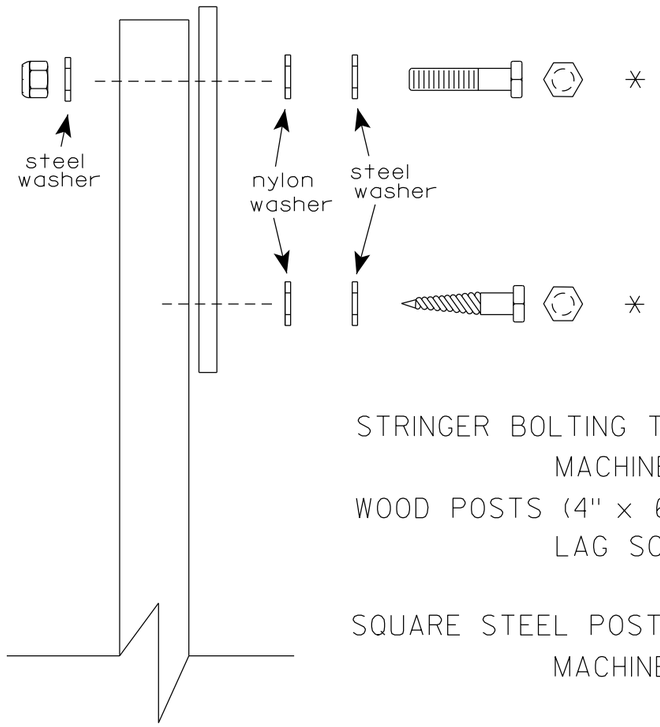
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 96	E





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

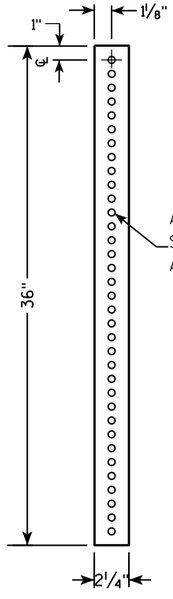
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

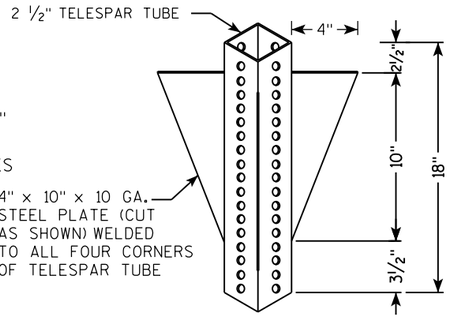
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

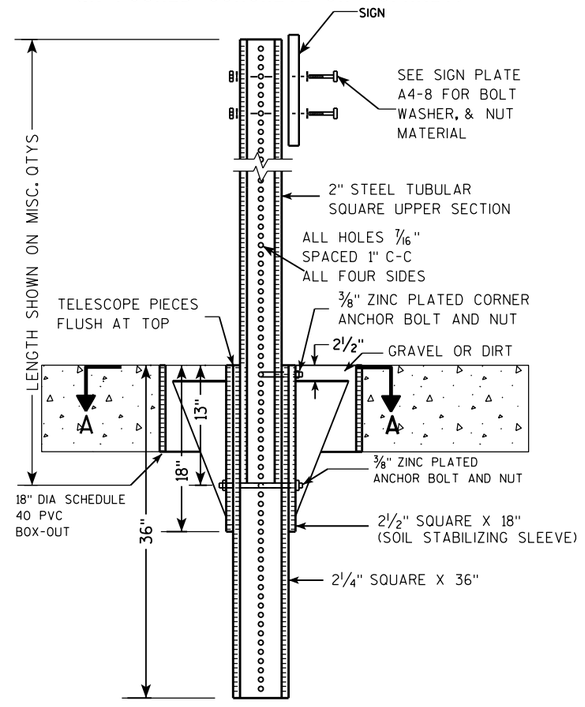
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



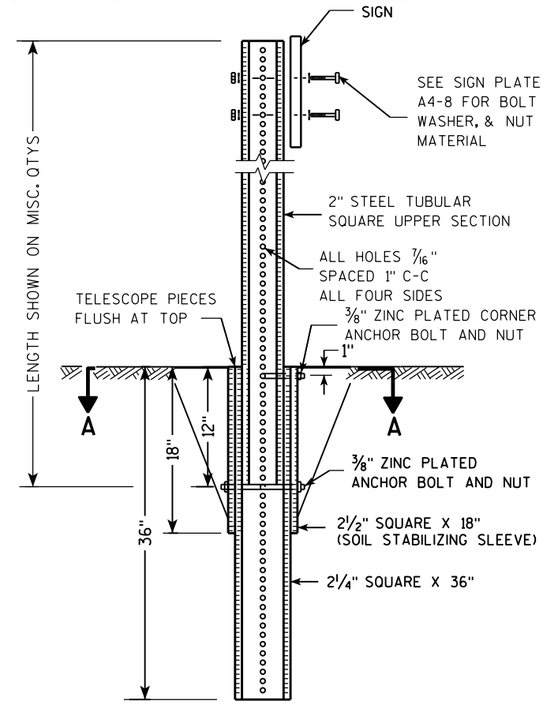
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

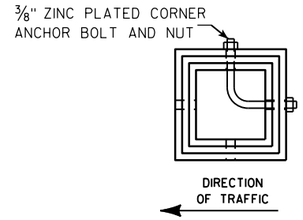


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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).

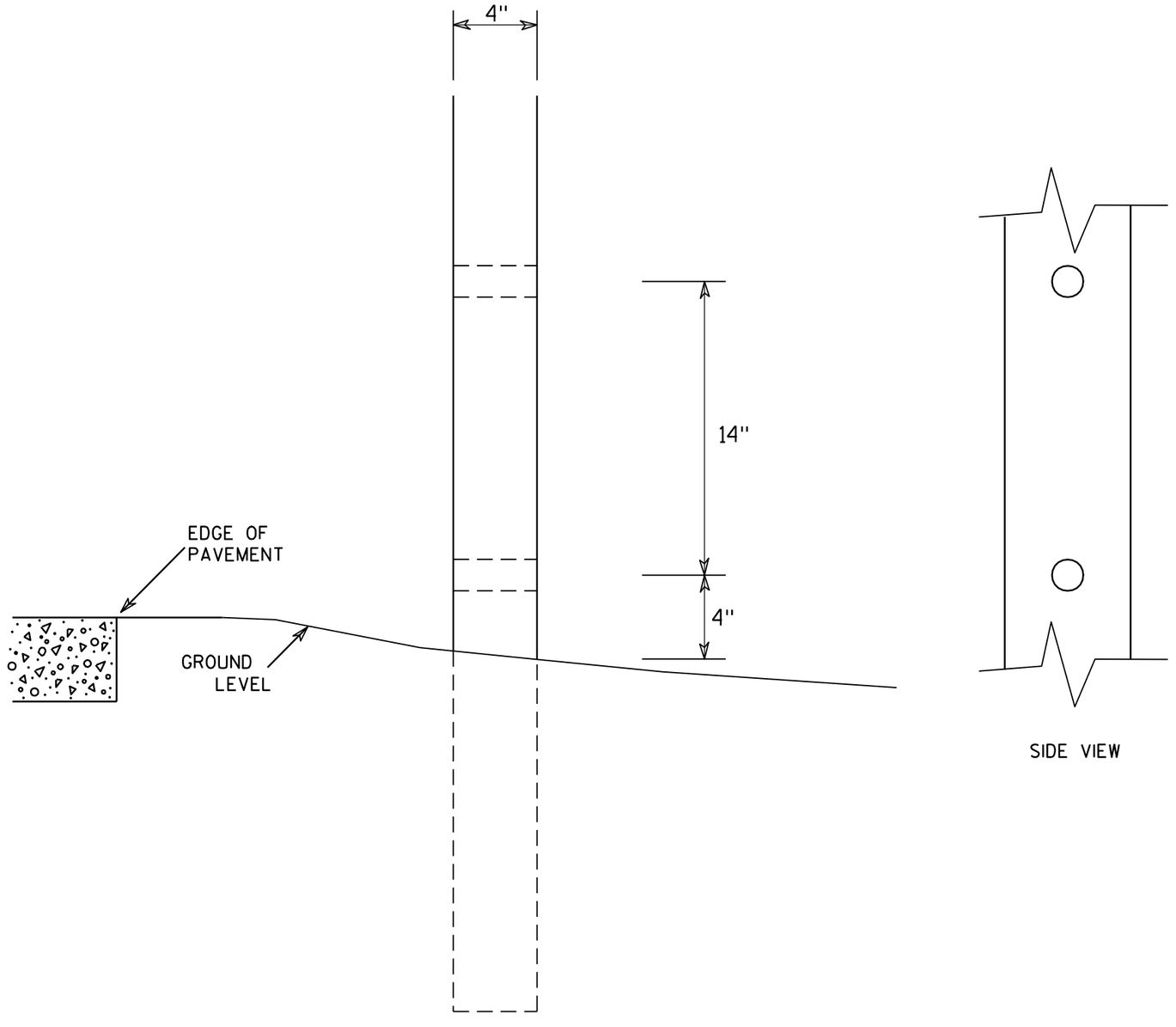
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 98 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

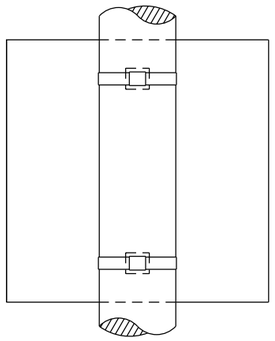
APPROVED Chester J Spang for State Traffic Engineer

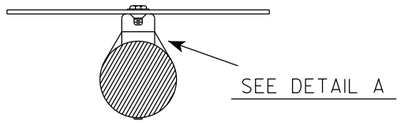
DATE 3/27/97 PLATE NO. A4-11.2

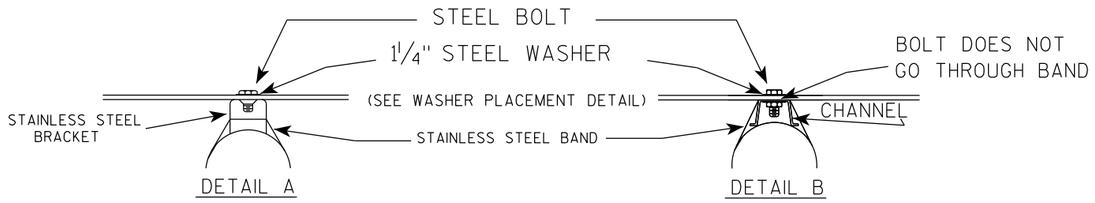
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 99	E

BANDING

SINGLE SIGN



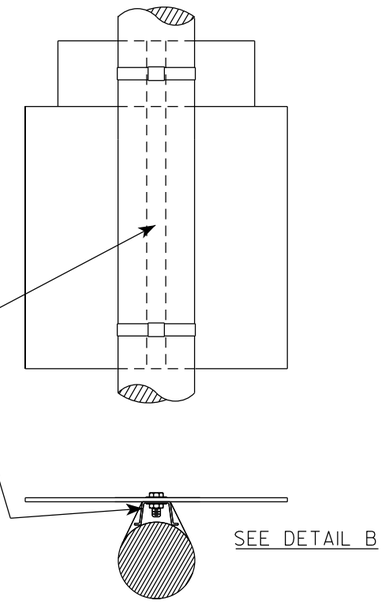




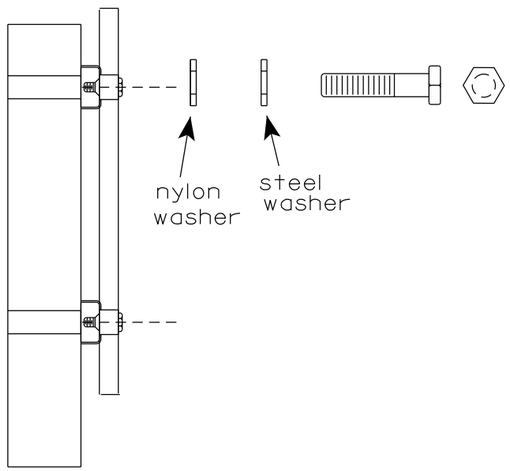
GENERAL NOTES

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 ¾" 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

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" 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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 100	E

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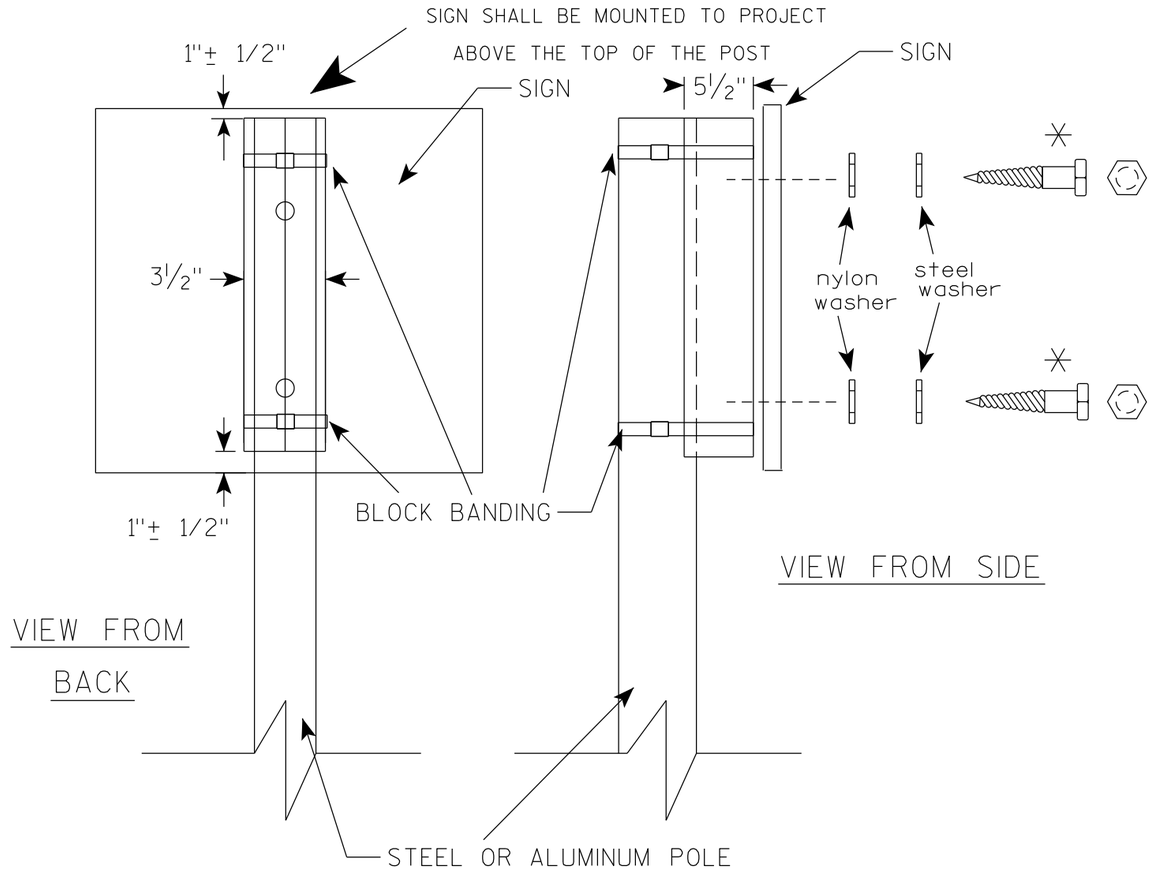
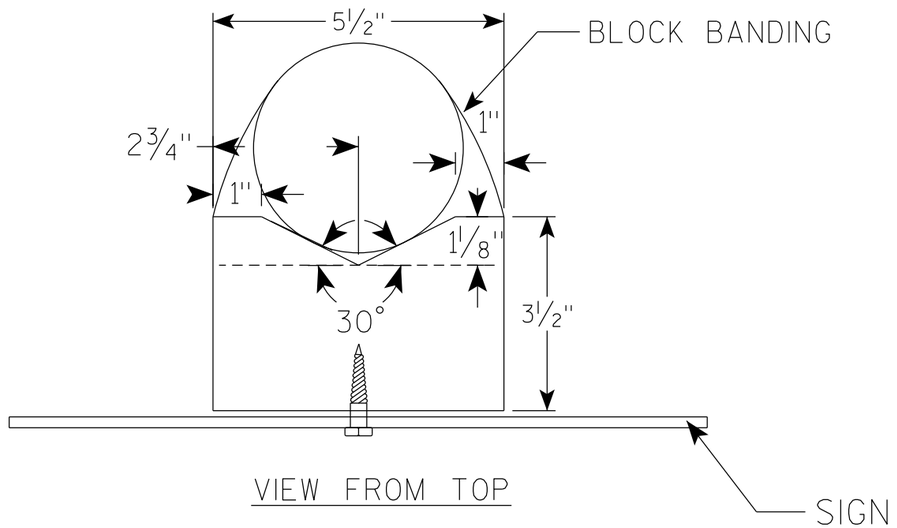




GENERAL NOTES

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, ¾" 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 NORNALLY 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 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

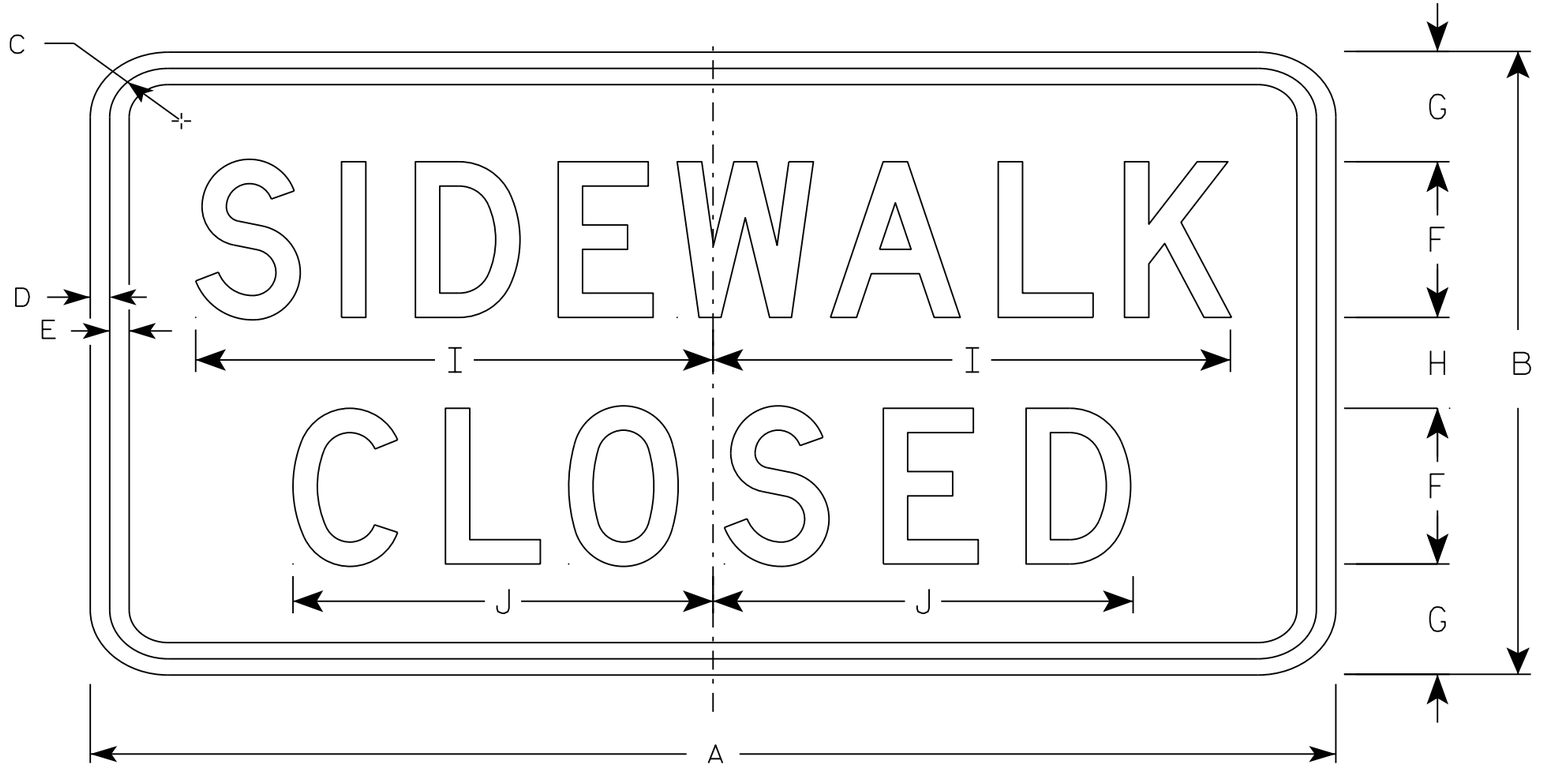
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO:

SHEET NO: 101 E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A510.dgn PLOT DATE : 10-JUN 2019 4:15 PLOT BY : mscj9h
WISDOT/CADDS SHEET 42



R9-9

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.

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

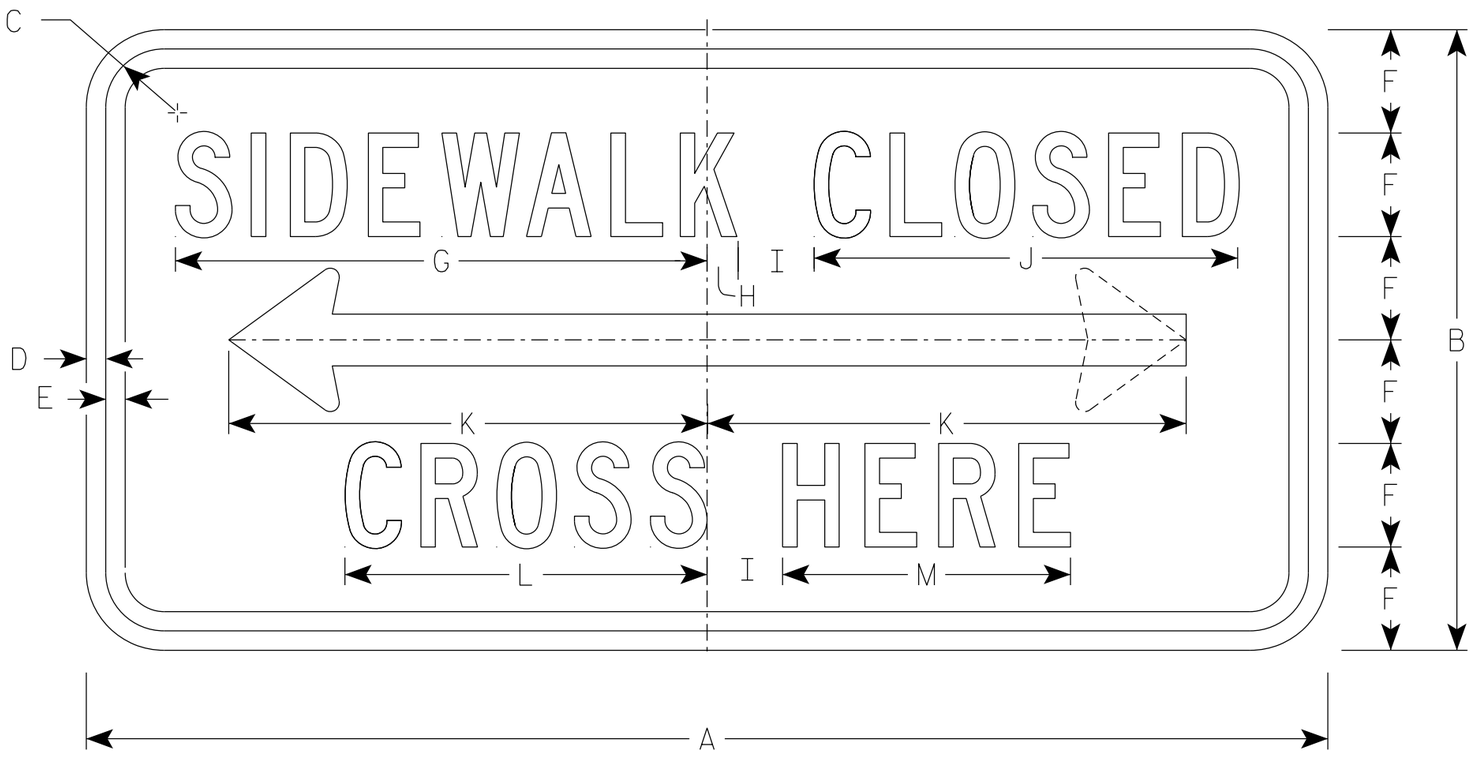
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 102 R9-9.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

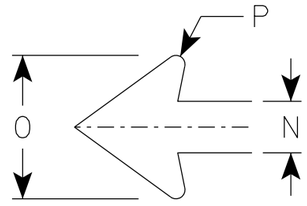
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



R9-11A

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. Use Size 2 for Sidewalks. Use Size 3 for paths and Trails.
6. R9-11AD (double arrow)
   R9-11AL (left arrow)
   R9-11AR (right arrow)



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	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
2M	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
3	30	15	1 1/8	3/8	1/2	2 1/2	12 3/4	1/2	2	10 1/4	12 3/8	8 5/8	6 3/4	1 1/4	3 5/8	1/4											3.125
4																											
5																											

STANDARD SIGN
R9-11A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. R9-11A.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 103 | E

Wisconsin Department of Transportation

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through innovation and exceptional service.

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