SUP

PROJECT ID: 8550-00-70

WITH: 8550-02-72

COUNTY: WASHBURN

SEPTEMBER 2022

ORDER OF SHEETS

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

TOTAL SHEETS = 106



25

DESIGN DESIGNATION

A.A.D.T.	2024	=	2,250
A.A.D.T.	2044	=	2,580
D.H.V.	2044	=	360
D.D.		=	61/39
T.		=	11.0%
DESIGN SPEED		=	55 MPH
ESALS		=	550,000

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 (300'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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MINONG - HAYWARD

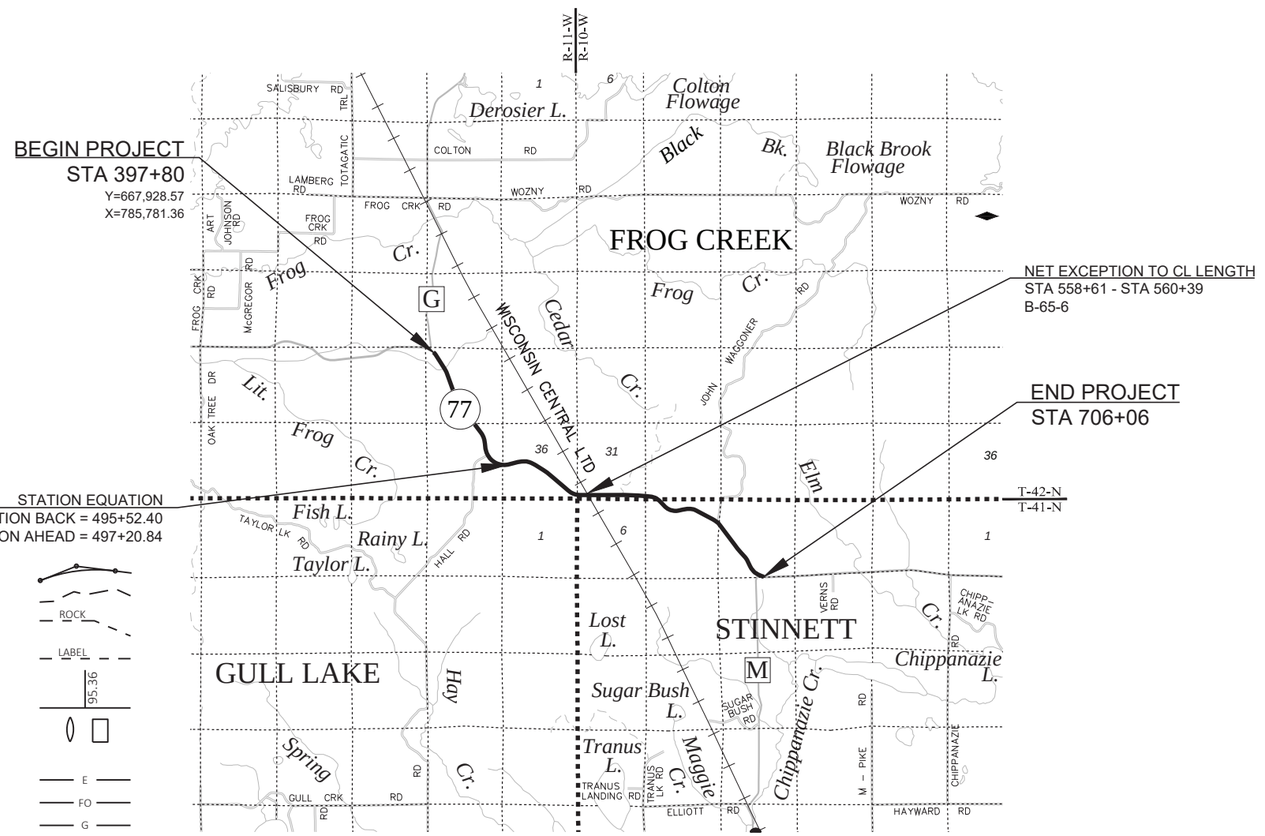
CTH G TO CTH M

STH 77

WASHBURN COUNTY

STATE PROJECT NUMBER
8550-00-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8550-00-70	WISC 2022523	1



BEGIN PROJECT
STA 397+80
Y=667,928.57
X=785,781.36

NET EXCEPTION TO CL LENGTH
STA 558+61 - STA 560+39
B-65-6

END PROJECT
STA 706+06

STATION EQUATION
STATION BACK = 495+52.40
STATION AHEAD = 497+20.84

LAYOUT
SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 5.773 MI

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

emcs inc
500 North 17th Avenue
Wausau, WI 54401
715.845.1081 Fax 715.845.1099

WISCONSIN
STEPHANIE G. CHRISTENSEN
E-35808
WAUSAU, WI
PROFESSIONAL ENGINEER

4/11/22 (Date)

Stephanie G. Christensen (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EMCS, INC.
Designer	EMCS, INC.
Project Manager	JEFF SAXBY
Regional Examiner	TOU YANG
Regional Supervisor	JEFF OLSON

APPROVED FOR THE DEPARTMENT

DATE: 4/21/2022 (Signature)

E

GENERAL NOTES

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

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

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

CROSS DRAIN PIPE LOCATIONS AND ELEVATIONS AS SHOWN ON THE CROSS SECTION SHEETS ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

AS-BUILTS USED FOR PLAN DEVELOPMENT

PROJECT NO: SG 0559(4), CONSTRUCTION YEAR: 1958
PROJECT NO: 8550-05-71, CONSTRUCTION YEAR: 1990
PROJECT NO: 8550-03-70, CONSTRUCTION YEAR: 2000
PROJECT NO: 8550-03-71&72, CONSTRUCTION YEAR: 2000

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
EROSION CONTROL
TRAFFIC CONTROL

UTILITIES

ELECTRIC - DISTRIBUTION

XCEL ENERGY
TIM BLODGETT
2400 FARM RD
ASHLAND, WI 54806
PHONE: (715) 307-2979
EMAIL: TIM.BLODGETT@XCELENERGY.COM

GAS/PETROLEUM

ENBRIDGE ENERGY PARTNERS
DEAN WILL
10 BARDON AVE
SUPERIOR, WI 54880
PHONE: (218) 390-5228
EMAIL: DEAN.WILL@ENBRIDGE.COM

ELECTRIC - TRANSMISSION

ATC MANAGEMENT INCORPORATED
DOUG VOSBERG
2489 RINDEN RD
COTTAGE GROVE, WI 53527
PHONE: (608) 877-7650
EMAIL: DVOSBERG@ATCLLC.COM

XCEL ENERGY
MITCHELL DIENGER
414 NICOLLET MALL, 5TH FLOOR
MINNEAPOLIS, MN 55401
PHONE: (612) 321-3109
EMAIL: MITCHELL.A.DIENGER@XCELENERGY.COM

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 93.3 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.6 ACRE

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

OTHER CONTACTS

DNR LIAISON

SHAWN HASELEU
DNR NORTHERN REGION HEADQUARTERS
810 W. MAPLE STREET
SPOONER, WI 54801
PHONE: (715) 416-0478
EMAIL: SHAWN.HASELEU@WISCONSIN.GOV

DESIGNER CONTACT

EMCS, INC.
500 NORTH 17TH AVENUE
WAUSAU, WI 54401
PHONE: (715) 845-1081

2

CTH G

SINK CREEK

UNNAMED STREAM

TOWN OF FROG CREEK

WISCONSIN CENTRAL LTD

N

380

400

420

440

460

480

500

520

540

BEGIN PROJECT
STA 397+80
(MATCH OVERLAY
ID 8550-02-72)

REMOVE AND
REPLACE GUARDRAIL

STH 77

UNNAMED STREAM

STA AHEAD = 497+20.84
STA BACK = 495+52.40

HALL RD

TOWN OF
GULL LAKE

TOWN OF FROG CREEK

JOHN WAGGONER RD

N

CEDAR CREEK FIRE LN

STONEY BROOK TRAIL

WISCONSIN CENTRAL LTD

580

600

620

640

660

680

700

715

STH 77

INSTALL NEW CULVERT
STA 619+17

BEGIN CONSTRUCTION
STA 560+39

END CONSTRUCTION
STA 558+61

560

END PROJECT
STA 706+06

REMOVE AND REPLACE GUARDRAIL

B-65-6
(TO REMAIN)

REMOVE AND REPLACE GUARDRAIL

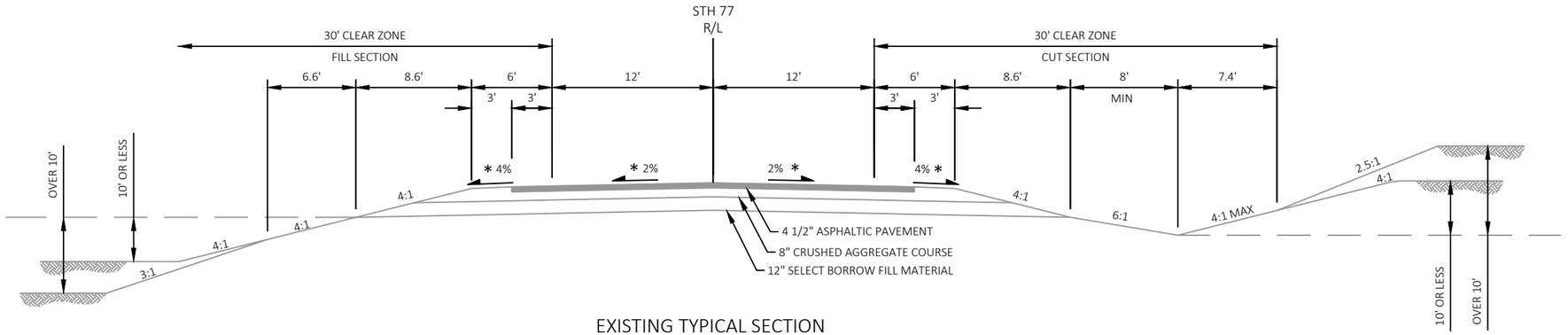
TOWN OF STINNETT

CTH M

PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	PROJECT OVERVIEW	SHEET 3	E

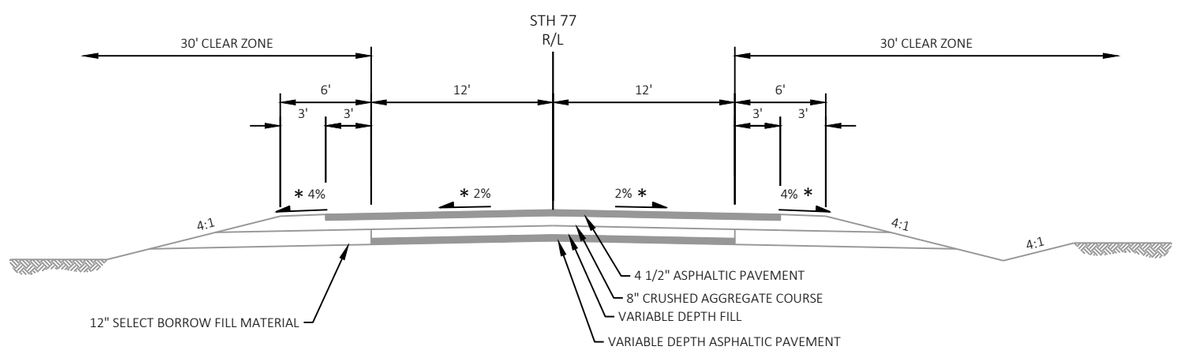
FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 01

PLOT DATE : 4/22/2022 11:59 AM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:1000 FT



EXISTING TYPICAL SECTION

STA 397+80 - STA 409+84
STA 456+85 - STA 517+10
STA 524+10 - STA 531+10
STA 540+60 - STA 558+61 (B-65-6)
STA 612+00 - STA 640+05
STA 671+05 - STA 689+05
STA 692+05 - STA 706+06



EXISTING TYPICAL SECTION

STA 409+84 - STA 456+85
STA 517+10 - STA 524+10
STA 531+10 - STA 540+60
STA 560+39 (B-65-6) - STA 612+00
STA 640+05 - STA 671+05
STA 689+05 - STA 692+05

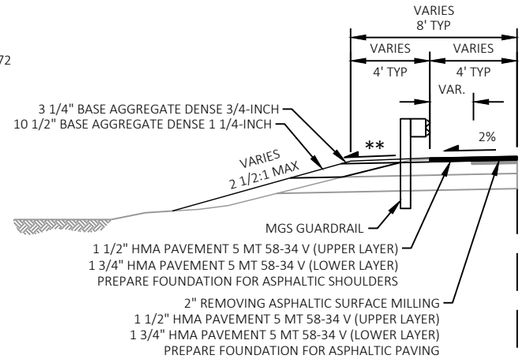
NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION, SEE SECTION 5 PLANS FOR SUPERELEVATION INFORMATION

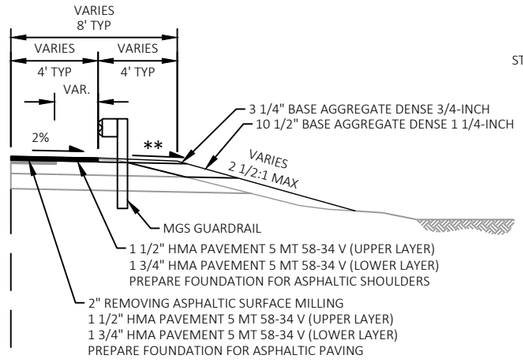
SEE SECTION 5 PLAN SHEETS FOR LOCATIONS OF EXISTING GUARDRAIL, TURN LANES, AND BYPASS LANE.

PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	TYPICAL SECTIONS	SHEET 4	E

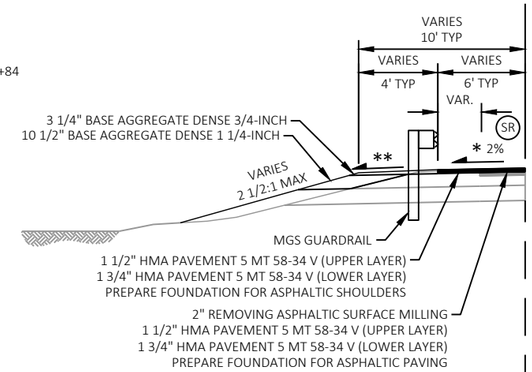
STA 556+70 - STA 558+72



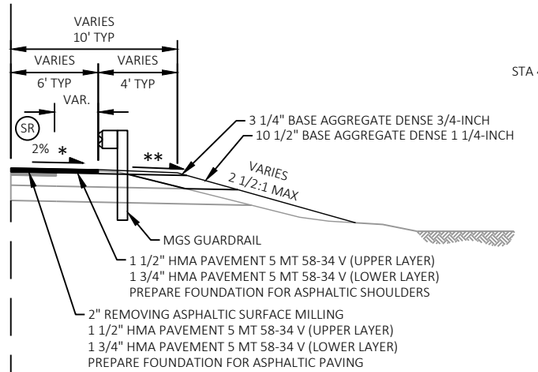
STA 556+02 - STA 558+90

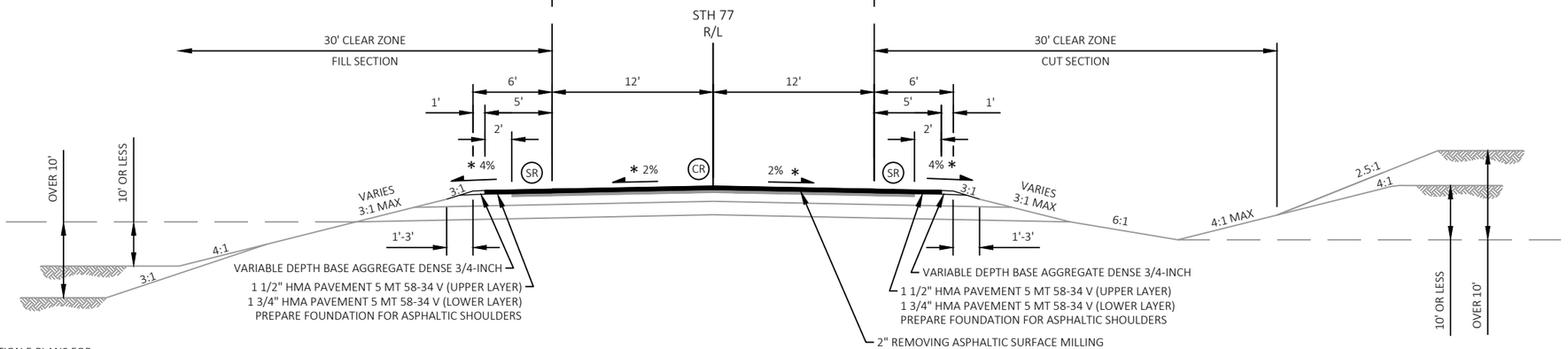


STA 406+13 - STA 409+84



STA 405+51 - STA 409+84





NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION, SEE SECTION 5 PLANS FOR SUPERELEVATION INFORMATION

** VARIES 4% TO 10%

(CR) ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL. SEE SDD FOR "2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING" FOR ADDITIONAL INFORMATION. MILLING DEPTH REFERENCED AT ROADWAY CENTERLINE.

(SR) ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL (TYPE 1). SEE SDD FOR "2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING" FOR ADDITIONAL INFORMATION. DO NOT PLACE SHOULDER RUMBLE STRIPS ALONG GUARDRAIL AT STRUCTURE B-65-6.

SEE SECTION 5 PLAN SHEETS FOR LOCATIONS OF TURN LANES, BYPASS LANE, AND PROPOSED GUARDRAIL.

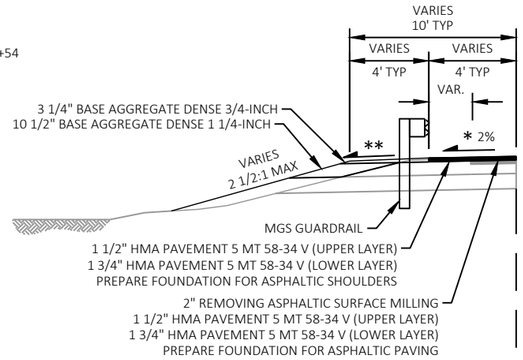
FINISHED TYPICAL SECTION

STA 397+80 - STA 409+84
STA 456+85 - STA 517+10
STA 524+10 - STA 531+10
STA 540+60 - STA 558+61 (B-65-6)
STA 612+00 - STA 640+05
STA 671+05 - STA 689+05
STA 692+05 - STA 706+06

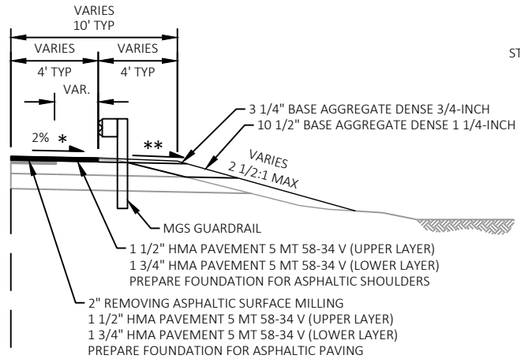
PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	TYPICAL SECTIONS	SHEET 5	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 02
PLOT DATE : 4/22/2022 12:46 PM
PLOT BY : NICK MENNINGA
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

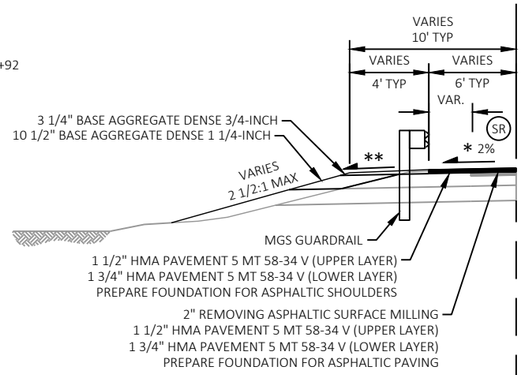
STA 560+32 - STA 563+54



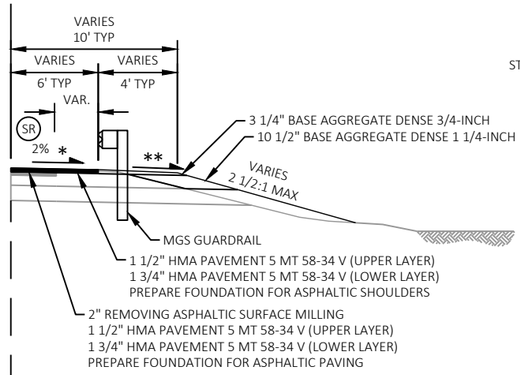
STA 560+50 - STA 562+60

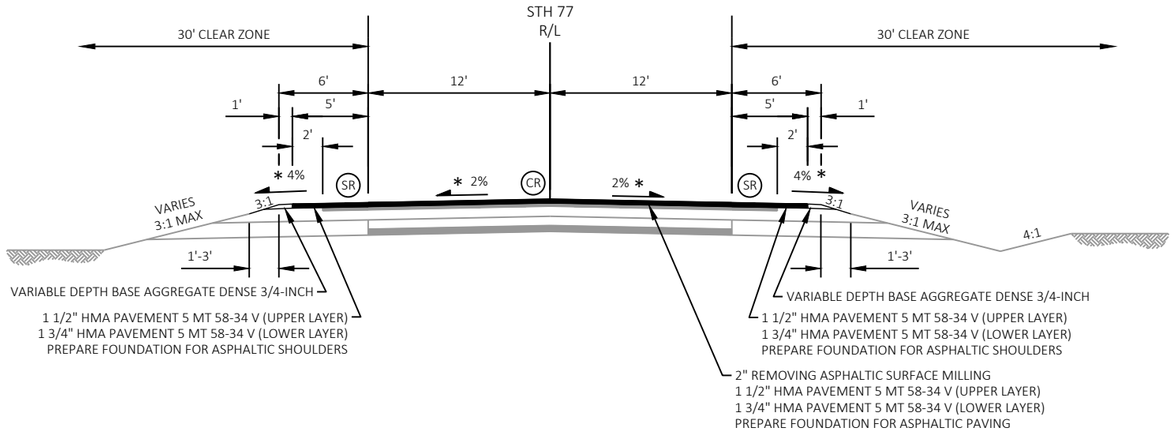


STA 409+84 - STA 411+92



STA 409+84 - STA 411+96





FINISHED TYPICAL SECTION

STA 409+84 - STA 456+85
STA 517+10 - STA 524+10
STA 531+10 - STA 540+60
STA 560+39 (B-65-6) - STA 612+00
STA 640+05 - STA 671+05
STA 689+05 - STA 692+05

NOTES

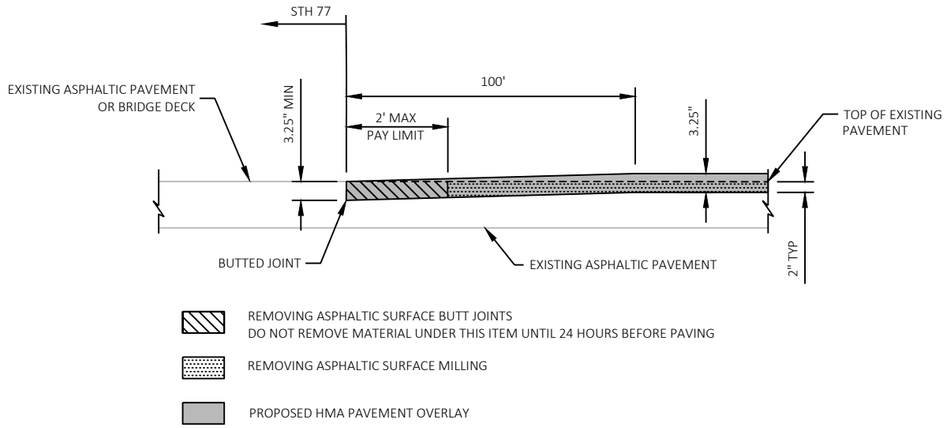
* CROSS SLOPE VARIES DUE TO SUPERELEVATION, SEE SECTION 5 PLANS FOR SUPERELEVATION INFORMATION

** VARIES 4% TO 10%

(CR) ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL. SEE SDD FOR "2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING" FOR ADDITIONAL INFORMATION. MILLING DEPTH REFERENCED AT ROADWAY CENTERLINE.

(SR) ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL (TYPE 1). SEE SDD FOR "2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING" FOR ADDITIONAL INFORMATION.DO NOT PLACE SHOULDER RUMBLE STRIPS ALONG GUARDRAIL AT STRUCTURE B-65-6.

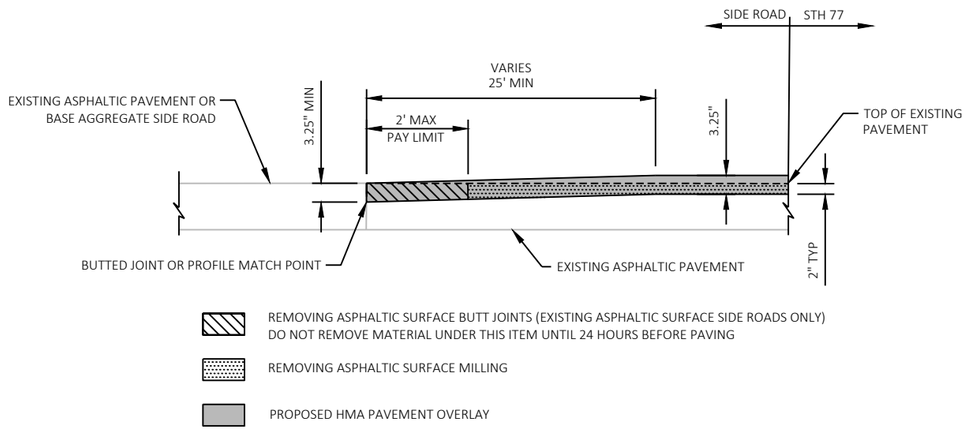
SEE SECTION 5 PLAN SHEETS FOR LOCATIONS OF TURN LANES, BYPASS LANE, AND PROPOSED GUARDRAIL.



STH 77 BUTT JOINT DETAIL

STA 558+61 (B-65-6)
STA 560+39 (B-65-6)
STA 706+06 (END PROJECT)

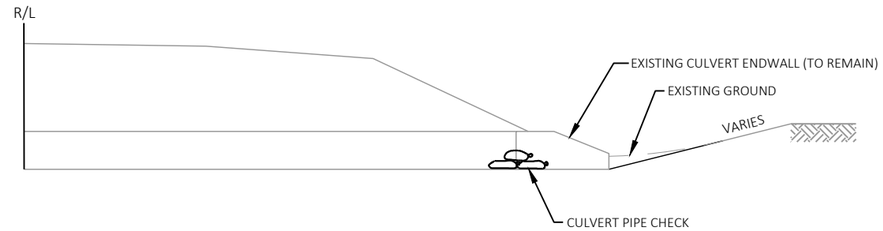
NOTE
MATCH OVERLAY AT STA 397+80 (BEGIN PROJECT) WITH ID 8550-02-72



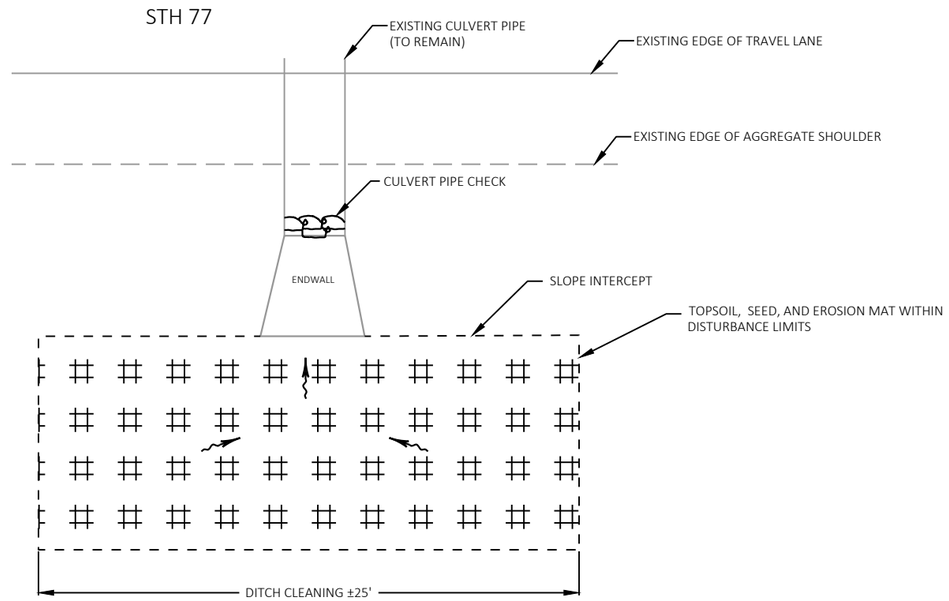
SIDE ROAD BUTT JOINT AND PROFILE MATCH DETAIL

STA 477+75, RT (HALL RD)
STA 655+82, LT (JOHN WAGGONER RD)
STA 702+06, RT (CTH M)

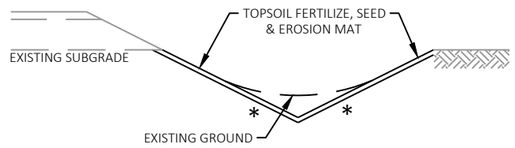
NOTE
TRANSITION PROFILE TO MATCH EXISTING BASE AGGREGATE SIDE ROADS WITH VARIABLE DEPTH MILLING AS SHOWN. PAYMENT FOR BUTT JOINTS WILL NOT BE PAID AT SIDE ROADS WITH BASE AGGREGATE SURFACE.



TYPICAL SECTION



PLAN VIEW

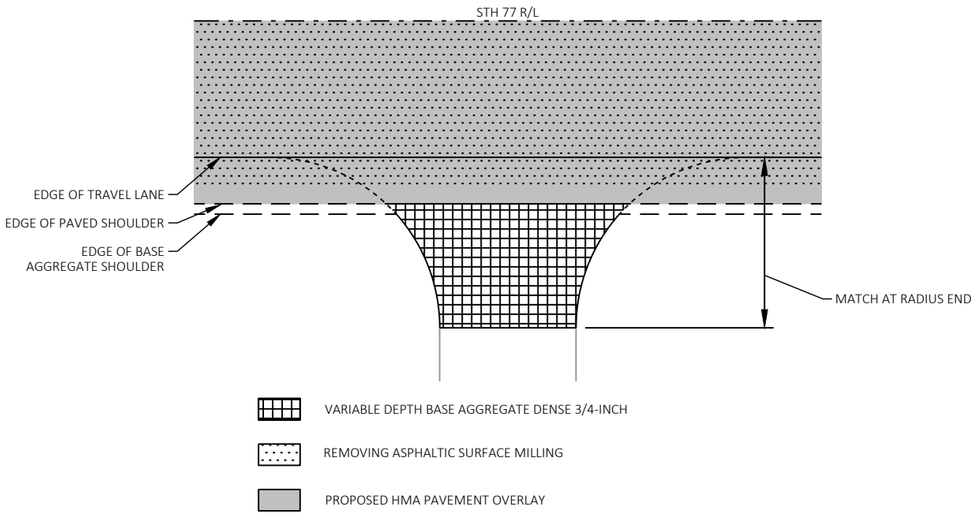


DITCH CLEANING DETAIL

EROSION CONTROL AT CULVERT DETAIL

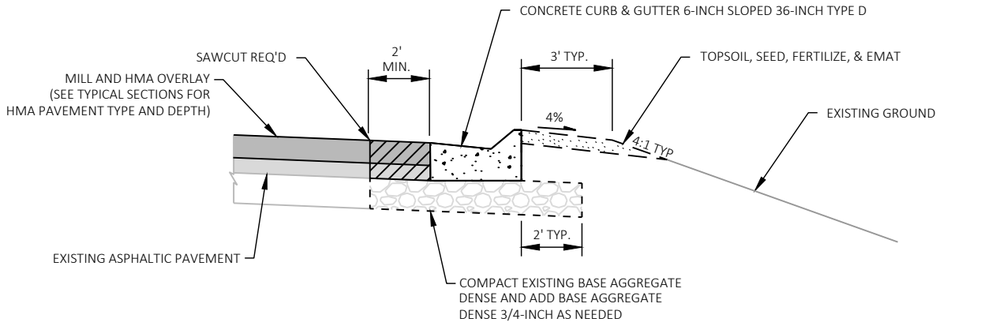
STA 483+26, RT

NOTES
* SLOPES VARY, 4:1 MAX
FLOW DIRECTION



UNPAVED DRIVEWAY DETAIL

SEE SECTION 5 PLAN SHEETS FOR LOCATIONS



DETAIL OF CURB & GUTTER INSTALLATION

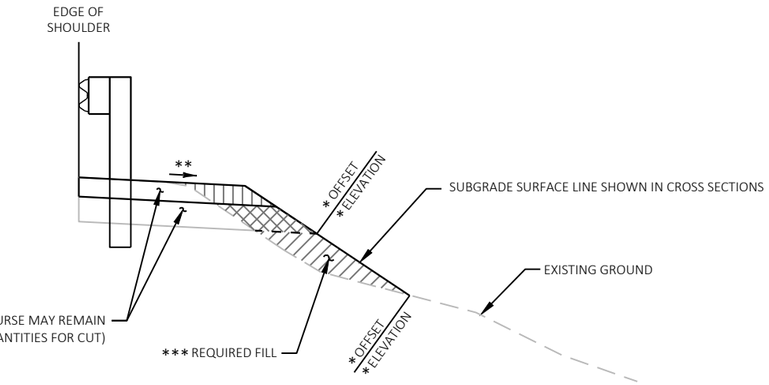
CTH M

NOTES

COMPLETE CURB & GUTTER REPLACEMENTS AND ASPHALTIC SURFACE PATCHING TO MATCH THE EXISTING SURFACE PRIOR TO THE MILL AND OVERLAY OF STH 77.

FOR DETAILS NOT SHOWN, SEE SDD "CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES".

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION.



SHOULDER WIDENING EARTHWORK & BASE AGGREGATE FOR GUARDRAIL DETAIL

SEE SECTION 5 PLAN SHEETS, CROSS SECTIONS, AND TYPICAL SECTIONS FOR LOCATIONS

NOTES

BENCH FILL AS REQUIRED PER STANDARD SPECIFICATION 205.3.2(4).

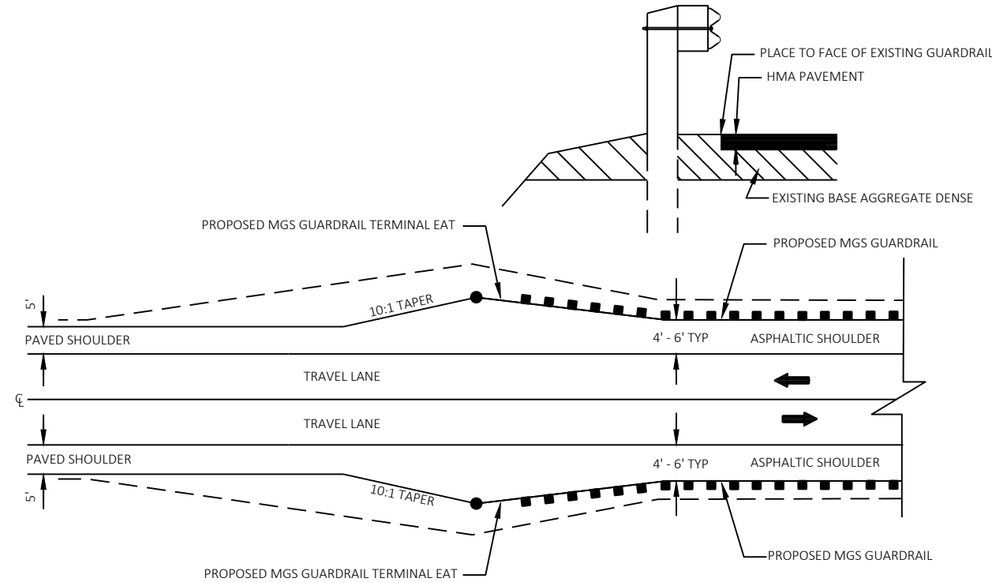
*OFFSET AND ELEVATION PROVIDED TO THESE POINTS ON THE CROSS SECTIONS.

**SHOULDER SLOPE PROVIDED ON CROSS SECTIONS.

***PAID FOR UNDER THE BARRIER SYSTEM GRADING SHAPING FINISHING ITEM.

LEGEND

- NEW BASE AGGREGATE DENSE 3/4-INCH
- NEW BASE AGGREGATE DENSE 1 1/4-INCH
- FILL

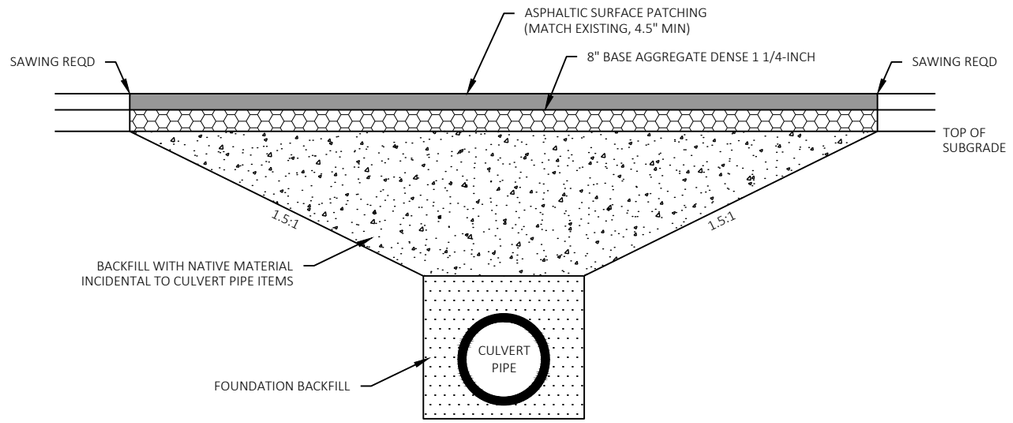


PAVED SHOULDER AT GUARDRAIL DETAIL

NOTE

SEE PLAN SHEETS AND SDD "MIDWEST GUARDRAIL SYSTEM (MGS) EAT" FOR ADDITIONAL INFORMATION.

2



CULVERT PIPE TRANSITION DETAIL

STA 619+17

NOTES

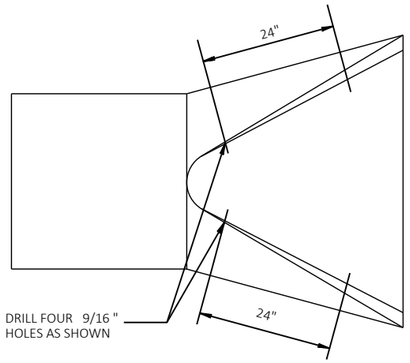
EXCAVATION FOR THE TRANSITION CUT IS INCIDENTAL TO THE CULVERT PIPE

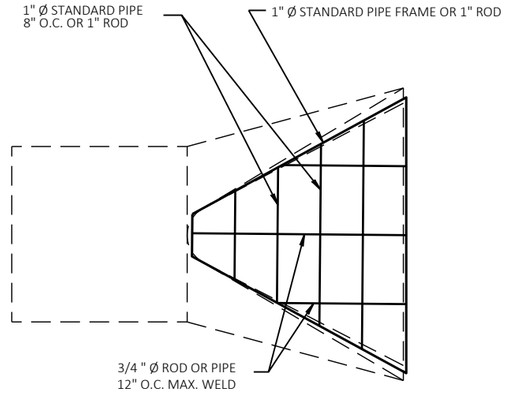
TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT

PERFORM CULVERT PIPE INSTALLATION BEFORE THE MILLING AND OVERLAY OPERATIONS

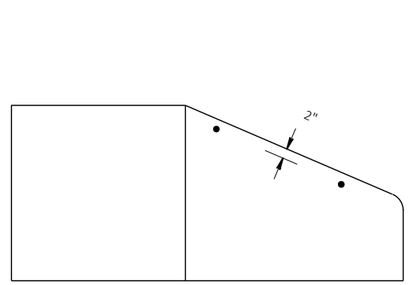
PLACE ASPHALTIC SURFACE PATCHING AFTER CULVERT PIPE INSTALLATION AND BEFORE THE MILLING AND OVERLAY OPERATIONS

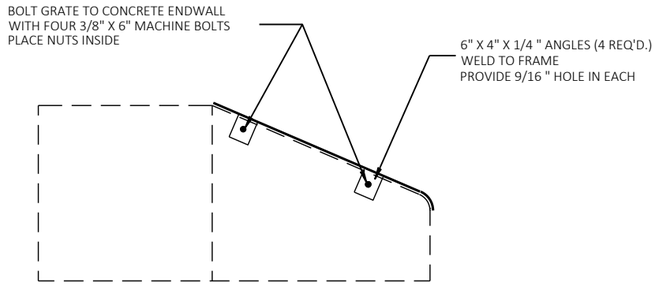
2

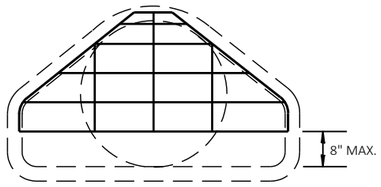




AT EACH PIPE







PIPE GRATE DETAIL

STA 619+17, LT

PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CONSTRUCTION DETAILS	SHEET 10	E

2

LEGEND

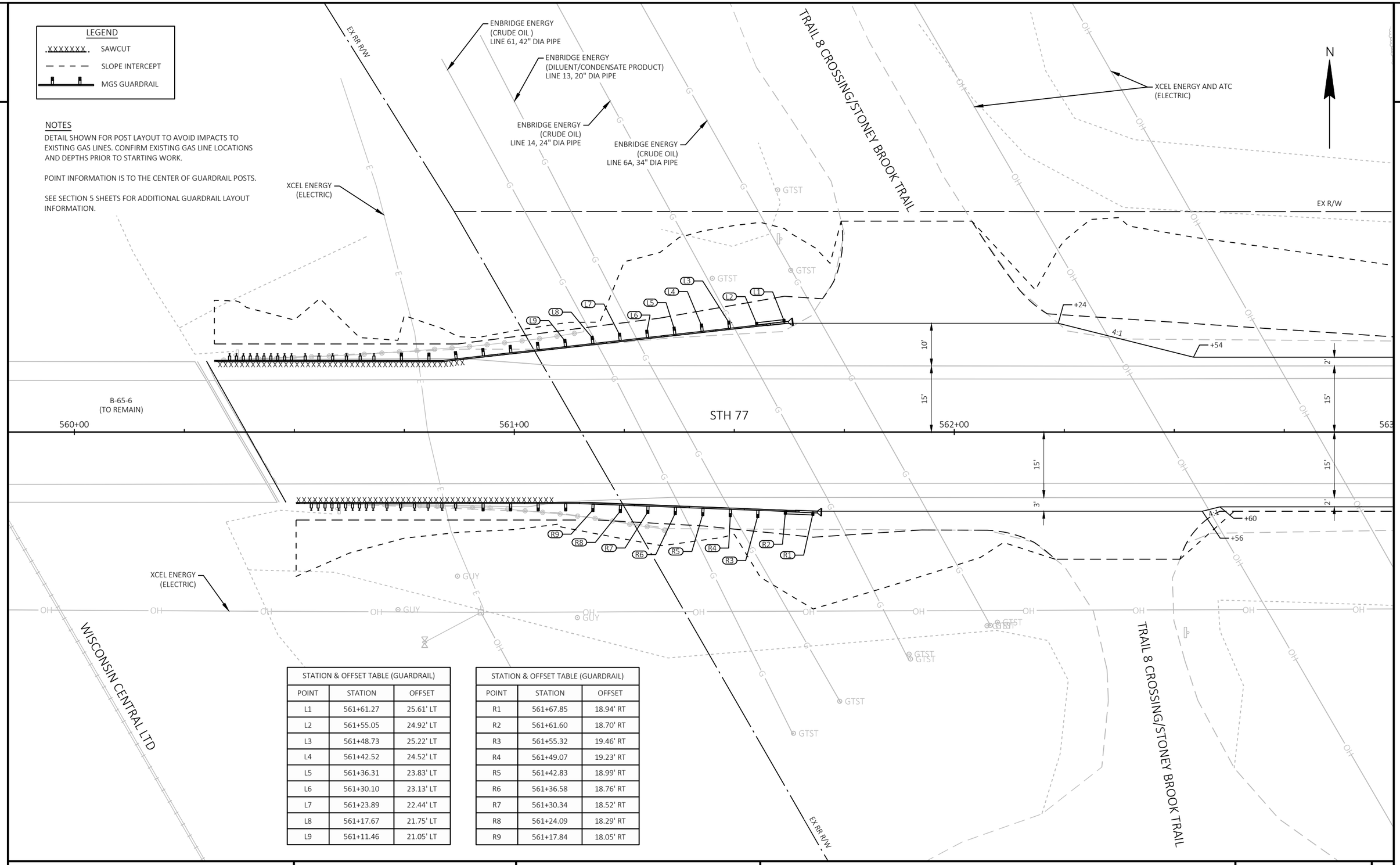
- XXXXXXX SAWCUT
- SLOPE INTERCEPT
- MGS GUARDRAIL

NOTES

DETAIL SHOWN FOR POST LAYOUT TO AVOID IMPACTS TO EXISTING GAS LINES. CONFIRM EXISTING GAS LINE LOCATIONS AND DEPTHS PRIOR TO STARTING WORK.

POINT INFORMATION IS TO THE CENTER OF GUARDRAIL POSTS.

SEE SECTION 5 SHEETS FOR ADDITIONAL GUARDRAIL LAYOUT INFORMATION.



STATION & OFFSET TABLE (GUARDRAIL)		
POINT	STATION	OFFSET
L1	561+61.27	25.61' LT
L2	561+55.05	24.92' LT
L3	561+48.73	25.22' LT
L4	561+42.52	24.52' LT
L5	561+36.31	23.83' LT
L6	561+30.10	23.13' LT
L7	561+23.89	22.44' LT
L8	561+17.67	21.75' LT
L9	561+11.46	21.05' LT

STATION & OFFSET TABLE (GUARDRAIL)		
POINT	STATION	OFFSET
R1	561+67.85	18.94' RT
R2	561+61.60	18.70' RT
R3	561+55.32	19.46' RT
R4	561+49.07	19.23' RT
R5	561+42.83	18.99' RT
R6	561+36.58	18.76' RT
R7	561+30.34	18.52' RT
R8	561+24.09	18.29' RT
R9	561+17.84	18.05' RT

PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CONSTRUCTION DETAIL - GUARDRAIL POST LOCATION OVER UTILITIES	SHEET 11	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 01
PLOT DATE : 4/22/2022 12:00 PM
PLOT BY : NICK MENNINGA
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

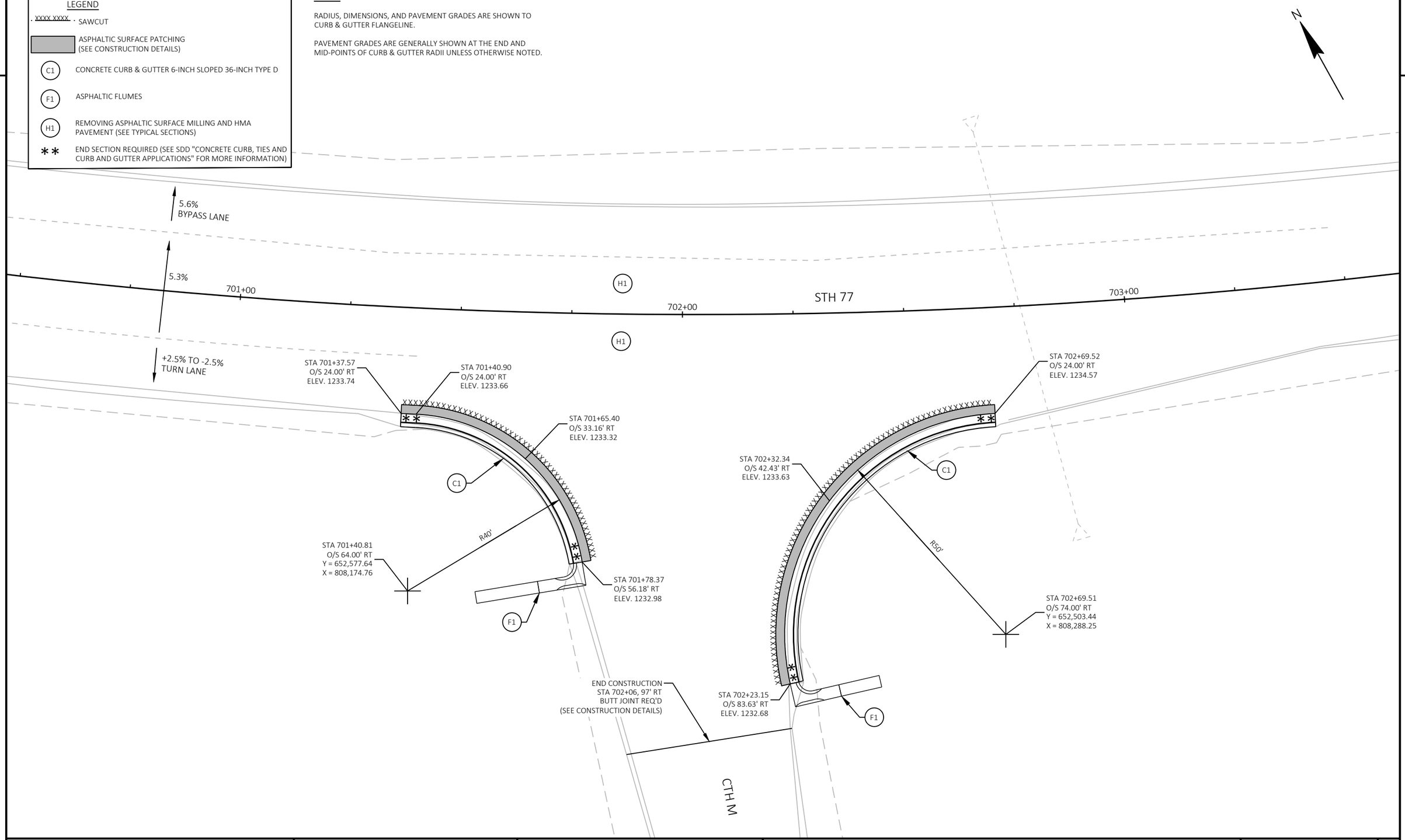
LEGEND

- XXXX XXXX · SAWCUT
- ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAILS)
- C1 — CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
- F1 — ASPHALTIC FLUMES
- H1 — REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT (SEE TYPICAL SECTIONS)
- ** — END SECTION REQUIRED (SEE SDD "CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS" FOR MORE INFORMATION)

NOTES

RADIUS, DIMENSIONS, AND PAVEMENT GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.



PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	INTERSECTION DETAIL	SHEET 12	E

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- SILT FENCE
- RIPRAP MEDIUM
- SLOPE INTERCEPT
- EROSION BALE REINFORCEMENT
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- PERMITTED WETLAND IMPACTS

NOTES

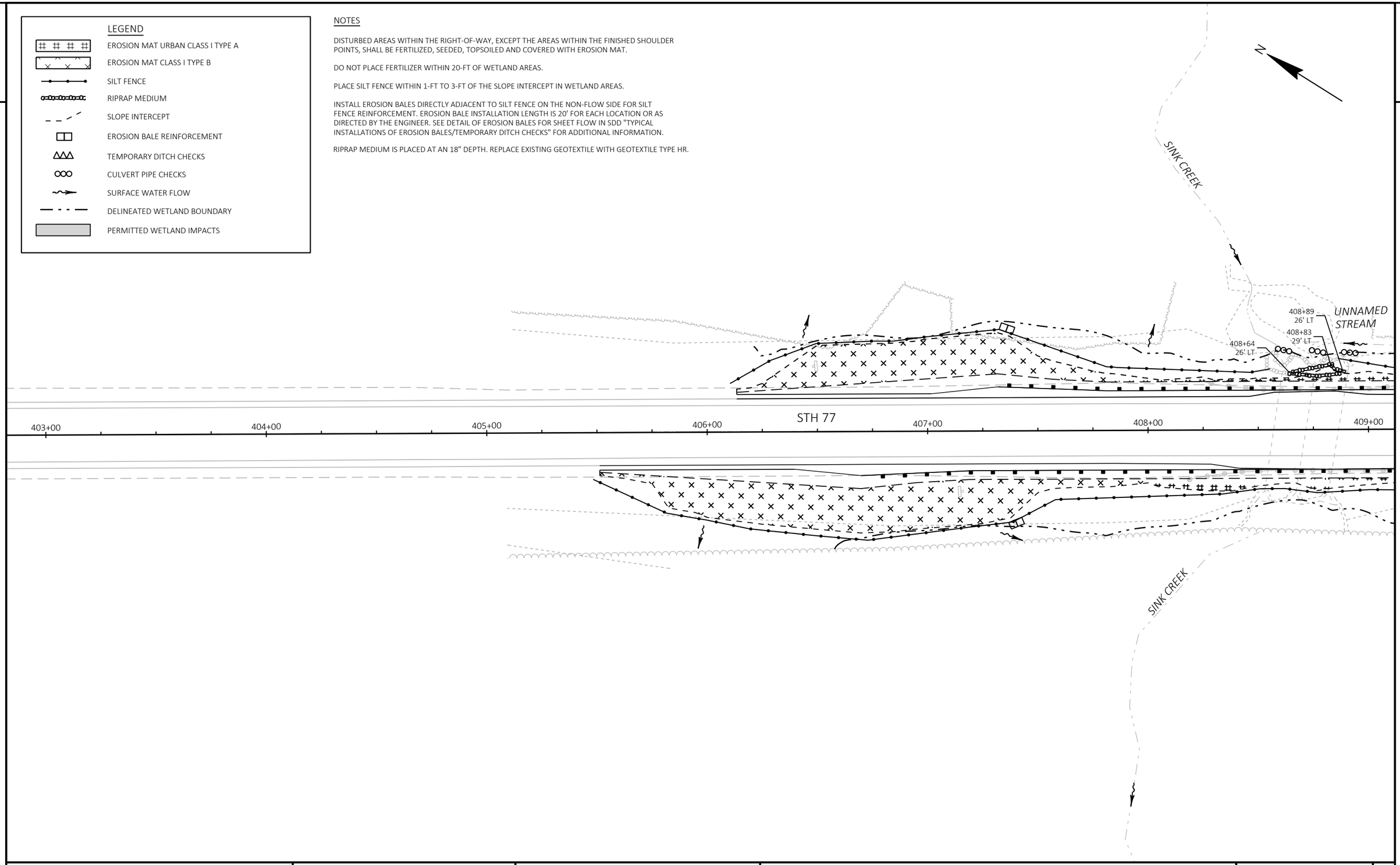
DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, TOPSOILED AND COVERED WITH EROSION MAT.

DO NOT PLACE FERTILIZER WITHIN 20-FT OF WETLAND AREAS.

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

INSTALL EROSION BALES DIRECTLY ADJACENT TO SILT FENCE ON THE NON-FLOW SIDE FOR SILT FENCE REINFORCEMENT. EROSION BALE INSTALLATION LENGTH IS 20' FOR EACH LOCATION OR AS DIRECTED BY THE ENGINEER. SEE DETAIL OF EROSION BALES FOR SHEET FLOW IN SDD "TYPICAL INSTALLATIONS OF EROSION BALES/TEMPORARY DITCH CHECKS" FOR ADDITIONAL INFORMATION.

RIPRAP MEDIUM IS PLACED AT AN 18" DEPTH. REPLACE EXISTING GEOTEXTILE WITH GEOTEXTILE TYPE HR.



2

PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	EROSION CONTROL	SHEET 13	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 4/22/2022 12:01 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- SILT FENCE
- RIPRAP MEDIUM
- SLOPE INTERCEPT
- EROSION BALE REINFORCEMENT
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- PERMITTED WETLAND IMPACTS

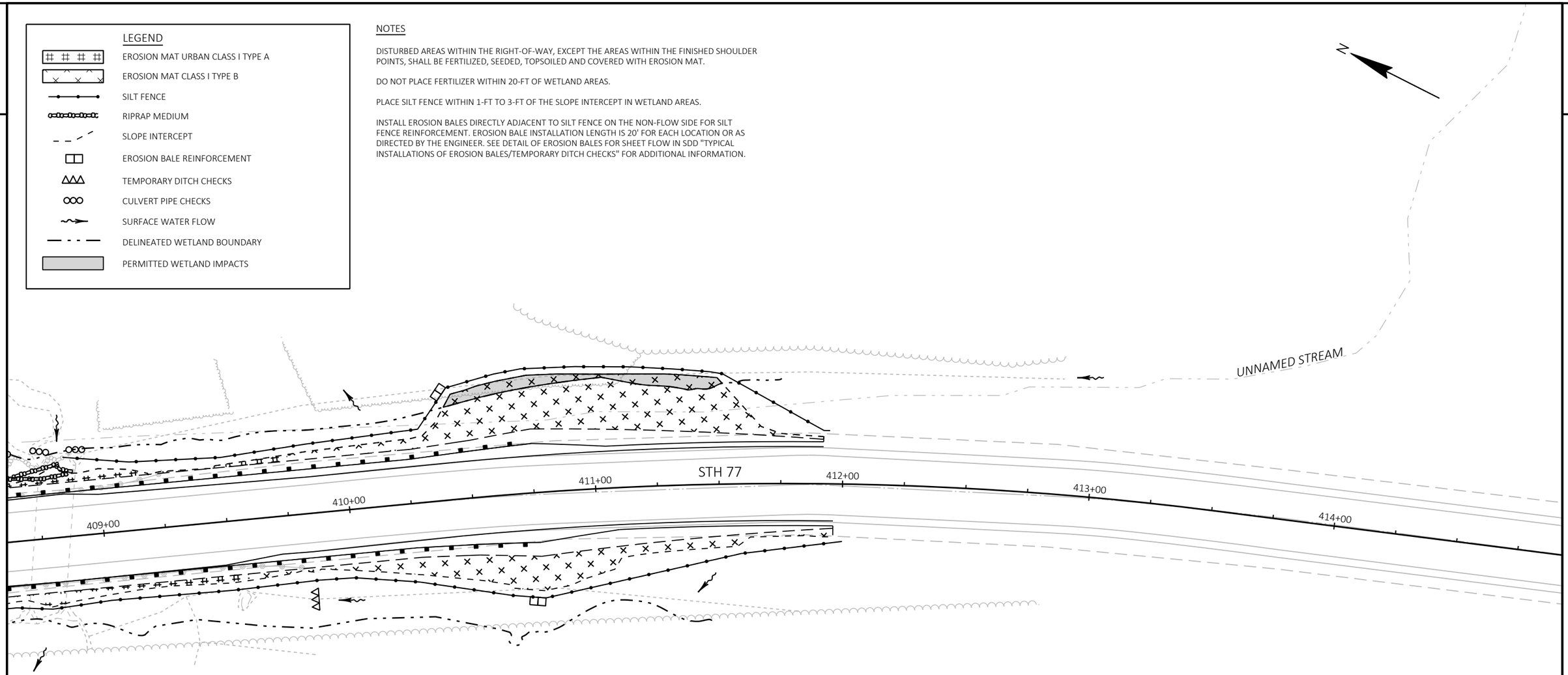
NOTES

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DO NOT PLACE FERTILIZER WITHIN 20-FT OF WETLAND AREAS.

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

INSTALL EROSION BALES DIRECTLY ADJACENT TO SILT FENCE ON THE NON-FLOW SIDE FOR SILT FENCE REINFORCEMENT. EROSION BALE INSTALLATION LENGTH IS 20' FOR EACH LOCATION OR AS DIRECTED BY THE ENGINEER. SEE DETAIL OF EROSION BALES FOR SHEET FLOW IN SDD "TYPICAL INSTALLATIONS OF EROSION BALES/TEMPORARY DITCH CHECKS" FOR ADDITIONAL INFORMATION.



2

PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	EROSION CONTROL	SHEET 14	E

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- SILT FENCE
- RIPRAP MEDIUM
- SLOPE INTERCEPT
- EROSION BALE REINFORCEMENT
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- PERMITTED WETLAND IMPACTS

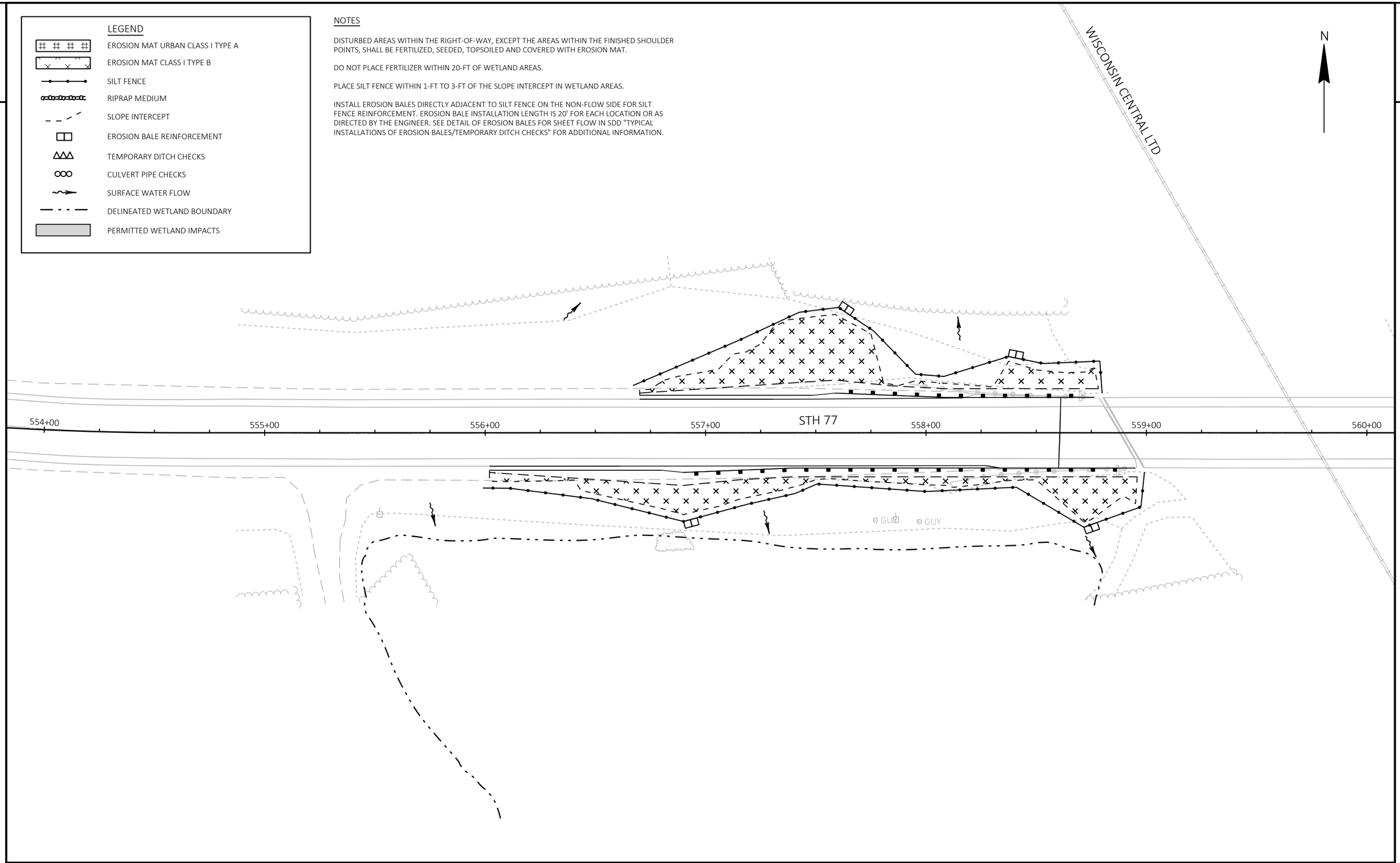
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PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

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2

PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	EROSION CONTROL	SHEET 15	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 03

PLOT DATE : 4/22/2022 12:01 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- SILT FENCE
- RIPRAP MEDIUM
- SLOPE INTERCEPT
- EROSION BALE REINFORCEMENT
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- PERMITTED WETLAND IMPACTS

NOTES

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DO NOT PLACE FERTILIZER WITHIN 20-FT OF WETLAND AREAS.

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

INSTALL EROSION BALES DIRECTLY ADJACENT TO SILT FENCE ON THE NON-FLOW SIDE FOR SILT FENCE REINFORCEMENT. EROSION BALE INSTALLATION LENGTH IS 20' FOR EACH LOCATION OR AS DIRECTED BY THE ENGINEER. SEE DETAIL OF EROSION BALES FOR SHEET FLOW IN SDD "TYPICAL INSTALLATIONS OF EROSION BALES/TEMPORARY DITCH CHECKS" FOR ADDITIONAL INFORMATION.

N

TRAIL 8 CROSSING/
STONEYBROOK TRAIL

GTST

STH 77

560+00 561+00 562+00 563+00 564+00 565+00

GUY

TRAIL 8 CROSSING/
STONEYBROOK TRAIL

WISCONSIN CENTRAL LTD

PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	EROSION CONTROL	SHEET 16	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 04

PLOT DATE : 4/22/2022 12:01 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- SILT FENCE
- RIPRAP MEDIUM
- SLOPE INTERCEPT
- EROSION BALE REINFORCEMENT
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- PERMITTED WETLAND IMPACTS

NOTES

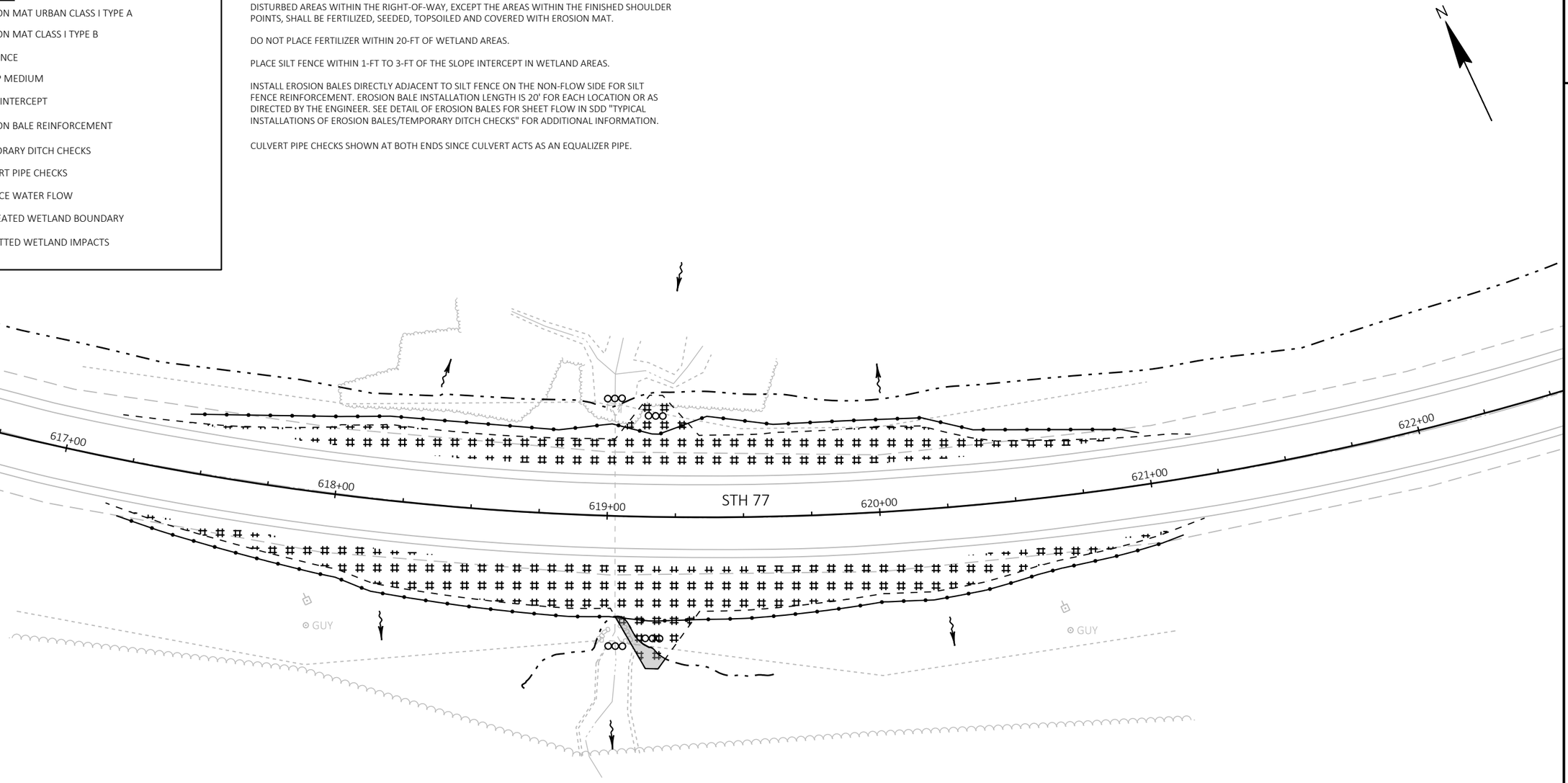
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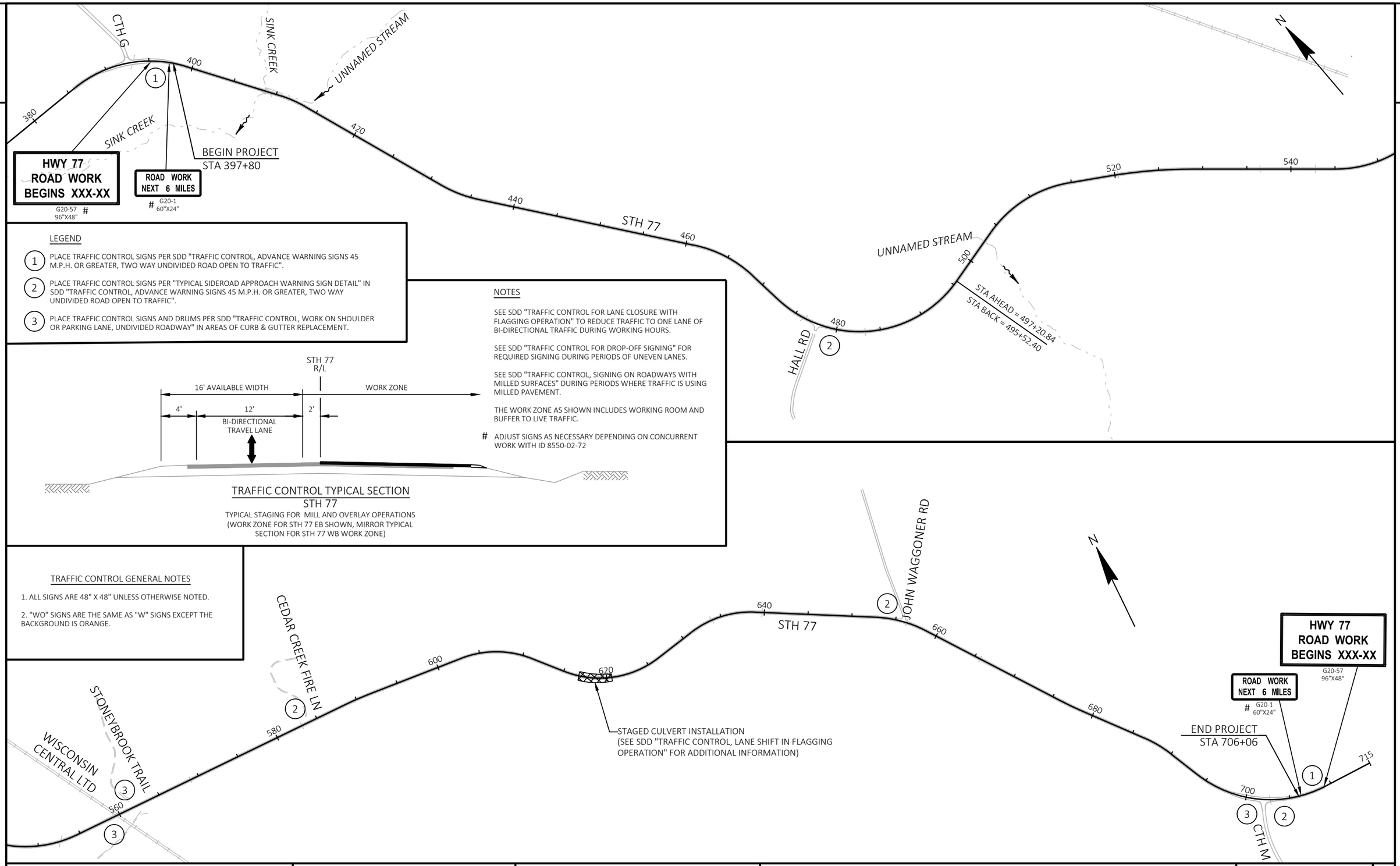
PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

INSTALL EROSION BALES DIRECTLY ADJACENT TO SILT FENCE ON THE NON-FLOW SIDE FOR SILT FENCE REINFORCEMENT. EROSION BALE INSTALLATION LENGTH IS 20' FOR EACH LOCATION OR AS DIRECTED BY THE ENGINEER. SEE DETAIL OF EROSION BALES FOR SHEET FLOW IN SDD "TYPICAL INSTALLATIONS OF EROSION BALES/TEMPORARY DITCH CHECKS" FOR ADDITIONAL INFORMATION.

CULVERT PIPE CHECKS SHOWN AT BOTH ENDS SINCE CULVERT ACTS AS AN EQUALIZER PIPE.



PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	EROSION CONTROL	SHEET 17	E



LEGEND

1. PLACE TRAFFIC CONTROL SIGNS PER SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".
2. PLACE TRAFFIC CONTROL SIGNS PER "TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL" IN SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".
3. PLACE TRAFFIC CONTROL SIGNS AND DRUMS PER SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" IN AREAS OF CURB & GUTTER REPLACEMENT.

NOTES

SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" TO REDUCE TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC DURING WORKING HOURS.

SEE SDD "TRAFFIC CONTROL FOR DROP-OFF SIGNING" FOR REQUIRED SIGNING DURING PERIODS OF UNEVEN LANES.

SEE SDD "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES" DURING PERIODS WHERE TRAFFIC IS USING MILLED PAVEMENT.

THE WORK ZONE AS SHOWN INCLUDES WORKING ROOM AND BUFFER TO LIVE TRAFFIC.

ADJUST SIGNS AS NECESSARY DEPENDING ON CONCURRENT WORK WITH ID 8550-02-72

TRAFFIC CONTROL TYPICAL SECTION
STH 77

TYPICAL STAGING FOR MILL AND OVERLAY OPERATIONS
(WORK ZONE FOR STH 77 EB SHOWN, MIRROR TYPICAL SECTION FOR STH 77 WB WORK ZONE)

TRAFFIC CONTROL GENERAL NOTES

1. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
2. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	TRAFFIC CONTROL OVERVIEW	SHEET 18	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\025001-TC.DWG
LAYOUT NAME - 01
PLOT DATE : 4/22/2022 12:01 PM
PLOT BY : NICK MENNINGA
PLOT NAME :
PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 44

8550-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	4.000	4.000
0004	201.0205	Grubbing	STA	4.000	4.000
0008	204.0110	Removing Asphaltic Surface	SY	33.000	33.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	30.000	30.000
0012	204.0120	Removing Asphaltic Surface Milling	SY	104,380.000	104,380.000
0014	204.0150	Removing Curb & Gutter	LF	145.000	145.000
0018	204.0165	Removing Guardrail	LF	610.000	610.000
0020	204.0180	Removing Delineators and Markers	EACH	36.000	36.000
0024	208.1500.S	Temporary Lane Shift During Culvert Work	EACH	2.000	2.000
0026	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 8550-00-70	LS	1.000	1.000
0030	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	612.000	612.000
0032	213.0100	Finishing Roadway (project) 01. 8550-00-70	EACH	1.000	1.000
0036	305.0110	Base Aggregate Dense 3/4-Inch	TON	860.000	860.000
0038	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	630.000	630.000
0044	455.0605	Tack Coat	GAL	13,170.000	13,170.000
0046	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	0.500	0.500
0048	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000	1.000
0050	460.2005	Incentive Density PWL HMA Pavement	DOL	14,810.000	14,810.000
0052	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	15,340.000	15,340.000
0054	460.2010	Incentive Air Voids HMA Pavement	DOL	21,370.000	21,370.000
0056	460.6645	HMA Pavement 5 MT 58-34 V	TON	21,370.000	21,370.000
0058	460.9000.S	Material Transfer Vehicle (project) 01. 8550-00-70	EACH	1.000	1.000
0062	465.0110	Asphaltic Surface Patching	TON	150.000	150.000
0066	465.0315	Asphaltic Flumes	SY	15.000	15.000
0068	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	59,500.000	59,500.000
0070	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	28,600.000	28,600.000
0078	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	66.000	66.000
0084	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0088	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	145.000	145.000
0098	606.0200	Riprap Medium	CY	3.000	3.000
0104	611.9800.S	Pipe Grates 01. 24-Inch	EACH	1.000	1.000
0106	614.0010	Barrier System Grading Shaping Finishing	EACH	6.000	6.000
0110	614.2300	MGS Guardrail 3	LF	512.500	512.500
0114	614.2340	MGS Guardrail 3 L	LF	225.000	225.000
0118	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
0120	614.2610	MGS Guardrail Terminal EAT	EACH	8.000	8.000
0124	618.0100	Maintenance And Repair of Haul Roads (project) 01. 8550-00-70	EACH	1.000	1.000
0128	619.1000	Mobilization	EACH	0.400	0.400
0132	624.0100	Water	MGAL	32.000	32.000
0134	625.0100	Topsoil	SY	1,600.000	1,600.000
0136	628.1104	Erosion Bales	EACH	90.000	90.000
0138	628.1504	Silt Fence	LF	3,850.000	3,850.000
0140	628.1520	Silt Fence Maintenance	LF	3,850.000	3,850.000
0142	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0144	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0146	628.2004	Erosion Mat Class I Type B	SY	440.000	440.000
0148	628.2006	Erosion Mat Urban Class I Type A	SY	1,060.000	1,060.000
0152	628.7504	Temporary Ditch Checks	LF	65.000	65.000
0154	628.7555	Culvert Pipe Checks	EACH	35.000	35.000

8550-00-70

Line	Item	Item Description	Unit	Total	Qty
0156	629.0210	Fertilizer Type B	CWT	0.500	0.500
0158	630.0130	Seeding Mixture No. 30	LB	30.000	30.000
0162	630.0500	Seed Water	MGAL	35.000	35.000
0164	633.5200	Markers Culvert End	EACH	38.000	38.000
0168	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	5.000	5.000
0172	638.2102	Moving Signs Type II	EACH	8.000	8.000
0176	638.3000	Removing Small Sign Supports	EACH	5.000	5.000
0178	638.4000	Moving Small Sign Supports	EACH	8.000	8.000
0180	642.5001	Field Office Type B	EACH	0.400	0.400
0182	643.0300	Traffic Control Drums	DAY	255.000	255.000
0190	643.0900	Traffic Control Signs	DAY	1,769.000	1,769.000
0192	643.1000	Traffic Control Signs Fixed Message	SF	64.000	64.000
0196	643.5000	Traffic Control	EACH	0.400	0.400
0204	645.0120	Geotextile Type HR	SY	14.000	14.000
0206	646.1020	Marking Line Epoxy 4-Inch	LF	50,940.000	50,940.000
0208	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	60,772.000	60,772.000
0210	646.3020	Marking Line Epoxy 8-Inch	LF	250.000	250.000
0216	646.6120	Marking Stop Line Epoxy 18-Inch	LF	26.000	26.000
0224	649.0105	Temporary Marking Line Paint 4-Inch	LF	98,290.000	98,290.000
0226	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	53,565.000	53,565.000
0228	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	145.000	145.000
0230	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0232	650.8000	Construction Staking Resurfacing Reference	LF	30,658.000	30,658.000
0236	650.9910	Construction Staking Supplemental Control (project) 01. 8550-00-70	LS	1.000	1.000
0240	690.0150	Sawing Asphalt	LF	460.000	460.000
0244	740.0440	Incentive IRI Ride	DOL	23,240.000	23,240.000
0246	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,400.000	2,400.000
0248	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	2,000.000	2,000.000
0250	SPV.0060	Special 01. Ditch Cleaning	EACH	1.000	1.000
0260	SPV.0090	Special 01. Concrete Curb & Gutter Cure and Seal Treatment	LF	145.000	145.000

3

CLEARING AND GRUBBING ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010						
	406+50	-	406+60	LT	1	1
	407+25	-	407+35	LT	1	1
	410+45	-	411+15	LT	2	2
TOTALS					4	4

REMOVAL ITEMS

CATEGORY	STATION	TO	STATION	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0150 REMOVING CURB & GUTTER LF	204.0180 REMOVING DELINEATORS AND MARKERS EACH
0010								
	397+80	-	500+00	--	--	34,430	--	10
	500+00	-	558+90	--	7	19,650	--	10
	560+37	-	600+00	--	8	13,230	--	4
	600+00	-	706+06	33	15	37,070	145	12
TOTALS				33	30	104,380	145	36

TEMPORARY LANE SHIFT DURING CULVERT WORK

CATEGORY	STATION	208.1500.S EACH
0010		
	619+17	2
TOTAL		2

BASE AGGREGATE ITEMS

CATEGORY	STATION	TO	STATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
0010					
	397+80	-	500+00	190	360
	500+00	-	558+70	80	100
	560+37	-	600+00	70	130
	600+00	-	706+06	520	40
TOTALS				860	630

ASPHALTIC ITEMS

CATEGORY	STATION	TO	STATION	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	455.0605 TACK COAT GAL	460.0105.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH	460.6645 HMA PAVEMENT 5 MT 58-34 V TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0315 ASPHALTIC FLUMES SY	465.0425 ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL LF	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL LF
0010												
	397+80	-	500+00	9	4,070	--	--	6,160	--	--	--	9,652
	500+00	-	558+90	3	2,360	--	--	3,580	--	--	--	5,836
	560+37	-	600+00	4	1,590	--	--	2,410	--	--	--	3,300
	600+00	-	706+06	--	4,450	--	--	6,740	35	15	--	9,812
	UNDISTRIBUTED			--	--	0.5	1	--	115	--	--	--
CAT 0010 TOTALS				16	12,470	0.5	1	18,890	150	15	--	28,600
0020												
	397+80	-	500+00	195	230	--	--	830	--	--	20,190	--
	500+00	-	558+90	115	130	--	--	470	--	--	11,470	--
	560+37	-	600+00	74	100	--	--	330	--	--	7,375	--
	600+00	-	706+06	212	240	--	--	850	--	--	20,465	--
CAT 0020 TOTALS				596	700	--	--	2,480	--	--	59,500	--
TOTALS				612	13,170	0.5	1	21,370	150	15	59,500	28,600

NOTES:
UNDISTRIBUTED ASPHALT SURFACE PATCHING QUANTITY USED FOR ANY REPAIRS REQUIRED AFTER MILLING IS COMPLETE.
HMA PWL TEST STRIP VOLUMETRICS AND HMA PWL TEST STRIP DENSITY ITEMS ARE SPLIT BETWEEN ID 8550-0070 AND ID 8550-02-72 FOR A TOTAL OF 1 TEST STRIP VOLUMETRICS AND 2 TEST STRIP DENSITIES ACROSS THE ENTIRE CONTRACT.

3

HMA ACCEPTANCE TABLE

LOCATION	STA	TO	STA	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 LANE	397+80 560+37	- -	558+90 706+06	UPPER LAYER	5 MT 58-34V	5 MT 58-34V	6,835	1 1/2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	397+80 560+37	- -	558+90 706+06	LOWER LAYER	MILLED EXISTING HMA SURFACE	5 MT 58-34V	7,975	1 3/4"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
SHOULDERS, SIDEROADS, BEAMGUARD WIDENINGS, BYPASS LANES, TURN LANES	VARIOUS			UPPER LAYER	5 MT 58-34V	5 MT 58-34V	1,885	1 1/2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
SHOULDERS, SIDEROADS, BEAMGUARD WIDENINGS, BYPASS LANES, TURN LANES	VARIOUS			LOWER LAYER	MILLED EXISTING HMA SURFACE	5 MT 58-34V	2,195	1 3/4"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
2-FT WIDENED SHOULDERS	VARIOUS			UPPER LAYER	5 MT 58-34V	5 MT 58-34V	1,145	1 1/2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
2-FT WIDENED SHOULDERS	VARIOUS			LOWER LAYER	BASE AGGREGATE	5 MT 58-34V	1,335	1 3/4"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
CURB & GUTTER REPLACEMENTS	VARIOUS			PATCHING AFTER REPLACEMENTS	BASE AGGREGATE	ASPHALTIC SURFACE PATCHING	10	4 1/2"	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION
CULVERT PIPE PATCHES	VARIOUS			PATCHING AFTER INSTALLATION	BASE AGGREGATE	ASPHALTIC SURFACE PATCHING	25	4 1/2"	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION
VARIOUS	VARIOUS			PATCHING AFTER MILLING	MILLED EXISTING HMA SURFACE	ASPHALTIC SURFACE PATCHING	115	VARIES	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION

CONCRETE CURB & GUTTER

CATEGORY	STATION	TO	STATION	OFFSET	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	SPV.0090.01 CONCRETE CURB & GUTTER CURE AND SEAL TREATMENT LF
0010						
	701+37	-	702+70	RT	145	145
TOTAL					145	145

RIPRAP ITEMS

CATEGORY	STATION	OFFSET	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY
0010				
	408+79	LT	3	14
TOTALS			3	14

CROSS DRAIN CULVERT PIPE ITEMS

CATEGORY	STATION	OFFSET	TO	STATION	OFFSET	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	611.9800.S.01 PIPE GRATES 24-INCH EACH	633.5200 MARKERS CULVERT END EACH	SPV.0060.01 DITCH CLEANING EACH	JOINT TIES EACH
0010														
	483+26	RT							--	--	--	--	1	--
	619+17	29.1' LT	-	619+17	36.9' RT	1186.69	1186.58	0.17%	66	2	1	2	--	20
		PROJECT							--	--	--	36	--	--
TOTALS									66	2	1	38	1	20

NOTES:
STATION OFFSETS SHOWN ARE TO THE END OF PIPE AT APRON ENDWALLS (NOT INCLUDING LENGTH OF ENDWALL)
JOINT TIES ARE NOT A PAY ITEM AND ARE LISTED FOR INFORMATION ONLY

BARRIER SYSTEM GRADING SHAPING FINISHING

CATEGORY	STATION	TO	STATION	OFFSET	614.0010 EACH	** EXCAVATION COMMON CY	** FILL CY	** BORROW CY	** TOPSOIL SY	** EROSION MAT CLASS I TYPE B SY	** EROSION MAT URBAN CLASS I TYPE A SY	** FERTILIZER TYPE B CWT	** SEEDING MIXTURE NO. 30 LB	** SEED WATER MGAL	** CONSTRUCTION STAKING SLOPE STAKES LF
0010															
	405+51	-	411+96	RT	1	84	95	11	610	540	60	0.2	11	14	645
	406+14	-	411+92	LT	1	63	107	44	640	600	40	--	12	14	--
	556+02	-	558+95	RT	1	61	19	--	200	200	--	0.1	4	5	293
	556+70	-	558+76	LT	1	41	37	--	270	270	--	0.2	5	6	--
	560+32	-	563+54	LT	1	38	124	86	360	360	--	0.2	6	8	322
	560+50	-	562+22	RT	1	45	33	--	130	130	--	0.1	2	3	--
TOTALS					6	332	416	141	2,210	2,100	100	0.8	40	50	1,260

**NON-BID ITEM, ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY. ITEMS INCIDENTAL TO BARRIER SYSTEM GRADING SHAPING FINISHING.

NOTE:
FILL IS EXPANDED BY A FACTOR OF 1.25

3

GUARDRAIL ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	204.0165 REMOVING GUARDRAIL LF	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
0010									
	406+70	-	410+76	RT	165	187.5	112.5	--	2
	407+32	-	410+75	LT	105	125.0	112.5	--	2
	556+90	-	558+95	RT	85	112.5	--	39.4	1
	557+59	-	558+76	LT	85	25.0	--	39.4	1
	560+32	-	561+61	LT	85	37.5	--	39.4	1
	560+50	-	561+68	RT	85	25.0	--	39.4	1
TOTALS					610	512.5	225	157.6	8

WATER

CATEGORY	LOCATION	624.0100 MGAL
0010		
	PROJECT	32
TOTAL		32

3

EROSION CONTROL ITEMS

CATEGORY	STATION	TO	STATION	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	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH
0010										
	405+50	-	412+00	32	1,270	1,270	--	--	15	18
	483+06	-	483+54	--	--	--	300	--	--	4
	556+00	-	558+90	16	540	540	--	--	--	--
	560+37	-	563+55	24	490	490	--	--	--	--
	617+25	-	621+05	--	780	780	--	850	--	4
	701+37	-	702+70	--	--	--	50	--	--	--
	UNDISTRIBUTED			18	770	770	90	210	50	9
TOTALS				90	3,850	3,850	440	1,060	65	35

EROSION CONTROL MOBILIZATION

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010			
	PROJECT	2	2
TOTALS		2	2

RESTORATION ITEMS

CATEGORY	STATION	TO	STATION	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0500 SEED WATER MGAL
0010							
	483+06	-	483+54	300	--	5	7
	617+25	-	621+05	850	0.3	15	19
	701+37	-	702+70	130	0.1	2	3
	UNDISTRIBUTED			320	0.1	8	7
TOTALS				1,600	0.5	30	35

REMOVING AND MOVING SIGNS

CATEGORY	STATION	OFFSET	SIGN NUMBER	SIGN MESSAGE	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH
0010								
	406+48	LT	W1-2L	ROAD CURVES LEFT	--	1	--	1
	407+15	RT	W1-2R	ROAD CURVES RIGHT	--	1	--	1
	561+61	LT	R1-1	STOP	--	1	--	1
	PROJECT				5	5	5	5
TOTALS					5	8	5	8

NOTE:
UNDISTRIBUTED QUANTITY INCLUDED FOR DAMAGED POSTS OR LOCATIONS IN WHICH SIGN HEIGHT ADJUSTMENTS REQUIRE A NEW POST

FIELD OFFICE

CATEGORY	LOCATION	642.5001 FIELD OFFICE TYPE B EACH
0010		
	PROJECT	0.4
TOTAL		0.4

TRAFFIC CONTROL ITEMS

CATEGORY	WORK OPERATION	WORK DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS NO.	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 TRAFFIC CONTROL SIGNS DAY
0010						
	PROJECT - ADVANCED WARNING	115	--	--	14	1,610
	CULVERT REPLACEMENT	4	34	136	--	--
	GUARDRAIL REPLACEMENT	7	17	119	1	7
	MILL AND OVERLAY	19	--	--	8	152
TOTALS				255		1,769

3

TRAFFIC CONTROL SIGNS FIXED MESSAGE

CATEGORY	LOCATION	SIGN SIZE W X H IN X IN	643.1000 SF	SIGN MESSAGE
0010				
	WEST PROJECT LIMIT	96" X 48"	32.00	HWY 77 / ROAD WORK / BEGINS XX-XX
	EAST PROJECT LIMIT	96" X 48"	32.00	HWY 77 / ROAD WORK / BEGINS XX-XX
TOTAL			64.00	

TEMPORARY PAVEMENT MARKING ITEMS

CATEGORY	LOCATION	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH 4' LINE 46' SKIP YELLOW LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH SOLID YELLOW LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH SOLID YELLOW LF
0010						
	PROJECT	1,680	96,610	2,625	2,630	48,310
TOTALS		98,290			53,565	

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	OFFSET	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF
0010							
	397+80	-	706+06	LT&RT	--	--	30,658
	619+17			LT&RT	--	1	--
	701+37	-	702+70	RT	145	--	--
TOTALS					145	1	30,658

LONG LINE PAVEMENT MARKING ITEMS

CATEGORY	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH SOLID YELLOW LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH 3' LINE 9' SKIP WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH SOLID WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH 3' LINE 9' SKIP WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH SOLID WHITE LF	646.6120 MARKING STOP LINE EPOXY 18-INCH SOLID WHITE LF
0010									
	STA 697+95 - STA 699+37, RT	--	--	--	--	--	40	--	--
	STA 699+37 - STA 701+40, RT	--	--	--	--	--	--	210	--
	STA 700+32 - STA 703+47, LT	--	--	--	88	--	--	--	--
	STA 701+40 - STA 703+43, RT	--	--	54	--	--	--	--	26
	PROJECT	2,630	48,310	--	--	60,630	--	--	--
TOTALS		50,940			60,772		250		26

SAWING

CATEGORY	STATION	TO	STATION	OFFSET	690.0150 SAWING ASPHALT LF	COMMENTS
0010						
	558+17	-	558+77	LT	60	SHOULDER
	558+34	-	558+95	RT	60	SHOULDER
	560+32	-	560+89	LT	60	SHOULDER
	560+50	-	561+09	RT	60	SHOULDER
	618+64	-	619+70	LT&RT	60	CULVERT REPLACEMENT
	701+37	-	701+81	RT	65	CURB & GUTTER REPLACEMENT
	702+20	-	702+69	RT	95	CURB & GUTTER REPLACEMENT
TOTAL					460	

LEGEND

DELINEATED WETLAND BOUNDARY

SLOPE INTERCEPT

X CLEARING AND GRUBBING

EX R/W

CTH G

WASHBURN CO CFL

PC: 385+91.44

385

390

395

400

405

410

415

420

425

430

435

440

445

CURVE 1

CURVE 2

CURVE 3

PT: 399+20.81

BEGIN PROJECT
STA 397+80
Y=667,928.57
X=785,781.36
(MATCH ID 8550-02-72 OVERLAY)

NGS

CP/BM #500
Y = 667,796.53
X = 785,820.90
ELEV = 1,141.86
NGS BRASS CAP IN CONC DN3610
(DO NOT DISTURB)

S88° 50' 42"E

Y = 668,442.14
X = 784,659.73

S32° 20' 50"E

S19° 36' 41"E

S37° 32' 34"E

STH 77

T 42 N
R 11 W
22 23
27 26

(SEE PROJECT 8550-02-72)

CURVE NO. 1
PI STA = 393+15.79
Y = 668425.70
X = 785475.21
PC STA = 385+91.44
Y=668440.30
X=784751.01
PT STA = 399+20.81
Y=667813.76
X=785862.77
DELTA = 56°29'52"
D = 4°15'00"
T = 724.35'
L = 1329.37'
R = 1348.14'
EXISTING SE = 5.75%
PROPOSED SE = 5.80%
SE TRANSITION (T) = 199'
RO (RUNOFF) = 148'

STATION & OFFSET TABLE (GUARDRAIL)			
POINT	STATION	OFFSET	REMARKS
A	406+13.47	18.00' LT	AGG SHLDR TAPER
B	407+01.91	17.00' LT	PAVED SHLDR TAPER
C	407+31.91	20.00' LT	POST #1
D	407+81.91	18.00' LT	POST #9
E	410+25.66	18.00' LT	POST #9
F	410+75.28	20.00' LT	POST #1
G	411+04.85	17.00' LT	PAVED SHLDR TAPER
H	411+92.19	18.00' LT	AGG SHLDR TAPER

STATION & OFFSET TABLE (GUARDRAIL)			
POINT	STATION	OFFSET	REMARKS
I	405+51.22	18.00' RT	AGG SHLDR TAPER
J	406+39.66	17.00' RT	PAVED SHLDR TAPER
K	406+69.66	20.00' RT	POST #1
L	407+19.66	18.00' RT	POST #9
M	410+25.91	18.00' RT	POST #9
N	410+76.37	20.00' RT	POST #1
O	411+08.89	17.00' RT	PAVED SHLDR TAPER
P	411+96.32	18.00' RT	AGG SHLDR TAPER

CURVE NO. 2
PI STA = 411+98.41
Y = 666734.41
X = 786546.35
PC STA = 410+44.95
Y=666864.05
X=786464.25
PT STA = 413+50.59
Y=666589.86
X=786597.85
DELTA = 12°44'09"
D = 4°10'01"
T = 153.45'
L = 305.64'
R = 1375.00'
EXISTING SE = 5.50%
PROPOSED SE = 5.80%
SE TRANSITION (T) = 199'
RO (RUNOFF) = 148'

MOVE

MOVE

SINK CREEK

PC: 410+44.95

PT: 413+50.59

STA 408+23 - STA 409+26, LT
REMOVING GUARDRAIL

STA 407+32 - STA 410+75, LT
MGS GUARDRAIL 3
MGS GUARDRAIL 3 L
MGS GUARDRAIL TERMINAL EAT

STA 408+18 - STA 409+83, RT
REMOVING GUARDRAIL

STA 406+70 - STA 410+76, RT
MGS GUARDRAIL 3
MGS GUARDRAIL 3 L
MGS GUARDRAIL TERMINAL EAT

STA 408+72, LT&RT
EXISTING 3-34X53" RCCP TO REMAIN
9° SKEW LHF
MARKERS FOR CULVERT END REQ'D

UNNAMED STREAM

STA 422+50, LT
BASE AGG
FE

STA 429+08, LT&RT
EXISTING 24" RCCP TO REMAIN
MARKERS FOR CULVERT END REQ'D

CURVE NO. 3
PI STA = 433+66.90
Y = 664690.52
X = 787274.61
PC STA = 431+46.02
Y=664898.58
X=787200.47
PT STA = 435+84.17
Y=664515.38
X=787409.20
DELTA = 17°55'53"
D = 4°05'33"
T = 220.88'
L = 438.15'
R = 1400.00'
EXISTING SE = 6.00%
PROPOSED SE = 6.00%
SE TRANSITION (T) = 213'
RO (RUNOFF) = 160'

PC: 431+46.02

PT: 435+84.17

STA 441+01, RT
BASE AGG
FE

STA 444+91, LT
BASE AGG
FE

STA 444+94, RT
BASE AGG
FE

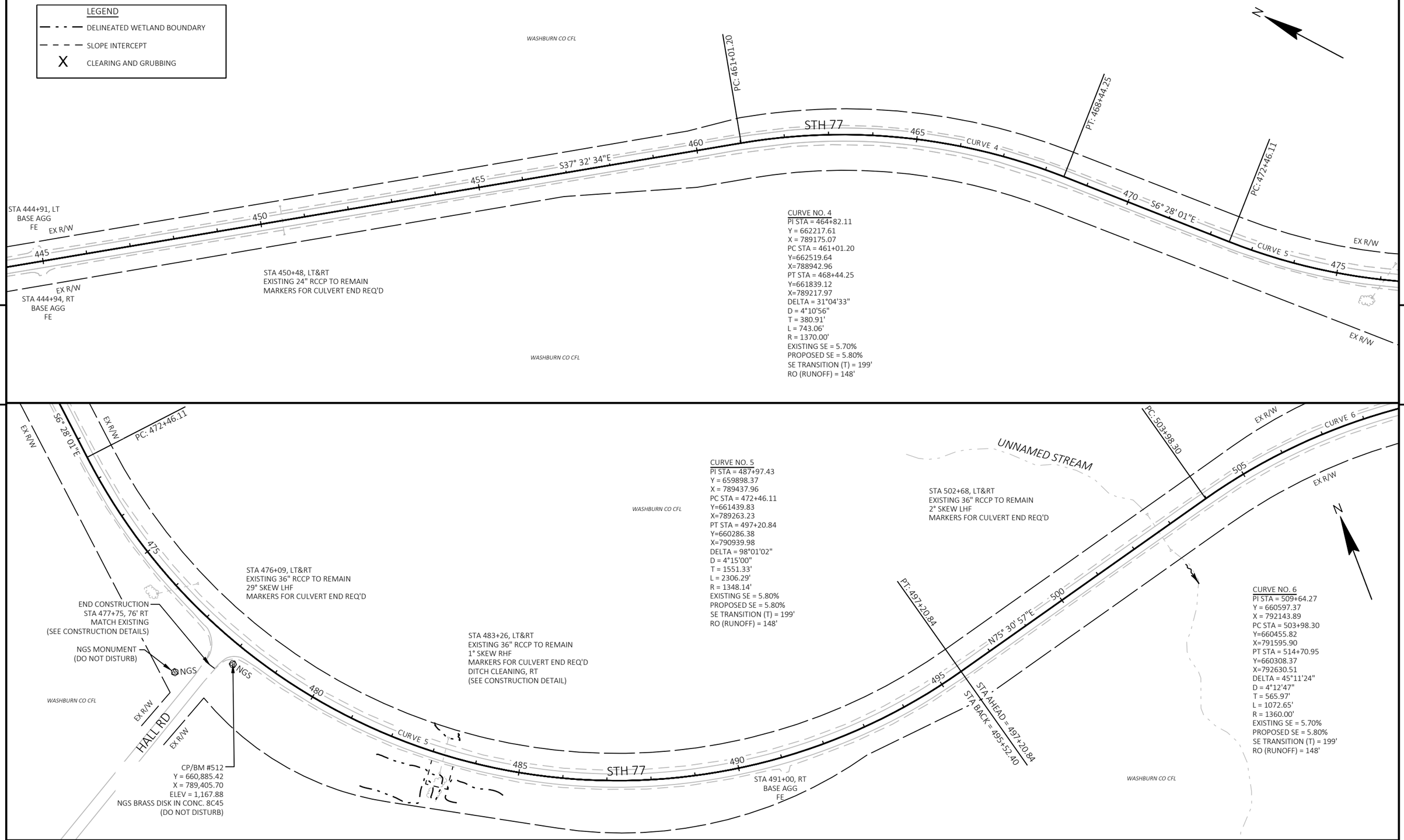
CP/BM #511
Y = 664,791.47
X = 787,192.80
ELEV = 1,147.61
NGS BRASS DISK IN PLASTIC SLEEVE
(DO NOT DISTURB)

PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 25	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 01

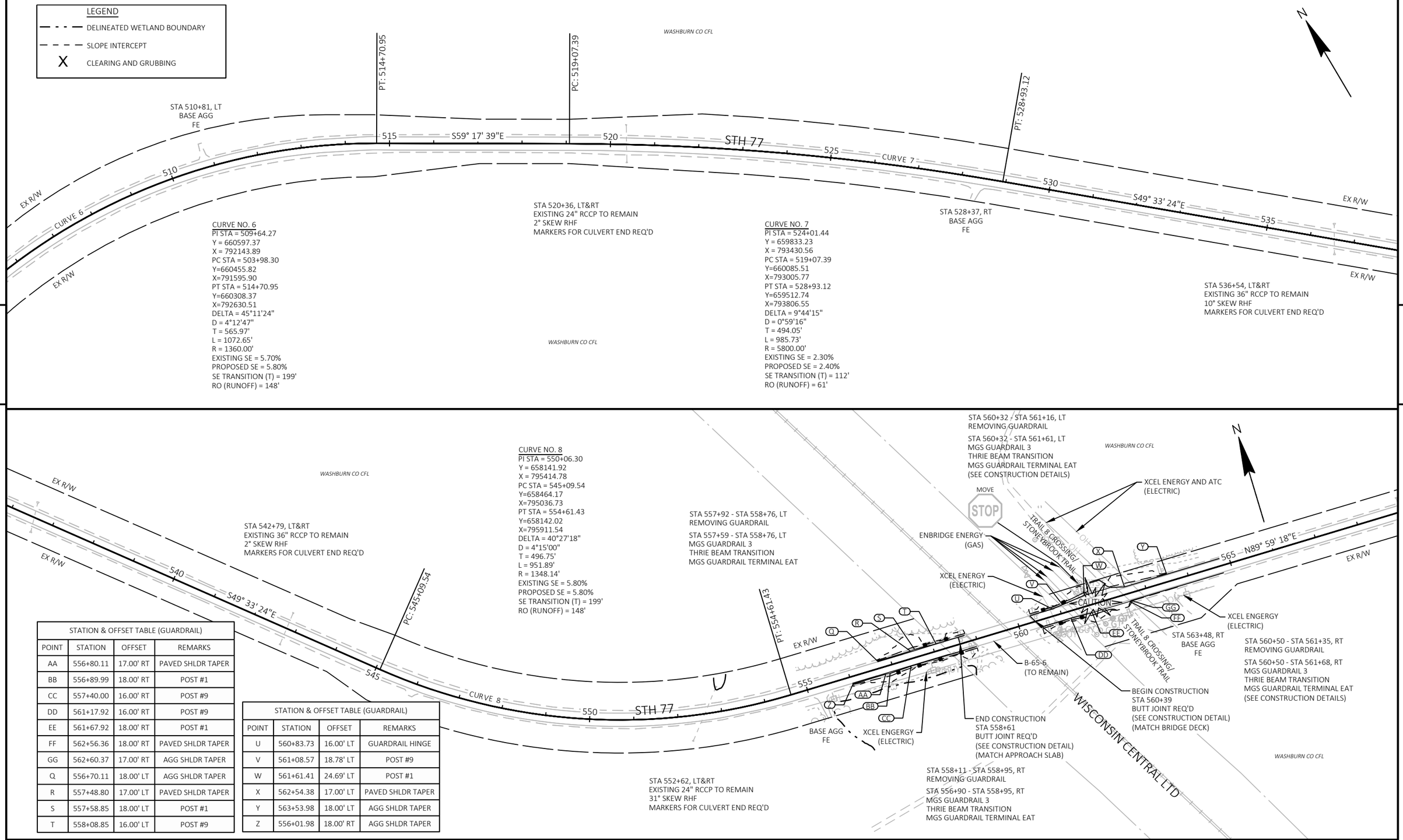
PLOT DATE : 4/22/2022 12:02 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 26	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 02
PLOT DATE : 4/22/2022 12:02 PM
PLOT BY : NICK MENNINGA
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44



STATION & OFFSET TABLE (GUARDRAIL)			
POINT	STATION	OFFSET	REMARKS
AA	556+80.11	17.00' RT	PAVED SHLDR TAPER
BB	556+89.99	18.00' RT	POST #1
CC	557+40.00	16.00' RT	POST #9
DD	561+17.92	16.00' RT	POST #9
EE	561+67.92	18.00' RT	POST #1
FF	562+56.36	18.00' RT	PAVED SHLDR TAPER
GG	562+60.37	17.00' RT	AGG SHLDR TAPER
Q	556+70.11	18.00' LT	AGG SHLDR TAPER
R	557+48.80	17.00' LT	PAVED SHLDR TAPER
S	557+58.85	18.00' LT	POST #1
T	558+08.85	16.00' LT	POST #9

STATION & OFFSET TABLE (GUARDRAIL)			
POINT	STATION	OFFSET	REMARKS
U	560+83.73	16.00' LT	GUARDRAIL HINGE
V	561+08.57	18.78' LT	POST #9
W	561+61.41	24.69' LT	POST #1
X	562+54.38	17.00' LT	PAVED SHLDR TAPER
Y	563+53.98	18.00' LT	AGG SHLDR TAPER
Z	556+01.98	18.00' RT	AGG SHLDR TAPER

PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 27	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 03

PLOT DATE : 4/22/2022 12:02 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

LEGEND

DELINEATED WETLAND BOUNDARY

SLOPE INTERCEPT

X CLEARING AND GRUBBING

N

WASHBURN CO CFL

CEDAR CREEK FIRE LN

CP/BM #510
Y = 658,189.11
X = 798,865.67
ELEV = 1,194.49
NGS ALUM. CAP IN CONC.
(DO NOT DISTURB)

PC: 588+61.16

PT: 591+67.90

EX R/W

570 575 580 STH 77 585 N89° 59' 18"E CURVE 9 590 S85° 23' 12"E 595

EX R/W

EX R/W

STA 569+01, LT&RT
EXISTING 24" RCCP TO REMAIN
MARKERS FOR CULVERT END REQ'D

STA 583+12, LT&RT
EXISTING 36" RCCP TO REMAIN
3° SKEW RHF
MARKERS FOR CULVERT END REQ'D

WASHBURN CO CFL

CURVE NO. 9
PI STA = 590+14.61
Y = 658142.75
X = 799464.72
PC STA = 588+61.16
Y=658142.72
X=799311.27
PT STA = 591+67.90
Y=658130.41
X=799617.67
DELTA = 4°37'30"
D = 1°30'28"
T = 153.45'
L = 306.74'
R = 3800.00'
EXISTING SE = 3.20%
PROPOSED SE = 3.30%
SE TRANSITION (T) = 135'
RO (RUNOFF) = 84'

5 5

WASHBURN CO CFL

PC: 602+84.58

STA 604+41, LT
BASE AGG
FE

EX R/W

600 S85° 23' 12"E 605 CURVE 10 610

PT: 611+06.71

EX R/W

615 S42° 33' 51"E PC: 615+07.37 STH 77 620 CURVE 11 625 N78° 02' 21"E 630

PT: 626+38.74

EX R/W

EX R/W

BASE AGG
FE

NGS

CURVE NO. 10
PI STA = 607+15.91
Y = 658005.90
X = 801160.68
PC STA = 602+84.58
Y=658040.59
X=800730.74
PT STA = 611+06.71
Y=657688.21
X=801452.44
DELTA = 42°49'22"
D = 5°12'31"
T = 431.34'
L = 822.14'
R = 1100.00'
EXISTING SE = 6.00%
PROPOSED SE = 6.00%
SE TRANSITION (T) = 204'
RO (RUNOFF) = 153'

T 42 N R 10 W
31 32
6 5
T 41 N R 10 W

(DO NOT DISTURB)

STA 619+03, LT&RT
EXISTING 24" RCCP TO REMAIN
2° SKEW RHF
MARKERS FOR CULVERT END REQ'D

CURVE NO. 11
PI STA = 621+29.83
Y = 656934.66
X = 802144.49
PC STA = 615+07.37
Y=657393.12
X=801723.45
PT STA = 626+38.74
Y=657063.66
X=802753.43
DELTA = 59°23'48"
D = 5°15'00"
T = 622.45'
L = 1131.37'
R = 1091.35'
EXISTING SE = 6.00%
PROPOSED SE = 6.00%
SE TRANSITION (T) = 204'
RO (RUNOFF) = 153'

XCEL ENGERGY
(ELECTRIC)

STA 619+17, LT&RT
PROPOSED 24" CPRC
APRON ENDWALLS FOR CULVERT PIPE
REINFORCED CONCRETE 24-INCH REQ'D
PIPE GRATE REQ'D, LT
MARKERS FOR CULVERT END REQ'D

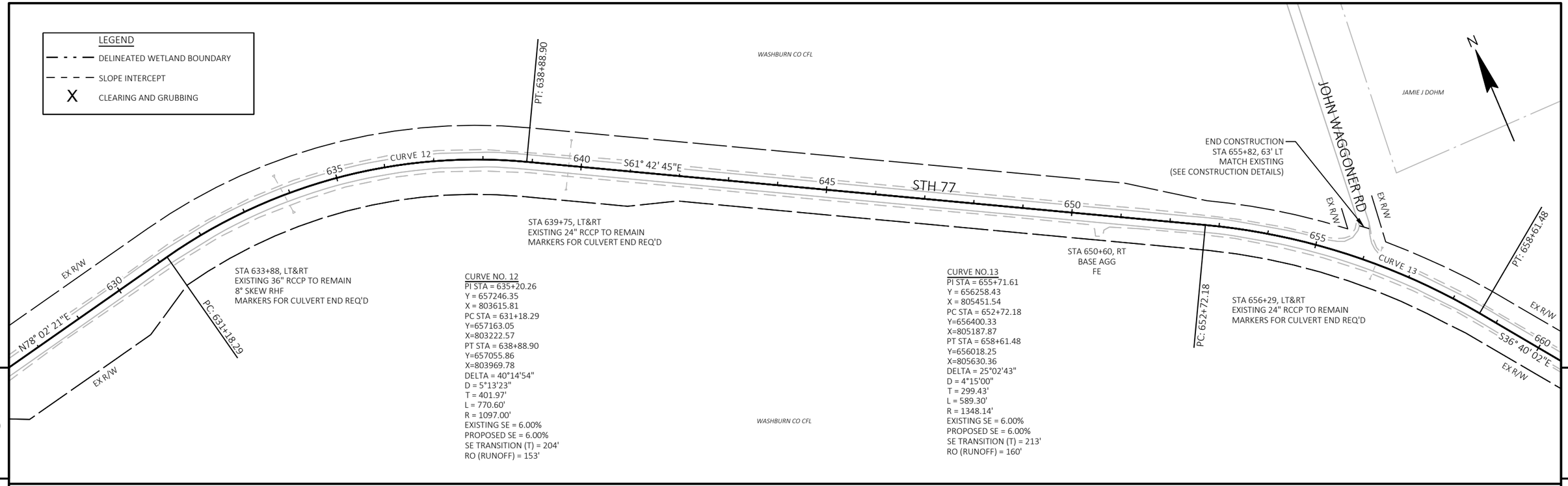
CP/BM #514
Y = 657,024.00
X = 802,780.03
ELEV = 1,196.33
NGS BRASS DISK IN PLASTIC SLEEVE
(DO NOT DISTURB)

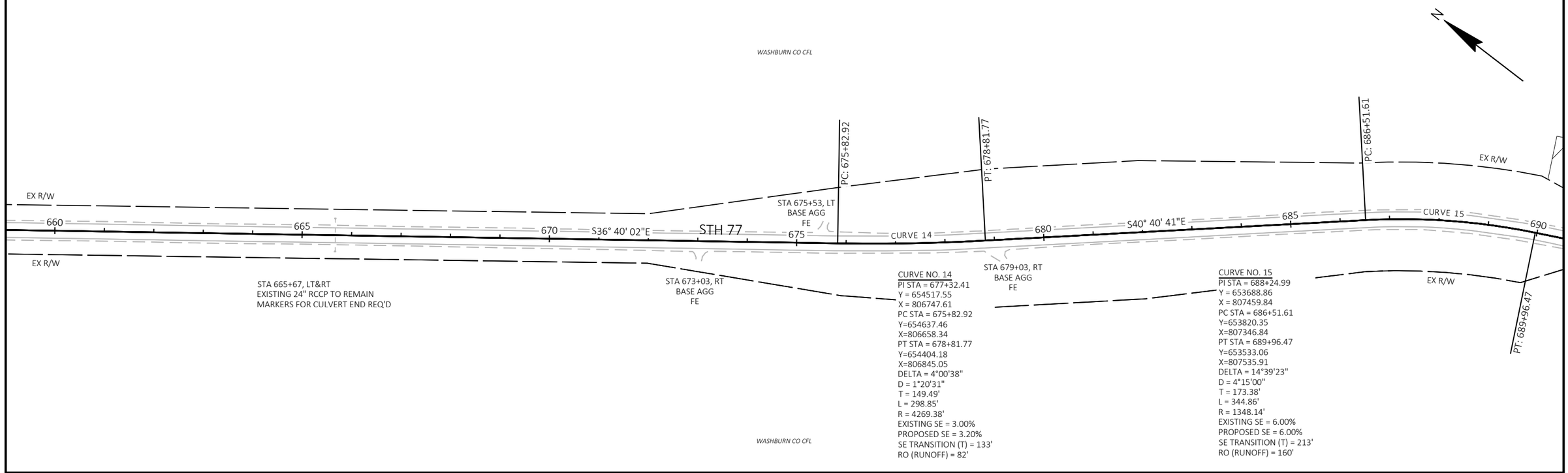
WASHBURN CO CFL

PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 28	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 04

PLOT DATE : 4/22/2022 12:02 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:200 FT





PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 29	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 05

PLOT DATE : 4/22/2022 12:02 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:200 FT

LEGEND

DELINEATED WETLAND BOUNDARY

SLOPE INTERCEPT

X CLEARING AND GRUBBING

WASHBURN CO CFL

CURVE NO. 16
PI STA = 702+52.23
Y = 652404.60
X = 808086.82
PC STA = 693+79.06
Y=653189.25
X=807703.75
PT STA = 709+29.53
Y=652431.30
X=808959.58
DELTA = 65°43'50"
D = 4°14'22"
T = 873.16'
L = 1550.46'
R = 1351.50'
EXISTING SE = 5.00%
PROPOSED SE = 5.30%
SE TRANSITION (T) = 175'
RO (RUNOFF) = 127'

CURVE NO. 15
PI STA = 688+24.99
Y = 653688.86
X = 807459.84
PC STA = 686+51.61
Y=653820.35
X=807346.84
PT STA = 689+96.47
Y=653533.06
X=807535.91
DELTA = 14°39'23"
D = 4°15'00"
T = 173.38'
L = 344.86'
R = 1348.14'
EXISTING SE = 6.00%
PROPOSED SE = 6.00%
SE TRANSITION (T) = 213'
RO (RUNOFF) = 160'

PC: 686+51.61
PT: 689+96.47
PC: 693+79.06
PT: 709+29.53
EP: 715+00.00
685
690
695
700
705
710
715
S40° 40' 41"E
S26° 01' 18"E
N89° 14' 52"E
CURVE 15
CURVE 16
EX R/W
NGS MONUMENT
(DO NOT DISTURB)
SENSITIVE AREA
(DO NOT ENTER)
NGS
STA 702+77, LT&RT
EXISTING 24" RCCP TO REMAIN
12° SKEW RHF
MARKERS FOR CULVERT END REQ'D
STH 77
CTH M
END PROJECT
STA 706+06
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)
CP/BM #508
Y = 652,556.96
X = 808,192.53
ELEV = 1,230.45
NGS BRASS CAP IN CONC. 8C48
(DO NOT DISTURB)
END CONSTRUCTION
STA 702+06, 97' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)
REMOVING AND REPLACING CURB AND GUTTER
(SEE CONSTRUCTION DETAILS AND INTERSECTION
DETAIL FOR ADDITION INFORMATION)
T 41 N
R 10 W
4
9
(DO NOT DISTURB)
EX R/W

WASHBURN CO CFL

WASHBURN CO CFL

5

5

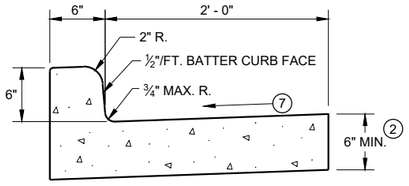
PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 30	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 06

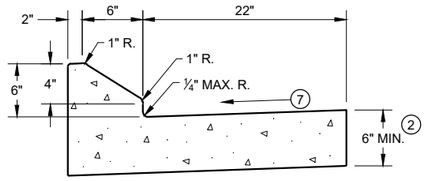
PLOT DATE : 4/22/2022 12:02 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:200 FT

Standard Detail Drawing List

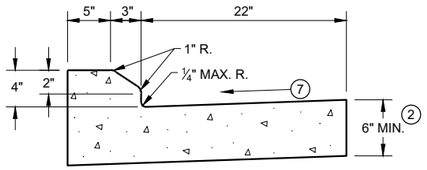
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-06	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
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
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
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)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
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
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-08	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D48-01	TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY



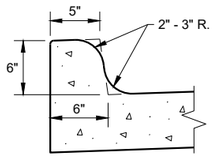
TYPES A (1) & D



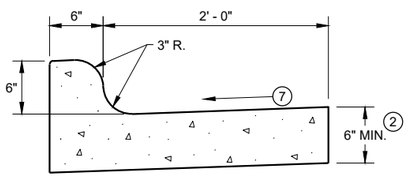
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

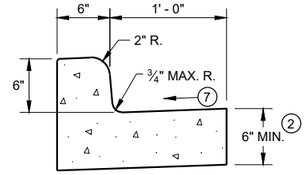


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



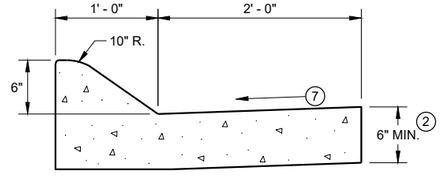
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

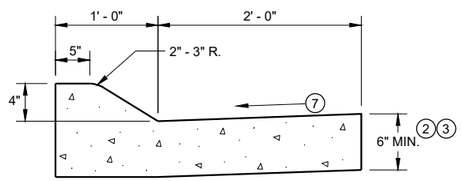


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

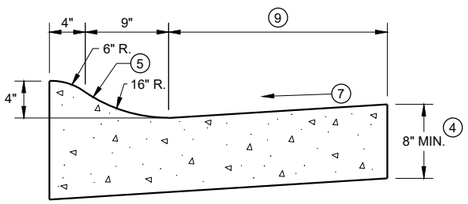


6" SLOPED CURB TYPES A (1) & D



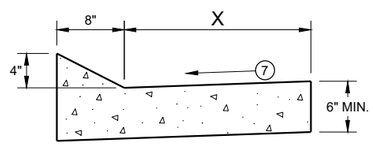
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

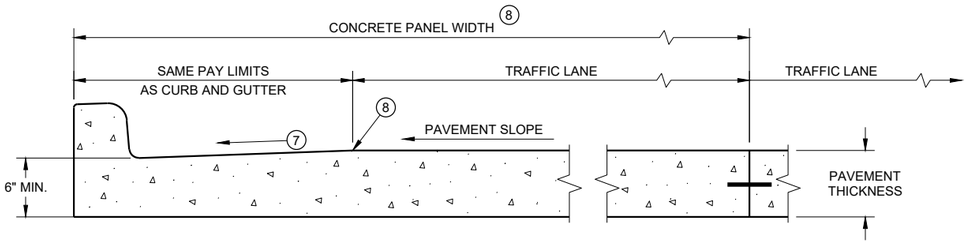


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

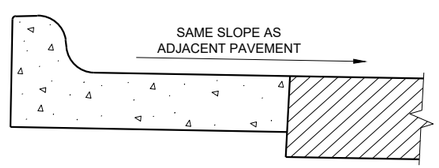
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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.

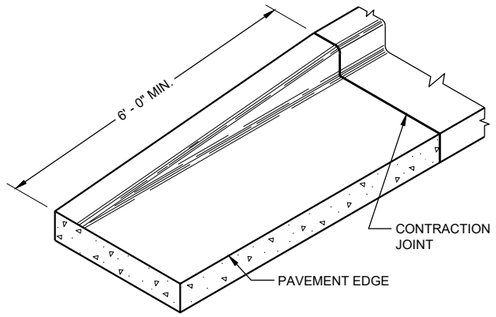
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

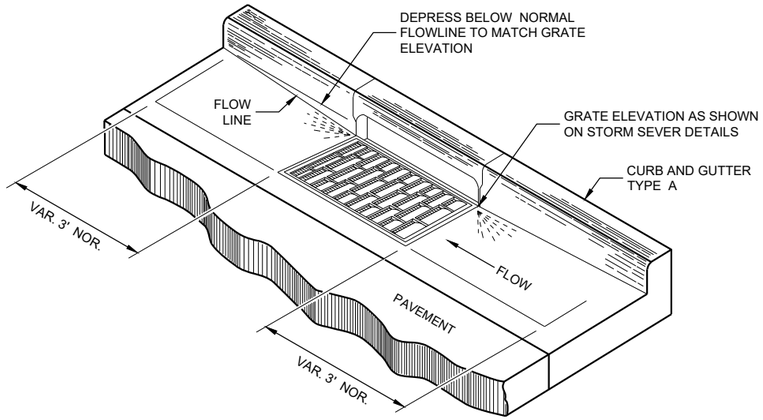
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.

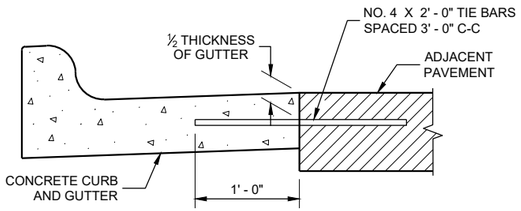
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

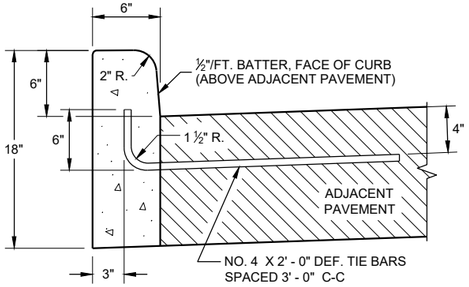
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(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.

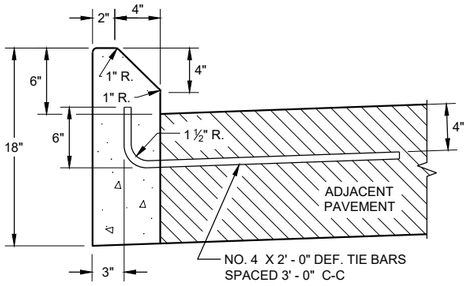
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

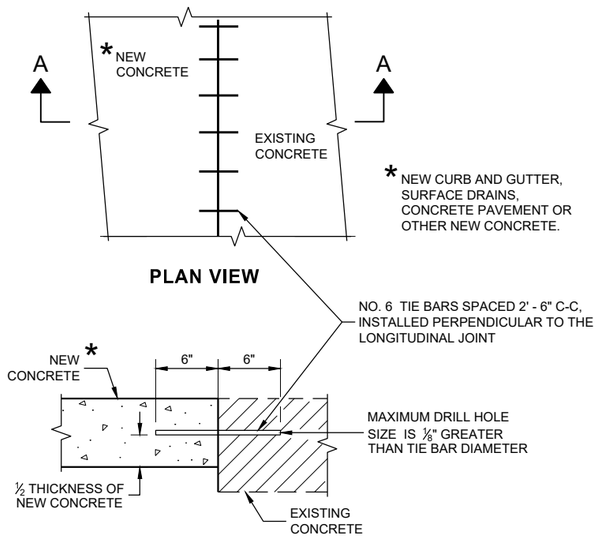


TYPES A (1) & D



TYPES G (1) & J

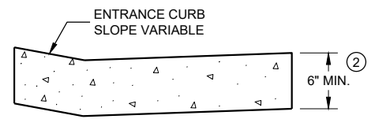
CONCRETE CURB



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

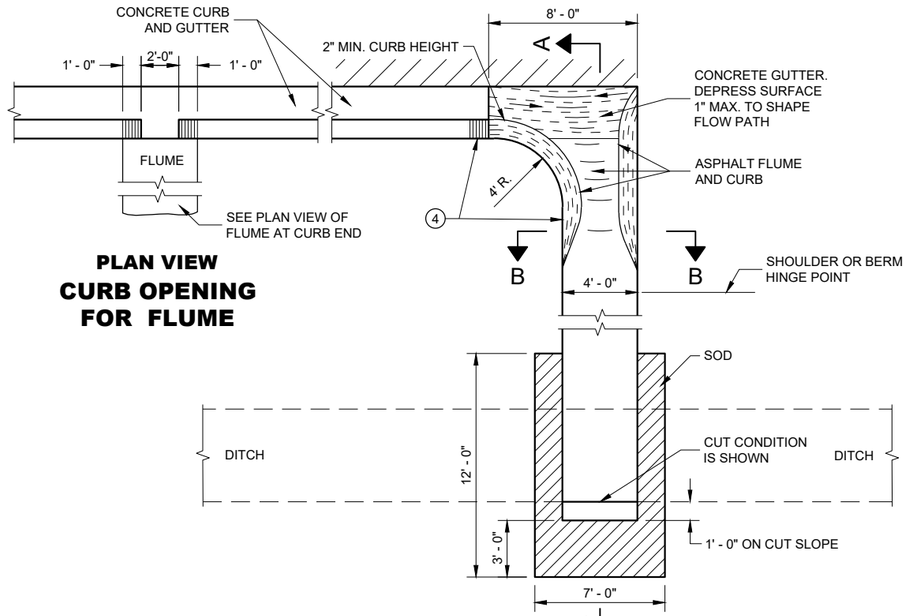
FHWA

6

SDD08D01 - 22b

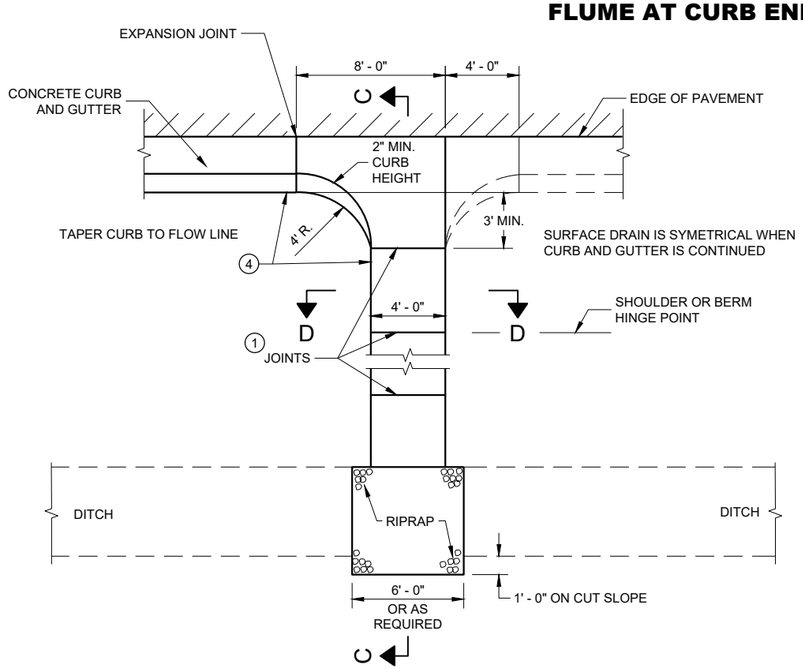
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



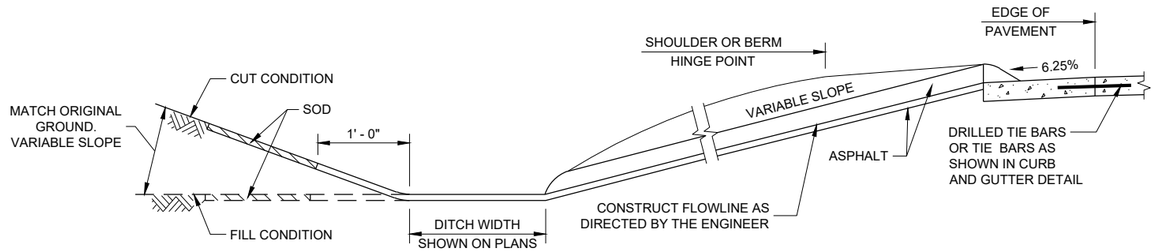
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

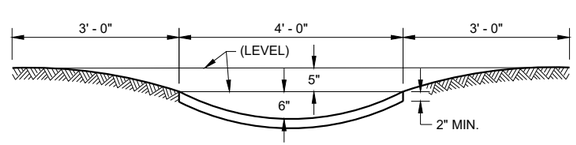
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

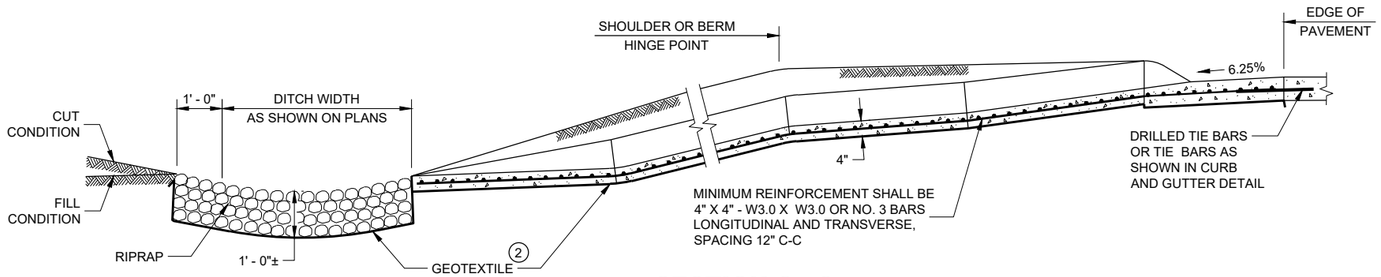
1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



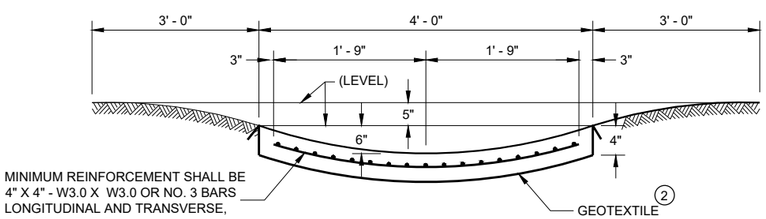
SECTION A - A



SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

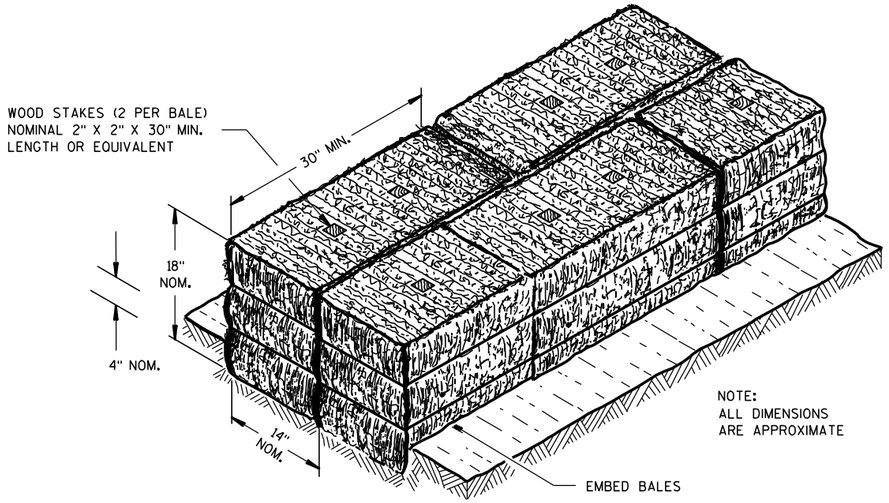
FHWA

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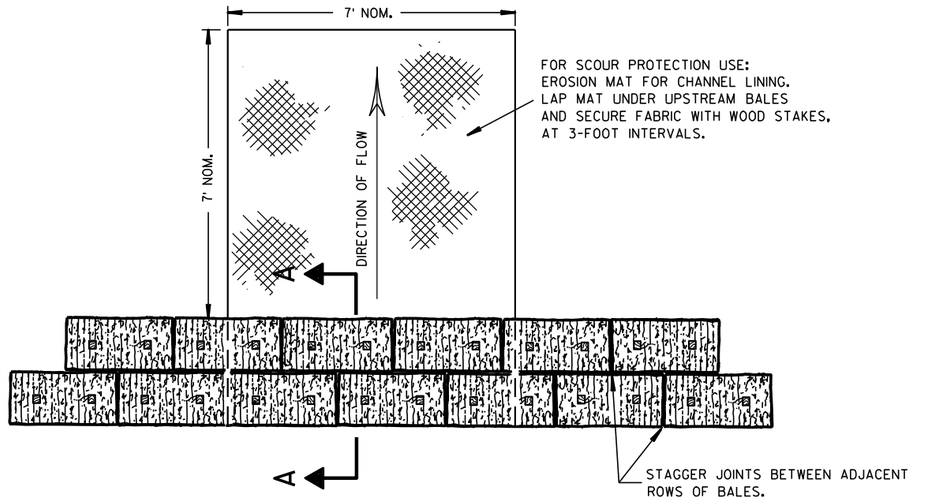
SDD 08D04 - 06

6

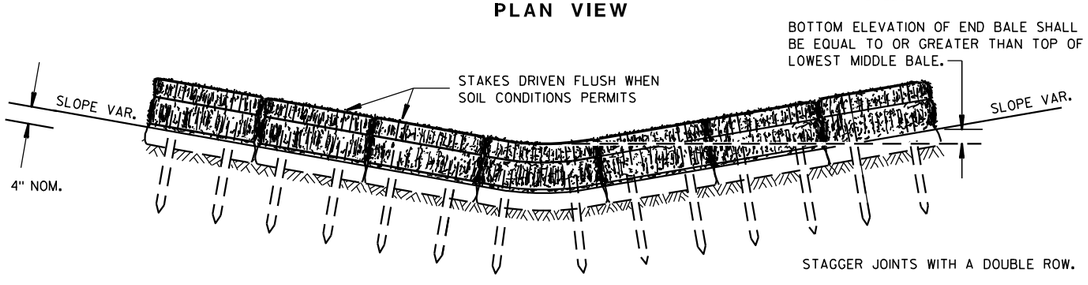
SDD 08D04 - 06



SECTION A-A



PLAN VIEW



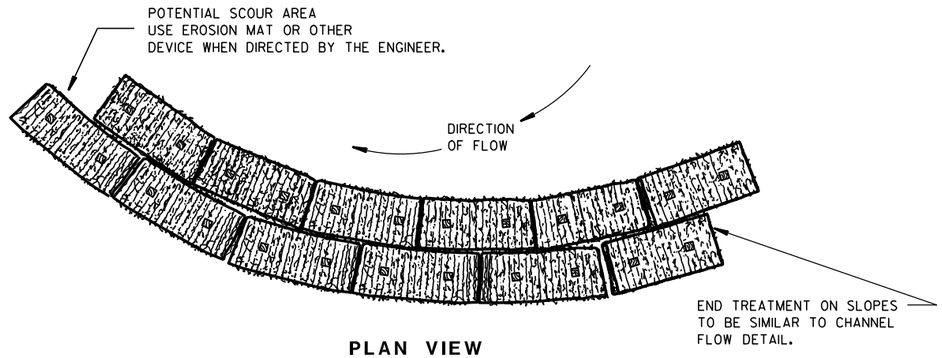
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

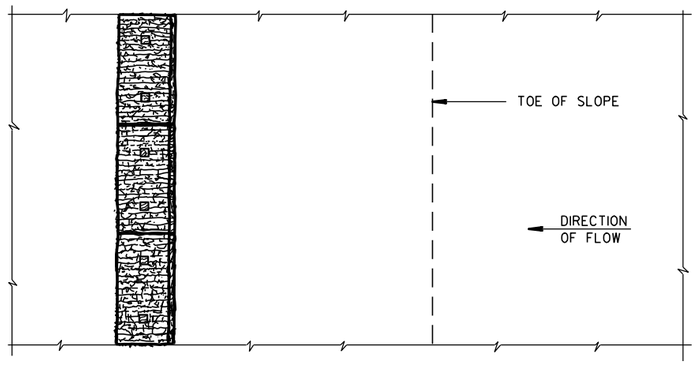
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

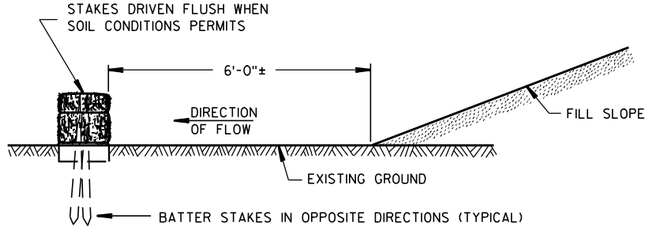


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

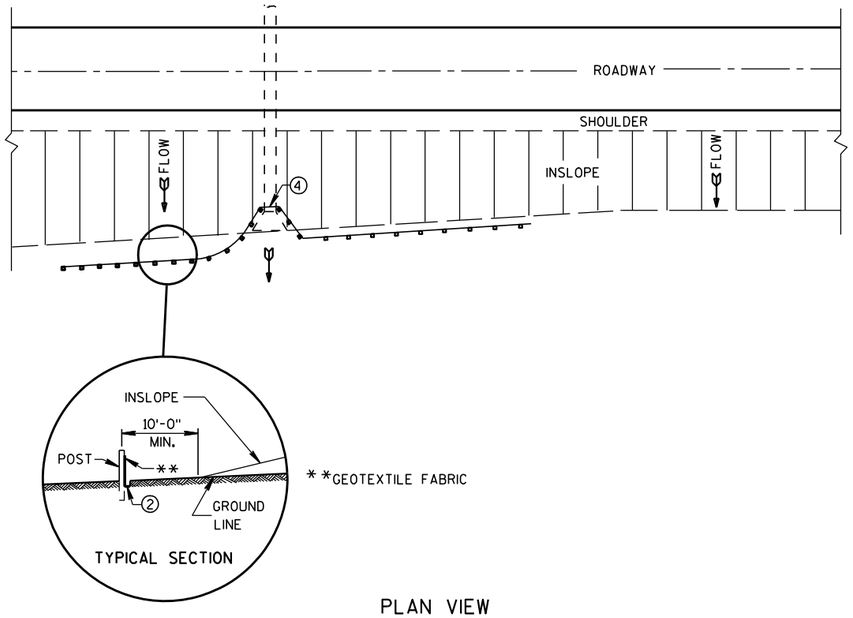
TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

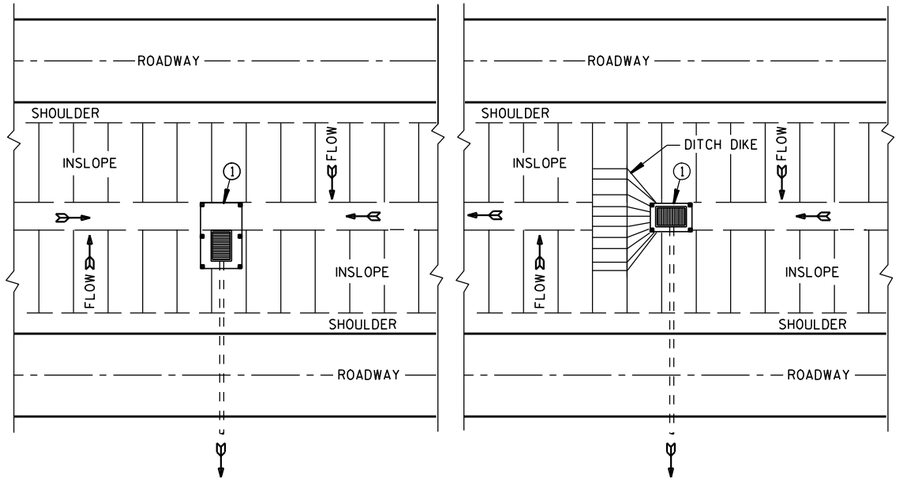
6/04/02 DATE — /S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



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.

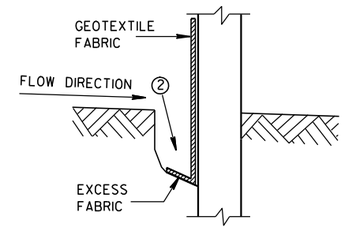
(1) HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

(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.

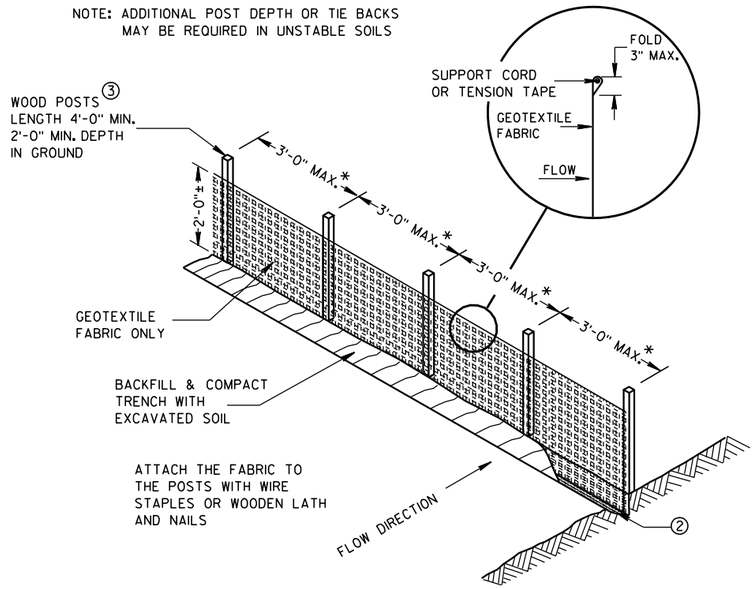
(3) WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

(4) SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

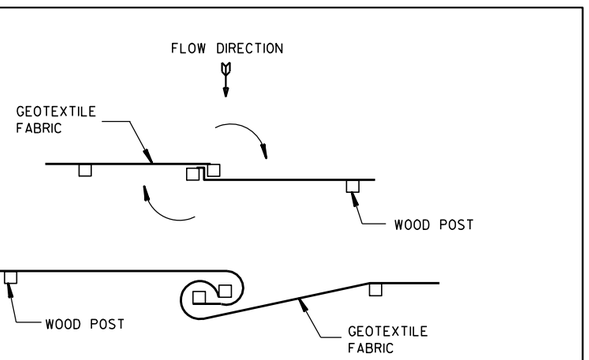
(5) CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



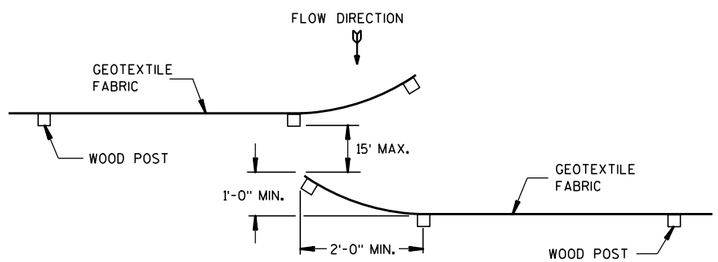
TRENCH DETAIL



SILT FENCE

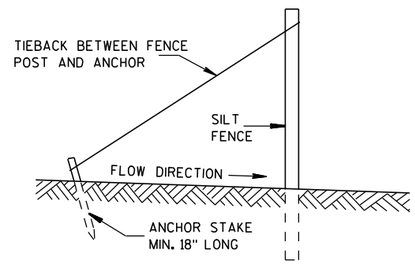


TWIST METHOD



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

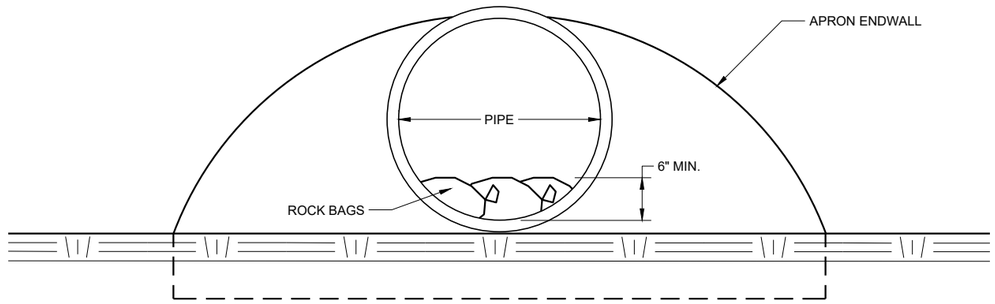
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

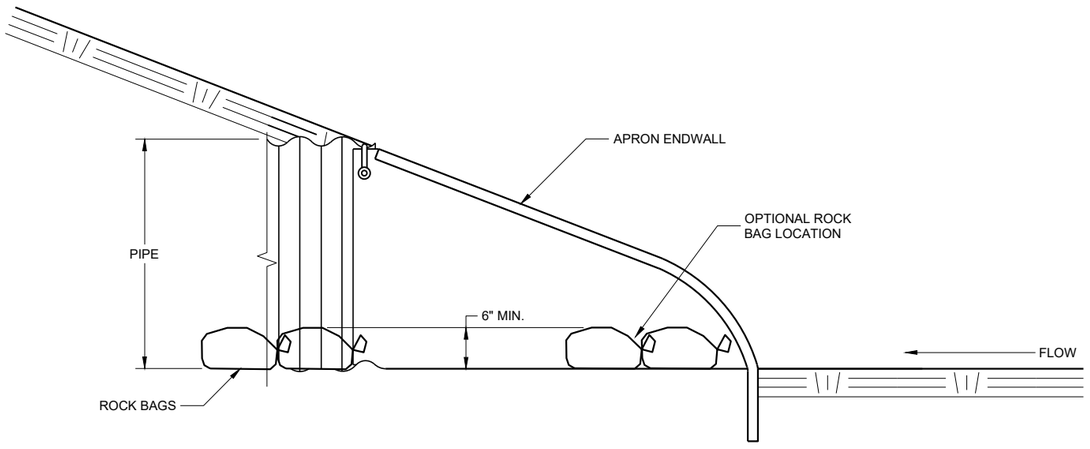
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6



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	

6

SDD 08E15 - 01

METAL APRON ENDWALLS

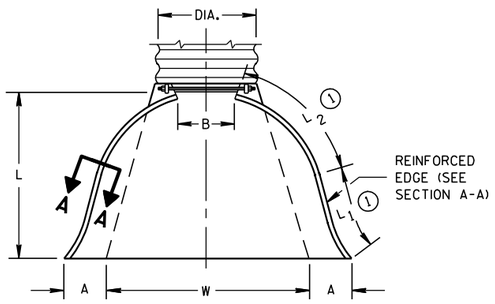
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

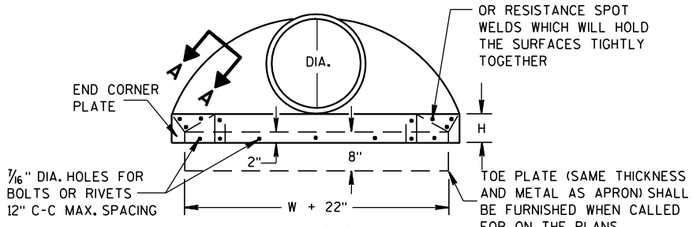
REINFORCED CONCRETE APRON ENDWALLS

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

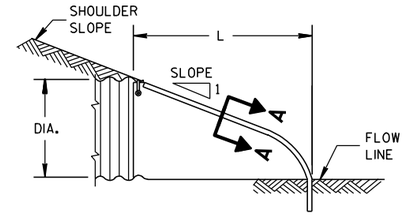
*MINIMUM
**MAXIMUM



PLAN VIEW

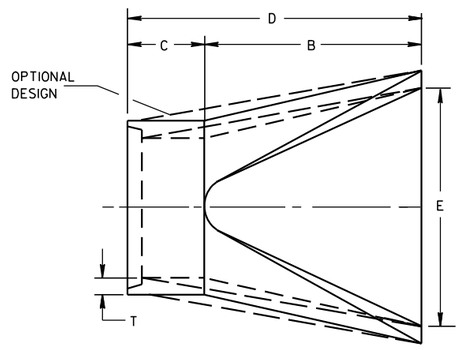


END VIEW

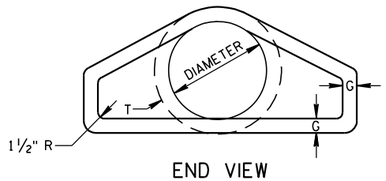


SIDE ELEVATION

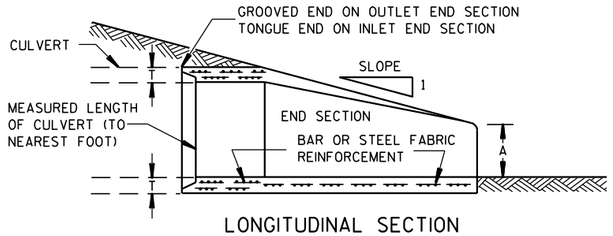
METAL ENDWALLS



PLAN

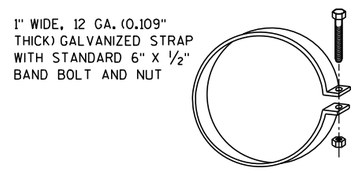


END VIEW



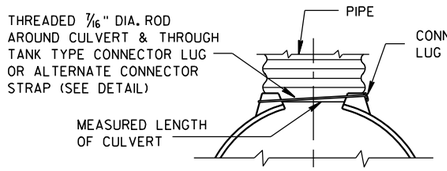
LONGITUDINAL SECTION

CONCRETE ENDWALLS

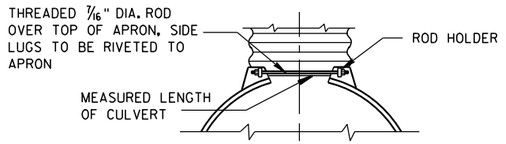


ALTERNATE FOR TYPE 1 CONNECTION

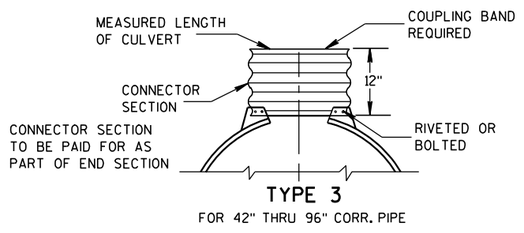
END SECTION CONNECTOR STRAP



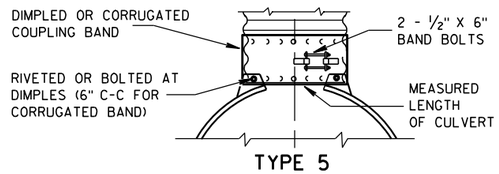
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

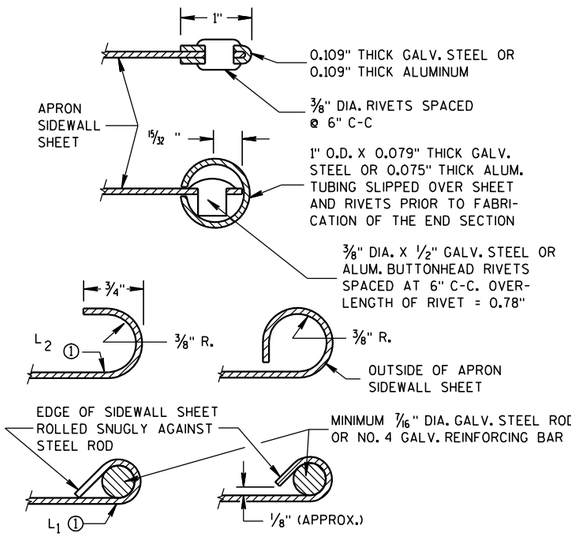
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

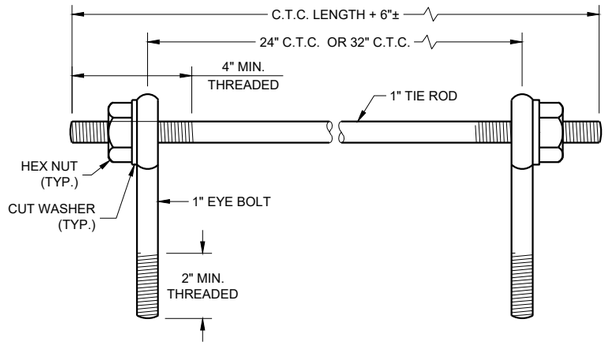
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

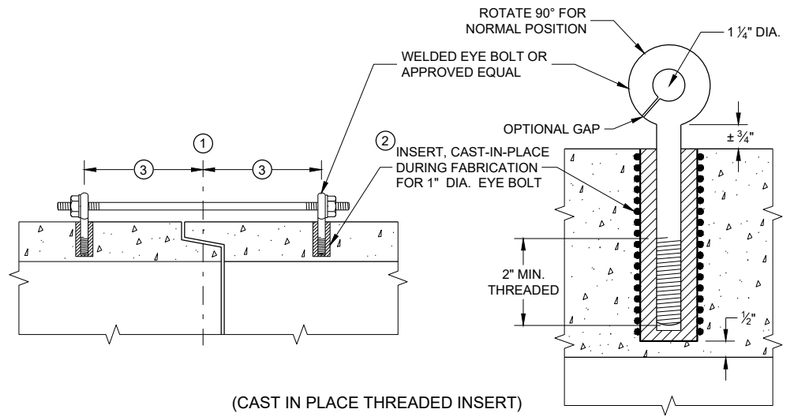
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 — DATE
/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENGINEER
FHWA

6
S.D.D. 8 F 1-11



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) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

(2) THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

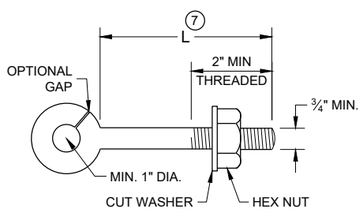
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

(4) BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

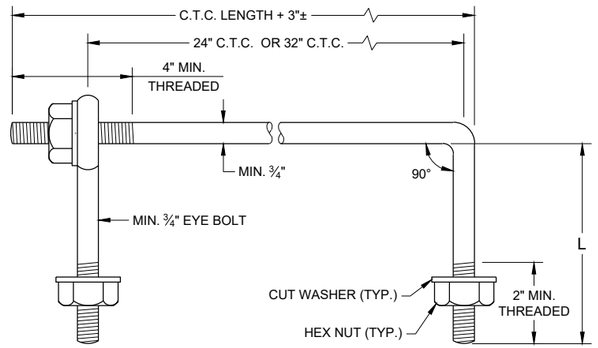
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

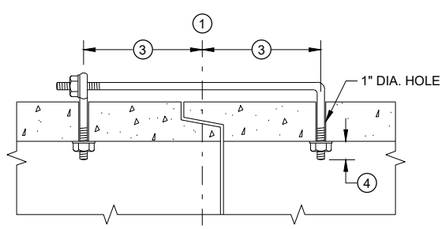


EYE BOLT (7)

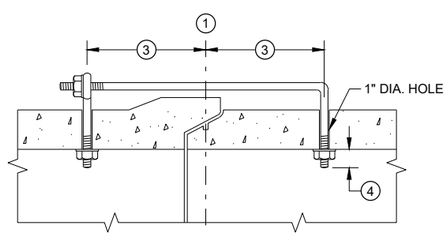
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

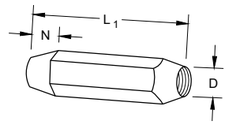
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

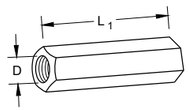
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



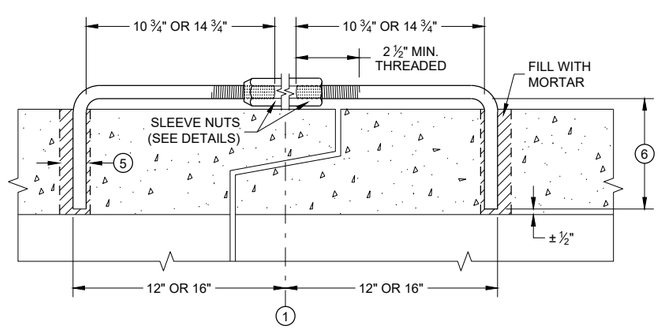
TAPERED



PLAIN

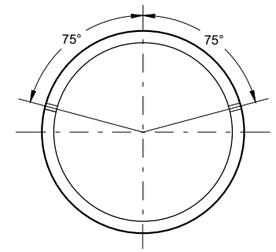
RIGHT AND LEFT THREADS

SLEEVE NUTS



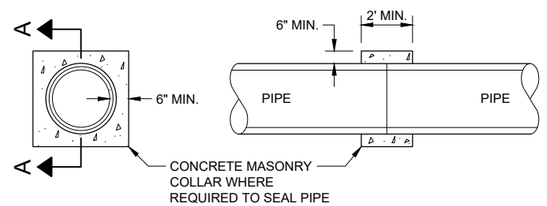
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

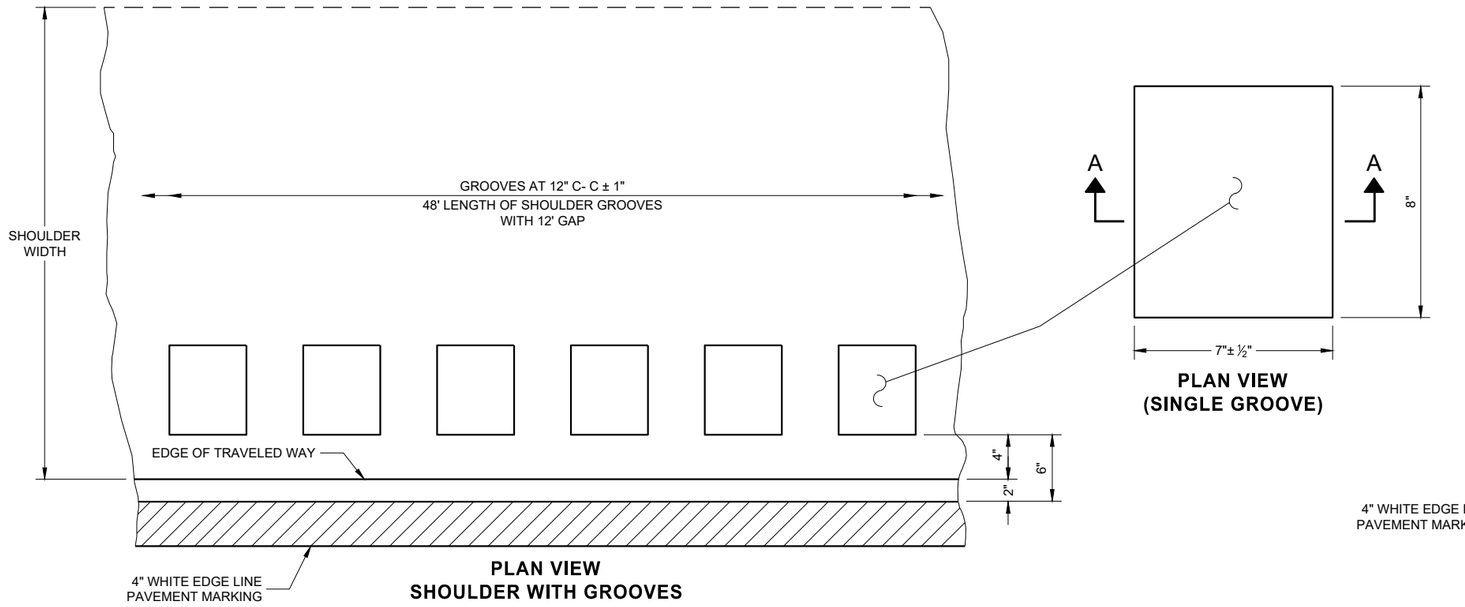
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 08F04 - 08

SDD 08F04 - 08



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

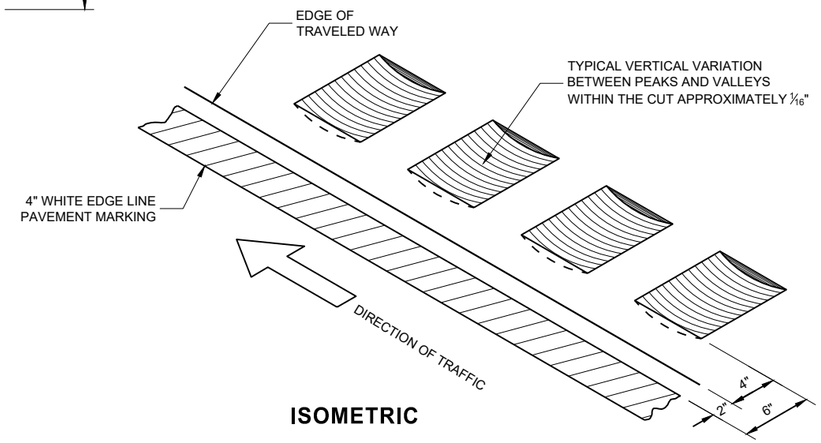
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

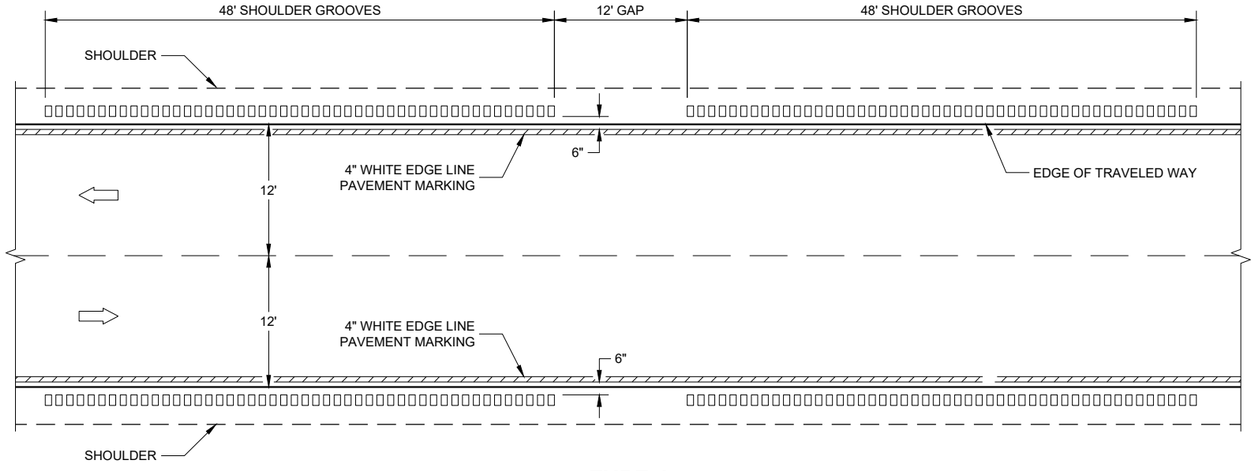
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

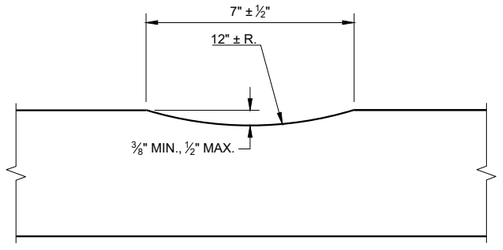
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



ISOMETRIC



TYPE 1
2 - LANE SHOULDER RUMBLE STRIP



SECTION A - A

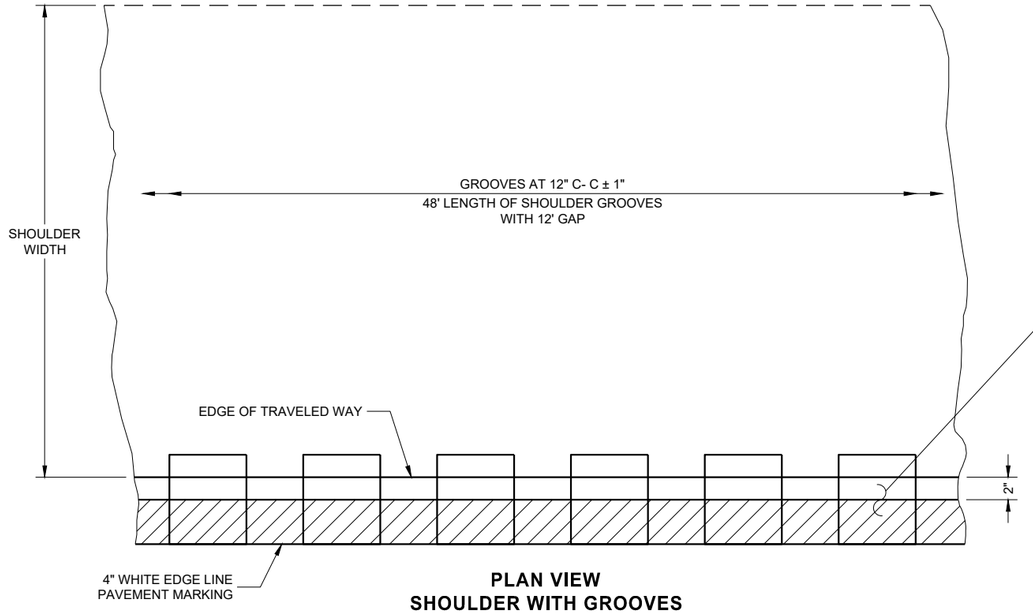
2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

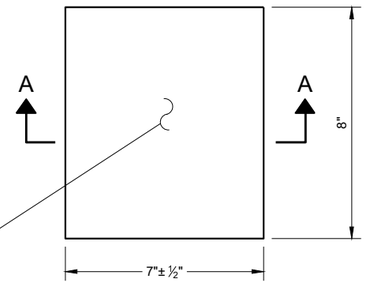
SDD 13A10 - 02a

6

SDD 13A10 - 02a



PLAN VIEW
SHOULDER WITH GROOVES



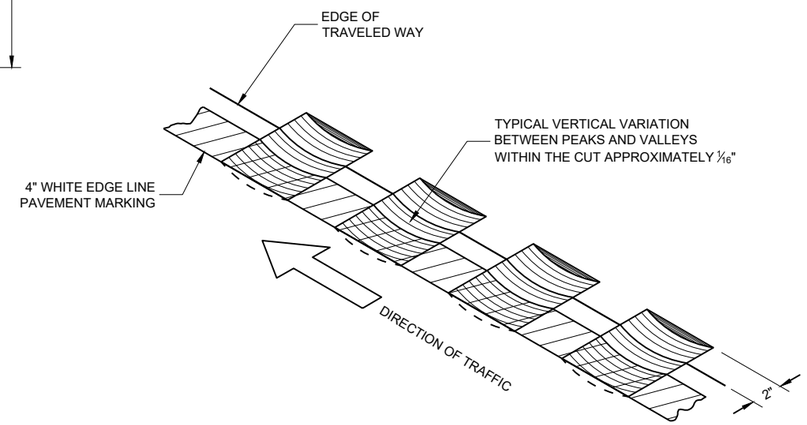
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

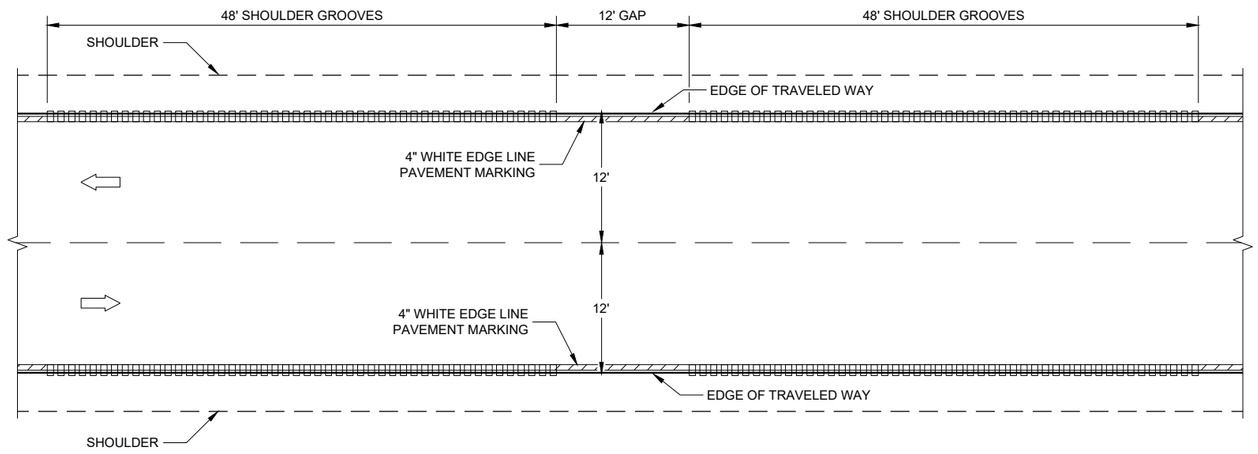
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

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

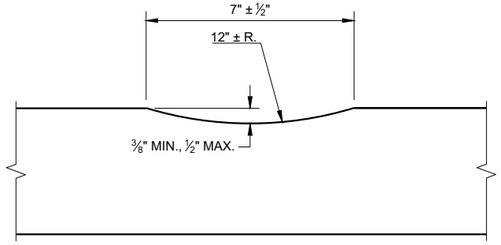


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP



TYPE 2
2 - LANE SHOULDER RUMBLE STRIP



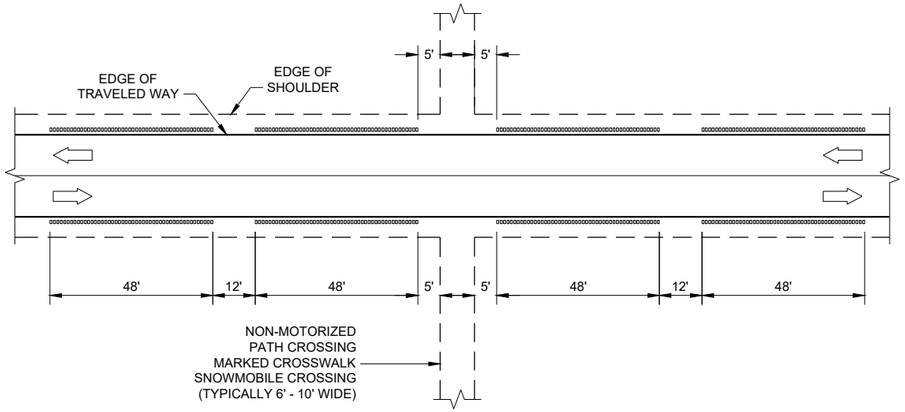
SECTION A - A

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

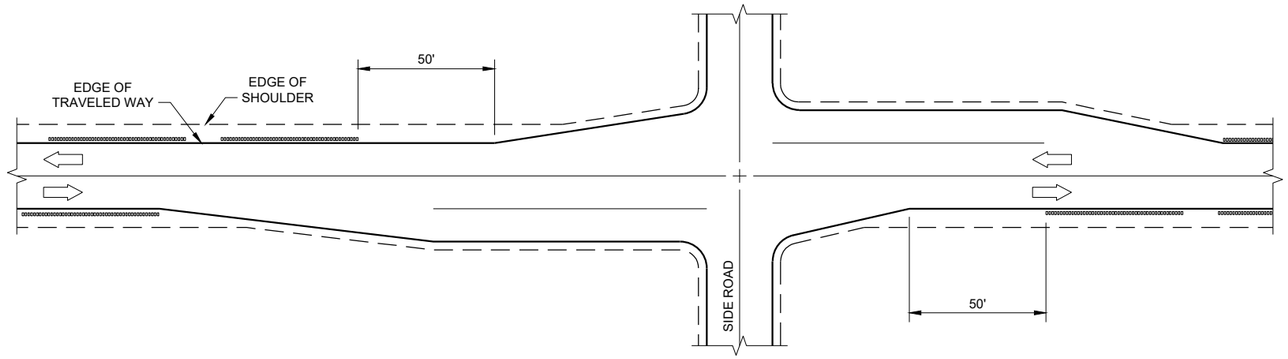
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 13A10 - 02b

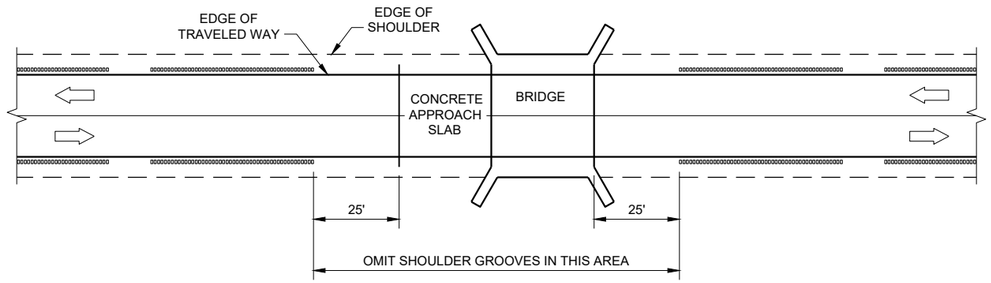
SDD 13A10 - 02b



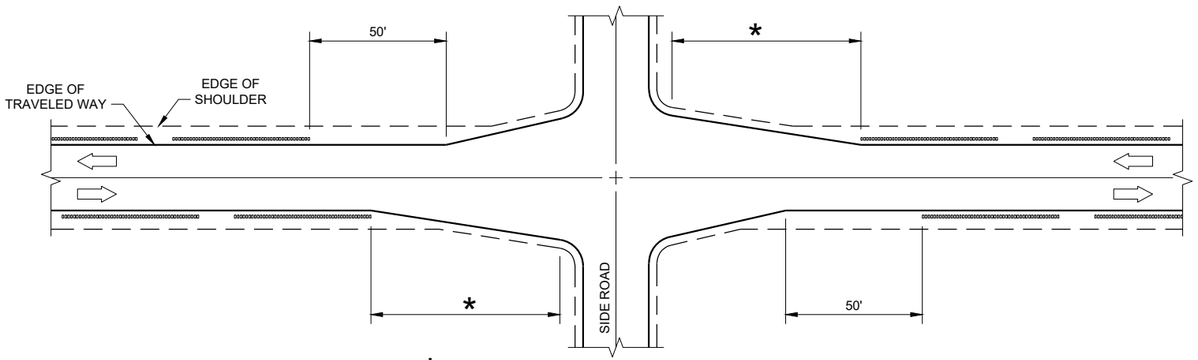
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



SHOULDER GROOVES AT RIGHT TURN LANE

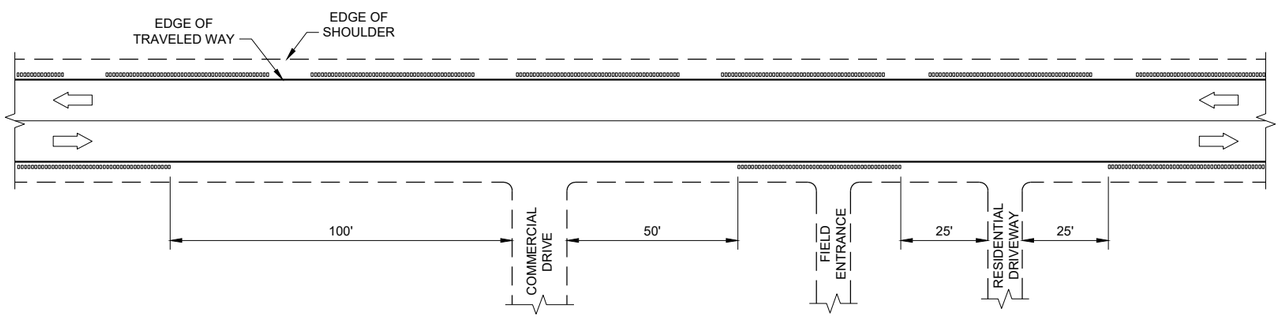


SHOULDER GROOVES AT BRIDGES



* 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.

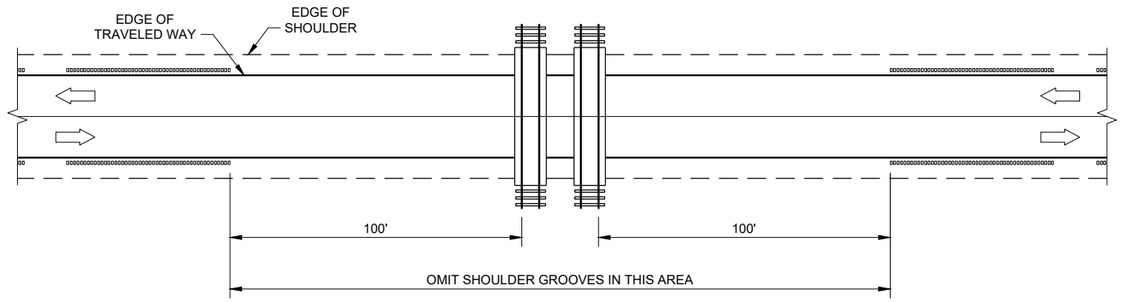
2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

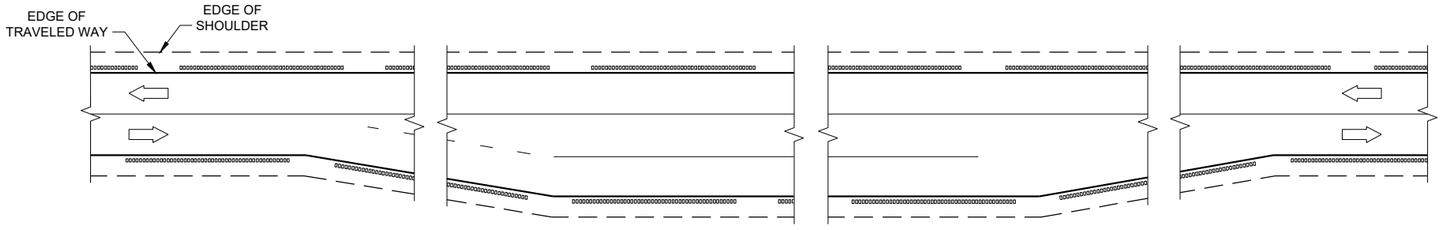
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SDD 13A10 - 02c

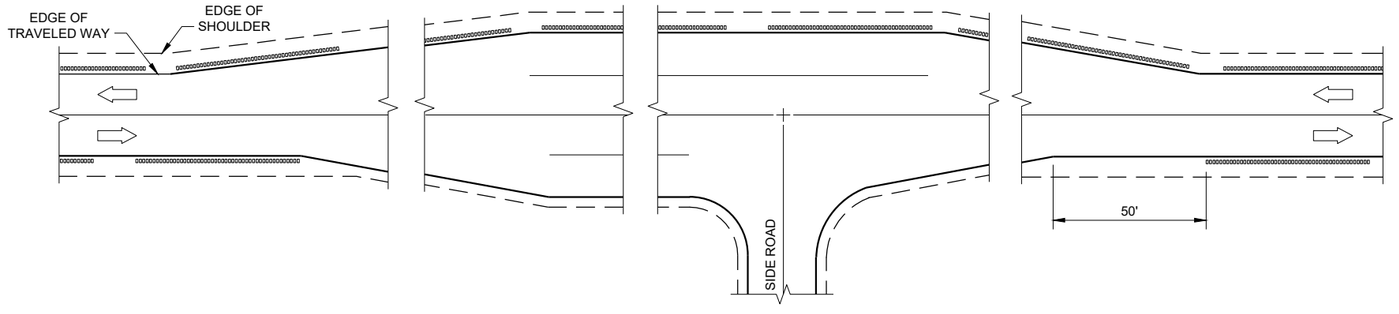
SDD 13A10 - 02c



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

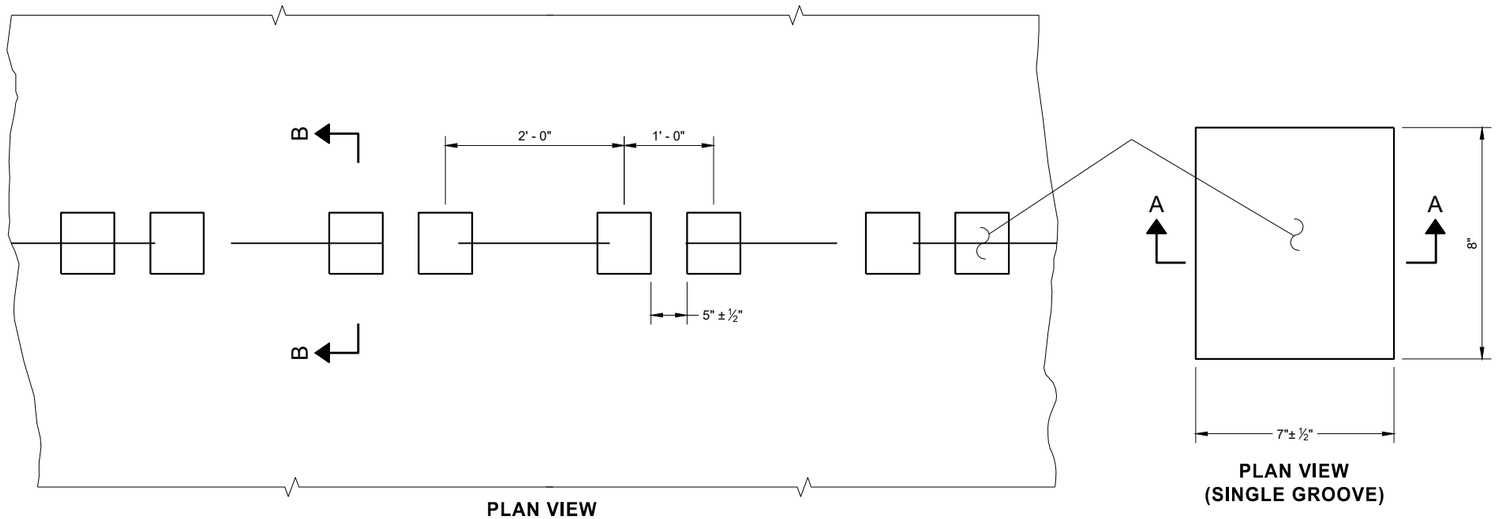
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

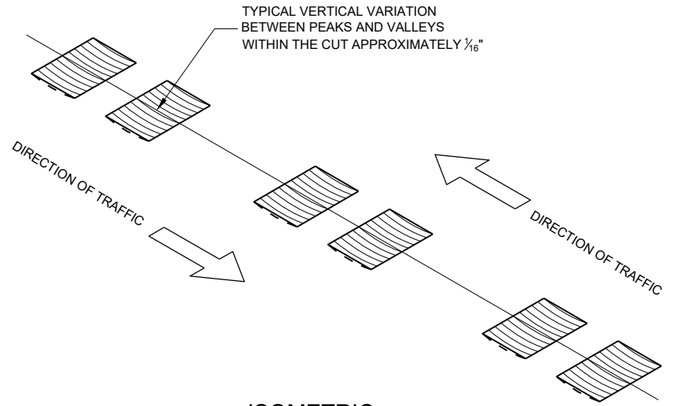
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

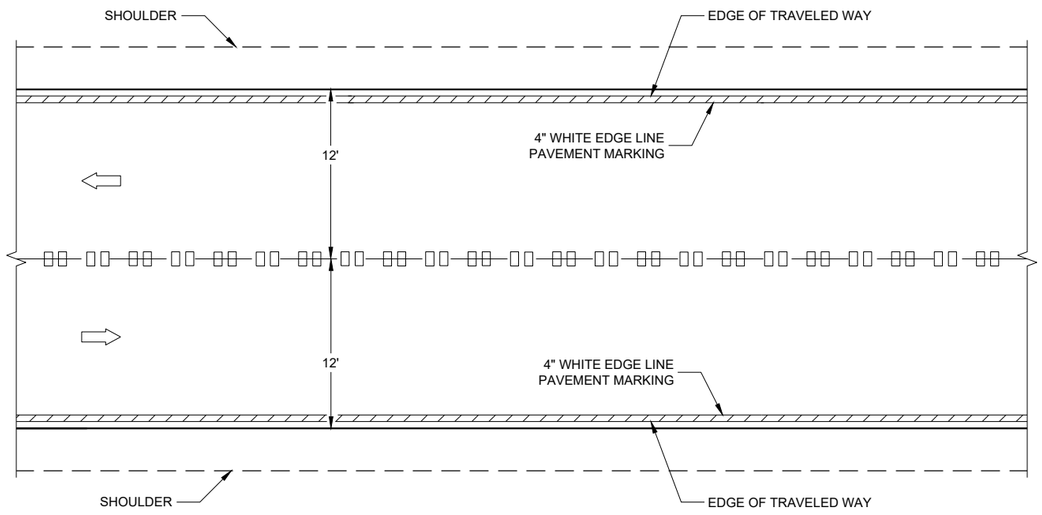
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

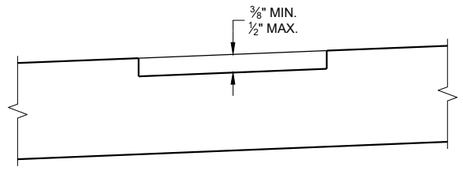
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



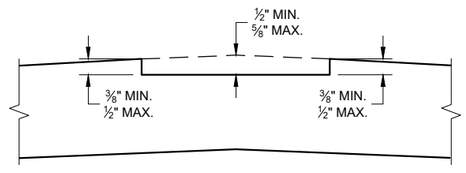
ISOMETRIC



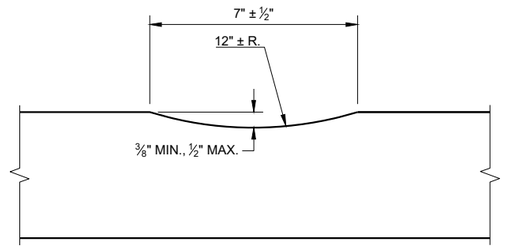
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



SECTION A - A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

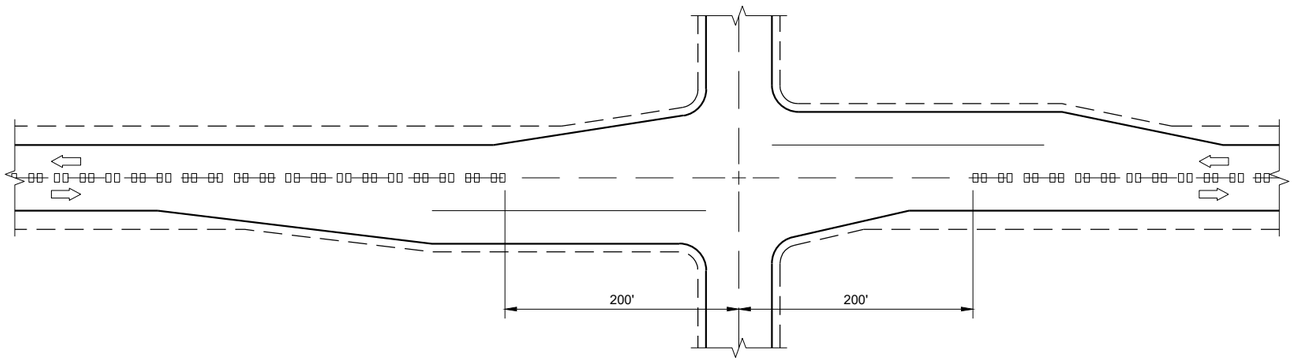
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

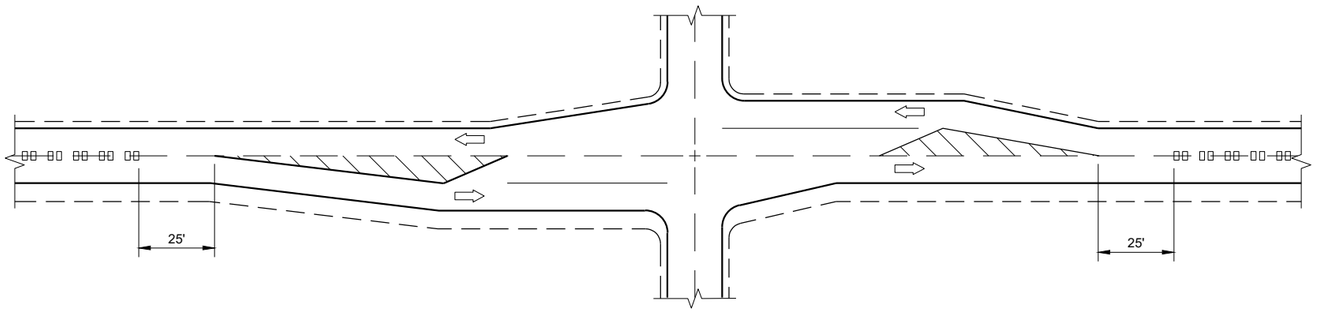
SDD 13A11 - 03a

6

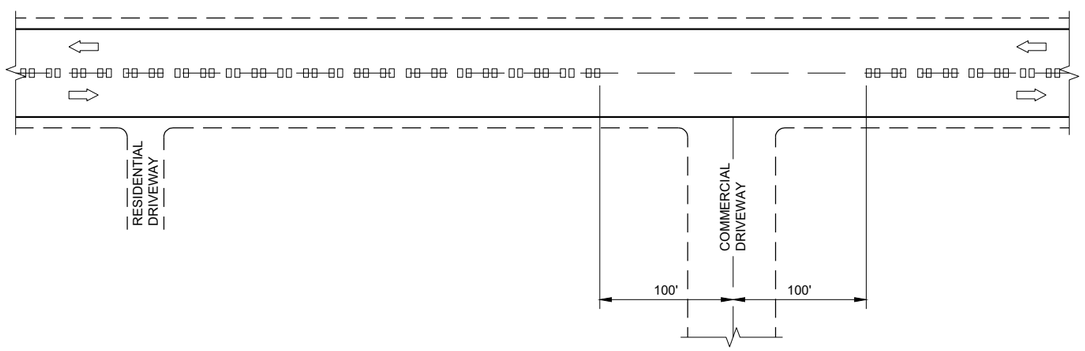
SDD 13A11 - 03a



CENTERLINE GROOVES AT INTERSECTIONS



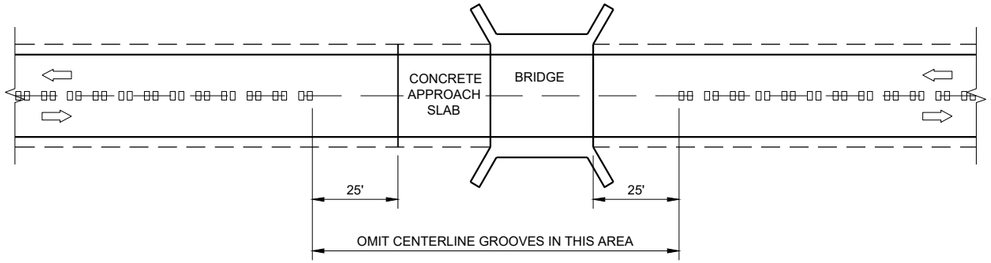
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



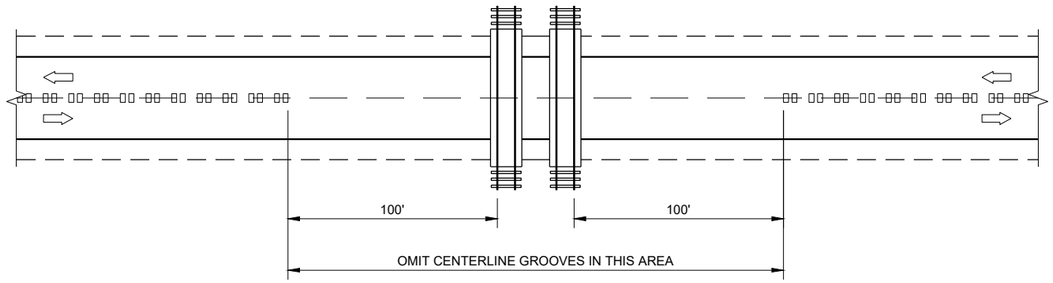
CENTERLINE GROOVES AT DRIVEWAYS (1)

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

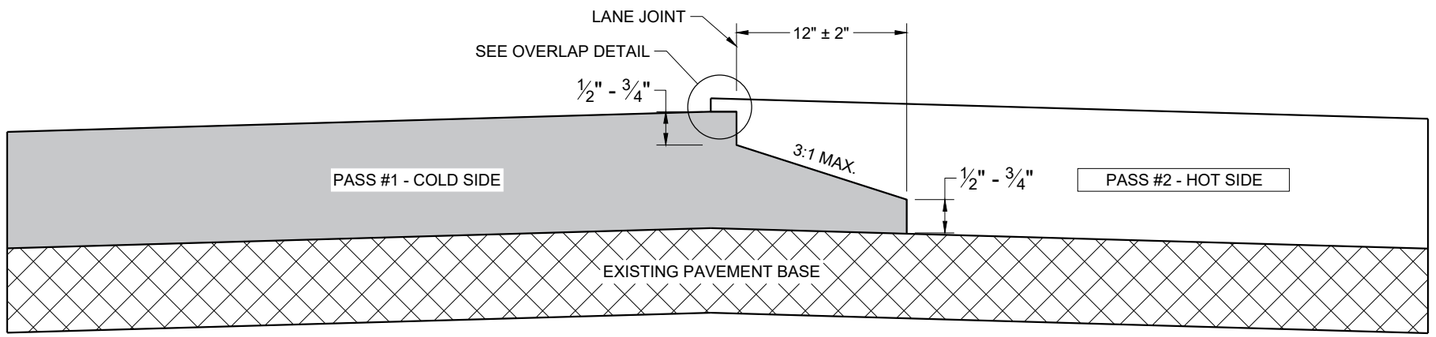
2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

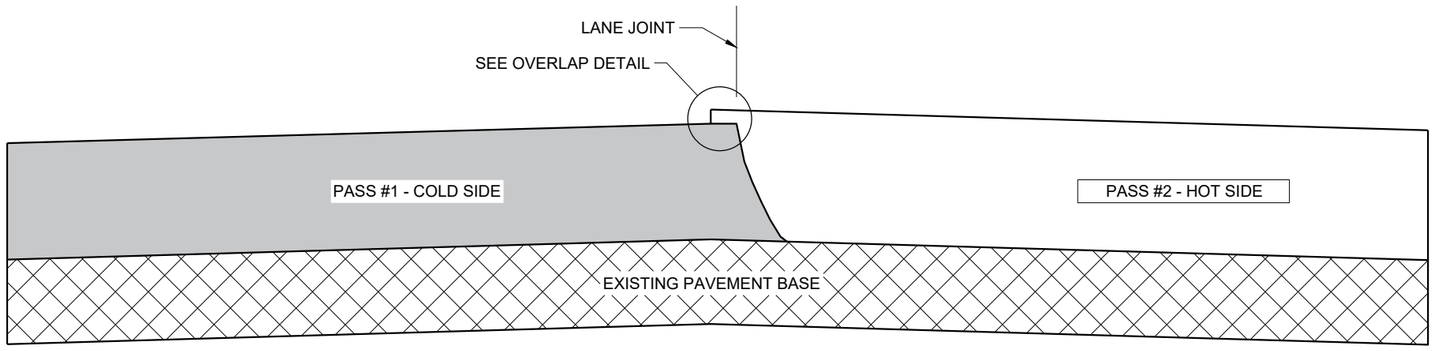
APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

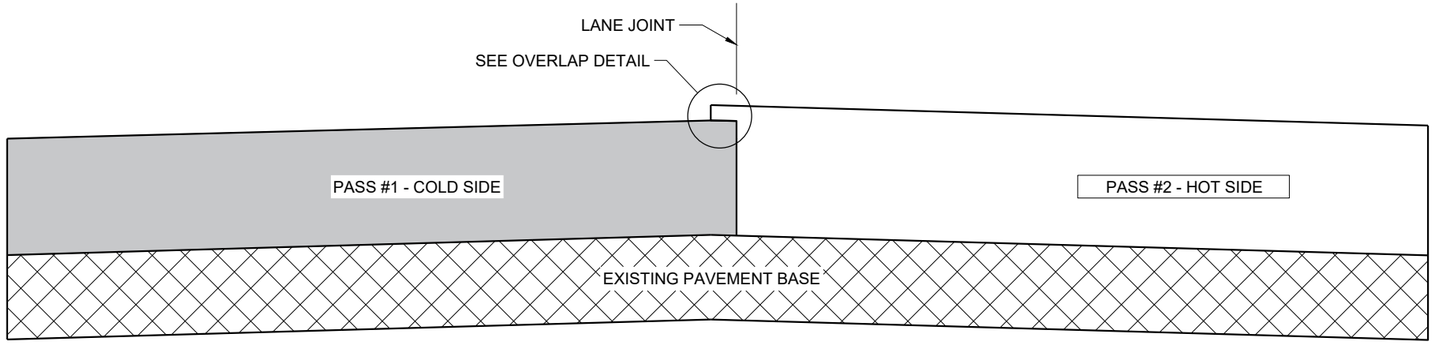
6
SDD 13A11 - 03b



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

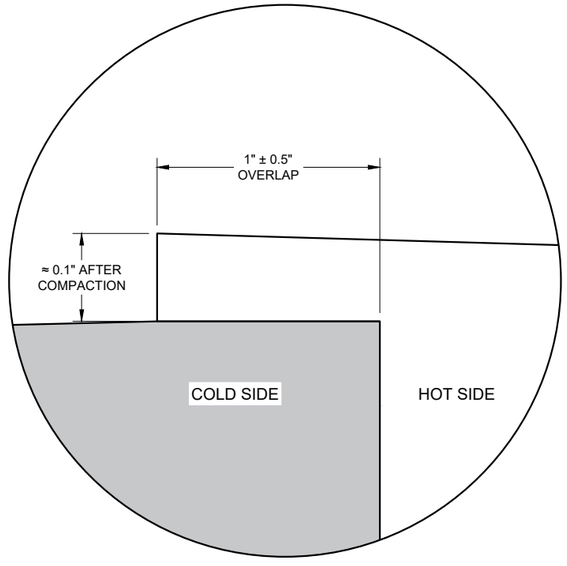
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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)

6

6

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

(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.

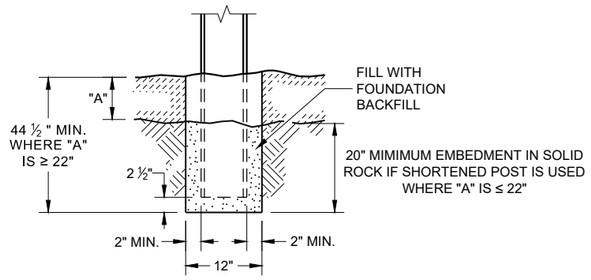
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL 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).

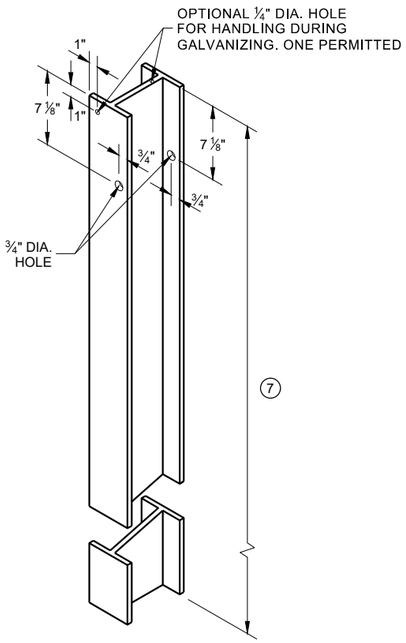
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

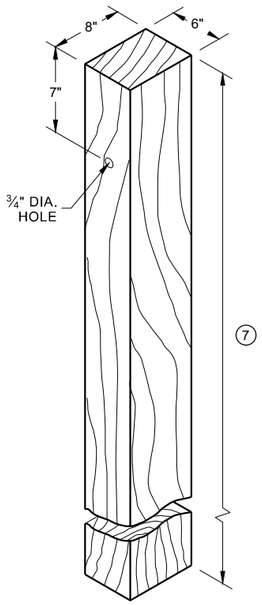
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



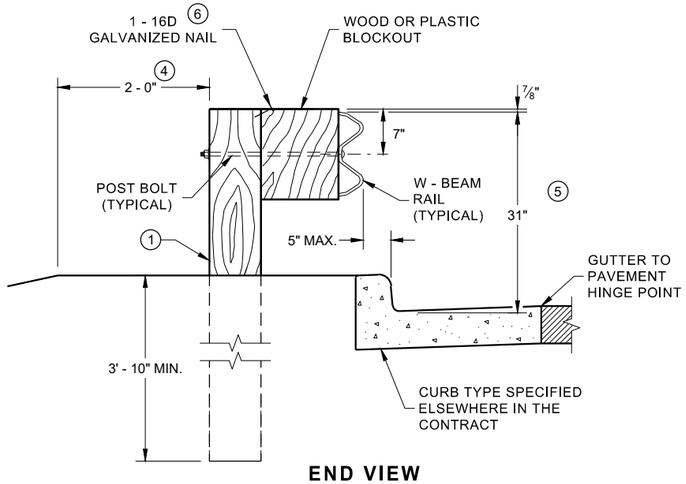
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



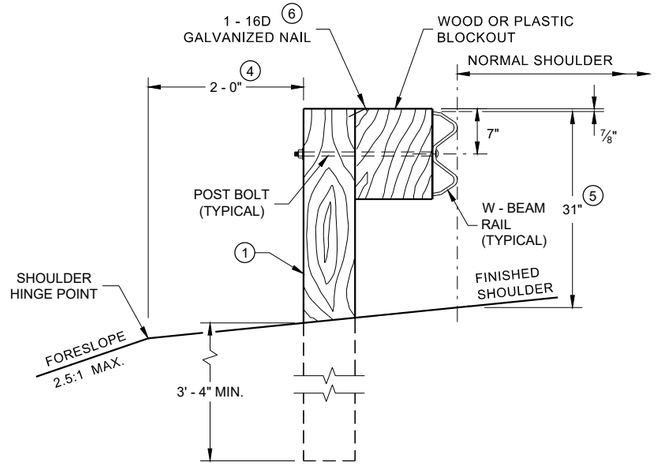
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



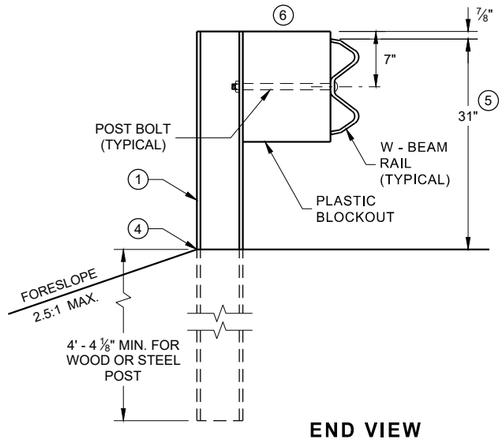
WOOD POST (6" X 8") NOMINAL (1)



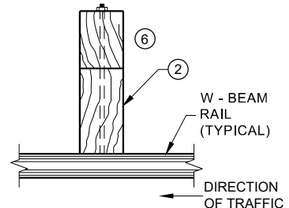
END VIEW
LOCATED ALONG A CURBED ROADWAY



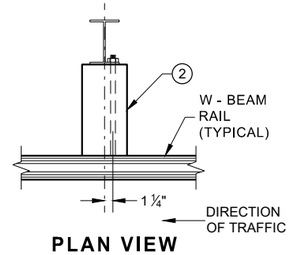
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



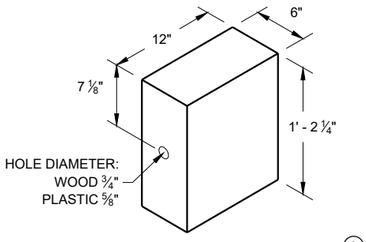
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



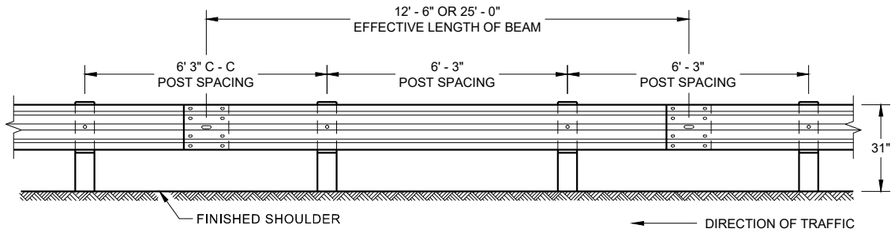
WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

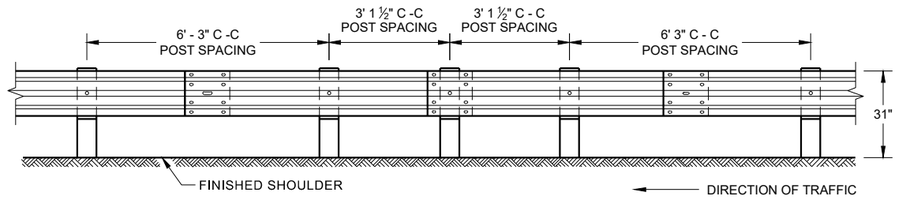
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B42 - 07a

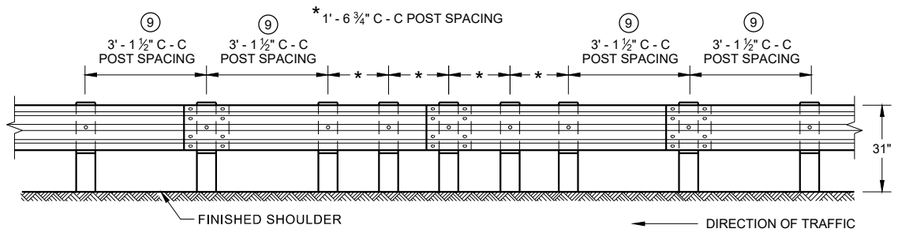
SDD 14B42 - 07a



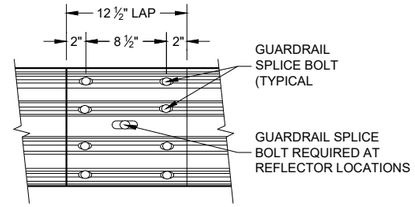
FRONT VIEW
POST SPACING STANDARD INSTALLATION



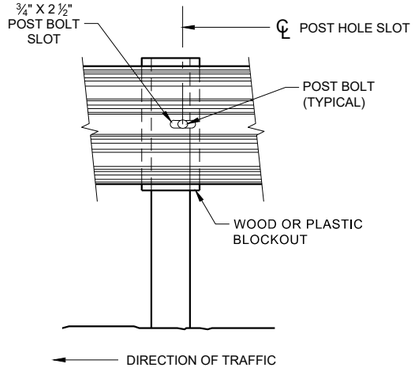
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



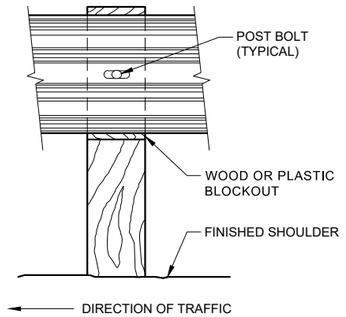
FRONT VIEW
QUARTER POST SPACING (QS)



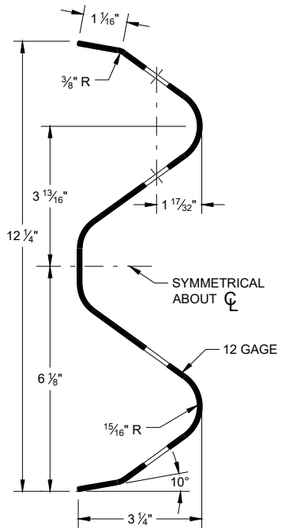
FRONT VIEW
MID-SPAN BEAM SPLICE



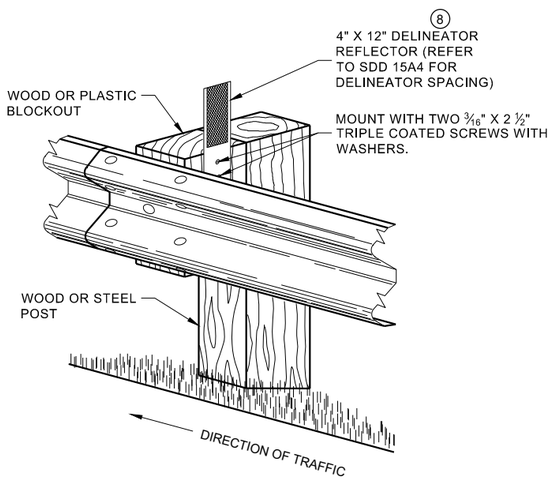
FRONT VIEW AT STEEL POST



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.

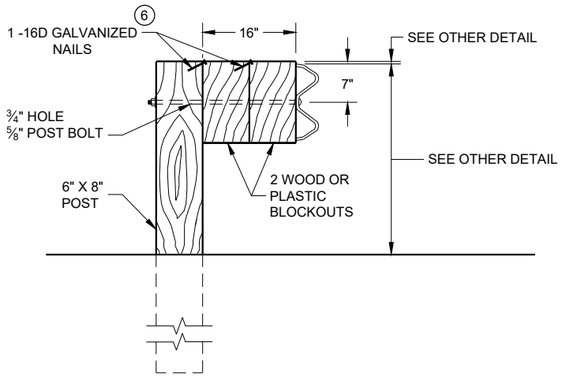
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b

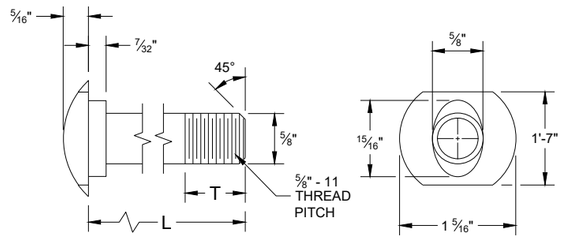


DETAIL FOR 16" BLOCKOUT DEPTH

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

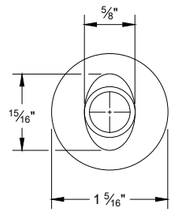
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

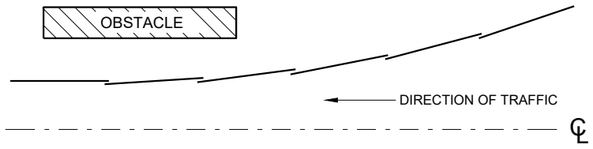


POST BOLT TABLE

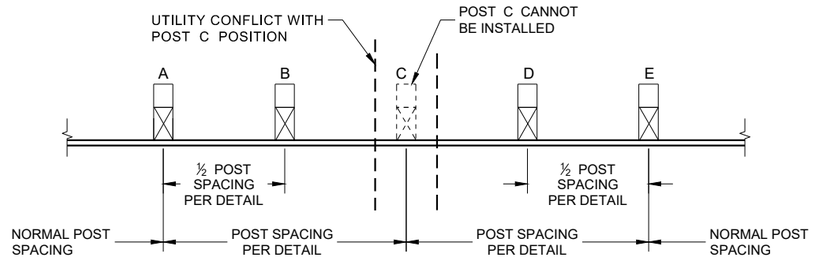
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



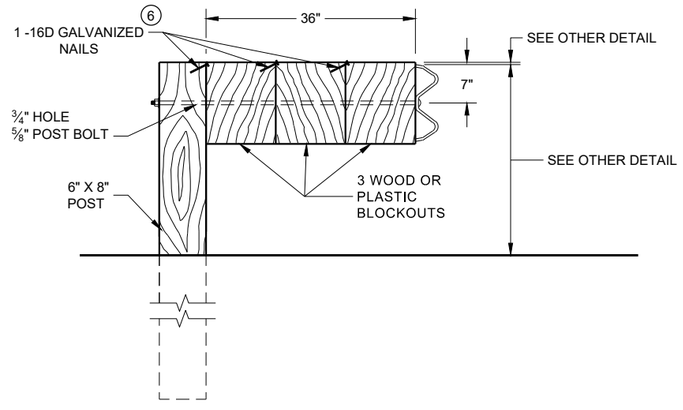
ALTERNATE BOLT HEAD



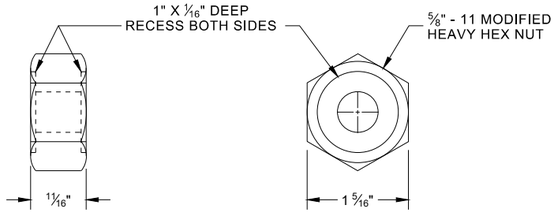
PLAN VIEW
BEAM LAPPING DETAIL



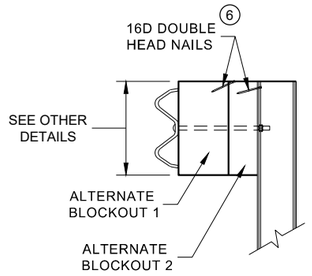
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



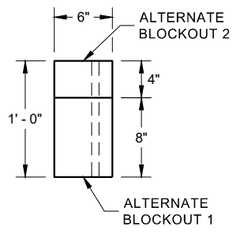
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

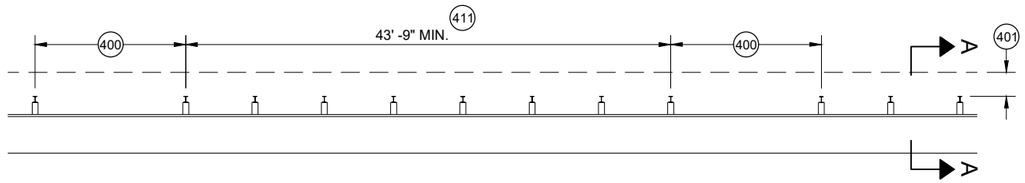
ALTERNATE WOOD BLOCKOUT DETAIL

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.

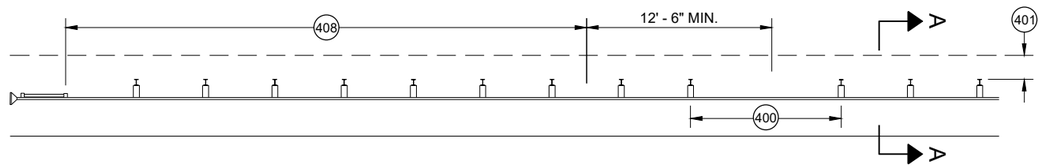
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(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.

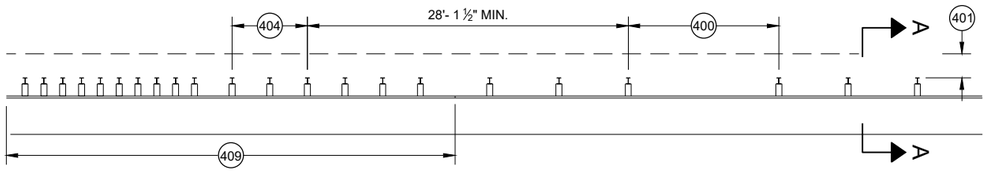
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



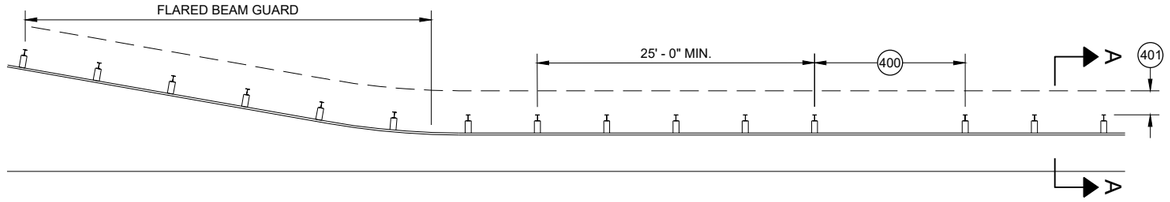
MISSING POST IN MGS GUARDRAIL



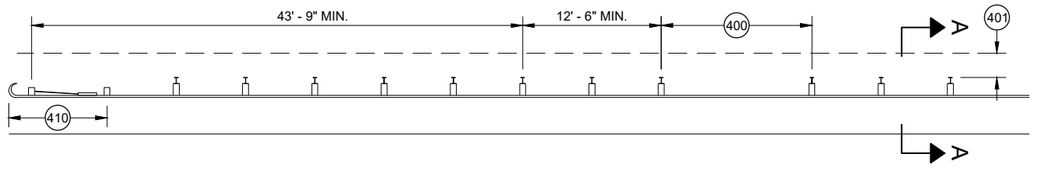
MISSING POST IN MGS GUARDRAIL NEAR EAT



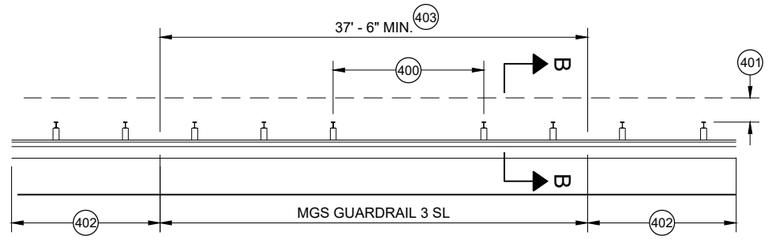
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

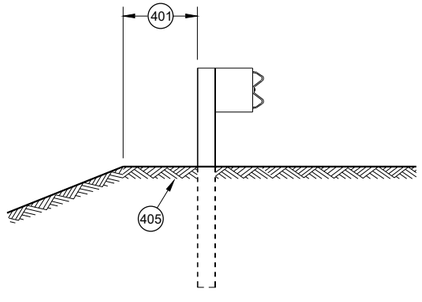


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

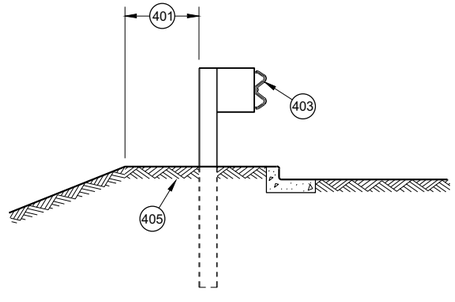


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

6

SDD 14B42 - 07d

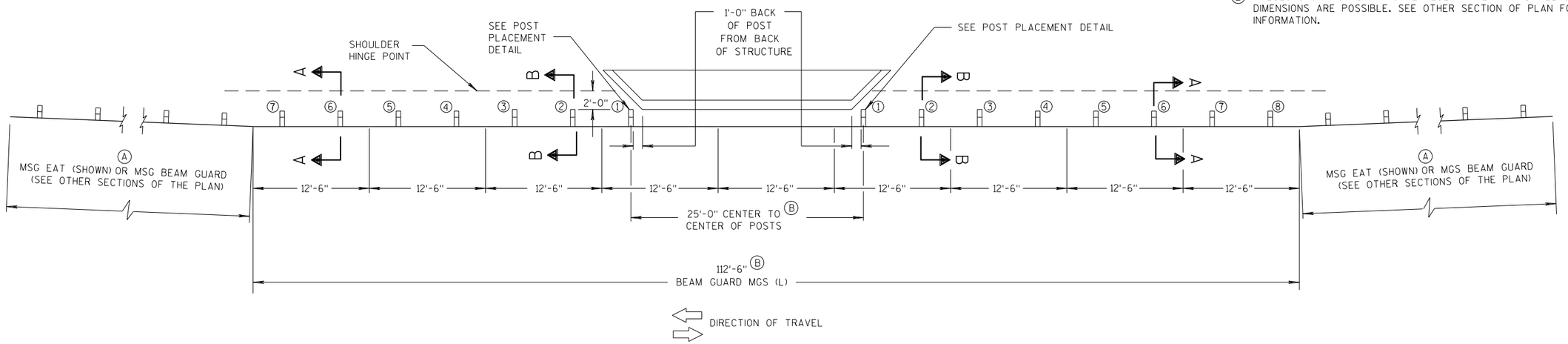
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

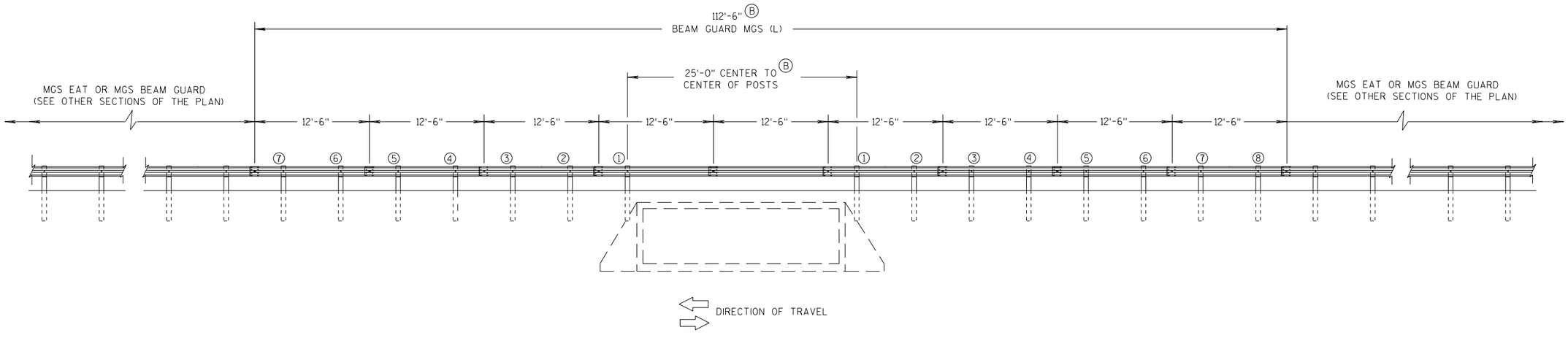
SEE SDD 14 B 42 FOR MORE DETAILS.

(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

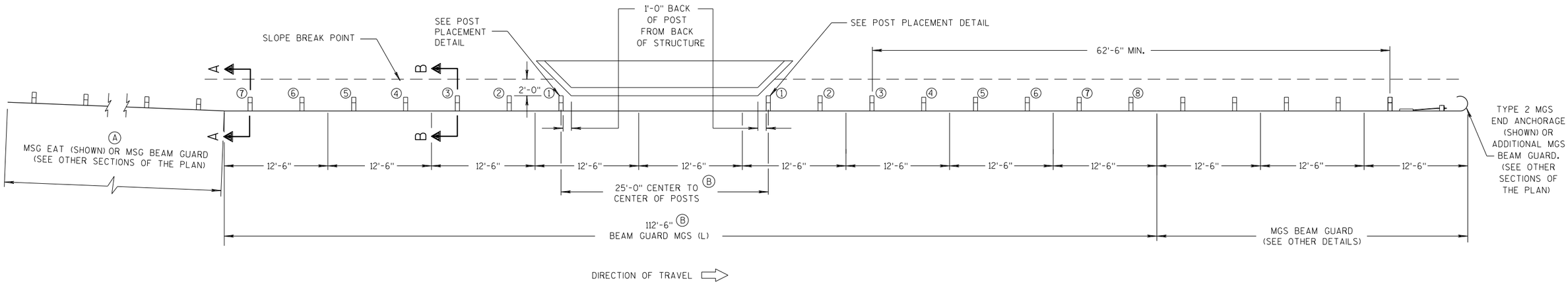
GENERAL NOTES

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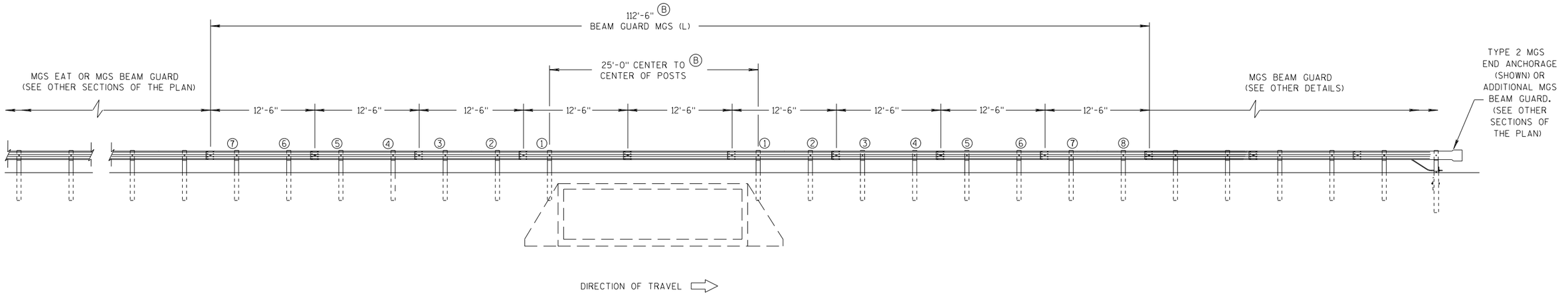
SEE SDD 14 B 42 FOR MORE DETAILS.

(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



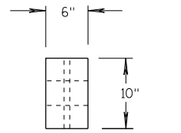
ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) ONE-WAY TRAFFIC

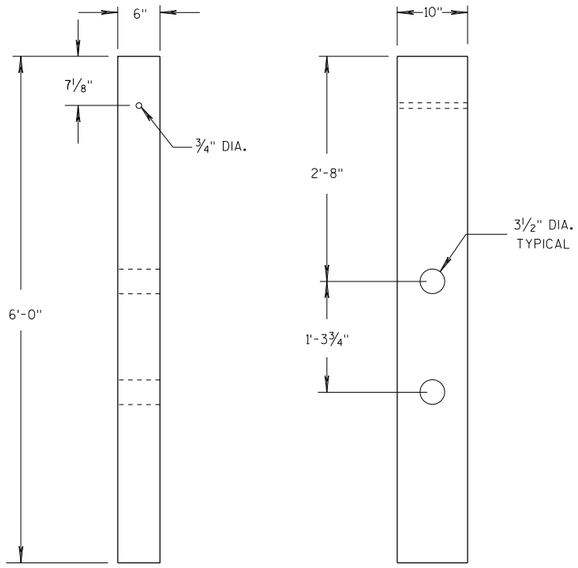
MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	52

6

S.D.D. 14 B 43-4b

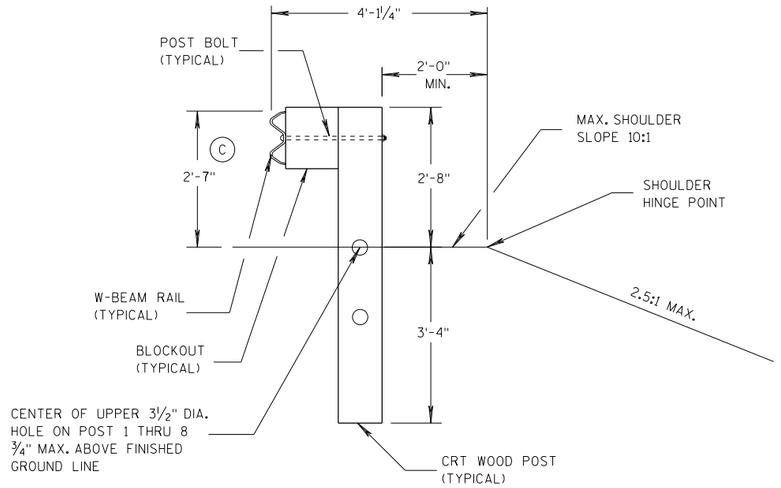


PLAN VIEW



FRONT VIEW SIDE VIEW

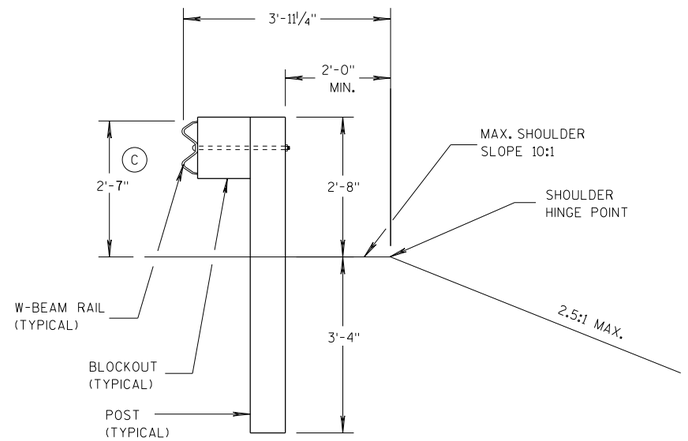
CRT WOOD POST



SECTION B-B

POSTS NO. 1-3

SEE OTHER DETAILS



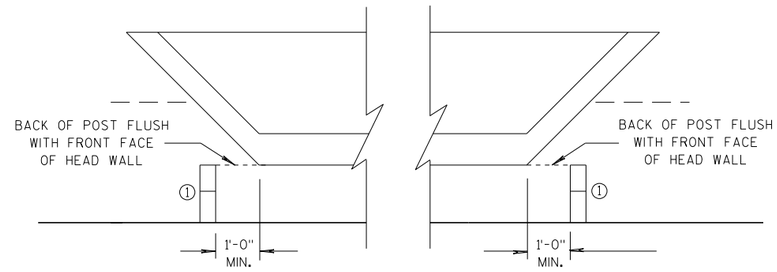
SECTION A-A

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 DIRECTOR
ENGINEER

S.D.D. 14 B 43-4c

6

S.D.D. 14 B 43-4c

6

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.

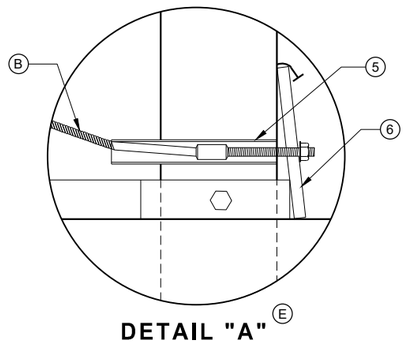
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

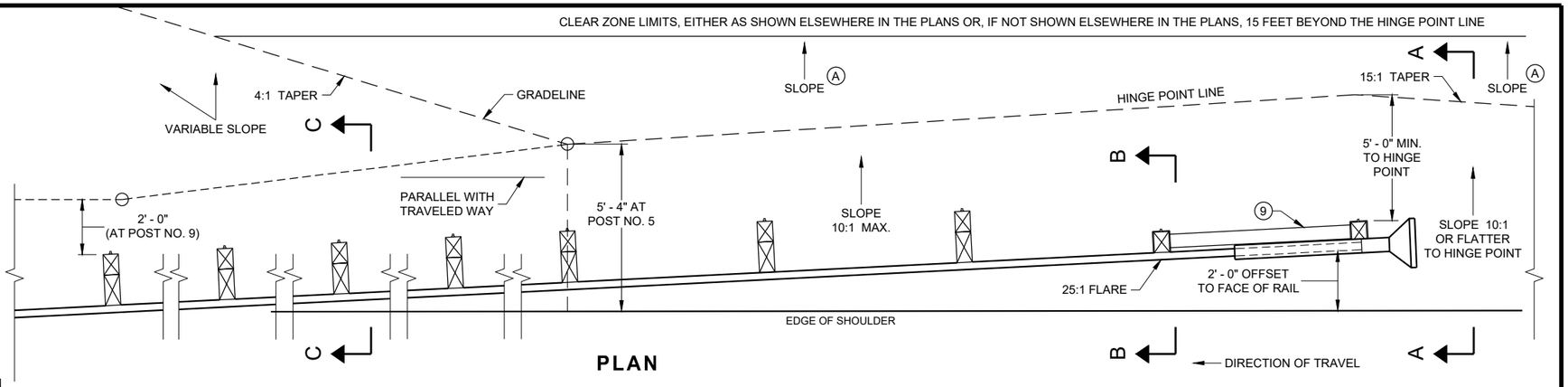
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

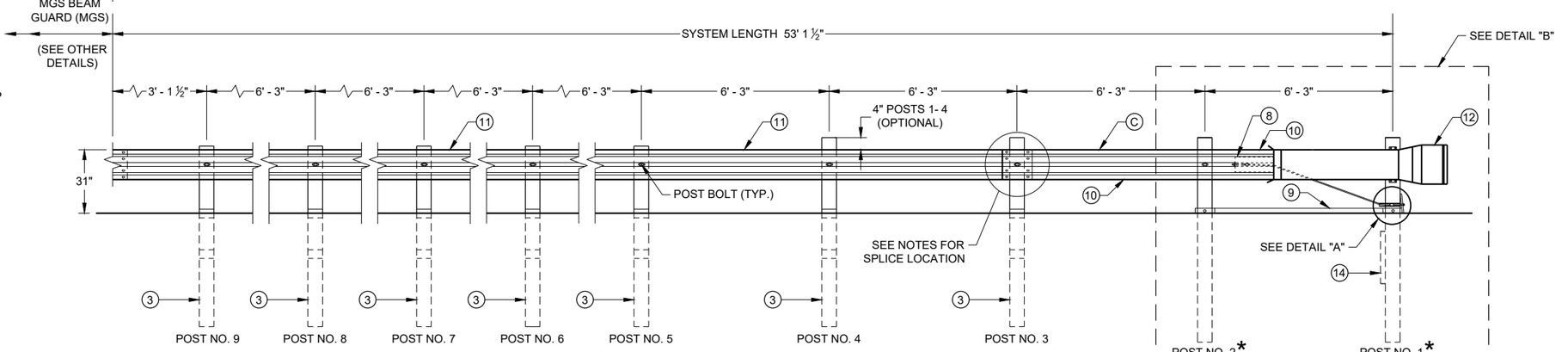
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



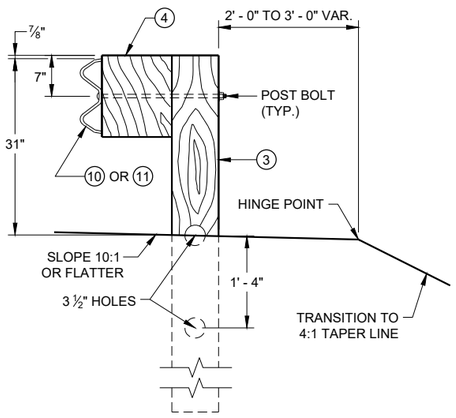
DETAIL "A" (E)



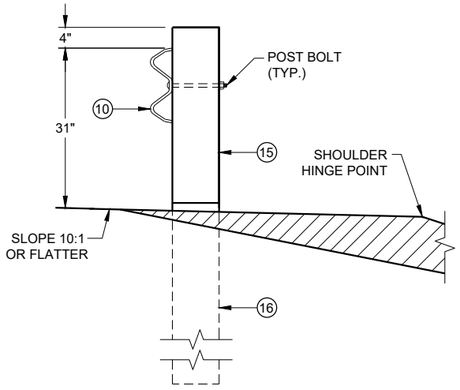
PLAN



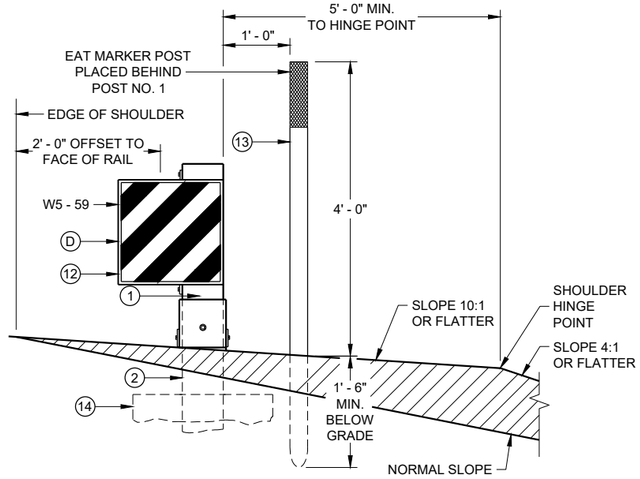
ELEVATION



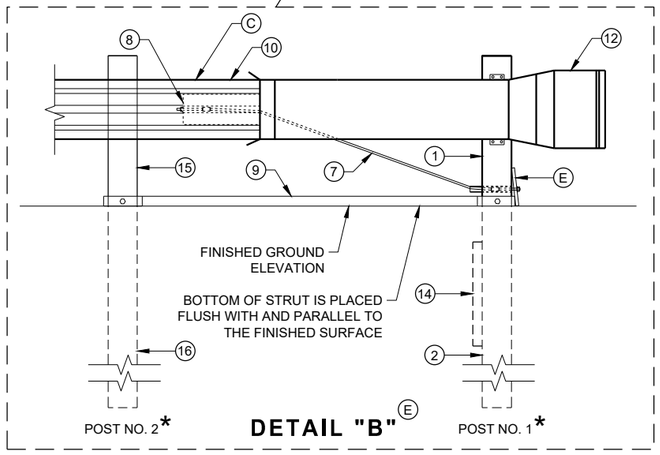
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



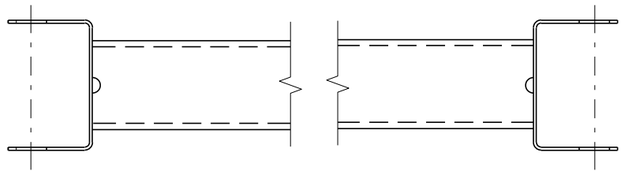
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

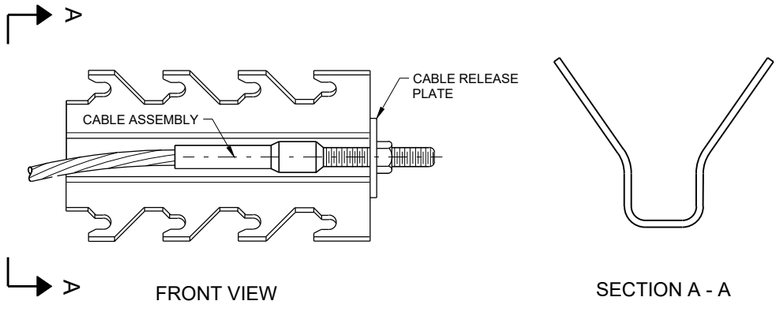
SDD 14B44 - 04a



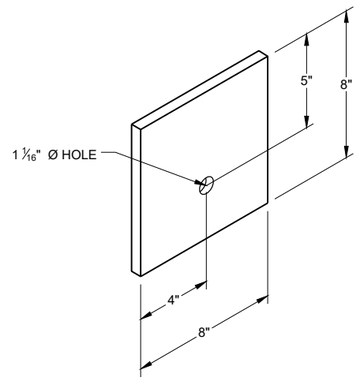
GENERIC GROUND STRUT ⑨ Ⓔ

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 Ⓔ



BEARING PLATE ⑥ Ⓔ

6

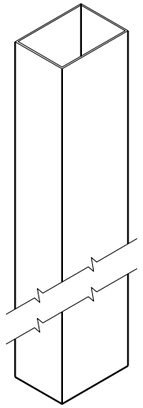
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SDD 14B44 - 04b

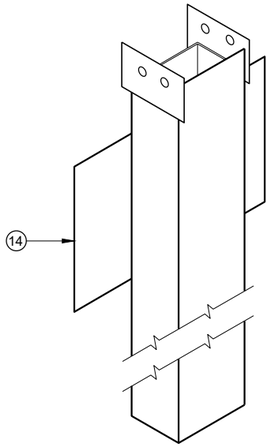
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

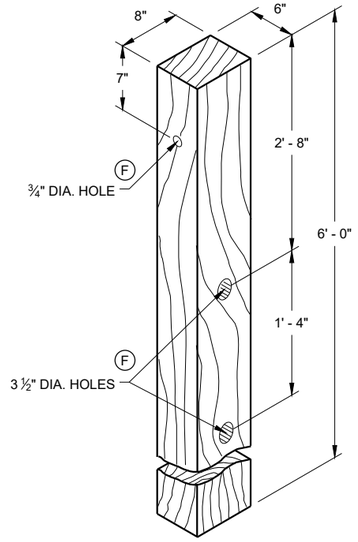
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



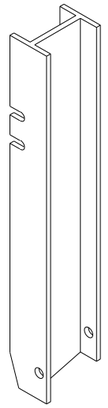
UPPER POST NO. 1 (1) (E)



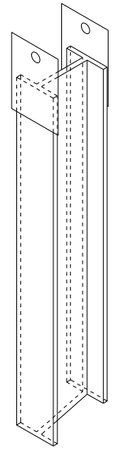
LOWER POST NO. 1 (2) (E)



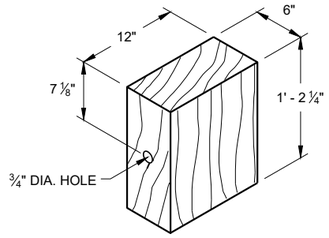
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



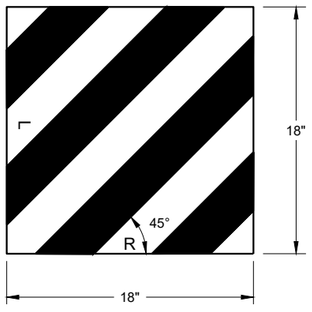
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

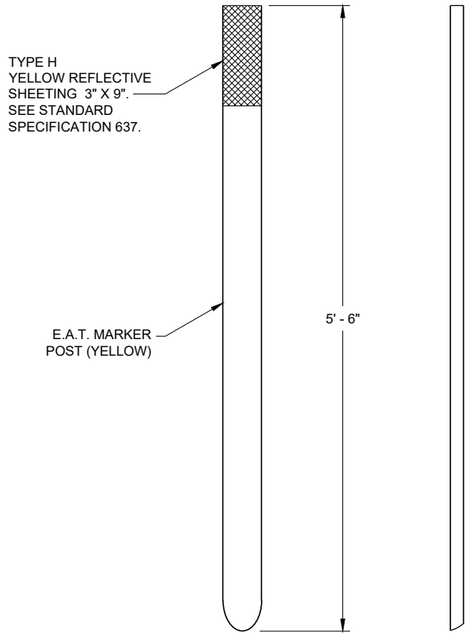


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



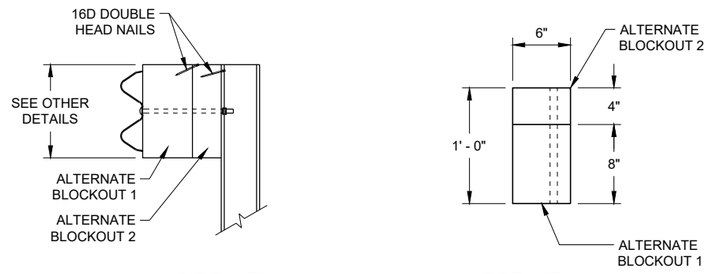
W5 - 59

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)

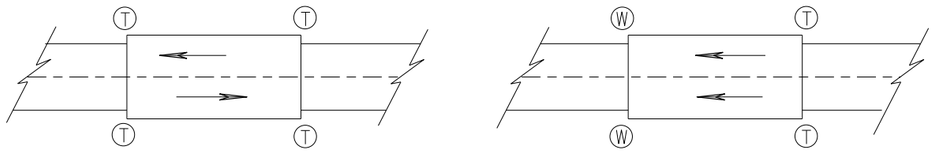
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.

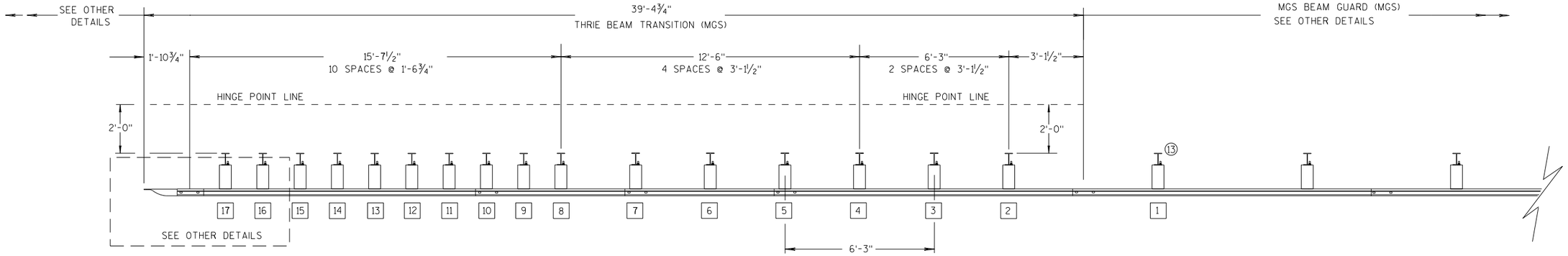
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

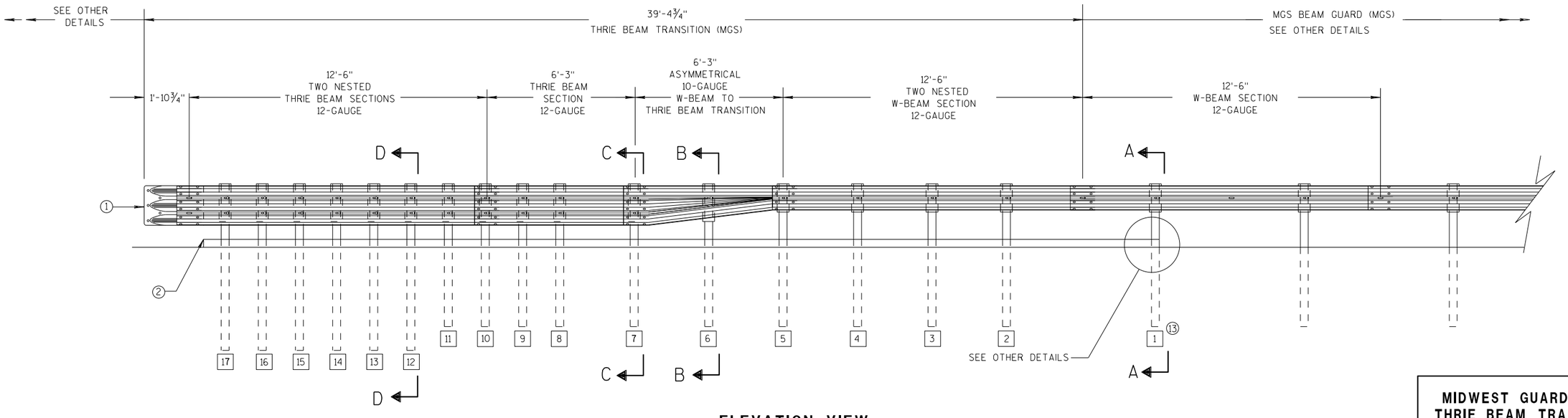
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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 TRANSPOF

6

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

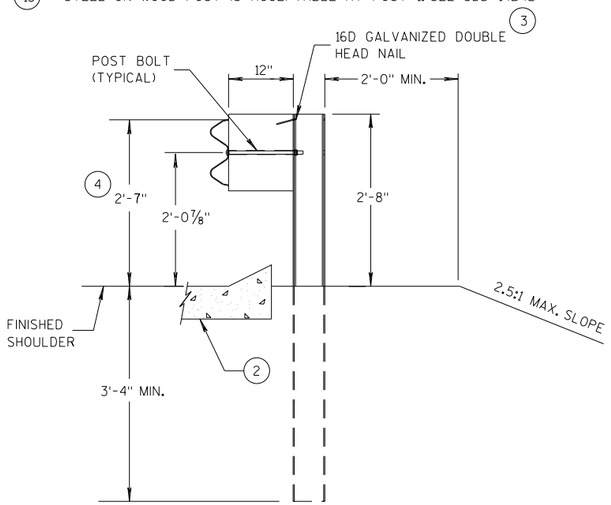
GENERAL NOTES

(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.

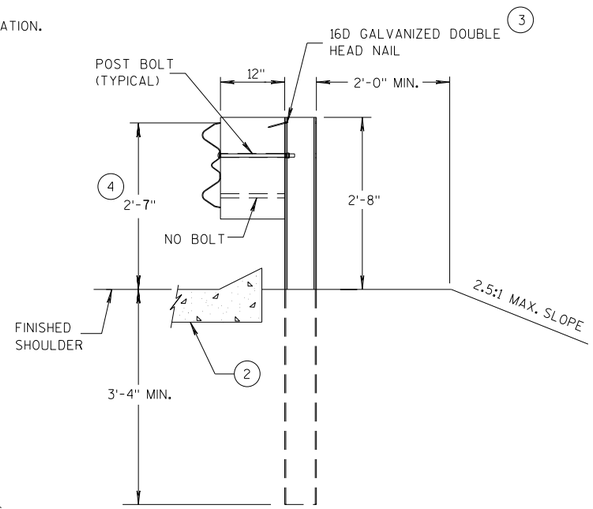
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



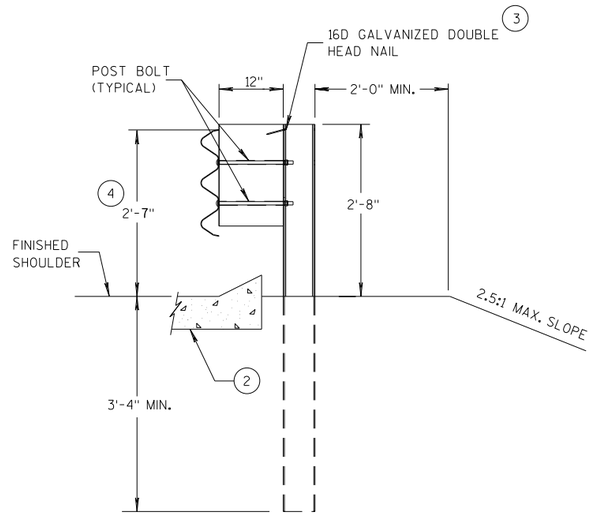
SECTION A-A (13)

POSTS 1-5



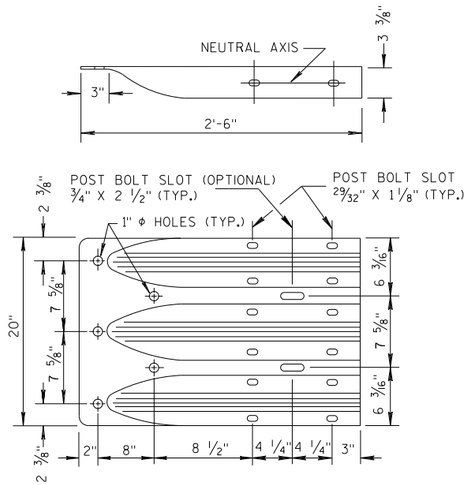
SECTION B-B

POST 6

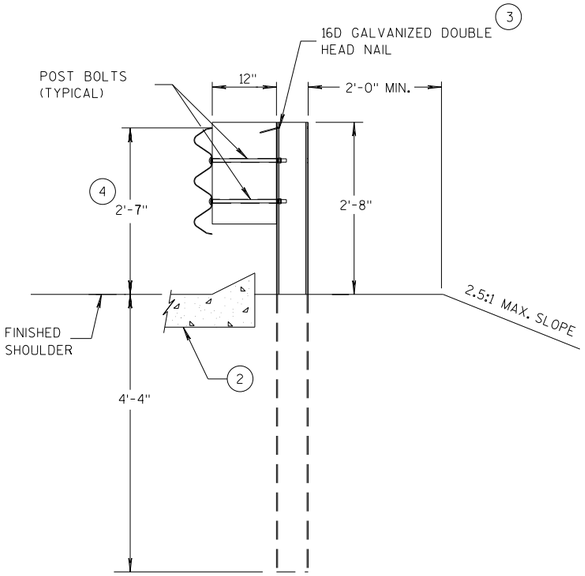


SECTION C-C

POSTS 7-11

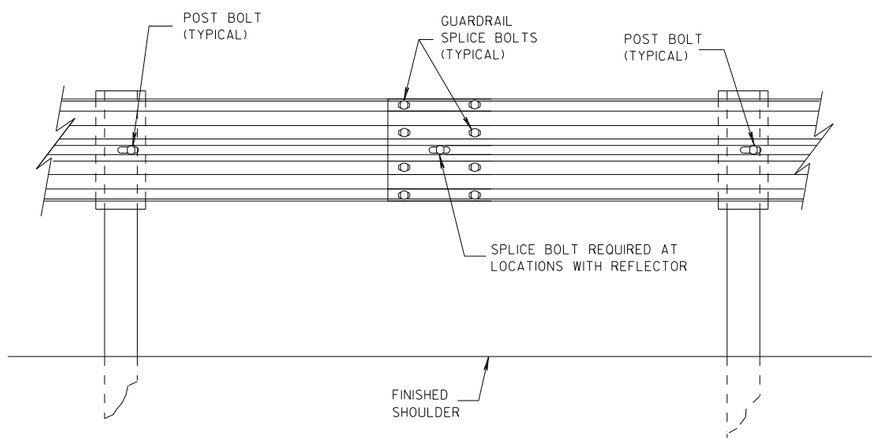


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

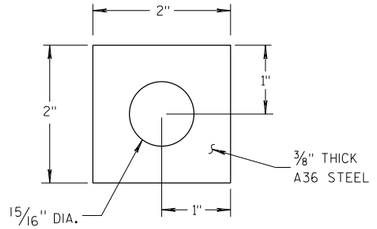
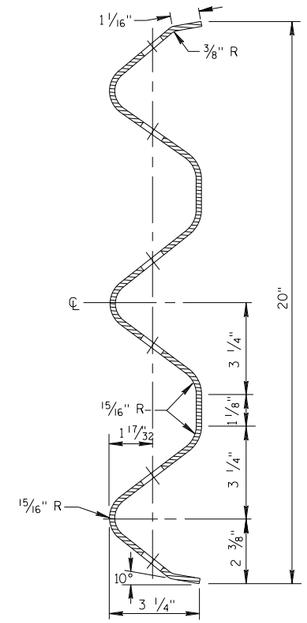


PLATE WASHER DETAIL



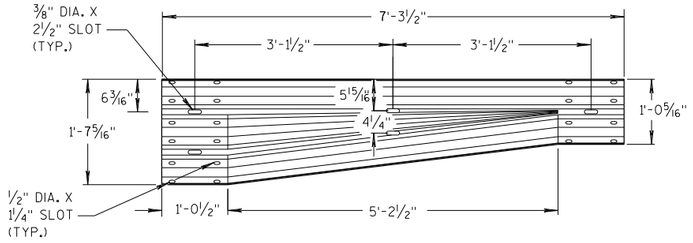
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

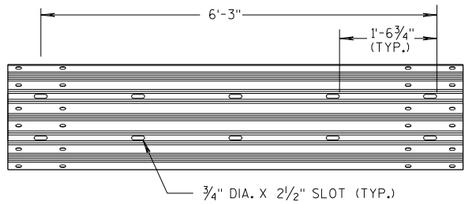
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

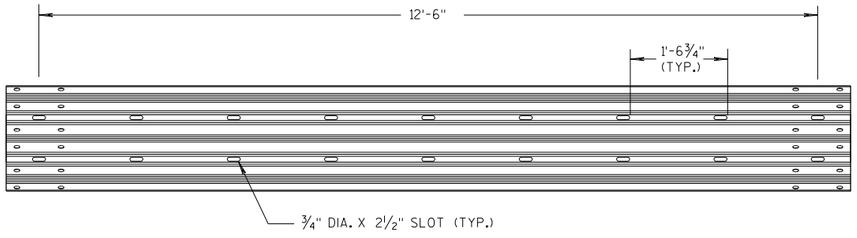
S.D.D. 14 B 45-5b



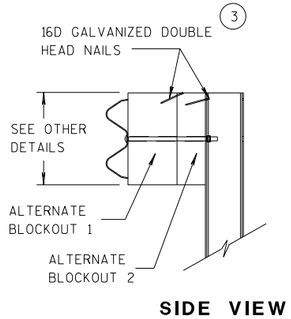
W-BEAM TO THRIE BEAM TRANSITION SECTION



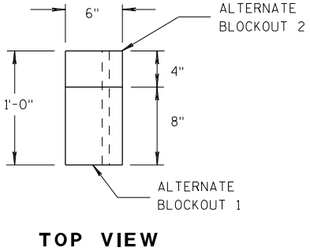
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

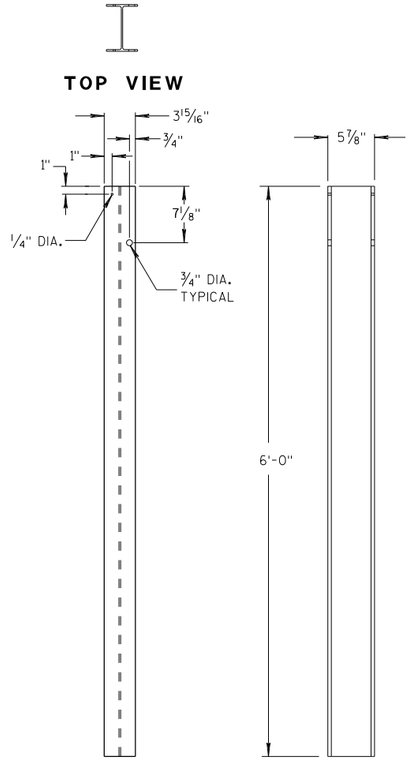


SIDE VIEW



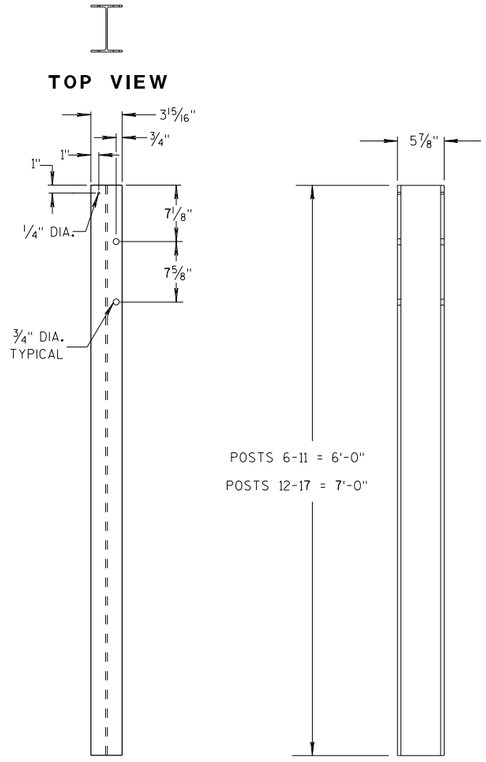
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



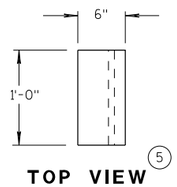
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

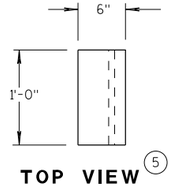


FRONT VIEW SIDE VIEW

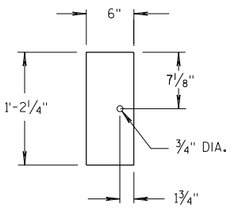
STEEL POSTS 6-17



TOP VIEW (5)

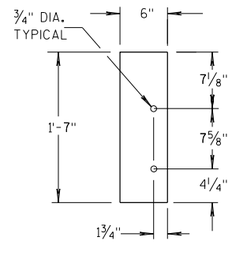


TOP VIEW (5)



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.

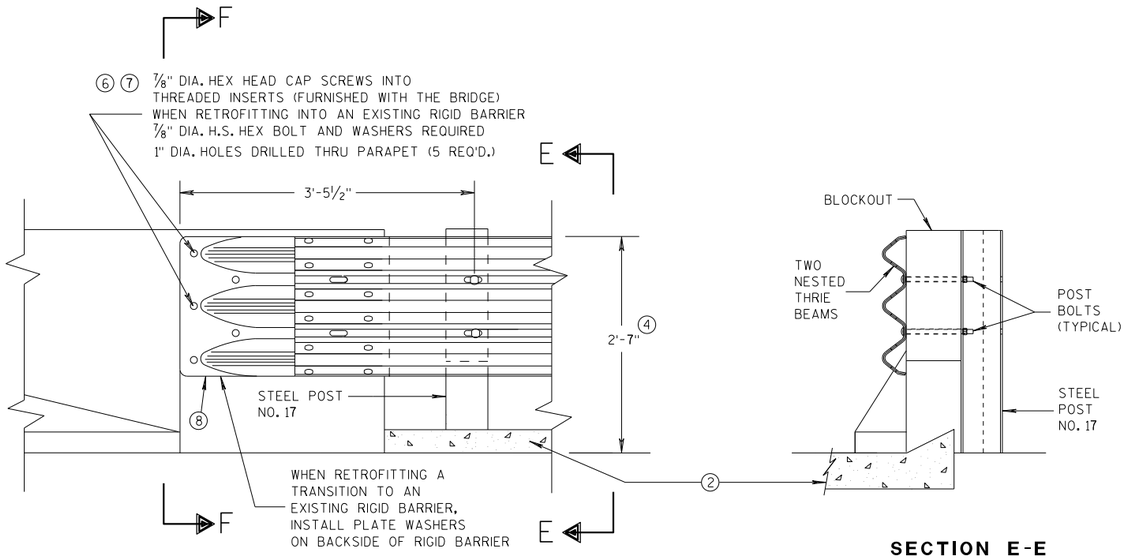
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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



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.

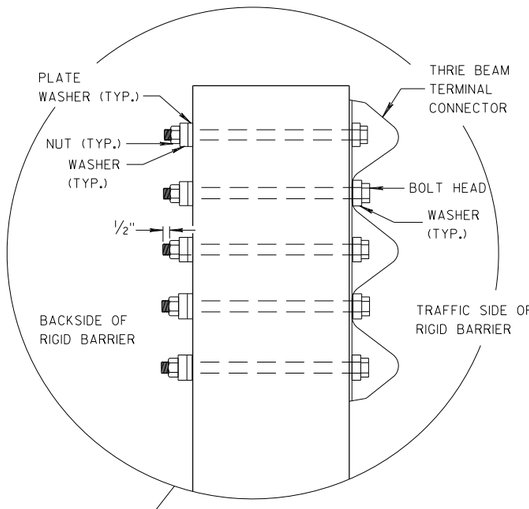
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

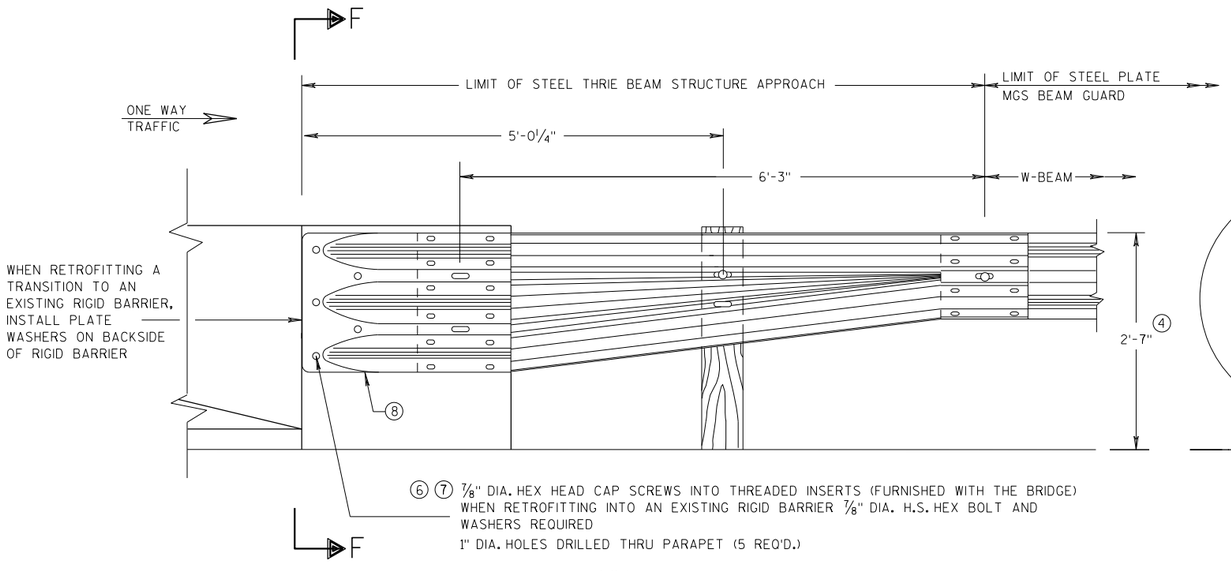
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

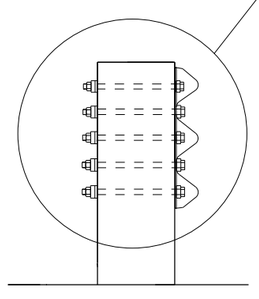
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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".

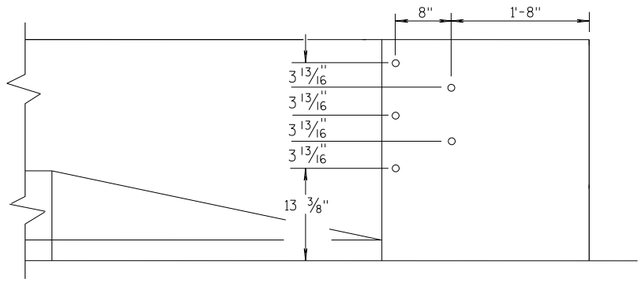




FRONT VIEW



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
FHWA

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

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.

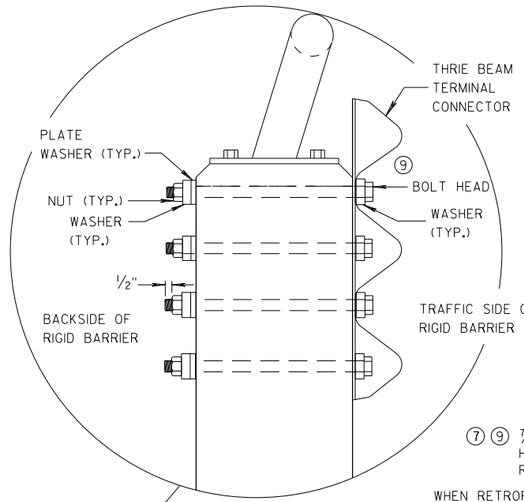
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

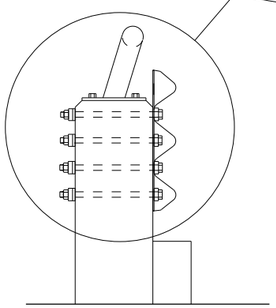
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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.

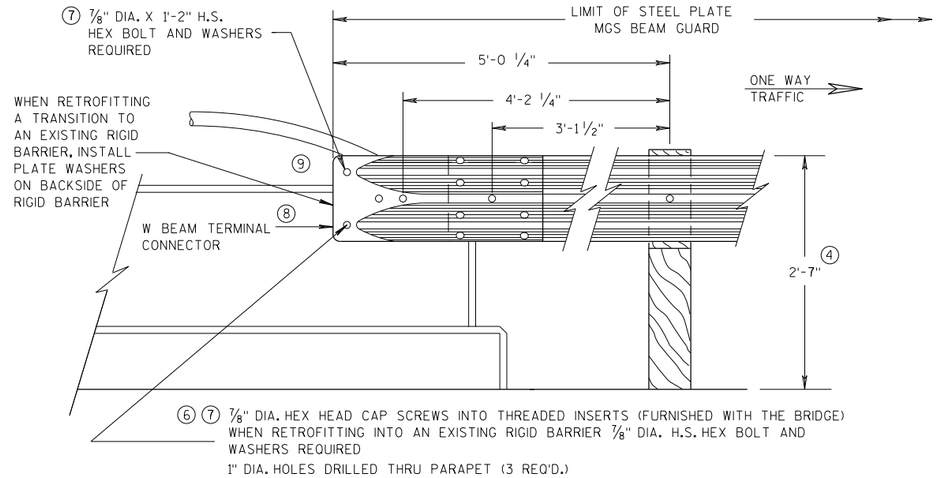
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(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.





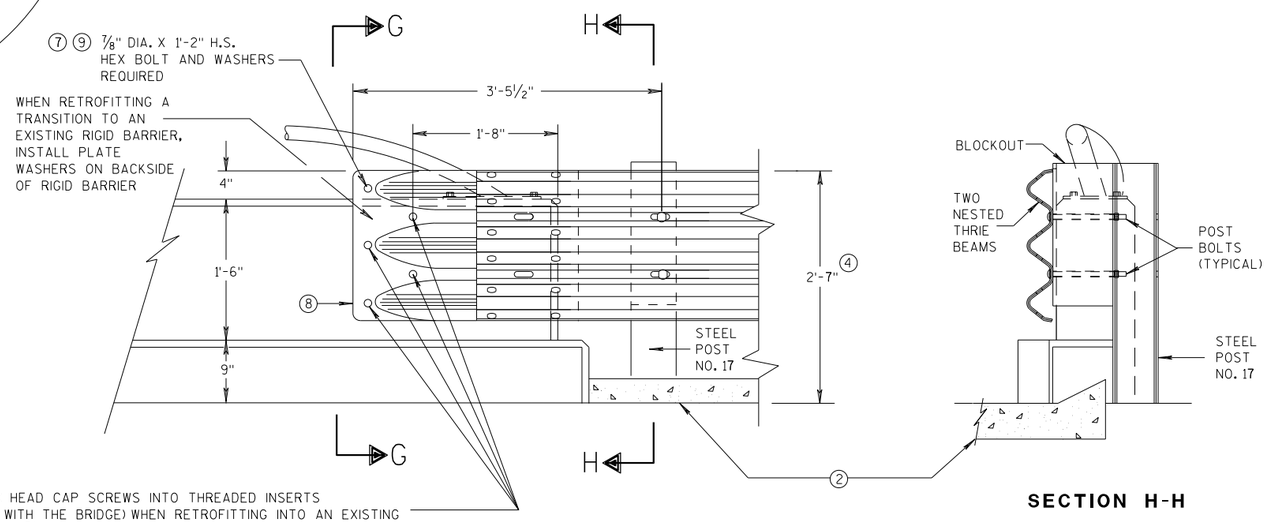
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

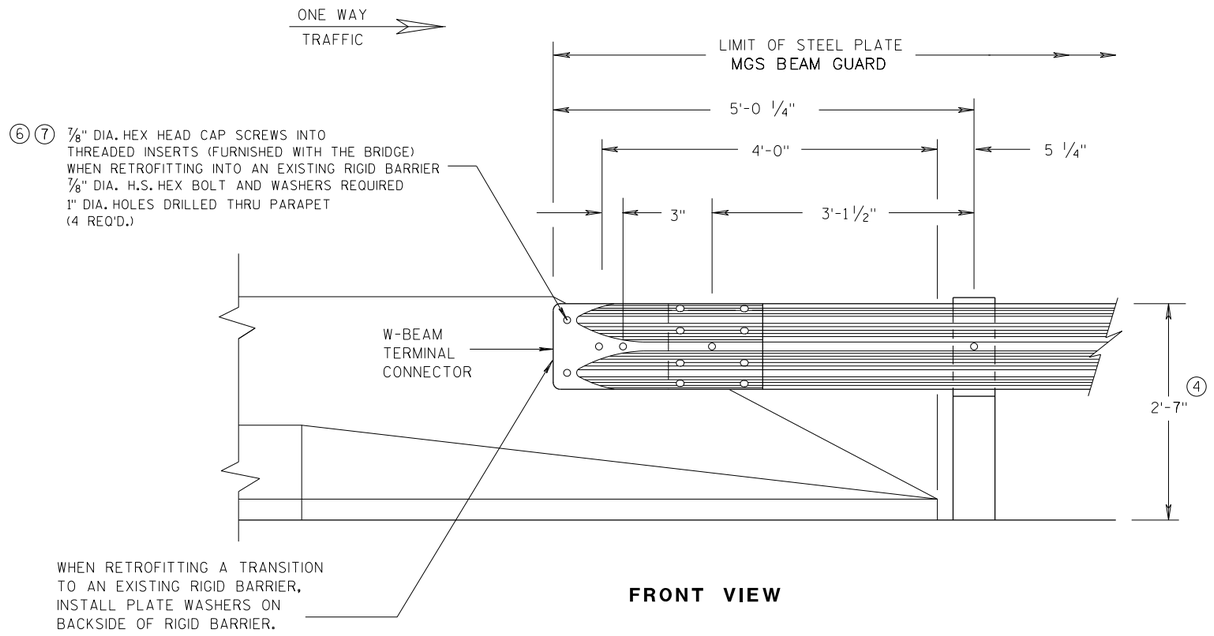
APPROVED
07/2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D[illegible] UNIT SUPERVIS[illegible]
FHWA

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

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



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

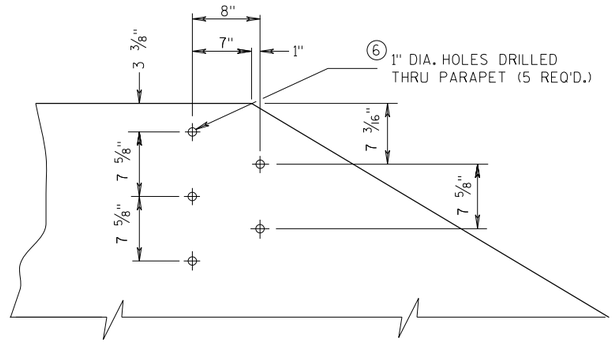
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

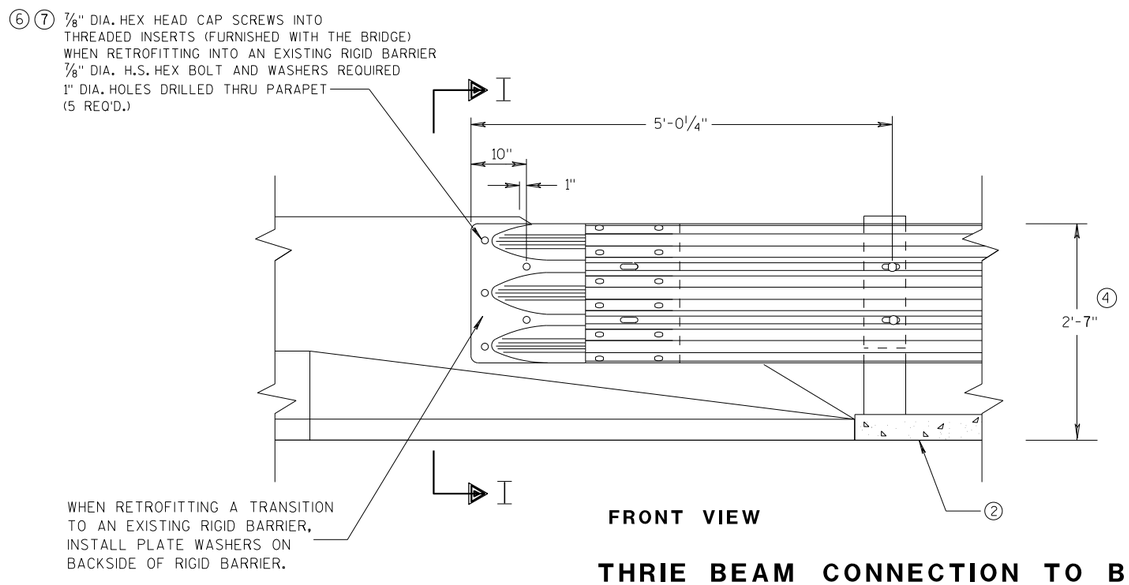
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

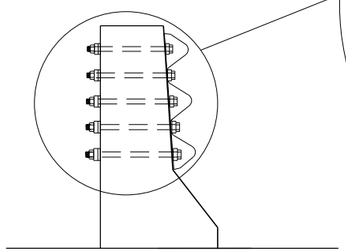
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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.



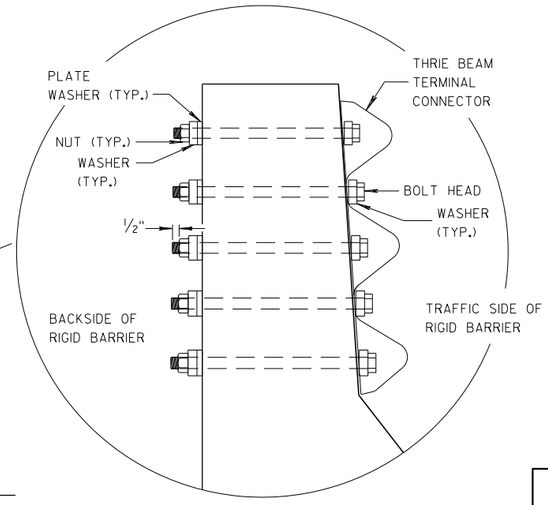
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



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

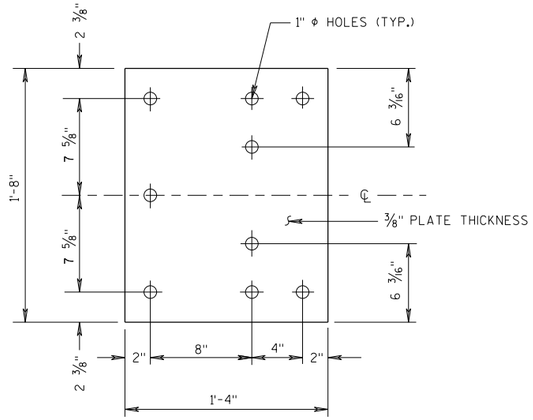
APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS [illegible] UNIT SUPERVI[illegible]ENT
FHWA

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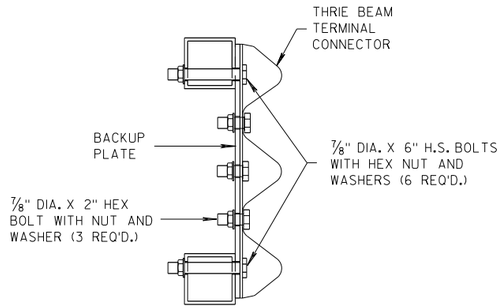
S.D.D. 14 B 45-5f

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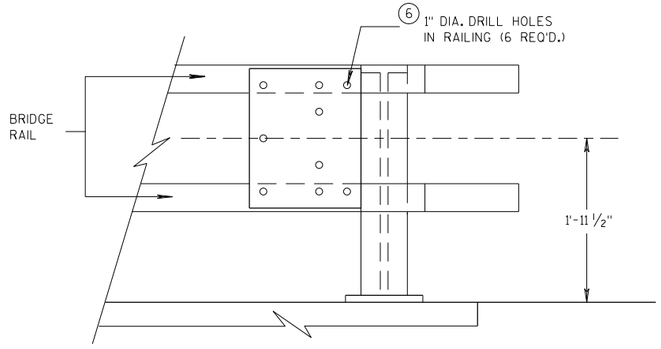
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL



SECTION J-J

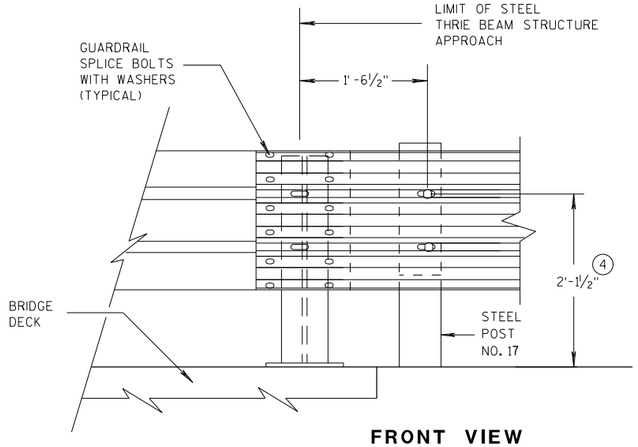


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

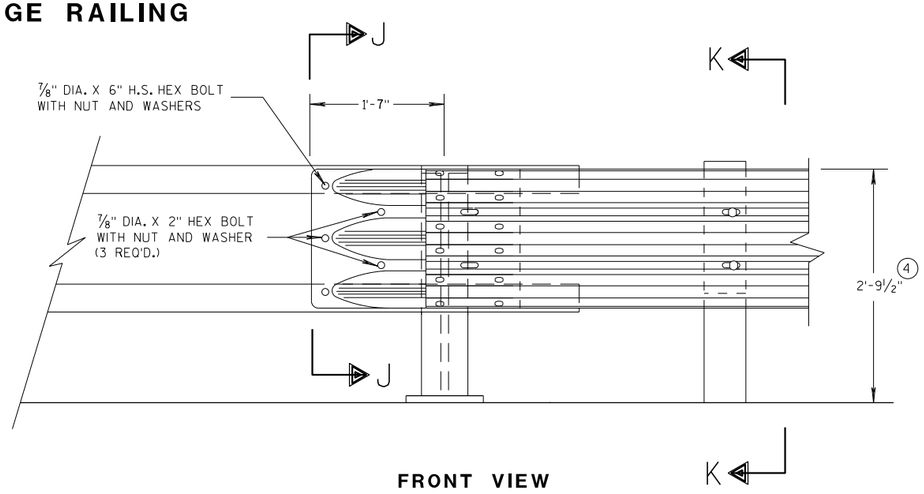
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

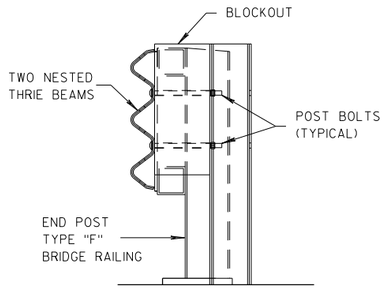


FRONT VIEW

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
FHWA

/S/ Rodney Taylor 63
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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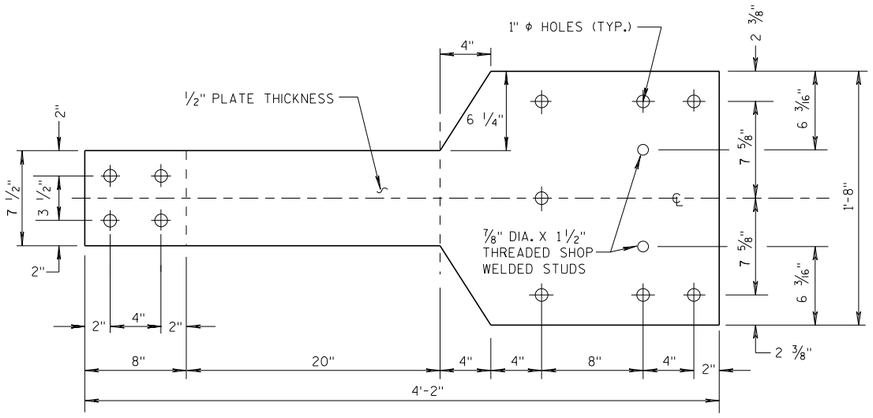
S.D.D. 14 B 45-5g

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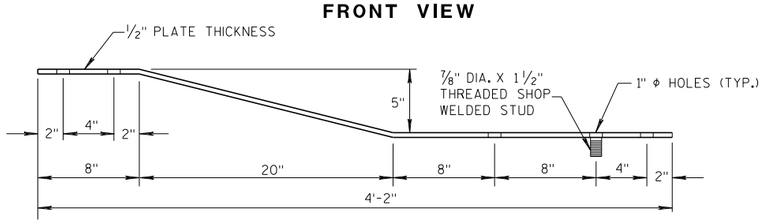
S.D.D. 14 B 45-5g

GENERAL NOTES

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

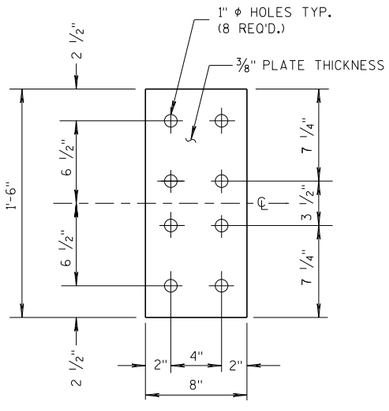


FRONT VIEW



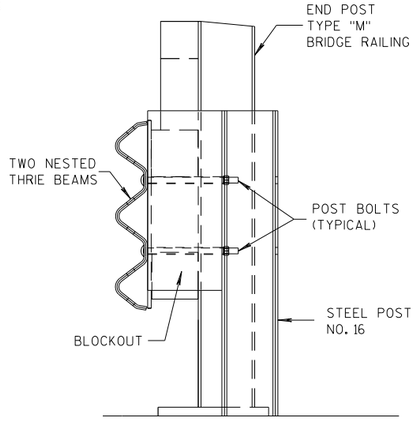
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

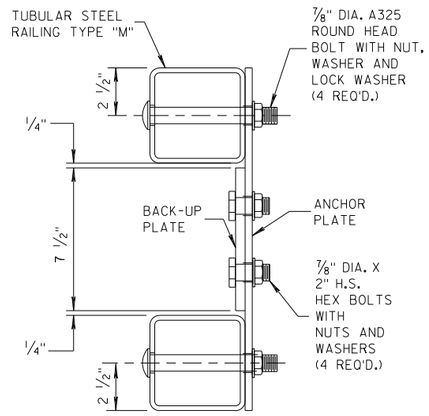


FRONT VIEW

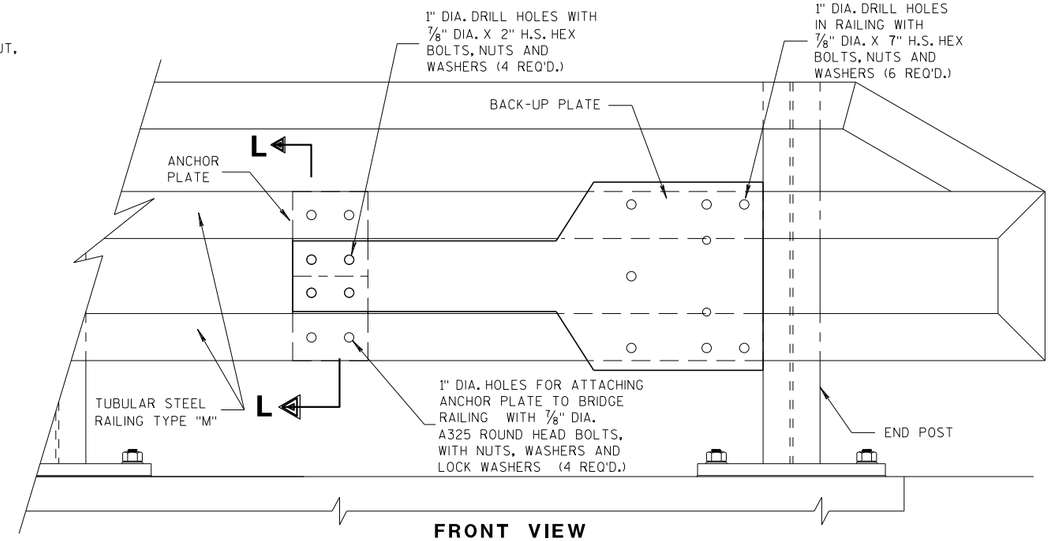
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

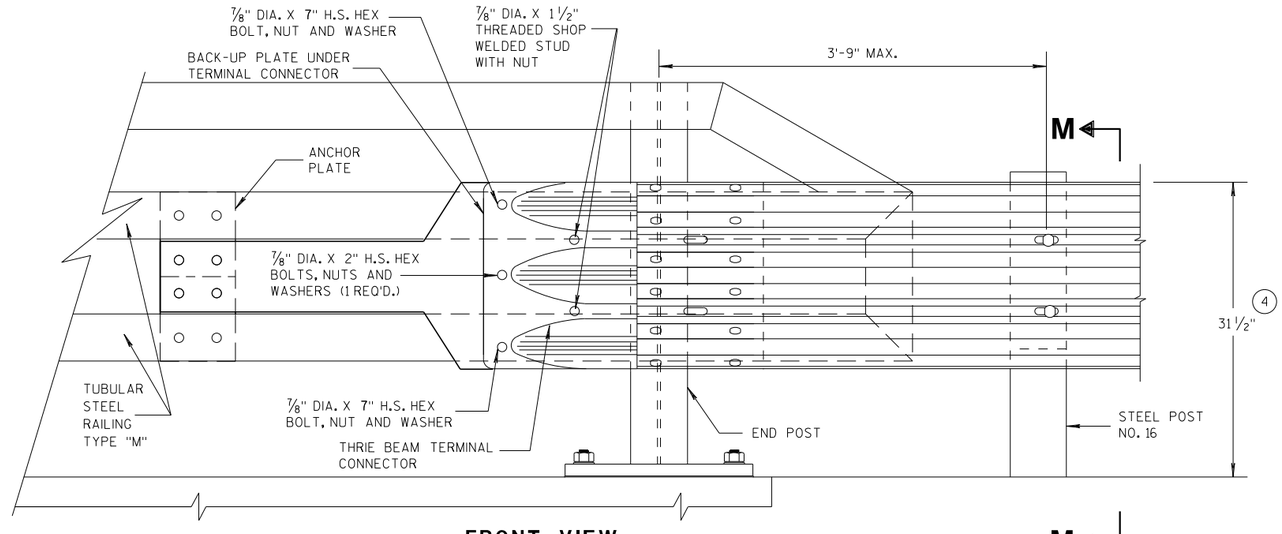


SECTION L-L

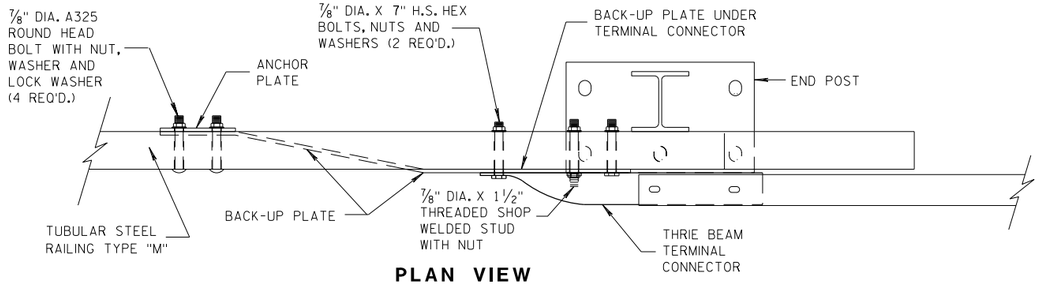


FRONT VIEW

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



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

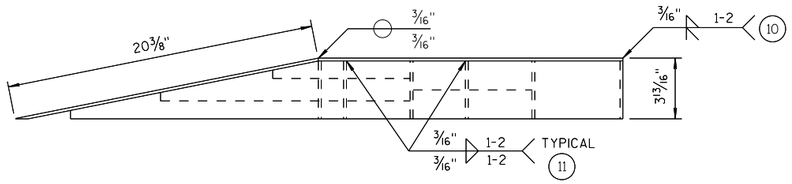
APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

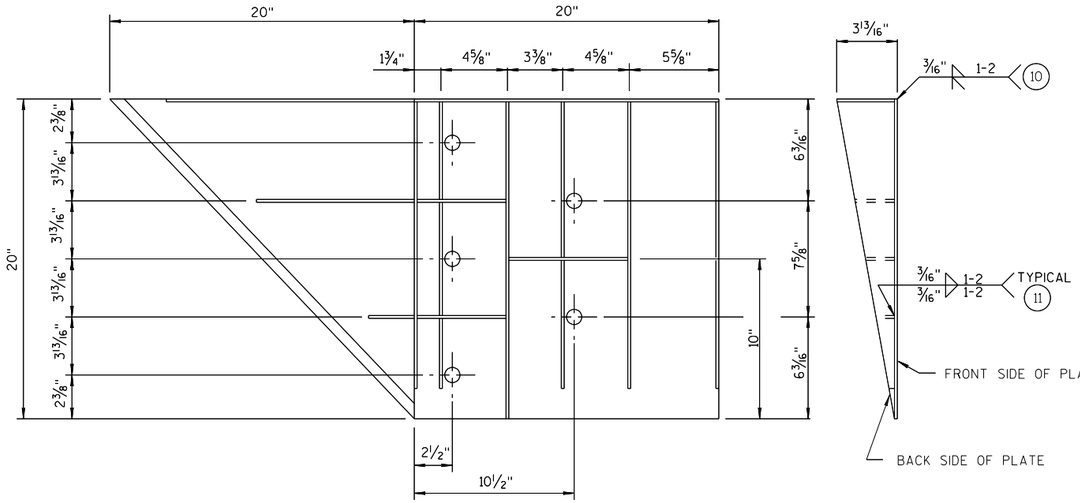
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S.D.D. 14 B 45-5h

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





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

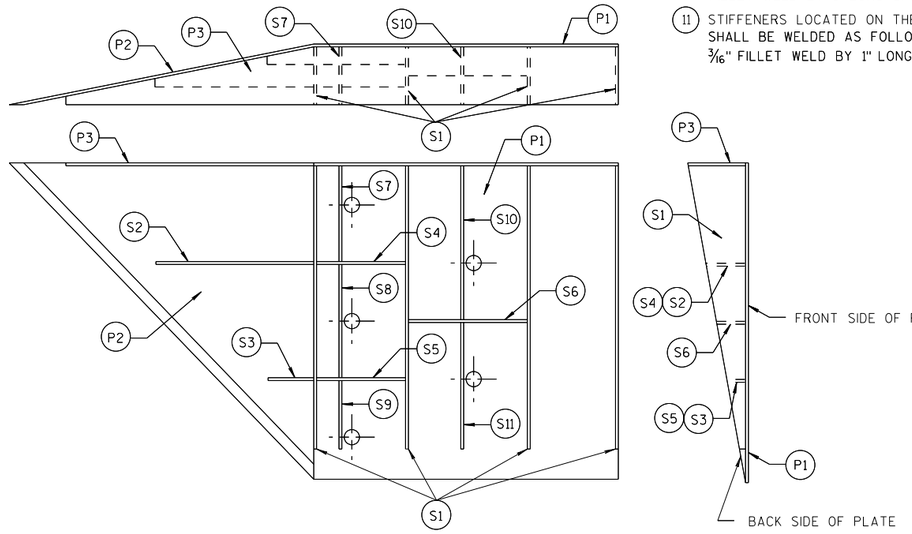


PLATE AND STIFFENER IDENTIFICATION

(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

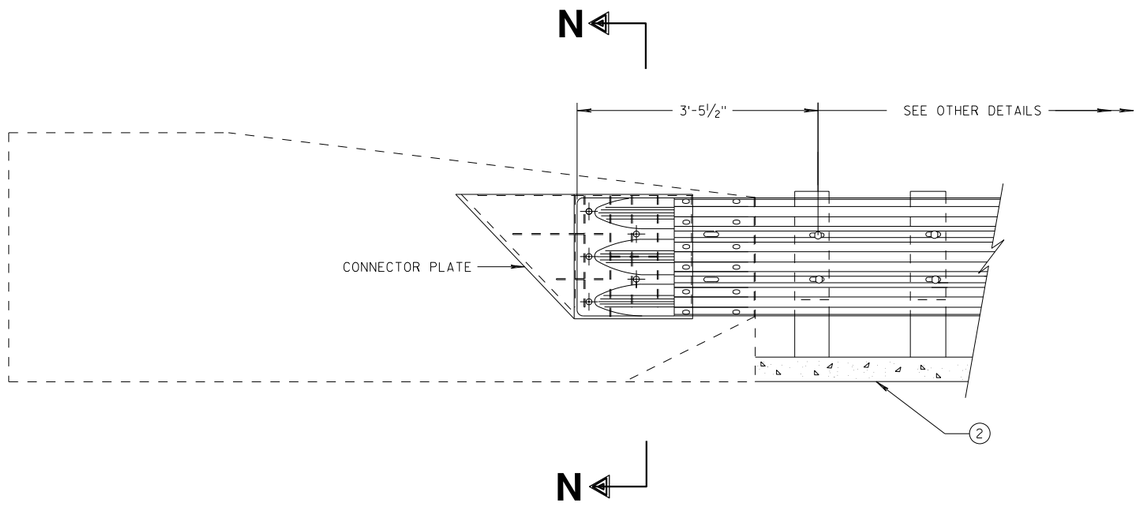
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

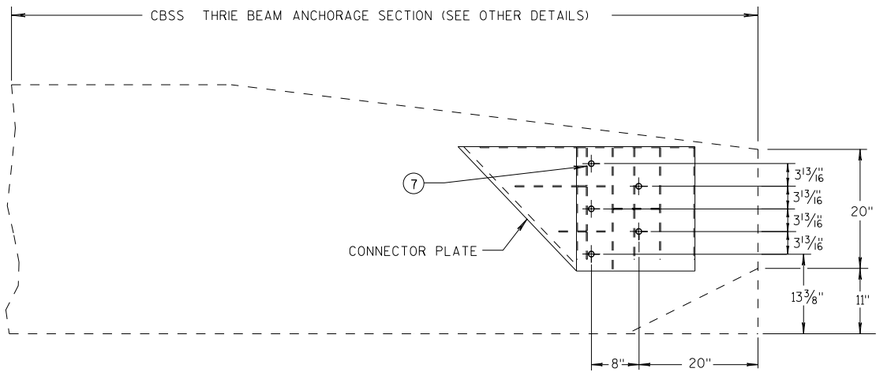
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7/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS I
UNIT SUPERVI

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



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



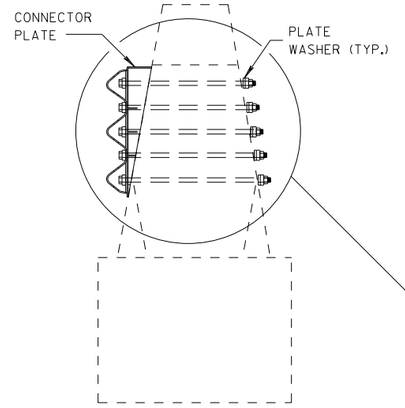
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

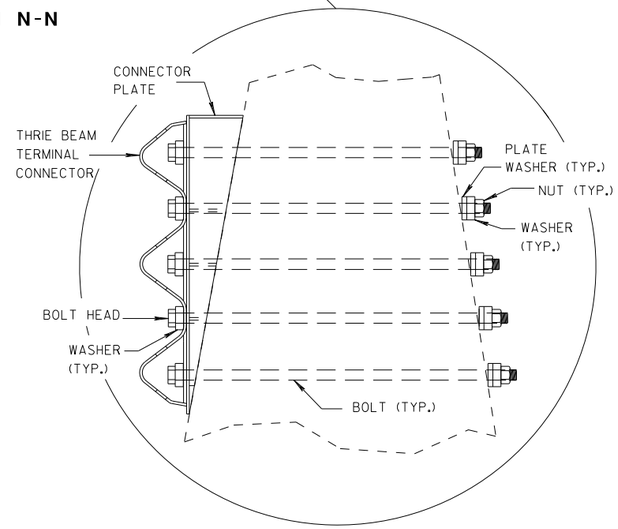
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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



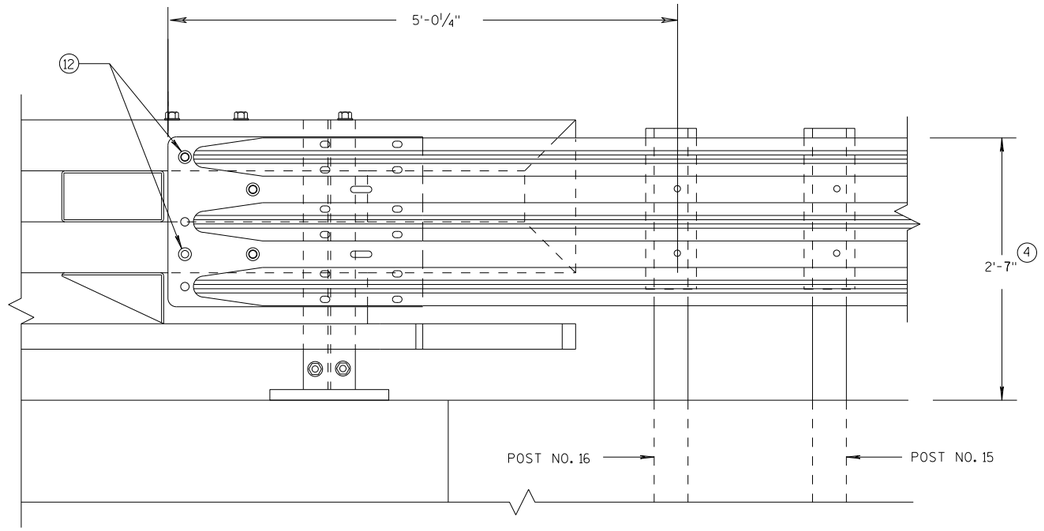
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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7/2018
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/S/ Rodney Taylor
ROADWAY STANDARDS DI NT
UNIT SUPERVIS
FHWA

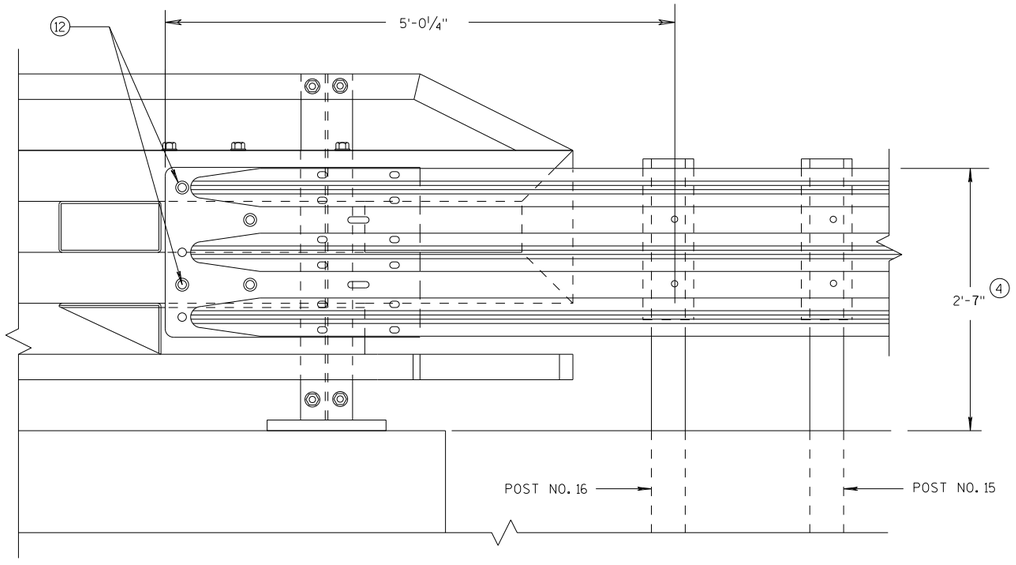
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S.D.D. 14 B 45-5j



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

APPROVED

7/2018
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS D
UNIT SUPERVIS

FHWA

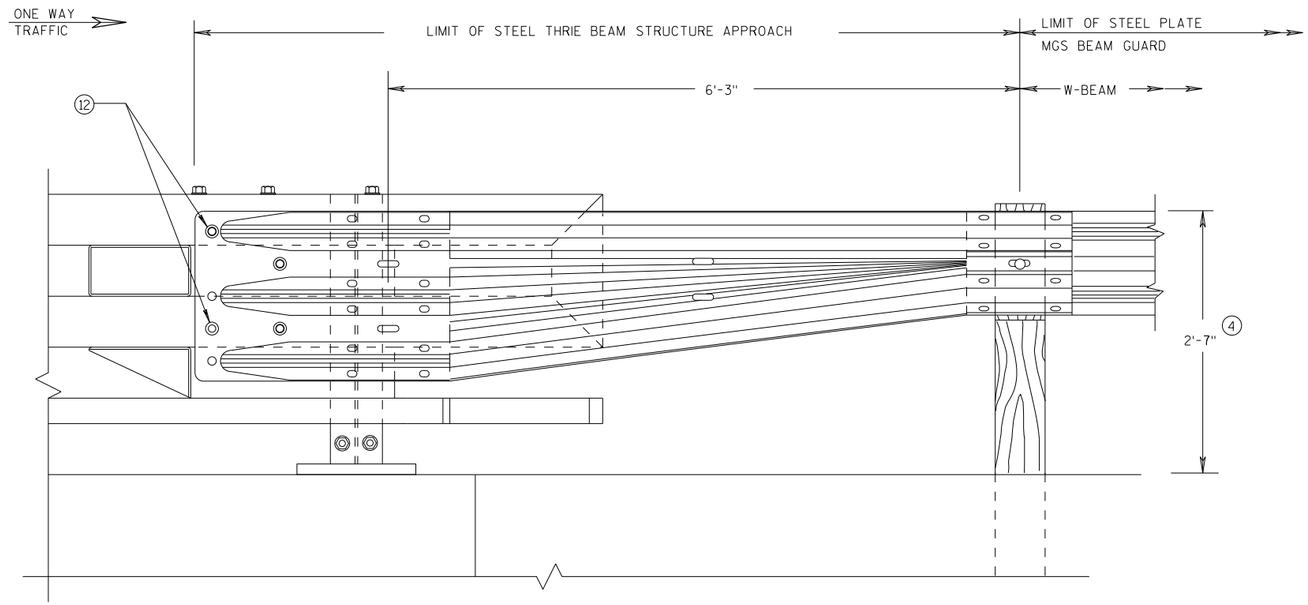
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S.D.D. 14 B 45-5k

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



FRONT VIEW

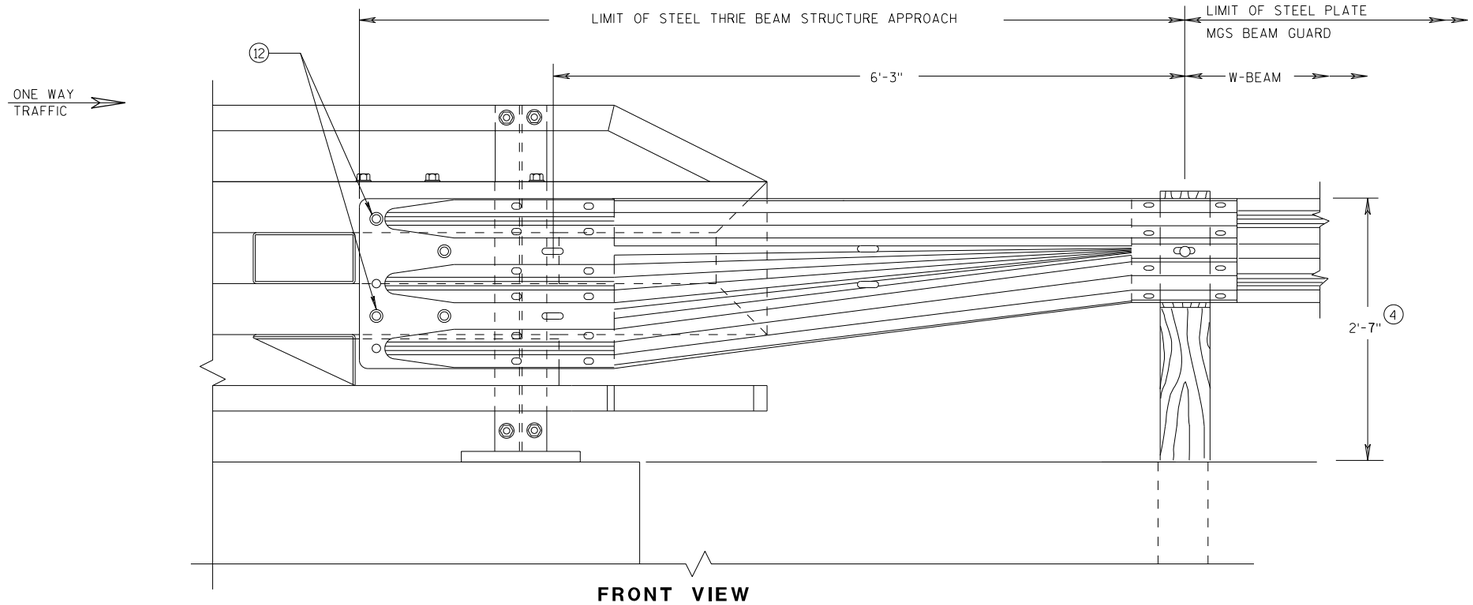
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(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
DEPARTMENT OF TRANSPORTATION

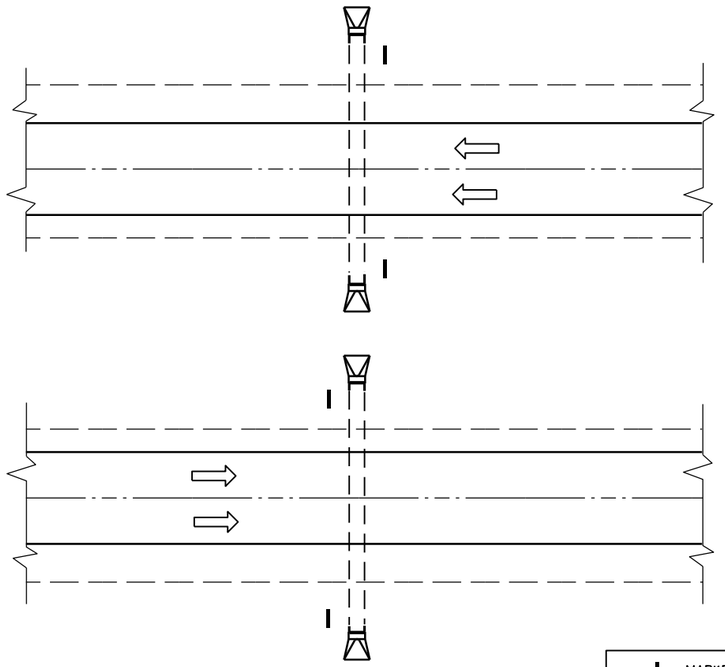
APPROVED
7/2018 DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D
UNIT SUPERVIS
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FHWA

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

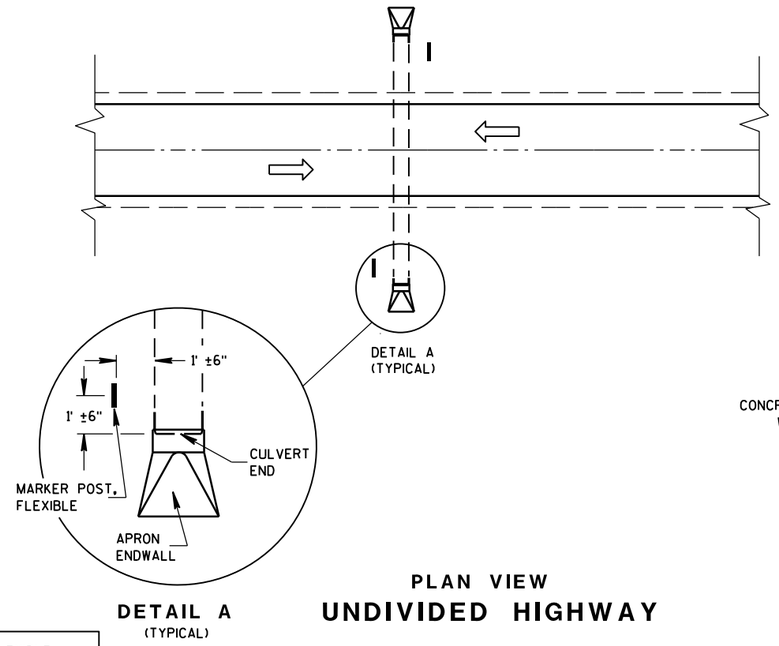
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S.D.D. 14 B 45-5L



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

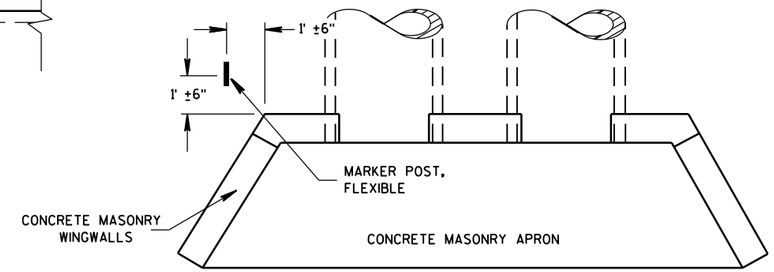
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

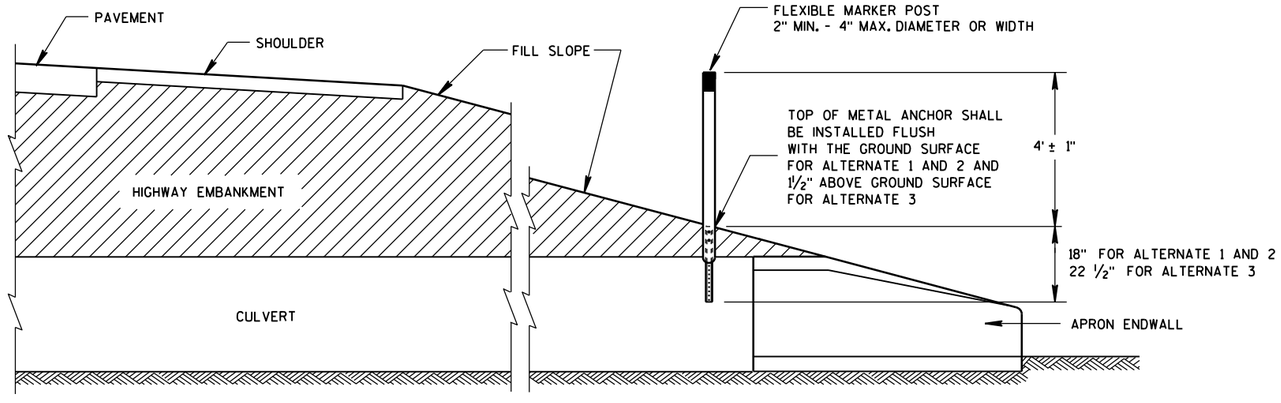
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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

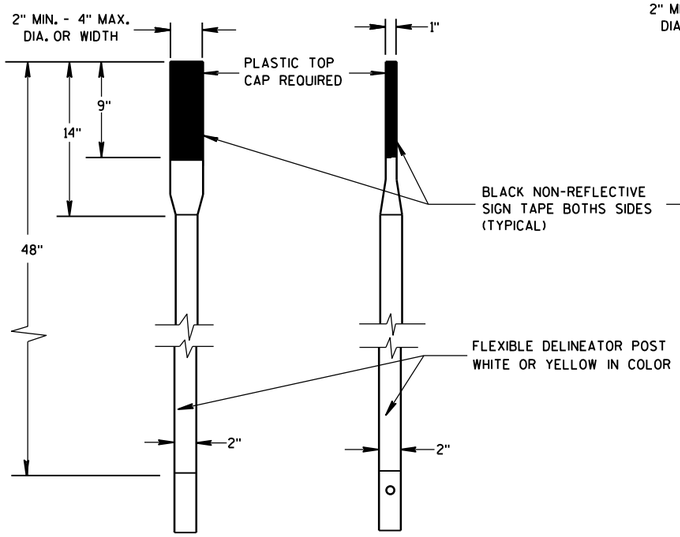
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

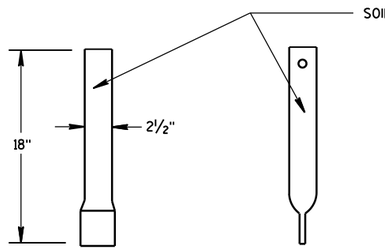
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S.D.D. 15 A 3-2a

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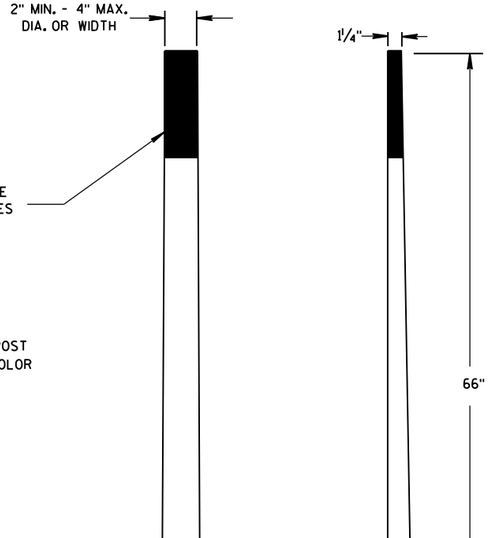
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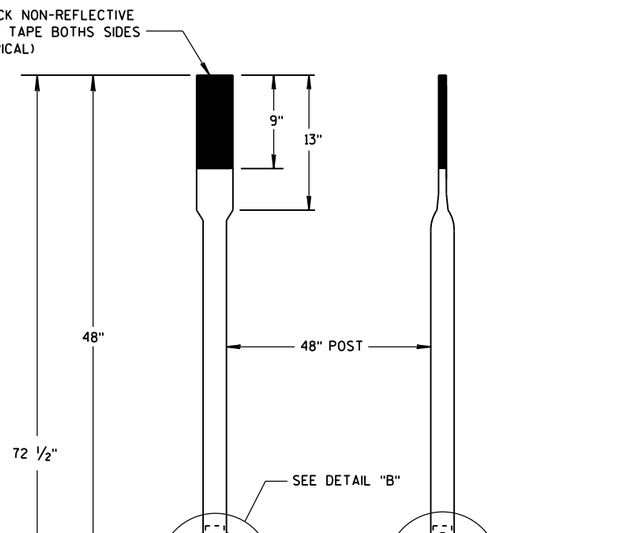
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

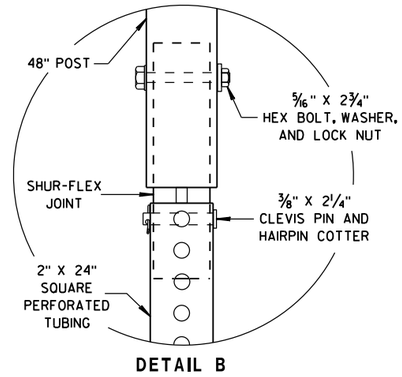
ALTERNATE 2



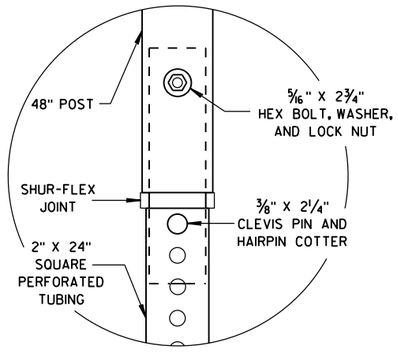
FRONT VIEW SIDE VIEW

ALTERNATE 3

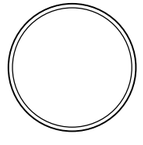
FLEXIBLE MARKER POSTS



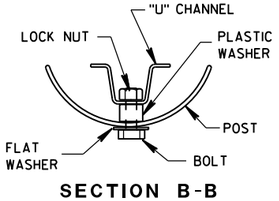
DETAIL B



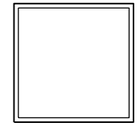
DETAIL C



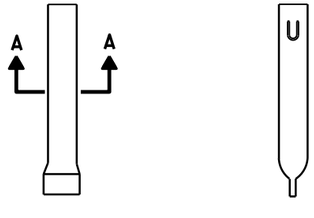
SECTION A-A



SECTION B-B

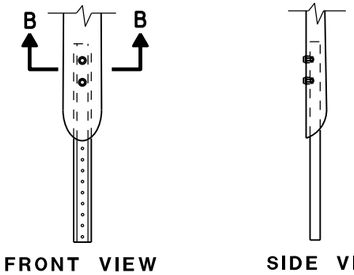


SECTION C-C



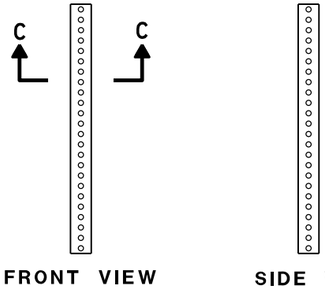
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

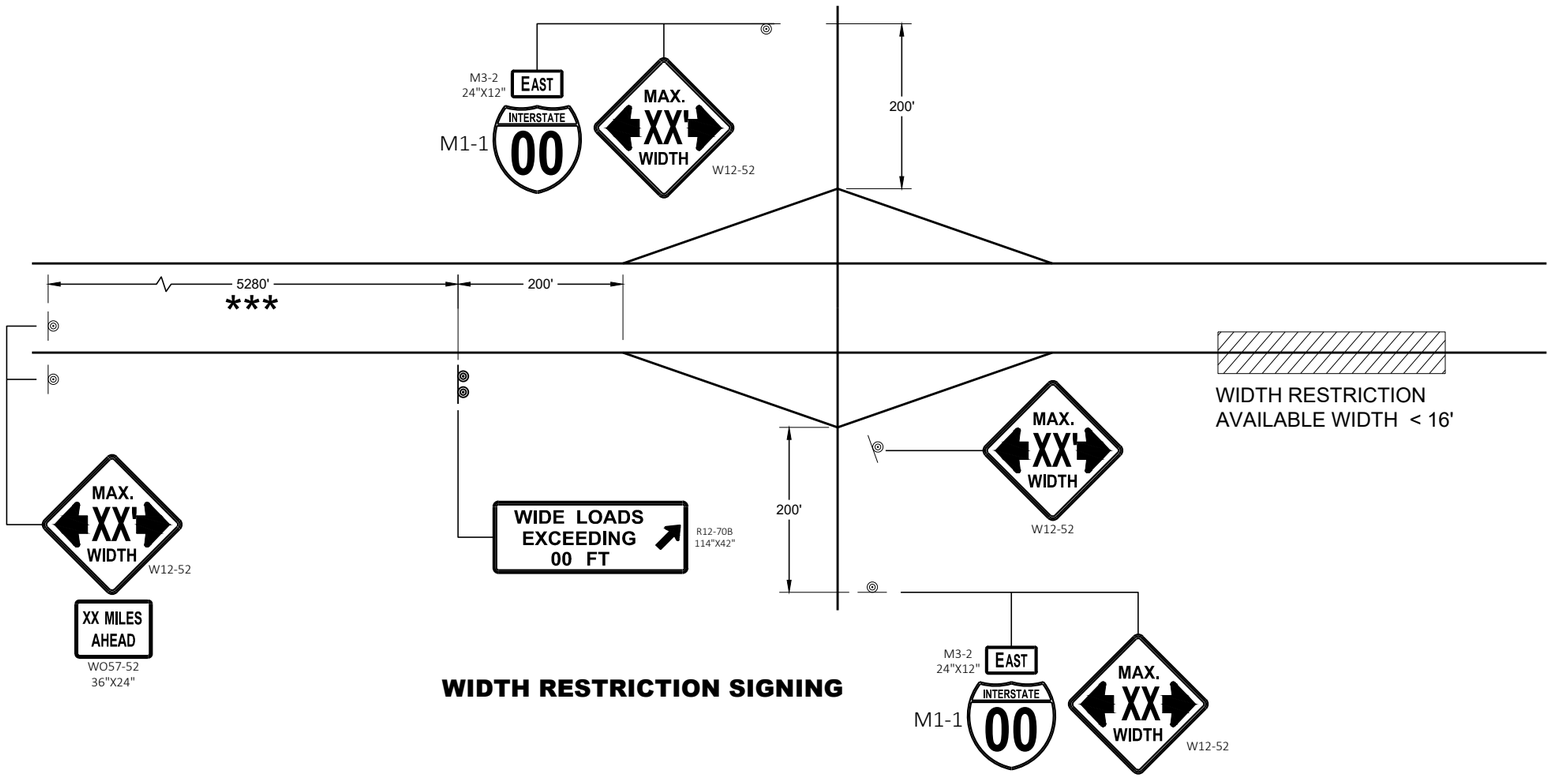
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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

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



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.

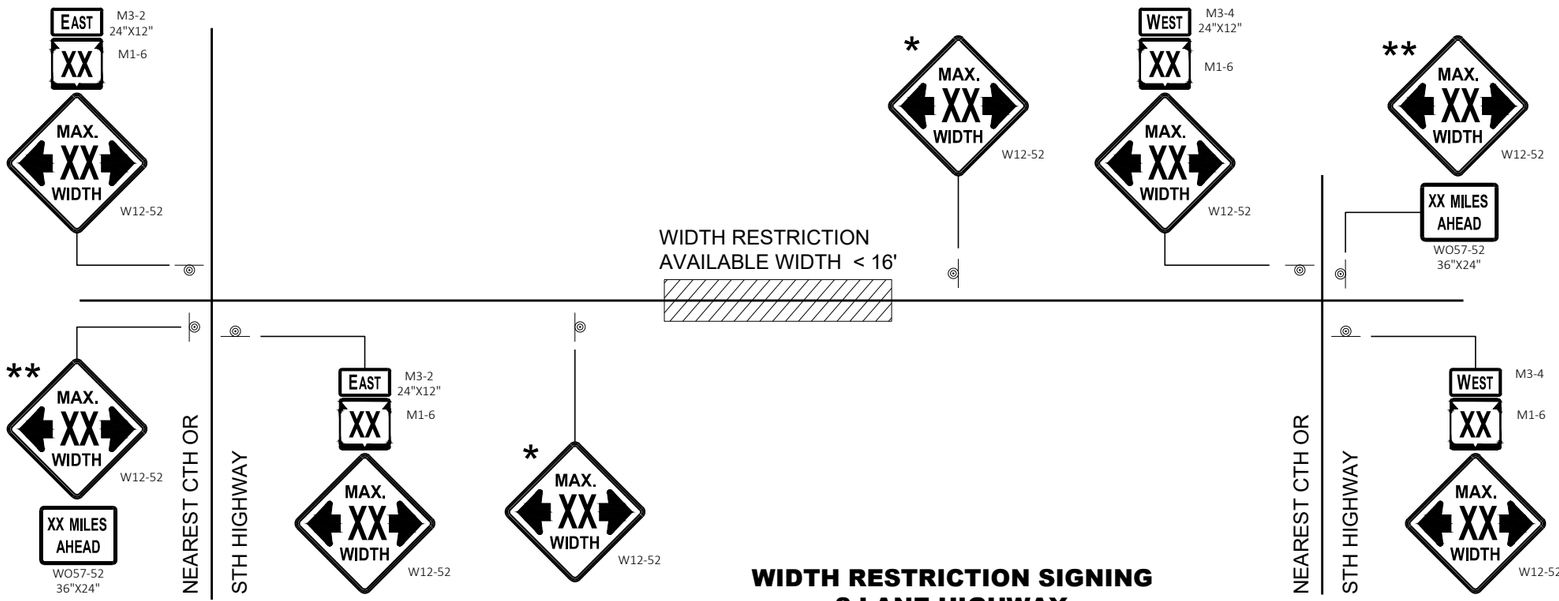
* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** 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

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.

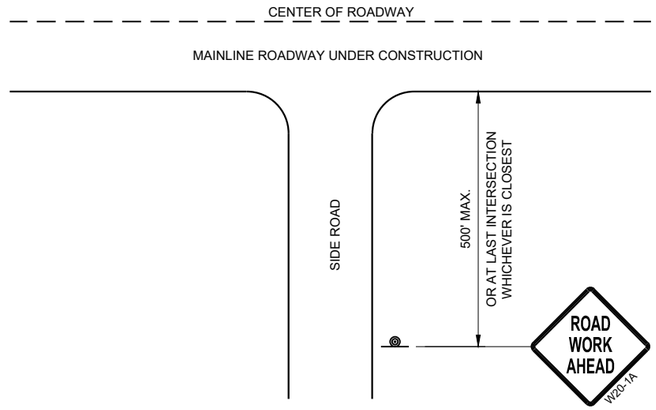
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

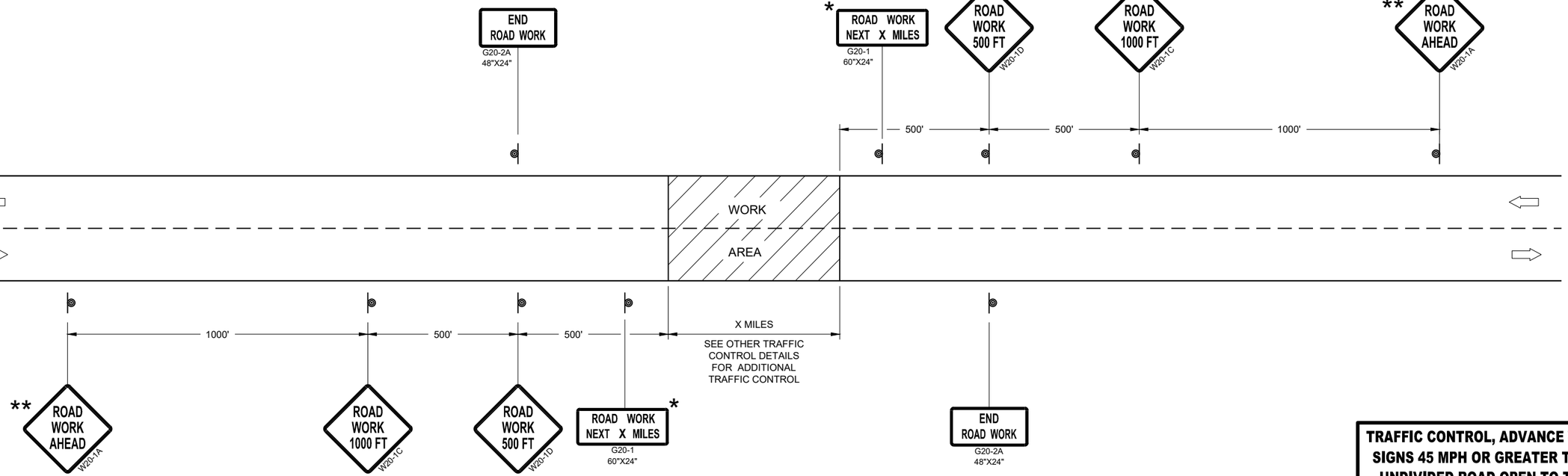
** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



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 TRAFFIC

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.

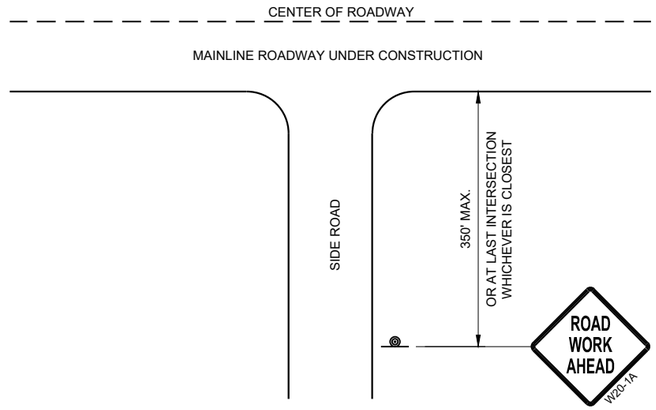
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.



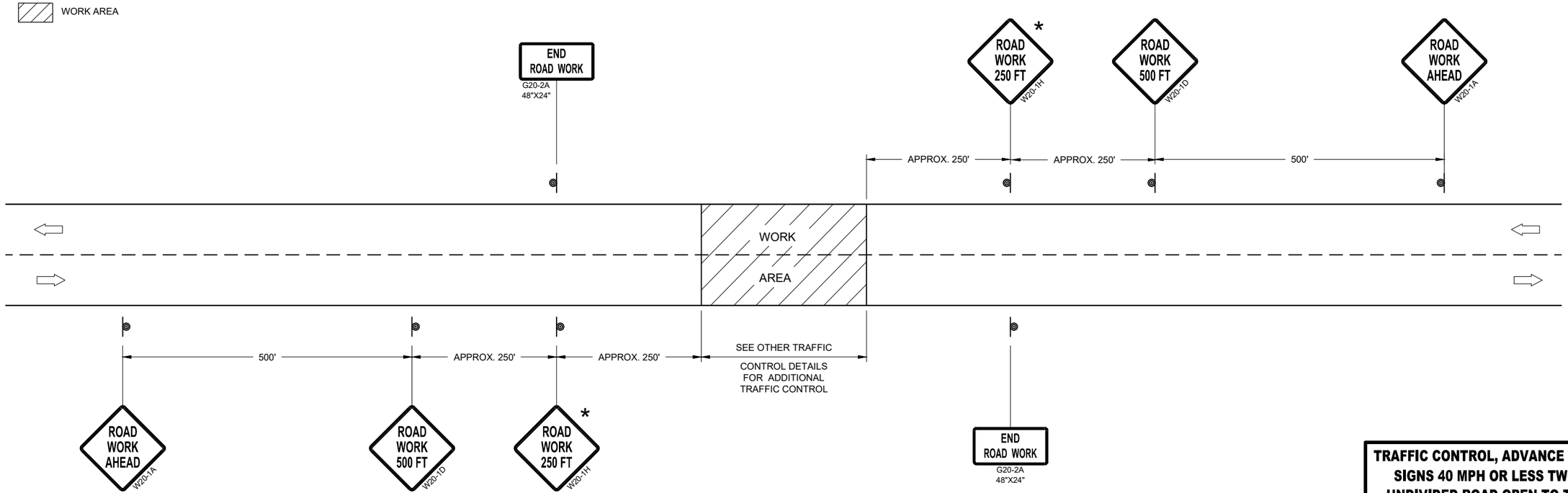
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

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 TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

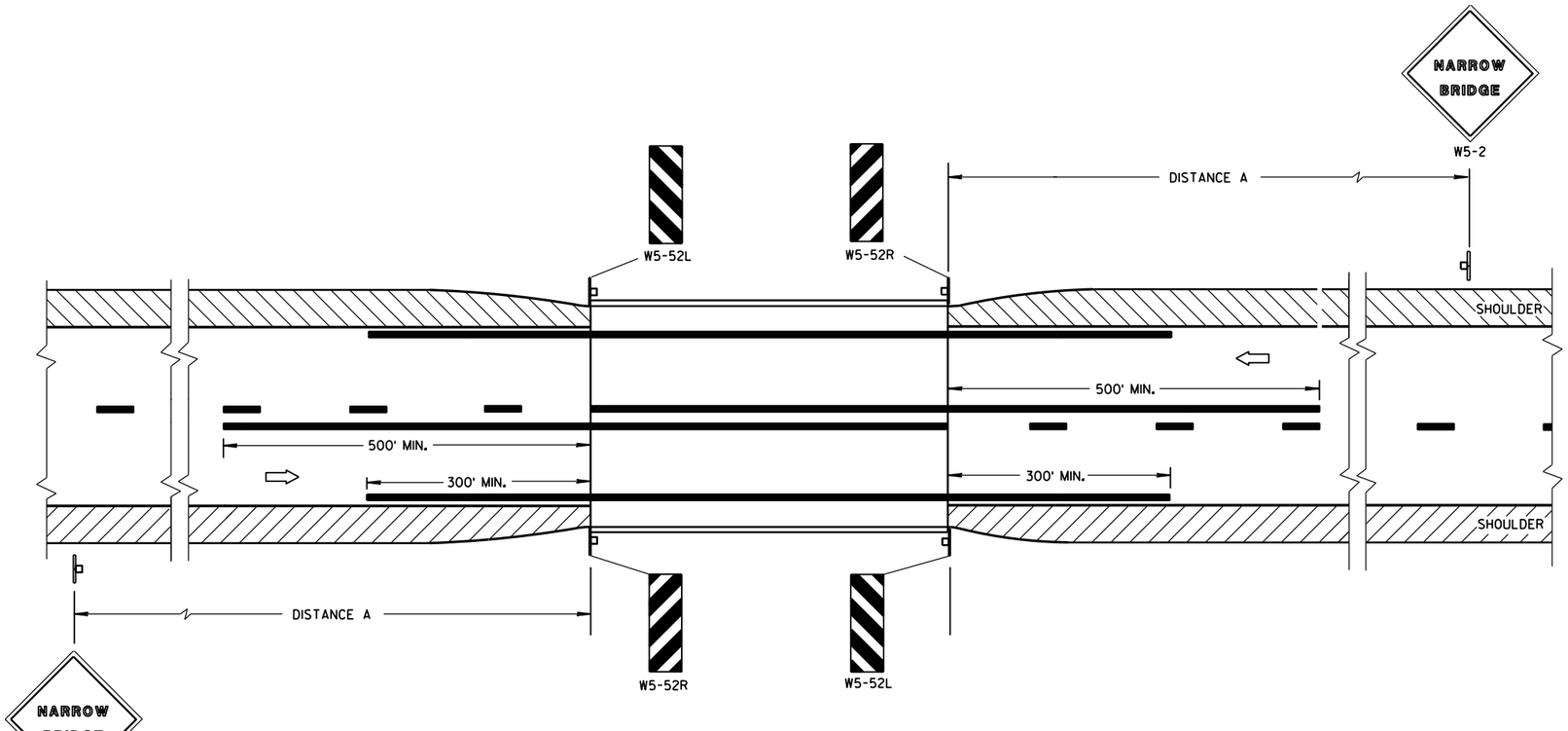
APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C05 - 05



SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

GENERAL NOTES

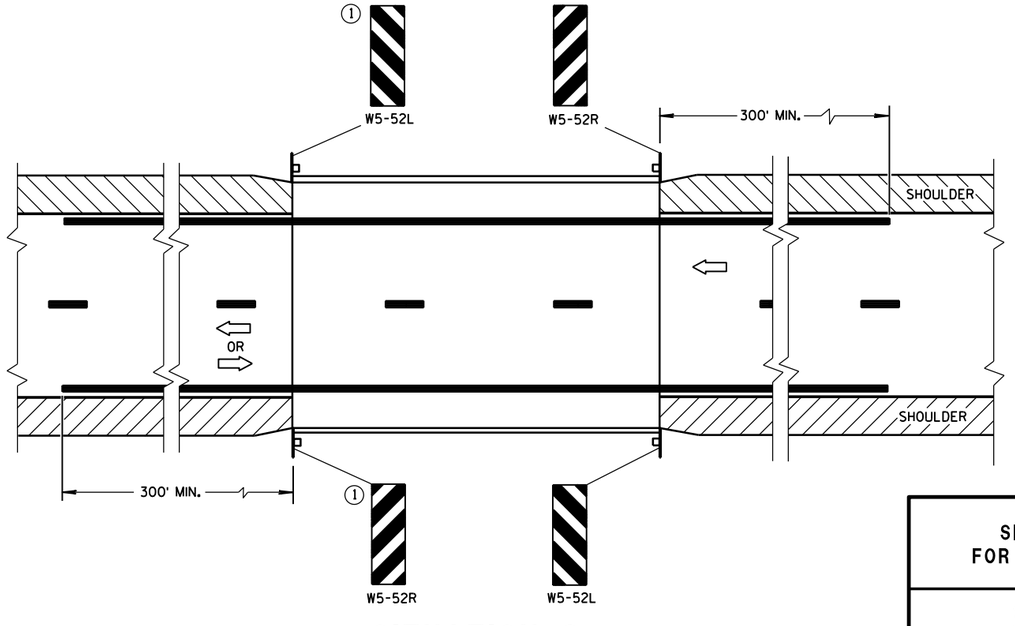
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

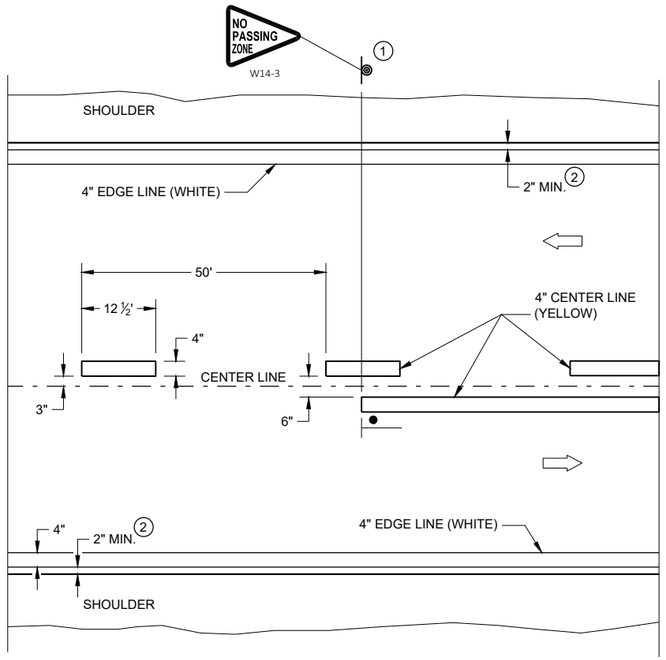
SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

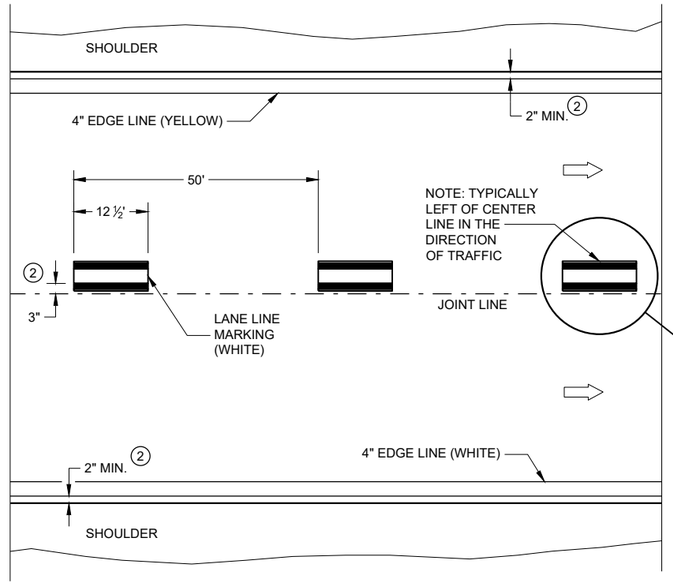
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR ...IEER
FHWA

6

S.D.D. 15 C 6-9

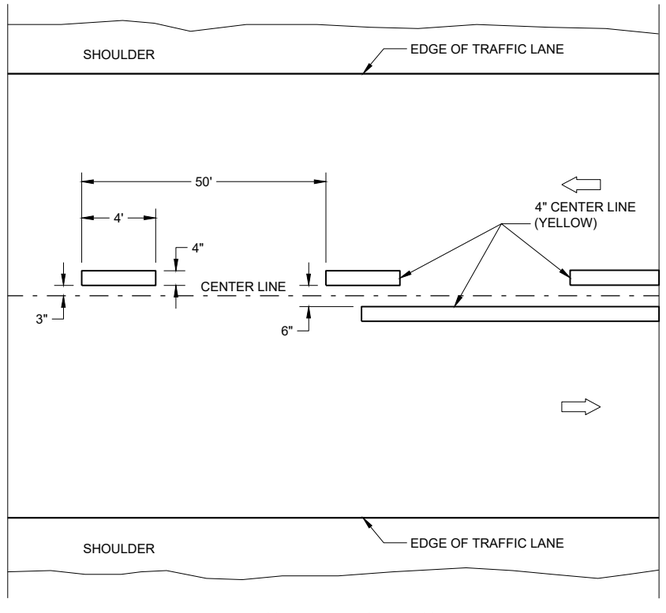


TWO WAY TRAFFIC

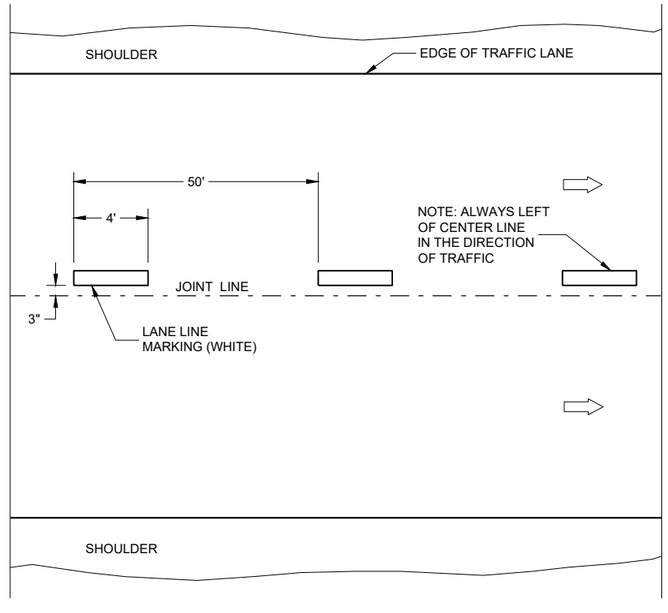


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

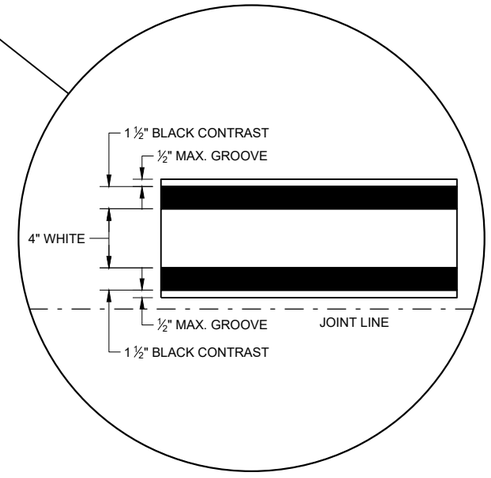
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Matthew Rauch — STATEWIDE SIGNING AND M ENGINEER

FHWA

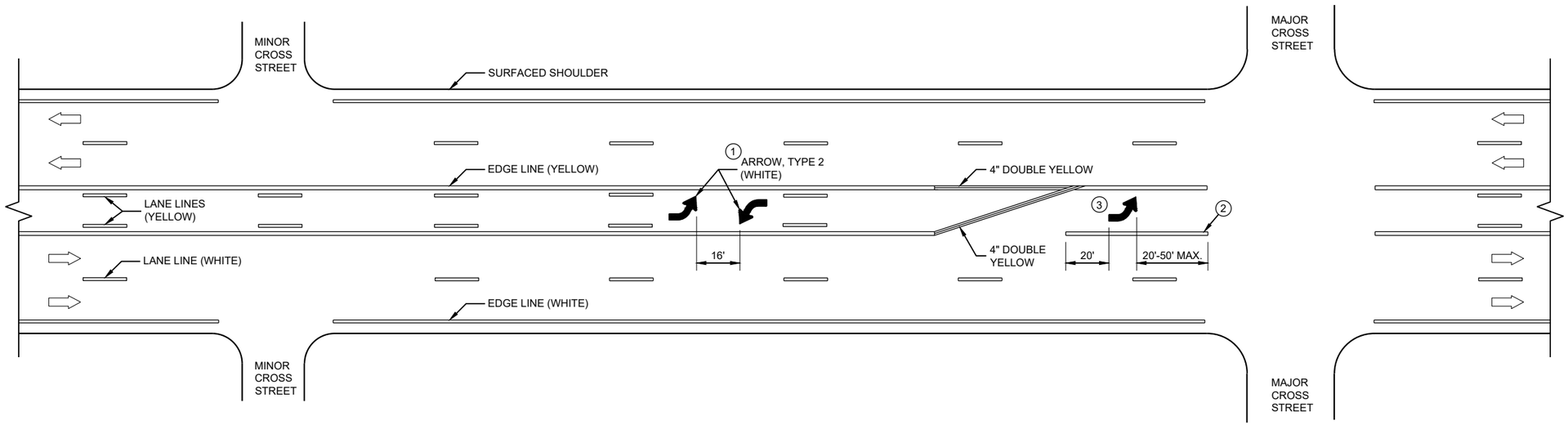
SDD 15C08 - 20a

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

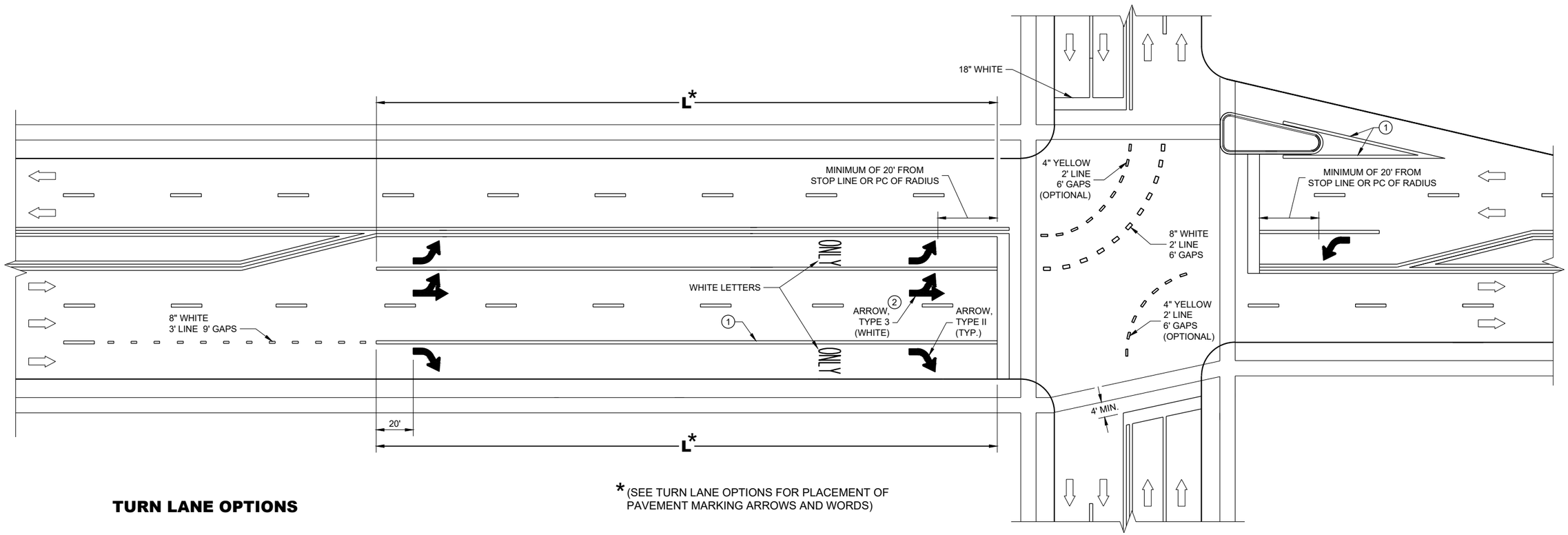
SDD 15C08 - 20b

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

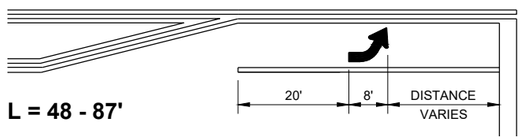
SDD 15C08 - 20b



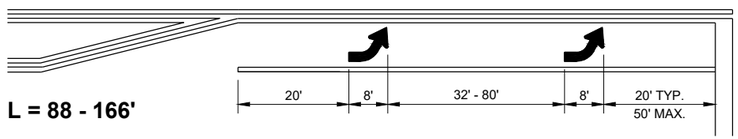
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

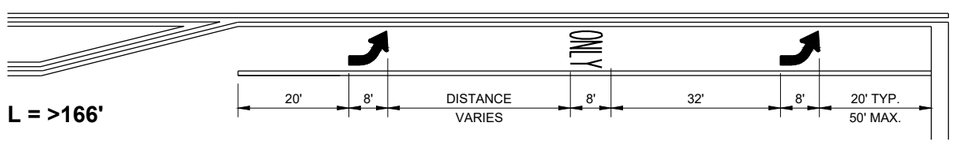
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



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)

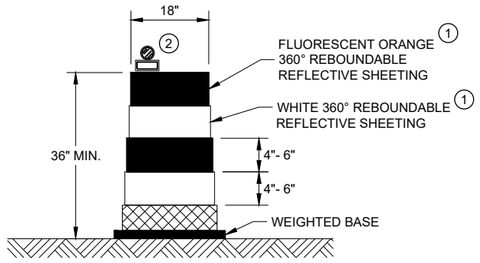
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

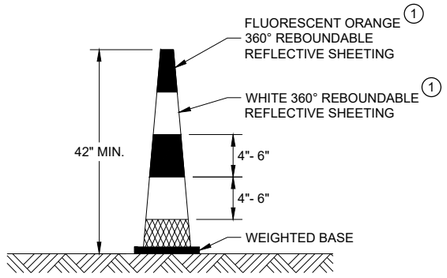
SDD 15C08 - 20c

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.

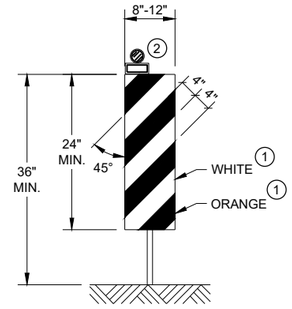


DRUM



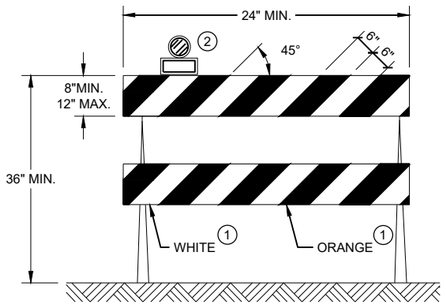
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



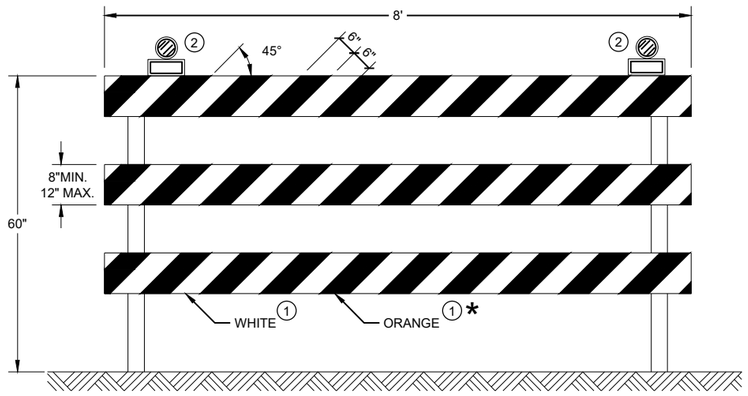
VERTICAL PANEL

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
May 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C11 - 09b
SDD 15C11 - 09b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

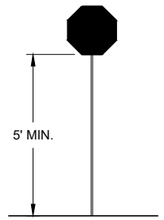
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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



STOP/SLOW PADDLE ON SUPPORT STAFF

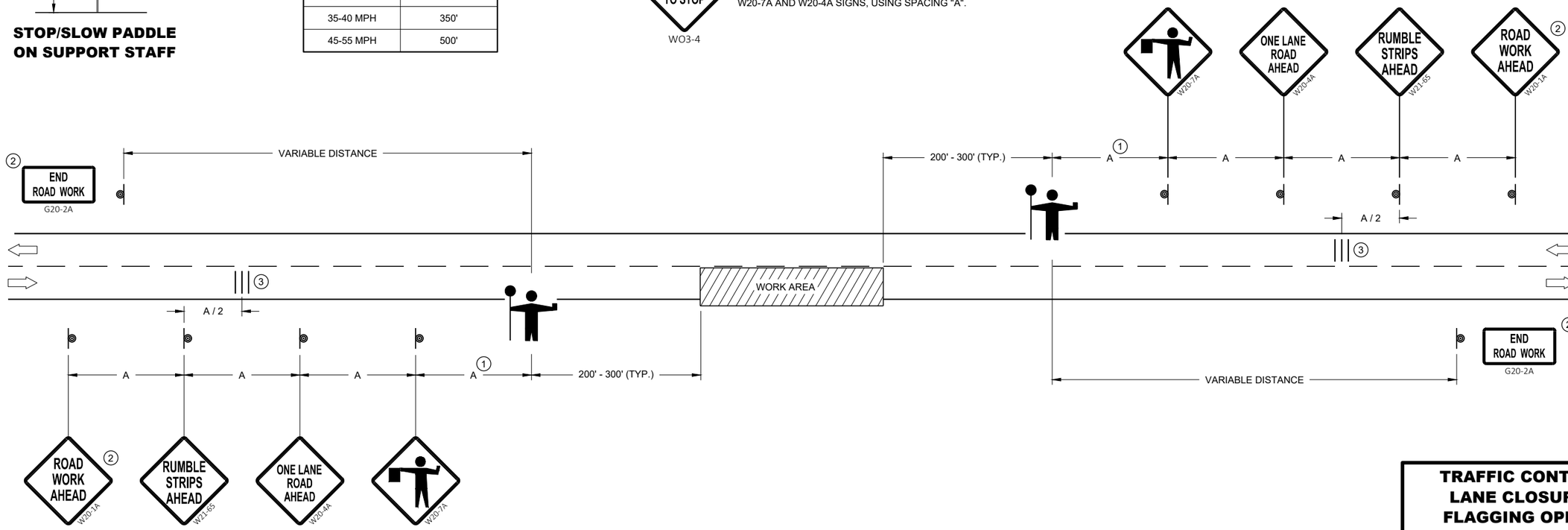
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C12 - 08

SDD 15C12 - 08

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

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

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

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

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

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

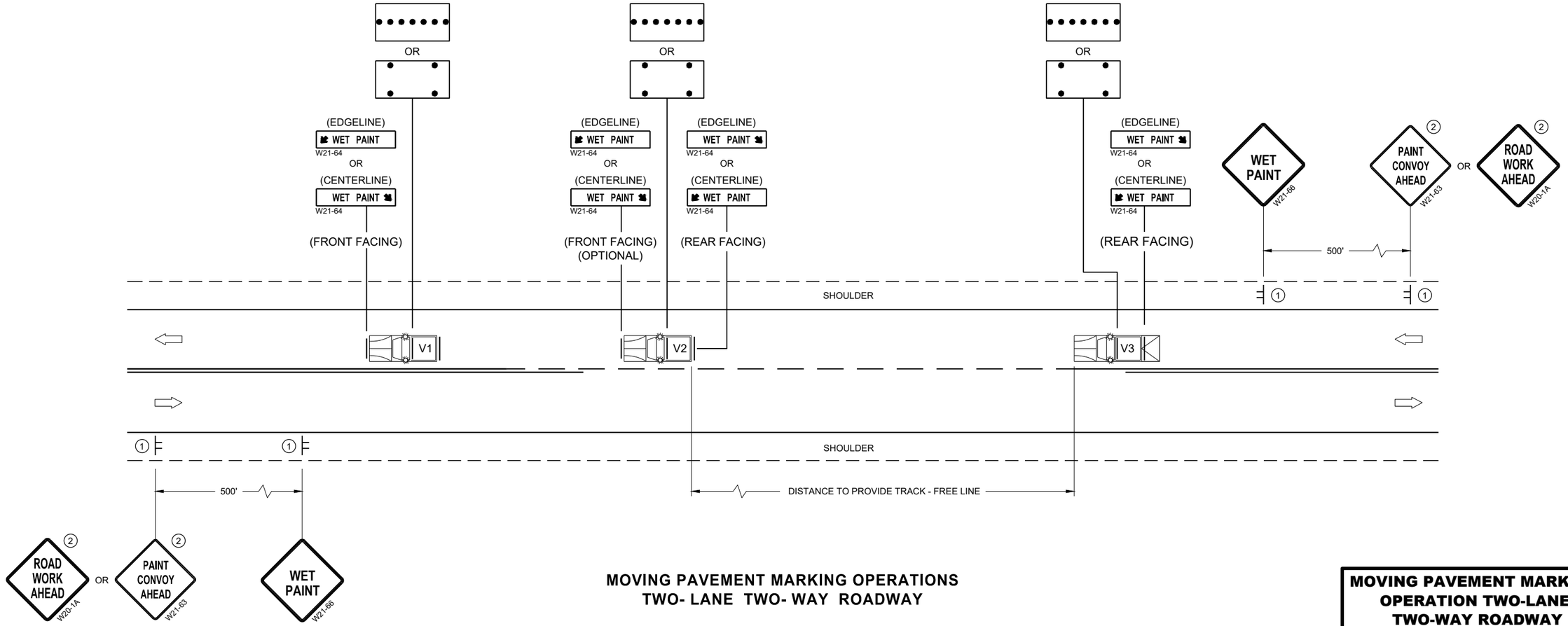
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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

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

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



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 ENGINEER

FHWA

SDD 15C19 - 06a

SDD 15C19 - 06a

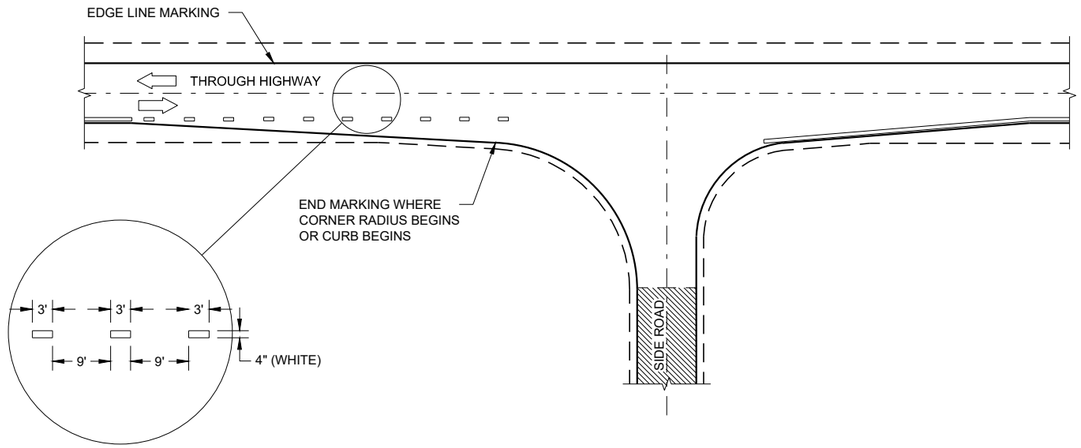
GENERAL NOTES

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

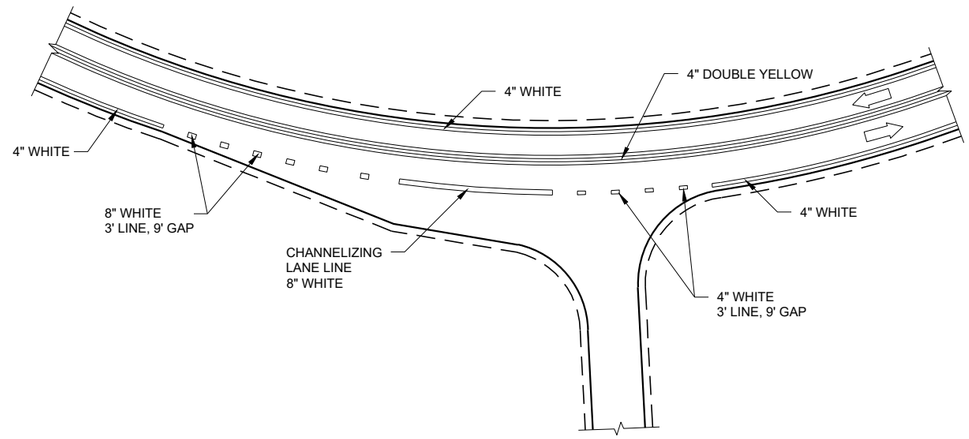
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

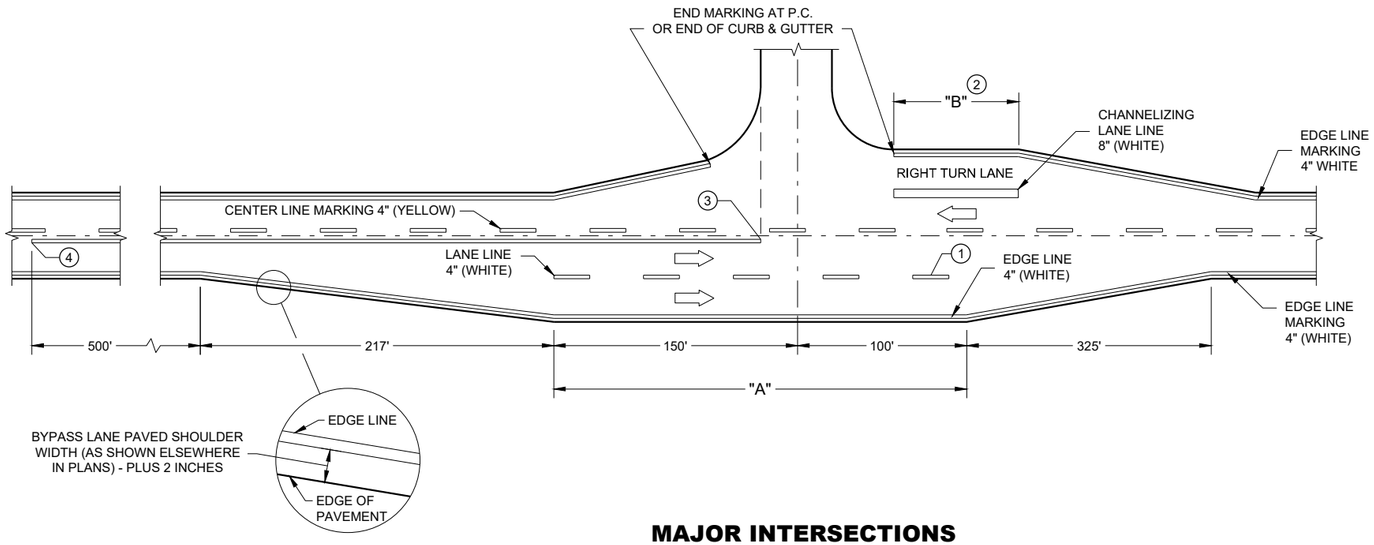
DIRECTION OF TRAVEL



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

6

SDD 15C35 - 04a

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.

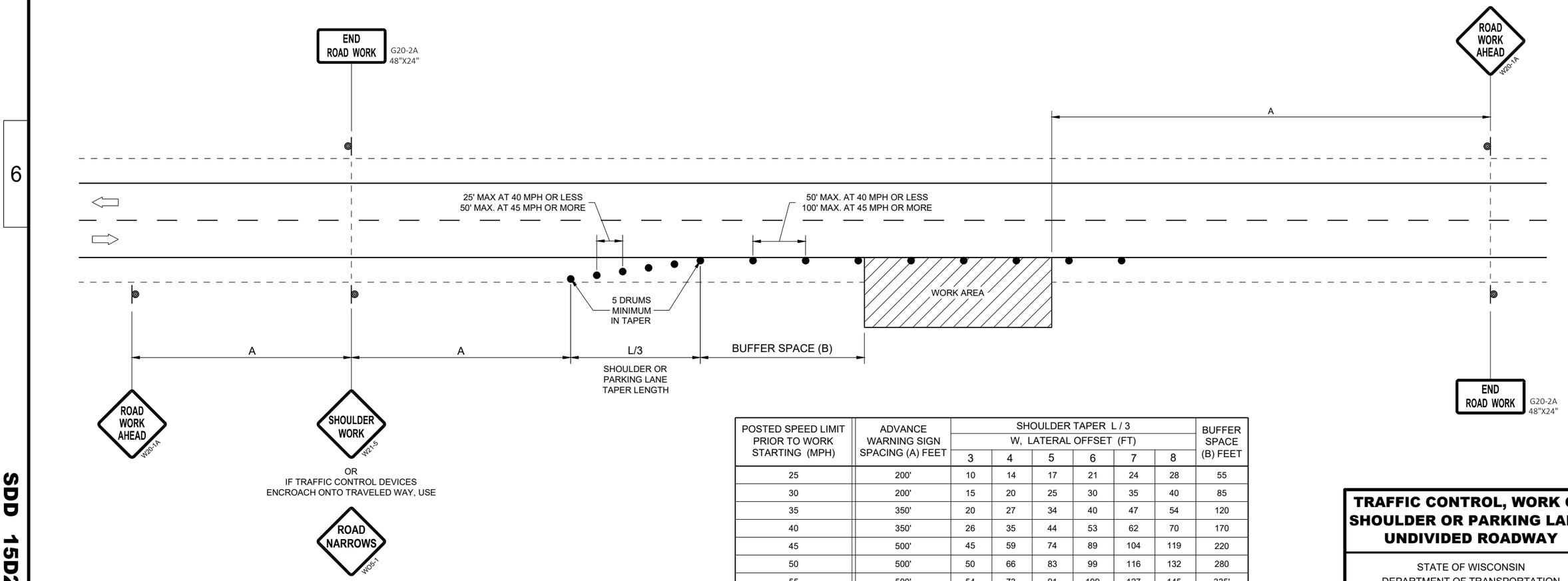
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

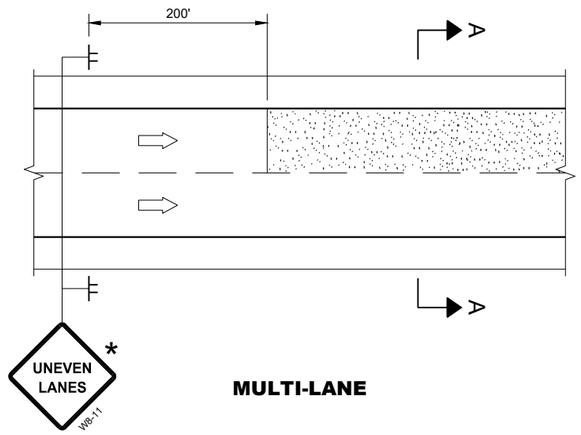
APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

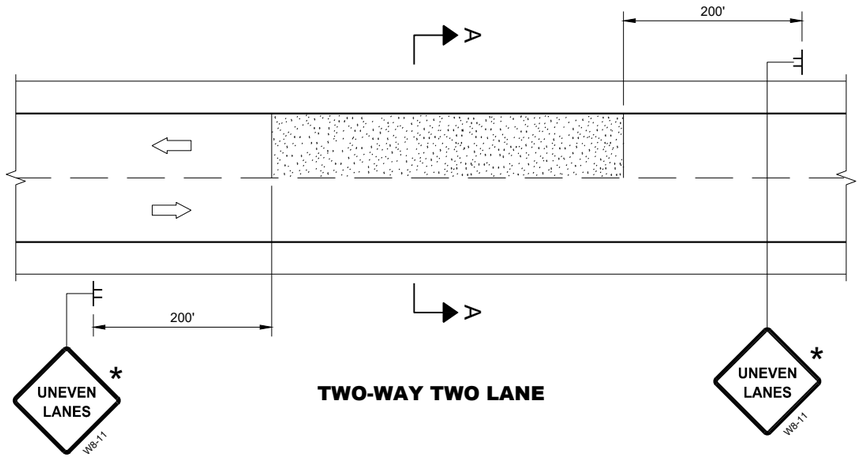
FHWA

SDD 15D28 - 04

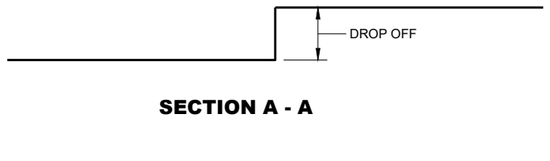
SDD 15D28 - 04



MULTI-LANE

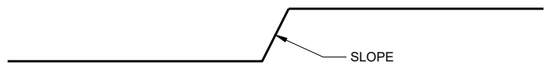


TWO-WAY TWO LANE

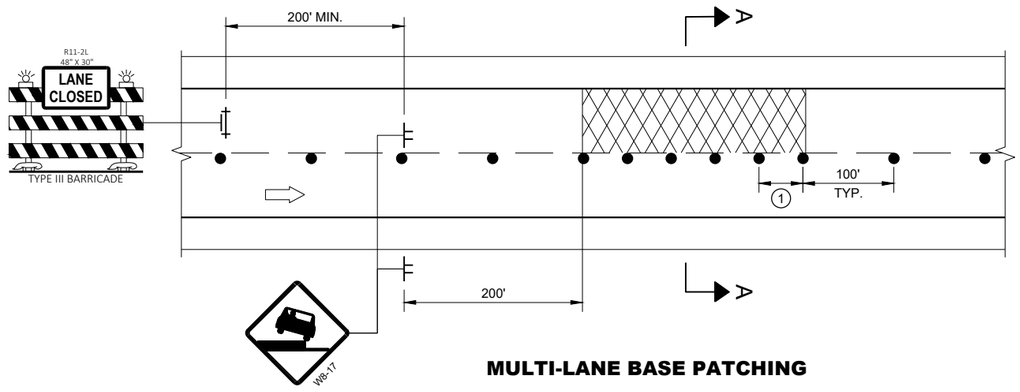


SECTION A - A

OR

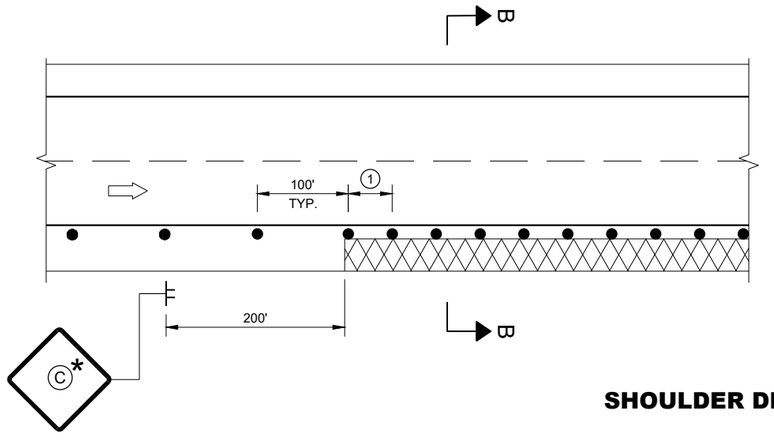


SECTION A - A

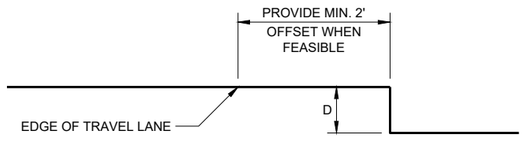


MULTI-LANE BASE PATCHING

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

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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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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.

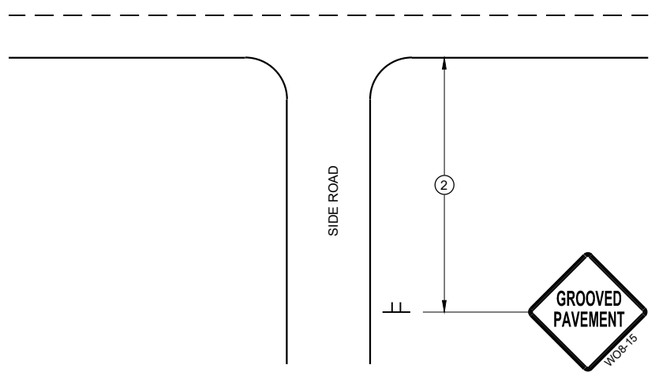
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

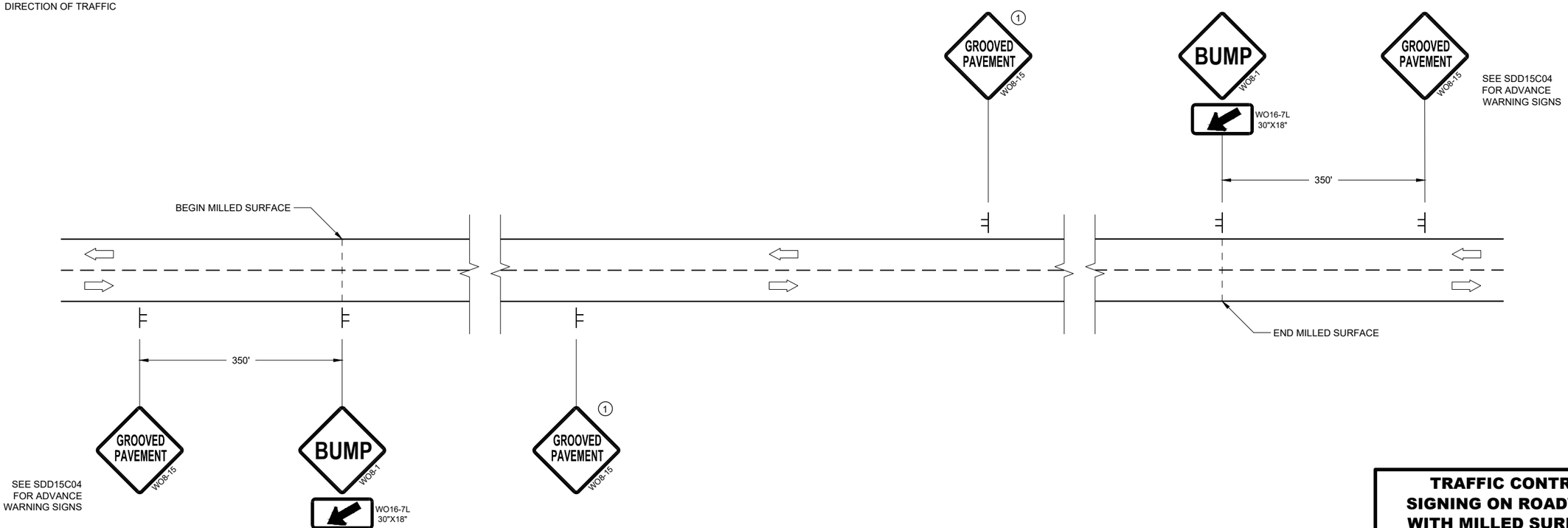
LEGEND

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

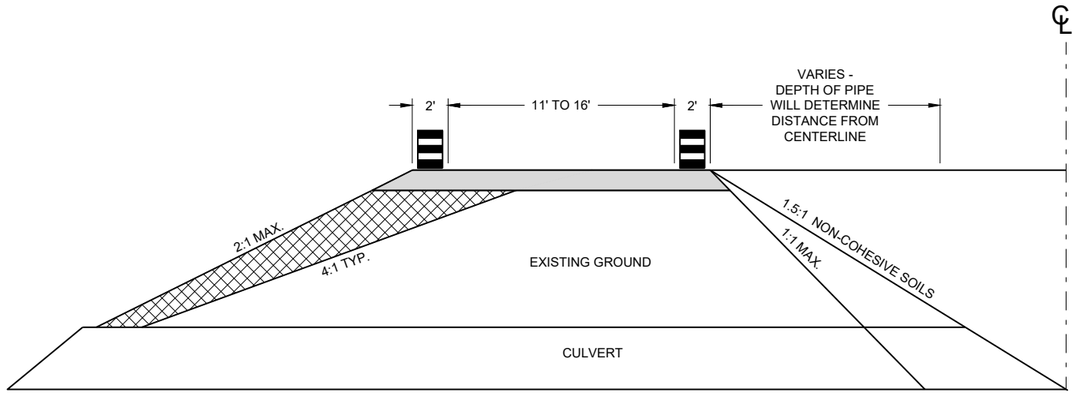
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6
SDD 15D44 - 02



CROSS SECTION

GENERAL NOTES

USE 1:1 FOR COHESIVE CLAYS AND SILTS, LOAMS, SANDY CLAYS AND ANGULAR GRAVEL SOILS.
USE 1.5:1 FOR NON-COHESIVE SOILS.

THE TAPER SHOULD EXTEND ACROSS THE SHOULDER UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION.

ALL LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL DEVICES REMOVED BEYOND THE SHOULDER WHEN WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

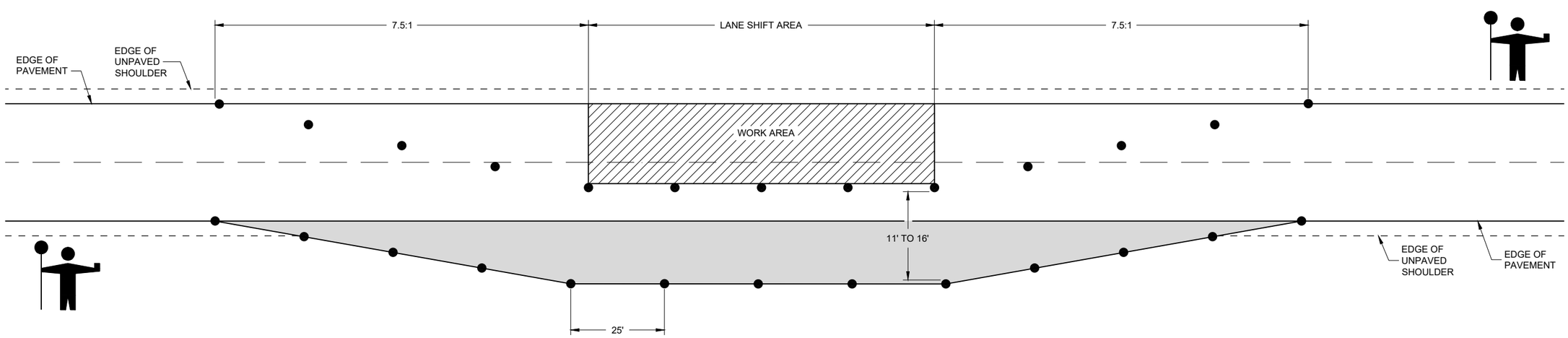
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

USE WITH SDD 15C12 "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS"

USE WITH SDD 15D45 "SIGNING ON ROADWAYS WITH LOOSE GRAVEL"

LEGEND

- DRUM WITHOUT WARNING LIGHT
- 6" BASE AGGREGATE DENSE 1 ¼" -INCIDENTAL TO LANE SHIFT ITEM
- FILL - INCIDENTAL TO LANE SHIFT ITEM
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



LANE SHIFT IN FLAGGING OPERATION

TRAFFIC CONTROL, TEMPORARY LANE SHIFT DURING CULVERT WORK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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SDD 15D48 - 01

6

SDD 15D48 - 01

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.

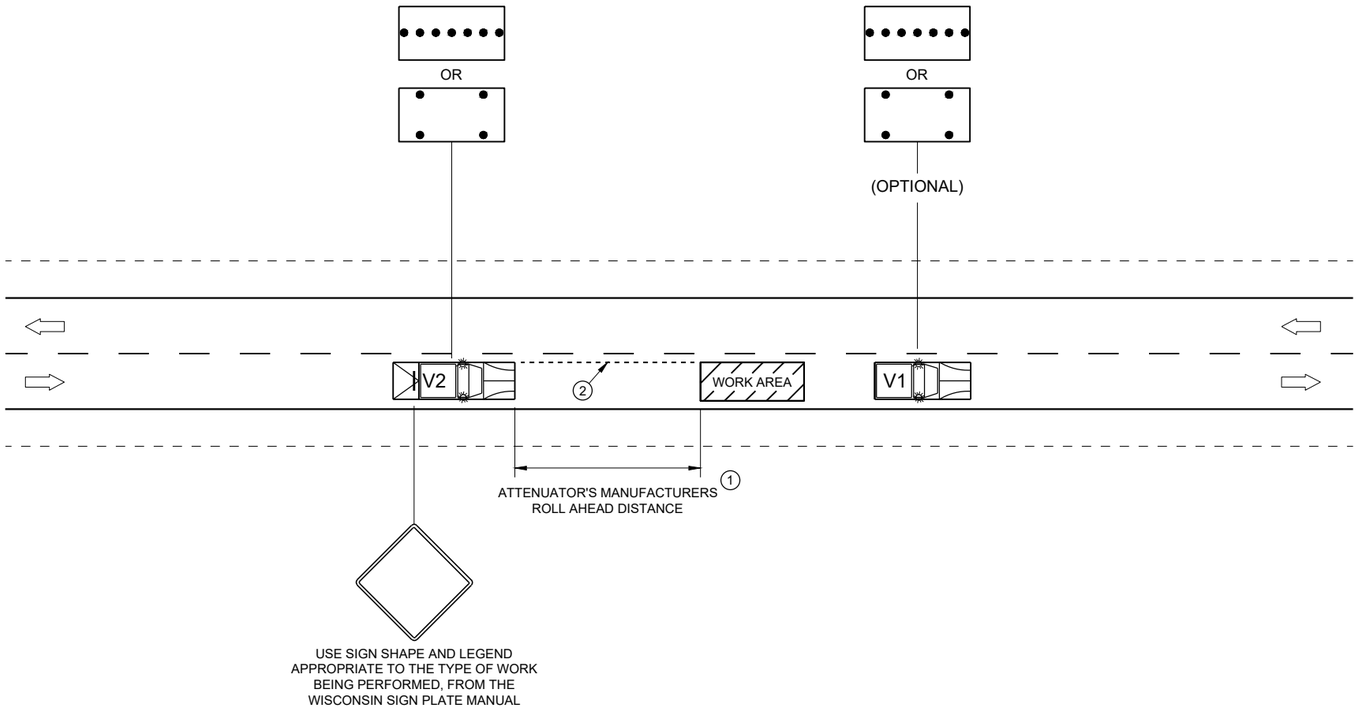
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

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.



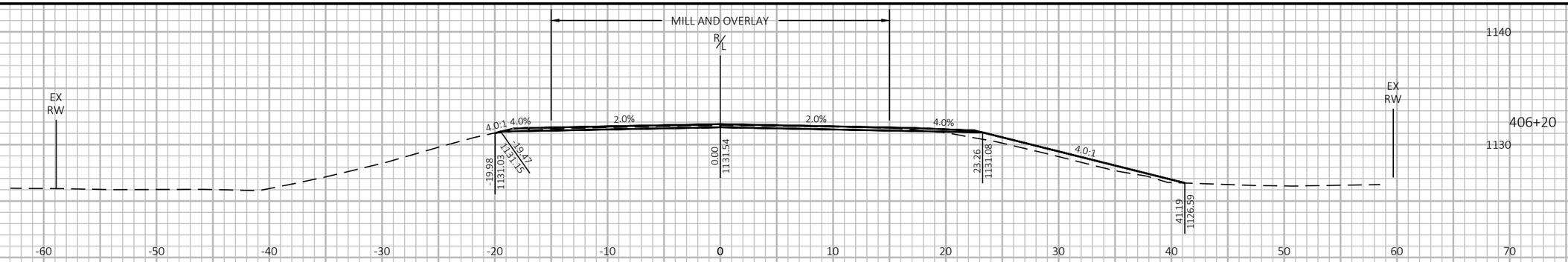
TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

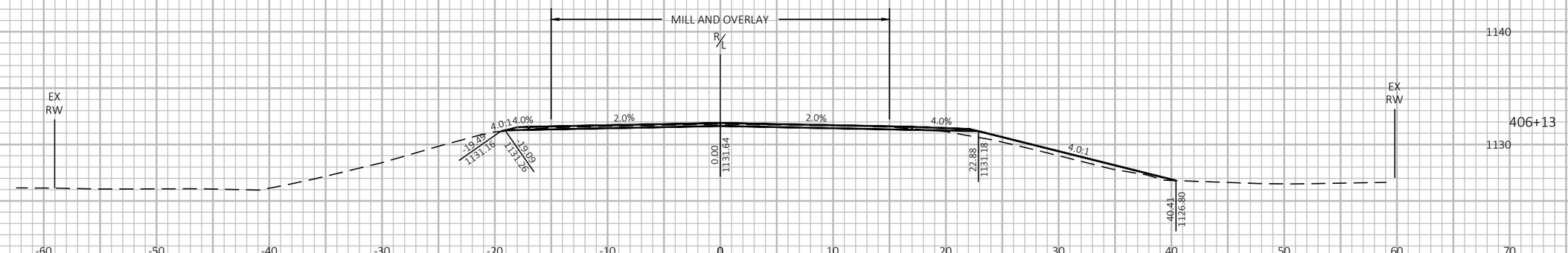
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

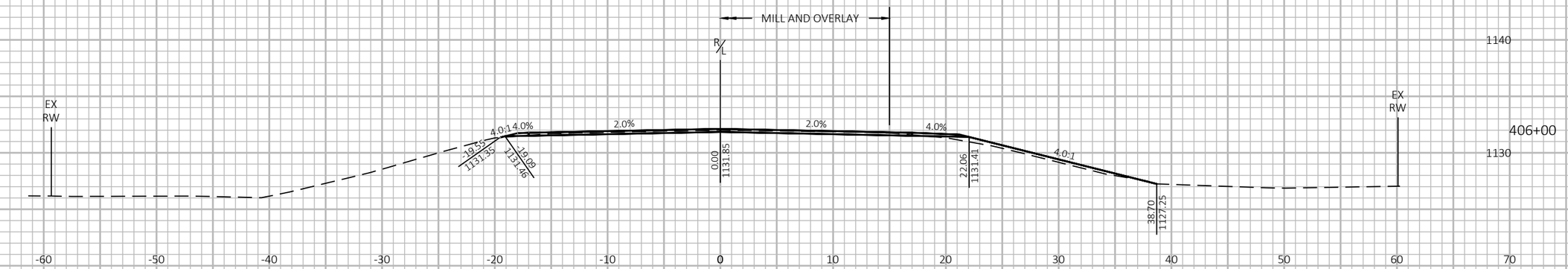
APPROVED
February 2021 — DATE
/S/ Andrew Heidtke — STATEWIDE WORK ZONE T SAFETY ENGINEER
FHWA

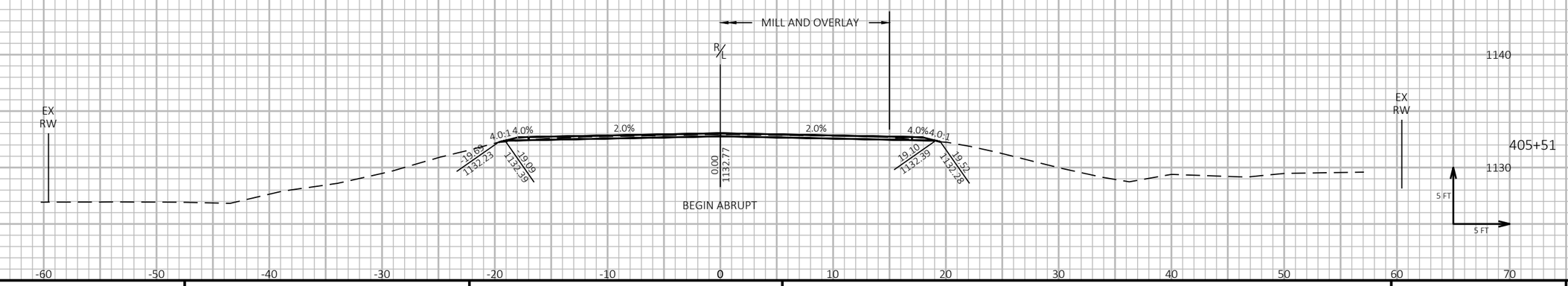
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SDD 15D51 - 01









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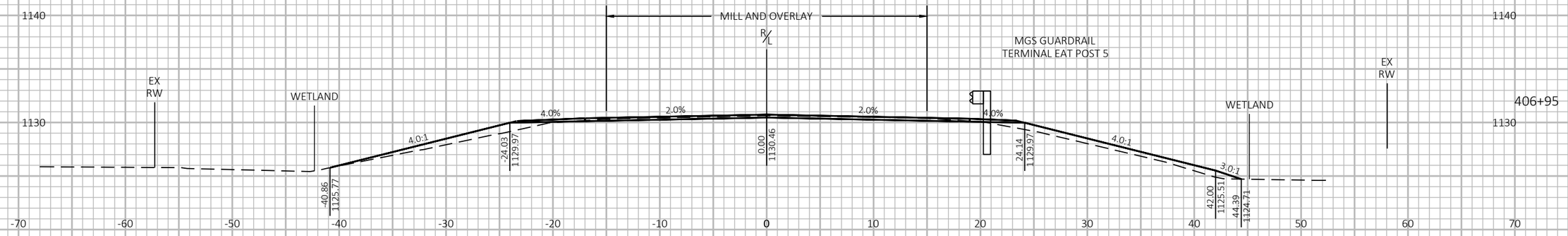
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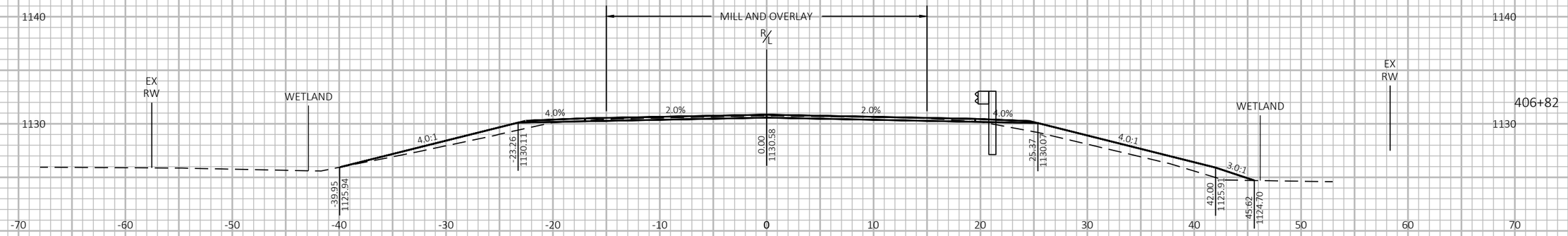
PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 87	E

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LAYOUT NAME - 01

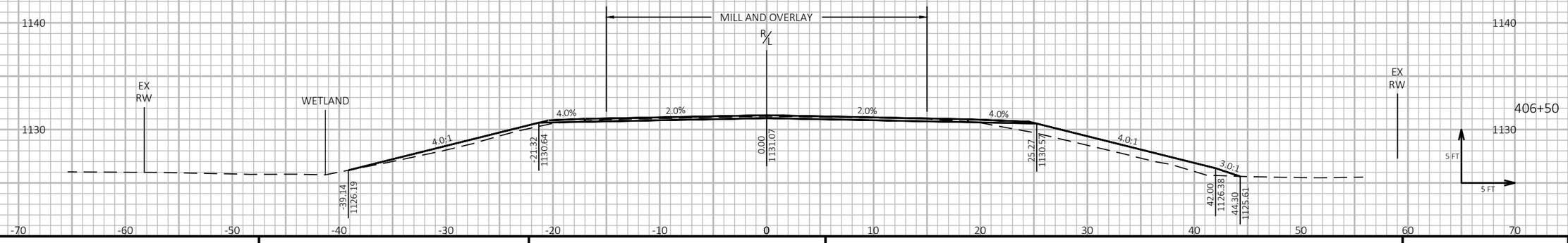
PLOT DATE : 4/22/2022 12:02 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







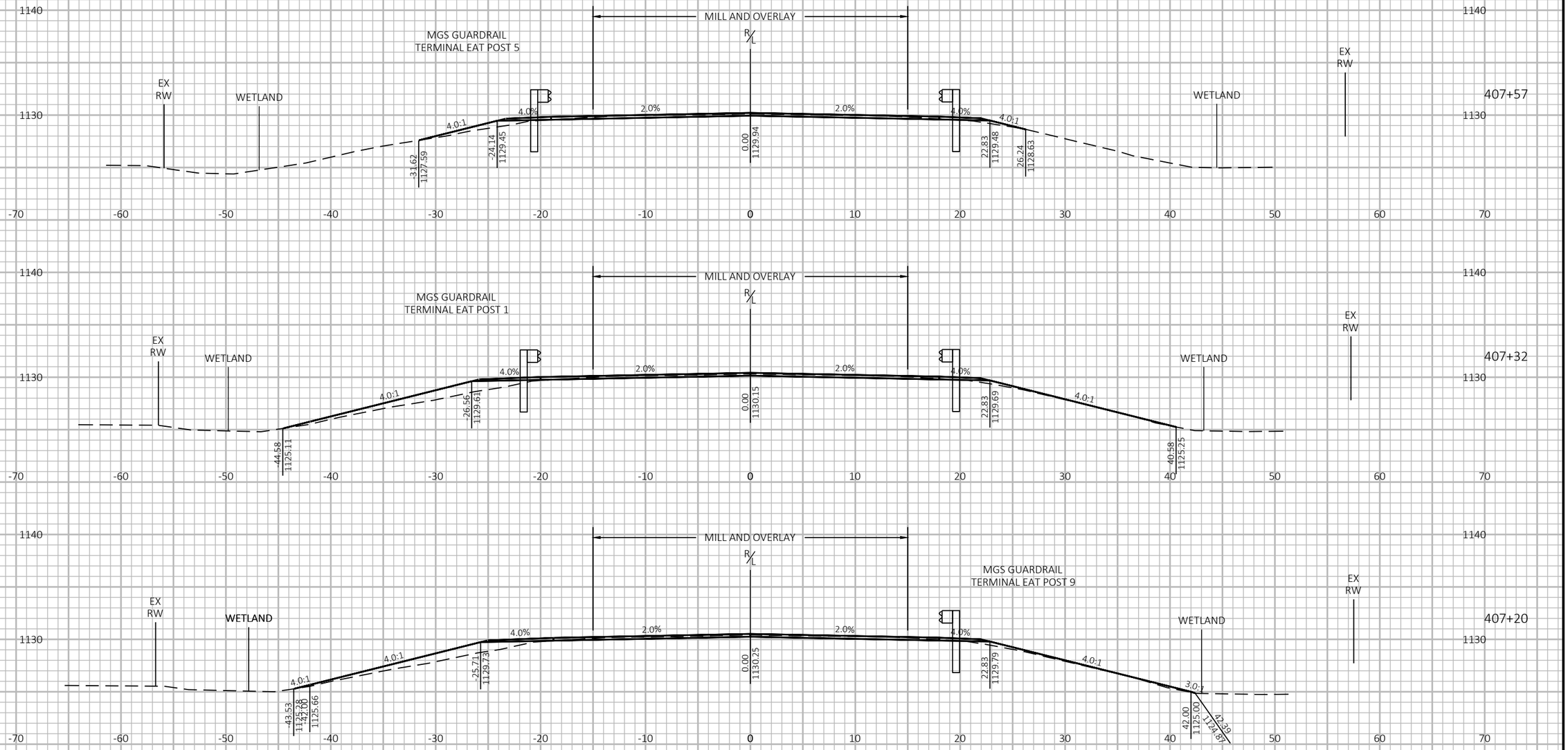


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PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 88	E

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PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



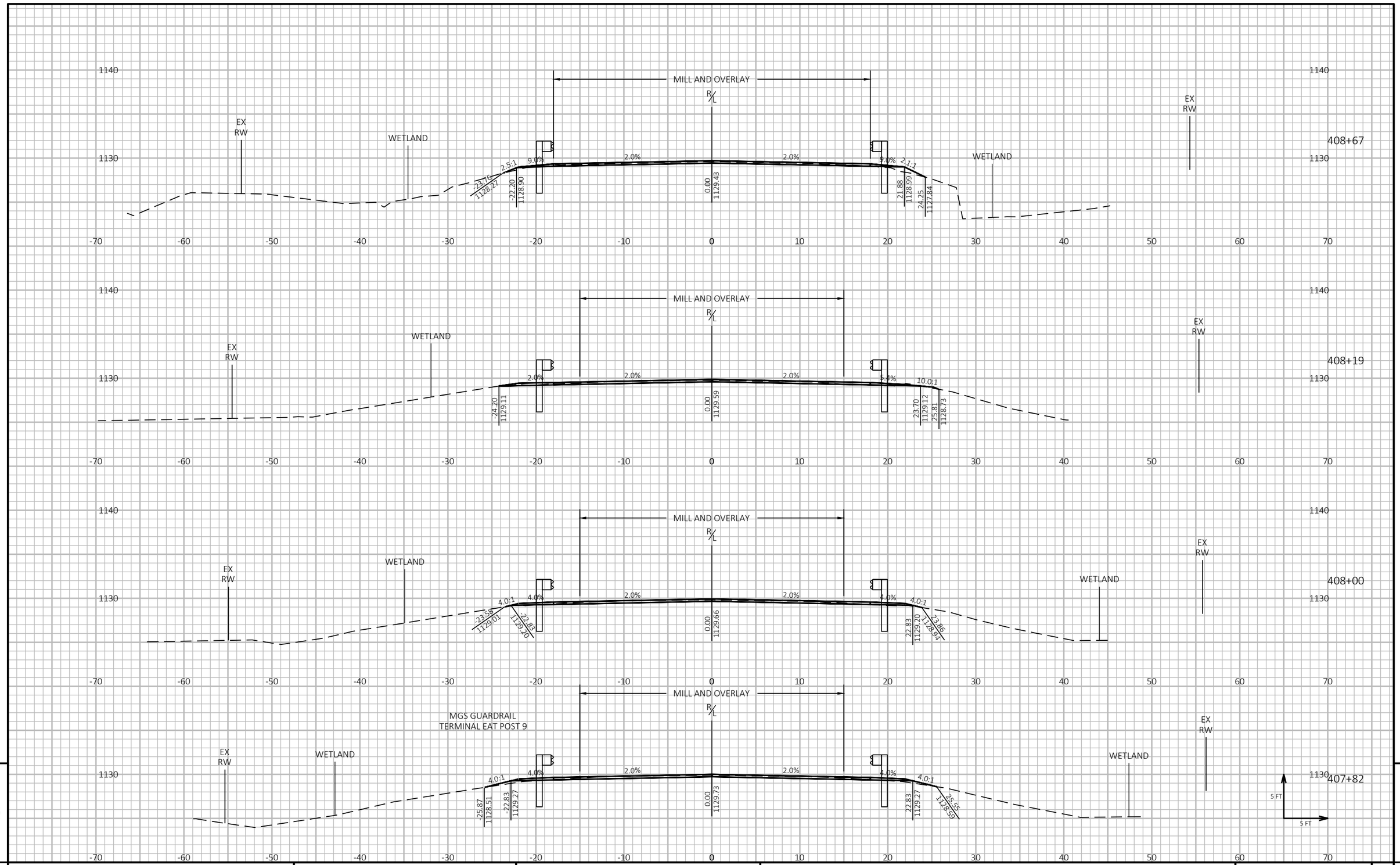
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FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 4/22/2022 12:03 PM PLOT BY : NICK MENNINGA PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

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PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 90	E

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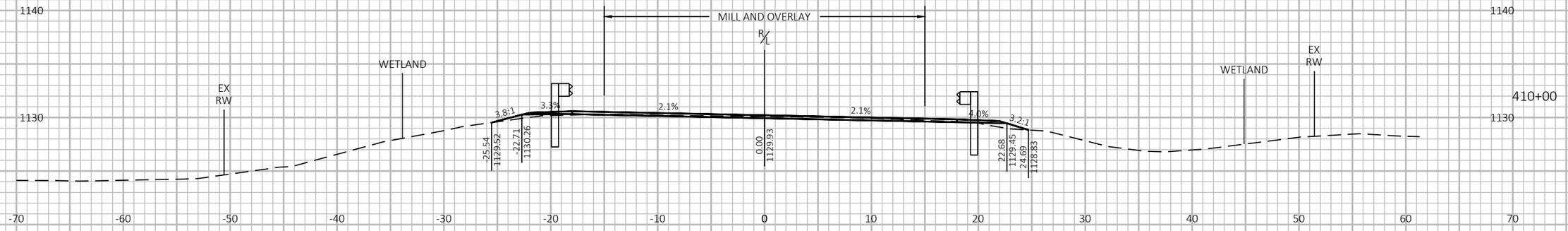
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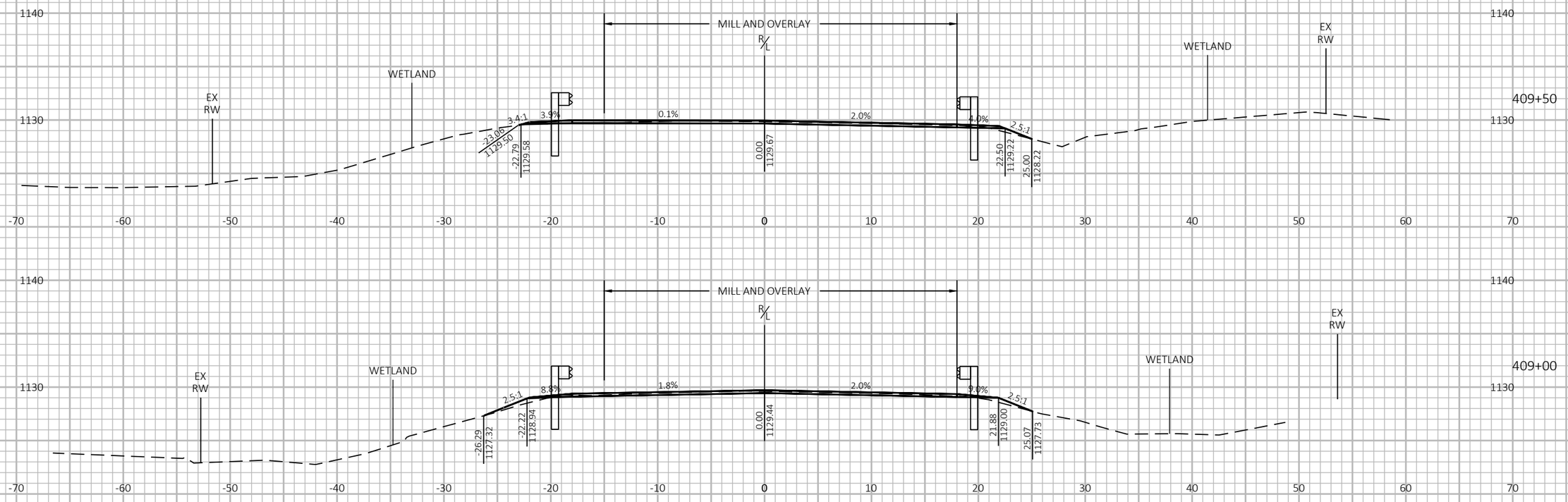
PLOT BY : NICK MENNINGA

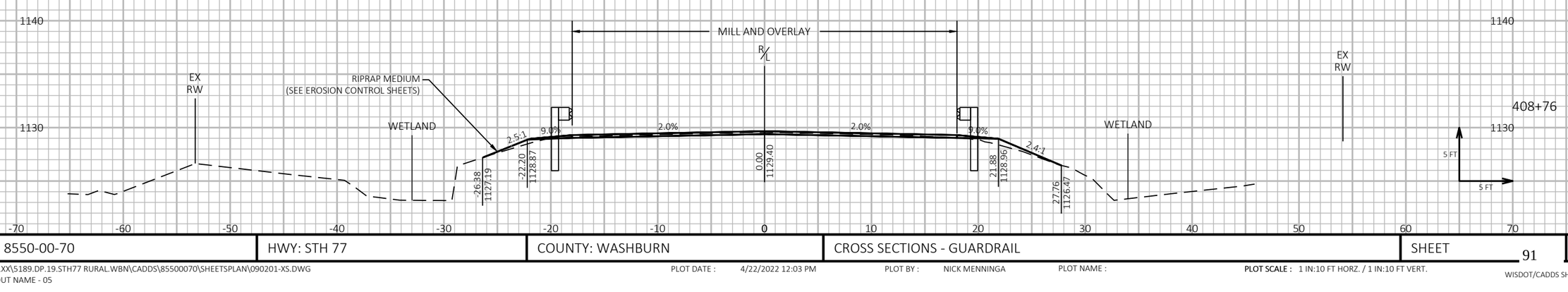
PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







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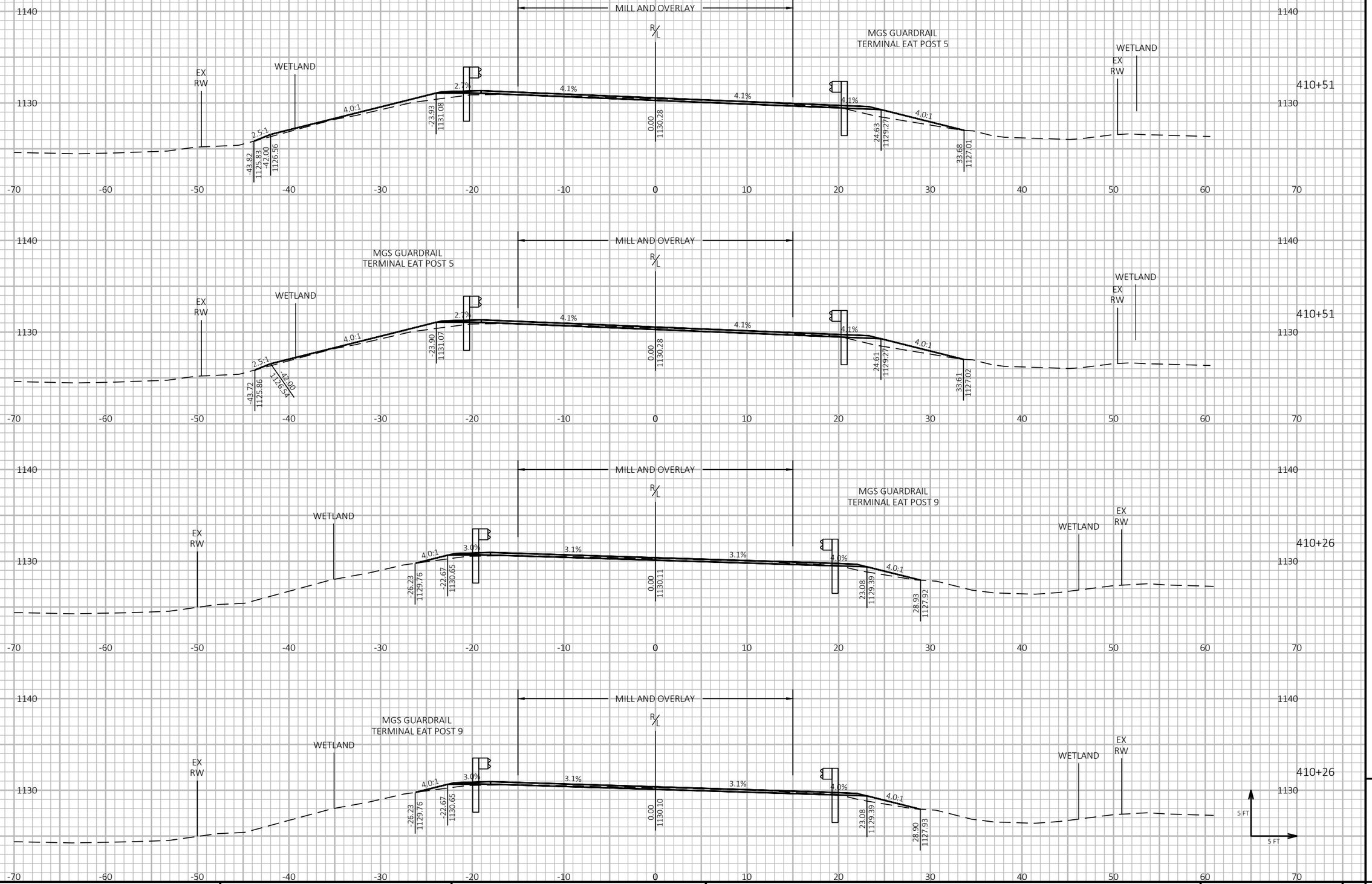
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WISDOT/CADDS SHEET 49



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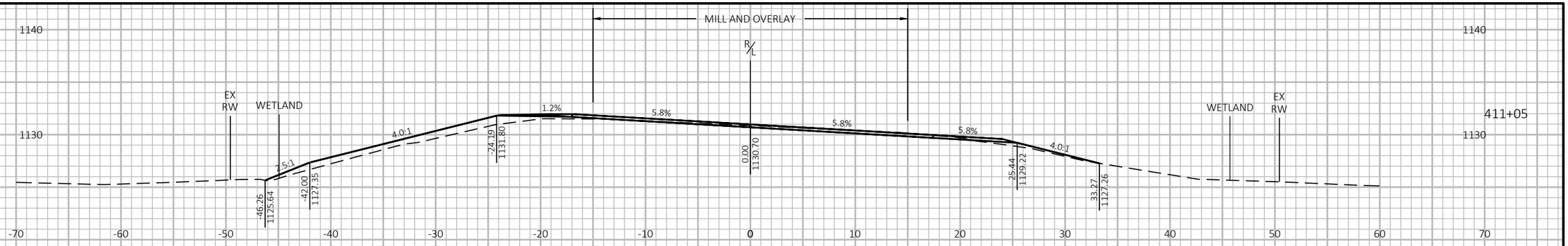
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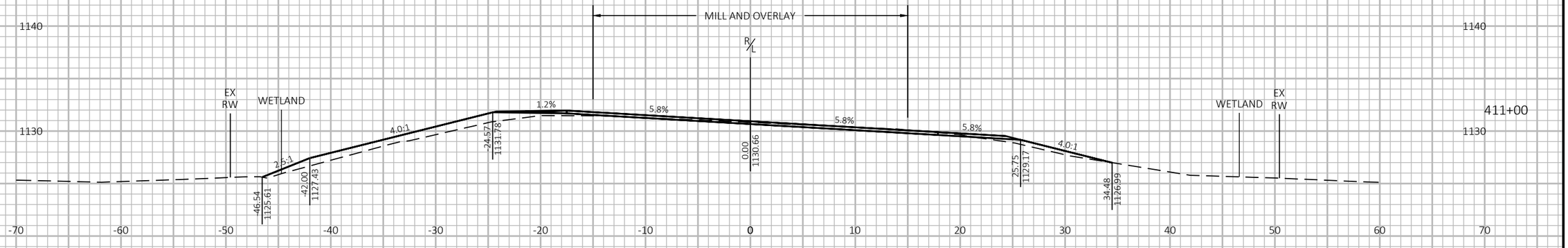
PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 92	E

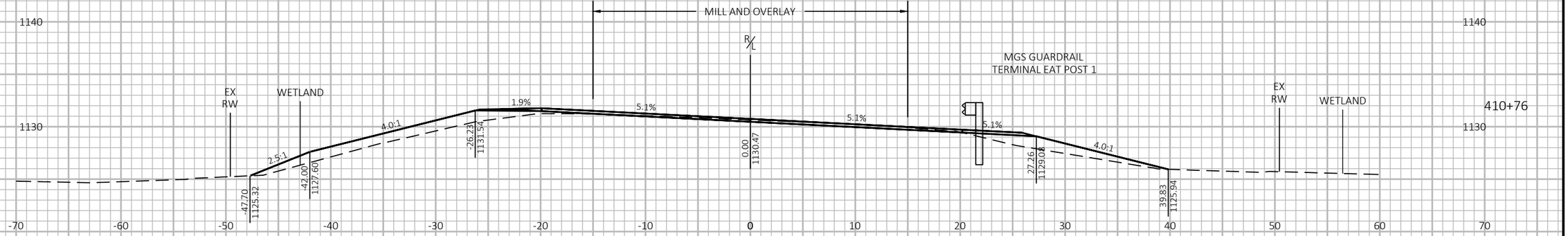
FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 06

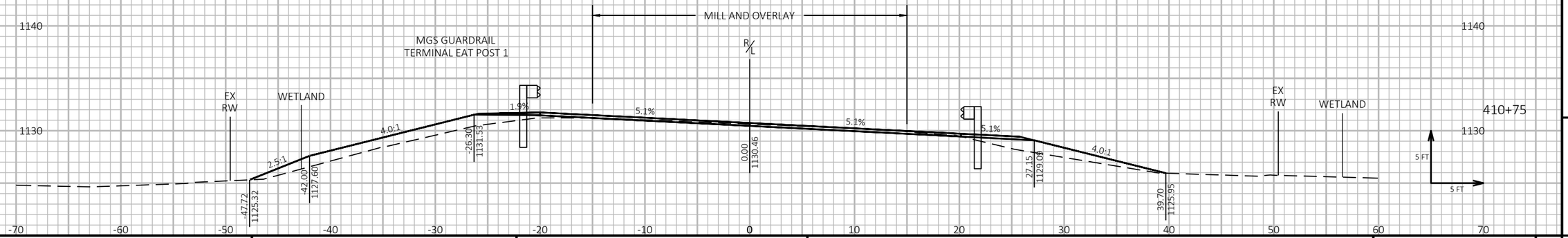
PLOT DATE : 4/22/2022 12:03 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49









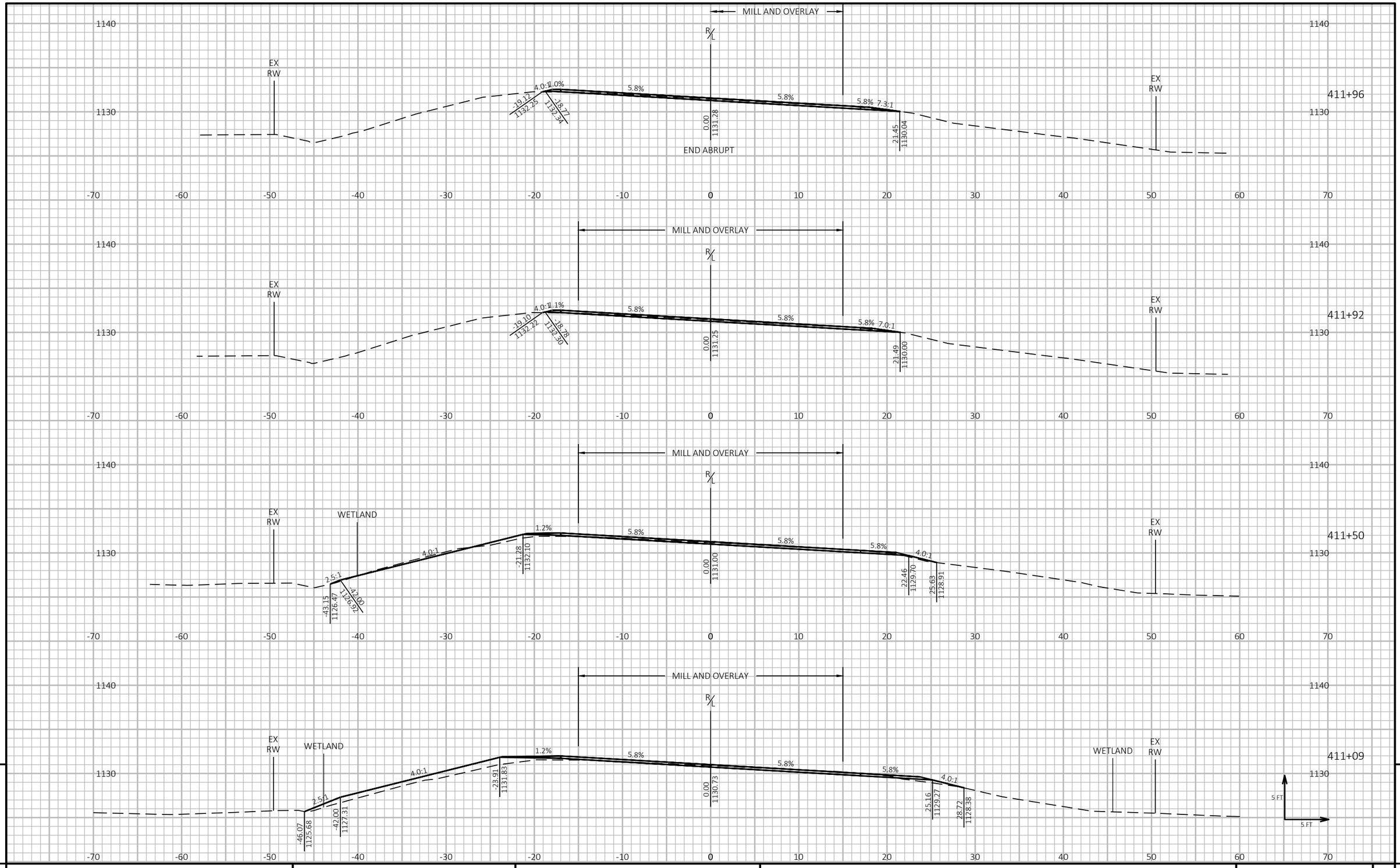
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PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 93	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 4/22/2022 12:03 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

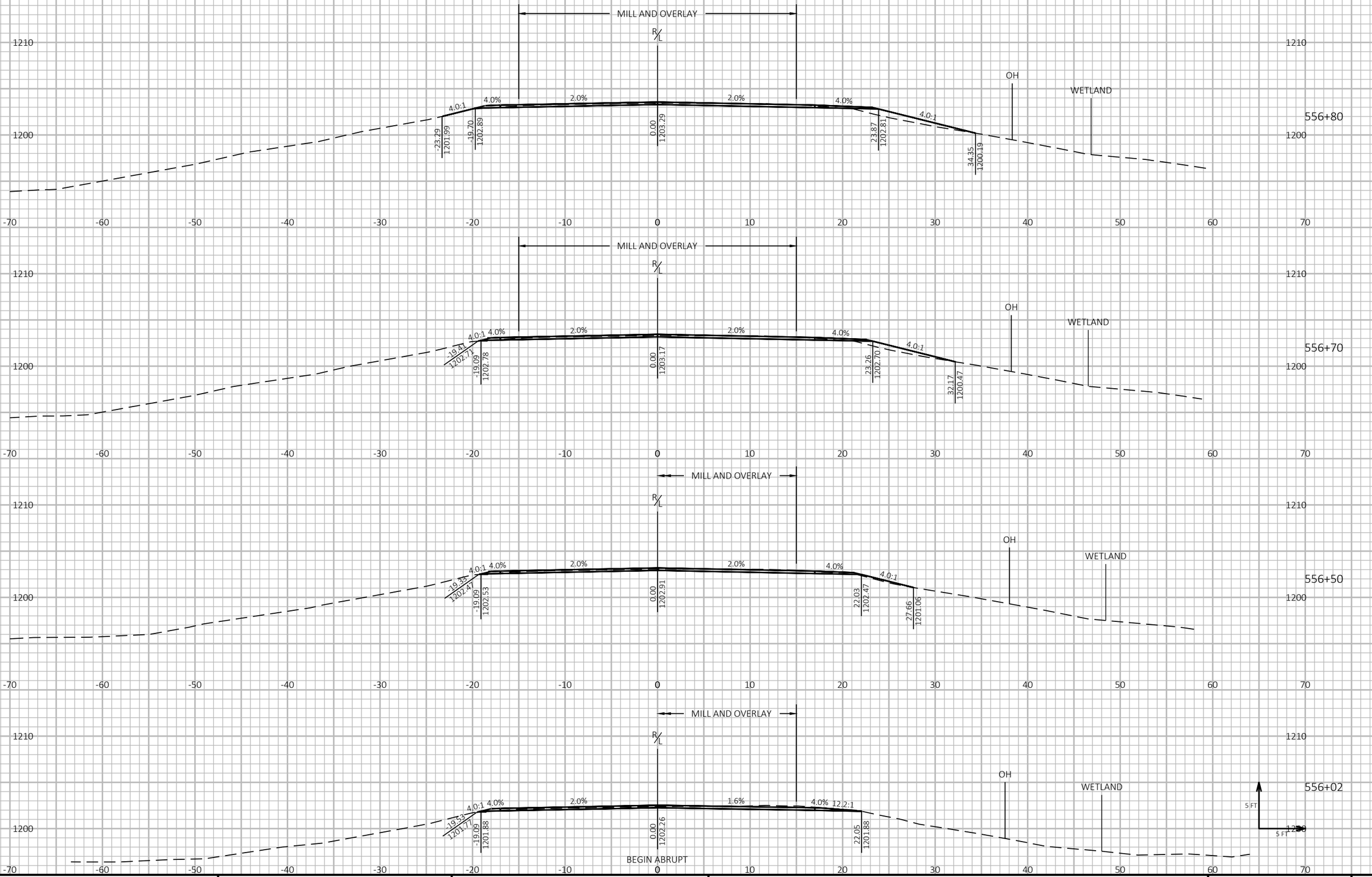
PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 94	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 08

PLOT DATE : 4/22/2022 12:03 PM PLOT BY : NICK MENNINGA PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

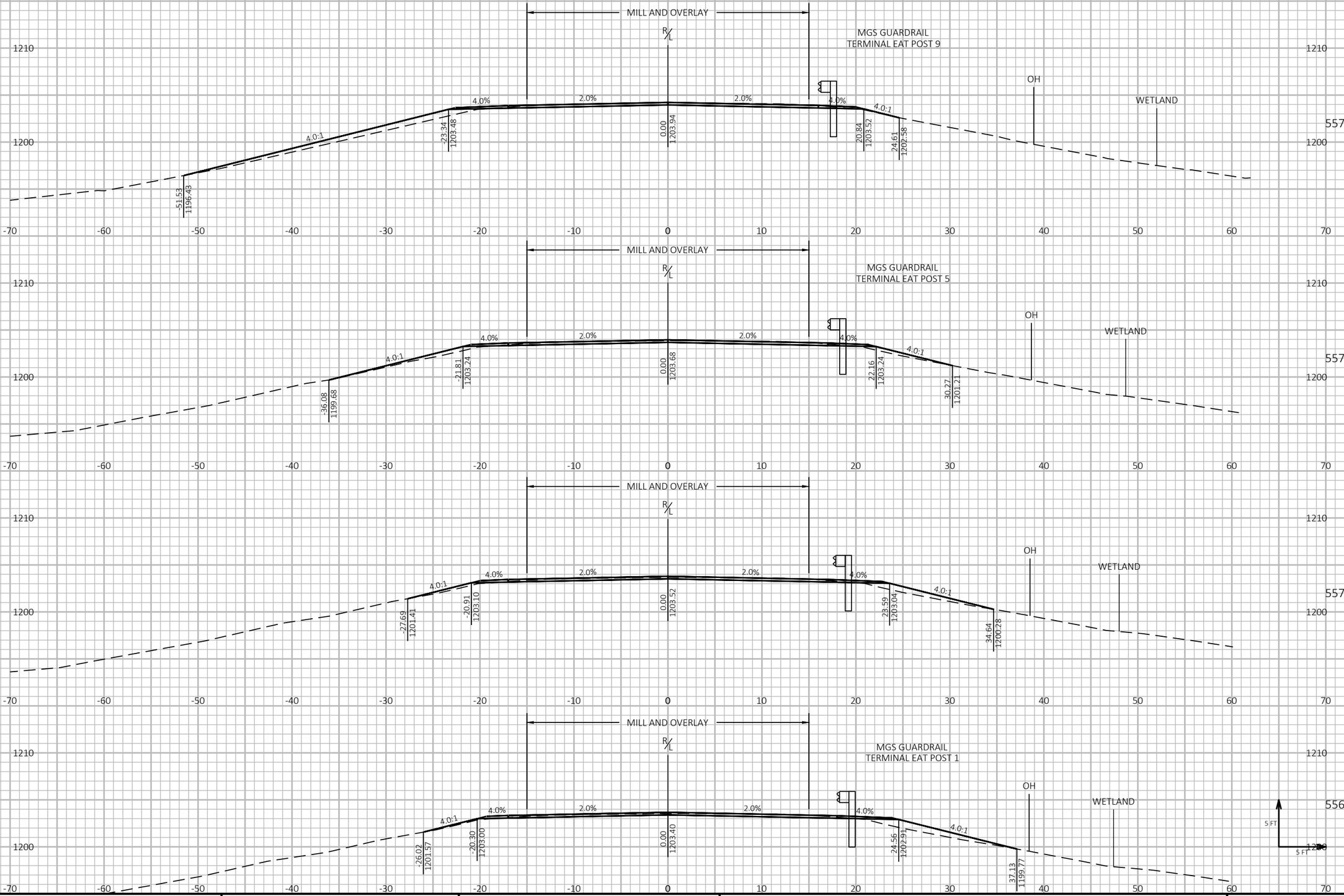
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PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 95	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 4/22/2022 12:03 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

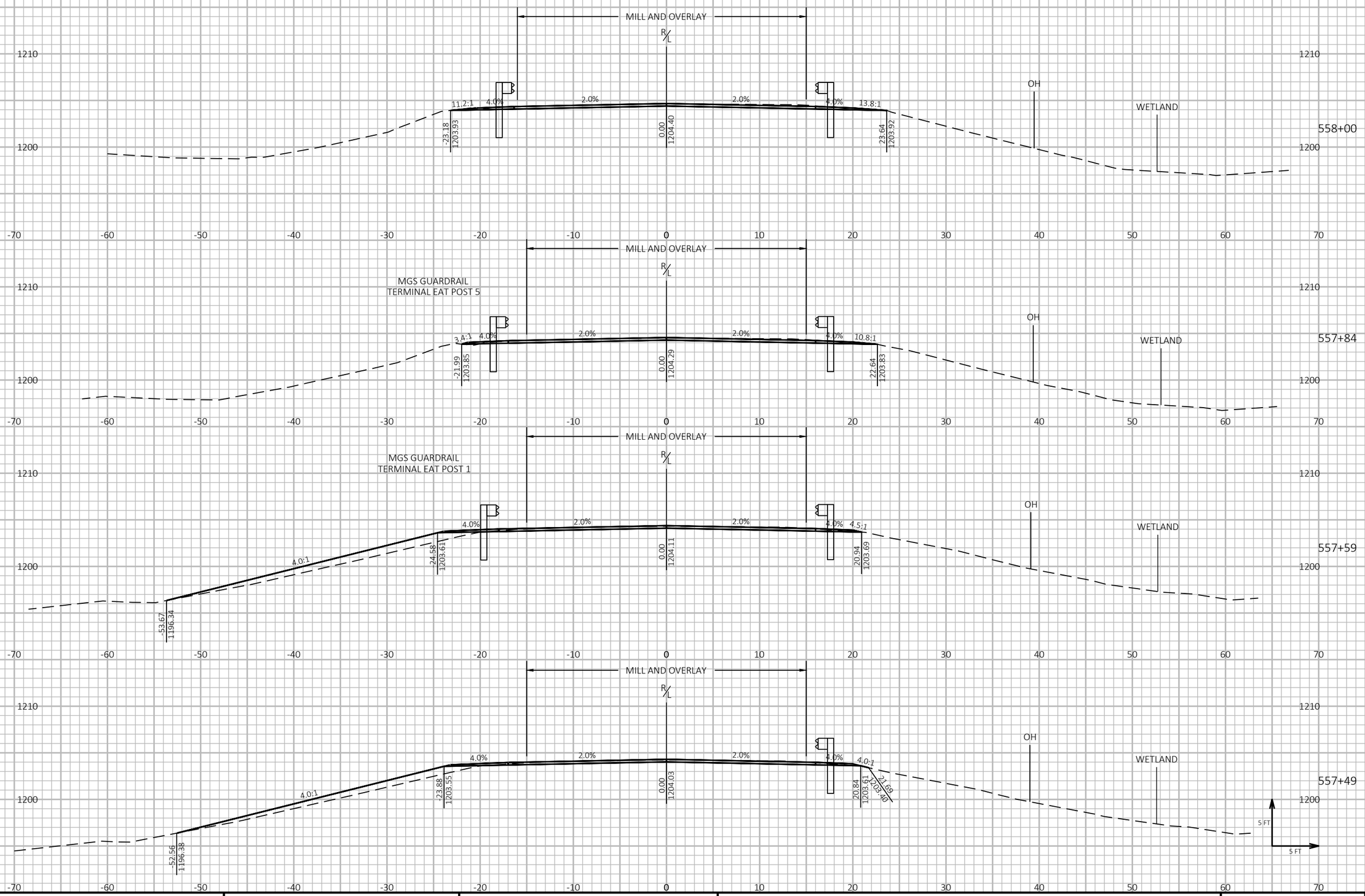
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PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 96	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 4/22/2022 12:03 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

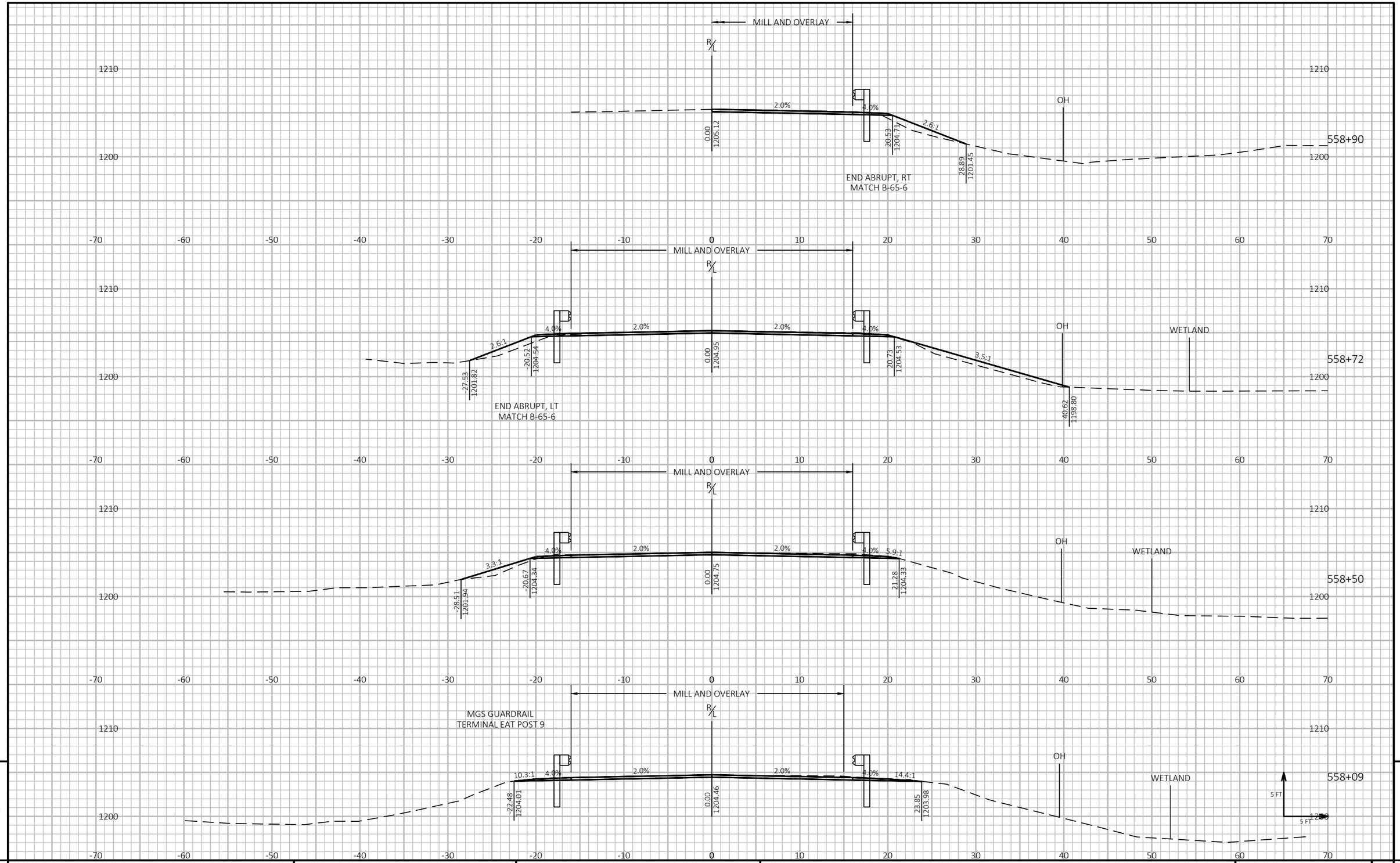
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PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 97	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 4/22/2022 12:03 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



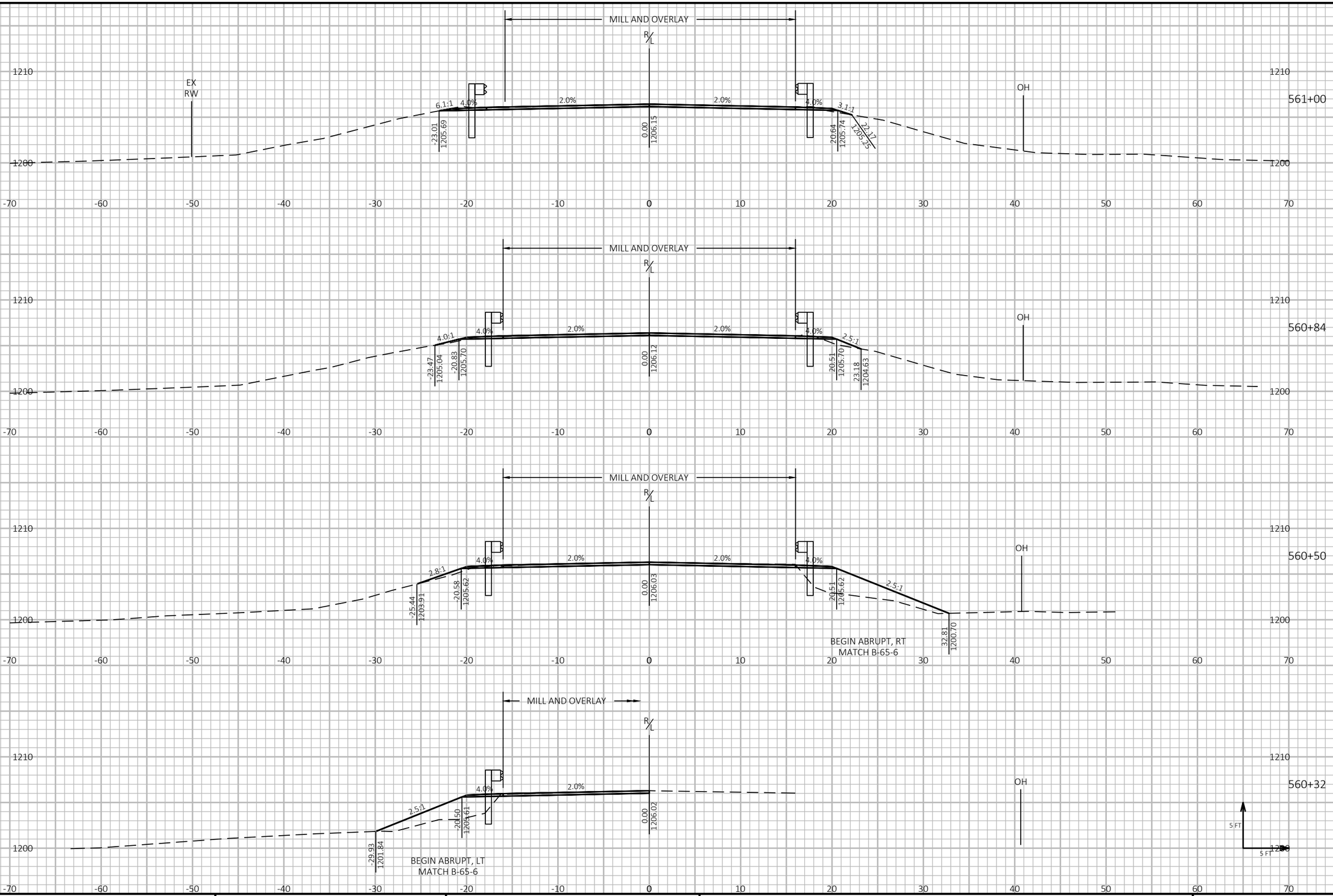
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PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 98	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 4/22/2022 12:04 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

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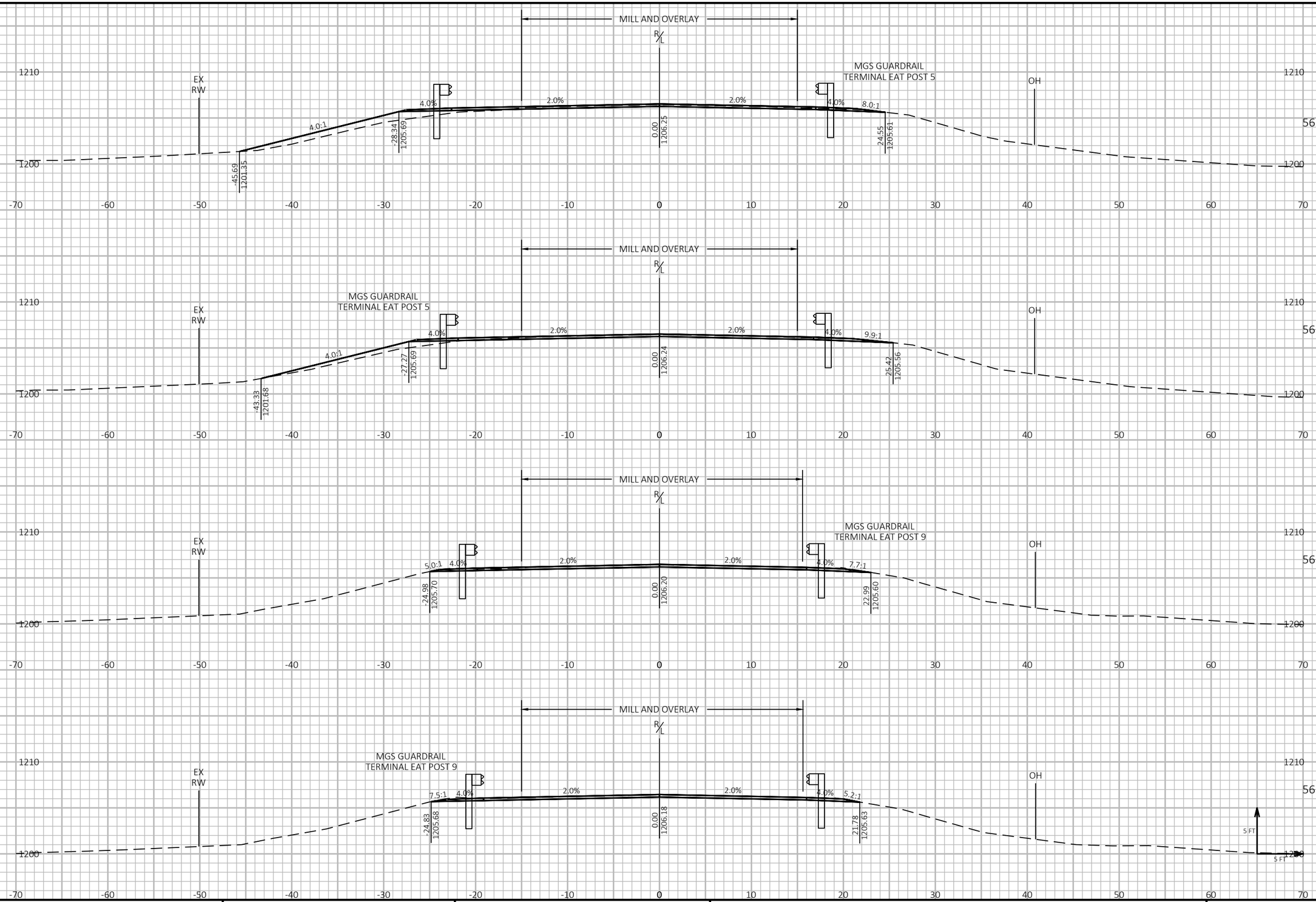
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FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 4/22/2022 12:04 PM PLOT BY : NICK MENNINGA PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



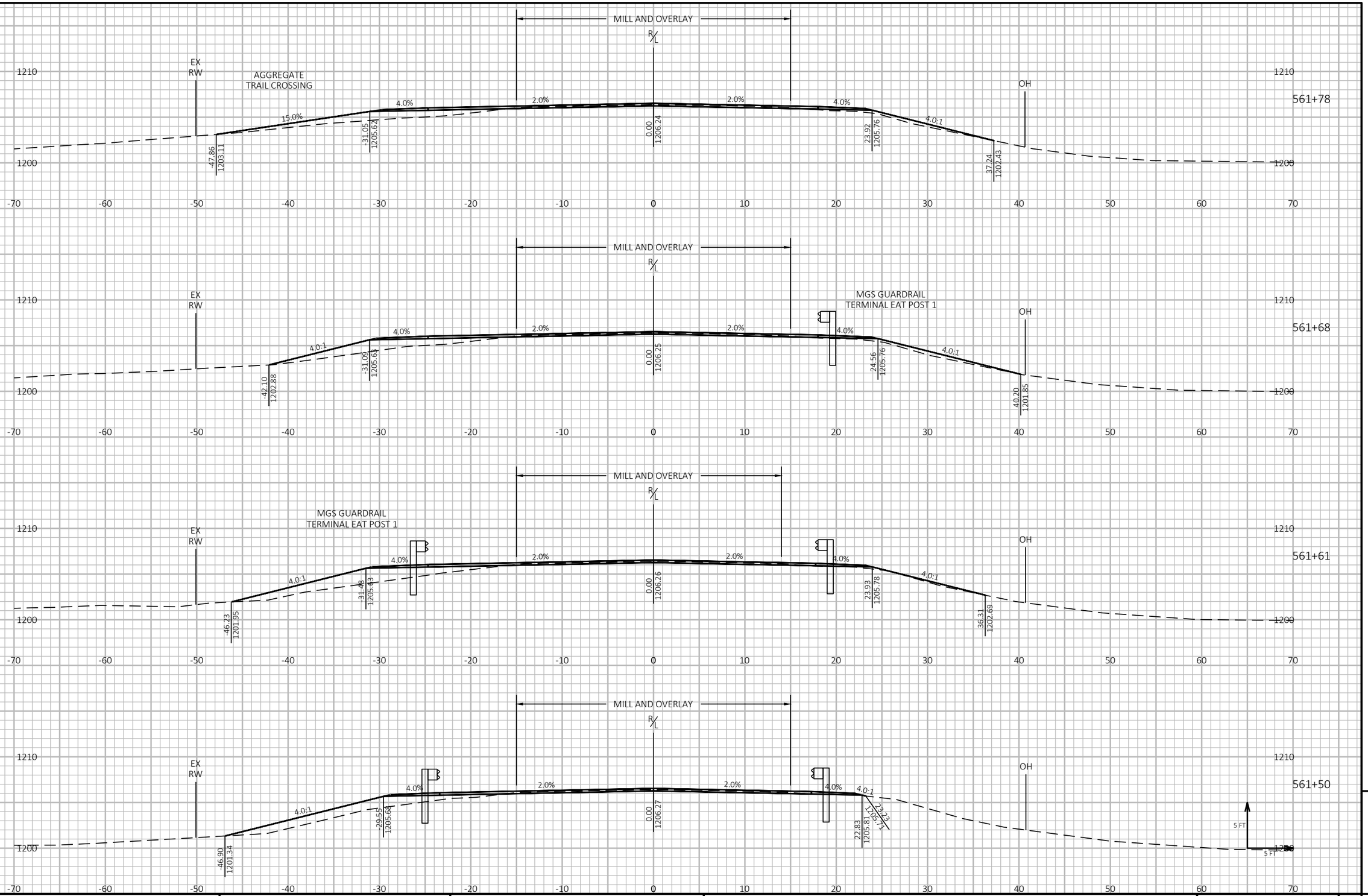
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PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 100	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 4/22/2022 12:04 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

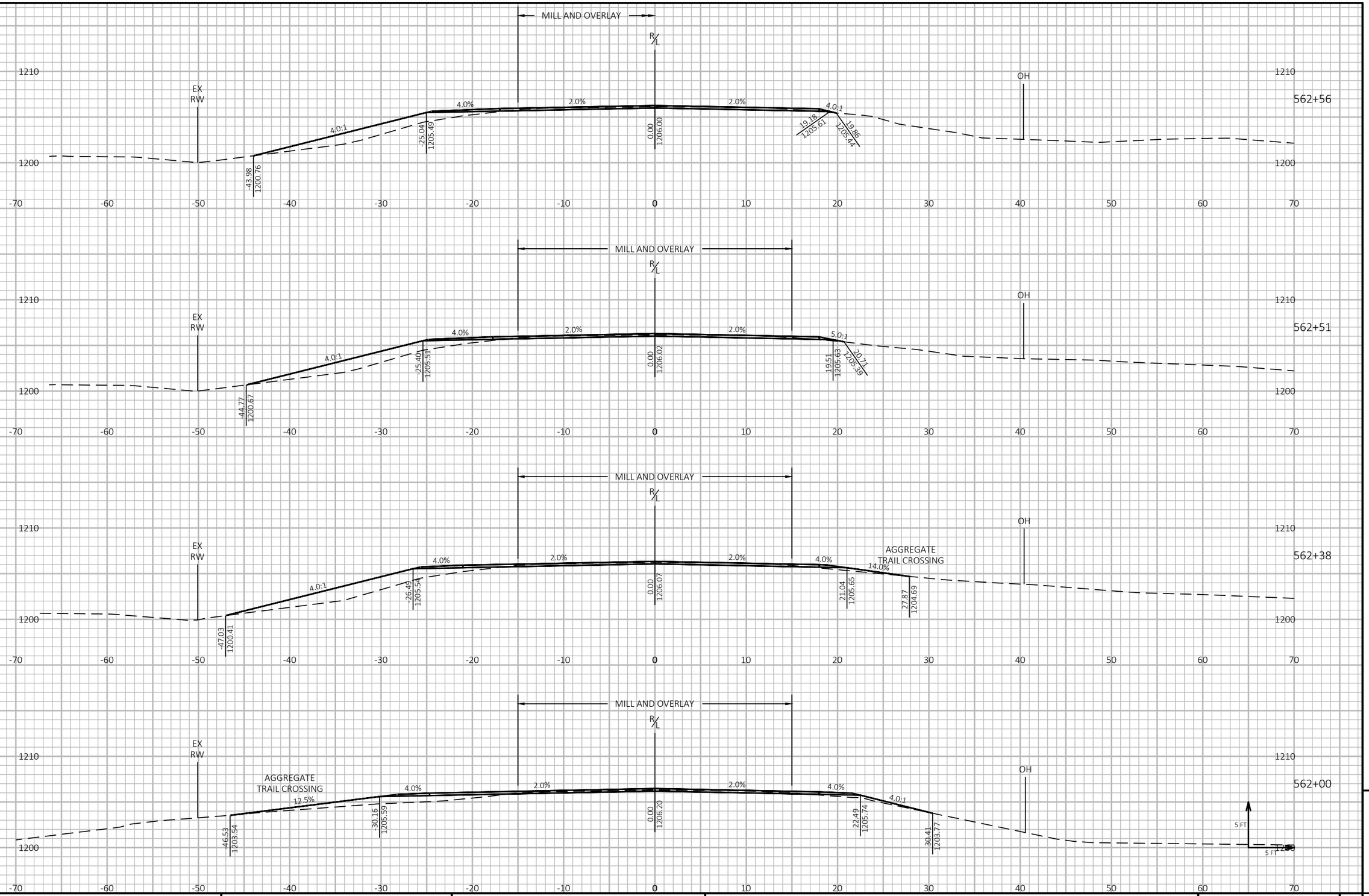
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PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 101	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 03

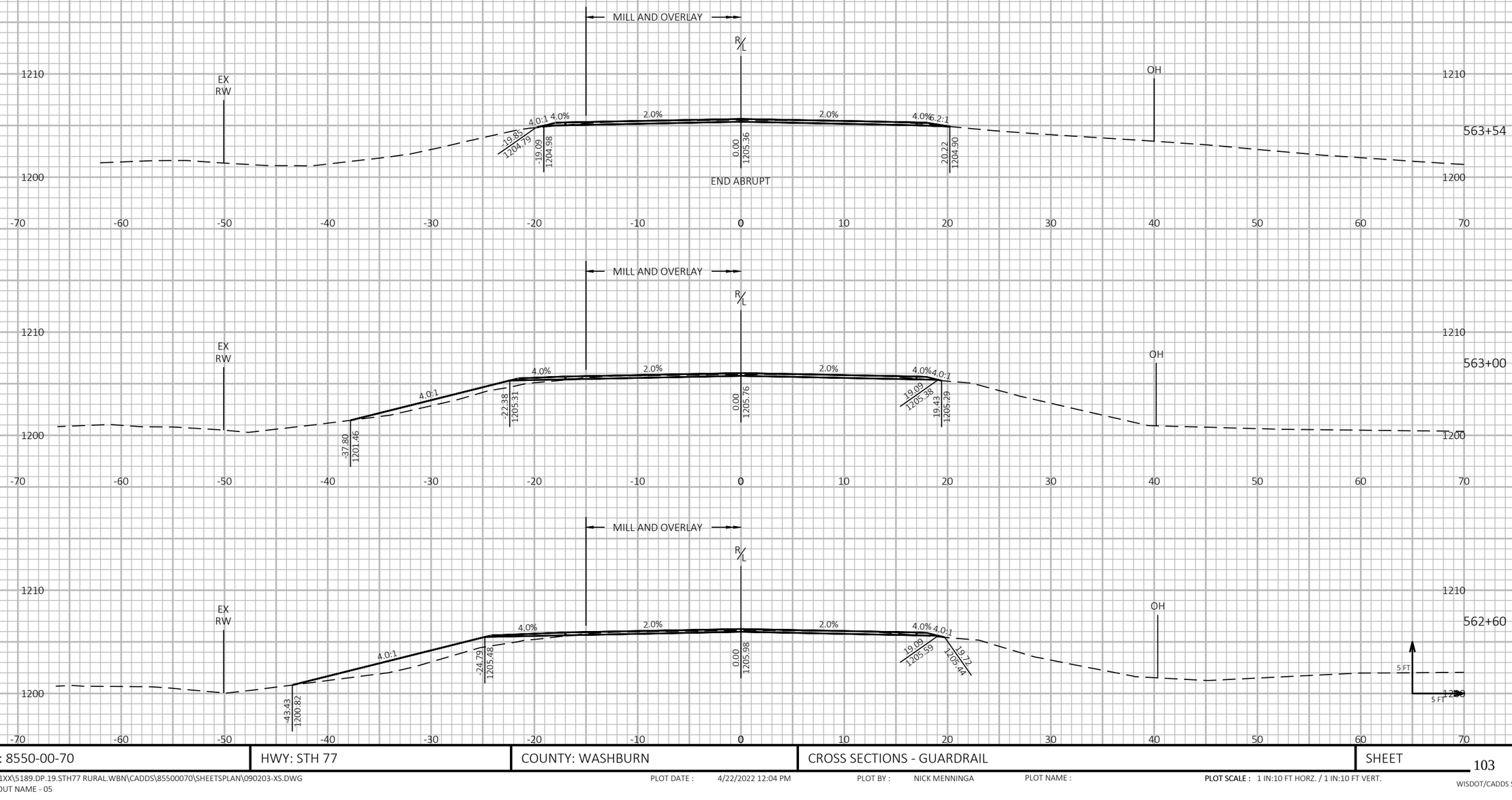
PLOT DATE : 4/22/2022 12:04 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 102	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 04
PLOT DATE : 4/22/2022 12:04 PM
PLOT BY : NICK MENNINGA
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



9

9

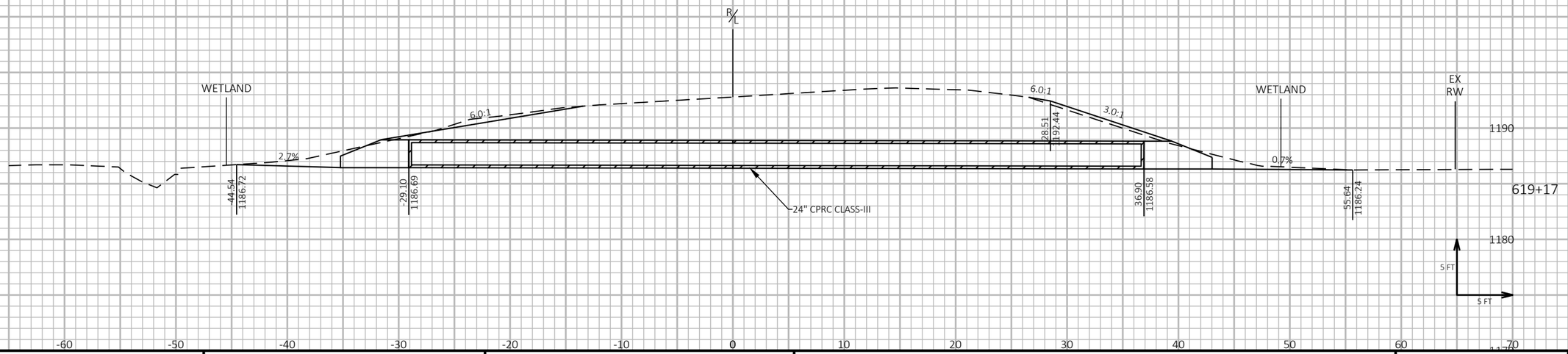
PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 103	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 4/22/2022 12:04 PM PLOT BY : NICK MENNINGA PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 8550-00-70	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - CULVERT	SHEET 104	E

FILE NAME : P:\51XX\5189.DP.19.STH77 RURAL.WBN\CADDS\85500070\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 1

PLOT DATE : 4/22/2022 12:04 PM PLOT BY : NICK MENNINGA PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 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

SUP

PROJECT ID: 8550-02-72

WITH: 8550-00-70

COUNTY: WASHBURN

SEPTEMBER 2022

ORDER OF SHEETS

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

TOTAL SHEETS = 196



25

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MINONG - HAYWARD

CTH I TO CTH G

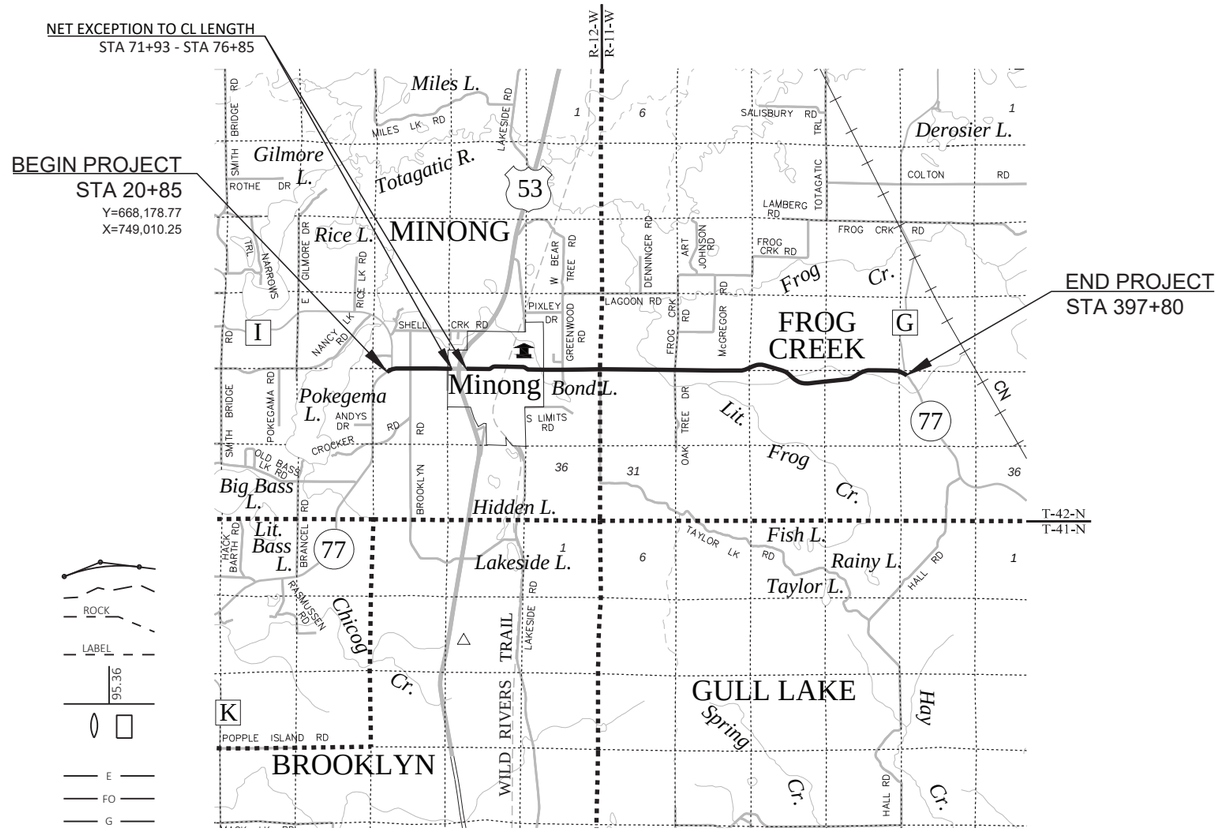
STH 77

WASHBURN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8550-02-72	WISC 2022524	1

STATE PROJECT NUMBER

8550-02-72



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 7.046 MI

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

DESIGN DESIGNATION

A.A.D.T.	2024	=	3,520
A.A.D.T.	2044	=	4,640
D.H.V.	2044	=	640
D.D.		=	61/39
T.		=	13.3%
DESIGN SPEED		=	25 MPH - 55 MPH
ESALS		=	550,000

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
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

emcs inc

500 North 17th Avenue
Wausau, WI 54401
715.845.1081 Fax 715.845.1099

WISCONSIN
STEPHANIE G. CHRISTENSEN
E-35808
WAUSAU, WI
PROFESSIONAL ENGINEER

4/11/22 (Date)

Stephanie G. Christensen (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EMCS, INC.
Designer	EMCS, INC.
Project Manager	JEFF SAXBY
Regional Examiner	TOU YANG
Regional Supervisor	JEFF OLSON

APPROVED FOR THE DEPARTMENT

DATE: 4/21/2022 (Signature)

E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\010101-TI.DWG

PLOT DATE : 4/11/2022 6:53 AM

PLOT BY : DREW NELSON

PLOT NAME :

GENERAL NOTES

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

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

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

CROSS DRAIN PIPE LOCATIONS AND ELEVATIONS AS SHOWN ON THE CROSS SECTION SHEETS ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

AS-BUILTS USED FOR PLAN DEVELOPMENT

PROJECT NO: 8550-06-71, CONSTRUCTION YEAR: 1999
PROJECT NO: 8550-03-71, CONSTRUCTION YEAR: 2000

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
PAVING DETAILS
CURB RAMP DETAILS
EROSION CONTROL
MARKING
TRAFFIC CONTROL

UTILITIES

COMMUNICATIONS

ASTREA
ANDY HEIGL
105 KENT ST
IRON MOUNTAIN, MI 49801
MOBILE: (906) 221-7536
EMAIL: ANDY.HEIGL@ASTREACONNECT.COM

CENTURYLINK (CENTURYTEL OF NORTHWEST WISCONSIN, LLC)
MICHAEL VANDEN BOS
2426 75TH AVE
OSCEOLA, WI 54020
MOBILE: (608) 716-5962
EMAIL: MIKE.VANDENBOS@LUMEN.COM

CENTURYLINK (TELEPHONE USA OF WISCONSIN, LLC)
MICHAEL VANDEN BOS
2426 75TH AVE
OSCEOLA, WI 54020
MOBILE: (608) 716-5962
EMAIL: MIKE.VANDENBOS@LUMEN.COM

SIREN COMMUNICATIONS INC.
KENT BASSETT
7723 MAIN ST, PO BOX 426
SIREN, WI 54872
PHONE: (715) 349-2224
MOBILE: (715) 491-1440
EMAIL: KENTBASS@SIRENTEL.NET

SPECTRUM
JAMEY OLDEEN
2016 18 3/4 ST
RICE LAKE, WI 54868
PHONE: (715) 719-0561
MOBILE: (715) 651-7488
EMAIL: JAMEY.OLDEEN@CHARTER.COM

ELECTRIC

DAHLBERG LIGHT & POWER COMPANY
JAMES DAHLBERG
9221 MAIN ST
SOLON SPRINGS, WI 54873
MOBILE: (715) 816-4153
EMAIL: JIMDAHLBERG@DAHLBERGLIGHTANDPOWER.COM

GAS/PETROLEUM

WE ENERGIES
STEVEN CHAVERS
104 W SOUTH ST
RICE LAKE, WI 54868
PHONE: (715) 234-9605
MOBILE: (715) 213-4327
EMAIL: STEVEN.CHAVERS@WE-ENERGIES.COM

WATER

VILLAGE OF MINONG
WILLIAM HALLOCK
123 5TH AVE
MINONG, WI 54859
MOBILE: (715) 520-0365
EMAIL: WHALLOCK.PUBLICWORKS@GMAIL.COM

SEWER

VILLAGE OF MINONG
WILLIAM HALLOCK
123 5TH AVE
MINONG, WI 54859
MOBILE: (715) 520-0365
EMAIL: WHALLOCK.PUBLICWORKS@GMAIL.COM

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 105.2 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.9 ACRE

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

OTHER CONTACTS

DNR LIAISON

SHAWN HASELEU
DNR NORTHERN REGION HEADQUARTERS
810 W. MAPLE STREET
SPOONER, WI 54801
PHONE: (715) 416-0478
EMAIL: SHAWN.HASELEU@WISCONSIN.GOV

DESIGNER CONTACT

EMCS, INC.
500 NORTH 17TH AVENUE
WAUSAU, WI 54401
PHONE: (715) 845-1081

TOWN OF MINONG

VILLAGE OF MINONG

TOWN OF MINONG

2

N

SHELL CREEK

CTH I

BROOKLYN RD

BROOKLYN RD

END CONSTRUCTION
STA 71+93

BEGIN CONSTRUCTION
STA 76+85

BEGIN PROJECT
STA 20+85

STH77

40

60

80

100

120

140

160

NEWTON DR

USH 53

UNNAMED
OPEN WATER

SHELL CREEK

SEE URBAN DETAIL BELOW

GREENWOOD RD

GREENWOOD RD

BOND LAKE

STH77

URBAN DETAIL

N

VILLAGE OF MINONG

BUS 53

SERVICE RD A

DAVIS ST

WILD RIVERS STATE TRAIL

RAILROAD ST

2ND ST

1ST ST

MAIN ST

STH 77

100

110

120

130

140

80

90

BUS 53

RICHARDS AVE

JONES ST

WILD RIVERS STATE TRAIL

RAILROAD ST

RICHARDS AVE

2ND ST

1ST ST

FIRE
DEPT

MAIN ST

UNNAMED
OPEN WATER

SHELL CREEK

MURIEL VIG LN

B ST

ALLEY

TOWN
OF MINONG

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 01

PLOT DATE : 4/22/2022 12:07 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:1000 FT

WISDOT/CADDS SHEET 44

2

TOWN OF MINONG

TOWN OF FROG CREEK

N

REMOVE AND REPLACE GUARDRAIL

B-65-15
(TO REMAIN)

FROG CREEK RD

OAK TREE DR

TAYLOR LAKE RD

LITTLE FROG CREEK

STH77

180 200 220 240 260 280 300

SINK CREEK

320

SINK CREEK

LITTLE FROG CREEK

2

TOWN OF FROG CREEK

N

UNNAMED STREAM

REMOVE AND REPLACE GUARDRAIL

300

SINK CREEK

SINK CREEK

320 340 360

STH77

380

SINK CREEK

CTH G

END PROJECT
STA 397+80
(MATCH OVERLAY
ID 8550-00-70)

400

SINK CREEK

UNNAMED STREAM

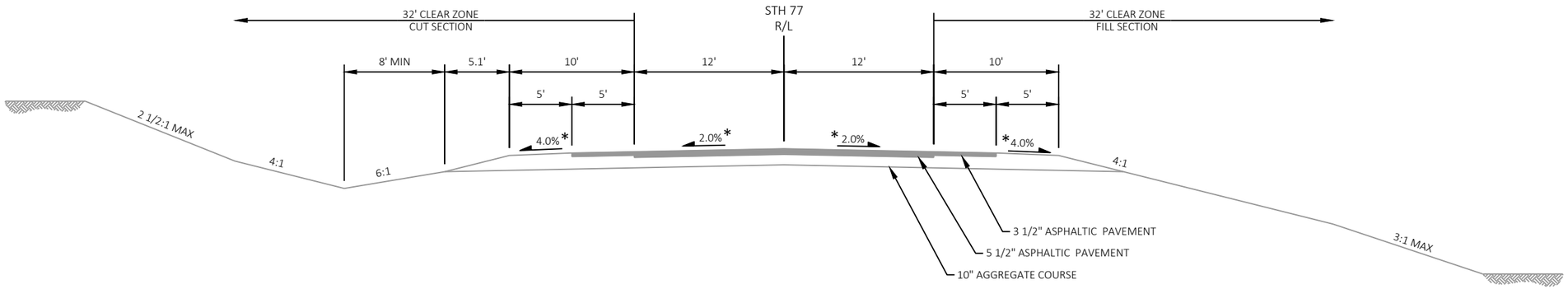
420

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PROJECT OVERVIEW	SHEET 4	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 02

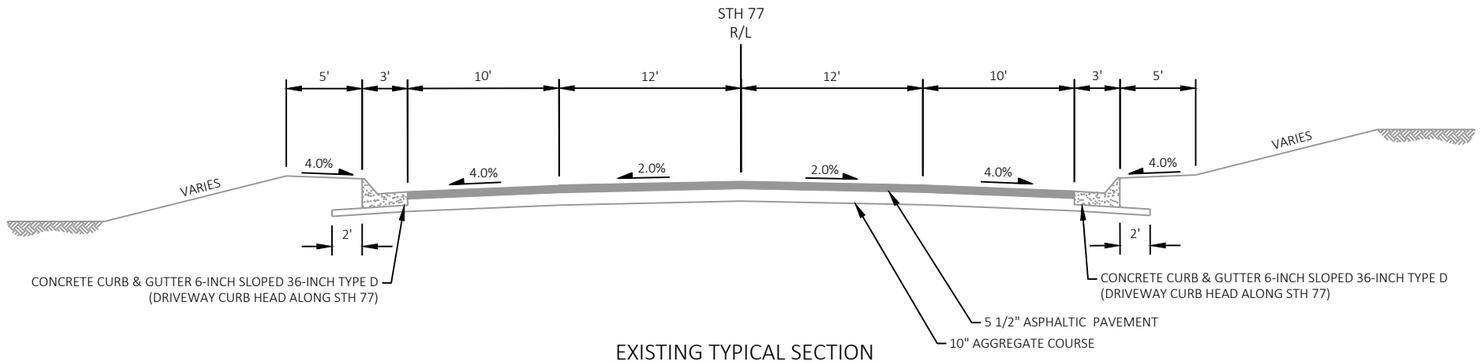
PLOT DATE : 4/22/2022 12:07 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : ##########

2



EXISTING TYPICAL SECTION

STA 20+85 - STA 41+07
STA 42+37 - STA 71+93



EXISTING TYPICAL SECTION

STA 41+07 - STA 42+37

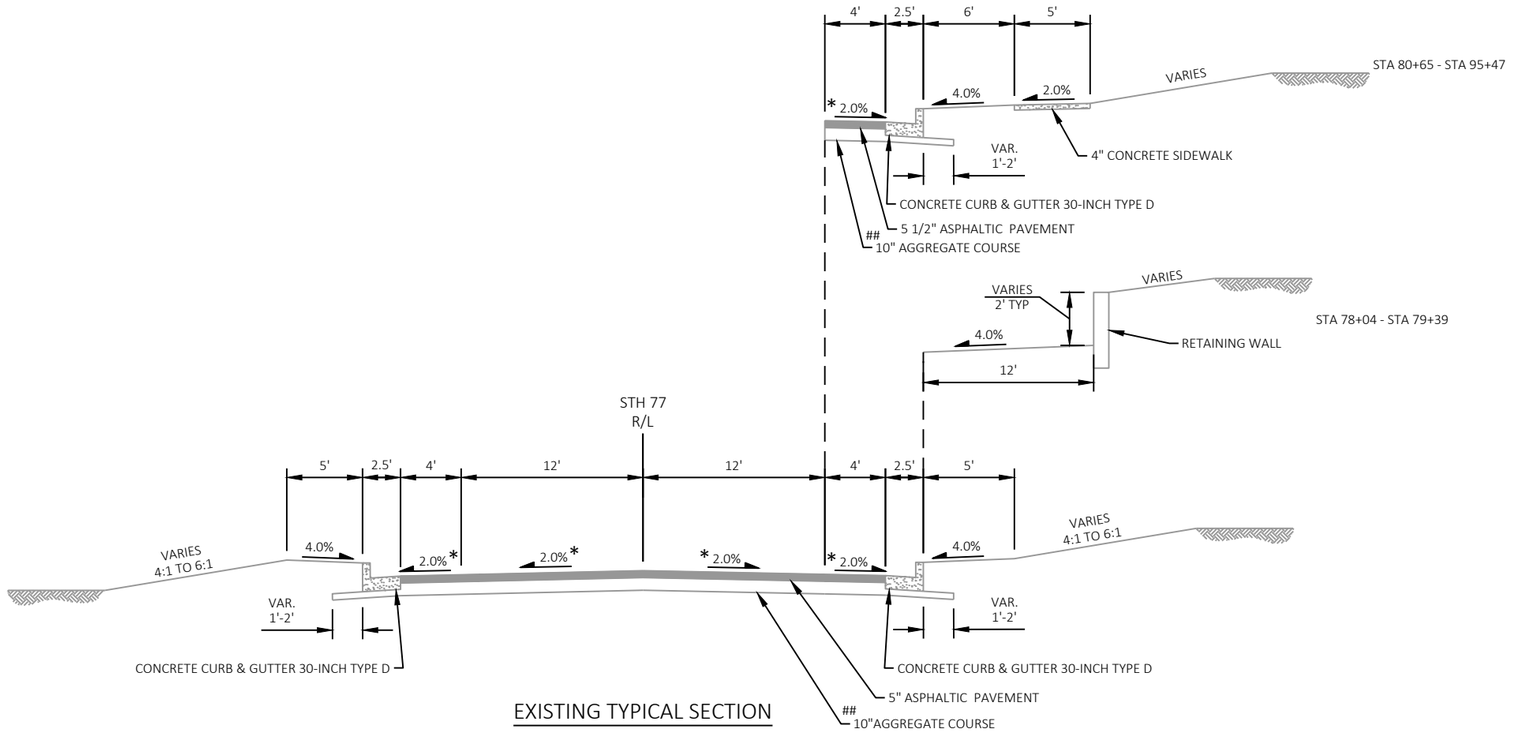
NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION. SEE SECTION 5 PLANS FOR SUPERELEVATION INFORMATION.

SEE SECTION 5 PLANS FOR TURN LANE LOCATIONS.

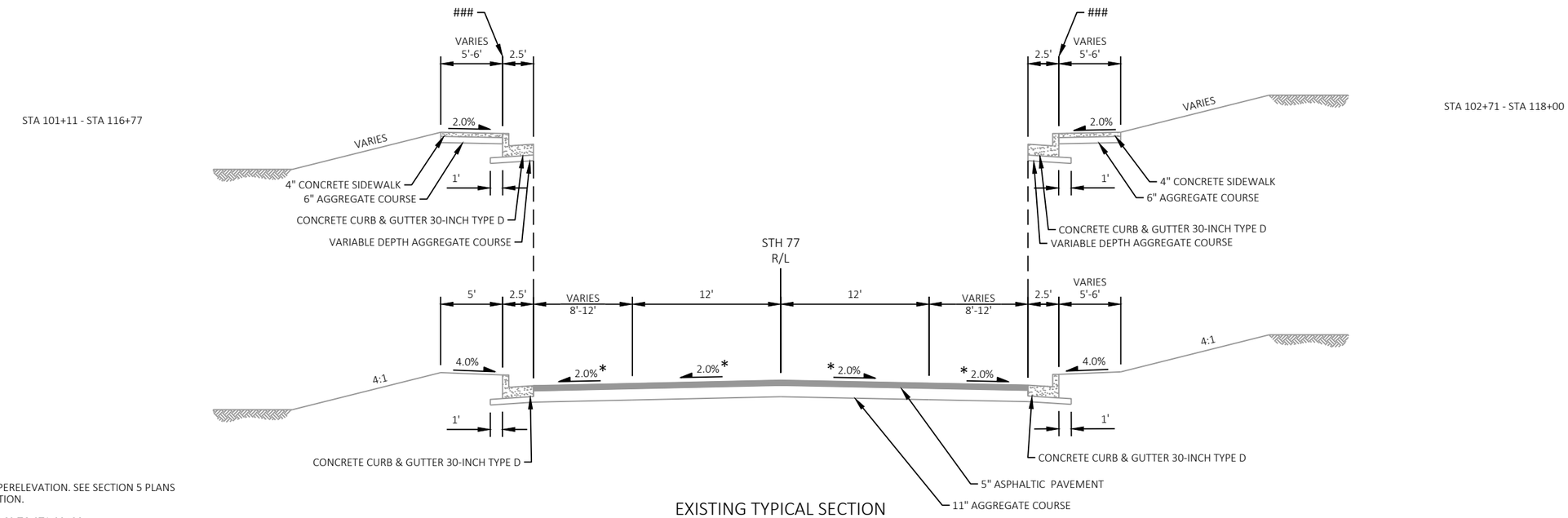
PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	TYPICAL SECTIONS	SHEET 5	E

2



EXISTING TYPICAL SECTION

STA 76+85 - STA 99+98



EXISTING TYPICAL SECTION

STA 99+98 - STA 126+57

NOTES

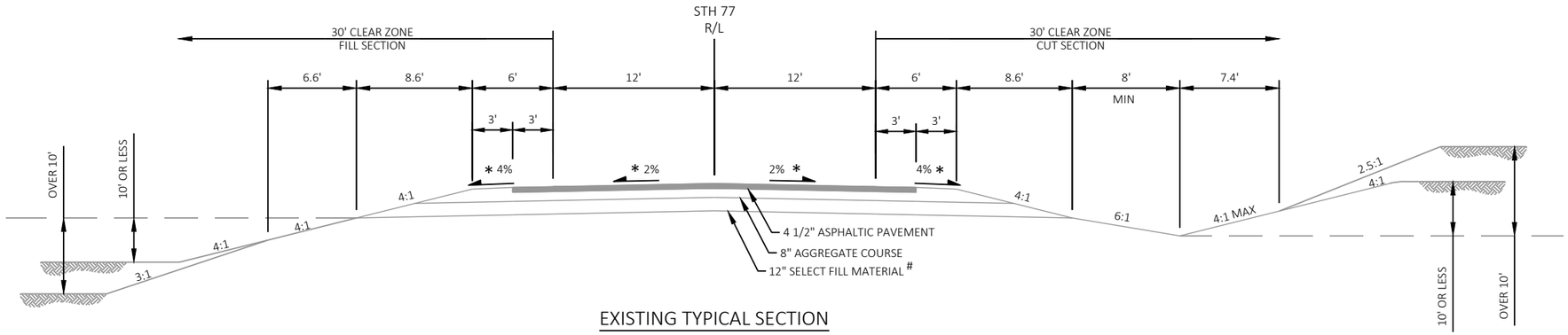
* CROSS SLOPE VARIES DUE TO SUPERELEVATION. SEE SECTION 5 PLANS FOR SUPERELEVATION INFORMATION.

11" AGGREGATE COURSE STA 94+62 TO STA 99+98.

TERRACE WIDTH VARIES FROM 0' TO 5'.

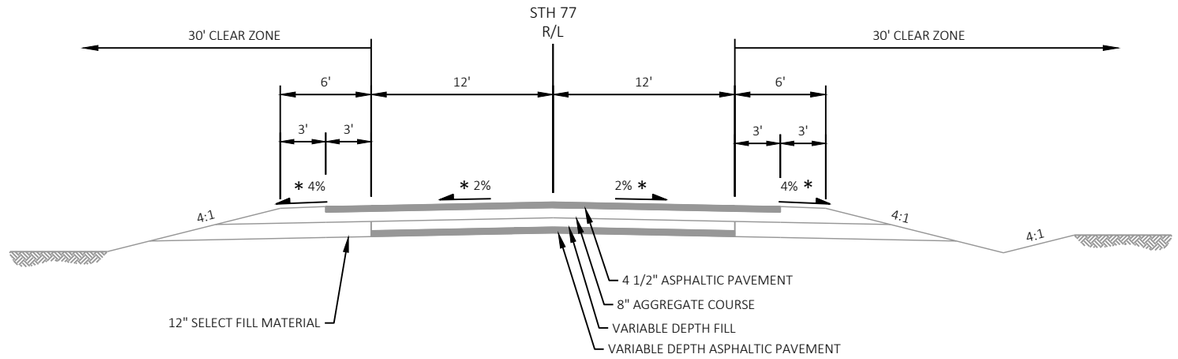
PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	TYPICAL SECTIONS	SHEET 6	E

2



EXISTING TYPICAL SECTION

STA 126+57 - STA 141+85 **
STA 189+80 - STA 197+80
STA 235+85 - STA 250+85
STA 271+85 - STA 295+85
STA 299+85 - STA 331+84
STA 340+84 - STA 397+80



EXISTING TYPICAL SECTION

STA 141+85 - STA 189+80
STA 197+80 - STA 235+85
STA 250+85 - STA 271+85
STA 295+85 - STA 299+85
STA 331+84 - STA 340+84

NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION. SEE SECTION 5 PLANS FOR SUPERELEVATION INFORMATION.

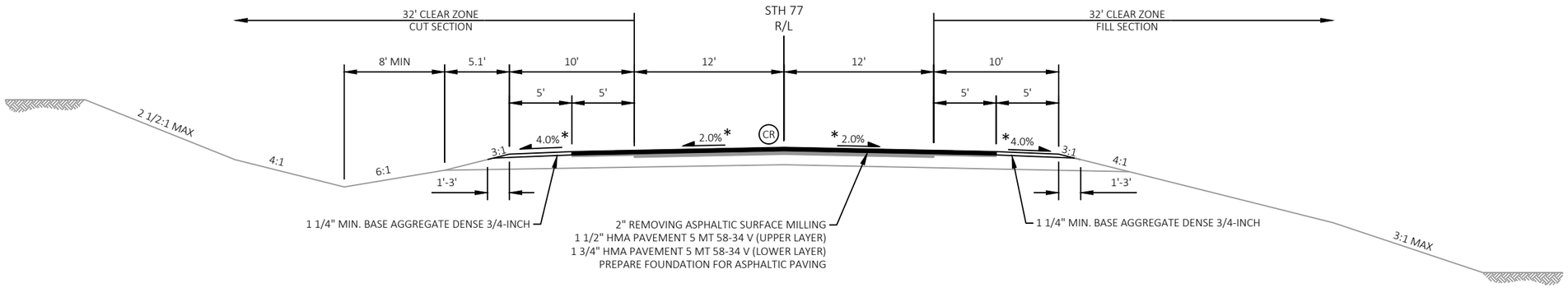
** FROM STA 126+57 TO STA 134+72 THE EXISTING CLEAR ZONE AND DEPTH OF ASPHALTIC PAVEMENT AND AGGREGATE COURSE ARE UNKNOWN.

\# NO SELECT FILL MATERIAL FROM STA 134+72 TO STA 141+85 AND STA 189+80 TO STA 197+80.

SEE SECTION 5 PLANS FOR LOCATIONS OF EXISTING GUARDRAIL.

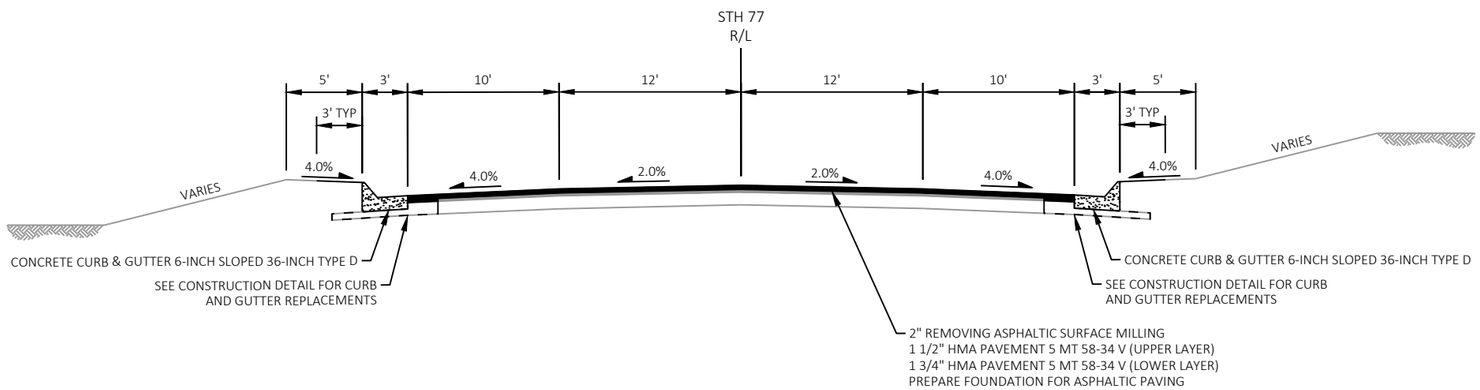
SEE SECTION 5 PLANS FOR TURN LANE LOCATIONS.

2



FINISHED TYPICAL SECTION

STA 20+85 - STA 41+07
STA 42+37 - STA 71+93



FINISHED TYPICAL SECTION

STA 41+07 - STA 42+37

NOTES

∗ CROSS SLOPE VARIES DUE TO SUPERELEVATION. SEE SECTION 5 PLANS FOR SUPERELEVATION INFORMATION.

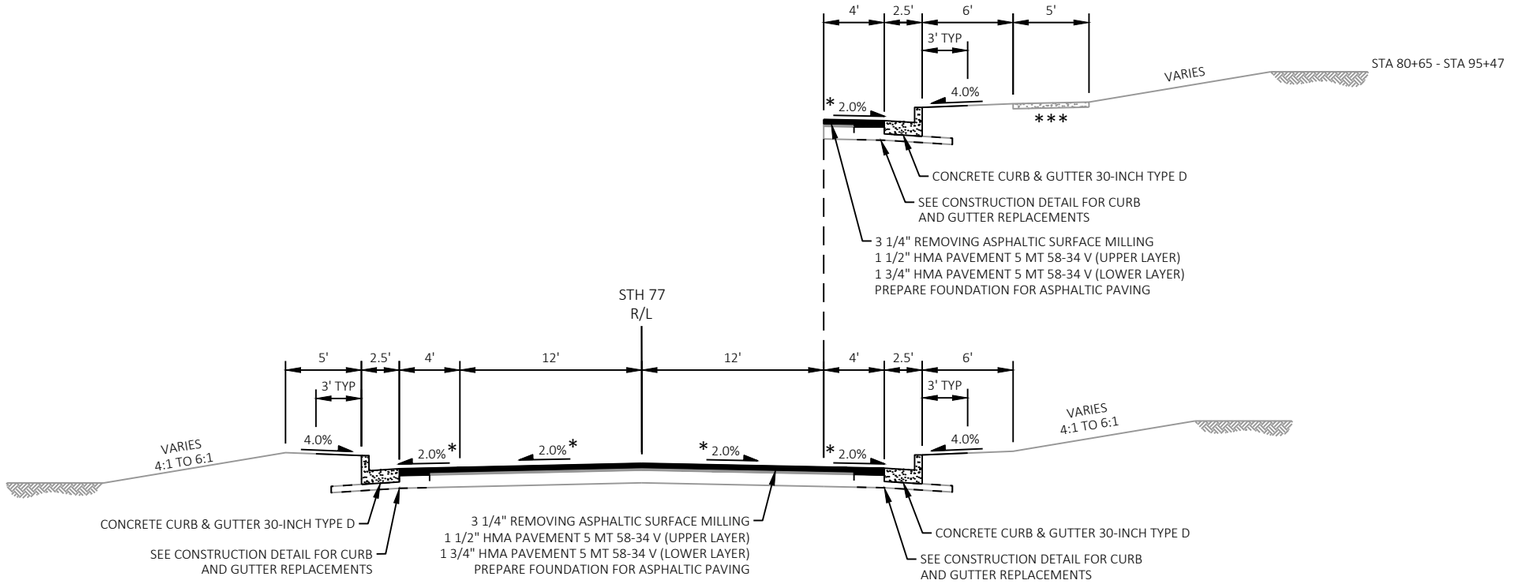
(CR) ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL. SEE SDD FOR "2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING" FOR ADDITIONAL INFORMATION.

SEE SECTION 5 PLANS FOR TURN LANE LOCATIONS.

MILLING DEPTH REFERENCED AT ROADWAY CENTERLINE.

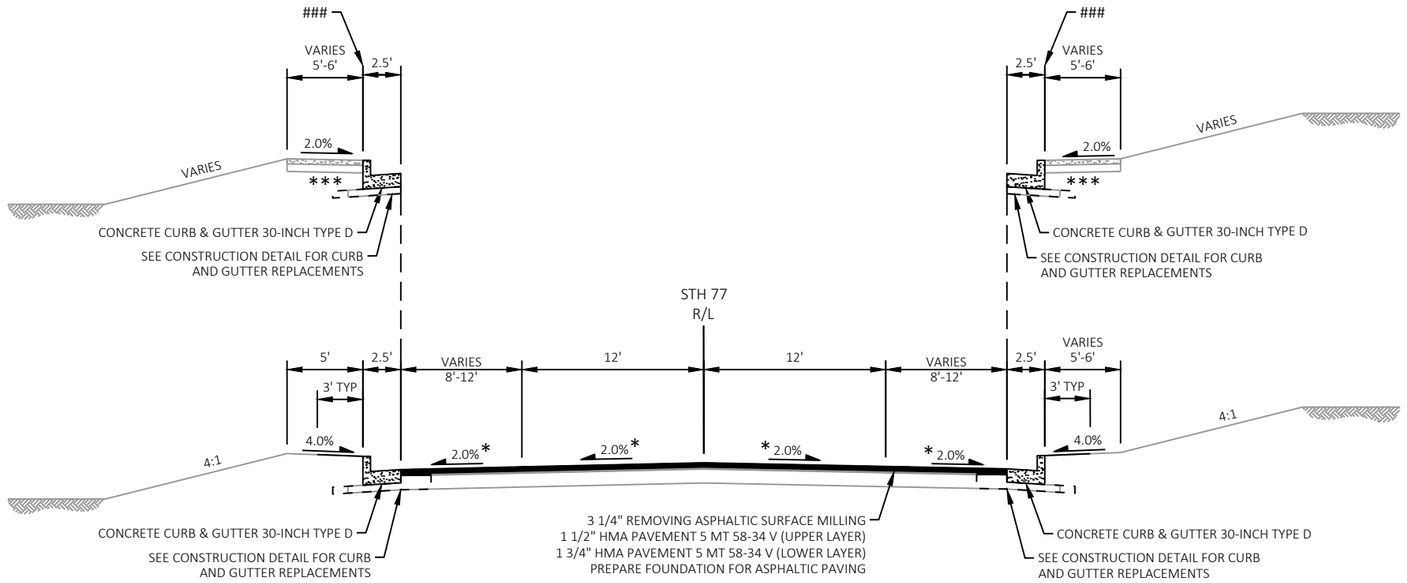
PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	TYPICAL SECTIONS	SHEET 8	E

2



FINISHED TYPICAL SECTION

STA 76+85 - STA 99+98



FINISHED TYPICAL SECTION

STA 99+98 - STA 126+57

NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION. SEE SECTION 5 PLANS FOR SUPERELEVATION INFORMATION.

*** PREPARE FOUNDATION WITH 6-INCHES BASE AGGREGATE DENSE 1 1/4" IN CURB RAMP REPLACEMENT AREAS.

TERRACE WIDTH VARIES FROM 0' TO 5'.

MILLING DEPTH REFERENCED AT ROADWAY CENTERLINE.

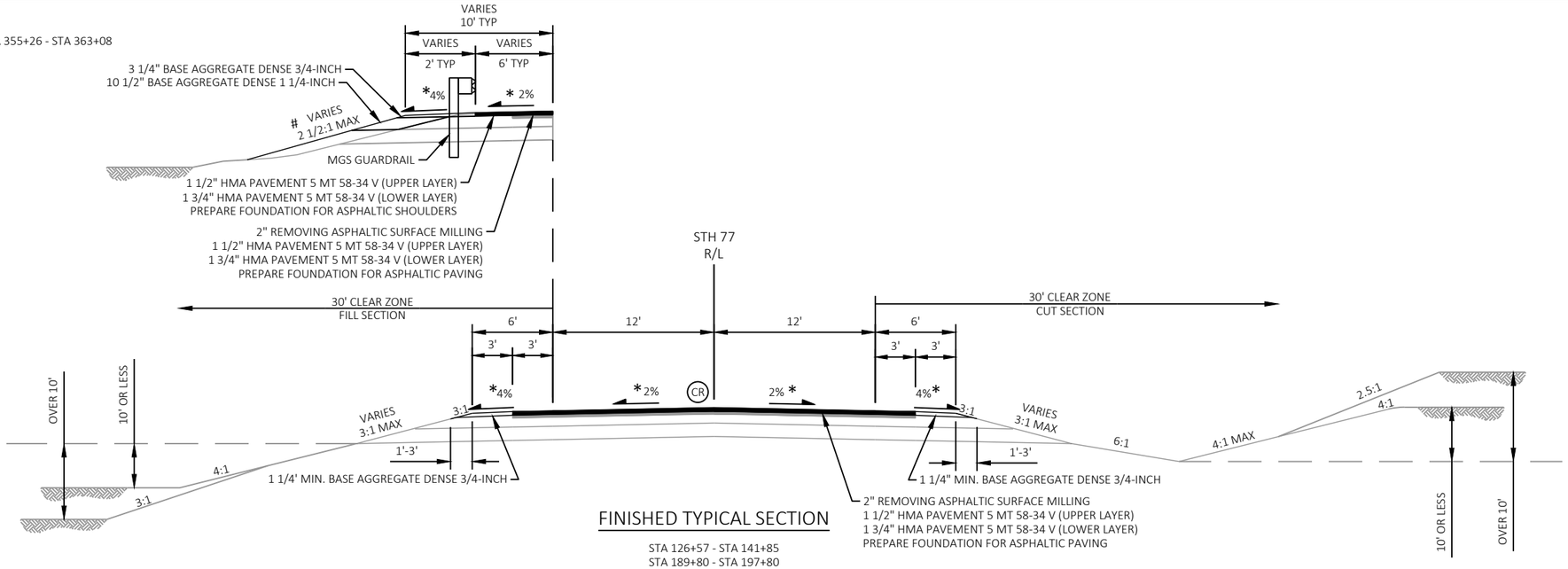
SEE CONSTRUCTION DETAILS FOR FINISHING AND EROSION CONTROL ITEMS IN URBAN AREAS.

SEE PAVING DETAILS AND CURB RAMP DETAILS FOR SIDEWALK REPLACEMENTS INCLUDED WITH PROJECT.

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	TYPICAL SECTIONS	SHEET 9	E

2

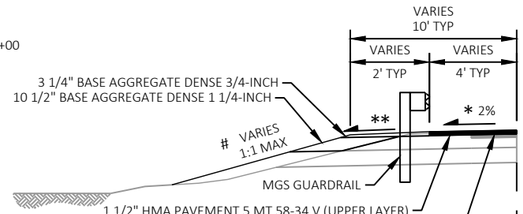
STA 355+26 - STA 363+08



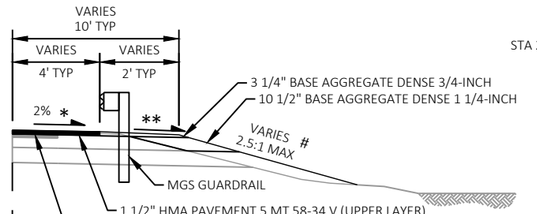
FINISHED TYPICAL SECTION

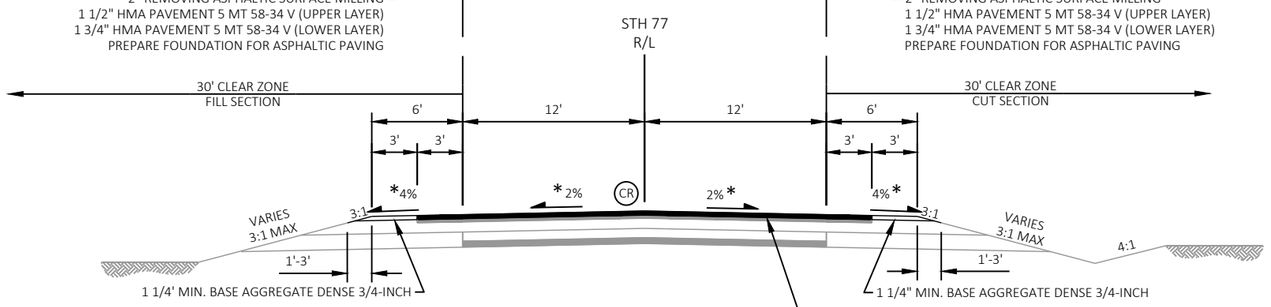
STA 126+57 - STA 141+85
STA 189+80 - STA 197+80
STA 235+85 - STA 250+85
STA 271+85 - STA 295+85
STA 299+85 - STA 331+84
STA 340+84 - STA 397+80

STA 212+14 - STA 216+00



STA 212+14 - STA 216+29





FINISHED TYPICAL SECTION

STA 141+85 - STA 189+80
STA 197+80 - STA 235+85
STA 250+85 - STA 271+85
STA 295+85 - STA 299+85
STA 331+84 - STA 340+84

NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION. SEE SECTION 5 PLANS FOR SUPERELEVATION INFORMATION.

** VARIES 4% TO 10%

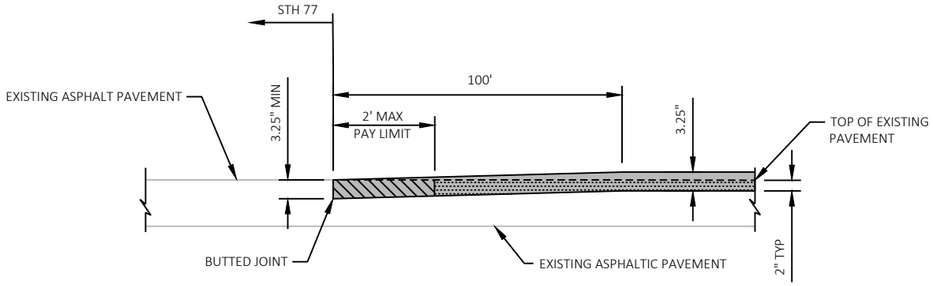
\# SEE CONSTRUCTION DETAIL FOR SHOULDER WIDENING AND SEE CROSS SECTIONS FOR SLOPES IN GUARDRAIL AREAS.

(CR) ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL. ONLY INSTALL RUMBLE STRIPS WHERE THE SPEED LIMIT IS GREATER THAN 50 MPH. SEE MISCELLANEOUS QUANTITIES FOR FINAL LOCATIONS. SEE SDD FOR "2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING" FOR ADDITIONAL INFORMATION.

SEE SECTION 5 PLANS FOR TURN LANE LOCATIONS.

MILLING DEPTH REFERENCED AT ROADWAY CENTERLINE.

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	TYPICAL SECTIONS	SHEET 10	E



REMOVING ASPHALTIC SURFACE BUTT JOINTS
DO NOT REMOVE MATERIAL UNDER THIS ITEM UNTIL 24 HOURS BEFORE PAVING

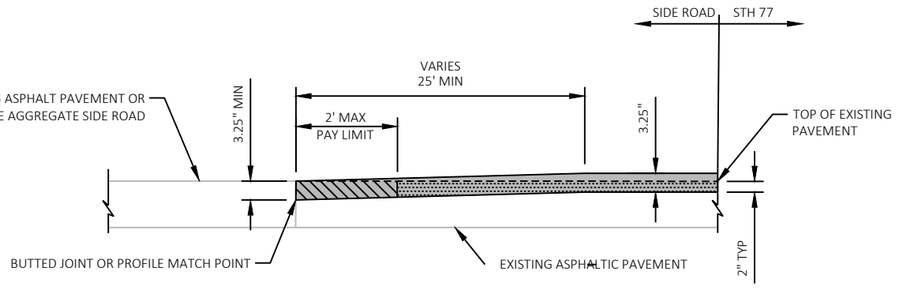
REMOVING ASPHALTIC SURFACE MILLING

PROPOSED HMA PAVEMENT OVERLAY

STH 77 BUTT JOINT AND PROFILE MATCH DETAIL

STA 20+85 (BEGIN PROJECT)
STA 71+93 (END CONSTRUCTION)

NOTE
MATCH OVERLAY AT STA 397+80 (END PROJECT) WITH ID 8550-00-70.



REMOVING ASPHALTIC SURFACE BUTT JOINTS (EXISTING ASPHALTIC SURFACE SIDE ROADS ONLY)
DO NOT REMOVE MATERIAL UNDER THIS ITEM UNTIL 24 HOURS BEFORE PAVING

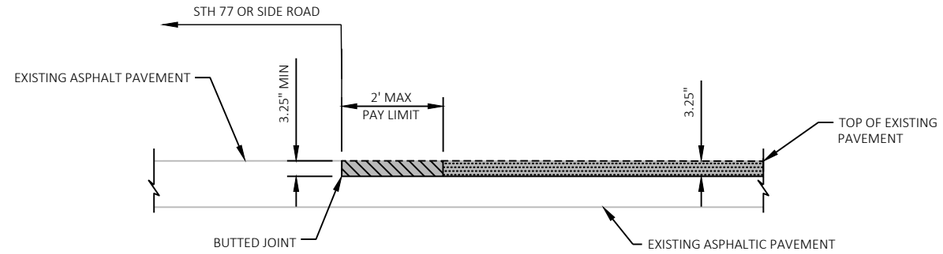
REMOVING ASPHALTIC SURFACE MILLING

PROPOSED HMA PAVEMENT OVERLAY

SIDE ROAD BUTT JOINT AND PROFILE MATCH DETAIL

STA 27+81, LT (CTH I)
STA 40+45, LT&RT (BROOKLYN RD)
STA 66+55, RT (NEWTON DR)
STA 148+05, LT (GREENWOOD RD)
STA 148+22, RT (GREENWOOD RD)
STA 174+20, RT (TAYLOR LAKE RD)
STA 226+69, RT (OAK TREE DR)
STA 226+72, LT (FROG CREEK RD)
STA 392+57, LT (CTH G)

NOTE
TRANSITION PROFILE TO MATCH EXISTING BASE AGGREGATE SIDE ROADS WITH VARIABLE DEPTH MILLING AS SHOWN. PAYMENT FOR BUTT JOINTS WILL NOT BE PAID AT SIDE ROADS WITH BASE AGGREGATE SURFACE.



REMOVING ASPHALTIC SURFACE BUTT JOINTS
DO NOT REMOVE MATERIAL UNDER THIS ITEM UNTIL 24 HOURS BEFORE PAVING

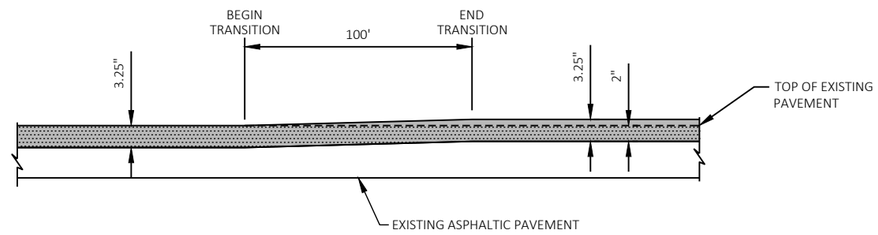
REMOVING ASPHALTIC SURFACE MILLING

PROPOSED HMA PAVEMENT OVERLAY

STH 77 AND SIDE ROAD BUTT JOINT DETAIL

STA 76+85 (BEGIN CONSTRUCTION)
STA 80+44, RT (MURIEL VIG LN)
STA 93+68, RT (B ST)
STA 96+84, RT (RICHARDS AVE)
STA 99+61, RT (BUSINESS 53)
STA 100+14, LT (BUSINESS 53)
STA 107+08, LT (DAVIS ST)
STA 107+16, RT (JONES ST)
STA 108+76, RT (RAILROAD ST)
STA 109+18, LT (RAILROAD ST)
STA 113+17, LT&RT (2ND ST)
STA 117+04, LT (1ST ST)
STA 117+06, RT (1ST ST)
STA 120+73, LT (MAIN ST)
STA 122+45, RT (MAIN ST)

NOTE
SEE SECTION 5 PLANS FOR SIDE ROAD LOCATIONS.

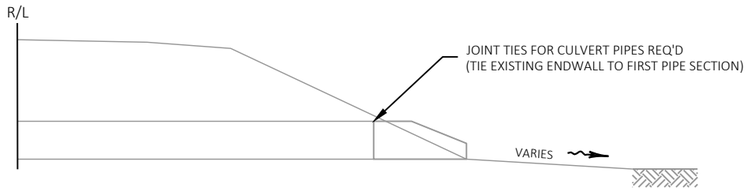


REMOVING ASPHALTIC SURFACE MILLING

PROPOSED HMA PAVEMENT OVERLAY

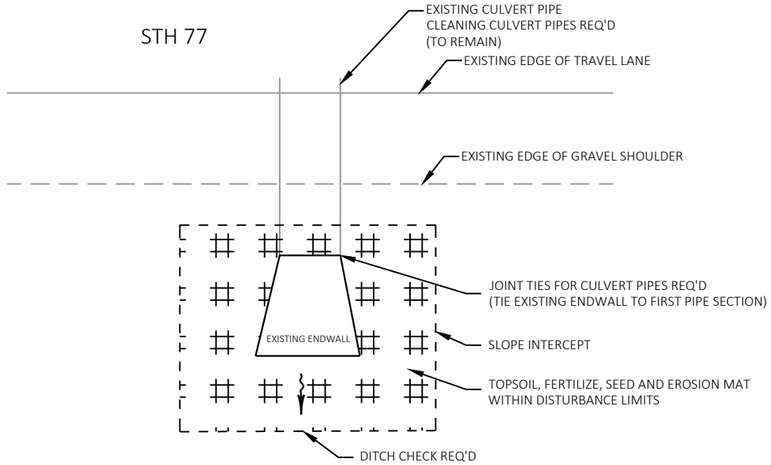
MILL DEPTH TRANSITION DETAIL

STA 70+93 - STA 71+93
STA 126+57 TO STA 127+57



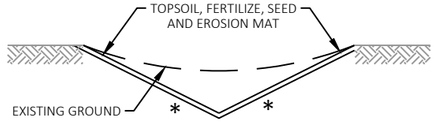
TYPICAL SECTION

STA 249+55, RT



PLAN VIEW

STA 249+55, RT



DITCH CLEANING

STA 249+55, LT

DITCH CLEANING FROM ENDWALL TO 50' LT ALONG FLOW PATH

NOTES

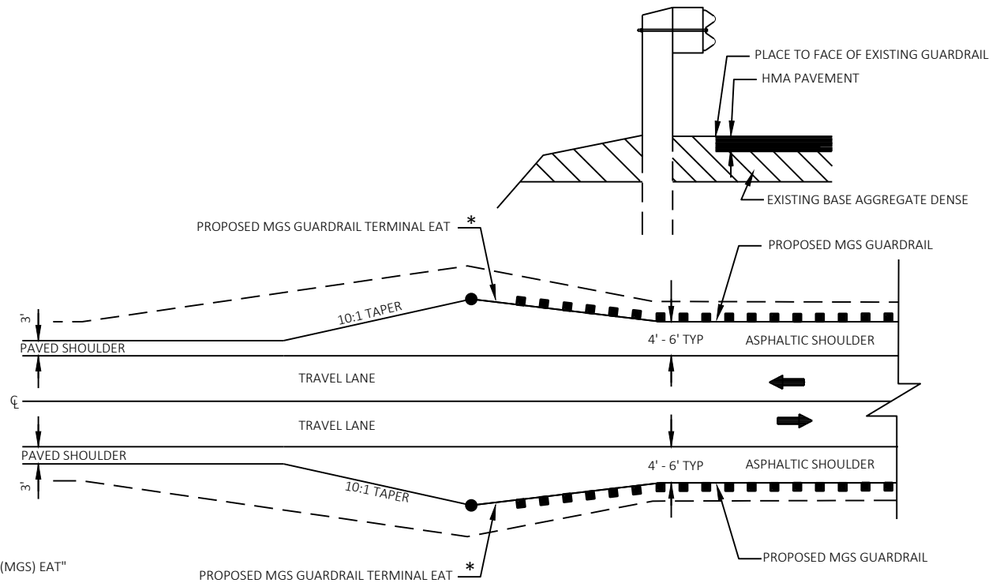
* SLOPES VARY, 4:1 MAX

FLOW DIRECTION

INSTALL CULVERT PIPE CHECKS ON LT SIDE OF CULVERT PRIOR TO DITCH CLEANING

CULVERT REPAIR DETAIL

STA 249+55, LT & RT

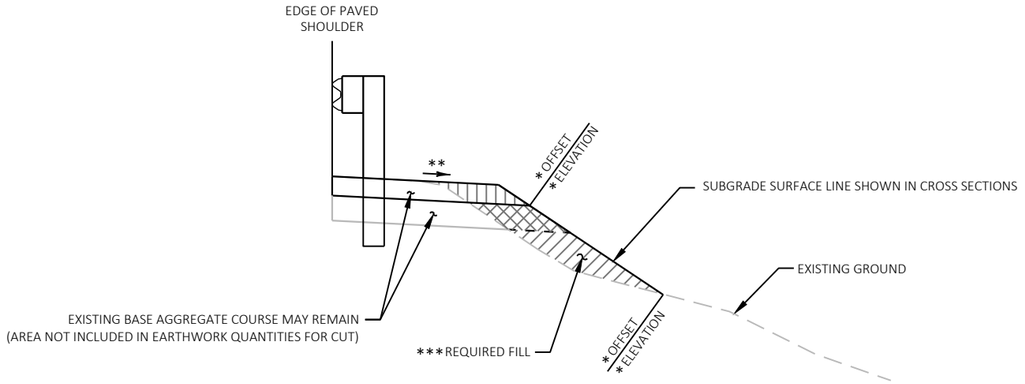


NOTES

SEE SECTION 5 PLANS AND SDD "MIDWEST GUARDRAIL SYSTEM (MGS) EAT" FOR ADDITIONAL INFORMATION.

* AT SHORT RADIUS MGS GUARDRAIL, TAPER PAVED SHOULDER AT 10:1 TO FACE OF RAIL THAT IS PARALLEL TO THE CENTERLINE OF STH 77 (16' LT)

PAVED SHOULDER AT GUARDRAIL DETAIL



SHOULDER WIDENING EARTHWORK & BASE AGGREGATE FOR GUARDRAIL DETAIL

SEE SECTION 5 PLAN SHEETS, CROSS SECTIONS, AND TYPICAL SECTIONS FOR LOCATIONS

NOTES

BENCH FILL AS REQUIRED PER STANDARD SPECIFICATION 205.3.2(4).

*OFFSET AND ELEVATION PROVIDED TO THESE POINTS ON THE CROSS SECTIONS.

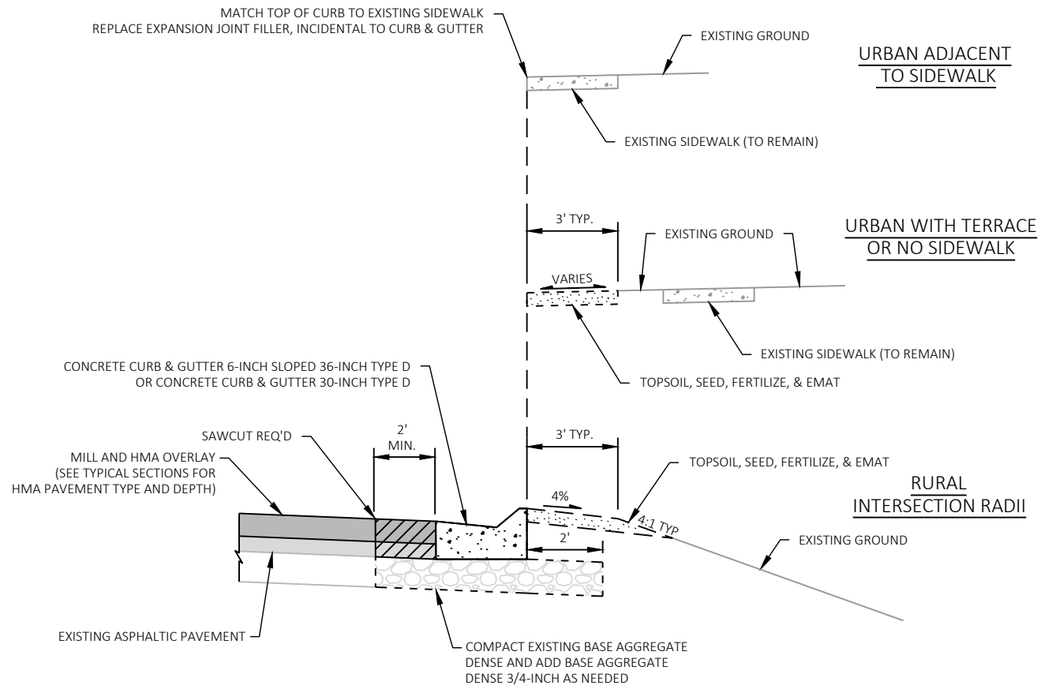
**SHOULDER SLOPE PROVIDED ON CROSS SECTIONS.

***PAID FOR UNDER THE BARRIER SYSTEM GRADING SHAPING FINISHING ITEM.

LEGEND

- NEW BASE AGGREGATE DENSE 3/4-INCH
- NEW BASE AGGREGATE DENSE 1 1/4-INCH
- FILL

2



DETAIL OF CURB & GUTTER REPLACEMENT

SEE INTERSECTION DETAILS, PAVING DETAILS & CURB RAMP DETAILS
FOR CURB & GUTTER REPLACEMENT LOCATIONS

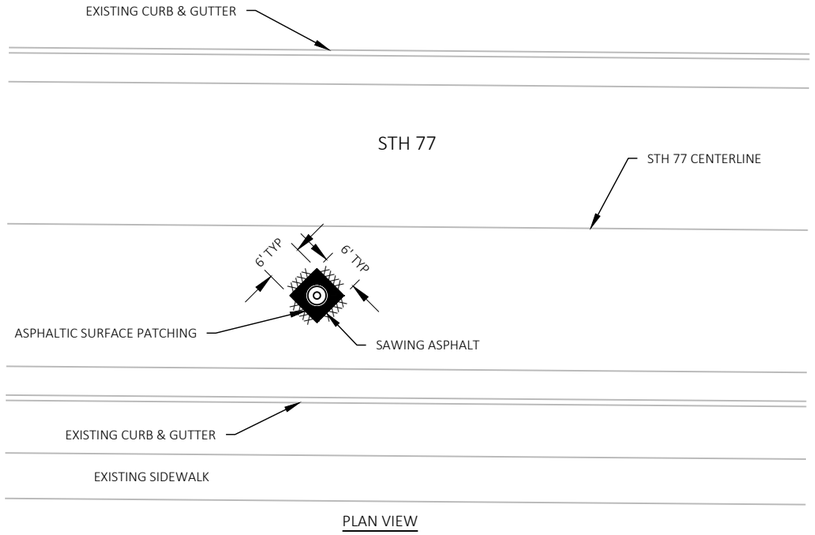
NOTES

COMPLETE CURB & GUTTER REPLACEMENTS AND ASPHALTIC SURFACE PATCHING PRIOR TO THE MILL AND OVERLAY OF STH 77.

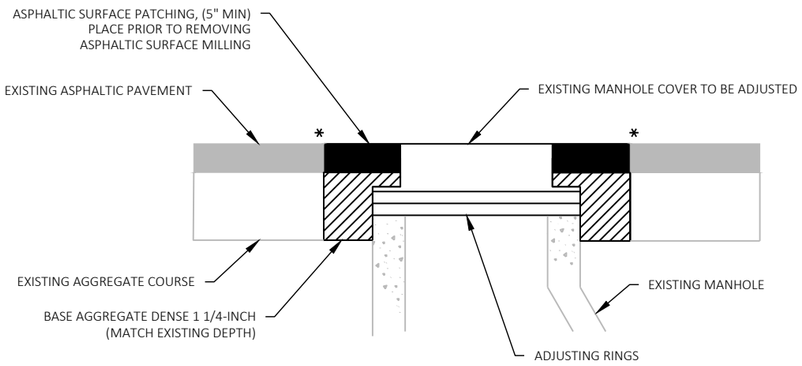
RURAL CURB & GUTTER REPLACEMENTS HAVE A VARIABLE FLAG LINE ELEVATION RAISE FROM 0" TO 1.25".

FOR DETAILS NOT SHOWN, SEE SDD "CONCRETE CURB AND GUTTER".

SEE INTERSECTION DETAILS, PAVING DETAILS, AND CURB RAMP DETAILS FOR CURB & GUTTER LOCATIONS, SIDEWALK AND CURB RAMP IMPROVEMENTS, AND FOR ADDITIONAL INFORMATION.



PLAN VIEW



SECTION VIEW

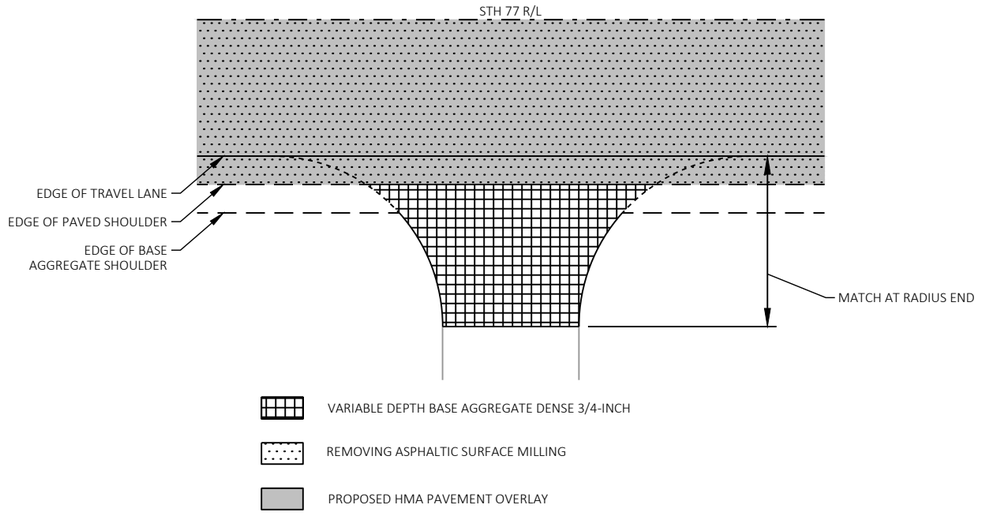
ADJUSTING MANHOLE COVERS AND ADJUSTING SANITARY SEWER MANHOLE COVERS DETAIL

STA 80+25 - STA 123+75

LEGEND

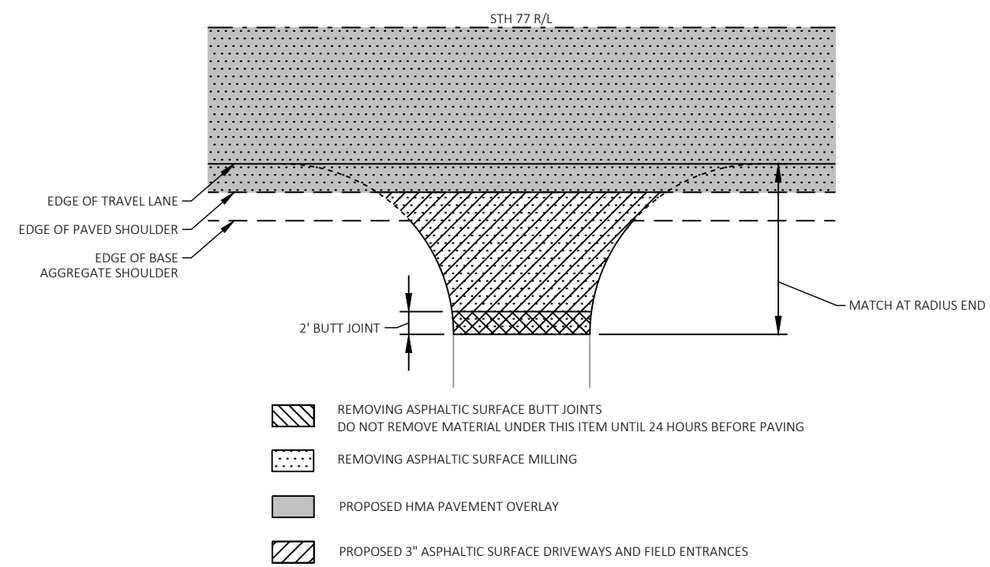
* SAWCUT REQ'D

THE PATCHING FOR WATER VALVES SHOULD FOLLOW A SIMILAR DETAIL EXCEPT THAT THE ANTICIPATED PAVEMENT REMOVAL AREA IS ESTIMATED AT 3' X 3'.



UNPAVED DRIVEWAY DETAIL

SEE SECTION 5 PLAN SHEETS FOR LOCATIONS



PAVED DRIVEWAY DETAIL

SEE SECTION 5 PLAN SHEETS FOR LOCATIONS

LEGEND

.XXXXXXX. SAWING CONCRETE

EXPANSION JOINT

PAY LIMIT - CONCRETE STEPS

NOTES

THE EXACT LOCATION, WIDTHS, & NUMBER OF STEPS TO BE DETERMINED BY THE ENGINEER IN THE FIELD; ANTICIPATE THREE STEPS AT 7 1/4" EACH

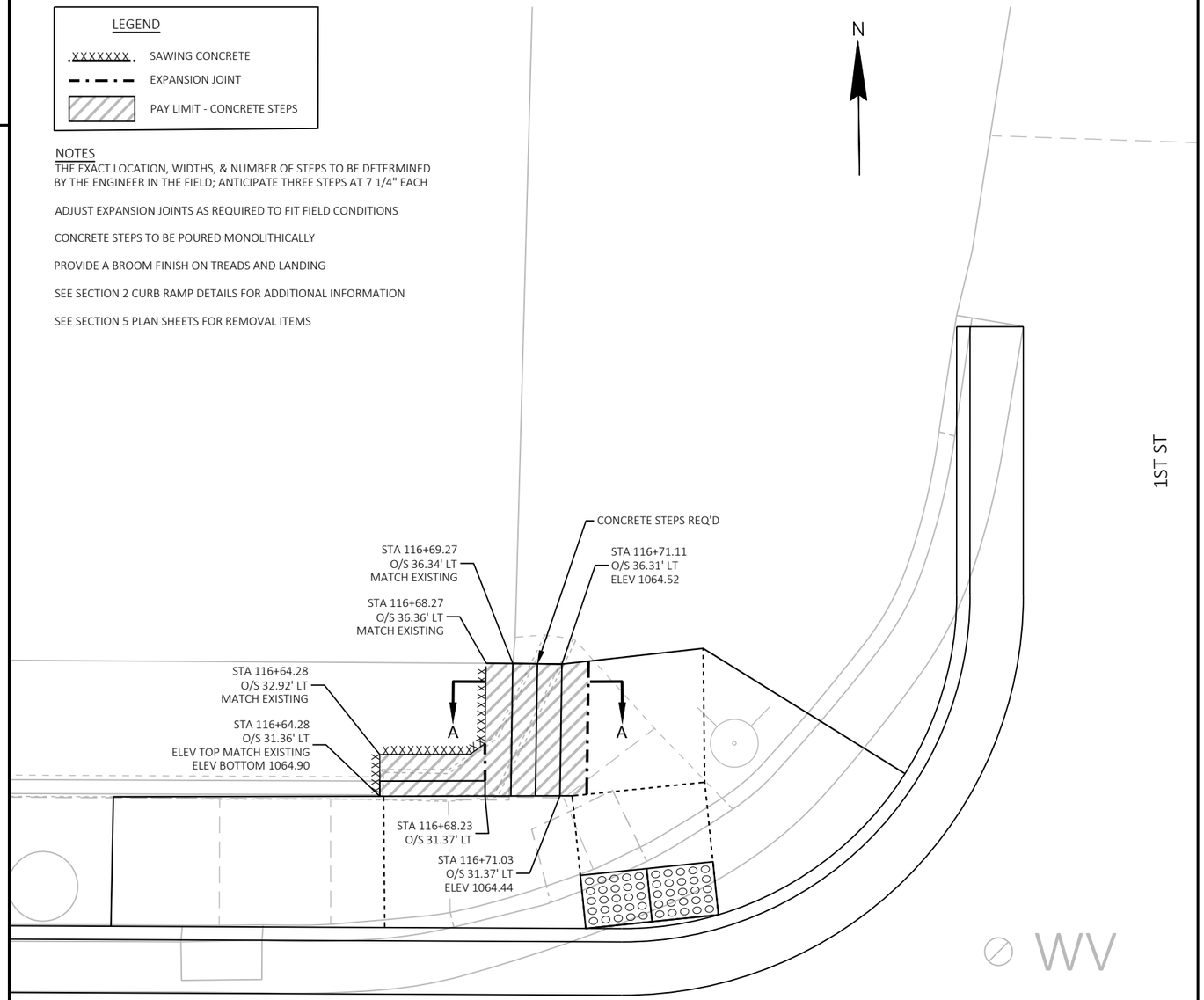
ADJUST EXPANSION JOINTS AS REQUIRED TO FIT FIELD CONDITIONS

CONCRETE STEPS TO BE POURED MONOLITHICALLY

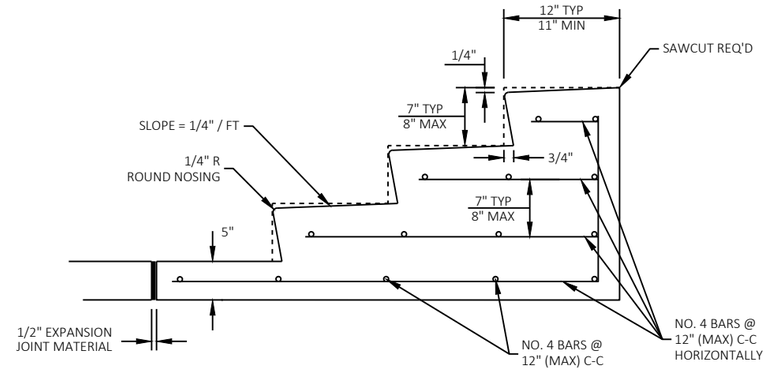
PROVIDE A BROOM FINISH ON TREADS AND LANDING

SEE SECTION 2 CURB RAMP DETAILS FOR ADDITIONAL INFORMATION

SEE SECTION 5 PLAN SHEETS FOR REMOVAL ITEMS



PLAN



SECTION A-A

STH 77

CONCRETE STEPS DETAIL

STA 116+64 - STA 116+72, LT

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CONSTRUCTION DETAILS	SHEET 15	E

2

N

STA 213+77 - STA 214+95, LT
REMOVING GUARDRAIL

STA 213+27 - STA 215+22, LT
MGS GUARDRAIL 3 L
MGS GUARDRAIL 3 K
MGS GUARDRAIL TERMINAL EAT
MGS GUARDRAIL SHORT RADIUS
MGS GUARDRAIL SHORT RADIUS TERMINAL

LITTLE FROG CREEK

Y=668,589.382
X=768,270.048

EP: 1+00.00

DRIVEWAY ALIGNMENT REFERRED ON CROSS SECTIONS

N1° 04' 30"E

STA 215+41, LT
REMOVE 1-12" CMCP
18" CPRC REQ'D
AEW (6:1) REQ'D EAST
AEW (4:1) REQ'D WEST

SPECTRUM (COMMUNICATION)

DAHLBERG LIGHT & POWER COMPANY (ELECTRIC)

EX R/W

GUY POLE

STA 215+18.55
O/S 65.40, LT

STA 215+22.20
O/S 52.13, LT

BASE AGG
PE

END MGS SHORT RADIUS
STA 215+22.20
O/S 24.00, LT

STA 215+43.44
O/S 40.00, LT

0+50

STA 215+13.74
O/S 31.41, LT
ELEV 1069.67'

MGS GUARDRAIL 3

STA 213+12.34
O/S 31.40, LT

BASE AGG
FE

R32'

R10'

22'

STA 213+26.70
O/S 18.00, LT

STA 212+96.70
O/S 15.00, LT

+38

ADD POST BETWEEN
CULVERT PIPES
STA 214+36, LT

STA 213+79.83
O/S 16.00, LT

GUARDRAIL MOW STRIP
EMULSIFIED ASPHALT
4.5' WIDTH TYPICAL

STA 215+14.20
O/S 24.00, LT

BEGIN MGS SHORT RADIUS
STA 215+14.20
O/S 16.00, LT

R13'

STA 215+65.69
O/S 29.01, LT
ELEV 1069.86'

36'

R6'

STA 215+32.19
O/S 15.00, LT

+94

MGS GUARDRAIL
TERMINAL EAT

MGS GUARDRAIL 3 L
(LONG SPAN)

MGS GUARDRAIL
3 K

STA 215+42.27 =
STA 0+00.00
Y=668,489.420
X=768,268.172

212+00 213+00 214+00 215+00 216+00

STH 77

STA 215+22.20
O/S 16.00, LT

MGS GUARDRAIL
TERMINAL EAT

MGS GUARDRAIL
3 K

MGS GUARDRAIL 3 L
(LONG SPAN)

MGS GUARDRAIL
TERMINAL EAT

+14

+29

STA 213+02.60
O/S 18.00, RT

STA 212+72.60
O/S 15.00, RT

R9'

R18'

12'

STA 212+66.96
O/S 31.87, RT
ELEV 1070.68'

STA 213+55.73
O/S 16.00, RT

ADD POST BETWEEN
CULVERT PIPES
STA 214+37, RT

STA 214+86.97
O/S 16.00, RT

STA 215+40.10
O/S 18.00, RT

R20'

22'

R6'

STA 215+70.10
O/S 15.00, RT

STA 215+36.54
O/S 34.24, RT
ELEV 1069.57'

STA 215+76.50
O/S 32.44, RT
ELEV 1069.67'

BASE AGG
FE

EX R/W

STA 212+84.11
O/S 42.00, RT

BASE AGG
FE

STA 213+00.91
O/S 33.91, RT
ELEV 1070.52'

B-65-15 (TO REMAIN)
2-MARKERS FOR CULVERT END REQ'D (LT&RT)

CLEARING AND GRUBBING

STA 215+56.43
O/S 39.17, RT

STA 215+57, RT
REMOVE 1-24" CMCP
24" CPRC REQ'D
AEW (6:1) REQ'D

EX R/W

STA 212+85, RT
REMOVE 1-24" CMCP
24" CPRC REQ'D
AEW (6:1) REQ'D

STA 213+92 - STA 214+82, RT
REMOVING GUARDRAIL

STA 213+03 - STA 215+40, RT
MGS GUARDRAIL 3 L
MGS GUARDRAIL 3 K
MGS GUARDRAIL TERMINAL EAT

CONSTRUCTION DETAIL OF GUARDRAIL AT LITTLE FROG CREEK

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CONSTRUCTION DETAILS	SHEET 16	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021003-CD.DWG
LAYOUT NAME - 01

PLOT DATE : 6/6/2022 9:02 AM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1:30

WISDOT/CADDS SHEET 42

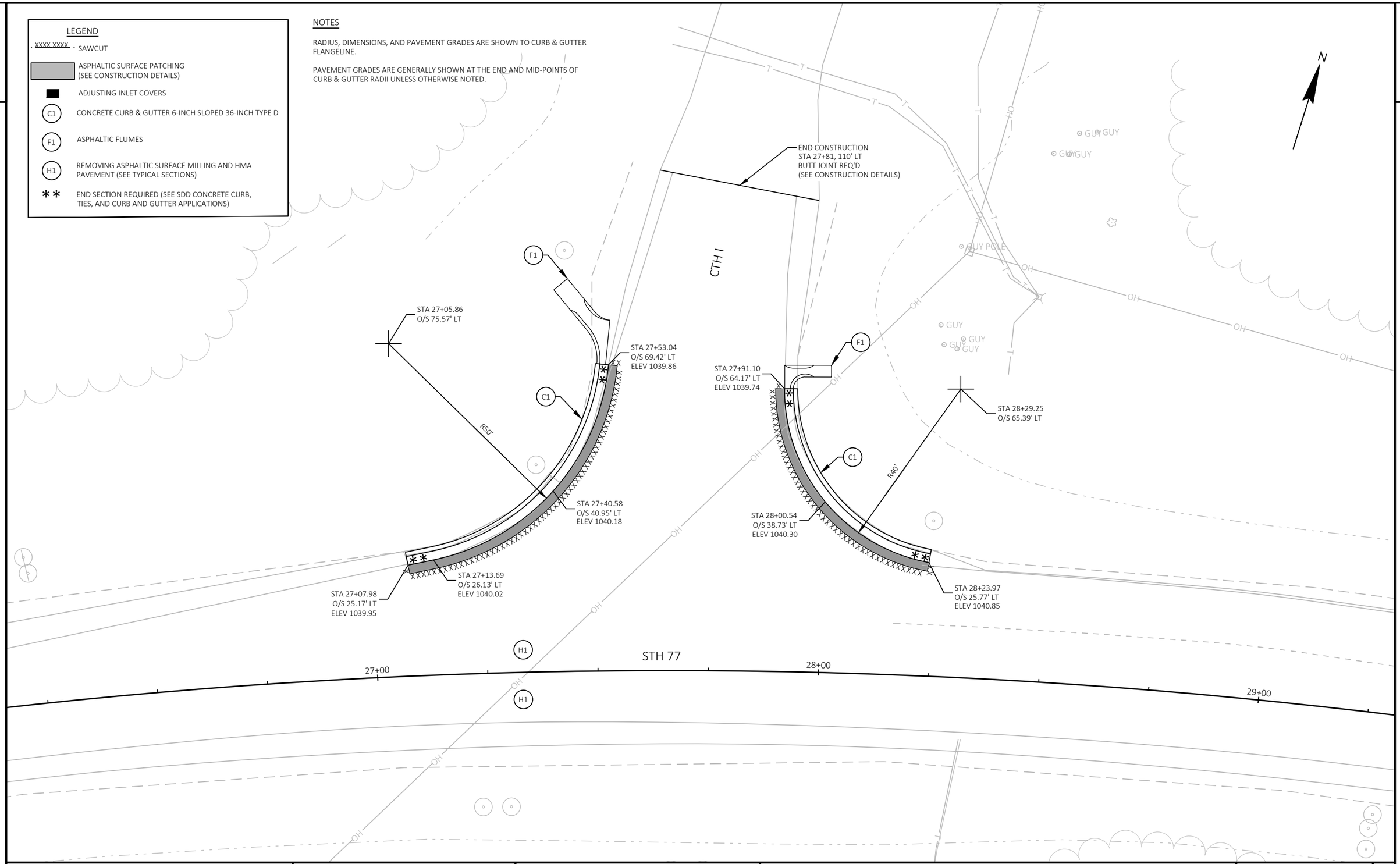
LEGEND

- XXXX XXXX · SAWCUT
- ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAILS)
- ADJUSTING INLET COVERS
- C1 — CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
- F1 — ASPHALTIC FLUMES
- H1 — REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT (SEE TYPICAL SECTIONS)
- ** — END SECTION REQUIRED (SEE SDD CONCRETE CURB, TIES, AND CURB AND GUTTER APPLICATIONS)

NOTES

RADIUS, DIMENSIONS, AND PAVEMENT GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.



PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	INTERSECTION DETAILS	SHEET 17	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021101-ID.DWG
LAYOUT NAME - 01

PLOT DATE : 4/22/2022 12:10 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

LEGEND

XXXX XXXX · SAWCUT

ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAILS)

ADJUSTING INLET COVERS

C1 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D

F1 ASPHALTIC FLUMES

H1 REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT (SEE TYPICAL SECTIONS)

** END SECTION REQUIRED (SEE SDD CONCRETE CURB, TIES, AND CURB AND GUTTER APPLICATIONS)

NOTES

RADIUS, DIMENSIONS, AND PAVEMENT GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

N

END CONSTRUCTION
STA 40+45, 80' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

STA 40+58.85
O/S 79.95' LT
ELEV 1055.09

STA 40+59.45
O/S 74.91' LT
ELEV 1054.98

STA 41+19.03
O/S 81.94' LT

BROOKLYN RD

R60'

STA 40+78.00
O/S 42.47' LT
INLET ELEV 1054.12

STA 40+79.19
O/S 37.14' LT
ELEV 1054.16

C1

STA 42+36.53
O/S 22.00' LT
ELEV 1055.04

STA 41+19.03
O/S 22.00' LT
ELEV 1054.46

H1

STH 77

40+00 41+00 42+00

H1

STA 41+02.96
O/S 22.00' RT
ELEV 1054.38

STA 40+75.69
O/S 32.74' RT
ELEV 1054.50

STA 40+96.70
O/S 25.77' RT
INLET ELEV 1054.31

C1

STA 42+36.75
O/S 22.00' RT
ELEV 1055.04

R40'

STA 40+63.06
O/S 59.19' RT
ELEV 1054.69

STA 41+02.96
O/S 62.00' RT

STA 40+62.65
O/S 64.97' RT
ELEV 1054.72

END CONSTRUCTION
STA 40+45, 65' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

BROOKLYN RD

GUY POLE

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	INTERSECTION DETAILS	SHEET 18	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021101-ID.DWG
LAYOUT NAME - 02

PLOT DATE : 4/22/2022 12:10 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

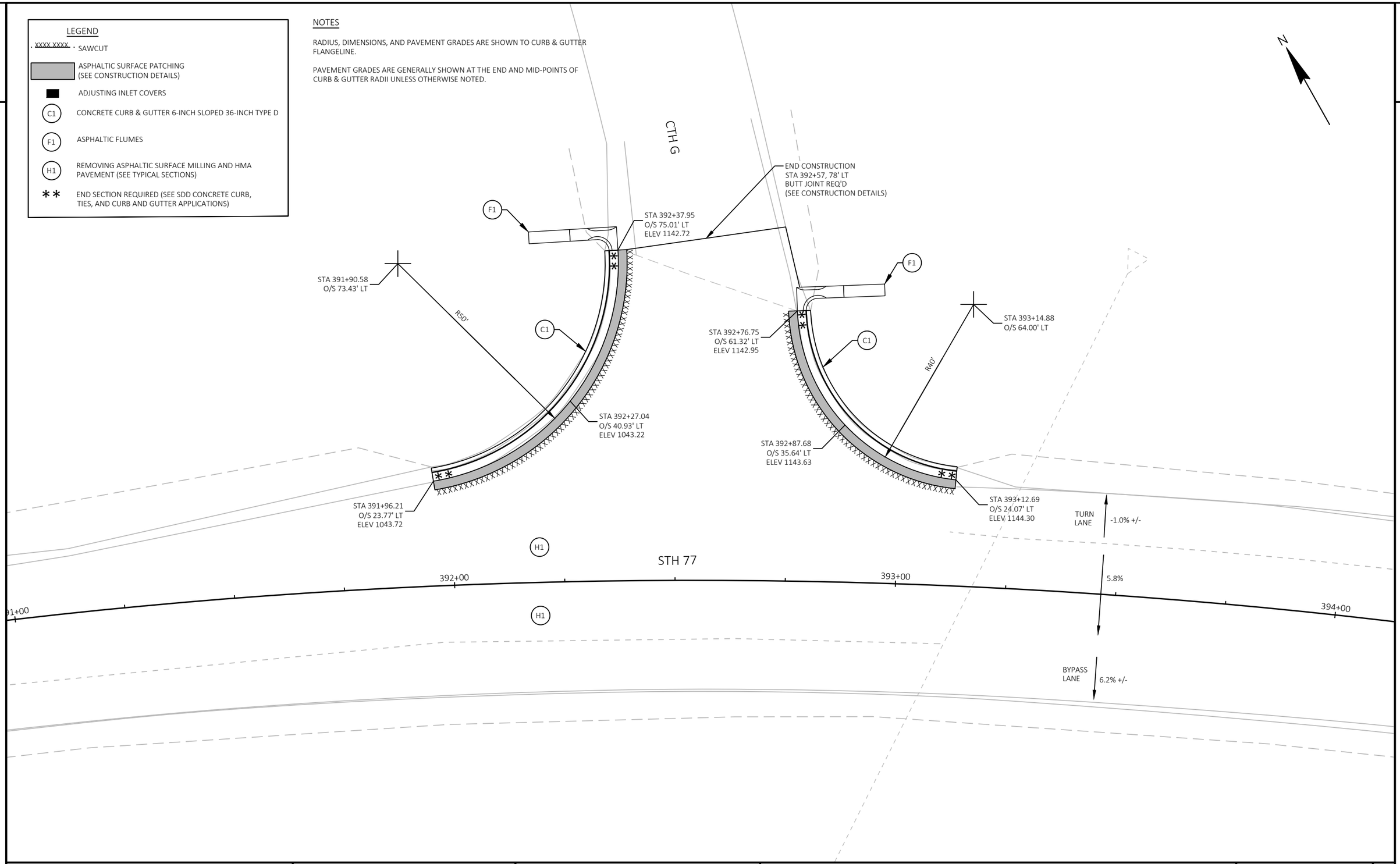
LEGEND

- XXXX XXXX · SAWCUT
- ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAILS)
- ADJUSTING INLET COVERS
- C1 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
- F1 ASPHALTIC FLUMES
- H1 REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT (SEE TYPICAL SECTIONS)
- ** END SECTION REQUIRED (SEE SDD CONCRETE CURB, TIES, AND CURB AND GUTTER APPLICATIONS)

NOTES

RADIUS, DIMENSIONS, AND PAVEMENT GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.



PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	INTERSECTION DETAILS	SHEET 19	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021101-ID.DWG
LAYOUT NAME - 03

PLOT DATE : 4/22/2022 12:11 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- XXXXXXX . SAWCUT (CATEGORY 0020)
- YYYYYYY . SAWCUT (CATEGORY 0030)
- ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAIL)
- 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- (B1) 6" BASE AGGREGATE DENSE 3/4-INCH
- (C1) CONCRETE CURB & GUTTER 30-INCH TYPE D ##
- (D1) CONCRETE DRIVEWAY 6-INCH
- (D2) CONCRETE DRIVEWAY HES 6-INCH
- (F1) ASPHALTIC FLUMES
- (S1) 5-INCH CONCRETE SIDEWALK
- (Y1) MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- [M] MOVING SIGNS TYPE II
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES

NOTES

RADIUS, DIMENSIONS, AND PAVEMENT GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

PAVEMENT GRADES ARE GENERALLY SHOWN AT 50' INTERVALS.

PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

\# SIGN POST BOX OUT REQ'D.

\## WHERE HES CONCRETE IS SPECIFIED AT DRIVEWAYS, ADJACENT CURB & GUTTER IS ALSO HES. USE HES CONCRETE PER PLANS AND AS DIRECTED BY THE ENGINEER.

N

USH 53 NB

STH 77

MURIEL VIG LN

75+00 76+00 77+00 78+00 79+00 80+00 81+00

STA 76+94.30 16.23' LT 1053.27
STA 76+84.83 16.58' LT 1053.10
16.20' LT 1053.37
15.91' LT 1054.27
15.90' LT 1055.05
15.90' LT 1055.73
15.89' LT 1056.29
15.82' LT 1056.83
15.86' LT 1057.55
15.82' LT 1057.87
15.87' LT 1057.21
15.82' RT 1056.82
15.81' RT 1057.21
SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION
21.60' RT 1057.26
STA 80+84.82 16.00, RT 1057.68
15.99' RT 1057.85
ANTICIPATED FLOW DIRECTION
STA 80+04.82 15.80' RT 1057.22
STA 80+28.91 38.55' RT 1057.31
STA 80+04.82 39.80' RT
END CONSTRUCTION 80+44, 47' RT BUTT JOINT REQ'D (SEE CONSTRUCTION DETAILS)
BEGIN CONSTRUCTION STA 76+85 BUTT JOINT REQ'D (SEE CONSTRUCTION DETAILS)
STA 76+84.84 15.57' RT 1053.09
15.63' RT 1053.39
15.84' RT 1054.34
STA 77+59.15 15.86' RT 1054.47
15.85' RT 1055.04
15.83' RT 1055.76
15.83' RT 1056.34
25'
31'
R24'

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PAVING DETAILS	SHEET 20	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 02
PLOT DATE : 4/22/2022 12:11 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- XXXXXXX . SAWCUT (CATEGORY 0020)
- YYYYYYY . SAWCUT (CATEGORY 0030)
- ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAIL)
- 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- (B1) 6" BASE AGGREGATE DENSE 3/4-INCH
- (C1) CONCRETE CURB & GUTTER 30-INCH TYPE D ##
- (D1) CONCRETE DRIVEWAY 6-INCH
- (D2) CONCRETE DRIVEWAY HES 6-INCH
- (F1) ASPHALTIC FLUMES
- (S1) 5-INCH CONCRETE SIDEWALK
- (Y1) MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- [M] MOVING SIGNS TYPE II
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES

NOTES

RADIUS, DIMENSIONS, AND PAVEMENT GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

PAVEMENT GRADES ARE GENERALLY SHOWN AT 50' INTERVALS.

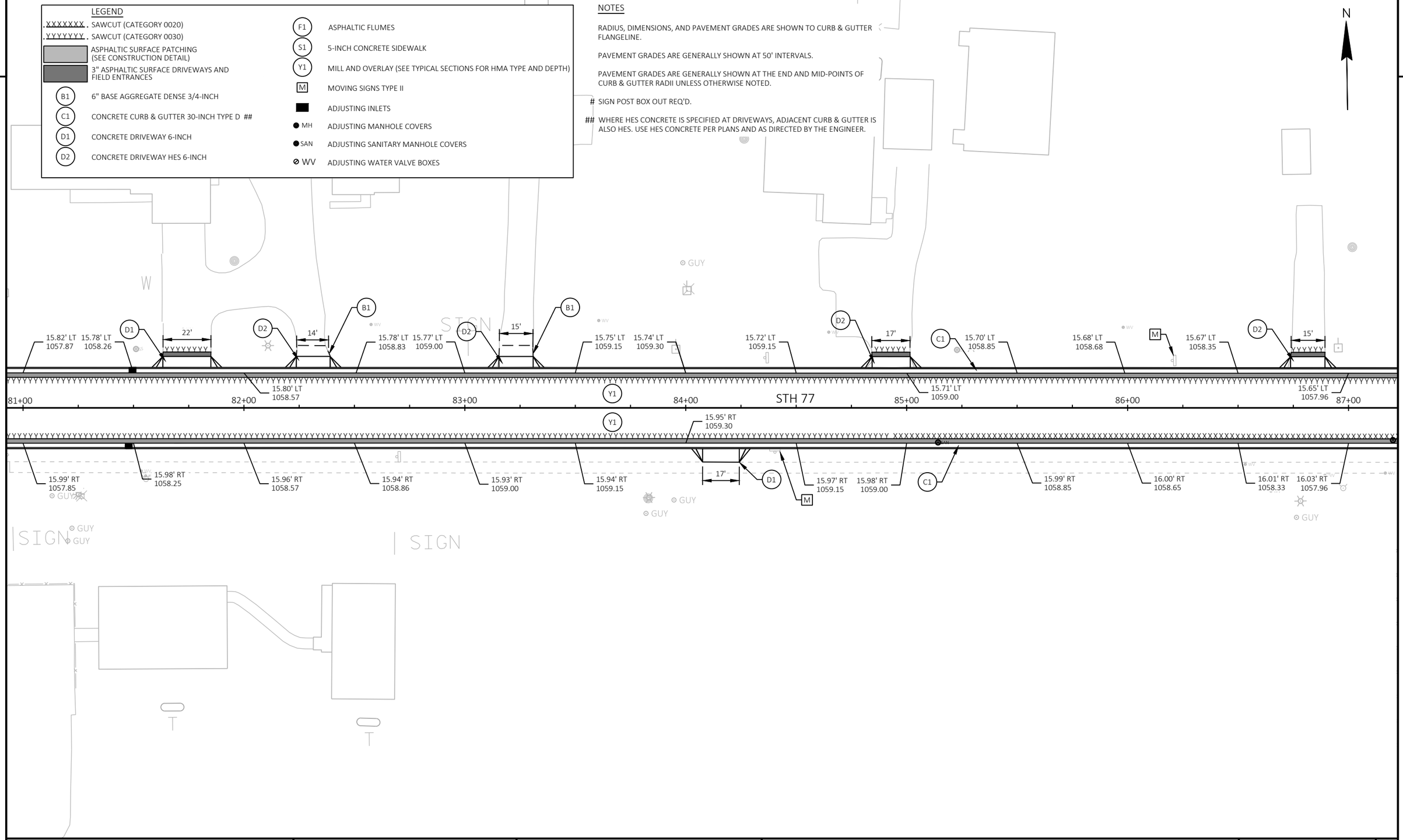
PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

SIGN POST BOX OUT REQ'D.

WHERE HES CONCRETE IS SPECIFIED AT DRIVEWAYS, ADJACENT CURB & GUTTER IS ALSO HES. USE HES CONCRETE PER PLANS AND AS DIRECTED BY THE ENGINEER.

N

2



PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PAVING DETAILS	SHEET 21	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 03

PLOT DATE : 4/22/2022 12:12 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- XXXXXXX . SAWCUT (CATEGORY 0020)
- YYYYYYY . SAWCUT (CATEGORY 0030)
- ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAIL)
- 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- (B1) 6" BASE AGGREGATE DENSE 3/4-INCH
- (C1) CONCRETE CURB & GUTTER 30-INCH TYPE D ##
- (D1) CONCRETE DRIVEWAY 6-INCH
- (D2) CONCRETE DRIVEWAY HES 6-INCH
- (F1) ASPHALTIC FLUMES
- (S1) 5-INCH CONCRETE SIDEWALK
- (Y1) MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- [M] MOVING SIGNS TYPE II
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES

NOTES

RADIUS, DIMENSIONS, AND PAVEMENT GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

PAVEMENT GRADES ARE GENERALLY SHOWN AT 50' INTERVALS.

PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

\# SIGN POST BOX OUT REQ'D.

\## WHERE HES CONCRETE IS SPECIFIED AT DRIVEWAYS, ADJACENT CURB & GUTTER IS ALSO HES. USE HES CONCRETE PER PLANS AND AS DIRECTED BY THE ENGINEER.

N

SIGN

15.65' LT 1057.96 | 15.64' LT 1057.54 | 22' | D1 | C1 | STA 88+50.15 15.66' LT 1056.91 | 15.65' LT 1057.16

STA 89+71.80 15.55' LT 1056.79 | 30' | D1 | 15.51' LT 1056.96 | 15.52' LT 1057.24 | C1 | 15.59' LT 1057.53 | 15.63' LT 1057.84 | 15.65' LT 1058.12 | 15.68' LT 1058.43 | 15.54' LT 1056.81

87+00 | 88+00 | Y1 | 89+00 | STH 77 | 90+00 | 91+00 | 92+00 | 93+00

Y1 | 16.11' RT 1056.60 | 16.08' RT 1056.80 | 16.16' RT 1058.47

16.03' RT 1057.96 | 16.04' RT 1057.54 | 16.05' RT 1057.15 | 21' | D1 | 16.07' RT 1056.93 | 16.08' RT 1056.77 | 35' | D2 | 15.96' RT 1056.99 | [M] | 16.08' RT 1057.27 | 16.08' RT 1057.59 | C1 | 16.08' RT 1057.86 | 16.08' RT 1058.12 | D2 | 17'

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PAVING DETAILS	SHEET 22	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 04

PLOT DATE : 4/22/2022 12:12 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2

LEGEND

- XXXXXXX SAWCUT (CATEGORY 0020)
- YYYYYYY SAWCUT (CATEGORY 0030)
- ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAIL)
- 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- B1 6" BASE AGGREGATE DENSE 3/4-INCH
- C1 CONCRETE CURB & GUTTER 30-INCH TYPE D ##
- D1 CONCRETE DRIVEWAY 6-INCH
- D2 CONCRETE DRIVEWAY HES 6-INCH
- F1 ASPHALTIC FLUMES
- S1 5-INCH CONCRETE SIDEWALK
- Y1 MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- M MOVING SIGNS TYPE II
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES

NOTES

RADIUS, DIMENSIONS, AND PAVEMENT GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

PAVEMENT GRADES ARE GENERALLY SHOWN AT 50' INTERVALS.

PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

SIGN POST BOX OUT REQ'D.

WHERE HES CONCRETE IS SPECIFIED AT DRIVEWAYS, ADJACENT CURB & GUTTER IS ALSO HES. USE HES CONCRETE PER PLANS AND AS DIRECTED BY THE ENGINEER.

N

15.65' LT 1058.12
15.68' LT 1058.43
D1
16'
B1
15.70' LT 1058.77
31'
D1
15.72' LT 1059.14
93+00
16.08' RT 1058.12
D2
17'
C1
16.13' RT 1058.47
STA 93+30.01 16.38, RT 1058.63
WV
M
SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION
ANTICIPATED FLOW DIRECTION
STA 94+08.69 16.24' RT 1059.03
94+00
15.77' LT 1059.39
15.82' LT 1059.82
STA 95+07.61 15.82' LT 1059.58
C1
16.42' LT 1059.39
Y1
Y1
95+00
STH 77
M
M
16.30' RT 1059.31
C1
16.27' RT 1059.54
STA 95+05.71 16.27' RT 1059.52
SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION
END CONSTRUCTION 93+68, 40' RT BUTT JOINT REQ'D (SEE CONSTRUCTION DETAILS)
15.20' RT 1059.30
D1
SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION
ALLEY
STA 95+03.82 273.73, LT
STA 95+07.49 265.82, LT
R290'
R250'
M
14.69' RT 1058.78
STA 96+31.29 14.86' RT 1058.35
STA 96+37.58 14.91, RT 1058.24
R36'
24.11' RT 1058.45
M
STA 96+68.98 46.61, RT 1059.21
STA 96+38.03 50.91, RT
SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION
STA 96+62.57 16.00' LT 1057.88
M
D1
76'
16.00' LT 1057.39
16.62' LT 1058.75
16.20' LT 1058.04
97+00
15.84' LT 1057.04
15.60' LT 1057.20
STA 98+14.17 15.60, LT 1057.33
15.61' LT 1057.87
98+00
15.50' RT 1057.23
16.32' RT 1057.68
24.09' RT 1057.47
C1
15.52' RT 1056.84
STA 97+28.16 15.33' RT 1057.06
R30'
M
STA 97+27.19 45.48, RT
M
STA 96+97.20 45.93, RT 1058.67
STA 98+14.17 15.50' RT 1057.33
R416'
R185'
STA 100+57.93 400.33,RT
STA 98+25.00 200.43, RT
RICHARDS AVE
END CONSTRUCTION 96+85, 51' RT BUTT JOINT REQ'D (SEE CONSTRUCTION DETAILS)
INL
SIGN
BST
A/C
GUY

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PAVING DETAILS	SHEET 23	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 05

PLOT DATE : 4/22/2022 12:12 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

NOTES

RADIUS, DIMENSIONS, AND PAVEMENT GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

PAVEMENT GRADES ARE GENERALLY SHOWN AT 50' INTERVALS.

PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

∗ CONCRETE CURB & GUTTER HES 30-INCH TYPE D.

LEGEND

- XXXXXXX . SAWCUT (CATEGORY 0020)
- YYYYYYY . SAWCUT (CATEGORY 0030)
- ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAIL)
- 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- B1 — 6" BASE AGGREGATE DENSE 3/4-INCH
- C1 — CONCRETE CURB & GUTTER 30-INCH TYPE D ##
- D1 — CONCRETE DRIVEWAY 6-INCH
- D2 — CONCRETE DRIVEWAY HES 6-INCH
- F1 — ASPHALTIC FLUMES
- S1 — 5-INCH CONCRETE SIDEWALK
- Y1 — MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- M — MOVING SIGNS TYPE II
- ADJUSTING INLETS
- MH — ADJUSTING MANHOLE COVERS
- SAN — ADJUSTING SANITARY MANHOLE COVERS
- WV — ADJUSTING WATER VALVE BOXES

N

END CONSTRUCTION
100+14, 95' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

SERVICE RD A

BUSINESS 53

STA 99+30.41
92.58, LT

R76'

STA 99+90.03
66.12, LT
1059.98

C1 D1 M

55'

STA 99+05.26
15.61, LT
1058.68

32.42' LT
1059.72

STA 99+38.03
16.99' LT
1059.38

15.60' LT
1057.20

15.60' LT
1057.87

STA 98+14.17
15.60, LT
1057.33

15.63' LT
1058.65

99+00

100+00

STA 98+89.03
20.73, RT
1058.21

55.45' RT
1059.53

16.25' RT
1057.68

STA 98+14.17
15.50' RT
1057.33

15.51' RT
1057.23

R416'

R185'

R60'

C1

STA 100+57.93
400.33,RT

STA 98+25.00
200.43, RT

STA 98+62.93
76.21, RT

STA 99+30.22
106.48, RT
1061.39

BUSINESS 53

END CONSTRUCTION
99+61, 116' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

STA 100+87.34
79.84, LT

R60'

D1

33'

SEE CURB RAMP DETAILS
FOR ADDITIONAL INFORMATION

M

STA 100+67.73
23.13, LT
1060.58

STA 100+88.34
19.84' LT
1059.82

19.85' LT
1059.86

19.90' LT
1059.68

C1

20.01' LT
1059.45

STA 102+48.20
20.09' LT
1059.22

M

STA 102+63.98
22.92' LT
1059.05

23.91' LT
1058.89

STA 103+03.62
24.01, LT
1058.87

24.03' LT
1058.65

24.06' LT
1058.47

101+00

STH 77

102+00

103+00

104+00

Y1

23.95' RT
1059.75

20.06' RT
1059.62

19.87' RT
1059.41

Y1

20.08' RT
1059.21

STA 102+72.41
24.00' RT
1058.99

3'

47'*

STA 101+38.62
20.13, RT
1059.66

STA 101+22.56
21.10' RT
1059.70

STA 102+48.40
19.99' RT
1059.22

R15'

22'*

M

24.00' RT
1058.83

C1

24.00' RT
1058.60

23.98' RT
1058.39

STA 102+50.97
20.22' RT
1059.20

STA 102+48.36
34.99, RT

INL

TOWER

ALLEY

SIGN

POST

CANOPY

FILLER CAPS

TANKS

MH

G.P.

GUY

RICHARDS AVE

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PAVING DETAILS	SHEET 24	E

2

LEGEND

.XXXXXXX. SAWCUT (CATEGORY 0020)

.YYYYYYY. SAWCUT (CATEGORY 0030)

ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAIL)

3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

B1 6" BASE AGGREGATE DENSE 3/4-INCH

C1 CONCRETE CURB & GUTTER 30-INCH TYPE D ##

D1 CONCRETE DRIVEWAY 6-INCH

D2 CONCRETE DRIVEWAY HES 6-INCH

F1 ASPHALTIC FLUMES

S1 5-INCH CONCRETE SIDEWALK

Y1 MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)

M MOVING SIGNS TYPE II

ADJUSTING INLETS

MH ADJUSTING MANHOLE COVERS

SAN ADJUSTING SANITARY MANHOLE COVERS

WV ADJUSTING WATER VALVE BOXES

NOTES

RADIUS, DIMENSIONS, AND PAVEMENT GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

PAVEMENT GRADES ARE GENERALLY SHOWN AT 50' INTERVALS.

PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

SIGN POST BOX OUT REQ'D.

WHERE HES CONCRETE IS SPECIFIED AT DRIVEWAYS, ADJACENT CURB & GUTTER IS ALSO HES. USE HES CONCRETE PER PLANS AND AS DIRECTED BY THE ENGINEER.

N

DAVIS ST

WILD RIVERS STATE TRAIL

RAILROAD ST

STH 77

104+00 105+00 106+00 107+00 108+00 109+00 110+00

24.06' LT 1058.47

24.09' LT 1058.32

24.11' LT 1058.16

24.14' LT 1058.00

24.09' LT 1058.22

24.02' LT 1058.42

STA 106+59.20 24.00, LT 1058.50

END CONSTRUCTION 107+08, 63' LT BUTT JOINT REQ'D (SEE CONSTRUCTION DETAILS)

SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION

STA 107+65.53 20.00, LT 1059.60

19.89' LT 1059.88

21'

19.82' LT 1060.45

STA 108+65.18 19.79, LT 1060.61

END CONSTRUCTION 109+18, 69' LT BUTT JOINT REQ'D (SEE CONSTRUCTION DETAILS)

WV

STA 109+71.04 23.99, LT 1061.61

23.99' LT 1061.90

23.98' RT 1058.39

24.00' RT 1058.20

24.00' RT 1058.05

24.00' RT 1057.90

24.00' RT 1058.04

24.00' RT 1058.36

STA 106+61.27 24.00, RT 1058.45

END CONSTRUCTION 107+16, 60' RT BUTT JOINT REQ'D (SEE CONSTRUCTION DETAILS)

STA 107+67.53 20.00, RT 1059.53

19.85' RT 1059.66

20'

STA 108+33.45 19.60, RT 1059.79

23.96' RT 1061.26

STA 109+33.85 24.00, RT 1061.12

END CONSTRUCTION 108+76, 64' RT BUTT JOINT REQ'D (SEE CONSTRUCTION DETAILS)

JONES ST

GUY

SIGN

TAG

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PAVING DETAILS	SHEET 25	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 07

PLOT DATE : 4/22/2022 12:13 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

LEGEND

- XXXXXXX . SAWCUT (CATEGORY 0020)
- YYYYYYY . SAWCUT (CATEGORY 0030)
- ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAIL)
- 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- B1 — 6" BASE AGGREGATE DENSE 3/4-INCH
- C1 — CONCRETE CURB & GUTTER 30-INCH TYPE D ##
- D1 — CONCRETE DRIVEWAY 6-INCH
- D2 — CONCRETE DRIVEWAY HES 6-INCH
- F1 — ASPHALTIC FLUMES
- S1 — 5-INCH CONCRETE SIDEWALK
- Y1 — MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- M — MOVING SIGNS TYPE II
- ADJUSTING INLETS
- MH — ADJUSTING MANHOLE COVERS
- SAN — ADJUSTING SANITARY MANHOLE COVERS
- WV — ADJUSTING WATER VALVE BOXES

NOTES

RADIUS, DIMENSIONS, AND PAVEMENT GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

PAVEMENT GRADES ARE GENERALLY SHOWN AT 50' INTERVALS.

PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

\# SIGN POST BOX OUT REQ'D.

\## WHERE HES CONCRETE IS SPECIFIED AT DRIVEWAYS, ADJACENT CURB & GUTTER IS ALSO HES. USE HES CONCRETE PER PLANS AND AS DIRECTED BY THE ENGINEER.

N

ALLEY
2ND ST
STH 77
ALLEY
2ND ST

END CONSTRUCTION
113+17, 66' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION

STA 112+67.56
23.98, LT
1063.31

STA 113+65.79
24.00, LT
1063.57

23.99' LT 1061.90
23.99' LT 1062.28
23.99' LT 1062.53
24.00' LT 1062.78
23.98' LT 1062.97
23.98' LT 1063.24
23.75' LT 1063.50
23.84' LT 1063.58
23.92' LT 1063.89
24.00' LT 1064.14
24.09' LT 1064.23

110+00 111+00 112+00 113+00 114+00 115+00 116+00

STA 113+68.78
24.00, RT
1063.77

24.00' RT 1063.73
24.00' RT 1063.66
24.00' RT 1063.85
24.00' RT 1064.12
24.00' RT 1064.32

23.93' RT 1062.21
23.93' RT 1062.48
23.93' RT 1062.75
23.93' RT 1063.01

STA 112+42.48
23.94, RT
1063.29

END CONSTRUCTION
113+17, 56' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PAVING DETAILS	SHEET 26	E

2

LEGEND

- XXXXXXX . SAWCUT (CATEGORY 0020)
- YYYYYYY . SAWCUT (CATEGORY 0030)
- ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAIL)
- 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- (B1) 6" BASE AGGREGATE DENSE 3/4-INCH
- (C1) CONCRETE CURB & GUTTER 30-INCH TYPE D ##
- (D1) CONCRETE DRIVEWAY 6-INCH
- (D2) CONCRETE DRIVEWAY HES 6-INCH
- (F1) ASPHALTIC FLUMES
- (S1) 5-INCH CONCRETE SIDEWALK
- (Y1) MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- [M] MOVING SIGNS TYPE II
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES

NOTES

RADIUS, DIMENSIONS, AND PAVEMENT GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

PAVEMENT GRADES ARE GENERALLY SHOWN AT 50' INTERVALS.

PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

SIGN POST BOX OUT REQ'D.

WHERE HES CONCRETE IS SPECIFIED AT DRIVEWAYS, ADJACENT CURB & GUTTER IS ALSO HES. USE HES CONCRETE PER PLANS AND AS DIRECTED BY THE ENGINEER.

N

1ST ST
ALLEY
MAIN ST
STH 77
RICHARDS AVE
FLAG
POST
MH
INL
GUY
WV

END CONSTRUCTION 120+73, 82' LT BUTT JOINT REQ'D (SEE CONSTRUCTION DETAILS)
STA 120+89.17 73.07, LT 1064.96
STA 120+63.94 70.66, LT 1065.13
STA 120+30.83 62.22, LT
STA 121+01.59 38.94, LT 1063.88
STA 120+31.17 20.22, LT 1063.26
STA 121+28.72 55.78, LT
42.86' LT 1063.95
36.41' LT 1064.07
STA 119+94.18 22.54, LT 1062.81
STA 119+72.72 24.05, LT 1062.43
24.07' LT 1062.04
21.81' LT 1062.88
25.40' LT 1064.12
20.08' LT 1064.10
STA 121+27.46 19.81, LT 1064.28
STA 121+77.69 20.23, LT 1064.03
20.15' LT 1063.66
SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION
END CONSTRUCTION 117+04, 56' LT BUTT JOINT REQ'D (SEE CONSTRUCTION DETAILS)
STA 117+20.67 48.11, LT 1063.97
STA 117+47.49 51.21, LT
STA 117+47.47 24.21, LT 1064.16
24.10' LT 1061.64
24.14' LT 1061.98
24.18' LT 1062.86
24.21' LT 1064.09
31.06, LT 1064.31
STA 116+49.62 24.00, LT 1064.47
24.09' LT 1064.23
STA 116+54.82 24.00, RT 1064.38
24.00' RT 1064.32
24.00' RT 1064.36
SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION
STA 118+32.69 19.83' RT 1062.41
STA 118+22.11 20.50' RT 1062.58
STA 117+98.58 23.76, RT 1063.10
STA 117+49.01 23.68, RT 1064.08
19.83' RT 1062.24
90'
SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION
END CONSTRUCTION 117+06, 58' RT BUTT JOINT REQ'D (SEE CONSTRUCTION DETAILS)
STA 118+33.70 119.82, RT
19.88' RT 1061.92
19.83' RT 1061.72
19.90' RT 1062.28
19.79' RT 1062.79
19.67' RT 1063.27
STA 119+90.48 19.93, RT 1062.18
19.56' RT 1063.44
STA 121+68.91 19.52, RT 1063.48
19.47' RT 1063.53
STA 122+00.55 19.39, RT 1063.47
STA 122+00.66 47.39, RT
28.11' RT 1063.15
STA 122+28.62 48.95, RT 1063.03
STA 122+28.25 55.57, RT 1063.11
STA 122+60.01 46.56, RT 1063.09
STA 122+61.14 41.22, RT 1063.10
END CONSTRUCTION 122+45, 56' RT BUTT JOINT REQ'D (SEE CONSTRUCTION DETAILS)
STA 121+72.52 274.73, RT
STA 121+69.97 272.52, RT
STA 119+74.56 103.93, RT
R42'
R36'
R253'
R295'
R128'
R100'
R28'
13'
19'
90'
117+00
118+00
119+00
120+00
121+00
122+00
116+00

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PAVING DETAILS	SHEET 27	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 09
PLOT DATE : 4/22/2022 12:14 PM
PLOT BY : NICK MENNINGA
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

0+89.17
LT
6

LEGEND

- XXXXXXX . SAWCUT (CATEGORY 0020)
- YYYYYYY . SAWCUT (CATEGORY 0030)
- ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAIL)
- 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- B1 — 6" BASE AGGREGATE DENSE 3/4-INCH
- C1 — CONCRETE CURB & GUTTER 30-INCH TYPE D ##
- D1 — CONCRETE DRIVEWAY 6-INCH
- D2 — CONCRETE DRIVEWAY HES 6-INCH
- F1 — ASPHALTIC FLUMES
- S1 — 5-INCH CONCRETE SIDEWALK
- Y1 — MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- M — MOVING SIGNS TYPE II
- ADJUSTING INLETS
- MH — ADJUSTING MANHOLE COVERS
- SAN — ADJUSTING SANITARY MANHOLE COVERS
- WV — ADJUSTING WATER VALVE BOXES

NOTES

RADIUS, DIMENSIONS, AND PAVEMENT GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

PAVEMENT GRADES ARE GENERALLY SHOWN AT 50' INTERVALS.

PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

SIGN POST BOX OUT REQ'D.

WHERE HES CONCRETE IS SPECIFIED AT DRIVEWAYS, ADJACENT CURB & GUTTER IS ALSO HES. USE HES CONCRETE PER PLANS AND AS DIRECTED BY THE ENGINEER.

N

STA 121+77.69
20.23, LT
1064.03

19'
D2
20.08' LT
1064.10

20.15' LT
1063.66

20.00' LT
1063.28

STA 122+67.58
20.00, LT
1063.17

20.00' LT
1062.95

STA 122+71.01
272.84, LT

STA 124+55.55
275.00, LT

R253'

R295'

C1
19'
D2
20.00' LT
1062.51

19.98' LT
1062.04

Y1

STA 124+53.69
20.00' LT
1061.34

20.00' LT
1061.41

24'
D1
20.00' LT
1059.43

20.00' LT
1060.58

STA 126+56.71
20.07, LT
1056.73

F1

20.00' LT
1058.28

D1

20.03' LT
1056.89

122+00
123+00
124+00
125+00
126+00
127+00

STH 77

19.47' RT
1063.53

STA 121+68.91
19.52, RT
1063.48

28.11' RT
1063.15

R28'

STA 122+00.55
19.39, RT
1063.47

STA 122+00.66
47.39, RT

STA 122+28.62
48.95, RT
1063.03

STA 122+28.25
55.57, RT
1063.11

26.38' RT
1063.38

19.85' RT
1063.68

R28'

STA 122+84.47
19.87, RT
1063.76

STA 122+85.53
47.35, RT

STA 122+61.14
41.22, RT
1063.10

STA 122+60.01
46.56, RT
1063.09

END CONSTRUCTION
122+45, 56' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

19.80' RT
1063.33

19.86' RT
1062.82

STA 124+54.63
20.00, RT
1061.96

20.00' RT
1060.78

D1
25'

20.00' RT
1059.56

C1

20.00' RT
1058.22

F1

STA 126+51.61
20.00' RT
1056.68

20.00' RT
1056.73

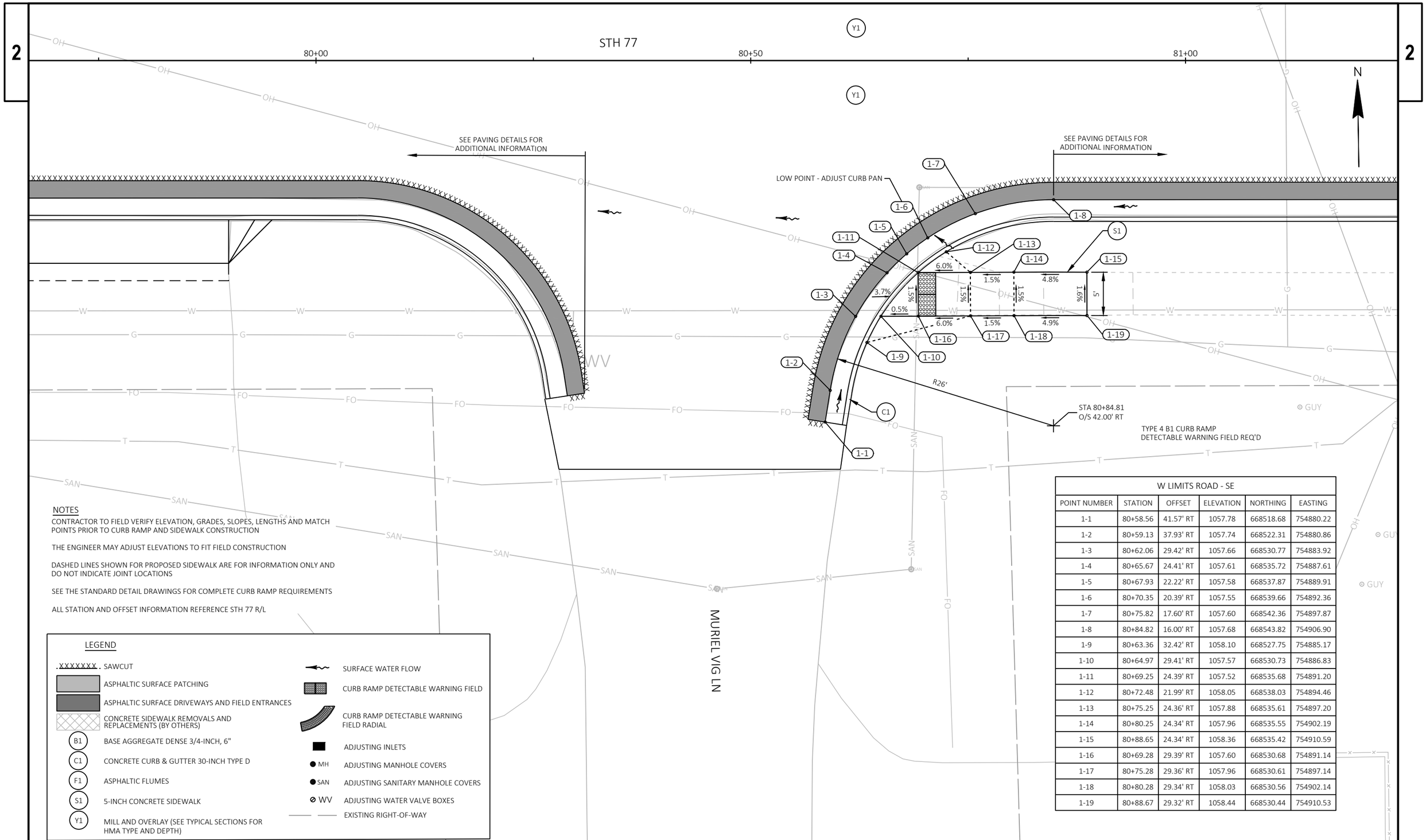
MAIN ST

POST
MH
GUY POLE
GUY
FLAG

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PAVING DETAILS	SHEET 28	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 10

PLOT DATE : 4/22/2022 12:14 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT



NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

ALL STATION AND OFFSET INFORMATION REFERENCE STH 77 R/L

LEGEND

- .XXXXXXX. SAWCUT
- ASPHALTIC SURFACE PATCHING
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CONCRETE SIDEWALK REMOVALS AND REPLACEMENTS (BY OTHERS)
- B1 BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 CONCRETE CURB & GUTTER 30-INCH TYPE D
- F1 ASPHALTIC FLUMES
- S1 5-INCH CONCRETE SIDEWALK
- Y1 MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- CURB RAMP DETECTABLE WARNING FIELD RADIAL
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES
- EXISTING RIGHT-OF-WAY

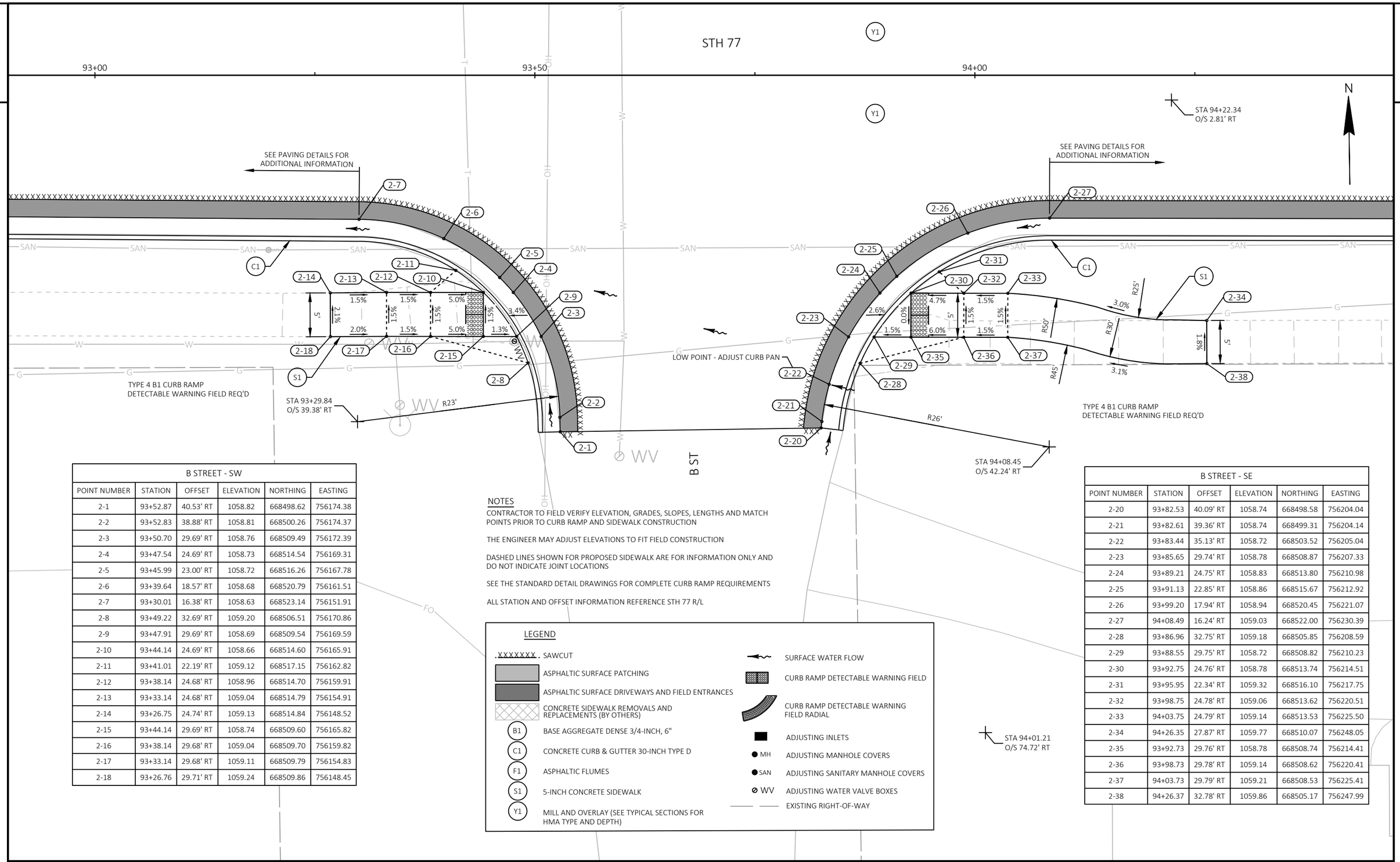
W LIMITS ROAD - SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1-1	80+58.56	41.57' RT	1057.78	668518.68	754880.22
1-2	80+59.13	37.93' RT	1057.74	668522.31	754880.86
1-3	80+62.06	29.42' RT	1057.66	668530.77	754883.92
1-4	80+65.67	24.41' RT	1057.61	668535.72	754887.61
1-5	80+67.93	22.22' RT	1057.58	668537.87	754889.91
1-6	80+70.35	20.39' RT	1057.55	668539.66	754892.36
1-7	80+75.82	17.60' RT	1057.60	668542.36	754897.87
1-8	80+84.82	16.00' RT	1057.68	668543.82	754906.90
1-9	80+63.36	32.42' RT	1058.10	668527.75	754885.17
1-10	80+64.97	29.41' RT	1057.57	668530.73	754886.83
1-11	80+69.25	24.39' RT	1057.52	668535.68	754891.20
1-12	80+72.48	21.99' RT	1058.05	668538.03	754894.46
1-13	80+75.25	24.36' RT	1057.88	668535.61	754897.20
1-14	80+80.25	24.34' RT	1057.96	668535.55	754902.19
1-15	80+88.65	24.34' RT	1058.36	668535.42	754910.59
1-16	80+69.28	29.39' RT	1057.60	668530.68	754891.14
1-17	80+75.28	29.36' RT	1057.96	668530.61	754897.14
1-18	80+80.28	29.34' RT	1058.03	668530.56	754902.14
1-19	80+88.67	29.32' RT	1058.44	668530.44	754910.53

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CURB RAMP DETAILS	SHEET 29	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 01

PLOT DATE : 4/22/2022 12:15 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42



B STREET - SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2-1	93+52.87	40.53' RT	1058.82	668498.62	756174.38
2-2	93+52.83	38.88' RT	1058.81	668500.26	756174.37
2-3	93+50.70	29.69' RT	1058.76	668509.49	756172.39
2-4	93+47.54	24.69' RT	1058.73	668514.54	756169.31
2-5	93+45.99	23.00' RT	1058.72	668516.26	756167.78
2-6	93+39.64	18.57' RT	1058.68	668520.79	756161.51
2-7	93+30.01	16.38' RT	1058.63	668523.14	756151.91
2-8	93+49.22	32.69' RT	1059.20	668506.51	756170.86
2-9	93+47.91	29.69' RT	1058.69	668509.54	756169.59
2-10	93+44.14	24.69' RT	1058.66	668514.60	756165.91
2-11	93+41.01	22.19' RT	1059.12	668517.15	756162.82
2-12	93+38.14	24.68' RT	1058.96	668514.70	756159.91
2-13	93+33.14	24.68' RT	1059.04	668514.79	756154.91
2-14	93+26.75	24.74' RT	1059.13	668514.84	756148.52
2-15	93+44.14	29.69' RT	1058.74	668509.60	756165.82
2-16	93+38.14	29.68' RT	1059.04	668509.70	756159.82
2-17	93+33.14	29.68' RT	1059.11	668509.79	756154.83
2-18	93+26.76	29.71' RT	1059.24	668509.86	756148.45

NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

ALL STATION AND OFFSET INFORMATION REFERENCE STH 77 R/L

LEGEND

- .XXXXXXX. SAWCUT
- ASPHALTIC SURFACE PATCHING
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CONCRETE SIDEWALK REMOVALS AND REPLACEMENTS (BY OTHERS)
- B1 BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 CONCRETE CURB & GUTTER 30-INCH TYPE D
- F1 ASPHALTIC FLUMES
- S1 5-INCH CONCRETE SIDEWALK
- Y1 MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- CURB RAMP DETECTABLE WARNING FIELD RADIAL
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES
- EXISTING RIGHT-OF-WAY

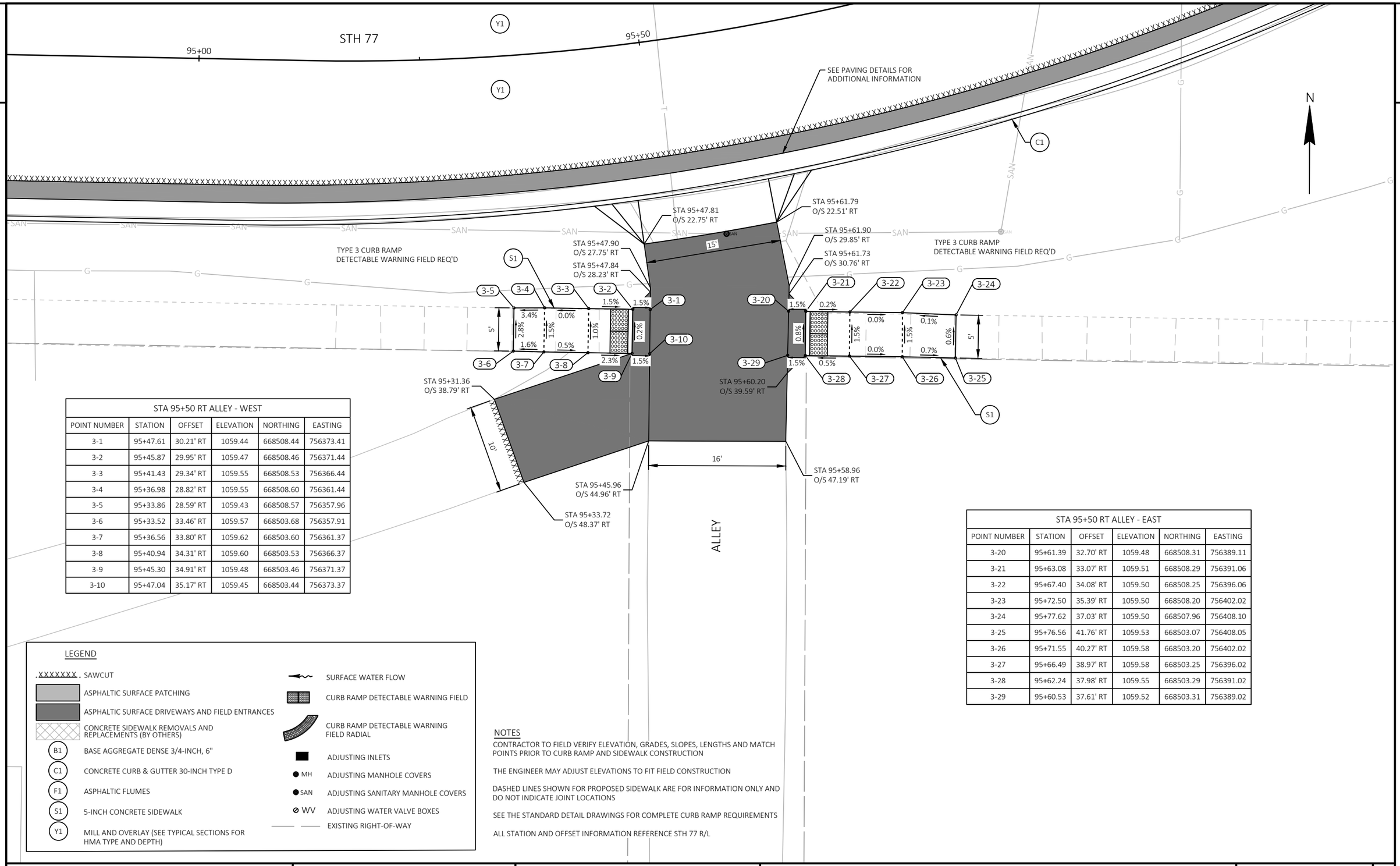
B STREET - SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2-20	93+82.53	40.09' RT	1058.74	668498.58	756204.04
2-21	93+82.61	39.36' RT	1058.74	668499.31	756204.14
2-22	93+83.44	35.13' RT	1058.72	668503.52	756205.04
2-23	93+85.65	29.74' RT	1058.78	668508.87	756207.33
2-24	93+89.21	24.75' RT	1058.83	668513.80	756210.98
2-25	93+91.13	22.85' RT	1058.86	668515.67	756212.92
2-26	93+99.20	17.94' RT	1058.94	668520.45	756221.07
2-27	94+08.49	16.24' RT	1059.03	668522.00	756230.39
2-28	93+86.96	32.75' RT	1059.18	668505.85	756208.59
2-29	93+88.55	29.75' RT	1058.72	668508.82	756210.23
2-30	93+92.75	24.76' RT	1058.78	668513.74	756214.51
2-31	93+95.95	22.34' RT	1059.32	668516.10	756217.75
2-32	93+98.75	24.78' RT	1059.06	668513.62	756220.51
2-33	94+03.75	24.79' RT	1059.14	668513.53	756225.50
2-34	94+26.35	27.87' RT	1059.77	668510.07	756248.05
2-35	93+92.73	29.76' RT	1058.78	668508.74	756214.41
2-36	93+98.73	29.78' RT	1059.14	668508.62	756220.41
2-37	94+03.73	29.79' RT	1059.21	668508.53	756225.41
2-38	94+26.37	32.78' RT	1059.86	668505.17	756247.99

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CURB RAMP DETAILS	SHEET 30	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 02

PLOT DATE : 4/22/2022 12:15 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42



STA 95+50 RT ALLEY - WEST					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
3-1	95+47.61	30.21' RT	1059.44	668508.44	756373.41
3-2	95+45.87	29.95' RT	1059.47	668508.46	756371.44
3-3	95+41.43	29.34' RT	1059.55	668508.53	756366.44
3-4	95+36.98	28.82' RT	1059.55	668508.60	756361.44
3-5	95+33.86	28.59' RT	1059.43	668508.57	756357.96
3-6	95+33.52	33.46' RT	1059.57	668503.68	756357.91
3-7	95+36.56	33.80' RT	1059.62	668503.60	756361.37
3-8	95+40.94	34.31' RT	1059.60	668503.53	756366.37
3-9	95+45.30	34.91' RT	1059.48	668503.46	756371.37
3-10	95+47.04	35.17' RT	1059.45	668503.44	756373.37

STA 95+50 RT ALLEY - EAST					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
3-20	95+61.39	32.70' RT	1059.48	668508.31	756389.11
3-21	95+63.08	33.07' RT	1059.51	668508.29	756391.06
3-22	95+67.40	34.08' RT	1059.50	668508.25	756396.06
3-23	95+72.50	35.39' RT	1059.50	668508.20	756402.02
3-24	95+77.62	37.03' RT	1059.50	668507.96	756408.10
3-25	95+76.56	41.76' RT	1059.53	668503.07	756408.05
3-26	95+71.55	40.27' RT	1059.58	668503.20	756402.02
3-27	95+66.49	38.97' RT	1059.58	668503.25	756396.02
3-28	95+62.24	37.98' RT	1059.55	668503.29	756391.02
3-29	95+60.53	37.61' RT	1059.52	668503.31	756389.02

LEGEND

- XXXXXXX SAWCUT
- ASPHALTIC SURFACE PATCHING
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CONCRETE SIDEWALK REMOVALS AND REPLACEMENTS (BY OTHERS)
- B1 BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 CONCRETE CURB & GUTTER 30-INCH TYPE D
- F1 ASPHALTIC FLUMES
- S1 5-INCH CONCRETE SIDEWALK
- Y1 MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- CURB RAMP DETECTABLE WARNING FIELD RADIAL
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES
- EXISTING RIGHT-OF-WAY

NOTES

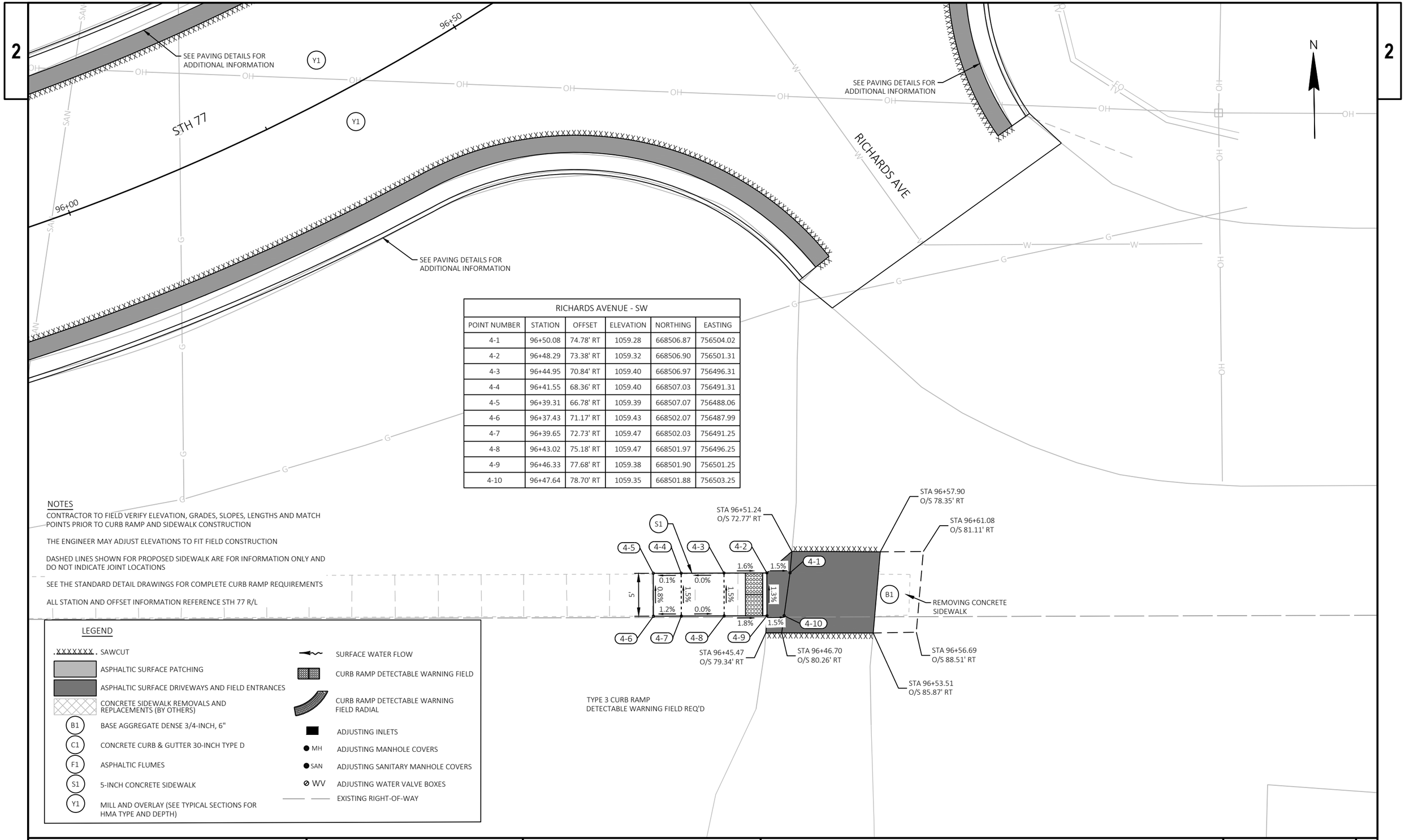
CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

ALL STATION AND OFFSET INFORMATION REFERENCE STH 77 R/L



RICHARDS AVENUE - SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
4-1	96+50.08	74.78' RT	1059.28	668506.87	756504.02
4-2	96+48.29	73.38' RT	1059.32	668506.90	756501.31
4-3	96+44.95	70.84' RT	1059.40	668506.97	756496.31
4-4	96+41.55	68.36' RT	1059.40	668507.03	756491.31
4-5	96+39.31	66.78' RT	1059.39	668507.07	756488.06
4-6	96+37.43	71.17' RT	1059.43	668502.07	756487.99
4-7	96+39.65	72.73' RT	1059.47	668502.03	756491.25
4-8	96+43.02	75.18' RT	1059.47	668501.97	756496.25
4-9	96+46.33	77.68' RT	1059.38	668501.90	756501.25
4-10	96+47.64	78.70' RT	1059.35	668501.88	756503.25

NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

ALL STATION AND OFFSET INFORMATION REFERENCE STH 77 R/L

LEGEND

- SAWCUT
- ASPHALTIC SURFACE PATCHING
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CONCRETE SIDEWALK REMOVALS AND REPLACEMENTS (BY OTHERS)
- B1 — BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 — CONCRETE CURB & GUTTER 30-INCH TYPE D
- F1 — ASPHALTIC FLUMES
- S1 — 5-INCH CONCRETE SIDEWALK
- Y1 — MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- CURB RAMP DETECTABLE WARNING FIELD RADIAL
- ADJUSTING INLETS
- MH — ADJUSTING MANHOLE COVERS
- SAN — ADJUSTING SANITARY MANHOLE COVERS
- WV — ADJUSTING WATER VALVE BOXES
- EXISTING RIGHT-OF-WAY

TYPE 3 CURB RAMP
DETECTABLE WARNING FIELD REQ'D

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CURB RAMP DETAILS	SHEET 32	E

LEGEND

- XXXXXXX SAWCUT
- ASPHALTIC SURFACE PATCHING
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CONCRETE SIDEWALK REMOVALS AND REPLACEMENTS (BY OTHERS)
- B1 BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 CONCRETE CURB & GUTTER 30-INCH TYPE D
- F1 ASPHALTIC FLUMES
- S1 5-INCH CONCRETE SIDEWALK
- Y1 MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- CURB RAMP DETECTABLE WARNING FIELD RADIAL
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES
- EXISTING RIGHT-OF-WAY

NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

ALL STATION AND OFFSET INFORMATION REFERENCE STH 77 R/L

N

SERVICE RD A - EAST					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
5-1	101+09.66	32.44' LT	1060.19	668758.45	756886.42
5-2	101+12.16	32.45' LT	1060.23	668758.39	756888.92
5-3	101+17.16	32.45' LT	1060.35	668758.26	756893.92
5-4	101+22.66	32.45' LT	1060.46	668758.12	756899.42
5-5	101+29.10	32.45' LT	1060.48	668757.96	756905.85
5-6	101+29.10	27.59' LT	1060.30	668753.11	756905.73
5-7	101+22.66	27.45' LT	1060.38	668753.13	756899.29
5-8	101+17.16	27.45' LT	1060.30	668753.26	756893.79
5-9	101+12.16	27.45' LT	1060.22	668753.39	756888.79
5-10	101+10.15	27.44' LT	1060.19	668753.44	756886.78

TYPE 3 CURB RAMP
DETECTABLE WARNING FIELD REQ'D

SERVICE RD A

4" SURFACE (MIN)
(MATCH EXISTING DEPTH)

STA 101+09.46
O/S 34.44' LT

STA 101+10.36
O/S 25.46' LT

5-1 5-2 5-3 5-4 5-5 5-6 5-7 5-8 5-9 5-10

S1

1.5% 2.4% 2.0% 0.4% 1.5% 1.5% 1.2% 1.5% 1.5%

0.1% 1.0% 1.5% 3.7% 5"

SEE PAVING DETAILS FOR
ADDITIONAL INFORMATION

STH 77

100+50 101+00 101+50

Y1 Y1

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CURB RAMP DETAILS	SHEET 33	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 05

PLOT DATE : 4/22/2022 12:16 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:10 FT

DAVIS STREET - NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
6-1	106+59.20	24.00' LT	1058.50	668735.94	757435.57
6-2	106+61.03	24.00' LT	1058.49	668735.89	757437.39
6-3	106+67.96	24.73' LT	1058.55	668736.44	757444.34
6-4	106+71.47	25.68' LT	1058.53	668737.30	757447.87
6-5	106+75.53	27.33' LT	1058.51	668738.85	757451.98
6-6	106+79.85	29.86' LT	1058.48	668741.27	757456.36
6-7	106+88.19	38.18' LT	1058.42	668749.37	757464.90
6-8	106+92.75	47.72' LT	1058.37	668758.79	757469.71
6-9	106+59.21	26.50' LT	1058.85	668738.44	757435.63
6-10	106+64.39	26.68' LT	1058.94	668738.48	757440.82
6-11	106+66.99	27.08' LT	1058.96	668738.82	757443.43
6-12	106+74.27	29.50' LT	1058.44	668741.05	757450.77
6-13	106+78.58	32.02' LT	1058.41	668743.46	757455.15
6-14	106+84.26	37.18' LT	1058.86	668748.47	757460.95
6-15	106+85.88	39.25' LT	1058.85	668750.50	757462.63

DAVIS STREET - NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
6-16	106+59.32	32.50' LT	1058.94	668744.43	757435.90
6-17	106+63.74	32.64' LT	1059.02	668744.46	757440.32
6-18	106+71.23	34.70' LT	1058.53	668746.33	757447.86
6-19	106+75.54	37.22' LT	1058.50	668748.74	757452.24
6-20	106+81.00	42.74' LT	1058.92	668754.11	757457.84

LEGEND

- .XXXXXXX. SAWCUT
- ASPHALTIC SURFACE PATCHING
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CONCRETE SIDEWALK REMOVALS AND REPLACEMENTS (BY OTHERS)
- B1 BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 CONCRETE CURB & GUTTER 30-INCH TYPE D
- F1 ASPHALTIC FLUMES
- S1 5-INCH CONCRETE SIDEWALK
- Y1 MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- CURB RAMP DETECTABLE WARNING FIELD RADIAL
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES
- EXISTING RIGHT-OF-WAY

DAVIS STREET - NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
6-25	107+26.32	51.77' LT	1058.61	668761.98	757503.37
6-26	107+26.35	51.23' LT	1058.62	668761.44	757503.39
6-27	107+29.34	39.19' LT	1058.93	668749.32	757506.07
6-28	107+33.17	32.86' LT	1059.11	668742.90	757509.74
6-30	107+37.98	27.83' LT	1059.21	668737.75	757514.42
6-31	107+44.49	23.53' LT	1059.33	668733.28	757520.81
6-32	107+47.01	22.39' LT	1059.37	668732.08	757523.30
6-33	107+59.19	20.02' LT	1059.52	668729.40	757535.42
6-34	107+65.53	20.00' LT	1059.60	668729.22	757541.76
6-35	107+34.09	35.86' LT	1059.48	668745.87	757510.73
6-36	107+36.43	32.84' LT	1059.06	668742.80	757512.99
6-37	107+42.14	27.80' LT	1059.18	668737.62	757518.58
6-38	107+45.67	25.74' LT	1059.75	668735.46	757522.05
6-39	107+46.10	32.78' LT	1059.21	668742.49	757522.66
6-40	107+52.10	32.74' LT	1059.58	668742.30	757528.66
6-41	107+57.10	32.71' LT	1059.65	668742.14	757533.65
6-42	107+76.86	32.57' LT	1060.46	668741.50	757553.41
6-43	107+76.83	27.57' LT	1060.32	668736.50	757553.24

DAVIS STREET - NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
6-44	107+57.07	27.71' LT	1059.58	668737.14	757533.49
6-45	107+52.07	27.74' LT	1059.50	668737.30	757528.50
6-46	107+46.07	27.78' LT	1059.20	668737.49	757522.50

STA 106+61.08
O/S 57.00' LT

STA 106+80.47
O/S 45.58, LT

STA 106+87.05
O/S 40.88, LT

STA 106+59.32
O/S 34.50, LT

TYPE 1A CURB RAMP
DETECTABLE WARNING FIELD REQ'D

STA 107+59.30
O/S 53.02' LT

TYPE 4 B1 CURB RAMP
DETECTABLE WARNING FIELD RADIAL REQ'D

LONG CHORD LENGTH = 7.6 LF
RADIAL DETECTABLE WARNING FIELD AREA = 16.7 SF

SEE PAVING DETAILS FOR ADDITIONAL INFORMATION

SEE PAVING DETAILS FOR ADDITIONAL INFORMATION

NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

ALL STATION AND OFFSET INFORMATION REFERENCE STH 77 R/L

STH 77

DAVIS ST

106+50 107+00 107+50

N

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CURB RAMP DETAILS	SHEET 34	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 06

PLOT DATE : 4/22/2022 12:16 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:10 FT

STH 77

106+50

107+50

NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

ALL STATION AND OFFSET INFORMATION REFERENCE STH 77 R/L

LEGEND

- .XXXXXXX. SAWCUT
- ASPHALTIC SURFACE PATCHING
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CONCRETE SIDEWALK REMOVALS AND REPLACEMENTS (BY OTHERS)
- B1 BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 CONCRETE CURB & GUTTER 30-INCH TYPE D
- F1 ASPHALTIC FLUMES
- S1 5-INCH CONCRETE SIDEWALK
- Y1 MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- CURB RAMP DETECTABLE WARNING FIELD RADIAL
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES
- EXISTING RIGHT-OF-WAY

SEE PAVING DETAILS FOR ADDITIONAL INFORMATION

TYPE 1A CURB RAMP
DETECTABLE WARNING FIELD REQ'D

STA 106+68.41
O/S 56.00' RT

STA 107+09.20
O/S 51.49' RT

LONG CHORD LENGTH = 7.7 LF
RADIAL DETECTABLE WARNING FIELD AREA = 17.0 SF

SEE PAVING DETAILS FOR ADDITIONAL INFORMATION

TYPE 4 B1 CURB RAMP
DETECTABLE WARNING FIELD RADIAL REQ'D

STA 107+67.53
O/S 52.00' RT

JONES ST

WILD RIVER STATE TRAIL

JONES STREET - SW

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
7-1	106+61.27	24.00' RT	1058.45	668687.90	757436.41
7-2	106+68.41	24.00' RT	1058.52	668687.72	757443.54
7-3	106+80.06	26.20' RT	1058.64	668685.22	757455.13
7-4	106+82.91	27.48' RT	1058.67	668683.87	757457.95
7-5	106+87.18	30.09' RT	1058.72	668681.15	757462.15
7-6	106+90.11	32.48' RT	1058.75	668678.68	757465.02
7-7	106+97.18	42.00' RT	1058.87	668668.99	757471.84
7-8	106+98.35	44.71' RT	1058.90	668666.25	757472.94
7-9	107+00.30	53.44' RT	1059.11	668657.47	757474.67
7-10	106+61.27	26.50' RT	1058.82	668685.40	757436.34
7-11	106+71.62	26.68' RT	1058.98	668684.96	757446.68
7-12	106+74.35	27.10' RT	1059.00	668684.46	757449.40
7-13	106+81.61	29.62' RT	1058.60	668681.76	757456.59
7-14	106+85.87	32.23' RT	1058.65	668679.05	757460.79
7-15	106+92.07	38.38' RT	1059.23	668672.73	757466.82

JONES STREET - SW

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
7-16	106+94.01	41.35' RT	1059.27	668669.72	757468.69
7-17	106+61.24	32.61' RT	1059.07	668679.30	757436.16
7-18	106+70.97	32.64' RT	1059.06	668679.02	757445.88
7-19	106+78.46	34.76' RT	1058.69	668676.71	757453.31
7-20	106+82.73	37.37' RT	1058.74	668673.99	757457.51
7-21	106+88.62	44.02' RT	1059.33	668667.19	757463.24
7-22	106+74.28	49.12' RT	1059.58	668662.46	757448.76
7-23	106+79.29	49.09' RT	1059.51	668662.36	757453.78
7-24	106+74.42	54.08' RT	1059.88	668657.50	757448.78
7-25	106+79.31	54.14' RT	1059.79	668657.31	757453.66

JONES STREET - SE

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
7-30	107+31.11	63.18' RT	1059.56	668646.95	757505.22
7-31	107+36.74	43.28' RT	1059.49	668666.69	757511.36
7-33	107+42.09	32.59' RT	1059.44	668677.24	757516.98
7-34	107+46.90	27.54' RT	1059.42	668682.17	757521.92
7-35	107+59.27	21.09' RT	1059.37	668688.30	757534.44
7-36	107+67.53	20.00' RT	1059.53	668689.18	757542.73
7-37	107+43.02	35.58' RT	1059.87	668674.23	757517.83
7-38	107+45.35	32.55' RT	1059.37	668677.20	757520.23
7-39	107+51.12	27.49' RT	1059.34	668682.11	757526.13
7-40	107+54.61	25.48' RT	1059.81	668684.03	757529.67
7-41	107+55.15	27.44' RT	1059.40	668682.05	757530.17
7-42	107+62.15	27.36' RT	1059.89	668681.95	757537.16
7-43	107+68.15	27.30' RT	1059.98	668681.87	757543.17
7-44	107+74.63	27.32' RT	1060.08	668681.68	757549.64
7-45	107+74.65	32.29' RT	1060.29	668676.71	757549.53
7-46	107+68.21	32.30' RT	1060.06	668676.87	757543.10
7-47	107+62.21	32.36' RT	1059.97	668676.96	757537.10
7-48	107+55.21	32.44' RT	1059.48	668677.06	757530.10

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CURB RAMP DETAILS	SHEET 35	E

2

RAILROAD STREET - NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
8-1	108+65.18	19.79' LT	1060.61	668726.46	757641.37
8-2	108+73.07	20.88' LT	1060.62	668727.35	757649.28
8-3	108+80.01	24.15' LT	1060.64	668730.43	757656.31
8-4	108+83.96	27.37' LT	1060.60	668733.56	757660.34
8-5	108+87.87	32.37' LT	1060.50	668738.45	757664.38
8-7	108+89.96	36.67' LT	1060.34	668742.70	757666.57
8-8	108+91.76	41.49' LT	1060.17	668747.47	757668.49
8-9	108+76.80	25.13' LT	1061.06	668731.49	757653.12
8-10	108+80.21	27.38' LT	1060.56	668733.66	757656.59
8-11	108+84.90	32.37' LT	1060.44	668738.53	757661.40
8-12	108+86.67	35.37' LT	1060.85	668741.48	757663.25
8-13	108+80.22	32.38' LT	1060.51	668738.66	757656.72
8-14	108+74.22	32.39' LT	1060.93	668738.82	757650.73
8-15	108+69.22	32.40' LT	1061.01	668738.96	757645.73
8-16	108+59.34	32.42' LT	1061.29	668739.23	757635.85
8-17	108+59.29	27.42' LT	1061.06	668734.23	757635.68
8-18	108+69.21	27.40' LT	1060.93	668733.96	757645.59
8-19	108+74.21	27.39' LT	1060.88	668733.82	757650.59

LEGEND

- .XXXXXXX. SAWCUT
- ASPHALTIC SURFACE PATCHING
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CONCRETE SIDEWALK REMOVALS AND REPLACEMENTS (BY OTHERS)
- B1 BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 CONCRETE CURB & GUTTER 30-INCH TYPE D
- F1 ASPHALTIC FLUMES
- S1 5-INCH CONCRETE SIDEWALK
- Y1 MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- CURB RAMP DETECTABLE WARNING FIELD RADIAL
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES
- EXISTING RIGHT-OF-WAY

NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

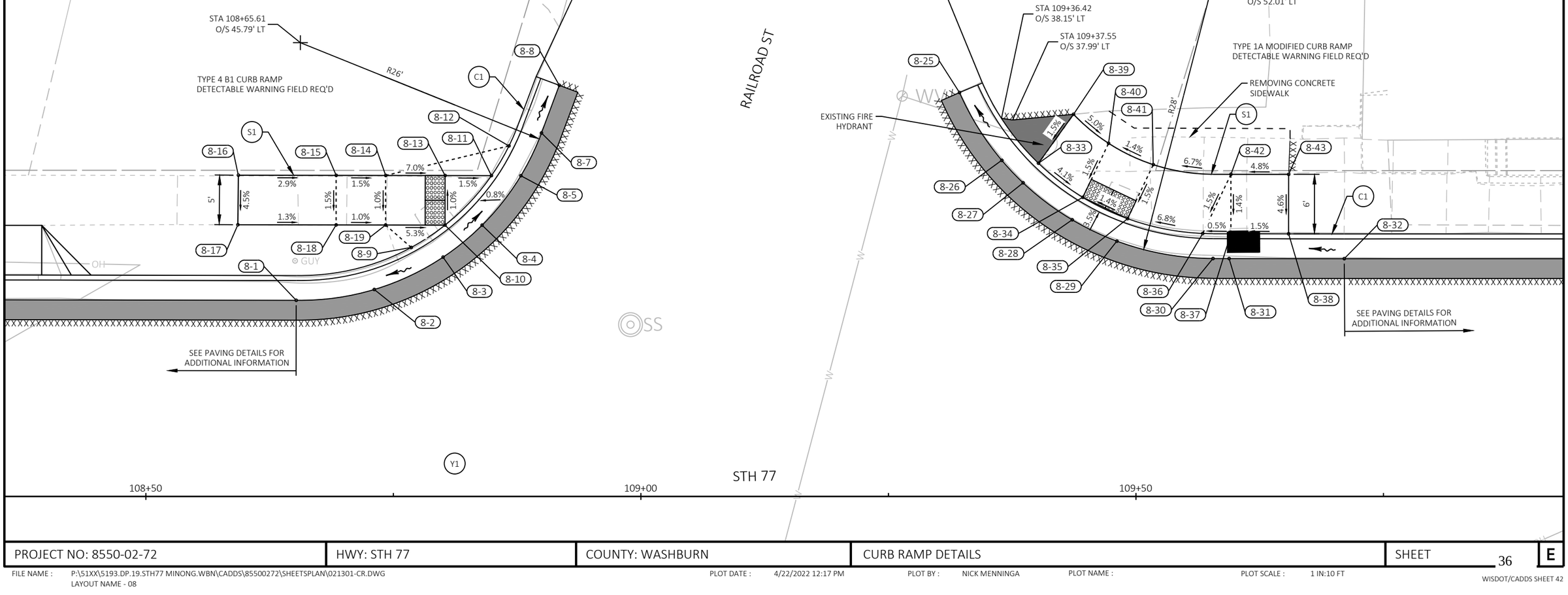
DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

ALL STATION AND OFFSET INFORMATION REFERENCE STH 77 R/L

N

RAILROAD STREET - NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
8-25	109+32.18	40.76' LT	1060.57	668745.70	757708.88
8-26	109+36.45	33.92' LT	1060.90	668738.75	757712.98
8-27	109+38.60	31.65' LT	1061.03	668736.43	757715.07
8-28	109+43.56	27.91' LT	1061.26	668732.57	757719.93
8-29	109+48.07	25.76' LT	1061.36	668730.30	757724.39
8-30	109+57.78	24.01' LT	1061.52	668728.30	757734.05
8-31	109+59.41	24.01' LT	1061.54	668728.26	757735.67
8-32	109+71.04	23.99' LT	1061.61	668727.94	757747.30
8-33	109+40.15	33.62' LT	1061.44	668738.36	757716.67
8-34	109+44.64	30.18' LT	1061.21	668734.81	757721.07
8-35	109+49.15	28.03' LT	1061.28	668732.54	757725.52
8-36	109+56.75	26.53' LT	1061.80	668730.85	757733.08
8-37	109+59.59	26.51' LT	1061.82	668730.75	757735.92
8-38	109+65.42	26.50' LT	1061.91	668730.60	757741.75
8-39	109+43.70	38.56' LT	1061.53	668743.21	757720.34
8-40	109+47.24	35.63' LT	1061.30	668740.19	757723.80
8-41	109+51.75	33.48' LT	1061.37	668737.92	757728.26
8-42	109+59.60	32.51' LT	1061.90	668736.75	757736.08
8-43	109+65.43	32.50' LT	1062.18	668736.59	757741.91



PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CURB RAMP DETAILS	SHEET 36	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 08

PLOT DATE : 4/22/2022 12:17 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

STH 77

108+50 109+00 109+50

Y1

N

NOTES

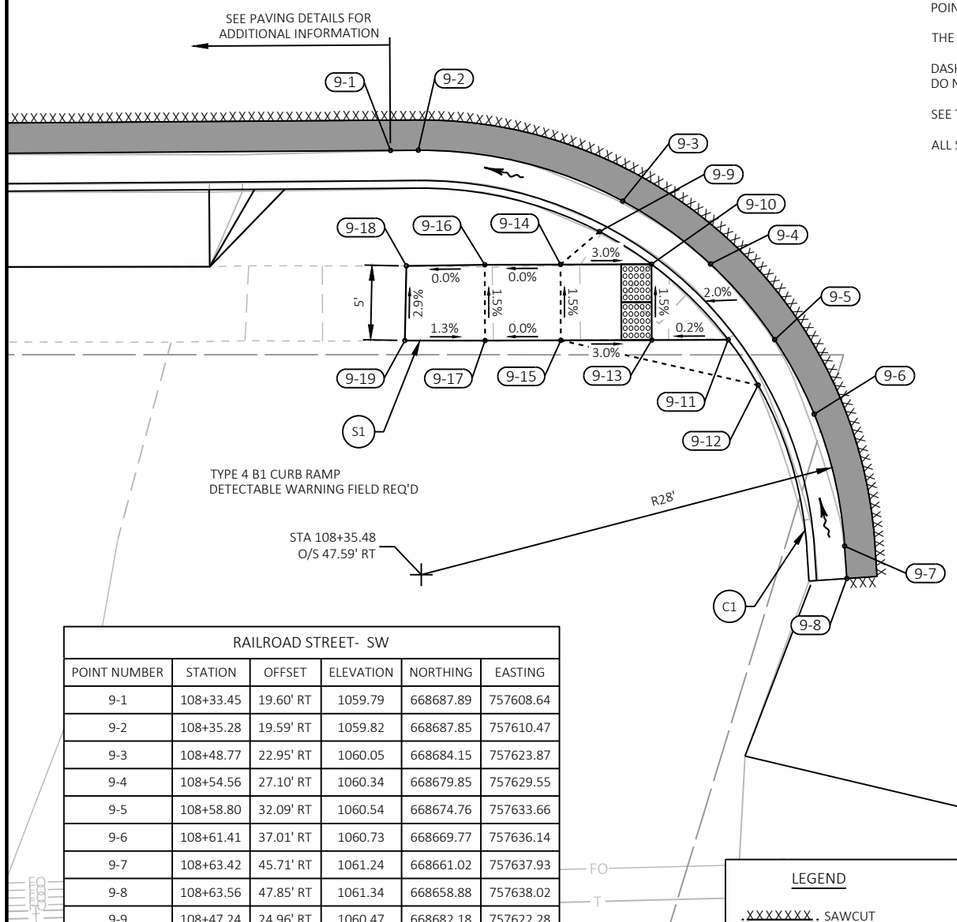
CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

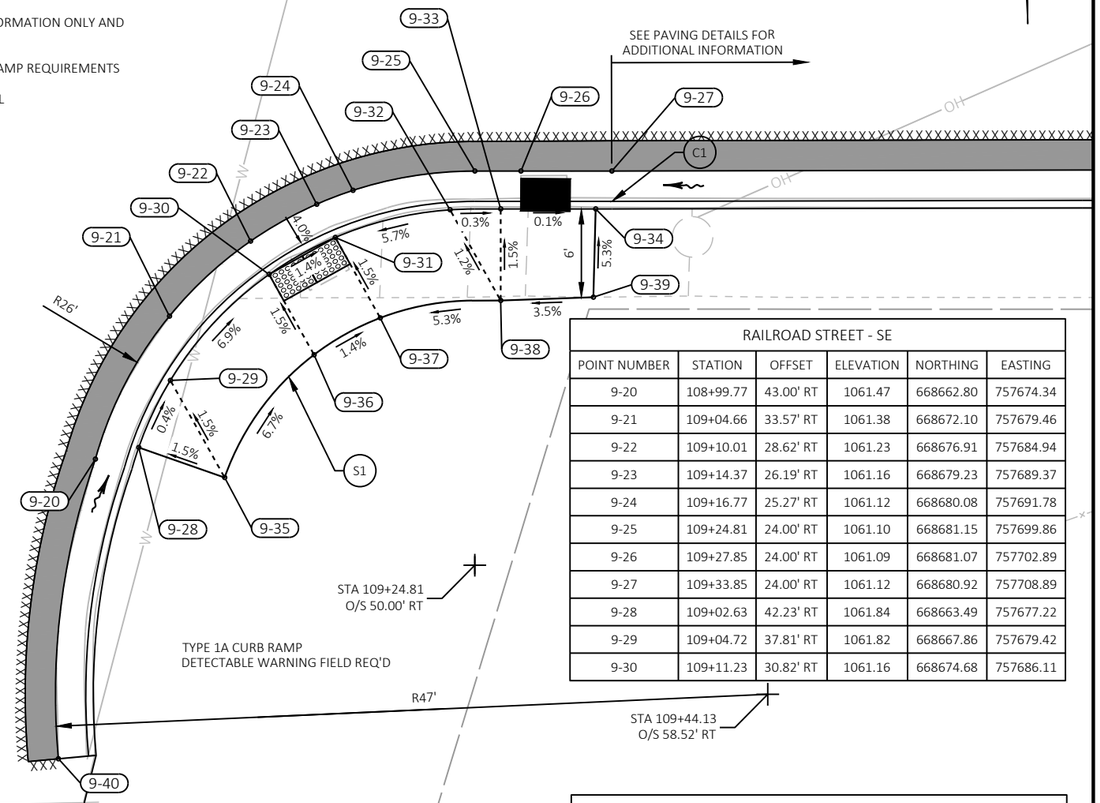
DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

ALL STATION AND OFFSET INFORMATION REFERENCE STH 77 R/L



RAILROAD ST



RAILROAD STREET- SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
9-1	108+33.45	19.60' RT	1059.79	668687.89	757608.64
9-2	108+35.28	19.59' RT	1059.82	668687.85	757610.47
9-3	108+48.77	22.95' RT	1060.05	668684.15	757623.87
9-4	108+54.56	27.10' RT	1060.34	668679.85	757629.55
9-5	108+58.80	32.09' RT	1060.54	668674.76	757633.66
9-6	108+61.41	37.01' RT	1060.73	668669.77	757636.14
9-7	108+63.42	45.71' RT	1061.24	668661.02	757637.93
9-8	108+63.56	47.85' RT	1061.34	668658.88	757638.02
9-9	108+47.24	24.96' RT	1060.47	668682.18	757622.28
9-10	108+50.68	27.11' RT	1060.35	668679.94	757625.67
9-11	108+55.73	32.09' RT	1060.44	668674.83	757630.60
9-12	108+57.71	35.09' RT	1061.06	668671.79	757632.49
9-13	108+50.69	32.11' RT	1060.43	668674.94	757625.55
9-14	108+44.68	27.13' RT	1060.54	668680.08	757619.67
9-15	108+44.69	32.13' RT	1060.61	668675.08	757619.56
9-16	108+39.68	27.14' RT	1060.54	668680.19	757614.67
9-17	108+39.69	32.14' RT	1060.61	668675.19	757614.56
9-18	108+34.50	27.22' RT	1060.54	668680.24	757609.50
9-19	108+34.40	32.14' RT	1060.68	668675.33	757609.27

RAILROAD STREET - SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
9-20	108+99.77	43.00' RT	1061.47	668662.80	757674.34
9-21	109+04.66	33.57' RT	1061.38	668672.10	757679.46
9-22	109+10.01	28.62' RT	1061.23	668676.91	757684.94
9-23	109+14.37	26.19' RT	1061.16	668679.23	757689.37
9-24	109+16.77	25.27' RT	1061.12	668680.08	757691.78
9-25	109+24.81	24.00' RT	1061.10	668681.15	757699.86
9-26	109+27.85	24.00' RT	1061.09	668681.07	757702.89
9-27	109+33.85	24.00' RT	1061.12	668680.92	757708.89
9-28	109+02.63	42.23' RT	1061.84	668663.49	757677.22
9-29	109+04.72	37.81' RT	1061.82	668667.86	757679.42
9-30	109+11.23	30.82' RT	1061.16	668674.68	757686.11

RAILROAD STREET - SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
9-31	109+15.60	28.38' RT	1061.09	668677.01	757690.54
9-32	109+23.17	26.56' RT	1061.53	668678.64	757698.15
9-33	109+26.51	26.50' RT	1061.52	668678.61	757701.49
9-34	109+32.78	26.50' RT	1061.52	668678.45	757707.76
9-35	109+08.29	44.22' RT	1061.93	668661.36	757682.83
9-36	109+14.20	36.12' RT	1061.25	668669.31	757688.94
9-37	109+18.57	33.69' RT	1061.18	668671.62	757693.37
9-38	109+26.51	32.54' RT	1061.61	668672.58	757701.34
9-39	109+32.63	32.32' RT	1061.82	668672.63	757707.46
9-40	108+97.33	62.78' RT	1061.58	668643.09	757671.39

LEGEND

- .XXXXXXX. SAWCUT
- ASPHALTIC SURFACE PATCHING
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CONCRETE SIDEWALK REMOVALS AND REPLACEMENTS (BY OTHERS)
- B1 BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 CONCRETE CURB & GUTTER 30-INCH TYPE D
- F1 ASPHALTIC FLUMES
- S1 5-INCH CONCRETE SIDEWALK
- Y1 MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- CURB RAMP DETECTABLE WARNING FIELD RADIAL
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES
- EXISTING RIGHT-OF-WAY

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CURB RAMP DETAILS	SHEET 37	E

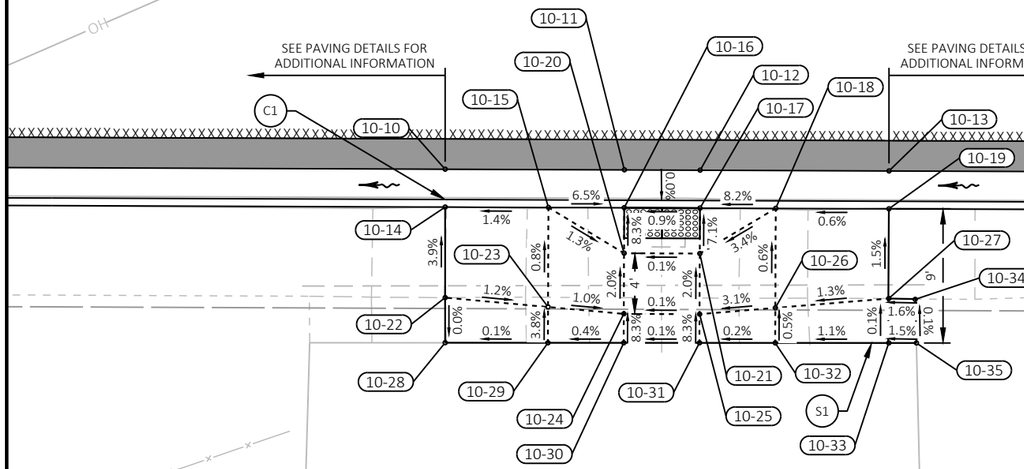
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LAYOUT NAME - 09
PLOT DATE : 4/22/2022 12:17 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

STH 77

110+00 110+50 111+00

Y1 Y1

N



TYPE 3 MODIFIED CURB RAMP
DETECTABLE WARNING FIELD REQ'D

C1

STA 110+00 RT - POST OFFICE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
10-10	109+90.82	23.93' RT	1061.68	668679.53	757765.85
10-11	110+02.65	23.93' RT	1061.80	668679.23	757777.67
10-12	110+07.65	23.93' RT	1061.85	668679.10	757782.67
10-13	110+20.11	23.93' RT	1061.94	668678.78	757795.13
10-14	109+90.83	26.43' RT	1062.07	668677.04	757765.80
10-15	109+97.65	26.43' RT	1062.17	668676.86	757772.61
10-16	110+02.65	26.43' RT	1061.84	668676.73	757777.61
10-17	110+07.65	26.43' RT	1061.89	668676.60	757782.61
10-18	110+12.65	26.43' RT	1062.30	668676.48	757787.60
10-19	110+20.11	26.43' RT	1062.34	668676.29	757795.06
10-20	110+02.65	29.43' RT	1062.09	668673.73	757777.53
10-21	110+07.65	29.43' RT	1062.10	668673.61	757782.53
10-22	109+90.85	32.40' RT	1062.30	668671.06	757765.66
10-23	109+97.65	32.99' RT	1062.22	668670.30	757772.44
10-24	110+02.65	33.43' RT	1062.17	668669.74	757777.43
10-25	110+07.65	33.43' RT	1062.18	668669.61	757782.43
10-26	110+12.65	32.99' RT	1062.34	668669.91	757787.44
10-27	110+20.13	32.35' RT	1062.43	668670.37	757794.93
10-28	109+90.86	35.38' RT	1062.30	668668.09	757765.60
10-29	109+97.65	35.36' RT	1062.31	668667.93	757772.38
10-30	110+02.65	35.34' RT	1062.33	668667.82	757777.38
10-31	110+07.65	35.32' RT	1062.34	668667.71	757782.38
10-32	110+12.65	35.31' RT	1062.35	668667.60	757787.38
10-33	110+20.14	35.28' RT	1062.43	668667.43	757794.87
10-34	110+21.87	32.40' RT	1062.46	668670.27	757796.67
10-35	110+21.97	35.27' RT	1062.46	668667.39	757796.69

NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

ALL STATION AND OFFSET INFORMATION REFERENCE STH 77 R/L

LEGEND

- .XXXXXXX. SAWCUT
- ASPHALTIC SURFACE PATCHING
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CONCRETE SIDEWALK REMOVALS AND REPLACEMENTS (BY OTHERS)
- B1 BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 CONCRETE CURB & GUTTER 30-INCH TYPE D
- F1 ASPHALTIC FLUMES
- S1 5-INCH CONCRETE SIDEWALK
- Y1 MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- CURB RAMP DETECTABLE WARNING FIELD RADIAL
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES
- EXISTING RIGHT-OF-WAY

2ND STREET - NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
11-1	112+67.56	23.98' LT	1063.31	668720.33	758043.73
11-2	112+72.99	23.97' LT	1063.33	668720.19	758049.15
11-3	112+86.37	27.50' LT	1063.37	668723.37	758062.62
11-4	112+90.47	30.36' LT	1063.40	668726.13	758066.79
11-5	112+98.50	42.03' LT	1063.46	668737.59	758075.12
11-6	113+00.02	51.56' LT	1063.50	668747.08	758076.88
11-7	112+99.99	52.97' LT	1063.52	668748.49	758076.88
11-8	112+67.57	26.48' LT	1063.55	668722.83	758043.79
11-9	112+73.97	26.49' LT	1063.75	668722.68	758050.20
11-10	112+77.64	26.90' LT	1063.77	668723.00	758053.87
11-11	112+84.94	29.56' LT	1063.30	668725.47	758061.24
11-12	112+89.03	32.42' LT	1063.33	668728.23	758065.41
11-13	112+94.45	39.08' LT	1063.86	668734.75	758070.99
11-14	112+67.58	32.48' LT	1064.00	668728.83	758043.96
11-15	112+73.74	32.48' LT	1063.84	668728.68	758050.12
11-16	112+81.07	35.08' LT	1063.40	668731.09	758057.52
11-17	112+84.34	39.13' LT	1063.45	668735.06	758060.89
11-18	112+85.59	44.55' LT	1063.84	668740.44	758062.28
11-19	112+90.59	44.60' LT	1063.82	668740.37	758067.28
11-20	112+85.53	53.59' LT	1064.22	668749.48	758062.44

STA 112+73.03
O/S 50.97' LT

2ND STREET - NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
11-21	112+90.53	53.63' LT	1064.23	668749.39	758067.44
11-22	112+99.95	54.65' LT	1063.55	668750.17	758076.89
11-23	112+96.71	63.78' LT	1063.66	668759.38	758073.88

LEGEND

- SAWCUT
- ASPHALTIC SURFACE PATCHING
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CONCRETE SIDEWALK REMOVALS AND REPLACEMENTS (BY OTHERS)
- B1 — BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 — CONCRETE CURB & GUTTER 30-INCH TYPE D
- F1 — ASPHALTIC FLUMES
- S1 — 5-INCH CONCRETE SIDEWALK
- Y1 — MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- CURB RAMP DETECTABLE WARNING FIELD RADIAL
- ADJUSTING INLETS
- MH — ADJUSTING MANHOLE COVERS
- SAN — ADJUSTING SANITARY MANHOLE COVERS
- WV — ADJUSTING WATER VALVE BOXES
- EXISTING RIGHT-OF-WAY

N

TYPE 1A CURB RAMP
DETECTABLE WARNING FIELD REQ'D

2ND ST

STH 77

SEE PAVING DETAILS FOR
ADDITIONAL INFORMATION

2ND STREET - NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
11-25	113+33.22	51.93' LT	1063.72	668746.88	758109.45
11-26	113+33.23	49.82' LT	1063.71	668744.77	758109.44
11-27	113+35.26	40.00' LT	1063.68	668734.93	758111.33
11-28	113+42.67	30.02' LT	1063.64	668724.85	758118.60
11-29	113+46.81	27.22' LT	1063.62	668722.00	758122.71
11-30	113+58.99	24.06' LT	1063.59	668718.67	758134.84
11-31	113+65.79	24.00' LT	1063.57	668718.52	758141.64
11-32	113+38.78	38.50' LT	1064.09	668733.38	758114.83
11-33	113+44.07	32.11' LT	1063.57	668726.92	758120.04
11-34	113+48.22	29.31' LT	1063.55	668724.06	758124.14
11-35	113+55.61	26.84' LT	1064.02	668721.50	758131.50
11-36	113+59.41	26.56' LT	1064.01	668721.16	758135.30
11-37	113+65.82	26.50' LT	1063.89	668721.02	758141.70
11-38	113+65.87	32.50' LT	1064.18	668727.02	758141.83
11-39	113+59.47	32.56' LT	1064.10	668727.16	758135.44
11-40	113+52.14	35.11' LT	1063.66	668729.81	758128.15
11-41	113+48.83	39.15' LT	1063.69	668733.89	758124.89
11-42	113+47.55	44.22' LT	1064.06	668738.98	758123.67
11-43	113+42.55	44.08' LT	1063.99	668738.91	758118.67
11-44	113+42.38	49.85' LT	1064.08	668744.68	758118.59
11-45	113+47.38	49.99' LT	1064.15	668744.76	758123.59
11-46	113+33.21	53.00' LT	1063.73	668747.96	758109.45
11-47	113+34.92	63.03' LT	1063.77	668757.96	758111.30

STA 113+59.23
O/S 50.06' LT

TYPE 1A CURB RAMP
DETECTABLE WARNING FIELD REQ'D

SEE PAVING DETAILS FOR
ADDITIONAL INFORMATION

NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

ALL STATION AND OFFSET INFORMATION REFERENCE STH 77 R/L

STH 77

112+50 113+00 113+50

NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

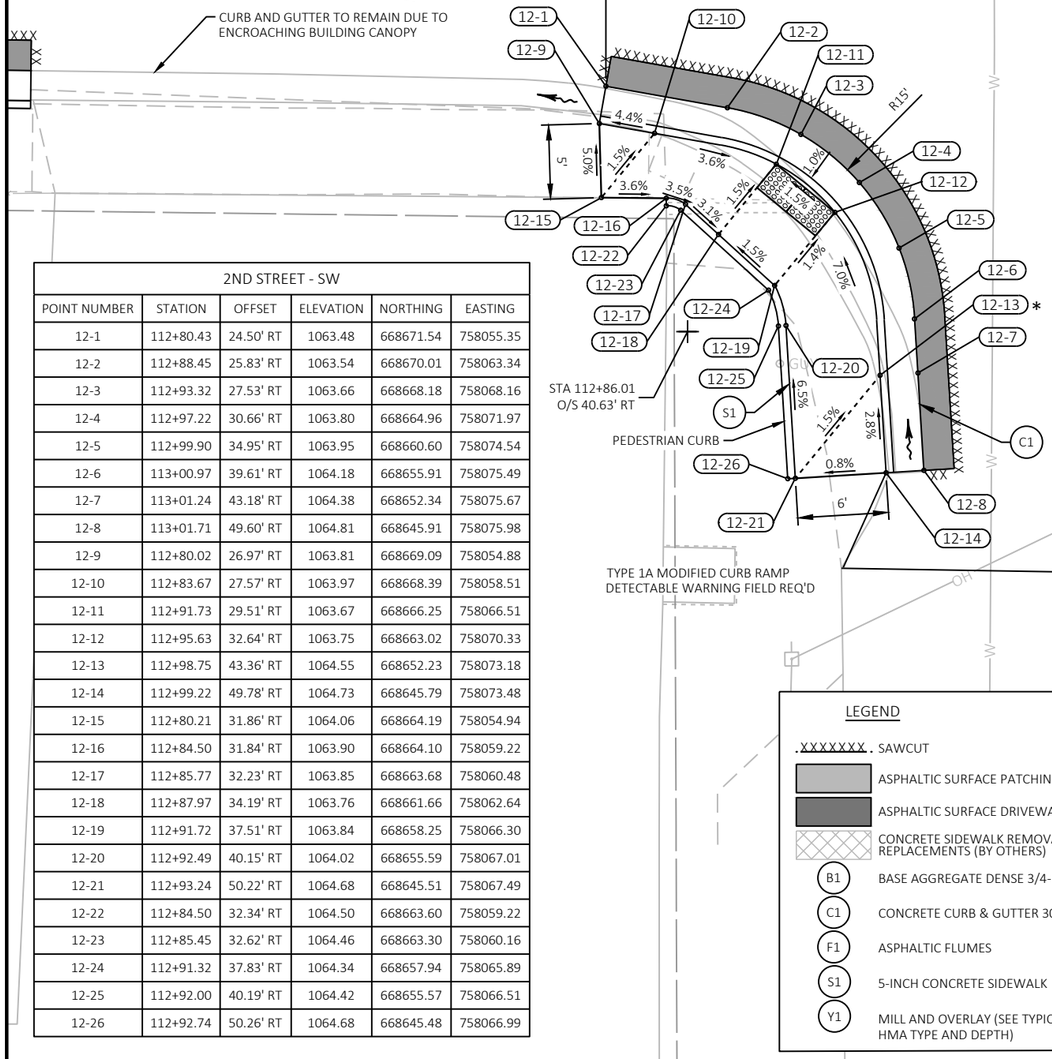
SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

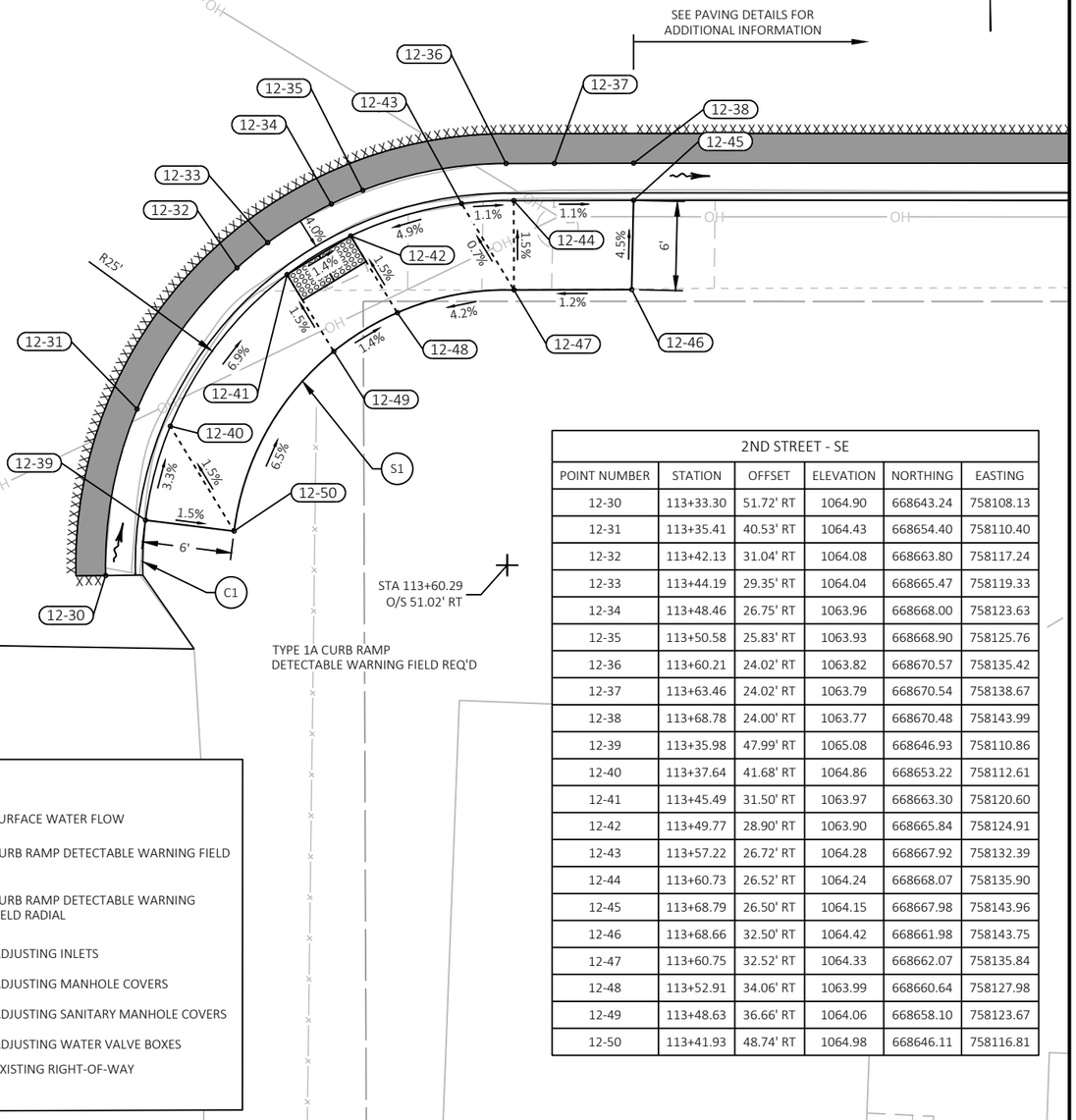
ALL STATION AND OFFSET INFORMATION REFERENCE STH 77 R/L

* VARIABLE CURB HEAD

SEE PAVING DETAILS FOR ADDITIONAL INFORMATION

CURB AND GUTTER TO REMAIN DUE TO ENCROACHING BUILDING CANOPY





N

2ND STREET - SW

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
12-1	112+80.43	24.50' RT	1063.48	668671.54	758055.35
12-2	112+88.45	25.83' RT	1063.54	668670.01	758063.34
12-3	112+93.32	27.53' RT	1063.66	668668.18	758068.16
12-4	112+97.22	30.66' RT	1063.80	668664.96	758071.97
12-5	112+99.90	34.95' RT	1063.95	668660.60	758074.54
12-6	113+00.97	39.61' RT	1064.18	668655.91	758075.49
12-7	113+01.24	43.18' RT	1064.38	668652.34	758075.67
12-8	113+01.71	49.60' RT	1064.81	668645.91	758075.98
12-9	112+80.02	26.97' RT	1063.81	668669.09	758054.88
12-10	112+83.67	27.57' RT	1063.97	668668.39	758058.51
12-11	112+91.73	29.51' RT	1063.67	668666.25	758066.51
12-12	112+95.63	32.64' RT	1063.75	668663.02	758070.33
12-13	112+98.75	43.36' RT	1064.55	668652.23	758073.18
12-14	112+99.22	49.78' RT	1064.73	668645.79	758073.48
12-15	112+80.21	31.86' RT	1064.06	668664.19	758054.94
12-16	112+84.50	31.84' RT	1063.90	668664.10	758059.22
12-17	112+85.77	32.23' RT	1063.85	668663.68	758060.48
12-18	112+87.97	34.19' RT	1063.76	668661.66	758062.64
12-19	112+91.72	37.51' RT	1063.84	668658.25	758066.30
12-20	112+92.49	40.15' RT	1064.02	668655.59	758067.01
12-21	112+93.24	50.22' RT	1064.68	668645.51	758067.49
12-22	112+84.50	32.34' RT	1064.50	668663.60	758059.22
12-23	112+85.45	32.62' RT	1064.46	668663.30	758060.16
12-24	112+91.32	37.83' RT	1064.34	668657.94	758065.89
12-25	112+92.00	40.19' RT	1064.42	668655.57	758066.51
12-26	112+92.74	50.26' RT	1064.68	668645.48	758066.99

2ND STREET - SE

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
12-30	113+33.30	51.72' RT	1064.90	668643.24	758108.13
12-31	113+35.41	40.53' RT	1064.43	668654.40	758110.40
12-32	113+42.13	31.04' RT	1064.08	668663.80	758117.24
12-33	113+44.19	29.35' RT	1064.04	668665.47	758119.33
12-34	113+48.46	26.75' RT	1063.96	668668.00	758123.63
12-35	113+50.58	25.83' RT	1063.93	668668.90	758125.76
12-36	113+60.21	24.02' RT	1063.82	668670.57	758135.42
12-37	113+63.46	24.02' RT	1063.79	668670.54	758138.67
12-38	113+68.78	24.00' RT	1063.77	668670.48	758143.99
12-39	113+35.98	47.99' RT	1065.08	668646.93	758110.86
12-40	113+37.64	41.68' RT	1064.86	668653.22	758112.61
12-41	113+45.49	31.50' RT	1063.97	668663.30	758120.60
12-42	113+49.77	28.90' RT	1063.90	668665.84	758124.91
12-43	113+57.22	26.72' RT	1064.28	668667.92	758132.39
12-44	113+60.73	26.52' RT	1064.24	668668.07	758135.90
12-45	113+68.79	26.50' RT	1064.15	668667.98	758143.96
12-46	113+68.66	32.50' RT	1064.42	668661.98	758143.75
12-47	113+60.75	32.52' RT	1064.33	668662.07	758135.84
12-48	113+52.91	34.06' RT	1063.99	668660.64	758127.98
12-49	113+48.63	36.66' RT	1064.06	668658.10	758123.67
12-50	113+41.93	48.74' RT	1064.98	668646.11	758116.81

LEGEND

- .XXXXXXX. SAWCUT
- ASPHALTIC SURFACE PATCHING
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CONCRETE SIDEWALK REMOVALS AND REPLACEMENTS (BY OTHERS)
- B1 BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 CONCRETE CURB & GUTTER 30-INCH TYPE D
- F1 ASPHALTIC FLUMES
- S1 5-INCH CONCRETE SIDEWALK
- Y1 MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- CURB RAMP DETECTABLE WARNING FIELD RADIAL
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES
- EXISTING RIGHT-OF-WAY

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CURB RAMP DETAILS	SHEET 40	E

1ST STREET - NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
13-1	116+49.62	24.00' LT	1064.47	668714.70	758425.45
13-2	116+61.48	23.95' LT	1064.44	668714.48	758437.31
13-3	116+72.26	23.90' LT	1064.41	668714.29	758448.09
13-4	116+77.24	24.39' LT	1064.39	668714.71	758453.07
13-5	116+84.00	28.26' LT	1064.37	668718.50	758459.88
13-6	116+87.27	33.13' LT	1064.35	668723.32	758463.21
13-7	116+88.41	38.88' LT	1064.33	668729.06	758464.44
13-8	116+88.41	48.97' LT	1064.30	668739.14	758464.57
13-9	116+54.19	26.48' LT	1064.85	668717.11	758430.05
13-10	116+64.46	26.43' LT	1064.85	668716.93	758440.32
13-11	116+72.00	26.40' LT	1064.33	668716.79	758447.86
13-12	116+76.98	26.91' LT	1064.32	668717.24	758452.84
13-13	116+83.98	32.21' LT	1064.78	668722.44	758459.91
13-14	116+54.28	31.34' LT	1065.06	668721.97	758430.21
13-15	116+64.42	31.36' LT	1064.90	668721.86	758440.34
13-16	116+71.49	31.37' LT	1064.41	668721.77	758447.42
13-17	116+76.47	31.89' LT	1064.39	668722.22	758452.40
13-18	116+71.11	36.31' LT	1064.52	668726.72	758447.10
13-19	116+76.40	36.91' LT	1064.47	668727.24	758452.40

LEGEND

- .XXXXXXX. SAWCUT
- ASPHALTIC SURFACE PATCHING
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CONCRETE SIDEWALK REMOVALS AND REPLACEMENTS (BY OTHERS)
- B1 BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 CONCRETE CURB & GUTTER 30-INCH TYPE D
- F1 ASPHALTIC FLUMES
- S1 5-INCH CONCRETE SIDEWALK
- Y1 MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- CURB RAMP DETECTABLE WARNING FIELD RADIAL
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES
- EXISTING RIGHT-OF-WAY

NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

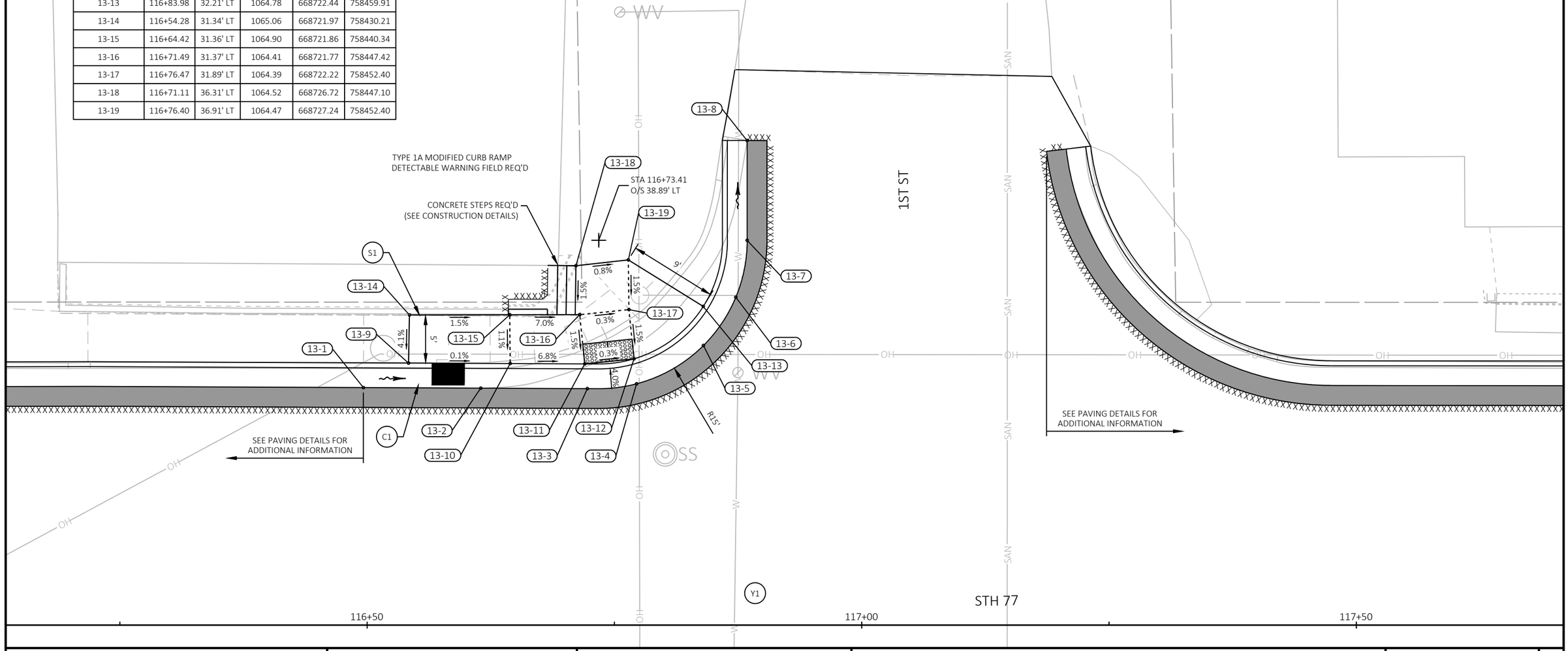
THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

ALL STATION AND OFFSET INFORMATION REFERENCE STH 77 R/L

N



PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CURB RAMP DETAILS	SHEET 41	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 13

PLOT DATE : 4/22/2022 12:19 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:10 FT

STH 77

116+50 | 117+00 | 117+50

NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

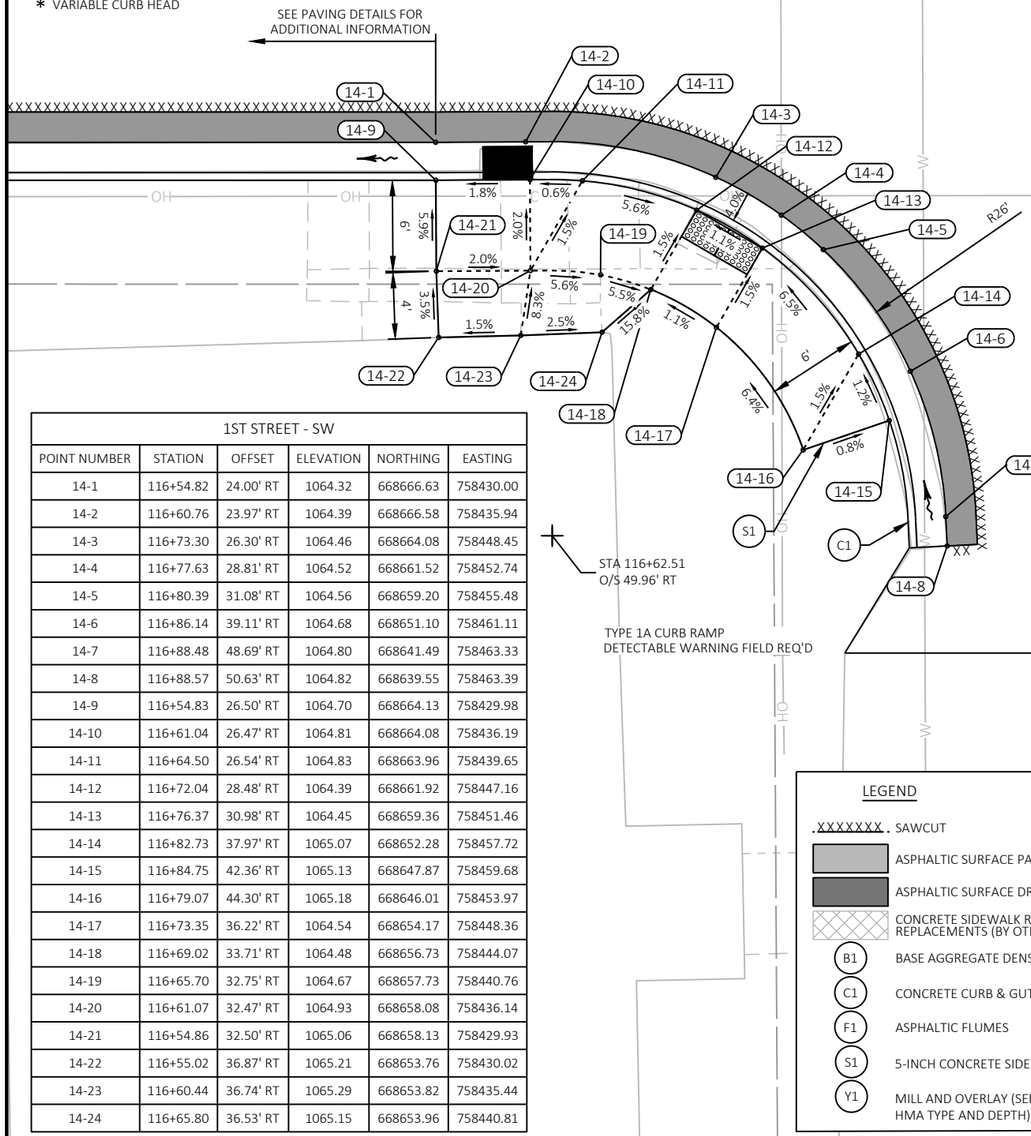
THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

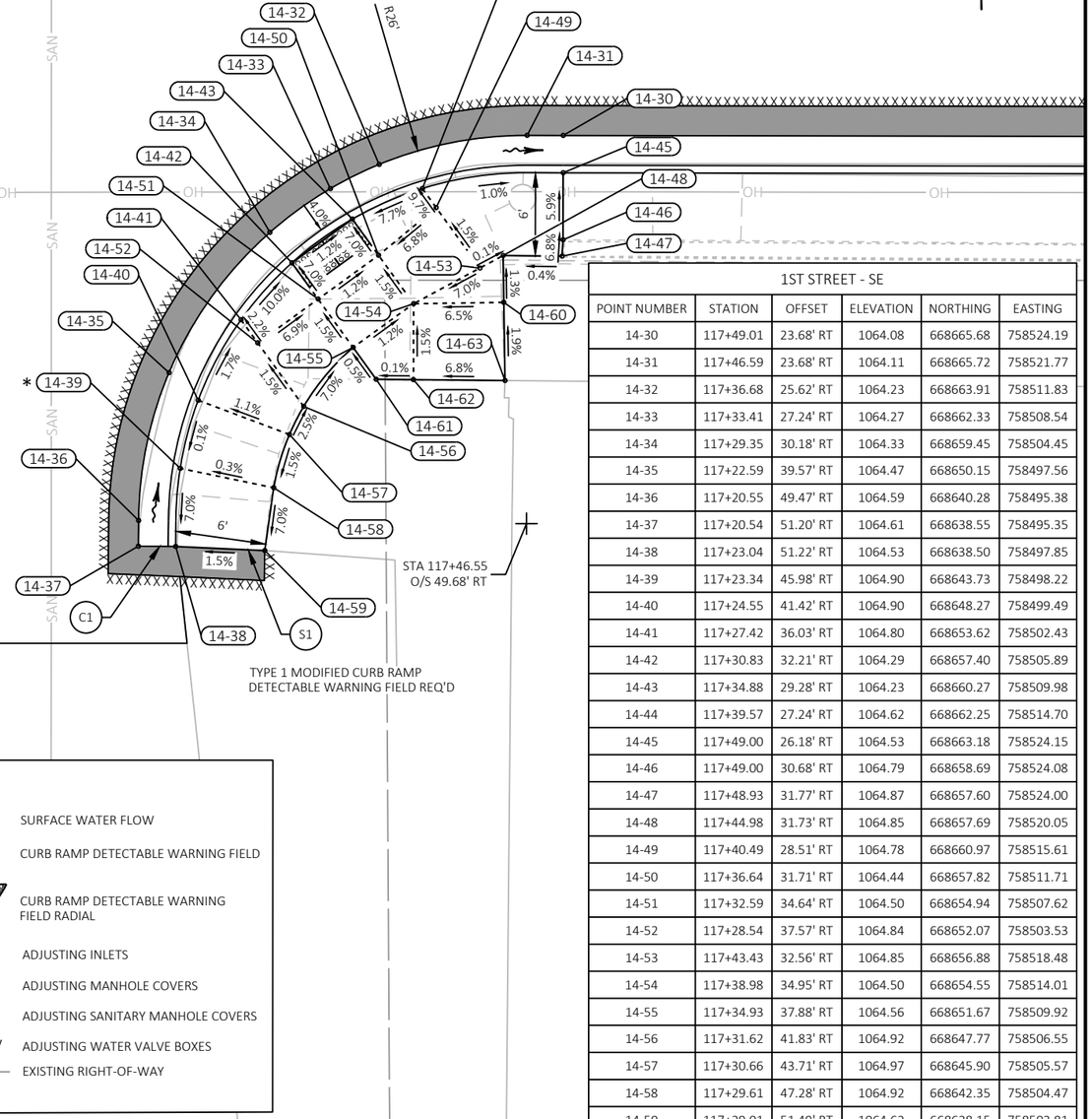
DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

ALL STATION AND OFFSET INFORMATION REFERENCE STH 77 R/L

* VARIABLE CURB HEAD





1ST STREET - SW

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
14-1	116+54.82	24.00' RT	1064.32	668666.63	758430.00
14-2	116+60.76	23.97' RT	1064.39	668666.58	758435.94
14-3	116+73.30	26.30' RT	1064.46	668664.08	758448.45
14-4	116+77.63	28.81' RT	1064.52	668661.52	758452.74
14-5	116+80.39	31.08' RT	1064.56	668659.20	758455.48
14-6	116+86.14	39.11' RT	1064.68	668651.10	758461.11
14-7	116+88.48	48.69' RT	1064.80	668641.49	758463.33
14-8	116+88.57	50.63' RT	1064.82	668639.55	758463.39
14-9	116+54.83	26.50' RT	1064.70	668664.13	758429.98
14-10	116+61.04	26.47' RT	1064.81	668664.08	758436.19
14-11	116+64.50	26.54' RT	1064.83	668663.96	758439.65
14-12	116+72.04	28.48' RT	1064.39	668661.92	758447.16
14-13	116+76.37	30.98' RT	1064.45	668659.36	758451.46
14-14	116+82.73	37.97' RT	1065.07	668652.28	758457.72
14-15	116+84.75	42.36' RT	1065.13	668647.87	758459.68
14-16	116+79.07	44.30' RT	1065.18	668646.01	758453.97
14-17	116+73.35	36.22' RT	1064.54	668654.17	758448.36
14-18	116+69.02	33.71' RT	1064.48	668656.73	758444.07
14-19	116+65.70	32.75' RT	1064.67	668657.73	758440.76
14-20	116+61.07	32.47' RT	1064.93	668658.08	758436.14
14-21	116+54.86	32.50' RT	1065.06	668658.13	758429.93
14-22	116+55.02	36.87' RT	1065.21	668653.76	758430.02
14-23	116+60.44	36.74' RT	1065.29	668653.82	758435.44
14-24	116+65.80	36.53' RT	1065.15	668653.96	758440.81

1ST STREET - SE

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
14-30	117+49.01	23.68' RT	1064.08	668665.68	758524.19
14-31	117+46.59	23.68' RT	1064.11	668665.72	758521.77
14-32	117+36.68	25.62' RT	1064.23	668663.91	758511.83
14-33	117+33.41	27.24' RT	1064.27	668662.33	758508.54
14-34	117+29.35	30.18' RT	1064.33	668659.45	758504.45
14-35	117+22.59	39.57' RT	1064.47	668650.15	758497.56
14-36	117+20.55	49.47' RT	1064.59	668640.28	758495.38
14-37	117+20.54	51.20' RT	1064.61	668638.55	758495.35
14-38	117+23.04	51.22' RT	1064.53	668638.50	758497.85
14-39	117+23.34	45.98' RT	1064.90	668643.73	758498.22
14-40	117+24.55	41.42' RT	1064.90	668648.27	758499.49
14-41	117+27.42	36.03' RT	1064.80	668653.62	758502.43
14-42	117+30.83	32.21' RT	1064.29	668657.40	758505.89
14-43	117+34.88	29.28' RT	1064.23	668660.27	758509.98
14-44	117+39.57	27.24' RT	1064.62	668662.25	758514.70
14-45	117+49.00	26.18' RT	1064.53	668663.18	758524.15
14-46	117+49.00	30.68' RT	1064.79	668658.69	758524.08
14-47	117+48.93	31.77' RT	1064.87	668657.60	758524.00
14-48	117+44.98	31.73' RT	1064.85	668657.69	758520.05
14-49	117+40.49	28.51' RT	1064.78	668660.97	758515.61
14-50	117+36.64	31.71' RT	1064.44	668657.82	758511.71
14-51	117+32.59	34.64' RT	1064.50	668654.94	758507.62
14-52	117+28.54	37.57' RT	1064.84	668652.07	758503.53
14-53	117+43.43	32.56' RT	1064.85	668656.88	758518.48
14-54	117+38.98	34.95' RT	1064.50	668654.55	758514.01
14-55	117+34.93	37.88' RT	1064.56	668651.67	758509.92
14-56	117+31.62	41.83' RT	1064.92	668647.77	758506.55
14-57	117+30.66	43.71' RT	1064.97	668645.90	758505.57
14-58	117+29.61	47.28' RT	1064.92	668642.35	758504.47
14-59	117+29.01	51.49' RT	1064.62	668638.15	758503.81

LEGEND

- XXXXXXX SAWCUT
- ASPHALTIC SURFACE PATCHING
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CONCRETE SIDEWALK REMOVALS AND REPLACEMENTS (BY OTHERS)
- B1 BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 CONCRETE CURB & GUTTER 30-INCH TYPE D
- F1 ASPHALTIC FLUMES
- S1 5-INCH CONCRETE SIDEWALK
- Y1 MILL AND OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- CURB RAMP DETECTABLE WARNING FIELD RADIAL
- ADJUSTING INLETS
- MH ADJUSTING MANHOLE COVERS
- SAN ADJUSTING SANITARY MANHOLE COVERS
- WV ADJUSTING WATER VALVE BOXES
- EXISTING RIGHT-OF-WAY

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CURB RAMP DETAILS	SHEET 42	E

2

LEGEND

- EROSION MAT CLASS I TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- EROSION BALE REINFORCEMENT
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY

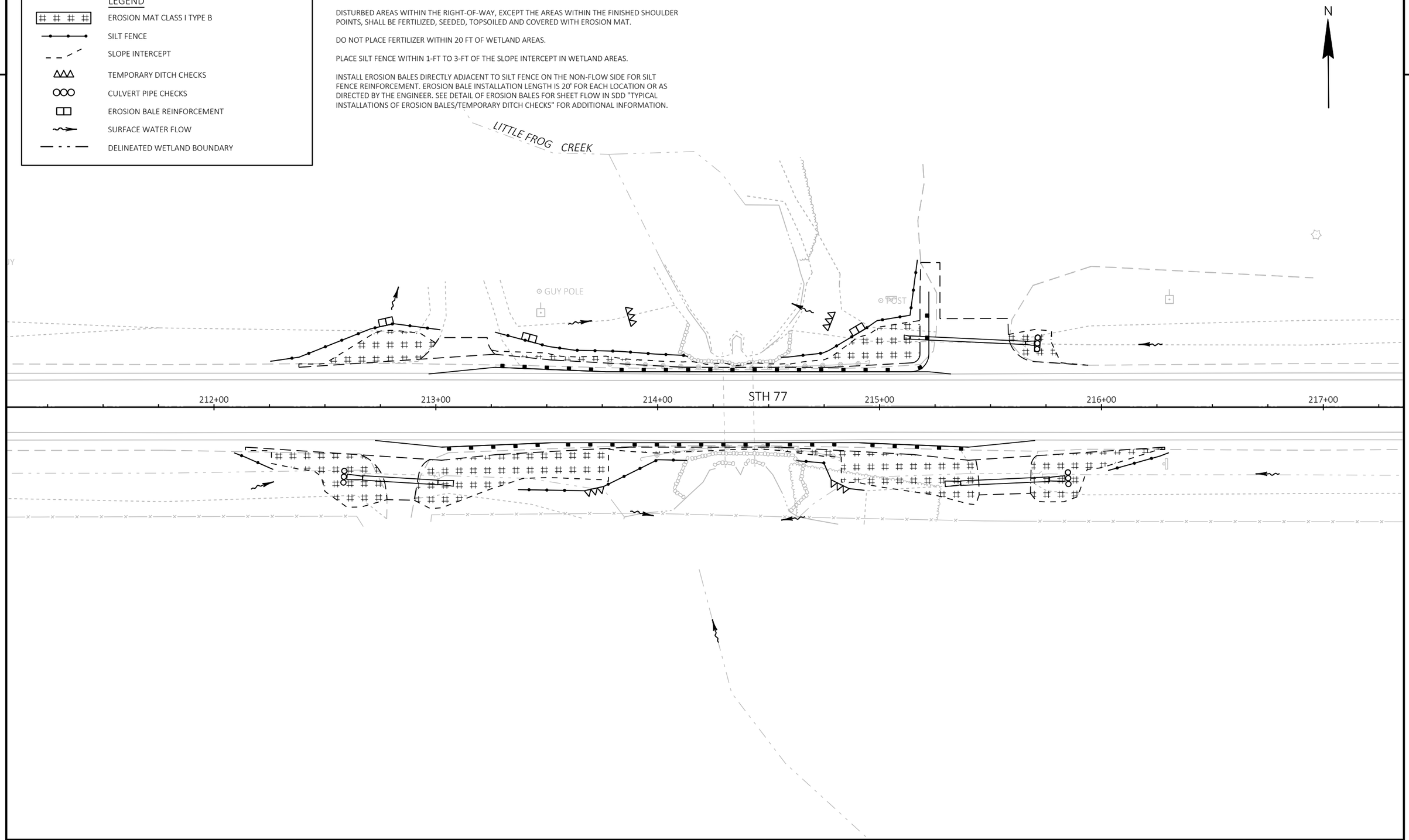
NOTES

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, TOPSOILED AND COVERED WITH EROSION MAT.

DO NOT PLACE FERTILIZER WITHIN 20 FT OF WETLAND AREAS.

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

INSTALL EROSION BALES DIRECTLY ADJACENT TO SILT FENCE ON THE NON-FLOW SIDE FOR SILT FENCE REINFORCEMENT. EROSION BALE INSTALLATION LENGTH IS 20' FOR EACH LOCATION OR AS DIRECTED BY THE ENGINEER. SEE DETAIL OF EROSION BALES FOR SHEET FLOW IN SDD "TYPICAL INSTALLATIONS OF EROSION BALES/TEMPORARY DITCH CHECKS" FOR ADDITIONAL INFORMATION.



PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	EROSION CONTROL	SHEET 43	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 4/22/2022 12:20 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- EROSION MAT CLASS I TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- EROSION BALE REINFORCEMENT
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY

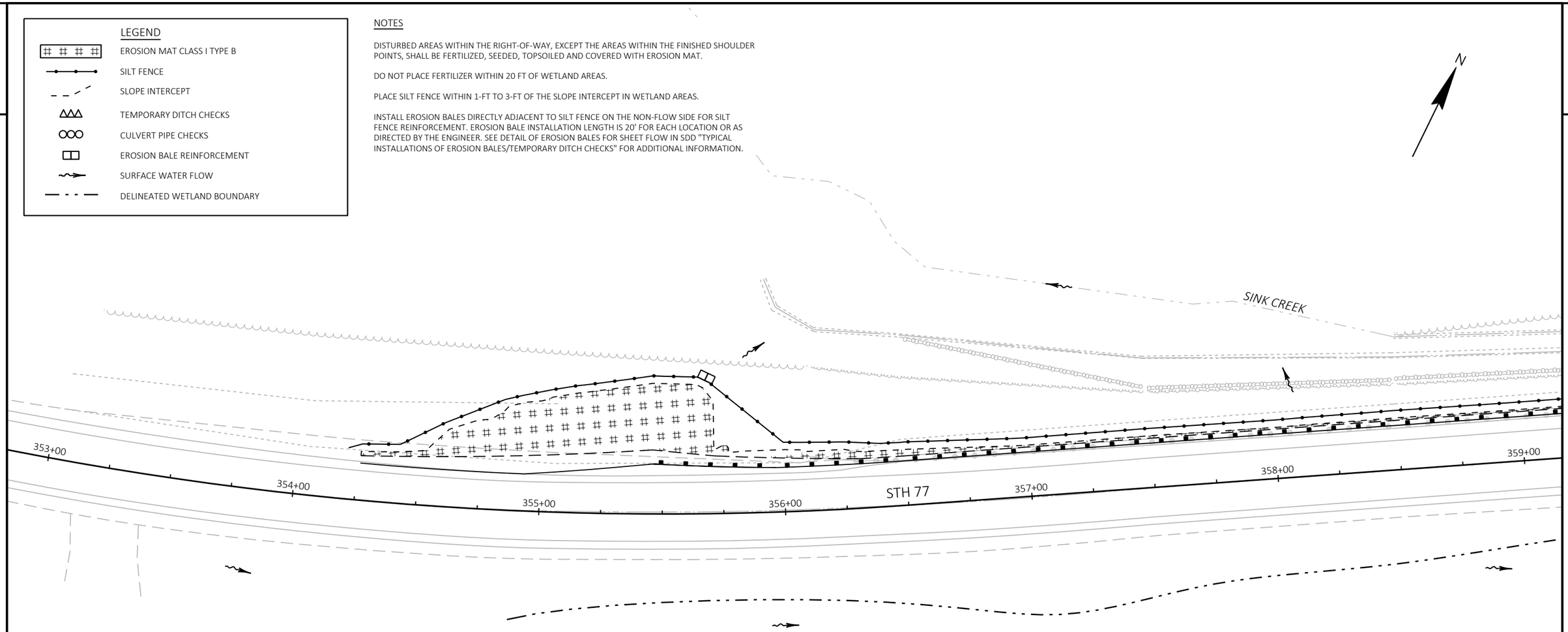
NOTES

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, TOPSOILED AND COVERED WITH EROSION MAT.

DO NOT PLACE FERTILIZER WITHIN 20 FT OF WETLAND AREAS.

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

INSTALL EROSION BALES DIRECTLY ADJACENT TO SILT FENCE ON THE NON-FLOW SIDE FOR SILT FENCE REINFORCEMENT. EROSION BALE INSTALLATION LENGTH IS 20' FOR EACH LOCATION OR AS DIRECTED BY THE ENGINEER. SEE DETAIL OF EROSION BALES FOR SHEET FLOW IN SDD "TYPICAL INSTALLATIONS OF EROSION BALES/TEMPORARY DITCH CHECKS" FOR ADDITIONAL INFORMATION.



2

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	EROSION CONTROL	SHEET 44	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 02
PLOT DATE : 4/22/2022 12:20 PM
PLOT BY : NICK MENNINGA
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- EROSION MAT CLASS I TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- EROSION BALE REINFORCEMENT
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY

NOTES

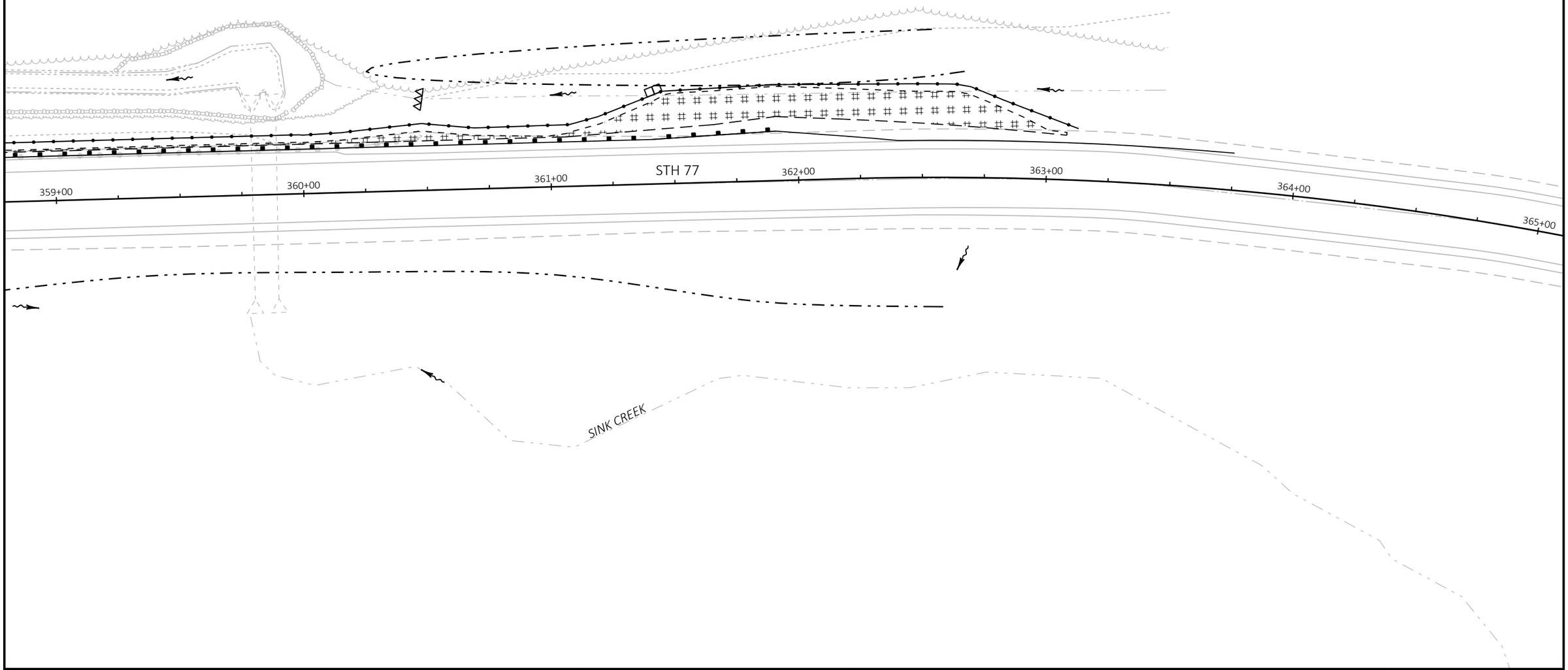
DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, TOPSOILED AND COVERED WITH EROSION MAT.

DO NOT PLACE FERTILIZER WITHIN 20 FT OF WETLAND AREAS.

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

INSTALL EROSION BALES DIRECTLY ADJACENT TO SILT FENCE ON THE NON-FLOW SIDE FOR SILT FENCE REINFORCEMENT. EROSION BALE INSTALLATION LENGTH IS 20' FOR EACH LOCATION OR AS DIRECTED BY THE ENGINEER. SEE DETAIL OF EROSION BALES FOR SHEET FLOW IN SDD "TYPICAL INSTALLATIONS OF EROSION BALES/TEMPORARY DITCH CHECKS" FOR ADDITIONAL INFORMATION.

N



2

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	EROSION CONTROL	SHEET 45	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 03

PLOT DATE : 4/22/2022 12:21 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

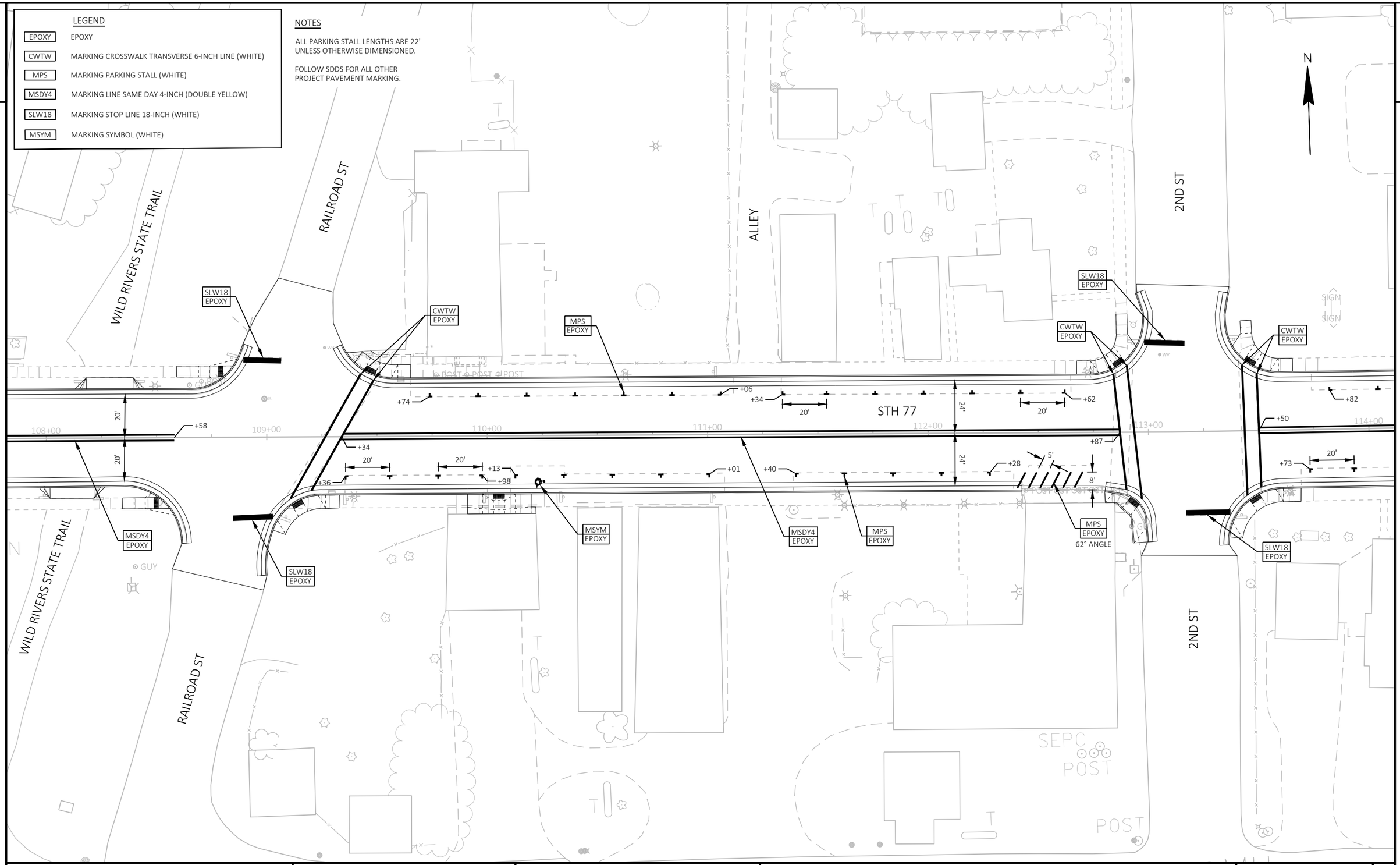
LEGEND

EPOXY	EPOXY
CWTW	MARKING CROSSWALK TRANSVERSE 6-INCH LINE (WHITE)
MPS	MARKING PARKING STALL (WHITE)
MSDY4	MARKING LINE SAME DAY 4-INCH (DOUBLE YELLOW)
SLW18	MARKING STOP LINE 18-INCH (WHITE)
MSYM	MARKING SYMBOL (WHITE)

NOTES

ALL PARKING STALL LENGTHS ARE 22' UNLESS OTHERWISE DIMENSIONED.

FOLLOW SDDS FOR ALL OTHER PROJECT PAVEMENT MARKING.



PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PAVEMENT MARKING	SHEET 46	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 01

PLOT DATE : 4/22/2022 12:21 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

EPOXY	EPOXY
CWTW	MARKING CROSSWALK TRANSVERSE 6-INCH LINE (WHITE)
MPS	MARKING PARKING STALL (WHITE)
MSDY4	MARKING LINE SAME DAY 4-INCH (DOUBLE YELLOW)
SLW18	MARKING STOP LINE 18-INCH (WHITE)
MSYM	MARKING SYMBOL (WHITE)

NOTES

ALL PARKING STALL LENGTHS ARE 22' UNLESS OTHERWISE DIMENSIONED.

FOLLOW SDDS FOR ALL OTHER PROJECT PAVEMENT MARKING.

N

ALLEY

1ST ST

ALLEY

STH 77

SLW18 EPOXY

MPS EPOXY

MSDY4 EPOXY

MSDY4 EPOXY

+82 +92 +28 +94 +28 +50

114+00 115+00 116+00 +71 117+00 +40 118+00 119+00 120+00

24'

20' +22 20' +01

20' +50

MPS EPOXY

CWTW EPOXY

SLW18 EPOXY

+57 20' 20' +97

20'

POST POST POST POST POST POST

FLAG

GUY

FLAG

POST

POST

POST

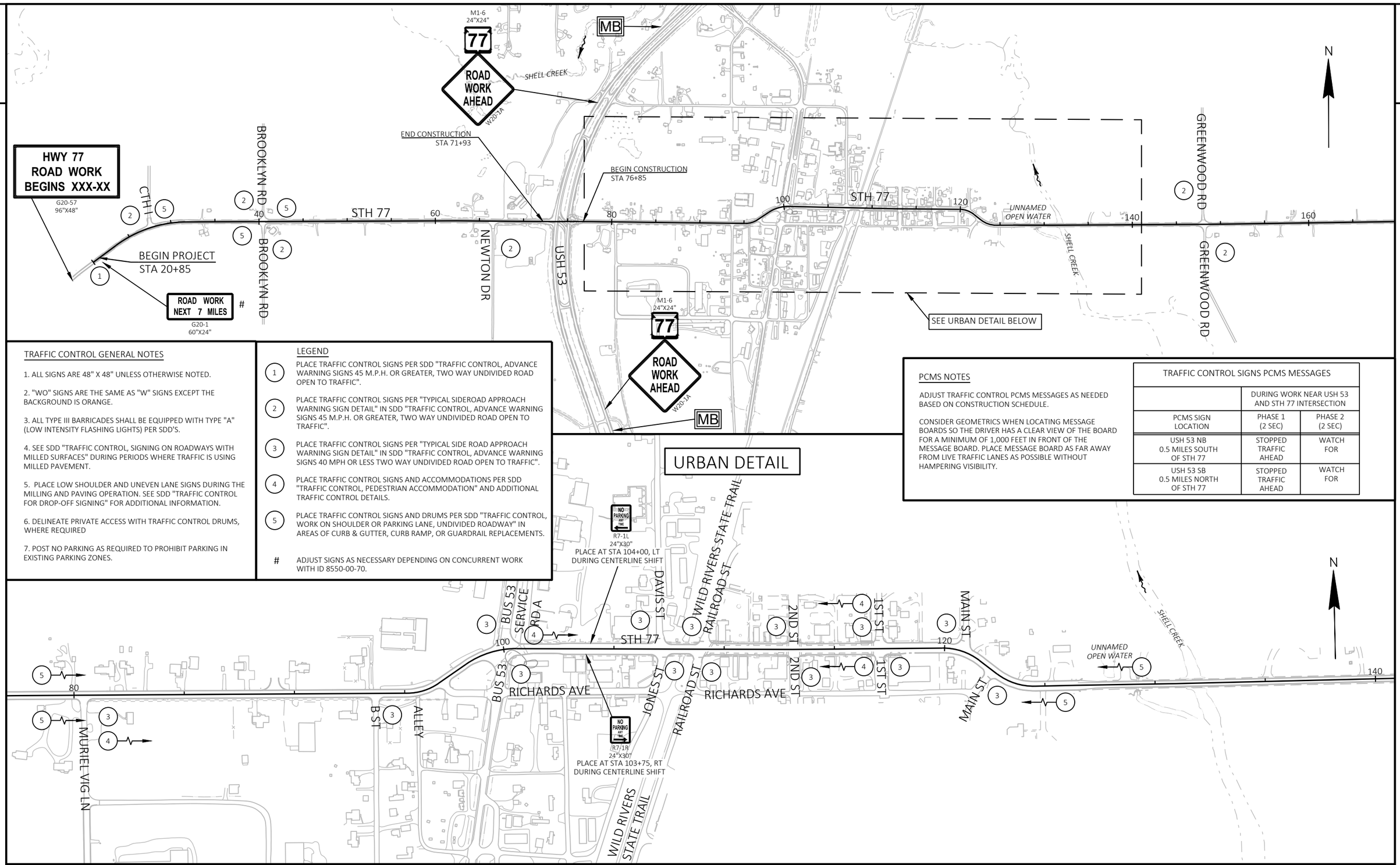
ALLEY

1ST ST

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PAVEMENT MARKING	SHEET 47	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 02

PLOT DATE : 4/22/2022 12:22 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT



TRAFFIC CONTROL GENERAL NOTES

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

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

3. ALL TYPE III BARRICADES SHALL BE EQUIPPED WITH TYPE "A" (LOW INTENSITY FLASHING LIGHTS) PER SDD'S.

4. SEE SDD "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES" DURING PERIODS WHERE TRAFFIC IS USING MILLED PAVEMENT.

5. PLACE LOW SHOULDER AND UNEVEN LANE SIGNS DURING THE MILLING AND PAVING OPERATION. SEE SDD "TRAFFIC CONTROL FOR DROP-OFF SIGNING" FOR ADDITIONAL INFORMATION.

6. DELINEATE PRIVATE ACCESS WITH TRAFFIC CONTROL DRUMS, WHERE REQUIRED

7. POST NO PARKING AS REQUIRED TO PROHIBIT PARKING IN EXISTING PARKING ZONES.

LEGEND

(1) PLACE TRAFFIC CONTROL SIGNS PER SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".

(2) PLACE TRAFFIC CONTROL SIGNS PER "TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL" IN SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".

(3) PLACE TRAFFIC CONTROL SIGNS PER "TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL" IN SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".

(4) PLACE TRAFFIC CONTROL SIGNS AND ACCOMMODATIONS PER SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" AND ADDITIONAL TRAFFIC CONTROL DETAILS.

(5) PLACE TRAFFIC CONTROL SIGNS AND DRUMS PER SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" IN AREAS OF CURB & GUTTER, CURB RAMP, OR GUARDRAIL REPLACEMENTS.

\# ADJUST SIGNS AS NECESSARY DEPENDING ON CONCURRENT WORK WITH ID 8550-00-70.

PCMS NOTES

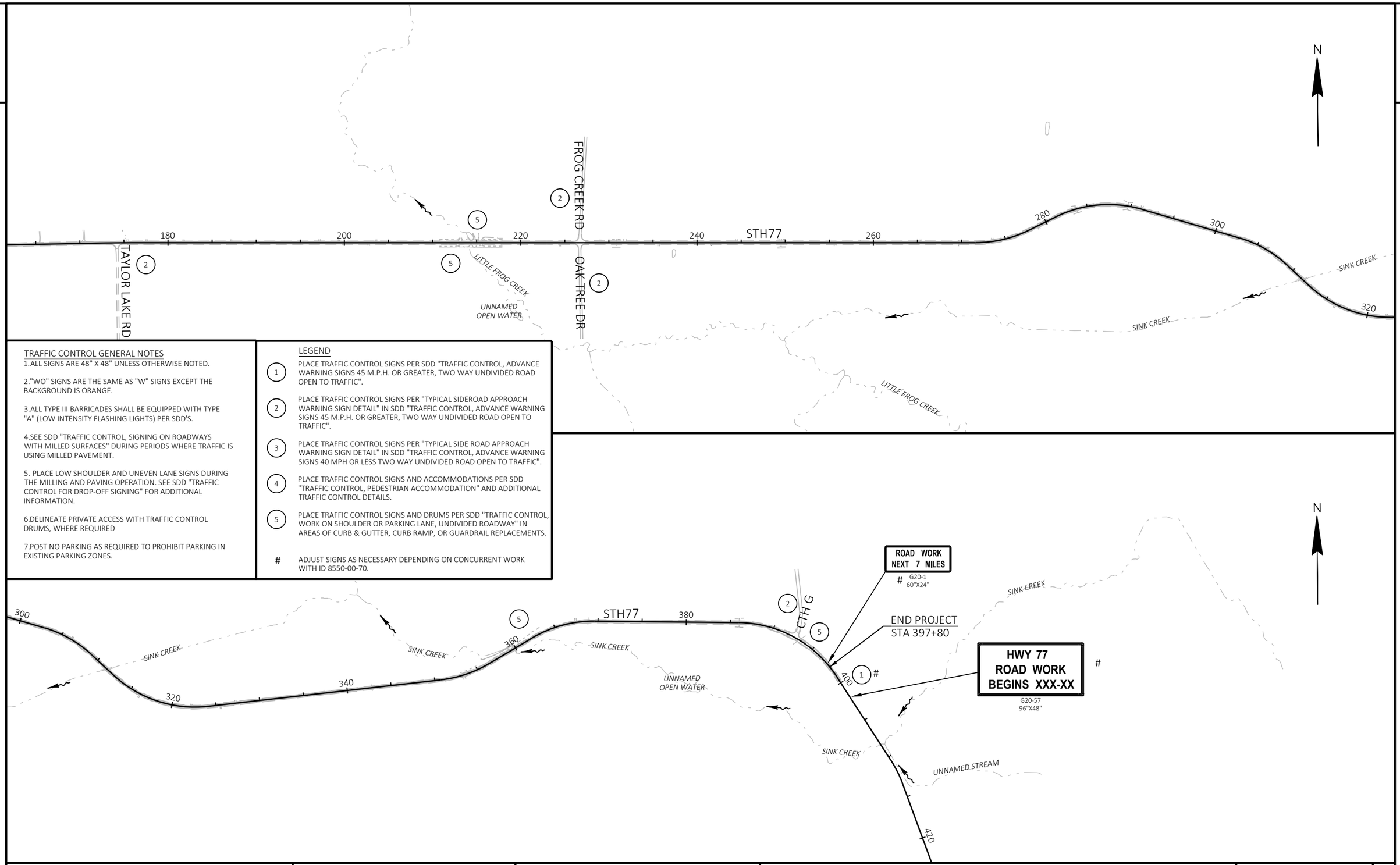
ADJUST TRAFFIC CONTROL PCMS MESSAGES AS NEEDED BASED ON CONSTRUCTION SCHEDULE.

CONSIDER GEOMETRICS WHEN LOCATING MESSAGE BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE BOARD FOR A MINIMUM OF 1,000 FEET IN FRONT OF THE MESSAGE BOARD. PLACE MESSAGE BOARD AS FAR AWAY FROM LIVE TRAFFIC LANES AS POSSIBLE WITHOUT HAMPERING VISIBILITY.

TRAFFIC CONTROL SIGNS PCMS MESSAGES

	DURING WORK NEAR USH 53 AND STH 77 INTERSECTION	
PCMS SIGN LOCATION	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)
USH 53 NB 0.5 MILES SOUTH OF STH 77	STOPPED TRAFFIC AHEAD	WATCH FOR
USH 53 SB 0.5 MILES NORTH OF STH 77	STOPPED TRAFFIC AHEAD	WATCH FOR

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	TRAFFIC CONTROL - OVERVIEW	SHEET 48	E



TRAFFIC CONTROL GENERAL NOTES

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

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

3.ALL TYPE III BARRICADES SHALL BE EQUIPPED WITH TYPE "A" (LOW INTENSITY FLASHING LIGHTS) PER SDD'S.

4.SEE SDD "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES" DURING PERIODS WHERE TRAFFIC IS USING MILLED PAVEMENT.

5. PLACE LOW SHOULDER AND UNEVEN LANE SIGNS DURING THE MILLING AND PAVING OPERATION. SEE SDD "TRAFFIC CONTROL FOR DROP-OFF SIGNING" FOR ADDITIONAL INFORMATION.

6.DELINEATE PRIVATE ACCESS WITH TRAFFIC CONTROL DRUMS, WHERE REQUIRED

7.POST NO PARKING AS REQUIRED TO PROHIBIT PARKING IN EXISTING PARKING ZONES.

LEGEND

(1) PLACE TRAFFIC CONTROL SIGNS PER SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".

(2) PLACE TRAFFIC CONTROL SIGNS PER "TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL" IN SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".

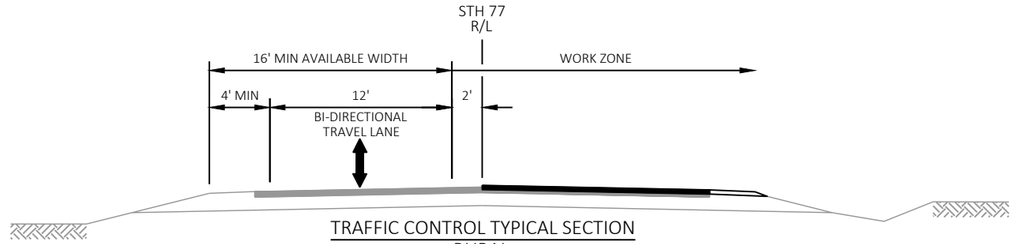
(3) PLACE TRAFFIC CONTROL SIGNS PER "TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL" IN SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".

(4) PLACE TRAFFIC CONTROL SIGNS AND ACCOMMODATIONS PER SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" AND ADDITIONAL TRAFFIC CONTROL DETAILS.

(5) PLACE TRAFFIC CONTROL SIGNS AND DRUMS PER SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" IN AREAS OF CURB & GUTTER, CURB RAMP, OR GUARDRAIL REPLACEMENTS.

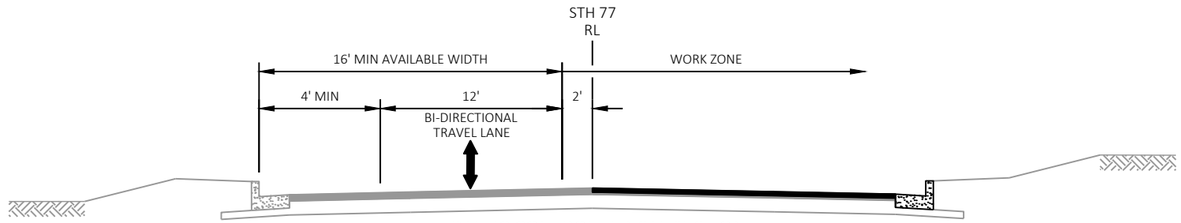
ADJUST SIGNS AS NECESSARY DEPENDING ON CONCURRENT WORK WITH ID 8550-00-70.

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	TRAFFIC CONTROL - OVERVIEW	SHEET 49	E



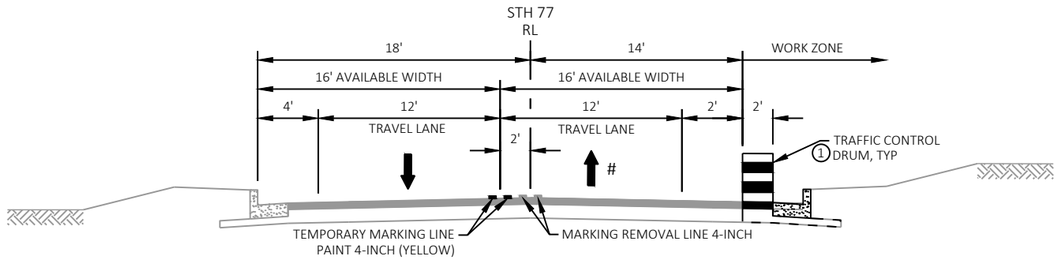
TRAFFIC CONTROL TYPICAL SECTION
RURAL

TRAFFIC SHOWN DURING WORKING HOURS FOR
RURAL MILL AND OVERLAY OPERATIONS
(WORK ZONE FOR STH 77 EB SHOWN, MIRROR
TYPICAL SECTION FOR STH 77 WB WORK ZONE)



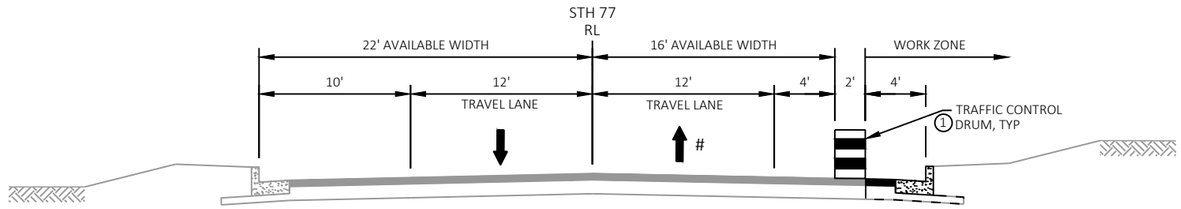
TRAFFIC CONTROL TYPICAL SECTION
URBAN

TRAFFIC SHOWN DURING WORKING HOURS FOR URBAN MILL AND
OVERLAY AND CURB & GUTTER REPLACEMENT OPERATIONS
(WORK ZONE FOR STH 77 EB SHOWN, MIRROR TYPICAL SECTION
FOR STH 77 WB WORK ZONE)



TRAFFIC CONTROL TYPICAL SECTION
URBAN

STA 76+30 - STA 104+00
TRAFFIC SHOWN DURING NON-WORKING HOURS FOR
URBAN CURB AND GUTTER REPLACEMENT OPERATIONS
(WORK ZONE FOR STH 77 EB SHOWN, MIRROR
TYPICAL SECTION FOR STH 77 WB WORK ZONE)



TRAFFIC CONTROL TYPICAL SECTION
URBAN

STA 104+00 - STA 126+57
TRAFFIC SHOWN DURING NON-WORKING HOURS FOR
URBAN CURB AND GUTTER REPLACEMENT OPERATIONS
(WORK ZONE FOR STH 77 EB SHOWN, MIRROR
TYPICAL SECTION FOR STH 77 WB WORK ZONE)

NOTES
SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" TO REDUCE TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC DURING WORKING HOURS.

REDUCE STH 77 TO ONE LANE OF BI-DIRECTIONAL TRAFFIC TO CONSTRUCT THE CURB & GUTTER AND CURB RAMP REPLACEMENTS.

SEE SDD "TRAFFIC CONTROL FOR DROP-OFF SIGNING" FOR REQUIRED SIGNING DURING PERIODS OF UNEVEN LANES.

THE WORK ZONE AS SHOWN INCLUDES WORKING ROOM AND BUFFER TO LIVE TRAFFIC.

COORDINATE TRAFFIC CONTROL DEVICES WITH TIED ID 8550-00-70.

(1) DRUM PLACEMENT SHOWN DURING NON-WORKING HOURS, SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR ADDITIONAL INFORMATION.

NOTES
OVERVIEW SHOWS ANTICIPATED STAGE FOR CURB RAMP COMPLETION.

DURING CURB AND GUTTER REPLACEMENTS FLUSH AGAINST EXISTING SIDEWALK TO REMAIN, CLOSE THE EXISTING SIDEWALK ON ONE SIDE OF THE ROADWAY ONE BLOCK AT A TIME IN ORDER TO MAINTAIN PEDESTRIAN CIRCULATION. DURING CURB RAMP REPLACEMENTS, FOLLOW THE PEDESTRIAN STAGING OUTLINED IN THE "SIDEWALK AND CURB RAMP STAGING" TABLE OR AS DIRECTED BY THE ENGINEER.

2

2

N

STH 77

80+00 82+00 84+00 86+00 88+00 90+00 92+00 94+00

MURIEL VIG LN

STAGE 1

B ST

STAGE 1

BUS 53

SERVICE RD A

DAVIS ST

RAILROAD ST

N

STAGE 2

STAGE 2

STAGE 2

STAGE 2

STH 77

100+00 102+00 104+00 106+00 108+00 110+00

98+00

96+00

BUS 53

STAGE 1

STAGE 1

STAGE 1

WILD RIVERS STATE TRAIL (WRST)

WRST DETOUR ROUTE (STAGE 1 AND 2)

RICHARDS AVE

JONES ST

RAILROAD ST

ALLEY

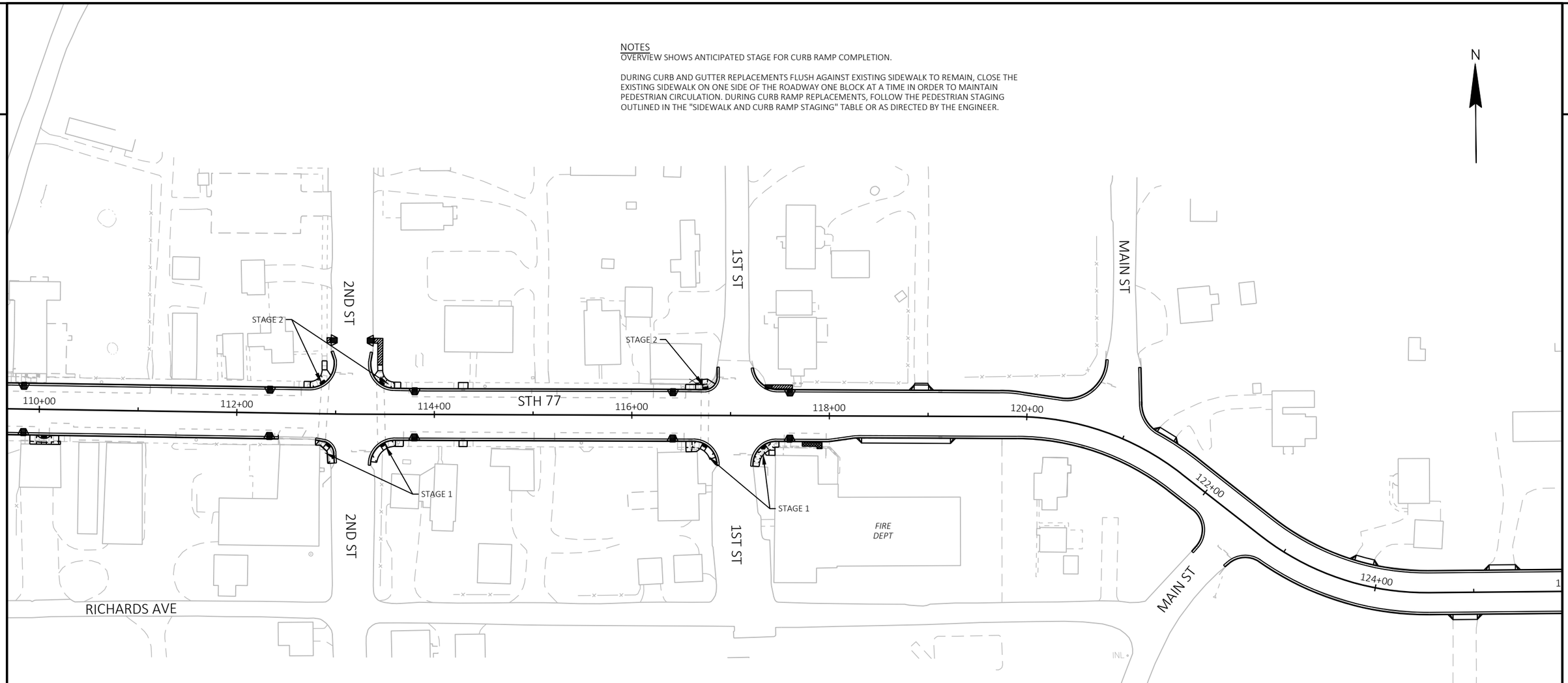
STAGE 1

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PEDESTRIAN STAGING - OVERVIEW AND WRST DETOUR	SHEET 51	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 01
PLOT DATE : 4/22/2022 12:23 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

NOTES
OVERVIEW SHOWS ANTICIPATED STAGE FOR CURB RAMP COMPLETION.

DURING CURB AND GUTTER REPLACEMENTS FLUSH AGAINST EXISTING SIDEWALK TO REMAIN, CLOSE THE EXISTING SIDEWALK ON ONE SIDE OF THE ROADWAY ONE BLOCK AT A TIME IN ORDER TO MAINTAIN PEDESTRIAN CIRCULATION. DURING CURB RAMP REPLACEMENTS, FOLLOW THE PEDESTRIAN STAGING OUTLINED IN THE "SIDEWALK AND CURB RAMP STAGING" TABLE OR AS DIRECTED BY THE ENGINEER.



SIDEWALK AND CURB RAMP STAGING			
RAMP LOCATION	STAGE	SIDEWALK CLOSED	AVAILABLE PEDESTRIAN ROUTE INFORMATION
WEST LIMITS ROAD AND RICHARDS AVE (EXISTING SIDEWALK ON SOUTH SIDE ONLY)			
ALL INTERSECTIONS FROM WEST LIMITS RD TO PUBLIC ALLEY	1	NO	MAINTAIN A TEMPORARAY PEDESTRIAN ROUTE AROUND THE RAMP(S) AS SHOWN ON THE PEDESTRIAN STAGING DETAILS.
END OF PEDESTRIAN ROUTE IN PARKING LOT AT RICHARDS AVE	1	NO	MAINTAIN A TEMPORARAY PEDESTRIAN ROUTE AROUND THE RAMP AS SHOWN ON THE PEDESTRIAN STAGING DETAILS.
SERVICE ROAD A AND 1ST ST (EXISTING SIDEWALK ON BOTH SIDES)			
SOUTH SIDE OF STH 77: JONES ST TO 1ST ST	1	CLOSE CURB RAMPS ON SOUTH SIDE OF STH 77	MAINTAIN PEDESTRIAN TRAFFIC ON THE NORTH SIDE OF STH 77 AND ACROSS STH 77 AT TEMPORARY PEDESTRIAN CROSSINGS SHOWN ON THE PEDESTRIAN STAGING DETAILS.
NE RAMP AT SERVICE RD	2	CLOSE RAMP. END OF ROUTE	CROSS AT DAVIS ST/JONES ST
NORTH SIDE OF STH 77 DAVIS ST TO 1ST ST	2	CLOSE CURB RAMPS ON NORTH SIDE OF STH 77	MAINTAIN PEDESTRIAN TRAFFIC ON THE SOUTH SIDE OF STH 77 AND ACROSS STH 77 AT TEMPORARY PEDESTRIAN CROSSINGS SHOWN ON THE PEDESTRIAN STAGING DETAILS.

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PEDESTRIAN STAGING - OVERVIEW AND WRST DETOUR	SHEET 52	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 02
PLOT DATE : 4/22/2022 12:23 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

2

LEGEND

- OR — TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- TEMPORARY ACCESS RAMP
- TEMPORARY PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN

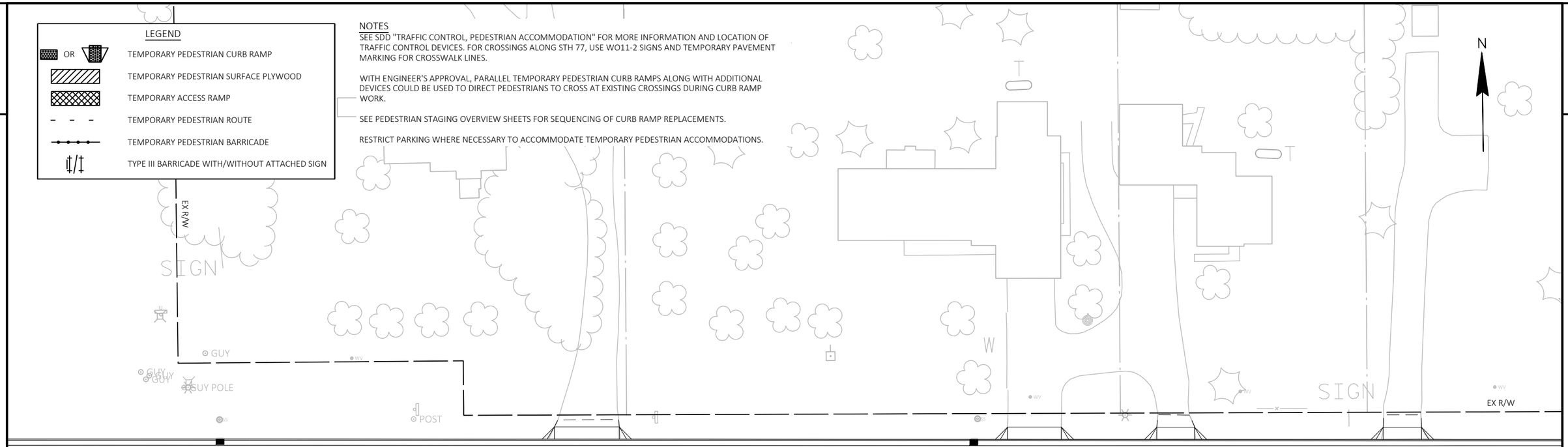
NOTES

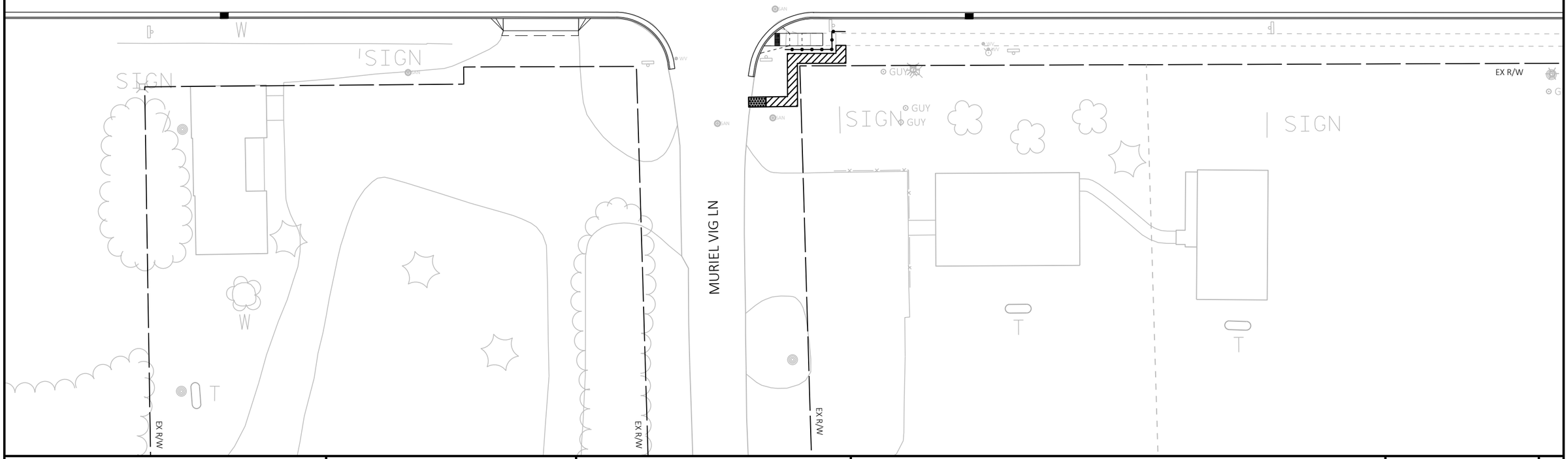
SEE SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR MORE INFORMATION AND LOCATION OF TRAFFIC CONTROL DEVICES. FOR CROSSINGS ALONG STH 77, USE WO11-2 SIGNS AND TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

WITH ENGINEER'S APPROVAL, PARALLEL TEMPORARY PEDESTRIAN CURB RAMPS ALONG WITH ADDITIONAL DEVICES COULD BE USED TO DIRECT PEDESTRIANS TO CROSS AT EXISTING CROSSINGS DURING CURB RAMP WORK.

SEE PEDESTRIAN STAGING OVERVIEW SHEETS FOR SEQUENCING OF CURB RAMP REPLACEMENTS.

RESTRICT PARKING WHERE NECESSARY TO ACCOMMODATE TEMPORARY PEDESTRIAN ACCOMMODATIONS.





PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PEDESTRIAN STAGING - DETAIL	SHEET 53	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\025004-TC.DWG
LAYOUT NAME - 01

PLOT DATE : 4/22/2022 12:24 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

OR TEMPORARY PEDESTRIAN CURB RAMP

TEMPORARY PEDESTRIAN SURFACE PLYWOOD

TEMPORARY ACCESS RAMP

TEMPORARY PEDESTRIAN ROUTE

TEMPORARY PEDESTRIAN BARRICADE

TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN

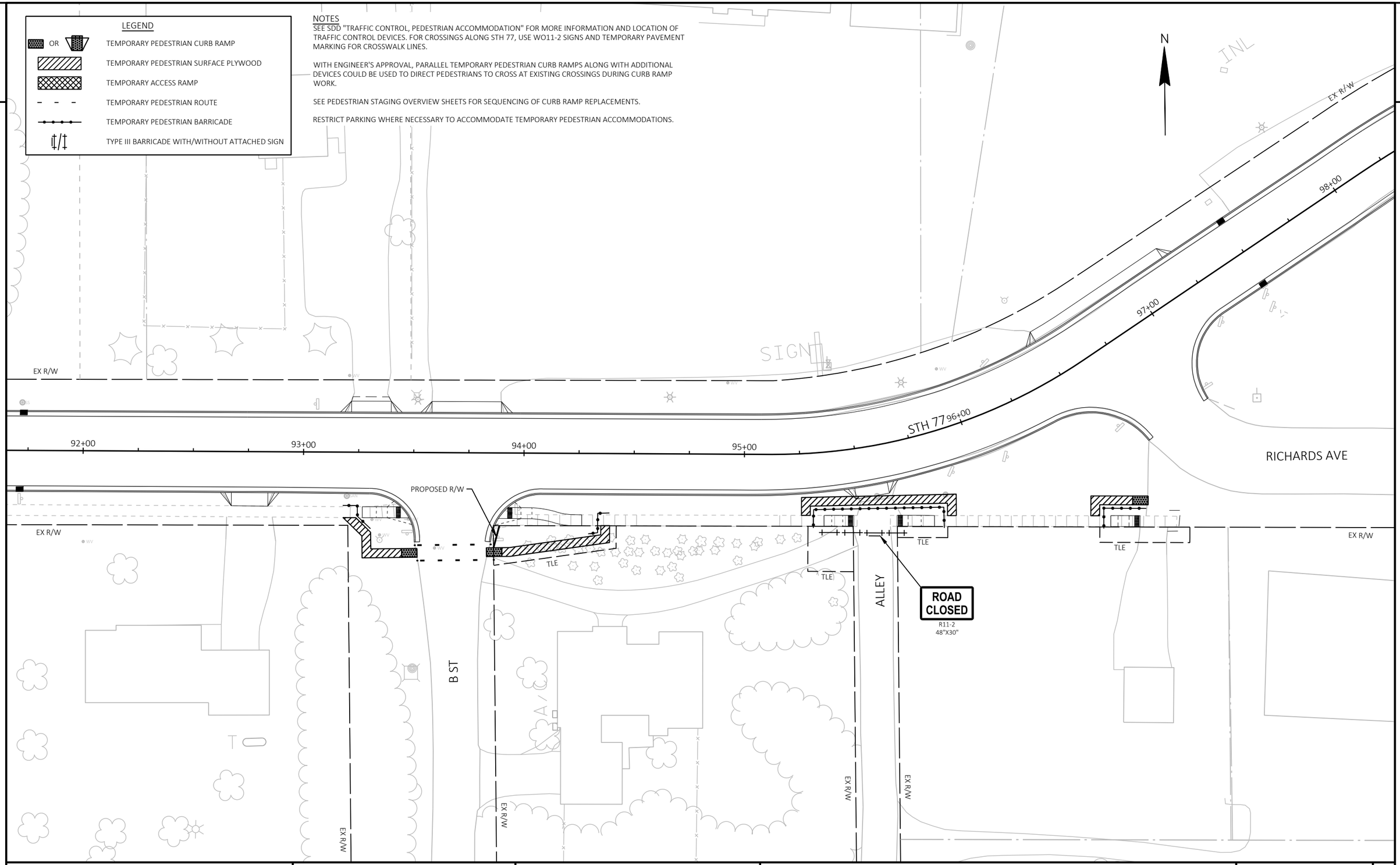
NOTES

SEE SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR MORE INFORMATION AND LOCATION OF TRAFFIC CONTROL DEVICES. FOR CROSSINGS ALONG STH 77, USE WO11-2 SIGNS AND TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

WITH ENGINEER'S APPROVAL, PARALLEL TEMPORARY PEDESTRIAN CURB RAMPS ALONG WITH ADDITIONAL DEVICES COULD BE USED TO DIRECT PEDESTRIANS TO CROSS AT EXISTING CROSSINGS DURING CURB RAMP WORK.

SEE PEDESTRIAN STAGING OVERVIEW SHEETS FOR SEQUENCING OF CURB RAMP REPLACEMENTS.

RESTRICT PARKING WHERE NECESSARY TO ACCOMMODATE TEMPORARY PEDESTRIAN ACCOMMODATIONS.



PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PEDESTRIAN STAGING - DETAIL	SHEET 54	E

LEGEND

- OR — TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- TEMPORARY ACCESS RAMP
- TEMPORARY PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN

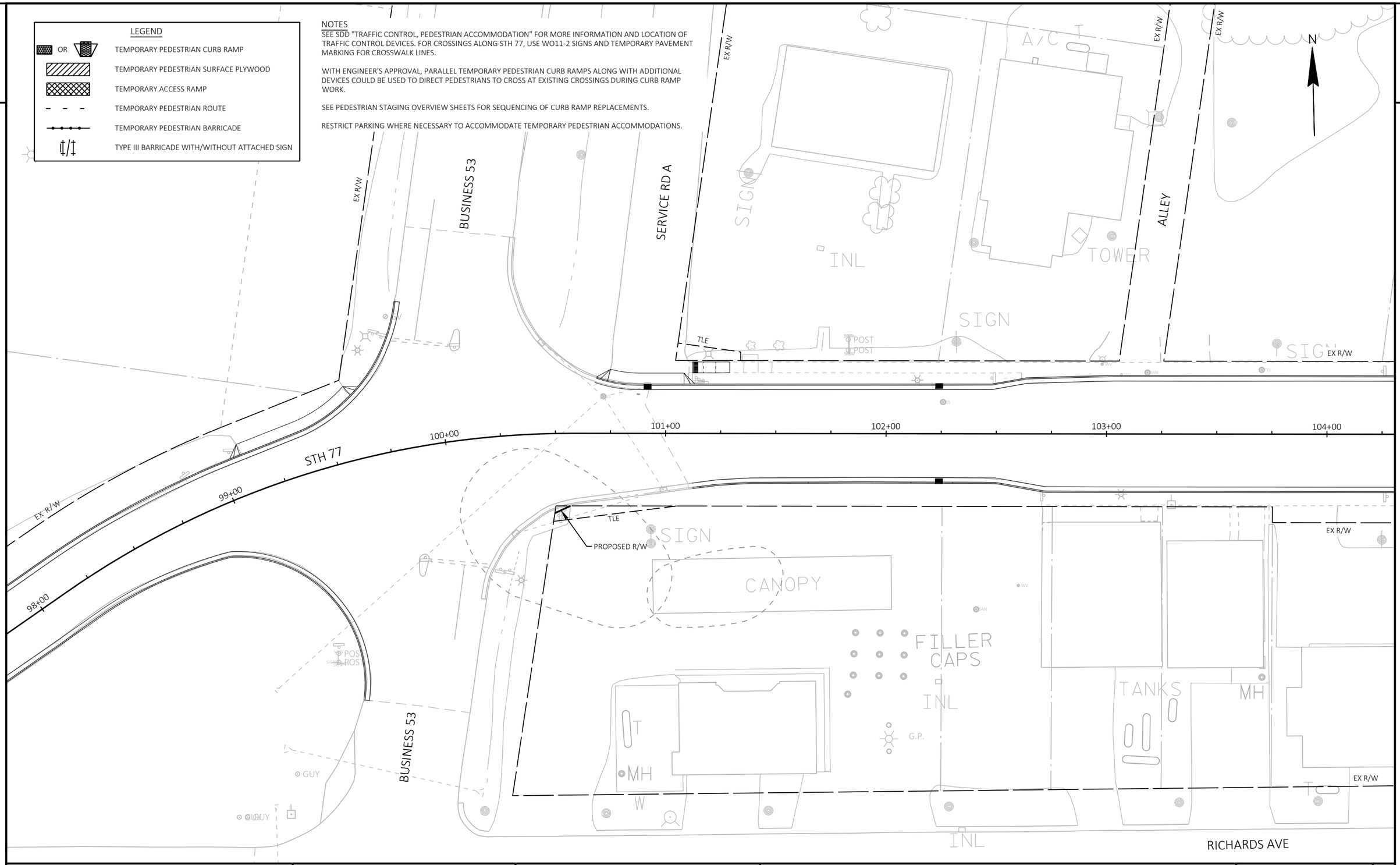
NOTES

SEE SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR MORE INFORMATION AND LOCATION OF TRAFFIC CONTROL DEVICES. FOR CROSSINGS ALONG STH 77, USE WO11-2 SIGNS AND TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

WITH ENGINEER'S APPROVAL, PARALLEL TEMPORARY PEDESTRIAN CURB RAMPS ALONG WITH ADDITIONAL DEVICES COULD BE USED TO DIRECT PEDESTRIANS TO CROSS AT EXISTING CROSSINGS DURING CURB RAMP WORK.

SEE PEDESTRIAN STAGING OVERVIEW SHEETS FOR SEQUENCING OF CURB RAMP REPLACEMENTS.

RESTRICT PARKING WHERE NECESSARY TO ACCOMMODATE TEMPORARY PEDESTRIAN ACCOMMODATIONS.



PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PEDESTRIAN STAGING - DETAIL	SHEET 55	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\025004-TC.DWG
LAYOUT NAME - 03

PLOT DATE : 4/22/2022 12:25 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- OR — TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- TEMPORARY ACCESS RAMP
- TEMPORARY PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN

NOTES

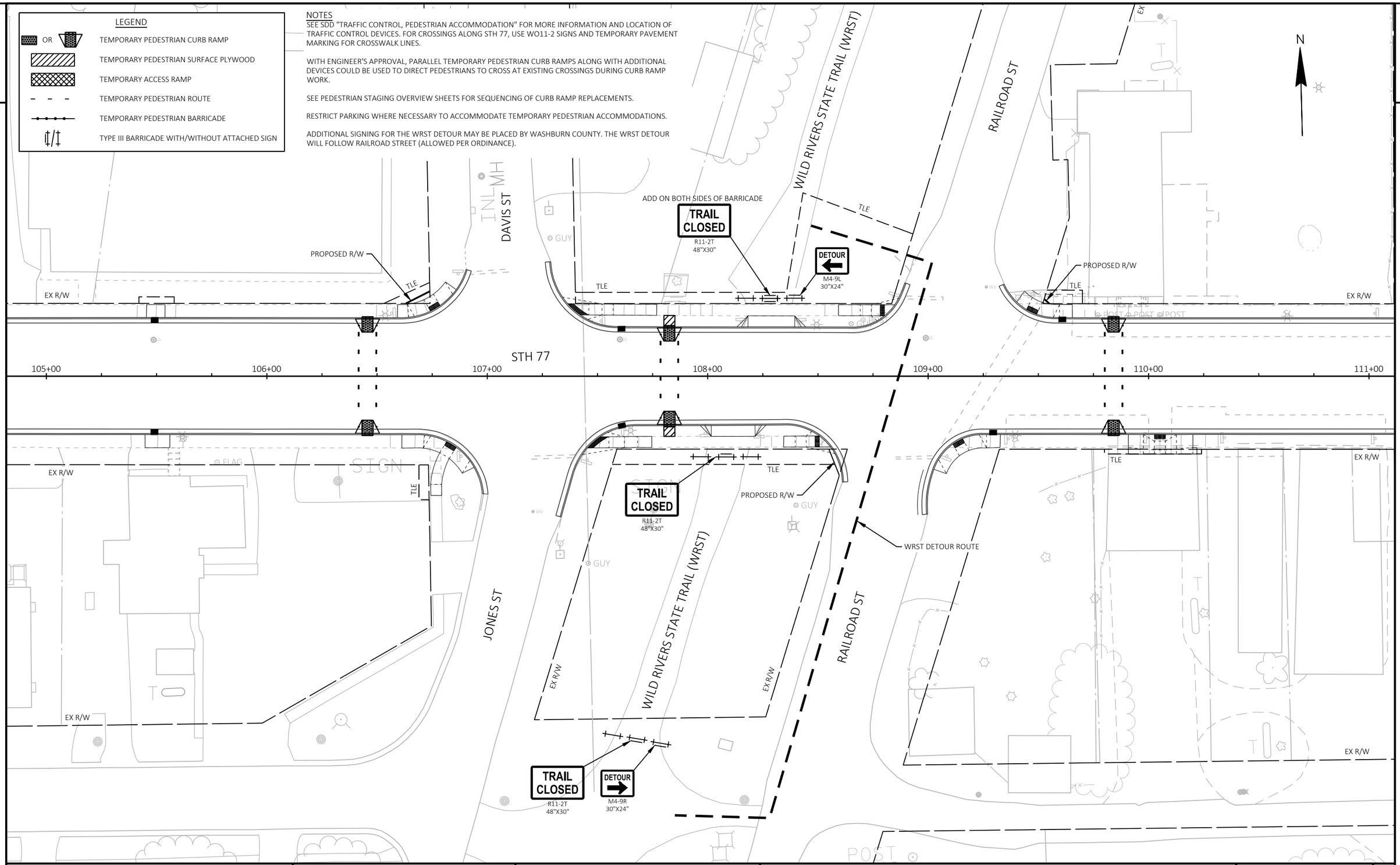
SEE SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR MORE INFORMATION AND LOCATION OF TRAFFIC CONTROL DEVICES. FOR CROSSINGS ALONG STH 77, USE W011-2 SIGNS AND TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

WITH ENGINEER'S APPROVAL, PARALLEL TEMPORARY PEDESTRIAN CURB RAMPS ALONG WITH ADDITIONAL DEVICES COULD BE USED TO DIRECT PEDESTRIANS TO CROSS AT EXISTING CROSSINGS DURING CURB RAMP WORK.

SEE PEDESTRIAN STAGING OVERVIEW SHEETS FOR SEQUENCING OF CURB RAMP REPLACEMENTS.

RESTRICT PARKING WHERE NECESSARY TO ACCOMMODATE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

ADDITIONAL SIGNING FOR THE WRST DETOUR MAY BE PLACED BY WASHBURN COUNTY. THE WRST DETOUR WILL FOLLOW RAILROAD STREET (ALLOWED PER ORDINANCE).



PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PEDESTRIAN STAGING - DETAIL & WRST DETOUR	SHEET 56	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\025004-TC.DWG
LAYOUT NAME - 04

PLOT DATE : 4/22/2022 12:25 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

LEGEND

- OR — TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- TEMPORARY ACCESS RAMP
- TEMPORARY PEDESTRIAN ROUTE
- TEMPORARY PEDESTRIAN BARRICADE
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN

NOTES

SEE SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR MORE INFORMATION AND LOCATION OF TRAFFIC CONTROL DEVICES. FOR CROSSINGS ALONG STH 77, USE WO11-2 SIGNS AND TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

WITH ENGINEER'S APPROVAL, PARALLEL TEMPORARY PEDESTRIAN CURB RAMPS ALONG WITH ADDITIONAL DEVICES COULD BE USED TO DIRECT PEDESTRIANS TO CROSS AT EXISTING CROSSINGS DURING CURB RAMP WORK.

SEE PEDESTRIAN STAGING OVERVIEW SHEETS FOR SEQUENCING OF CURB RAMP REPLACEMENTS.

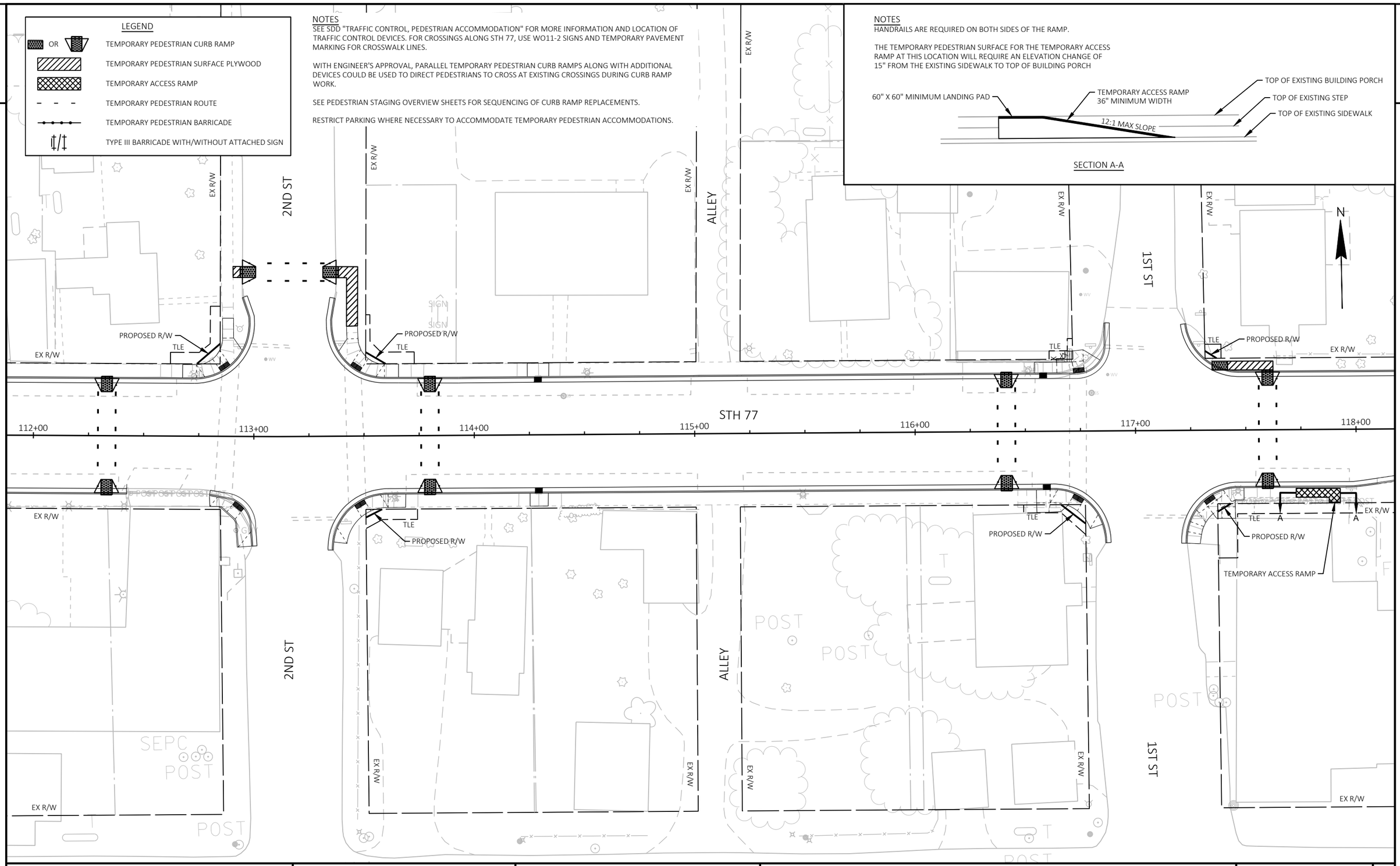
RESTRICT PARKING WHERE NECESSARY TO ACCOMMODATE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

NOTES

HANDRAILS ARE REQUIRED ON BOTH SIDES OF THE RAMP.

THE TEMPORARY PEDESTRIAN SURFACE FOR THE TEMPORARY ACCESS RAMP AT THIS LOCATION WILL REQUIRE AN ELEVATION CHANGE OF 15" FROM THE EXISTING SIDEWALK TO TOP OF BUILDING PORCH

SECTION A-A



PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PEDESTRIAN STAGING - DETAIL	SHEET 57	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\025004-TC.DWG
LAYOUT NAME - 05
PLOT DATE : 4/22/2022 12:25 PM
PLOT BY : NICK MENNINGA
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

8550-02-72

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	2.000	2.000
0004	201.0205	Grubbing	STA	2.000	2.000
0006	204.0100	Removing Concrete Pavement	SY	94.000	94.000
0008	204.0110	Removing Asphaltic Surface	SY	2,975.000	2,975.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	210.000	210.000
0012	204.0120	Removing Asphaltic Surface Milling	SY	139,430.000	139,430.000
0014	204.0150	Removing Curb & Gutter	LF	10,340.000	10,340.000
0016	204.0155	Removing Concrete Sidewalk	SY	400.000	400.000
0018	204.0165	Removing Guardrail	LF	648.000	648.000
0020	204.0180	Removing Delineators and Markers	EACH	34.000	34.000
0022	204.0185	Removing Masonry	CY	2.000	2.000
0028	211.0100	Prepare Foundation for Asphaltic Paving (project) 02. 8550-02-72	LS	1.000	1.000
0030	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	15.000	15.000
0034	213.0100	Finishing Roadway (project) 02. 8550-02-72	EACH	1.000	1.000
0036	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,265.000	2,265.000
0038	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	645.000	645.000
0040	416.0160	Concrete Driveway 6-Inch	SY	345.000	345.000
0042	416.0260	Concrete Driveway HES 6-Inch	SY	170.000	170.000
0044	455.0605	Tack Coat	GAL	16,800.000	16,800.000
0046	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	0.500	0.500
0048	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000	1.000
0050	460.2005	Incentive Density PWL HMA Pavement	DOL	15,580.000	15,580.000
0052	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	18,620.000	18,620.000
0054	460.2010	Incentive Air Voids HMA Pavement	DOL	25,440.000	25,440.000
0056	460.6645	HMA Pavement 5 MT 58-34 V	TON	25,440.000	25,440.000
0060	460.9000.S	Material Transfer Vehicle (project) 02. 8550-02-72	EACH	1.000	1.000
0062	465.0110	Asphaltic Surface Patching	TON	920.000	920.000
0064	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	50.000	50.000
0066	465.0315	Asphaltic Flumes	SY	50.000	50.000
0070	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	29,040.000	29,040.000
0072	521.1503	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 4 to 1	EACH	1.000	1.000
0074	521.1518	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 6 to 1	EACH	1.000	1.000
0076	521.1524	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 24-Inch 6 to 1	EACH	4.000	4.000
0080	522.0418	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	52.000	52.000
0082	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	74.000	74.000
0086	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	9,640.000	9,640.000
0088	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	665.000	665.000
0090	602.0410	Concrete Sidewalk 5-Inch	SF	4,125.000	4,125.000
0092	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	210.000	210.000
0094	602.0615	Curb Ramp Detectable Warning Field Radial Natural Patina	SF	32.000	32.000
0096	602.1500	Concrete Steps	SF	25.000	25.000
0100	611.8110	Adjusting Manhole Covers	EACH	10.000	10.000
0102	611.8115	Adjusting Inlet Covers	EACH	34.000	34.000
0106	614.0010	Barrier System Grading Shaping Finishing	EACH	3.000	3.000
0108	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	25.000	25.000
0110	614.2300	MGS Guardrail 3	LF	565.600	565.600
0112	614.2330	MGS Guardrail 3 K	LF	50.000	50.000
0114	614.2340	MGS Guardrail 3 L	LF	225.000	225.000
0116	614.2350	MGS Guardrail Short Radius	LF	12.500	12.500

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Line	Item	Item Description	Unit	Total	Qty
0120	614.2610	MGS Guardrail Terminal EAT	EACH	5.000	5.000
0122	614.2630	MGS Guardrail Short Radius Terminal	EACH	1.000	1.000
0126	618.0100	Maintenance And Repair of Haul Roads (project) 02. 8550-02-72	EACH	1.000	1.000
0128	619.1000	Mobilization	EACH	0.600	0.600
0130	621.0100	Landmark Reference Monuments	EACH	45.000	45.000
0132	624.0100	Water	MGAL	60.000	60.000
0134	625.0100	Topsoil	SY	2,820.000	2,820.000
0136	628.1104	Erosion Bales	EACH	50.000	50.000
0138	628.1504	Silt Fence	LF	1,700.000	1,700.000
0140	628.1520	Silt Fence Maintenance	LF	1,700.000	1,700.000
0142	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0144	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0146	628.2004	Erosion Mat Class I Type B	SY	470.000	470.000
0148	628.2006	Erosion Mat Urban Class I Type A	SY	2,350.000	2,350.000
0150	628.7015	Inlet Protection Type C	EACH	37.000	37.000
0152	628.7504	Temporary Ditch Checks	LF	125.000	125.000
0154	628.7555	Culvert Pipe Checks	EACH	20.000	20.000
0156	629.0210	Fertilizer Type B	CWT	2.000	2.000
0158	630.0130	Seeding Mixture No. 30	LB	10.000	10.000
0160	630.0140	Seeding Mixture No. 40	LB	45.000	45.000
0162	630.0500	Seed Water	MGAL	65.000	65.000
0164	633.5200	Markers Culvert End	EACH	34.000	34.000
0166	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	3.000	3.000
0168	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	7.000	7.000
0170	637.2230	Signs Type II Reflective F	SF	28.250	28.250
0172	638.2102	Moving Signs Type II	EACH	57.000	57.000
0174	638.2602	Removing Signs Type II	EACH	7.000	7.000
0176	638.3000	Removing Small Sign Supports	EACH	7.000	7.000
0178	638.4000	Moving Small Sign Supports	EACH	57.000	57.000
0180	642.5001	Field Office Type B	EACH	0.600	0.600
0182	643.0300	Traffic Control Drums	DAY	5,320.000	5,320.000
0184	643.0410	Traffic Control Barricades Type II	DAY	1,080.000	1,080.000
0186	643.0420	Traffic Control Barricades Type III	DAY	540.000	540.000
0188	643.0705	Traffic Control Warning Lights Type A	DAY	1,620.000	1,620.000
0190	643.0900	Traffic Control Signs	DAY	6,548.000	6,548.000
0192	643.1000	Traffic Control Signs Fixed Message	SF	64.000	64.000
0194	643.1050	Traffic Control Signs PCMS	DAY	20.000	20.000
0196	643.5000	Traffic Control	EACH	0.600	0.600
0198	644.1420	Temporary Pedestrian Surface Plywood	SF	1,300.000	1,300.000
0200	644.1601	Temporary Pedestrian Curb Ramp	DAY	260.000	260.000
0202	644.1810	Temporary Pedestrian Barricade	LF	180.000	180.000
0206	646.1020	Marking Line Epoxy 4-Inch	LF	70,195.000	70,195.000
0208	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	63,660.000	63,660.000
0210	646.3020	Marking Line Epoxy 8-Inch	LF	771.000	771.000
0212	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	6,640.000	6,640.000
0214	646.5220	Marking Symbol Epoxy	EACH	1.000	1.000
0216	646.6120	Marking Stop Line Epoxy 18-Inch	LF	235.000	235.000
0218	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	565.000	565.000
0220	646.8320	Marking Parking Stall Epoxy	LF	255.000	255.000

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Line	Item	Item Description	Unit	Total	Qty
0222	646.9000	Marking Removal Line 4-Inch	LF	2,840.000	2,840.000
0224	649.0105	Temporary Marking Line Paint 4-Inch	LF	95,300.000	95,300.000
0226	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	41,230.000	41,230.000
0228	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	10,640.000	10,640.000
0232	650.8000	Construction Staking Resurfacing Reference	LF	37,203.000	37,203.000
0234	650.9000	Construction Staking Curb Ramps	EACH	23.000	23.000
0238	650.9910	Construction Staking Supplemental Control (project) 02. 8550-02-72	LS	1.000	1.000
0240	690.0150	Sawing Asphalt	LF	11,590.000	11,590.000
0242	690.0250	Sawing Concrete	LF	440.000	440.000
0244	740.0440	Incentive IRI Ride	DOL	28,200.000	28,200.000
0250	SPV.0060	Special 01. Ditch Cleaning	EACH	1.000	1.000
0252	SPV.0060	Special 02. Adjusting Water Valve Boxes	EACH	6.000	6.000
0254	SPV.0060	Special 03. Adjusting Sanitary Manhole Covers	EACH	5.000	5.000
0256	SPV.0060	Special 04. Joint Ties for Concrete Pipes	EACH	2.000	2.000
0258	SPV.0060	Special 05. Temporary Access Ramp	EACH	1.000	1.000
0260	SPV.0090	Special 01. Concrete Curb & Gutter Cure and Seal Treatment	LF	10,640.000	10,640.000
0262	SPV.0090	Special 02. Concrete Curb & Gutter 30-Inch HES Type D	LF	335.000	335.000
0264	SPV.0165	Special 01. Concrete Sidewalk Cure and Seal Treatment	SF	4,125.000	4,125.000
0266	SPV.0180	Special 01. Concrete Driveway Cure and Seal Treatment	SY	515.000	515.000

3

CLEARING AND GRUBBING ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010						
	214+82	-	215+27	RT	2	2
TOTALS					2	2

REMOVAL ITEMS

CATEGORY	STATION	TO	STATION	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY	204.0180 REMOVING DELINEATORS AND MARKERS EACH	204.0185 REMOVING MASONRY CY
0010											
	20+85	-	71+93	--	119	45	20,290	534	--	4	--
	76+85	-	126+57	--	--	131	23,560	--	--	2	--
	126+57	-	228+00	--	--	26	35,680	--	--	4	--
	228+00	-	397+80	--	29	8	58,370	131	--	24	--
CATEGORY 0010 TOTALS				--	148	210	137,900	665	--	34	--
0020											
	76+85	-	126+57	52	1,328	--	--	3,958	375	--	2
CATEGORY 0020 TOTALS				52	1,328	--	--	3,958	375	--	2
0030											
	76+85	-	126+57	42	1,455	--	--	5,717	25	--	--
CATEGORY 0030 TOTALS				42	1,455	--	--	5,717	25	--	--
0040											
	76+85	-	126+57	--	44	--	--	--	--	--	--
CATEGORY 0040 TOTALS				--	44	--	--	--	--	--	--
0050											
	76+85	-	126+57	--	--	--	1,530	--	--	--	--
CATEGORY 0050 TOTALS				--	--	--	1,530	--	--	--	--
TOTALS				94	2,975	210	139,430	10,340	400	34	2

3

BASE AGGREGATE ITEMS

CATEGORY	STATION	TO	STATION	305.0110* BASE AGGREGATE DENSE 3/4-INCH TON	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON
0010					
	20+85	-	71+93	293	--
	76+85	-	126+57	--	161
	126+57	-	228+00	599	192
	228+00	-	397+80	900	--
CATEGORY 0010 TOTALS				1,792	353
0020					
	76+85	-	126+57	167	--
CATEGORY 0020 TOTALS				167	--
0030					
	76+85	-	126+57	241	--
CATEGORY 0030 TOTALS				241	--
0040					
	76+85	-	126+57	--	27
CATEGORY 0040 TOTALS				--	27
TOTALS				2,200	380

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

DRIVEWAYS

CATEGORY	STATION	TO	STATION	305.0110* BASE AGGREGATE DENSE 3/4-INCH TON	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON	416.0160 CONCRETE DRIVEWAY 6-INCH SY	416.0260 CONCRETE DRIVEWAY HES 6-INCH SY	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	SPV.0180.01 CONCRETE DRIVEWAY CURE AND SEAL TREATMENT SY
0010									
	126+57	-	397+80	50	--	--	--	--	--
CATEGORY 0010 TOTALS				50	--	--	--	--	--
0020									
	76+85	-	126+57	5	193	222	110	44	332
CATEGORY 0020 TOTALS				5	193	222	110	44	332
0030									
	76+85	-	126+57	10	72	123	60	6	183
CATEGORY 0030 TOTALS				10	72	123	60	6	183
TOTALS				65	265	345	170	50	515

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

ASPHALTIC ITEMS

CATEGORY	STATION	TO	STATION	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	455.0605 TACK COAT GAL	460.0105.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH	460.6645 HMA PAVEMENT 5 MT 58-34 V TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0315 ASPHALTIC FLUMES SY	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL LF	COMMENTS
0010												RUMBLE STRIPS END AT STA 64+00
	20+85	-	71+93	--	2,440	--	--	3,690	42	13	3,515	
	76+85	-	126+57	--	2,830	--	--	4,290	--	24	--	
	126+57	-	228+00	7	4,300	--	--	6,510	--	--	8,945	
	228+00	-	397+80	8	7,040	--	--	10,670	10	13	16,580	
	UNDISTRIBUTED			--	--	0.5	1	--	100	--	--	
CATEGORY 0010 TOTALS				15	16,610	0.5	1	25,160	152	50	29,040	
0020												
	76+85	-	126+57	--	--	--	--	--	308	--	--	
CATEGORY 0020 TOTALS				--	--	--	--	--	308	--	--	
0030												
	76+85	-	126+57	--	--	--	--	--	448	--	--	
CATEGORY 0030 TOTALS				--	--	--	--	--	448	--	--	
0040												
	76+85	-	126+57	--	--	--	--	--	12	--	--	
CATEGORY 0040 TOTALS				--	--	--	--	--	12	--	--	
0050												
	76+85	-	126+57	--	190	--	--	280	--	--	--	
CATEGORY 0050 TOTALS				--	190	--	--	280	--	--	--	
TOTALS				15	16,800	0.5	1	25,440	920	50	29,040	

NOTES:
UNDISTRIBUTED ASPHALT SURFACE PATCHING QUANTITY USED FOR ANY REPAIRS REQUIRED AFTER MILLING IS COMPLETE.
HMA PWL TEST STRIP VOLUMETRICS AND HMA PWL TEST STRIP DENSITY ITEMS ARE SPLIT BETWEEN ID 8550-0070 AND ID 8550-02-72
FOR A TOTAL OF 1 TEST STRIP VOLUMETRICS AND 2 TEST STRIP DENSITIES ACROSS THE ENTIRE CONTRACT.

HMA ACCEPTANCE TABLE

LOCATION	STA	TO	STA	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 LANE	20+85	-	71+93	UPPER LAYER	5 MT 58-34V	5 MT 58-34V	7,189	1 1/2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
	76+85	-	397+80							
12 FOOT DRIVING LANE	20+85	-	71+93	LOWER LAYER	MILLED EXISTING HMA SURFACE	5 MT 58-34V	8,388	1 3/4"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
	76+85	-	397+80							
SHOULDERS, SIDEROADS, BEAMGUARD WIDENINGS, BYPASS LANES, TURN LANES, PARKING LANES	VARIOUS			UPPER LAYER	5 MT 58-34V	5 MT 58-34V	4,552	1 1/2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
SHOULDERS, SIDEROADS, BEAMGUARD WIDENINGS, BYPASS LANES, TURN LANES, PARKING LANES	VARIOUS			LOWER LAYER	MILLED EXISTING HMA SURFACE	5 MT 58-34V	5,311	1 3/4"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
CURB & GUTTER REPLACEMENTS	VARIOUS			PATCHING AFTER REPLACEMENTS	BASE AGGREGATE	ASPHALTIC SURFACE PATCHING	808	VARIES	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION
UTILITY ADJUSTMENTS	VARIOUS			PATCHING AFTER ADJUSTMENT	BASE AGGREGATE	ASPHALTIC SURFACE PATCHING	12	VARIES	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION
VARIOUS	VARIOUS			REPAIRS AFTER MILLING	MILLED EXISTING HMA SURFACE	ASPHALTIC SURFACE PATCHING	100	VARIES	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION

CONCRETE CURB & GUTTER

CATEGORY	STATION	TO	STATION	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	SPV.0090.02 CONCRETE CURB & GUTTER 30-INCH HES TYPE D LF	SPV.0090.01 CONCRETE CURB & GUTTER CURE AND SEAL TREATMENT LF
0010							
	20+85	-	71+93	--	534	--	534
	126+57	-	397+80	--	131	--	131
CATEGORY 0010 TOTALS				--	665	--	665
0020							
	76+85	-	126+57	4,080	--	202	4,282
CATEGORY 0020 TOTALS				4,080	--	202	4,282
0030							
	76+85	-	126+57	5,560	--	133	5,693
CATEGORY 0030 TOTALS				5,560	--	133	5,693
TOTALS				9,640	665	335	10,640

CONCRETE SIDEWALK

CATEGORY	STATION	TO	STATION	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.1500 CONCRETE STEPS SF	SPV.0165.01 CONCRETE SIDEWALK CURE AND SEAL TREATMENT SF
0010						
	76+85	-	126+57	4,125	25	4,125
TOTALS				4,125	25	4,125

CURB RAMP DETECTABLE WARNING FIELDS

CATEGORY	STATION	TO	STATION	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	602.0615 CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA SF
0010					
	76+85	-	126+57	210	32
TOTALS				210	32

DRIVEWAY CULVERT PIPE ITEMS

CATEGORY	STATION	OFFSET	TO	STATION	OFFSET	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE	521.1503 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 18-INCH 4 TO 1 EACH	521.1518 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 18-INCH 6 TO 1 EACH	521.1524 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 24-INCH 6 TO 1 EACH	522.0418 CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	522.0424 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	JOINT TIES EACH
0010														
	212+67	32' RT	-	213+01	34' RT	1070.68'	1070.52'	0.46%	--	--	2	--	34	12
	215+66	29' LT	-	215+14	31' LT	1069.86'	1069.67'	0.37%	1	1	--	52	--	16
	215+77	32' RT	-	215+37	34' LT	1069.67'	1069.57'	0.25%	--	--	2	--	40	12
TOTALS									1	1	4	52	74	40

NOTES:
STATION OFFSETS SHOWN ARE TO THE END OF PIPE AT APRON ENDWALLS (NOT INCLUDING LENGTH OF ENDWALL)
JOINT TIES ARE NOT A PAY ITEM AND ARE LISTED FOR INFORMATION ONLY

BARRIER SYSTEM GRADING SHAPING FINISHING

CATEGORY	STATION	TO	STATION	OFFSET	614.0010 EACH	** EXCAVATION COMMON CY	** FILL CY	** BORROW CY	** TOPSOIL SY	** EROSION MAT CLASS I TYPE B SY	** FERTILIZER TYPE B CWT	** SEEDING MIXTURE NO. 30 LB	** SEED WATER MGAL	** CONSTRUCTION STAKING SLOPE STAKES LF
0010														
	212+14	-	216+29	RT	1	87	27	--	440	440	0.3	8	8	415
	212+38	-	215+94	LT	1	56	15	--	180	180	0.1	3	3	356
	354+26	-	363+08	LT	1	129	106	--	600	600	0.2	11	11	882
TOTALS					3	272	148	--	1,220	1,220	0.6	22	22	1,653

**NON-BID ITEM, ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY. ITEMS INCIDENTAL TO BARRIER SYSTEM GRADING SHAPING FINISHING.

NOTE:
FILL IS EXPANDED BY A FACTOR OF 1.25

GUARDRAIL ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	204.0165 REMOVING GUARDRAIL LF	614.0397 GUARDRAIL MOW STRIP EMULSIFIED ASPHALT SY	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2340 MGS GUARDRAIL 3 L LF	614.2350 MGS GUARDRAIL SHORT RADIUS LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2630 MGS GUARDRAIL SHORT RADIUS TERMINAL EACH
0010												
	212+14	-	216+29	RT	90	--	--	25.0	112.5	--	2	--
	212+38	-	215+94	LT	118	25	28.1	25.0	112.5	12.5	1	1
	354+26	-	363+08	RT	440	--	537.5	--	--	--	2	--
TOTALS					648	25	565.6	50	225	12.5	5	1

ADJUSTING MANHOLE COVERS, INLET COVERS, WATER VALVE BOXES & SANITARY MANHOLE COVERS

CATEGORY	STATION	OFFSET	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	SPV.0060.02 ADJUSTING WATER VALVE BOXES EACH	SPV.0060.03 ADJUSTING SANITARY MANHOLE COVERS EACH
0010						
	100+72	LT	1	--	--	--
	102+26	LT	1	--	--	--
	105+49	LT	1	--	--	--
	107+60	LT	1	--	--	--
	108+99	LT	1	--	--	--
	114+41	LT	1	--	--	--
	116+80	LT	1	--	--	--
	119+14	LT	1	--	--	--
	120+62	LT	1	--	--	--
	123+74	LT	1	--	--	--
CATEGORY 0010 TOTALS			10	--	--	--
0020						
	40+78	LT	--	1	--	--
	40+97	RT	--	1	--	--
	78+45	LT&RT	--	2	--	--
	89+47	RT	--	1	--	--
	91+72	LT&RT	--	2	--	--
	97+49	RT	--	1	--	--
	102+24	LT&RT	--	2	--	--
	107+61	LT&RT	--	2	--	--
	109+29	RT	--	1	--	--
	109+61	LT	--	1	--	--
	116+59	LT&RT	--	2	--	--
	119+12	LT	--	1	--	--
	126+35	RT	--	1	--	--
CATEGORY 0020 TOTALS			--	18	--	--
0030						
	81+48	LT&RT	--	2	--	--
	88+46	LT&RT	--	2	--	--
	97+49	LT	--	1	--	--
	100+92	LT	--	1	--	--
	105+49	LT&RT	--	2	--	--
	114+29	LT&RT	--	2	--	--
	119+13	RT	--	1	--	--
	120+58	LT	--	1	--	--
	120+63	RT	--	1	--	--
	121+02	LT	--	1	--	--
	122+27	RT	--	1	--	--
	126+21	LT	--	1	--	--
CATEGORY 0030 TOTALS			--	16	--	--
0040						
	80+24	RT	--	--	1	--
	80+29	RT	--	--	1	--
	80+69	RT	--	--	--	1
	85+14	RT	--	--	--	1
	87+20	RT	--	--	--	1
	89+15	RT	--	--	--	1
	93+48	RT	--	--	1	--
	95+56	RT	--	--	--	1
	109+26	LT	--	--	1	--
	113+05	LT	--	--	1	--
	116+87	LT	--	--	1	--
CATEGORY 0040 TOTALS			--	--	6	5
TOTALS			--	34	6	5

LANDMARK REFERENCE MONUMENTS

CATEGORY	LOCATION	621.0100 EACH	COMMENTS
0010			
	SEC 22 / 27, T42N, R12W	5	QUARTER CORNER
	SEC 22 / 23 / 26 / 27, T42N, R12W	5	SECTION CORNER
	SEC 23 / 26, T42N, R12W	5	QUARTER CORNER
	SEC 24 / 25, T42N, R12W	5	QUARTER CORNER
	SEC 24/ 25, T42N, R12W & SEC 19 / 30, T42N, R11W	5	SECTION CORNER
	SEC 19 / 30, T42N, R11W	5	QUARTER CORNER
	SEC 19 / 20 / 29 / 30, T42N, R11W	5	SECTION CORNER
	SEC 20 / 29, T42N, R11W	5	QUARTER CORNER
	SEC 22 / 23 / 27 / 26, T42N, R11W	5	SECTION CORNER
TOTAL		45	

WATER

CATEGORY	LOCATION	624.0100 MGAL
0010		
	PROJECT	60
TOTAL		60

EROSION CONTROL ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	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	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH
0010											
	20+85	-	71+93	LT&RT	--	--	--	170	--	--	--
	76+85	-	126+57	LT&RT	--	--	--	--	1,880	--	--
	212+14	-	216+29	LT&RT	24	420	420	--	--	50	10
	249+30	-	249+80	RT	--	--	--	170	--	--	4
	354+26	-	363+08	LT	16	910	910	--	--	12	--
	391+90	-	393+20	LT	--	--	--	40	--	--	--
	UNDISTRIBUTED				10	370	370	90	-- 470	63	6
TOTALS					50	1,700	1,700	470	2,350	125	20

EROSION CONTROL MOBILIZATION

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010			
	PROJECT	2	2
TOTALS		2	2

INLET PROTECTION

CATEGORY	STATION	TO	STATION	628.7015 INLET PROTECTION TYPE C EACH
0010				
	40+78	-	40+97	2
	76+85	-	126+57	35
TOTALS				37

RESTORATION ITEMS

CATEGORY	STATION	TO	STATION	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0500 SEED WATER MGAL
0010								
	20+85	-	71+93	170	0.1	3	--	4
	76+85	-	126+57	1,880	1.2	--	34	42
	249+30	-	249+80	170	0.2	3	--	4
	391+90	-	393+20	40	0.1	1	--	1
	UNDISTRIBUTED			560	0.4	3	11	14
TOTALS				2,820	2.0	10	45	65

CROSS DRAIN CULVERT PIPE ITEMS

CATEGORY	STATION	OFFSET	633.5200 MARKERS CULVERT END EACH	SPV.0060.01 DITCH CLEANING EACH	SPV.0060.04 JOINT TIES FOR CONCRETE PIPES EACH
0010					
	249+55	LT	--	1	--
	249+55	RT	--	--	2
	PROJECT		34	--	--
TOTALS			34	1	2

NOTE:
STATION OFFSETS SHOWN ARE TO THE END OF PIPE AT APRON ENDWALL
(NOT INCLUDING LENGTH OF ENDWALL)

TYPE II SIGNS AND SUPPORTS

CATEGORY	STATION	OFFSET	SIGN CODE	SIGN DIMENSION W X H IN		IN	DESCRIPTION	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF	SIGN MOUNTED ON SAME POST AS SIGN NO.
0010											
	122+10	RT	W1-8	18	X	24	CHEVRON	1	--	3.00	
	122+92	RT	W1-8	18	X	24	CHEVRON	1	--	3.00	
	123+32	RT	W1-6	48	X	24	NIGHT ARROW (SINGLE)	--	1	8.00	
	123+76	RT	W1-8	18	X	24	CHEVRON	1	--	3.00	
	127+67	LT	W1-3R	36	X	36	RIGHT REVERSE TURN	--	1	9.00	W13-1
	127+67	LT	W13-1	18	X	18	ADVISORY SPEED PLATE (20 MPH) (YELLOW BLACK)	--	--	2.25	W1-3R
	PROJECT							--	5	--	
TOTALS								3	7	28.25	

REMOVING AND MOVING SIGNS

CATEGORY	STATION	TO	STATION	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH
0010							
	76+85	-	80+44	--	--	--	--
	80+44	-	93+68	5	--	--	5
	93+68	-	96+84	5	--	--	5
	96+84	-	100+00	4	--	--	4
	100+00	-	107+08	10	--	--	10
	107+08	-	109+00	9	--	--	9
	109+00	-	113+17	8	--	--	8
	113+17	-	117+05	4	--	--	4
	117+05	-	120+73	7	--	--	7
	120+73	-	128+00	--	2	2	--
	PROJECT			5	5	5	5
TOTALS				57	7	7	57

NOTE:
UNDISTRIBUTED QUANTITY INCLUDED FOR DAMAGED POSTS OR LOCATIONS IN WHICH SIGN HEIGHT ADJUSTMENTS REQUIRE A NEW POST

FIELD OFFICE

CATEGORY	LOCATION	642.5001 FIELD OFFICE TYPE B EACH
0010		
	PROJECT	0.6
TOTAL		0.6

TRAFFIC CONTROL SIGNS FIXED MESSAGE

CATEGORY	LOCATION	SIGN SIZE W X H FT X FT	643.1000 SF	SIGN MESSAGE
0010				
	WEST PROJECT LIMIT	96" X 48"	32.00	HWY 77 / ROAD WORK / BEGINS XX-XX
	EAST PROJECT LIMIT	96" X 48"	32.00	HWY 77 / ROAD WORK / BEGINS XX-XX
TOTAL			64.00	

TRAFFIC CONTROL ITEMS

CATEGORY	WORK OPERATION	WORK DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS NO.	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0410 TRAFFIC CONTROL BARRICADES TYPE II NO.	643.0410 TRAFFIC CONTROL BARRICADES TYPE II DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO.	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 TRAFFIC CONTROL SIGNS DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS NO.	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY
0010														
	PROJECT - ADVANCED WARNING	115	--	--	--	--	--	--	--	--	38	4,370	--	--
	URBAN SHOULDER WORK	30	170	5,100	36	1,080	18	540	54	1,620	66	1,980	--	--
	GUARDRAIL REPLACEMENT	6	20	120	--	--	--	--	--	--	1	6	--	--
	MILL AND OVERLAY	24	--	--	--	--	--	--	--	--	8	192	--	--
	WORK NEAR USH 53	10	10	100	--	--	--	--	--	--	--	--	2	20
TOTALS				5,320		1,080		540		1,620		6,548		20

TEMPORARY PEDESTRIAN FACILITIES

CATEGORY	STATION	TO	STATION	OFFSET	WORK DURATION DAYS	644.1420 TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	644.1601 TEMPORARY PEDESTRIAN CURB RAMP NO.	644.1601 TEMPORARY PEDESTRIAN CURB RAMP DAY	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF	SPV.0060.05 TEMPORARY ACCESS RAMP EACH
0010										
	80+00	-	97+00	RT	10	1,000	10	100	180	--
	106+00	-	118+00	LT&RT	20	300	8	160	--	1
TOTALS						1,300		260	180	1

3

3

MARKING ITEMS

CATEGORY	STATION	TO	STATION	646.1020 MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH SOLID YELLOW LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH 3' LINE 9' SKIP WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH SOLID WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH 3' LINE 9' SKIP WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH SOLID WHITE LF	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH SOLID YELLOW LF	646.5220 MARKING SYMBOL EPOXY SOLID WHITE EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH SOLID WHITE LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH SOLID WHITE LF	646.8320 MARKING PARKING STALL EPOXY SOLID WHITE LF
0010																
	20+85	-	71+93	588	7,829	--	--	9,800	--	--	--	--	--	--	--	--
	26+18	-	28+17	--	--	51	--	--	--	--	--	--	--	--	--	--
	28+17	-	31+59	--	--	--	--	--	--	345	--	--	--	--	--	--
	31+59	-	33+25	--	--	--	--	--	42	--	--	--	--	--	--	--
	76+85	-	126+57	--	--	--	--	--	--	--	450	6,190	--	235	565	--
	126+57	-	397+80	3,813	57,966	--	--	53,658	--	--	--	--	--	--	--	--
	390+46	-	394+07	--	--	--	100	--	--	--	--	--	--	--	--	--
	391+12	-	393+12	--	--	51	--	--	--	--	--	--	--	--	--	--
	393+12	-	396+64	--	--	--	--	--	--	355	--	--	--	--	--	--
	396+64	-	397+79	--	--	--	--	--	29	--	--	--	--	--	--	--
CATEGORY 0010 TOTALS				70,195			63,660		771		6,640		--	235	565	--
0050																
	76+85	-	126+57	--	--	--	--	--	--	--	--	--	1	--	--	255
CATEGORY 0050 TOTALS				--			--		--		--		1	--	--	255
TOTALS				70,195			63,660		771		6,640		1	235	565	255

TEMPORARY PAVEMENT MARKING ITEMS

CATEGORY	STATION	TO	STATION	646.9000 MARKING REMOVAL LINE 4-INCH LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH 4' LINE 46' SKIP YELLOW LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH SOLID YELLOW LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH SOLID WHITE LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH SOLID YELLOW LF	COMMENTS
0010											
	20+85	-	71+93	--	380	15,660	--	588	590	7,830	MILL AND OVERLAY
	76+30	-	104+00	2,840	--	5,540	--	--	--	--	CENTERLINE SHIFT
	76+85	-	126+57	--	290	12,390	--	--	--	--	MILL AND OVERLAY
	106+00	-	118+00	--	--	--	630	--	--	--	TEMPORARY CROSSWALKS
	126+57	-	397+80	--	2,440	57,970	--	3,813	3,820	28,990	MILL AND OVERLAY
TOTALS				2,840		95,300			41,230		

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	OFFSET	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							
	20+85	-	71+93	LT&RT	534	5,108	--
	76+85		397+80	LT&RT	131	32,095	23
CATEGORY 0010 TOTALS					665	37,203	23
0020							
	76+85	-	126+57	LT&RT	4,282	--	--
CATEGORY 0020 TOTALS					4,282	--	--
0030							
	76+85	-	126+57	LT&RT	5,693	--	--
CATEGORY 0030 TOTALS					5,693	--	--
TOTALS					10,640	37,203	23

SAWING

CATEGORY	STATION	TO	STATION	OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	COMMENTS
0010							
	27+00	-	28+25	LT	140	--	CURB & GUTTER REPLACEMENT
	40+56	-	42+37	LT&RT	360	--	CURB & GUTTER REPLACEMENT
	391+95	-	393+13	LT	140	--	CURB & GUTTER REPLACEMENT
CATEGORY 0010 TOTALS					640	--	
0020							
	76+85	-	126+57	LT&RT	4,720	320	CURB & GUTTER REPLACEMENT
CATEGORY 0020 TOTALS					4,720	320	
0030							
	76+85	-	126+57	LT&RT	5,970	120	CURB & GUTTER REPLACEMENT
CATEGORY 0030 TOTALS					5,970	120	
0040							
	76+85	-	126+57	LT&RT	260	--	UTILITY ADJUSTMENTS
CATEGORY 0040 TOTALS					260	--	
TOTALS					11,590	440	

COMPOSITE DRAWING, THE ORIGINAL IS ON FILE AT THE COUNTY REGISTER OF DEEDS OFFICE

4

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
8550-02-22
MINONG - HAYWARD
CTH I TO CTH G
STH 77
WASHBURN COUNTY



CONVENTIONAL SYMBOLS

SECTION LINE		SECTION CORNER SYMBOL	R/W MONUMENT (TO BE SET)
QUARTER LINE			NON-MONUMENTED R/W POINT
SIXTEENTH LINE		SECTION CORNER MONUMENT	FOUND IRON PIN (1-INCH UNLESS NOTED) IP
NEW REFERENCE LINE		GEODETIC SURVEY MONUMENT	
NEW R/W LINE		SIXTEENTH CORNER MONUMENT	
EXISTING R/W OR HE LINE		SIGN	OFF-PREMISE SIGN
PROPERTY LINE			
LOT, TIE & OTHER MINOR LINES			
SLOPE INTERCEPT			
CORPORATE LIMITS			
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	W (TYPE)		
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			

	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

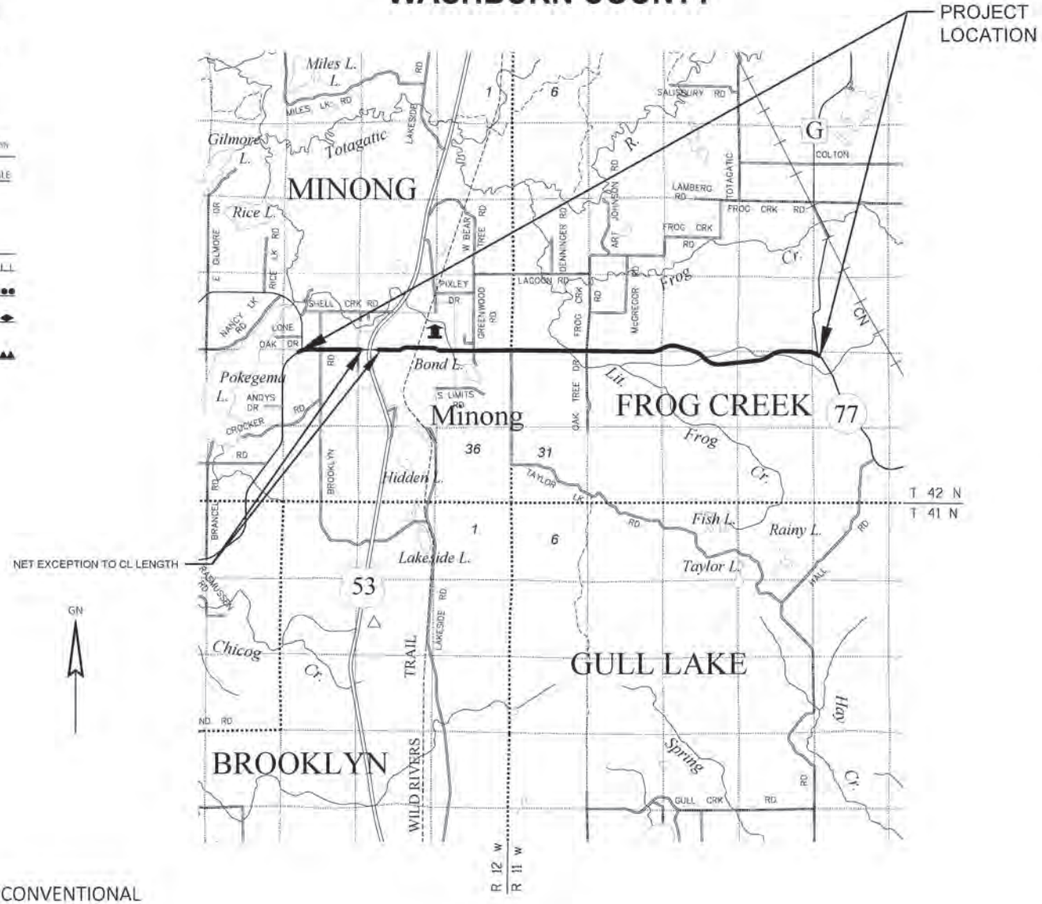
ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
CENTERLINE	C/L	RIGHT	RT
CERTIFIED SURVEY MAP	CSM	RIGHT OF WAY	R/W
CONCRETE	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
HIGHWAY EASEMENT	HE		
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY NUMBER	NGS		
NO	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 MI.

THE NOTES,CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 8550-02-22

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), WASHBURN 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 ¾" 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 SPOONER, WI

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

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 8550-02-22 -4, 01
SHEET 2 OF 2
AMENDMENT NO:

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\TPP\040100-RP.DWG
LAYOUT NAME: 01
PLOT DATE : 9/16/2015 3:04 PM PLOT BY : DREW NELSON PLOT NAME : _____
APPRAISAL PLAT DATE : 3/8/2021
8550-02-22 4.01

TRANSPORTATION PROJECT PLAT NO: 8550-02-22-4.01

THAT PART OF LOT A1 OF THE HOHL'S ADDITION TO VILLAGE OF MINONG, BEING PART OF THE NW 1/4 OF THE NE 1/4, SECTION 26, TOWNSHIP 42 NORTH, RANGE 12 WEST, VILLAGE OF MINONG, WASHBURN COUNTY, WISCONSIN

RELOCATION ORDER - STH 77, MINONG TO HAYWARD (CTH I TO CTH G), WASHBURN 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.

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON 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 OFFICE IN SPOONER, WI.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR STH 77: RW PLAT 8550-06-21, HOHL'S ADDITION TO VILLAGE OF MINONG AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR B ST: RW PLAT 8550-06-21, HOHL'S ADDITION TO VILLAGE OF MINONG AND EXISTING CENTERLINE.

LOCATION SKETCH NOT TO SCALE



DOCUMENT#: 395683
Recorded on 03-08-2021 at 1:02 PM Pages: 2
Fee Amount: $25.00 County: WASHBURN State: WI

RENEE M. BELL REGISTER OF DEEDS
**The above recording information verifies this document has been electronically recorded and returned to
WisDOT - NW Region - Eau Claire / Superior - FC

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8550-02-22-4.01
SHEET 1 OF 2
AMENDMENT NO:___

SCALE, FEET 0 10 20

GN

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W SQ. FT. REQUIRED NEW	EXISTING	TOTAL	TLE SQ FT
1	JOHN H. WOLEVER & MARY L. WOLEVER	FEE/TLE	14	—	14	1195

UTILITY INTERESTS REQUIRED

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

(201) CENTURYLINK (COMMUNICATION)
V 221 P 484 DOC 182057 - PAR 1

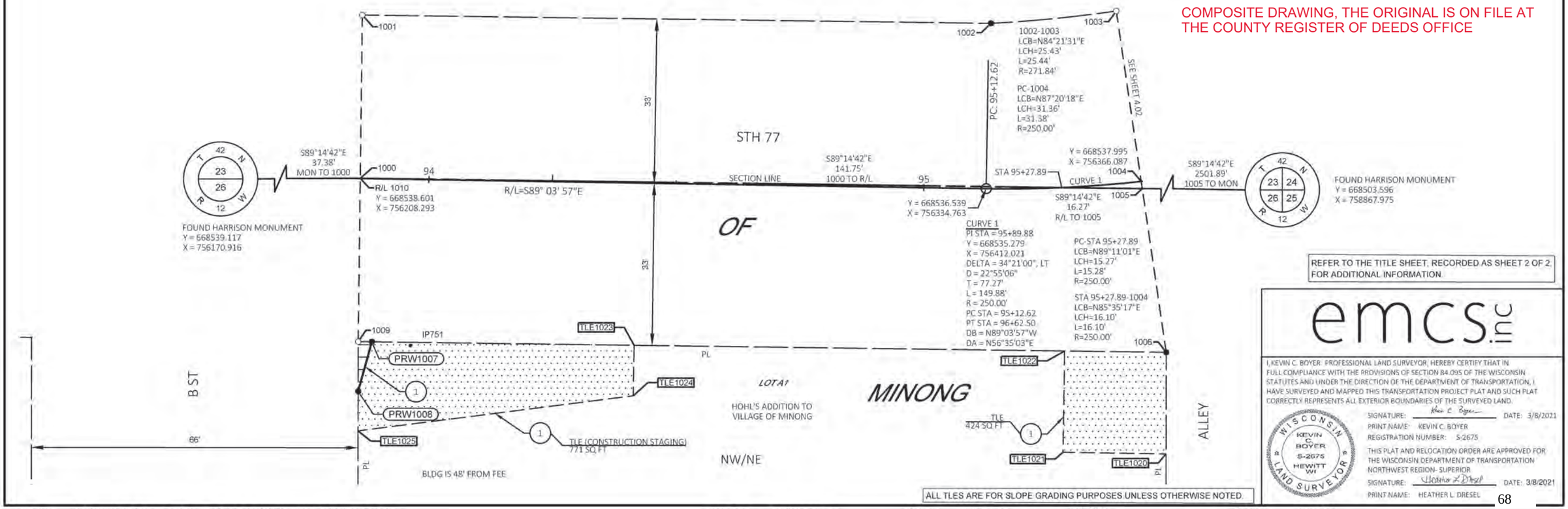
EXISTING MONUMENTS			
POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP751	668504.832	756218.437	1/2" IRON ROD W/CAP

COURSE TABLE		
COURSE	BEARING	DISTANCE
1000-1001	N00° 44' 08"E	33.00'
1001-1002	S89° 14' 31"E	127.04'
1002-1003	SEE CURVE DATA	
1003-1004	S08° 19' 21"E	34.81'
1004-1005	S08° 19' 21"E	1.47'
1005-1006	S08° 19' 21"E	33.43'
1006-PRW1007	N89° 14' 31"W	160.53'
PRW1007-PRW1008	S15° 30' 06"W	10.36'
PRW1008-1009	N00° 04' 20"E	10.02'
1009-1010	N00° 44' 08"E	32.98'
1010-1000	N00° 44' 08"E	0.02'

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
1000	93+86.13	-0.02'
1001	93+86.01	-33.02'
1002	95+13.12	-33.41'
1003	95+42.54	-34.78'
1004	95+43.99	0.00'
1005	95+44.05	1.47'
1006	95+45.10	34.88'
PRW1007	93+89.00	32.97'
PRW1008	93+86.39	43.00'
1009	93+86.24	32.98'
1010	93+86.13	0.00'

TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE1020	95+43.17	55.28'
TLE1021	95+26.12	53.44'
TLE1022	95+27.10	33.01'
TLE1023	94+42.00	32.81'
TLE1024	94+42.00	43.00'
TLE1025	93+86.51	51.00'

SW/SE



COMPOSITE DRAWING, THE ORIGINAL IS ON FILE AT THE COUNTY REGISTER OF DEEDS OFFICE

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, FOR ADDITIONAL INFORMATION.

ALL TLES ARE FOR SLOPE GRADING PURPOSES UNLESS OTHERWISE NOTED.

emcs.inc

I, KEVIN C. BOYER, 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 OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN KEVIN C. BOYER S-2675 HEWITT WI LAND SURVEYOR

SIGNATURE: Kevin C. Boyer DATE: 3/8/2021
PRINT NAME: KEVIN C. BOYER
REGISTRATION NUMBER: S-2675

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION- SUPERIOR
SIGNATURE: Heather L Dresel DATE: 3/8/2021
PRINT NAME: HEATHER L. DRESEL

FILE NAME: P:\51XX\5193.DP.19.STH77 MINONG WBM\CADDS\85500272\SHEETSPLAN\TPP\040101-RP.DWG
APPRAISAL PLAT DATE: 3/8/2021
PLOT DATE: 3/8/2021 8:55 AM PLOT BY: DREW NELSON PLOT NAME: PLOT SCALE: 1 IN:20 FT
8550-02-22 4.01

TRANSPORTATION PROJECT PLAT NO: 8550-02-22-4.02

THAT PART OF LOTS 7, 8, 9 AND 12, BLOCK 3 OF HOHL'S ADDITION TO VILLAGE OF MINONG, LOCATED IN THE NW 1/4 OF THE NE 1/4, SECTION 26, TOWNSHIP 42 NORTH, RANGE 12 WEST, VILLAGE OF MINONG, WASHBURN COUNTY, WISCONSIN

RELOCATION ORDER - STH 77, MINONG TO HAYWARD (CTH I TO CTH G), WASHBURN 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.

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON 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 OFFICE IN SPOONER, WI.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR STH 77: RW PLAT 8550-06-21, HOHL'S ADDITION TO VILLAGE OF MINONG AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR RICHARDS AVE: RW PLAT 8550-06-21, HOHL'S ADDITION TO VILLAGE OF MINONG AND EXISTING CENTERLINE.

LOCATION SKETCH NOT TO SCALE



DOCUMENT # **395920**
Recorded on **03-22-2021 at 8:34 AM** Pages: **1**
Fee Amount: **$25.00** County: **WASHBURN** State: **WI**

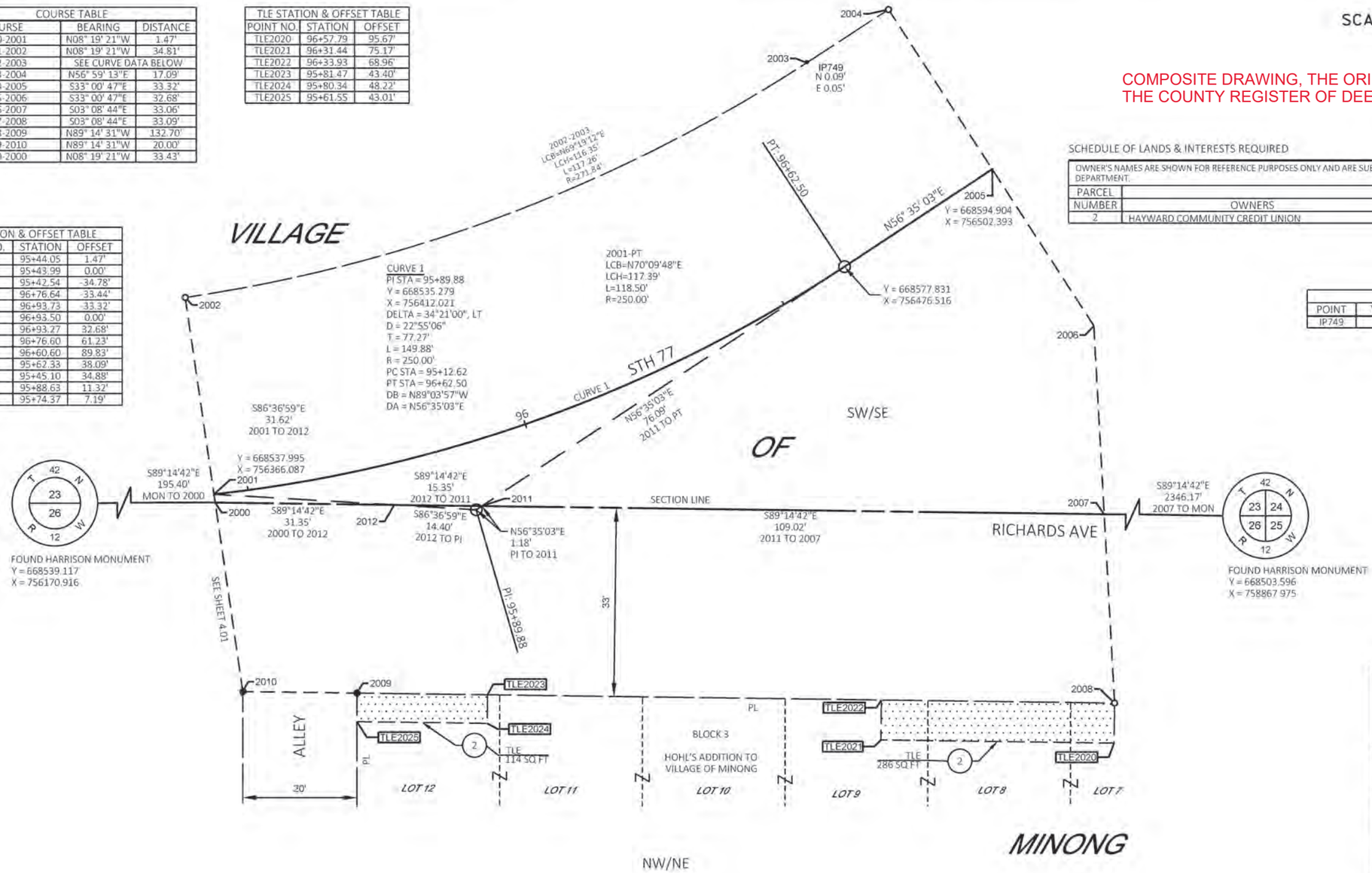
RENEE M. BELL REGISTER OF DEEDS
***The above recording information verifies this document has been electronically recorded and returned to:
WisDOT - NW Region - Eau Claire / Superior - PC

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8550-02-22-4.02
AMENDMENT NO:___

COURSE TABLE		
COURSE	BEARING	DISTANCE
2000-2001	N08° 19' 21"W	1.47'
2001-2002	N08° 19' 21"W	34.81'
2002-2003	SEE CURVE DATA BELOW	
2003-2004	N56° 59' 13"E	17.09'
2004-2005	S33° 00' 47"E	33.32'
2005-2006	S33° 00' 47"E	32.68'
2006-2007	S03° 08' 44"E	33.06'
2007-2008	S03° 08' 44"E	33.09'
2008-2009	N89° 14' 31"W	132.70'
2009-2010	N89° 14' 31"W	20.00'
2010-2000	N08° 19' 21"W	33.43'

TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE2020	96+57.79	95.67'
TLE2021	96+31.44	75.17'
TLE2022	96+33.93	68.96'
TLE2023	95+81.47	43.40'
TLE2024	95+80.34	48.22'
TLE2025	95+61.55	43.01'

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
2000	95+44.05	1.47'
2001	95+43.99	0.00'
2002	95+42.54	-34.78'
2003	96+76.64	-33.44'
2004	96+93.73	-33.32'
2005	96+93.50	0.00'
2006	96+93.27	32.68'
2007	96+76.60	61.23'
2008	96+60.60	89.83'
2009	95+62.33	38.09'
2010	95+45.10	34.88'
2011	95+88.63	11.32'
2012	95+74.37	7.19'



SCALE, FEET 0 10 20

GN

COMPOSITE DRAWING, THE ORIGINAL IS ON FILE AT THE COUNTY REGISTER OF DEEDS OFFICE

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE DEPARTMENT.

PARCEL		INTEREST	R/W SQ. FT. REQUIRED			TLE
NUMBER	OWNERS	REQUIRED	NEW	EXISTING	TOTAL	SQ FT
2	HAYWARD COMMUNITY CREDIT UNION	TLE	---	---	---	400

EXISTING MONUMENTS			
POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP749	668613.623	756469.959	3/4" IRON ROD

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN TRANSPORTATION PROJECT PLATS AS DOCUMENT NO. 395683 FOR ADDITIONAL INFORMATION.

emcs INC

I, KEVIN C. BOYER, 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 OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN KEVIN C. BOYER S-2675 HEWITT WI LAND SURVEYOR

SIGNATURE: Kevin C. Boyer DATE: 3/17/2021
PRINT NAME: KEVIN C. BOYER
REGISTRATION NUMBER: S-2675

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION-SUPERIOR
SIGNATURE: Heather L Dresel DATE: 3/18/2021
PRINT NAME: HEATHER L. DRESEL

ALL TLES ARE FOR SLOPE GRADING PURPOSES.

FILE NAME: P:\51XX\5193.DP.19.STH77 MINONG\WBN\CADDS\8550027Z\SHEETSPLAN\TPP\040102-RP.DWG
APPRAISAL PLAT DATE: 3/17/2021
PLOT DATE: 3/17/2021 11:07 AM PLOT BY: DREW.NELSON PLOT NAME: PLOT SCALE: 1 IN:20 FT

8550-02-22 4.02

TRANSPORTATION PROJECT PLAT NO: 8550-02-22-4.03

THAT PART OF LOTS 1 AND 15, BLOCK 2 OF GORUD'S ADDITION TO THE VILLAGE OF MINONG, LOCATED IN THE SW 1/4 OF THE SE 1/4, SECTION 23, TOWNSHIP 42 NORTH, RANGE 12 WEST, VILLAGE OF MINONG, WASHBURN COUNTY, WISCONSIN

RELOCATION ORDER - STH 77, MINONG TO HAYWARD (CTH I TO CTH G), WASHBURN 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.

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON 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 OFFICE IN SPOONER, WI.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR STH 77: RW PLAT 8550-03-21, GORUD'S ADDITION TO THE VILLAGE OF MINONG AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR BUSSINESS 53: RW PLAT 8550-03-21, RW PLAT FAP377C(2), GORUD'S ADDITION TO THE VILLAGE OF MINONG AND EXISTING CENTERLINE.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE DEPARTMENT.

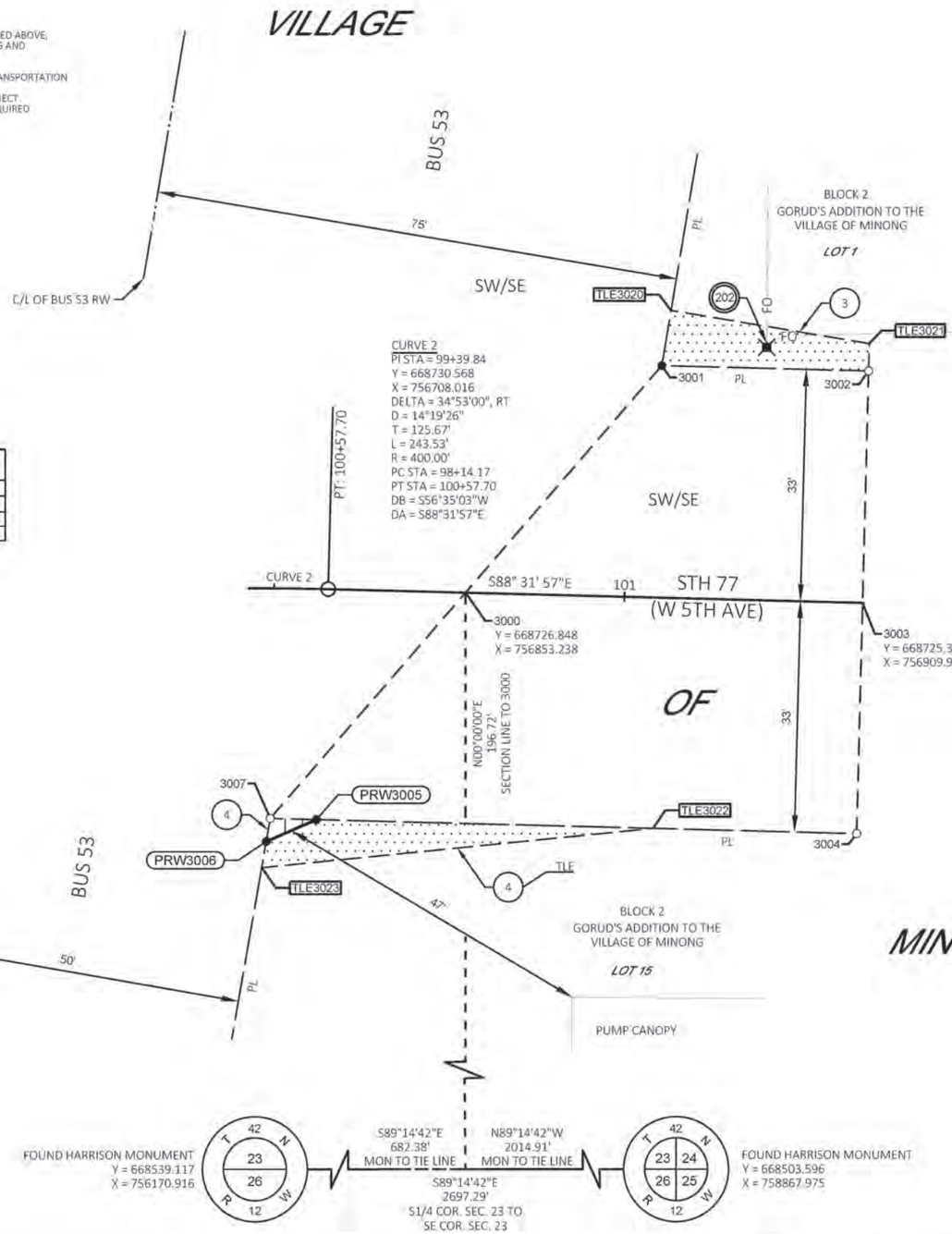
PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W SQ. FT. REQUIRED NEW	EXISTING	TOTAL	TLE SQ FT
3	JAMES M. PRICE & JANE PRICE	TLE	---	---	---	172
4	DC'S VICTORY LANE LLC	FEE/TLE	11	---	11	182

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
202	CHARTER COMMUNICATIONS (COMMUNICATION)	RELEASE OF RIGHTS

(202) CHARTER COMMUNICATIONS (COMMUNICATION)
NO RECORD EASEMENT - PAR 3

COMPOSITE DRAWING, THE ORIGINAL IS ON FILE AT THE COUNTY REGISTER OF DEEDS OFFICE



LOCATION SKETCH NOT TO SCALE



DOCUMENT # 395788
Recorded on 03-12-2021 at 3:19 PM Pages: 1
Fee Amount: $25.00 County: WASHBURN State: WI

RENEE M. BELL REGISTER OF DEEDS
***The above recording information verifies this document has been electronically recorded and returned to:
WisDOT - NW Region - Eau Claire / Superior - PC

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8550-02-22-4.03
AMENDMENT NO:___

SCALE, FEET 0 10 20

GN

COURSE TABLE		
COURSE	BEARING	DISTANCE
3000-3001	N40° 52' 09"E	42.83'
3001-3002	S88° 31' 07"E	29.52'
3002-3003	S01° 28' 53"W	33.09'
3003-3004	S01° 28' 53"W	32.91'
3004-PRW3005	N88° 31' 07"W	77.13'
PRW3005-PRW3006	S66° 20' 33"W	7.81'
PRW3006-3007	N09° 53' 53"E	3.35'
3007-3000	N40° 52' 09"E	42.57'

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
3000	100+77.30	0.00'
3001	101+04.48	-33.10'
3002	101+34.00	-33.09'
3003	101+33.99	0.00'
3004	101+33.98	32.91'
PRW3005	100+56.78	32.89'
PRW3006	100+49.00	36.12'
3007	100+49.62	32.82'

TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE3020	101+05.60	-41.00'
TLE3021	101+34.00	-37.00'
TLE3022	101+04.91	32.91'
TLE3023	100+48.30	39.85'

ALL TLES ARE FOR SLOPE GRADING PURPOSES.

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN TRANSPORTATION PROJECT PLATS AS DOCUMENT NO. 395683 FOR ADDITIONAL INFORMATION.

emcs.inc

I, KEVIN C. BOYER, 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 OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN KEVIN C. BOYER S-2675 HEWITT WI LAND SURVEYOR

SIGNATURE: _____ DATE: 3/9/2021
PRINT NAME: KEVIN C. BOYER
REGISTRATION NUMBER: S-2675

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION- SUPERIOR
SIGNATURE: _____ DATE: 3/9/2021
PRINT NAME: HEATHER L. DRESEL

FILE NAME: P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\TPP\040103-RP.DWG
APPRAISAL PLAT DATE : 3/9/2021
PLOT DATE : 3/9/2021 7:18 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT
8550-02-22 4.03

TRANSPORTATION PROJECT PLAT NO: 8550-02-22-4.04

THAT PART OF LOT 14, BLOCK 2 OF GORUD'S ADDITION TO THE VILLAGE OF MINONG AND PART OF LOT 2 OF CSM 2828 V. 12 P. 171 DOC. 282596, LOCATED IN PART OF THE SW 1/4 OF THE SE 1/4 AND PART OF THE SW 1/4 OF THE SE 1/4, ALSO PART OF THE SE 1/4 OF THE SE 1/4, ALL LOCATED IN SECTION 23, TOWNSHIP 42 NORTH, RANGE 12 WEST, VILLAGE OF MINONG, WASHBURN COUNTY, WISCONSIN

RELOCATION ORDER - STH 77, MINONG TO HAYWARD (CTH I TO CTH G), WASHBURN 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

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W SQ. FT. REQUIRED NEW	EXISTING	TOTAL	TLE SQ FT
6	WALKER LUMBER CO., INC., A WISCONSIN CORPORATION	FEE/TLE	31	---	31	319
7	SHELL LAKE STATE BANK	TLE	---	---	---	71

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
4000	105+41.83	0.00'
4001	105+42.00	-32.99'
PRW4002	106+63.00	-32.96'
PRW4003	106+73.95	-38.50'
4004	107+40.08	-32.94'
4005	107+78.94	-32.93'
4006	107+68.89	0.00'
4007	107+58.81	33.06'
4008	106+73.31	40.19'
4009	105+41.62	40.16'

TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE4020	105+42.00	-36.00'
TLE4021	105+58.00	-36.00'
TLE4022	105+58.00	-32.99'
TLE4023	106+53.00	-32.96'
TLE4024	106+73.87	-42.50'
TLE4025	107+39.97	-38.00'
TLE4026	107+80.48	-38.00'
TLE4027	106+73.61	56.00'
TLE4028	106+69.00	56.00'
TLE4029	106+69.00	40.19'

COURSE TABLE		
COURSE	BEARING	DISTANCE
4009-4000	N01° 45' 44"E	40.16'
4000-4001	N01° 45' 44"E	32.99'
4001-PRW4002	S88° 31' 07"E	121.00'
PRW4002-PRW4003	N64° 37' 38"E	12.27'
PRW4003-4004	S83° 43' 38"E	66.36'
4004-4005	S88° 31' 07"E	38.86'
4005-4006	S18° 25' 33"W	34.43'
4006-4007	S18° 25' 33"W	34.57'
4007-4008	S86° 42' 11"W	85.79'
4008-4009	N88° 31' 07"W	131.69'

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON 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 OFFICE IN SPOONER, WI.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR STH 77: RW PLAT 8550-03-21, GORUD'S ADDITION TO THE VILLAGE OF MINONG, CSM 2828 AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR DAVIS ST: RW PLAT 8550-03-21, GORUD'S ADDITION TO THE VILLAGE OF MINONG AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR JONES ST: RW PLAT 8550-03-21, GORUD'S ADDITION TO THE VILLAGE OF MINONG, CSM 2828 AND EXISTING CENTERLINE.

EXISTING MONUMENTS			
POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP731	668671.469	757448.102	1-1/4" O.D. IRON PIPE

LOCATION SKETCH NOT TO SCALE

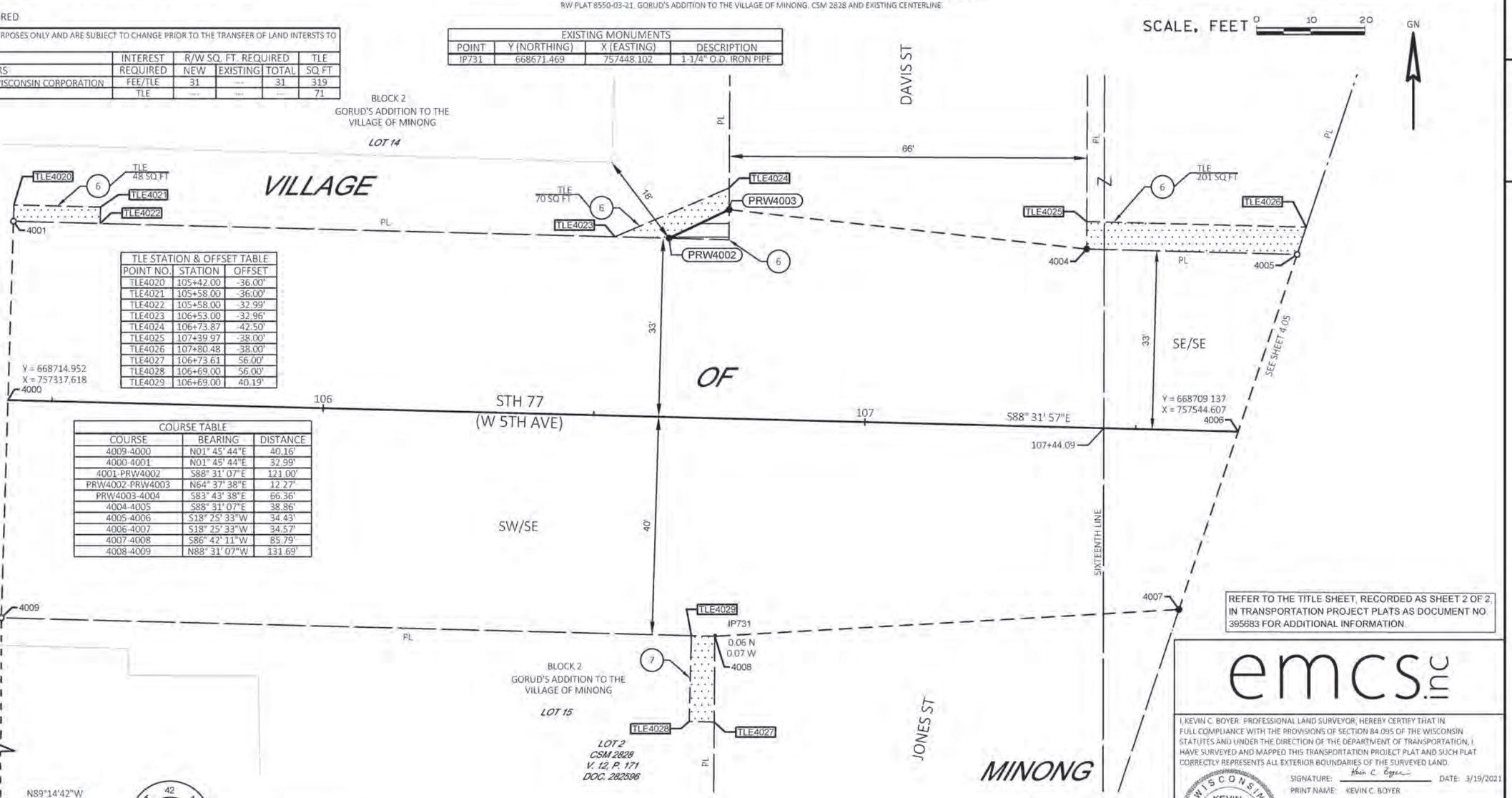


DOCUMENT#: 395921
Recorded on 03-22-2021 at 8:41 AM Pages: 1
Fee Amount: $25.00 County: WASHBURN State: WI

RENEE M. BELL REGISTER OF DEEDS
***The above recording information verifies this document has been electronically recorded and returned to
WisDOT - NW Region - Eau Claire / Superior - FC

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8550-02-22-4.04
AMENDMENT NO:___

SCALE, FEET 0 10 20



COMPOSITE DRAWING, THE ORIGINAL IS ON FILE AT THE COUNTY REGISTER OF DEEDS OFFICE

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN TRANSPORTATION PROJECT PLATS AS DOCUMENT NO. 395683 FOR ADDITIONAL INFORMATION.

emcs INC

I, KEVIN C. BOYER, 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 OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN KEVIN C. BOYER S-2675 HEWITT WI LAND SURVEYOR

SIGNATURE: Kevin C. Boyer DATE: 3/19/2021
PRINT NAME: KEVIN C. BOYER
REGISTRATION NUMBER: S-2675

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION- SUPERIOR
SIGNATURE: Heather L. Dresel DATE: 3/22/2021
PRINT NAME: HEATHER L. DRESEL

ALL TLES ARE FOR SLOPE GRADING PURPOSES.

FILE NAME: P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\TPP\040104-RP.DWG
APPRAISAL PLAT DATE: 3/19/2021
PLOT DATE: 3/19/2021 11:06 AM PLOT BY: DREW.NELSON PLOT NAME: PLOT SCALE: 1 IN:20 FT
8550-02-22 4.04

TRANSPORTATION PROJECT PLAT NO: 8550-02-22-4.05
AMENDMENT NO. 1

AMENDS PARCEL 8 OF TRANSPORTATION PROJECT PLAT 8550-02-22-4.05 RECORDED AS DOCUMENT NO: 395886

THAT PART OF LOT 1 OF CSM 3993 V. 19 P. 163 DOC. 375390 BEING PART OF LOT 9, BLOCK 8 OF MINONG FIRST DIVISION AND PART OF LOTS 10, 11, 12, BLOCK 13 OF SUBDIVISION OF LOT C, LOCATED IN THE SE 1/4 OF THE SE 1/4, AND PART OF THE SE 1/4 OF THE SE 1/4, ALL LOCATED IN SECTION 23, TOWNSHIP 42 NORTH, RANGE 12 WEST, VILLAGE OF MINONG, WASHBURN COUNTY, WISCONSIN

RELOCATION ORDER - STH 77, MINONG TO HAYWARD (CTH I TO CTH G), WASHBURN 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.

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND 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, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN SPOONER, WI.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR STH 77: RW PLAT 8550-03-21, MINONG FIRST DIVISION, SUBDIVISION OF LOT C, CSM 3993 AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR RAILROAD ST: RW PLAT 8550-03-21, MINONG FIRST DIVISION, SUBDIVISION OF LOT C, CSM 3993 AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR JONES ST: RW PLAT 8550-03-21, GORUD'S ADDITION TO THE VILLAGE OF MINONG, CSM 2828 AND EXISTING CENTERLINE.

LOCATION SKETCH NOT TO SCALE



DOCUMENT# 398575
Recorded on 08-18-2021 at 8:35 AM Pages: 1
Fee Amount: $25.00 County: WASHBURN State: WI

RENEE M. BELL REGISTER OF DEEDS
***The above recording information verifies this document has been electronically recorded and returned to:
WisDOT - NW Region - Eau Claire / Superior - PC

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8550-02-22-4.05
AMENDMENT NO: 1

SCALE, FEET 0 10 20

GN

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
5000	107+68.89	0.00'
5001	107+78.94	-32.93'
5002	108+83.47	-32.91'
PRW5003	109+52.64	-35.00'
PRW5004	109+55.00	-32.89'
5005	110+24.02	-32.87'
5006	110+24.01	0.00'
5007	110+24.00	33.13'
5008	109+32.35	33.11'
PLE5009	108+59.72	45.00'
PLE5010	108+55.00	33.09'
5011	107+58.81	33.06'
5012	108+63.35	33.09'

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL		INTEREST	R/W SQ. FT. REQUIRED			PLE	TLE
NUMBER	OWNERS	REQUIRED	NEW	EXISTING	TOTAL	SQ FT	SQ FT
8	STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES	PLE/TLE	---	---	---	50	3063
9	LESENBY PROPERTIES, LLC	FEE/TLE	3	---	3	---	101
11	DEAN C. PATRICK	TLE	---	---	---	---	94

COURSE TABLE		
COURSE	BEARING	DISTANCE
5000-5001	N18° 25' 33"E	34.43'
5001-5002	S88° 31' 07"E	104.54'
5002-PRW5003	N89° 44' 01"E	69.19'
PRW5003-PRW5004	S46° 45' 18"E	3.17'
PRW5004-5005	S88° 31' 07"E	69.02'
5005-5006	S01° 28' 53"W	32.87'
5006-5007	S01° 28' 53"W	33.13'
5007-5008	N88° 31' 07"W	91.65'
5008-PLE5009	S82° 09' 59"W	73.60'
PLE5009-5012	N18° 25' 33"E	12.45'
5012-PLE5010	N88° 31' 07"W	8.35'
PLE5010-5011	N88° 31' 07"W	96.19'
5011-5000	N18° 25' 33"E	34.57'
PLE5009-PLE5010	N20° 08' 18"W	12.81'

TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE5020	107+80.48	-38.00'
TLE5021	108+35.74	-38.00'
TLE5022	108+43.23	-83.15'
TLE5023	108+93.10	-64.48'
TLE5024	109+53.88	-39.00'
TLE5025	109+70.00	-39.00'
TLE5026	109+70.00	-32.89'
TLE5027	110+24.00	35.25'
TLE5028	109+80.00	35.25'
TLE5029	109+80.00	33.12'
TLE5030	108+57.74	40.00'
TLE5031	107+56.70	40.00'

VILLAGE OF MINONG

WILD RIVERS STATE TRAIL

RAILROAD ST

JONES ST

STH 77 (W 5TH AVE)

SEE SHEET 4.04

TLE(SLOPE GRADING & CONSTRUCTION STAGING) 2380 SQ FT

TLE (SLOPE GRADING & CONSTRUCTION STAGING) 683 SQ FT

PLE FOR CURB AND GUTTER MAINTENANCE 50 SQ FT

TLE 101 SQ FT

LOT 1 CSM 3993 V. 19, P. 163 DOC. 375390

BLDG IS 18' FROM FEE

BLOCK 8 MINONG FIRST DIVISION LOT 9

LOT 13

LOT 12

LOT 11

LOT 10

BLOCK 13 SUBDIVISION OF LOT C

SE/SE

5000 Y = 668709.137 X = 757544.607

5001

5002

5005 Y = 668702.604 X = 757799.637

5006

5007

5008

5011

5012

N00°00'00"E 188.13' SECTION LINE TO 5000

S89°14'42"E 1373.81' MON TO TIE LINE

N89°14'42"W 1323.48' MON TO TIE LINE

S89°14'42"E 2697.29' S1/4 COR. SEC. 23 TO SE COR. SEC. 23

FOUND HARRISON MONUMENT Y = 668539.117 X = 756170.916

FOUND HARRISON MONUMENT Y = 668503.596 X = 758867.975

S88° 31' 57"E

COMPOSITE DRAWING, THE ORIGINAL IS ON FILE AT THE COUNTY REGISTER OF DEEDS OFFICE

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN TRANSPORTATION PROJECT PLATS AS DOCUMENT NO. 395683 FOR ADDITIONAL INFORMATION.

ALL TLES ARE FOR SLOPE GRADING PURPOSES UNLESS OTHERWISE NOTED.

emcs INC

I, KEVIN C. BOYER, 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 OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: Kevin C. Boyer DATE: 8/17/2021
PRINT NAME: KEVIN C. BOYER
REGISTRATION NUMBER: S-2675

WISCONSIN KEVIN C. BOYER S-2675 HEWITT WI LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION- SUPERIOR

SIGNATURE: Heather L Dresel DATE: 8/17/2021
PRINT NAME: HEATHER L. DRESEL

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\TPP\040105-RP_A1.DWG
APPRAISAL PLAT DATE : 8/17/2021
PLOT DATE : 8/17/2021 11:03 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

8550-02-22 4.05-A1

TRANSPORTATION PROJECT PLAT NO: 8550-02-22-4.05

THAT PART OF LOT 1 OF CSM 3993 V. 19 P. 163 DOC. 375390 BEING PART OF LOT 9, BLOCK 8 OF MINONG FIRST DIVISION AND PART OF LOTS 10, 11, 12, BLOCK 13 OF SUBDIVISION OF LOT C, LOCATED IN THE SE 1/4 OF THE SE 1/4, AND PART OF THE SE 1/4 OF THE SE 1/4, ALL LOCATED IN SECTION 23, TOWNSHIP 42 NORTH, RANGE 12 WEST, VILLAGE OF MINONG, WASHBURN COUNTY, WISCONSIN

RELOCATION ORDER - STH 77, MINONG TO HAYWARD (CTH I TO CTH G), WASHBURN 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.

NOTES:

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

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FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN SPOONER, WI.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR STH 77: RW PLAT 8550-03-21, MINONG FIRST DIVISION, SUBDIVISION OF LOT C, CSM 3993 AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR RAILROAD ST: RW PLAT 8550-03-21, MINONG FIRST DIVISION, SUBDIVISION OF LOT C, CSM 3993 AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR JONES ST: RW PLAT 8550-03-21, GORUD'S ADDITION TO THE VILLAGE OF MINONG, CSM 2828 AND EXISTING CENTERLINE.

LOCATION SKETCH NOT TO SCALE



DOCUMENT# 395886
Recorded on 03-19-2021 at 8:47 AM Pages: 1
Fee Amount: $25.00 County: WASHBURN State: WI

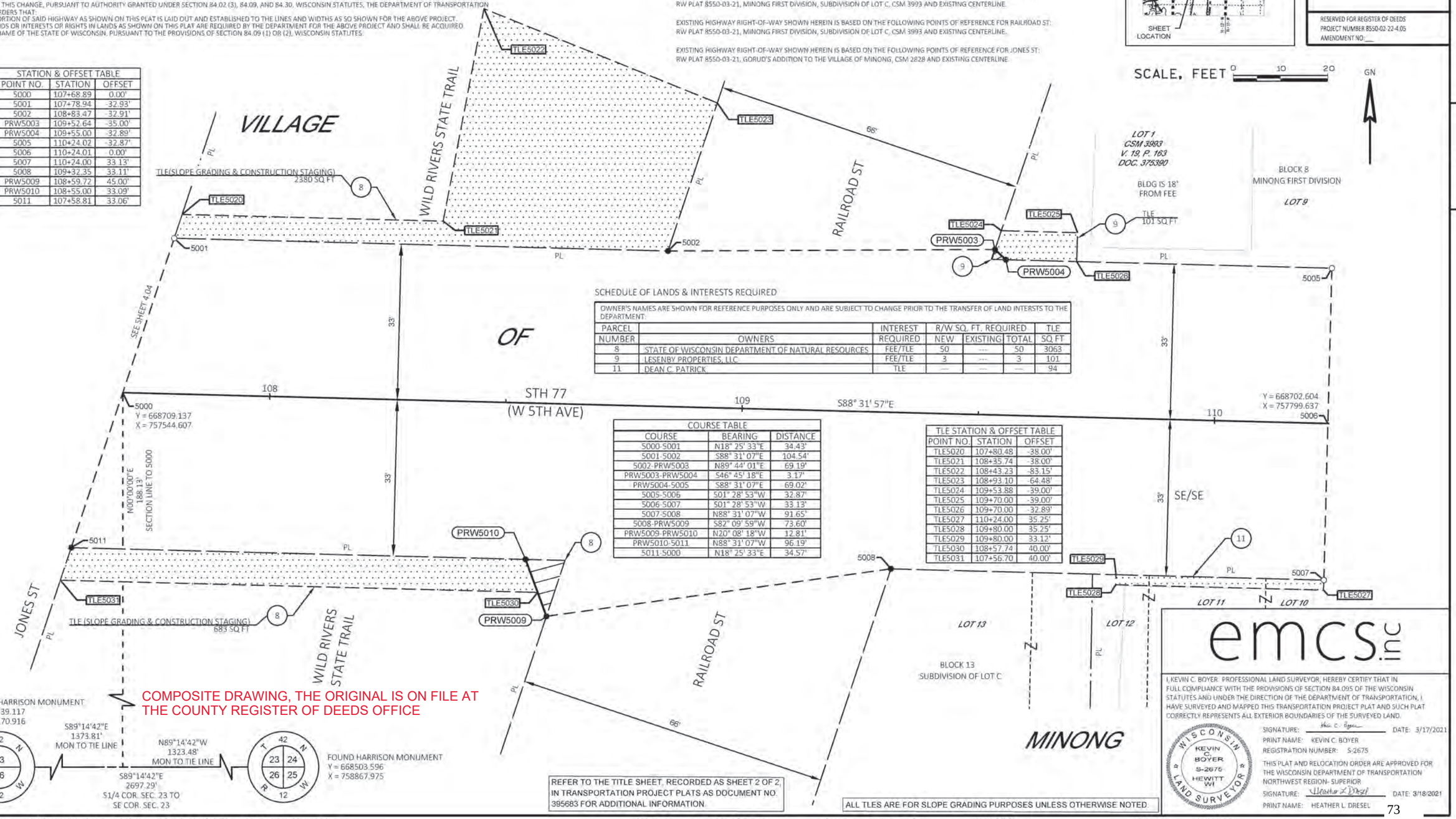
RENEE M. BELL REGISTER OF DEEDS
***The above recording information verifies this document has been electronically recorded and returned to:
WisDOT - NW Region - Eau Claire / Superior - PC

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8550-02-22-4.05
AMENDMENT NO:___

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
5000	107+68.89	0.00'
5001	107+78.94	-32.93'
5002	108+83.47	-32.91'
PRW5003	109+52.64	-35.00'
PRW5004	109+55.00	-32.89'
5005	110+24.02	-32.87'
5006	110+24.01	0.00'
5007	110+24.00	33.13'
5008	109+32.35	33.11'
PRW5009	108+59.72	45.00'
PRW5010	108+55.00	33.09'
5011	107+58.81	33.06'

SCALE, FEET 0 10 20

GN



SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE DEPARTMENT.

PARCEL		INTEREST	R/W SQ. FT. REQUIRED			TLE
NUMBER	OWNERS	REQUIRED	NEW	EXISTING	TOTAL	SQ FT
8	STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES	FEE/TLE	50	---	50	3063
9	LESENBY PROPERTIES, LLC	FEE/TLE	3	---	3	101
11	DEAN C. PATRICK	TLE	---	---	---	94

COURSE TABLE		
COURSE	BEARING	DISTANCE
5000-5001	N18° 25' 33"E	34.43'
5001-5002	S88° 31' 07"E	104.54'
5002-PRW5003	N89° 44' 01"E	69.19'
PRW5003-PRW5004	S46° 45' 18"E	3.17'
PRW5004-5005	S88° 31' 07"E	69.02'
5005-5006	S01° 28' 53"W	32.87'
5006-5007	S01° 28' 53"W	33.13'
5007-5008	N88° 31' 07"W	91.65'
5008-PRW5009	S82° 09' 59"W	73.60'
PRW5009-PRW5010	N20° 08' 18"W	12.81'
PRW5010-5011	N88° 31' 07"W	96.19'
5011-5000	N18° 25' 33"E	34.57'

TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
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TLE5021	108+35.74	-38.00'
TLE5022	108+43.23	-83.15'
TLE5023	108+93.10	-64.48'
TLE5024	109+53.88	-39.00'
TLE5025	109+70.00	-39.00'
TLE5026	109+70.00	-32.89'
TLE5027	110+24.00	35.25'
TLE5028	109+80.00	35.25'
TLE5029	109+80.00	33.12'
TLE5030	108+57.74	40.00'
TLE5031	107+56.70	40.00'

FOUND HARRISON MONUMENT
Y = 668539.117
X = 756170.916

S89°14'42"E
1373.81'
MON TO TIE LINE

S89°14'42"E
2697.29'
S1/4 COR. SEC. 23 TO
SE COR. SEC. 23

N89°14'42"W
1323.48'
MON TO TIE LINE

FOUND HARRISON MONUMENT
Y = 668503.596
X = 758867.975

COMPOSITE DRAWING, THE ORIGINAL IS ON FILE AT THE COUNTY REGISTER OF DEEDS OFFICE

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN TRANSPORTATION PROJECT PLATS AS DOCUMENT NO. 395683 FOR ADDITIONAL INFORMATION.

ALL TLES ARE FOR SLOPE GRADING PURPOSES UNLESS OTHERWISE NOTED.

emcs.inc

I, KEVIN C. BOYER, 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 OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN KEVIN C. BOYER S-2675 HEWITT WI LAND SURVEYOR

SIGNATURE: Kevin C. Boyer DATE: 3/17/2021
PRINT NAME: KEVIN C. BOYER
REGISTRATION NUMBER: S-2675

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION- SUPERIOR
SIGNATURE: Heather L Dresel DATE: 3/18/2021
PRINT NAME: HEATHER L. DRESEL

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\TPP\040105-RP.DWG
APPRAISAL PLAT DATE : 3/17/2021
PLOT DATE : 3/17/2021 11:35 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:20 FT

8550-02-22 4.05

TRANSPORTATION PROJECT PLAT NO: 8550-02-22-4.06

THAT PART OF PARCEL 1 OF CSM V.3 PG. 43 DOC. 157041 BEING PART OF LOT 9, BLOCK 9 OF MINONG FIRST DIVISION, ALSO PART OF LOT 8, BLOCK 8 OF MINONG FIRST DIVISION, AND LOT 12, BLOCK 12 OF THE SUBDIVISION OF LOT C, ALL LOCATED IN THE SE 1/4 OF THE SE 1/4, SECTION 23, TOWNSHIP 42 NORTH, RANGE 12 WEST, VILLAGE OF MINONG, WASHBURN COUNTY, WISCONSIN

RELOCATION ORDER - STH 77, MINONG TO HAYWARD (CTH I TO CTH G), WASHBURN 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.

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON 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 OFFICE IN SPOONER, WI.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR STH 77 RW PLAT 8550-03-21, MINONG FIRST DIVISION, SUBDIVISION OF LOT C, CSM DOC. 157041 AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR 2ND ST RW PLAT 8550-03-21, MINONG FIRST DIVISION, SUBDIVISION OF LOT C, CSM DOC. 157041 AND EXISTING CENTERLINE.

LOCATION SKETCH NOT TO SCALE



DOCUMENT # 395887
Recorded on 03-19-2021 at 8:48 AM Pages: 1
Fee Amount: $25.00 County: WASHBURN State: WI

RENEE M. BELL REGISTER OF DEEDS
***The above recording information verifies this document has been electronically recorded and returned to
WisDOT - NW Region - Eau Claire / Superior - PC

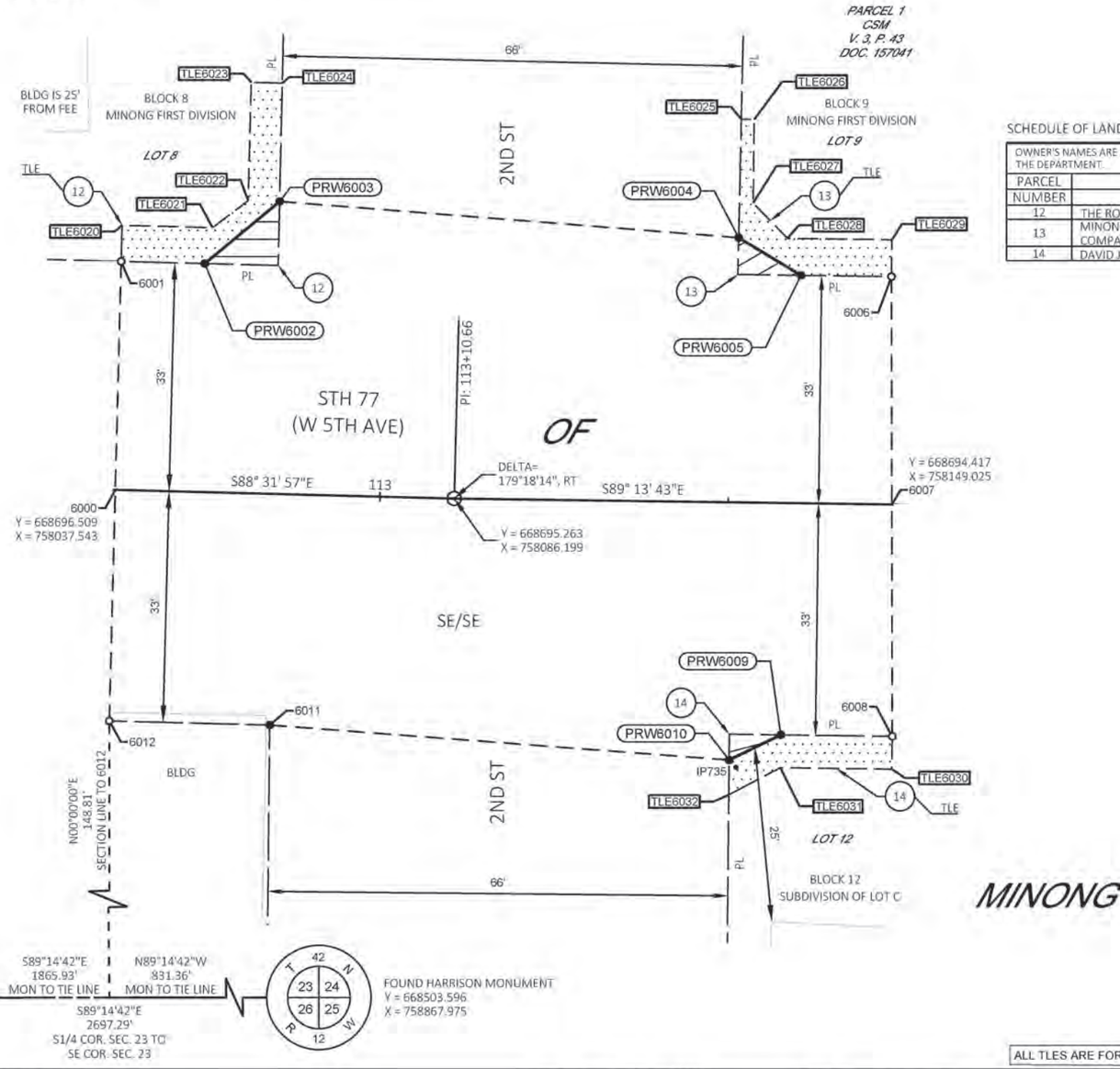
RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8550-02-22-4.06
AMENDMENT NO:___

SCALE, FEET 0 10 20

GN

TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE6020	112+62.00	-38.00'
TLE6021	112+75.00	-38.00'
TLE6022	112+80.00	-42.00'
TLE6023	112+80.00	-59.00'
TLE6024	112+84.46	-59.00'
TLE6025	113+51.15	-55.00'
TLE6026	113+53.00	-55.00'
TLE6027	113+53.00	-43.00'
TLE6028	113+58.00	-38.00'
TLE6029	113+73.00	-38.00'
TLE6030	113+74.00	38.00'
TLE6031	113+58.00	38.00'
TLE6032	113+50.64	42.00'

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
6000	112+61.99	0.00'
6001	112+62.00	-32.82'
PRW6002	112+74.00	-32.81'
PRW6003	112+84.52	-42.00'
PRW6004	113+51.00	-38.00'
PRW6005	113+60.00	-32.71'
6006	113+73.00	-32.71'
6007	113+73.50	0.00'
6008	113+74.00	33.29'
PRW6009	113+58.00	33.29'
PRW6010	113+50.63	37.00'
6011	112+85.01	33.19'
6012	112+61.98	33.19'



SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W SQ. FT. REQUIRED NEW	EXISTING	TOTAL	TLE SQ FT
12	THE RONALD L. GREEN TRUST OF 2020	FEE/TLE	48	—	48	173
13	MINONG CENTER, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	FEE/TLE	24	—	24	138
14	DAVID J. HARMON & DONNA M. HARMON	FEE/TLE	14	—	14	111

COURSE TABLE		
COURSE	BEARING	DISTANCE
6012-6000	N01° 28' 53"E	33.19'
6000-6001	N01° 28' 53"E	32.81'
6001-PRW6002	S88° 31' 07"E	12.00'
PRW6002-PRW6003	N50° 19' 54"E	13.97'
PRW6003-PRW6004	S85° 29' 11"E	66.11'
PRW6004-PRW6005	S58° 47' 25"E	10.44'
PRW6005-6006	S89° 12' 56"E	13.00'
6006-6007	S00° 05' 48"E	32.71'
6007-6008	S00° 05' 48"E	33.30'
6008-PRW6009	N89° 12' 56"W	16.00'
PRW6009-PRW6010	S64° 04' 10"W	8.26'
PRW6010-6011	N85° 39' 16"W	66.14'
6011-6012	N88° 31' 07"W	23.03'

EXISTING MONUMENTS			
POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP735	668656.679	758126.647	1-1/2" O.D. IRON PIPE

COMPOSITE DRAWING, THE ORIGINAL IS ON FILE AT THE COUNTY REGISTER OF DEEDS OFFICE

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN TRANSPORTATION PROJECT PLATS AS DOCUMENT NO. 395683 FOR ADDITIONAL INFORMATION.

emcs.inc

I, KEVIN C. BOYER, 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 OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: _____ DATE: 3/17/2021
PRINT NAME: KEVIN C. BOYER
REGISTRATION NUMBER: S-2675

WISCONSIN KEVIN C. BOYER S-2675 HEWITT WI LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION- SUPERIOR

SIGNATURE: _____ DATE: 3/18/2021
PRINT NAME: HEATHER L. DRESEL

ALL TLES ARE FOR SLOPE GRADING PURPOSES.

FILE NAME: P:\51XX\5193.DP.19.STH77 MINONG WBN\CADDS\85500272\SHEETSPLAN\TPP\040106-RP.DWG
APPRAISAL PLAT DATE: 3/17/2021
PLOT DATE: 3/17/2021 11:30 AM PLOT BY: DREW NELSON PLOT NAME: PLOT SCALE: 1 IN:20 FT

8550-02-22 4.06

TRANSPORTATION PROJECT PLAT NO: 8550-02-22-4.07

THAT PART OF LOT 8, BLOCK 9 AND LOT 9, BLOCK 10 OF MINONG FIRST DIVISION, ALSO PART OF LOTS 8, 9, 10, 11, 12, BLOCK 11, AND LOTS 1 AND 2 OF BLOCK 12 OF SUBDIVISION OF LOT C, ALL LOCATED IN THE SE 1/4 OF THE SE 1/4, SECTION 23, TOWNSHIP 42 NORTH, RANGE 12 WEST, VILLAGE OF MINONG, WASHBURN COUNTY, WISCONSIN

RELOCATION ORDER - STH 77, MINONG TO HAYWARD (CTH I TO CTH G), WASHBURN 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.

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NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON 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 OFFICE IN SPOONER, WI.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR STH 77 RW PLAT 8550-03-21, MINONG FIRST DIVISION, SUBDIVISION OF LOT C AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR 1ST ST. RW PLAT 8550-03-21, MINONG FIRST DIVISION, SUBDIVISION OF LOT C AND EXISTING CENTERLINE.

ALL TLES ARE FOR SLOPE GRADING PURPOSES UNLESS OTHERWISE NOTED.

LOCATION SKETCH NOT TO SCALE



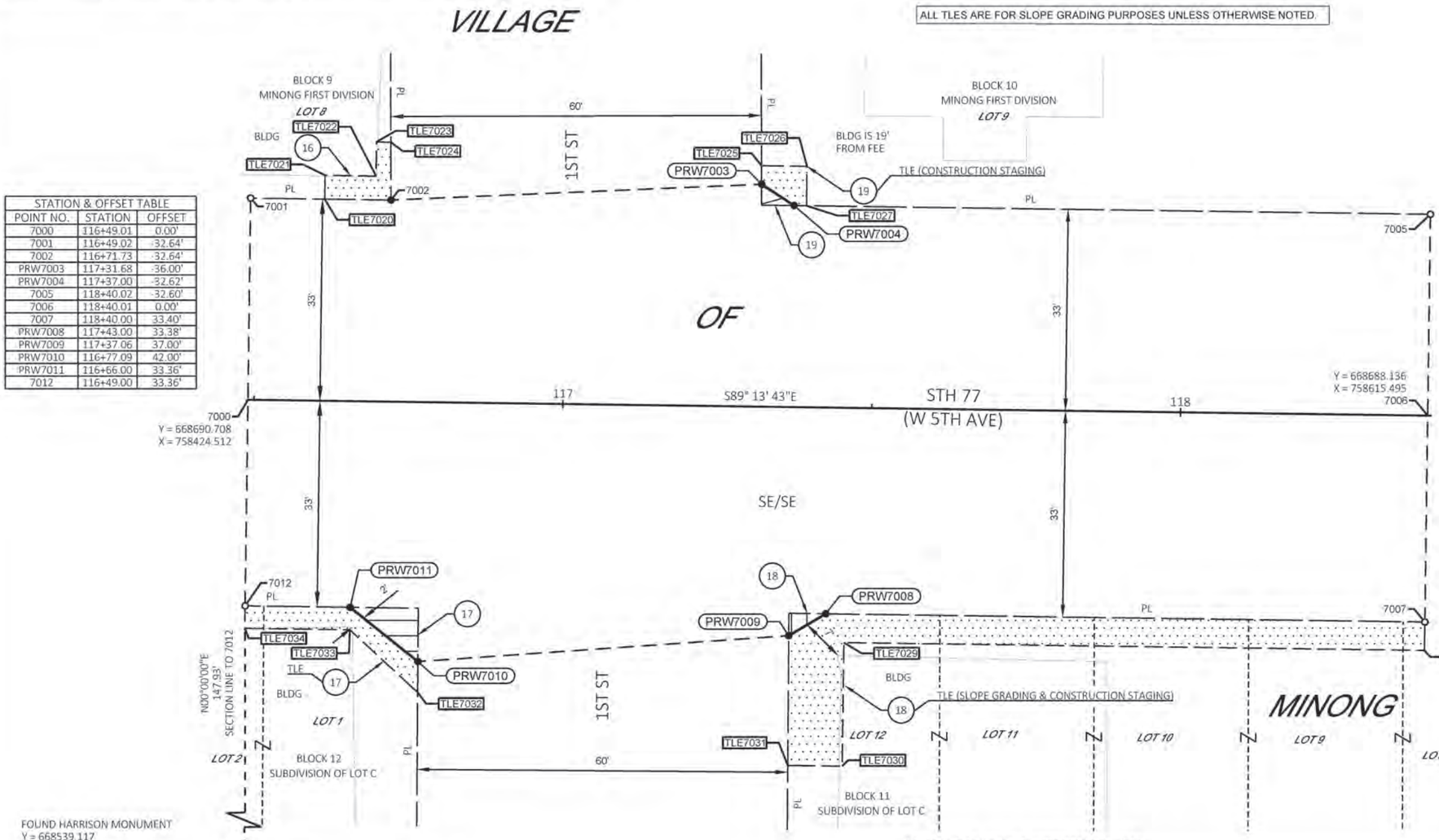
DOCUMENT#: 395888
Recorded on 03-19-2021 at 8:49 AM Pages: 1
Fee Amount: $25.00 County: WASHBURN State: WI

RENEE M. BELL REGISTER OF DEEDS
**The above recording information verifies this document has been electronically recorded and returned to
WisDOT - NW Region - Eau Claire / Superior - FC

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8550-02-22-4.07
AMENDMENT NO:___

SCALE, FEET 0 10 20

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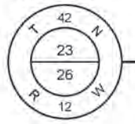
STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
7000	116+49.01	0.00'
7001	116+49.02	-32.64'
7002	116+71.73	-32.64'
PRW7003	117+31.68	-36.00'
PRW7004	117+37.00	-32.62'
7005	118+40.02	-32.60'
7006	118+40.01	0.00'
7007	118+40.00	33.40'
PRW7008	117+43.00	33.38'
PRW7009	117+37.06	37.00'
PRW7010	116+77.09	42.00'
PRW7011	116+66.00	33.36'
7012	116+49.00	33.36'

TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE7020	116+61.00	-32.64'
TLE7021	116+61.00	-36.50'
TLE7022	116+69.25	-36.50'
TLE7023	116+69.25	-42.00'
TLE7024	116+71.58	-42.00'
TLE7025	117+31.64	-39.00'
TLE7026	117+39.00	-39.00'
TLE7027	117+39.00	-32.62'
TLE7028	118+40.00	38.00'
TLE7029	117+46.00	38.00'
TLE7030	117+46.00	58.00'
TLE7031	117+37.18	58.00'
TLE7032	116+77.12	47.00'
TLE7033	116+66.00	37.00'
TLE7034	116+49.00	37.00'

COURSE TABLE		
COURSE	BEARING	DISTANCE
7012-7000	N00° 47' 04"E	33.36'
7000-7001	N00° 47' 04"E	32.64'
7001-7002	S89° 12' 56"E	22.72'
7002-PRW7003	N87° 33' 42"E	60.05'
PRW7003-PRW7004	S56° 48' 09"E	6.30'
PRW7004-7005	S89° 12' 56"E	103.02'
7005-7006	S00° 47' 04"W	32.60'
7006-7007	S00° 47' 04"W	33.40'
7007-PRW7008	N89° 12' 56"W	97.00'
PRW7008-PRW7009	S59° 24' 21"W	6.96'
PRW7009-PRW7010	S86° 00' 20"W	60.18'
PRW7010-PRW7011	N51° 18' 14"W	14.06'
PRW7011-7012	N89° 12' 56"W	17.00'

COMPOSITE DRAWING, THE ORIGINAL IS ON FILE AT THE COUNTY REGISTER OF DEEDS OFFICE

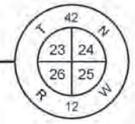
FOUND HARRISON MONUMENT
Y = 668539.117
X = 756170.916



S89°14'42"E
2253.34'
MON TO TIE LINE

N89°14'42"W
443.95'
MON TO TIE LINE

S89°14'42"E
2697.29'
S1/4 COR. SEC. 23 TO
SE COR. SEC. 23



FOUND HARRISON MONUMENT
Y = 668503.596
X = 758867.975

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W SQ. FT. REQUIRED NEW	EXISTING	TOTAL	TLE SQ.FT
16	LYLE J. PASKE & EILEEN C. PASKE	TLE	---	---	---	54
17	P & L INC., & PHILLIP S. PAGOREK & LISA K. PAGOREK	FEE/TLE	48	---	48	110
18	VILLAGE OF MINONG, A MUNICIPAL CORPORATION	FEE/TLE	11	---	11	641
19	BARRY L. COONS & LINDA L. ELLENBERGER	FEE/TLE	9	---	9	38

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN TRANSPORTATION PROJECT PLATS AS DOCUMENT NO. 395683 FOR ADDITIONAL INFORMATION.

emcs.inc

I, KEVIN C. BOYER, 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 OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN KEVIN C. BOYER S-2675 HEWITT WI LAND SURVEYOR

SIGNATURE: _____ DATE: 3/17/2021
PRINT NAME: KEVIN C. BOYER
REGISTRATION NUMBER: S-2675

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION- SUPERIOR
SIGNATURE: _____ DATE: 3/18/2021
PRINT NAME: HEATHER L. DRESEL

FILE NAME: P:\51XX\5193.DP.19.STH77 MINONG\WBN\CADDS\85500272\SHEETSPLAN\TPP\040107-RP.DWG
APPRAISAL PLAT DATE: 3/17/2021
PLOT DATE: 3/17/2021 11:41 AM PLOT BY: DREW NELSON PLOT NAME: PLOT SCALE: 1 IN:20 FT
8550-02-22 4.07

TRANSPORTATION PROJECT PLAT NO: 8550-02-22-4.08

THAT PART OF THE SE 1/4 OF THE SE 1/4, SECTION 19, TOWNSHIP 42 NORTH, RANGE 11 WEST, TOWN OF FROG CREEK, WASHBURN COUNTY, WISCONSIN

RELOCATION ORDER - STH 77, MINONG TO HAYWARD (CTH I TO CTH G), WASHBURN 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.

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NOTES:

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COMPOSITE DRAWING, THE ORIGINAL IS ON FILE AT THE COUNTY REGISTER OF DEEDS OFFICE

LOCATION SKETCH NOT TO SCALE



DOCUMENT #: **395889**
Recorded on **03-19-2021 at 8:50 AM** Pages: **1**
Fee Amount: **$25.00** County: **WASHBURN** State: **WI**

RENEE M. BELL REGISTER OF DEEDS
***The above recording information verifies this document has been electronically recorded and returned to
WisDOT - NW Region - Eau Claire / Superior - FC

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8550-02-22-4.08
AMENDMENT NO:___

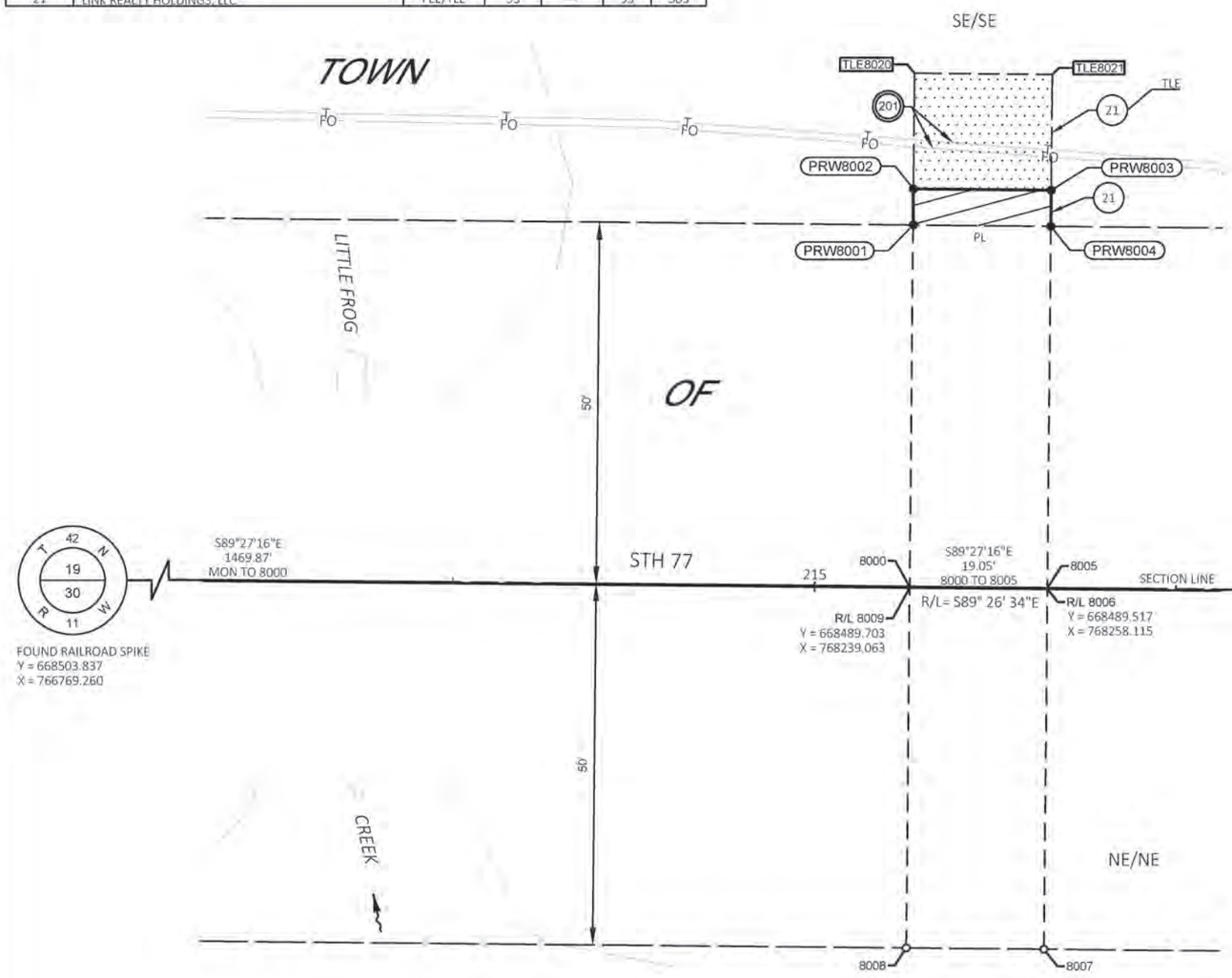
SCALE, FEET 0 10 20

GN

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE DEPARTMENT.

PARCEL		INTEREST	R/W SQ. FT. REQUIRED			TLE
NUMBER	OWNERS	REQUIRED	NEW	EXISTING	TOTAL	SQ FT
21	LINK REALTY HOLDINGS, LLC	FEE/TLE	95	---	95	305



COURSE TABLE		
COURSE	BEARING	DISTANCE
8000-PRW8001	N00° 32' 50"E	50.03'
PRW8001-PRW8002	N00° 32' 50"E	5.00'
PRW8002-PRW8003	S89° 27' 10"E	19.05'
PRW8003-PRW8004	S00° 32' 50"W	5.00'
PRW8004-8005	S00° 32' 50"W	50.03'
8005-8006	S00° 32' 50"W	0.14'
8006-8007	S00° 32' 50"W	49.82'
8007-8008	N89° 27' 10"W	19.05'
8008-8009	N00° 32' 50"E	49.83'
8009-8000	N00° 32' 50"E	0.14'

TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE8020	215+13.15	-71.18'
TLE8021	215+32.20	-71.18'

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
8000	215+13.16	-0.14'
PRW8001	215+13.15	-50.18'
PRW8002	215+13.15	-55.18'
PRW8003	215+32.20	-55.18'
PRW8004	215+32.20	-50.18'
8005	215+32.21	-0.14'
8006	215+32.21	0.00'
8007	215+32.22	49.82'
8008	215+13.17	49.83'
8009	215+13.16	0.00'

UTILITY INTERESTS REQUIRED

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

(201) CENTURYLINK (COMMUNICATION)
V 224 P 209 DOC 33392 - PAR 21
V 302 P 717 DOC 223243 - PAR 21

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN TRANSPORTATION PROJECT PLATS AS DOCUMENT NO. 395683 FOR ADDITIONAL INFORMATION.

ALL TLES ARE FOR SLOPE GRADING PURPOSES.

emcs.inc

I, KEVIN C. BOYER, 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 OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: Kevin C. Boyer DATE: 3/17/2021
PRINT NAME: KEVIN C. BOYER
REGISTRATION NUMBER: S-2675

WISCONSIN KEVIN C. BOYER S-2675 HEWITT WI LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION- SUPERIOR
SIGNATURE: Heather L Dresel DATE: 3/18/2021
PRINT NAME: HEATHER L. DRESEL

FILE NAME: P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\TPP\040108-RP.DWG
APPRAISAL PLAT DATE: 3/17/2021
PLOT DATE: 3/17/2021 11:43 AM PLOT BY: DREW.NELSON PLOT NAME: PLOT SCALE: 1 IN:20 FT
8550-02-22 4.08

LEGEND
DELINEATED WETLAND BOUNDARY
SLOPE INTERCEPT
X CLEARING AND GRUBBING

CURVE NO. 1
PI STA = 27+64.48
Y = 668,582.24
X = 749,556.97
PC STA = 23+21.37
Y=668,319.44
X=749,200.21
PT STA = 31+77.60
Y=668,582.14
X=750,000.09
DELTA = 36°23'23"
D = 4°15'00"
T = 443.11'
L = 856.23'
R = 1,348.14'
EXISTING SE = 5.9%
PROPOSED SE = 5.9%
SE TRANSITION (T) = 202'
RO (RUNOFF) = 151'

BEGIN PROJECT
STA 20+85
Y=668,178.77
X=749,010.25
BUTT JOINT REQD
(SEE CONSTRUCTION DETAILS)

BP: 20+00.00
N53° 37' 24"E
PC: 23+21.37
PT: 31+77.60
CURVE 1
STH 77
S89° 59' 13"E
S89° 59' 13"E
S89° 09' 05"E
S89° 30' 20"E
CTH I
BROOKLYN RD
BROOKLYN RD
USH 53 SB
USH 53 NB
NEWTON DR

CP/BM #517
Y = 668,546.71
X = 749,524.77
ELEV = 1,038.89
FENO 1000 W/ALUMINUM CAP SET

CP/BM #509
Y = 668,526.44
X = 750,700.64
ELEV = 1,053.81
NGS BRASS CAP IN CONC. FND 8C05
(DO NOT DISTURB)

REMOVING CURB & GUTTER
(SEE CONSTRUCTION DETAILS AND INTERSECTION DETAILS FOR ADDITIONAL INFORMATION)

END CONSTRUCTION
STA 27+81, 110' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

END CONSTRUCTION
STA 40+45, 80' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

END CONSTRUCTION
STA 40+45, 65' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

END CONSTRUCTION
STA 66+55, 84' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

END CONSTRUCTION
STA 71+93
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

SPECTRUM (COMMUNICATION)
SIREN COMMUNICATIONS INC. (COMMUNICATION)
DAHLBERG LIGHT AND POWER COMPANY (ELECTRIC)
SIREN TELEPHONE (COMMUNICATION)
RESIDUAL SOIL CONTAMINATION

LANDMARK REFERENCE MONUMENTS

STA 33+52, LT
BASE AGG
PE

STA 33+71, RT
BASE AGG
PE

STA 51+13, LT
BASE AGG
PE

STA 46+54, RT
BASE AGG
FE

STA 52+01, RT
BASE AGG
FE

STA 64+43, LT
BASE AGG
PE

STA 64+34, RT
BASE AGG
PE

STA 67+99, LT
ASPH
CE

STA 70+66, LT
ASPH
CE

STA 70+45, RT
BASE AGG
CE

STA 46+18, LT&RT
EXISTING 24" CPRC TO REMAIN
3° SKEW LHF
MARKERS FOR CULVERT END REQ'D

STA 58+75, LT&RT
EXISTING 30" CPRC TO REMAIN
MARKERS FOR CULVERT END REQ'D

Y = 668,581.45
X = 753,062.14

Y = 668,571.26
X = 753,749.67

Y = 668,567.32
X = 754,207.23

Y = 668,567.82
X = 754,325.13

PI: 62+39.65
PI: 69+27.26
PI: 73+84.84
PI: 75+02.74

N89° 45' 15"E
S89° 24' 06"E

SCOTT HUGH RICHARDSON
BIRCH TRAIL LAND LLC
SHELLY J BELL
JOHN A BELL
LELAND C COONS
EILEEN COONS
ADAM R SHILTS
MANDY L SHILTS
AUDREY M BLAYLOCK
TIMOTHY V MENEBROEKER
HEIDI D MENEBROEKER
THEODORE C ASP
KIMBERLY A ASP
JAMES J BARRETT
J E LINK CATTLE RANCHES LLC
LINK INTERNATIONAL INVESTMENTS LLC
GEORGE H HERTZNER
DIANNE L HERTZNER
MINIT MART LLC
JAY E LINK CATTLE RANCHES LLC
ROBERTA M SOFIA
LINK REALTY HOLDINGS LLC
LINK AUTO AND RV LLC
FLOYD H NELSON
ROBIN J NELSON
LINK FORD AND RV - MINONG LLC

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 77	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 01
PLOT DATE : 4/27/2022 8:23 AM
PLOT BY : NICK MENNINGA
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

LEGEND
DELINEATED WETLAND BOUNDARY
SLOPE INTERCEPT
CLEARING AND GRUBBING
PROPOSED SIGN

N

EX R/W

JOHN E LINK TRUST

GERALD L RICHARDS

STA 76+21, LT&RT
EXISTING 24" CPCS TO REMAIN
1° SKEW RHF
MARKERS FOR CULVERT END REQ'D

DAHLBERG LIGHT AND POWER COMPANY
(ELECTRIC)

REMOVING ASPHALTIC SURFACE

CP/BM #516
Y = 668,595.08
X = 754,573.33
ELEV = 1,054.94
FENO 1000 W/ALUMINUM CAP SET

WISCONSIN DOT
(ELECTRIC)

BEGIN CONSTRUCTION
STA 76+85
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

PI: 75+02.74

PI: 77+55.85

STA 79+93, LT
BASE AGG
PE

EX R/W

REMOVING CURB & GUTTER

USH 53 NB

5

5

N89° 45' 15"E

S89° 24' 06"E

S89° 03' 57"E

STH 77

75 76 77 78 79 80 81

Y = 668,565.18
X = 754,578.23

Y = 668,567.82
X = 754,325.13

REMOVING CURB & GUTTER

REMOVING ASPHALTIC SURFACE

REMOVING CURB & GUTTER

CAUTION

STA 79+74, RT
BASE AGG
PE

EX R/W

WE ENERGIES
(GAS)

SPECTRUM
(COMMUNICATION)

SPECTRUM
(COMMUNICATION)

REMOVING CONCRETE
SIDEWALK

VILLAGE OF MINONG
(WATER)

VILLAGE OF MINONG
(SEWER)

END CONSTRUCTION
STA 80+44, 47' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

MURIEL VIG LN

CHRISTOPHER J VIG

EX R/W

EX R/W

EX R/W

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 78	E

LEGEND
DELINEATED WETLAND BOUNDARY
SLOPE INTERCEPT
CLEARING AND GRUBBING
PROPOSED SIGN

N

JOHN E LINK TRUST
LYLE L GROAT
PHYLLIS J GROAT
JAMES SORCHYCH
RICHARD T COWGER
MARY C COWGER
RICHARD T COWGER
VILLAGE OF MINONG

5

REMOVING ASPHALTIC SURFACE
STA 81+74, LT
ASPH
PE
STA 82+31, LT
BASE AGG
PE
REMOVING ASPHALTIC SURFACE
REMOVING ASPHALTIC SURFACE
STA 83+23, LT
ASPH
PE
DAHLBERG LIGHT AND POWER COMPANY
(ELECTRIC)
STA 84+93, LT
ASPH
PE
REMOVING ASPHALTIC SURFACE
REMOVING ASPHALTIC SURFACE
STA 86+82, LT
ASPH
PE
EX R/W
EX R/W
REMOVING CURB & GUTTER

81 82 S89° 03' 57"E 83 84 STH 77 85 86 87

REMOVING CONCRETE PAVEMENT
REMOVING CURB & GUTTER
STA 84+16, RT
GRASS
FE
EX R/W
EX R/W

VILLAGE OF MINONG
(SEWER)
WE ENERGIES
(GAS)
DAHLBERG LIGHT AND POWER COMPANY
AND SPECTRUM
(ELECTRIC AND COMMUNICATION)
VILLAGE OF MINONG
(WATER)
DAHLBERG LIGHT AND POWER COMPANY
(ELECTRIC)

BRISKY PARTNERS LLC
BRISKY PARTNERS LLC
LINDA E HENSON
THOMAS V HENSON

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 79	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\050202-PN.DWG
LAYOUT NAME - 03
PLOT DATE : 4/25/2022 10:11 AM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND
DELINEATED WETLAND BOUNDARY
SLOPE INTERCEPT
CLEARING AND GRUBBING
PROPOSED SIGN

N

JOHN E LINK
TIMOTHY T HARINGS
TERRI D HARINGS
LINK FORD AND RV - MINONG LLC
LINK FORD AND RV - MINONG LLC

DAHLBERG LIGHT AND POWER COMPANY (ELECTRIC)
REMOVING ASPHALTIC SURFACE
DAHLBERG LIGHT AND POWER COMPANY (ELECTRIC)
SPECTRUM (COMMUNICATION)
STA 87+85, LT ASPH PE
STA 89+11, LT ASPH CE
STA 89+92, LT ASPH PE
SPECTRUM (COMMUNICATION)
EX R/W
REMOVING ASPHALTIC SURFACE
EX R/W
REMOVING CURB & GUTTER
REMOVING CURB & GUTTER
REMOVING CURB & GUTTER

5
5

87 88 S89° 03' 57"E 89 90 STH 77 91 92 93

REMOVING CONCRETE PAVEMENT
REMOVING CONCRETE PAVEMENT
CAUTION
REMOVING CURB & GUTTER
REMOVING CONCRETE PAVEMENT
EX R/W
STA 88+19, RT ASPH PE
STA 89+72, RT ASPH CE
STA 92+76, RT ASPH PE
EX R/W
DAHLBERG LIGHT AND POWER COMPANY AND SPECTRUM (ELECTRIC AND COMMUNICATION)
VILLAGE OF MINONG (WATER)
WE ENERGIES (GAS)
VILLAGE OF MINONG (SEWER)
SPECTRUM (COMMUNICATION)
DAHLBERG LIGHT AND POWER COMPANY (ELECTRIC)

CKA LLC
ARC3 DGMNGW1001 LLC WELLS FARGO COMM MORTG
JOHN E LINK TRUST
JOHN E LINK TRUST

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 80	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\050202-PN.DWG
LAYOUT NAME - 04
PLOT DATE : 4/25/2022 10:12 AM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND
DELINEATED WETLAND BOUNDARY
SLOPE INTERCEPT
CLEARING AND GRUBBING
PROPOSED SIGN

LINK FORD AND RV - MINONG LLC

REMOVING ASPHALTIC SURFACE

T 42 N
23
R 26 W
12

LANDMARK REFERENCE MONUMENTS

STA 93+31, LT BASE AGG CE

STA 93+74, LT ASPH CE

REMOVING ASPHALTIC SURFACE

SPECTRUM (COMMUNICATION)

VILLAGE ON MINONG (WATER)

CURVE NO. 2
PI STA = 95+89.88
Y = 668,535.28
X = 756,412.02
PC STA = 95+12.62
Y=668,536.54
X=756,334.76
PT STA = 96+62.50
Y=668,577.83
X=756,476.52
DELTA = 34°21'00"
D = 22°55'06"
T = 77.27'
L = 149.88'
R = 250.00'
EXISTING SE = NC
PROPOSED SE = NC

CURVE NO. 3
PI STA = 99+39.84
Y = 668,730.57
X = 756,708.02
PC STA = 98+14.17
Y=668,661.36
X=756,603.12
PT STA = 100+57.70
Y=668,727.35
X=756,833.65
DELTA = 34°53'00"
D = 14°19'26"
T = 125.67'
L = 243.53'
R = 400.00'
EXISTING SE = NC
PROPOSED SE = NC

N

EX R/W

93

94

95

96

97

98

S89° 03' 57"E

N56° 35' 03"E

PC: 95+12.62

PT: 96+62.50

PC: 98+14.17

CURVE 2

CURVE 3

STH 77

R/W

STA 92+76, RT ASPH PE

VILLAGE ON MINONG (WATER)

REMOVING CURB & GUTTER

SPECTRUM (COMMUNICATION)

CAUTION

REMOVING CONCRETE SIDEWALK

WE ENERGIES (GAS)

REMOVING CURB & GUTTER

VILLAGE OF MINONG (SEWER)

REMOVING CONCRETE SIDEWALK

REMOVING ASPHALTIC SURFACE

END CONSTRUCTION
STA 93+68, 40' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

REMOVING ASPHALTIC SURFACE

REMOVING CONCRETE SIDEWALK

REMOVING ASPHALTIC SURFACE

STA 96+83, LT ASPH CE

REMOVING CURB & GUTTER

DAHLBERG LIGHT AND POWER COMPANY (ELECTRIC)

END CONSTRUCTION
STA 96+84, 51' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

JOHN E LINK TRUST

MARY L WOLEVER
JOHN H WOLEVER

HAYWARD COMMUNITY CREDIT UNION

VILLAGE OF MINONG

B ST

ALLEY

RICHARDS AVE

EX R/W

TLE

5

5

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 81	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\050202-PN.DWG
LAYOUT NAME - 05

PLOT DATE : 4/25/2022 10:12 AM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- X CLEARING AND GRUBBING
- PROPOSED SIGN

CURVE NO. 3
PI STA = 99+39.84
Y = 668,730.57
X = 756,708.02
PC STA = 98+14.17
Y=668,661.36
X=756,603.12
PT STA = 100+57.70
Y=668,727.35
X=756,833.65
DELTA = 34°53'00"
D = 14°19'26"
T = 125.67'
L = 243.53'
R = 400.00'
EXISTING SE = NC
PROPOSED SE = NC

5

5

STH 77

BUSINESS 53

SERVICE RD A

ALLEY

EX R/W

R/W

CURVE 3

PC: 98+14.17

PT: 100+57.70

98

99

100

101

102

103

104

S88° 31' 57"E

N56° 35' 03"E

N

END CONSTRUCTION
STA 100+14, 95' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

DAHLBERG LIGHT AND POWER COMPANY (ELECTRIC)

WE ENERGIES (GAS)

REMOVING ASPHALTIC SURFACE

REMOVING CONCRETE SIDEWALK

REMOVING CURB & GUTTER

STA 99+37, LT
ASPH
CE

SPECTRUM (COMMUNICATION)

STA 102+78, LT
ASPH
CE

DAHLBERG LIGHT AND POWER COMPANY AND SPECTRUM (ELECTRIC AND COMMUNICATION)

CAUTION

TLE

PROPOSED R/W

STA 101+04, RT
ASPH
CE

STA 101+88, RT
ASPH
CE

STA 102+38, RT
ASPH
CE

STA 103+91, RT
ASPH
CE

VILLAGE OF MINONG (SEWER)

VILLAGE OF MINONG (WATER)

RESIDUAL SOIL CONTAMINATION (SEE SPECIAL PROVISIONS)

RESIDUAL GROUNDWATER CONTAMINATION (SEE SPECIAL PROVISIONS)

END CONSTRUCTION
STA 99+61, 116' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

RICHARDS AVE

JAMES M PRICE
JANE PRICE
LINK FORD AND RV - MINONG LLC
LINK INTERNATIONAL INVESTMENTS LLC
WALKER LUMBER CO INC
DC'S VICTORY LANE LLC
VILLAGE OF MINONG
LAKE NEBAGAMON TELEPHONE CO
LINK FORD AND
LINK FORD AND RV - MINONG LLC

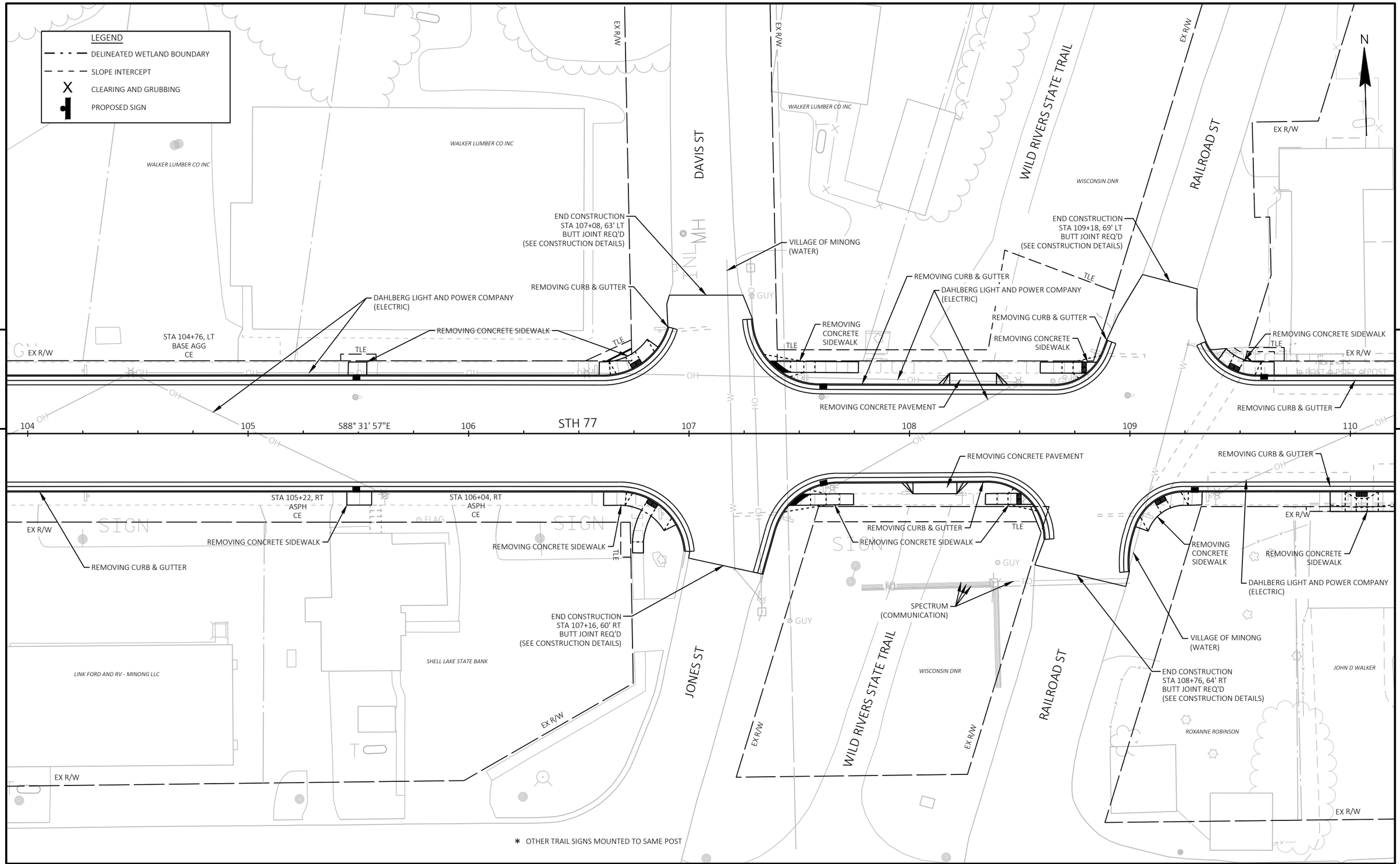
SIGN
CANOPY
TOWER
FILLER CAPS
TANKS
MH
GUY
G.P.
POST

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 82 E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\050202-PN.DWG
LAYOUT NAME - 06

PLOT DATE : 4/25/2022 10:12 AM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 83	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\050202-PN.DWG
LAYOUT NAME - 07

PLOT DATE : 4/25/2022 10:13 AM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND
DELINEATED WETLAND BOUNDARY
SLOPE INTERCEPT
CLEARING AND GRUBBING
PROPOSED SIGN

EX R/W
ALLEY
2ND ST
LISENBY PROPERTIES LLC
LINDA E FOLLAND
THOMAS C FOLLAND
RONALD L GREEN
TR CLUB NORTHERN LLC
MINONG CENTER LLC
LYLE J PASKE
EILEEN C PASKE
N
END CONSTRUCTION
STA 113+17, 66' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)
DAHLBERG LIGHT AND POWER COMPANY
(ELECTRIC)
WE ENERGIES
(GAS)
SPECTRUM
(COMMUNICATION)
REMOVING CONCRETE SIDEWALK
PROPOSED R/W
TLE
CAUTION
REMOVING CURB & GUTTER
STA 116+12, LT
CONC
EX R/W PE
PI: 113+10.66
Y = 668,695.26
X = 758,086.20
STH 77
S88° 31' 57"E
S89° 13' 43"E
110
111
112
113
114
115
116
5
STA 111+24, RT
BASE AGG
CE
MARTIN BEAUVAIS
JOAN BEAUVAIS
JOHN D WALKER
DSAB PROPERTIES LLC
MINONG INVESTMENT PROPERTIES LLC
VILLAGE OF MINONG
(WATER)
DAVID J HARMON
CALVIN E FEATHERLY
PEGGY LEE FEATHERLY
PHILLIP S PAGOREK
LISA K PAGOREK
SEPC
POST

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 84	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\050202-PN.DWG
LAYOUT NAME - 08
PLOT DATE : 4/25/2022 10:13 AM
PLOT BY : NICK MENNINGA
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

LEGEND
DELINEATED WETLAND BOUNDARY
SLOPE INTERCEPT
CLEARING AND GRUBBING
PROPOSED SIGN

NOTE
MOVING SIGNS SHOWN ON PAVING DETAILS AND IN MISCELLANEOUS QUANTITIES.

5

5

STH 77
1ST ST
ALLEY
MAIN ST
RICHARDS AVE
EX R/W
LINDA L STOPINSKI
HANS P STOPINSKI
LYLE J PASKE
EILEEN C PASKE
LINDA L ELLENBERGER
BARRY L COONS
TOWN OF MINONG
PHILIP F FEATHERLY
VILLAGE OF MINONG
BEATRICE N MYERS
DAN D MYERS
DEBORAH SUE GRAFF
GREGORY THOMAS GRAFF
P & L INC
LISA K PAGOREK

END CONSTRUCTION
STA 117+04, 56' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

REMOVING ASPHALTIC SURFACE

DAHLBERG LIGHT AND POWER COMPANY
(ELECTRIC)

VILLAGE OF MINONG
(SEWER)

PROPOSED R/W

REMOVING CURB & GUTTER

REMOVING MASONRY

REMOVING CONCRETE SIDEWALK

S89° 13' 43"E

117
118
119
120
121
122

PC: 119+89.47

CURVE 4

PT: 121+69.41

SPECTRUM
(COMMUNICATION)

STA 121+36, LT
ASPH
PE

WE ENERGIES
GAS)

R/W

S51°26'27"E

90.0'

STA 118+80, RT
ASPH
CE

END CONSTRUCTION
STA 118+80, RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

END CONSTRUCTION
STA 120+73, 82' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

VILLAGE OF MINONG
(WATER)

CURVE NO. 4
PI STA = 120+82.85
Y = 668,684.87
X = 758,858.31
PC STA = 119+89.47
Y=668,686.12
X=758,764.94
PT STA = 121+69.41
Y=668,626.66
X=758,931.34
DELTA = 37°47'16"
D = 20°59'59"
T = 93.38'
L = 179.94'
R = 272.84'
EXISTING SE = 1.8%
PROPOSED SE = 1.8%
SE TRANSITION (T) = 68'
RO (RUNOFF) = 34'

W1-8
18"X24"

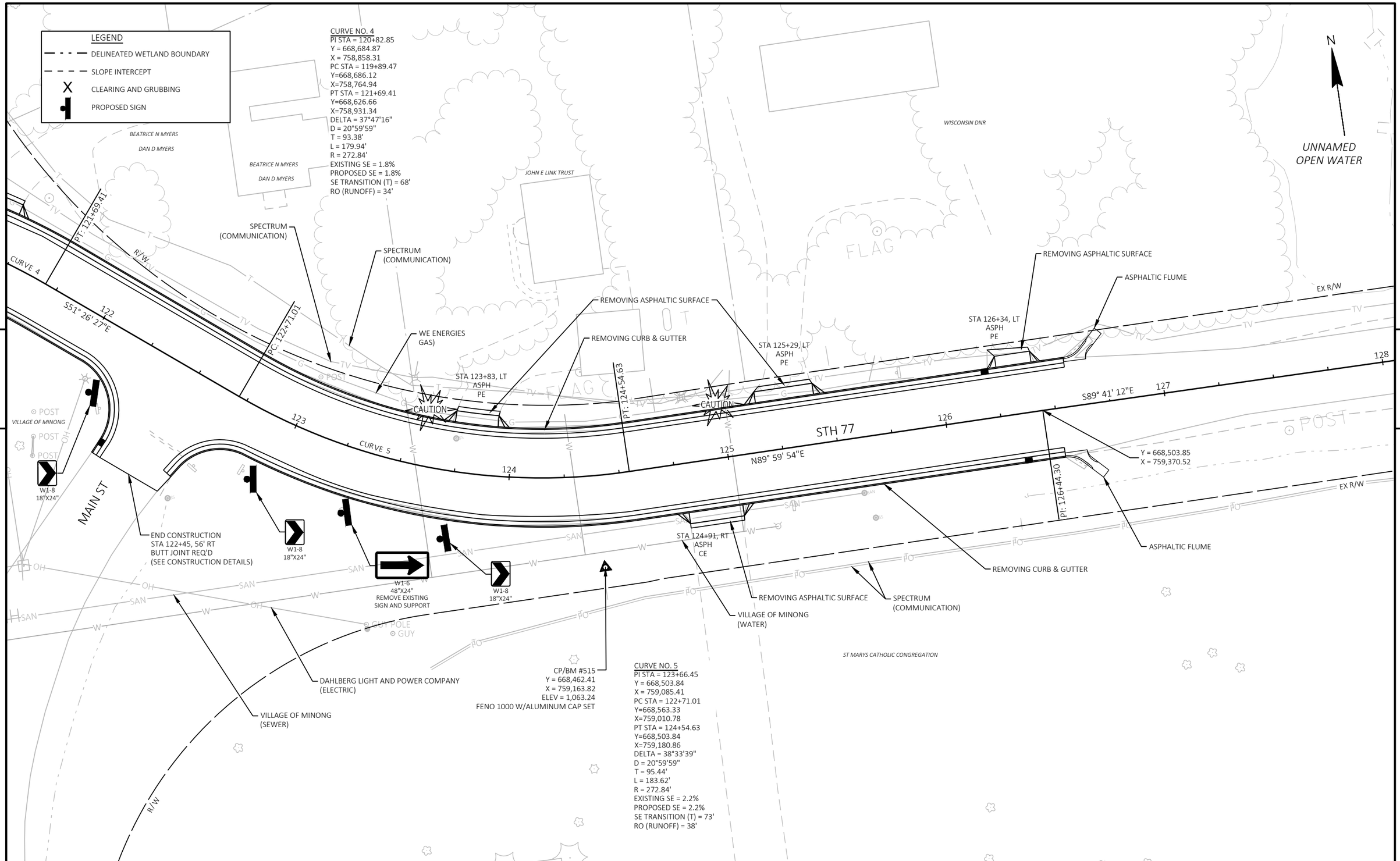
DO NOT DISTURB

42
23 24
26 25
12

END CONSTRUCTION
STA 122+45, 56' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 85	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\050202-PN.DWG
LAYOUT NAME - 09
PLOT DATE : 4/25/2022 10:14 AM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

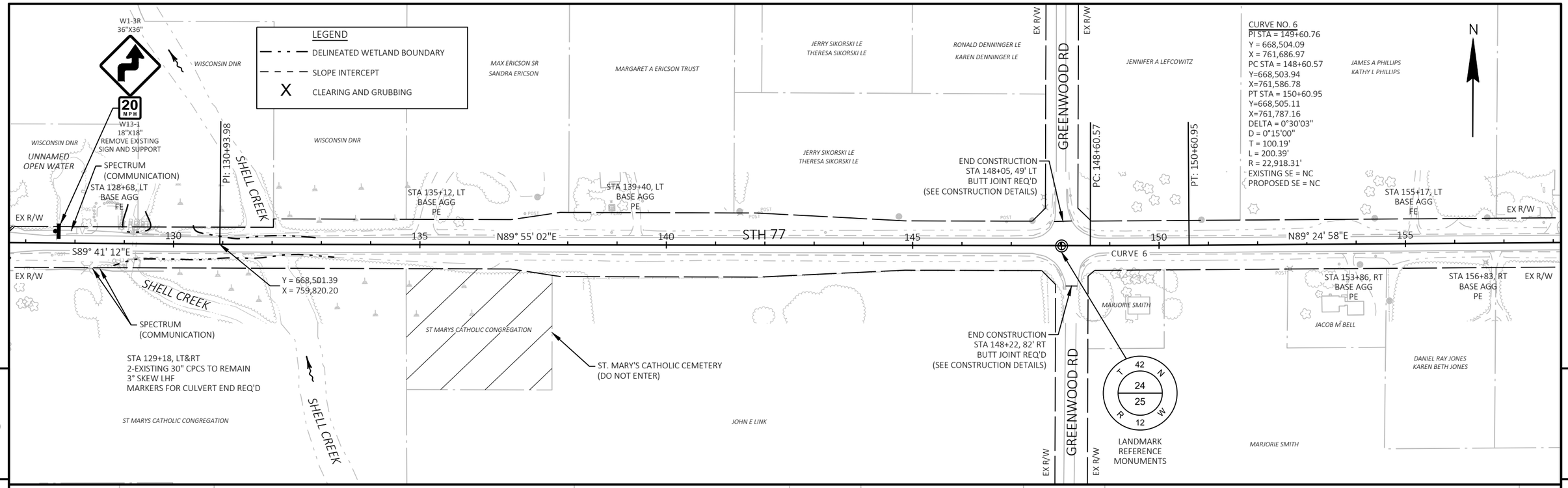


PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 86	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\050202-PN.DWG
LAYOUT NAME - 10

PLOT DATE : 4/25/2022 10:14 AM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 87	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\050203-PN.DWG
LAYOUT NAME - 11

PLOT DATE : 4/25/2022 10:15 AM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:200 FT

LEGEND
- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- X CLEARING AND GRUBBING

RICHARD A JOHNSON
WESLEY N JOHNSON

EVELYN WAGGONER

LINK REALTY HOLDINGS LLC

T 42 N
R 11 W
19
30

LANDMARK REFERENCE MONUMENTS

SEE CONSTRUCTION DETAILS-GUARDRAIL AT LITTLE FROG CREEK FOR GUARDRAIL AND DRIVEWAY LAYOUT INFORMATION

LITTLE FROG CREEK

SPECTRUM (COMMUNICATION)

DAHLBERG LIGHT & POWER COMPANY (ELECTRIC)

MARY E KROEZE
CHESTER D KROEZE

LT
EX R/W

STA 197+19, LT
BASE AGG
PE

STA 199+37, LT
BASE AGG
PE

STA 203+62, LT
BASE AGG
FE

STA 213+12, LT
BASE AGG
FE

STA 215+40, LT
BASE AGG
PE

EX R/W

190 195 200 STH 77 205 S89° 26' 34"E 210 215

EX R/W

NGS

STA 202+75, RT
BASE AGG
PE

STA 212+85, RT
BASE AGG
FE

EX R/W

CP/BM #514
Y = 668,468.03
X = 765,956.04
ELEV = 1,080.23
NGS BRASS CAP IN CONC DN4966
(DO NOT DISTRUB)

B-65-15
(TO REMAIN)
MARKERS FOR CULVERT END REQ'D

LITTLE FROG CREEK

LINK REALTY HOLDINGS LLC

LINK REALTY HOLDINGS LLC

LINK REALTY HOLDINGS LLC

5

5

EX R/W

FROG CREEK RD

EX R/W

LINK REALTY HOLDINGS LLC

STEVEN R WAGGONER
KATHERINE A WAGGONER

MICHAEL H WAGGONER
MARGIE WAGGONER

TROY M WAGGONER

TRAVIS J WAGGONER

SPECTRUM (COMMUNICATION)

END CONSTRUCTION
STA 226+72, 82' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

DAHLBERG LIGHT AND POWER COMPANY (ELECTRIC)

STA 229+11, LT
BASE AGG
PE

STA 231+83, LT
BASE AGG
PE

STA 244+46, LT
BASE AGG
PE

EX R/W

220 225 230 STH 77 235 S89° 26' 34"E 240 245

EX R/W

NGS

STA 224+43, RT
BASE AGG
PE

STA 235+64, RT
BASE AGG
PE

STA 241+72, RT
BASE AGG
FE

EX R/W

CP/BM #513
Y = 668,448.35
X = 769,188.79
ELEV = 1,075.08
NGS BRASS CAP IN CONC L28
(DO NOT DISTURB)

JOHN A GRABOWSKI

END CONSTRUCTION
STA 226+69, 63' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

STA 230+84, LT&RT
EXISTING 24" CPRC TO REMAIN
1° SKEW LHF
CLEANING CULVERT PIPES REQ'D
MARKERS FOR CULVERT END REQ'D

OAK TREE DR

T 42 N
R 11 W
19 20
30 29

LANDMARK REFERENCE MONUMENTS

LINK REALTY HOLDINGS LLC

JOHN E LINK TRUST

JOHN E LINK TRUST

JOHN E LINK TRUST

EX R/W

EX R/W

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 88	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\050203-PN.DWG
LAYOUT NAME - 12

PLOT DATE : 4/25/2022 10:16 AM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:200 FT

LEGEND
DELINEATED WETLAND BOUNDARY
SLOPE INTERCEPT
X CLEARING AND GRUBBING

T 42 N
R 11 W
20 29

LANDMARK REFERENCE MONUMENTS

SPECTRUM (COMMUNICATION)

DAHLBERG LIGHT AND POWER COMPANY (ELECTRIC)

EX R/W

250 255 260 265 270 275 280

STH 77

S89° 26' 34"E

N64° 18' 40"E

CURVE 8

LINK REALTY HOLDINGS LLC

LINK REALTY HOLDINGS LLC

ELIZABETH A GAUGER
KATHERINE WALKER

JOHN E LINK TRUST

CURT J WITTE
MARILYN M WITTE

TRENT WAGGONER
DENISE WAGGONER

STA 249+55, LT&RT
EXISTING 24" CPRC TO REMAIN
2° SKEW RHF
CLEANING CULVERT PIPES REQ'D
MARKERS FOR CULVERT END REQ'D

JOINT TIES FOR CONCRETE PIPE REQ'D, RT
DITCH CLEANING FROM ENDWALL TO 50' LT
PERMITTED WETLAND IMPACTS
(SEE CONSTRUCTION DETAILS)

STA 255+65, RT
BASE AGG
FE

STA 258+43, LT
BASE AGG
FE

STA 265+38, LT
BASE AGG
FE

STA 269+67, LT&RT
EXISTING 24" CPRC TO REMAIN
1° SKEW LHF
MARKERS FOR CULVERT END REQ'D

CP/BM #512
Y = 668,487.48
X = 773,990.63
ELEV = 1,113.34
NGS BRASS CAP IN CONC DN4966
(DO NOT DISTURB)

NGS

STA 273+55, LT
BASE AGG
PE

PC: 271+62.33

PT: 277+79.89

CURVE NO. 8
PI STA = 274+76.63
Y = 668,431.70
X = 774,202.25
PC STA = 271+62.33
Y=668,434.75
X=773,887.97
PT STA = 277+79.89
Y=668,567.94
X=774,485.48
DELTA = 26°14'46"
D = 4°15'00"
T = 314.29'
L = 617.56'
R = 1,348.14'
EXISTING SE = 5.7%
PROPOSED SE = 5.8%
SE TRANSITION (T) = 199'
RO (RUNOFF) = 148'

STA 278+98, RT
BASE AGG
PE

T 42 N
R 11 W
20 21 29 28

DO NOT DISTURB

N

5

5

PAMELA J WAGGONER

PAMELA J WAGGONER

PAMELA J WAGGONER

PAMELA J WAGGONER

TRENT C WAGGONER
DENISE M WAGGONER

WASHBURN CO CFL

WASHBURN CO CFL

SPECTRUM (COMMUNICATION)

DAHLBERG LIGHT AND POWER COMPANY (ELECTRIC)

SPECTRUM (COMMUNICATION)

PC: 281+28.66

EX R/W

280 285 290 295 300 305 310

CURVE 9

STH 77

S73° 03' 35"E

N64° 18' 40"E

CURVE 10

S46° 27' 27"E

STA 278+98, RT
BASE AGG
PE

STA 283+76, LT&RT
EXISTING 24" CPRC TO REMAIN
6° SKEW RHF
CLEANING CULVERT PIPES REQ'D
MARKERS FOR CULVERT END REQ'D

T 42 N
R 11 W
20 21 29 28

DO NOT DISTURB

STA 289+67, LT&RT
EXISTING 24" CPRC TO REMAIN
2° SKEW LHF
CLEANING CULVERT PIPES REQ'D
MARKERS FOR CULVERT END REQ'D

STA 291+23, LT
BASE AGG
PE

PT: 291+31.70

CURVE NO. 9
PI STA = 286+54.67
Y = 668,947.14
X = 775,273.80
PC STA = 281+28.66
Y=668,719.12
X=774,799.78
PT STA = 291+31.70
Y=668,793.87
X=775,776.99
DELTA = 42°37'44"
D = 4°15'00"
T = 526.01'
L = 1,003.04'
R = 1,348.14'
EXISTING SE = 5.7%
PROPOSED SE = 5.8%
SE TRANSITION (T) = 199'
RO (RUNOFF) = 148'

STA 292+98, LT&RT
EXISTING 24" CPRC TO REMAIN
23° SKEW LHF
MARKERS FOR CULVERT END REQ'D

PC: 302+84.28

CP/BM #511
Y = 668,379.50
X = 777,199.69
ELEV = 1,114.43
NGS BRASS CAP IN CONC D146
(DO NOT DISTRUB)

T 42 N
R 11 W
21 28

DO NOT DISTURB

STA 306+23, LT
BASE AGG
FE

NGS

PT: 309+10.22

CURVE NO. 10
PI STA = 306+02.99
Y = 668,365.18
X = 777,184.44
PC STA = 302+84.28
Y=668,458.05
X=776,879.55
PT STA = 309+10.22
Y=668,145.62
X=777,415.47
DELTA = 26°36'09"
D = 4°15'00"
T = 318.72'
L = 625.94'
R = 1,348.14'
EXISTING SE = 5.9%
PROPOSED SE = 5.9%
SE TRANSITION (T) = 202'
RO (RUNOFF) = 151'

N

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 89	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\050203-PN.DWG
LAYOUT NAME - 13

PLOT DATE : 4/25/2022 10:17 AM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:200 FT

LEGEND

DELINEATED WETLAND BOUNDARY

SLOPE INTERCEPT

X CLEARING AND GRUBBING

CURVE NO. 10
PI STA = 306+02.99
Y = 668365.18
X = 777184.44
PC STA = 302+84.28
Y=668458.05
X=776879.55
PT STA = 309+10.22
Y=668145.62
X=777415.47
DELTA = 26°36'09"
D = 4°15'00"
T = 318.72'
L = 625.94'
R = 1,348.14'
EXISTING SE = 5.9%
PROPOSED SE = 5.9%
SE TRANSITION (T) = 202'
RO (RUNOFF) = 151'

CURVE NO. 11
PI STA = 318+68.31
Y = 667,485.59
X = 778,109.95
PC STA = 312+47.11
Y=667,913.53
X=777,659.67
PT STA = 324+11.32
Y=667,549.84
X=778,727.82
DELTA = 49°28'44"
D = 4°15'00"
T = 621.20'
L = 1,164.21'
R = 1,348.14'
EXISTING SE = 5.5%
PROPOSED SE = 5.5%
SE TRANSITION (T) = 180'
RO (RUNOFF) = 132'

STA 311+47, LT&RT
2-EXISTING 48" CPRC TO REMAIN
34° SKEW LHF
MARKERS FOR CULVERT END REQ'D

STA 316+17, RT
BASE AGG
FE

STA 322+21, LT
BASE AGG
FE

STA 325+52, RT
BASE AGG
FE

STA 327+27, LT
BASE AGG
FE

WASHBURN CO CFL

WASHBURN CO CFL

STATION & OFFSET TABLE (GUARDRAIL)			
POINT	STATION	OFFSET	REMARKS
Q	354+26.20	18.00' LT	AGG SHLDR TAPER
R	354+93.35	15.00' LT	PAVED SHLDR TAPER
S	355+46.22	20.00' LT	POST #1
T	355+96.88	18.00' LT	POST #9
U	361+41.32	18.00' LT	POST#9
V	361+91.32	20.00' LT	POST #1
W	362+40.40	15.00' LT	PAVED SHLDR TAPER
X	363+07.70	18.00' LT	AGG SHLDR TAPER

POST SPACING OVER CULVERT REMAINS NORMAL OVER CULVERT PIPES. POSTS DRIVEN WILL BE WITHIN 1 FOOT OF THE TOP OF THE CULVERT.

CURVE NO. 12
PI STA = 353+63.65
Y = 667,855.17
X = 781,664.32
PC STA = 350+68.59
Y=667,824.65
X=781,370.84
PT STA = 356+49.90
Y=668,003.40
X=781,919.44
DELTA = 24°13'22"
D = 4°10'01"
T = 295.06'
L = 581.30'
R = 1,375.00'
EXISTING SE = 5.7%
PROPOSED SE = 5.8%
SE TRANSITION (T) = 199'
RO (RUNOFF) = 148'

STA 342+82, LT&RT
EXISTING 36" CPRC TO REMAIN
1° SKEW RHF
MARKERS FOR CULVERT END REQ'D

STA 353+27, RT
BASE AGG
CE

STA 356+08 - STA 360+48, LT
REMOVING GUARDRAIL

STA 355+46 - STA 361+91, LT
MGS GUARDRAIL 3 K
MGS GUARDRAIL TERMINAL EAT

STA 359+79 AND STA 359+89, LT&RT
2-EXISTING 48" CPRC TO REMAIN
MARKERS FOR CULVERT END REQ'D

DO NOT DISTURB

CURVE NO. 13
PI STA = 366+00.18
Y = 668,480.82
X = 782,741.08
PC STA = 362+19.00
Y=668,289.32
X=782,411.50
PT STA = 369+62.28
Y=668,473.14
X=783,122.18
DELTA = 31°18'50"
D = 4°12'47"
T = 381.18'
L = 743.28'
R = 1,360.00'
EXISTING SE = 5.7%
PROPOSED SE = 5.8%
SE TRANSITION (T) = 199'
RO (RUNOFF) = 148'

STA 367+49, LT
BASE AGG
FE

STA 368+87, LT&RT
EXISTING 24" CPRC TO REMAIN
5° SKEW LHF
MARKERS FOR CULVERT END REQ'D

WASHBURN COUNTY HWY DEPT

WASHBURN CO CFL

WASHBURN CO CFL

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 90	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\050203-PN.DWG
LAYOUT NAME - 14

PLOT DATE : 4/25/2022 10:17 AM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- X CLEARING AND GRUBBING

WASHBURN CO CFL

CURVE NO. 14
PI STA = 393+15.79
Y = 668,425.70
X = 785,475.21
PC STA = 385+91.44
Y=668,440.30
X=784,751.01
PT STA = 399+20.81
Y=667,813.76
X=785,862.77
DELTA = 56°29'52"
D = 4°15'00"
T = 724.35'
L = 1,329.37'
R = 1,348.14'
EXISTING SE = 5.8%
PROPOSED SE = 5.8%
SE TRANSITION (T) = 199'
RO (RUNOFF) = 148'

T 42 N
22 23
27 26
R 11 W

LANDMARK REFERENCE MONUMENTS

N

EX R/W

CTH G

PC: 385+91.44

STH 77

CURVE 14

380 385 390 395 400

S88° 50' 42"E

S32° 20' 50"E

PT: 399+20.81

END CONSTRUCTION
STA 392+57, 78' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

REMOVING CURB & GUTTER
(SEE CONSTRUCTION DETAILS AND INTERSECTION DETAILS FOR ADDITIONAL INFORMATION)

END PROJECT
STA 397+80
(MATCH ID 8550-00-70)

STA 386+01, LT&RT
EXISTING 24" CPRC TO REMAIN
CLEANING CULVERT PIPES REQ'D
MARKERS FOR CULVERT END REQ'D

STA 393+16, LT&RT
EXISTING " CPRC TO REMAIN
24° SKEW LHF
MARKERS FOR CULVERT END REQ'D

NGS

CP/BM #510
Y = 668,404.94
X = 783,378.18
ELEV = 1,138.89
NGS BRASS CAP IN ROCK E146
(DO NOT DISTURB)

CP/BM #500
Y = 667,796.54
X = 785,820.90
ELEV = 1,141.86
NGS BRASS CAP IN CONC DN3610
(DO NOT DISTURB)

WASHBURN CO CFL

5

5

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	PLAN	SHEET 91 E

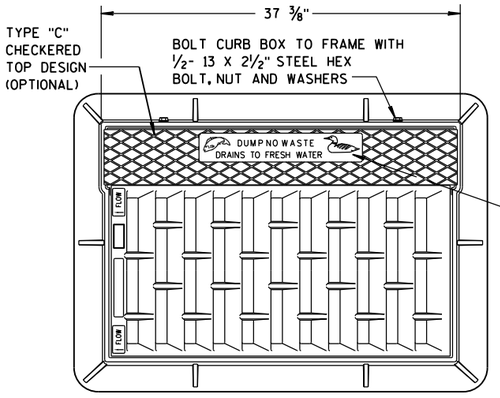
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LAYOUT NAME - 15

PLOT DATE : 4/25/2022 10:18 AM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:200 FT

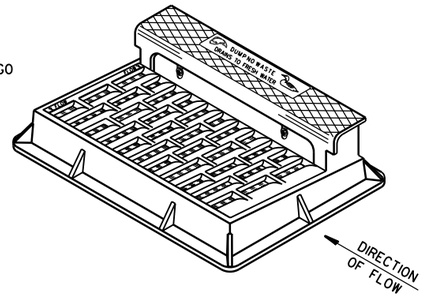
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-06	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D18-03	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-03	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
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
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F07-05	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS
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
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
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)
14B53-01A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01I	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
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)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-08	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15C36-01	PARKING STALL MARKING
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
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
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

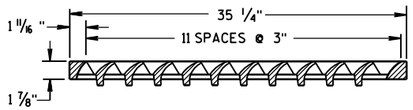
6

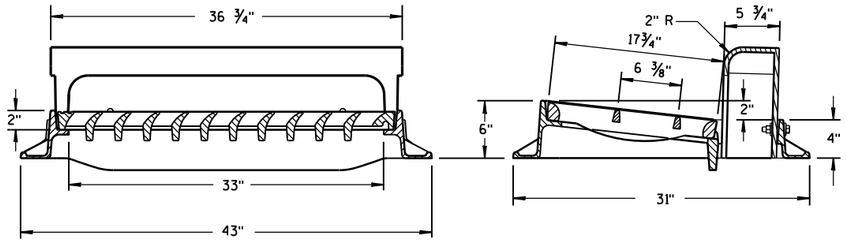


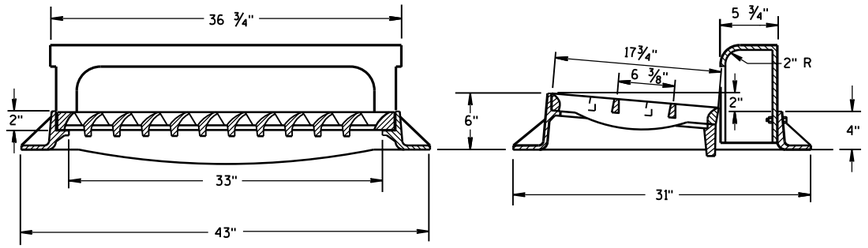
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

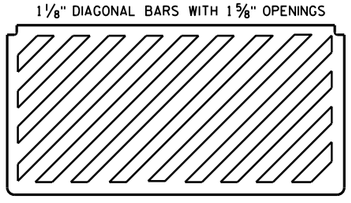






TYPE "H"

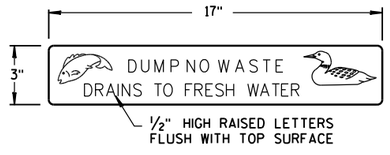
NOTE: EITHER CASTING IS ACCEPTABLE



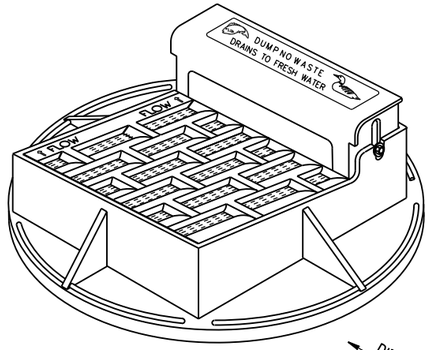
SPECIAL GRATE FOR TYPE "H" COVER

(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"

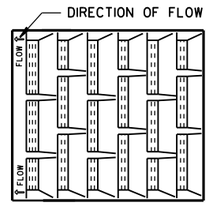
NOTE:
GRATE IS REVERSIBLE.

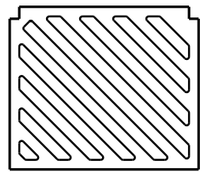
GENERAL NOTES

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.

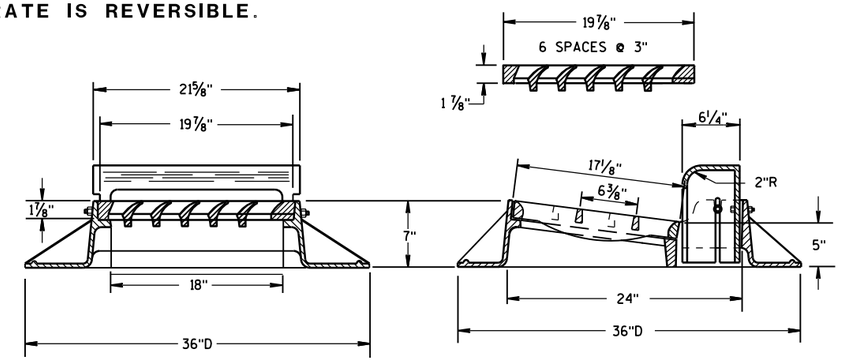




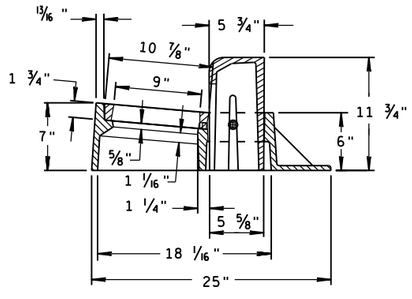
SPECIAL GRATE FOR TYPE "A" COVER

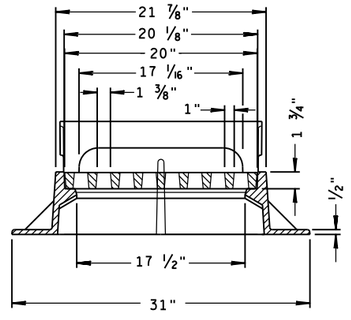
(MEASURES 19 3/4" X 17" X 1 7/8")

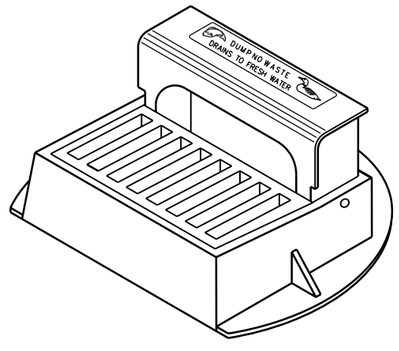
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"







TYPE "Z"

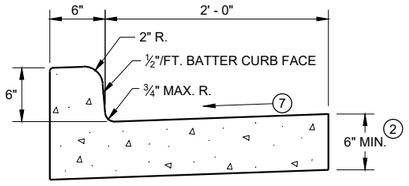
INLET COVERS
TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

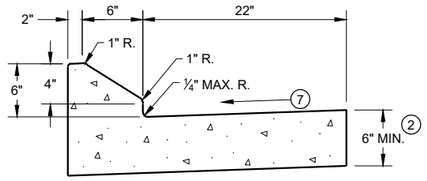
APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

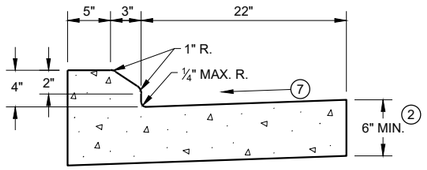
S.D.D. 8 A 5-19a



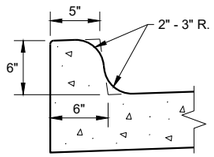
TYPES A (1) & D



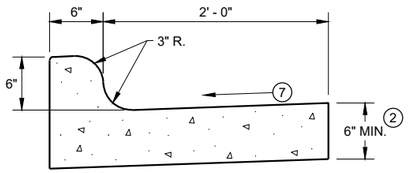
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

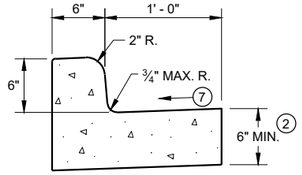


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



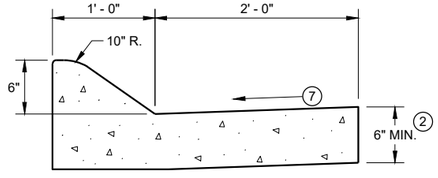
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"



TYPES A (1) & D

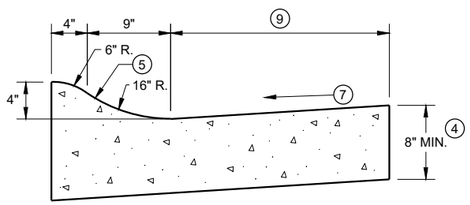
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

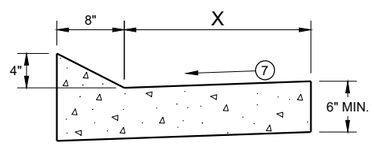
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

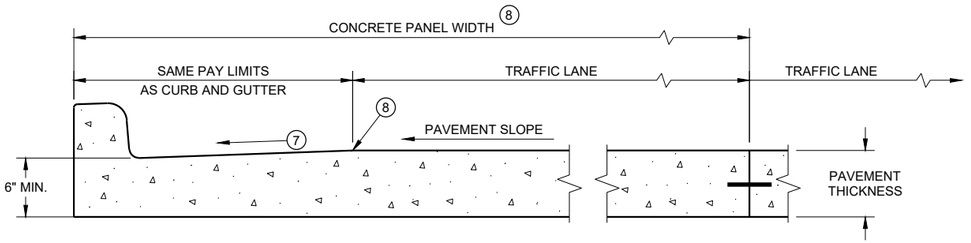


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

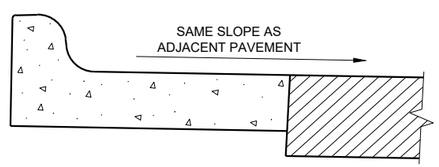
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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.

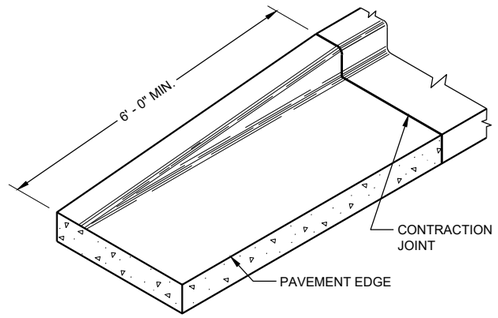
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

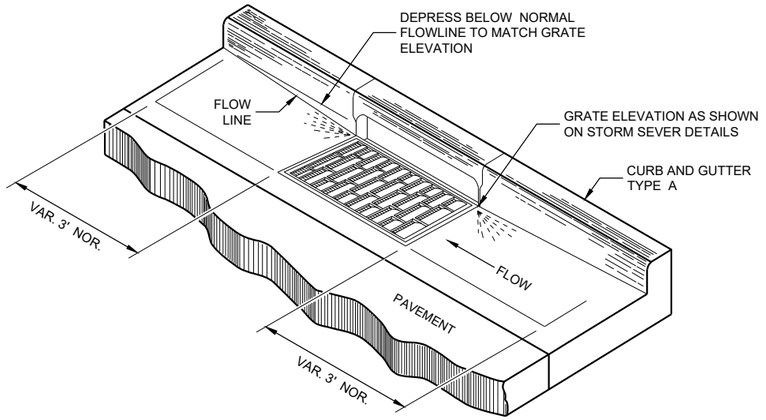
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.

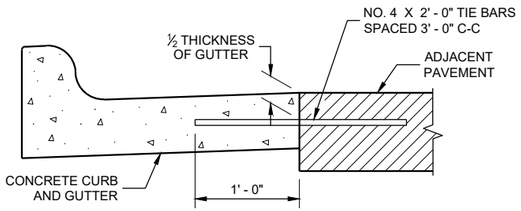
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

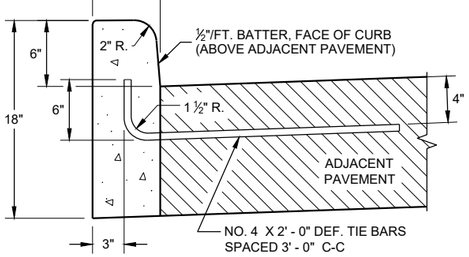
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(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.

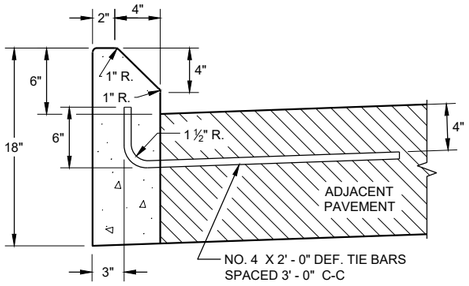
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

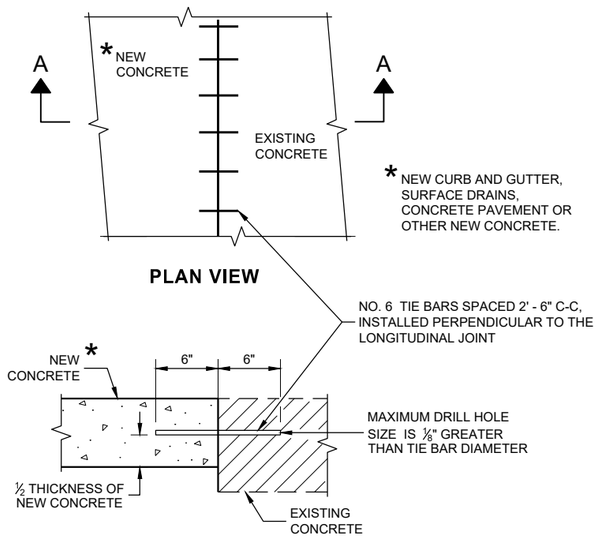


TYPES A (1) & D



TYPES G (1) & J

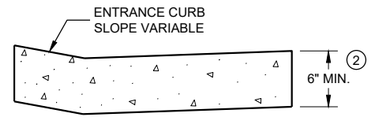
CONCRETE CURB



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

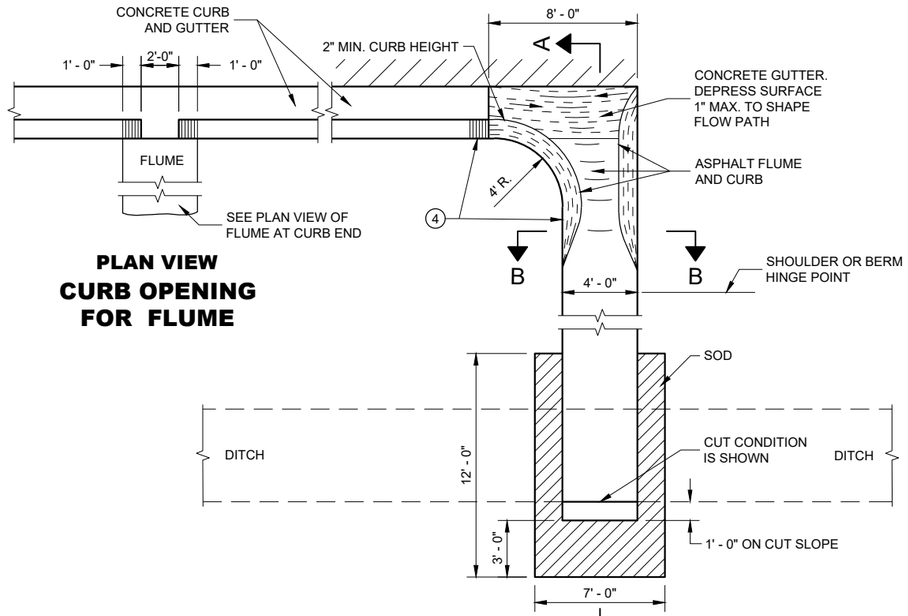
FHWA

6

SDD08D01 - 22b
SDD08D01 - 22b

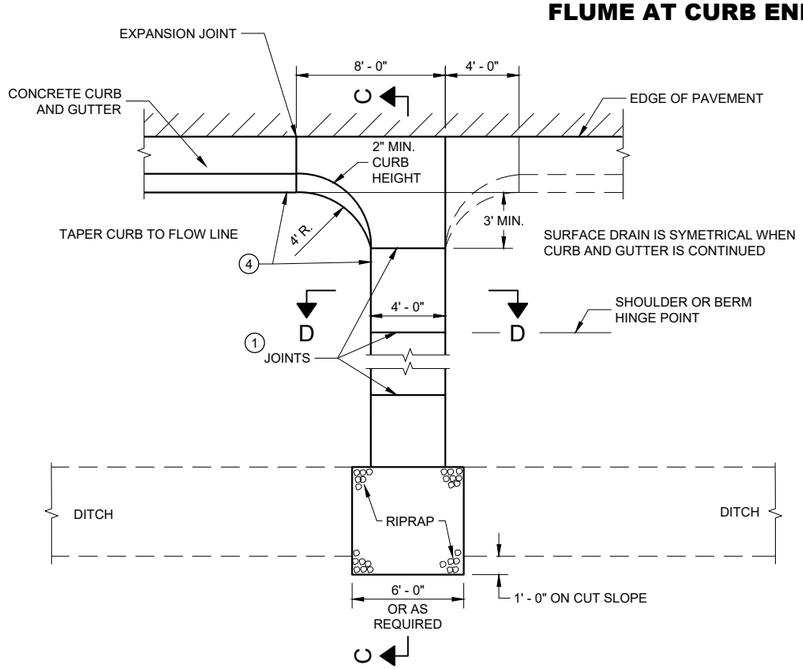
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



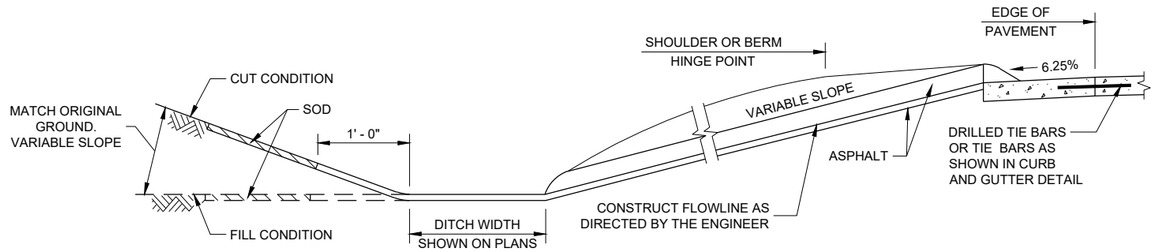
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

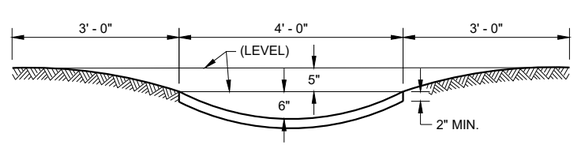
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

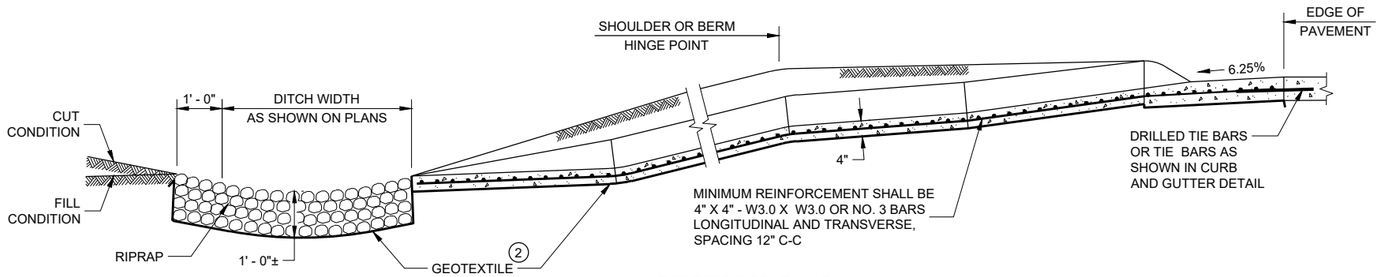
1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



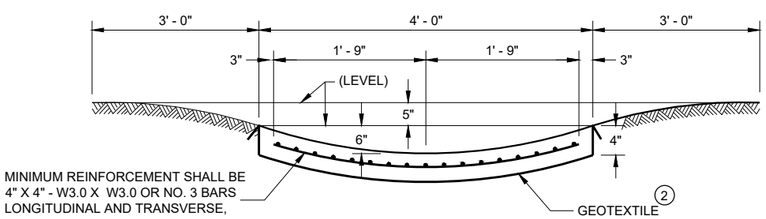
SECTION A - A



SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

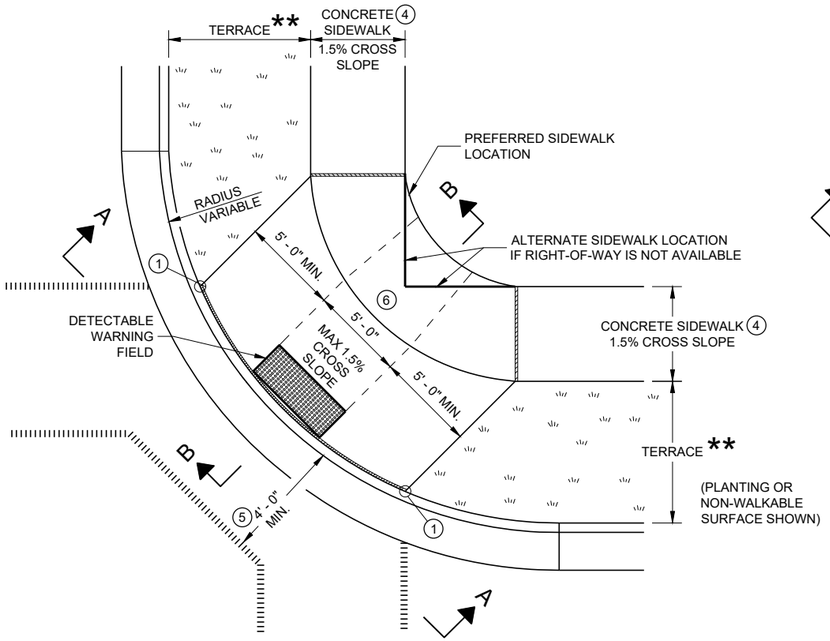
FHWA

6

SDD 08D04 - 06

6

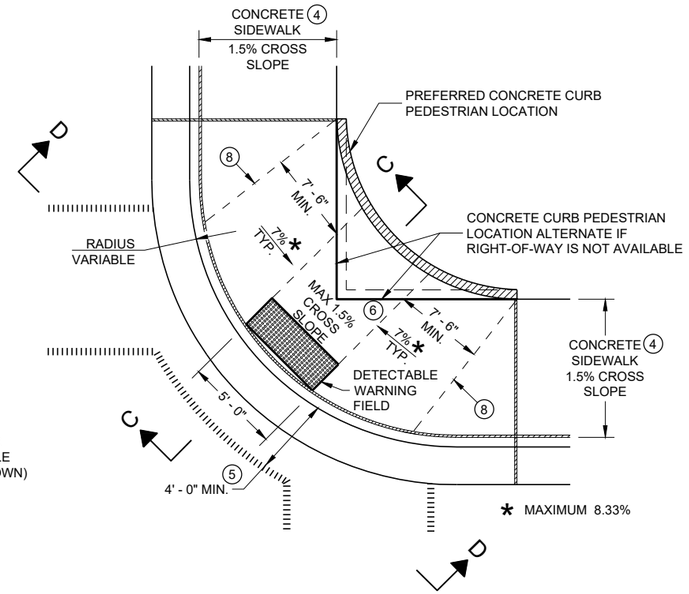
SDD 08D04 - 06



PLAN VIEW

CURB RAMP TYPE 1

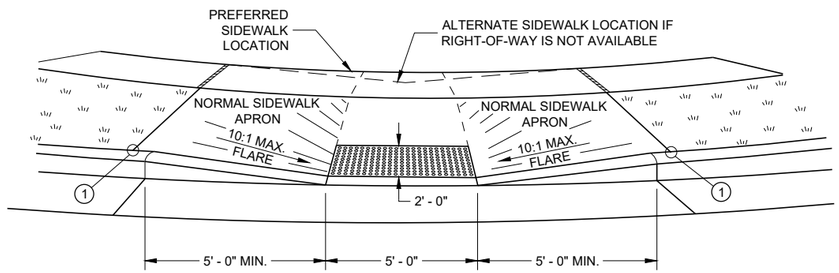
(CENTER OF CORNER RADIUS)



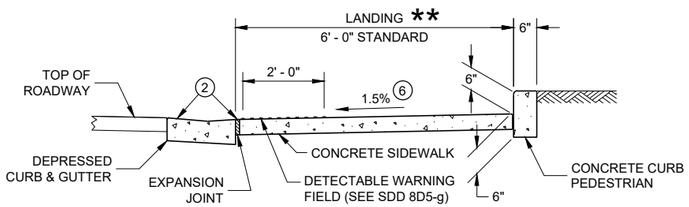
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

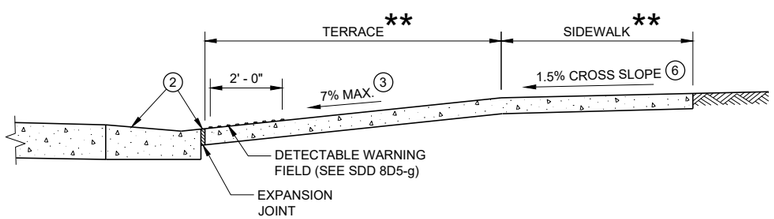


VIEW A - A FOR TYPE 1

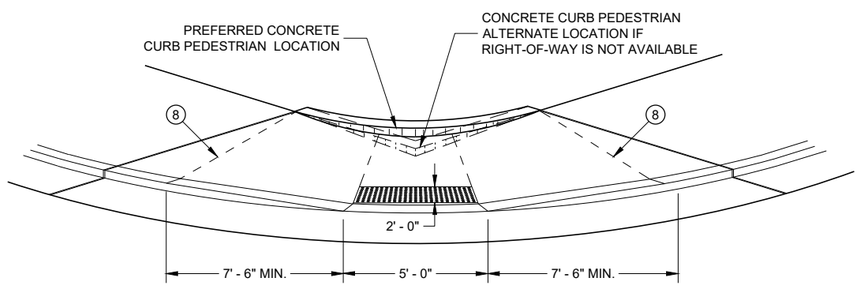


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

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.

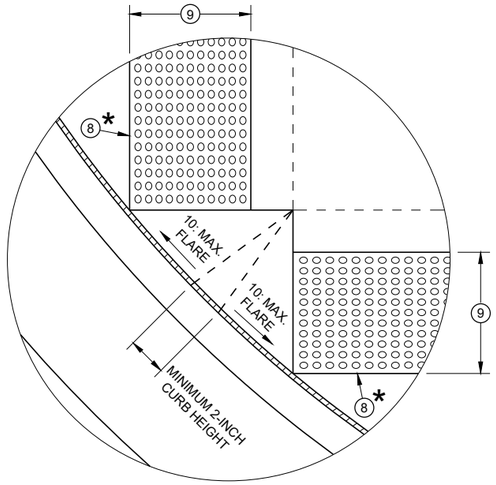
LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

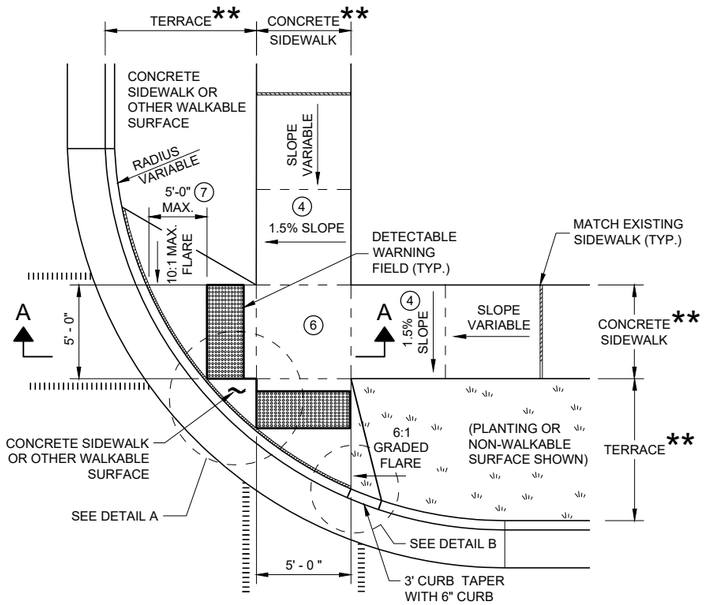
CURB RAMPS
TYPE 1 AND 1-A

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.

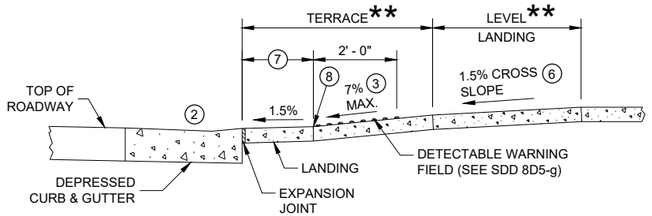
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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.

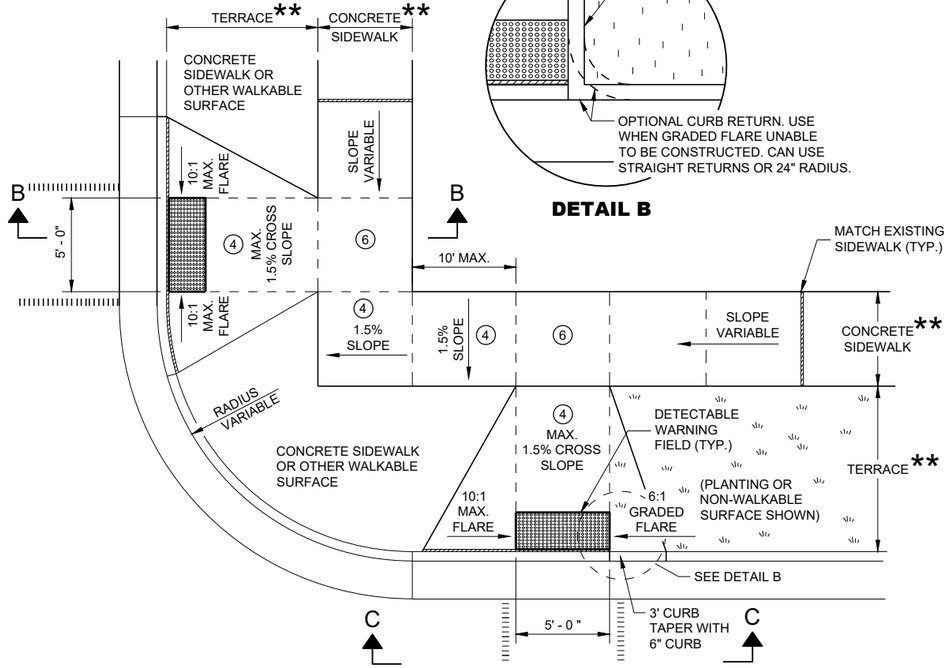
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2

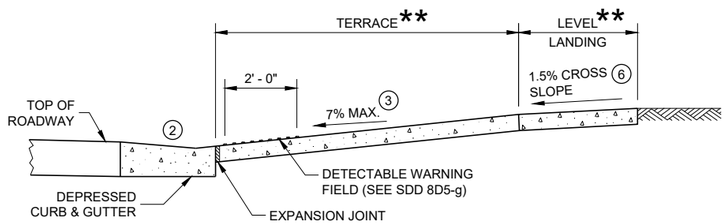
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

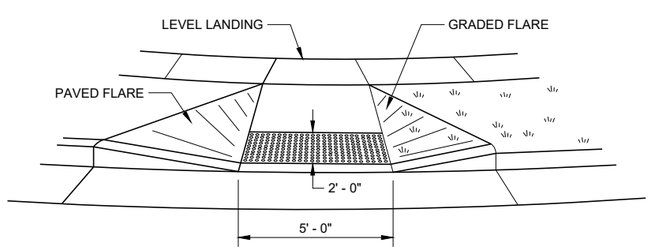


DETAIL B

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



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

LEGEND

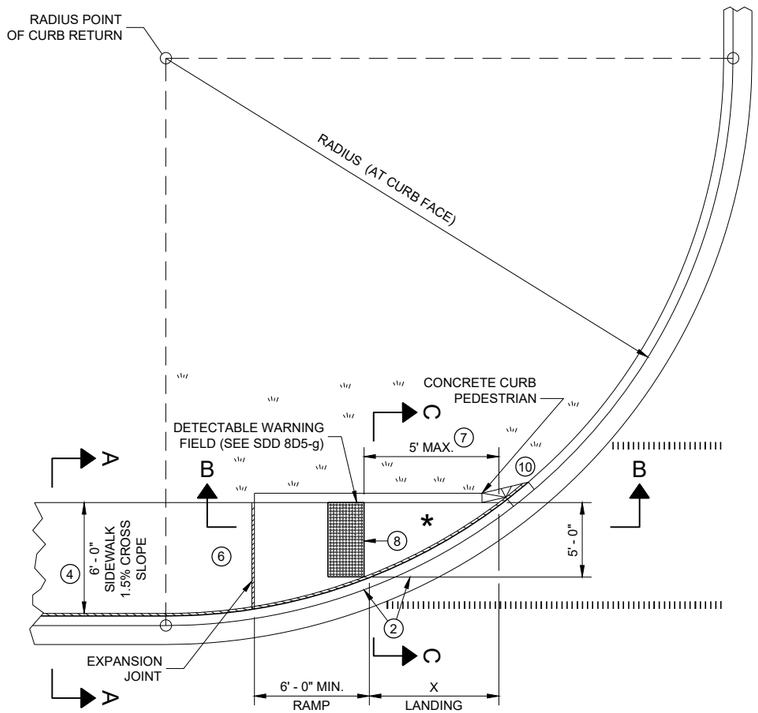
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20b

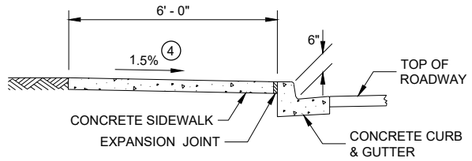


PLAN VIEW

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.

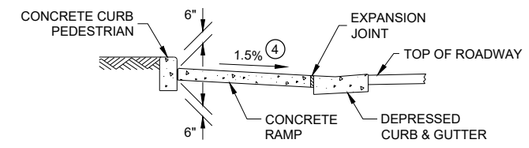
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

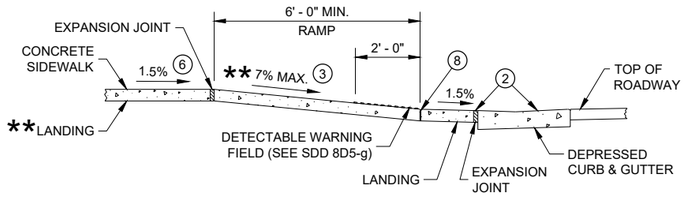
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



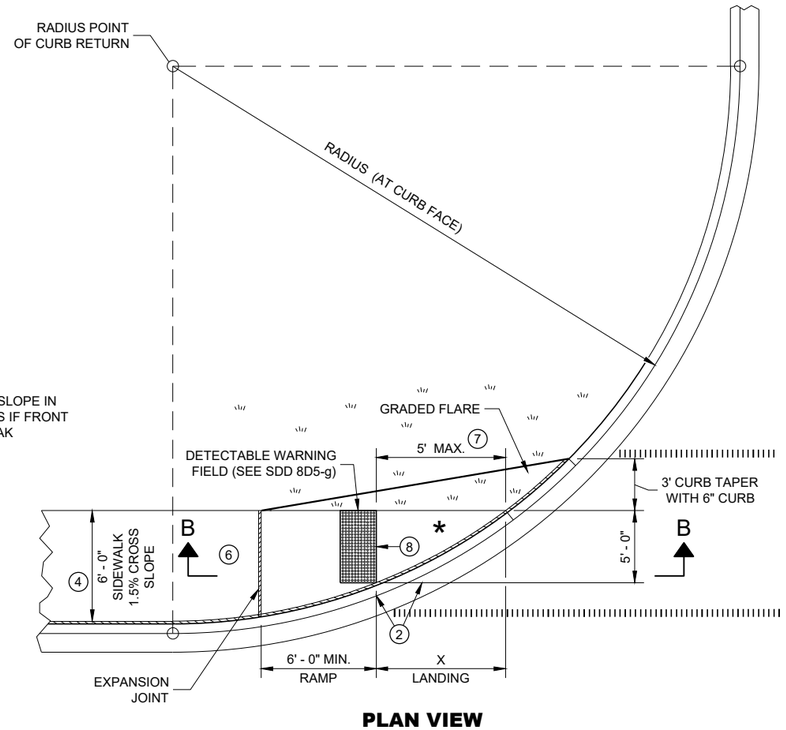
SECTION C - C FOR TYPE 4A



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

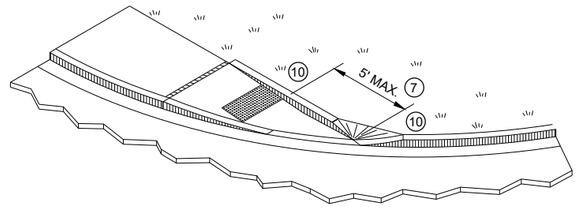
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

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

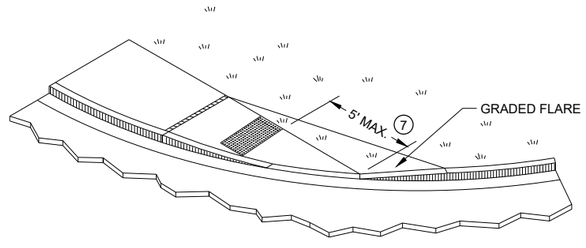


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



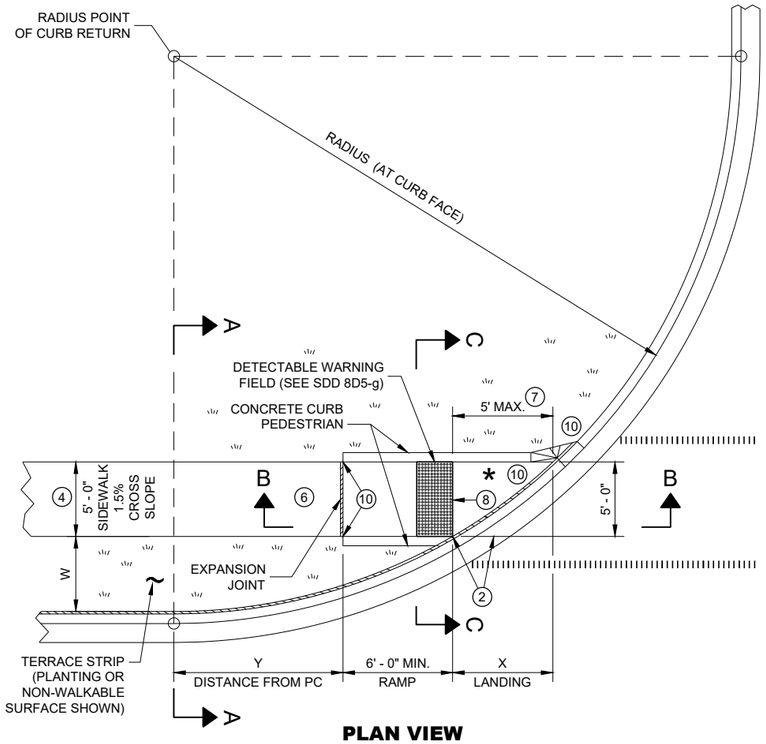
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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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.

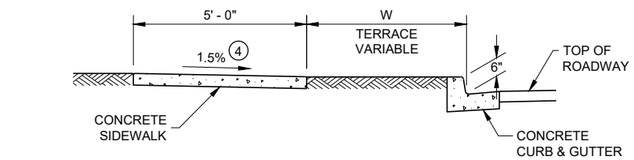
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

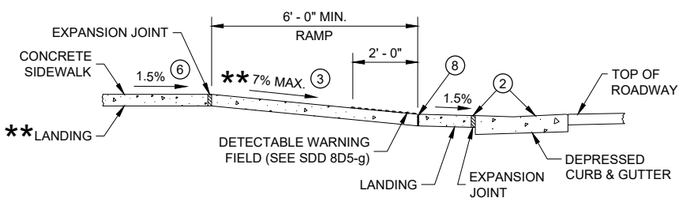
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



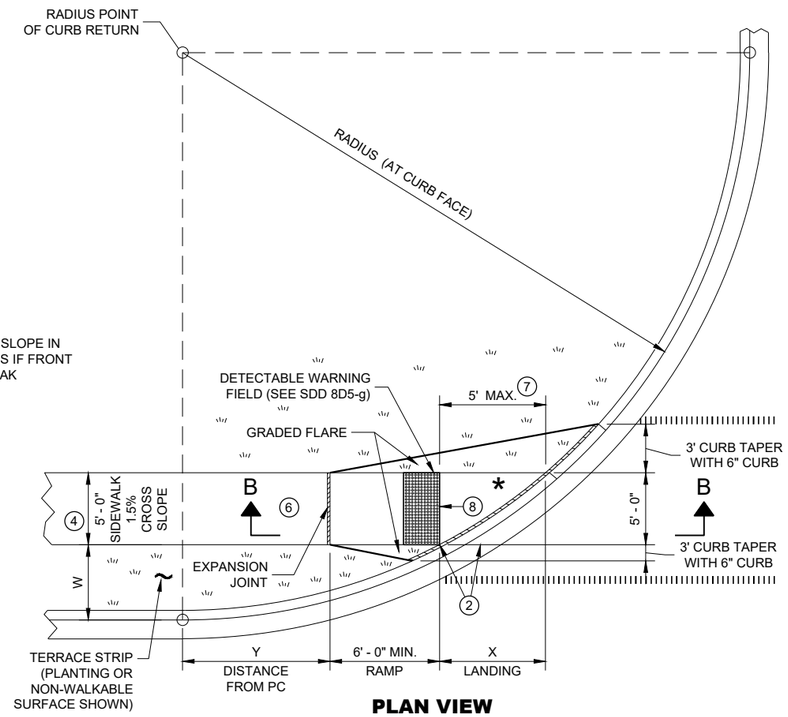
SECTION A - A FOR TYPE 4B



SECTION B - B FOR TYPE 4B AND TYPE 4B1

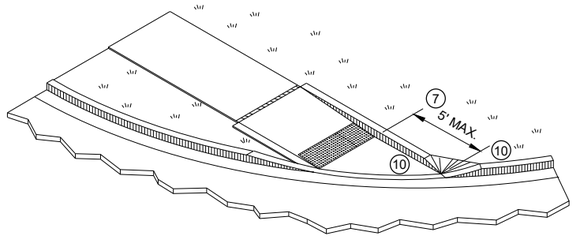
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

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

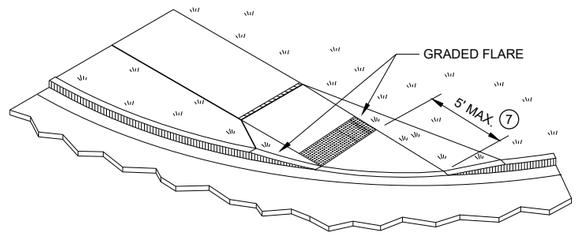


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



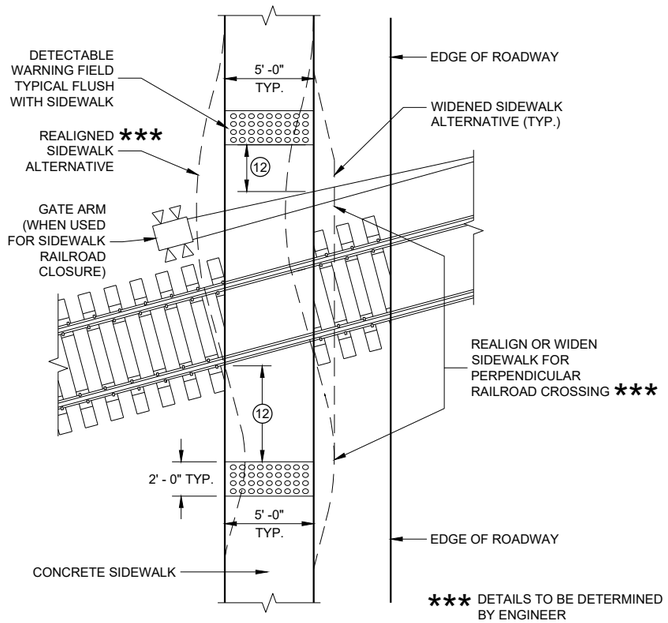
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

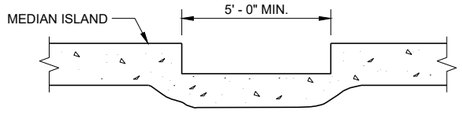
6

SDD 08D05 - 20d

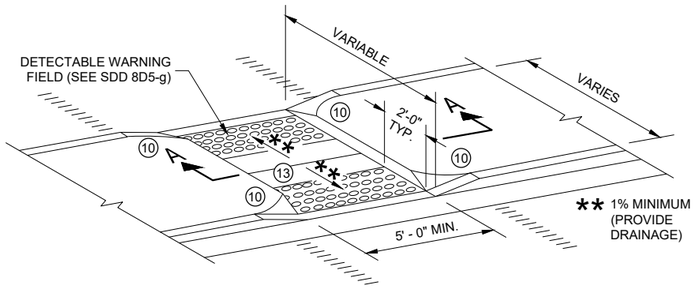


CURB RAMP TYPE 8

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.

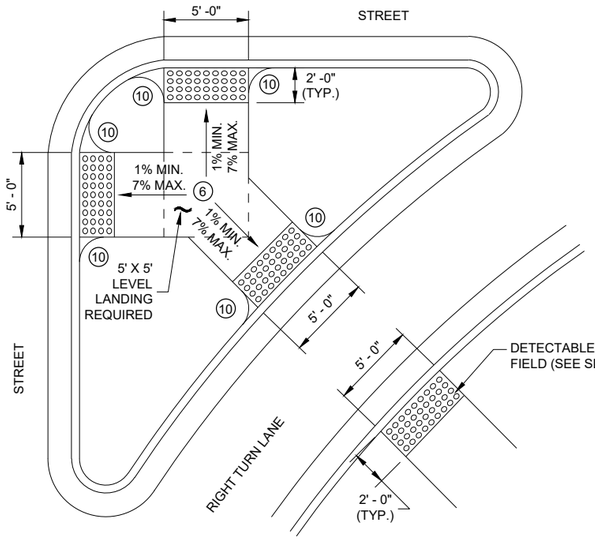
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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

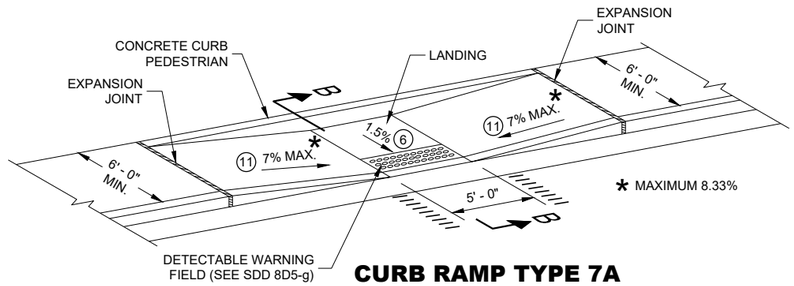
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

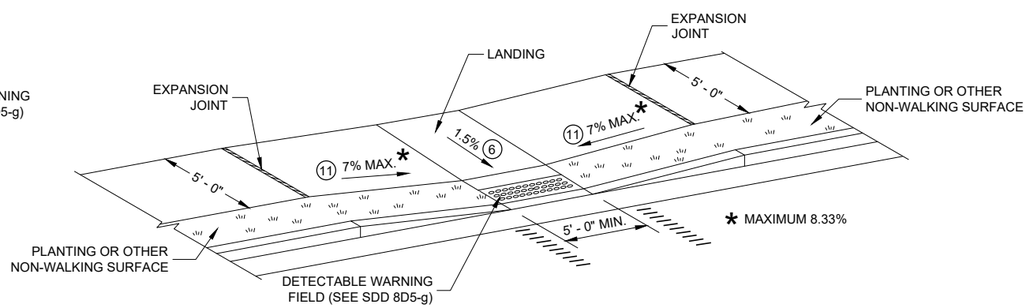
DETECTABLE WARNING AT ISLANDS

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



CURB RAMP TYPE 7A

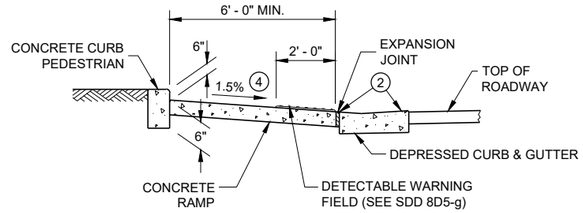
MID BLOCK CROSSING



CURB RAMP TYPE 7B

MID BLOCK CROSSING

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

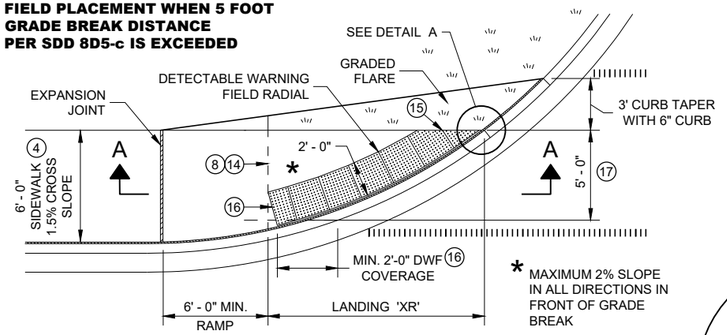


SECTION B - B FOR TYPE 7A

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

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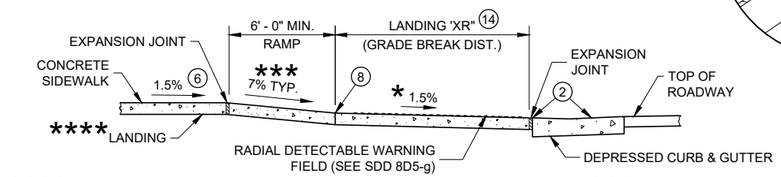
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



PLAN VIEW

CURB RAMP TYPE 4A1

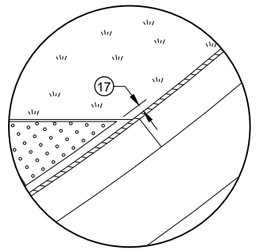
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** 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.

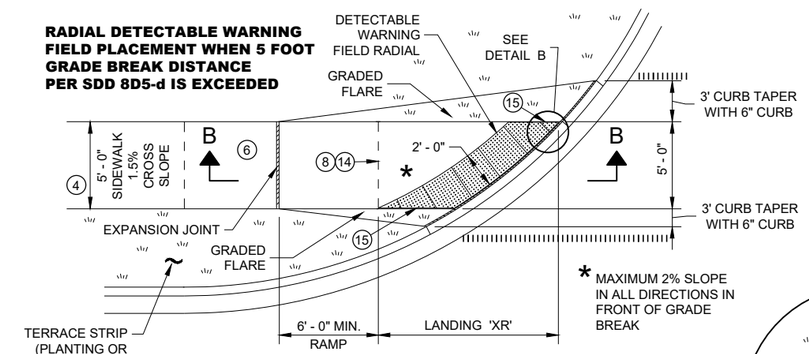
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(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.

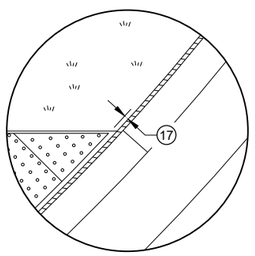
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



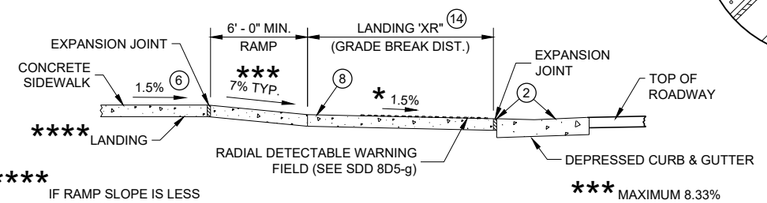
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B

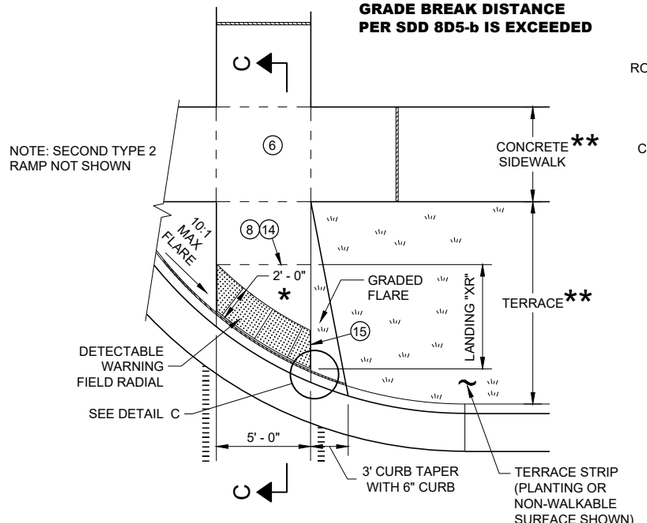


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** 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

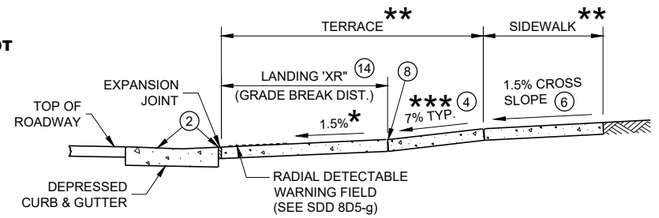


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

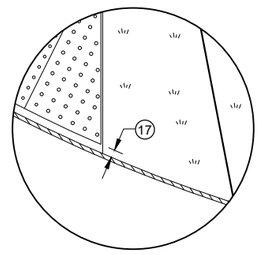


SECTION C - C FOR TYPE 2

* 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

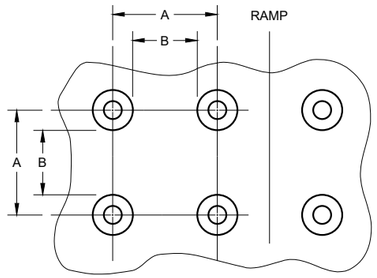
STATE OF WISCONSIN
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SDD 08D05 - 20f

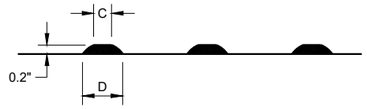
SDD 08D05 - 20f

	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.

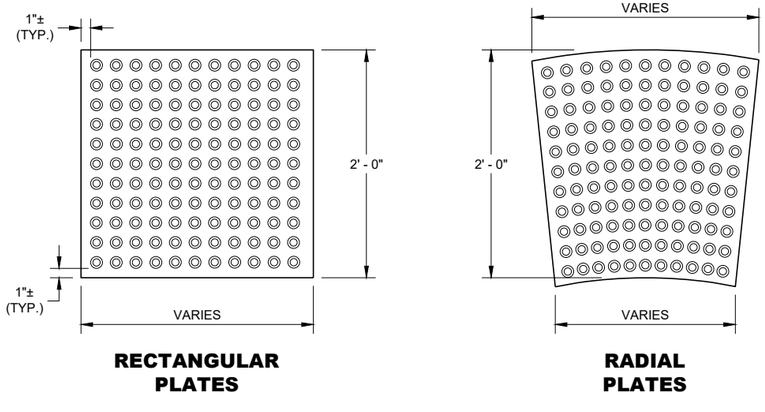


PLAN VIEW



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.

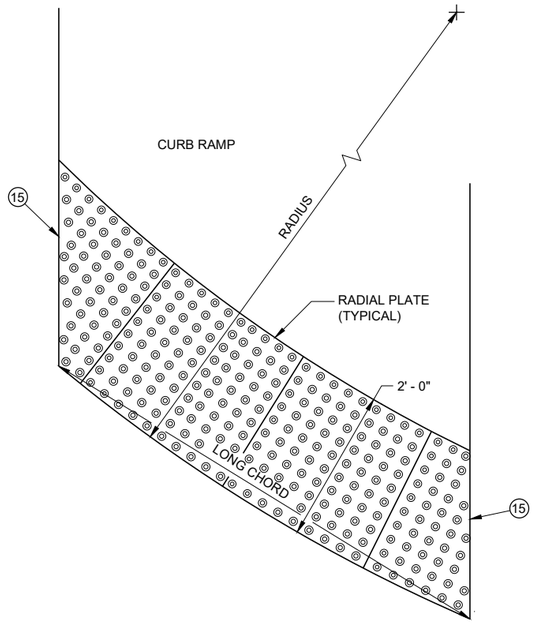
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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.

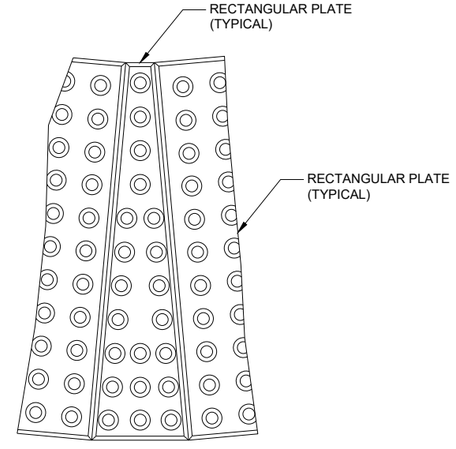
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

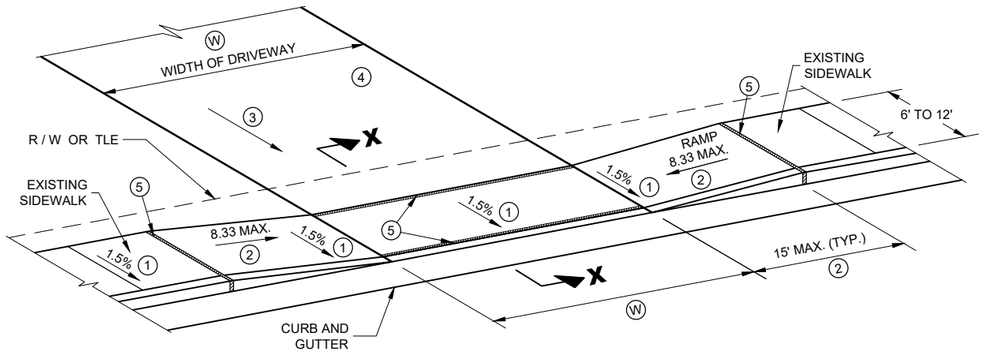
CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

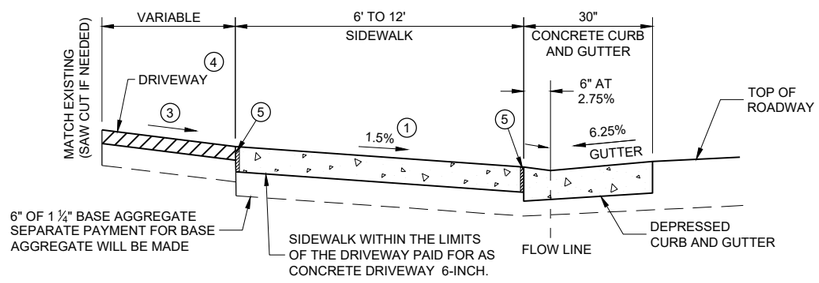
APPROVED
May 2019 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

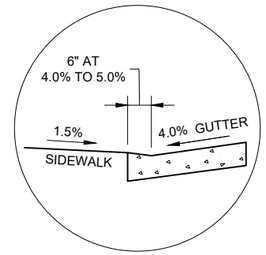
6
SDD 08D05 - 20g



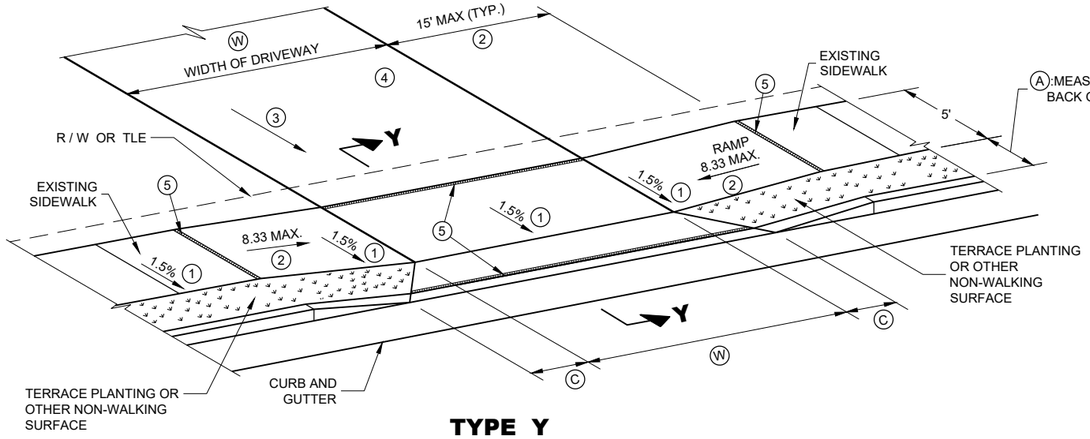
TYPE X
SIDEWALK ABUTS CURB AND GUTTER
TERRACE VARIES 0 TO 3 FEET



SECTION X - X



SECTION X - X
4% GUTTER SLOPE



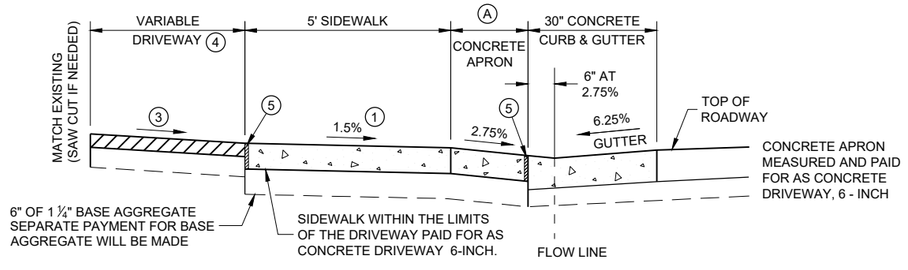
TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

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

16' MIN. - 35' MAX. COMMERCIAL (CE)

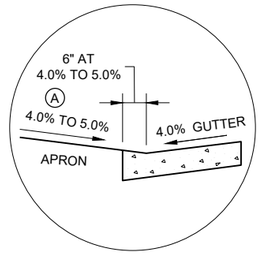
TABLE Y

Ⓐ FEET	Ⓒ FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'



NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y - Y



SECTION Y - Y
4% GUTTER SLOPE

DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER
(URBAN AND SUBURBAN)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

Ⓦ IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

① CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

② THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

③ DRIVEWAY SLOPES: DESIRABLE MAXIMUM
10.5% UP AWAY FROM SIDEWALK (SAG)
8.5% DOWN AWAY FROM SIDEWALK (CREST)
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

④ DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

⑤ ½" EXPANSION JOINT FILLER

DRIVEWAY AND SIDEWALK RAMPS TYPES X AND Y

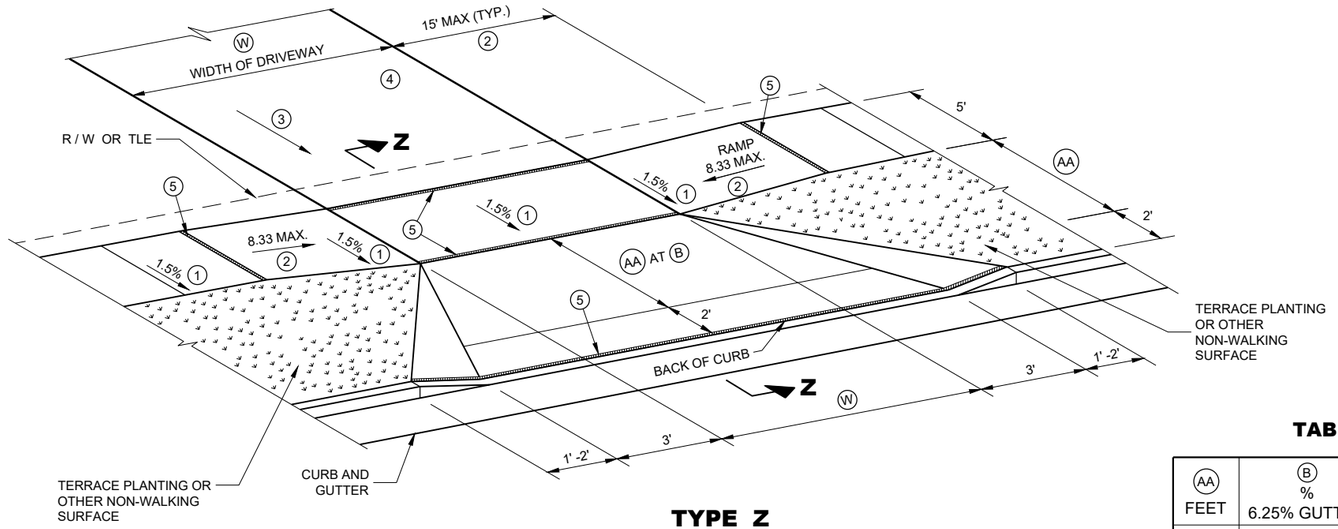
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 08D18 - 03

SDD 08D18 - 03



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

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

Ⓦ IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
10.5% UP AWAY FROM SIDEWALK (SAG)
8.5% DOWN AWAY FROM SIDEWALK (CREST)
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

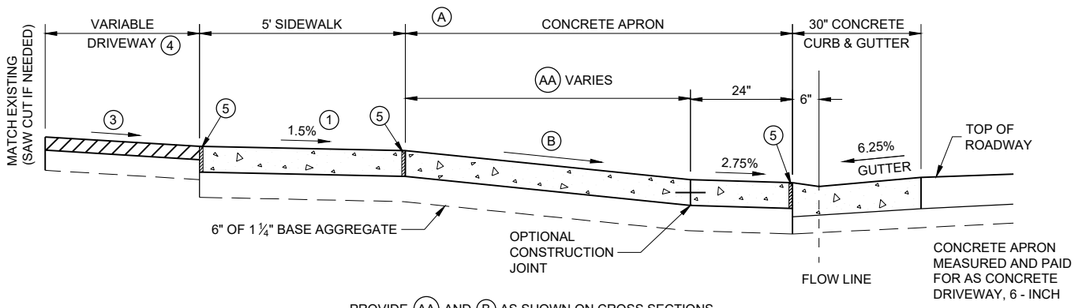
(5) ½" EXPANSION JOINT FILLER.

TABLE Z

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

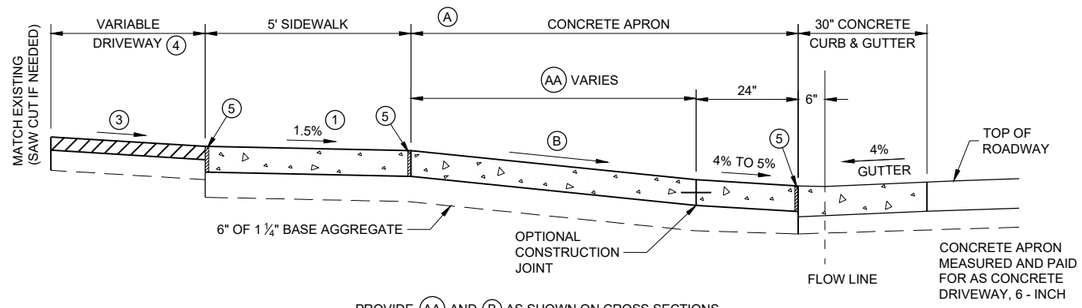
Ⓦ: 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)



PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

6.25% GUTTER SLOPE



PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

4% GUTTER SLOPE

NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS FOR (B) VALUES NOT SHOWN IN TABLE Z.

SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.

SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

SECTION Z - Z

DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER

(URBAN AND SUBURBAN)

DRIVEWAY AND SIDEWALK RAMPS TYPE Z

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DEPARTMENT OF TRANSPORTATION

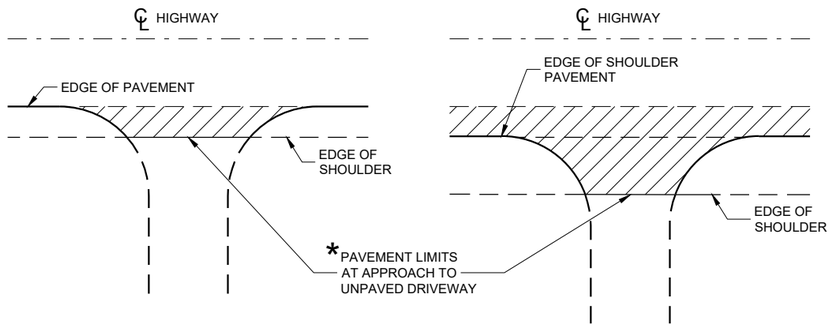
APPROVED
February 2022
DATE

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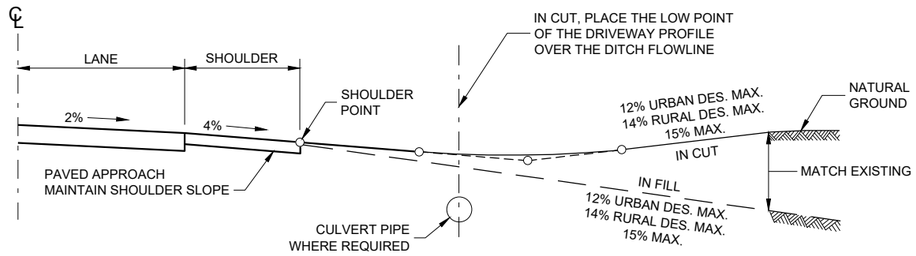
SDD 08D19 - 03



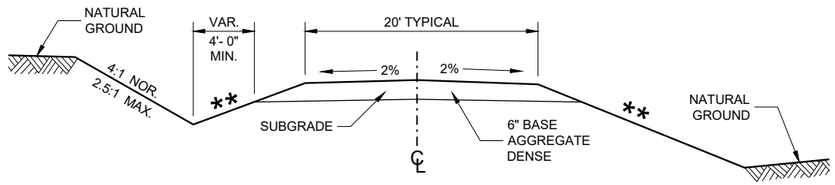
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

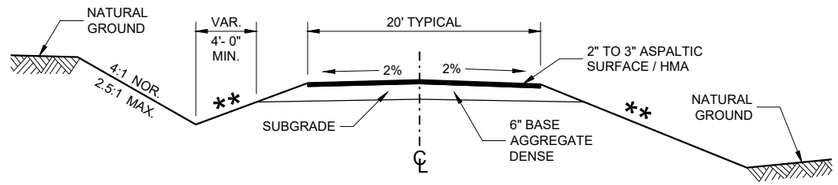


IN CUT **IN FILL**

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

6

SDD 08D21 - 01

DRIVEWAYS WITHOUT CURB AND GUTTER

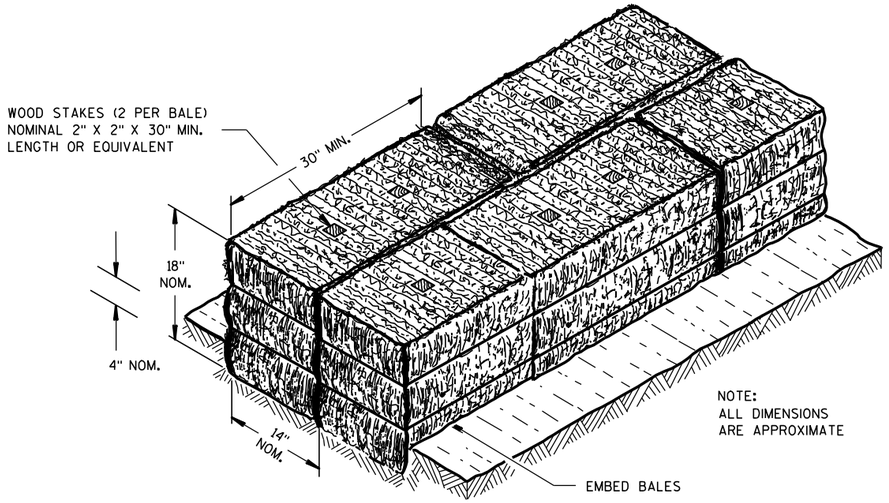
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

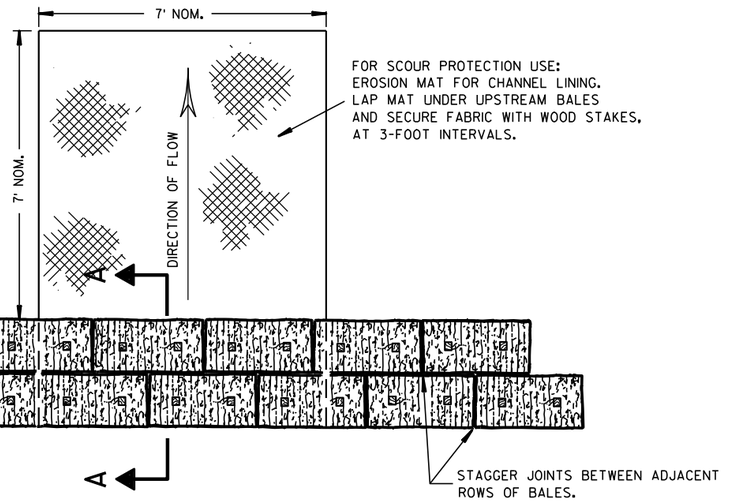
FHWA

6

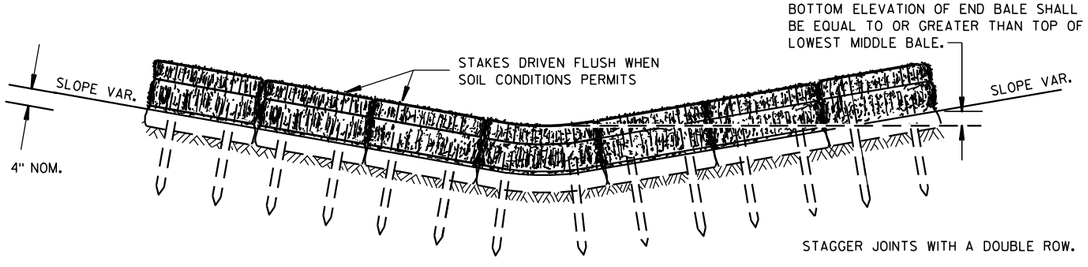
SDD 08D21 - 01



SECTION A-A



PLAN VIEW



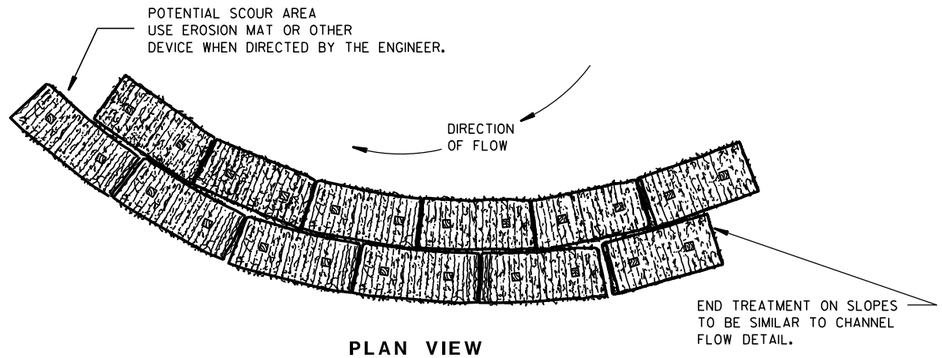
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

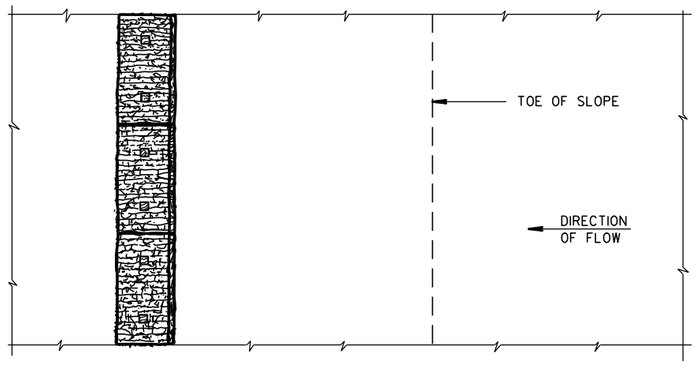
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

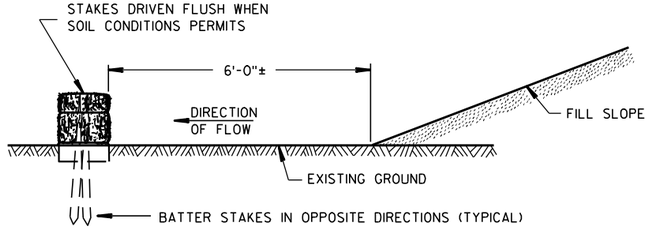


PLAN VIEW

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

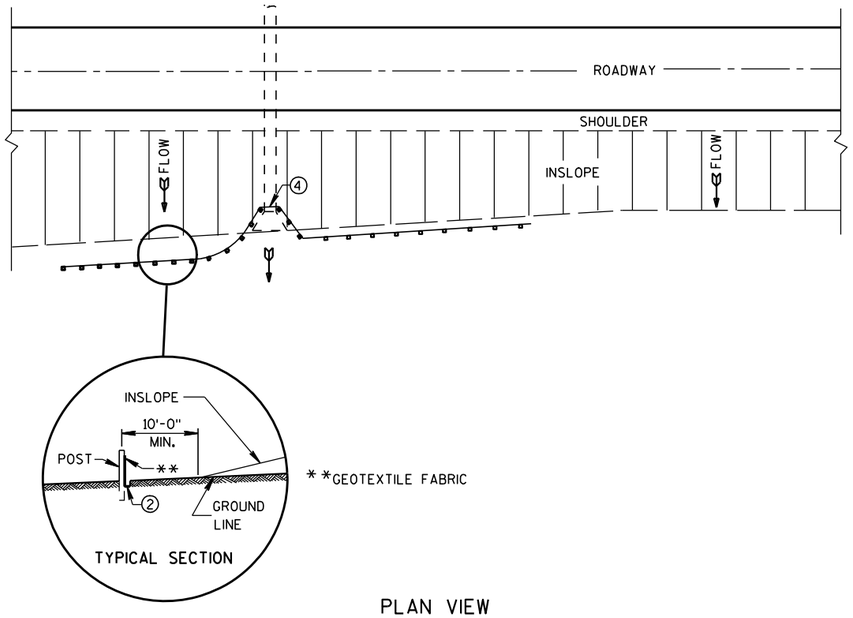
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

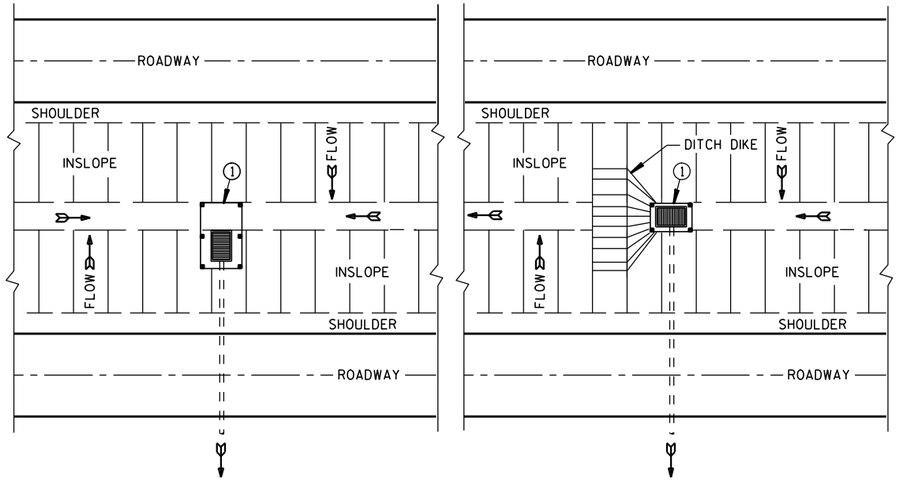
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S.D.D. 8 E 8-3



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.

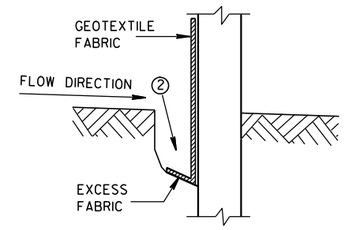
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

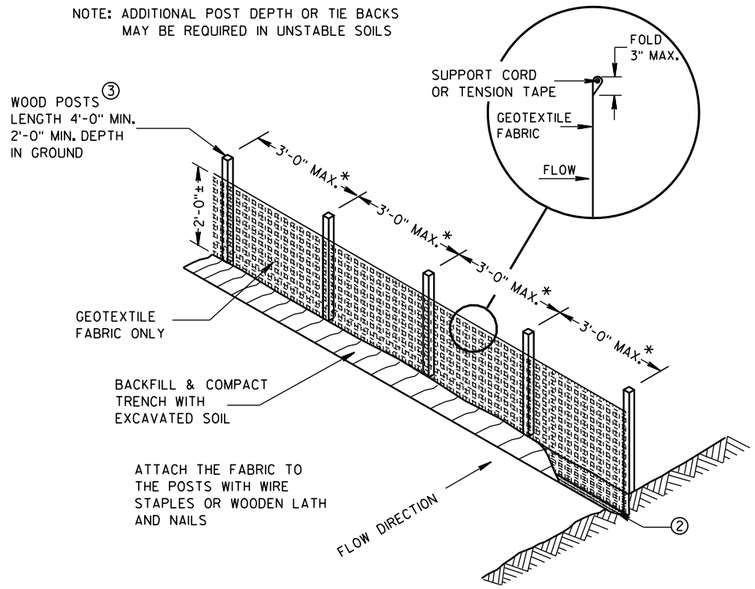
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

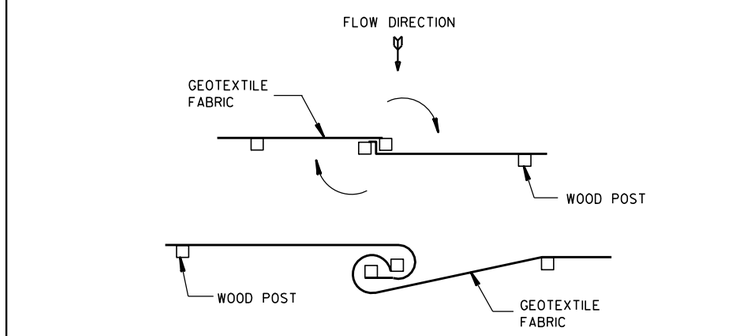
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



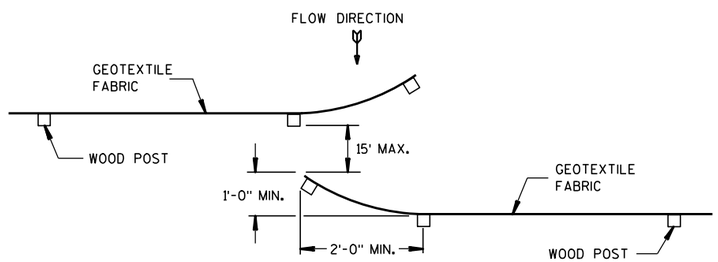
TRENCH DETAIL



SILT FENCE

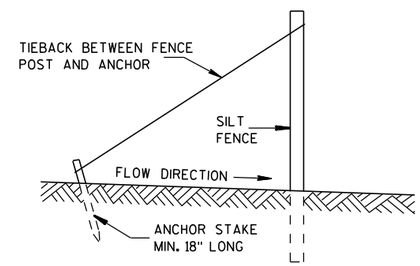


TWIST METHOD



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

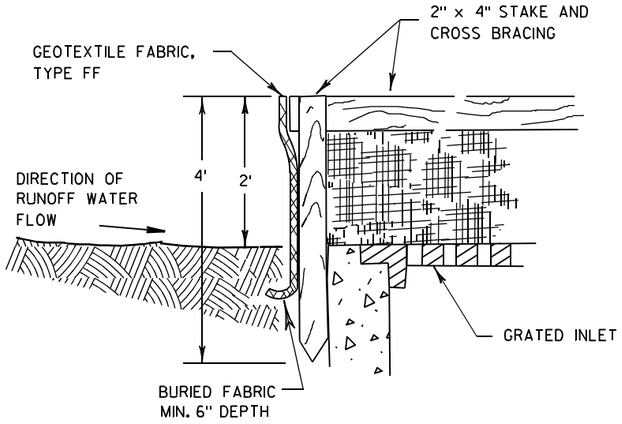
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

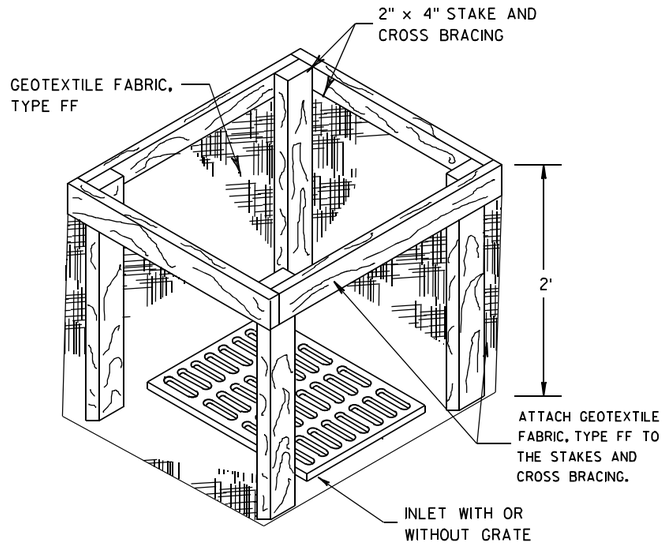
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S.D.D. 8 E 9-6

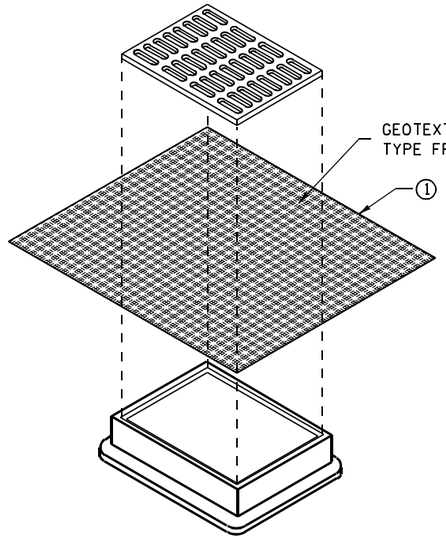
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S.D.D. 8 E 9-6



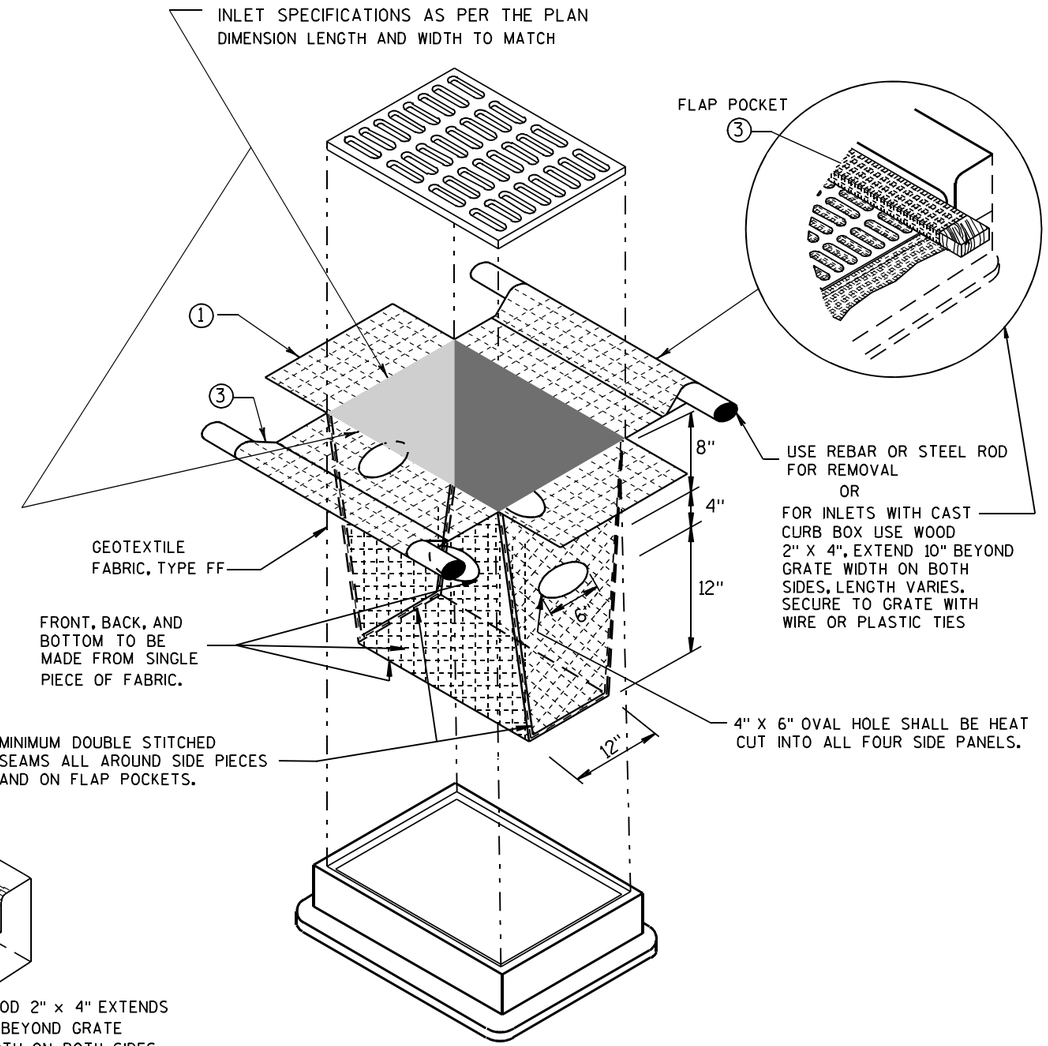


INLET PROTECTION, TYPE A



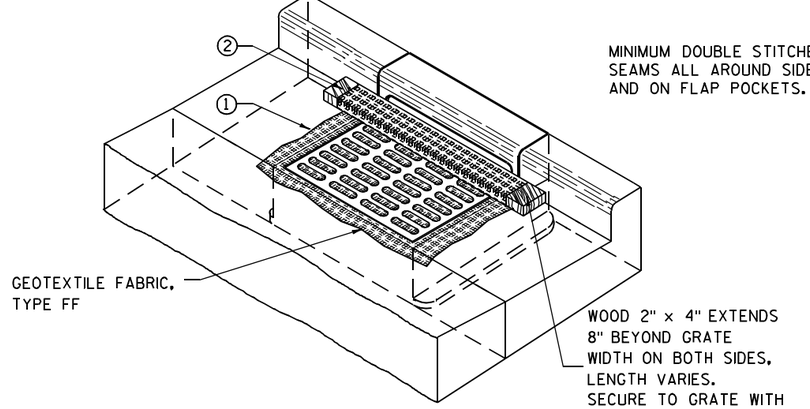
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

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.

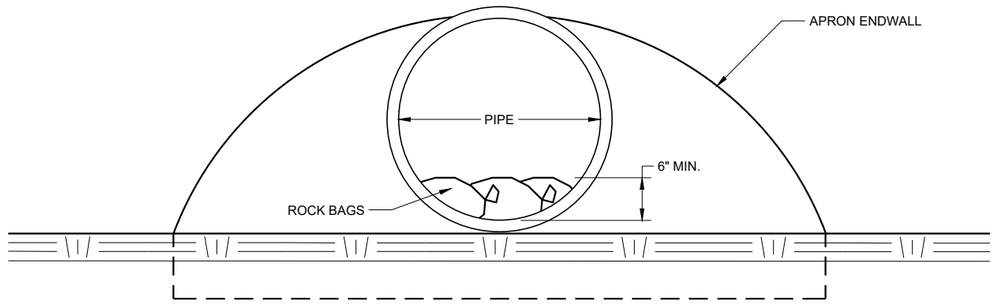
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

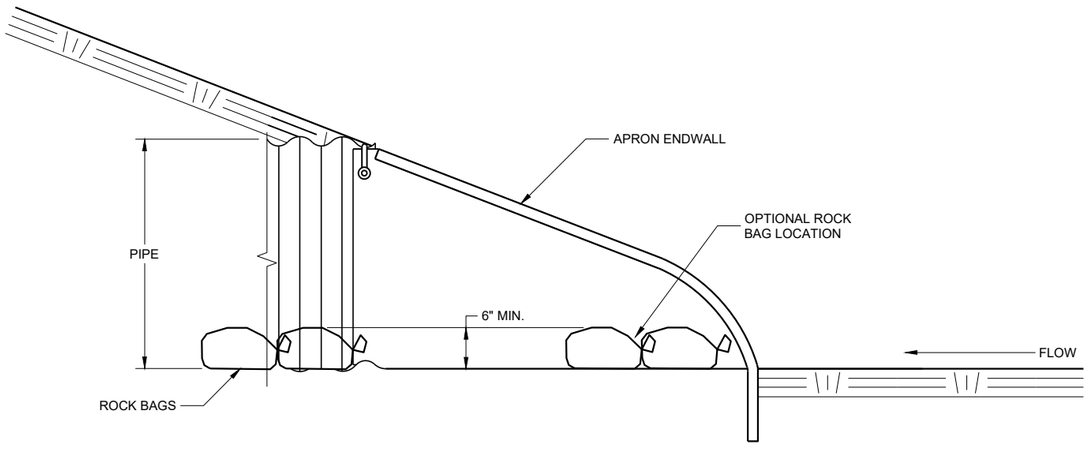
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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	

6
SDD 08E15 - 01

METAL APRON ENDWALLS

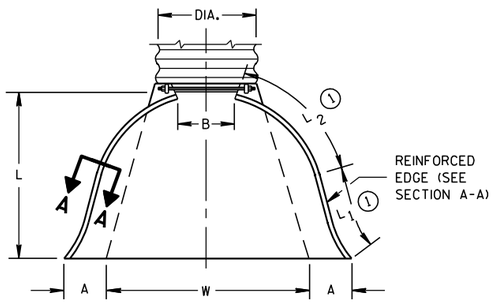
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

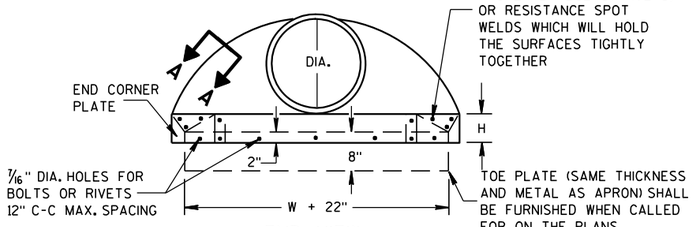
REINFORCED CONCRETE APRON ENDWALLS

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

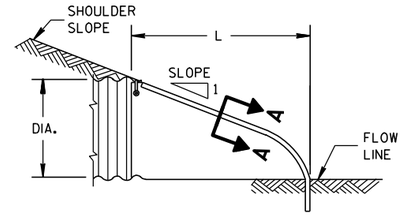
*MINIMUM
**MAXIMUM



PLAN VIEW

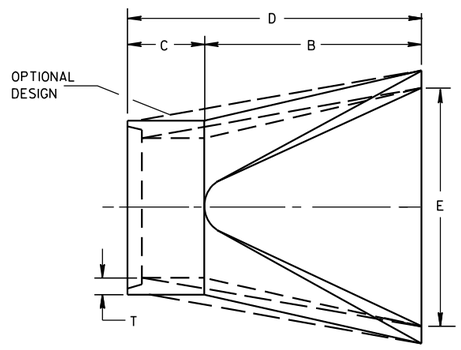


END VIEW

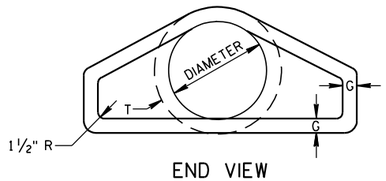


SIDE ELEVATION

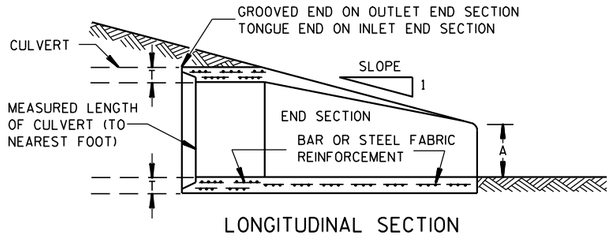
METAL ENDWALLS



PLAN

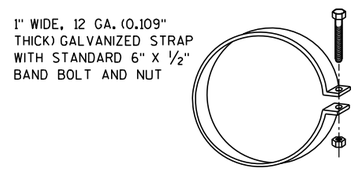


END VIEW



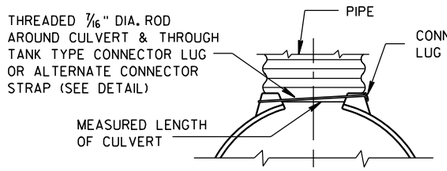
LONGITUDINAL SECTION

CONCRETE ENDWALLS

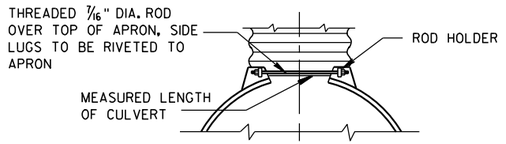


ALTERNATE FOR TYPE 1 CONNECTION

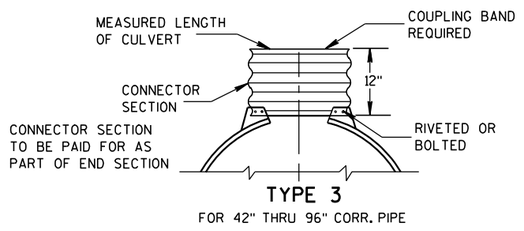
END SECTION CONNECTOR STRAP



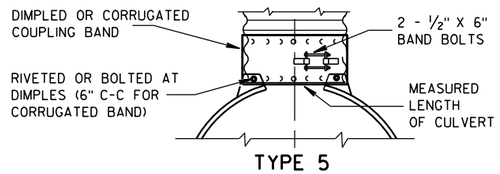
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

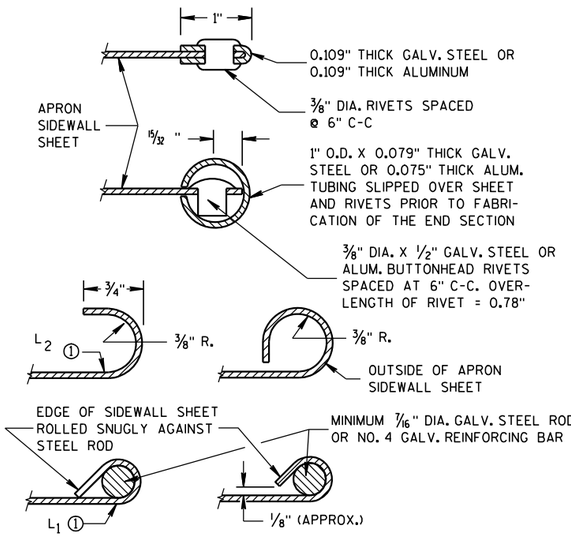
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

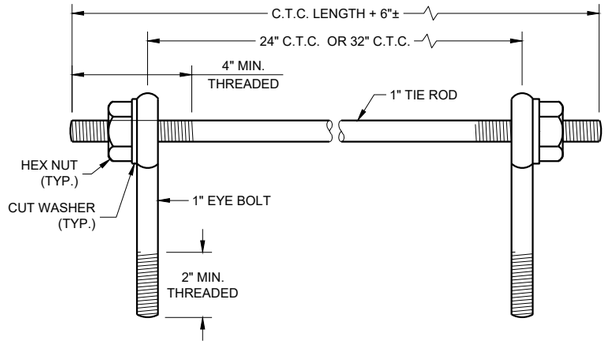
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

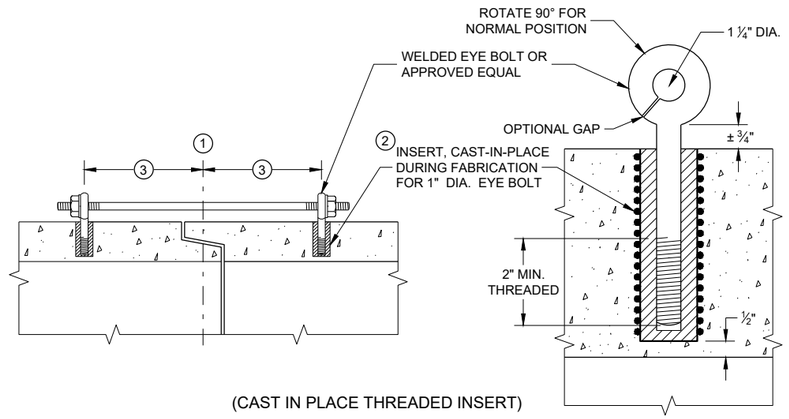
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 8 F 1-11



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) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

(2) THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

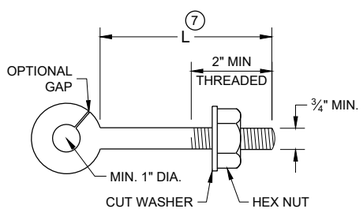
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

(4) BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

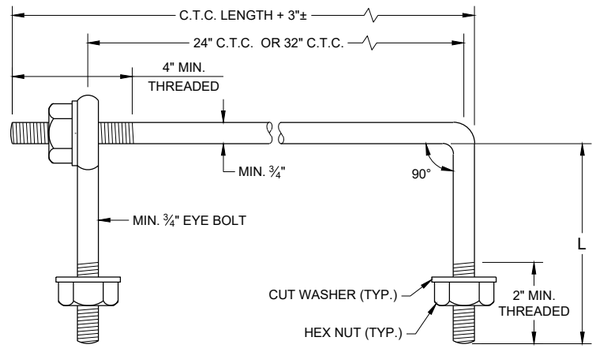
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

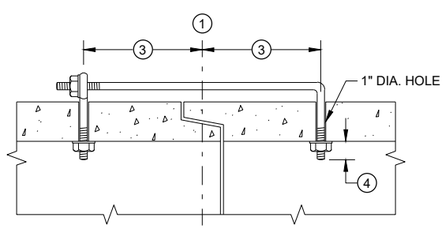


EYE BOLT (7)

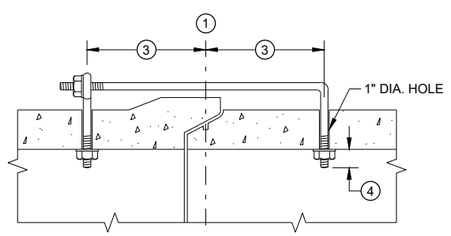
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

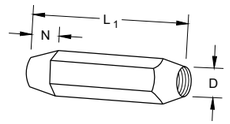
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

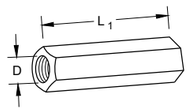
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



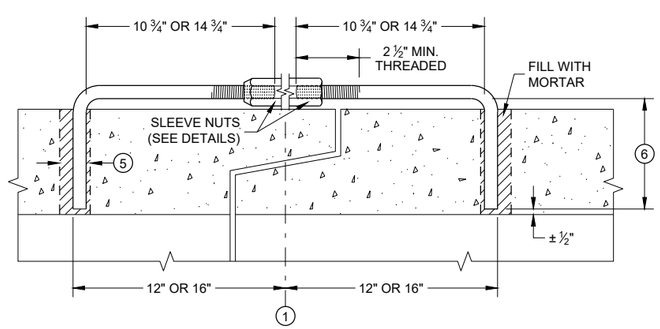
TAPERED



PLAIN

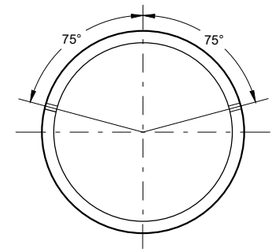
RIGHT AND LEFT THREADS

SLEEVE NUTS



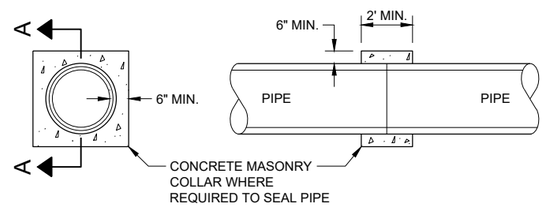
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

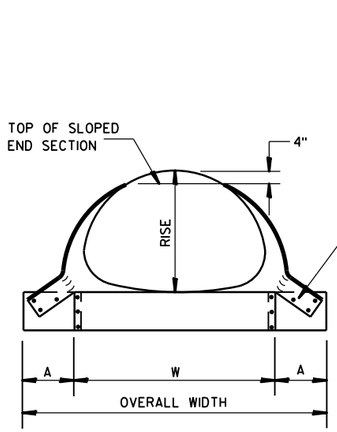
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

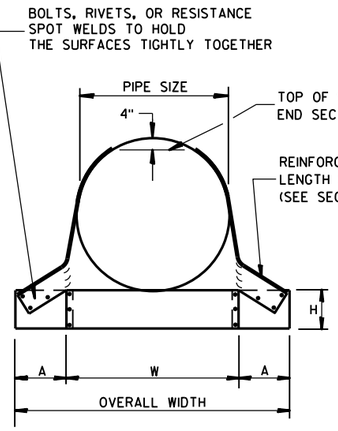
FHWA

SDD 08F04 - 08

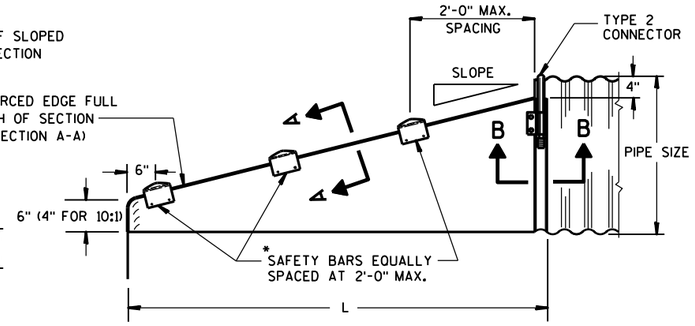
SDD 08F04 - 08



FRONT VIEW



FRONT VIEW



SIDE VIEW

GENERAL NOTES

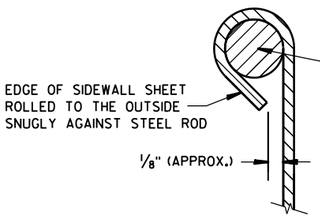
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

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

STEEL APRON ENDWALLS FOR CULVERT PIPE
SLOPED SIDE DRAINS

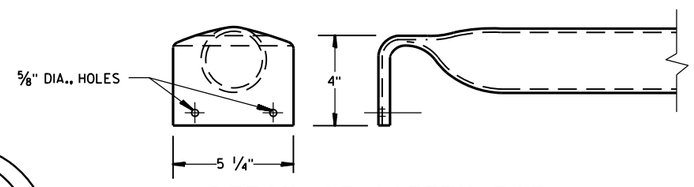
PIPE DIA. (IN.)	MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS					
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	.064	8	6	21	37	4:1	20	6:1	30	10:1	70
18	.064	8	6	24	40	4:1	32	6:1	48	10:1	100
21	.064	8	6	27	43	4:1	44	6:1	66	10:1	130
24	.064	8	6	30	46	4:1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



SECTION A-A

*NOTE:
THREE SAFETY BARS ARE SHOWN. ACTUAL NUMBER OF BARS REQUIRED AT A 2'-0" C-C MAX. SPACING WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

3" GALVANIZED PIPE. FLATTEN ENDS, THEN BEND OUTSIDE 4" TO MATCH END SECTION SIDES.

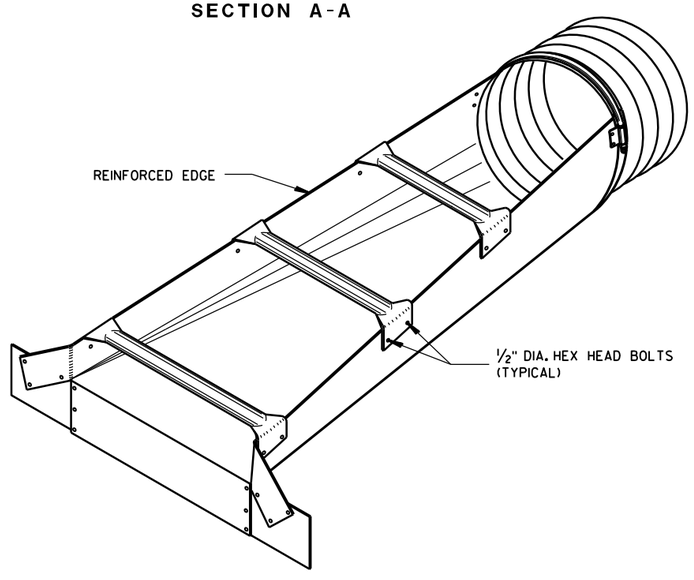


DETAIL OF SAFETY BAR

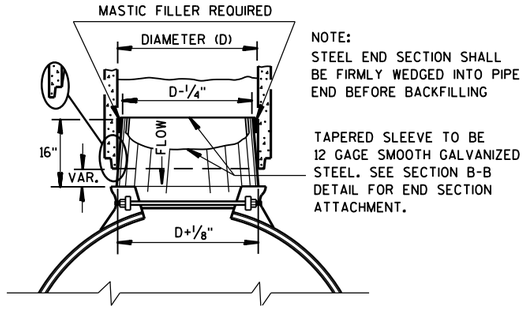
STEEL APRON ENDWALLS FOR PIPE ARCH
SLOPED SIDE DRAINS

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

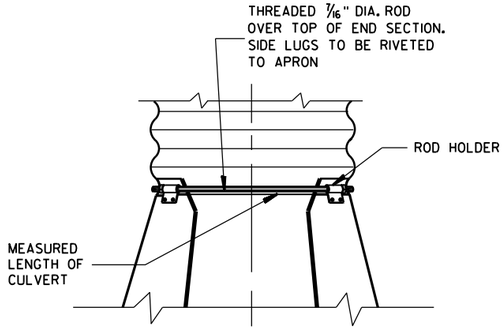
① * MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".
② ACTUAL SLOPE GREATER THAN 10:1.



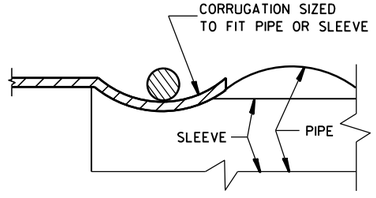
ISOMETRIC VIEW



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



TYPE 2
CONNECTION DETAIL



SECTION B-B

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

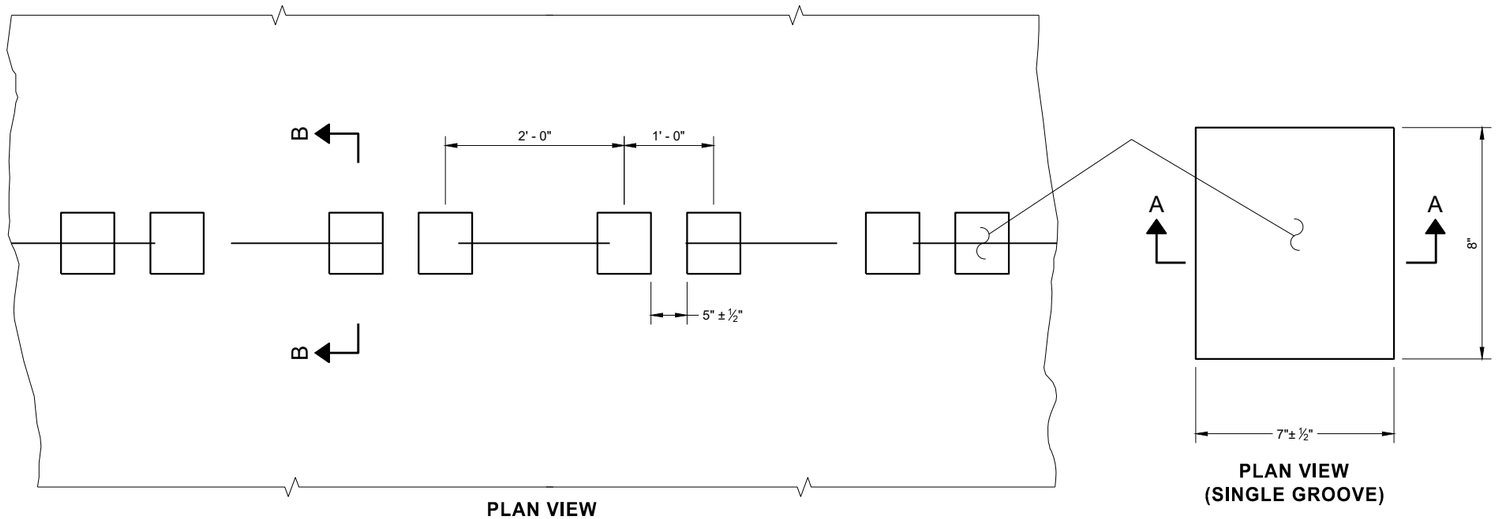
APPROVED
9/14/2012 DATE
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 7-5

6

S.D.D. 8 F 7-5



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

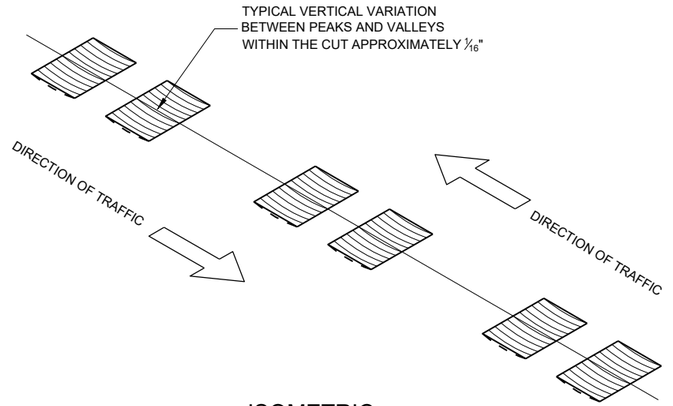
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

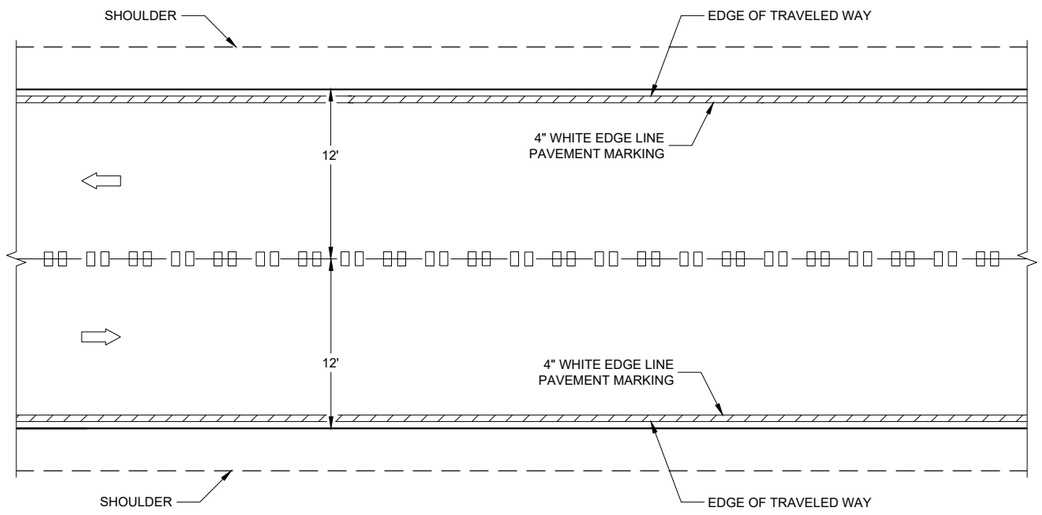
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

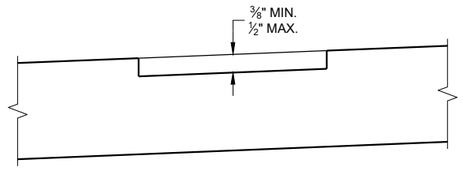
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



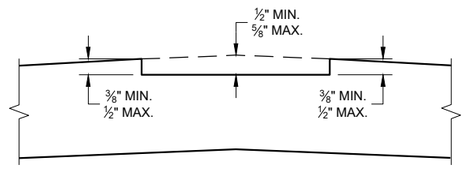
ISOMETRIC



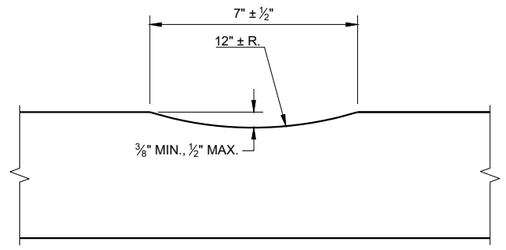
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



SECTION A - A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

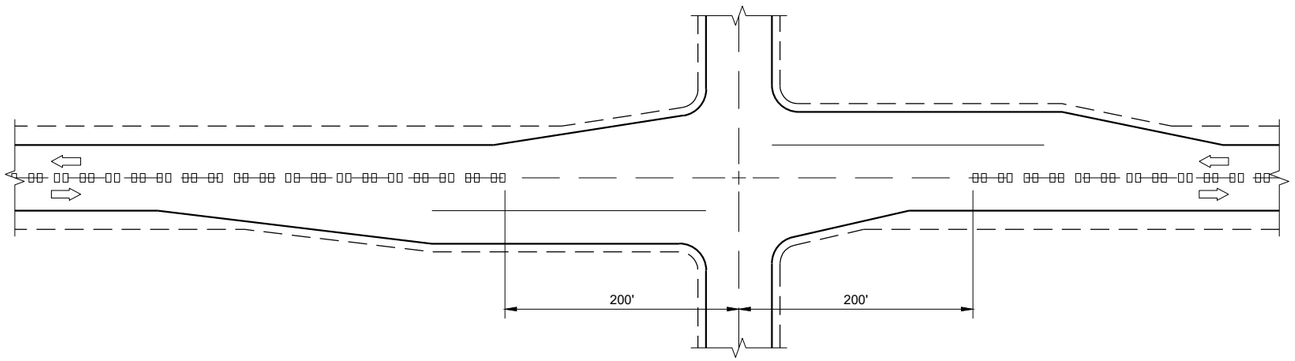
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

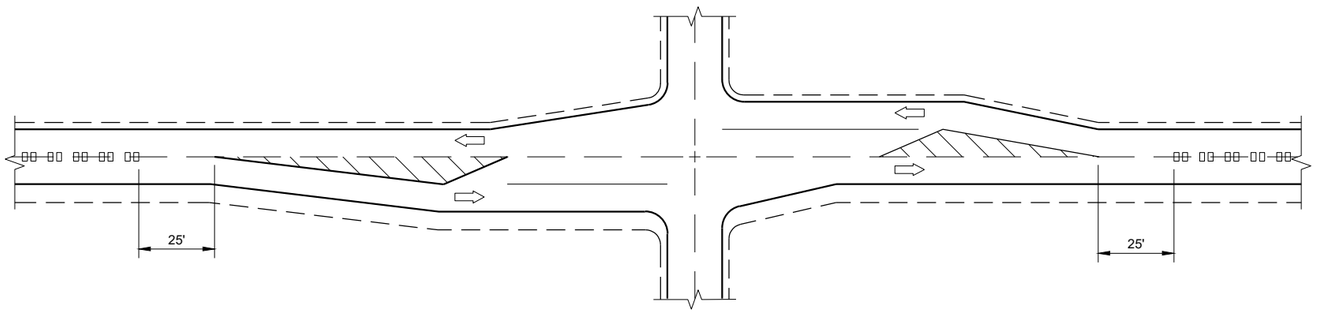
SDD 13A11 - 03a

6

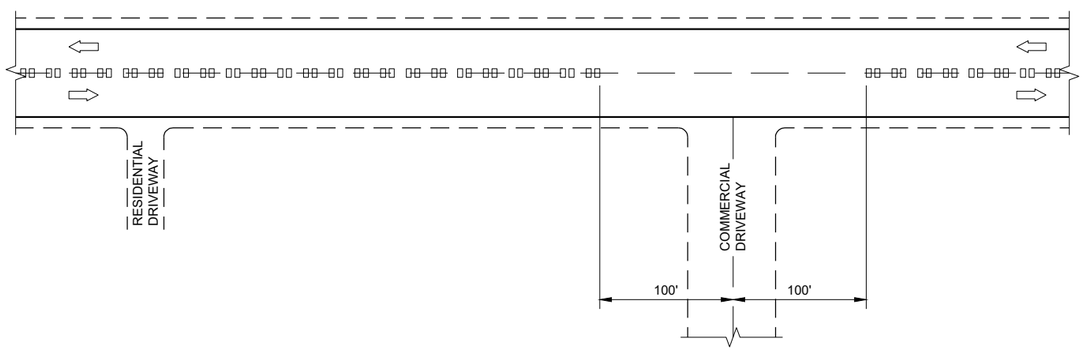
SDD 13A11 - 03a



CENTERLINE GROOVES AT INTERSECTIONS



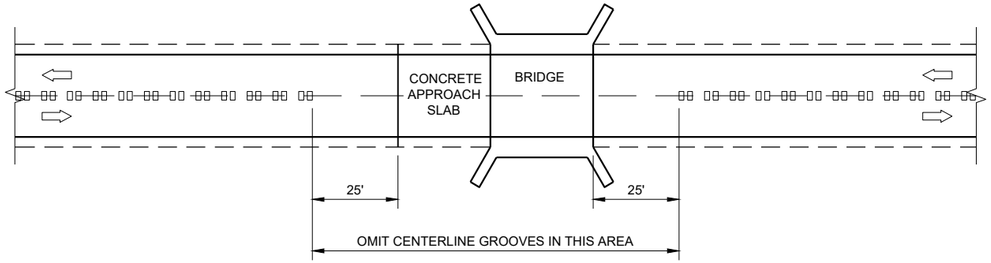
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



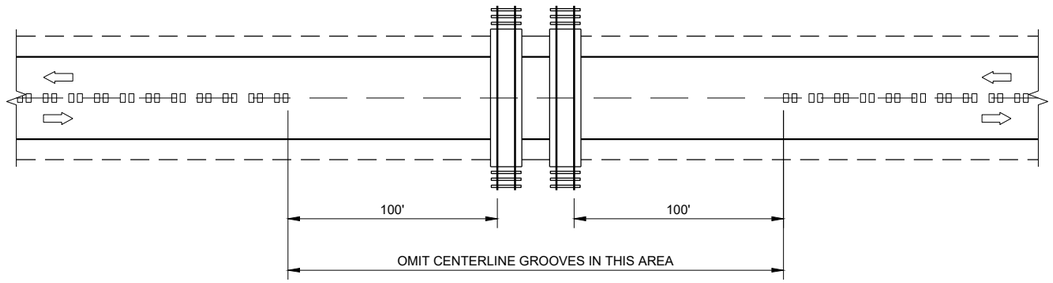
CENTERLINE GROOVES AT DRIVEWAYS (1)

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

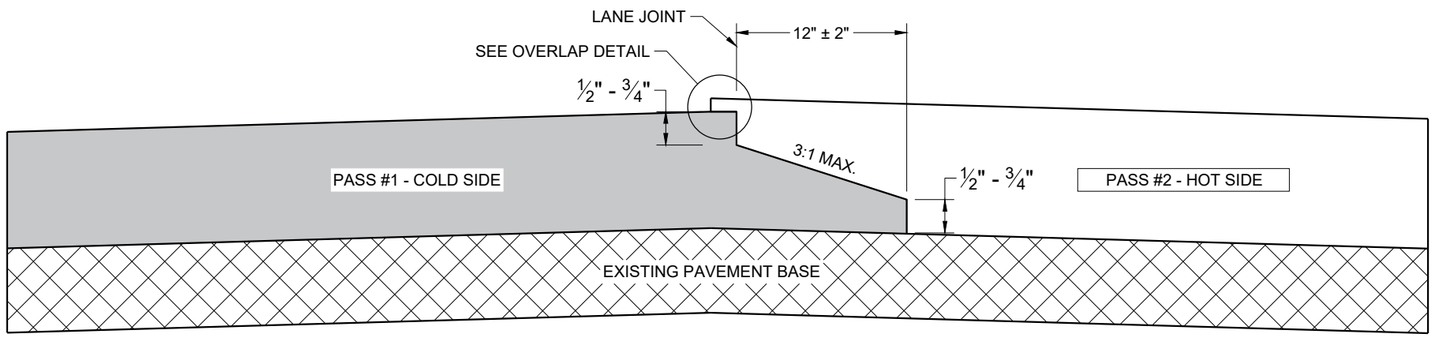
2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

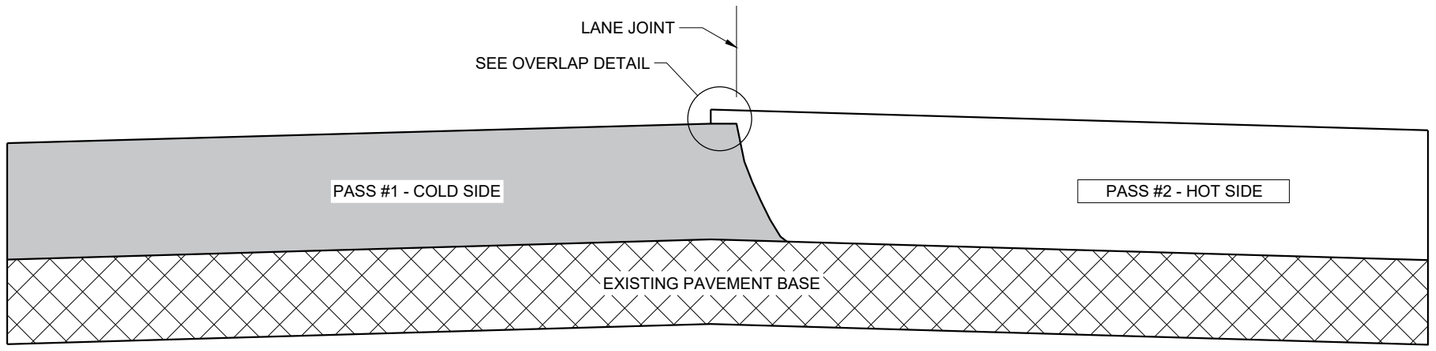
APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

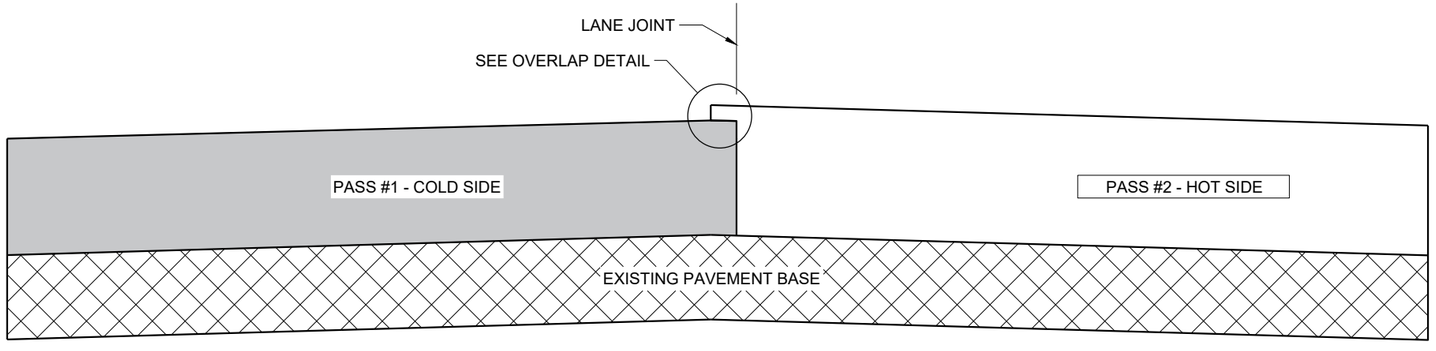
6
SDD 13A11 - 03b



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

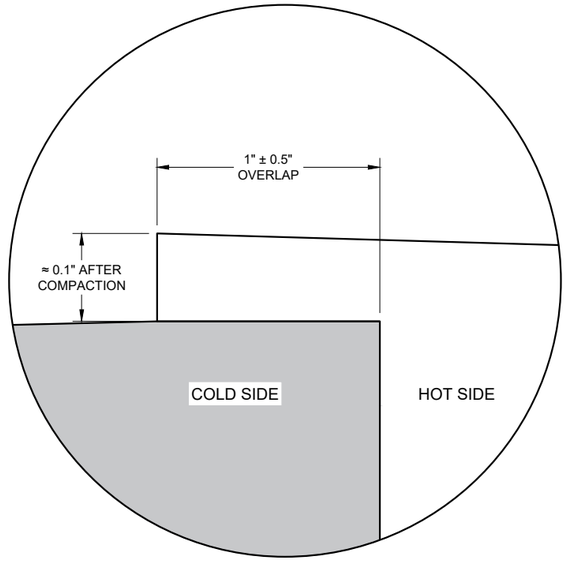
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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)

6

6

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

(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.

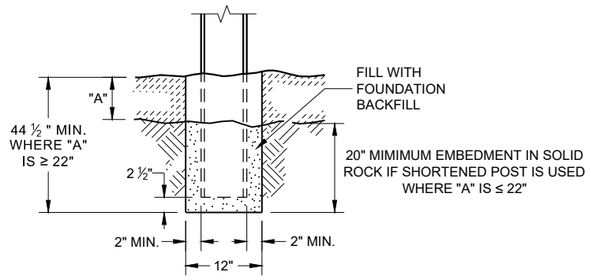
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL 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).

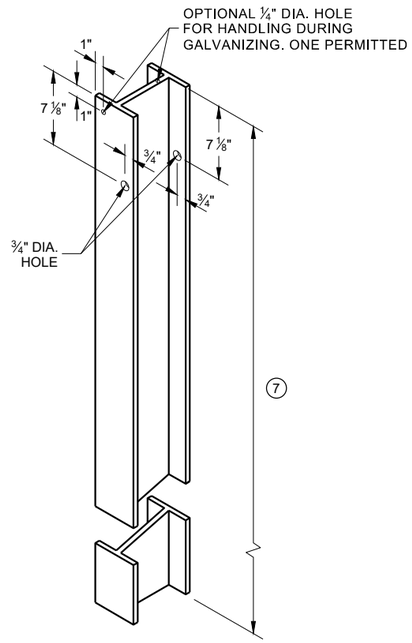
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

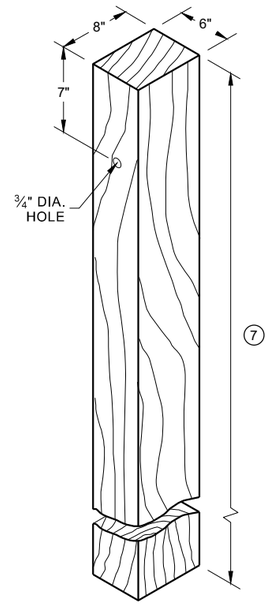
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



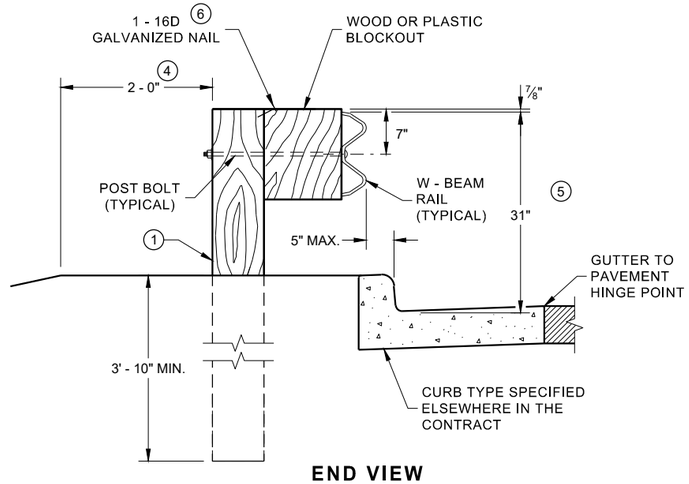
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



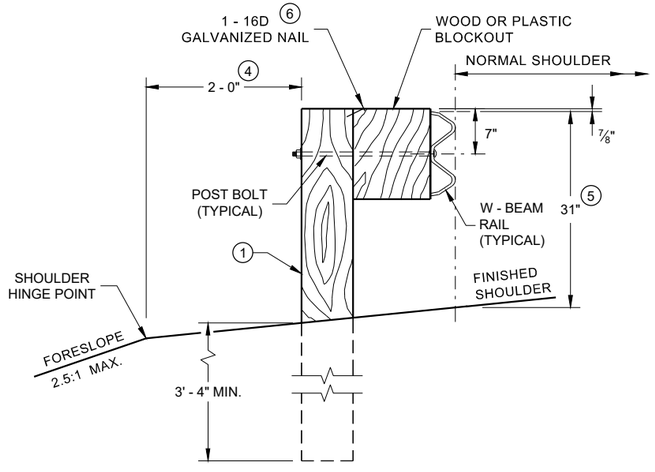
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



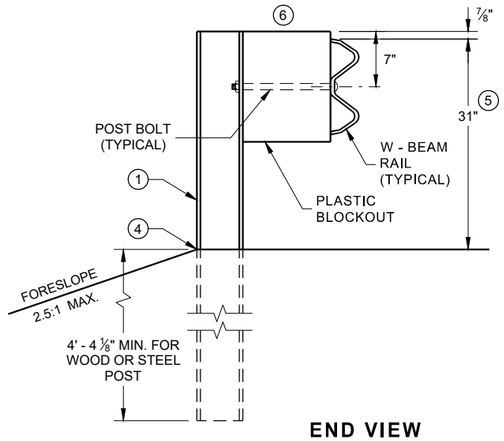
WOOD POST (6" X 8") NOMINAL (1)



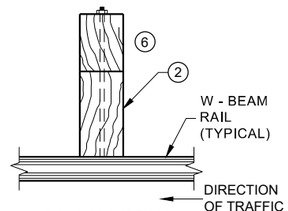
END VIEW
LOCATED ALONG A CURBED ROADWAY



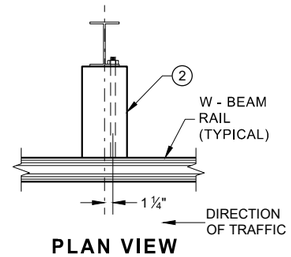
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



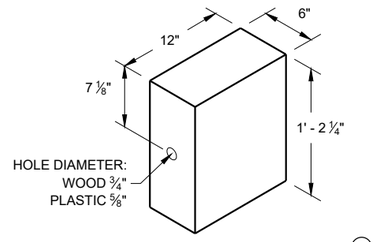
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

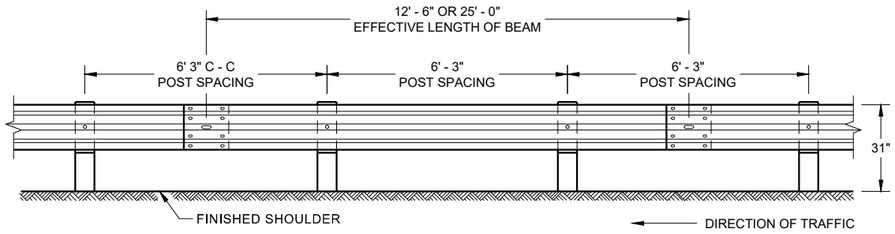
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

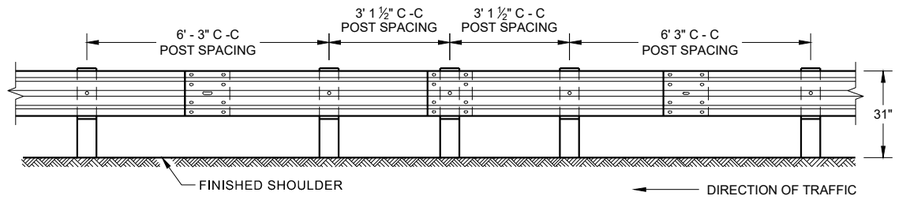
SDD 14B42 - 07a

6

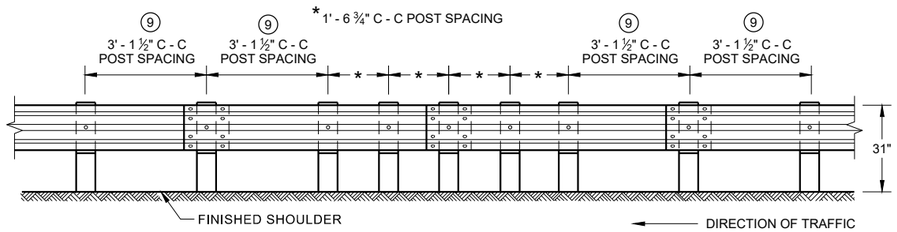
SDD 14B42 - 07a



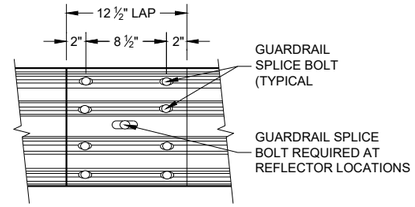
FRONT VIEW
POST SPACING STANDARD INSTALLATION



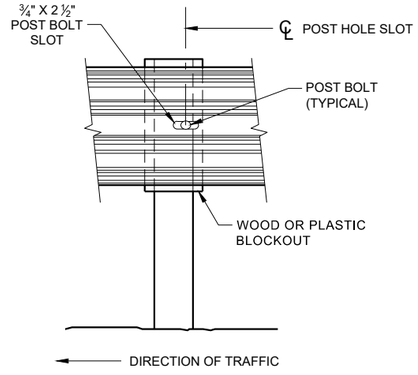
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



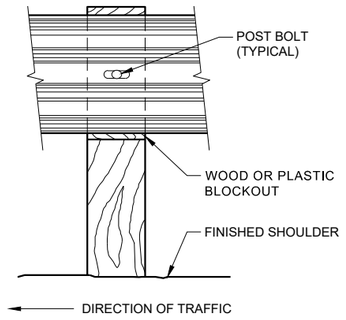
FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE



FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST

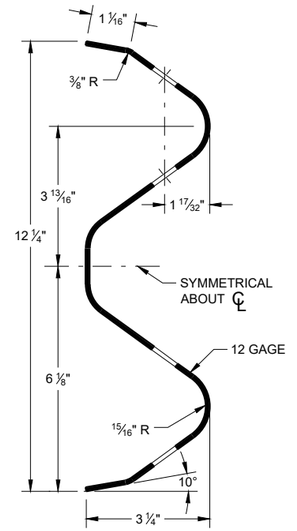
GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

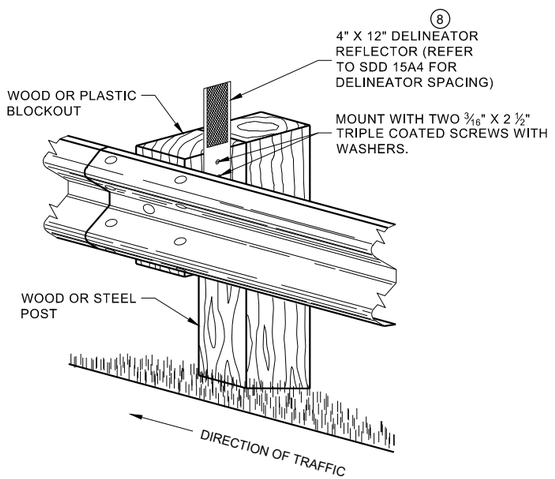
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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.



SECTION THRU W-BEAM RAIL



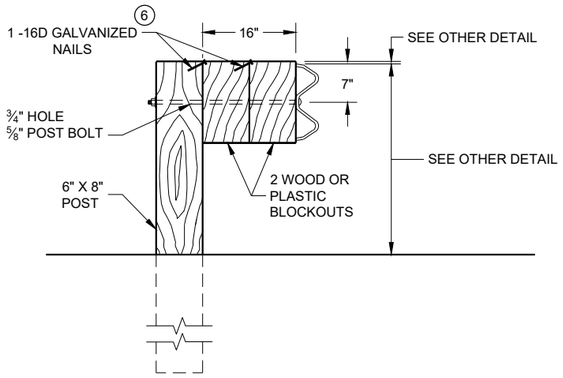
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b

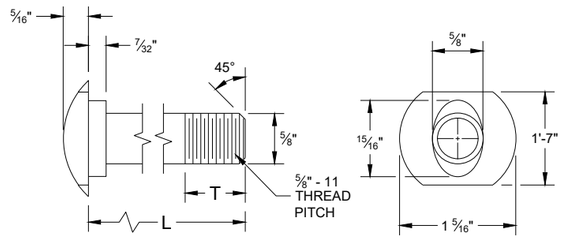


DETAIL FOR 16" BLOCKOUT DEPTH

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

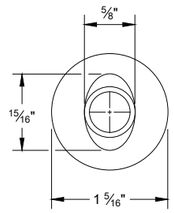
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

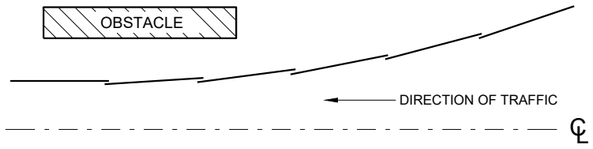


POST BOLT TABLE

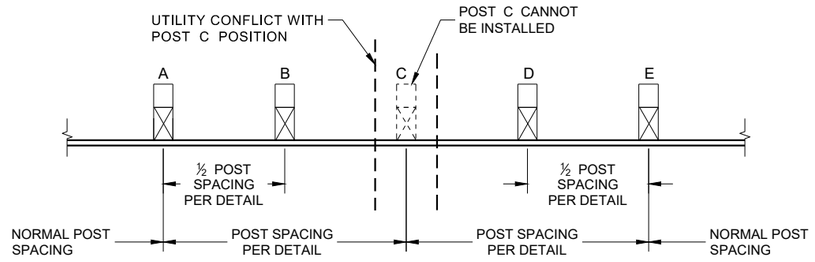
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



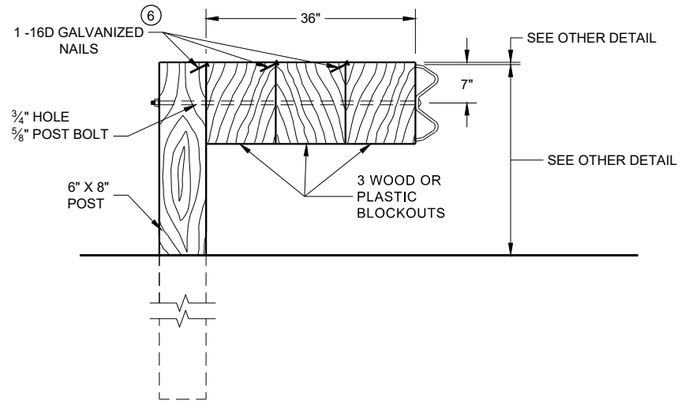
ALTERNATE BOLT HEAD



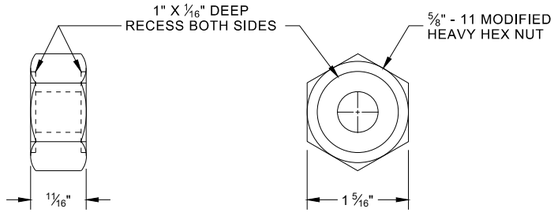
PLAN VIEW
BEAM LAPPING DETAIL



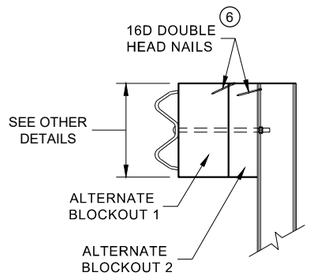
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



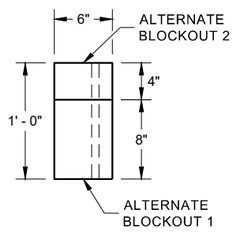
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

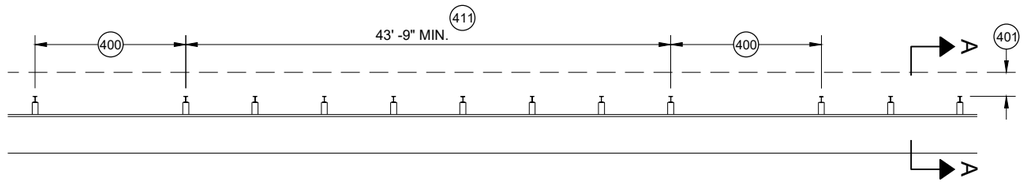
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

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.

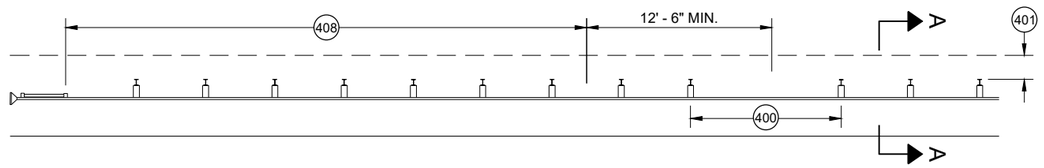
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

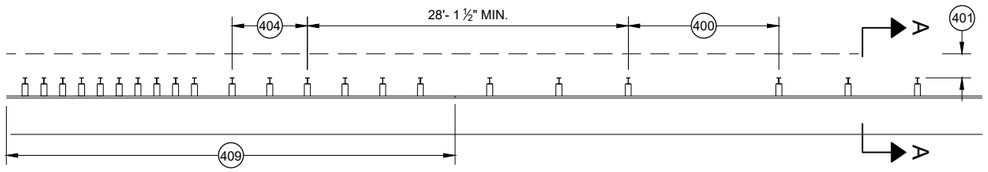
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SDD 14B42 - 07c



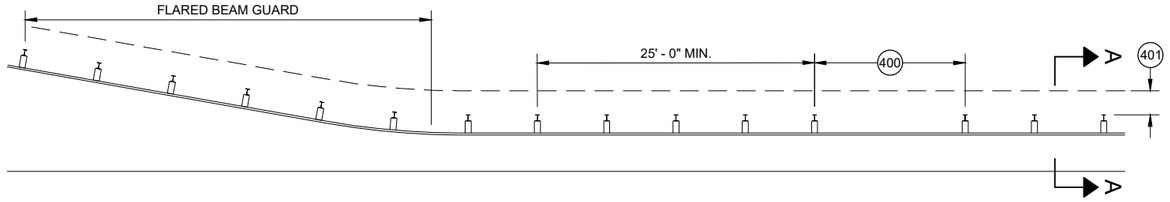
MISSING POST IN MGS GUARDRAIL



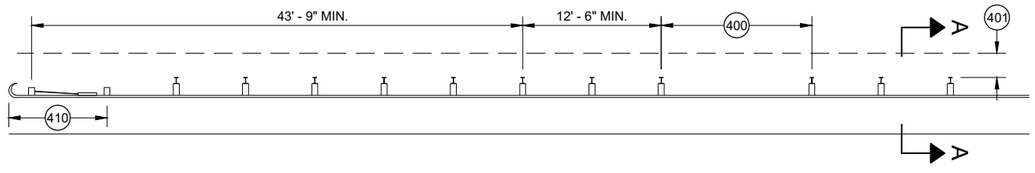
MISSING POST IN MGS GUARDRAIL NEAR EAT



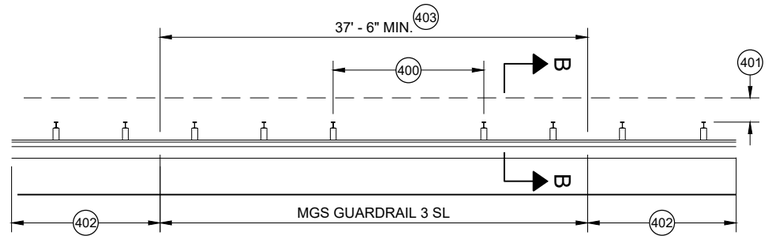
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

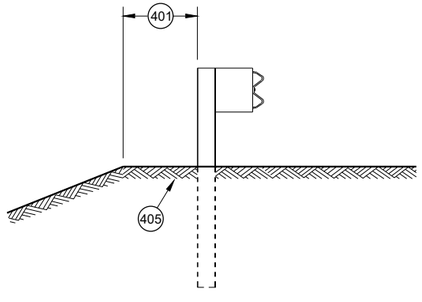


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

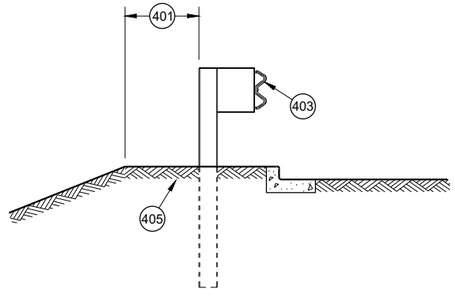


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

6

SDD 14B42 - 07d

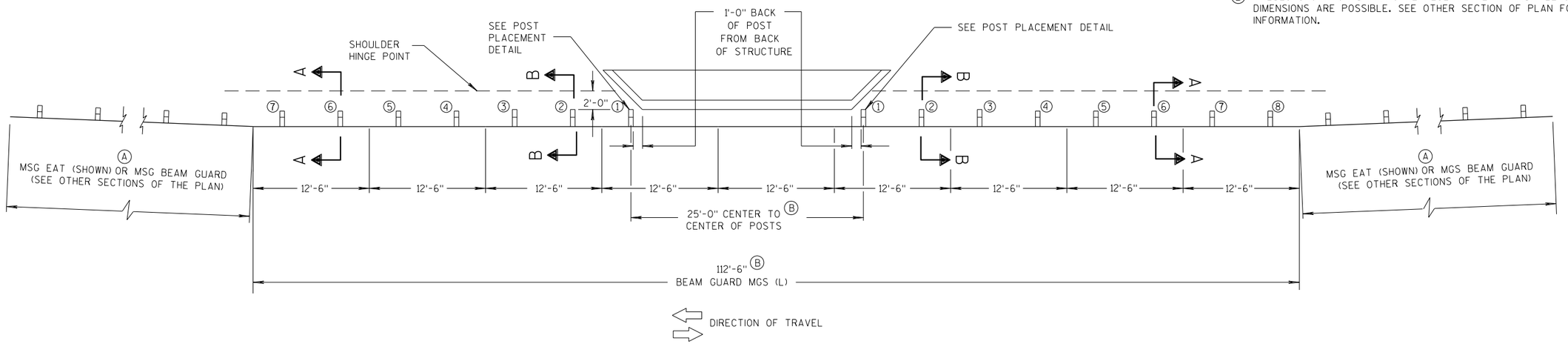
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

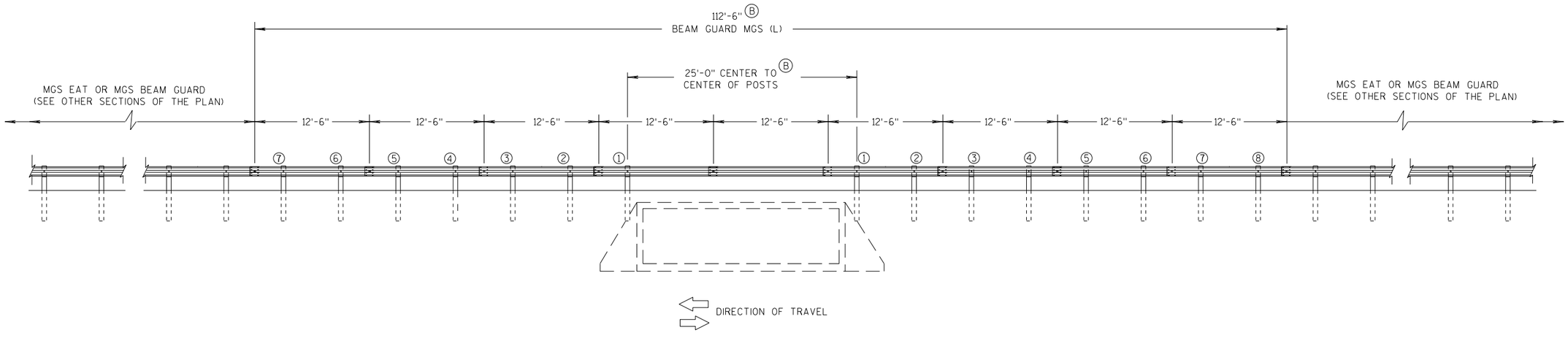
SEE SDD 14 B 42 FOR MORE DETAILS.

(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

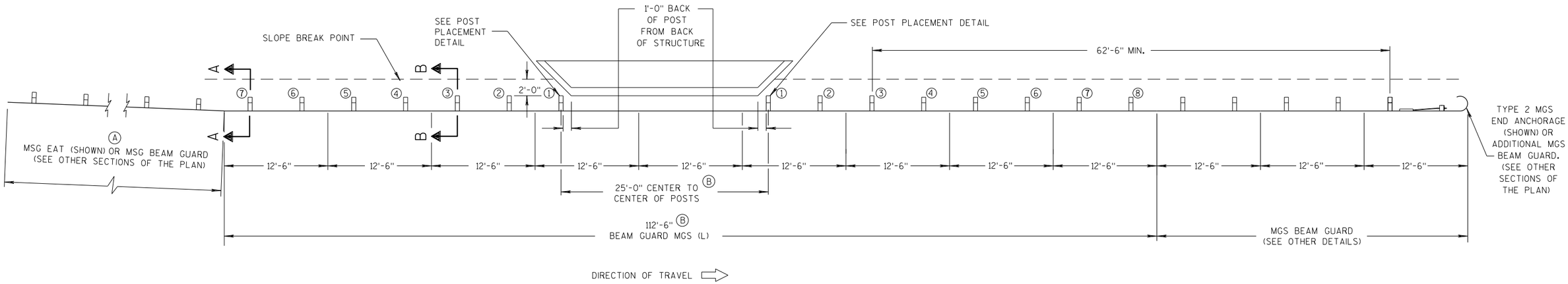
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

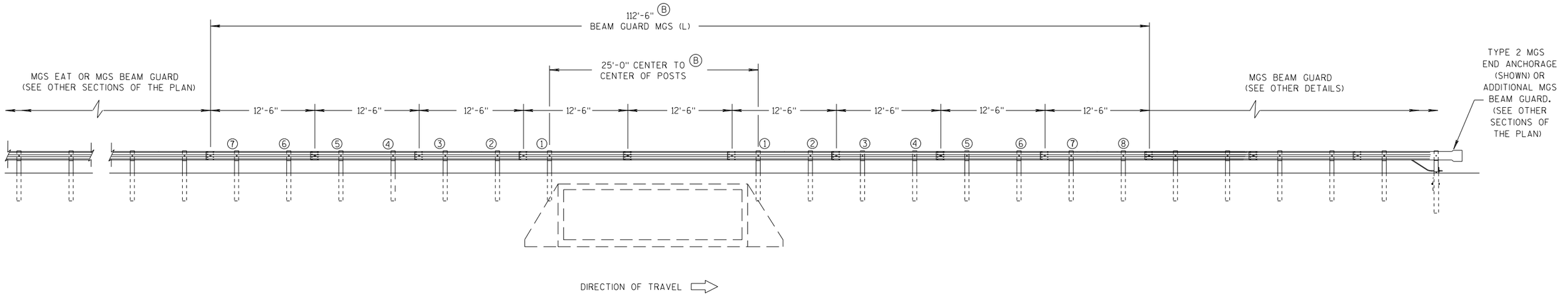
SEE SDD 14 B 42 FOR MORE DETAILS.

(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

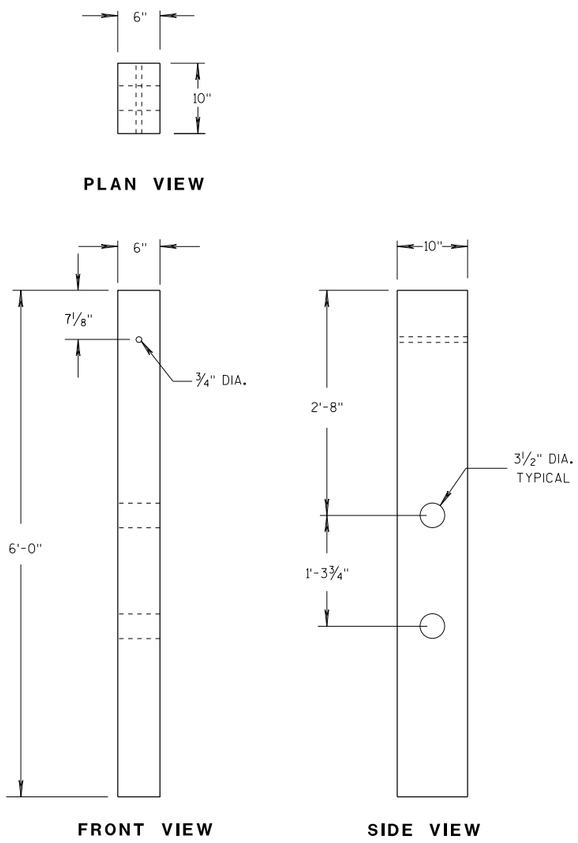
MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	122

6

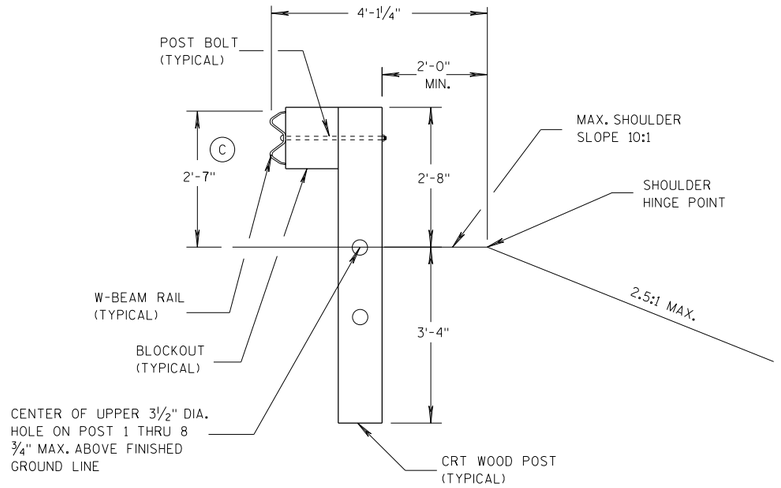
S.D.D. 14 B 43-4b

6

S.D.D. 14 B 43-4b



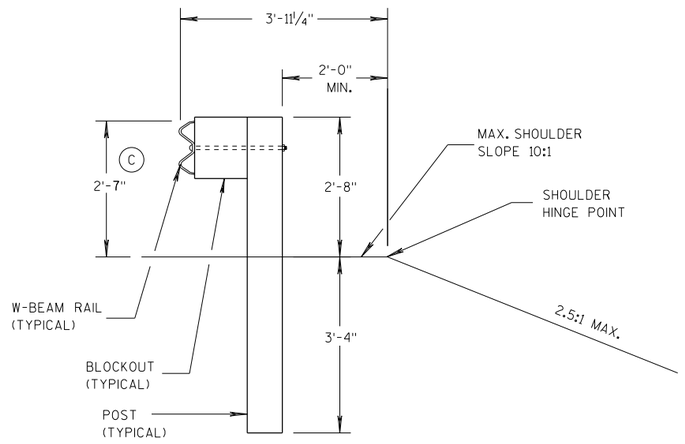
CRT WOOD POST



SECTION B-B

POSTS NO. 1-3

SEE OTHER DETAILS



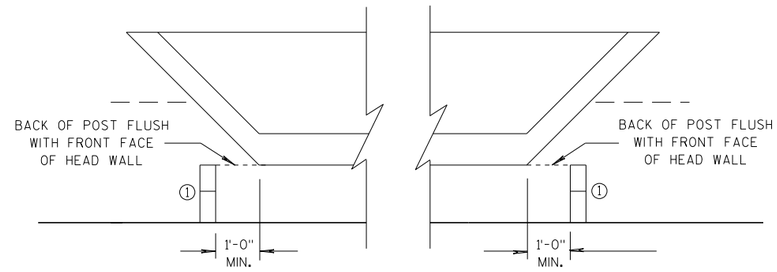
SECTION A-A

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

123

NT

6

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.

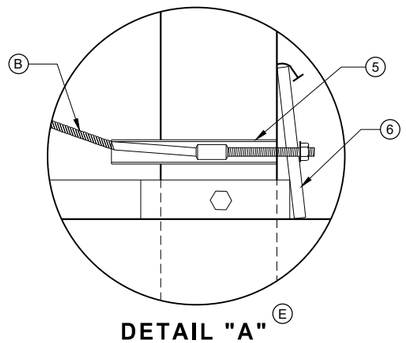
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

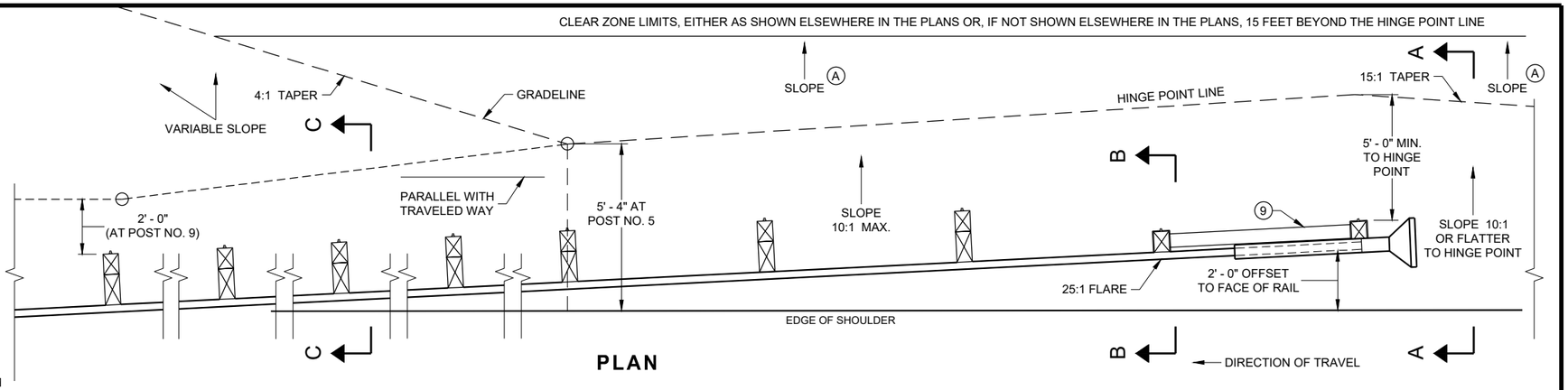
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

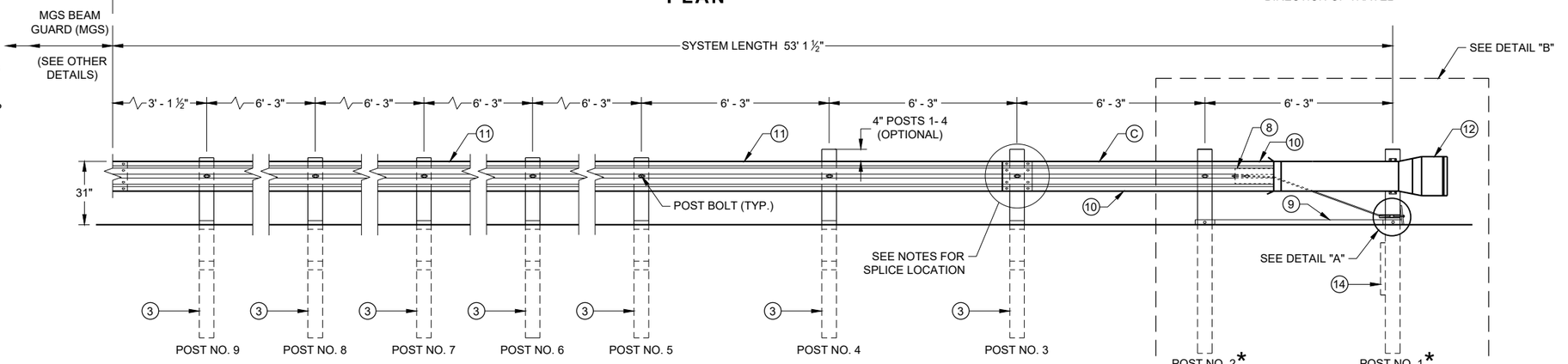
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

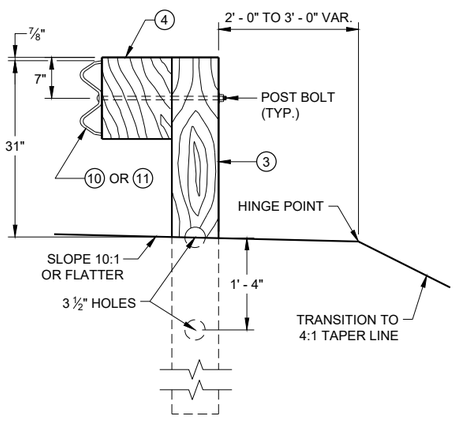
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



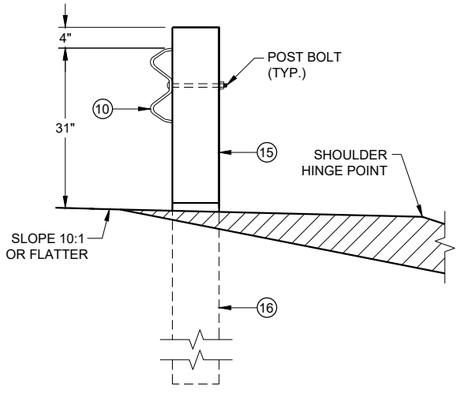
DETAIL "A" (E)



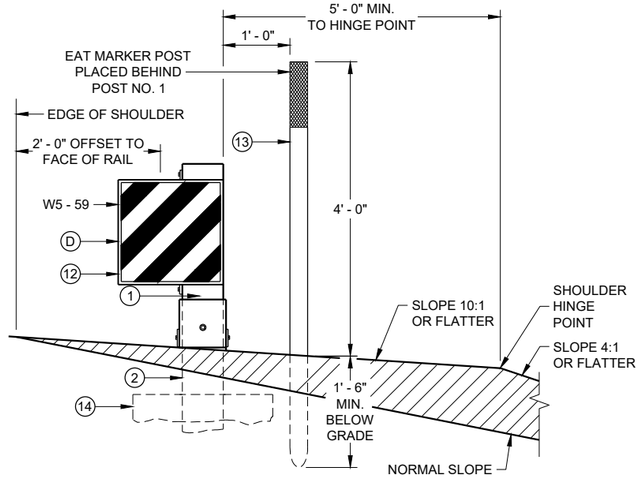




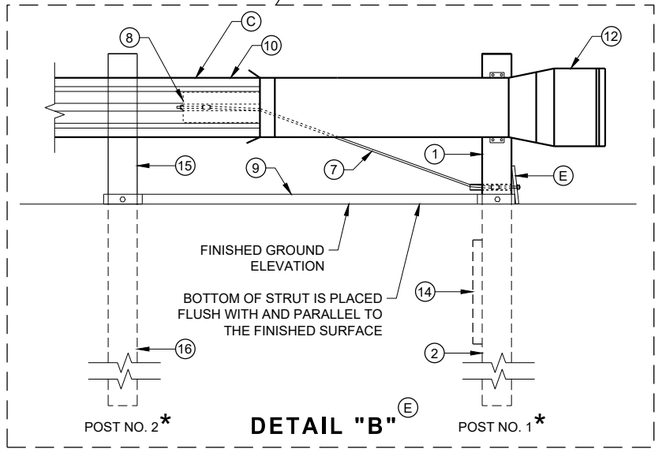
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*

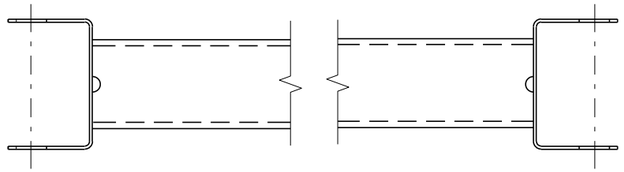


MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

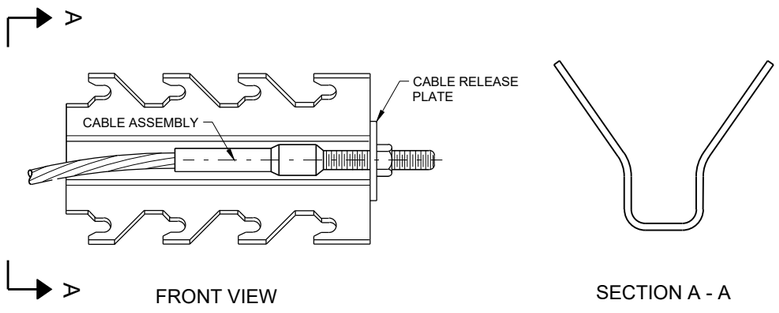
SDD 14B44 - 04a



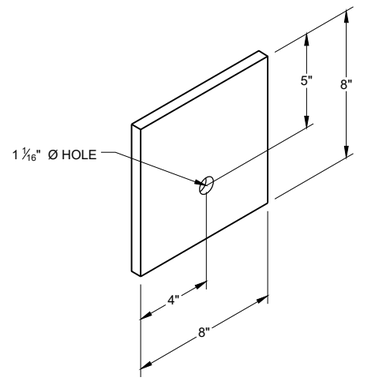
GENERIC GROUND STRUT ⑨ Ⓔ

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 ⑧ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

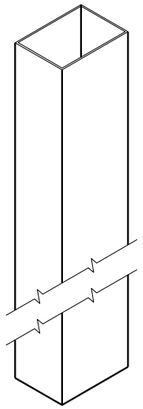
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SDD 14B44 - 04b

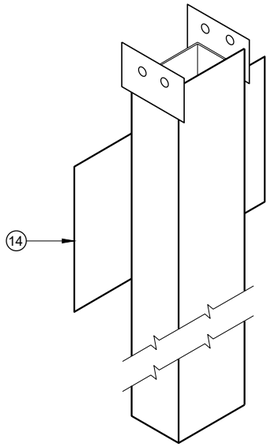
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

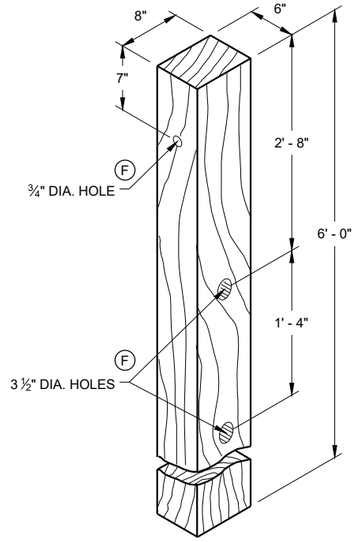
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA



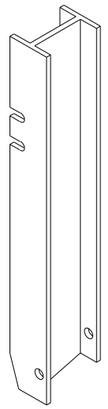
UPPER POST NO. 1 (1) (E)



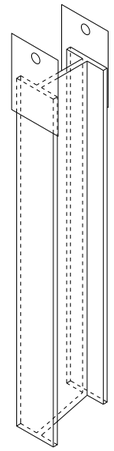
LOWER POST NO. 1 (2) (E)



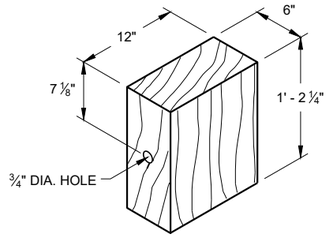
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



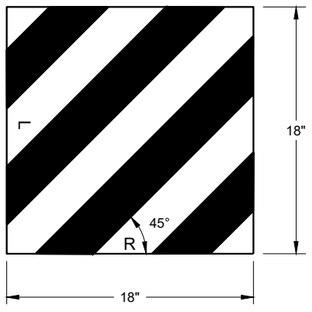
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

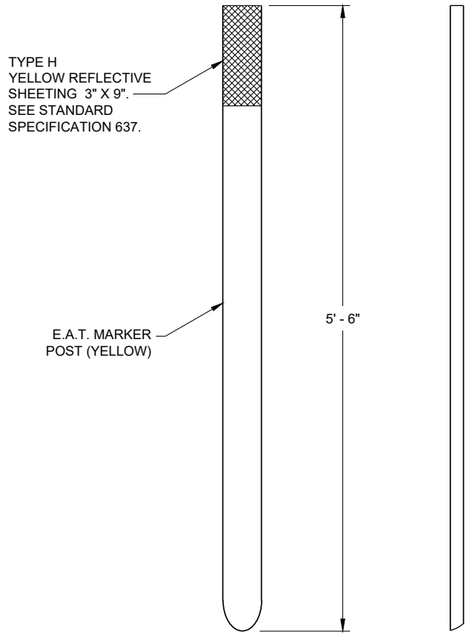


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



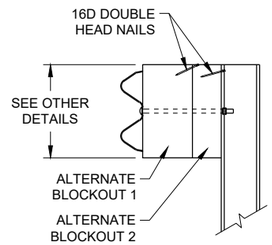
W5 - 59

REFLECTIVE SHEETING DETAIL (E)

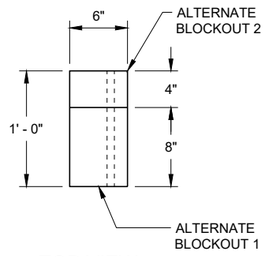


FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

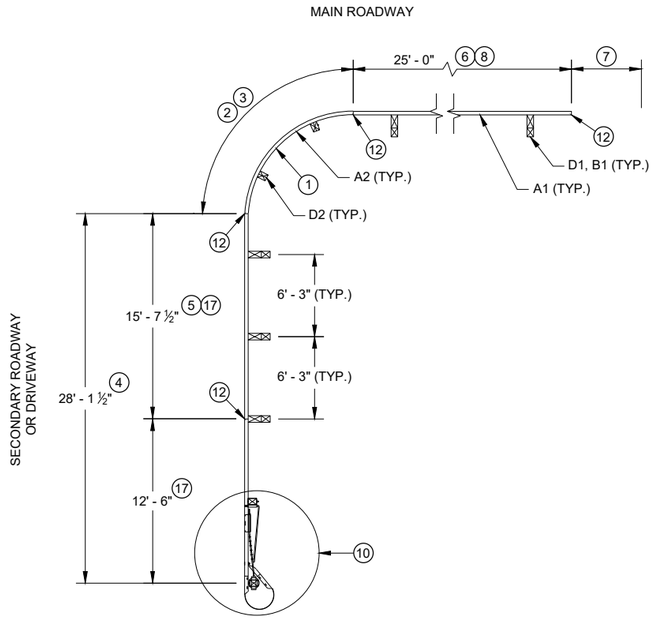
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

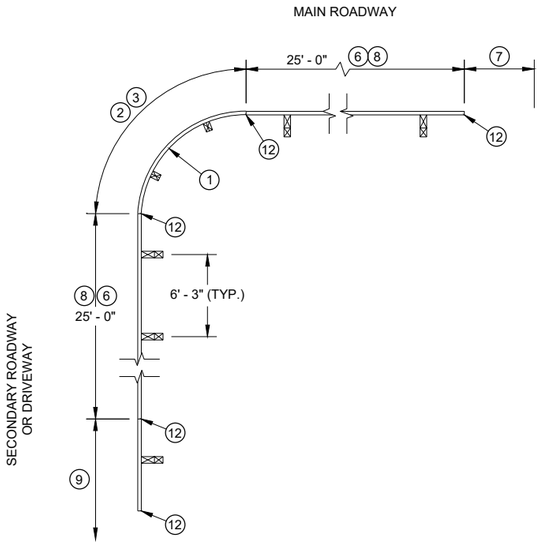
6

SDD 14B44 - 04c



PLAN VIEW

SHORT RADIUS BEAM GUARD WITH SHORT RADIUS TERMINAL ON SECONDARY ROAD OR DRIVEWAY

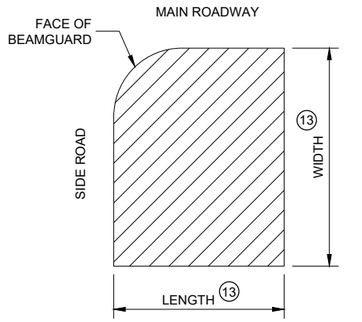


PLAN VIEW

SHORT RADIUS BEAM GUARD WITH EAT, ADDITIONAL BEAM GUARD OR TRANSITION TO RIGID BARRIER ON SECONDARY ROAD OR DRIVEWAY

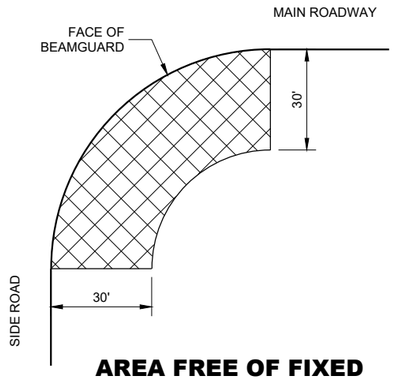
TABLE FOR RADIUS OF 32' AND LESS

RADIUS (FT)	LENGTH (FT)	WIDTH (FT)
8	25	15
16	30	15
24	40	20
32	50	30

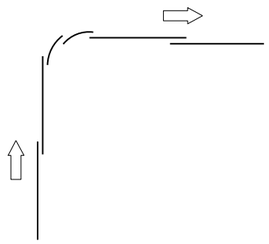


AREA FREE OF FIXED OBJECTS FOR RADIUS 32' AND LESS

16



AREA FREE OF FIXED OBJECTS FOR RADIUS GREATER THAN 32'



LAP SPLICE DETAIL

GENERAL NOTES

SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.

SEE SDD 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.

GALVANIZE PARTS AFTER FABRICATION.

WELDING TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI / AWS D1.1.

UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.

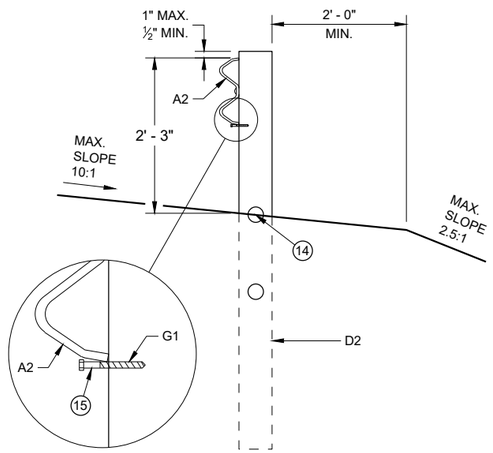
UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERTICAL.

ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUT.

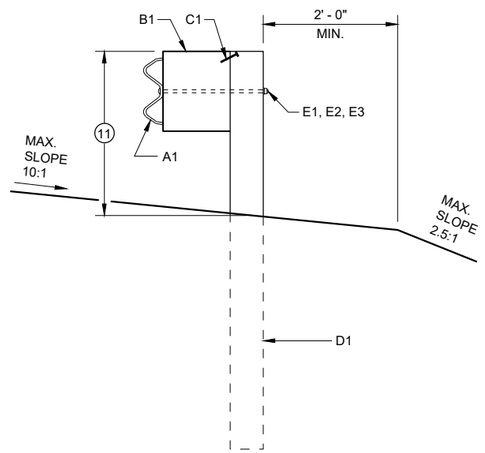
UNLESS NOTED OTHERWISE, CUT OR PROVIDE BOLTS THAT ARE ¼" TO ½" BEYOND THE NUT.

DRAWINGS ARE NOT TO SCALE.

1. RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.
2. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE USED IN THE RADIUS. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE SPACED 6' - 3". SEE PLAN FOR NUMBER OF CONTROLLED RELEASE (CRT) POSTS.
3. WITHIN RADIUS BEAM GUARD RAILS ARE NOT BOLTED TO POSTS. BEAM GUARD RAIL IS RESTED ON TOP OF LAG SCREW.
4. MINIMUM LENGTH OF BEAM GUARD ALONG SIDE ROAD OR DRIVEWAY TO INSTALL SHORT RADIUS TERMINAL. BEAM GUARD IS PAID WITH BEAM GUARD ITEM.
5. ODD LENGTH OF BEAM GUARD REQUIRED TO INSTALL SHORT RADIUS TERMINAL.
6. MINIMUM AMOUNT OF BEAM GUARD TO BE INSTALLED PRIOR TO TRANSITION TO RIGID BARRIER. ADDITIONAL BEAM GUARD, OR EAT. BEAM GUARD PAID FOR WITH BEAM GUARD ITEM. SEE PLANS FOR MORE DETAIL.
7. BEAM GUARD, EAT, OR TRANSITION TO RIGID BARRIER. SEE PLAN.
8. TOP OF BEAM GUARD BY THE RADIUS IS 27". HEIGHT OF BEAM GUARD IS 31" BY TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD OR EAT.
9. ADDITIONAL BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. BEAM GUARD SHOWN. SEE PLAN FOR DETAILS.
10. SHORT RADIUS TERMINAL (SEE OTHER DETAILS).
11. HEIGHT VARIES. SEE NOTE 8 AND 8 .
12. BEAM GUARD RAIL SPLICE LOCATION. SPLICE LOCATION REQUIRES PART F1 AND F2. SEE SDD 14B42 FOR DETAILS.
13. SEE TABLE FOR VALUES.
14. MAXIMUM HEIGHT FOR CENTER OF HOLE IS ¾" ABOVE FINISHED GROUND ±1".
15. DRILL POST $^{15}/_{64}$" DIA. PILOT HOLE. DO NOT HAMMER LAG SCREW INTO POST.
16. SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.
17. TOP OF RAIL HEIGHT IS 27" WHEN USING A SHORT RADIUS TERMINAL (CRT).



CONTROLLED RELEASE TERMINAL POST (CRT) IN RADIUS



BEAM GUARD POSTS IN HEIGHT TRANSITION

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

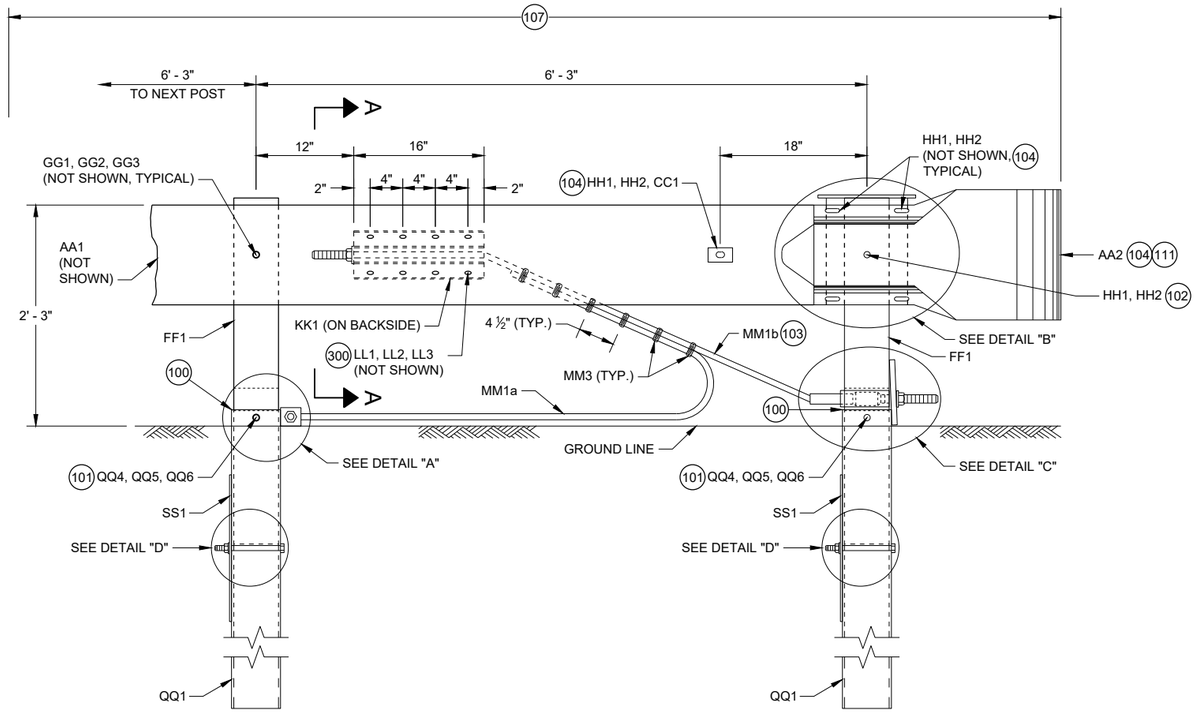
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B53 - 01a

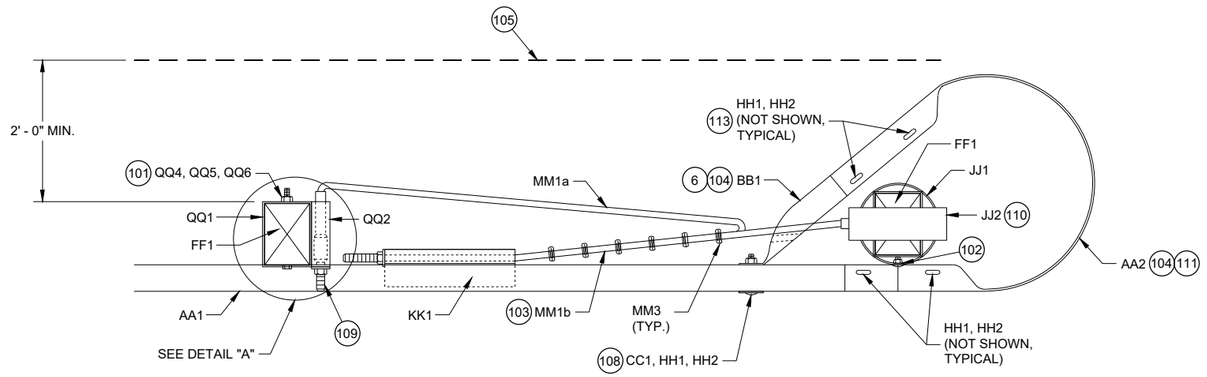
6

SDD 14B53 - 01a



PROFILE VIEW

SHORT RADIUS TERMINAL



TOP VIEW

SHORT RADIUS TERMINAL

GENERAL NOTES

100 TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.

101 WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

102 SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL "B".

103 CABLE IS TAUT.

104 ADJUST AA2 AND BB1 TO FIT.

105 BREAK POINT OF SHOULDER.

106 TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL "A" PROFILE VIEW.

107 PAY LIMIT FOR BEAM GUARD.

108 SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.

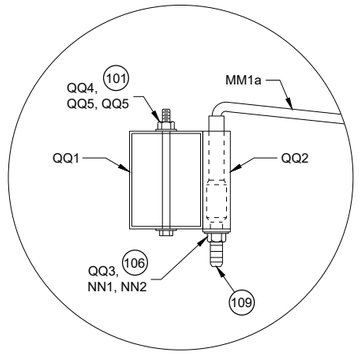
109 CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS ½" TOLERANCE). DEBURR AFTER CUTTING.

110 SEE STEEL PIPE ASSEMBLY DETAILS.

111 ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.

112 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.

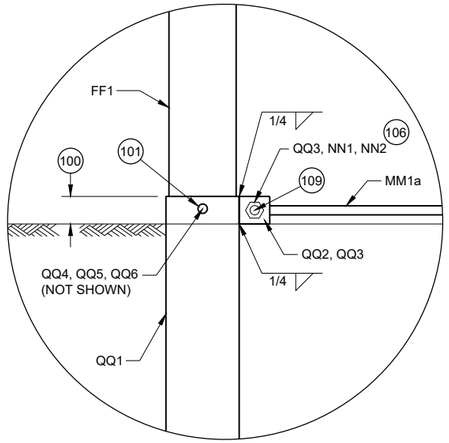
113 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.



TOP VIEW

DETAIL "A"

(WOOD BREAKAWAY AND BEAM GUARD RAIL POSTS NOT SHOWN)



PROFILE VIEW

DETAIL "A"

6

SDD 14B53 - 01b

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

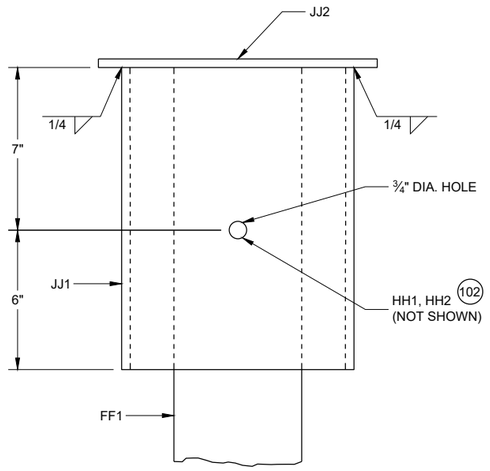
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B53 - 01b

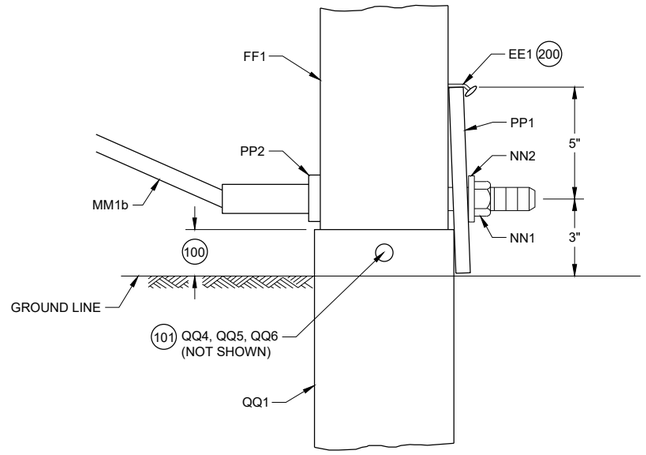
GENERAL NOTES

(200) TWO (2) NAILS SPACED 4 INCHES CENTER TO CENTER.



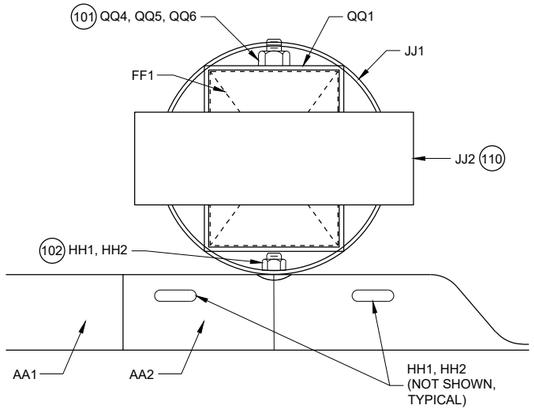
PROFILE VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY
(BEAM GUARD AND W BEAM END SECTION NOT SHOWN)



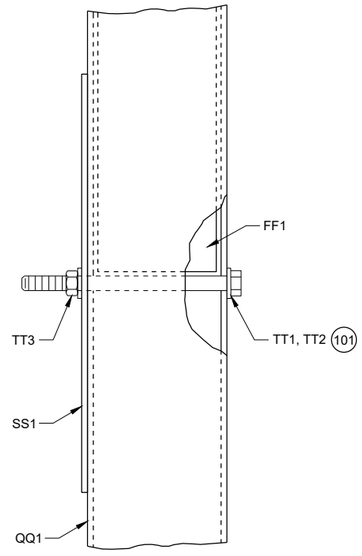
PROFILE VIEW

DETAIL "C"



PLAN VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY



PROFILE VIEW

DETAIL "D"

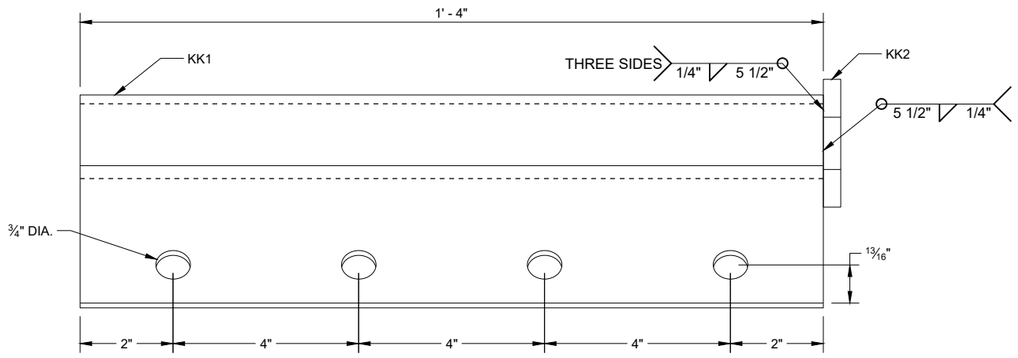
SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

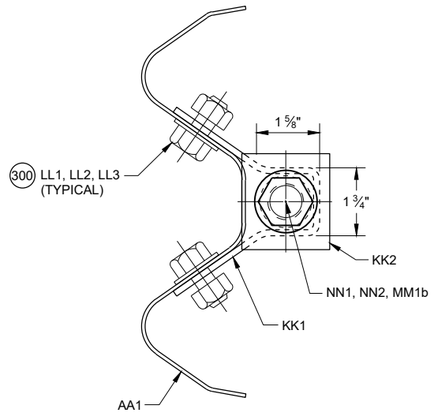
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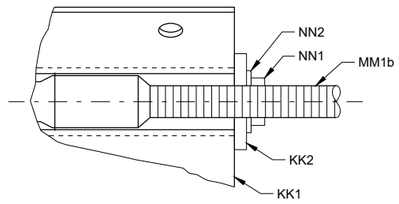
SDD 14B53 - 01c

GENERAL NOTES

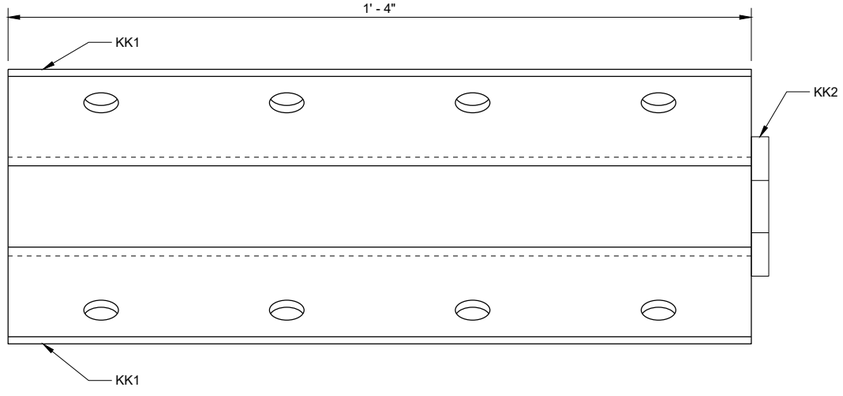
(300) WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT (8) LL1 AND LL3 REQUIRED. SIXTEEN (16) LL2 REQUIRED.

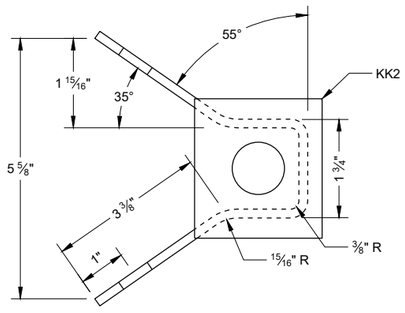




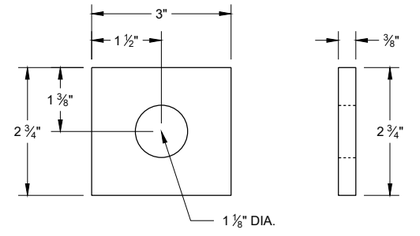


SECTION A - A





ANCHOR BRACKET (KK1, KK2)



ANCHOR BRACKET BEARING PLATE (KK2)

6

6

SDD 14B53 - 01d

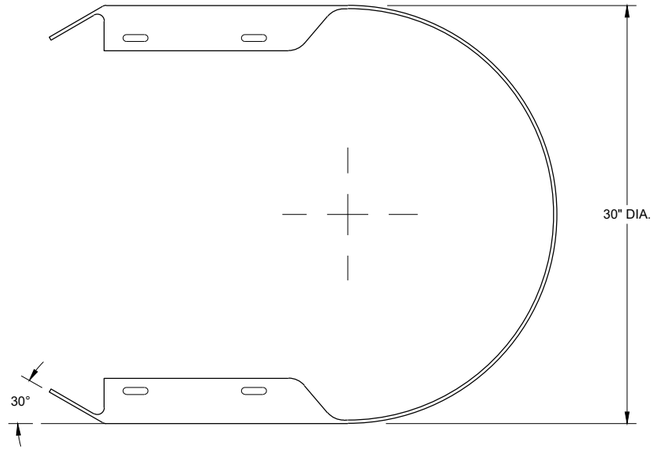
SDD 14B53 - 01d

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

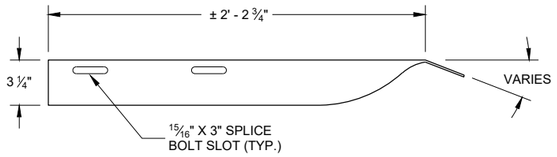
GENERAL NOTES

(400) CROSS SECTION OF PART IS TO FIT OVER AA1 .

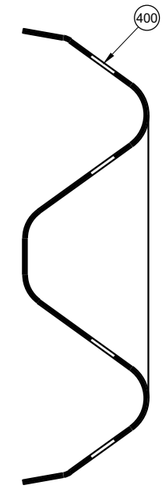
(401) CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



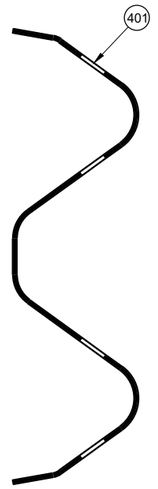
TOP VIEW



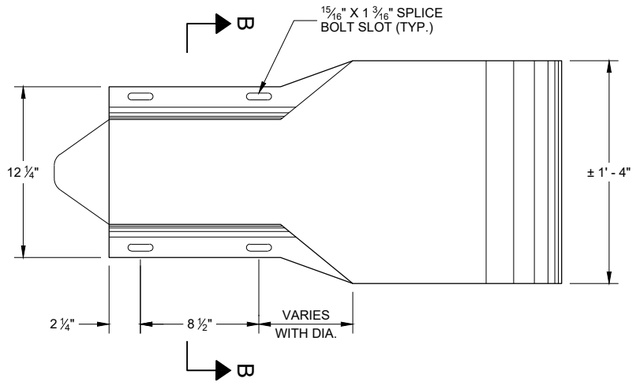
TOP VIEW



SECTION B -B

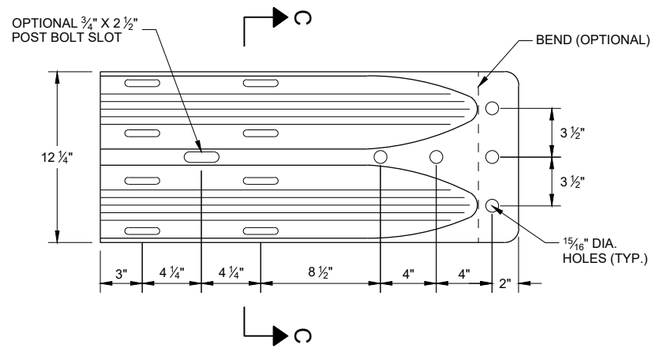


SECTION C -C



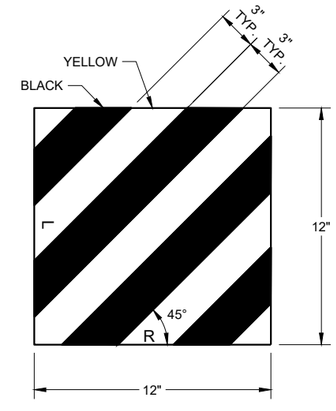
PROFILE VIEW

W BEAM
END SECTION BUFFER (AA2)



PROFILE VIEW

W BEAM
TERMINAL CONNECTOR (BB1)



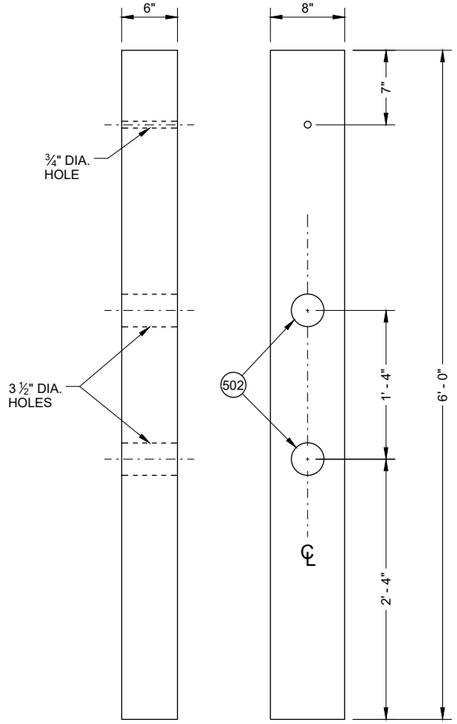
REFLECTIVE SHEETING (UU1, UU2)

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
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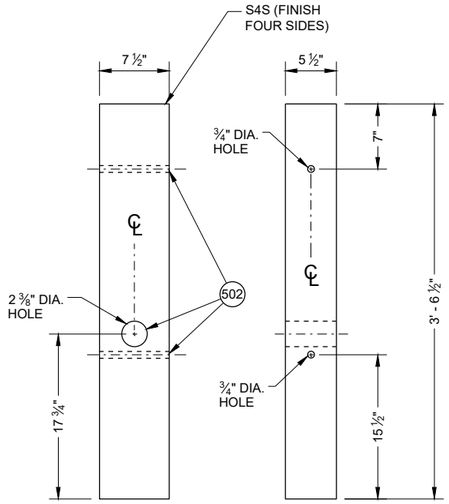
6

SDD 14B53 - 01e



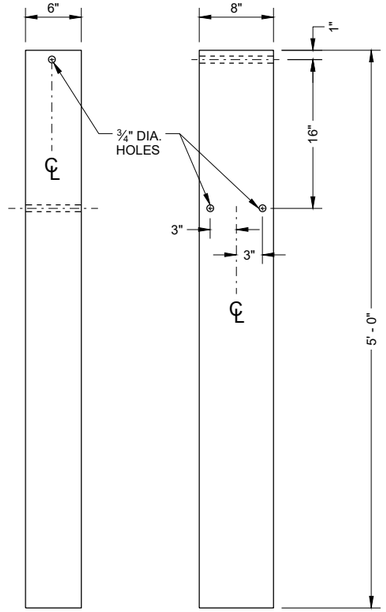
FRONT VIEW SIDE VIEW

CONTROLLED RELEASE POST (CRT) (DD2)



FRONT VIEW SIDE VIEW

WOOD BREAKAWAY POST (FF1)



FRONT VIEW SIDE VIEW

FOUNDATION TUBE (QQ1) (500)

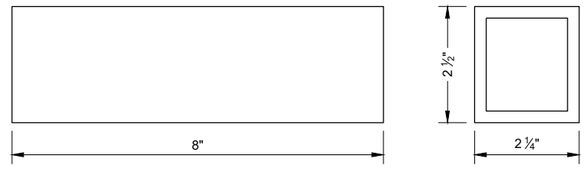
GENERAL NOTES

(500) SEE DETAIL "D" FOR LOCATION AND ATTACHMENT OF SS1.

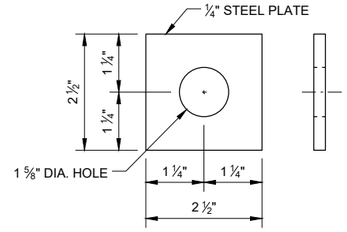
(501) FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.

(502) LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.

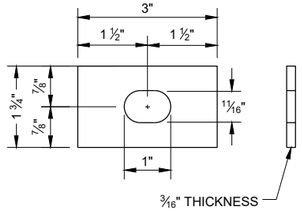
(503) MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE (109).



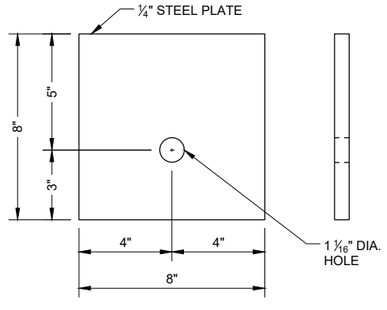
FOUNDATION TUBE - ANCHOR CABLE TUBE (QQ2)



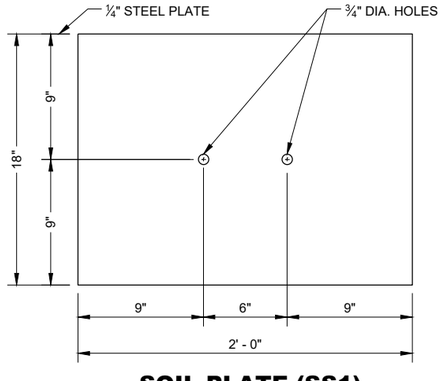
ANCHOR CABLE TUBE END PLATE (QQ3)



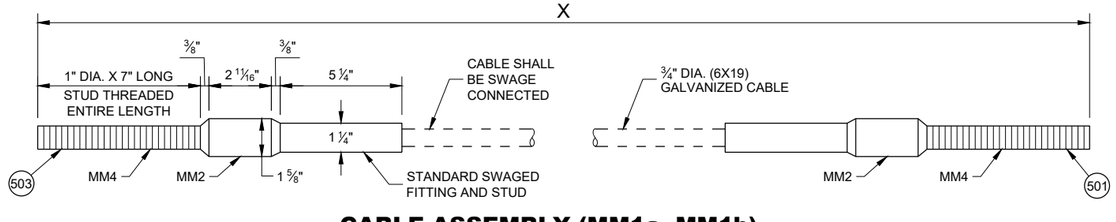
RECTANGULAR PLATE WASHER (CC1)



BEARING PLATE (PP1)



SOIL PLATE (SS1)



CABLE ASSEMBLY (MM1a, MM1b)

"X" LENGTH

MM1b	9' - 0"
MM1b	6' - 8"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B53 - 01f

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	BEAM GUARD RAIL	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
A2	BEAM GUARD RAIL - SHOP BENT	INDICATE ON BACK OF RAIL THE RADIUS THAT RAIL WAS BENT TO. SHOP BEND RADIUS IS TO THE NEAREST FOOT. FOLLOW AASHTO M180 ON HOW TO MARK RADIUS INFORMATION.	
		AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
B1	BLOCK - WOOD	WISDOT SPEC. 614	SEE SDD 14B42
C1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEAD)	
D1	POST-STRONG POST-WOOD	WISDOT SPEC. 614	SEE SDD 14B42
D2	POST-CRT-WOOD	WISDOT SPEC. 614	
E1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
E2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
E3	POST BOLT - NUT	AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
F1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
F2	SPLICE BOLT - NUT	ASTM A563 GRADE A	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
G1	LAG SCREW	ASTM A308 GRADE A ASTM A153 CLASS D	1/2" DIA. 6" LONG
H1	DELINEATOR - BEAM GUARD		SEE SDD 14B42 FOR MORE INFORMATION
H2	DELINEATION - SHEETING	YELLOW OR WHITE	
		WISDOT SPEC 637 TYPE SH	
		APPROVED PRODUCT LIST	
J1	FOUNDATION BACKFILL	STANDARD SPEC. 614	
AA1	BEAM GUARD RAIL - PUNCHED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
AA2	BEAM GUARD RAIL - END SECTION BUFFER	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
BB1	BEAM GUARD RAIL - TERMINAL CONNECTOR MODIFIED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
CC1	SHORT RADIUS - SQUARE WASHER	AASHTO M180	
		GALV. AASHTO M111 / ASTM A123	
EE1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)	
FF1	POST - BCT - WOOD	S4S FINISH ON 4 SIDES	
		WISDOT SPEC. 614	
GG1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
GG2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	3/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B53 - 01g

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
GG3	POST BOLT - NUT	ASTM A563 GRADE A	⅜" DIA. SEE 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
HH1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180 HEAD GEOMETRY	
HH2	SPLICE BOLT - NUT	ASTM A563 GRADE A	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
JJ1	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	10" O.D.
JJ2	TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS ⅜" X 4" X 1' - 0"
		GALV. AASHTO M111 / ASTM A123	
KK1	ANCHOR BRACKET	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
KK2	ANCHOR BRACKET - BEARING PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
LL1	ANCHOR BRACKET - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
LL2	ANCHOR BRACKET - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	⅝" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
LL3	ANCHOR BRACKET - NUT	ASTM A563 GRADE A	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
MM1a	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM1b	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM2	ANCHOR CABLE - SWAGE FITTING	ASTM A576 GRADE 1035	
		SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS.	
		GALV. AASHTO M111 / ASTM A123	
		ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE.	
MM3	WIRE ROPE CABLE CLAMPS	FF-C-450D TYPE 1 CLASS 1	¾"
		ASTM A153 HOT DIP CLASS D	
MM4	ANCHOR CABLE - SWAGE FITTING - STUD	ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
NN1	ANCHOR CABLE - NUT	ASTM A563 GRADE A	1" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
NN2	ANCHOR CABLE - NUT - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	1" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

6

SDD 14B53 - 01h

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
PP1	BEARING PLATE AT POST	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
PP2	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	2" DIA. x 6" LONG
QQ1	FOUNDATION TUBE	ASTM A500 GRADE B	8" X 6" X 3/16"
		GALV. AASHTO M111 / ASTM A123	
QQ2	SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE	ASTM A500 GRADE B	DIMENSIONS 2 1/2" X 2 1/4" X 1/4" X 8"
		GALV. AASHTO M111 / ASTM A123	
QQ3	SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 2 1/2" X 2 1/2" X 1/4"
		GALV. AASHTO M111 / ASTM A123	
QQ4	GROUND STRUT AND YOKE - BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
		ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	
		UNC	
QQ5	GROUND PLATE AND YOKE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
QQ6	GROUND STRUT AND YOKE - NUT	HEAVY HEX	5/8 DIA.
		UNC	
		ASTM A563 GRADE A	
		OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
SS1	SOIL PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / A123	
TT1	SOIL PLATE - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8 DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
TT2	SOIL PLATE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
TT3	SOIL PLATE - NUT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
UU1	OBJECT MARKER - SHEETING	MUTCD / WISDOT OBJECT MARKER TYPE 3	PATTERN AND COLOR FOR SHEETING. SHEETING TYPE FOR MARKER.
		WISDOT SPEC 637 TYPE F	
		APPROVED PRODUCT LIST	
UU2	OBJECT MARKER - ALUMINUM PLATE	WISDOT SPEC 637 ALUMINUM PLATE	MATERIAL AND THICKNESS OF MATERIALS
UU3	OBJECT MARKER - SCREWS	STAINLESS SELF-TAPPING SCREWS	
VV1	FOUNDATION BACKFILL	WISDOT SPEC 614	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

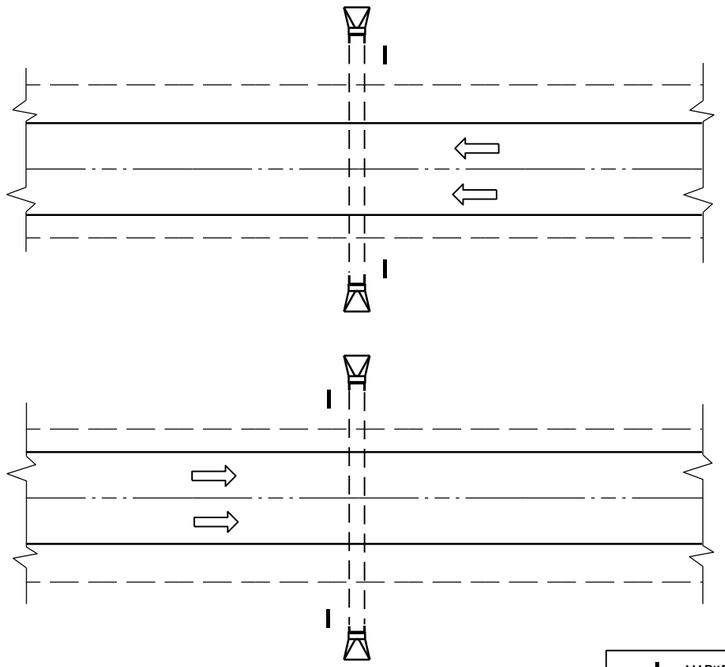
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

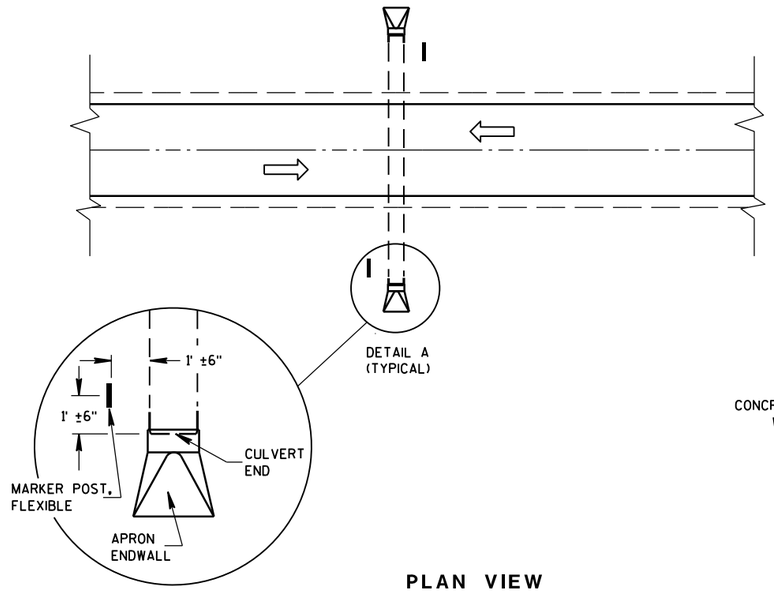
6

SDD 14B53 - 01i



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

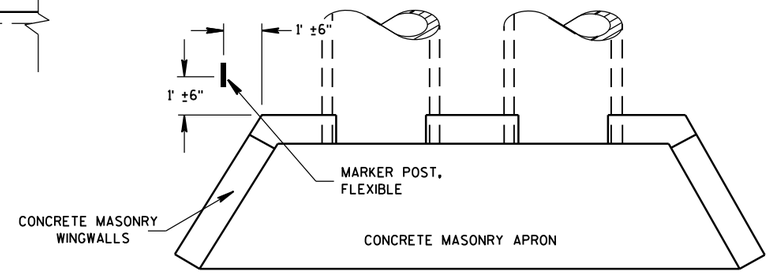
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

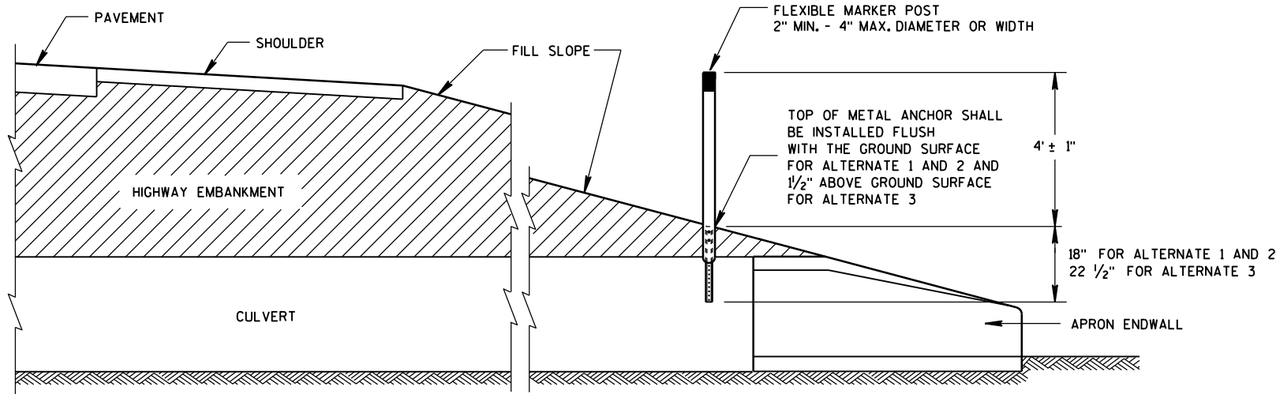
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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

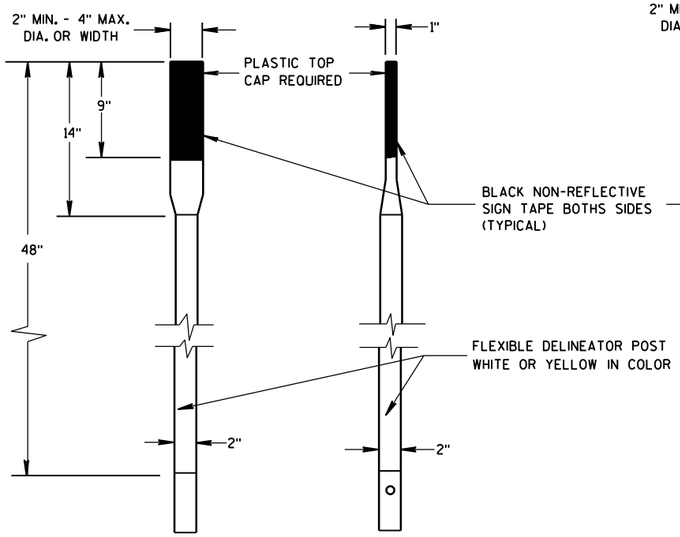
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

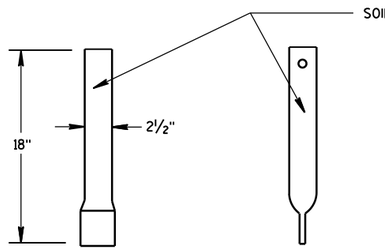
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S.D.D. 15 A 3-2a

6

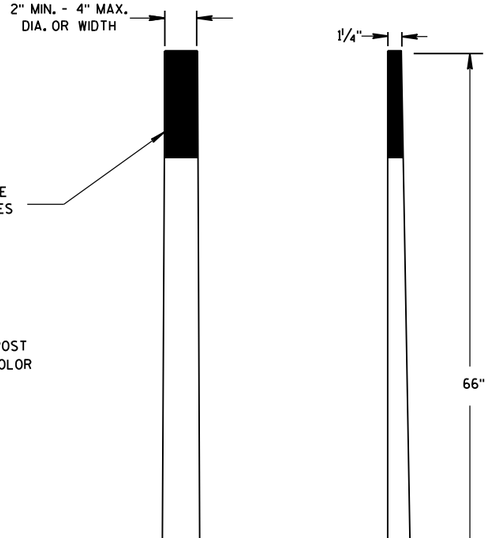
S.D.D. 15 A 3-2a





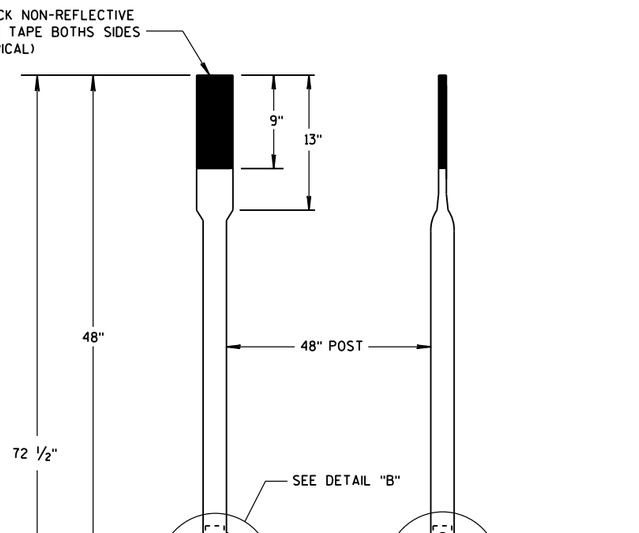
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

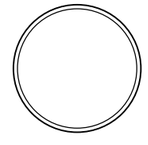
ALTERNATE 2



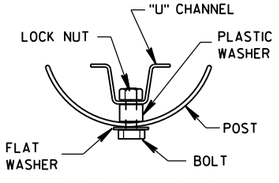
FRONT VIEW SIDE VIEW

ALTERNATE 3

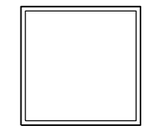
FLEXIBLE MARKER POSTS



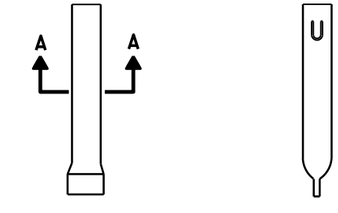
SECTION A-A



SECTION B-B

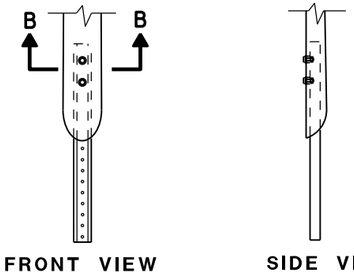


SECTION C-C



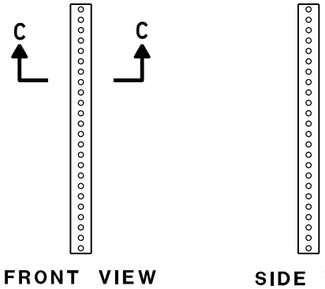
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

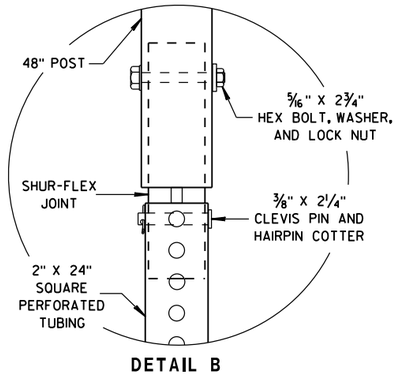
ALTERNATE 2



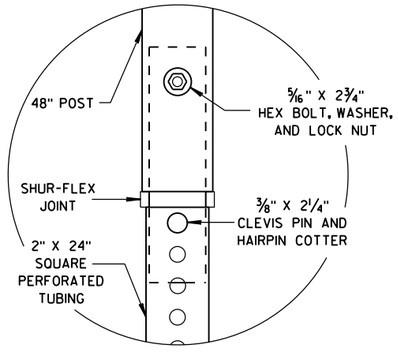
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

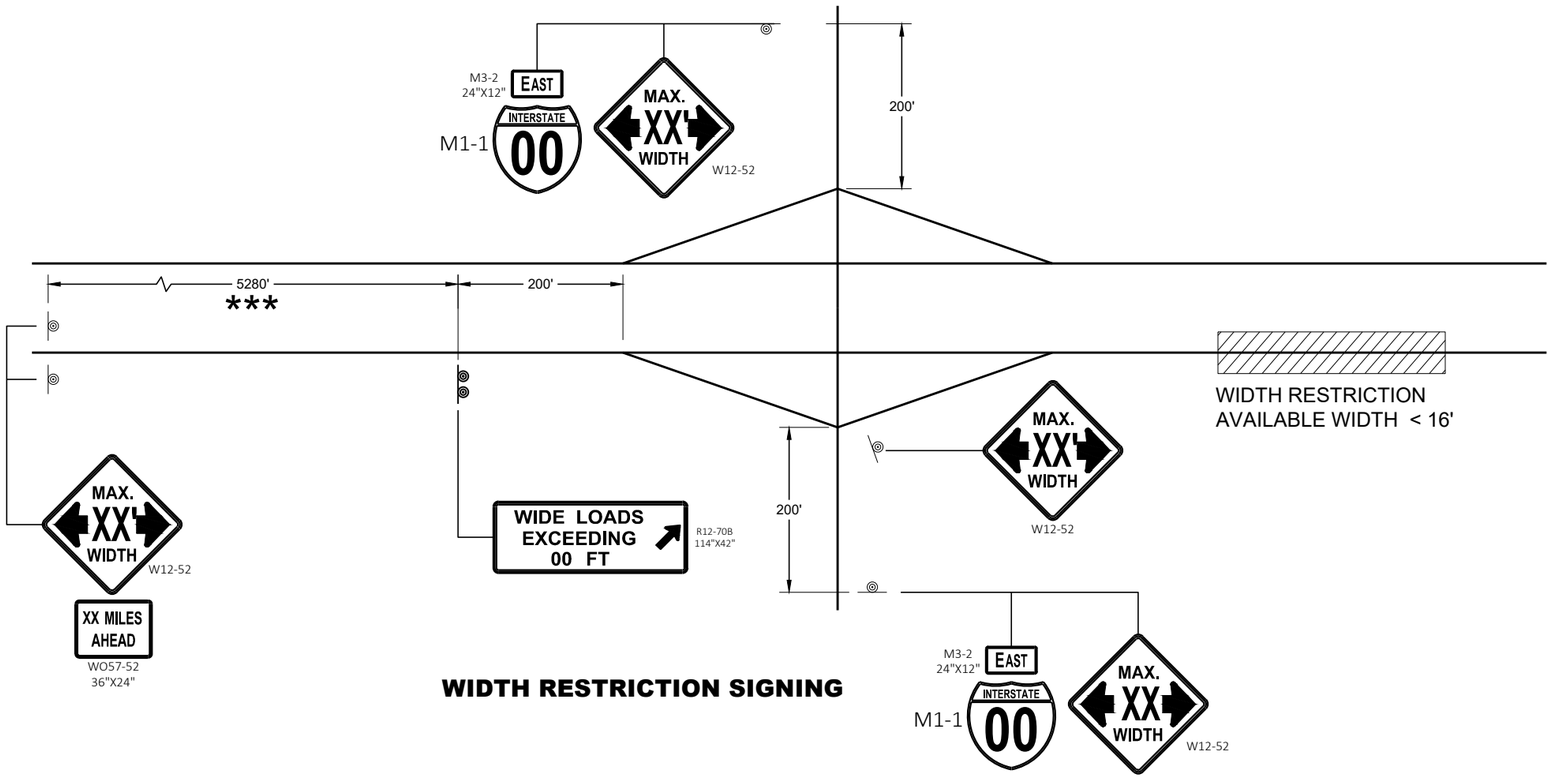
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

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

6

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



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.

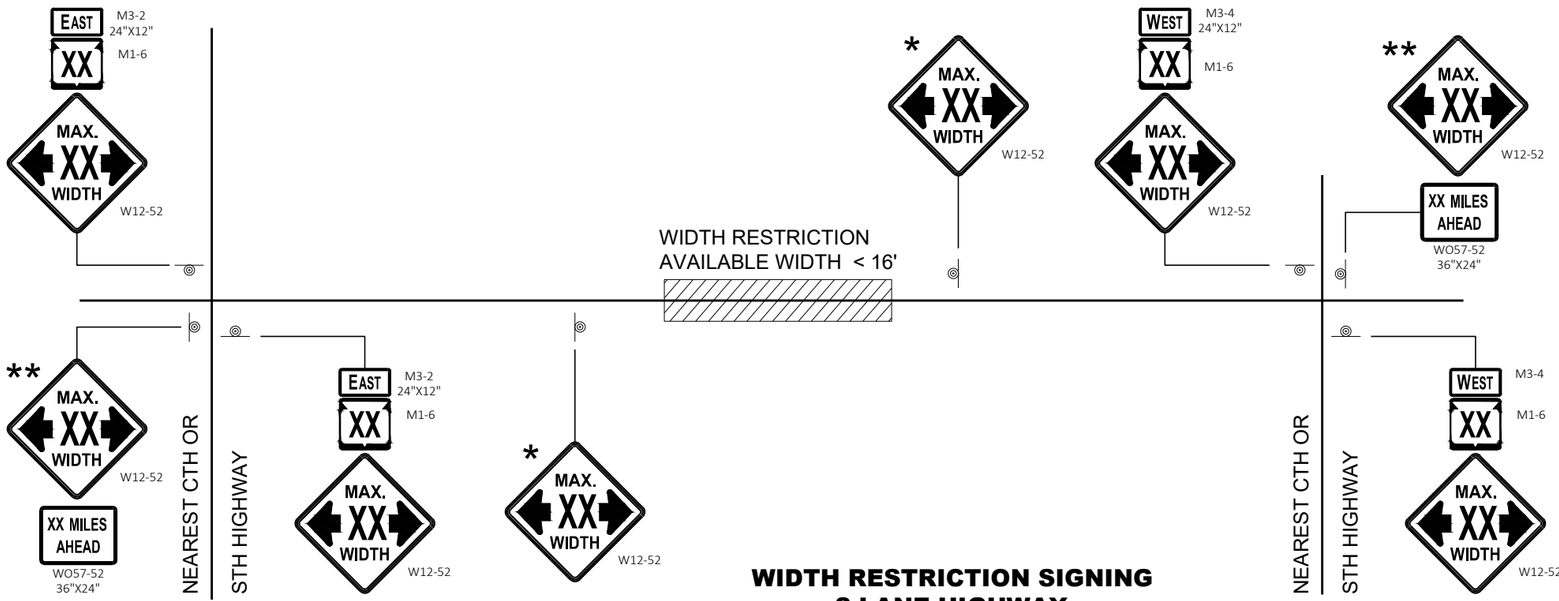
* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** 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

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.

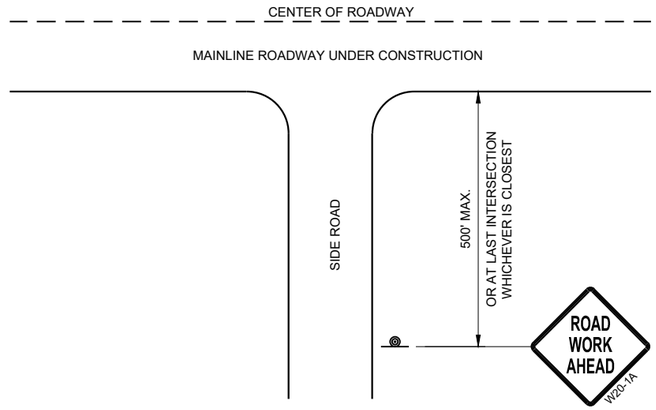
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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.



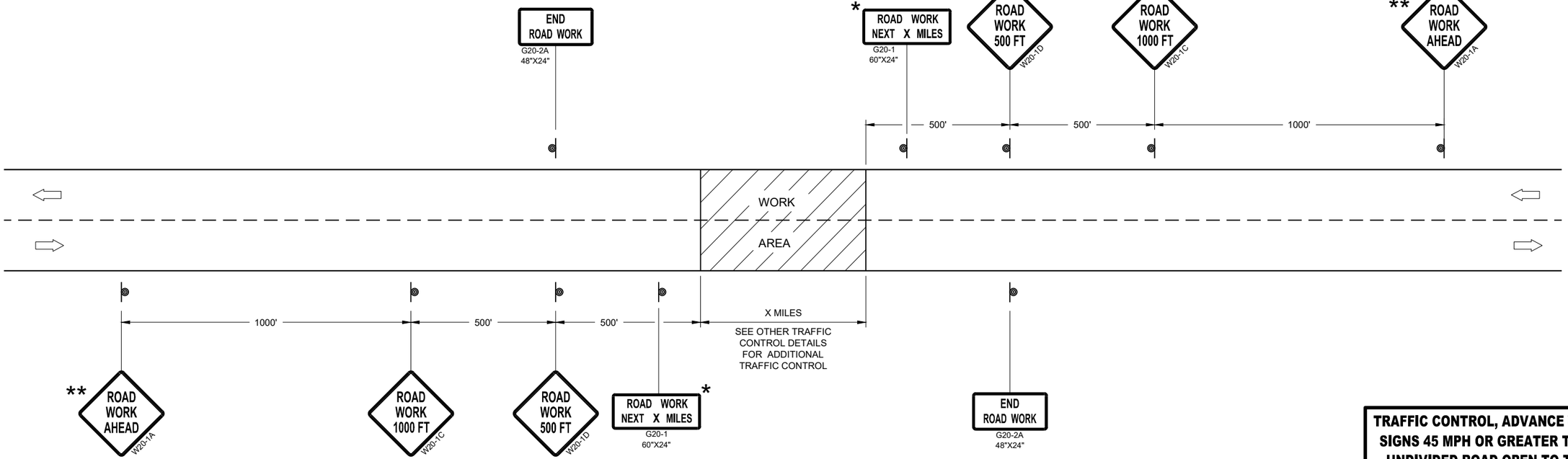
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

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 TRAFFIC

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.

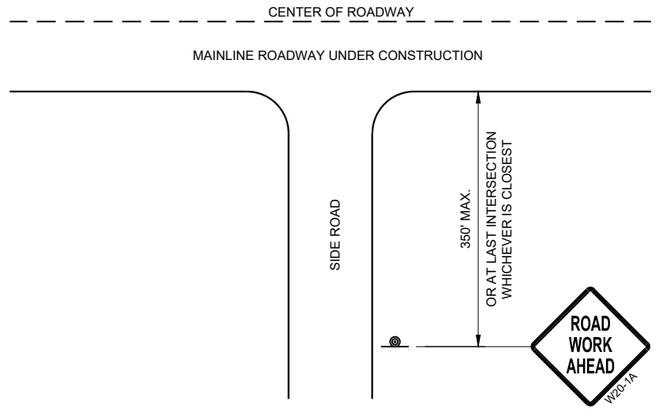
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.

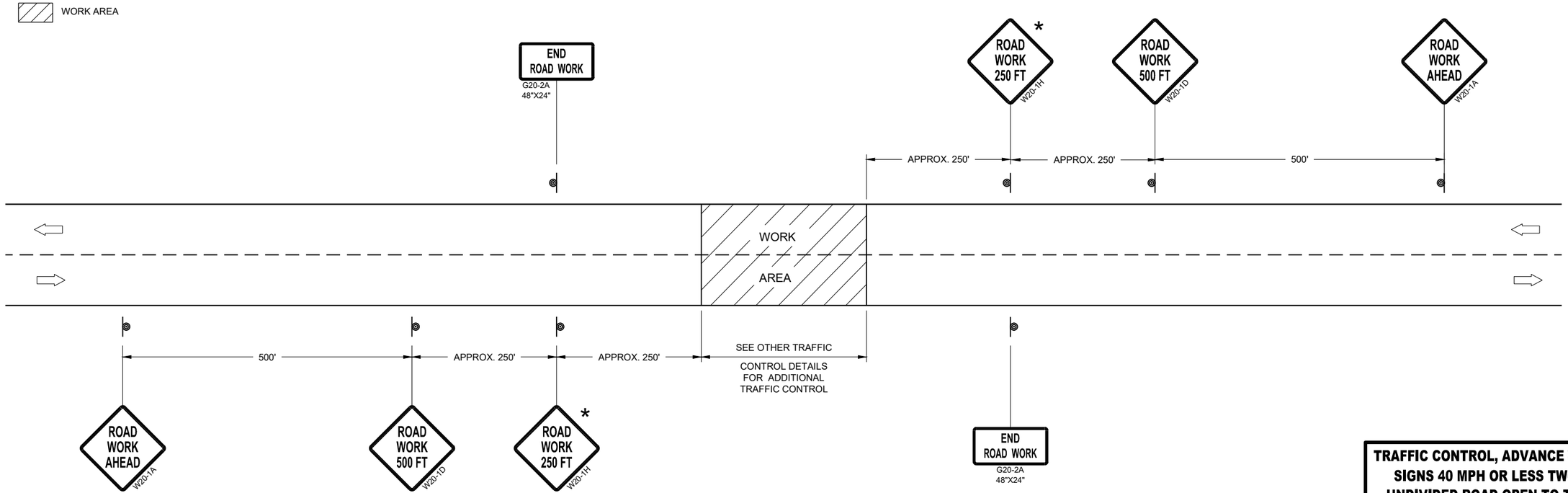
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



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 TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

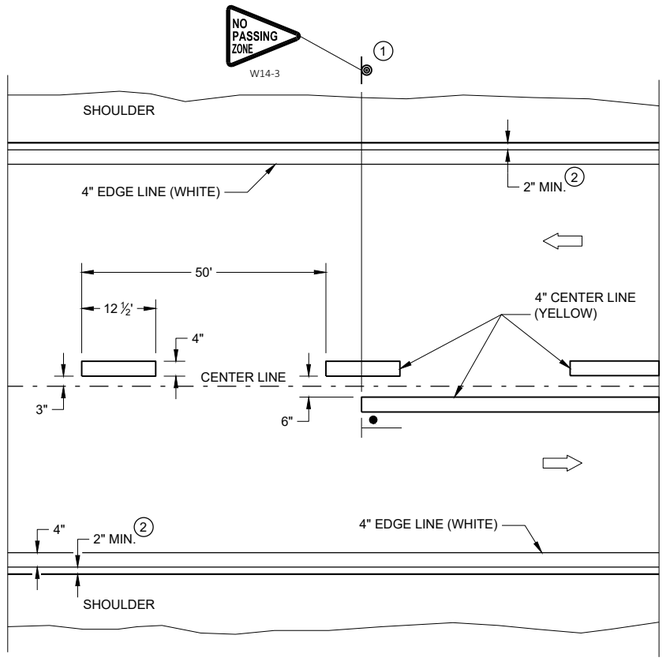
APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

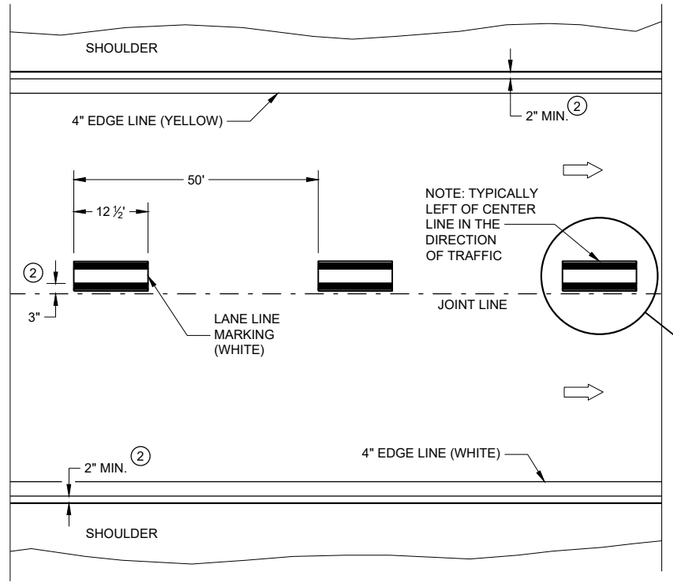
FHWA

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SDD 15C05 - 05

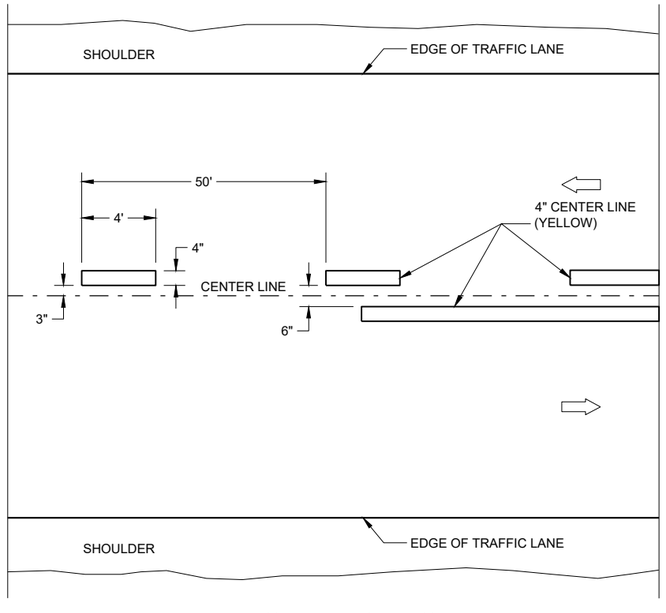


TWO WAY TRAFFIC

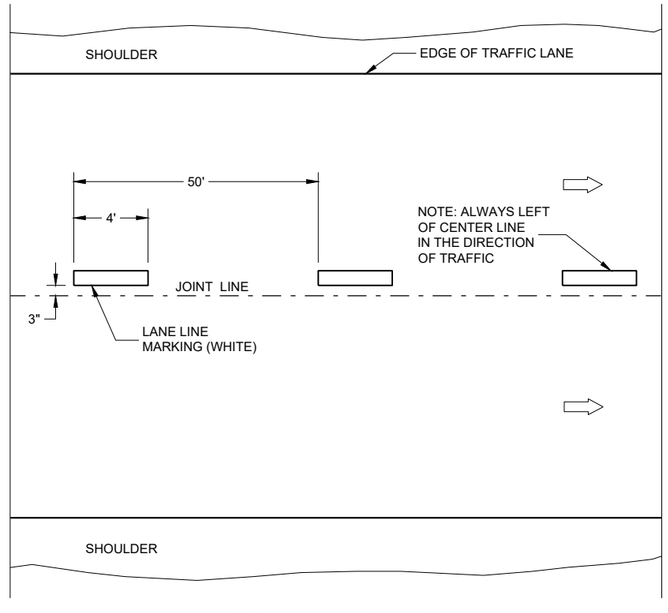


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

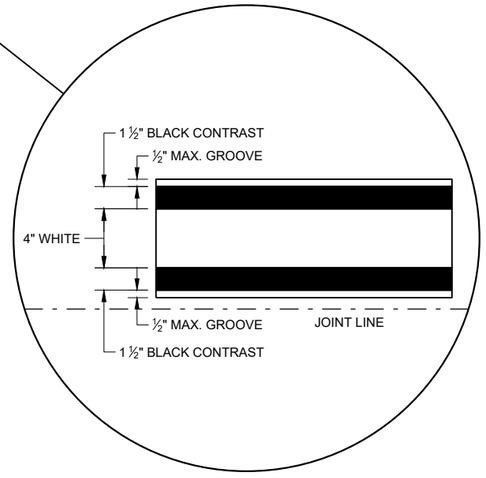
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Matthew Rauch — STATEWIDE SIGNING AND M ENGINEER

FHWA

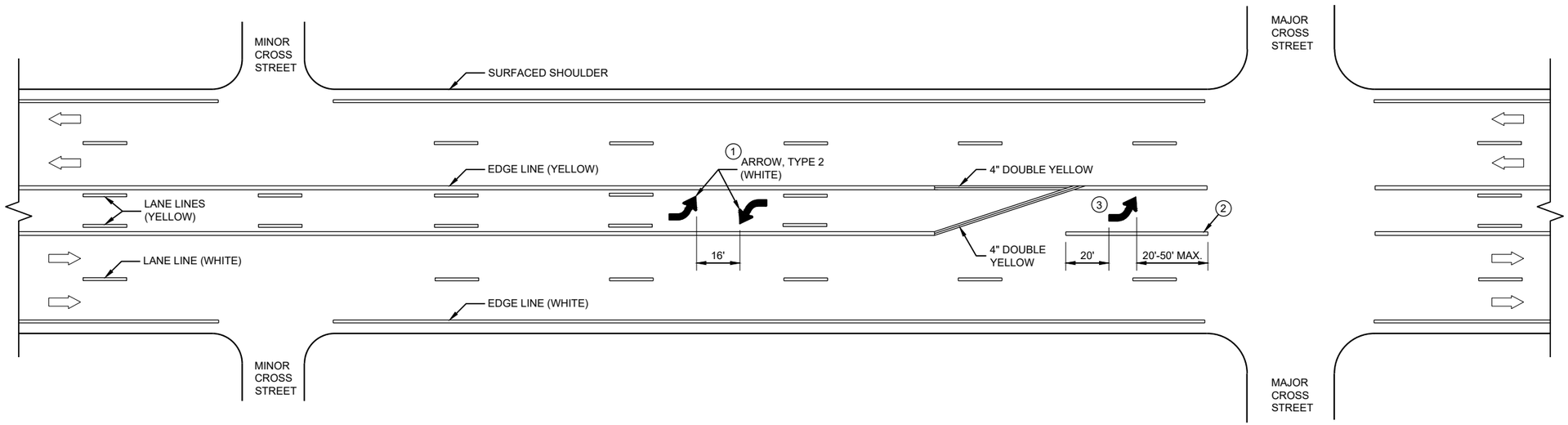
SDD 15C08 - 20a

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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

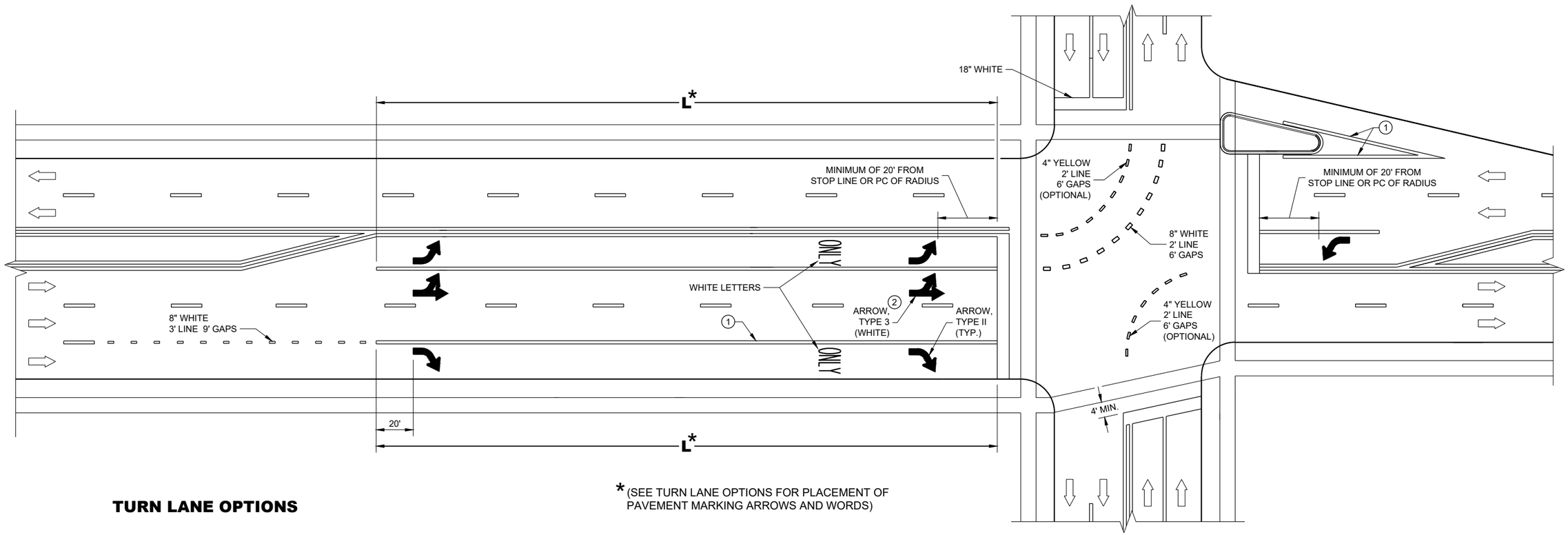
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SDD 15C08 - 20b

SDD 15C08 - 20b

PAVEMENT MARKING (TURN LANES)

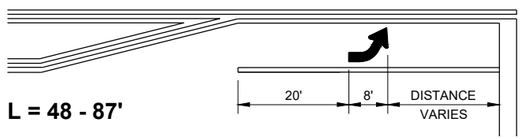
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA



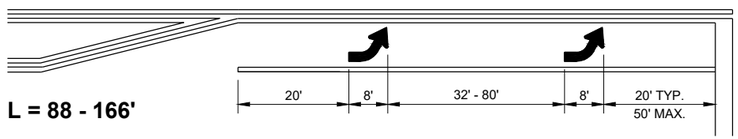
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

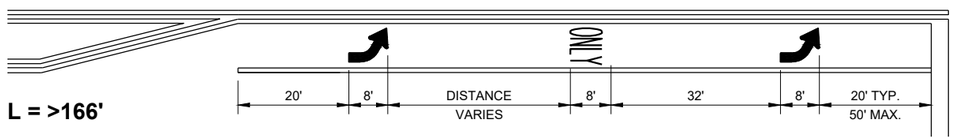
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



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)

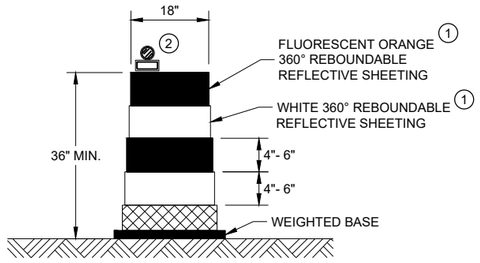
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

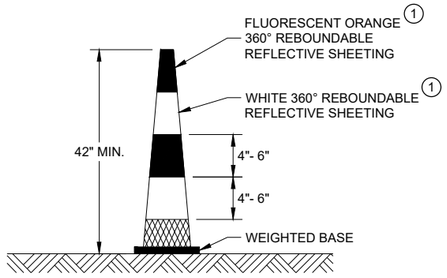
SDD 15C08 - 20c

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.

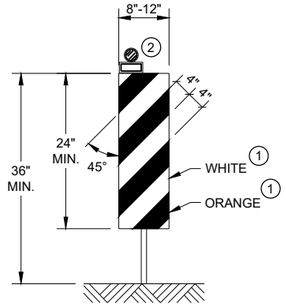


DRUM



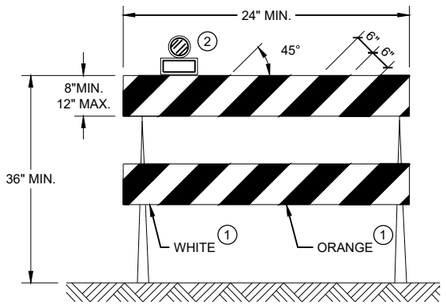
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



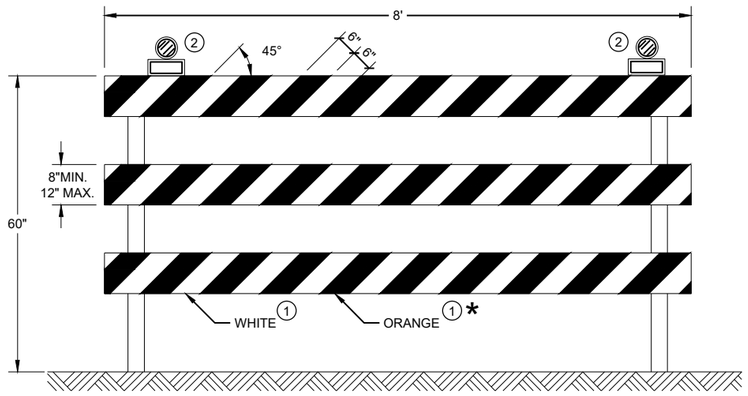
VERTICAL PANEL

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
May 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD15C11 - 09b

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SDD15C11 - 09b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

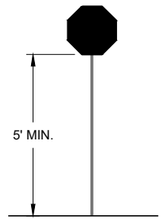
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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



STOP/SLOW PADDLE ON SUPPORT STAFF

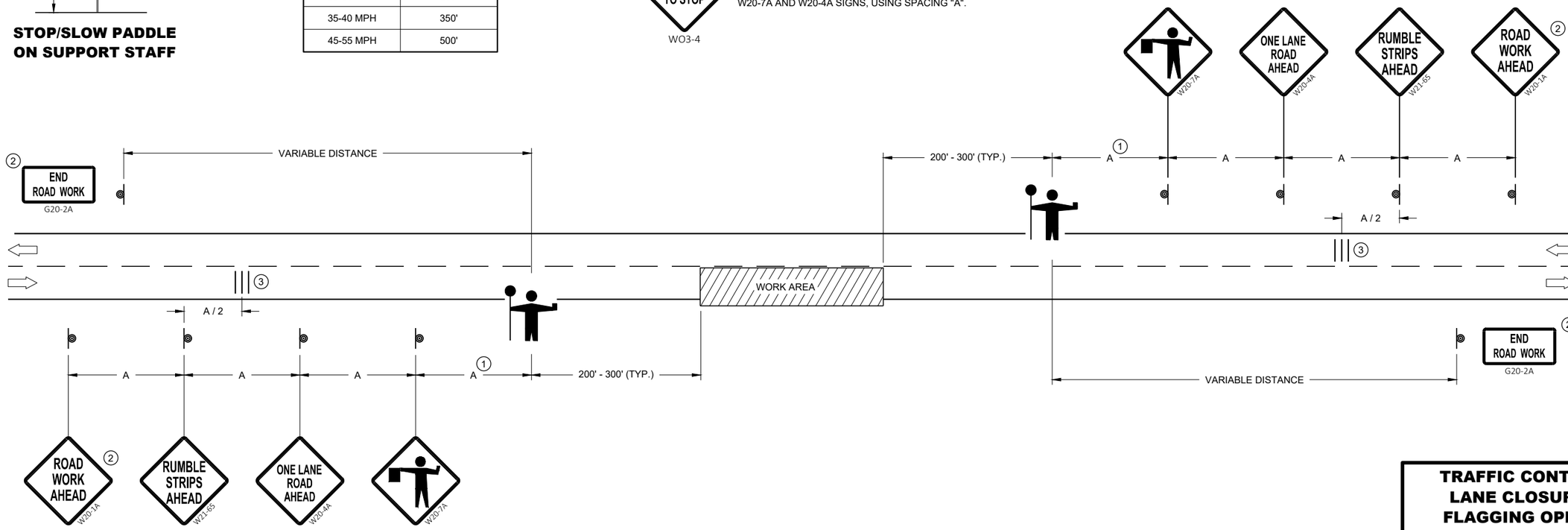
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 15C12 - 08

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SDD 15C12 - 08

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

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

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

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

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

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

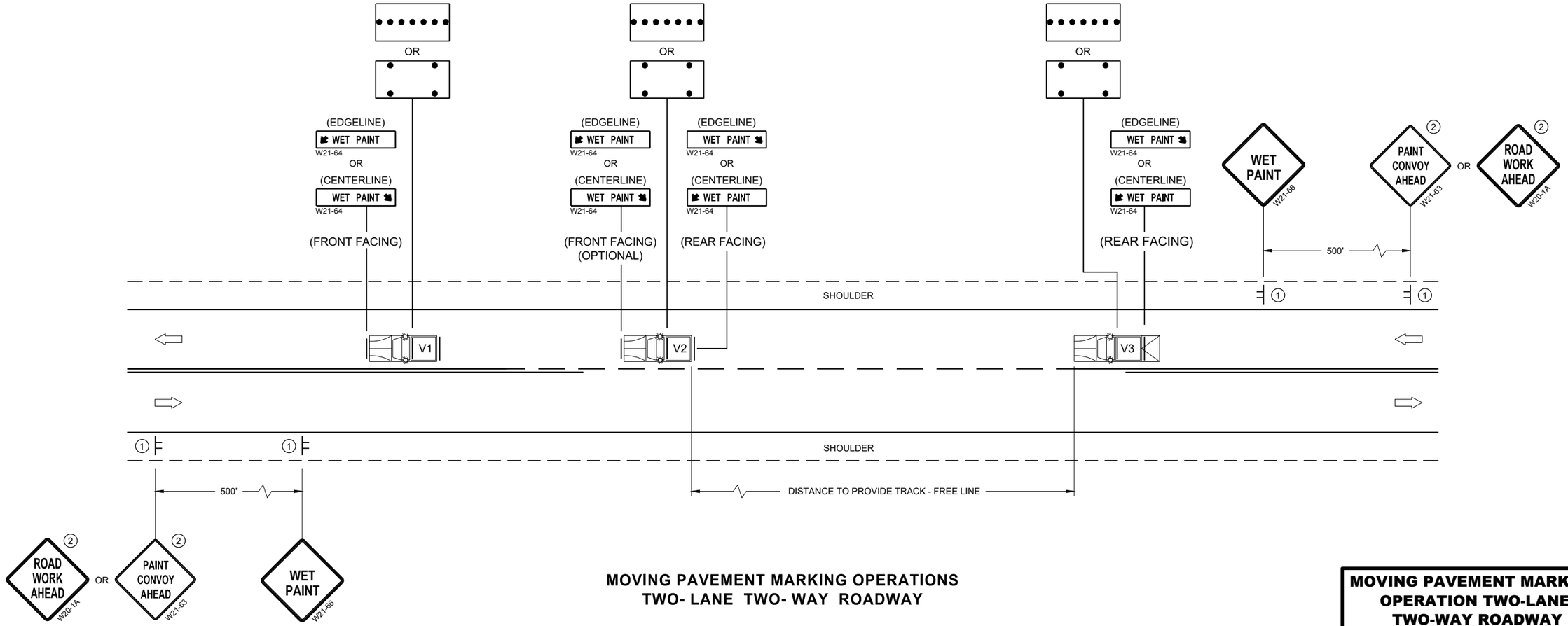
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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

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

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



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

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SDD 15C19 - 06a

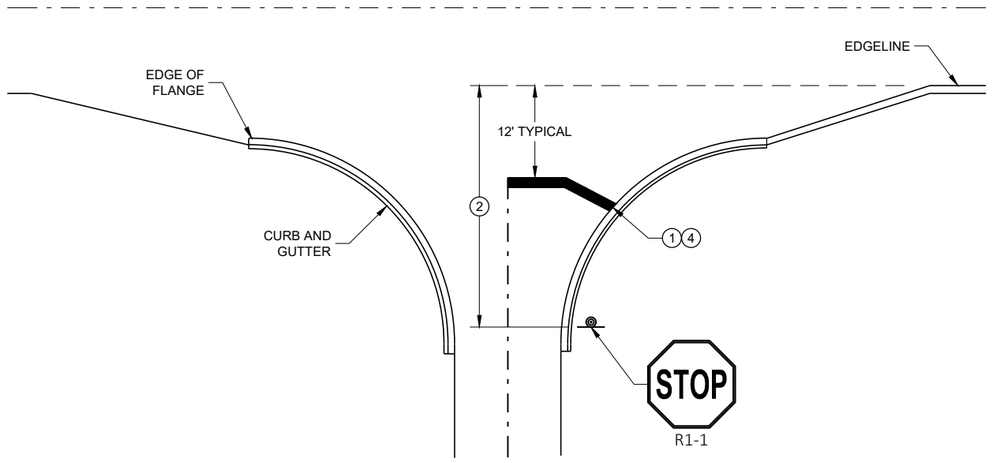
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SDD 15C19 - 06a

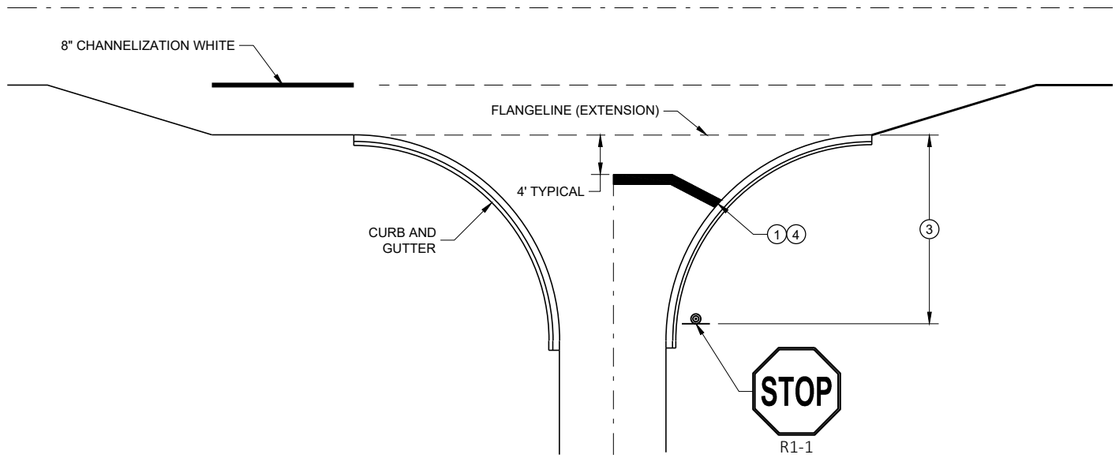
GENERAL NOTES

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

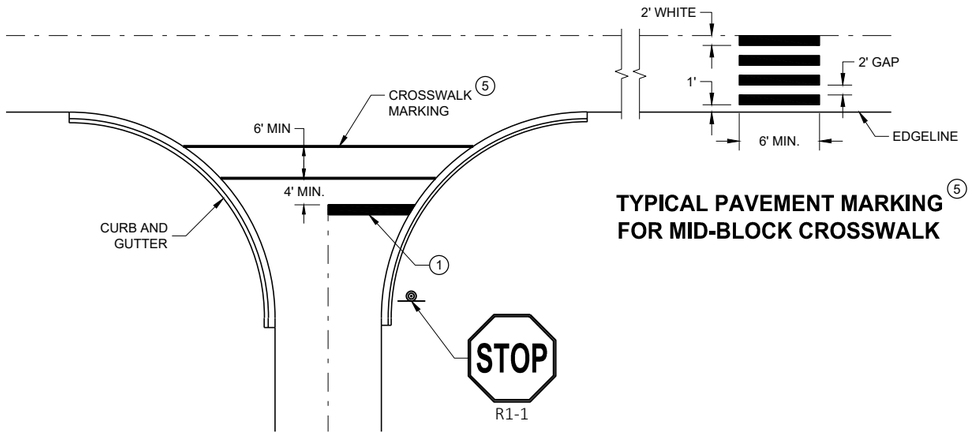
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE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

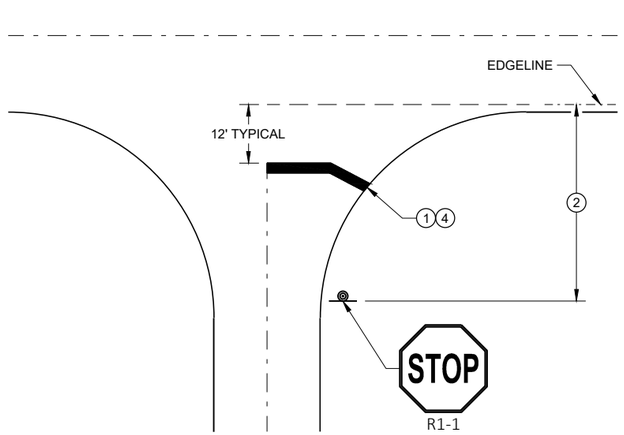


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



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 MAF ENGINEER

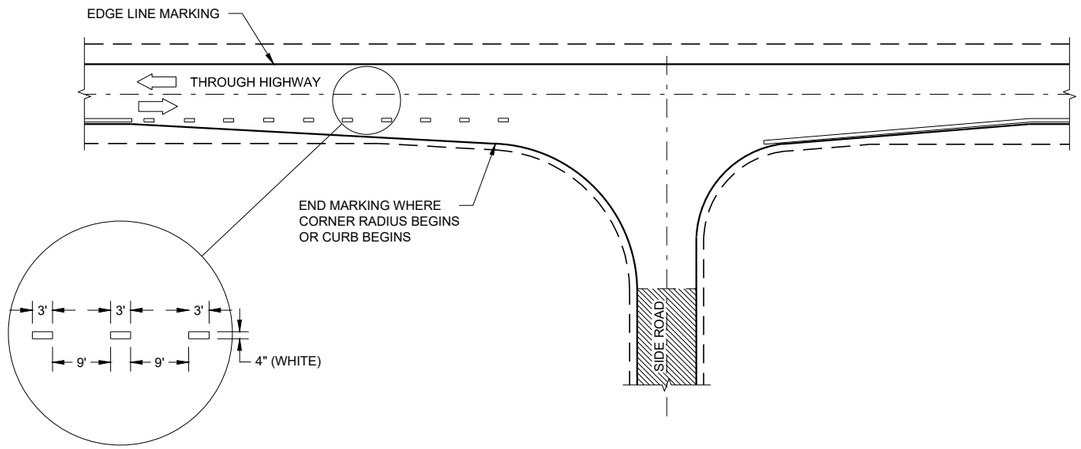
FHWA

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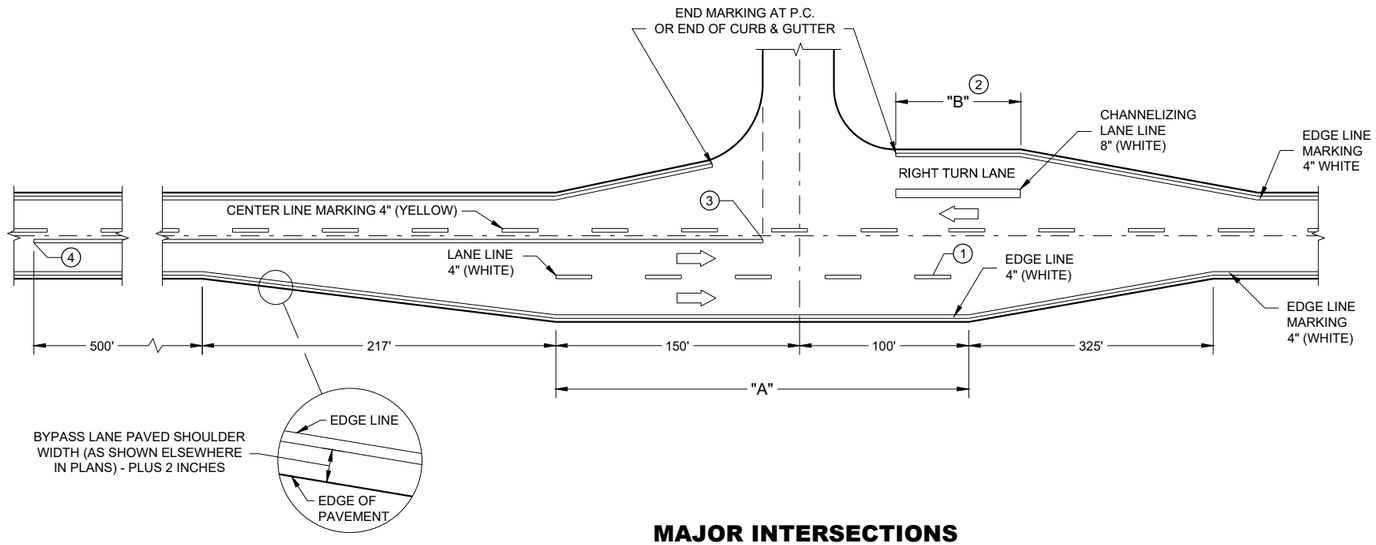
SDD 15C33 - 04

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SDD 15C33 - 04



MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

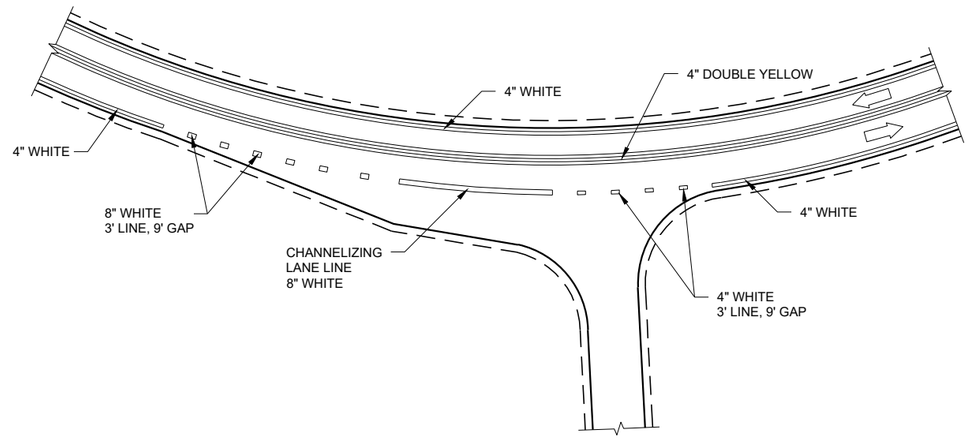
GENERAL NOTES

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)

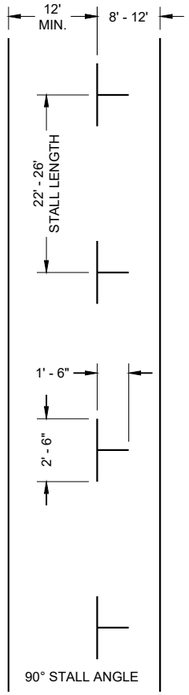
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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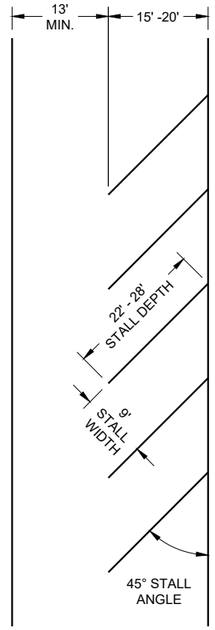
SDD 15C35 - 04a

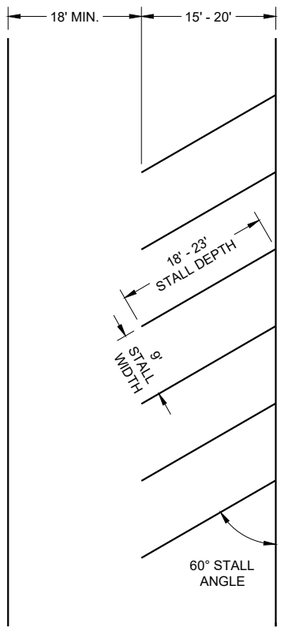
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SDD 15C35 - 04a



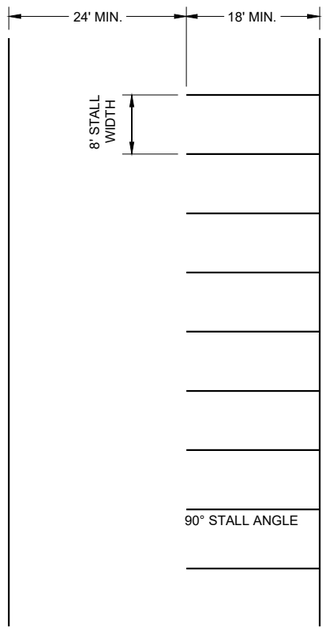
PARALLEL PARKING





ANGLED PARKING

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



PARKING LOTS

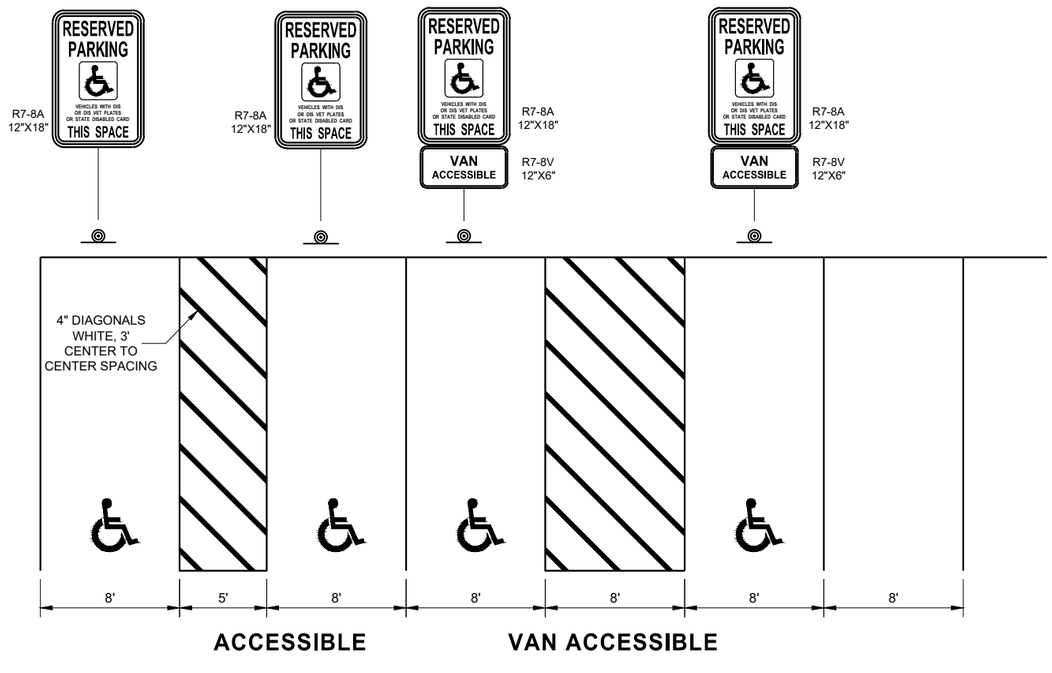
GENERAL NOTES

ALL LINES 4" WHITE (UNLESS OTHERWISE NOTED)

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

LEGEND

SIGN ON PERMANENT SUPPORT



PARKING STALL MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

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SDD 15C36 - 01
SDD 15C36 - 01

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.

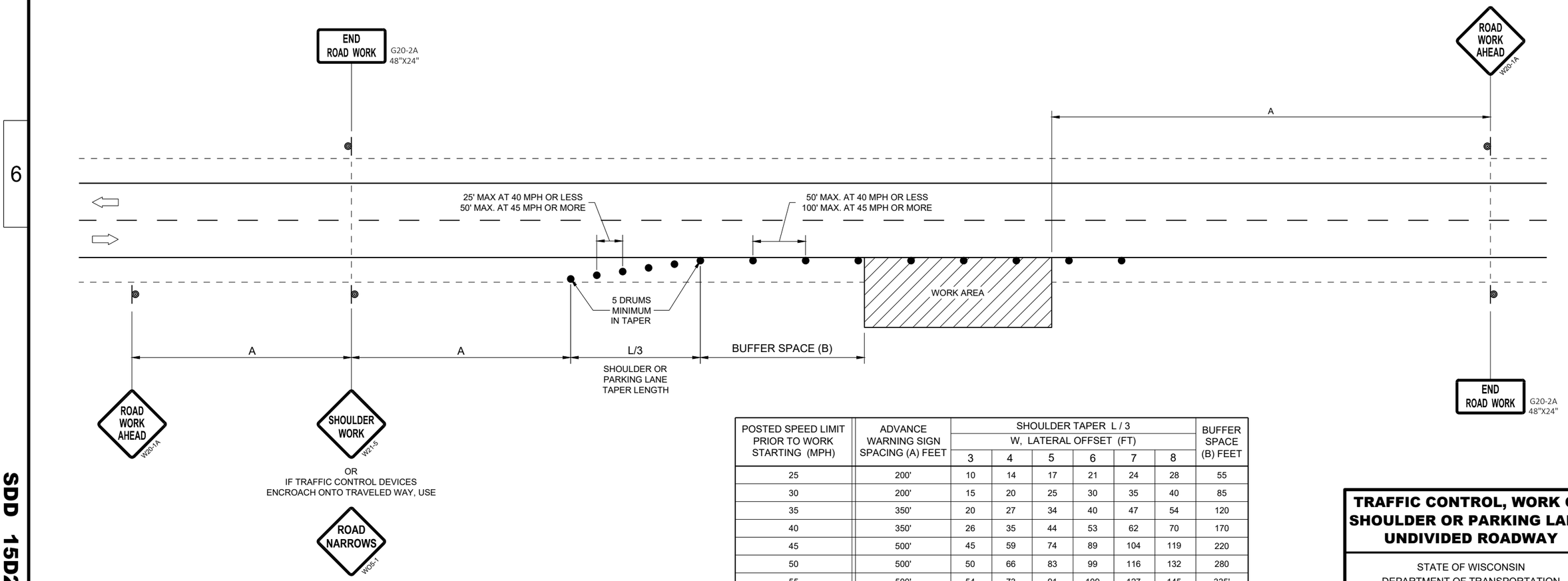
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

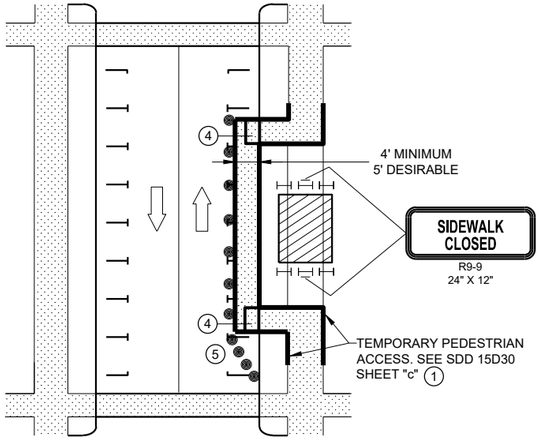
/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

SDD 15D28 - 04

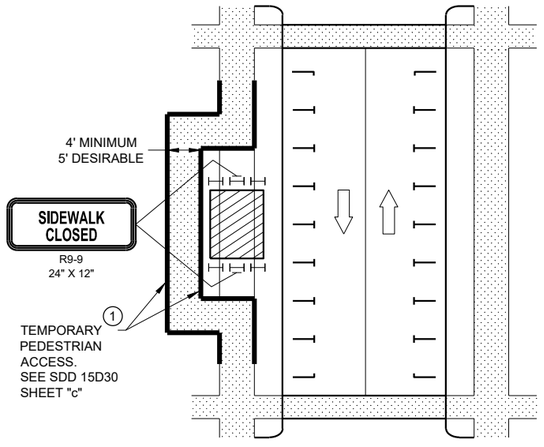
SDD 15D28 - 04

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

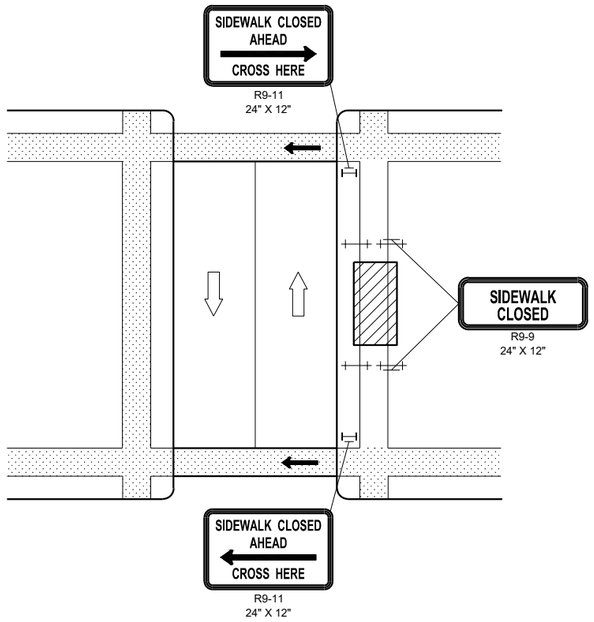


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

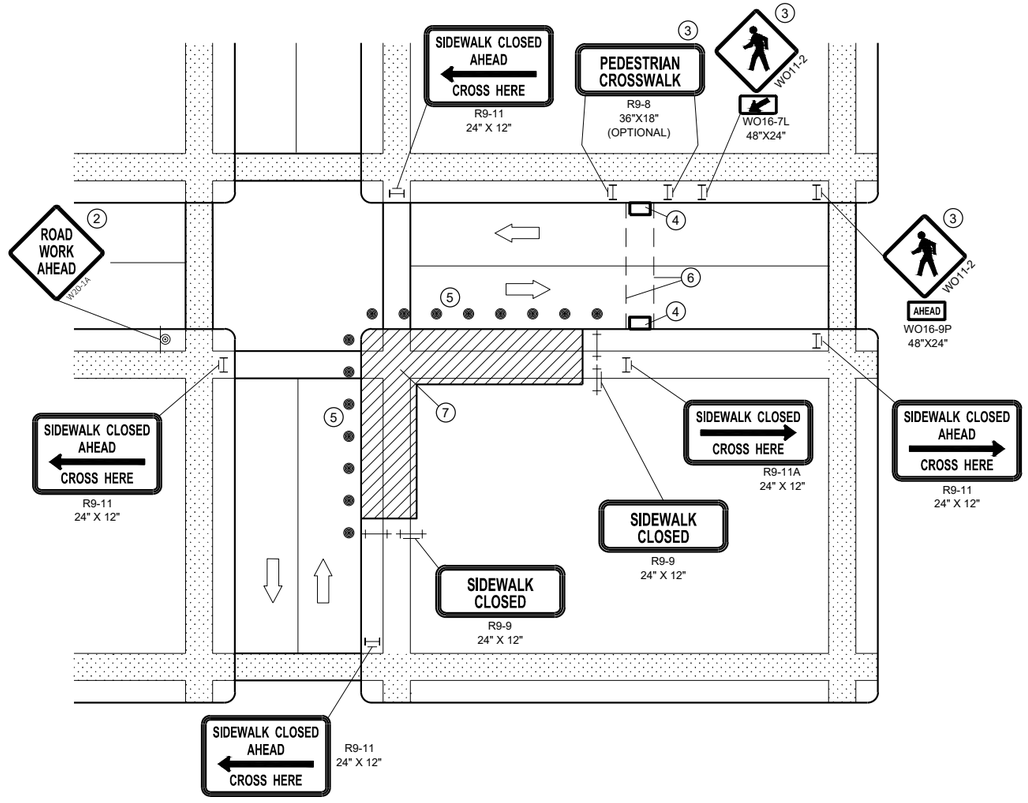
NOTE: LAYOUT SAME AS ABOVE.



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

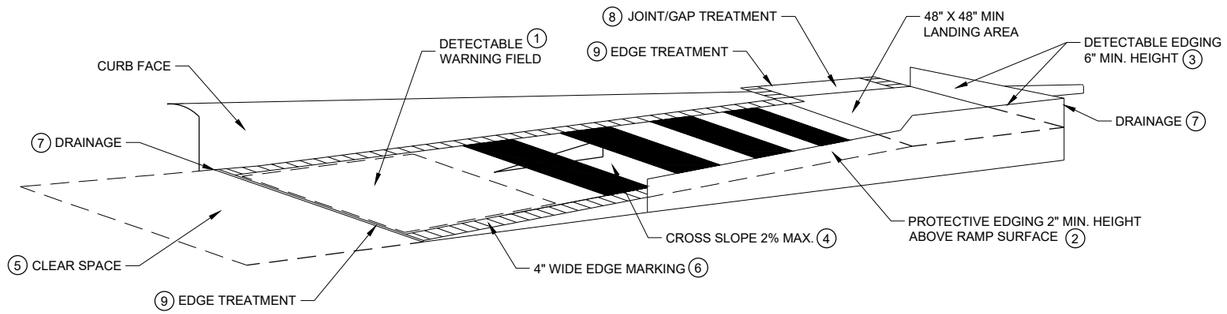
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

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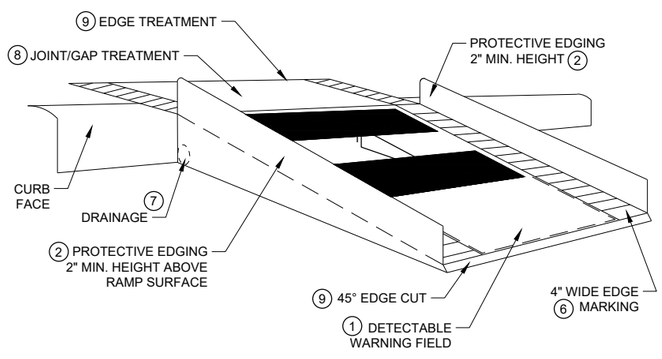
SDD 15D30 - 06a

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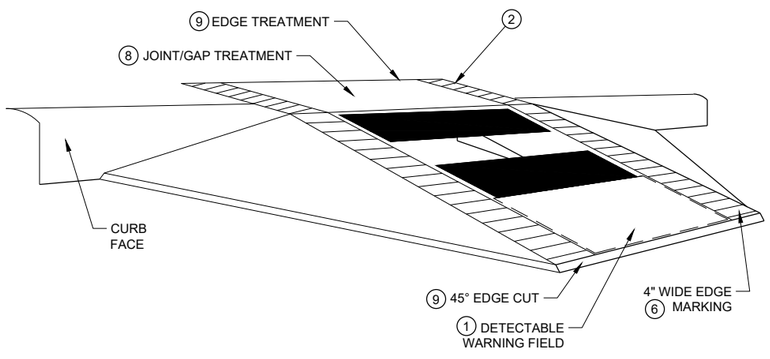
SDD 15D30 - 06a



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE



WITH SIDE APRON

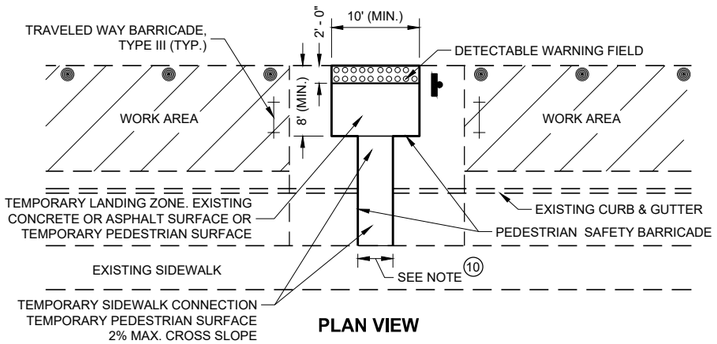
TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

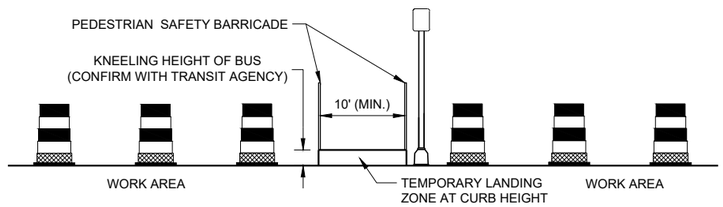
NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

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

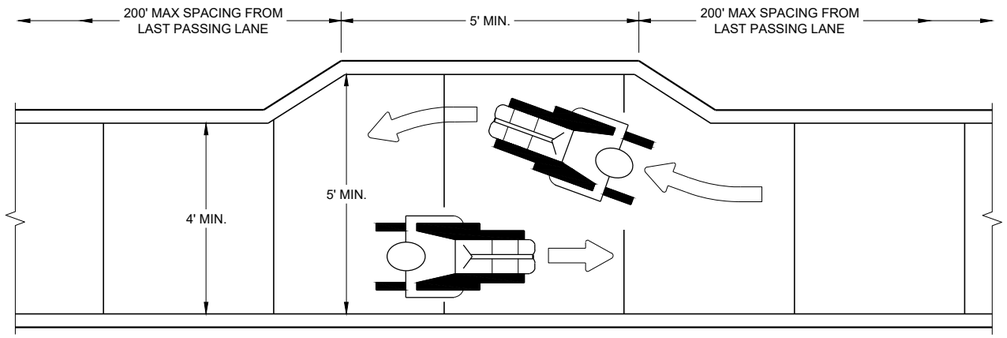
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

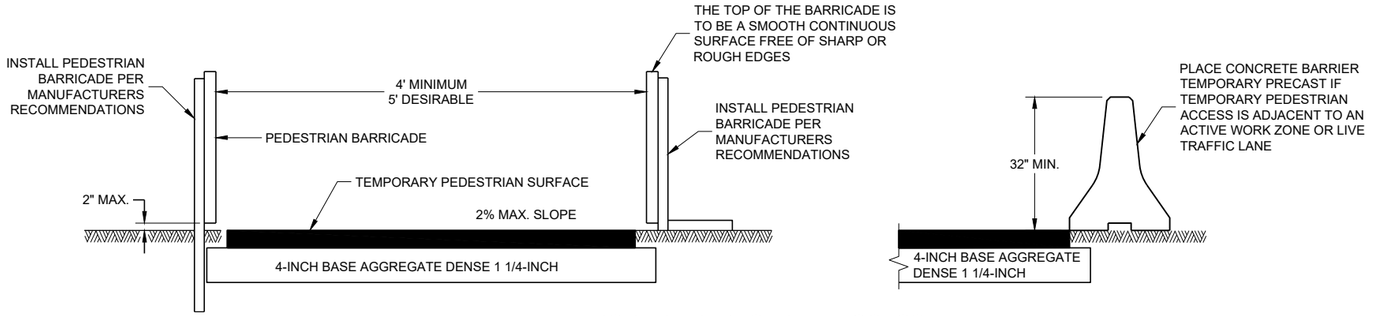
SDD 15D30 - 06b

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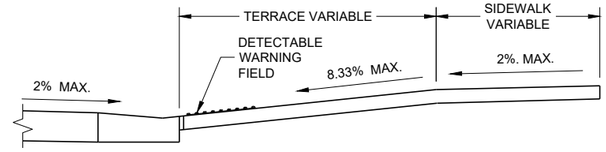
SDD 15D30 - 06b



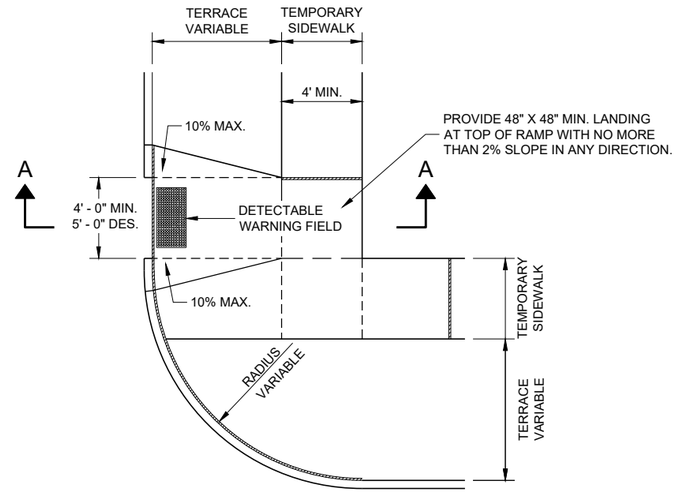
NARROW SIDEWALK PASSING DETAIL



TEMPORARY PEDESTRIAN ACCESS



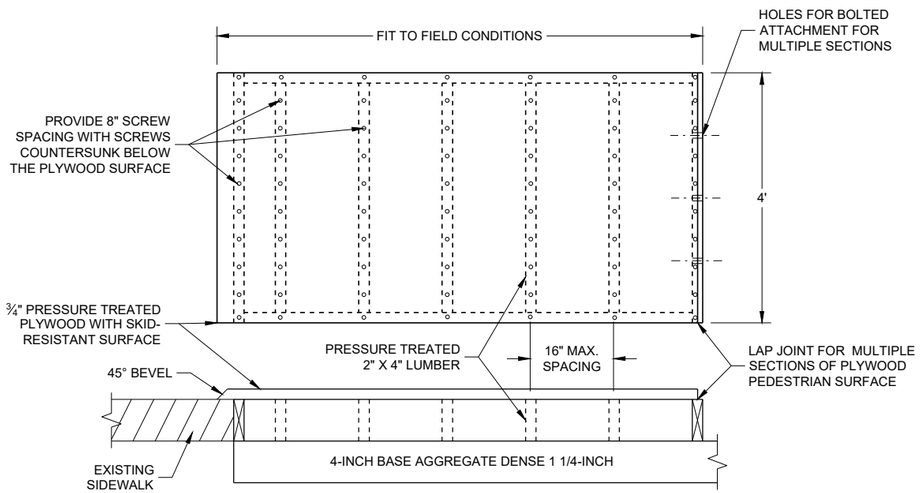
SECTION A - A



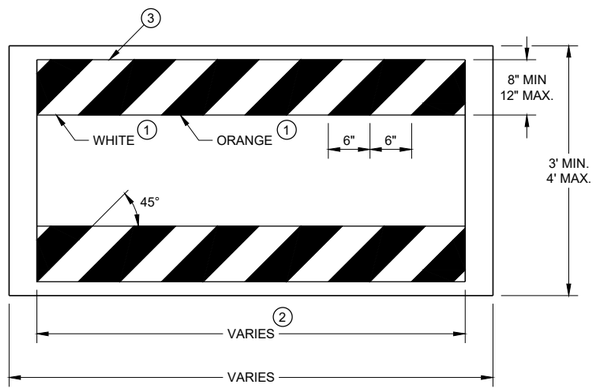
PLAN VIEW

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

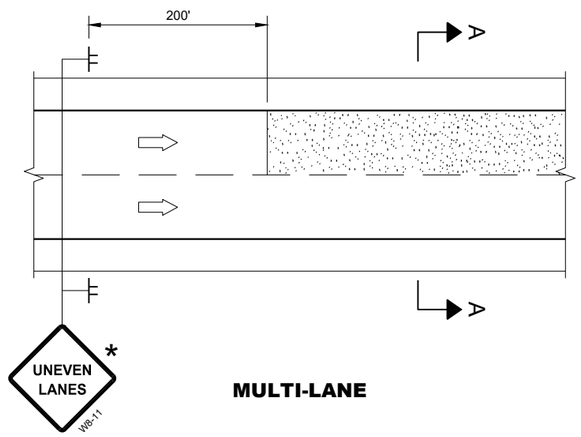
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

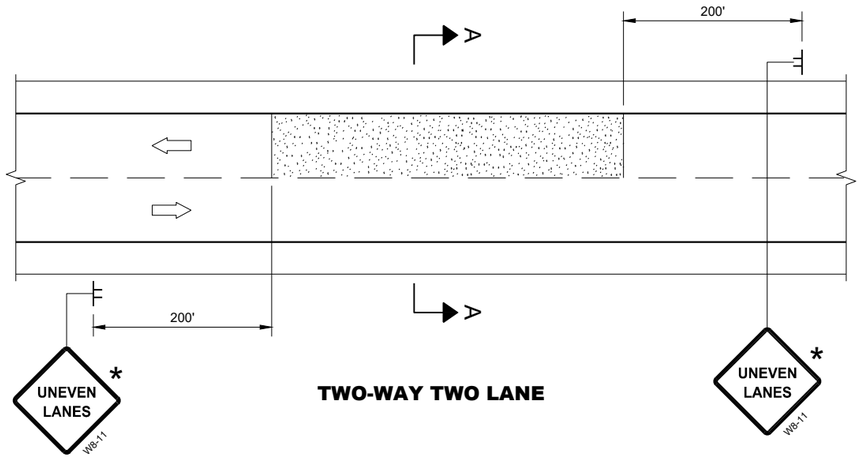
SDD 15D30 - 06c

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SDD 15D30 - 06c



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.

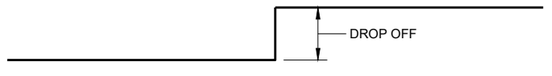
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* 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.

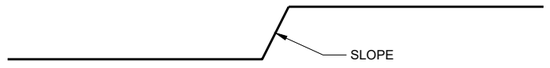
LEGEND

- 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

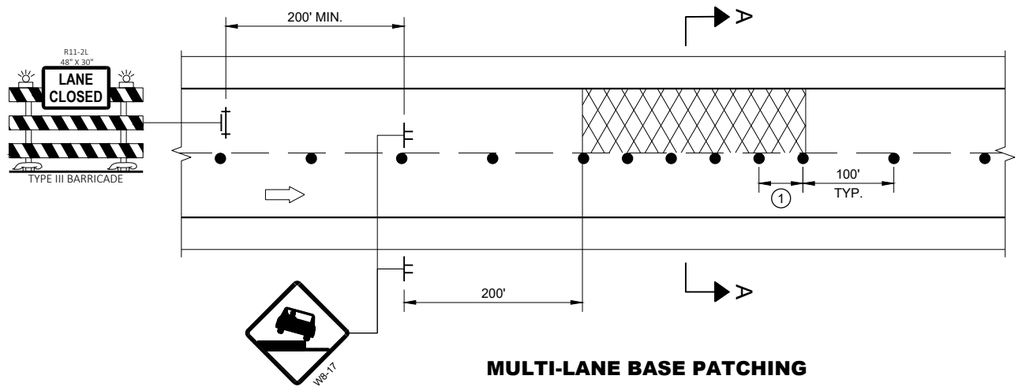


SECTION A - A

OR

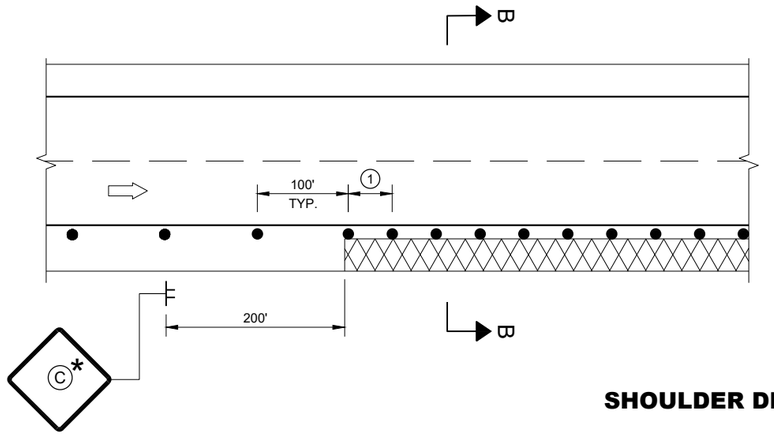


SECTION A - A

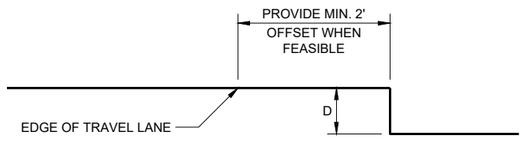


MULTI-LANE BASE PATCHING

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

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SDD 15D39 - 02

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.

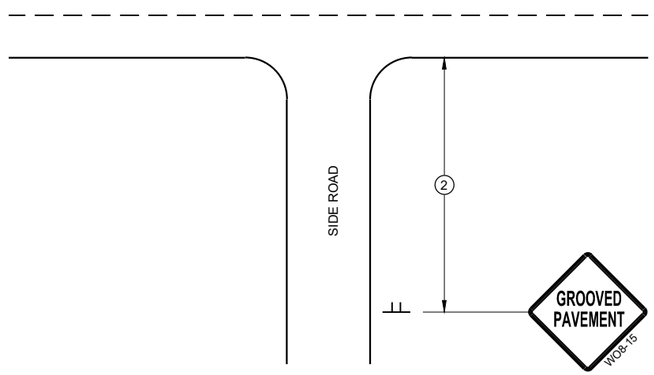
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

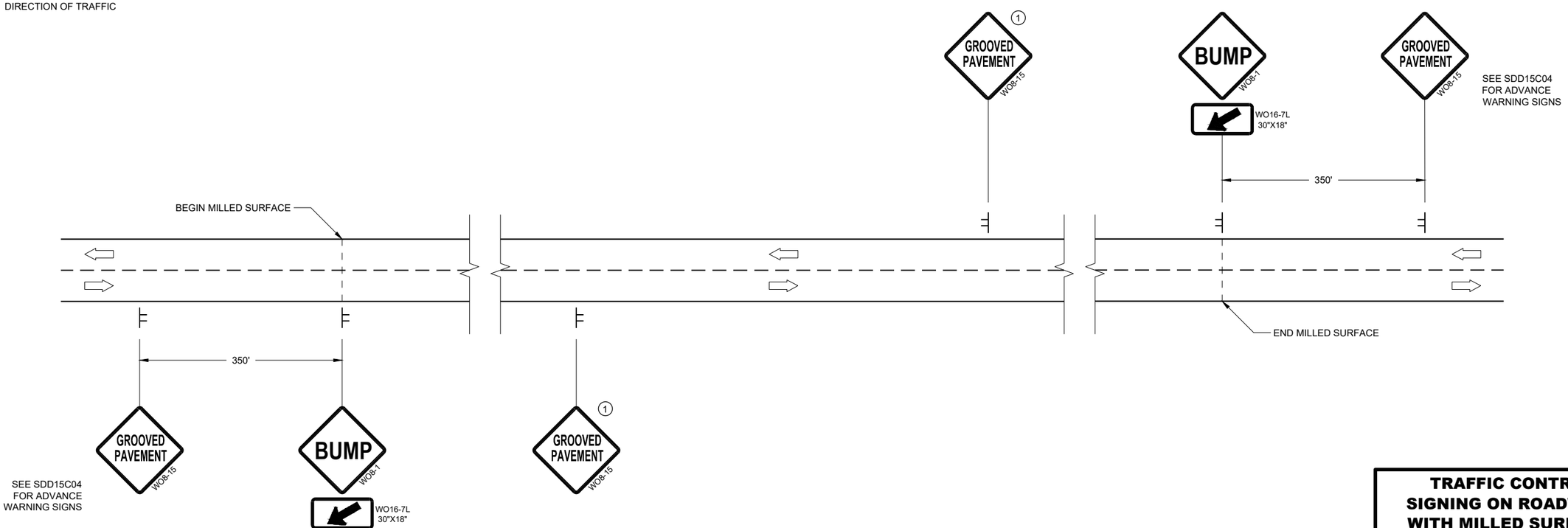
LEGEND

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

SDD 15D44 - 02

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.

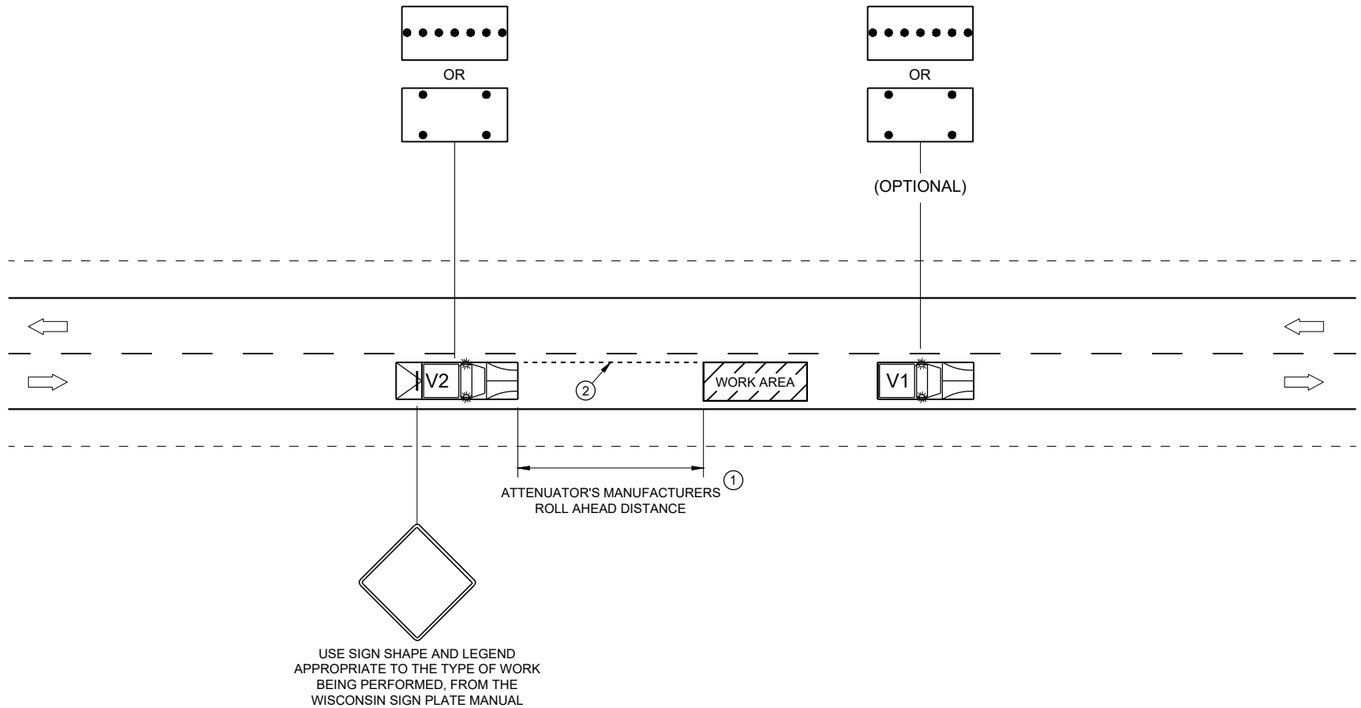
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

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.



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SDD 15D51 - 01

TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

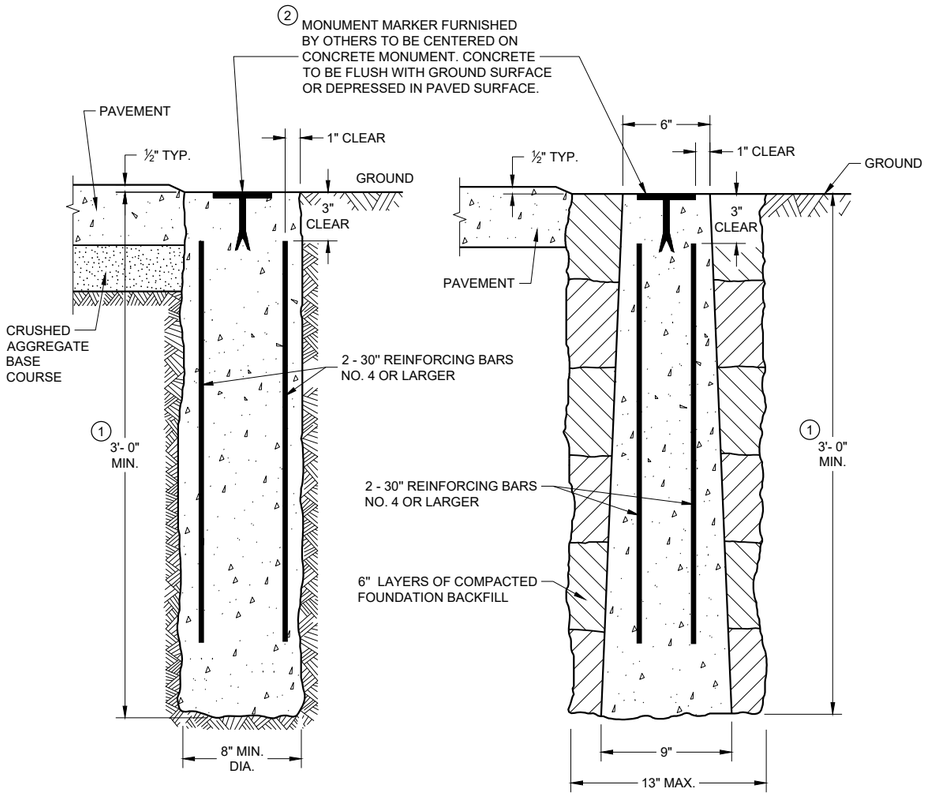
February 2021
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

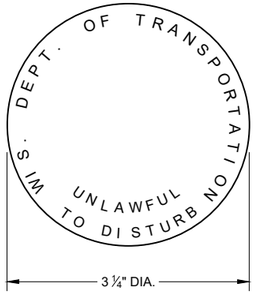
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SDD 15D51 - 01



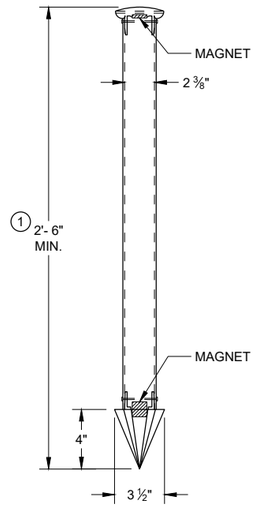
CAST-IN-PLACE **PRECAST**

CONCRETE MONUMENTS
TYPE A

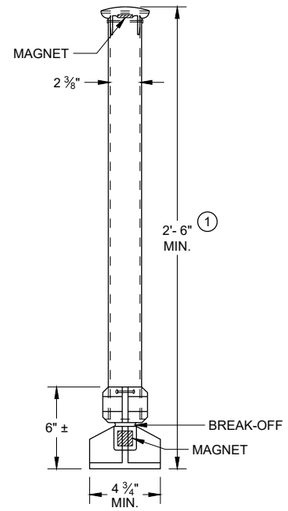


② **WIS DOT MONUMENT MARKER LOGO**

FOR TYPES "A", "C" & "D"

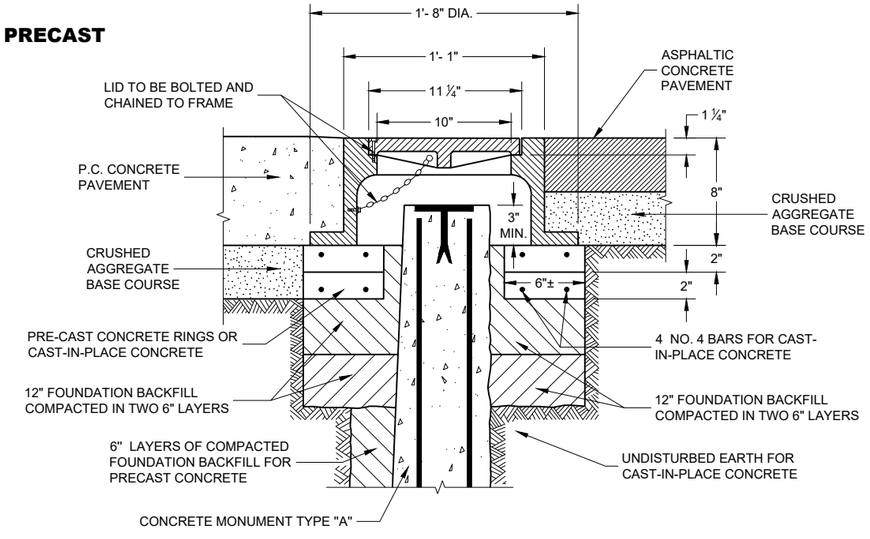


TYPE C
DRIVEN MONUMENT



TYPE D
NON-DRIVEN
BREAK-OFF MONUMENT

ALUMINUM MONUMENTS
(INCLUDES MARKER)



CAST IRON MONUMENT COVER
(APPROXIMATE WEIGHT 95 LBS)

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

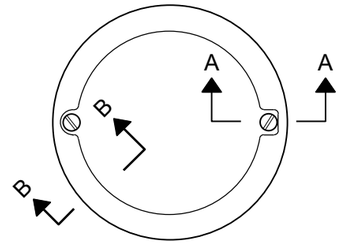
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

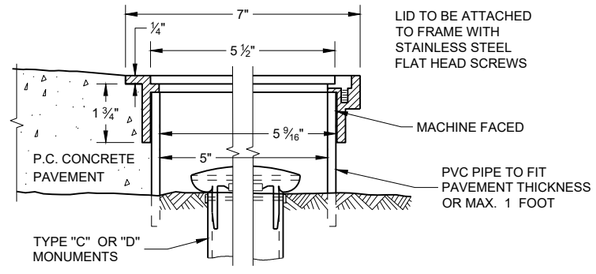
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WISDOT MARKER.



TOP VIEW



SECTION B-B **SECTION A-A**

ALUMINUM MONUMENT COVER
(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

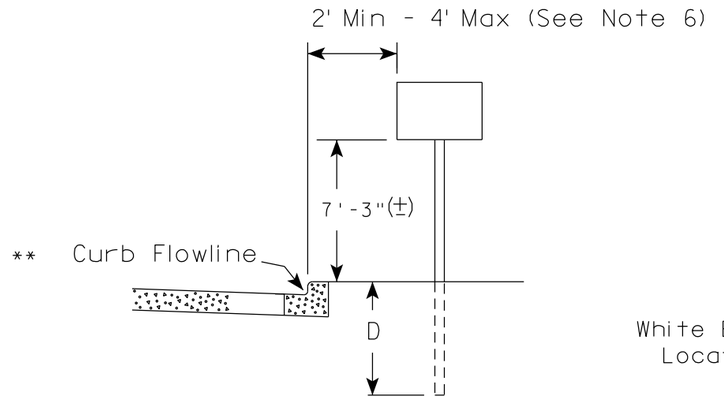
/S/ Raymond A. Kumapayii
CHIEF SURVEYING AND MA
ENGINEER

FHWA

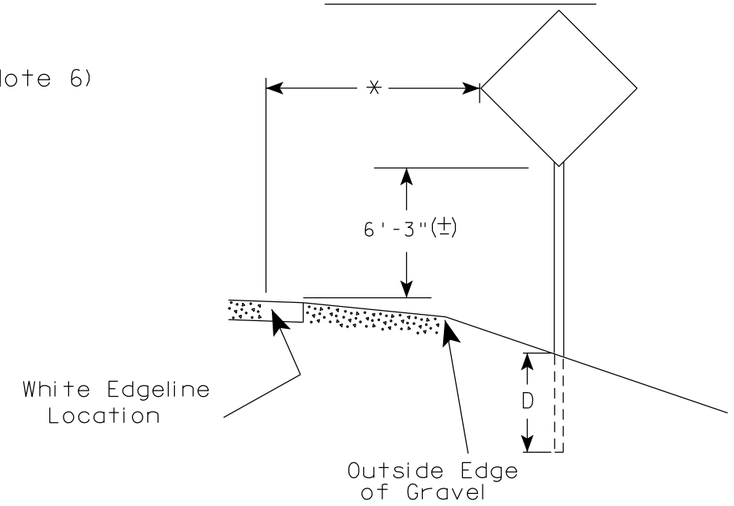
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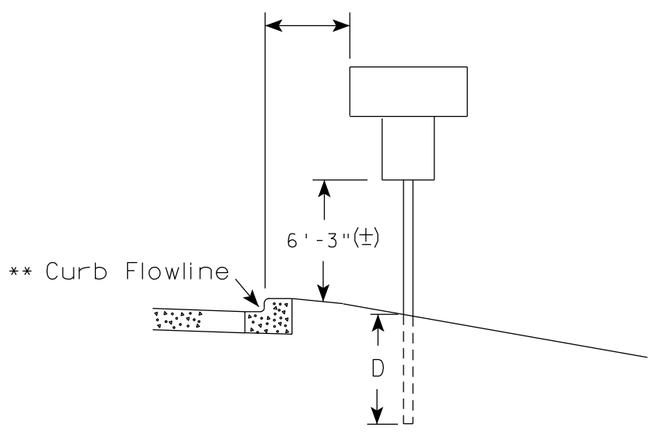
SDD 16A01 - 07

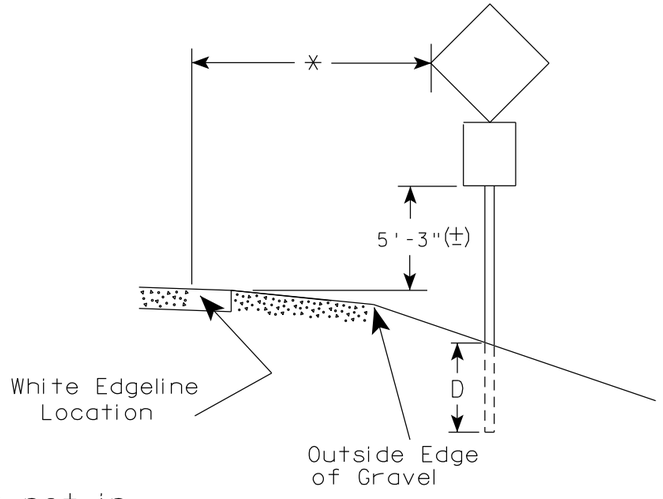
URBAN AREA



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.

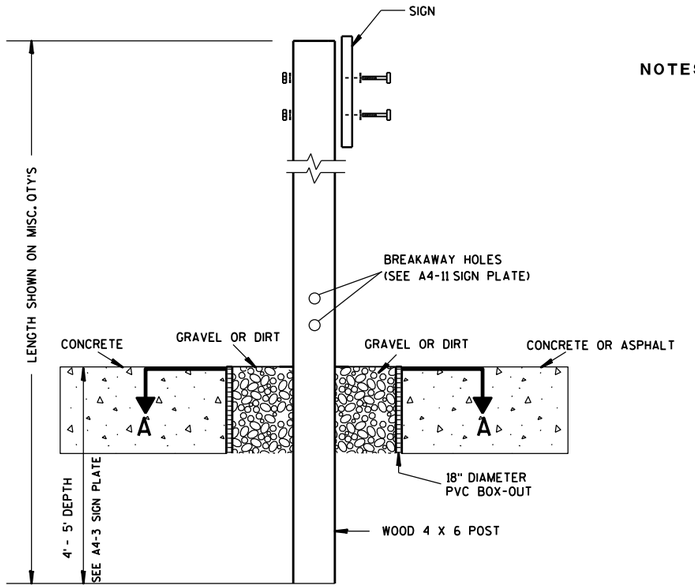
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

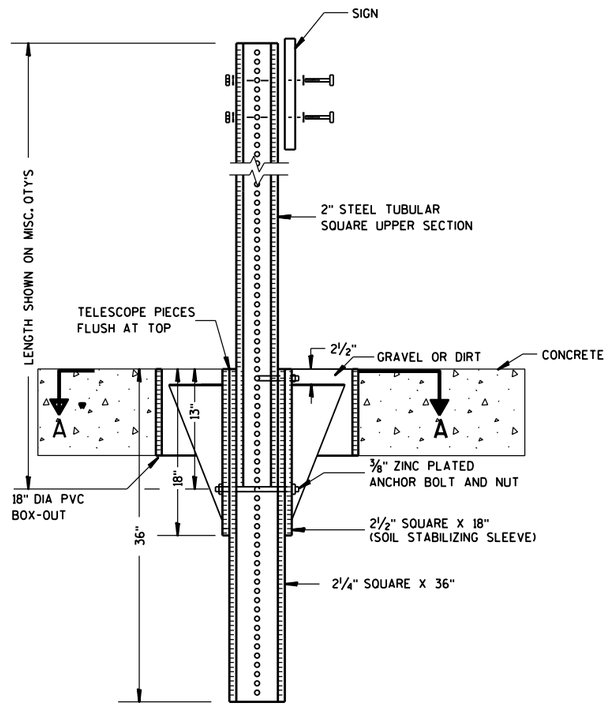
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 158	E



ELEVATION VIEW

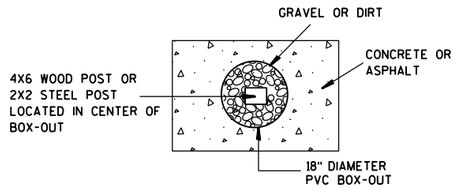
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

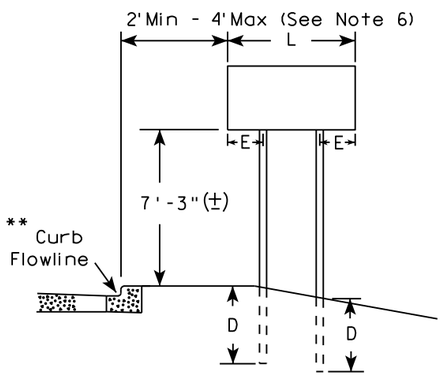
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

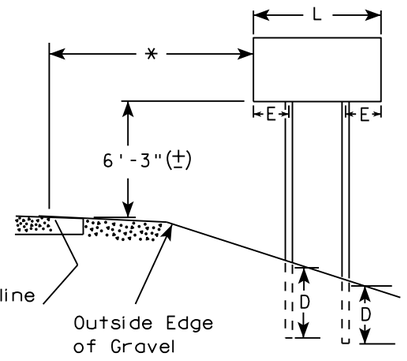
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

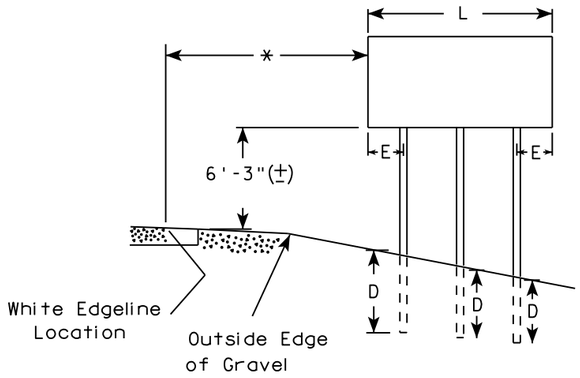
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

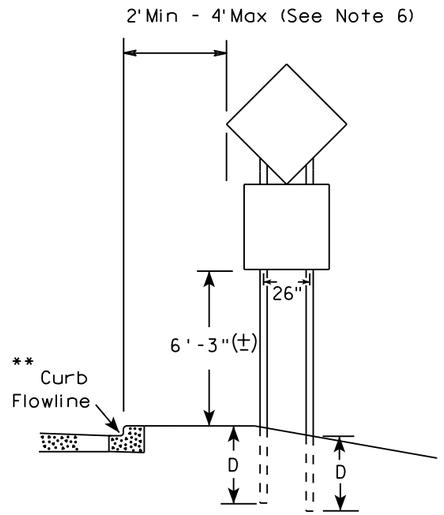
URBAN AREA



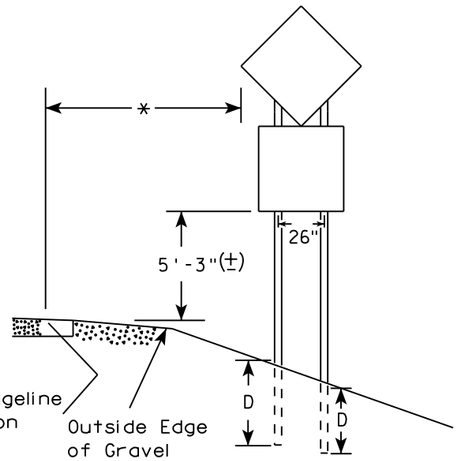
RURAL AREA (See Note 3)







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'

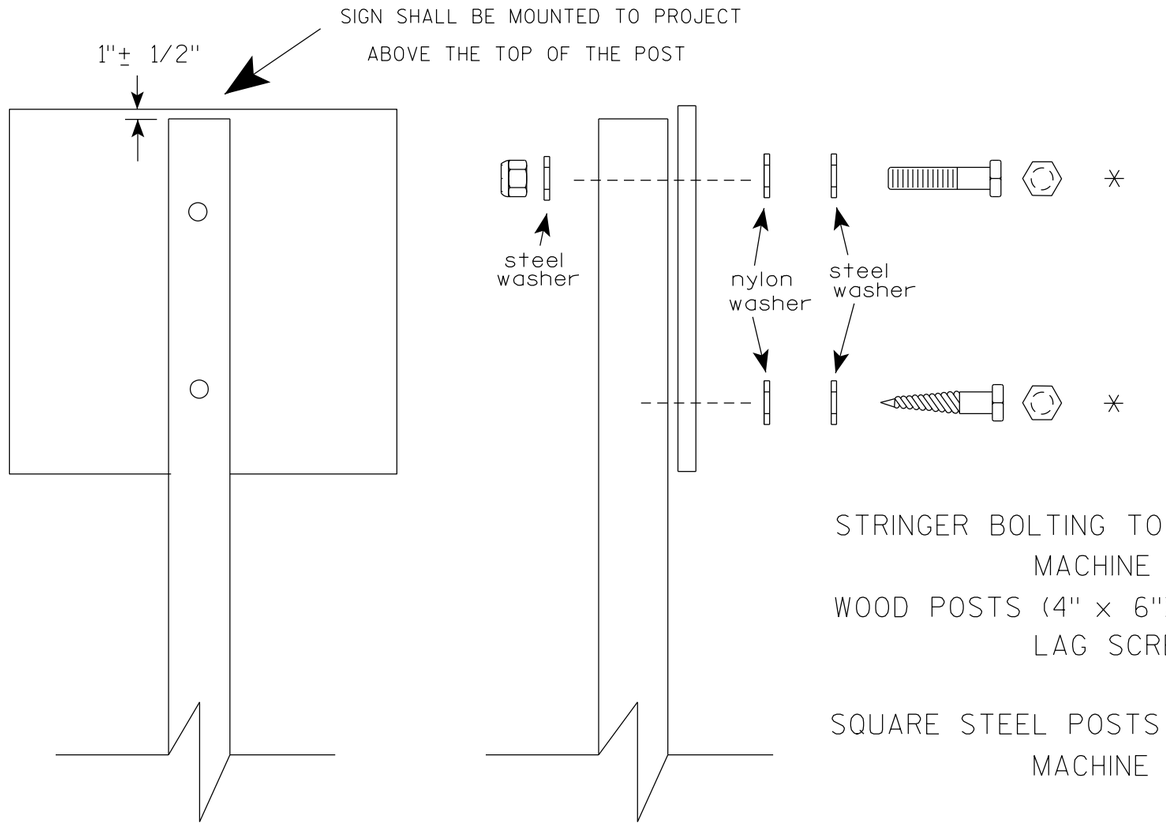
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 160	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

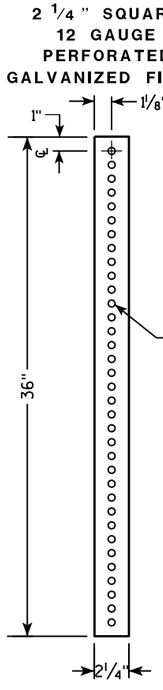
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

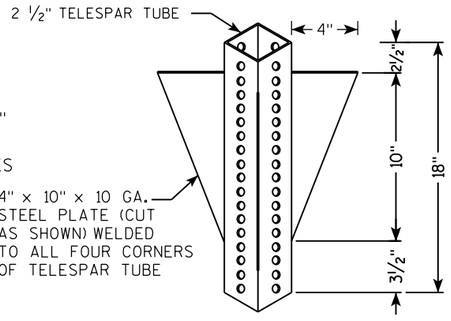
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

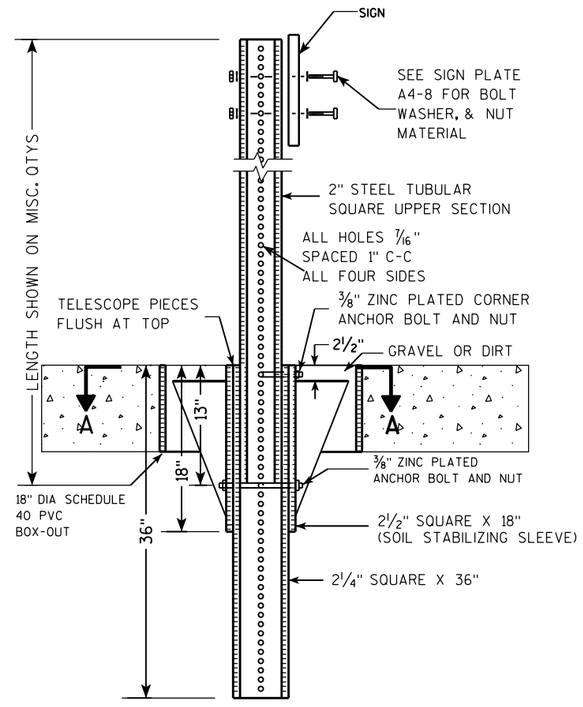
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



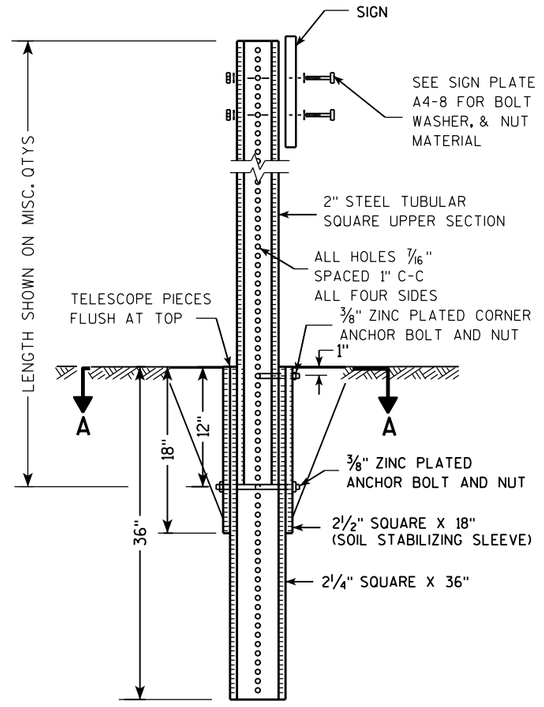
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

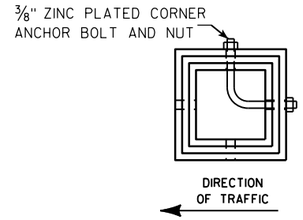


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

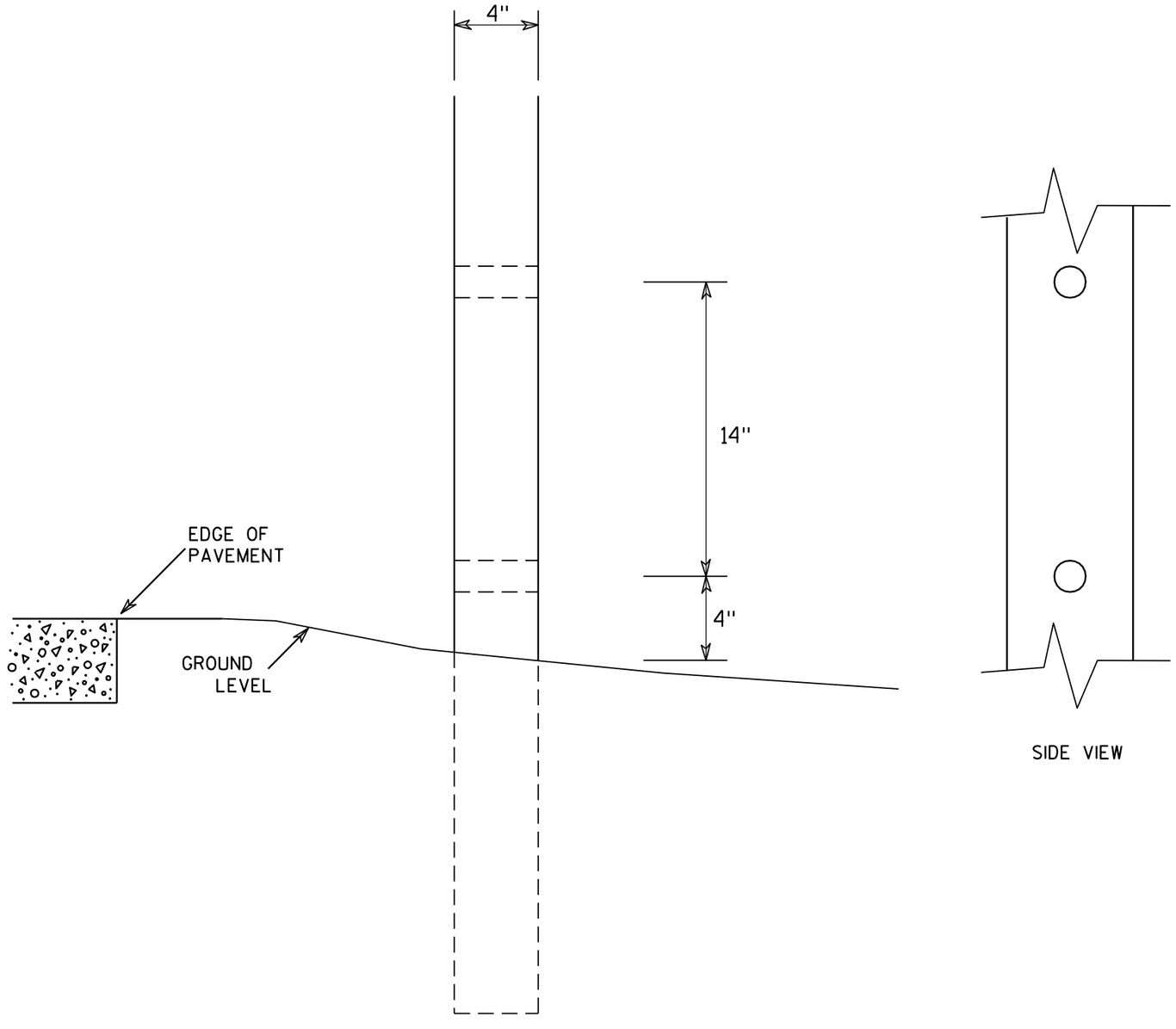
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



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

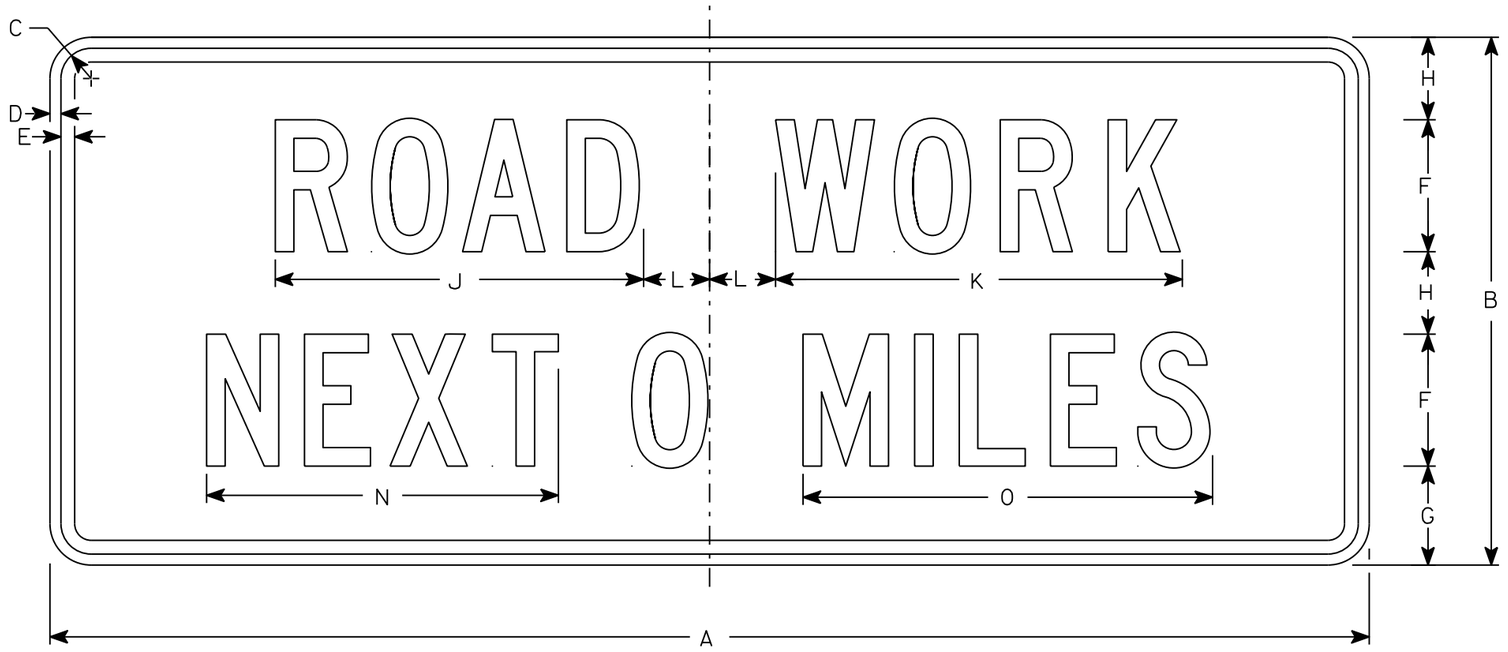
4 X 6 WOOD POST MODIFICATIONS

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: 163	E



G20-1

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
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 3/4	18 1/2	3		16	18 5/8												10
3																											
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10
5																											

STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

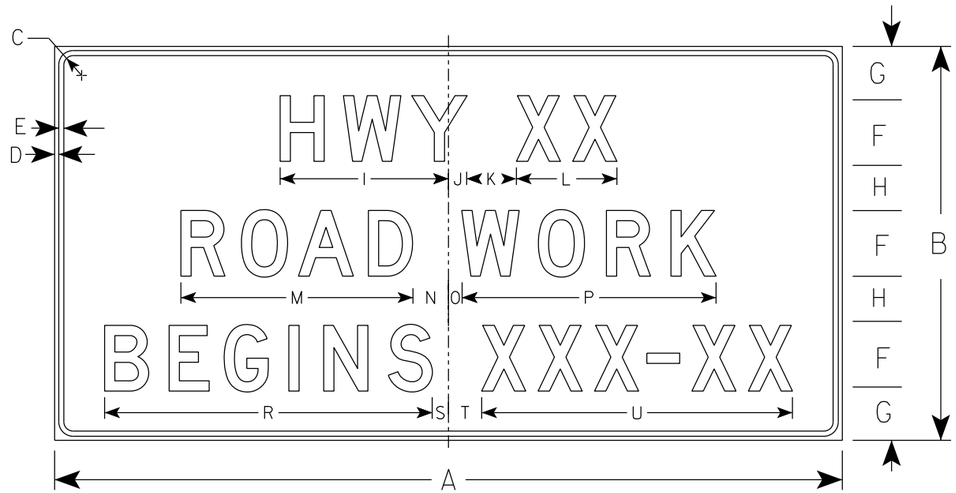
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/14/17 PLATE NO. G20-1.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 164 | E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.



G20-57

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/4	3 1/2	1 1/2	23 1/4		29 7/8	1 3/4	3 1/4	28 1/2						18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	4 3/8	1 5/8	31		39 1/4	2	4	37 7/8						32.0
5																											

STANDARD SIGN
G20-57

WISCONSIN DEPT OF TRANSPORTATION

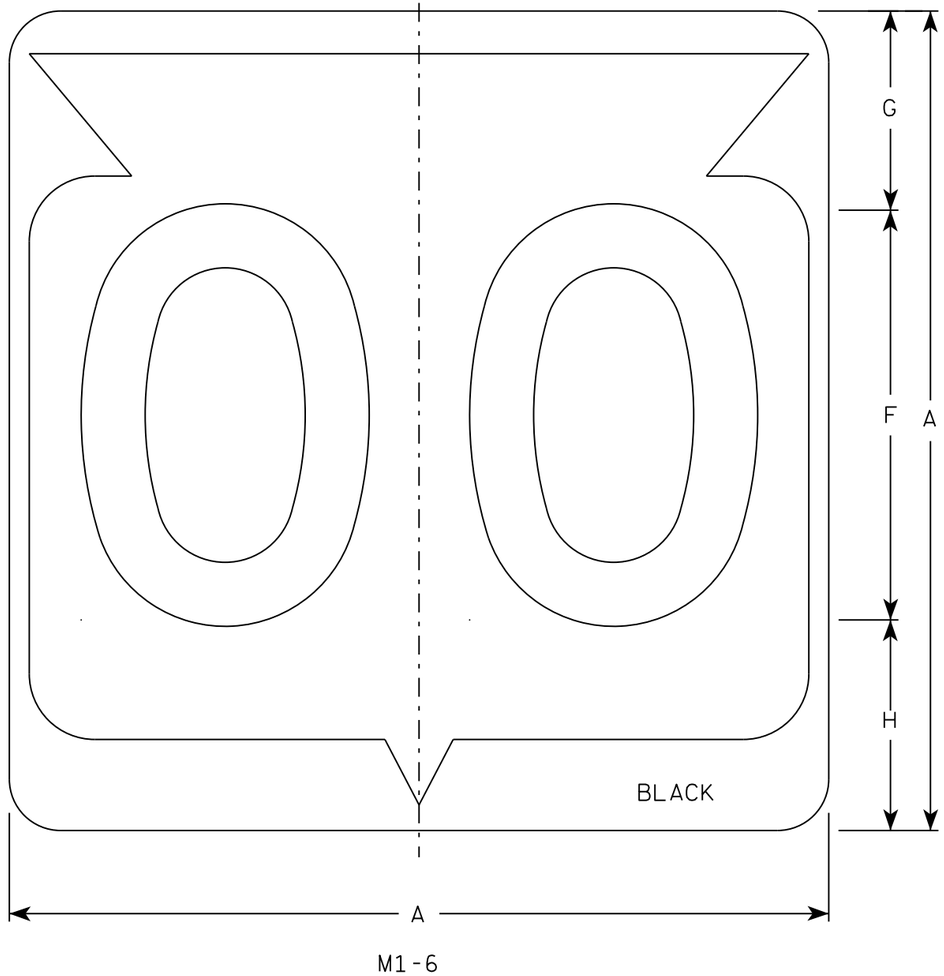
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/22/19 PLATE NO. G20-57.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 165 | E

7

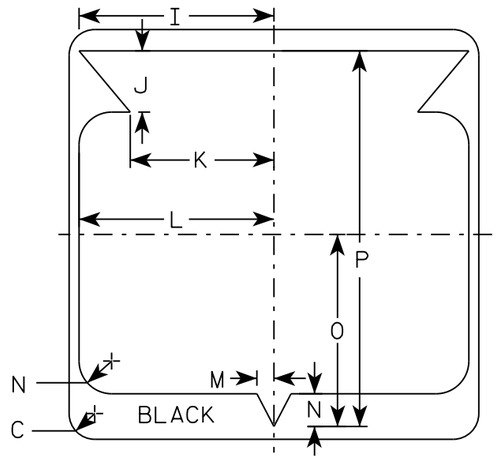
7



M1-6

NOTES

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



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

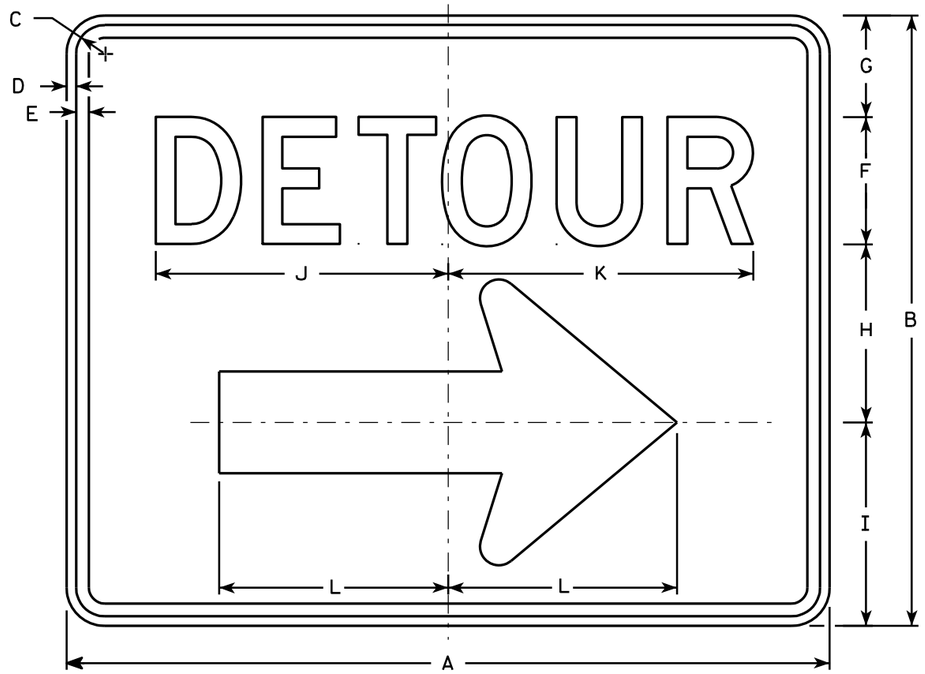
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

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

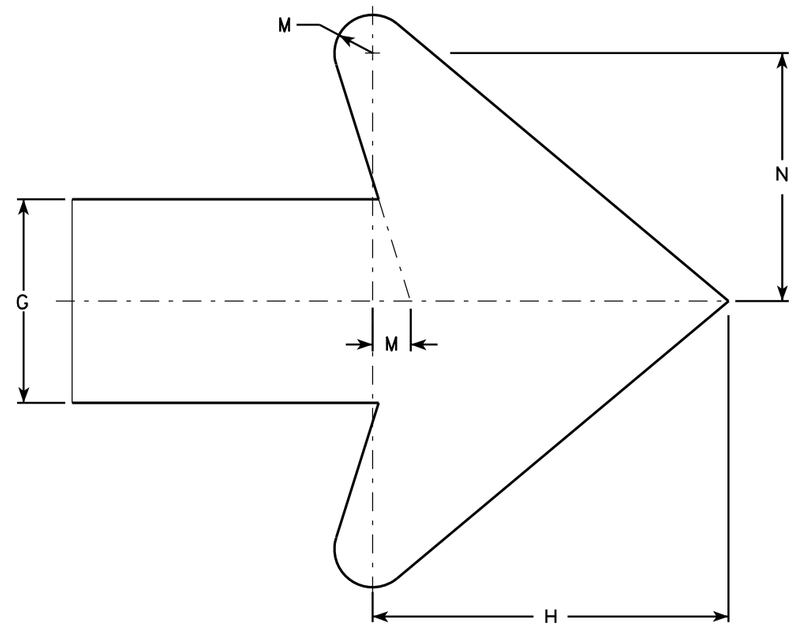
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 166 | E



M4-9R

NOTES

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



Arrow Detail

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

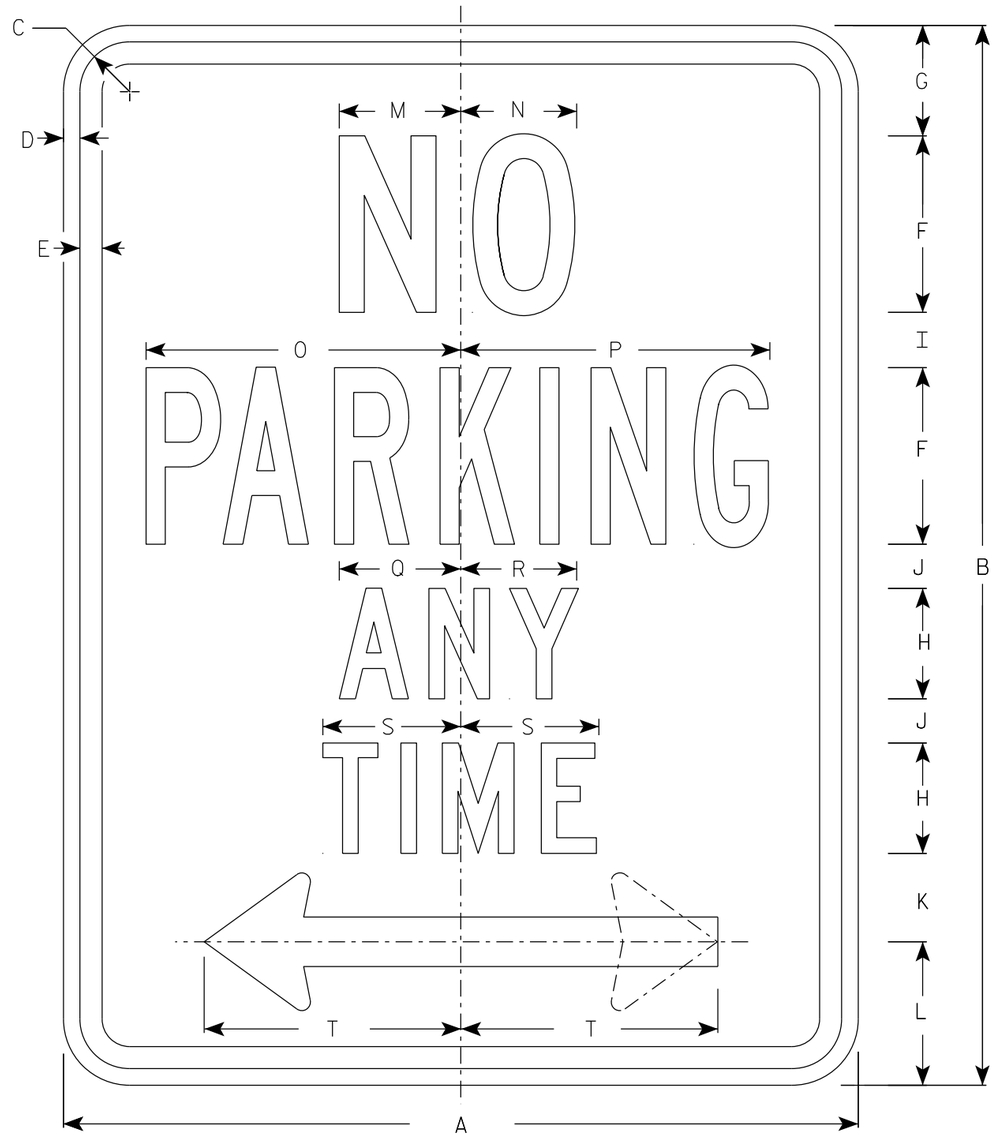
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

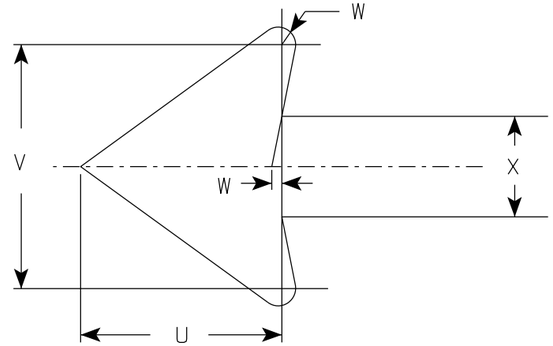
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 167 | E



R7-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. Lines 1, 3 and 4 are series C, line 2 is series B.
5. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

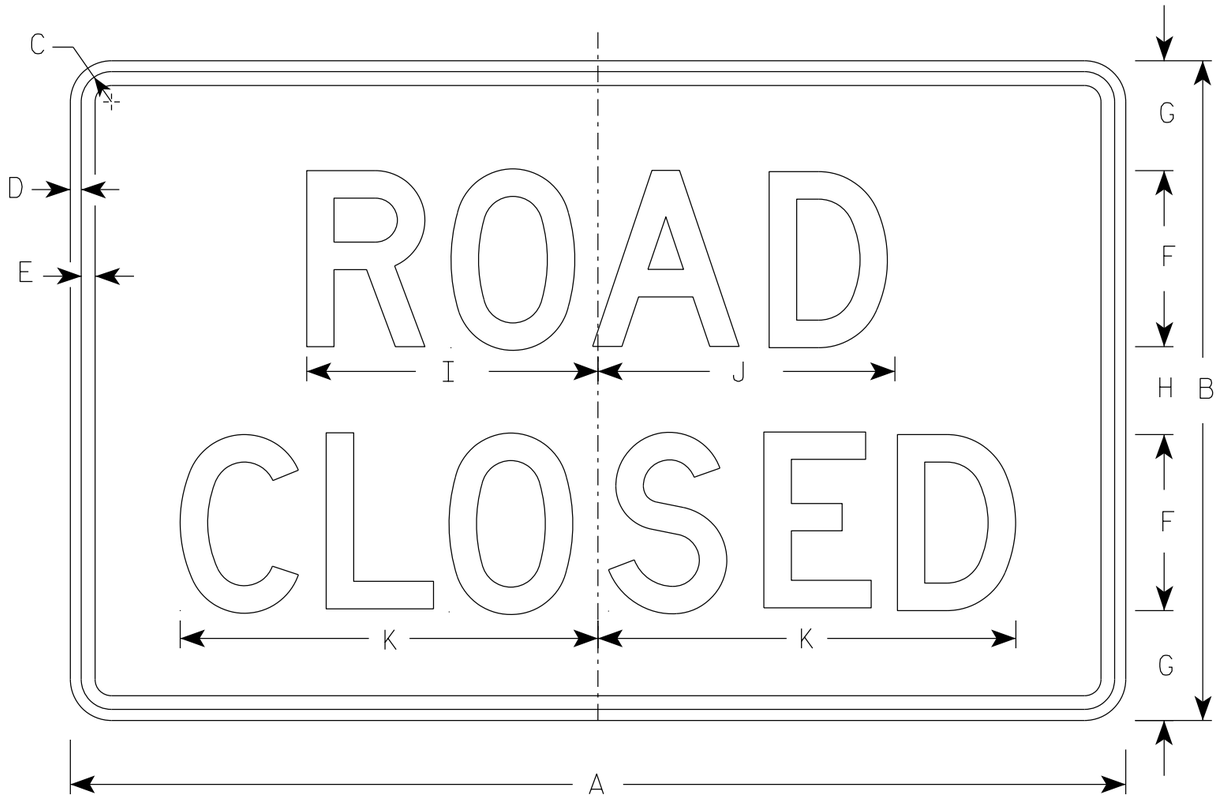
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. R7-1.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 168 E

7

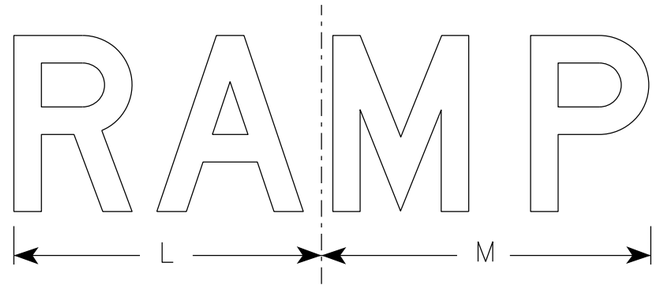
7



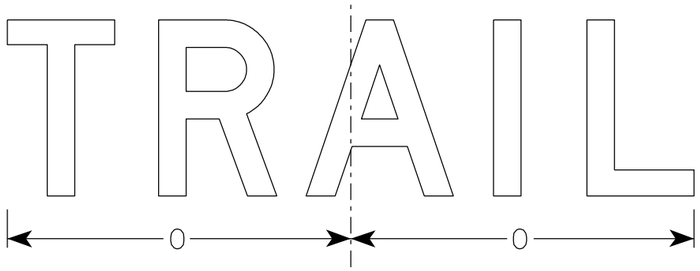
R11-2

NOTES

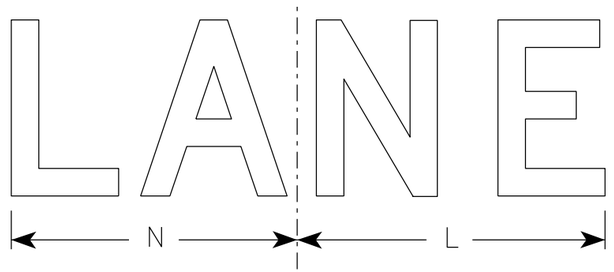
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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

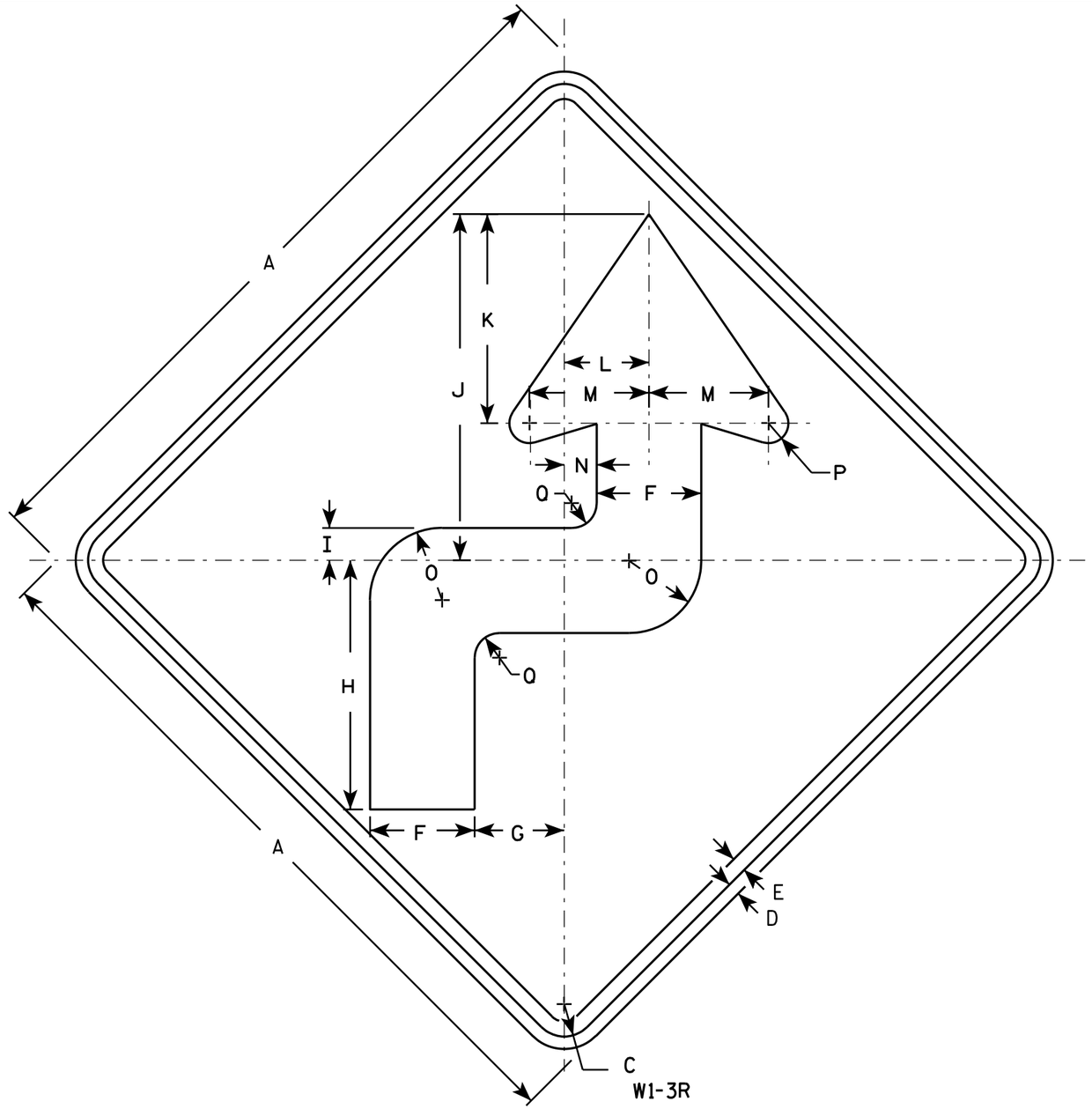
STANDARD SIGN
R11-2

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:	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-3L is the same as W1-3R 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	24		1 1/8	3/8	1/2	3 1/2	3	8 3/8	1 1/8	11 5/8	7	2 3/4	4	1 1/8	2 1/2	5/8	7/8										4.0
2S	36		1 5/8	5/8	3/4	5 1/4	4 1/2	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
2M	36		1 5/8	5/8	3/4	5 1/4	4 1/2	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
3	36		1 5/8	5/8	3/4	5 1/4	4 1/2	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
4	36		1 5/8	5/8	3/4	5 1/4	6	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
5	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0

STANDARD SIGN
W1-3

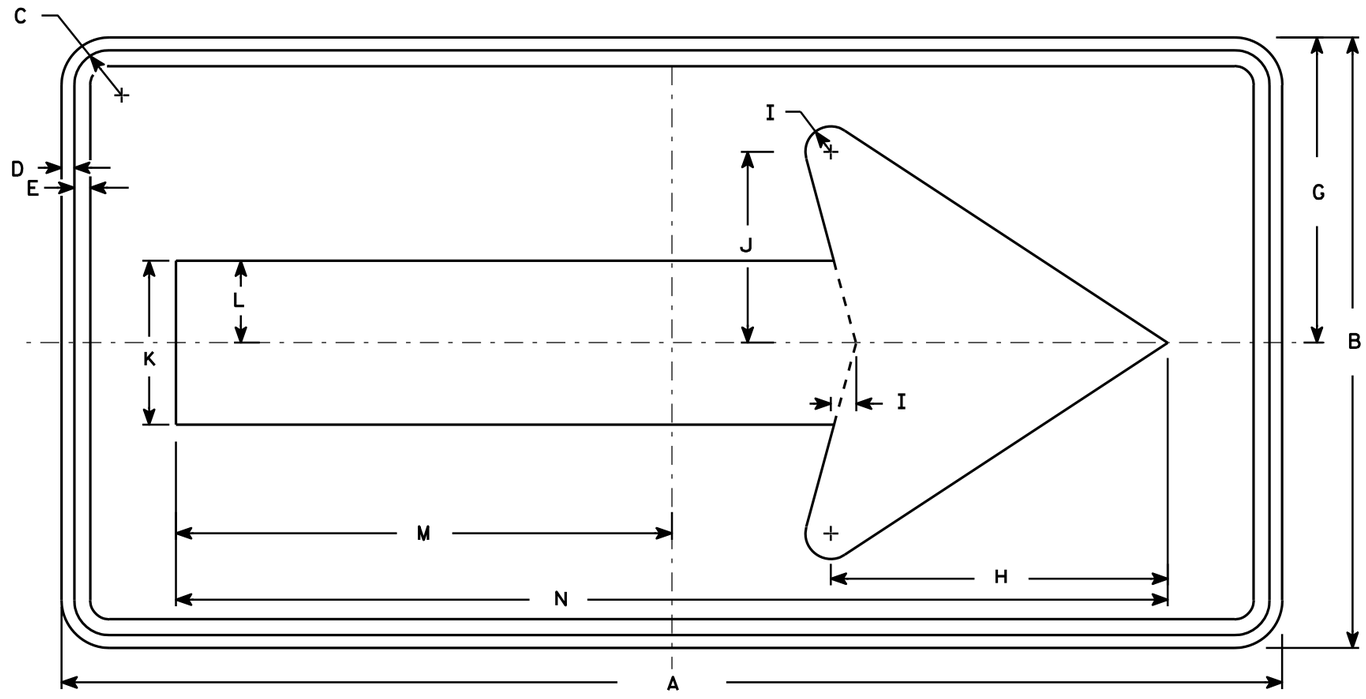
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-3.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 170 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W13.DGN PLOT DATE : 17-MAY-2012 13:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.698561:1.000000 WISDOT/CADDS SHEET 42



W1-6

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

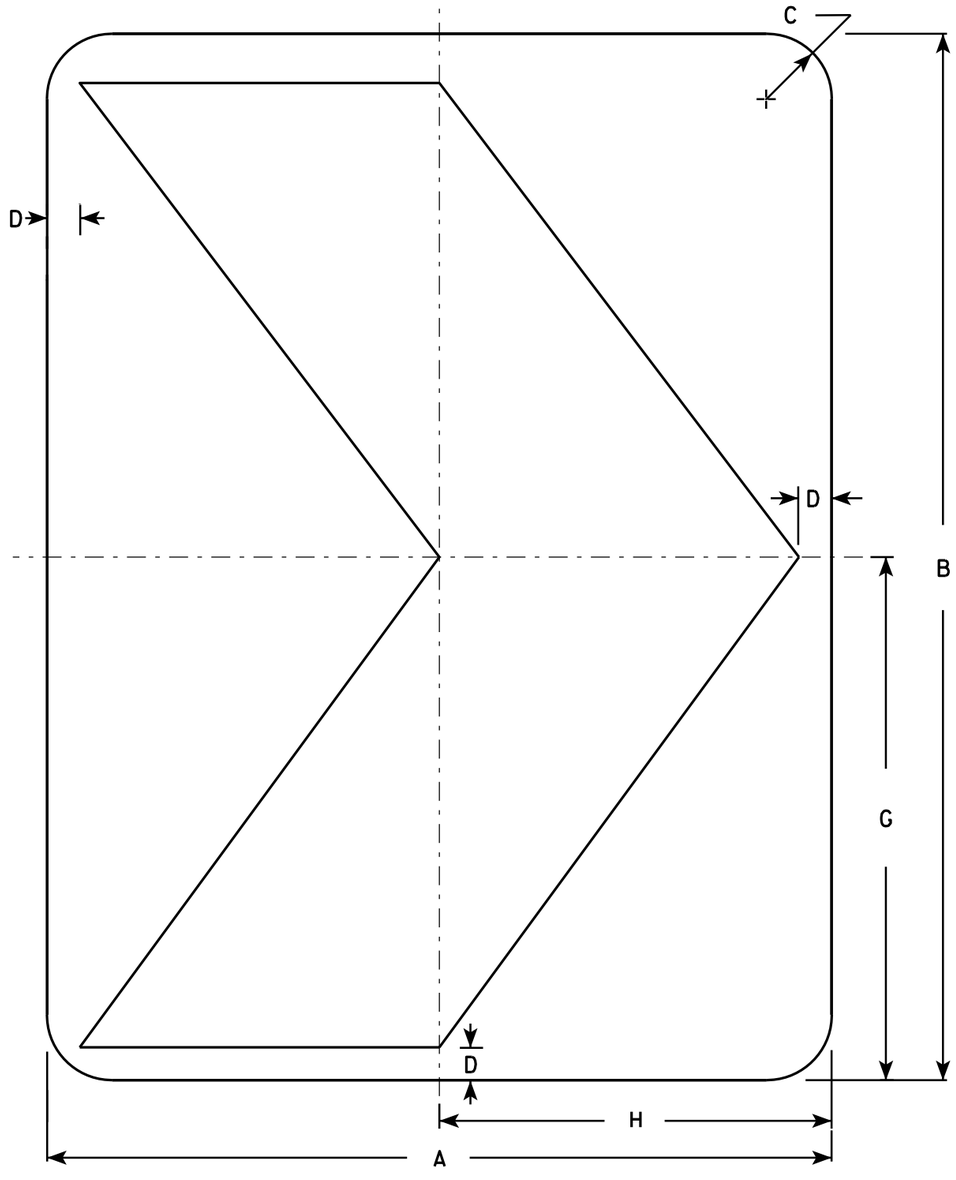
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 171



NOTES

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

W1-8

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 ½	½			9	6																			1.5
2S	18	24	1 ½	¾			12	9																			3.0
2M	18	24	1 ½	¾			12	9																			3.0
3	24	30	1 ½	1			15	12																			5.0
4	30	36	1 ⅞	1 ¼			18	15																			7.5
5	36	48	2 ¼	1 ½			24	18																			12.0

STANDARD SIGN
W1-8

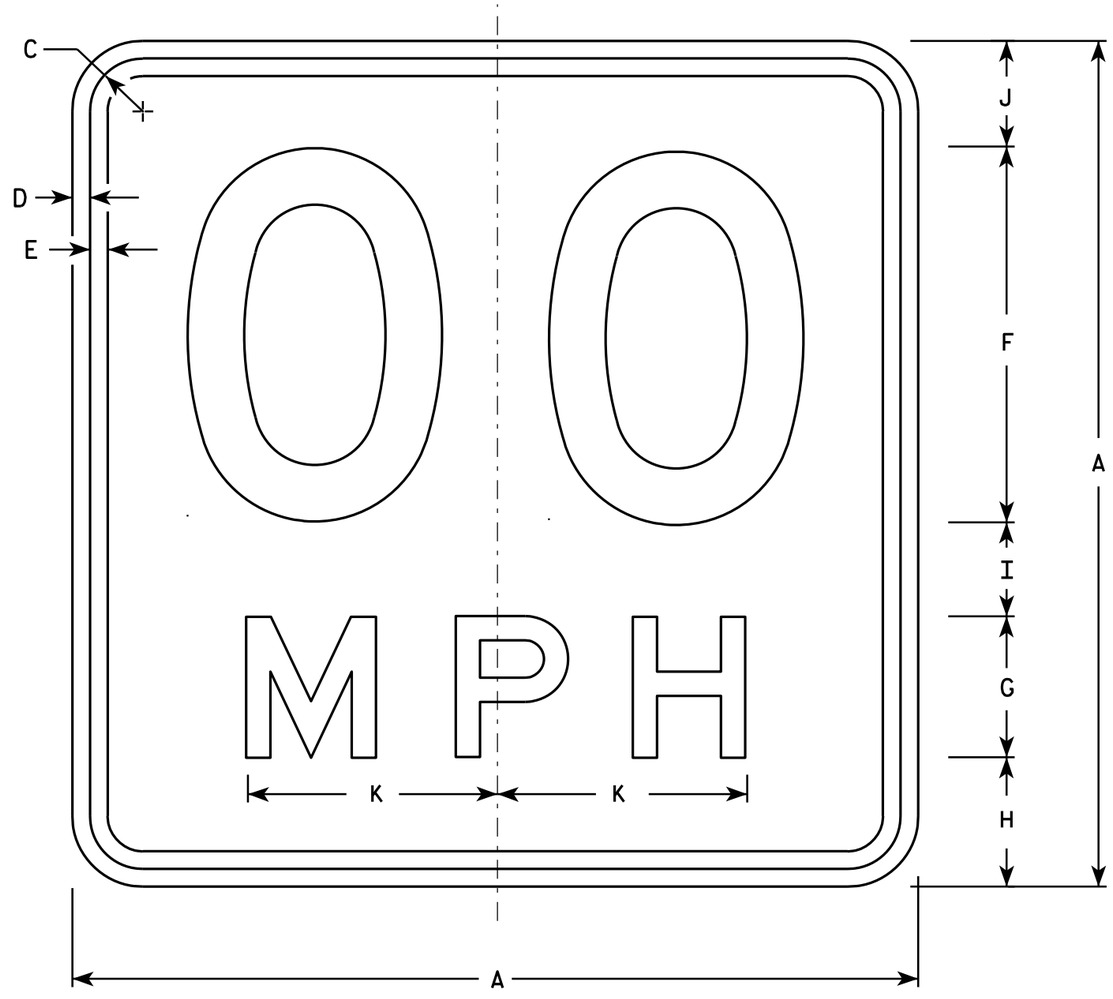
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

SHEET NO: 172 E



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
	1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

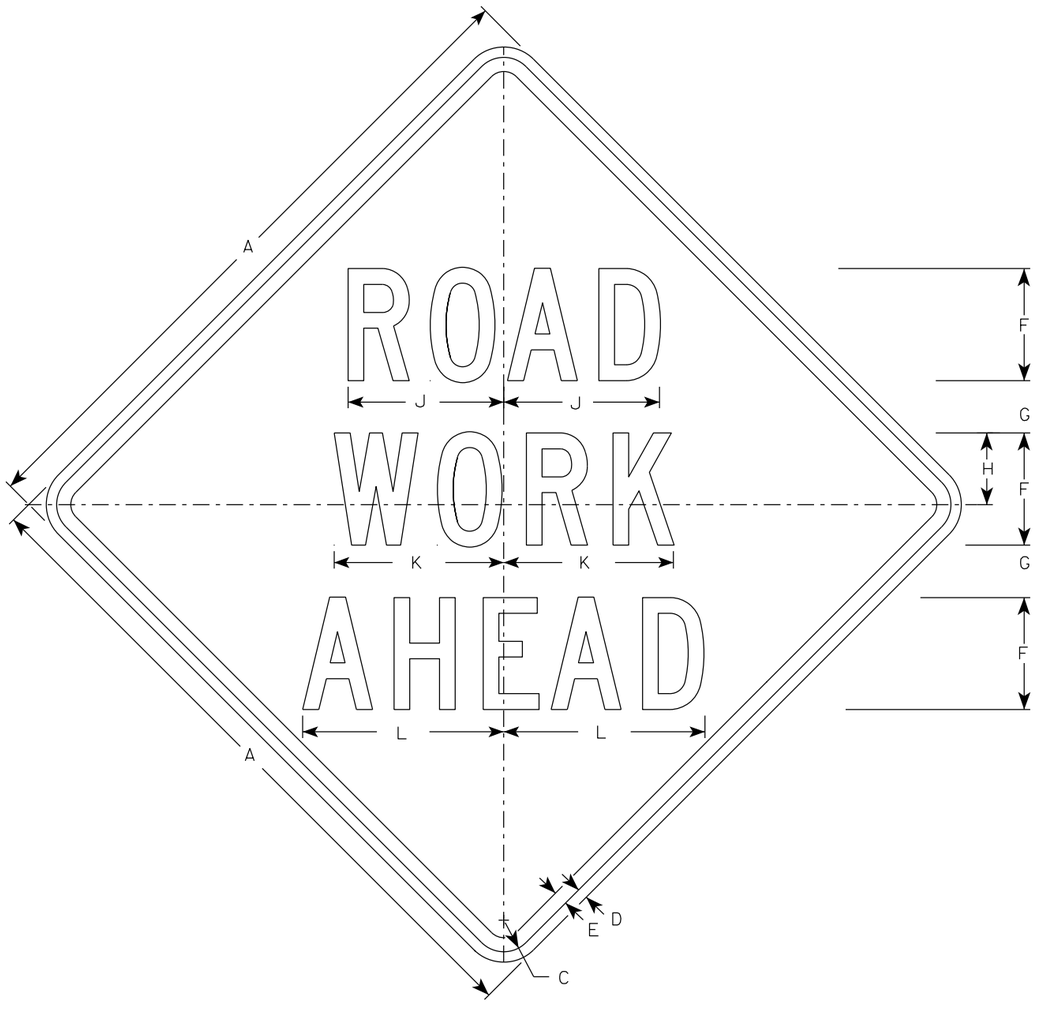
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

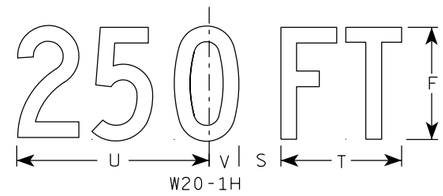
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

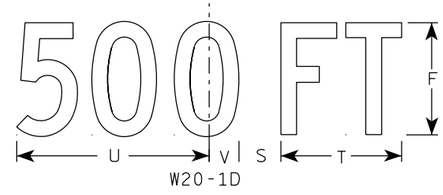
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 173 | E



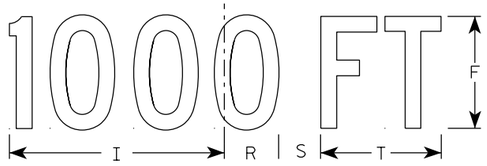
W20-1A



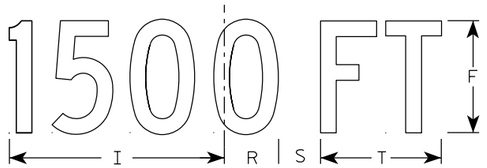
W20-1H



W20-1D



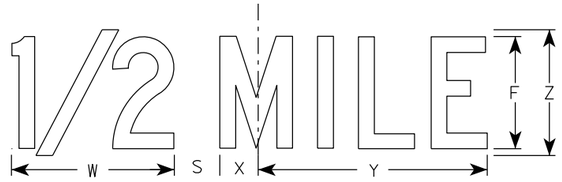
W20-1C



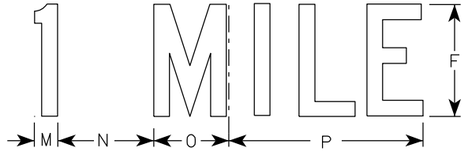
W20-1B

NOTES

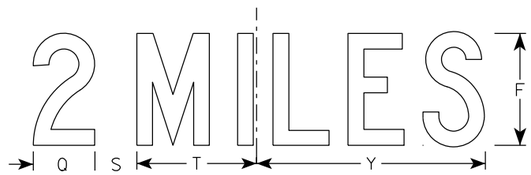
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

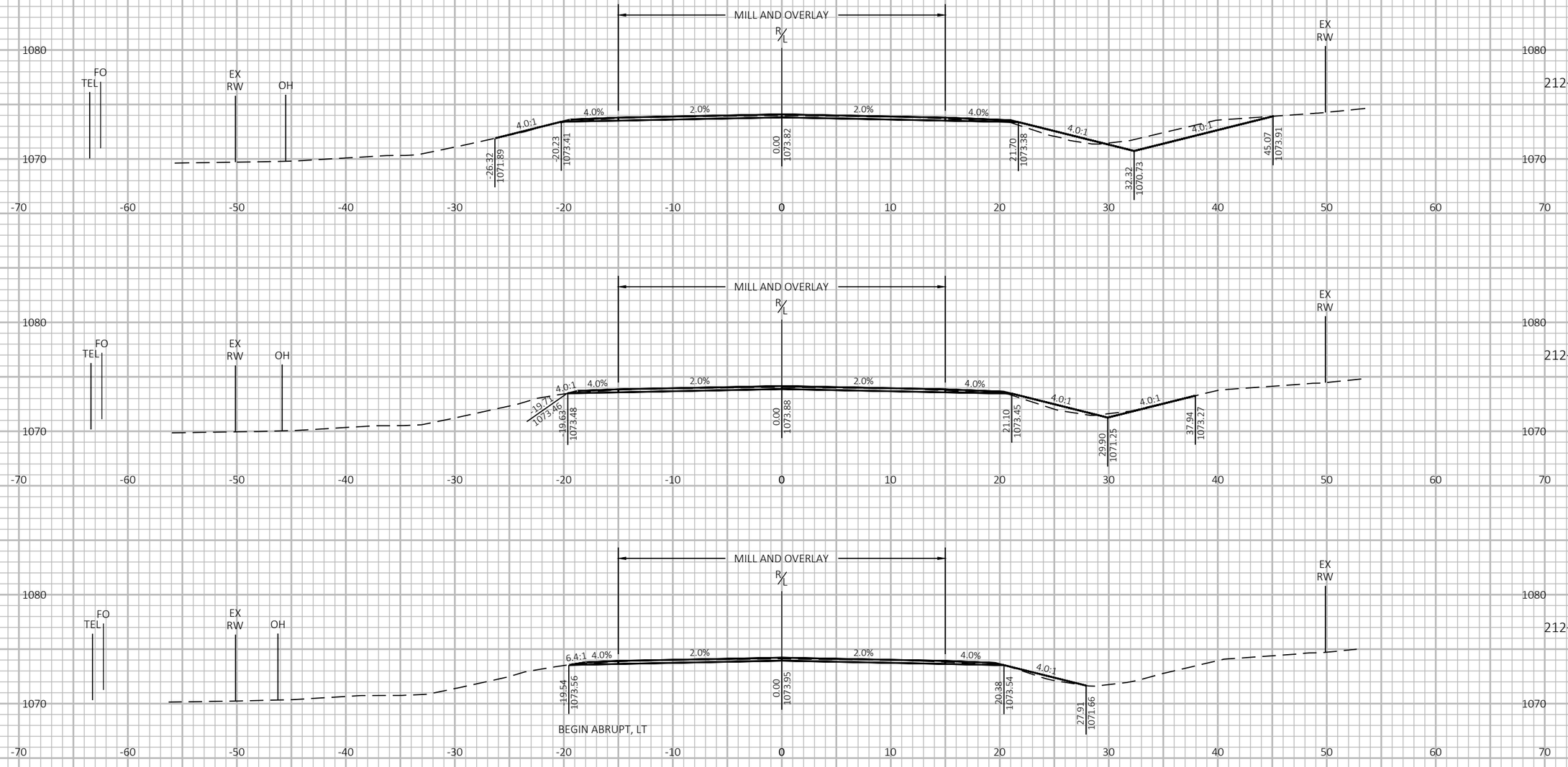
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

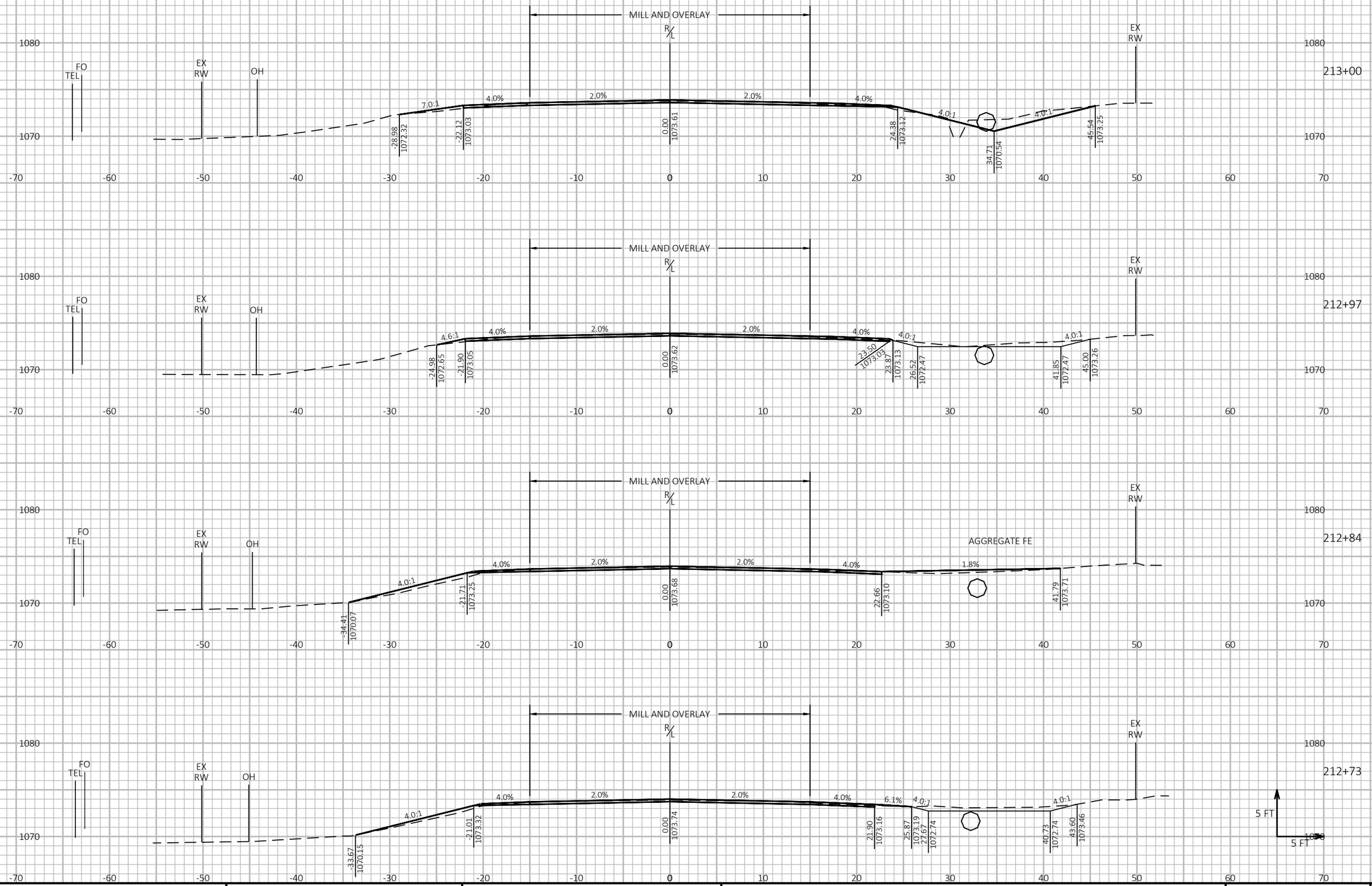
WISDOT/CADDS SHEET 42

7

7



PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 175	E



9

9

PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 176	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 02

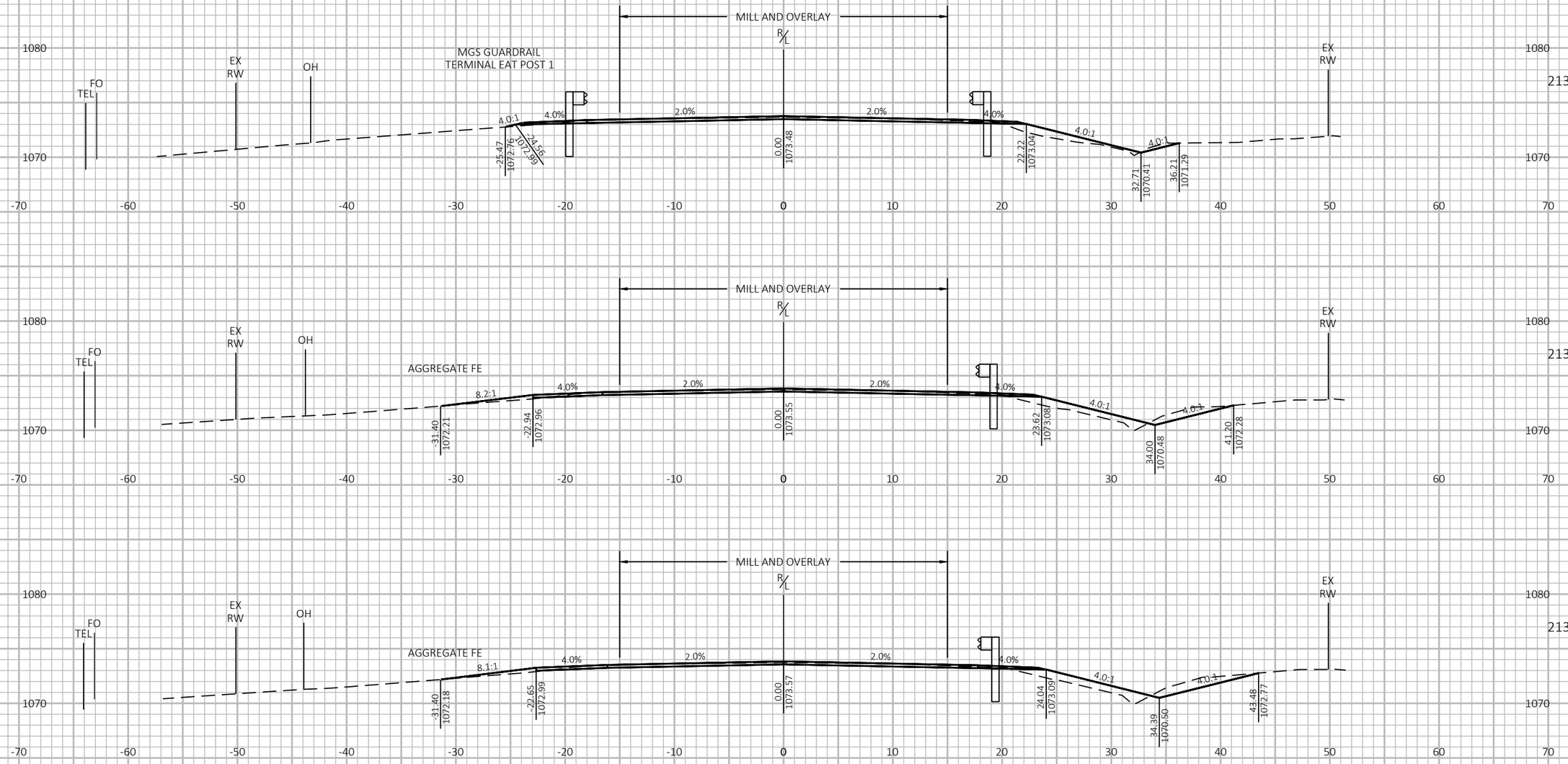
PLOT DATE : 4/22/2022 12:35 PM

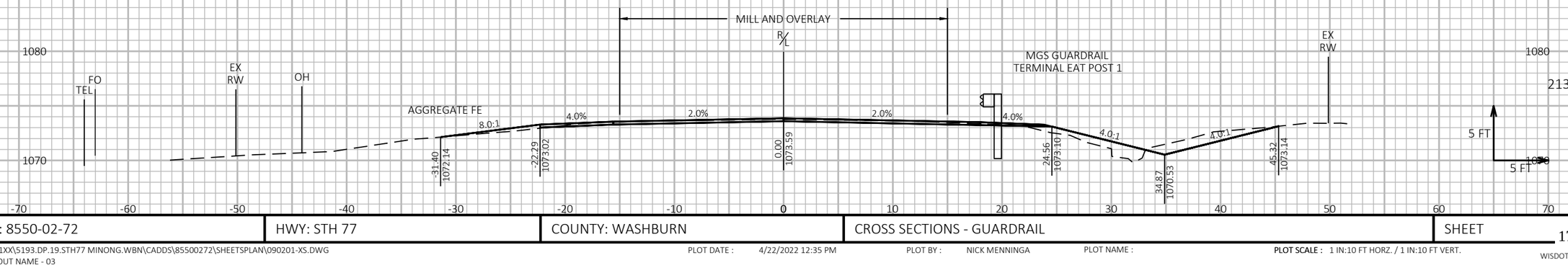
PLOT BY : NICK MENNINGA

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



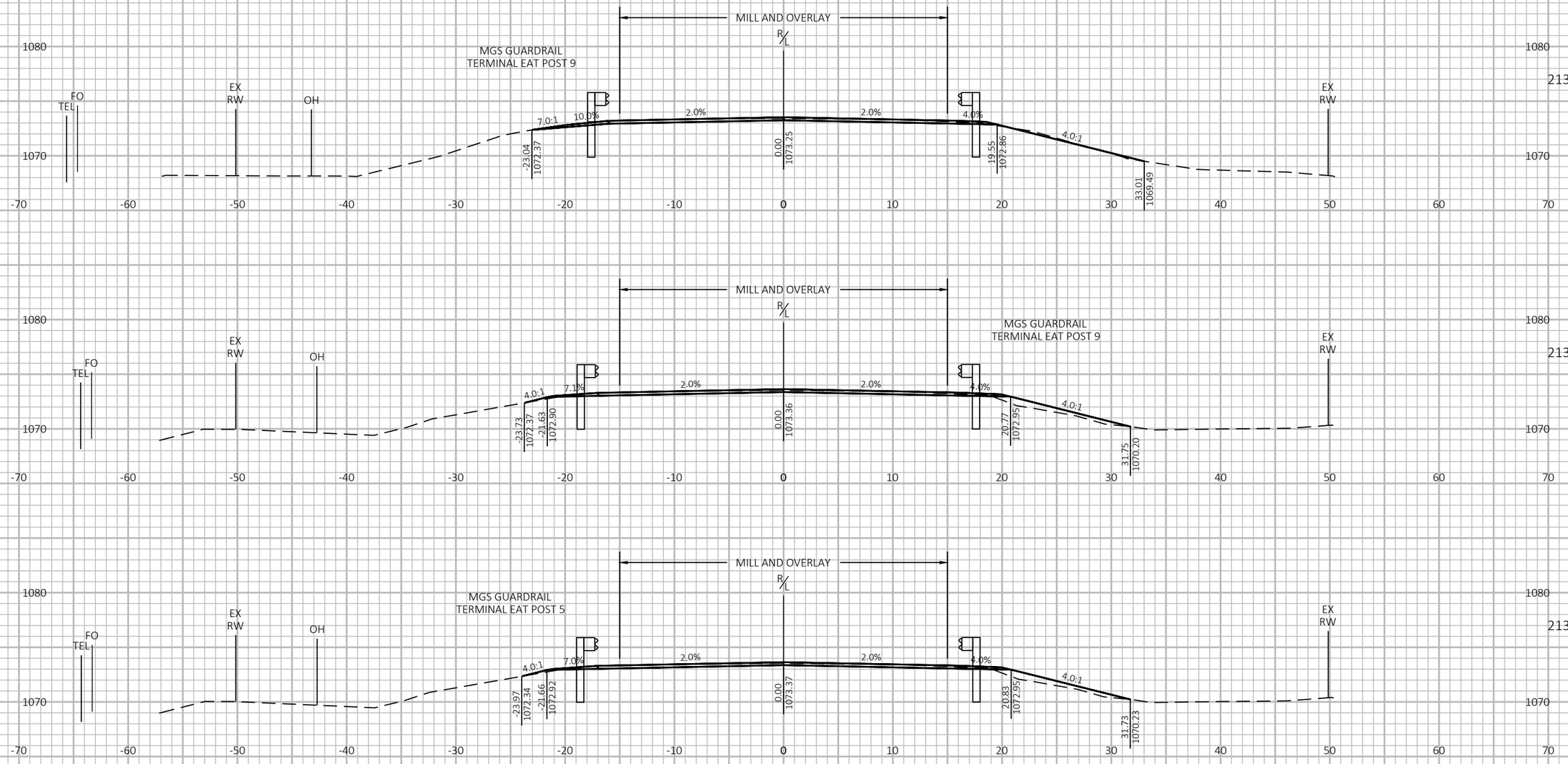


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PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 177	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 03
PLOT DATE : 4/22/2022 12:35 PM
PLOT BY : NICK MENNINGA
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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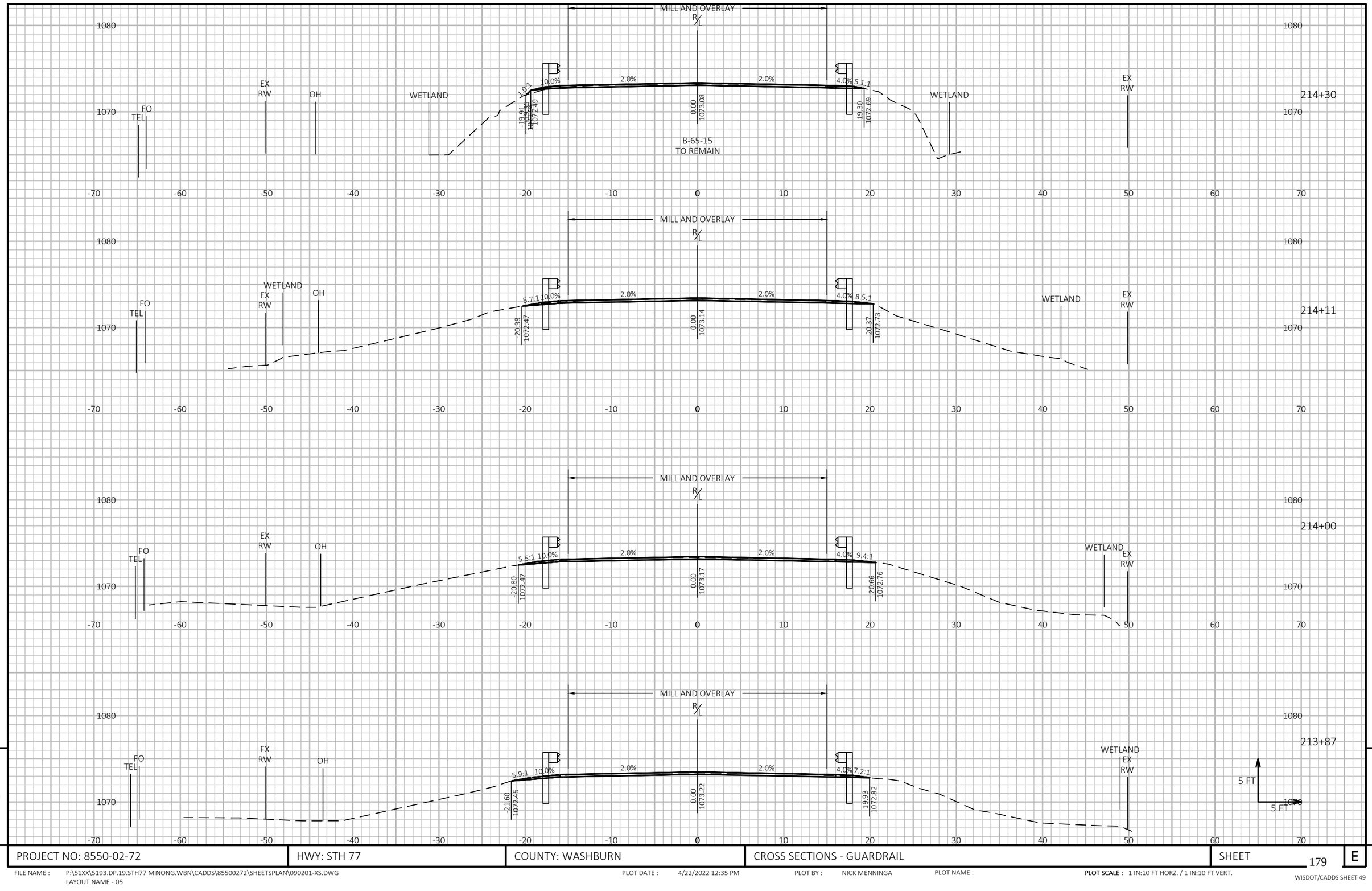
PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 178	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 4/22/2022 12:35 PM PLOT BY : NICK MENNINGA PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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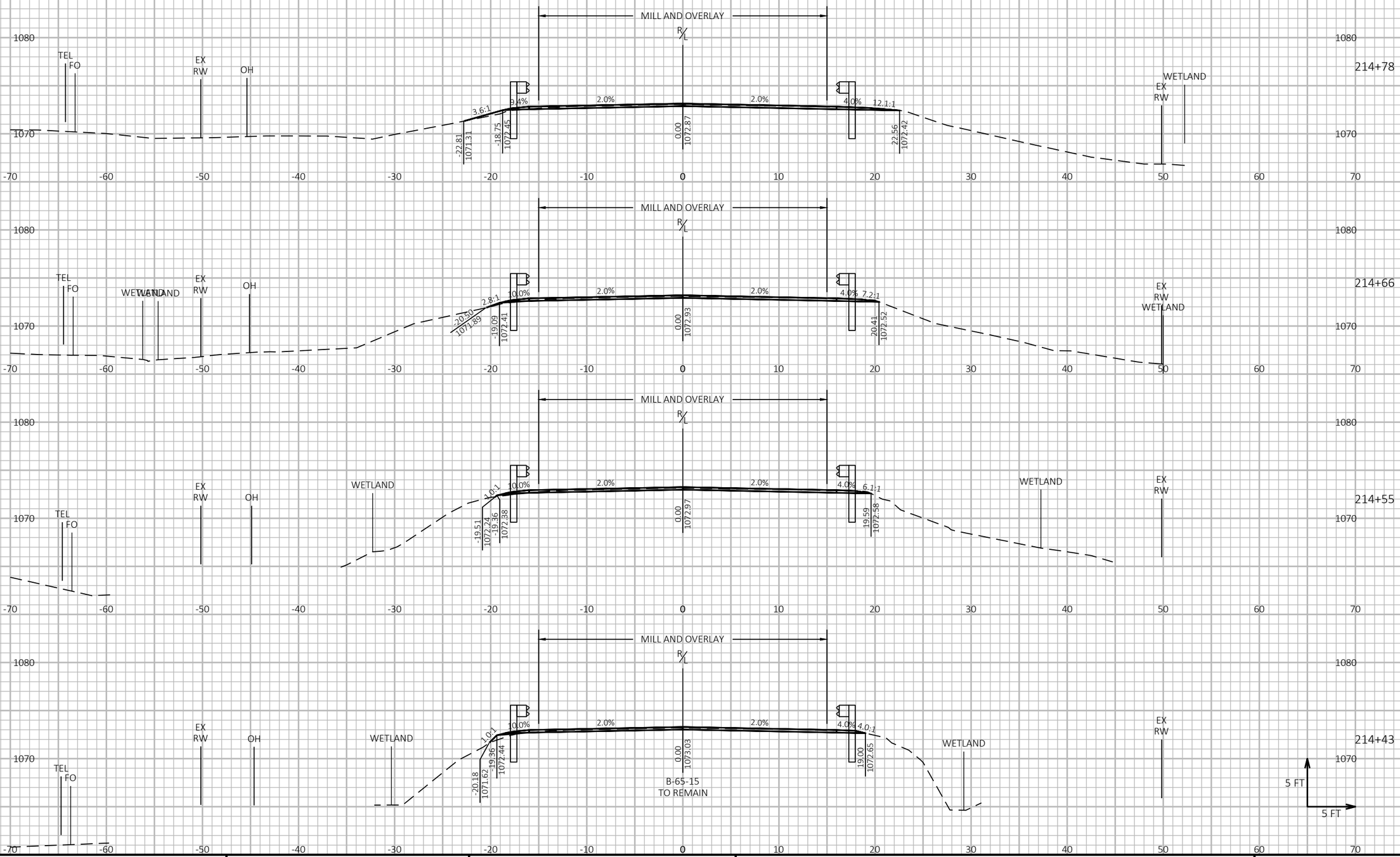
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PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 179	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 4/22/2022 12:35 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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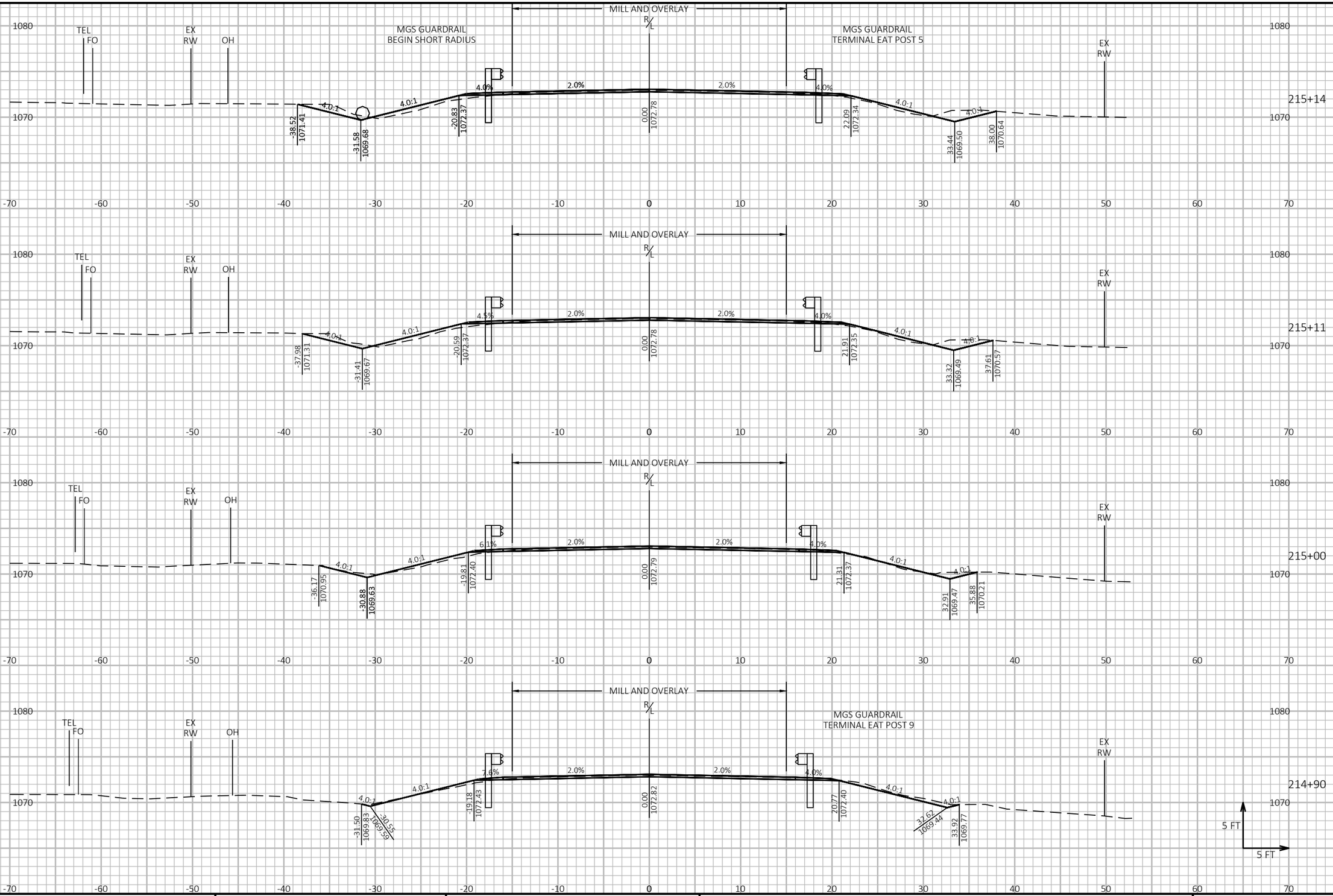
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PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 180	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 06

PLOT DATE : 4/22/2022 12:35 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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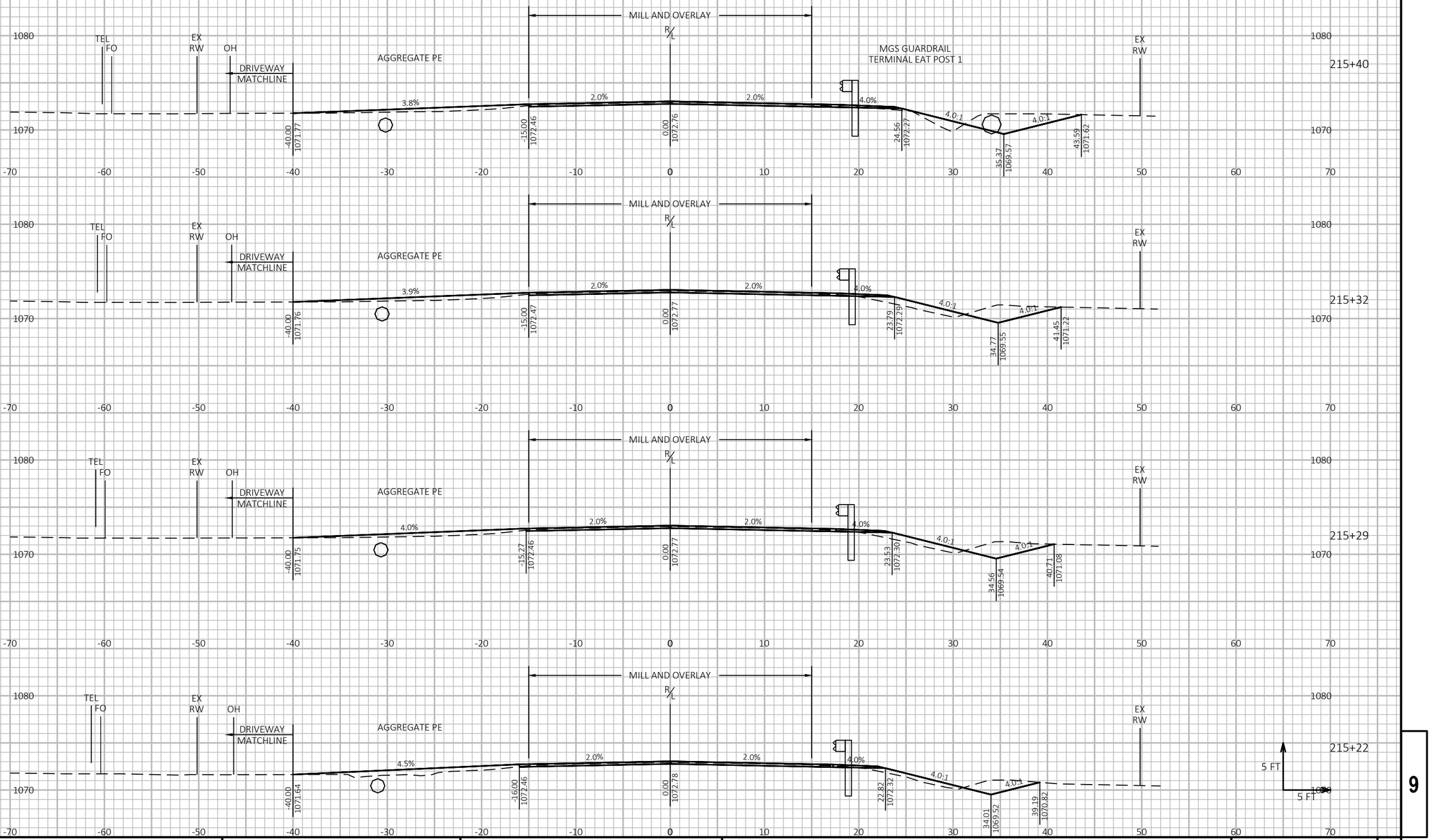
PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 181	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 4/22/2022 12:36 PM PLOT BY : NICK MENNINGA PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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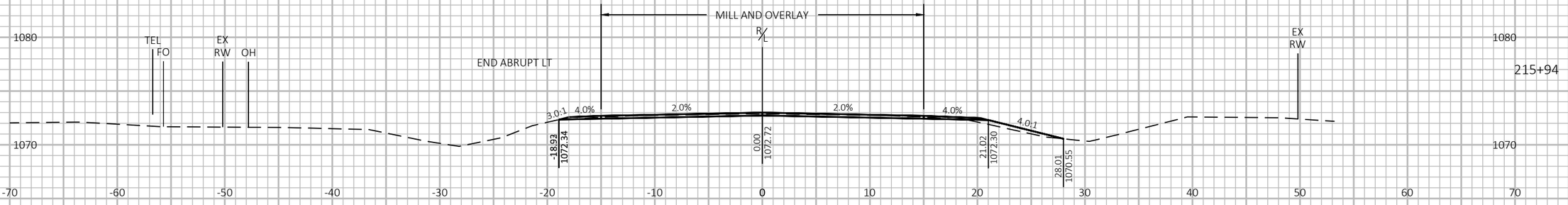
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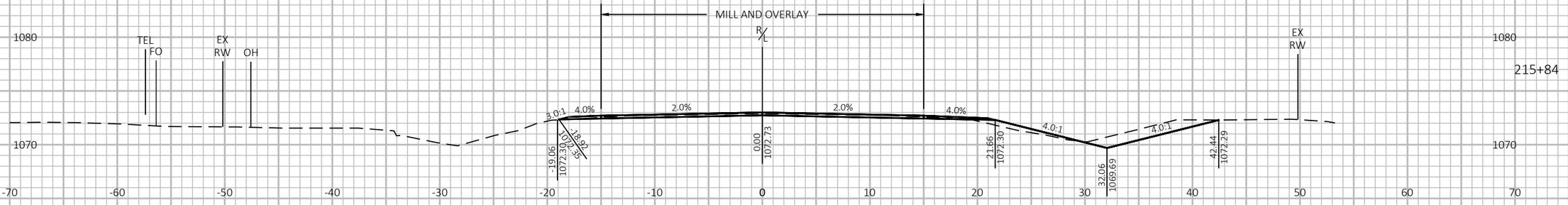
FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 08

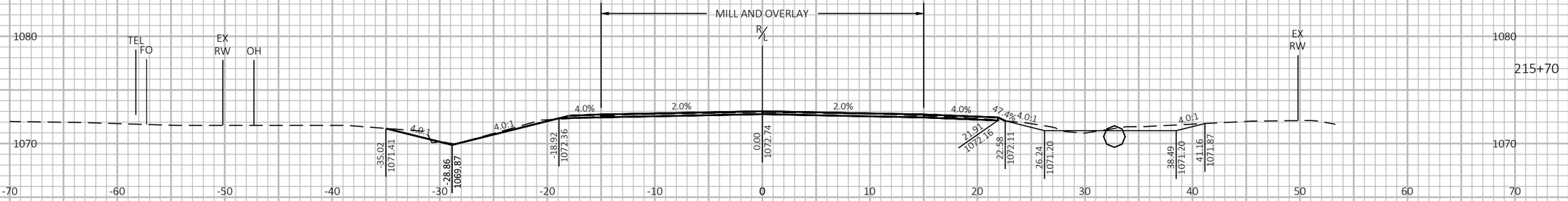
PLOT DATE : 4/22/2022 12:36 PM PLOT BY : NICK MENNINGA PLOT NAME :

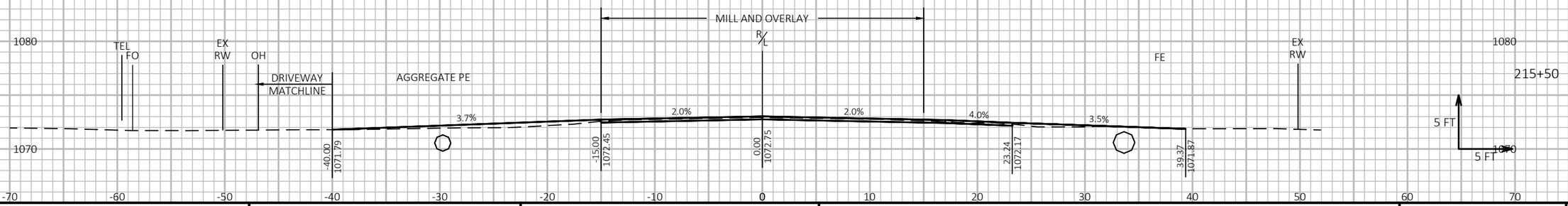
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49









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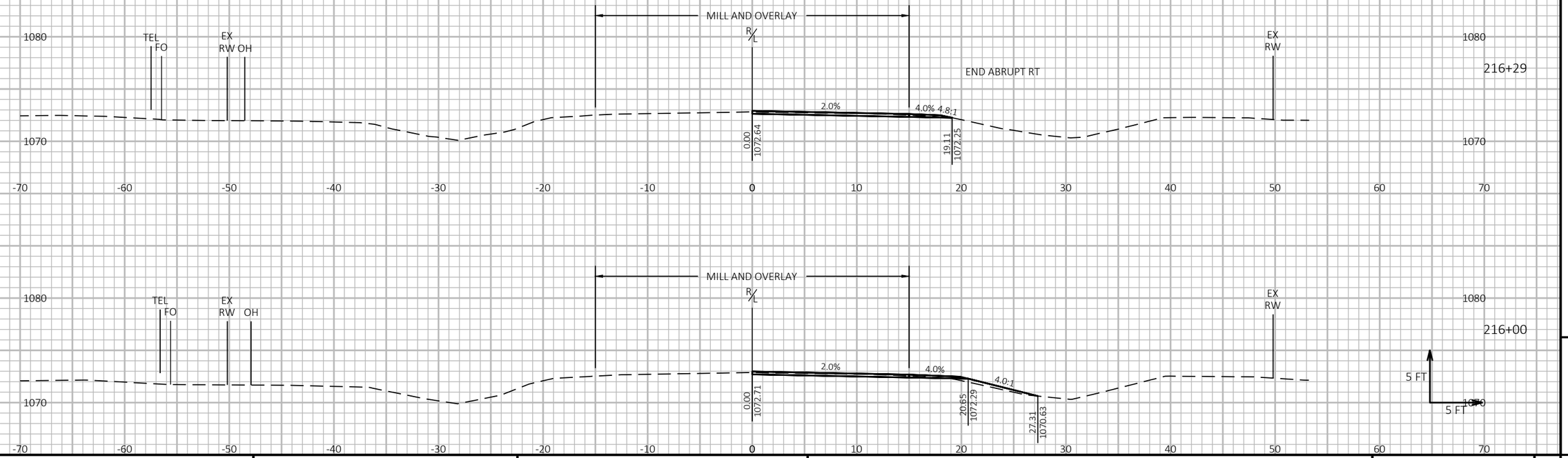
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PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 183	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 09

PLOT DATE : 4/22/2022 12:36 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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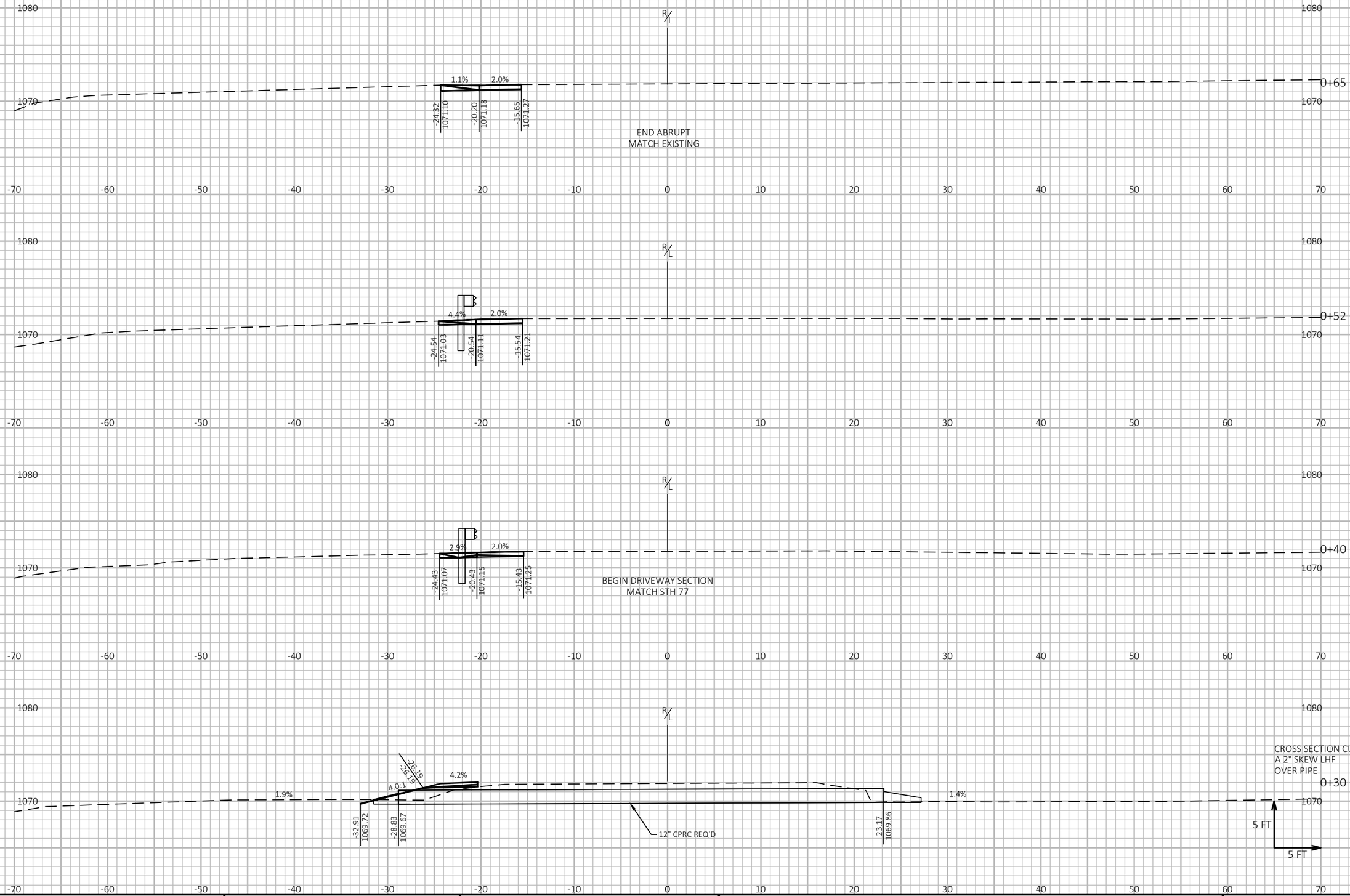
PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 184	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 10

PLOT DATE : 4/22/2022 12:36 PM PLOT BY : NICK MENNINGA PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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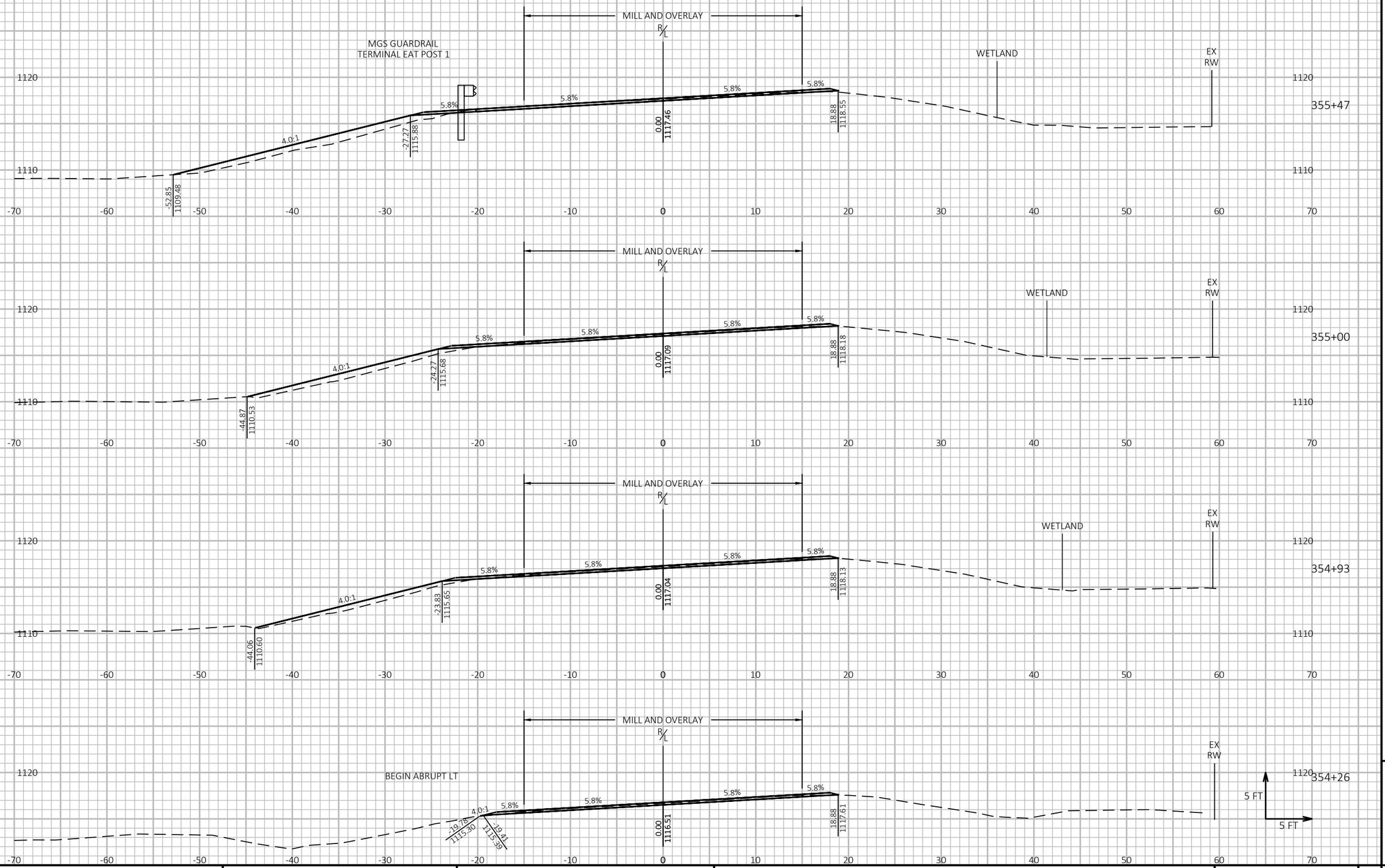
PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL DRIVEWAY	SHEET 185	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 4/22/2022 12:36 PM PLOT BY : NICK MENNINGA PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

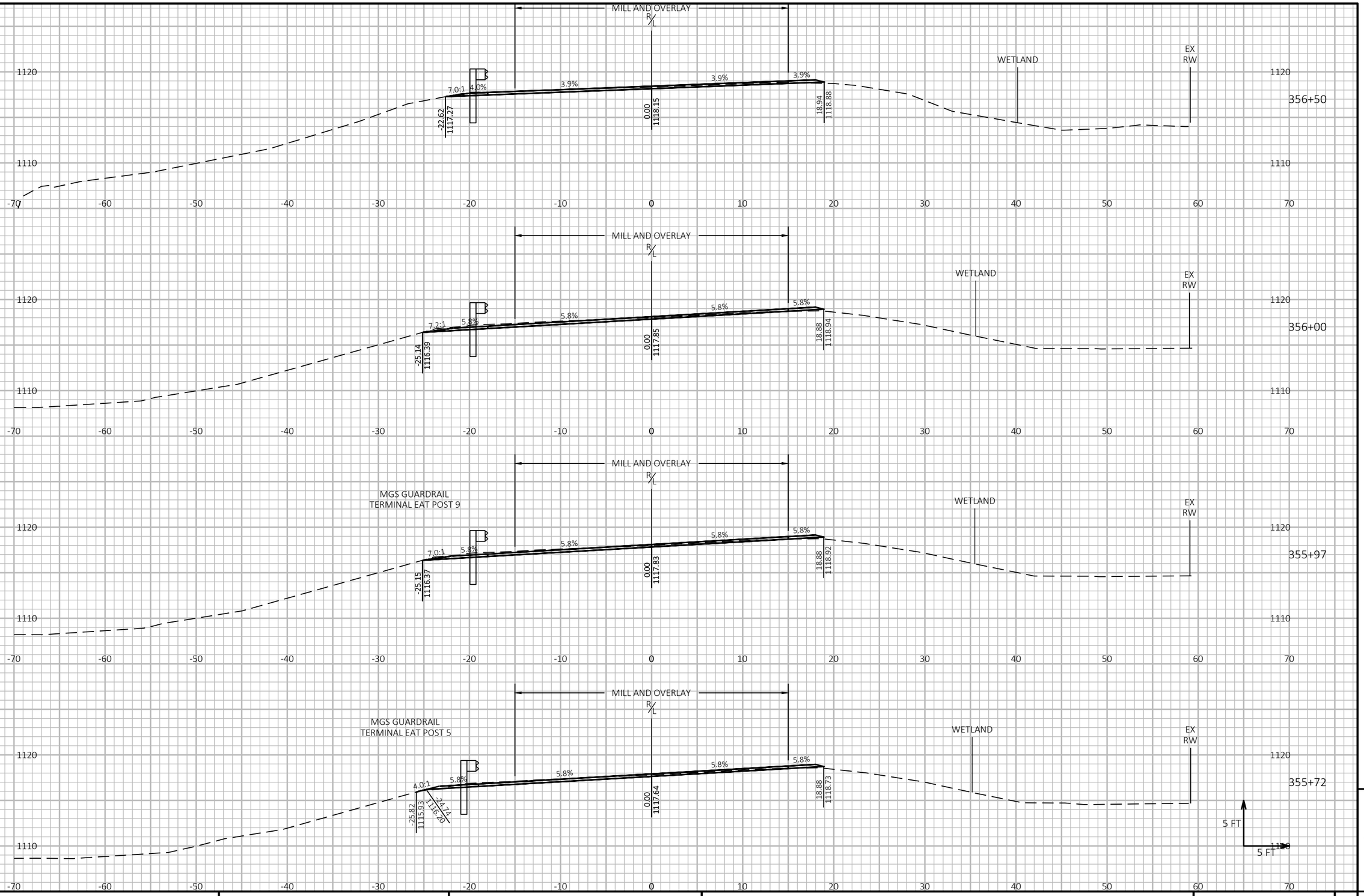
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PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 186	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 4/22/2022 12:36 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

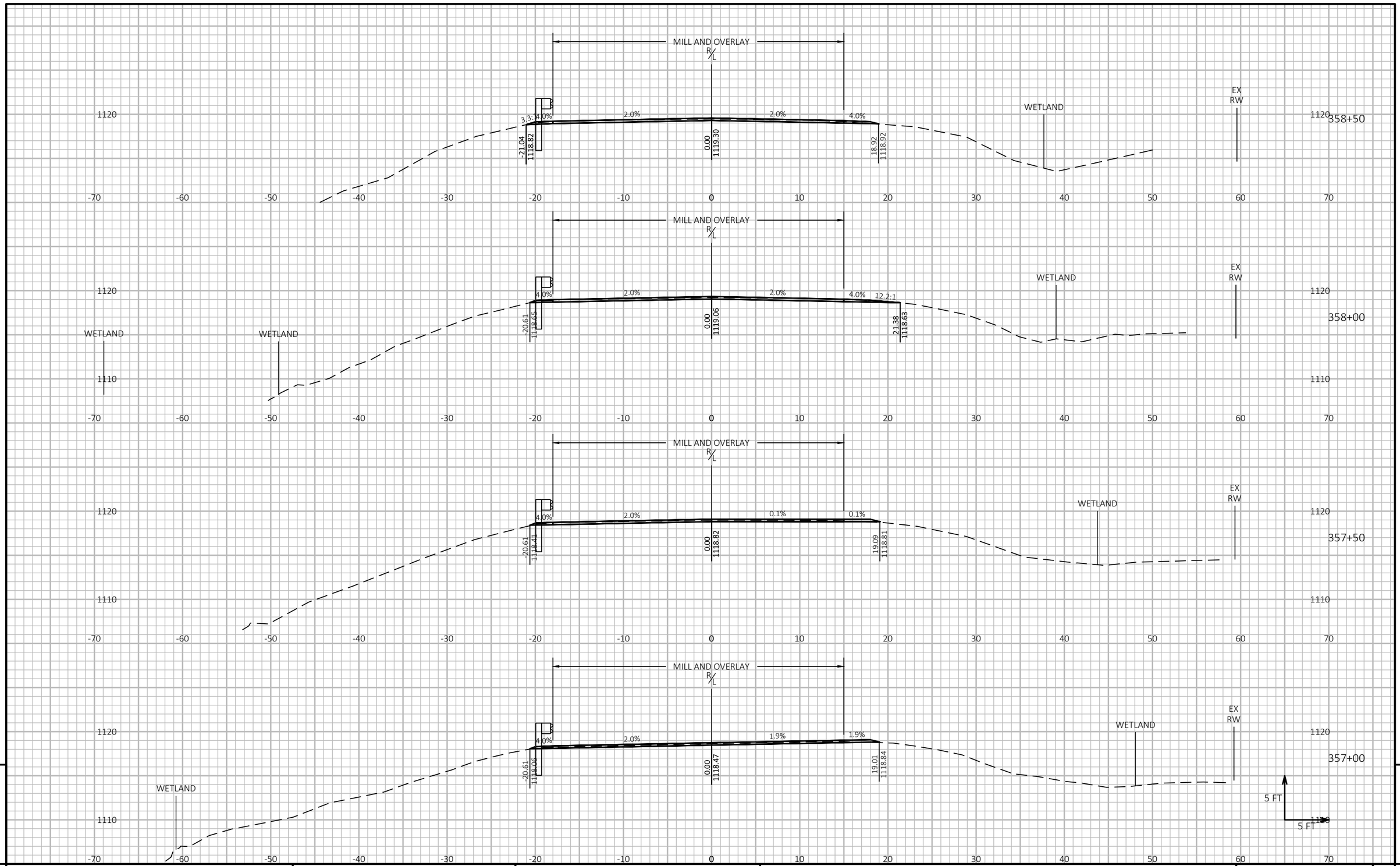
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PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 187	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 4/22/2022 12:36 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

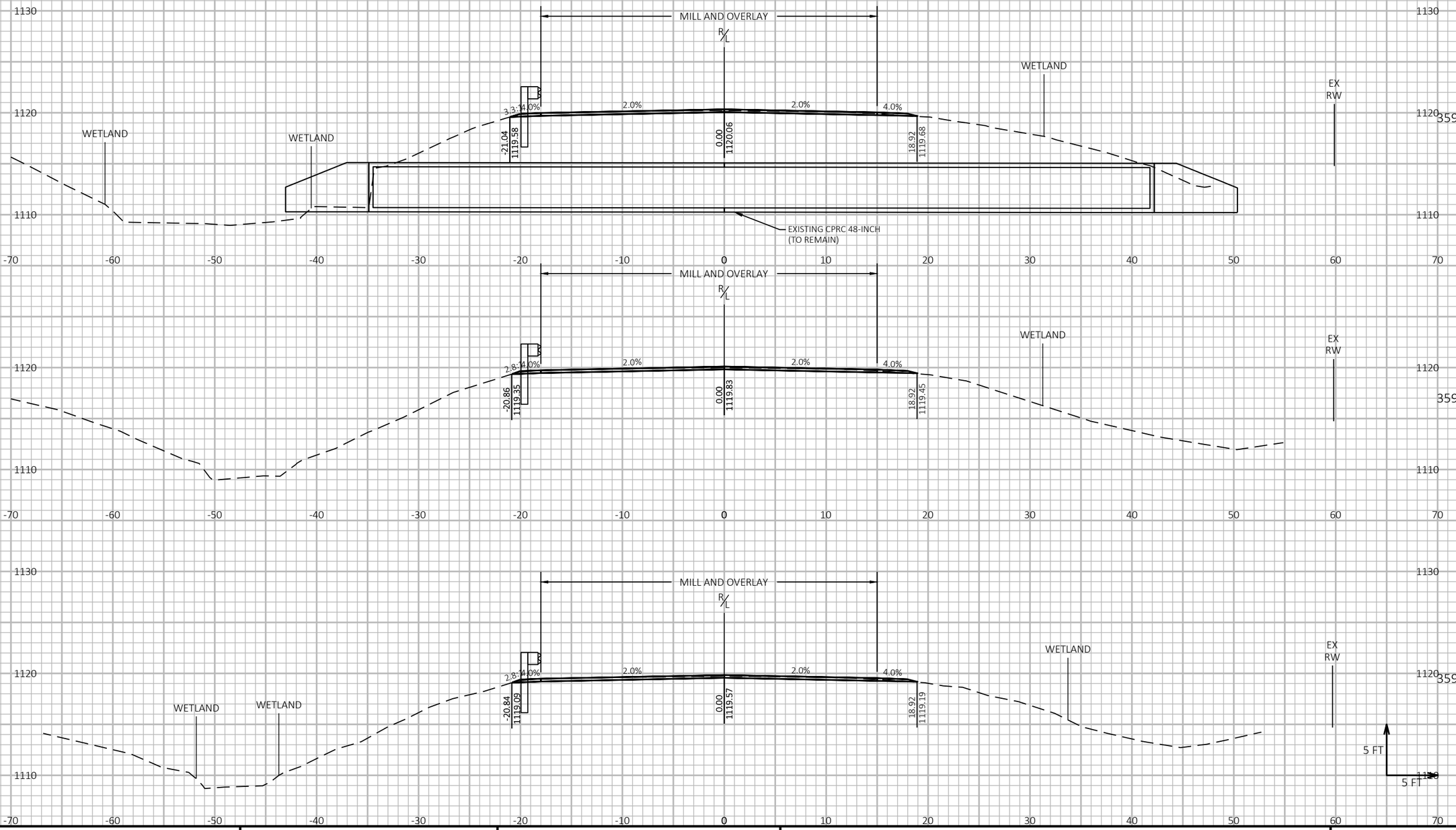


PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 188	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 4/22/2022 12:37 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

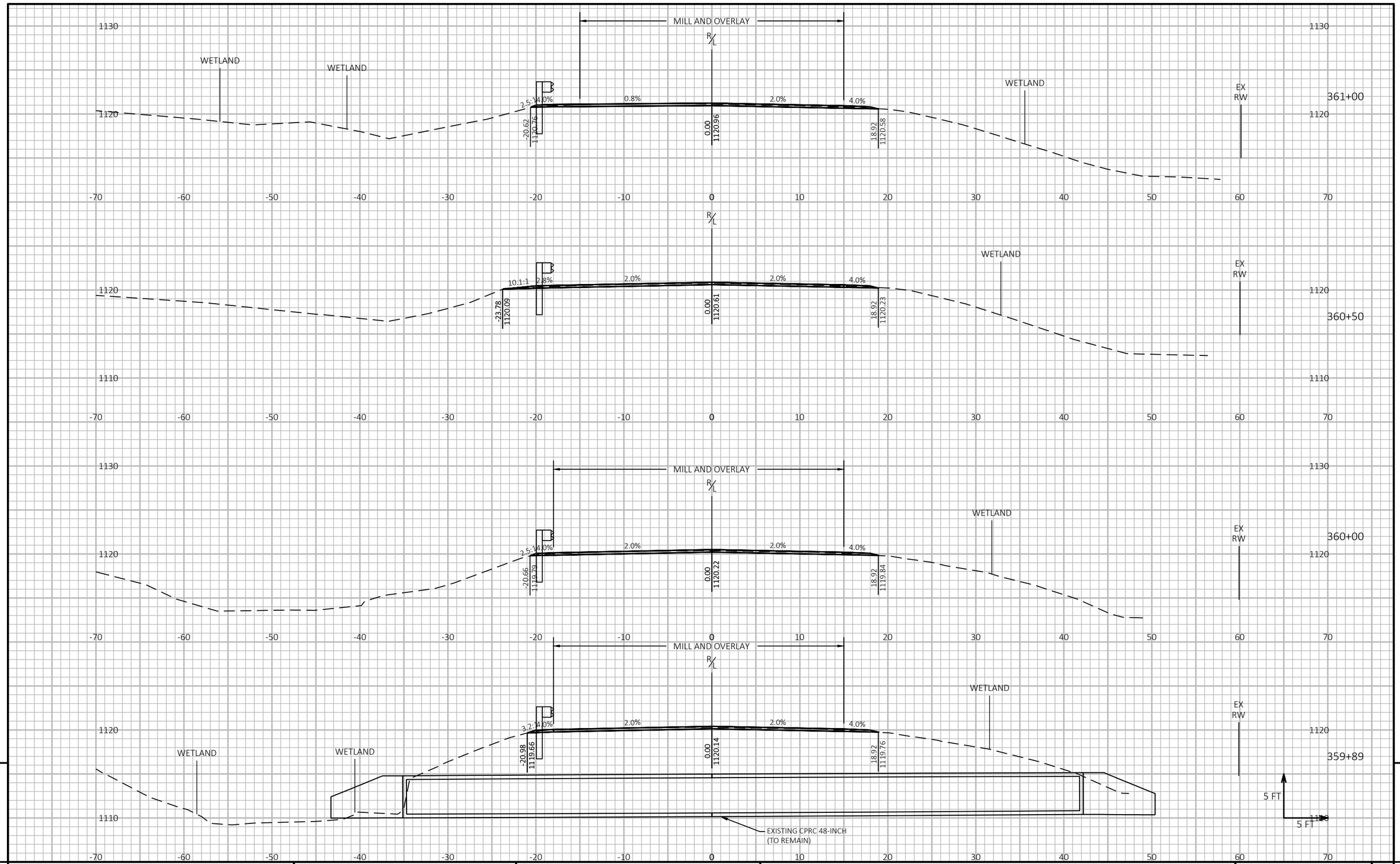
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PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 189	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 4/22/2022 12:37 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

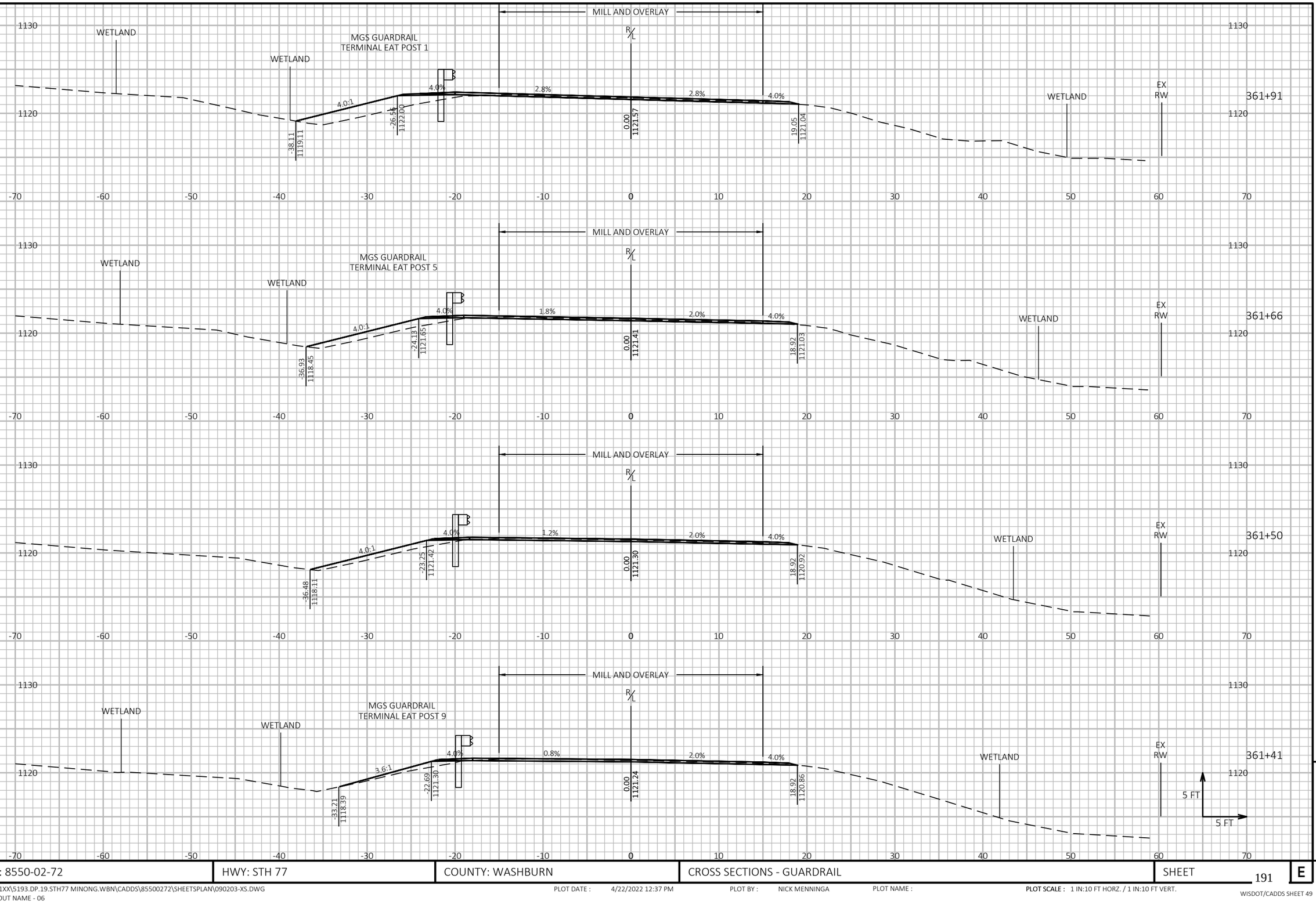
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PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 190	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 4/22/2022 12:37 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

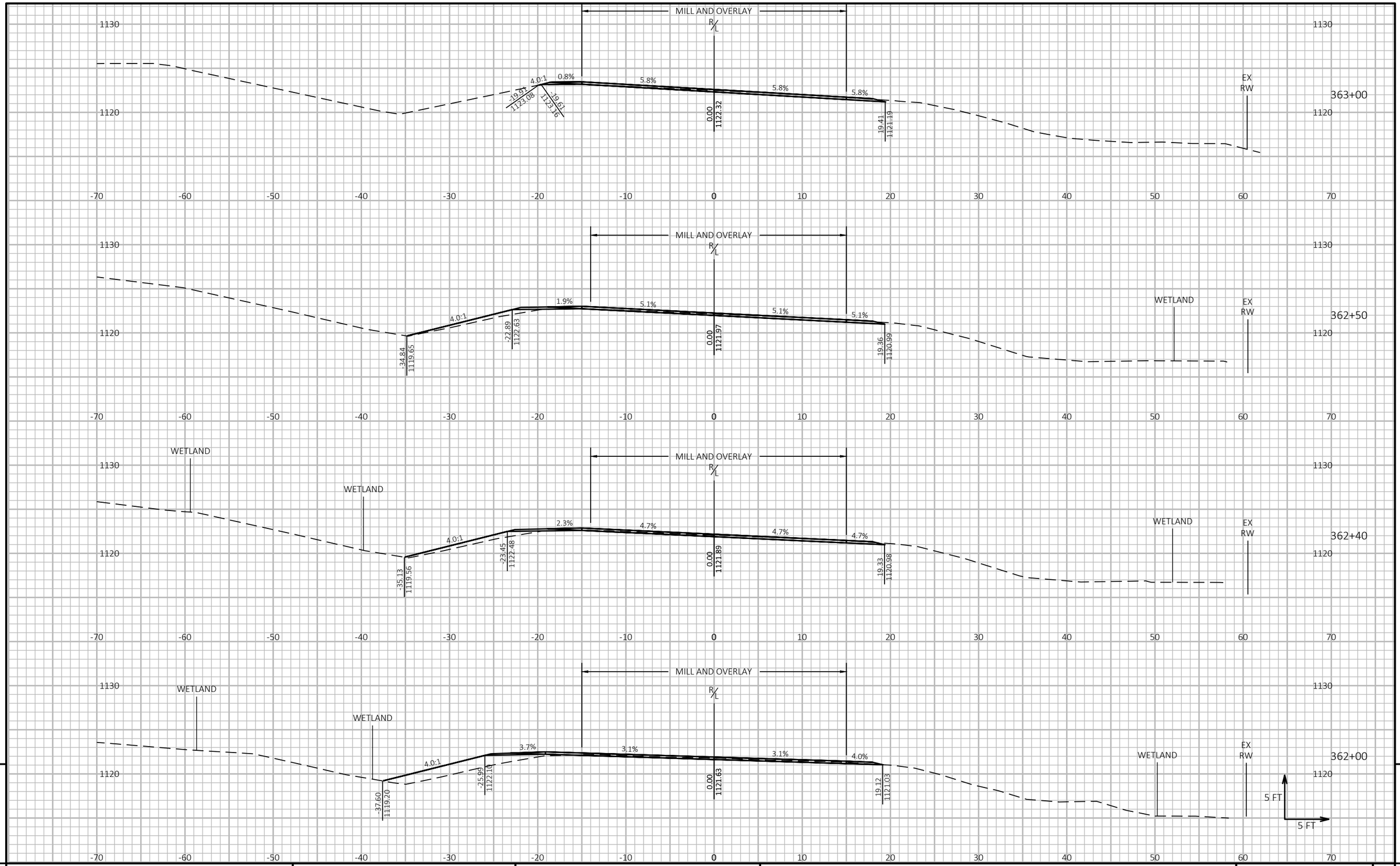


PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 191	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 06

PLOT DATE : 4/22/2022 12:37 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

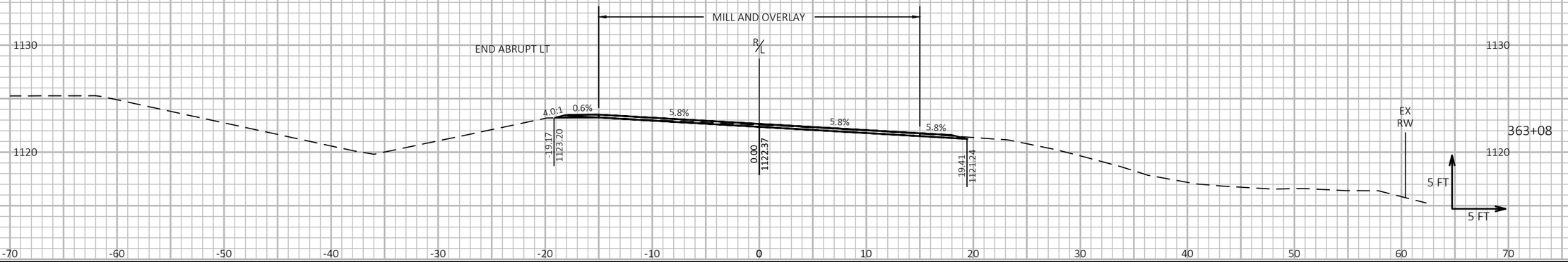
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PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 192	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 4/22/2022 12:37 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

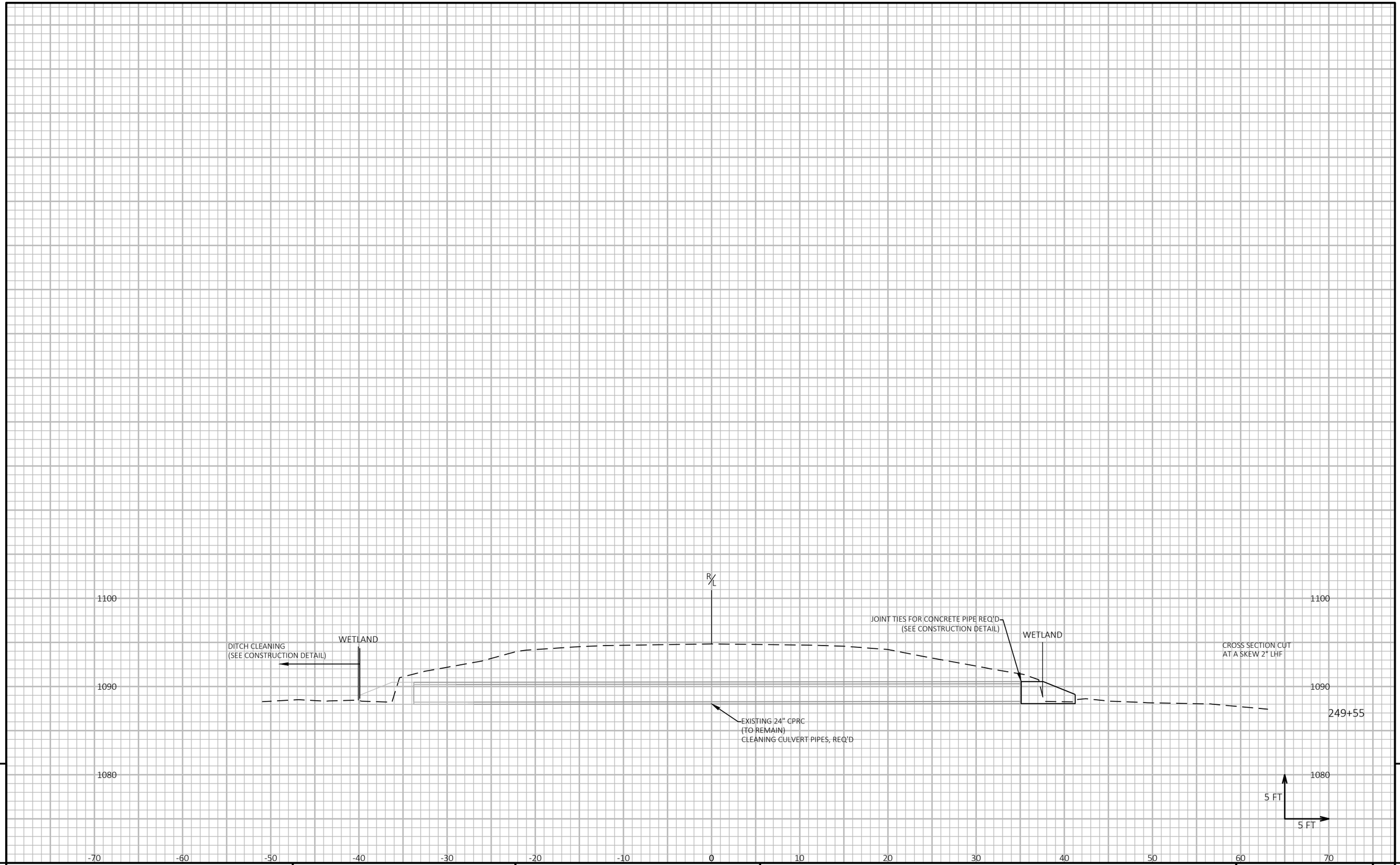
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PROJECT NO: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - GUARDRAIL	SHEET 193	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 08

PLOT DATE : 4/22/2022 12:37 PM PLOT BY : NICK MENNINGA 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: 8550-02-72	HWY: STH 77	COUNTY: WASHBURN	CROSS SECTIONS - CULVERT	SHEET 194	E

FILE NAME : P:\51XX\5193.DP.19.STH77 MINONG.WBN\CADDS\85500272\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 2/22/2022 7:03 AM

PLOT BY : NICK MENNINGA

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 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