WKE

Jan 10, 2023

PROJECT ID: **1000-09-86**

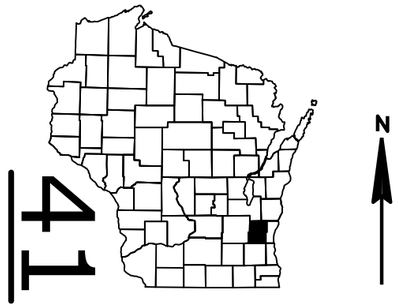
WITH: 1100-43-70 3360-17-70 3700-43-70

COUNTY: **WASHINGTON**

ORDER OF SHEETS

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

TOTAL SHEETS = 16



DESIGN DESIGNATION

A.A.D.T.	2020	=	35,000
A.A.D.T.		=	
D.H.V.		=	
D.D.		=	
T.		=	
DESIGN SPEED		=	
ESALS		=	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

USH 45

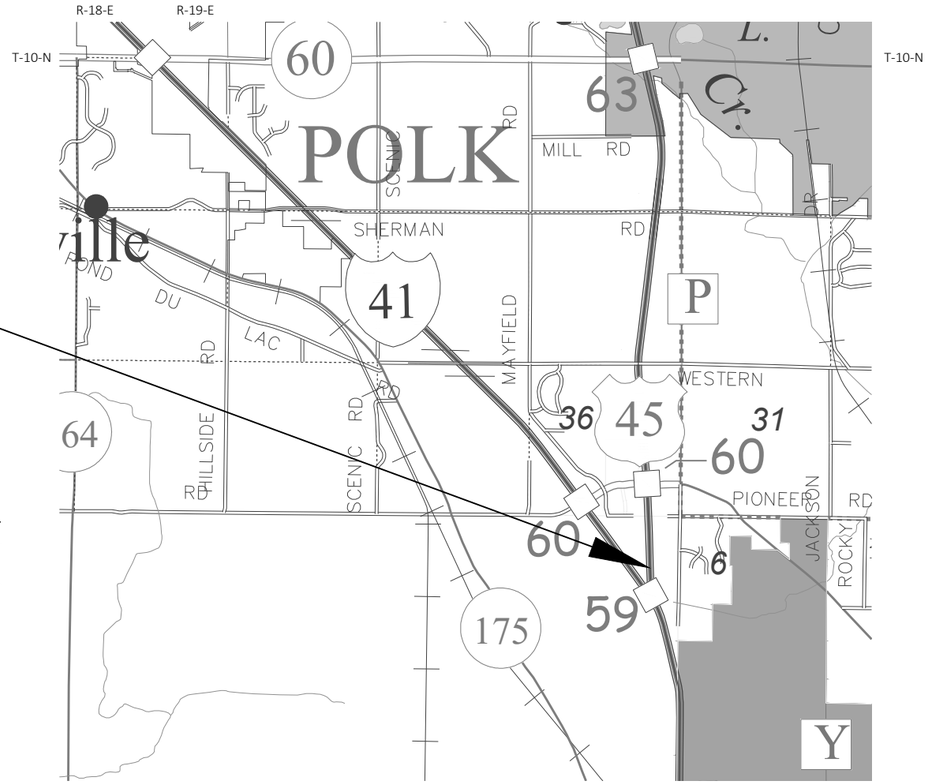
IH 41/USH 45 BOX CULVERT

USH 45
WASHINGTON

STATE PROJECT NUMBER
1000-09-86

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1000-09-86	WISC 2023154	1

PROJECT LOCATION
STA 1699+81
N 129203.6070
E 361918.4568



LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.0000 M.

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

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		**UTILITIES**	
REFERENCE LINE	300'EB'	ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
WOODED OR SHRUB AREA		UTILITY PEDESTAL	
		POWER POLE	
		TELEPHONE POLE	

ORIGINAL PLANS PREPARED BY

exp U.S. Services Inc.
T: +1.414.221.0088 | f: +1.414.221.0537
241 N Broadway, Suite 203
Milwaukee, WI 53202
U.S.A.
www.exp.com

• BUILDINGS • EARTH & ENVIRONMENT • ENERGY
• INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY

WISCONSIN JEFFREY A. ROEMER E-23321 MILWAUKEE, WI PROFESSIONAL ENGINEER

10/31/2022 (Date)

(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EXP US SERVICES, INC
Designer	EXP US SERVICES, INC
Project Manager	MICHELE SPAETH, P.E.
Regional Examiner	
Regional Supervisor	WAFA ELQAQ, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 10/31/2022 Michele Spaeth (Signature)

E

FILE NAME : C:\USERS\BOURGEOISJ\ACCDOCS\EXP\WIS-00260406-A0\PROJECT FILES\1000-09-86\10000986\SHEETSPLAN\010101-TI.DWG PLOT DATE : 10/24/2022 4:26 PM PLOT BY : JOHN BOURGEOIS PLOT NAME :

STANDARD ABBREVIATIONS:

ASPH	ASPHALT
AVE.	AVENUE
APT.	APARTMENT
BAD	BASE AGGREGATE DENSE
BLDG.	BUILDING
BM#	BENCH MARK
C&g	CURB AND GUTTER
℄	CENTERLINE
CL	CLASS
CONC	CONCRETE
CONST.	CONSTRUCTION
COR.	CORNER
CP#	CONTROL POINT
CP	CULVERT PIPE
D/W	DRIVEWAY
EX.	EXISTING
EXC	EXCAVATION
FE	FIELD OF ENTRANCE
F.L	FLOWLINE
FT	FEET
GV	GAS VALVE
HS.	HOUSE
INL.	INLET
L.F	LINEAR FOOT
N.T.S	NOT TO SCALE
P.C	POINT OF CURVE
PCC.	PORTLAND CONCRETE CEMENT
PE	PRIVATE ENTRANCE
P.I.	POINT OF INTERSECT
P.L.E	PERMANENT LIMITED EASEMENT
P.T	POINT OF TANGENCY
R	RADIUS
REQ'D	REQUIRED
REMO	REMOVE
R/W	RIGHT OF WAY
SEC	SECTION
S.F.	SQUARE FOOT
STH	STATE TRUNK HIGHWAY
T	TANGENT
TLE	TEMPORARY LIMITED EASEMENT
VPC	VERTICAL POINT OF CURVE
VPT	VERTICAL POINT OF TANGENCY
W/L	WETLAND
WV	WATER VALVE

PROJECT CONTACTS

WisDOT CONTACT
MICHELE SPAETH, P.E
WISCONSIN DEPT. OF TRANSPORTATION
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WISCONSIN DNR LIAISON
BENTON STELZEL
141 NW BARSTOW ST
WAUKESHA, WI 53188
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MILWAUKEE, WI 53202
(414) 615.9718
EMAIL: JEFF.ROEMER@EXP.COM

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW/TYPICAL SECTIONS
PLAN DETAILS
EROSION CONTROL
TRAFFIC CONTROL
ALIGNMENT DETAILS

GENERAL NOTES

THE LOCATION OF EXISTING AND PROPOSED UTILITY FACILITIES AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

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

ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE TOPSOILED, FERTILIZED, AND SEEDED AS DIRECTED BY THE ENGINEER.

SEED, FERTILIZER, AND EROSION MAT MUST BE PLACED WITHIN 5 DAYS OF TOPSOIL PLACEMENT.

EROSION CONTROL FEATURES ARE AT SUGGESTED LOCATIONS AND THE EXACT LOCATION WILL BE DETERMINED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE.

2

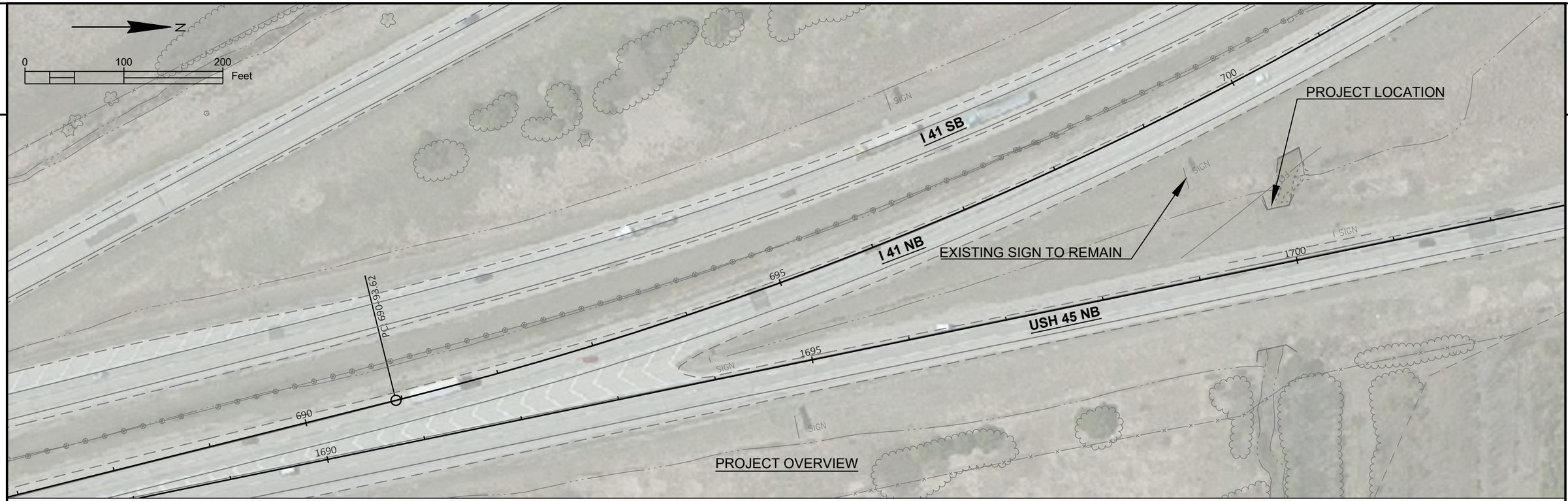
UTILITY CONTACT LIST

Wisconsin Independent Network, LLC – Communication Line
Dick Hammetter
Suite 219
800 Wisconsin Ave
Eau Claire, WI 54703
838-4406
Dick.Hammetter@wintechnology.com

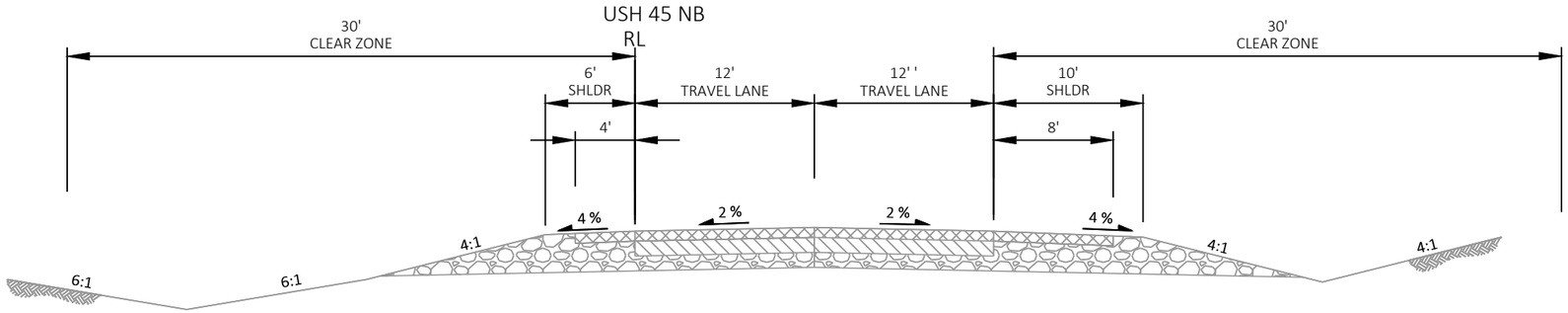
WisDOT Communication Lines (FTMS)
Jeffrey T. Madson
433 W. St Paul Avenue
Milwaukee, WI 53203
225-3723
Jeffrey.Madson@dot.wi.gov

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

2



PROJECT OVERVIEW



EXISTING TYPICAL SECTION

USH 45 NB

PROJECT NO: 1000-09-86	HWY: USH 45	COUNTY: WASHINGTON	PROJECT OVERVIEW-TYPICAL SECTION	SHEET 3	E

FILE NAME : C:\USERS\BOURGEOISJ\BIM 360\EXP\WIS-00260406-A0\PROJECT FILES\1000-09-86\10000986\SHEETSPLAN\020201 -PO.TS.DWG
LAYOUT NAME - 01

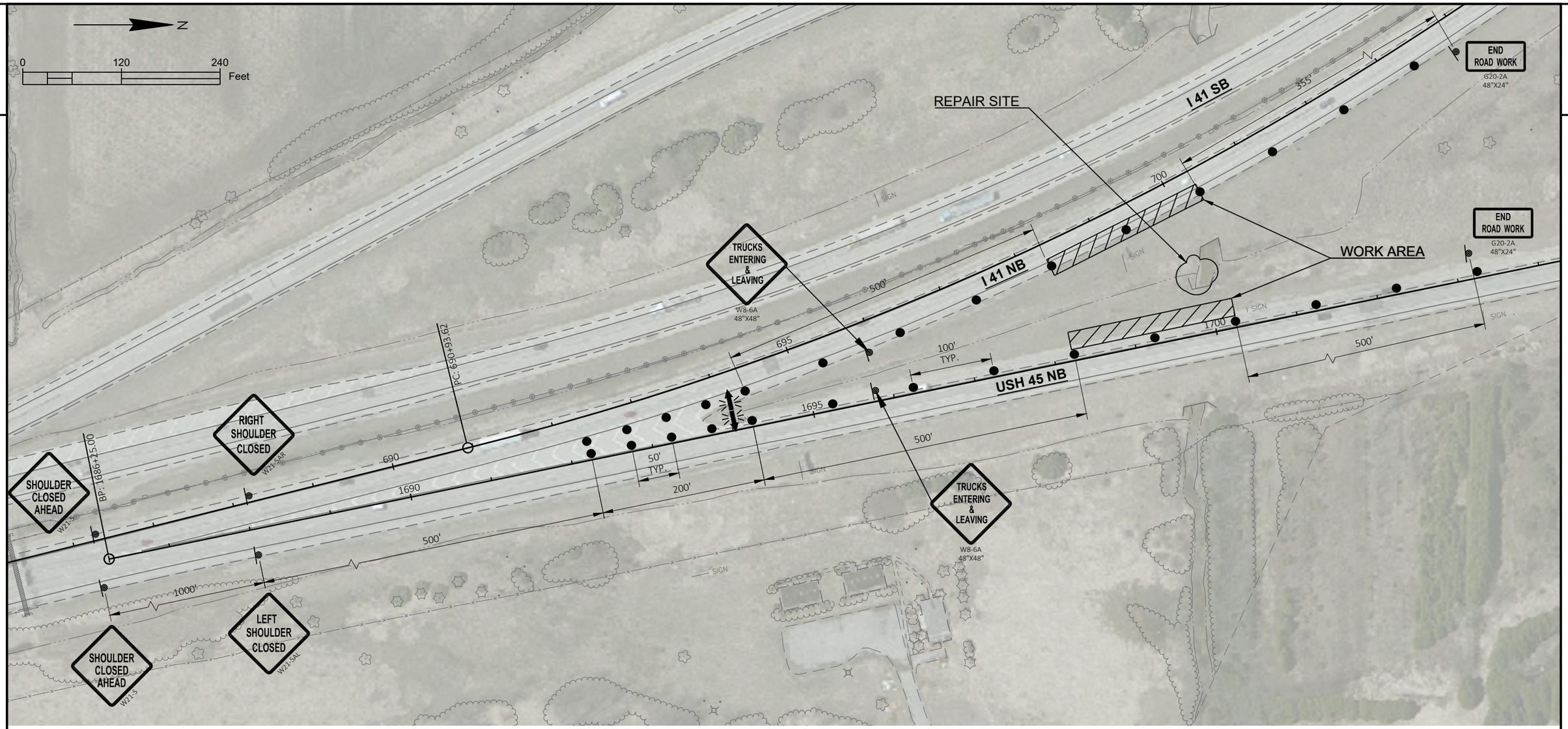
PLOT DATE : 5/3/2021 4:31 PM PLOT BY : JOHN BOURGEOIS PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

PROJECT NO: 1000-09-86	HWY: USH 45	COUNTY: WASHINGTON	EROSION CONTROL PLAN	SHEET 4	E

FILE NAME : C:\USERS\BOURGEOIS\BIM 360\EXP\WIS-00260406-A0\PROJECT FILES\1000-09-86\10000986\SHEETSPLAN\020401-EC.DWG
LAYOUT NAME - 01
PLOT DATE : 5/3/2021 4:32 PM
PLOT BY : JOHN BOURGEOIS
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2



PROJECT NO: 1000-09-86	HWY: USH 45	COUNTY: WASHINGTON	TRAFFIC CONTROL	SHEET 5	E

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LAYOUT NAME - 01

PLOT DATE : 5/3/2021 4:32 PM PLOT BY : JOHN BOURGEOIS PLOT NAME : PLOT SCALE : 1 IN:120 FT

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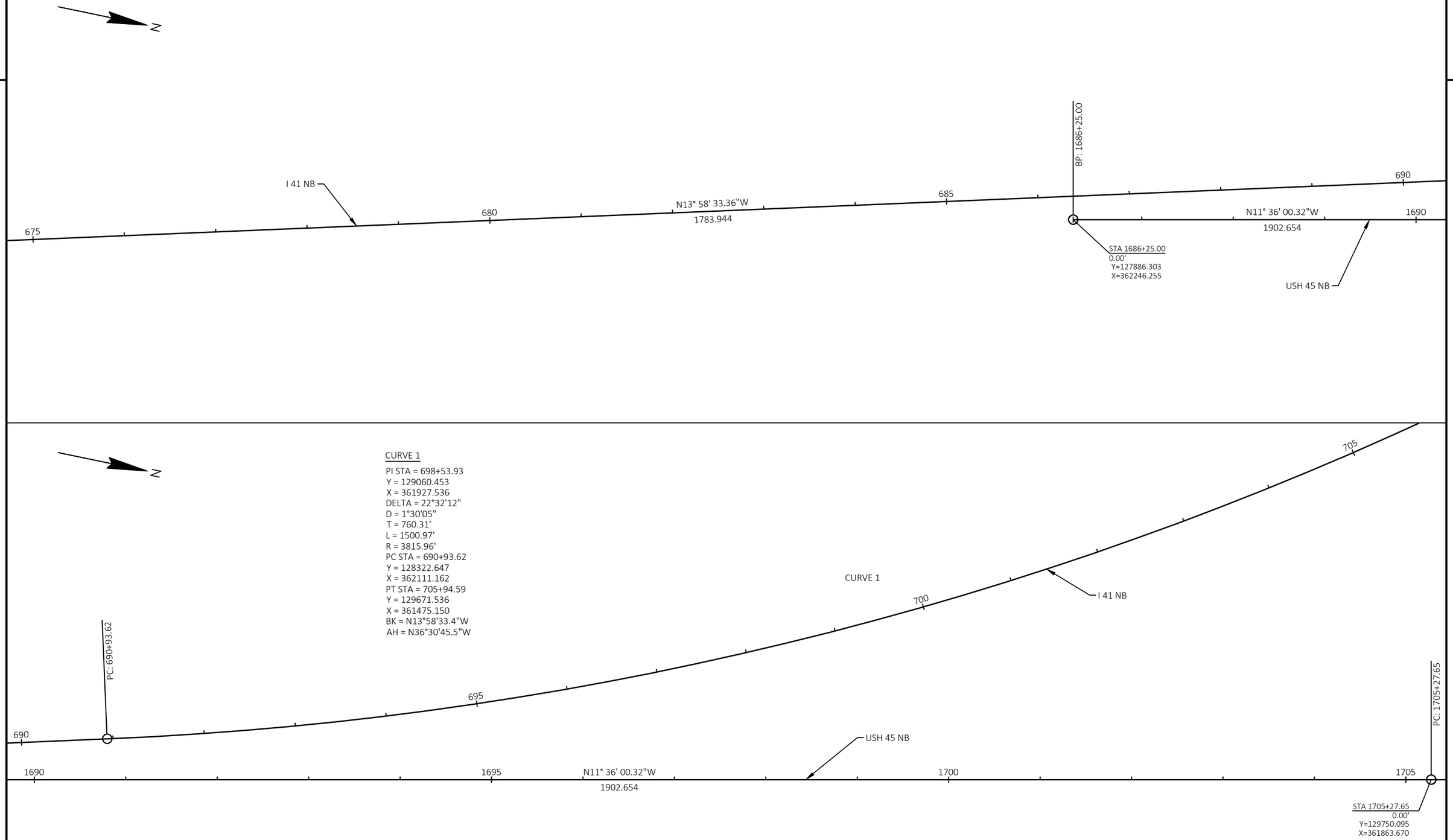


PROJECT NO: 1000-09-86	HWY: USH 45	COUNTY: WASHINGTON	ALIGNMENT DETAILS	SHEET 6	E

1000-09-86

Line	Item	Item Description	Unit	Total	Qty
0022	203.0220	Removing Structure (structure) 03. B-66-43	EACH	1.000	1.000
0070	206.2001	Excavation for Structures Culverts (structure) 03. B-66-43	EACH	1.000	1.000
0080	210.2500	Backfill Structure Type B	TON	41.000	41.000
0084	213.0100	Finishing Roadway (project) 01. 1000-09-86	EACH	1.000	1.000
0100	311.0115	Breaker Run	CY	4.000	4.000
0152	502.4205	Adhesive Anchors No. 5 Bar	EACH	12.000	12.000
0154	504.0100	Concrete Masonry Culverts	CY	5.000	5.000
0158	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	430.000	430.000
0208	511.1200	Temporary Shoring (structure) 01. B-66-43	SF	205.000	205.000
0216	516.0500	Rubberized Membrane Waterproofing	SY	4.000	4.000
0296	606.0300	Riprap Heavy	CY	3.000	3.000
0338	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1000-09-86	EACH	1.000	1.000
0346	619.1000	Mobilization	EACH	0.010	0.010
0352	625.0100	Topsoil	SY	150.000	150.000
0356	627.0200	Mulching	SY	150.000	150.000
0360	628.1504	Silt Fence	LF	150.000	150.000
0362	628.1520	Silt Fence Maintenance	LF	150.000	150.000
0368	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0370	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0376	628.2027	Erosion Mat Class II Type C	SY	150.000	150.000
0390	629.0205	Fertilizer Type A	CWT	1.000	1.000
0402	630.0180	Seeding Mixture No. 80	LB	2.000	2.000
0404	630.0200	Seeding Temporary	LB	9.000	9.000
0406	630.0500	Seed Water	MGAL	7.000	7.000
0426	642.5201	Field Office Type C	EACH	0.010	0.010
0428	643.0300	Traffic Control Drums	DAY	750.000	750.000
0438	643.0800	Traffic Control Arrow Boards	DAY	55.000	55.000
0440	643.0900	Traffic Control Signs	DAY	225.000	225.000
0448	643.1050	Traffic Control Signs PCMS	DAY	20.000	20.000
0460	643.5000	Traffic Control	EACH	0.010	0.010
0468	645.0105	Geotextile Type C	SY	10.000	10.000
0516	650.6501	Construction Staking Structure Layout (structure) 03. B-66-43	EACH	1.000	1.000
0524	650.9911	Construction Staking Supplemental Control (project) 01. 1000-09-86	EACH	1.000	1.000
0582	715.0502	Incentive Strength Concrete Structures	DOL	500.000	500.000

CONSTRUCTION STAKING

CATEGORY	LOCATION	650.6501 CONSTRUCTION STAKING STRUCTURE LAYOUT 03. B-66-0043 EACH	650.9911 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 01. 1000-09-86 EACH
0010	USH 45		1
0020	B-66-0043	1	
	TOTALS	1	1

EROSION CONTROL

CATEGORY	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATION EROSION CONTROL EACH	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL
0010	I 41 AND USH 45	100	100	2	1
	UNDISTRIBUTED	50	50	-	-
	TOTALS	150	150	2	1

LANDSCAPING

CATEGORY	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	628.2027 EROSION MAT CLASS II TYPE C SY	629.0205 FERTILIZER TYPE A CWT	630.0180 SEEDING MIXTURE NO. 80 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
0010	I 41 AND USH 45	150	150	150	1	1	4	7
	UNDISTRIBUTED	-	-	-	-	1	5	
	TOTALS	150	150	150	1	2	9	7

MAINTENANCE AND REPAIR OF HAUL ROADS

CATEGORY	LOCATION	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS 01. 1000-09-06 EACH
0010	USH 45	1
	TOTALS	1

TRAFFIC CONTROL

CATEGORY	LOCATION	643.0300 DRUMS DAYS	643.0800 ARROW BOARDS DAYS	643.0900 CLASS II SIGNS DAYS	643.1050 SIGNS PCMS DAYS
0010	I 41 AND USH 45	650	50	200	14
	UNDISTRIBUTED	100	5	25	6
	TOTALS	750	55	225	20

MOBILIZATION

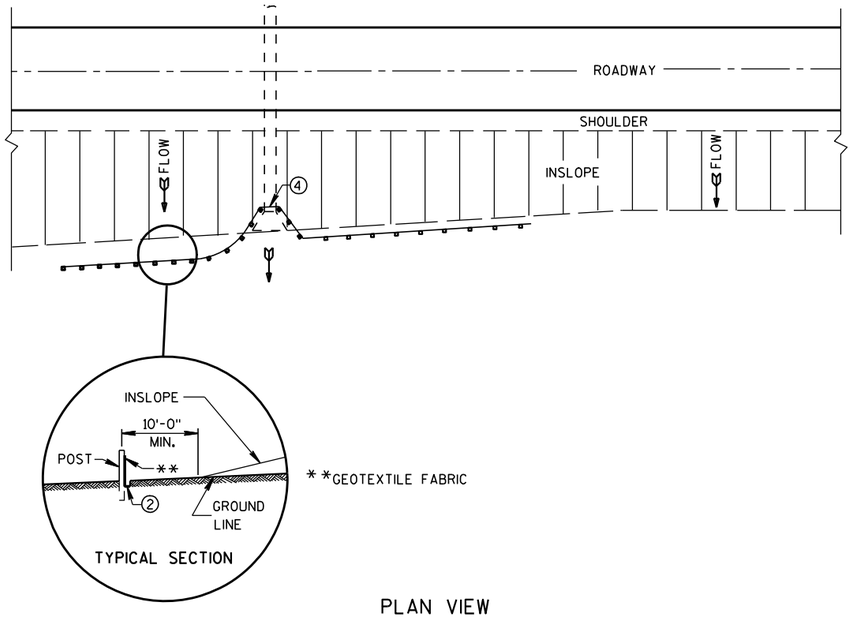
CATEGORY	LOCATION	619.1000 MOBILIZATION EACH
0010	USH 45	0.01
	TOTALS	0.01

PROJECT NO: 1000-09-86	HWY: USH 45	COUNTY: WASHINGTON	MISCELLANEOUS QUANTITIES	SHEET 7 8	E

Standard Detail Drawing List

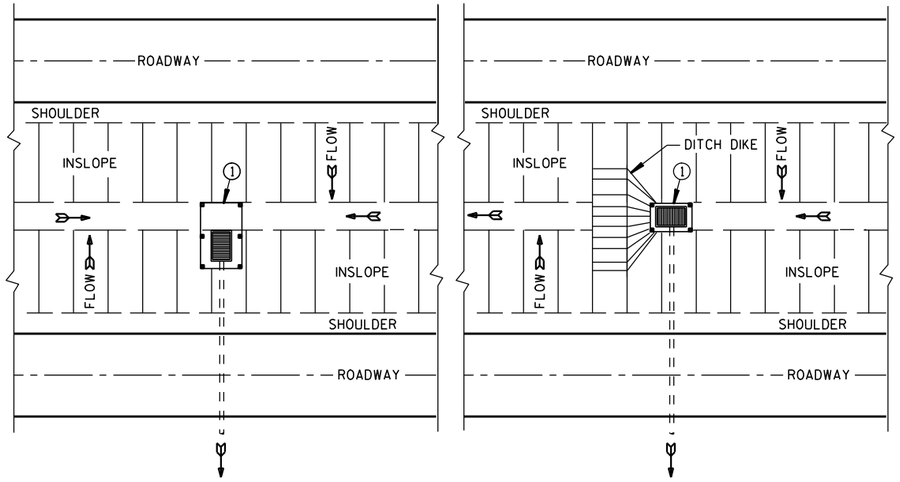
08E09-06	SILT FENCE
12A03-10	NAME PLATE (STRUCTURES)
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

6



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.

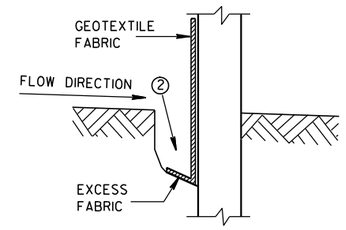
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

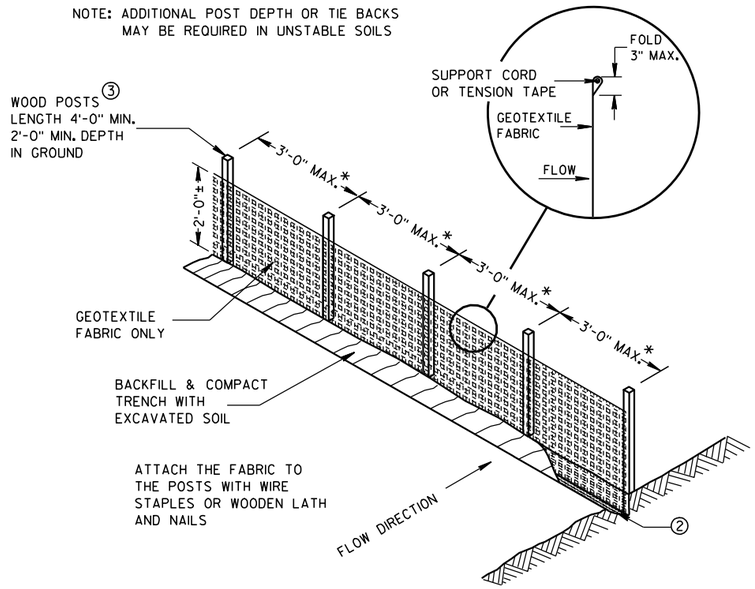
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

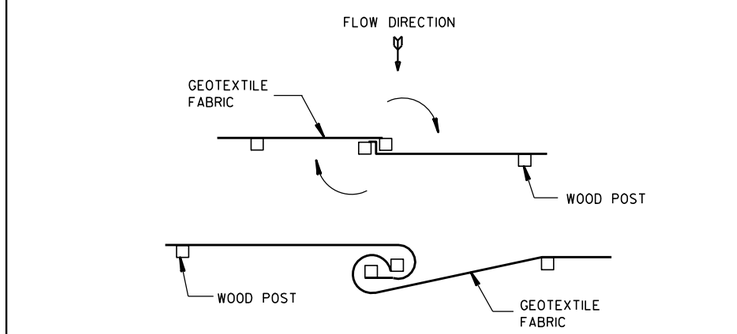
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



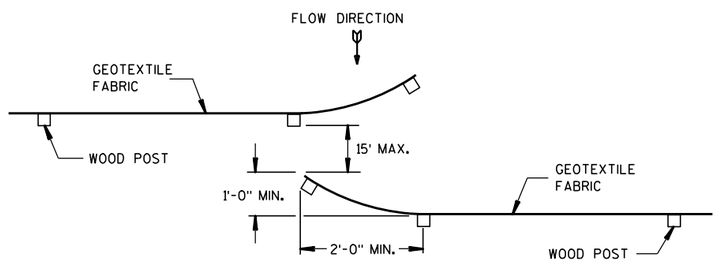
TRENCH DETAIL



SILT FENCE

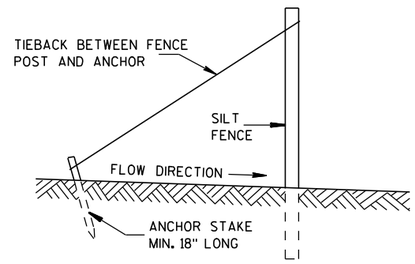


TWIST METHOD



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

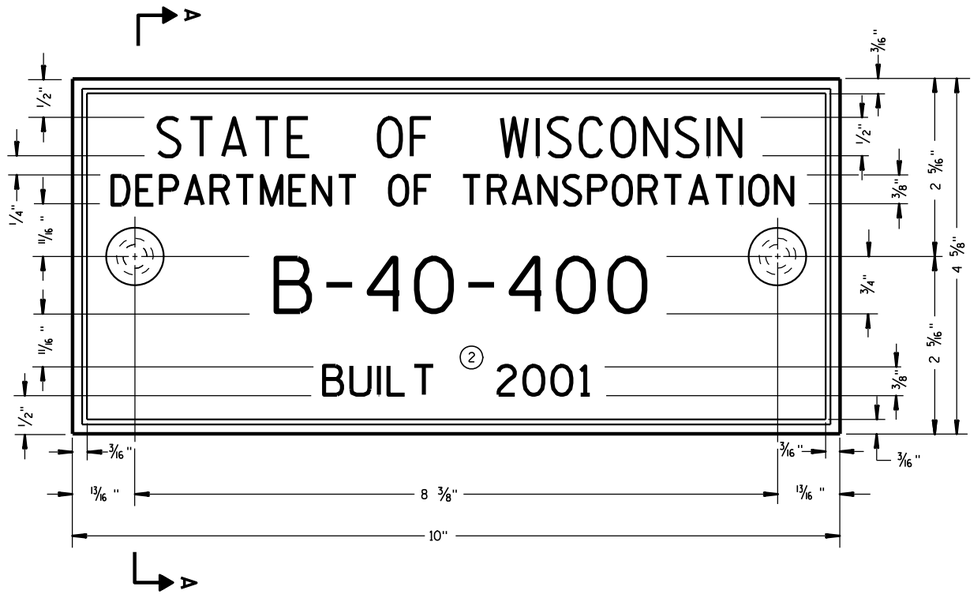
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 9-6

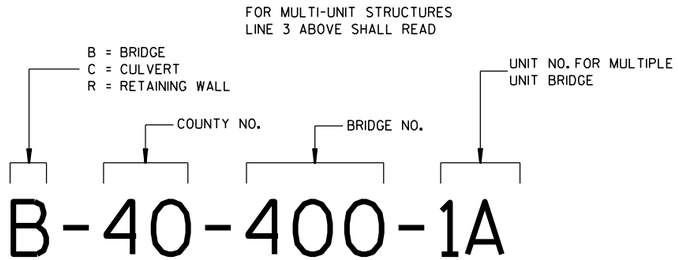
6

S.D.D. 8 E 9-6



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

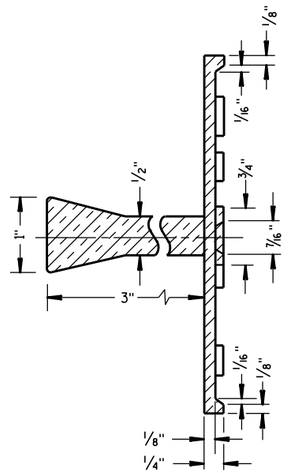
GENERAL NOTES

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

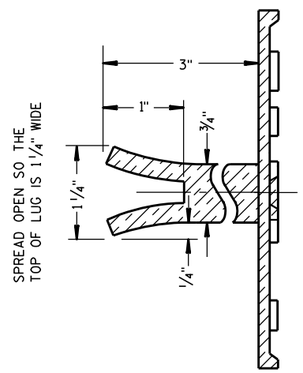
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

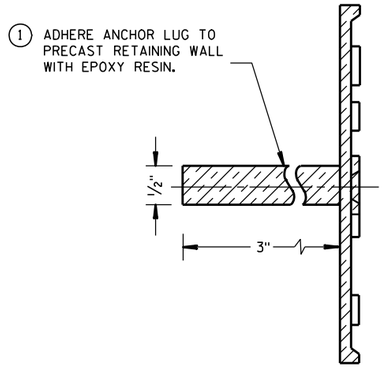
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

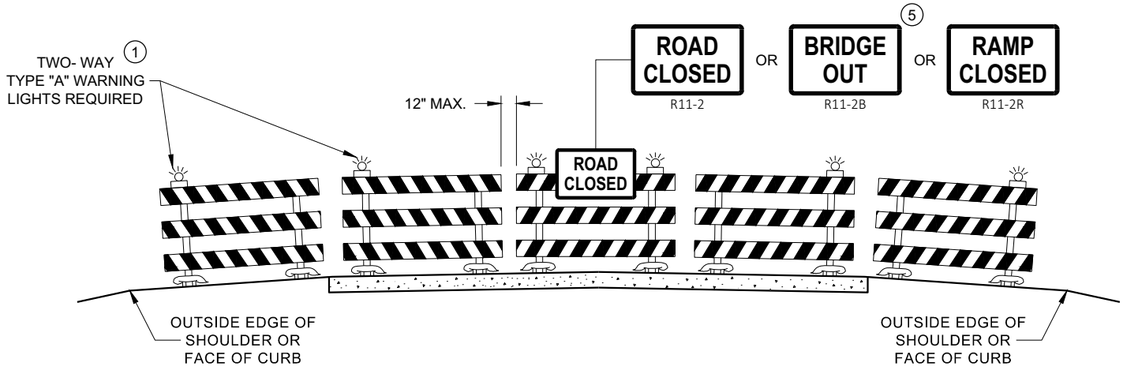
3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOPMENT ENGINEER

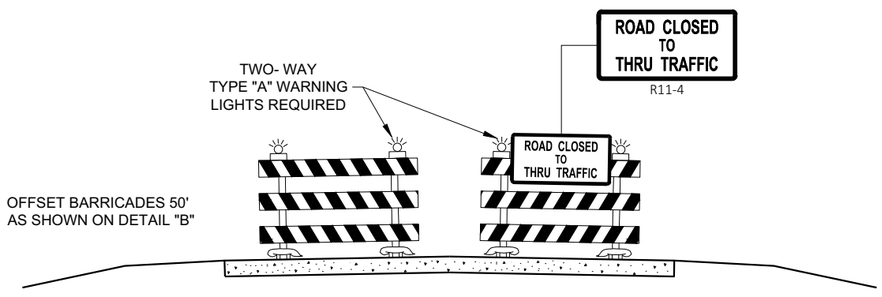
FHWA

6

S.D.D. 12 A 3-10



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

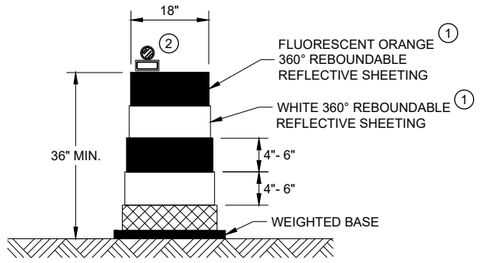
SDD 15C02 - 08b

6

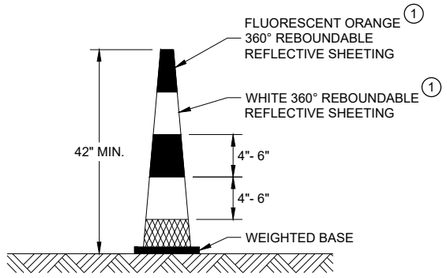
SDD 15C02 - 08b

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.

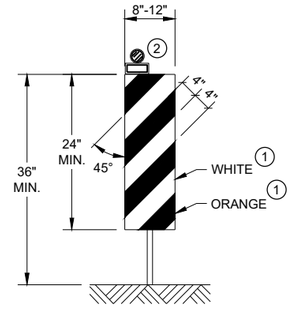


DRUM



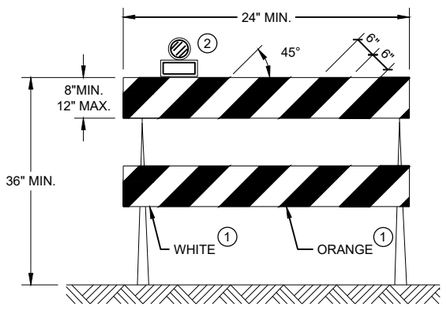
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



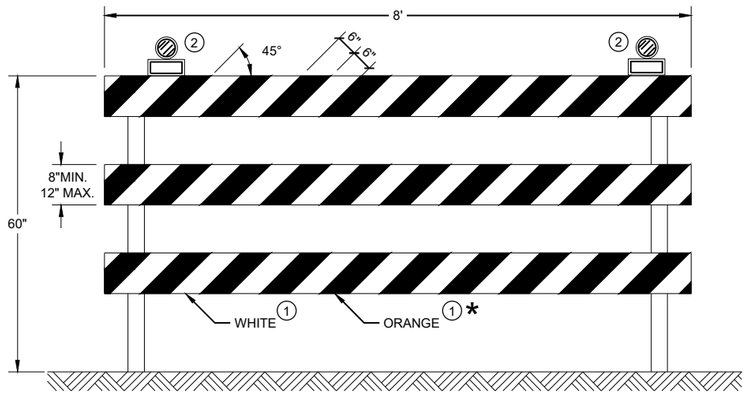
VERTICAL PANEL

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

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

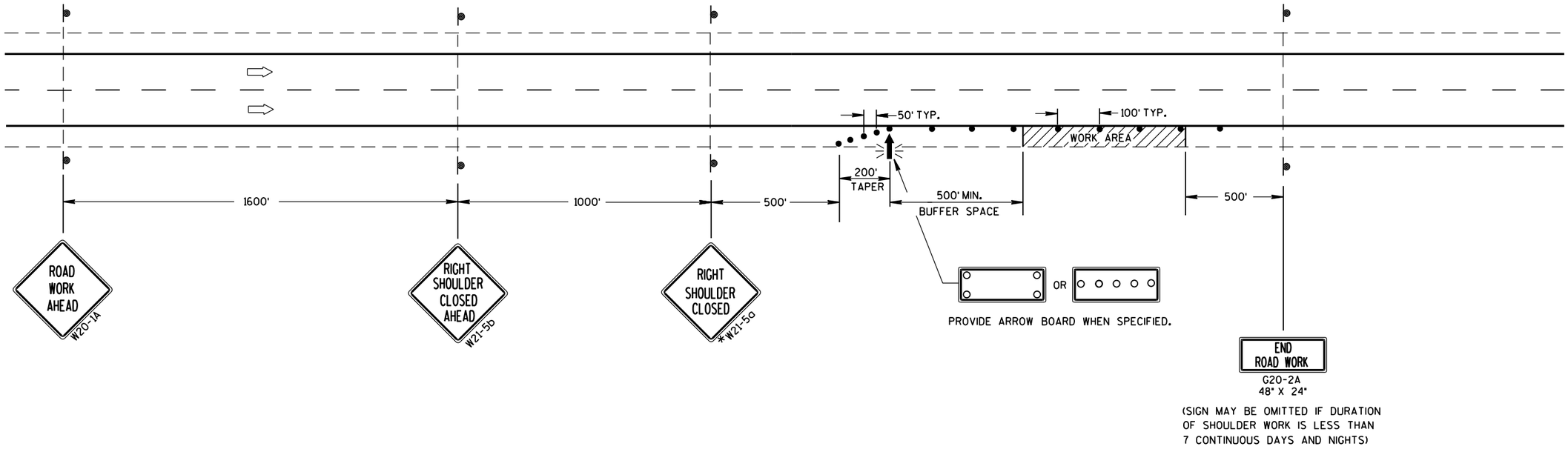
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

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

WHEN A 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.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

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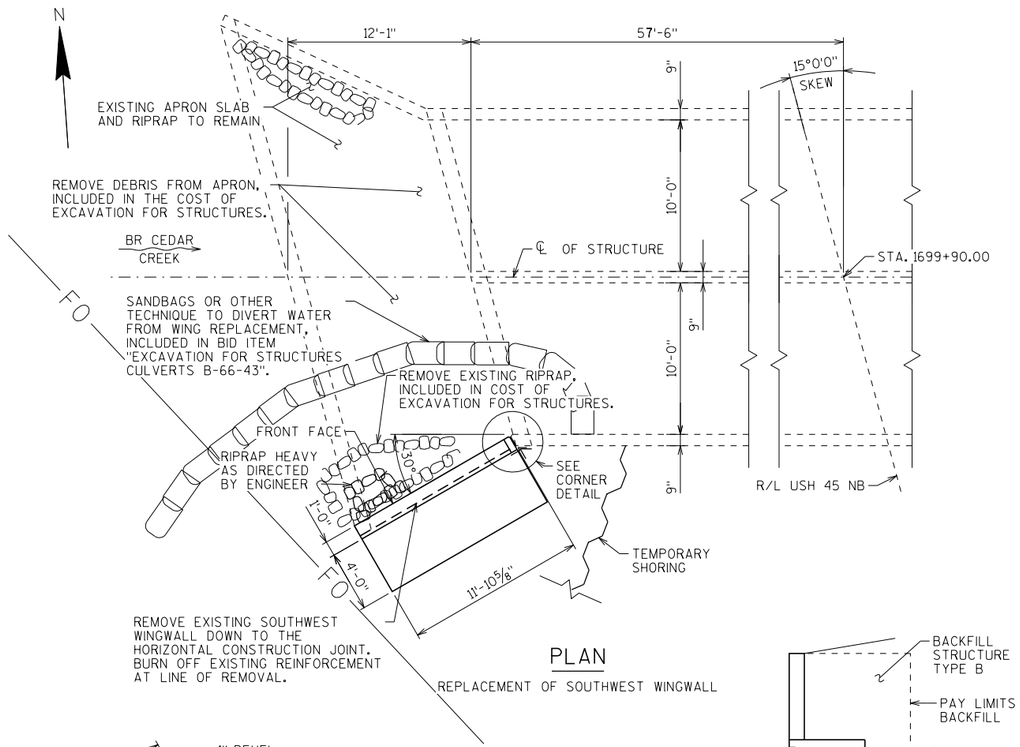
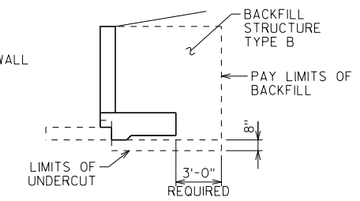
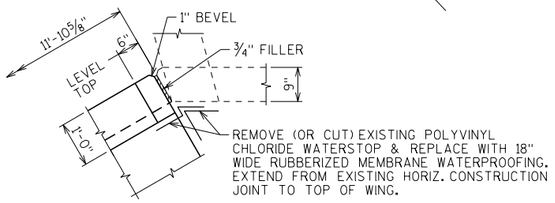
S.D.D. 15 D 27-3



PLAN

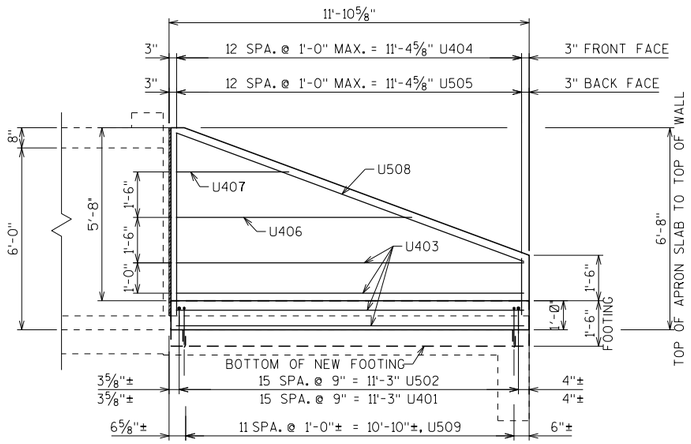
REPLACEMENT OF SOUTHWEST WINGWALL





CORNER DETAIL

PLAN VIEW

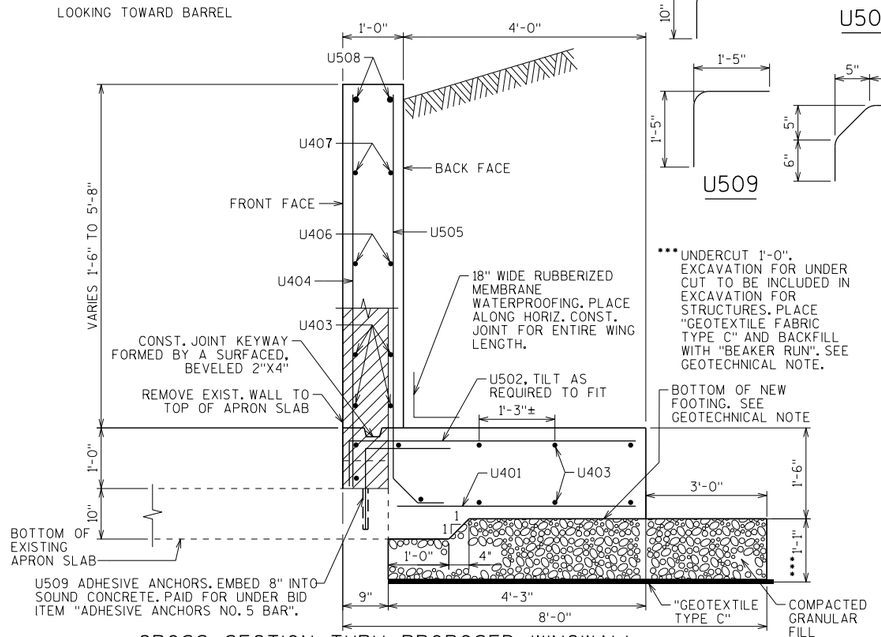


WING ELEVATION

LOOKING SOUTH AT FRONT FACE OF WINGWALL

TYPICAL SECTION THRU PROPOSED WING

LOOKING TOWARD BARREL



***UNDERCUT 1'-0". EXCAVATION FOR UNDER CUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE FABRIC TYPE C" AND BACKFILL WITH "BEAKER RUN". SEE GEOTECHNICAL NOTE.

CROSS SECTION THRU PROPOSED WINGWALL

LOOKING TOWARD BARREL

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
203.0220.03	REMOVING STRUCTURE B-66-43	EACH	1
206.2001	EXCAVATION FOR STRUCTURES CULVERTS B-66-43	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	41
311.0115	BREAKER RUN	CY	4
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	12
504.0100	CONCRETE MASONRY CULVERTS	CY	5
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	430
511.1200	TEMPORARY SHORING B-66-43	SF	205
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	4
606.0300	RIPRAP HEAVY	CY	3
645.0105	GEOTEXTILE TYPE C	SY	10
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	3/4 "

BILL OF BARS

BAR DIMENSIONS ARE OUT TO OUT OF BAR.

REQ'D
UNCOATED: 0 LBS
COATED: 430 LBS

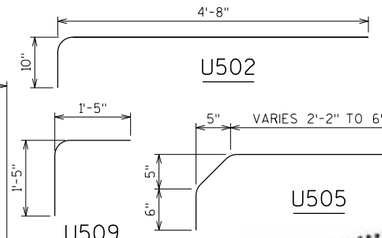
	BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
	U401	X	16	3'-11"			FOOTING - BOTTOM - TRANS. - HORIZ.
	U502	X	16	5'-5"	X		FOOTING - TOP - TRANS. - HORIZ.
	U403	X	14	11'-6"			FOOTING & STEM - LONGIT. - HORIZ.
	U404	X	13	4'-5"		*	FOOTING & STEM - F.F. - VERT.
	U505	X	13	5'-3"	X	*	FOOTING & STEM - B.F. - VERT.
	U406	X	2	7'-10"			STEM - F.F. & B.F. - HORIZ.
	U407	X	2	3'-9"			STEM - F.F. & B.F. - HORIZ.
	U508	X	2	12'-3"			STEM - TOP - ALONG SLOPE
**	U509	X	12	2'-9"	X		FOOTING - DOWEL - VERT.
	- - -						

*LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR **BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.
ADHESIVE ANCHORS NO. 5 BAR

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY

BAR MARK	NO. REQ'D	LENGTHS FOR EACH SERIES		
U404	1 SERIES OF 13	2'-4"	TO	6'-6"
U505	1 SERIES OF 13	3'-3"	TO	7'-5"



DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20
INVENTORY RATING FACTOR: 1.0
OPERATING RATING FACTOR: 1.67
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 190 KIPS
OVERBURDEN DEPTH: 11'-0"

MATERIAL PROPERTIES:
CONCRETE MASONRY: f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT: fy = 60,000 P.S.I.

GEOTECHNICAL

WINGWALL SHALL BE FOUNDED ON SOIL WITH A MINIMUM ALLOWABLE BEARING RESISTANCE OF 2.0 KSF. CONTRACTOR TO VERIFY BEARING CAPACITY OF EXISTING SOIL PRIOR TO CONSTRUCTING THE WALL. IF BEARING CAPACITY IS INSUFFICIENT, ADDITIONAL UNDERCUT AND BACKFILL IS REQUIRED WITH ENGINEER'S APPROVAL.

TRAFFIC VOLUME

USH 45
A.D.T. = 38760 (2035)
R.D.S. = 70 MPH

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE MEMBERS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

PLACE TEMPORARY SHORING AS DIRECTED BY THE ENGINEER TO LIMIT EXCAVATION.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS B-66-43" SHALL BE THE EXISTING GROUND LINE.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A ½" DEEP SAW CUT UNLESS OTHERWISE SHOWN OR NOTED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQUIRED ON THE BOX CULVERT SIDE AND BEHIND APRON WING FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

SCOPE OF WORK

REMOVE EXISTING SOUTHWEST WINGWALL.

CONSTRUCT NEW FOOTING AND STEM OF SOUTHWEST WINGWALL.

LIST OF DRAWINGS

1. GENERAL PLAN, ELEVATION & CROSS SECTION

DATE: 10/21/2022

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK, P.E.
(608) 261-0261

CONSULTANT:
VINOD C. PATEL, P.E.
(312) 616-7359

STATE PROJECT NUMBER
1000-09-86

NO.	DATE	REVISION	BY

exp U.S. Services Inc.
Milwaukee, WI
BUILDINGS • EARTH & ENVIRONMENT • ENERGY
INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 10/28/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-66-43

USH 45 NB OVER BR CEDAR CREEK

COUNTY: WASHINGTON
TOWN ~~CITY/VILLAGE~~: RICHFIELD

DESIGN SPEC.: REHABILITATION N/A

DESIGNED BY	YC	DESIGN CK'D.	VCP	DRAWN BY	YC	PLANS CK'D.	MBP

GENERAL PLAN, ELEVATION & CROSS SECTION

SHEET 1 OF 1
15

8

8

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Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

WKE

Jan 10, 2023

PROJECT ID: **1100-43-70**

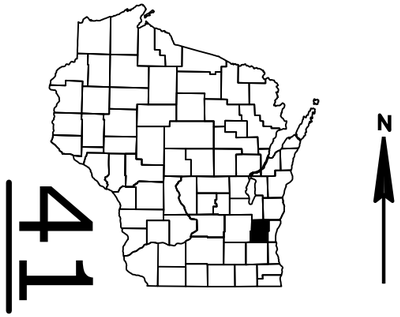
WITH: 1000-09-86, 3360-17-70, 3700-43-70

COUNTY: **WASHINGTON COUNTY**

ORDER OF SHEETS

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

TOTAL SHEETS = 576



DESIGN DESIGNATION		CTH Q TO LANNON	LANNON TO HOLY HILL	HOLY HILL TO 41/45 SPLIT	41/45 SPLIT TO STH 60
A.A.D.T.	2019	= 81,800	= 87,400	= 85,400	= 46,800
A.A.D.T.	2040	= 95,000	= 102,900	= 99,700	= 54,600
D.H.V.		= 6,500	= 7,040	= 6,820	= 3,740
D.D.		= 60/40	= 60/40	= 60/40	= 60/40
T.		= 18.6%	= 18.6%	= 18.6%	= 18.6%
DESIGN SPEED		= 75 MPH	= 75 MPH	= 75 MPH	= 75 MPH
ESALS		= ---	= ---	= ---	= ---

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

MILWAUKEE - FOND DU LAC

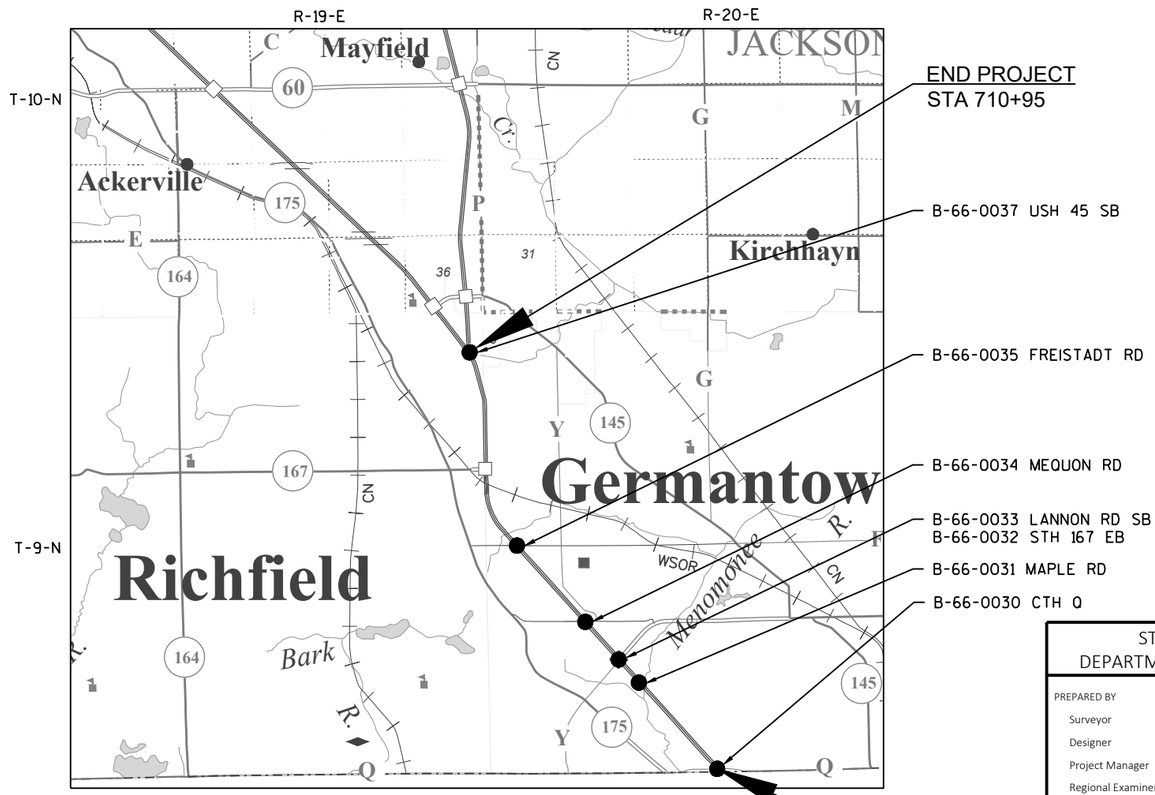
WASHINGTON CO LINE - USH 45

IH 41

WASHINGTON COUNTY

STATE PROJECT NUMBER
1100-43-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1100-43-70	WISC 2023145	1



LAYOUT SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 6.84

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

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AYRES ASSOCIATES/WISDOT
Designer	STEVEN RING
Project Manager	DAVID PITTMAN
Regional Examiner	
Regional Supervisor	JOE GALLAMORE

APPROVED FOR THE DEPARTMENT

DATE: 10/24/2022 (Signature)

E

FILE NAME : N:\PDS\C3D\11004300\SHEETSPLAN\010101-TI.DWG PLOT DATE : 10/27/2022 8:51 AM PLOT BY : RING, STEVEN M PLOT NAME :

GENERAL NOTES

1. THE LOCATIONS OF EXISTING OR PROPOSED UTILITIES, AS NOTED ON THE PLANS, ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

2. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPERATELY.

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

4. ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES SHALL BE BACKFILLED WITH SUITABLE MATERIAL, OR AS DIRECTED BY THE ENGINEER.

5. DIMENSIONS GIVEN FOR EXISTING FEATURES SHALL BE CONSIDERED AS APPROXIMATE AND SHALL BE MEASURED IN THE FIELD FOR MATCHING PURPOSES.

6. CURB AND GUTTER RADII, GRADES AND OFFSETS ARE TO THE FLANGE UNLESS NOTED OTHERWISE.

7. TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL SHALL NOT BE PERMITED IN WETLANDS.

8. ALL DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCLUDING ROADBED, ARE TO BE TOPSOILED OR SALVAGED TOPSOILED, FERTILIZED, AND SEEDED, SODDED, MULCHED OR INSTALLED EROSION-MAT AS DIRECTED BY THE ENGINEER.

9. EROSION CONTROL DEVICES ARE SHOWN AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER.

10. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

11. EROSION CONTROL FEATURES ARE TO BE PLACED IN SEQUENCE WITH CONSTRUCTION STAGING AND MAINTAINED THROUGH EACH STAGE OR AS DETERMINED BY THE ENGINEER.

12. WHEN TEMPORARY PAVEMENT MARKING REMOVABLE TAPE IS REQUIRED, IT SHALL BE CUT THROUGH ITS FULL WIDTH AND THICKNESS AT 25-FOOT INTERVALS TO CONTROL RAVELING.

13. EXISTING DRIVEWAYS AND FIELD ENTRANCES WILL BE RESTORED IN KIND AS DIRECTED BY THE ENGINEER IN THE FIELD AND AT THE LOCATION DETERMINED BY THE ENGINEER.

14. MISCELLANEOUS REMOVAL ITEMS REQUIRING RESTORATION OF CONCRETE OR ASPHALT DRIVEWAYS, SIDEWALKS, OR SIDE STREETS SHALL BE REMOVED TO AN EXISTING JOINT OR SAWED AS DETERMINED BY THE ENGINEER.

15. A SAWED JOINT IS REQUIRED WHERE NEW HMA SURFACE MEETS EXISTING ASPHALTIC CONCRETE SURFACE.

HMA PAVING

CTH Q	THICKNESS	ASPHALT MIX	GRADATION
UPPER LAYER	2 ½ – INCH	4 MT 58-28 S	12.5 mm

MAPLE	THICKNESS	ASPHALT MIX	GRADATION
UPPER LAYER	2 ½ – INCH	4 MT 58-28 S	12.5 mm
MAPLE - RECONSTRUCTION	**THICKNESS**	**ASPHALT MIX**	**GRADATION**
UPPER LAYER	1 ¾ – INCH	4 MT 58-28 S	12.5 mm
LOWER LAYER	2 ¼ – INCH	3 MT 58-28 S	19.0 mm

MEQUON	THICKNESS	ASPHALT MIX	GRADATION
UPPER LAYER	1 ¾ – INCH	4 MT 58-28 S	12.5 mm
LOWER LAYER	2 ¼ – INCH	3 MT 58-28 S	19.0 mm

FREISTADT	THICKNESS	ASPHALT MIX	GRADATION
UPPER LAYER	1 ¾ – INCH	4 MT 58-28 S	12.5 mm
LOWER LAYER	2 ¼ – INCH	3 MT 58-28 S	19.0 mm

USH 45 SB	THICKNESS	ASPHALT MIX	GRADATION
UPPER LAYER	2 ½ – INCH	4 MT 58-28 S	12.5 mm

ORDER OF SECTION 2
DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLANS
PLAN DETAILS
CURB RAMP DETAILS
EROSION CONTROL
STORM SEWER PLAN
PERMANENT SIGNING PLANS
PAVEMENT MARKINGS
TRAFFIC CONTROL
DETOUR PLANS
ALIGNMENT LAYOUT

TRAFFIC DATA

DESIGN DESIGNATION		IH-41	USH 45 SB	FREISTADT	MEQUON	LANNON	MAPLE	CTH Q
A.A.D.T.	(2019)	84,900	21,100	2,800	4,900	27,000	10,500	32,300
A.A.D.T.	(2029)	92,600	22,750	3,200	5,100	28,300	11,000	34,900
D.H.V.		9.1	8.4	4.5	3.6	4.6	3.0	4.5
D.D.		62/38	60/40	59/41	59/41	59/41	59/41	59/41
T.		11.4%	10.0%	5.2%	4.2%	5.3%	3.5%	5.3%
DESIGN SPEED	(MPH)	75	75	45	45	50	45	40
ESALS								

UTILITY CONTACTS

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Beau.abuya@charter.com

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lratayczak@germantownwi.gov

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500 S 116th Street
West Allis, WI 53214
(414) 944-5575
Dispatch: (800) 261-5325
Jacob.Hulbert@we-energies.com

WE ENERGIES - ELECTRICITY
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West Allis, WI 53214
PHONE: (618) 409-5861
Dispatch: (800) 662-4797
gregory.boerner@we-energies.com

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WISDOT REGIONAL ENVIROMENTAL COORDINATOR
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DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

2

WAUKESHA COUNTY
WASHINGTON COUNTY

24+00

CTH Q

BEGIN CONSTRUCTION
STA 349+54.03

360+00

B-66-0030
CONCRETE OVERLAY/PAINT

400+00

MAPLE ROAD

11+00

B-66-0031
CONCRETE OVERLAY/PAINT

30+00

830+00

450+00

IH 41

850+00

STH 167/LANNON ROAD

B-66-0032/B-66-0033
PAINT

10+00

MEQUON ROAD

30+00

500+00

B-66-0034
DECK REPLACEMENT/PAINT

RICHFIELD
VILLAGE OF GERMANTOWN

10+00

550+00

50+00

FREISTADT ROAD

B-66-0035
DECK REPLACEMENT/PAINT

600+00

100+00

HOLY HILL ROAD

120+00

140+00

650+00

N

650+00

B-66-0037
CONCRETE OVERLAY/PAINT

END CONSTRUCTION
STA 710+95.48

PIONEER ROAD

700+00

750+00

1720+00

800+00

IH 41

850+00

WESTERN AVENUE

900+00

950+00

POLK
SLINGER

330+00

N

575+00

VILLAGE OF GERMANTOWN

JACKSON

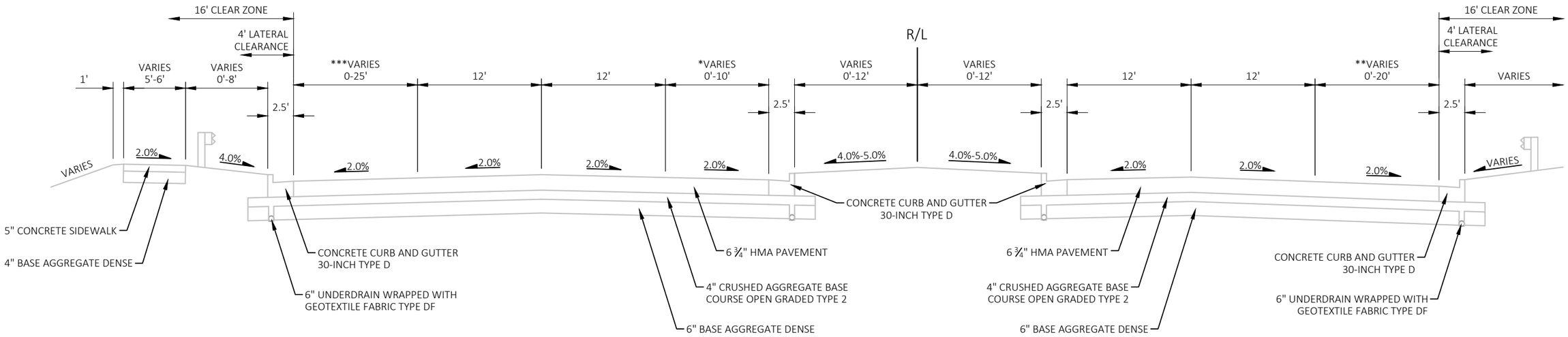
USH 45

SHERMAN ROAD

STH 60

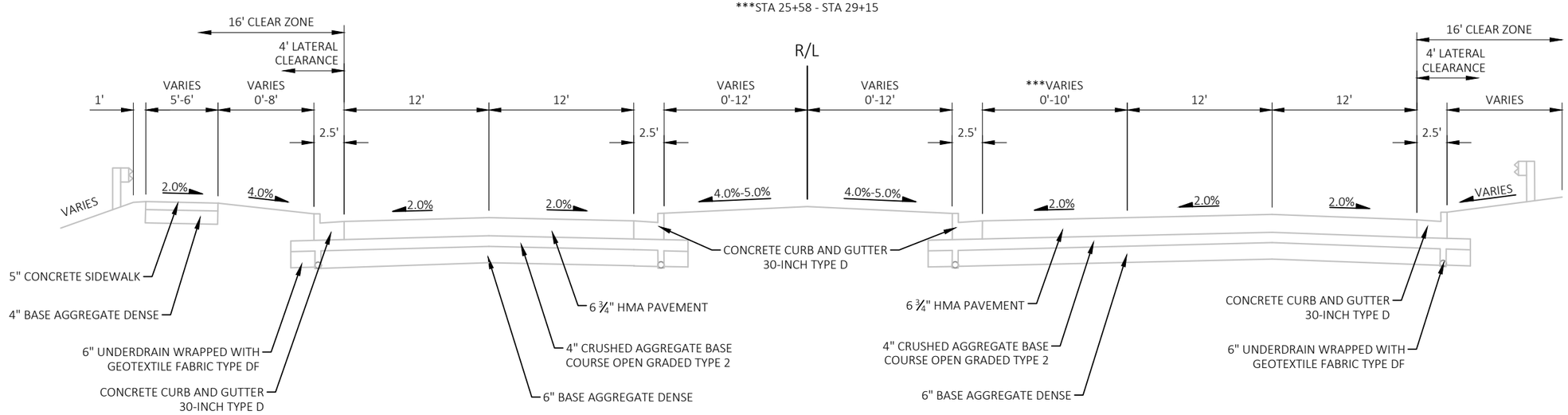
PROJECT NO:1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PROJECT OVERVIEW	SHEET 4 E

FILE NAME : N:\PDS\C3D\11004300\SHEETSPLAN\020201_PO.DWG PLOT DATE : 7/18/2022 1:21 PM PLOT BY : RING, STEVEN M PLOT NAME : _____ PLOT SCALE : 1 IN: 2000 FT



EXISTING TYPICAL SECTION
CTH Q

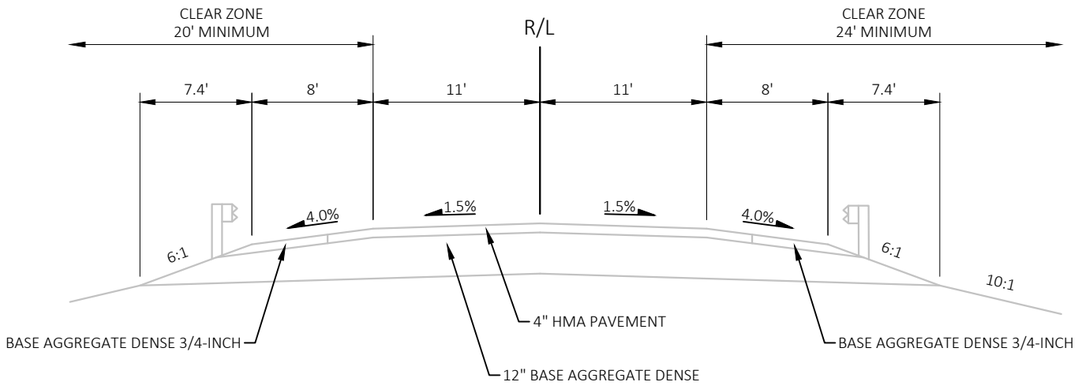
STA 25+34 - STA 33+60
*STA 26+70 - STA 28+99
*STA 30+78 - STA 33+48
**STA 25+34 - STA 31+80
***STA 25+58 - STA 29+15



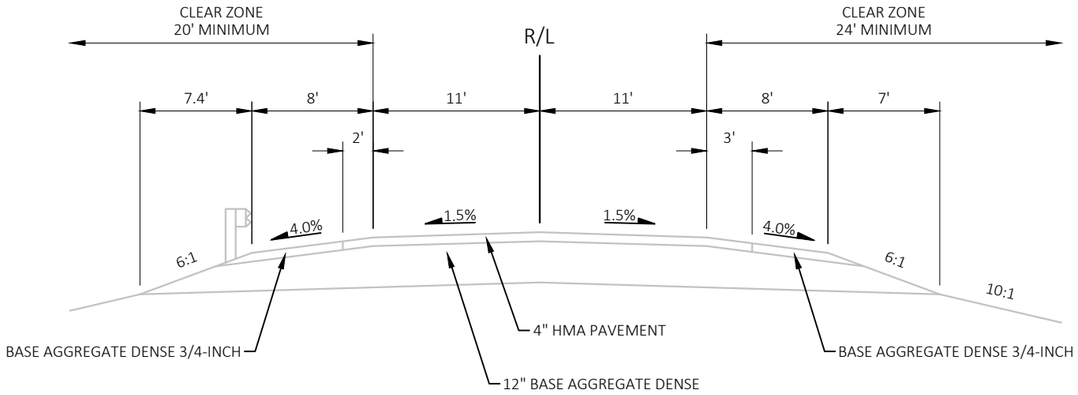
EXISTING TYPICAL SECTION
CTH Q

STA 36+44 - STA 44+73
***EB LT TURN LANE: STA 37+02 - STA 39+58

PROJECT NO:1100-43-70	HWY:IH 41	COUNTY:WASHINGTON	TYPICAL SECTION	SHEET 5	E

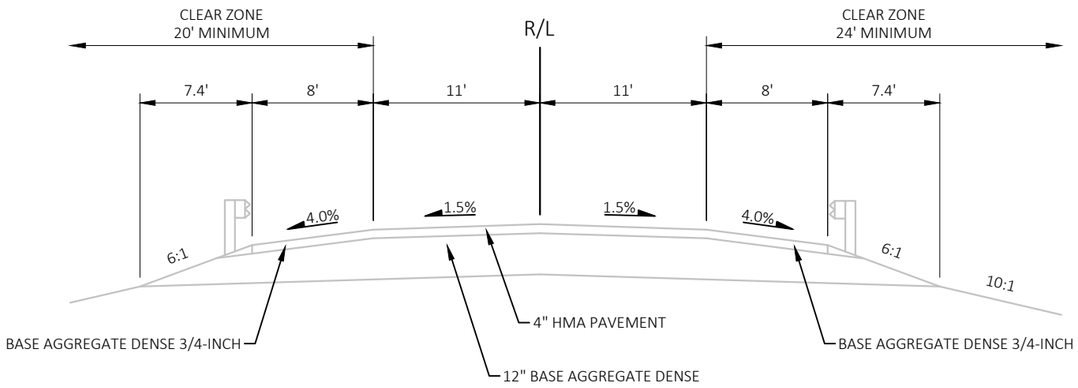


EXISTING TYPICAL SECTION
MAPLE ROAD
STA 14+95 - STA 18+42
STA 21+63 - STA 25+67



EXISTING TYPICAL SECTION
MEQUON ROAD
STA 11+00 - STA 17+35
STA 22+93 - STA 27+50

PROJECT NO:1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	TYPICAL SECTION	SHEET 6	E



EXISTING TYPICAL SECTION

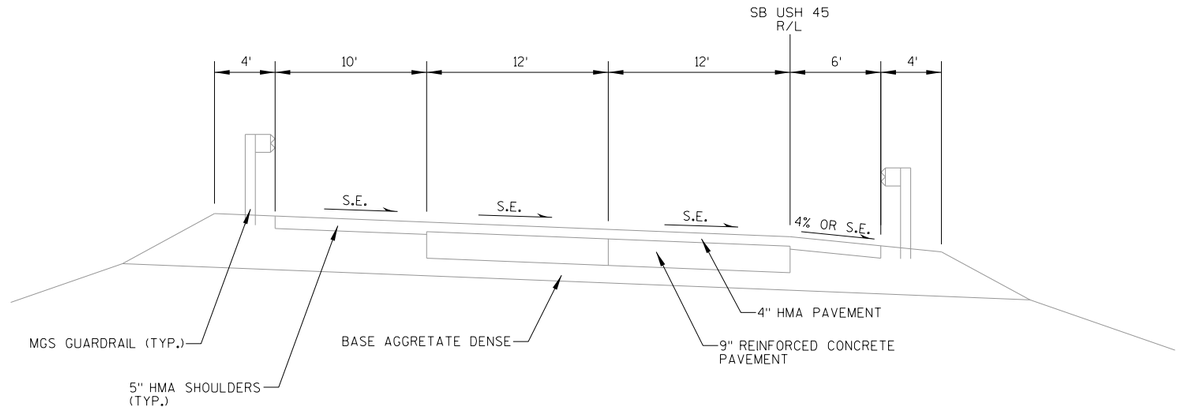
FREISTADT ROAD

STA 10+79 - STA 20+00

STA 22+87 - STA 30+25

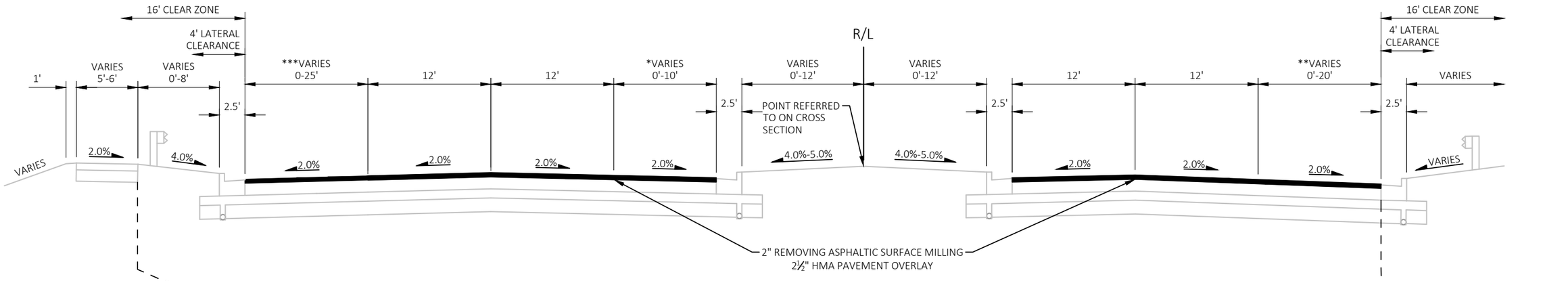
PROJECT NO:1100-43-70	HWY:IH 41	COUNTY:WASHINGTON	TYPICAL SECTION	SHEET 7	E

2



TYPICAL EXISTING SECTION
USH 45 SB
STA 1701+40 - 1709+90

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET 8	E



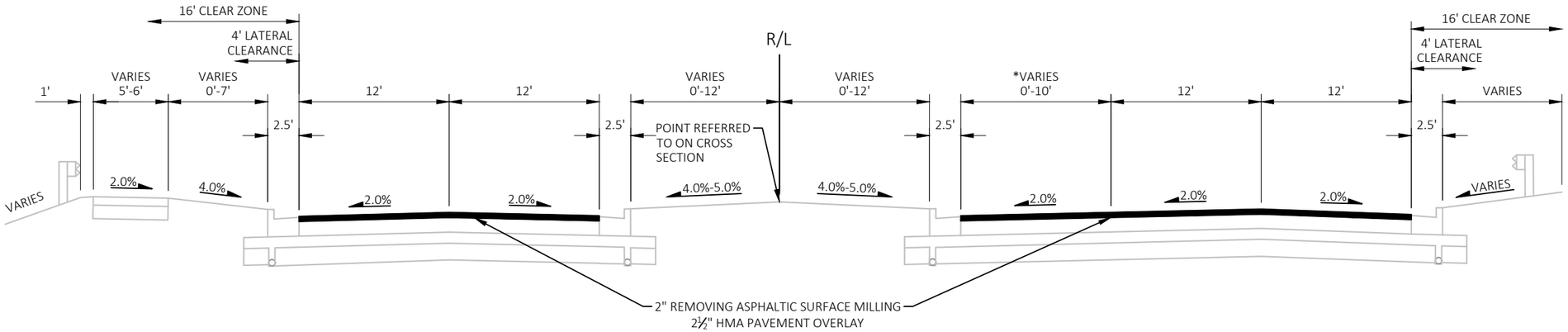
FINISHED TYPICAL SECTION
CTH Q

WB
STA 25+34 - STA 32+96
*STA 26+70 - STA 28+99
*STA 30+78 - STA 32+96
***STA 25+58 - STA 29+15

EB
STA 25+34 - STA 33+44
**STA 25+34 - STA 31+80

MGS EAT
STA 36+27 - STA 37+16

MGS EAT
STA 32+26 - STA 33+76

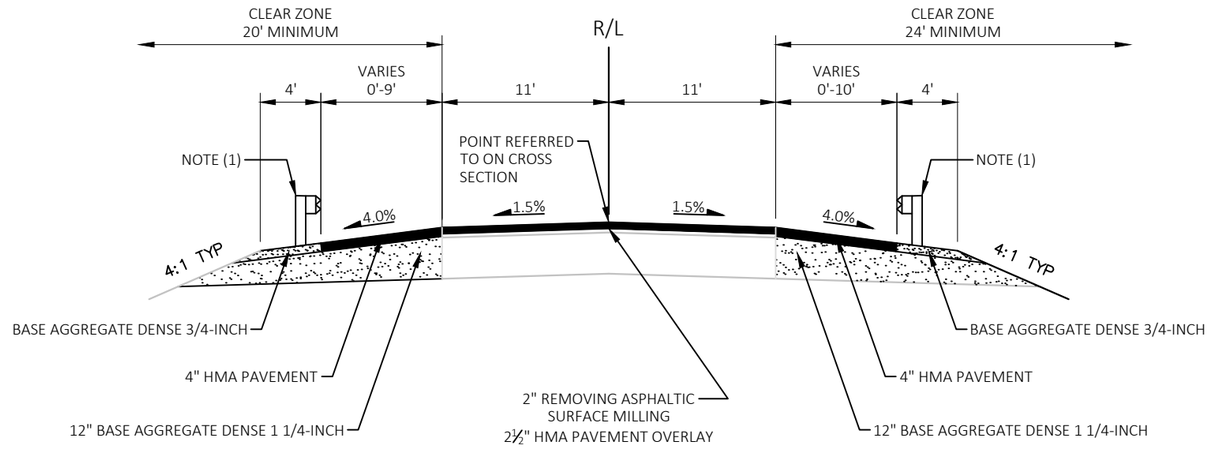


FINISHED TYPICAL SECTION
CTH Q

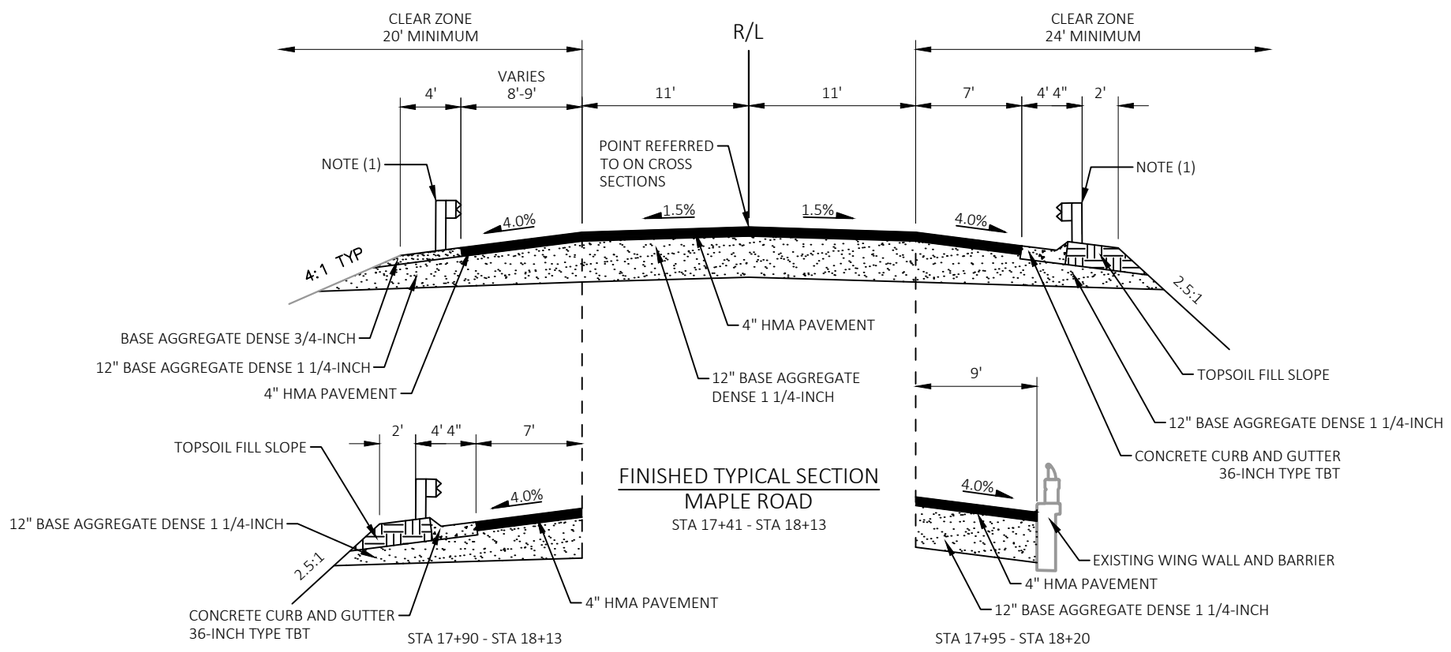
WB
STA 36+60 - STA 44+73

EB
STA 37+08 - STA 44+73
*EB LT TURN LANE: STA 37+08 - STA 39+58

PROJECT NO:1100–43–70	HWY:IH 41	COUNTY:WASHINGTON	TYPICAL SECTION	SHEET 9	E



FINISHED TYPICAL SECTION
MAPLE ROAD
STA 14+95 - STA 17+41
STA 21+92 - STA 25+67



FINISHED TYPICAL SECTION
MAPLE ROAD
STA 17+41 - STA 18+13

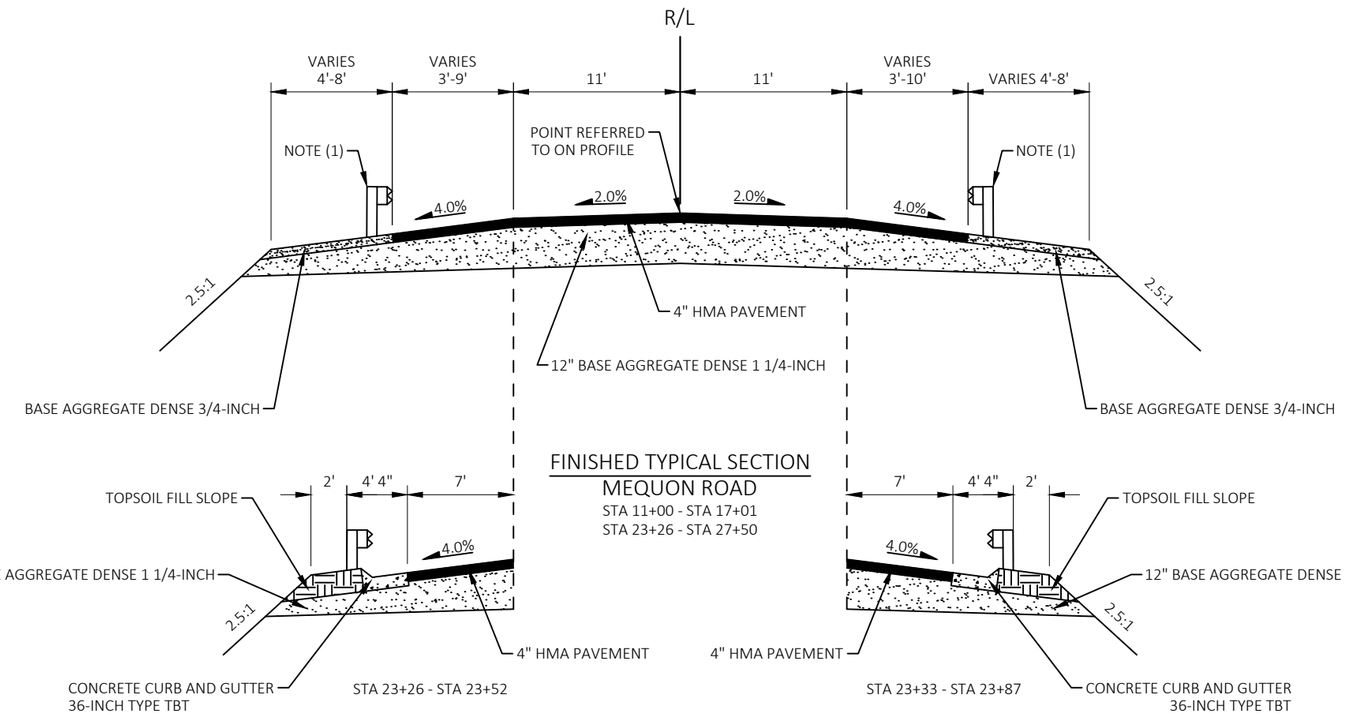
STA 17+90 - STA 18+13

STA 17+95 - STA 18+20

NOTES:
(1) FOR THE BEAMGUARD LIMITS, SEE PLAN DETAILS

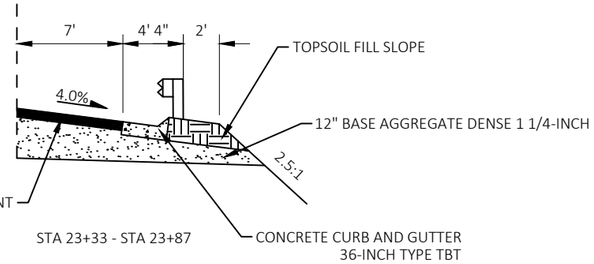
PROJECT NO:1100–43–70	HWY:IH 41	COUNTY:WASHINGTON	TYPICAL SECTION	SHEET 10	E

2



FINISHED TYPICAL SECTION
MEQUON ROAD
STA 11+00 - STA 17+01
STA 23+26 - STA 27+50

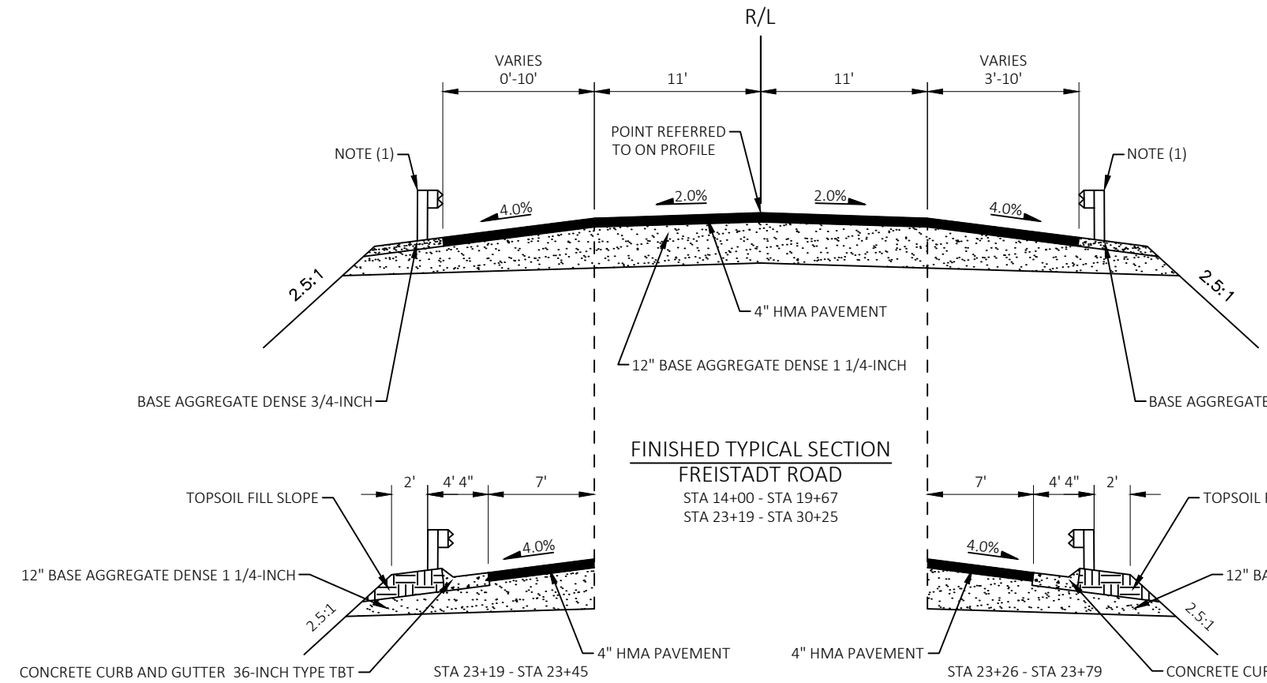
STA 23+26 - STA 23+52



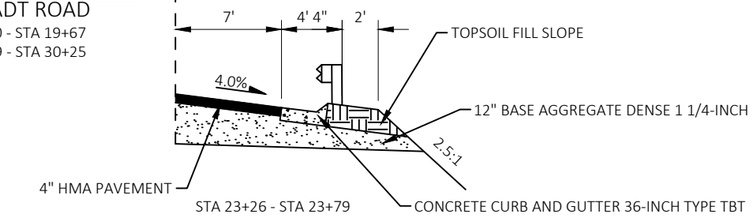
STA 23+33 - STA 23+87

NOTES:
(1) FOR THE BEAMGUARD LIMITS, SEE PLAN DETAIL

PROJECT NO:1100-43-70	HWY:IH 41	COUNTY:WASHINGTON	TYPICAL SECTION	SHEET 11	E



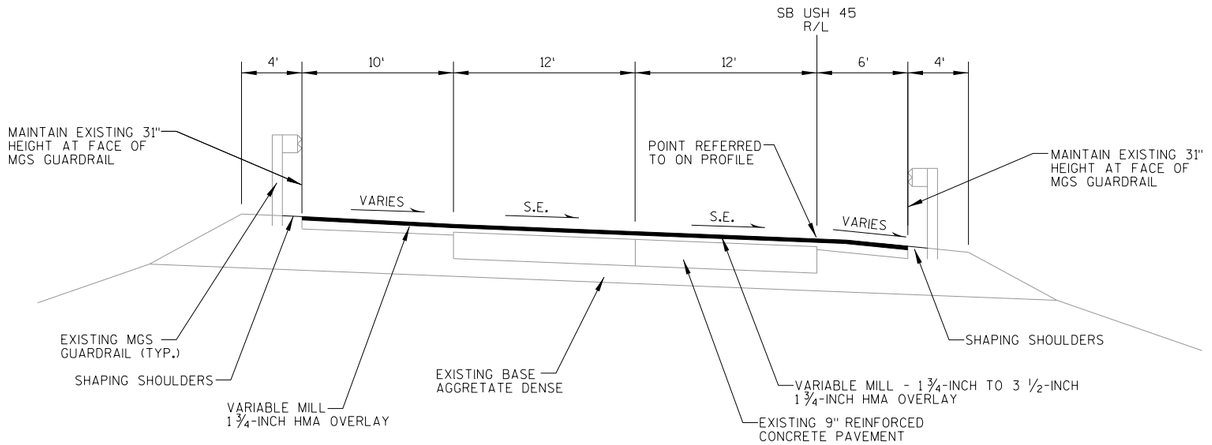
FINISHED TYPICAL SECTION
FREISTADT ROAD
STA 14+00 - STA 19+67
STA 23+19 - STA 30+25



NOTES:
(1) FOR THE BEAMGUARD LIMITS, SEE PLAN DETAILS

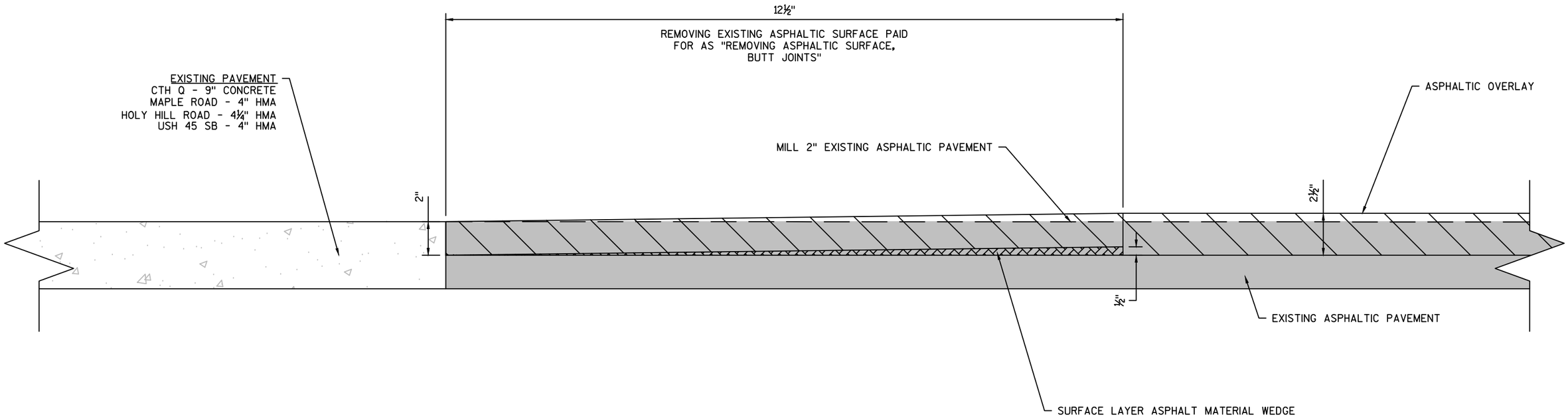
PROJECT NO:1100-43-70	HWY:IH 41	COUNTY:WASHINGTON	TYPICAL SECTION	SHEET 12	E

2



FINISHED TYPICAL SECTION
USH 45 SB
STA 1701+40 - 1709+90

2



MILL AND ASPHALTIC OVERLAY BUTT JOINT DETAIL

EXISTING PAVEMENT - SEE NOTES

EXISTING ASPHALTIC PAVEMENT

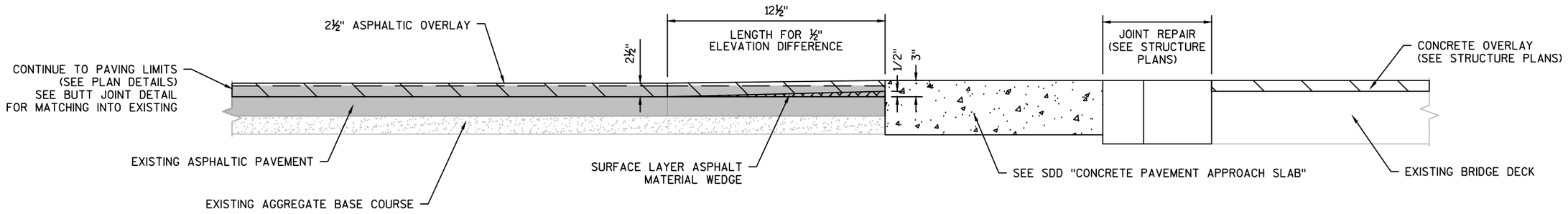
SURFACE LAYER ASPHALT MATERIAL

ASPHALTIC PAVEMENT OVERLAY

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	CONSTRUCTION DETAILS	SHEET 14 E

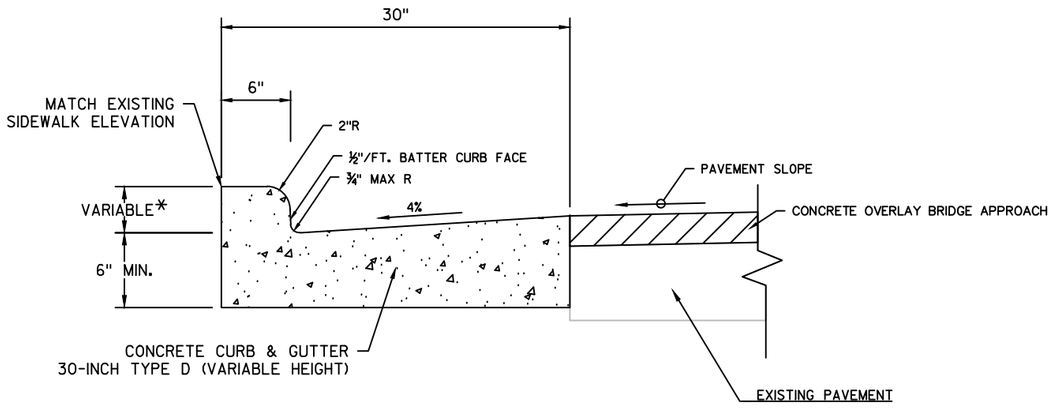
FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 021001-CD
PLOT DATE : 10/25/2022 7:05 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:2 FT
WISDOT/CADDS SHEET 42

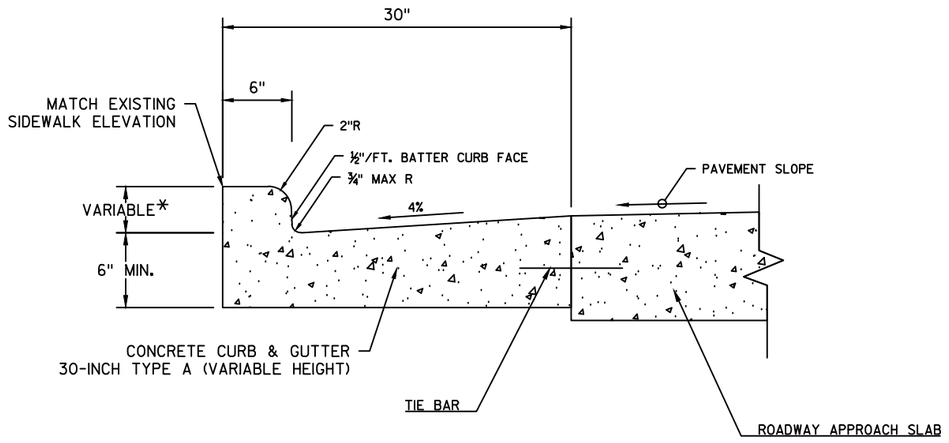
2



CONCRETE OVERLAY BRIDGE APPROACH DETAIL

B-66-0030





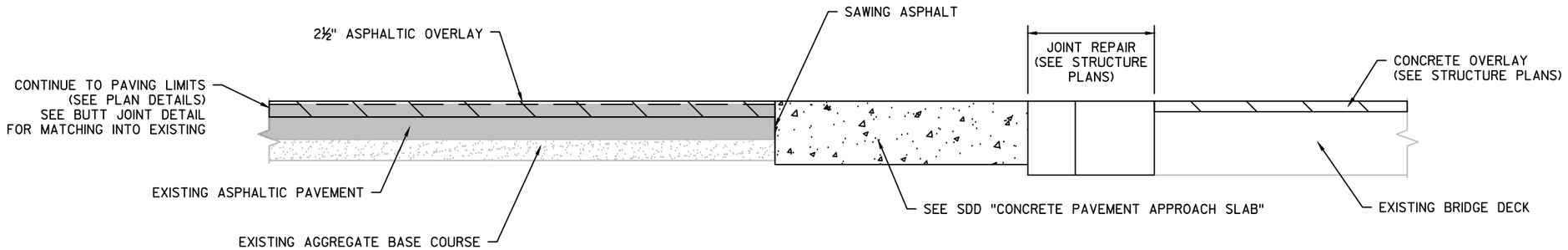
CONCRETE CURB & GUTTER 30-INCH (VARIABLE HEIGHT)

B-66-0030

NOTE: PAID FOR AS CONCRETE CURB & GUTTER 30-INCH TYPE A
OR CONCRETE CURB & GUTTER 30-INCH TYPE D

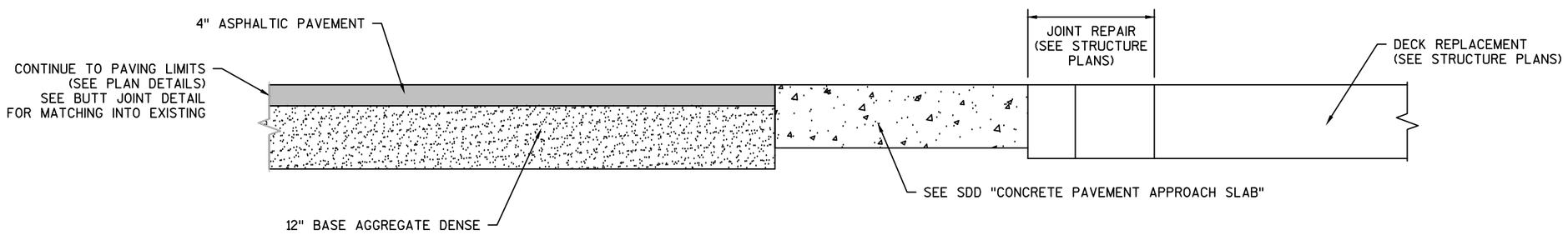
*VARIABLE HEIGHT TO MATCH EXISTING SIDEWALK ELEVATION

2



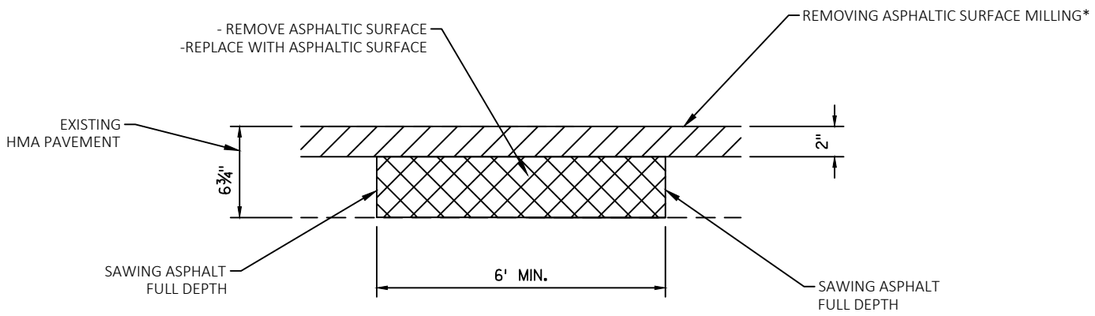
CONCRETE OVERLAY BRIDGE APPROACH DETAIL

B-66-0031 (NORTH ABUTMENT)
B-66-0037



DECK REPLACEMENT BRIDGE APPROACH DETAIL

B-66-0031 (SOUTH ABUTMENT)
B-66-0034
B-66-0035

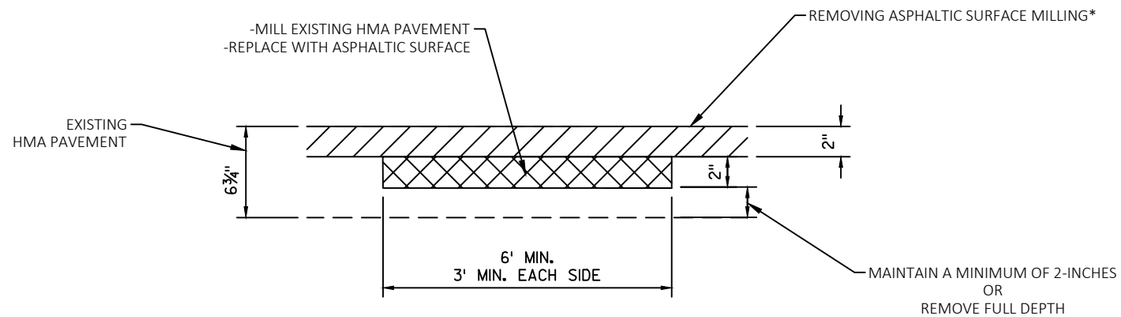


SECTION VIEW A-A

FULL DEPTH ASPHALTIC REPAIR DETAIL

*REMOVING ASPHALTIC SURFACE MILLING PRIOR TO ASPHALTIC REPAIR

SEE PLAN DETAILS FOR APPROXIMATE LOCATIONS
FINAL DIMENSIONS TO BE DETERMINED BY ENGINEER IN FIELD



SECTION VIEW A-A

PARTIAL DEPTH ASPHALTIC REPAIR DETAIL

*REMOVING ASPHALTIC SURFACE MILLING PRIOR TO ASPHALTIC REPAIR

SEE PLAN DETAILS FOR APPROXIMATE LOCATIONS
FINAL DIMENSIONS TO BE DETERMINED BY ENGINEER IN FIELD

2

2

2

N

EXISTING R/W

EMMER RD

25+68, -77' LT

25+59, -57' LT

25+34, -50' LT

BT

BT

25+34, -14' LT

CTH Q / COUNTY LINE RD

EP: 23+93.06

24+00"R/L Q"

25+00"R/L Q"

26+00"R/L Q"

27+00"R/L Q"

25+34, 15' RT

BT

SAWING ASPHALT

25+34, 51' RT

25+86, 57' RT

26+48, 55' RT

26+63, 55' RT

EXISTING R/W

FALLS PKWY

LEGEND

XXXX XXXX	SAWING ASPHALT/CONCRETE
	REMOVING GUARDRAIL
	REMOVING FENCE
SS	REMOVING STORM SEWER
	REMOVING INLET
	REMOVING ASPHALTIC SURFACE MILLING - 2 INCHES
	REMOVING ASPHALTIC SURFACE (ASPHALTIC ISLANDS)
	REMOVING ASPHALTIC SURFACE (PAID WITH COMMON EXCAVATION)
BT	REMOVING ASPHALTIC SURFACE BUTT JOINT
	REMOVING CONCRETE SIDEWALK
	REMOVING CURB & GUTTER
	REMOVING CONCRETE PAVEMENT
	CLEARING & GRUBBING

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: CTH Q	SHEET 18	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 024501-pm

PLOT DATE : 7/28/2022 9:19 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

EXISTING R/W

IH-41 SB EXIT RAMP

355+00

IH 41 SB

LEGEND

- XXXX XXXX SAWING ASPHALT/CONCRETE
- REMOVING GUARDRAIL
- REMOVING FENCE
- REMOVING STORM SEWER
- REMOVING INLET
- REMOVING ASPHALTIC SURFACE MILLING - 2 INCHES
- REMOVING ASPHALTIC SURFACE (ASPHALTIC ISLANDS)
- REMOVING ASPHALTIC SURFACE (PAID WITH COMMON EXCAVATION)
- BT REMOVING ASPHALTIC SURFACE BUTT JOINT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- REMOVING CONCRETE PAVEMENT
- CLEARING & GRUBBING

REMOVING SIDEWALK

SAWING ASPHALT

28+62, -69' LT

28+87, -67' LT

29+36, -55' LT

355+00

29+70, -54' LT

29+83, -61' LT

30+11, -50' LT

SAWING ASPHALT

NGS

REMOVING CURB & GUTTER

REMOVING ASPHALTIC SURFACE

REMOVING SIDEWALK

REMOVING CURB & GUTTER

CTH Q / COUNTY LINE RD

27+00"R/L Q"

28+00"R/L Q"

29+00"R/L Q"

30+00"R/L Q"

31+00"R/L Q"

32+00"R/L Q"

33+00"R/L Q"

SAWING ASPHALT

SAWING ASPHALT

354+00

26+63, 55' RT

27+21, 55' RT

WASHINGTON COUNTY RESPONSIBILITY
LOCAL MUNICIPALITY AGREEMENT
STA. 28+50

353+55, -19' LT

353+56, 15' RT

31+19, 41' RT

32+38, 34' RT

REMOVING CURB & GUTTER

FALLS PKWY

IH-41 SB ON RAMP

353+00

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: CTH Q	SHEET 19	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 024502-pm

PLOT DATE : 7/28/2022 9:22 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

IH 41 SB

IH 41 NB

CTH Q/COUNTY LINE RD

B-66-0030

32+00"R/L Q"

33+00"R/L Q"

34+00"R/L Q"

35+00"R/L Q"

36+00"R/L Q"

37+00"R/L Q"

38+00"R/L Q"

353+00

352+00

351+00

350+00

349+00

32+96, -42' LT

32+96, -34' LT

32+96, -5' LT

SAWING CONCRETE
REMOVE CONCRETE PAVEMENT
STA. 33+08

32+96, 10' RT

33+44, 34' RT

SAWING CONCRETE
REMOVE CONCRETE PAVEMENT
STA. 33+56

REMOVING CURB & GUTTER

32+38, 34' RT

33+06, 47' RT

33+57, 41' RT

33+76, 42' RT

36+27, -42' LT

36+97, -46' LT

SAWING CONCRETE
REMOVE CONCRETE PAVEMENT
STA. 36+47

36+60, -33' LT

36+60, -10' LT

37+08, -7' LT

37+08, 10' RT

SAWING CONCRETE
REMOVE CONCRETE PAVEMENT
STA. 36+96

37+08, 34' RT

37+20, 37' RT

RCCP

CMCP

SAN

SS

E

LEGEND

XXXX XXXX	SAWING ASPHALT/CONCRETE
	REMOVING GUARDRAIL
	REMOVING FENCE
SS	REMOVING STORM SEWER
	REMOVING INLET
	REMOVING ASPHALTIC SURFACE MILLING - 2 INCHES
	REMOVING ASPHALTIC SURFACE (ASPHALTIC ISLANDS)
	REMOVING ASPHALTIC SURFACE (PAID WITH COMMON EXCAVATION)
BT	REMOVING ASPHALTIC SURFACE BUTT JOINT
	REMOVING CONCRETE SIDEWALK
	REMOVING CURB & GUTTER
	REMOVING CONCRETE PAVEMENT
	CLEARING & GRUBBING

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: CTH Q	SHEET 20	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 024503-pm

PLOT DATE : 7/28/2022 9:25 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- XXXX XXXX SAWING ASPHALT/CONCRETE
- REMOVING GUARDRAIL
- REMOVING FENCE
- REMOVING STORM SEWER
- REMOVING INLET
- REMOVING ASPHALTIC SURFACE MILLING - 2 INCHES
- REMOVING ASPHALTIC SURFACE (ASPHALTIC ISLANDS)
- REMOVING ASPHALTIC SURFACE (PAID WITH COMMON EXCAVATION)
- BT REMOVING ASPHALTIC SURFACE BUTT JOINT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- REMOVING CONCRETE PAVEMENT
- CLEARING & GRUBBING

N

IH-41 NB ON RAMP

348+00

347+00

SAWING ASPHALT

39+68, -58' LT

39+92, -64' LT

40+27, -65' LT

40+59, -62' LT

WASHINGTON COUNTY RESPONSIBILITY
LOCAL MUNICIPALITY AGREEMENT
STA. 42+00

REMOVING SIDEWALK

REMOVING CURB & GUTTER

REMOVING SIDEWALK

346+00

37+08, -7' LT

CTH Q / COUNTY LINE RD

38+00"R/L Q"

39+00"R/L Q"

40+00"R/L Q"

41+00"R/L Q"

42+00"R/L Q"

43+00"R/L Q"

37+08, 10' RT

37+08, 34' RT

37+20, 37' RT

SAWING ASPHALT

346+00

SAWING ASPHALT

40+37, 34' RT

40+78, 35' RT

40+96, 35' RT

42+02, 36' RT

345+00

IH-41 NB EXIT RAMP

IH 41 NB

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: CTH Q	SHEET 21	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 024504-pm

PLOT DATE : 7/28/2022 9:29 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

LEGEND

- XXXX XXXX SAWING ASPHALT/CONCRETE
- REMOVING GUARDRAIL
- REMOVING FENCE
- REMOVING STORM SEWER
- REMOVING INLET
- REMOVING ASPHALTIC SURFACE MILLING - 2 INCHES
- REMOVING ASPHALTIC SURFACE (ASPHALTIC ISLANDS)
- REMOVING ASPHALTIC SURFACE (PAID WITH COMMON EXCAVATION)
- BT REMOVING ASPHALTIC SURFACE BUTT JOINT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- REMOVING CONCRETE PAVEMENT
- CLEARING & GRUBBING

IH-41 NB ON RAMP

347+00

SAWING ASPHALT

39+68, -58' LT

39+92, -64' LT

40+27, -65' LT

40+59, -62' LT

CMCP

WASHINGTON COUNTY RESPONSIBILITY
LOCAL MUNICIPALITY AGREEMENT
STA. 42+00

CTH Q / COUNTY LINE RD

346+00

40+00"R/L Q"

41+00"R/L Q"

42+00"R/L Q"

43+00"R/L Q"

44+00"R/L Q"

45+00"R/L Q"

44+73, -33' LT

BT

44+73, -10' LT

44+74, 9' RT

44+73, 38' RT

SAWING ASPHALT

SAWING ASPHALT

346+00

40+37, 34' RT

40+78, 35' RT

40+96, 35' RT

42+02, 36' RT

345+00

IH-41 NB EXIT RAMP

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: CTH Q	SHEET 22	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 024505-pm

PLOT DATE : 7/28/2022 9:32 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

LEGEND

- XXXX XXXX SAWING ASPHALT/CONCRETE
- REMOVING GUARDRAIL
- REMOVING FENCE
- REMOVING STORM SEWER
- REMOVING INLET
- REMOVING ASPHALTIC SURFACE MILLING - 2 INCHES
- REMOVING ASPHALTIC SURFACE (ASPHALTIC ISLANDS)
- REMOVING ASPHALTIC SURFACE (PAID WITH COMMON EXCAVATION)
- BT REMOVING ASPHALTIC SURFACE BUTT JOINT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- REMOVING CONCRETE PAVEMENT
- CLEARING & GRUBBING

EXISTING R/W

16+40, -21' LT

17+26, -10' LT

18+44, -20' LT

14+00 | 14+95, 0' | 15+00 | 16+00 | 17+00 | 17+40, 0' | 18+00 | 19+00 | 20+00

MAPLE RD

SAWING ASPHALT

B-66-0031

BT

16+42, 23' RT

16+87, 12' RT

17+52, 57' RT

17+87, 72' RT

17+94, 21' RT

18+03, 21' RT

IH 41 SB

IH 41 NB

429+00

430+00

431+00

EXISTING R/W

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: MAPLE RD	SHEET 23	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 024506-pm
PLOT DATE : 7/28/2022 9:35 AM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- XXXX XXXX SAWING ASPHALT/CONCRETE
- REMOVING GUARDRAIL
- REMOVING FENCE
- REMOVING STORM SEWER
- REMOVING INLET
- REMOVING ASPHALTIC SURFACE WILLING - 2 INCHES
- REMOVING ASPHALTIC SURFACE (ASPHALTIC ISLANDS)
- REMOVING ASPHALTIC SURFACE (PAID WITH COMMON EXCAVATION)
- BT REMOVING ASPHALTIC SURFACE BUTT JOINT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- REMOVING CONCRETE PAVEMENT
- CLEARING & GRUBBING

N

EXISTING R/W

IH 41 SB

IH 41 NB

MAPLE RD

B-66-0031

SAWING ASPHALT

17+26, 10' LT

18+44, 20' LT

17+40, 0'

18+03, 21' RT

17+94, 21' RT

17+52, 57' RT

17+87, 72' RT

22+40, 76' LT

22+05, 20' LT

22+15, 20' LT

23+12, 11' LT

21+92, 0'

21+62, 20' RT

23+16, 21' RT

18+00 19+00 20+00 21+00 22+00 23+00

429+00 430+00 431+00 432+00 433+00 434+00

EXISTING R/W

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: MAPLE RD	SHEET 24	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 024507-pm

PLOT DATE : 7/28/2022 9:38 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

434+00

433+00

IH 41 SB

IH 41 NB

MAPLE RD

B-66-0031

SAWING ASPHALT

22+40, -76' LT

22+05, -20' LT

22+15, -20' LT

23+12, -11' LT

23+75, -22' LT

21+92, 0'

21+62, 20' RT

23+16, 21' RT

BT

25+67, 0'

EXISTING R/W

21+00

22+00

23+00

24+00

25+00

26+00

LEGEND

XXXX XXXX SAWING ASPHALT/CONCRETE

REMOVING GUARDRAIL

REMOVING FENCE

REMOVING STORM SEWER

REMOVING INLET

REMOVING ASPHALTIC SURFACE MILLING - 2 INCHES

REMOVING ASPHALTIC SURFACE (ASPHALTIC ISLANDS)

REMOVING ASPHALTIC SURFACE (PAID WITH COMMON EXCAVATION)

BT REMOVING ASPHALTIC SURFACE BUTT JOINT

REMOVING CONCRETE SIDEWALK

REMOVING CURB & GUTTER

REMOVING CONCRETE PAVEMENT

CLEARING & GRUBBING

EXISTING R/W

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: MAPLE RD	SHEET 25	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 024508-pm

PLOT DATE : 7/28/2022 9:41 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

EXISTING R/W

CMCP

12+22, -25' LT

16+

CTH Y/MEQUON RD

11+00"R/L ME"

12+00"R/L ME"

13+00"R/L ME"

14+00"R/L ME"

15+00"R/L ME"

16+00"R/L ME"

11+00, 0'

SAWING ASPHALT

11+13, 14' RT

11+85, 14' RT

12+19, 25' RT

SAWING ASPHALT

CMCP

EXISTING R/W

LEGEND

XXXX XXXX	SAWING ASPHALT/CONCRETE
	REMOVING GUARDRAIL
	REMOVING FENCE
SS	REMOVING STORM SEWER
	REMOVING INLET
	REMOVING ASPHALTIC SURFACE MILLING - 2 INCHES
	REMOVING ASPHALTIC SURFACE (ASPHALTIC ISLANDS)
	REMOVING ASPHALTIC SURFACE (PAID WITH COMMON EXCAVATION)
BT	REMOVING ASPHALTIC SURFACE BUTT JOINT
	REMOVING CONCRETE SIDEWALK
	REMOVING CURB & GUTTER
	REMOVING CONCRETE PAVEMENT
	CLEARING & GRUBBING

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: MEQUON RD	SHEET 26	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 024509-pm

PLOT DATE : 7/28/2022 9:44 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

EXISTING R/W

16+73, -48' LT

16+99, -21' LT

16+92, -20' LT

17+25, 21' RT

491+00

490+00

489+00

488+00

487+00

FO

16+00"R/L ME"

17+00"R/L ME"

18+00"R/L ME"

19+00"R/L ME"

20+00"R/L ME"

21+00"R/L ME"

22+00"R/L ME"

RCCP

SAN

B-66-0034

CTH Y/MEQUON RD

IH 41 NB

IH 41 SB

EXISTING R/W

EXISTING R/W

LEGEND

XXXX XXXX	SAWING ASPHALT/CONCRETE
	REMOVING GUARDRAIL
	REMOVING FENCE
SS	REMOVING STORM SEWER
	REMOVING INLET
	REMOVING ASPHALTIC SURFACE MILLING - 2 INCHES
	REMOVING ASPHALTIC SURFACE (ASPHALTIC ISLANDS)
	REMOVING ASPHALTIC SURFACE (PAID WITH COMMON EXCAVATION)
BT	REMOVING ASPHALTIC SURFACE BUTT JOINT
	REMOVING CONCRETE SIDEWALK
	REMOVING CURB & GUTTER
	REMOVING CONCRETE PAVEMENT
	CLEARING & GRUBBING

2

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: MEQUON RD	SHEET 27	E

2

N

EXISTING R/W

SAWING ASPHALT

22+99, 20' LT

23+04, 61' LT

23+90, 26' LT

26+39, 14' LT

26+79, 14' LT

22+00"R/L ME"

B-66-0034

23+00"R/L ME"

24+00"R/L ME"

25+00"R/L ME"

26+00"R/L ME"

27+00"R/L ME"

28+00"R/L M

27+50, 0'

SAWING ASPHALT

CTH Y/MEQUON RD

23+33, 20' RT

24+26, 25' RT

23+38, 61' RT

EXISTING R/W

IH 41 NB

LEGEND

XXXX XXXX	SAWING ASPHALT/CONCRETE
	REMOVING GUARDRAIL
	REMOVING FENCE
SS	REMOVING STORM SEWER
	REMOVING INLET
	REMOVING ASPHALTIC SURFACE MILLING - 2 INCHES
	REMOVING ASPHALTIC SURFACE (ASPHALTIC ISLANDS)
	REMOVING ASPHALTIC SURFACE (PAID WITH COMMON EXCAVATION)
BT	REMOVING ASPHALTIC SURFACE BUTT JOINT
	REMOVING CONCRETE SIDEWALK
	REMOVING CURB & GUTTER
	REMOVING CONCRETE PAVEMENT
	CLEARING & GRUBBING

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: MEQUON RD	SHEET 28	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 024511-pm

PLOT DATE : 7/28/2022 9:50 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

LEGEND

XXXX XXXX SAWING ASPHALT/CONCRETE

REMOVING GUARDRAIL

REMOVING FENCE

REMOVING STORM SEWER

REMOVING INLET

REMOVING ASPHALTIC SURFACE MILLING - 2 INCHES

REMOVING ASPHALTIC SURFACE (ASPHALTIC ISLANDS)

REMOVING ASPHALTIC SURFACE (PAID WITH COMMON EXCAVATION)

BT REMOVING ASPHALTIC SURFACE BUTT JOINT

REMOVING CONCRETE SIDEWALK

REMOVING CURB & GUTTER

REMOVING CONCRETE PAVEMENT

CLEARING & GRUBBING

EXISTING R/W

SAWING ASPHALT

14+77, -15' LT

15+29, -15' LT

18+08, -21' LT

19+29, -47' LT

19+65, -21' LT

+54.37, -20.59' LT

FREISTADT RD

14+00"R/L F"

15+00"R/L F"

16+00"R/L F"

17+00"R/L F"

18+00"R/L F"

19+00"R/L F"

14+00, 0'

SAWING ASPHALT

14+11, 15' RT

SAWING ASPHALT

14+62, 15' RT

16+55, 19' RT

SAWING ASPHALT

17+37, 19' RT

18+80, 22' RT

EXISTING R/W

HILLTOP DR

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: FREISTADT RD	SHEET 29	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 024512-pm

PLOT DATE : 7/28/2022 9:53 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

D FRANK BLVD

EXISTING R/W

561+00

561+95

560+95

559+55

558+00

19+29, 47' LT

19+65, 21' LT

+54.37, -20.59' LT

19+88, 20' RT

22+94, 22' LT

23+28, 20' RT

23+57, 95' RT

23+76, 80' RT

19+00"R/L F"

20+00"R/L F"

B-66-0035

21+00"R/L F"

22+00"R/L F"

FREISTADT RD

23+00"R/L F"

24+00"R/L F"

25+00"R/L F"

IH 41 SB

IH 41 NB

SIGN

CMCP

RCCP

FO

SS

G

OH

LEGEND

XXXX XXXX	SAWING ASPHALT/CONCRETE
	REMOVING GUARDRAIL
	REMOVING FENCE
SS	REMOVING STORM SEWER
	REMOVING INLET
	REMOVING ASPHALTIC SURFACE MILLING - 2 INCHES
	REMOVING ASPHALTIC SURFACE (ASPHALTIC ISLANDS)
	REMOVING ASPHALTIC SURFACE (PAID WITH COMMON EXCAVATION)
BT	REMOVING ASPHALTIC SURFACE BUTT JOINT
	REMOVING CONCRETE SIDEWALK
	REMOVING CURB & GUTTER
	REMOVING CONCRETE PAVEMENT
	CLEARING & GRUBBING

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: FREISTADT RD	SHEET 30	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 024513-pm

PLOT DATE : 7/28/2022 9:56 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

LEGEND

- XXXX XXXX SAWING ASPHALT/CONCRETE
- REMOVING GUARDRAIL
- REMOVING FENCE
- REMOVING STORM SEWER
- REMOVING INLET
- REMOVING ASPHALTIC SURFACE MILLING - 2 INCHES
- REMOVING ASPHALTIC SURFACE (ASPHALTIC ISLANDS)
- REMOVING ASPHALTIC SURFACE (PAID WITH COMMON EXCAVATION)
- BT REMOVING ASPHALTIC SURFACE BUTT JOINT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- REMOVING CONCRETE PAVEMENT
- CLEARING & GRUBBING

D FRANK BLVD

EXISTING R/W

25+41, -20' LT

25+50, -23' LT

SAWING ASPHALT

26+47, -15' LT

29+54, -15' LT

30+05, -15' LT

SAWING ASPHALT

30+25, 0'

25+00"R/L F"

26+00"R/L F"

27+00"R/L F"

28+00"R/L F"

29+00"R/L F"

30+00"R/L F"

28+96, 24' RT

FREISTADT RD

EXISTING R/W

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: FREISTADT RD	SHEET 31	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 024514-pm

PLOT DATE : 7/28/2022 9:59 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- XXXX XXXX SAWING ASPHALT/CONCRETE
- REMOVING GUARDRAIL
- REMOVING FENCE
- REMOVING STORM SEWER
- REMOVING INLET
- REMOVING ASPHALTIC SURFACE WILLING - 2 INCHES
- REMOVING ASPHALTIC SURFACE (ASPHALTIC ISLANDS)
- REMOVING ASPHALTIC SURFACE (PAID WITH COMMON EXCAVATION)
- BT REMOVING ASPHALTIC SURFACE BUTT JOINT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- REMOVING CONCRETE PAVEMENT
- CLEARING & GRUBBING

EXISTING R/W

N

SAWING CONCRETE
REMOVE CONCRETE PAVEMENT
STA. 1703+09

1701+40, -34' LT

BT

USH 45 SB

B-66-0037

1701+00

1702+00

1703+00

1704+00

1705+00

1706+00

708+00

1701+40, 4' RT

IH 41 SB

IH 41 NB

707+00

706+00

705+00

SIGN

2

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: USH 45 SB	SHEET 32	E

2

LEGEND

XXXX XXXX	SAWING ASPHALT/CONCRETE
	REMOVING GUARDRAIL
	REMOVING FENCE
SS	REMOVING STORM SEWER
	REMOVING INLET
	REMOVING ASPHALTIC SURFACE MILLING - 2 INCHES
	REMOVING ASPHALTIC SURFACE (ASPHALTIC ISLANDS)
	REMOVING ASPHALTIC SURFACE (PAID WITH COMMON EXCAVATION)
BT	REMOVING ASPHALTIC SURFACE BUTT JOINT
	REMOVING CONCRETE SIDEWALK
	REMOVING CURB & GUTTER
	REMOVING CONCRETE PAVEMENT
	CLEARING & GRUBBING

N

IH 41 SB

IH 41 NB

B-66-0037

USH 45 SB

SAWING CONCRETE
REMOVE CONCRETE PAVEMENT
STA. 1708+41

1709+90, -34' LT

1709+90, 5' RT

BT

SIGN

1704+00 1705+00 1706+00 1707+00 1708+00 1709+00 1710+00

706+00 707+00 708+00 709+00 710+00 711+00

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: USH 45 SB	SHEET 33	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 021116-rm

PLOT DATE : 7/28/2022 10:05 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

EXISTING R/W

EMMER RD

21+07, -65' LT

22+63, -49' LT

25+34, -38' LT

25+34, -26' LT

CTH Q / COUNTY LINE RD

24+00"R/L Q"

25+00"R/L Q"

26+00"R/L Q"

27+00"R/L Q"

23+24, 28' RT

24+02, 38' RT

25+34, 25' RT

25+34, 38' RT

20+97, 15' RT

22+09, 40' RT

25+15, 50' RT

EXISTING R/W

FALLS PKWY

LEGEND

PAVEMENT MARKING REMOVAL

ONLY

PAVEMENT MARKING
SPECIAL REMOVAL

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: CTH Q PAVEMENT MARKINGS	SHEET 34	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021102-RM.DWG
LAYOUT NAME - 021117-rm

PLOT DATE : 7/28/2022 10:08 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

LEGEND

PAVEMENT MARKING REMOVAL

ONLY PAVEMENT MARKING SPECIAL REMOVAL

IH-41 NB ON RAMP

347+00

346+00

CTH Q / COUNTY LINE RD

WASHINGTON COUNTY RESPONSIBILITY
LOCAL MUNICIPALITY AGREEMENT
STA. 42+00

40+00"R/L Q"

41+00"R/L Q"

42+00"R/L Q"

43+00"R/L Q"

44+00"R/L Q"

45+00"R/L Q"

346+00

40+94, 35' RT

41+31, 36' RT

40+55, 34' RT

40+55, 55' RT

41+35, 59' RT

41+11, 106' RT

345+00

IH-41 NB EXIT RAMP

344+00

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: CTH Q PAVEMENT MARKINGS	SHEET 35	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021102-RM.DWG
LAYOUT NAME - 021118-rm

PLOT DATE : 7/28/2022 10:11 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

IH 41 NB

IH 41 SB

339+00

340+00

341+00

342+00

343+00

344+00

338+57, -13' LT

338+57, -1' LT

340+99, -25' LT

340+98, -13' LT

340+99, -1' LT

340+98, 10' RT

ONLY

IH-41 NB EXIT RAMP

SIGN

N

LEGEND

PAVEMENT MARKING REMOVAL

ONLY

PAVEMENT MARKING SPECIAL REMOVAL

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: CTH Q PAVEMENT MARKINGS	SHEET 36	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021102-RM.DWG
LAYOUT NAME - 021119-rm

PLOT DATE : 7/28/2022 10:14 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

EXISTING R/W

N

USH 45 SB

IH 41 SB

IH 41 NB

B-66-0037

SIGN

1701+40, -25' LT
BEGIN 15

1701+40, -13' LT
BEGIN 6

1701+40, -1' LT
BEGIN 16

1701+00
1702+00
1703+00
1704+00
1705+00
1706+00
1707+00
708+00
709+00
707+00
706+00
705+00

LEGEND

PAVEMENT MARKING REMOVAL

ONLY — PAVEMENT MARKING SPECIAL REMOVAL

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: USH 45 SB PAVEMENT MARKINGS	SHEET 37	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021102-RM.DWG
LAYOUT NAME - 021120-rm

PLOT DATE : 7/28/2022 10:17 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

PAVEMENT MARKING REMOVAL

ONLY

PAVEMENT MARKING SPECIAL REMOVAL

N

IH 41 SB

IH 41 NB

B-66-0037

USH 45 SB

SIGN

1704+00

1705+00

1706+00

1707+00

1708+00

1709+00

1710+00

1711+00

706+00

707+00

1709+90, -24' LT
END 15

1709+90, -12' LT
END 6

1709+90, 0' RT
END 16

2

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	REMOVALS: USH 45 SB PAVEMENT MARKINGS	SHEET 38	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021102-RM.DWG
LAYOUT NAME - 021121-rm

PLOT DATE : 7/28/2022 10:20 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- (AG01) BASE AGGREGATE DENSE 3/4-INCH
- (AG02) BASE AGGREGATE DENSE 1 1/4-INCH
- (A) HMA PAVEMENT 4 MT 58-28 S, 1 3/4-INCH OVER HMA PAVEMENT 3 MT 58-28 S, 2 1/4-INCH
- (B) HMA PAVEMENT 4 MT 58-28 S, 2 1/2-INCH
- (BG15) MGS GUARDRAIL 3
- (BG16) MGS THRIE BEAM TRANSITION
- (BG17) MGS GUARDRAIL TERMINAL EAT

- (CG21) CONCRETE CURB AND GUTTER 30-INCH TYPE D
- (CG22) CONCRETE CURB PEDESTRIAN 6-INCH
- (CG36) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D
- (CG46) CONCRETE CURB AND GUTTER 30-INCH TYPE A
- (TBT36) CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBT
- (TBTT) CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBTT
- (CGR) CONCRETE CURB AND GUTTER 30-INCH TYPE D REVERSE SLOPE MEASURED AND PAID AS CG21
- (CM07) CONCRETE SIDEWALK 5-INCH
- (CR3) CURB RAMP TYPE 3
- (CR4B) CURB RAMP TYPE 4B
- (CR4B1) CURB RAMP TYPE 4B1
- (CR5) CURB RAMP TYPE 5
- (ASSI) ASPHALTIC SURFACE SAFETY ISLANDS
- (DR06) ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

- MILL AND OVERLAY
- CONCRETE DECK OVERLAY
- DECK REPLACEMENT
- NEW DECK
- CONCRETE PAVEMENT APPROACH SLAB SEE CONSTRUCTION DETAILS
- CONCRETE OVERLAY BRIDGE APPROACH SEE CONSTRUCTION DETAILS
- ASPHALTIC FULL DEPTH REPAIR SEE CONSTRUCTION DETAILS
- EXPANSION JOINT REPLACEMENT
- RIGHT OF WAY FENCE

2

2

N

EMMER RD

WETLAND BOUNDARY

EXISTING R/W

WETLAND BOUNDARY

25+68, -76.6' LT
MATCH EXISTING

25+56, -67.1' LT
MATCH EXISTING

MILL & HMA OVERLAY

SEE CURB RAMP DETAILS
FOR ELEVATIONS AND GRADES

CG22

CM07

AG02

CG36

CR4B1

CTH Q / COUNTY LINE RD

BEGIN CONSTRUCTION
STA 25+34
MATCH EXISTING
SAW CUT REQ'D

EP: 23+93.06

24+00"R/L Q"

25+00"R/L Q"

26+00"R/L Q"

27+00"R/L Q"

28+00"R/L Q"

BEGIN CONSTRUCTION
STA 25+34
MATCH EXISTING
SAW CUT REQ'D

ABANDONED INDUCTION LOOP

B

WASHINGTON COUNTY RESPONSIBILITY
LOCAL MUNICIPALITY AGREEMENT
STA. 28+50

25+86, 57.3' RT
MATCH EXISTING

26+48, 54.8' RT
MATCH EXISTING

26+63, 54.9' RT
MATCH EXISTING

27+21, 54.7' RT
MATCH EXISTING

EXISTING R/W

WETLAND BOUNDARY

FALLS PKWY

WETLAND BOUNDARY

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: CTH Q	SHEET 40	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021202-pd

PLOT DATE : 10/26/2022 7:40 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

EXISTING R/W

WETLAND BOUNDARY

IH-41 SB EXIT RAMP

335+00

IH 41 SB

WETLAND BOUNDARY

CMCP

RCCP

SS

FO

28+87, 66.6' LT
MATCH EXISTING

29+36, 55.4' LT
MATCH EXISTING

29+70, 54.1' LT
MATCH EXISTING

29+83, 61.5' LT
MATCH EXISTING

CG22

CM07

AG02

CR5

ASSI

CGR

CG36

CR4B1

CG21

SEE CURB RAMP DETAILS
FOR ELEVATIONS AND GRADES

354+00

B

ABANDONED INDUCTION LOOPS

27+00"R/L Q"

28+00"R/L Q"

29+00"R/L Q"

30+00"R/L Q"

31+00"R/L Q"

32+00"R/L Q"

33+00"R/L Q"

ABANDONED INDUCTION LOOP

CTH Q / COUNTY LINE RD

BG15

BG17

26+63, 54.9' RT
MATCH EXISTING

27+21, 54.7' RT
MATCH EXISTING

MILL & HMA OVERLAY

WASHINGTON COUNTY RESPONSIBILITY
LOCAL MUNICIPALITY AGREEMENT
STA. 28+50

WETLAND BOUNDARY

353+56, 14.6' RT
MATCH EXISTING

31+19, 40.7' RT
BEGIN CG21
DRIVEWAY ENTRANCE

SLOPE INTERCEPT

32+26, 44.1' RT
BEGIN BG17

32+38, 33.7' RT
END CG21
DRIVEWAY ENTRANCE

32+76, 42.2' RT
END BG17
BEGIN BG15

353+55, 18.8' LT
MATCH EXISTING

353+00

IH-41 SB ON RAMP

FALLS PKWY

WETLAND BOUNDARY

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: CTH Q	SHEET 41	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021203-pd

PLOT DATE : 10/26/2022 7:43 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

IH 41 SB

IH 41 NB

CTH Q/COUNTY LINE RD

B-66-0030

353+00

352+00

351+00

350+00

349+00

348+00

32+00"R/L Q"

33+00"R/L Q"

34+00"R/L Q"

35+00"R/L Q"

36+00"R/L Q"

37+00"R/L Q"

38+00"R/L Q"

WETLAND BOUNDARY

MILL & HMA OVERLAY

ABANDONED INDUCTION LOOP

SLOPE INTERCEPT

ADJUST INLETS

ADJUST INLET

SEE SDD "CONCRETE PAVEMENT APPROACH SLABS" STA. 33+08

SEE SDD "CONCRETE PAVEMENT APPROACH SLABS" STA. 33+56

SEE SDD "CONCRETE PAVEMENT APPROACH SLABS" STA. 36+47

SEE SDD "CONCRETE PAVEMENT APPROACH SLABS" STA. 36+96

ABANDONED INDUCTION LOOPS

ABANDONED INDUCTION LOOP

SEE CONSTRUCTION DETAILS

12.5'

12.8'

B

CG21

CG46

CM07

AG02

BG15

BG16

BG17

ASSI

32+26, 44.1' RT
BEGIN BG17

32+38, 33.7' RT
END CG21
DRIVEWAY ENTRANCE

32+76, 42.2' RT
END BG17
BEGIN BG15

32+96, -2.2' LT
BEGIN ASSI
BEGIN CG21, VARIABLE HEIGHT

32+96, -36.2' LT
BEGIN CM07
BEGIN CG21, VARIABLE HEIGHT

32+96, 7.6' RT
BEGIN ASSI
BEGIN CG21, VARIABLE HEIGHT

33+08, -36.1' LT
END CG21, VARIABLE HEIGHT
BEGIN CG46, VARIABLE HEIGHT

33+09, -3.6' LT
END CG21 & BEGIN CG46, VARIABLE HEIGHT

33+20, -36.1' LT
END CM07
END CG46, VARIABLE HEIGHT

33+37, 42.2' RT
END BG15
BEGIN BG16

33+44, 36.4' RT
BEGIN CG21, VARIABLE HEIGHT
SEE CONSTRUCTION DETAILS

33+56, 7.9' RT
END CG21, VARIABLE HEIGHT
BEGIN CG46, VARIABLE HEIGHT

33+56, 36.4' RT
END CG21, VARIABLE HEIGHT
BEGIN CG46, VARIABLE HEIGHT

33+57, 40.8' RT
BEGIN CM07

33+76, 41.8' RT
END BG16

33+99, 36.4' RT
END CM07
END CG46, VARIABLE HEIGHT

35+98, -41.8' LT
END CM07

36+04, -35.9' LT
END CM07
END CG46, VARIABLE HEIGHT

36+27, -41.9' LT
END BG16

36+47, -7.6' LT
END CG21, VARIABLE HEIGHT
BEGIN CG46, VARIABLE HEIGHT

36+47, -35.9' LT
END CG21, VARIABLE HEIGHT
BEGIN CG46, VARIABLE HEIGHT

36+60, -10.1' LT
BEGIN CG21, VARIABLE HEIGHT

36+60, -35.9' LT
BEGIN CM07
BEGIN CG21, VARIABLE HEIGHT

36+66, -41.9' LT
END BG17
BEGIN BG16

36+96, 8.1' RT
END CG21, VARIABLE HEIGHT
BEGIN CG46, VARIABLE HEIGHT

36+84, 36.6' RT
END CM07
END CG46, VARIABLE HEIGHT

36+90, 42.1' RT
END CM07

36+95, 36.7' RT
END CG21, VARIABLE HEIGHT
BEGIN CG46, VARIABLE HEIGHT

37+08, -7.4' LT
BEGIN ASSI

37+08, 7.4' RT
BEGIN ASSI
BEGIN CG21, VARIABLE HEIGHT

37+08, 36.5' RT
BEGIN CG46, VARIABLE HEIGHT
SEE CONSTRUCTION DETAILS

37+16, -52.1' LT
BEGIN BG17

37+20, 41.9' RT
BEGIN CM07

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: CTH Q	SHEET 42	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021204-pd
PLOT DATE : 10/26/2022 7:46 AM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

IH-41 NB ON RAMP

348+00

347+00

SLOPE INTERCEPT

37+16, -52.1' LT
BEGIN BG17

BG17

B

CG21

37+08, -7.4' LT
BEGIN ASSI

ASSI

38+00"R/L Q"

39+00"R/L Q"

40+00"R/L Q"

41+00"R/L Q"

42+00"R/L Q"

43+00"R/L Q"

ABANDONED INDUCTION LOOPS

37+08, 7.4' RT
BEGIN ASSI
BEGIN CG21, VARIABLE HEIGHT

CM07

AG02

37+20, 41.9' RT
BEGIN CM07

MILL & HMA OVERLAY

CMCP

SS

CG22

CM07

AG02

39+92, -63.9' LT
MATCH EXISTING

CG22

CG36

CR4B

SEE CURB RAMP DETAILS
FOR ELEVATIONS AND GRADES

346+00

40+27, -64.7' LT
MATCH EXISTING

CG22

CM07

AG02

CR4B

CG36

CTH Q / COUNTY LINE RD

EXISTING R/W

WETLAND
BOUNDARY

ABANDONED INDUCTION LOOP

40+78, 35.3' RT
MATCH EXISTING

346+00

40+36, 33.9' RT
MATCH EXISTING

40+96, 35.3' RT
MATCH EXISTING

42+02, 35.8' RT
MATCH EXISTING

ABANDONED INDUCTION LOOPS

WASHINGTON COUNTY RESPONSIBILITY
LOCAL MUNICIPALITY AGREEMENT
STA. 42+00

WETLAND
BOUNDARY

WETLAND
BOUNDARY

345+00

IH-41 NB EXIT RAMP

IH 41 NB

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: CTH Q	SHEET 43	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021205-pd

PLOT DATE : 10/26/2022 7:50 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

IH-41 NB ON RAMP

347+00

39+92, 63.9' LT
MATCH EXISTING

40+27, 64.7' LT
MATCH EXISTING

CG22
CM07
AG02
CG22
CR4B
CR4B

SEE CURB RAMP DETAILS
FOR ELEVATIONS AND GRADES

346+00

EXISTING R/W

WETLAND
BOUNDARY

B

ABANDONED INDUCTION LOOP

CTH Q / COUNTY LINE RD

40+00"R/L Q"
41+00"R/L Q"
42+00"R/L Q"
43+00"R/L Q"
44+00"R/L Q"
45+00"R/L Q"

END CONSTRUCTION
STA 44+73
MATCH EXISTING
SAW CUT REQ'D

346+00

40+78, 35.3' RT
MATCH EXISTING

ABANDONED INDUCTION LOOP

40+36, 33.9' RT
MATCH EXISTING

40+96, 35.3' RT
MATCH EXISTING

B

42+02, 35.8' RT
MATCH EXISTING

MILL & HMA OVERLAY

ABANDONED INDUCTION LOOPS

WASHINGTON COUNTY RESPONSIBILITY
LOCAL MUNICIPALITY AGREEMENT
STA. 42+00

345+00

IH-41 NB EXIT RAMP

WETLAND
BOUNDARY

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: CTH Q	SHEET 44	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021206-pd

PLOT DATE : 10/26/2022 7:53 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

EMMER RD

WETLAND BOUNDARY

EXISTING R/W

WETLAND BOUNDARY

SS

FO

FO

CTH Q / COUNTY LINE RD

EP: 23+93.06

24+00"R/L Q"

25+00"R/L Q"

26+00"R/L Q"

27+00"R/L Q"

28+00"R/L Q"

64'

14'

86'

17'

130'

11'

13'

86'

8'

42'

15'

ABANDONED INDUCTION LOOP

111'

21'

12'

22'

B

MILL & HMA OVERLAY

EXISTING R/W

FALLS PKWY

WETLAND BOUNDARY

WETLAND BOUNDARY

NOTE: ASPHALTIC FULL DEPTH REPAIR LOCATIONS SHOWN ARE APPROXIMATE
FINAL DIMENSIONS TO BE DETERMINED BY ENGINEER IN FIELD

2

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: CTH Q - ASPHALTIC FULL DEPTH REPAIR	SHEET 45	E

2

2

N

EXISTING R/W

WETLAND BOUNDARY

IH-41 SB EXIT RAMP

IH 41 SB

MILL & HMA OVERLAY

86'

17'

131'

11'

13'

CTH Q / COUNTY LINE RD

48'

11'

34'

12'

75'

15'

27+00"R/L Q"

28+00"R/L Q"

29+00"R/L Q"

30+00"R/L Q"

31+00"R/L Q"

32+00"R/L Q"

15'

9'

28'

ABANDONED INDUCTION LOOP

111'

21'

13'

12'

22'

11'

13'

22'

13'

66'

63'

124'

82'

ABANDONED INDUCTION LOOPS

14'

12'

7'

16'

B

MATCH EXISTING

WETLAND BOUNDARY

FALLS PKWY

IH-41 SB ON RAMP

MILL & HMA OVERLAY

WETLAND BOUNDARY

NOTE: ASPHALTIC FULL DEPTH REPAIR LOCATIONS SHOWN ARE APPROXIMATE
FINAL DIMENSIONS TO BE DETERMINED BY ENGINEER IN FIELD

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: CTH Q - ASPHALTIC FULL DEPTH REPAIR	SHEET 46	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 021223-pd

PLOT DATE : 10/24/2022 11:43 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

IH 41 SB

IH 41 NB

353+00

352+00

351+00

350+00

349+00

348+00

ABANDONED
INDUCTION LOOP

CTH Q/COUNTY LINE RD

B-66-0030

ABANDONED
INDUCTION
LOOPS

75'

15'

9'

28'

12'

7'

16'

32+00"R/L Q"

33+00"R/L Q"

34+00"R/L Q"

35+00"R/L Q"

36+00"R/L Q"

37+00"R/L Q"

38+00"R/L Q"

ABANDONED INDUCTION LOOP

NOTE: ASPHALTIC FULL DEPTH REPAIR LOCATIONS SHOWN ARE APPROXIMATE
FINAL DIMENSIONS TO BE DETERMINED BY ENGINEER IN FIELD

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: CTH Q - ASPHALTIC FULL DEPTH REPAIR	SHEET 47	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 021224-pd

PLOT DATE : 10/24/2022 11:47 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

IH-41 NB ON RAMP

348+00

347+00

346+00

345+00

MATCH EXISTING

SLOPE INTERCEPT

BEGIN BG17

EXISTING R/W

WETLAND BOUNDARY

B

ABANDONED INDUCTION LOOPS

CTH Q / COUNTY LINE RD

ABANDONED INDUCTION LOOP

38+00"R/L Q"

39+00"R/L Q"

40+00"R/L Q"

41+00"R/L Q"

42+00"R/L Q"

43+00"R/L Q"

99'

MILL & HMA OVERLAY

ABANDONED INDUCTION LOOPS

MATCH EXISTING

MATCH EXISTING

ABANDONED INDUCTION LOOPS

WETLAND BOUNDARY

IH-41 NB EXIT RAMP

IH 41 NB

WETLAND BOUNDARY

NOTE: ASPHALTIC FULL DEPTH REPAIR LOCATIONS SHOWN ARE APPROXIMATE
FINAL DIMENSIONS TO BE DETERMINED BY ENGINEER IN FIELD

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: CTH Q - ASPHALTIC FULL DEPTH REPAIR	SHEET 48	E

2

N

IH-41 NB ON RAMP

347+00

346+00

345+00

CMCP

SS

WPS

E

B

EXISTING R/W

WETLAND BOUNDARY

CTH Q / COUNTY LINE RD

ABANDONED INDUCTION LOOP

12'

40+00"R/L Q"

41+00"R/L Q"

42+00"R/L Q"

43+00"R/L Q"

44+00"R/L Q"

45+00"R/L Q"

99'

ABANDONED INDUCTION LOOP

ABANDONED INDUCTION LOOPS

MILL & HMA OVERLAY

IH-41 NB EXIT RAMP

WETLAND BOUNDARY

NOTE: ASPHALTIC FULL DEPTH REPAIR LOCATIONS SHOWN ARE APPROXIMATE
FINAL DIMENSIONS TO BE DETERMINED BY ENGINEER IN FIELD

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: CTH Q - ASPHALTIC FULL DEPTH REPAIR	SHEET 49	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 021226-pd

PLOT DATE : 10/24/2022 11:53 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

EXISTING R/W

WETLAND BOUNDARY

WETLAND BOUNDARY

SEE SDD "CONCRETE SURFACE DRAINS DROP INLET"
SEE STORM SEWER DETAILS
STA. 17+98

SLOPE INTERCEPT

16+15, -16.7' LT
END BG17
BEGIN BG15

SEE GENERAL NOTES
FOR PAVEMENT DETAILS
STA. 17+40

17+90, -17.0' LT
BEGIN TBT36

18+05, -19.5' LT
END BG15
BEGIN BG16

18+13, -17.3' LT
END TBT36
BEGIN TBTT

18+44, -20.2' LT
END BG16
END TBTT

BEGIN SHOULDER TAPER
STA 14+95

BEGIN CONSTRUCTION
STA 14+95
MATCH EXISTING
SAW CUT REQ'D

15+65, -18.6' LT
BEGIN BG17

A
AG02

BG17

AG01

BG15

B

A
AG02

TBT36

TBTT

BG16

14+00"R/L MA"

15+00"R/L MA"

16+00"R/L MA"

17+00"R/L MA"

18+00"R/L MA"

19+00"R/L MA"

20+00"R/L

END SHOULDER TAPER
STA 15+65

END SHOULDER TAPER
STA 16+06

MAPLE RD

TBT36

B-66-0031

MILL & HMA OVERLAY

BEGIN SHOULDER TAPER
STA 14+95

CONCRETE OVERLAY

SEE SDD "CONCRETE PAVEMENT
APPROACH SLABS"
STA. 18+13

AG01

SLOPE INTERCEPT

A
AG02

BG17

BG15

AG01

BG16

16+06, 24.3' RT
BEGIN BG17

16+56, 21.8' RT
END BG17
BEGIN BG15

17+41, 18.7' RT
BEGIN TBT36

17+56, 20.9' RT
END BG15
BEGIN BG16

17+95, 20.6' RT
END BG16
END TBT36

SEE SDD "CONCRETE SURFACE DRAINS DROP INLET"
SEE STORM SEWER DETAILS
STA. 17+48

17+52, 57.1' RT
BEGIN R/W FENCE

WETLAND BOUNDARY

IH 41 SB

IH 41 NB

431+00

430+00

429+00

EXISTING R/W

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: MAPLE RD	SHEET 50	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021207-pd

PLOT DATE : 10/24/2022 11:57 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

IH 41 SB

IH 41 NB

N

WETLAND BOUNDARY

EXISTING R/W

SEE GENERAL NOTES FOR PAVEMENT DETAILS STA. 17+40

SEE SDD "CONCRETE SURFACE DRAINS DROP INLET" SEE STORM SEWER DETAILS STA. 17+98

17+90, -17.0' LT BEGIN TBT36

18+05, -19.5' LT END BG15 BEGIN BG16

18+13, -17.3' LT END TBT36 BEGIN TBTT

18+44, -20.2' LT END BG16 END TBTT

AG01

A

AG02

B

TBT36

TBTT

BG16

MAPLE RD

B-66-0031

18+00"R/L MA"

19+00"R/L MA"

20+00"R/L MA"

21+00"R/L MA"

22+00"R/L MA"

23+00"R/L MA"

434+00

433+00

432+00

431+00

430+00

429+00

SEE SDD "CONCRETE PAVEMENT APPROACH SLABS" STA. 18+13

17+41, 18.7' RT BEGIN TBT36

17+56, 20.9' RT END BG15 BEGIN BG16

17+95, 20.6' RT END BG16 END TBT36

17+52, 57.1' RT BEGIN R/W FENCE

WETLAND BOUNDARY

SEE SDD "CONCRETE SURFACE DRAINS DROP INLET" SEE STORM SEWER DETAILS STA. 17+48

22+40, -75.6' LT BEGIN R/W FENCE

SLOPE INTERCEPT

SEE SDD "CONCRETE PAVEMENT APPROACH SLABS" STA. 21+92

22+15, -20.2' LT END BG16

22+54, -19.8' LT END BG15 BEGIN BG16

BG15

BG17

21+62, 20.3' RT END BG16 END TBT36

22+01, 20.3' RT END BG15 BEGIN BG16

22+66, 20.3' RT END BG17 BEGIN BG15

23+16, 22.3' RT BEGIN BG17

MILL & HMA OVERLAY

SLOPE INTERCEPT

EXISTING R/W

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: MAPLE RD	SHEET 51	E

2

2

IH 41 SB

IH 41 NB

434+00

433+00

WETLAND BOUNDARY

EXISTING R/W

22+40, -75.6' LT
BEGIN R/W FENCE

SLOPE INTERCEPT

SEE SDD "CONCRETE PAVEMENT APPROACH SLABS"
STA. 21+92

22+15, -20.2' LT
END BG16

22+54, -19.8' LT
END BG15
BEGIN BG16

24+53, -17.7' LT
END BG17
BEGIN BG15

25+03, -19.8' LT
BEGIN BG17

END SHOULDER TAPER
STA 25+67

A
AG02
BG16
AG01
B
BG15
BG17
AG01

B-66-0031

21+00"R/L MA"
22+00"R/L MA"
23+00"R/L MA"
24+00"R/L MA"
25+00"R/L MA"
26+00"R/L MA"

MAPLE RD

MILL & HMA OVERLAY

AG01

END CONSTRUCTION
STA 25+67
MATCH EXISTING
SAW CUT REQ'D

BG16
BG15
BG17
AG01
A
AG02

21+62, 20.3' RT
END BG16
END TBT36

22+01, 20.3' RT
END BG15
BEGIN BG16

22+66, 20.3' RT
END BG17
BEGIN BG15

23+16, 22.3' RT
BEGIN BG17

SLOPE INTERCEPT

23+92, 12.7' RT
END SHOULDER TAPER

EXISTING R/W

EXISTING R/W

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: MAPLE RD	SHEET 52	E

2

2

WETLAND BOUNDARY

WETLAND BOUNDARY

LANNON RD

B-66-0033

838+00"R/L LWB"

839+00"R/L LWB"

840+00"R/L LWB"

841+00"R/L LWB"

842+00"R/L LWB"

843+00"R/L LWB"

454+00

838+00"R/L LEB"

839+00"R/L LEB"

840+00"R/L LEB"

B-66-0032

841+00"R/L LEB"

842+00"R/L LEB"

843+00"R/L LEB"

433+00

BRIDGE PAINTING

20162 869.525 ELEC

20161 867.969 CAM

20167 868.902 ELEC

20168 868.790 ELEC

20163 860.856 OHU ST

20170 862.100 OHU

IH 41 SB

IH 41 NB

452+00

WETLAND BOUNDARY

WETLAND BOUNDARY

1452+00

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: LANNON RD	SHEET 53	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021210-pd

PLOT DATE : 10/24/2022 12:07 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

EXISTING R/W

11+51, -13.9' LT
BEGIN SHOULDER TAPER

11+82, -17.0' LT
END SHOULDER TAPER

12+19, -22.6' LT
BEGIN BG17

12+69, -20.6' LT
END BG17
BEGIN BG15

15+81, -17.0' LT
BEGIN SHOULDER TAPER

16+52, -20.5' LT
END BG15
BEGIN BG16

SLOPE INTERCEPT

AG01
A
AG02
BG17
BG15

11+00"R/L ME"
12+00"R/L ME"
13+00"R/L ME"
14+00"R/L ME"
15+00"R/L ME"
16+00"R/L ME"

CTH Y/MEQUON RD

6'
11'
11'
6'
3'

BEGIN CONSTRUCTION
STA 11+00
MATCH EXISTING
SAW CUT REQ'D

11+11, 13.8' RT
SHOULDER POINT

11+15, 15.9' RT
BEGIN SHOULDER TAPER

11+23, 24.4' RT
MATCH EXISTING

DR06

11+68, 24.4' RT
MATCH EXISTING

11+75, 17.0' RT
END SHOULDER TAPER

12+19, 22.0' RT
BEGIN BG17

12+69, 20.0' RT
END BG17
BEGIN BG15

SEE GENERAL NOTES
FOR PAVEMENT DETAILS

15+81, 17.0' RT
BEGIN SHOULDER TAPER

SLOPE INTERCEPT

EXISTING R/W

GUY

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: MEQUON RD	SHEET 54	E

2

2

N

EXISTING R/W

16+73, 48.2' LT
BEGIN R/W FENCE

16+92, 20.5' LT
END BG16

17+01, 19.2' LT
END SHOULDER TAPER

SEE SDD "CONCRETE PAVEMENT APPROACH SLABS"
STA. 17+01

SLOPE INTERCEPT

16+52, 20.5' LT
END BG15
BEGIN BG16

BG15

BG16

8'

16+00"R/L ME"

17+00"R/L ME"

18+00"R/L ME"

19+00"R/L ME"

20+00"R/L ME"

21+00"R/L ME"

22+00"R/L ME"

FO

RCCP

491+00

490+00

WETLAND
BOUNDARY

SAN

B-66-0034

CTH Y/MEQUON RD

489+00

488+00

487+00

IH 41 NB

IH 41 SB

A

AG02

BG15

BG16

SEE GENERAL NOTES
FOR PAVEMENT DETAILS

SLOPE INTERCEPT

16+86, 20.5' RT
END BG15
BEGIN BG16

17+01, 18.9' RT
END SHOULDER TAPER

17+25, 20.5' RT
END BG16

EXISTING R/W

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: MEQUON RD	SHEET 55	E

2

N

SEE SDD "CONCRETE SURFACE DRAINS FLUME"

EXISTING R/W

SLOPE INTERCEPT

22+99, -20.3' LT
END BG16
END TBTT

23+26, -20.3' LT
END TBT36
BEGIN TBTT

23+38, -20.3' LT
END BG17
BEGIN BG16

23+52, -20.3' LT
BEGIN TBT36

23+92, -22.3' LT
BEGIN BG17

24+55, -13.9' LT
END SHOULDER TAPER

26+39, -13.9' LT

26+43, -17.8' LT
MATCH EXISTING

26+76, -17.7' LT
MATCH EXISTING

26+79, -14.0' LT

27+07, -13.9' LT
BEGIN SHOULDER TAPER

27+50, -19.0' LT
END SHOULDER TAPER

BG16
BG17
TBTT
TBT36
A
AG02
AG01
DR06

B-66-0034

22+00"R/L ME" 23+00"R/L ME" 24+00"R/L ME" CTH Y/MEQUON RD 25+00"R/L ME" 26+00"R/L ME" 27+00"R/L ME" 28+00"R/L M

END CONSTRUCTION
STA 27+50
MATCH EXISTING
SAW CUT REQ'D

23+33, 20.9' RT
END BG16
END TBT36

23+76, 20.6' RT
END BG17
BEGIN BG16

23+87, 21.3' RT
BEGIN TBT36

24+26, 22.6' RT
BEGIN BG17

24+91, 14.2' RT
END SHOULDER TAPER

SEE GENERAL NOTES
FOR PAVEMENT DETAILS

WETLAND
BOUNDARY

SEE SDD "CONCRETE PAVEMENT
APPROACH SLABS"
STA. 23+26

WETLAND
BOUNDARY

IH 41 NB

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: MEQUON RD	SHEET 56	E

2

N

14+00"R/L F" | 15+00"R/L F" | 16+00"R/L F" | 17+00"R/L F" | 18+00"R/L F" | 19+00"R/L F"

FREISTADT RD

HILLTOP DR

BEGIN CONSTRUCTION
STA 14+00
MATCH EXISTING
SAW CUT REQ'D

SEE GENERAL NOTES
FOR PAVEMENT DETAILS

EXISTING R/W

SLOPE INTERCEPT

14+11, 15.4' RT

14+17, 19.3' RT
MATCH EXISTING

14+59, 19.3' RT
MATCH EXISTING

14+62, 15.2' RT

14+83, -18.9' LT
MATCH EXISTING

14+77, -15.0' LT

14+50, -15.2' LT

15+26, -18.9' LT
MATCH EXISTING

15+29, -15.0' LT

16+01, 15.0' RT
BEGIN SHOULDER TAPER

16+48, 17.8' RT
END SHOULDER TAPER

16+55, 19.3' RT
MATCH EXISTING

16+66, -19.0' LT

17+37, 19.0' RT
MATCH EXISTING

17+52, -15.0' LT
BEGIN SHOULDER TAPER

17+60, 15.0' RT

17+75, 21.5' RT

18+08, -22.6' LT
BEGIN BG17

18+24, 15.0' RT
BEGIN SHOULDER TAPER

18+58, -20.6' LT
END BG17
BEGIN BG15

18+80, 22.5' RT
BEGIN BG17

19+21, -52.7' LT
BEGIN R/W FENCE

19+28, -20.6' LT
END BG15
BEGIN BG16

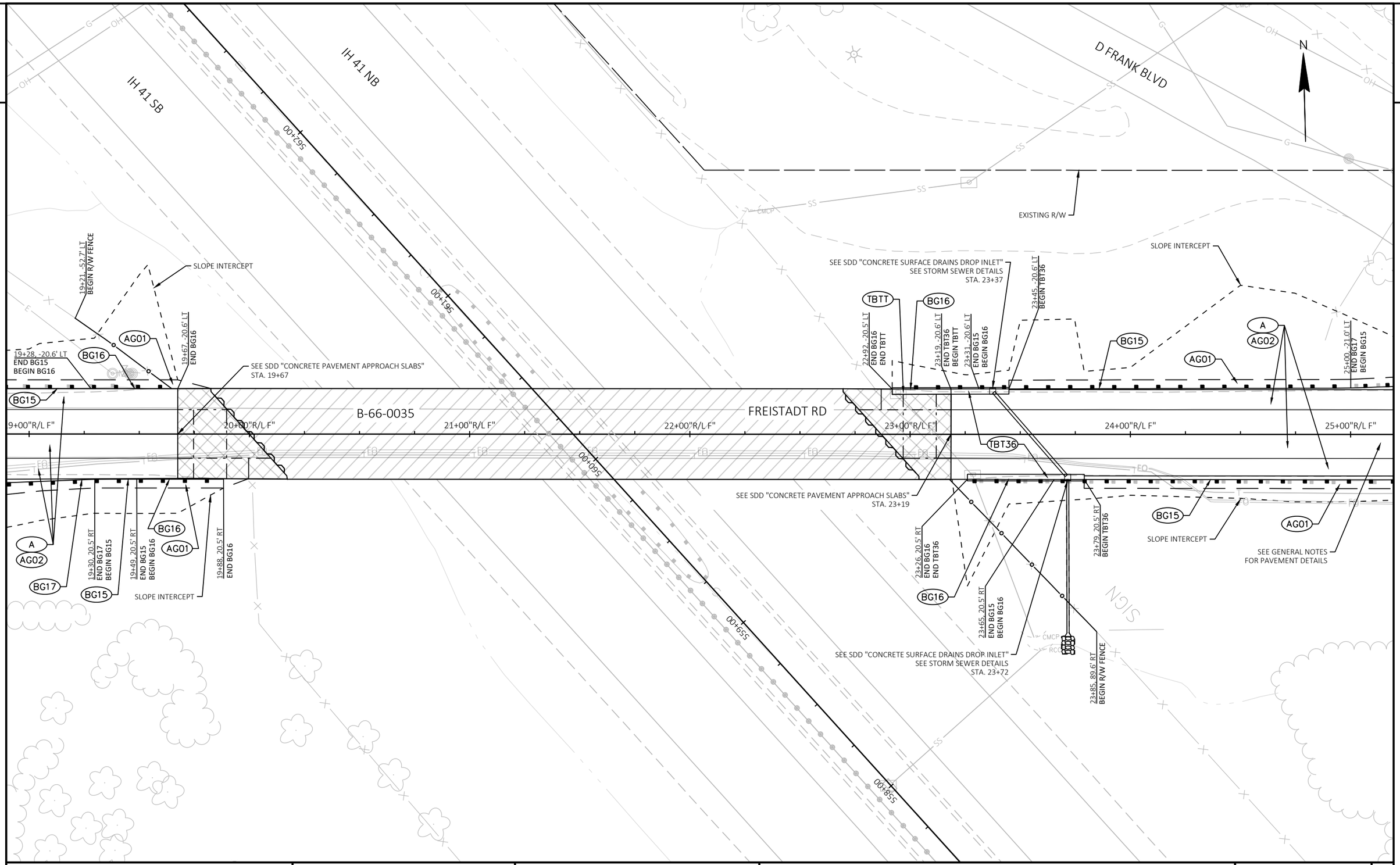
19+30, 20.5' RT
END BG17
BEGIN BG15

19+49, 20.5' RT
END BG15
BEGIN BG16

AG01 | DR06 | A AG02 | BG15 | BG16 | BG17

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: FREISTADT RD	SHEET 57	E

2



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: FREISTADT RD	SHEET 58	E

2

2

N

EXISTING R/W

D FRANK BLVD

SLOPE INTERCEPT

BG15

AG01

25+00, -21.0' LT
END BG17
BEGIN BG15

BG17

25+50, -22.9' LT
BEGIN BG17

25+64, -19.2' LT

25+71, -27.3' LT
MATCH EXISTING

DR06

26+30, -27.5' LT
MATCH EXISTING

26+47, -15.0' LT

SLOPE INTERCEPT

A
AG02

AG01

29+60, -19.0' LT
MATCH EXISTING

29+54, -15.0' LT

DR06

29+99, -19.0' LT
MATCH EXISTING

30+05, -15.0' LT

AG01

END CONSTRUCTION
STA 30+25
MATCH EXISTING
SAW CUT REQ'D

25+00"R/L F"

26+00"R/L F"

27+00"R/L F"

FREISTADT RD

28+00"R/L F"

29+00"R/L F"

30+00"R/L F"

31

BG15

A
AG02

AG01

SEE GENERAL NOTES
FOR PAVEMENT DETAILS

SLOPE INTERCEPT

BG15

BG17

AG01

28+46, 21.5' RT
END BG17
BEGIN BG15

28+96, 23.5' RT
BEGIN BG17

29+15, 19.6' RT
BEGIN SHOULDER TAPER

29+61, 15.0' RT
END SHOULDER TAPER

EXISTING R/W

GUY

WELL

MH

GV

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: FREISTADT RD	SHEET 59	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021216-pd

PLOT DATE : 10/24/2022 12:28 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

EXISTING R/W

N

WETLAND BOUNDARY

BEGIN CONSTRUCTION
STA 1701+40
MATCH EXISTING
SAW CUT REQ'D

MILL & HMA OVERLAY

USH 45 SB

IH 41 SB

IH 41 NB

B-66-0037

1701+00

1702+00

1703+00

1704+00

1705+00

1706+00

1707+00

708+00

709+00

707+00

706+00

705+00

B

A

SEE SDD "CONCRETE PAVEMENT APPROACH SLABS"
STA. 1703+09

WETLAND BOUNDARY

SIGN

WETLAND BOUNDARY

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: USH 45 SB	SHEET 60	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021219-pd

PLOT DATE : 10/24/2022 12:31 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

EXISTING R/W

WETLAND BOUNDARY

IH 41 SB

IH 41 NB

N

WETLAND BOUNDARY

MILL & HMA OVERLAY

END CONSTRUCTION
STA 1709+90
MATCH EXISTING
SAW CUT REQ'D

B-66-0037

1704+00
1705+00
1706+00
1707+00
1708+00
1709+00
1710+00
711+00
710+00
709+00
708+00
707+00
706+00

USH 45 SB

SEE SDD "CONCRETE PAVEMENT APPROACH SLABS"
STA. 1708+41

A

B

SIGN

WETLAND BOUNDARY

2

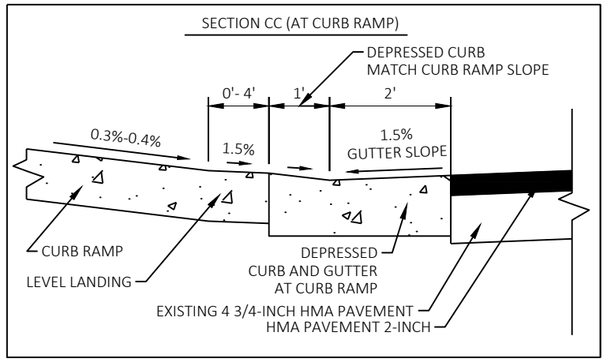
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN DETAILS: USH 45 SB	SHEET 61	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021220-pd

PLOT DATE : 10/24/2022 12:33 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N



IH 41 SB EXIT RAMP

CONCRETE CURB PEDESTRIAN

28+66.86, -67.85' LT
862.34

+71.76, -66.84' LT
862.32

28+77.64, -65.63' LT
862.30

+81.80, -64.75' LT
862.24 "T"

28+87.48, -66.64' LT
862.27

28+61.95, -68.83' LT
862.36 (MATCH EXISTING)

28+84.14, -67.33' LT
862.47 "T"

+82.96, -64.51' LT
862.22 "G"

28+77.48, -59.52' LT
862.19 "G"

28+76.20, -59.79' LT
862.21 "T"

GRADED FLARE

28+60.54, -63.13' LT
862.28 (MATCH EXISTING)

28+65.41, -62.02' LT
862.25

28+70.31, -61.01' LT
862.23

28+72.83, -57.42' LT
862.43 "T"

28+74.46, -54.90' LT
862.21

29+37.79, -52.36' LT
864.11 "T"

29+37.52, -50.79' LT
863.67 "T"

29+47.88, -50.24' LT
864.03

29+35.39, -52.53' LT
863.59

29+42.88, -50.30' LT
863.95

29+37.04, -50.91' LT
863.64 "G"

29+36.16, -45.97' LT
863.61 "G"

29+36.65, -45.85' LT
863.64 "T"

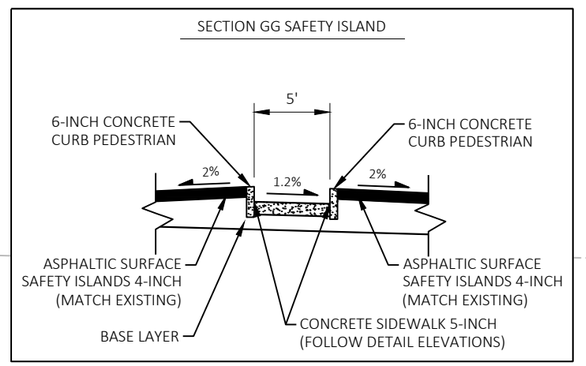
29+33.96, -45.06' LT
863.63

29+36.42, -44.58' LT
864.16 "T"

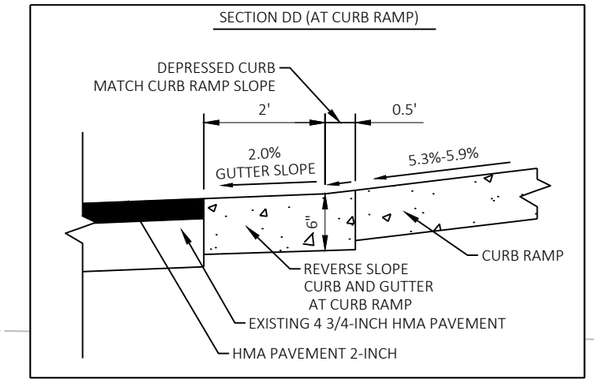
29+42.82, -45.30' LT
864.01

29+47.82, -45.24' LT
864.09

29+53.55, -45.18' LT
864.41



CTH Q/COUNTY LINE RD

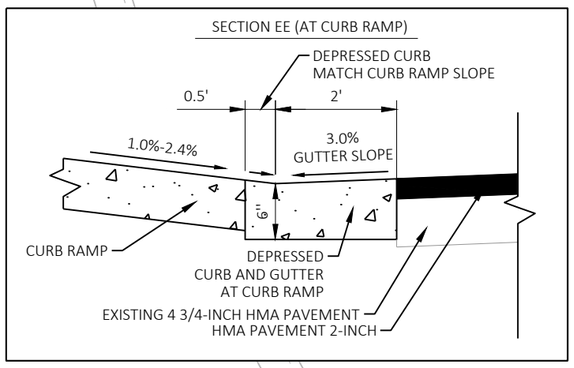


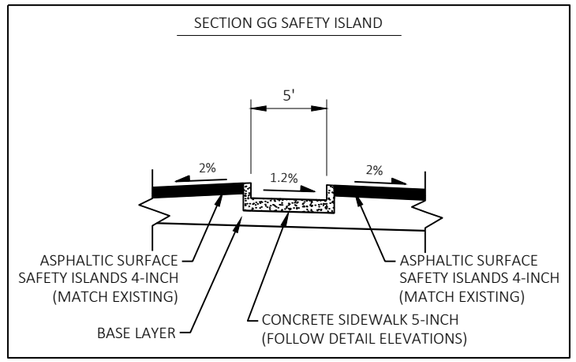
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CURB RAMP DETAILS	SHEET 62	E

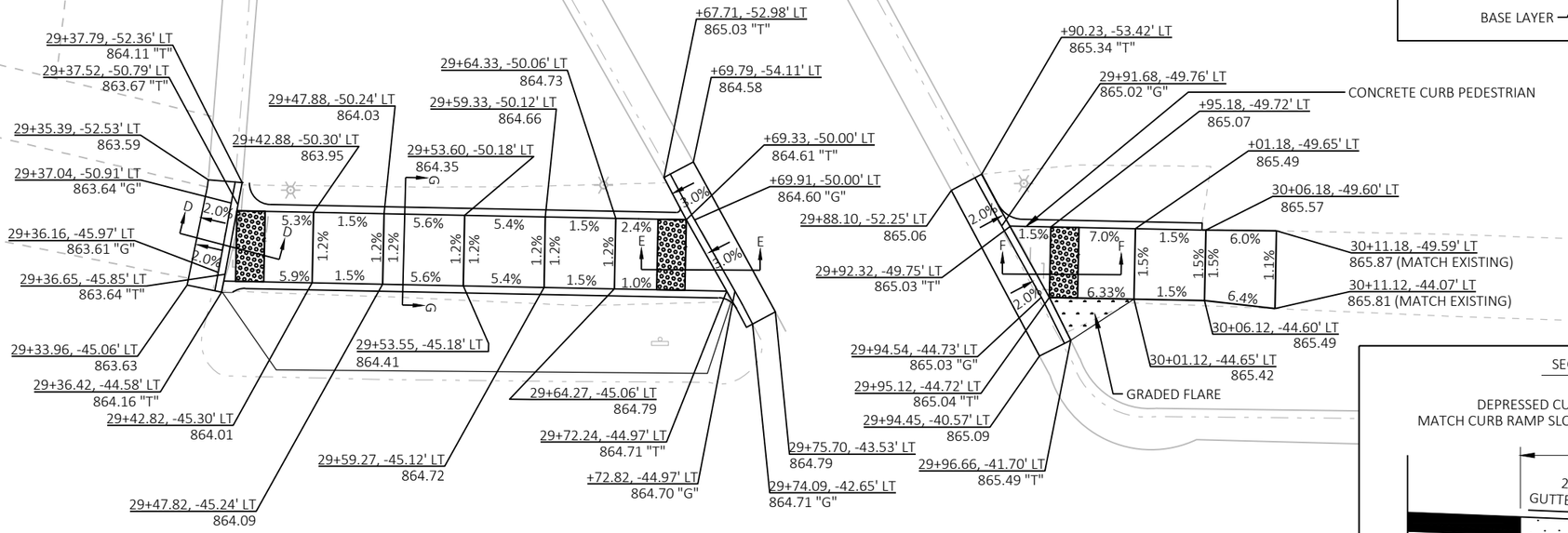
2

N

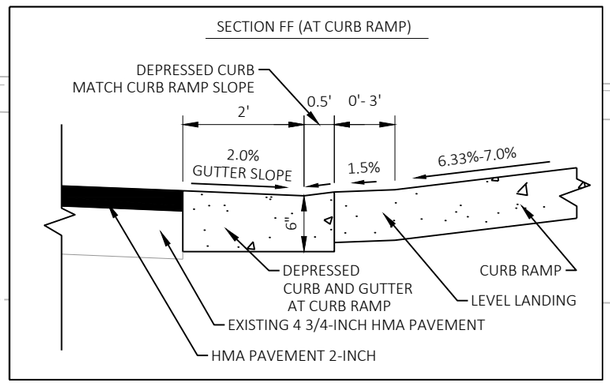
IH 41 SB EXIT RAMP







CTH Q/COUNTY LINE RD



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CURB RAMP DETAILS	SHEET 63	E

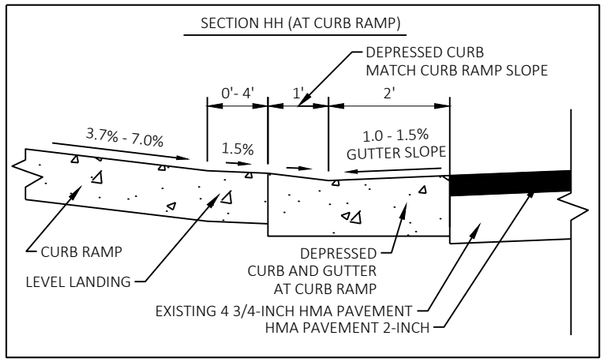
FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 021303-cr
PLOT DATE : 1/11/2022 1:20 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

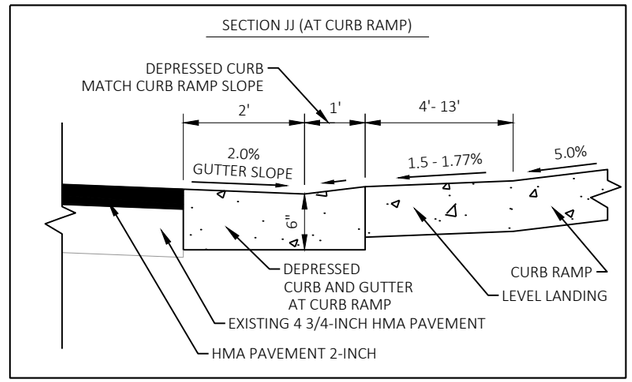
IH 41 NB ENTRANCE RAMP

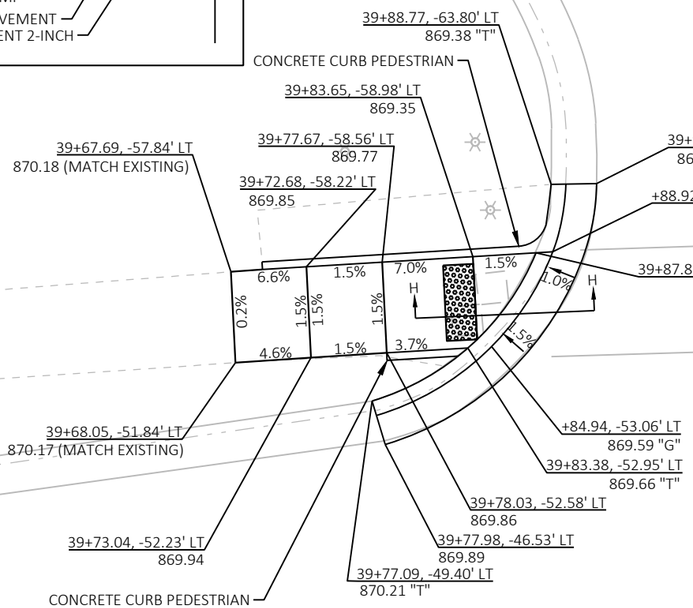
N

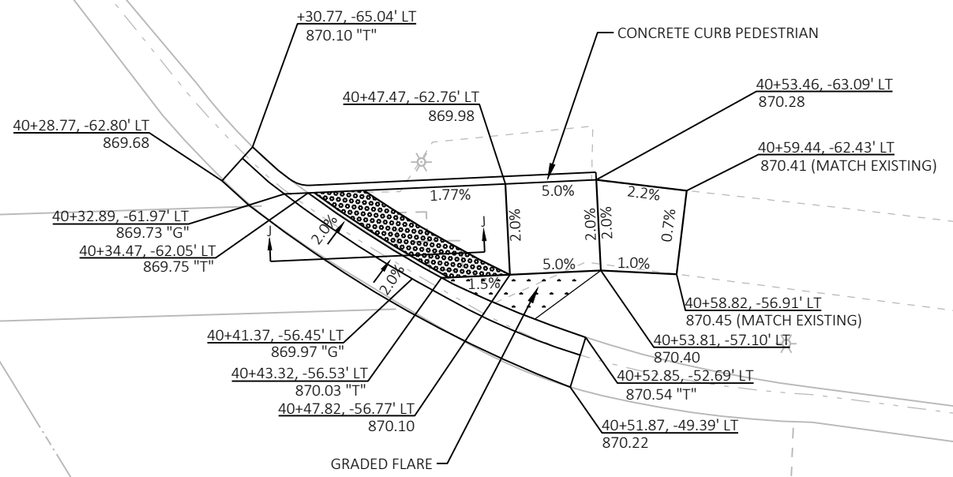
SECTION HH (AT CURB RAMP)



SECTION JJ (AT CURB RAMP)







CTH Q/COUNTY LINE RD

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CURB RAMP DETAILS	SHEET 64	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 021304-cr
PLOT DATE : 1/11/2022 1:23 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

N

EMMER RD

EXISTING R/W

WETLAND BOUNDARY

WETLAND BOUNDARY

SS

NGS

FO

FO

EP: 23+93.06

CTH Q / COUNTY LINE RD

24+00"R/L Q"

25+00"R/L Q"

26+00"R/L Q"

27+00"R/L Q"

28+00"R/L Q"

D

D

D

D

FALLS PKWY

EXISTING R/W

WETLAND BOUNDARY

WETLAND BOUNDARY

LEGEND

EROSION MAT CLASS I TYPE A

INLET PROTECTION TYPE D

SILT FENCE

SLOPE INTERCEPT

SURFACE WATER FLOW

2

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	EROSION CONTROL: CTH Q	SHEET 65	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022001-ec

PLOT DATE : 4/4/2022 6:31 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

EXISTING R/W

WETLAND BOUNDARY

IH-41 SB EXIT RAMP

35+00

IH 41 SB

WETLAND BOUNDARY

NGS

CTH Q / COUNTY LINE RD

27+00"R/L Q"

28+00"R/L Q"

29+00"R/L Q"

30+00"R/L Q"

31+00"R/L Q"

32+00"R/L Q"

35+00

FALLS PKWY

WETLAND BOUNDARY

IH-41 SB ON RAMP

35+00

LEGEND

EROSION MAT CLASS I TYPE A

INLET PROTECTION TYPE D

SILT FENCE

SLOPE INTERCEPT

SURFACE WATER FLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	EROSION CONTROL: CTH Q	SHEET 66	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022002-ec

PLOT DATE : 4/4/2022 6:34 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

WETLAND BOUNDARY

WETLAND BOUNDARY

SLOPE INTERCEPT

IH-41 SB

IH-41 NB

B-66-0030

CTH Q / COUNTY LINE RD

SLOPE INTERCEPT

WETLAND BOUNDARY

32+00"R/L Q"

33+00"R/L Q"

34+00"R/L Q"

35+00"R/L Q"

36+00"R/L Q"

37+00"R/L Q"

38+00"R/L Q"

LEGEND

EROSION MAT CLASS I TYPE A

INLET PROTECTION TYPE D

SILT FENCE

SLOPE INTERCEPT

SURFACE WATER FLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	EROSION CONTROL: CTH Q	SHEET 67	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022003-ec

PLOT DATE : 4/4/2022 6:36 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

IH-41 NB ON RAMP

348+00

347+00

346+00

345+00

SLOPE INTERCEPT

EXISTING R/W

WETLAND BOUNDARY

CTH Q / COUNTY LINE RD

38+00"R/L Q"

39+00"R/L Q"

40+00"R/L Q"

41+00"R/L Q"

42+00"R/L Q"

43+00"R/L Q"

IH-41 NB EXIT RAMP

WETLAND BOUNDARY

IH 41 NB

LEGEND

EROSION MAT CLASS I TYPE A

INLET PROTECTION TYPE D

SILT FENCE

SLOPE INTERCEPT

SURFACE WATER FLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	EROSION CONTROL: CTH Q	SHEET 68	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022004-ec

PLOT DATE : 4/4/2022 6:38 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

IH-41 NB ON RAMP

34+00

34+00

34+00

34+00

CMCP

SS

WPK

E

D

EXISTING R/W

WETLAND
BOUNDARY

CTH Q / COUNTY LINE RD

40+00"R/L Q"

41+00"R/L Q"

42+00"R/L Q"

43+00"R/L Q"

44+00"R/L Q"

45+00"R/L Q"

IH-41 NB EXIT RAMP

WETLAND
BOUNDARY

LEGEND

EROSION MAT CLASS I TYPE A

INLET PROTECTION TYPE D

SILT FENCE

SLOPE INTERCEPT

SURFACE WATER FLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	EROSION CONTROL: CTH Q	SHEET 69	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022005-ec

PLOT DATE : 4/4/2022 6:41 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

EXISTING R/W

WETLAND BOUNDARY

WETLAND BOUNDARY

SLOPE INTERCEPT

14+00"R/L MA"

15+00"R/L MA"

16+00"R/L MA"

17+00"R/L MA"

18+00"R/L MA"

19+00"R/L MA"

20+00"R/L

MAPLE RD

B-66-0031

IH-41 SB

431+00

IH-41 NB

SLOPE INTERCEPT

WETLAND BOUNDARY

WETLAND BOUNDARY

EXISTING R/W

429+00

LEGEND

EROSION MAT CLASS I TYPE A

INLET PROTECTION TYPE D

SILT FENCE

SLOPE INTERCEPT

SURFACE WATER FLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	EROSION CONTROL: MAPLE RD	SHEET 70	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022006-ec

PLOT DATE : 4/4/2022 6:43 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

EXISTING R/W

WETLAND BOUNDARY

SLOPE INTERCEPT

IH-41 SB

IH-41 NB

B-66-0031

MAPLE RD

434+00

433+00

432+00

431+00

430+00

429+00

18+00"R/L MA"

19+00"R/L MA"

20+00"R/L MA"

21+00"R/L MA"

22+00"R/L MA"

23+00"R/L MA"

N

LEGEND

EROSION MAT CLASS I TYPE A

INLET PROTECTION TYPE D

SILT FENCE

SLOPE INTERCEPT

SURFACE WATER FLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	EROSION CONTROL: MAPLE RD	SHEET 71	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022007-ec

PLOT DATE : 4/4/2022 6:45 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

IH-41 SB

IH-41 NB

434+00

433+00

N

WETLAND BOUNDARY

EXISTING R/W

SLOPE INTERCEPT

B-66-0031

21+00"R/L MA"

22+00"R/L MA"

23+00"R/L MA"

24+00"R/L MA"

25+00"R/L MA"

26+00"R/L MA"

MAPLE RD

SLOPE INTERCEPT

EXISTING R/W

LEGEND

EROSION MAT CLASS I TYPE A

INLET PROTECTION TYPE D

SILT FENCE

SLOPE INTERCEPT

SURFACE WATER FLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	EROSION CONTROL: MAPLE RD	SHEET 72	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022008-ec

PLOT DATE : 4/4/2022 6:47 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

EXISTING R/W

SLOPE INTERCEPT

10+00"R/L ME"

11+00"R/L ME"

12+00"R/L ME"

13+00"R/L ME"

14+00"R/L ME"

15+00"R/L ME"

CTH Y / MEQUON RD

SLOPE INTERCEPT

SLOPE INTERCEPT

EXISTING R/W

LEGEND

EROSION MAT CLASS I TYPE A

INLET PROTECTION TYPE D

SILT FENCE

SLOPE INTERCEPT

SURFACE WATER FLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	EROSION CONTROL: MEQUON RD	SHEET 73	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022009-ec

PLOT DATE : 4/4/2022 6:50 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

EXISTING R/W

SLOPE INTERCEPT

IH-41 SB

491+00

B-66-0034

13+00"R/L ME"

14+00"R/L ME"

15+00"R/L ME"

16+00"R/L ME"

17+00"R/L ME"

18+00"R/L ME"

19+00"R/L ME"

CTH Y / MEQUON RD

SLOPE INTERCEPT

GUY

EXISTING R/W

LEGEND

EROSION MAT CLASS I TYPE A

D

INLET PROTECTION TYPE D

SILT FENCE

SLOPE INTERCEPT

SURFACE WATER FLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	EROSION CONTROL: MEQUON RD	SHEET 74	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022010-ec

PLOT DATE : 4/4/2022 6:54 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

EXISTING R/W

SLOPE INTERCEPT

SLOPE INTERCEPT

23+00"R/L ME"

24+00"R/L ME"

25+00"R/L ME"

26+00"R/L ME"

27+00"R/L ME"

28+00"R/L ME"

B-66-0034

CTH Y / MEQUON RD

WETLAND BOUNDARY

SLOPE INTERCEPT

EXISTING R/W

LEGEND

EROSION MAT CLASS I TYPE A

INLET PROTECTION TYPE D

SILT FENCE

SLOPE INTERCEPT

SURFACE WATER FLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	EROSION CONTROL: MEQUON RD	SHEET 75	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022011-ec

PLOT DATE : 4/4/2022 6:57 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

SLOPE INTERCEPT

EXISTING R/W

SLOPE INTERCEPT

14+00"R/L F" 15+00"R/L F" 16+00"R/L F" 17+00"R/L F" 18+00"R/L F" 19+00"R/L F" 20+00"R/L F"

FREISTADT RD

SLOPE INTERCEPT

SLOPE INTERCEPT

EXISTING R/W

SLOPE INTERCEPT

HILLTOP DR

LEGEND

EROSION MAT CLASS I TYPE A

INLET PROTECTION TYPE D

SILT FENCE

SLOPE INTERCEPT

SURFACE WATER FLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	EROSION CONTROL: FREISTADT RD	SHEET 76	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022012-ec

PLOT DATE : 4/4/2022 7:00 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

EXISTING R/W

D FRANK BLVD

SLOPE INTERCEPT

B-66-0035

FREISTADT RD

0+00"R/L F" | 21+00"R/L F" | 22+00"R/L F" | 23+00"R/L F" | 24+00"R/L F" | 25+00"R/L F" | 26+00"R/L F"

IH-41 NB

IH-41 SB

SLOPE INTERCEPT

SIGN

LEGEND

- EROSION MAT CLASS I TYPE A
- D — INLET PROTECTION TYPE D
- SILT FENCE
- SLOPE INTERCEPT
- SURFACE WATER FLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	EROSION CONTROL: FREISTADT RD	SHEET 77	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022013-ec

PLOT DATE : 4/4/2022 7:03 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

SLOPE INTERCEPT

EXISTING R/W

SLOPE INTERCEPT

FREISTADT RD

26+00"R/L F"

27+00"R/L F"

28+00"R/L F"

29+00"R/L F"

30+00"R/L F"

31+00"R/L F"

32+00"R/L F"

SLOPE INTERCEPT

EXISTING R/W

LEGEND

EROSION MAT CLASS I TYPE A

INLET PROTECTION TYPE D

SILT FENCE

SLOPE INTERCEPT

SURFACE WATER FLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	EROSION CONTROL: FREISTADT RD	SHEET 78	E

2

CONCRETE CURB & GUTTER 36-INCH TYPE TBTT

EXISTING STORM SEWER

N

STA 17+98, 18.4' LT
INLETS 2x2.0-V

INLET 2
865.358

18+00"R/L MA"

CONCRETE CURB & GUTTER 36-INCH TYPE TBT

CONCRETE CURB & GUTTER 36-INCH TYPE TBT

61-FT STORM SEWER PIPE CLASS III-A 12-INCH @ 2.90%

843.635

54-FT CULVERT PIPE CORRUGATED POLYETHYLENE 12-INCH @ 30.23%

APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH
STA. 17+66, 80.5 RT

17°

STA 17+48, 20.0' RT
INLETS 2x2.0-V

INLET 1
863.552

4FT-CPCPE 12-INCH @ 0.08%

4FT-CPCPE 12-INCH @ 0.08%

865
860
855
850
845
840
838

STA 17+98, 18.4' LT
INLETS 2x2.0-V

INLET 2
865.358

INLET 1
863.552

STA 17+48, 20.0' RT
INLETS 2x2.0-V

861.816

61FT-SSP CLASS III-A 12-INCH @ 2.90%

860.048

4FT-CPCPE 12-INCH @ 0.08%

860.045

54FT-CPCPE 12-INCH @ 30.23%

APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH
STA. 17+66, 80.5 RT

843.638

4FT-CPCPE 12-INCH @ 0.08%

843.635

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	STORM SEWER: MAPLE ROAD	SHEET 79	E

2

N

EXISTING STORM SEWER

23+00"R/L F"

CONCRETE CURB & GUTTER 36-INCH TYPE TBTT

INLET 2
987.635
STA 23+37, 19.6' LT
INLETS 2x2.0-V

50-FT STORM SEWER PIPE CLASS III-A 12-INCH @ 3.17%

CONCRETE CURB & GUTTER 36-INCH TYPE TBT

CONCRETE CURB & GUTTER 36-INCH TYPE TBT

APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH
STA. 23+72, 90.0 RT

4FT-CPCPE 12-INCH @ 0.08%

4FT-CPCPE 12-INCH @ 0.08%

INLET 1
986.005
STA 23+72, 19.5' RT
INLETS 2x2.0-V

62-FT CULVERT PIPE CORRUGATED POLYETHYLENE 12-INCH @ 37.24%

959.626

985
980
975
970
965
960
959

STA 23+72, 19.5' RT
INLETS 2x2.0-V
INLET 1
986.005

50FT-SSP CLASS III-A 12-INCH @ 3.17%

INLET 2
987.635
STA 23+37, 19.6' LT
INLETS 2x2.0-V

984.127

982.535

4FT-CPCPE 12-INCH @ 0.08%

982.532

62FT-CPCPE 12-INCH @ 37.24%

APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH
STA. 23+72, 90.0 RT

959.626

4FT-CPCPE 12-INCH @ 0.08%

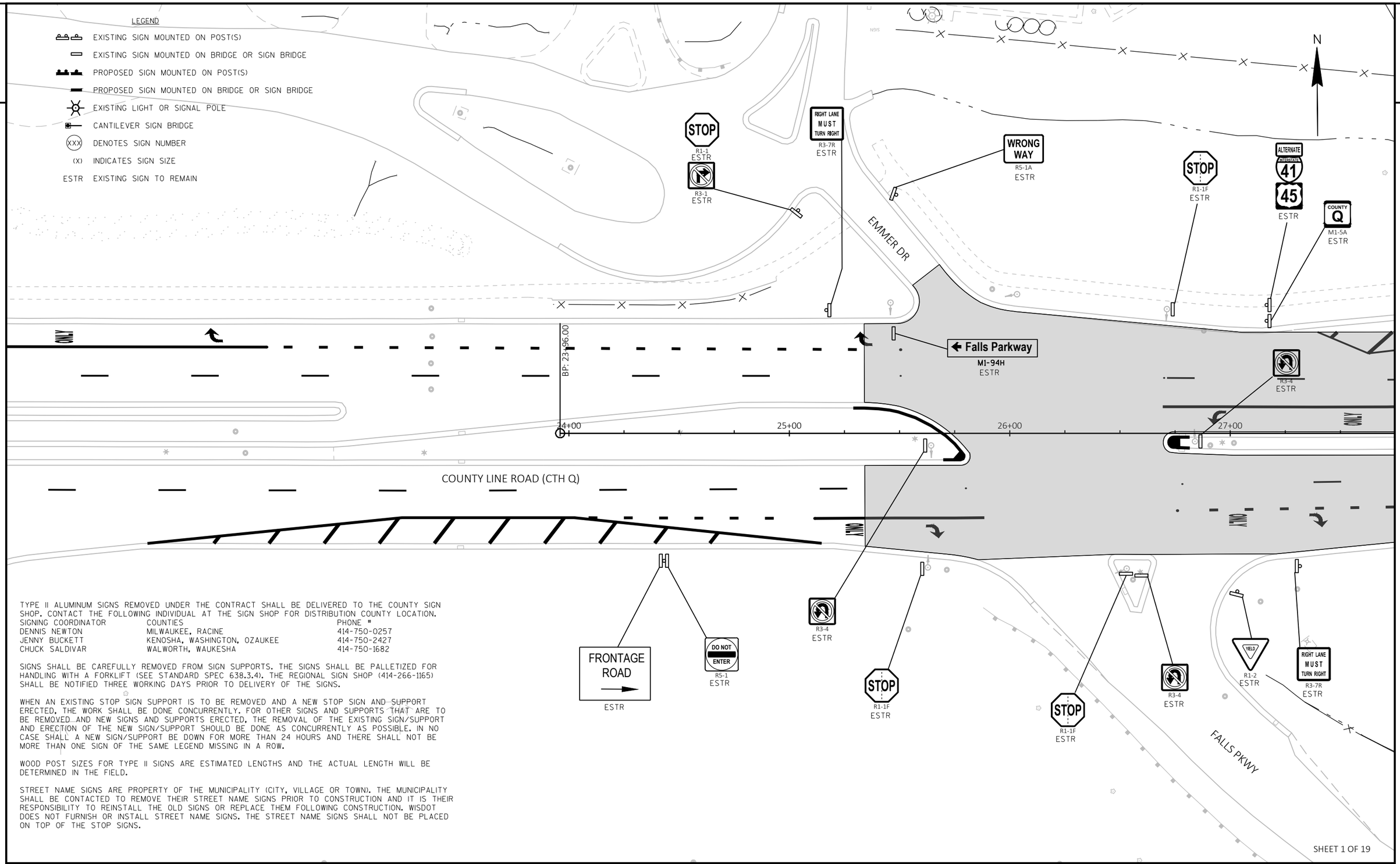
959.630

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	STORM SEWER: FREISTADT ROAD	SHEET 80	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 022502-ss
PLOT DATE : 1/24/2022 7:53 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 41

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



TYPE II ALUMINUM SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE COUNTY SIGN SHOP. CONTACT THE FOLLOWING INDIVIDUAL AT THE SIGN SHOP FOR DISTRIBUTION COUNTY LOCATION.

SIGNING COORDINATOR	COUNTIES	PHONE #
DENNIS NEWTON	MILWAUKEE, RACINE	414-750-0257
JENNY BUCKETT	KENOSHA, WASHINGTON, OZAUKEE	414-750-2427
CHUCK SALDIVAR	WALWORTH, WAUKESHA	414-750-1682

SIGNS SHALL BE CAREFULLY REMOVED FROM SIGN SUPPORTS. THE SIGNS SHALL BE PALLETIZED FOR HANDLING WITH A FORKLIFT (SEE STANDARD SPEC 638.3.4). THE REGIONAL SIGN SHOP (414-266-1165) SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF THE SIGNS.

WHEN AN EXISTING STOP SIGN SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED, THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POST SIZES FOR TYPE II SIGNS ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

STREET NAME SIGNS ARE PROPERTY OF THE MUNICIPALITY (CITY, VILLAGE OR TOWN). THE MUNICIPALITY SHALL BE CONTACTED TO REMOVE THEIR STREET NAME SIGNS PRIOR TO CONSTRUCTION AND IT IS THEIR RESPONSIBILITY TO REINSTALL THE OLD SIGNS OR REPLACE THEM FOLLOWING CONSTRUCTION. WISDOT DOES NOT FURNISH OR INSTALL STREET NAME SIGNS. THE STREET NAME SIGNS SHALL NOT BE PLACED ON TOP OF THE STOP SIGNS.

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 81	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023201_PS
PLOT DATE : 4/15/2022 8:04 AM
PLOT BY : MARTENS, KAREN L
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

CANTILEVER SIGN BRIDGE

XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

IH-41 SB OFF RAMP

35+00

STOP R1-1F ESTR

FRONTAGE ROAD ESTR

W12-1D ESTR

STOP R1-1F ESTR

3 ONE WAY R6-2L MOVE

STOP R1-1F ESTR

DO NOT ENTER R5-1 ESTR

WRONG WAY R5-1A ESTR

DO NOT ENTER R5-1 4

WRONG WAY R5-1A 5 MOVE

DO NOT ENTER R5-1 ESTR

R3-1 STOP R1-1F ESTR

SOUTH INTERSTATE 41 45 ESTR

STOP R1-1F ESTR

W4-1R ESTR

WRONG WAY R5-1A ESTR

RAMP CLOSED USE ALT ROUTE R11-54F ESTR

35+00

IH-41

35+00

2 ONE WAY R6-2R MOVE

LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50L ESTR

R4-7 ESTR

28+00 29+00 30+00 31+00 32+00 33+00

BP: 353+19.38

COUNTY LINE ROAD (CTH Q)

R4-7 ESTR

35+00

SOUTH INTERSTATE 41 45 ESTR

RAMP CLOSED USE ALT ROUTE R11-54F ESTR

RIGHT LANE MUST TURN RIGHT R3-7R ESTR

R3-18 ESTR

STOP R1-1F ESTR

PT: 353+65.96

ONE WAY R6-2L ESTR

SPEED LIMIT 35 R2-1 ESTR

NORTH INTERSTATE 41 45 ESTR

NORTH INTERSTATE 41 6 45 JV3-1 MOVE

SOUTH INTERSTATE 41 45 ESTR

35+00

IH-41 SB ON RAMP

00

SHEET 2 OF 19

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 82	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023202_PS

PLOT DATE : 4/15/2022 8:07 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

PT: 348+84.4

348+00

347+00

352+00

IH-41 SB

351+00

County Line Rd
M1-94
ESTR

SOUTH
41
45
ESTR

ONE WAY
R6-2L
ESTR

R4-7
ESTR

COUNTY LINE ROAD (CTH Q)

34+00 35+00 36+00 37+00 38+00 39+00

350+00

349+00

348+00

IH-41 NB

RAMP CLOSED
USE
ALT ROUTE
R11-54F
ESTR

W3-3
ESTR

W4-1R
ESTR

STOP
R1-1F
ESTR

R3-1
ESTR

STOP
R1-1F
ESTR

NORTH
41
45
ESTR

DO NOT
ENTER
R5-1
ESTR

County Line Rd
M1-94
ESTR

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 3 OF 19

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 83	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023203_PS

PLOT DATE : 4/15/2022 8:11 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

IH 41 NB ON RAMP

347+00

PC: 346+30.61

346+00

PI: 40+51.00

PC: 41+72.50

40+00

41+00

42+00

43+00

44+00

45+00

BP: 346+83.43

346+00

COUNTY LINE ROAD (CTH Q)

IH 41 NB OFF RAMP

345+00

344+00

R5-1 ESTR — DO NOT ENTER

R1-1F ESTR — STOP

R11-54F ESTR — RAMP CLOSED / USE / ALT ROUTE

R3-18 ESTR

R1-1F ESTR — STOP

NORTH / INTERSTATE / 41 / 45 — ESTR

R2-1 ESTR — SPEED LIMIT 35

W3-3 ESTR

JCT / INTERSTATE / 41 / 45 — ESTR

R4-7 ESTR

R5-1 ESTR — DO NOT ENTER

R5-1A ESTR — WRONG WAY

R6-2L ESTR — ONE WAY

R6-2R ESTR — ONE WAY

R1-1F ESTR — STOP

R1-1F ESTR — STOP

R1-2 ESTR — YIELD

W12-1D ESTR

R5-1 ESTR — DO NOT ENTER

R5-1A ESTR — WRONG WAY

W3-3 ESTR

M1-5A ESTR — COUNTY Q

R3-55L ESTR — LEFT TURN LANE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 4 OF 19

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 84	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023204_PS

PLOT DATE : 4/15/2022 8:14 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

DIVISION RD

CUMBERLAND RD

COUNTY LINE ROAD (CTH Q)

STOP R1-1F ESTR

DO NOT ENTER R5-1 ESTR

R4-7 ESTR

PT: 46+97.33

PC: 50+70.70

46+00 47+00 48+00 49+00 50+00 51+00

N

SHEET 5 OF 19

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 85	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023205_PS

PLOT DATE : 4/15/2022 8:17 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

STOP
R1-1
ESTR

W1-8
ESTR

W1-8
ESTR

FAWN LANE

BP: 10+46.03

11+00 12+00 13+00 14+00 15+00 16+00

MAPLE ROAD

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 6 OF 19

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 86	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023206_PS

PLOT DATE : 4/15/2022 8:21 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

CANTILEVER SIGN BRIDGE

XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

7 W5-52L(2S) 4' MOUNT HEIGHT

W5-52R ESTR

9 W5-52R(2S) 4' MOUNT HEIGHT

8 W5-52R(2S) 4' MOUNT HEIGHT

10 W5-52L(2S) 4' MOUNT HEIGHT

IN 41 SB

IN 41 NB

MAPLE ROAD

PI: 1430+40.00

1428+00 1429+00 1430+00 1431+00 1432+00 1433+00

428+00 429+00 430+00 431+00 432+00 433+00 434+00

17+00 18+00 19+00 20+00 21+00 22+00

N

SHEET 7 OF 19

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 87	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023207_PS

PLOT DATE : 4/15/2022 8:25 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

CANTILEVER SIGN BRIDGE

XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

N

NO SIGNS THIS SHEET

23+00 24+00 25+00 26+00 27+00 28+00

MAPLE ROAD

SHEET 8 OF 19

2

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 88	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023208_PS

PLOT DATE : 4/15/2022 8:28 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

CANTILEVER SIGN BRIDGE

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

N

HILLTOP DR

STOP
R1-1F
ALL WAY
R1-3P
ESTR

BP: 5+44.90

6+00 7+00 8+00 9+00 10+00 11+00

MEQUON ROAD

HILLTOP DR

STOP
R1-1F
ALL WAY
R1-3P
ESTR

W11-6
ESTR

SPEED LIMIT 40
R2-1
ESTR

SHEET 9 OF 19

2

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 89	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023209_PS

PLOT DATE : 4/15/2022 8:32 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

W3-1
ESTR

12
W11-6
MOVE

13
W5-52L(2S)
4' MOUNT
HEIGHT

12+00 13+00 14+00 15+00 16+00 17+00

MEQUON ROAD

11
REMOVE

14
W5-52R(2S)
4' MOUNT
HEIGHT

SHEET 10 OF 19

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 90	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023210_PS

PLOT DATE : 4/15/2022 8:35 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

IH 41 SB

491+00

490+00

18+00

19+00

20+00

21+00

22+00

23+00

MEQUON ROAD

15

W5-52R(2S)
4' MOUNT
HEIGHT

16

W5-52L(2S)
4' MOUNT
HEIGHT

489+00

488+00

487+00

IH 41 NB

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 11 OF 19

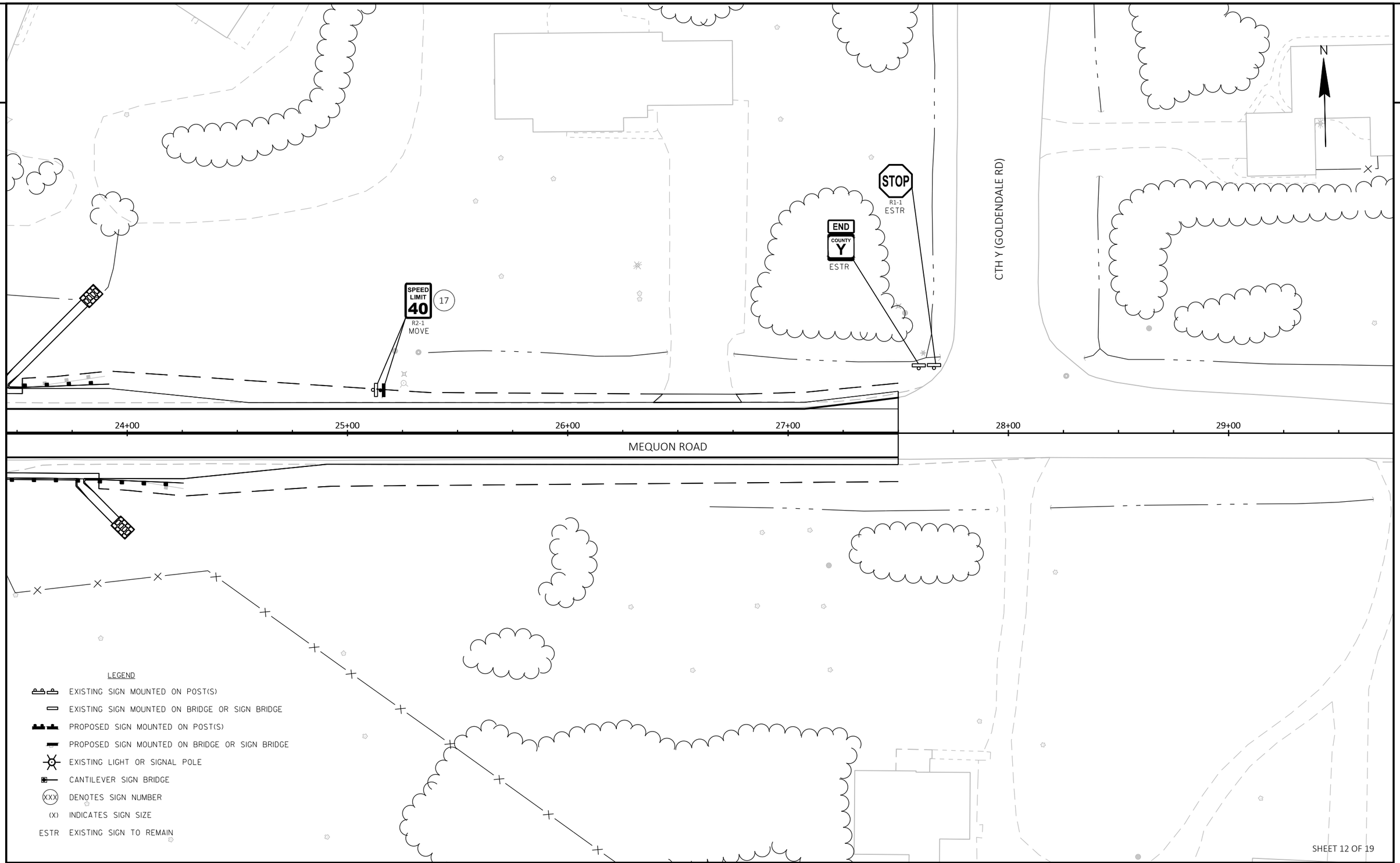
PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 91	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023211_PS

PLOT DATE : 4/15/2022 8:39 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



SHEET 12 OF 19

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 92	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023212_PS

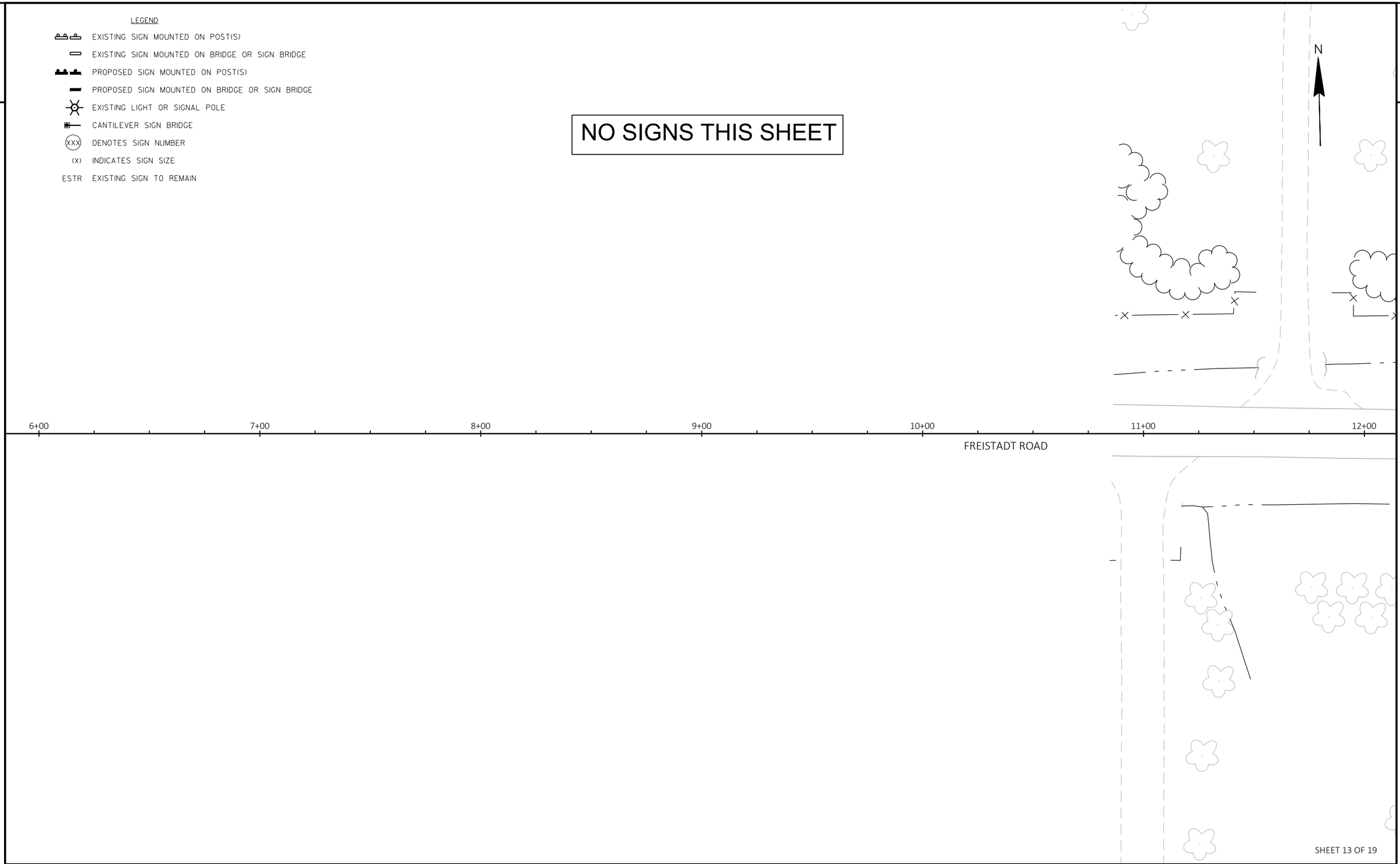
PLOT DATE : 4/15/2022 8:42 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

NO SIGNS THIS SHEET



2

SHEET 13 OF 19

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 93	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023213_PS

PLOT DATE : 4/15/2022 8:46 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

CANTILEVER SIGN BRIDGE

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

N

18
W5-56
MOVE

19
W1-7
MOVE

12+00 13+00 14+00 15+00 16+00 17+00 18+00

FREISTADT ROAD

R5-2
ESTR

STOP
R1-1
ESTR

HILLTOP DR

SHEET 14 OF 19

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 94	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023214_PS

PLOT DATE : 4/15/2022 8:49 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

CANTILEVER SIGN BRIDGE

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

N

IH 41 SB

562+00

561+00

20

W5-52L
MOVE

23

W5-52R
MOVE

18+00 19+00 20+00 21+00 22+00 23+00 24+00

FREISTADT ROAD

560+00

559+00

558+00

IH 41 NB

TRUCK ENTRANCE

21

W5-57
MOVE

22

W5-52R
MOVE

24

W5-52L
MOVE

SIGN

SHEET 15 OF 19

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 95	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023215_PS

PLOT DATE : 4/15/2022 8:53 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

CANTILEVER SIGN BRIDGE

XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

N

PI: 25+90.60

24+00 25+00 26+00 27+00 28+00 29+00 30+00

FREISTADT ROAD

25 SPEED LIMIT 40

R2-1

MOVE

SHEET 16 OF 19

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 96	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023216_PS

PLOT DATE : 4/15/2022 8:56 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

2

TRUCK ENTRANCE
W54-57
ESTR

30+00 31+00 32+00 33+00 34+00 35+00 36+00

FREISTADT ROAD

PRIVATE ROAD

SHEET 17 OF 19

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 97	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023217_PS

PLOT DATE : 4/15/2022 9:00 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

MILE
60
D10-2
ESTR

USH 45 SB

599+00
1700+00
1701+00
1702+00
1703+00
1704+00
1705+00

IH 41 SB

BP: 705+99.9
EP: 705+94.80
705+00
704+00

IH 41 NB

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 18 OF 19

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 98	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023218_PS

PLOT DATE : 4/15/2022 9:03 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

SOUTH 41
MILE 59 .6
D10-5
ESTR

NORTH 41
MILE 59 .6
D10-5
ESTR

IH 41 SB

IH 41 NB

705+00
706+00
707+00
708+00
709+00
710+00
1706+00
1707+00
1708+00
1709+00
1710+00
1711+00

PT: 1707+37.33

USH 45 SB

W5-52R
ESTR

W5-52L
ESTR

SIGN

EMERGENCY STOPPING ONLY
R8-7
ESTR

SIS SIGN
ESTR

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 19 OF 19

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 99	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SIGN\023201_PS_18.DWG
LAYOUT NAME - 023219_PS

PLOT DATE : 4/15/2022 9:07 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

EXISTING R/W

EMMER RD

TYPE 2

21+07, -65' LT

22+63, -49' LT

25+50, -38' LT

25+50, -26' LT

26+70, -25' LT

CTH Q / COUNTY LINE RD

24+00"R/L Q"

25+00"R/L Q"

26+00"R/L Q"

27+00"R/L Q"

25+29, -11' LT

25+70, 12' RT

20+97, 15' RT

22+09, 40' RT

23+24, 28' RT

24+02, 38' RT

25+11, 39' RT

25+15, 50' RT

25+88, 38' RT

26+76, 35' RT

EXISTING R/W

FALLS PKWY

LEGEND

1. MARKING LINE EPOXY 4-INCH WHITE
2. MARKING LINE EPOXY 4-INCH YELLOW
3. MARKING LINE EPOXY 4-INCH DOUBLE YELLOW
4. MARKING LINE EPOXY 4-INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
6. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
7. MARKING DIAGONAL EPOXY 12-INCH WHITE
8. MARKING STOP LINE EPOXY 18-INCH
9. MARKING YIELD LINE EPOXY 18-INCH
10. MARKING ARROW EPOXY
11. MARKING WORDS EPOXY (ONLY)
12. MARKING LINE CONTRAST EPOXY 8-INCH WHITE
13. MARKING CURB EPOXY YELLOW
14. MARKING ISLAND NOSE EPOXY YELLOW
15. MARKING LINE CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
16. MARKING LINE CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
17. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
18. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE
19. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
20. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (2' LINE AND 6' SKIP)
21. MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE
22. MARKING LINE GROOVED WET REF EPOXY 4-INCH YELLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKINGS: CTH Q	SHEET 100	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024501-pm

PLOT DATE : 4/15/2022 1:20 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

1. MARKING LINE EPOXY 4-INCH WHITE
2. MARKING LINE EPOXY 4-INCH YELLOW
3. MARKING LINE EPOXY 4-INCH DOUBLE YELLOW
4. MARKING LINE EPOXY 4-INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
6. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
7. MARKING DIAGONAL EPOXY 12-INCH WHITE
8. MARKING STOP LINE EPOXY 18-INCH
9. MARKING YIELD LINE EPOXY 18-INCH
10. MARKING ARROW EPOXY
11. MARKING WORDS EPOXY (ONLY)
12. MARKING LINE CONTRAST EPOXY 8-INCH WHITE
13. MARKING CURB EPOXY YELLOW
14. MARKING ISLAND NOSE EPOXY YELLOW
15. MARKING LINE CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
16. MARKING LINE CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
17. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
18. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE
19. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
20. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (2' LINE AND 6' SKIP)
21. MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE
22. MARKING LINE GROOVED WET REF EPOXY 4-INCH YELLOW

N

EXISTING R/W

IH-41 SB EXIT RAMP

NGS

CTH Q / COUNTY LINE RD

FALLS PKWY

IH-41 SB ON RAMP

WASHINGTON COUNTY RESPONSIBILITY
LOCAL MUNICIPALITY AGREEMENT
STA. 28+50

26+70, 25' LT
27+40, -46' LT
27+63, -36' LT
28+01, -12' LT
28+45, -46' LT
29+44, -8' LT
29+93, 7' RT
30+87, -34' LT
30+82, 21' RT
32+56, -10' LT
26+76, 35' RT
28+09, 33' RT
29+72, 46' RT
35+00

27+00"R/L Q"
28+00"R/L Q"
29+00"R/L Q"
30+00"R/L Q"
31+00"R/L Q"
32+00"R/L Q"

TYPE 2

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKINGS: CTH Q	SHEET 101	E

2

2

N

IH 41 SB

IH 41 NB

353+00

352+00

351+00

350+00

349+00

348+00

CTH Q/COUNTY LINE RD

B-66-0030

32+00"R/L Q"

33+00"R/L Q"

34+00"R/L Q"

35+00"R/L Q"

36+00"R/L Q"

37+00"R/L Q"

38+00"R/L Q"

32+56, -10' LT

38+02, 10' RT

TYPE 2

17

18

10

LEGEND

1. MARKING LINE EPOXY 4–INCH WHITE
2. MARKING LINE EPOXY 4–INCH YELLOW
3. MARKING LINE EPOXY 4–INCH DOUBLE YELLOW
4. MARKING LINE EPOXY 4–INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6–INCH
6. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
7. MARKING DIAGONAL EPOXY 12–INCH WHITE
8. MARKING STOP LINE EPOXY 18–INCH
9. MARKING YIELD LINE EPOXY 18–INCH
10. MARKING ARROW EPOXY
11. MARKING WORDS EPOXY (ONLY)
12. MARKING LINE CONTRAST EPOXY 8–INCH WHITE
13. MARKING CURB EPOXY YELLOW
14. MARKING ISLAND NOSE EPOXY YELLOW
15. MARKING LINE CONTRAST EPOXY 8–INCH WHITE DASHED (3' LINE AND 12' SKIP)
16. MARKING LINE CONTRAST EPOXY 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
17. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
18. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE
19. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE DASHED (3' LINE AND 12' SKIP)
20. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE DASHED (2' LINE AND 6' SKIP)
21. MARKING LINE GROOVED WET REF EPOXY 4–INCH WHITE
22. MARKING LINE GROOVED WET REF EPOXY 4–INCH YELLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKINGS: CTH Q	SHEET 102	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024503-pm
PLOT DATE : 4/15/2022 1:25 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

1. MARKING LINE EPOXY 4-INCH WHITE
2. MARKING LINE EPOXY 4-INCH YELLOW
3. MARKING LINE EPOXY 4-INCH DOUBLE YELLOW
4. MARKING LINE EPOXY 4-INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
6. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
7. MARKING DIAGONAL EPOXY 12-INCH WHITE
8. MARKING STOP LINE EPOXY 18-INCH
9. MARKING YIELD LINE EPOXY 18-INCH
10. MARKING ARROW EPOXY
11. MARKING WORDS EPOXY (ONLY)
12. MARKING LINE CONTRAST EPOXY 8-INCH WHITE
13. MARKING CURB EPOXY YELLOW
14. MARKING ISLAND NOSE EPOXY YELLOW
15. MARKING LINE CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
16. MARKING LINE CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
17. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
18. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE
19. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
20. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (2' LINE AND 6' SKIP)
21. MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE
22. MARKING LINE GROOVED WET REF EPOXY 4-INCH YELLOW

N

WASHINGTON COUNTY RESPONSIBILITY
LOCAL MUNICIPALITY AGREEMENT
STA. 42+00

CTH Q / COUNTY LINE RD

38+00"R/L Q"
39+00"R/L Q"
40+00"R/L Q"
41+00"R/L Q"
42+00"R/L Q"
43+00"R/L Q"

39+57, -22' LT
40+68, -47' LT
34+00
40+55, -8' LT
40+97, 8' RT
40+80, 21' RT
34+00
41+31, 36' RT
41+11, 106' RT
34+00
38+02, 10' RT
39+48, 34' RT

TYPE 2
TYPE 2
TYPE 2
TYPE 2
TYPE 3

IH 41 NB

IH-41 NB EXIT RAMP

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKINGS: CTH Q	SHEET 103	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024504-pm

PLOT DATE : 4/15/2022 1:28 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

LEGEND

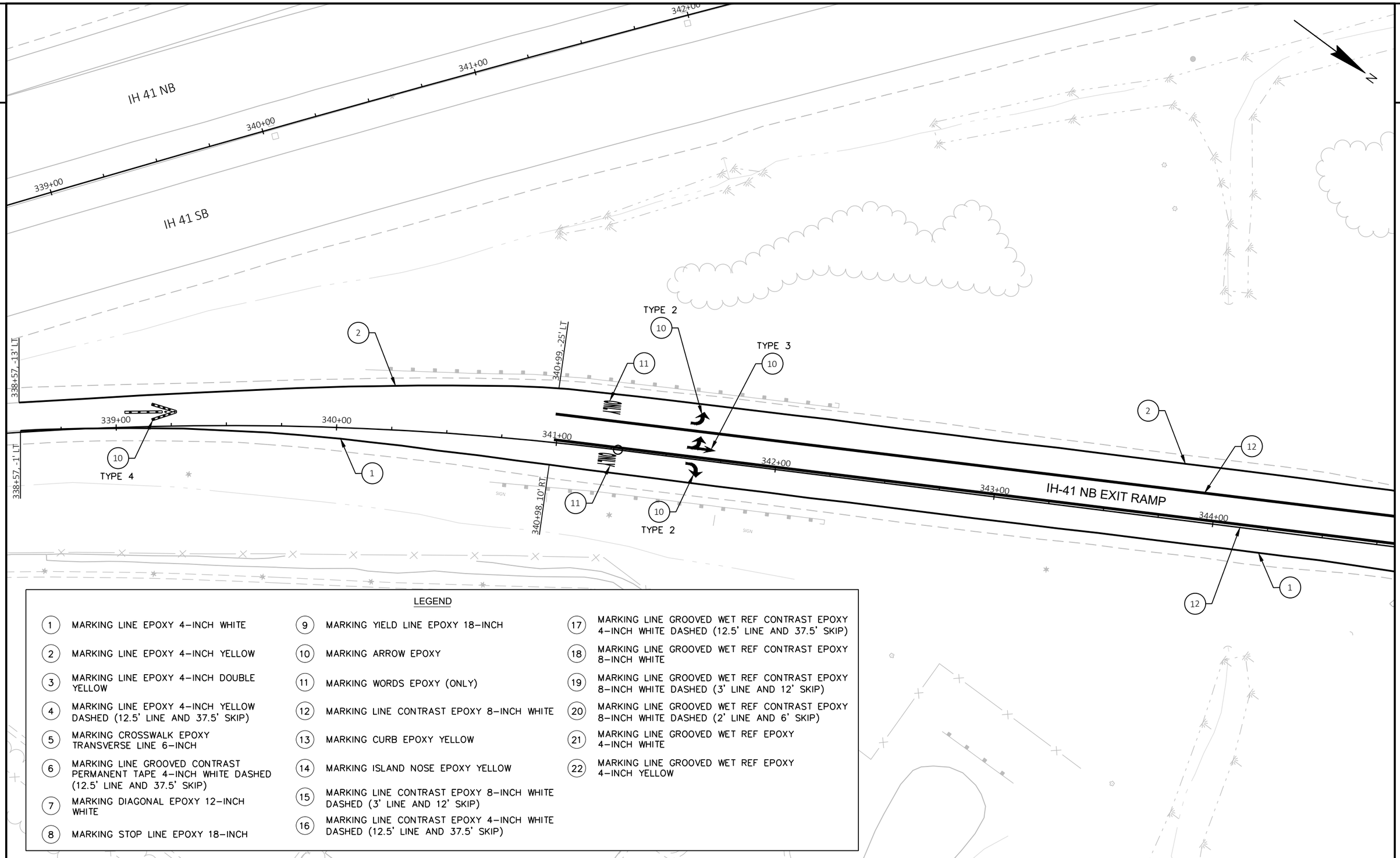
1. MARKING LINE EPOXY 4-INCH WHITE
2. MARKING LINE EPOXY 4-INCH YELLOW
3. MARKING LINE EPOXY 4-INCH DOUBLE YELLOW
4. MARKING LINE EPOXY 4-INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
6. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
7. MARKING DIAGONAL EPOXY 12-INCH WHITE
8. MARKING STOP LINE EPOXY 18-INCH
9. MARKING YIELD LINE EPOXY 18-INCH
10. MARKING ARROW EPOXY
11. MARKING WORDS EPOXY (ONLY)
12. MARKING LINE CONTRAST EPOXY 8-INCH WHITE
13. MARKING CURB EPOXY YELLOW
14. MARKING ISLAND NOSE EPOXY YELLOW
15. MARKING LINE CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
16. MARKING LINE CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
17. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
18. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE
19. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
20. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (2' LINE AND 6' SKIP)
21. MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE
22. MARKING LINE GROOVED WET REF EPOXY 4-INCH YELLOW

IH-41 NB ON RAMP
347+00
346+00
345+00
344+00
IH-41 NB EXIT RAMP
CTH Q / COUNTY LINE RD
39+57, 22' LT
40+68, 47' LT
40+55, 8' LT
40+00"R/L Q"
41+00"R/L Q"
42+00"R/L Q"
43+00"R/L Q"
44+00"R/L Q"
45+00"R/L Q"
40+97, 8' RT
40+80, 21' RT
41+31, 36' RT
41+11, 106' RT
44+73, 21' LT
44+73, 25' RT
39+48, 34' RT
TYPE 2
TYPE 3
WASHINGTON COUNTY RESPONSIBILITY
LOCAL MUNICIPALITY AGREEMENT
STA. 42+00

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKINGS: CTH Q	SHEET 104	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024505-pm
PLOT DATE : 4/15/2022 1:30 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



LEGEND

1 MARKING LINE EPOXY 4–INCH WHITE	9 MARKING YIELD LINE EPOXY 18–INCH	17 MARKING LINE GROOVED WET REF CONTRAST EPOXY 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
2 MARKING LINE EPOXY 4–INCH YELLOW	10 MARKING ARROW EPOXY	18 MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE
3 MARKING LINE EPOXY 4–INCH DOUBLE YELLOW	11 MARKING WORDS EPOXY (ONLY)	19 MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE DASHED (3' LINE AND 12' SKIP)
4 MARKING LINE EPOXY 4–INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)	12 MARKING LINE CONTRAST EPOXY 8–INCH WHITE	20 MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE DASHED (2' LINE AND 6' SKIP)
5 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6–INCH	13 MARKING CURB EPOXY YELLOW	21 MARKING LINE GROOVED WET REF EPOXY 4–INCH WHITE
6 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)	14 MARKING ISLAND NOSE EPOXY YELLOW	22 MARKING LINE GROOVED WET REF EPOXY 4–INCH YELLOW
7 MARKING DIAGONAL EPOXY 12–INCH WHITE	15 MARKING LINE CONTRAST EPOXY 8–INCH WHITE DASHED (3' LINE AND 12' SKIP)	
8 MARKING STOP LINE EPOXY 18–INCH	16 MARKING LINE CONTRAST EPOXY 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)	

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 105	E

2

N

LEGEND

1. MARKING LINE EPOXY 4–INCH WHITE
2. MARKING LINE EPOXY 4–INCH YELLOW
3. MARKING LINE EPOXY 4–INCH DOUBLE YELLOW
4. MARKING LINE EPOXY 4–INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6–INCH
6. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
7. MARKING DIAGONAL EPOXY 12–INCH WHITE
8. MARKING STOP LINE EPOXY 18–INCH
9. MARKING YIELD LINE EPOXY 18–INCH
10. MARKING ARROW EPOXY
11. MARKING WORDS EPOXY (ONLY)
12. MARKING LINE CONTRAST EPOXY 8–INCH WHITE
13. MARKING CURB EPOXY YELLOW
14. MARKING ISLAND NOSE EPOXY YELLOW
15. MARKING LINE CONTRAST EPOXY 8–INCH WHITE DASHED (3' LINE AND 12' SKIP)
16. MARKING LINE CONTRAST EPOXY 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
17. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
18. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE
19. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE DASHED (3' LINE AND 12' SKIP)
20. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE DASHED (2' LINE AND 6' SKIP)
21. MARKING LINE GROOVED WET REF EPOXY 4–INCH WHITE
22. MARKING LINE GROOVED WET REF EPOXY 4–INCH YELLOW

EXISTING R/W

14+95, -10' LT
BEGIN 1

14+95, 1' RT
BEGIN 2 & 4

14+95, 12' RT
BEGIN 1

18+42, 0' RT
END 2 & 4
BEGIN 3

14+00 15+00 16+00 17+00 18+00 19+00 20+00

MAPLE RD

B-66-0031

IH 41 SB

IH 41 NB

429+00 430+00 431+00

EXISTING R/W

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKINGS: MAPLE RD	SHEET 106	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024507-pm
PLOT DATE : 4/15/2022 1:35 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

1. MARKING LINE EPOXY 4-INCH WHITE
2. MARKING LINE EPOXY 4-INCH YELLOW
3. MARKING LINE EPOXY 4-INCH DOUBLE YELLOW
4. MARKING LINE EPOXY 4-INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
6. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
7. MARKING DIAGONAL EPOXY 12-INCH WHITE
8. MARKING STOP LINE EPOXY 18-INCH
9. MARKING YIELD LINE EPOXY 18-INCH
10. MARKING ARROW EPOXY
11. MARKING WORDS EPOXY (ONLY)
12. MARKING LINE CONTRAST EPOXY 8-INCH WHITE
13. MARKING CURB EPOXY YELLOW
14. MARKING ISLAND NOSE EPOXY YELLOW
15. MARKING LINE CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
16. MARKING LINE CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
17. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
18. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE
19. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
20. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (2' LINE AND 6' SKIP)
21. MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE
22. MARKING LINE GROOVED WET REF EPOXY 4-INCH YELLOW

N

18+00 19+00 20+00 21+00 22+00 23+00

MAPLE RD

B-66-0031

18+42, 0' RT

434+00 433+00 432+00 431+00 430+00 429+00

IH 41 SB

IH 41 NB

EXISTING R/W

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKINGS: MAPLE RD	SHEET 107	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024508-pm
PLOT DATE : 4/15/2022 1:37 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

IH 41 SB

IH 41 NB

434+00

433+00

LEGEND

1	MARKING LINE EPOXY 4-INCH WHITE	9	MARKING YIELD LINE EPOXY 18-INCH	17	MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
2	MARKING LINE EPOXY 4-INCH YELLOW	10	MARKING ARROW EPOXY	18	MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE
3	MARKING LINE EPOXY 4-INCH DOUBLE YELLOW	11	MARKING WORDS EPOXY (ONLY)	19	MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
4	MARKING LINE EPOXY 4-INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)	12	MARKING LINE CONTRAST EPOXY 8-INCH WHITE	20	MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (2' LINE AND 6' SKIP)
5	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	13	MARKING CURB EPOXY YELLOW	21	MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE
6	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)	14	MARKING ISLAND NOSE EPOXY YELLOW	22	MARKING LINE GROOVED WET REF EPOXY 4-INCH YELLOW
7	MARKING DIAGONAL EPOXY 12-INCH WHITE	15	MARKING LINE CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)		
8	MARKING STOP LINE EPOXY 18-INCH	16	MARKING LINE CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)		

3

1

2

25+67, 11' LT
END 1

21+00

22+00

23+00

24+00

25+00

26+00

B-66-0031

MAPLE RD

1

4

23+75, 0' RT
END 3
BEGIN 2 & 4

25+67, 11' RT
END 1

25+67, 0' LT
END 2 & 4

EXISTING R/W

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKINGS: MAPLE RD	SHEET 108	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024509-pm

PLOT DATE : 4/15/2022 1:40 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

LEGEND

1. MARKING LINE EPOXY 4–INCH WHITE
2. MARKING LINE EPOXY 4–INCH YELLOW
3. MARKING LINE EPOXY 4–INCH DOUBLE YELLOW
4. MARKING LINE EPOXY 4–INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6–INCH
6. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
7. MARKING DIAGONAL EPOXY 12–INCH WHITE
8. MARKING STOP LINE EPOXY 18–INCH
9. MARKING YIELD LINE EPOXY 18–INCH
10. MARKING ARROW EPOXY
11. MARKING WORDS EPOXY (ONLY)
12. MARKING LINE CONTRAST EPOXY 8–INCH WHITE
13. MARKING CURB EPOXY YELLOW
14. MARKING ISLAND NOSE EPOXY YELLOW
15. MARKING LINE CONTRAST EPOXY 8–INCH WHITE DASHED (3' LINE AND 12' SKIP)
16. MARKING LINE CONTRAST EPOXY 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
17. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
18. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE
19. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE DASHED (3' LINE AND 12' SKIP)
20. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE DASHED (2' LINE AND 6' SKIP)
21. MARKING LINE GROOVED WET REF EPOXY 4–INCH WHITE
22. MARKING LINE GROOVED WET REF EPOXY 4–INCH YELLOW

11+00, 11' LT
BEGIN 1

11+00"R/L ME"
12+00"R/L ME"
13+00"R/L ME"
CTH Y/MEQUON RD
14+00"R/L ME"
15+00"R/L ME"
16+00"R/L ME"

11+00, 0'
BEGIN 3

11+00, 11' RT
BEGIN 1

EXISTING R/W

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKINGS: MEQUON RD	SHEET 109	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024510-pm

PLOT DATE : 4/15/2022 1:43 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

EXISTING R/W

LEGEND

1. MARKING LINE EPOXY 4–INCH WHITE
2. MARKING LINE EPOXY 4–INCH YELLOW
3. MARKING LINE EPOXY 4–INCH DOUBLE YELLOW
4. MARKING LINE EPOXY 4–INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6–INCH
6. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
7. MARKING DIAGONAL EPOXY 12–INCH WHITE
8. MARKING STOP LINE EPOXY 18–INCH
9. MARKING YIELD LINE EPOXY 18–INCH
10. MARKING ARROW EPOXY
11. MARKING WORDS EPOXY (ONLY)
12. MARKING LINE CONTRAST EPOXY 8–INCH WHITE
13. MARKING CURB EPOXY YELLOW
14. MARKING ISLAND NOSE EPOXY YELLOW
15. MARKING LINE CONTRAST EPOXY 8–INCH WHITE DASHED (3' LINE AND 12' SKIP)
16. MARKING LINE CONTRAST EPOXY 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
17. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
18. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE
19. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE DASHED (3' LINE AND 12' SKIP)
20. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE DASHED (2' LINE AND 6' SKIP)
21. MARKING LINE GROOVED WET REF EPOXY 4–INCH WHITE
22. MARKING LINE GROOVED WET REF EPOXY 4–INCH YELLOW

491+00

16+00"R/L ME" 17+00"R/L ME" 18+00"R/L ME" 19+00"R/L ME" 20+00"R/L ME" CTH Y/MEQUON RD 21+00"R/L ME" 22+00"R/L ME"

B-66-0034

489+00

IH 41 SB

IH 41 NB

487+00

EXISTING R/W

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKINGS: MEQUON RD	SHEET 110	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024511-pm

PLOT DATE : 4/15/2022 1:46 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

1. MARKING LINE EPOXY 4-INCH WHITE
2. MARKING LINE EPOXY 4-INCH YELLOW
3. MARKING LINE EPOXY 4-INCH DOUBLE YELLOW
4. MARKING LINE EPOXY 4-INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
6. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
7. MARKING DIAGONAL EPOXY 12-INCH WHITE
8. MARKING STOP LINE EPOXY 18-INCH
9. MARKING YIELD LINE EPOXY 18-INCH
10. MARKING ARROW EPOXY
11. MARKING WORDS EPOXY (ONLY)
12. MARKING LINE CONTRAST EPOXY 8-INCH WHITE
13. MARKING CURB EPOXY YELLOW
14. MARKING ISLAND NOSE EPOXY YELLOW
15. MARKING LINE CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
16. MARKING LINE CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
17. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
18. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE
19. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
20. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (2' LINE AND 6' SKIP)
21. MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE
22. MARKING LINE GROOVED WET REF EPOXY 4-INCH YELLOW

N

EXISTING R/W

27+07, -11' LT

27+50, -16' LT
END 1

22+00"R/L ME" B-66-0034 23+00"R/L ME" 24+00"R/L ME" CTH Y/MEQUON RD 25+00"R/L ME" 26+00"R/L ME" 27+00"R/L ME" 28+00"R/L M

1

3

27+50, 11' RT
END 1

27+50, 0'
END 3

EXISTING R/W

IH 41 NB

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKINGS: MEQUON RD	SHEET 111	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024512-pm

PLOT DATE : 4/15/2022 1:48 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

LEGEND

1. MARKING LINE EPOXY 4-INCH WHITE
2. MARKING LINE EPOXY 4-INCH YELLOW
3. MARKING LINE EPOXY 4-INCH DOUBLE YELLOW
4. MARKING LINE EPOXY 4-INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
6. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
7. MARKING DIAGONAL EPOXY 12-INCH WHITE
8. MARKING STOP LINE EPOXY 18-INCH
9. MARKING YIELD LINE EPOXY 18-INCH
10. MARKING ARROW EPOXY
11. MARKING WORDS EPOXY (ONLY)
12. MARKING LINE CONTRAST EPOXY 8-INCH WHITE
13. MARKING CURB EPOXY YELLOW
14. MARKING ISLAND NOSE EPOXY YELLOW
15. MARKING LINE CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
16. MARKING LINE CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
17. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
18. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE
19. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
20. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (2' LINE AND 6' SKIP)
21. MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE
22. MARKING LINE GROOVED WET REF EPOXY 4-INCH YELLOW

EXISTING R/W

14+00, 11' LT
BEGIN 1

FREISTADT RD

14+00"R/L F"
15+00"R/L F"
16+00"R/L F"
17+00"R/L F"
18+00"R/L F"
19+00"R/L F"

14+00, 0'
BEGIN 3

14+00, 12' RT
BEGIN 1

16+01, 12' RT

16+49, 14' RT
END 1

17+37, 19' RT
BEGIN 1

17+83, 11' RT

EXISTING R/W

HILLTOP DR

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKINGS: FREISTADT RD	SHEET 112	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024513-pm

PLOT DATE : 4/15/2022 1:50 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

LEGEND

1. MARKING LINE EPOXY 4–INCH WHITE
2. MARKING LINE EPOXY 4–INCH YELLOW
3. MARKING LINE EPOXY 4–INCH DOUBLE YELLOW
4. MARKING LINE EPOXY 4–INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6–INCH
6. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
7. MARKING DIAGONAL EPOXY 12–INCH WHITE
8. MARKING STOP LINE EPOXY 18–INCH
9. MARKING YIELD LINE EPOXY 18–INCH
10. MARKING ARROW EPOXY
11. MARKING WORDS EPOXY (ONLY)
12. MARKING LINE CONTRAST EPOXY 8–INCH WHITE
13. MARKING CURB EPOXY YELLOW
14. MARKING ISLAND NOSE EPOXY YELLOW
15. MARKING LINE CONTRAST EPOXY 8–INCH WHITE DASHED (3' LINE AND 12' SKIP)
16. MARKING LINE CONTRAST EPOXY 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
17. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
18. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE
19. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE DASHED (3' LINE AND 12' SKIP)
20. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE DASHED (2' LINE AND 6' SKIP)
21. MARKING LINE GROOVED WET REF EPOXY 4–INCH WHITE
22. MARKING LINE GROOVED WET REF EPOXY 4–INCH YELLOW

562+00
561+00
560+00
559+00
558+00

1
3
1

9+00"R/L F"
20+00"R/L F"
B-66-0035
21+00"R/L F"
22+00"R/L F"
23+00"R/L F"
FREISTADT RD
24+00"R/L F"
25+00"R/L F"

IH 41 SB
IH 41 NB
SIGN

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKINGS: FREISTADT RD	SHEET 113	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024514-pm

PLOT DATE : 4/15/2022 1:52 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

N

D FRANK BLVD

EXISTING R/W

25+47, 11' LT
END 1

26+55, 11' LT
BEGIN 1

30+25, 11' LT
END 1

25+00"R/L F"

26+00"R/L F"

27+00"R/L F"

28+00"R/L F"

29+00"R/L F"

30+00"R/L F"

FREISTADT RD

26+55, 0'
END 3
BEGIN 2 & 4

30+25, 11' RT
END 1

30+25, 0'
END 2 & 4

EXISTING R/W

LEGEND

1. MARKING LINE EPOXY 4–INCH WHITE
2. MARKING LINE EPOXY 4–INCH YELLOW
3. MARKING LINE EPOXY 4–INCH DOUBLE YELLOW
4. MARKING LINE EPOXY 4–INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6–INCH
6. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
7. MARKING DIAGONAL EPOXY 12–INCH WHITE
8. MARKING STOP LINE EPOXY 18–INCH
9. MARKING YIELD LINE EPOXY 18–INCH
10. MARKING ARROW EPOXY
11. MARKING WORDS EPOXY (ONLY)
12. MARKING LINE CONTRAST EPOXY 8–INCH WHITE
13. MARKING CURB EPOXY YELLOW
14. MARKING ISLAND NOSE EPOXY YELLOW
15. MARKING LINE CONTRAST EPOXY 8–INCH WHITE DASHED (3' LINE AND 12' SKIP)
16. MARKING LINE CONTRAST EPOXY 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
17. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4–INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
18. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE
19. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE DASHED (3' LINE AND 12' SKIP)
20. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8–INCH WHITE DASHED (2' LINE AND 6' SKIP)
21. MARKING LINE GROOVED WET REF EPOXY 4–INCH WHITE
22. MARKING LINE GROOVED WET REF EPOXY 4–INCH YELLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKINGS: FREISTADT RD	SHEET 114	E

LEGEND

1. MARKING LINE EPOXY 4-INCH WHITE
2. MARKING LINE EPOXY 4-INCH YELLOW
3. MARKING LINE EPOXY 4-INCH DOUBLE YELLOW
4. MARKING LINE EPOXY 4-INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
6. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
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9. MARKING YIELD LINE EPOXY 18-INCH
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12. MARKING LINE CONTRAST EPOXY 8-INCH WHITE
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14. MARKING ISLAND NOSE EPOXY YELLOW
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17. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
18. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE
19. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
20. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (2' LINE AND 6' SKIP)
21. MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE
22. MARKING LINE GROOVED WET REF EPOXY 4-INCH YELLOW

EXISTING R/W

N

IH 41 SB

IH 41 NB

B-66-0037

USH 45 SB

1701+40, -25' LT
BEGIN 15

1701+40, -13' LT
BEGIN 6

1701+40, -1' LT
BEGIN 16

1701+00
1702+00
1703+00
1704+00
1705+00
1706+00
1707+00
708+00
709+00
707+00
706+00
705+00

SIGN

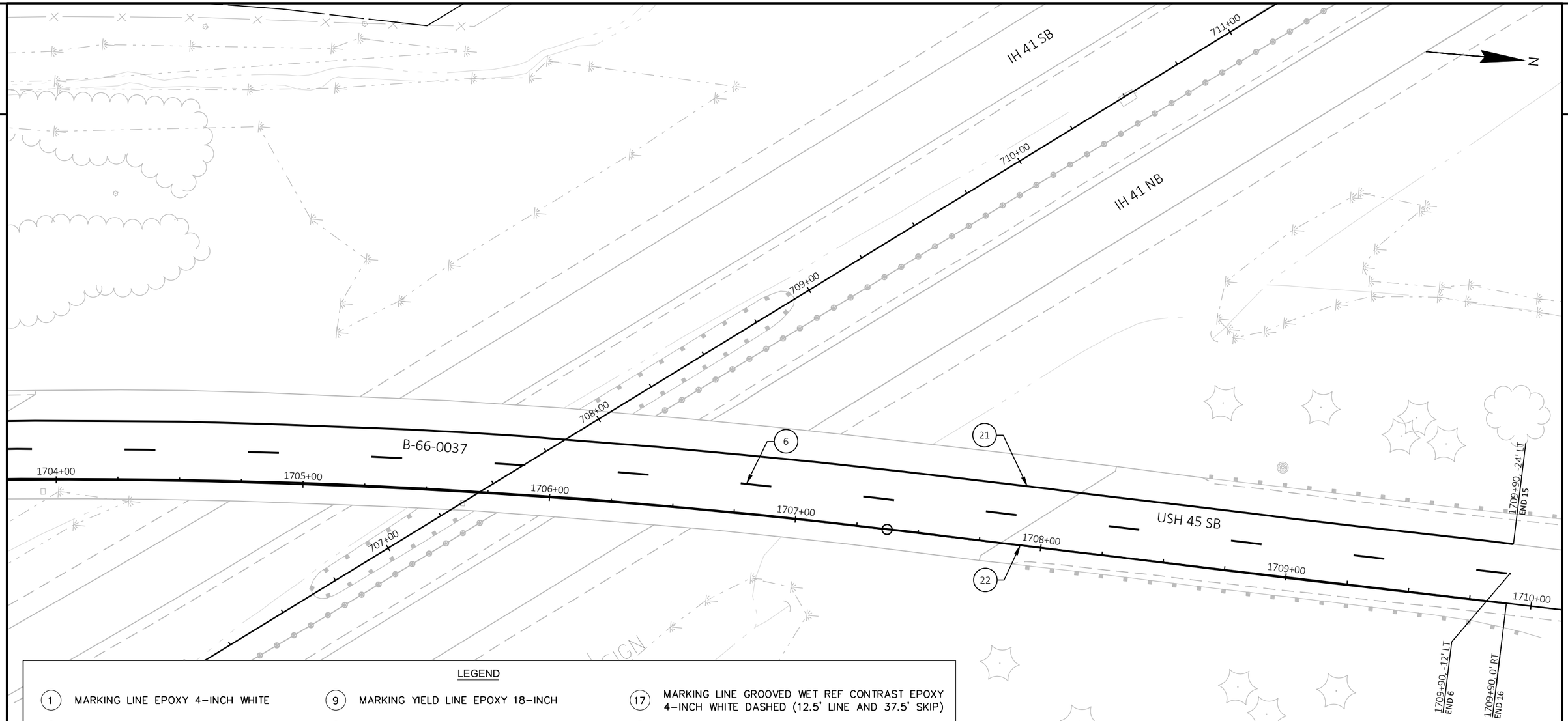
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKINGS: USH 45 SB	SHEET 115	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024516-pm

PLOT DATE : 4/15/2022 1:57 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



LEGEND

1. MARKING LINE EPOXY 4-INCH WHITE
2. MARKING LINE EPOXY 4-INCH YELLOW
3. MARKING LINE EPOXY 4-INCH DOUBLE YELLOW
4. MARKING LINE EPOXY 4-INCH YELLOW DASHED (12.5' LINE AND 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
6. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH WHITE DASHED (12.5' LINE AND 37.5' SKIP)
7. MARKING DIAGONAL EPOXY 12-INCH WHITE
8. MARKING STOP LINE EPOXY 18-INCH
9. MARKING YIELD LINE EPOXY 18-INCH
10. MARKING ARROW EPOXY
11. MARKING WORDS EPOXY (ONLY)
12. MARKING LINE CONTRAST EPOXY 8-INCH WHITE
13. MARKING CURB EPOXY YELLOW
14. MARKING ISLAND NOSE EPOXY YELLOW
15. MARKING LINE CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
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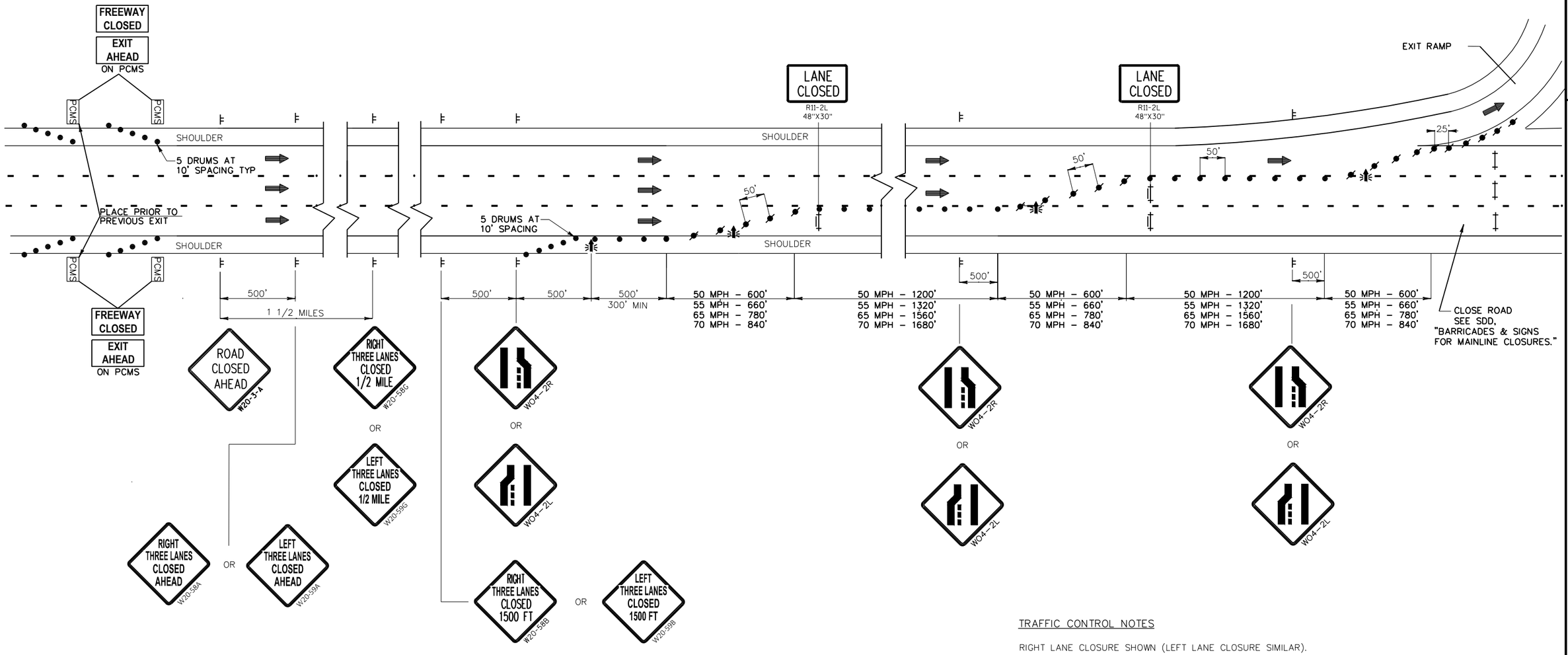
18. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE
19. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (3' LINE AND 12' SKIP)
20. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE DASHED (2' LINE AND 6' SKIP)
21. MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE
22. MARKING LINE GROOVED WET REF EPOXY 4-INCH YELLOW

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PAVEMENT MARKINGS: USH 45 SB	SHEET 116	E



LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WITH SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE BOARD
- WORK AREA

THREE LANE FULL FREEWAY CLOSURE

TRAFFIC CONTROL NOTES

RIGHT LANE CLOSURE SHOWN (LEFT LANE CLOSURE SIMILAR).

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

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

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

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

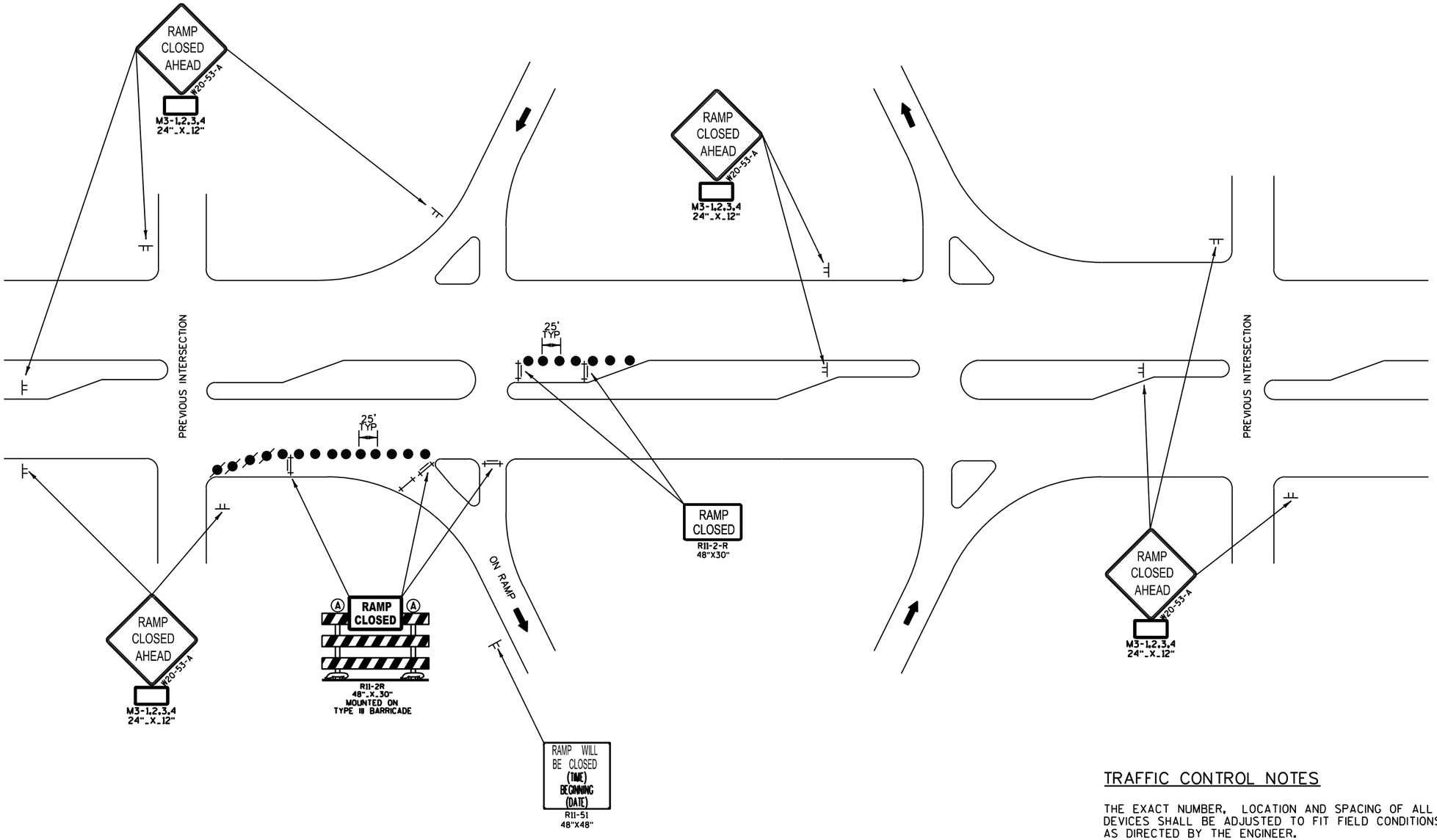
WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROL SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS EACH CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS, WITH LANE CLOSED SIGN.

REFER TO DETOUR ROUTES FOR TRAFFIC CLOSING SIGNS.

2



NORTH
M3-1
24"_X_12"

EAST
M3-2
24"_X_12"

SOUTH
M3-3
24"_X_12"

WEST
M3-4
24"_X_12"

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE
SHORT TERM ONLY

TRAFFIC CONTROL NOTES

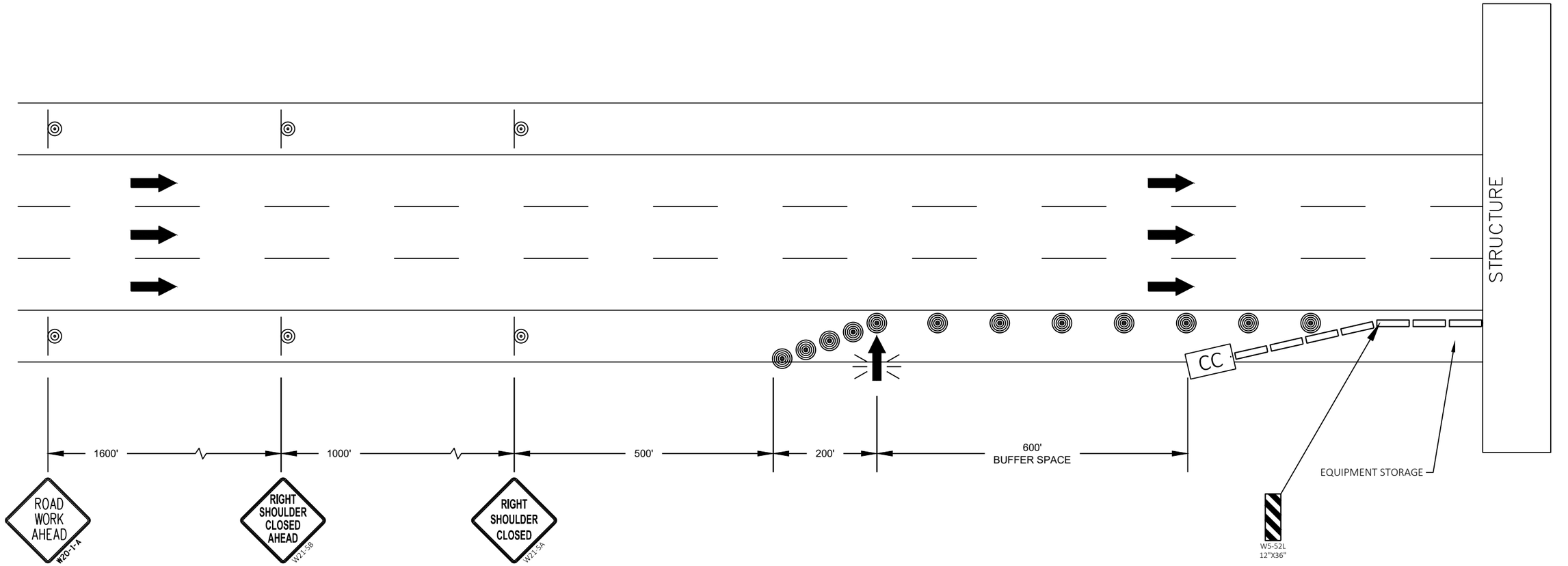
THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

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

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

SHORT TERM DEFINED AS 7 DAYS/NIGHTS OR LESS. FOR NIGHT TIME OPERATIONS ALL DRUMS IN TAPERS SHALL HAVE WARNING LIGHT, TYPE C (STEADY BURN). MAY BE APPLIED TO ARTERIALS OR LOCAL ROADS.

2



EQUIPMENT STORAGE ADVANCE TRAFFIC CONTROL, I-41 FULL SHOULDER CLOSURE WITH TEMPORARY CONCRETE BARRIER

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH 2 TYPE "A" WARNING LIGHT (FLASHING)
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL NOTES

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 ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

2

2

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- TEMPORARY PAVEMENT MARKING
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

N

RIVERSBEND LN

CTH Q\COUNTY LINE RD

5+00

10+00

15+00

367'

450'

ROAD CLOSED AHEAD W20-3A

COUNTY LINE RD

LEFT LANE CLOSED AHEAD W20-5A

W04-2L

SHADY LN

MEMONEE R

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE CONCRETE OVERLAY
- CTH Q BRIDGE APPROACH SLAB REPLACEMENT
- CTH Q BRIDGE EXPANSION JOINT REPLACEMENT

TRAFFIC CONTROL

- THE WORK ZONE IS THE EASTBOUND HALF OF THE ROADWAY DURING THIS STAGE. FULL CLOSURE OF THE EASTBOUND HALF OF CTH Q BETWEEN RAMPS IS NECESSARY.
- WESTBOUND CTH Q REMAINS OPEN TO TRAFFIC DURING THIS STAGE.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE I - CTH Q	SHEET 120	E

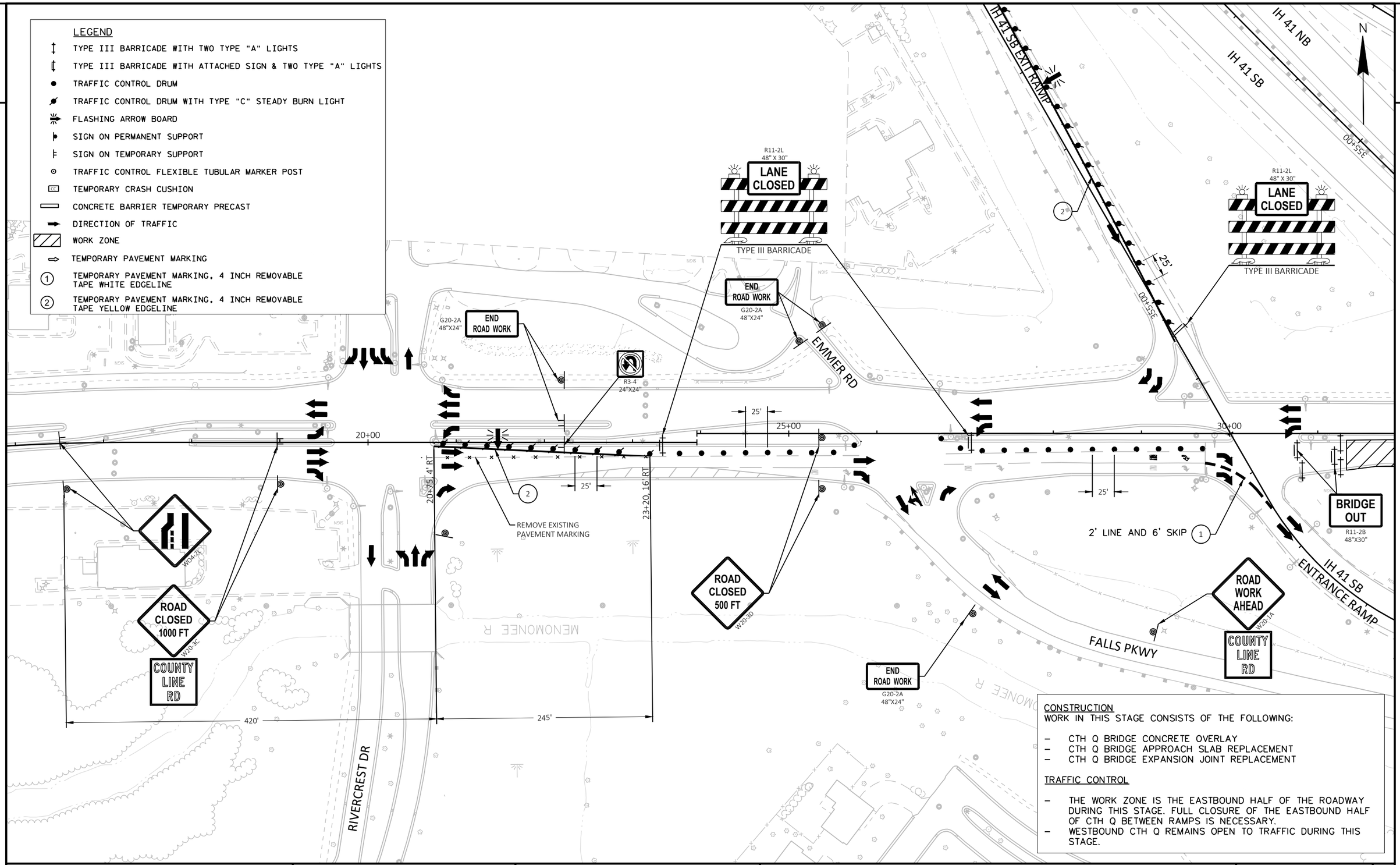
FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\025001-TC.DWG
LAYOUT NAME - 025003-tc

PLOT DATE : 10/24/2022 10:24 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- TEMPORARY PAVEMENT MARKING
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE



CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE CONCRETE OVERLAY
- CTH Q BRIDGE APPROACH SLAB REPLACEMENT
- CTH Q BRIDGE EXPANSION JOINT REPLACEMENT

TRAFFIC CONTROL

- THE WORK ZONE IS THE EASTBOUND HALF OF THE ROADWAY DURING THIS STAGE. FULL CLOSURE OF THE EASTBOUND HALF OF CTH Q BETWEEN RAMPS IS NECESSARY.
- WESTBOUND CTH Q REMAINS OPEN TO TRAFFIC DURING THIS STAGE.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE I - CTH Q	SHEET 121	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\025001-TC.DWG
LAYOUT NAME - 025004-tc
PLOT DATE : 10/24/2022 10:28 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- TEMPORARY PAVEMENT MARKING
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

N

IH 41 NB ENTRANCE RAMP

350+00

IH 41 SB EXIT RAMP

355+00

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

CTH Q\COUNTY LINE RD

30+00 35+00 40+00

350+00

25'

2' LINE AND 6' SKIP (1)

ROAD WORK 250 FT
W20-1H

COUNTY LINE RD

BRIDGE OUT
R11-2B
48"X30"

IH 41 NB

IH 41 SB

BRIDGE OUT
R11-2B
48"X30"

345+00

IH 41 NB EXIT RAMP

ROAD WORK AHEAD
W20-2A

COUNTY LINE RD

END ROAD WORK
G20-2A
48"X24"

IH 41 SB ENTRANCE RAMP

350+00

FALLS PKWY

MENOMONEE R

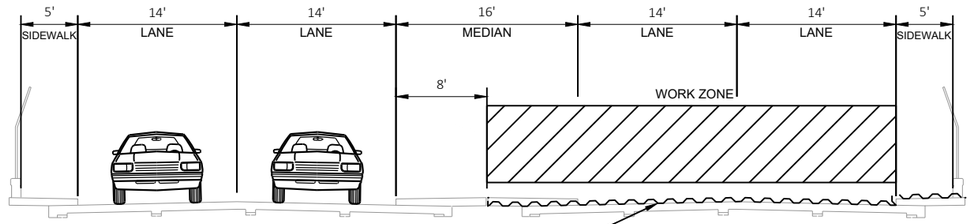
CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE CONCRETE OVERLAY
- CTH Q BRIDGE APPROACH SLAB REPLACEMENT
- CTH Q BRIDGE EXPANSION JOINT REPLACEMENT

TRAFFIC CONTROL

- THE WORK ZONE IS THE EASTBOUND HALF OF THE ROADWAY DURING THIS STAGE. FULL CLOSURE OF THE EASTBOUND HALF OF CTH Q BETWEEN RAMPS IS NECESSARY.
- WESTBOUND CTH Q REMAINS OPEN TO TRAFFIC DURING THIS STAGE.

TRAFFIC CONTROL TYPICAL SECTION - CTH Q



NOTE: DURING THIS STAGE, JOINT TO BE CONSTRUCTED IN HALVES FROM THE MEDIAN CENTERLINE TO THE PARAPET AS SHOWN IN THE TYPICAL SECTION ABOVE.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE I - CTH Q	SHEET 122	E

2

2

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE CONCRETE OVERLAY
- CTH Q BRIDGE APPROACH SLAB REPLACEMENT
- CTH Q BRIDGE EXPANSION JOINT REPLACEMENT

TRAFFIC CONTROL

- THE WORK ZONE IS THE EASTBOUND HALF OF THE ROADWAY DURING THIS STAGE. FULL CLOSURE OF THE EASTBOUND HALF OF CTH Q BETWEEN RAMPS IS NECESSARY.
- WESTBOUND CTH Q REMAINS OPEN TO TRAFFIC DURING THIS STAGE.

N

IH 41 NB ENTRANCE RAMP

350+00

CTH Q\COUNTY LINE RD

40+00

45+00

50+00

ROAD WORK 250 FT
W20-1H
COUNTY LINE RD

ROAD WORK 500 FT
W20-1D
COUNTY LINE RD

DIVISION RD

ROAD WORK AHEAD
W20-1A
COUNTY LINE RD

BRIDGE OUT
R11-2B
48"X30"

END ROAD WORK
G20-2A
48"X24"

500'

345+00

IH 41 NB EXIT RAMP

CUMBERLAND CT

CUMBERLAND RD

IH 41 NB

IH 41 SB

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- TEMPORARY PAVEMENT MARKING
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE I - CTH Q	SHEET 123	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\025001-TC.DWG
LAYOUT NAME - 025007-tc

PLOT DATE : 10/24/2022 10:35 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

TRAFFIC CONTROL ADVANCE SIGNING

1000' — LANE CLOSED R11-2L 48"X30"

1600' — M4-10 24"X12" ON RAMP W10-2L

1500' — M4-10 24"X12" ON RAMP LEFT LANE CLOSED AHEAD W20-5A

M4-10 24"X12" ON RAMP ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48"X24"

ROAD CLOSED 500 FT W20-3D

END ROAD WORK G20-2A 48"X24"

ROAD WORK AHEAD W20-1A

COUNTY LINE RD

R11-2L 48" X 30" LANE CLOSED

TYPE III BARRICADE

BRIDGE OUT R11-2B 48"X30"

MENOMONEE R

FALLS PKWY

EMMER RD

IH 41 SB ENTRANCE RAMP

IH 41 SB EXIT RAMP

IH 41 NB

IH 41 SB

CTH Q\COUNTY LINE RD

00+55

310+00

355+00

360+00

365+00

25'

660'

50'

165'

25'

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE CONCRETE OVERLAY
- CTH Q BRIDGE APPROACH SLAB REPLACEMENT
- CTH Q BRIDGE EXPANSION JOINT REPLACEMENT

TRAFFIC CONTROL

- THE WORK ZONE IS THE EASTBOUND HALF OF THE ROADWAY DURING THIS STAGE. FULL CLOSURE OF THE EASTBOUND HALF OF CTH Q BETWEEN RAMPS IS NECESSARY.
- WESTBOUND CTH Q REMAINS OPEN TO TRAFFIC DURING THIS STAGE.

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- TEMPORARY PAVEMENT MARKING
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE I - CTH Q	SHEET 124	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\025001-TC.DWG
LAYOUT NAME - 025008-tc
PLOT DATE : 10/24/2022 10:38 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- TEMPORARY PAVEMENT MARKING
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

IH 41 NB

IH 41 SB

N

355+00

IH 41 SB EXIT RAMP

END ROAD WORK
G20-2A
48"X24"

500'

355+00

EMMER RD

BRIDGE OUT
R11-2B
48"X30"

CTH Q\COUNTY LINE RD

20+00

25+00

30+00

ROAD WORK AHEAD
W20-1A
COUNTY LINE RD

ROAD WORK 500 FT
W20-1D
COUNTY LINE RD

ROAD WORK 250 FT
W20-1H
COUNTY LINE RD

RIVERCREST DR

IH-41 SB ENTRANCE RAMP

FALLS PKWY

MENOMONEE R

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE CONCRETE OVERLAY
- CTH Q BRIDGE APPROACH SLAB REPLACEMENT
- CTH Q BRIDGE EXPANSION JOINT REPLACEMENT

TRAFFIC CONTROL

- THE WORK ZONE IS THE WESTBOUND HALF OF THE ROADWAY DURING THIS STAGE. FULL CLOSURE OF THE WESTBOUND HALF OF CTH Q BETWEEN RAMPS IS NECESSARY.
- EASTBOUND CTH Q REMAINS OPEN TO TRAFFIC DURING THIS STAGE.
- THE WB SIDEWALK SHALL REMAIN OPEN AT ALL TIMES. IF AN OPEN SIDEWALK IS NOT POSSIBLE A FLAGGER SHALL BE USED TO ENSURE SAFE CROSSING FOR THE PEDESTRIANS.

NOTE:
SIDEWALKS AND CROSSWALKS WILL REMAIN OPEN AT ALL TIMES DURING THIS STAGE WITH THE USE OF TEMPORARY SURFACES AND CURB RAMPS. FLAGGERS SHALL BE USED TO ASSIST PEDESTRIANS AT CROSSINGS AS NEEDED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE II - CTH Q	SHEET 125	E

2

2

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- TEMPORARY PAVEMENT MARKING
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

NOTE:
SIDEWALKS AND CROSSWALKS WILL REMAIN OPEN AT ALL TIMES DURING THIS STAGE WITH THE USE OF TEMPORARY SURFACES AND CURB RAMPS. FLAGGERS SHALL BE USED TO ASSIST PEDESTRIANS AT CROSSINGS AS NEEDED.

N

IH 41 NB ENTRANCE RAMP

IH 41 SB EXIT RAMP

BRIDGE OUT
R11-2B
48"X30"

CTH Q\COUNTY LINE RD

IH 41 NB

IH 41 SB

IH 41 SB ENTRANCE RAMP

FALLS PKWY

IH 41 NB EXIT RAMP

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

25'

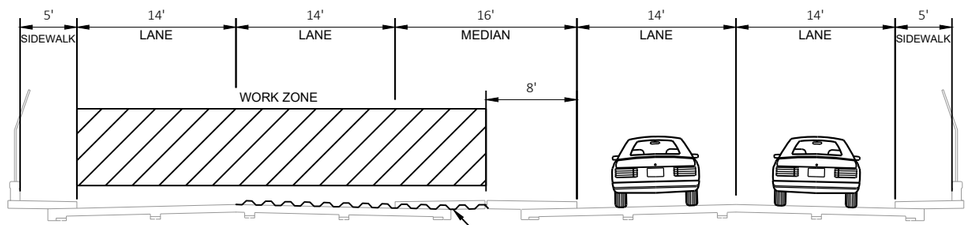
CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE CONCRETE OVERLAY
- CTH Q BRIDGE APPROACH SLAB REPLACEMENT
- CTH Q BRIDGE EXPANSION JOINT REPLACEMENT

TRAFFIC CONTROL

- THE WORK ZONE IS THE WESTBOUND HALF OF THE ROADWAY DURING THIS STAGE. FULL CLOSURE OF THE WESTBOUND HALF OF CTH Q BETWEEN RAMPS IS NECESSARY.
- EASTBOUND CTH Q REMAINS OPEN TO TRAFFIC DURING THIS STAGE.
- THE WB SIDEWALK SHALL REMAIN OPEN AT ALL TIMES. IF AN OPEN SIDEWALK IS NOT POSSIBLE A FLAGGER SHALL BE USED TO ENSURE SAFE CROSSING FOR THE PEDESTRIANS.

TRAFFIC CONTROL TYPICAL SECTION - CTH Q



NOTE: DURING THIS STAGE, JOINT TO BE CONSTRUCTED IN HALVES FROM THE MEDIAN CENTERLINE TO THE CROWN POINT AS SHOWN IN THE TYPICAL SECTION ABOVE.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE II - CTH Q	SHEET 126	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\025002-TC.DWG
LAYOUT NAME - 025010-tc
PLOT DATE : 10/24/2022 10:45 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

NOTE:
SIDEWALKS AND CROSSWALKS WILL REMAIN OPEN AT ALL TIMES DURING THIS STAGE WITH THE USE OF TEMPORARY SURFACES AND CURB RAMPS. FLAGGERS SHALL BE USED TO ASSIST PEDESTRIANS AT CROSSINGS AS NEEDED.

N

TRAFFIC CONTROL ADVANCE SIGNING

700' 700'

ROAD CLOSED 1000 FT W20-3C
W20-5L
COUNTY LINE RD

LEFT LANE CLOSED AHEAD W20-5SA
COUNTY LINE RD

ROAD WORK AHEAD W20-1A
COUNTY LINE RD

END ROAD WORK G20-2A 48"X24"

IH 41 NB ENTRANCE RAMP

350+00

ROAD CLOSED 500 FT W20-3D
COUNTY LINE RD

DIVISION RD

120' 245'

25' 25'

2

45+00

50+00

40+00

CTH Q\COUNTY LINE RD

BRIDGE OUT R11-2B 48"X30"

R11-2L 48" X 30"
LANE CLOSED
TYPE III BARRICADE

END ROAD WORK G20-2A 48"X24"

345+00

IH 41 NB EXIT RAMP

25'

2

CUMBERLAND CT

CUMBERLAND RD

IH 41 NB

IH 41 SB

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE CONCRETE OVERLAY
- CTH Q BRIDGE APPROACH SLAB REPLACEMENT
- CTH Q BRIDGE EXPANSION JOINT REPLACEMENT

TRAFFIC CONTROL

- THE WORK ZONE IS THE WESTBOUND HALF OF THE ROADWAY DURING THIS STAGE. FULL CLOSURE OF THE WESTBOUND HALF OF CTH Q BETWEEN RAMPS IS NECESSARY.
- EASTBOUND CTH Q REMAINS OPEN TO TRAFFIC DURING THIS STAGE.
- THE WB SIDEWALK SHALL REMAIN OPEN AT ALL TIMES. IF AN OPEN SIDEWALK IS NOT POSSIBLE A FLAGGER SHALL BE USED TO ENSURE SAFE CROSSING FOR THE PEDESTRIANS.

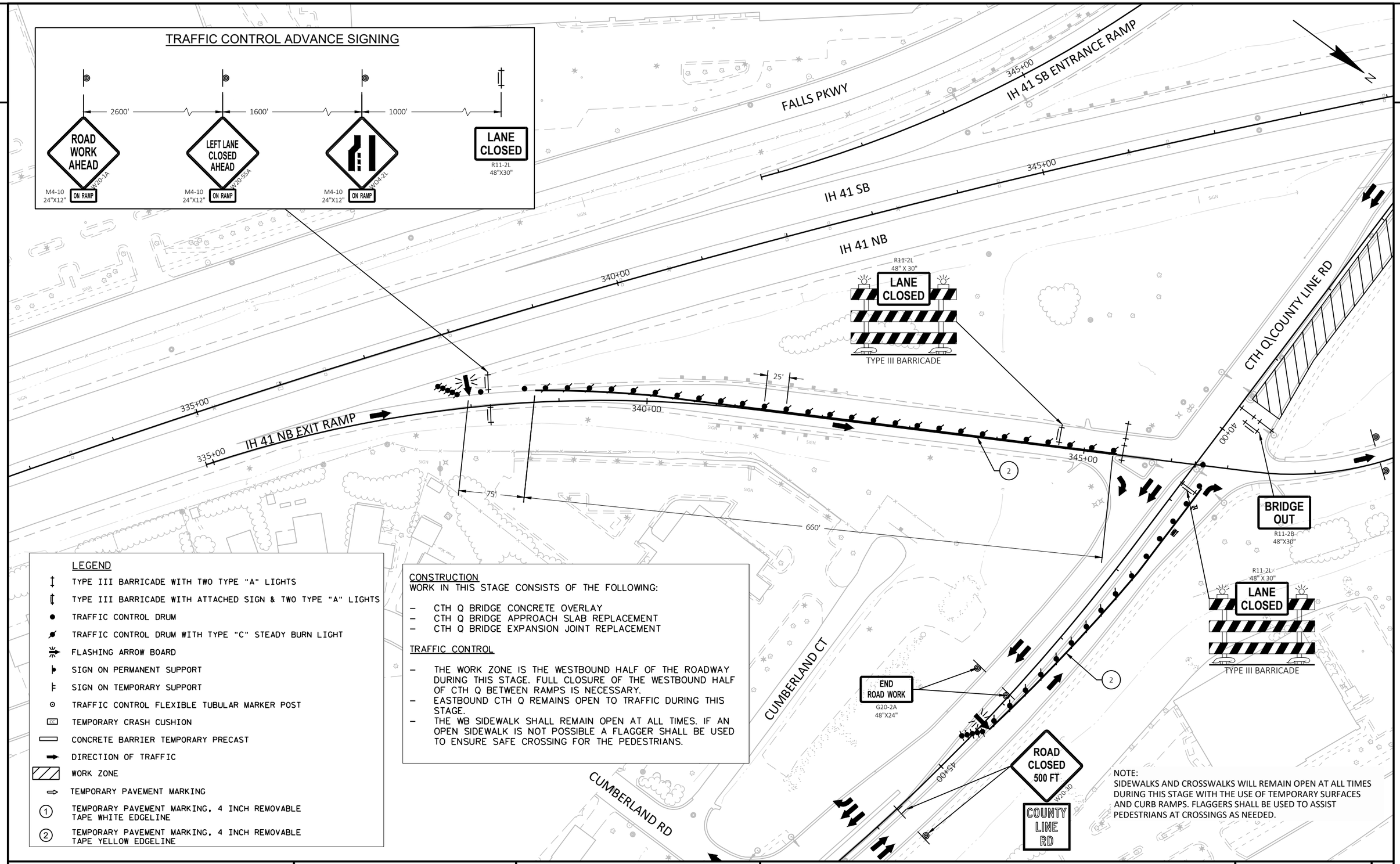
LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- TEMPORARY PAVEMENT MARKING
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE II - CTH Q	SHEET 127	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\025002-TC.DWG
LAYOUT NAME - 025011-tc
PLOT DATE : 10/24/2022 10:49 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

TRAFFIC CONTROL ADVANCE SIGNING



LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- TEMPORARY PAVEMENT MARKING
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE CONCRETE OVERLAY
- CTH Q BRIDGE APPROACH SLAB REPLACEMENT
- CTH Q BRIDGE EXPANSION JOINT REPLACEMENT

TRAFFIC CONTROL

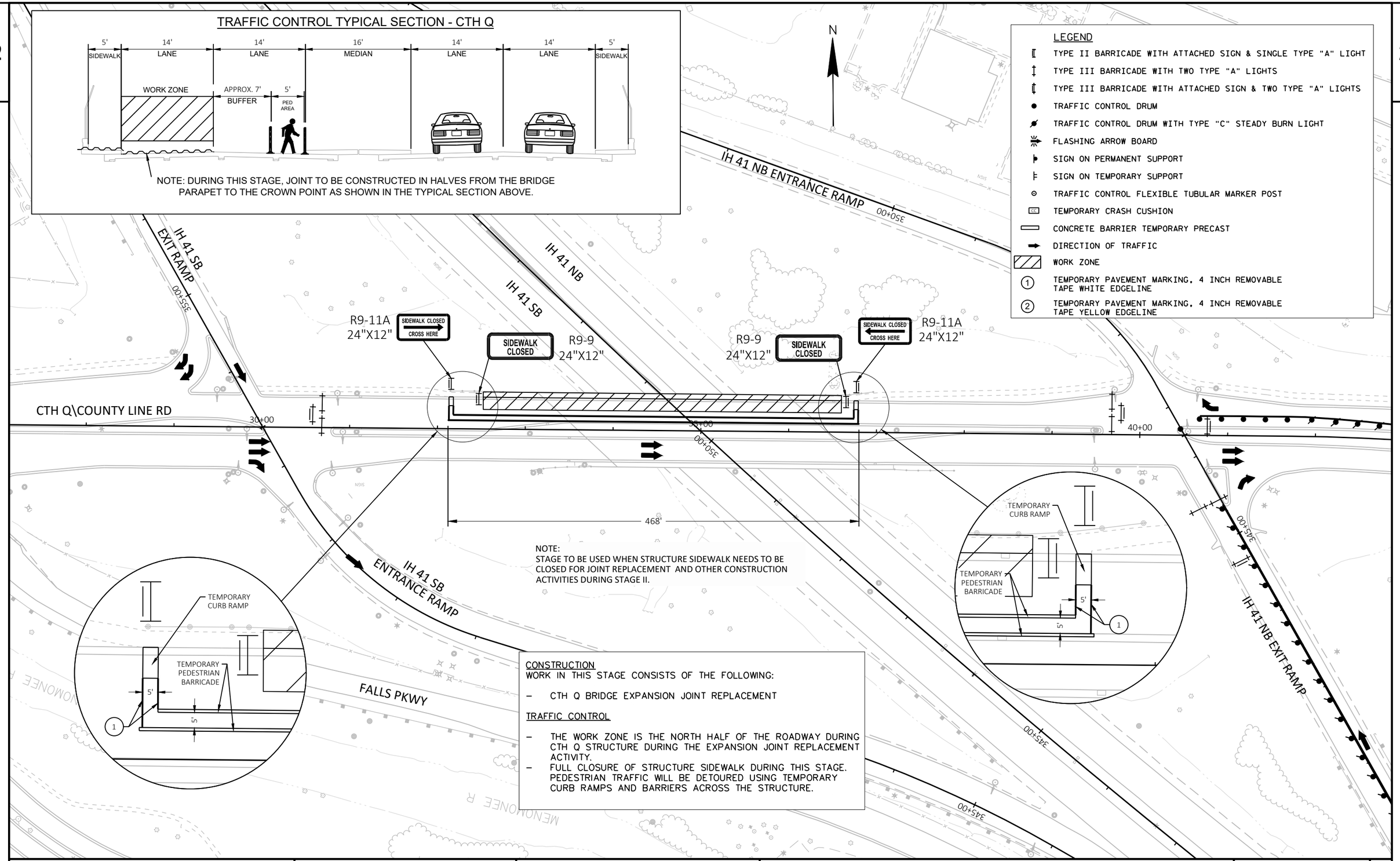
- THE WORK ZONE IS THE WESTBOUND HALF OF THE ROADWAY DURING THIS STAGE. FULL CLOSURE OF THE WESTBOUND HALF OF CTH Q BETWEEN RAMPS IS NECESSARY.
- EASTBOUND CTH Q REMAINS OPEN TO TRAFFIC DURING THIS STAGE.
- THE WB SIDEWALK SHALL REMAIN OPEN AT ALL TIMES. IF AN OPEN SIDEWALK IS NOT POSSIBLE A FLAGGER SHALL BE USED TO ENSURE SAFE CROSSING FOR THE PEDESTRIANS.

NOTE:
SIDEWALKS AND CROSSWALKS WILL REMAIN OPEN AT ALL TIMES DURING THIS STAGE WITH THE USE OF TEMPORARY SURFACES AND CURB RAMPS. FLAGGERS SHALL BE USED TO ASSIST PEDESTRIANS AT CROSSINGS AS NEEDED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE II - CTH Q	SHEET 128	E

TRAFFIC CONTROL TYPICAL SECTION - CTH Q

NOTE: DURING THIS STAGE, JOINT TO BE CONSTRUCTED IN HALVES FROM THE BRIDGE PARAPET TO THE CROWN POINT AS SHOWN IN THE TYPICAL SECTION ABOVE.



LEGEND

- TYPE II BARRICADE WITH ATTACHED SIGN & SINGLE TYPE "A" LIGHT
- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

NOTE:
STAGE TO BE USED WHEN STRUCTURE SIDEWALK NEEDS TO BE CLOSED FOR JOINT REPLACEMENT AND OTHER CONSTRUCTION ACTIVITIES DURING STAGE II.

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

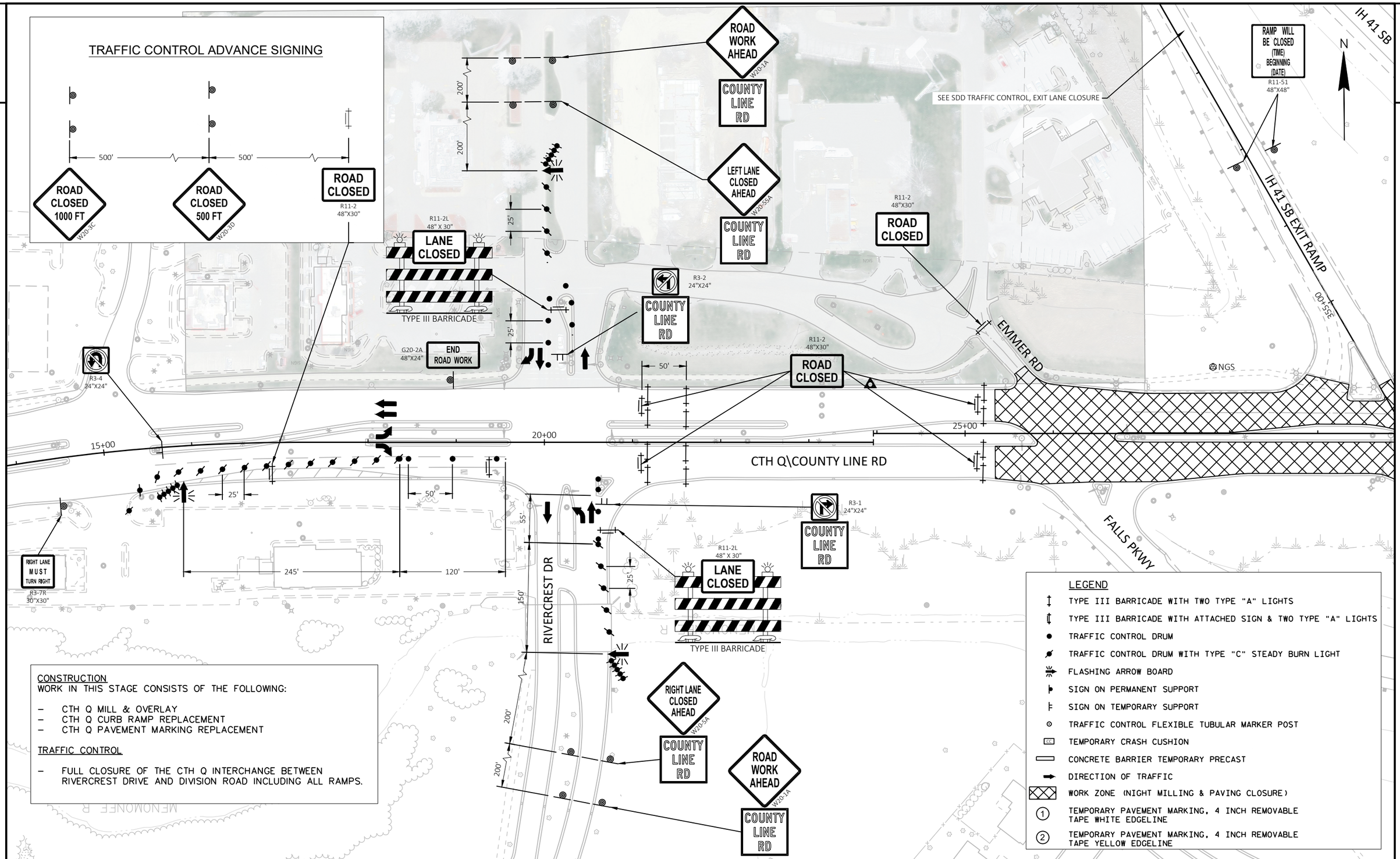
- CTH Q BRIDGE EXPANSION JOINT REPLACEMENT

TRAFFIC CONTROL

- THE WORK ZONE IS THE NORTH HALF OF THE ROADWAY DURING CTH Q STRUCTURE DURING THE EXPANSION JOINT REPLACEMENT ACTIVITY.
- FULL CLOSURE OF STRUCTURE SIDEWALK DURING THIS STAGE. PEDESTRIAN TRAFFIC WILL BE DETOURED USING TEMPORARY CURB RAMPS AND BARRIERS ACROSS THE STRUCTURE.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE II - CTH Q (PEDESTRIAN ONLY)	SHEET 129	E

TRAFFIC CONTROL ADVANCE SIGNING



CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q MILL & OVERLAY
- CTH Q CURB RAMP REPLACEMENT
- CTH Q PAVEMENT MARKING REPLACEMENT

TRAFFIC CONTROL

- FULL CLOSURE OF THE CTH Q INTERCHANGE BETWEEN RIVERCREST DRIVE AND DIVISION ROAD INCLUDING ALL RAMPS.

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE (NIGHT MILLING & PAVING CLOSURE)
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE III - CTH Q (NIGHT ONLY)	SHEET 130	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 025014-tc
PLOT DATE : 10/25/2022 3:41 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q MILL & OVERLAY
- CTH Q CURB RAMP REPLACEMENT
- CTH Q PAVEMENT MARKING REPLACEMENT

TRAFFIC CONTROL

- FULL CLOSURE OF THE CTH Q INTERCHANGE BETWEEN RIVERCREST DRIVE AND DIVISION ROAD INCLUDING ALL RAMPS.

N

SEE SDD TRAFFIC CONTROL, EXIT LANE CLOSURE

IH 41 SB EXIT RAMP

IH 41 NB ENTRANCE RAMP

RAMP WILL BE CLOSED (TIME) BEGINNING (DATE)
R11-51
48"X48"

NGS

CTH Q\COUNTY LINE RD

30+00

35+00

40+00

355+00

350+00

345+00

IH 41 NB

IH 41 SB

IH 41 SB ENTRANCE RAMP

IH 41 NB EXIT RAMP

FALLS PKWY

MENOMONEE R

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE (NIGHT MILLING & PAVING CLOSURE)
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE III - CTH Q (NIGHT ONLY)	SHEET 131	E

2

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q MILL & OVERLAY
- CTH Q CURB RAMP REPLACEMENT
- CTH Q PAVEMENT MARKING REPLACEMENT

TRAFFIC CONTROL

- FULL CLOSURE OF THE CTH Q INTERCHANGE BETWEEN RIVERCREST DRIVE AND DIVISION ROAD INCLUDING ALL RAMPS.

N

DIVISION RD

ROAD WORK AHEAD W20-1A
COUNTY LINE RD

350'
350'
350'

RIGHT LANE CLOSED AHEAD W20-5A
COUNTY LINE RD

W04-2R
COUNTY LINE RD

245'
25'
25'
325'

R11-2L 48" X 30"
LANE CLOSED
TYPE III BARRICADE

BRIDGE OUT R11-2B 48"X30"

R3-1 24"X24"
COUNTY LINE RD

157'
245'
25'
100'
25'
100'

W04-2L

45+00
50+00
55+00

CTH Q\COUNTY LINE RD

50'

END ROAD WORK G20-2A 48"X24"

R3-2 24"X24"
COUNTY LINE RD

500'

ROAD WORK 500 FT W20-1D
COUNTY LINE RD

500'

ROAD WORK AHEAD W20-1A
COUNTY LINE RD

R11-2 48" X 30"
ROAD CLOSED
TYPE III BARRICADE

CUMBERLAND CT
CUMBERLAND RD

345+00

RAMP WILL BE CLOSED (TIME) BEGINNING (DATE) R11-51 48"X48"

IH 41 NB EXIT RAMP
IH 41 NB
IH 41 SB

SEE SDD TRAFFIC CONTROL, EXIT LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE (NIGHT MILLING & PAVING CLOSURE)
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE III - CTH Q (NIGHT ONLY)	SHEET 132	E

2

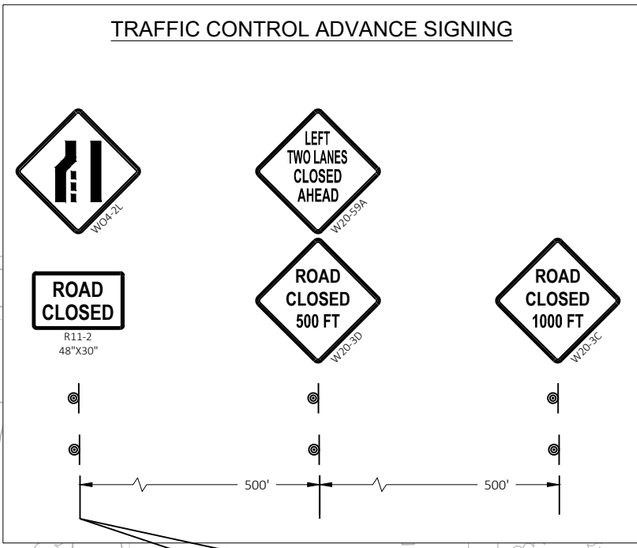
N

157'
25'
245'
100'
25'
50+00
100'
25'
55+00
25'
25'
490'
245'

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

W04-2L

TRAFFIC CONTROL ADVANCE SIGNING



CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q MILL & OVERLAY
- CTH Q CURB RAMP REPLACEMENT
- CTH Q PAVEMENT MARKING REPLACEMENT

TRAFFIC CONTROL

- FULL CLOSURE OF THE CTH Q INTERCHANGE BETWEEN RIVERCREST DRIVE AND DIVISION ROAD INCLUDING ALL RAMPS.

LEGEND

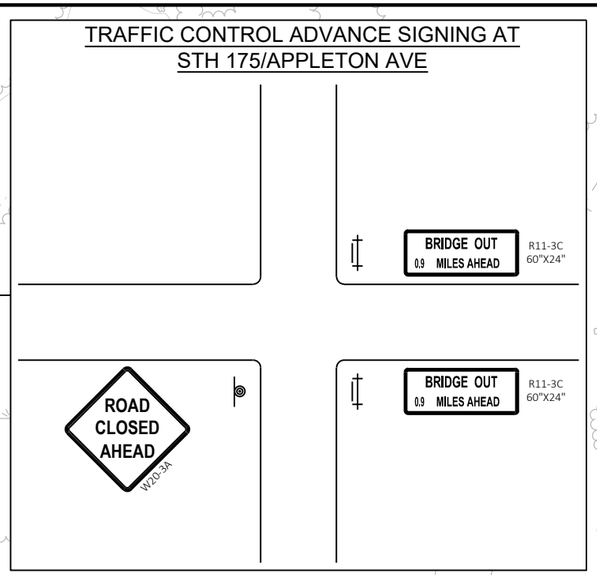
- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE (NIGHT MILLING & PAVING CLOSURE)
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE III - CTH Q (NIGHT ONLY)	SHEET 133	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 025017-tc
PLOT DATE : 10/25/2022 3:57 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

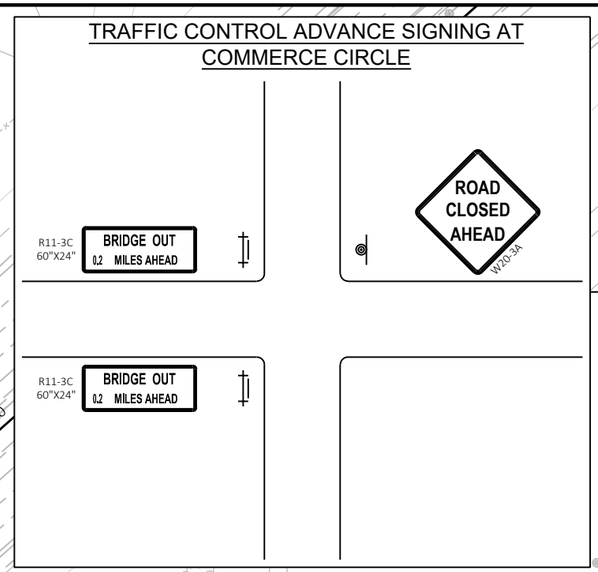
TRAFFIC CONTROL ADVANCE SIGNING AT STH 175/APPLETON AVE

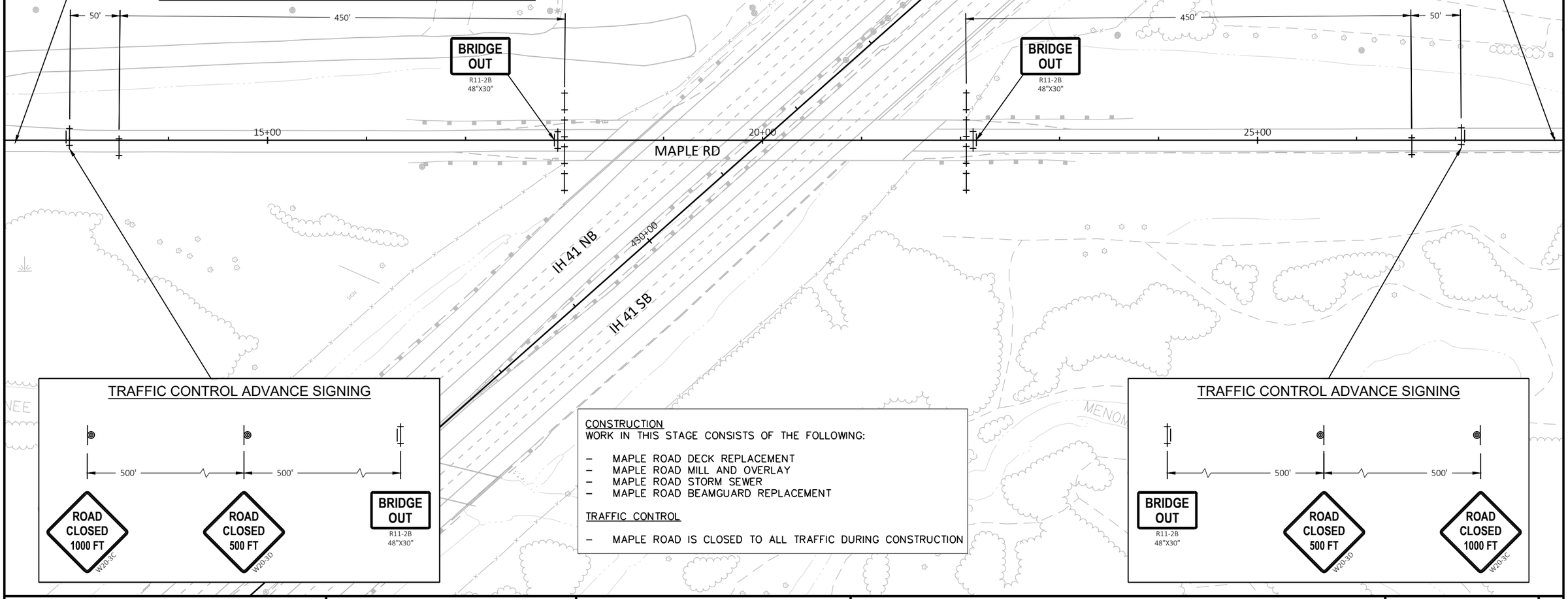


LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- TEMPORARY PAVEMENT MARKING
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

TRAFFIC CONTROL ADVANCE SIGNING AT COMMERCE CIRCLE





TRAFFIC CONTROL ADVANCE SIGNING

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD DECK REPLACEMENT
- MAPLE ROAD MILL AND OVERLAY
- MAPLE ROAD STORM SEWER
- MAPLE ROAD BEAMGUARD REPLACEMENT

TRAFFIC CONTROL

- MAPLE ROAD IS CLOSED TO ALL TRAFFIC DURING CONSTRUCTION

TRAFFIC CONTROL ADVANCE SIGNING

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - MAPLE RD BRIDGE CLOSURE	SHEET 134	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\025001-TC.DWG
LAYOUT NAME - 025027-tc
PLOT DATE : 4/20/2022 8:38 AM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

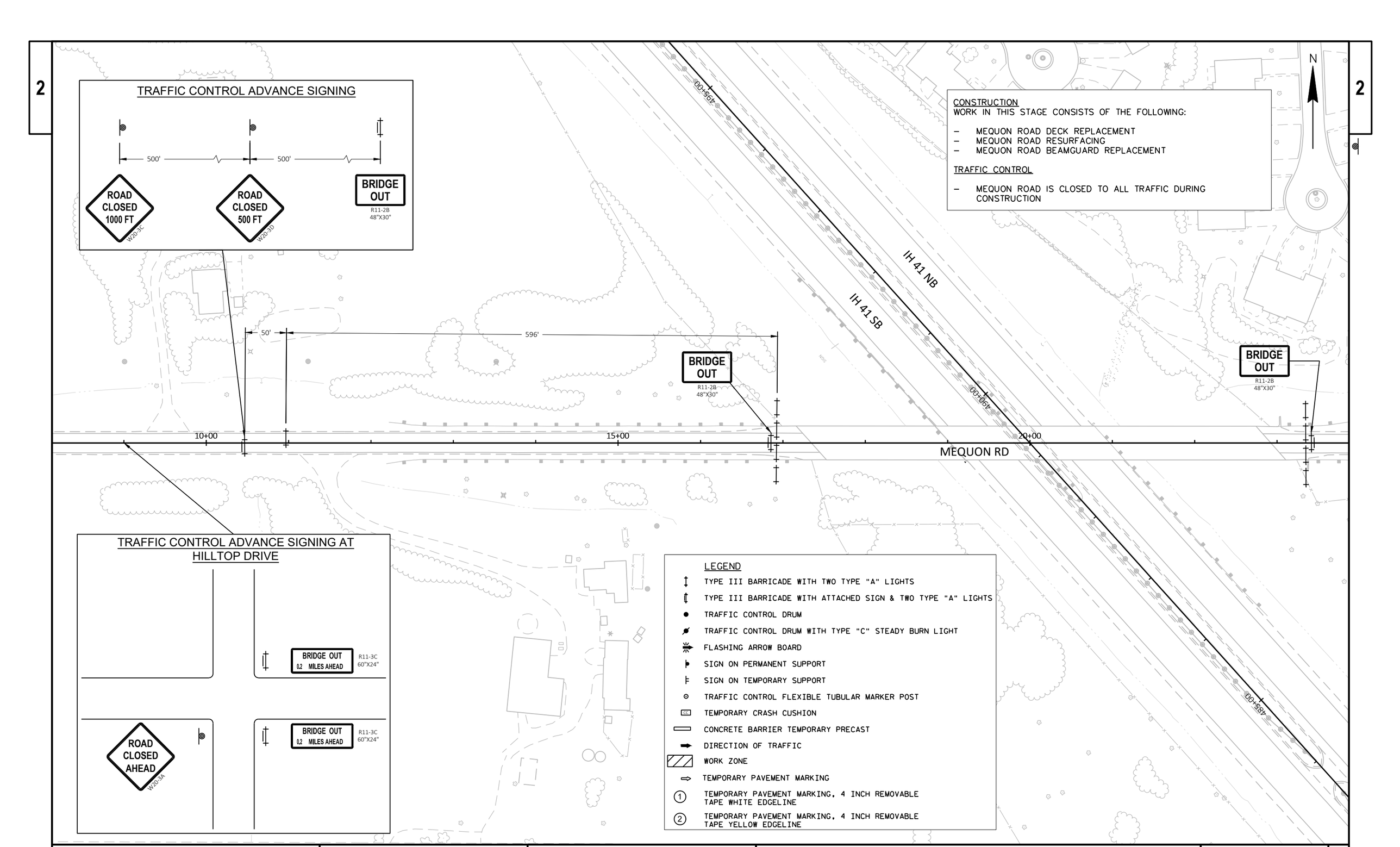
TRAFFIC CONTROL ADVANCE SIGNING

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MEQUON ROAD DECK REPLACEMENT
- MEQUON ROAD RESURFACING
- MEQUON ROAD BEAMGUARD REPLACEMENT

TRAFFIC CONTROL

- MEQUON ROAD IS CLOSED TO ALL TRAFFIC DURING CONSTRUCTION



TRAFFIC CONTROL ADVANCE SIGNING AT HILLTOP DRIVE

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TCC TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- TEMPORARY PAVEMENT MARKING
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - MEQUON RD BRIDGE CLOSURE	SHEET 135	E

2

2

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MEQUON ROAD DECK REPLACEMENT
- MEQUON ROAD RESURFACING
- MEQUON ROAD BEAMGUARD REPLACEMENT

TRAFFIC CONTROL

- MEQUON ROAD IS CLOSED TO ALL TRAFFIC DURING CONSTRUCTION

N

TRAFFIC CONTROL ADVANCE SIGNING

500'

ROAD CLOSED 500 FT
W20-3D

ROAD CLOSED 1000 FT
W20-3E

430'

500'

BRIDGE OUT
R11-2B
48"X30"

20+00

25+00

30+00

MEQUON RD

IH 41 NB

IH 41 SB

485+00

BRIDGE OUT
R11-2B
48"X30"

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- TEMPORARY PAVEMENT MARKING
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

TRAFFIC CONTROL ADVANCE SIGNING AT KLEINMANN DRIVE/MCCORMICK DRIVE

R11-3C
60"X24"
BRIDGE OUT
0.3 MILES AHEAD

ROAD CLOSED AHEAD
W20-3A

R11-3C
60"X24"
BRIDGE OUT
0.3 MILES AHEAD

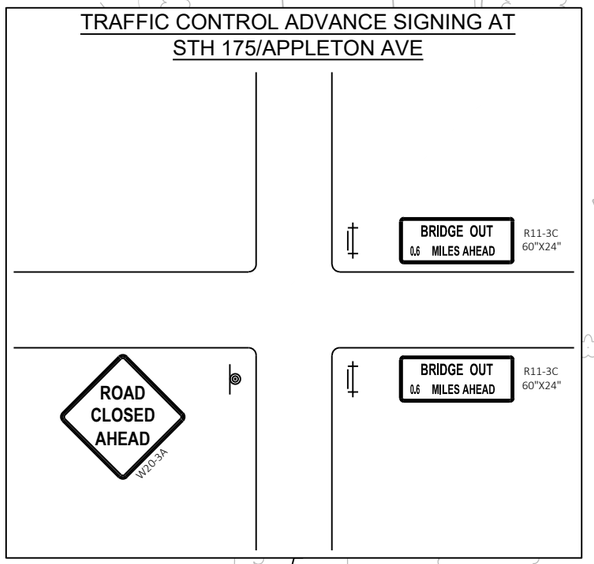
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - MEQUON RD BRIDGE CLOSURE	SHEET 136	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\025001-TC.DWG
LAYOUT NAME - 025029-tc

PLOT DATE : 4/20/2022 8:43 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

TRAFFIC CONTROL ADVANCE SIGNING AT STH 175/APPLETON AVE



CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT ROAD DECK REPLACEMENT
- FREISTADT ROAD MILL AND OVERLAY
- FREISTADT ROAD STORM SEWER
- FREISTADT ROAD BEAMGUARD REPLACEMENT

TRAFFIC CONTROL

- FREISTADT ROAD IS CLOSED TO ALL TRAFFIC DURING CONSTRUCTION

N

IH 41 NB

IH 41 SB

00+595

50'

560'

10+00

15+00

20+00

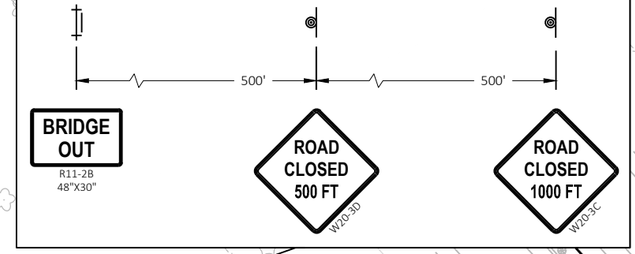
FREISTADT RD

00+095

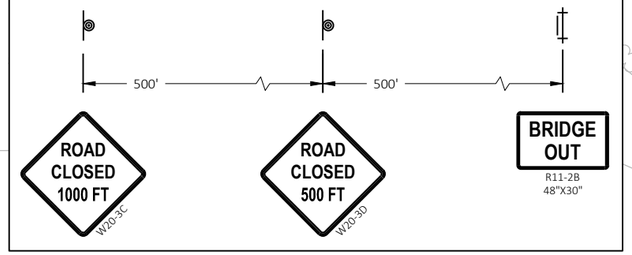
BRIDGE OUT
R11-2B
48"X30"

BRIDGE OUT
R11-2B
48"X30"

TRAFFIC CONTROL ADVANCE SIGNING



TRAFFIC CONTROL ADVANCE SIGNING



LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- TEMPORARY PAVEMENT MARKING
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - FREISTADT RD BRIDGE CLOSURE	SHEET 137	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\025001-TC.DWG
LAYOUT NAME - 025030-tc
PLOT DATE : 4/20/2022 8:45 AM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

NURSERY

NURSERY

NURSERY

SIGN

SIGN

SIGN

715'

BRIDGE OUT
R11-2B
48"X30"

25+00

30+00

35+00

FREISTADT RD

00+00

IH 41 NB

IH 41 SB

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT ROAD DECK REPLACEMENT
- FREISTADT ROAD MILL AND OVERLAY
- FREISTADT ROAD STORM SEWER
- FREISTADT ROAD BEAMGUARD REPLACEMENT

TRAFFIC CONTROL

- FREISTADT ROAD IS CLOSED TO ALL TRAFFIC DURING CONSTRUCTION

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN & TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- TEMPORARY CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- TEMPORARY PAVEMENT MARKING
- (1) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE WHITE EDGELINE
- (2) TEMPORARY PAVEMENT MARKING, 4 INCH REMOVABLE TAPE YELLOW EDGELINE

TRAFFIC CONTROL ADVANCE SIGNING

500' 500'

BRIDGE OUT
R11-2B
48"X30"

ROAD CLOSED 500 FT
W20-3D

ROAD CLOSED 1000 FT
W20-3E

TRAFFIC CONTROL ADVANCE SIGNING AT CTH Y/GOLDENDALE ROAD

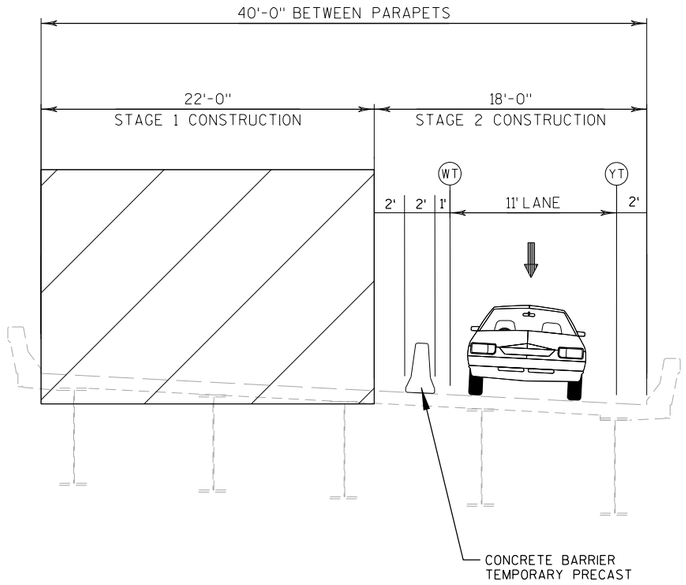
R11-3C
60"X24"
BRIDGE OUT
0.5 MILES AHEAD

ROAD CLOSED AHEAD
W20-3A

R11-3C
60"X24"
BRIDGE OUT
0.5 MILES AHEAD

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - FREISTADT RD BRIDGE CLOSURE	SHEET 138	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\025001-TC.DWG
LAYOUT NAME - 025031-tc
PLOT DATE : 4/20/2022 8:48 AM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



STAGE 1 - CROSS SECTION THRU B-66-37

(USH 45 - LOOKING NORTH)

STAGE 1 (STRUCTURE B-66-37)

TRAFFIC
- OUTSIDE LANE OF BRIDGE CLOSED
- TRAFFIC ON INSIDE LANE AND ON EXISTING SHOULDER.

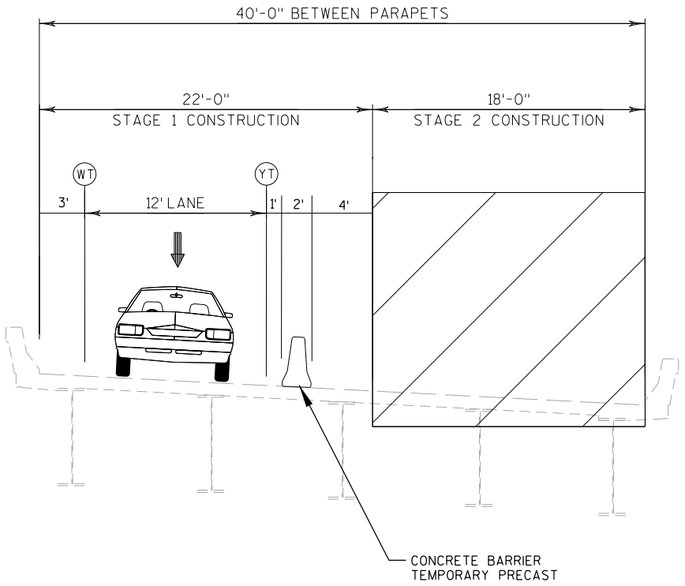
CONSTRUCTION
- REMOVING BITUMINOUS OVERLAY ON WEST SIDE OF BRIDGE
- 1 1/2" CONCRETE OVERLAY ON WEST SIDE OF BRIDGE
- EXPANSION JOINT REPLACEMENT ON WEST SIDE OF BRIDGE

LEGEND

(WT) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE

(YT) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW

DIRECTION OF TRAFFIC



STAGE 2 - CROSS SECTION THRU B-66-37

(USH 45 - LOOKING NORTH)

STAGE 2 (STRUCTURE B-66-37)

TRAFFIC
- INSIDE LANE OF BRIDGE CLOSED
- TRAFFIC ON OUTSIDE LANE AND ON EXISTING SHOULDER.

CONSTRUCTION
- REMOVING BITUMINOUS OVERLAY ON EAST SIDE OF BRIDGE
- 1 1/2" CONCRETE OVERLAY ON EAST SIDE OF BRIDGE
- EXPANSION JOINT REPLACEMENT ON EAST SIDE OF BRIDGE

2

2

N

167

41

60

45

145

WIDE LOADS EXCEEDING 11 FT
R12-70B
114" X 42"

MAX. 11' WIDTH
W12-52

1 MILES AHEAD
W057-52
48" X 36"

WIDTH RESTRICTION
AVAILABLE WIDTH < 16'
STAGE 1 ONLY

LEGEND

TEMPORARY TRAFFIC CONTROL SIGN POST

NOTES

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

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

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

PROJECT NO: 2220-02-70	HWY: USH 45	COUNTY: WASHINGTON	TRAFFIC CONTROL OVERSIZE/OVERWEIGHT - STAGE 1	SHEET 140	E

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- XXXXXXX REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- FBS FLASHING BEACON SIGN

STOPPED OR SLOW TRAFFIC WHEN FLASHING
W08-76
60" X 36"

N

IH 41 SB

INNL

IH 41 NB

RIPR

SIGN

T13N R19E S36

W01-4R

60 M.P.H.
W013-1
36" X 36"

W05-52R
12" X 36"

CRASH CUSHIONS TEMPORARY

1000'

USH 45 SB

END ROAD WORK
G20-2A
48" X 24"

175'
LANE SHIFT = 5'

500'

8:1 MAX

100' TYP.

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH, WHITE

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH, YELLOW

MATCH LINE STA. 1713+00

1698 1699 1700 1701 1702 1703 1704 1705 1706 1707 1708 1709 1710 1711 1712

IH 41 SB

EX INL

IH 41 NB

SIGN

1704 1705 1706 1707 1708 1709 1710 1711 1712

USH 45 NB

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL USH 45 - STAGE 1	SHEET 141	E

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- x x x x x x x REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- FBS FLASHING BEACON SIGN

STOPPED OR SLOW TRAFFIC WHEN FLASHING
W08-76
60" X 36"

FOUND

N

TRUCKS ENTERING & LEAVING
W8-6A

W01-4L

60 M.P.H.
W013-1
36" X 36"

MATCH LINE STA. 1713+00

175'
LANE SHIFT = 5'
200'
50' TYP.
840' LANE DROP
420'
1000'
500'
50' TYP.

USH 45 SB

1713 1714 1715 1716 1717 1718 1719 1720 1721 1722 1723 1724 1725 1726 1727

12'

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH, YELLOW

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH, WHITE

MATCH LINE STA. 1728+00

USH 45 NB

1713 1714 1715 1716 1717 1718 1719 1720 1721 1722 1723 1724 1725 1726 1727

SIGN

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL USH 45 - STAGE 1	SHEET 142	E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- xxxxxxx REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- FBS FLASHING BEACON SIGN

STOPPED OR SLOW TRAFFIC WHEN FLASHING
W08-76
60" X 36"

N

STH 145

RAMP CLOSED. SEE TRAFFIC CONTROL STH 145 SHEETS FOR DETAILS.

USH 45 SB OFF RAMP

USH 45 SB ON RAMP

W04-2R

RIGHT LANE CLOSED 1/2 MILE
W20-5G

ROAD WORK 1 MILE
W20-1F

PLACE SIGN NORTH OF THE STH 60 SB OFF RAMP

MATCH LINE STA. 1728+00

1000' 500' 25' 50' TYP. 1600' 2600' 500' 5280' 7500'

FBS FBS FBS

USH 45 SB

1728 1729 1730 1731 1732 1733 1734 1735 1736 1737 1738 1739 1740 1741 1742 1743

USH 45 NB

1728 1729 1730 1731 1732 1733 1734 1735 1736 1737 1738 1739 1740 1741 1742 1743

STH 145

USH 45 NB OFF RAMP

USH 45 NB ON RAMP

RIPRAP SIGN SIGN SIGN SIGN SEP INL T316 909.290

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL USH 45 - STAGE 1	SHEET 143	E

2

2

IH 41 NB ON RAMP

IH 41 SB OFF RAMP

IH 41 NB

IH 41 SB

MAYFIELD WAY

MATCH LINE A

STH 145

350'

450'

400'

W04-2R

RIGHT LANE CLOSED AHEAD
W20-5A

ROAD WORK AHEAD
W20-1A

IH 41 SB ON RAMP

IH 41 NB OFF RAMP

MAYFIELD WAY

N

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- XXXXXXX REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- FBS FLASHING BEACON SIGN

STOPPED OR SLOW TRAFFIC WHEN FLASHING
W08-76
60" X 36"

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL STH 145 - STAGE 1 & 2	SHEET 144	E

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- XXXXXXX REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- FBS FLASHING BEACON SIGN

STOPPED OR SLOW TRAFFIC WHEN FLASHING
W08-76
60" X 36"

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

HELSAN DRIVE

TO 45 SOUTH CLOSED
Cabela Way
G20-60
108" X 24"

COVER SIGN

50' TYP.

320' LANE DROP

MATCH LINE A

LANE CLOSED
R11-2L
48" X 30"

ALTERNATE INTERSTATE 41

COVER SIGN

W01-6
48" X 24"

45 SOUTH Milwaukee CLOSED
G20-60
108" X 24"
COVER ARROW

TO 45 SOUTH CLOSED
TO 145 FD
Fond Du Lac Ave
G20-60
108" X 24"

TO 45 SOUTH CLOSED
TO 41 W Pioneer Rd
G20-62
48" X 24"

USH 45 SB OFF RAMP

ONE WAY ONLY

COVER SIGN

STH 145

25' TYP.

LANE CLOSED
R11-2L
48" X 30"

ALTERNATE INTERSTATE 41

COVER SIGN

CABELA WAY

25' TYP.

125' LANE DROP

200'

200'

150'

W01-6
48" X 24"

W04-2R

RIGHT LANE CLOSED AHEAD
W20-5A

ROAD WORK AHEAD
W20-1A

RAMP CLOSED
R11-2R
48" X 30"

SOUTH 45

COVER SIGN

SOUTH 45

RAMP WILL BE CLOSED
12PM TO 10PM
BEGINNING
JAN 15
R11-51
48" X 48"
PLACE SIGN 5 CALENDAR DAYS PRIOR TO CLOSING RAMP

USH 45 SB ON RAMP

SOUTH 45 WEST ALTERNATE COUNTY FD INTERSTATE 41

COVER SIGN

USH 45 NB

USH 45 SB

N

1745 1744 1744 1744 1744 1744 1743 1743 1743 1742 1742 1741 1741 1740 1740 1739 1739 1738 1738 1737 1736

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL STH 145 - STAGE 1 & 2	SHEET 145	E

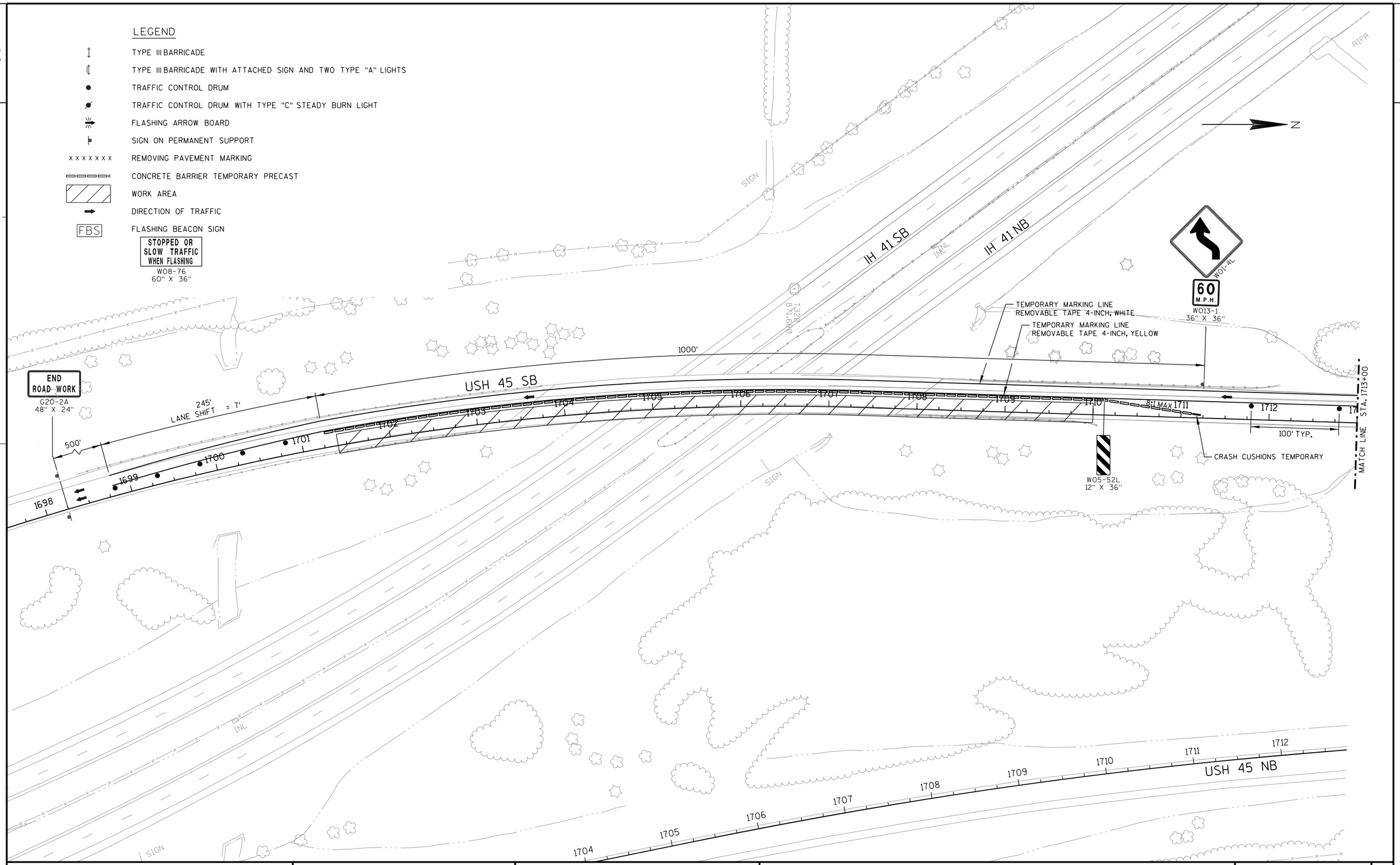
FILE NAME : L:\Jobs2010\20100347\CAD\WISDOT_Trans\dgn\01-IH-41\026005_S1.dgn PLOT DATE : 10/7/2020 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 100.0000 sf / in.

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- x x x x x x x REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- FBS FLASHING BEACON SIGN

STOPPED OR SLOW TRAFFIC WHEN FLASHING
W08-76
60" X 36"



PROJECT NO: 1100-43-70	HWY: USH 45	COUNTY: WASHINGTON	TRAFFIC CONTROL USH 45 - STAGE 2	SHEET 146	E

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- XXXXXXX REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- FBS FLASHING BEACON SIGN

STOPPED OR SLOW TRAFFIC WHEN FLASHING
W08-76
60" X 36"

FOUND

N

TRUCKS ENTERING & LEAVING
W8-6A

W01-4R

60 M.P.H.
W013-1
36" X 36"

245'
LANE SHIFT = 7'
200'
840' LANE DROP
420'
1000'
500'
50' TYP.

MATCH LINE STA. 1713+00

MATCH LINE STA. 1728+00

1713 1714 1715 1716 1717 1718 1719 1720 1721 1722 1723 1724 1725 1726 1727

SIGN

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL USH 45 - STAGE 2	SHEET 147	E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- xxxxxxx REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- FBS FLASHING BEACON SIGN

STOPPED OR SLOW TRAFFIC WHEN FLASHING
W08-76
60" X 36"

N

STH 145

RAMP CLOSED. SEE TRAFFIC CONTROL STH 145 SHEETS FOR DETAILS.

USH 45 SB OFF RAMP

USH 45 SB ON RAMP

W04-2L

LEFT LANE CLOSED 1/2 MILE
W20-5

ROAD WORK 1 MILE
W20-1F

PLACE SIGN 500' NORTH OF THE STH 60 SB OFF RAMP

RIPRAP

SIGN

INL

1000'
500'
25'
1600'
2600'
500'
5280'
7500'

MATCH LINE STA. 1728+00

28 1729 1730 1731 1732 1733 1734 1735 1736 1737 1738 1739 1740 1741 1742 1743

50' TYP.

FBS FBS FBS

USH 45 SB

USH 45 NB

1728 1729 1730 1731 1732 1733 1734 1735 1736 1737 1738 1739 1740 1741 1742 1743

SIGN

T31G
909.290

USH 45 NB OFF RAMP

USH 45 NB ON RAMP

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL USH 45 - STAGE 2	SHEET 148	E

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

N

SB IH-41

NB IH-41

50'

50'

1 MILE

2600'

1600'

500'

500'

840'

ROAD WORK 2 MILES W20-1E

RIGHT TWO LANES CLOSED 1 MILE W20-5SF

RIGHT TWO LANES CLOSED 1/2 MILE W20-5SG

W04-2R

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (CTH Q)	SHEET 149	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026001-S1.DWG
LAYOUT NAME - 026001-s1

PLOT DATE : 4/16/2022 3:22 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

SB IH-41

NB IH-41

328+00

330+00

50'

100'

25'

200'

200'

840'

1000'

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

W20-1

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (CTH Q)	SHEET 150	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026001-S1.DWG
LAYOUT NAME - 026002-s1

PLOT DATE : 4/16/2022 3:24 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

FALLS PKWY

SB IH-41

NB IH-41

SB CTH Q ENTRANCE RAMP

330+00 332+00 334+00 336+00 338+00 340+00 342+00 344+00

25' 25' 50'

200' 350' 200' 840' 500' BUFFER ZONE

COVER EXISTING EXIT SIGN

EXIT
E5-1
72"X60"

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

END ROAD WORK
G20-2A
48"X24"

NB CTH Q EXIT RAMP

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (CTH Q)	SHEET 151	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026001-S1.DWG
LAYOUT NAME - 026003-s1

PLOT DATE : 4/16/2022 3:27 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

MENOMONEE R

FALLS PARKWAY

SB CTH Q ENTRANCE RAMP

CTH Q

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

SIGN R11-2L 48" X 30" LANE CLOSED

TYPE III BARRICADE

W5-52R 12"X36"

END ROAD WORK G20-2A 48"X24"

500' BUFFER SPACE

840'

500'

200'

150'

100'

50'

A

344+00 346+00 348+00 350+00 352+00 354+00 356+00 358+00

SB IH-41

NB IH-41

CC

NB CTH Q EXIT RAMP

NB CTH Q ENTRANCE RAMP

CONSTRUCTION

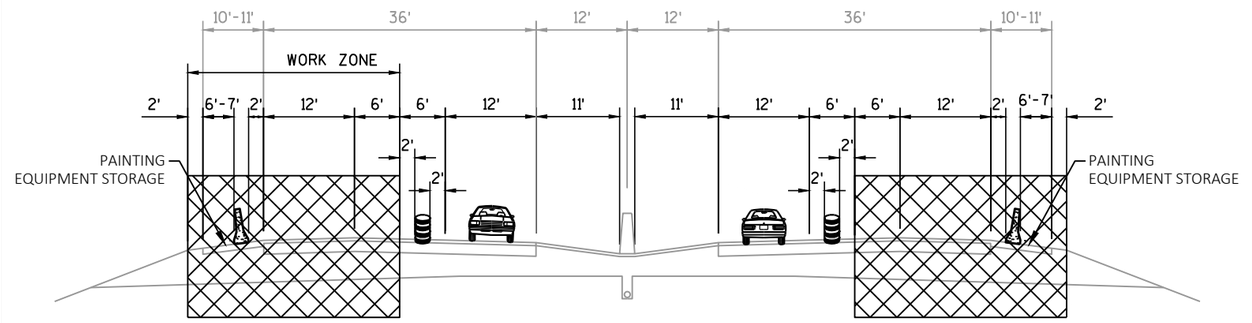
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

TYPICAL SECTION A–A



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (CTH Q)	SHEET 152	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026001-S1.DWG
LAYOUT NAME - 026004-s1
PLOT DATE : 4/16/2022 3:30 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

N

EXIT

E5-1
72"X60"

END
ROAD WORK

G20-2A
48"X24"

SB CTH Q EXIT RAMP

COVER EXISTING EXIT SIGN

840'

200'

350'

50'

25'

SB IH-41

NB IH-41

356+00

358+00

360+00

362+00

364+00

366+00

368+00

370+00

R11-2L
48" X 30"

LANE
CLOSED

TYPE III BARRICADE

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (CTH Q)	SHEET 153	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026001-S1.DWG
LAYOUT NAME - 026005-s1

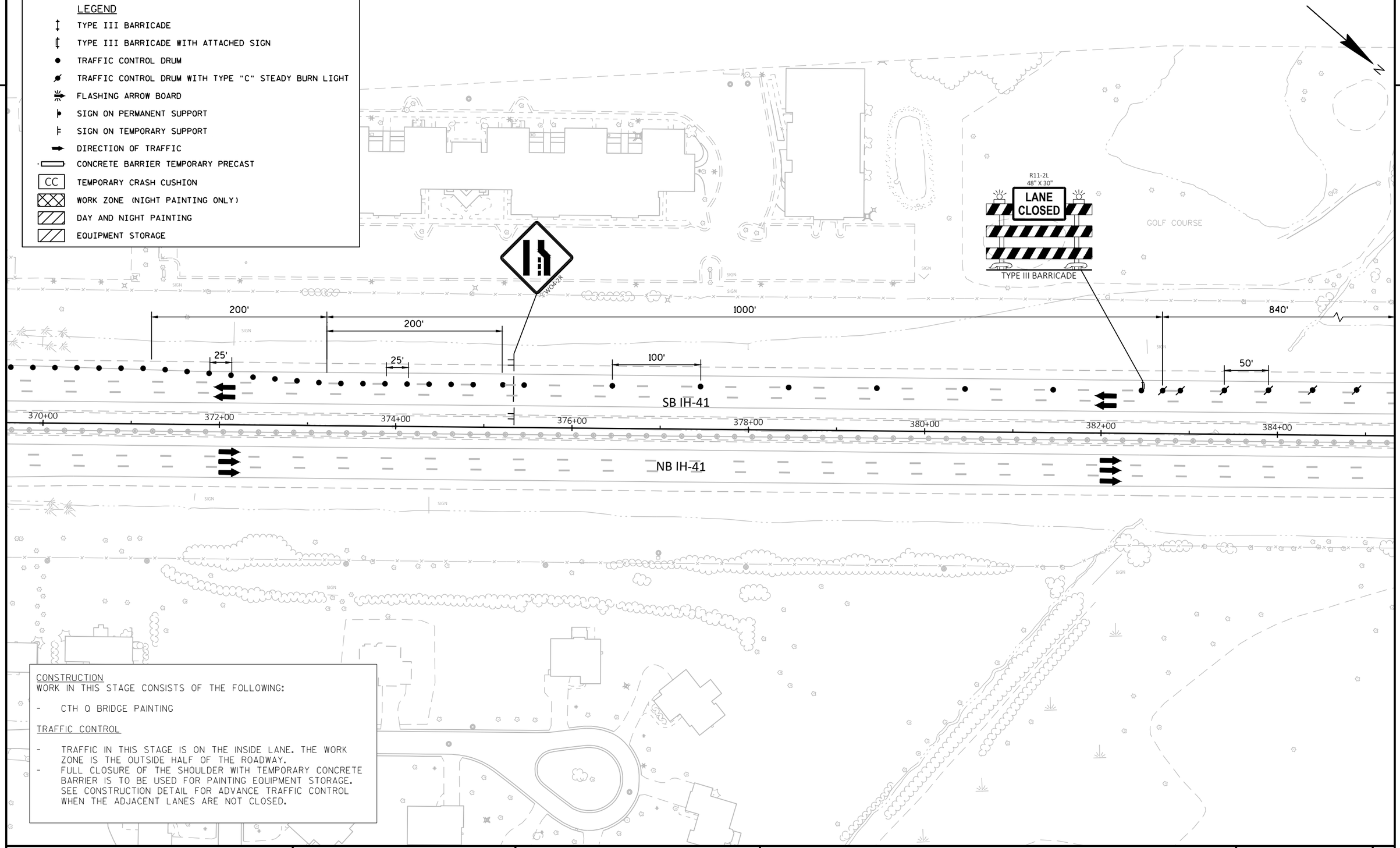
PLOT DATE : 4/16/2022 3:32 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE



CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (CTH Q)	SHEET 154	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026001-S1.DWG
LAYOUT NAME - 026006-s1
PLOT DATE : 4/16/2022 3:34 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

N

W04-2R

RIGHT TWO LANES CLOSED 1/2 MILE W20-5BG

ROAD WORK 2 MILES W20-1E

RIGHT TWO LANES CLOSED 1 MILE W20-5BF

500' 1600' 2600' 1 MILE

840' 50' 500' 50'

SB IH-41

384+00 386+00 388+00 390+00 392+00 394+00 396+00 398+00

NB IH-41

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (CTH Q)	SHEET 155	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026001-S1.DWG
LAYOUT NAME - 026007-s1

PLOT DATE : 4/16/2022 3:37 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

N

SB IH-41

NB IH-41

50'

1 MILE | 2600' | 1600' | 500' | 500' | 840'

ROAD WORK 2 MILES W20-1E

LEFT TWO LANES CLOSED 1 MILE W20-59F

LEFT TWO LANES CLOSED 1/2 MILE W20-59G

W04-2L

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (CTH Q)	SHEET 156	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026001-S2.DWG
LAYOUT NAME - 026001-s2

PLOT DATE : 4/16/2022 3:39 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

N

SB IH-41

NB IH-41

328+00

330+00

50'

50'

840'

1680'

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

W04-2L

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (CTH Q)	SHEET 157	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026001-S2.DWG
LAYOUT NAME - 026002-s2

PLOT DATE : 4/16/2022 3:42 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

FALLS PKWY

SB IH-41

SB CTH Q ENTRANCE RAMP

NB IH-41

330+00 332+00 334+00 336+00 338+00 340+00 342+00 344+00

50' 50'

1680' 840' 500' BUFFER SPACE

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

END ROAD WORK
G20-2A
48"X24"

NB CTH Q EXIT RAMP

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (CTH Q)	SHEET 158	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026001-S2.DWG
LAYOUT NAME - 026003-s2

PLOT DATE : 4/16/2022 3:45 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

MENOMONEE R

FALLS PARKWAY

SB CTH Q ENTRANCE RAMP

CTH Q

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

END ROAD WORK
G20-2A
48"X24"

W5-52R
12"X36"

500'
200'
100'
50'
150'
840'
500' BUFFER SPACE

344+00 346+00 348+00 352+00 354+00 356+00 358+00

SB IH-41

NB IH-41

NB CTH Q EXIT RAMP

NB CTH Q ENTRANCE RAMP

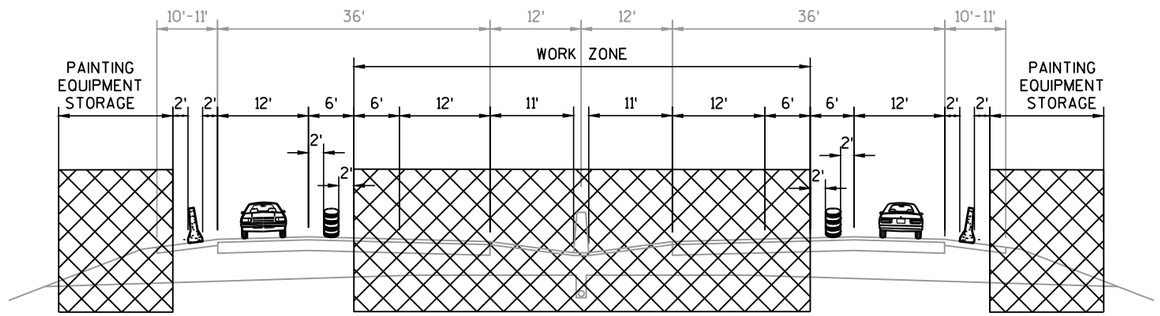
CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

TYPICAL SECTION A–A



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (CTH Q)	SHEET 159	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026001-S2.DWG
LAYOUT NAME - 026004-s2
PLOT DATE : 4/16/2022 3:47 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

END ROAD WORK
G20-2A
48"X24"

SB CTH Q EXIT RAMP

R11-2(
48" X 30"
LANE CLOSED

TYPE III BARRICADE

840'

1680'

50'

50'

SB IH-41

NB IH-41

356+00
358+00
360+00
362+00
364+00
366+00
368+00
370+00

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (CTH Q)	SHEET 160	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026001-S2.DWG
LAYOUT NAME - 026005-s2
PLOT DATE : 4/16/2022 3:50 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

W04-2L

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

GOLF COURSE

1680'

840'

50'

50'

SB IH-41

370+00 372+00 374+00 376+00 378+00 380+00 382+00 384+00

NB IH-41

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (CTH Q)	SHEET 161	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026001-S2.DWG
LAYOUT NAME - 026006-s2

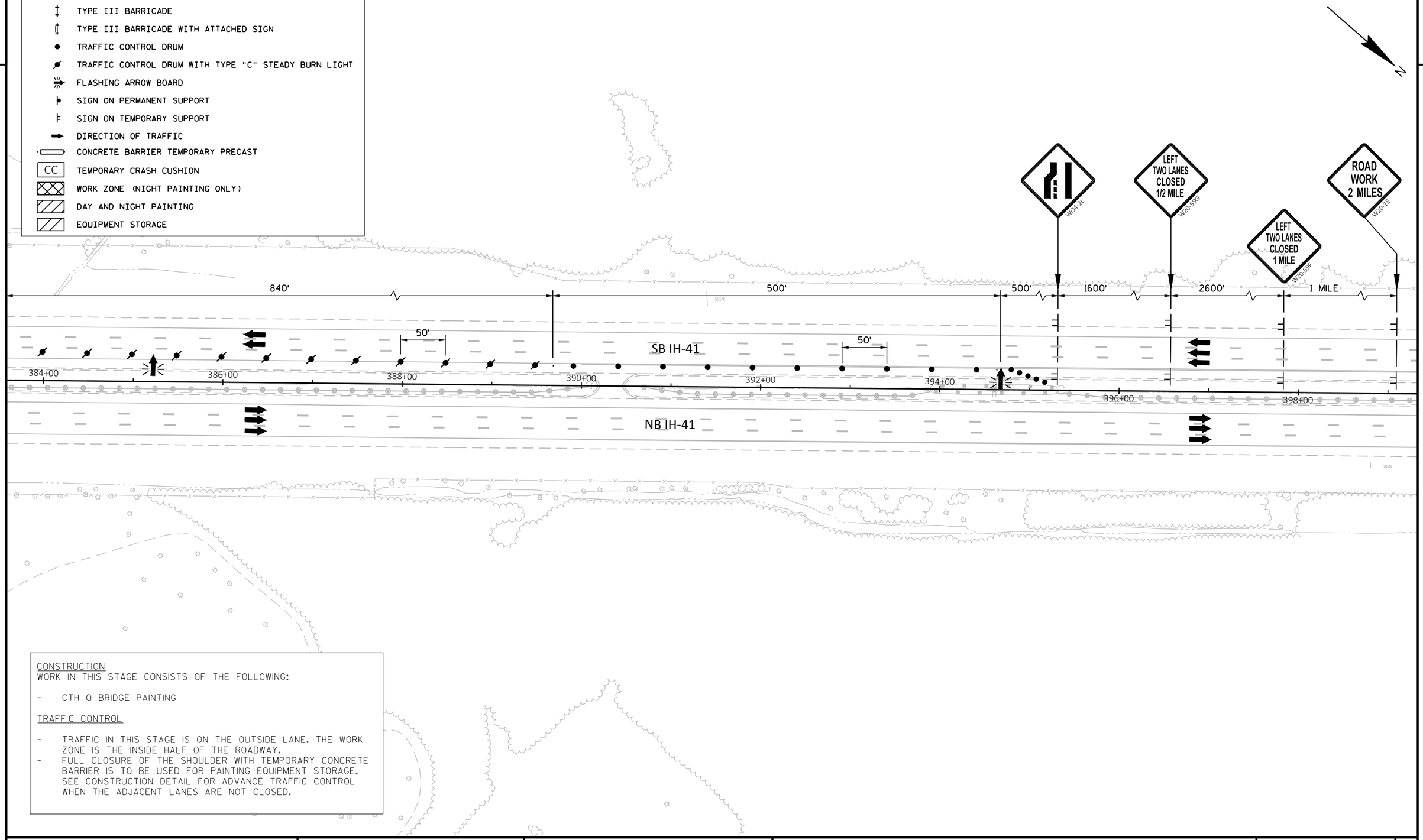
PLOT DATE : 4/16/2022 3:52 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE



CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- CTH Q BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (CTH Q)	SHEET 162	E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

N

SB IH-41

382+00 384+00 386+00 388+00 390+00 392+00 394+00 396+00

NB IH-41

50' 50'

1 MILE 2600' 1600' 500' 500' 840'

ROAD WORK 2 MILES W20-1E

RIGHT TWO LANES CLOSED 1 MILE W20-58F

RIGHT TWO LANES CLOSED 1/2 MILE W20-58G

W04-2R

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.
- FULL CLOSURE OF SB LANNON ROAD ENTRANCE RAMP, TRAFFIC WILL BE DETOURED, SEE DETOUR PLANS

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MAPLE RD & LANNON RD)	SHEET 163	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026002-S1.DWG
LAYOUT NAME - 026008-s1
PLOT DATE : 4/16/2022 3:57 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

N

SB IH-41

396+00 398+00 400+00 402+00 404+00 406+00 408+00 410+00

NB IH-41

50' 50'

840' 1680'

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

W04-2R

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.
- FULL CLOSURE OF SB LANNON ROAD ENTRANCE RAMP, TRAFFIC WILL BE DETOURED, SEE DETOUR PLANS

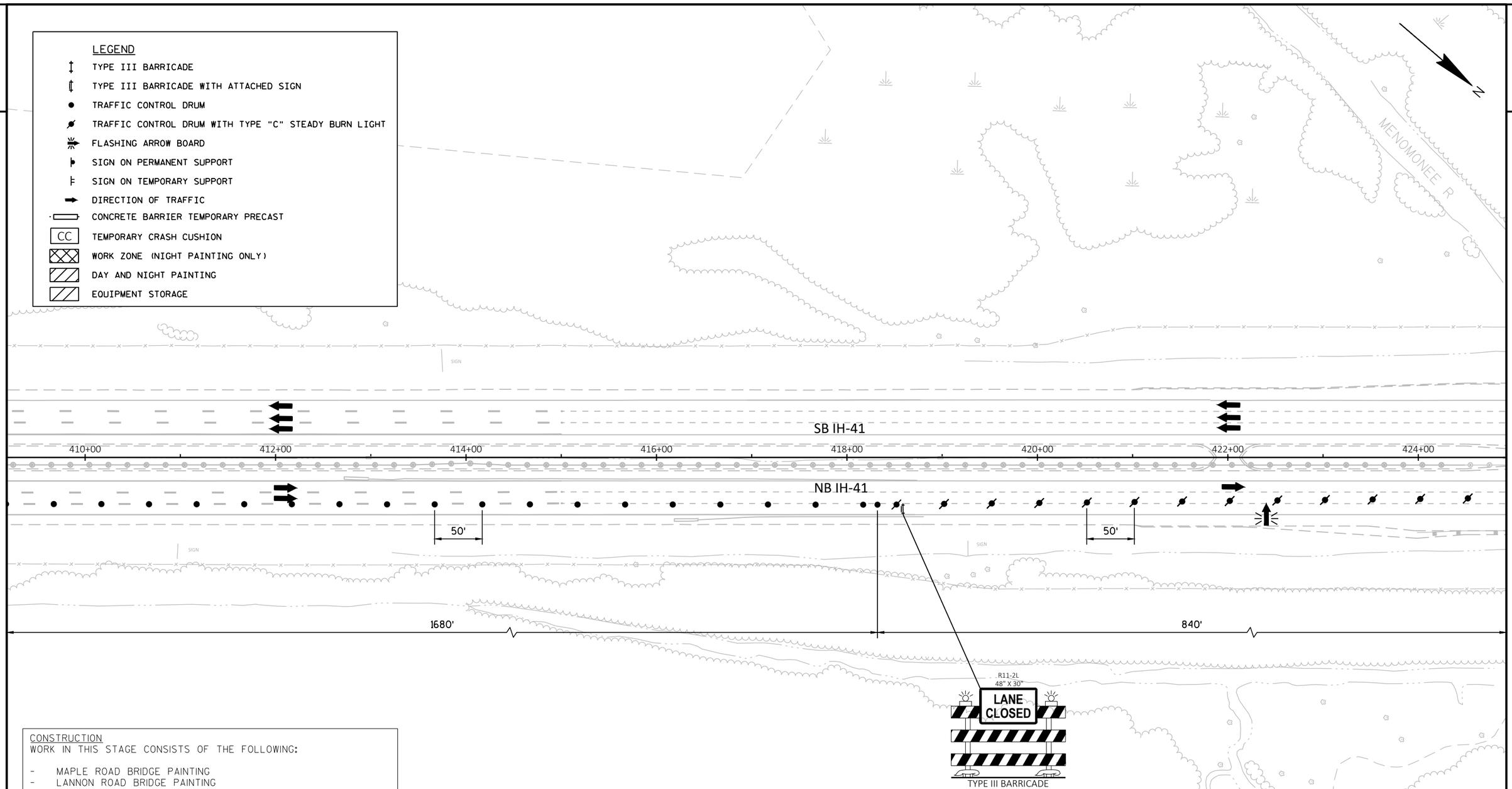
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MAPLE RD & LANNON RD)	SHEET 164	E

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE



CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.
- FULL CLOSURE OF SB LANNON ROAD ENTRANCE RAMP, TRAFFIC WILL BE DETOURED, SEE DETOUR PLANS

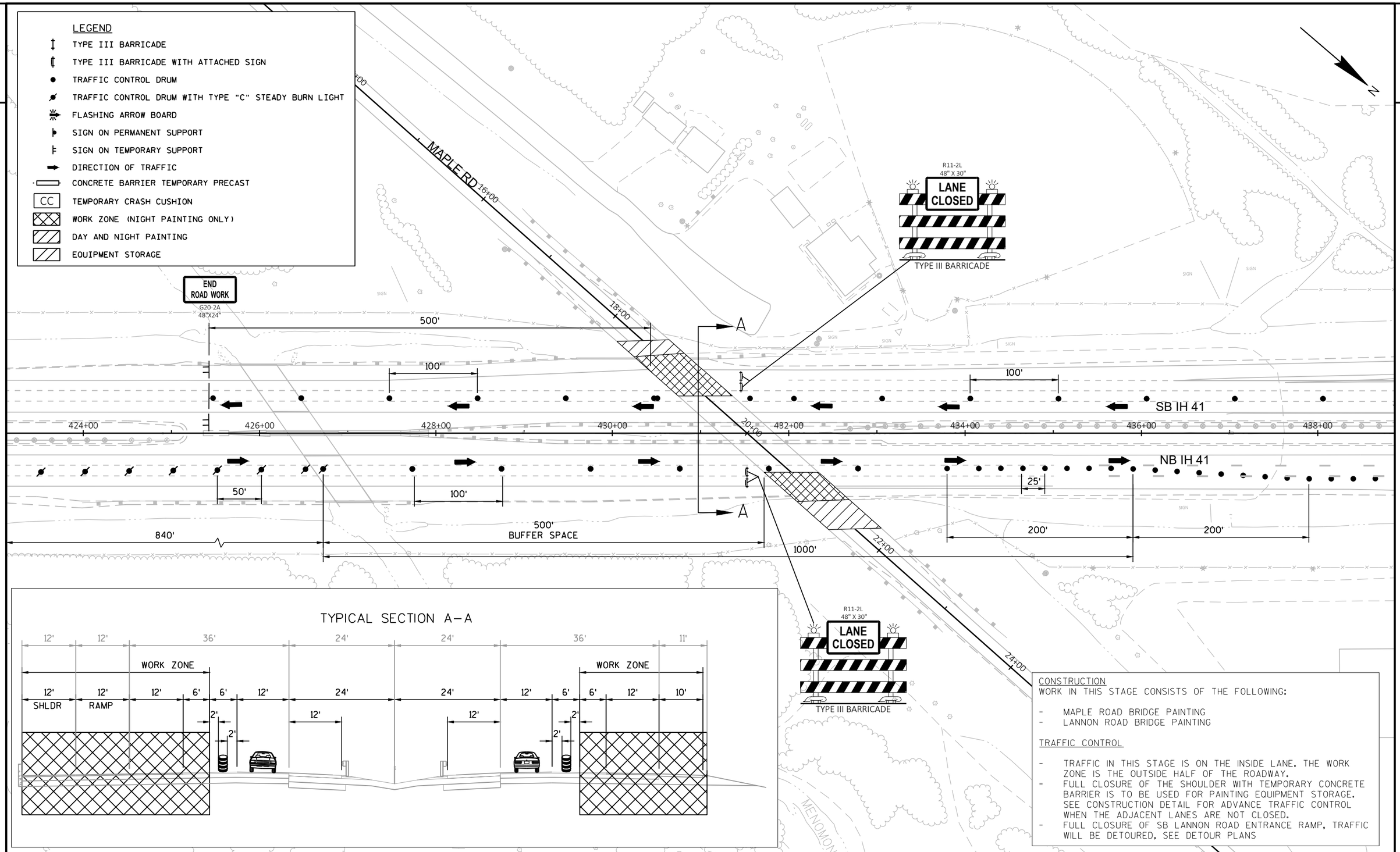
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MAPLE RD & LANNON RD)	SHEET 165	E

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE



TYPICAL SECTION A–A

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.
- FULL CLOSURE OF SB LANNON ROAD ENTRANCE RAMP, TRAFFIC WILL BE DETOURED, SEE DETOUR PLANS

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MAPLE RD & LANNON RD)	SHEET 166	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026002-S1.DWG
LAYOUT NAME - 026011-s1
PLOT DATE : 4/16/2022 4:05 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

N

SB LANNON RD ENTRANCE RAMP

RAMP WILL BE CLOSED (TIME) BEGINNING (DATE)
R11-51
48"X48"

R11-2R
48" X 30"
RAMP CLOSED
TYPE III BARRICADE

836+00
838+00
840+00
842+00
LANNON RD

100'
SB IH-41
438+00 440+00 442+00 444+00 446+00 448+00 450+00 452+00

25'
NB IH-41
100'
350'
200'
200'

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

EXIT
E5-1
72"X60"

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

COVER EXISTING EXIT SIGN

NB LANNON RD EXIT RAMP

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.
- FULL CLOSURE OF SB LANNON ROAD ENTRANCE RAMP, TRAFFIC WILL BE DETOURED, SEE DETOUR PLANS

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MAPLE RD & LANNON RD)	SHEET 167	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026002-S1.DWG
LAYOUT NAME - 026012-s1
PLOT DATE : 4/16/2022 4:08 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

SB LANNON RD ENTRANCE RAMP

SB LANNON RD EXIT RAMP

LANNON RD

836+00

838+00

840+00

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

W5-52R
12"X36"

END ROAD WORK
G20-2A
48"X24"

1100'
BUFFER SPACE

200'

150'

100'

A

SB IH-41

446+00 448+00 450+00 452+00 454+00 456+00 458+00 460+00

NB IH-41

500'

CC

COVER EXISTING EXIT SIGN

NB LANNON RD EXIT RAMP

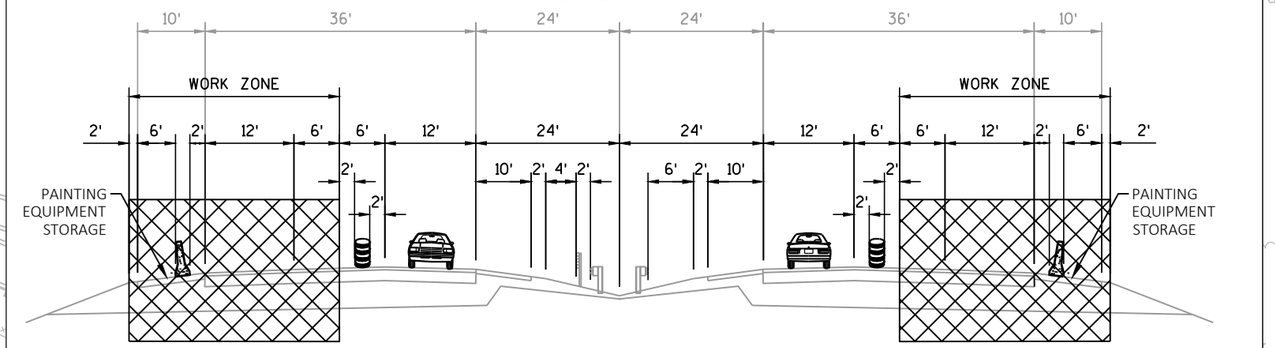
CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.
- FULL CLOSURE OF SB LANNON ROAD ENTRANCE RAMP, TRAFFIC WILL BE DETOURED, SEE DETOUR PLANS

TYPICAL SECTION A–A



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MAPLE RD & LANNON RD)	SHEET 168	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026002-S1.DWG
LAYOUT NAME - 026013-s1

PLOT DATE : 4/16/2022 4:10 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

EXIT

E5-1
72"X60"

1100'
BUFFER SPACE

SB LANNON RD EXIT RAMP

100'

200'

25'

350'

200'

1000'

200'

25'

SB IH 41

460+00 462+00 464+00 466+00 468+00 470+00 472+00 474+00

NB IH 41

R11-2L
48" X 30"

LANE
CLOSED

TYPE III BARRICADE

COVER EXISTING EXIT SIGN

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.
- FULL CLOSURE OF SB LANNON ROAD ENTRANCE RAMP, TRAFFIC WILL BE DETOURED, SEE DETOUR PLANS

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MAPLE RD & LANNON RD)	SHEET 169	E

2

N

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

1000'

840'

100'

50'

SB IH 41

474+00 476+00 478+00 480+00 482+00 484+00 486+00 488+00

NB IH 41

MEQUON RD
22+00

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

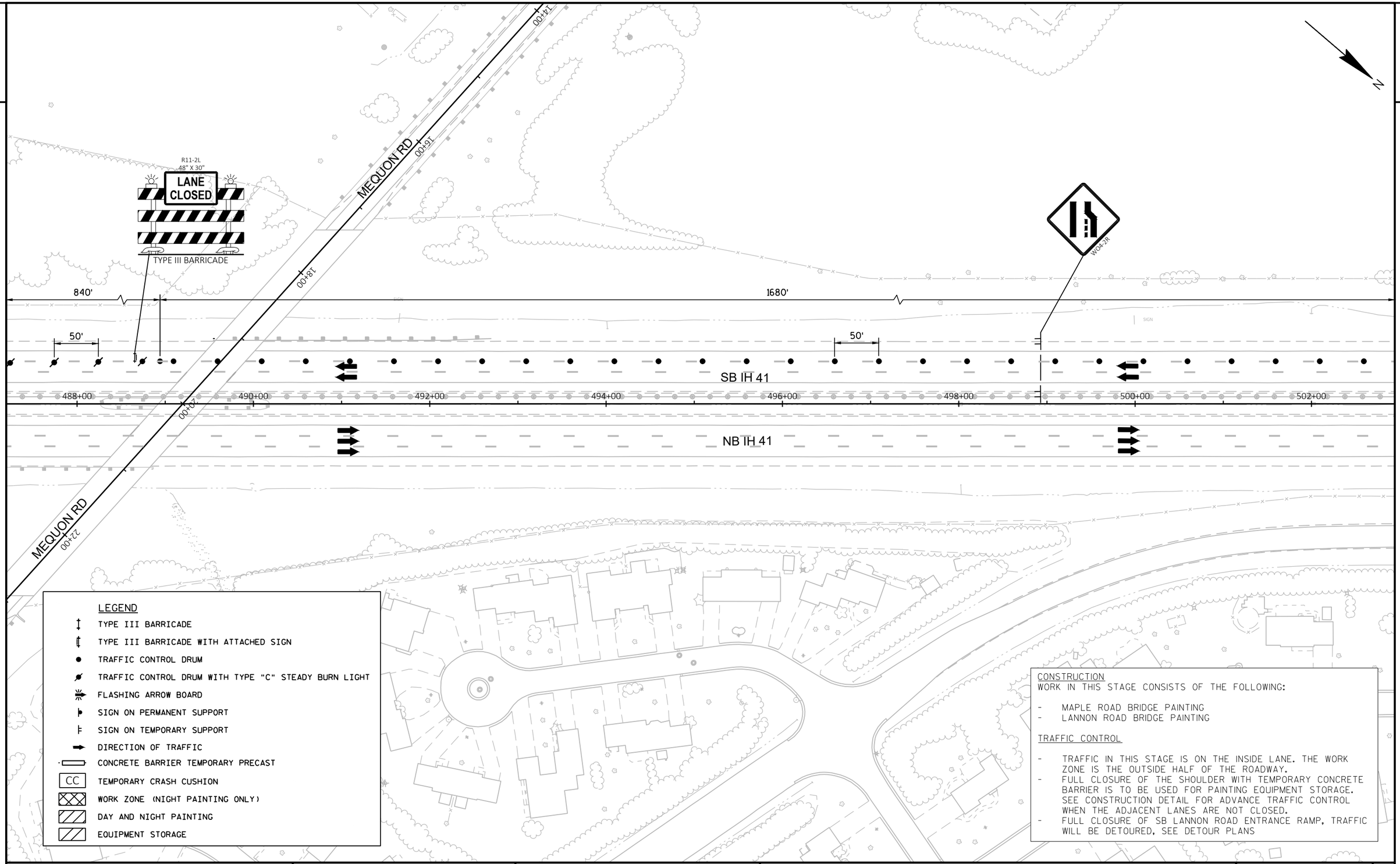
TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.
- FULL CLOSURE OF SB LANNON ROAD ENTRANCE RAMP, TRAFFIC WILL BE DETOURED, SEE DETOUR PLANS

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MAPLE RD & LANNON RD)	SHEET 170	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026002-S1.DWG
LAYOUT NAME - 026015-s1
PLOT DATE : 4/16/2022 4:15 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MAPLE RD & LANNON RD)	SHEET 171	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026002-S1.DWG
LAYOUT NAME - 026016-s1
PLOT DATE : 4/16/2022 4:18 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

1680'
840'
500'
50'
50'

SB IH 41

502+00 504+00 506+00 508+00 510+00 512+00 514+00 516+00

NB IH 41

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

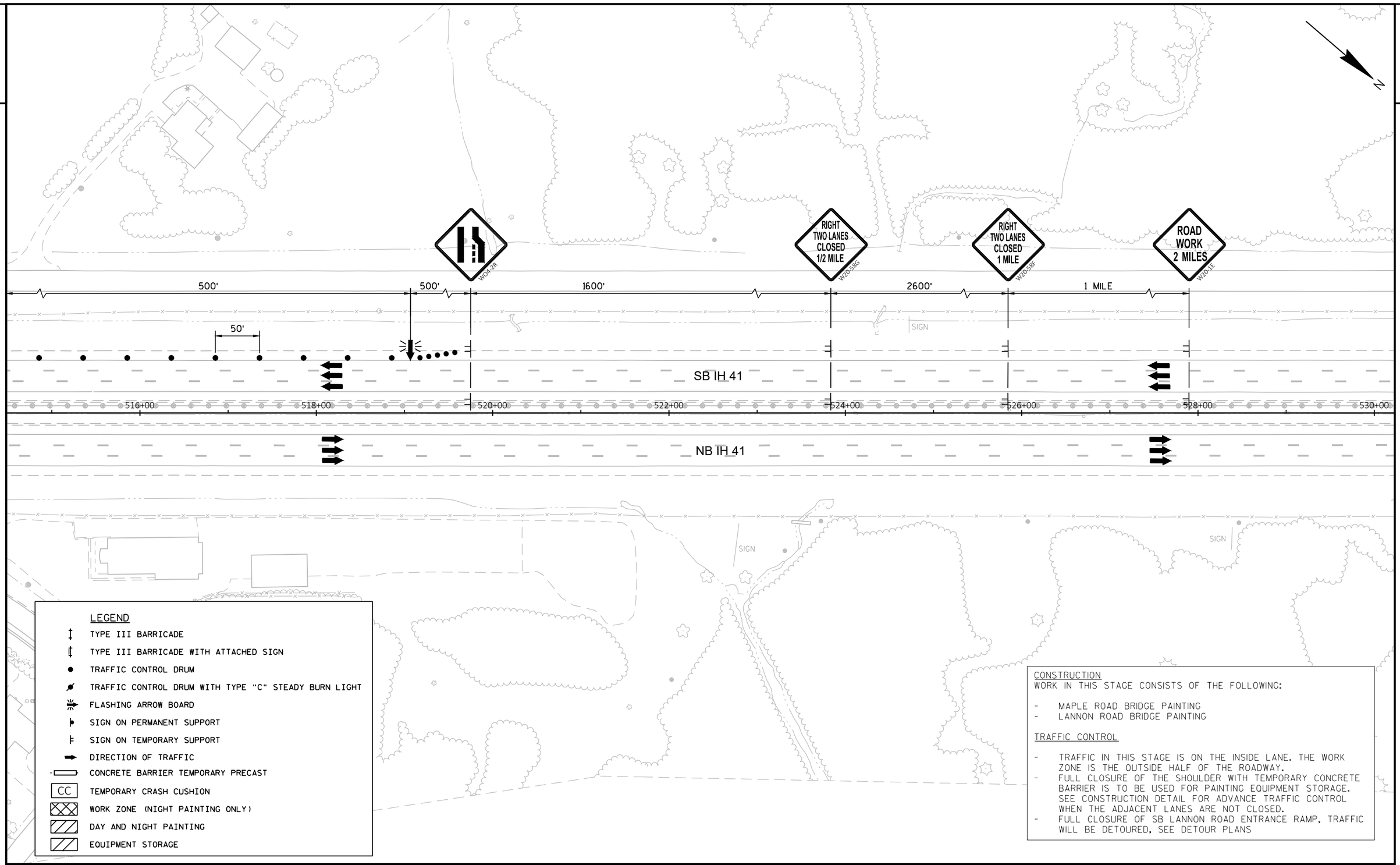
TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.
- FULL CLOSURE OF SB LANNON ROAD ENTRANCE RAMP, TRAFFIC WILL BE DETOURED, SEE DETOUR PLANS

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MAPLE RD & LANNON RD)	SHEET 172	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026002-S1.DWG
LAYOUT NAME - 026017-s1
PLOT DATE : 4/16/2022 4:21 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.
- FULL CLOSURE OF SB LANNON ROAD ENTRANCE RAMP, TRAFFIC WILL BE DETOURED, SEE DETOUR PLANS

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MAPLE RD & LANNON RD)	SHEET 173	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026002-S1.DWG
LAYOUT NAME - 026018-s1
PLOT DATE : 4/16/2022 4:23 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

N

SB IH-41

382+00 384+00 386+00 388+00 390+00 392+00 394+00 396+00

NB IH-41

50' 50'

1 MILE 2600' 1600' 500' 500' 840'

ROAD WORK 2 MILES W20-1E

LEFT TWO LANES CLOSED 1 MILE W20-59F

LEFT TWO LANES CLOSED 1/2 MILE W20-59G

W04-2L

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MAPLE RD & LANNON RD)	SHEET 174	E

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

N

SB IH-41

396+00 398+00 400+00 402+00 404+00 406+00 408+00 410+00

NB IH-41

50' 50'

840' 1680'

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

W20-2L

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MAPLE RD & LANNON RD)	SHEET 175	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026002-S2.DWG
LAYOUT NAME - 026009-s2
PLOT DATE : 4/16/2022 4:29 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

N

MENOMONEE R

SB IH-41

410+00 412+00 414+00 416+00 418+00 420+00 422+00 424+00

NB IH-41

50' 50'

1680' 840'

R11-2L
48" X 30"

LANE CLOSED

TYPE III BARRICADE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MAPLE RD & LANNON RD)	SHEET 176	E

2

2

N

MAPLE RD

MENOMONEE R

14

16

18

22

24

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

END ROAD WORK
G20-2A
48"X24"

500'
100'
100'
100'
50'
100'
500'
BUFFER SPACE
840'

A
A

SB IH 41
NB IH 41

424+00 426+00 428+00 430+00 432+00 434+00 436+00 438+00

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

TYPICAL SECTION A–A

12' 12' 36' 24' 24' 36' 11'

WORK ZONE

12' SHLDR | 12' RAMP | 12' | 6' | 6' | 12' | 24' | 24' | 12' | 6' | 6' | 12' | 10'

2' 2' 12' 12' 2' 2'

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MAPLE RD & LANNON RD)	SHEET 177	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026002-S2.DWG
LAYOUT NAME - 026011-s2

PLOT DATE : 4/16/2022 4:32 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

ROAD WORK AHEAD
W20-1A

SB LANNON RD ENTRANCE RAMP

W04-1R

100'

SB IH-41

438+00 440+00 442+00 444+00 446+00 448+00 450+00 452+00

CC

NB IH-41

100'

200'

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

LANNON RD

836 836 838 842

NB LANNON RD EXIT RAMP

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MAPLE RD & LANNON RD)	SHEET 178	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026002-S2.DWG
LAYOUT NAME - 026012-s2

PLOT DATE : 4/16/2022 4:34 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

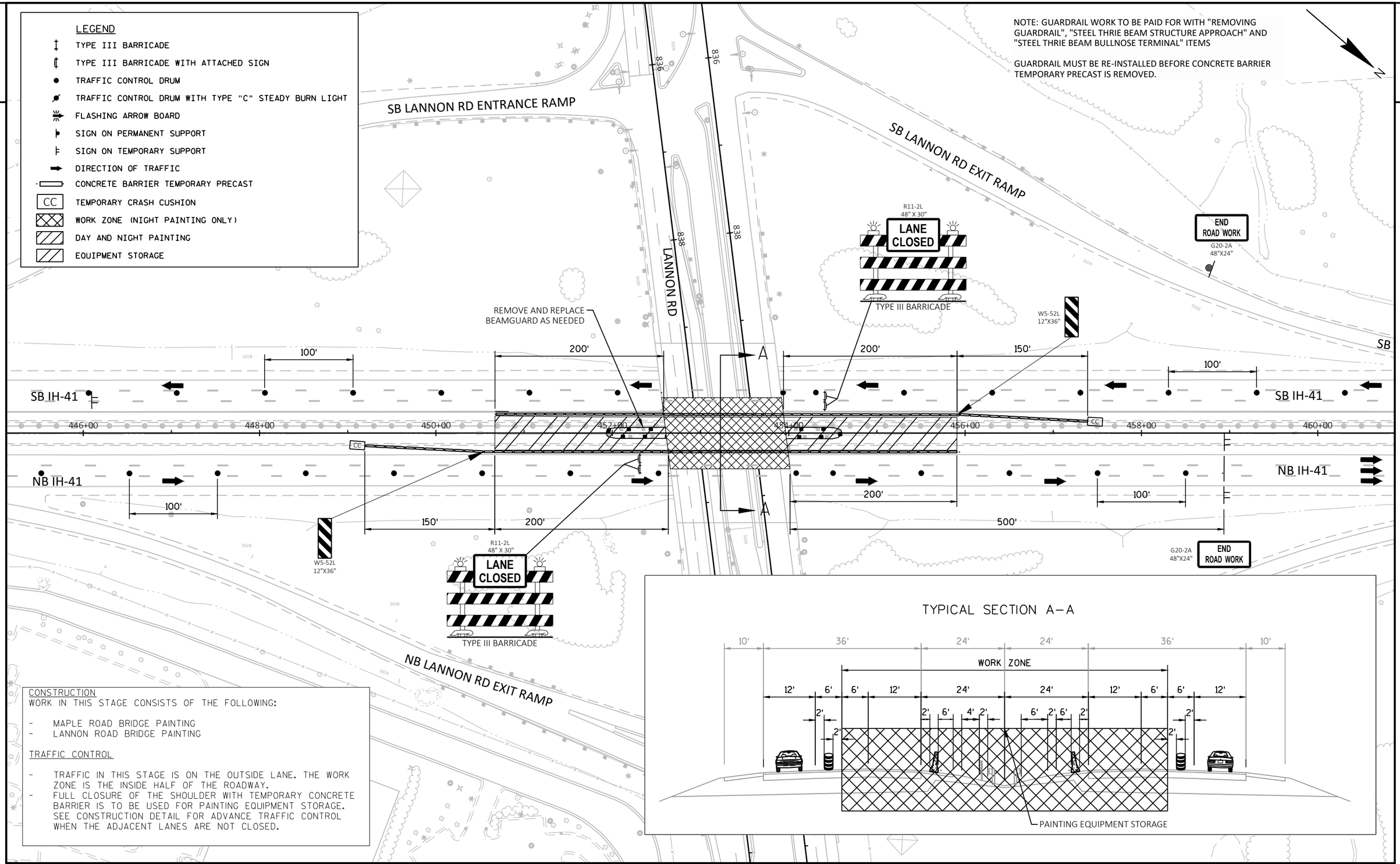
2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

NOTE: GUARDRAIL WORK TO BE PAID FOR WITH "REMOVING GUARDRAIL", "STEEL THRIE BEAM STRUCTURE APPROACH" AND "STEEL THRIE BEAM BULLNOSE TERMINAL" ITEMS

GUARDRAIL MUST BE RE-INSTALLED BEFORE CONCRETE BARRIER TEMPORARY PRECAST IS REMOVED.



CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

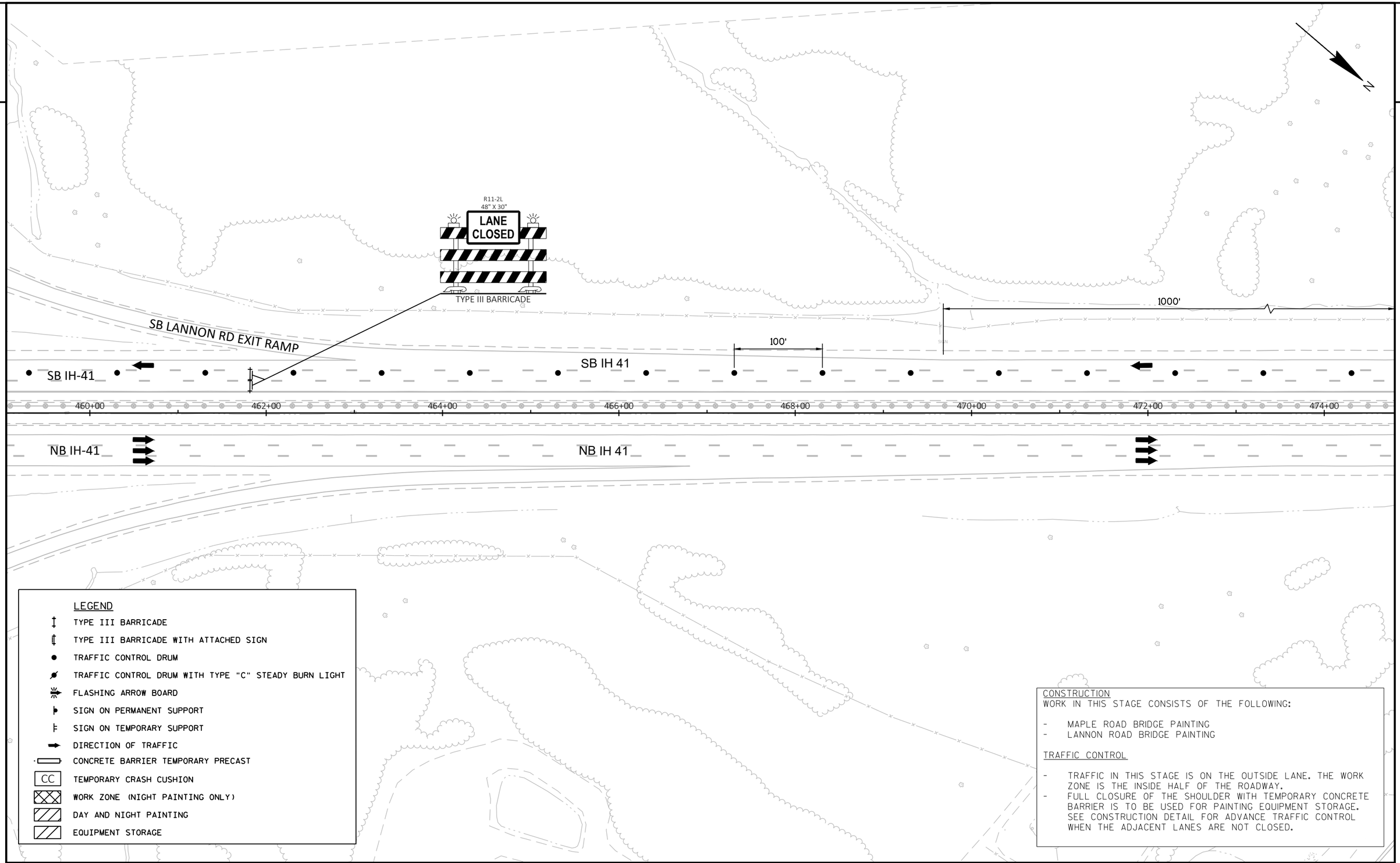
- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

TYPICAL SECTION A–A

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MAPLE RD & LANNON RD)	SHEET 179	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026002-S2.DWG
LAYOUT NAME - 026013-s2
PLOT DATE : 4/25/2022 8:53 AM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

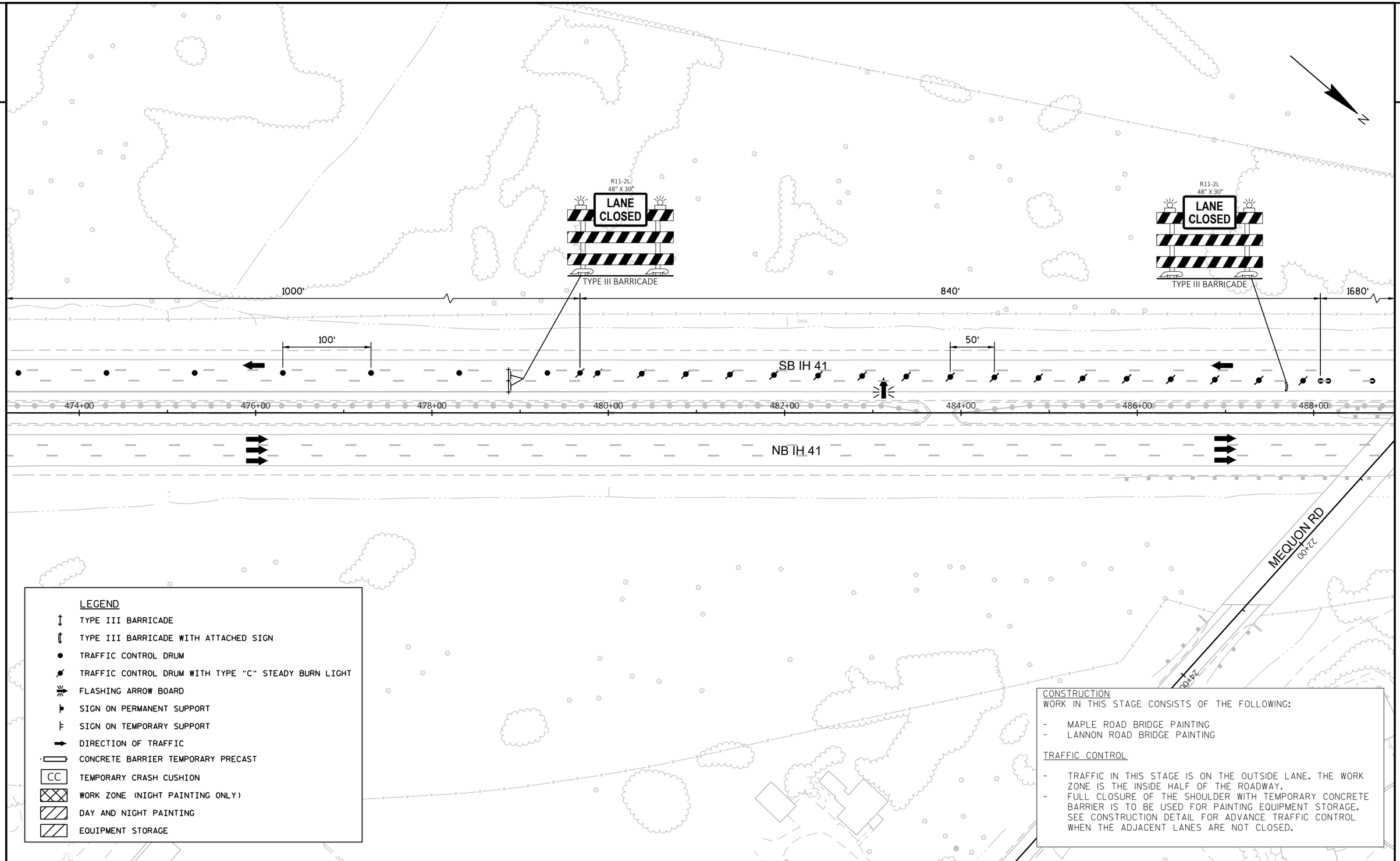
- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MAPLE RD & LANNON RD)	SHEET 180	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026002-S2.DWG
LAYOUT NAME - 026014-s2
PLOT DATE : 4/16/2022 4:38 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MAPLE RD & LANNON RD)	SHEET 181	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026002-S2.DWG
LAYOUT NAME - 026015-s2
PLOT DATE : 4/16/2022 4:40 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

N

MEQUON RD

12+00

16+00

18+00

20+00

22+00

R11-2L
48" X 30"

LANE CLOSED

TYPE III BARRICADE

W04-2L

840'

1680'

50'

50'

SB IH 41

488+00 490+00 492+00 494+00 496+00 498+00 500+00 502+00

NB IH 41

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

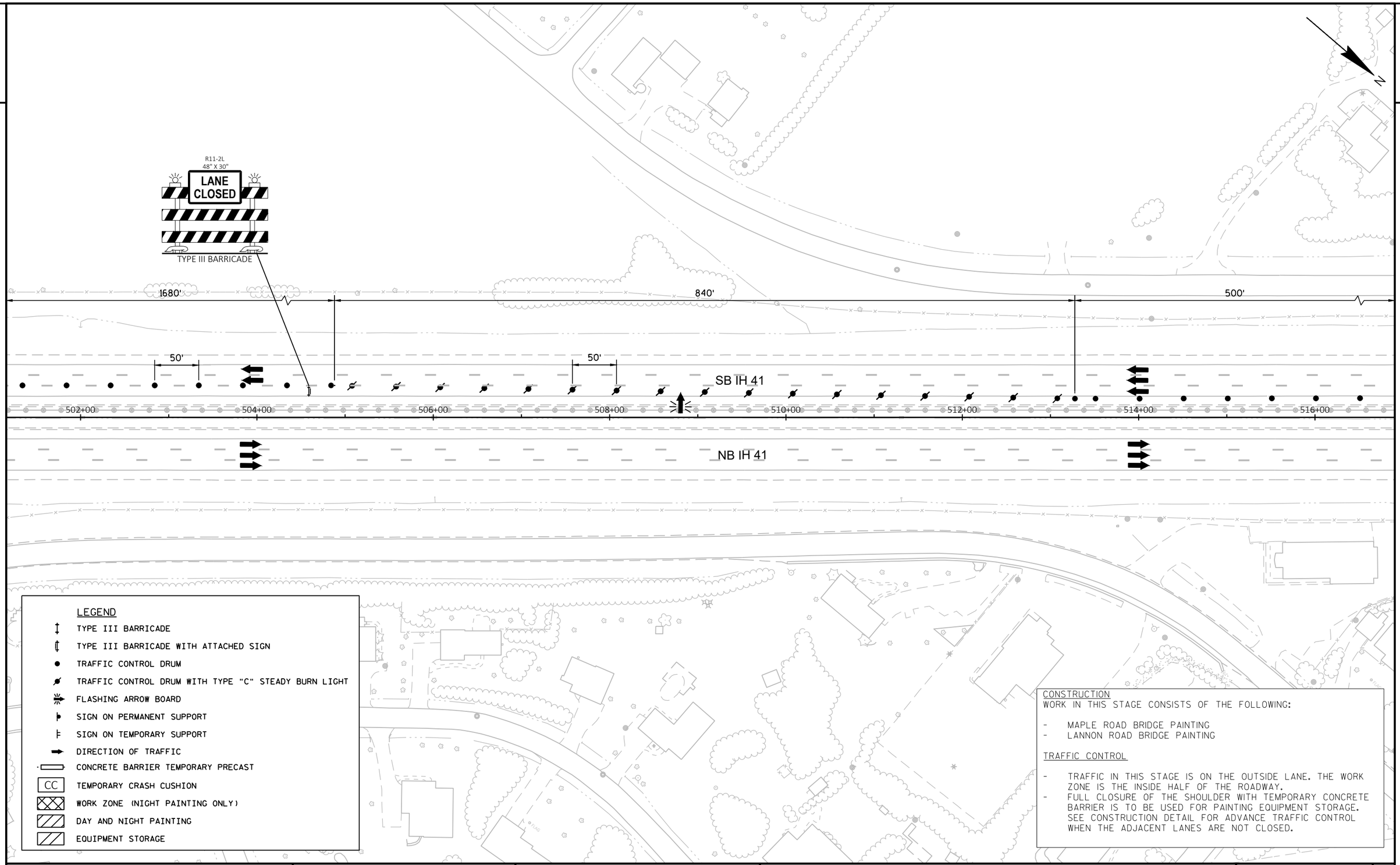
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MAPLE RD & LANNON RD)	SHEET 182	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026002-S2.DWG
LAYOUT NAME - 026016-s2

PLOT DATE : 4/16/2022 4:42 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

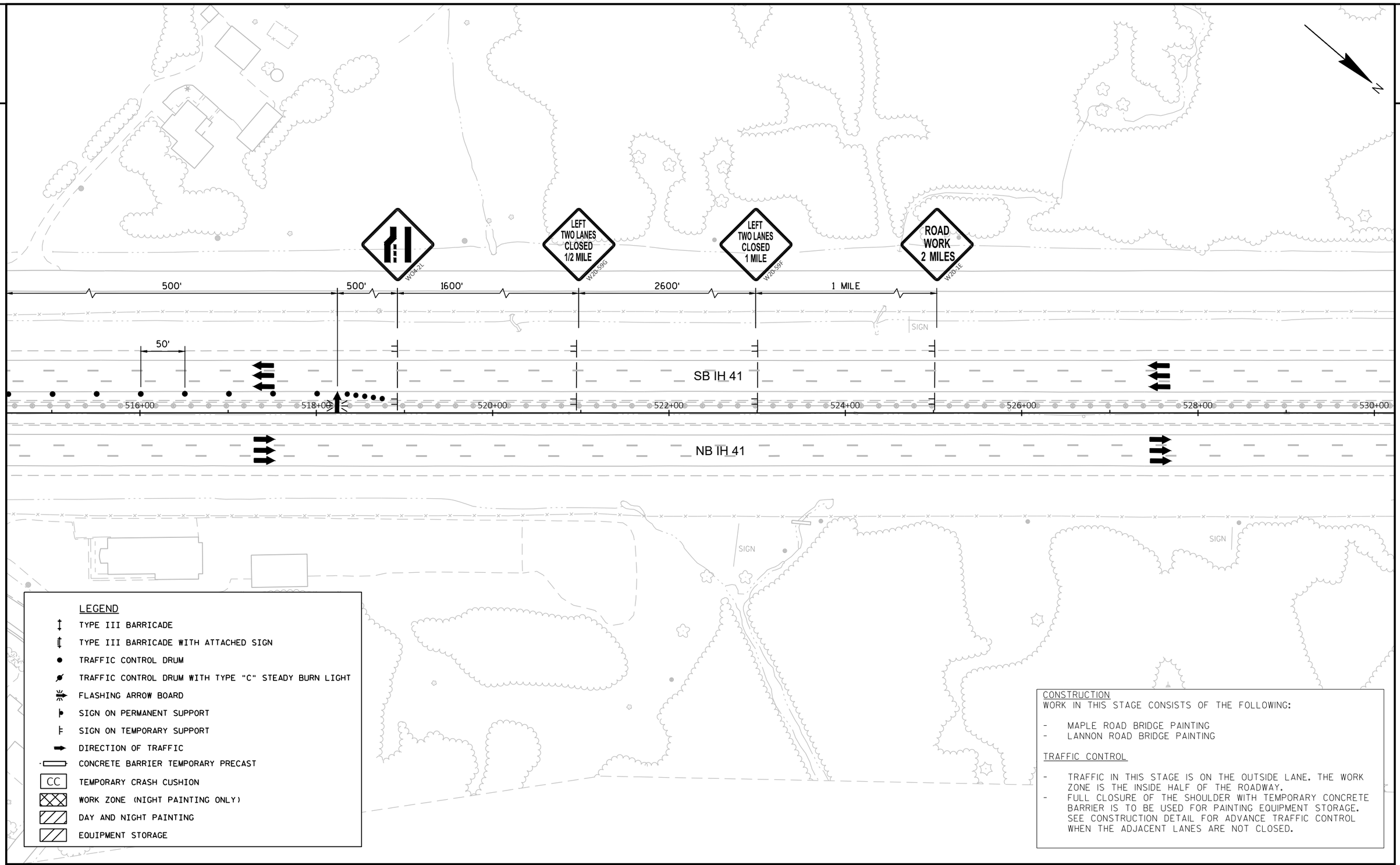
- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MAPLE RD & LANNON RD)	SHEET 183	E

2



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MAPLE ROAD BRIDGE PAINTING
- LANNON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MAPLE RD & LANNON RD)	SHEET 184	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026002-S2.DWG
LAYOUT NAME - 026018-s2
PLOT DATE : 4/16/2022 4:46 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING

SB LANNON RD ENTRANCE RAMP

LANNON RD

SB IH-41

NB IH-41

440+00 442+00 444+00 446+00 448+00 450+00 452+00 454+00

836 838 840 842 844

50' 50'

1 MILE 2600' 1600' 500' 500' 840'

ROAD WORK 2 MILES W20-1E

RIGHT TWO LANES CLOSED 1 MILE W20-5BF

RIGHT TWO LANES CLOSED 1/2 MILE W20-5BG

W04-2R

NB LANNON RD EXIT RAMP

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MEQUON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MEQUON RD)	SHEET 185	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026003-S1.DWG
LAYOUT NAME - 026019-s1

PLOT DATE : 4/16/2022 4:48 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING

N

SB LANNON RD EXIT RAMP

SB IH-41

NB IH-41

454+00 456+00 458+00 460+00 462+00 464+00 466+00 468+00

838 840 842 844

50' 50'

840' 1680'

NB LANNON RD ENTRANCE RAMP

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

RAMP WILL BE CLOSED (TIME) BEGINNING (DATE)
R11-51
48"X48"

R11-2R
48" X 30"
RAMP CLOSED
TYPE III BARRICADE

W04-2R

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MEQUON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MEQUON RD)	SHEET 186	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026003-S1.DWG
LAYOUT NAME - 026020-s1

PLOT DATE : 4/16/2022 4:50 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING

SB IH-41

468+00 470+00 472+00 474+00 476+00 478+00 480+00 482+00

NB IH-41

50' 50'

1680' 840'

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MEQUON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.

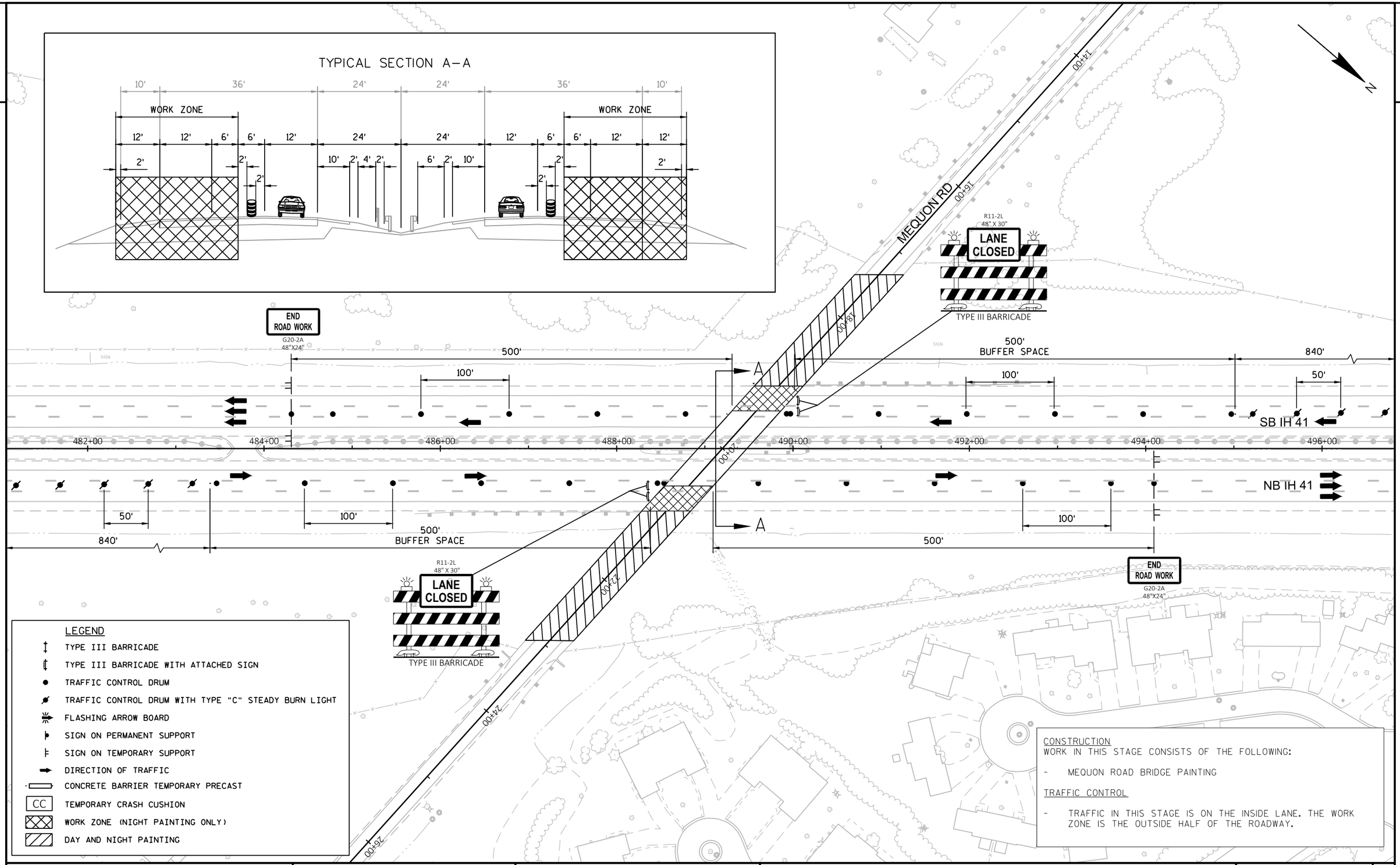
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MEQUON RD)	SHEET 187	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026003-S1.DWG
LAYOUT NAME - 026021-s1

PLOT DATE : 4/16/2022 4:52 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

TYPICAL SECTION A–A



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MEQUON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MEQUON RD)	SHEET 188	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026003-S1.DWG
LAYOUT NAME - 026022-s1
PLOT DATE : 4/16/2022 4:54 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING

N

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

840'
1680'
50'
50'

SB IH 41
SB IH 41

496+00 498+00 500+00 502+00 504+00 506+00 508+00 510+00

NB IH 41
NB IH 41

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MEQUON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MEQUON RD)	SHEET 189	E

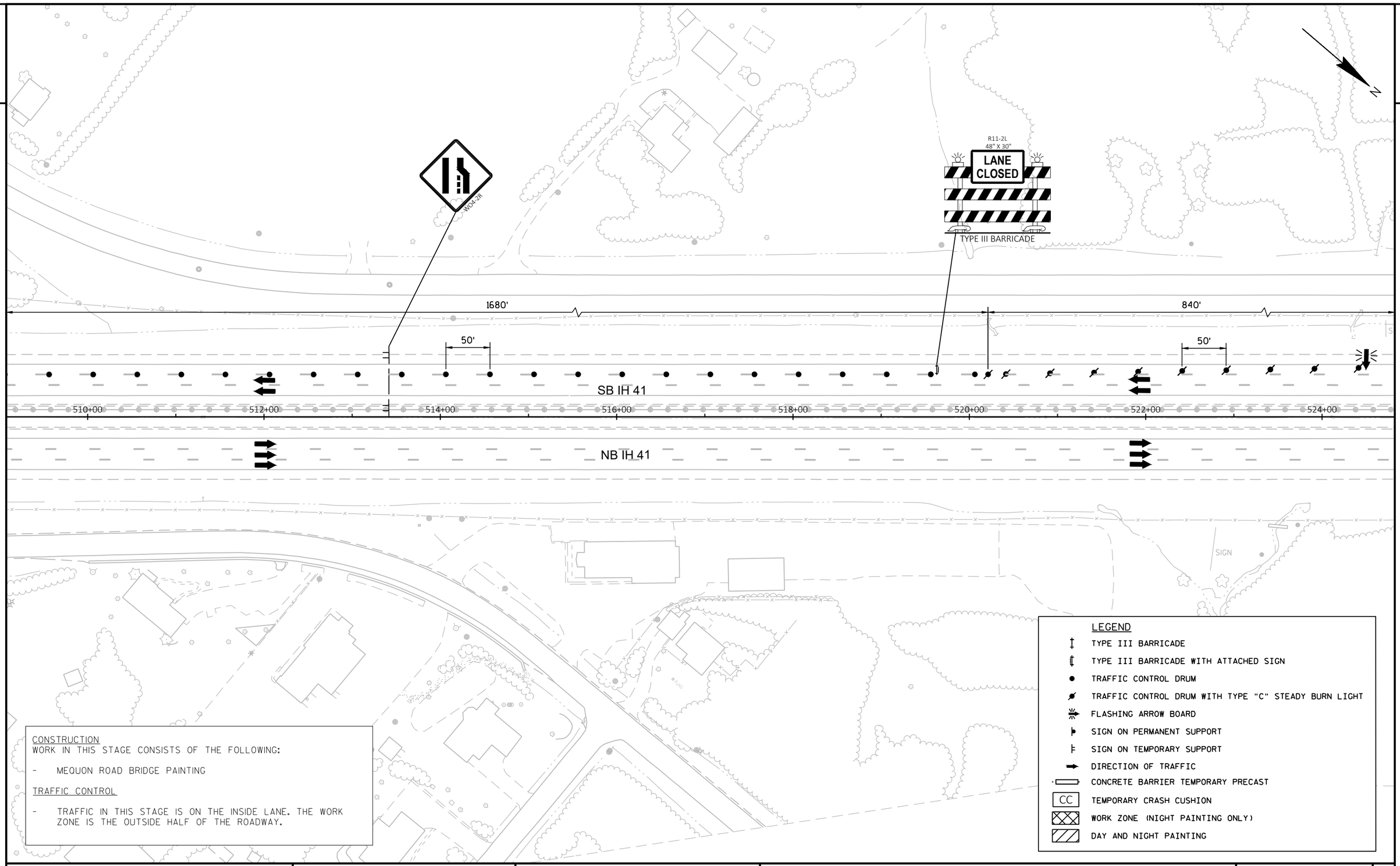
FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026003-S1.DWG
LAYOUT NAME - 026023-s1

PLOT DATE : 4/16/2022 4:56 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

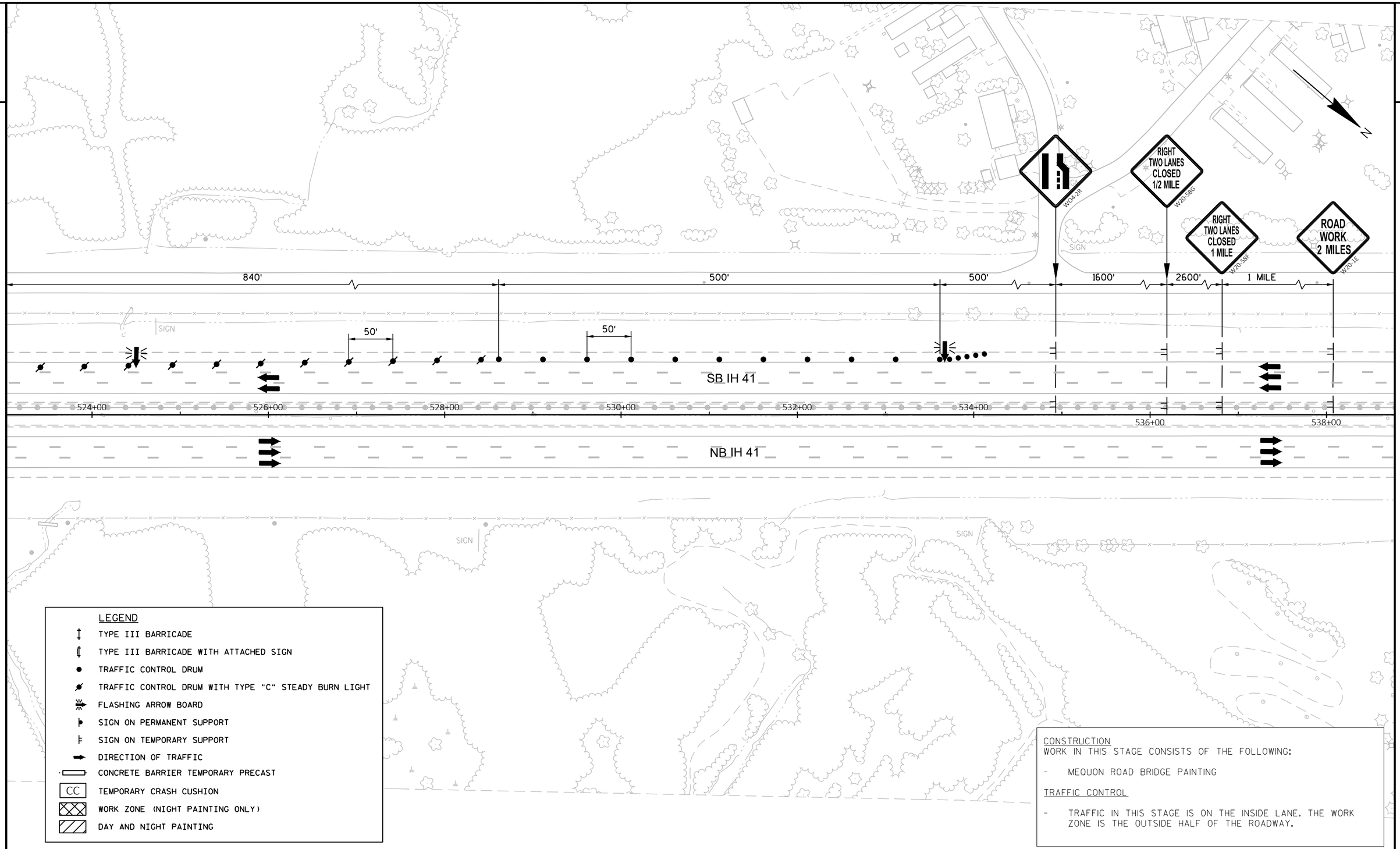


PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MEQUON RD)	SHEET 190	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026003-S1.DWG
LAYOUT NAME - 026024-s1

PLOT DATE : 4/16/2022 4:58 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MEQUON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (MEQUON RD)	SHEET 191	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026003-S1.DWG
LAYOUT NAME - 026025-s1

PLOT DATE : 4/16/2022 5:00 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING

SB LANNON RD ENTRANCE RAMP

LANNON RD

SB IH-41

NB IH-41

440+00 442+00 444+00 446+00 448+00 450+00 452+00 454+00

836 838 840 842 844

50' 50'

1 MILE 2600' 1600' 500' 500' 840'

ROAD WORK 2 MILES W20-1E

LEFT TWO LANES CLOSED 1 MILE W20-59F

LEFT TWO LANES CLOSED 1/2 MILE W20-59G

W01-2L

R11-2R 48" X 30"

RAMP CLOSED

TYPE III BARRICADE

NB LANNON RD EXIT RAMP

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MEQUON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF NB LANNON ROAD ENTRANCE RAMP, TRAFFIC WILL BE DETOURED, SEE DETOUR PLANS

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MEQUON RD)	SHEET 192	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026003-S2.DWG
LAYOUT NAME - 026019-s2
PLOT DATE : 4/16/2022 5:02 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING

SB LANNON RD EXIT RAMP

W04-1R

SB IH-41

838

840

454+00 456+00 458+00 460+00 462+00 464+00 466+00 468+00

50'

NB IH-41

50'

840'

1680'

842

844

844

NB LANNON RD ENTRANCE RAMP

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

RAMP WILL BE CLOSED (TIME) BEGINNING (DATE)
R11-51
48"X48"

R11-2R
48" X 30"
RAMP CLOSED
TYPE III BARRICADE

W04-2L

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MEQUON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF NB LANNON ROAD ENTRANCE RAMP, TRAFFIC WILL BE DETOURED, SEE DETOUR PLANS

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MEQUON RD)	SHEET 193	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026003-S2.DWG
LAYOUT NAME - 026020-s2

PLOT DATE : 4/16/2022 5:04 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING

N

SB IH-41

468+00 470+00 472+00 474+00 476+00 478+00 480+00 482+00

50'

NB IH-41

50'

1680'

840'

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MEQUON ROAD BRIDGE PAINTING

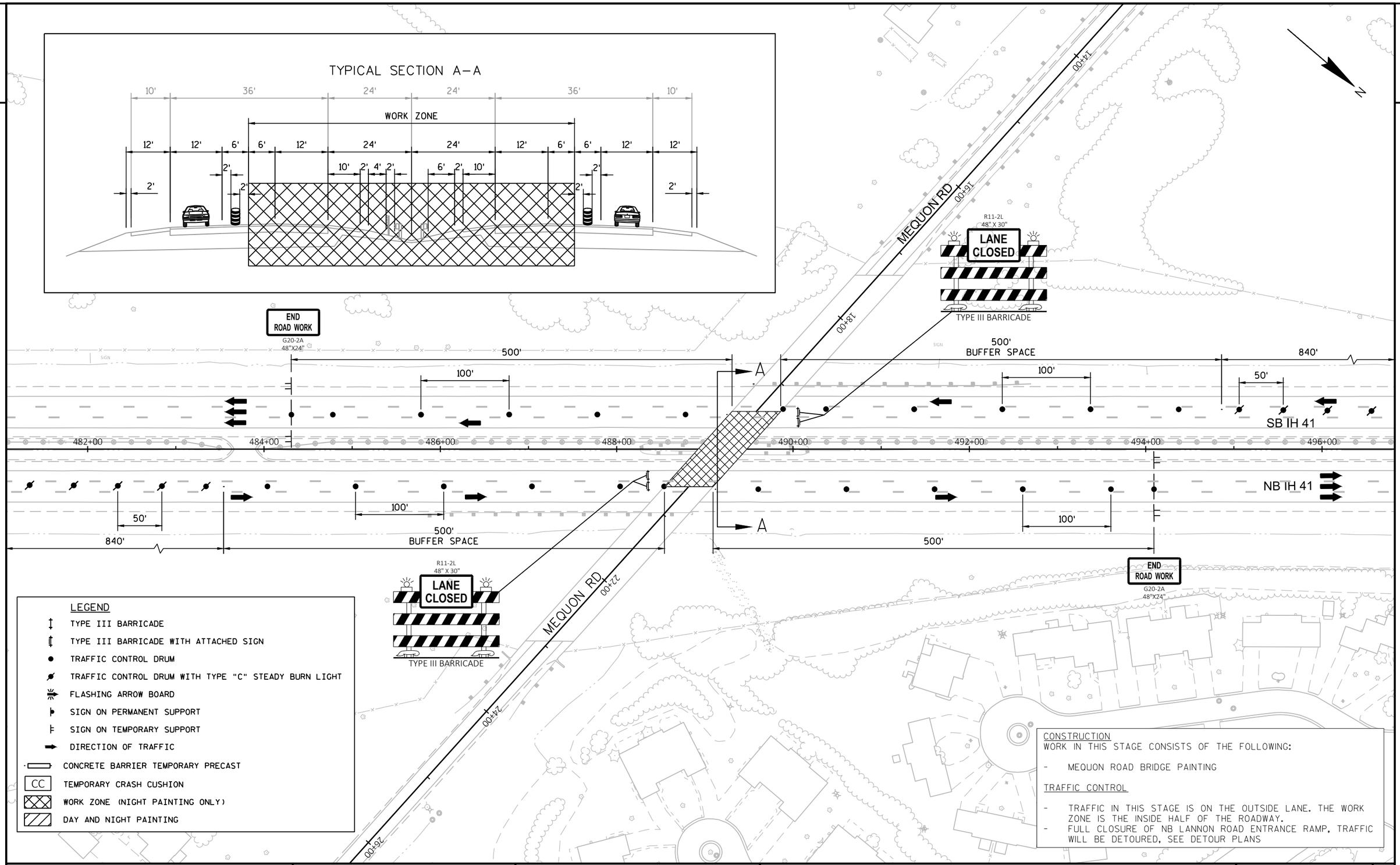
TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF NB LANNON ROAD ENTRANCE RAMP, TRAFFIC WILL BE DETOURED, SEE DETOUR PLANS

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MEQUON RD)	SHEET 194	E

2

TYPICAL SECTION A–A



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MEQUON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF NB LANNON ROAD ENTRANCE RAMP, TRAFFIC WILL BE DETOURED, SEE DETOUR PLANS

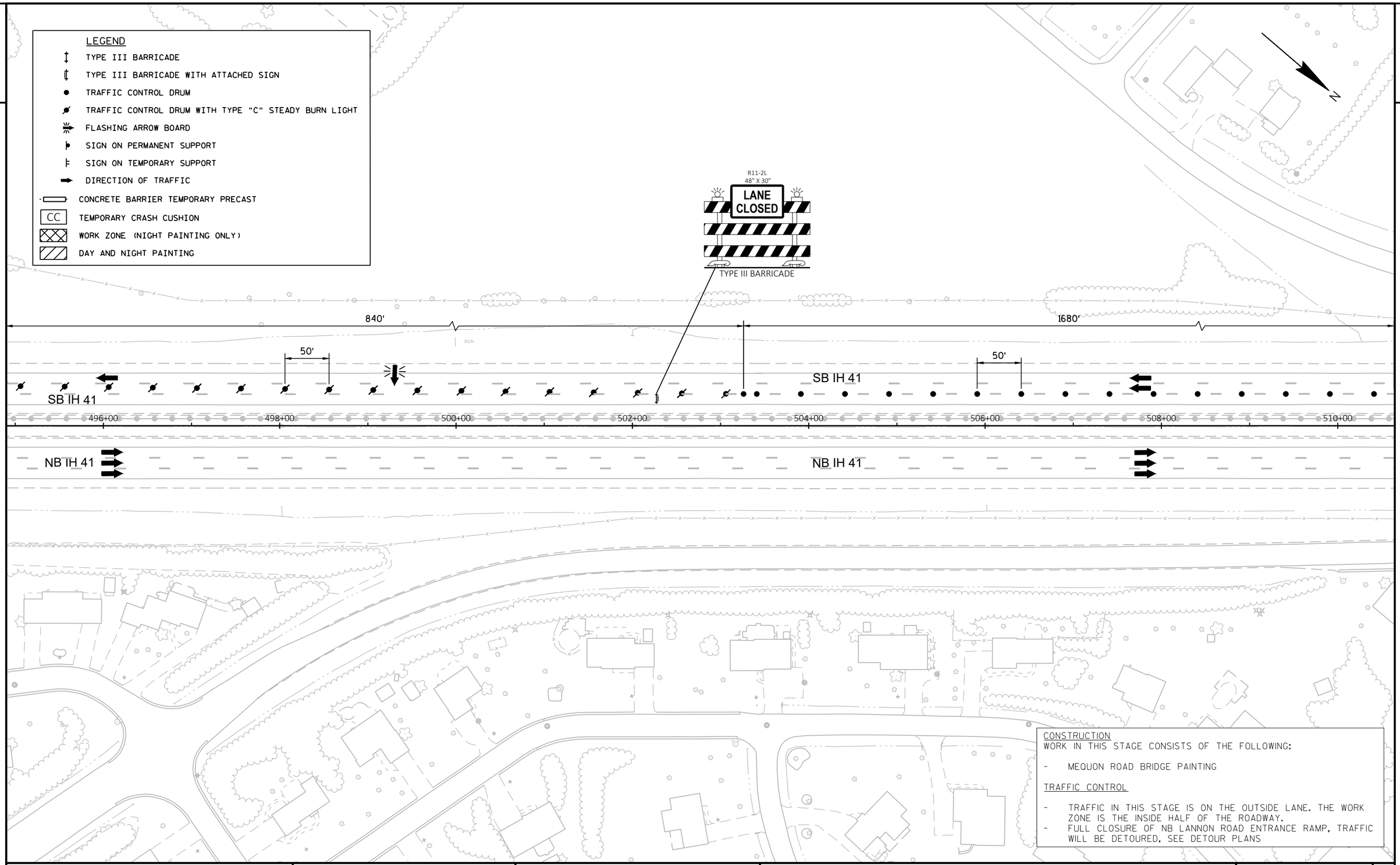
PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MEQUON RD)	SHEET 195	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026003-S2.DWG
LAYOUT NAME - 026022-s2
PLOT DATE : 4/16/2022 5:08 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING



CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MEQUON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

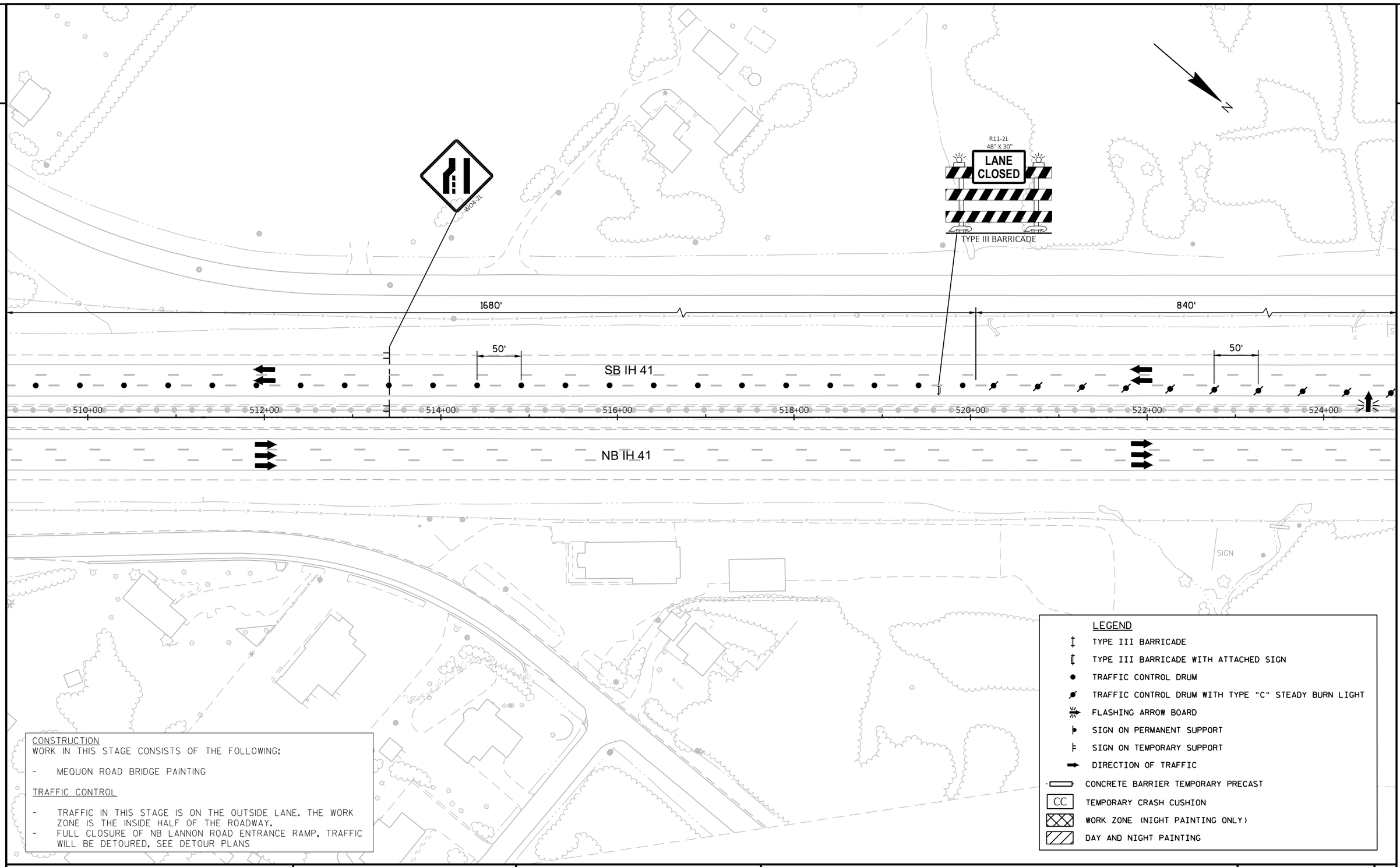
- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF NB LANNON ROAD ENTRANCE RAMP, TRAFFIC WILL BE DETOURED, SEE DETOUR PLANS

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MEQUON RD)	SHEET 196	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026003-S2.DWG
LAYOUT NAME - 026023-s2
PLOT DATE : 4/16/2022 5:10 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2



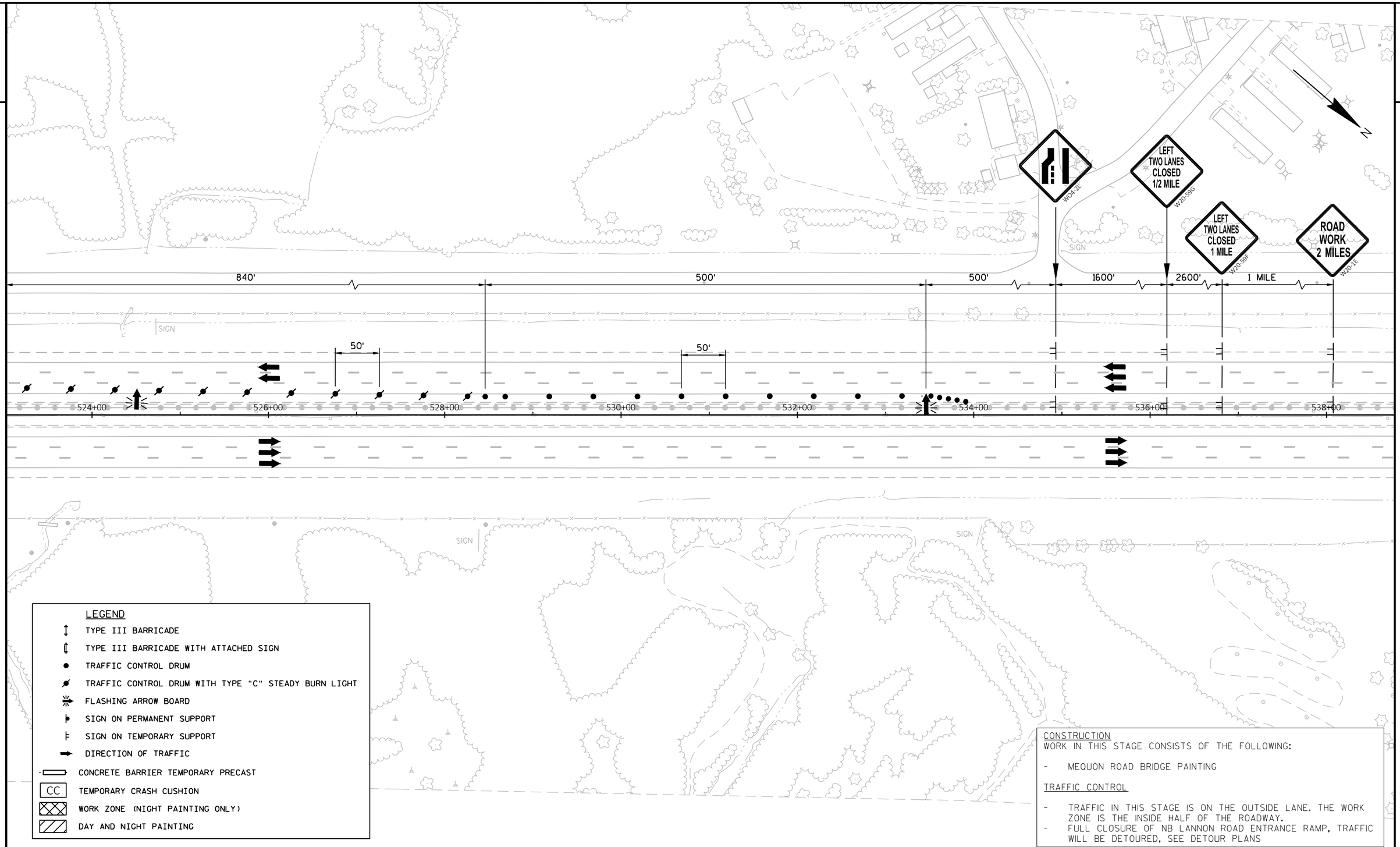
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MEQUON RD)	SHEET 197	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026003-S2.DWG
LAYOUT NAME - 026024-s2

PLOT DATE : 4/16/2022 5:12 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- MEQUON ROAD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF NB LANNON ROAD ENTRANCE RAMP, TRAFFIC WILL BE DETOURED, SEE DETOUR PLANS

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (MEQUON RD)	SHEET 198	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026003-S2.DWG
LAYOUT NAME - 026025-s2
PLOT DATE : 4/16/2022 5:14 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

N

SIGN

SB IH-41

512+00 514+00 516+00 518+00 520+00 522+00 524+00 526+00

NB IH-41

50' 50'

1 MILE 2600' 1600' 500' 500' SIGN 840'

RIGHT TWO LANES CLOSED 1 MILE W20-5BF

RIGHT TWO LANES CLOSED 1/2 MILE W20-5BG

W04-2R

ROAD WORK 2 MILES W20-1E

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS ABOVE THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (FREISTADT RD)	SHEET 199	E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

SIGN

SIGN

SB IH-41

526+00 528+00 530+00 532+00 534+00 536+00 538+00 540+00

NB IH-41

50'

50'

SIGN

SIGN

840'

1680'

SIGN

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

W04-2R

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS ABOVE THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

2

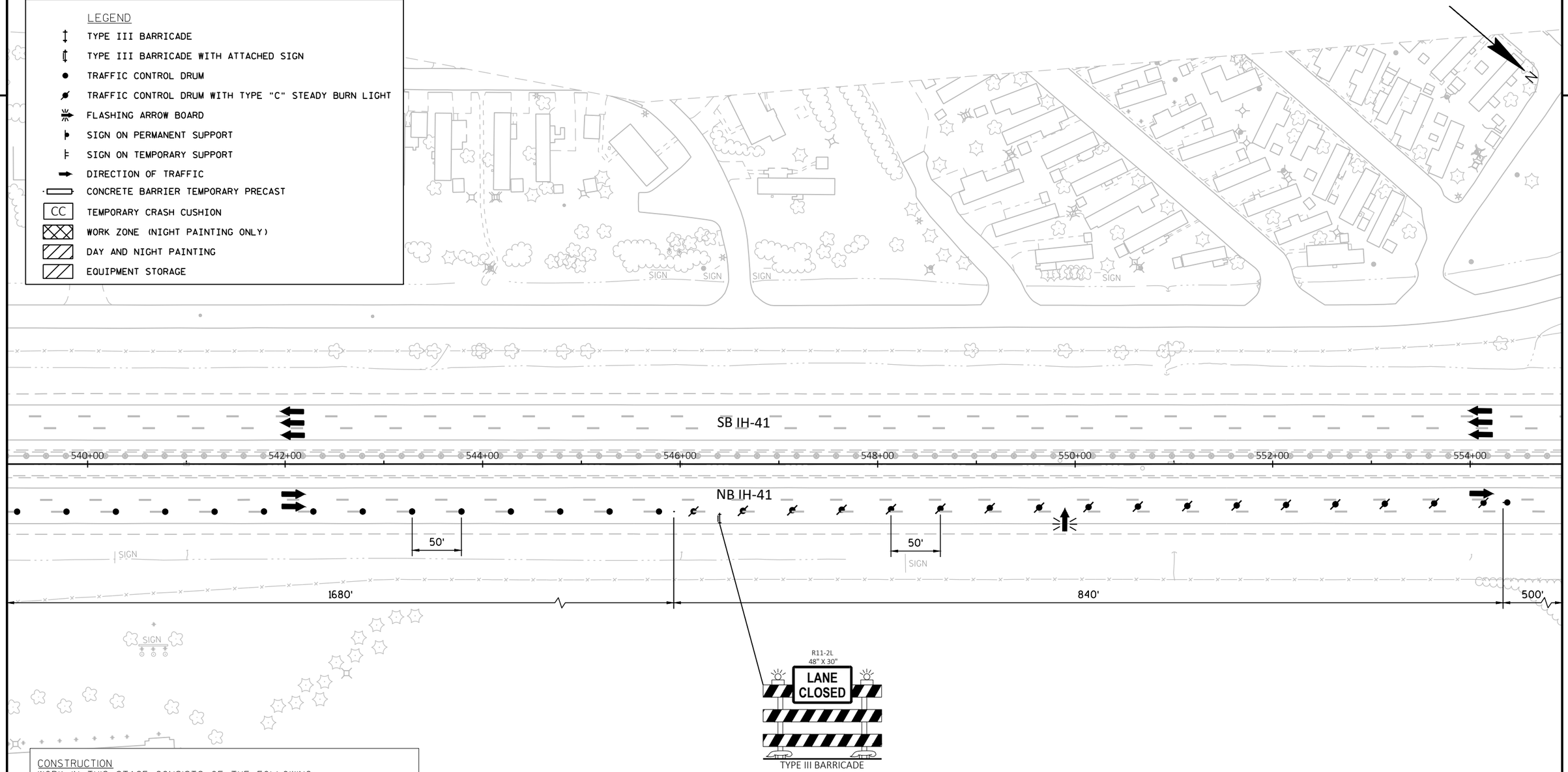
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (FREISTADT RD)	SHEET 200	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026004-S1.DWG
LAYOUT NAME - 026027-s1
PLOT DATE : 4/16/2022 5:18 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE



CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

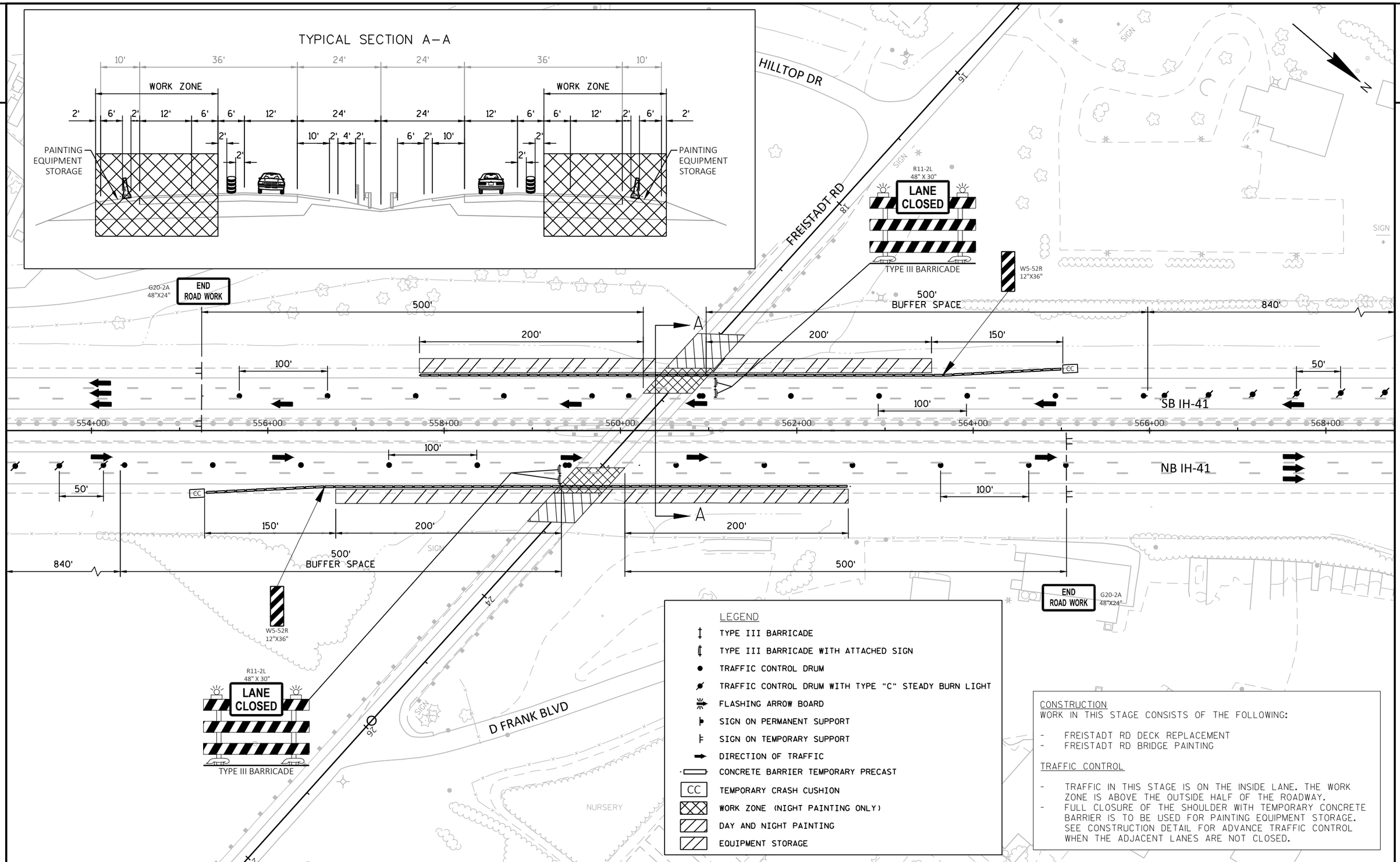
TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS ABOVE THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (FREISTADT RD)	SHEET 201	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026004-S1.DWG
LAYOUT NAME - 026028-s1
PLOT DATE : 4/16/2022 5:20 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

TYPICAL SECTION A–A



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS ABOVE THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (FREISTADT RD)	SHEET 202	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026004-S1.DWG
LAYOUT NAME - 026029-s1
PLOT DATE : 4/16/2022 5:22 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

840'
50'
50'
SB IH-41
NB IH-41
568+00
570+00
572+00
574+00
576+00
578+00
580+00
582+00
SIGN
SIGN
SIGN
SIGN
SIGN

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS ABOVE THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (FREISTADT RD)	SHEET 203	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026004-S1.DWG
LAYOUT NAME - 026030-s1
PLOT DATE : 4/16/2022 5:24 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

W04-2R

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

50'

50'

SB IH-41

NB IH-41

582+00
584+00
586+00
588+00
590+00
592+00
594+00
596+00

SIGN

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS ABOVE THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (FREISTADT RD)	SHEET 204	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026004-S1.DWG
LAYOUT NAME - 026031-s1
PLOT DATE : 4/16/2022 5:26 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

N

YIELD

R1-2
48"x42"

W03-2

600'

25'

50'

50'

SB IH-41

SB ENTRANCE RAMP

NB IH-41

596+00

598+00

600+00

602+00

604+00

606+00

608+00

610+00

SIGN

SIGN

SIGN

SIGN

SIGN

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

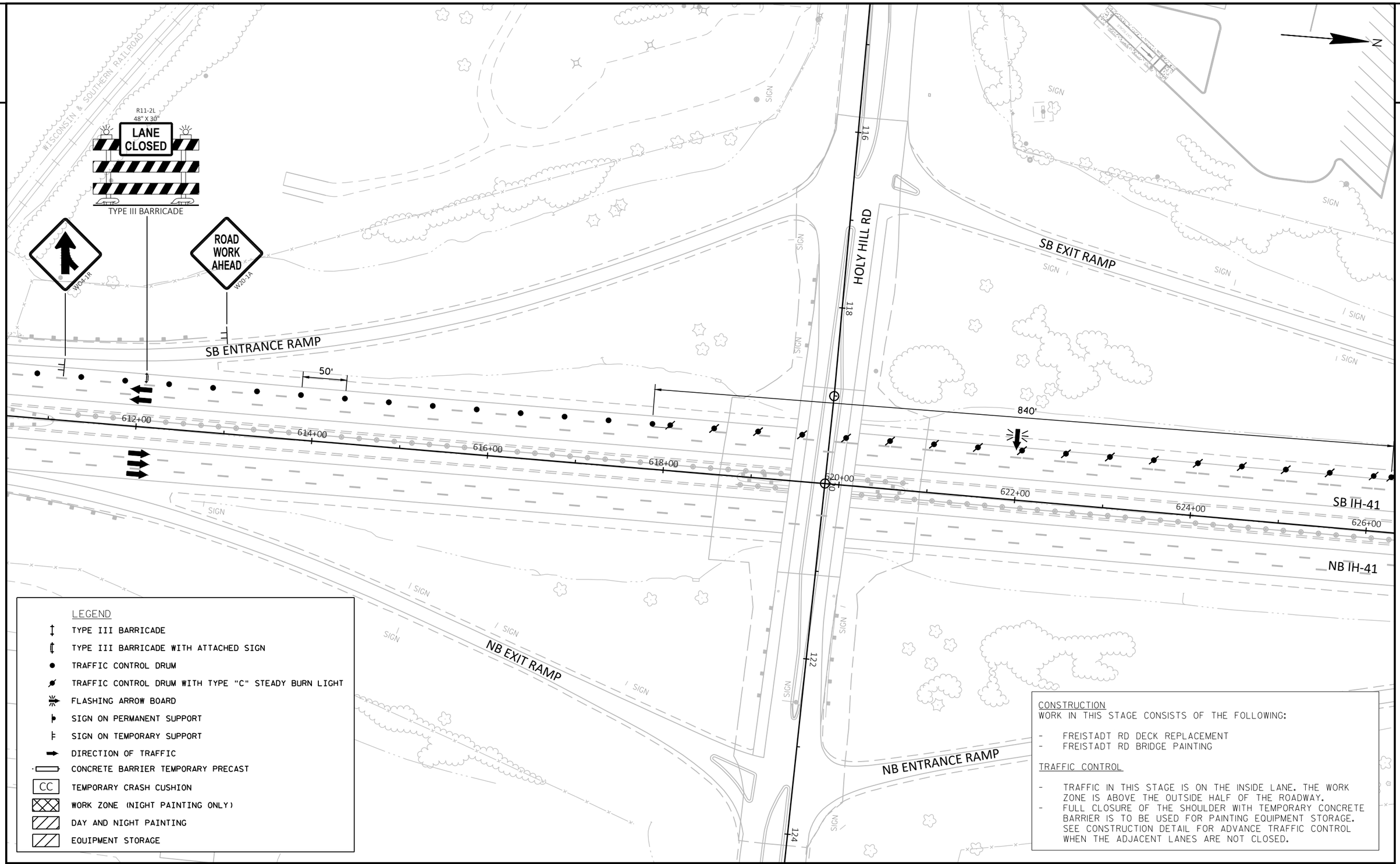
TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS ABOVE THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (FREISTADT RD)	SHEET 205	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026004-S1.DWG
LAYOUT NAME - 026032-s1
PLOT DATE : 4/16/2022 5:28 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (FREISTADT RD)	SHEET 206	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026004-S1.DWG
LAYOUT NAME - 026033-s1
PLOT DATE : 4/16/2022 5:30 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

SIGN

SIGN

SIGN

SIGN

840'

500'

50'

500'

1600'

2600'

1 MILE

SB IH-41

NB IH-41

626+00

628+00

630+00

632+00

634+00

636+00

638+00

640+00

W04-2R

RIGHT TWO LANES CLOSED 1/2 MILE W20-5&G

RIGHT TWO LANES CLOSED 1 MILE W20-58F

ROAD WORK 2 MILES W20-1E

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS ABOVE THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (FREISTADT RD)	SHEET 207	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026004-S1.DWG
LAYOUT NAME - 026034-s1
PLOT DATE : 4/16/2022 5:32 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

N

SIGN

SB IH-41

512+00 514+00 516+00 518+00 520+00 522+00 524+00 526+00

NB IH-41

50'

50'

1 MILE 2600' 1600' 500' 500' SIGN 840'

LEFT TWO LANES CLOSED 1 MILE W20-5SF

LEFT TWO LANES CLOSED 1/2 MILE W20-5RG

W04-2L

ROAD WORK 2 MILES W20-1E

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (FREISTADT RD)	SHEET 208	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026004-S2.DWG
LAYOUT NAME - 026026-s2

PLOT DATE : 4/16/2022 5:34 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

N

SIGN

SIGN

SB IH-41

526+00 528+00 530+00 532+00 534+00 536+00 538+00 540+00

NB IH-41

50'

50'

840'

1680'

SIGN

SIGN

SIGN

SIGN

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

W04-2L

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (FREISTADT RD)	SHEET 209	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026004-S2.DWG
LAYOUT NAME - 026027-s2
PLOT DATE : 4/16/2022 5:36 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

N

SIGN

SIGN

SIGN

SIGN

SB IH-41

540+00 542+00 544+00 546+00 548+00 550+00 552+00 554+00

NB IH-41

50'

50'

SIGN

SIGN

1680'

840'

500' BUFFER SPACE

SIGN

R11-2L
48" X 30"

LANE CLOSED

TYPE III BARRICADE

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

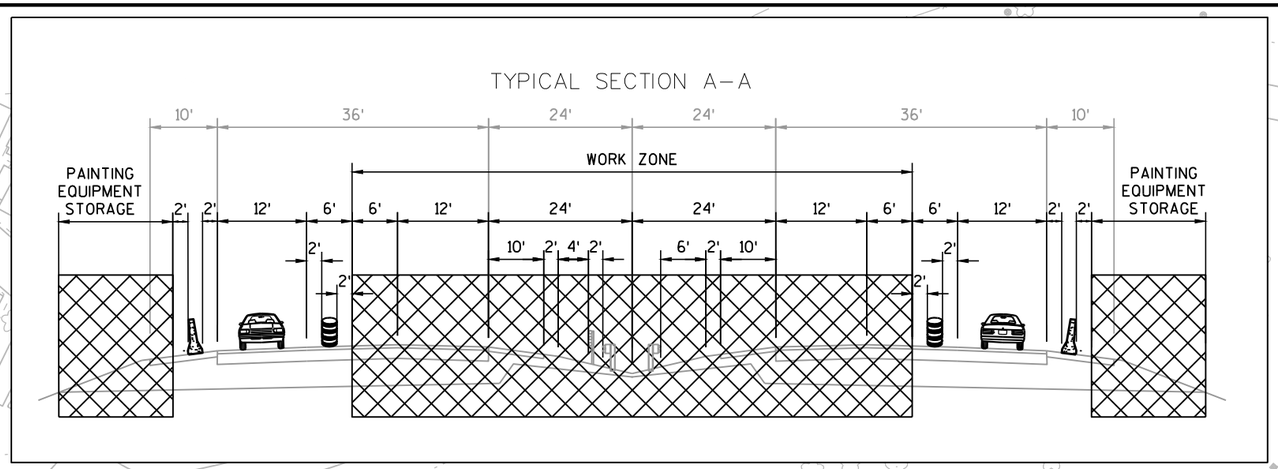
- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (FREISTADT RD)	SHEET 210	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026004-S2.DWG
LAYOUT NAME - 026028-s2
PLOT DATE : 4/16/2022 5:38 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



HILLTOP DR

SIGN

N

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

W5-52R
12"X36"

G20-2A
48"X24"
END ROAD WORK

500'
BUFFER SPACE

840'

200'

150'

100'

50'

CC

A

554+00 556+00 558+00 560+00 562+00 564+00 566+00 568+00

SB IH-41

NB IH-41

FREISTADT RD

D FRANK BLVD

NURSERY

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (FREISTADT RD)	SHEET 211	E

2

2

R11-2L
48" X 30"

LANE CLOSED

TYPE III BARRICADE

840'

50'

50'

SB IH-41

NB IH-41

568+00

570+00

572+00

574+00

576+00

578+00

580+00

582+00

SIGN

SIGN

SIGN

SIGN

SIGN

SIGN

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (FREISTADT RD)	SHEET 212	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026004-S2.DWG
LAYOUT NAME - 026030-s2
PLOT DATE : 4/16/2022 5:42 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

W04-2L

50'

50'

SB IH-41

NB IH-41

582+00
584+00
586+00
588+00
590+00
592+00
594+00
596+00

SIGN

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (FREISTADT RD)	SHEET 213	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026004-S2.DWG
LAYOUT NAME - 026031-s2
PLOT DATE : 4/16/2022 5:44 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

SB IH-41

NB IH-41

50'

596+00

598+00

600+00

602+00

604+00

606+00

608+00

610+00

SIGN

SIGN

SIGN

SIGN

SIGN

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (FREISTADT RD)	SHEET 214	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026004-S2.DWG
LAYOUT NAME - 026032-s2

PLOT DATE : 4/16/2022 5:46 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

WISCONSIN & SOUTHERN RAILROAD

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

ROAD WORK AHEAD
W20-1A

W04-1R

SB ENTRANCE RAMP

50'

612+00

614+00

616+00

618+00

620+00

622+00

624+00

626+00

840'

HOLY HILL RD

116

118

122

124

SB EXIT RAMP

SB IH-41

NB IH-41

NB EXIT RAMP

NB ENTRANCE RAMP

SIGN

N

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (FREISTADT RD)	SHEET 215	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026004-S2.DWG
LAYOUT NAME - 026033-s2
PLOT DATE : 4/16/2022 5:48 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

N

SIGN

SIGN

SIGN

SIGN

840'

500'

500'

1600'

2600'

1 MILE

50'

SB IH-41

NB IH-41

626+00

628+00

630+00

632+00

634+00

636+00

638+00

640+00

W20-2L

LEFT
TWO LANES
CLOSED
1/2 MILE

W20-59G

LEFT
TWO LANES
CLOSED
1 MILE

W20-59F

ROAD
WORK
2 MILES

W20-1E

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- FREISTADT RD DECK REPLACEMENT
- FREISTADT RD BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE OUTSIDE LANE. THE WORK ZONE IS THE INSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (FREISTADT RD)	SHEET 216	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026004-S2.DWG
LAYOUT NAME - 026034-s2

PLOT DATE : 4/16/2022 5:50 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

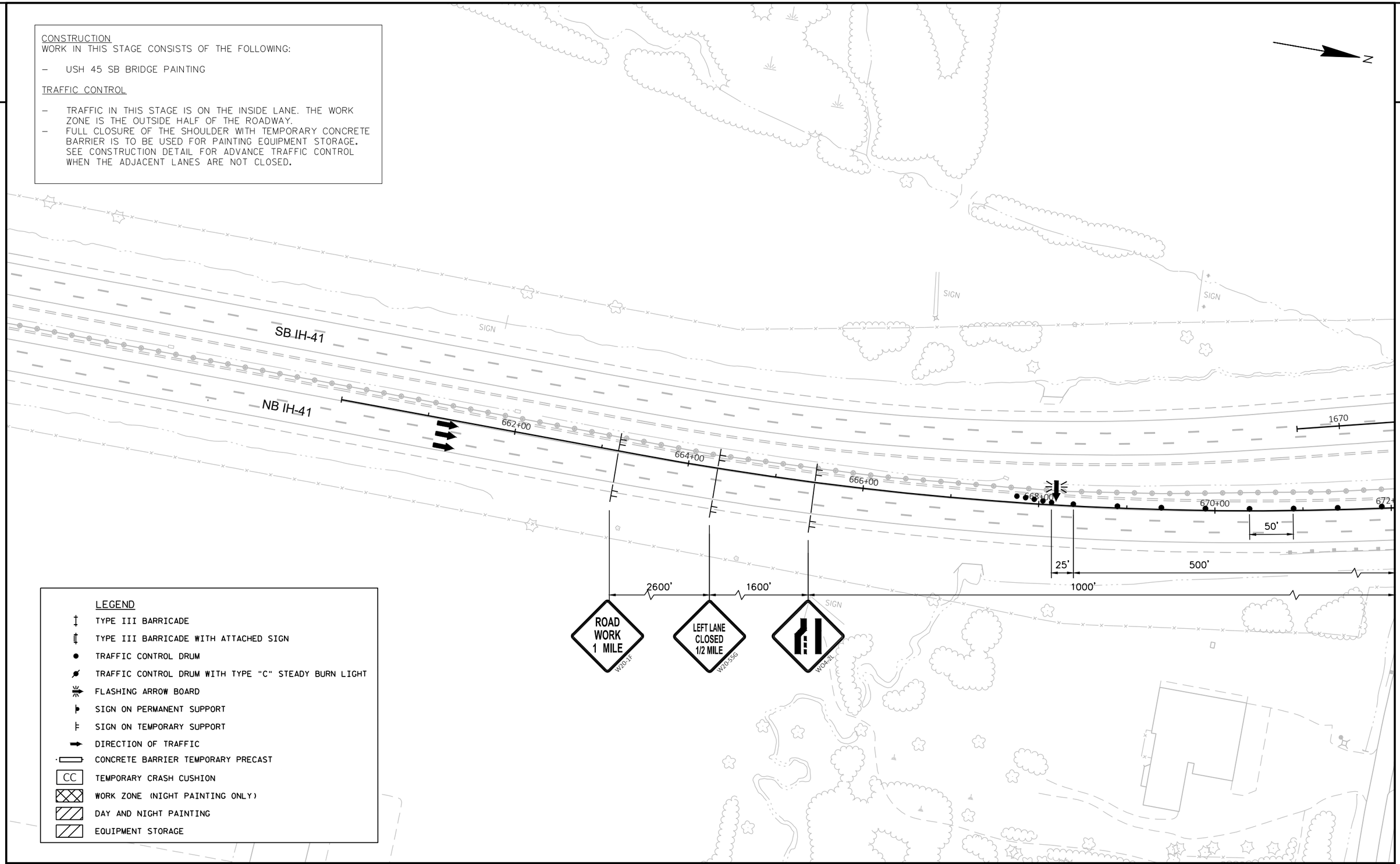
2

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- USH 45 SB BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

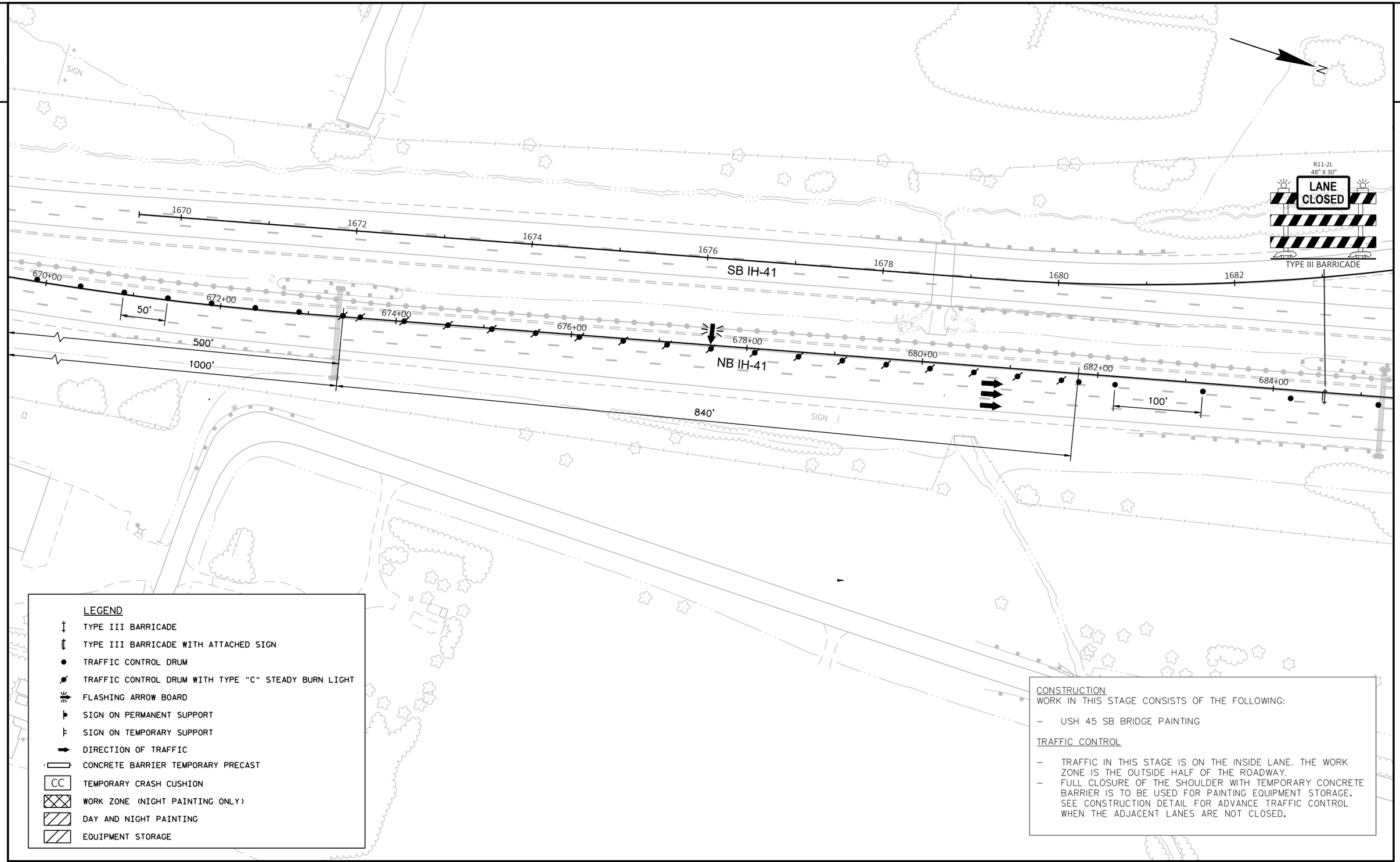
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (USH 45 SB)	SHEET 217	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026006-S1.DWG
LAYOUT NAME - 026043-s1

PLOT DATE : 4/16/2022 5:52 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- USH 45 SB BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (USH 45 SB)	SHEET 218	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026006-S1.DWG
LAYOUT NAME - 026044-s1
PLOT DATE : 4/16/2022 5:54 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

1684 1686 1688 1690 1692 1694 1696 1698

STAGE II PAVING PREPARATION:
ASPHALTIC SURFACE TEMPORARY
5-INCH

R11-2L
48" X 30"

LANE CLOSED

TYPE III BARRICADE

SIGN

SB IH-41

686+00 688+00 690+00 692+00 694+00 696+00 698+00 700+00

NB IH-41

100'

50'

420' SHIFTING TAPER

W01-4L

STAGE II PAVING PREPARATION:
ASPHALTIC SURFACE TEMPORARY
5-INCH

SIGN

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- USH 45 SB BRIDGE PAINTING

TRAFFIC CONTROL

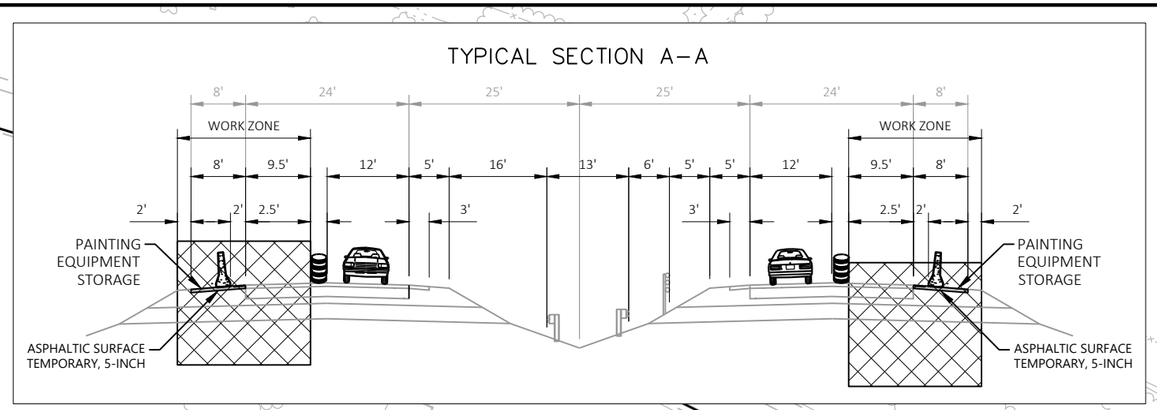
- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (USH 45 SB)	SHEET 219	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026006-S1.DWG
LAYOUT NAME - 026045-s1
PLOT DATE : 4/16/2022 5:56 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

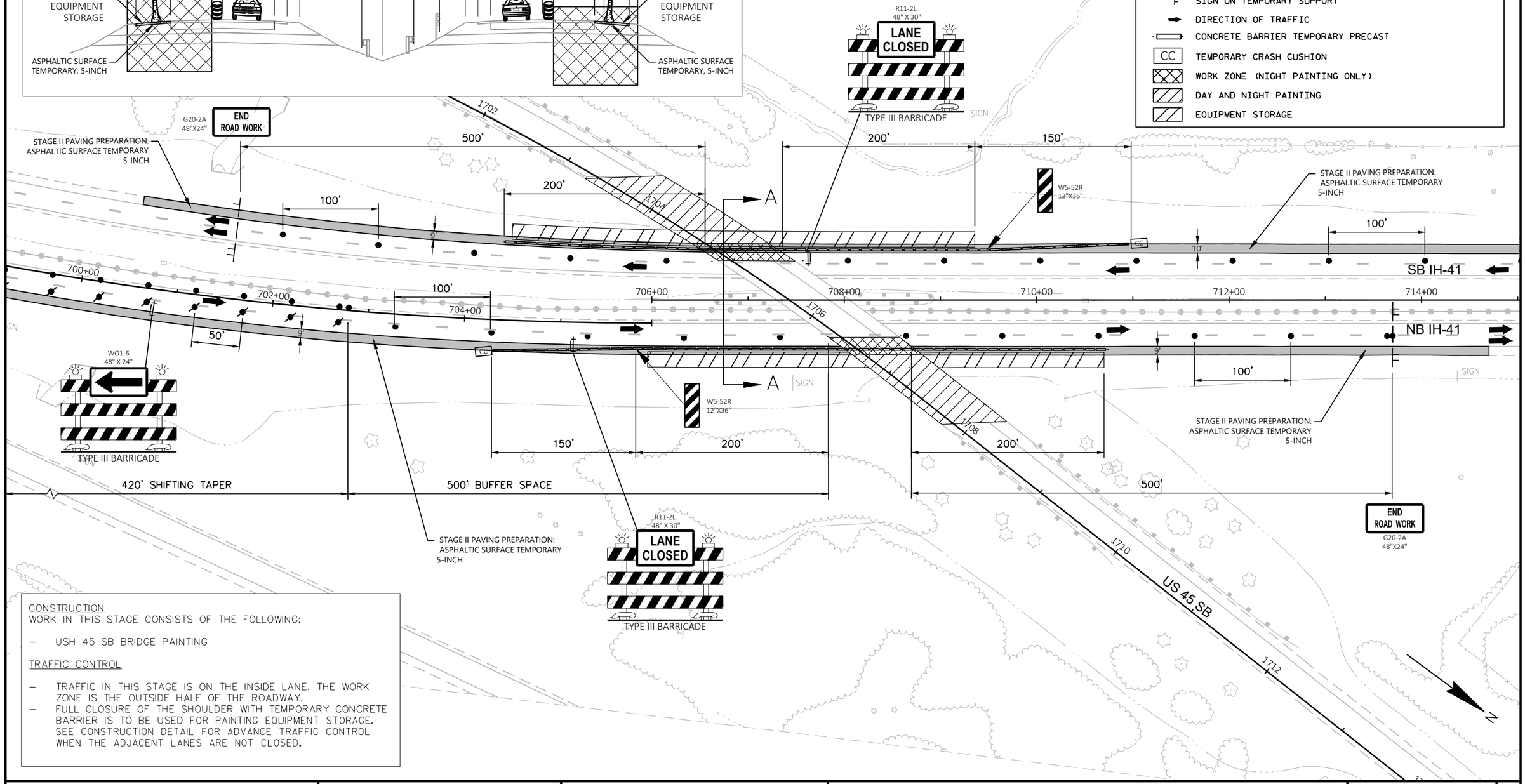
2

TYPICAL SECTION A–A



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE



CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- USH 45 SB BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (USH 45 SB)	SHEET 220	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026006-S1.DWG
LAYOUT NAME - 026046-s1
PLOT DATE : 4/16/2022 5:58 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

STAGE II PAVING PREPARATION:
ASPHALTIC SURFACE TEMPORARY
5-INCH

SIGN

YIELD

R1-2
48"x42"

W03-2

600'

100'

50'

50'

100'

SB IH-41

SB IH-41

714+00 716+00 718+00 720+00 722+00 724+00 726+00 728+00

NB IH-41

NB IH-41

SIGN

SIGN

STAGE II PAVING PREPARATION:
ASPHALTIC SURFACE TEMPORARY
5-INCH

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- USH 45 SB BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

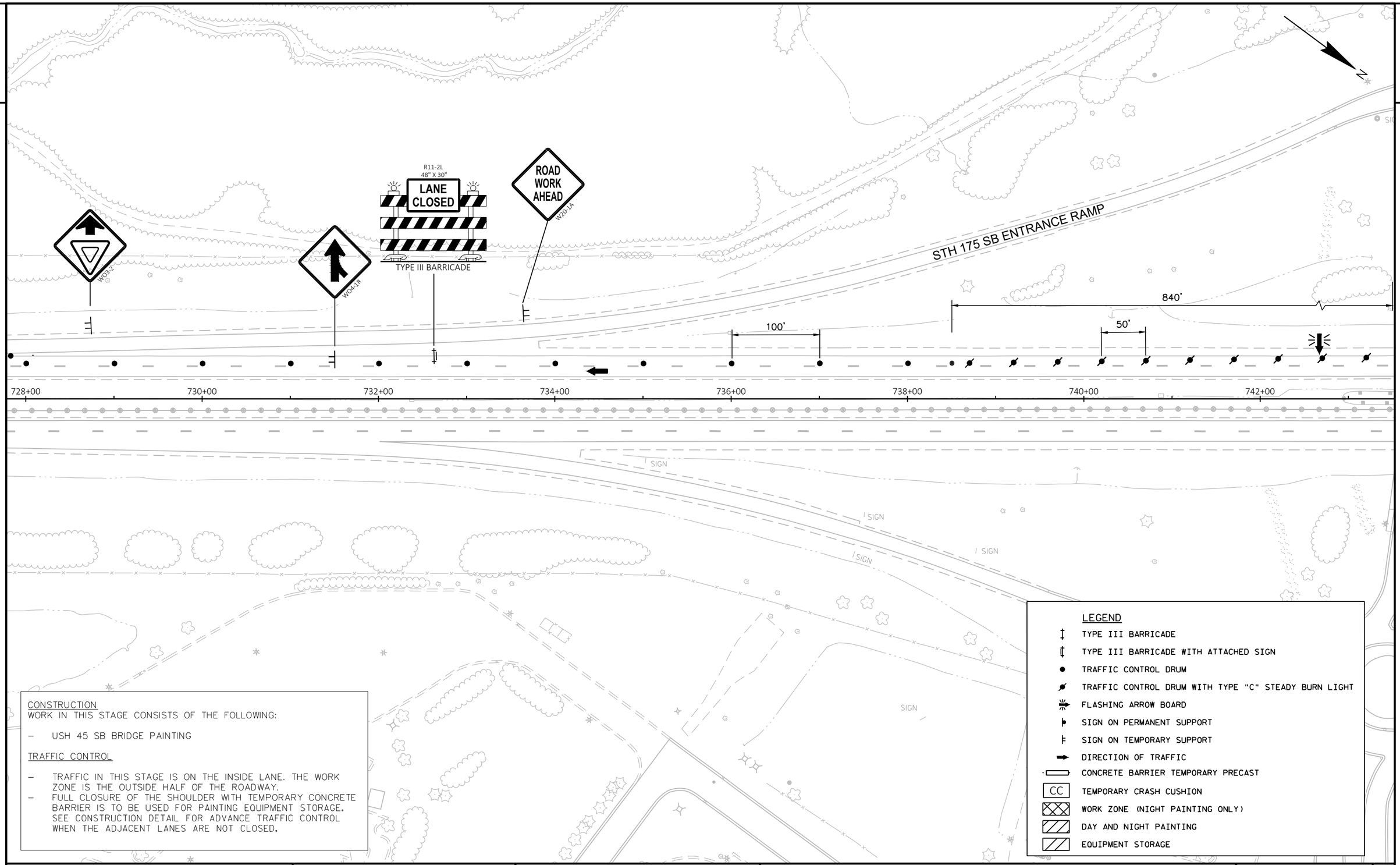
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (USH 45 SB)	SHEET 221	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026006-S1.DWG
LAYOUT NAME - 026047-s1

PLOT DATE : 4/16/2022 6:00 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- USH 45 SB BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

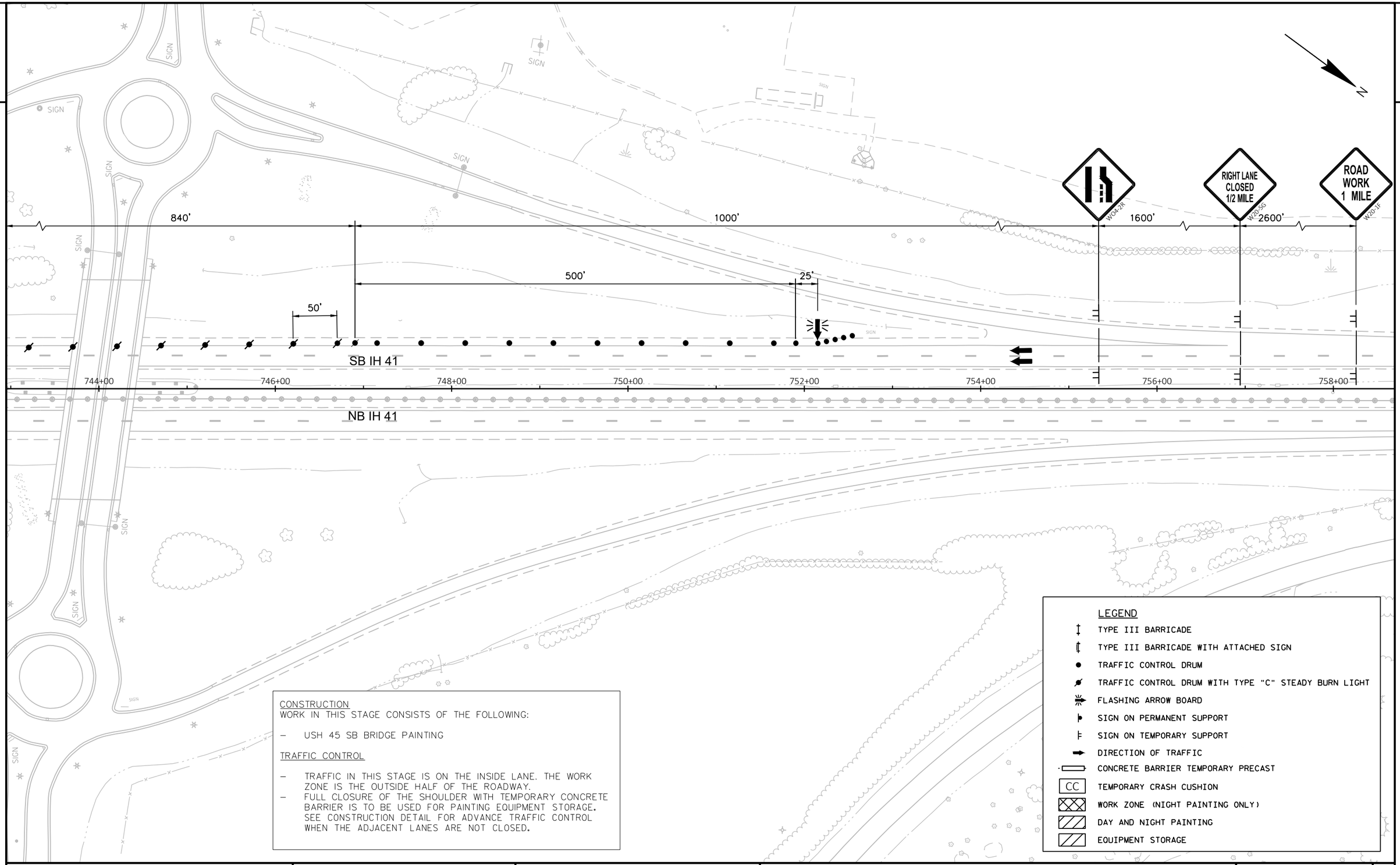
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (USH 45 SB)	SHEET 222	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026006-S1.DWG
LAYOUT NAME - 026048-s1
PLOT DATE : 4/16/2022 6:02 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- USH 45 SB BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON THE INSIDE LANE. THE WORK ZONE IS THE OUTSIDE HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR PAINTING EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN THE ADJACENT LANES ARE NOT CLOSED.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE I (USH 45 SB)	SHEET 223	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026006-S1.DWG
LAYOUT NAME - 026049-s1
PLOT DATE : 4/16/2022 6:04 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

N

SB IH-41

NB IH-41

SIGN

SIGN

SIGN

662+00

664+00

666+00

668+00

670+00

672+

1670+00

50'

25'

500'

1000'

2600'

1600'

ROAD WORK 1 MILE W20-1F

LEFT LANE CLOSED 1/2 MILE W20-5G

W04-2L

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- USH 45 SB BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON PART OF THE OUTSIDE LANE AND THE OUSIDE SHOULDER. THE WORK ZONE IS THE MEDIAN HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN STAGE NOT IN USE.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (USH 45 SB)	SHEET 224	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026006-S2.DWG
LAYOUT NAME - 026043-s2

PLOT DATE : 4/16/2022 6:06 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

SIGN

N

R11-2L
48" X 30"

LANE CLOSED

TYPE III BARRICADE

1670+00 1672+00 1674+00 1676+00 1678+00 1680+00 1682+00

SB IH-41

670+00 672+00 674+00 676+00 678+00 680+00 682+00 684+00

50'

500'

1000'

NB IH-41

50'

SIGN

1190'

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- USH 45 SB BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON PART OF THE OUTSIDE LANE AND THE OUSIDE SHOULDER. THE WORK ZONE IS THE MEDIAN HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN STAGE NOT IN USE.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (USH 45 SB)	SHEET 225	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026006-S2.DWG
LAYOUT NAME - 026044-s2
PLOT DATE : 4/16/2022 6:08 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

N

1684+00
1686+00
1688+00
1690+00
1692+00
1694+00
1696+00
1698+00

SB IH-41

686+00
688+00
690+00
692+00
694+00
696+00
698+00
700+00

NB IH-41

1190'

100'

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

SIGN
SIGN
SIGN
SIGN
SIGN

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

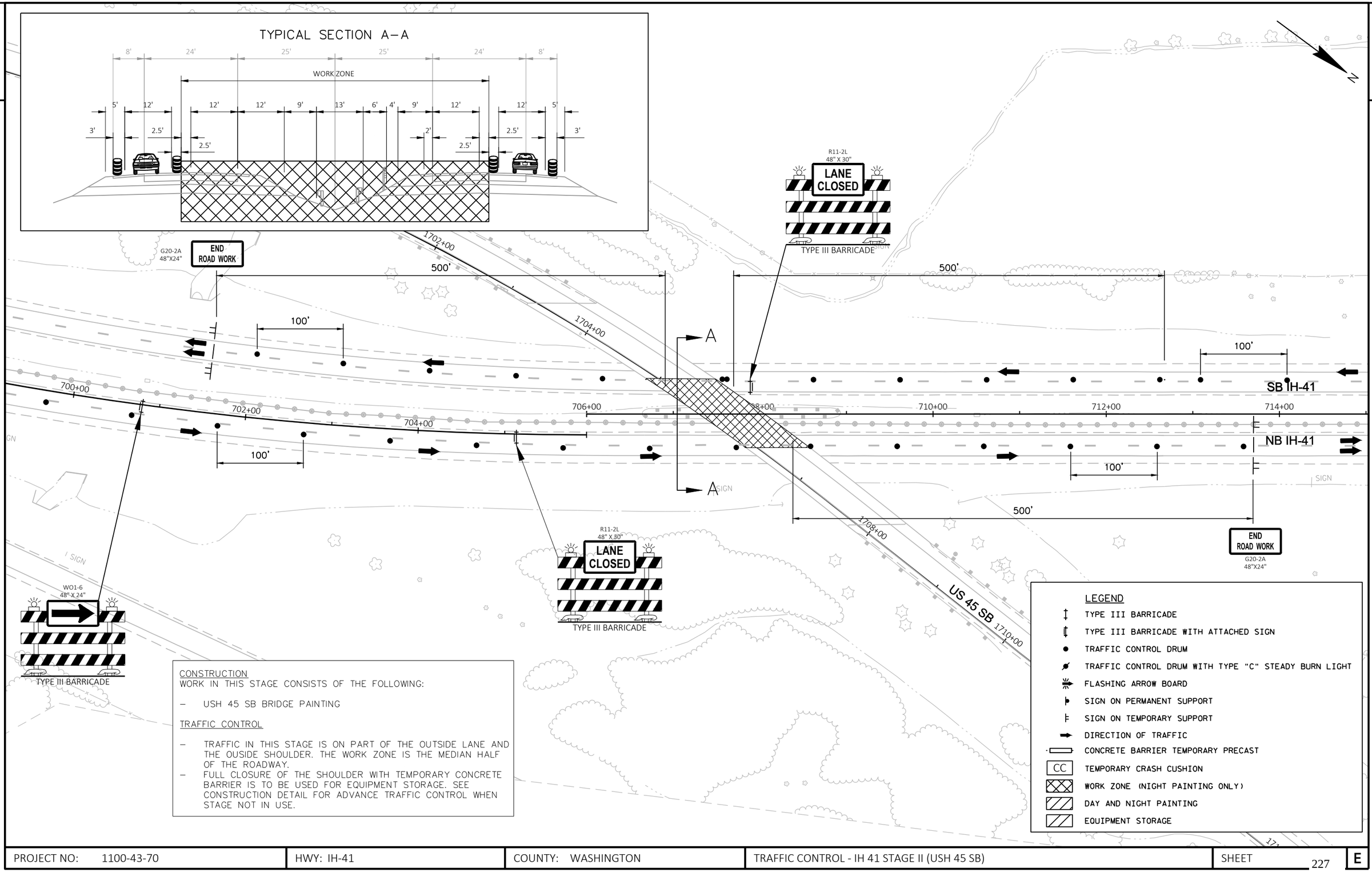
- USH 45 SB BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON PART OF THE OUTSIDE LANE AND THE OUSIDE SHOULDER. THE WORK ZONE IS THE MEDIAN HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN STAGE NOT IN USE.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (USH 45 SB)	SHEET 226	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026006-S2.DWG
LAYOUT NAME - 026045-s2
PLOT DATE : 4/16/2022 6:10 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- USH 45 SB BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON PART OF THE OUTSIDE LANE AND THE OUSIDE SHOULDER. THE WORK ZONE IS THE MEDIAN HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN STAGE NOT IN USE.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (USH 45 SB)	SHEET 227	E

2

2

R11-2L
48" X 30"

LANE CLOSED

TYPE III BARRICADE

SIGN

SIGN

SIGN

100'

100'

SB IH-41

SB IH-41

NB IH-41

NB IH-41

714+00 716+00 718+00 720+00 722+00 724+00 726+00 728+00

CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- USH 45 SB BRIDGE PAINTING

TRAFFIC CONTROL

- TRAFFIC IN THIS STAGE IS ON PART OF THE OUTSIDE LANE AND THE OUSIDE SHOULDER. THE WORK ZONE IS THE MEDIAN HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN STAGE NOT IN USE.

LEGEND

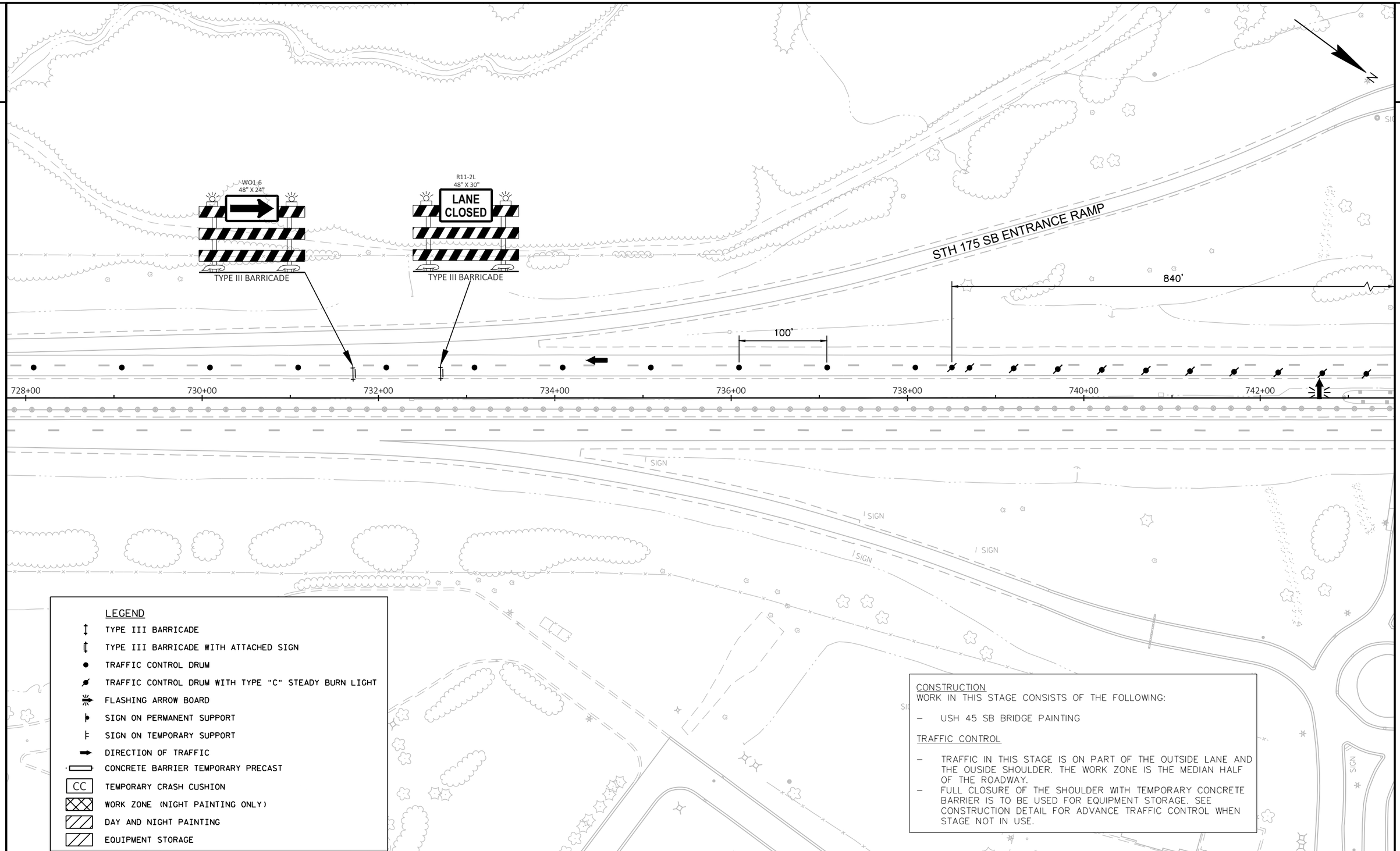
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (USH 45 SB)	SHEET 228	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026006-S2.DWG
LAYOUT NAME - 026047-s2

PLOT DATE : 4/16/2022 6:14 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

CONSTRUCTION

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- USH 45 SB BRIDGE PAINTING

TRAFFIC CONTROL

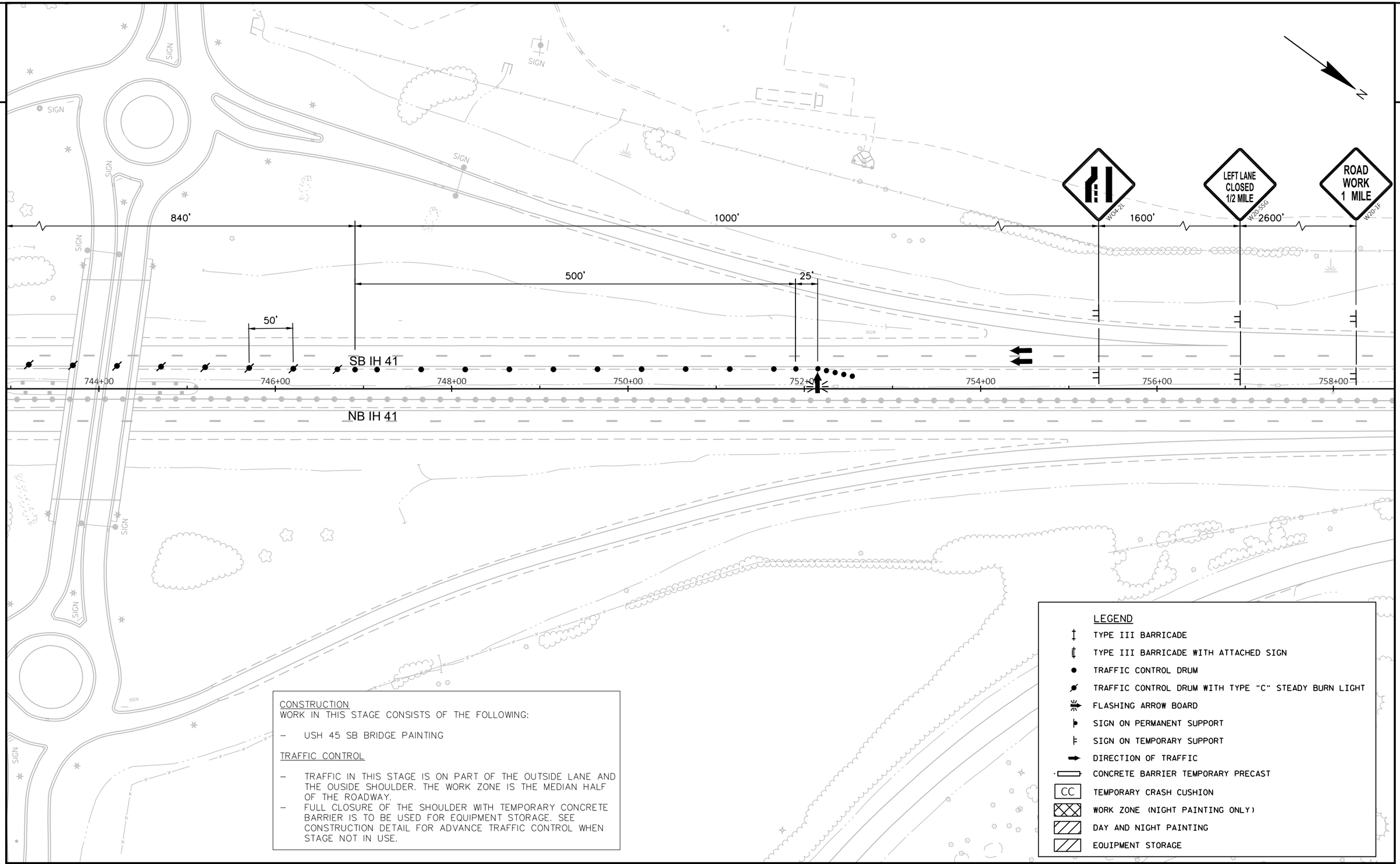
- TRAFFIC IN THIS STAGE IS ON PART OF THE OUTSIDE LANE AND THE OUSIDE SHOULDER. THE WORK ZONE IS THE MEDIAN HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN STAGE NOT IN USE.

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (USH 45 SB)	SHEET 229	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026006-S2.DWG
LAYOUT NAME - 026048-s2
PLOT DATE : 4/16/2022 6:16 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2



CONSTRUCTION
WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- USH 45 SB BRIDGE PAINTING

TRAFFIC CONTROL

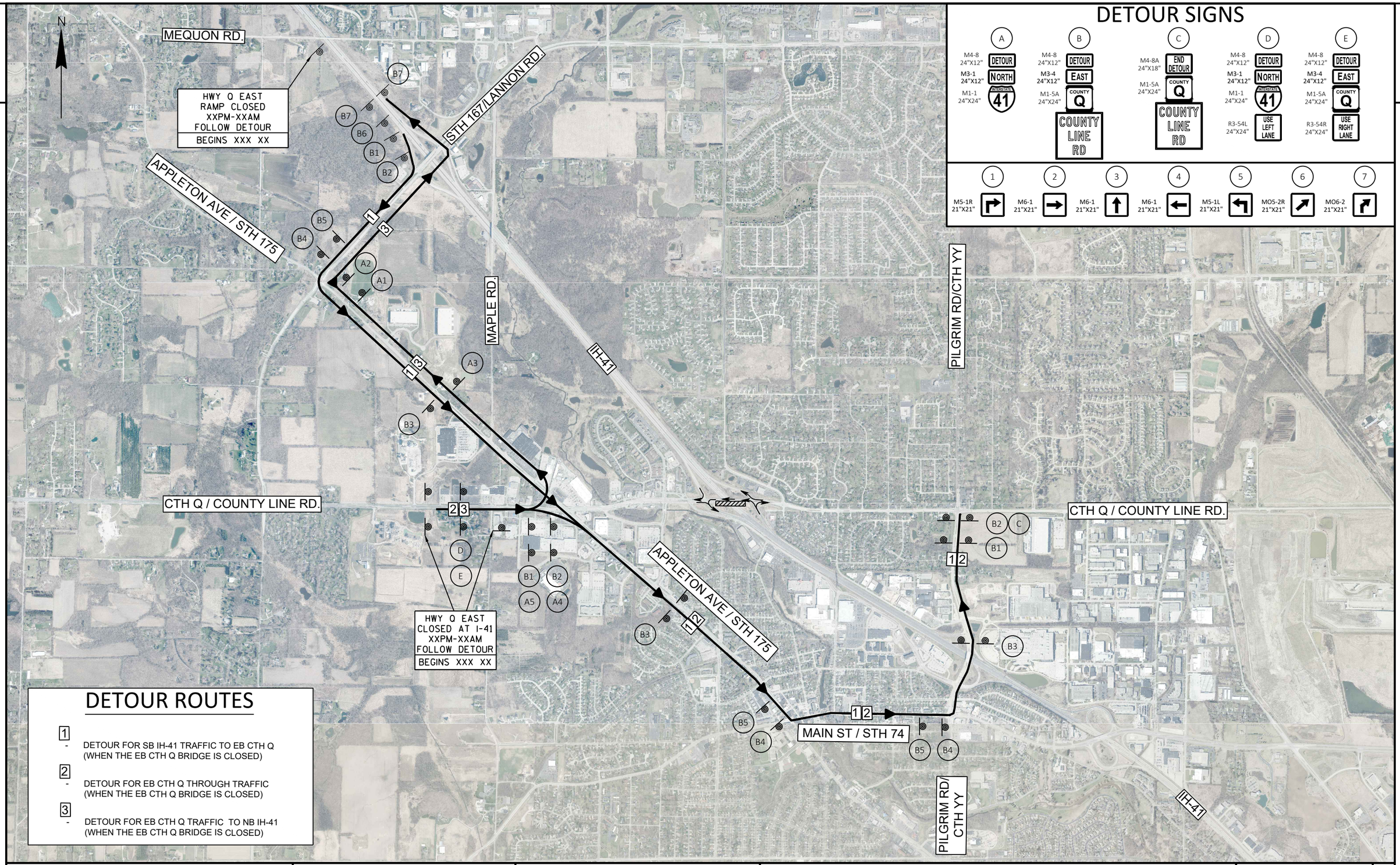
- TRAFFIC IN THIS STAGE IS ON PART OF THE OUTSIDE LANE AND THE OUSIDE SHOULDER. THE WORK ZONE IS THE MEDIAN HALF OF THE ROADWAY.
- FULL CLOSURE OF THE SHOULDER WITH TEMPORARY CONCRETE BARRIER IS TO BE USED FOR EQUIPMENT STORAGE. SEE CONSTRUCTION DETAIL FOR ADVANCE TRAFFIC CONTROL WHEN STAGE NOT IN USE.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — TEMPORARY CRASH CUSHION
- WORK ZONE (NIGHT PAINTING ONLY)
- DAY AND NIGHT PAINTING
- EQUIPMENT STORAGE

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	TRAFFIC CONTROL - IH 41 STAGE II (USH 45 SB)	SHEET 230	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\026006-S2.DWG
LAYOUT NAME - 026049-s2
PLOT DATE : 4/16/2022 6:17 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



DETOUR SIGNS

A	B	C	D	E
M4-8 24"X12" DETOUR	M4-8 24"X12" DETOUR	M4-8A 24"X18" END DETOUR	M4-8 24"X12" DETOUR	M4-8 24"X12" DETOUR
M3-1 24"X12" NORTH	M3-4 24"X12" EAST	M1-5A 24"X24" COUNTY Q	M3-1 24"X12" NORTH	M3-4 24"X12" EAST
M1-1 24"X24" ALTERNATE 41	M1-5A 24"X24" COUNTY Q	COUNTY LINE RD	M1-1 24"X24" ALTERNATE 41	M1-5A 24"X24" COUNTY Q
	COUNTY LINE RD		R3-54L 24"X24" USE LEFT LANE	R3-54R 24"X24" USE RIGHT LANE

1	2	3	4	5	6	7
M5-1R 21"X21"	M6-1 21"X21"	M6-1 21"X21"	M6-1 21"X21"	M5-1L 21"X21"	MO5-2R 21"X21"	MO6-2 21"X21"

DETOUR ROUTES

1 - DETOUR FOR SB IH-41 TRAFFIC TO EB CTH Q (WHEN THE EB CTH Q BRIDGE IS CLOSED)

2 - DETOUR FOR EB CTH Q THROUGH TRAFFIC (WHEN THE EB CTH Q BRIDGE IS CLOSED)

3 - DETOUR FOR EB CTH Q TRAFFIC TO NB IH-41 (WHEN THE EB CTH Q BRIDGE IS CLOSED)

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	DETOURS: CTH Q STAGE I	SHEET 231	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - 027001-dt

PLOT DATE : 10/25/2022 11:26 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:2000 FT

WISDOT/CADDS SHEET 42

DETOUR SIGNS

A	B	C	D	E	F
M4-8 24"X12" DETOUR M3-3 24"X12" SOUTH M1-1 24"X24" ALTERNATE 41	M4-8 24"X12" DETOUR M3-3 24"X12" SOUTH M1-1 24"X24" ALTERNATE 41 R3-54L 24"X24" USE LEFT LANE	M4-8 24"X12" DETOUR M3-2 24"X12" EAST M1-5A 24"X24" COUNTY Q COUNTY LINE RD	M4-8 24"X12" DETOUR M3-4 24"X12" WEST M1-5A 24"X24" COUNTY Q COUNTY LINE RD	M4-8 24"X12" DETOUR M3-4 24"X12" WEST M1-5A 24"X24" COUNTY Q R3-54L 24"X24" USE LEFT LANE	M4-8A 24"X18" END DETOUR M1-5A 24"X24" COUNTY Q COUNTY LINE RD

1	2	3	4	5	6	7
M5-1R 21"X21"	M6-1 21"X21"	M6-1 21"X21"	M6-1 21"X21"	M5-1L 21"X21"	MO5-2R 21"X21"	MO6-2 21"X21"

MEQUON RD.

HWY Q EAST RAMP CLOSED XXPM-XXAM FOLLOW DETOUR
BEGINS XXX XX

STH 167/LANNON RD.

APPLETON AVE / STH 175

MAPLE RD.

IH-41

PILGRIM RD/CTH YY

HWY Q WEST CLOSED AT I-41 XXPM-XXAM FOLLOW DETOUR
BEGINS XXX XX

CTH Q / COUNTY LINE RD.

CTH Q / COUNTY LINE RD.

MAIN ST / STH 74

PILGRIM RD/ CTH YY

HWY Q WEST RAMP CLOSED XXPM-XXAM FOLLOW DETOUR
BEGINS XXX XX

IH-41

DETOUR ROUTES

1 - DETOUR FOR THE SB IH-41 TRAFFIC TO EB CTH Q (FOR CTH Q CURB RAMPS & RESURFACING STAGE)

2 - DETOUR FOR THE SB IH-41 TRAFFIC TO WB CTH Q (FOR CTH Q CURB RAMPS & RESURFACING STAGE)

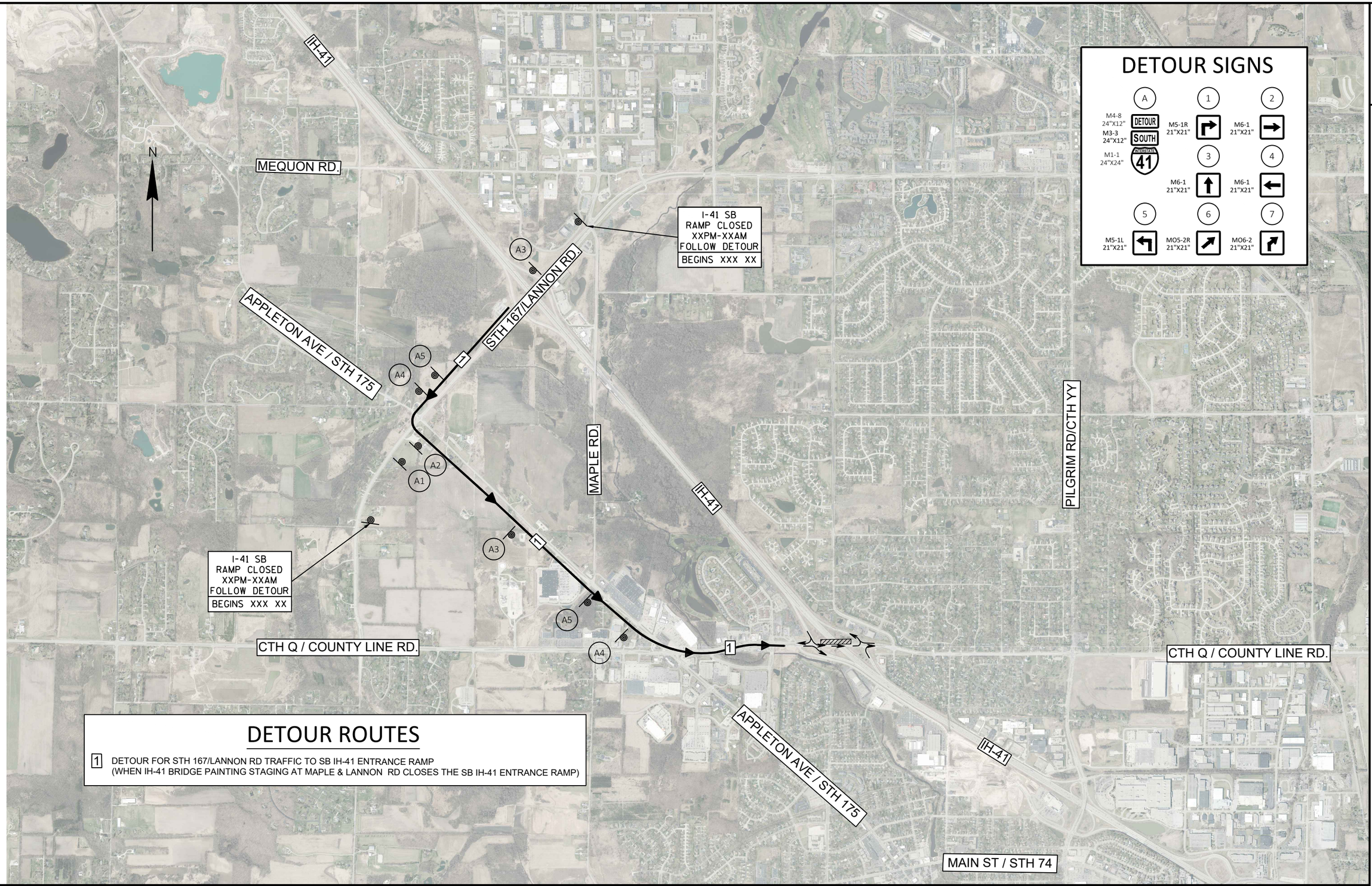
3 - DETOUR FOR NB IH-41 TRAFFIC TO WB CTH Q (WHEN THE WB CTH Q BRIDGE IS CLOSED)

4 - DETOUR FOR WB CTH Q THROUGH TRAFFIC (WHEN THE WB CTH Q BRIDGE IS CLOSED)

5 - DETOUR FOR WB CTH Q TRAFFIC TO SB IH-41 (WHEN THE WB CTH Q BRIDGE IS CLOSED)

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	DETOURS: CTH Q STAGE II	SHEET 232	E

2



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	DETOURS: IH-41 BRIDGE PAINTING MAPLE & LANNON ROAD STAGE I	SHEET 233	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\027003-DT.DWG
LAYOUT NAME - 027003-dt
PLOT DATE : 4/6/2022 10:44 AM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:2000 FT
WISDOT/CADDS SHEET 42

2

2

N

CONSTRUCTION

STRUCTURE WORK FOR THE MAPLE ROAD BRIDGE

TRAFFIC

IH-41 WILL BE CLOSED AND IH-41 TRAFFIC WILL BE DETOURED WEST TO THE IH-41 ALTERNATE ROUTE TO STH 175/APPLETON AVE.

BRIDGE CONSTRUCTION

INTERSTATE ALTERNATE ROUTE DETOUR

APPLETON AVE / STH 175

FREISTADT RD.

HOLY HILL RD/STH 167

MEQUON RD.

IH-41

GOLDENDALE RD / CTH Y

LANNON RD/CTH Y

CTH O

MAPLE RD.

LANNON RD/STH 167

SEE THREE LANE FULL FREEWAY CLOSURE DETAIL

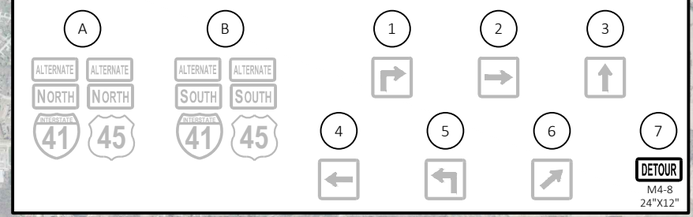
SEE THREE LANE FULL FREEWAY CLOSURE DETAIL

APPLETON AVE / STH 175

B4 A2 A 7 B2 B 7 A5 A4

B4 A2 B A B1 B6 A4 A 7 7

DETOUR SIGNS



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	DETOURS: MAPLE ROAD FULL FREEWAY CLOSURE	SHEET 234	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\027004-DT.DWG
LAYOUT NAME - 027004-dt

PLOT DATE : 4/6/2022 10:33 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:2000 FT

WISDOT/CADDS SHEET 42

2

2

CONSTRUCTION

BRIDGE DEMOLITION AND DECK POUR FOR THE MEQUON ROAD AND FREISTADT ROAD BRIDGES.

TRAFFIC

IH-41 WILL BE CLOSED AND IH-41 TRAFFIC WILL BE DETOURED WEST TO THE IH-41 ALTERNATE ROUTE TO STH 175/APPLETON AVE.

N

BRIDGE CONSTRUCTION

INTERSTATE ALTERNATE ROUTE DETOUR

HOLY HILL RD/STH 167

PIONEER RD

APPLETON AVE / STH 175

FREISTADT RD.

IH-41

US-45

B4 B A2 A5 B2 7 7 A5 B A4

SEE THREE LANE FULL FREEWAY CLOSURE DETAIL

LANNON RD/CTH Y

B4 A2

CTH Q

B1 B2

SEE THREE LANE FULL FREEWAY CLOSURE DETAIL

MAPLE RD.

A5 A4 A 7 7 7

MEQUON RD.

LANNON RD/STH 167

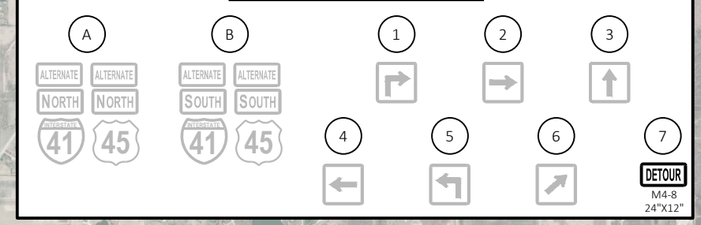
IH-41

GOLDENDALE RD / CTH Y

STH 145

APPLETON AVE / STH 175

DETOUR SIGNS



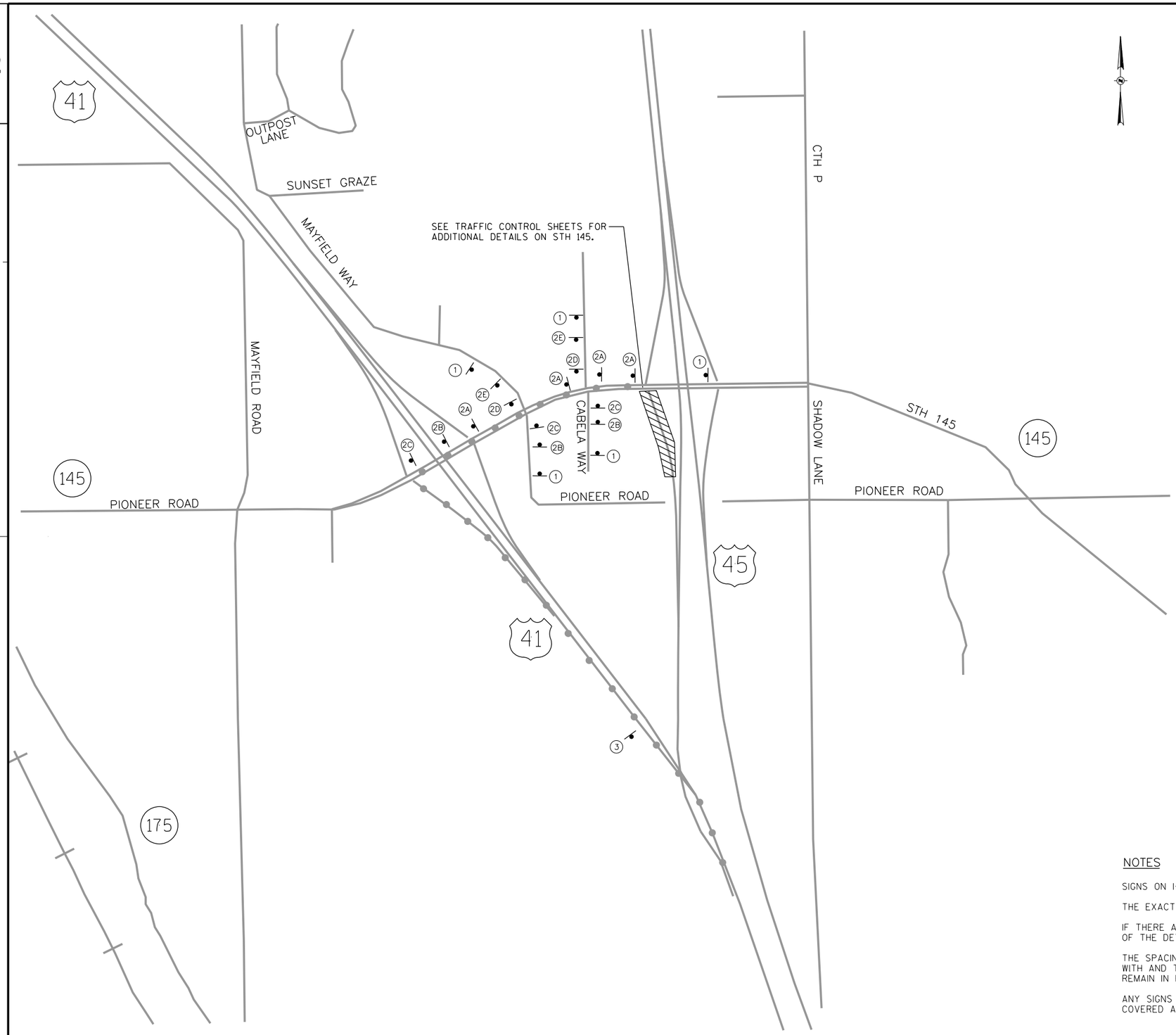
M4-8
24"X12"

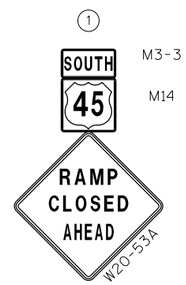
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	DETOURS: MEQUON ROAD & FREISTADT ROAD FULL FREEWAY CLOSURE	SHEET 235	E

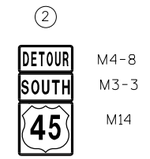
FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\027005-DT.DWG
LAYOUT NAME - 027005-dt

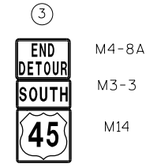
PLOT DATE : 4/5/2022 11:08 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:2000 FT

WISDOT/CADDS SHEET 42









Ⓐ M06-1

Ⓑ M05-1L

Ⓒ M06-1

Ⓓ M06-1

Ⓔ M05-1R

LEGEND

- DETOUR ROUTE
- SIGN ON PERMANENT SUPPORT
- RAMP CLOSURE

NOTES

SIGNS ON I-41 AND USH 45 ARE SIZE 3. SIGNS ON ALL OTHER ROADS ARE SIZE 2.

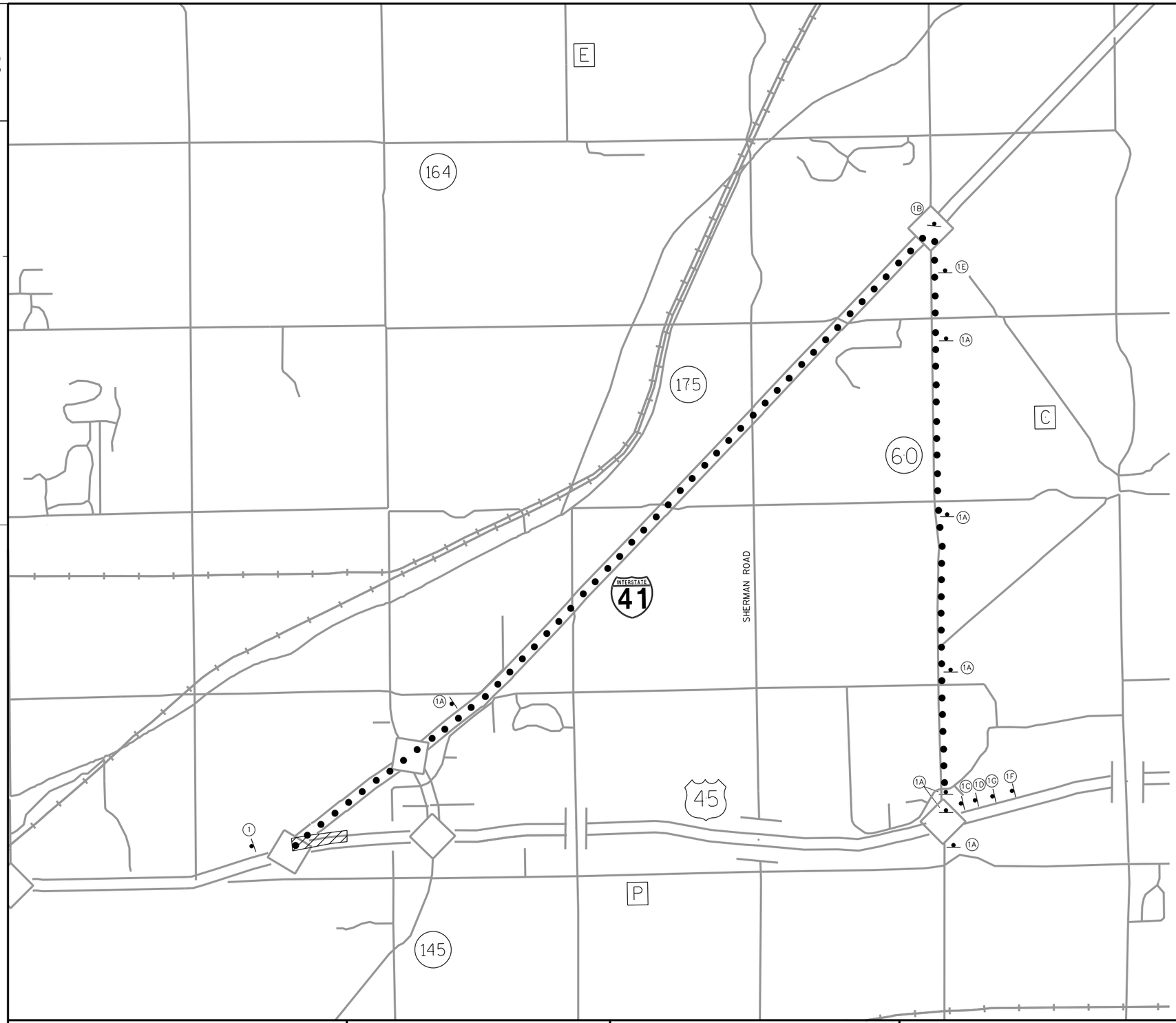
THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES.

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

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

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	DETOUR ROUTE - STH 145 SB ON RAMP	SHEET 236	E



1 ALT SOUTH 45 — M04-1A, M3-3, M1-4

A M06-1 — E M05-1L

B M06-1 — F M05-2R

C M06-1 — G M06-2

D M05-1R

LEGEND

- DETOUR ROUTE
- TEMPORARY TRAFFIC CONTROL SIGN POST
- WORK AREA

NOTES

SIGNS ON I-41 AND USH 45 ARE SIZE 3. SIGNS ON ALL OTHER ROADS ARE SIZE 2.

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES.

THE SPACING BETWEEN THE TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200' 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.

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	ALTERNATE ROUTE SIGNING - STH 60 TO IH 41	SHEET 237	E

2

IH 41 CURVE 1

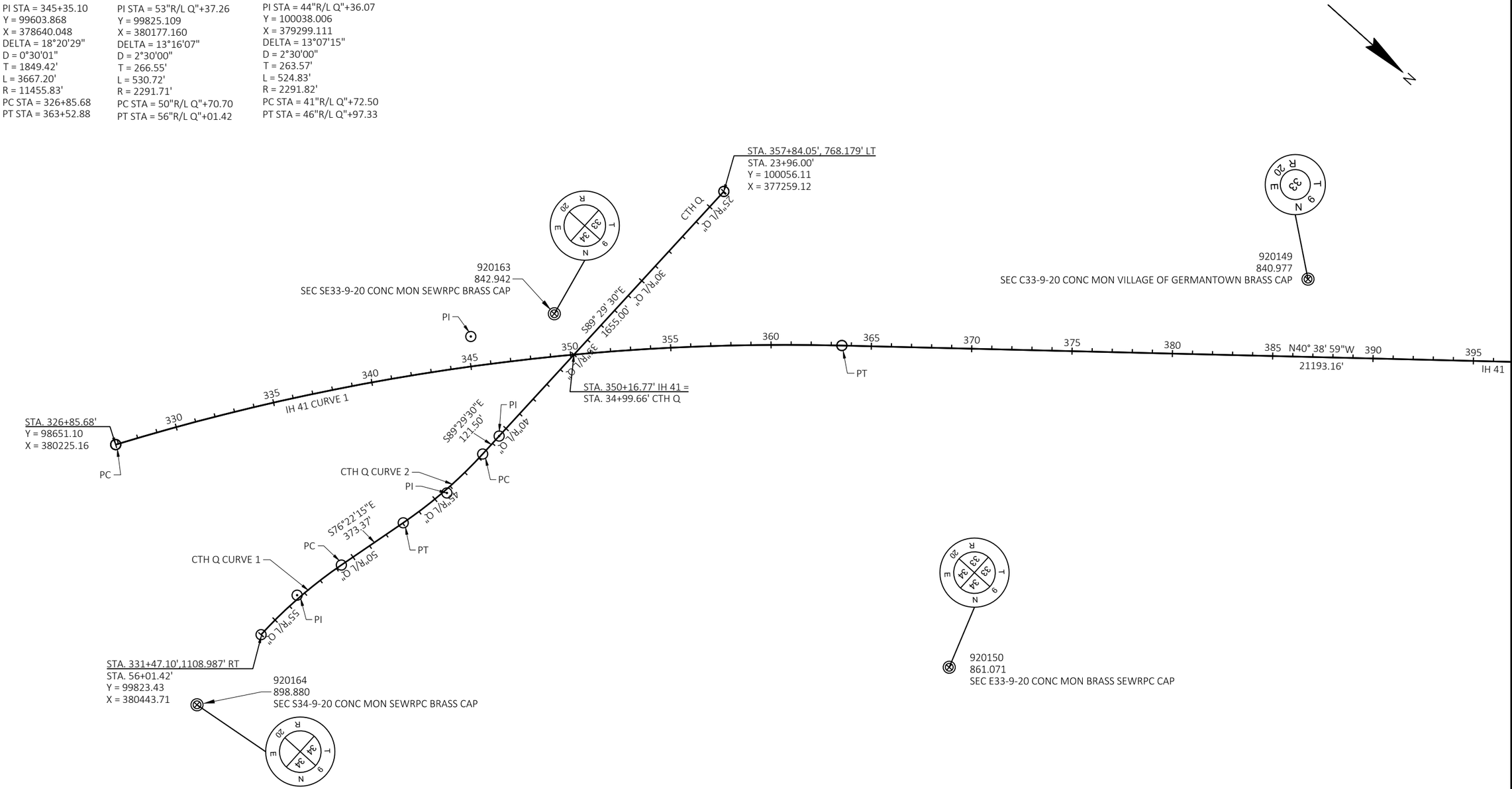
PI STA = 345+35.10
Y = 99603.868
X = 378640.048
DELTA = 18°20'29"
D = 0°30'01"
T = 1849.42'
L = 3667.20'
R = 11455.83'
PC STA = 326+85.68
PT STA = 363+52.88

CTH Q CURVE 1

PI STA = 53"R/L Q"+37.26
Y = 99825.109
X = 380177.160
DELTA = 13°16'07"
D = 2°30'00"
T = 266.55'
L = 530.72'
R = 2291.71'
PC STA = 50"R/L Q"+70.70
PT STA = 56"R/L Q"+01.42

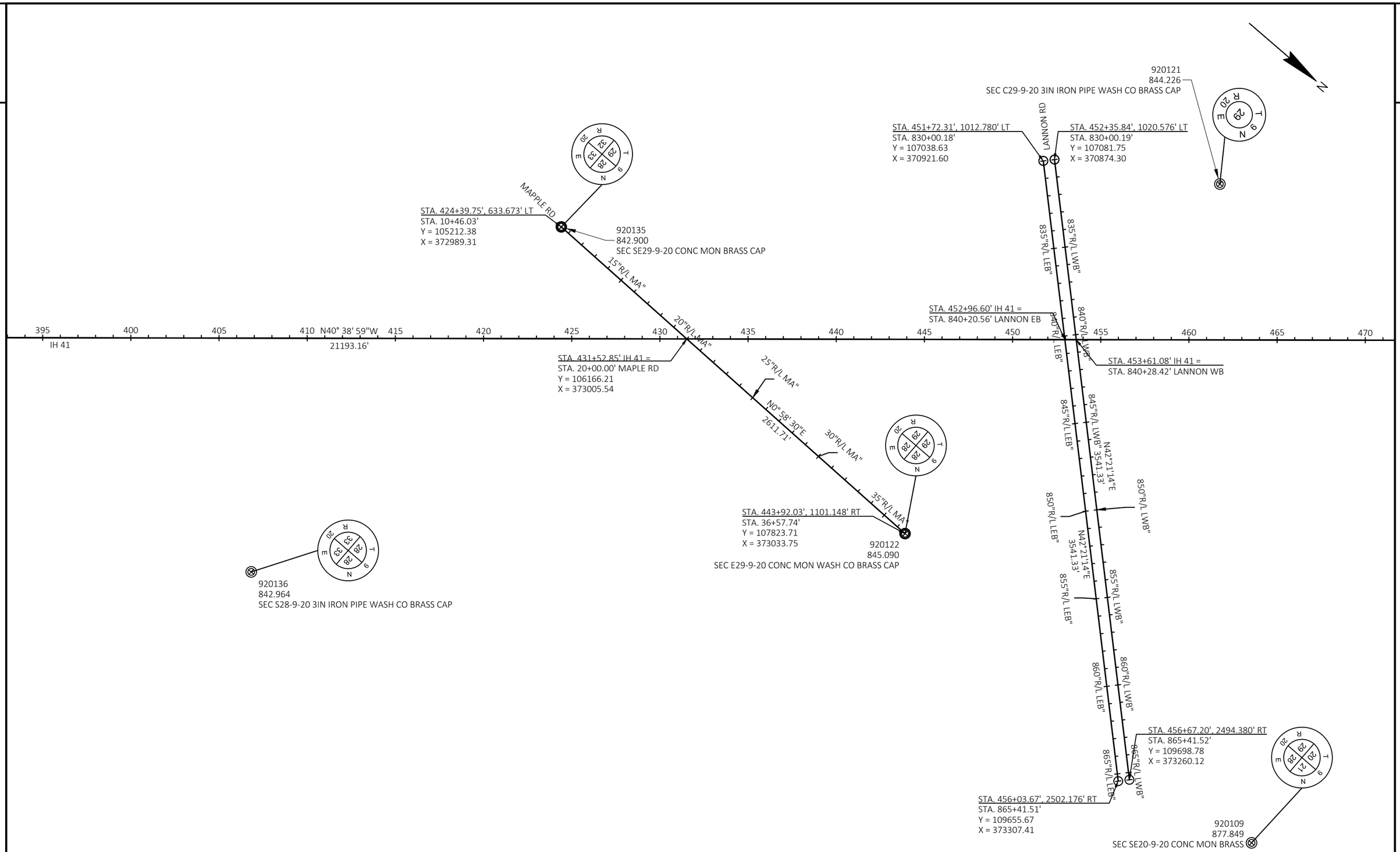
CTH Q CURVE 2

PI STA = 44"R/L Q"+36.07
Y = 100038.006
X = 379299.111
DELTA = 13°07'15"
D = 2°30'00"
T = 263.57'
L = 524.83'
R = 2291.82'
PC STA = 41"R/L Q"+72.50
PT STA = 46"R/L Q"+97.33



PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT PLAN	SHEET 238	E

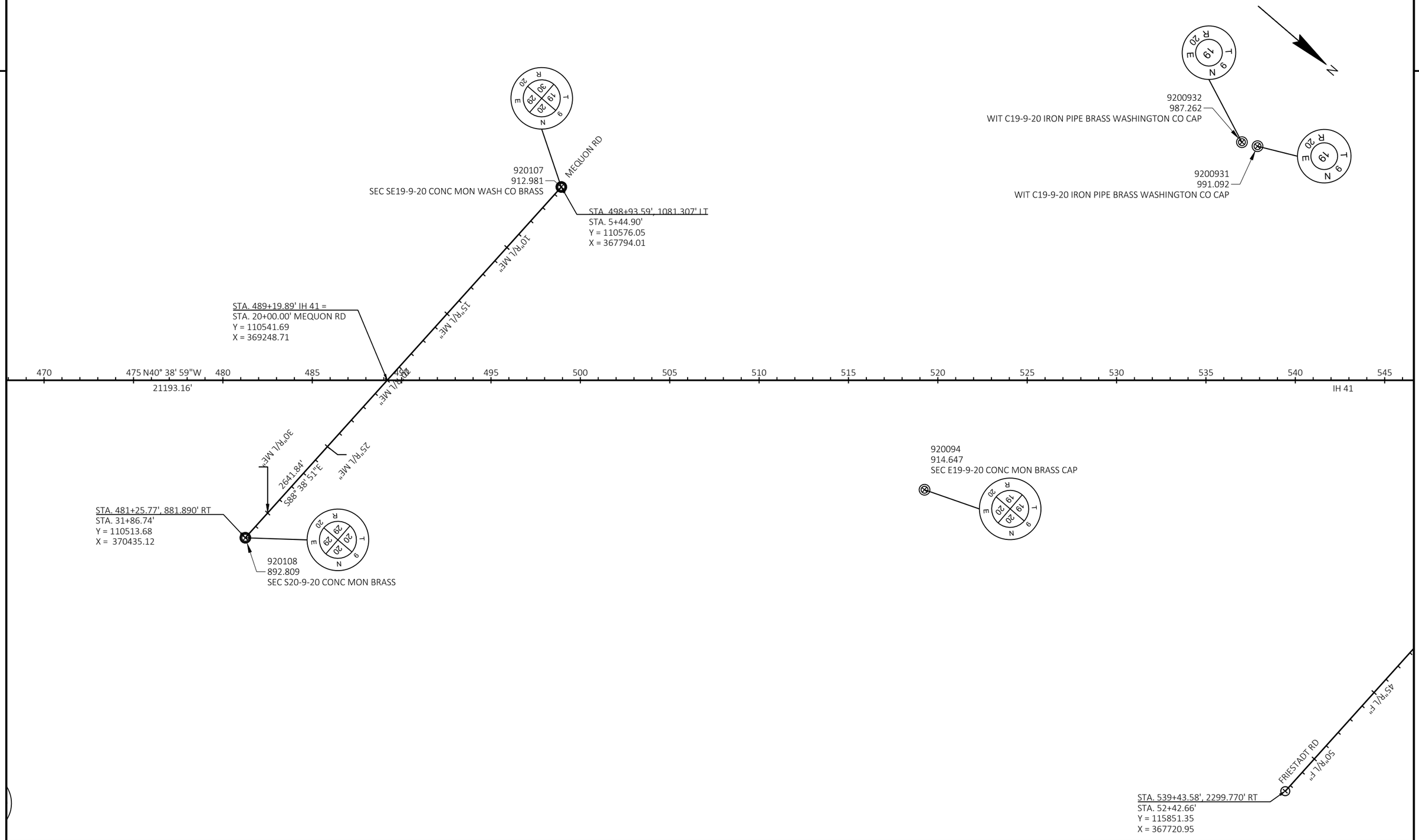
2



PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT PLAN	SHEET 239	E

2

2



PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT PLAN	SHEET 240	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 027203-ad

PLOT DATE : 11/9/2020 8:20 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:500 FT

2

STA. 574+55.84', 1592.458' LT
STA. 0+00.00'
Y = 115980.59
X = 362479.89

920079
994.879
SEC SW18-9-20 CONC MON BRASS CAP

IH 41 CURVE 2
PI STA = 591+44.22
Y = 118299.718
X = 362587.578
DELTA = 40°49'49"
D = 1°20'01"
T = 1599.19'
L = 3061.87'
R = 4296.63'
PC STA = 575+45.03
PT STA = 606+06.90

N

S88° 31' 02"E
2591.00'
5"R/L F"
10"R/L F"
15"R/L F"
20"R/L F"

540 545 550 N40° 38' 59"W 555 560 565 570 575 580 585 590 595 600 605 610 615 620

IH 41
21193.16'

PC

STA. 560+15.30' IH 41 =
STA. 21+47.34' FRIESTADT RD
Y = 115925.02
X = 364626.52

STA BACK = 575+46.03
STA AHEAD = 575+45.03

PI
920066
978.332
SEC W18-9-20 CONC MON BRASS CAP

IH 41 CURVE 2

PT

PI
920080
973.542
SEC S18-9-20 CONC MON BRASS CAP

S88° 39' 22"E
2651.66'
25"R/L F"
30"R/L F"
35"R/L F"
40"R/L F"
45"R/L F"
50"R/L F"

FRIESTADT RD

STA. 539+43.58', 2299.770' RT
STA. 52+42.66'
Y = 115851.35
X = 367720.95

920067
939.099
SEC C18-9-20 1.5 INCH IP

N0° 10' 49"E
1377.20'
120"R/L H"
125"R/L H"
130"R/L H"
135"R/L H"

HOLLY HILL RD
S88° 28' 26"E
2592.95'

STA. 619+84.10' IH 41 =
STA. 120+00.06' HOLLY HILL RD
Y = 121276.01
X = 362596.95

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT PLAN	SHEET 241	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 027204-ad

PLOT DATE : 11/9/2020 8:20 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:500 FT

2

IH 41 CURVE 2

PI STA = 591+44.22
Y = 118299.718
X = 362587.578
DELTA = 40°49'49"
D = 1°20'01"
T = 1599.19'
L = 3061.87'
R = 4296.63'
PC STA = 575+45.03
PT STA = 606+06.90

STA. 619+96.86', 2724.367' LT
STA. 92+75.65'
Y = 121308.75
X = 359872.75

919064
1009.667
SEC S12-9-19 CONC MON WISDOT BRASS CAP

N

919051
958.108
SEC C12-9-19 CONC MON BRASS CAP

919038
936.339
SEC S1-9-19 CONC MON BRASS CAP

919052
908.757
SEC E12-9-19 CONC MON BRASS CAP

STA. 619+84.10' IH 41 =
STA. 120+00.06' HOLLY HILL RD
Y = 121276.01
X = 362596.95

920053
976.102
SEC SW7-9-19 BRASS CAP IN BRDG MEDIAN

STA. 619+25.51', 2492.620' RT
STA. 144+93.37'
Y = 121209.66
X = 365089.37

920054
916.523
SEC S7-9-20 CONC MON BRASS CAP

STA. 659+99.43'
Y = 125291.30
X = 362628.30

STA. 660+00.00'
Y = 125291.09
X = 362652.30

600
IH 41 CURVE 2
605
PT
610
N0° 10' 49"E
1377.20'
615
95"R/L H"
100"R/L H"
105"R/L H"
115"R/L H"
2624.77'
S89° 20' 40"E
110"R/L H"
120"R/L H"
125"R/L H"
130"R/L H"
135"R/L H"
140"R/L H"
HOLLY HILL RD
S88° 28' 26"E
2592.55'
625
IH 41
630
635
N0° 25' 06"E
2650.51'
640
645
PT
650
N0° 30' 14"E
1364.82'
655
659

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT PLAN	SHEET 242	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 027205-ad

PLOT DATE : 11/9/2020 8:20 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:500 FT

2

STA. 660+00.00'
Y = 125291.09
X = 362652.30

669

STA. 659+99.43'
Y = 125291.30
X = 362628.30

PC

665

PI

IH 41 CURVE 3

670

STA. 670+94.39', 92.368' LT
STA. 1669+52.01'
Y = 126364.01
X = 362497.3654

1670

PT

919039
867.130
SEC SE1-9-19 CONC MON BRASS CAP

675

1675

N14°02'37"W
964.91'

PC

1680

680

IH 45 CURVE 1
PI

N13°58'33"W
1783.94'

685

1685

N27°58'53"W
742.83'

PT

1690

PC

1695

PI

IH 45 CURVE 2

1700

690

PC

695

IH 41 CURVE 4

700

PI

705

STA. 705+99.91'
Y = 129657.26
X = 361455.86

1705

STA. 705+94.59'
Y = 129671.54
X = 361475.15

710

715

720

725

N36° 30' 45"W
6000.43'

730

IH 41

735

740

STA. 707+42.86' IH 41 =
STA. 1705+71.13' IH 45 SB

PT

1710

1715

1720

N1° 47' 16"E
2910.94'

1725

1730

IH 45

1735

PC

IH 45 CURVE 3

PI

1740

N4°4

IH 45 CURVE 1

PI STA = 1682+10.28
Y = 127584.668
X = 362192.032
DELTA = 13°56'15"
D = 2°23'14"
T = 293.36'
L = 583.81'
R = 2400.00'
PC STA = 1679+16.92
PT STA = 1685+00.74

IH 45 CURVE 2

PI STA = 1700+07.71
Y = 129174.544
X = 361347.347
DELTA = 29°46'09"
D = 1°59'34"
T = 764.15'
L = 1493.76'
R = 2875.00'
PC STA = 1692+43.56
PT STA = 1707+37.33

IH 45 CURVE 3

PI STA = 1739+81.40
Y = 133180.813
X = 361472.398
DELTA = 6°27'48"
D = 0°58'16"
T = 333.13'
L = 665.55'
R = 5900.00'
PC STA = 1736+48.27
PT STA = 1743+13.82

919025
869.817
SEC C1-9-19 CONC MON SEWRPC BRASS CAP

919026
864.743
SEC E1-9-19 CONC MON DOT ALUM CAP

919012
940.816
SEC N1-9-19 CONC MON

1019168
940.485
SEC S36-10-19 CONC MON

IH 41 CURVE 3

PI STA = 668+28.06
Y = 126119.120
X = 362659.581
DELTA = 14°28'47"
D = 1°29'43"
T = 486.80'
L = 968.42'
R = 3831.99'
PC STA = 663+41.26
PT STA = 673+09.68

IH 41 CURVE 4

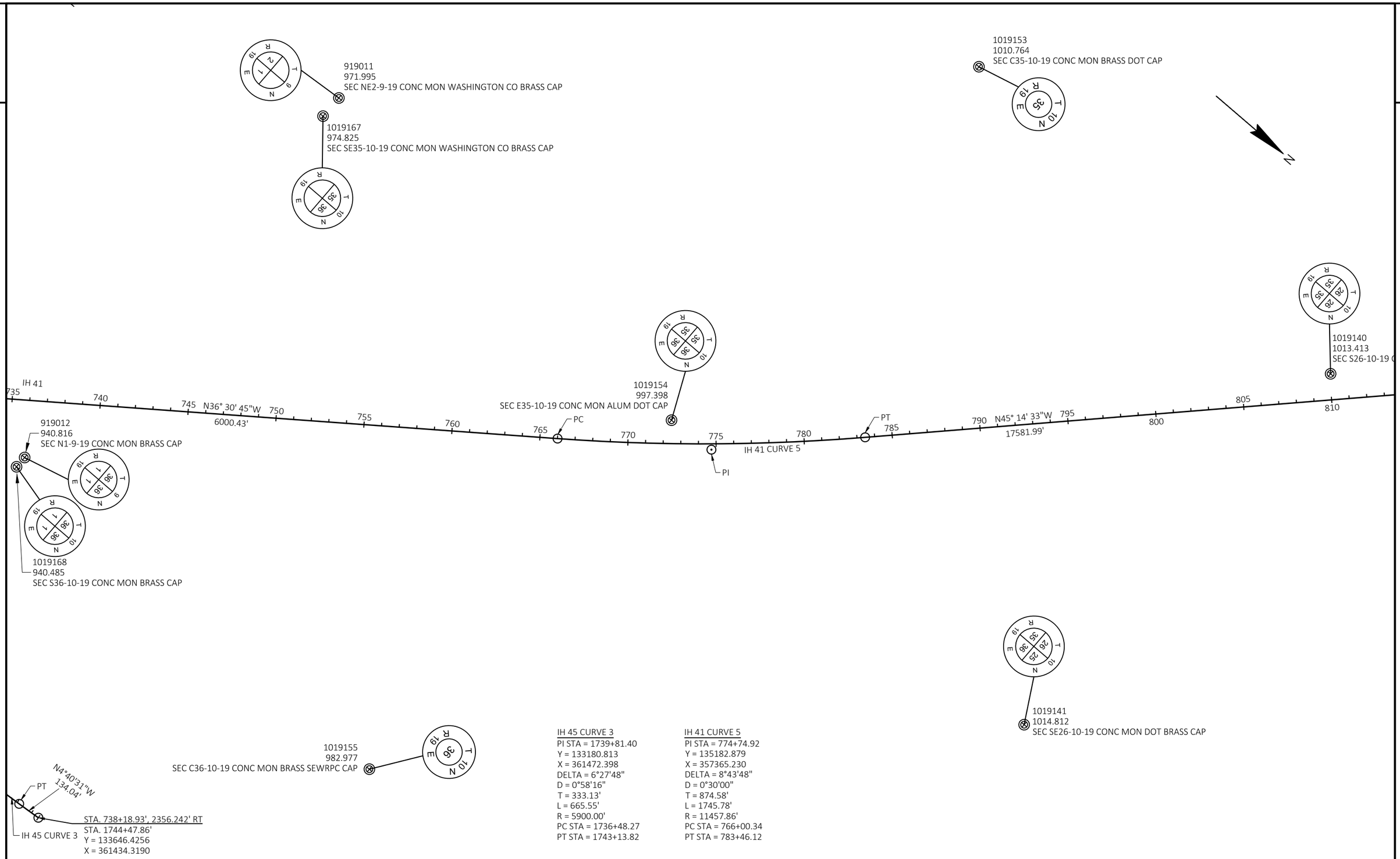
PI STA = 698+53.93
Y = 129060.453
X = 361927.536
DELTA = 22°32'12"
D = 1°30'05"
T = 760.31'
L = 1500.97'
R = 3815.96'
PC STA = 690+93.62
PT STA = 705+94.59

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT PLAN	SHEET 243	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 027206-ad

PLOT DATE : 11/9/2020 8:20 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:500 FT

2



IH 45 CURVE 3
PI STA = 1739+81.40
Y = 133180.813
X = 361472.398
DELTA = 6°27'48"
D = 0°58'16"
T = 333.13'
L = 665.55'
R = 5900.00'
PC STA = 1736+48.27
PT STA = 1743+13.82

IH 41 CURVE 5
PI STA = 774+74.92
Y = 135182.879
X = 357365.230
DELTA = 8°43'48"
D = 0°30'00"
T = 874.58'
L = 1745.78'
R = 11457.86'
PC STA = 766+00.34
PT STA = 783+46.12

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT PLAN	SHEET 244	E

2

1019125
994.783
SEC C27-10-19 CONC MON BRASS DOT CAP

1019139
1007.273
SEC SE27-10-19 CONC MON BRASS CAP

N

1019126
968.465
SEC E27-10-19 CONC MON BRASS CAP

1019140
1013.413
SEC S26-10-19 CONC MON SEWRPC BRASS CAP

N45° 14' 33"W
17581.99'

810 815 820 825 830 835 840 845 850 855 860 865 870 875 880 885

IH 41

1019111
987.960
SEC S22

1019113
970.973
SEC SE22-10-19 CONC MON BRASS DOT CAP

1019127
977.867
SEC C26-10-19 CONC MON BRASS CAP

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT PLAN	SHEET 245	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 027208-ad

PLOT DATE : 11/9/2020 8:20 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:500 FT

2

2

1019097
1053.470
SEC C21-10-19 CONC MON BRASS SEWRPC CAP

1019111
1030.888
SEC SE21-10-19 CONC MON BRASS DOT CAP

N

1019084
1127.077
SEC S16-10-19 CONC MON ALUM DOT CAP

STH 60

STA BACK = 346+60.43
STA AHEAD = 557+00.00

S89°19'47"E
955.00'
560'R/L

PI

STH 6

STA. 959+32.82' IH 41 =
STA. 561+38.17' STH 60
Y = 148181.63
X = 344256.01

565'R/L S"

PI

N89° 46' 57"E
484.44'

PC

570'R/L S"

575'R/L S"

PI

STH 60 CURVE 1

580'R/L S"

PT

S87°36'19"E
580.23'

585'R/L S"

587'R/L S"

1019085
1081.172
SEC SE16-10-19 CONC MON DOT BRASS CAP

STH 60 CURVE 1

PI STA = 576"R/L S"+67.99
Y = 148179.426
X = 345785.789
DELTA = 2°38'32"
D = 0°15'00"
T = 528.55'
L = 1056.92'
R = 22918.31'
PC STA = 571"R/L S"+39.44
PT STA = 581"R/L S"+96.36

STA. 940+25.53', 1822.508' RT
STA. 587+76.58'
Y = 148132.82
X = 346893.59

1019112
987.960
SEC S22-10-19 CONC MON BRASS SEWRPC CAP

885 890 895 900 905 910 915 920 925 930 935 940 945 950 955 960

IH 41

N45° 14' 33"W
17581.99'

1019083
1058.409
WIT E21-10-19 CONC MON BRASS CAP

1019084
1061.114
WIT E21-10-19 CONC MON BRASS CAP

1019082
1057.156
WIT E21-10-19 CONC MON BRASS CAP

1019081
1062.231
WIT E21-10-19 CONC MON BRASS CAP

1019099
1028.169
SEC C22-10-19 CONC MON ALUM CAP

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT PLAN	SHEET 246	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 027209-ad

PLOT DATE : 11/9/2020 8:20 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:500 FT

WISDOT/CADDS SHEET 42

2

2

1019097
1053.470
SEC C21-10-19 CONC MON BRASS SEWRPC CAP

STA. 978+33.79', 1855.729' LT
STA. 324+41.93'
Y = 148218.25
X = 341599.68

1019083
1141.414
SEC SE17-10-19 CAP MISSING PULLED TIES

N

STH 60
330"R/L S"
335"R/L S"
S89° 25' 56"E
1612.67'
340"R/L S"
PC
STH 60 CURVE 3
PI
PRC
PI
345"R/L S"
PT
STA BACK = 346+60.43
STA AHEAD = 557+00.00
S89°19'47"E
955.00'
560"R/L S"

1019084
1127.077
SEC S16-10-19 CONC MON ALUM DOT CAP

BRASS CAP

930 935 940 945 950 955 960 965 970 975 980 985 990 995 1000 1005

N44° 54' 00"W
11034.98'

1019070
1185.753
SEC E17-10-19 CONC MON BRASS SEWRPC CAP

PI
STH 60 CURVE 2

STA. 959+32.82' IH 41 =
STA. 561+38.17' STH 60
Y = 148181.63
X = 344256.01

MON BRASS CAP

565"R/L S"
PI
N89° 46' 57"E
484.44'
570"R/L S"
PC
STH 60 CURVE 1
575"R/L S"
PI
580"R/L S"
PT
S87°36'19"E
580.23'
585"R/L S"
587"R/L S"

67.99

STA. 940+25.53', 1822.508' RT
STA. 587+76.58'
Y = 148132.82
X = 346893.59

39.44
96.36

1019085
1081.172
SEC SE16-10-19 CONC MON DOT BRASS CAP

1019071
1101.955
SEC C16-10-19 CONC MON SEWRPC BRASS CAP

STH 60 CURVE 1
PI STA = 576"R/L S"+67.99
Y = 148179.426
X = 345785.789
DELTA = 2°38'32"
D = 0°15'00"
T = 528.55'
L = 1056.92'
R = 22918.31'
PC STA = 571"R/L S"+39.44
PT STA = 581"R/L S"+96.36

STH 60 CURVE 2
PI STA = 345"R/L S"+09.12
Y = 148187.754
X = 343666.538
DELTA = 1°59'04"
D = 0°39'21"
T = 151.34'
L = 302.65'
R = 8738.00'
PC STA = 343"R/L S"+57.78
PT STA = 557"R/L S"+00.00

STH 60 CURVE 3
PI STA = 342"R/L S"+06.21
Y = 148200.714
X = 343363.871
DELTA = 1°57'04"
D = 0°38'37"
T = 151.61'
L = 303.18'
R = 8903.61'
PC STA = 340"R/L S"+54.60
PT STA = 343"R/L S"+57.78

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	ALIGNMENT	SHEET 247	E

2

CP FENO 35291
SET 1 M (39.4") BERNSTEN FENO MONUMENT WITH 2" ALUMINUM CAP STAMPED "WISCONSIN DEPT. OF TRANSPORTATION / AYRES ASSOCIATES" WITH AN ORANGE CARSONITE SURVEY MARKER POST.
SET 134 FEET NORTH OF C/L OF COUNTY LINE ROAD/CTH Q AND 1.5 FEET SOUTHWEST OF EDGE OF PAVEMENT OF US-41 SOUTHBOUND.
STA 352+91.16', 64.293' LT
N: 100188.466
E: 378118.529
EL: 843.75

BM 34950
BENCHMARK DISC FOUND ON THE PARAPET WALL AT THE NORTHEAST CORNER OF CTH Q/COUNTY LINE ROAD BRIDGE OVER US-41.
STA 349+49.75', 115.574'RT
N: 100086.47
E: 378489.98
EL: 873.13

BM 35080
BENCHMARK DISC FOUND ON THE PARAPET WALL AT THE SOUTHWEST CORNER OF CTH Q/COUNTY LINE ROAD BRIDGE OVER US-41.
STA 350+80.18', 114.103' LT
N: 100005.95
E: 378238.44
EL: 872.01

CP FENO 34762
SET 1 M (39.4") BERNSTEN FENO MONUMENT WITH 2" ALUMINUM CAP STAMPED "WISCONSIN DEPT. OF TRANSPORTATION / AYRES ASSOCIATES" WITH AN ORANGE CARSONITE SURVEY MARKER POST. SET 125 FEET SOUTH OF C/L COUNTY LINE ROAD/CTH Q AND 4 FEET NORTHEAST OF EDGE OF PAVEMENT OF US-41 NORTHBOUND.
STA 347+61.58', 63.405' RT
N: 99923.031
E: 378594.214
EL: 843.90

IH 41 NB
IH 41 SB
CTH Q RD
"R/L Q"
35"R/L Q"
40"R/L
355
350
345
N

CP FENO 43704
EXISTING BRASS CAP ON NORTH SIDE OF CATCH BASIN CONCRETE SLAB IN USH 41 MEDIAN. STAMPED 437+04.88
STA 437+04.61', 0.045' RT
N: 106584.863
E: 372646.145
EL: 842.33

CP FENO 43347
SET 1 M (39.4") BERNSTEN FENO MONUMENT WITH 2" ALUMINUM CAP STAMPED "WISCONSIN DEPT. OF TRANSPORTATION / AYRES ASSOCIATES" WITH AN ORANGE CARSONITE SURVEY MARKER POST. SET AT N.LY EDGE OF GRAVEL ALONG NE SIDE OF SB USH 41 AND APPROX 200' NW OF CL OF MAPLE ROAD BRIDGE AS MEASURED ALONG USH 41.
STA 433+47.17', 3.719' LT
N: 106311.221
E: 372876.136
EL: 844.09'

BM 42996
BENCHMARK DISC FOUND ON THE CURB HEAD AT THE SOUTHEAST CORNER OF MAPLE ROAD BRIDGE OVER US-41.
STA 429+95.84', 113.468' LT
N: 105973.17
E: 373021.74
EL: 866.36

MAPLE RD
25"R/L
20"R/L MA"
435
430
IH 41 NB
IH 41 SB
N

CP FENO 49225
SET 1 M (39.4") BERNSTEN FENO MONUMENT WITH 2" ALUMINUM CAP STAMPED "WISCONSIN DEPT. OF TRANSPORTATION / AYRES ASSOCIATES" WITH AN ORANGE CARSONITE SURVEY MARKER POST.
SET 135 FEET NORTH OF C/L OF MEQUON ROAD AND 62 FEET SOUTHWEST OF EDGE OF PAVEMENT OF US-41 SOUTHBOUND.
STA 492+25.03', 134.279' LT
N: 110685.736
E: 368948.045
EL: 904.20

BM 49083
BENCHMARK DISC FOUND ON THE CURB HEAD AT THE SOUTHWEST CORNER OF MEQUON ROAD BRIDGE OVER US-41.
STA 490+83.29', 210.274' LT
N: 110528.69
E: 368982.72
EL: 923.49

CP FENO 48895
SET 1 M (39.4") BERNSTEN FENO MONUMENT WITH 2" ALUMINUM CAP STAMPED "WISCONSIN DEPT. OF TRANSPORTATION / AYRES ASSOCIATES" WITH AN ORANGE CARSONITE SURVEY MARKER POST.
SET 97 FEET SOUTH OF C/L OF MEQUON ROAD AND 37 FEET SOUTHWEST OF EDGE OF PAVEMENT OF US-41 SOUTHBOUND.
STA 488+94.71',112.225' LT
N: 110449.483
E: 369179.963
EL: 896.11

"R/L ME"
20"R/L ME"
MEQUON RD
25"R/L M
495
490
IH 41 NB
IH 41 SB
N

2

CP FENO 55755
SET 1 M (39.4") BERNSTEN FENO MONUMENT WITH 2" ALUMINUM CAP STAMPED "WISCONSIN DEPT. OF TRANSPORTATION / AYRES ASSOCIATES" WITH AN ORANGE CARSONITE SURVEY MARKER POST. SET 119 FEET SOUTH OF C/L OF FREISTADT ROAD/CTH F AND 38 FEET NORTHEAST OF EDGE OF PAVEMENT OF US-41 NORTHBOUND.
STA 557+54.95', 113.830' RT
N: 115801.652
E: 364882.478
EL: 957.62

BM 56102
BENCHMARK DISC FOUND ON THE PARAPET WALL AT THE SOUTHWEST CORNER OF FREISTADT ROAD BRIDGE OVER US-41.
STA 561+01.97', 124.715' LT
N: 115909.54
E: 364475.44
EL: 997.23

IH 41 NB
IH 41 SB
FRIESTADT RD
20"R/L F"
25"R/L F"
560
555
N

CP FENO 62054
SET 1 M (39.4") BERNSTEN FENO MONUMENT WITH 2" ALUMINUM CAP STAMPED "WISCONSIN DEPT. OF TRANSPORTATION / AYRES ASSOCIATES" WITH AN ORANGE CARSONITE SURVEY MARKER POST. SET 113 FEET WEST OF C/L OF US-41 SOUTHBOUND OFFRAMP AND 33 NORTH OF EDGE OF PAVEMENT OF STH 175/HOLY HILL ROAD WESTBOUND.
STA 620+53.60', 465.070' LT
N: 121348.989
E: 362132.399
EL: 971.19

CP FENO 61903
SET 1 M (39.4") BERNSTEN FENO MONUMENT WITH 2" ALUMINUM CAP STAMPED "WISCONSIN DEPT. OF TRANSPORTATION / AYRES ASSOCIATES" WITH AN ORANGE CARSONITE SURVEY MARKER POST. SET 71 FEET SOUTH OF C/L OF STH 175/HOLY HILL ROAD AND 38 FEET WEST OF EDGE OF PAVEMENT OF US-41 NORTHBOUND OFF RAMP.
STA 619+03.46' 259.036' RT,
N: 121194.644
E: 362855.730
EL: 967.38

BM 61951
CHISLED "X" FOUND ON THE PARAPET WALL AT THE SOUTHWEST CORNER OF STH 167/HOLY HILL ROAD BRIDGE OVER US-41.
STA 619+51.27', 127.194' LT
N:121243.67
E: 362469.65
EL: 977.57

HOLY HILL RD
"R/L H"
120"R/L H"
125"R/L
625
620
IH 41 SB
IH 41 NB
N

IH 41 NB
IH 41 SB
710
705
700
TRAN
CARSON
C/L OF ST

CM 70119
SET BERNSTEN STEEL SURVEY SPIKE IN SOUTHWEST WING WALL OF BOX CULVERT UNDER US-41 SOUTHBOUND.
STA 701+19.18', 129.968' LT
N: 129209.07
E: 361620.26
EL: 861.69

IH 45 SB
1705
1700
1695
N

PROJECT NO: 1100-43-70	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT LAYOUT - SURVEY CONTROL	SHEET 248	E

1100-43-70

Line	Item	Item Description	Unit	Total	Qty
0002	108.4400	CPM Progress Schedule	EACH	1.000	1.000
0006	201.0110	Clearing	SY	70.000	70.000
0008	201.0210	Grubbing	SY	70.000	70.000
0010	203.0211.S	Abatement of Asbestos Containing Material (structure) 01. B-66-31	EACH	1.000	1.000
0012	203.0211.S	Abatement of Asbestos Containing Material (structure) 02. B-66-34	EACH	1.000	1.000
0014	203.0211.S	Abatement of Asbestos Containing Material (structure) 03. B-66-35	EACH	1.000	1.000
0016	203.0211.S	Abatement of Asbestos Containing Material (structure) 04. B-66-37	EACH	1.000	1.000
0018	203.0220	Removing Structure (structure) 01. B-66-34	EACH	1.000	1.000
0024	203.0220	Removing Structure (structure) 04. B-66-35	EACH	1.000	1.000
0028	204.0100	Removing Concrete Pavement	SY	1,372.000	1,372.000
0030	204.0110	Removing Asphaltic Surface	SY	1,676.000	1,676.000
0032	204.0115	Removing Asphaltic Surface Butt Joints	SY	367.000	367.000
0034	204.0120	Removing Asphaltic Surface Milling	SY	15,092.000	15,092.000
0036	204.0126.S	Removing Asphaltic Longitudinal Notched Wedge Joint Milling	LF	8,281.000	8,281.000
0038	204.0150	Removing Curb & Gutter	LF	585.000	585.000
0040	204.0155	Removing Concrete Sidewalk	SY	181.000	181.000
0042	204.0165	Removing Guardrail	LF	3,600.000	3,600.000
0044	204.0170	Removing Fence	LF	318.000	318.000
0050	204.0220	Removing Inlets	EACH	4.000	4.000
0052	204.0245	Removing Storm Sewer (size) 01. 12-INCH	LF	306.000	306.000
0062	205.0100	Excavation Common	CY	10,203.000	10,203.000
0074	208.0100	Borrow	CY	1,059.000	1,059.000
0082	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	50.000	50.000
0086	213.0100	Finishing Roadway (project) 02. 1100-43-70	EACH	1.000	1.000
0092	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,153.000	1,153.000
0094	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	9,752.000	9,752.000
0100	311.0115	Breaker Run	CY	5,674.000	5,674.000
0102	415.0070	Concrete Pavement 7-Inch	SY	76.000	76.000
0104	415.0410	Concrete Pavement Approach Slab	SY	1,326.000	1,326.000
0106	416.0620	Drilled Dowel Bars	EACH	44.000	44.000
0108	416.1010	Concrete Surface Drains	CY	6.000	6.000
0110	450.4000	HMA Cold Weather Paving	TON	183.000	183.000
0112	455.0605	Tack Coat	GAL	2,278.000	2,278.000
0114	460.2000	Incentive Density HMA Pavement	DOL	2,400.000	2,400.000
0120	460.6223	HMA Pavement 3 MT 58-28 S	TON	1,304.000	1,304.000
0122	460.6224	HMA Pavement 4 MT 58-28 S	TON	3,204.000	3,204.000
0124	465.0105	Asphaltic Surface	TON	885.000	885.000
0126	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	47.000	47.000
0128	465.0125	Asphaltic Surface Temporary	TON	1,359.000	1,359.000
0130	465.0305	Asphaltic Surface Safety Islands	TON	55.000	55.000
0134	465.0400	Asphaltic Shoulder Rumble Strips	LF	4,326.000	4,326.000
0136	502.0100	Concrete Masonry Bridges	CY	1,260.000	1,260.000
0138	502.3101	Expansion Device	LF	714.000	714.000
0140	502.3200	Protective Surface Treatment	SY	7,894.000	7,894.000
0142	502.3205	Pigmented Surface Sealer Reseal	SY	586.000	586.000
0144	502.3210	Pigmented Surface Sealer	SY	944.000	944.000
0146	502.3215	Protective Surface Treatment Reseal	SY	855.000	855.000
0148	502.4112	Adhesive Anchors 1 1/2-inch	EACH	40.000	40.000
0152	502.4205	Adhesive Anchors No. 5 Bar	EACH	1,222.000	1,222.000

1100-43-70

Line	Item	Item Description	Unit	Total	Qty
0156	505.0400	Bar Steel Reinforcement HS Structures	LB	4,230.000	4,230.000
0158	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	298,960.000	298,960.000
0160	505.0904	Bar Couplers No. 4	EACH	8.000	8.000
0162	505.0905	Bar Couplers No. 5	EACH	6.000	6.000
0164	505.0906	Bar Couplers No. 6	EACH	4.000	4.000
0166	505.0907	Bar Couplers No. 7	EACH	10.000	10.000
0168	506.0105	Structural Steel Carbon	LB	120.000	120.000
0170	506.2610	Bearing Pads Elastomeric Laminated	EACH	42.000	42.000
0172	506.6000	Bearing Assemblies Expansion (structure) 01. B-66-34	EACH	10.000	10.000
0174	506.6000	Bearing Assemblies Expansion (structure) 02. B-66-37	EACH	10.000	10.000
0176	506.7050.S	Removing Bearings (structure) 01. B-66-30	EACH	20.000	20.000
0178	506.7050.S	Removing Bearings (structure) 02. B-66-31	EACH	10.000	10.000
0180	506.7050.S	Removing Bearings (structure) 03. B-66-34	EACH	10.000	10.000
0182	506.7050.S	Removing Bearings (structure) 04. B-66-35	EACH	12.000	12.000
0184	506.7050.S	Removing Bearings (structure) 05. B-66-37	EACH	10.000	10.000
0186	509.0301	Preparation Decks Type 1	SY	952.000	952.000
0188	509.0302	Preparation Decks Type 2	SY	505.000	505.000
0190	509.0500	Cleaning Decks	SY	3,740.000	3,740.000
0192	509.0505.S	Cleaning Decks to Reapply Concrete Masonry Overlay	SY	1,321.000	1,321.000
0194	509.1000	Joint Repair	SY	238.000	238.000
0196	509.1200	Curb Repair	LF	210.000	210.000
0198	509.1500	Concrete Surface Repair	SF	951.000	951.000
0200	509.2000	Full-Depth Deck Repair	SY	30.000	30.000
0202	509.2500	Concrete Masonry Overlay Decks	CY	460.000	460.000
0204	509.9005.S	Removing Concrete Masonry Deck Overlay (structure) 01. B-66-31	SY	1,371.000	1,371.000
0206	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 01. B-66-37	SY	1,949.000	1,949.000
0212	513.9006.S	Removing and Resetting Tubular Railing (structure) 01. B-66-31	EACH	1.000	1.000
0214	514.0900	Adjusting Floor Drains	EACH	2.000	2.000
0216	516.0500	Rubberized Membrane Waterproofing	SY	35.000	35.000
0218	517.0901.S	Preparation and Coating of Top Flanges (structure) 01. B-66-34	EACH	1.000	1.000
0220	517.0901.S	Preparation and Coating of Top Flanges (structure) 02. B-66-35	EACH	1.000	1.000
0222	517.1801.S	Structure Repainting Recycled Abrasive (structure) 01. B-66-30	EACH	1.000	1.000
0224	517.1801.S	Structure Repainting Recycled Abrasive (structure) 02. B-66-31	EACH	1.000	1.000
0226	517.1801.S	Structure Repainting Recycled Abrasive (structure) 03. B-66-32	EACH	1.000	1.000
0228	517.1801.S	Structure Repainting Recycled Abrasive (structure) 04. B-66-33	EACH	1.000	1.000
0230	517.1801.S	Structure Repainting Recycled Abrasive (structure) 05. B-66-34	EACH	1.000	1.000
0232	517.1801.S	Structure Repainting Recycled Abrasive (structure) 06. B-66-35	EACH	1.000	1.000
0234	517.1801.S	Structure Repainting Recycled Abrasive (structure) 07. B-66-37	EACH	1.000	1.000
0236	517.4501.S	Negative Pressure Containment and Collection of Waste Materials (structure) 01. B-66-30	EACH	1.000	1.000
0238	517.4501.S	Negative Pressure Containment and Collection of Waste Materials (structure) 02. B-66-31	EACH	1.000	1.000
0240	517.4501.S	Negative Pressure Containment and Collection of Waste Materials (structure) 03. B-66-32	EACH	1.000	1.000
0242	517.4501.S	Negative Pressure Containment and Collection of Waste Materials (structure) 04. B-66-33	EACH	1.000	1.000
0244	517.4501.S	Negative Pressure Containment and Collection of Waste Materials (structure) 05. B-66-34	EACH	1.000	1.000
0246	517.4501.S	Negative Pressure Containment and Collection of Waste Materials (structure) 06. B-66-35	EACH	1.000	1.000

1100-43-70

Line	Item	Item Description	Unit	Total	Qty
0248	517.4501.S	Negative Pressure Containment and Collection of Waste Materials (structure) 07. B-66-37	EACH	1.000	1.000
0250	517.6001.S	Portable Decontamination Facility	EACH	7.000	7.000
0252	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	2.000	2.000
0254	530.0112	Culvert Pipe Corrugated Polyethylene 12-Inch	LF	132.000	132.000
0262	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	222.000	222.000
0264	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	303.000	303.000
0266	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	63.000	63.000
0268	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	276.000	276.000
0270	601.0590	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBTT	LF	85.000	85.000
0272	601.0600	Concrete Curb Pedestrian	LF	76.000	76.000
0274	602.0410	Concrete Sidewalk 5-Inch	SF	1,493.000	1,493.000
0276	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	52.000	52.000
0278	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	22.000	22.000
0282	603.8000	Concrete Barrier Temporary Precast Delivered	LF	12,225.000	12,225.000
0284	603.8125	Concrete Barrier Temporary Precast Installed	LF	12,225.000	12,225.000
0286	603.8505	Anchoring Concrete Barrier Temporary Precast on Bridge Decks	LF	158.000	158.000
0288	604.0500	Slope Paving Crushed Aggregate	SY	130.000	130.000
0290	604.9010.S	Slope Paving Repair Crushed Aggregate	CY	5.000	5.000
0292	604.9015.S	Reseal Crushed Aggregate Slope Paving	SY	2,380.000	2,380.000
0294	606.0200	Riprap Medium	CY	36.000	36.000
0298	608.3012	Storm Sewer Pipe Class III-A 12-Inch	LF	111.000	111.000
0300	611.0654	Inlet Covers Type V	EACH	4.000	4.000
0302	611.3220	Inlets 2x2-FT	EACH	4.000	4.000
0304	611.8115	Adjusting Inlet Covers	EACH	10.000	10.000
0306	611.9710	Salvaged Inlet Covers	EACH	8.000	8.000
0312	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	8.000	8.000
0314	614.0200	Steel Thrie Beam Structure Approach	LF	277.000	277.000
0316	614.0220	Steel Thrie Beam Bullnose Terminal	EACH	2.000	2.000
0322	614.0905	Crash Cushions Temporary	EACH	16.000	16.000
0326	614.2300	MGS Guardrail 3	LF	2,129.000	2,129.000
0330	614.2500	MGS Thrie Beam Transition	LF	546.000	546.000
0332	614.2610	MGS Guardrail Terminal EAT	EACH	14.000	14.000
0336	616.0100	Fence Woven Wire (height) 01. 4-FT	LF	318.000	318.000
0340	618.0100	Maintenance And Repair of Haul Roads (project) 02. 1100-43-70	EACH	1.000	1.000
0346	619.1000	Mobilization	EACH	0.900	0.900
0348	623.0200	Dust Control Surface Treatment	SY	15,625.000	15,625.000
0350	624.0100	Water	MGAL	275.000	275.000
0352	625.0100	Topsoil	SY	15,625.000	15,625.000
0356	627.0200	Mulching	SY	15,625.000	15,625.000
0360	628.1504	Silt Fence	LF	9,260.000	9,260.000
0362	628.1520	Silt Fence Maintenance	LF	9,260.000	9,260.000
0368	628.1905	Mobilizations Erosion Control	EACH	10.000	10.000
0370	628.1910	Mobilizations Emergency Erosion Control	EACH	6.000	6.000
0372	628.2002	Erosion Mat Class I Type A	SY	15,625.000	15,625.000
0380	628.7020	Inlet Protection Type D	EACH	33.000	33.000
0386	628.7560	Tracking Pads	EACH	16.000	16.000
0392	629.0210	Fertilizer Type B	CWT	10.000	10.000
0400	630.0175	Seeding Mixture No. 75	LB	98.000	98.000

1100-43-70

Line	Item	Item Description	Unit	Total	Qty
0404	630.0200	Seeding Temporary	LB	422.000	422.000
0406	630.0500	Seed Water	MGAL	351.000	351.000
0410	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	15.000	15.000
0412	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	3.000	3.000
0416	637.2230	Signs Type II Reflective F	SF	24.000	24.000
0418	638.2102	Moving Signs Type II	EACH	13.000	13.000
0420	638.2602	Removing Signs Type II	EACH	1.000	1.000
0422	638.3000	Removing Small Sign Supports	EACH	11.000	11.000
0426	642.5201	Field Office Type C	EACH	0.900	0.900
0428	643.0300	Traffic Control Drums	DAY	59,859.000	59,859.000
0430	643.0410	Traffic Control Barricades Type II	DAY	113.000	113.000
0432	643.0420	Traffic Control Barricades Type III	DAY	9,896.000	9,896.000
0434	643.0705	Traffic Control Warning Lights Type A	DAY	19,793.000	19,793.000
0436	643.0715	Traffic Control Warning Lights Type C	DAY	21,104.000	21,104.000
0438	643.0800	Traffic Control Arrow Boards	DAY	1,783.000	1,783.000
0440	643.0900	Traffic Control Signs	DAY	67,124.000	67,124.000
0442	643.0910	Traffic Control Covering Signs Type I	EACH	2.000	2.000
0444	643.0920	Traffic Control Covering Signs Type II	EACH	101.000	101.000
0446	643.1000	Traffic Control Signs Fixed Message	SF	688.000	688.000
0448	643.1050	Traffic Control Signs PCMS	DAY	50.000	50.000
0450	643.1205.S	Basic Traffic Queue Warning System	DAY	64.000	64.000
0452	643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	13,221.000	13,221.000
0454	643.3550	Temporary Marking Arrow Removable Tape	EACH	2.000	2.000
0456	643.3650	Temporary Marking Word Removable Tape	EACH	2.000	2.000
0458	643.4100.S	Traffic Control Interim Lane Closure	EACH	695.000	695.000
0460	643.5000	Traffic Control	EACH	0.900	0.900
0462	644.1430	Temporary Pedestrian Surface Plate	SF	908.000	908.000
0464	644.1601	Temporary Pedestrian Curb Ramp	DAY	57.000	57.000
0466	644.1810	Temporary Pedestrian Barricade	LF	970.000	970.000
0470	645.0120	Geotextile Type HR	SY	24.000	24.000
0472	646.1020	Marking Line Epoxy 4-Inch	LF	18,072.000	18,072.000
0474	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	1,706.000	1,706.000
0476	646.1545	Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch	LF	784.000	784.000
0478	646.1555	Marking Line Grooved Contrast Permanent Tape 4-Inch	LF	213.000	213.000
0480	646.3545	Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch	LF	828.000	828.000
0482	646.5020	Marking Arrow Epoxy	EACH	18.000	18.000
0484	646.5120	Marking Word Epoxy	EACH	9.000	9.000
0486	646.6120	Marking Stop Line Epoxy 18-Inch	LF	215.000	215.000
0488	646.6220	Marking Yield Line Epoxy 18-Inch	EACH	9.000	9.000
0490	646.6464	Cold Weather Marking Epoxy 4-Inch	LF	2,622.000	2,622.000
0492	646.7120	Marking Diagonal Epoxy 12-Inch	LF	259.000	259.000
0494	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	238.000	238.000
0496	646.8120	Marking Curb Epoxy	LF	312.000	312.000
0498	646.8220	Marking Island Nose Epoxy	EACH	5.000	5.000
0500	646.9000	Marking Removal Line 4-Inch	LF	4,576.000	4,576.000
0502	646.9100	Marking Removal Line 8-Inch	LF	1,704.000	1,704.000
0504	646.9200	Marking Removal Line Wide	LF	302.000	302.000
0506	646.9300	Marking Removal Special Marking	EACH	27.000	27.000
0578	690.0150	Sawing Asphalt	LF	3,739.000	3,739.000

1100-43-70

Line	Item	Item Description	Unit	Total	Qty
0580	690.0250	Sawing Concrete	LF	655.000	655.000
0582	715.0502	Incentive Strength Concrete Structures	DOL	7,560.000	7,560.000
0586	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0588	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,400.000	1,400.000
0590	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	17,280.000	17,280.000
0592	SPV.0060	Special 01. Joint Sealant Parapet	EACH	39.000	39.000
0594	SPV.0060	Special 02. Strapping B-66-37	EACH	1.000	1.000
0596	SPV.0060	Special 03. Embedded Galvanic Anodes	EACH	184.000	184.000
0598	SPV.0060	Special 04. Traffic Control Close-Open Freeway Entrance Ramp	EACH	140.000	140.000
0600	SPV.0060	Special 05. Traffic Control Local Road Lane Closures	EACH	16.000	16.000
0602	SPV.0060	Special 06. Traffic Control Full Freeway Closure	EACH	12.000	12.000
0604	SPV.0060	Special 07. Section Corner Monuments	EACH	1.000	1.000
0606	SPV.0060	Special 08. Survey Project 1100-43-70	EACH	1.000	1.000
0608	SPV.0060	Special 09. Exposing Existing Infrastructure Unpaved Area	EACH	5.000	5.000
0610	SPV.0060	Special 10. Removing and Resetting Fencing B-66-30	EACH	1.000	1.000
0626	SPV.0075	Special 01. Pavement Cleanup Project 1100-43-70	HRS	20.000	20.000
0628	SPV.0090	Special 01. Pavement Marking Contrast Epoxy 4-Inch	LF	232.000	232.000
0630	SPV.0090	Special 02. Pavement Marking Contrast Epoxy 8-Inch	LF	1,773.000	1,773.000

REMOVALS

CATEGORY	STATION	TO	STATION	LOCATION	201.0110 CLEARING SY	201.0210 GRUBBING SY	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	204.0165 REMOVING GUARDRAIL LF	204.0170 REMOVING FENCE LF	204.0220 REMOVING INLETS EACH	204.0245.01 REMOVING STORM SEWER (12-INCH) LF	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
1000	25+34	-	33+97	CTH Q West	--	--	153	113	--	4,011	377	97	71	--	--	--	217	357
	36+07	-	44+73	CTH Q East	--	--	144	111	--	3,692	208	84	71	--	--	--	185	215
	25+34	-	44+73	CTH Q Full Depth Repair	--	--	--	1,453	--	--	--	--	--	--	--	--	2,616	--
	14+95	-	18+64	Maple Rd South	--	--	--	--	30	562	--	--	355	63	2	116	22	--
	21+42	-	25+67	Maple Rd North	--	--	--	--	31	896	--	--	314	66	--	--	22	--
	11+00	-	17+53	Mequon Rd West	65	65	--	--	--	--	--	--	977	38	--	--	100	--
	22+75	-	27+50	Mequon Rd East	5	5	--	--	--	--	--	--	183	--	--	58	73	--
	14+00	-	20+18	Freistadt Rd West	--	--	--	--	--	--	--	--	255	55	--	--	207	--
	22+70	-	30+25	Freistadt Rd East	--	--	--	--	--	--	--	--	828	96	2	132	178	--
	1707+76	-	1709+23	USH 45 SB	--	--	1,075	--	107	1,403	--	--	--	--	--	--	--	83
	288+30	-	618+08	IH-41 - Maple & Lannon Rd Stage II	--	--	--	--	--	--	--	--	546	--	--	--	--	--
				Subtotal	70	70	1,372	1,676	168	10,565	585	181	3,600	318	4	306	3,620	655
8000	25+34	--	28+50	CTH Q West	--	--	--	--	126	3,145	--	--	--	--	--	--	119	--
	42+00	--	44+73	CTH Q East - N	--	--	--	--	33	697	--	--	--	--	--	--	--	--
	42+00	--	44+74	CTH Q East - S	--	--	--	--	40	685	--	--	--	--	--	--	--	--
				Subtotal	--	--	--	--	199	4,527	--	--	--	--	--	--	119	--
				TOTAL	70	70	1,372	1,676	367	15,092	585	181	3,600	318	4	306	3,739	655

FINISHING ROADWAY

CATEGORY	LOCATION	213.0100.01 FINISHING ROADWAY 1100-43-70 EACH
1000	1100-43-70	1
	TOTAL	1

HAUL ROADS MAINTENANCE & REPAIR

CATEGORY	PROJECT	618.0100.01 MAINTENANCE AND REPAIR OF HAUL ROADS EACH
1000	1100-43-70	1
	TOTAL	1

PAVEMENT MARKING REMOVAL

CATEGORY	STATION	TO	STATION	LOCATION	646.9000 MARKING REMOVAL LINE 4-INCH LF	646.9100 MARKING REMOVAL LINE 8-INCH LF	646.9200 MARKING REMOVAL LINE WIDE LF	646.9300 MARKING REMOVAL SPECIAL MARKING EACH
1000	25+34	-	44+73	CTH Q & Ramps	1,400	1,137	11	22
	1701+40	-	1709+90	USH 45 SB Stage I	1,835	--	--	--
	1701+40	-	1709+90	USH 45 SB Stage II	1,125	--	--	--
				Subtotal	4,360	1,137	11	22
8000	25+34	--	28+50	CTH Q West	216	567	291	5
				Subtotal	216	567	291	5
				TOTAL	4,576	1,704	302	27

PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH LF	646.1545 MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH LF	646.1555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH LF	646.3545 MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH LF	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.6220 MARKING YIELD LINE EPOXY 18-INCH EACH	646.6464 COLD WEATHER MARKING EPOXY 4-INCH LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.8120 MARKING CURB EPOXY LF	646.8220 MARKING ISLAND NOSE EPOXY EACH	SPV.0090.01 PAVEMENT MARKING CONTRAST EPOXY 4-INCH LF	SPV.0090.02 PAVEMENT MARKING CONTRAST EPOXY 8-INCH LF
1000	25+34	-	44+73	CTH Q EB & S Ramps	1,304	--	276	--	170	10	4	92	9	--	83	--	131	1	--	1,151
	25+34	-	44+73	CTH Q WB & N Ramps	142	--	283	--	458	2	1	70	--	--	33	238	76	2	--	--
	14+95	-	25+67	Maple Rd	3,886	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11+00	-	27+50	Mequon Rd	6,600	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	14+00	-	30+25	Freistadt Rd	6,027	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1701+40	-	1709+90	USH 45 SB	--	1,706	--	213	--	--	--	--	--	--	--	--	--	--	--	--
				UNDISTRIBUTED	--	--	--	--	--	--	--	--	--	2,622	--	--	--	--	--	--
				Subtotal	17,959	1,706	559	213	628	12	5	162	9	2,622	116	238	207	3	--	1,151
8000	25+34	--	28+50	CTH Q West	113	--	88	--	200	6	4	53	--	--	143	--	105	2	232	622
	42+00	--	44+73	CTH Q East - N	--	--	69	--	--	--	--	--	--	--	--	--	--	--	--	--
	42+00	--	44+74	CTH Q East - S	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--
				Subtotal	113	--	225	--	200	6	4	53	--	--	143	--	105	2	232	622
				TOTAL	18,072	1,706	784	213	828	18	9	215	9	2,622	259	238	312	5	232	1,773

PAVING

CATEGORY	STATION	TO	STATION	LOCATION	204.0126.S REMOVING ASPHALTIC LONGITUDINAL NOTCHED WEDGE JOINT MILLING LF	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	415.0070 CONCRETE PAVEMENT 7-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0620 DRILLED DOWEL BARS EACH	450.4000 HMA COLD WEATHER PAVING TON	455.0605 TACK COAT GAL	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS LF
1000	25+34	-	33+97	CTH Q West	1,928	--	--	77	--	153	--	--	275	--	574	--	--	--	--
	36+07	-	44+73	CTH Q East	1,566	--	--	68	--	144	--	--	253	--	535	--	--	--	--
	25+34	-	44+73	CTH Q Full Depth Repair	--	--	--	--	--	--	--	--	--	--	--	578	--	--	--
	14+95	-	18+13	Maple Rd South	318	3	110	808	--	121	--	--	71	91	158	--	--	--	--
	21+92	-	25+67	Maple Rd North	375	4	116	616	--	128	--	--	41	66	188	--	--	--	--
	11+00	-	17+01	Mequon Rd West	601	--	254	2,243	--	153	--	--	314	298	232	--	10	--	--
	23+26	-	27+50	Mequon Rd East	424	--	199	1,496	--	144	--	--	207	196	153	--	4	--	--
	14+00	-	19+68	Freistadt Rd West	568	--	237	1,914	--	145	--	--	297	282	219	--	10	--	--
	23+19	-	30+25	Freistadt Rd East	706	--	238	2,515	--	139	--	--	390	370	288	--	23	--	--
	1701+40	-	1709+90	USH 45 SB	--	--	--	15	76	200	44	--	105	--	160	--	--	--	--
	693+39	-	714+70	IH-41 NB - USH 45 SB Outer	--	21	--	--	--	--	--	--	--	--	--	--	--	696	2,131
	700+52	-	722+47	IH-41 SB - USH 45 SB Outer	--	22	--	--	--	--	--	--	--	--	--	--	--	663	2,195
				UNDISTRIBUTED	--	--	--	--	--	--	--	183	--	--	--	307	--	--	--
				Subtotal	6,486	50	1,153	9,752	76	1,326	44	183	1,955	1,304	2,507	885	47	1,359	4,326
8000	25+34	-	28+50	CTH Q West	1,274	--	--	--	--	--	--	--	221	--	482	--	--	--	--
	42+00	-	44+73	CTH Q East - N	263	--	--	--	--	--	--	--	51	--	108	--	--	--	--
	42+00	-	44+74	CTH Q East - S	258	--	--	--	--	--	--	--	51	--	107	--	--	--	--
				Subtotal	1,795	--	--	--	--	--	--	--	323	--	697	--	--	--	--
				TOTAL	8,281	50	1,153	9,752	76	1,326	44	183	2,278	1,304	3,204	885	47	1,359	4,326

CONCRETE CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	465.0305 ASPHALTIC SURFACE SAFETY ISLANDS TON	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	601.0588 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBT LF	601.0590 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBTT LF	601.0600 CONCRETE CURB PEDESTRIAN LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	602.0605 CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW SF
1000	25+34	-	33+97	CTH Q West	28	111	252	16	--	--	33	746	42	--
	36+07	-	44+73	CTH Q East	26	111	51	47	--	--	43	747	10	22
	14+95	-	18+64	Maple Rd	--	--	--	--	77	31	--	--	--	--
	22+75	-	27+50	Mequon Rd	--	--	--	--	81	27	--	--	--	--
	22+70	-	30+25	Freistadt Rd	--	--	--	--	81	27	--	--	--	--
	1701+40	-	1709+90	USH 45 SB	--	--	--	--	37	--	--	--	--	--
				TOTAL	55	222	303	63	276	85	76	1,493	52	22

STORM SEWER

CATEGORY	STATION	TO	STATION	LOCATION	416.1010 CONCRETE SURFACE DRAINS CY	521.1012 APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH EACH	530.0112 CULVERT PIPE CORRUGATED POLYETHYLENE 12-INCH LF	608.3012 STORM SEWER PIPE CLASS III-A 12-INCH LF	611.0654 INLET COVERS TYPE V EACH	611.3220 INLETS 2X2-FT EACH	611.8115 ADJUSTING INLET COVERS EACH	611.9710 SALVAGED INLET COVERS EACH
1000	25+34	-	44+73	CTH Q	--	--	--	--	--	--	8	8
	14+95	-	18+64	Maple Rd	--	1	62	61	2	2	--	--
	22+75	-	27+50	Mequon Rd North	4	--	--	--	--	--	--	--
	22+76	-	27+51	Mequon Rd South	2	--	--	--	--	--	--	--
	22+70	-	30+25	Freistadt Rd	--	1	70	50	2	2	--	--
	1701+40	-	1709+90	USH 45 SB	--	--	--	--	--	--	2	--
				TOTAL	6	2	132	111	4	4	10	8

STORM SEWER STRUCTURES										STORM SEWER PIPES								
ROADWAY	STRUCTURE NO.	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH [1] (FT)	STRUCTURE COMMENTS	PIPE ID	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE[A] %	PLAN LENGTH (FT)	PIPE CLASS	PIPE SIZE (INCH)	PIPE COMMENTS
MAPLE ROAD	2	17+98	18.4'	LT	865.322	INLET 2'X2'	V	3.51		1	2	1	861.816	860.048	-2.90	61	III	12	SSP III-A
MAPLE ROAD	1	17+48	20.0	RT	863.548	INLET 2'X2'	V	3.50		2	1	--	860.048	860.045	-0.08	4	PE	12	CPCPE
MAPLE ROAD	--	--	--	--	--	--	--	--		3	--	--	860.045	843.638	-30.23	54	PE	12	CPCPE
MAPLE ROAD	--	17+66	80.5'	RT	--	--	--	--	12-INCH APRON ENDWALL REQUIRED	4	--	EW	843.638	843.635	-0.08	4	PE	12	CPCPE
FREISTADT ROAD	2	23+38	19.6'	LT	987.627	INLET 2'X2'	V	3.50		1	2	1	984.127	982.535	-3.17	50	III	12	SSP III-A
FREISTADT ROAD	1	23+72	19.5'	RT	985.935	INLET 2'X2'	V	3.40		2	1	--	982.535	982.532	-0.08	4	PE	12	CPCPE
FREISTADT ROAD	--	--	--	--	--	--	--	--		3	--	--	982.532	959.630	-37.24	62	PE	12	CPCPE
FREISTADT ROAD	--	23+72	90.0'	RT	--	--	--	--	12-INCH APRON ENDWALL REQUIRED	4	--	EW	959.630	959.626	-0.08	4	PE	12	CPCPE

BEAMGUARD & FENCING

CATEGORY	STATION	TO	STATION	LOCATION	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH LF	614.0220 STEEL THRIE BEAM BULLNOSE TERMINAL EACH	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	616.0100.01 FENCE WOVEN WIRE (4-FT) LF
1000	25+34	-	33+97	CTH Q West	--	--	58	39	1	--
	36+07	-	44+73	CTH Q East	--	--	--	39	1	--
	14+95	-	18+64	Maple Rd South	--	--	292	78	2	63
	21+42	-	25+67	Maple Rd North	--	--	256	78	2	66
	11+00	-	17+53	Mequon Rd West	--	--	795	78	2	38
	22+75	-	27+50	Mequon Rd East	--	--	--	78	2	--
	14+00	-	20+18	Freistadt Rd West	--	--	84	78	2	55
	22+70	-	30+25	Freistadt Rd East	--	--	644	78	2	96
	288+30	-	618+08	IH-41 - Maple & Lannon Rd Stage II	277	2	--	--	--	--
				TOTAL	277	2	2,129	546	14	318

EROSION CONTROL MOBILIZATIONS

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
1000	CTH Q Stage I	1	1
	CTH Q Stage II	1	1
	Maple Rd	2	1
	Mequon Rd	2	1
	Freistadt Rd	2	1
	UNDISTRIBUTED	2	1
	TOTAL	10	6

3

EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	623.0200 DUST CONTROL SURFACE TREATMENT SY	624.0100 WATER MGAL	625.0100 TOPSOIL SY	627.0200 MULCHING SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2002 EROSION MAT CLASS I TYPE A SY	628.7020 INLET PROTECTION TYPE D EACH	629.0210 FERTILIZER TYPE B CWT	630.0175 SEEDING MIXTURE NO. 75 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL	645.0120 GEOTEXTILE TYPE HR SY
1000	25+34	-	33+97	CTH Q West	--	754	2	754	754	416	416	754	14	0.5	5	20	17	--
	36+07	-	44+73	CTH Q East	--	598	2	598	598	226	226	598	11	0.4	4	16	13	--
	14+95	-	18+64	Maple Rd South	6	1,330	18	1,330	1,330	837	837	1,330	4	0.8	8	36	30	4
	21+42	-	25+67	Maple Rd North	--	2,299	15	2,299	2,299	946	946	2,299	--	1.4	14	62	52	--
	11+00	-	17+53	Mequon Rd West	--	2,090	50	2,090	2,090	1,282	1,282	2,090	--	1.3	13	56	47	--
	22+75	-	27+50	Mequon Rd East	18	1,168	34	1,168	1,168	941	941	1,168	--	0.7	7	32	26	12
	14+00	-	20+18	Freistadt Rd West	--	2,004	43	2,004	2,004	1,222	1,222	2,004	--	1.3	13	54	45	--
	22+70	-	30+25	Freistadt Rd East	5	2,257	55	2,257	2,257	1,538	1,538	2,257	4	1.4	14	61	51	3
	1701+40	-	1709+90	USH 45 SB	--	--	1	--	--	--	--	--	--	--	--	--	--	--
				UNDISTRIBUTED	7	3,125	55	3,125	3,125	1,852	1,852	3,125	--	2	20	84	70	5
				TOTAL	36	15,625	275	15,625	15,625	9,260	9,260	15,625	33	10	98	422	351	24

TRAFFIC CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	STAGE	**DAYS**	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	603.8505 ANCHORING CONCRETE BARRIER ON BRIDGE DECKS LF	628.7560 TRACKING PAD EACH	643.0300 TRAFFIC CONTROL DRUMS **EACH**	643.0300 DAY	643.0410 TRAFFIC CONTROL BARRICADES TYPE II **EACH**	643.0410 DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III **EACH**	643.0420 DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A **EACH**	643.0705 DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C **EACH**	643.0715 DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS **EACH**	643.0800 DAY	643.0900 TRAFFIC CONTROL SIGNS **EACH**	643.0900 DAY
1000	25+34	-	44+73	CTH Q	STAGE I	45	--	--	--	--	67	3,015	--	--	13	585	26	1,170	42	1,890	3	135	48	2,160
	25+34	-	44+73	CTH Q	STAGE II	55	--	--	--	--	55	3029	--	--	12	660	24	1320	47	2576	2	110	45	2475
	25+34	-	44+73	CTH Q	STAGE II - Ped	28	--	--	--	--	--	--	4	112	--	--	--	--	--	--	2	56	4	112
	25+34	-	44+73	CTH Q	STAGE III	4	--	--	--	--	243	970	--	--	38	152	76	304	83	331		--	111	500
	14+95	-	25+67	Maple Rd	Bridge Closure	50	--	--	--	--	--	--	--	--	18	900	36	1800	--	--	--	--	14	700
	14+95	-	25+67	Maple Rd	Full Freeway	4	--	--	--	--	174	698	--	--	6	24	12	48	72	289	4	16	21	84
	11+00	-	27+50	Mequon Rd	Bridge Closure	137	--	--	--	--	--	--	--	--	19	2603	38	5206		--	--	--	14	1918
	11+00	-	27+50	Mequon Rd	Full Freeway	4	--	--	--	--	174	698	--	--	6	24	12	48	72	289	4	16	22	88
	14+00	-	30+25	Freistadt Rd	Bridge Closure	85	--	--	--	--	--	--	--	--	23	1955	46	3910	--	--	--	--	18	1530
	14+00	-	30+25	Freistadt Rd	Full Freeway	4	--	--	--	--	174	698	--	--	6	24	12	48	72	289	4	16	22	88
	204+80	-	495+80	USH 45 SB	STAGE I	32	988	988	150	--	118	3776	--	--	8	256	16	512	35	1120	2	64	36	1152
	204+80	-	495+80	USH 45 SB	STAGE II	32	988	988	--	--	120	3840	--	--	8	256	16	512	37	1184	2	64	32	1024
	204+80	-	495+80	IH 41 - CTH Q	STAGE I	16	1,362	1,362	--	--	246	3938	--	--	8	128	16	256	115	1843	7	112	44	704
	204+80	-	495+80	IH 41 - CTH Q	STAGE II	16	1,362	1,362	--	--	198	3166	--	--	8	128	16	256	67	1075	7	112	42	672
	288+30	-	618+08	IH-41 - Maple & Lannon Rd	STAGE I	22	1,380	1,380	--	--	347	7639	--	--	21	462	42	924	84	1852	7	154	54	1188
	288+30	-	618+08	IH-41 - Maple & Lannon Rd	STAGE II	22	1,347	1,347	--	--	262	5762	--	--	17	374	34	748	67	1478	8	176	49	1078
	345+00	-	633+41	IH-41 - Mequon Rd	STAGE I	11	--	--	--	--	197	2166	--	--	10	110	20	220	67	739	7	77	40	440
	345+00	-	633+41	IH-41 - Mequon Rd	STAGE II	11	--	--	--	--	197	2162	--	--	11	121	22	242	67	739	7	77	44	484
	415+94	-	704+19	IH-41 - Freistadt Rd	STAGE I	9	1,462	1,462	--	--	265	2385	--	--	9	81	18	162	67	605	7	63	45	405
	415+94	-	704+19	IH-41 - Freistadt Rd	STAGE II	9	1,462	1,462	--	--	257	2309	--	--	9	81	18	162	67	604	8	72	43	387
	642+50	-	776+50	IH-41 - USH 45 SB	STAGE I	35	1,292	1,292	--	--	173	6056	--	--	7	245	14	490	54	1890	5	175	36	1260
	642+50	-	776+50	IH-41 - USH 45 SB	STAGE II	32	--	--	--	--	147	4702	--	--	8	256	16	512	41	1306	5	160	30	960
	25+34	-	44+73	CTH Q Stage I	DETOUR I	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	100	4500
	25+34	-	44+73	CTH Q Stage I	DETOUR II	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	93	4185
	25+34	-	44+73	CTH Q Stage I	DETOUR III	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	40	1800
	25+34	-	44+73	CTH Q Stage II	DETOUR I	55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	85	4675
	25+34	-	44+73	CTH Q Stage II	DETOUR II	55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	58	3190
	25+34	-	44+73	CTH Q Stage II	DETOUR III	55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	53	2915
	25+34	-	44+73	CTH Q Stage II	DETOUR IV	55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	52	2860
	25+34	-	44+73	CTH Q Stage II	DETOUR V	55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14	770
	830+00	-	865+42	Lannon Rd Stage I	DETOUR I	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	32	704
	204+80	-	495+80	USH 45 SB	DETOUR I	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	310	19866
				UNDISTRIBUTED		--	582	582	8	16	--	2850	--	1	--	471	--	943	--	1005	--	83	--	2250
					TOTAL		12,225	12,225	158	16		59,859		113		9,896		19,793		21,104		1,738		67,124

TRAFFIC CONTROL CONTINUED

CATEGORY	STATION	TO	STATION	LOCATION	STAGE	**DAYS**	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I PER STAGE	EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II PER STAGE	EACH	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	643.1050 TRAFFIC CONTROL SIGNS PCMS PER STAGE	DAY	643.1205.S BASIC TRAFFIC QUEUE WARNING SYSTEM DAY	643.4100.S TRAFFIC CONTROL INTERIM LANE CLOSURE EACH	644.1430 TEMPORARY PEDESTRIAN SURFACE PLATE SF	644.1601 TEMPORARY PEDESTRIAN CURB RAMP DAY	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH LF	643.3550 TEMPORARY MARKING ARROW REMOVABLE TAPE EACH	643.3650 TEMPORARY MARKING WORD REMOVABLE TAPE EACH	SPV.0060.04 TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP PER STAGE	EACH	SPV.0060.05 TRAFFIC CONTROL LOCAL ROAD LANE CLOSURES PER STAGE	EACH	SPV.0060.06 TRAFFIC CONTROL FULL FREEWAY CLOSURE EACH
1000	25+34	-	44+73	CTH Q	STAGE I	45	--	--	--	--	--	--	--	--	--	--	--	--	926	1	1	--	--	--	--	--
	25+34	-	44+73	CTH Q	STAGE II	55	--	--	--	--	--	--	--	--	--	--	--	--	1030	1	1	--	--	--	--	--
	25+34	-	44+73	CTH Q	STAGE II - Ped	28	--	--	--	--	--	--	--	--	--	865	56	924	1456	--	--	--	--	--	--	--
	25+34	-	44+73	CTH Q	STAGE III	4	--	--	2	8	--	--	--	--	--	--	--	--	--	--	--	2	8	4	16	--
	14+95	-	25+67	Maple Rd	Bridge Closure	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	14+95	-	25+67	Maple Rd	Full Freeway	4		--		--	--	4	16	--	--	--	--	--	--	--	--	2	8	--	--	4
	11+00	-	27+50	Mequon Rd	Bridge Closure	137	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	14+95	-	25+67	Mequon Rd	Full Freeway	4		--		--	--	4	16	--	--	--	--	--	--	--	--	2	8	--	--	4
	14+00	-	30+25	Freistadt Rd	Bridge Closure	85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	14+95	-	25+67	Freistadt Rd	Full Freeway	4		--		--	--	4	16	--	--	--	--	--	--	--	--	2	8	--	--	4
	204+80	-	495+80	USH 45 SB	STAGE I	32	--	1	--	9	--	--	--	32	32	--	--	--	4610	--	--	1	32	--	--	--
	204+80	-	495+80	USH 45 SB	STAGE II	32	--	--	--	--	--	--	--	32	32	--	--	--	4570	--	--	1	32	--	--	--
	204+80	-	495+80	IH 41 - CTH Q	STAGE I	16	--	--	2	32	--	--	--	--	64	--	--	--	--	--	--	--	--	--	--	--
	204+80	-	495+80	IH 41 - CTH Q	STAGE II	16	--	--	--	--	--	--	--	--	64	--	--	--	--	--	--	--	--	--	--	--
	288+30	-	618+08	IH-41 - Maple & Lannon Rd	STAGE I	22	--	--	2	44	--	--	--	--	88	--	--	--	--	--	--	1	22	--	--	--
	288+30	-	618+08	IH-41 - Maple & Lannon Rd	STAGE II	22	--	--	--	--	--	--	--	--	88	--	--	--	--	--	--	--	--	--	--	--
	345+00	-	633+41	IH-41 - Mequon Rd	STAGE I	11	--	--	--	--	--	--	--	--	44	--	--	--	--	--	--	1	11	--	--	--
	345+00	-	633+41	IH-41 - Mequon Rd	STAGE II	11	--	--	--	--	--	--	--	--	44	--	--	--	--	--	--	1	11	--	--	--
	415+94	-	704+19	IH-41 - Freistadt Rd	STAGE I	9	--	--	--	--	--	--	--	--	36	--	--	--	--	--	--	--	--	--	--	--
	415+94	-	704+19	IH-41 - Freistadt Rd	STAGE II	9	--	--	--	--	--	--	--	--	36	--	--	--	--	--	--	--	--	--	--	--
	642+50	-	776+50	IH-41 - USH 45 SB	STAGE I	35	--	--	--	--	--	--	--	--	70	--	--	--	--	--	--	--	--	--	--	--
	642+50	-	776+50	IH-41 - USH 45 SB	STAGE II	32	--	--	--	--	--	--	--	--	64	--	--	--	--	--	--	--	--	--	--	--
	25+34	-	44+73	CTH Q Stage I	DETOUR I	45	--	--	--	--	88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	25+34	-	44+73	CTH Q Stage I	DETOUR II	45	--	--	--	--	84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	25+34	-	44+73	CTH Q Stage I	DETOUR III	45	--	--	--	--	84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	25+34	-	44+73	CTH Q Stage II	DETOUR I	55	--	--	--	--	88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	25+34	-	44+73	CTH Q Stage II	DETOUR II	55	--	--	--	--	88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	25+34	-	44+73	CTH Q Stage II	DETOUR III	55	--	--	--	--	88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	25+34	-	44+73	CTH Q Stage II	DETOUR IV	55	--	--	--	--	56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	25+34	-	44+73	CTH Q Stage II	DETOUR V	55	--	--	--	--	56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	830+00	-	865+42	Lannon Rd Stage I	DETOUR I	22	--	--	--	--	56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	204+80	-	495+80	USH 45 SB	DETOUR I	154	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
				UNDISTRIBUTED		--	--	1	--	8	--	--	2	--	33	43	1	46	630	--	--	--	--	--	--	--
					TOTAL			2		101	688		50	64	695	908	57	970	13,221	2	2		140		16	12

3

Crash Cushions

Stage	Location	614.0905 Crash Cushions Temporary	Back Width LF	Object Marking Pattern	Crash Test Level	Traffic Direction	Traffic Location	Crash Cushion Shields
USH 45 SB Stage I	1711+25 24' LT	1	23'	OM-3R (W05-58R)	TL-3	Unidirectional	L	Work Zone - Structure Rehab
USH 45 SB Stage II	1711+25 0'	1	23'	OM-3L (W05-58L)	TL-3	Unidirectional	R	Work Zone - Structure Rehab
IH 41 - CTH Q Stage I	345+31' 59' RT	1	8'	OM-3L (W05-58L)	TL-3	Unidirectional	L	Work Zone - Painting
IH 41 - CTH Q Stage I	354+98' 62' LT	1	8'	OM-3L (W05-58L)	TL-3	Unidirectional	L	Work Zone - Painting
IH 41 - CTH Q Stage II	345+31' 59' RT	1	8'	OM-3L (W05-58L)	TL-3	Unidirectional	L	Work Zone - Painting
IH 41 - CTH Q Stage II	354+98' 62' LT	1	8'	OM-3L (W05-58L)	TL-3	Unidirectional	L	Work Zone - Painting
IH-41 - Maple & Lannon Rd Stage I	449+04 71' RT	1	8'	OM-3L (W05-58L)	TL-3	Unidirectional	L	Work Zone - Painting
IH-41 - Maple & Lannon Rd Stage I	457+54 71' LT	1	8'	OM-3L (W05-58L)	TL-3	Unidirectional	L	Work Zone - Painting
IH-41 - Maple & Lannon Rd Stage II	449+02 13' RT	1	7'	OM-3L (W05-58L)	TL-3	Unidirectional	R	Work Zone - Painting
IH-41 - Maple & Lannon Rd Stage II	457+56 12' LT	1	7'	OM-3L (W05-58L)	TL-3	Unidirectional	R	Work Zone - Painting
IH-41 - Freistadt Rd Stage I	555+11 72' RT	1	8'	OM-3L (W05-58L)	TL-3	Unidirectional	L	Work Zone - Painting
IH-41 - Freistadt Rd Stage I	565+18 71' LT	1	8'	OM-3L (W05-58L)	TL-3	Unidirectional	L	Work Zone - Painting
IH-41 - Freistadt Rd Stage II	555+11 72' RT	1	8'	OM-3L (W05-58L)	TL-3	Unidirectional	L	Work Zone - Painting
IH-41 - Freistadt Rd Stage II	565+18 71' LT	1	8'	OM-3L (W05-58L)	TL-3	Unidirectional	L	Work Zone - Painting
IH-41 - USH 45 SB Stage I	704+13 35' RT	1	6'	OM-3L (W05-58L)	TL-3	Unidirectional	L	Work Zone - Painting
IH-41 - USH 45 SB Stage I	711+15 60' LT	1	6'	OM-3L (W05-58L)	TL-3	Unidirectional	L	Work Zone - Painting
TOTAL		16						

3

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	REDUCED EBS IN FILL (6) FACTOR 0.80	EXPANDED EBS BACKFILL BREAKER RUN (ITEM # 311.0115) (7) FACTOR 1.30	UNEXPANDED FILL	EXPANDED FILL (8) FACTOR 1.25	MASS ORDINATE +/- (9)	WASTE (10)	208.0100 BORROW
DIVISION 1		CTH Q	73	0	10	63	0	0	231	289	-226	63	289
		Maple Road	821	527	75	746	422	685	616	770	-24	1,273	770
		Mequon Road	2,086	1,655	389	1,697	1,324	2,151	448	560	1,137	3,352	0
		Freistadt Road	2,858	2,183	491	2,367	1,746	2,838	281	351	2,016	4,550	0
GRAND TOTAL			5,838	4,365	965	4,873	3,492	5,674	1,576	1,970	2,903	9,239	1,059
TOTAL COMMON EXC			10,203										

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
3) EBS EXCAVATION IS ASSUMED TO BE 25% FOR WORK ON MAPLE ROAD, MEQUON ROAD AND FREISTADT ROAD.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(6) REDUCED EBS IN FILL - EXCAVATED EBS MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. EBS IN FILL REDUCTION FACTOR = 0.80
THE AMOUNT OF EBS THAT WILL BE NEEDED FOR THE PROJECT IS UNCERTAIN, EBS IS NOT UTILIZED IN THIS TABLE TO CALCULATE THE EXPANDED FILL.
(7) EXPANDED EBS BACKFILL - THIS IS TO BE FILLED WITH BREAKER RUN. EBS BACKFILL FACTOR = 1.30. ITEM NUMBER 311.0115
(8) EXPANDED FILL FACTOR = 1.25
DEPENDING ON SELECTIONS: EXPANDED FILL = (UNEXPANDED FILL) * FILL FACTOR
(9) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(10) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

3

MOBILIZATION

CATEGORY	PROJECT	619.1000 MOBILIZATION EACH
1000	1100-43-70	0.9
	TOTAL	0.9

FIELD OFFICE

CATEGORY	PROJECT	642.5201 FIELD OFFICE TYPE C EACH
1000	1100-43-70	0.9
	TOTAL	0.9

TRAFFIC CONTROL

CATEGORY	PROJECT	643.5000 TRAFFIC CONTROL EACH
1000	1100-43-70	0.9
	TOTAL	0.9

3

SECTION CORNER MONUMENTS

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0060.07 SECTION CORNER MONUMENTS EACH
1000	14+00	-	30+25	Freistadt Road	1
				TOTAL	1

SURVEY PROJECT

CATEGORY	LOCATION	SPV.0060.08 SURVEY PROJECT 1100-43-70 EACH
1000	1100-43-70	1
	TOTAL	1

EXPOSING EXISTING INFRASTRUCTURE UNPAVED AREA

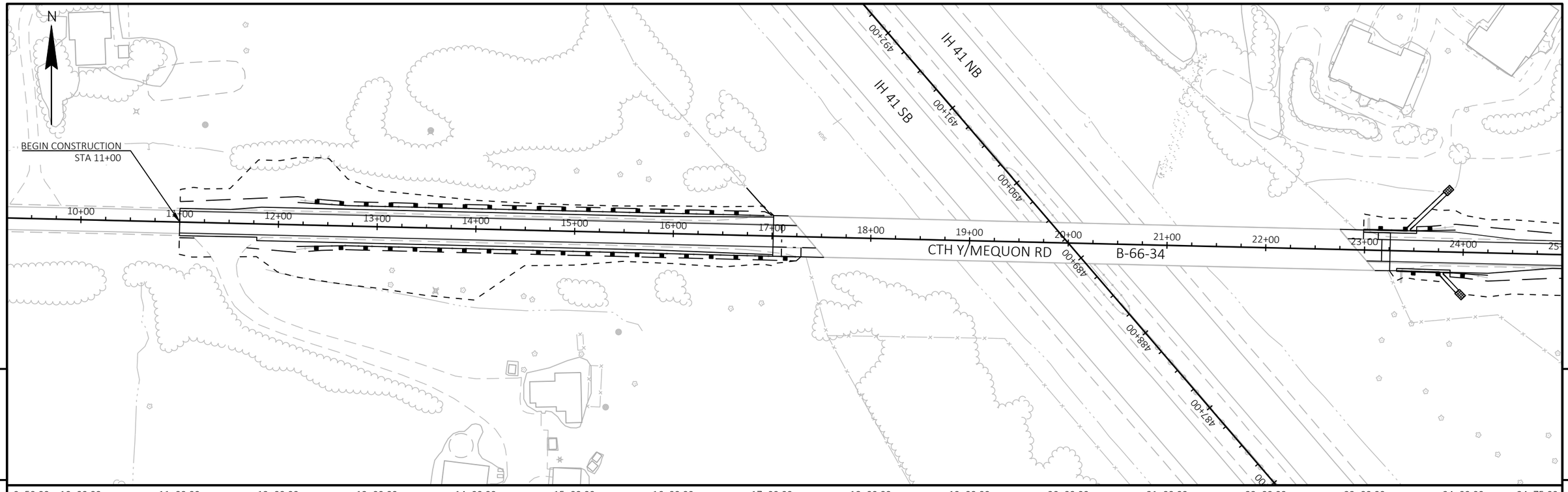
CATEGORY	LOCATION	SPV.0060.09 Exposing Existing Infrastructure Unpaved Area EACH
1000	MEQUON ROAD	2
	FREISTADT ROAD	2
	UNDISTRIBUTED	1
	TOTAL	5

PROJECT CLEANUP

CATEGORY	PROJECT	SPV.0075.01 PAVEMENT CLEANUP PROJECT 1100-43-70 HRS
1000	1100-43-70	20
	TOTAL	20

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.]	x	H [IN.]	637.2230 SIGNS TYPE II REFLC F [SF]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 POSTS WOOD 4"X 6"X18' [EA]	634.0814 POSTS TUBULAR STEEL 2"X2"X14' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
1	NOT USED	--	--	--	x	--	--	--	--	--	--	--	--	--
2	R6-2R	II	--	--	x	--	--	--	1	1	--	1	--	--
3	R6-2L	II	--	--	x	--	--	--	--	--	--	1	2	BACK OF SIGN #2
4	R5-1	II	--	--	x	--	--	--	--	--	--	1	2	--
5	R5-1A	II	--	--	x	--	--	--	--	--	--	1	2	3 FT MOUNT HEIGHT
6	JV3-1	II	--	--	x	--	--	--	1	1	--	1	--	--
7	W5-52L(2S)	II	--	12	x	36	3.000	--	--	1	--	--	--	SHEET 7 - 4 FT MOUNT HEIGHT
8	W5-52R(2S)	II	--	12	x	36	3.000	--	--	1	--	--	--	SHEET 7 - 4 FT MOUNT HEIGHT
9	W5-52R(2S)	II	--	12	x	36	3.000	--	--	1	--	--	--	SHEET 7 - 4 FT MOUNT HEIGHT
10	W5-52L(2S)	II	--	12	x	36	3.000	--	--	1	--	--	--	SHEET 7 - 4 FT MOUNT HEIGHT
11	W5-52R	II	--	--	x	--	--	1	1	--	--	--	--	SHEET 10
12	W11-6	II	--	--	x	--	--	--	--	--	--	1	--	SHEET 10
13	W5-52L(2S)	II	--	12	x	36	3.000	--	--	1	--	--	--	SHEET 10 - 4 FT MOUNT HEIGHT
14	W5-52R(2S)	II	--	12	x	36	3.000	--	--	1	--	--	--	SHEET 10 - 4 FT MOUNT HEIGHT
15	W5-52R(2S)	II	--	12	x	36	3.000	--	--	1	--	--	--	SHEET 11 - 4 FT MOUNT HEIGHT
16	W5-52L(2S)	II	--	12	x	36	3.000	--	--	1	--	--	--	SHEET 11 - 4 FT MOUNT HEIGHT
17	R2-1	II	--	--	x	--	--	--	1	--	1	1	--	SHEET 12
18	W5-56	II	--	--	x	--	--	--	1	--	1	1	--	SHEET 14
19	W1-7	II	--	--	x	--	--	--	--	--	--	1	18	SHEET 14
20	W5-52L	II	--	--	x	--	--	--	1	1	--	1	--	SHEET 15
21	W54-57	II	--	--	x	--	--	--	1	1	--	--	--	SHEET 15
22	W5-52R	II	--	--	x	--	--	--	1	1	--	--	--	SHEET 15
23	W5-52R	II	--	--	x	--	--	--	1	1	--	1	--	SHEET 15
24	W5-52L	II	--	--	x	--	--	--	1	1	--	1	--	SHEET 15
25	R2-1	II	--	--	x	--	--	--	1	--	1	1	--	SHEET 16
--	--	--	--	--	x	--	--	--	--	--	--	--	--	--
--	--	--	--	--	x	--	--	--	--	--	--	--	--	--
	TOTALS						24.000	1	11	15	3	13		

SHEET 1 OF 1



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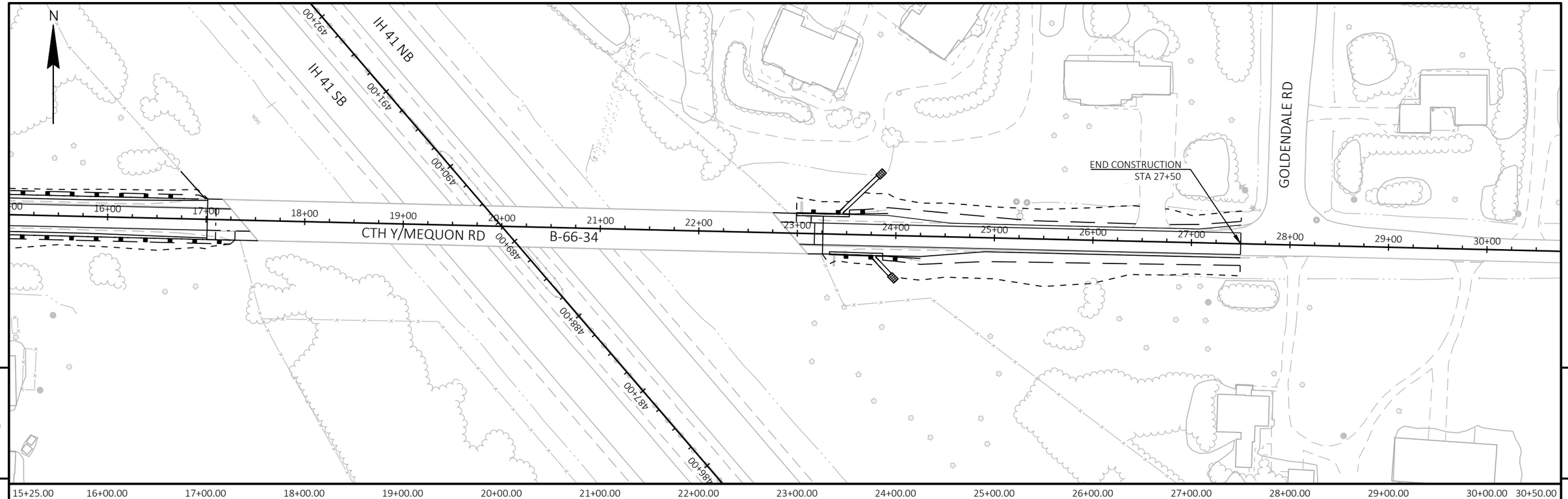
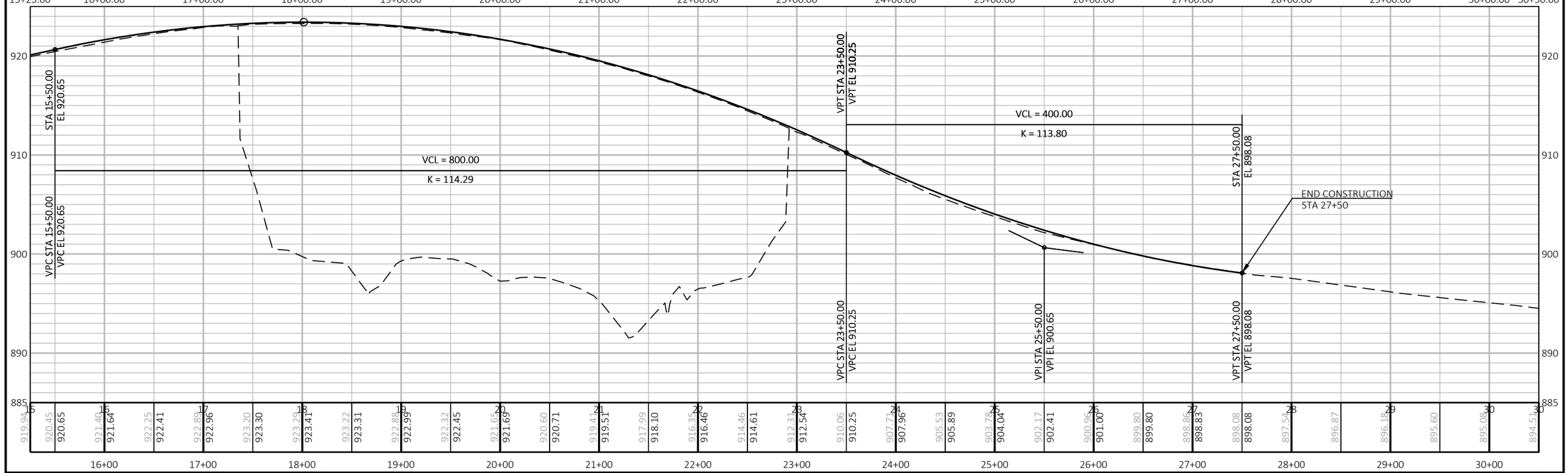
LAYOUT NAME - 050101-pp

PLOT DATE : 8/7/2020 6:35 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44





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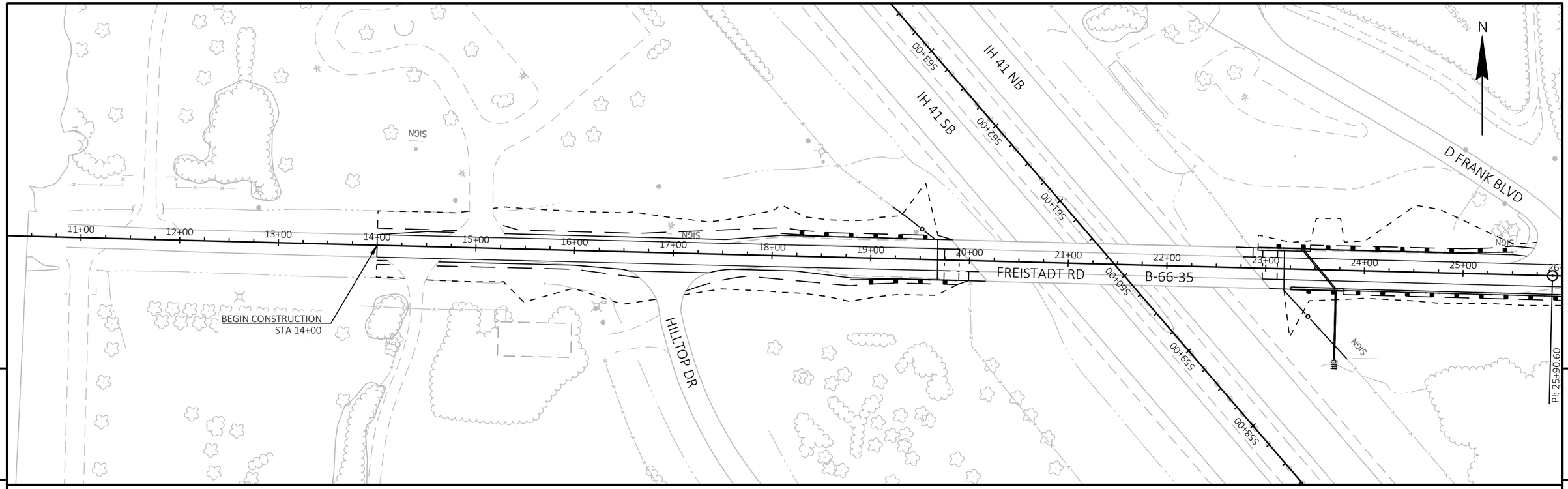
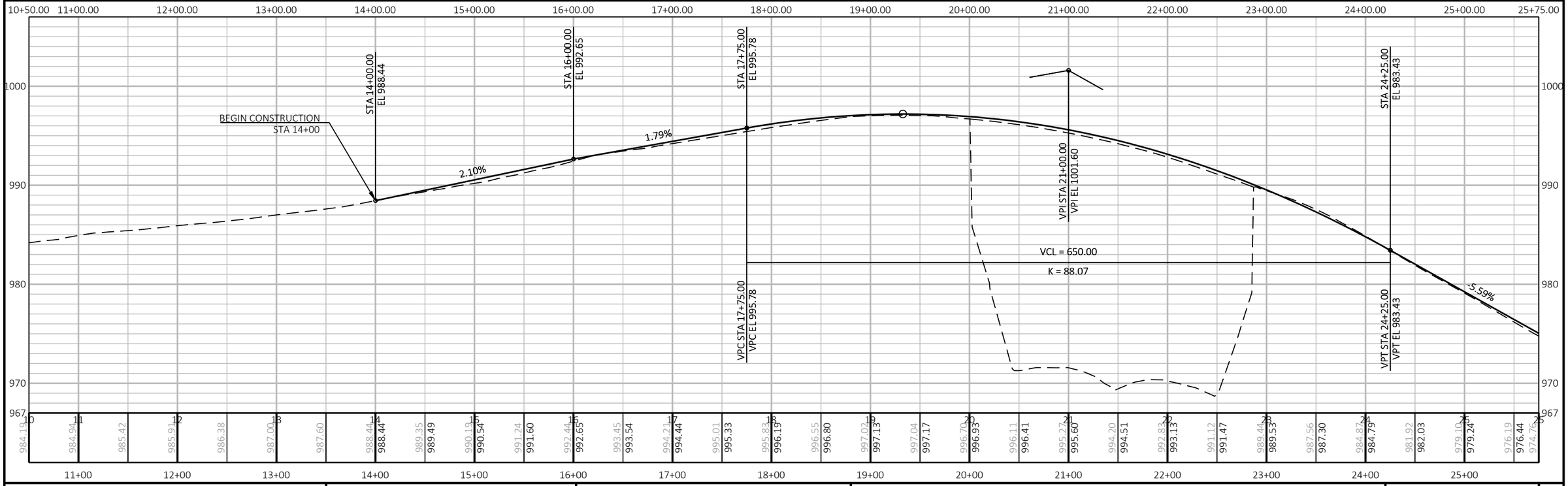
LAYOUT NAME - 050102-pp

PLOT DATE : 8/7/2020 6:39 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

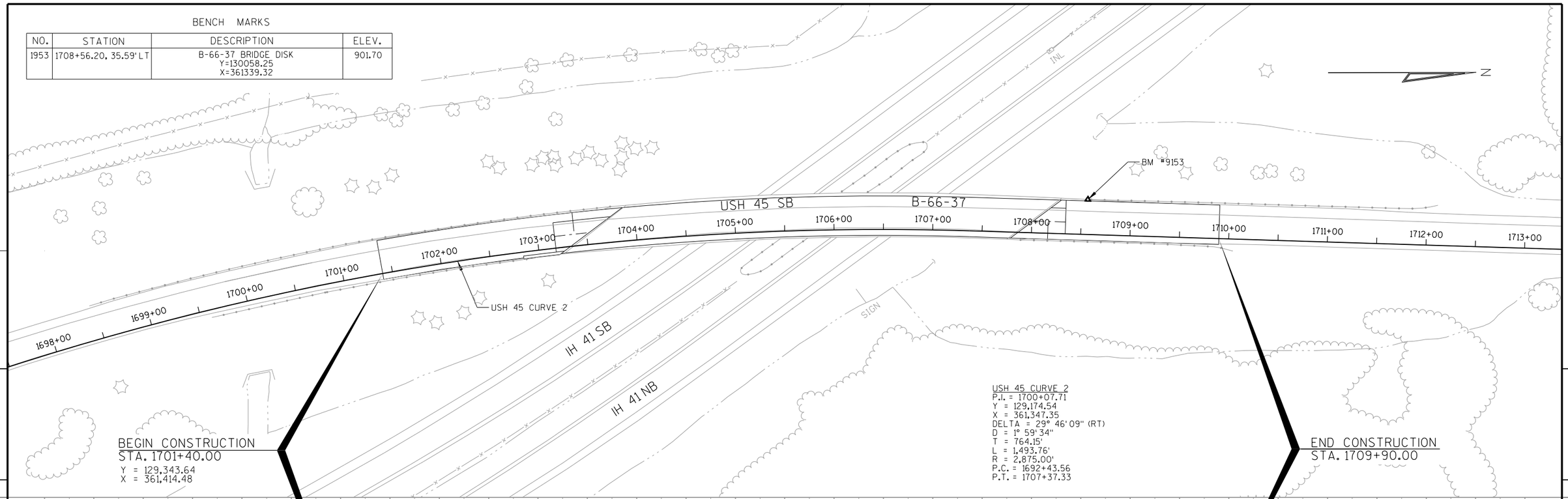




PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN & PROFILE: B-66-35, FREISTADT RD	SHEET 266	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1953	1708+56.20, 35.59' LT	B-66-37 BRIDGE DISK Y=130058.25 X=361339.32	901.70



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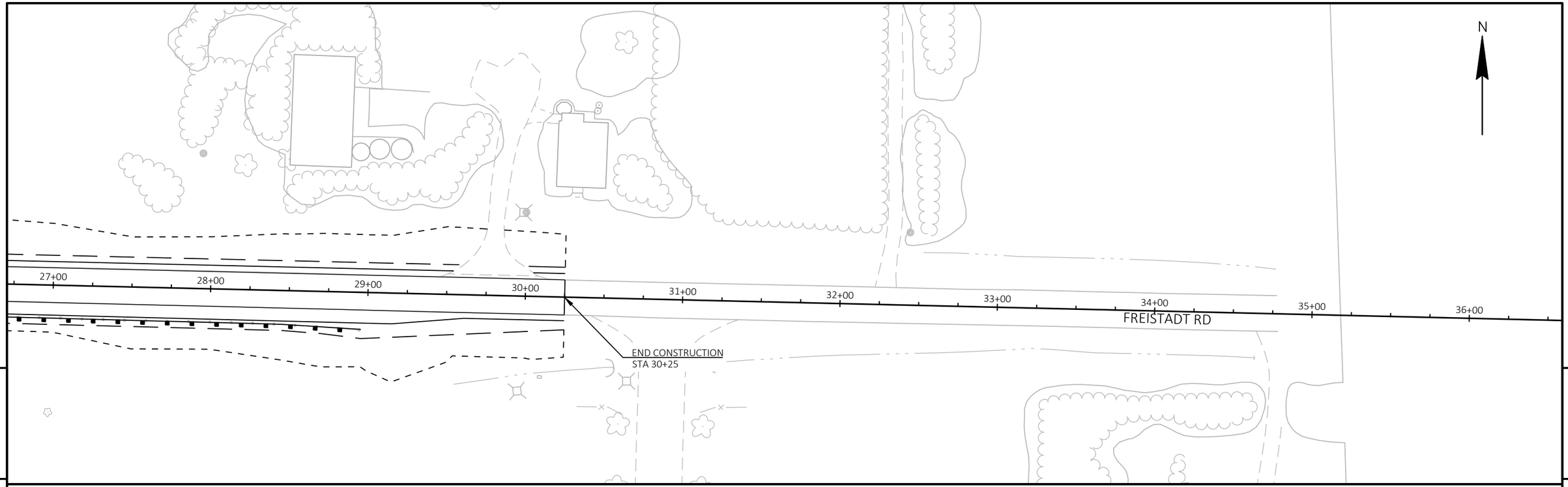

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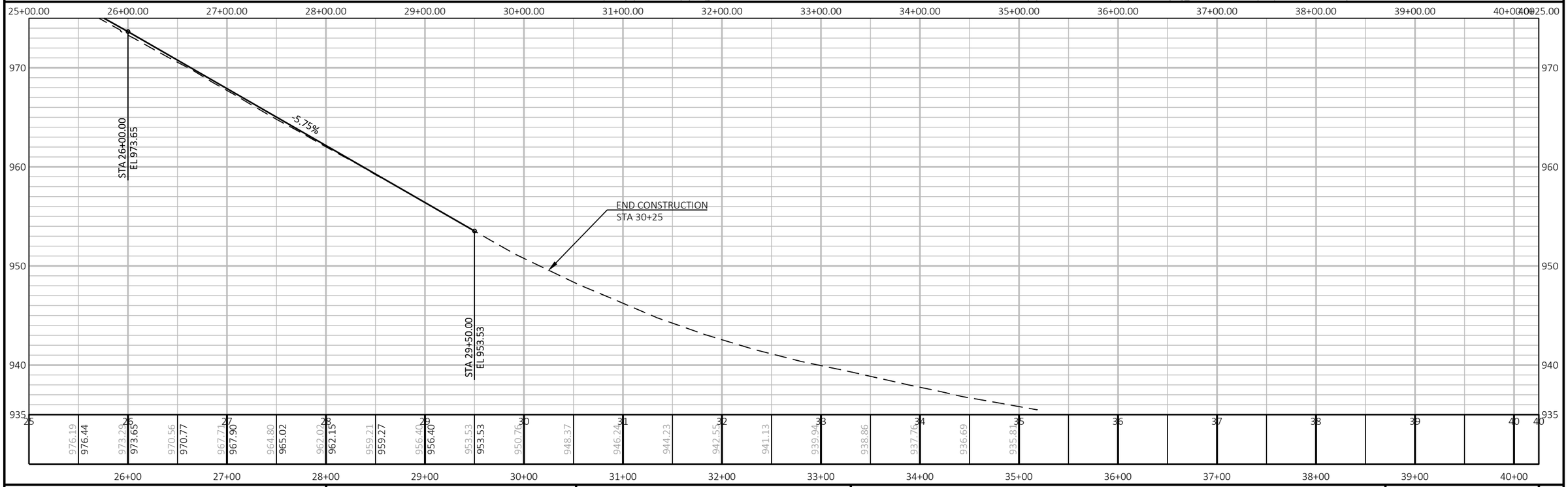
5



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	PLAN & PROFILE: B-66-35, FREISTADT RD	SHEET 268	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 050104-pp

PLOT DATE : 8/7/2020 6:47 AM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:100 FT

Standard Detail Drawing List

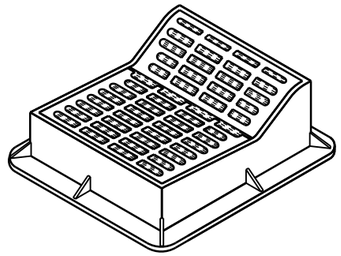
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-07A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-07B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-07C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D03-08A	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08D03-08B	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08D04-06	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
12A03-10	NAME PLATE (STRUCTURES)
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13B02-09B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C18-07A	CONCRETE PAVEMENT JOINTING
13C18-07B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-07C	CONCRETE PAVEMENT JOINT TYPES
13C18-07D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
13C18-07F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
13C19-03	HMA LONGITUDINAL JOINTS
14B07-16A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16J	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16K	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16L	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16M	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-11B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B20-11C	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS
14B20-11D	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS
14B20-11E	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"
14B20-11F	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"
14B20-11G	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL
14B20-11H	STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT
14B26-04A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04F	STEEL THRIE BEAM BULLNOSE TERMINAL

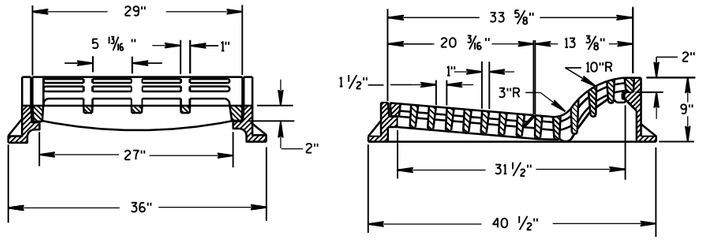
6

Standard Detail Drawing List

14B26-04G	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04H	STEEL THRIE BEAM BULLNOSE TERMINAL
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM 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)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-08D	ON RAMP LANE CLOSURE
15C02-08E	OFF RAMP LANE CLOSURE
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-21A	LONGITUDINAL MARKING (MAINLINE)
15C08-21B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-21C	PAVEMENT MARKING (TURN LANES)
15C08-21D	PAVEMENT MARKING (TURN LANES)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-06A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15C18-06B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C18-06C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C19-07A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-07B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C19-07C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C20-02	YIELD MARKING
15C31-04A	PAVEMENT MARKING EXIT RAMP AND PARALLEL EXIT RAMP
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-10A	TRAFFIC CONTROL, LANE CLOSURE
15D12-10D	TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM
15D14-04	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D15-06A	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-06B	TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-06C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-06D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-06E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D16-05	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-06A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D20-06B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D40-04A	TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
15D40-04B	TRAFFIC CONTROL, FULL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER
15D40-04C	TRAFFIC CONTROL, PARTIAL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
15D40-04D	TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER
15D41-02	TRAFFIC CONTROL, MULTIPLE LANE SHIFT, MULTILANE DIVIDED ROAD
15D42-01	TRAFFIC CONTROL, TWO LANE FULL FREEWAY CLOSURE
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

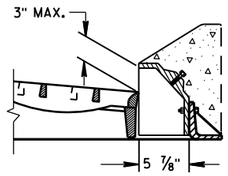
6





TYPE "F"

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



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

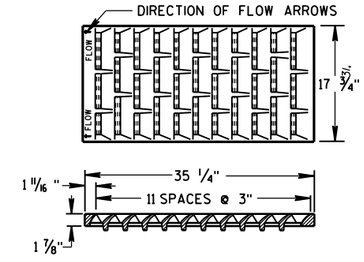
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

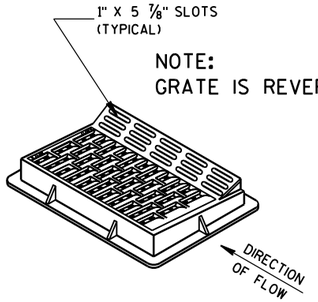
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

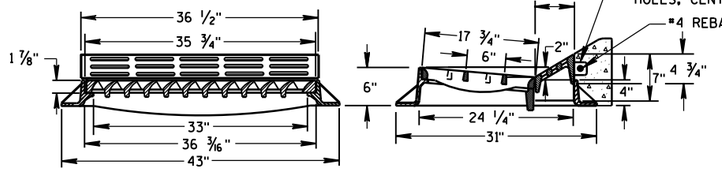
GENERAL NOTES

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

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



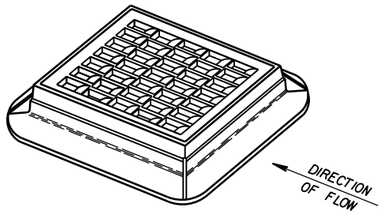


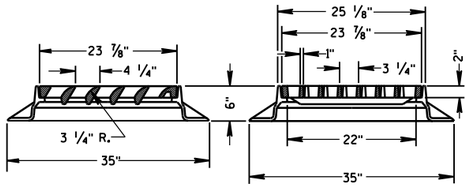


TYPE "HM"

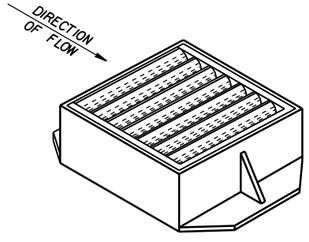
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

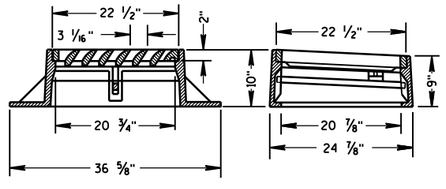
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



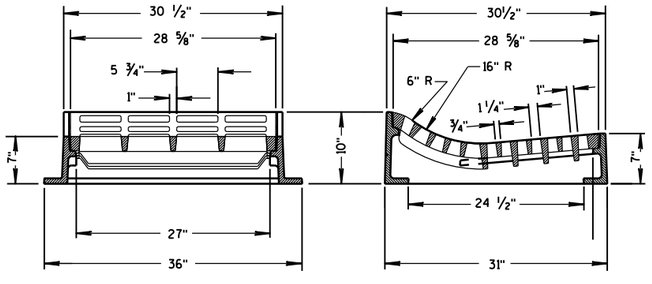


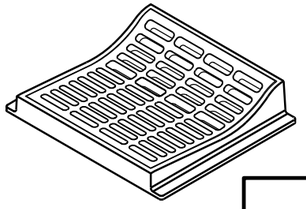
TYPE "S"





TYPE "V"





TYPE "T"

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

271

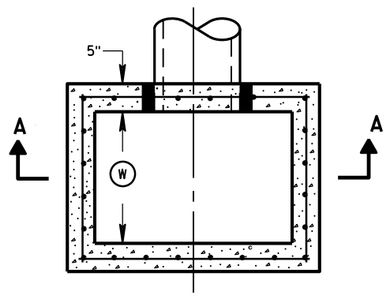
FHWA

6

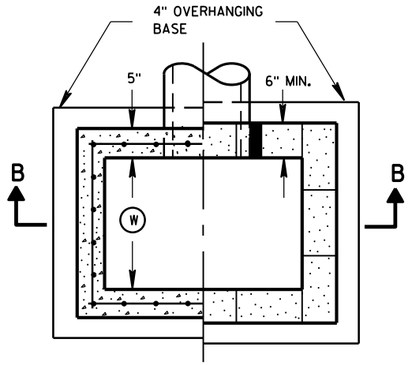
S.D.D. 8 A 5-19c

6

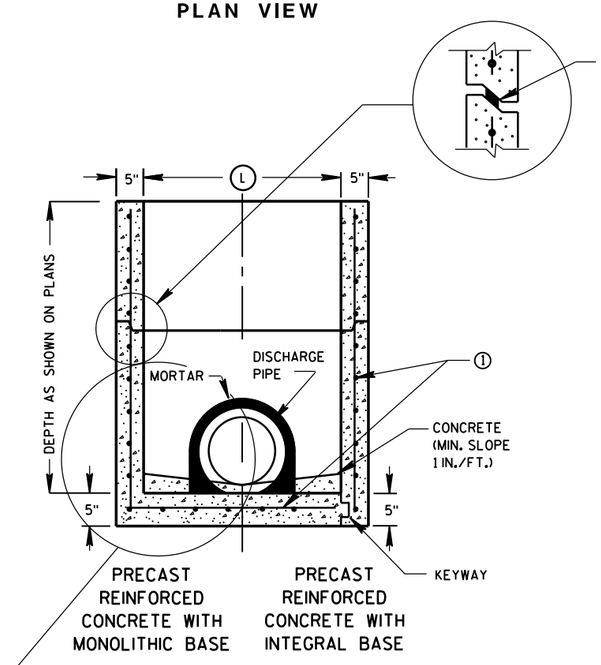
S.D.D. 8 A 5-19c



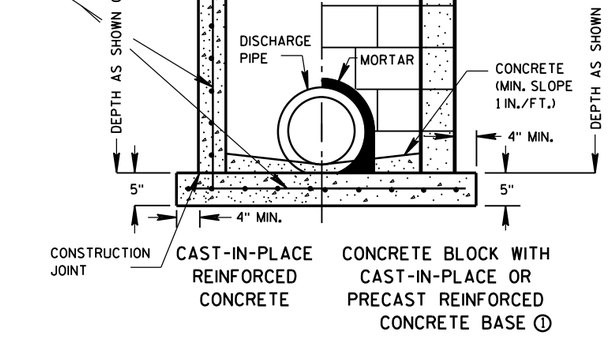
PLAN VIEW



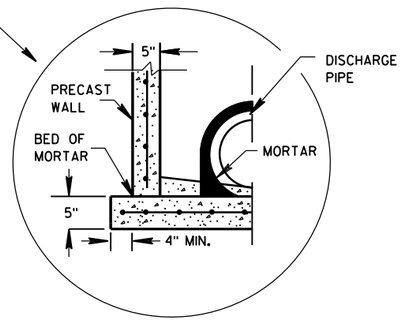
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

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

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

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

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

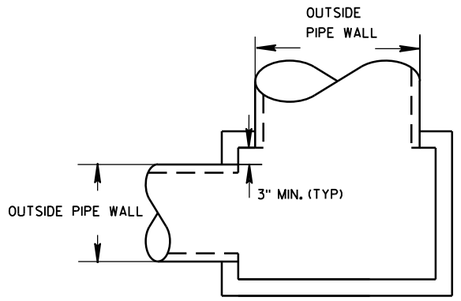
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D IT
UNIT SUPERVIS
FHWA

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

6

S.D.D. 8 C 7-2

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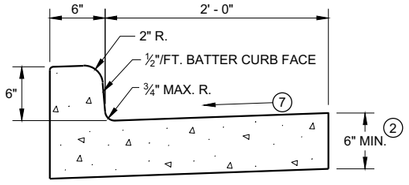
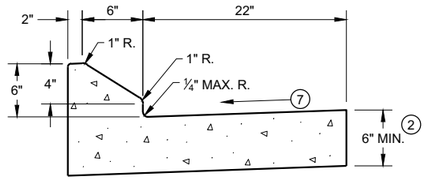
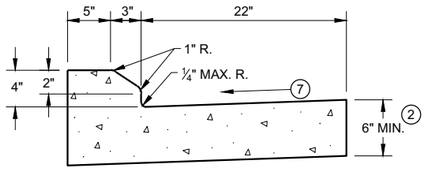
S.D.D. 8 C 7-2



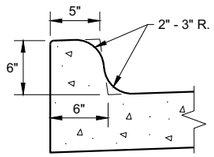
TYPES A (1) & D



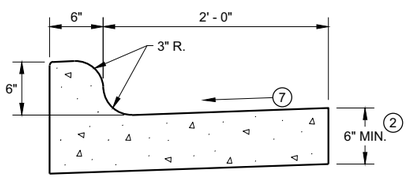
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

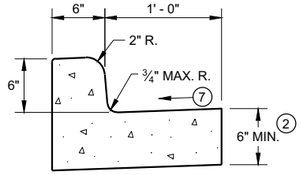


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



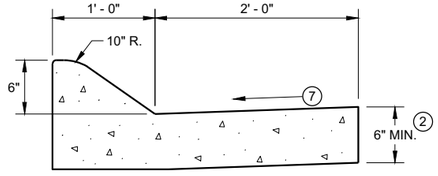
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"



TYPES A (1) & D

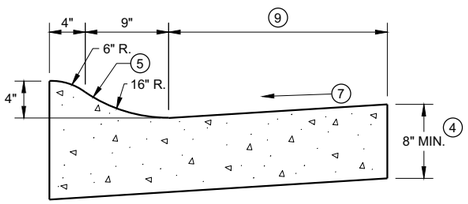
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

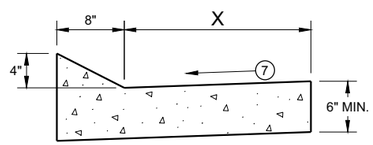
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

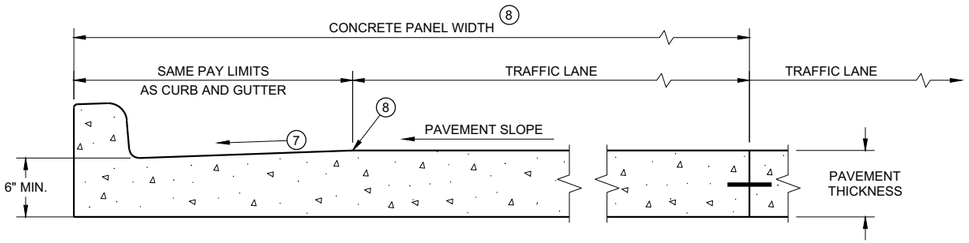


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

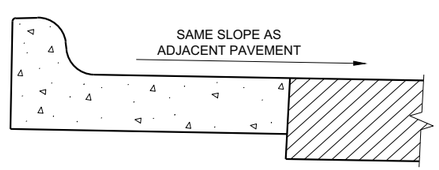
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

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

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

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

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

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

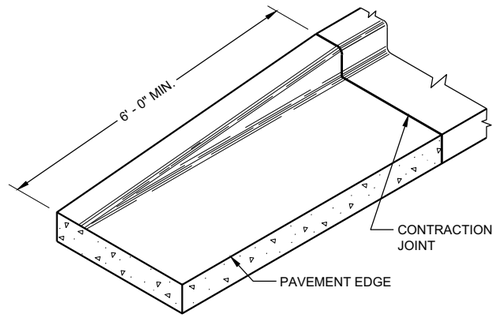
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

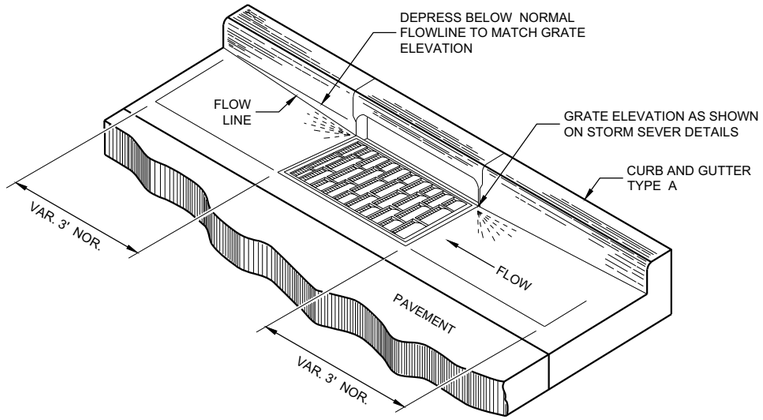
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 22a



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.

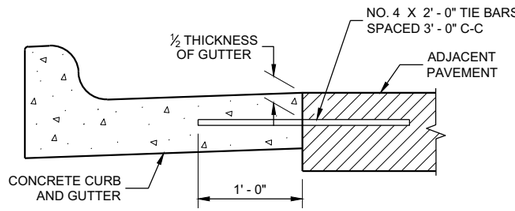
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

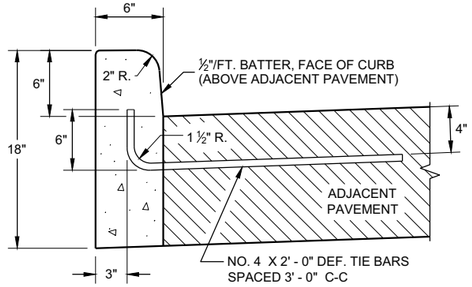
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(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.

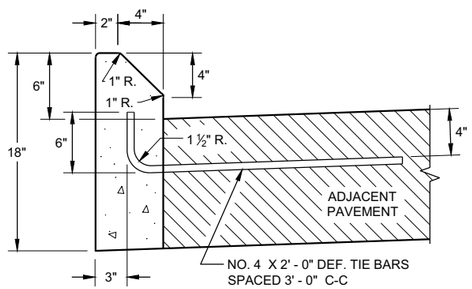
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

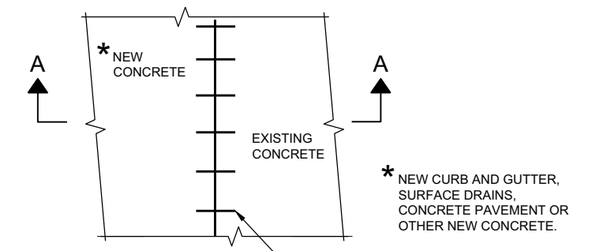


TYPES A (1) & D

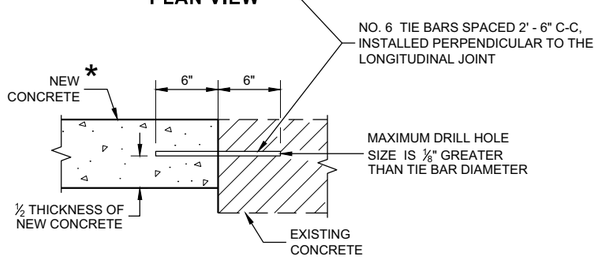


TYPES G (1) & J

CONCRETE CURB

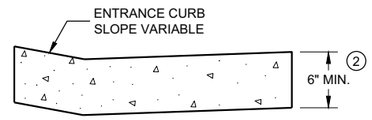


PLAN VIEW



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

GENERAL NOTES

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

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

(1) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

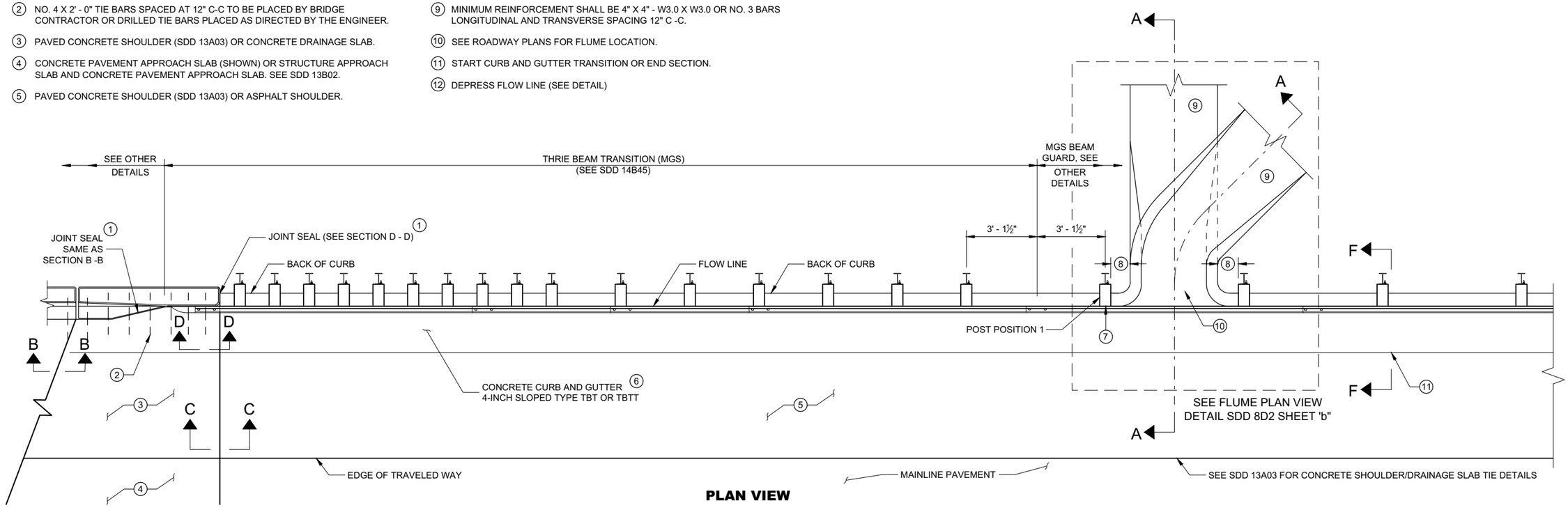
(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

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

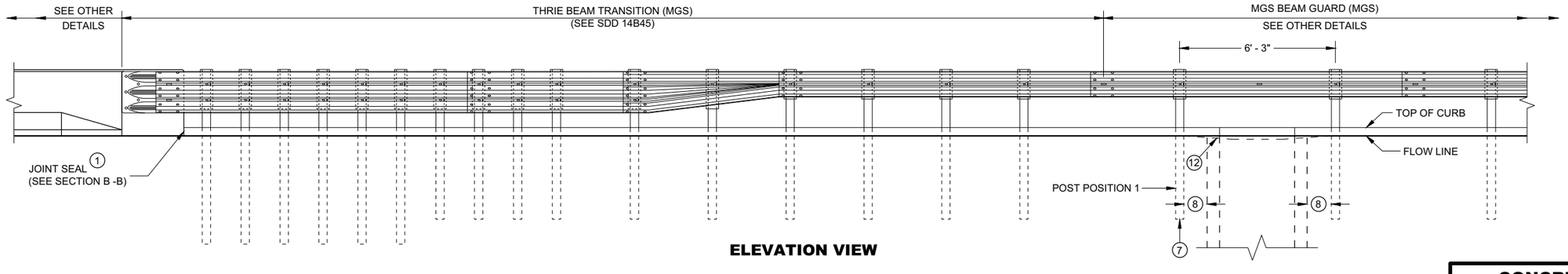
(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)



PLAN VIEW



ELEVATION VIEW

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

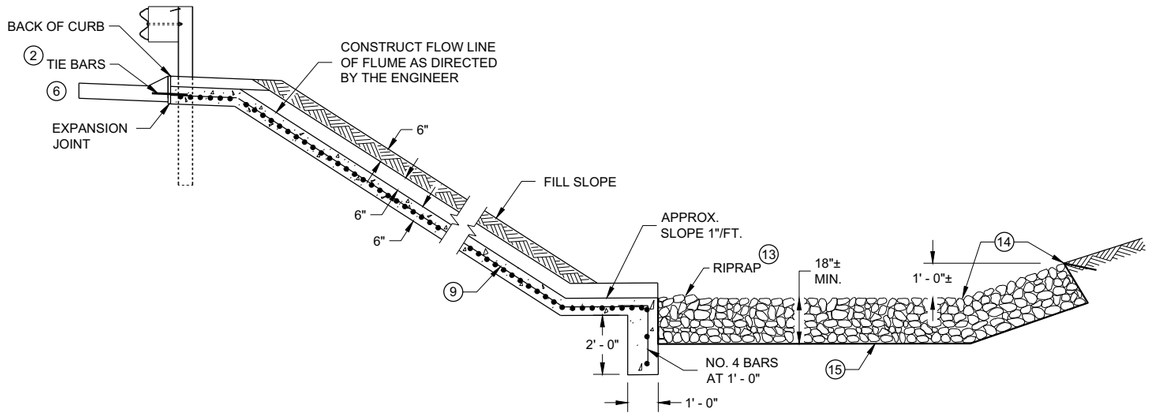
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

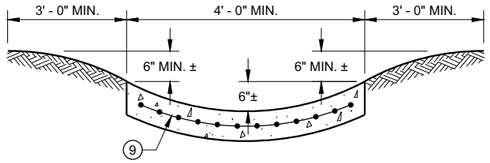
SDD 08D02 - 07a

6

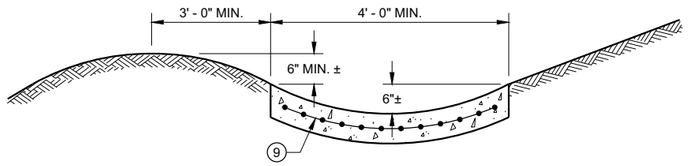
SDD 08D02 - 07a



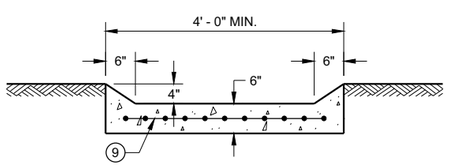
SECTION A - A



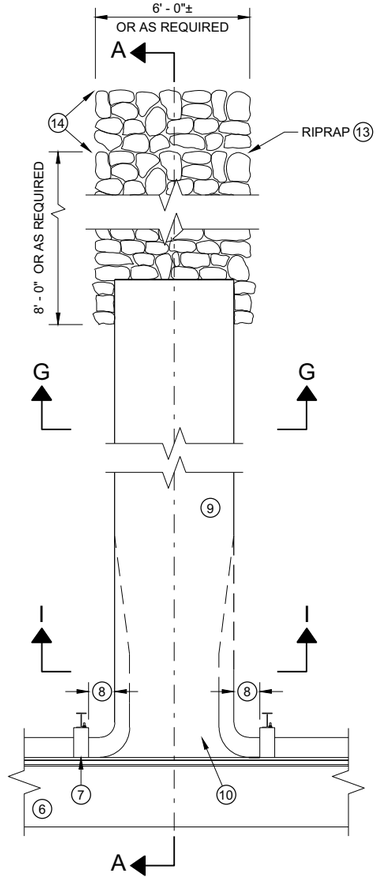
SECTION G - G



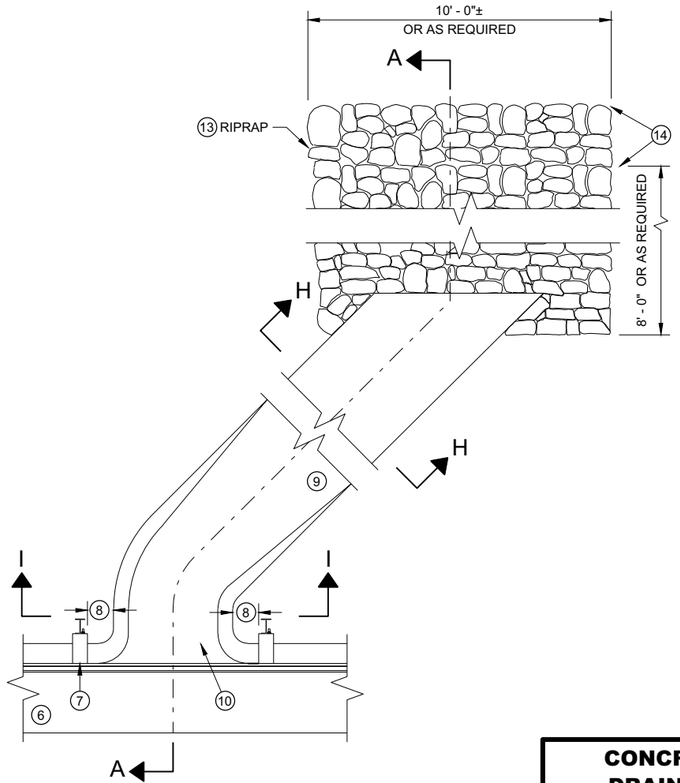
SECTION H - H



SECTION I - I



PLAN VIEW PERPENDICULAR FLUME



PLAN VIEW SKEWED FLUME

GENERAL NOTES

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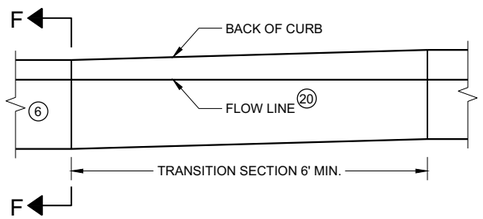
4. CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
5. PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
6. CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
7. PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
8. CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
9. MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.
10. SEE ROADWAY PLANS FOR FLUME LOCATION.
11. START CURB AND GUTTER TRANSITION OR END SECTION.
12. DEPRESS FLOW LINE (SEE DETAIL)
13. MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
14. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED.
15. GEOTEXTILE FABRIC TYPE HR.

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

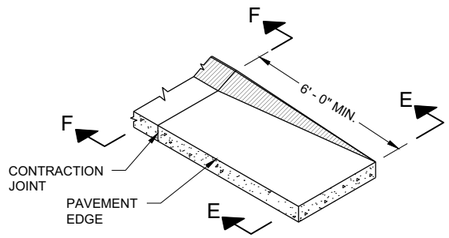
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

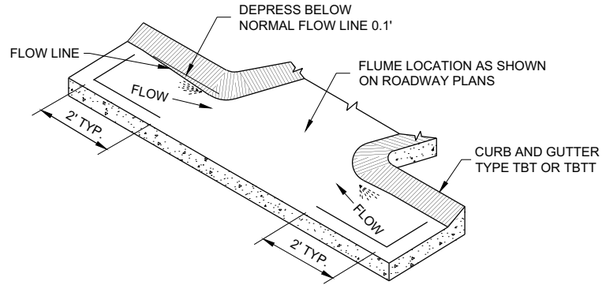
SDD 08D02 - 07b
SDD 08D02 - 07b



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



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



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

GENERAL NOTES

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(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

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(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)

(13) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(14) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(15) GEOTEXTILE FABRIC TYPE HR.

(16) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.

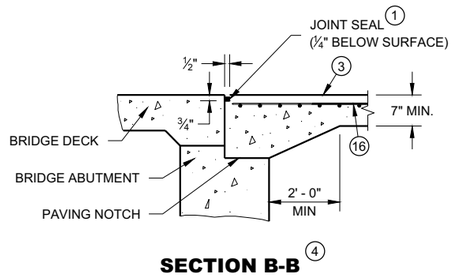
(17) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

(18) MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.

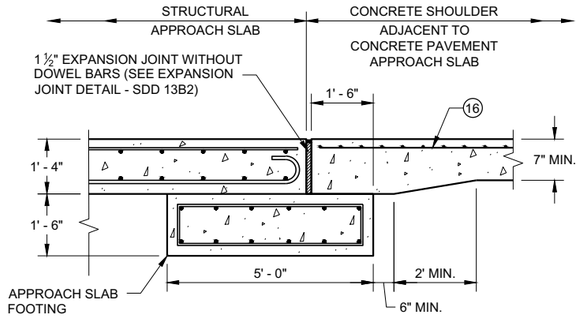
(19) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

(20) MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.

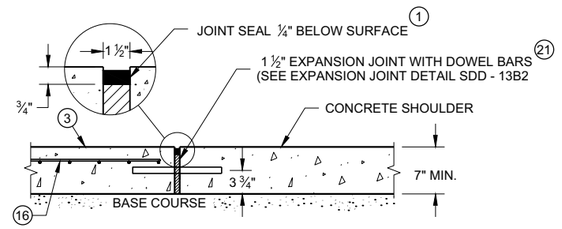
(21) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



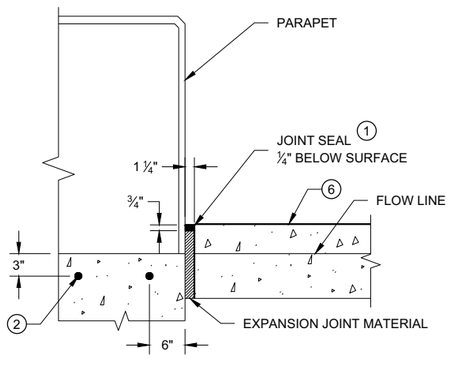
SECTION B-B (4)



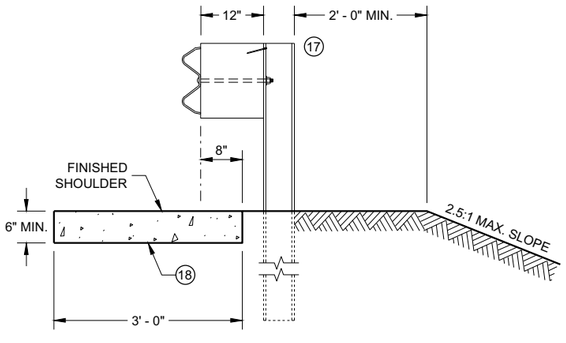
SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



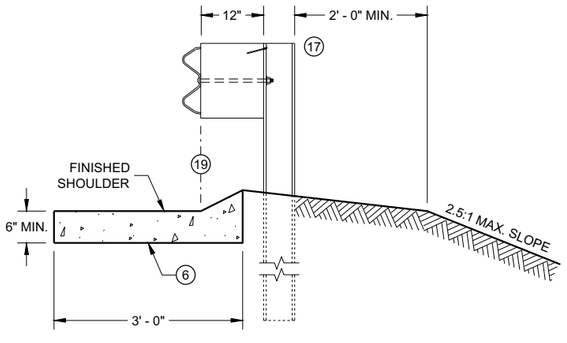
SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



SECTION D - D



SECTION E - E



SECTION F - F

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

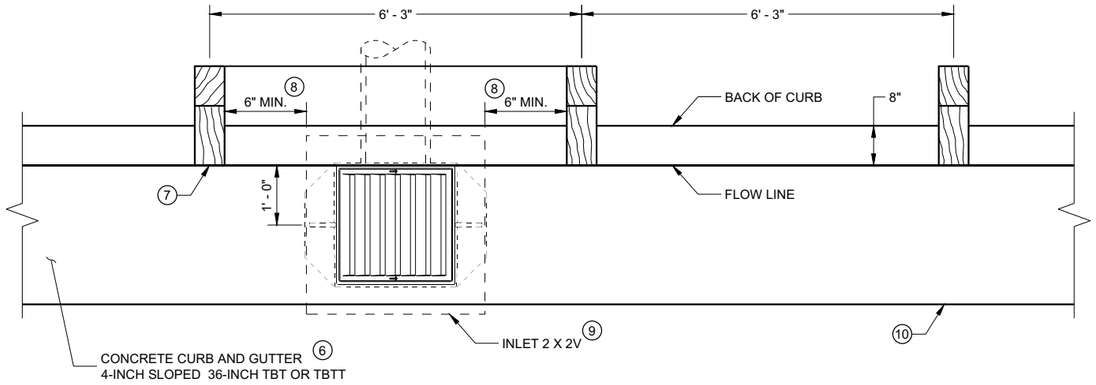
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

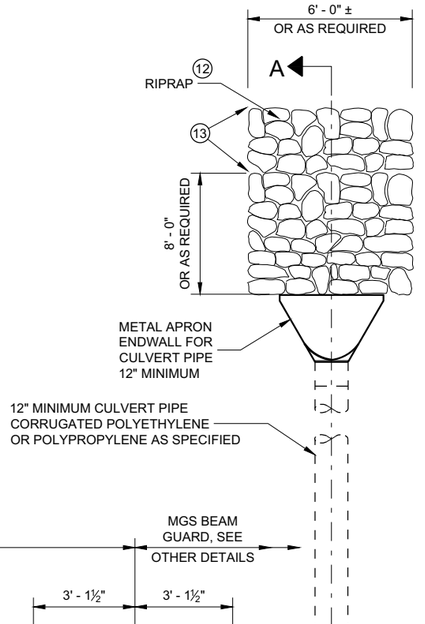
SDD 08D02 - 07c

SDD 08D02 - 07c



INLET PLAN VIEW

(NOTE: RAIL NOT SHOWN FOR CLARITY)



GENERAL NOTES

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(7) PLACE DRAINAGE STRUCTURE BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

(8) CENTER DRAINAGE STRUCTURE BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE WALL OF DRAINAGE STRUCTURE TO POSTS.

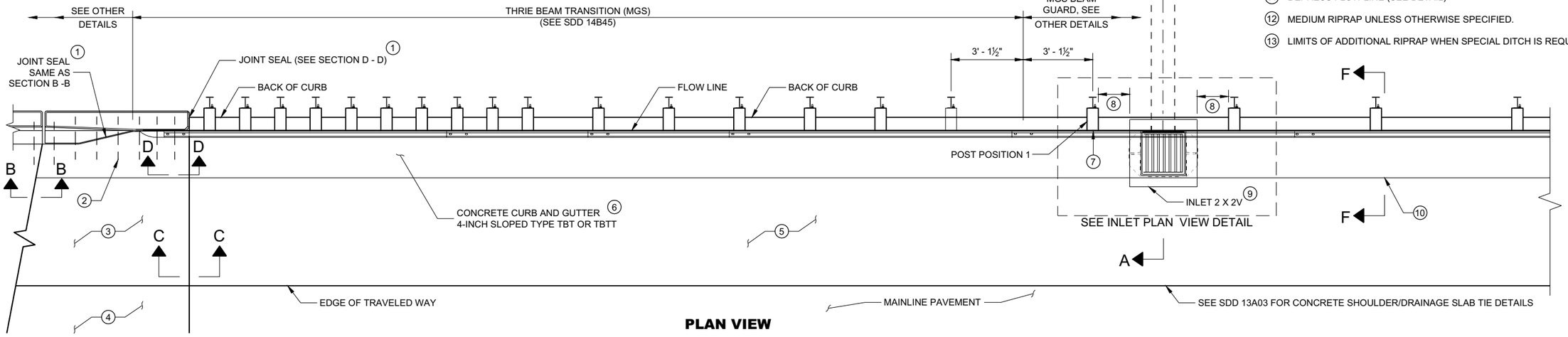
(9) SEE SDD 08A05 AND 08C07 FOR DETAILS. SEE ROADWAY PLANS FOR LOCATION.

(10) START CURB AND GUTTER TRANSITION OR END SECTION.

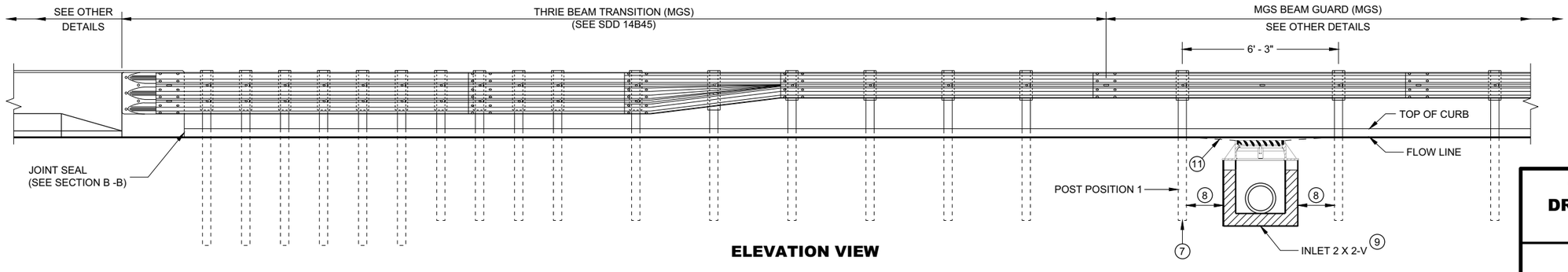
(11) DEPRESS FLOW LINE (SEE DETAIL)

(12) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(13) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.



PLAN VIEW



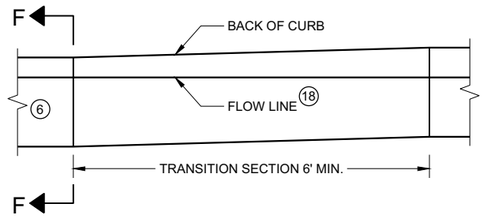
ELEVATION VIEW

CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES

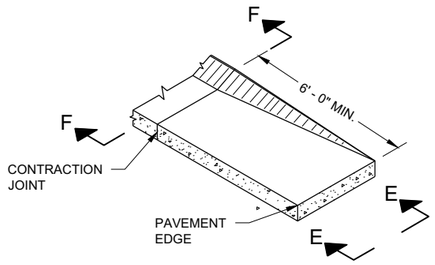
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D03 - 08a

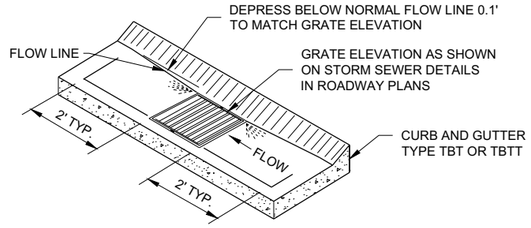
SDD 08D03 - 08a



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



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



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

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(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE DRAINAGE STRUCTURE BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

(8) CENTER DRAINAGE STRUCTURE BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE WALL OF DRAINAGE STRUCTURE TO POSTS.

(9) SEE SDD 08A05 AND 08C07 FOR DETAILS. SEE ROADWAY PLANS FOR LOCATION.

(10) START CURB AND GUTTER TRANSITION OR END SECTION.

(11) DEPRESS FLOW LINE (SEE DETAIL)

(12) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(13) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(14) GEOTEXTILE FABRIC TYPE HR.

(15) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

(16) MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.

(17) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

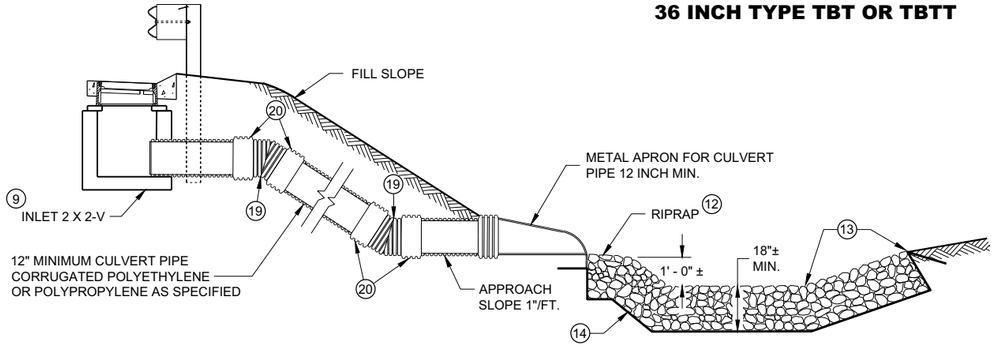
(18) MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.

(19) MANUFACTURER SUPPLIED BEND.

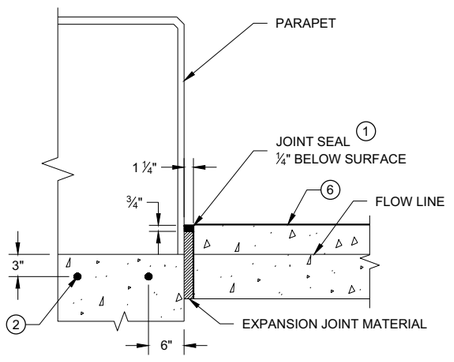
(20) MANUFACTURER SUPPLIED EXTERNAL MECHANICAL COUPLING OR A MANUFACTURER RECOMMENDED COUPLING WITH A MASTIC IMPREGNATED GEOTEXTILE WRAP AND MECHANICAL FASTENING BANDS.

(21) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.

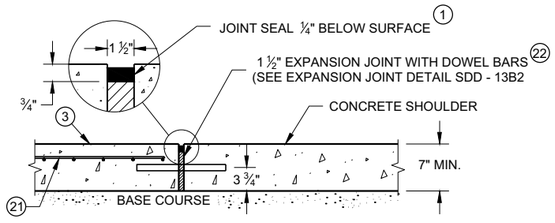
(22) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



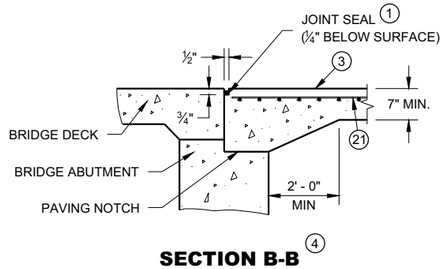
SECTION A - A



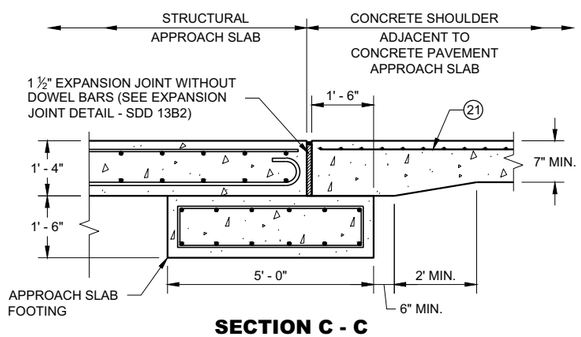
SECTION D - D



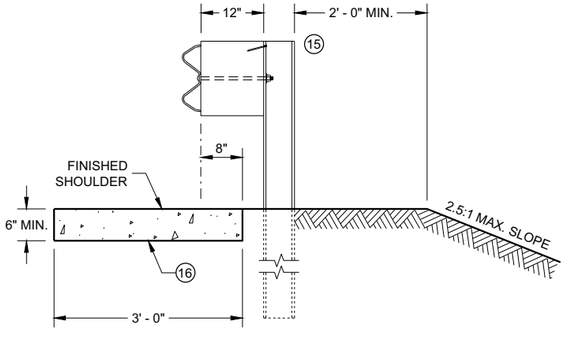
SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



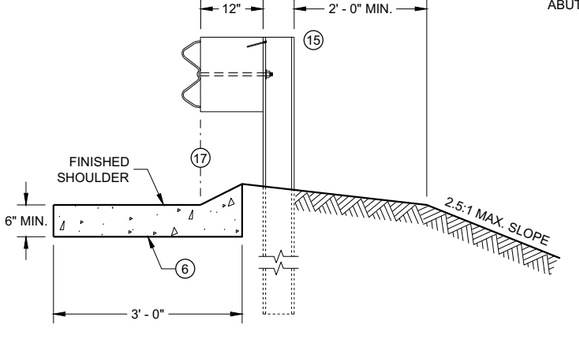
SECTION B-B 4



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



SECTION E - E



SECTION F - F

CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

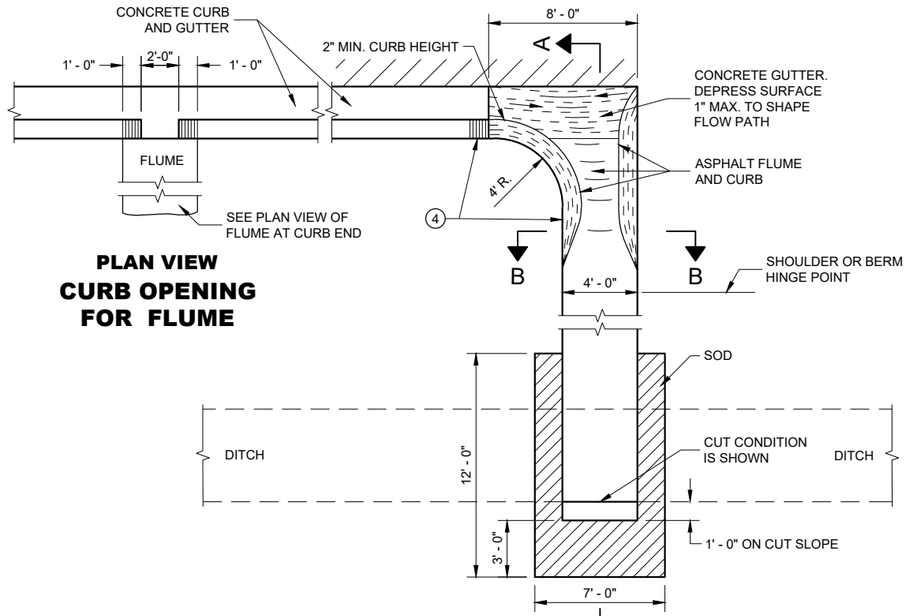
FHWA

6

SDD 08D03 - 08b

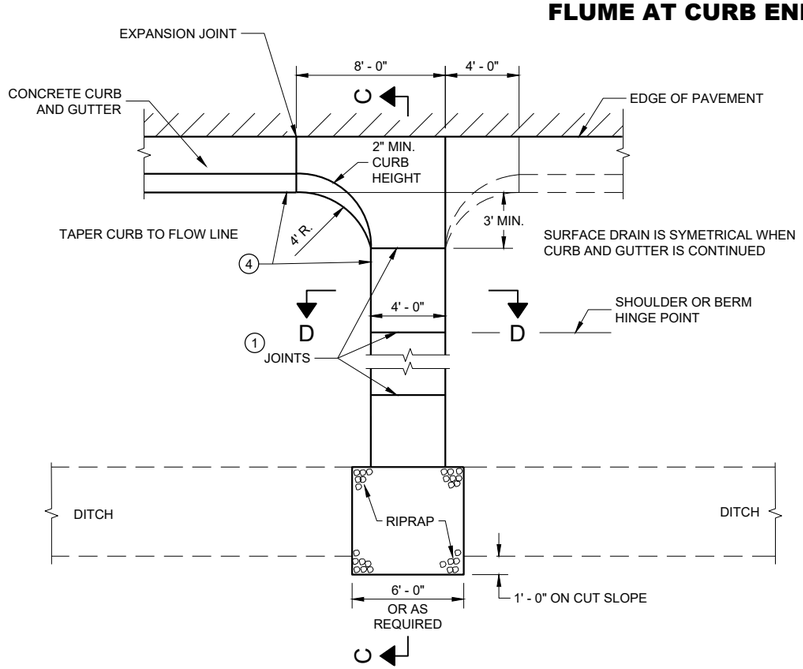
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



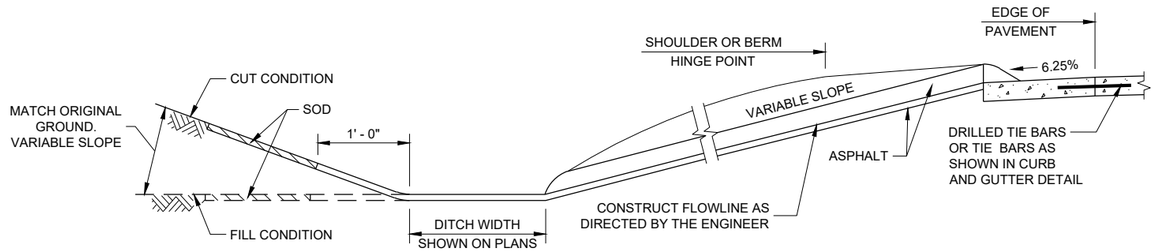
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

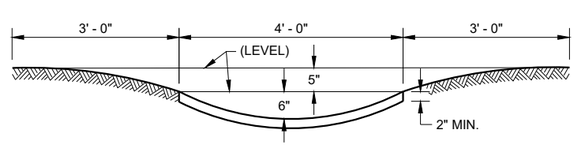
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

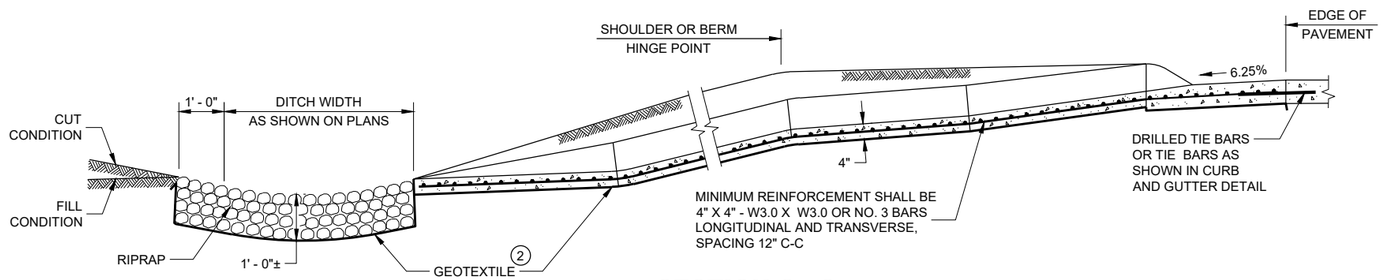
1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. 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.



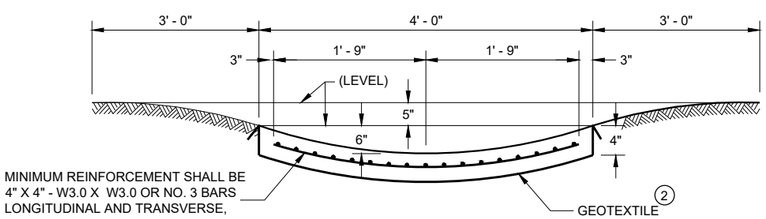
SECTION A - A



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

280

FHWA

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SDD 08D04 - 06

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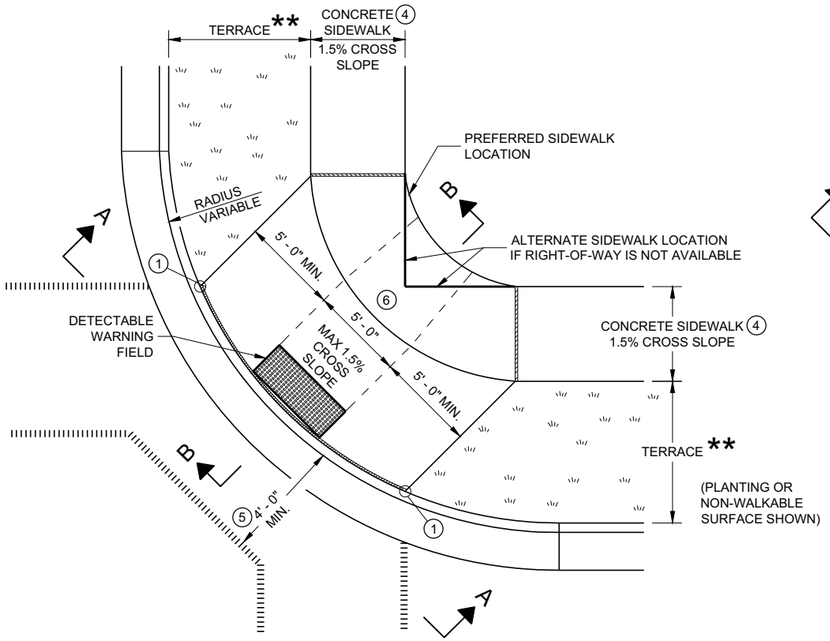
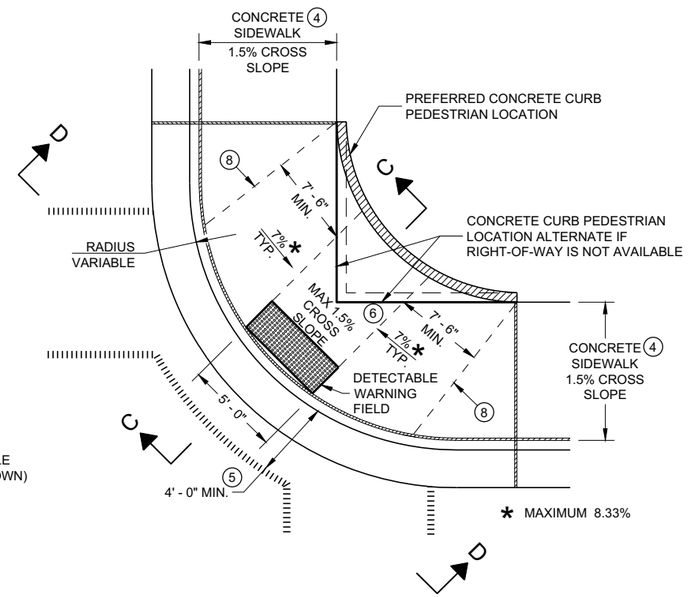
SDD 08D04 - 06



PLAN VIEW

CURB RAMP TYPE 1

(CENTER OF CORNER RADIUS)



PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

GENERAL NOTES

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

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

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

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

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

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

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

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

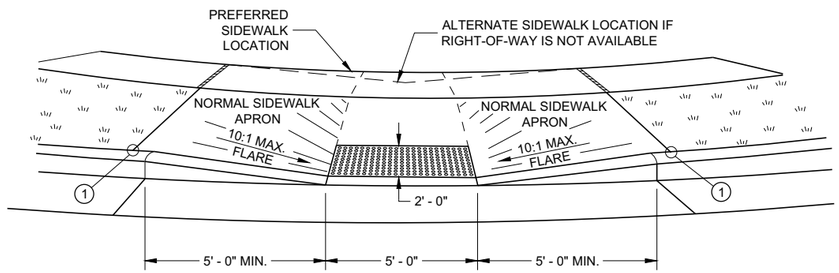
(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

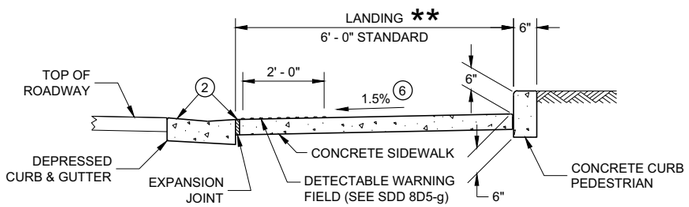
(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



VIEW A - A FOR TYPE 1

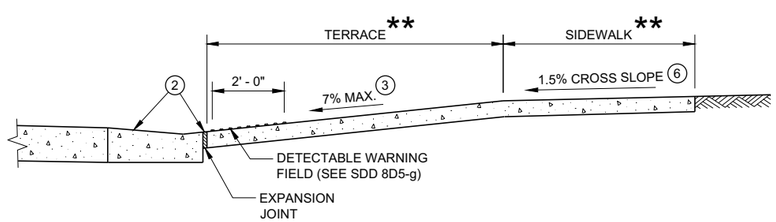


SECTION C - C FOR TYPE 1 - A

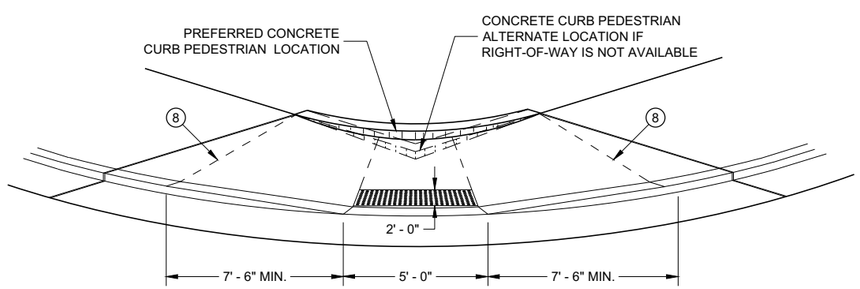
LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



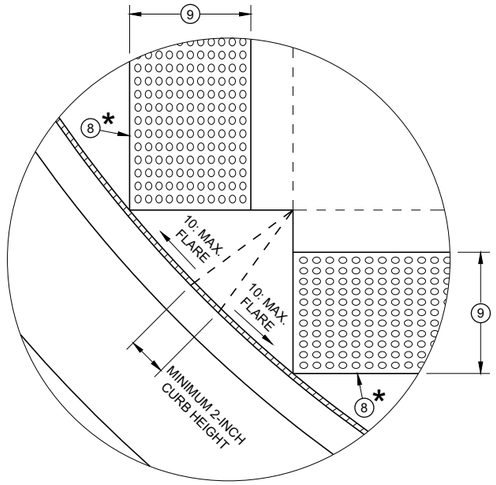
VIEW D - D FOR TYPE 1 - A

CURB RAMPS
TYPE 1 AND 1-A

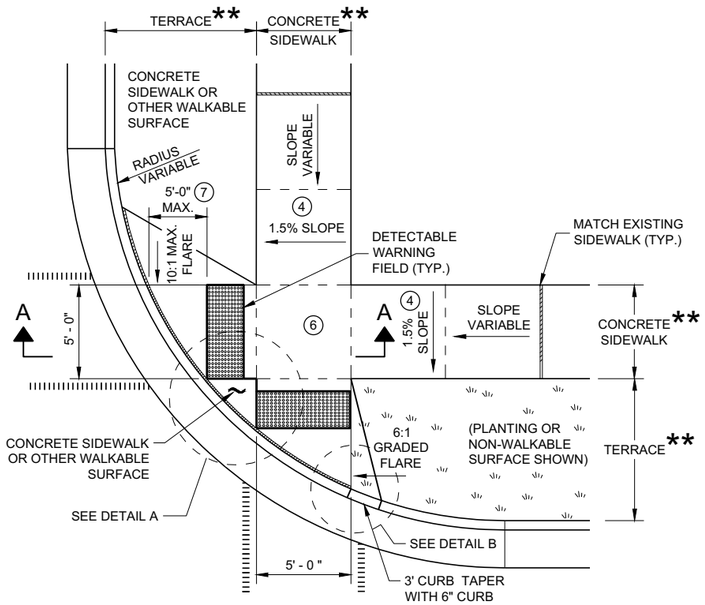
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20a



DETAIL A



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

GENERAL NOTES

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

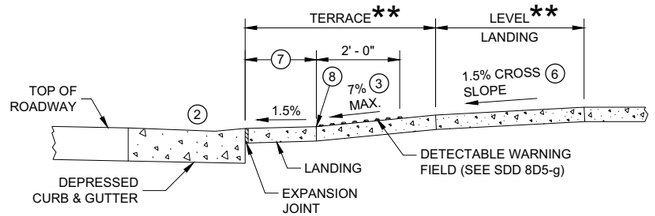
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

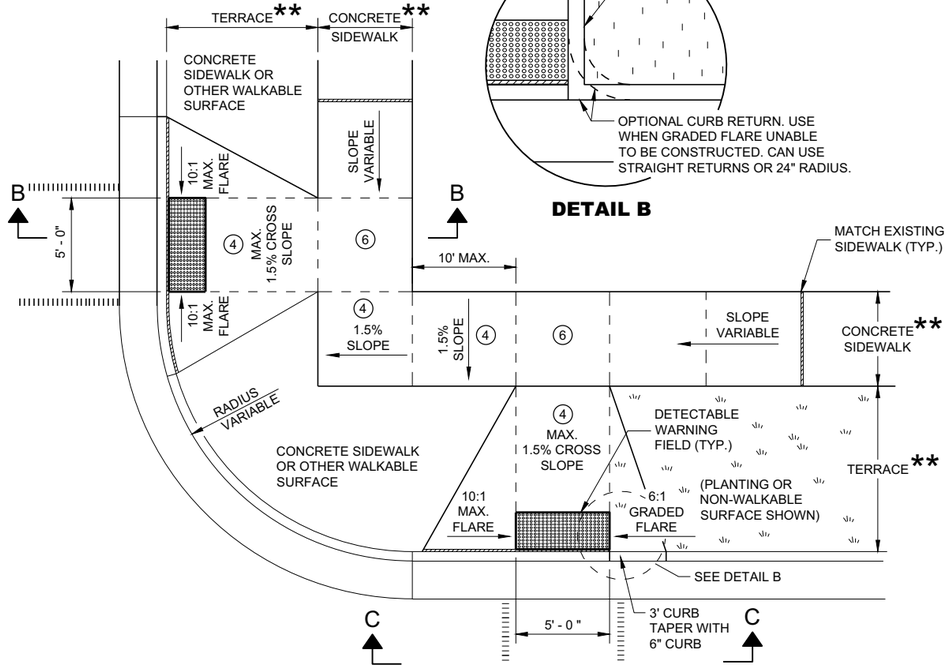
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



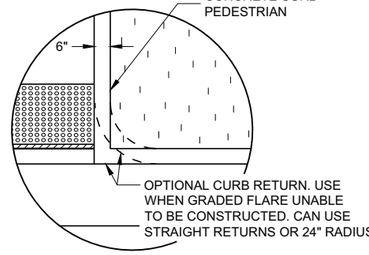
SECTION A - A FOR TYPE 2

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

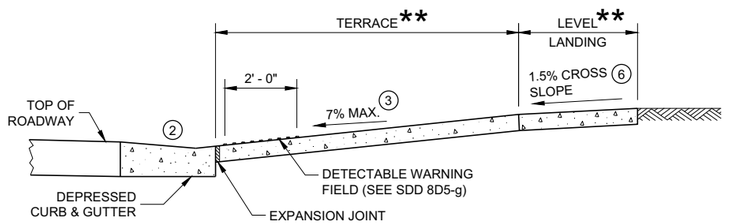
** WIDTH SHOWN ELSEWHERE IN THE PLANS



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



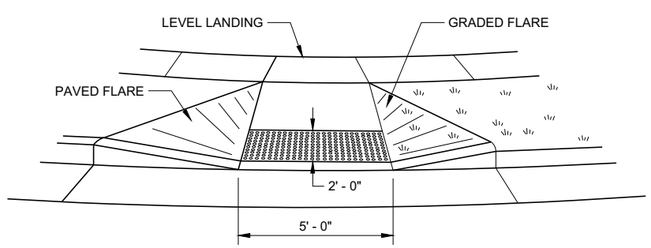
DETAIL B



SECTION B - B FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



VIEW C - C FOR TYPE 3

CURB RAMPS TYPE 2 AND 3

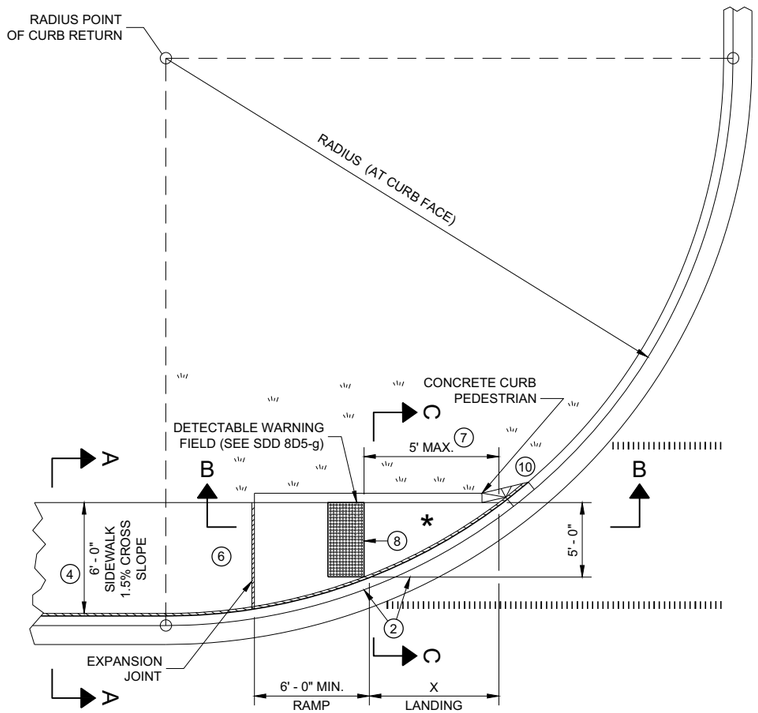
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20b

6

SDD 08D05 - 20b

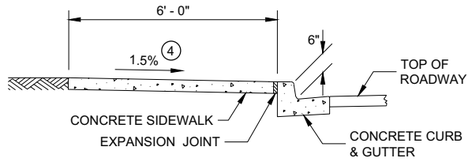


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

GENERAL NOTES

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

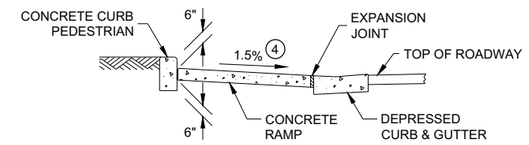
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

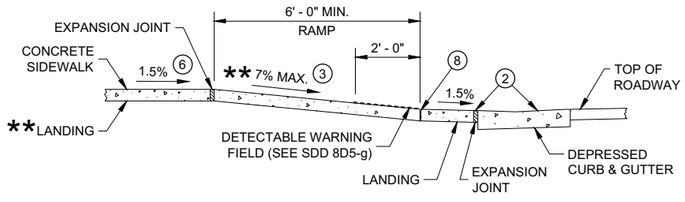
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



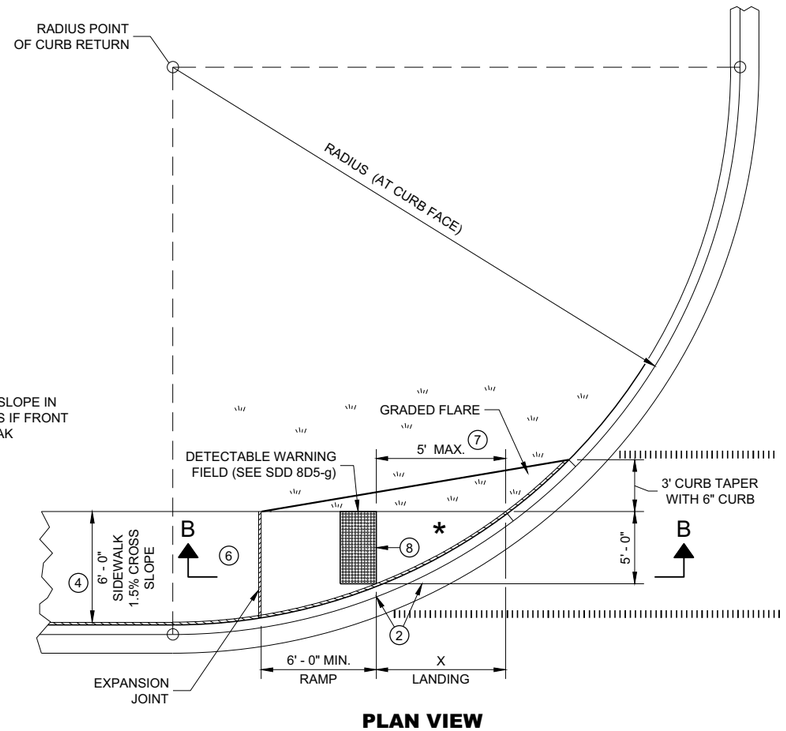
SECTION C - C FOR TYPE 4A



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

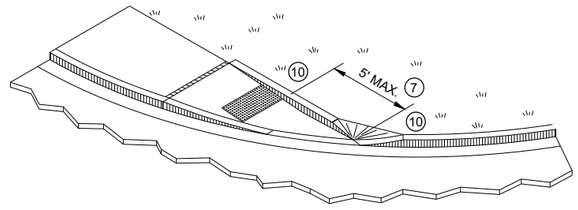
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

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

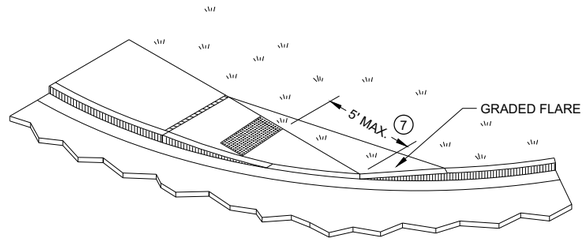


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



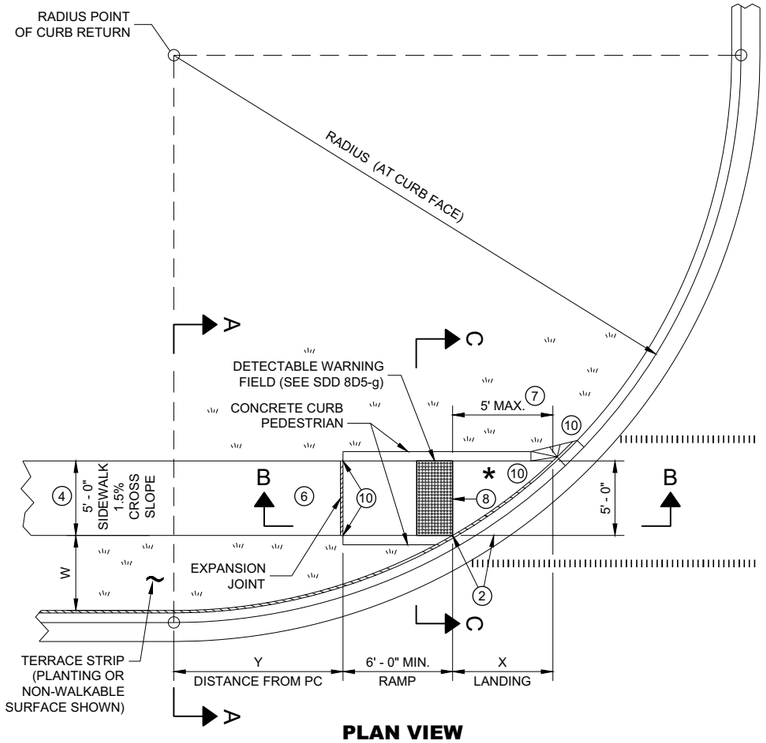
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20c

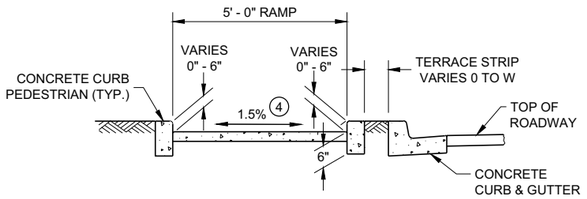


PLAN VIEW

CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET	5' - 9 ¾"	3' - 6 ½"	4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET			6' - 9 ¼"	7' - 11 ¼"	6' - 0 ¼"	9' - 8"	5' - 5"	11' - 1 ¾"	4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET									6' - 1 ¾"	15' - 8 ½"	5' - 8"	17' - 2"	5' - 3"	18' - 5 ¾"	4' - 10 ¾"	19' - 8 ¼"
50 FEET															5' - 10 ¼"	23' - 2"

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



SECTION C - C FOR TYPE 4B

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

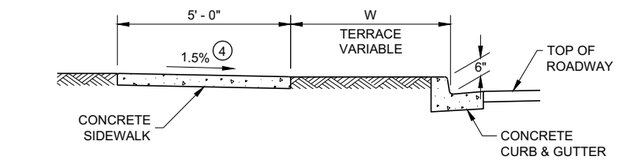
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

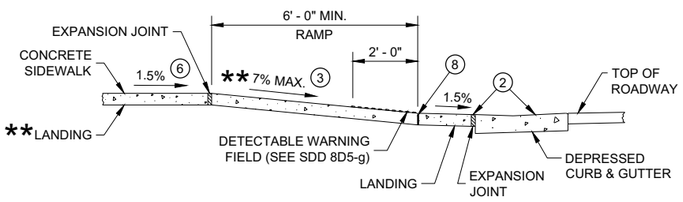
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



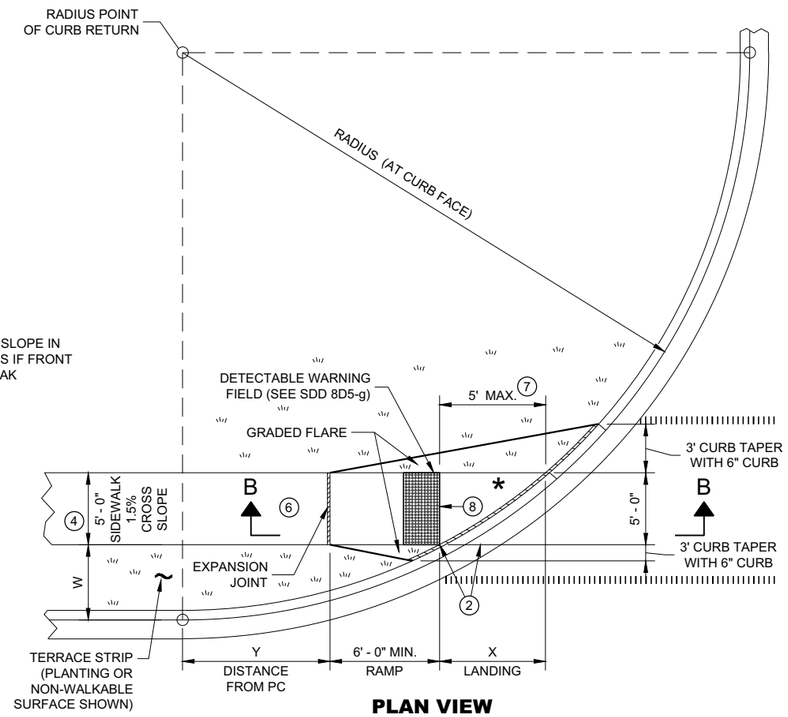
SECTION A - A FOR TYPE 4B



SECTION B - B FOR TYPE 4B AND TYPE 4B1

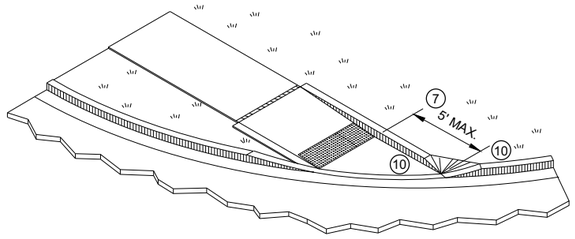
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

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

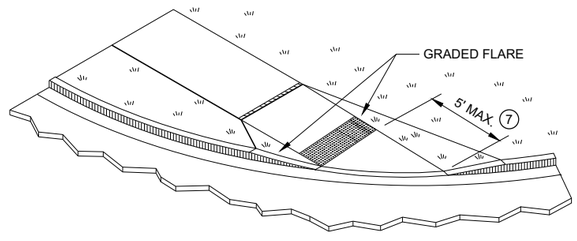


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



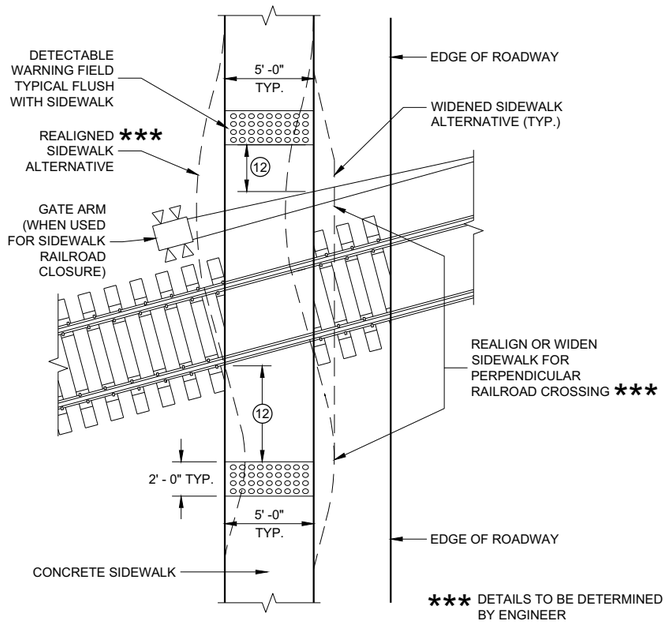
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

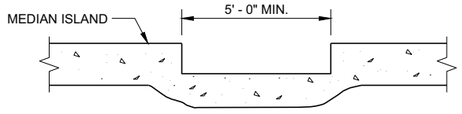
6

SDD 08D05 - 20d

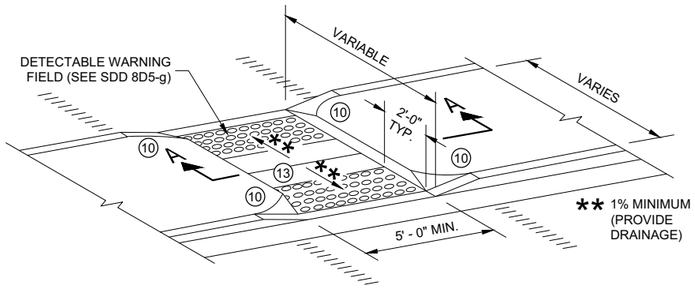


CURB RAMP TYPE 8

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.

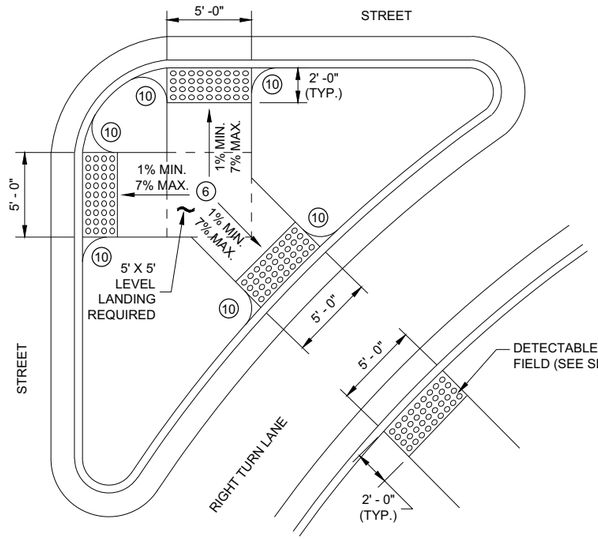
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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

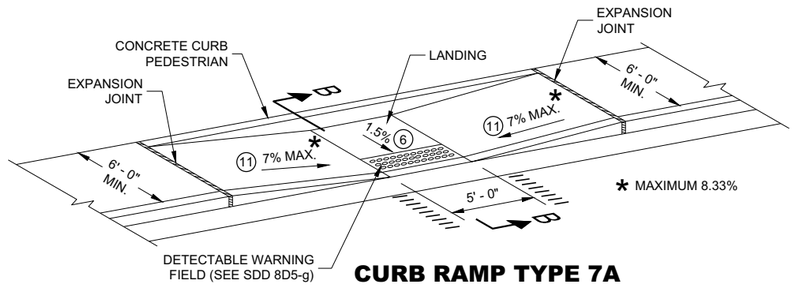
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

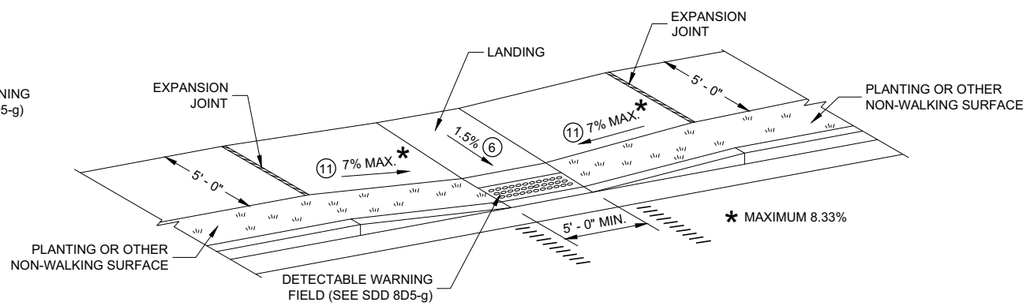
DETECTABLE WARNING AT ISLANDS

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



CURB RAMP TYPE 7A

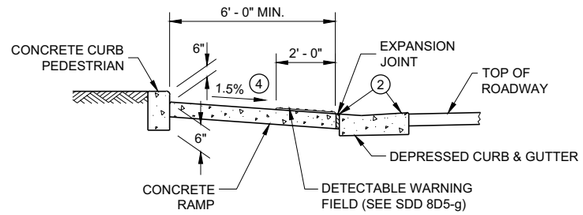
MID BLOCK CROSSING



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

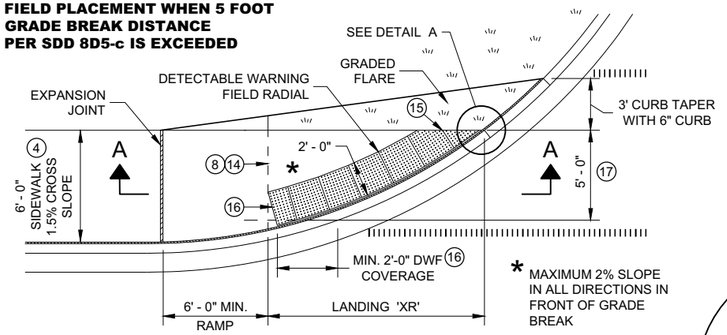
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20e

SDD 08D05 - 20e

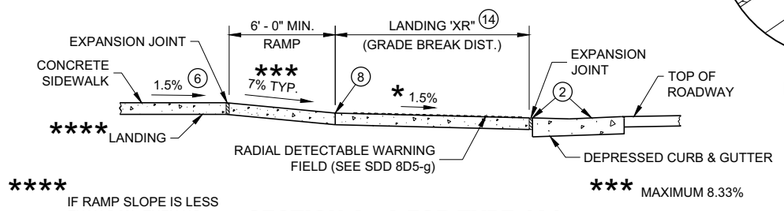
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



PLAN VIEW

CURB RAMP TYPE 4A1

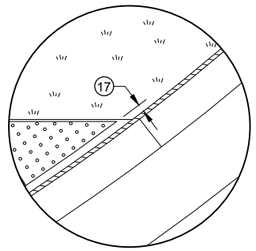
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



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

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1



DETAIL A

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

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

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

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

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

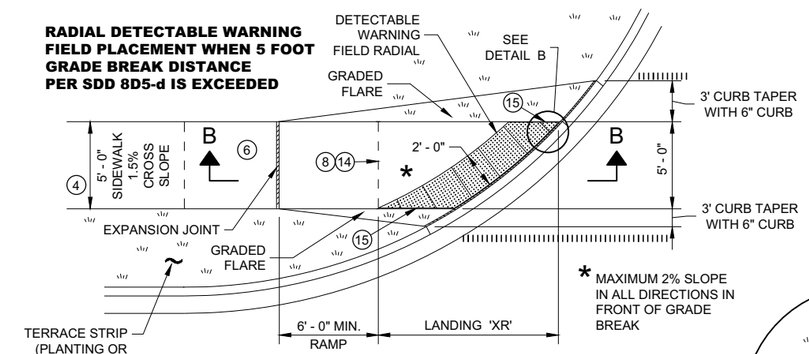
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

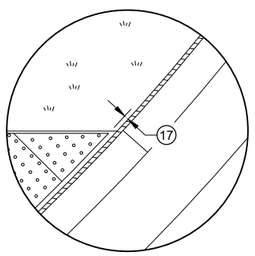
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



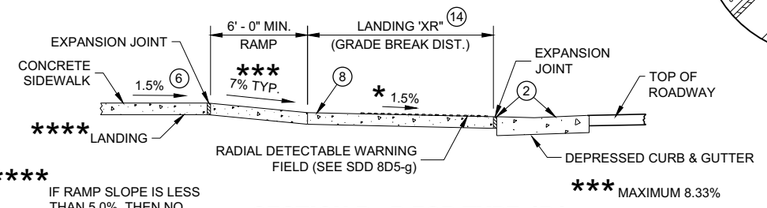
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B

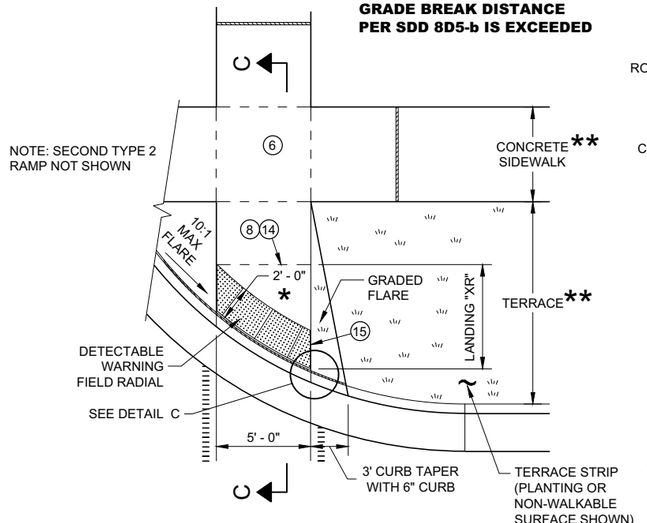


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

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

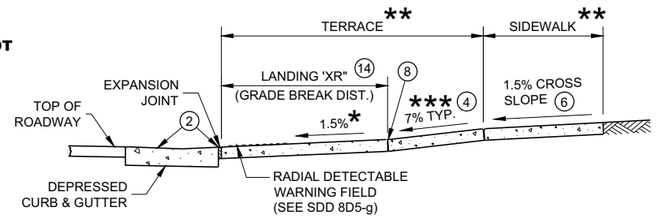


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

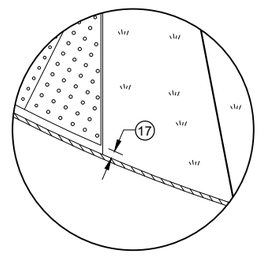


SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



DETAIL C

CURB RAMPS
RADIAL DETECTABLE WARNING FIELD APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

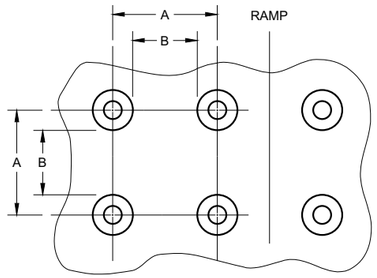
SDD 08D05 - 20f

6

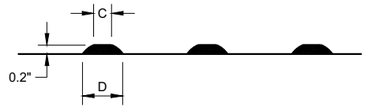
SDD 08D05 - 20f

	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.

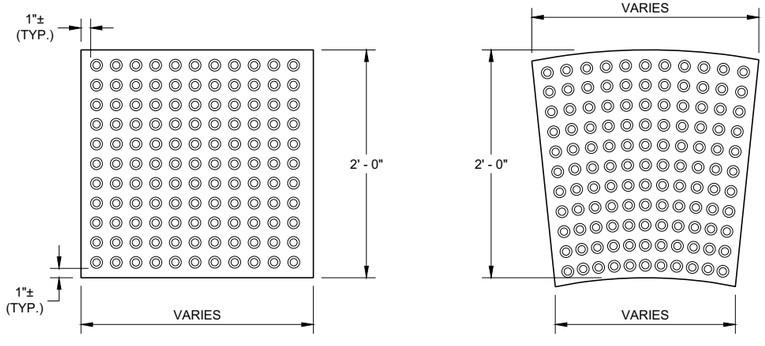


PLAN VIEW



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.

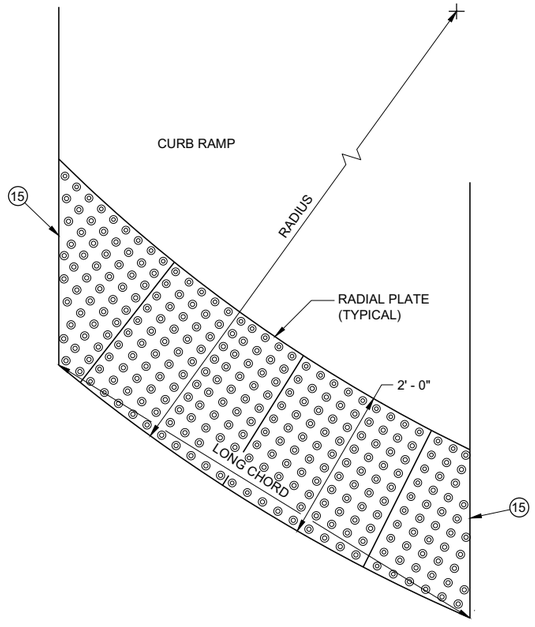
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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.

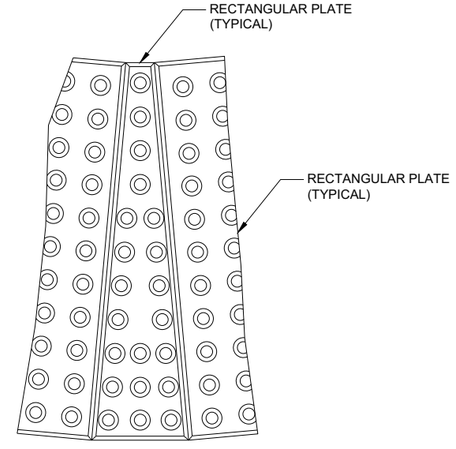
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

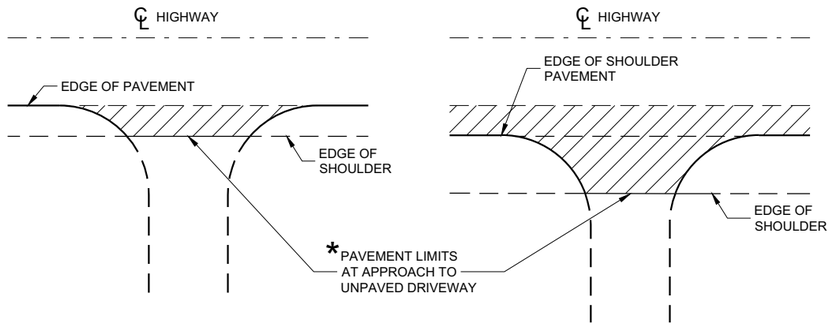
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

6

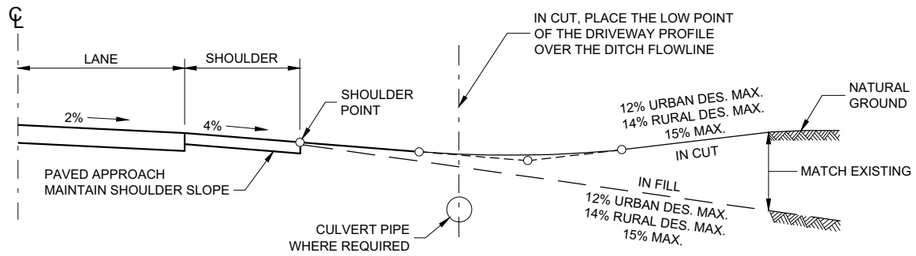
SDD 08D05 - 20g



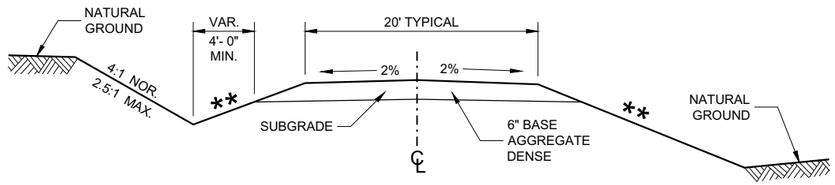
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

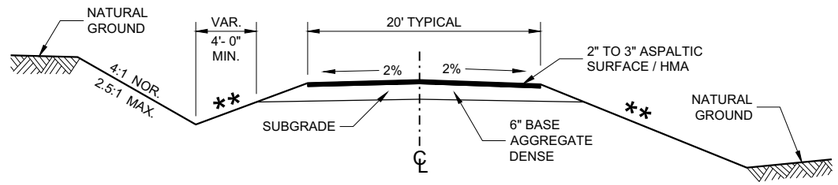


IN CUT **IN FILL**

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

6

SDD 08D21 - 01

SDD 08D21 - 01

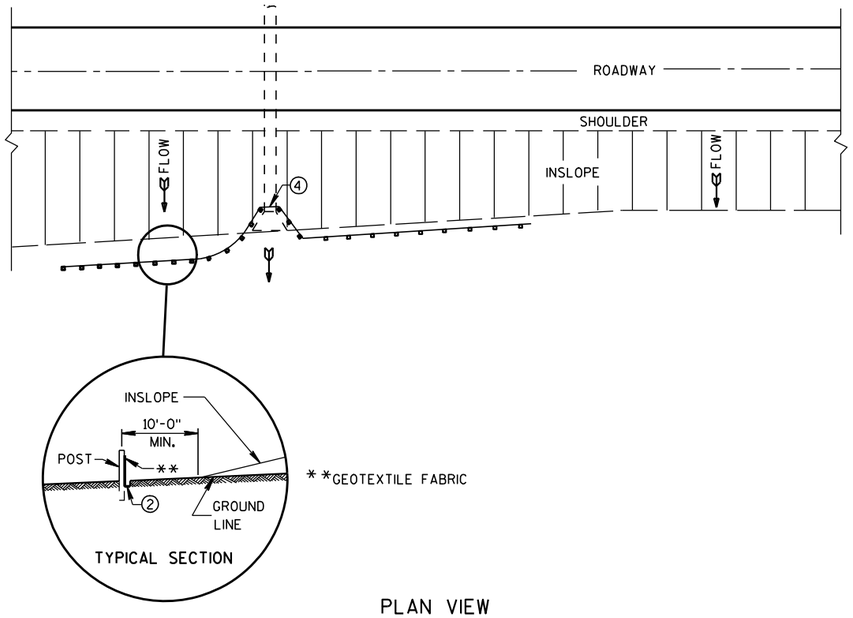
DRIVEWAYS WITHOUT CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017
DATE

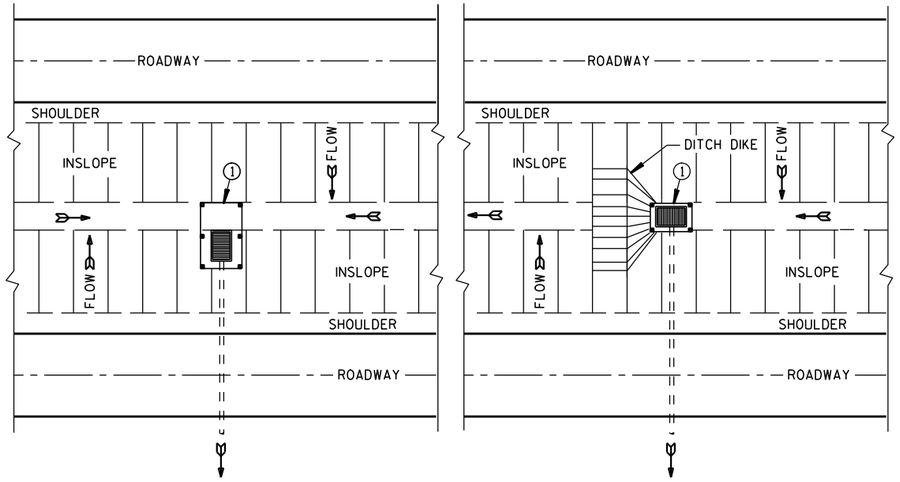
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA



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.

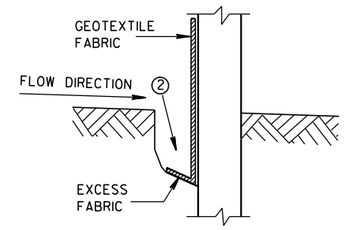
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

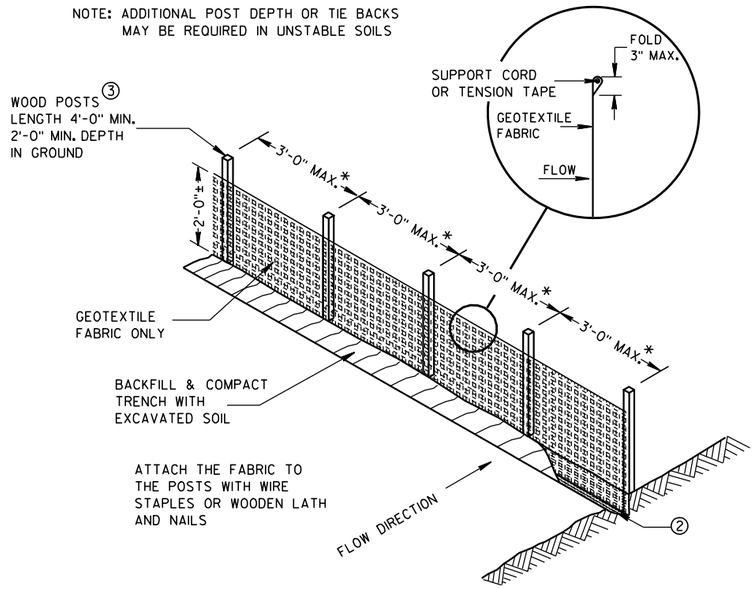
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

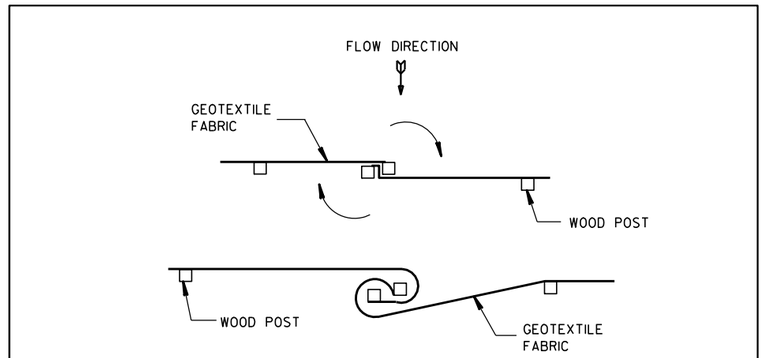
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



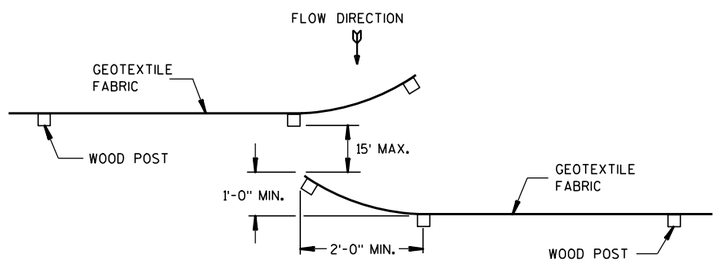
TRENCH DETAIL



SILT FENCE

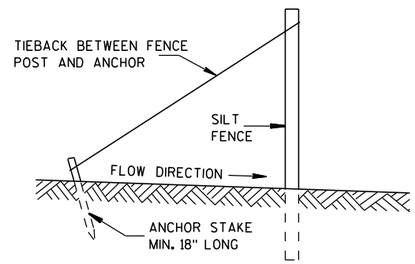


TWIST METHOD



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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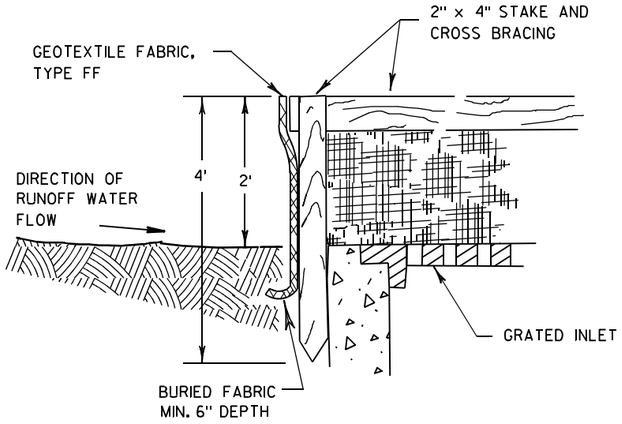
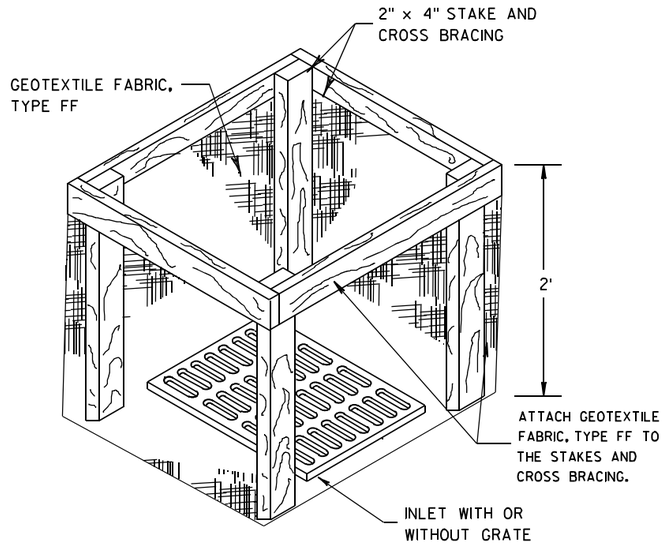
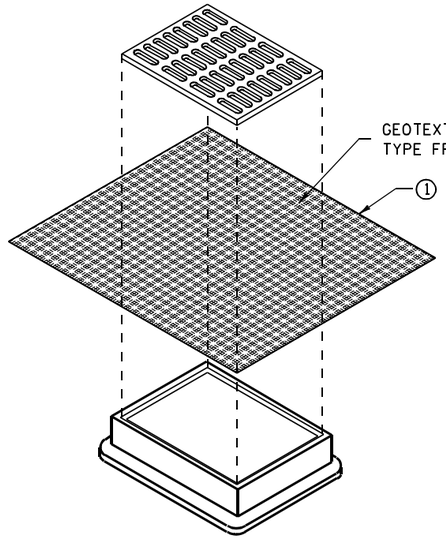
S.D.D. 8 E 9-6



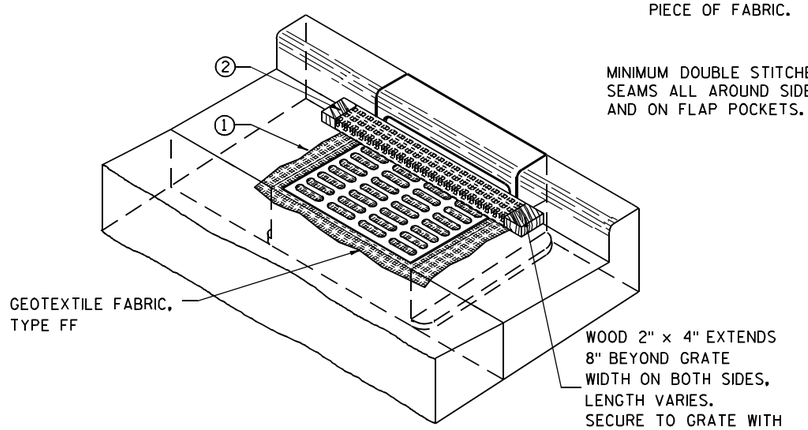


INLET PROTECTION, TYPE A

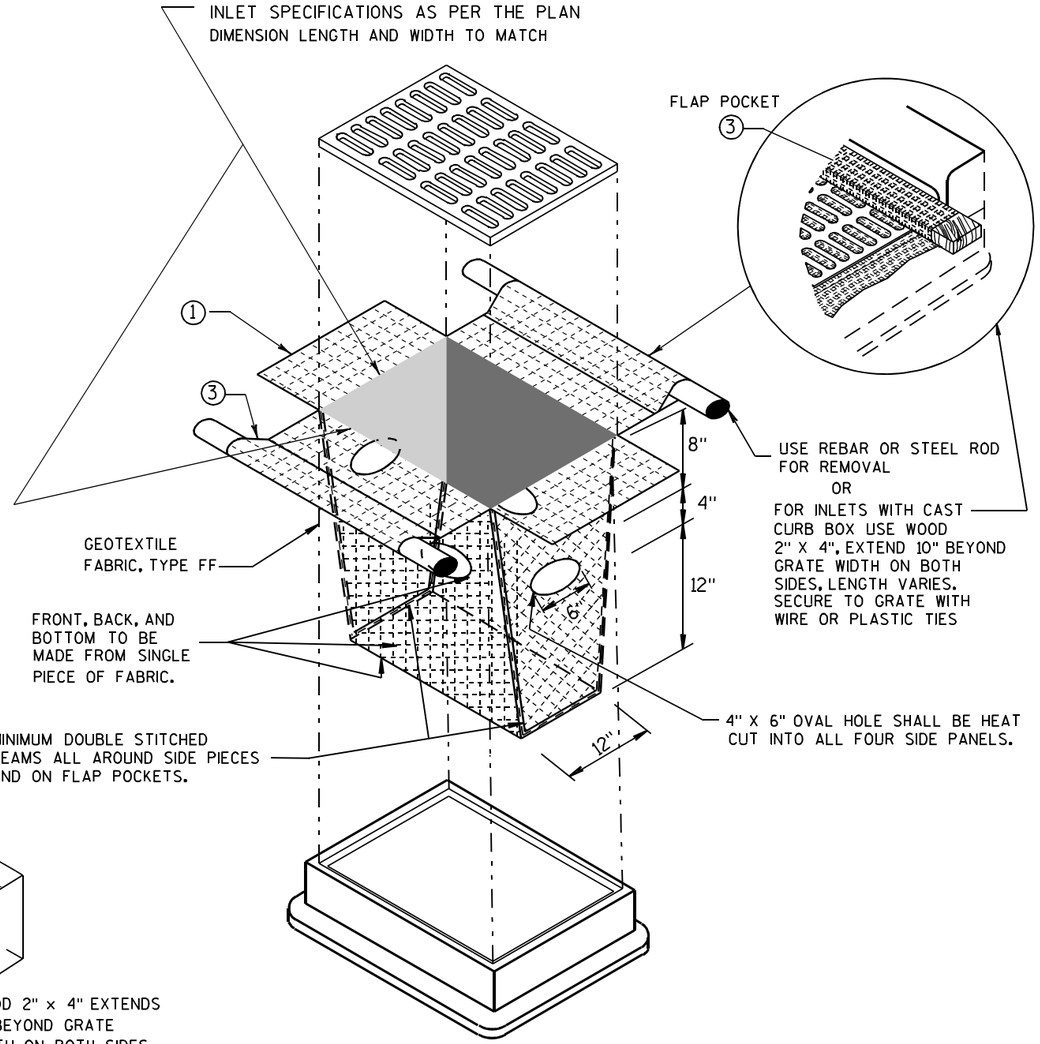


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

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

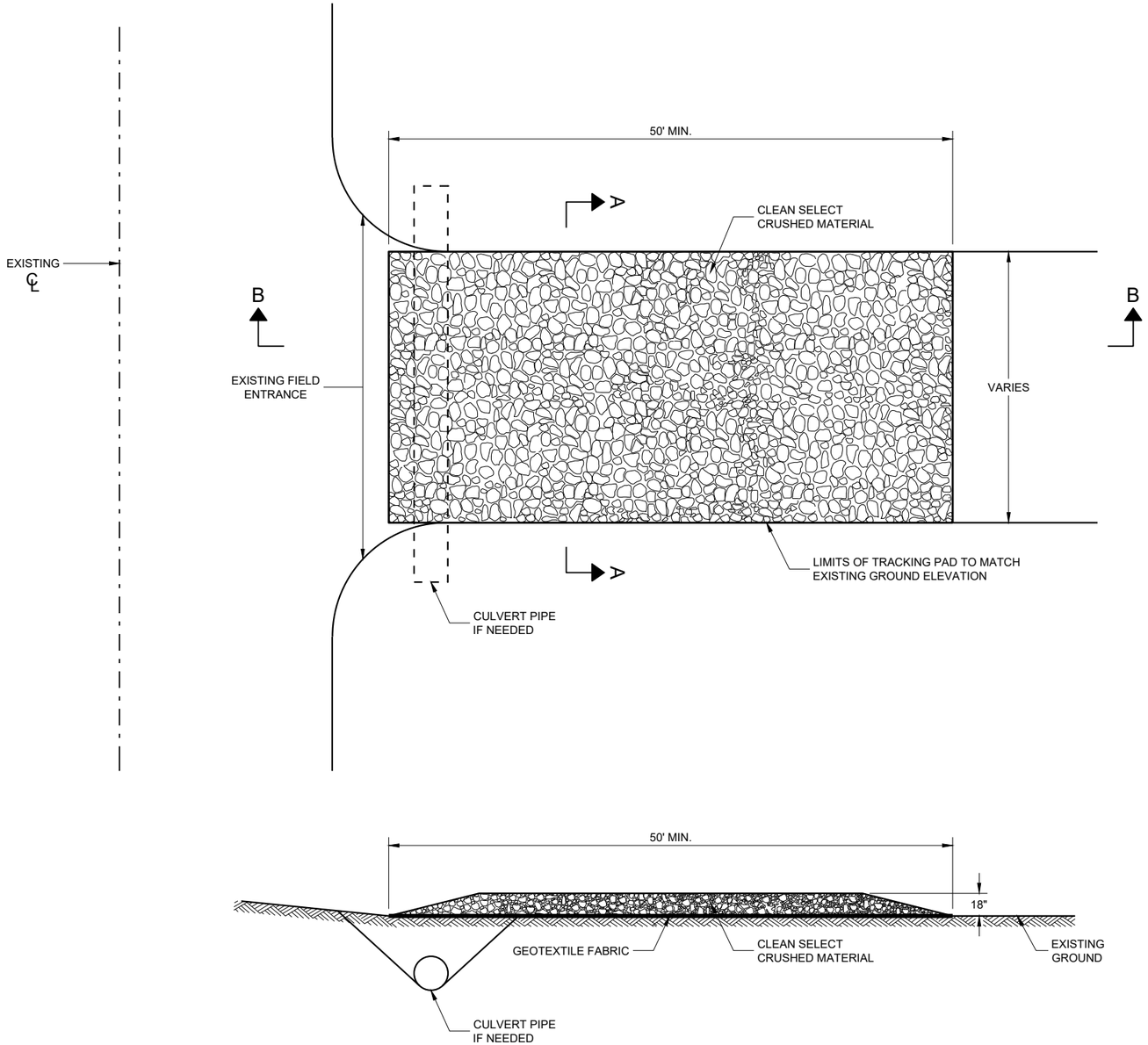
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2



SECTION B - B

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

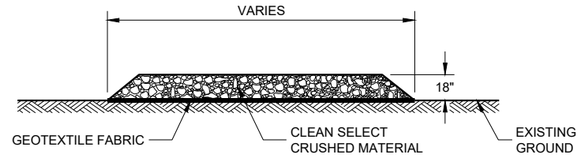
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 08E14 - 01

METAL APRON ENDWALLS

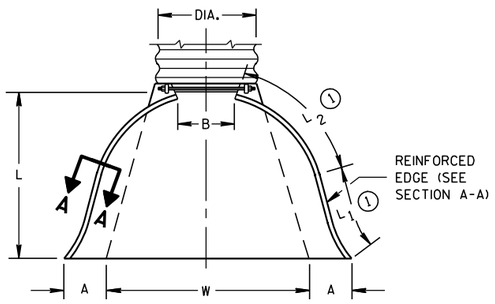
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

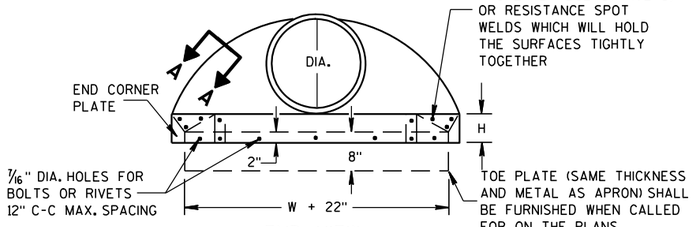
REINFORCED CONCRETE APRON ENDWALLS

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

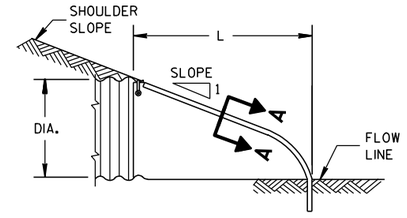
*MINIMUM
**MAXIMUM



PLAN VIEW

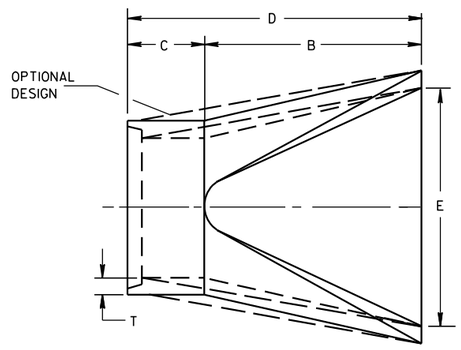


END VIEW

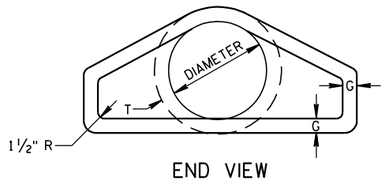


SIDE ELEVATION

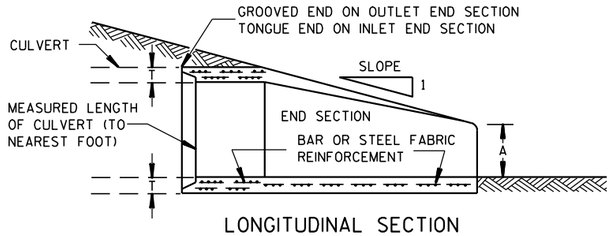
METAL ENDWALLS



PLAN

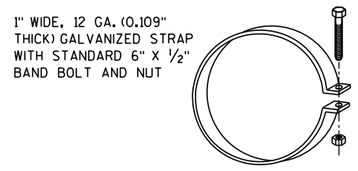


END VIEW



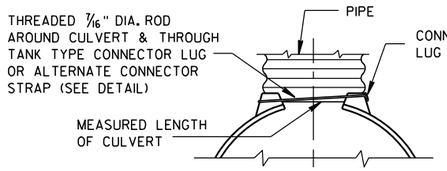
LONGITUDINAL SECTION

CONCRETE ENDWALLS

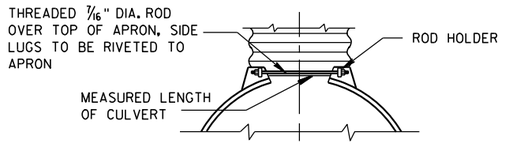


ALTERNATE FOR TYPE 1 CONNECTION

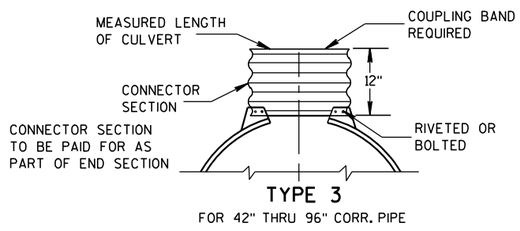
END SECTION CONNECTOR STRAP



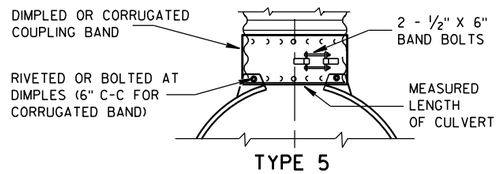
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

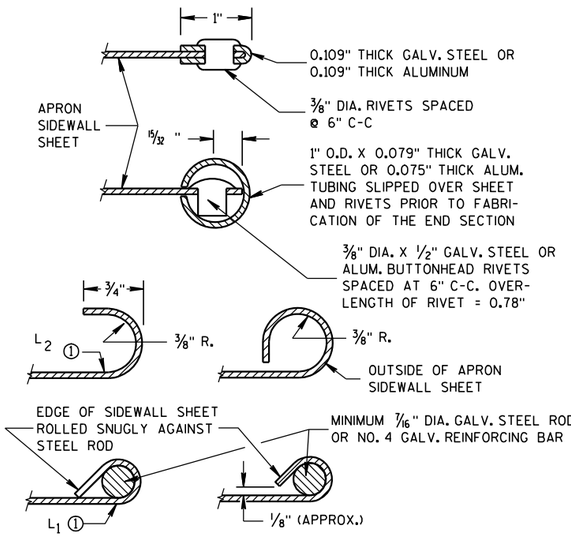
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

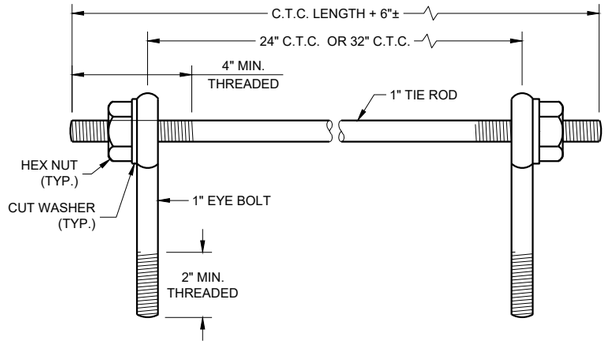
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

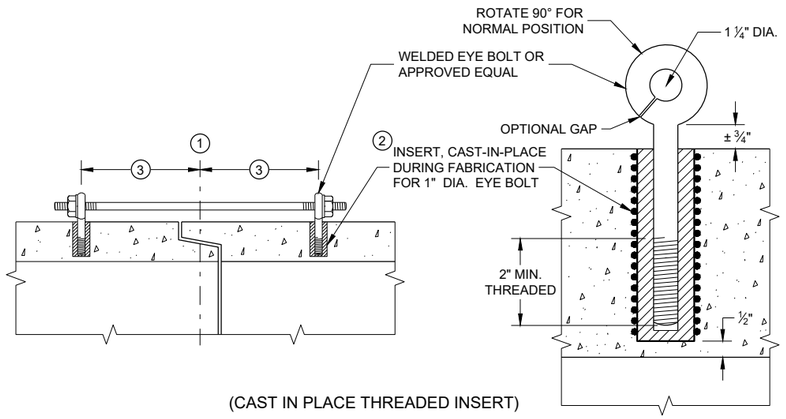
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



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.

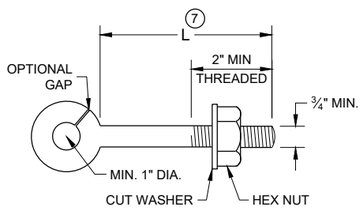
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

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

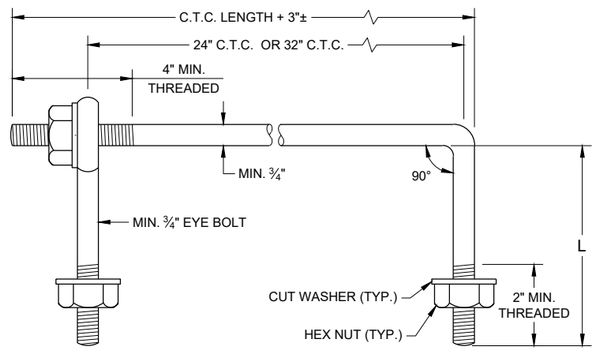
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

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

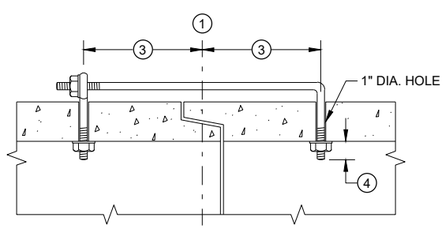


EYE BOLT (7)

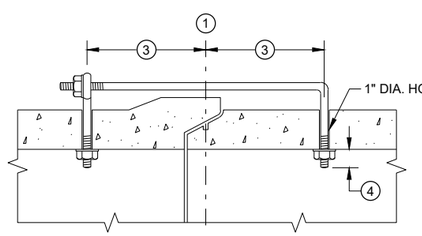
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

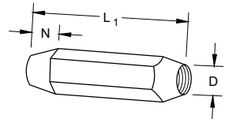
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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



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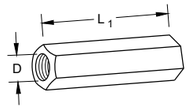
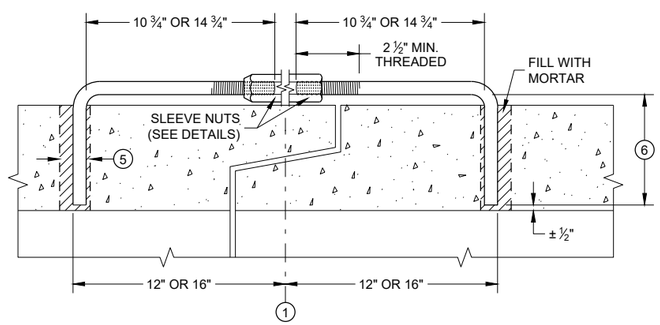


PLAIN

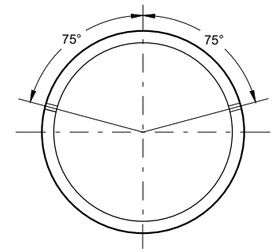
RIGHT AND LEFT THREADS

SLEEVE NUTS



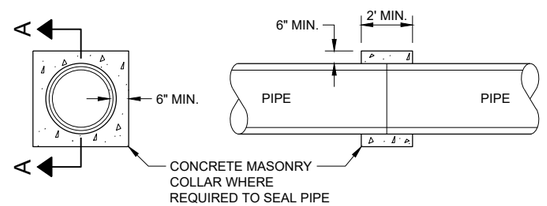
LONGITUDINAL SECTION

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

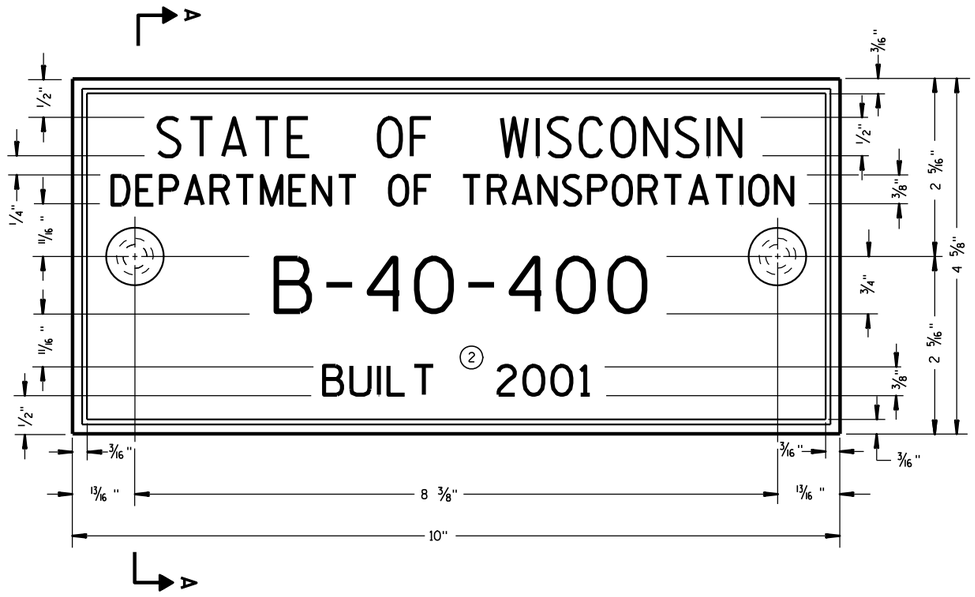
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 08F04 - 08

SDD 08F04 - 08



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

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

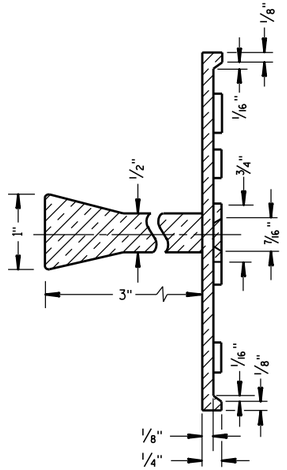
GENERAL NOTES

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

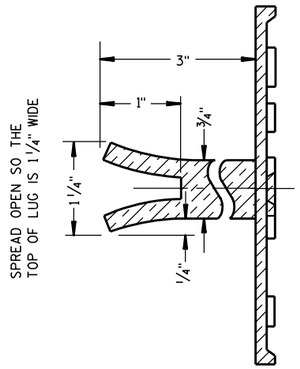
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

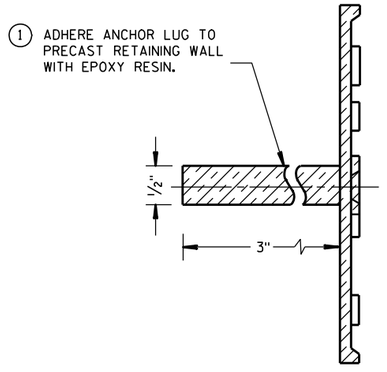
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

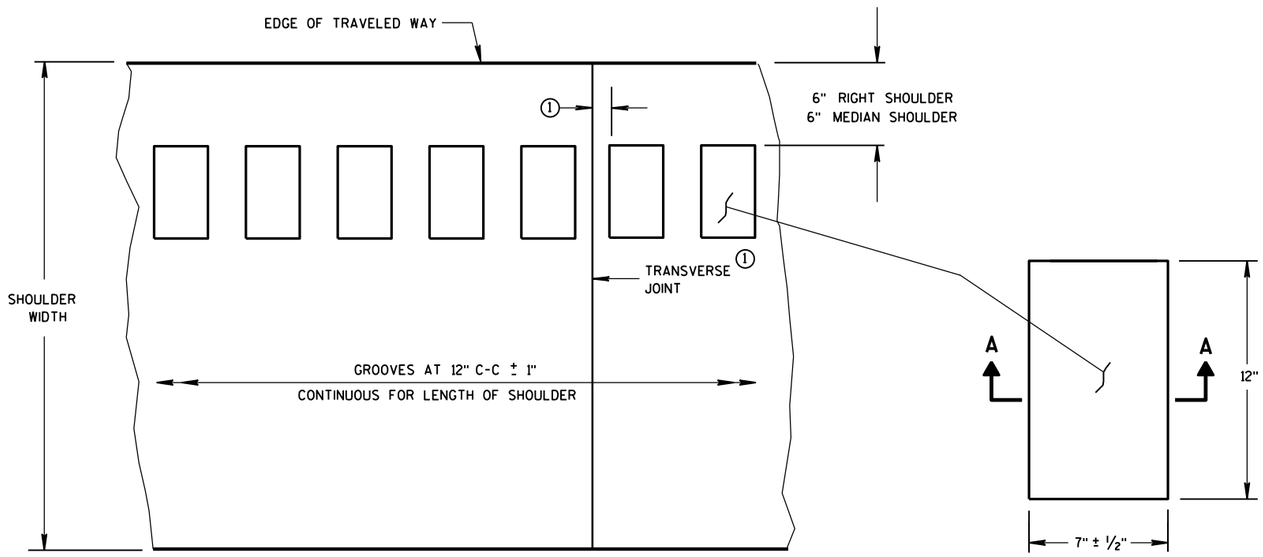
3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

6

S.D.D. 12 A 3-10



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

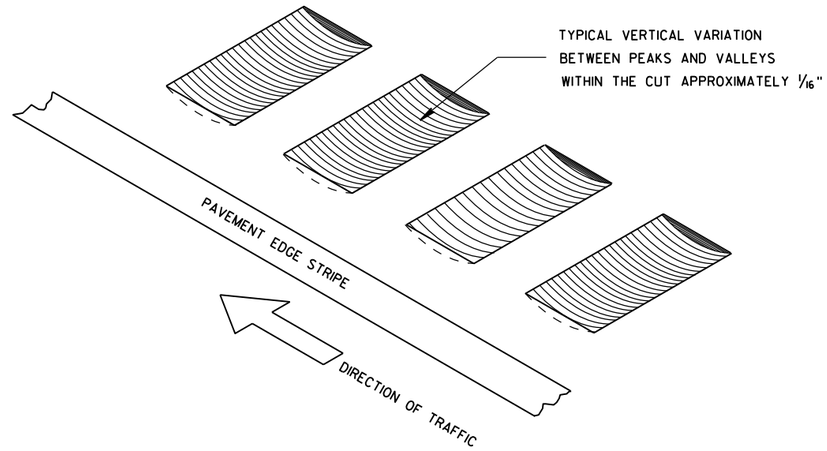
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

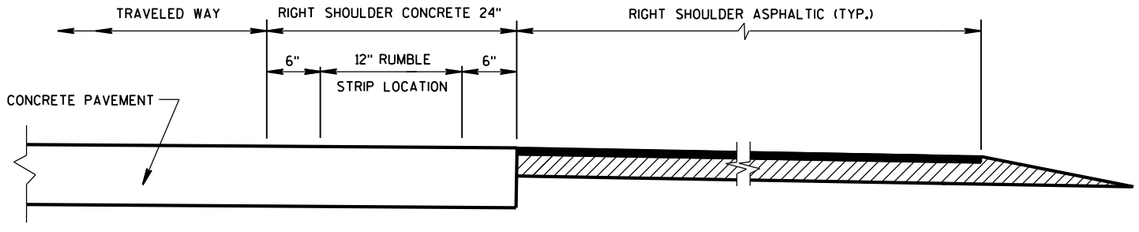
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

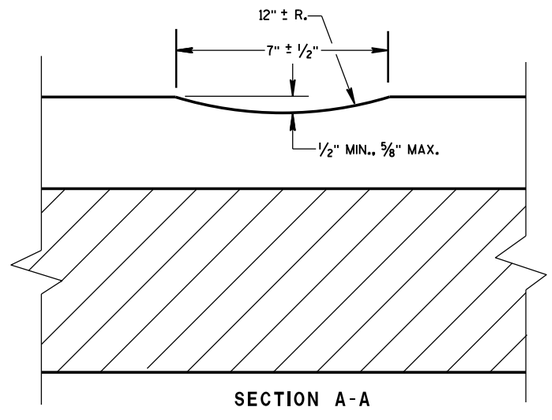
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



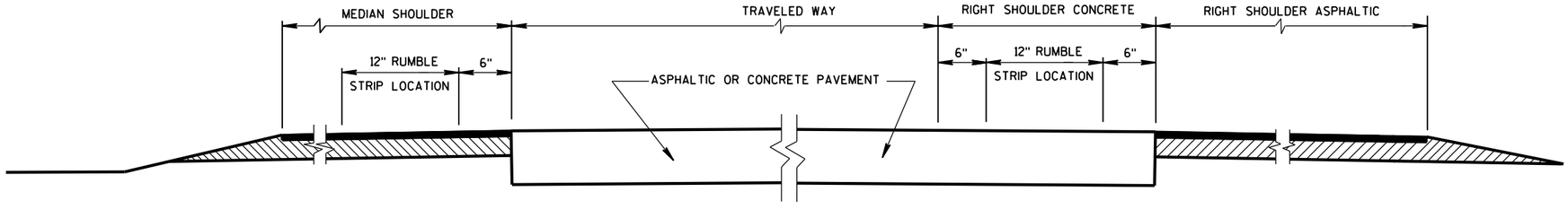
ISOMETRIC



SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION A-A



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIP, MILLING

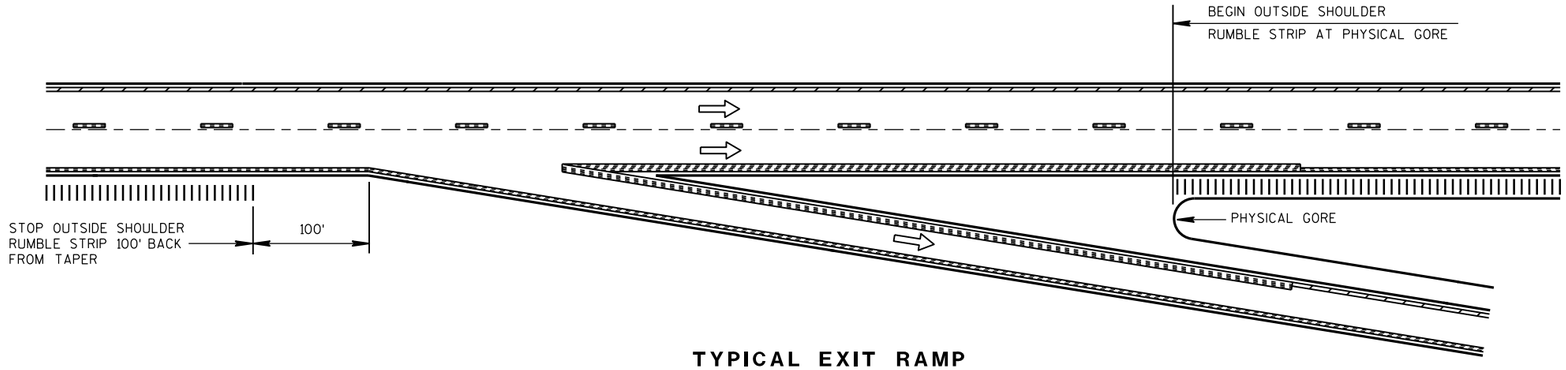
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 13 A 5-5a

6

S.D.D. 13 A 5-5a



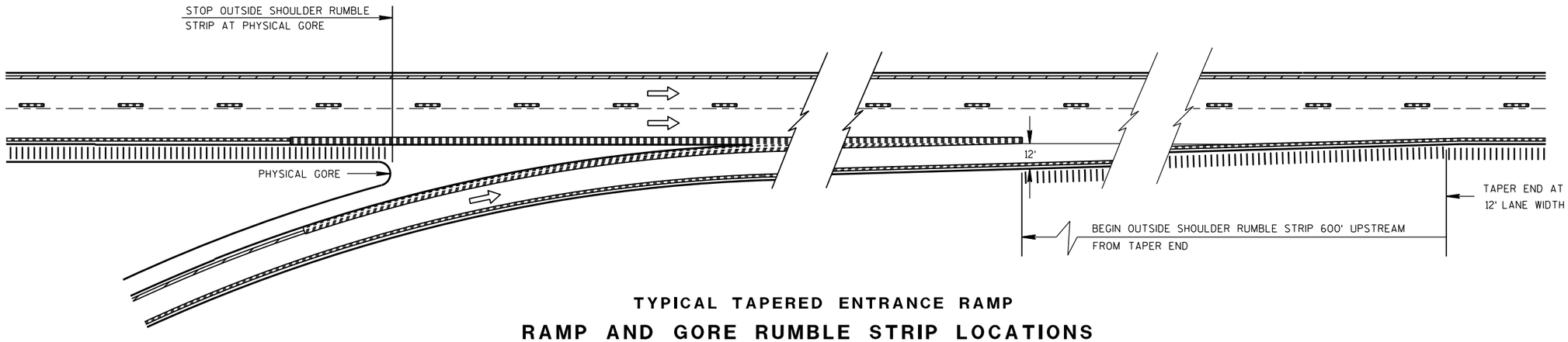
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

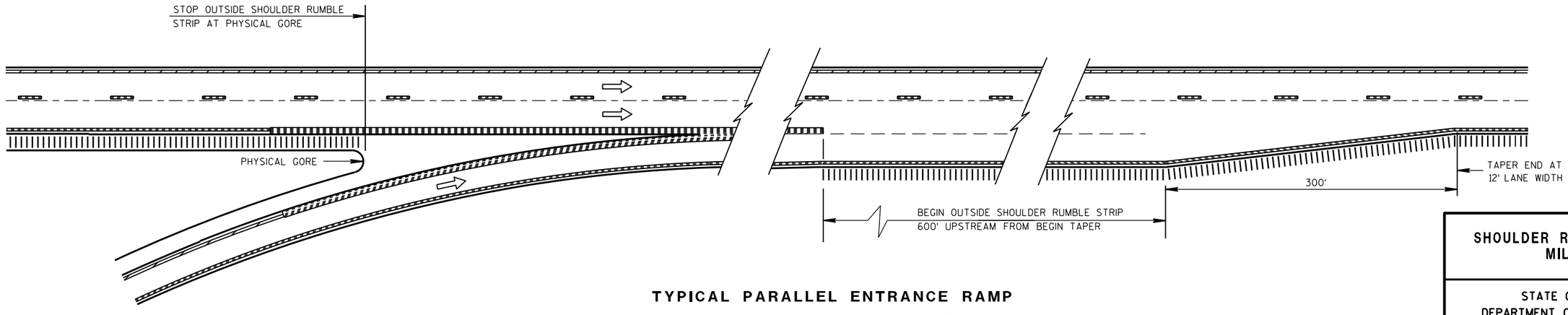
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

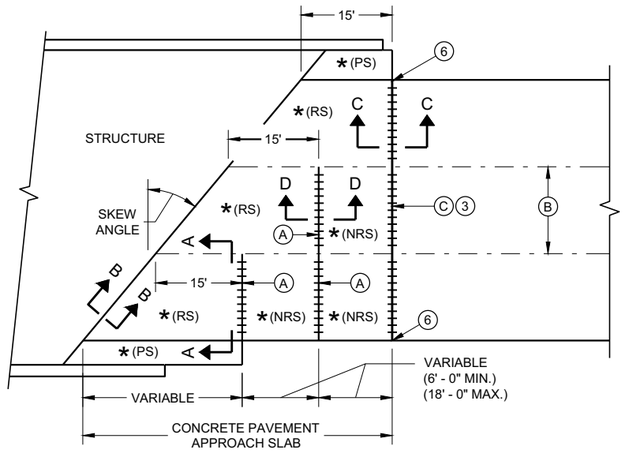
FHWA

6

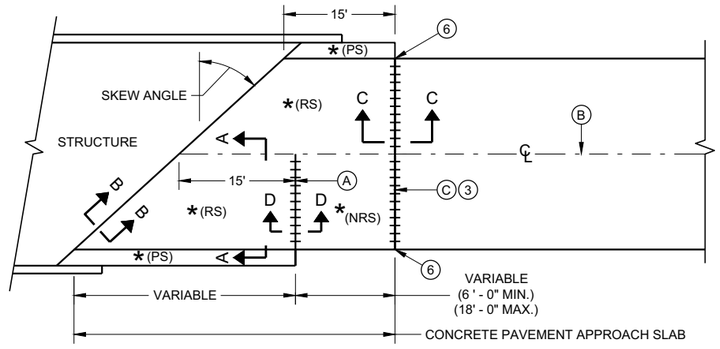
S.D.D. 13 A 5-5b

6

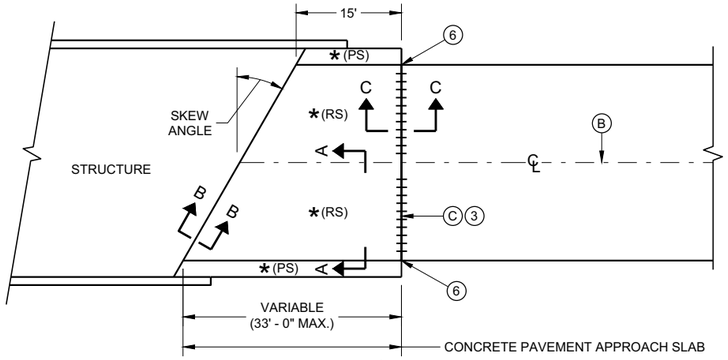
S.D.D. 13 A 5-5b



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

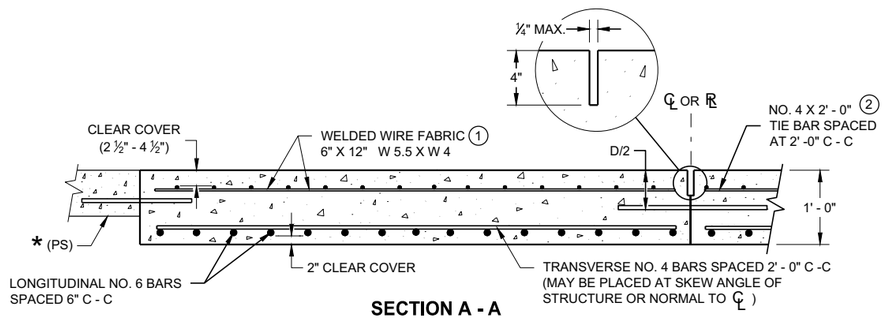
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

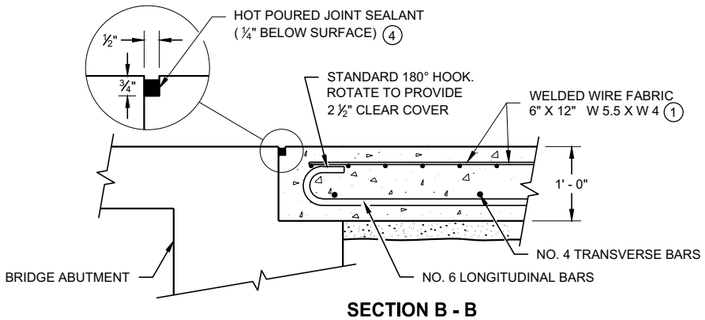
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

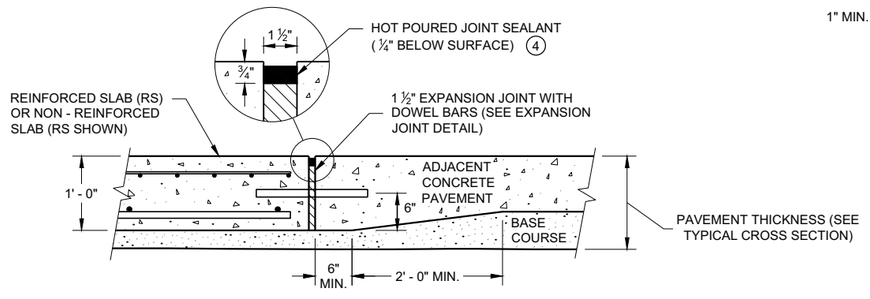
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

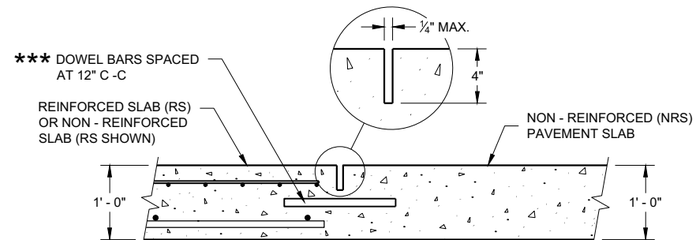
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

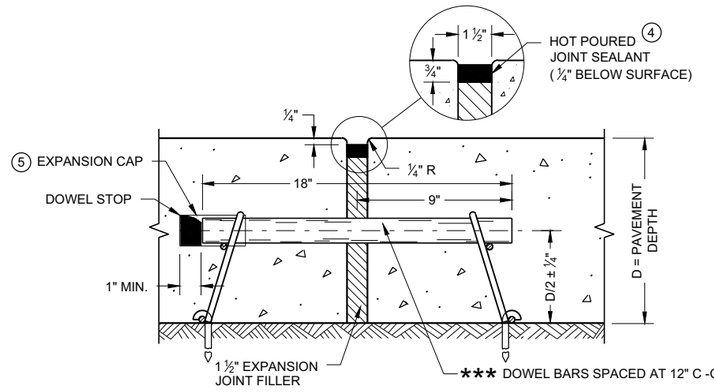
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞ .



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVISOR

FHWA

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SDD 13B02 - 09a

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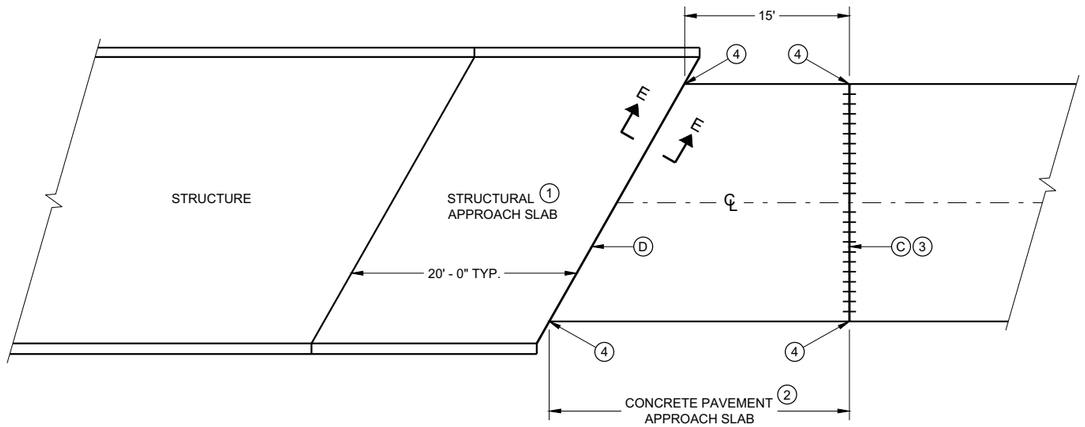


BRIDGE APPROACHES

GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

(1) SEE BRIDGE PLAN.

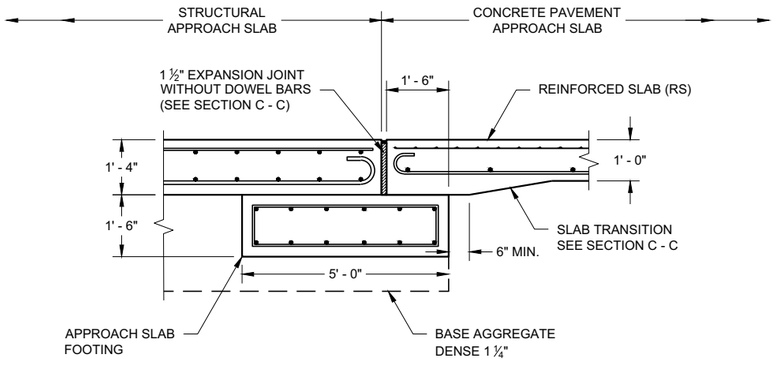
(2) CONFORM TO SDD 13B02 SHEET A FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞.

(D) 1 ½" EXPANSION JOINT (NO DOWELS)



SECTION E - E
FOOTING DETAIL
STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

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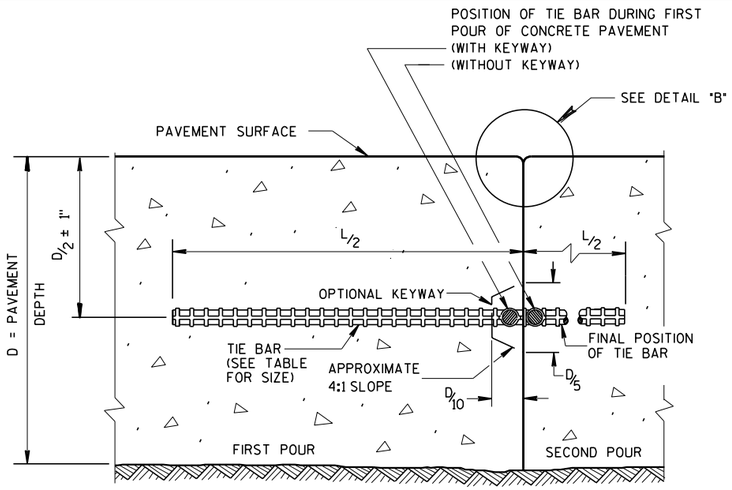
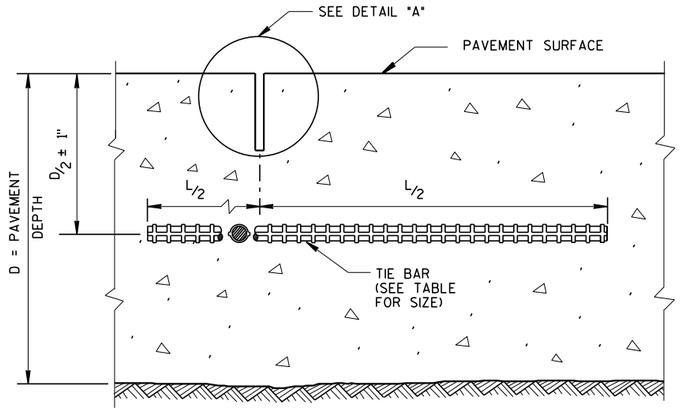
SDD 13B02 - 09b



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

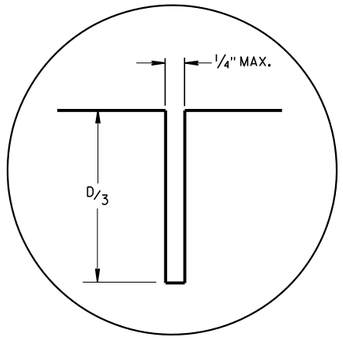
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

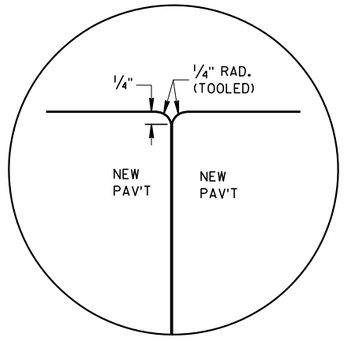
PLAN VIEW

SECTION A-A

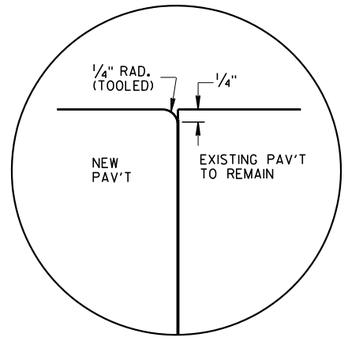
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



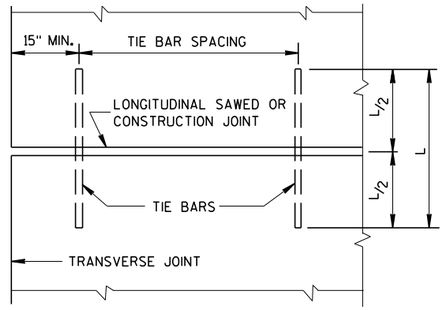
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Peter Kemp PE
PAVEMENT SUPE
FHWA

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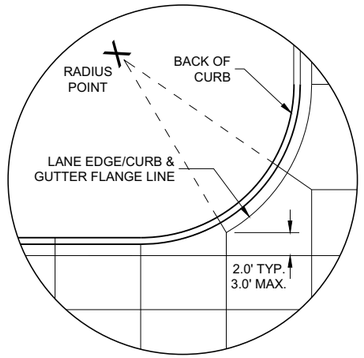

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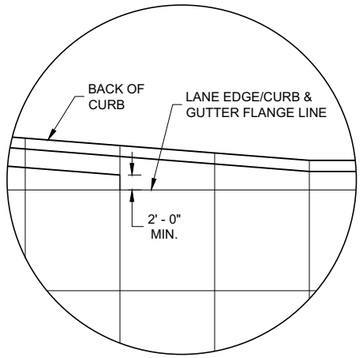

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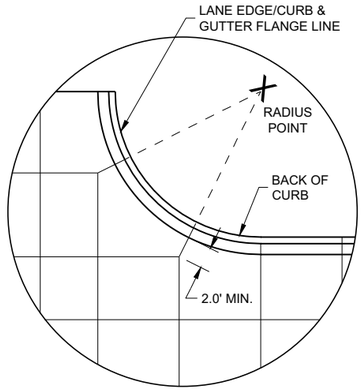

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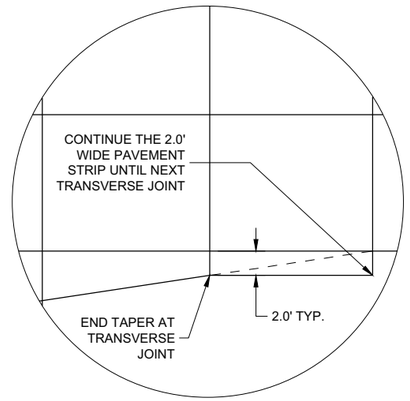


DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

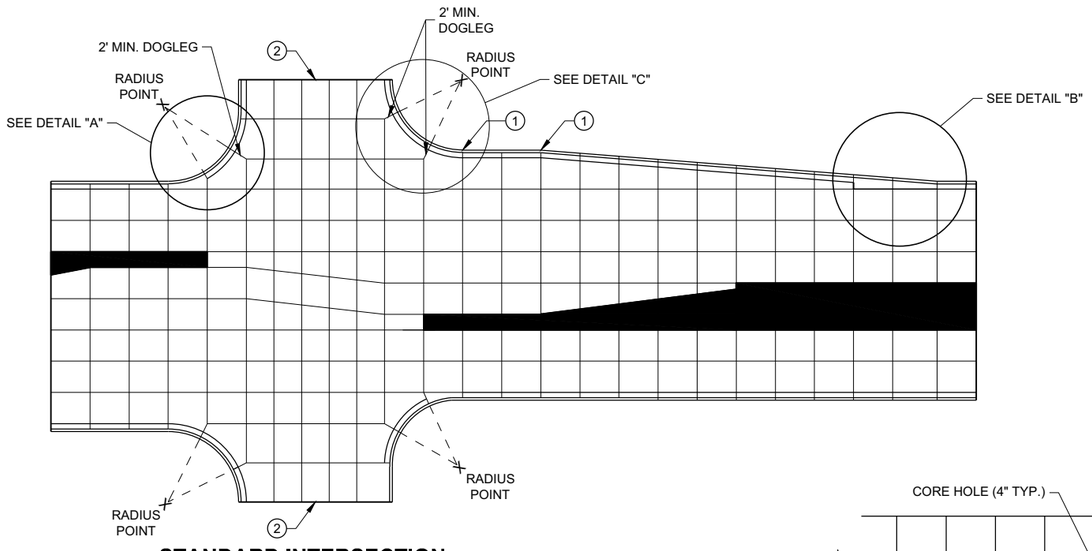
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

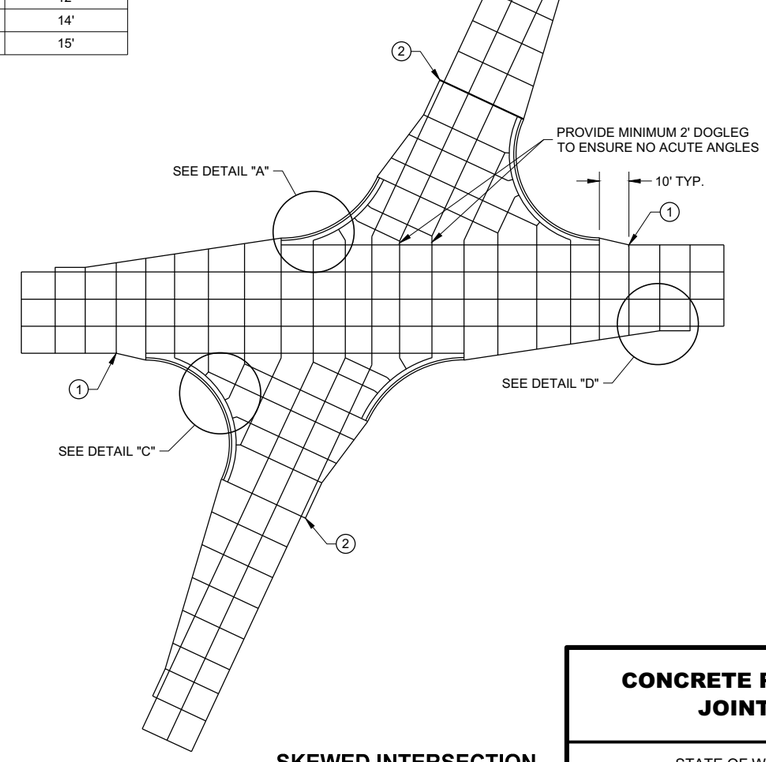
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITHEDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



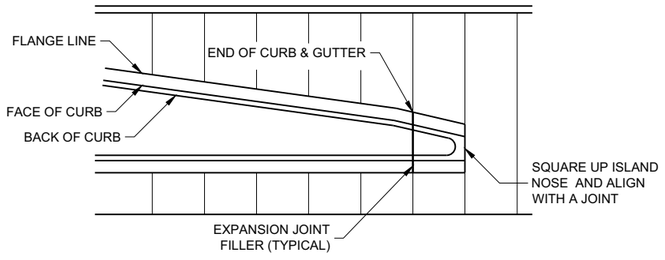
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

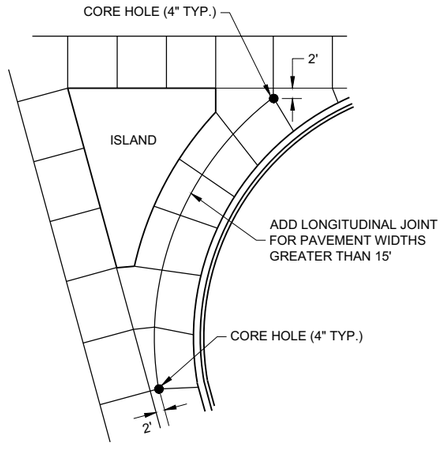
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 13C18 - 07a

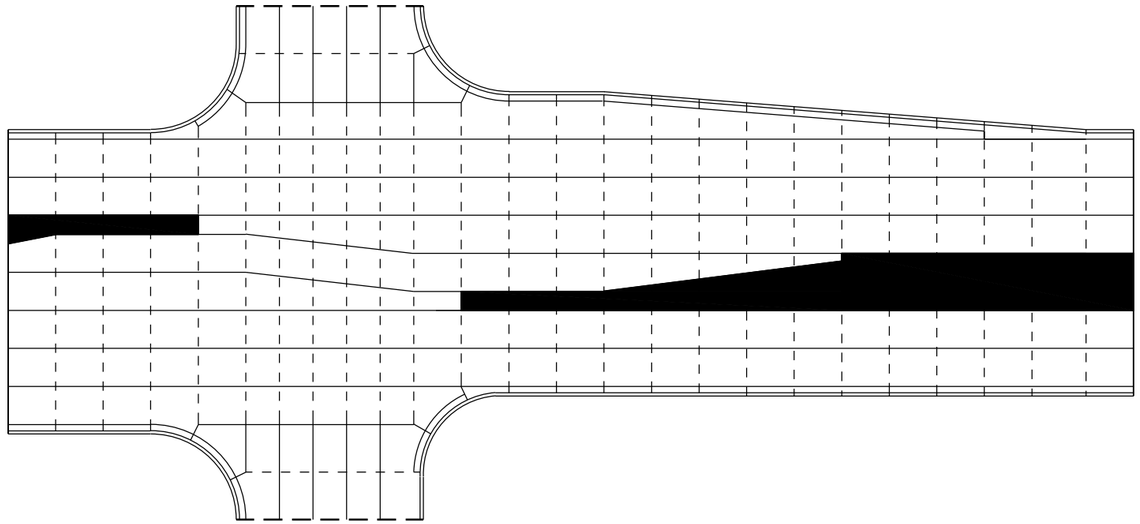
SDD 13C18 - 07a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

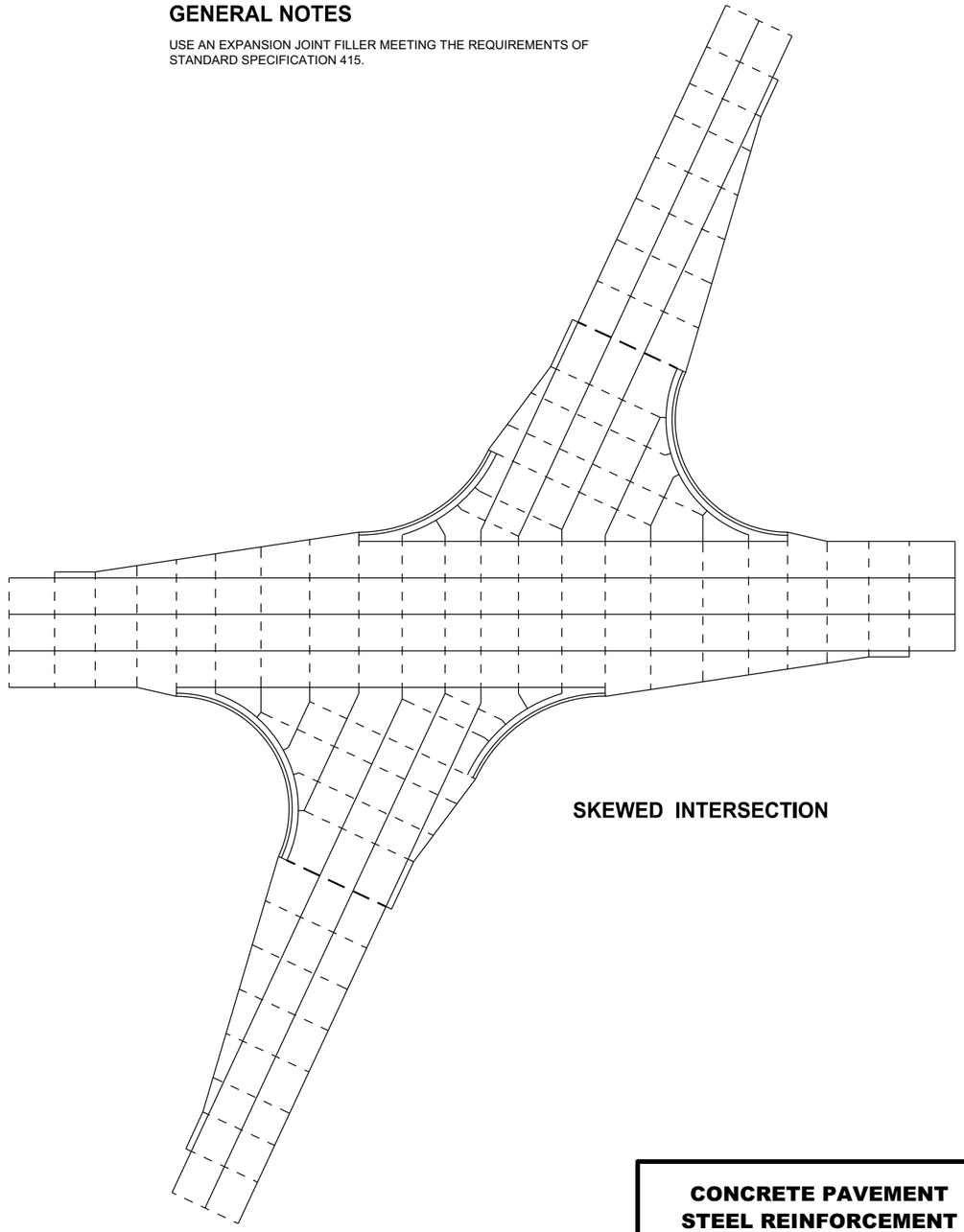
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

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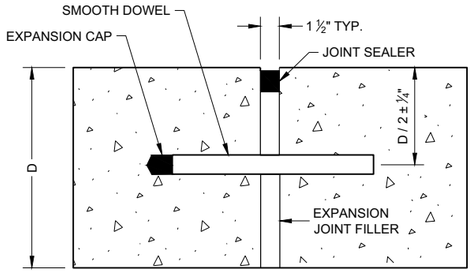
SDD 13C18 - 07b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

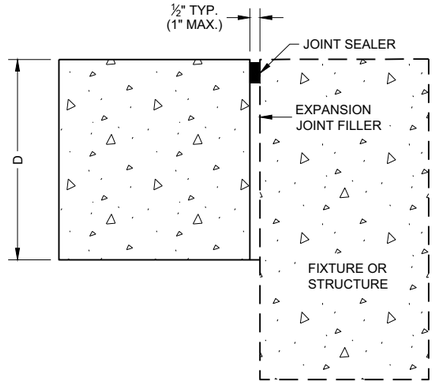
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 07b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

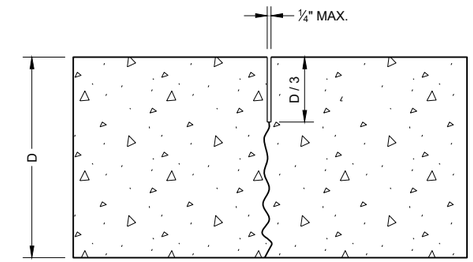
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

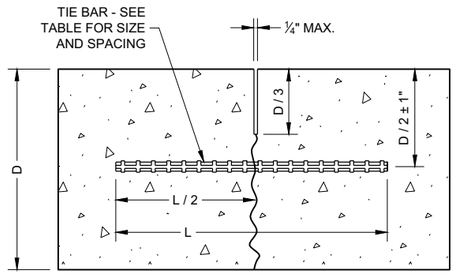
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

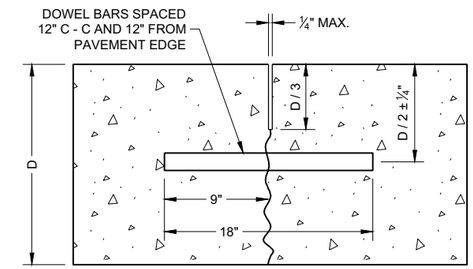
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

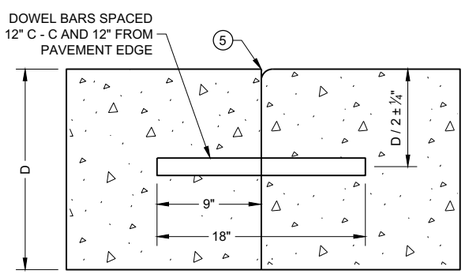


TIED LONGITUDINAL

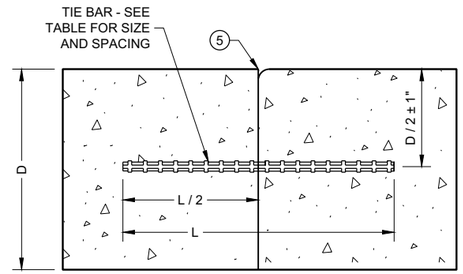


DOWELED TRANSVERSE

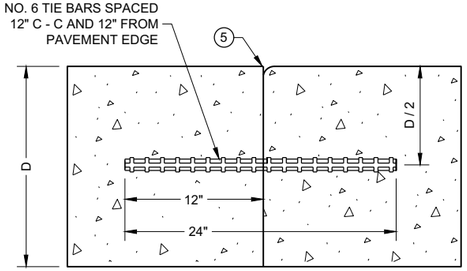
CONTRACTION JOINTS (2)



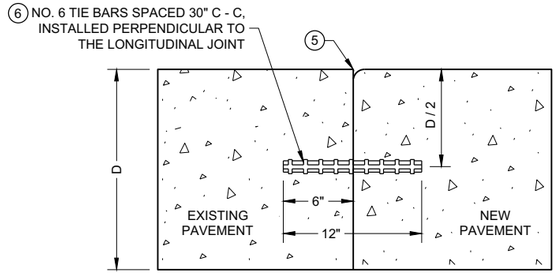
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS (4)

CONCRETE PAVEMENT JOINT TYPES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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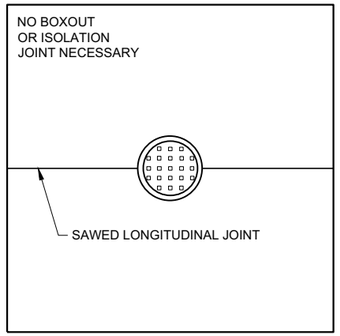
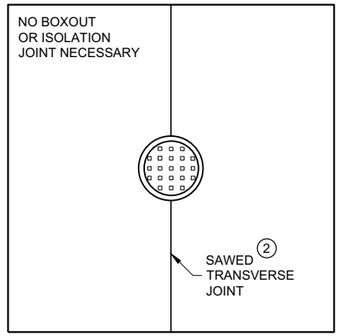
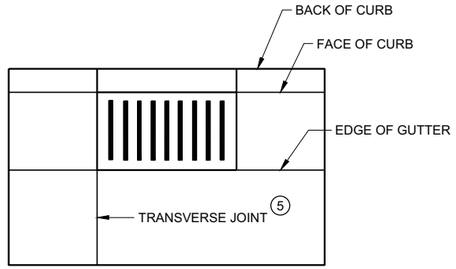
SDD 13C18 - 07c



MANHOLE WITH LONGITUDINAL JOINT



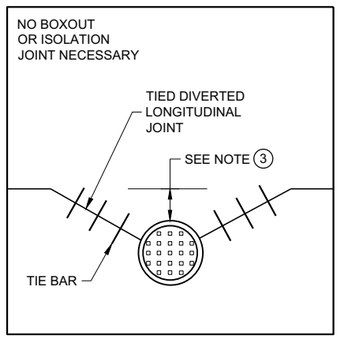
MANHOLE WITH TRANSVERSE JOINT



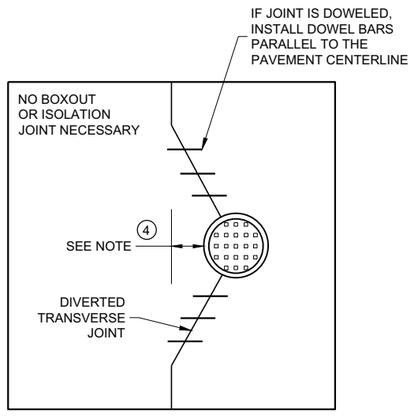
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

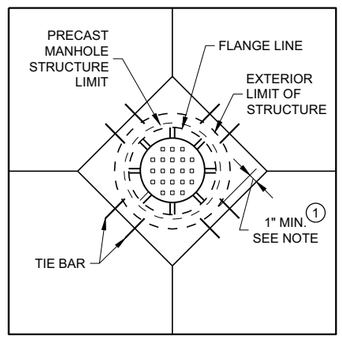
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

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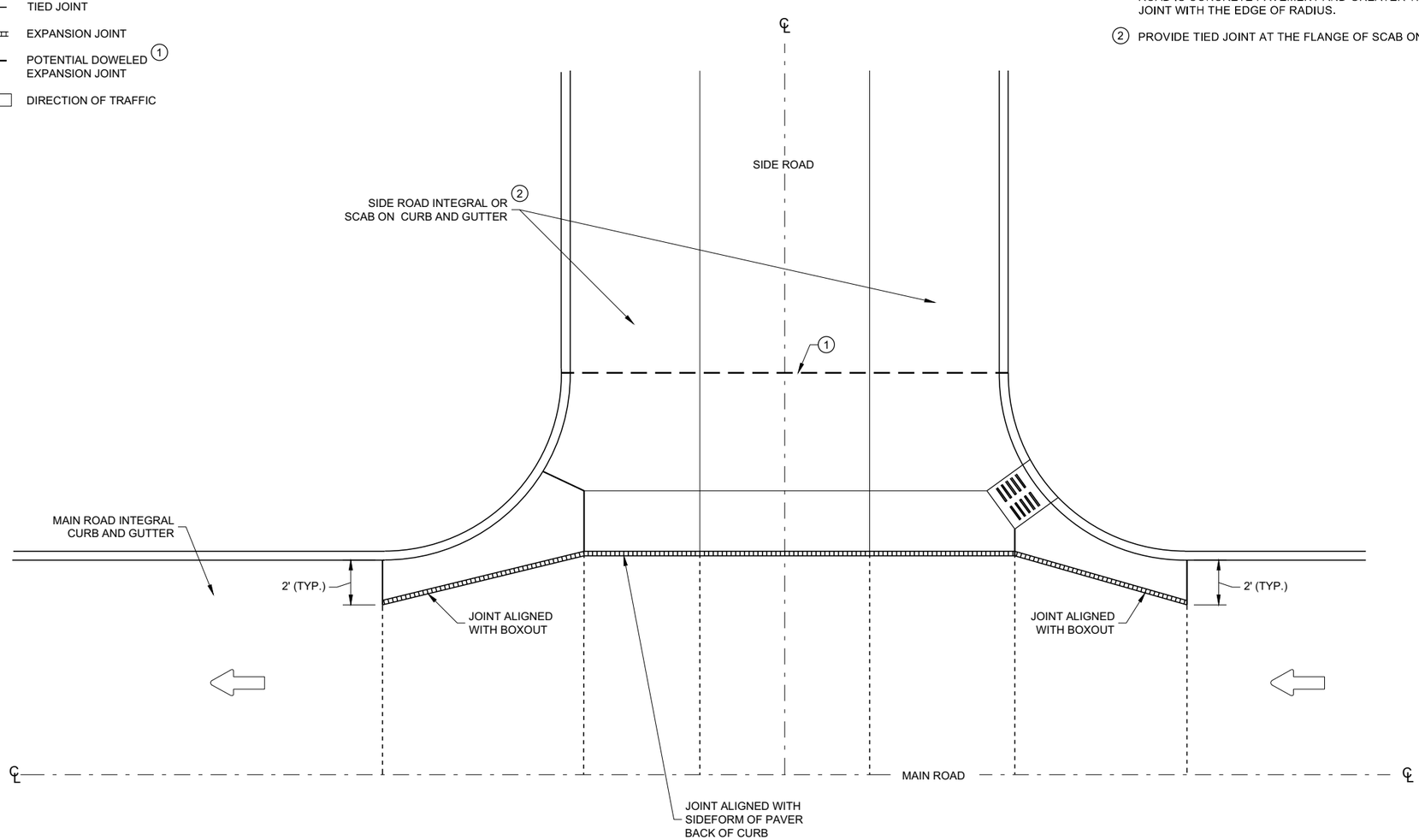
SDD 13C18 - 07d
SDD 13C18 - 07d

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT (1)
- DIRECTION OF TRAFFIC



GENERAL NOTES

(1) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.

(2) PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
ROADWAY STANDARDS DEVE ENGINEER

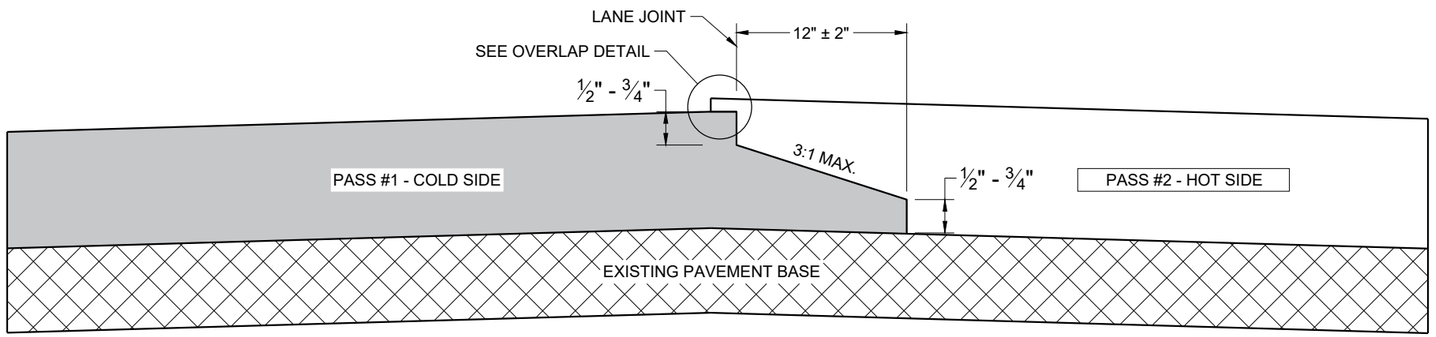
FHWA

6

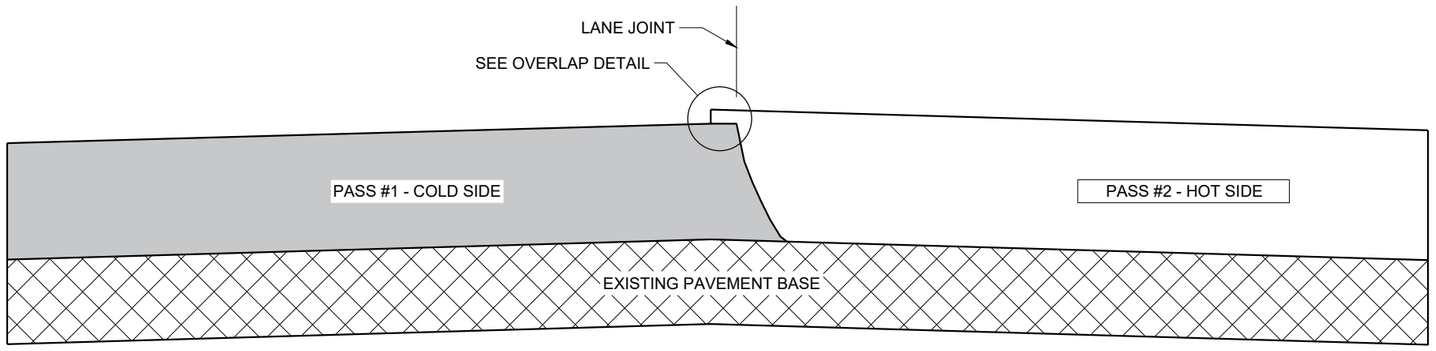
SDD 13C18 - 07f

6

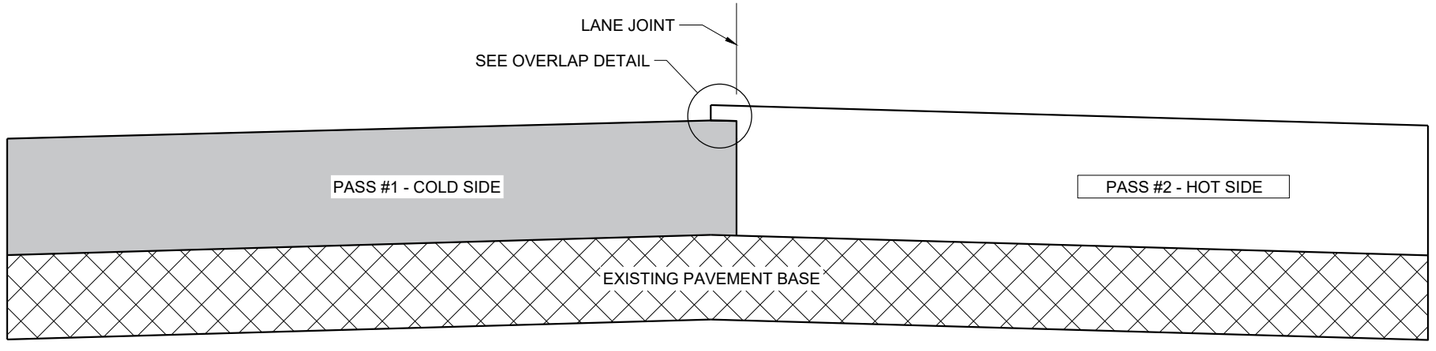
SDD 13C18 - 07f



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

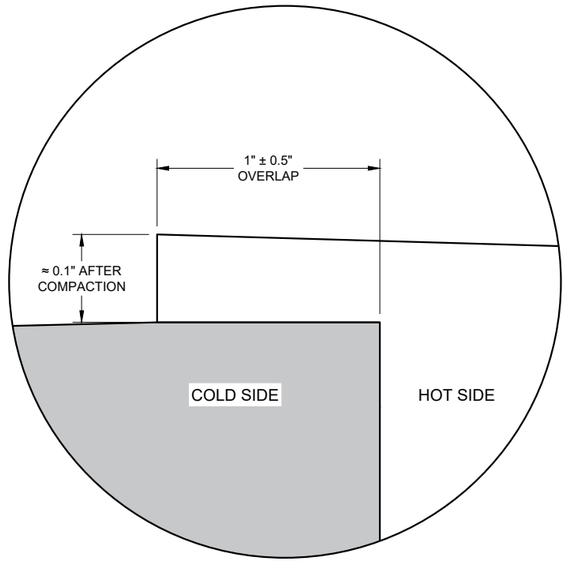
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

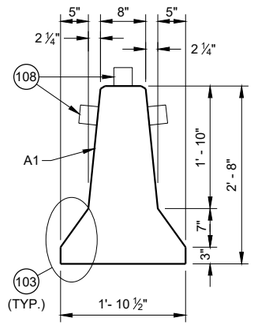
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

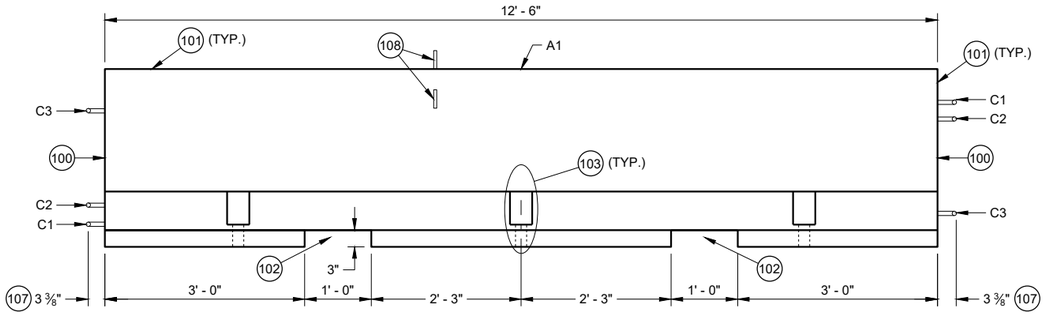
APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



CROSS SECTION



PROFILE VIEW

GENERAL NOTES

PLACE BARRIER ON PAVED SURFACE. BEFORE PLACEMENT OF TEMPORARY BARRIER, REMOVE ALL LOOSE MATERIAL FROM PAVED SURFACE.

LOOP BARS C1, C2 AND C3 ARE NOT FOR PLACEMENT OR MOVEMENT OF BARRIER.

(100) PERMANENTLY FORM INTO ONE END OF BARRIER THE FOLLOWING INFORMATION:
- A. TYPE OF BARRIER: WI-CBTP
- B. MANUFACTURER
- C. DATE OF MANUFACTURE (MONTH AND YEAR)

(101) 1" OPTIONAL CHAMFER

(102) SEE LIFTING SLOT DETAIL

(103) SEE ANCHOR BLOCK DETAIL

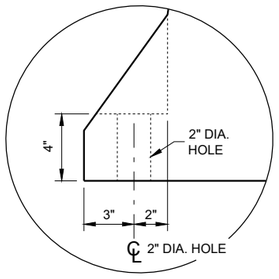
(104) 1 ¾" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

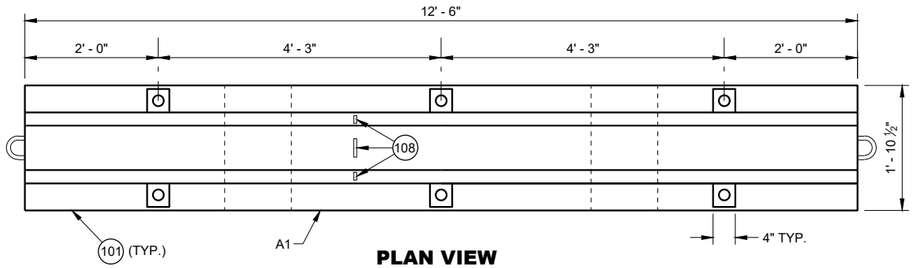
(106) 1" MIN. CLEAR COVER

(107) ± ⅛" MEASURED FROM FACE OF CONCRETE BARRIER TO OUTSIDE OF LOOP BAR (TYP.)

(108) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURERS INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED LEFT OF TRAFFIC AND WHITE WHEN BARRIER IS LOCATED RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART, PROVIDE TO MOUNTED DELINEATORS IN ADDITION TO SIDE MOUNTED DELINEATORS ON BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAT 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

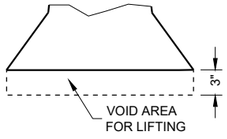


ANCHOR BLOCK DETAIL

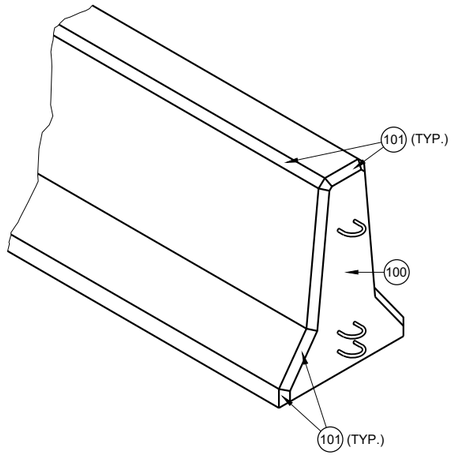


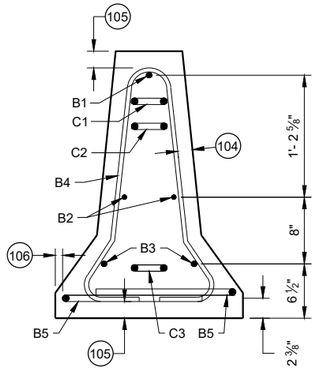
PLAN VIEW

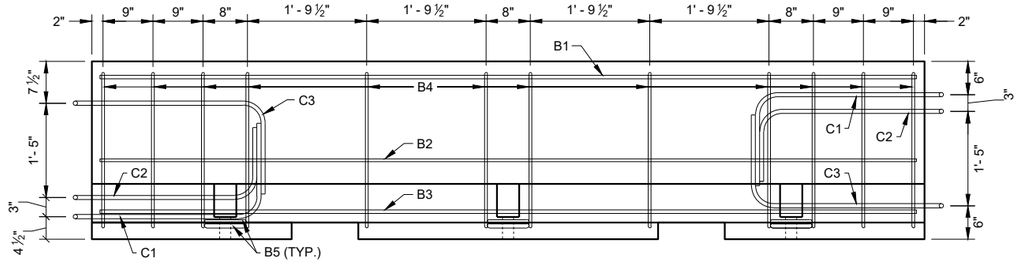
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)







PROFILE VIEW

TEMPORARY BARRIER REINFORCEMENT

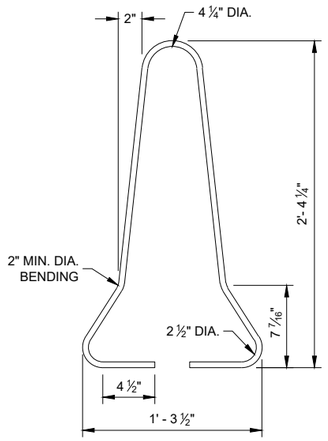
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTA 306

6

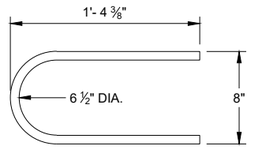
SDD 14B07 - 16a

6

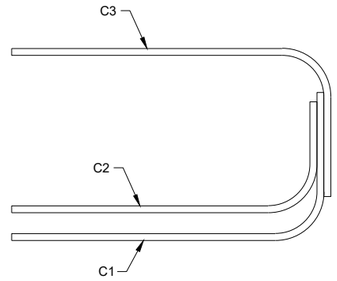
SDD 14B07 - 16a



B4 BAR DETAIL

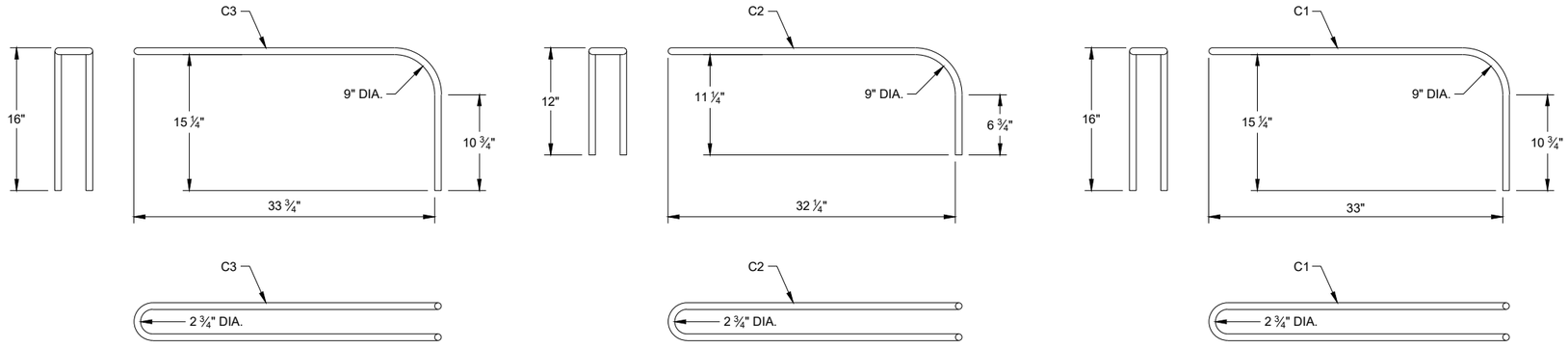


B5 BAR DETAIL



PROFILE VIEW

LOOP BAR ASSEMBLY



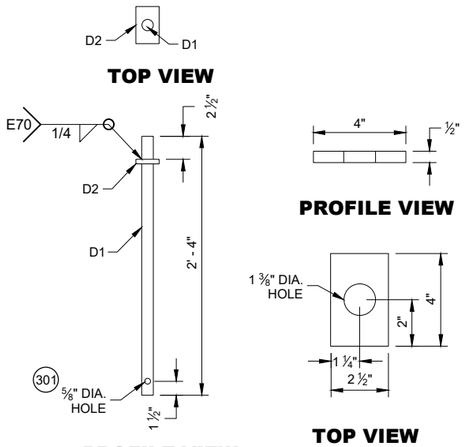
C BAR DETAILS

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

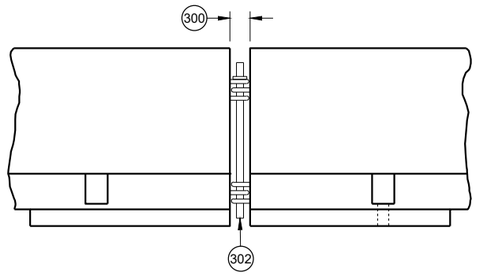
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16b



CONNECTOR PIN ASSEMBLY



CONNECTING TEMPORARY BARRIER SECTIONS

GENERAL NOTES

300 SET WITH 3 ⅝" WOOD BLOCK.

301 HOLE IS OPTIONAL.

302 CONNECTOR PIN ASSEMBLY.

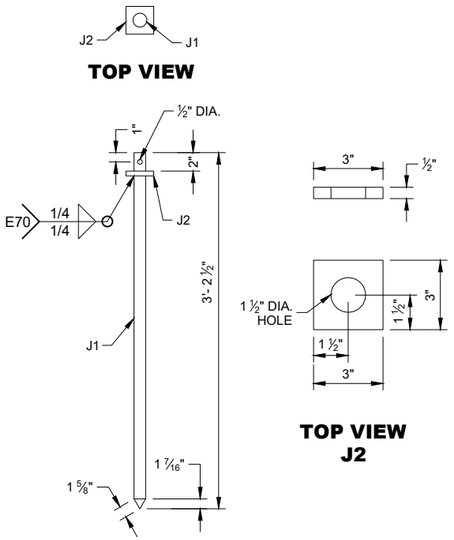
303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.

304 CONCRETE DECK.

305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

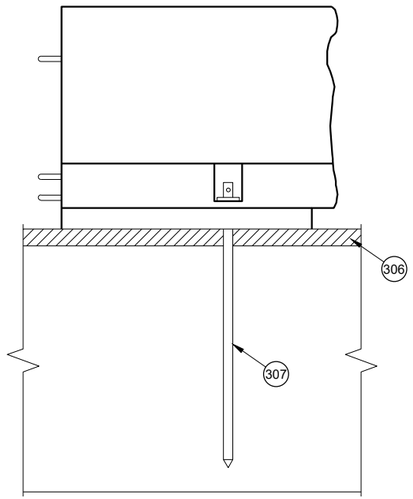
306 MINIMUM OF 2" OF ASPHALT.

307 ASPHALT ANCHOR PIN ASSEMBLY



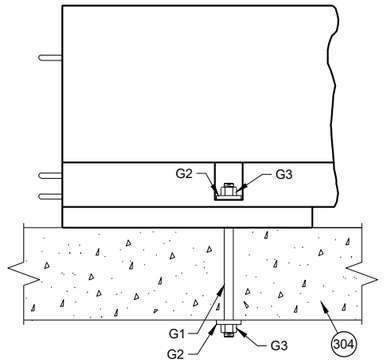
PROFILE VIEW

ASPHALT ANCHOR PIN ASSEMBLY



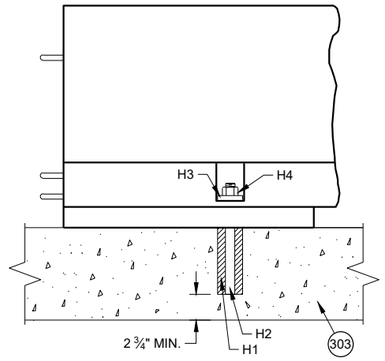
SIDE VIEW

ASPHALT ANCHOR INSTALLATION



SIDE VIEW

THROUGH BOLT ANCHOR INSTALLATION 305



SIDE VIEW

ADHESIVE ANCHOR INSTALLATION 305

6

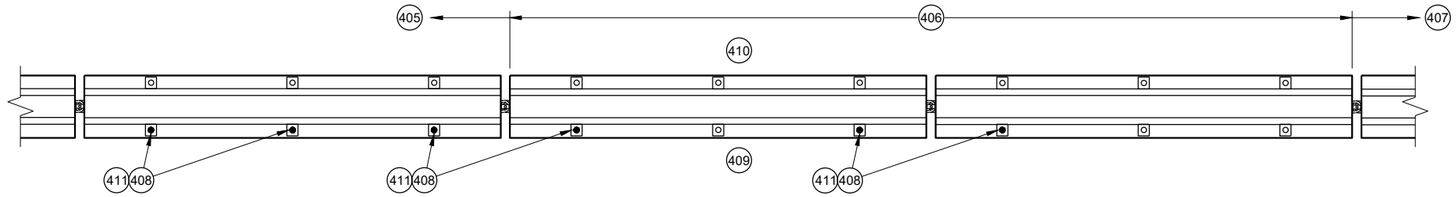
SDD 14B07 - 16c

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

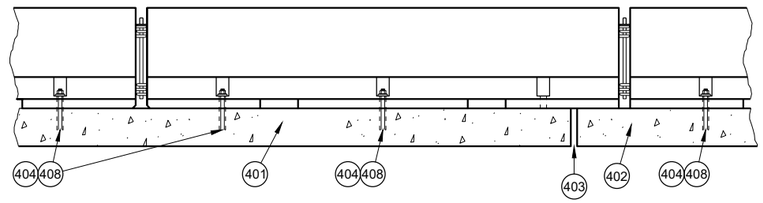
6

SDD 14B07 - 16c



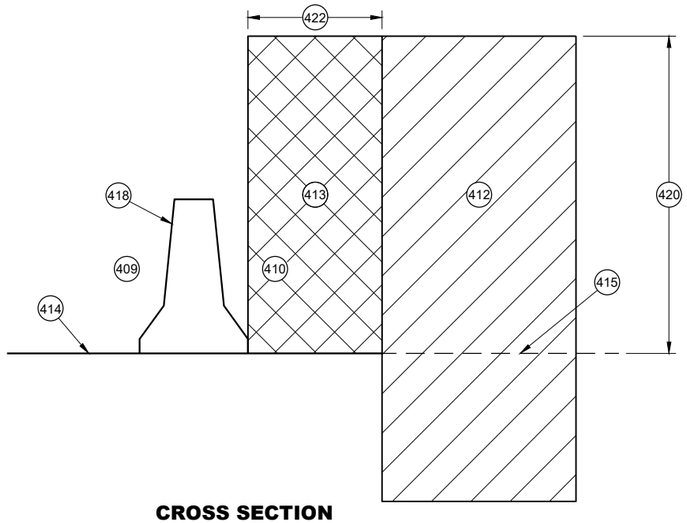
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



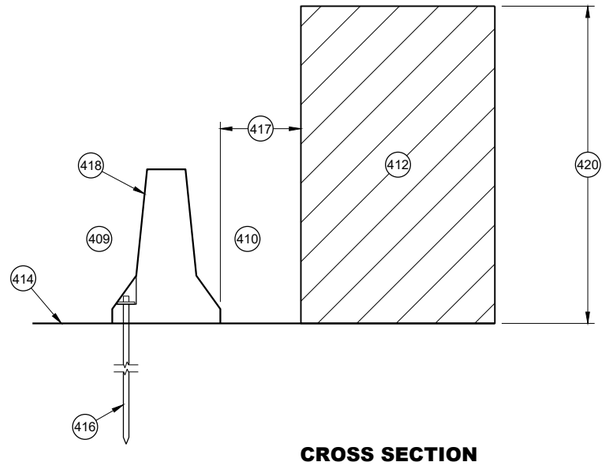
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



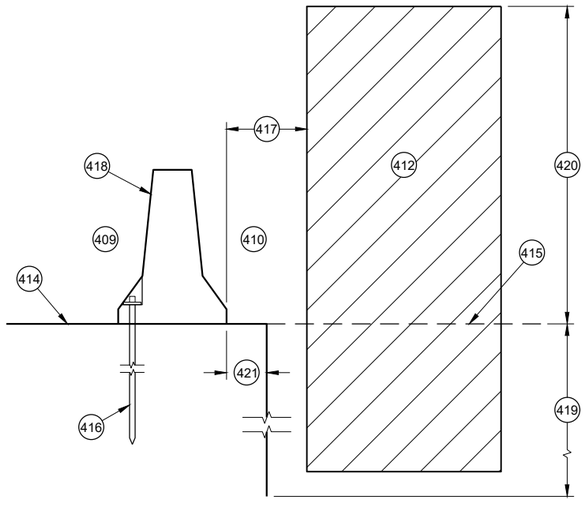
CROSS SECTION

FREE STANDING BARRIER



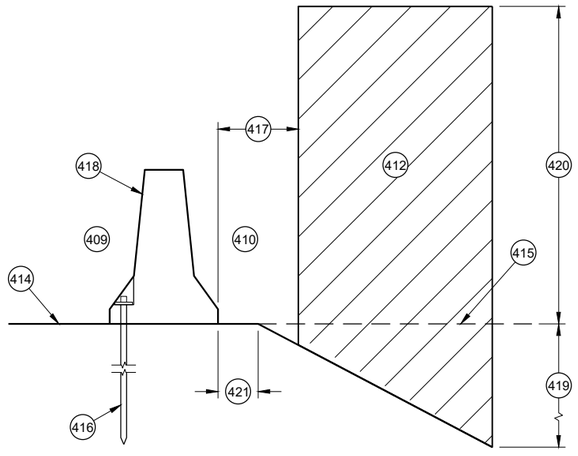
CROSS SECTION

ANCHORED BARRIER FOR OBJECTS ABOVE THE GRADE LINE AND NEAR THE BARRIER



CROSS SECTION

ANCHORED BARRIER NEAR VERTICAL DROP OFF



CROSS SECTION

ANCHORED BARRIER NEAR A SLOPE

GENERAL NOTES

(400) NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.

(401) CONCRETE DECK

(402) CONCRETE DECK OR APPROACH SLAB.

(403) EXPANSION JOINT

(404) ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.

(405) ANCHORED TEMPORARY BARRIER

(406) TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING

(407) FREE STANDING BARRIER

(408) REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(409) TRAFFIC SIDE

(410) NON-TRAFFIC SIDE

(411) ANCHOR LOCATION. SEE ANCHORING DETAILS.

(412) WORK AREA

(413) AREA FREE OF OBJECTS AND WORKERS

(414) GRADE LINE

(415) EXTENDED GRADE LINE

(416) ANCHORED TEMPORARY BARRIER. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR AN ASPHALT ANCHOR ROD DETAILS FOR MORE INFORMATION. ASPHALT ANCHOR ROD SHOWN.

(417) WHEN OBJECTS EXTEND ABOVE THE GRADE. A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT.

(418) OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR ALLOWED TO LEAN AGAINST THE BARRIER WITHOUT WRITTEN PERMISSION OF THE PROJECT ENGINEER.

(419) DEPTHS OF 3 FEET OR MORE.

(420) Y = 6.5'

(421) OFFSET FROM BACK OF BARRIER EDGE:

CONCRETE PAVEMENT	0.5'
ASPHALT	0.5'

(422) POSTED SPEED (MPH):

45 OR GREATER	4.0'
40 OR LOWER	2.0'

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16d

SDD 14B07 - 16d

GENERAL NOTES

(500) EXISTING RIGID BARRIERS (VARIES)

(501) TEMPORARY BARRIER

(502) SEE OTHER DETAIL ON HOW TO ANCHOR TEMPORARY BARRIER (BARRIER ASPHALT ANCHOR SHOWN).

(503) ANCHORS ARE REQUIRED ON BOTH SIDE OF THE TEMPORARY BARRIER.

(504) NESTED RAILS ARE REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

(505) TRAFFIC TRAVELS FROM PERMANENT BARRIER TO TEMPORARY BARRIER.

(506) TRAFFIC TRAVELS FROM TEMPORARY BARRIER TO PERMANENT BARRIER.

(507) VERTICAL BARRIER

(508) SAFETY SHAPE BARRIER

(509) SINGLE SLOPE BARRIER

(510) CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF RIGID BARRIER.

(511) BENT THRIE BEAM TO FIT.

(512) THRIE BEAM PIECES ARE OFFSET 15 ¼" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.

(513) TWO (2) P1, P2 AND P3 ARE REQUIRED

(514) FIVE (5) N1, N2 AND N3 ARE REQUIRED

(515) TWO (2) R1, R2 AND R3 ARE REQUIRED

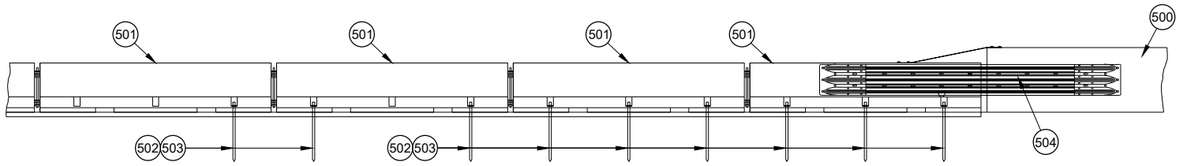
(516) CUT WOOD BLOCK TO FIT.

(517) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL ASSEMBLY.

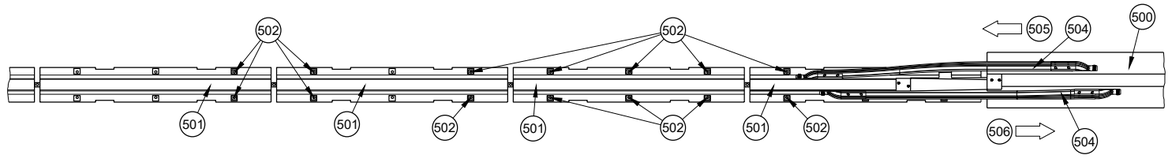
(518) CAP ASSEMBLY

(519) 4" MAX. GAP BETWEEN TEMPORARY BARRIER AND RIGID BARRIER.

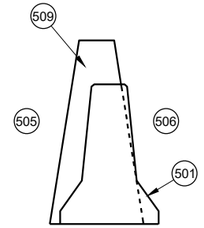
(520) ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



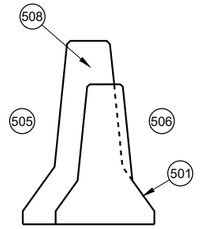
PROFILE VIEW



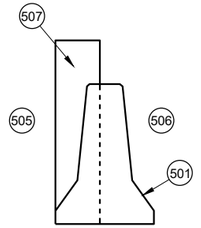
PLAN VIEW
TRANSITION TO RIGID BARRIER



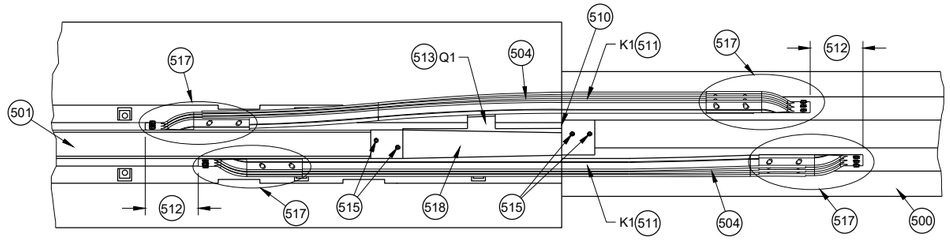
CROSS SECTION TEMPORARY BARRIER PLACEMENT SINGLE SLOPE



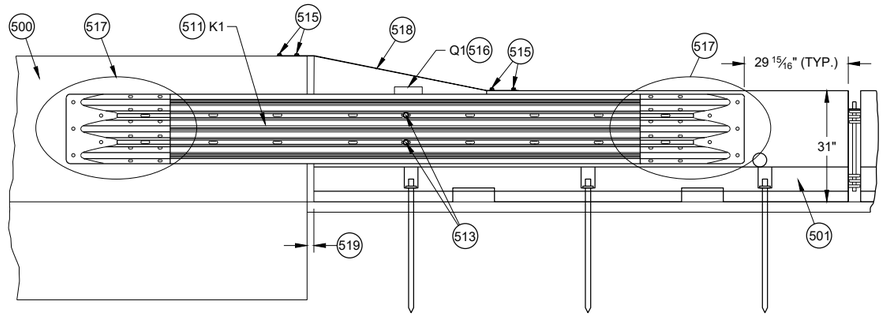
CROSS SECTION TEMPORARY BARRIER PLACEMENT SAFETY SHAPE



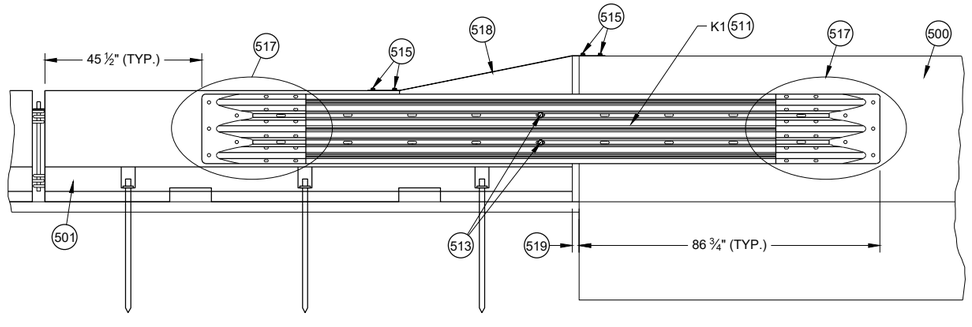
CROSS SECTION TEMPORARY BARRIER PLACEMENT VERTICAL



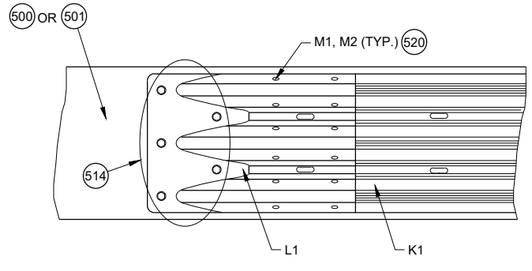
PLAN DETAIL VIEW
TRANSITION TO RIGID BARRIER



BACK DETAIL VIEW
TRANSITION TO RIGID BARRIER



FRONT DETAIL VIEW
TRANSITION TO RIGID BARRIER



(517) DETAIL PLAN VIEW
THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

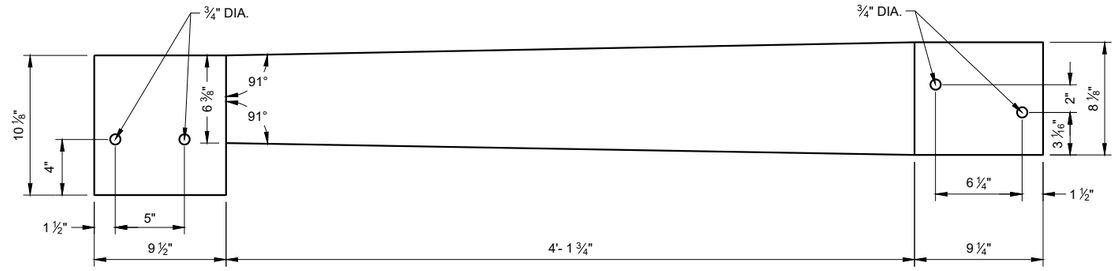
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16e

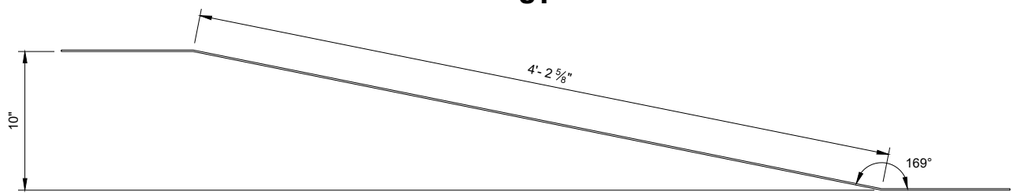
6

SDD 14B07 - 16e



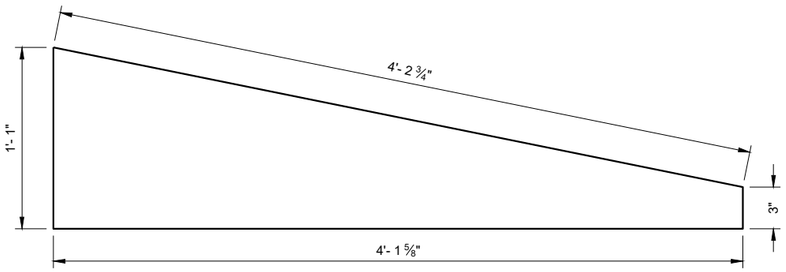
TOP VIEW

S1



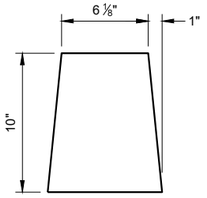
ELEVATION VIEW

S1

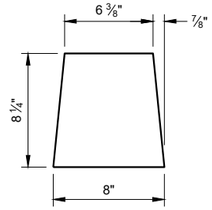


SIDE VIEW

S3



S2



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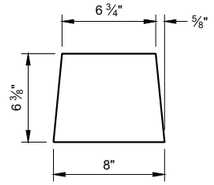

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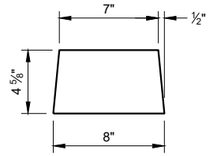

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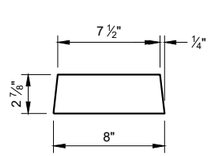
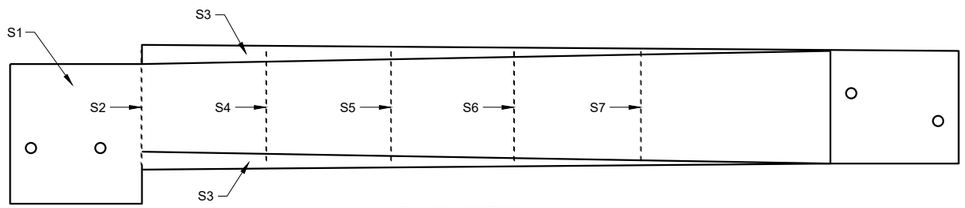
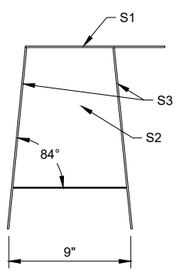


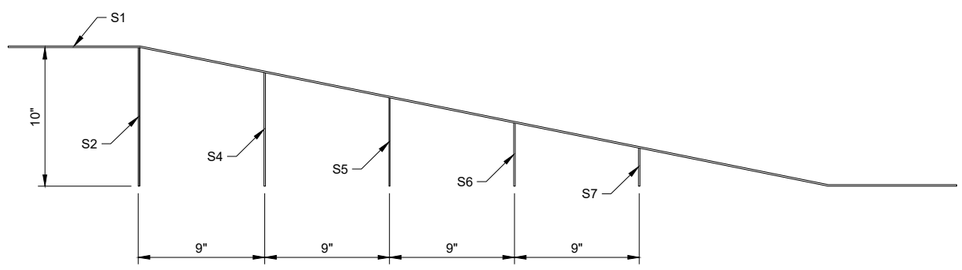
S7



PLAN VIEW



BACK VIEW



SIDE VIEW (600)

42" TOP CAP ASSEMBLY

GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THREE SIDES

STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

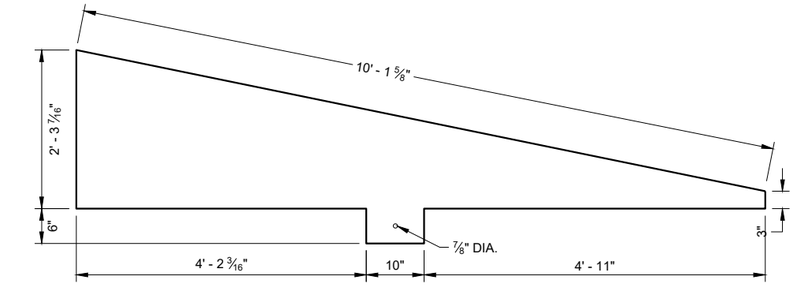
(600) SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

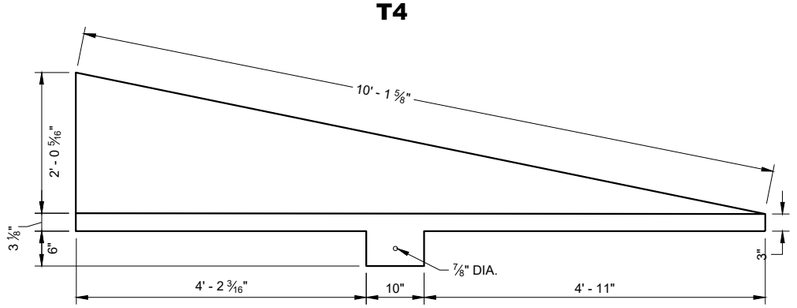
6

SDD 14B07 - 16f



SIDE VIEW
T4

END VIEW



SIDE VIEW
T3

END VIEW

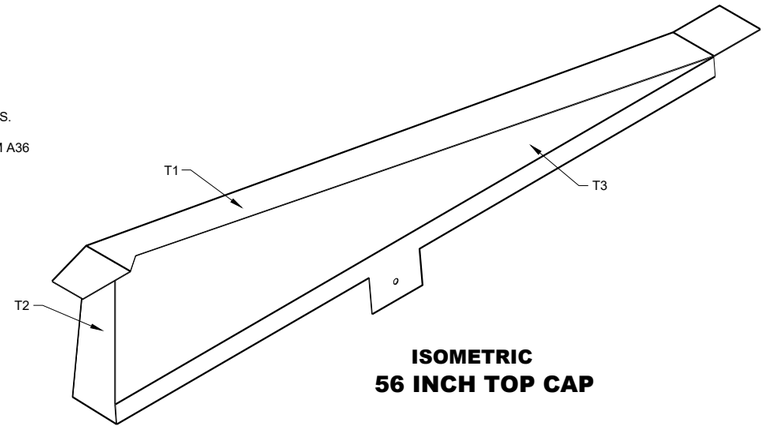
GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES

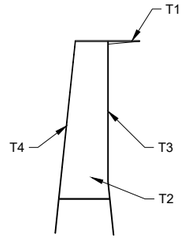
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

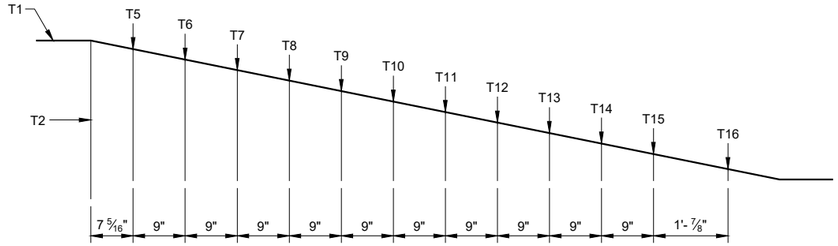
(700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.



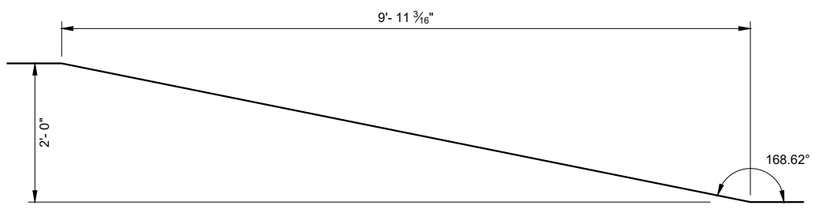
ISOMETRIC
56 INCH TOP CAP



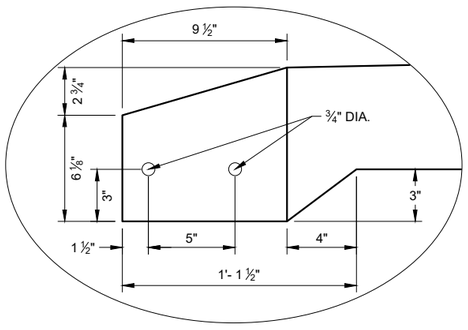
END VIEW
56 INCH TOP CAP



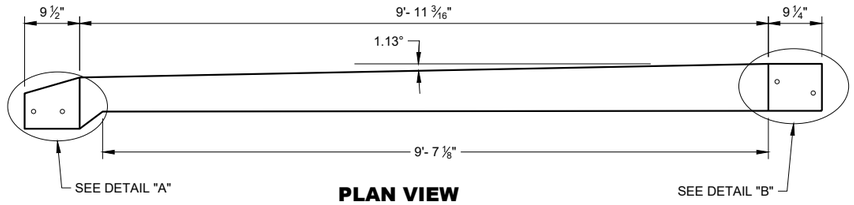
SIDE VIEW (700)
56 INCH TOP CAP



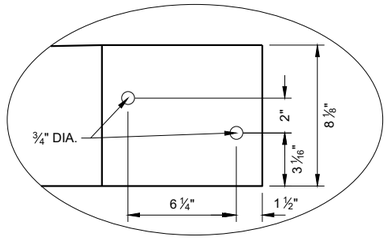
SIDE VIEW
TOP PLATE T1



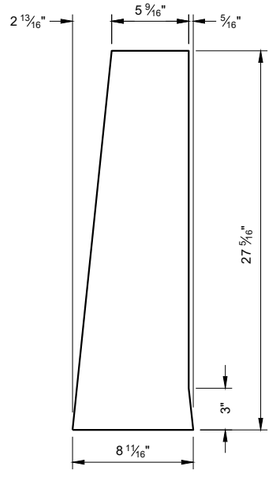
DETAIL "A"



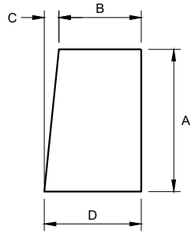
PLAN VIEW
TOP PLATE T1



DETAIL "B"



END PLATE T2



GUSSET PLATES
T5 - T16

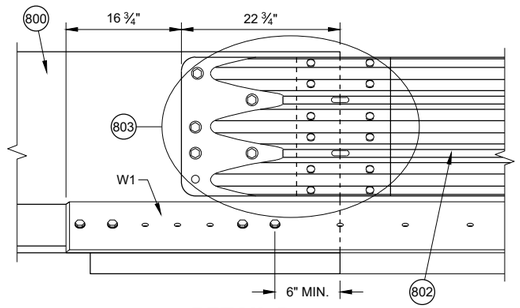
GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 1/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/16"	1 15/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 5/16"	6 7/16"	1 9/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"	7"	1 1/16"	8 1/16"
T13	8 5/16"	7 3/16"	7/8"	8 1/16"
T14	6 1/2"	7 3/8"	1 1/16"	8 1/16"
T15	4 11/16"	7 9/16"	1/2"	8"
T16	2 7/8"	7 3/4"	1/4"	8"

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

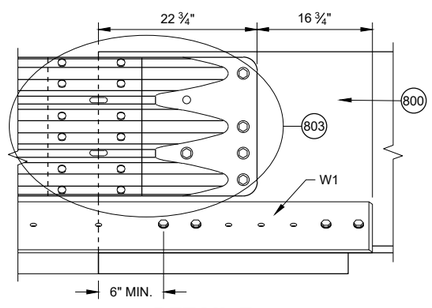
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16g



DETAIL D



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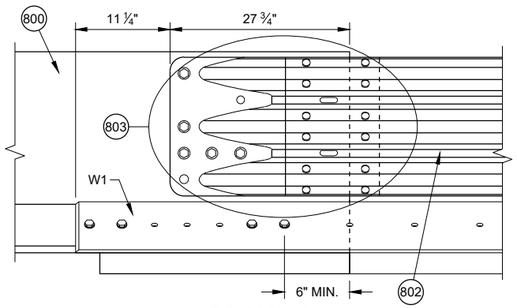

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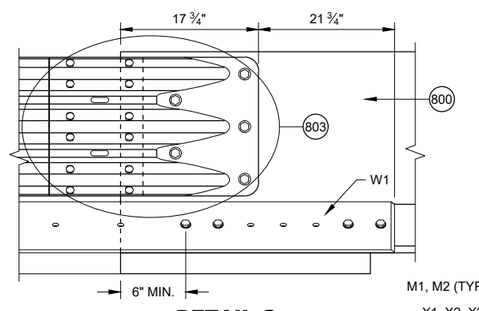
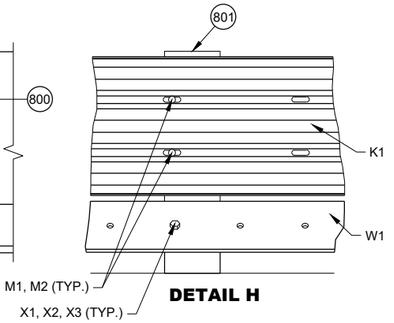
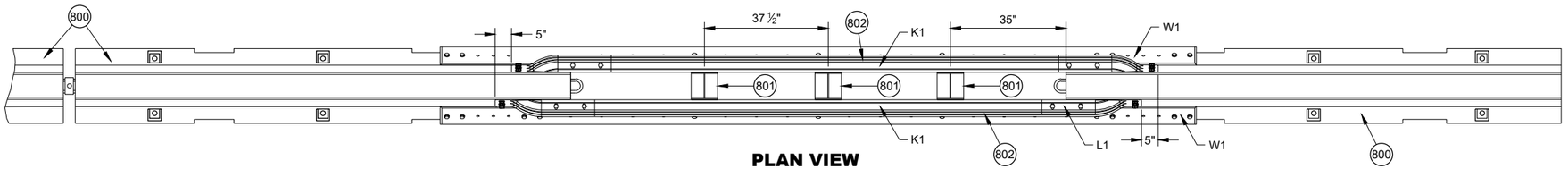


DETAIL G



DETAIL H



PLAN VIEW

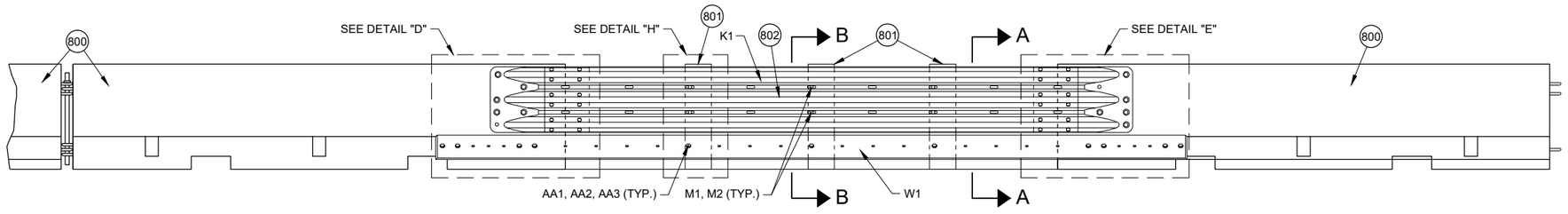
GENERAL NOTES

(800) FREE STANDING TEMPORARY BARRIER

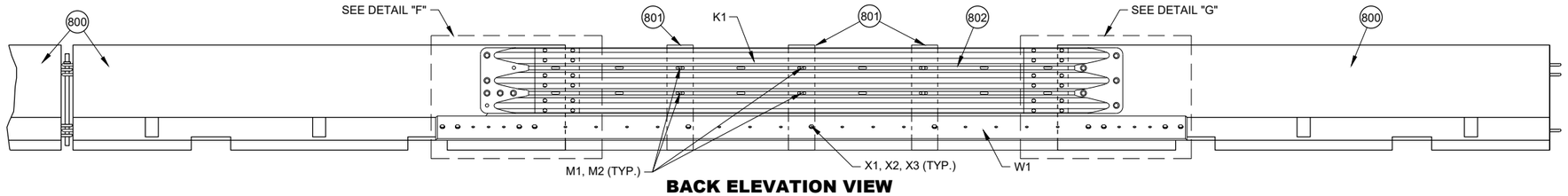
(801) GAP STIFFENER ASSEMBLY

(802) THRIE BEAMS ARE NESTED ON BOTH SIDES OF THE TEMPORARY BARRIER.

(803) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



FRONT ELEVATION VIEW



BACK ELEVATION VIEW

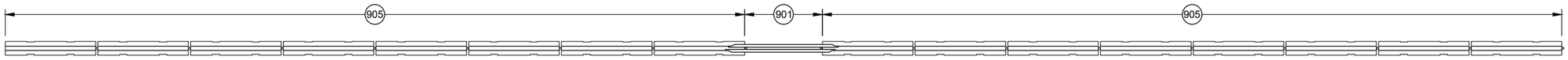
PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

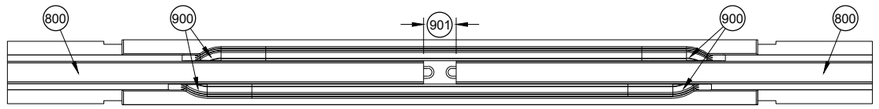
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16h



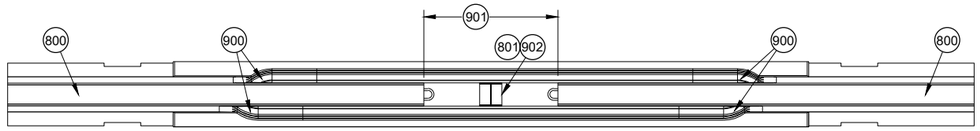
PLAN VIEW
GAP WITHIN SPACING



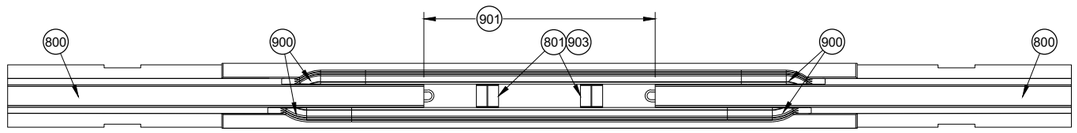
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. (904)

GENERAL NOTES

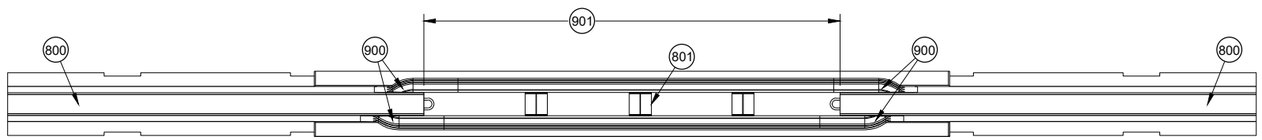
(900) SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)
(901) TEMPORARY BARRIER GAP
(902) GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
(903) GAP STIFFENER ASSEMBLY IS OFFSET 18 ¾" FROM CENTER
(904) MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
(905) MINIMUM OF 8 CONTINUOUS FREE STANDING TEMPORARY BARRIERS



PLAN VIEW
TEMPORARY BARRIER GAP OVER 1' TO 4' MAX. (904)



PLAN VIEW
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX. (904)



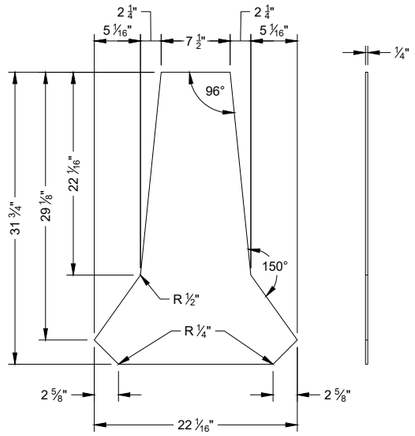
PLAN VIEW
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX. (904)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

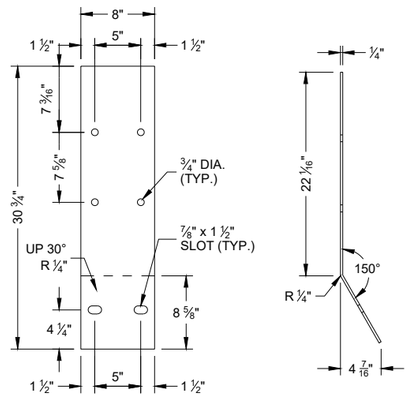
6

SDD 14B07 - 16i



PROFILE VIEW SIDE VIEW

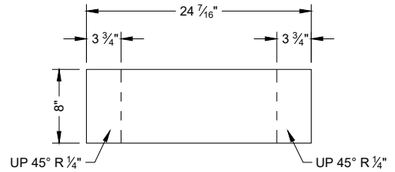
STIFFENER ASSEMBLY CENTER PANEL U1



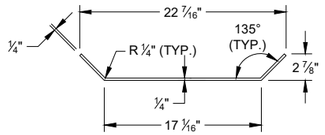
FLAT PATTERN

SIDE VIEW

STIFFENER ASSEMBLY SIDE PANEL U2

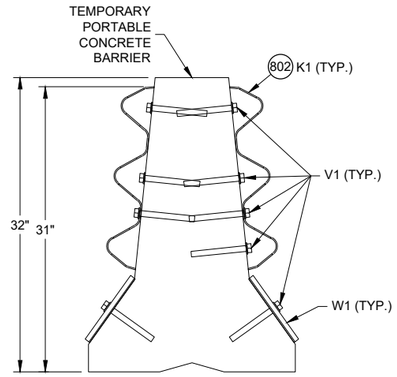


FLAT PATTERN

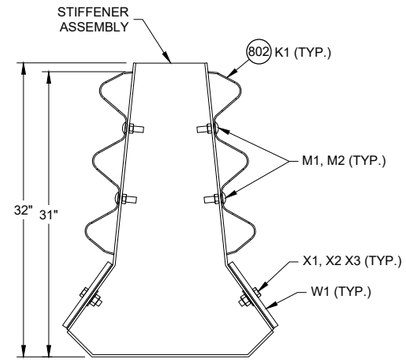


PROFILE VIEW

STIFFENER ASSEMBLY BOTTOM PANEL U3

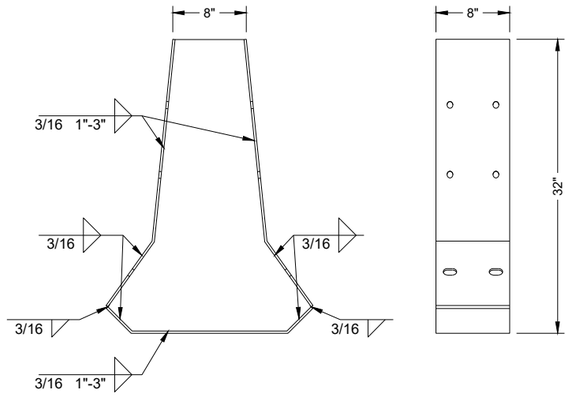


SECTION A - A



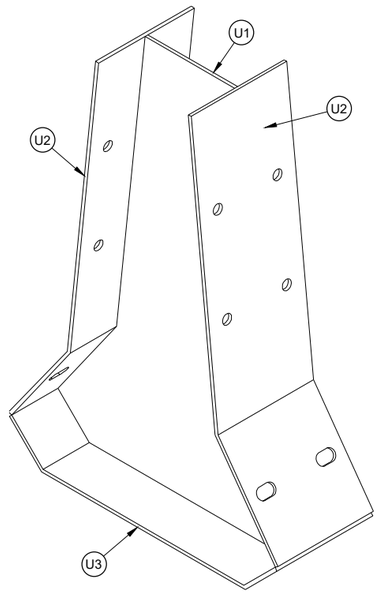
SECTION B - B

PLAN VIEW



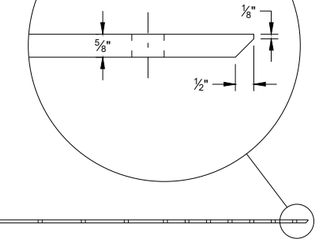
PROFILE VIEW

SIDE VIEW

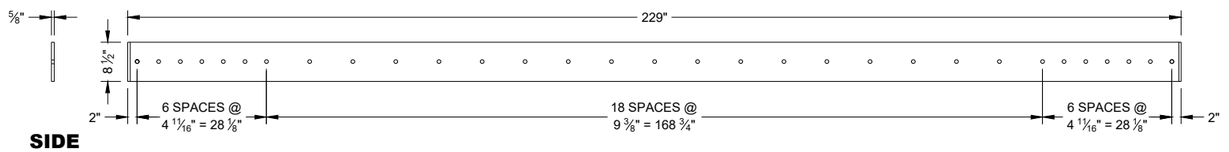


ISOMETRIC

GAP STIFFENER ASSEMBLY



PLAN VIEW



SIDE VIEW

ELEVATION VIEW

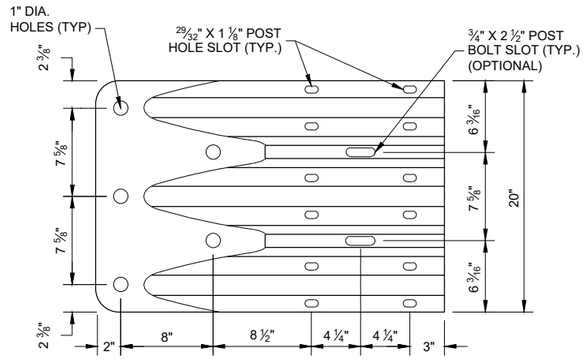
W1 TOE PLATE

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

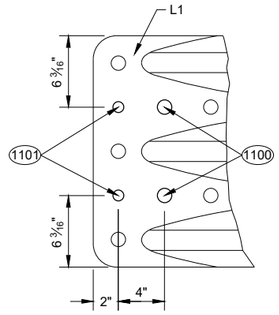
6

SDD 14B07 - 16j



ELEVATION VIEW

THRIE BEAM TERMINAL CONNECTOR



ELEVATION VIEW

ADDITIONAL THRIE BEAM (1102) TERMINAL CONNECTOR HOLE DETAIL

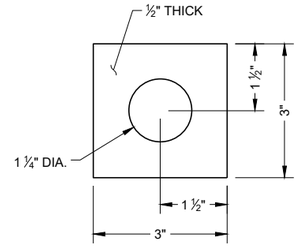


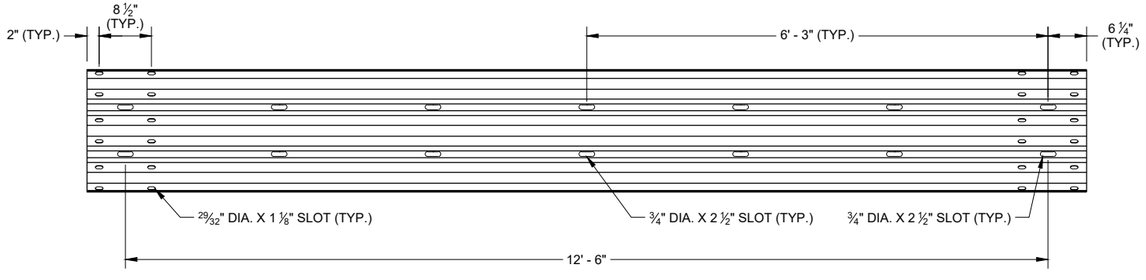
PLATE WASHER DETAIL G2, H3

GENERAL NOTES

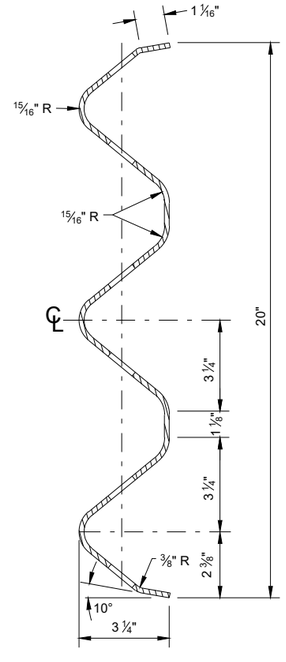
(1100) 1" DIA. HOLE

(1101) 3/4" DIA. HOLE

(1102) PROVIDE HOLES IN THRIE BEAM TERMINAL CONNECTOR TO LIMIT STEEL REINFORCEMENT OR LOOP BAR CONFLICT. CONTRACTOR MAY FIELD DRILL ADDITIONAL HOLE OR PROVIDE THRIE BEAM TERMINAL CONNECTOR WITH ADDITIONAL HOLES FROM SUPPLIER.



SLOTTED THRIE BEAM RAIL K1



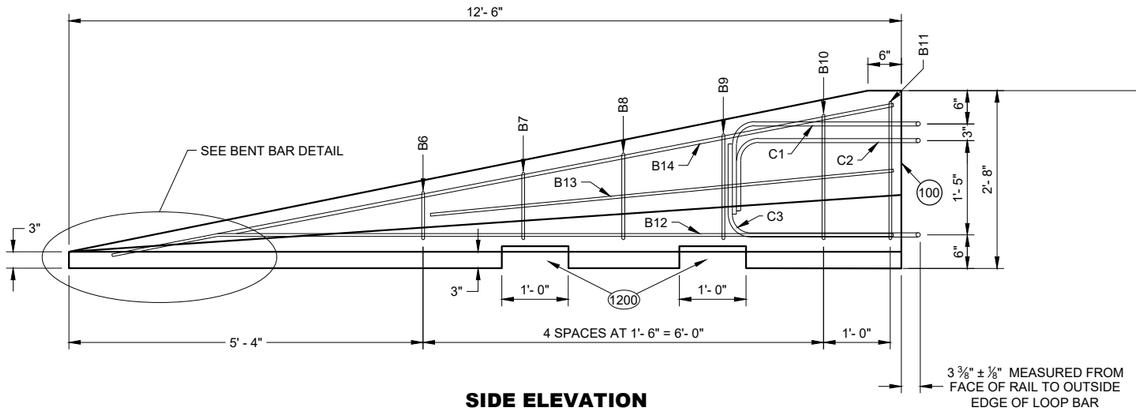
SECTION THROUGH BEAM K1

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

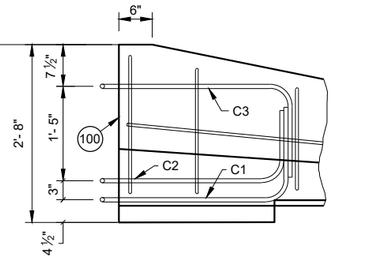
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16k



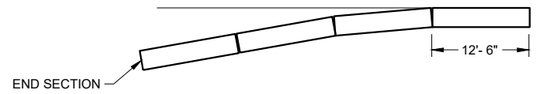
SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED FOR OPPOSITE END
(FOR CONNECTION TO RIGHT END OF BARRIER)

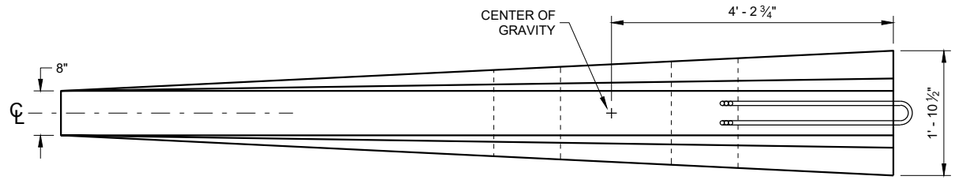
GENERAL NOTES

(1200) SEE LIFTING SLOT DETAIL. LOCATION OF LIFTING SLOTS DETERMINED BY CONTRACTOR.

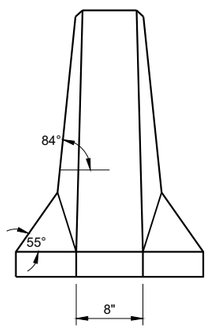


FLARE AT BARRIER END

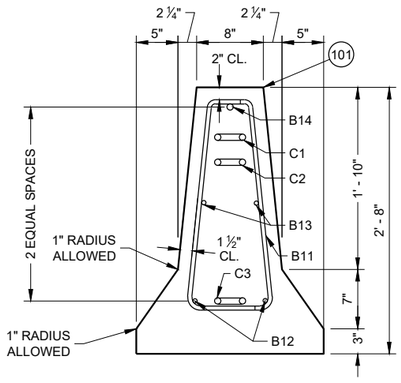
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



PLAN VIEW

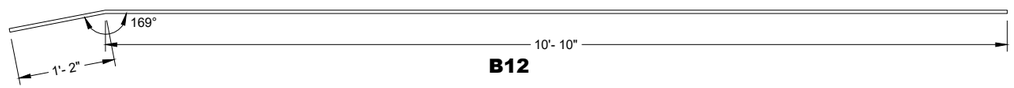


FRONT ELEVATION

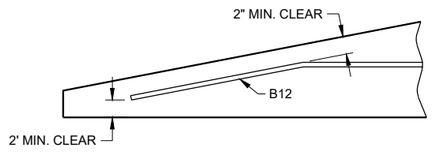


END SECTION

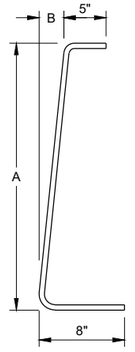
DETAILS OF BARRIER TAPER SECTION



B12



BENT BAR DETAIL



BAR	A	B
B6	10"	1"
B7	1'- 1"	1 ¼"
B8	1'- 5"	1 ⅝"
B9	1'- 8"	1 ⅞"
B10	2'- 0 ½"	2 ⅜"
B11	2'- 3"	2 ¾"

B BARS

2 OF EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16I

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	PRECAST TEMPORARY BARRIER - CONCRETE	MIN. = f'c 5000 PSI	
B1	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B2	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-2"
B3	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B4	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 6'-0"
B5	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 2'-11"
B6	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 1'-11"
B7	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-2"
B8	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-6"
B9	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-9"
B10	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-2"
B11	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-4"
B12	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-0"
B13	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 7'-9"
B14	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 11'-9"
C1	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C2	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C3	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
D1	CONNECTION PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ¼" DIA.
D2	CONNECTION PIN - TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G1	BOLT THROUGH ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A OR SAE J429 GRADE 2 UNC	1 ⅛" DIA.
G2	BOLT THROUGH ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G3	BOLT THROUGH ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
H1	ADHESIVE ANCHOR - ADHESIVE	ICC-ES-AC308 5 ¼" EMBEDMENT WITH A MIN. STRENGTH OF 1,800 PSI. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
H2	ADHESIVE ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A / SAE J429 GRADE 2 UNC	1 ⅛" DIA.
H3	ADHESIVE ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
H4	ADHESIVE ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
J1	ASPHALT ANCHOR PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ½" DIA.
J2	ASPHALT ANCHOR PIN - STOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
K1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE
L1	THRIE BEAM RAIL - TERMINAL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
M1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	⅝" DIA.
M2	SPLICE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
N1	THRIE BEAM RAIL TERMINAL - MECHANICAL ANCHOR	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA. LENGTH 6"
N2	THRIE BEAM RAIL TERMINAL - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
N3	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
P1	THRIE BEAM RAIL CONNECTION 1-BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA.
P2	THRIE BEAM RAIL CONNECTION 1-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
P3	THRIE BEAM RAIL CONNETION 1- MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
Q1	BLOCK WOOD	SEE STANDARD SPEC. 614	
R1	CAP - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	⅝" DIA.
R2	CAP- BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
R3	CAP - BOLT - MECHANICAL ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	12 GAUGE
S1	CAP 42-INCH TOP PLATE	AASHTO M111 / ASTM A123 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	12 GAUGE
S2	CAP 42-INCH END PLATE	AASHTO M111 / ASTM A123 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	12 GAUGE
S3	CAP 42-INCH SIDE PLATE	AASHTO M111 / ASTM A123 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	12 GAUGE
S4	CAP 42-INCH GUSSET 1	AASHTO M111 / ASTM A123 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	12 GAUGE
S5	CAP 42-INCH GUSSET 2	AASHTO M111 / ASTM A123 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	12 GAUGE
S6	CAP 42-INCH GUSSET 3	AASHTO M111 / ASTM A123 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	12 GAUGE
S7	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 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	12 GAUGE

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

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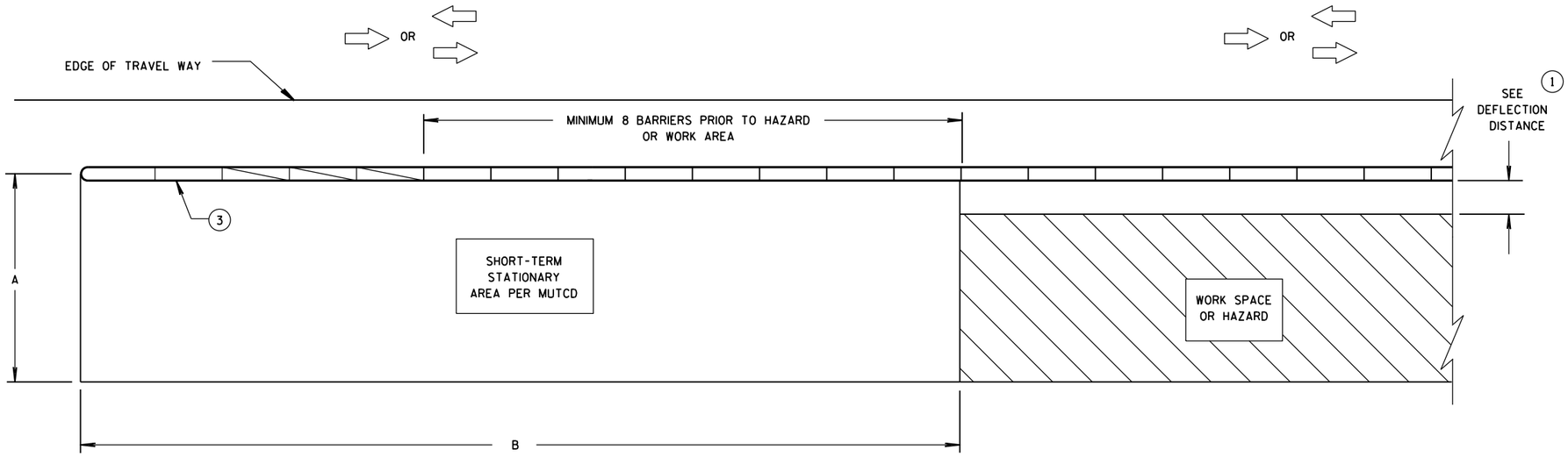
6
SDD14B07 - 16m



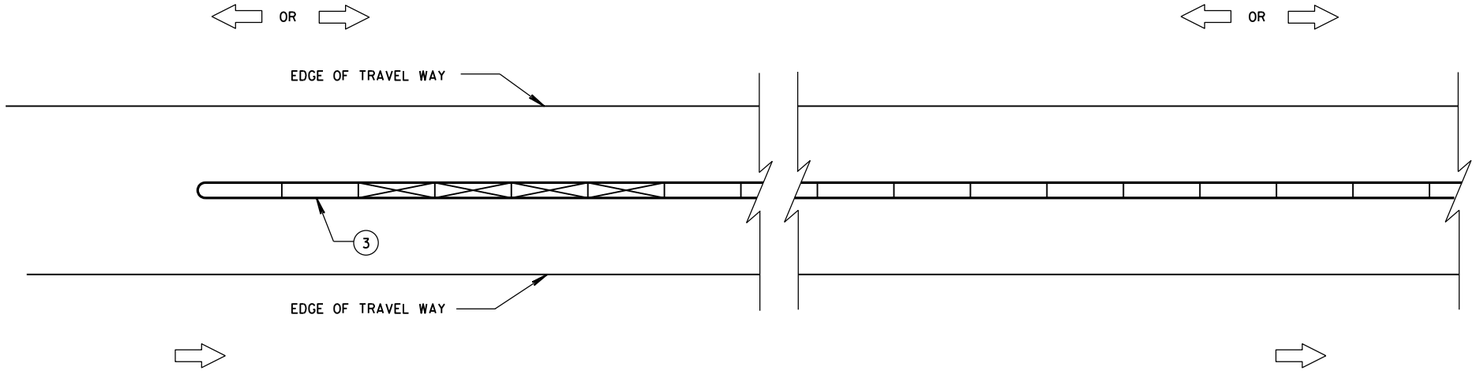
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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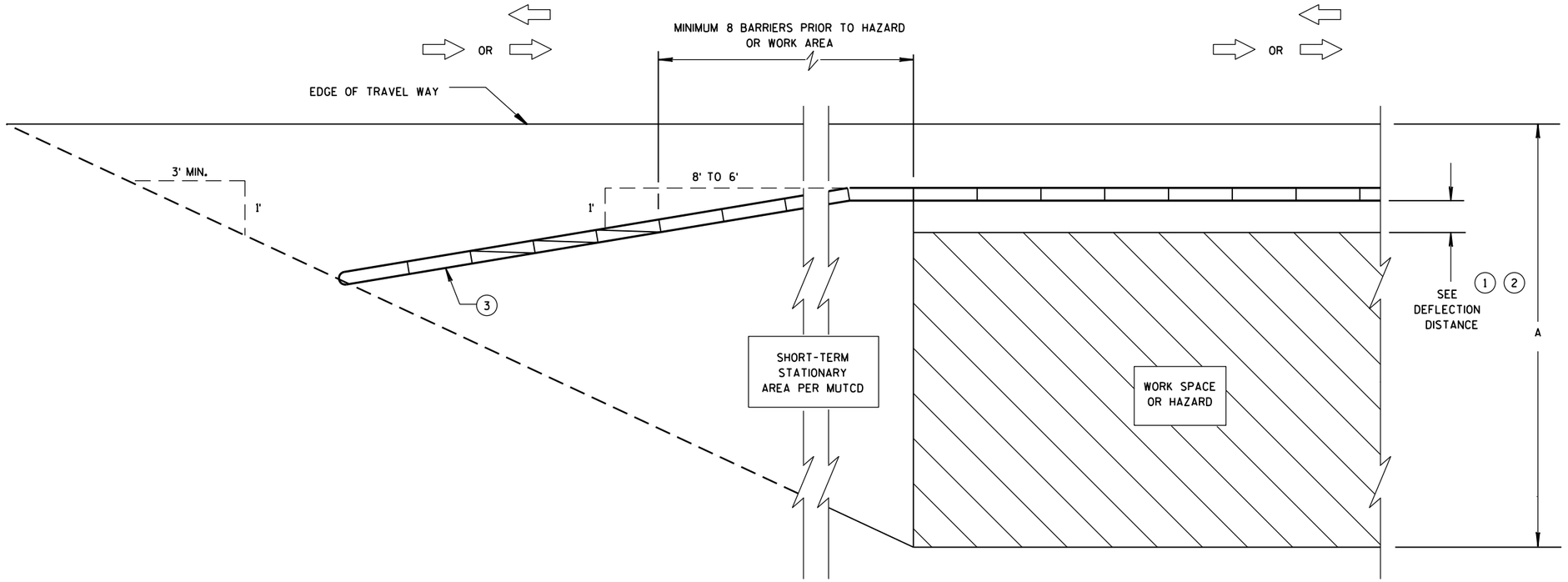
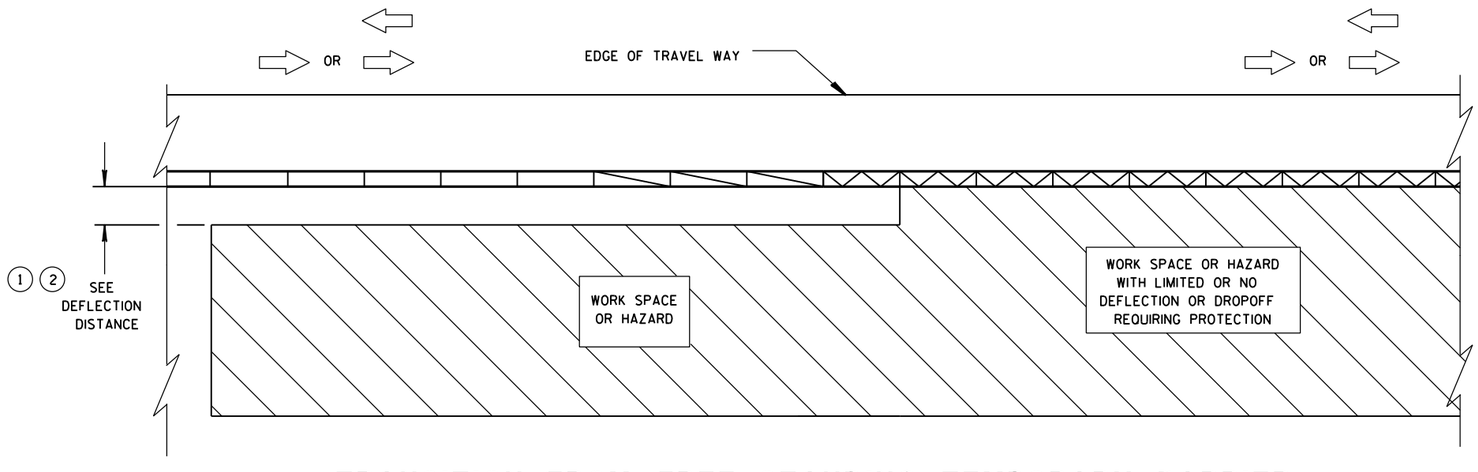
S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 8-2b

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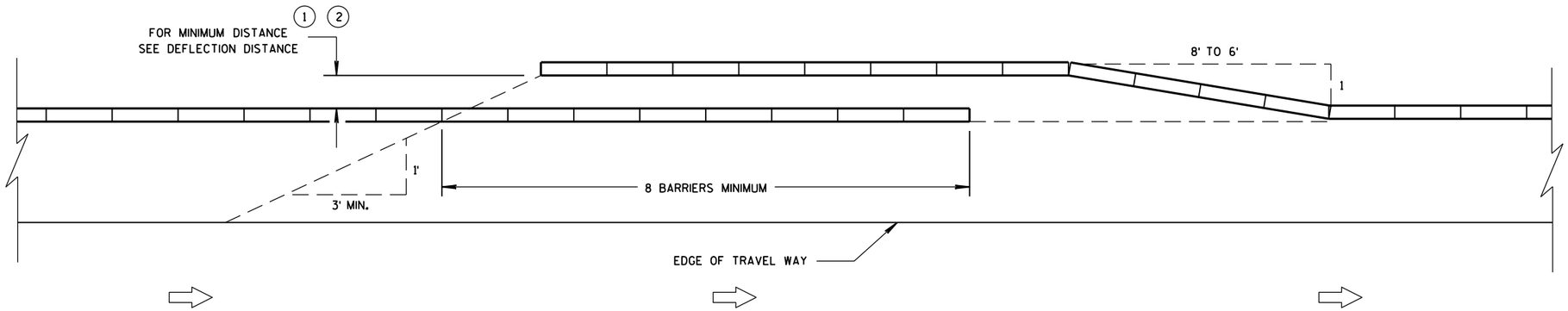
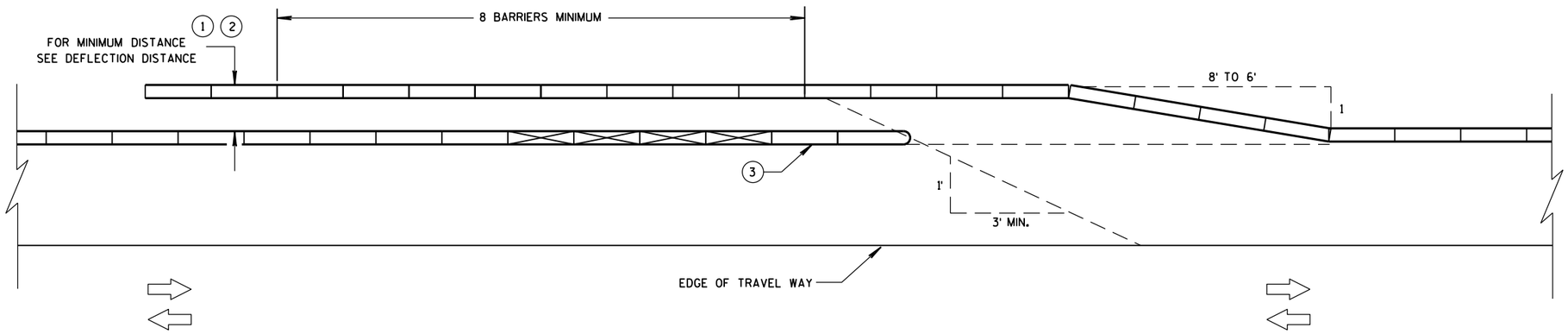
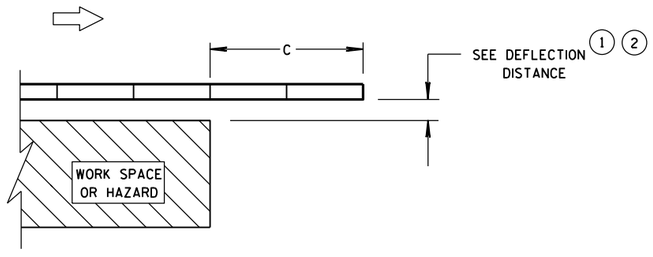
S.D.D. 14 B 8-2b



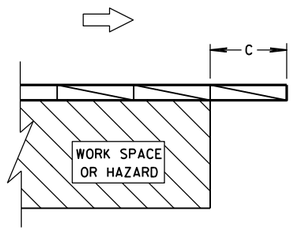
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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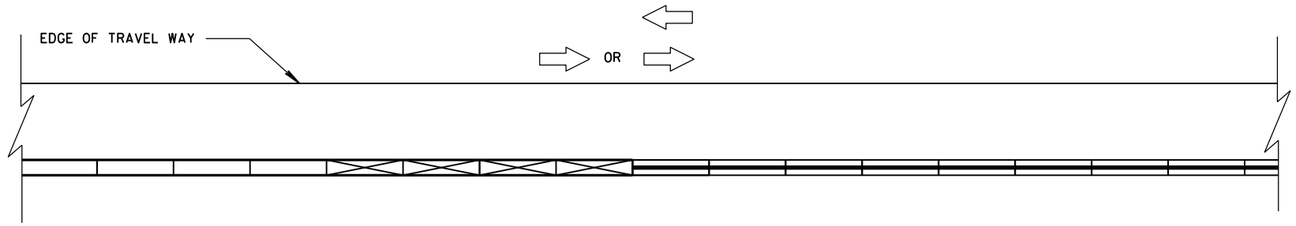
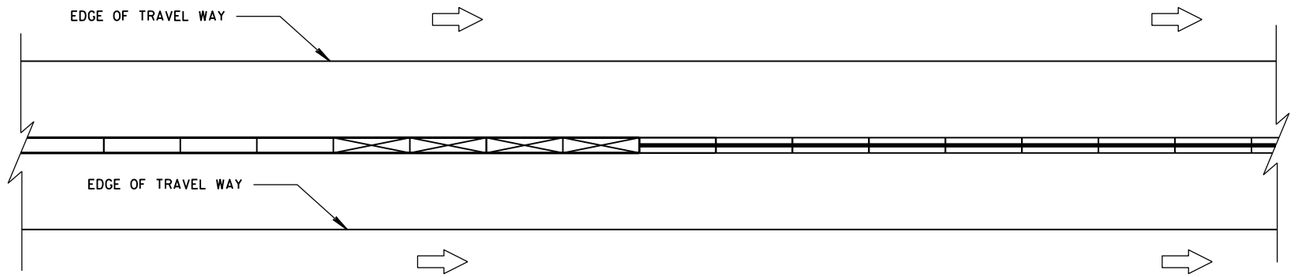
S.D.D. 14 B 8-2c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

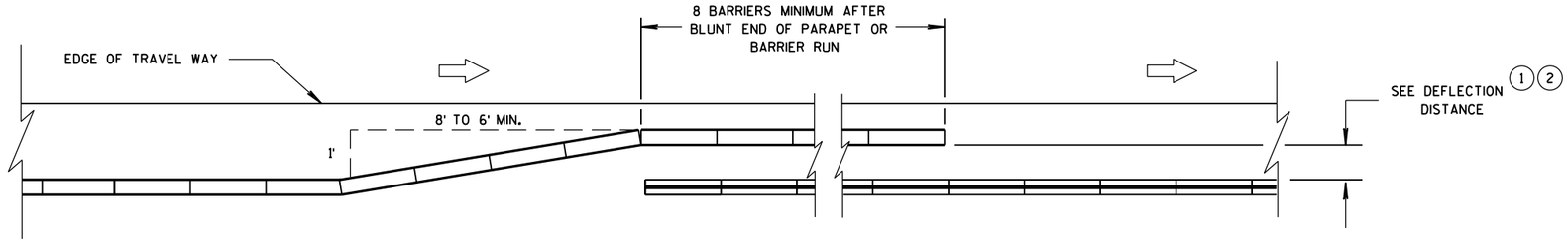
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

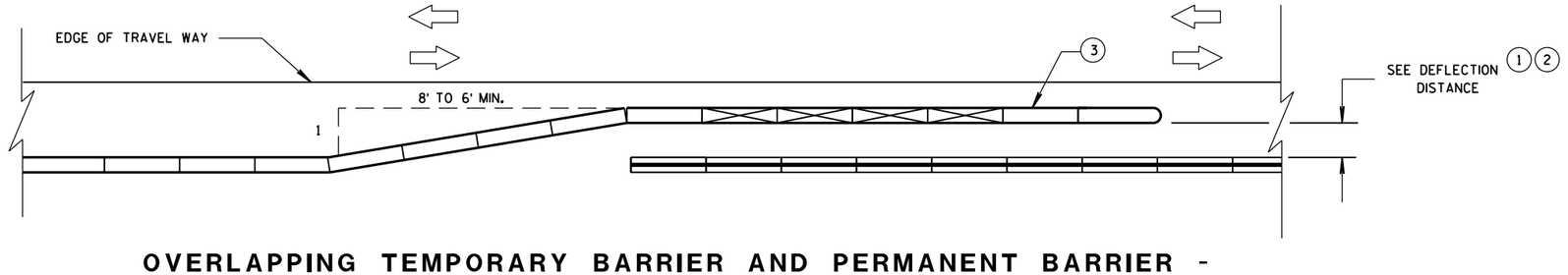
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

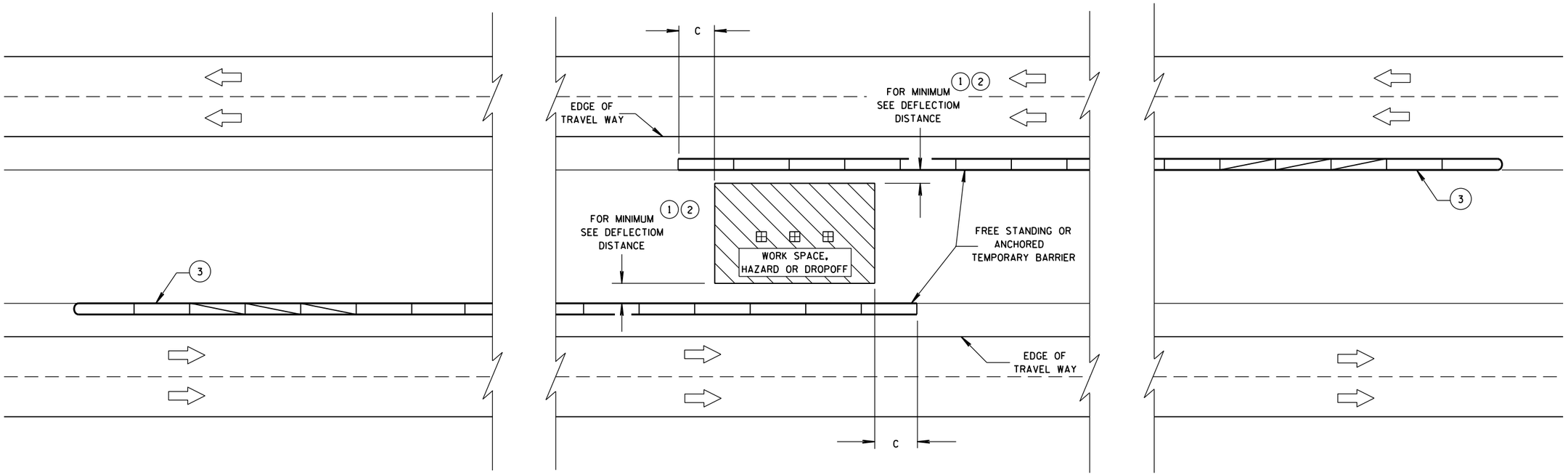
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER
FHWA

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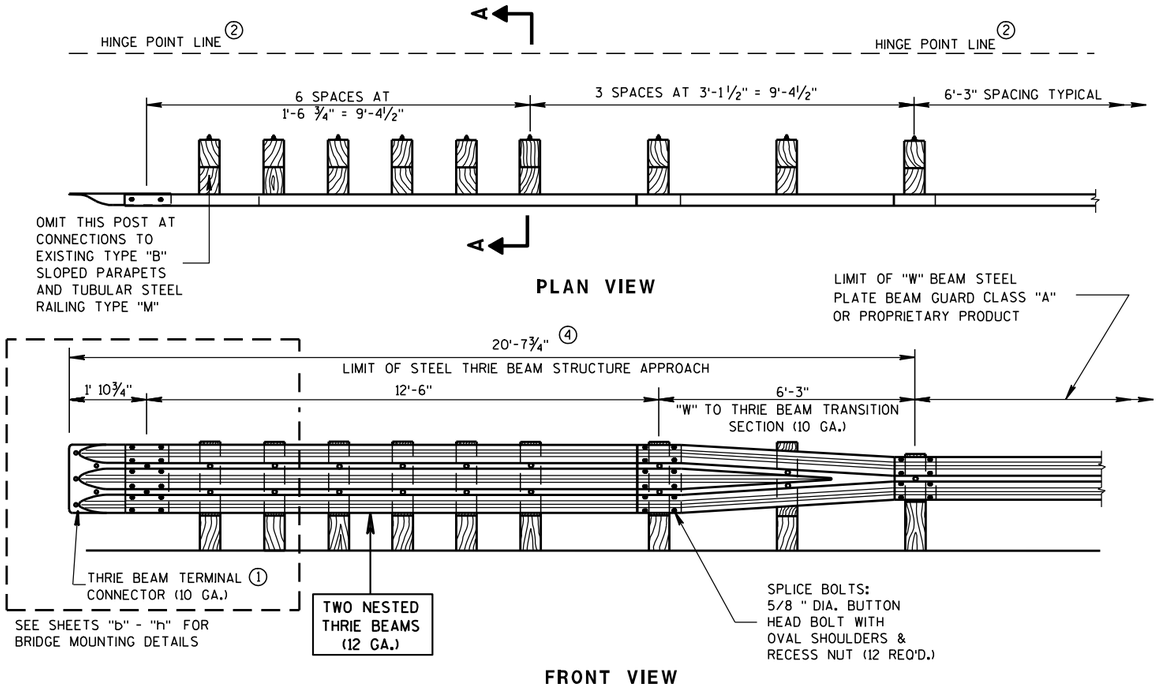
S.D.D. 14 B 8-2e



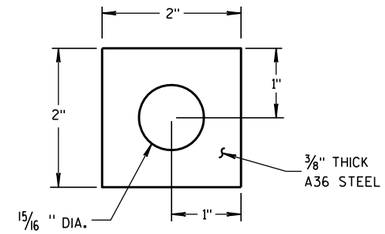


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

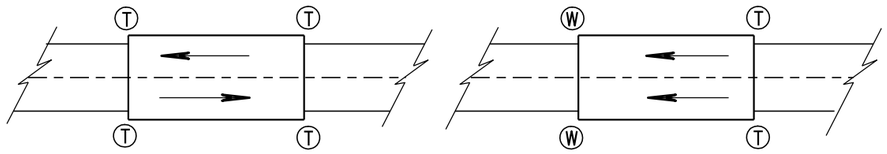
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

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

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



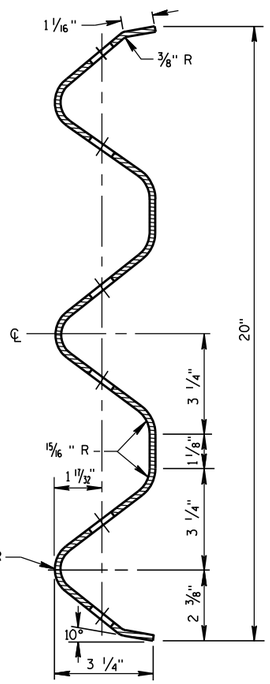
TWO WAY TRAFFIC

ONE WAY TRAFFIC

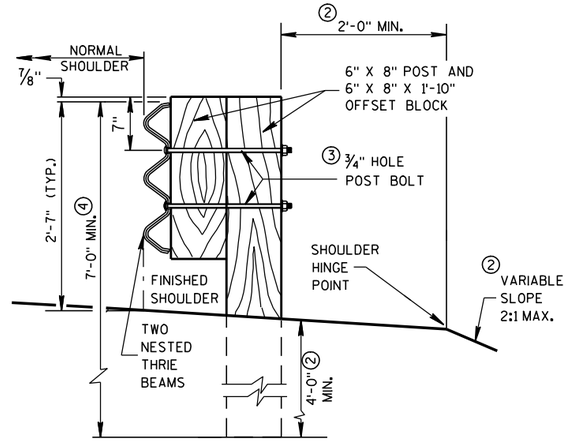
T THRIE BEAM CONNECTION

W W-BEAM CONNECTION WHEN REQUIRED

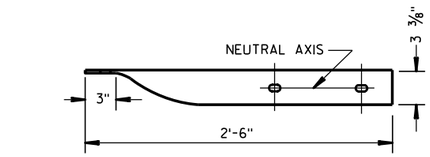
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

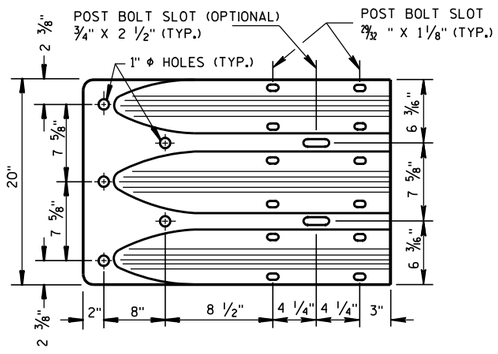


SECTION THRU THRIE BEAM RAIL ELEMENT

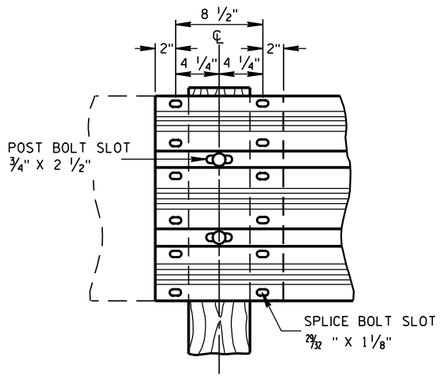


SECTION A-A





THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

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S.D.D. 14 B 20-11a

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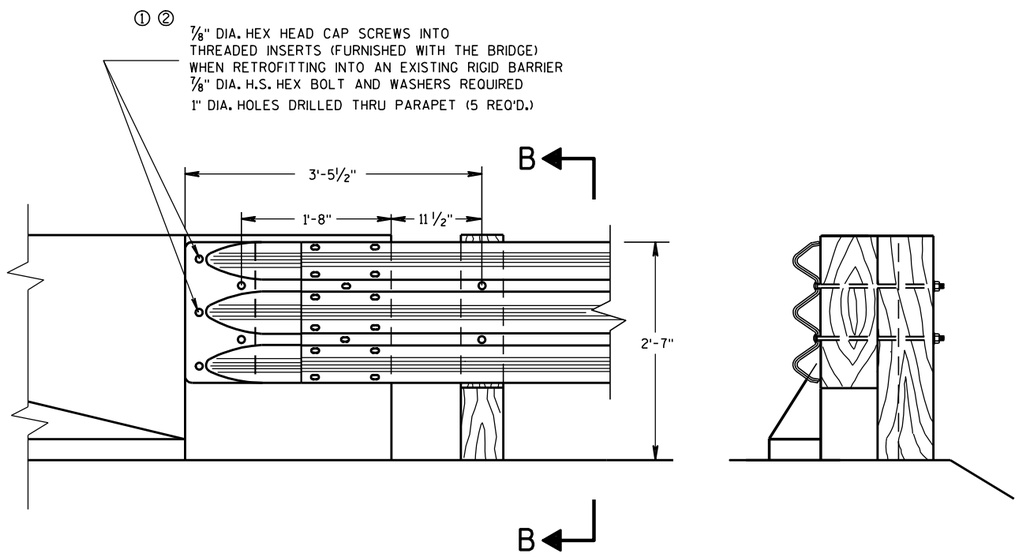
S.D.D. 14 B 20-11a



FRONT VIEW

SECTION B-B

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.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

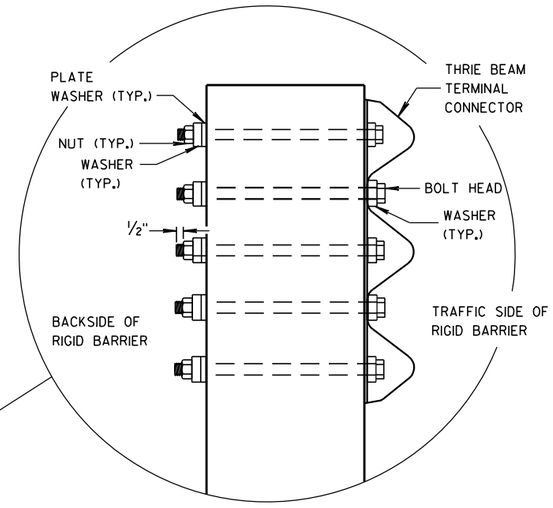
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

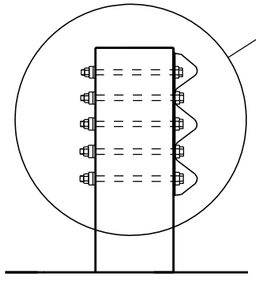
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ 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".

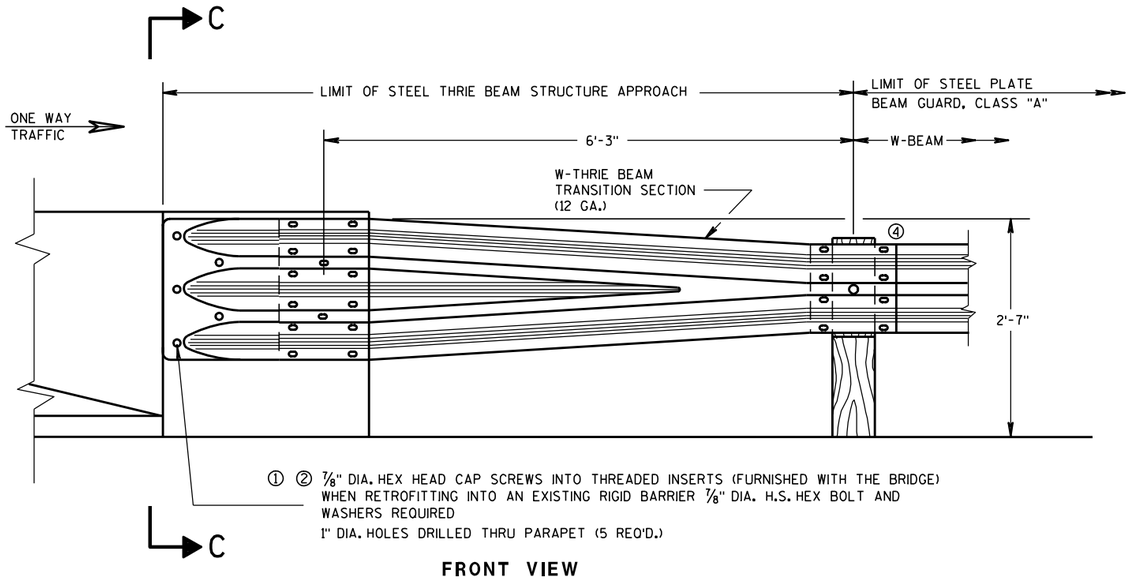
④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.





SECTION C-C



① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED
1" DIA. HOLES DRILLED THRU PARAPET (5 REQ'D.)

FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS [325
ENGINEER

FHWA

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S.D.D. 14 B 20-11b

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S.D.D. 14 B 20-11b

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

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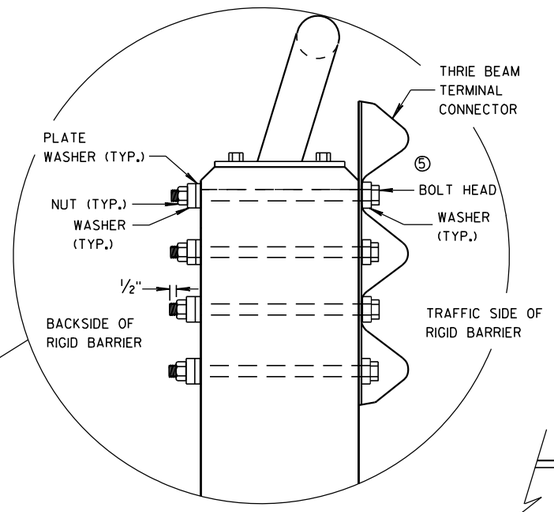
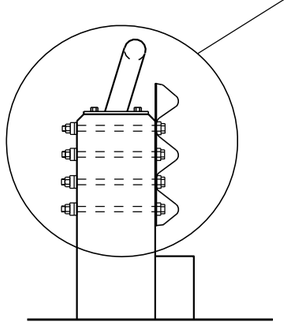
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

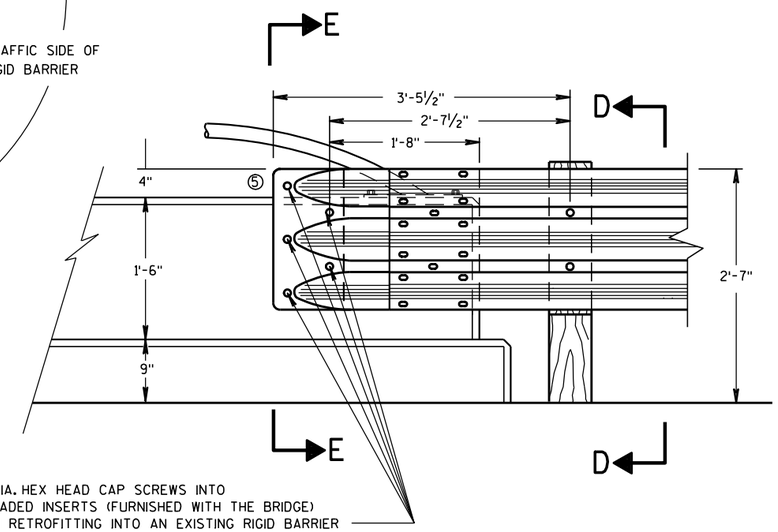
⑤ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.





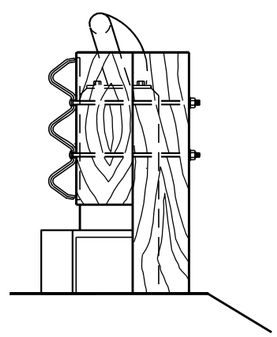
SECTION E-E



① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED

1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)

FRONT VIEW

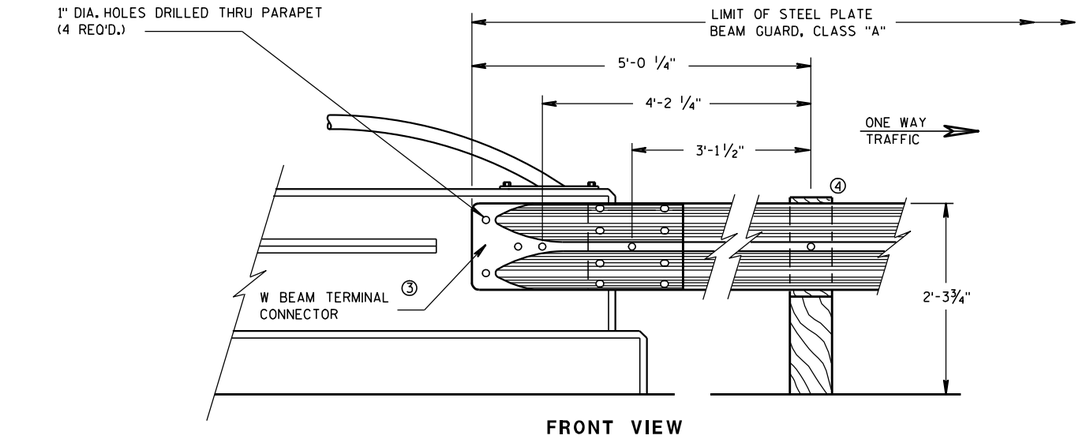


SECTION D-D

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER
⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED

1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. Zaa — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 20-11c

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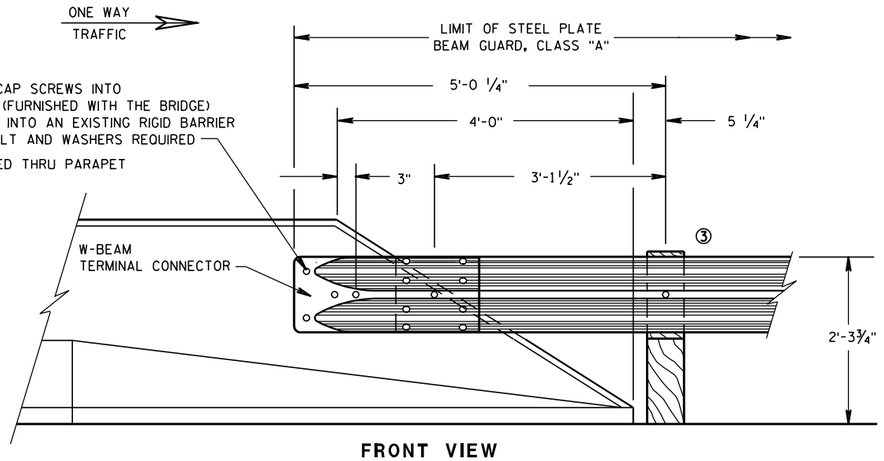
S.D.D. 14 B 20-11c



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

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

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

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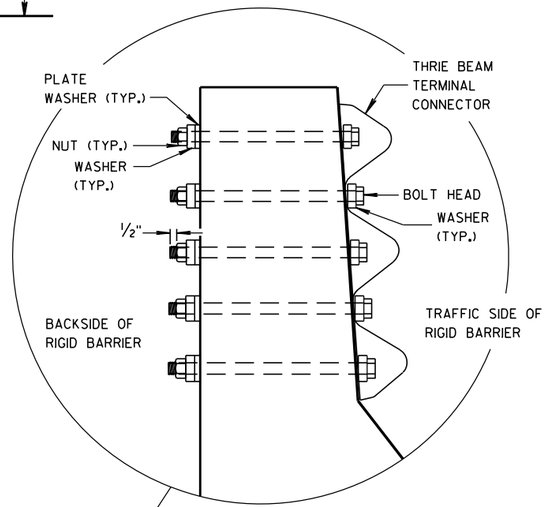
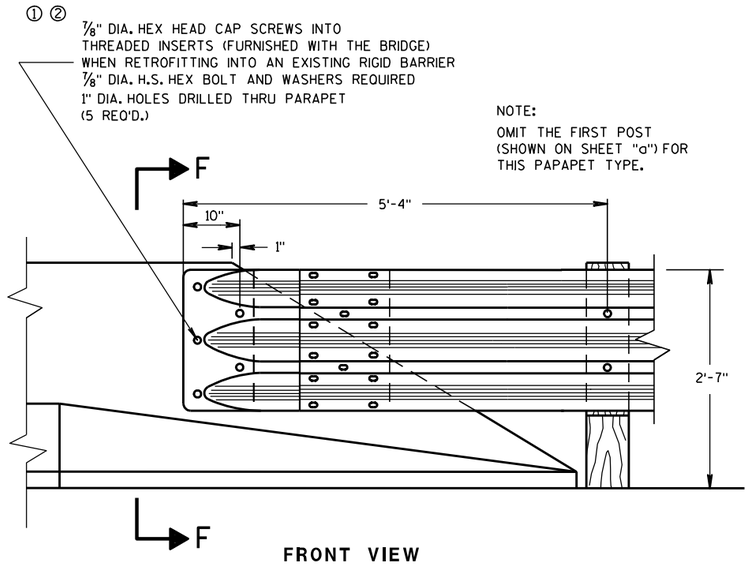
③ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

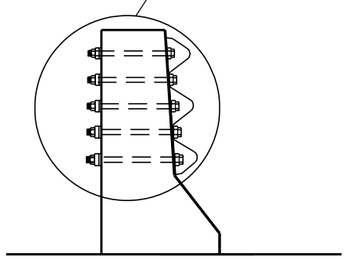
DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION F-F

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS

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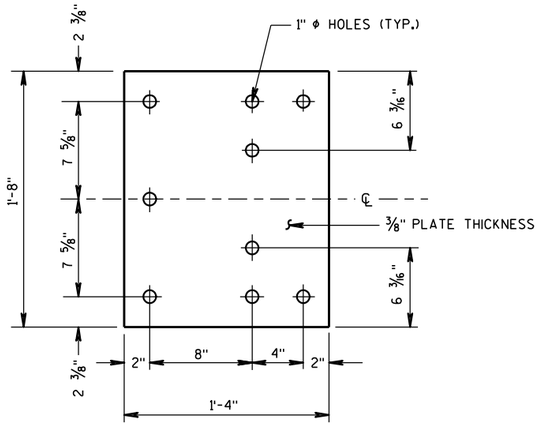
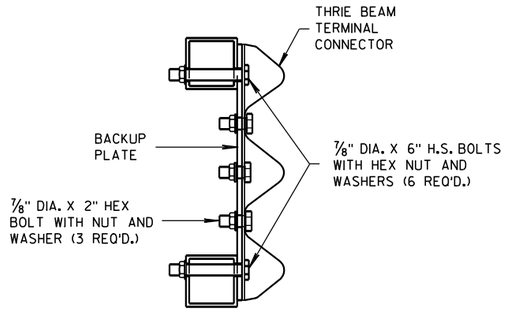


BACK-UP PLATE DETAIL



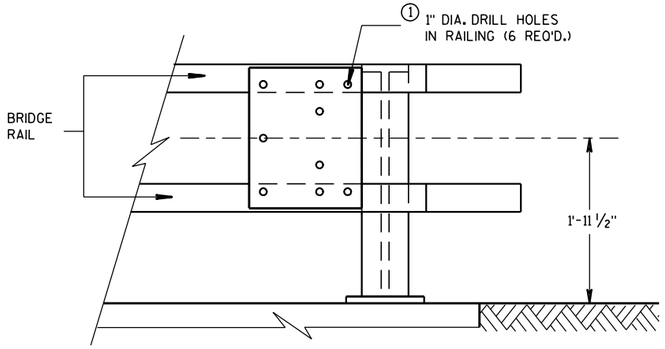
SECTION G-G

GENERAL NOTES

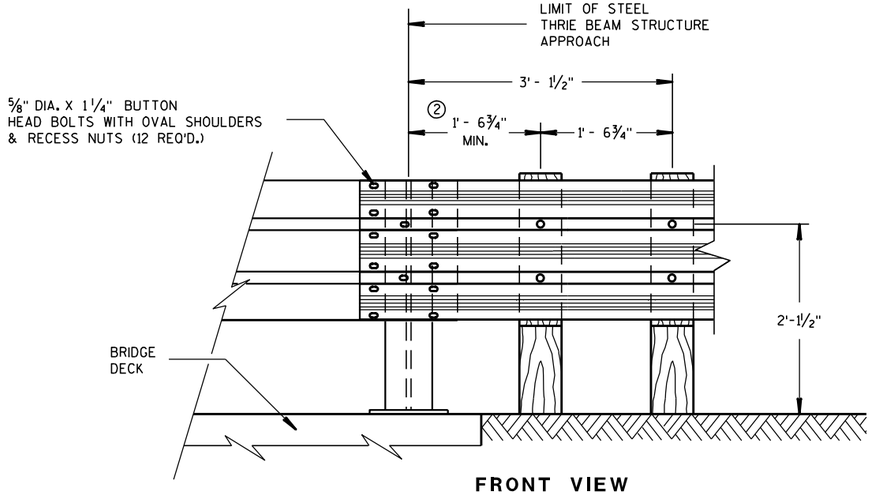
BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL AS CLOSE AS FEASIBLE TO THE STEEL END POST.

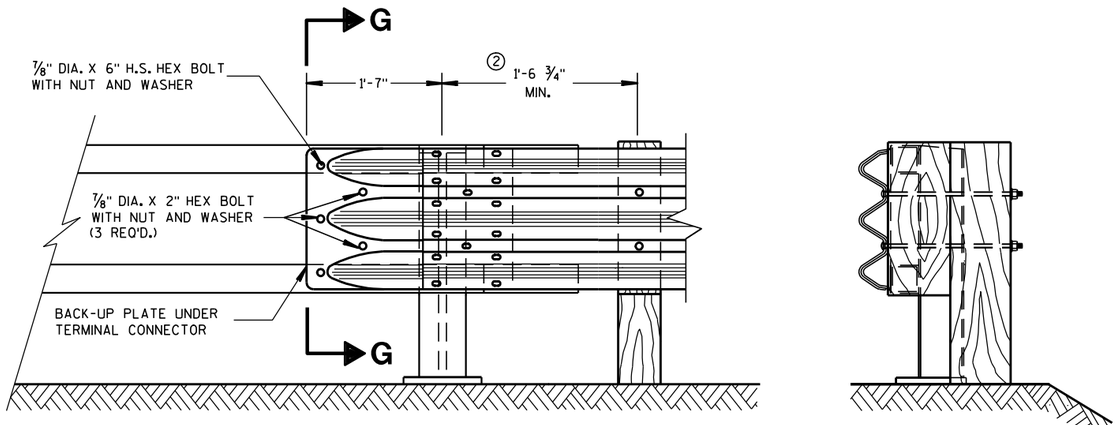


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW

END VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"

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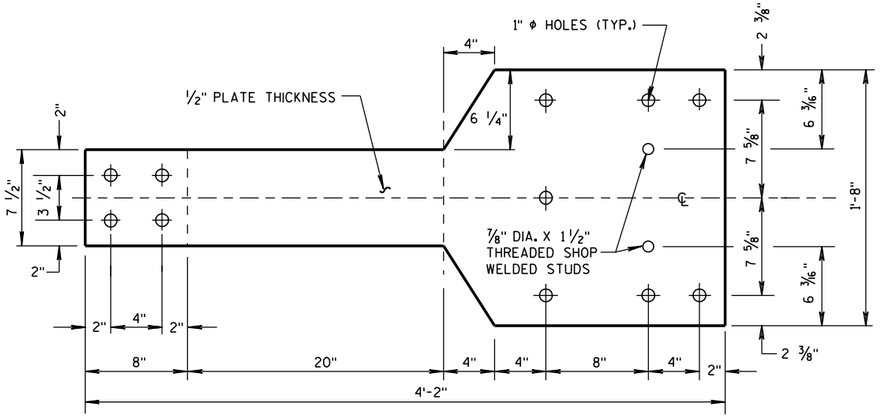
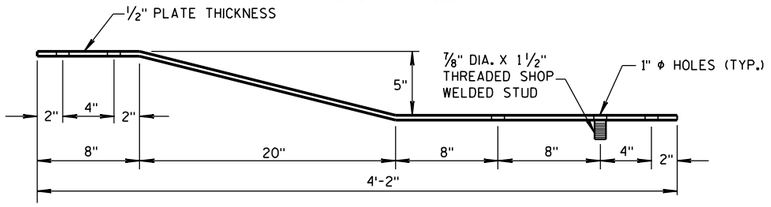
GENERAL NOTES

① VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL BE AS CLOSE AS FEASIBLE TO THE STEEL END POST.

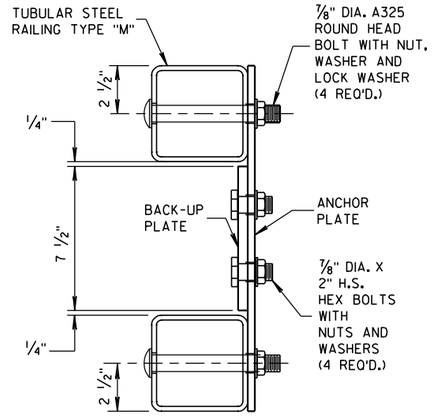


FRONT VIEW

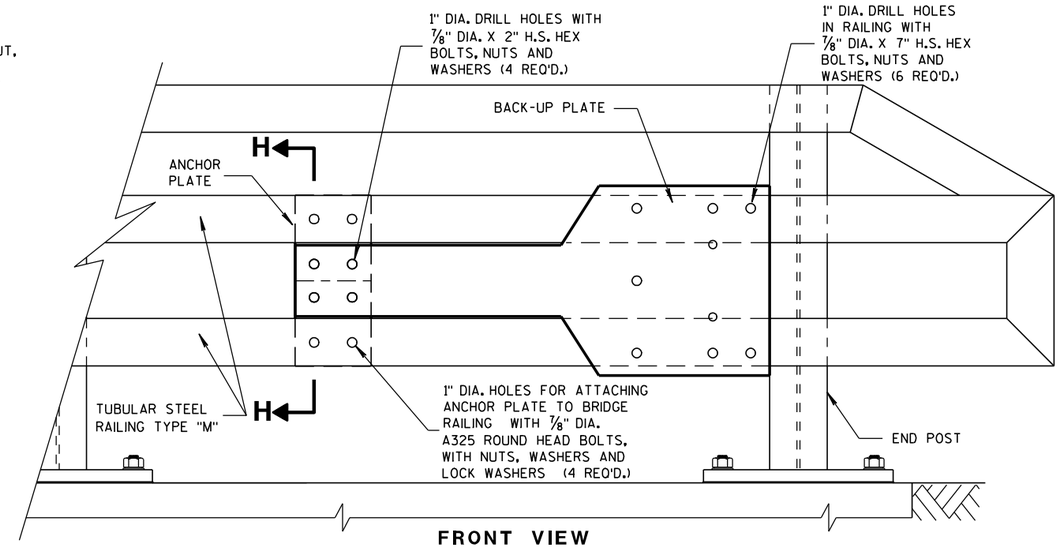


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

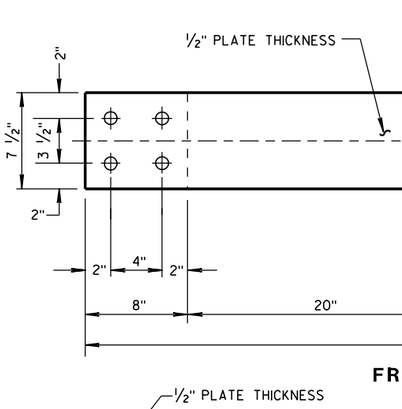


SECTION H-H



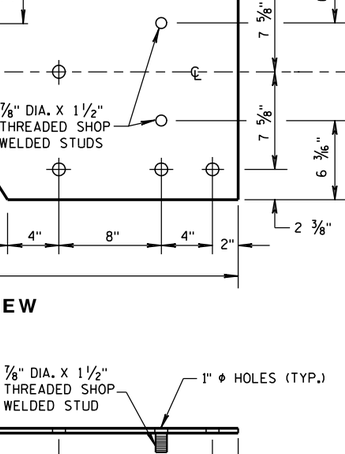
FRONT VIEW

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

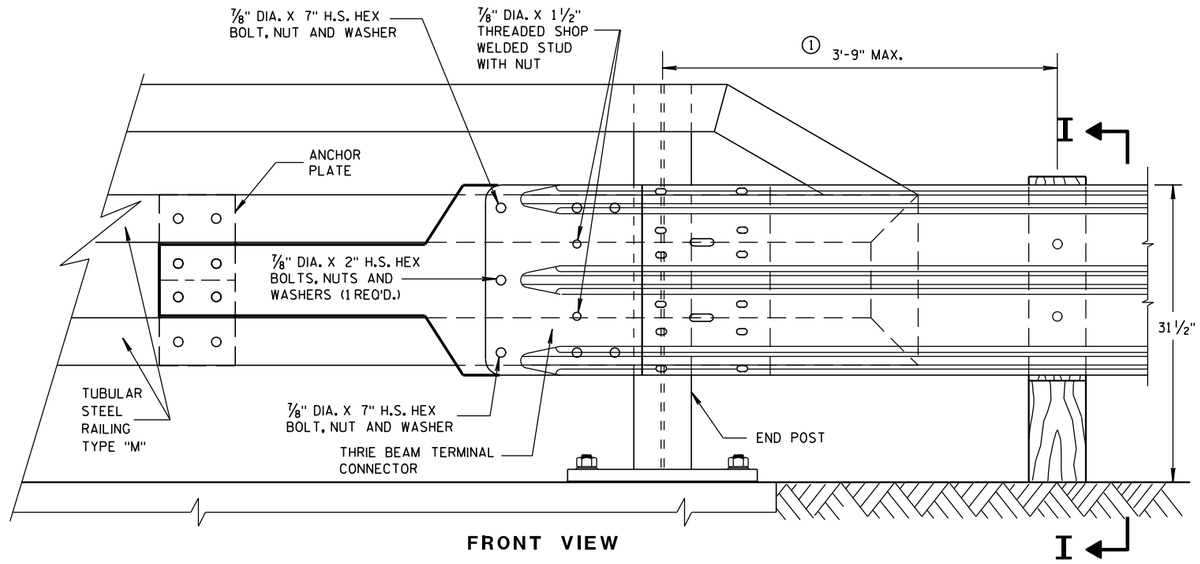


FRONT VIEW

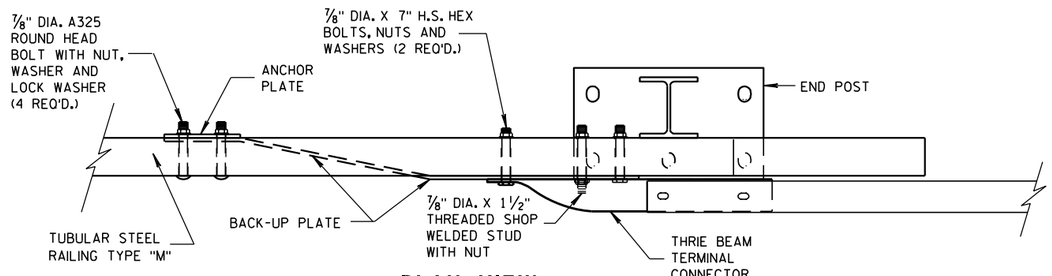
ANCHOR PLATE DETAIL, TYPE "M"



SECTION I-I



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"

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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.

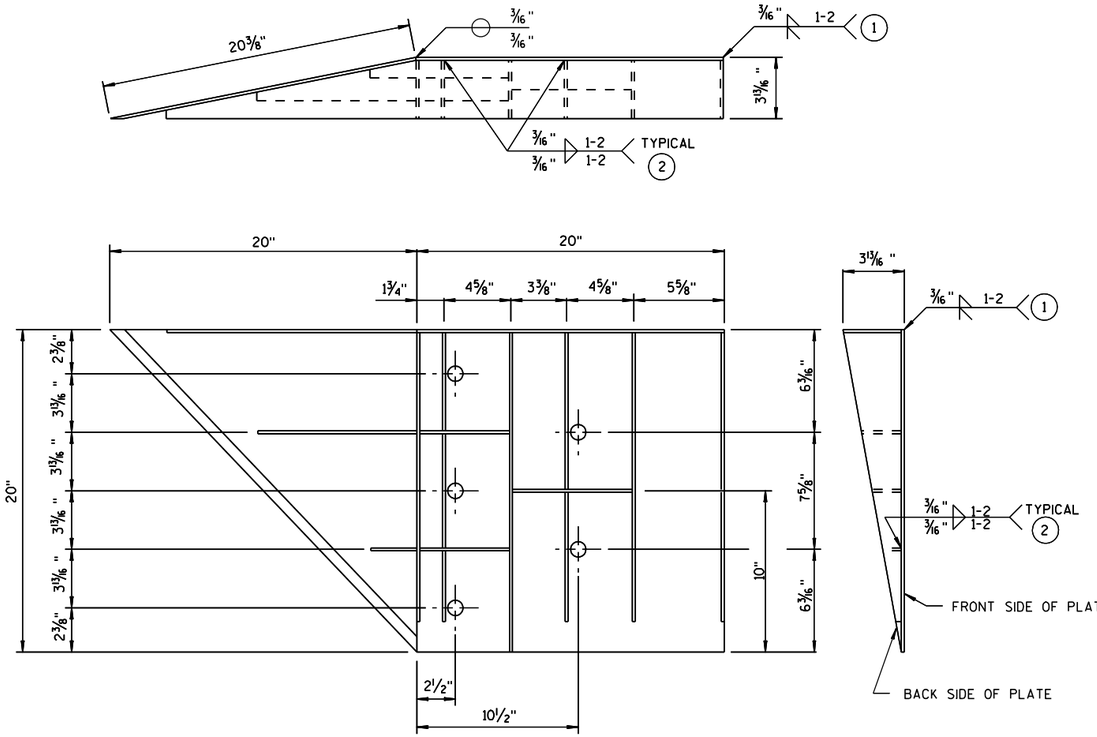
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) 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.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

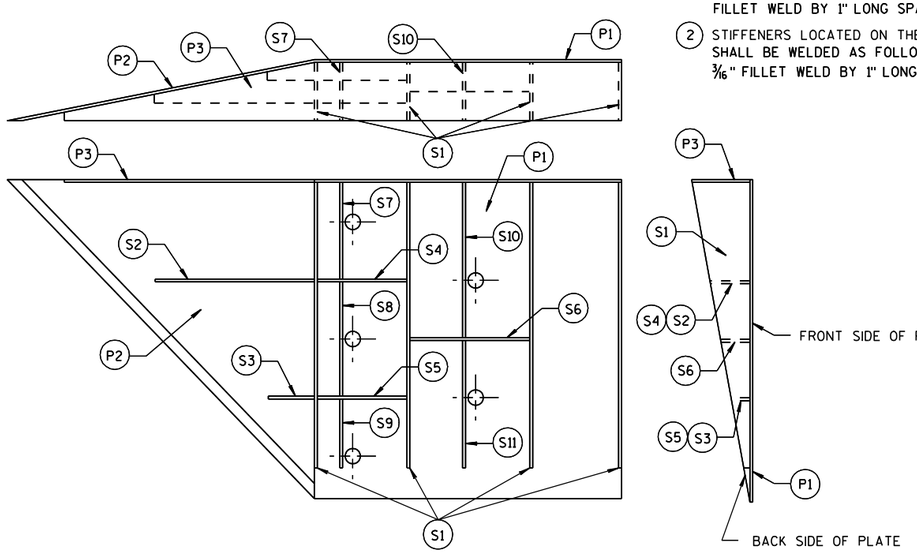


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

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"

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL

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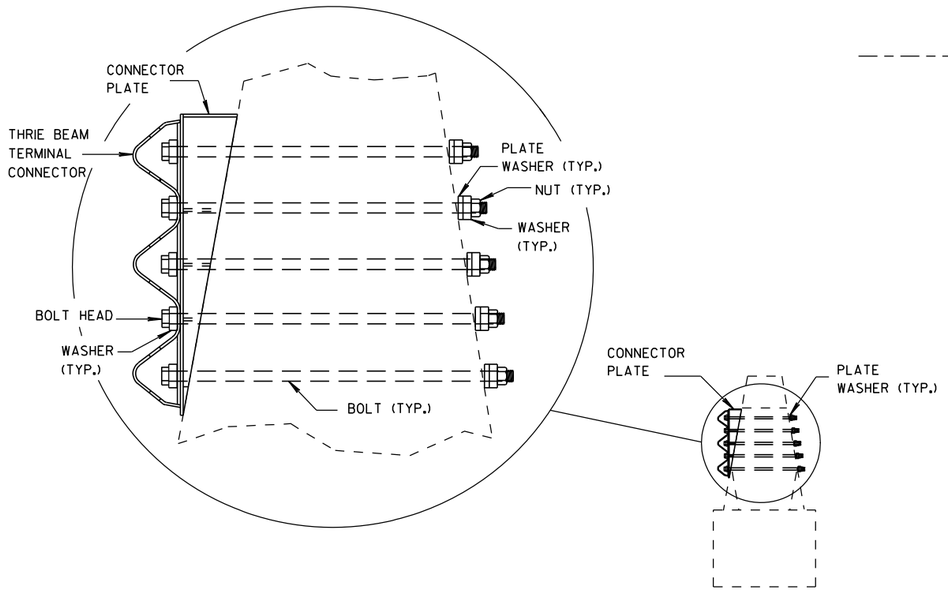
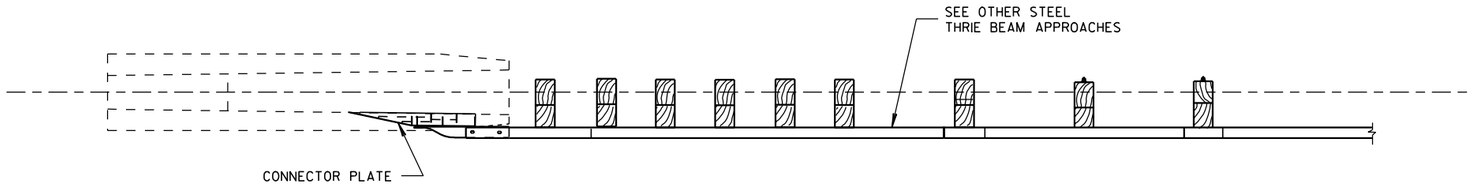
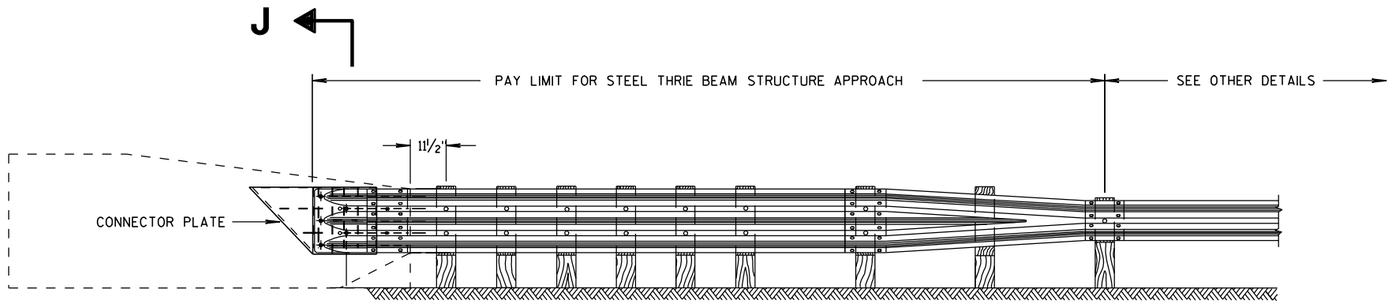


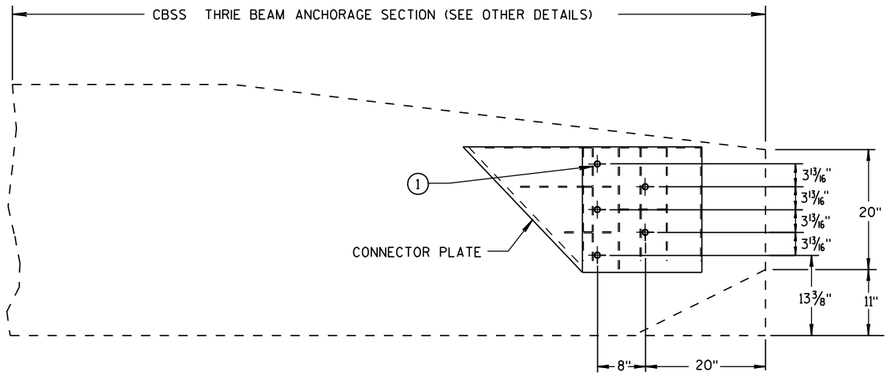
SECTION J-J



PLAN VIEW



FRONT VIEW



CONNECTOR PLATE LOCATION

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 614.

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

(1) 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 TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT

STATE OF WISCONSIN
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8/31/2012
DATE

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ROADWAY STANDARDS ENGINEER

331

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6

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6

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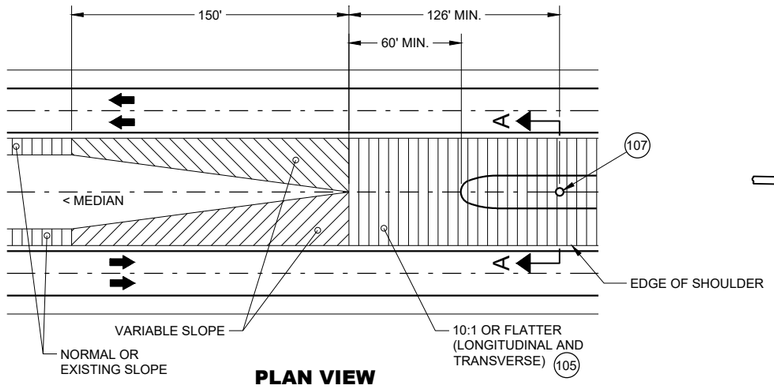
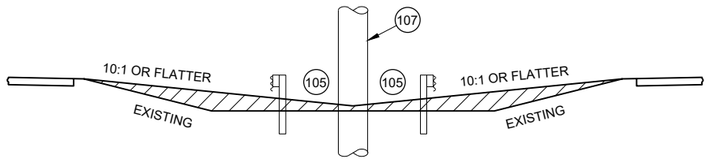


PLAN VIEW
GRADING AT BULLNOSE
(ALL INSTALLATIONS)



SECTION A -A
MEDIAN GRADING
(ALL INSTALLATIONS)

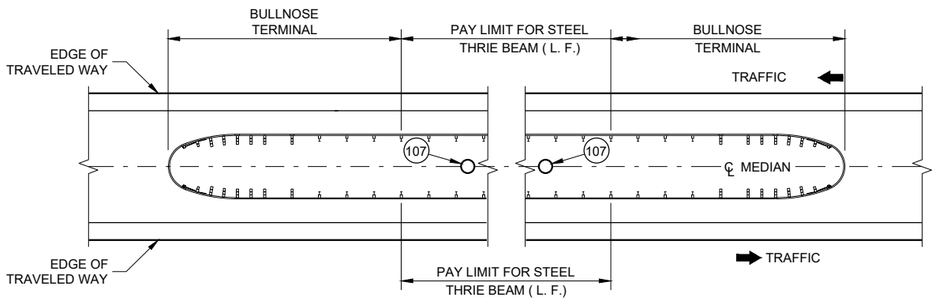
GENERAL NOTES

THRIE BEAM RAILS MAY NEED TO BE FIELD BENT TO FIT THE LOCATION.

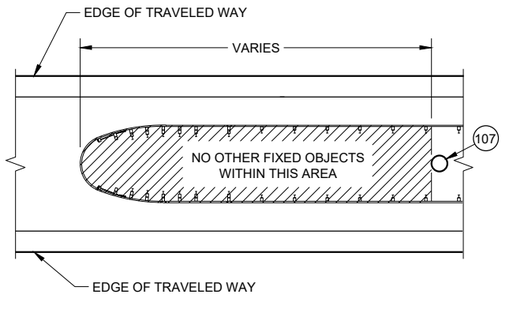
SEE STANDARD DETAIL DRAWINGS 14B26 SHEETS a-h.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 ½". MINIMUM DIAMETER OF THE ROCK REMOVAL IS 12" DIAMETER

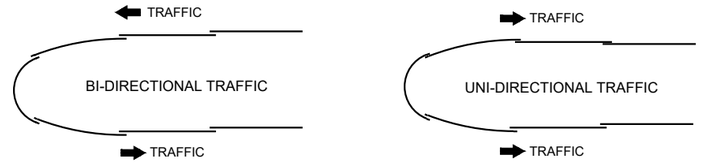
- E1 UNBENT STANDARD THRIE BEAM RAIL B1 (POST 8 TO POST 10 AND POST 10 TO POST 12)
- E2 SLOTTED THRIE BEAM RAIL E1 (POST 1 TO POST 1)
- E3 SLOTTED THRIE BEAM RAIL B3 (POST 5 TO POST 8)
- E4 SLOTTED THRIE BEAM RAIL E4 (POST 1 TO POST 5)
- 5 BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.
- (100) DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.
- (101) U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.
- (102) NOSE CABLE WITH SWAGGED END BUTTONS.
- (103) NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).
- (104) THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.
- (105) MINIMUM WORKING WIDTH 4' - 2".
- (106) MAX. WIDTH OF SYSTEM IS 14' - 2 ½" MEASURED FROM THE BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.
- (107) FIXED OBJECT OR OTHER HAZARD.
- (108) PLAN IS TO PROVIDE STATION OFFSET TO CENTER OF POST 5 IN PLANS.



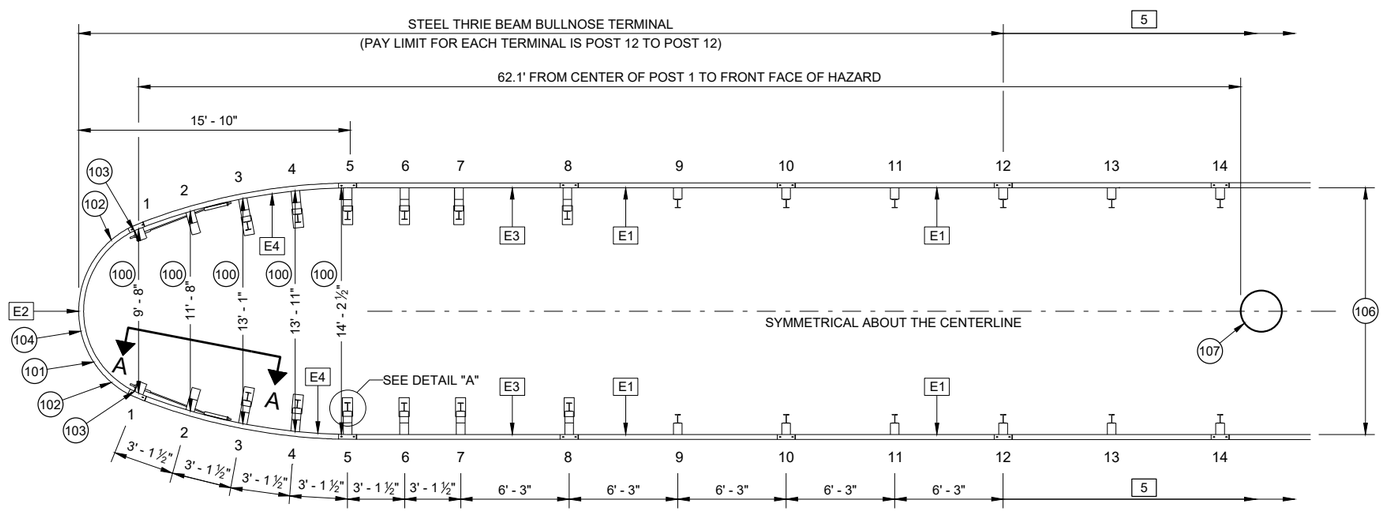
MEDIAN HAZARD PROTECTION PAY LIMITS



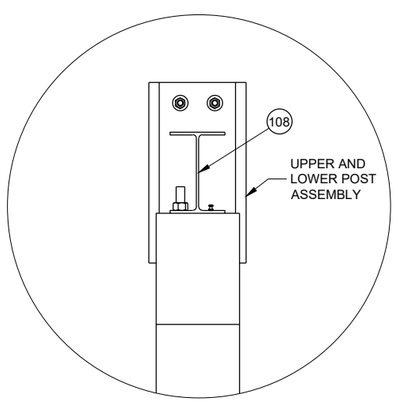
HAZARD FREE AREA
INSIDE BULLNOSE



LAPPING DETAIL



PLAN VIEW
TYPICAL BULLNOSE LAYOUT



DETAIL "A"

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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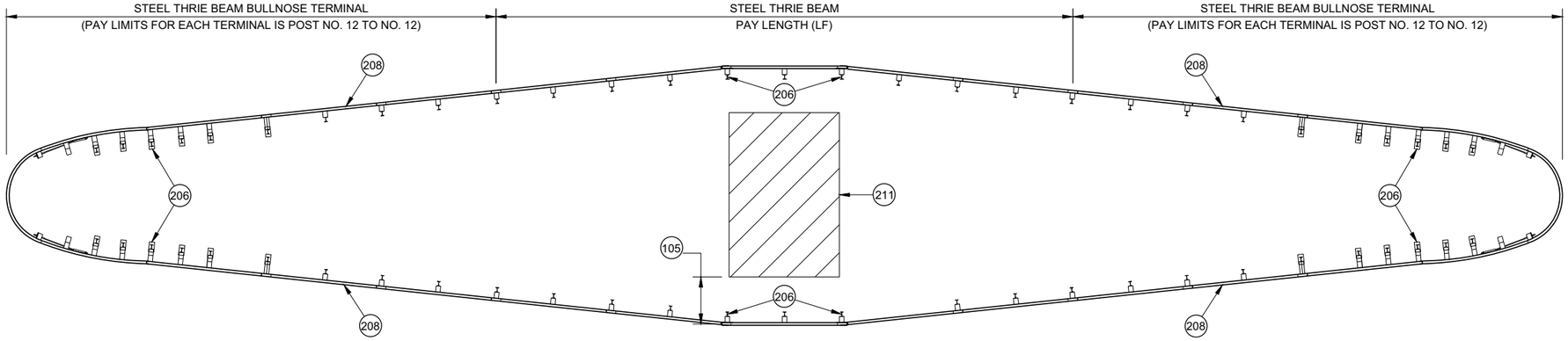
SDD 14B26 - 04a



VARIABLE WIDTH BULLNOSE

GENERAL NOTES

200 6' - 3" ASYMMETRICAL 10-GAUGE W-BEAM TO THRIE BEAM GUARD TRANSITION. SEE SDD 14B45 FOR MORE INFORMATION.

201 W-BEAM RAIL. SEE SDD 14B42 FOR MORE INFORMATION.

202 SEE POST NO. 9 AND ALL STEEL THRIE BEAM POST BEYOND DETAIL.

203 SEE SDD 14B42 FOR INSTALLATION INFORMATION.

204 SEE SDD 14B45 FOR INSTALLATION DETAILS. REPLACE ASYMMETRICAL W-BEAM TO THRIE BEAM TRANSITION AND W-BEAM RAIL WITH E1. PAY FOR MODIFIED THRIE BEAM TRANSITION.

205 CONCRETE BARRIER OR BRIDGE RAIL.

206 SEE PLAN FOR STATION AND OFFSET TO CENTER OF POST.

207 SEE PLAN FOR STATION AND OFFSET TO CENTER OF SPLICE.

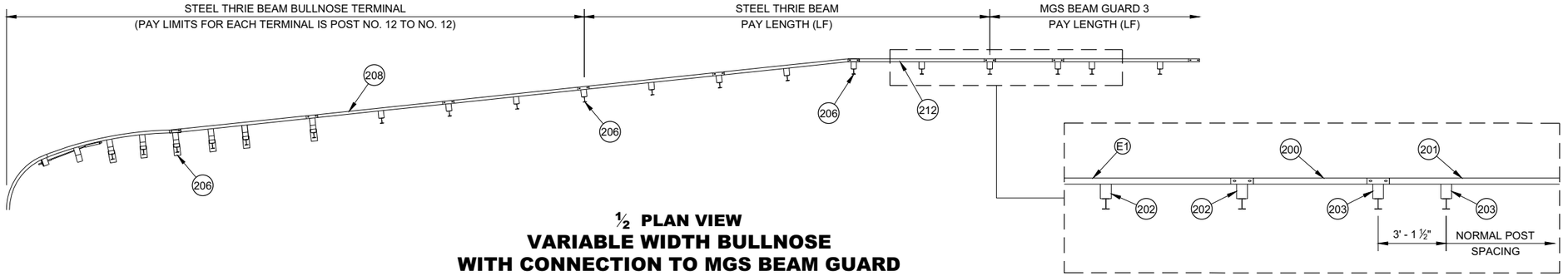
208 SEE PLAN FOR FLARE RATE.

209 A MINIMUM OF 25 FT OF THRIE BEAM TANGENT BEFORE TRANSITIONING TO BEAM GUARD OR THRIE BEAM TRANSITION.

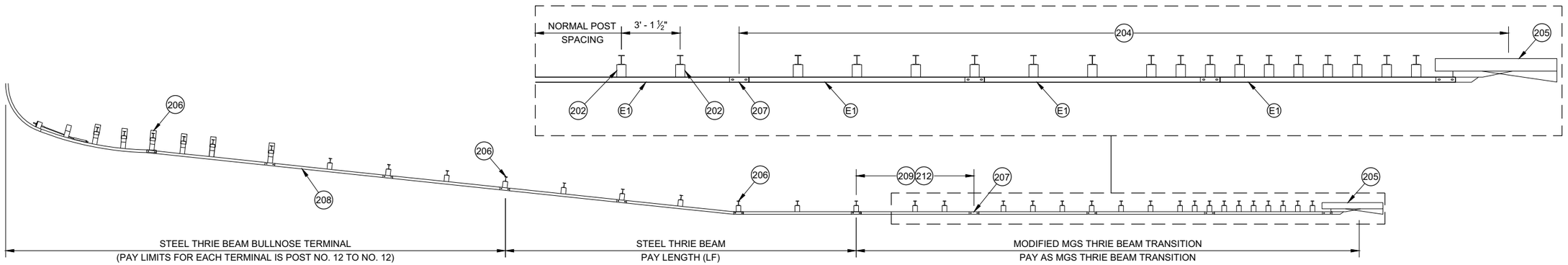
210 NOT ALL BULLNOSE HARDWARE SHOWN. SEE OTHER SHEETS IN 14B26.

211 WIDER HAZARD TO BE SHIELDED.

212 TRANSITION RAIL HEIGHT TO 31" OVER THE LENGTH OF A 12' - 6" BEAM SECTION.



½ PLAN VIEW
VARIABLE WIDTH BULLNOSE
WITH CONNECTION TO MGS BEAM GUARD



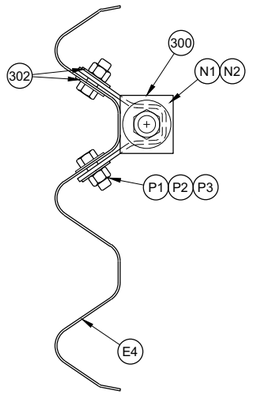
½ PLAN VIEW
VARIABLE WIDTH BULLNOSE
WITH CONNECTION TO RIGID BARRIER

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

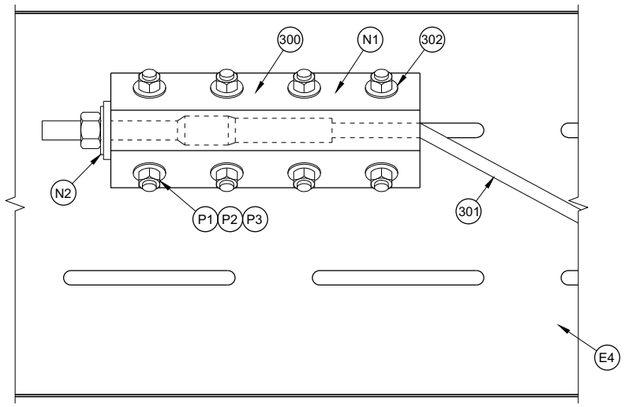
6

SDD 14B26 - 04b

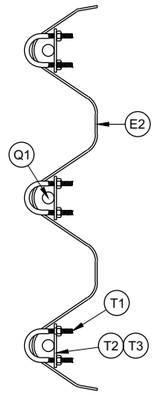


PROFILE VIEW

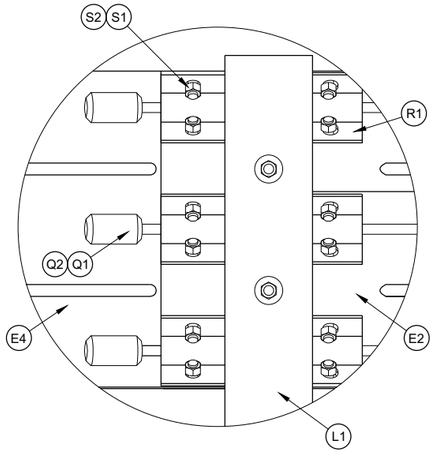
CABLE ANCHOR ASSEMBLY CONNECTION



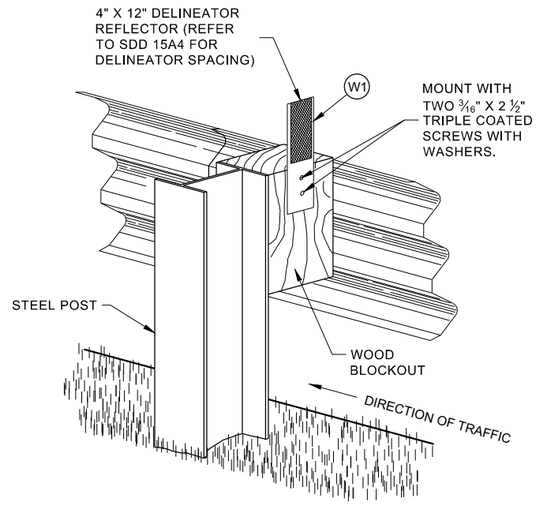
CABLE ANCHOR ASSEMBLY



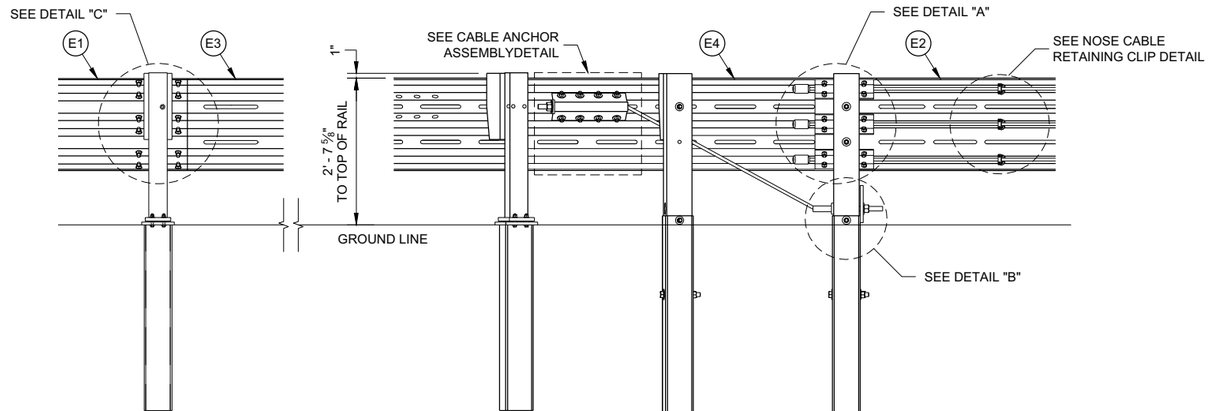
NOSE CABLE RETAINING CLIP



DETAIL "A"

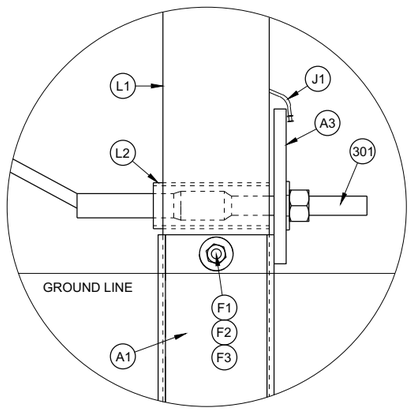


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

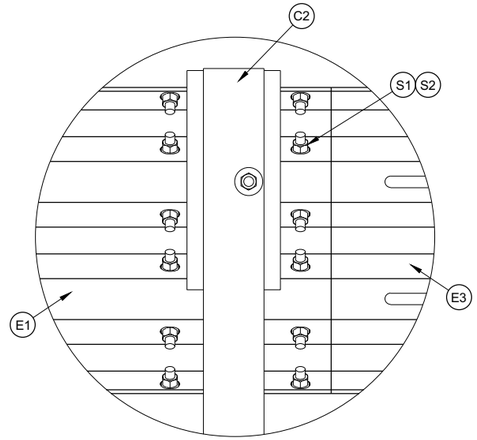


POST 8 **POST 3** **POST 2** **POST 1**

CROSS SECTION A - A



DETAIL "B"



DETAIL "C" THRIE BEAM SPLICE

GENERAL NOTES

(300) SEE ANCHOR BRACKET ASSEMBLY DETAIL.

(301) SEE ANCHOR CABLE ASSEMBLY DETAIL

(302) ONE WASHER BETWEEN BOLT HEAD AND RAIL AND BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

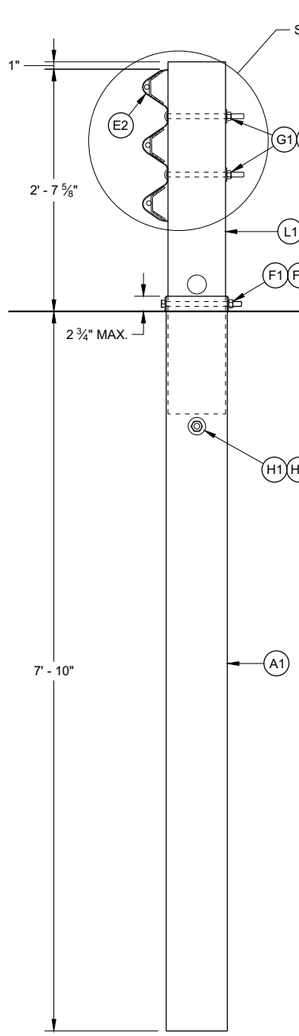
(303) ONE WASHER BETWEEN BOLD HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

STEEL THRIE BEAM BULLNOSE TERMINAL

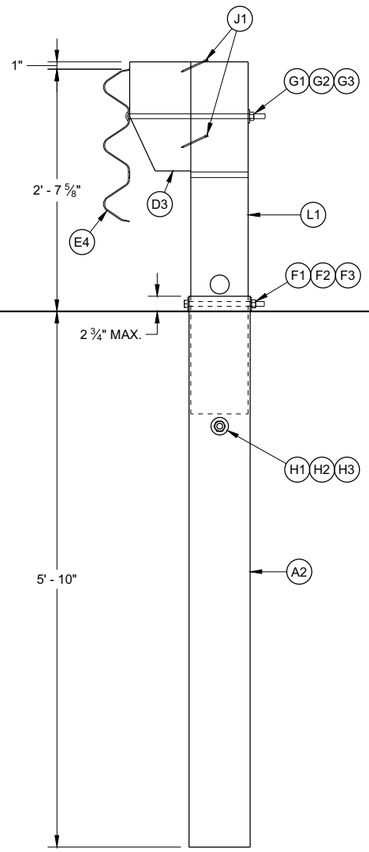
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B26 - 04c



POST NO. 1



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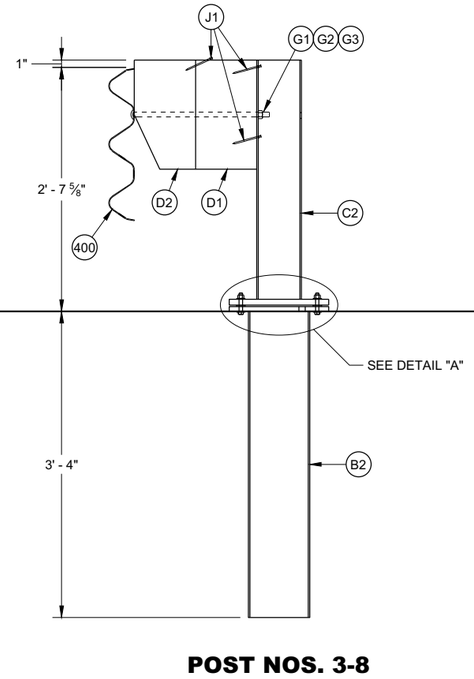
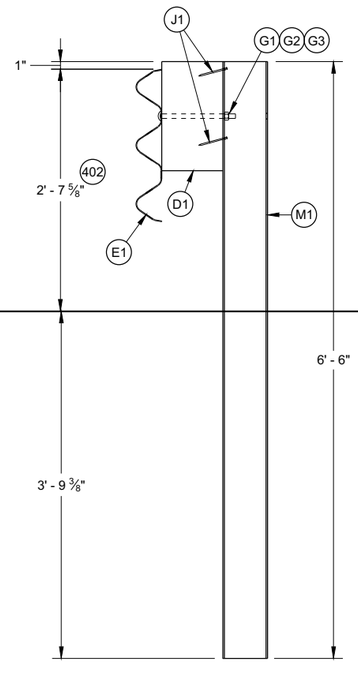


POST NOS. 3-8



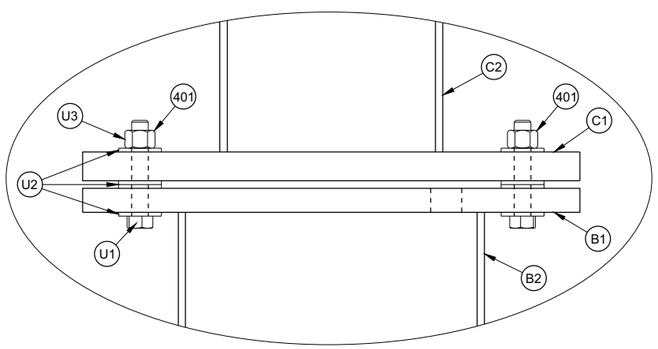
POST NOS. 9 AND ALL STEEL THRIE BEAM POSTS BEYOND

GENERAL NOTES

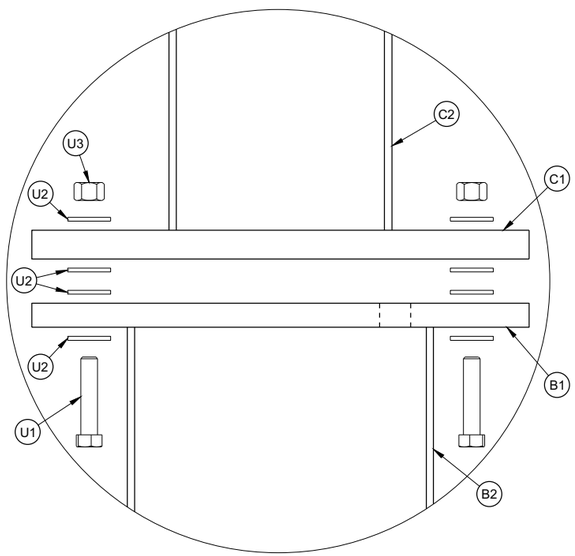
400 RAIL CAN BE E3 OR E4 DEPENDING ON POST LOCATION.

401 TORQUE BOLD BETWEEN 60-75 FT-LB

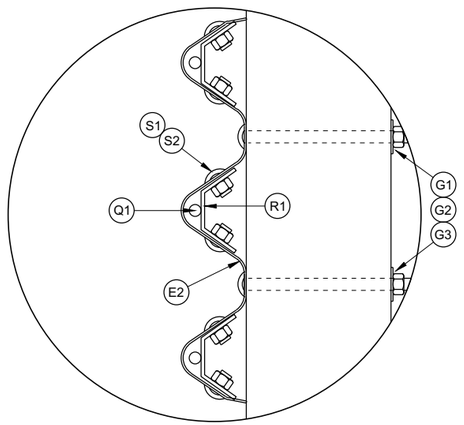
402 HEIGHT WILL VARY WITHIN HEIGHT TRANSITION TO OTHER HARDWARE. SEE NOTE 213, SHEET "b".



DETAIL "A"



EXPLODED VIEW
DETAIL "A"



DETAIL "B"

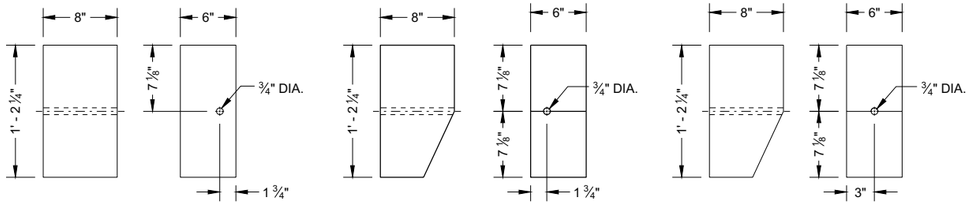
STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

335

SDD 14B26 - 04d

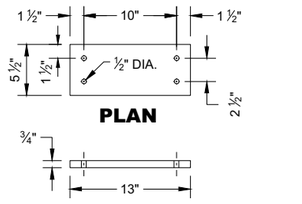
SDD 14B26 - 04d



ELEVATION PROFILE
BLOCKOUT (D1)

ELEVATION PROFILE
BLOCKOUT (D2)

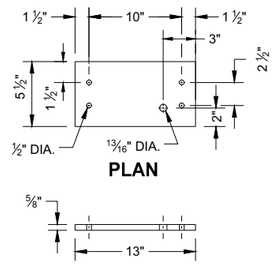
ELEVATION PROFILE
BLOCKOUT (D3)



PLAN

PROFILE

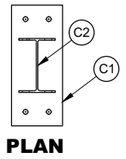
UPPER SHEAR PLATE (C1)



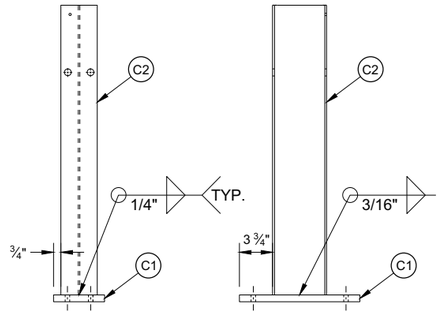
PLAN

PROFILE

LOWER SHEAR PLATE (B1)

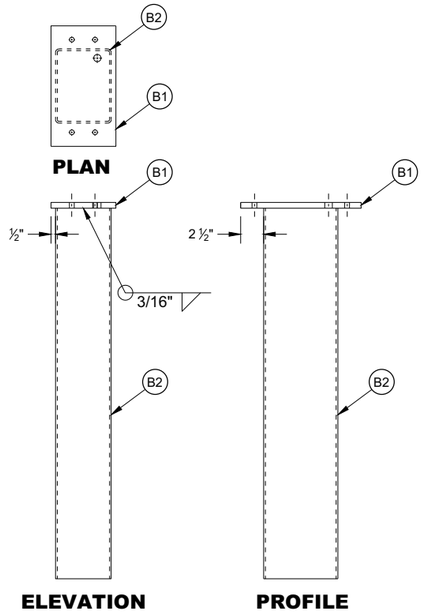


PLAN



ELEVATION PROFILE

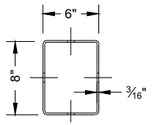
UPPER POST ASSEMBLY



PLAN

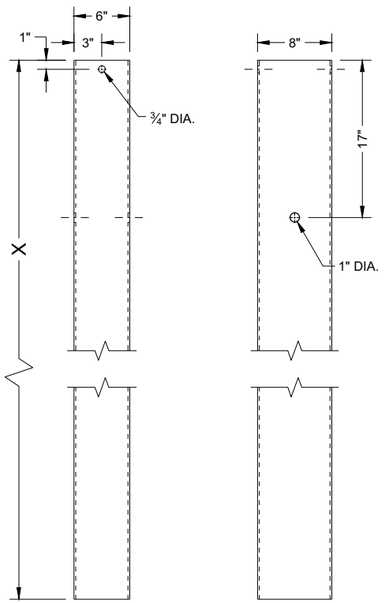
ELEVATION PROFILE

LOWER POST ASSEMBLY



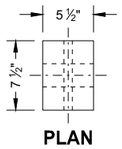
PLAN

PART	LENGTH "X"
A1	8' - 0"
A2	6' - 0"
B2	3' - 6"

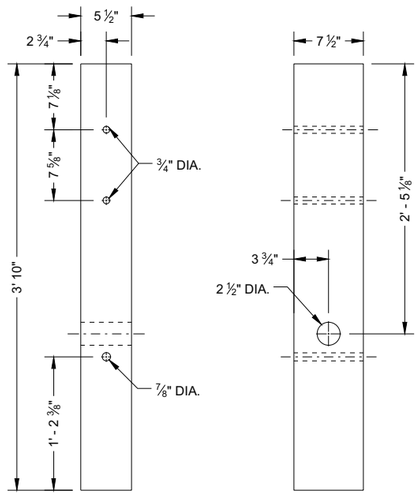


ELEVATION PROFILE

FOUNDATION TUBE

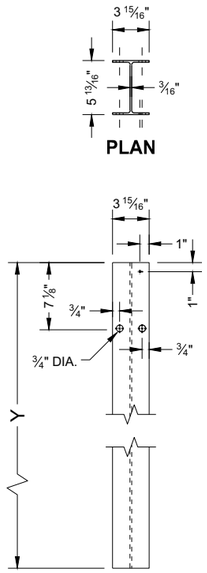


PLAN



ELEVATION PROFILE

BCT POST (L1)



PLAN

ELEVATION

POST

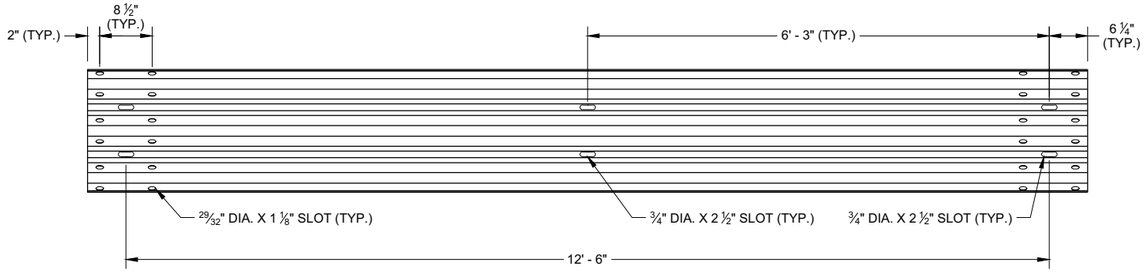
PART	LENGTH "Y"
M1	6' - 6"
M2	5' - 8 5/8"
C2	2' - 8 5/8"

STEEL THRIE BEAM BULLNOSE TERMINAL

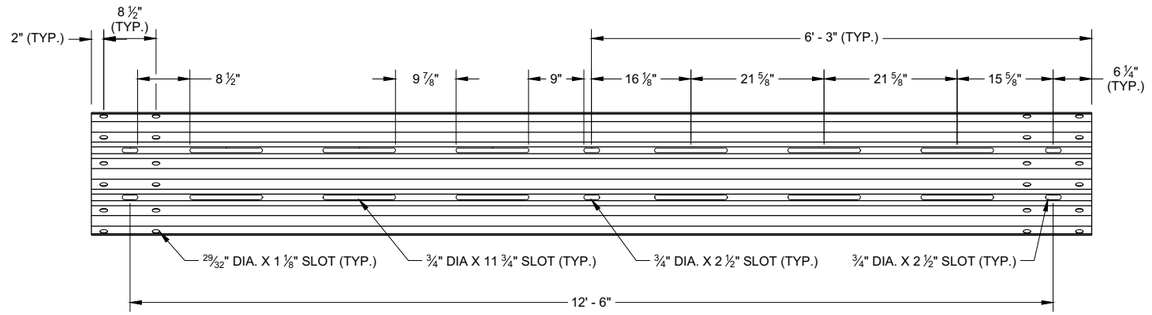
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

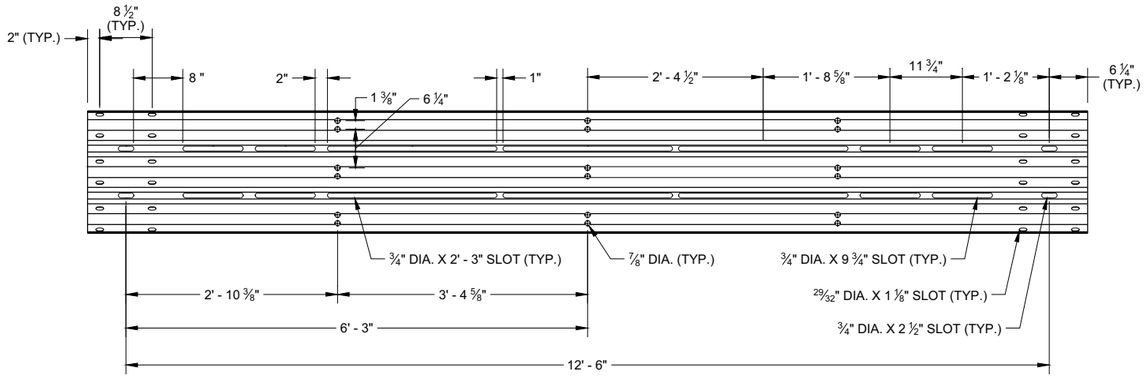
SDD 14B26 - 04e



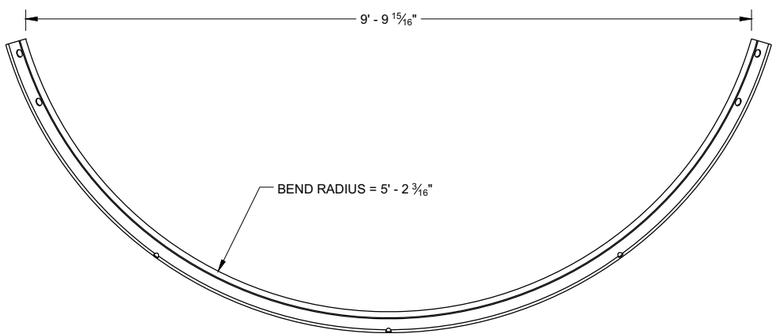
SLOTTED THRIE BEAM RAIL E1



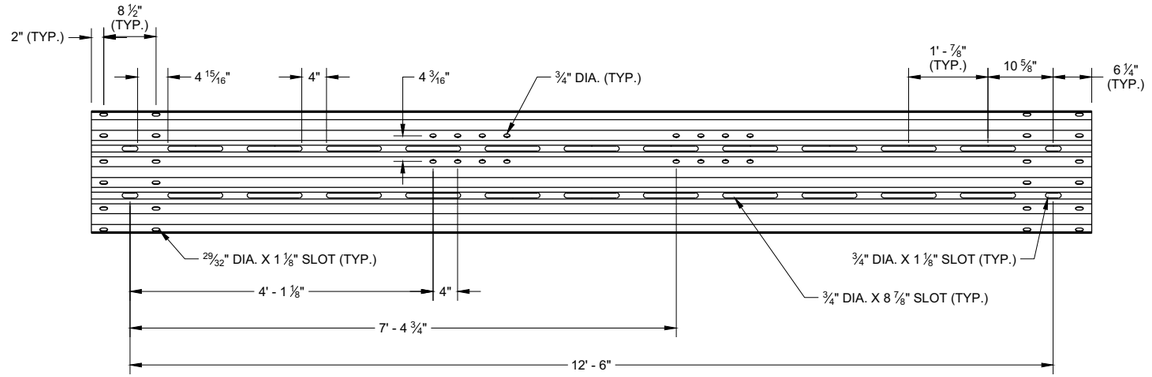
SLOTTED THRIE BEAM RAIL E3



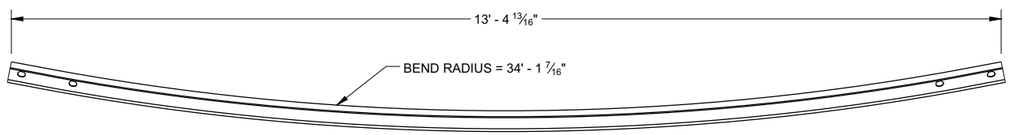
ELEVATION VIEW NON - RADIUSED
SLOTTED THRIE BEAM RAIL E2



PLAN VIEW
SLOTTED THRIE BEAM RAIL E2



ELEVATION VIEW NON - RADIUSED
SLOTTED THRIE BEAM RAIL E4



PLAN VIEW
SLOTTED THRIE BEAM RAIL E4

6

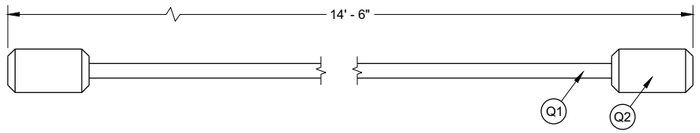
SDD 14B26 - 04f

STEEL THRIE BEAM BULLNOSE TERMINAL

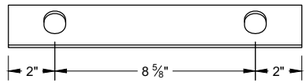
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

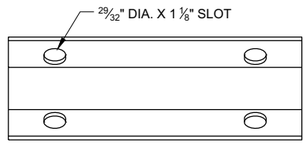
SDD 14B26 - 04f



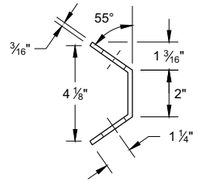
NOSE CABLE AND SWAGE BUTTON



PLAN VIEW

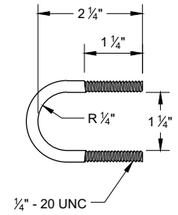


ELEVATION VIEW

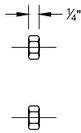


PROFILE VIEW

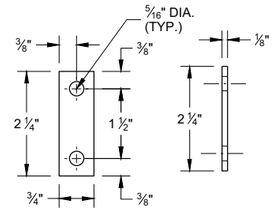
NOSE CABLE ANCHOR (R1)



U - BOLT (T1)

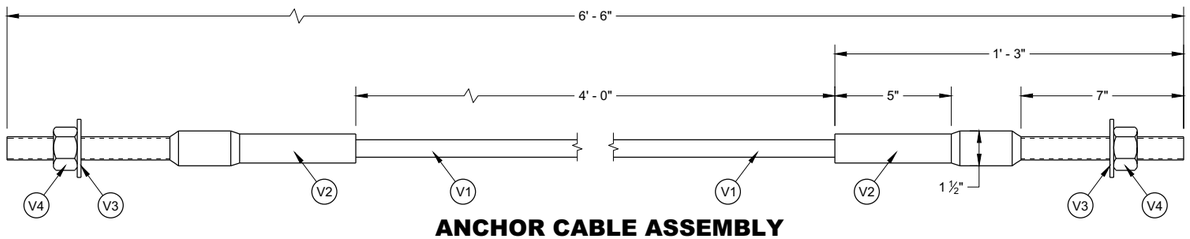


U - BOLT NUT (T3)

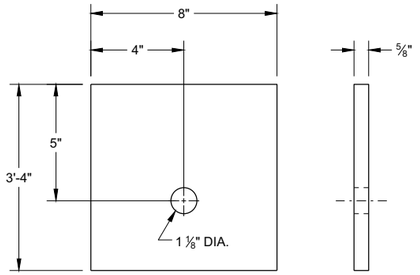


ELEVATION VIEW **PROFILE VIEW**

U - BOLT PLATE WASHER (T2)

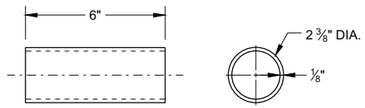


ANCHOR CABLE ASSEMBLY



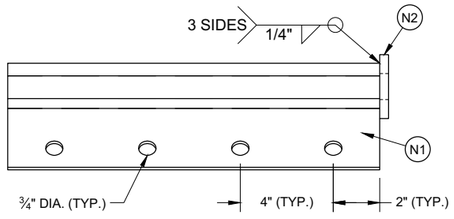
ELEVATION VIEW **PROFILE VIEW**

BCT BEARING PLATE (A3)

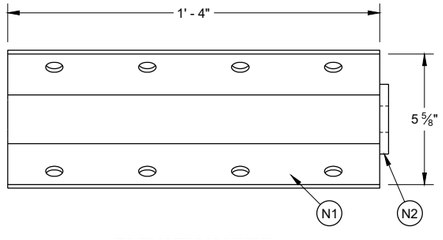


ELEVATION VIEW **PROFILE VIEW**

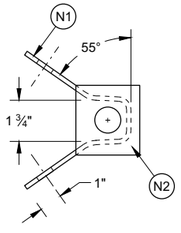
BCT POST SLEEVE (L2)



PLAN VIEW

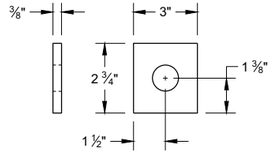


ELEVATION VIEW



PROFILE VIEW

ANCHOR BRACKET ASSEMBLY (N1)



ANCHOR BRACKET END PLATE (N2)

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B26 - 04g

BILL OF MATERIALS LIST

PART NUMBER	DESCRIPTION	MATERIAL SPECIFICATION
A1	LONG FOUNDATION TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
A2	FOUNDATION TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
A3	BEARING PLATE AT POST	AASHTO M111/ASTM A123 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
B1	LOWER SLIP POST ASSEMBLY - PLATE	AASHTO M111/ASTM A123 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
B2	LOWER SLIP POST ASSEMBLY - TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
C1	UPPER SLIP POST ASSEMBLY - PLATE	AASHTO M111/ASTM A123 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
C2	UPPER SLIP POST ASSEMBLY - POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 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
D1	BLOCK FOR STEEL POST - WOOD	WISDOT SPEC. 614
D2	TAPERED BLOCK FOR STEEL POST - WOOD	WISDOT SPEC. 614
D3	TAPERED BLOCK FOR BCT POST - WOOD	WISDOT SPEC. 614
E1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER
E2	THRIE BEAM RAIL - SHOP BENT AND PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER. INDICATE RADIUS BEAM GUARD IS BENT TO ON THE BACKSIDE OF RAIL. FOLLOW AASHTO M180. MARK RADIUS.
E3	THRIE BEAM RAIL - PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER
E4	THRIE BEAM RAIL - SHOP BENT AND PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER. INDICATE RADIUS BEAM GUARD IS BENT TO ON THE BACKSIDE OF RAIL. FOLLOW AASHTO M180. MARK RADIUS.
F1	5/8" DIA. HEX HEAD GROUND STRUT AND YOKE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
F2	5/8" DIA. GROUND STRUT AND YOKE BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
F3	GROUND STRUT AND YOKE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
G1	5/8 " DIA. POST BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER TYPICALLY USED WITH STEEL POSTS) OR ASTM F844 (UNHARDENED WASHER TYPICALLY USED WITH WOOD)
G2	POST BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER TYPICALLY USED WITH STEEL POSTS) OR ASTM F844 (UNHARDENED WASHER TYPICALLY USED WITH WOOD)
G3	POST BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
H1	7/8" DIA. SOIL TUBE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD 7/8" ASTM A563DH OR SAE J995 GRADE 5
H2	SOIL TUBE BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 7/8" ASTM F844 TYPE 1 (HARDEN WASHER ONLY)
H3	SOIL TUBE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD 7/8" ASTM A563DH OR SAE J995 GRADE 5
J1	16D DOUBLE HEAD NAIL	ASTM A153 HOT DIPPED CLASS D DOUBLE HEAD ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)
L1	BCT TIMBER POST	WISDOT SPEC. 614 S4S FINISH ON 4 SIDE
L2	BCT POST SLEEVE	AASHTO M111/ASTM A123 2 3/8" OD ASTM 53 GRADE B
M1	W6X8.5 OR W6X9 STEEL POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 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
M2	W6X8.5 OR W6X9 STEEL POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 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
N1	ANCHOR BRACKET	AASHTO M111/ASTM A123 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
N2	ANCHOR BRACKET - BEARING PLATE	AASHTO M111/ASTM A123 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

PART NUMBER	DESCRIPTION	MATERIAL SPECIFICATION
P1	5/8" DIA. ANCHOR BRACKET BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
P2	ANCHOR BRACKET BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
P3	SOIL TUBE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
Q1	5/8" DIA. NOSE CABLE	6X19 AASTHO M30 / ASTM A741 XIPS INDEPENDENT WIRE CORE (IWRC) PR 6X25 XIPS, IWRC NOMINAL BREAKING STRENGTH OF 41.2 KIPS.
Q2	NOSE CABLE-SWAGE BUTTON	COLD TUFF BUTTON, S-409 SIZE NO. 12 STOCK NUMBER 1040395 OR ANY OTHER SIMILAR SIZED WAGED-GRIP-BUTTON FERRULES. ASTM A576 GRADE 1035 SWAGE FITTING ARE TO BE FIELD SWAGED PER MANUFACTURERS RECOMMENDATION. NOMINAL BREAKING STRENGTH OF 41.2 KIPS.
R1	NOSE CABLE ANCHOR BRACKET	AASHTO M111/ASTM A123 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
S1	5/8" DIA. SPLICE BOLT - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
S2	SPLICE - BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD 5/8" ASTM A563DH OR SAE J995 GRADE 5
T1	1/4" DIA. NOSE CABLE - U BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
T2	U-BOLT - PLATE WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
T3	U-BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
U1	7/16" DIA. SLIP POST ASSEMBLY - BREAKAWAY BOLT	ASTM A153 OR B695 CLASS 55 OR F2329 UNC FULLY THREADED HEX HEAD TAP BOLT ASTM A449 OR SAE J429 GRADE 5
U2	7/16" DIA. SLIP POST ASSEBLY - BREAKAWAY BOLT - WASHER	ASTM F436 TYPE I (HARDEN TYPICALLY USED WITH STEEL) GALV. AASHTO M111/ASTM A 123 OR GALV. HOT DIP. TO POST BOLT CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 55, F2329
U3	SLIP POST ASSEBLY - BREAKAWAY BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / STM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
V1	¾" DIA. BCT CABLE	AASHTO M30 / ASTM A741 6X19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6X19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS) TYPE II OR IIC, CLASS C ZINC COATED MIN BREAKING STRENGTH OF 42.7 KIPS
V2	ANCHOR CABLE-SWAGE FITTING	UNC ASTM A576 GRADE 1035 SWAGE FITTING ARE TO BE FACTORY SWAGED. MIN. BREAKING STRENGTH OF 42.7 KIPS. ASME B30.26 "FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR ALLOY EYEBOLTS."
V3	1" DIA. ANCHOR CABLE-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
V4	1" DIA. ANCHOR CABLE-NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
W1	REFLECTOR	SEE SDD 15A4

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

339

SDD 14B26 - 04h

SDD 14B26 - 04h

(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.

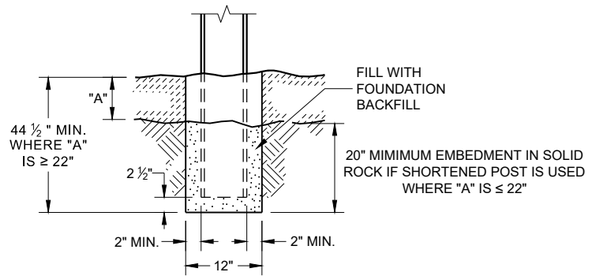
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

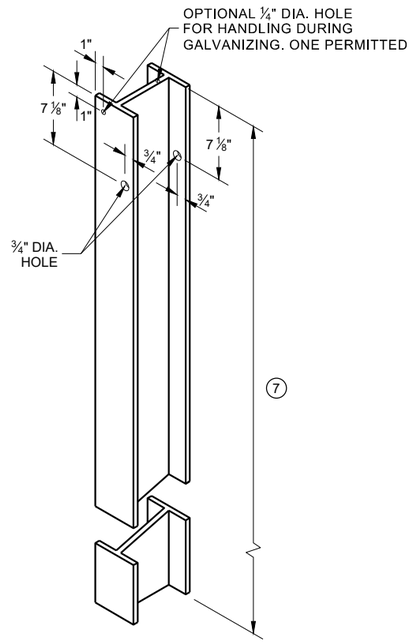
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

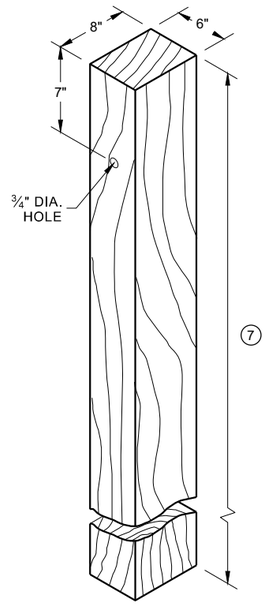
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



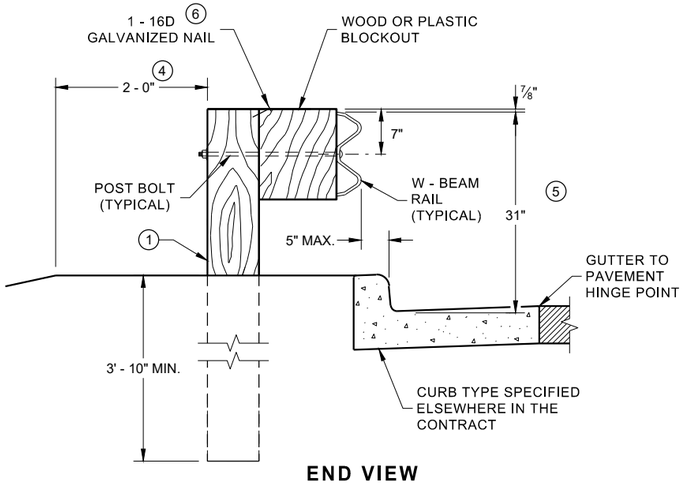
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



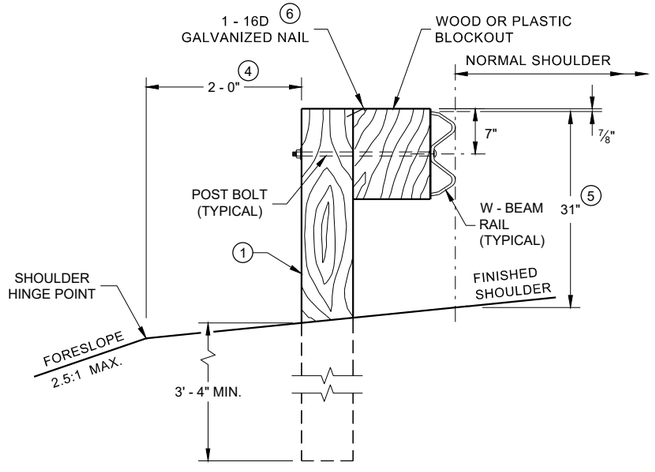
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



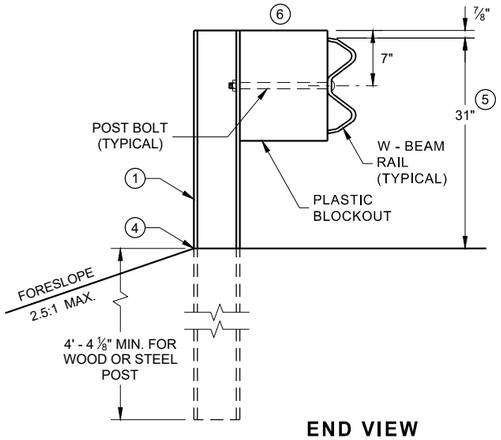
WOOD POST (6" X 8") NOMINAL (1)



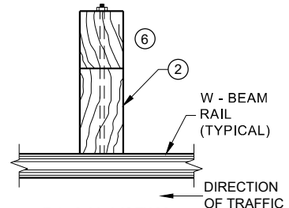
END VIEW
LOCATED ALONG A CURBED ROADWAY



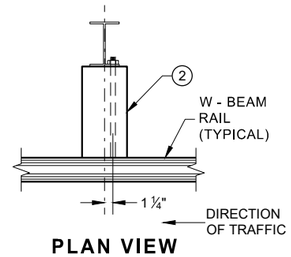
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



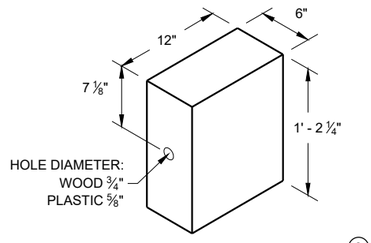
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



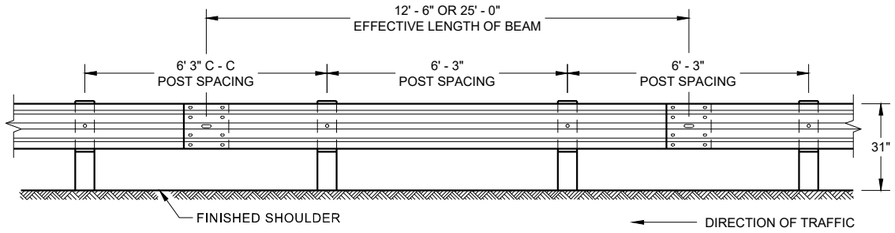
WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

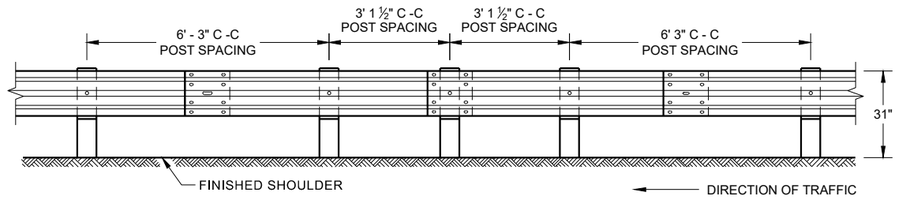
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B42 - 07a

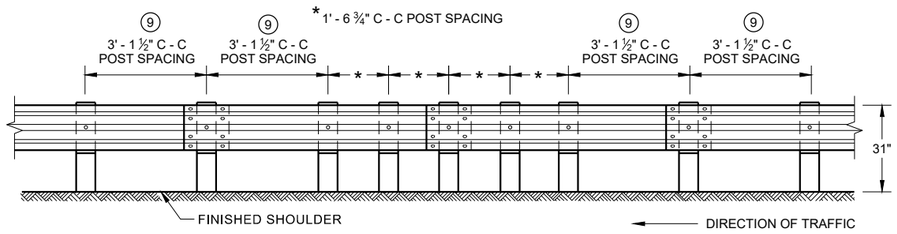
SDD 14B42 - 07a



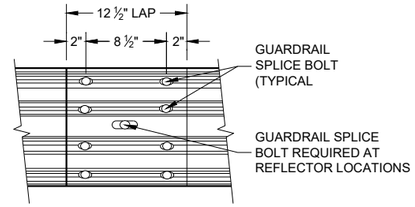
FRONT VIEW
POST SPACING STANDARD INSTALLATION



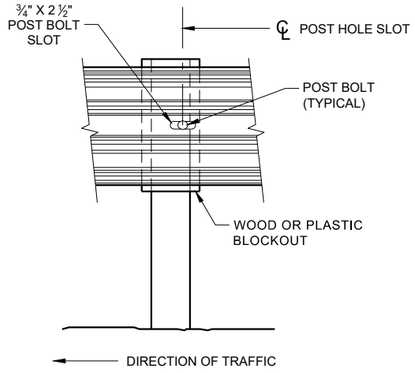
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



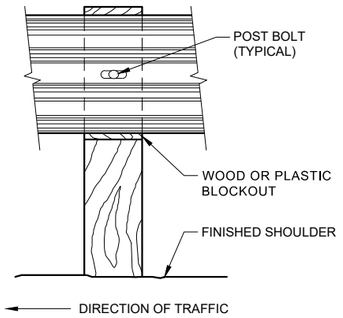
FRONT VIEW
QUARTER POST SPACING (QS)



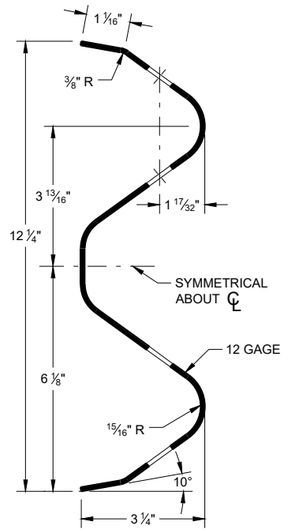
FRONT VIEW
MID-SPAN BEAM SPLICE



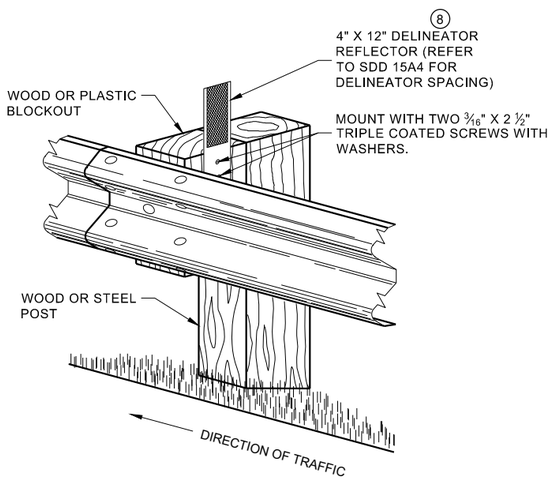
FRONT VIEW AT STEEL POST



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.

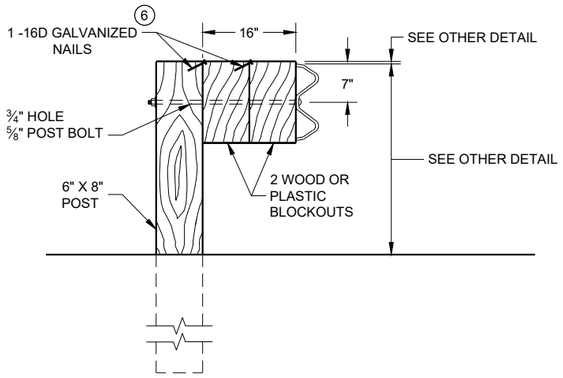
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

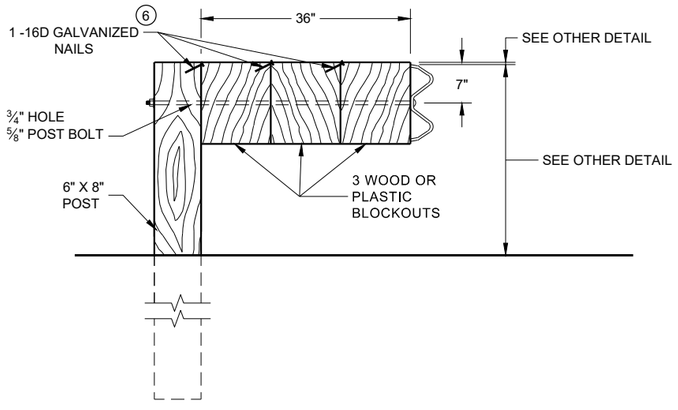
6

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.



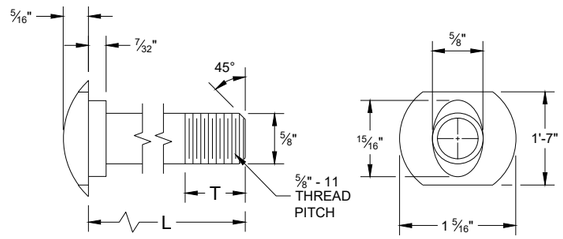
DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

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

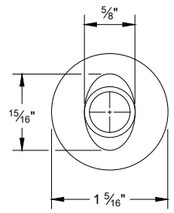
NOTE:

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.

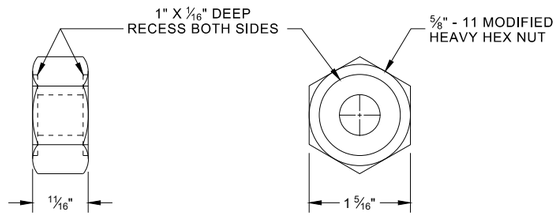


POST BOLT TABLE

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

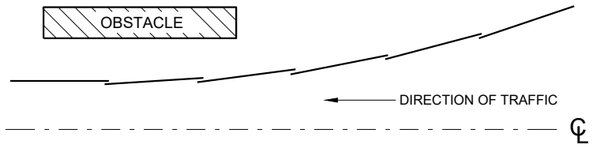


ALTERNATE BOLT HEAD

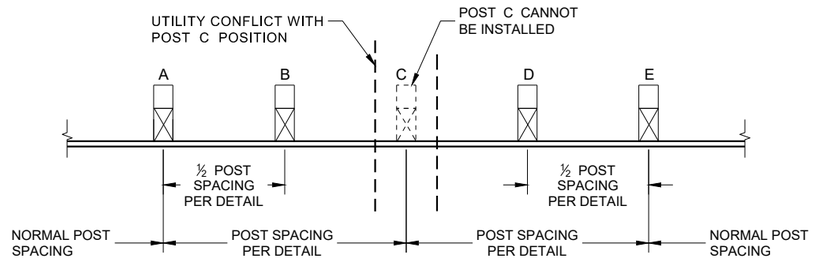


POST BOLT, SPLICE BOLT AND RECESS NUT

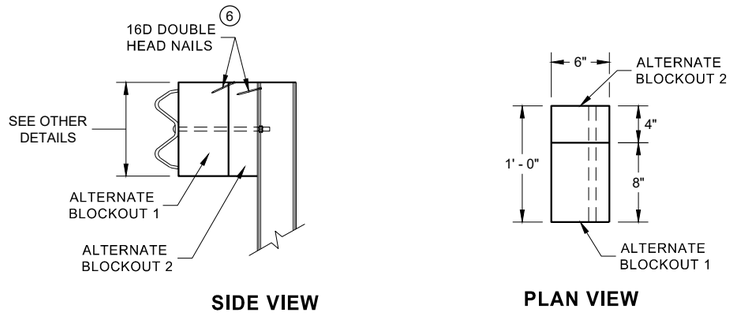
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW

PLAN VIEW

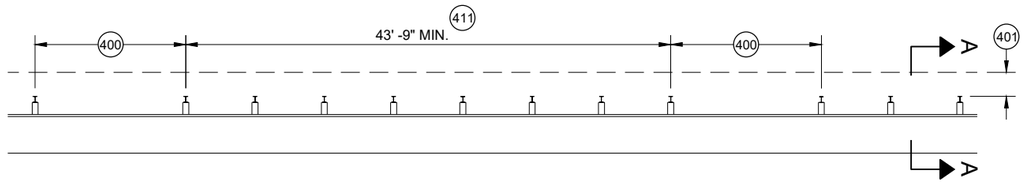
ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

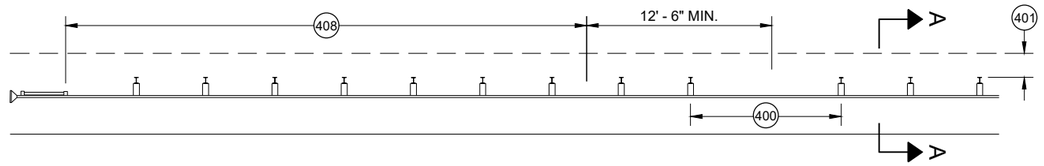
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

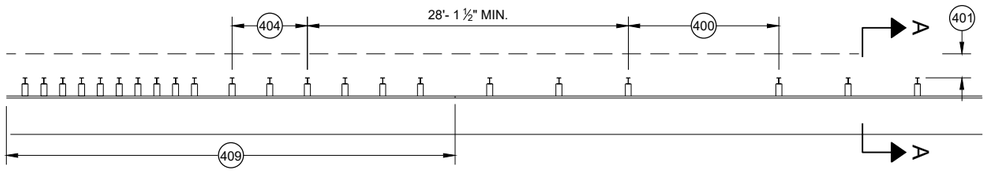
SDD 14B42 - 07c



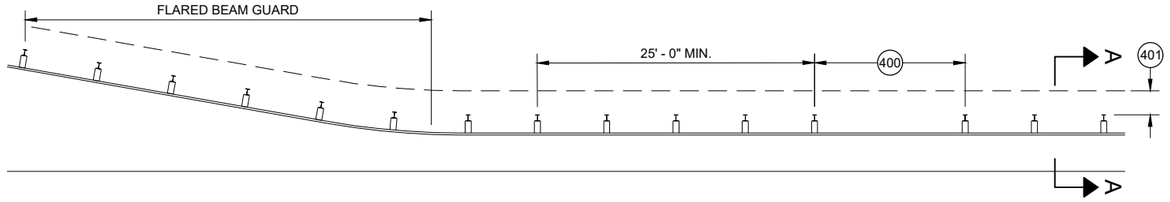
MISSING POST IN MGS GUARDRAIL



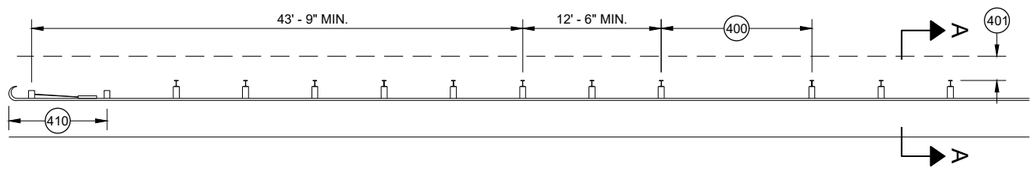
MISSING POST IN MGS GUARDRAIL NEAR EAT



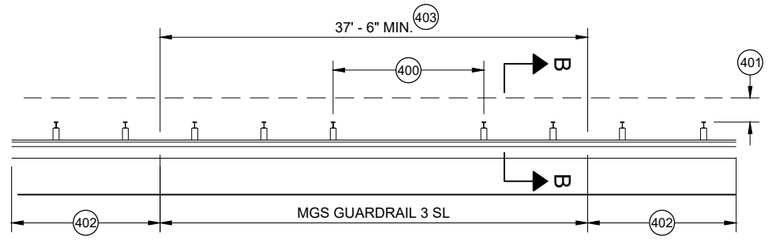
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

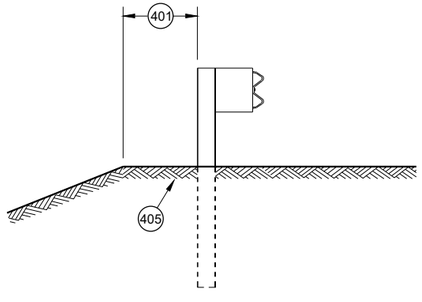


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

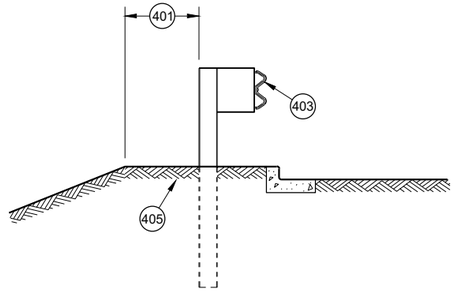


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(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

(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.

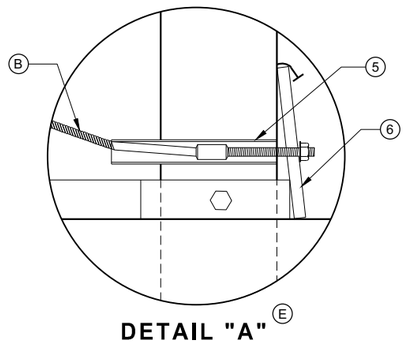
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

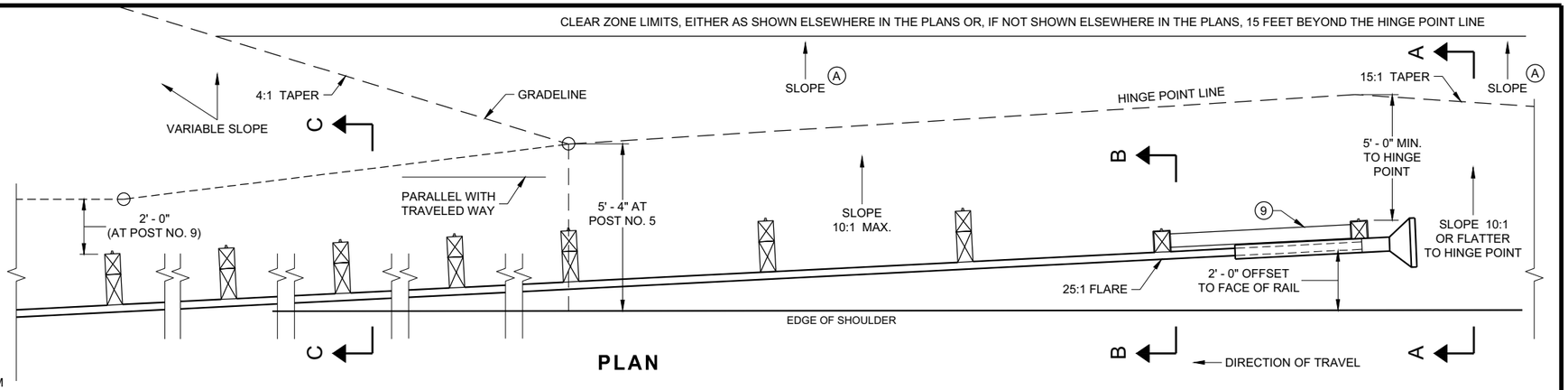
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

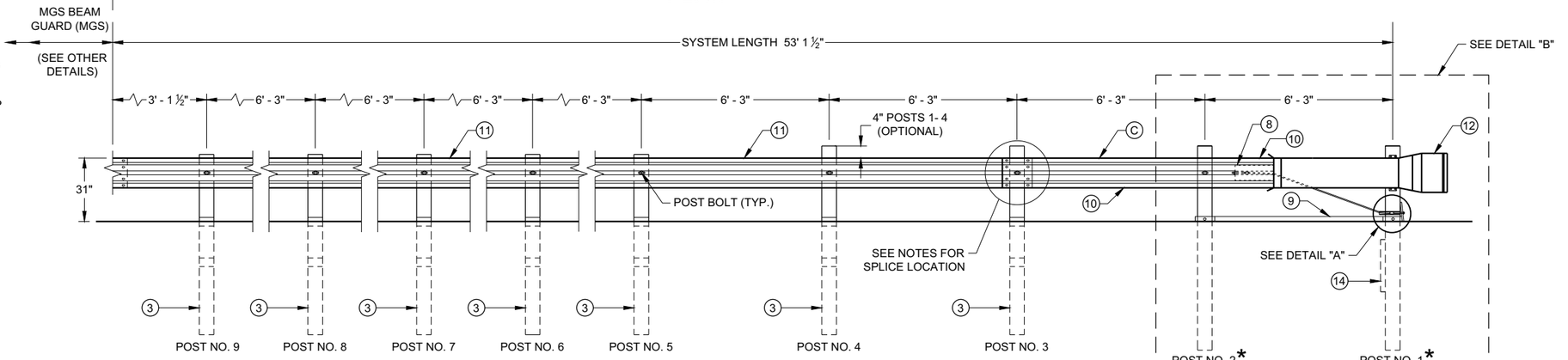
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



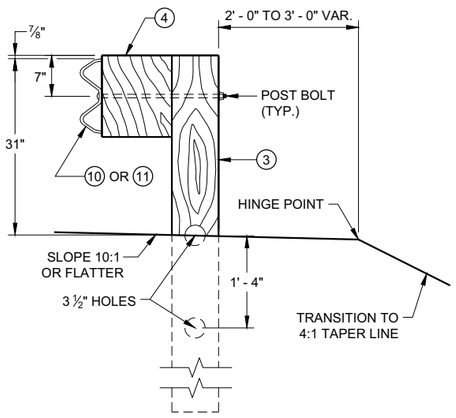
DETAIL "A" (E)



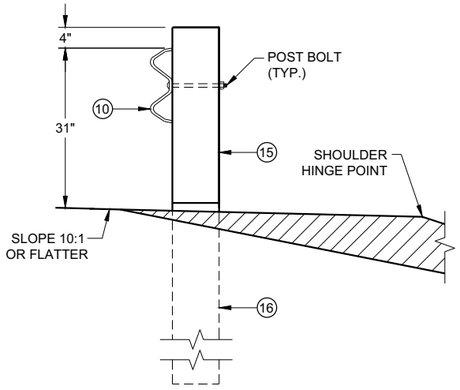
PLAN



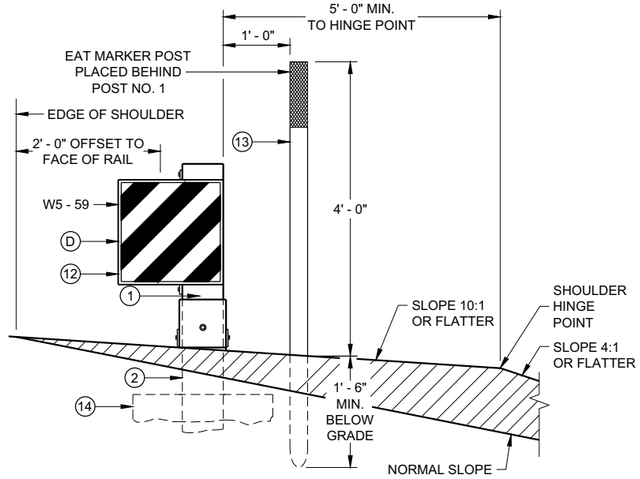
ELEVATION



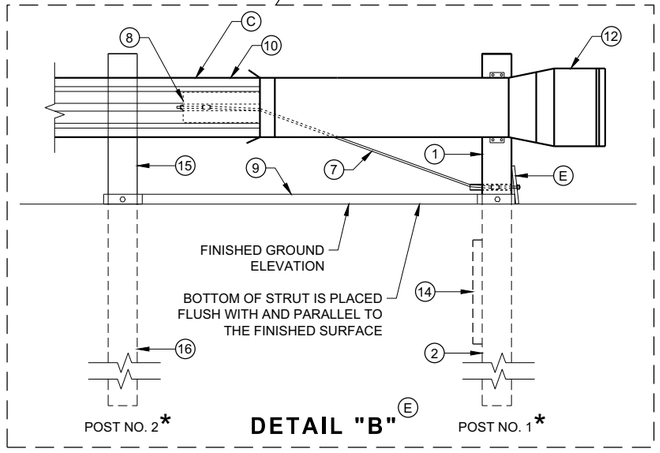
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



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

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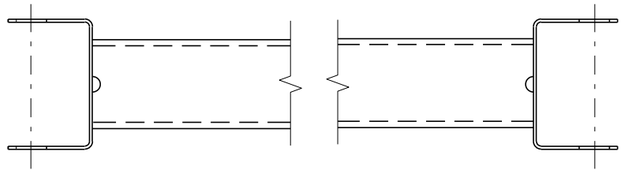
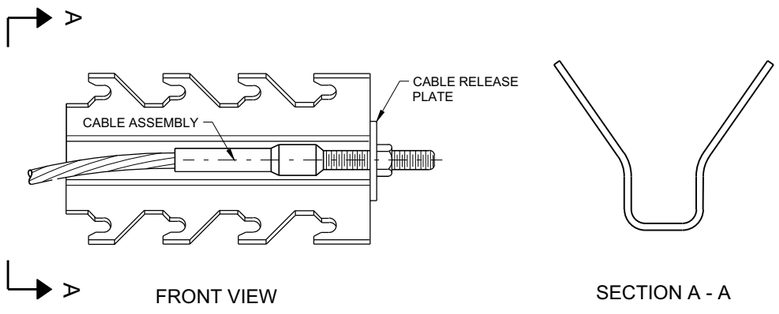


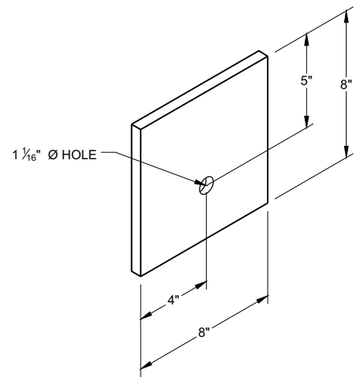
GENERIC GROUND STRUT ⑨ Ⓔ

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

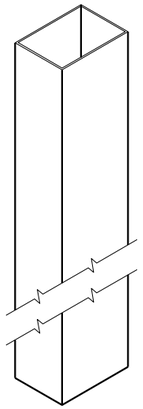
6

SDD 14B44 - 04b

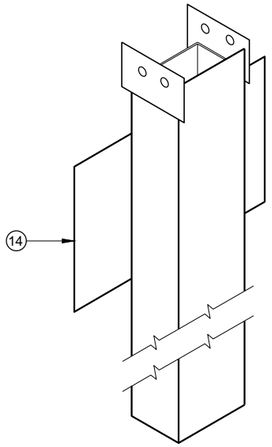
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

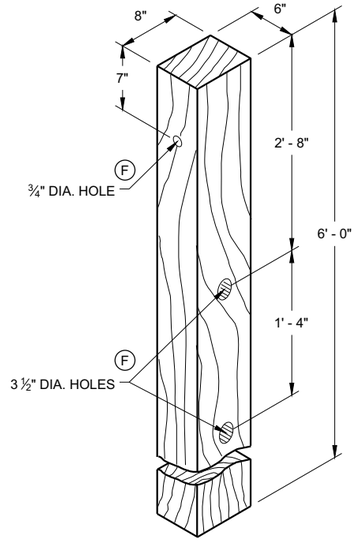
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



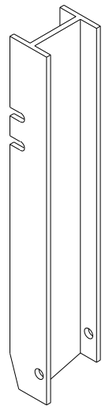
UPPER POST NO. 1 (1) (E)



LOWER POST NO. 1 (2) (E)



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



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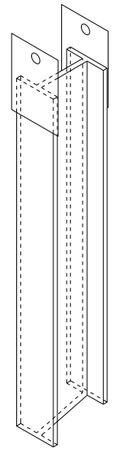
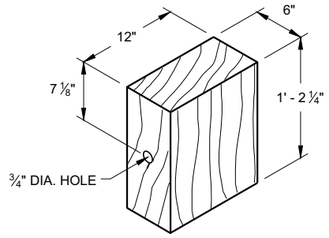
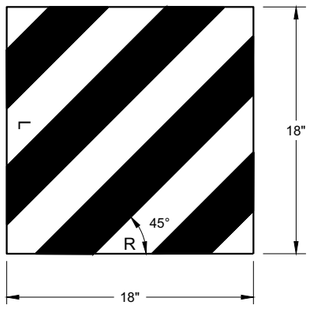


LOWER POST NO. 2 (16) (E)

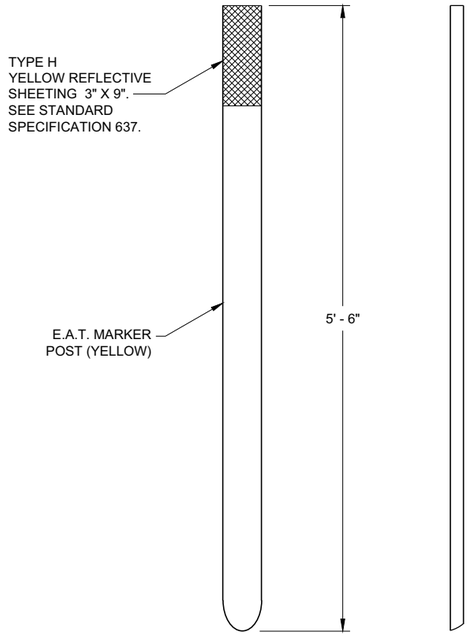


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



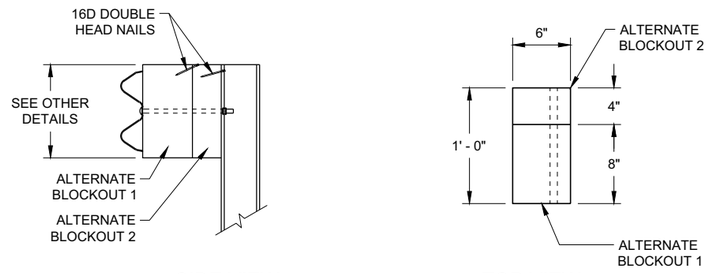
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

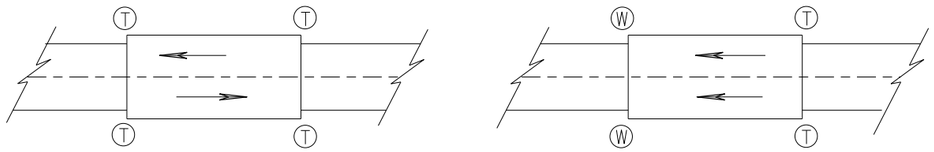
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

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.

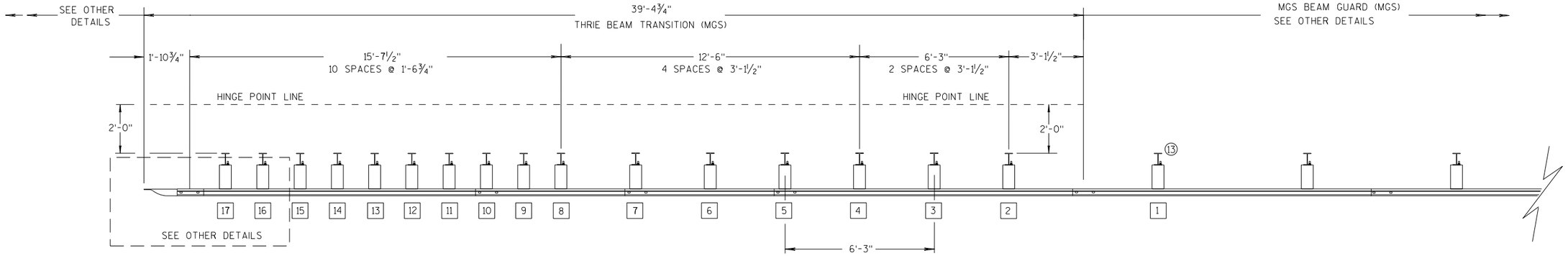
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

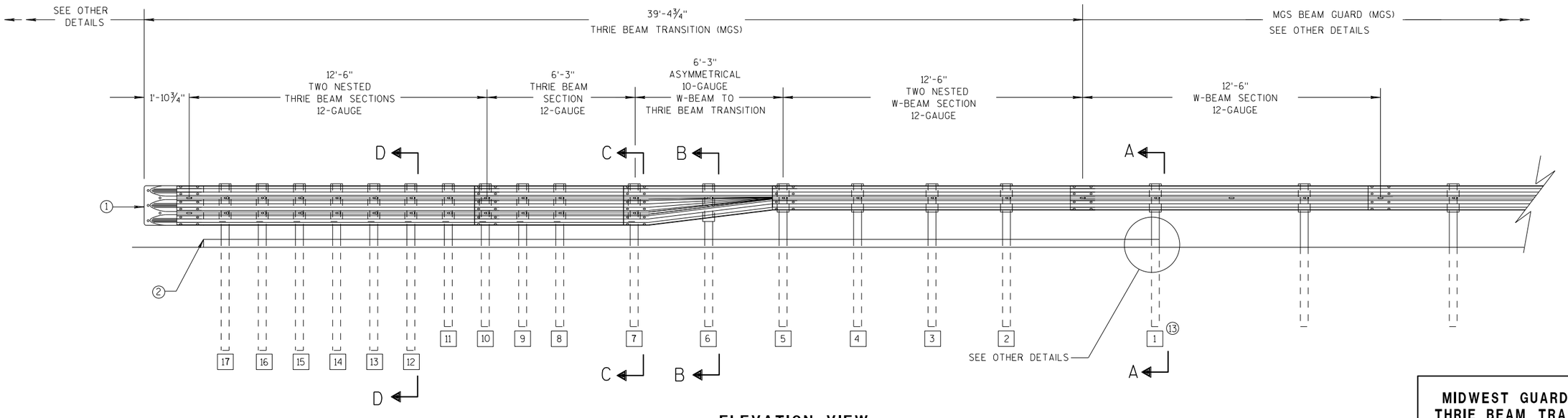
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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 TRANSPOR

6

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

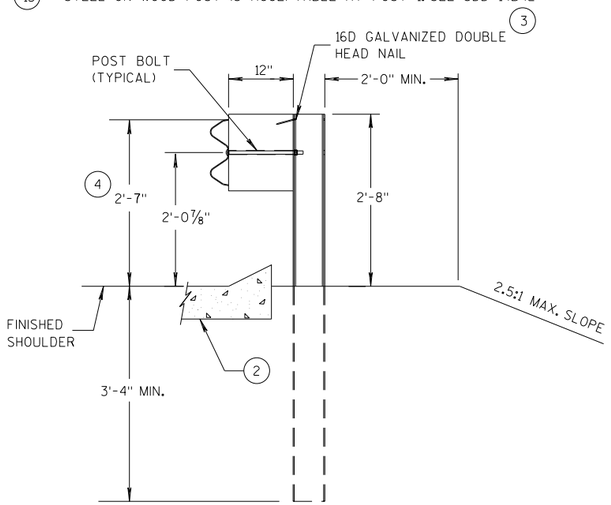
GENERAL NOTES

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

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

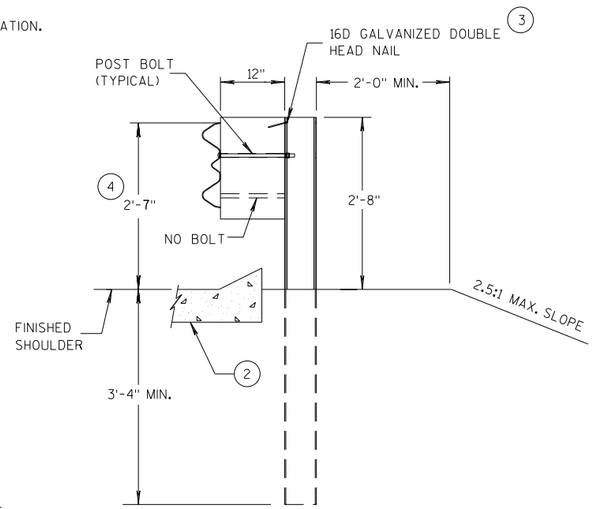
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



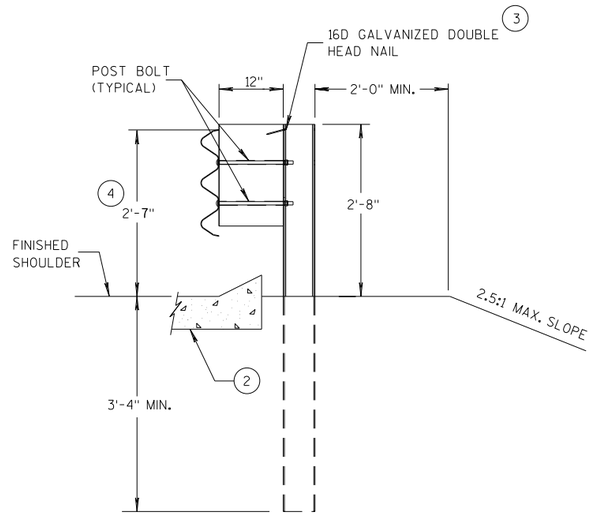
SECTION A-A (13)

POSTS 1-5



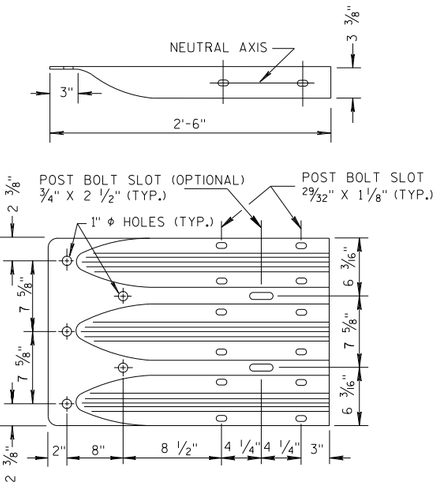
SECTION B-B

POST 6

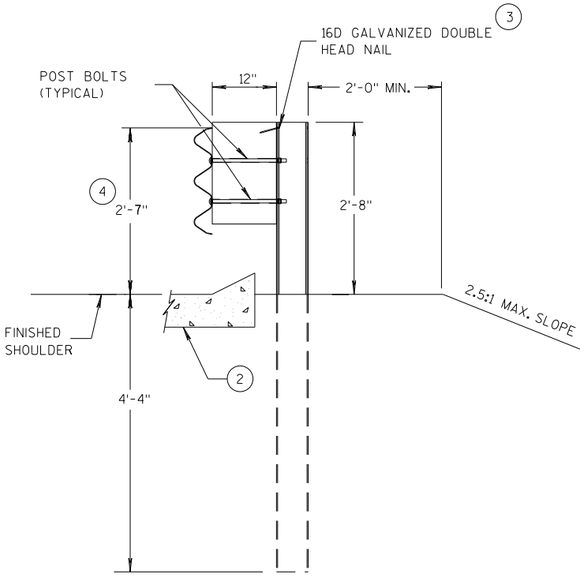


SECTION C-C

POSTS 7-11

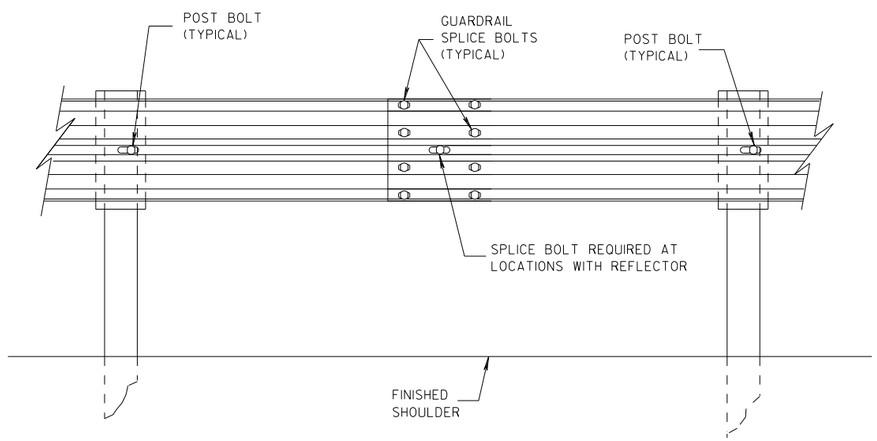


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

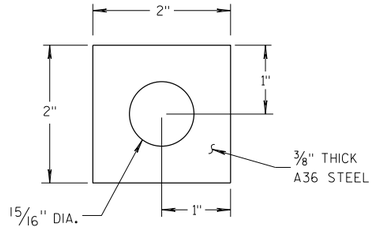
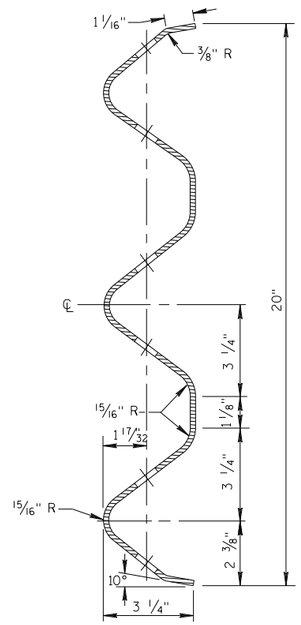


PLATE WASHER DETAIL



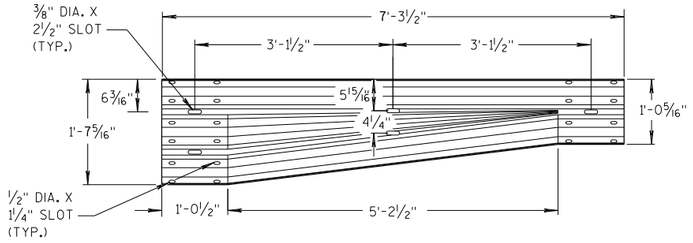
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

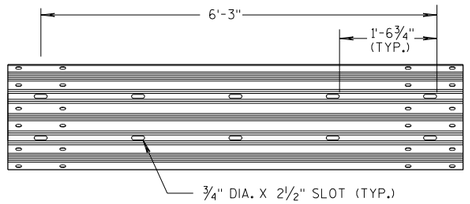
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

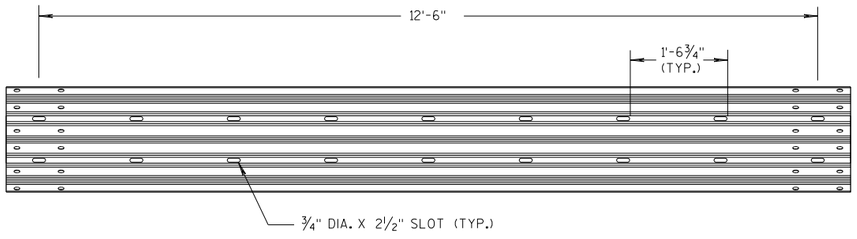
S.D.D. 14 B 45-5b



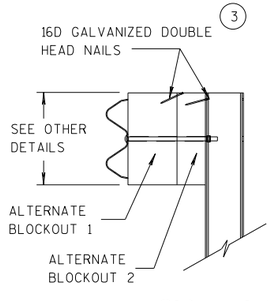
W-BEAM TO THRIE BEAM TRANSITION SECTION



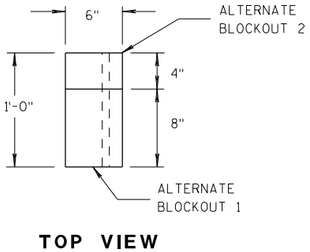
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

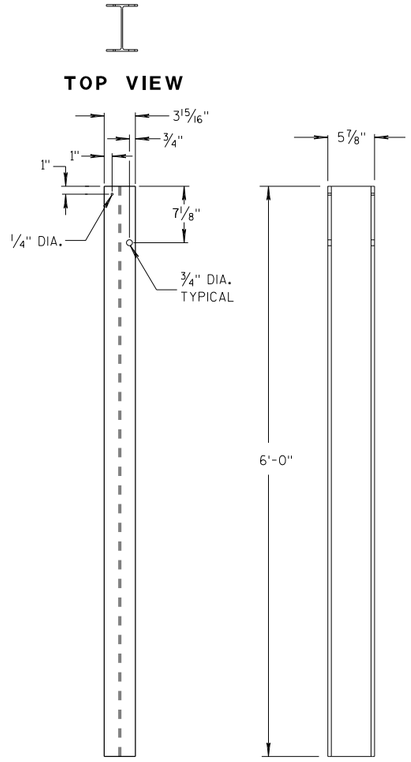


SIDE VIEW



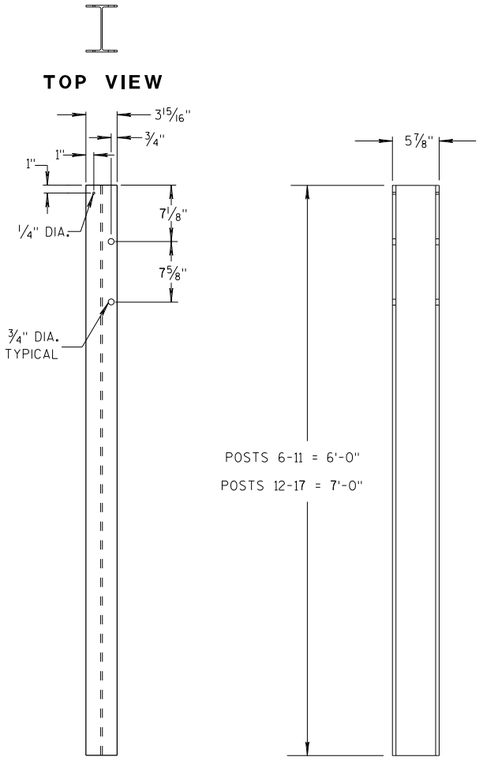
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



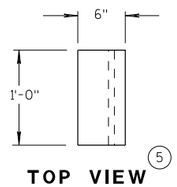
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

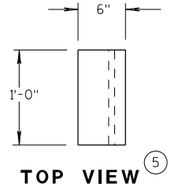


FRONT VIEW SIDE VIEW

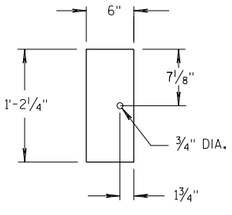
STEEL POSTS 6-17



TOP VIEW (5)

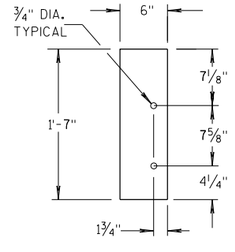


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

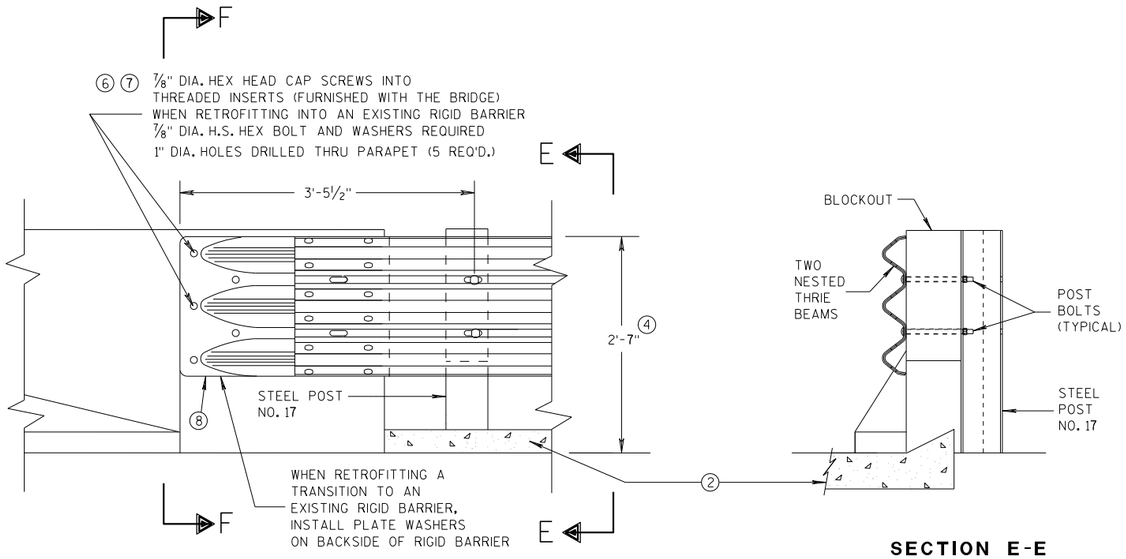
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
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.

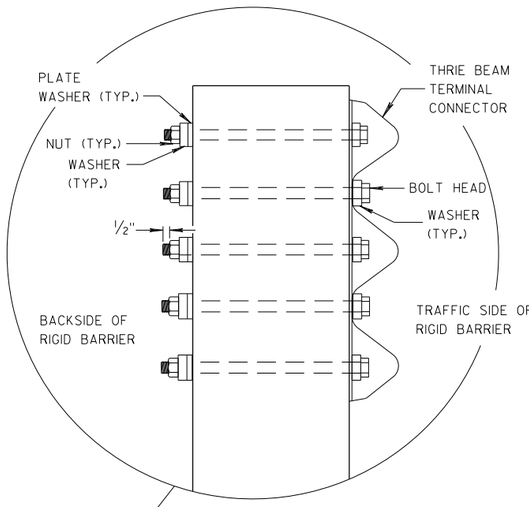
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

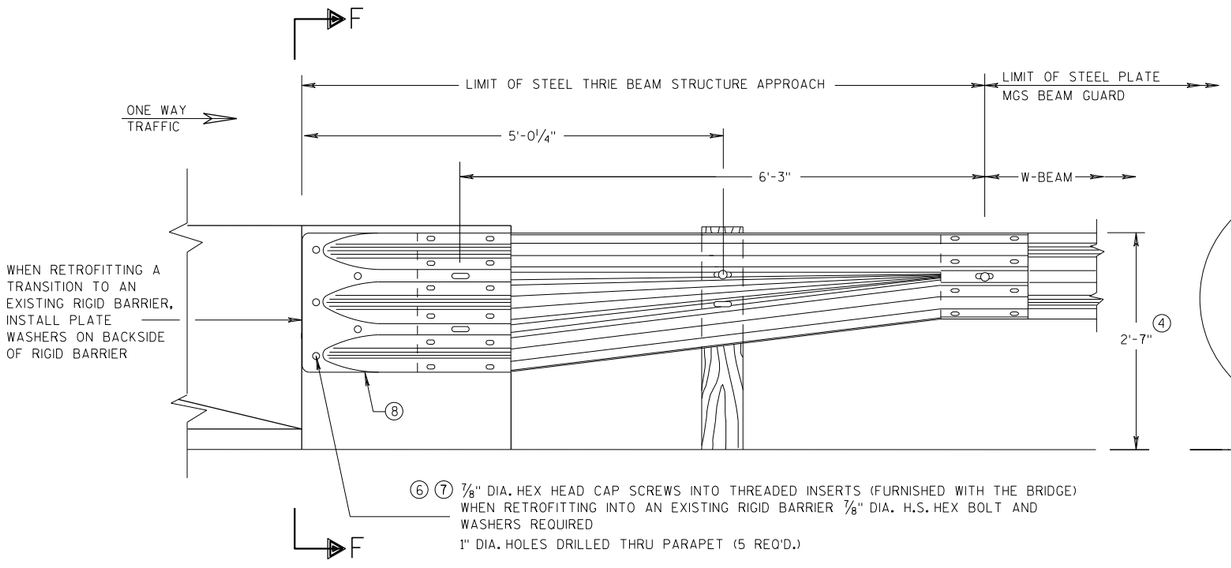
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

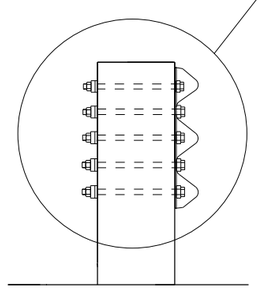
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE.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

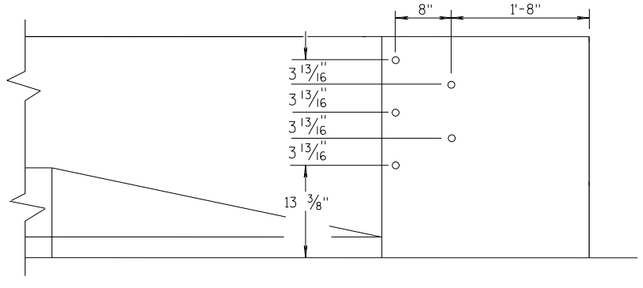




FRONT VIEW



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[illegible] UNIT SUPERVIS[illegible]
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.

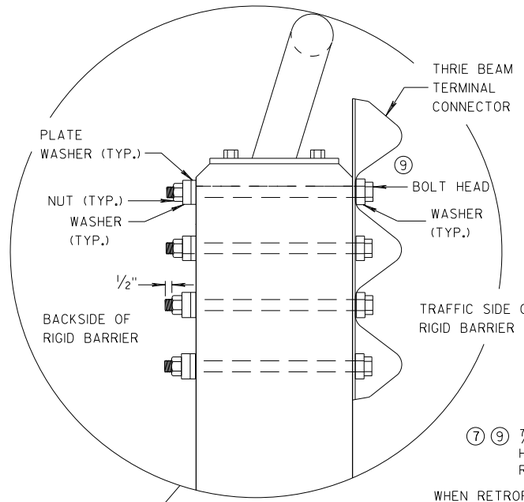
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

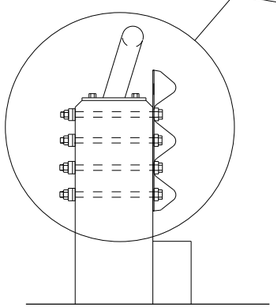
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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.

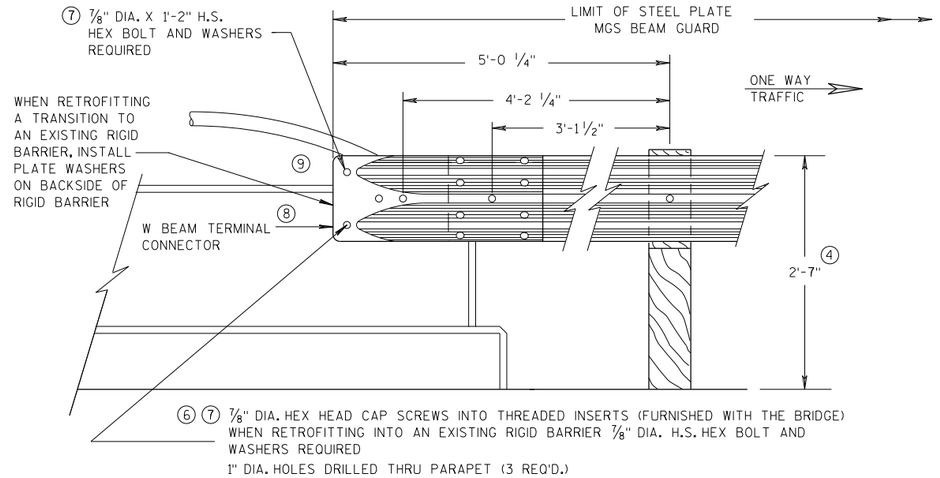
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(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.





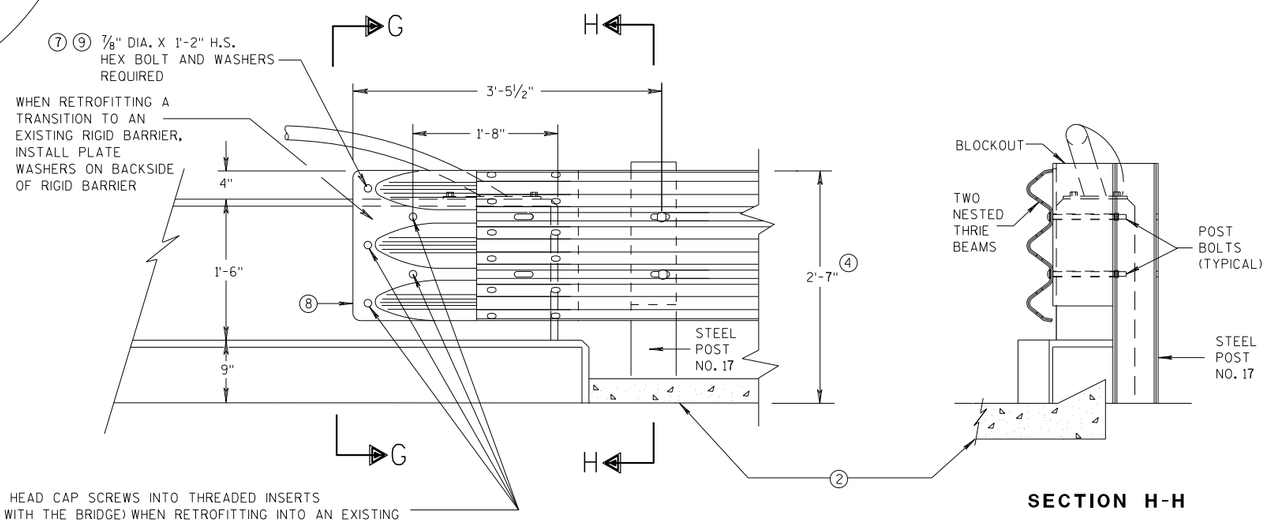
SECTION G-G



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

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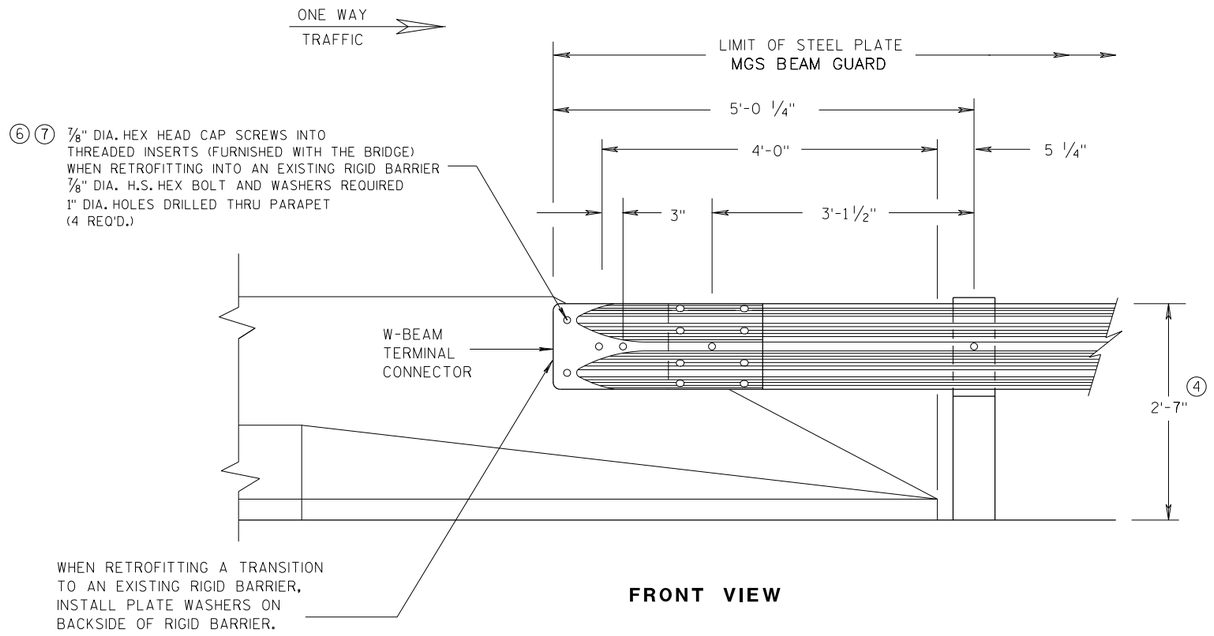


FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

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

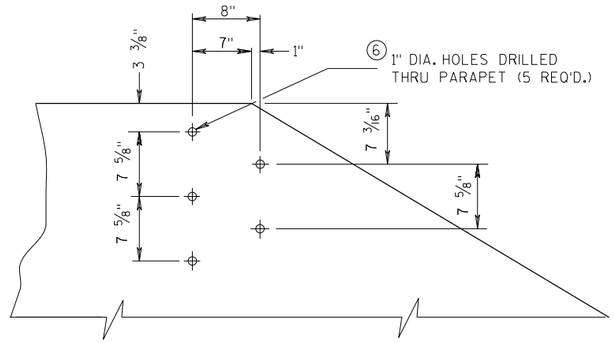
GENERAL NOTES

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

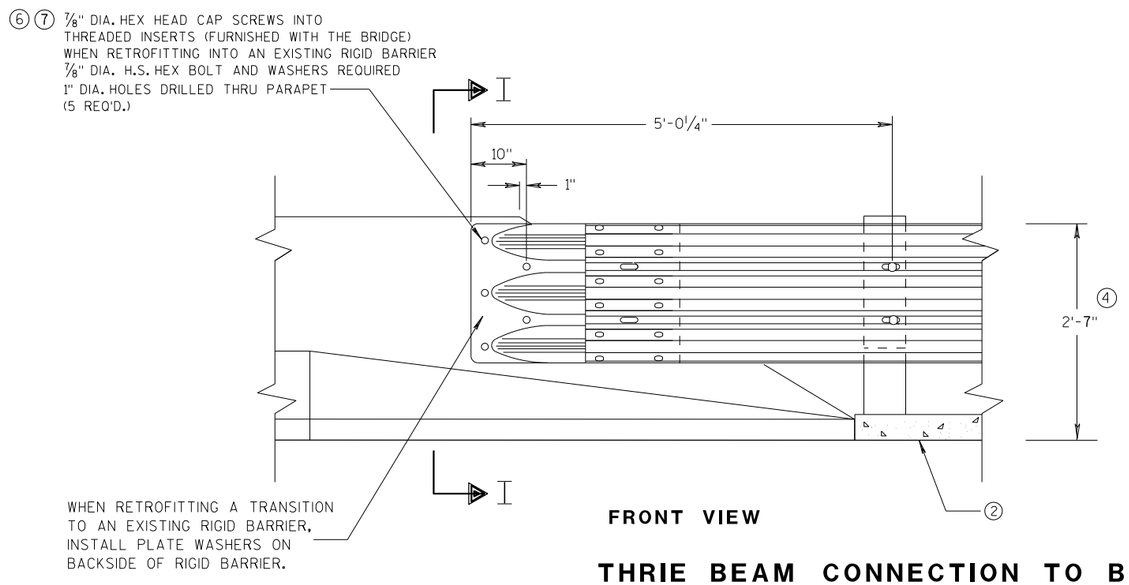
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

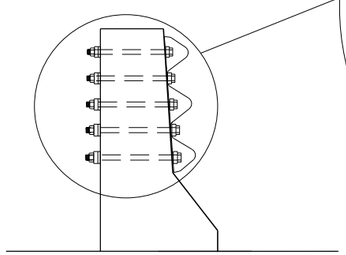
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



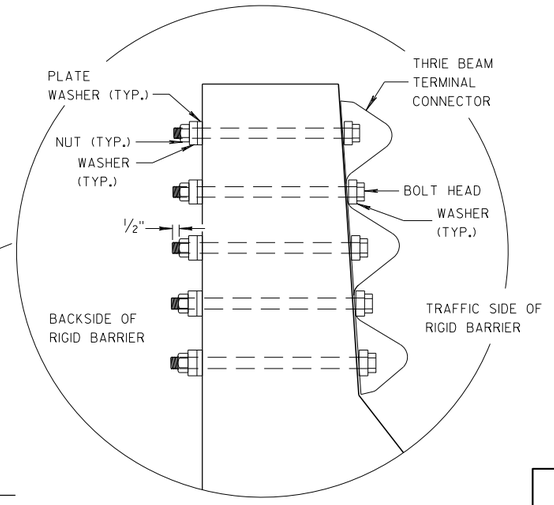
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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07/2018 — DATE
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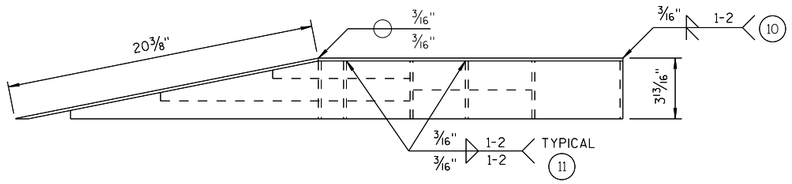

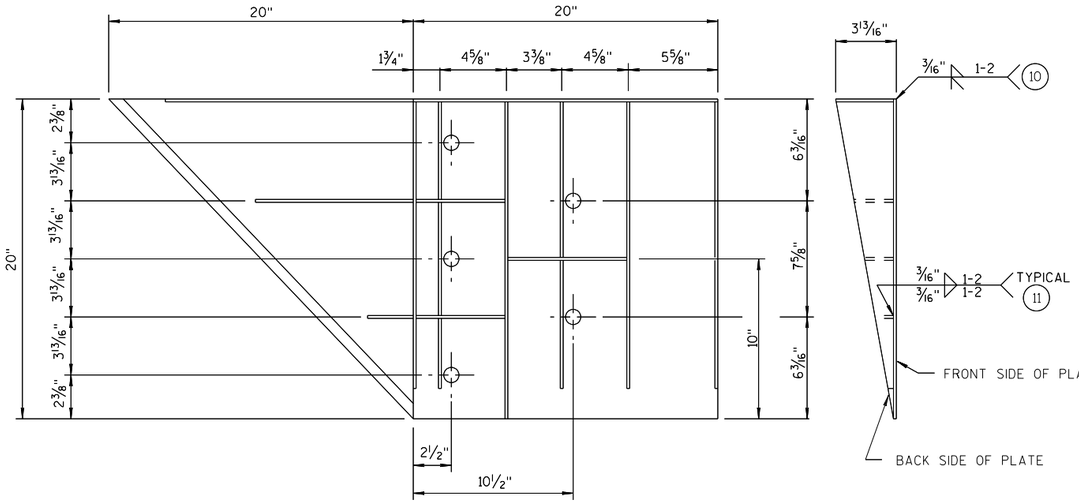

WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

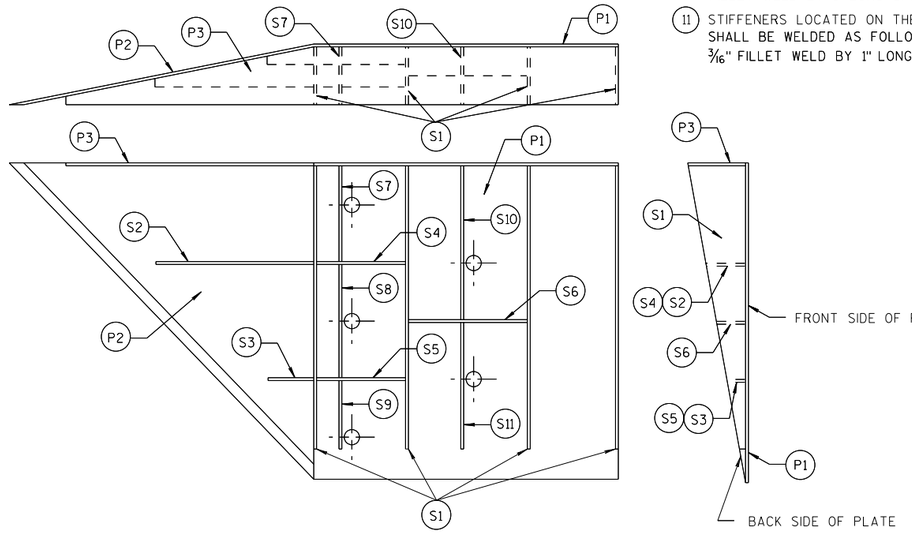

PLATE AND STIFFENER IDENTIFICATION

(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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DATE
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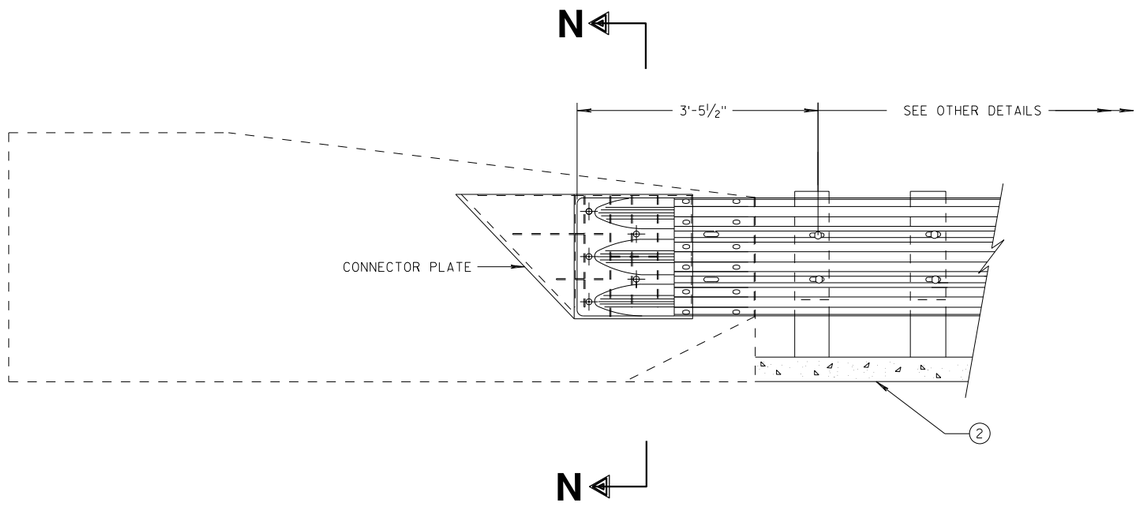
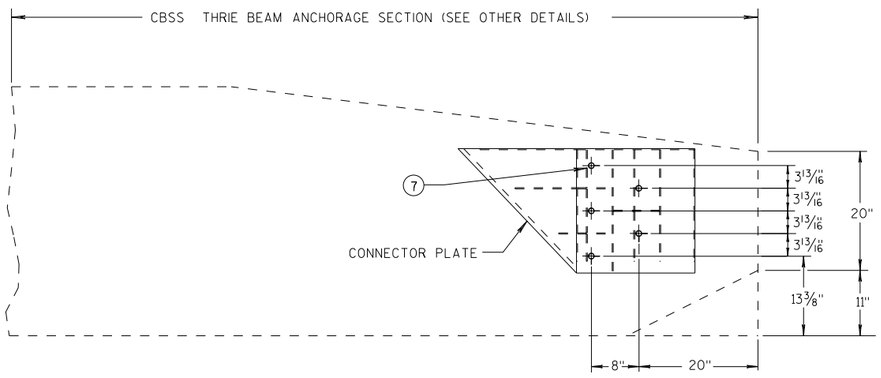


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



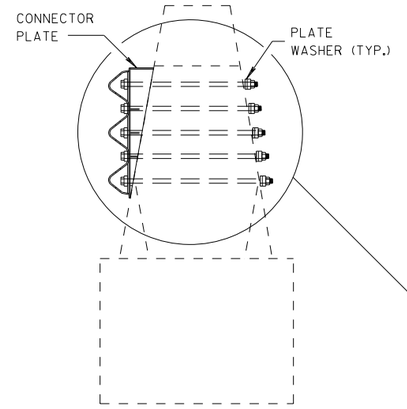
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

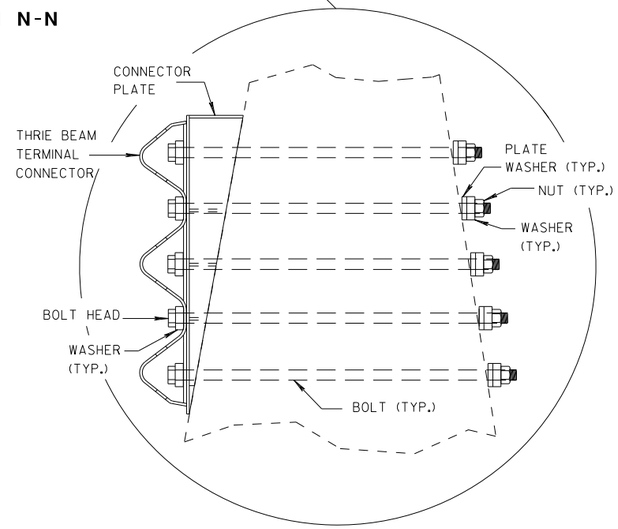
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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
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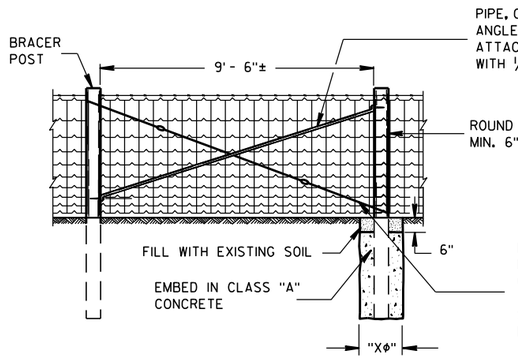
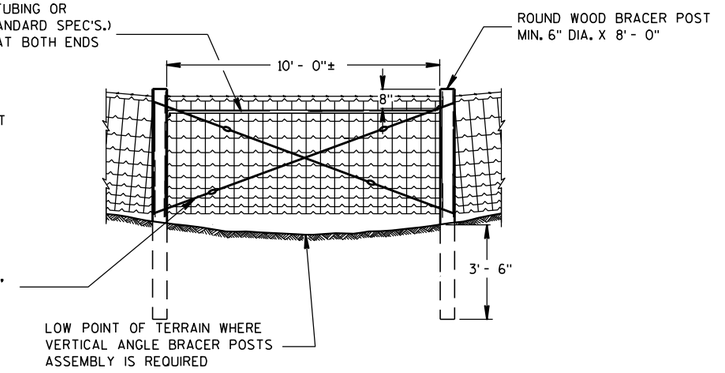
NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

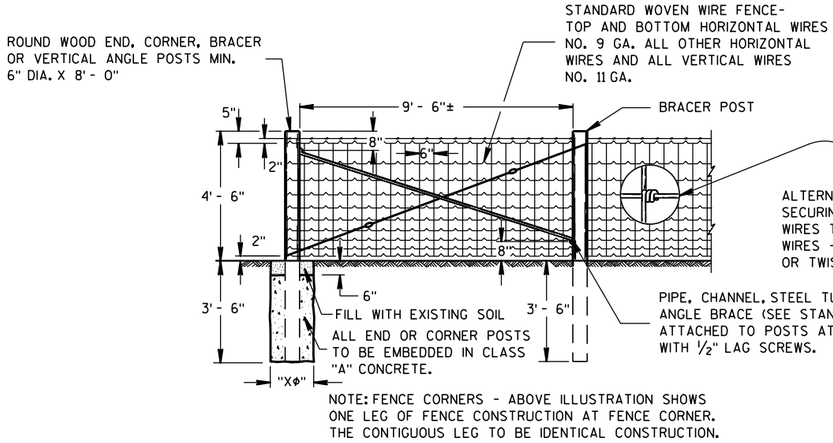
ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



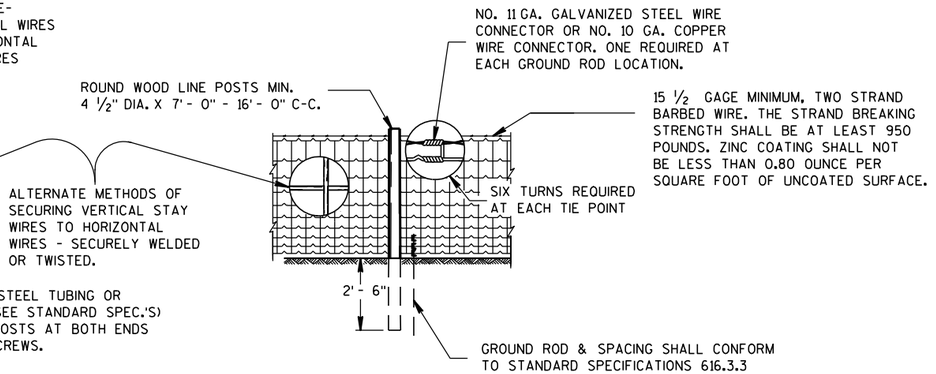
PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY



END OR CORNER POSTS ASSEMBLY



LINE FENCE CONSTRUCTION

GENERAL NOTES

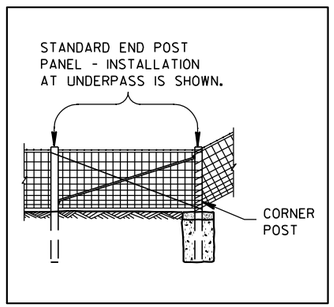
"XΦ" = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

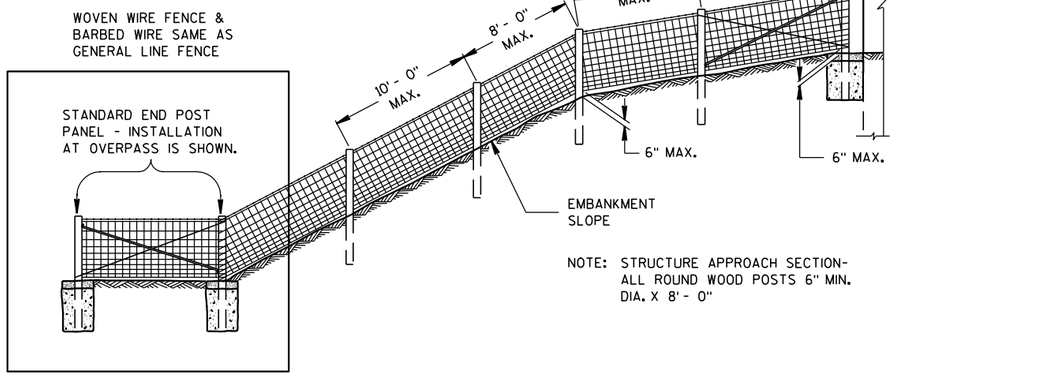
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

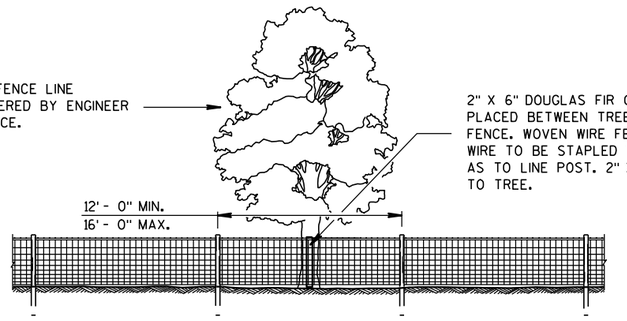
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

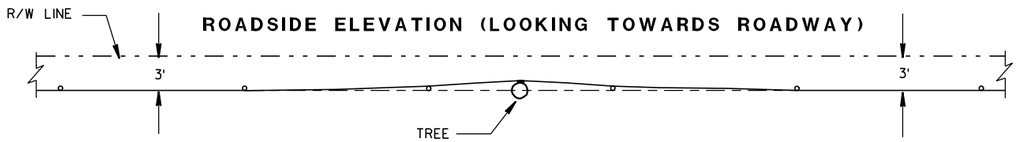
S.D.D. 15 B 1-8a

NOTE: TREE IN NORMAL FENCE LINE SPECIFICALLY ORDERED BY ENGINEER TO REMAIN IN PLACE.

2" X 6" DOUGLAS FIR OR SO. YELLOW PINE PLACED BETWEEN TREE AND WOVEN WIRE FENCE. WOVEN WIRE FENCE AND BARBED WIRE TO BE STAPLED TO 2" X 6" LIKE AS TO LINE POST. 2" X 6" NOT FASTENED TO TREE.

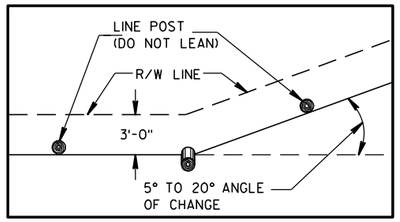


ROADSIDE ELEVATION (LOOKING TOWARDS ROADWAY)

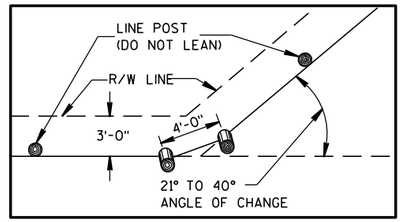


PLAN VIEW

FENCE DESIGN AT TREES REMAINING IN NORMAL FENCE LINE



PLAN VIEW
SINGLE POST CORNER

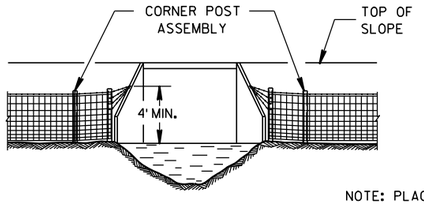


PLAN VIEW
DOUBLE POST CORNER

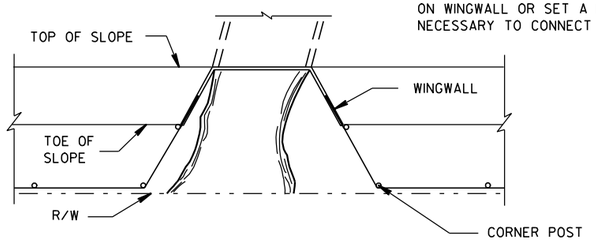
RIGHT OF WAY LINE CHANGE 40° AND LESS

NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

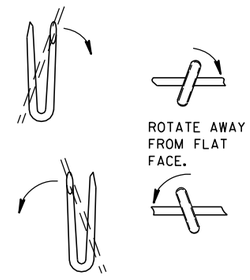
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



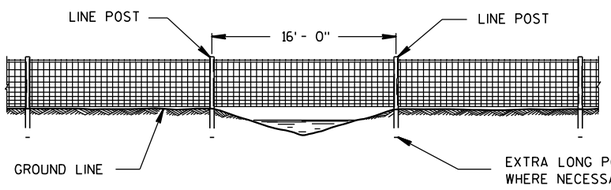
NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



FENCE INSTALLATION TO WINGWALLS

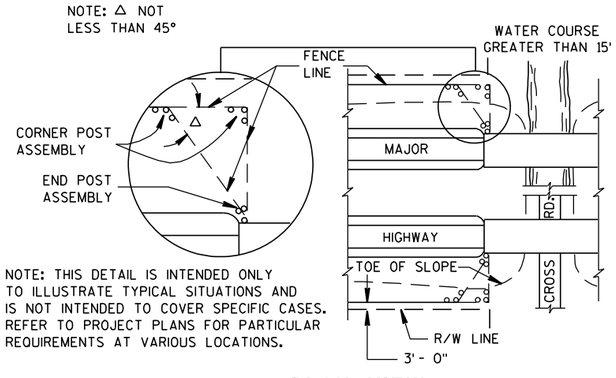


LINE POST



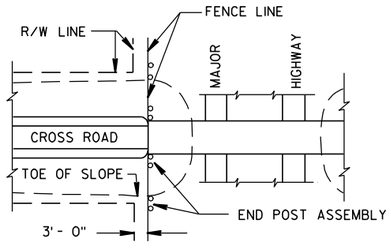
FENCE CONSTRUCTION OVER STREAM COURSES OF 15 FT. OR LESS IN WIDTH

NOTE: △ NOT LESS THAN 45°



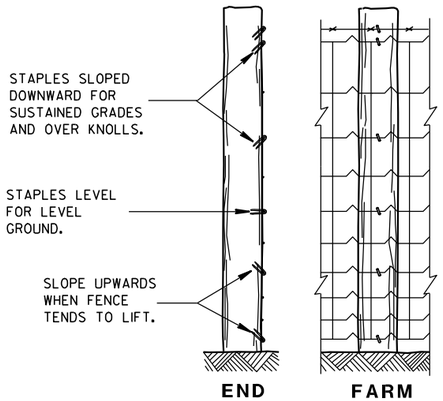
NOTE: THIS DETAIL IS INTENDED ONLY TO ILLUSTRATE TYPICAL SITUATIONS AND IS NOT INTENDED TO COVER SPECIFIC CASES. REFER TO PROJECT PLANS FOR PARTICULAR REQUIREMENTS AT VARIOUS LOCATIONS.

PLAN VIEW
MAJOR HIGHWAY OVERPASS OR STREAM COURSE CROSSING OF GREATER THAN 15 FT. IN WIDTH



PLAN VIEW
MAJOR HIGHWAY UNDERPASS

NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.



END ELEVATION

FARM SIDE ELEVATION

FENCE MOUNTING DETAIL

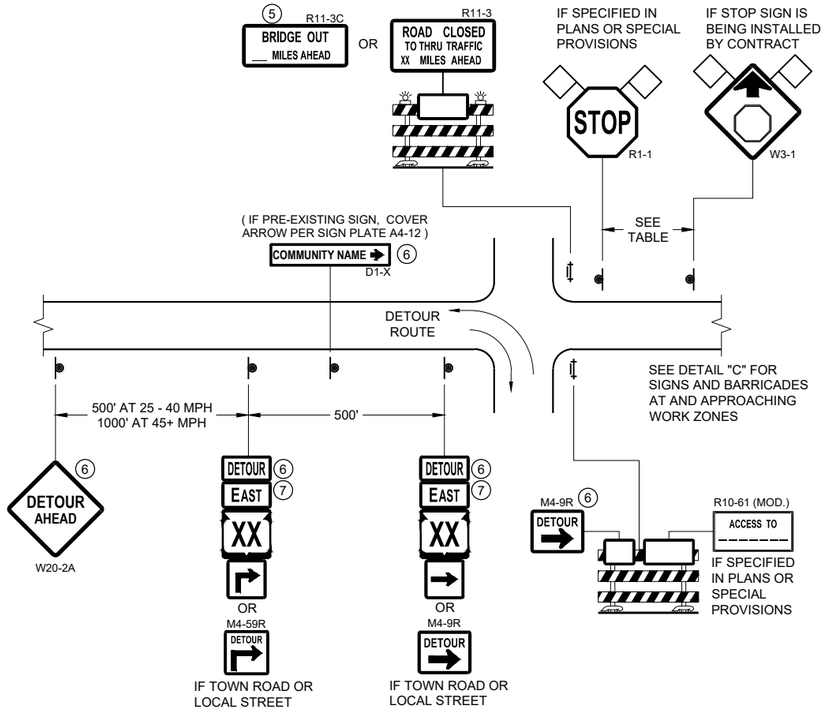
FENCE LOCATION AT STRUCTURES

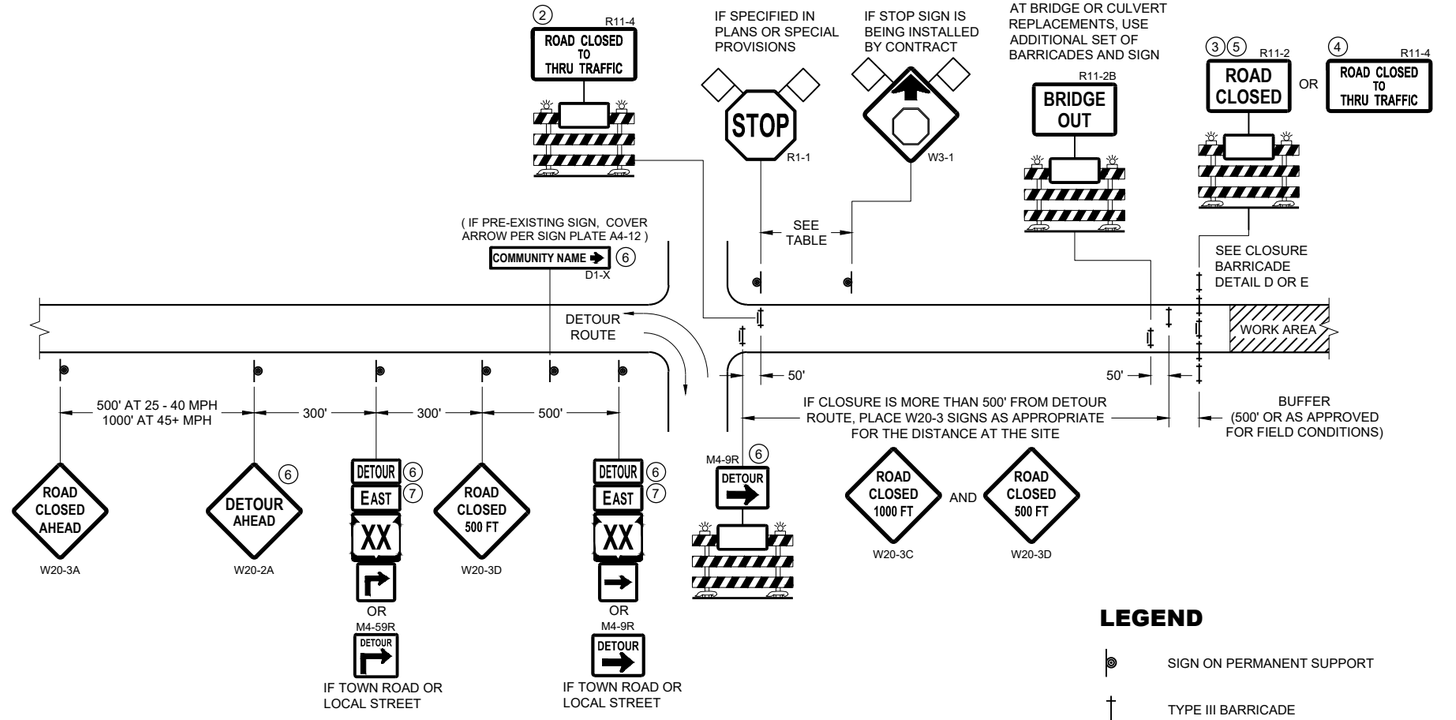
FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/4/2008
DATE
/S/ Jerry H. Z---
ROADWAY STANDARDS [356 ENT
ENGINEER
FHWA

6
S.D.D. 15 B 1-8b



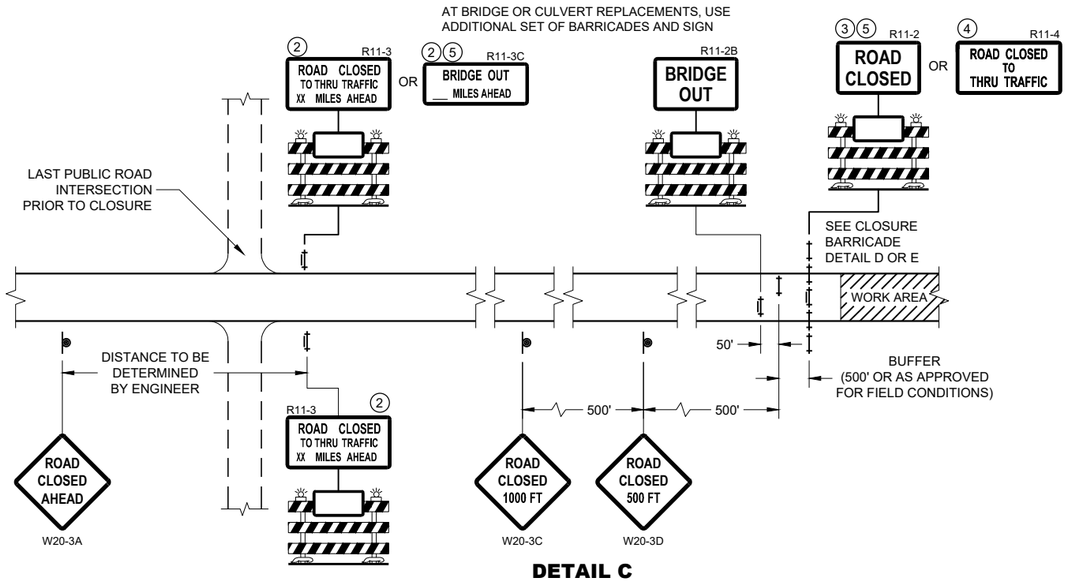


DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

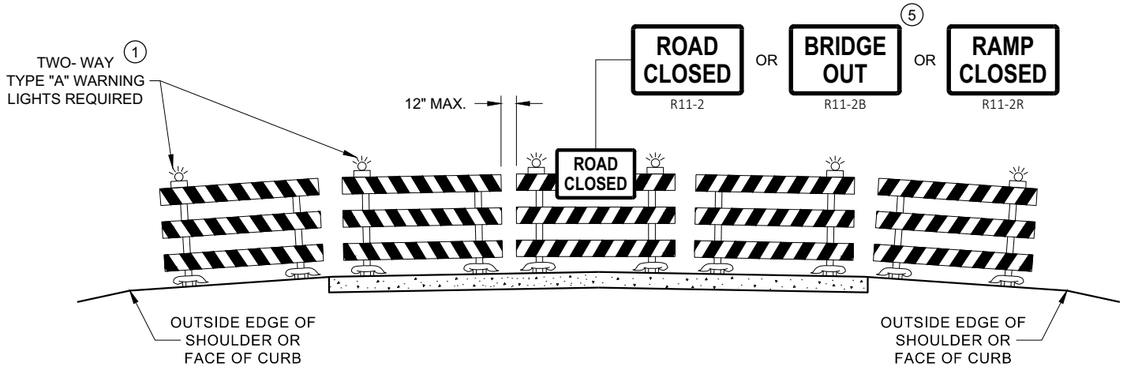
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

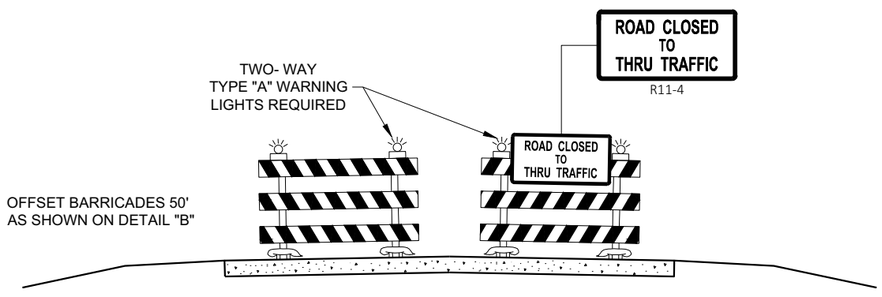
6

SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 08b

6

SDD 15C02 - 08b

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR / EAST — M4 - 8, M3 - X
- XX — M1 - 4
- XX — M1 - 6
- COUNTY / X — M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

GENERAL NOTES

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

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

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

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

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

500' AT 25-40 MPH
1000' AT 45+ MPH

500'

M4-8a *
END DETOUR WEST XX

DETOUR EAST XX *

D1-X *
COMMUNITY NAME
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR EAST XX / WEST XX

DETOUR ROUTE

WORK AREA

DETOUR EAST XX

WEST XX OR M4-9L DETOUR **
IF TOWN ROAD OR LOCAL STREET

500'

DETOUR NEXT X MILES *
G20-51

DETOUR WEST XX *
M4-59L DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

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

MATCH POINT

* M4-59L DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

DETOUR EAST XX *

D1-X *
COMMUNITY NAME
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

500'

M4-9L DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

DETOUR EAST XX

500' AT 25 - 40 MPH
1000' AT 45+ MPH

500'

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

DETOUR EAST XX *

D1-X *
COMMUNITY NAME
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR EAST XX

DETAIL F
DETOUR SIGNING

DETOUR WEST XX

DETOUR WEST XX
M4-9R DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

DETOUR WEST XX *
M4-59R * DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

500'

DETOUR ROUTE

500'

DETOUR EAST XX
DETOUR EAST XX
DETOUR EAST XX *
DETOUR EAST XX

D1-X *
COMMUNITY NAME
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

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

500' AT 25 - 40 MPH
1000' AT 45+ MPH

DETOUR EAST XX *

EAST XX M3-X 24" X 12" M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 08c

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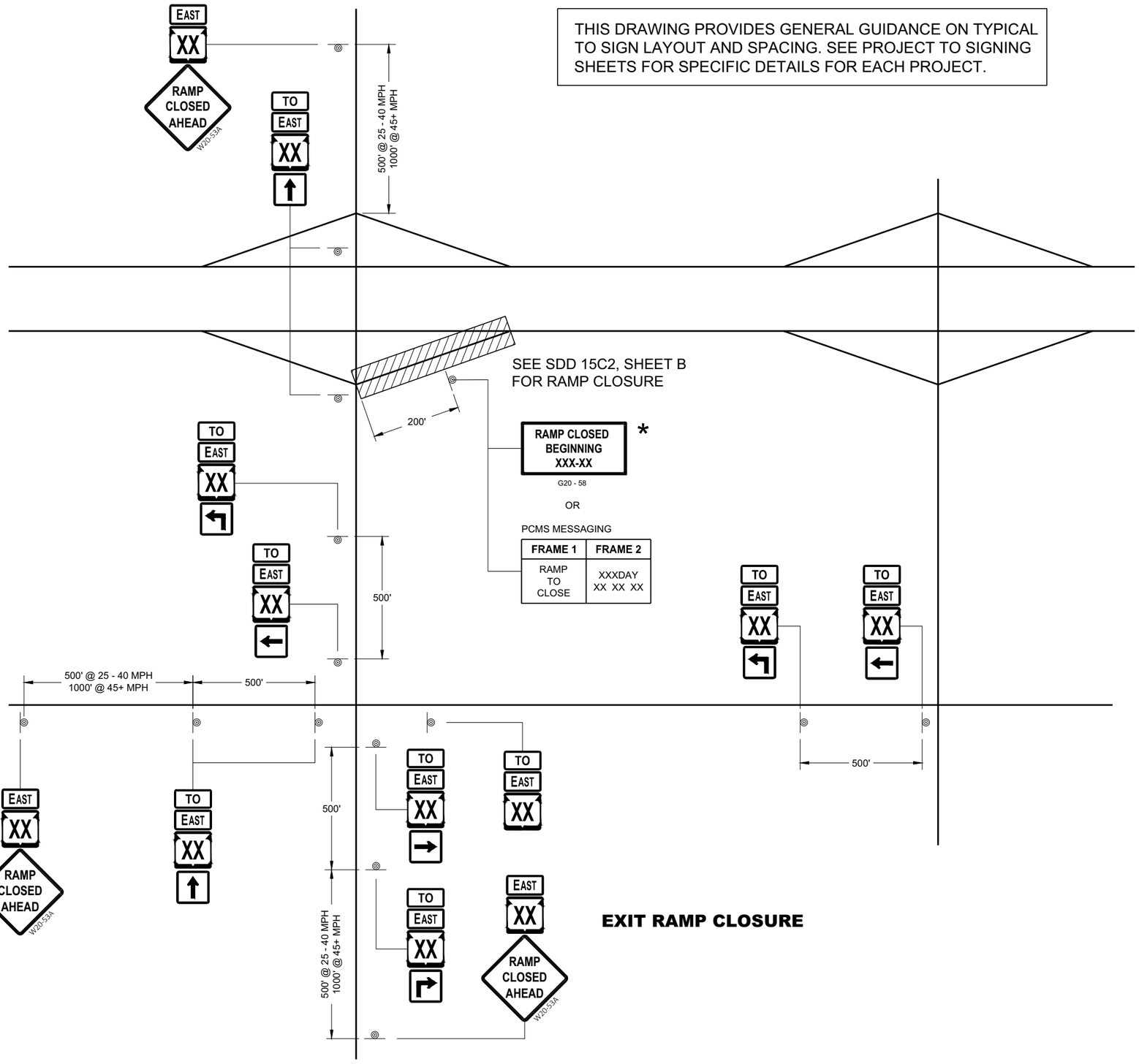


THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL TO SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

SIGN ON PERMANENT SUPPORT

TO EAST — MO4 - 5, M3 - X

XX M1 - 6 OR XX M1 - 4 OR INTERSTATE XX M1 - 1

M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

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

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOW:
- M3 - X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 1, M1 - 4, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).
- W20 - 53A SHALL BE 48" X 48"

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

EXIT RAMP CLOSURE

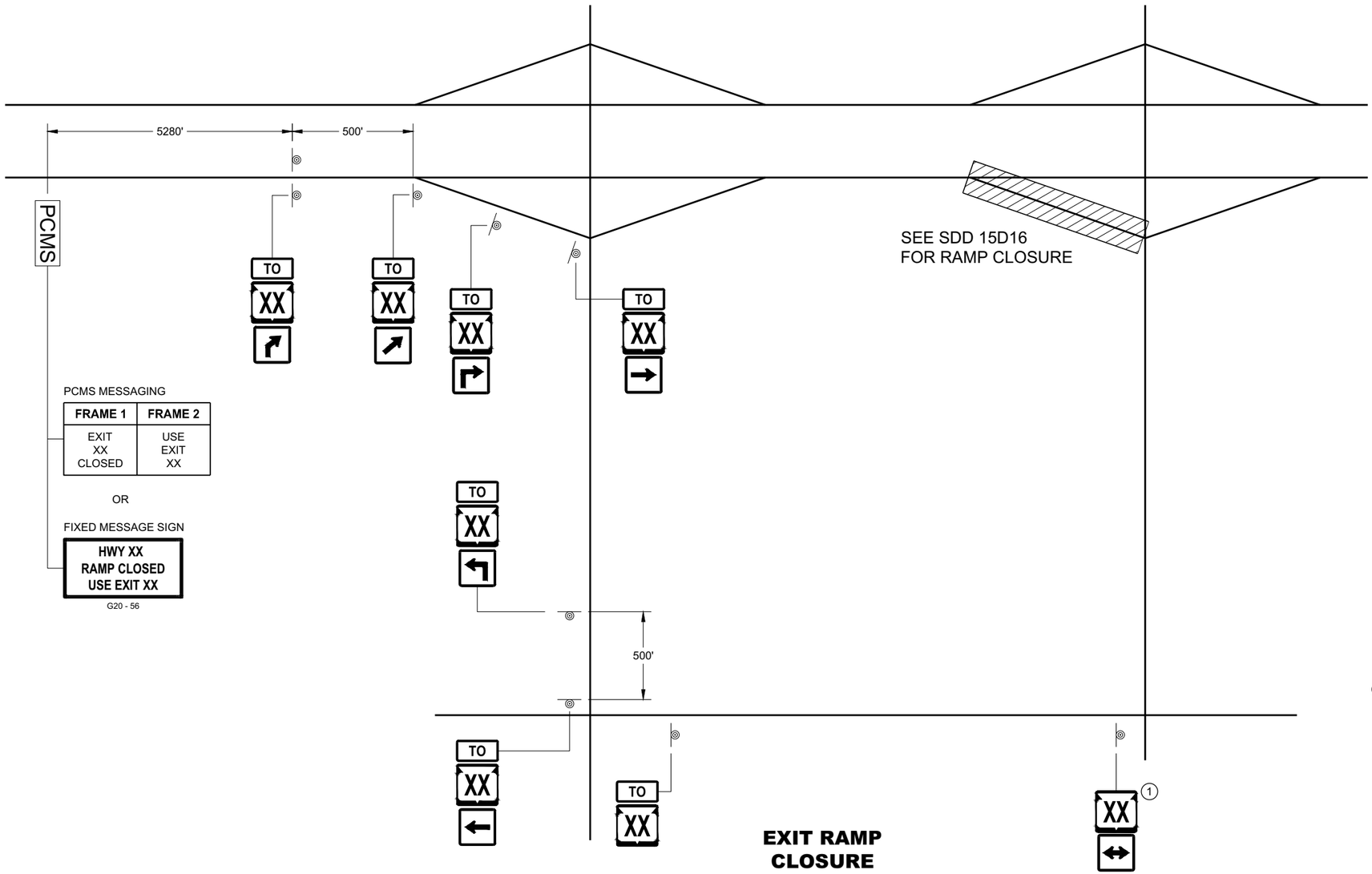
ON RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
360
FHWA

6
SDD 15C02 - 08d

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL "TO" MO-4 SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



PCMS MESSAGING

FRAME 1	FRAME 2
EXIT XX CLOSED	USE EXIT XX

OR

FIXED MESSAGE SIGN

HWY XX
RAMP CLOSED
USE EXIT XX

G20 - 56

EXIT RAMP CLOSURE

LEGEND

SIGN ON PERMANENT SUPPORT

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

TO MO4 - 5

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M05 - 2 OR M06 - 1 OR M06 - 2 OR M06 - 4

GENERAL NOTES

SEE SDD 15D16 "TRAFFIC CONTROL, EXIT RAMP CLOSURE" DETAIL FOR TRAFFIC CONTROL AT EXIT RAMP CLOSURE.

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

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE "TO" MO-4 ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND "TO" MO-4 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

SIGN SIZES SHALL BE AS FOLLOW:
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 4, M1 - 5A, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).

(1) ONLY ADD IF THERE ARE NO EXISTING ROUTE MARKERS FOR THE INTERSECTING ROADWAY.

OFF RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

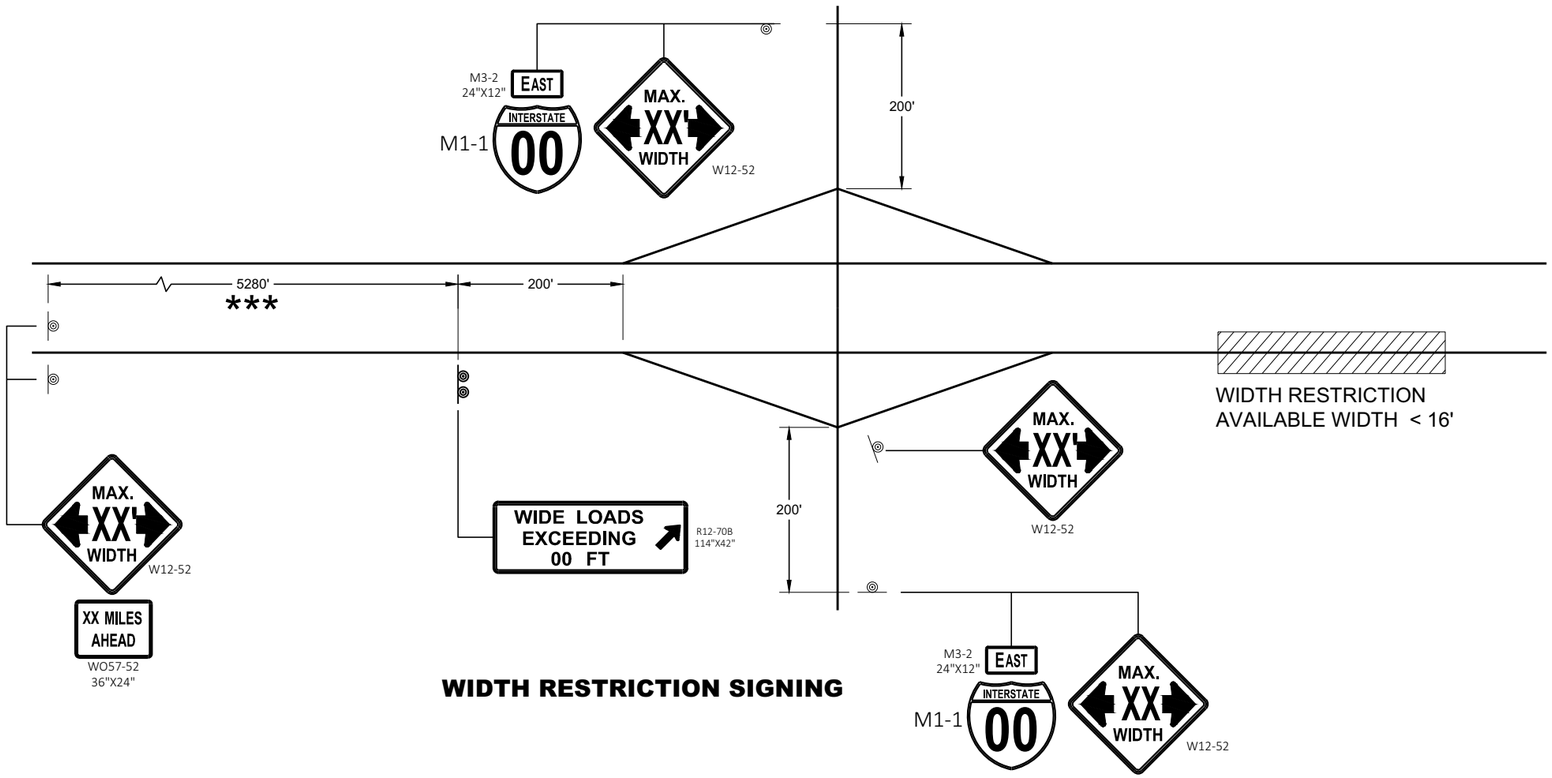
APPROVED
February 2020 DATE
/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA

6

SDD 15C02 - 08e

6

SDD 15C02 - 08e



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.

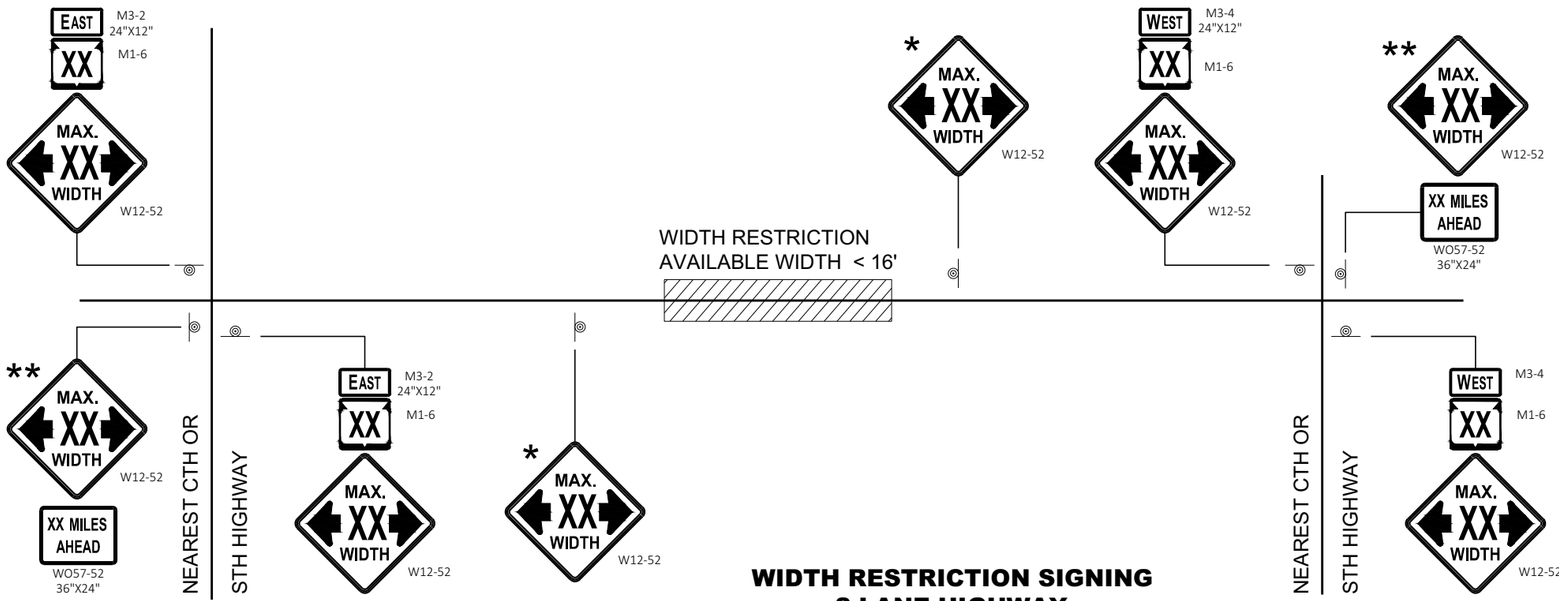
WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* 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

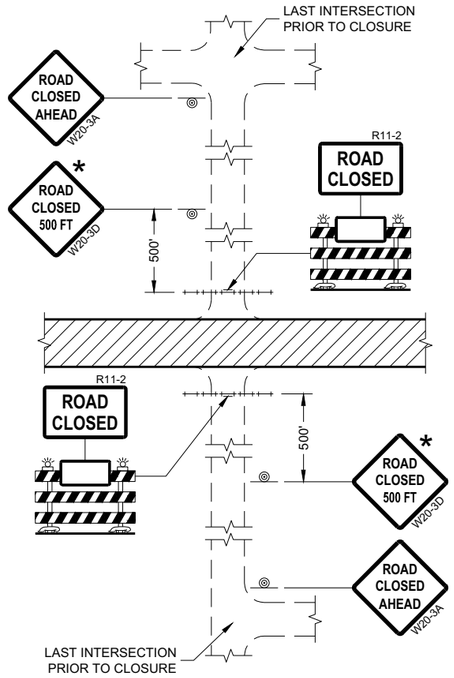
APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

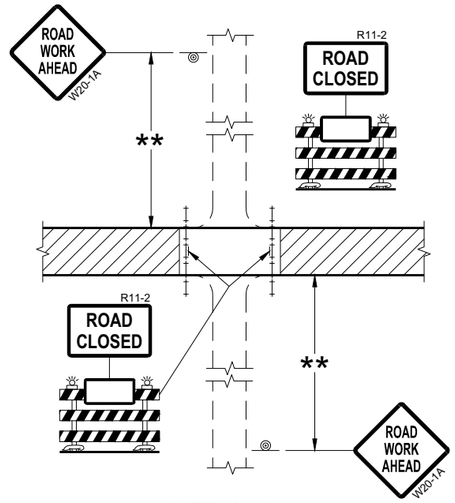
FHWA

6

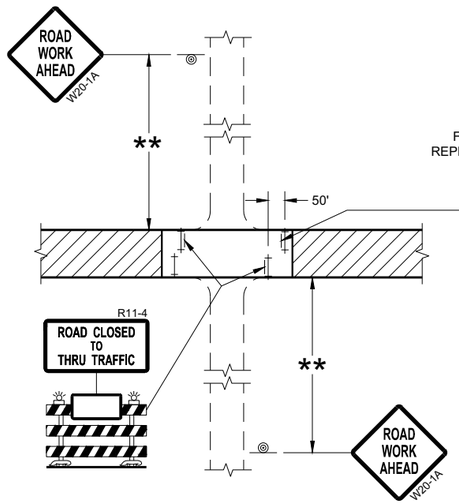
SDD 15C02 - 08f



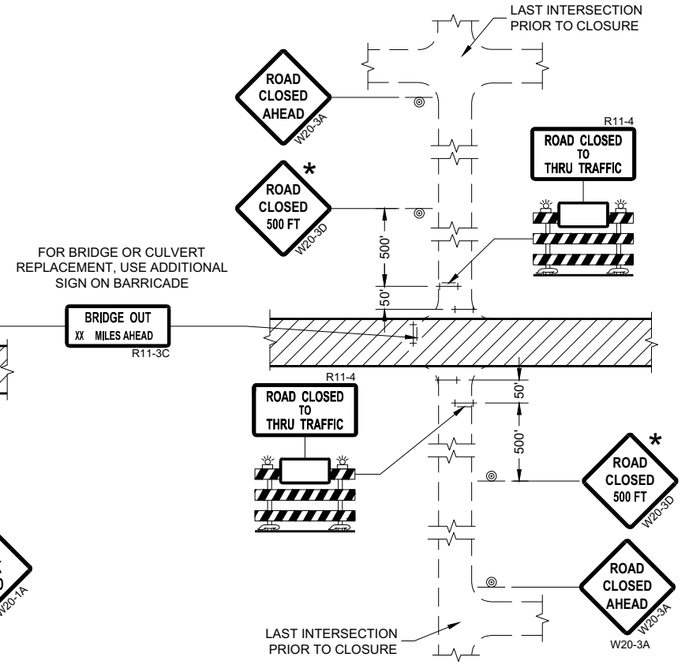
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

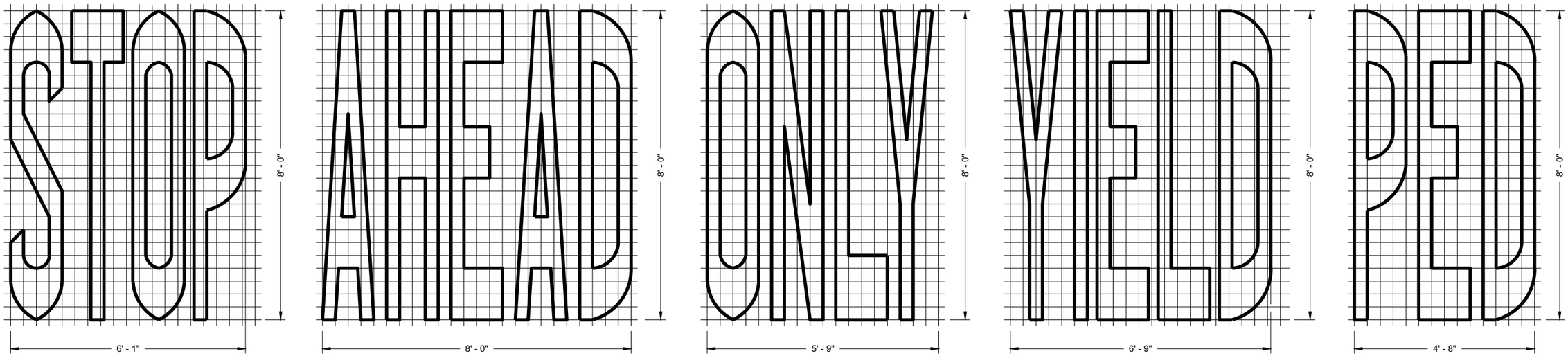
APPROVED
July 2018
DATE

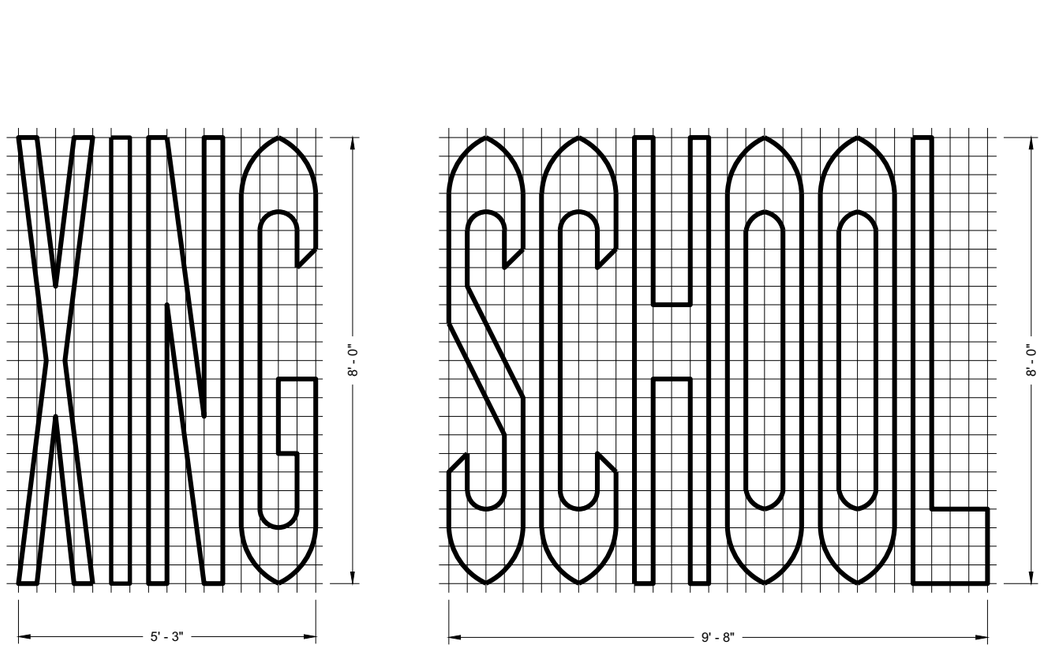
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

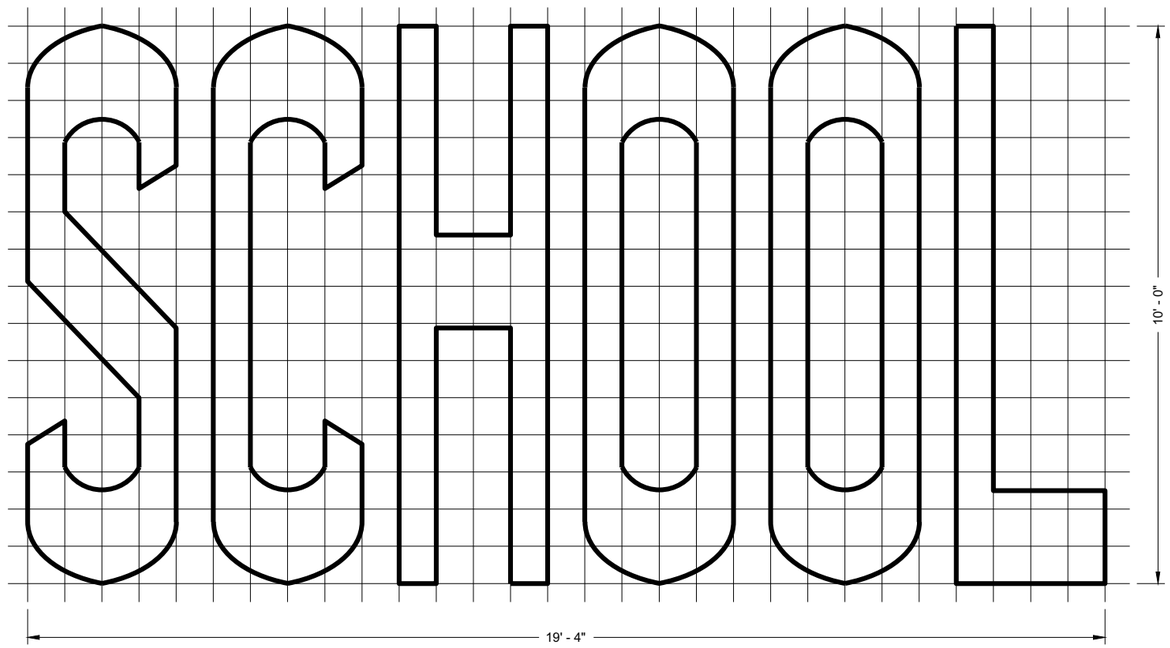
6

SDD 15C03 - 05





SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

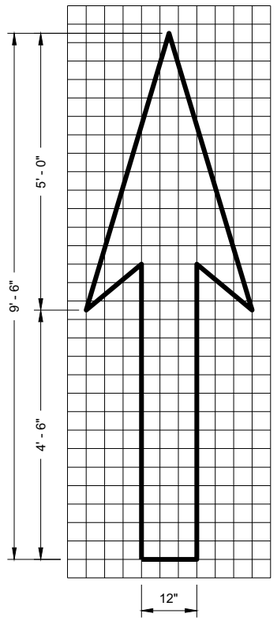
/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

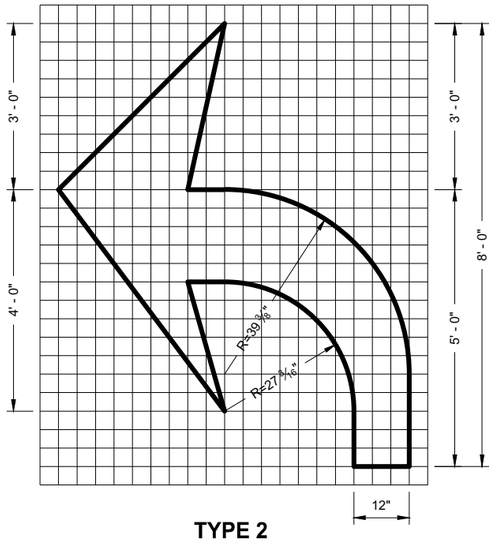
6

SDD 15C07 - 15b

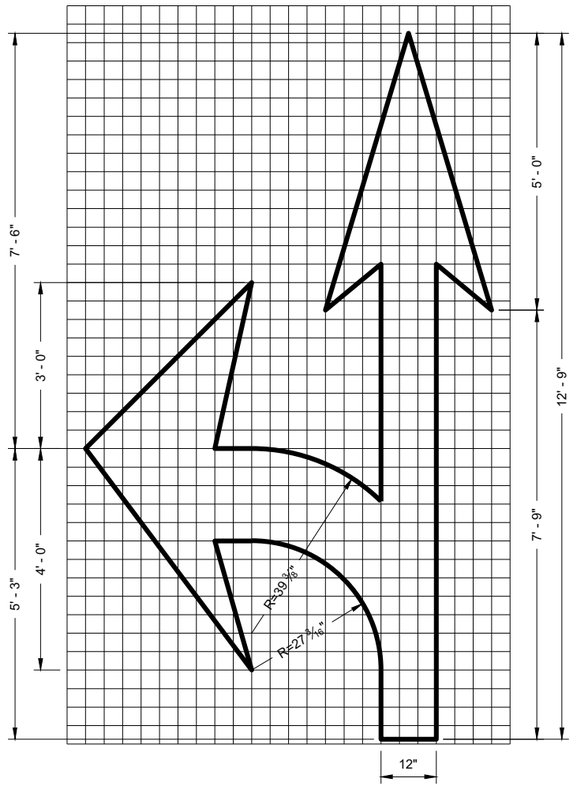
SDD 15C07 - 15b



TYPE 1



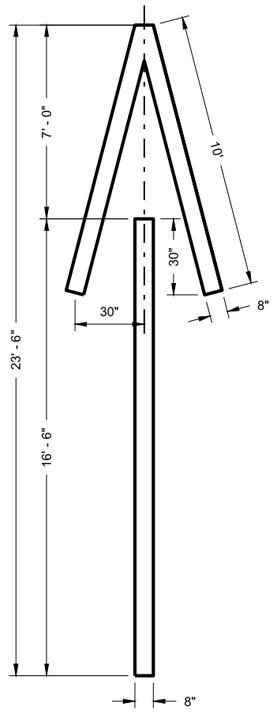
TYPE 2



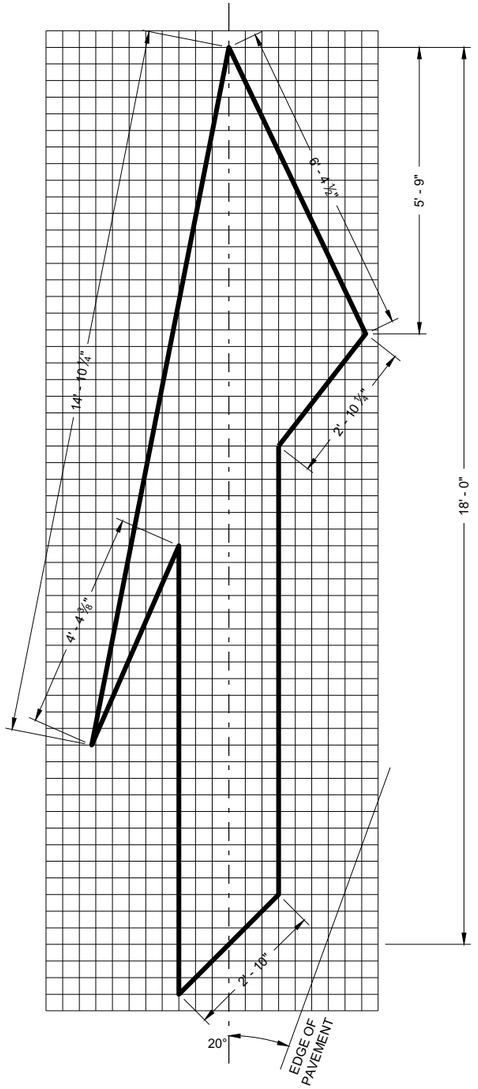
TYPE 3

GENERAL NOTES

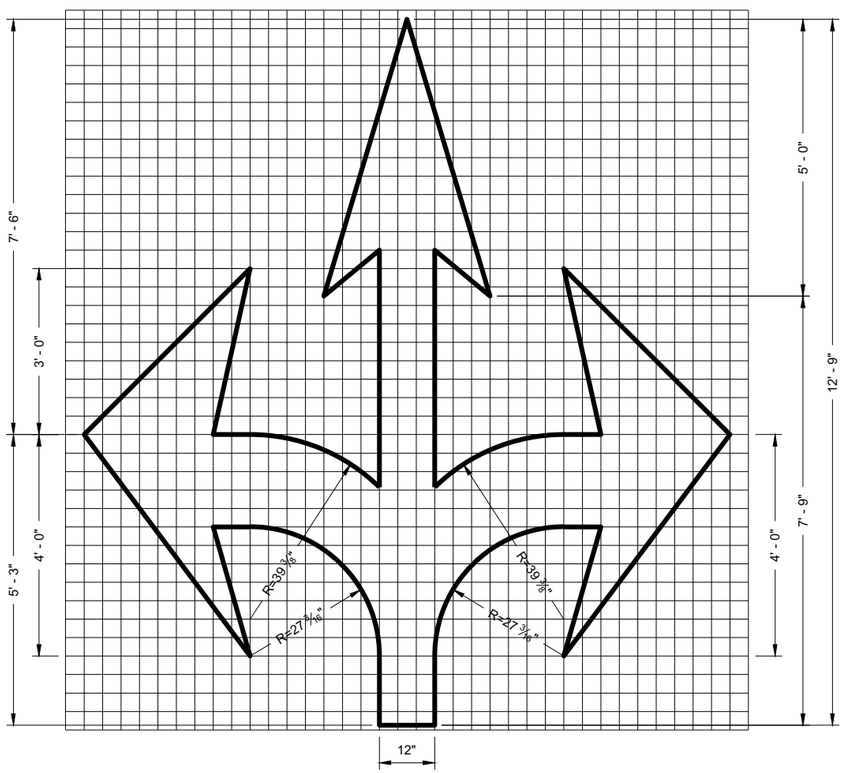
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



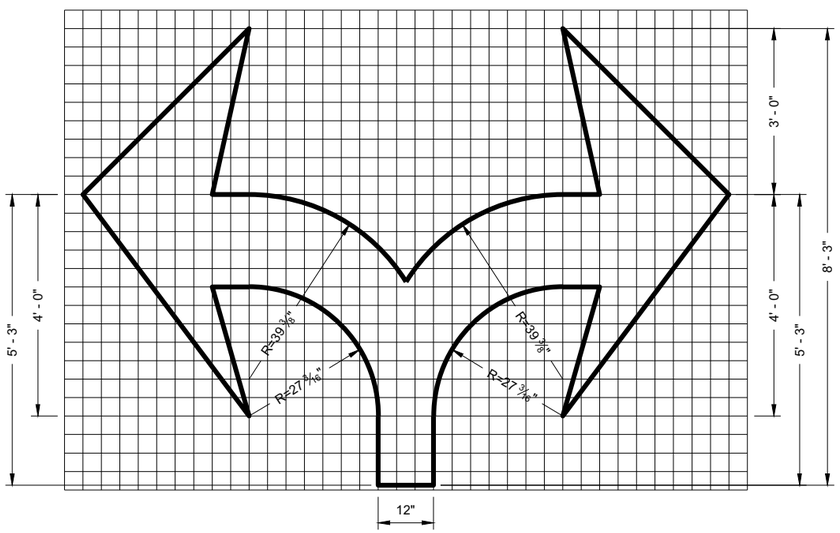
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

6

SDD 15C07 - 15c

6

SDD 15C07 - 15c

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

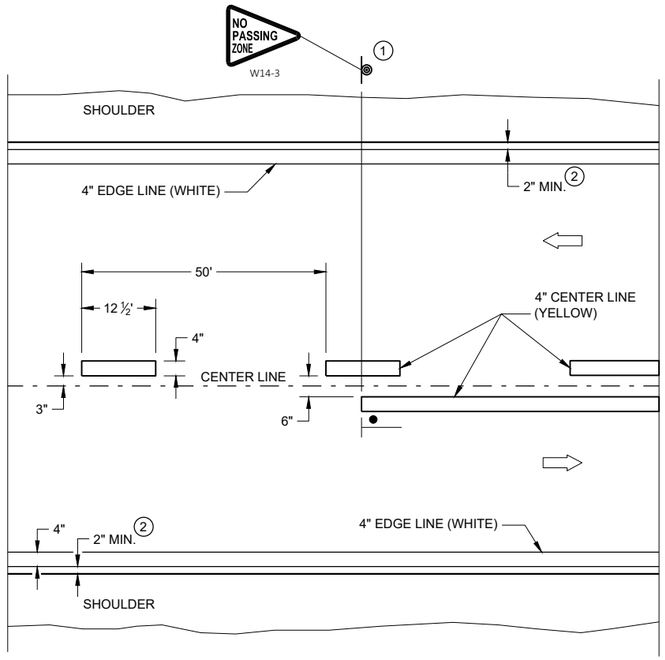
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

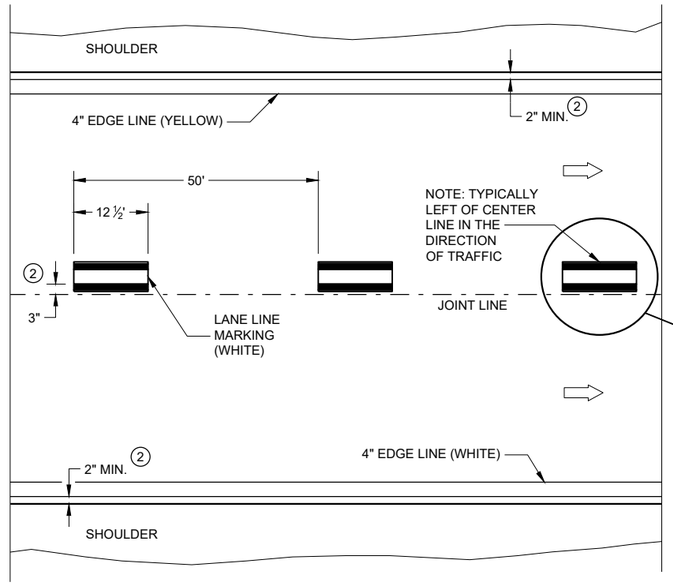
"T" MARKING

SIGN ON PERMANENT SUPPORT

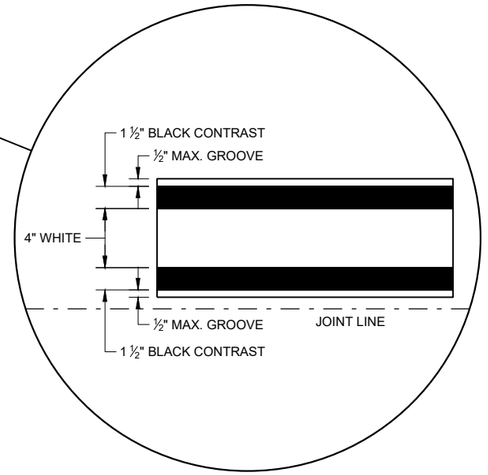
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

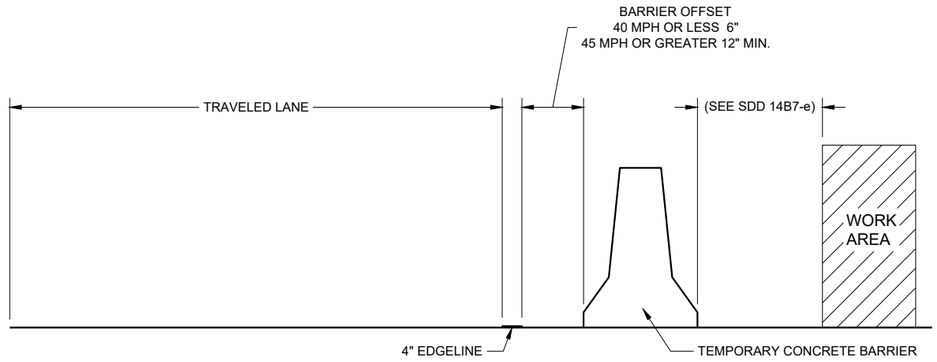
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 15C08 - 21a

SDD 15C08 - 21a



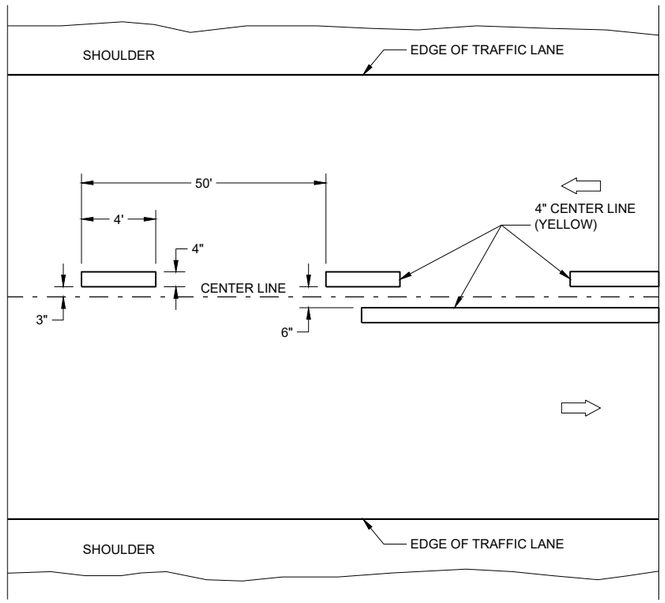
TEMPORARY BARRIER OFFSET FROM EDGELINE

GENERAL NOTES

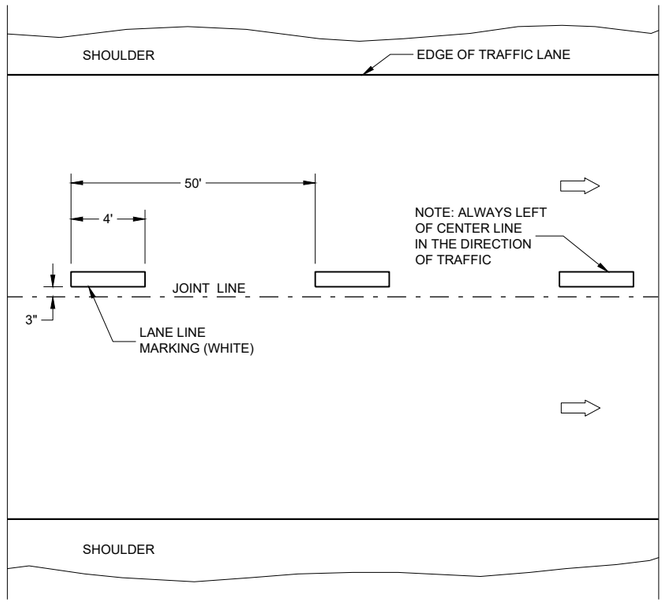
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

LEGEND

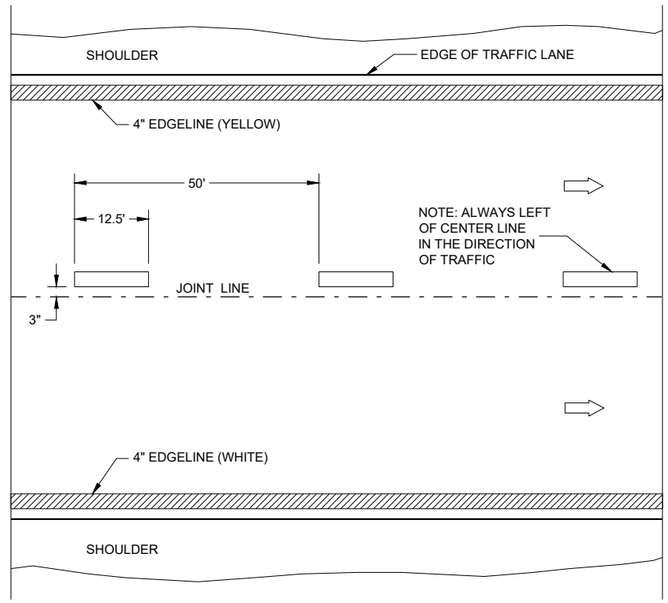
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

6

SDD 15C08 - 21b

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

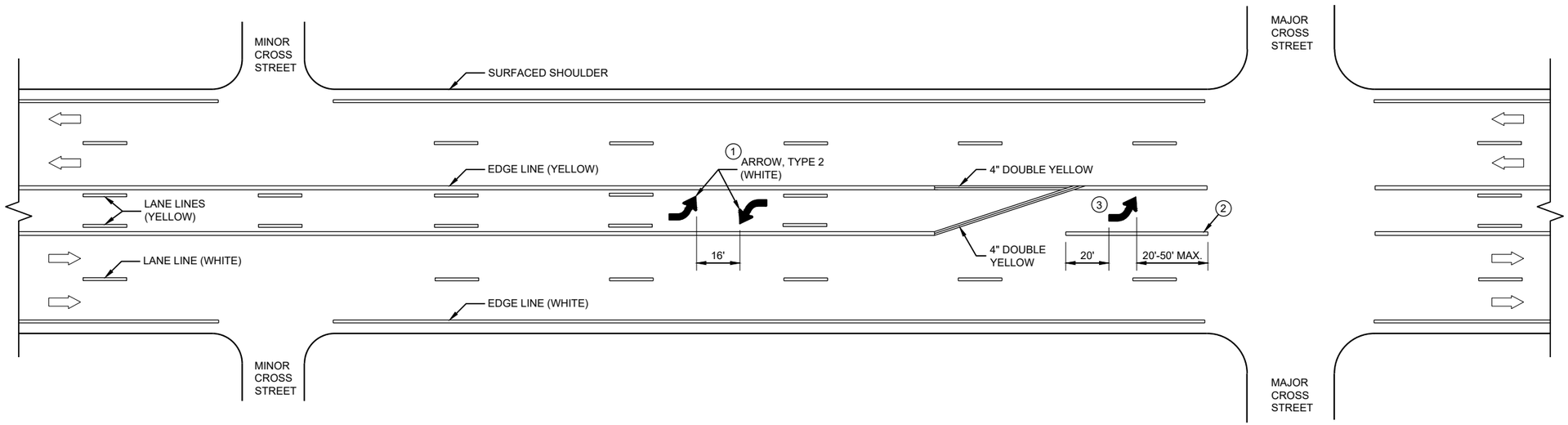
6

SDD 15C08 - 21b

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

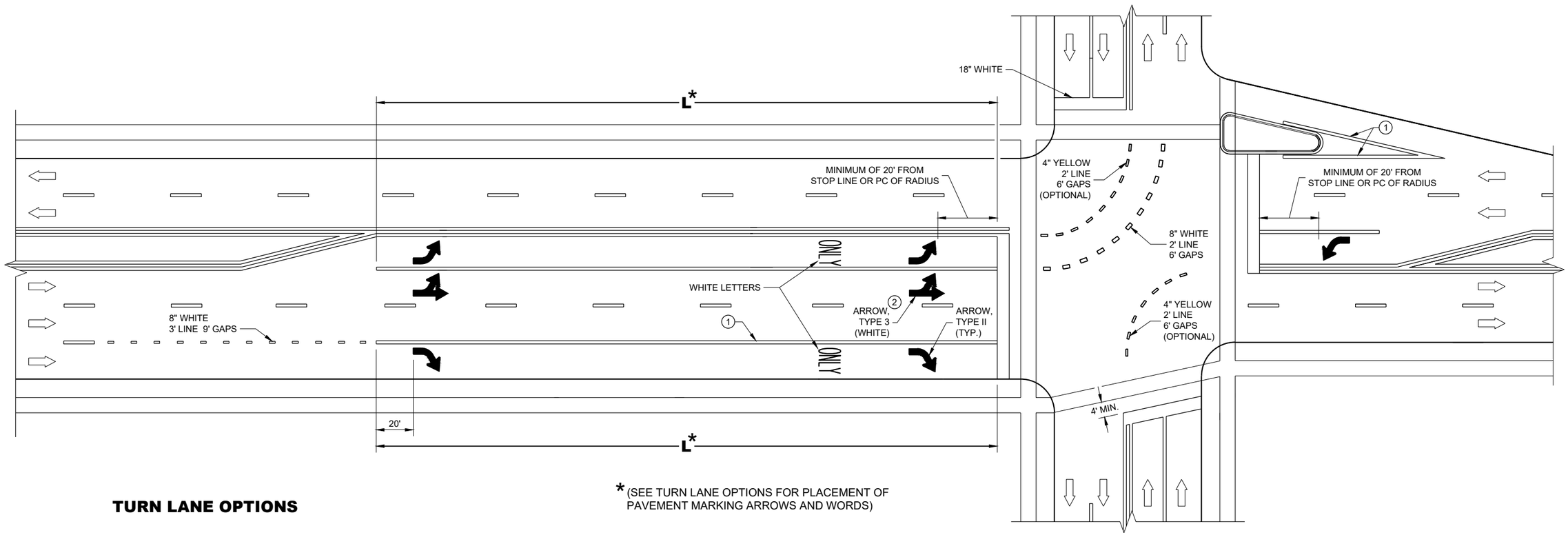
SDD 15C08 - 21c

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

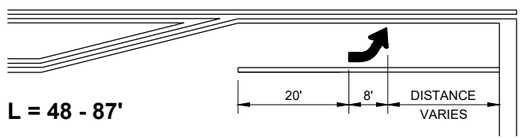
SDD 15C08 - 21c



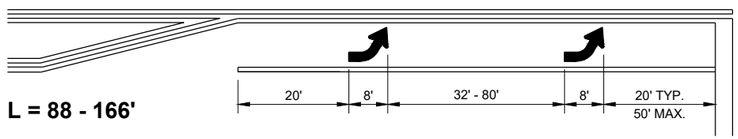
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

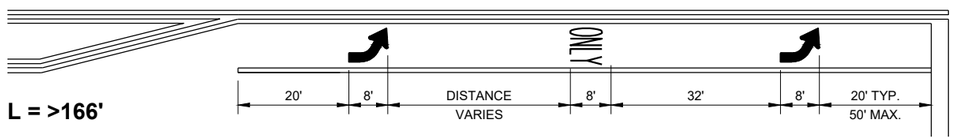
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



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)

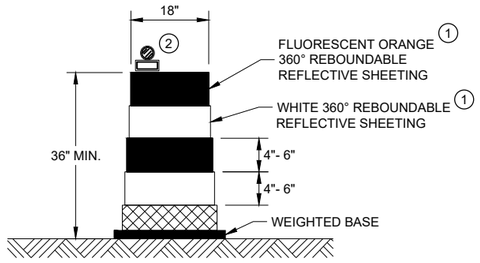
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

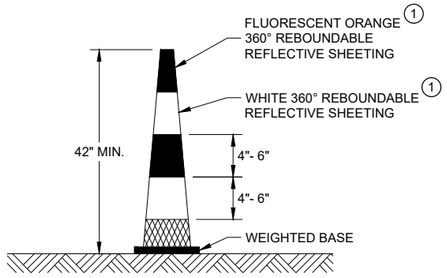
SDD 15C08 - 21d

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.

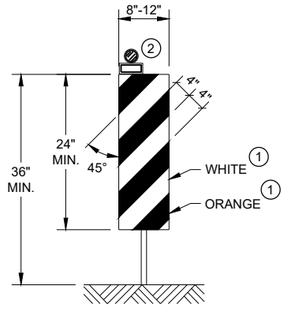


DRUM



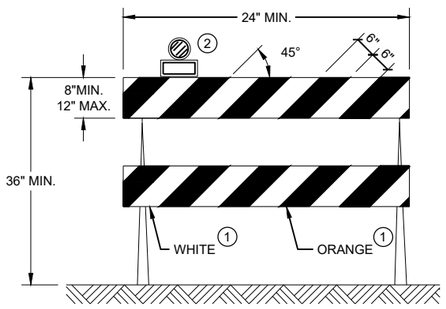
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



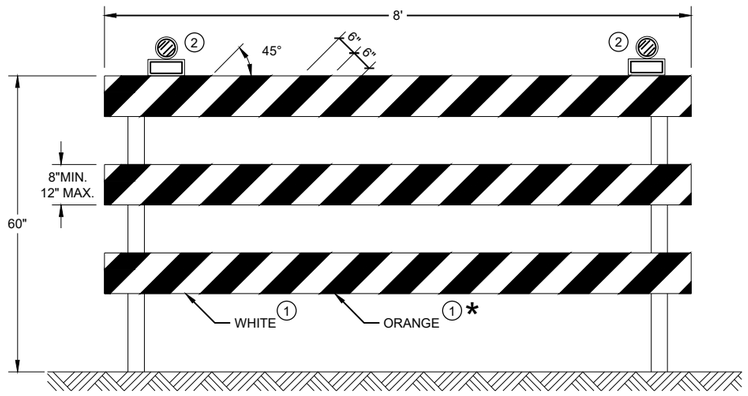
VERTICAL PANEL

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 ENGINEER
FHWA

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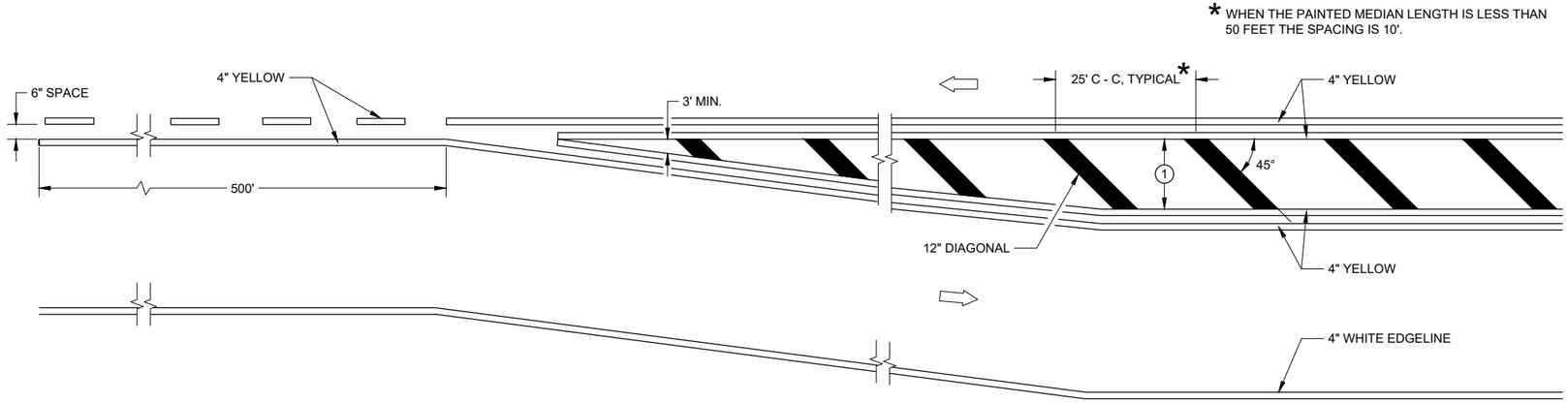
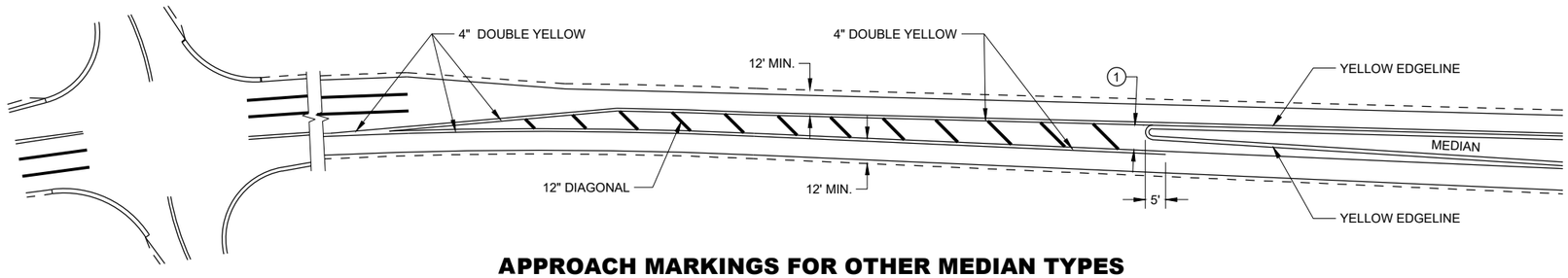
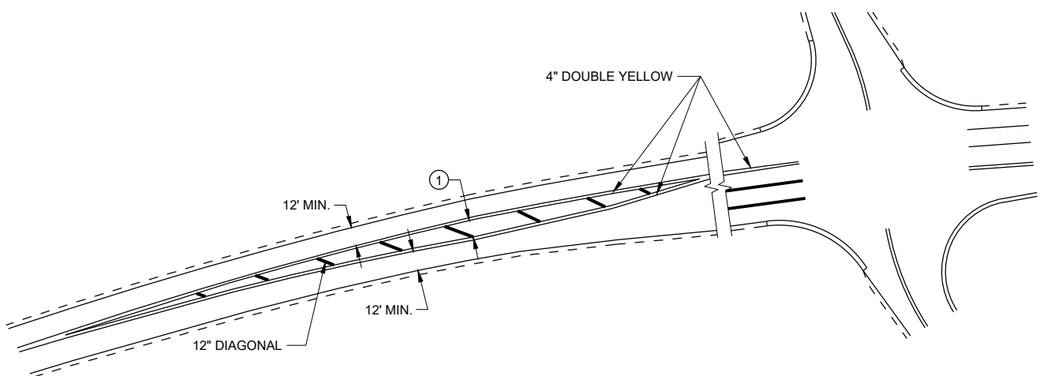


MEDIAN ISLAND DETAIL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

GENERAL NOTES

1. DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

DIRECTION OF TRAVEL

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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May 2022 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MAF ENGINEER
FHWA

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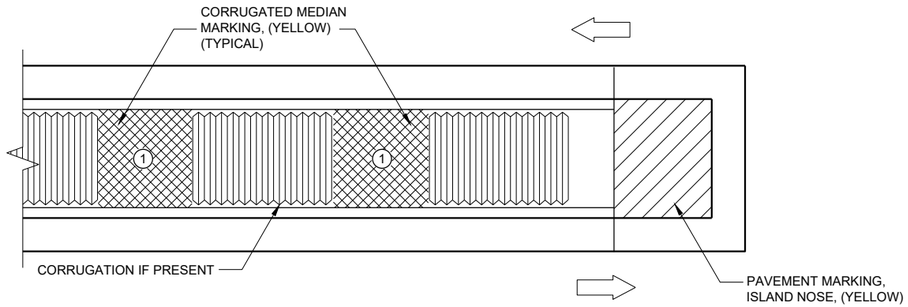
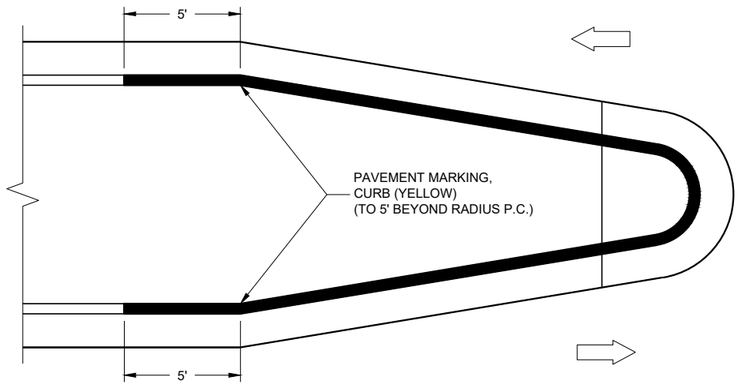
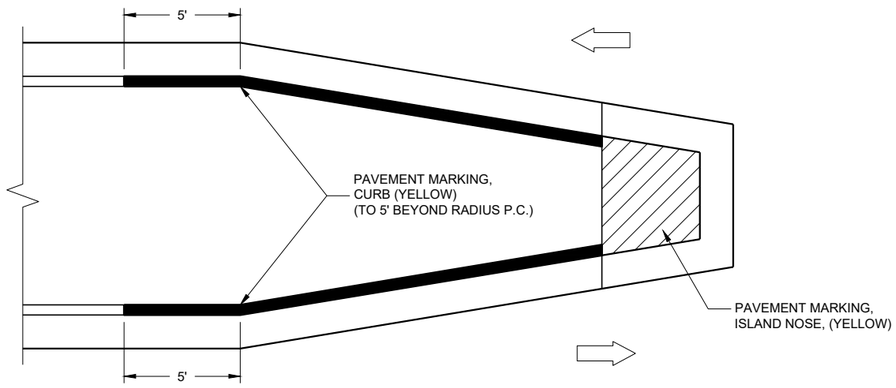


MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

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

(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

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PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2022
DATE

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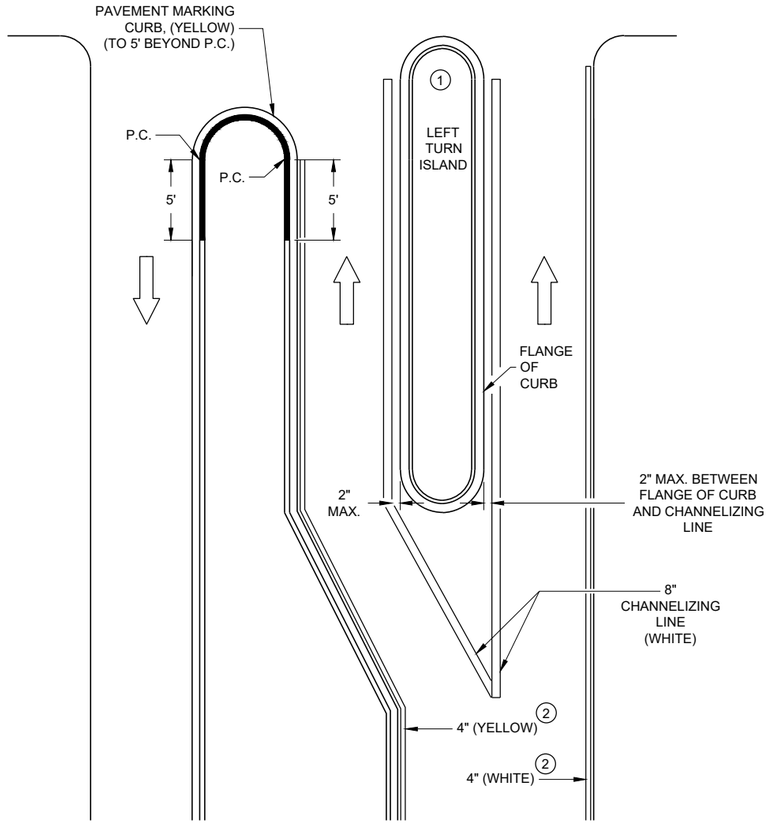
REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

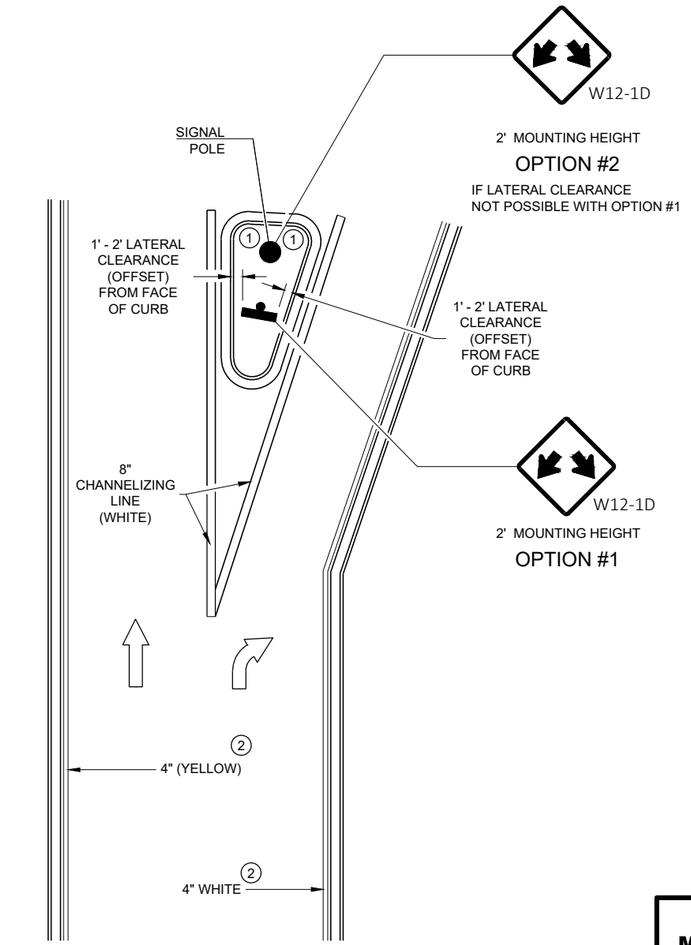
APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

(1) MARK CURB NOSES YELLOW.

(2) MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2022 — DATE

/S/ Jeannie Silver — STATE SIGNING AND MAF ENGINEER

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LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

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

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

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

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

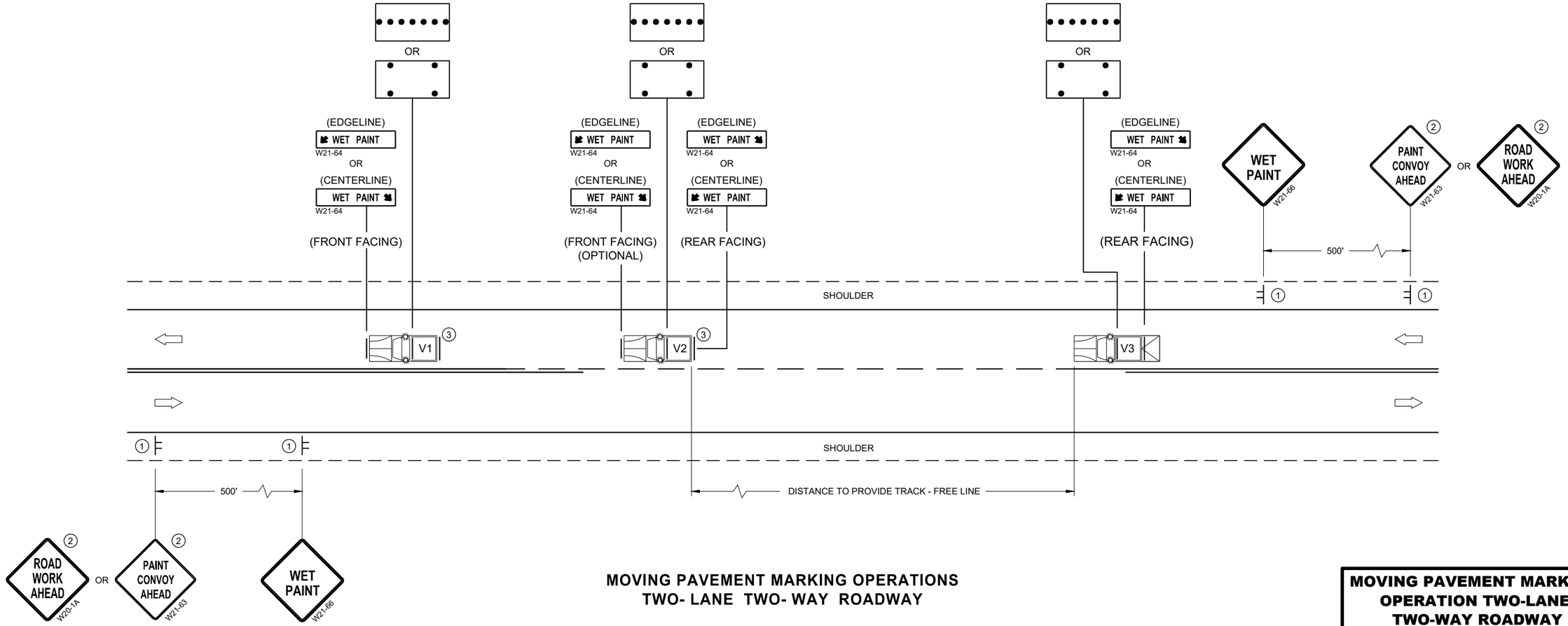
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

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

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

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

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



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
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

374

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SDD 15C19 - 07a

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (MERGE)

FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

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

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

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

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

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

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

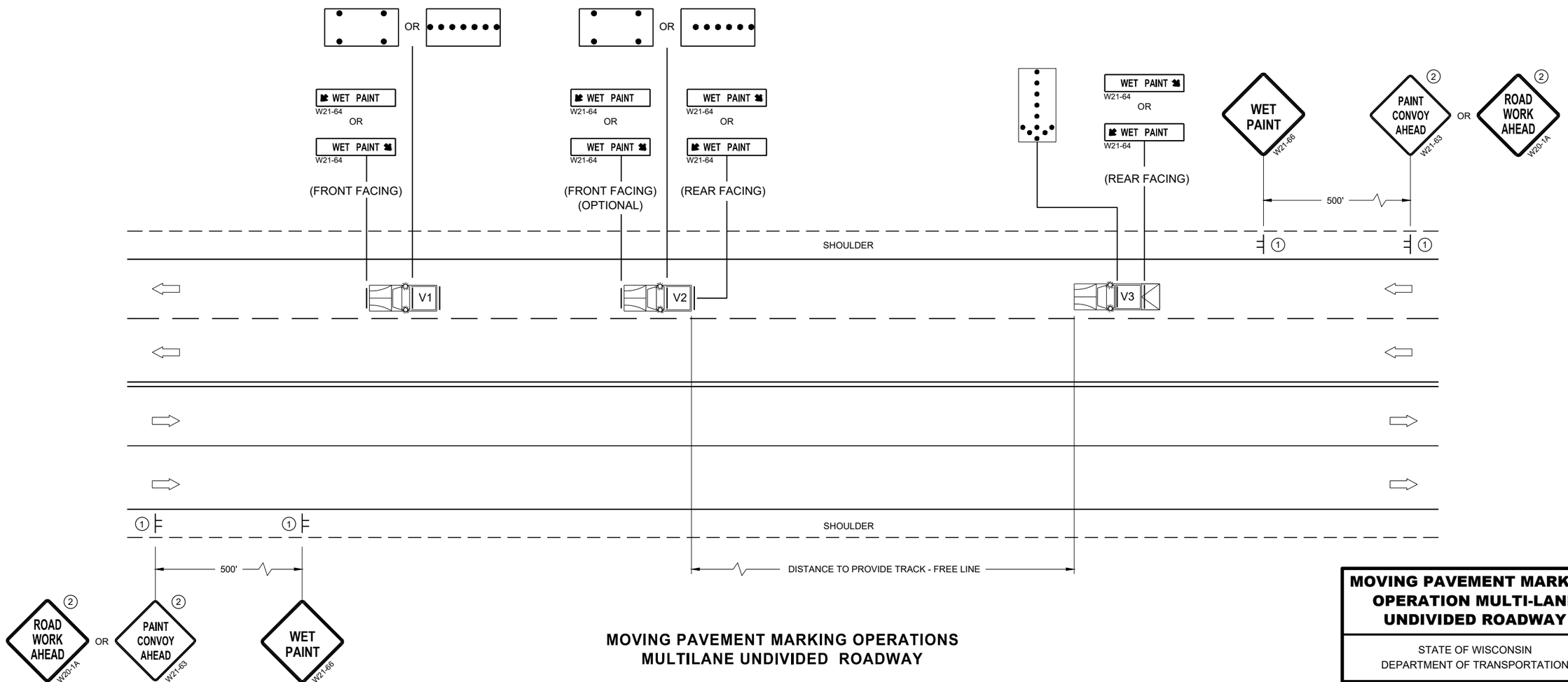
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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

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

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

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



MOVING PAVEMENT MARKING OPERATIONS MULTILANE UNDIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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6

SDD 15C19 - 07b

LEGEND

V1 MARKING VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE

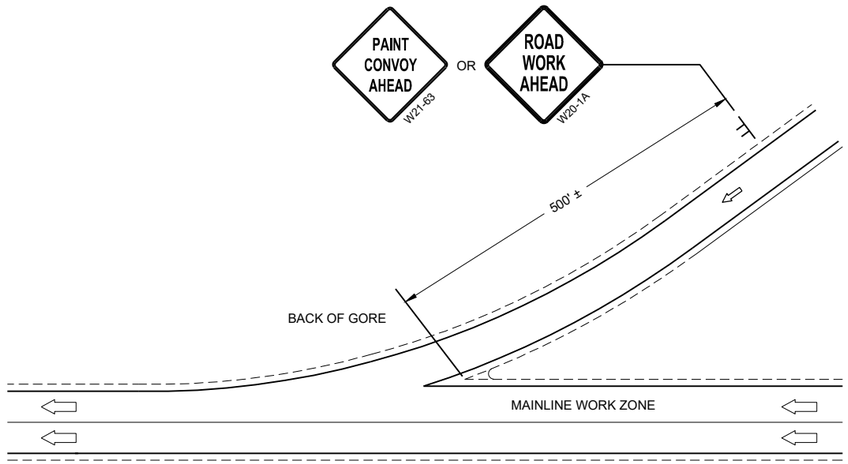
TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (MERGE)

FLASHING ARROW PANEL (CAUTION)



GENERAL NOTES

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

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

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

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

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

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

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.

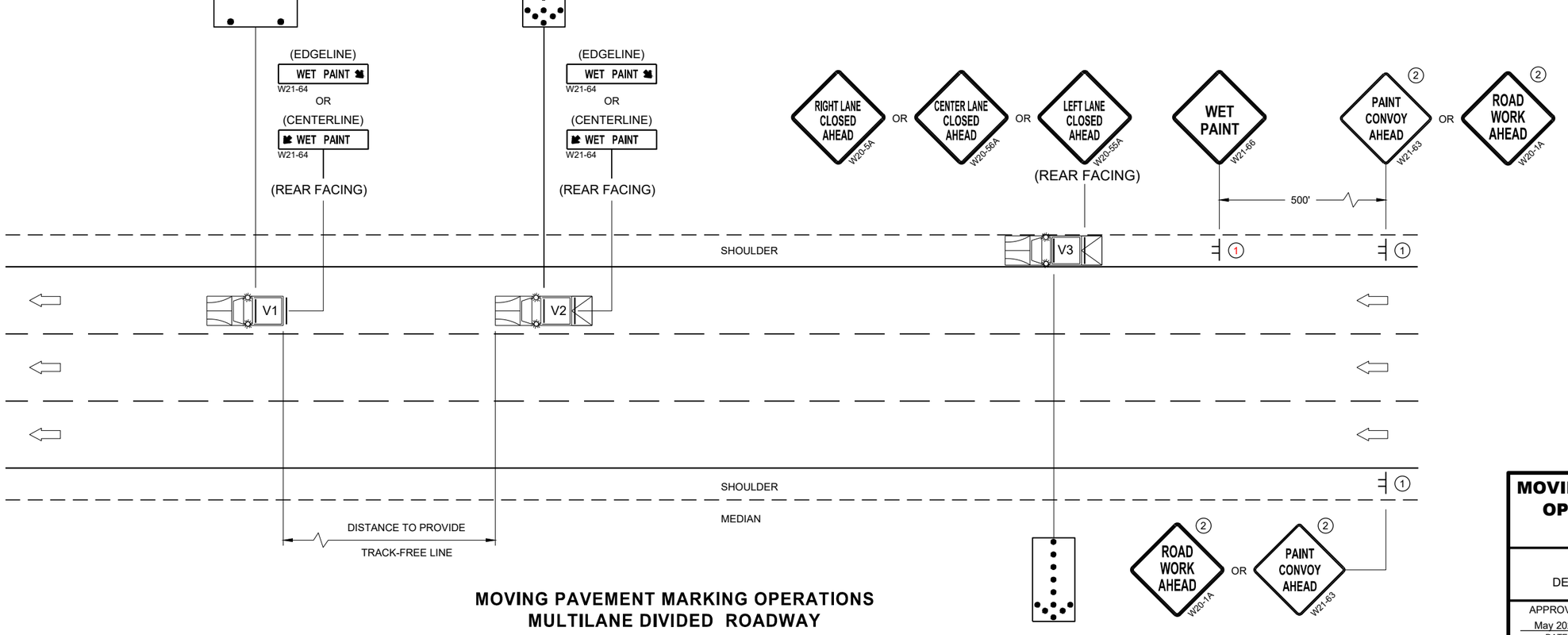
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

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

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

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY ON RAMP.

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



MOVING PAVEMENT MARKING OPERATIONS
MULTILANE DIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

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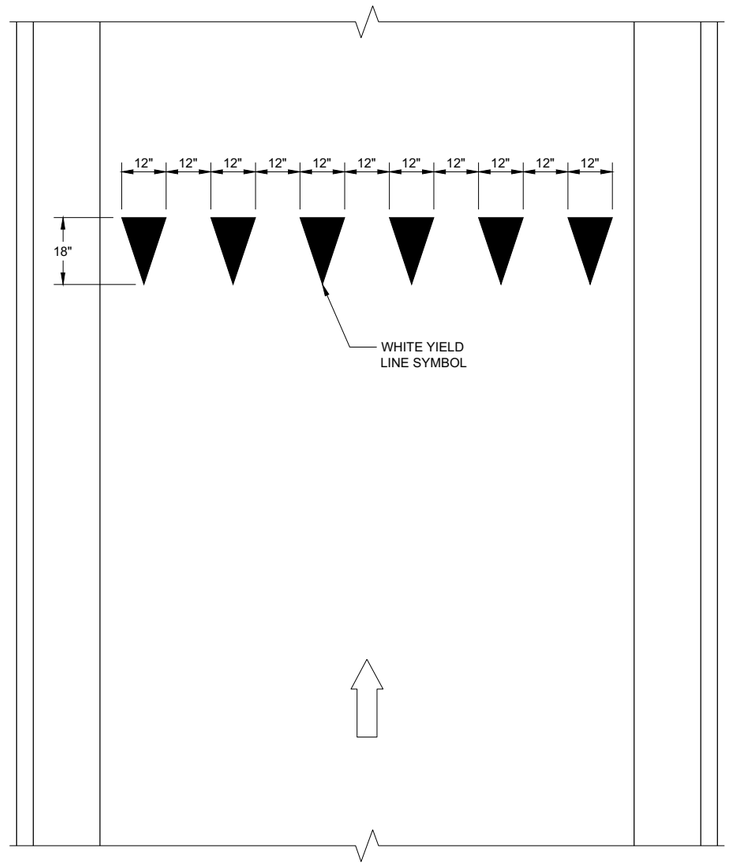
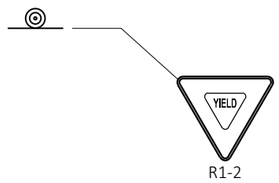


YIELD LINE

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAVEL



R1-2

YIELD MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-81-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR ENGINEER

FHWA

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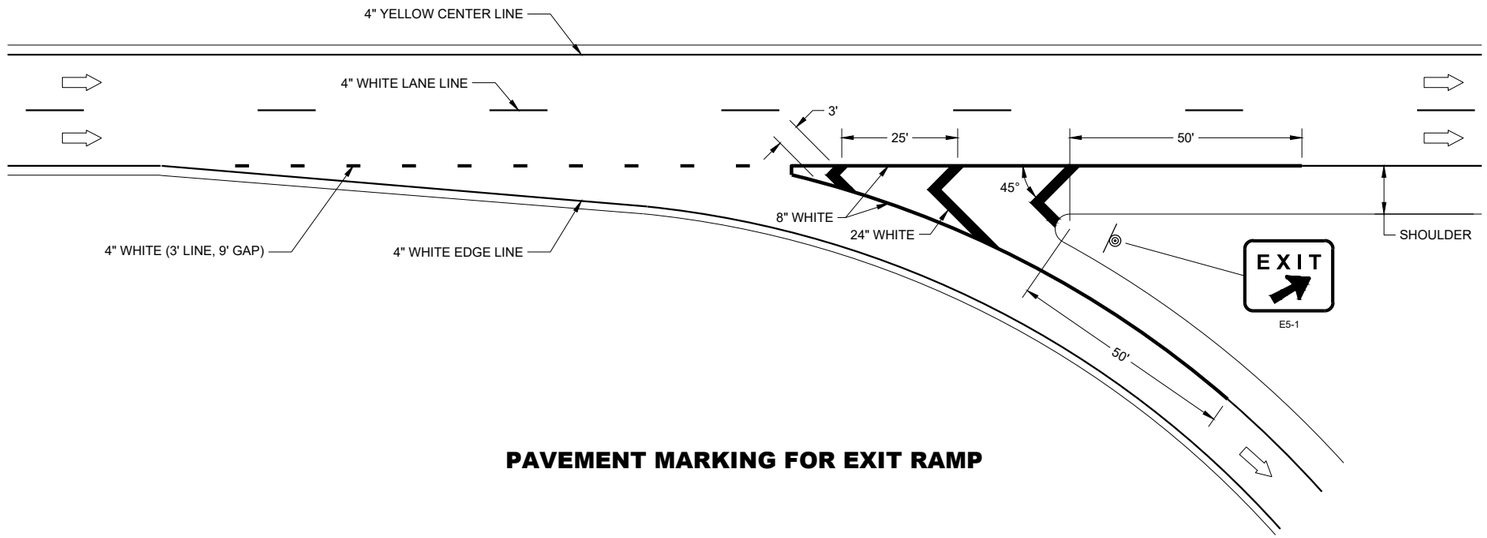
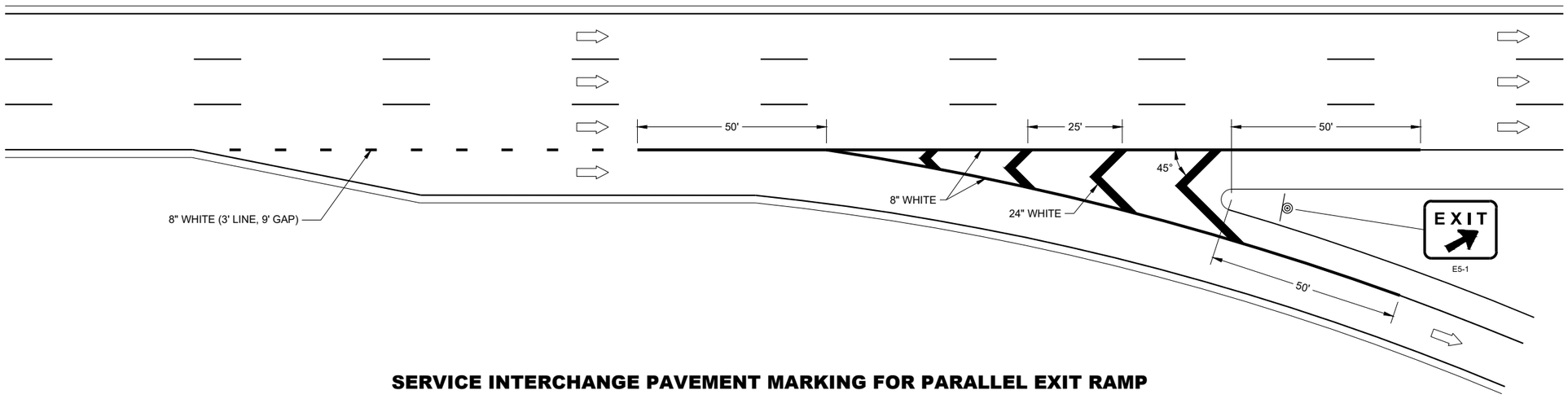
SDD 15C20 - 02

SDD 15C20 - 02



PAVEMENT MARKING FOR EXIT RAMP



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT RAMP

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAVEL

6

SDD 15C31 - 04a

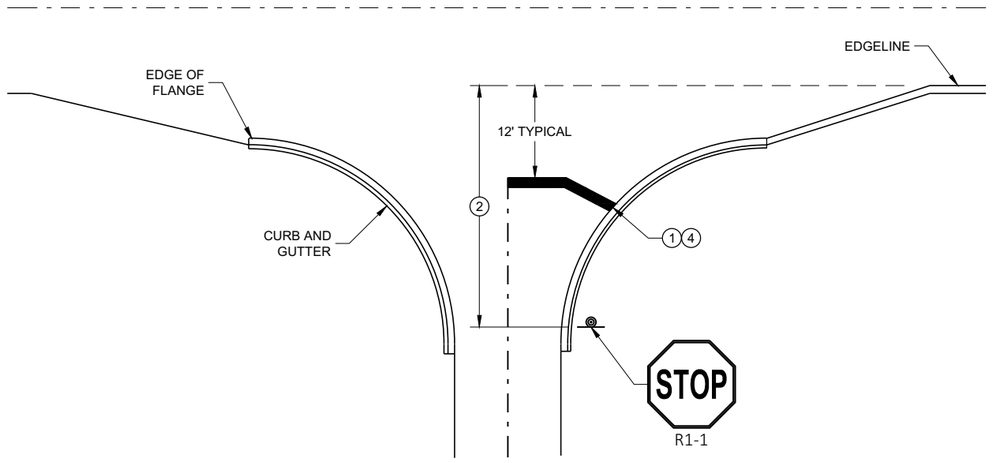
PAVEMENT MARKING, EXIT RAMP AND PARALLEL EXIT RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

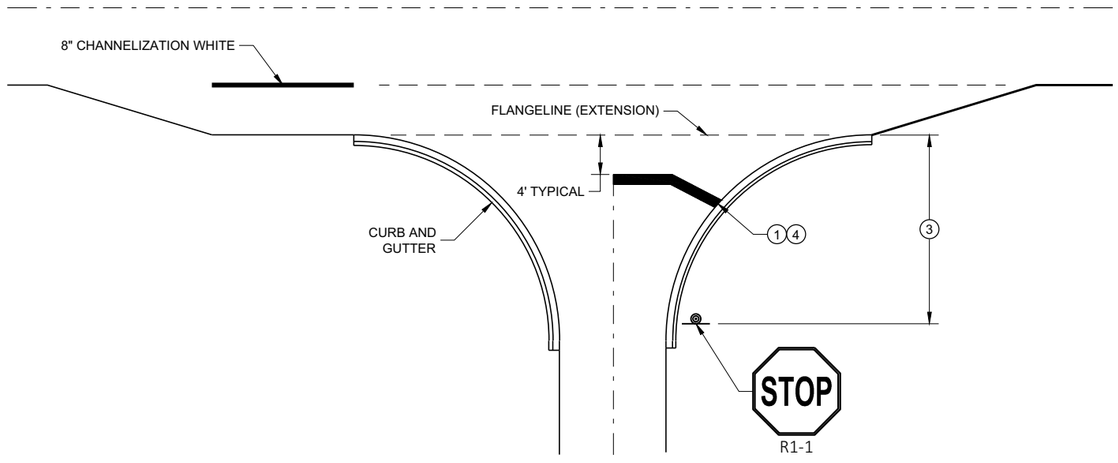
GENERAL NOTES

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

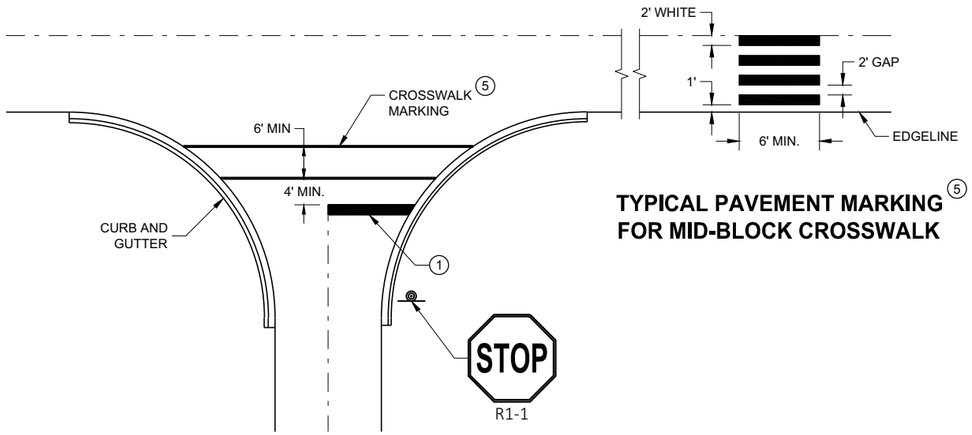
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE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



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

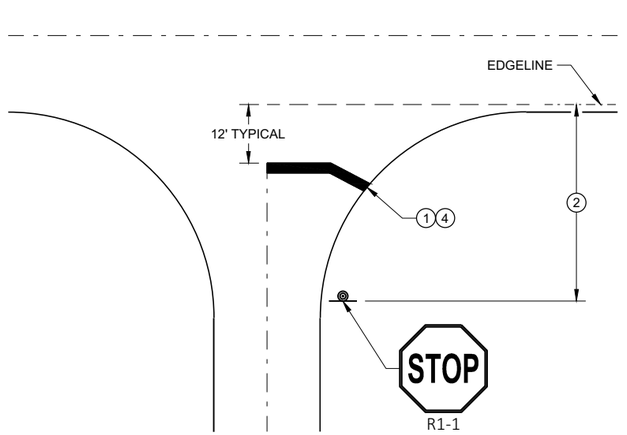


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING

TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 15C33 - 04

SDD 15C33 - 04

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

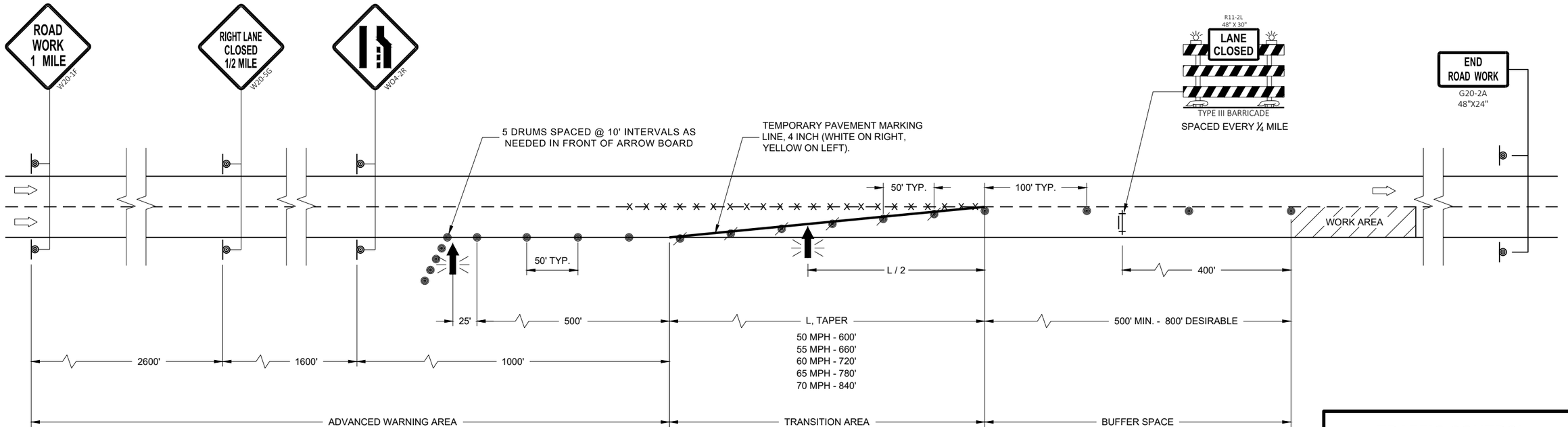
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D12 - 10a

6

SDD 15D12 - 10a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- (S) PORTABLE TRAFFIC SENSOR (PTS)
- FBS FLASHING BEACON SIGN

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS, INCLUDING FBS AND DEVICES 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 MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED SIGNS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS

AND NIGHTS.
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

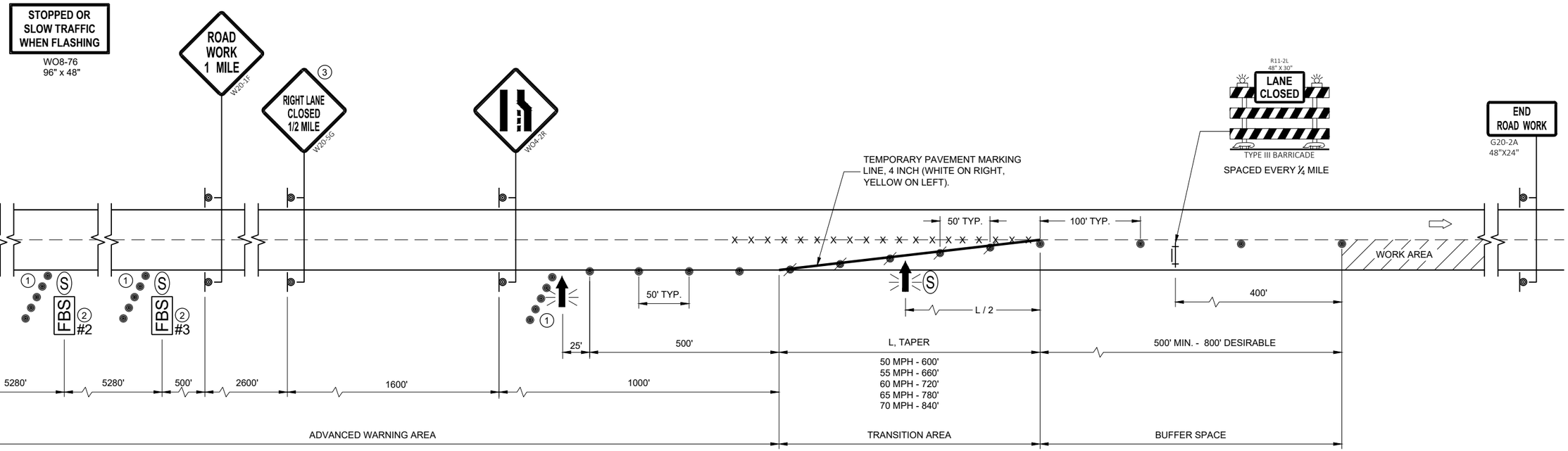
CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

PORTABLE TRAFFIC SENSOR (PTS) MAY BE MOUNTED ON THE FBS, ARROW BOARD OR OTHER TRAILER DEVICES.

① 5 DRUMS SPACED AT 10 FOOT INTERVALS AS NEEDED.

② IF THERE ARE MORE THAN TWO LANES OR IF SPECIFIED IN THE PLANS, PLACE FBS ON BOTH SIDES OF THE ROADWAY.

③ IF THERE IS AN APPROVED TEMPORARY SPEED DECLARATION, ADD WO-3-5 SIGNS 400 FEET AFTER THE W20-5G SIGNS AND ADD R2-1 SIGNS (48"x60") 700 FEET AFTER THE WO3-5 SIGNS. A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A "RESUME SPEED LIMIT" SIGN 200 FEET MINIMUM (800 FEET DESIRABLE) BEYOND THE G30-3A "END ROAD WORK" SIGN.



TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022 — DATE
/S/ Erin Schwark — WORK ZONE ENGINEER
FHWA

381

6

SDD 15D12 - 10d

6

SDD15D12 - 10d

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"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. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

W20-1E AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

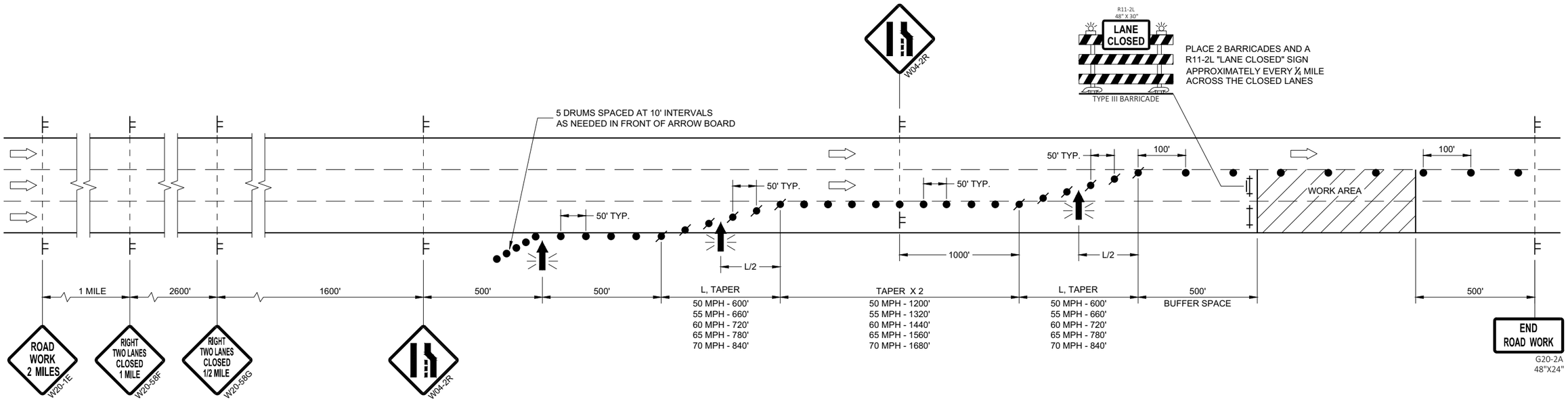
CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS.

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

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

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.



TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

SDD 15D14 - 04

SDD 15D14 - 04

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH 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.

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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

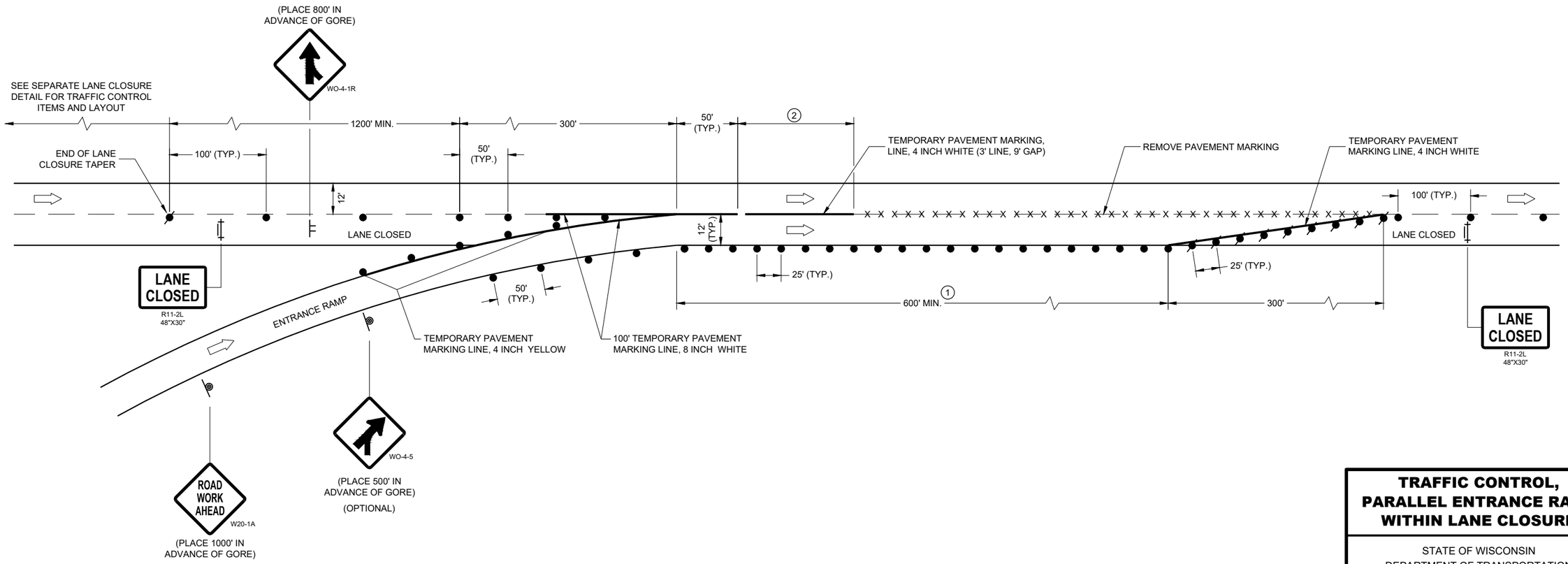
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) EXTEND THE LENGTH OF THE MERGE ARE IF THE ENTERING (DESIGN) SPEED IS LESS THAN 50MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.

(2) END TEMPORARY PAVEMENT MARKING LINE AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.



TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D15 - 06a

6

SDD 15D15 - 06a

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH 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.

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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS /OR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

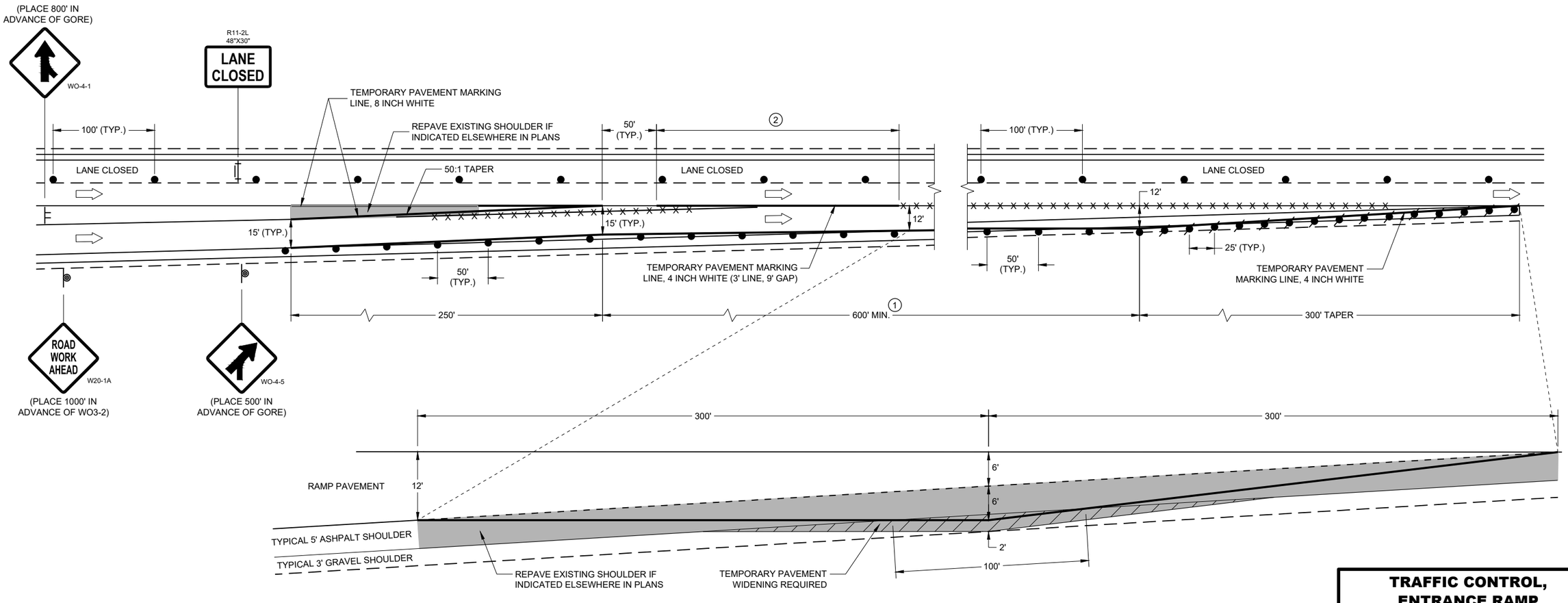
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) EXTEND THE LENGTH OF THE MERGE AREA IF THE ENTERING (DESIGN) SPEED OF THE RAMP IS LESS THAN 50 MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.

(2) END TEMPORARY PAVEMENT MARKING LINE AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.



TEMPORARY PAVEMENT DETAIL

(EXISTING RAMP DIMENSIONS MAY VARY, ADJUST TEMPORARY PAVEMENT ACCORDINGLY)

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 06b

6

SDD15D15 - 06b

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH 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.

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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

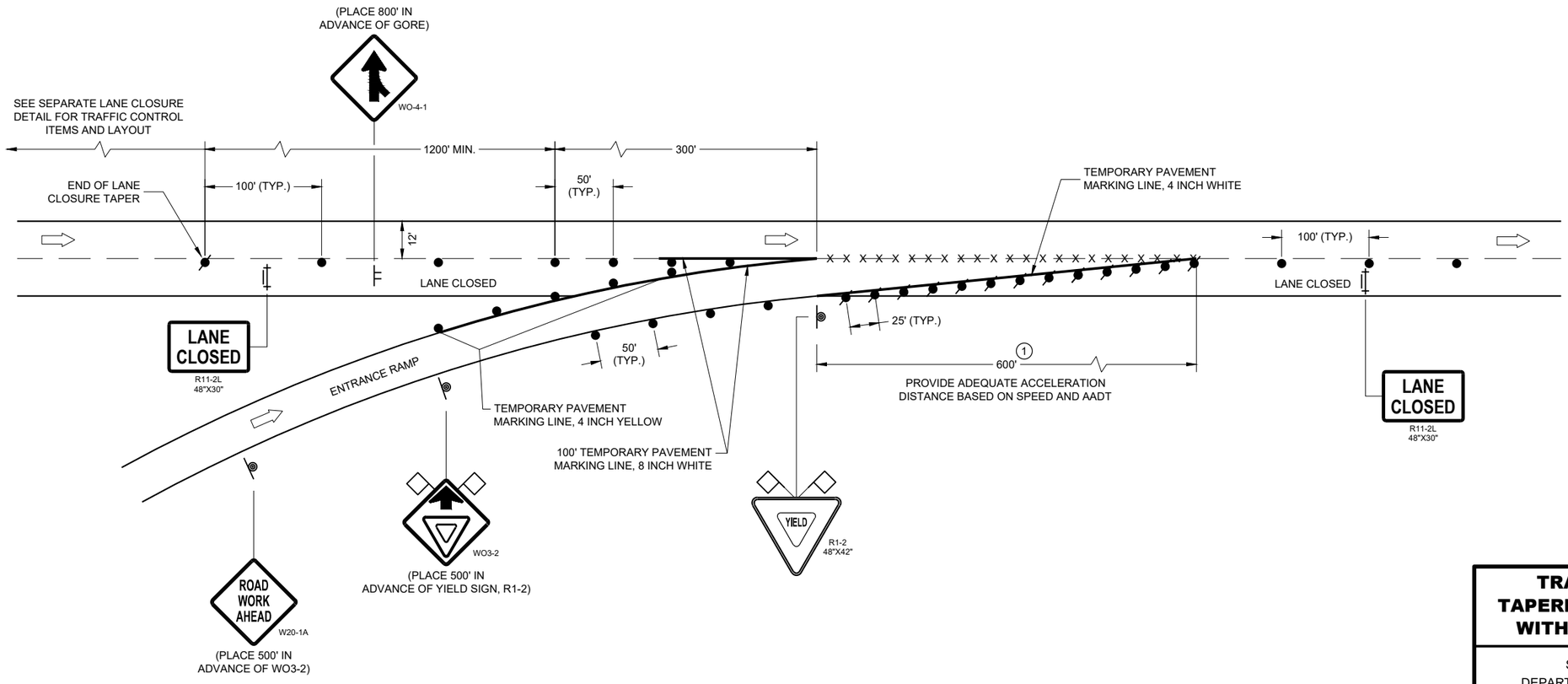
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) CONSULT WITH REGIONAL WORK ZONE ENGINEER IF NEED TO REDUCE LENGTH EXISTS.



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 06c

6

SDD 15D15 - 06c

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH 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.

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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

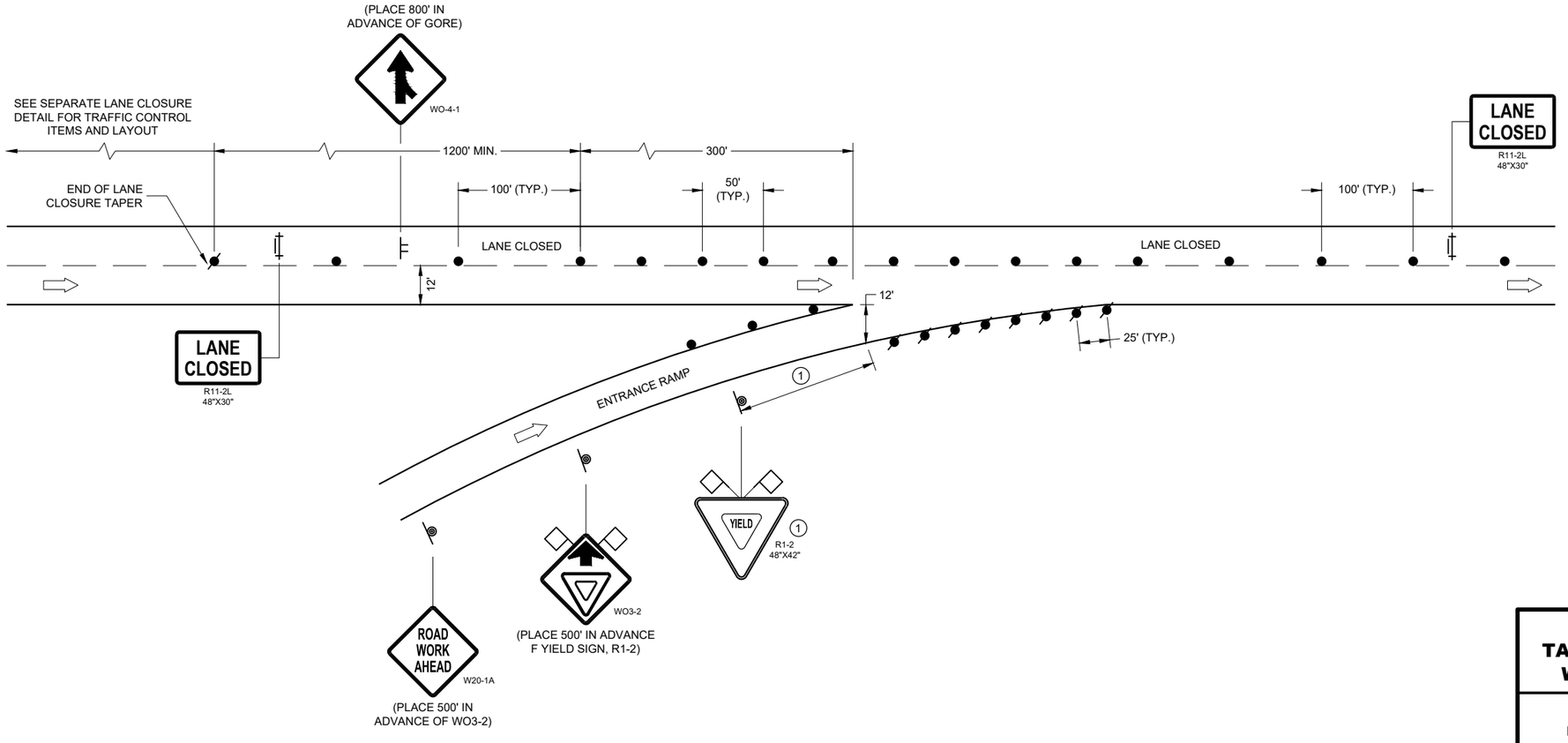
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) PLACE YIELD SIGN TO PROVIDE ADEQUATE SIGHT DISTANCE AND ACCELERATION DISTANCE.



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 06d

6

SDD15D15 - 06d

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TYPE III BARRICADE WITH ATTACHED SIGN

DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH 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.

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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

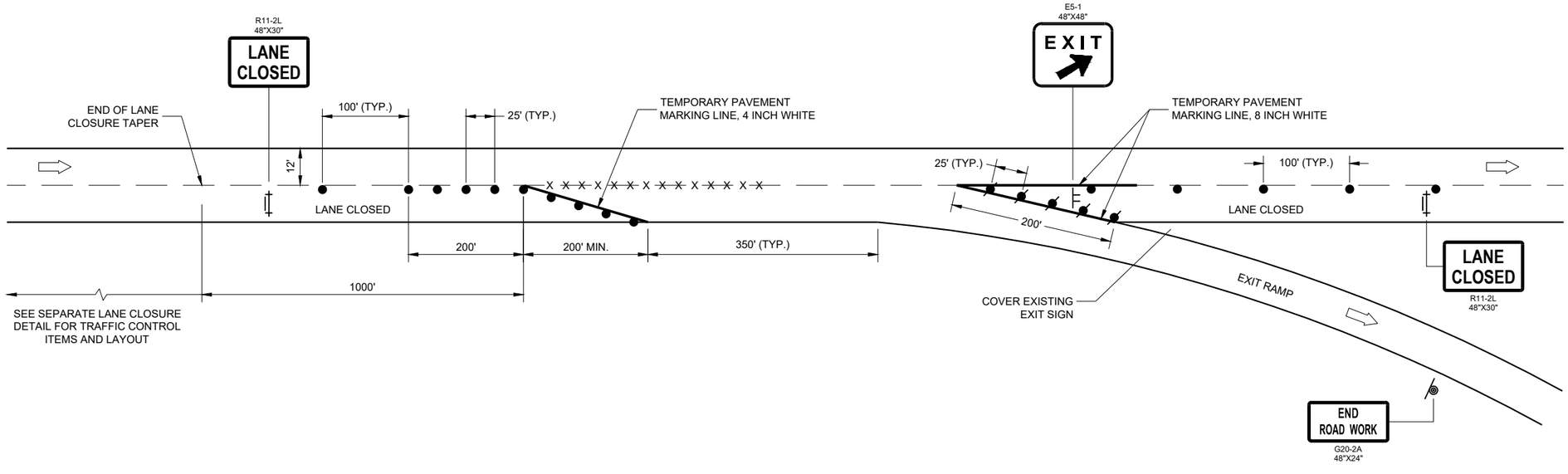
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.



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SDD 15D15 - 06e

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SDD15D15 - 06e

TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

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

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 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

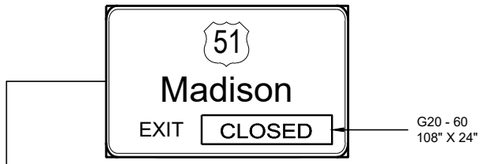
PLACE TEMPORARY PAVEMENT MARKING LINE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROP OFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN WORK IS NOT IN PROGRESS.

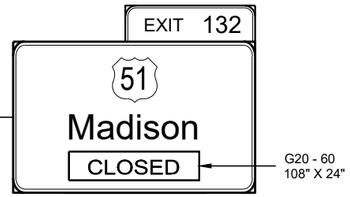
WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

(1) W20 - 1A AND G20 - 2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

(2) PLACE "RAMP CLOSED BEGINNING" SIGN OR PCMS 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



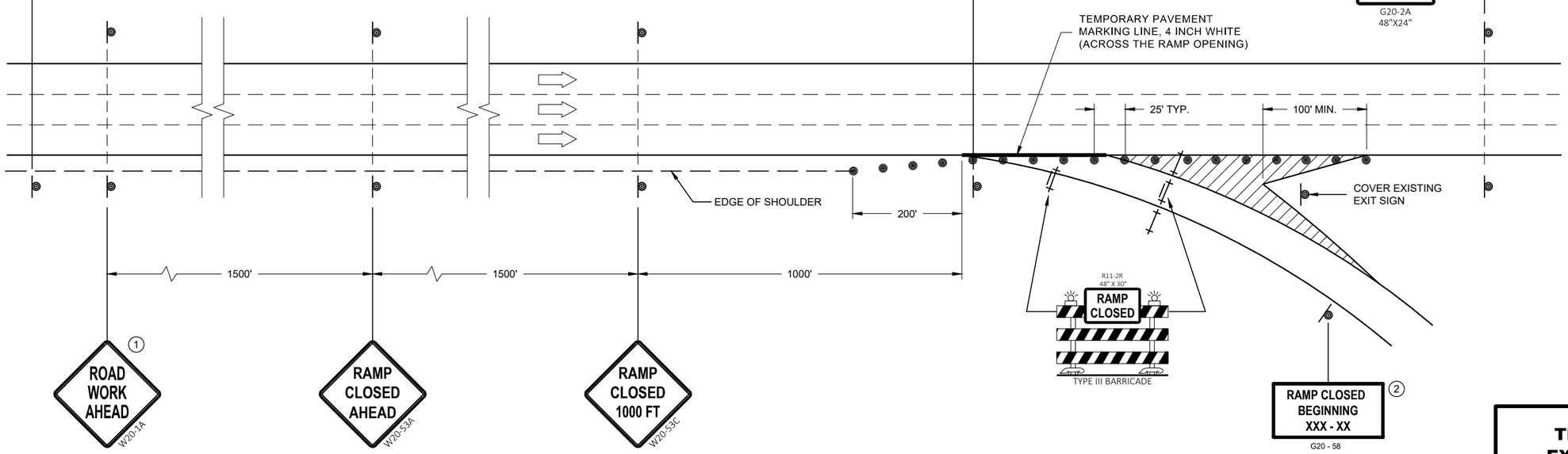
OR



PLACE SIGN G20 - 60 OVER MILEAGE ON EXISTING E1 - 1A SIGN

COVER ARROW ON EXISTING E4 - 1 SIGN (COVERING SIGNS TYPE I)

G20 - 61
120 ' X 30"



OR

PCMS MESSAGING

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 15D16 - 05

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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 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. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

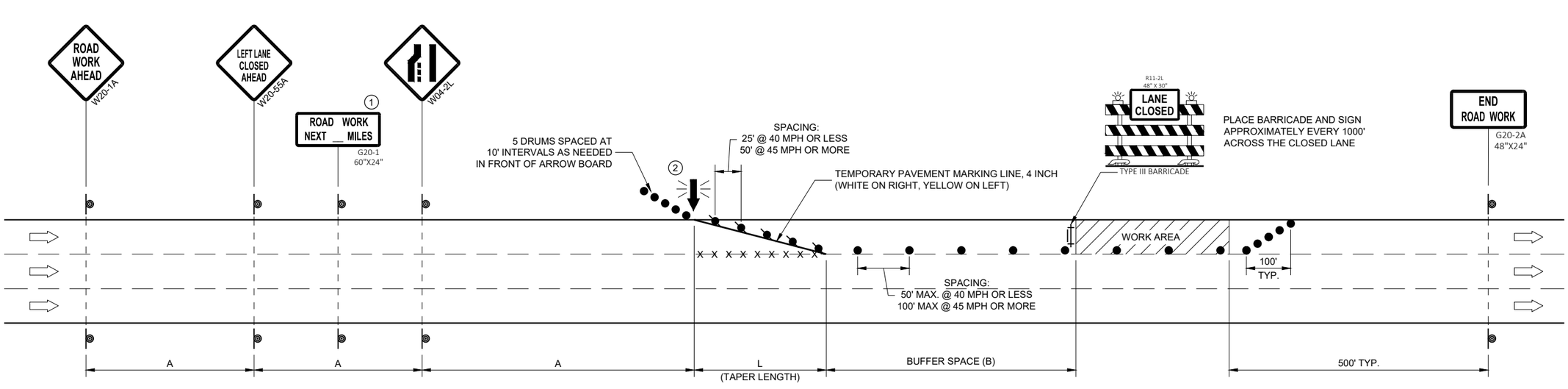
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D20 - 06a

6

SDD15D20 - 06a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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 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. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

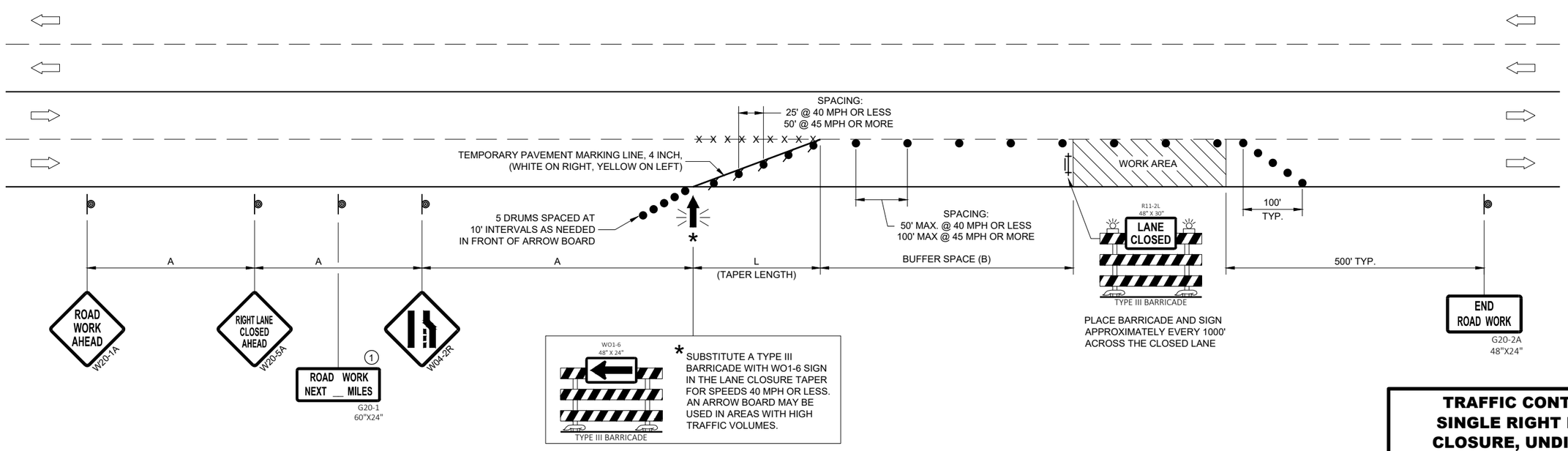
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'



TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

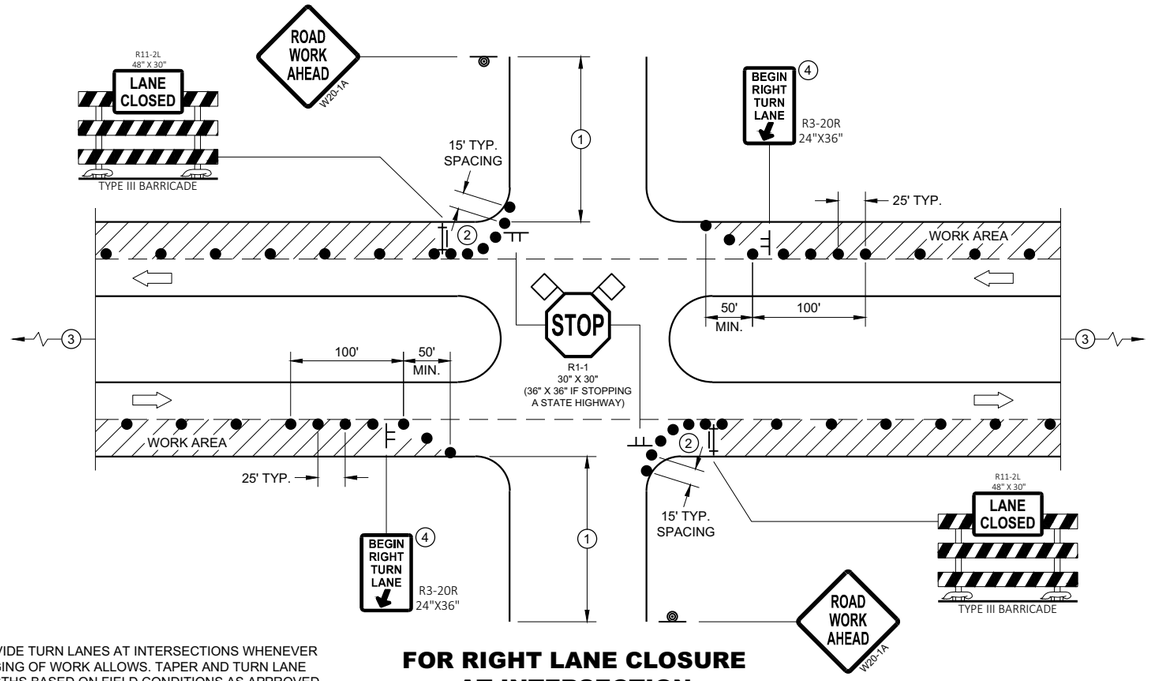
APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

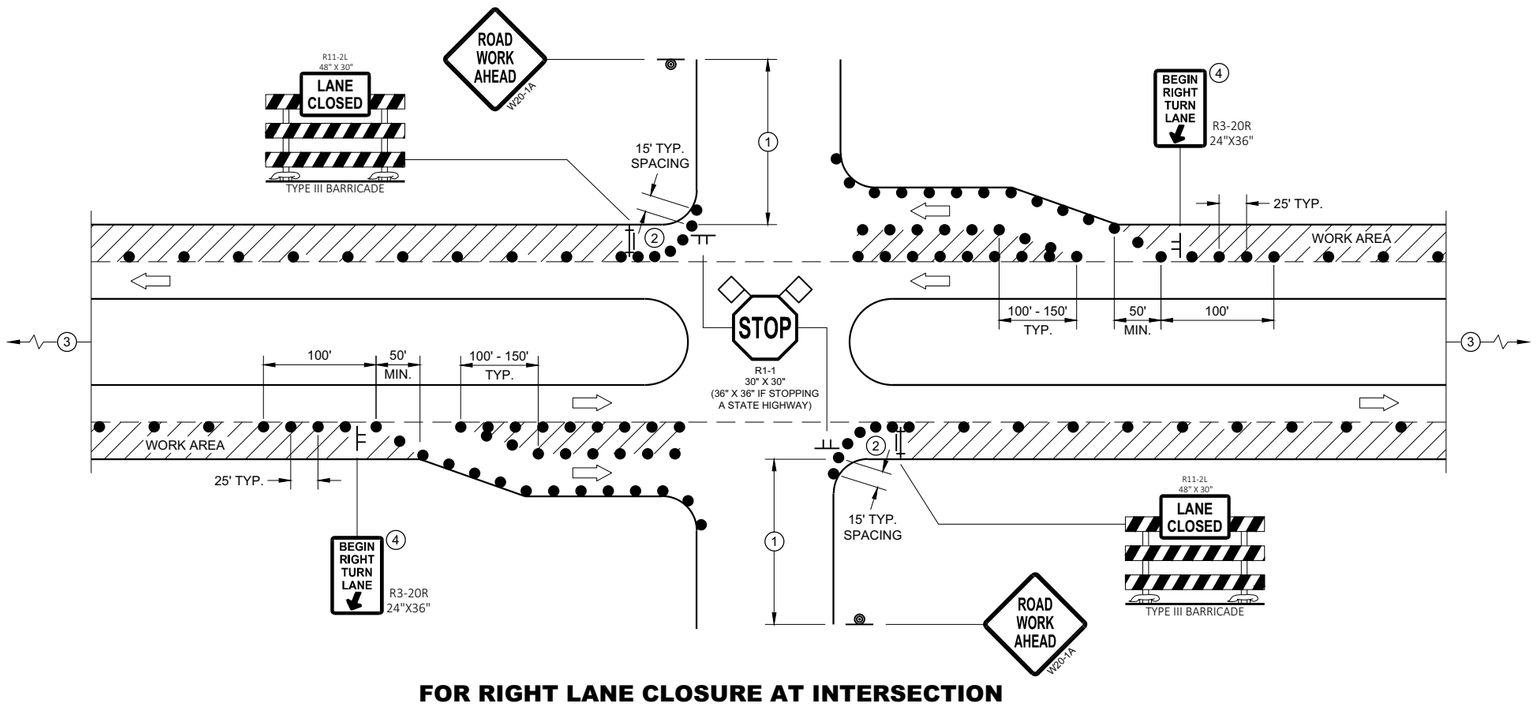
SDD 15D20 - 06b

SDD 15D20 - 06b



FOR RIGHT LANE CLOSURE AT INTERSECTION

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT 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. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

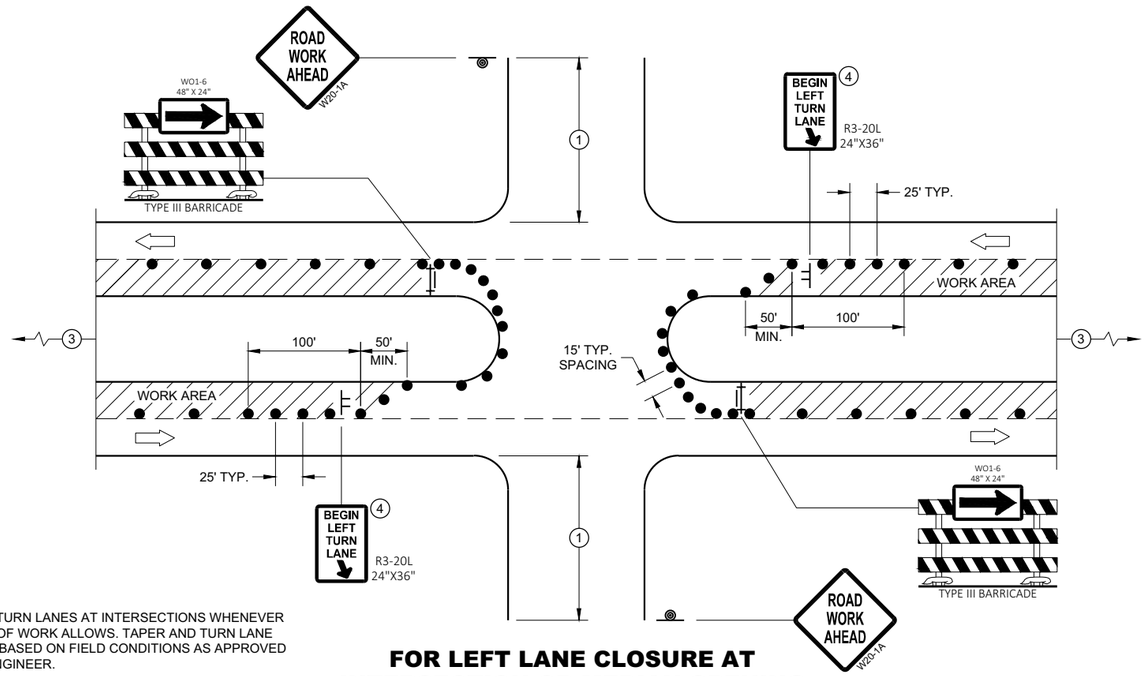
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D21 - 07a

6

SDD15D21 - 07a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT 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. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

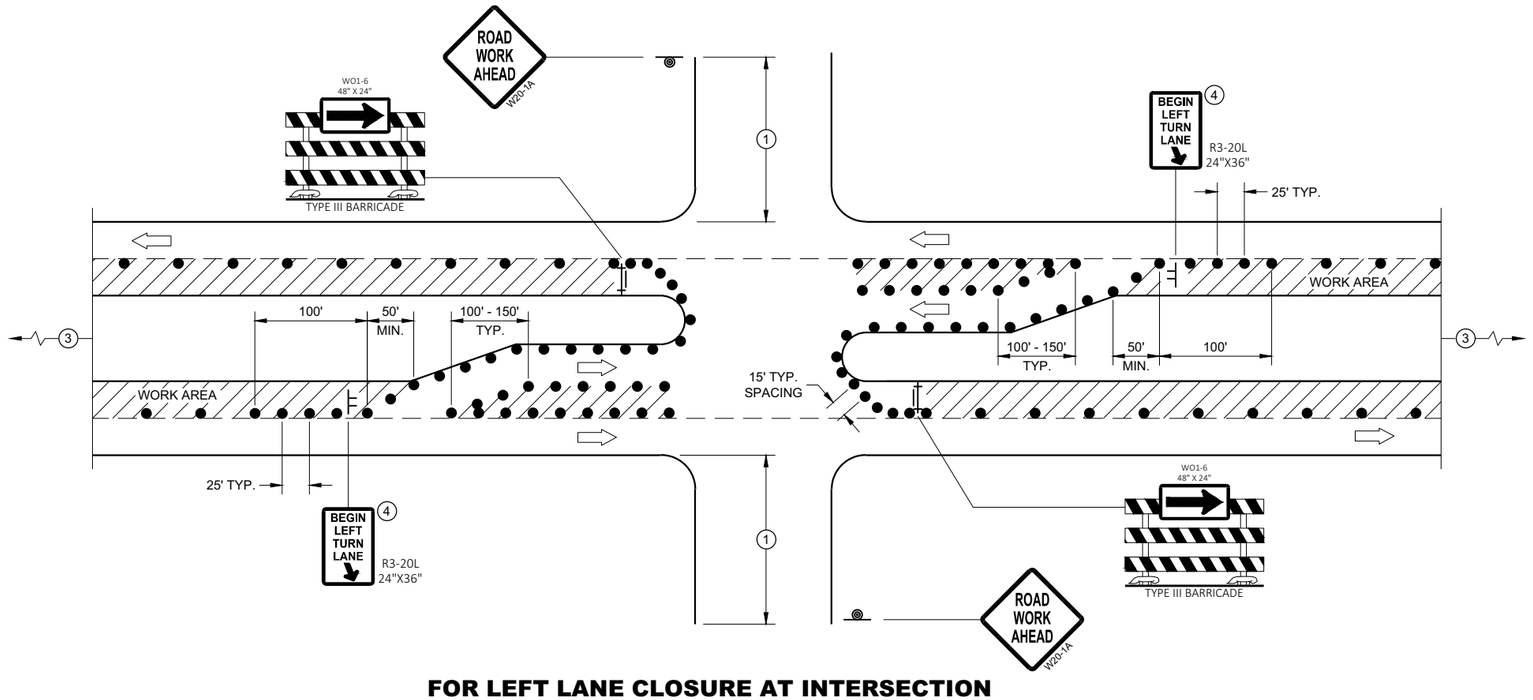
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

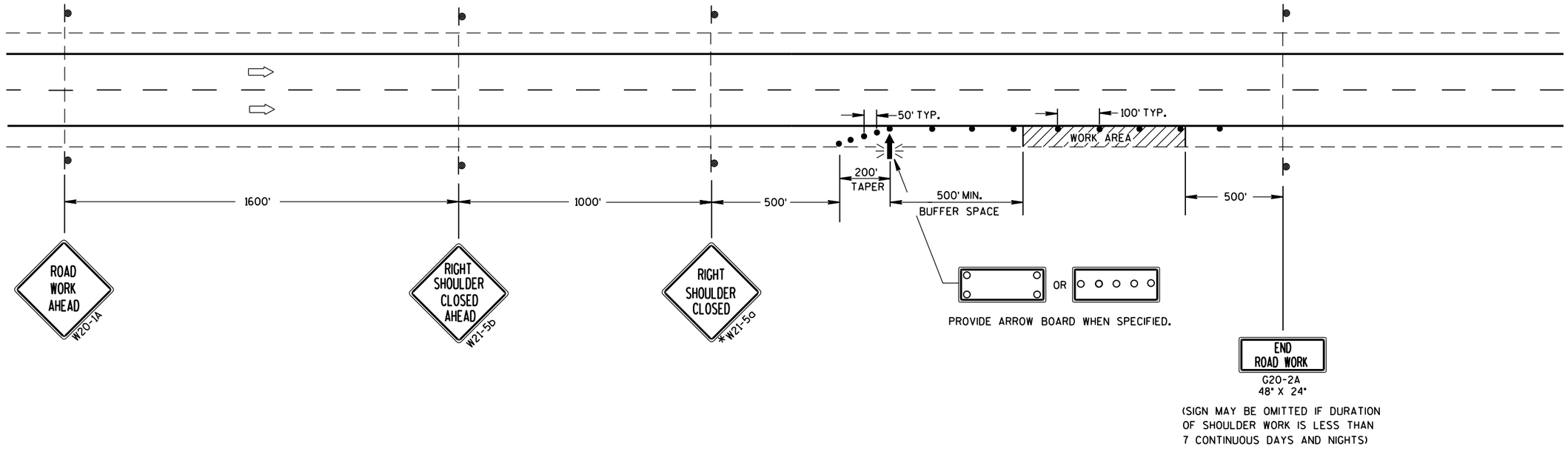
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

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

WHEN A 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.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

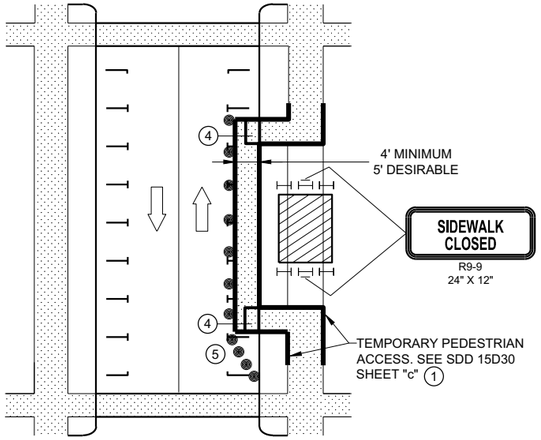
June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]
FHWA

6

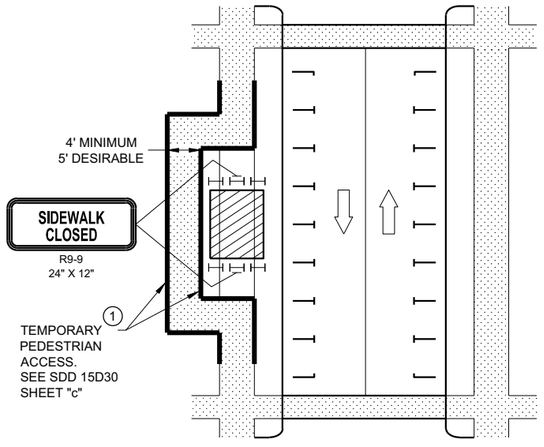
S.D.D. 15 D 27-3

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

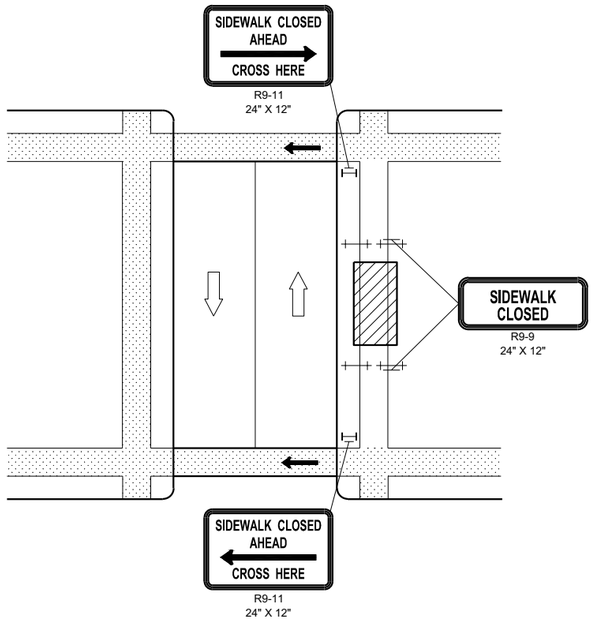


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

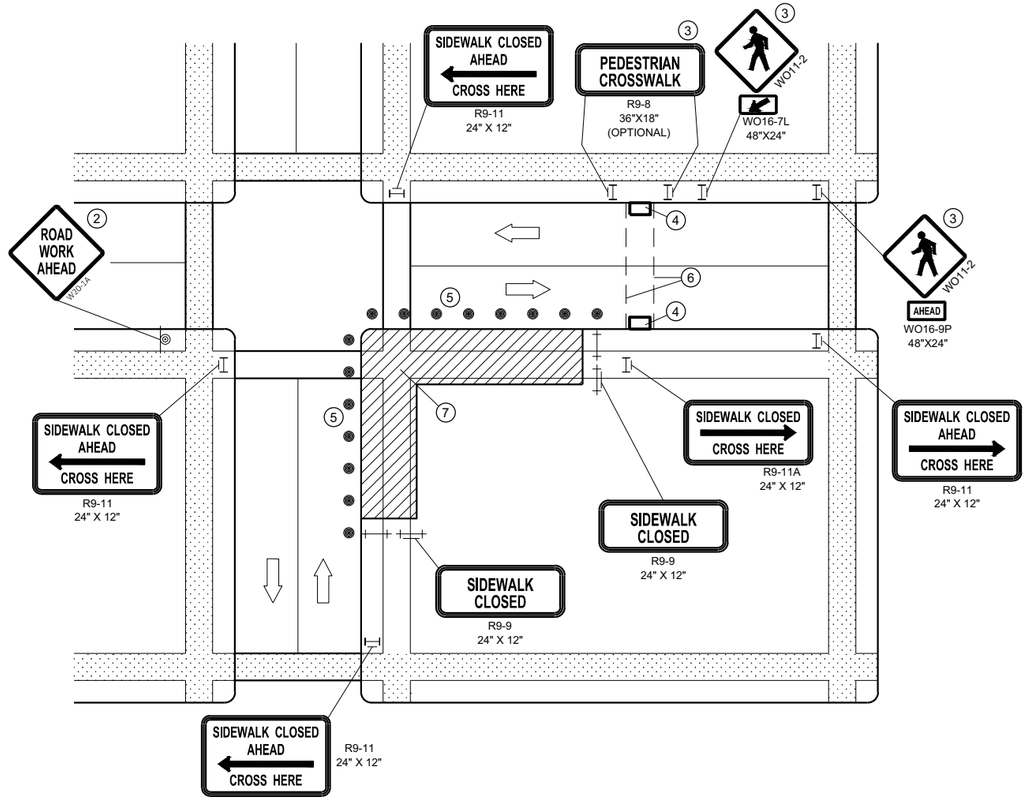
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

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

1. IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
2. "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
3. IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
4. TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.
5. DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
6. TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
7. LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

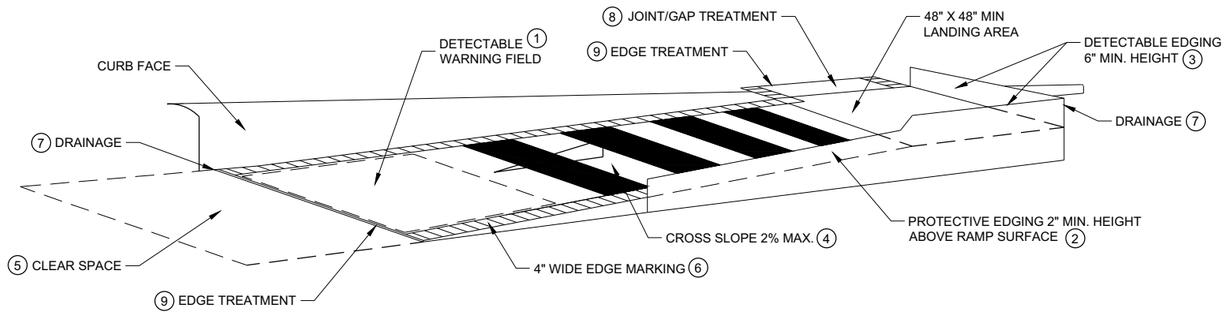
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

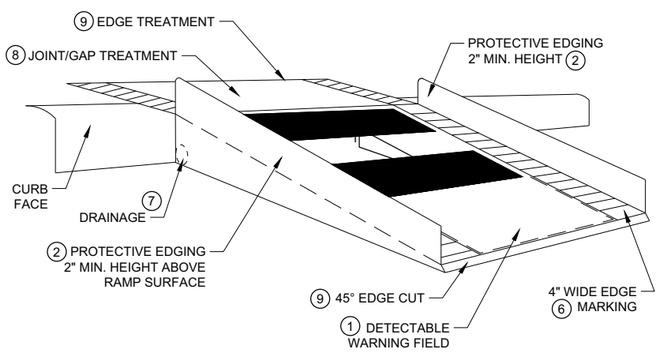
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

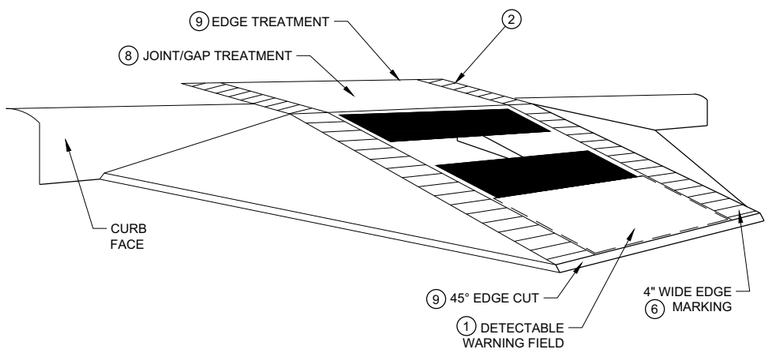
SDD 15D30 - 06a
SDD15D30 - 06a



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE



WITH SIDE APRON

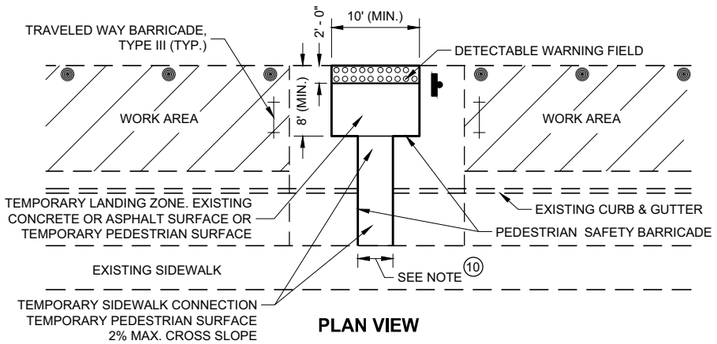
TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

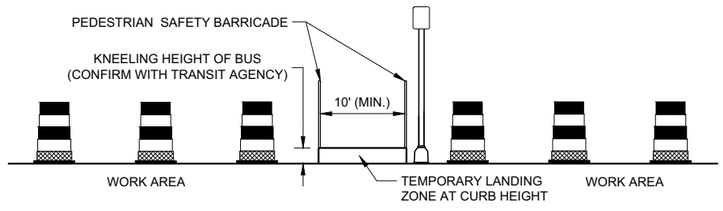
NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

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

1. CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
5. CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
6. THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
7. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES SHALL BE VERTICAL UP TO ¼" HIGH AND BEVELED AT 1:2 BETWEEN ¼" AND ½".
10. 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.



PLAN VIEW



PROFILE VIEW

TEMPORARY BUS STOP PAD

LEGEND

- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- WORK AREA

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

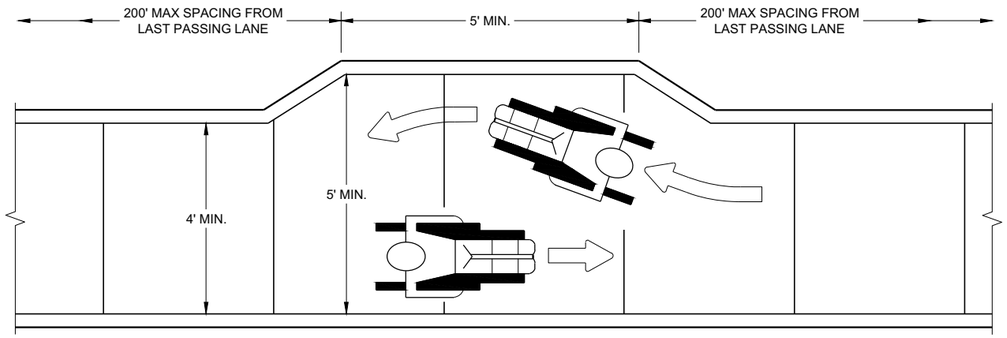
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

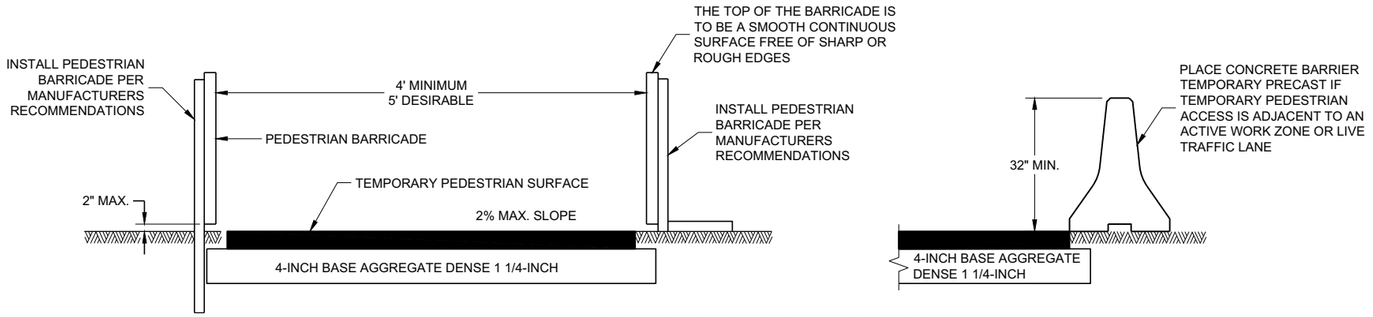
SDD 15D30 - 06b

6

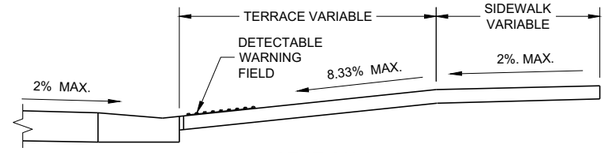
SDD 15D30 - 06b



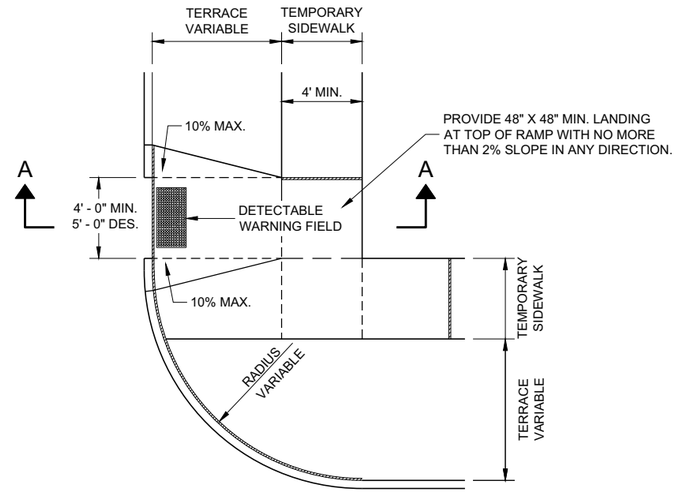
NARROW SIDEWALK PASSING DETAIL



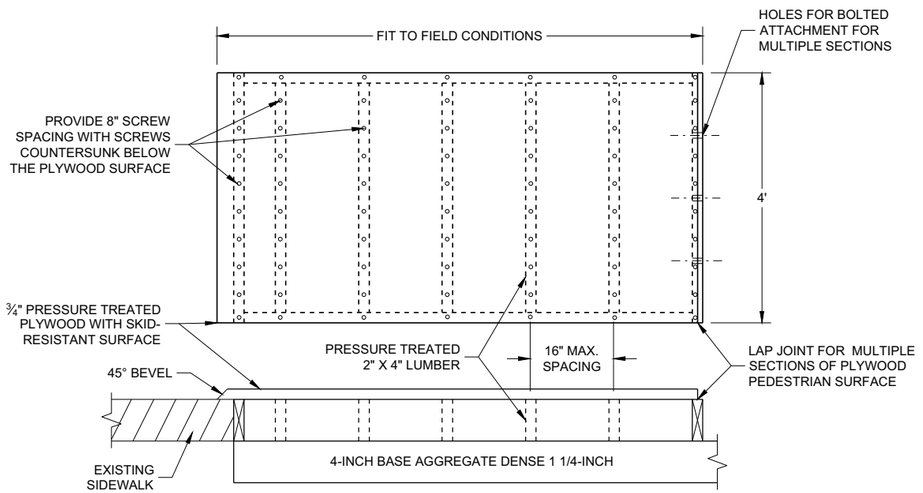
TEMPORARY PEDESTRIAN ACCESS



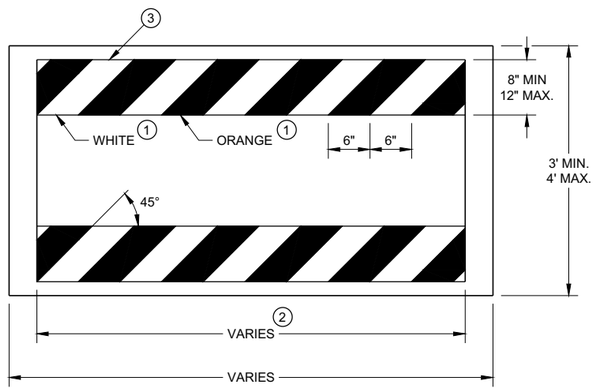
SECTION A - A



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 396

FHWA

6

SDD 15D30 - 06c

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- CONCRETE BARRIER TEMPORARY PRECAST

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)					BUFFER SPACE (B) FEET
		10	11	12	13	14	
25	200	52	57	63	68	73	55
30	200	75	83	90	98	105	85
35	350	102	112	123	133	143	120
40	350	133	147	160	173	187	170
45	500	225	248	270	293	315	220

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

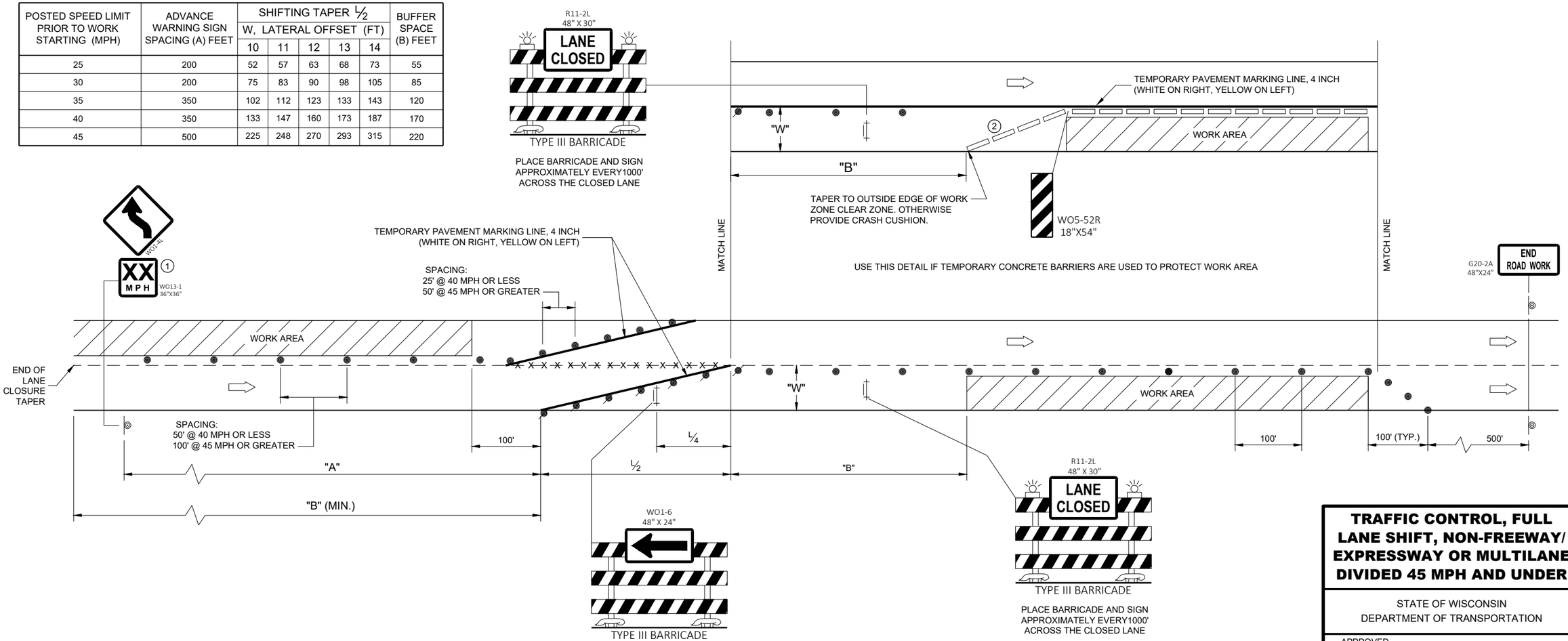
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER
SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL
CHANGE SUCH AS A CROSSOVER MANEUVER.

(1) USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

(2) BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER



TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15D40 - 04a

SDD 15D40 - 04a

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- CONCRETE BARRIER TEMPORARY PRECAST

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)				
	10	11	12	13	14
50	250	275	300	325	350
55	275	303	330	358	385
60	300	330	360	390	420
65	325	358	390	423	455
70	350	385	420	455	490

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

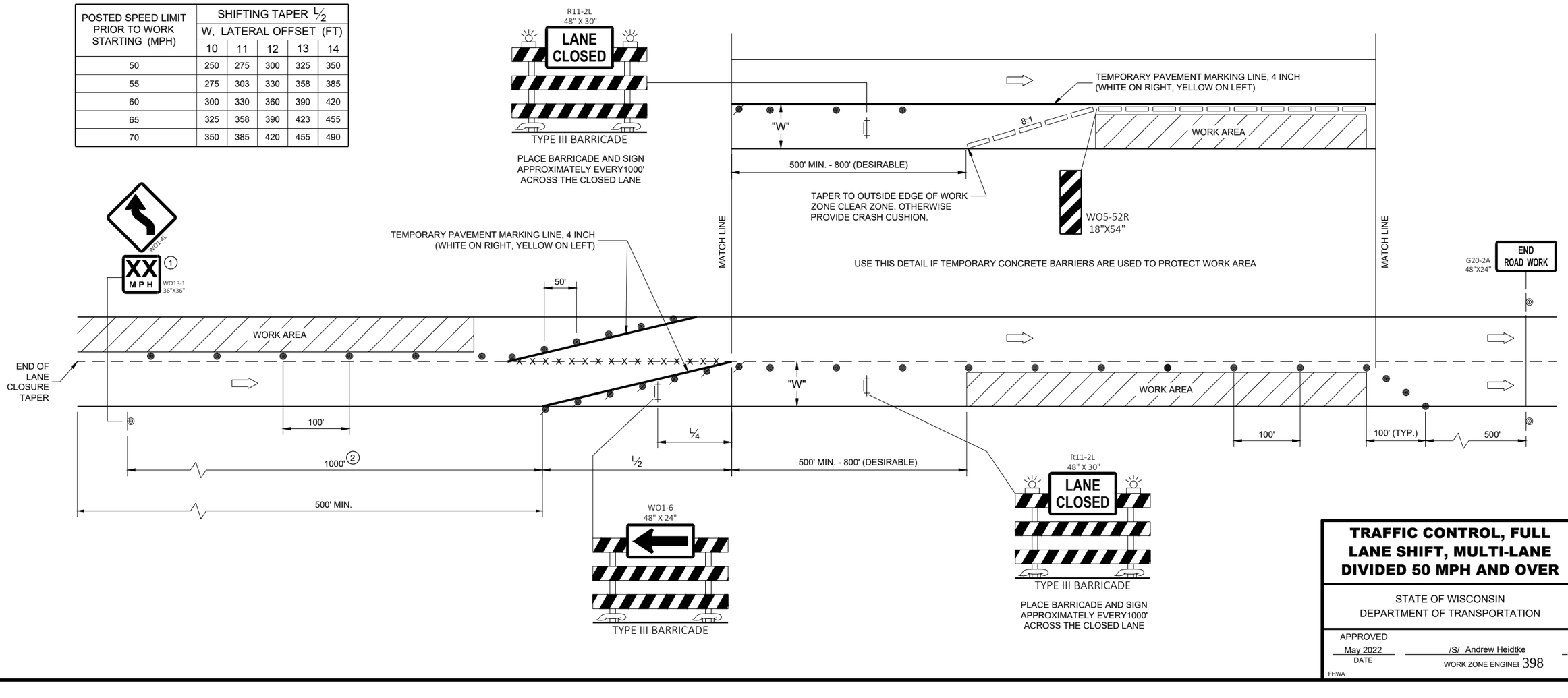
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ½ THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

(1) USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

(2) IF BEGINNING OF LANE SHIFT IS 1200' OF LESS FROM THE END OF THE LANE CLOSURE TAPER, PLACE THE WO1-4L SIGN 200 FEET AFTER THE END OF THE LANE CLOSURE TAPER.



TRAFFIC CONTROL, FULL LANE SHIFT, MULTI-LANE DIVIDED 50 MPH AND OVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15D40 - 04b

SDD 15D40 - 04b

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- CONCRETE BARRIER TEMPORARY PRECAST

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT LEFT - REVERSE FOR SHIFTING RIGHT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

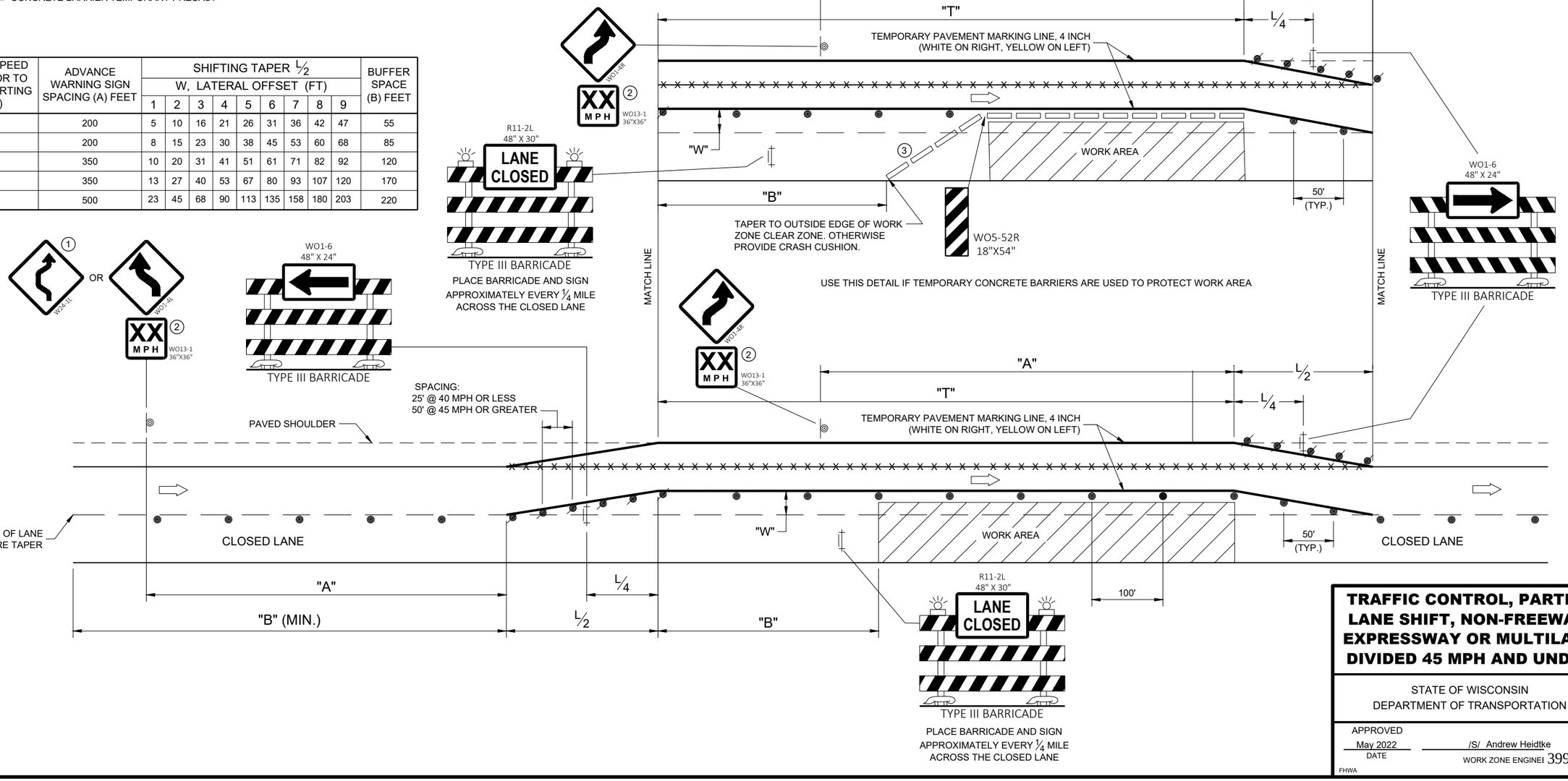
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

(1) USE ONLY WHEN T<600', OMIT WO1-4R.

(2) IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

(3) BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)									BUFFER SPACE (B) FEET
		1	2	3	4	5	6	7	8	9	
25	200	5	10	16	21	26	31	36	42	47	55
30	200	8	15	23	30	38	45	53	60	68	85
35	350	10	20	31	41	51	61	71	82	92	120
40	350	13	27	40	53	67	80	93	107	120	170
45	500	23	45	68	90	113	135	158	180	203	220



TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15D40 - 04c

SDD 15D40 - 04c

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- CONCRETE BARRIER TEMPORARY PRECAST

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)								
	1	2	3	4	5	6	7	8	9
50	25	50	75	100	125	150	175	200	225
55	28	55	83	110	138	165	193	220	248
60	30	60	90	120	150	180	210	240	270
65	33	65	98	130	163	195	228	260	293
70	35	70	105	140	175	210	245	280	315

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT LEFT - REVERSE FOR SHIFTING RIGHT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

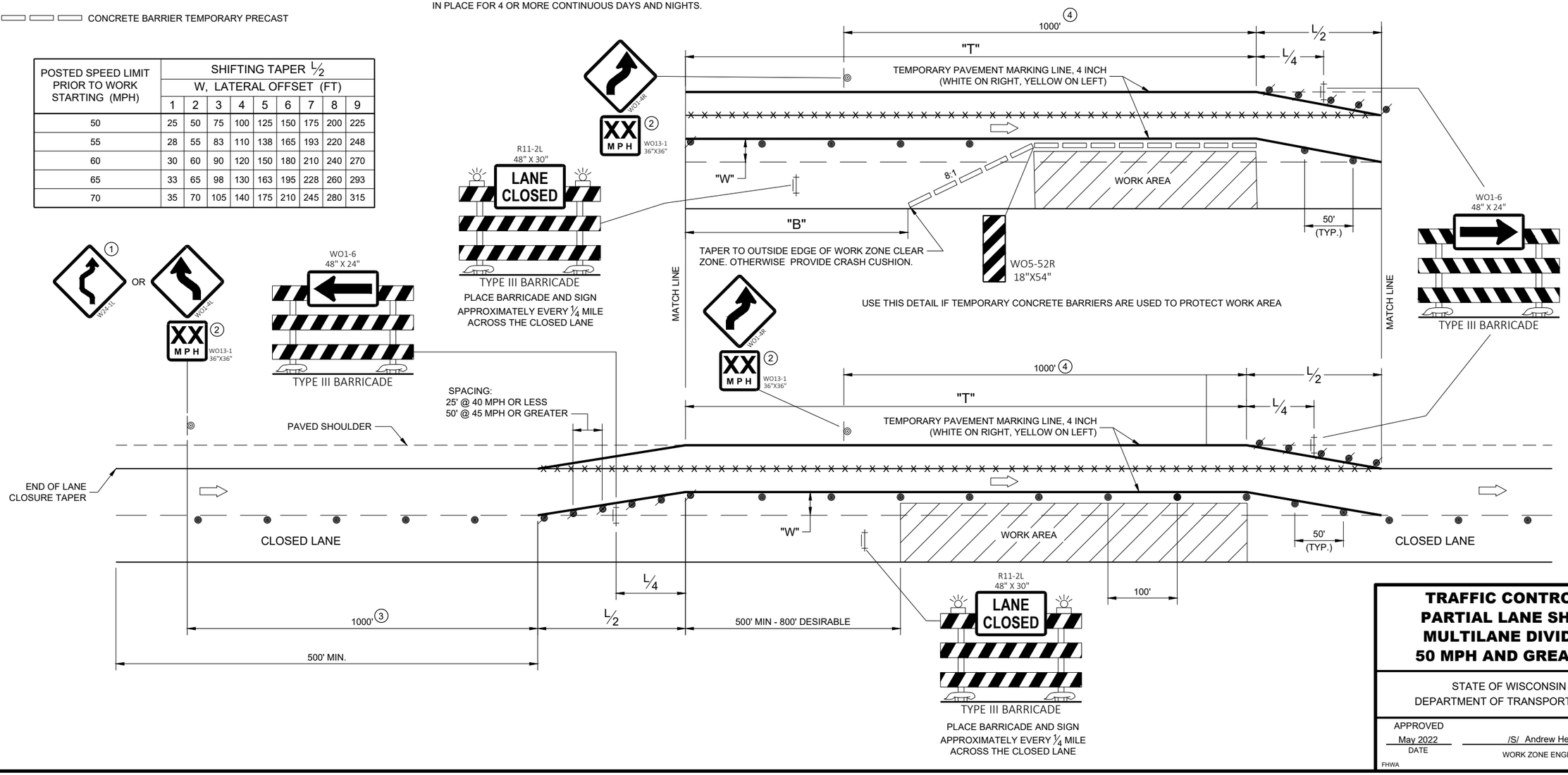
REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

1. USE ONLY WHEN T<600', OMIT WO1-4R.
2. IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.
3. IF THE BEGINNING OF LANE SHIFT TAPER IS 1200 FEET OR LESS FROM END OF LANE CLOSURE TAPER, PLACE THE WO1-4L SIGN 200 FEET AFTER THE END OF THE LANE CLOSURE TAPER.
4. IF THE BEGINNING OF THE SECOND LANE SHIFT TAPER IS 1200 FEET OR LESS FROM END OF THE FIRST LANE CLOSURE TAPER, PLACE THE WO1-4L SIGN 200 FEET AFTER THE END OF THE FIRST LANE CLOSURE TAPER.



TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

400

FHWA

SDD 15D40 - 04d

SDD 15D40 - 04d

6

6

LEGEND

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

CONCRETE BARRIER TEMPORARY PRECAST

TYPE "A" WARNING LIGHT (FLASHING)

WORK AREA

L, TAPER LENGTH (MPH)							
SPEED (MPH)	W, LATERAL OFFSET (FT)						
	10	11	12	13	14	15	16
45	450	495	540	585	630	675	720
50	500	550	600	650	700	750	800
55	550	605	660	715	770	825	880
60	600	660	720	780	840	900	960
65	650	715	780	845	910	975	1040
70	700	770	840	910	980	1050	1120

OR

LOCATED 3000 FEET BEYOND THE "ROAD WORK 1 MILE" (W20-1F) SIGN

R2-1
48"X60"

OR

R2-1
48"X60"

(BLACK AND WHITE) LOCATED 700 FEET BEYOND THE W03-5 SIGN

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 3 MILES.

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

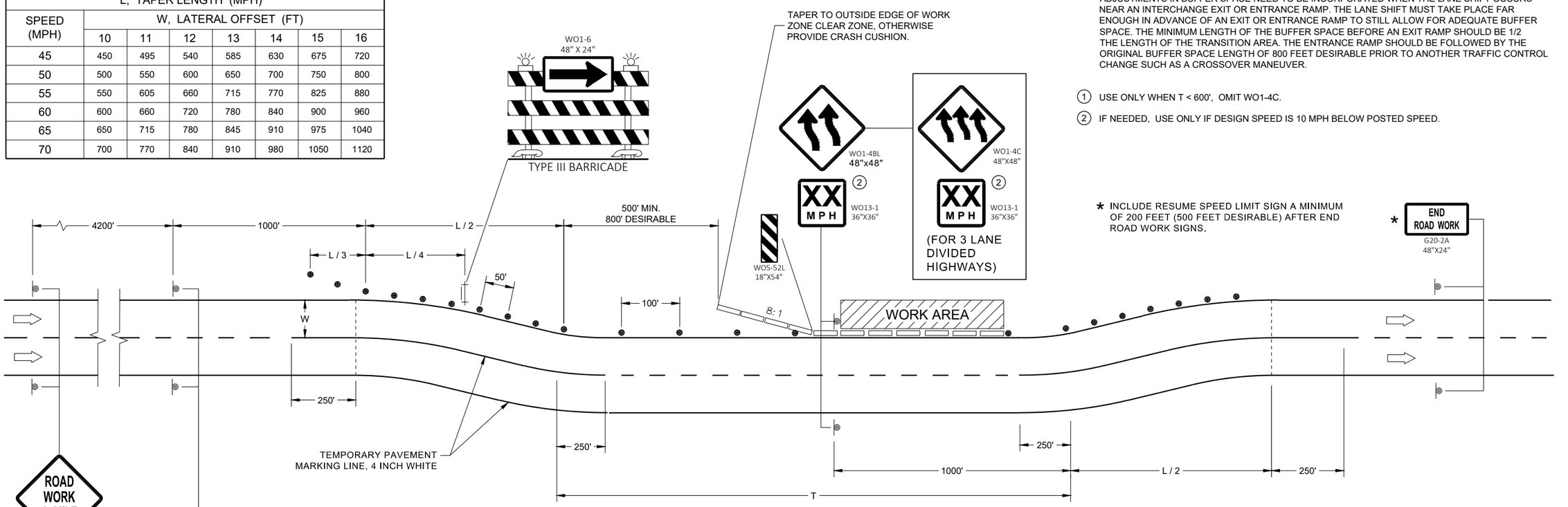
REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

(1) USE ONLY WHEN T < 600', OMIT WO1-4C.

(2) IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.



TRAFFIC CONTROL MULTIPLE LANE SHIFT MULTILANE DIVIDED ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

401

FHWA

6

SDD 15D41 - 02

6

SDD 15D41 - 02

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

GENERAL NOTES

RIGHT CLOSURE SHOWN (LEFT LANE CLOSURE SIMILAR)

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS PART OF A DAYTIME ONLY OPERATION.

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

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

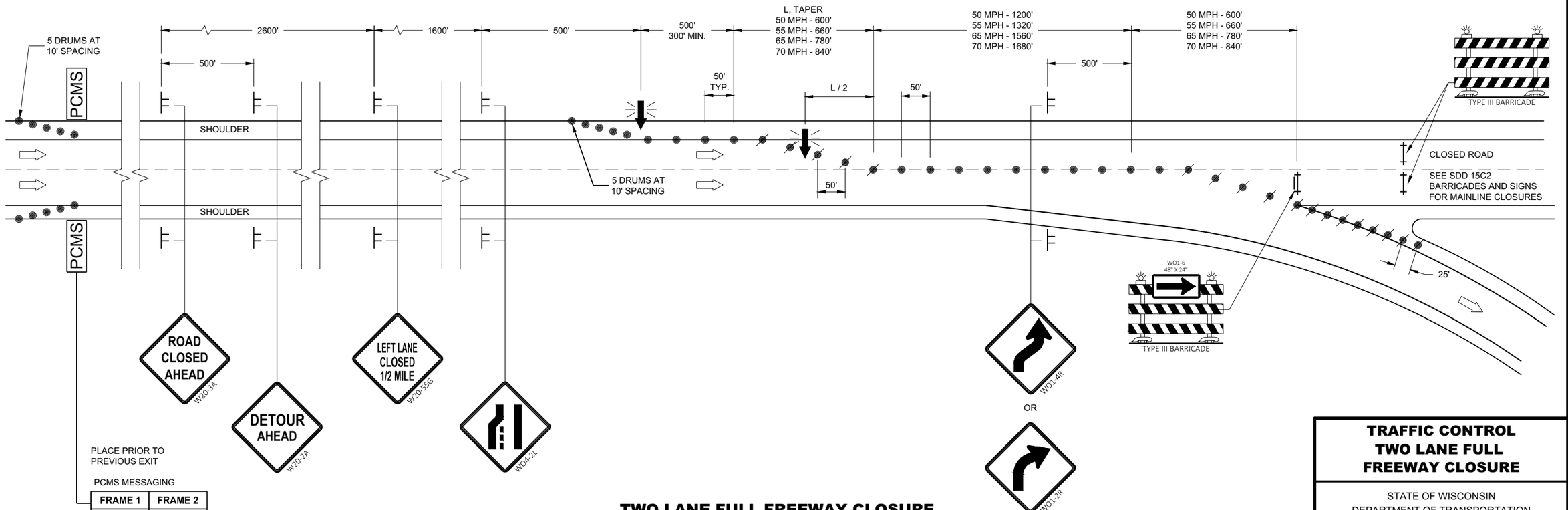
WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROL SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND / OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS EACH CLOSED LANE TO HELP REINFORCE THE DRUM LINE.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

REFER TO DETOUR ROUTES FOR TRAFFIC GUIDANCE SIGNING.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.



PLACE PRIOR TO PREVIOUS EXIT

PCMS MESSAGING

FRAME 1	FRAME 2
FREEWAY CLOSED	EXIT AHEAD

TWO LANE FULL FREEWAY CLOSURE

TRAFFIC CONTROL TWO LANE FULL FREEWAY CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

6

SDD 15D42 - 01

SDD 15D42 - 01

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.

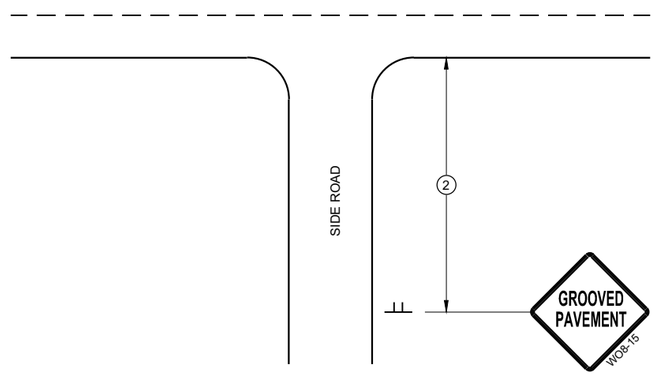
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

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

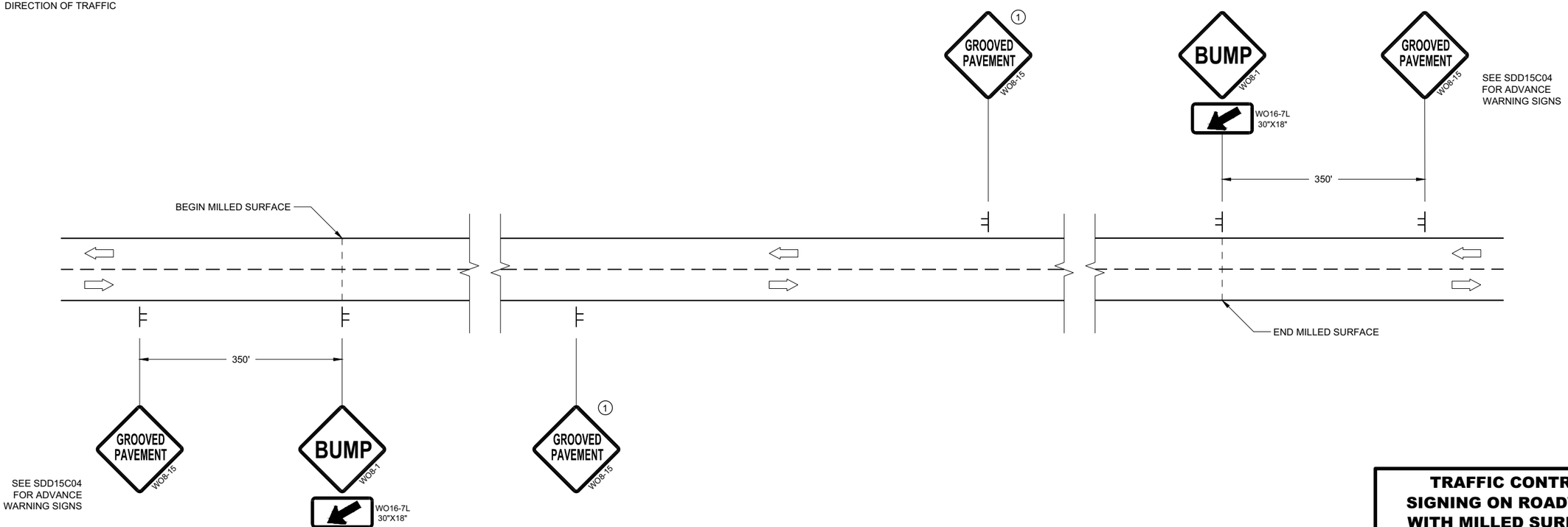
LEGEND

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

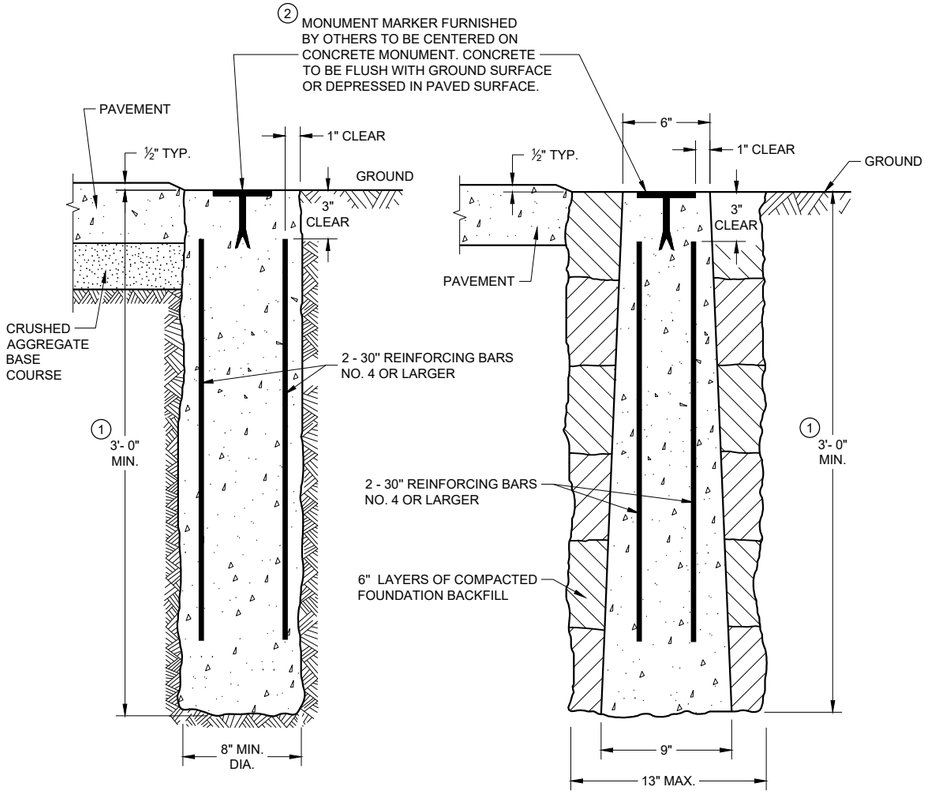
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

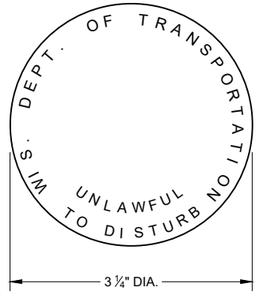
FHWA

6
SDD 15D44 - 02



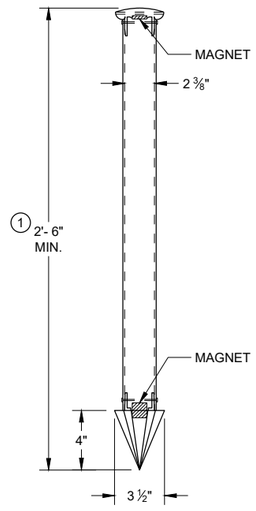
CAST-IN-PLACE **PRECAST**

CONCRETE MONUMENTS
TYPE A

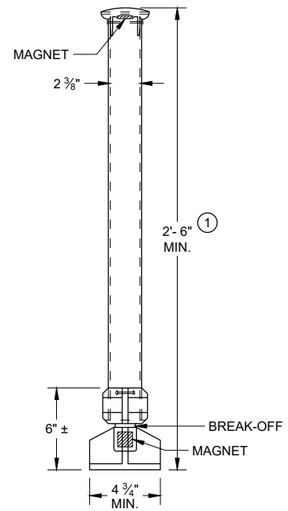


② **WIS DOT MONUMENT MARKER LOGO**

FOR TYPES "A", "C" & "D"

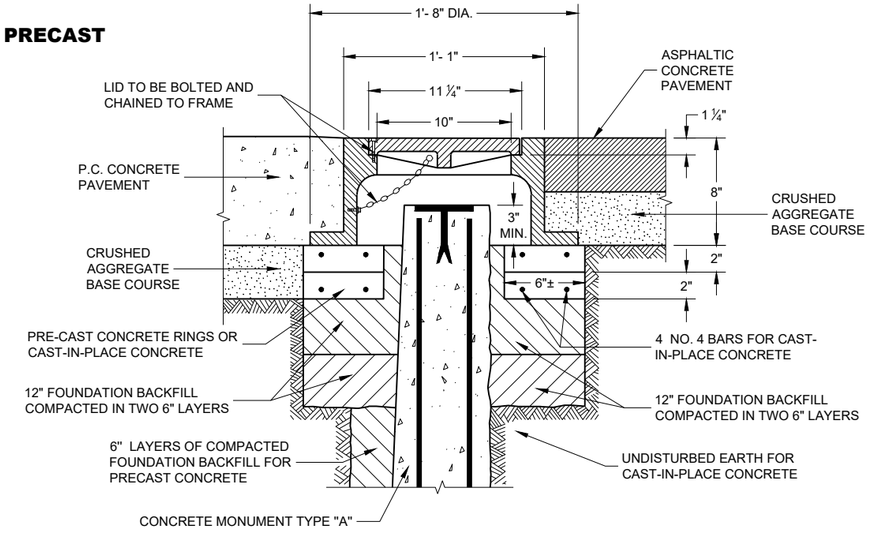


TYPE C
DRIVEN MONUMENT



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.

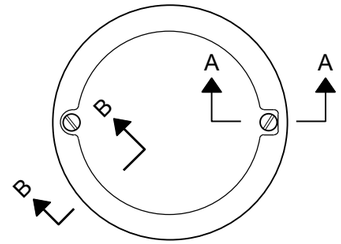
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

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.

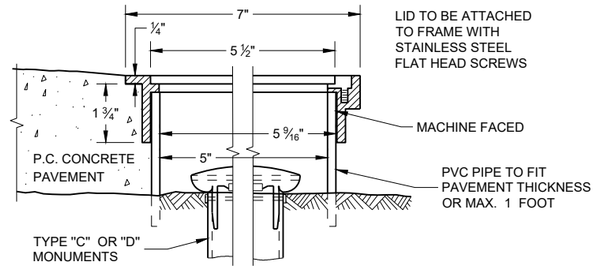
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

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 MAPPING ENGINEER

FHWA

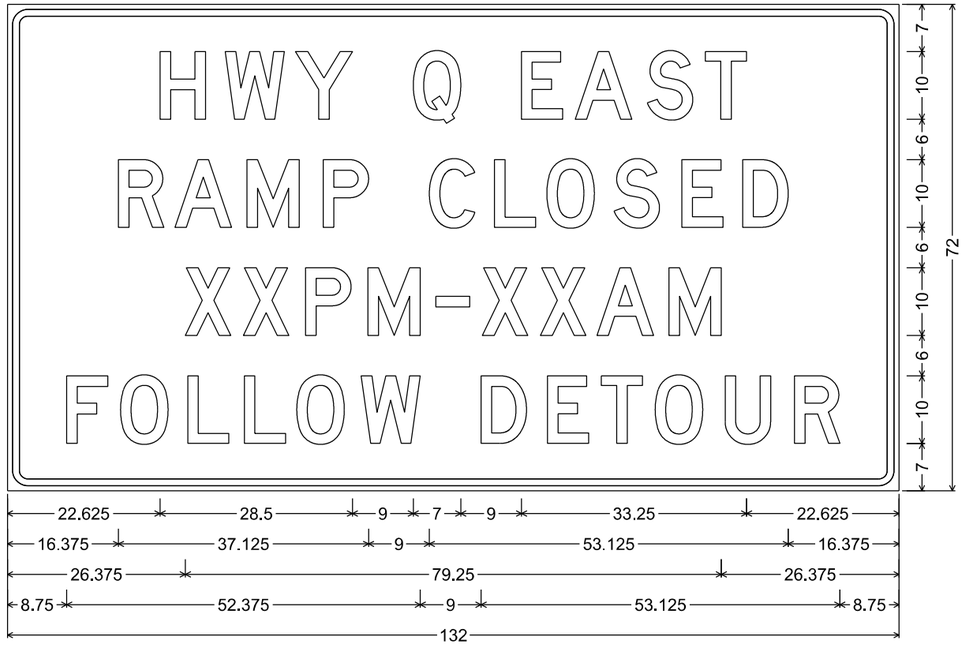
6

SDD 16A01 - 07

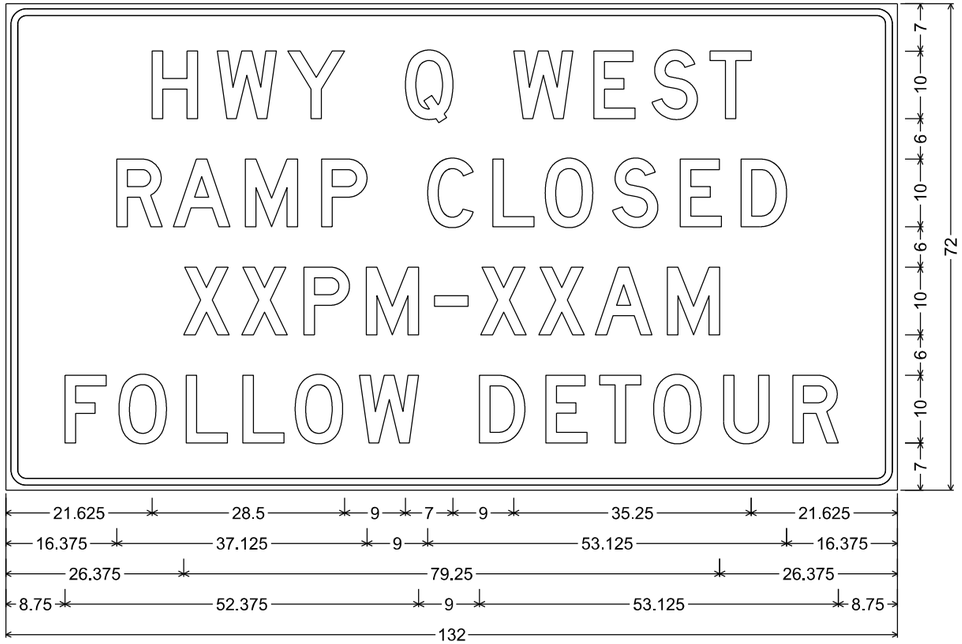
SDD 16A01 - 07

NOTES

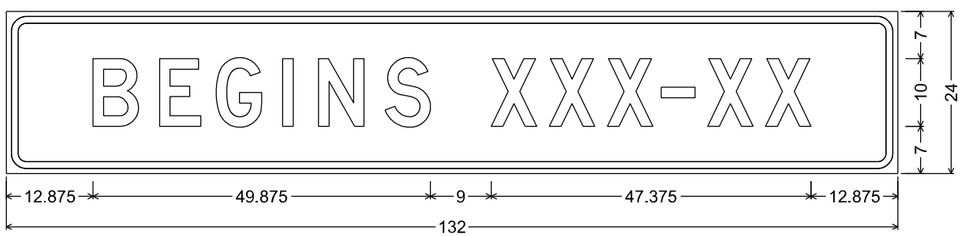
1. All Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D



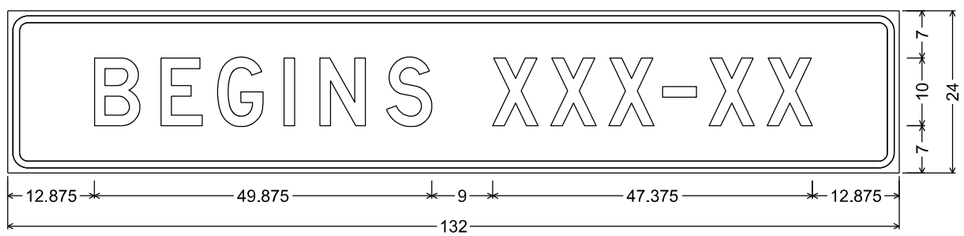
3.000" Radius, 1.000" Border, 0.750" Indent, Black on, Fluorescent orange;



3.000" Radius, 1.000" Border, 0.750" Indent, Black on, Fluorescent orange;



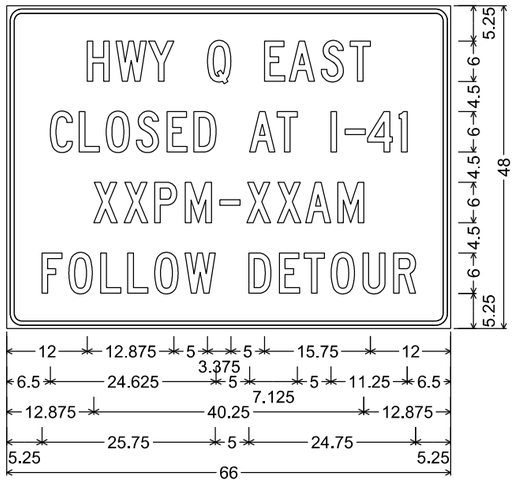
3.000" Radius, 1.000" Border, 0.750" Indent, Black on, Fluorescent orange;



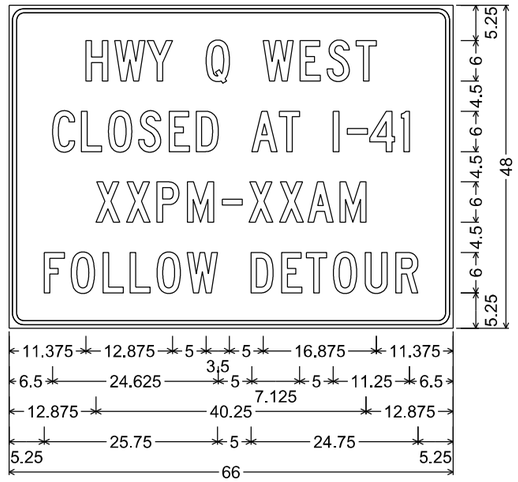
3.000" Radius, 1.000" Border, 0.750" Indent, Black on, Fluorescent orange;

NOTES

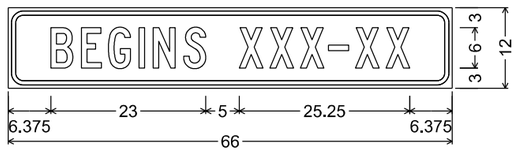
1. All Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C



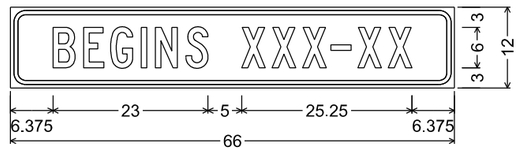
2.250" Radius, 0.625" Border, 0.500" Indent, Black on, Fluorescent orange;



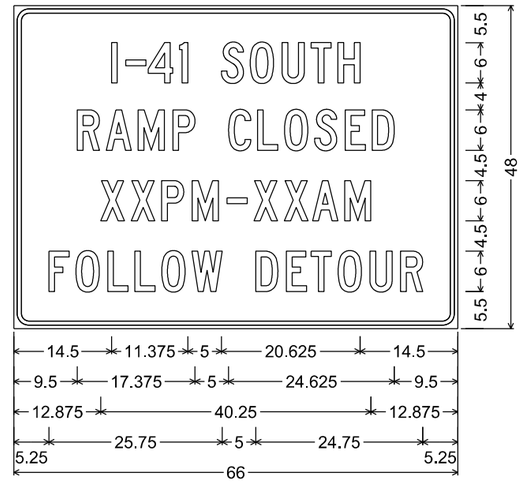
2.250" Radius, 0.625" Border, 0.500" Indent, Black on, Fluorescent orange;



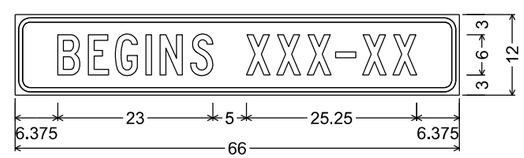
2.250" Radius, 0.625" Border, 0.500" Indent, Black on, Fluorescent orange;



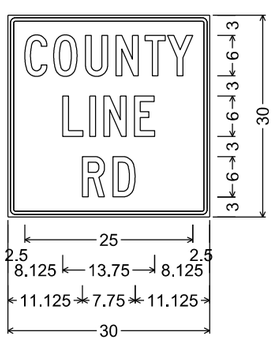
2.250" Radius, 0.625" Border, 0.500" Indent, Black on, Fluorescent orange;



2.250" Radius, 0.625" Border, 0.500" Indent, Black on, Fluorescent orange;



2.250" Radius, 0.625" Border, 0.500" Indent, Black on, Fluorescent orange;

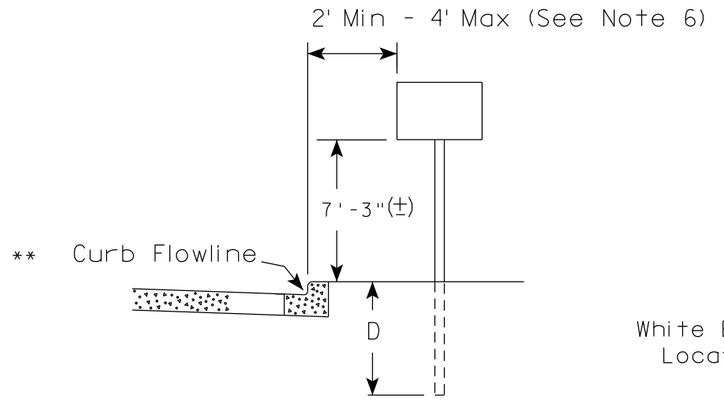


1.125" Radius, 0.500" Border, 0.375" Indent, Black on, Fluorescent orange;

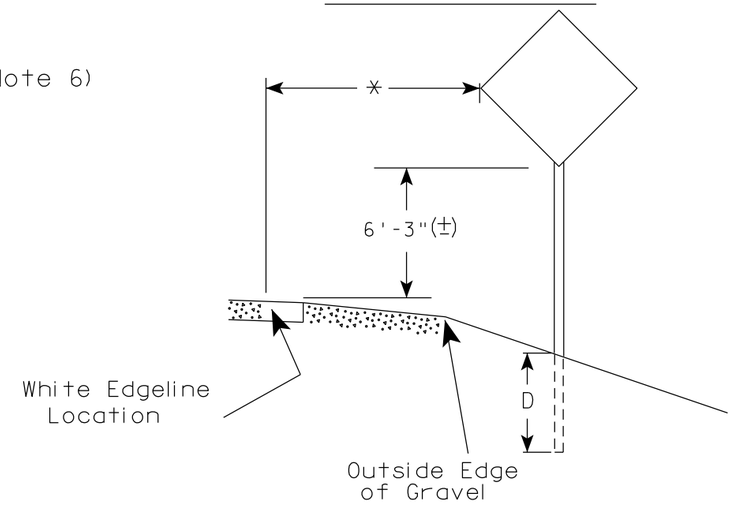
7

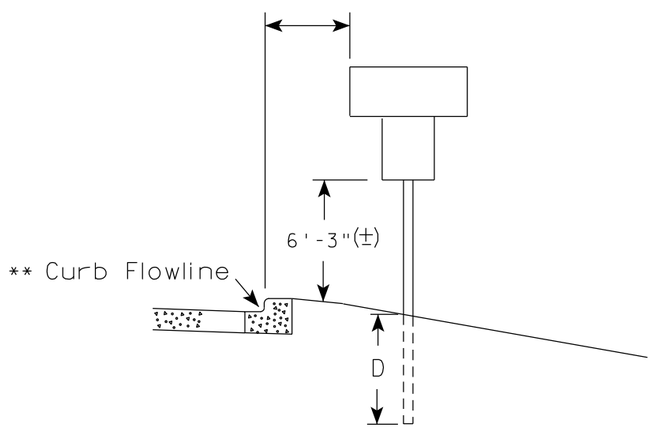
7

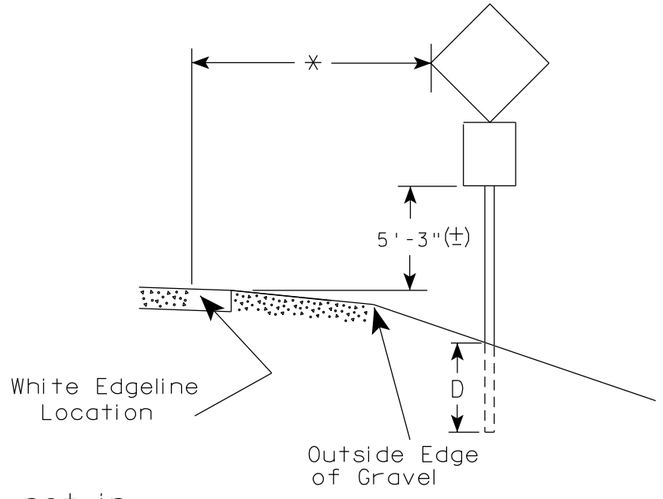
URBAN AREA



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.

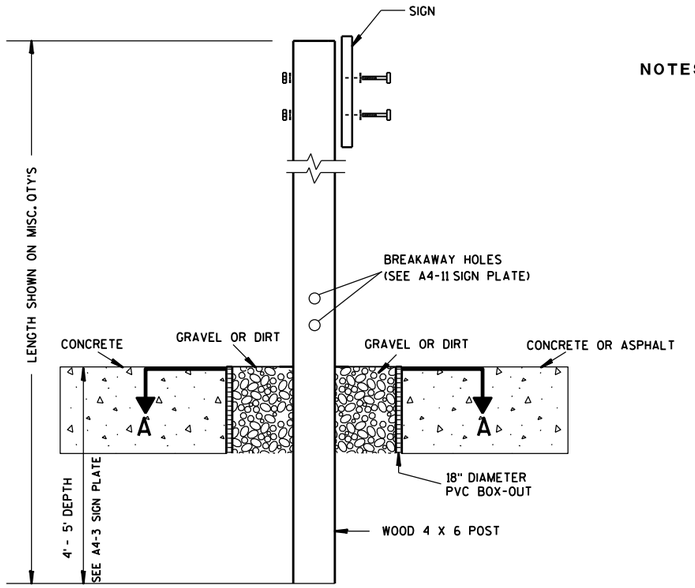
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

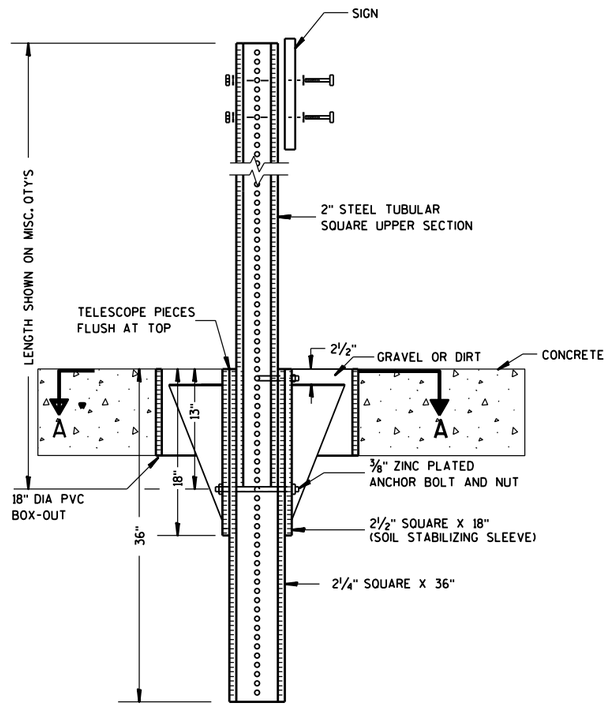
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 407	E



ELEVATION VIEW

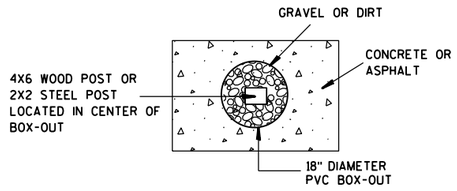
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

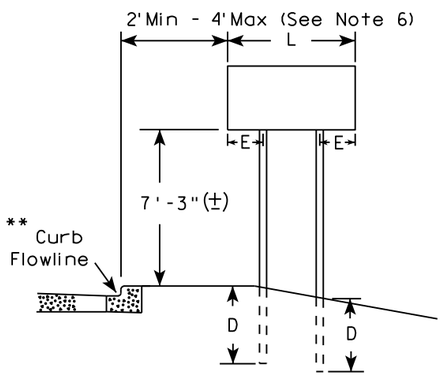
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

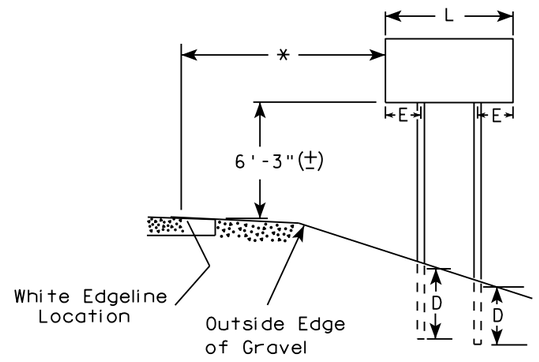
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

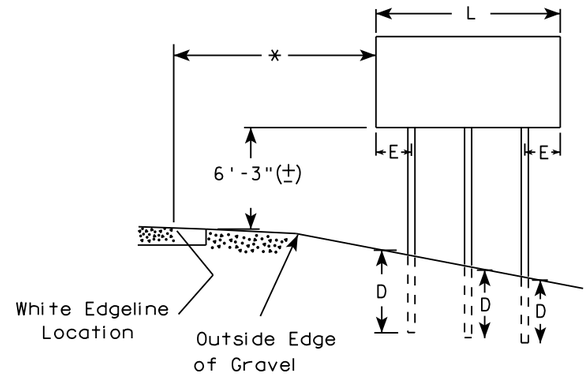
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

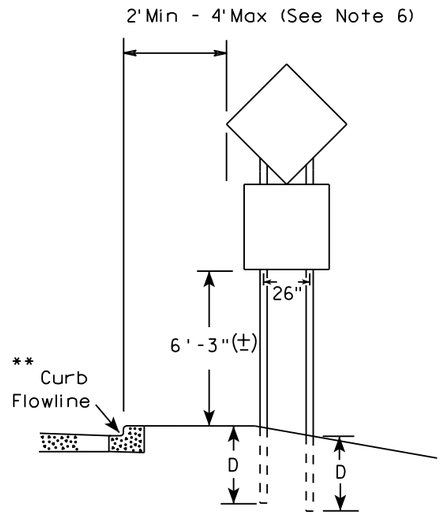
URBAN AREA



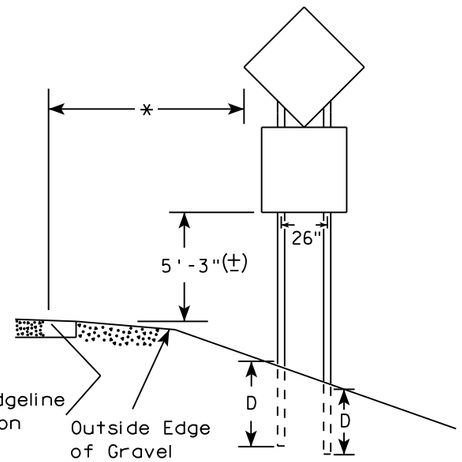
RURAL AREA (See Note 3)







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'

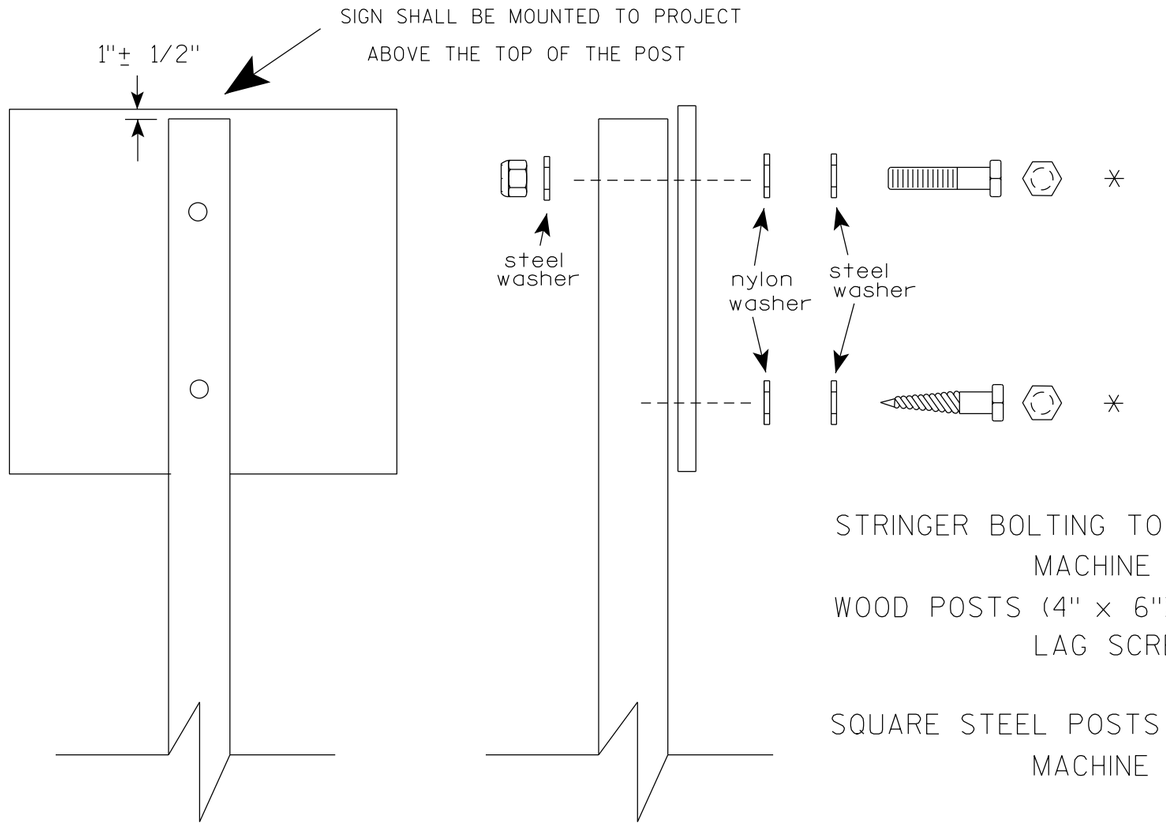
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 409	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

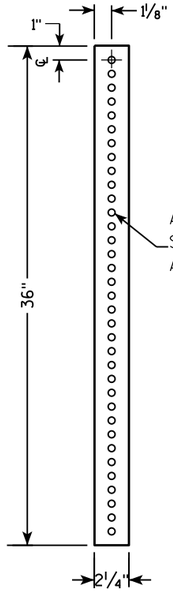
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

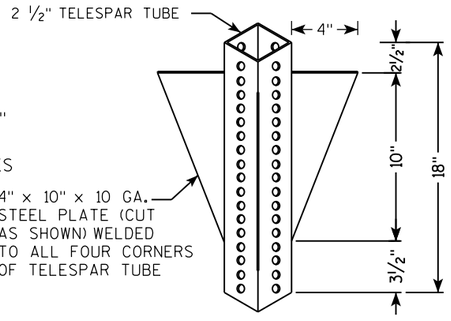
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

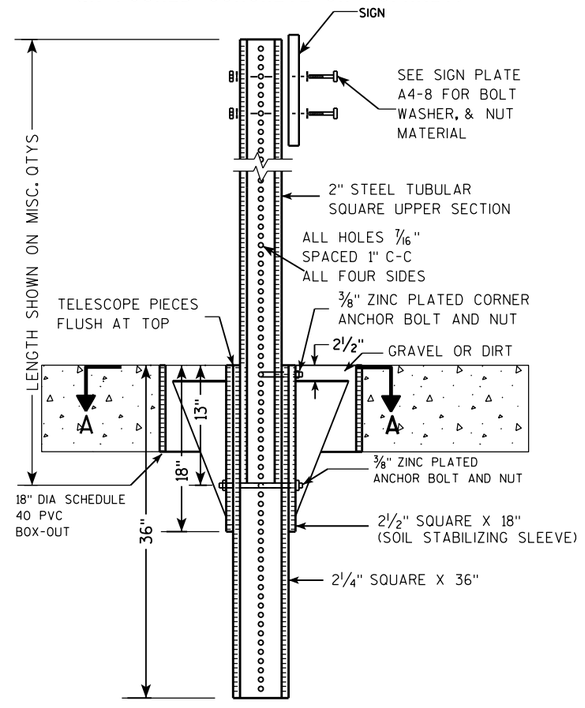
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



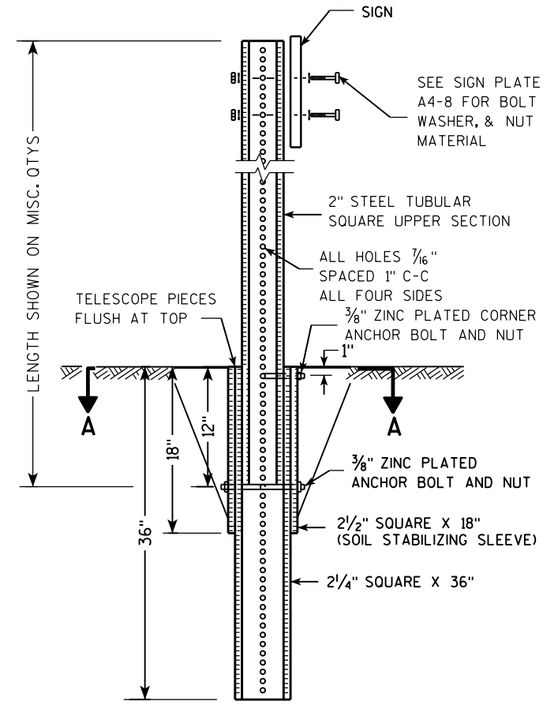
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

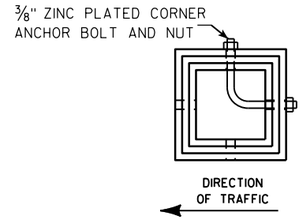


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

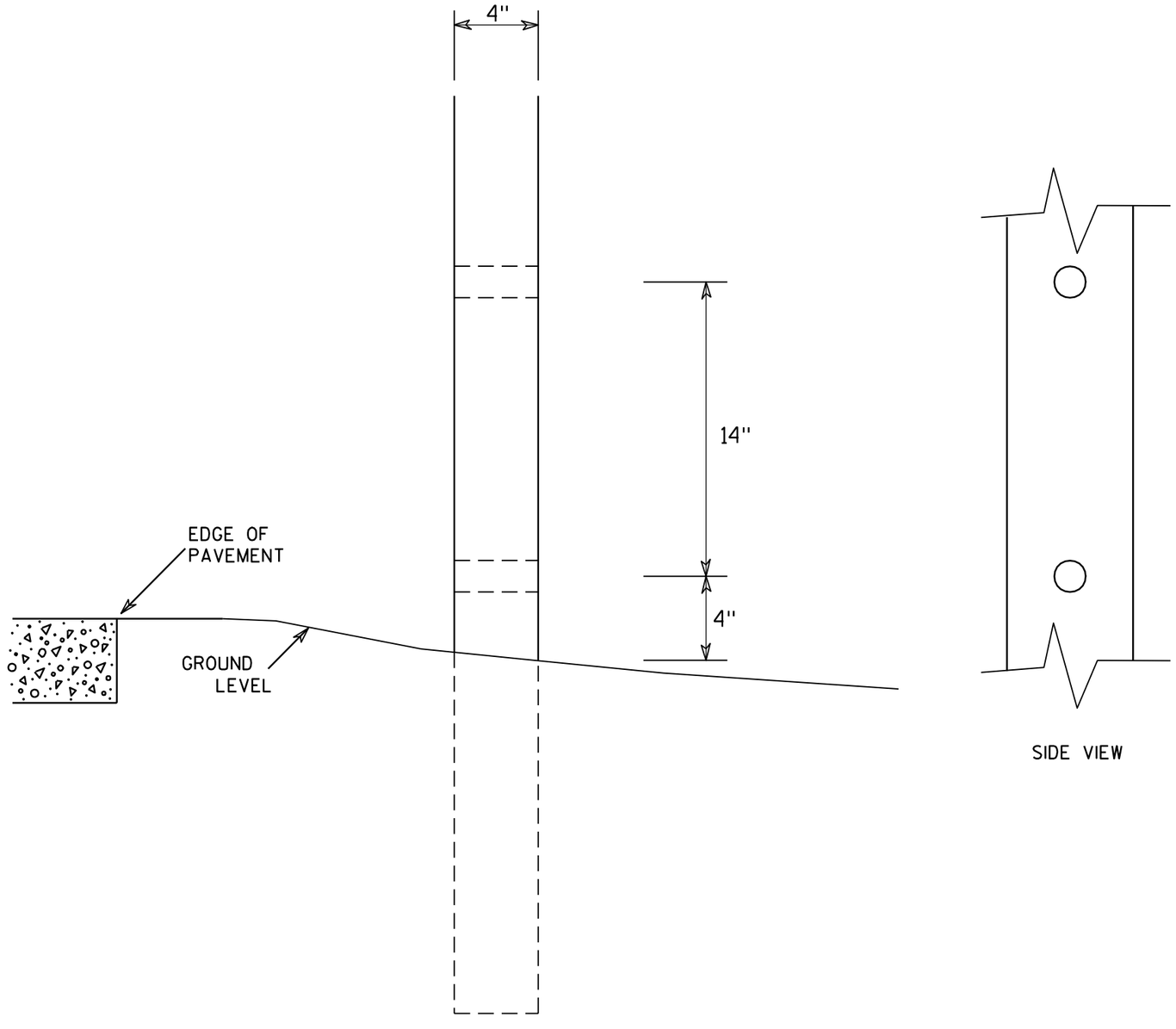
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 411 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

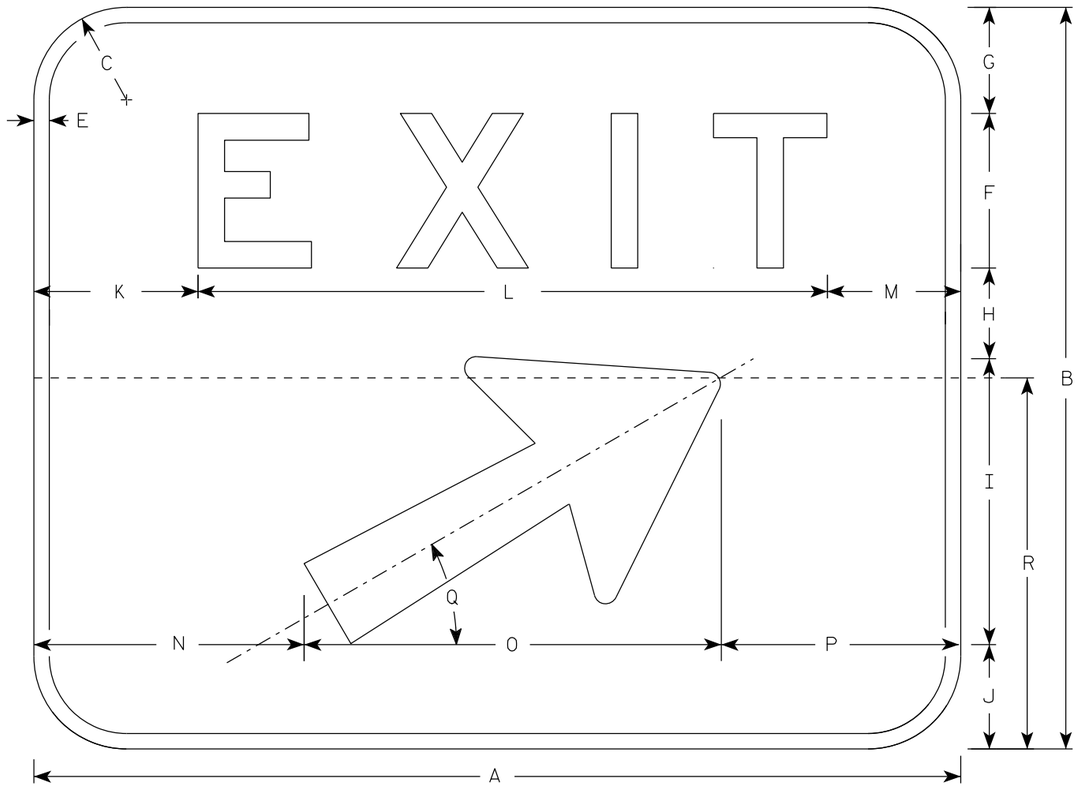
4 X 6 WOOD POST MODIFICATIONS

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: 412	E



E5-1

NOTES

1. Sign is Type II - Type H reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E
4. Sign shall be split into two seperate pieces as shown on the detail by the dashed line (----------) for sizes 4 & 5.
5. Arrow is Type "A" from sign plate A1-1.
6. As per the Standard Spec's, this sign shall not have a vertical joint.
7. Size 3 E5-1 shall only be used in a Work Zone application with a Temporary Sign Support

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	48	48	6		1	10	6 7/8	5 7/8	18 1/2	6 3/4	8 1/2	31 1/8	8 3/8	11 1/2	27	9 1/2	30°	30									16.0
4	60	48	6		1	10	6 7/8	5 7/8	18 1/2	6 3/4	10 5/8	40 3/4	8 5/8	17 1/2	27	15 1/2	30°	30									20.0
5	72	60	6		1	12	9 3/4	10	18 1/2	9 3/4	13 1/4	48 1/2	10 1/4	23 1/2	27	21 1/2	30°	30									30.0

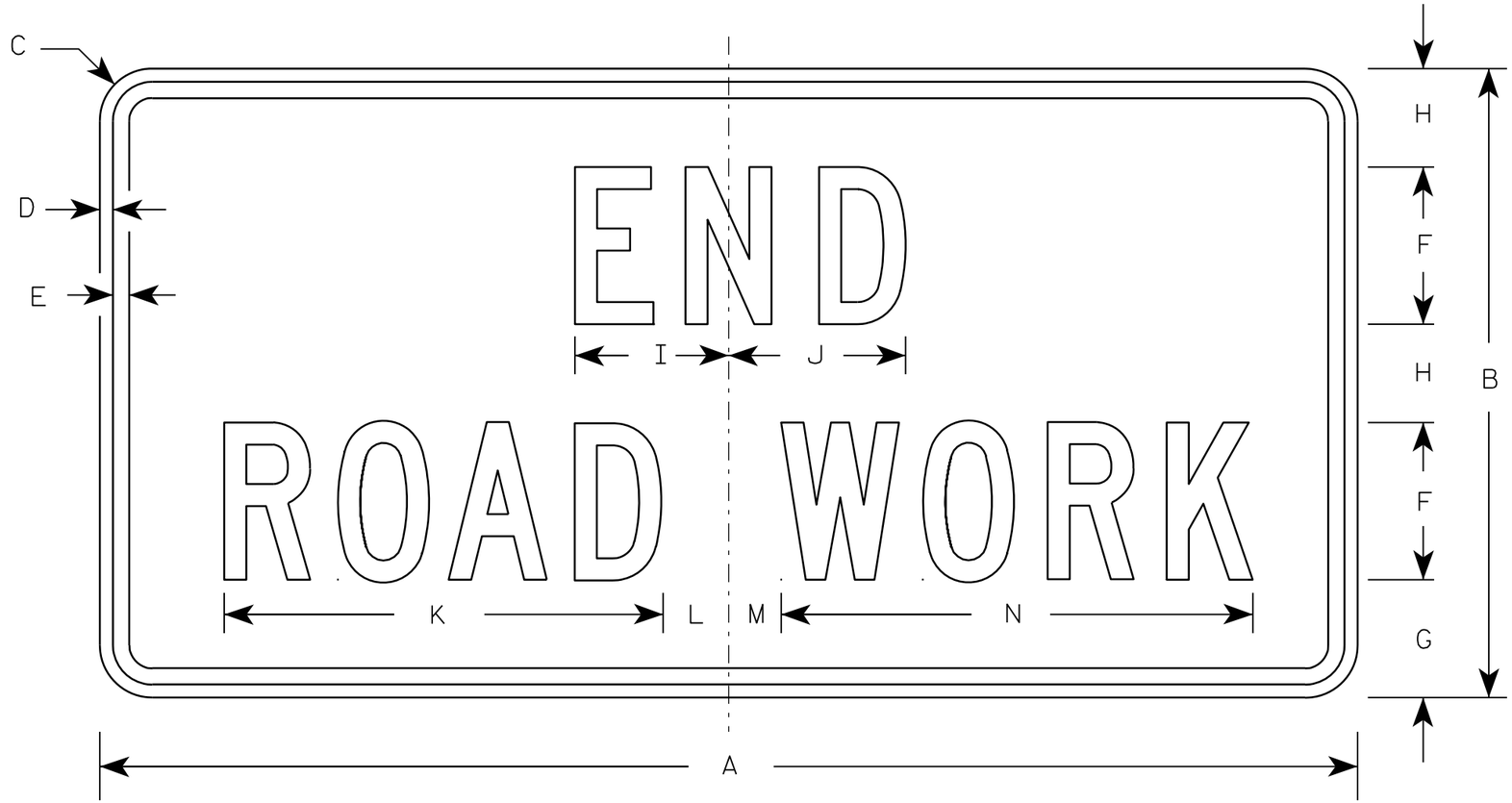
STANDARD SIGN
E5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2022 PLATE NO. E5-1.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 413 | E



G20-2A

NOTES

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

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 414	E

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - E
4. Material shall be .040 aluminmum

G20-60

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																											
4	108	24				12	6	14 7/8	78 1/4																		18.0
5																											

STANDARD SIGN
G20-60

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/15 PLATE NO G20-60.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\G2060.DGN PLOT DATE : 13-MAY-2015 08:46 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 20.431338:1.000000
WISDOT/CADDS SHEET 42

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Material shall be .040 aluminmum

G20-62

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																											
4	48	24				10	7	3 ½	40 ⅞																		8.0
5																											

STANDARD SIGN
G20-62

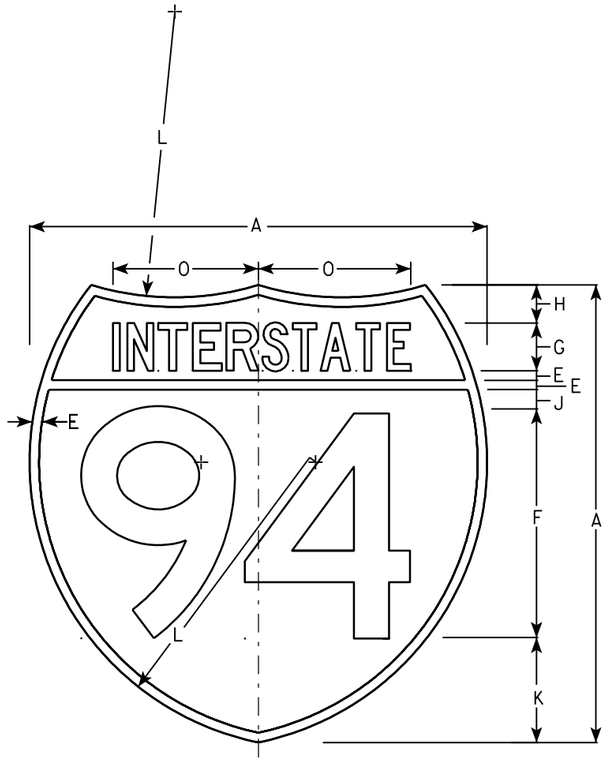
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

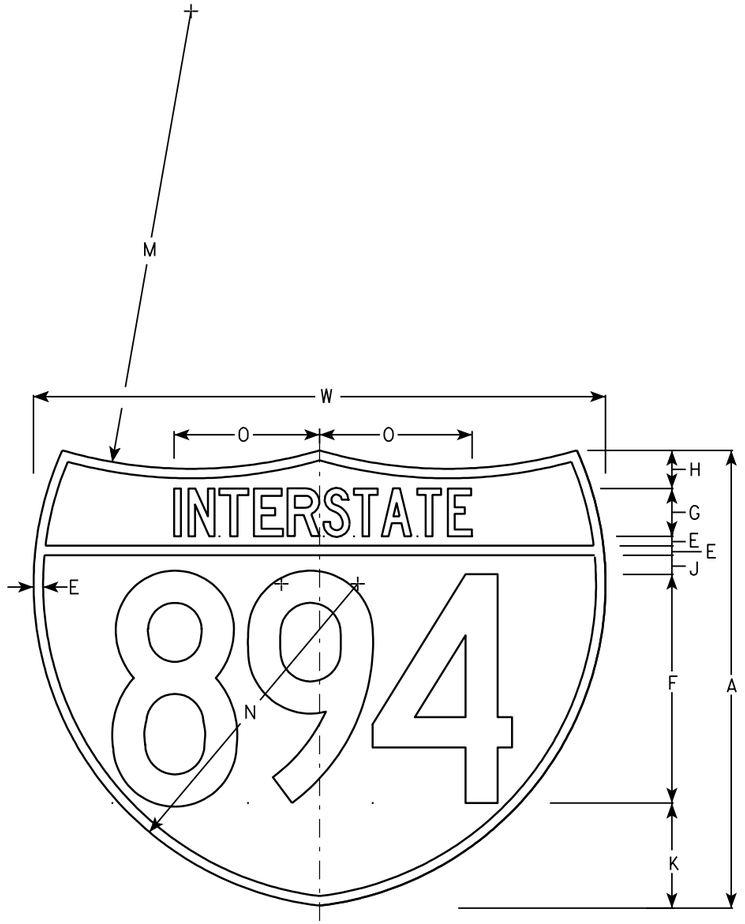
DATE 9/24/15 PLATE NO G20-62.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\G2062.DGN PLOT DATE : 01-DEC-2015 17:53 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 20.431338:1.000000



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

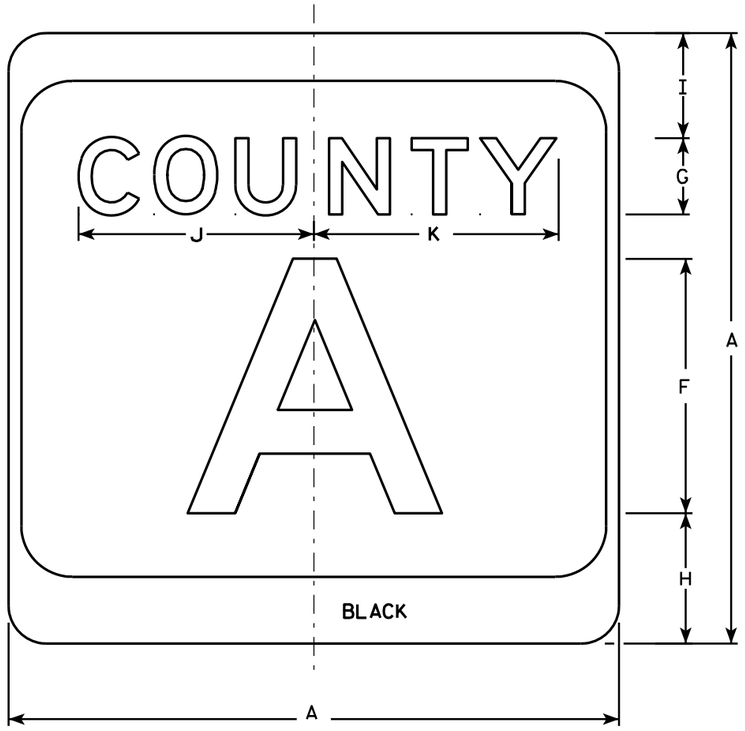
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

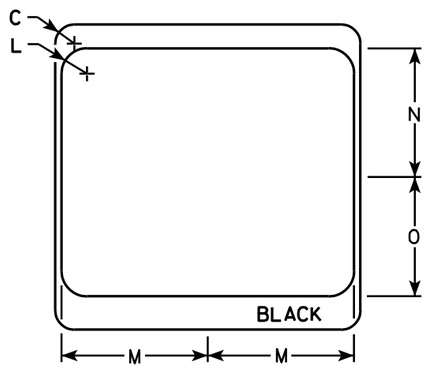
APPROVED Matthew R Rauch
for State Traffic Engineer

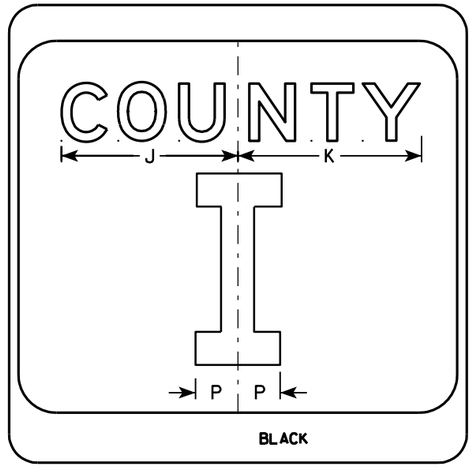
DATE 08/23/05 PLATE NO. M1-1.8

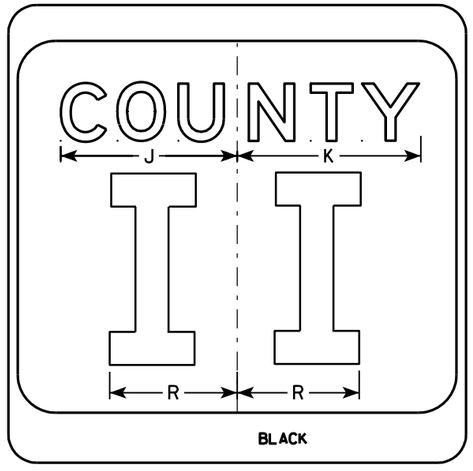
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 417	E



M1-5A







NOTES

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

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

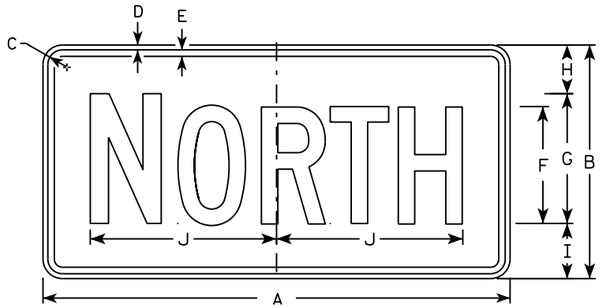
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

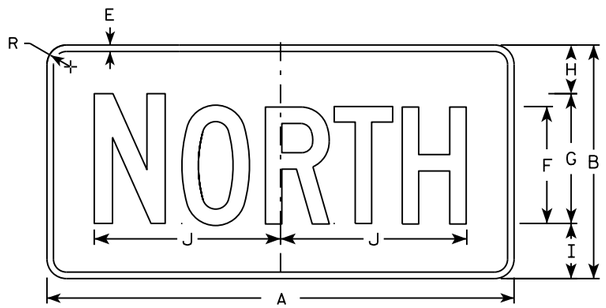
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 418	E



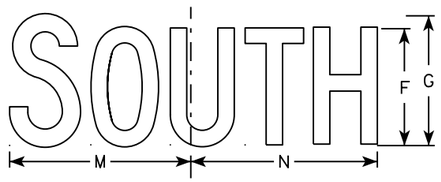
M3-1
MM3-1
MP3-1



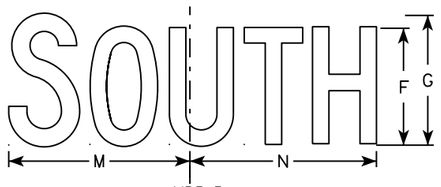
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

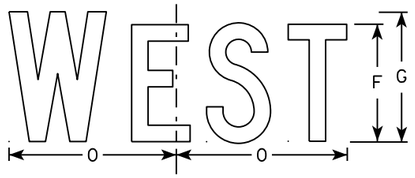
MB3-2
MK3-2
MN3-2



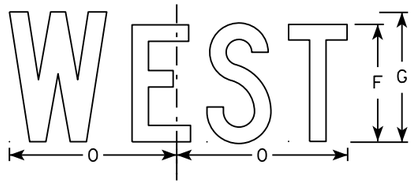
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

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

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

STANDARD SIGNS
M3-1 thur M3-4
SERIES

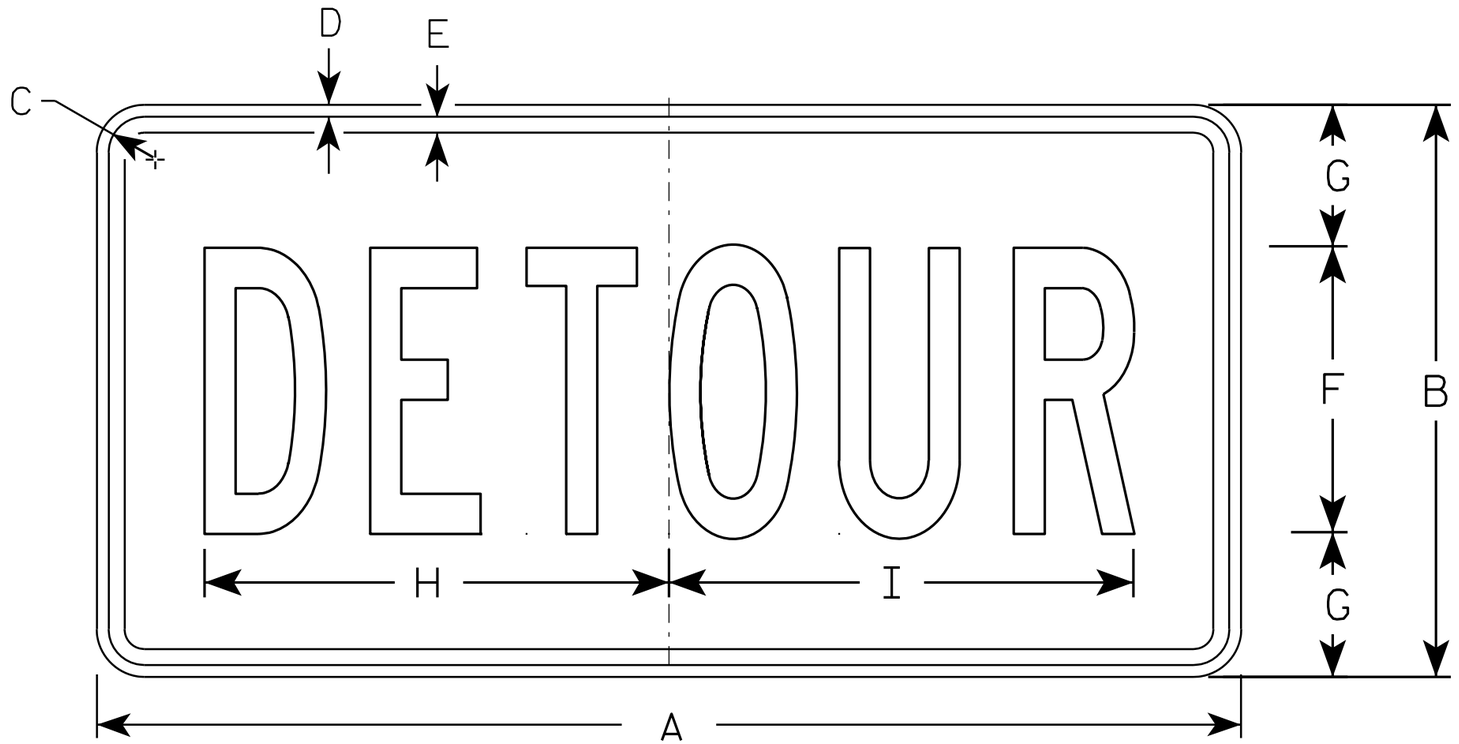
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-8

NOTES

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

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

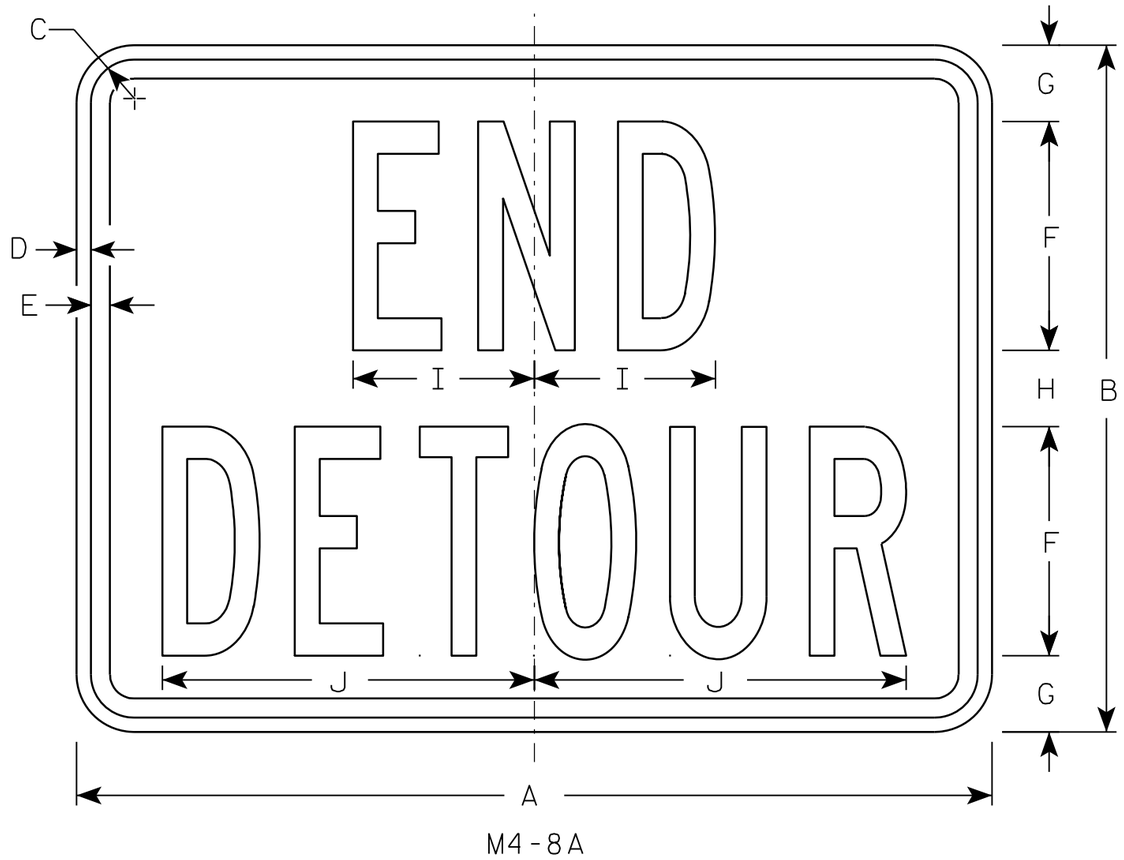
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 420	E



M4-8A

NOTES

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

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

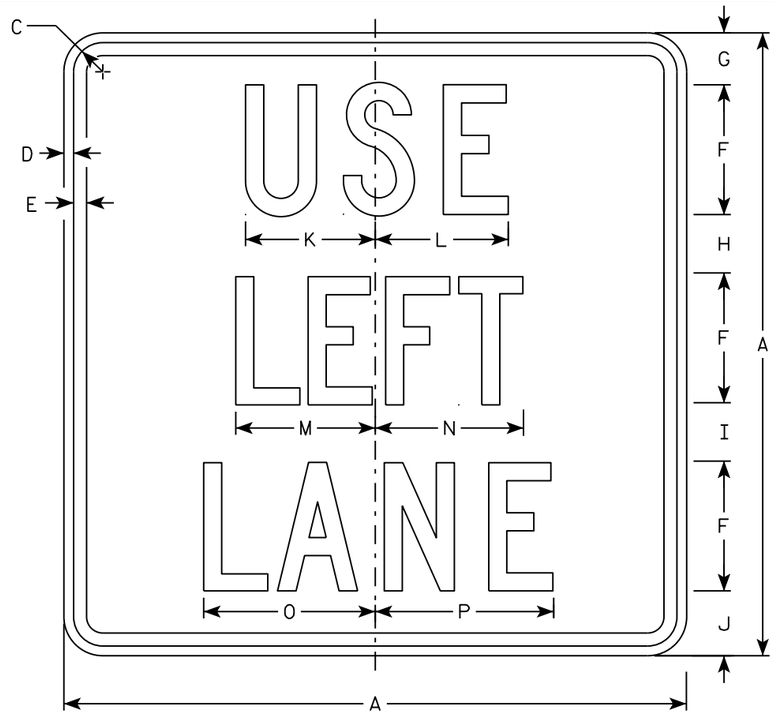
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

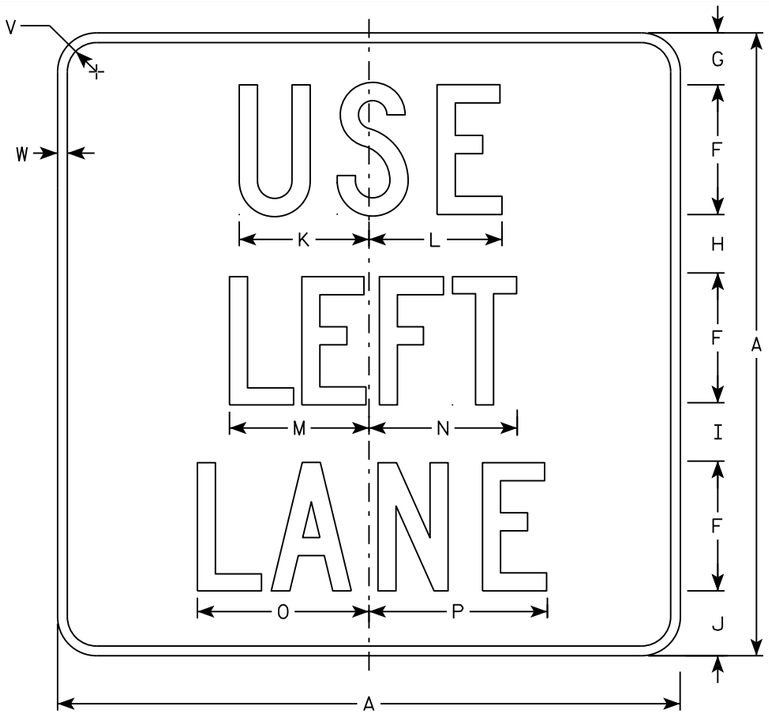
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 421	E



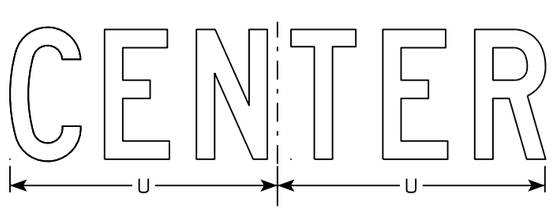
M4-20L



MB4-20L

M4-20L
MM4-20L
M04-20L
MP4-20L

MB4-20L
MK4-20L
MN4-20L
MR4-20L



M4-20C
MB4-20C
MK4-20C
MM4-20C
MN4-20C
M04-20C
MP4-20C
MR4-20C

M4-20R
MB4-20R
MK4-20R
MM4-20R
MN4-20R
M04-20R
MP4-20R
MR4-20R

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-20 Background - White
   Message - Black
   MB4-20 Background - Blue
   Message - White
   MK4-20 Background - Green
   Message - White
   MM4-20 Background - White
   Message - Green
   MN4-20 Background - Brown
   Message - White
   M04-20 Background - Orange - Type F Reflective
   Message - Black
   MP4-20 Background - White
   Message - Blue
   MR4-20 Background - Brown
   Message - Yellow

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 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	5 3/8	5 3/4	6 5/8	6 7/8			7	7 5/8	10 1/4	1 1/2	1/2				4.0
3	36		1 5/8	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8	1 7/8	1/2				9.0
4																											
5																											

STANDARD SIGN
M4-20

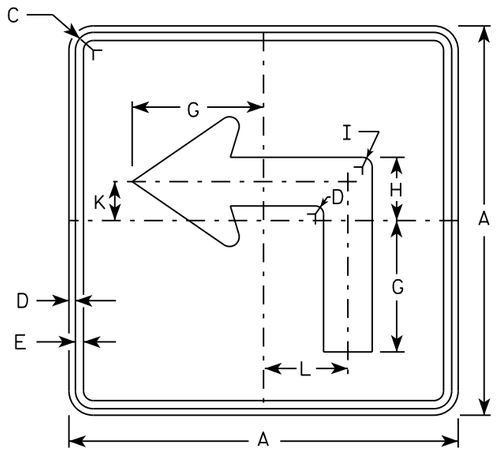
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

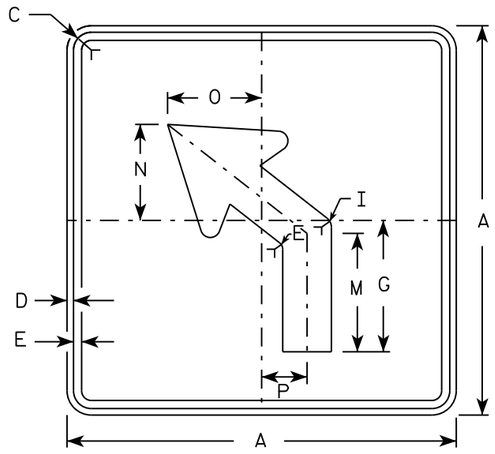
DATE 10/15/15 PLATE NO M4-20.5
422

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

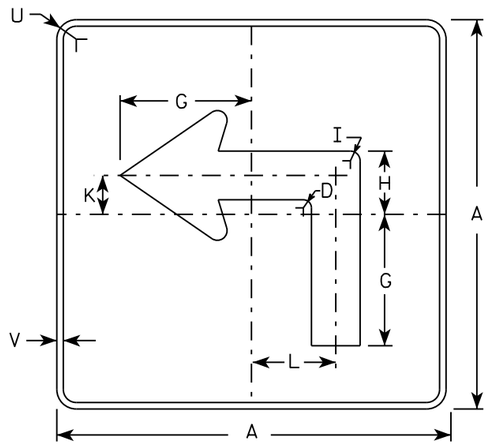
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M420.DGN PLOT DATE : 01-DEC-2015 18:03 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.837526:1.000000



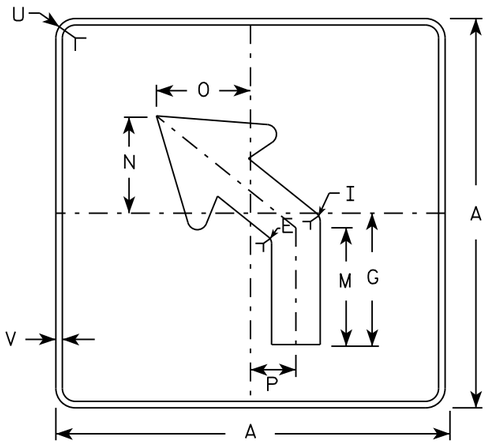
M5-1L
MM5-1L
MO5-1L
MP5-1L



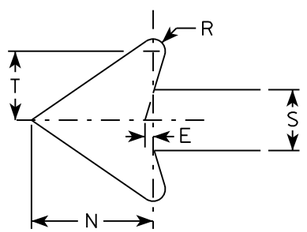
M5-2L
MM5-2L
MO5-2L
MP5-2L



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



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



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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

STANDARD SIGN
M5-1 & M5-2

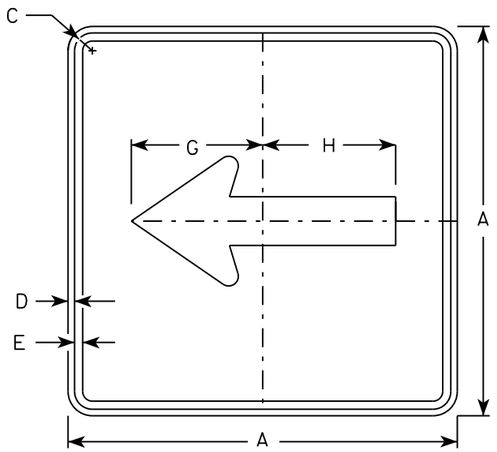
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

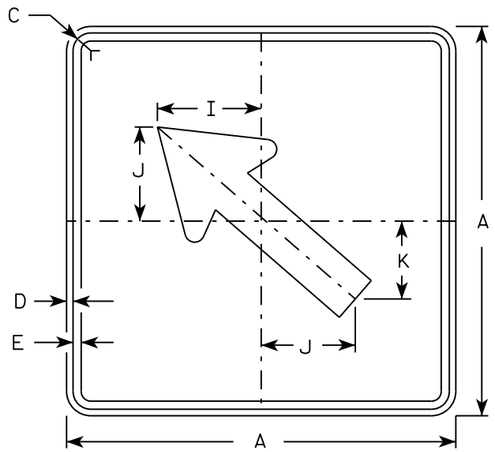
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



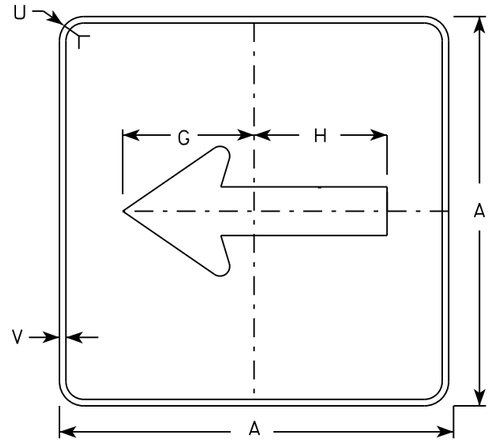
M6-1
MM6-1
MO6-1
MP6-1



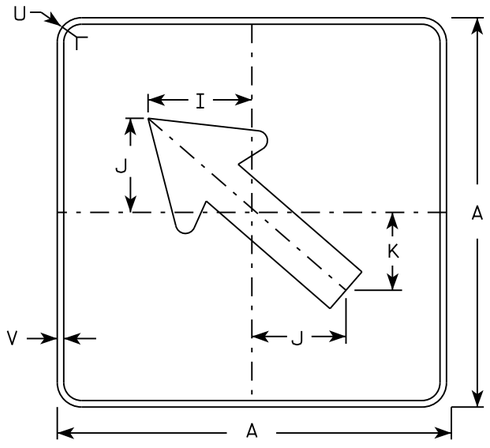
M6-2
MM6-2
MO6-2
MP6-2

NOTES

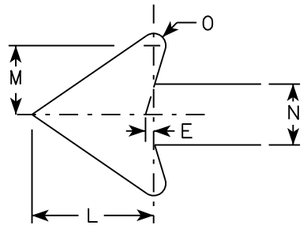
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



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



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



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

STANDARD SIGN
M6-1 & M6-2
SERIES

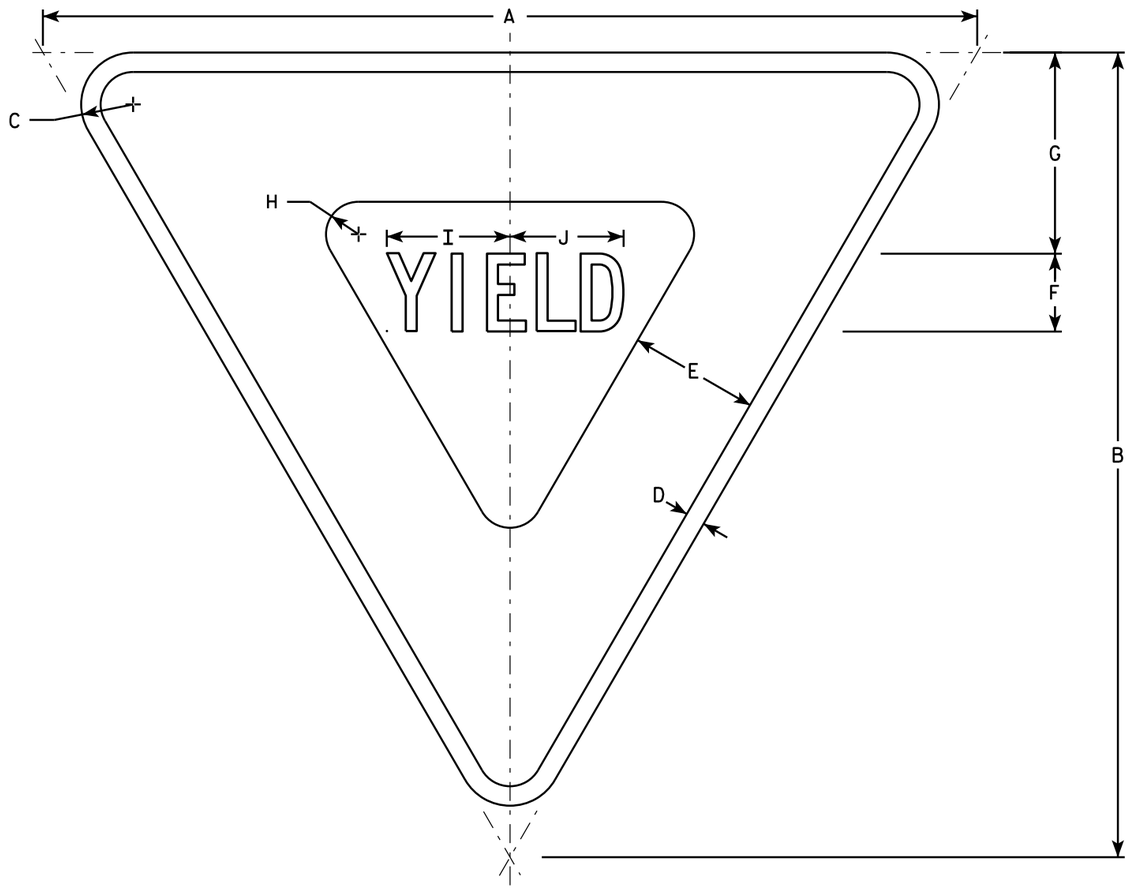
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 424 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

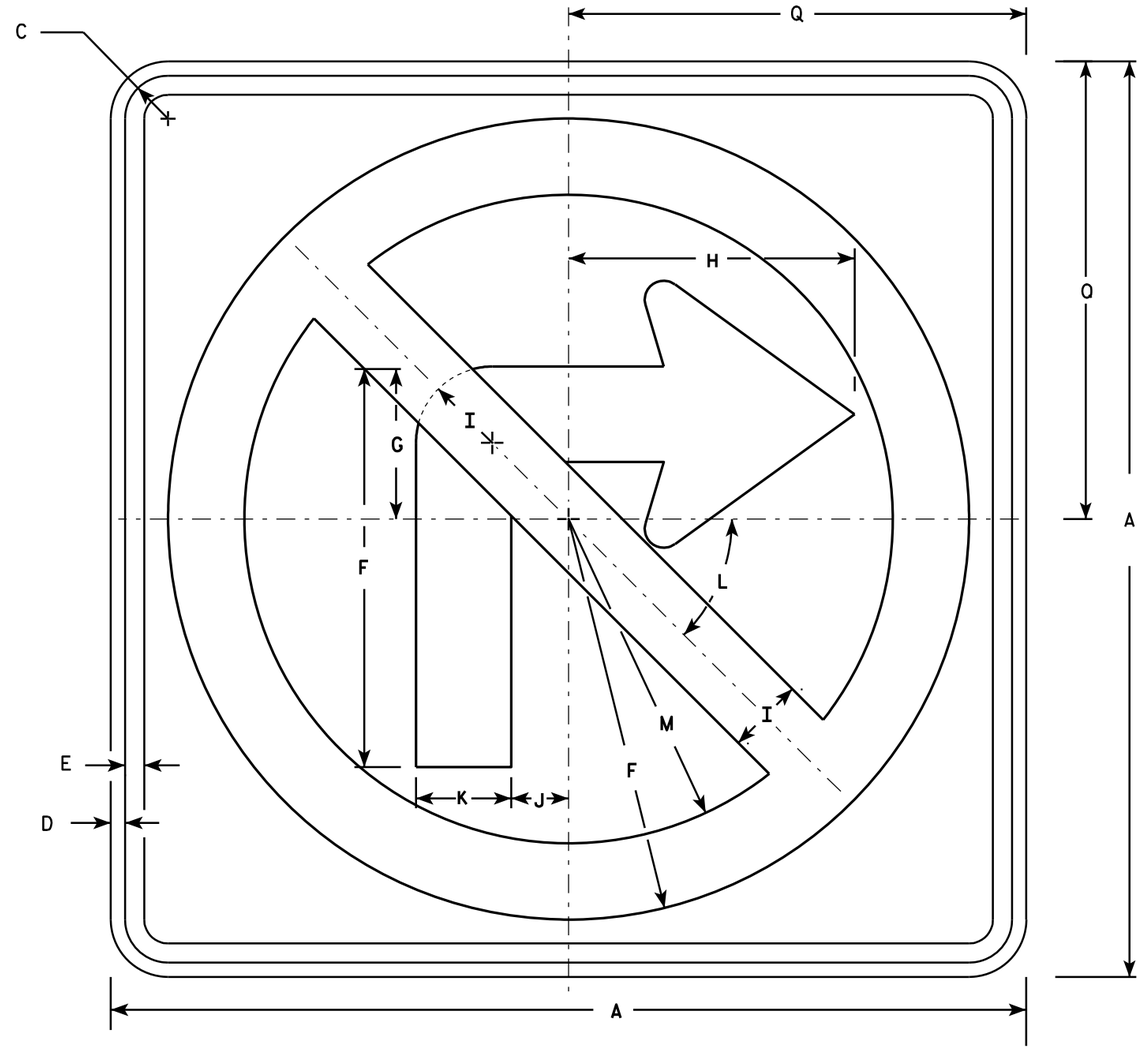
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

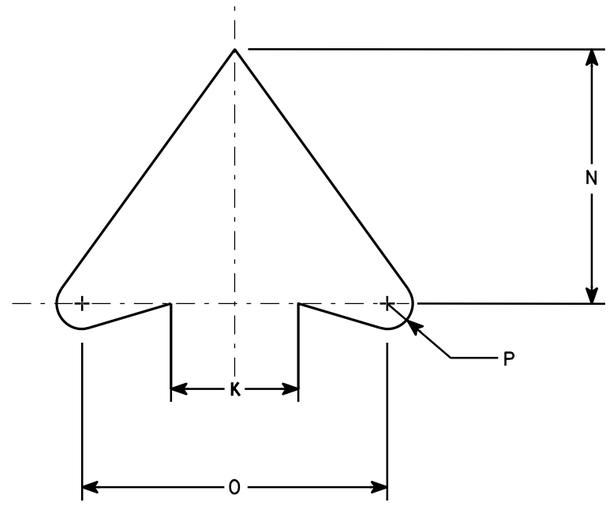
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

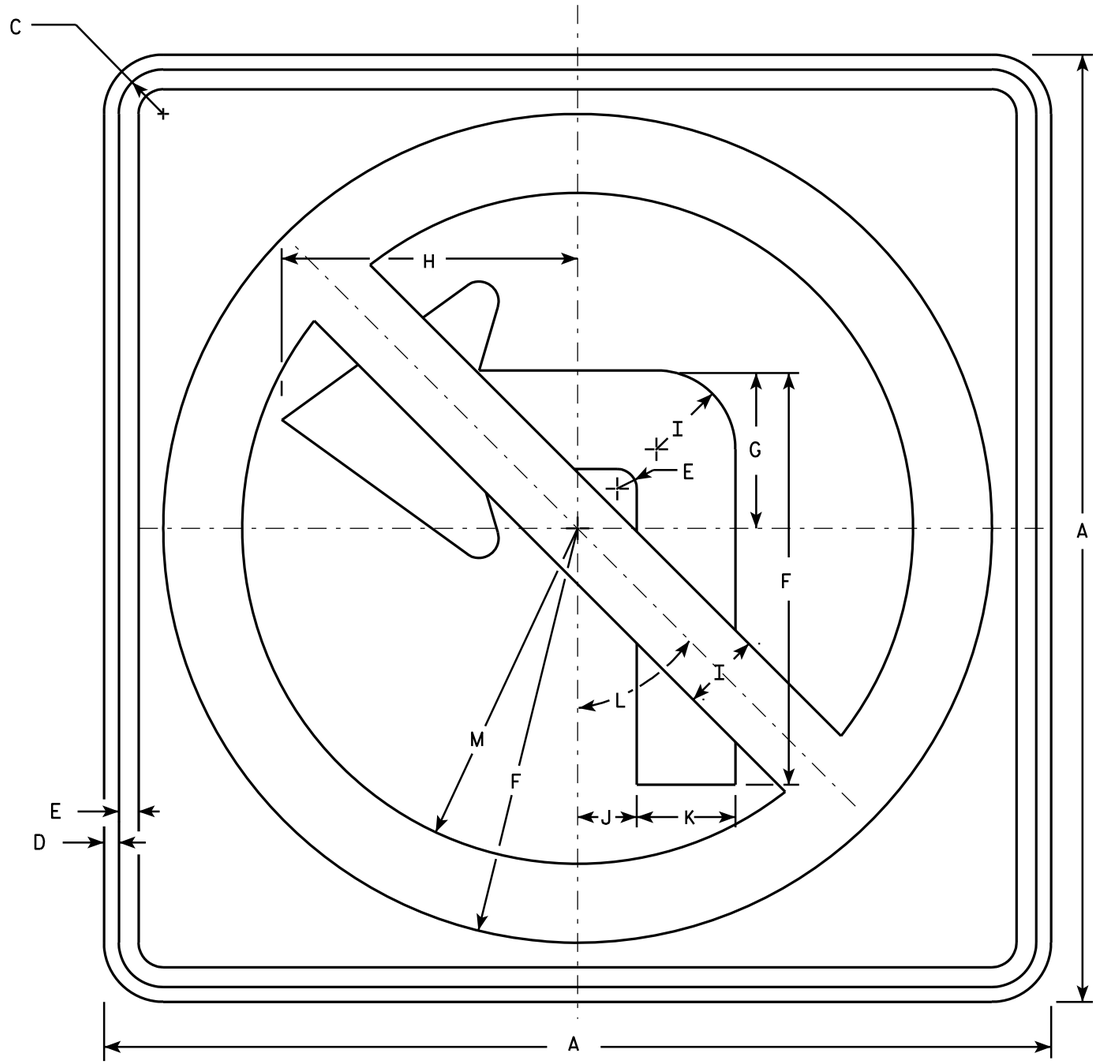
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

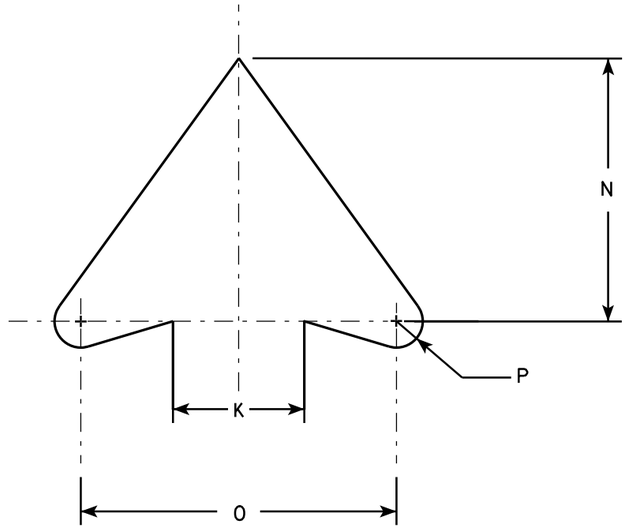
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 426	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

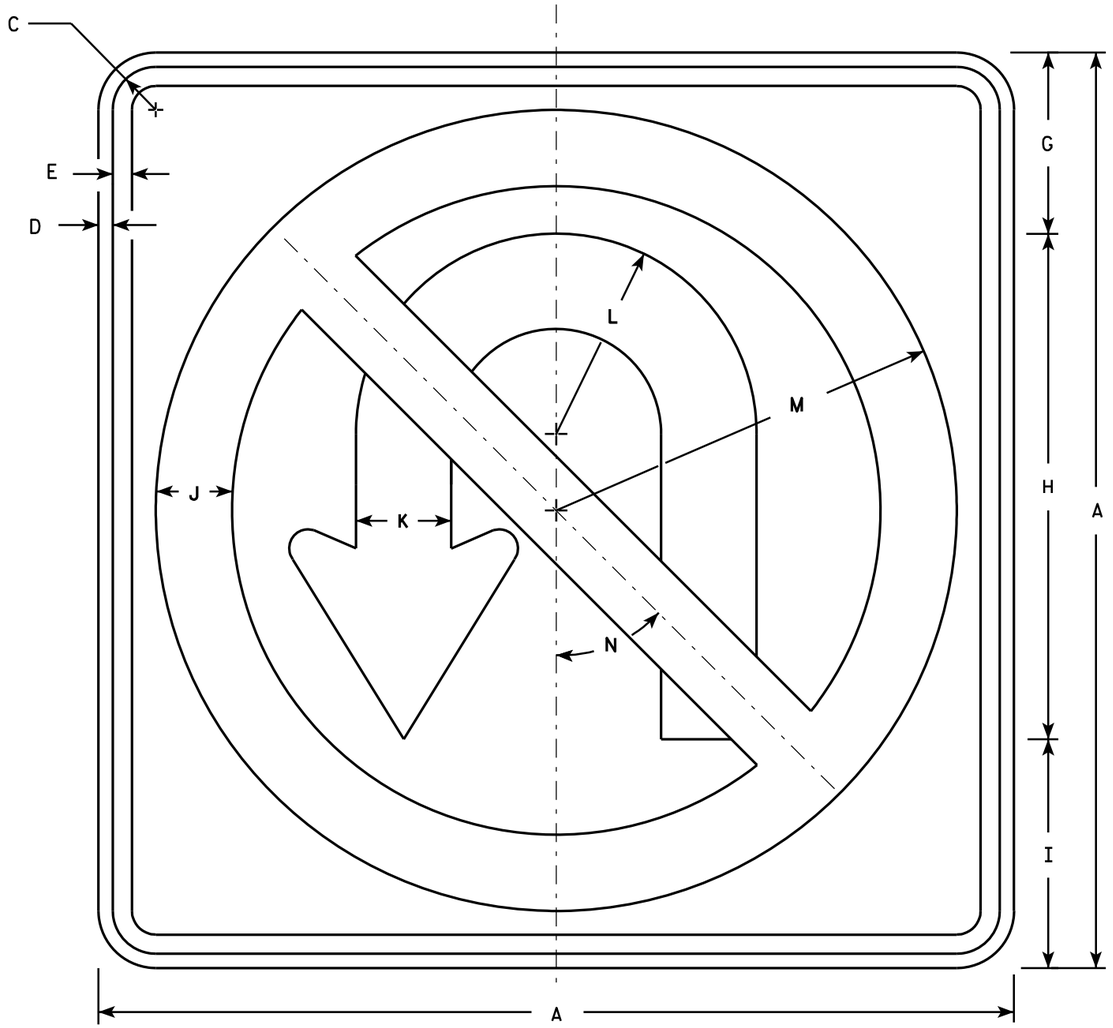
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

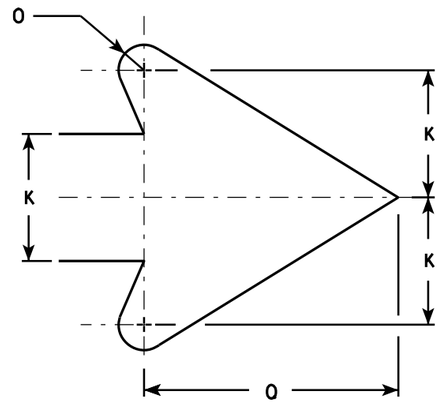
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 427	E



R3-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

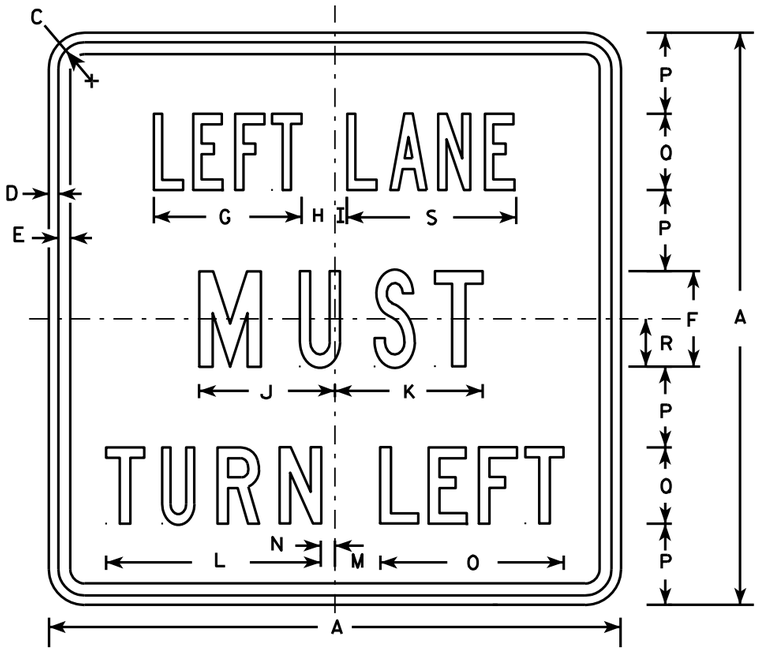
STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

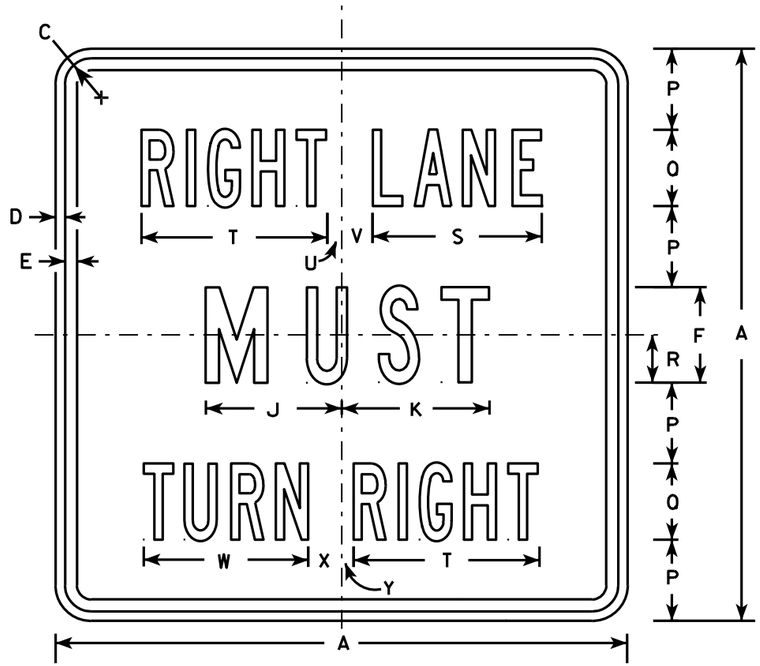
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 428	E



R3-7L



R3-7R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
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	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

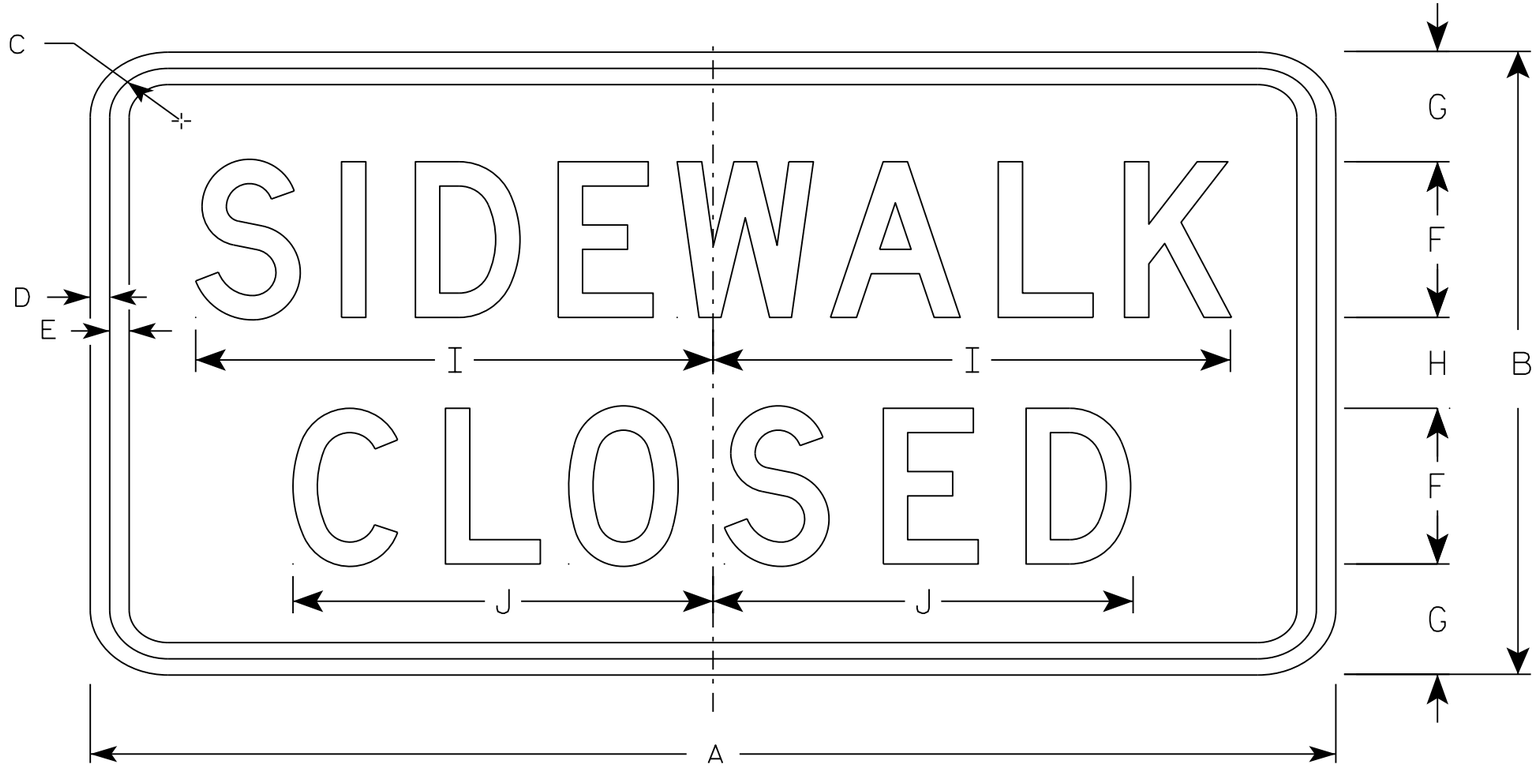
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 429 | E



R9-9

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

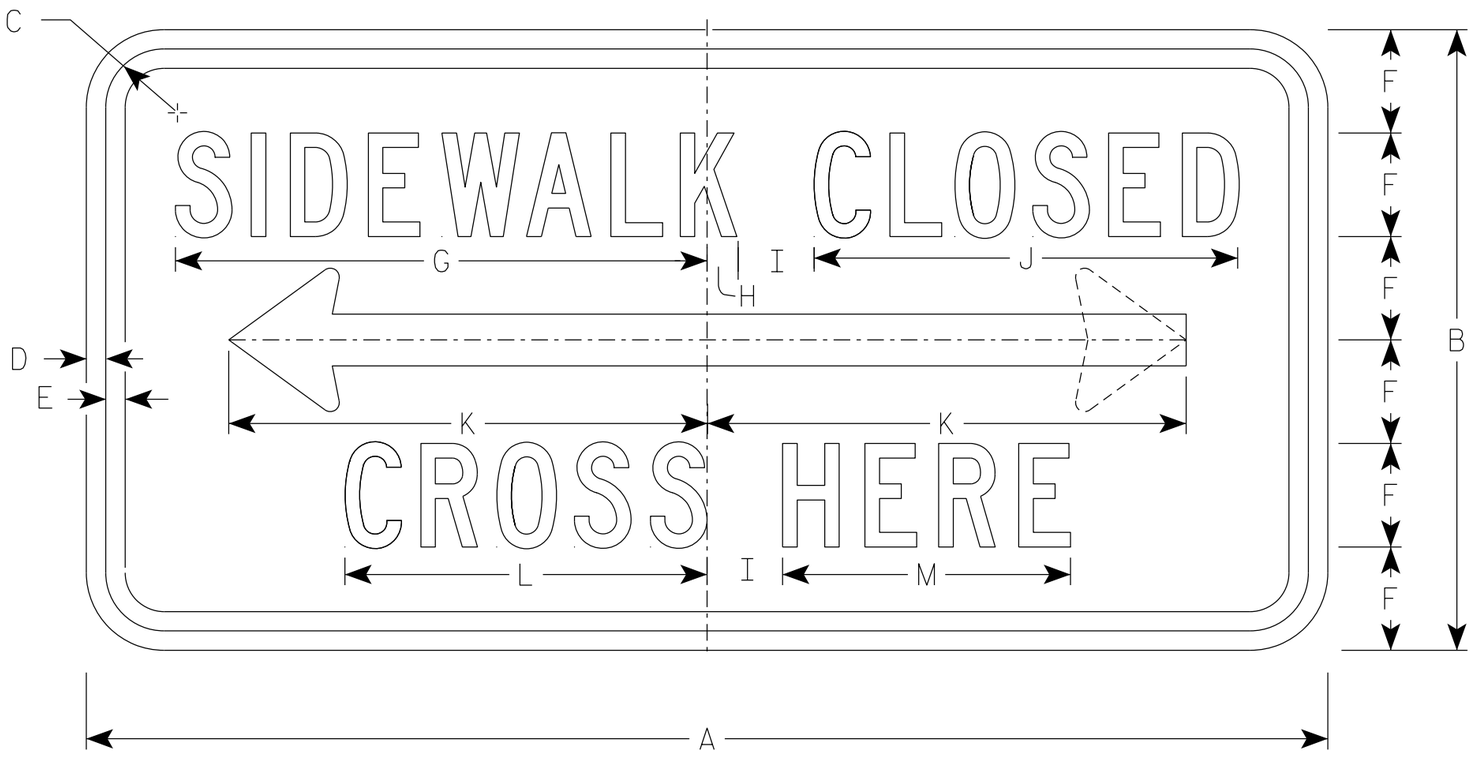
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 430 R9-9.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

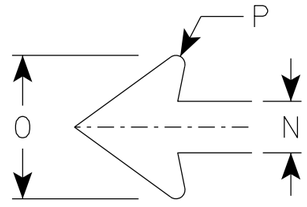
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



R9-11A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for paths and Trails.
6. R9-11AD (double arrow)
   R9-11AL (left arrow)
   R9-11AR (right arrow)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
2M	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
3	30	15	1 1/8	3/8	1/2	2 1/2	12 3/4	1/2	2	10 1/4	12 3/8	8 5/8	6 3/4	1 1/4	3 5/8	1/4											3.125
4																											
5																											

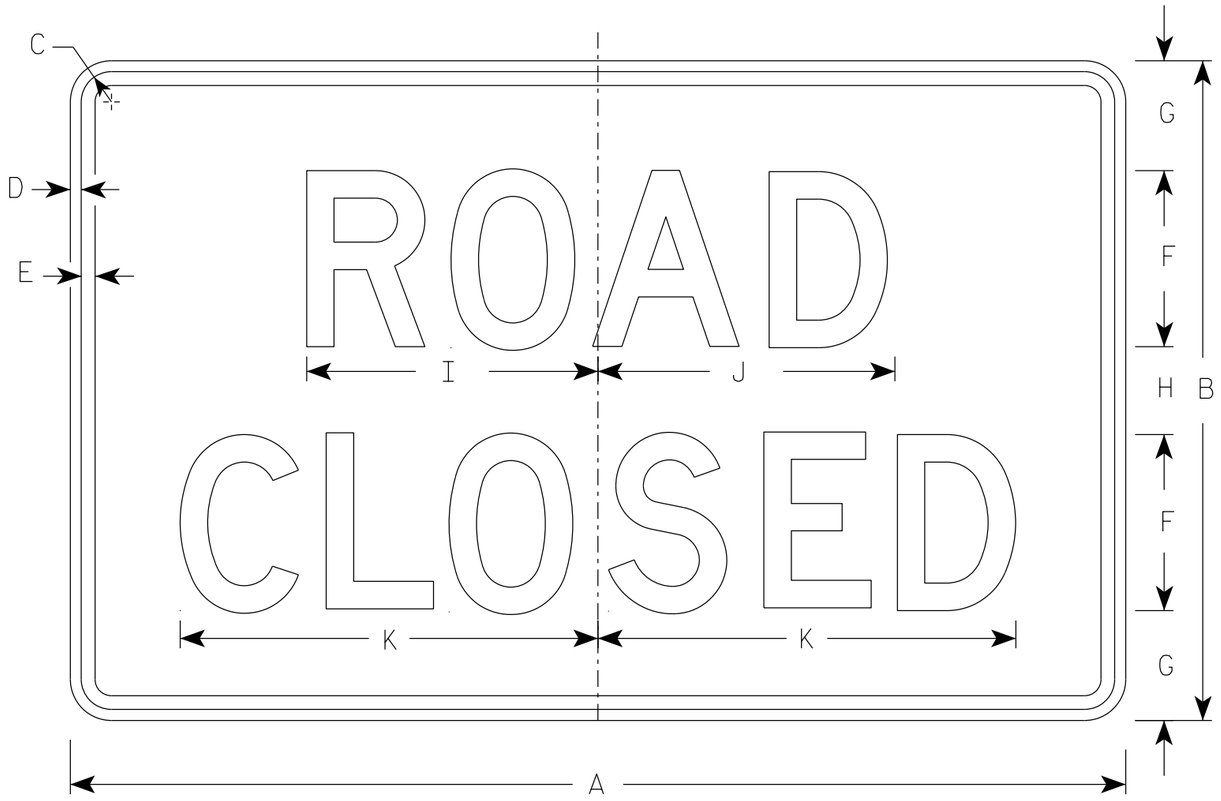
STANDARD SIGN
R9-11A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. R9-11A.5

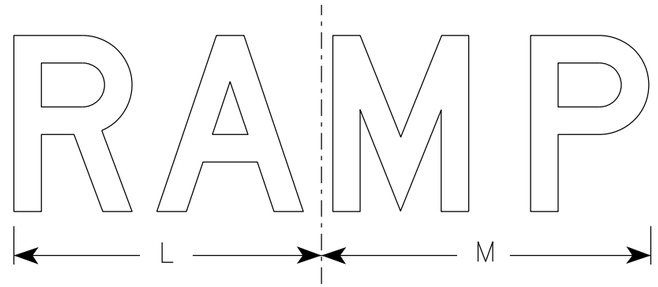
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 431 | E



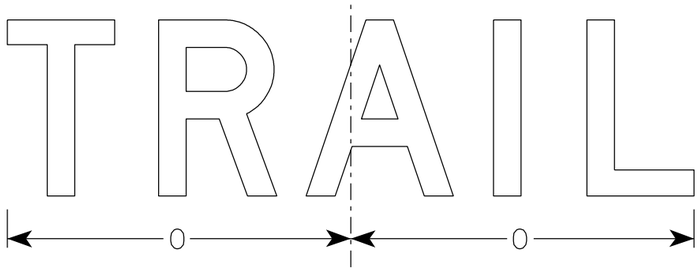
R11-2

NOTES

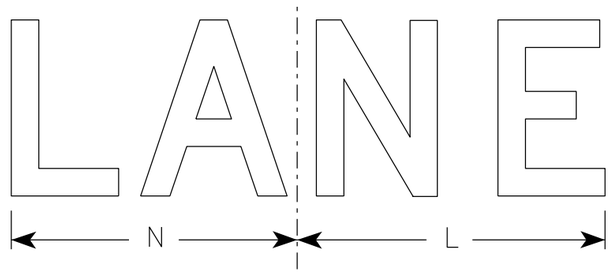
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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



R11-2R



R11-2T



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

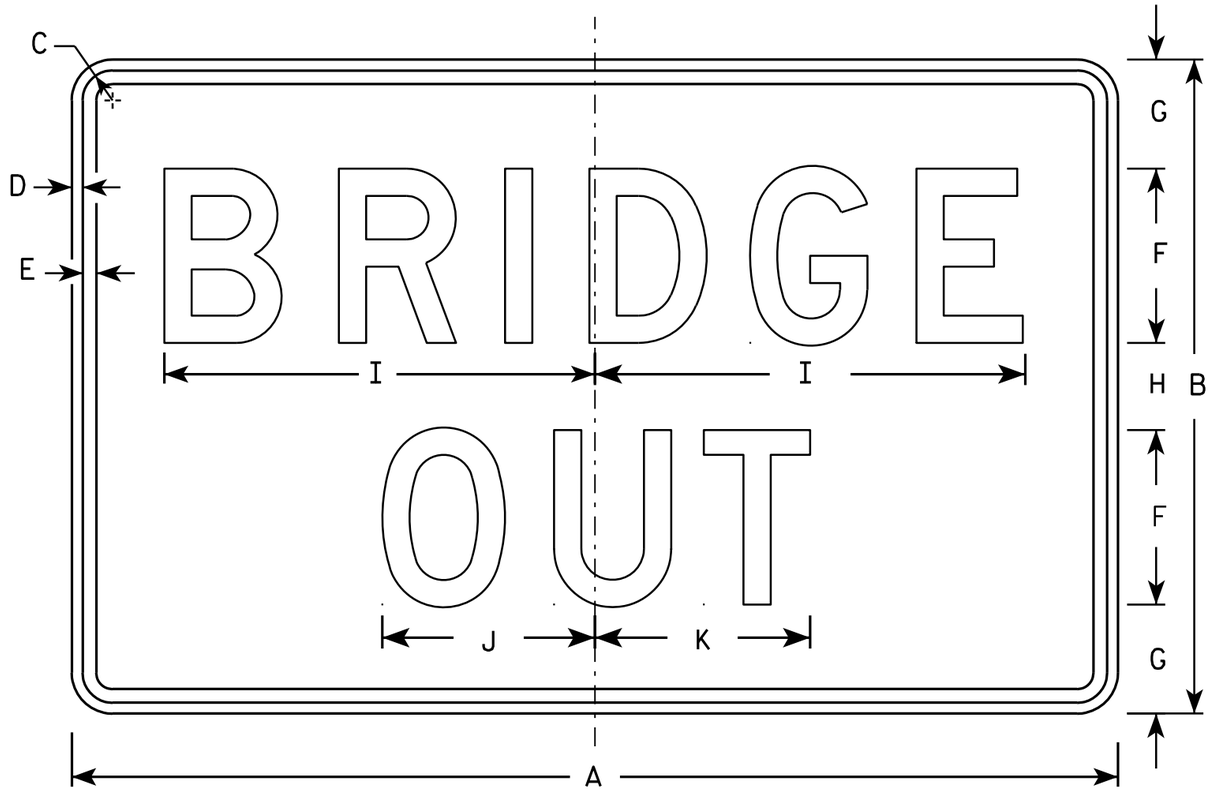
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 432 E



R11-2B

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2B.2

PROJECT NO:

SHEET NO: 433 E

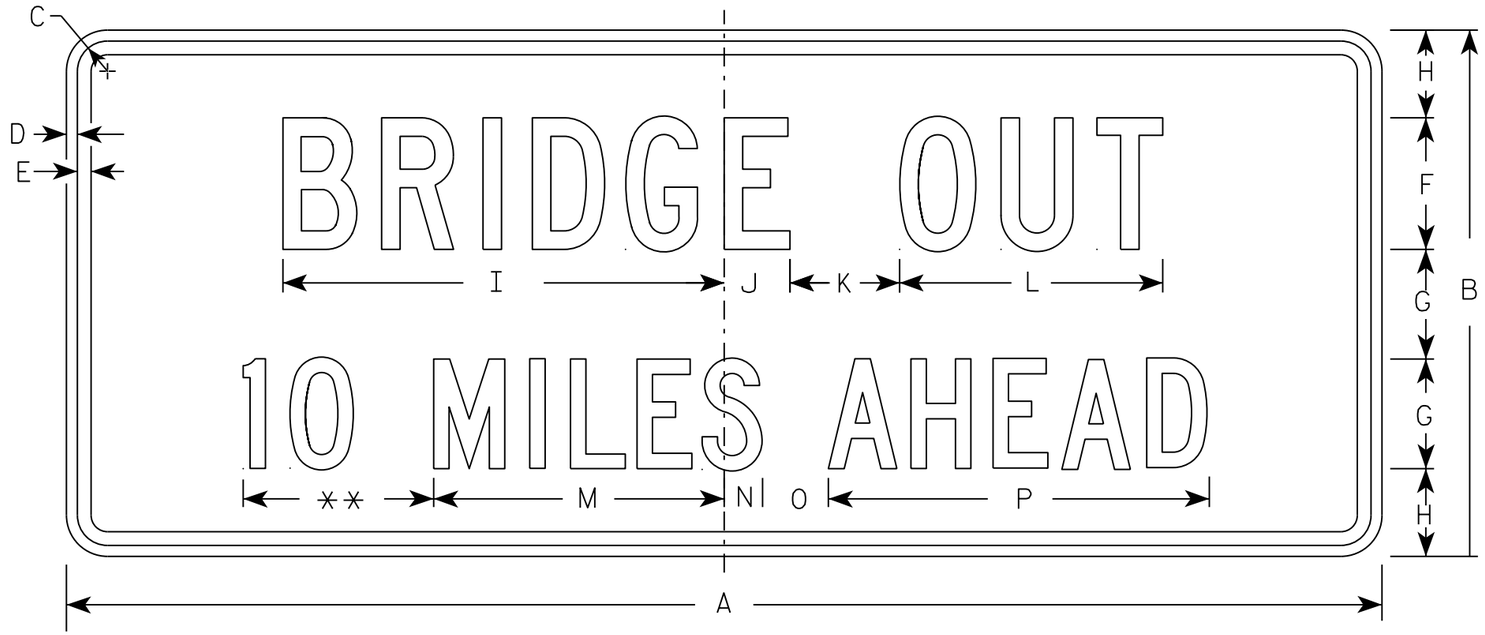
7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112B.DGN PLOT DATE : 01-APR-2011 14:23 PLOT BY : mscj9h

WISDOT/CADDS SHEET 42

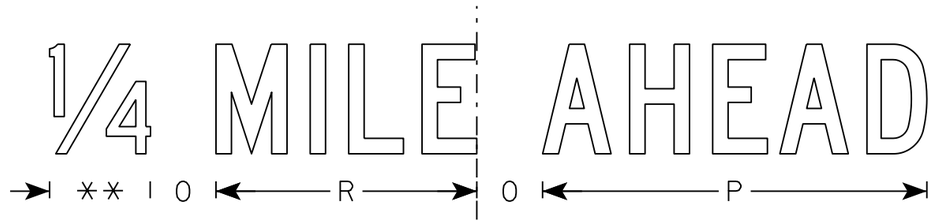
NOTES

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



R11-3C

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	15	1 3/8	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4		7 1/8									3.75
2S	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
2M	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
3																											
4																											
5																											

STANDARD SIGN
R11-3C

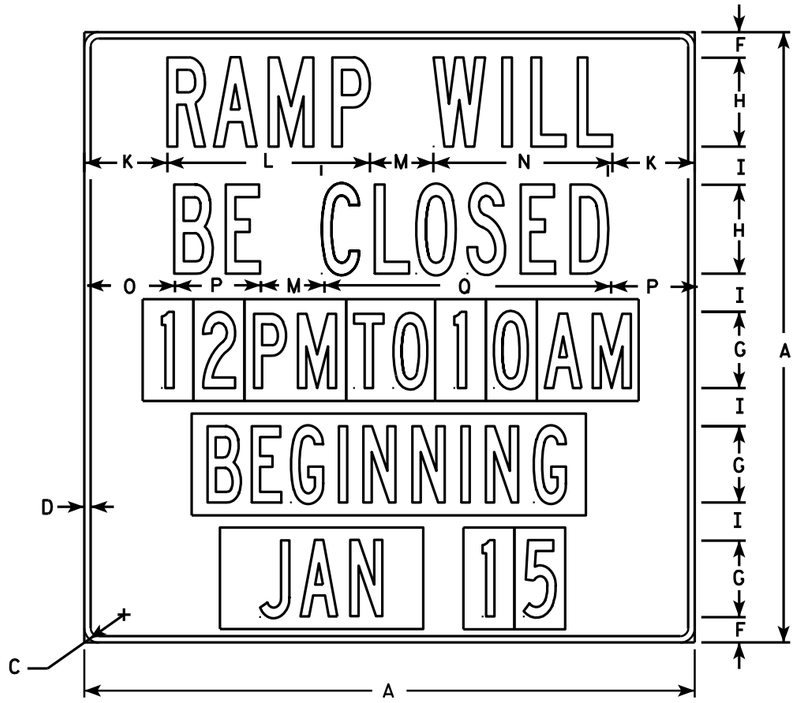
WISCONSIN DEPT OF TRANSPORTATION

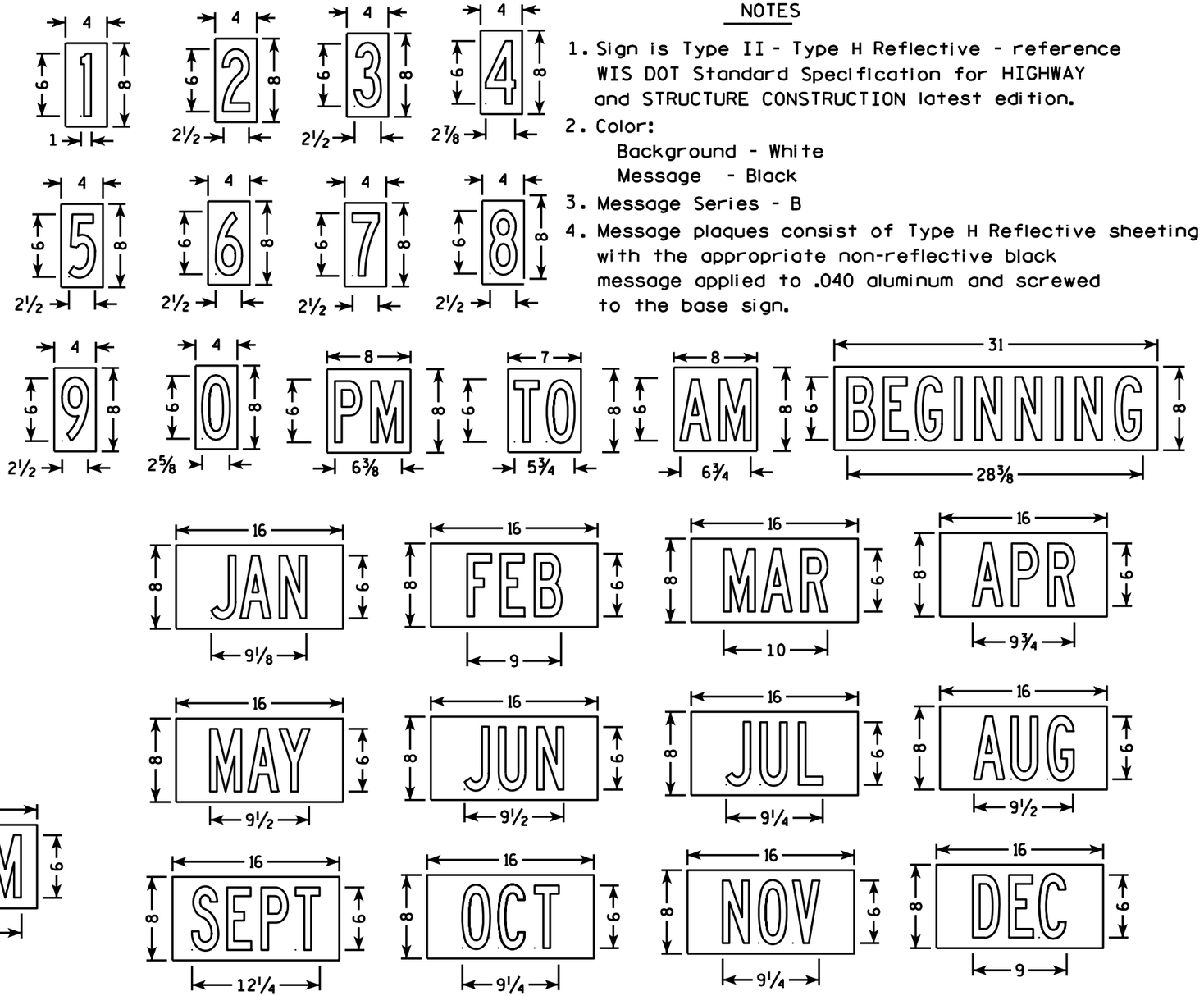
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/28/16 PLATE NO. R11-3C.3

PROJECT NO:

SHEET NO: 434 E





NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - B
4. Message plaques consist of Type H Reflective sheeting with the appropriate non-reflective black message applied to .040 aluminum and screwed to the base sign.

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		2 1/4	1/2		2	6	7	3		6 1/2	15 7/8	5	14 1/8	6 7/8	6 3/4	22 1/2										16.0
2M	48		2 1/4	1/2		2	6	7	3		6 1/2	15 7/8	5	14 1/8	6 7/8	6 3/4	22 1/2										16.0
3																											
4																											
5																											

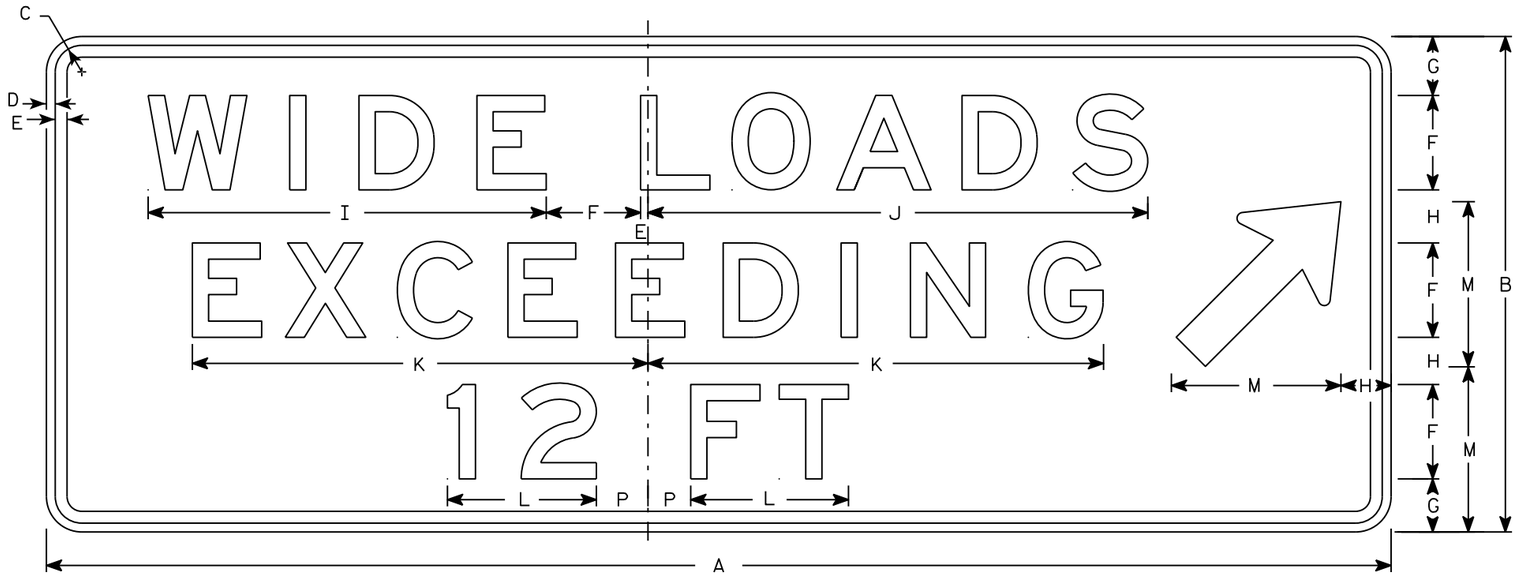
STANDARD SIGN
R11-51

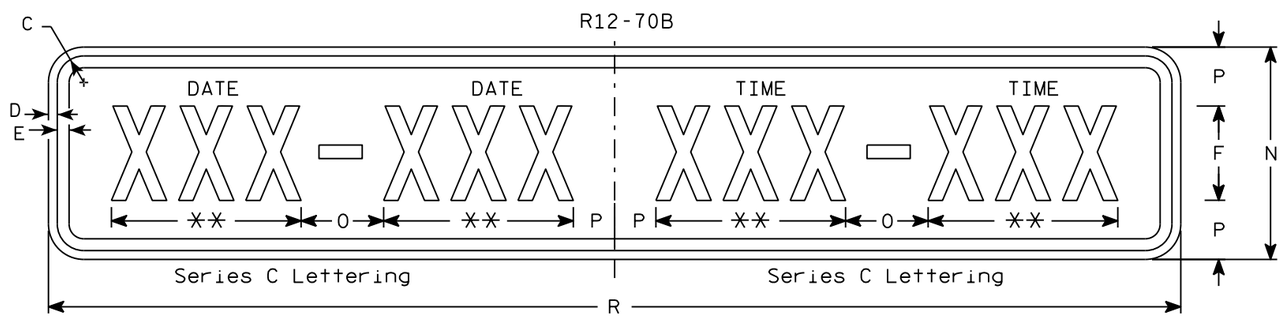
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-51.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 435	E





R12-70C

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	R12-70 Area sq. ft.	R12-70C Area sq. ft.
1																												
2S	90	36	2 1/4	1/2	5/8	6	4	5	20 7/8	28 3/8	24 5/8	8 1/8	12	12	6	3		66									22.5	5.5
2M	90	36	2 1/4	1/2	5/8	6	4	5	20 7/8	28 3/8	24 5/8	8 1/8	12	12	6	3		66									22.5	5.5
3																												
4	114	42	2 1/4	3/4	1	8	5	4	34	42	39	13	14	18	7	3 1/2		96									36.75	12.0
5	114	42	2 1/4	3/4	1	8	5	4	34	42	39	13	14	18	7	3 1/2		96									36.75	12.0

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E except as noted
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.

** Substitute appropriate message, optically center message

TYPICAL SIGN
R12-70B

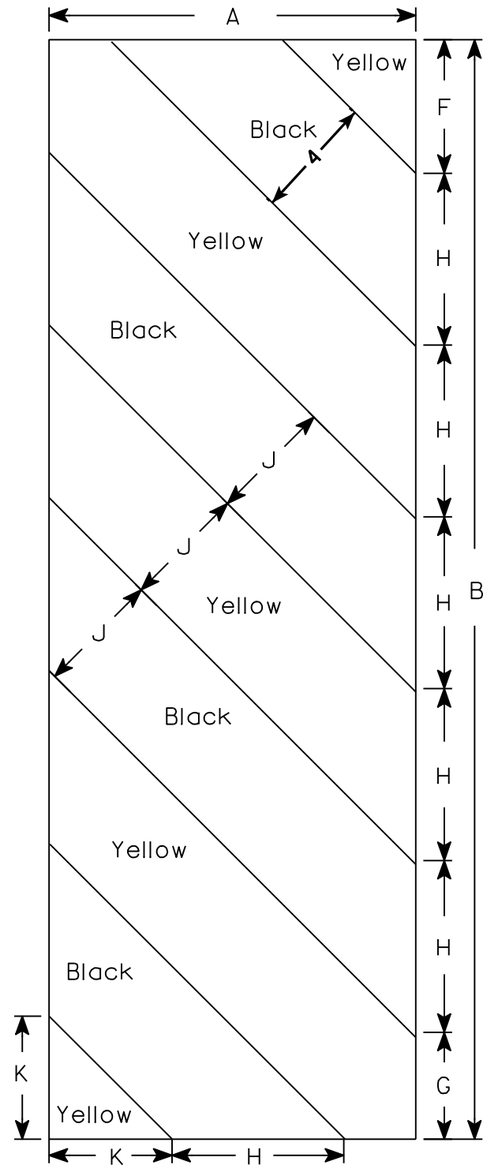
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

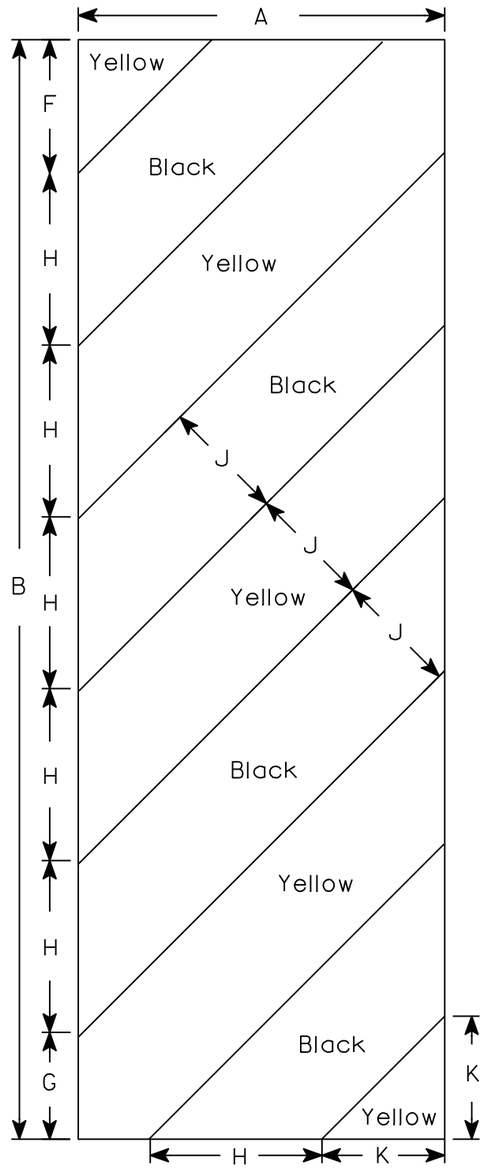
DATE 11/10/15 PLATE NO R12-70B.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R1270B.DGN PLOT DATE : 01-DEC-2015 18:10 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 12.842555:1.000000



W5-52L



W5-52R

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. Alternate colors of stripes as shown.

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	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

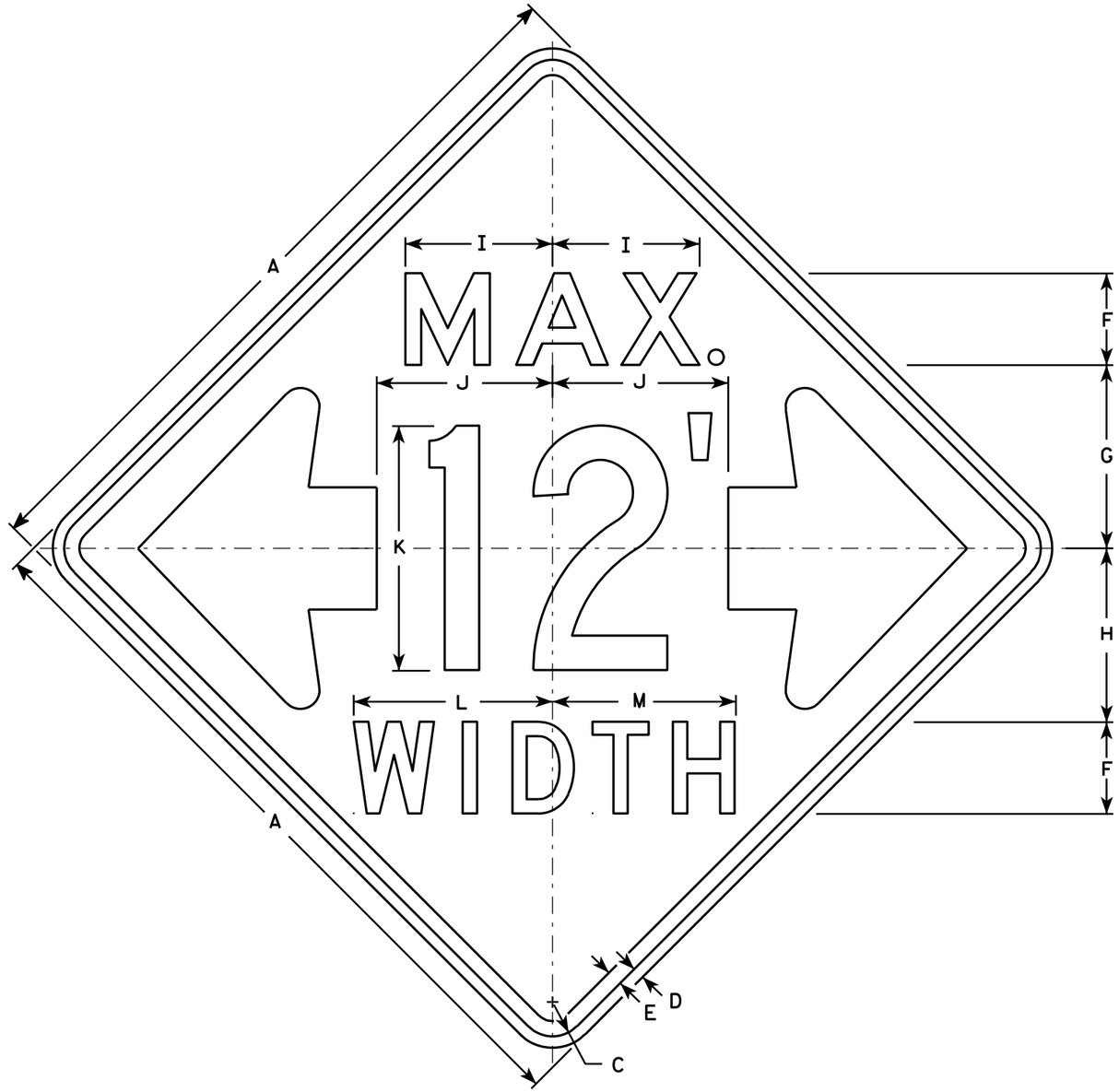
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 437	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W552.DGN PLOT DATE : 29-MAY-2012 13:03 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.961899:1.000000

WISDOT/CADDS SHEET 42

7

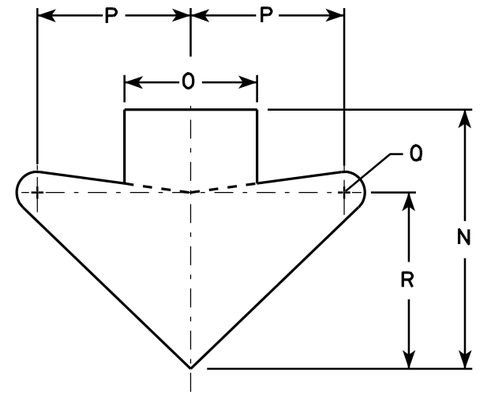
7



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

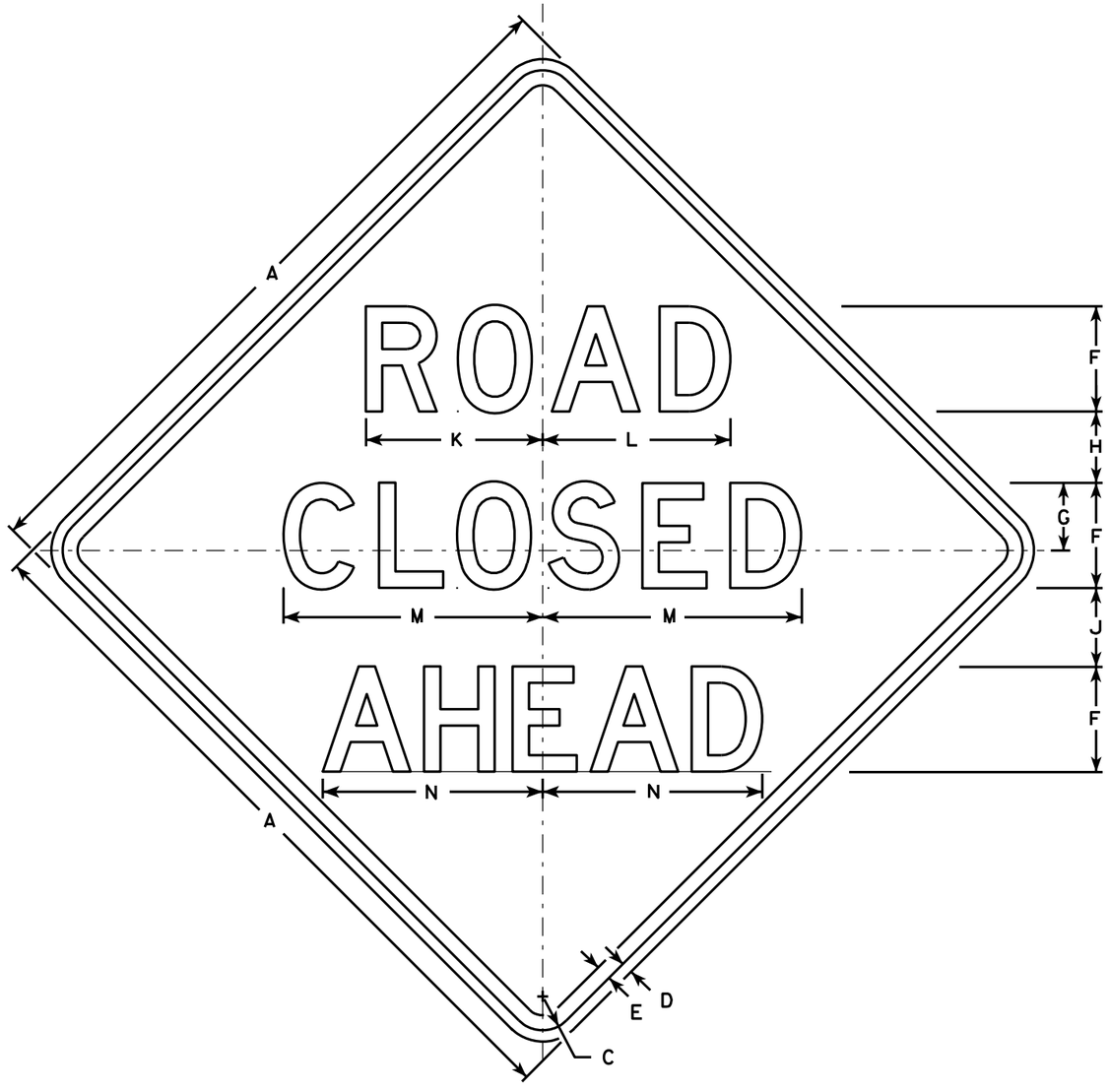
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

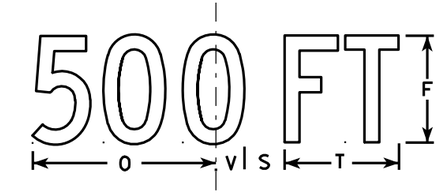
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 438 | E

7

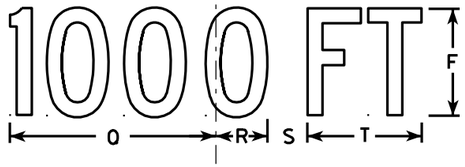
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000
WISDOT/CADDS SHEET 42



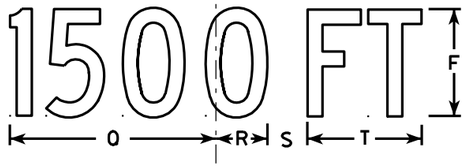
W20-3A



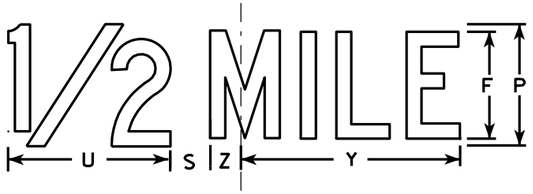
W20-3D



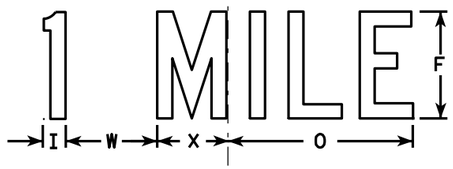
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

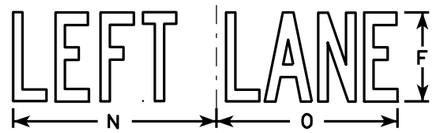
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 439 | E

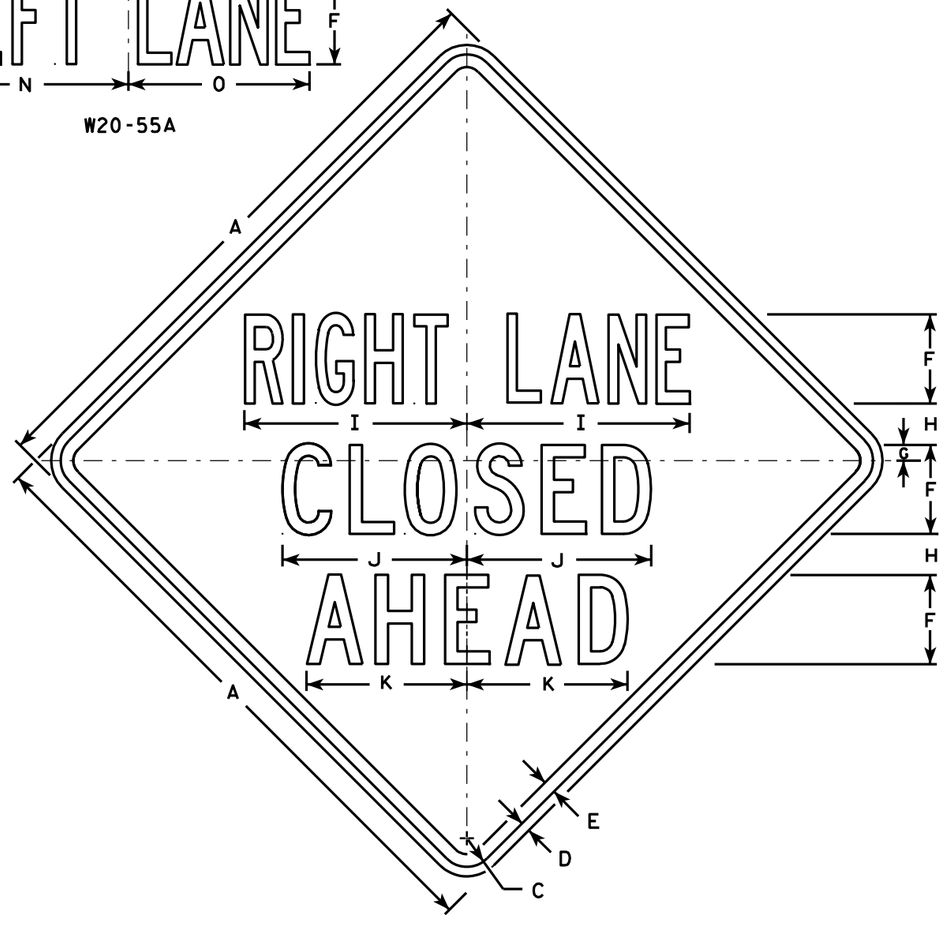
7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN PLOT DATE : 18-MAR-2011 12:08 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42

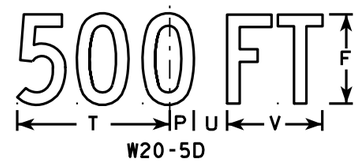
W20-56A



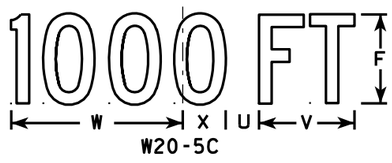
W20-55A



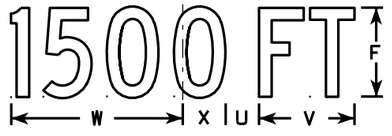
W20-5A



W20-5D



W20-5C



W20-5B

W20-5G

W20-5F

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

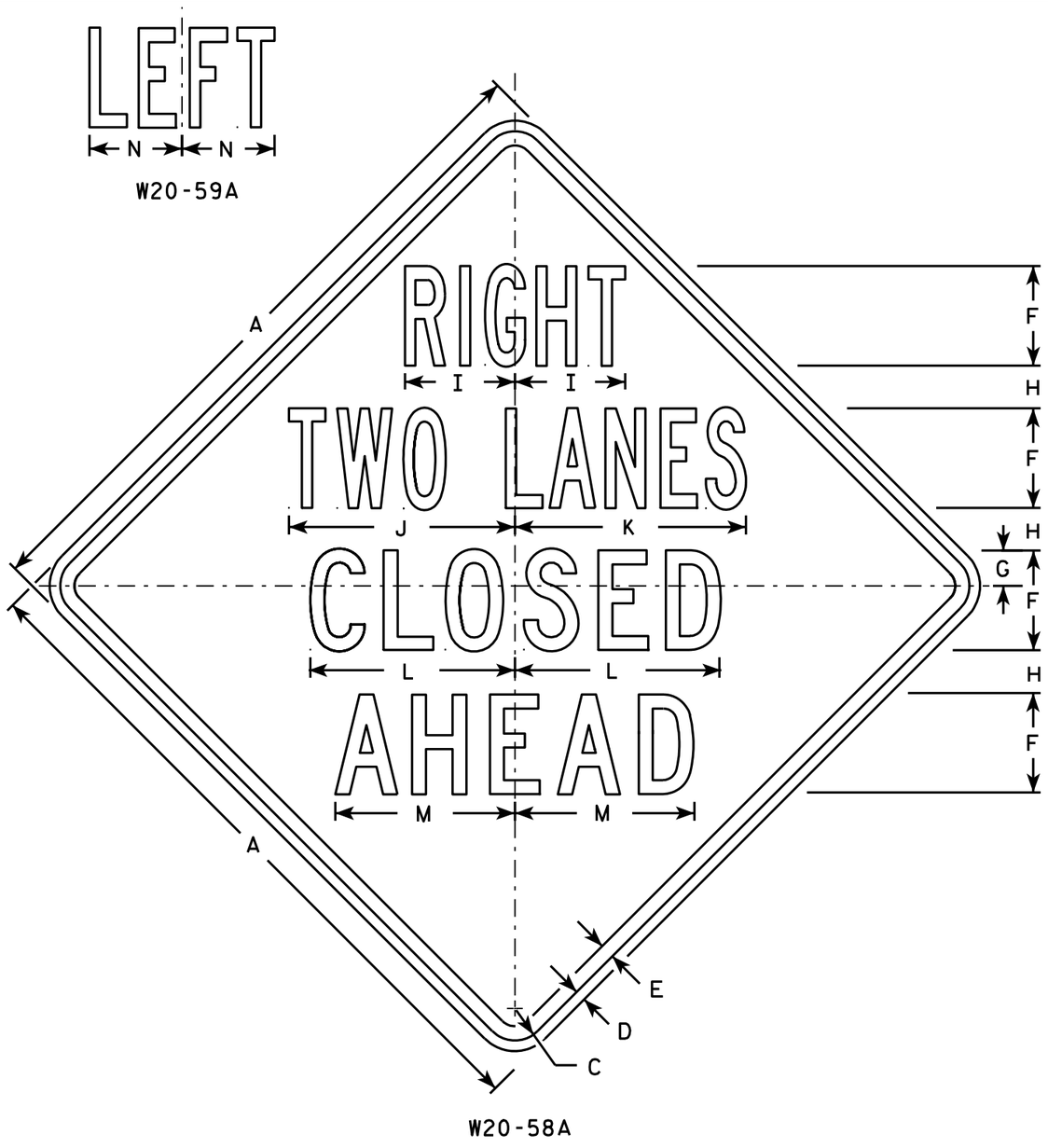
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

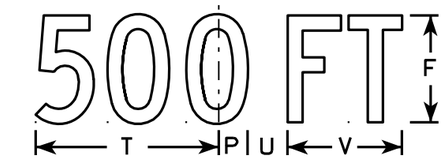
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 440	E

7

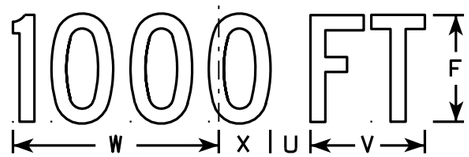
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



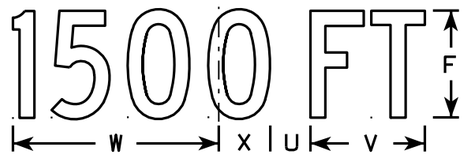
W20-58A



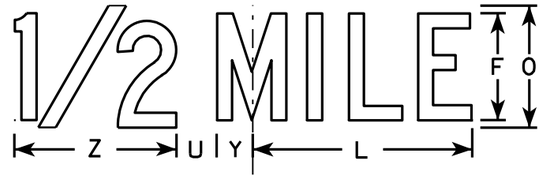
W20-58D



W20-58C



W20-58B



W20-58G

W20-58F

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	1 7/8	2 1/4	5 7/8	11 7/8	12 1/8	10 3/4	9 1/2	4 7/8	6	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48		2 1/4	3/4	1	7	2 1/2	3	7 3/4	15 7/8	16 1/4	14 3/8	12 5/8	6 1/2	8	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48		2 1/4	3/4	1	7	2 1/2	3	7 3/4	15 7/8	16 1/4	14 3/8	12 5/8	6 1/2	8	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48		2 1/4	3/4	1	7	2 1/2	3	7 3/4	15 7/8	16 1/4	14 3/8	12 5/8	6 1/2	8	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48		2 1/4	3/4	1	7	2 1/2	3	7 3/4	15 7/8	16 1/4	14 3/8	12 5/8	6 1/2	8	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48		2 1/4	3/4	1	7	2 1/2	3	7 3/4	15 7/8	16 1/4	14 3/8	12 5/8	6 1/2	8	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

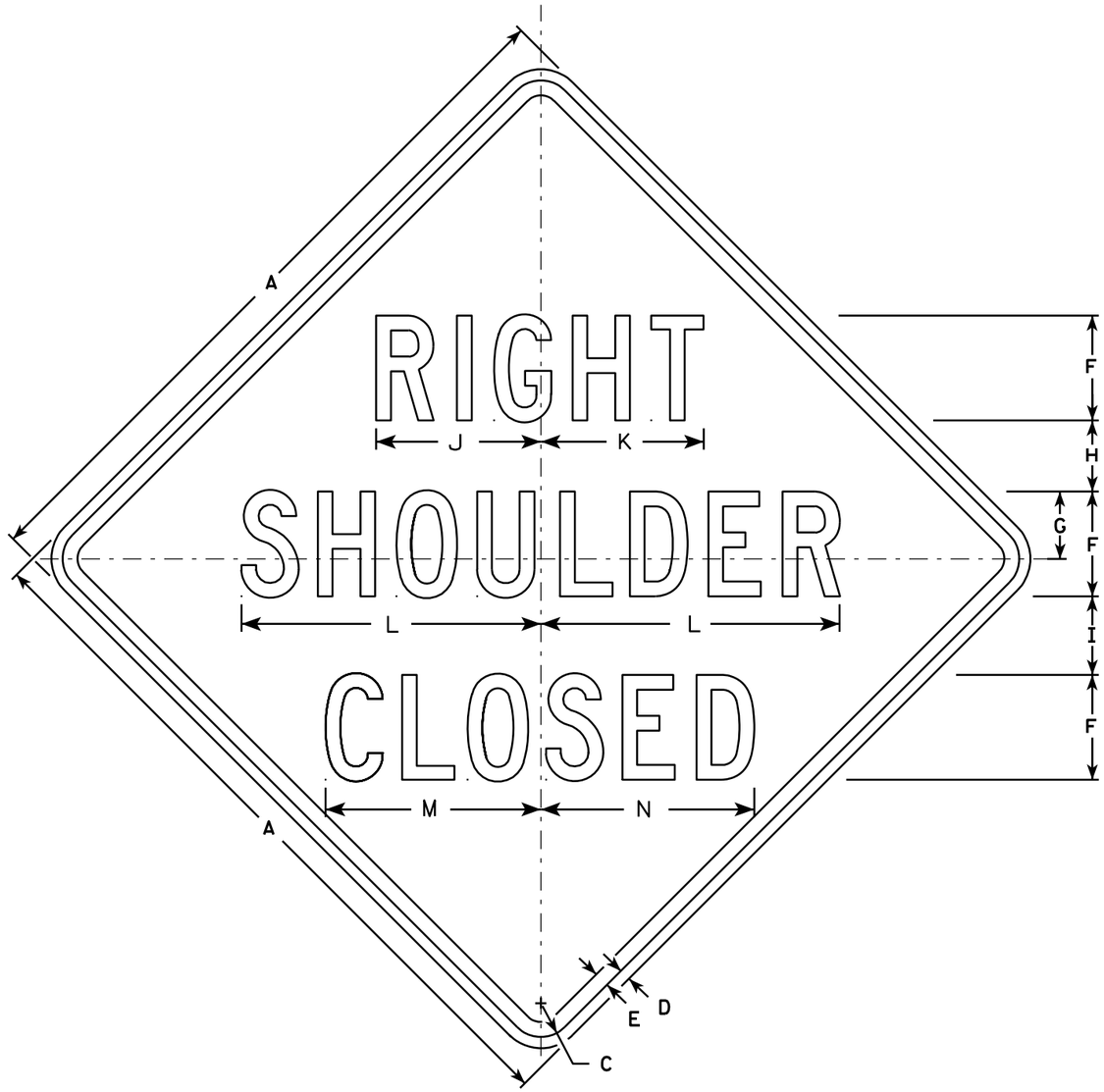
STANDARD SIGN
W20-58A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

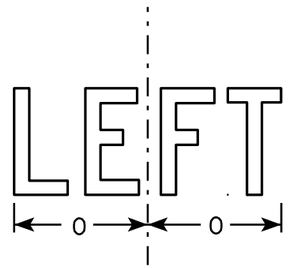
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-58.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 441 | E



W21-5A



W21-5AL

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.

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

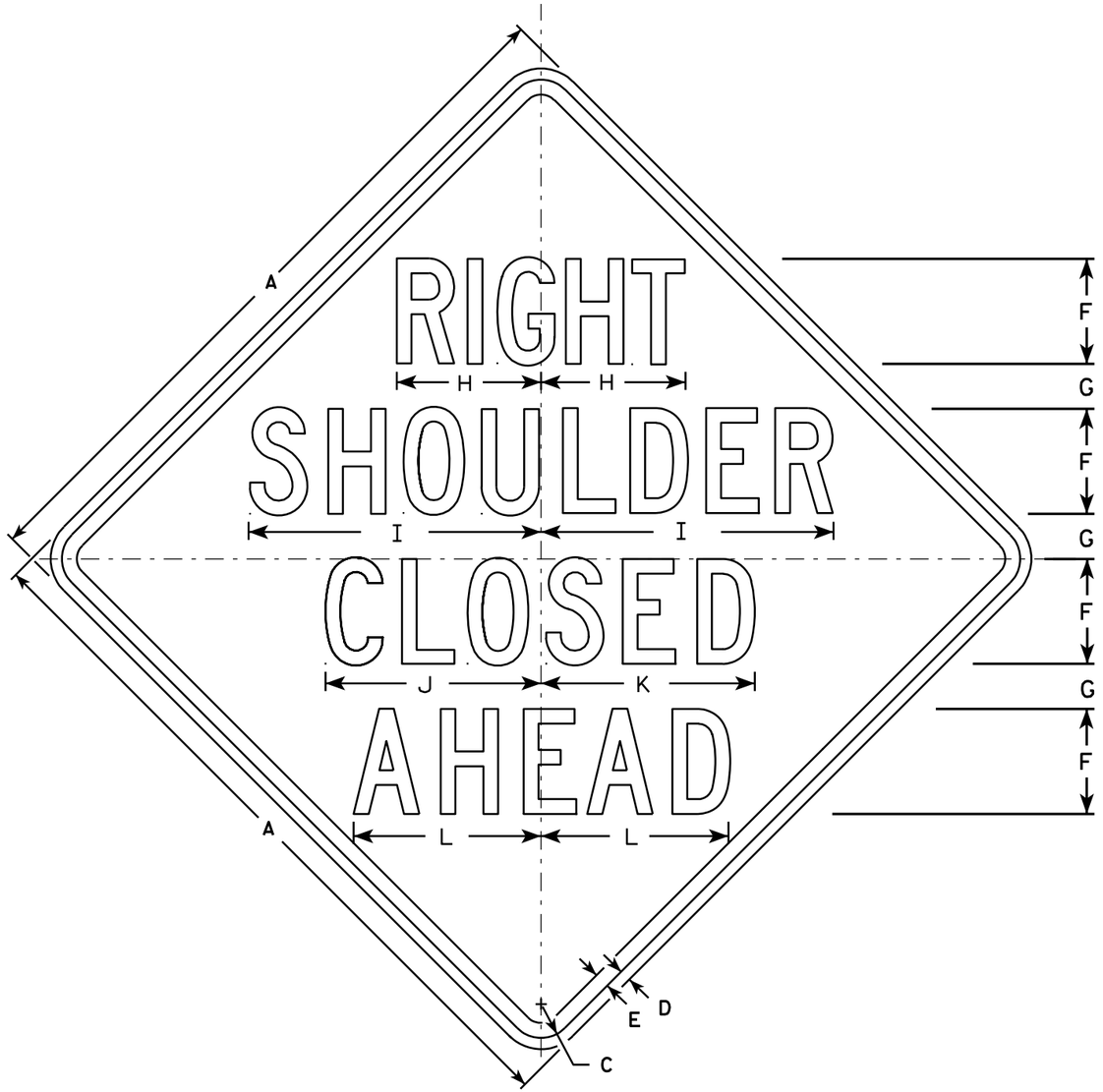
STANDARD SIGN
W21-5A

WISCONSIN DEPT OF TRANSPORTATION

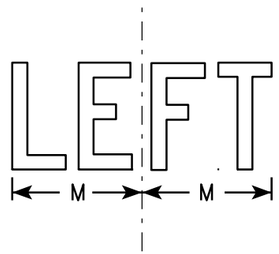
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-5A.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 442 | E



W21-5B



W21-5BL

NOTES

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

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 1/4	7 3/8	14 1/4	10 1/4	10 1/8	8 7/8	6 1/4														9.0
2S	48		2 1/4	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0
2M	48		2 1/4	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0
3	48		2 1/4	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0
4	48		2 1/4	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0
5	48		2 1/4	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0

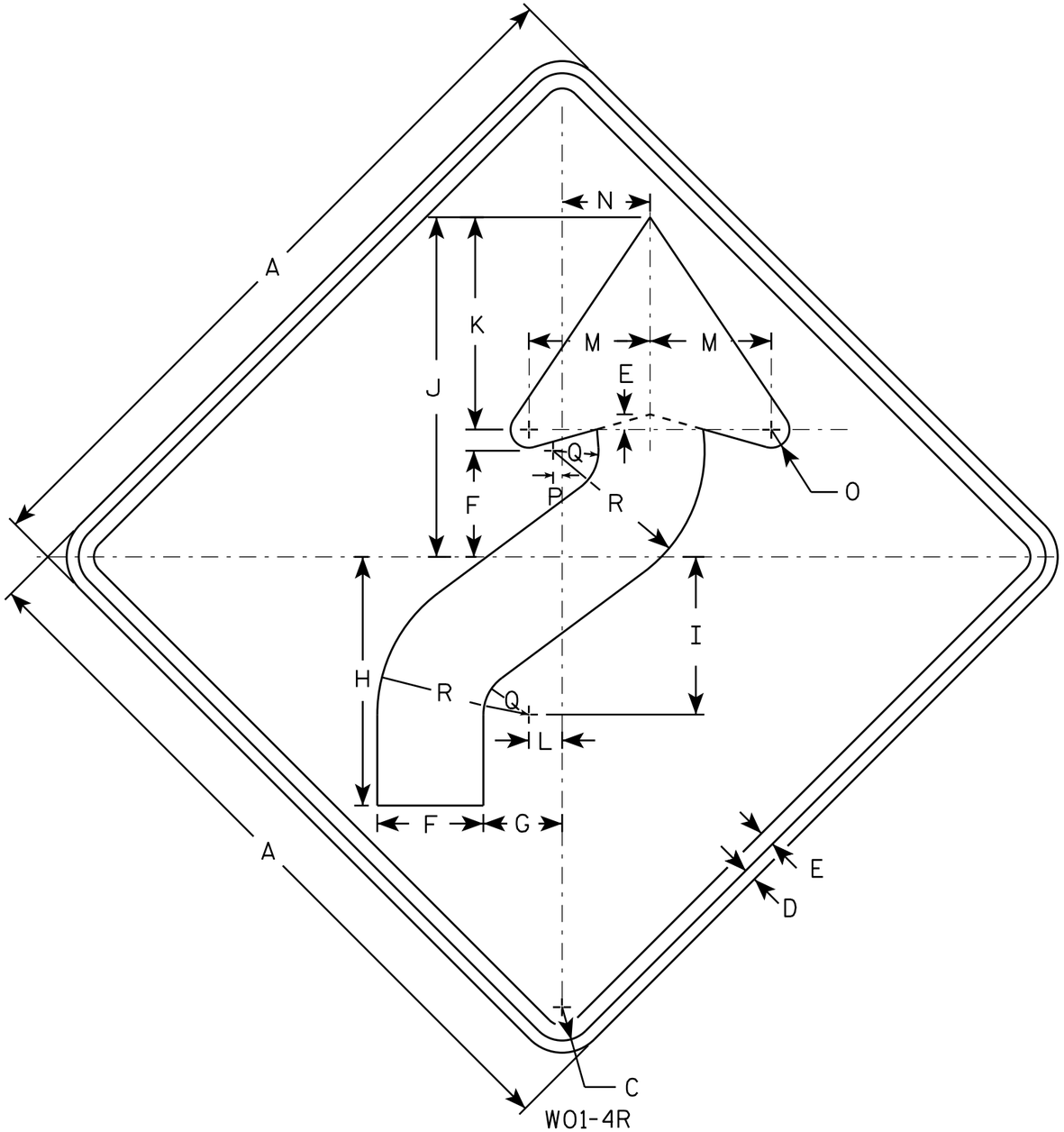
STANDARD SIGN
W21-5B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-5B.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 443	E



WO1-4R

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. 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. WO1-4L is the same as WO1-4R 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	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
WO1-4

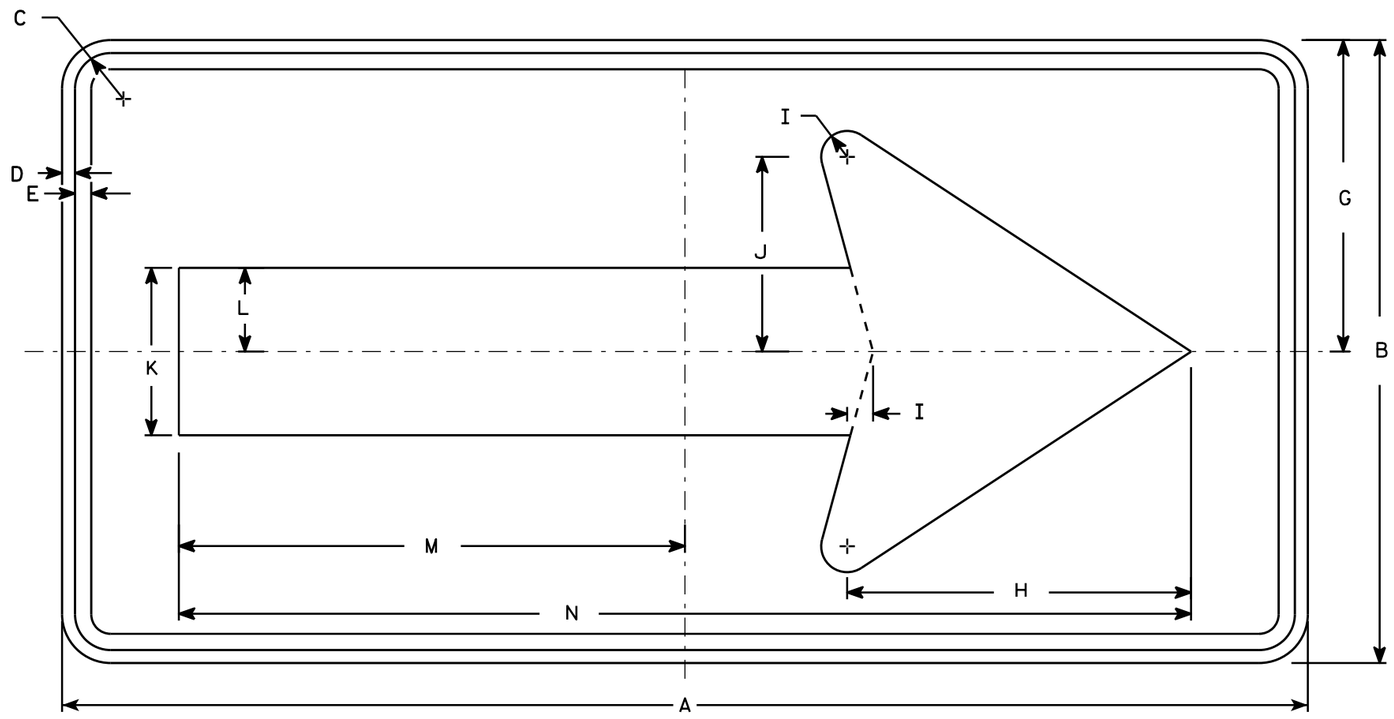
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO WO1-4.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\WO14.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42



W01-6

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
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	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

STANDARD SIGN
W01-6

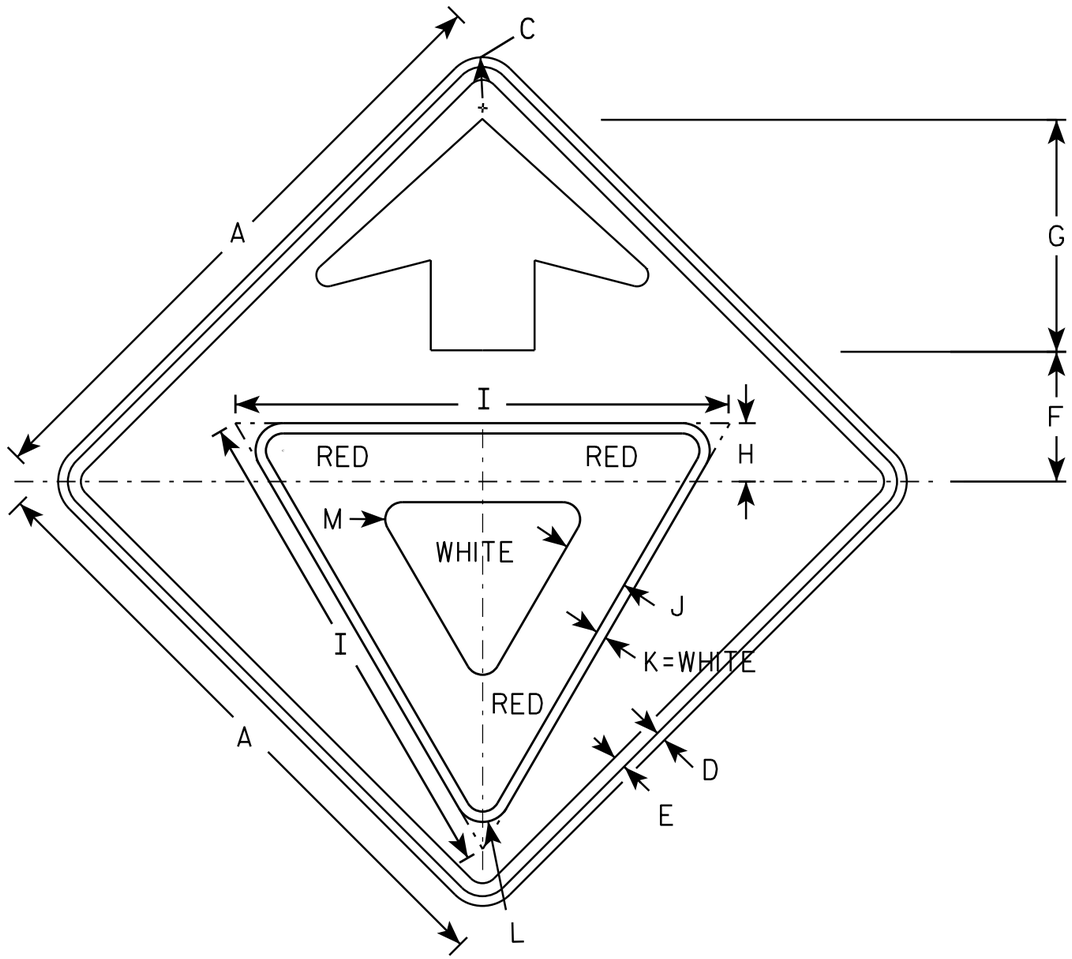
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

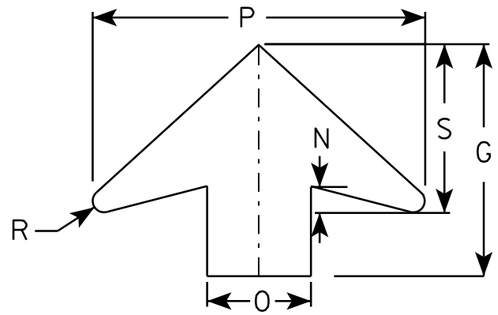
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



W03-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - ORANGE
   Arrow & Border - BLACK
   Yield Symbol - WHITE BORDER ON RED BACKGROUND



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	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2S	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
2M	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
3	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W03-2

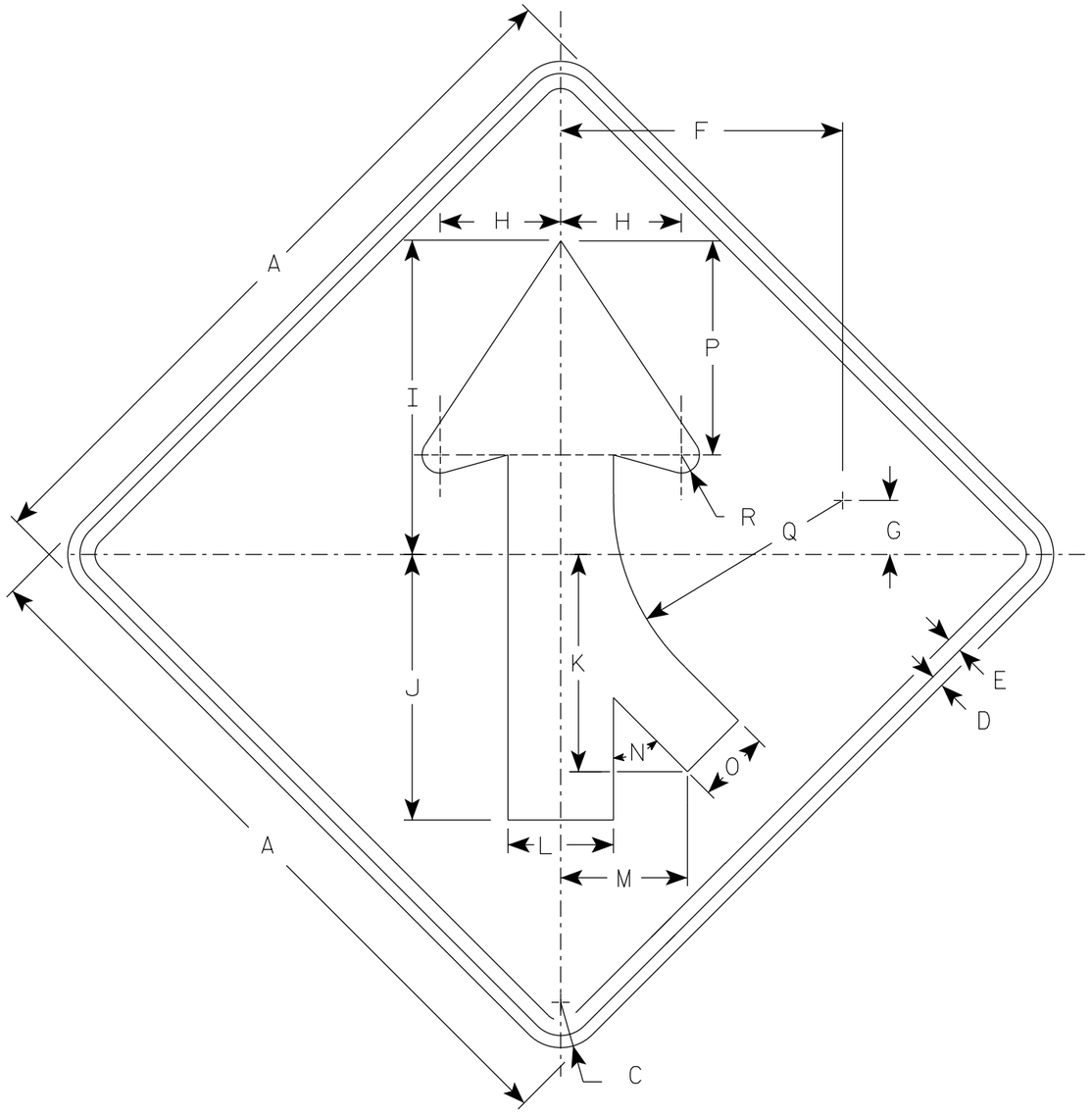
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-2.1

PROJECT NO:

SHEET NO: E



W04-1R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-1L is the same as W04-1R 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	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2S	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
2M	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
3	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

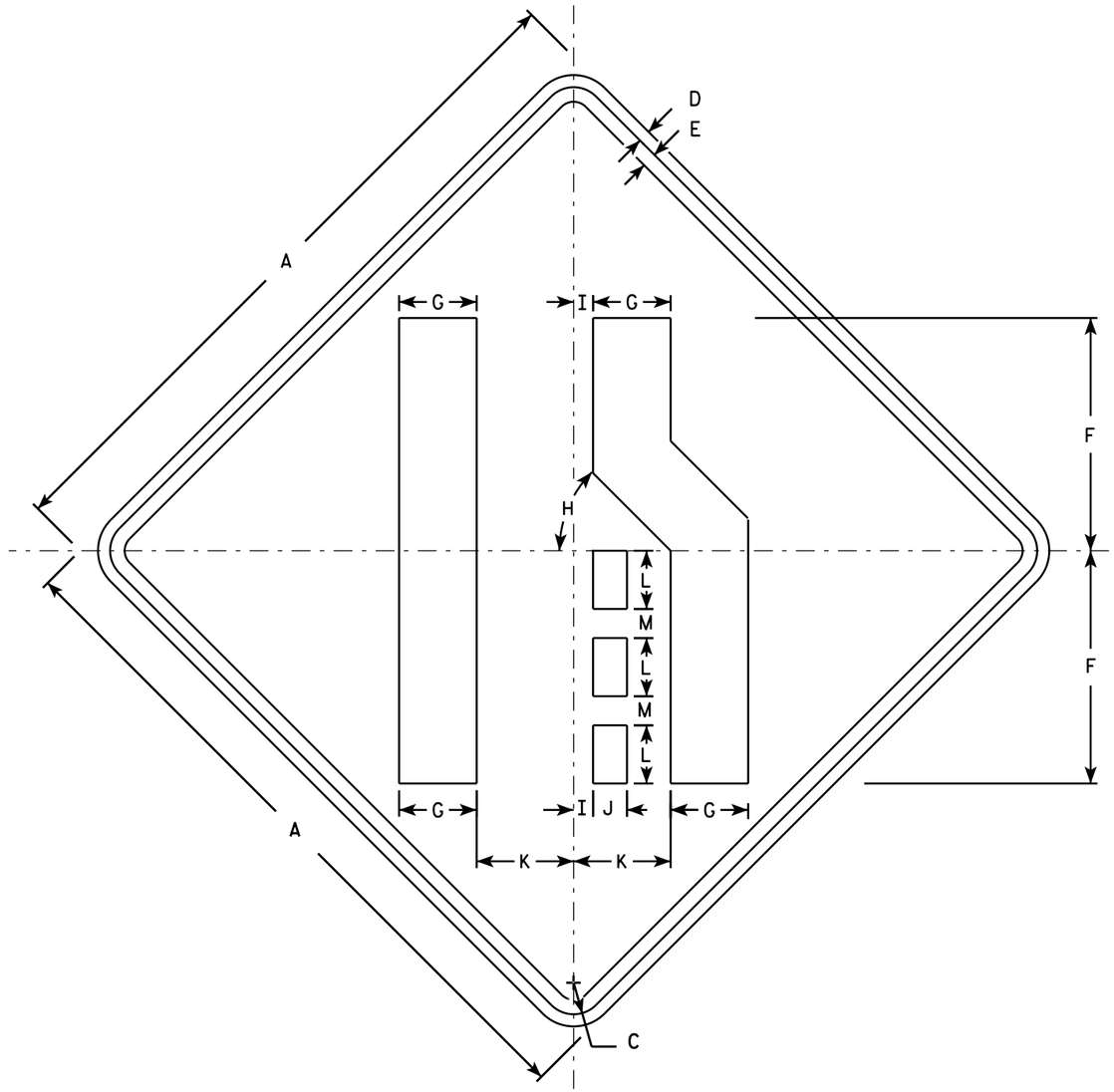
STANDARD SIGN
W04-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. W04-1.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 447 | E



W04-2R

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. 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. W04-2L is the same as W04-2R except the symbol 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	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

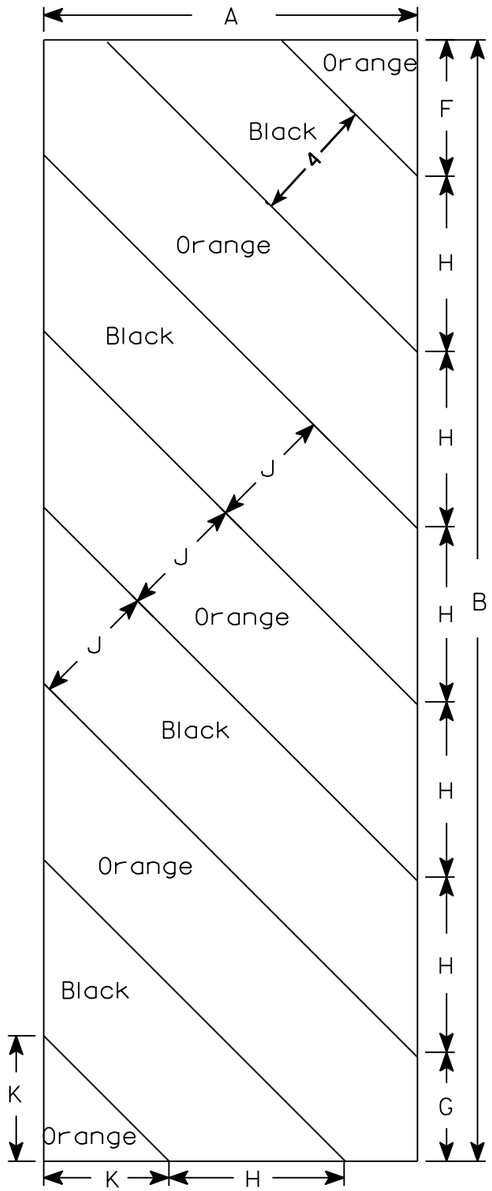
STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

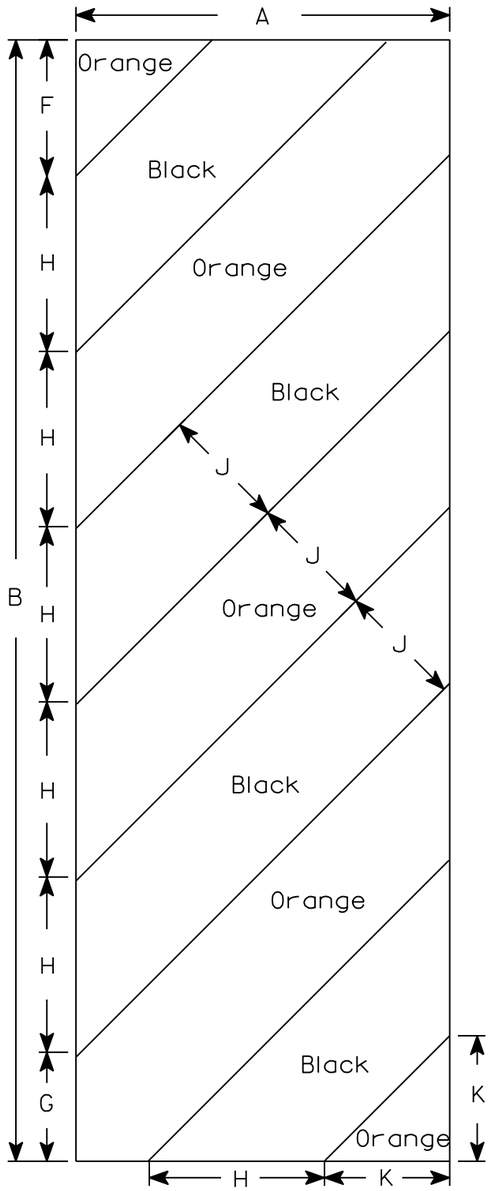
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 448 W04-2.1

PROJECT NO: | SHEET NO: E



W05-52L



W05-52R

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. 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. Alternate colors of stripes as shown.

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	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

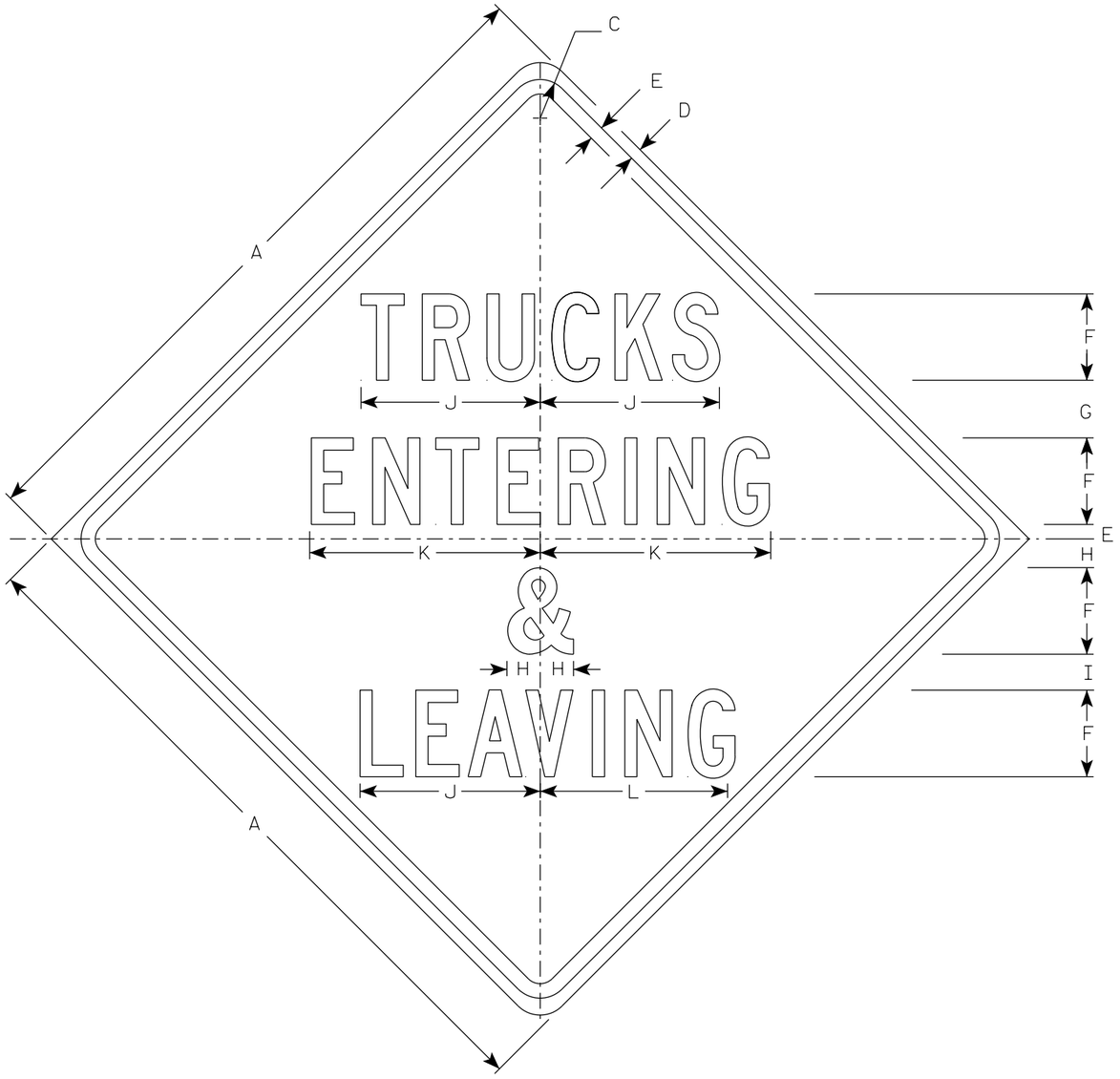
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W05-52.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W08-6A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	4 1/2	3	1 1/2	1 7/8	9 3/8	12	9 3/4															9
2S	48		2 1/4	3/4	1	6	4	2	2 1/2	12 1/2	16	13															16
2M	48		2 1/4	3/4	1	6	4	2	2 1/2	12 1/2	16	13															16
3	48		2 1/4	3/4	1	6	4	2	2 1/2	12 1/2	16	13															16
4	48		2 1/4	3/4	1	6	4	2	2 1/2	12 1/2	16	13															16
5	48		2 1/4	3/4	1	6	4	2	2 1/2	12 1/2	16	13															16

STANDARD SIGN
W08-6A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/15/2020 PLATE NO. W08-6A.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 450 E

W08-76

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - Lines 1 and 2 are series D
   Line 3 is 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																											
3																											
4	96	48	2 1/4	3/4	1	8	6	34 3/4	14 1/8	7	13 5/8	28 7/8	4 5/8	40 1/2	23 1/8	5 3/4		35 7/8									32.0
5																											

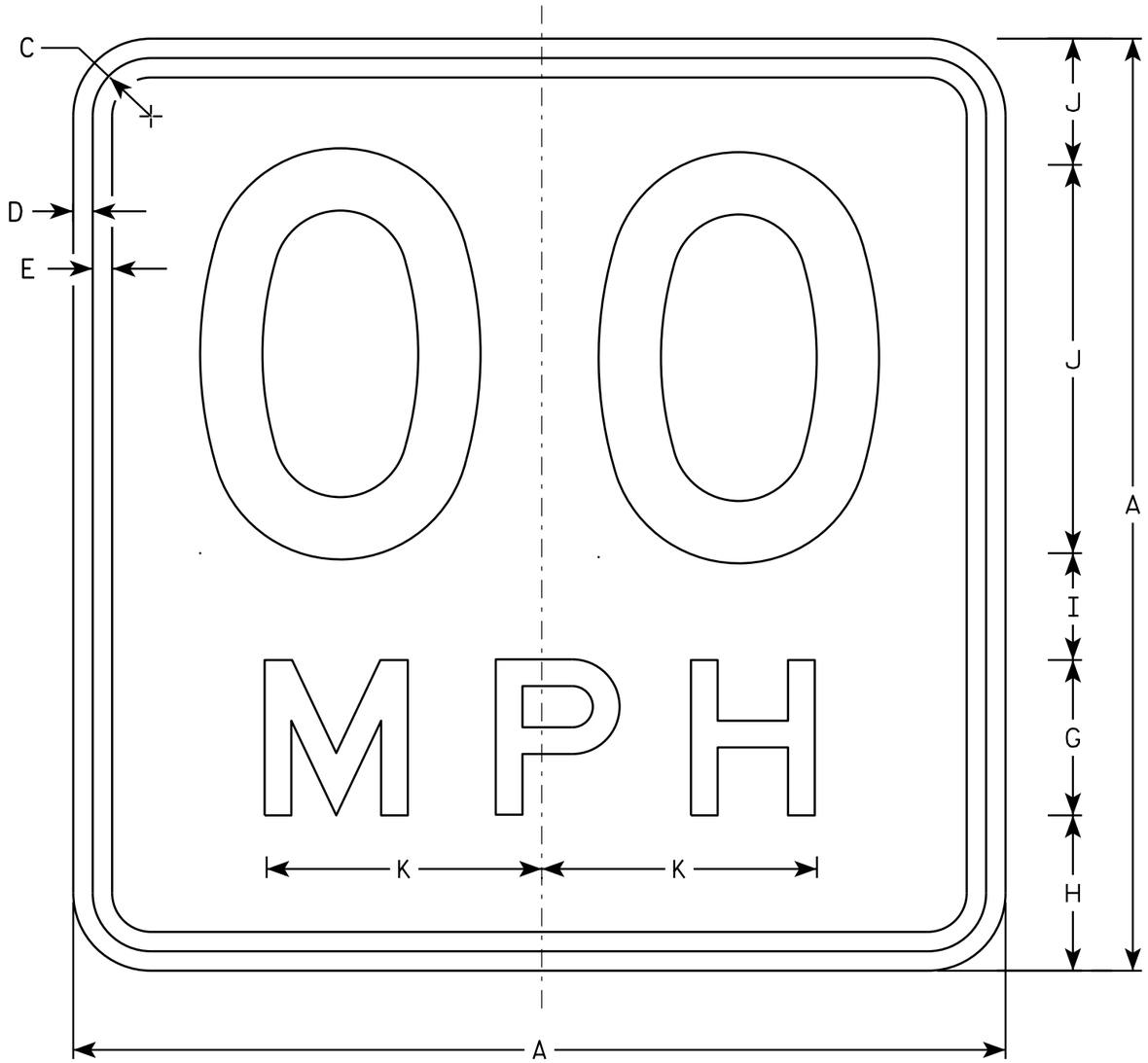
STANDARD SIGN
W08-76

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 4/8/2021 PLATE NO. W08-76.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 451 | E



W013-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8																4.00
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
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
W013-1

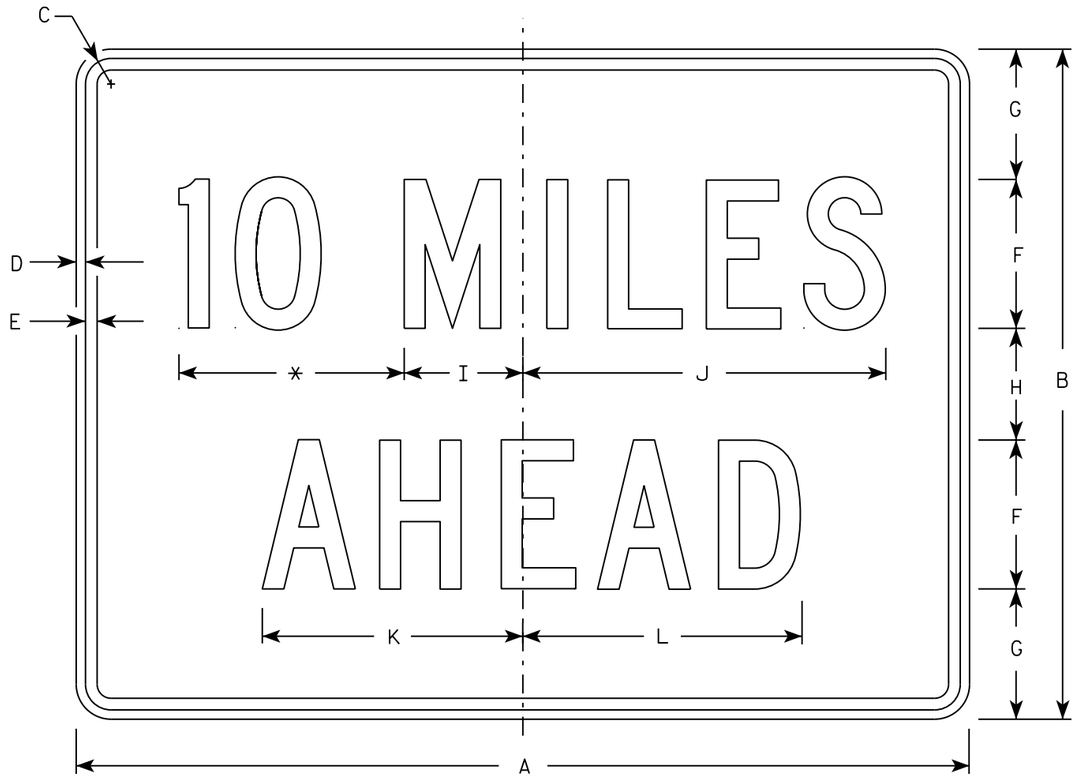
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

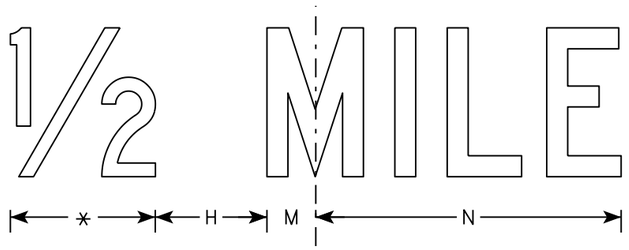
DATE 11/21/13 PLATE 452 W013-1.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W0131.DGN PLOT DATE : 02-DEC-2013 13:55 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.794391:1.000000
WISDOT/CADDS SHEET 42



W057-52



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. Substitute appropriate numerals to the nearest quarter mile and optically adjust spacing to achieve proper balance.

* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0

STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

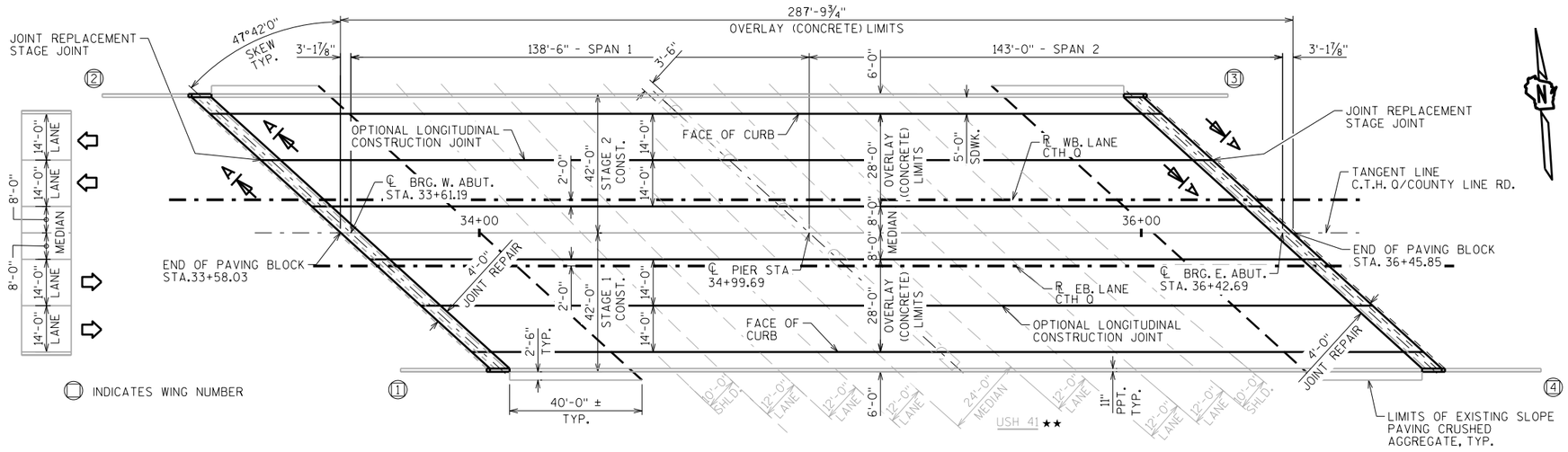
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W057-52.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 453	E

STATE PROJECT NUMBER

1100-43-70



DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-15
OPERATING RATING: HS-25
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 140(KIPS)

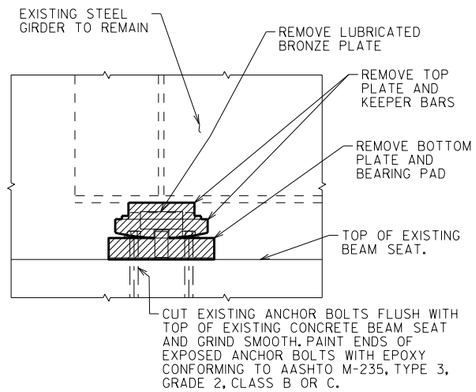
MATERIAL PROPERTIES:

CONCRETE MASONRY:
CONCRETE MASONRY OVERLAY DECKS — f'c = 4,000 P.S.I.
CONCRETE MASONRY/OTHER — f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT:
GRADE 60 — fy = 60,000 P.S.I.

TRAFFIC VOLUME

CTH Q (COUNTY LINE ROAD)
ADT = 37,600 (2039)
R.D.S. = 40 M.P.H.

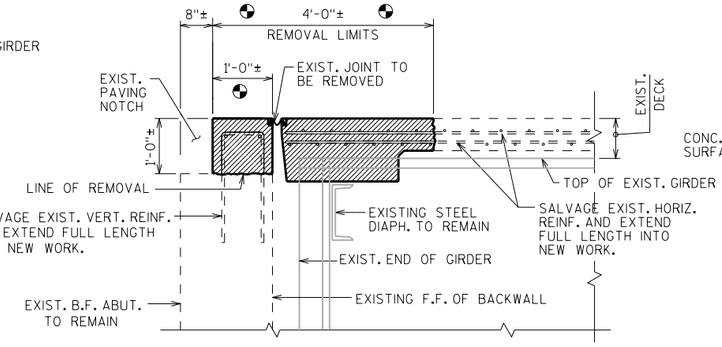
IH 41/USH 45
ADT = 119,500 (2039)
R.D.S. = 75 M.P.H.



BEARING REMOVAL DETAIL AT ABUTMENTS

PLAN

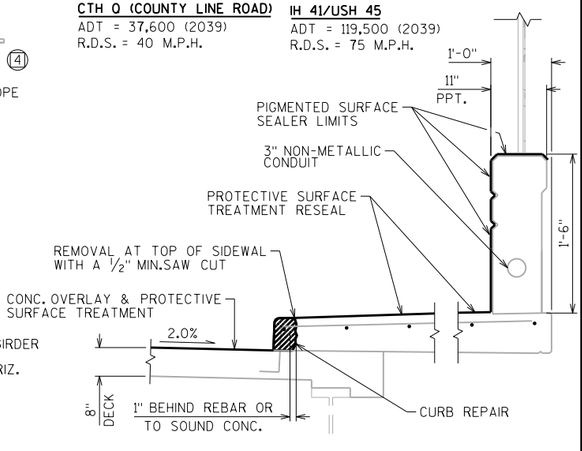
2-SPAN STEEL GIRDER



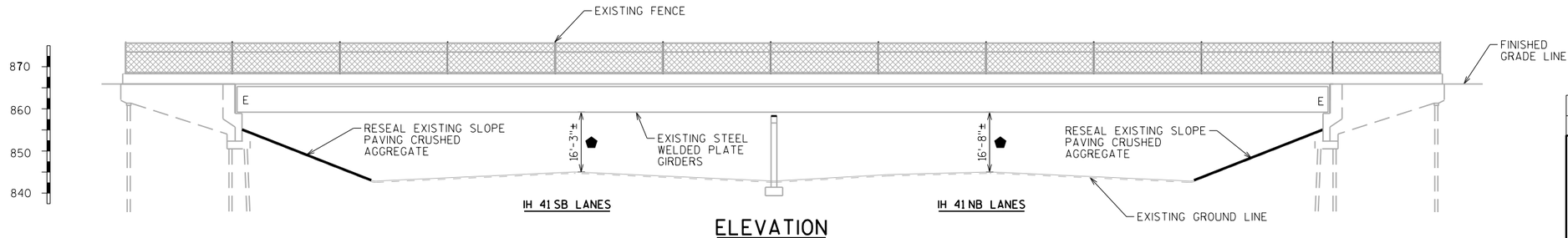
EXISTING SECTION A-A

SHOWING REMOVAL
TYP. BOTH ABUTMENTS

℄ DIMENSION GIVEN NORMAL TO ℄ SUBSTRUCTURE.



PROTECTIVE SURFACE TREATMENT LIMITS & CURB REPAIR DETAIL



ELEVATION

LOOKING NORTH

⬟ ELEVATIONS FILE DATE 11-05-2011

LIST OF DRAWINGS

1. CONCRETE OVERLAY
2. QUANTITIES & NOTES
3. BEARING REHABILIATATION
4. BEARING DETAILS
5. CATHODIC PROTECTION & CONCRETE SURFACE REPAIR
6. JOINT REPAIR DETAILS 1
7. JOINT REPAIR DETAILS 2
8. EXPANSION DEVICE
9. COVER PLATE DETAILS
10. PAINTING AND FENCE DETAILS
11. CONSTRUCTION STAGING

STRUCTURE DESIGN CONTACTS:
ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED DMB 04/21/22
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-66-30

(COUNTY LINE RD.) C.T.H. "Q" OVER IH 41/USH 45

COUNTY	VILLAGE
WASHINGTON	GERMANTOWN

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
EJV	AA	EJV	MJK

CONCRETE OVERLAY

SHEET 1 OF 11

454

I.D. 1100-43-001

DATE: APRIL 2022

SCALE = 20.00

STATE PROJECT NUMBER

1100-43-70

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER	WEST ABUT.	PIER	EAST ABUT.	TOTALS
502.3101	EXPANSION DEVICE	LF	244	---	---	---	244
502.3200	PROTECTIVE SURFACE TREATMENT	SY	857	14	---	14	885
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	230	25	---	25	280
502.3215	PROTECTIVE SURFACE TREATMENT RESEAL	SY	855	---	---	---	855
502.4205	ADHESIVE ANCHOR NO. 5 BAR	EACH	---	125	---	125	250
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	8,470	---	---	---	8,470
506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	20	---	---	---	20
506.7050.S	REMOVING BEARINGS B-66-30	EACH	20	---	---	---	20
509.0301	PREPARATION DECKS TYPE 1	SY	75	---	---	---	75
509.0302	PREPARATION DECKS TYPE 2	SY	50	---	---	---	50
509.0500	CLEANING DECKS	SY	1,791	---	---	---	1,791
509.1000	JOINT REPAIR	SY	---	56	---	56	112
509.1200	CURB REPAIR	LF	10	---	---	---	10
509.1500	CONCRETE SURFACE REPAIR	SF	10	35	25	35	105
509.2000	FULL-DEPTH DECK REPAIR	SY	5	---	---	---	5
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	104	15	---	15	134
517.1801.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-66-30	EACH	---	---	---	---	1
517.4501.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-66-30	EACH	---	---	---	---	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	---	---	---	---	1
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	---	420	---	420	840
SPV.0060	EMBEDDED GALVANIC ANODES	EACH	---	12	28	12	52
SPV.0060	REMOVING AND RESETTING FENCING B-66-30	EACH	---	---	---	---	1
	NON-BID ITEMS						
	BRIDGE SEAT PROTECTION	LS	---	---	---	---	1
	FILLER	SIZE	---	---	---	---	½"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE NEW CONCRETE OVERLAY AND PAVING NOTCHES AT ABUTMENTS.

PROTECTIVE SURFACE TREATMENT RESEAL SHALL BE APPLIED TO ALL VERTICAL AND HORIZONTAL SURFACES OF SIDEWALKS AND MEDIANS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS" TO APPLY CONCRETE OVERLAY.

PIGMENTED SURFACE SEALER RESEAL TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BLUE, SHERWIN WILLIAMS SW6523 OR EQUAL COLOR APPROVED BY THE ENGINEER.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL DEPTH DECK REPAIRS AREA ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER, DECK PREPARATION AND FULL DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURE DESIGN SECTION.

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

ANY EXCAVATION NECESSARY TO COMPLETE THE OVERLAY OR JOINT REPAIR AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "JOINT REPAIR".

SEAL OVERLAY CONSTRUCTION JOINTS ACCORDING TO SECTION 502.3.13.1 OF THE STANDARD SPECIFICATIONS. COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

THE AVERAGE OVERLAY THICKNESS IS BASED ON THE MINIMUN OVERLAY THICKNESS PLUS ½" TO ACCOUNT FOR VARIATIONS IN THE DECK SURFACE.

CONCRETE REMOVAL AT WINGS AND PAVING BLOCKS SHALL BE DEFINED BY A 1" DEEP SAW CUT.

CONCRETE FOR JOINT REPAIRS IS INCLUDED IN BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF THE ABUTMENTS BELOW EXPANSION DEVICES.

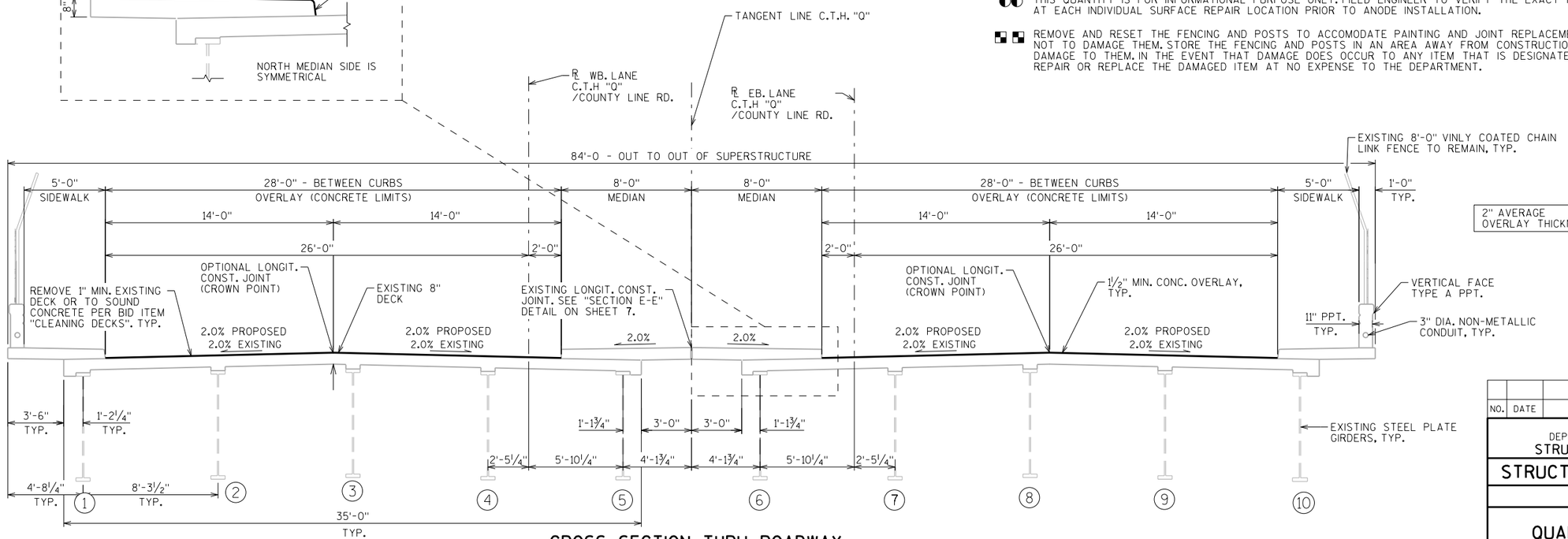
ENGINEER TO DETERMINE CONCRETE SURFACE REPAIR AREAS. CONCRETE SURFACE REPAIR SHALL BE MADE ONLY AS DIRECTED BY ENGINEER.

CLEANING AND PAINTING EXISTING BEARINGS AT THE PIER IS TO BE CONSIDERED INCIDENTAL TO BID ITEM "STRUCTURE REPAINTING RECYCLED ABRASIVE B-66-30"

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED

◐◐ THIS QUANTITY IS FOR INFORMATIONAL PURPOSE ONLY. FIELD ENGINEER TO VERIFY THE EXACT NUMBER OF ANODES REQUIRED AT EACH INDIVIDUAL SURFACE REPAIR LOCATION PRIOR TO ANODE INSTALLATION.

▪▪ REMOVE AND RESET THE FENCING AND POSTS TO ACCOMODATE PAINTING AND JOINT REPLACEMENT OPERATIONS, TAKING CARE NOT TO DAMAGE THEM. STORE THE FENCING AND POSTS IN AN AREA AWAY FROM CONSTRUCTION ACTIVITIES TO PRECLUDE DAMAGE TO THEM. IN THE EVENT THAT DAMAGE DOES OCCUR TO ANY ITEM THAT IS DESIGNATED FOR RE-USE IN THE NEW WORK, REPAIR OR REPLACE THE DAMAGED ITEM AT NO EXPENSE TO THE DEPARTMENT.



CROSS SECTION THRU ROADWAY

LOOKING EAST

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-30

DRAWN BY EJV | PLANS CK'D. MJK

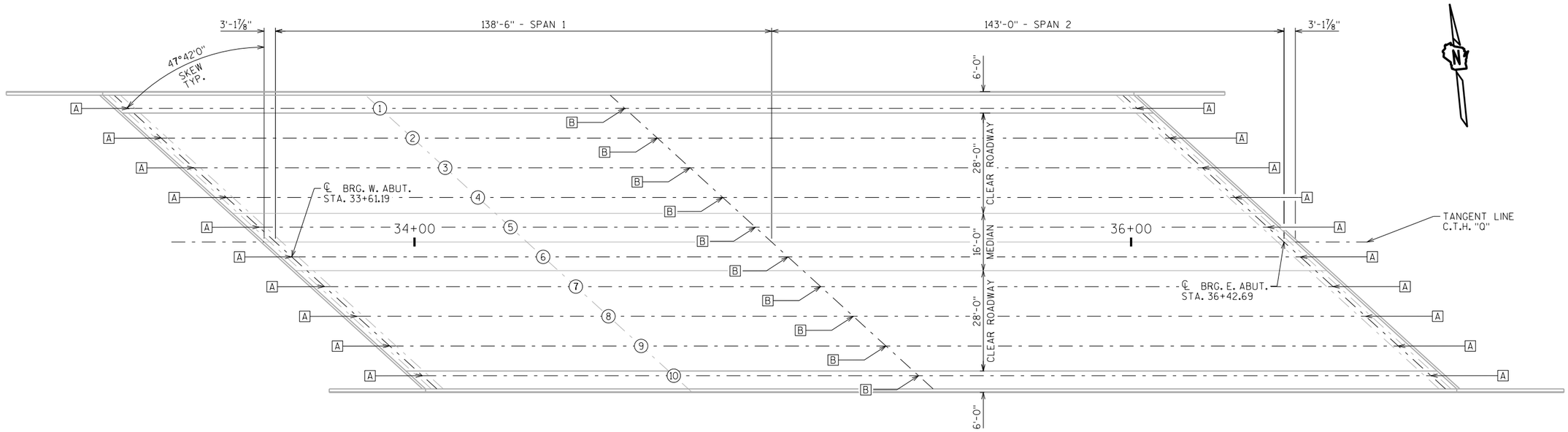
QUANTITIES & NOTES

SHEET 2

455

SCALE = 1.00

STATE PROJECT NUMBER
1100-43-70



LEGEND

- [A] REPLACE BEARING
- [B] CLEAN AND PAINT BEARINGS. INCIDENTAL TO BID ITEM "STRUCTURE REPAINTING RECYCLED ABRASIVE B-66-30"
- ◯ INDICATES GIRDER NUMBER

BEARING REHABILITATION PLAN

SEE "BEARING DETAILS" SHEET FOR DETAILS

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-30

DRAWN BY EJV | PLANS CK'D. MJK

BEARING REHABILITATION

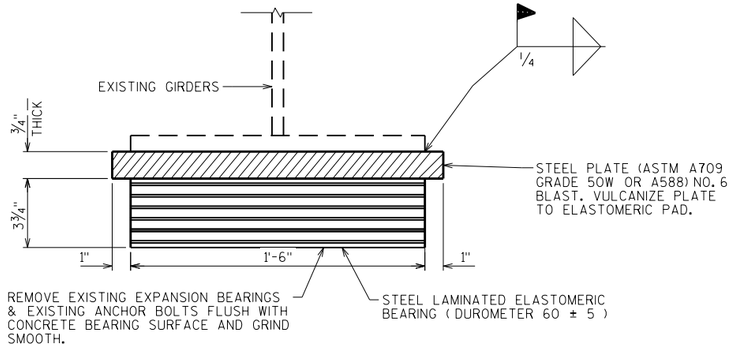
SHEET 3

456

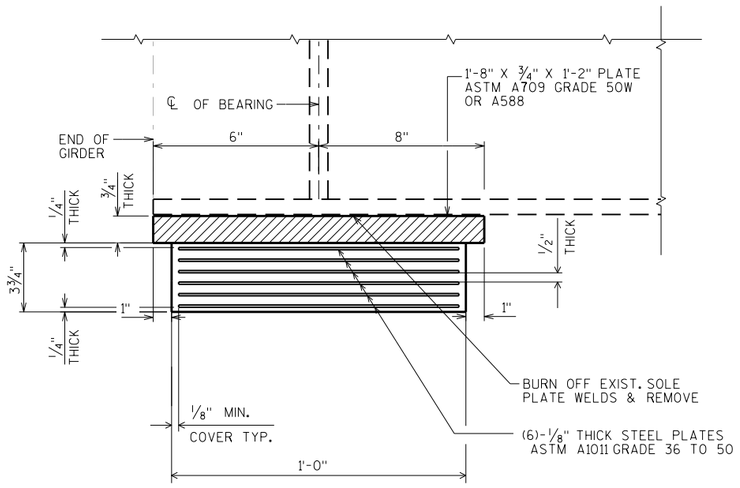
SCALE = 15.00

STATE PROJECT NUMBER

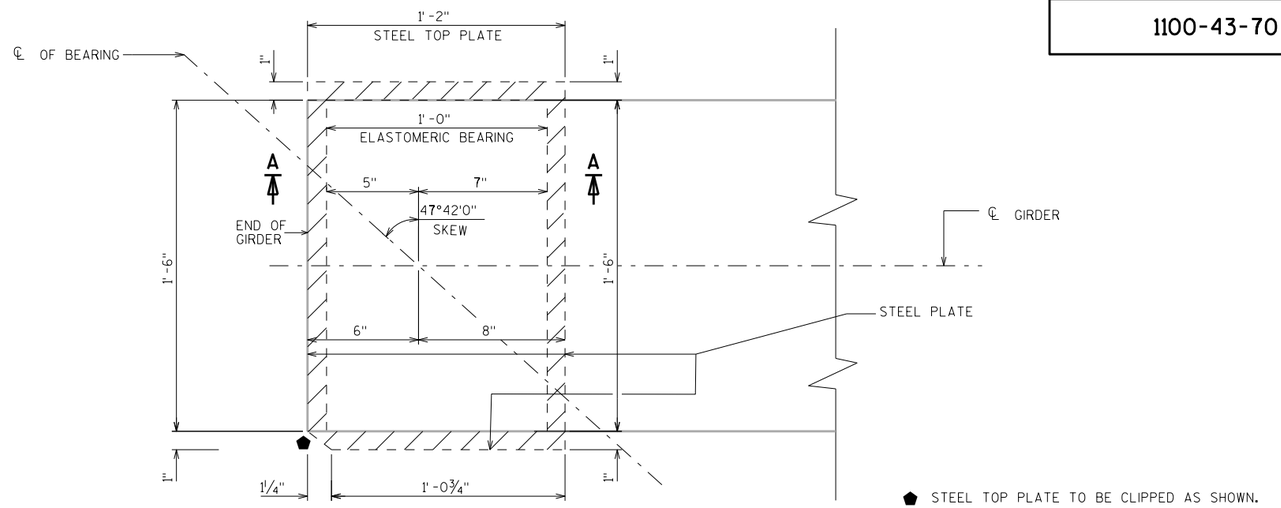
1100-43-70



FRONT ELEVATION

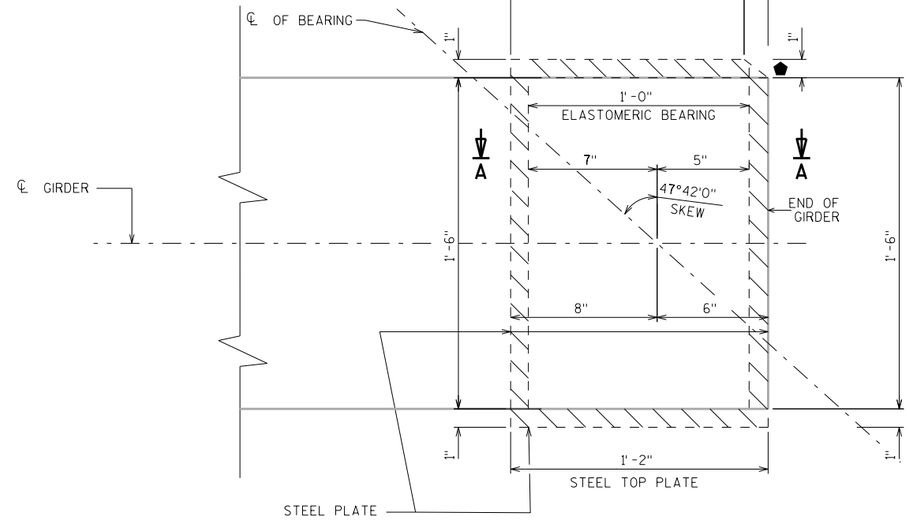


SECTION A-A THRU ELASTOMERIC BEARING



BEARING PLAN VIEW

WEST ABUTMENT
10 TOTAL



BEARING PLAN VIEW

EAST ABUTMENT
10 TOTAL

NOTES:

BEARINGS SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 85° F.

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

GRIND EXISTING WELD ATTACHING EXISTING TOP PLATE TO EXISTING BOTTOM FLANGE. GRIND AFFECTED AREAS SMOOTH.

WELDING PROCEDURES SHOULD BE ESTABLISHED BY THE CONTRACTOR TO RESTRICT THE MAXIMUM TEMPERATURE REACHED BY SURFACES IN CONTACT WITH ELASTOMER TO 200°F (93°C). TEMPERATURES SHALL BE CONTROLLED BY TEMPERATURE INDICATING WAX PENCILS OR OTHER SUITABLE MEANS APPROVED BY THE ENGINEER.

TOP STEEL PLATE MAY NOT BE OMITTED.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-30

DRAWN BY EJV | PLANS CK'D. MJK

BEARING DETAILS

SHEET 4

457

SCALE = 0.33

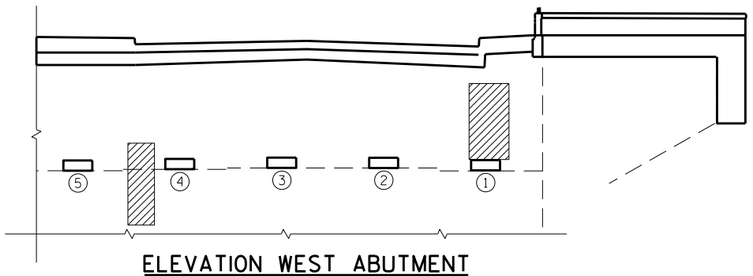
8

8

STATE PROJECT NUMBER

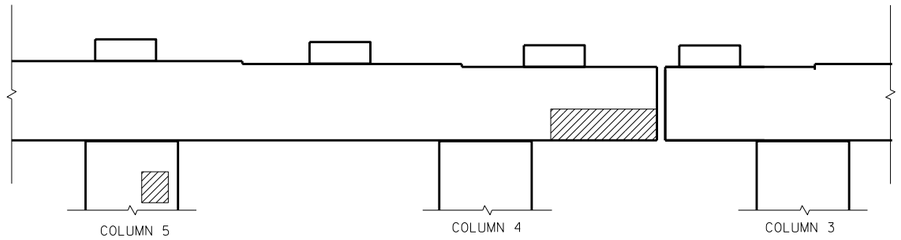
1100-43-70

WING 2



ELEVATION WEST ABUTMENT

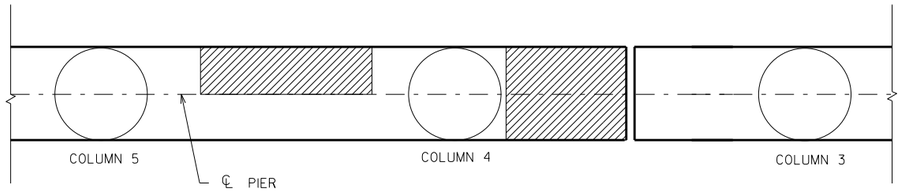
LOOKING WEST



ELEVATION PIER

LOOKING WEST

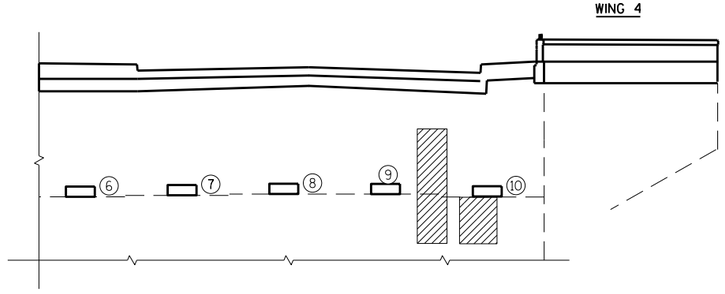
(EAST FACE)



PLAN

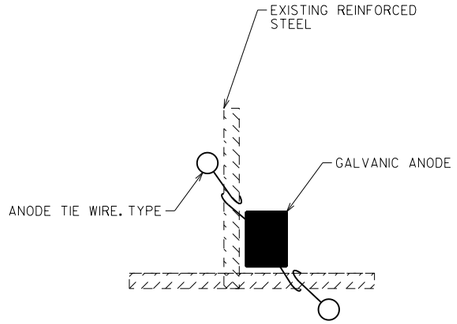
UNDERNEATH PIER

WING 4

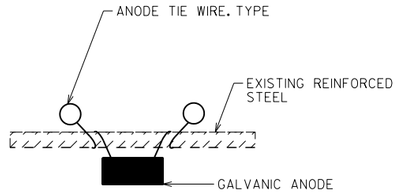


ELEVATION EAST ABUTMENT

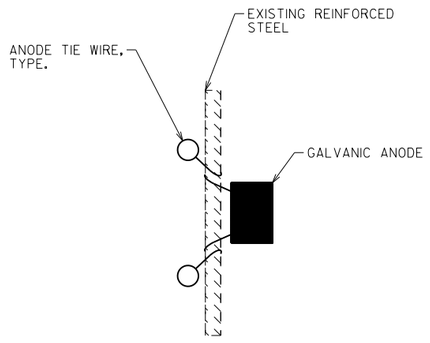
LOOKING EAST



TYPICAL INSTALLATION AT BAR STEEL INTERSECTION



TYPICAL INSTALLATION BELOW BAR STEEL



TYPICAL INSTALLATION BESIDE BAR STEEL

MAXIMUM GALVANIC ANODE SPACING

STEEL DENSITY RATIO (SQ. IN. PER FT.)	MAXIMUM ANODE SPACING (INCHES)
<= 0.3	24
0.31-0.50	20
0.51-0.60	18
0.61-0.80	16
0.81-0.90	15
0.91-1.00	14
1.01-1.20	12
>=1.20	*

NOTES:

* AT STEEL DENSITY RATIOS GREATER THAN 1.20, CONSULT THE ENGINEER TO DETERMINE MAXIMUM ANODE SPACING AND ANODE LAYOUT.

STEEL DENSITY RATIO IS THE RATIO OF STEEL REINFORCING BAR SURFACE AREA TO EXPOSED CONCRETE SURFACE AREA WITHIN THE REPAIR AREA.

TABLE IS BASED ON HIGH CORROSION RISK WITHIN THE SURFACE REPAIR AREA, A MINIMUM ZINC MASS OF 38 GRAMS AND AN APPROXIMATE SERVICE LIFE OF 10-20 YEARS.

WORK SHOWN IS INCLUDED IN THE BID ITEM "EMBEDDED GALVANIC ANODE". SEE SPECIAL PROVISION FOR DETAILS.

CONCRETE SURFACE REPAIR IS PAID FOR SEPARATELY.

ANODES NEAREST TO EDGE OF REPAIR TO BE WITHIN 6" OF EDGE.

AFTER PLACEMENT, GALVANIC ANODES SHOULD MAINTAIN A MINIMUM TOP COVER OF 1½" AND A MINIMUM BOTTOM COVER OF ¾".

EXISTING REINFORCING STEEL TO BE COMPLETELY CLEANED OF CORRODED MATERIAL PRIOR TO INSTALLATION OF GALVANIC ANODES.

ESTIMATED ANODE QUANTITY IN PLANS IS BASED ON A MAXIMUM SPACING OF 24" AROUND PERIMETER OF CONCRETE SURFACE REPAIR AREA AND PLACE ADDITIONAL ANODES AT THE INTERIOR OF REPAIRED AREA SO CENTER TO CENTER SPACING ANODES IS NOT GREATER THAN 24" IN ANY DIRECTION. INSTALL ANODES PER MANUFACTURER RECOMMENDATIONS.

FIELD ENGINEER TO DETERMINE EXACT REPAIR LOCATIONS AND VERIFY THE EXACT NUMBER OF ANODES REQUIRED AT EACH INDIVIDUAL SURFACE REPAIR LOCATION PRIOR TO ANODE INSTALLATION.

SEE SPECIAL PROVISION "EMBEDDED GALVANIC ANODES" FOR DESCRIPTION, MATERIALS, CONSTRUCTION, MEASUREMENT, AND PAYMENT INFORMATION.

▨ CONCRETE SURFACE REPAIR AREA. FIELD ENGINEER TO DETERMINE THE EXACT AREA OF REPAIR.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-30

DRAWN BY EJV | PLANS CK'D. MJK

CATHODIC PROTECTION & CONCRETE SURFACE REPAIR

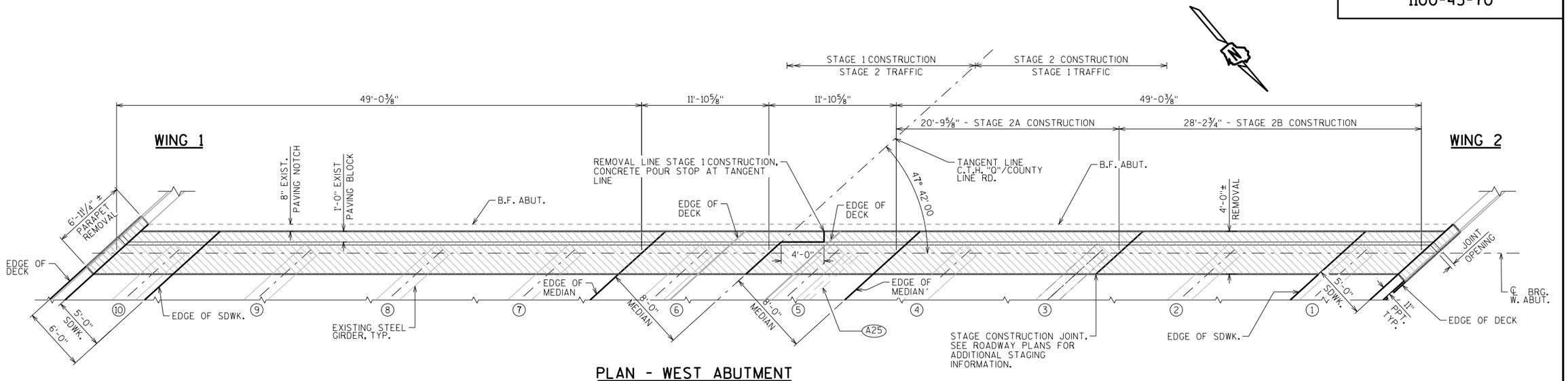
SHEET 5

458

SCALE = 6.00

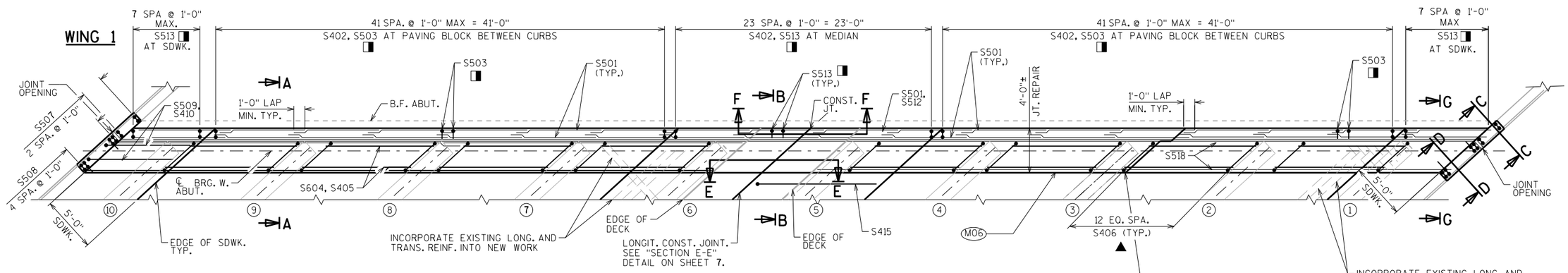
STATE PROJECT NUMBER

1100-43-70



PLAN - WEST ABUTMENT

EAST ABUTMENT SIMILAR
SHOWING REMOVAL LIMITS
SEE "JOINT REPAIR DETAILS 2"
SHEET FOR SECTION DETAILS



PLAN - WEST ABUTMENT

EAST ABUTMENT SIMILAR
SHOWING REPAIR
SEE "JOINT REPAIR DETAILS 2"
SHEET FOR SECTION DETAILS

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

(M06) ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MINIMUM AT ALL AREAS WHERE NEW CONCRETE CONTACTS EXISTING CONCRETE.

NOTE: SEE "COVER PLATE DETAILS" SHEET AND INCORPORATE IN JOINT REPAIR

ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-6" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

▲ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ GIRDERS.

◯ INDICATES GIRDER NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-30

DRAWN BY EJV | PLANS CK'D. MJK

JOINT REPAIR DETAILS 1

SHEET 6

459

SCALE = 7.00

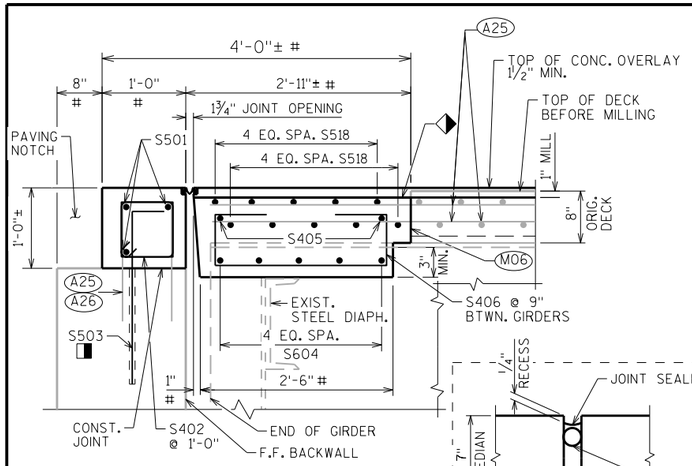
STATE PROJECT NUMBER

1100-43-70

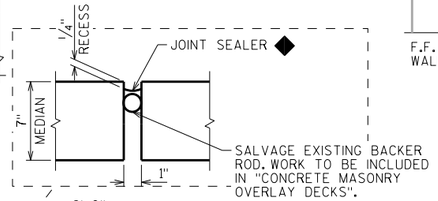
BILL OF BARS

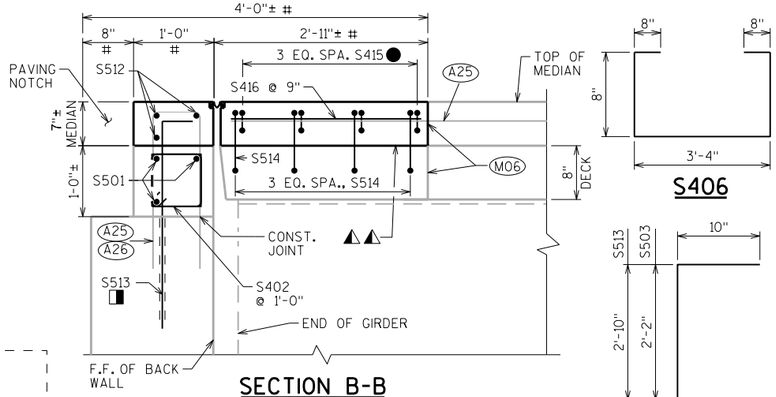
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
	S501	X	108	7'-8"			PAVING BLOCK - TRANSVERSE
	S402	X	240	3'-2"	X		PAVING BLOCK - STIRRUPS - VERTICAL
◨	S503	X	170	3'-0"	X		PAVING BLOCK - VERTICAL
	S604	X	80	9'-9"			DIAPHRAGM - TRANSVERSE - BOTTOM BTWN. GIRDERS (1-5, 6-10)
	S405	X	32	9'-9"			DIAPHRAGM - TRANSVERSE - TOP BTWN. GIRDERS (1-5, 6-10)
	S406	X	160	5'-8"	X		DIAPHRAGM - VERTICAL BTWN. GIRDERS (1-5, 6-10)
	S507	X	12	6'-3"	X		PARAPET VERTICAL
	S508	X	20	7'-4"	X		PARAPET / DECK VERTICAL
●	S509	X	52	6'-2"	X		SIDEWALK - TRANSVERSE - TOP
●	S410	X	16	4'-8"			SIDEWALK - TRANSVERSE - BOTTOM
	S411	X	72	2'-7"	X		SIDEWALK TO SLAB
	S512	X	18	8'-5"			PAVING BLOCK - TRANSVERSE - MEDIAN
◨	S513	X	80	3'-6"	X		PAVING BLOCK - VERTICAL, MEDIAN & SDWK
	S514	X	16	7'-6"	X		DECK - VERTICAL @ MEDIAN
●	S415	X	16	11'-9"	X		DECK - TRANSVERSE @ MEDIAN
	S416	X	60	4'-0"			DECK - LONGIT. @ MEDIAN & SDWK
*	S417	X	32	12'-0"			EXPANSION DEVICE - TRANSVERSE BTWN. GIRDERS (1-5, 6-10)
	S518	X	80	27'-9"			SUPERSTRUCTURE - TRANSVERSE
	S519	X	12	8'-6"			PAVING BLOCK - TRANSVERSE - SDWK



SECTION A-A



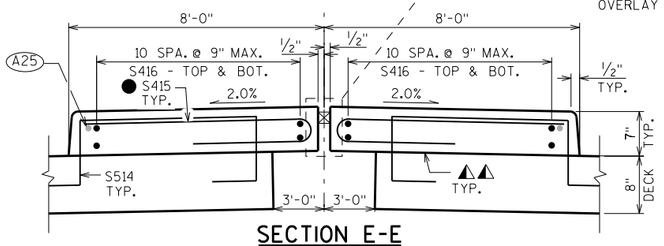


SECTION B-B

SHOWING ADDITIONAL MEDIAN STEEL. BARS SHOWN IN DIAPHRAGM IN "SECTION A-A" STILL REQUIRED HERE.

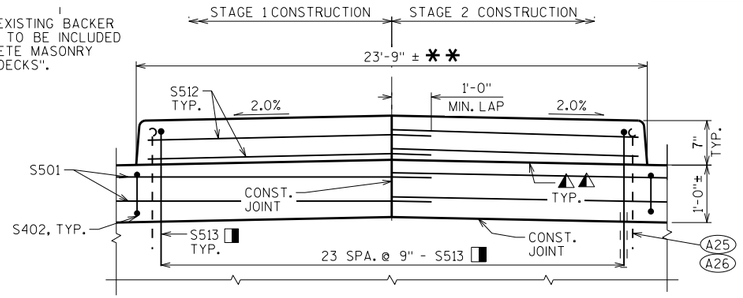
S406

S503, S513



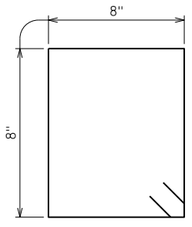
SECTION E-E

(MEDIAN STEEL @ DECK/DIAPH.)
(SEE SECTION A-A FOR DIAPH. STEEL)
DECK REINFORCEMENT NOT SHOWN FOR CLARITY

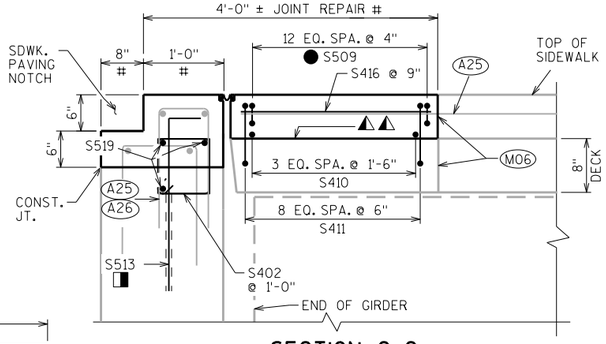


SECTION F-F

(MEDIAN STEEL @ PAVING BLOCK)

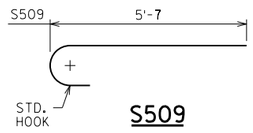


S402

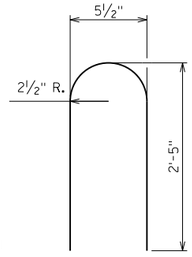


SECTION G-G

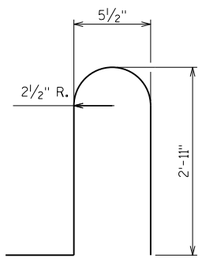
SHOWING ADDITIONAL SIDEWALK STEEL. BARS SHOWN IN DIAPHRAGM IN "SECTION A-A" STILL REQUIRED HERE.



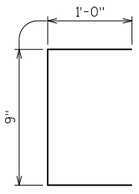
S509



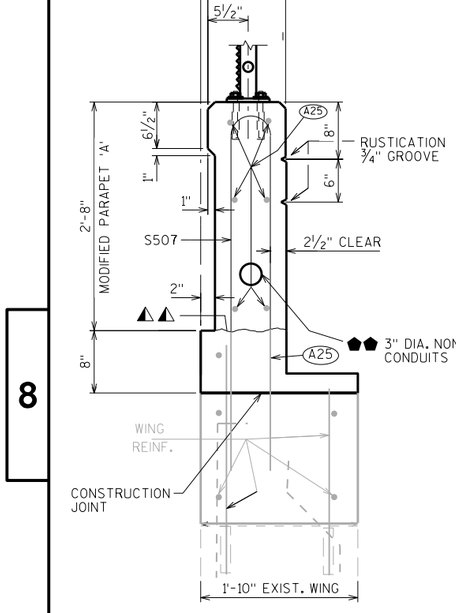
S507



S508

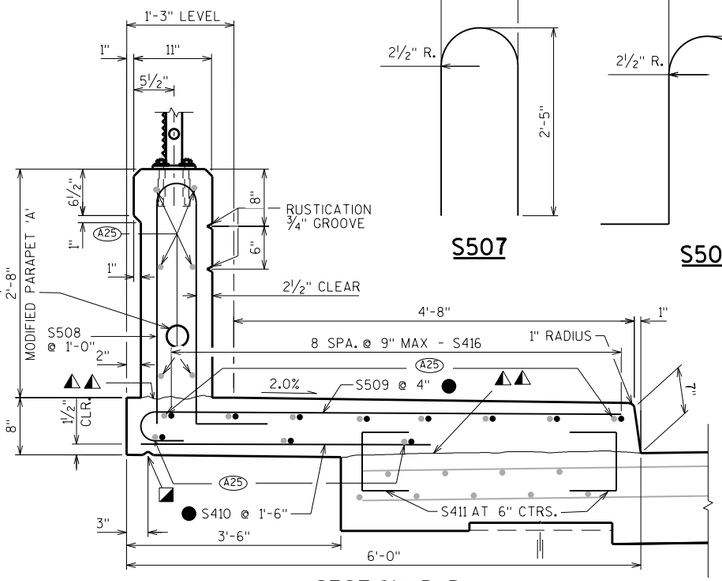


S411



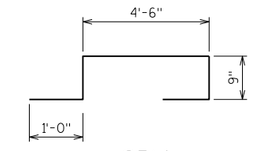
SECTION C-C

TYP. SECTION THRU WING AND PARAPET.

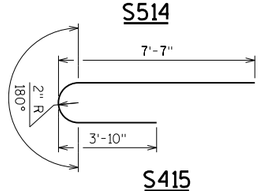


SECTION D-D

TYP. SECTION THRU DECK, DIAPHRAGM, & SDWK. ON STRUCTURE



S514



S415

- ◢◣ OPTIONAL CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- ◆ HOLD BACK TOP OF NEW ABUTMENT DIAPHRAGM ON DECK TO ALLOW FOR CONCRETE OVERLAY.
- ▲ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ GIRDERS.
- ◪ ¾" CONTINUOUS DRIP GROOVE. TERMINATE 2'-0" FROM F.F OF ABUT. BODY.
- ● BARS PLACED PARALLEL TO SUBSTRUCTURE
- ◨ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-6" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.
- # MEASURED NORMAL TO ℄ SUBSTRUCTURE
- ** DIMENSIONS MEASURED ALONG THE ℄ OF THE ABUT.
- ◆ 1/2" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).
- ⬟⬟ SALVAGE EXISTING PARAPET CONDUIT AND INCORPORATE INTO NEW PARAPET CONCRETE.
- (A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.
- (A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH EPOXY ANCHORED NO. 5 L-SHAPED BARS WITH A 10" HORIZ. LEG. EMBED 7". WORK TO BE PAID UNDER ITEM "JOINT REPAIR".
- (M06) ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MINIMUM AT ALL AREAS WHERE NEW CONCRETE CONTACTS EXISTING CONCRETE.

NOTE: SEE "COVER PLATE DETAILS" SHEET AND INCORPORATE IN JOINT REPAIR

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STRUCTURE B-66-30

DRAWN BY EJV | PLANS CK'D. MJK

JOINT REPAIR DETALS 2

SHEET 7

460

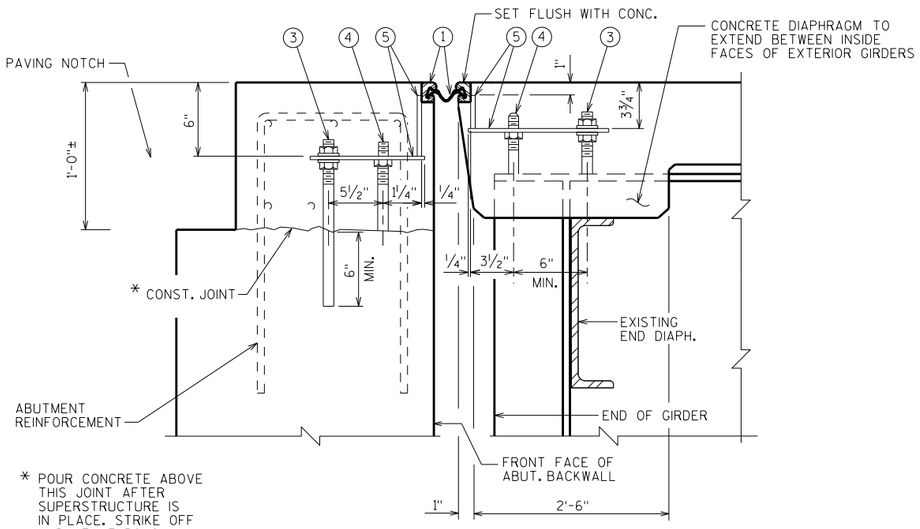
SCALE = 7.00

8

8

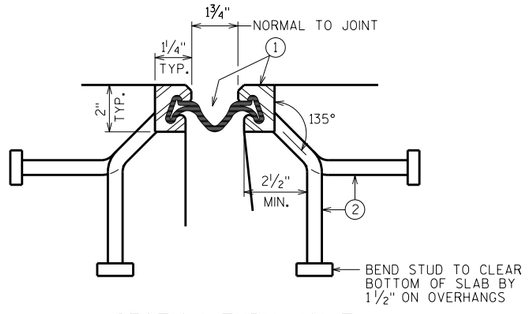
STATE PROJECT NUMBER

1100-43-70



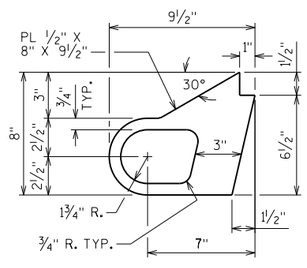
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

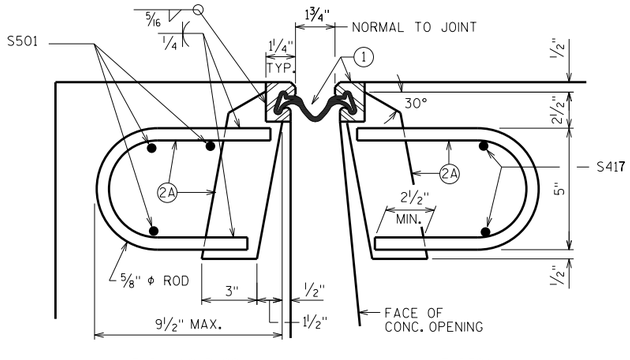


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS

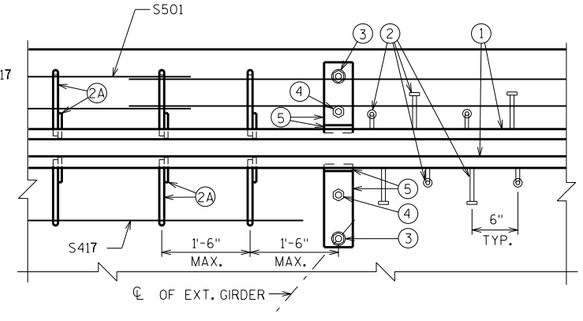


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.

(2) STUDS ⅝" DIA. 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 & 1" DIA. HOLE FOR NO. 4.

(7) ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) ¾" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

(11) SIDEWALK COVER PLATE ⅜" X 2'-0" X LIMITS SHOWN. BEND DOWN FACE OF SIDEWALK WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, ANCHOR PLATES SHALL BE PROVIDED 3" FROM EACH SIDE OF THE FIELD SPLICE. DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED. SLIP-RESISTANT SURFACE IS APPLIED TO SIDEWALK COVER PLATES BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMENDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

ALL MATERIAL IN THE EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE", LF.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-30

DRAWN BY EJV | PLANS CK'D. MJK

EXPANSION DEVICE

SHEET 8

461

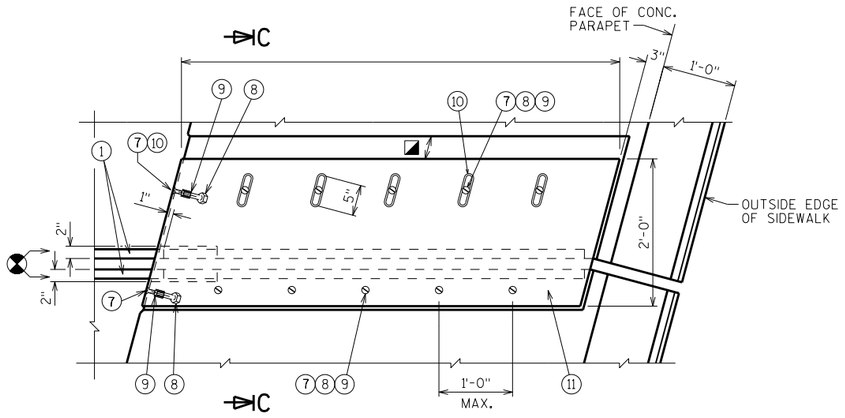
SCALE = 1.00

8

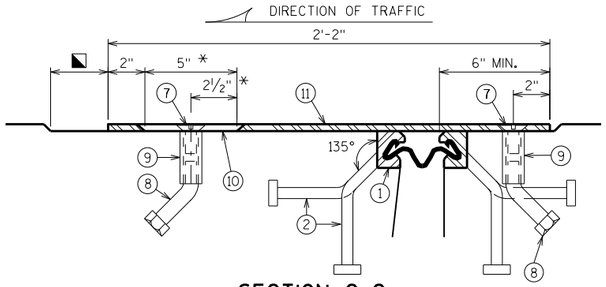
8

STATE PROJECT NUMBER

1100-43-70



PLAN AT SIDEWALK

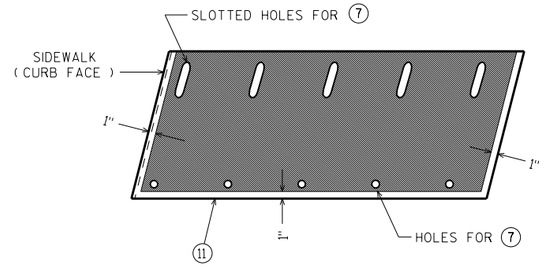


SECTION C-C

* DIMENSION ALONG DIRECTION OF MOVEMENT

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

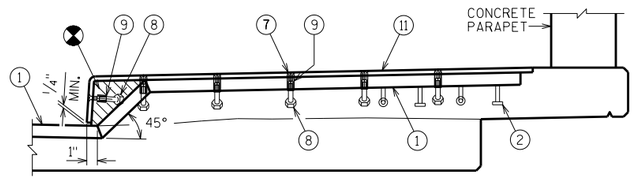
◪ JOINT OPENING DIMENSION ALONG SKEW PLUS ½".



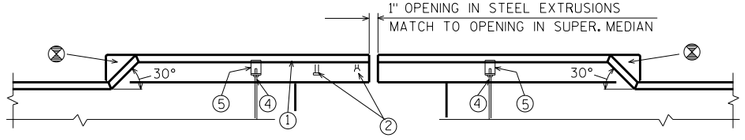
PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SURFACE IN SHADED AREA ONLY (NOT ON CURB FACE).

APPROVED SLIP-RESISTANT APPLIED SURFACES FOR STEEL PLATES		
PRODUCT	MANUFACTURER	CONTACT AT
SLIPNOT GRADE 2, STEEL	W. S. MOLNAR COMPANY	1-800-SLIPNOT
ALGRIP, STEEL	ROSS TECHNOLOGY CORP.	1-800-345-8170



SECTION AT SIDEWALK



SECTION AT MEDIAN CURB

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.

(2) STUDS ⅝" DIA. 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 & 1" DIA. HOLE FOR NO. 4.

(7) ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) ¾" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

(11) SIDEWALK COVER PLATE ⅜" X 2'-0" X LIMITS SHOWN. BEND DOWN FACE OF SIDEWALK WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-30

DRAWN BY EJV | PLANS CK'D. MJK

COVER PLATE DETAILS

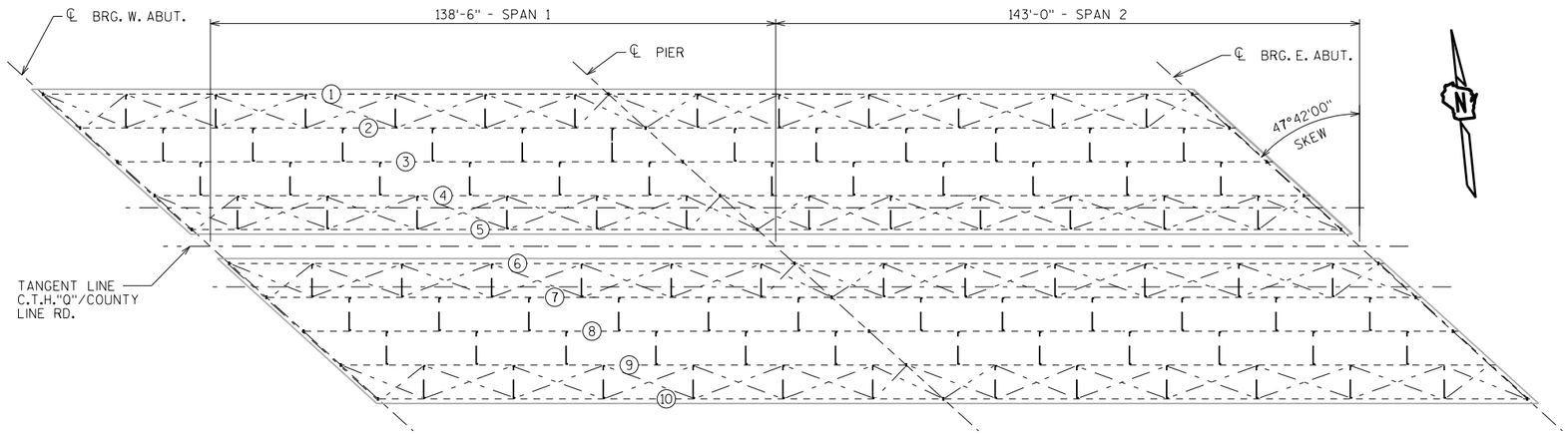
SHEET 9

462

SCALE = 1.00

STATE PROJECT NUMBER

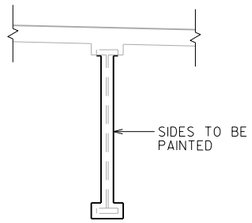
1100-43-70



FRAMING PLAN

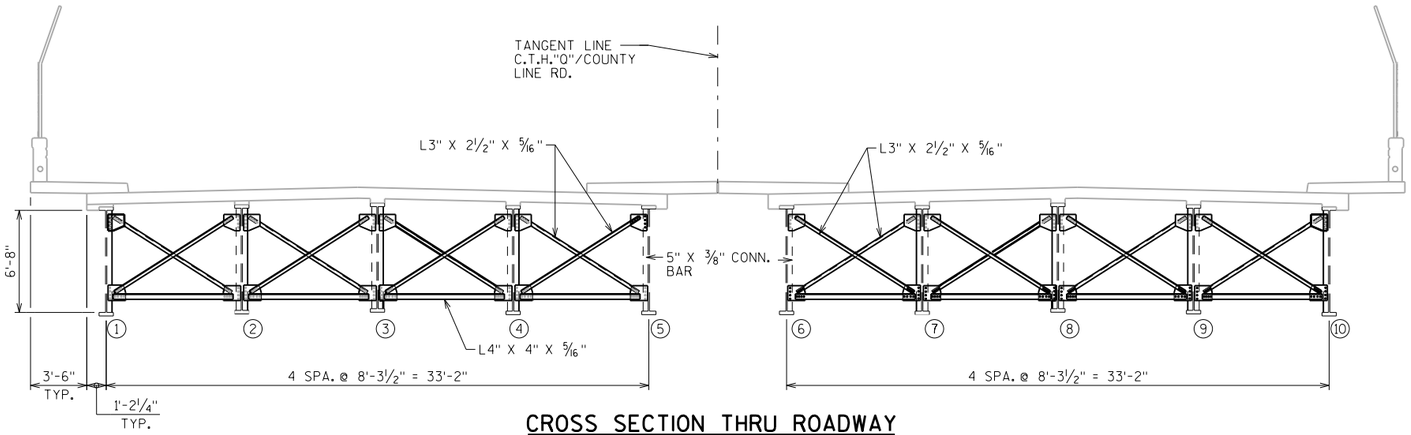
NOTE:

ALL EXPOSED STEEL SURFACES UNDERNEATH THE BRIDGE DECK ARE TO BE CLEANED AND PAINTED. THESE SURFACES INCLUDE GIRDERS, INTERMEDIATE DIAPHRAGMS, FIELD SPLICES, AND BEARING CONNECTIONS. TOTAL AMOUNT OF PAINTING IS EXPECTED TO BE APPROXIMATELY 60,700 SF.



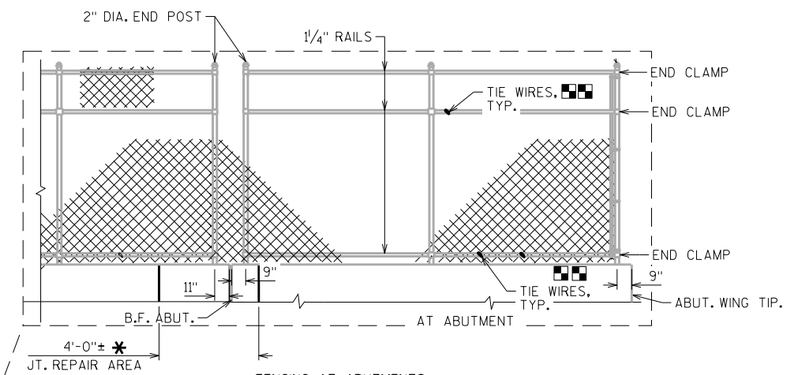
PAINTING LIMITS

TYPICAL TO ALL GIRDERS



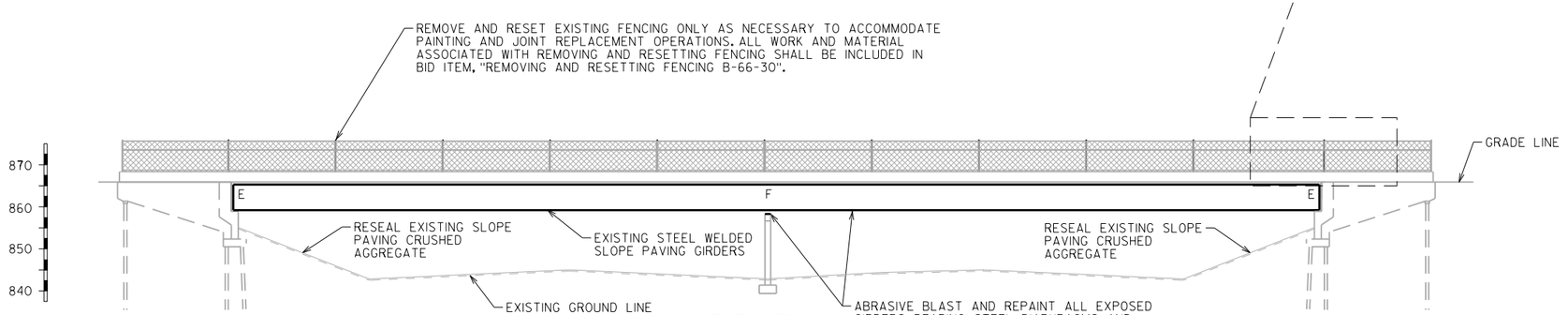
CROSS SECTION THRU ROADWAY

LOOKING EAST



FENCING AT ABUTMENTS

(EAST ABUT. SHOWN. WEST ABUT. SIMILAR)



ELEVATION

LOOKING NORTH

REPLACE THE WIRE TIES TO THE FENCE. DO NOT REPAINT FENCE

* ALL WORK AND MATERIAL ASSOCIATED WITH RESETTING FENCING WITHIN JOINT REPAIR AREA SHALL BE INCLUDED IN THE BID ITEM "REMOVING AND RESETTING FENCING B-66-30".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-30

DRAWN BY EJV | PLANS CK'D. MJK

PAINTING & FENCE DETAILS

SHEET 10

463

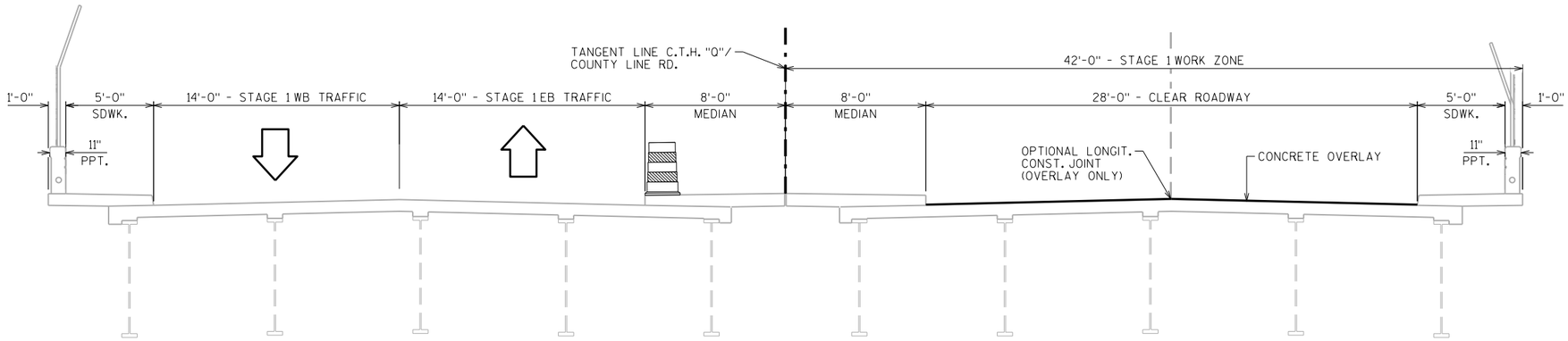
SCALE = 18.00

8

8

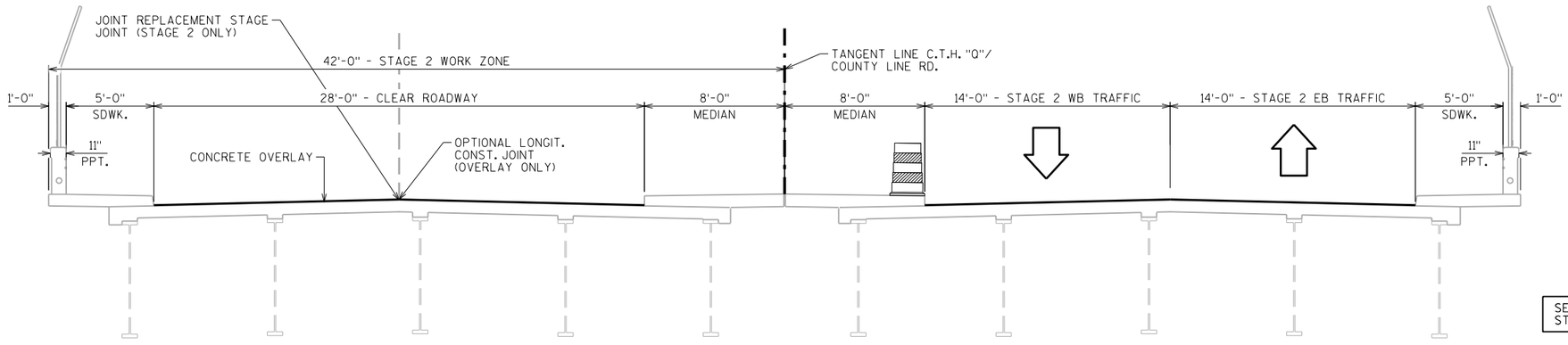
STATE PROJECT NUMBER

1100-43-70



STAGE 1 WORK ZONE

LOOKING EAST



STAGE 2 WORK ZONE

LOOKING EAST

SEE ROADWAY PLANS FOR ADDITIONAL STAGING INFORMATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-30

DRAWN BY EJV | PLANS CK'D. MJK

CONSTRUCTION STAGING

SHEET 11

464

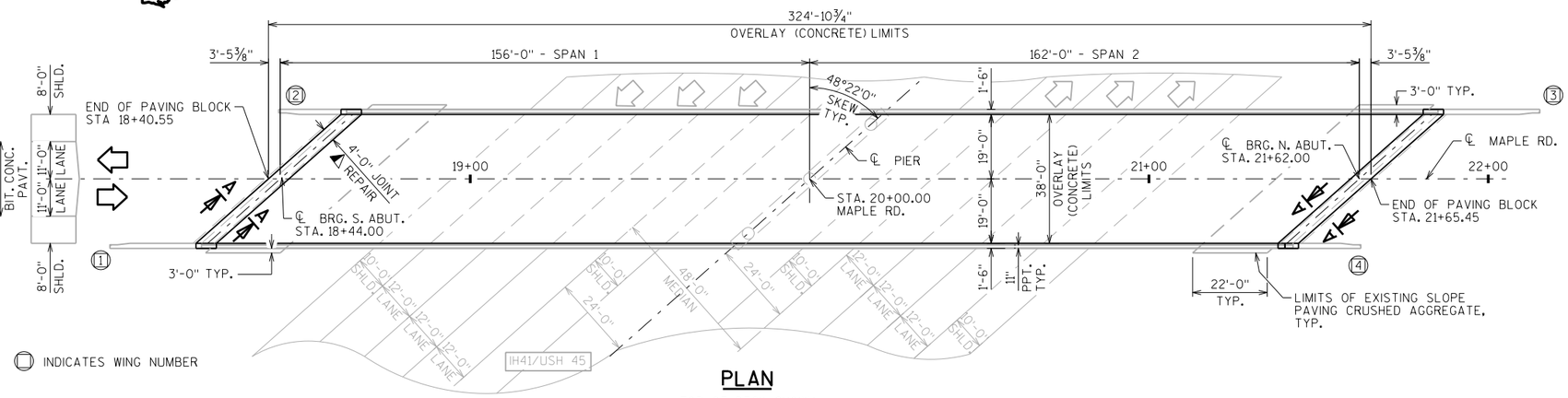
SCALE = 15.00

8

8

STATE PROJECT NUMBER

1100-43-70



PLAN

TOP OF DECK SHOWN
2 - SPAN STEEL GIRDER

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-17
OPERATING RATING: HS-28
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 166 (KIPS)

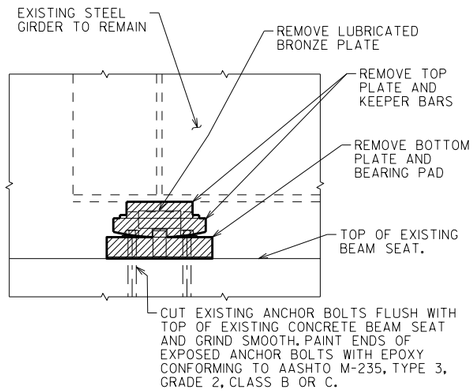
MATERIAL PROPERTIES:

CONCRETE MASONRY OVERLAY DECKS-f'c = 4,000 P.S.I.
CONCRETE MASONRY OTHER-f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT:
GRADE 60 ..... fy = 60,000 P.S.I.

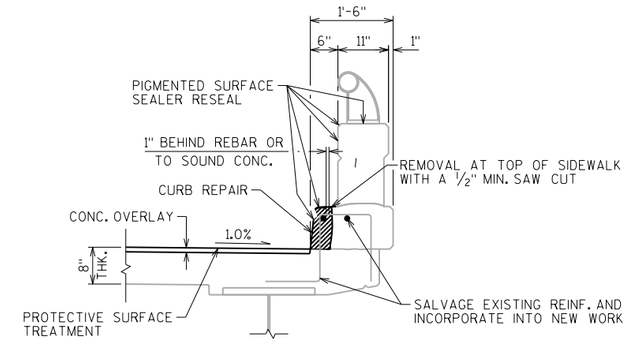
TRAFFIC VOLUME

MAPLE ROAD
ADT = 8000 (2039)
R.D.S. = 45 M.P.H.

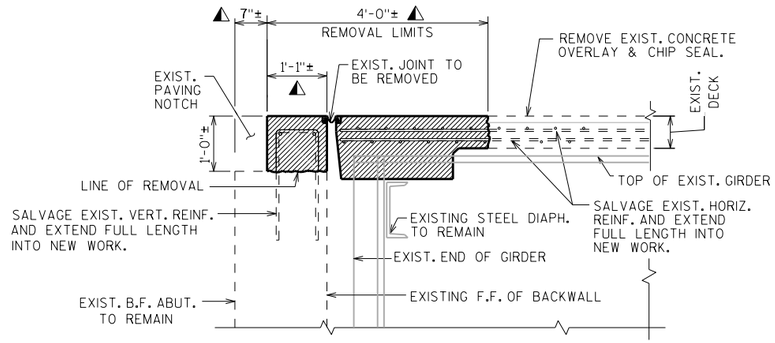
U.S.H. 41
ADT = 90700 (2039)
R.D.S. = 75 M.P.H.



BEARING REMOVAL DETAIL AT ABUTMENTS



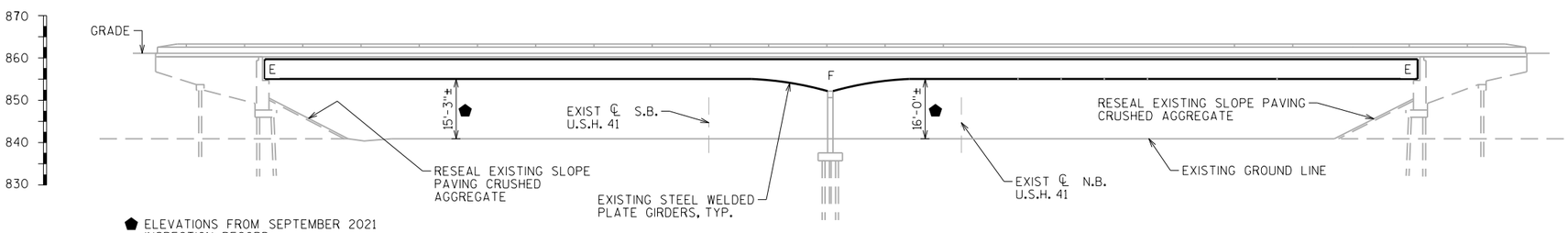
PROTECTIVE SURFACE TREATMENT LIMITS & CURB REPAIR DETAIL



EXISTING SECTION A-A

SHOWING REMOVAL
TYP. BOTH ABUTMENTS

⚠ DIMENSION GIVEN NORMAL TO ℄ SUBSTRUCTURE.



⬟ ELEVATIONS FROM SEPTEMBER 2021 INSPECTION RECORD

ELEVATION

LOOKING WEST

LIST OF DRAWINGS

1. CONCRETE OVERLAY
2. QUANTITIES & NOTES
3. BEARING REHABILITATION
4. BEARING DETAILS
5. CATHODIC PROTECTION & CONCRETE SURFACE REPAIR
6. JOINT REPAIR DETAILS
7. EXPANSION DEVICE
8. COVER PLATE DETAILS
9. PAINTING DETAILS

STRUCTURE DESIGN CONTACTS:
ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED DMB 04/21/22
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-66-31

MAPLE ROAD OVER IH 41/USH 45

COUNTY	VILLAGE
WASHINGTON	GERMANTOWN

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
EJV	AA	EJV	MJK

CONCRETE OVERLAY

SHEET 1 OF 9

465

I.D. 1100-43-00J

DATE: APRIL 2022

SCALE = 20.00

8

8

STATE PROJECT NUMBER

1100-43-70

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER	SOUTH ABUT.	PIER	NORTH ABUT.	TOTALS
203.0211.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-66-31	EACH	---	---	---	---	1
502.3101	EXPANSION DEVICE	LF	116	---	---	---	116
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1371	---	---	---	1371
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	265	21	---	20	306
502.4205	ADHESIVE ANCHOR NO. 5 BAR	EACH	---	40	---	40	80
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	3,375	---	---	---	3,375
506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	10	---	---	---	10
506.7050.S	REMOVING BEARINGS B-66-31	EACH	10	---	---	---	10
509.0301	PREPARATION DECKS TYPE 1	SY	390	---	---	---	390
509.0302	PREPARATION DECKS TYPE 2	SY	260	---	---	---	260
509.0505.S	CLEANING DECKS TO REAPPLY CONCRETE MASONRY OVERLAY	SY	1,321	---	---	---	1,321
509.1000	JOINT REPAIR	SY	---	28	---	28	56
509.1200	CURB REPAIR	LF	200	---	---	---	200
509.1500	CONCRETE SURFACE REPAIR	SF	80	60	55	60	255
509.2000	FULL-DEPTH DECK REPAIR	SY	20	---	---	---	20
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	114	17	---	17	148
509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY B-66-31	SY	1,371	---	---	---	1,371
513.9006.S	REMOVING AND RESETTING TUBULAR RAILING B-66-31	EACH	---	---	---	---	1
517.1801.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-66-31	EACH	---	---	---	---	1
517.4501.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-66-31	EACH	---	---	---	---	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	---	---	---	---	1
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	---	182	---	182	364
SPV.0060	EMBEDDED GALVANIC ANODES	EACH	---	20	30	24	74
	NON-BID ITEMS						
	BRIDGE SEAT PROTECTION	LS	---	---	---	---	1

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE NEW CONCRETE OVERLAY AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENTS DIAPHRAGM.

PIGMENTED SURFACE SEALER RESEAL TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BLUE, SHERWIN WILLIAMS SW6523 OR EQUAL COLOR APPROVED BY THE ENGINEER.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL DEPTH DECK REPAIRS AREA ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER, DECK PREPARATION AND FULL DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½". CONTACT THE STRUCTURE DESIGN SECTION.

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

ANY EXCAVATION NECESSARY TO COMPLETE OVERLAY OR THE JOINT REPAIR AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "JOINT REPAIR".

SEAL OVERLAY CONSTRUCTION JOINTS ACCORDING TO SECTION 502.3.13.1 OF THE STANDARD SPECIFICATIONS. COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

THE AVERAGE OVERLAY THICKNESS IS BASED ON THE MINIMUN OVERLAY THICKNESS PLUS ½" TO ACCOUNT FOR VARIATIONS IN THE DECK SURFACE.

CONCRETE REMOVAL AT WINGS AND PAVING BLOCKS SHALL BE DEFINED BY A 1" DEEP SAW CUT.

CONCRETE FOR JOINT REPAIRS IS INCLUDED IN BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

ASBESTOS LOCATED AT GASKET UNDER STEEL RAILING BASE PLATE. REMOVAL TO BE INCLUDED WITH BID ITEM "ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-66-31".

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF THE ABUTMENTS BELOW EXPANSION DEVICES.

◐◐ THIS QUANTITY IS FOR INFORMATIONAL PURPOSE ONLY. FIELD ENGINEER TO VERIFY THE EXACT NUMBER OF ANODES REQUIRED AT EACH INDIVIDUAL SURFACE REPAIR LOCATION PRIOR TO ANODE INSTALLATION.

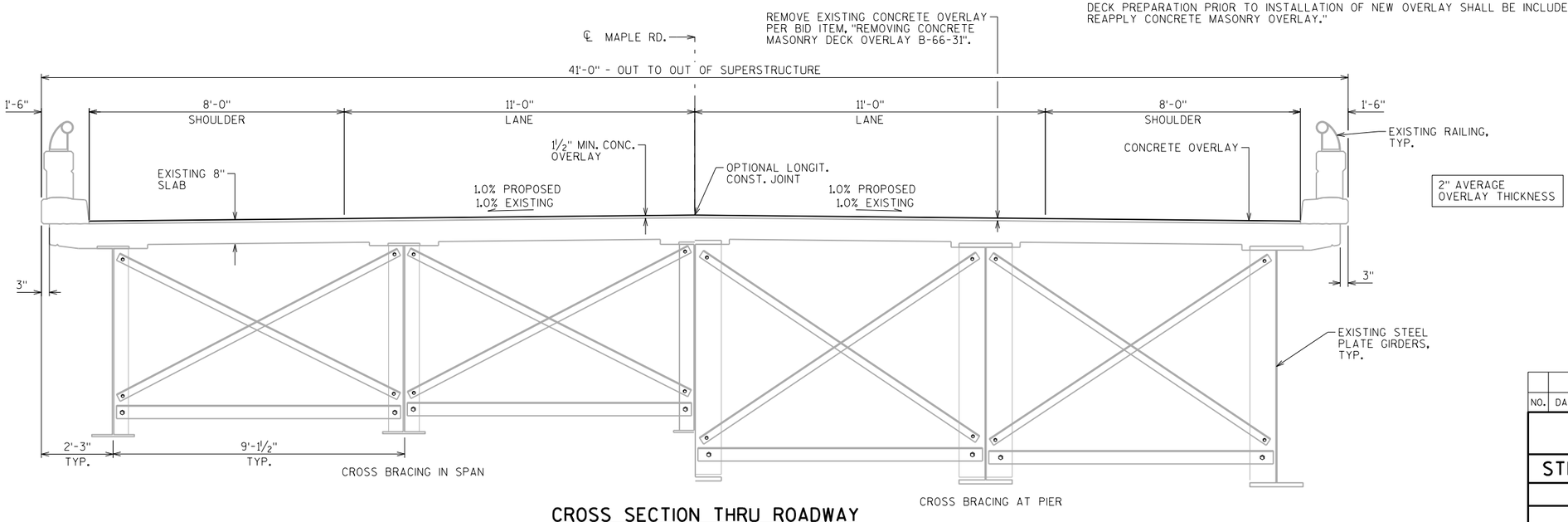
ENGINEER TO DETERMINE CONCRETE SURFACE REPAIR AREAS. CONCRETE SURFACE REPAIR SHALL BE MADE ONLY AS DIRECTED BY ENGINEER.

CLEANING AND PAINTING EXISTING BEARINGS AT THE PIER IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "STRUCTURE REPAINTING RECYCLED ABRASIVE B-66-31.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE EXISTING OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK UNDER BID ITEM "REMOVING CONCRETE MASONRY DECK OVERLAY B-66-31".

DECK PREPARATION PRIOR TO INSTALLATION OF NEW OVERLAY SHALL BE INCLUDED IN BID ITEM, "CLEANING DECKS TO REAPPLY CONCRETE MASONRY OVERLAY."



CROSS SECTION THRU ROADWAY

LOOKING NORTH

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-31

DRAWN BY EJV | PLANS CK'D. MJK

QUANTITIES & NOTES

SHEET 2

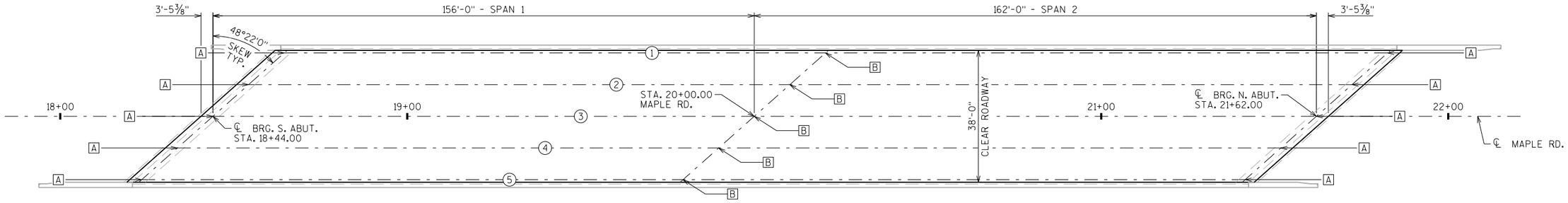
466

SCALE = 1.00

8

8

STATE PROJECT NUMBER
1100-43-70



BEARING REHABILITATION PLAN

SEE "BEARING DETAILS" SHEET FOR DETAILS

LEGEND

[A] REPLACE BEARING

[B] CLEAN AND PAINT BEARINGS, INCIDENTAL TO BID ITEM "STRUCTURE REPAINTING RECYCLED ABRASIVE B-66-31"

◯ INDICATES GIRDER NUMBER

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-31

DRAWN BY EJV | PLANS CK'D. MJK

BEARING REHABILITATION

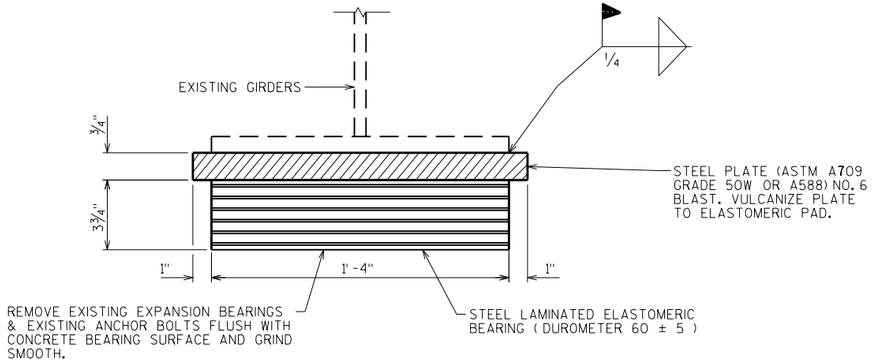
SHEET 3

467

SCALE = 15.00

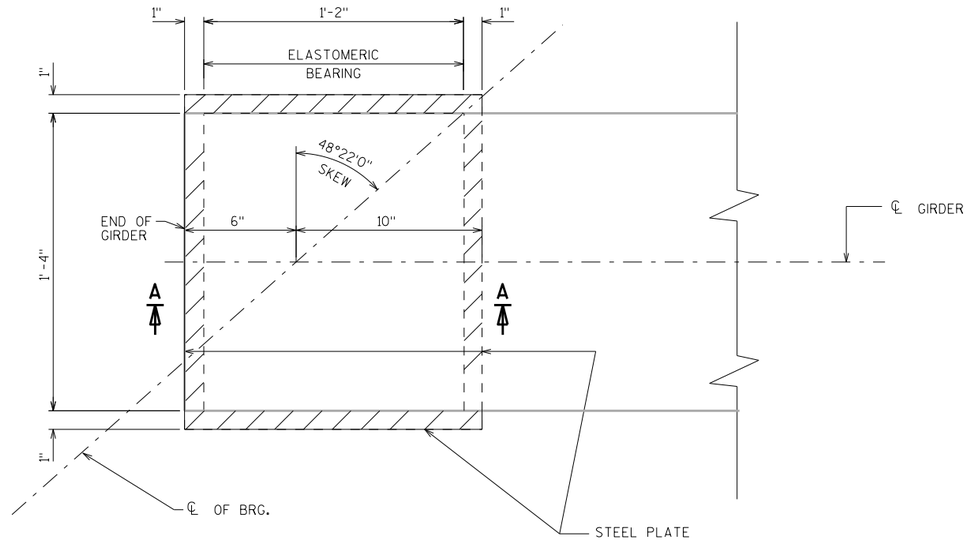
STATE PROJECT NUMBER

1100-43-70



BEARING FRONT ELEVATION

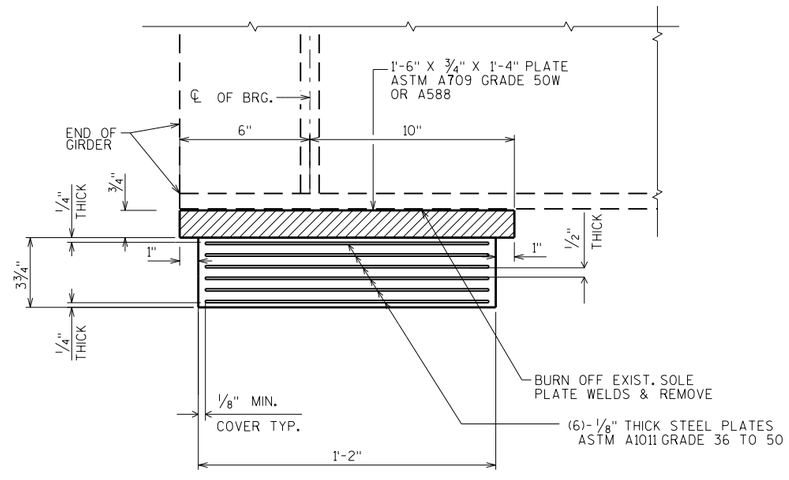
5 PER ABUTMENT



BEARING PLAN VIEW

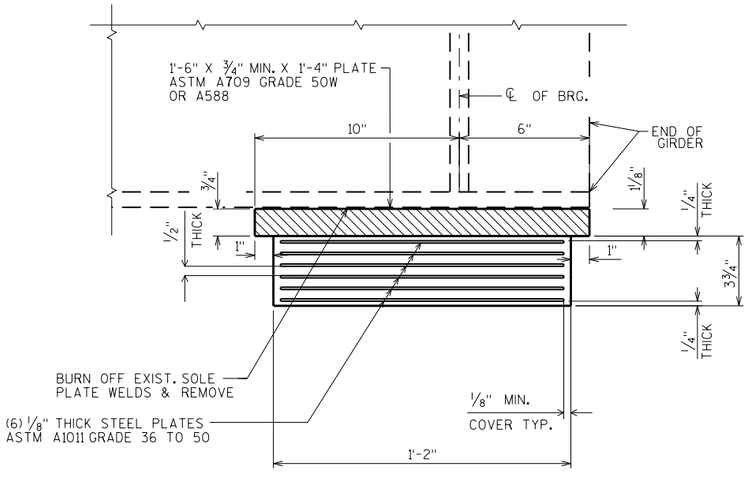
5 PER ABUTMENT

SOUTH ABUT. BEARING SHOWN.
NORTH ABUT. BEARING SIMILAR.



SECTION A-A THRU ELASTOMERIC BEARING

SOUTH ABUTMENT



SECTION A-A THRU ELASTOMERIC BEARING

NORTH ABUTMENT

NOTES:

BEARINGS SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 85° F.

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

GRIND EXISTING WELD ATTACHING EXISTING TOP PLATE TO EXISTING BOTTOM FLANGE. GRIND AFFECTED AREAS SMOOTH.

WELDING PROCEEDURES SHOULD BE ESTABLISHED BY THE CONTRACTOR TO RESTRICT MAXIMUM TEMPERATURE REACHED BY SURFACES IN CONTACT WITH ELASTOMER TO 200°F (93°C). TEMPERATURES SHALL BE CONTROLLED BY TEMPERATURE INDICATING WAX PENCILS OR OTHER SUITABLE MEANS APPROVED BY THE ENGINEER.

TOP STEEL PLATE MAY NOT BE OMITTED.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-31

DRAWN BY EJV | PLANS CK'D. MJK

BEARING DETAILS

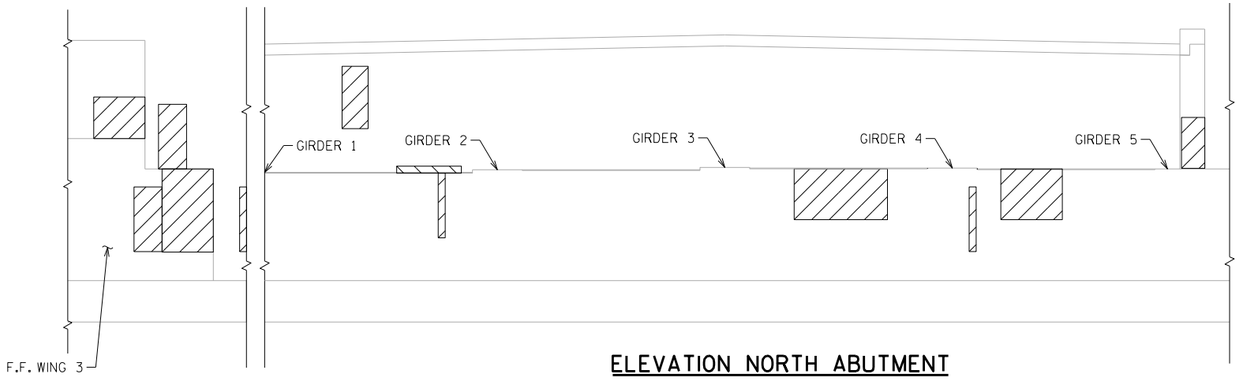
SHEET 4

468

SCALE = 0.33

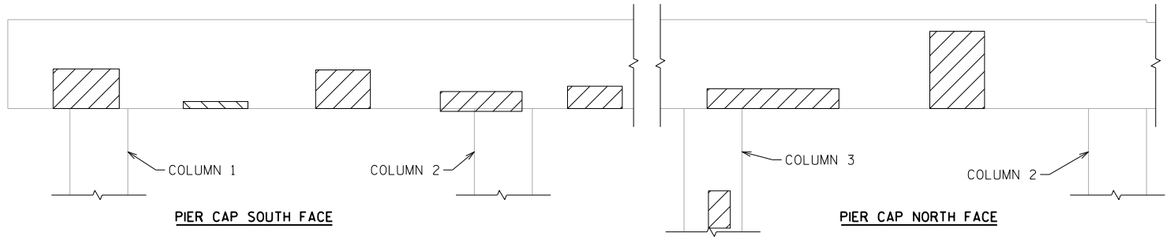
STATE PROJECT NUMBER

1100-43-70



ELEVATION NORTH ABUTMENT

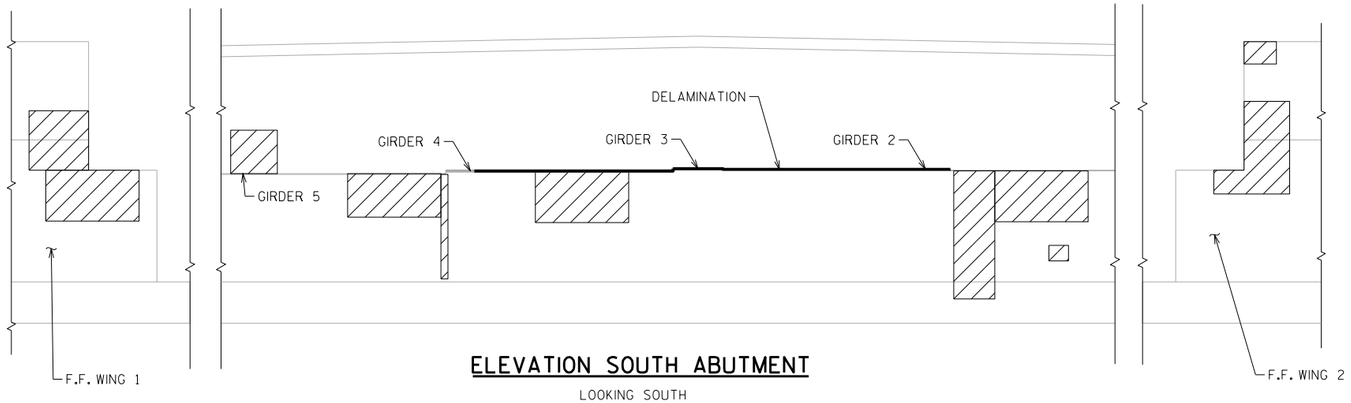
LOOKING NORTH



PIER CAP SOUTH FACE

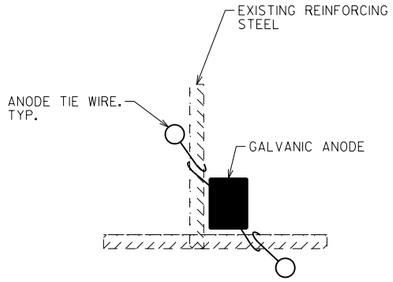
PIER CAP NORTH FACE

PIER

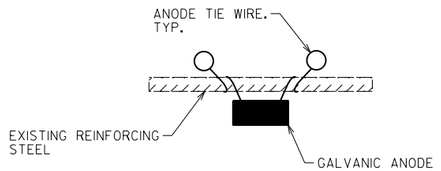


ELEVATION SOUTH ABUTMENT

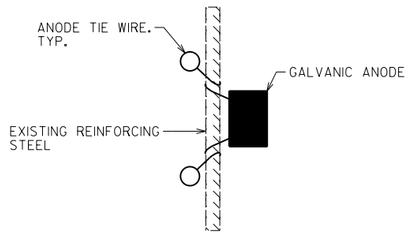
LOOKING SOUTH



TYPICAL INSTALLATION AT BAR STEEL INTERSECTION



TYPICAL INSTALLATION BELOW BAR STEEL



TYPICAL INSTALLATION BESIDE BAR STEEL

MAXIMUM GALVANIC ANODE SPACING

STEEL DENSITY RATIO (SQ. IN. PER FT.)	MAXIMUM ANODE SPACING (INCHES)
<= 0.3	24
0.31-0.50	20
0.51-0.60	18
0.61-0.80	16
0.81-0.90	15
0.91-1.00	14
1.01-1.20	12
>=1.20	*

NOTES:

* AT STEEL DENSITY RATIOS GREATER THAN 1.20, CONSULT THE ENGINEER TO DETERMINE MAXIMUM ANODE SPACING AND ANODE LAYOUT.

STEEL DENSITY RATIO IS THE RATIO OF STEEL REINFORCING BAR SURFACE AREA TO EXPOSED CONCRETE SURFACE AREA WITHIN THE REPAIR AREA.

TABLE IS BASED ON HIGH CORROSION RISK WITHIN THE SURFACE REPAIR AREA, A MINIMUM ZINC MASS OF 38 GRAMS AND AN APPROXIMATE SERVICE LIFE OF 10-20 YEARS.

WORK SHOWN IS INCLUDED IN THE BID ITEM "EMBEDDED GALVANIC ANODE". SEE SPECIAL PROVISION FOR DETAILS.

CONCRETE SURFACE REPAIR IS PAID FOR SEPARATELY.

ANODES NEAREST TO EDGE OF REPAIR TO BE WITHIN 6" OF EDGE.

AFTER PLACEMENT, GALVANIC ANODES SHOULD MAINTAIN A MINIMUM TOP COVER OF 1½" AND A MINIMUM BOTTOM COVER OF ¾".

EXISTING REINFORCING STEEL TO BE COMPLETELY CLEANED OF CORRODED MATERIAL PRIOR TO INSTALLATION OF GALVANIC ANODES.

ESTIMATED ANODE QUANTITY IN PLANS IS BASED ON A MAXIMUM SPACING OF 24" AROUND PERIMETER OF CONCRETE SURFACE REPAIR AREA AND PLACE ADDITIONAL ANODES AT THE INTERIOR OF REPAIRED AREA SO CENTER TO CENTER SPACING ANODES IS NOT GREATER THAN 24" IN ANY DIRECTION. INSTALL ANODES PER MANUFACTURER RECOMMENDATIONS.

FIELD ENGINEER TO DETERMINE EXACT REPAIR LOCATIONS AND VERIFY THE EXACT NUMBER OF ANODES REQUIRED AT EACH INDIVIDUAL SURFACE REPAIR LOCATION PRIOR TO ANODE INSTALLATION.

SEE SPECIAL PROVISION "EMBEDDED GALVANIC ANODES "FOR DESCRIPTION, MATERIALS, CONSTRUCTION, MEASUREMENT, AND PAYMENT INFORMATION.

CONCRETE SURFACE REPAIR AREA. FIELD ENGINEER TO DETERMINE THE EXACT AREA OF REPAIR.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-31

DRAWN BY EJV | PLANS CK'D. MJK

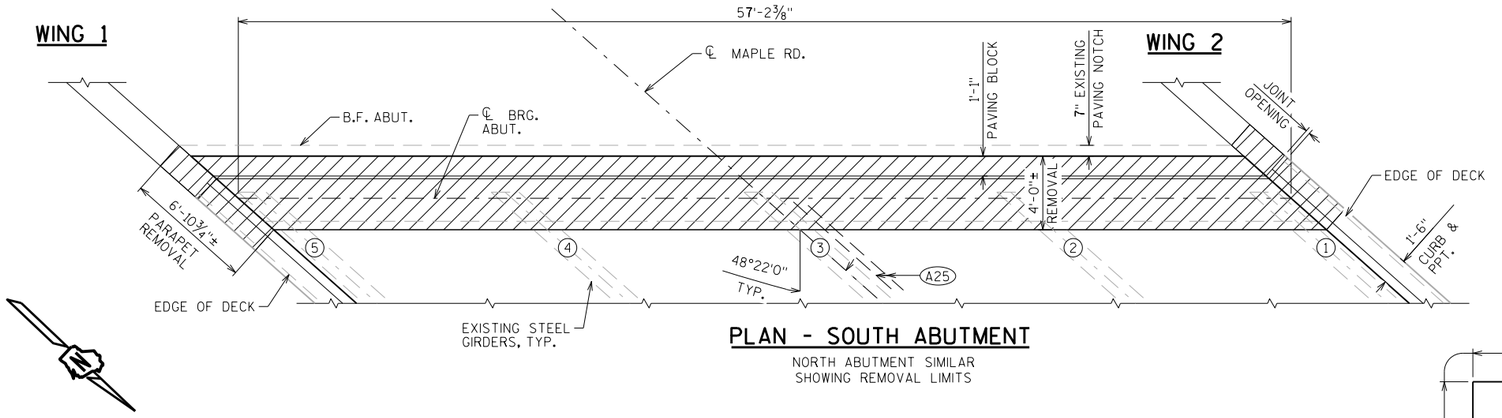
CATHODIC PROTECTION & CONCRETE SURFACE REPAIR

SHEET 5

469

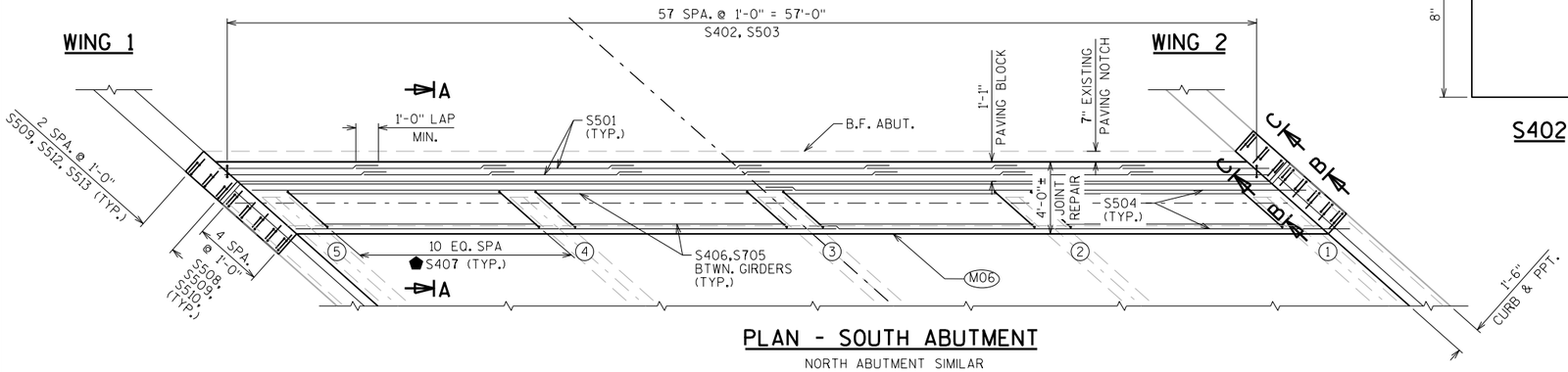
SCALE = 4.00

STATE PROJECT NUMBER
1100-43-70



PLAN - SOUTH ABUTMENT

NORTH ABUTMENT SIMILAR
SHOWING REMOVAL LIMITS



PLAN - SOUTH ABUTMENT

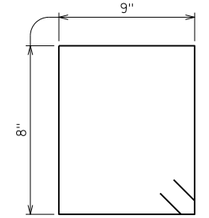
NORTH ABUTMENT SIMILAR
SHOWING REPAIR

BILL OF BARS

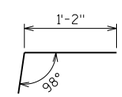
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	48	8'-6"			PAVING BLOCK - TRANSVERSE
S402	X	116	3'-4"	X		PAVING BLOCK - STIRRUPS - VERTICAL
S503	X	116	3'-0"	X		PAVING BLOCK - VERTICAL
S504	X	40	31'-10"			SUPERSTRUCTURE - TRANSVERSE
S705	X	40	11'-4"			DIAPHRAGM - TRANSVERSE - BOTTOM
S406	X	16	11'-4"			DIAPHRAGM - TRANSVERSE - TOP
S407	X	88	5'-8"	X		DIAPHRAGM - VERTICAL
S508	X	20	4'-11"	X		PARAPET - VERTICAL
S509	X	32	1'-8"	X		PARAPET & CURB- VERTICAL
S510	X	20	3'-7"	X		PARAPET & DECK/CURB- VERTICAL
S411	X	16	13'-4"			EXPANSION DEVICE - TRANSVERSE
S512	X	12	4'-0"	X		CURB/PAVING NOTCH
S513	X	12	5'-5"	X		PPT./CURB/WING-VERTICAL

* SEE 'EXPANSION DEVICE' SHEET FOR LOCATIONS



S402



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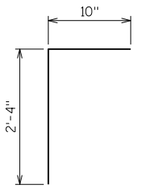

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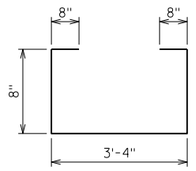

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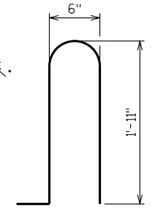

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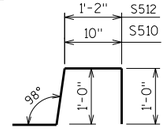
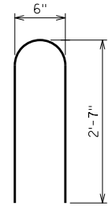


S510, S512



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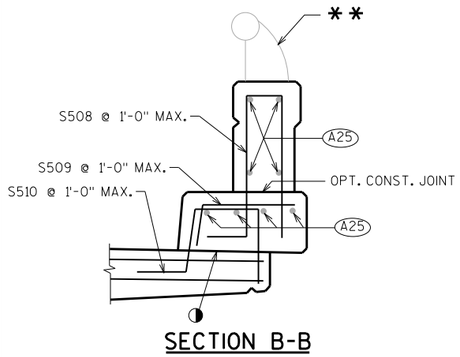
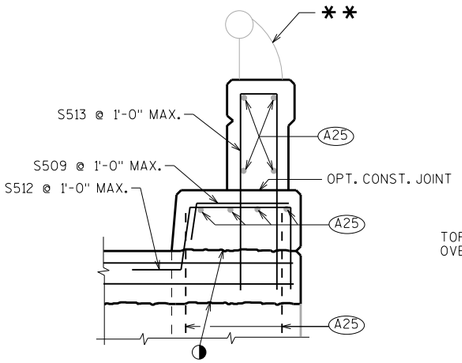
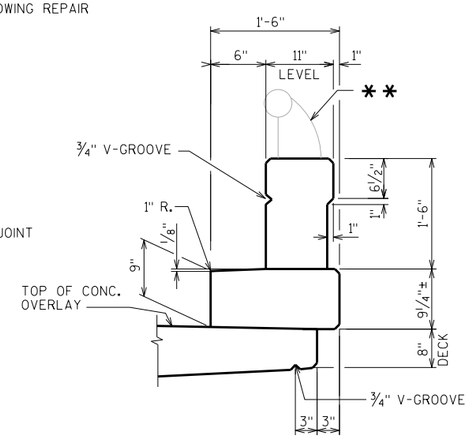


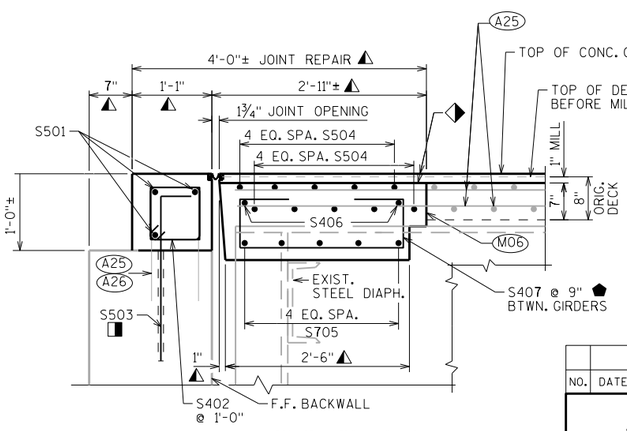
SECTION B-B



SECTION C-C



SECTION THRU PARAPET



SECTION A-A

NOTE: SEE "COVER PLATE DETAILS" SHEET, AND INCORPORATE IN JOINT REPAIR.

** SALVAGE AND REUSE EXISTING METAL RAIL, RAIL POSTS, & CONNECTION ELEMENTS. NOTE THAT ASBESTOS ABATEMENT IS REQUIRED FOR CAULKING AROUND THE RAIL POST ATTACHMENT PLATES AND THE ATTACHMENT PLATE BOLTS. WORK SHALL BE INCLUDED IN THE BID ITEM "REMOVING AND RESETTING TUBULAR RAILING B-66-31".

▲ MEASURED NORMAL TO ℄ SUBSTRUCTURE

◨ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-6" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

◭ HOLD BACK TOP OF NEW ABUTMENT DIAPHRAGM ON DECK TO ALLOW FOR CONCRETE OVERLAY.

◑ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.

⬟ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ OF GIRDERS.

◯ INDICATES GIRDER NUMBER.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

(A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH EPOXY ANCHORED NO. 5 L- SHAPED BARS WITH A 10" HORIZ. LEG. EMBED 7". WORK TO BE PAID UNDER ITEM "JOINT REPAIR"

(M06) ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MINIMUM AT ALL AREAS WHERE NEW CONCRETE CONTACTS EXISTING CONCRETE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-31

DRAWN BY EJV | PLANS CK'D. MJK

JOINT REPAIR DETAILS

SHEET 6

470

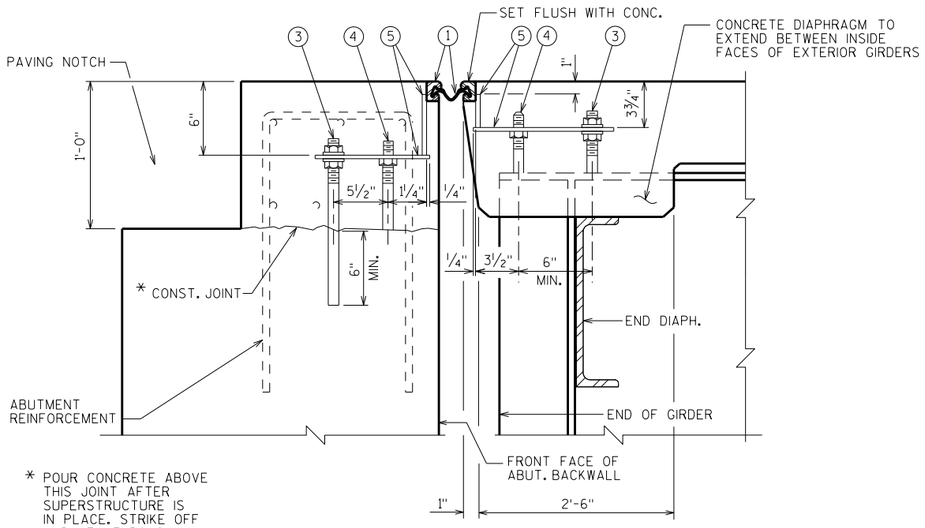
SCALE = 4.00

8

8

STATE PROJECT NUMBER

1100-43-70



* POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.

(2) STUDS ⅝" DIA. X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 AND 1" DIA. HOLE FOR NO. 4.

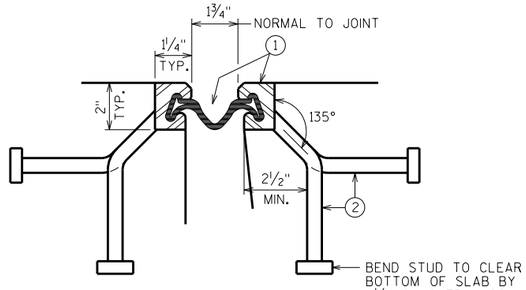
(6) GALVANIZED PLATE ⅜" X 10" X 3'-0" LONG WITH HOLES FOR NO. 7.

(7) ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) ¾" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

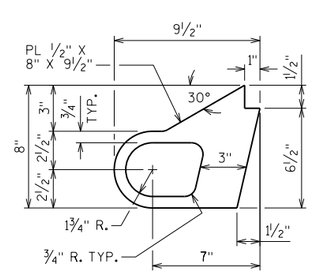
(9) ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.

(11) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

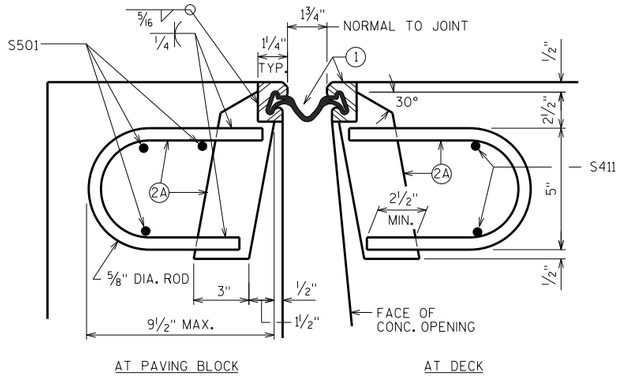


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS

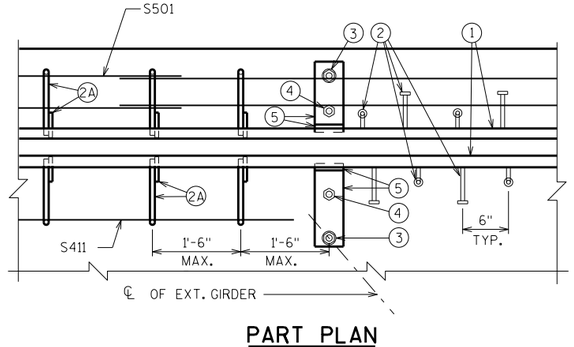


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, ANCHOR PLATES SHALL BE PROVIDED 3" FROM EACH SIDE OF THE FIELD SPLICE. DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

ALL MATERIAL IN THE EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE", LF.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-31

DRAWN BY EJV | PLANS CK'D. MJK

EXPANSION DEVICE

SHEET 7

471

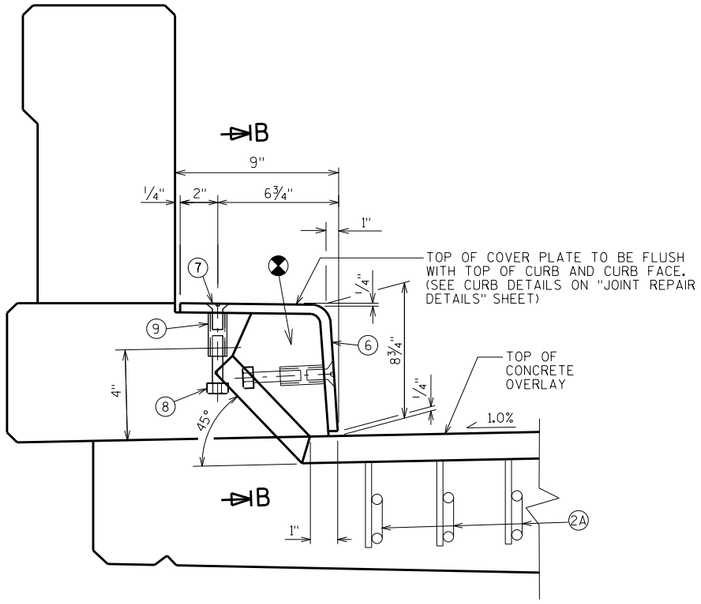
8

8

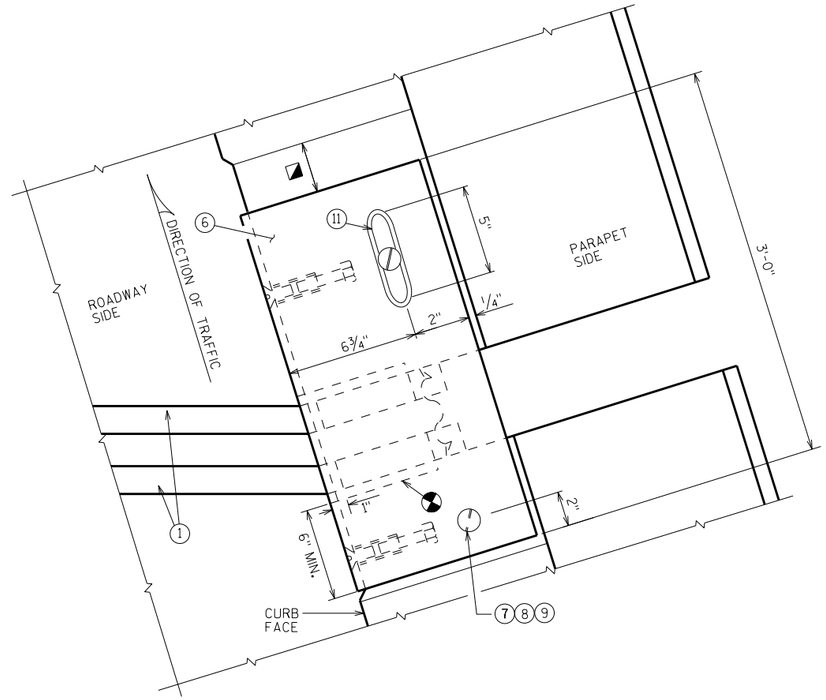
SCALE = 1.00

STATE PROJECT NUMBER

1100-43-70

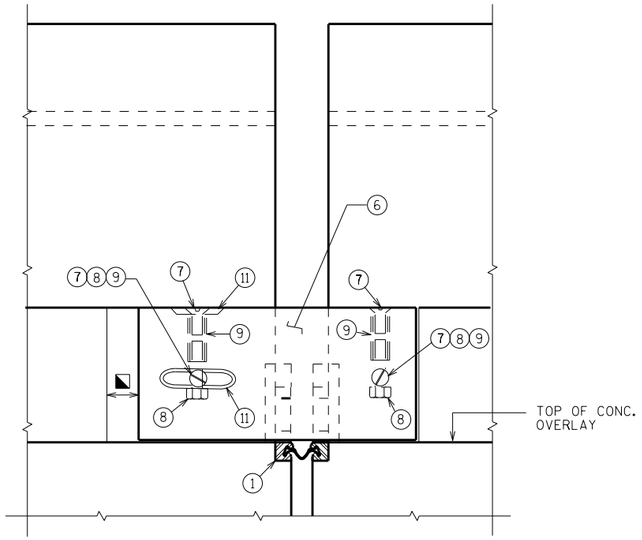


TYPICAL SECTION THRU CURB & PARAPET

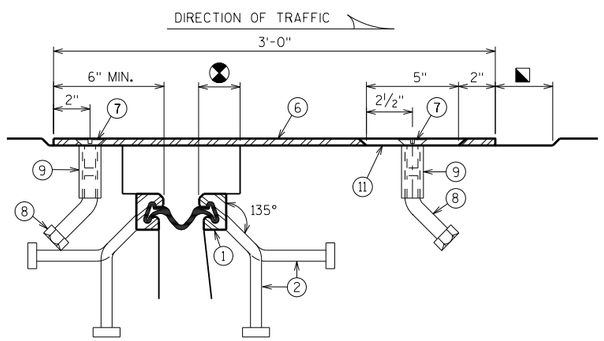


TYP. PART. PLAN @ CURB & PARAPET

COVER PLATES TO BE FABRICATED SUCH THAT PLATE EXPANSION IS SITUATED WITH DIRECTION OF TRAFFIC AS SHOWN ABOVE.



VIEW OF PARAPET PLATE FROM ROADWAY



SECTION B-B

SEE "EXPANSION DEVICE" SHEET FOR LEGEND

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-31

DRAWN BY EJV | PLANS CK'D. MJK

COVER PLATE DETAILS

SHEET 8

472

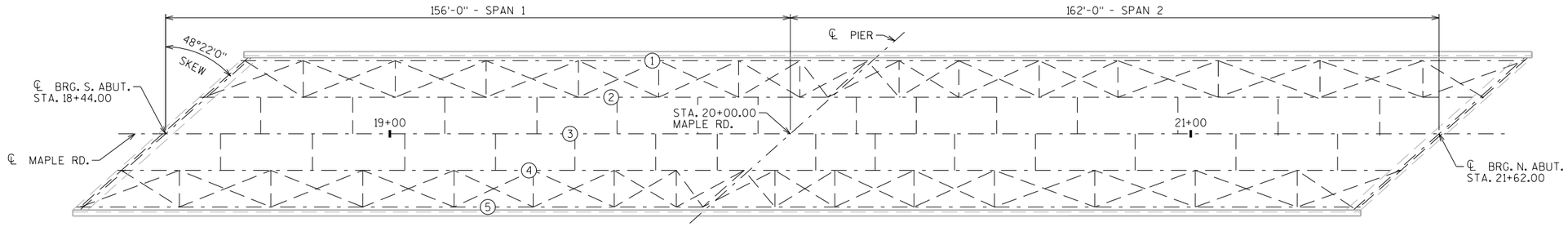
SCALE = 1.00

8

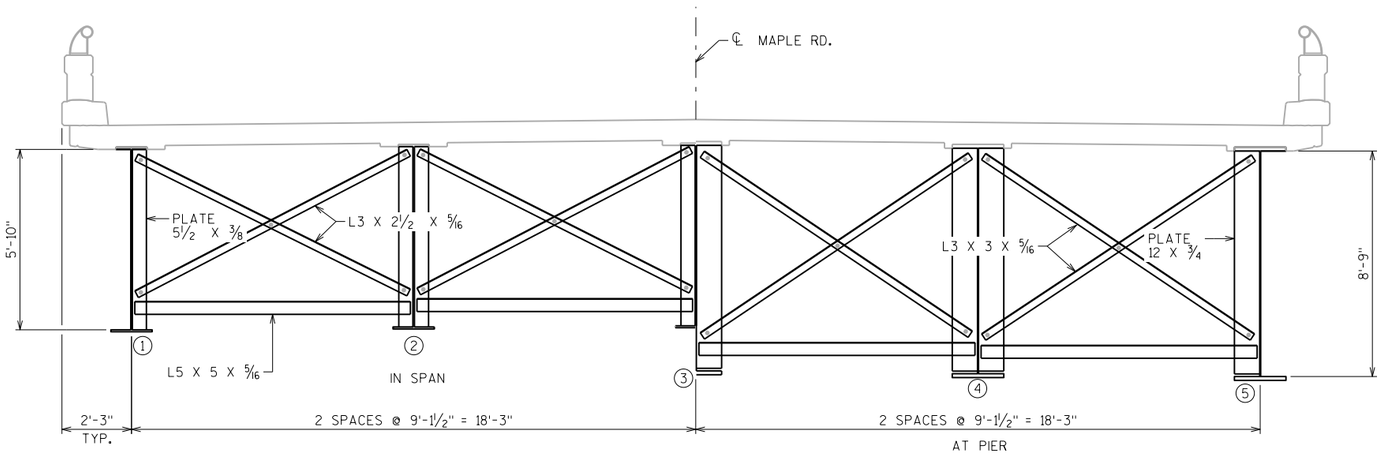
8

STATE PROJECT NUMBER

1100-43-70



FRAMING PLAN

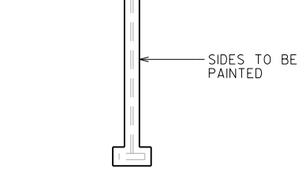


CROSS SECTION THRU ROADWAY

LOOKING NORTH

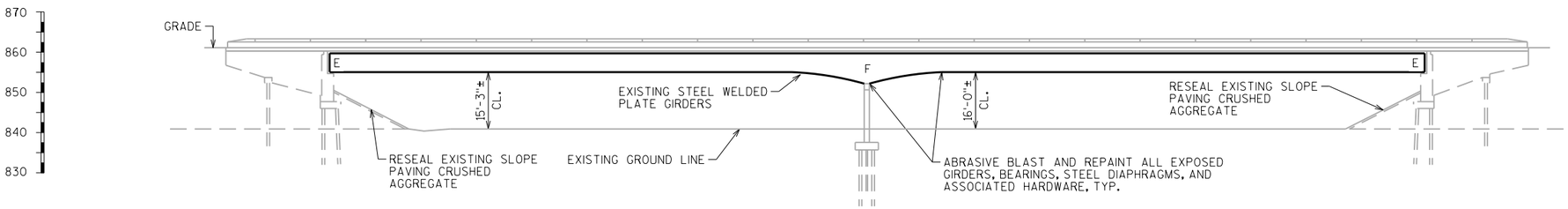
NOTE:

ALL EXPOSED STEEL SURFACES UNDERNEATH THE BRIDGE DECK ARE TO BE CLEANED AND PAINTED. THESE SURFACES INCLUDE GIRDERS, INTERMEDIATE DIAPHRAGMS, FIELD SPLICES, AND BEARING CONNECTIONS. TOTAL AMOUNT OF PAINTING IS EXPECTED TO BE APPROXIMATELY 35,000 SF.



PAINTING LIMITS

TYPICAL TO ALL GIRDERS



ELEVATION

LOOKING WEST

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-31

DRAWN BY EJV | PLANS CK'D. MJK

PAINTING DETAILS

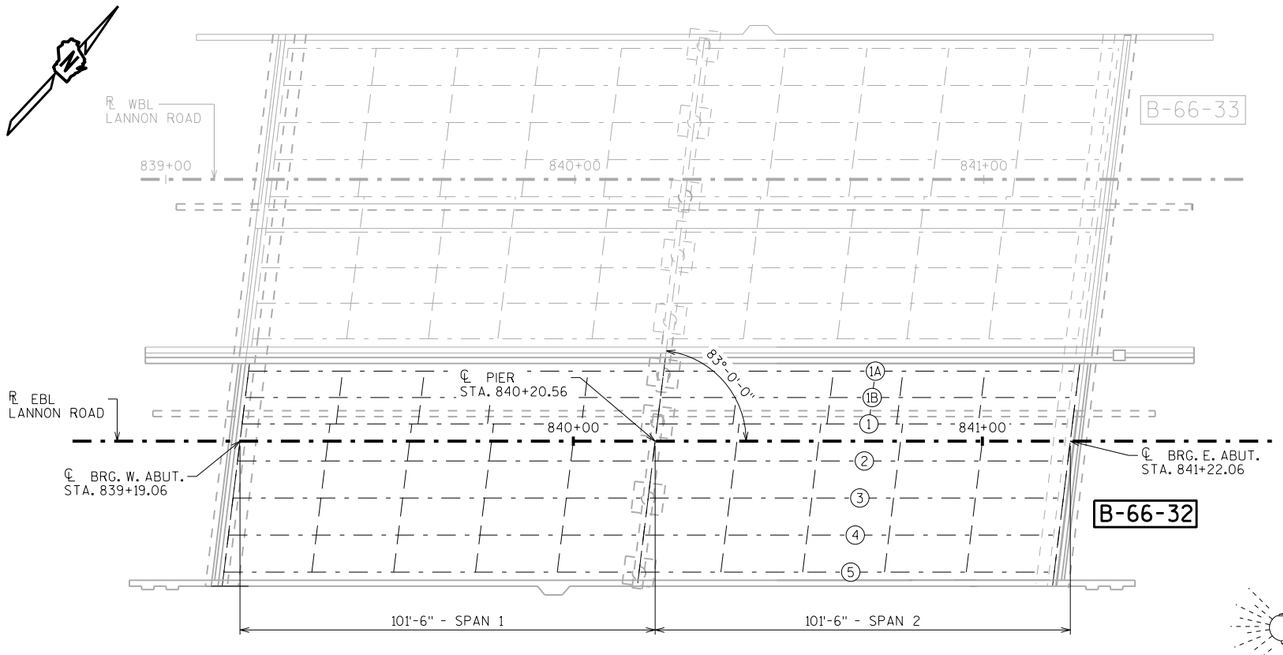
SHEET 9

473

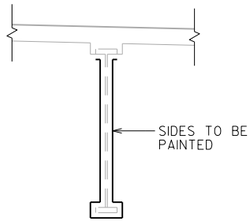
SCALE = 15.00

STATE PROJECT NUMBER

1100-43-70



FRAMING PLAN



PAINTING LIMITS

TYPICAL TO ALL GIRDERS

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-19
OPERATING RATING: HS-32
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY OVERLAY DECKS: — f'c = 4,000 P.S.I.

TRAFFIC VOLUME

FEATURE ON

ADT = 29600 (2039)
R.D.S. = 50 M.P.H.

FEATURE UNDER

ADT = 96000 (2039)
R.D.S. = 75 M.P.H.

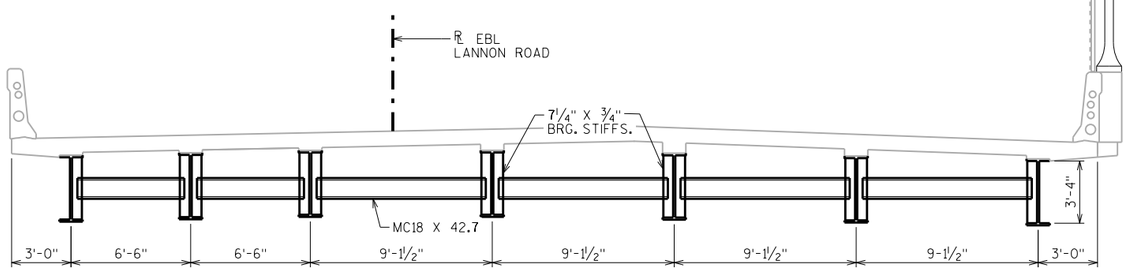
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BLUE, SHERWIN WILLIAMS SW6523 OR EQUAL COLOR APPROVED BY THE ENGINEER.

ALL EXPOSED STEEL SURFACES UNDERNEATH THE BRIDGE DECK ARE TO BE CLEANED AND PAINTED. THESE SURFACES INCLUDE GIRDERS, INTERMEDIATE DIAPHRAGMS, FIELD SPLICES, AND BEARING CONNECTIONS. TOTAL AMOUNT OF PAINTING IS EXPECTED TO BE APPROXIMATELY 18,858 SF.

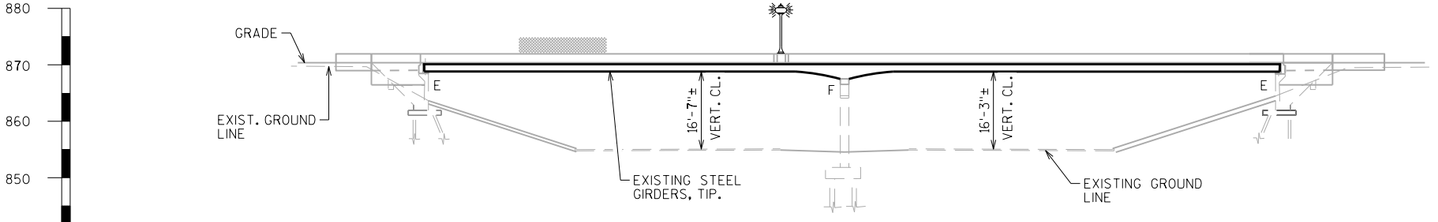


CROSS SECTION THRU ROADWAY

IN -SPAN

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
517.1801.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-66-32	EACH	1
517.4501.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-66-32	EACH	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1



ELEVATION

LOOKING NORTH

LIST OF DRAWINGS

1. PAINTING DETAILS

STRUCTURE DESIGN CONTACTS:

ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED DMB 04/13/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-66-32

S.T.H. 167 (LANNON RD.) OVER I.H. 41/U.S.H. 45

COUNTY	VILLAGE
WASHINGTON	GERMANTOWN

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
EJV	SCL	EJV	DMB

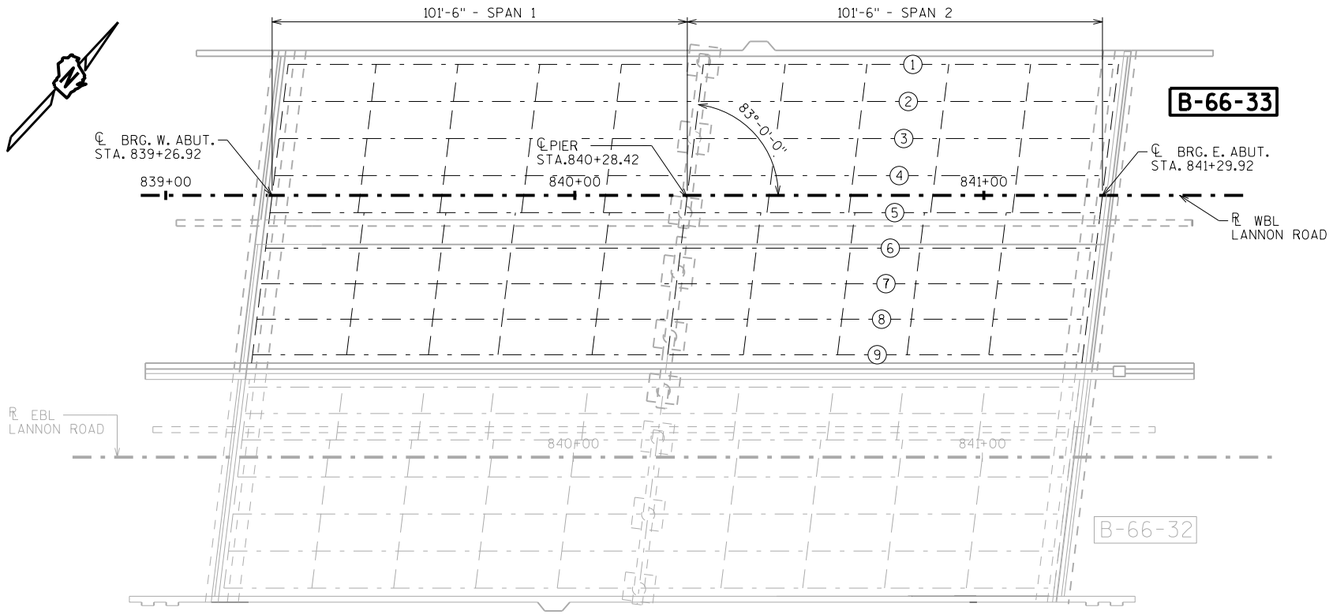
PAINTING DETAILS

SHEET 1 OF 1

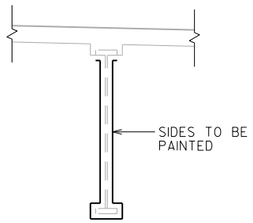
474

I.D. 1100-43-00K DATE: APR. 2022

SCALE = 18.00



FRAMING PLAN



PAINTING LIMITS

TYPICAL TO ALL GIRDERS

STATE PROJECT NUMBER

1100-43-70

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-19
OPERATING RATING: HS-32
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY OVERLAY DECKS: — f'c = 4,000 P.S.I.

TRAFFIC VOLUME

FEATURE ON	FEATURE UNDER
ADT = 29600 (2039)	ADT = 96000 (2039)
R.D.S. = 50 M.P.H.	R.D.S. = 75 M.P.H.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

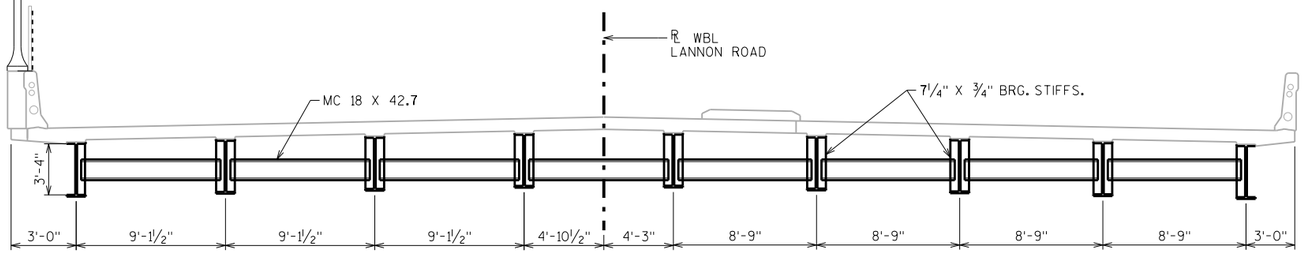
DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BLUE, SHERWIN WILLIAMS SW6523 OR EQUAL COLOR APPROVED BY THE ENGINEER.

ALL EXPOSED STEEL SURFACES UNDERNEATH THE BRIDGE DECK ARE TO BE CLEANED AND PAINTED. THESE SURFACES INCLUDE GIRDERS, INTERMEDIATE DIAPHRAGMS, FIELD SPLICES, AND BEARING CONNECTIONS. TOTAL AMOUNT OF PAINTING IS EXPECTED TO BE APPROXIMATELY 24,466 SF.

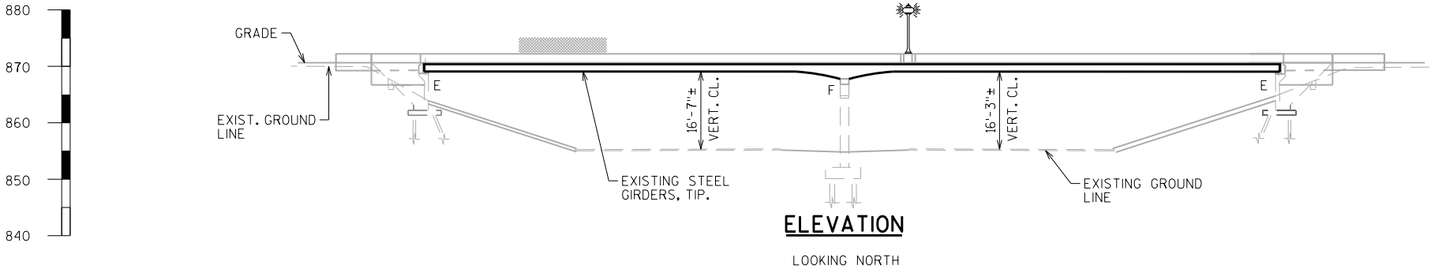
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
517.1801.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-66-33	EACH	1
517.4501.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-66-33	EACH	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1



CROSS SECTION THRU ROADWAY

IN - SPAN



ELEVATION

LOOKING NORTH

LIST OF DRAWINGS

1. PAINTING DETAILS

STRUCTURE DESIGN CONTACTS:

ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED DMB 04/13/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-66-33

S.T.H. 167 (LANNON RD.) OVER I.H.41/U.S.H. 45

COUNTY	VILLAGE
WASHINGTON	GERMANTOWN

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
EJV	SCL	EJV	DMB

PAINTING DETAILS

SHEET 1 OF 1

475

I.D. 1100-43-00L

DATE: APR. 2022

SCALE = 18.00

8

8

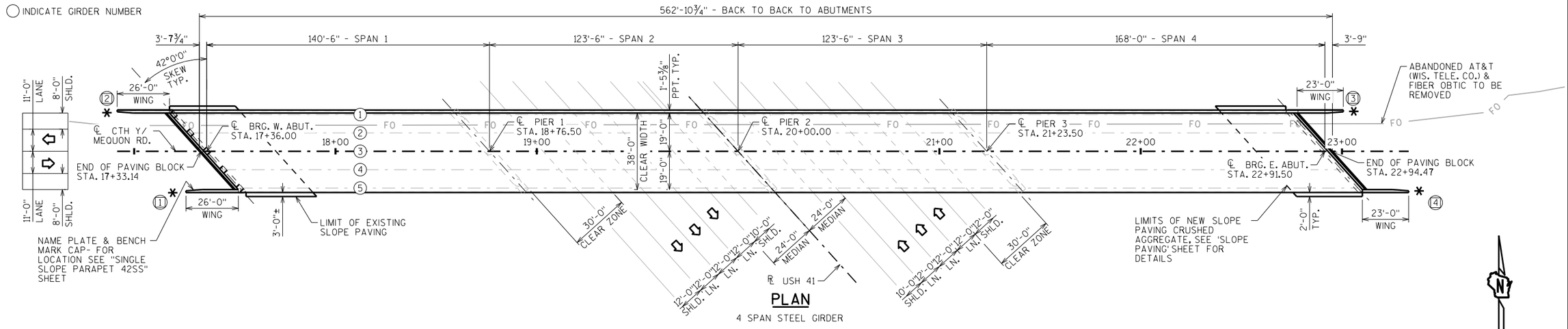
STATE PROJECT NUMBER

1100-43-70

* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

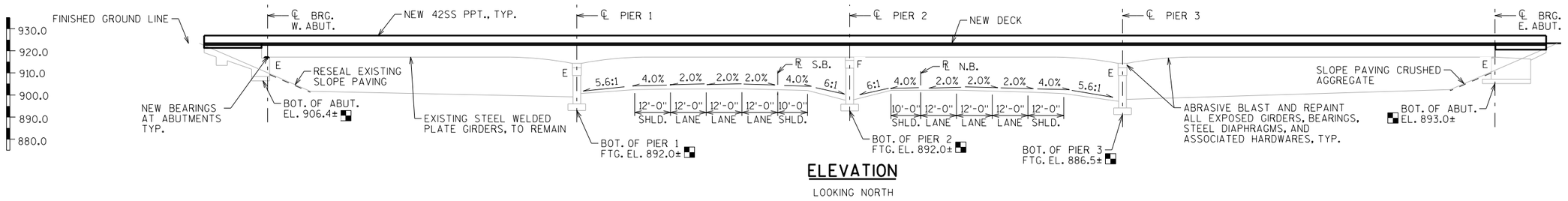
(2) INDICATES WING NUMBER

(1) INDICATE GIRDER NUMBER



PLAN

4 SPAN STEEL GIRDER



ELEVATION

LOOKING NORTH

℄ ELEVATIONS SHOWN ARE BASED ON THE ORIGINAL PLANS (1969)

LIST OF DRAWINGS

1. DECK REPLACEMENT
2. CROSS SECTION & QUANTITIES
3. STRUCTURAL REMOVALS
4. BEARING DETAILS
5. SUPERSTRUCTURE
6. SUPERSTRUCTURE CROSS SECTION
7. SUPERSTRUCTURE DETAILS 1
8. SUPERSTRUCTURE DETAILS 2
9. SUPERSTRUCTURE DETAILS 3
10. EXPANSION DEVICE
11. COVER PLATE DETAILS
12. SINGLE SLOPE PARAPET 42SS
13. SLOPE PAVING CRUSHED AGGREGATE
14. CATHODIC PROTECTION & SURFACE REPAIR

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-15
OPERATING RATING: HS- 25
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 130 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE ——— f'c = 4,000 P.S.I.
ALL OTHER ——— f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT:
GRADE 60 ——— fy = 60,000 P.S.I.

TRAFFIC VOLUME

CTH Y/MEQUON RD
ADT = 5,400 (2039)
R.D.S. = 45 M.P.H.

IH 41/USH 151
ADT = 96,000 (2039)
R.D.S. = 75 M.P.H.

STRUCTURE DESIGN CONTACTS:
AIHAM ALSKIF (608) 261-6113
DOMINIQUE BECHLE (608) 261-8205

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED DMB 04/13/22
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-66-34

CTH Y/MEQUON RD OVER IH 41/USH 151

COUNTY	VILLAGE
WASHINGTON	GERMANTOWN

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
AA	SEW	AA	SEW

DECK REPLACEMENT

SHEET 1 OF 14

476

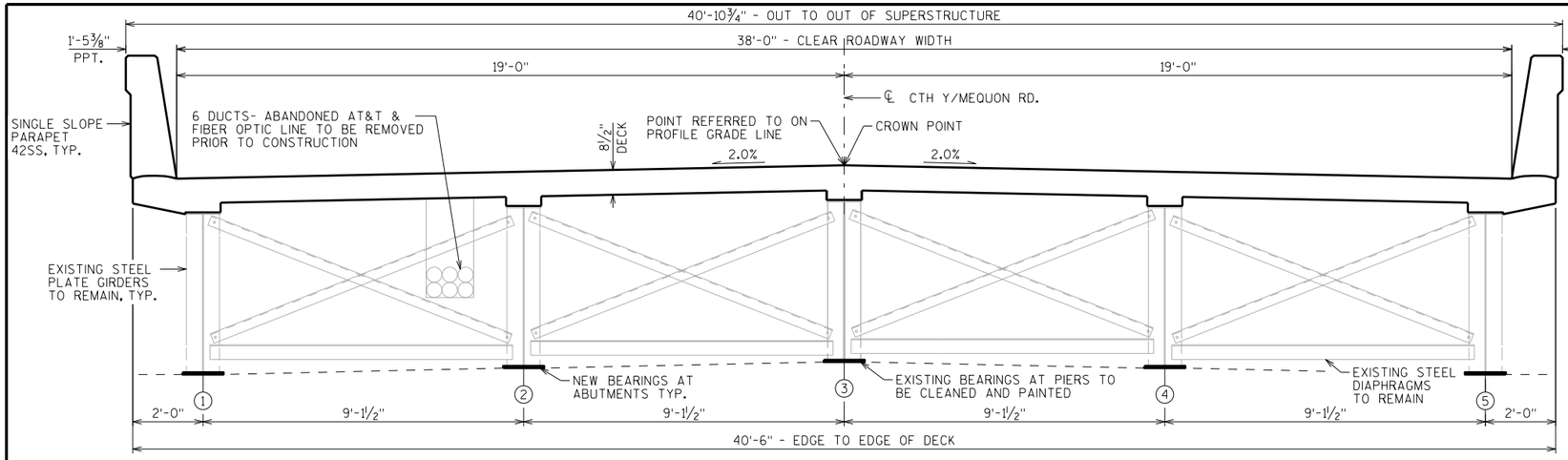
I.D. 1100-43-00M

DATE: APR. 2022

SCALE = 25.00

8

8



PROPOSED SECTION THRU ROADWAY

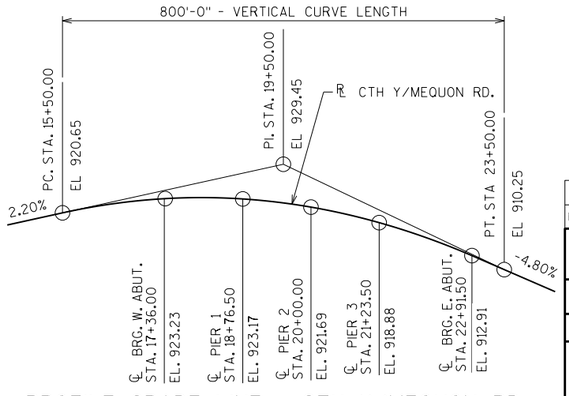
LOOKING EAST

◯ INDICATES GIRDER NUMBER

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST ABUT.	PIER 1	PIER 2	PIER 3	EAST ABUT.	TOTALS
203.0220	REMOVING STRUCTURE B-66-34	EACH	———	———	———	———	———	———	1
203.0211.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-66-34	EACH	———	———	———	———	———	———	1
502.0100	CONCRETE MASONRY BRIDGES	CY	798.4	9.8	———	———	———	8.9	818
502.3101	EXPANSION DEVICE	LF	104	———	———	———	———	———	104
502.3200	PROTECTIVE SURFACE TREATMENT	SY	2,395	———	———	———	———	———	2,395
502.3210	PIGMENTED SURFACE SEALER	SY	550	26	———	———	———	23	599
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	102	140	———	———	———	124	366
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	183,855	2,680	———	———	———	2,400	188,935
506.6000	BEARING ASSEMBLIES EXPANSION B-66-34	EACH	———	5	———	———	———	5	10
506.7050.S	REMOVING BEARINGS B-66-34	EACH	———	5	———	———	———	5	10
509.1500	CONCRETE SURFACE REPAIR	SF	———	40	10	10	10	40	110
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	———	9	———	———	———	8	17
517.0901.S	PREPARATION AND COATING OF TOP FLANGES B-66-34	EACH	———	———	———	———	———	———	1
517.1801.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-66-34	EACH	———	———	———	———	———	———	1
517.4501.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-66-34	EACH	———	———	———	———	———	———	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	———	———	———	———	———	———	1
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	———	———	———	———	———	130	130
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	———	130	———	———	———	———	130
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	———	———	———	———	———	4
** SPV.0060	EMBEDDED GALVANIC ANODES	EACH	———	10	8	———	8	10	36
	NON-BID ITEMS								
	BRIDGE SEAT PROTECTION	L.S.							1

** THIS QUANTITY IS FOR INFORMATIONAL PURPOSES ONLY. FIELD ENGINEER TO VERIFY THE EXACT NUMBER OF ANODES REQUIRED AT EACH INDIVIDUAL SURFACE REPAIR LOCATION PRIOR TO ANODE INSTALLATION.



PROFILE GRADE LINE - CTH Y/MEQUON RD.

STATE PROJECT NUMBER

1100-43-70

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT PAVING BLOCKS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS, INCLUDING PARAPETS ON ABUTMENTS WINGS.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF ALL ABUTMENTS BELOW EXPANSION DEVICES.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE "SUPERSTRUCTURE CROSS SECTION" SHEET.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1969.

ANY EXCAVATION AND STRUCTURE BACKFILL NECESSARY TO COMPLETE THE RE-DECK AND PARAPET REPLACEMENT ON WINGS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "REMOVING STRUCTURE B-66-34".

REMOVE AND SALVAGE THE EXISTING RAILINGS (INCLUDES RAILS, POSTS AND ALL ASSOCIATED HARDWARE). AFTER REMOVAL, THE RAILINGS ARE TO BE SET ASIDE AND SHALL REMAIN THE PROPERTY OF THE STATE OF WISCONSIN. THE CONTRACTOR WILL COORDINATE WITH WASHINGTON COUNTY HIGHWAY DEPARTMENT, AS TO WHEN THE RAILING ARE READY TO BE PICKED UP. THIS SHALL BE INCIDENTAL TO "REMOVING STRUCTURE B-66-34."

ENGINEER TO DETERMINE CONCRETE SURFACE REPAIR AREAS. CONCRETE SURFACE REPAIRS SHALL BE MADE ONLY AS DIRECTED BY THE ENGINEER

ASBESTOS LOCATED AT PARAPET EXPANSION JOINTS. REMOVAL TO BE INCLUDED WITH "ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-66-34" BID ITEM.

CONCRETE REMOVAL AT WINGS AND PAVING BLOCKS SHALL BE DEFINED BY A 1" DEEP SAW CUT.

UTILIZE EXISTING BAR STEEL REINFORCEMENT IN ABUTMENT WINGS WHERE SHOWN

SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF WINGS WITH "RUBBERIZED MEMBRANE WATERPROOFING".

THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BLUE, SHERWIN WILLIAMS SW6523 OR EQUAL COLOR APPROVED BY THE ENGINEER

WORK FOR CLEANING AND PAINTING EXISTING BEARINGS SHALL BE INCLUDED UNDER THE BID ITEM "STRUCTURE REPAINTING RECYCLED ABRASIVE "B-66-34".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-34

DRAWN BY AA | PLANS CK'D. SEW

CROSS SECTION & QUANTITIES

SHEET 2

477

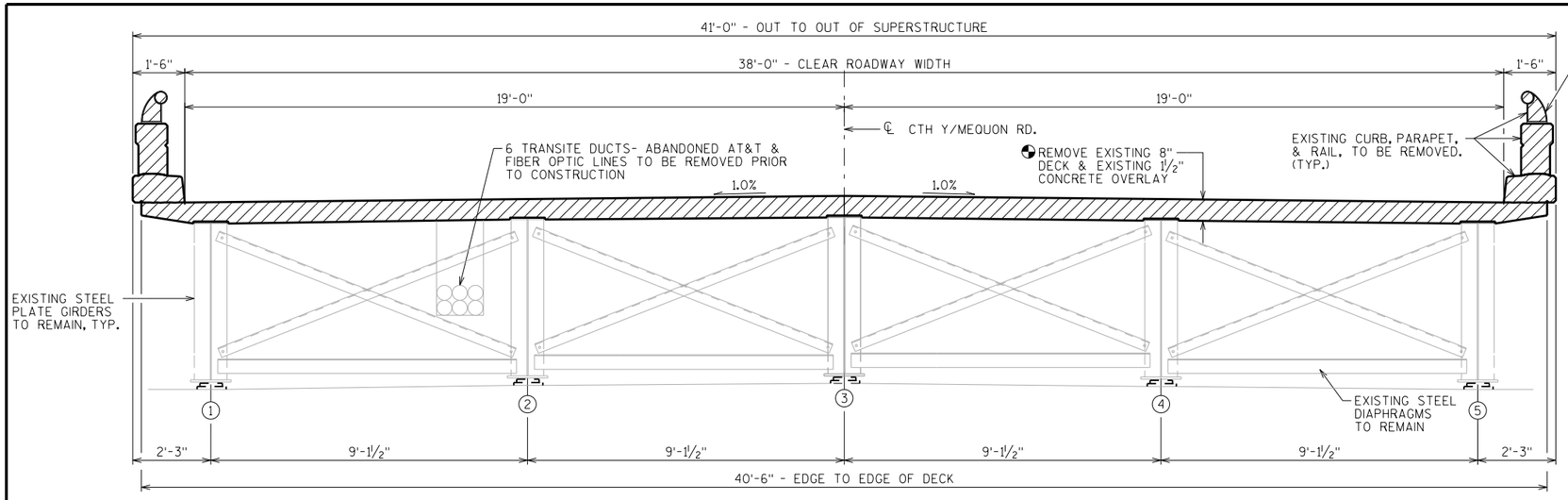
SCALE = 2.00

8

8

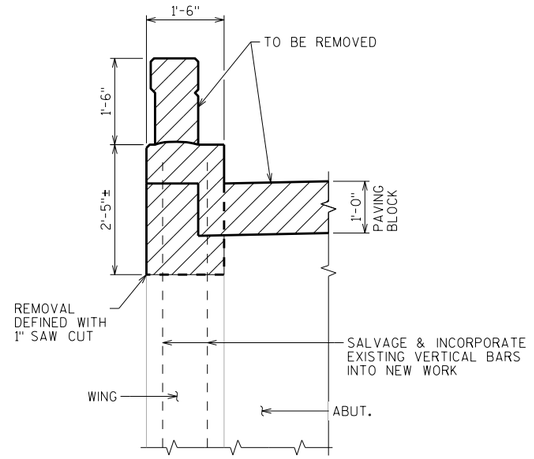
STATE PROJECT NUMBER

1100-43-70



EXISTING CROSS SECTION THRU ROADWAY

LOOKING EAST - SHOWING REMOVAL LIMITS



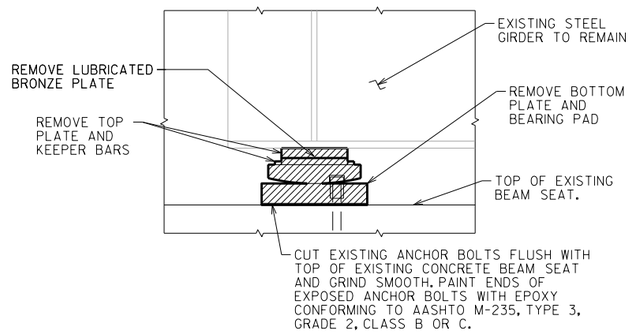
WING SECTION AT EXIST. PAVING BLOCK

◯ INDICATES GIRDER NUMBER

EXISTING SHEAR CONNECTORS ON GIRDER TOP FLANGES TO REMAIN. TAKE CARE DURING DECK REMOVAL TO NOT DAMAGE SHEAR CONNECTORS. IF DAMAGED, REPLACE SHEAR CONNECTORS AT THE EXPENSE OF THE CONTRACTOR.

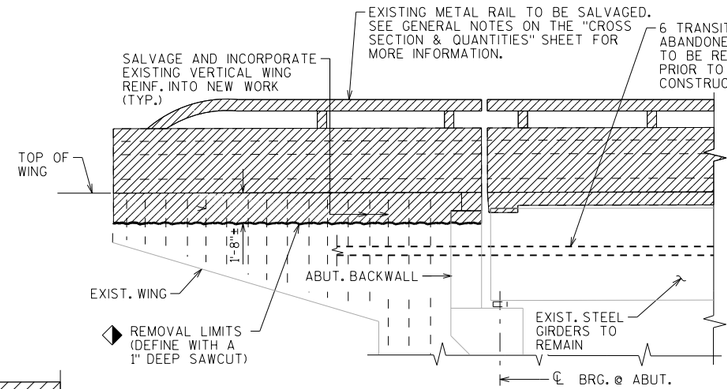
REMOVAL LIMITS

DIMENSION GIVEN NORMAL TO ℄ SUBSTRUCTURE.



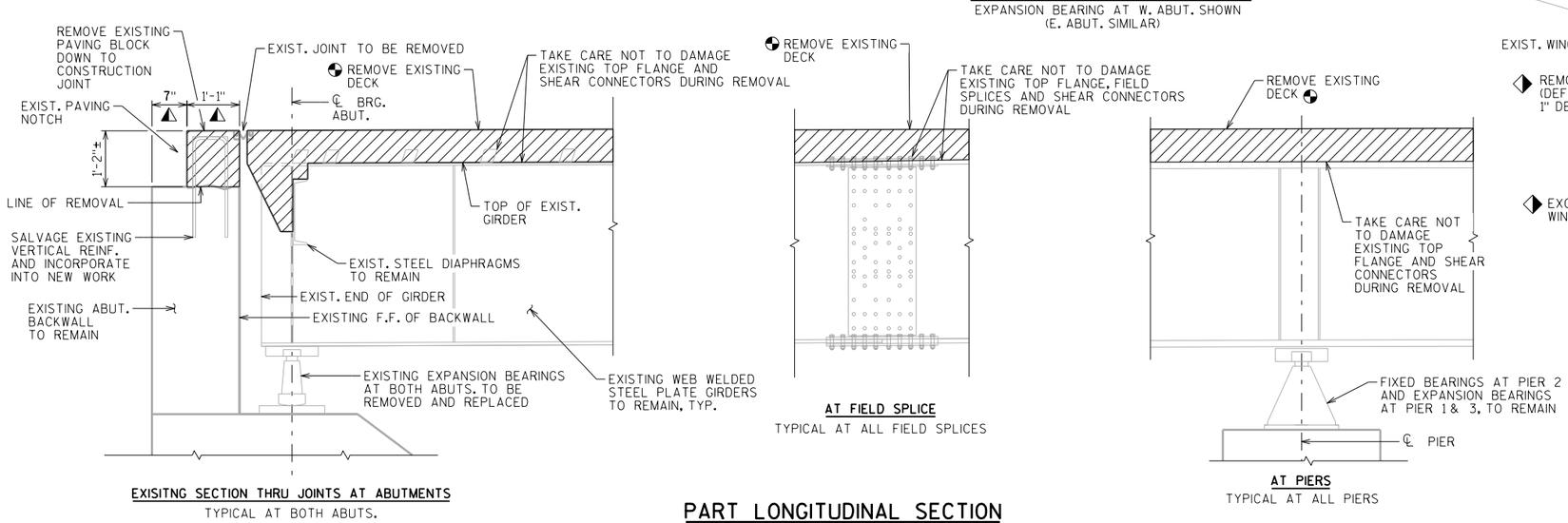
BEARING REMOVAL DETAIL

EXPANSION BEARING AT W. ABUT. SHOWN
(E. ABUT. SIMILAR)



TYP. REMOVAL LIMITS AT WINGS

EXCAVATION FOR REMOVING AND REPLACING THE EXISTING PARAPET ON THE WINGS IS INCIDENTAL TO BID ITEM "REMOVING STRUCTURE B-66-34".



PART LONGITUDINAL SECTION

SHOWING REMOVALS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-34

DRAWN BY AA | PLANS CK'D. SEW

STRUCTURAL REMOVALS

SHEET 3

478

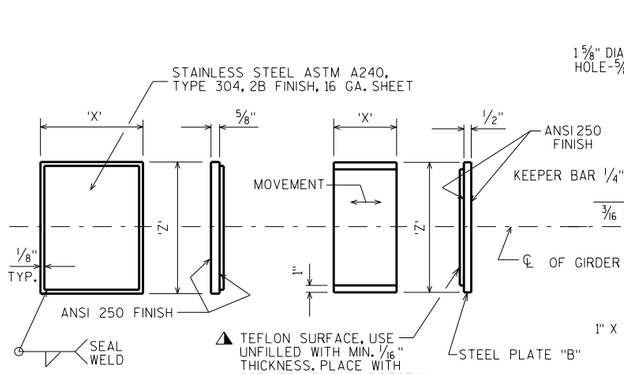
8

8

SCALE = 2.00

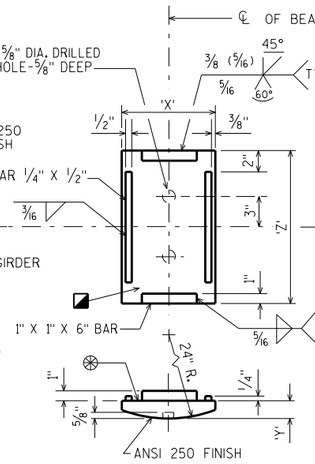
STATE PROJECT NUMBER

1100-43-70

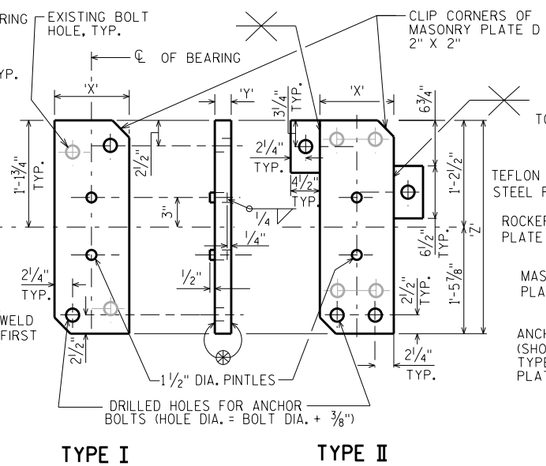


TOP PLATE "A"

TEFLON SURFACE ON PLATE "B"

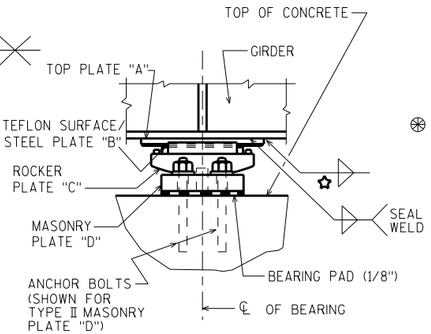


ROCKER PLATE "C"



TYPE I TYPE II

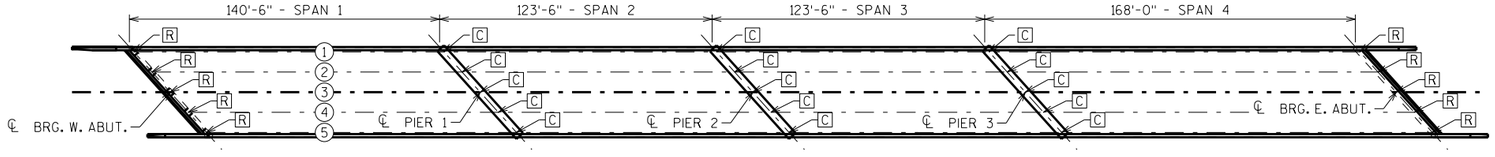
MASONRY PLATE "D"



EXPANSION BEARING ASSEMBLY

EXPANSION BEARING

	PLATE "A"		PLATE "B"		PLATE "C"			PLATE "D"			PLATE "D" TYPE	ANCHOR BOLT SIZE	NO. OF BRG'S REQ'D.	LOCATION
	'X'	'Z'	'X'	'Z'	'X'	'Y'	'Z'	'X'	'Y'	'Z'				
EXPANSION BEARING	10"	1'-5"	6"	1'-5"	8"	1 7/16"	1'-7 1/4"	8"	1 1/2"	2'-3 1/2"	I	1 1/2" DIA. X 1'-10" LONG	5	W. ABUT.
	10"	1'-9"	6"	1'-9"	8"	1 5/16"	1'-11 1/4"	8"	1 1/2"	2'-8 3/8"	II	1 1/2" DIA. X 1'-10" LONG	5	E. ABUT.



BEARING PLAN

◯ INDICATES GIRDER NUMBER

[R] REPLACE THE EXISTING BEARING

[C] CLEAN AND PAINT THE EXISITNG BEARING. INCIDENTAL TO BID ITEM "STRUCTURE REPAINTING RECYCLED ABRASIVE B-66-34"

BEARING NOTES

ALL BEARINGS ARE SYMMETRICAL ABOUT ℄ OF GIRDER AND ℄ OF BEARING.

✱ FINISH THESE SURFACES TO ANSI 250 IF 'Y' DIMENSION IS GREATER THAN 2".

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS C.

ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 36, OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES, BUT EXCLUDING STAINLESS STEEL SHEET, TEFLON SURFACE, PINTLES, ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 50W.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES AND BEARING PADS, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING ASSEMBLIES EXPANSION B-66-34" EACH.

CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

ALL FINISHED SURFACES SHALL BE MACHINE FINISHED BY AN AUTOMATIC PROCESS.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

PROVIDE 1/8" THICK BEARING PAD THE SAME SIZE AS MASONRY PLATE "D" FOR EACH BEARING.

ANCHOR BOLTS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. BOLT LENGTH TO BE 1'-5 FOR 1 1/4" ϕ AND 1'-10 FOR 1 1/2" ϕ BOLTS. PROJECT ANCHOR BOLTS, MASONRY PLATE "D" THICKNESS + 2 1/4", ABOVE TOP OF CONCRETE.

CHAMFER TOP OF PINTLES 1/8". DRILL HOLES FOR ALL PINTLES IN MASONRY PLATE "D" FOR A DRIVING FIT.

STEEL PINTLES SHALL CONFORM TO ASTM A449 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

EXPANSION BEARINGS:
ROCKER PLATE "C" AND MASONRY PLATE "D" SHALL BE GALVANIZED. TOP PLATE "A" AND STEEL PLATE "B" SHALL BE SHOP PAINTED. USE A WELDABLE PRIMER ON TOP PLATE "A". DO NOT PAINT STAINLESS STEEL OR TEFLON SURFACES.

◪ PROVIDE A METHOD FOR HANDLING ROCKER PLATE "C" DURING GALVANIZING.

⚠ BOND STEEL PLATE "B" AND TEFLON WITH ADHESIVE MATERIAL MEETING REQUIREMENTS FOUND IN THE STANDARD SPECIFICATION.

AT INSTALLATION, ENSURE STAINLESS STEEL SLIDING FACE OF THE UPPER ELEMENT AND THE TFE SLIDING FACE OF THE LOWER ELEMENT HAVE THE SURFACE FINISH SPECIFIED AND ARE CLEAN AND FREE OF ALL DUST, MOISTURE, AND OTHER FOREIGN MATTER.

✿ TABLE OF FILLET WELD SIZES

MATERIAL THICKNESS OF THICKER PART JOINED.	✝ MIN. SIZE OF FILLET WELD
TO 1/2" INCLUSIVE	3/16"
OVER 1/2" TO 3/4"	1/4"
OVER 3/4" TO 1 1/2"	△ 5/16"
OVER 1 1/2"	△ 3/8"

✝ EXCEPT THAT THE WELD SIZE SHALL NOT EXCEED THE THICKNESS OF THE THINNER PART JOINED.

△ MIN. PASS SIZE IS 5/16"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-34

DRAWN BY AA | PLANS CK'D. SEW

BEARING DETAILS

SHEET 4

479

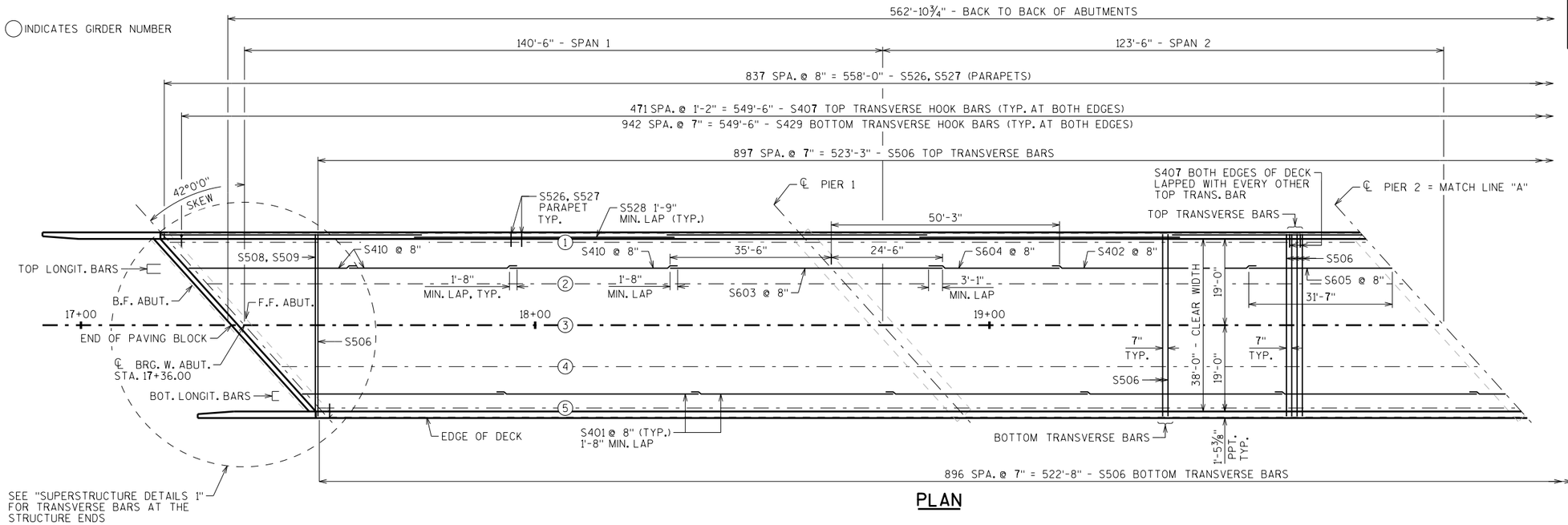
SCALE = 1

8

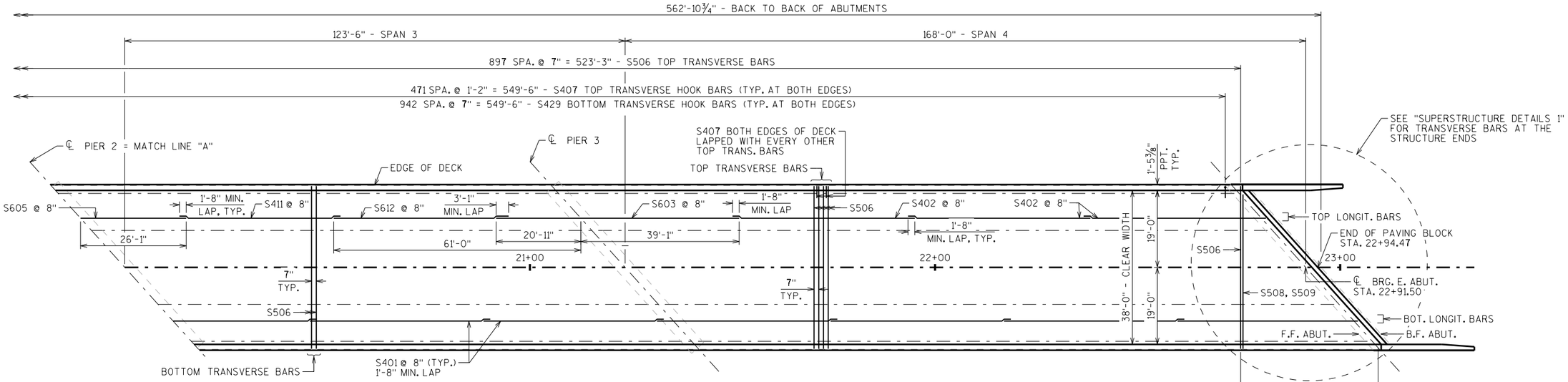
8

STATE PROJECT NUMBER

1100-43-70



PLAN



PLAN

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-34

DRAWN BY AA | PLANS CK'D. SEW

SUPERSTRUCTURE

SHEET 5

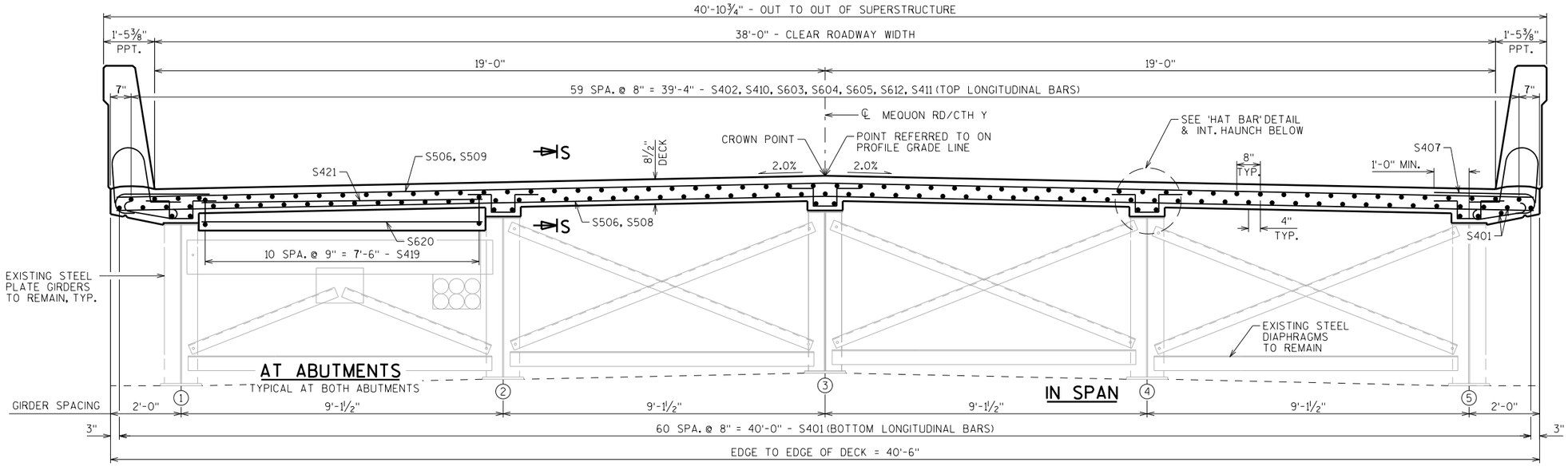
480

SCALE = 13.00

STATE PROJECT NUMBER

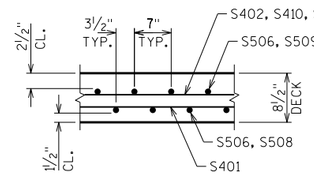
1100-43-70

○ INDICATES GIRDER NUMBER

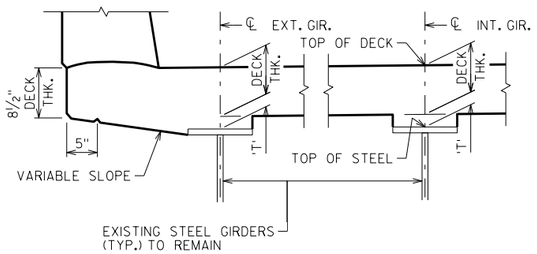


CROSS SECTION THRU ROADWAY

LOOKING EAST



SECTION S-S



CONCRETE HAUNCH DETAILS

TO DETERMINE 'T': AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGES, TOP OF SPLICE PLATES, OR TOP OF COVER PLATES, WHICHEVER APPLIES, SHALL BE TAKEN AT CENTERLINE OF BEARINGS, CENTERLINE OF FIELD SPLICES, AND AT 0.1 POINTS.

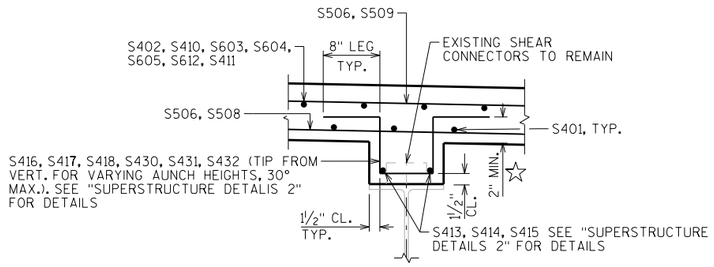
TOP OF DECK ELEVATION AT FINAL GRADE
\- TOP OF STEEL ELEVATION AFTER STEEL ERECTION
\+ CONC. ONLY DEFLECTION; DOWNWARD DEFLECTION IS ADDED, UPWARD DEFLECTION IS SUBTRACTED

\- SLAB THICKNESS (8.5")

= 'T' VALUE FOR SETTING HAUNCH

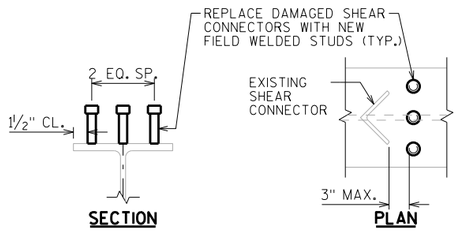
NOTE: AN AVERAGE HAUNCH ('T') OF 4.5" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

HAUNCH IS LESS THAN 2" IN SOME LOCATIONS



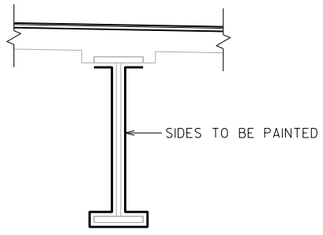
'HAT BAR' DETAIL & INT. HAUNCH

☆ CONTACT BUREAU OF STRUCTURES IF 2" MIN. EMBEDMENT CANNOT BE OBTAINED



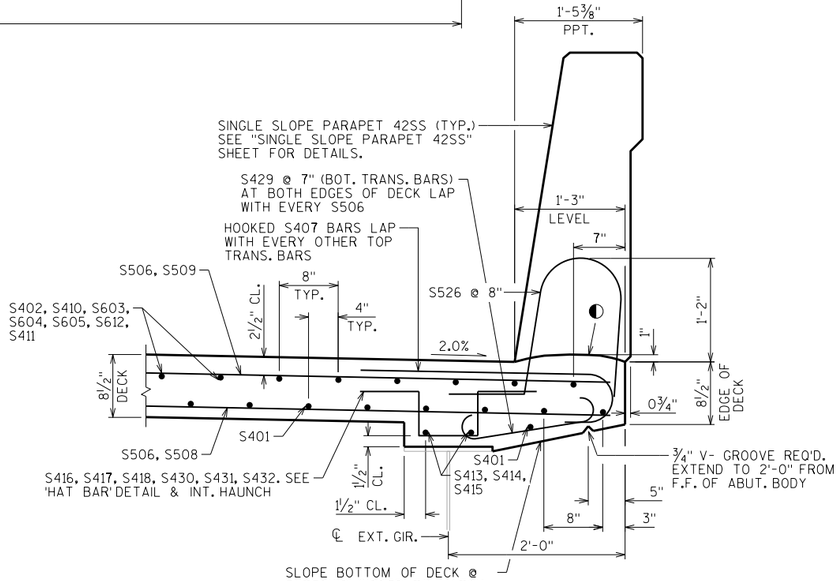
SHEAR CONN. DETAIL

EXISTING SHEAR CONNECTORS, IF DAMAGED, SHALL BE REMOVED AND REPLACED WITH FIELD WELDED ⅞" DIA. X 4" LONG STUDS. REPLACEMENT OF DAMAGED SHEAR CONNECTORS SHALL BE COMPLETED AT THE EXPENSE OF THE CONTRACTOR.



PAINTING LIMITS

TYPICAL AT ALL GIRDERS



◐ CONSTRUCTION JOINT: STRIKE OFF AND LEAVE ROUGH AS SHOWN

EDGE OF DECK DETAIL

(TYP. AT BOTH EDGES)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-34

DRAWN BY AA | PLANS CK'D. SEW

SUPERSTRUCTURE CROSS SECTION

SHEET 6

481

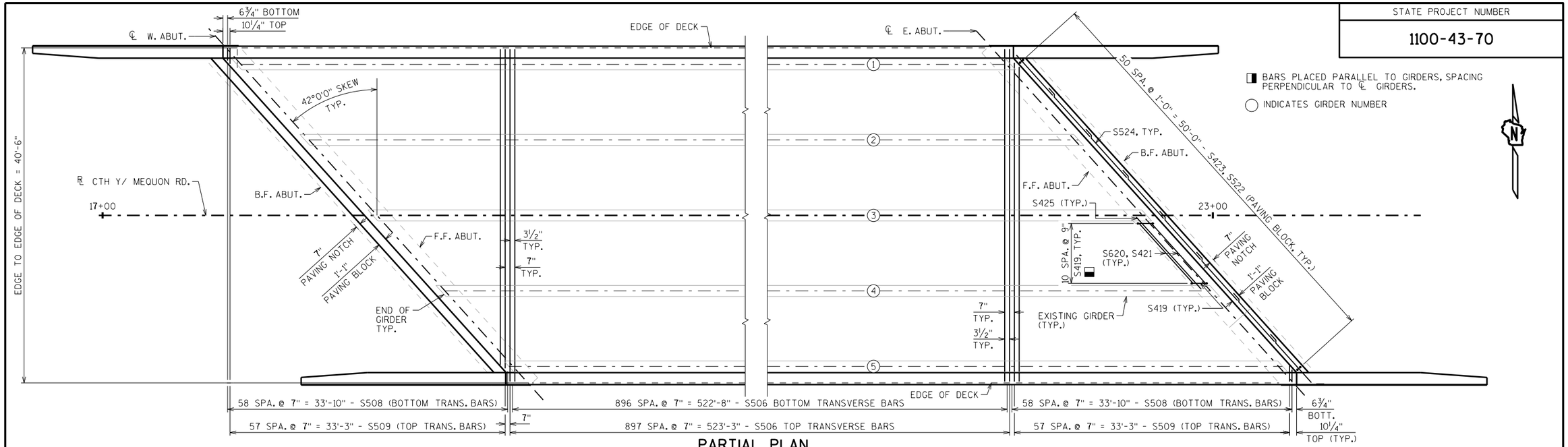
SCALE = 25.00

8

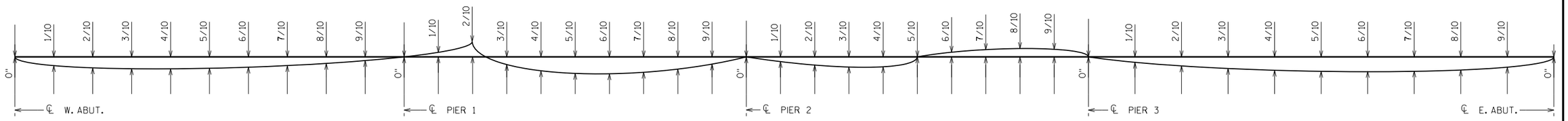
8

STATE PROJECT NUMBER

1100-43-70



PARTIAL PLAN



DEFLECTION DIAGRAM

GIRDERS		ALONG ℄ GIRDER	℄ W. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	℄ PIER 1	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	℄ PIER 2	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	℄ PIER 3	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	℄ E. ABUT.
EXTERIOR GIRDERS	(IN.)	CONC. ONLY	0.0	1.0	1.8	2.3	2.6	2.6	2.2	1.7	1.0	0.4	0.0	-0.2	-0.2	0.0	0.2	0.3	0.4	0.3	0.2	0.1	0.0	0.1	0.1	0.2	0.2	0.1	-0.1	-0.3	-0.4	-0.3	0.0	0.7	1.6	26.	3.3	3.6	3.6	3.2	2.5	1.3	0.0
		TOTAL DEFL.	0.0	1.3	2.3	3.0	3.3	3.3	2.9	2.2	1.3	0.6	0.0	-0.2	-0.3	-0.1	0.1	0.3	0.4	0.4	0.2	0.1	0.0	0.0	0.1	0.2	0.1	0.1	-0.3	-0.5	-0.6	-0.4	0.0	1.0	2.3	3.6	4.5	5.0	5.0	4.5	3.4	1.8	0.0
INTERIOR GIRDERS	(IN.)	CONC. ONLY	0.0	1.2	2.3	3.0	3.3	3.2	2.8	2.1	1.3	0.5	0.0	-0.2	-0.2	0.0	0.2	0.4	0.5	0.4	0.3	0.1	0.0	0.1	0.2	0.3	0.2	0.1	-0.1	-0.3	-0.4	-0.4	0.0	0.9	2.1	3.2	4.1	4.6	4.6	4.1	3.1	1.7	0.0
		TOTAL DEFL.	0.0	1.5	2.8	3.6	4.1	4.0	3.5	2.6	1.6	0.7	0.0	-0.3	-0.3	-0.1	0.2	0.4	0.5	0.5	0.3	0.1	0.0	0.1	0.2	0.2	0.2	-0.1	-0.3	-0.6	-0.7	-0.5	0.0	1.2	2.7	4.3	5.4	6.0	6.0	5.3	4.1	2.2	0.0

DEFLECTION DIAGRAM TABLE

TOP OF DECK ELEVATION

EOD = EDGE OF DECK

	W. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	PIER 1	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	PIER 2
N. EOD	922.73	922.82	922.90	922.96	923.00	923.03	923.04	923.03	923.00	922.96	922.89	922.83	922.74	922.65	922.54	922.42	922.29	922.14	921.98	921.80	921.61
G1	922.76	922.85	922.92	922.98	923.02	923.04	923.05	923.04	923.01	922.96	922.90	922.83	922.75	922.65	922.54	922.42	922.28	922.13	921.97	921.79	921.60
G2	923.00	923.08	923.14	923.19	923.22	923.23	923.23	923.21	923.17	923.11	923.04	922.96	922.87	922.76	922.64	922.51	922.36	922.20	922.03	921.85	921.65
G3/CL	923.23	923.30	923.35	923.39	923.41	923.41	923.40	923.37	923.32	923.25	923.17	923.08	922.98	922.87	922.74	922.60	922.44	922.27	922.09	921.90	921.69
G4	923.09	923.15	923.20	923.22	923.23	923.23	923.20	923.16	923.10	923.02	922.93	922.83	922.72	922.60	922.46	922.31	922.15	921.97	921.78	921.58	921.36
G5	922.95	923.00	923.03	923.05	923.05	923.03	923.00	922.94	922.87	922.79	922.68	922.58	922.46	922.33	922.18	922.02	921.85	921.67	921.47	921.25	921.03
S. EOD	922.94	922.99	923.02	923.03	923.03	923.01	922.98	922.92	922.85	922.76	922.65	922.55	922.43	922.29	922.14	921.98	921.81	921.62	921.42	921.21	920.98

	PIER 2	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	PIER 3	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	E. ABUT.
N. EOD	921.61	921.41	921.20	920.97	920.73	920.47	920.20	919.92	919.63	919.32	919.00	918.54	918.05	917.55	917.01	916.45	915.87	915.27	914.63	913.98	913.30
G1	921.60	921.40	921.18	920.95	920.71	920.45	920.18	919.89	919.60	919.29	918.96	918.50	918.02	917.50	916.97	916.41	915.82	915.21	914.58	913.92	913.24
G2	921.65	921.44	921.21	920.97	920.72	920.45	920.17	919.88	919.58	919.26	918.92	918.45	917.95	917.43	916.88	916.31	915.71	915.09	914.44	913.77	913.08
G3/CL	921.69	921.47	921.23	920.99	920.73	920.45	920.16	919.86	919.55	919.22	918.88	918.39	917.88	917.35	916.79	916.20	915.59	914.96	914.30	913.62	912.91
G4	921.36	921.13	920.89	920.63	920.36	920.08	919.78	919.47	919.15	918.81	918.46	917.96	917.44	916.89	916.32	915.72	915.10	914.46	913.79	913.09	912.37
G5	921.03	920.79	920.54	920.27	919.99	919.70	919.39	919.07	918.74	918.40	918.04	917.53	916.99	916.43	915.85	915.24	914.61	913.95	913.27	912.56	911.83
S. EOD	920.98	920.74	920.48	920.22	919.94	919.64	919.33	919.01	918.68	918.33	917.97	917.46	916.92	916.36	915.77	915.16	914.52	913.86	913.18	912.47	911.73

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-34

DRAWN BY AA | PLANS CK'D. SEW

SUPERSTRUCTURE DETAILS 1

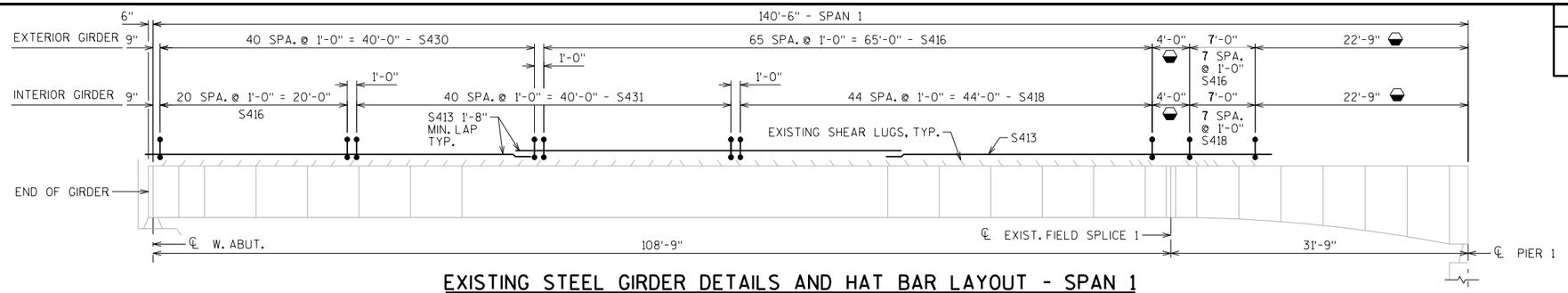
SHEET 7

482

SCALE = 6.00

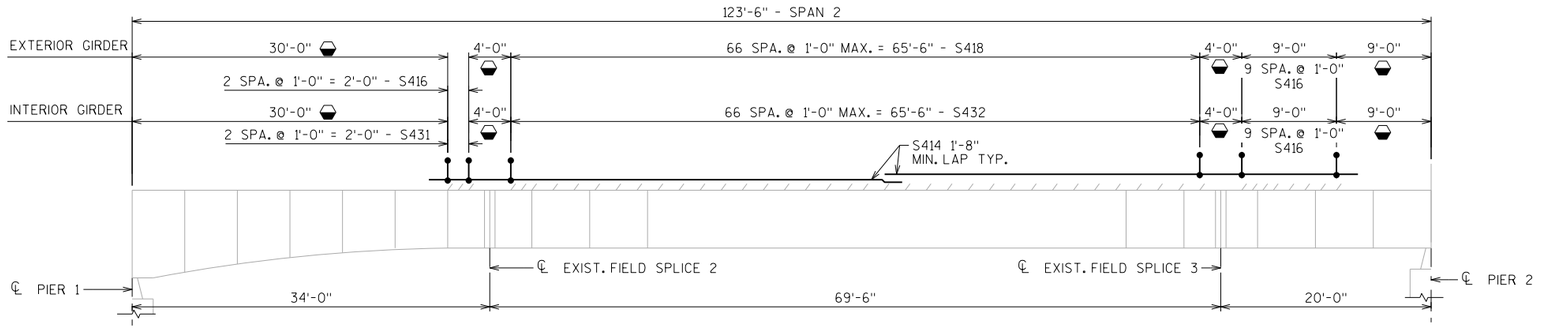
STATE PROJECT NUMBER

1100-43-70

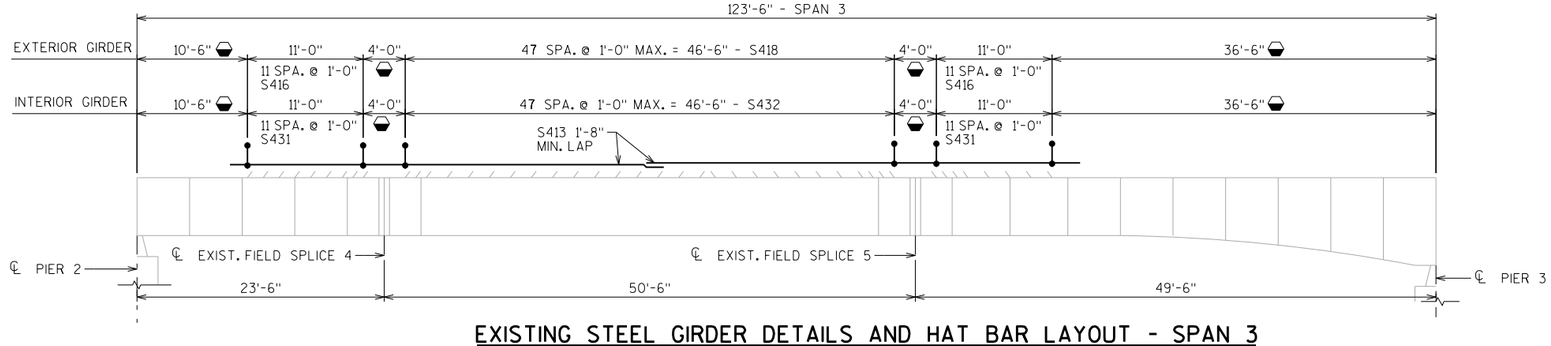


EXISTING STEEL GIRDER DETAILS AND HAT BAR LAYOUT - SPAN 1

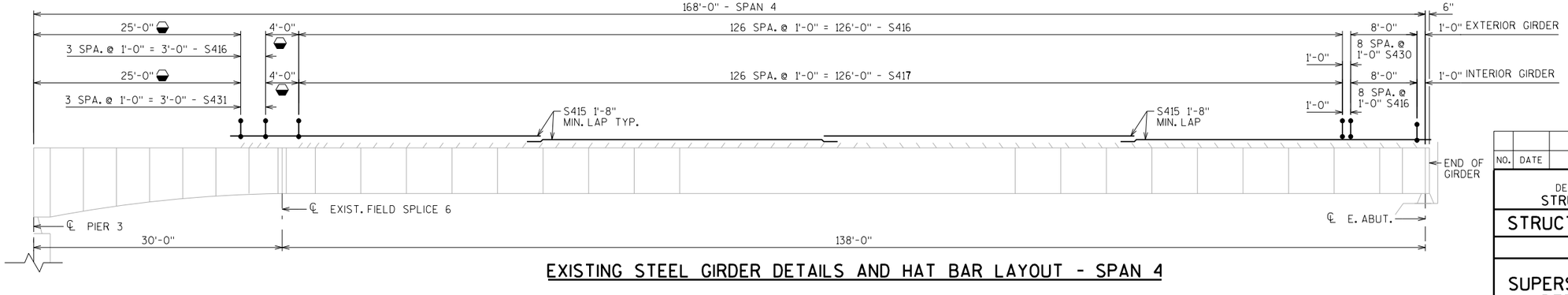
NO SHEAR CONNECTORS OR HAT BARS



EXISTING STEEL GIRDER DETAILS AND HAT BAR LAYOUT - SPAN 2



EXISTING STEEL GIRDER DETAILS AND HAT BAR LAYOUT - SPAN 3



EXISTING STEEL GIRDER DETAILS AND HAT BAR LAYOUT - SPAN 4

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-34

DRAWN BY AA | PLANS CK'D. SEW

SUPERSTRUCTURE DETAILS 2

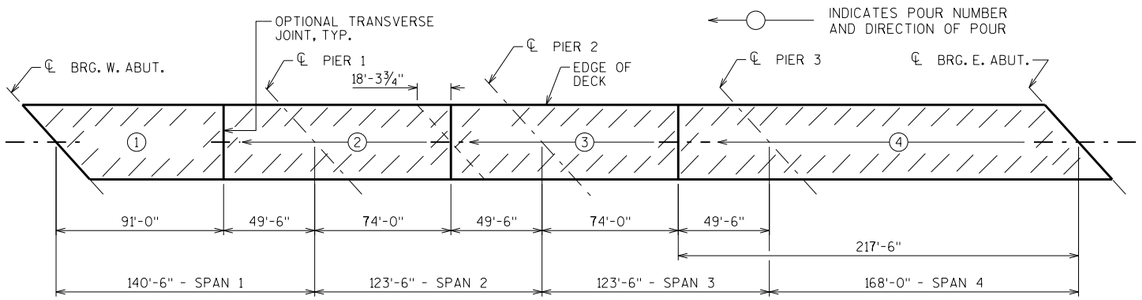
SHEET 8

483

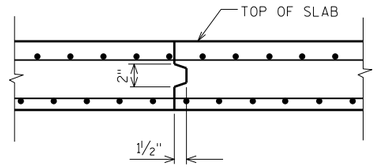
SCALE = 7.00

STATE PROJECT NUMBER

1100-43-70



OPTIONAL DECK POUR SEQUENCE



SECTION THRU TRANSVERSE JOINT

NOTES

THE RATE OF PLACING CONCRETE SHALL EQUAL OR EXCEED ½ SPAN LENGTH PER HOUR BUT NEED NOT EXCEED 100 CU. YDS. PER HOUR.

TWO OR MORE SEQUENTIAL POURS MAY BE COMBINED AND PLACED IN ONE CONTINUOUS OPERATION.

THE NEXT DECK POUR CAN BE MADE NO LESS THAN 72 HOURS AFTER THE PREVIOUS POUR.

THE CONTRACTOR MAY SUBMIT AN ALTERNATE POURING SEQUENCE SUBJECT TO THE APPROVAL OF THE STRUCTURES DESIGN SECTION.

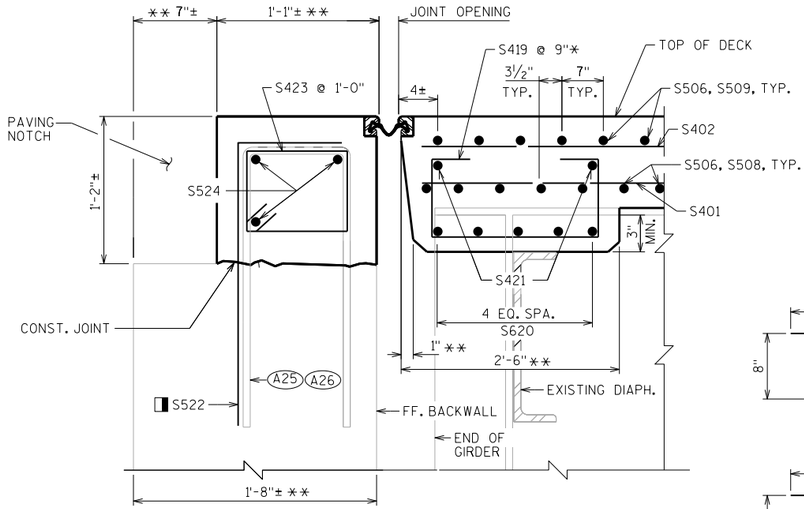
BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S401	X	819	44'-6"			DECK - BOT. - LONGIT.
S402	X	240	45'-0"			DECK - TOP - LONGIT. - SPANS 2 & 4
S603	X	120	60'-0"			DECK - TOP - LONGIT. - PIER 1 & 3
S604	X	60	28'-10"			DECK - TOP - LONGIT. - PIER 3
S605	X	60	57'-8"			DECK - TOP - LONGIT. - PIER 2
S506	X	1795	40'-2"			DECK - TOP & BOTTOM - TRANSVERSE
S407	X	944	3'-4"	X		DECK - TOP - TRANSVERSE - BOTH EDGES
S508	X	118	19'-11"		⚠	DECK - BOTTOM - TRANS. - SPANS 1 & 4
S509	X	116	19'-10"		⚠	DECK - TOP - TRANS. - SPANS 1 & 4
S410	X	180	37'-1"			DECK - TOP - LONGIT. - SPAN 1
S411	X	60	39'-9"			DECK - TOP - LONGIT. - SPAN 3
S612	X	60	43'-3"			DECK - TOP - LONGIT. - SPAN 3
S413	X	50	41'-3"			GIRDER HAUNCH - HORIZ. - SPAN 1 & 3
S414	X	20	45'-0"			GIRDER HAUNCH - HORIZ. - SPAN 2
S415	X	40	37'-6"			GIRDER HAUNCH - HORIZ. - SPAN 4
S416	X	604	3'-2"	X		GIRDER HAUNCH - DECK - VERT. - ALL SPANS
S417	X	381	3'-7"	X		GIRDER HAUNCH - DECK - VERT. - SPAN 4
S418	X	389	2'-10"	X		GIRDER HAUNCH- DECK - VERT. - SPAN 1 & 2 & 3
S419	X	88	4'-9"	X		ABUT. DIAPH. - VERT. - BTWN. GIRDERS
S620	X	40	10'-2"			ABUT. DIAPH. - HORIZ. - BTWN. GIRDERS
S421	X	16	10'-2"			ABUT. DIAPH. - HORIZ. - BTWN. GIRDERS
◨ S522	X	102	2'-9"	X		PAVING BLOCK - VERT.
S423	X	102	3'-10"	X		PAVING BLOCK - STIRRUP- VERT.
S524	X	48	7'-8"			PAVING BLOCK - HORIZ.
S425	X	16	11'-9"			EXPANSION DEVICE - HORIZONTAL
S526	X	1676	4'-5"	X		42SS PARAPET - VERT.
S527	X	1676	6'-8"	X		42SS PARAPET - VERT.
S528	X	160	57'-5"			42SS PARAPET - HORIZ.
S429	X	1886	2'-6"	X		DECK BOT. TRANS. BOTH EDGES
S430	X	100	2'-9"	X		GIRDER HAUNCH- DECK - VERT. - SPAN 1 & 4
S431	X	216	3'-5"	X		GIRDER HAUNCH- DECK - VERT. - ALL SPANS
S432	X	345	3'-1"	X		GIRDER HAUNCH- DECK - VERT. - SPAN 2 & 3

◨ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-6" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

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

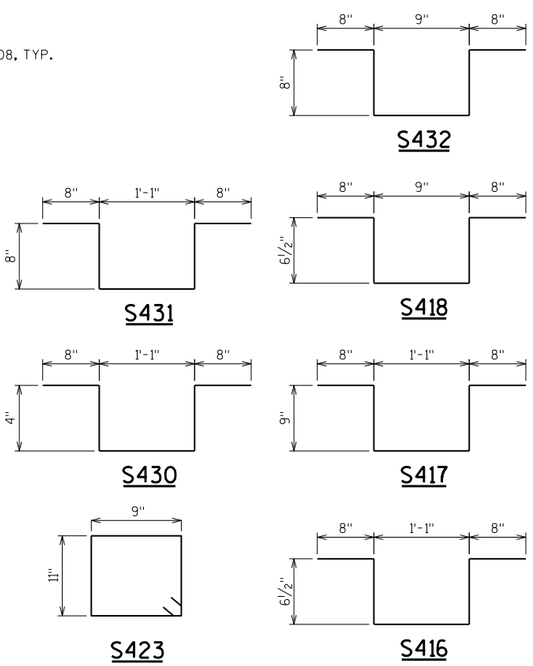


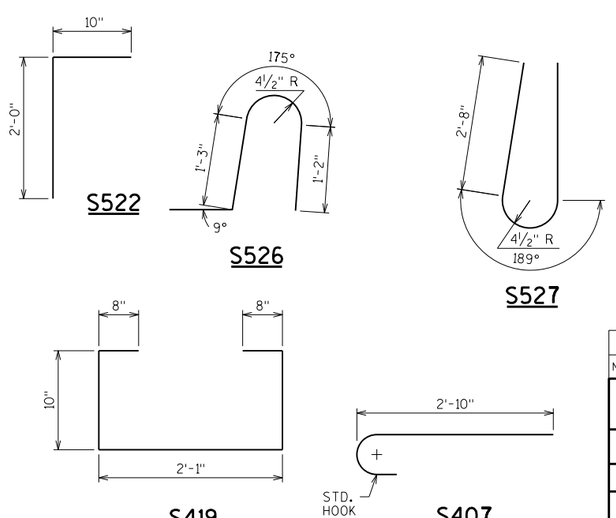
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE
TYP. AT (BOTH ABUTMENTS)
SEE "EXPANSION DEVICE" SHEET FOR MORE DETAILS
** DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE
* BAR PLACED PARALLEL TO GIRDERS

A25 SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

A26 IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH EPOXY ANCHORED NO. 5 L-SHAPED BARS WITH A 8" HORIZ. LEG. EMBED 1'-6". WORK TO BE PAID UNDER ITEM "CONCRETE MASONRY BRIDGES".





BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
S508	2 SERIES OF 59	1'-2" TO 38'-8"
S509	2 SERIES OF 58	1'-5" TO 38'-4"

BUNDLE AND TAG EACH SERIES SEPARATELY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-34

DRAWN BY AA | PLANS CK'D. SEW

SUPERSTRUCTURE DETAILS 3

SHEET 9

484

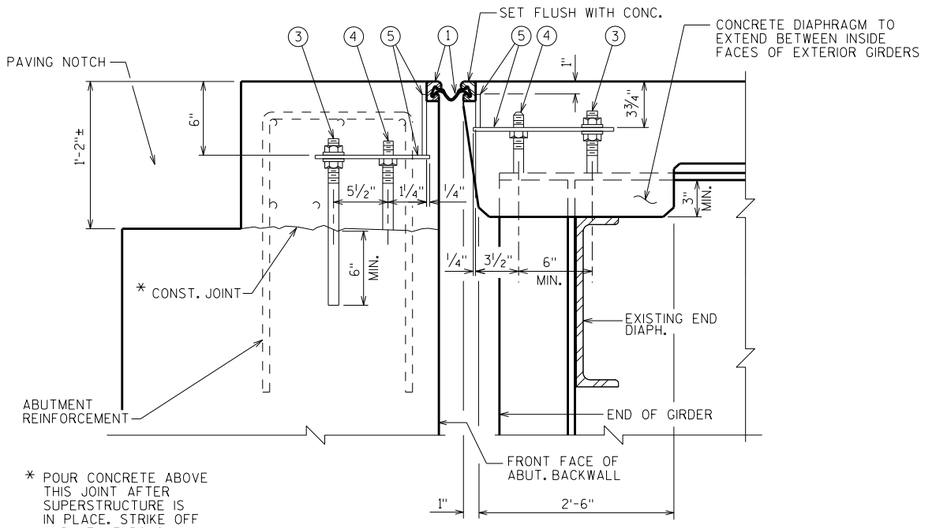
8

8

SCALE = 1.00

STATE PROJECT NUMBER

1100-43-70



* POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

LEGEND

(1) NEOPRENE STRIP SEAL (5- INCH) AND STEEL EXTRUSIONS.

(2) STUDS ⅝" DIA. X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 AND 1" DIA. HOLE FOR NO. 4.

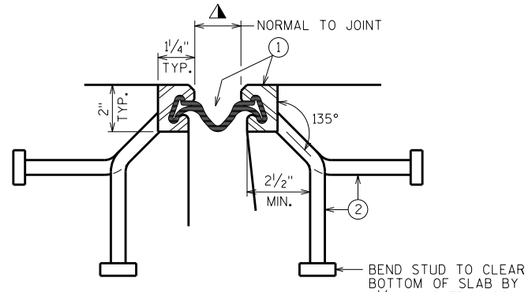
(6) GALVANIZED PLATE ⅜" X 10" X 2'-2" LONG WITH HOLES FOR NO. 7.

(7) ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) ¾" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

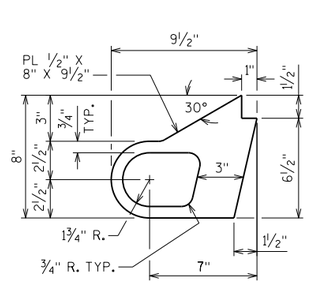
(9) ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.

(11) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

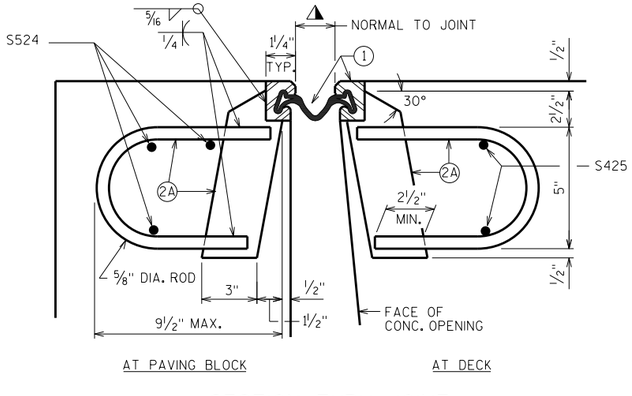


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS

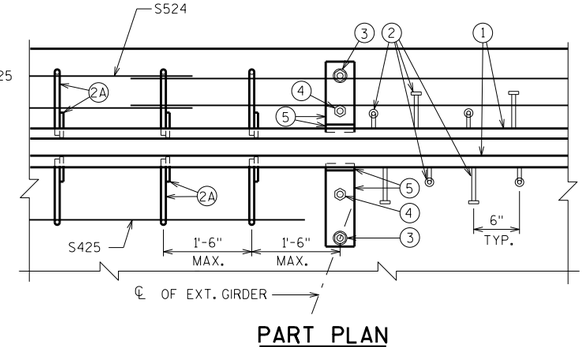


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

ALL MATERIAL IN THE EXPANSION JOINT ASSEMBY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE", LF.

⚠ TEMPERATURE TABLE

SHADED UNDERSIDE DECK TEMP. (°F)	JOINT OPENING (NORMAL TO JT.)
85°	2⅛"
75°	2⅜"
65°	2½"
55°	2¾"
45°	3"
35°	3¼"
25°	3½"
15°	3⅝"
5°	3⅞"

A SMALL JOINT OPENING DUE TO A HIGH TEMPERATURE AT TIME OF CONSTRUCTION MAY REQUIRE NEOPRENE STRIP SEAL INSTALLATION INTO STEEL EXTRUSIONS PRIOR TO SETTING THE EXPANSION JOINT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-34

DRAWN BY AA | PLANS CK'D. SEW

EXPANSION DEVICE

SHEET 10

485

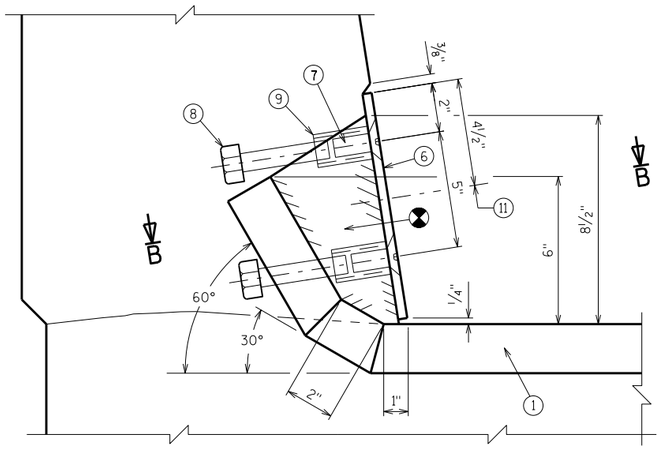
8

8

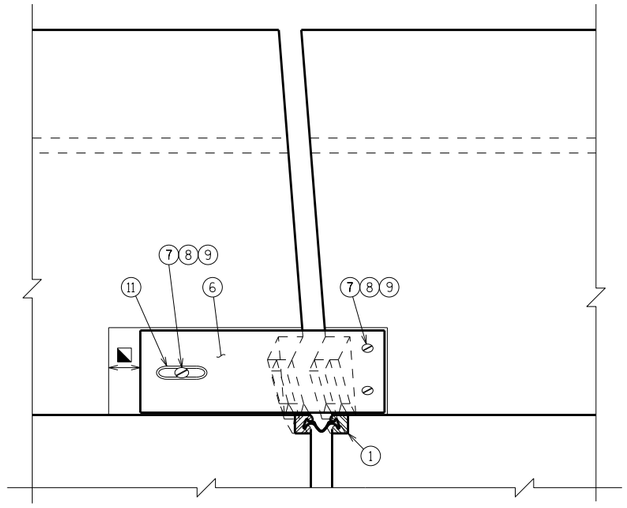
SCALE = 1.00

STATE PROJECT NUMBER

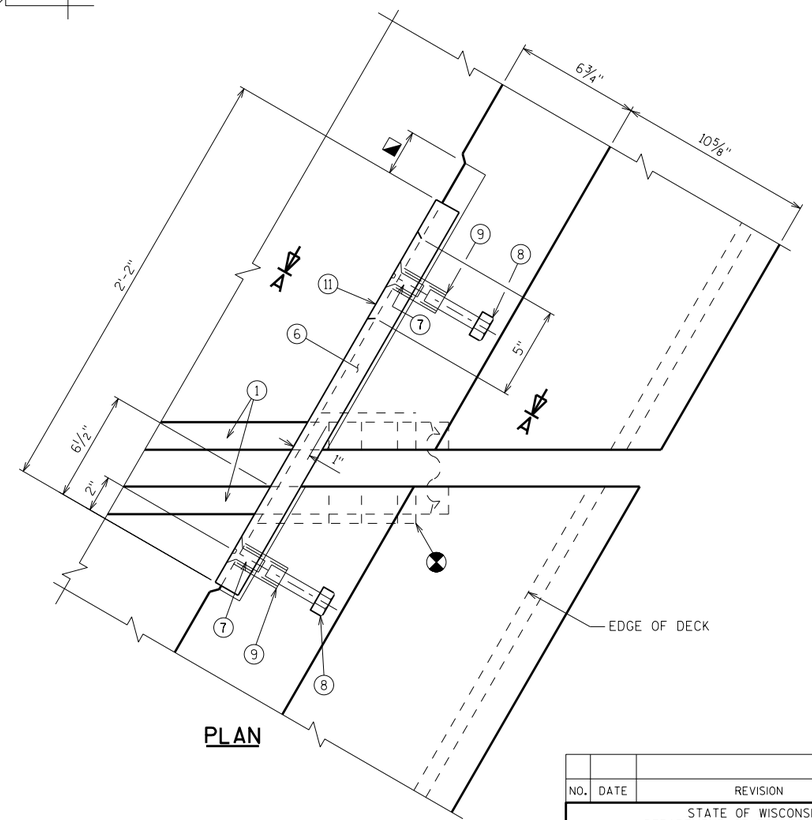
1100-43-70



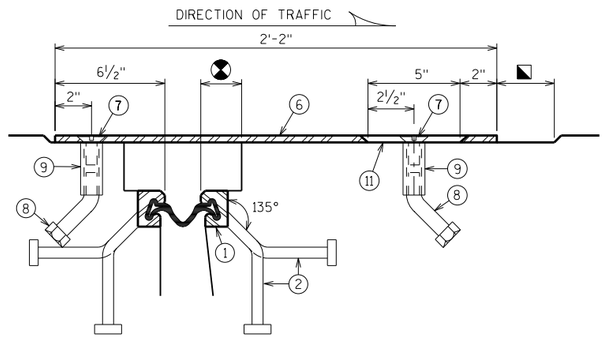
SECTION A-A



VIEW OF PARAPET PLATE FROM ROADWAY



PLAN



SECTION B-B

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◪ JOINT OPENING DIMENSION ALONG SKEW PLUS ½".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-34

DRAWN BY AA | PLANS CK'D. SEW

COVER PLATE DETAILS

SHEET 11

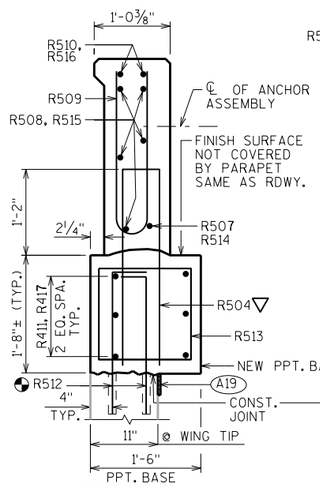
486

SCALE = 1.00

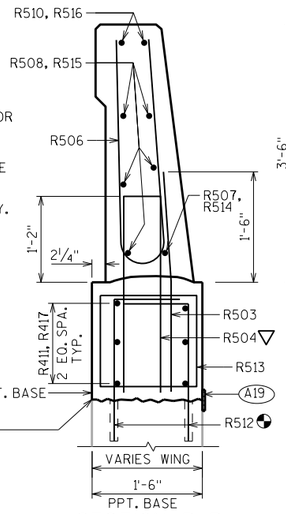
8

8

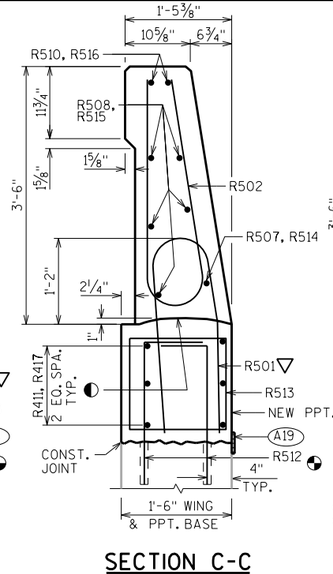
STATE PROJECT NUMBER
1100-43-70



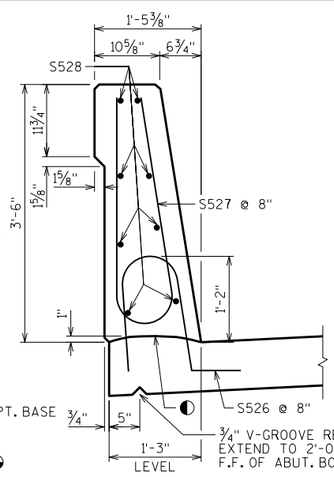
SECTION A-A



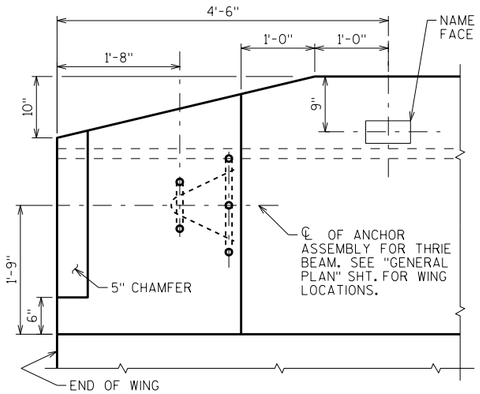
SECTION B-B



SECTION C-C



SECTION THRU PARAPET ON DECK



PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET

BILL OF BARS

FOR ABUTMENT PARAPETS

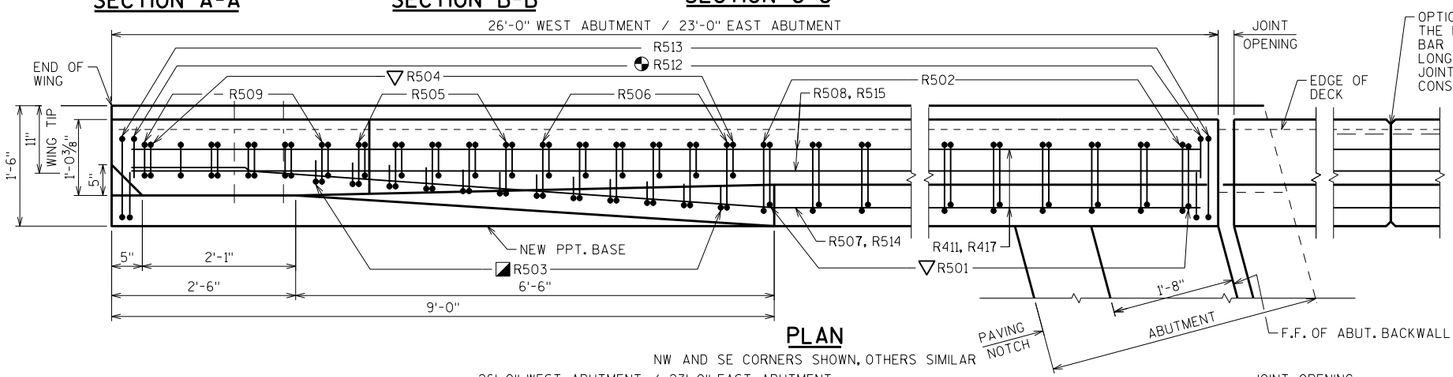
BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	52	44	5'-10	X		PARAPET VERT.
R502	X	52	44	6'-8"	X		PARAPET VERT.
R503	X	24	24	3'-0"	X		PARAPET VERT.
R504	X	34	34	5'-7"	X		PARAPET VERT.
R505	X	10	10	6'-5"	X		PARAPET VERT.
R506	X	12	12	6'-6"	X		PARAPET VERT.
R507	X	2	-	25'-7"	X		PARAPET HORIZ. WINGS 1&2
R508	X	10	-	25'-7"			PARAPET HORIZ. WINGS 1&2
R509	X	12	12	5'-5"	X	⚠	PARAPET VERT.
R510	X	4	-	25'-7"	X		PARAPET HORIZ. WINGS 1&2
R411	X	12	-	25'-7"			PARAPET BASE HORIZ. WINGS 1&2
R512	X	140	124	3'-4"	X		PARAPET BASE/WING VERT.
R513	X	70	62	5'-4"	X		PARAPET BASE VERT.
R514	X	-	2	22'-7"	X		PARAPET HORIZ. WINGS 3 &4
R515	X	-	10	22'-7"			PARAPET HORIZ. WINGS 3 &4
R516	X	-	4	22'-7"	X		PARAPET HORIZ. WINGS 3 &4
R417	X	-	12	22'-7"			PARAPET BASE HORIZ. WINGS 3 &4

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

BAR SERIES TABLE

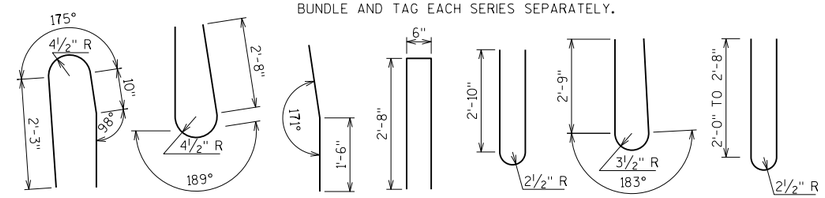
BAR MARK	NO. REQ'D	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.

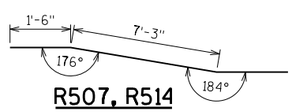


PLAN

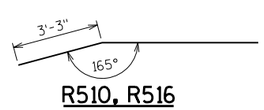
NW AND SE CORNERS SHOWN, OTHERS SIMILAR



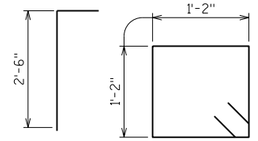
R501 R502 R503 R504 R505 R506 R509



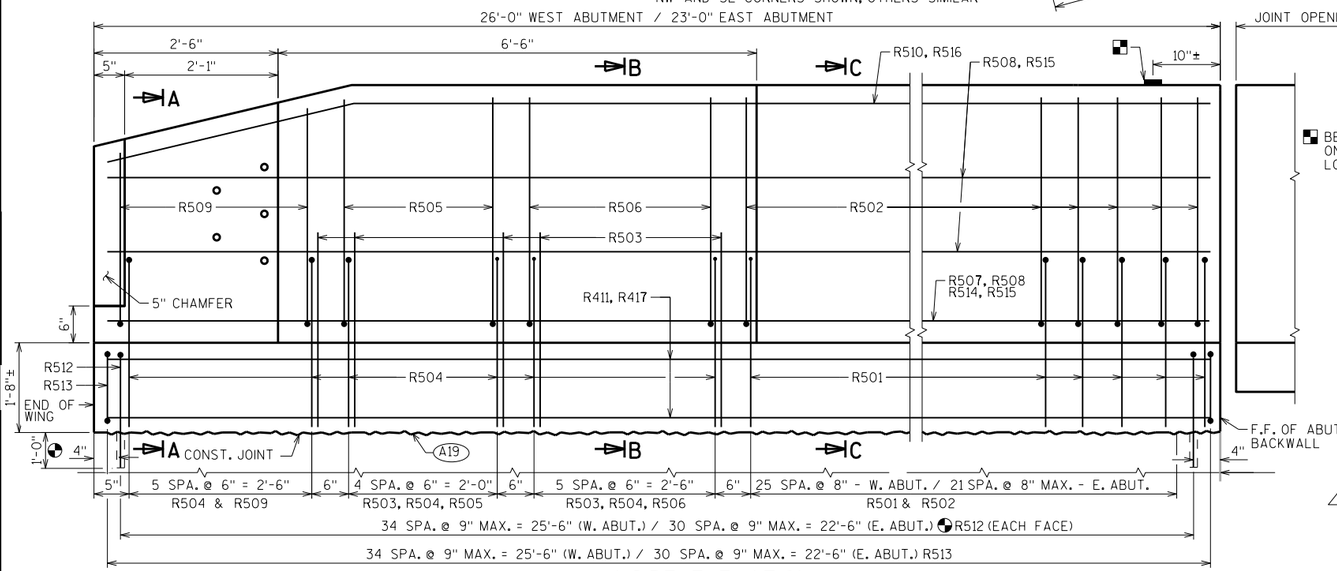
R507, R514



R510, R516



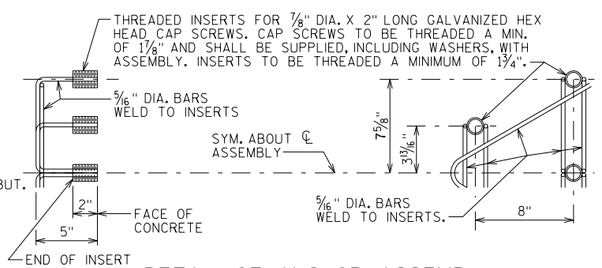
R512 R513



INSIDE ELEVATION

NW & SE CORNERS SHOWN, OTHERS SIMILAR

- NO.5 ADHESIVE ANCHORS. EMBED 1'-0" MIN. INTO CONCRETE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- ◐ CONST. JOINT - STRIKE OFF AS SHOWN
- ◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.
- ▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-34

DRAWN BY AA | PLANS CK'D. SEW

SINGLE SLOPE PARAPET 42SS

SHEET 12

487

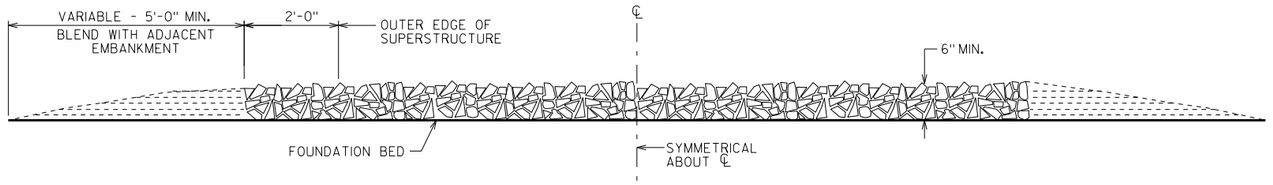
8

8

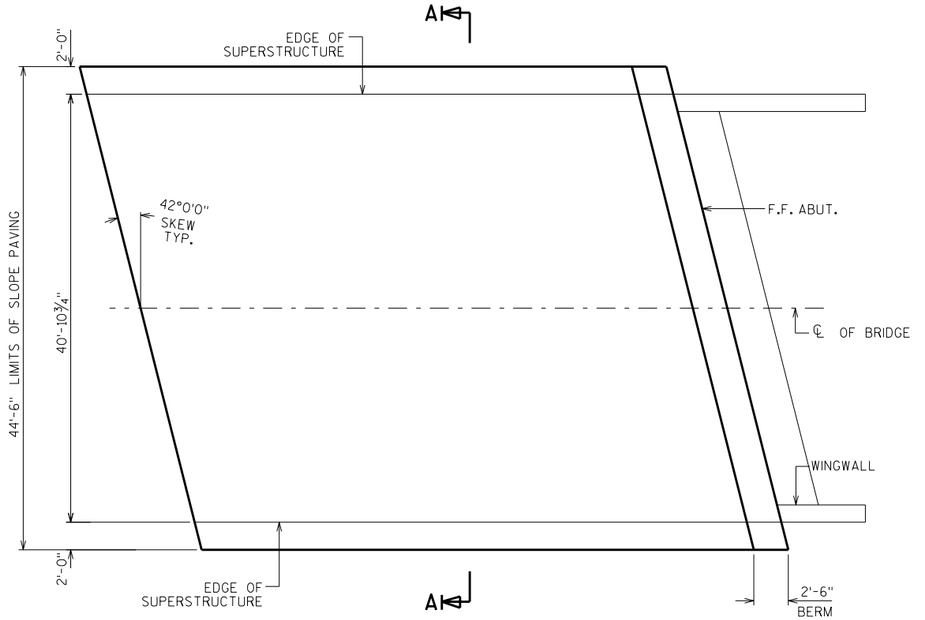
SCALE = 1.00

STATE PROJECT NUMBER

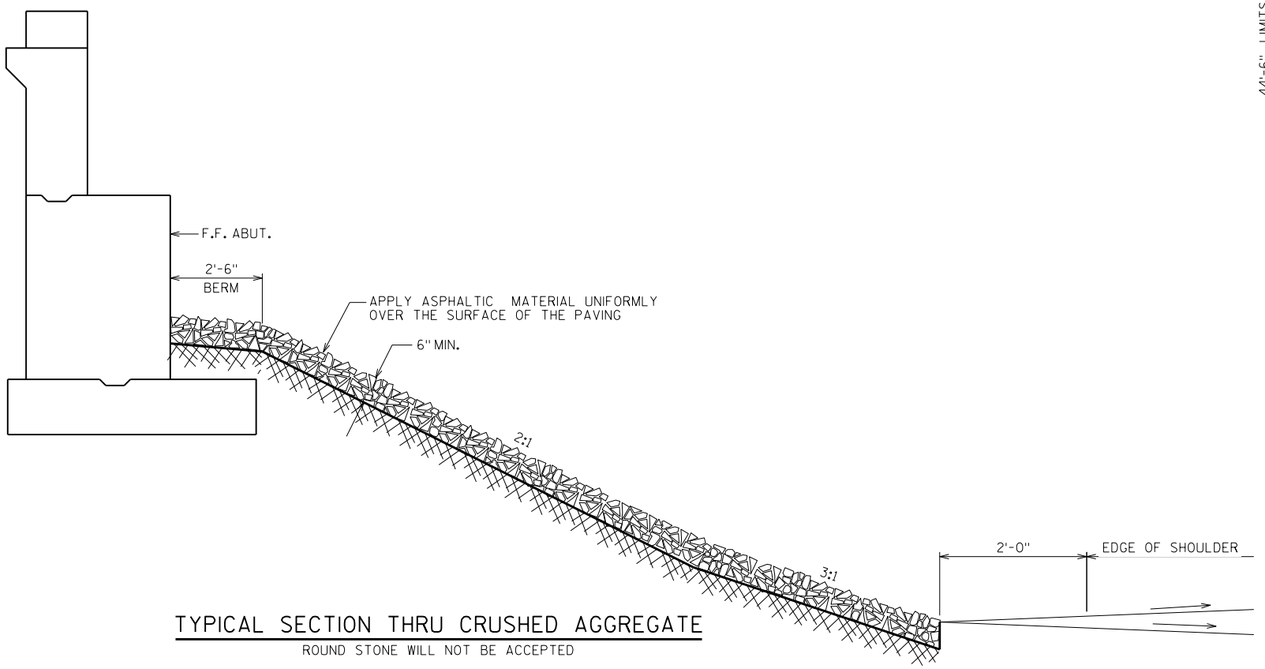
1100-43-70



SECTION A-A



PLAN



TYPICAL SECTION THRU CRUSHED AGGREGATE

ROUND STONE WILL NOT BE ACCEPTED

NOTES

BID ITEM SHALL BE "SLOPE PAVING CRUSHED AGGREGATE"

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-34

DRAWN BY AA | PLANS CK'D. SEW

SLOPE PAVING CRUSHED AGGREGATE

SHEET 13

488

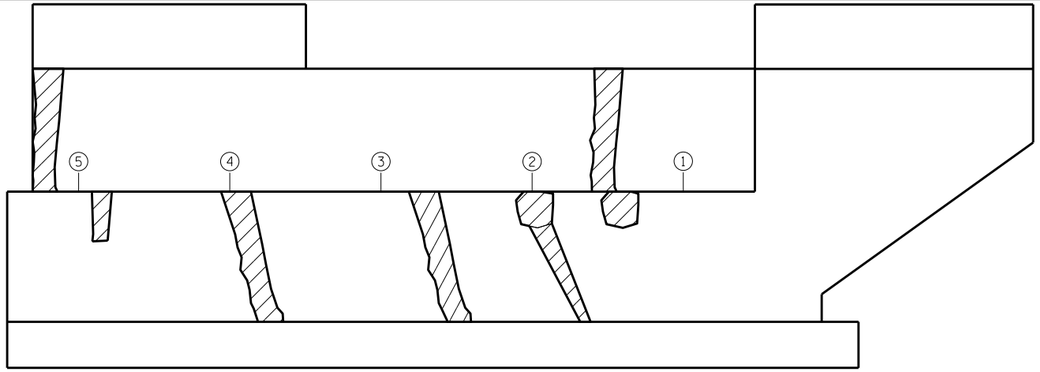
SCALE = 1.00

8

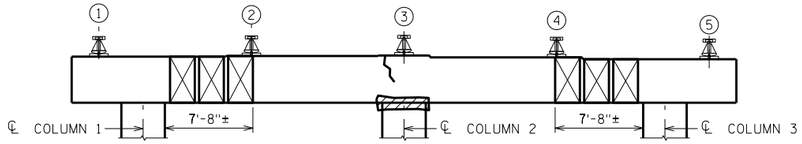
8

STATE PROJECT NUMBER

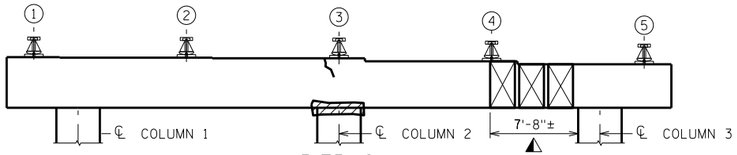
1100-43-70



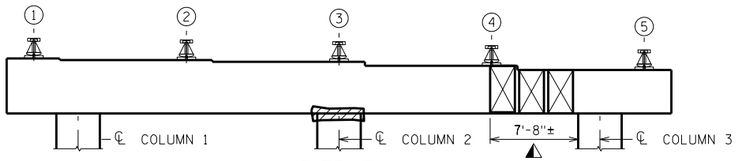
W. ABUTMENT ELEVATION
LOOKING WEST



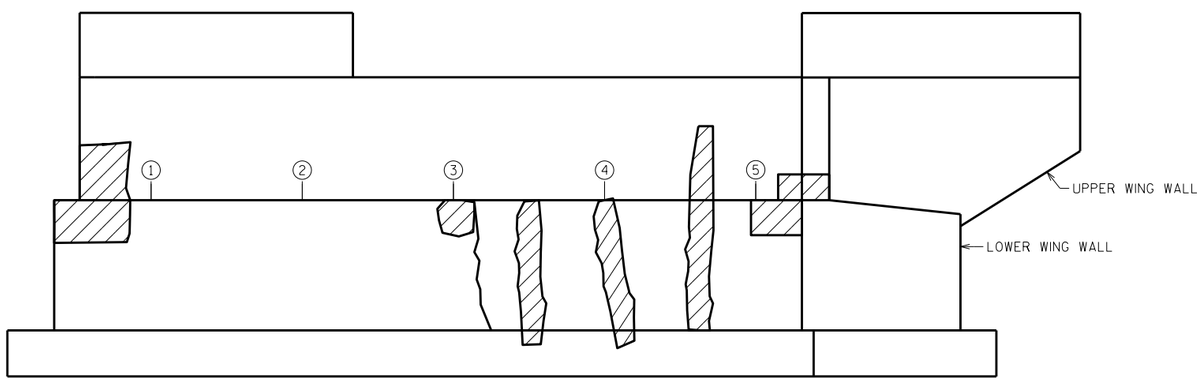
PIER 1
LOOKING EAST



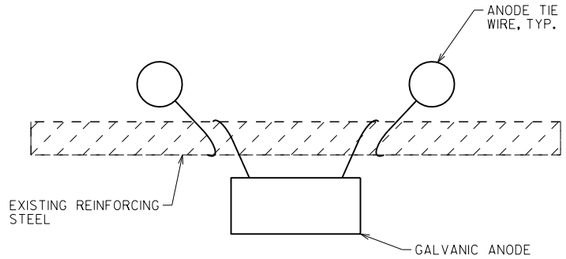
PIER 2
LOOKING EAST



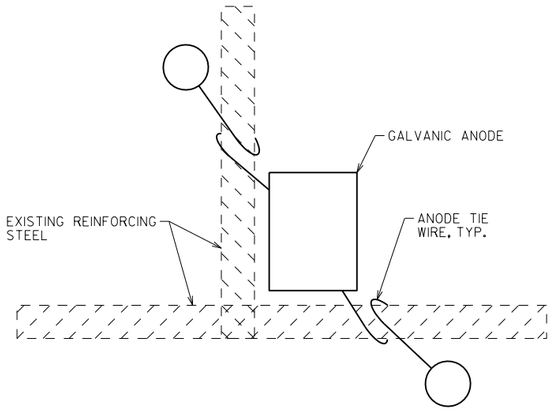
PIER 3
LOOKING EAST



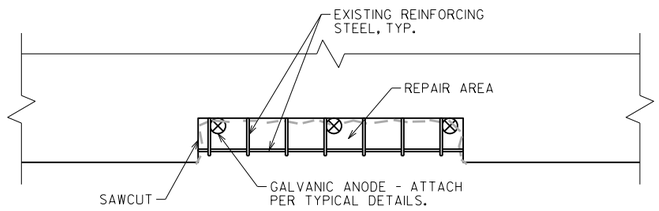
E. ABUTMENT ELEVATION
LOOKING EAST



TYPICAL INSTALLATION FOR BAR STEEL



TYPICAL INSTALLATION AT BAR STEEL INTERSECTION



PART. PLAN TYPICAL REPAIR DETAIL

NOTES

SEE SPECIAL PROVISION "EMBEDDED GALVANIC ANODES" FOR DESCRIPTION, MATERIALS, CONSTRUCTION, MEASUREMENT, AND PAYMENT INFORMATION.

ANODES NEAREST TO EDGE OF REPAIR TO BE WITHIN 6" OF EDGE.

AFTER PLACEMENT, GALVANIC ANODES SHOULD MAINTAIN A MINIMUM TOP COVER OF 1½" AND A MINIMUM BOTTOM COVER OF ¾".

EXISTING REINFORCING STEEL TO BE COMPLETELY CLEANED OF CORRODED MATERIAL PRIOR TO INSTALLATION OF GALVANIC ANODES.

INDICATES CONCRETE SURFACE REPAIR. FIELD ENGINEER TO DETERMINE EXACT REPAIR LOCATIONS

MAXIMUM GALVANIC ANODE SPACING

STEEL DENSITY RATIO (SQ. IN. PER FT.)	MAXIMUM ANODE SPACING (INCHES)
<= 0.3	24
0.31-0.50	20
0.51-0.60	18
0.61-0.80	16
0.81-0.90	15
0.91-1.00	14
1.01-1.20	12
>=1.20	*

NOTES:

*AT STEEL DENSITY RATIOS GREATER THAN 1.20, CONSULT THE ENGINEER TO DETERMINE MAXIMUM ANODE SPACING AND ANODE LAYOUT

STEEL DENSITY RATIO IS THE RATIO OF STEEL REINFORCING BAR SURFACE AREA TO EXPOSED CONCRETE SURFACE AREA WITHIN THE REPAIR AREA.

TABLE IS BASED ON HIGH CORROSION RISK WITHIN THE SURFACE REPAIR AREA, A MINIMUM ZINC MASS OF 38 GRAMS AND AN APPROXIMATE SERVICE LIFE OF 10-20 YEARS.

○ INDICATES GIRDER NUMBER

INDICATES EXISTING FRP WRAP. TAKE CARE NOT TO DAMAGE EXISTING FRP WRAP DURING PIER CONCRETE SURFACE REPAIR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-34

DRAWN BY AA | PLANS CK'D. SEW

CATHODIC PROTECTION & SURFACE REPAIR

SHEET 14

489

SCALE = 2.50

8

8

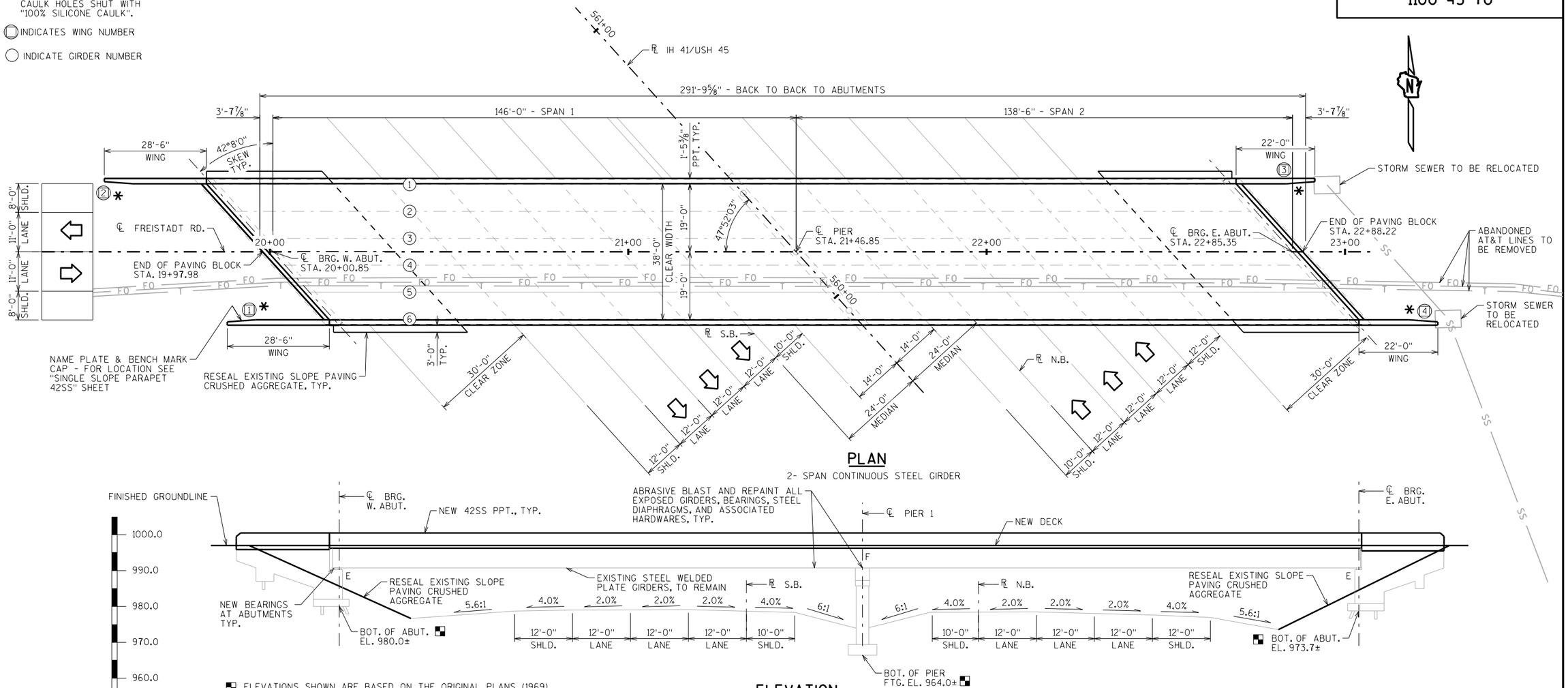
STATE PROJECT NUMBER

1100-43-70

* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

(1) INDICATES WING NUMBER

(1) INDICATE GIRDER NUMBER



PLAN

2- SPAN CONTINUOUS STEEL GIRDER

ELEVATIONS SHOWN ARE BASED ON THE ORIGINAL PLANS (1969)

ELEVATION

LOOKING NORTH

LIST OF DRAWINGS

1. DECK REPLACEMENT
2. CROSS SECTION & QUANTITIES
3. STRUCTURAL REMOVAL
4. BEARING DETAILS
5. SUPERSTRUCTURE
6. SUPERSTRUCTURE DETAILS 1
7. SUPERSTRUCTURE DETAILS 2
8. EXPANSION DEVICE
9. COVER PLATE DETAILS
10. SINGLE SLOPE PARAPET 42SS
11. CATHODIC PROTECTION & SURFACE REPAIR

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-14
OPERATING RATING: HS- 24
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 137 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE & STRUCTURAL APPROACH SLAB — f'c = 4,000 P.S.I.
ALL OTHER — f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT:
GRADE 60 — fy = 60,000 P.S.I.

TRAFFIC VOLUME

FREISTADT RD.
ADT = 3500 (2039)
R.D.S. = 45 M.P.H.

IH 41/USH 45
ADT = 96000 (2039)
R.D.S. = 75 M.P.H.

STRUCTURE DESIGN CONTACTS:

AIHAM ALSKIF (608) 261-6113
DOMINIQUE BECHLE (608) 261-8205

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION — BUREAU OF STRUCTURES

ACCEPTED DMB 04/13/22
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-66-35

FREISTADT RD OVER IH 41/USH 45

COUNTY	VILLAGE
WASHINGTON	GERMANTOWN

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
AA	SEW	AA	SEW

DECK REPLACEMENT

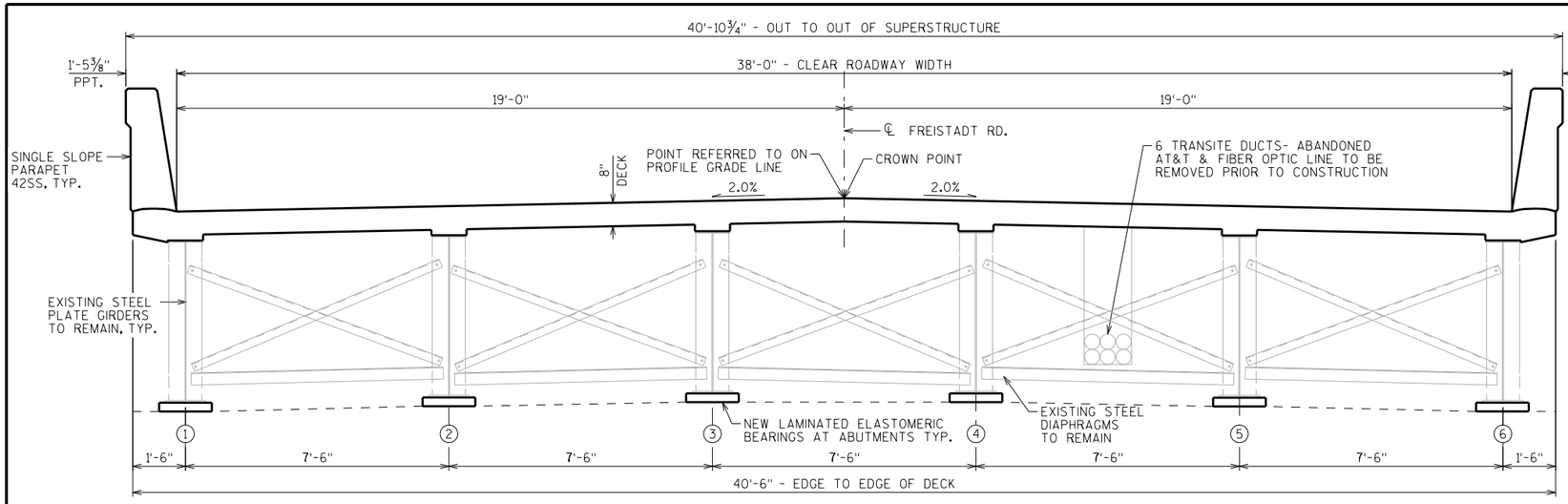
SHEET 1 OF 11

490

I.D. 1100-43-00N

DATE: APR. 2022

SCALE = 14.00



◯ INDICATES GIRDER NUMBER

PROPOSED SECTION THRU ROADWAY

LOOKING EAST

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST ABUT.	PIER	EAST ABUT.	TOTALS
203.0220	REMOVING STRUCTURE (B-66-35)	EACH	———	———	———	———	1
203.0211.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-66-35	EACH	———	———	———	———	1
502.0100	CONCRETE MASONRY BRIDGES	CY	418.2	13.2	———	10.2	442
502.3101	EXPANSION DEVICE	LF	104	———	———	———	104
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1,233	———	———	———	1,233
502.3210	PIGMENTED SURFACE SEALER	SY	287	25	———	21	333
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	102	152	———	116	370
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	92,985	2,920	———	2,275	98,180
506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	———	6	———	6	12
506.7050.S	REMOVING BEARINGS B-66-35	EACH	———	6	———	6	12
509.1500	CONCRETE SURFACE REPAIR	SF	———	35	25	35	95
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	———	10	———	8	18
517.0901.S	PREPARATION AND COATING OF TOP FLANGES B-66-35	EACH	———	———	———	———	1
517.1801.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-66-35	EACH	———	———	———	———	1
517.4501.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-66-35	EACH	———	———	———	———	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	———	———	———	———	1
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	———	185	———	185	370
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	———	———	———	4
** SPV.0060	EMBEDDED GALVANIC ANODES	EACH	———	10	2	10	22
	NON-BID ITEMS						
	BRIDGE SEAT PROTECTION	L.S.	———	———	———	———	1

** THIS QUANTITY IS FOR INFORMATIONAL PURPOSES ONLY. FIELD ENGINEER TO VERIFY THE EXACT NUMBER OF ANODES REQUIRED AT EACH INDIVIDUAL SURFACE REPAIR LOCATION PRIOR TO ANODE INSTALLATION.

STATE PROJECT NUMBER

1100-43-70

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT PAVING BLOCKS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS, INCLUDING PARAPETS ON ABUTMENTS WINGS.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF ALL ABUTMENTS BELOW EXPANSION DEVICES.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE "SUPERSTRUCTURE DETAILS 1" SHEET.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1969.

ANY EXCAVATION AND STRUCTURE BACKFILL NECESSARY TO COMPLETE THE RE-DECK AND PARAPET REPLACEMENT ON WINGS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "REMOVING STRUCTURE B-66-35".

REMOVE AND SALVAGE THE EXISTING RAILINGS (INCLUDES RAILS, POSTS AND ALL ASSOCIATED HARDWARE). AFTER REMOVAL, THE RAILINGS ARE TO BE SET ASIDE AND SHALL REMAIN THE PROPERTY OF THE STATE OF WISCONSIN. THE CONTRACTOR WILL COORDINATE WITH WASHINGTON COUNTY HIGHWAY DEPARTMENT, AS TO WHEN THE RAILING ARE READY TO BE PICKED UP. THIS SHALL BE INCIDENTAL TO "REMOVING STRUCTURE B-66-35."

ENGINEER TO DETERMINE CONCRETE SURFACE REPAIR AREAS. CONCRETE SURFACE REPAIRS SHALL BE MADE ONLY AS DIRECTED BY THE ENGINEER

ASBESTOS LOCATED AT PARAPET EXPANSION JOINTS. REMOVAL TO BE INCLUDED WITH "ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-66-35" BID ITEM.

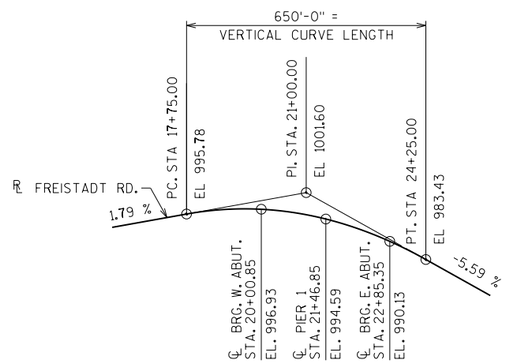
CONCRETE REMOVAL AT WINGS AND PAVING BLOCKS SHALL BE DEFINED BY A 1" DEEP SAW CUT.

UTILIZE EXISTING BAR STEEL REINFORCEMENT IN ABUTMENT WINGS WHERE SHOWN

SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF WINGS WITH "RUBBERIZED MEMBRANE WATERPROOFING".

THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BLUE, SHERWIN WILLIAMS SW6523 OR EQUAL COLOR APPROVED BY THE ENGINEER

CLEANING AND PAINTING THE EXISTING BEARINGS AT THE PIER IS INCIDENTAL TO BID ITEM "STRUCTURE REPAINTING RECYCLED ABRASIVE B-66-35"



PROFILE GRADE LINE - FREISTADT RD.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-35

DRAWN BY AA | PLANS CK'D. SEW

CROSS SECTION & QUANTITIES

SHEET 2

491

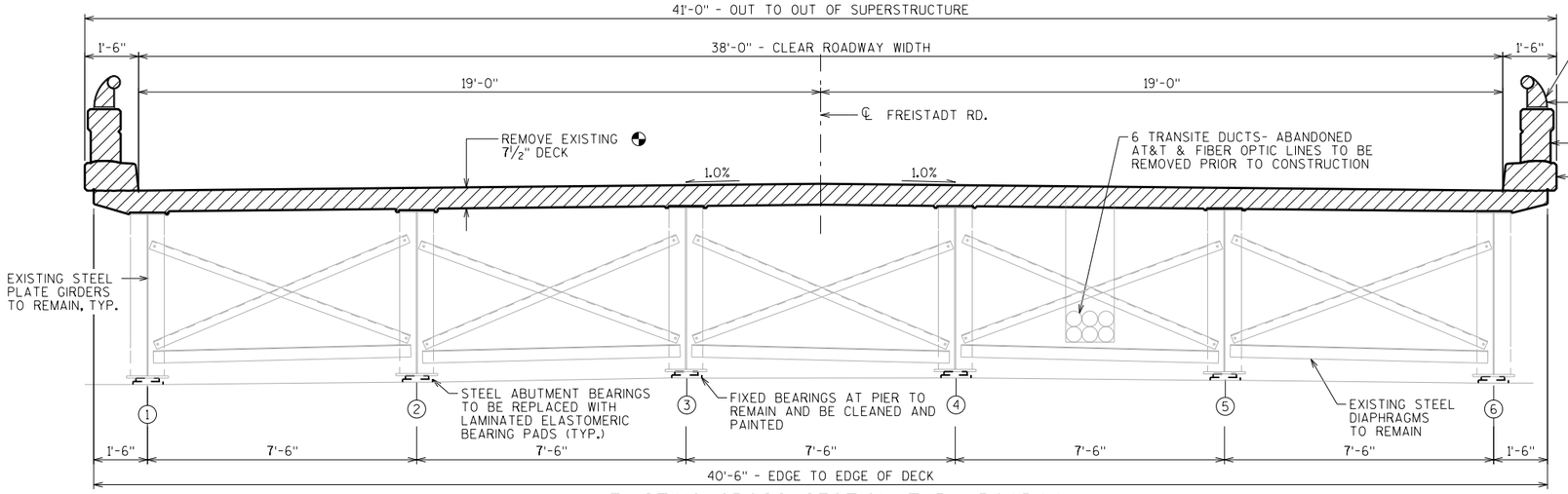
SCALE = 2.00

8

8

STATE PROJECT NUMBER

1100-43-70



EXISTING CROSS SECTION THRU ROADWAY

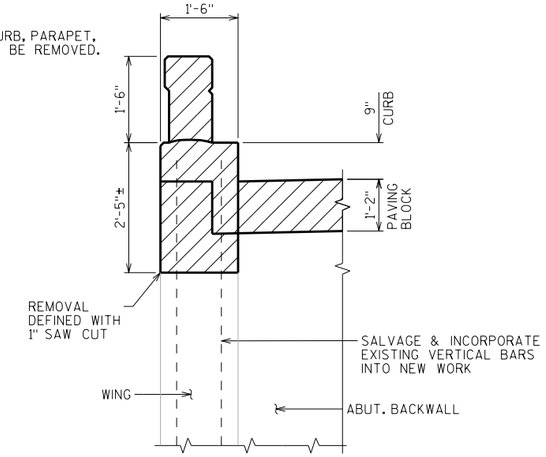
LOOKING EAST - SHOWING REMOVAL LIMITS

◯ INDICATES GIRDER NUMBER

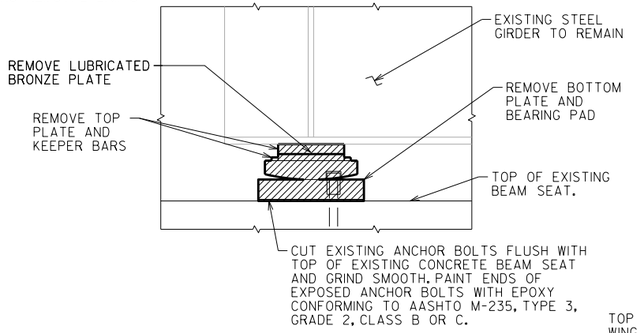
◔ EXISTING SHEAR CONNECTORS ON GIRDER TOP FLANGES TO REMAIN. TAKE CARE DURING DECK REMOVAL TO NOT DAMAGE SHEAR CONNECTORS. IF DAMAGED, REPLACE SHEAR CONNECTORS AT THE EXPENSE OF THE CONTRACTOR.

REMOVAL LIMITS

◭ DIMENSION GIVEN NORMAL TO ℄ SUBSTRUCTURE.

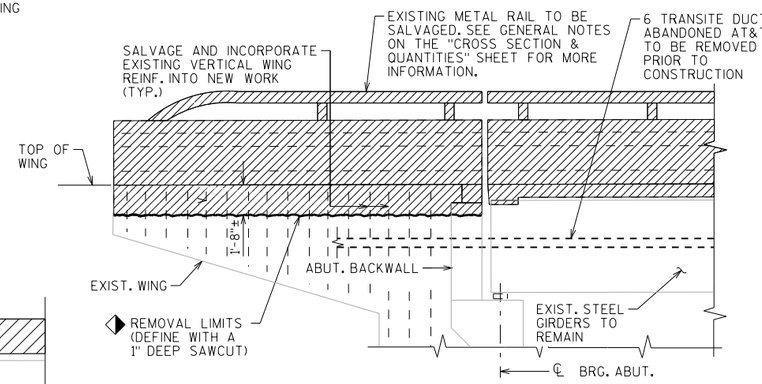


WING SECTION AT EXIST. PAVING BLOCK



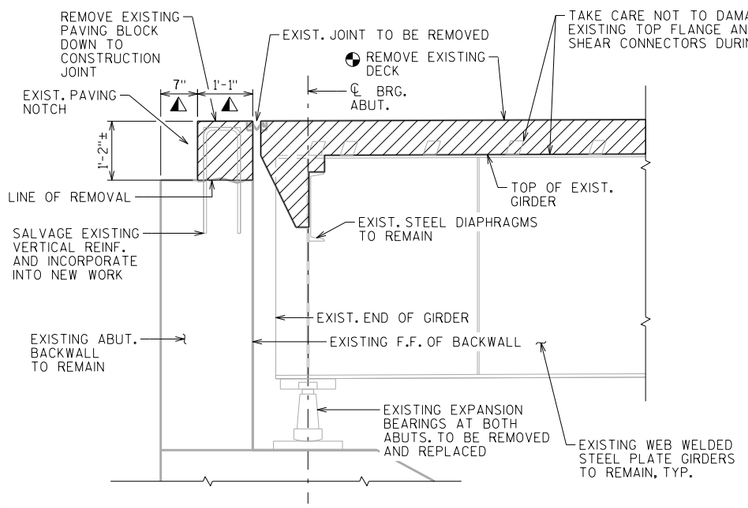
BEARING REMOVAL DETAIL

EXPANSION BEARING AT W. ABUT. SHOWN (E. ABUT. SIMILAR)



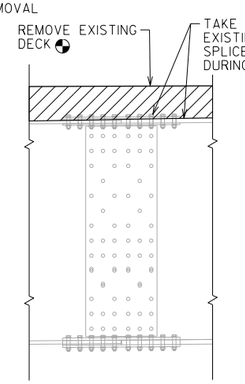
TYP. REMOVAL LIMITS AT WINGS

◭ EXCAVATION FOR REMOVING AND REPLACING THE EXISTING PARAPET ON THE WINGS IS INCIDENTAL TO BID ITEM "REMOVING STRUCTURE B-66-35".



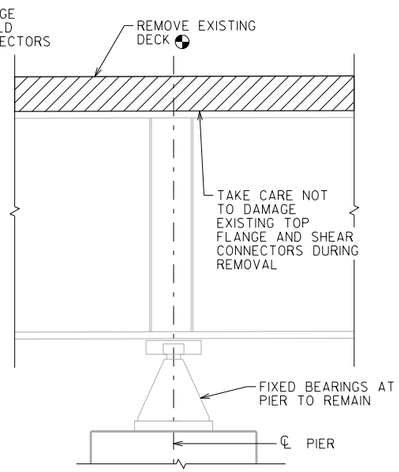
EXISITNG SECTION THRU JOINTS AT ABUTMENTS

TYPICAL AT BOTH ABUTS.



AT FIELD SPLICE

TYPICAL AT ALL FIELD SPLICES



AT PIER

PART LONGITUDINAL SECTION

SHOWING REMOVALS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-35

DRAWN BY AA | PLANS CK'D. SEW

STRUCTURAL REMOVAL

SHEET 3

492

SCALE = 2.00

8

8

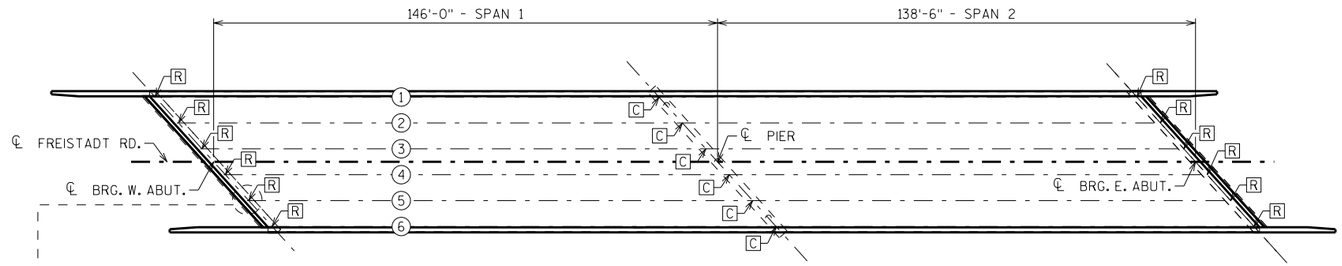
STATE PROJECT NUMBER

1100-43-70

◯ INDICATES GIRDER NUMBER

[R] REPLACE EXISTING BEARING WITH NEW LAMINTAED ELASTOMERIC BEARING

[C] CLEAN AND PAINT EXISTNG FIXED BEARING, INCIDENTAL TO BID ITEM "STRUCTURE REPAINTING RECYCLED ABRASIVE B-66-35"



BEARINGS LOCATION PLAN

N

NOTES

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

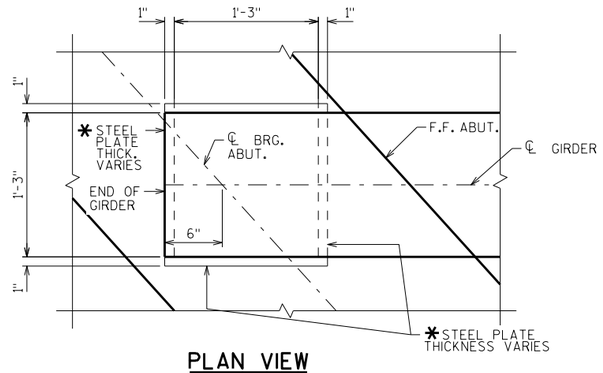
GRIND EXIST. WELD THAT ATTACHED EXIST. TOP PLATE TO EXIST. BOT. FLANGE. GRIND AFFECTED AREAS SMOOTH.

WELDING PROCEDURES SHALL BE ESTABLISHED BY THE CONTRACTOR TO RESTRICT THE MAXIMUM TEMPERATURE REACHED BY SURFACES IN CONTACT WITH ELASTOMER TO 200°F (93°C). TEMPERATURES SHALL BE CONTROLLED BY TEMPERATURE INDICATING WAX PENCILS OR OTHER SUITABLE MEANS APPROVED BY THE ENGINEER.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT, AND VERTICAL.

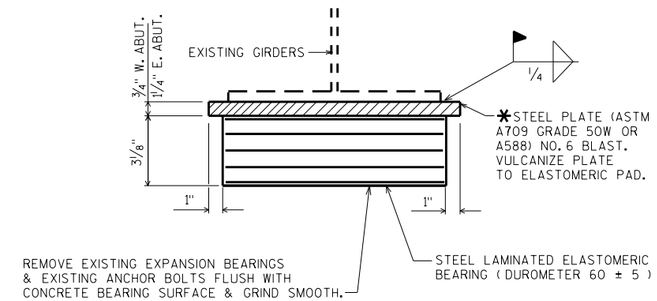
BEARINGS SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 85°F.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.



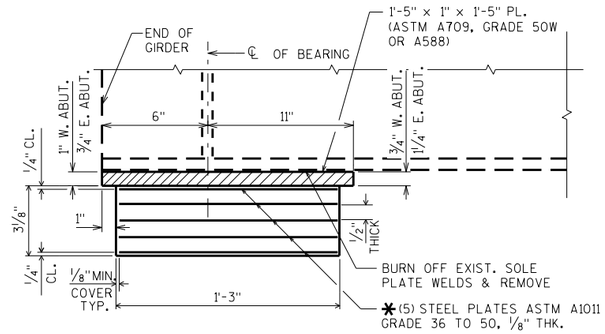
PLAN VIEW

✱ TAPER TOP STEEL PLATE
3/4" TO 1" W. ABUTMENT
3/4" TO 1 1/4" E. ABUTMENT



FRONT ELEVATION

(6 PER ABUT.)



SECTION THRU ELASTOMERIC BEARING

(6 PER ABUT.)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-35

DRAWN BY AA | PLANS CK'D. SEW

BEARING DETAILS

SHEET 4

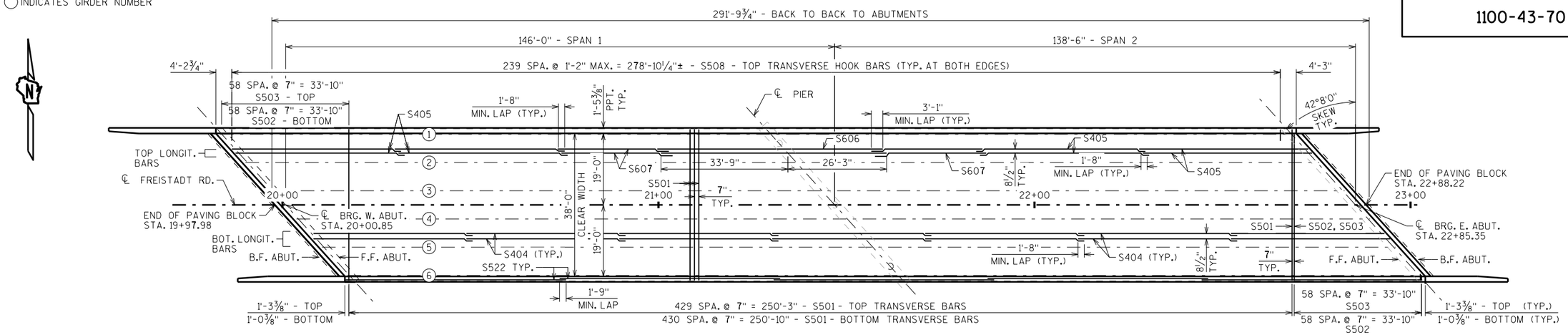
493

SCALE = 1.00

STATE PROJECT NUMBER

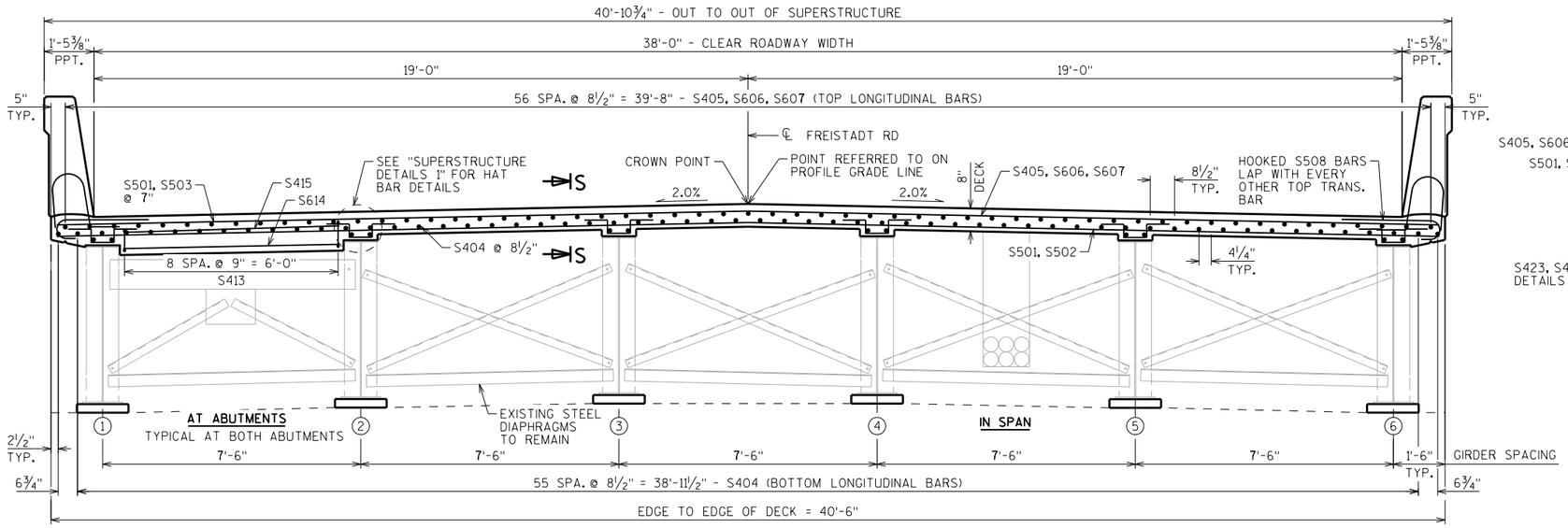
1100-43-70

◯ INDICATES GIRDER NUMBER



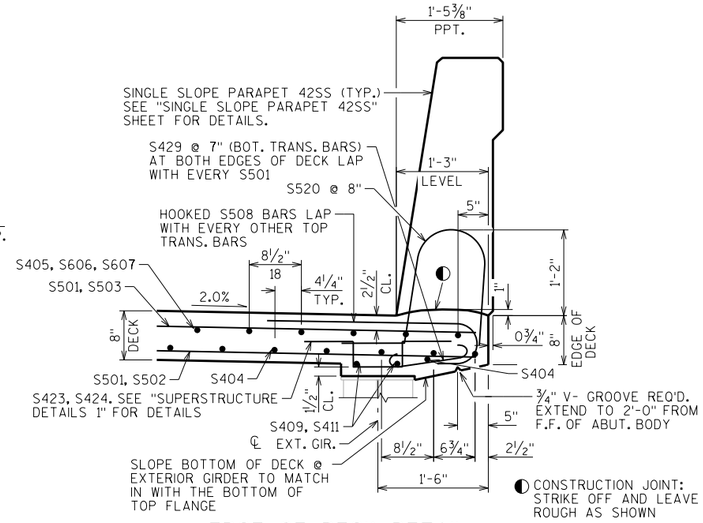
PLAN

2 SPAN STEEL GIRDER



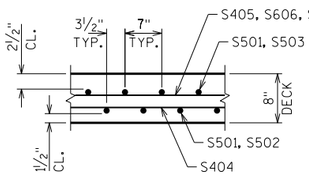
CROSS SECTION THRU ROADWAY

LOOKING EAST



EDGE OF DECK DETAIL

(TYP. AT BOTH EDGES)



SECTION S-S

TOP OF DECK ELEVATION

EOD = EDGE OF DECK

-	W. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	PIER 1	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	E. ABUT.
N. EOD	996.67	996.58	996.46	996.31	996.15	995.96	995.74	995.50	995.24	994.95	994.63	994.32	993.97	993.61	993.23	992.82	992.39	991.94	991.47	990.98	990.46
G1	996.67	996.57	996.45	996.30	996.13	995.94	995.72	995.48	995.21	994.92	994.61	994.29	993.94	993.58	993.19	992.79	992.36	991.90	991.43	990.94	990.42
G2	996.78	996.67	996.54	996.38	996.20	995.99	995.76	995.51	995.23	994.93	994.60	994.27	993.92	993.54	993.15	992.73	992.29	991.82	991.34	990.83	990.31
G3	996.88	996.76	996.62	996.45	996.26	996.04	995.80	995.53	995.25	994.93	994.59	994.25	993.89	993.50	993.09	992.66	992.21	991.74	991.25	990.73	990.19
RL./CROWN	996.93	996.80	996.65	996.48	996.28	996.06	995.81	995.54	995.25	994.93	994.59	994.24	993.87	993.48	993.07	992.63	992.17	991.70	991.20	990.67	990.13
G4	996.83	996.70	996.54	996.36	996.16	995.93	995.68	995.40	995.10	994.78	994.43	994.08	993.70	993.31	992.89	992.45	991.98	991.50	991.00	990.47	989.92
G5	996.62	996.48	996.31	996.12	995.91	995.67	995.40	995.12	994.80	994.47	994.11	993.75	993.36	992.95	992.52	992.07	991.60	991.11	990.59	990.05	989.49
G6	996.41	996.25	996.07	995.87	995.65	995.40	995.12	994.82	994.50	994.16	993.78	993.41	993.01	992.60	992.16	991.69	991.21	990.71	990.18	989.63	989.06
S. EOD	996.39	996.23	996.05	995.85	995.62	995.37	995.09	994.79	994.47	994.12	993.74	993.37	992.97	992.55	992.11	991.64	991.16	990.65	990.12	989.57	989.00

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-35

DRAWN BY AA | PLANS CK'D. SEW

SUPERSTRUCTURE

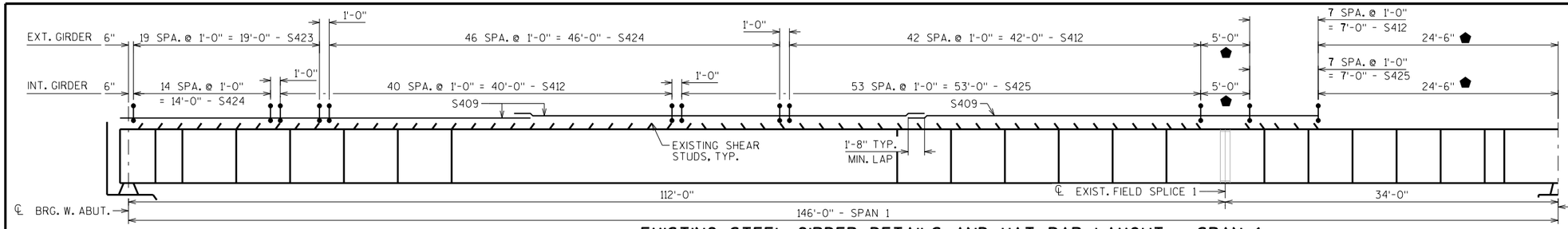
SHEET 5

494

SCALE = 14.00

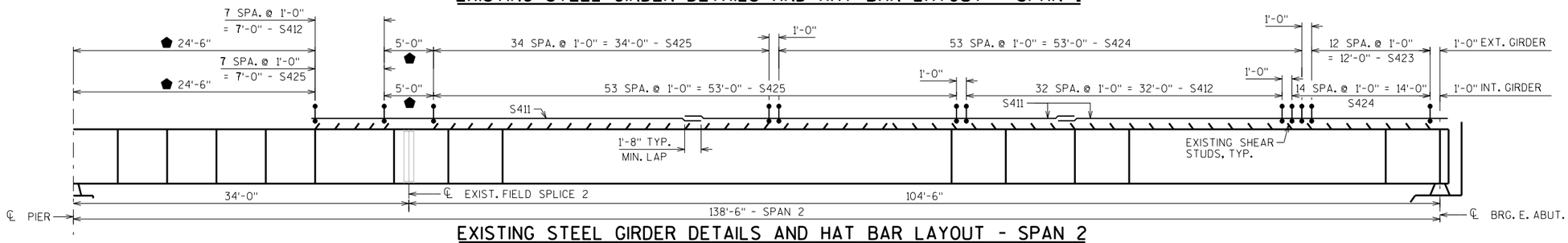
STATE PROJECT NUMBER

1100-43-70

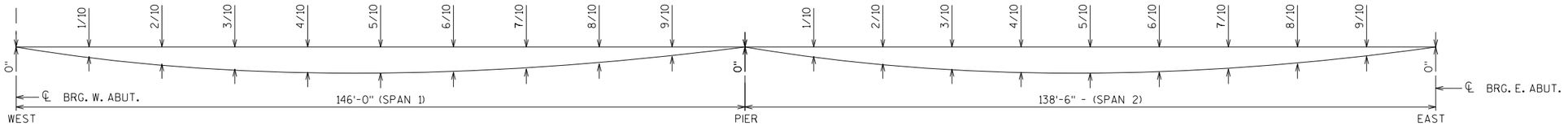


NO HAT BAR

EXISTING STEEL GIRDER DETAILS AND HAT BAR LAYOUT - SPAN 1



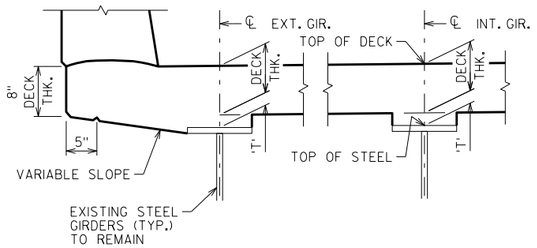
EXISTING STEEL GIRDER DETAILS AND HAT BAR LAYOUT - SPAN 2



DEAD LOAD DEFLECTION DIAGRAHM

GIRDERS		ALONG ℄ GIRDER	W. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	E. ABUT.
EXTERIOR GIRDERS	(IN.)	CONC. ONLY	0.0	1.1	2.0	2.6	2.9	2.8	2.5	1.8	1.0	0.3	0.0	0.3	0.9	1.6	2.2	2.6	2.7	2.4	1.9	1.0	0.0
		TOTAL DEFL.	0.0	1.4	2.6	3.4	3.8	3.7	3.2	2.4	1.3	0.4	0.0	0.3	1.1	2.1	2.8	3.3	3.4	3.1	2.4	1.3	0.0
INTERIOR GIRDERS	(IN.)	CONC. ONLY	0.0	1.5	2.7	3.5	3.9	3.8	3.3	2.4	1.4	0.4	0.0	0.4	1.2	2.2	3.0	3.5	3.6	3.3	2.5	1.4	0.0
		TOTAL DEFL.	0.0	1.8	3.3	4.3	4.8	4.7	4.0	3.0	1.7	0.5	0.0	0.4	1.4	2.6	3.6	4.2	4.3	3.9	3.0	1.7	0.0

DEFLECTION DIAGRAM TABLE



CONCRETE HAUNCH DETAILS

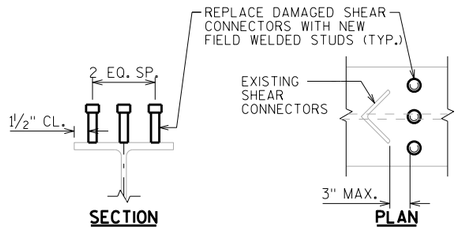
TO DETERMINE 'T': AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGES, TOP OF SPLICE PLATES, OR TOP OF COVER PLATES, WHICHEVER APPLIES, SHALL BE TAKEN AT CENTERLINE OF BEARINGS, CENTERLINE OF FIELD SPLICES, AND AT 0.1 POINTS.

TOP OF DECK ELEVATION AT FINAL GRADE
- TOP OF STEEL ELEVATION AFTER STEEL ERECTION
+ CONC. ONLY DEFLECTION; DOWNWARD DEFLECTION IS ADDED, UPWARD DEFLECTION IS SUBTRACTED

- SLAB THICKNESS (8.0")

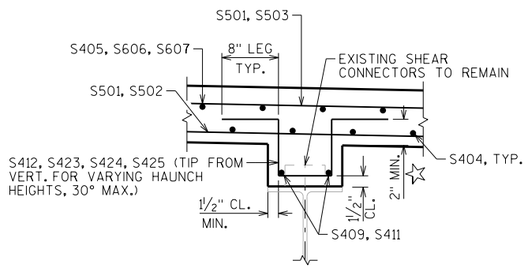
= 'T' VALUE FOR SETTING HAUNCH

NOTE: AN AVERAGE HAUNCH ('T') OF 5.75" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



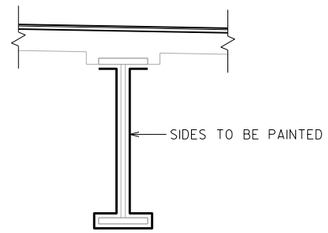
SHEAR CONN. DETAIL

EXISTING SHEAR CONNECTORS, IF DAMAGED, SHALL BE REMOVED AND REPLACED WITH FIELD WELDED ⅞" DIA. X 4" LONG STUDS. REPLACEMENT OF DAMAGED SHEAR CONNECTORS SHALL BE COMPLETED AT THE EXPENSE OF THE CONTRACTOR.



'HAT BAR' & INT. HAUNCH DETAIL

☆ CONTACT BUREAU OF STRUCTURES IF 2" MIN. EMBEDMENT CANNOT BE OBTAINED



PAINTING LIMITS

TYPICAL AT ALL GIRDERS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-35

DRAWN BY AA | PLANS CK'D. SEW

SUPERSTRUCTURE DETAILS 1

SHEET 6

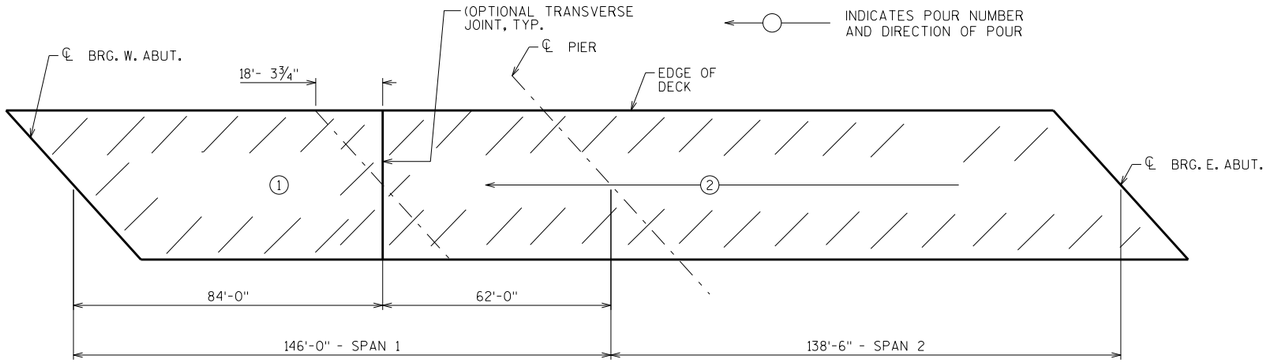
495

SCALE = 6.00

8

8

STATE PROJECT NUMBER
1100-43-70



OPTIONAL DECK POUR SEQUENCE

NOTES

THE RATE OF PLACING CONCRETE SHALL EQUAL OR EXCEED ½ SPAN LENGTH PER HOUR BUT NEED NOT EXCEED 100 CU. YDS. PER HOUR.

TWO OR MORE SEQUENTIAL POURS MAY BE COMBINED AND PLACED IN ONE CONTINUOUS OPERATION.

THE NEXT DECK POUR CAN BE MADE NO LESS THAN 72 HOURS AFTER THE PREVIOUS POUR.

THE CONTRACTOR MAY SUBMIT AN ALTERNATE POURING SEQUENCE SUBJECT TO THE APPROVAL OF THE STRUCTURES DESIGN SECTION.

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	861	40'-2"			DECK - TOP & BOTTOM- TRANSVERSE
S502	X	118	20'-2"		⚠	DECK - BOT. - TRANSVERSE
S503	X	118	20'-6"		⚠	DECK - TOP - TRANSVERSE
S404	X	406	42'-4"			DECK - BOT. - LONGIT.
S405	X	228	45'-0"			DECK - TOP - LONGIT.
S606	X	57	60'-0"			DECK - TOP - LONGIT. OVER PIER
S607	X	114	29'-7"			DECK - TOP - LONGIT.
S508	X	480	3'-5"	X		DECK - TOP - TRANSVERSE - BOTH EDGES
S409	X	36	41'-11"			GIRDER HAUNCH - HORIZ.- SPAN 1
S410	—	—	—	—	—	NOT USED
S411	X	36	39'-6"			GIRDER HAUNCH - HORIZ.- SPAN 2
S412	X	414	3'-3"	X		GIRDER HAUNCH - DECK - VERTICAL
S413	X	90	5'-6"	X		ABUT. DIAPH. - VERT. - BTWN. GIRDERS
S614	X	50	8'-2"			ABUT. DIAPH. - HORIZ. - BTWN. GIRDERS
S415	X	20	8'-2"			ABUT. DIAPH. - HORIZ. - BTWN. GIRDERS
◨ S516	X	102	2'-9"	X		PAVING BLOCK - VERT.
S417	X	102	3'-10"	X		PAVING BLOCK - STIRRUP- VERT.
S518	X	48	7'-8"			PAVING BLOCK - HORIZ.
S419	X	20	9'-8"			EXPANSION DEVICE - HORIZONTAL
S520	X	860	4'-5"	X		42SS PARAPET - VERT.
S521	X	860	6'-8"	X		42SS PARAPET - VERT.
S522	X	80	58'-8"			42SS PARAPET - HORIZ.
S423	X	66	2'-9"	X		GIRDER HAUNCH - DECK - VERT.
S424	X	322	2'-11"	X		GIRDER HAUNCH - DECK - VERT.
S425	X	566	3'-7"	X		GIRDER HAUNCH - DECK - VERT.

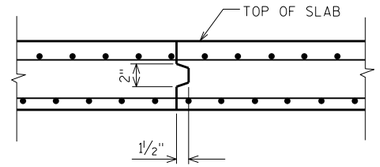
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

◨ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-6" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

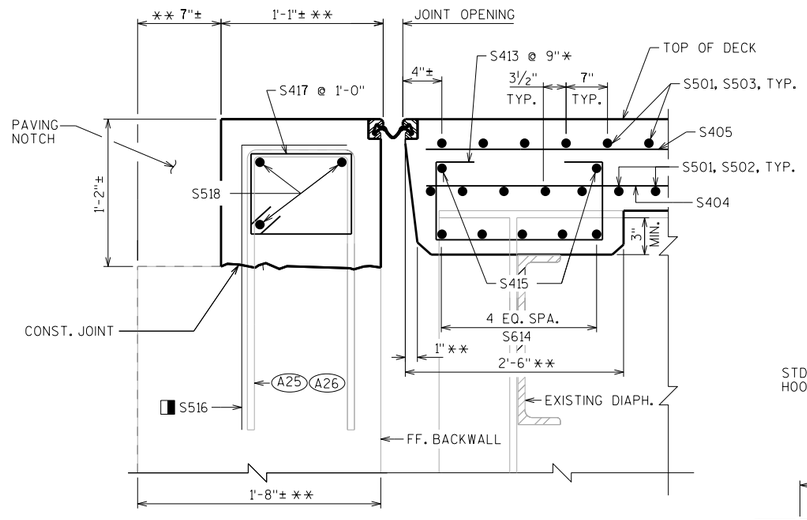
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
S502	2 SERIES OF 59	1'-5" TO 38'-10"
S503	2 SERIES OF 59	1'-9" TO 39'-2"

BUNDLE AND TAG EACH SERIES SEPARATELY.



SECTION THRU TRANSVERSE JOINT



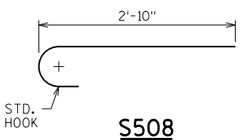
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE
TYP. AT (BOTH ABUTMENTS)
SEE "EXPANSION DEVICE" SHEET FOR MORE DETAILS

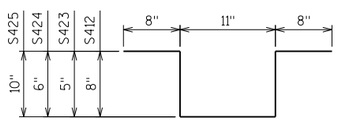
** DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE
* BARS PLACED PARALLEL TO GIRDERS

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

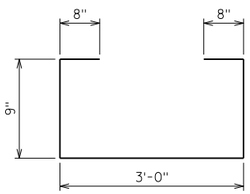
(A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH EPOXY ANCHORED NO. 5 L-SHAPED BARS WITH A 8" HORIZ. LEG. EMBED 1'-6". WORK TO BE PAID UNDER ITEM "CONCRETE MASONRY BRIDGES".



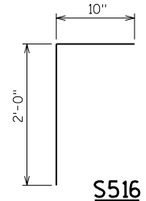
S508



S412, S423, S424, S425



S413



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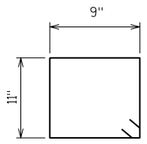

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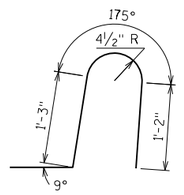

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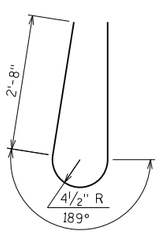


S521

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-35

DRAWN BY AA | PLANS CK'D. SEW

SUPERSTRUCTURE DETAILS 2

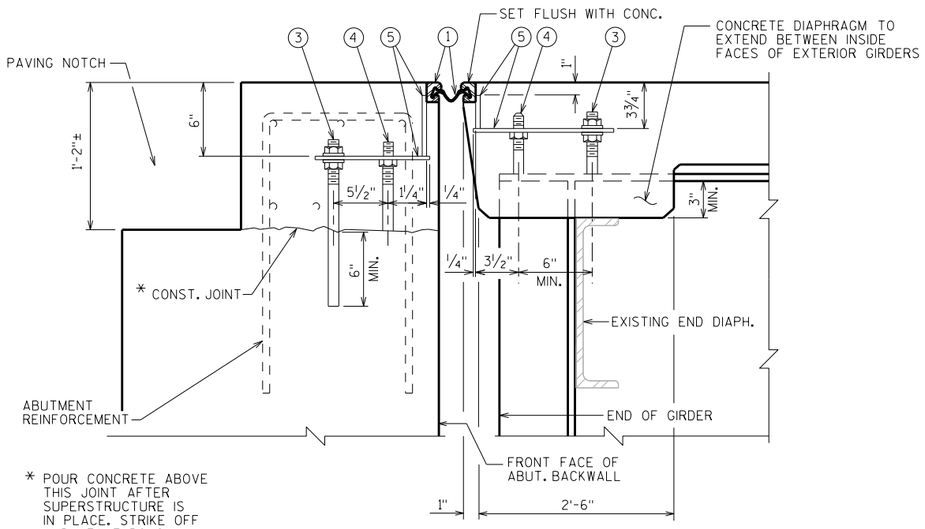
SHEET 7

496

SCALE = 1.00

8

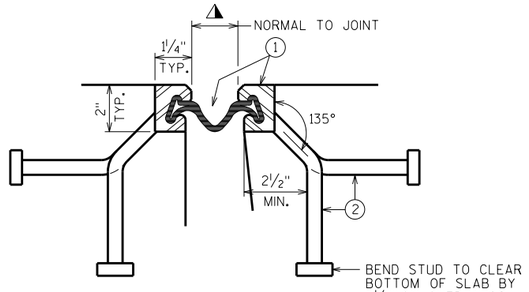
8



* POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

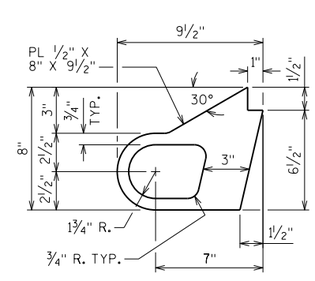
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

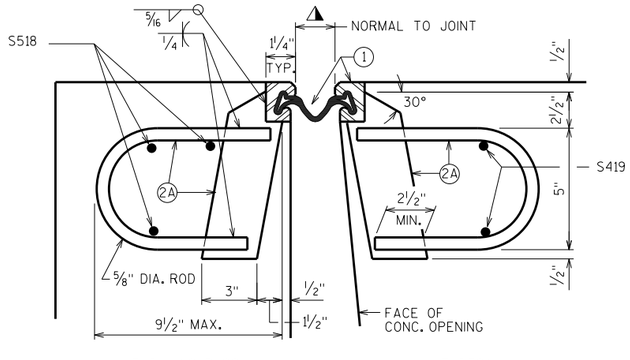


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS

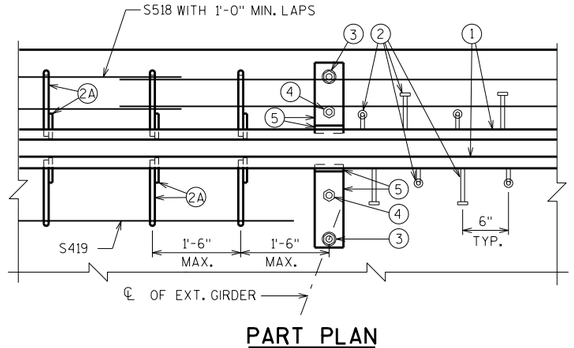


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION. HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

ALL MATERIAL IN THE EXPANSION JOINT ASSEMBY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE", LF.

STATE PROJECT NUMBER

1100-43-70

LEGEND

(1) NEOPRENE STRIP SEAL (4- INCH) AND STEEL EXTRUSIONS.

(2) STUDS 5/8" DIA. X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(2A) 1/2" THICK ANCHOR PLATE WITH 5/8" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) 3/4" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) 3/4" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X 1/2" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 1/2" DIA. HOLE FOR NO. 3 AND 1" DIA. HOLE FOR NO. 4.

(6) GALVANIZED PLATE 3/8" X 10" X 2'-2" LONG WITH HOLES FOR NO. 7.

(7) 3/4" DIA. X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) 3/4" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) 3/4" DIA. X 2 1/4" GALVANIZED THREADED COUPLING.

(11) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-35

DRAWN BY AA | PLANS CK'D. SEW

EXPANSION DEVICE

SHEET 8

497

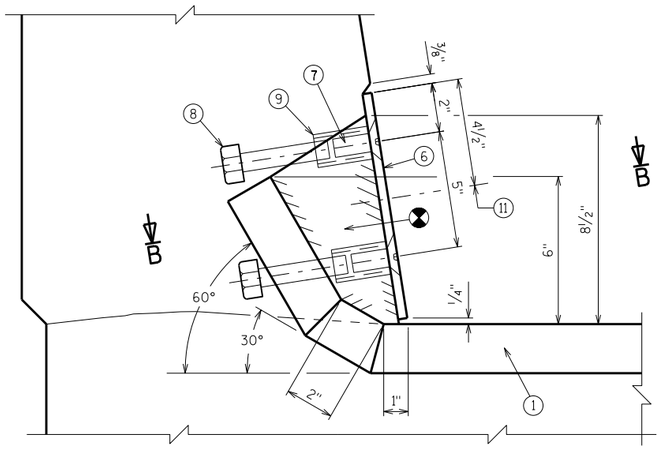
8

8

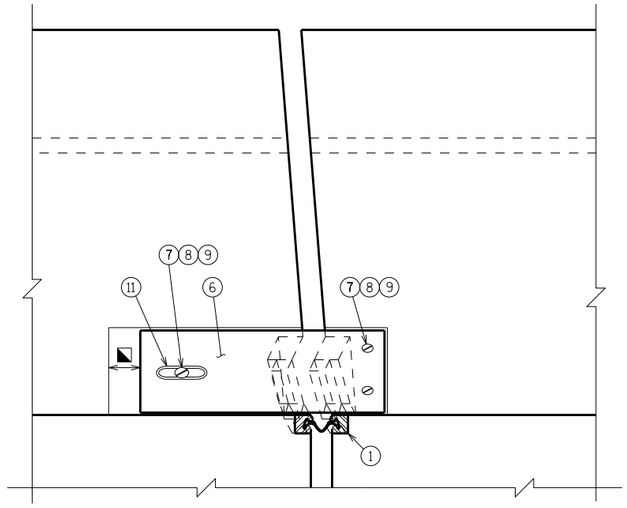
SCALE = 1.0

STATE PROJECT NUMBER

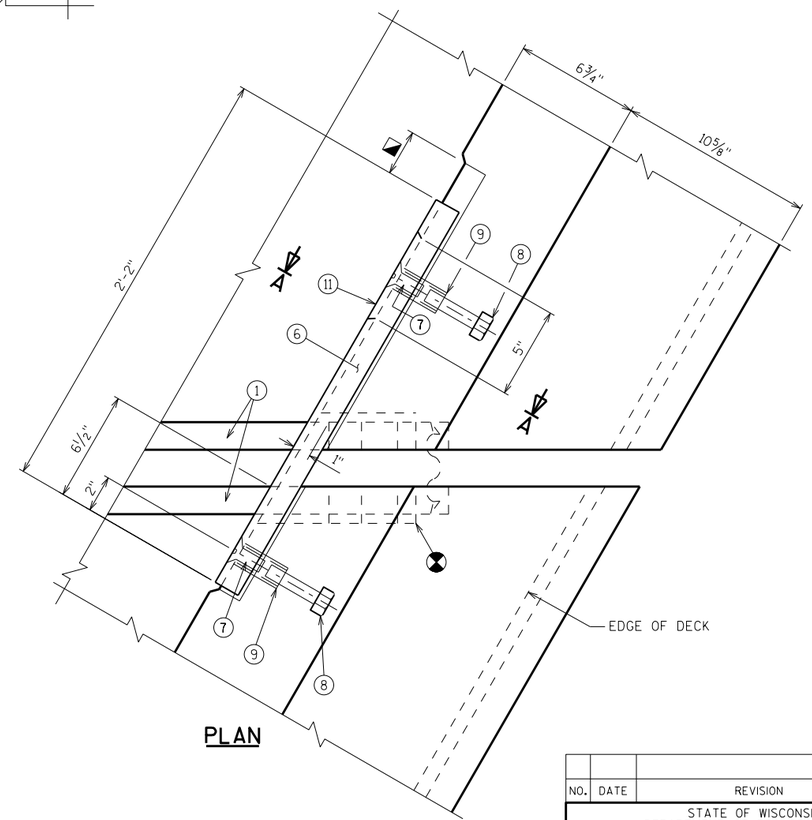
1100-43-70



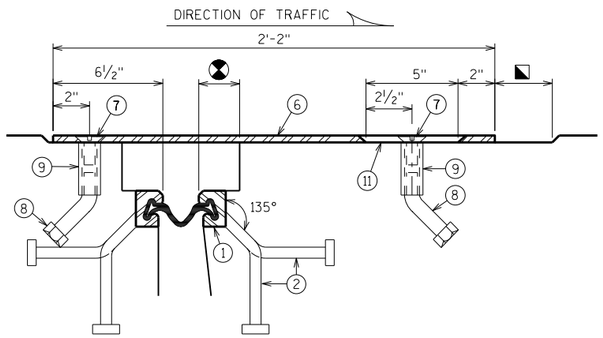
SECTION A-A



VIEW OF PARAPET PLATE FROM ROADWAY



PLAN



SECTION B-B

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◪ JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-35

DRAWN BY AA | PLANS CK'D. SEW

COVER PLATE DETAILS

SHEET 9

498

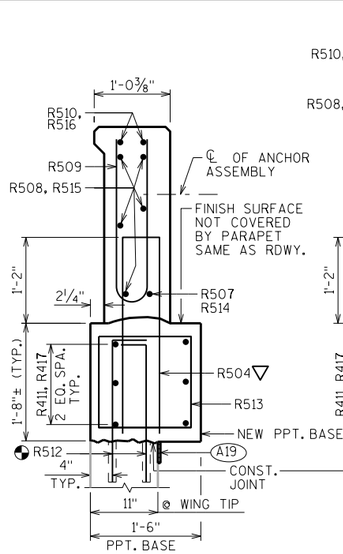
SCALE = 1.00

8

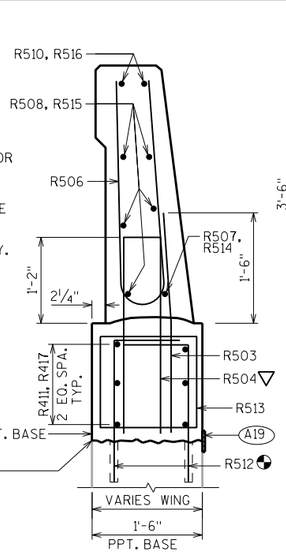
8

STATE PROJECT NUMBER

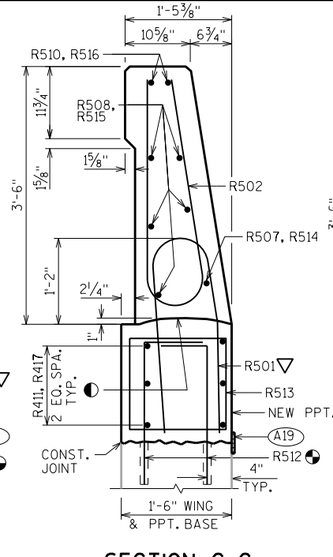
1100-43-70



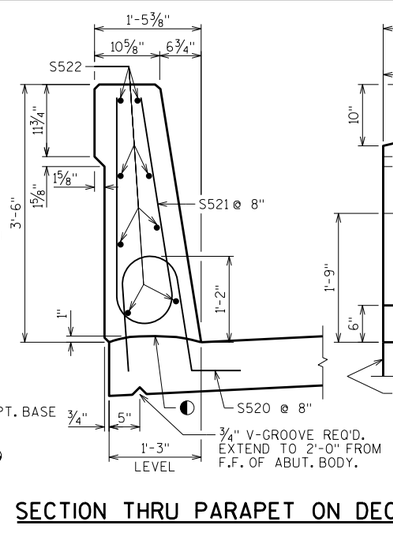
SECTION A-A



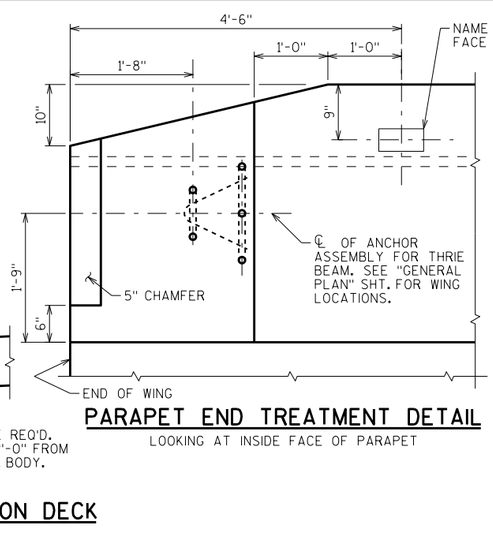
SECTION B-B



SECTION C-C



SECTION THRU PARAPET ON DECK



PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET

BILL OF BARS

FOR ABUTMENT PARAPETS

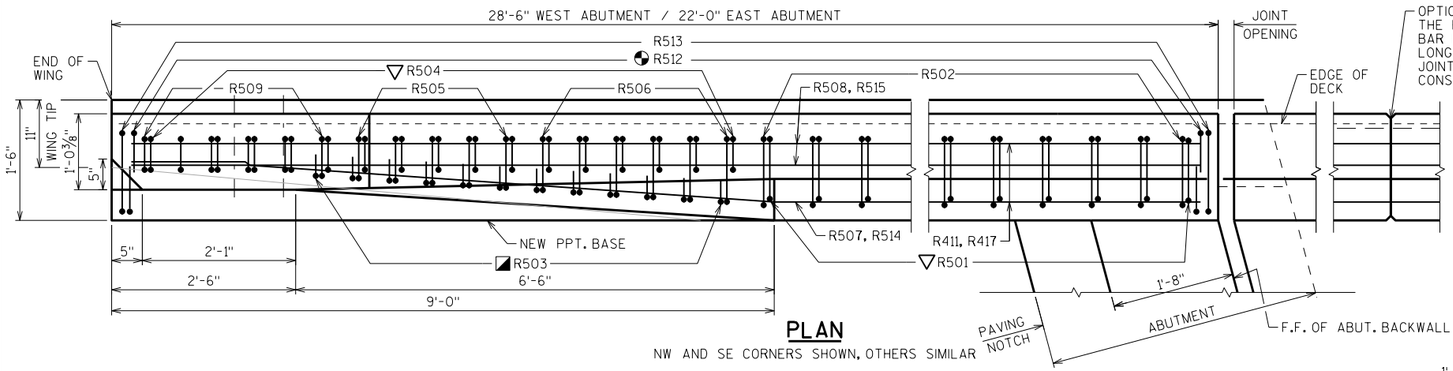
BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	60	40	5'-10	X		PARAPET VERT.
R502	X	60	40	6'-8"	X		PARAPET VERT.
R503	X	24	24	3'-0"	X		PARAPET VERT.
R504	X	34	34	5'-7"	X		PARAPET VERT.
R505	X	10	10	6'-5"	X		PARAPET VERT.
R506	X	12	12	6'-6"	X		PARAPET VERT.
R507	X	2	-	28'-2"	X		PARAPET HORIZ. WINGS 1&2
R508	X	10	-	28'-2"			PARAPET HORIZ. WINGS 1&2
R509	X	12	12	5'-5"	X	⚠	PARAPET VERT.
R510	X	4	-	28'-2"	X		PARAPET HORIZ. WINGS 1&2
R411	X	12	-	28'-2"			PARAPET BASE HORIZ. WINGS 1&2
R512	X	152	116	3'-4"	X		PARAPET BASE/WING VERT.
R513	X	76	58	5'-4"	X		PARAPET BASE VERT.
R514	X	-	2	21'-8"	X		PARAPET HORIZ. WINGS 3 &4
R515	X	-	10	21'-8"			PARAPET HORIZ. WINGS 3 &4
R516	X	-	4	21'-8"	X		PARAPET HORIZ. WINGS 3 &4
R417	X	-	12	21'-8"			PARAPET BASE HORIZ. WINGS 3 &4

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

BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"

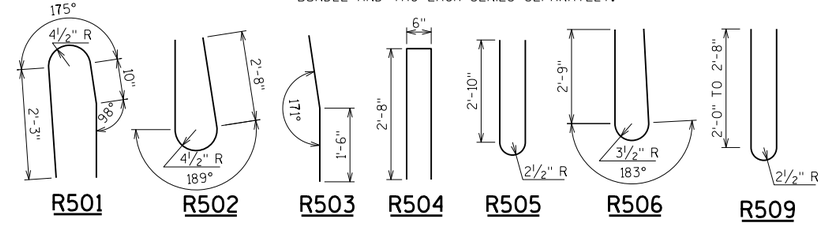
BUNDLE AND TAG EACH SERIES SEPARATELY.



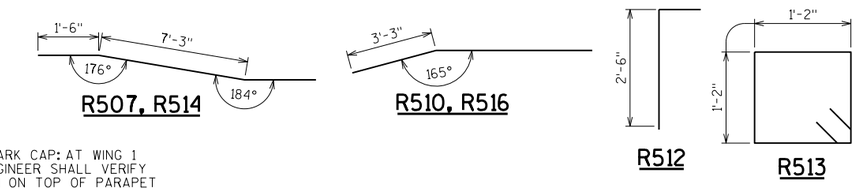
PLAN

NW AND SE CORNERS SHOWN, OTHERS SIMILAR

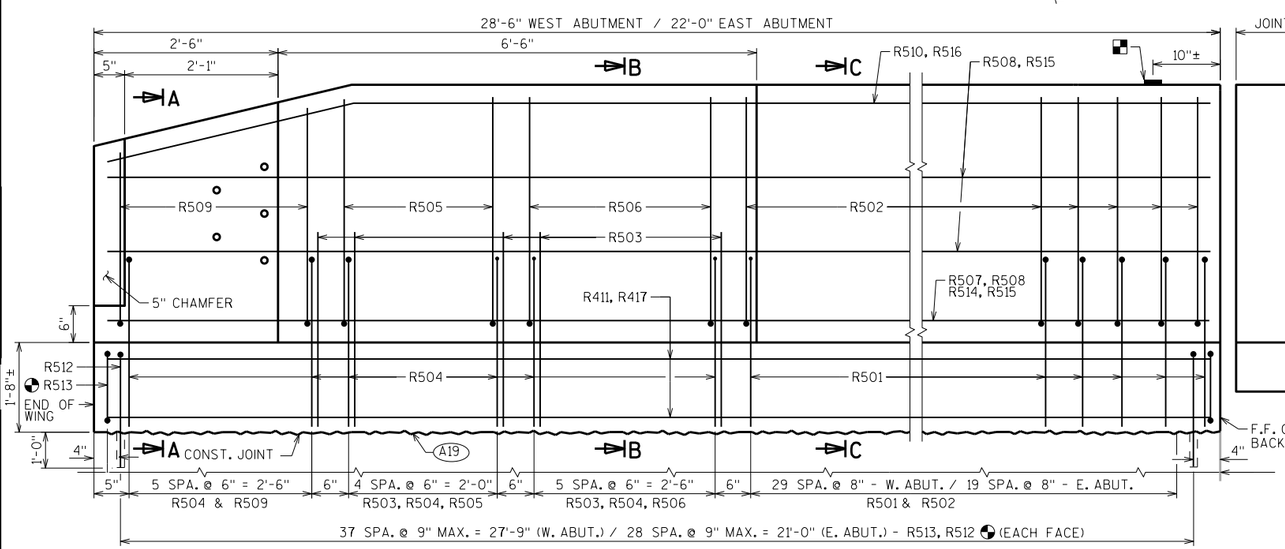
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



R501 R502 R503 R504 R505 R506 R509



R507, R514 R510, R516 R512 R513

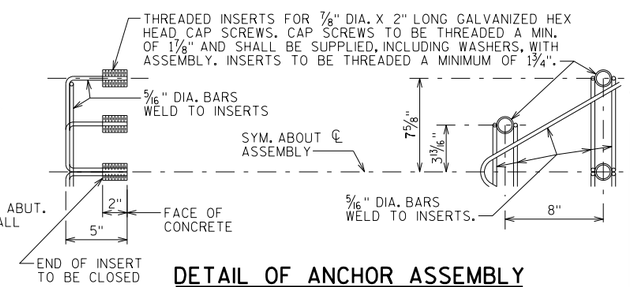


INSIDE ELEVATION

NW & SE CORNERS SHOWN, OTHERS SIMILAR

BENCH MARK CAP: AT WING 1 ONLY, ENGINEER SHALL VERIFY LOCATION ON TOP OF PARAPET

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

- NO.5 ADHESIVE ANCHORS. EMBED 1'-0" MIN. INTO CONCRETE.
- CONST. JOINT - STRIKE OFF AS SHOWN
- R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.
- ▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-35

DRAWN BY AA | PLANS CK'D. SEW

SINGLE SLOPE PARAPET 42SS

SHEET 10

499

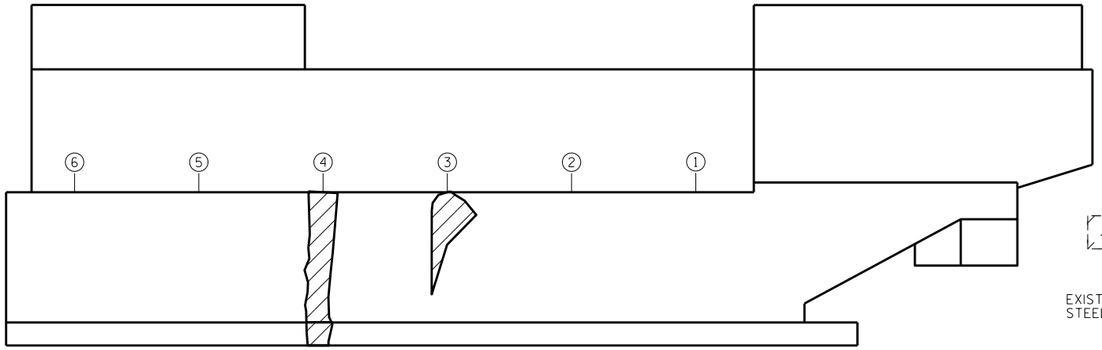
SCALE = 1.00

8

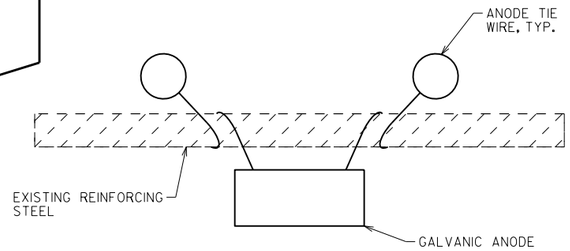
8

STATE PROJECT NUMBER

1100-43-70



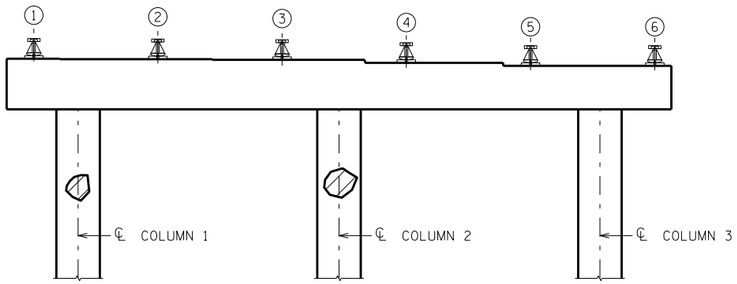
W. ABUTMENT ELEVATION
LOOKING WEST



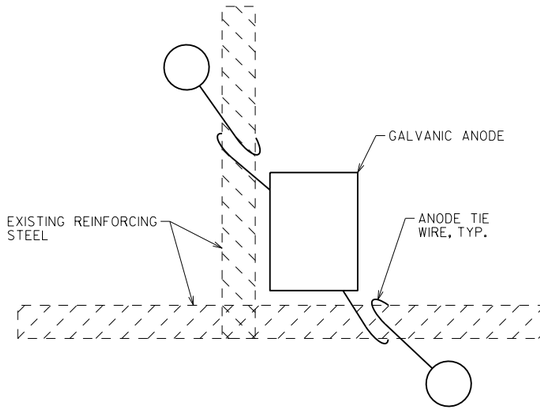
TYPICAL INSTALLATION FOR BAR STEEL

○ INDICATES GIRDER NUMBER

▨ INDICATES AREA OF CONCRETE SURFACE REPAIR. ENGINEER TO DETERMINE EXACT REPAIR LOCATIONS.



PIER
LOOKING EAST



TYPICAL INSTALLATION AT BAR STEEL INTERSECTION

NOTES

SEE SPECIAL PROVISION "EMBEDDED GALVANIC ANODES" FOR DESCRIPTION, MATERIALS, CONSTRUCTION, MEASUREMENT, AND PAYMENT INFORMATION.

ANODES NEAREST TO EDGE OF REPAIR TO BE WITHIN 6" OF EDGE.

AFTER PLACEMENT, GALVANIC ANODES SHOULD MAINTAIN A MINIMUM TOP COVER OF 1½" AND A MINIMUM BOTTOM COVER OF ¾".

EXISTING REINFORCING STEEL TO BE COMPLETELY CLEANED OF CORRODED MATERIAL PRIOR TO INSTALLATION OF GALVANIC ANODES.

FIELD ENGINEER TO DETERMINE EXACT REPAIR LOCATIONS

MAXIMUM GALVANIC ANODE SPACING

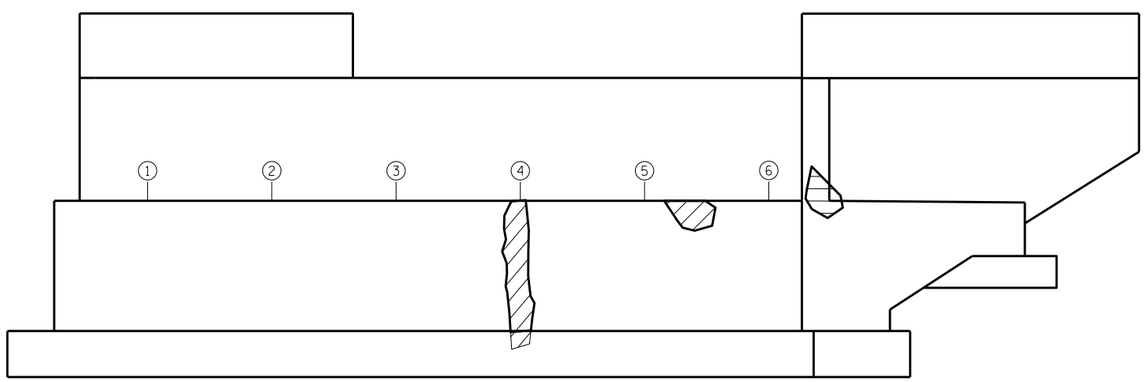
STEEL DENSITY RATIO (SQ. IN. PER FT.)	MAXIMUM ANODE SPACING (INCHES)
<= 0.3	24
0.31-0.50	20
0.51-0.60	18
0.61-0.80	16
0.81-0.90	15
0.91-1.00	14
1.01-1.20	12
>=1.20	*

NOTES:

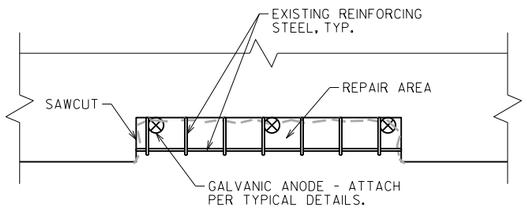
*AT STEEL DENSITY RATIOS GREATER THAN 1.20, CONSULT THE ENGINEER TO DETERMINE MAXIMUM ANODE SPACING AND ANODE LAYOUT

STEEL DENSITY RATIO IS THE RATIO OF STEEL REINFORCING BAR SURFACE AREA TO EXPOSED CONCRETE SURFACE AREA WITHIN THE REPAIR AREA.

TABLE IS BASED ON HIGH CORROSION RISK WITHIN THE SURFACE REPAIR AREA, A MINIMUM ZINC MASS OF 38 GRAMS AND AN APPROXIMATE SERVICE LIFE OF 10-20 YEARS.



E. ABUTMENT ELEVATION
LOOKING EAST



PART. PLAN TYPICAL REPAIR DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-35

DRAWN BY AA | PLANS CK'D. SEW

CATHODIC PROTECTION & SURFACE REPAIR

SHEET 11

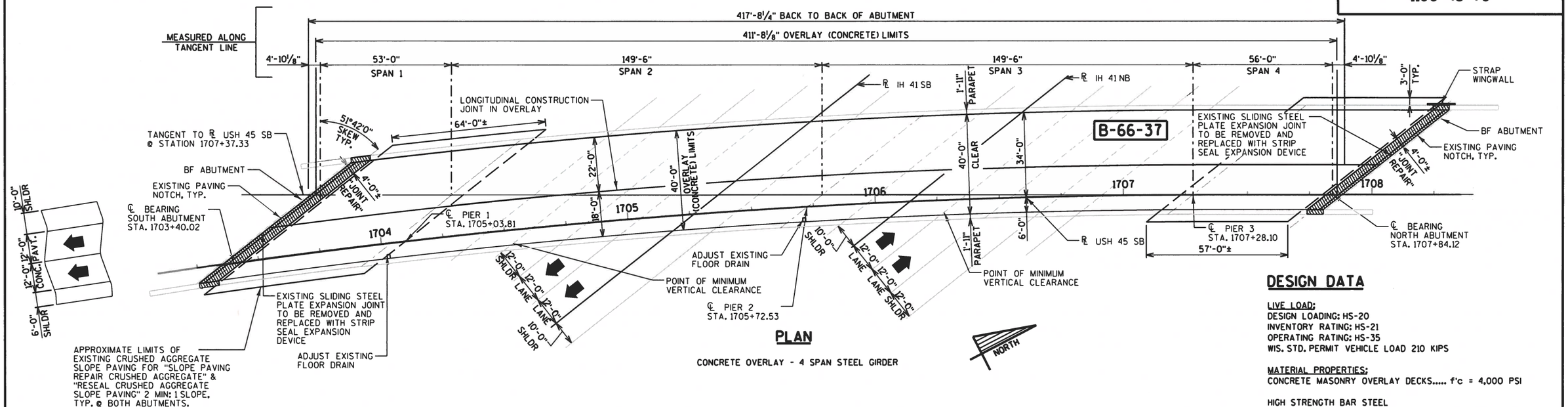
500

8

8

SCALE = 2.50

STATE PROJECT NUMBER
1100-43-70



PLAN

CONCRETE OVERLAY - 4 SPAN STEEL GIRDER

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS-20
INVENTORY RATING: HS-21
OPERATING RATING: HS-35
WIS. STD. PERMIT VEHICLE LOAD 210 KIPS

MATERIAL PROPERTIES:
CONCRETE MASONRY OVERLAY DECKS..... f'c = 4,000 PSI

HIGH STRENGTH BAR STEEL
REINFORCEMENT, GRADE 60..... fy = 60,000 PSI

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS SECTION & QUANTITIES
3. CONSTRUCTION STAGING
4. EXPANSION JOINT DETAILS 1 & DECK BILL OF BARS
5. EXPANSION JOINT DETAILS 2
6. STRIP SEAL EXP. JT. & ABUT. BILL OF BARS
7. STRIP SEAL COVER PLATE DETAILS
8. BAR SPLICER (COUPLER) DETAILS
9. SLOPE REPAIR DETAILS
10. HOLD DOWN DEVICE
11. BEARING DETAILS
12. WING STRAPPING
13. GPR DECK SURVEY 1 OF 3
14. GPR DECK SURVEY 2 OF 3
15. GPR DECK SURVEY 3 OF 3

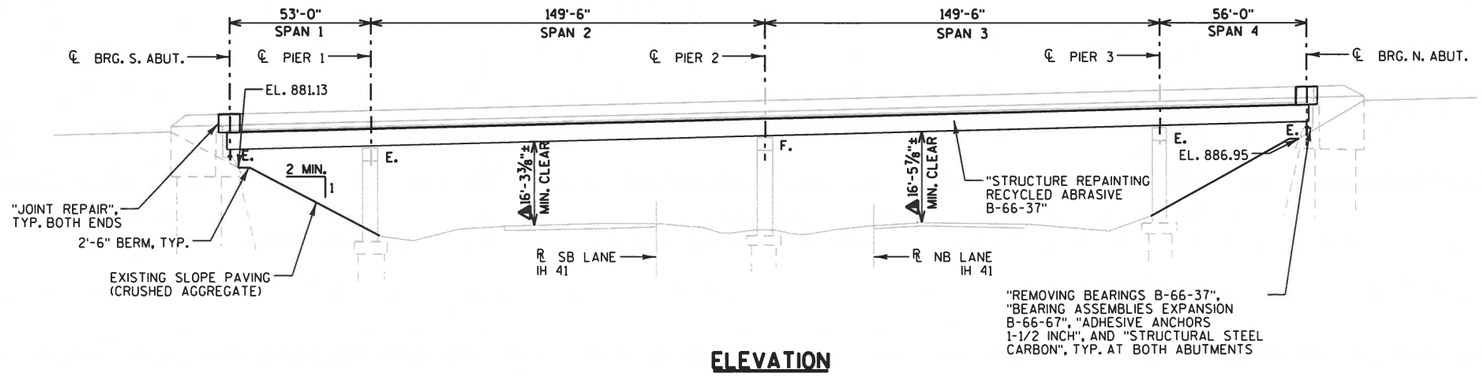
SCOPE OF WORK B-66-37

1. REMOVE EXISTING ASPHALTIC DECK OVERLAY.
2. CLEAN AND PREPARE DECK AS DIRECTED BY THE FIELD ENGINEER.
3. REPLACE EXPANSION JOINTS AT ABUTMENTS.
4. ADJUST EXISTING FLOOR DRAINS.
5. PLACE 1½" CONCRETE OVERLAY ON DECK.
6. REPAIR CONCRETE SURFACE AT PARAPETS, ABUTMENTS, AND PIERS AS DIRECTED BY THE FIELD ENGINEER.
7. REMOVE AND REPLACE HOLD-DOWN BEARINGS AT ABUTMENTS.
8. PAINT GIRDERS & DIAPHRAGMS.
9. REPLACE PARAPET JOINT SEALANT.
10. REPAIR AND RESEAL SLOPE PAVING.
11. STRAP NW WINGWALL

TRAFFIC DATA

USH 45 SB
ADT = 16,100 (2015)
RDS = 70 MPH

IH 41 NB & SB
ADT = 45,800 (2018)
RDS = 70 MPH



ELEVATION

LOOKING NORTH NORMAL TO SUBSTRUCTURE UNITS

LEGEND

⚠ PER HSI INSPECTION REPORT 06-14-19 (DIMENSION DATED 06-29-17)

WISCONSIN
KEVIN G. WOOD
E-32070
MILWAUKEE, WI
PROFESSIONAL ENGINEER
7-28-2022

BUREAU OF STRUCTURES CONTACT:
AARON BONK (608) 261-0261
CONSULTANT CONTACT:
KEVIN WOOD (414) 259-1500

NO.	DATE	REVISION	BY

GRAEF
275 W. Wisconsin Avenue, Suite 300
Milwaukee, WI 53203
414 / 259 1500
414 / 259 0037 fax
www.graef-usa.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 07/28/22
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-66-37

USH 45 SB OVER IH 41

COUNTY	TOWN/~~CITY/VILLAGE~~
WASHINGTON	RICHFIELD

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
WAR	KGW	WAR	KGW

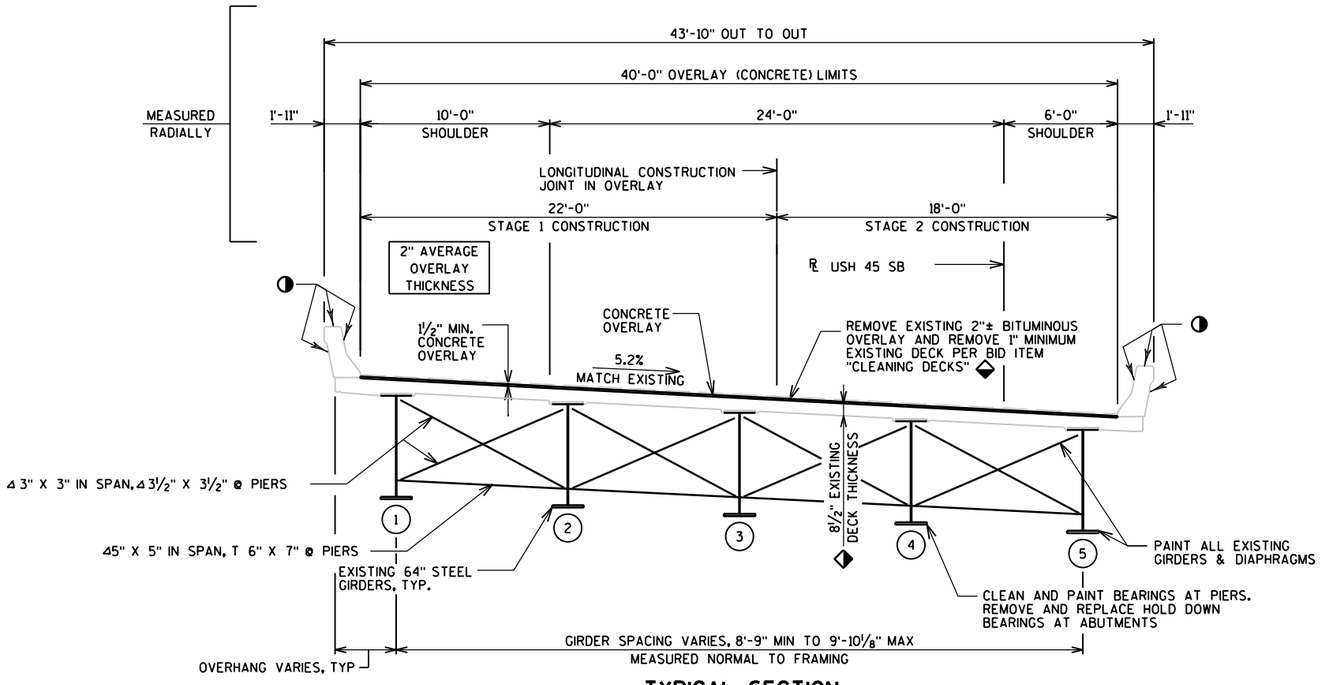
GENERAL PLAN & ELEVATION

SHEET 1 OF 15
501

I.D.

DATE:

L:±JOBS2010±20100347±CAD±STRUCTURAL±DGN±00±37±B_66_37_S01.DGN 7/28/2022 8:44:03 AM



TYPICAL SECTION

(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID - ITEM	UNIT	S ABUT	PIER 1	PIER 2	PIER 3	N ABUT	SUPER	TOTAL
203.0211.S.04	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-66-37	EACH	-	-	-	-	-	-	1
502.3101	EXPANSION DEVICE B-66-37	LF	80	-	-	-	66	-	146
502.3200	PROTECTIVE SURFACE TREATMENT	SY	10	-	-	-	8	1,992	2,010
502.3210	PIGMENTED SURFACE SEALER	SY	2	-	-	-	2	8	12
502.4112	ADHESIVE ANCHORS 1 1/2-INCH	EACH	20	-	-	-	20	-	40
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	85	-	-	-	71	-	156
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	830	-	-	-	700	2,700	4,230
505.0904	BAR COUPLERS NO. 4	EACH	-	-	-	-	-	8	8
505.0905	BAR COUPLERS NO. 5	EACH	3	-	-	-	3	-	6
505.0906	BAR COUPLERS NO. 6	EACH	-	-	-	-	-	4	4
505.0907	BAR COUPLERS NO. 7	EACH	-	-	-	-	-	10	10
506.0105	STRUCTURAL STEEL CARBON	LB	-	-	-	-	-	120	120
506.6000	BEARING ASSEMBLIES EXPANSION B-66-37	EACH	-	-	-	-	-	10	10
506.7050.S.05	REMOVING BEARINGS B-66-37	EACH	-	-	-	-	-	10	10
509.0301	PREPARATION DECKS TYPE 1	SY	-	-	-	-	-	487	487
509.0302	PREPARATION DECKS TYPE 2	SY	-	-	-	-	-	195	195
509.0500	CLEANING DECKS	SY	-	-	-	-	-	1,949	1,949
509.1000	JOINT REPAIR	SF	11	-	-	-	9	50	70
509.1500	CONCRETE SURFACE REPAIR	SY	9	24	15	11	14	313	386
509.2000	FULL-DEPTH DECK REPAIR	SY	-	-	-	-	-	5	5
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	5	-	-	-	4	169	178
509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY	SY	-	-	-	-	-	1,949	1,949
514.0900	ADJUSTING FLOOR DRAINS	EACH	-	-	-	-	-	2	2
✳ 517.1801.S.07	STRUCTURE REPAINTING RECYCLED ABRASIVE B-66-37	EACH	-	-	-	-	-	-	1
517.4501.S.07	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-66-37	EACH	-	-	-	-	-	-	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	-	-	-	-	-	-	1
604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	2	-	-	-	3	-	5
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	329	-	-	-	347	-	676
SPV.0060.01	JOINT SEALANT PARAPET	EACH	-	-	-	-	-	39	39
SPV.0060.02	STRAPPING B-66-37	EACH	-	-	-	-	1	-	1

✳ FOR INFORMATIONAL PURPOSES ONLY: APPROXIMATELY 37,087 SF OF STRUCTURAL STEEL. SEE GENERAL NOTES.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL DIMENSIONS ARE IN FEET AND INCHES. ALL STATIONS AND ELEVATIONS ARE IN FEET.

ROADWAY ALIGNMENT AND STATIONING PROVIDED BY WISDOT SE REGION. TO CONVERT THE ALIGNMENT STATIONING TO THE ORIGINAL STRUCTURE PLAN STATIONING, USE THE STATION EQUATION "ALIGNMENT STATION MINUS(-) 998+55.62".

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

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

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

USE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK UNLESS SPECIFIED OTHERWISE.

EXISTING FLOOR DRAINS TO BE LOWERED. REMOVE TOP OF DECK IN DRAIN AREA AS DIRECTED BY THE ENGINEER TO ALLOW PLACING AND SLOPING OF 1½" MINIMUM CONCRETE OVERLAY AROUND THE RIM OF THE DRAIN.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID INCLUDED IN THE LINEAL FOOT PRICE BID FOR "EXPANSION DEVICE B-66-37".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT STRUCTURES DESIGN SECTION.

CLEAN AND FILL EXISTING LONGITUDINAL AND TRANSVERSE CRACKS WITH PENETRATING EPOXY AS DIRECTED BY THE FIELD ENGINEER.

◆ A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

CRACKS AND JOINTS IN THE OVERLAY SHALL BE SEALED WITH A LOW-VISCOSITY CRACK SEALER (SEE STANDARD SPECIFICATIONS SECTION 502.2.11 CRACK SEALER). COST IS INCLUDED IN THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

THE AVERAGE OVERLAY THICKNESS IS BASED ON THE MINIMUM OVERLAY THICKNESS PLUS ½-INCH TO ACCOUNT FOR VARIATIONS IN THE DECK SURFACE.

TRAFFIC WILL BE MAINTAINED ON THE BRIDGE DURING CONSTRUCTION.

REMOVAL OF EXISTING JOINT IS INCLUDED UNDER BID ITEM "JOINT REPAIR".

THE EXISTING STRUCTURE, B-66-37, IS A 4-SPAN STEEL GIRDER BRIDGE WITH AN OVERALL WIDTH OF 43'-10" AND AN OVERALL LENGTH OF 417'-8¼" (BACK-TO-BACK OF ABUTMENTS ALONG THE TANGENT LINE). THE EXISTING ASPHALT OVERLAY IS 2" MIN. PER 1996 PLANS. THE ENTIRE DECK SURFACE IS TO BE PREPARED FOR A NEW CONCRETE OVERLAY.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY OR JOINT REPAIR AT THE ABUTMENTS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

CONCRETE SURFACE REPAIR AS DIRECTED BY THE FIELD ENGINEER. QUANTITIES SHOWN ON THE PLANS ARE APPROXIMATE.

PREPARATIONS DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED WITH A 1" SAWCUT.

"PROTECTIVE SURFACE TREATMENT" SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE NEW CONCRETE OVERLAY.

"PIGMENTED SURFACE SEALER" SHALL BE APPLIED TO THE TOP AND INSIDE FACE OF NEW PARAPETS AT JOINT REPAIR.

SEAL OVERLAY CONSTRUCTION JOINTS ACCORDING TO SECTION 502.3.13.1 OF THE STANDARD SPECIFICATIONS. COST IS INCIDENTAL TO BID ITEM "CLEANING DECKS".

THE PROFILE OVER THE BRIDGE WILL BE LOWERED APPROXIMATELY 1½" (ASSUMING MINIMUM OVERLAY THICKNESS) AFTER THE CONCRETE OVERLAY IS PLACED.

CLEAN AND PAINT ALL EXPOSED STEEL SURFACES UNDERNEATH THE BRIDGE DECK. THE SURFACES INCLUDE GIRDERS, BEARINGS, DIAPHRAGMS AND CROSS FRAMES. THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BLUE, SHERWIN WILLIAMS SW6523 OR EQUAL COLOR APPROVED BY THE ENGINEER.

CAULK IN PARAPET EXPANSION JOINT (OTHERWISE KNOWN AS PARAPET DEFLECTION JOINT TESTED POSITIVE FOR ASBESTOS GREATER THAN 1%. THIS MATERIAL IS TO BE REMOVED AND PAID FOR UNDER THE BID ITEM "ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-66-37". FINISHING AND PLACEMENT OF NEW SEALANT TO BE PAID FOR UNDER "JOINT SEALANT PARAPET".

BEVEL ALL EXPOSED CONCRETE EDGES 3/4" UNLESS OTHERWISE NOTED. MATERIALS, EQUIPMENT, ETC. SHALL NOT BE STOCKPILED OR STORED ON THE BRIDGE DECK WITHOUT PRIOR APPROVAL FROM THE FIELD ENGINEER.

LEGEND

◆ 8½" ORIGINAL DECK. DESIGN ASSUMES THE EXISTING CONCRETE DECK SURFACE WAS SHOT BLASTED AS PART OF THE EXISTING ASPHALT OVERLAY DECK PREPARATION OPERATIONS. REMOVE 1" MINIMUM EXISTING DECK VIA A COMBINATION OF BID ITEMS "REMOVING ASPHALTIC CONCRETE DECK OVERLAY" & "CLEANING DECKS"

◑ REMOVE EXISTING SEALANT AND FILL WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER AT ALL EXISTING PARAPET JOINTS. WORK IS PAID FOR UNDER BID ITEM "JOINT SEALANT PARAPET".

STATE PROJECT NUMBER

1100-43-70

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-37

DRAWN BY WAR | PLANS CK'D. KGW

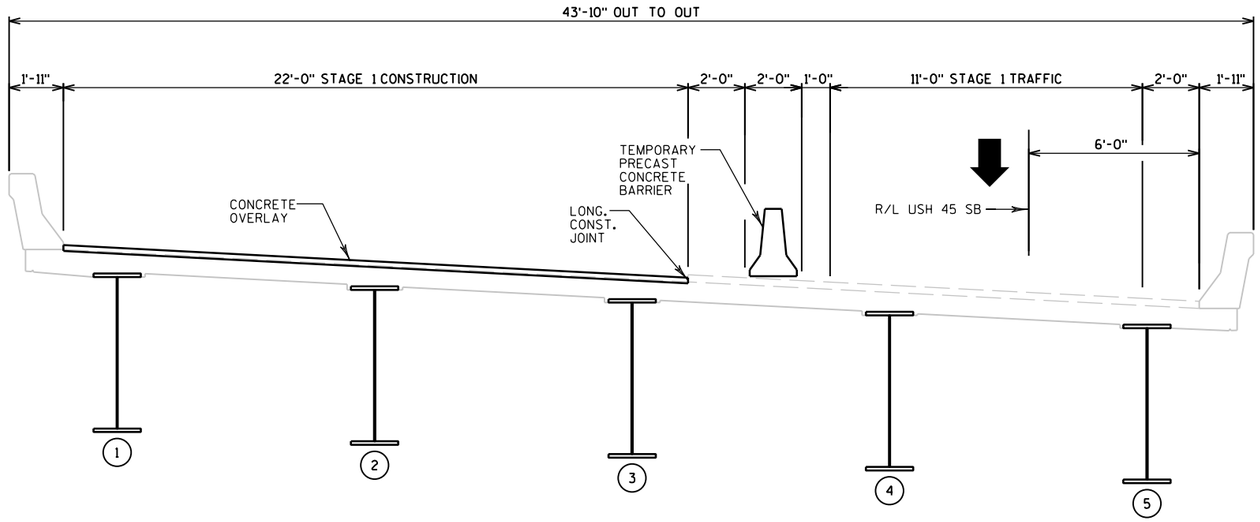
CROSS SECTION & QUANTITIES

SHEET 2 OF 15
502

8

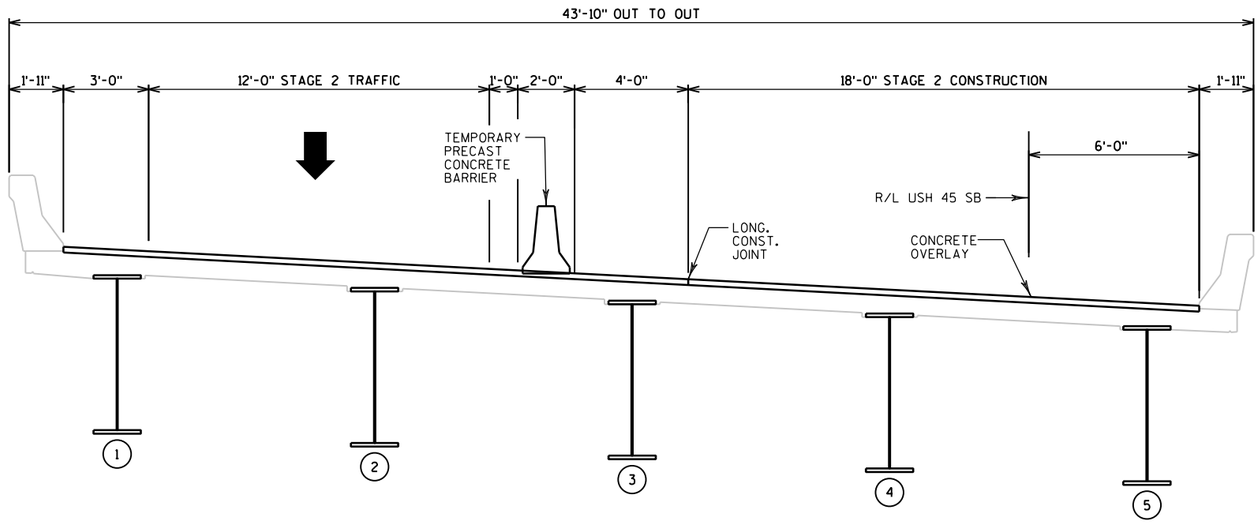
8

STATE PROJECT NUMBER
1100-43-70



STAGE 1 CONSTRUCTION

(LOOKING NORTH)



STAGE 2 CONSTRUCTION

(LOOKING NORTH)

NOTE

SEE ROADWAY PLANS FOR ADDITIONAL STAGING DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-37

DRAWN BY WAR | PLANS CK'D. KGW

CONSTRUCTION STAGING

SHEET 3 OF 15
503

8

8

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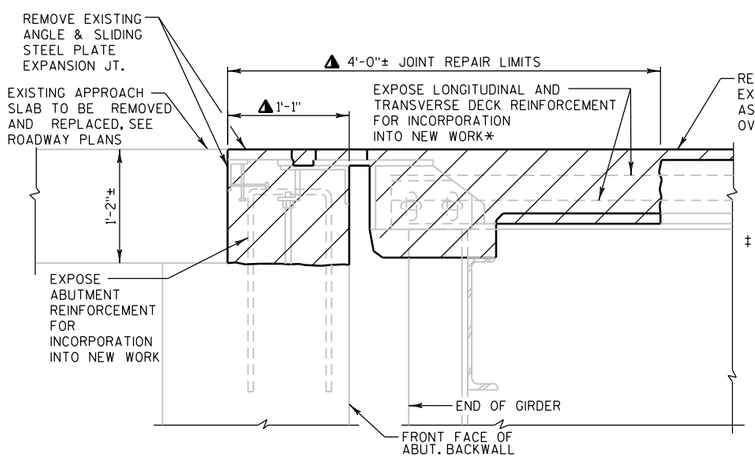
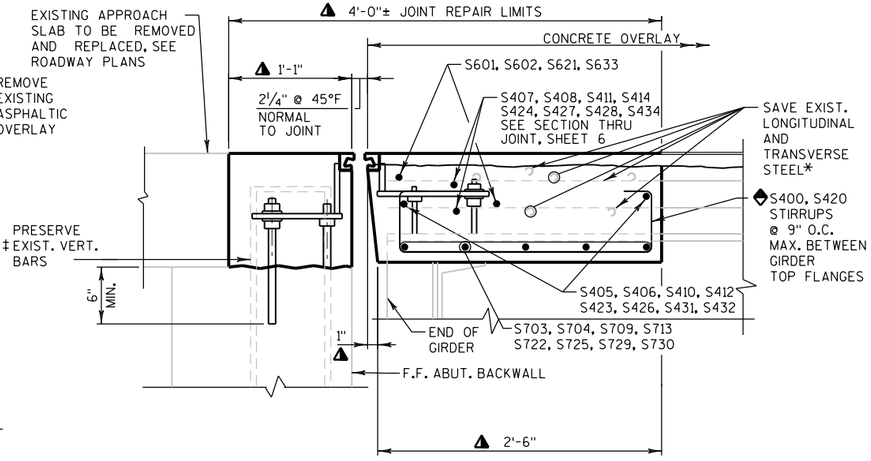
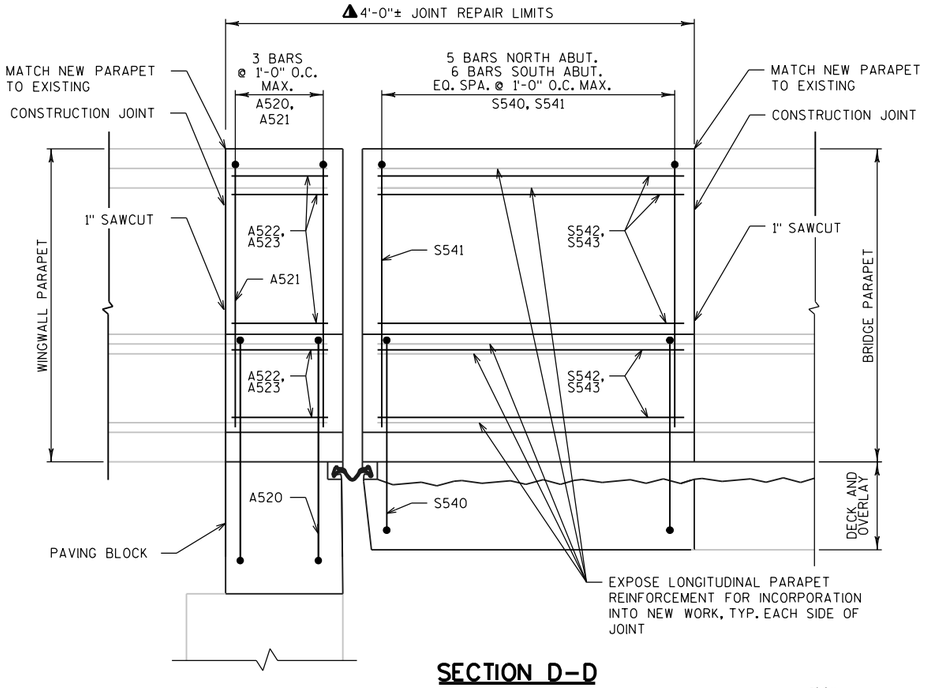


JOINT REPAIR - REMOVAL

NORMAL TO ℄ SUBSTRUCTURE

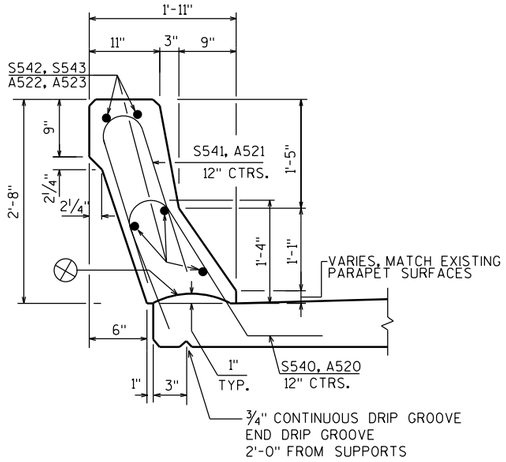


SECTION THRU EXPANSION JOINT



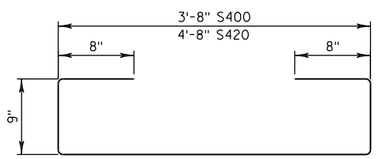
SECTION D-D

SEE SHEET 5 FOR LOCATION

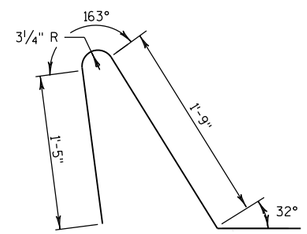


DETAIL B

SEE SHEET 5 FOR LOCATION



S400
S420



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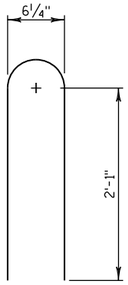

S541

STATE PROJECT NUMBER

1100-43-70

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

BILL OF BARS

	MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
	S400		53	6'-2"		X	DIAPHRAGM STIRRUP NORTH ABUT.
⑥	S601		2	37'-5"			DECK TRANSVERSE END STAGE 1 – NORTH ABUT.
⑥	S602		2	46'-5"			DECK TRANSVERSE END STAGE 1 – SOUTH ABUT.
	S703		10	13'-7"			DIAPHRAGM BOTTOM STAGE 1 – NORTH ABUT.
	S704		10	15'-1"			DIAPHRAGM BOTTOM STAGE 1 – SOUTH ABUT.
	S405		4	13'-7"			DIAPHRAGM TOP STAGE 1 – NORTH ABUT.
	S406		4	15'-1"			DIAPHRAGM TOP STAGE 1 – SOUTH ABUT.
	S407		4	13'-7"			EXPANSION JOINT TRANSVERSE STAGE 1 – NORTH ABUT.
	S408		4	15'-1"			EXPANSION JOINT TRANSVERSE STAGE 1 – SOUTH ABUT.
⑦	S709		5	2'-4"			DIAPHRAGM BOTTOM SPLICE STAGE 1 – NORTH ABUT.
④	S410		2	2'-4"			DIAPHRAGM TOP SPLICE STAGE 1 – NORTH ABUT.
④	S411		2	2'-4"			EXPANSION JOINT TRANSVERSE SPLICE STAGE 1 – NORTH ABUT
④	S412		2	3'-5"			DIAPHRAGM TOP SPLICE STAGE 1 SOUTH ABUT.
⑦	S713		5	3'-5"			DIAPHRAGM BOTTOM SPLICE STAGE 1 SOUTH ABUT.
④	S414		2	3'-5"			EXPANSION JOINT TRANSVERSE SPLICE STAGE 1 SOUTH ABUT.
	S420		49	7'-2"		X	DIAPHRAGM STIRRUP SOUTH ABUT.
⑥	S621		2	31'-0"			DECK TRANSVERSE NORTH ABUT. STAGE 2
	S722		5	13'-7"			DIAPHRAGM BOTTOM STAGE 2 – NORTH ABUT.
	S423		2	13'-7"			DIAPHRAGM TOP STAGE 2 – NORTH ABUT.
	S424		2	13'-7"			EXPANSION JOINT TRANSVERSE BARS STAGE 2 – NORTH ABUT.
⑦	S725		5	11'-2"			DIAPHRAGM BOTTOM NORTH ABUT SPLICE STAGE 2
④	S426		2	11'-2"			DIAPHRAGM TOP NORTH ABUT SPLICE STAGE 2
④	S427		2	11'-2"			EXPANSION JOINT TRANSVERSE NORTH ABUT SPLICE STAGE 2
④	S428		2	11'-3"			EXPANSION JOINT TRANSVERSE SOUTH ABUT SPLICE STAGE 2
	S729		5	15'-1"			DIAPHRAGM BOTTOM STAGE 2 – SOUTH ABUT.
⑦	S730		5	11'-3"			DIAPHRAGM BOTTOM SOUTH ABUT SPLICE STAGE 2
④	S431		2	11'-3"			DIAPHRAGM TOP SOUTH ABUT SPLICE STAGE 2
	S432		2	15'-1"			DIAPHRAGM TOP STAGE 2 – SOUTH ABUT.
⑥	S633		2	37'-7"			DECK TRANSVERSE SOUTH ABUT STAGE 2
	S434		2	15'-1"			EXPANSION JOINT TRANSVERSE STAGE 2 – SOUTH ABUT.
	S540		22	4'-9"		X	PARAPET DOWEL
	S541		22	5'-1"		X	PARAPET VERTICAL
	S542		10	4'-1"			PARAPET HORIZONTAL NORTH ABUT.
	S543		10	5'-1"			PARAPET HORIZONTAL SOUTH ABUT.

ALL DIMENSIONS OF THE BAR BENDS ARE OUT TO OUT.

LEGEND

‡ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ☆. SEE SHEET 6.

▲ DIMENSIONS GIVEN ARE NORMAL TO ℄ OF SUBSTRUCTURE UNIT. INCORPORATE EXISTING REINFORCEMENT.

* SAVE AND INCORPORATE 1'-6" MINIMUM OF TRANSVERSE REINFORCING BARS.

◆ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ GIRDERS.

EXISTING CONCRETE TO BE REMOVED.

④ BAR COUPLER IS REQUIRED. NUMBER INDICATES SIZE. BAR LENGTHS ARE COMPUTED TO THE CENTERLINE OF THE CONSTRUCTION JOINT AND SHALL BE MODIFIED BY THE BAR COUPLER MANUFACTURER'S RECOMENDATIONS. SEE SHEET 8 FOR DETAILS.

⊗ CONSTRUCTION JOINT-STRIKE OFF AS SHOWN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-37

DRAWN BY WAR | PLANS CK'D. KGW

EXPANSION JOINT DETAILS 1 & DECK BILL OF BARS

SHEET 4 OF 15
504

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SCALE =

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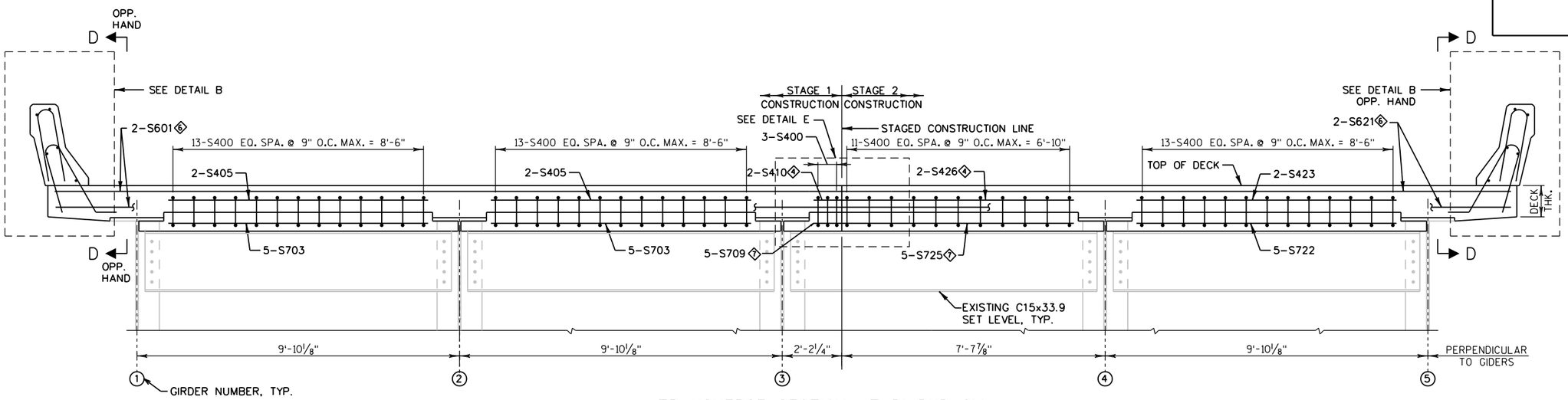
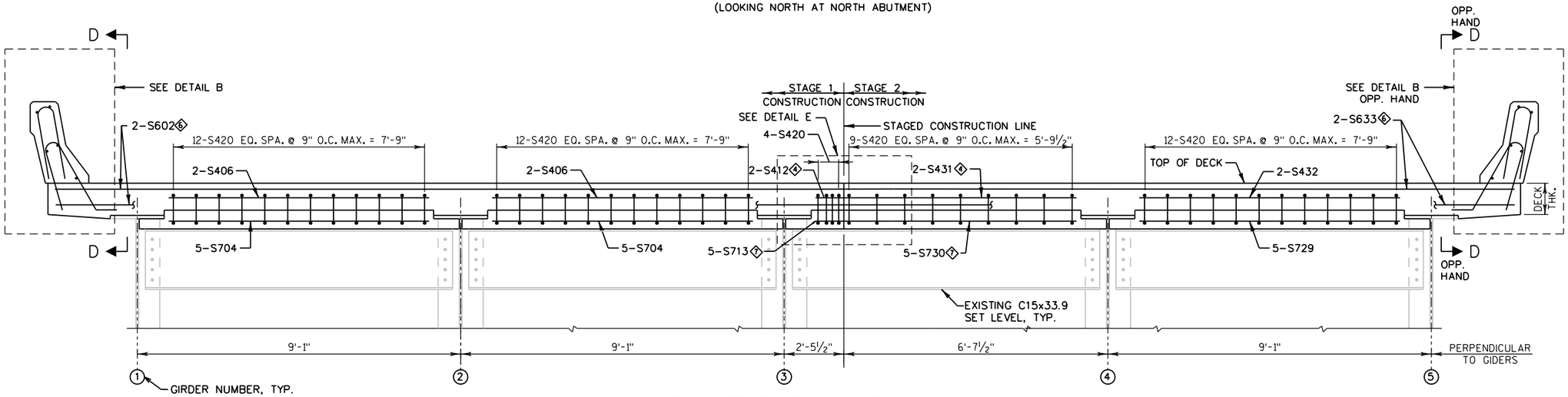
STATE PROJECT NUMBER

1100-43-70



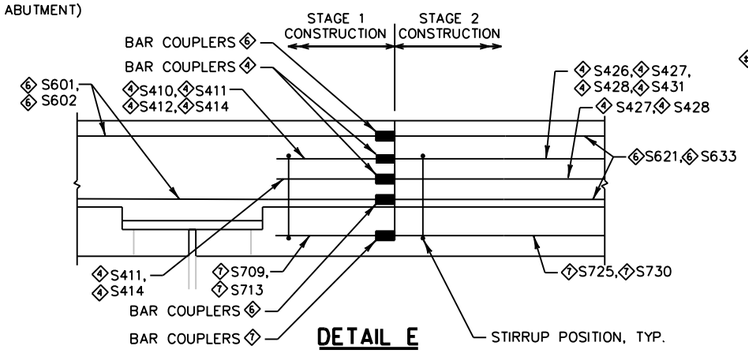
TRANSVERSE SECTION AT DIAPHRAGM NORTH EXPANSION END

(LOOKING NORTH AT NORTH ABUTMENT)



TRANSVERSE SECTION AT DIAPHRAGM SOUTH EXPANSION END

(LOOKING NORTH AT SOUTH ABUTMENT)



DETAIL E

NOTES

FOR DETAIL B AND SECTION D-D SEE SHEET 4.

LEGEND

BAR COUPLER IS REQUIRED, NUMBER INDICATES SIZE. BAR LENGTHS ARE COMPUTED TO THE CENTERLINE OF THE CONSTRUCTION JOINT AND SHALL BE MODIFIED BY THE BAR COUPLER MANUFACTURER'S RECOMMENDATIONS. SEE SHEET 8 FOR DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-37

DRAWN BY WAR | PLANS CK'D. KGW

EXPANSION JOINT DETAILS 2

SHEET 5 OF 15
505

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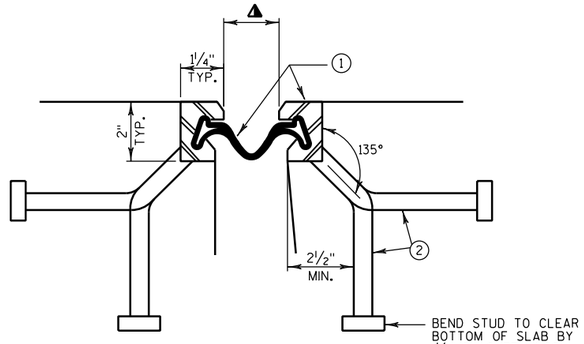
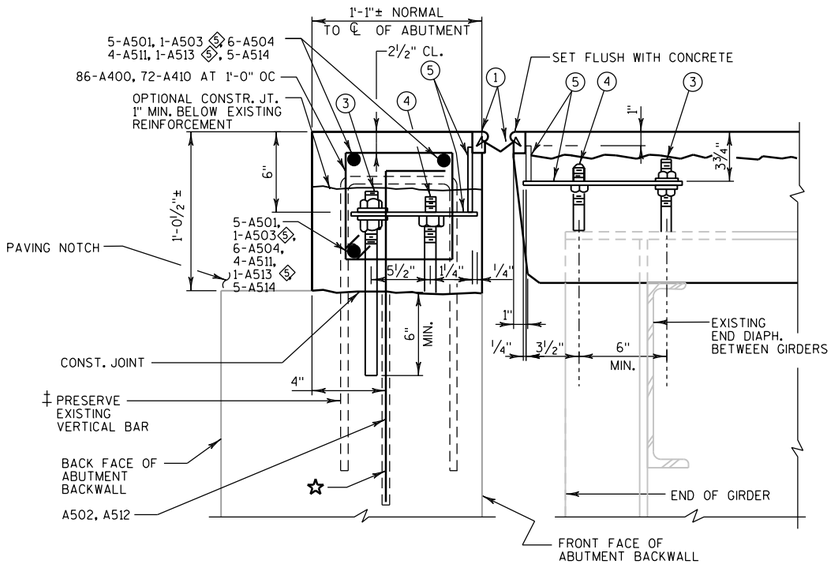
1100-43-70



SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK, AND AT PARAPETS



TYPICAL SECTION THRU JOINT AT STEEL GIRDER

NORMAL TO ℄ SUBSTRUCTURE AT ABUTMENT

LEGEND

- ▲ (1) NEOPRENE STRIP SEAL (5-INCH) AND STEEL EXTRUSIONS. JOINT OPENINGS GIVEN NORMAL TO JOINT.
- (2) STUDS ⅝" Φ × 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
- (2A) ½" THICK ANCHOR PLATE WITH ⅝" Φ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
- (3) ¾" Φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE, GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
- (4) ¾" Φ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
- (5) FABRICATE SUPPORT FROM 3" × ½" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE, SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" Φ HOLE FOR NO. 3 AND 1" Φ HOLE FOR NO. 4.

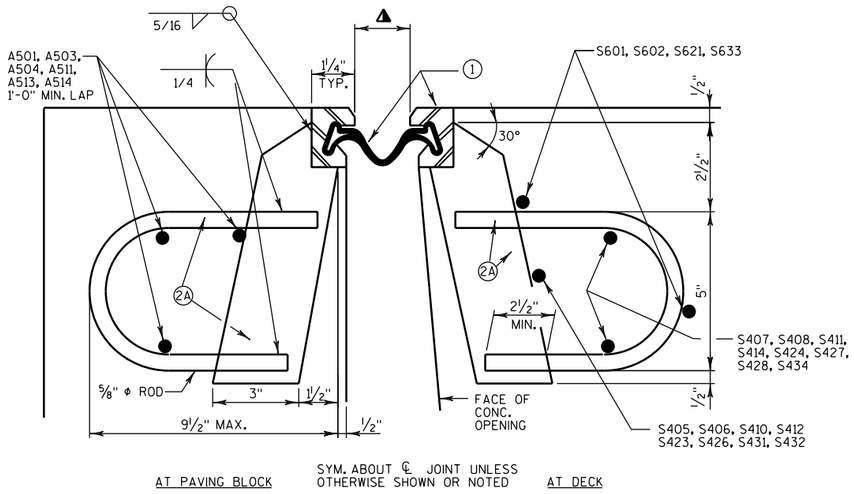
SEE SHEET 7

- (6) GALVANIZED PLATE ⅜" × 10½" × 3'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
- (7) ¾" Φ × 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
- (8) ¾" Φ × 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
- (9) ¾" Φ × 2¼" GALVANIZED THREADED COUPLING.
- (11) 1" × 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7 PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

- ‡ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ☆.
- ☆ A502, A512 ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-0" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.
- ◈ BAR COUPLER IS REQUIRED, NUMBER INDICATES SIZE. BAR LENGTHS ARE COMPUTED TO THE CENTERLINE OF THE CONSTRUCTION JOINT AND SHALL BE MODIFIED BY THE BAR COUPLER MANUFACTURER'S RECOMMENDATIONS. SEE SHEET 8 FOR DETAILS.

NOTES

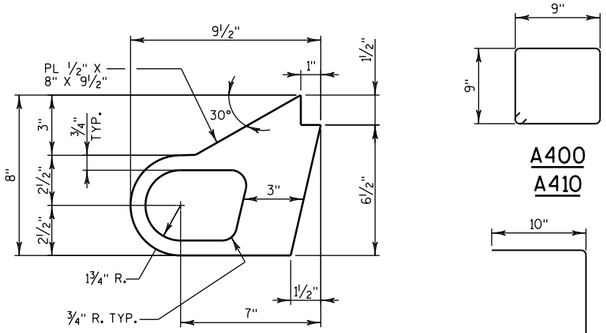
1. ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, ANCHOR PLATES SHALL BE PROVIDED 3" FROM EACH SIDE OF THE FIELD SPLICE. DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.
2. AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.
3. FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.
4. SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.
5. ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.
6. ALL MATERIAL IN THE EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "EXPANSION DEVICE B-66-37", LF.



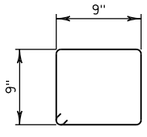
SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS

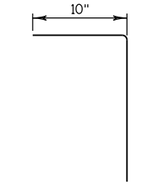
PART PLAN



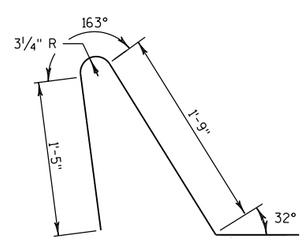
ALTERNATE STRIP SEAL ANCHOR



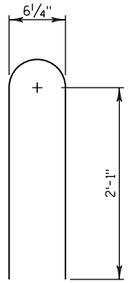
A400
A410



A502
A512



A520



A521

BILL OF BARS

	MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
	A400		86	3'-6"		X	PAVING BLOCK STIRRUP STAGE 1
	A501		15	7'-0"			PAVING BLOCK TRANSVERSE STAGE 1 - NORTH ABUT.
☆	A502		86	2'-9"		X	PAVING BLOCK VERTICAL STAGE 1
⑤	A503		6	8'-0"			PAVING BLOCK TRANSVERSE STAGE 1 CONST. JT.
	A504		18	7'-4"			PAVING BLOCK TRANSVERSE STAGE 1 - SOUTH ABUT.
	A410		72	3'-6"		X	PAVING BLOCK STIRRUP STAGE 2
	A511		12	6'-11			PAVING BLOCK TRANSVERSE STAGE 2 - NORTH ABUT.
☆	A512		72	2'-9"		X	PAVING BLOCK VERTICAL STAGE 2
⑤	A513		6	8'-0"			PAVING BLOCK TRANSVERSE STAGE 2 CONST. JT.
	A514		15	7'-2"			PAVING BLOCK TRANSVERSE STAGE 2 - SOUTH ABUT.
	A520		12	4'-9"		X	PARAPET DOWEL
	A521		12	5'-1"		X	PARAPET VERTICAL
	A522		10	1'-5"			PARAPET HORIZONTAL NORTH ABUT.
	A523		10	1'-9"			PARAPET HORIZONTAL SOUTH ABUT.

°F	S. ABUT.	N. ABUT.
5	2.63	2.66
15	2.53	2.56
25	2.44	2.45
35	2.34	2.35
45	2.25	2.25
55	2.16	2.15
65	2.06	2.05
75	1.97	1.94
85	1.87	1.84

▲ TEMPERATURE TABLE

ALL DIMENSIONS IN INCHES. AMBIENT TEMPERATURE DURING JOINT INSTALLATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-37

DRAWN BY WAR | PLANS CK'D. KGW

STRIP SEAL EXP. JT. & ABUT. BILL OF BARS

SHEET 6 OF 15
506

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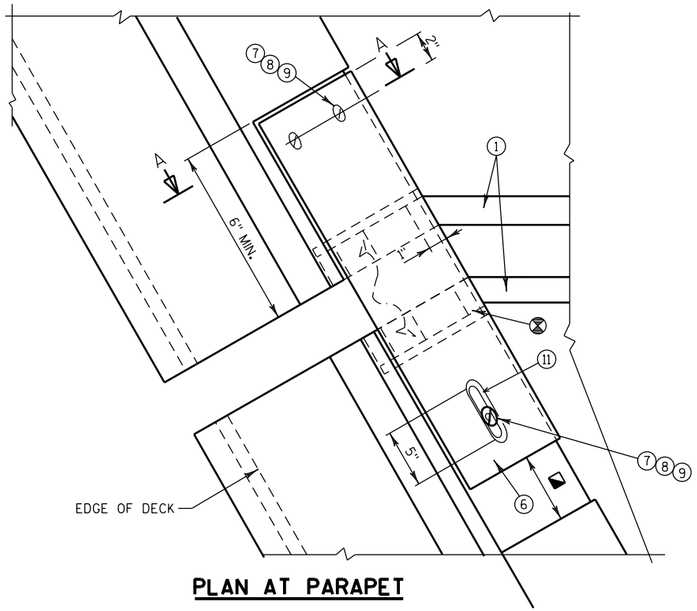
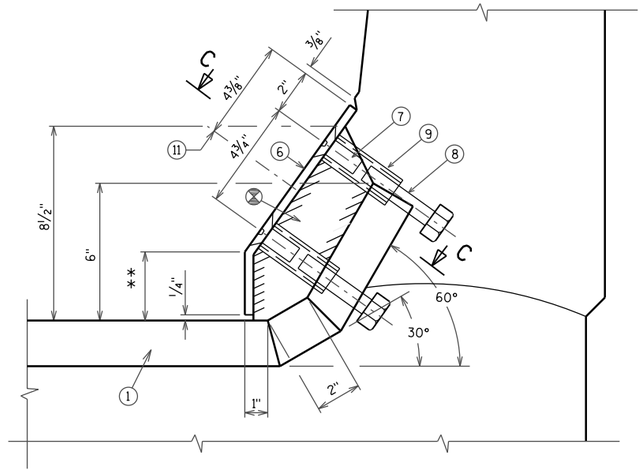
STATE PROJECT NUMBER

1100-43-70

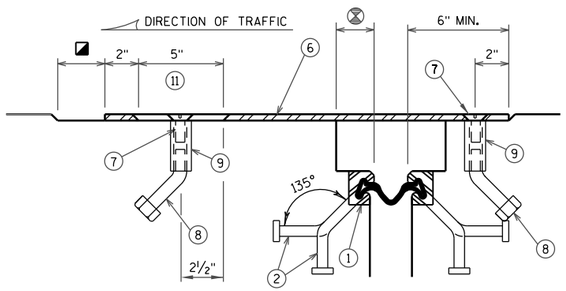


PLAN AT PARAPET

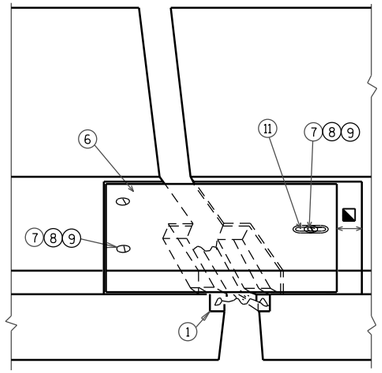


SECTION A-A

**AS REQUIRED FOR OVERLAY. COORDINATE WITH EXPANSION JOINT MANUFACTURER



SECTION C-C



VIEW OF PARAPET PLATES FROM ROADWAY

LEGEND

- BLOCK OUT CONCRETE 2" EACH SIDE FOR JOINT OPENING
- JOINT OPENING DIM. ALONG SKEW PLUS 1/2"
- (=) SEE LEGEND ON SHEET 6.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-37

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STRIP SEAL COVER PLATE DETAILS

SHEET 7 OF 15

507

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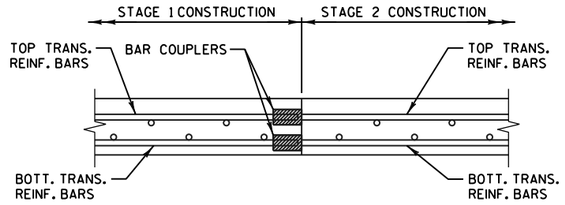
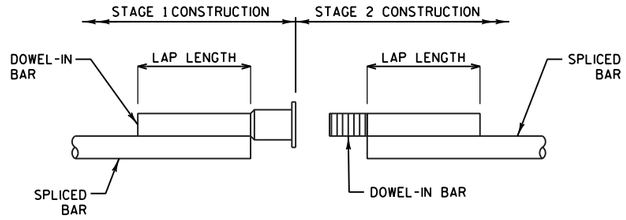


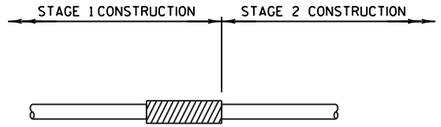
SECTION THRU DECK

ONE-PIECE THREADED BAR COUPLER SHOWN



DOWEL BAR COUPLER

STAGE 2 DOWEL SCREWS INTO COUPLER PLACED IN STAGE 1



ONE PIECE THREADED SPLICER

BAR COUPLER ALTERNATIVES

NOTES

1. FOR DOWEL BAR SPLICERS, ALL REINFORCEMENT SHALL BE LAPPED AND TIED TO THE REINFORCEMENT BARS.
2. BAR LENGTH COMPUTED TO THE ℄ OF THE CONSTRUCTION JOINT AND SHALL BE MODIFIED BY THE BAR COUPLER MANUFACTURERS RECOMMENDATIONS.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-37

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BAR SPLICER (COUPLER) DETAILS

SHEET 8 OF 15

508

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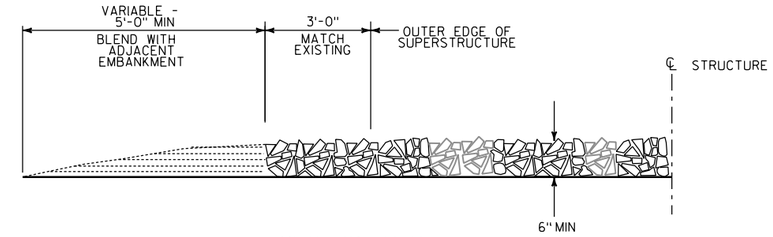
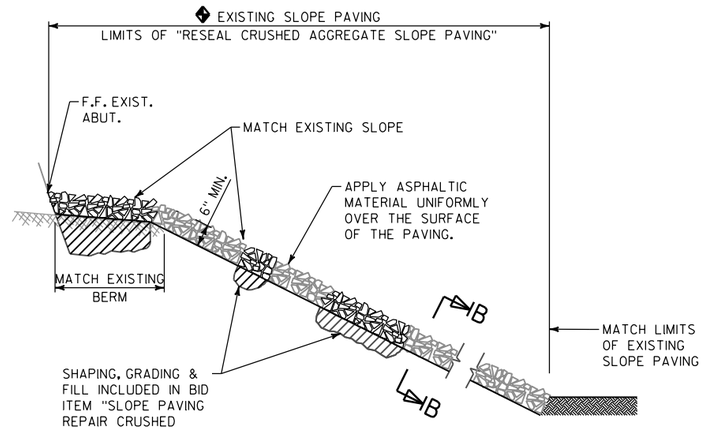


SECTION B-B



ABUTMENT SLOPE PAVING
TYPICAL SECTION

ROUND STONE WILL NOT BE ACCEPTED

LEGEND

◆ ENTIRE LIMITS OF EXISTING SLOPE PAVING CRUSHED AGGREGATE SHOWN. EXISTING SLOPE PAVING HAS SETTLED OR WASHED AWAY IN SEVERAL SPOTS. ONLY EXISTING DETERIORATED AREAS TO BE REPAIRED. REPAIR LIMITS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

ADD NEW (AS REQ'D) AND RESTORE EXISTING SLOPE PAVING TO THE ELEVATIONS AND SLOPES INDICATED. TO BE COMPLETED PRIOR TO SEALING/RESEALING ALL THE NEW/EXISTING SLOPE PAVING CRUSHED AGGREGATE.

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-37

DRAWN BY WAR | PLANS CK'D. KGW

SLOPE REPAIR DETAILS

SHEET 9 OF 15
509

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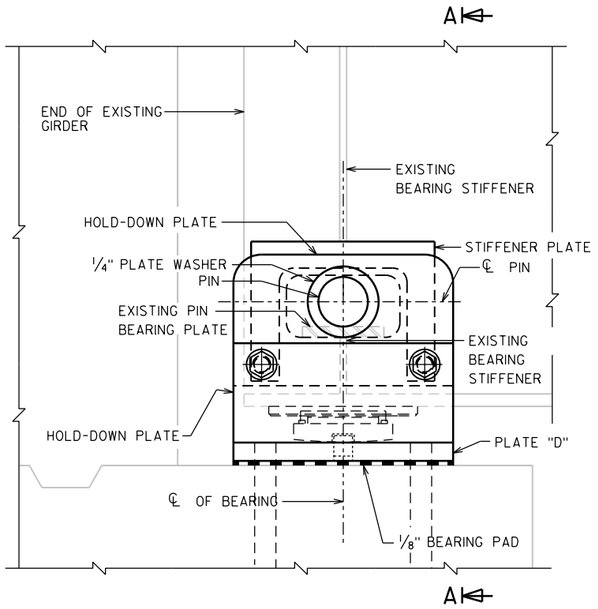
STATE PROJECT NUMBER

1100-43-70



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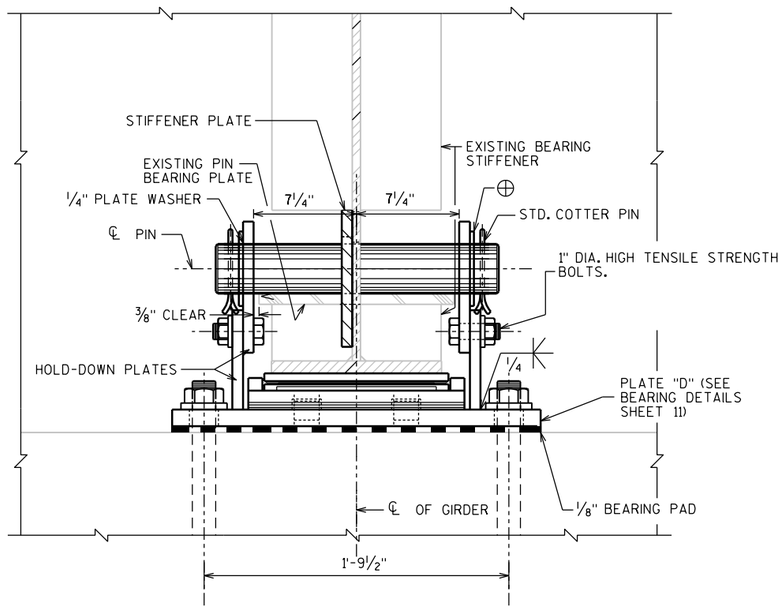
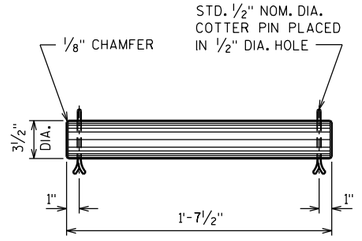


SECTION A-A



PIN DETAIL

COLD ROLLED STEEL OR CARBON STEEL FORGING.

NOTES

ALL BEARINGS ARE SYMMETRICAL ABOUT ℄ OF GIRDER AND ℄ OF BEARING.

ALL STRUCTURAL STEEL PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ANCHOR BOLTS SHALL BE FULLY THREADED. PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. CHAMFER TOP OF ANCHOR BOLTS PRIOR TO THREADING.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS C.

THE MATERIAL FOR THE HOLD-DOWN PLATES SHALL CONFORM TO ASTM A709 GRADE 50W.

ALL NEW MATERIAL WELDED TO THE GIRDERS, WHICH INCLUDES STIFFENER PLATE AND PIN BEARING PLATE, SHALL MATCH THE STEEL REQUIREMENTS OF ASTM A36.

ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 36 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ALL MATERIAL IN HOLD DOWN DEVICES, WHICH INCLUDES HOLD-DOWN PLATES, HIGH TENSILE STRENGTH BOLTS AND PINS, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR "BEARING ASSEMBLIES EXPANSION B-66-37".

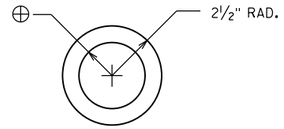
ANCHOR BOLTS SHALL BE 1 1/2" DIAMETER X 3'-0" LONG AND FULLY THREADED ADHESIVE ANCHORS. ANCHOR BOLTS SHALL BE PAID FOR AS "ADHESIVE ANCHORS 1 1/2-INCH". EMBED IN CONCRETE AS DETAILED.

FABRICATING, FURNISHING AND INSTALLATION OF STIFFENER PLATES INCLUDING CLEANING GIRDER WEBS PRIOR TO WELDING STIFFENER PLATE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR "STRUCTURAL STEEL CARBON"

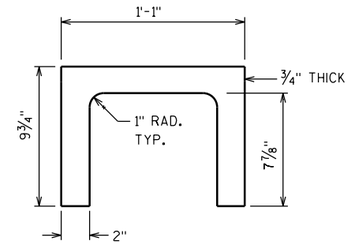
CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

SEE SHEET 11 FOR ADDITIONAL BEARING NOTES.

HOLD DOWN DEVICE



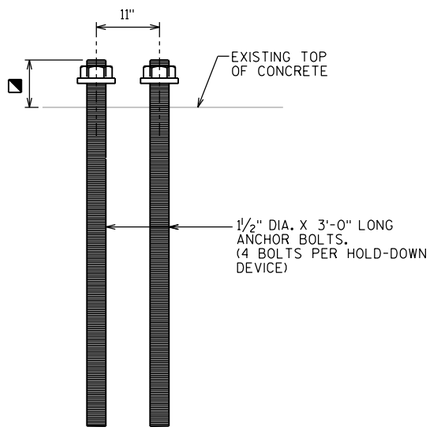
1/4" PLATE WASHER



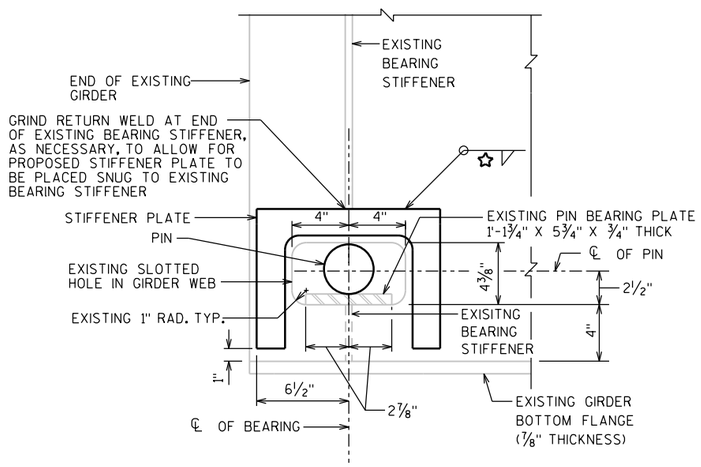
STIFFENER PLATE

LEGEND

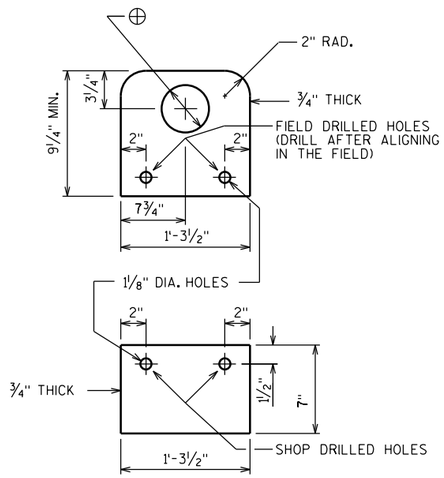
- PROJECT ANCHOR BOLTS, PLATE "D" THICKNESS + 2 1/4", ABOVE TOP OF CONCRETE.
- ⊕ HOLES FOR PIN IN DOWN-DOWN PLATES AND PLATE WASHERS SHALL BE AS STATED IN STANDARD SPECIFICATIONS 506.3.17
- ✩ SEE SHEET 11 FOR TABLE OF FILLET WELD SIZES.



ANCHOR BOLT DETAIL



GIRDER DETAIL



HOLD-DOWN PLATES

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-37

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HOLD DOWN DEVICE

SHEET 10 OF 15
510

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STATE PROJECT NUMBER

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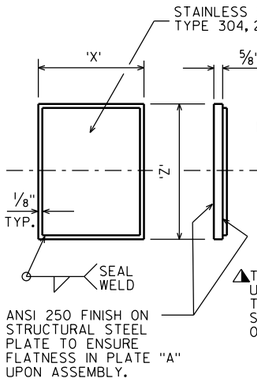
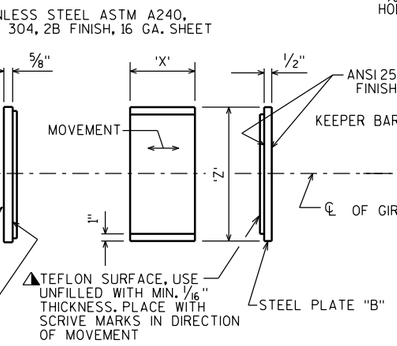
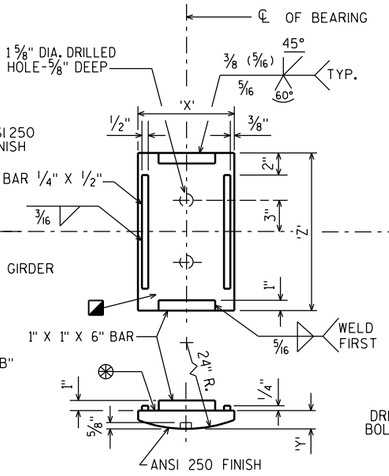


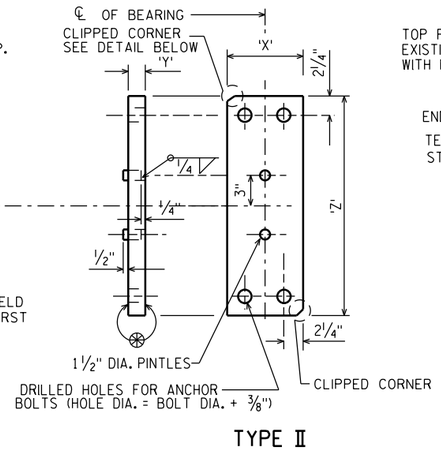
TOP PLATE "A"



TEFLON SURFACE ON PLATE "B"



ROCKER PLATE "C"

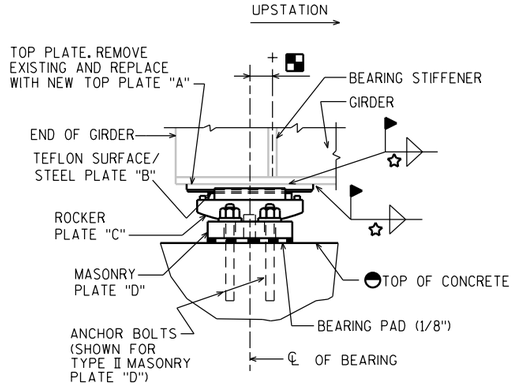


TYPE II

MASONRY PLATE "D"

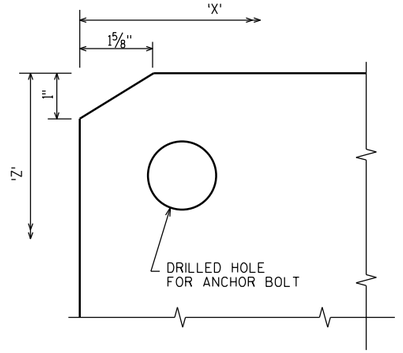
EXPANSION BEARING

	PLATE "A"		PLATE "B"		PLATE "C"			PLATE "D"			PLATE "D" TYPE	ANCHOR BOLT SIZE	NO. OF BRG'S REQ'D.	LOCATION	HEIGHT FEET
	'X'	'Z'	'X'	'Z'	'X'	'Y'	'Z'	'X'	'Y'	'Z'					
EXPANSION BEARING	10 1/2"	1'-1"	5"	1'-1"	7"	1 7/16"	1'-3 1/4"	1'-3 1/2"	1 1/2"	2'-2"	II	1 1/2"	10	ABUTMENTS	0.360



EXPANSION BEARING ASSEMBLY

SOUTH ABUTMENT SHOWN, NORTH ABUTMENT SIMILAR



MASONRY PLATE CORNER CLIP

BEARING NOTES

ALL BEARINGS ARE SYMMETRICAL ABOUT ℄ OF GIRDER AND ℄ OF BEARING.

⊛ FINISH THESE SURFACES TO ANSI 250 IF 'Y' DIMENSION IS GREATER THAN 2".

ALL MATERIAL IN TYPE "A-T" BEARINGS, INCLUDING SHIM PLATES, BUT EXCLUDING STAINLESS STEEL SHEET, TEFLON SURFACE, PINTLES, ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 50W.

ALL MATERIAL IN TYPE "A-T" BEARINGS, INCLUDING SHIM PLATES AND BEARING PADS, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING ASSEMBLIES EXPANSION B-66-37", EACH.

ALL FINISHED SURFACES SHALL BE MACHINE FINISHED BY AN AUTOMATIC PROCESS.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

PROVIDE 1/8" THICK BEARING PAD THE SAME SIZE AS MASONRY PLATE "D" FOR EACH BEARING.

CHAMFER TOP OF PINTLES 1/8". DRILL HOLES FOR ALL PINTLES IN MASONRY PLATE "D" FOR A DRIVING FIT.

STEEL PINTLES SHALL CONFORM TO ASTM A449 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

PLACE SHIM PLATES BETWEEN BEARING PAD AND MASONRY PLATE "D". PLATES SHALL HAVE 'X' AND 'Z' DIMENSIONS THAT MATCH MASONRY PLATE "D". IN LIEU OF USING SHIM PLATES, FABRICATOR MAY INCREASE THICKNESS OF TOP PLATE "A" OR MASONRY PLATE "D" BY THE SHIM PLATE THICKNESS.

ROCKER PLATE "C" AND MASONRY PLATE "D" SHALL BE GALVANIZED. TOP PLATE "A" AND STEEL PLATE "B" SHALL BE SHOP PAINTED. USE A WELDABLE PRIMER ON TOP PLATE "A". DO NOT PAINT STAINLESS STEEL OR TEFLON SURFACES.

AT INSTALLATION, ENSURE STAINLESS STEEL SLIDING FACE OF THE UPPER ELEMENT AND THE TFE SLIDING FACE OF THE LOWER ELEMENT HAVE THE SURFACE FINISH SPECIFIED AND ARE CLEAN AND FREE OF ALL DUST, MOISTURE, AND OTHER FOREIGN MATTER.

USE TEMPERATURE SETTING TABLE, RATHER THAN CENTERING BEARINGS BENEATH BEARING STIFFENERS FOR ALL TEMERATURES.

SEE SHEET 10 FOR ADDITIONAL BEARING NOTES.

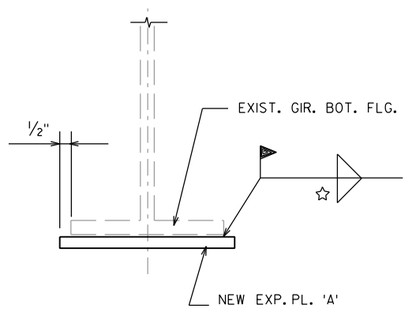
LEGEND

◪ PROVIDE A METHOD FOR HANDLING ROCKER PLATE "C" DURING GALVANIZING.

⚠ BOND STEEL PLATE "B" AND TEFLON WITH ADHESIVE MATERIAL MEETING REQUIREMENTS FOUND IN THE STANDARD SPECIFICATION.

⊛ FINISH THESE SURFACES TO ANSI 250 IF 'Y' DIMENSION IS GREATER THAN 2".

◓ REMOVE EXISTING EXPANSION BEARINGS & EXISTING ANCHOR BOLTS FLUSH WITH CONCRETE BEARING SURFACE & GRIND SMOOTH.



BEARING REPLACEMENT DETAILS

°F	S. ABUT.	N. ABUT.
30	0.3	-0.2
45	0	0
60	-0.3	0.2
75	-0.6	0.5
90	-0.8	0.7

◪ BEARING OFFSET TABLE

ALL DIMENSIONS IN INCHES
AMBIENT TEMPERATURE DURING BEARING INSTALLATION.

☆ TABLE OF FILLET WELD SIZES

MATERIAL THICKNESS OF THICKER PART JOINED.	∔ MIN. SIZE OF FILLET WELD
TO 1/2" INCLUSIVE	3/16"
OVER 1/2" TO 3/4"	1/4"
OVER 3/4" TO 1 1/2"	△ 5/16"
OVER 1 1/2"	△ 3/8"

∔ EXCEPT THAT THE WELD SIZE SHALL NOT EXCEED THE THICKNESS OF THE THINNER PART JOINED.

△ MIN. PASS SIZE IS 5/16"

BEARING SHIM PLATE TABLE

ABUTMENT	GIRDER NO.	SHIM PLATE THICKNESS
S. ABUT.	1	5/16"
S. ABUT.	2	5/16"
S. ABUT.	3	1/16"
S. ABUT.	4	3/16"
S. ABUT.	5	3/16"
N. ABUT.	1	3/16"
N. ABUT.	2	3/16"
N. ABUT.	3	3/16"
N. ABUT.	4	-
N. ABUT.	5	-

SHIM PLATE THICKNESS BASED ON BEARING HEIGHT FIELD MEASUREMENTS TAKEN AT (1) SIDE OF GIRDER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-37

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BEARING DETAILS

SHEET 11 OF 15
511

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STATE PROJECT NUMBER

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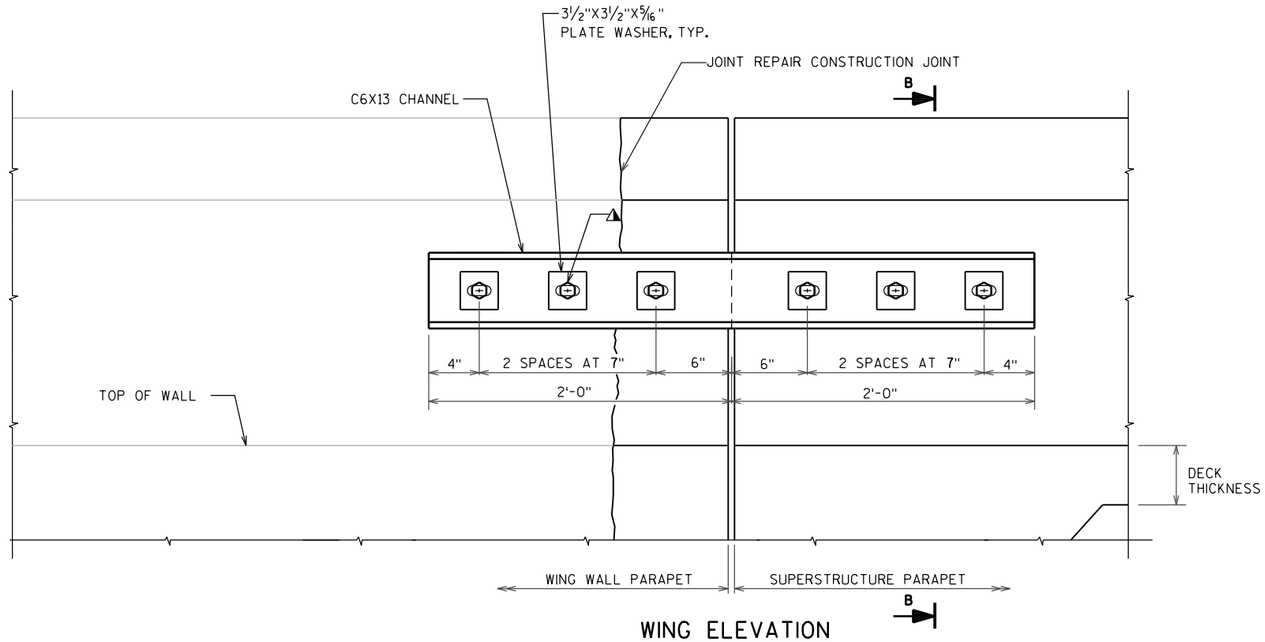
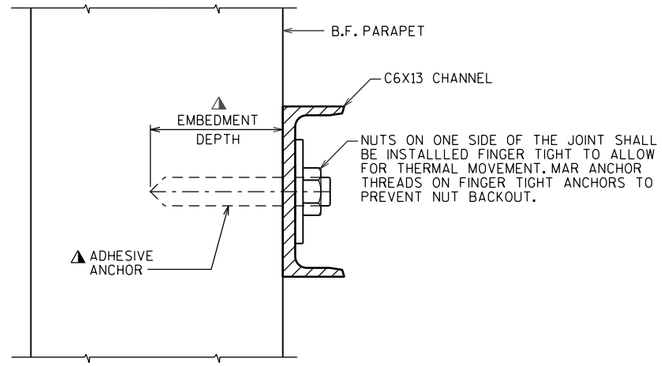
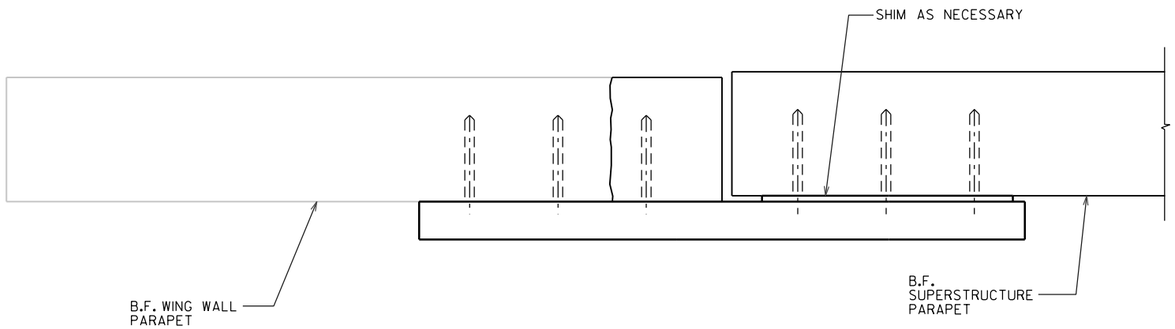


WING ELEVATION



DETAIL "A"

SECTION THRU CHANNEL



PLAN

NOTES

WING STRAPPING DETAIL FOR THE PURPOSE OF MITIGATING INWARD WING TIPPING, AS AN ALTERNATIVE TO THE PREFERRED METHOD OF WING REPLACEMENT.

BID ITEM SHALL BE "STRAPPING B-66-37" WHICH INCLUDES ALL ITEMS SHOWN.

WISDOT REGIONAL BRIDGE MAINTENANCE ENGINEER TO APPROVE USE OF DETAIL PRIOR TO INSTALLATION.

ALL PROVIDED STEEL MATERIAL SHALL CONFORM TO ASTM A36.

ALL STRUCTURAL STEEL SHOWN SHALL BE GALVANIZED. THREADED RODS, MASONRY ANCHORS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C.

CUTTING AND DRILLING OF CHANNEL SHALL BE DONE IN FABRICATION SHOP, PRIOR TO GALVANIZING.

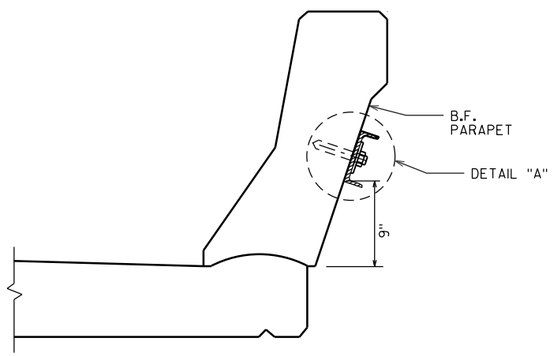
CAULK AROUND PERIMETER OF CHANNEL AND FILL PORTION OF HOLE AROUND ANCHOR BOLT AND SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

LEGEND

▲ ADHESIVE ANCHOR 1-INCH.
EMBED 10" IN CONCRETE.
SEE DETAIL "A"

USE 1⅛" X 2½" LONG SLOTTED HOLES



SECTION B-B

SECTION THRU SUPERSTRUCTURE PARAPET SHOWN, SIMILAR AT WING WALL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-37

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WING STRAPPING

SHEET 12 OF 15
512

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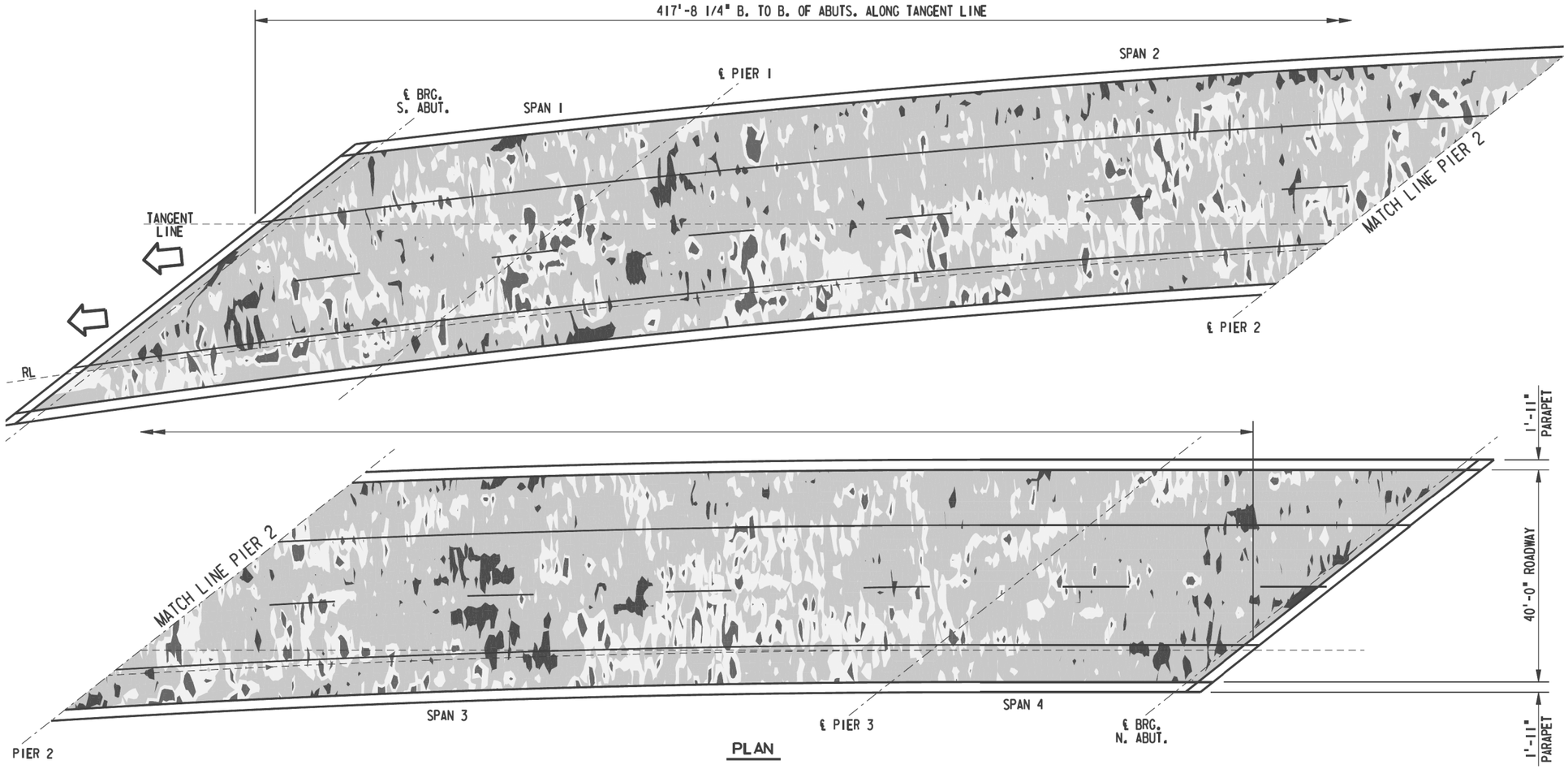

PLAN

GPR POTENTIAL DETERIORATION SURVEY

S.N. B-66-37

DESCRIPTION		QUANTITY (SQ.FT.)	%
TOTAL DECK ROADWAY AREA		18108	
GPR SURVEY AREA		17800	
INCREASING DETERIORATION POTENTIAL ↑		638	3.6
POTENTIAL DETERIORATION THRESHOLD		4205	23.6
		12293	69.1
		664	3.7

N

SCALE 0' 5' 10' 20'

SURFACE TYPE: BITUMINOUS OVERLAY
GPR SURVEY DATE: 8/13/19
GPR SURVEY TAKEN BY AECOM

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-37

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GRP DECK
SURVEY 1 OF 3

SHEET 13 OF 15
513

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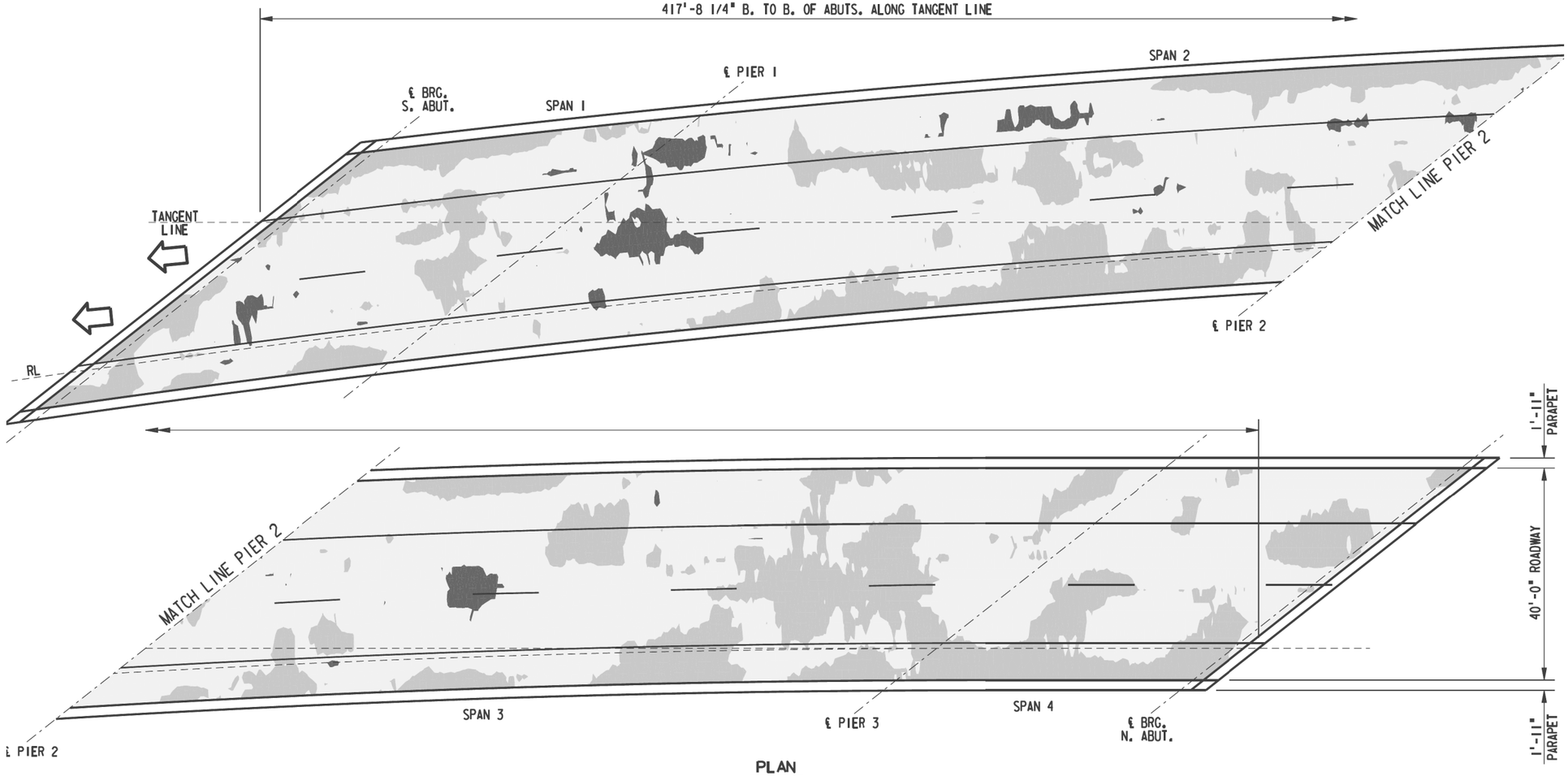

PLAN

DEPTH OF COVER OVER TOP REINFORCING STEEL

S.N. B-66-37

DESCRIPTION			QUANTITY (SQ.FT.)	%
TOTAL ROADWAY AREA			18108	
GPR SURVEY AREA			17800	
DEPTH OF COVER	2.7"-3.5"		401	2.3
	3.5"-4.5"		12763	71.7
	4.5"-5.8"		4636	26.0

N

SCALE 0' 5' 10' 20'

SURFACE TYPE: BITUMINOUS OVERLAY
GPR SURVEY DATE: 8/13/19
GPR SURVEY TAKEN BY AECOM

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-37

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GRP DECK
SURVEY 2 OF 3

SHEET 14 OF 15
514

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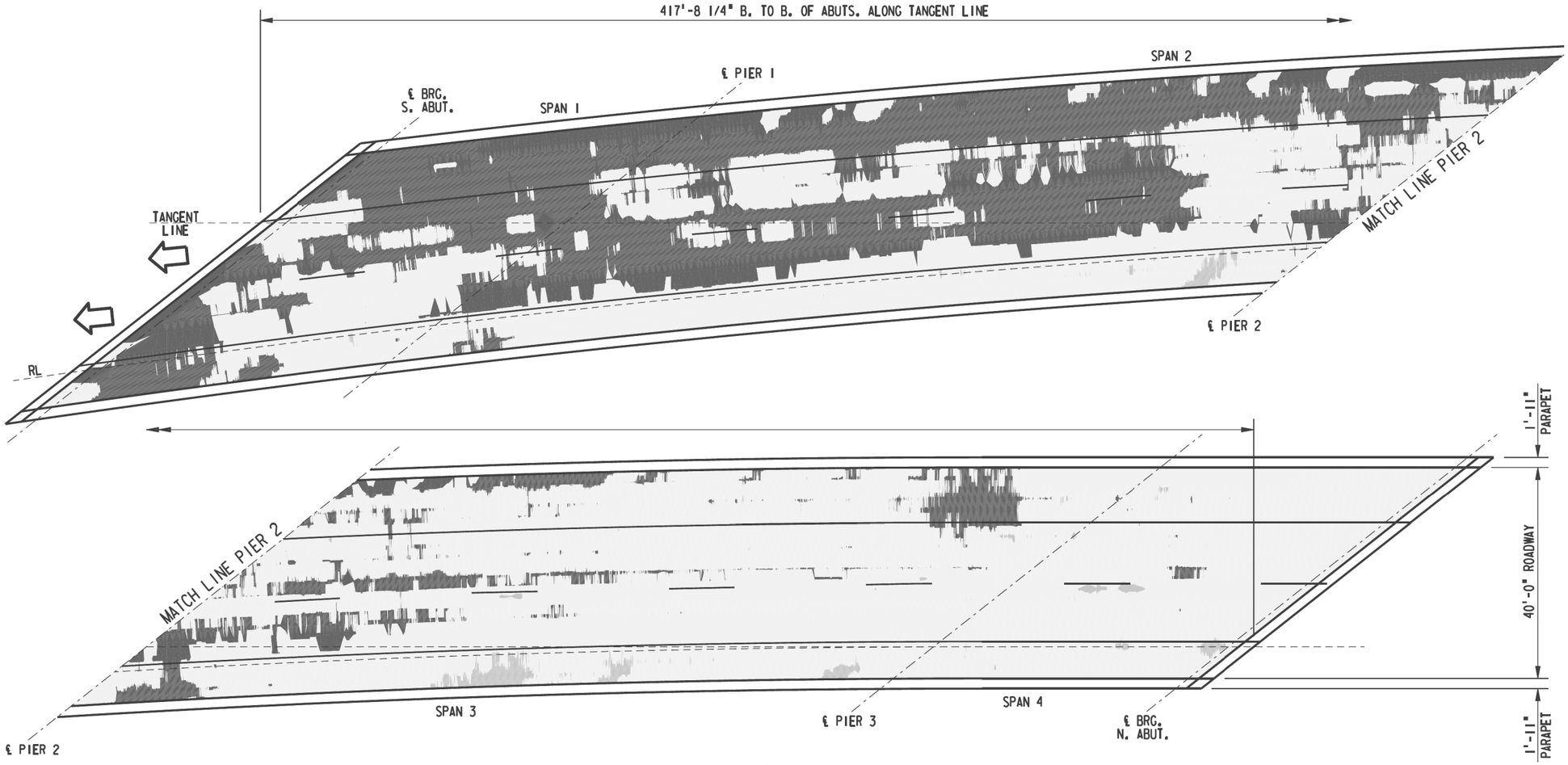

PLAN

BITUMINOUS OVERLAY THICKNESS

S.N. B-66-37

DESCRIPTION			QUANTITY (SQ.FT.)	%
TOTAL ROADWAY AREA			18108	
GPR SURVEY AREA			17800	
OVERLAY THICKNESS	1.0"-2.0"		5629	31.6
	2.0"-3.0"		12015	67.5
	3.0"-3.5"		156	0.9

N

SCALE 0' 5' 10' 20'

SURFACE TYPE: BITUMINOUS OVERLAY
GPR SURVEY DATE: 8/13/19
GPR SURVEY TAKEN BY AECOM

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-37

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GRP DECK
SURVEY 3 OF 3

SHEET 15 OF 15
515

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DIVISION 1 - CTH Q EARTHWORK																							
			AREA (SF)						INCREMENTAL VOL (CY) (UNADJUSTED)						CUMULATIVE VOL (CY)							
STATION	REAL STATION	DISTANCE	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	EXPANDED FILL	EXPANDED MARSH BACKFILL	EXPANDED ROCK	EXPANDED EBS BACKFILL	REDUCED MARSH IN FILL	REDUCED EBS IN FILL	MASS ORDINATE
									NOTE 1	NOTE 2	NOTE 3				1.00 NOTE 1	1.25	NOTE 4	1.10	1.30 NOTE 5	0.60 NOTE 6	0.80 NOTE 7	NOTE 8
31+19 "R/L Q"	3119.00	0.00	1.20	0.00	0.50	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31+25 "R/L Q"	3125.00	6.00	0.64	0.00	2.28	0.00	0.00	0.00	0	1	0	0	0	0	0	0	0	0	0	0	0	-1
31+50 "R/L Q"	3150.00	25.00	0.01	0.00	18.77	0.00	0.00	0.00	0	2	10	0	0	0	0	13	0	0	0	0	0	-16
31+75 "R/L Q"	3175.00	25.00	18.44	0.00	0.09	0.00	0.00	0.00	9	2	9	0	0	0	9	24	0	0	0	0	0	-20
32+00 "R/L Q"	3200.00	25.00	0.07	0.00	5.12	0.00	0.00	0.00	9	2	2	0	0	0	18	26	0	0	0	0	0	-15
32+25 "R/L Q"	3225.00	25.00	0.06	0.00	5.97	0.00	0.00	0.00	0	2	5	0	0	0	18	33	0	0	0	0	0	-24
32+26 "R/L Q"	3226.03	1.03	0.07	0.00	5.89	0.00	0.00	0.00	0	0	0	0	0	0	18	33	0	0	0	0	0	-24
32+38 "R/L Q"	3238.44	12.42	4.45	0.00	3.13	0.00	0.00	0.00	1	1	2	0	0	0	19	35	0	0	0	0	0	-26
32+51 "R/L Q"	3251.00	12.56	1.88	0.00	3.15	0.00	0.00	0.00	1	0	1	0	0	0	20	36	0	0	0	0	0	-26
32+76 "R/L Q"	3276.00	25.00	5.50	0.00	0.72	0.00	0.00	0.00	3	0	2	0	0	0	23	39	0	0	0	0	0	-26
33+00 "R/L Q"	3300.00	24.00	0.00	0.00	1.77	0.00	0.00	0.00	2	0	1	0	0	0	25	40	0	0	0	0	0	-25
33+25 "R/L Q"	3325.00	25.00	0.00	0.00	2.76	0.00	0.00	0.00	0	0	2	0	0	0	25	43	0	0	0	0	0	-28
33+50 "R/L Q"	3350.00	25.00	0.17	0.00	2.06	0.00	0.00	0.00	0	0	2	0	0	0	25	45	0	0	0	0	0	-30
33+75 "R/L Q"	3375.00	25.00	0.00	0.00	103.45	0.00	0.00	0.00	0	0	49	0	0	0	25	106	0	0	0	0	0	-91
36+30 "R/L Q"	3630.31	0.00	0.00	0.00	4.20	0.00	0.00	0.00	0	0	0	0	0	0	25	106	0	0	0	0	0	-91
36+50 "R/L Q"	3650.00	19.69	14.89	0.00	0.01	0.00	0.00	0.00	5	0	2	0	0	0	30	109	0	0	0	0	0	-89
36+65 "R/L Q"	3665.00	15.00	36.56	0.00	0.00	0.00	0.00	0.00	14	0	0	0	0	0	44	109	0	0	0	0	0	-75
36+75 "R/L Q"	3675.00	10.00	36.84	0.00	0.00	0.00	0.00	0.00	14	0	0	0	0	0	58	109	0	0	0	0	0	-61
36+90 "R/L Q"	3690.00	15.00	8.61	0.00	0.00	0.00	0.00	0.00	13	0	0	0	0	0	71	109	0	0	0	0	0	-48
37+00 "R/L Q"	3700.00	10.00	0.87	0.00	60.76	0.00	0.00	0.00	2	0	11	0	0	0	73	123	0	0	0	0	0	-60
37+14 "R/L Q"	3714.60	14.60	0.05	0.00	119.43	0.00	0.00	0.00	0	0	49	0	0	0	73	184	0	0	0	0	0	-121
37+25 "R/L Q"	3725.00	10.40	0.00	0.00	88.16	0.00	0.00	0.00	0	0	40	0	0	0	73	234	0	0	0	0	0	-171
37+39 "R/L Q"	3739.11	14.11	0.11	0.00	44.72	0.00	0.00	0.00	0	0	35	0	0	0	73	278	0	0	0	0	0	-215
37+50 "R/L Q"	3750.00	10.89	0.02	0.00	0.77	0.00	0.00	0.00	0	0	9	0	0	0	73	289	0	0	0	0	0	-226
37+66 "R/L Q"	3766.00	16.00	1.45	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	73	289	0	0	0	0	0	-226

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - EXPANDED MARSH BACKFILL	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
5 - EXPANDED EBS	THIS IS TO BE FILLED WITH BREAKER RUN. EBS BACKFILL FACTOR = 1.30. ITEM NUMBER 208.1100
6 - REDUCED MARSH IN FILL	REDUCED MARSH EXCAVATION THAT CAN BE USED IN FILL
7 - REDUCED EBS IN FILL	REDUCED EBS EXCAVATION THAT CAN BE USED IN FILL
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - EXPANDED ROCK) * FILL FACTOR)]
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - EXPANDED ROCK) * FILL FACTOR)]

DIVISION 1 - MAPLE RD EARTHWORK

STATION	REAL STATION	DISTANCE	AREA (SF)						INCREMENTAL VOL (CY) (UNADJUSTED)						CUMULATIVE VOL (CY)							
			CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	EXPANDED FILL	EXPANDED MARSH BACKFILL	EXPANDED ROCK	EXPANDED EBS BACKFILL	REDUCED MARSH IN FILL	REDUCED EBS IN FILL	MASS ORDINATE
															1.00	1.25	1.50	1.10	1.30	0.60	0.80	
			NOTE 1	NOTE 2	NOTE 3										NOTE 1		NOTE 4		NOTE 5	NOTE 6	NOTE 7	NOTE 8
14+95 "R/L MA"	1494.92	0.00	30.73	0.00	0.23	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15+00 "R/L MA"	1500.00	5.08	29.50	0.00	0.40	0.00	0.00	0.00	6	0	0	0	0	0	6	0	0	0	0	0	0	6
15+50 "R/L MA"	1550.00	50.00	29.74	0.00	13.99	0.00	0.00	0.00	55	0	13	0	0	0	61	16	0	0	0	0	0	45
15+65 "R/L MA"	1565.39	15.39	30.20	0.00	18.92	0.00	0.00	0.00	17	0	9	0	0	0	78	28	0	0	0	0	0	51
15+90 "R/L MA"	1590.00	24.61	30.47	0.00	18.17	0.00	0.00	0.00	28	0	17	0	0	0	106	49	0	0	0	0	0	57
16+00 "R/L MA"	1600.00	10.00	30.06	0.00	17.63	0.00	0.00	0.00	11	0	7	0	0	0	117	58	0	0	0	0	0	60
16+06 "R/L MA"	1606.19	6.19	29.94	0.00	19.11	0.00	0.00	0.00	7	0	4	0	0	0	124	63	0	0	0	0	0	62
16+15 "R/L MA"	1615.00	8.81	29.79	0.00	18.82	0.00	0.00	0.00	10	0	6	0	0	0	134	70	0	0	0	0	0	64
16+31 "R/L MA"	1631.00	16.00	29.91	0.00	19.78	0.00	0.00	0.00	18	0	11	0	0	0	152	84	0	0	0	0	0	68
16+50 "R/L MA"	1650.00	19.00	27.65	0.00	18.42	0.00	0.00	0.00	20	0	13	0	0	0	172	100	0	0	0	0	0	72
16+56 "R/L MA"	1656.00	6.00	26.74	0.00	20.21	0.00	0.00	0.00	6	0	4	0	0	0	178	105	0	0	0	0	0	73
16+58 "R/L MA"	1657.67	1.67	26.49	0.00	20.87	0.00	0.00	0.00	2	0	1	0	0	0	180	106	0	0	0	0	0	74
16+82 "R/L MA"	1682.00	24.33	29.51	0.00	11.73	0.00	0.00	0.00	25	0	15	0	0	0	205	125	0	0	0	0	0	80
17+00 "R/L MA"	1700.00	18.00	30.49	0.00	11.48	0.00	0.00	0.00	20	0	8	0	0	0	225	135	0	0	0	0	0	90
17+07 "R/L MA"	1707.00	7.00	31.21	0.00	8.12	0.00	0.00	0.00	8	0	3	0	0	0	233	139	0	0	0	0	0	94
17+40 "R/L MA"	1740.00	33.00	32.57	0.00	3.42	0.00	0.00	0.00	39	11	7	0	0	0	272	148	0	0	0	0	0	114
17+41 "R/L MA"	1740.51	0.51	39.59	0.00	3.32	0.00	0.00	0.00	1	0	0	0	0	0	273	148	0	0	0	0	0	115
17+50 "R/L MA"	1750.00	9.49	60.66	0.00	3.38	0.00	0.00	0.00	18	3	1	0	0	0	291	149	0	0	0	0	0	128
17+75 "R/L MA"	1775.00	25.00	61.81	0.00	4.29	0.00	0.00	0.00	57	9	4	0	0	0	348	154	0	0	0	0	0	171
17+91 "R/L MA"	1790.50	15.50	53.30	0.00	54.31	0.00	0.00	0.00	33	6	17	0	0	0	381	175	0	0	0	0	0	177
17+95 "R/L MA"	1795.11	4.61	56.45	0.00	98.02	0.00	0.00	0.00	9	2	13	0	0	0	390	191	0	0	0	0	0	168
18+00 "R/L MA"	1800.00	4.89	48.12	0.00	114.85	0.00	0.00	0.00	9	2	19	0	0	0	399	215	0	0	0	0	0	151
18+25 "R/L MA"	1825.00	25.00	51.00	0.00	22.38	0.00	0.00	0.00	46	11	64	0	0	0	445	295	0	0	0	0	0	106
18+44 "R/L MA"	1843.51	18.51	28.98	0.00	45.93	0.00	0.00	0.00	27	6	23	0	0	0	472	324	0	0	0	0	0	98
21+63 "R/L MA"	2163.33	0.00	14.48	0.00	64.98	0.00	0.00	0.00	0	2	0	0	0	0	472	324	0	0	0	0	0	96
21+75 "R/L MA"	2175.00	11.67	16.59	0.00	35.26	0.00	0.00	0.00	7	3	22	0	0	0	479	351	0	0	0	0	0	73
22+00 "R/L MA"	2200.00	25.00	37.72	0.00	99.43	0.00	0.00	0.00	25	10	62	0	0	0	504	429	0	0	0	0	0	10
22+14 "R/L MA"	2214.00	14.00	56.62	0.00	42.33	0.00	0.00	0.00	24	1	37	0	0	0	528	475	0	0	0	0	0	-13
22+18 "R/L MA"	2217.65	3.65	31.61	0.00	86.49	0.00	0.00	0.00	6	0	9	0	0	0	534	486	0	0	0	0	0	-18
22+39 "R/L MA"	2239.00	21.35	31.70	0.00	33.18	0.00	0.00	0.00	25	3	47	0	0	0	559	545	0	0	0	0	0	-55
22+50 "R/L MA"	2250.00	11.00	30.30	0.00	40.50	0.00	0.00	0.00	13	0	15	0	0	0	572	564	0	0	0	0	0	-61
22+64 "R/L MA"	2264.38	14.38	29.20	0.00	45.16	0.00	0.00	0.00	16	1	23	0	0	0	588	593	0	0	0	0	0	-75
23+00 "R/L MA"	2300.00	35.62	27.60	0.00	22.24	0.00	0.00	0.00	37	2	44	0	0	0	625	648	0	0	0	0	0	-95
23+50 "R/L MA"	2350.00	50.00	27.77	0.00	23.24	0.00	0.00	0.00	51	1	42	0	0	0	676	700	0	0	0	0	0	-97
23+57 "R/L MA"	2357.32	7.32	27.85	0.00	14.14	0.00	0.00	0.00	8	0	5	0	0	0	684	706	0	0	0	0	0	-95
23+83 "R/L MA"	2382.82	25.50	32.17	0.00	8.52	0.00	0.00	0.00	28	0	11	0	0	0	712	720	0	0	0	0	0	-81
24+00 "R/L MA"	2400.00	17.18	16.57	0.00	7.42	0.00	0.00	0.00	16	0	5	0	0	0	728	726	0	0	0	0	0	-71
24+50 "R/L MA"	2450.00	50.00	15.08	0.00	6.51	0.00	0.00	0.00	29	1	13	0	0	0	757	743	0	0	0	0	0	-60
24+52 "R/L MA"	2452.00	2.00	15.03	0.00	6.46	0.00	0.00	0.00	1	0	0	0	0	0	758	743	0	0	0	0	0	-59
24+77 "R/L MA"	2477.00	25.00	14.54	0.00	9.09	0.00	0.00	0.00	14	0	7	0	0	0	772	751	0	0	0	0	0	-53
25+00 "R/L MA"	2500.00	23.00	14.50	0.00	7.55	0.00	0.00	0.00	12	0	7	0	0	0	784	760	0	0	0	0	0	-50
25+03 "R/L MA"	2502.53	2.53	14.51	0.00	7.62	0.00	0.00	0.00	1	0	1	0	0	0	785	761	0	0	0	0	0	-50
25+50 "R/L MA"	2550.00	47.47	15.09	0.00	0.04	0.00	0.00	0.00	26	1	7	0	0	0	811	770	0	0	0	0	0	-34
25+67 "R/L MA"	2567.44	17.44	15.55	0.00	0.01	0.00	0.00	0.00	10	0	0	0	0	0	821	770	0	0	0	0	0	-24

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - EXPANDED MARSH BACKFILL	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
5 - EXPANDED EBS	THIS IS TO BE FILLED WITH BREAKER RUN. EBS BACKFILL FACTOR = 1.30. ITEM NUMBER 208.1100
6 - REDUCED MARSH IN FILL	REDUCED MARSH EXCAVATION THAT CAN BE USED IN FILL
7 - REDUCED EBS IN FILL	REDUCED EBS EXCAVATION THAT CAN BE USED IN FILL
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - EXPANDED ROCK) * FILL FACTOR)]
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - EXPANDED ROCK) * FILL FACTOR)]

DIVISION 1 - CTH Y/MEQUON RD EARTHWORK

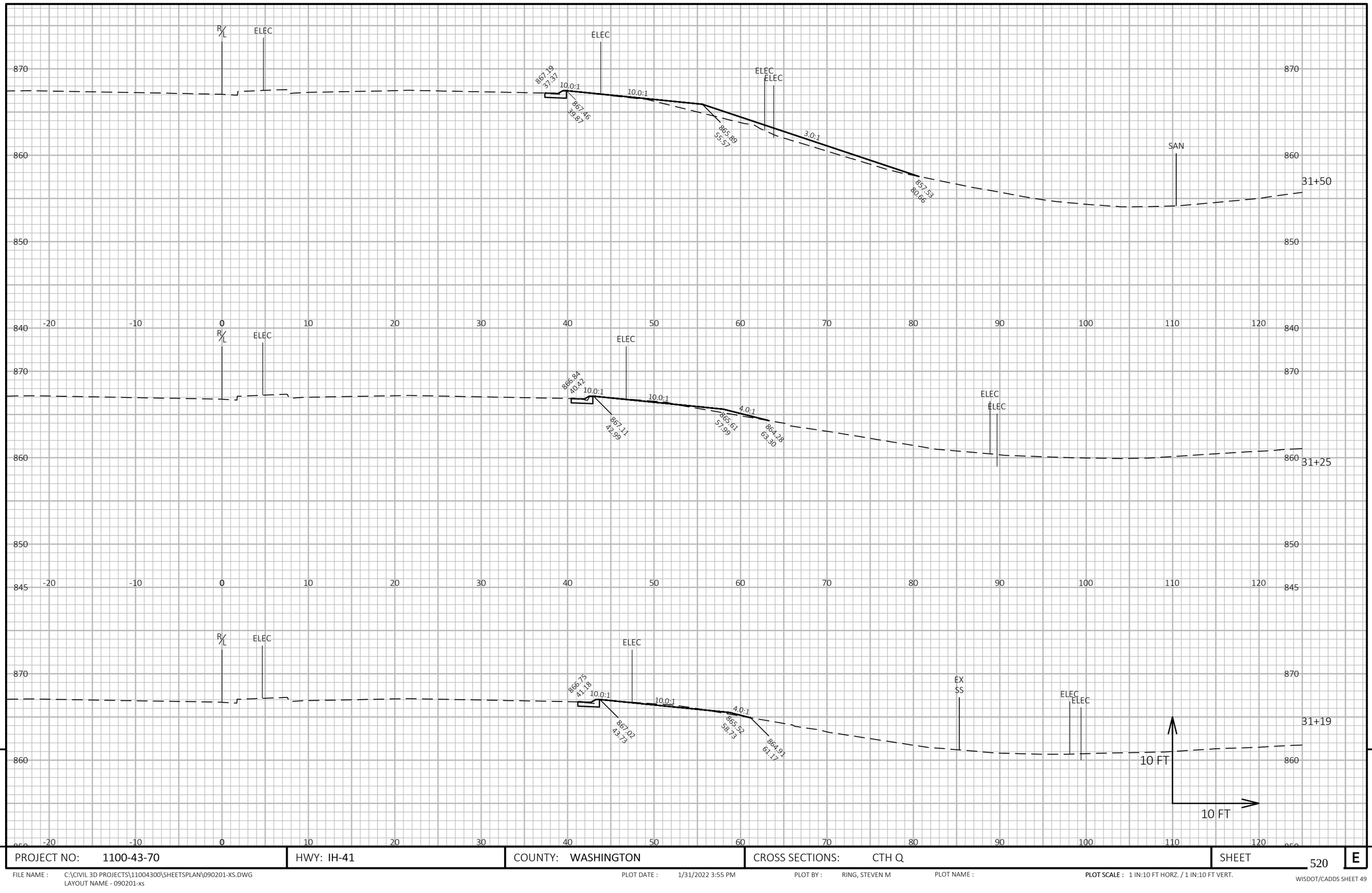
STATION	REAL STATION	DISTANCE	AREA (SF)						INCREMENTAL VOL (CY) (UNADJUSTED)						CUMULATIVE VOL (CY)							
			CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	EXPANDED FILL	EXPANDED MARSH BACKFILL	EXPANDED ROCK	EXPANDED EBS BACKFILL	REDUCED MARSH IN FILL	REDUCED EBS IN FILL	MASS ORDINATE
									NOTE 1	NOTE 2	NOTE 3				1.00 NOTE 1	1.25	NOTE 4	1.10	1.30 NOTE 5	0.60 NOTE 6	0.80 NOTE 7	NOTE 8
11+00 "R/L ME"	1100.00	0.00	67.99	0.00	0.34	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11+13 "R/L ME"	1113.18	13.18	79.61	0.00	1.24	0.00	0.00	0.00	36	4	0	0	0	0	36	0	0	0	0	0	0	32
11+25 "R/L ME"	1125.00	11.82	49.87	0.00	0.69	0.00	0.00	0.00	28	4	0	0	0	0	64	0	0	0	0	0	0	56
11+50 "R/L ME"	1150.00	25.00	50.23	0.00	0.78	0.00	0.00	0.00	46	9	1	0	0	0	110	1	0	0	0	0	0	92
11+78 "R/L ME"	1178.42	28.42	33.53	0.00	16.60	0.00	0.00	0.00	44	10	9	0	0	0	154	13	0	0	0	0	0	115
12+00 "R/L ME"	1200.00	21.58	64.12	0.00	30.24	0.00	0.00	0.00	39	8	19	0	0	0	193	36	0	0	0	0	0	122
12+19 "R/L ME"	1218.91	18.91	64.62	0.00	52.26	0.00	0.00	0.00	45	7	29	0	0	0	238	73	0	0	0	0	0	124
12+44 "R/L ME"	1244.00	25.09	64.59	0.00	42.30	0.00	0.00	0.00	60	9	44	0	0	0	298	128	0	0	0	0	0	120
12+50 "R/L ME"	1250.00	6.00	64.38	0.00	40.31	0.00	0.00	0.00	14	0	9	0	0	0	312	139	0	0	0	0	0	122
12+69 "R/L ME"	1269.00	19.00	64.07	0.00	28.96	0.00	0.00	0.00	45	7	24	0	0	0	357	169	0	0	0	0	0	130
13+00 "R/L ME"	1300.00	31.00	64.84	0.00	19.95	0.00	0.00	0.00	74	11	28	0	0	0	431	204	0	0	0	0	0	158
13+50 "R/L ME"	1350.00	50.00	59.58	0.00	29.66	0.00	0.00	0.00	115	18	46	0	0	0	546	261	0	0	0	0	0	198
14+00 "R/L ME"	1400.00	50.00	51.18	0.00	39.58	0.00	0.00	0.00	103	18	64	0	0	0	649	341	0	0	0	0	0	203
14+50 "R/L ME"	1450.00	50.00	50.20	0.00	5.04	0.00	0.00	0.00	94	18	41	0	0	0	743	393	0	0	0	0	0	228
15+00 "R/L ME"	1500.00	50.00	49.77	0.00	2.97	0.00	0.00	0.00	93	18	7	0	0	0	836	401	0	0	0	0	0	294
15+50 "R/L ME"	1550.00	50.00	49.81	0.00	0.59	0.00	0.00	0.00	92	18	3	0	0	0	928	405	0	0	0	0	0	364
16+00 "R/L ME"	1600.00	50.00	44.44	0.00	1.82	0.00	0.00	0.00	87	18	2	0	0	0	1,015	408	0	0	0	0	0	431
16+50 "R/L ME"	1650.00	50.00	51.73	0.00	3.03	0.00	0.00	0.00	89	18	4	0	0	0	1,104	413	0	0	0	0	0	497
16+91 "R/L ME"	1690.86	40.86	54.88	0.00	2.22	0.00	0.00	0.00	81	17	4	0	0	0	1,185	418	0	0	0	0	0	556
17+00 "R/L ME"	1700.00	9.14	42.98	0.00	1.00	0.00	0.00	0.00	17	4	1	0	0	0	1,202	419	0	0	0	0	0	567
17+01 "R/L ME"	1701.13	1.13	43.03	0.00	0.39	0.00	0.00	0.00	2	16	0	0	0	0	1,204	419	0	0	0	0	0	553
22+99 "R/L ME"	2298.74	0.00	26.90	0.00	19.77	0.00	0.00	0.00	0	0	0	0	0	0	1,204	419	0	0	0	0	0	553
23+00 "R/L ME"	2300.00	1.26	26.71	0.00	16.04	0.00	0.00	0.00	1	0	1	0	0	0	1,205	420	0	0	0	0	0	553
23+25 "R/L ME"	2325.00	25.00	49.84	0.00	7.60	0.00	0.00	0.00	35	10	11	0	0	0	1,240	434	0	0	0	0	0	564
23+33 "R/L ME"	2333.05	8.05	51.27	0.00	13.84	0.00	0.00	0.00	15	2	3	0	0	0	1,255	438	0	0	0	0	0	574
23+40 "R/L ME"	2340.00	6.95	50.62	0.00	11.11	0.00	0.00	0.00	13	2	3	0	0	0	1,268	441	0	0	0	0	0	581
23+50 "R/L ME"	2350.00	10.00	50.60	0.00	12.80	0.00	0.00	0.00	19	3	4	0	0	0	1,287	446	0	0	0	0	0	592
23+52 "R/L ME"	2352.38	2.38	50.58	0.00	13.67	0.00	0.00	0.00	4	0	1	0	0	0	1,291	448	0	0	0	0	0	595
23+65 "R/L ME"	2365.00	12.62	50.79	0.00	16.53	0.00	0.00	0.00	24	5	7	0	0	0	1,315	456	0	0	0	0	0	605
23+75 "R/L ME"	2375.00	10.00	50.25	0.00	14.65	0.00	0.00	0.00	19	4	6	0	0	0	1,334	464	0	0	0	0	0	612
23+87 "R/L ME"	2387.16	12.16	50.32	0.00	15.28	0.00	0.00	0.00	23	0	7	0	0	0	1,357	473	0	0	0	0	0	627
23+92 "R/L ME"	2391.74	4.58	45.79	0.00	20.35	0.00	0.00	0.00	8	0	3	0	0	0	1,365	476	0	0	0	0	0	631
24+00 "R/L ME"	2400.00	8.26	49.01	0.00	12.97	0.00	0.00	0.00	14	3	5	0	0	0	1,379	483	0	0	0	0	0	636
24+26 "R/L ME"	2425.57	25.57	46.98	0.00	11.77	0.00	0.00	0.00	45	9	12	0	0	0	1,424	498	0	0	0	0	0	657
24+50 "R/L ME"	2450.00	24.43	45.89	0.00	8.09	0.00	0.00	0.00	42	9	9	0	0	0	1,466	509	0	0	0	0	0	678
25+00 "R/L ME"	2500.00	50.00	46.13	0.00	8.16	0.00	0.00	0.00	85	18	15	0	0	0	1,551	528	0	0	0	0	0	727
25+50 "R/L ME"	2550.00	50.00	50.17	0.00	6.34	0.00	0.00	0.00	89	18	13	0	0	0	1,640	544	0	0	0	0	0	781
26+00 "R/L ME"	2600.00	50.00	61.54	0.00	2.30	0.00	0.00	0.00	103	18	8	0	0	0	1,743	554	0	0	0	0	0	856
26+39 "R/L ME"	2638.80	38.80	65.61	0.00	0.24	0.00	0.00	0.00	91	14	2	0	0	0	1,834	556	0	0	0	0	0	931
26+50 "R/L ME"	2650.00	11.20	48.03	0.00	0.31	0.00	0.00	0.00	24	4	0	0	0	0	1,858	556	0	0	0	0	0	951
26+79 "R/L ME"	2678.95	28.95	67.45	0.00	0.20	0.00	0.00	0.00	62	11	0	0	0	0	1,920	556	0	0	0	0	0	1,002
27+00 "R/L ME"	2700.00	21.05	62.46	0.00	0.06	0.00	0.00	0.00	51	8	0	0	0	0	1,971	556	0	0	0	0	0	1,045
27+50 "R/L ME"	2750.00	50.00	61.80	0.00	2.78	0.00	0.00	0.00	115	19	3	0	0	0	2,086	560	0	0	0	0	0	1,137

Notes:

1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - EXPANDED MARSH BACKFILL	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
5 - EXPANDED EBS	THIS IS TO BE FILLED WITH BREAKER RUN. EBS BACKFILL FACTOR = 1.30. ITEM NUMBER 208.1100
6 - REDUCED MARSH IN FILL	REDUCED MARSH EXCAVATION THAT CAN BE USED IN FILL
7 - REDUCED EBS IN FILL	REDUCED EBS EXCAVATION THAT CAN BE USED IN FILL
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - EXPANDED ROCK) * FILL FACTOR)]
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - EXPANDED ROCK) * FILL FACTOR)]

DIVISION 1 - FREISTADT RD EARTHWORK																								
			AREA (SF)						INCREMENTAL VOL (CY) (UNADJUSTED)						CUMULATIVE VOL (CY)								
STATION	REAL STATION	DISTANCE	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	EXPANDED FILL	EXPANDED MARSH BACKFILL	EXPANDED ROCK	EXPANDED EBS BACKFILL	REDUCED MARSH IN FILL	REDUCED EBS IN FILL	MASS ORDINATE
									NOTE 1	NOTE 2	NOTE 3				1.00 NOTE 1	1.25	1.50 NOTE 4	1.10	1.30 NOTE 5	0.60 NOTE 6	0.80 NOTE 7	NOTE 8
14+00 "R/L F"	1400.00	0.00	72.56	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14+11 "R/L F"	1411.05	11.05	71.77	0.00	0.08	0.00	0.00	0.00	30	3	0	0	0	0	30	0	0	0	0	0	0	27
14+50 "R/L F"	1450.00	38.95	45.89	0.00	0.00	0.00	0.00	0.00	85	11	0	0	0	0	115	0	0	0	0	0	0	101
14+63 "R/L F"	1462.53	12.53	57.06	0.00	0.04	0.00	0.00	0.00	24	3	0	0	0	0	139	0	0	0	0	0	0	122
14+77 "R/L F"	1477.45	14.92	61.98	0.00	0.00	0.00	0.00	0.00	33	5	0	0	0	0	172	0	0	0	0	0	0	150
15+00 "R/L F"	1500.00	22.55	39.74	0.00	0.02	0.00	0.00	0.00	42	7	0	0	0	0	214	0	0	0	0	0	0	185
15+29 "R/L F"	1528.72	28.72	60.93	0.00	0.00	0.00	0.00	0.00	54	8	0	0	0	0	268	0	0	0	0	0	0	231
15+50 "R/L F"	1550.00	21.28	106.08	0.00	0.00	0.00	0.00	0.00	66	6	0	0	0	0	334	0	0	0	0	0	0	291
16+00 "R/L F"	1600.00	50.00	63.85	0.00	0.00	0.00	0.00	0.00	157	15	0	0	0	0	491	0	0	0	0	0	0	433
16+50 "R/L F"	1650.00	50.00	74.48	0.00	0.00	0.00	0.00	0.00	128	17	0	0	0	0	619	0	0	0	0	0	0	544
16+57 "R/L F"	1657.27	7.27	49.29	0.00	0.03	0.00	0.00	0.00	17	2	0	0	0	0	636	0	0	0	0	0	0	559
17+00 "R/L F"	1700.00	42.73	42.14	0.00	0.10	0.00	0.00	0.00	72	17	0	0	0	0	708	0	0	0	0	0	0	614
17+35 "R/L F"	1734.51	34.51	36.32	0.00	1.10	0.00	0.00	0.00	50	14	1	0	0	0	758	1	0	0	0	0	0	649
17+50 "R/L F"	1750.00	15.49	53.10	0.00	1.83	0.00	0.00	0.00	26	6	1	0	0	0	784	3	0	0	0	0	0	668
18+00 "R/L F"	1800.00	50.00	45.74	0.00	13.13	0.00	0.00	0.00	92	18	14	0	0	0	876	20	0	0	0	0	0	724
18+08 "R/L F"	1808.01	8.01	47.41	0.00	15.68	0.00	0.00	0.00	14	2	4	0	0	0	890	25	0	0	0	0	0	731
18+33 "R/L F"	1832.60	24.59	49.51	0.00	10.22	0.00	0.00	0.00	44	10	12	0	0	0	934	40	0	0	0	0	0	750
18+50 "R/L F"	1850.00	17.40	52.20	0.00	11.03	0.00	0.00	0.00	33	7	7	0	0	0	967	49	0	0	0	0	0	767
18+58 "R/L F"	1857.60	7.60	54.65	0.00	11.46	0.00	0.00	0.00	15	3	3	0	0	0	982	53	0	0	0	0	0	776
18+80 "R/L F"	1879.75	22.15	62.62	0.00	11.44	0.00	0.00	0.00	48	10	9	0	0	0	1,030	64	0	0	0	0	0	802
19+00 "R/L F"	1900.00	20.25	61.18	0.00	9.61	0.00	0.00	0.00	46	10	8	0	0	0	1,076	74	0	0	0	0	0	828
19+05 "R/L F"	1904.60	4.60	62.55	0.00	10.56	0.00	0.00	0.00	11	2	2	0	0	0	1,087	76	0	0	0	0	0	835
19+30 "R/L F"	1929.60	25.00	63.04	0.00	12.95	0.00	0.00	0.00	58	12	11	0	0	0	1,145	90	0	0	0	0	0	867
19+50 "R/L F"	1950.00	20.40	60.35	0.00	58.88	0.00	0.00	0.00	47	10	27	0	0	0	1,192	124	0	0	0	0	0	870
19+54 "R/L F"	1953.87	3.87	59.73	0.00	80.95	0.00	0.00	0.00	9	0	10	0	0	0	1,201	136	0	0	0	0	0	867
19+67 "R/L F"	1967.42	13.55	54.55	0.00	1.69	0.00	0.00	0.00	29	23	21	0	0	0	1,230	163	0	0	0	0	0	847
22+92 "R/L F"	2291.82	0.00	31.87	0.00	9.09	0.00	0.00	0.00	0	4	0	0	0	0	1,230	163	0	0	0	0	0	843
23+00 "R/L F"	2300.00	8.18	45.24	0.00	7.03	0.00	0.00	0.00	12	4	2	0	0	0	1,242	165	0	0	0	0	0	848
23+25 "R/L F"	2324.60	24.60	57.08	0.00	2.00	0.00	0.00	0.00	47	12	4	0	0	0	1,289	170	0	0	0	0	0	878
23+26 "R/L F"	2325.98	1.38	60.05	0.00	44.10	0.00	0.00	0.00	3	0	1	0	0	0	1,292	171	0	0	0	0	0	880
23+45 "R/L F"	2344.85	18.87	67.11	0.00	7.59	0.00	0.00	0.00	44	0	18	0	0	0	1,336	194	0	0	0	0	0	901
23+50 "R/L F"	2350.00	5.15	84.45	0.00	5.30	0.00	0.00	0.00	14	2	1	0	0	0	1,350	195	0	0	0	0	0	912
23+75 "R/L F"	2374.60	24.60	78.98	0.00	3.85	0.00	0.00	0.00	74	12	4	0	0	0	1,424	200	0	0	0	0	0	969
23+79 "R/L F"	2379.01	4.41	70.40	0.00	3.81	0.00	0.00	0.00	12	1	1	0	0	0	1,436	201	0	0	0	0	0	979
24+00 "R/L F"	2400.00	20.99	67.99	0.00	0.29	0.00	0.00	0.00	54	10	2	0	0	0	1,490	204	0	0	0	0	0	1,020
24+50 "R/L F"	2450.00	50.00	55.62	0.00	27.09	0.00	0.00	0.00	114	24	25	0	0	0	1,604	235	0	0	0	0	0	1,079
24+75 "R/L F"	2474.66	24.66	53.34	0.00	46.34	0.00	0.00	0.00	50	12	34	0	0	0	1,654	278	0	0	0	0	0	1,075
25+00 "R/L F"	2500.00	25.34	52.11	0.00	22.11	0.00	0.00	0.00	49	13	32	0	0	0	1,703	318	0	0	0	0	0	1,071
25+25 "R/L F"	2524.60	24.60	51.11	0.00	5.09	0.00	0.00	0.00	47	12	12	0	0	0	1,750	333	0	0	0	0	0	1,091
25+50 "R/L F"	2550.00	25.40	45.44	0.00	1.62	0.00	0.00	0.00	45	13	3	0	0	0	1,795	336	0	0	0	0	0	1,119
25+64 "R/L F"	2564.27	14.27	40.78	0.00	1.67	0.00	0.00	0.00	23	7	1	0	0	0	1,818	338	0	0	0	0	0	1,134
26+00 "R/L F"	2600.00	35.73	31.66	0.00	1.97	0.00	0.00	0.00	48	18	2	0	0	0	1,866	340	0	0	0	0	0	1,161
26+50 "R/L F"	2650.00	50.00	54.44	0.00	0.65	0.00	0.00	0.00	80	20	2	0	0	0	1,946	343	0	0	0	0	0	1,219
27+00 "R/L F"	2700.00	50.00	55.63	0.00	0.29	0.00	0.00	0.00	102	15	1	0	0	0	2,048	344	0	0	0	0	0	1,304
27+50 "R/L F"	2750.00	50.00	53.54	0.00	2.73	0.00	0.00	0.00	101	15	3	0	0	0	2,149	348	0	0	0	0	0	1,387
28+00 "R/L F"	2800.00	50.00	65.35	0.00	0.00	0.00	0.00	0.00	110	14	3	0	0	0	2,259	351	0	0	0	0	0	1,479
28+46 "R/L F"	2846.00	46.00	74.00	0.00	0.00	0.00	0.00	0.00	119	13	0	0	0	0	2,378	351	0	0	0	0	0	1,585
28+50 "R/L F"	2850.00	4.00	74.29	0.00	0.00	0.00	0.00	0.00	11	0	0	0	0	0	2,389	351	0	0	0	0	0	1,596
28+71 "R/L F"	2871.00	21.00	76.69	0.00	0.00	0.00	0.00	0.00	59	6	0	0	0	0	2,448	351	0	0	0	0	0	1,649
28+96 "R/L F"	2895.94	24.94	77.74	0.00	0.00	0.00	0.00	0.00	71	7	0	0	0	0	2,519	351	0	0	0	0	0	1,713
29+00 "R/L F"	2900.00	4.06	77.05	0.00	0.00	0.00	0.00	0.00	12	0	0	0	0	0	2,531	351	0	0	0	0	0	1,725
29+16 "R/L F"	2915.82	15.82	82.64	0.00	0.00	0.00	0.00	0.00	47	5	0	0	0	0	2,578	351	0	0	0	0	0	1,767
29+50 "R/L F"	2950.00	34.18	80.24	0.00	0.00	0.00	0.00	0.00	103	11	0	0	0	0	2,681	351	0	0	0	0	0	1,859
29+55 "R/L F"	2954.54	4.54	53.35	0.00	0.00	0.00	0.00	0.00	11	1	0	0	0	0	2,692	351	0	0	0	0	0	1,869
29+62 "R/L F"	2961.63	7.09	54.15	0.00	0.00	0.00	0.00	0.00	14	0	0	0	0	0	2,706	351	0	0	0	0	0	1,883
30+00 "R/L F"	3000.00	38.37	56.93	0.00	0.00	0.00	0.00	0.00	79	12	0	0	0	0	2,785	351	0	0	0	0	0	1,950
30+05 "R/L F"	3004.79	4.79	82.40	0.00	0.00	0.00	0.00	0.00	12	1	0	0	0	0	2,797	351	0	0	0	0	0	1,961
30+25 "R/L F"	3025.00	20.21	80.34	0.00	0.00	0.00	0.00	0.00	61	6	0	0	0	0	2,858	351	0	0	0	0	0	2,016

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - EXPANDED MARSH BACKFILL	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
5 - EXPANDED EBS	THIS IS TO BE FILLED WITH BREAKER RUN. EBS BACKFILL FACTOR = 1.30. ITEM NUMBER 208.1100
6 - REDUCED MARSH IN FILL	REDUCED MARSH EXCAVATION THAT CAN BE USED IN FILL
7 - REDUCED EBS IN FILL	REDUCED EBS EXCAVATION THAT CAN BE USED IN FILL
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - EXPANDED ROCK) * FILL FACTOR)]
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - EXPANDED ROCK) * FILL FACTOR)]



9

9

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: CTH Q	SHEET 520	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xs

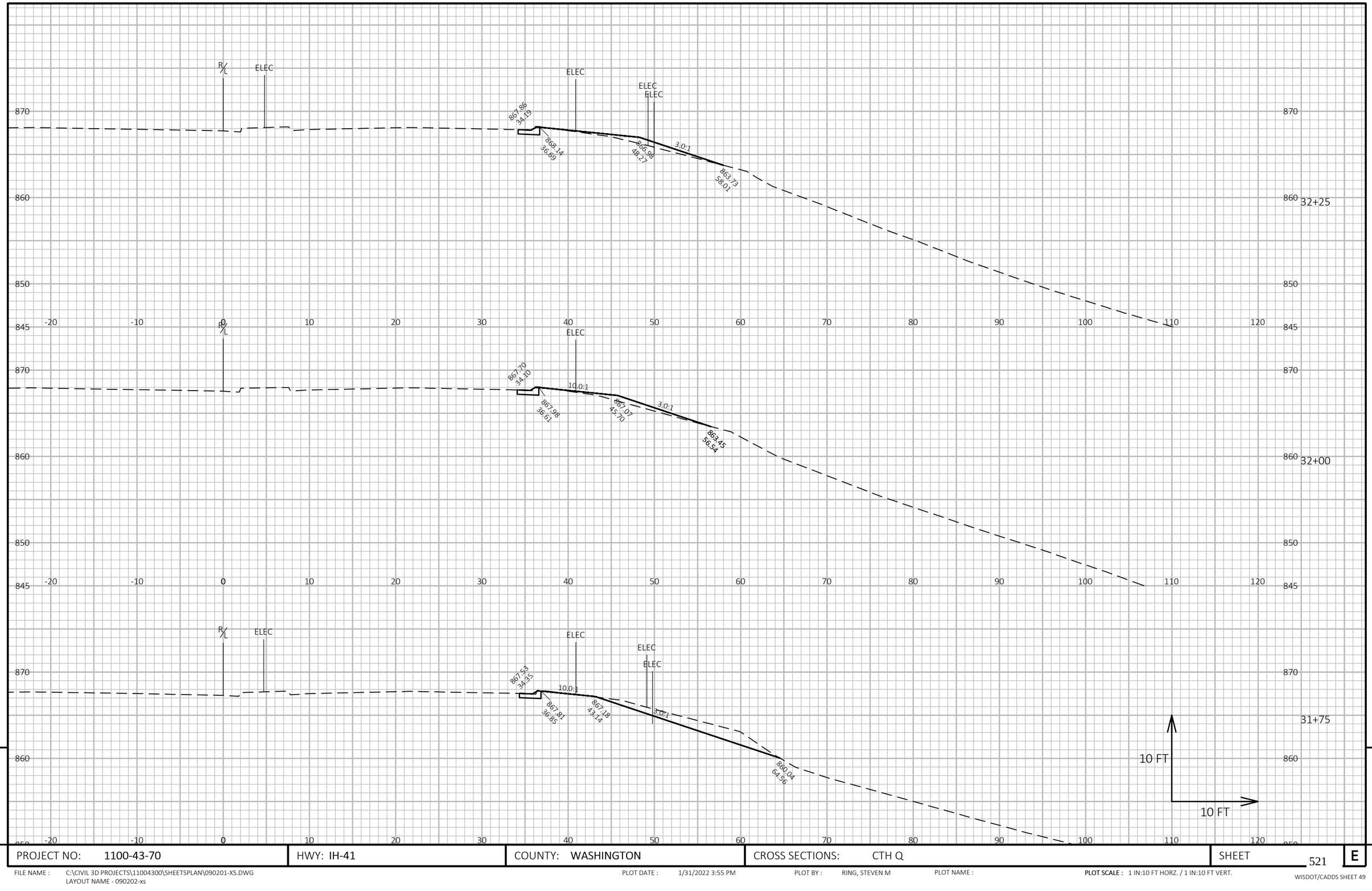
PLOT DATE : 1/31/2022 3:55 PM

PLOT BY : RING, STEVEN M

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: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: CTH Q	SHEET 521	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090202-xs

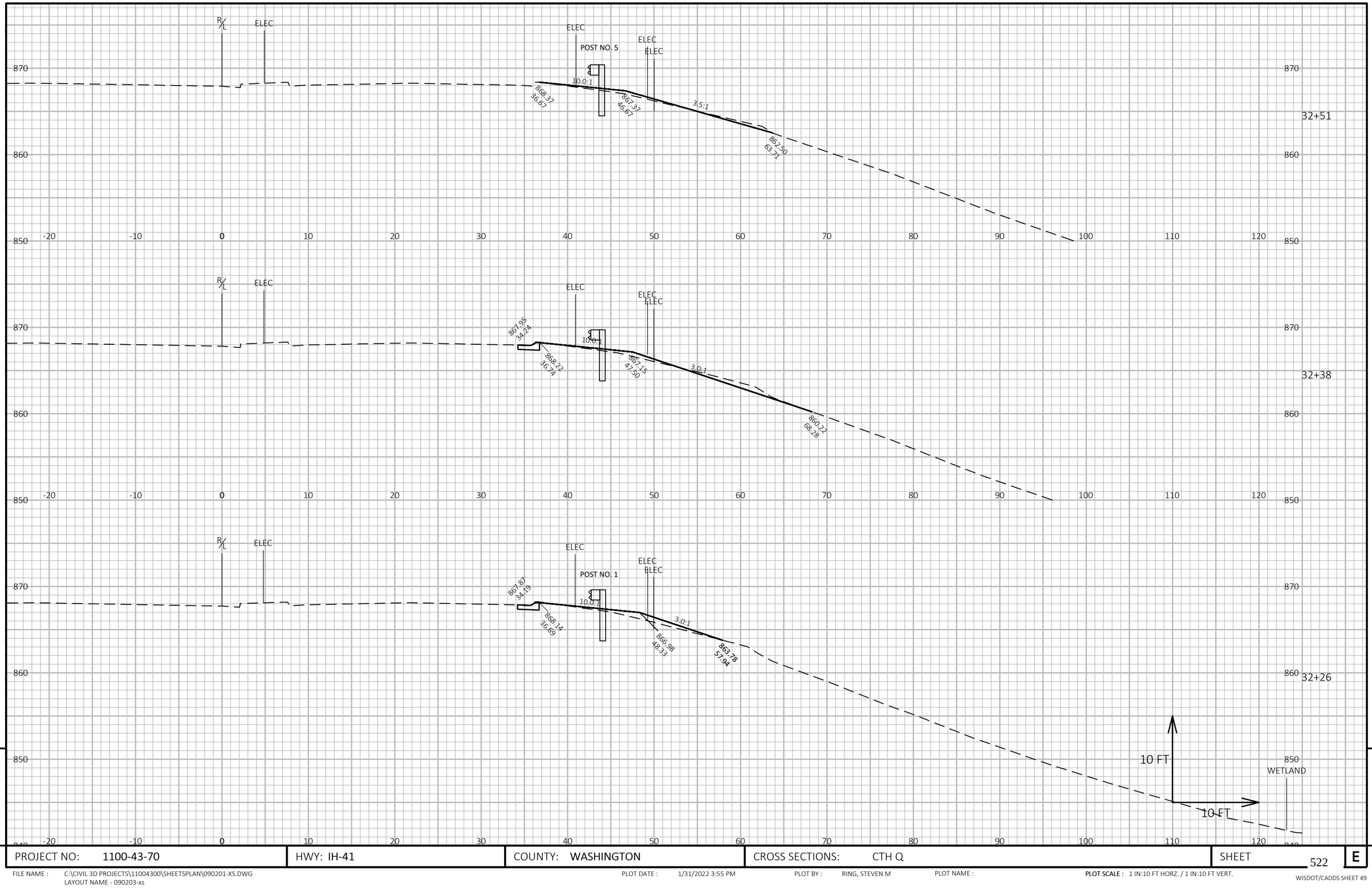
PLOT DATE : 1/31/2022 3:55 PM

PLOT BY : RING, STEVEN M

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: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: CTH Q	SHEET 522	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090203-xs

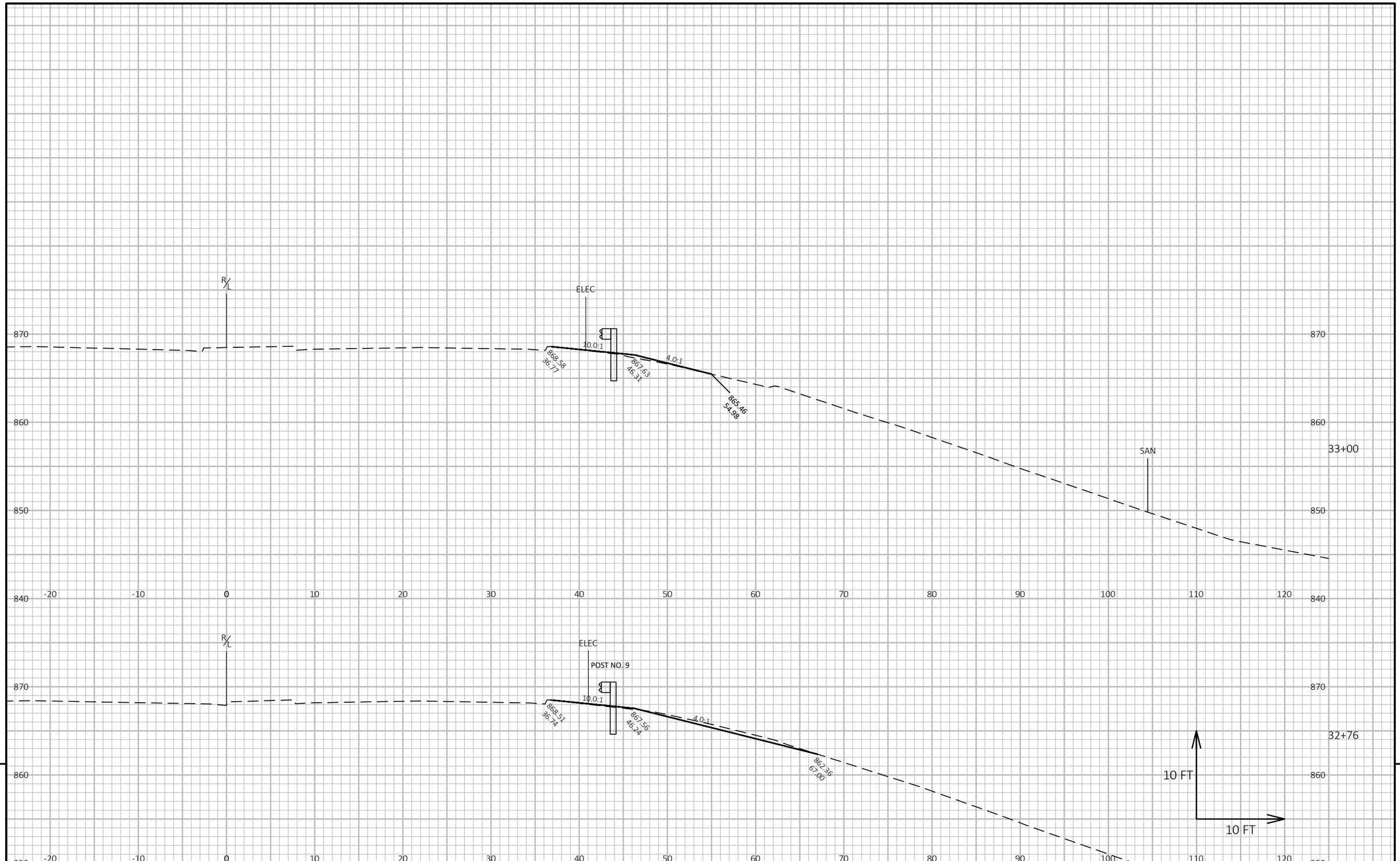
PLOT DATE : 1/31/2022 3:55 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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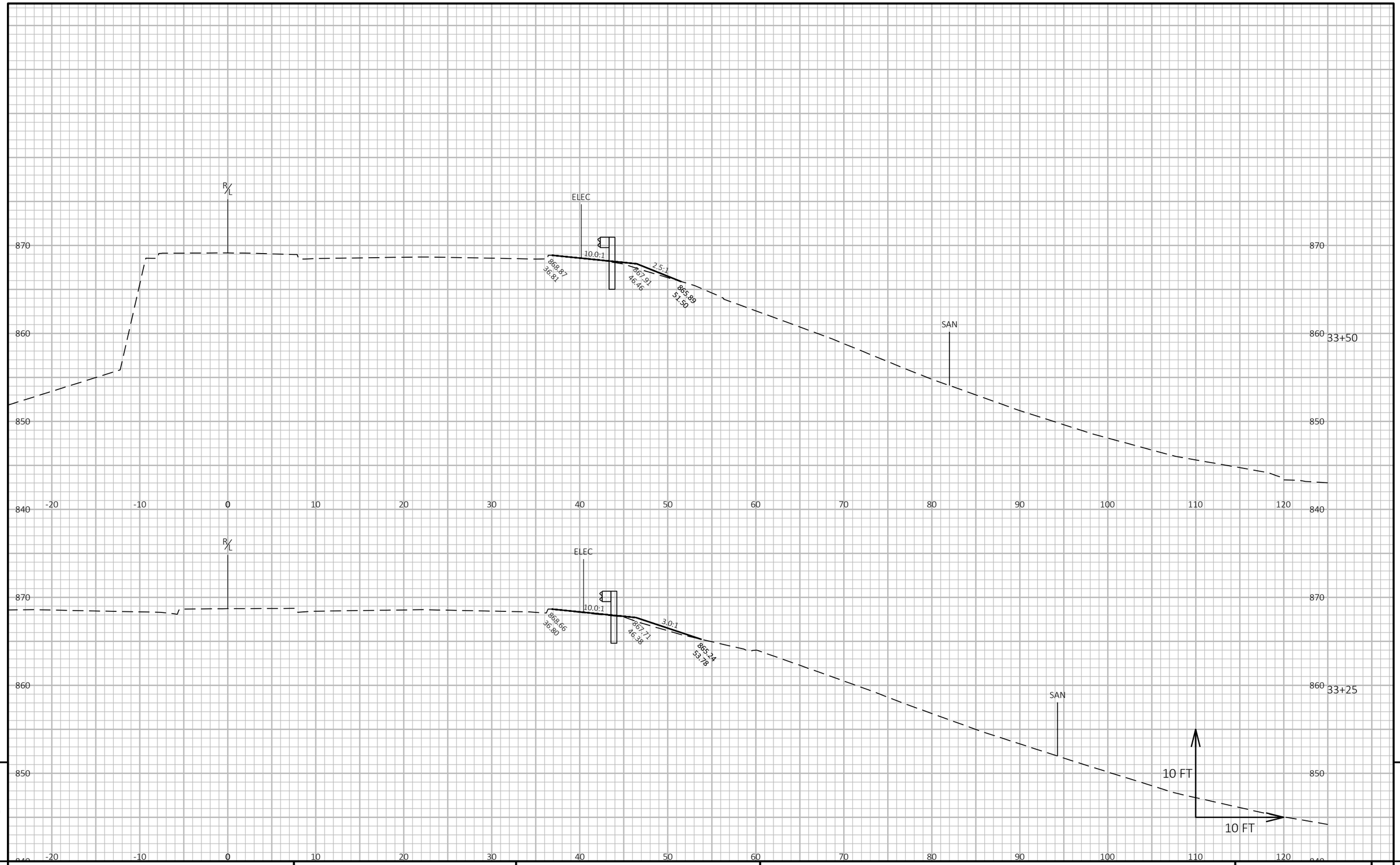
9

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: CTH Q	SHEET 523	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090204-xs

PLOT DATE : 1/31/2022 3:55 PM PLOT BY : RING, STEVEN M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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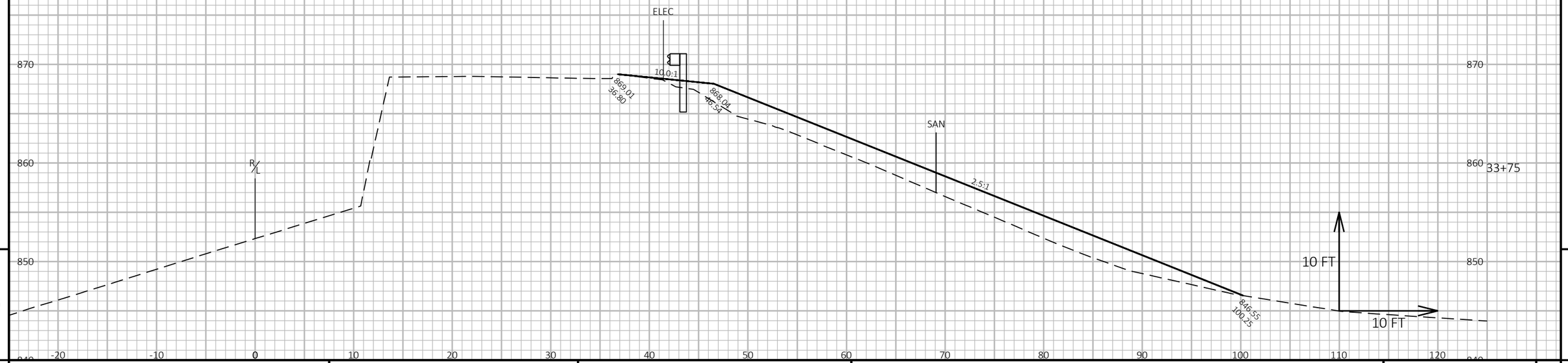
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: CTH Q	SHEET 524	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090205-xs

PLOT DATE : 1/31/2022 3:55 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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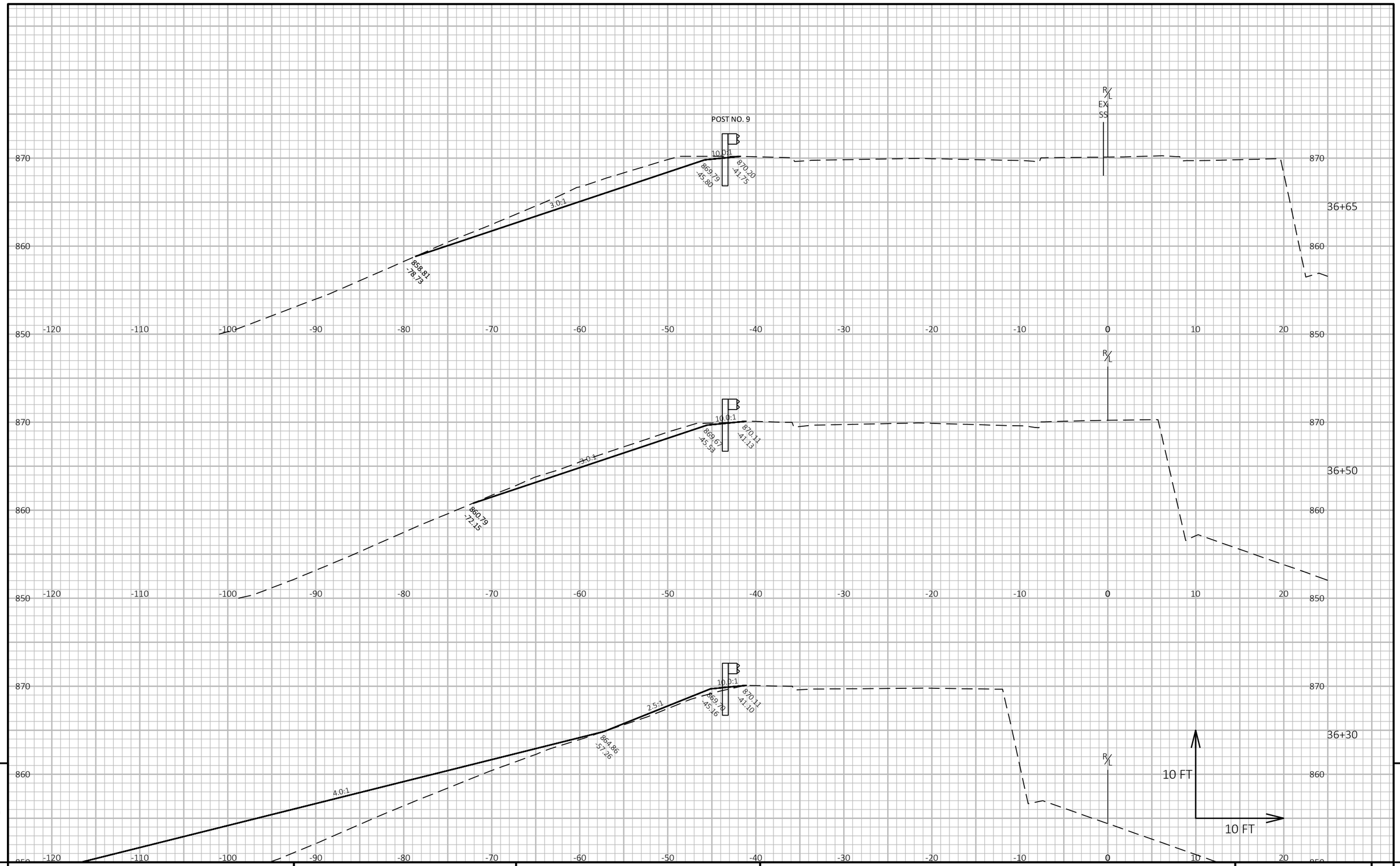
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: CTH Q	SHEET 525	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090206-xs

PLOT DATE : 1/31/2022 3:55 PM PLOT BY : RING, STEVEN M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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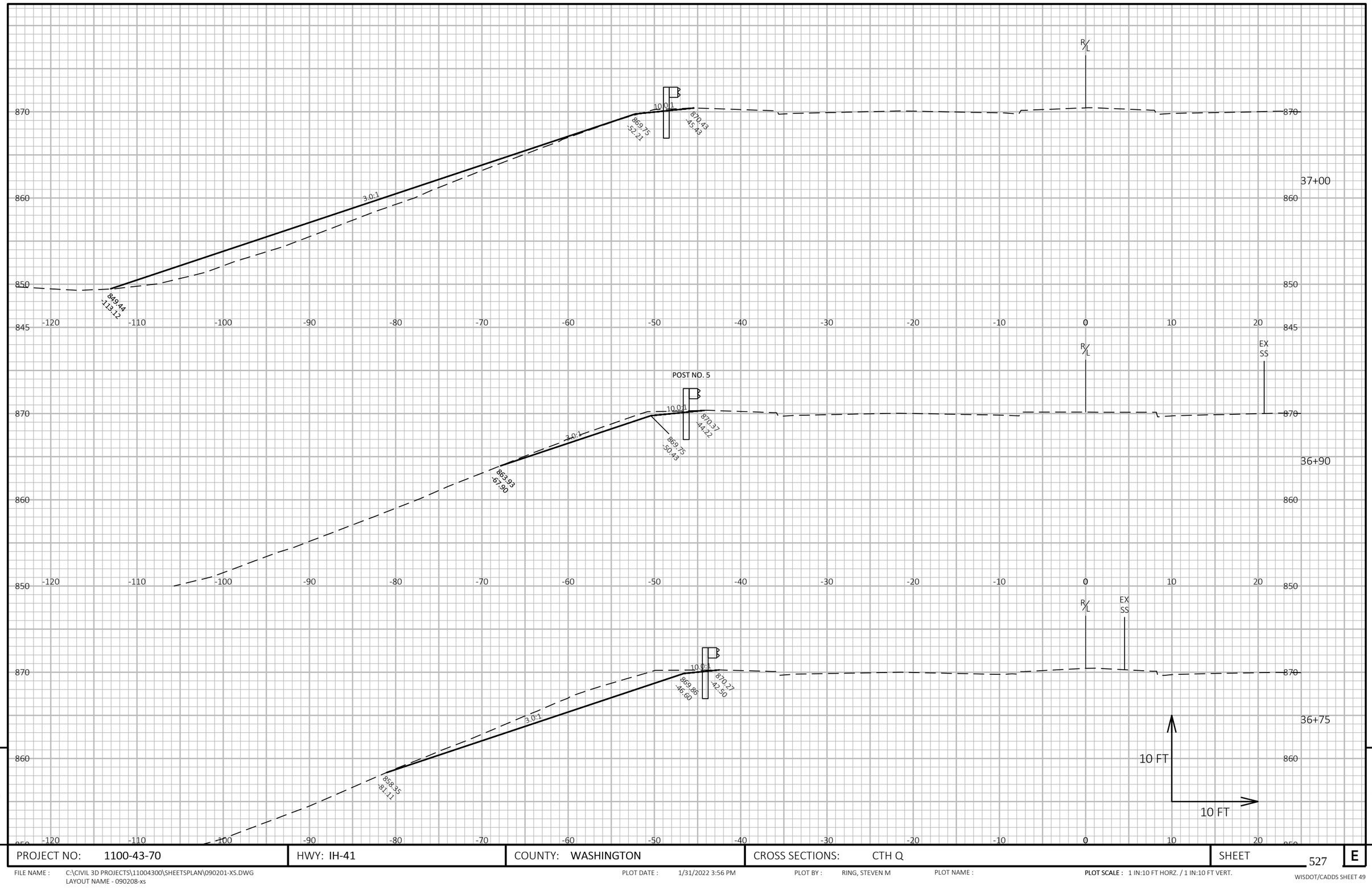
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: CTH Q	SHEET 526	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090207-xs

PLOT DATE : 1/31/2022 3:56 PM PLOT BY : RING, STEVEN M PLOT NAME :

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

WISDOT/CADDS SHEET 49



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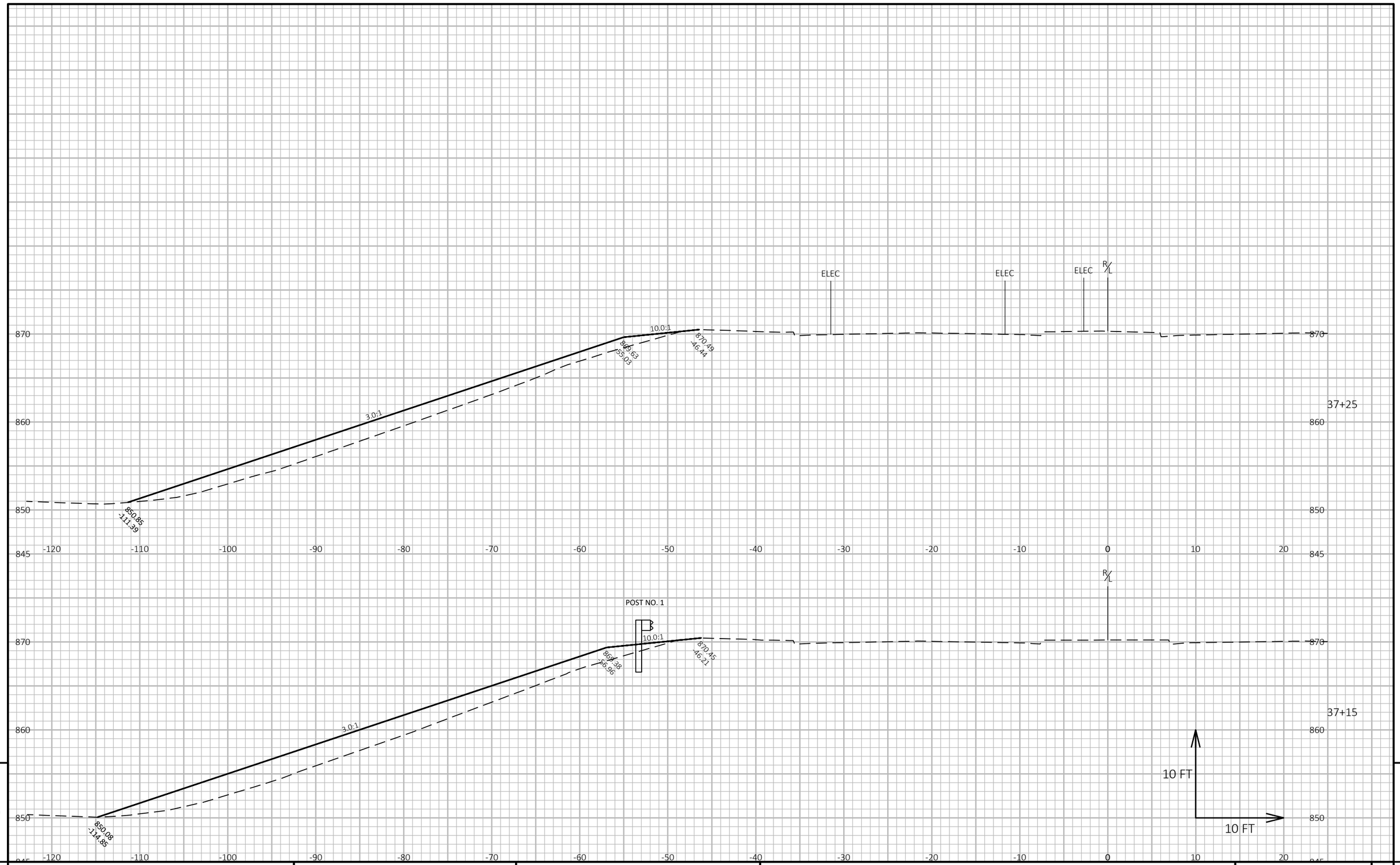
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: CTH Q	SHEET 527	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090208-xs

PLOT DATE : 1/31/2022 3:56 PM PLOT BY : RING, STEVEN M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: CTH Q	SHEET 528	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090209-xs

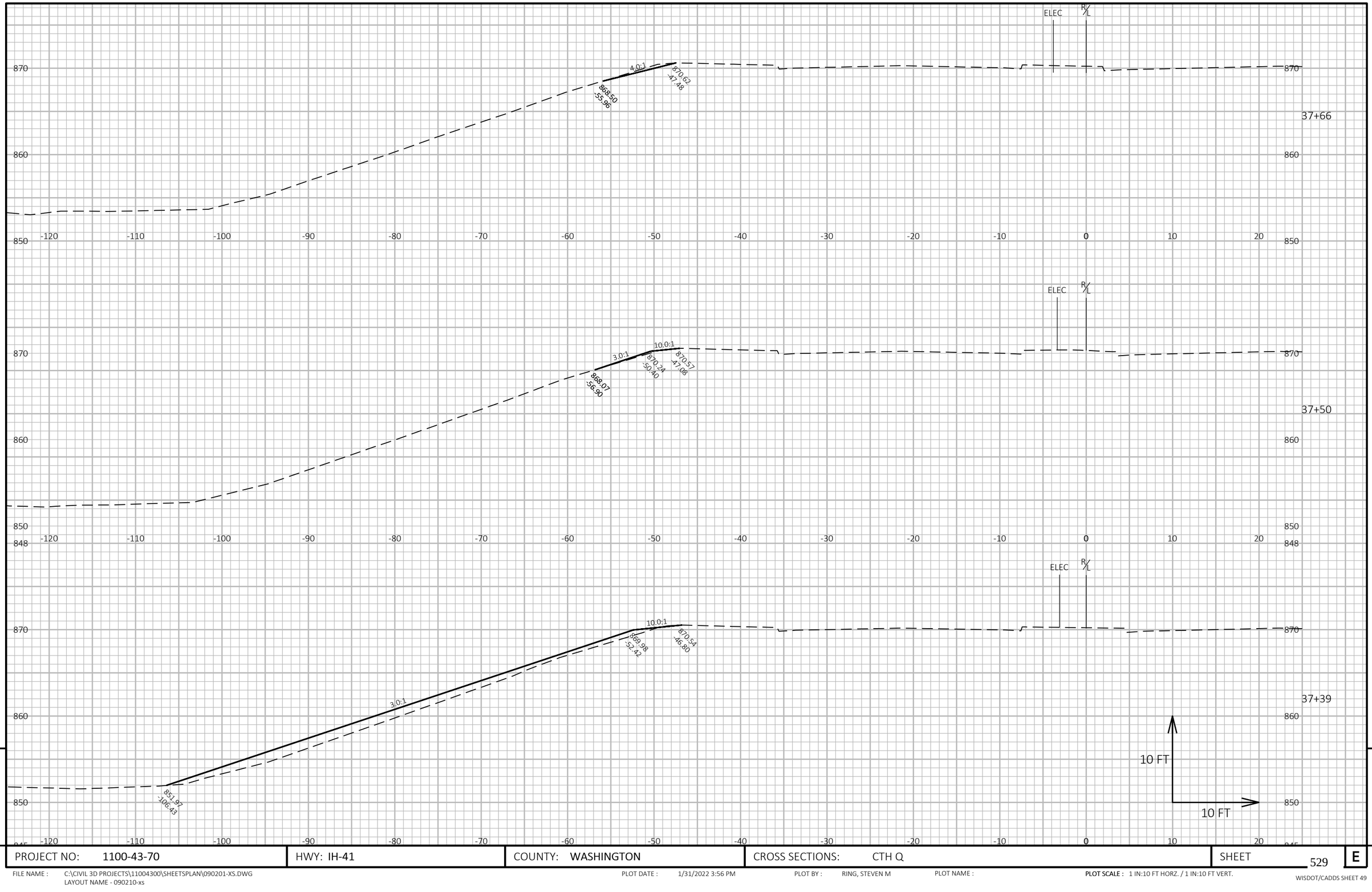
PLOT DATE : 1/31/2022 3:56 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: CTH Q	SHEET 529	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090210-xs

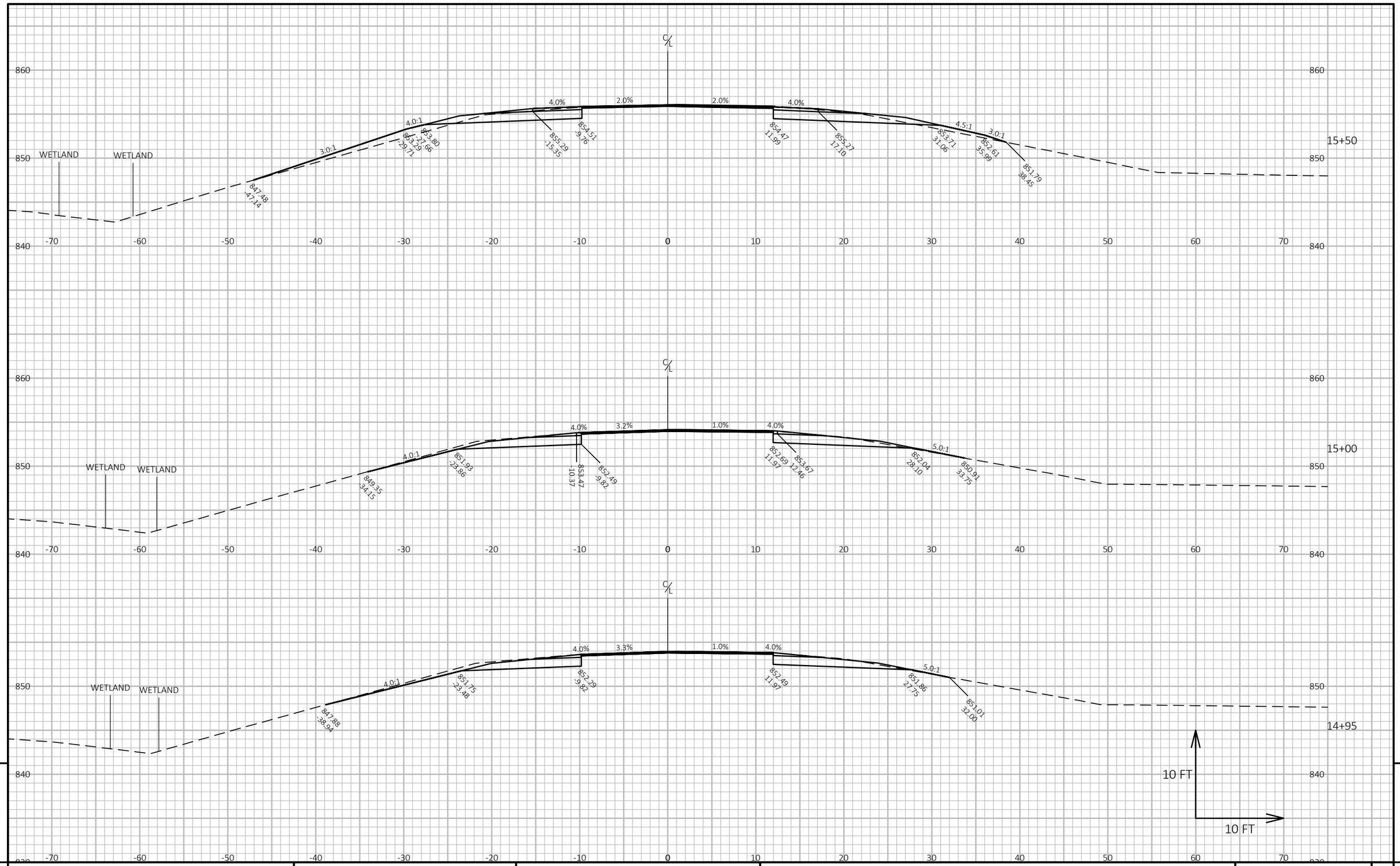
PLOT DATE : 1/31/2022 3:56 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MAPLE RD	SHEET 530	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090211-xs

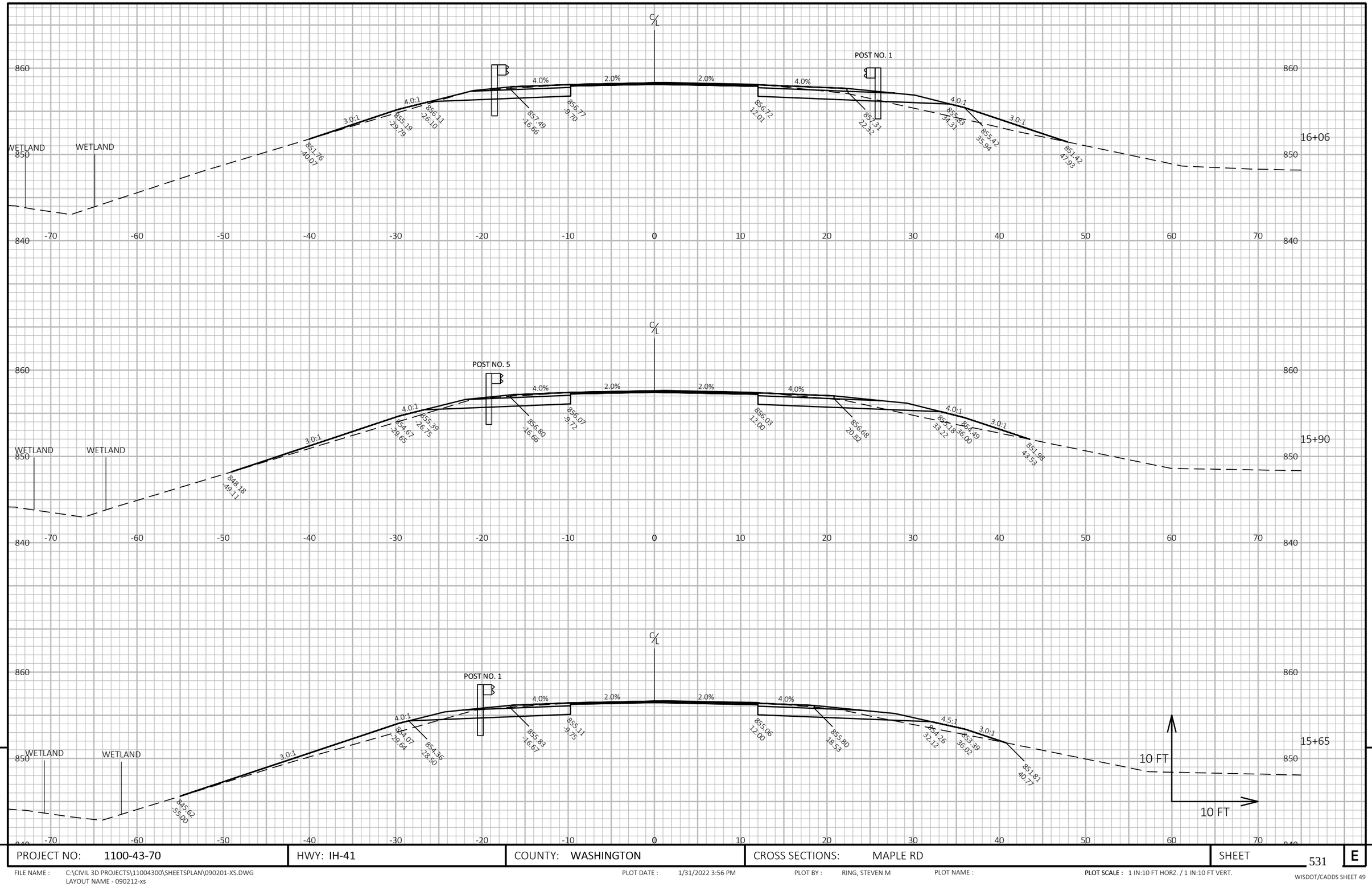
PLOT DATE : 1/31/2022 3:56 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49

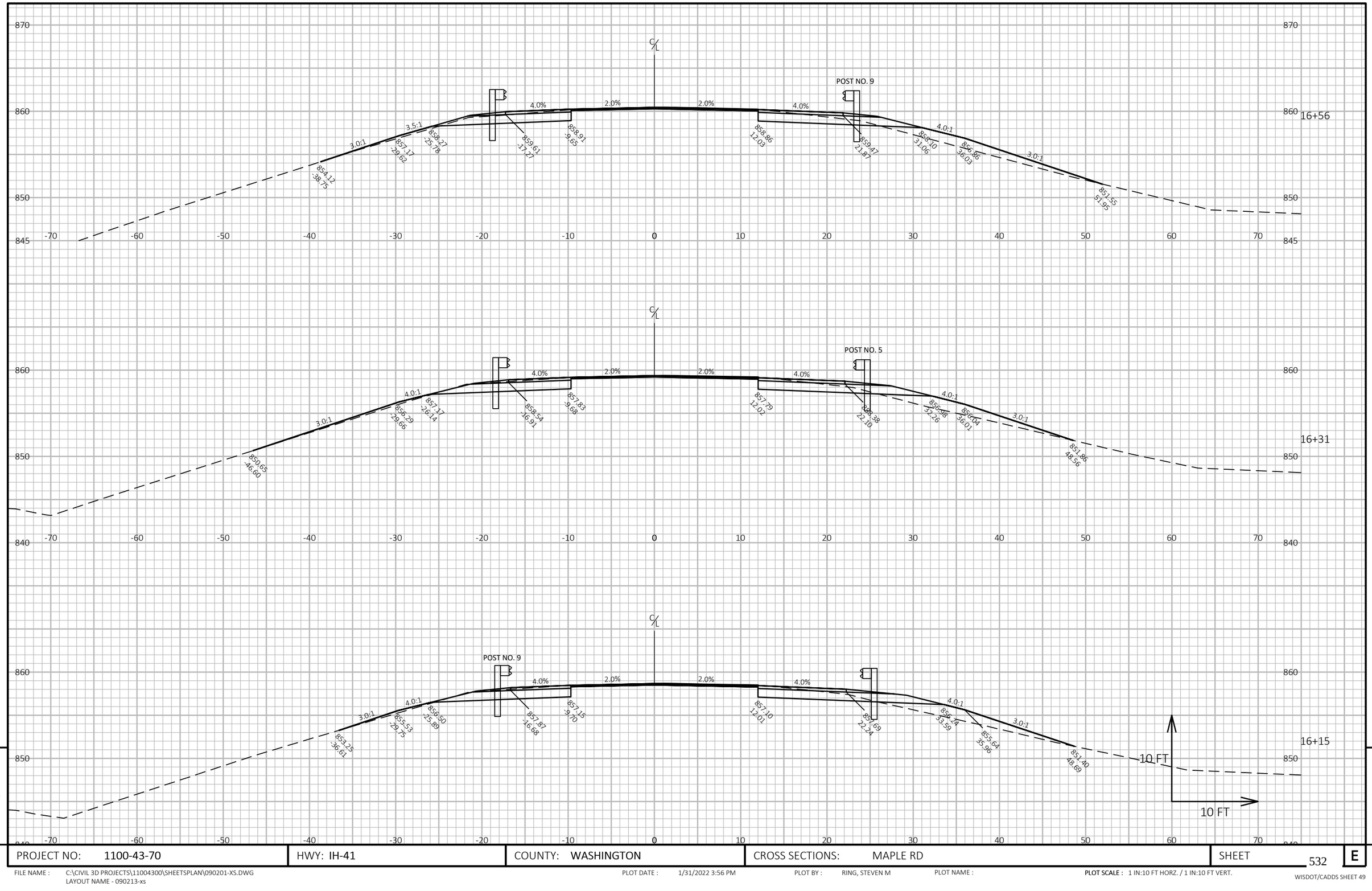


PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MAPLE RD	SHEET 531	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090212-xs

PLOT DATE : 1/31/2022 3:56 PM PLOT BY : RING, STEVEN M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MAPLE RD	SHEET 532	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090213-xs

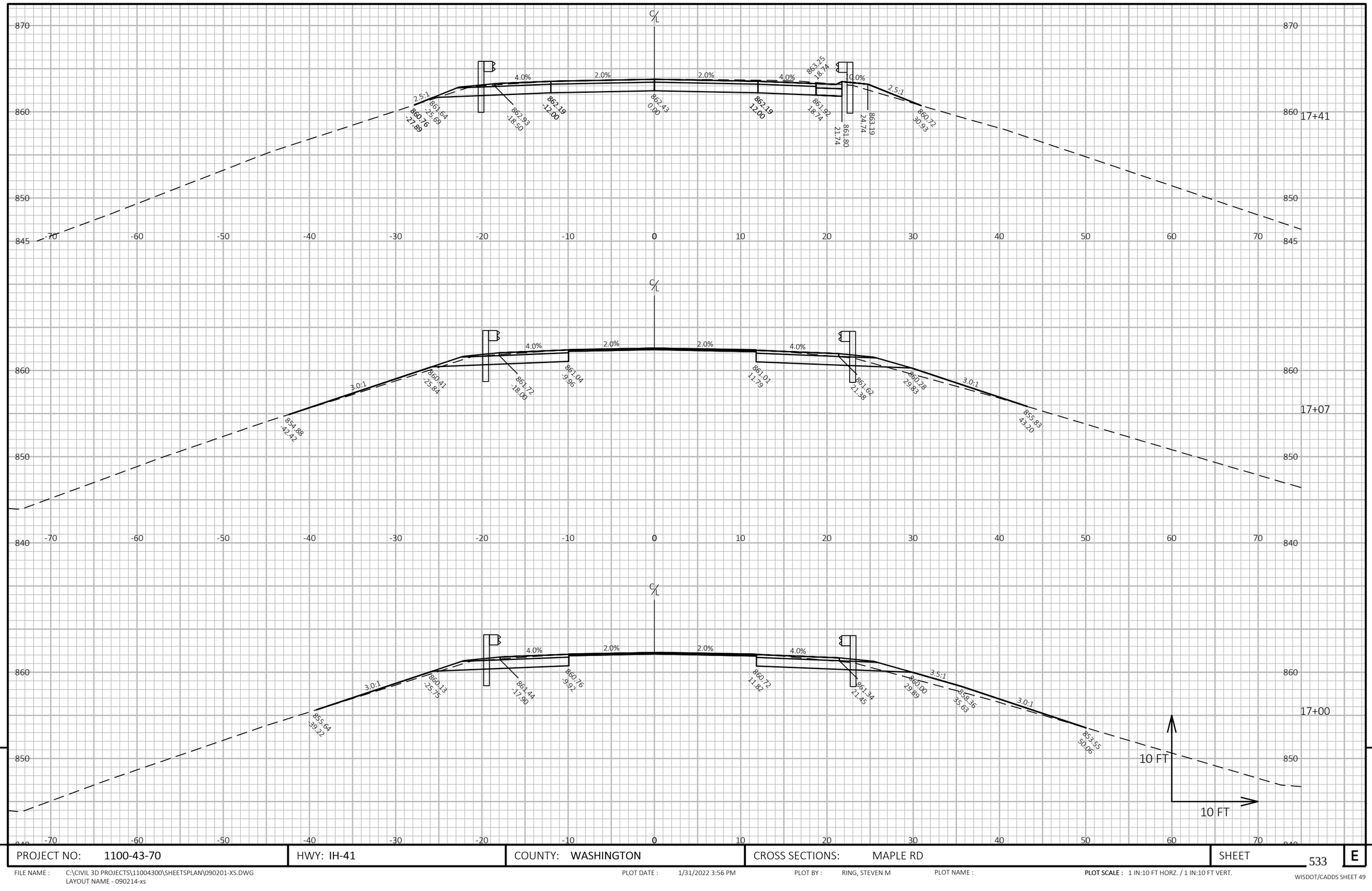
PLOT DATE : 1/31/2022 3:56 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49

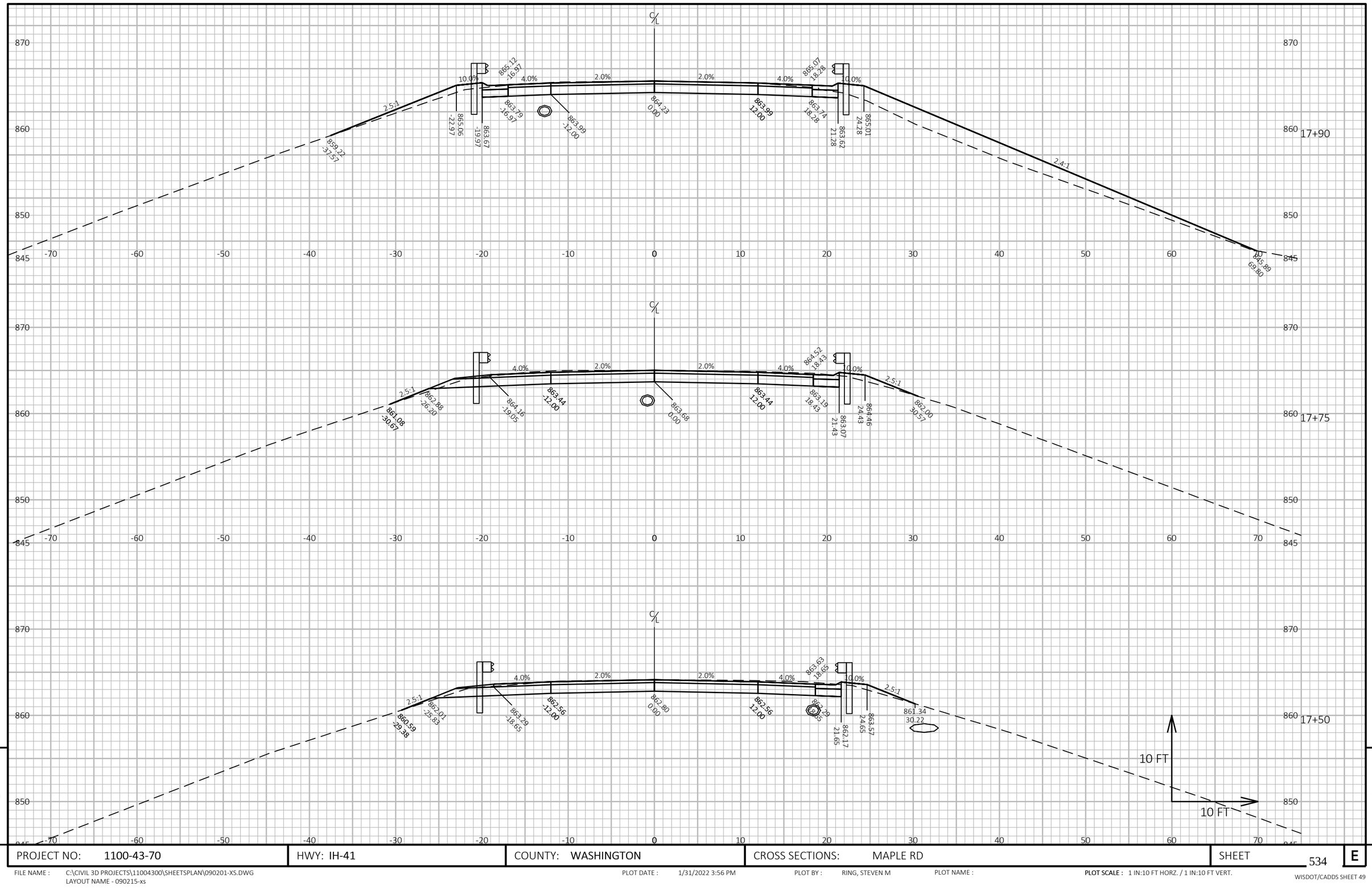


PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MAPLE RD	SHEET 533	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090214-xs

PLOT DATE : 1/31/2022 3:56 PM PLOT BY : RING, STEVEN M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

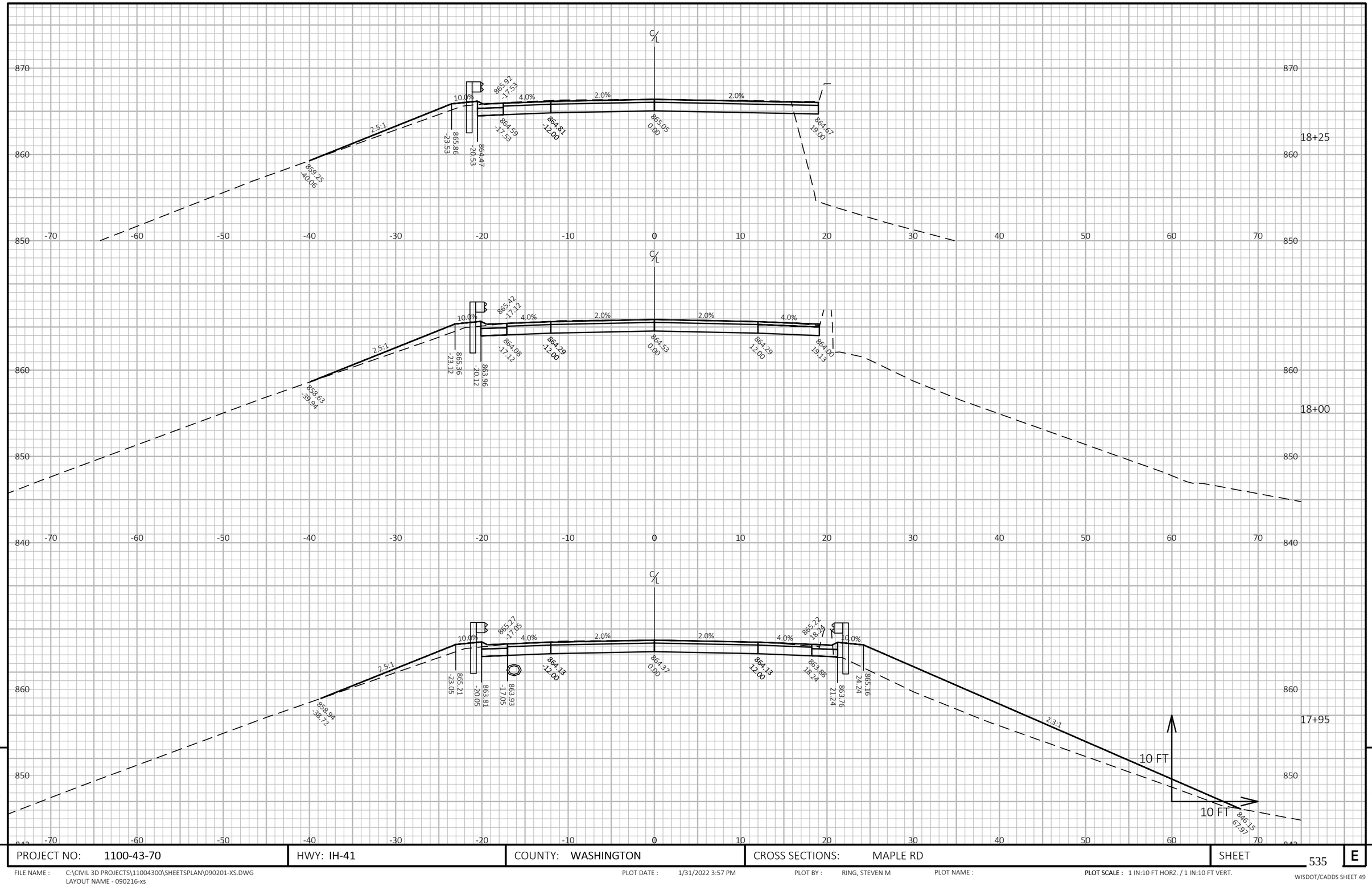


PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MAPLE RD	SHEET 534	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090215-xs

PLOT DATE : 1/31/2022 3:56 PM PLOT BY : RING, STEVEN M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

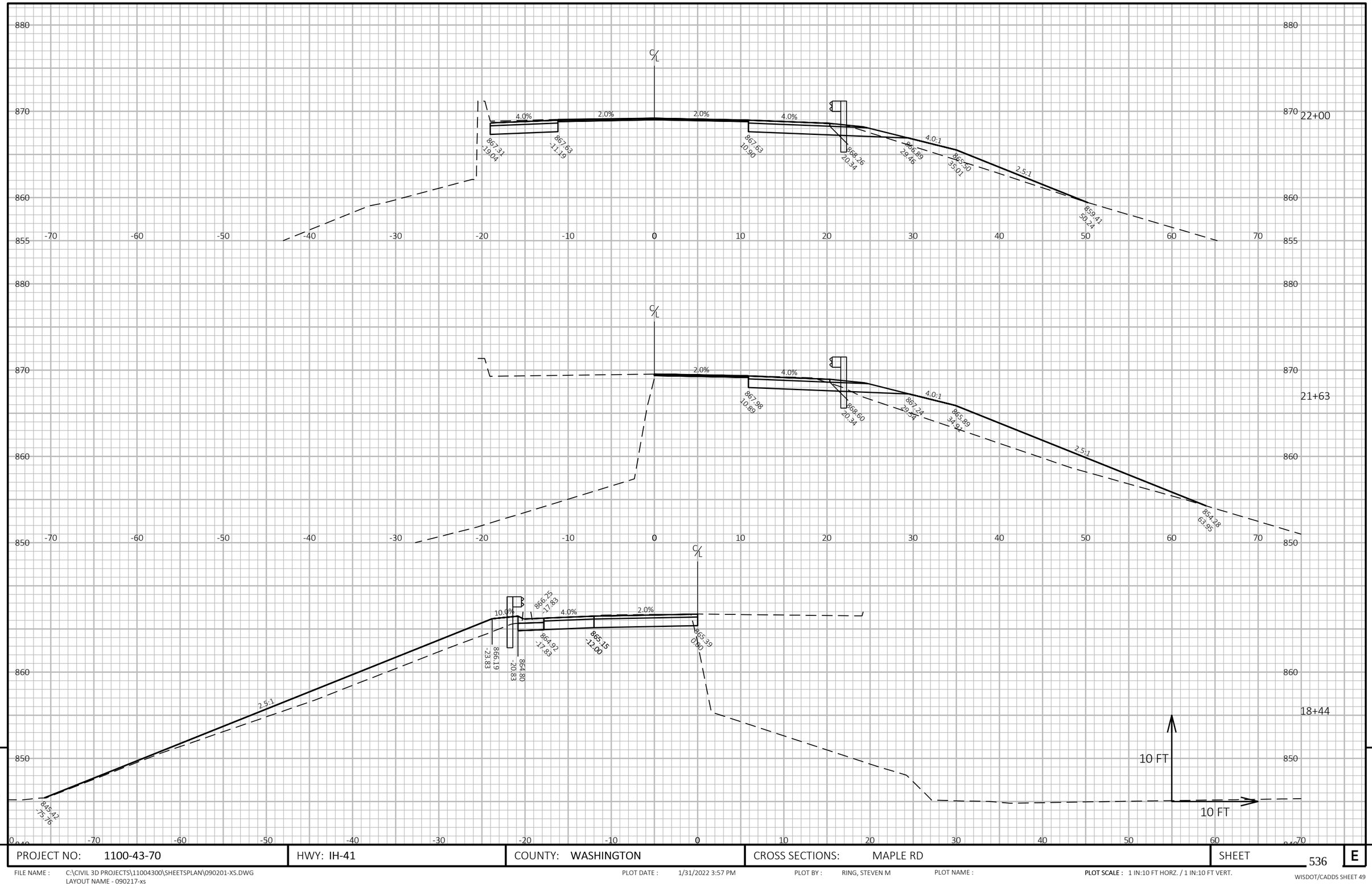


PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MAPLE RD	SHEET 535	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090216-xs

PLOT DATE : 1/31/2022 3:57 PM PLOT BY : RING, STEVEN M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MAPLE RD	SHEET 536	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090217-xs

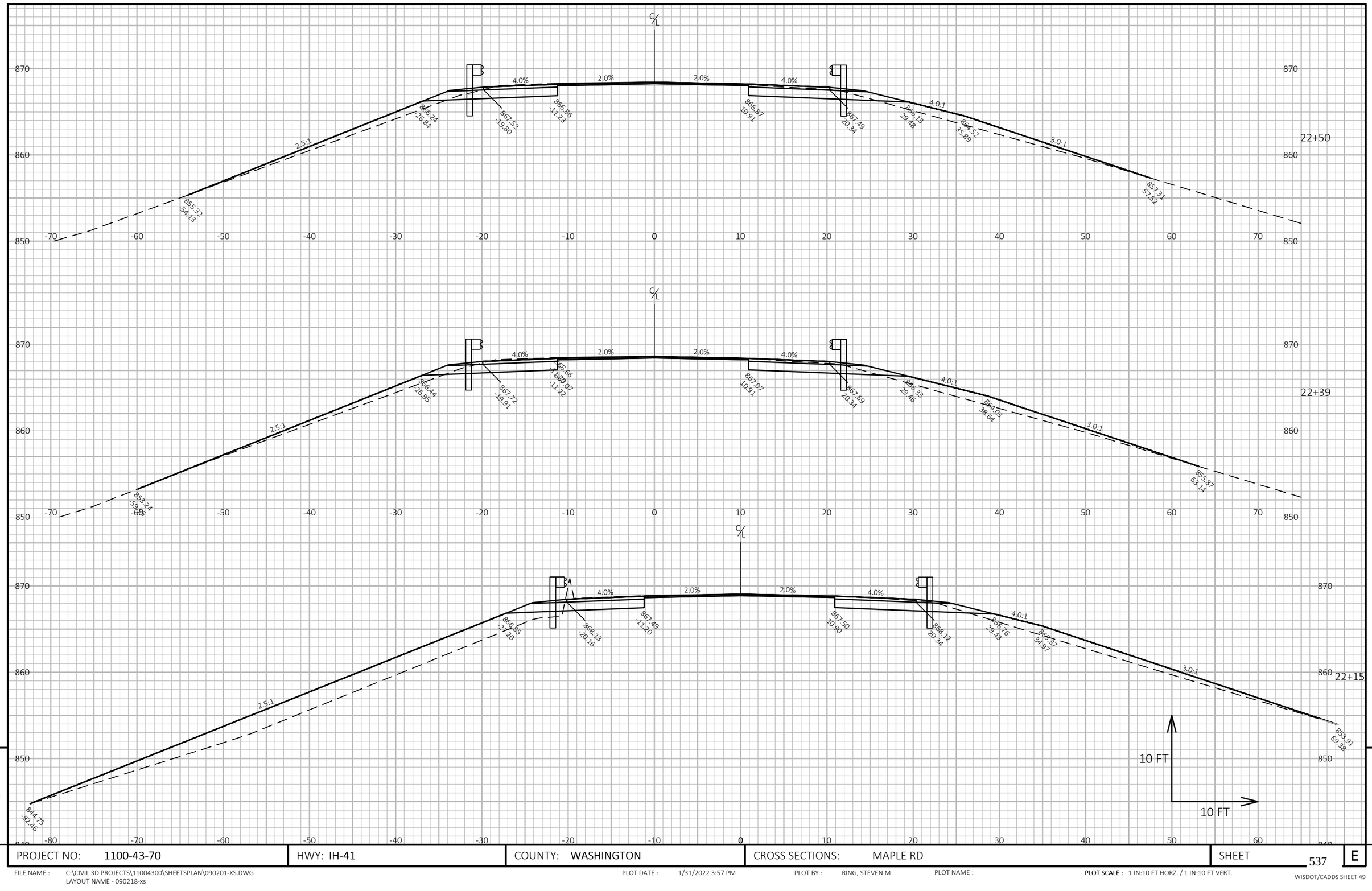
PLOT DATE : 1/31/2022 3:57 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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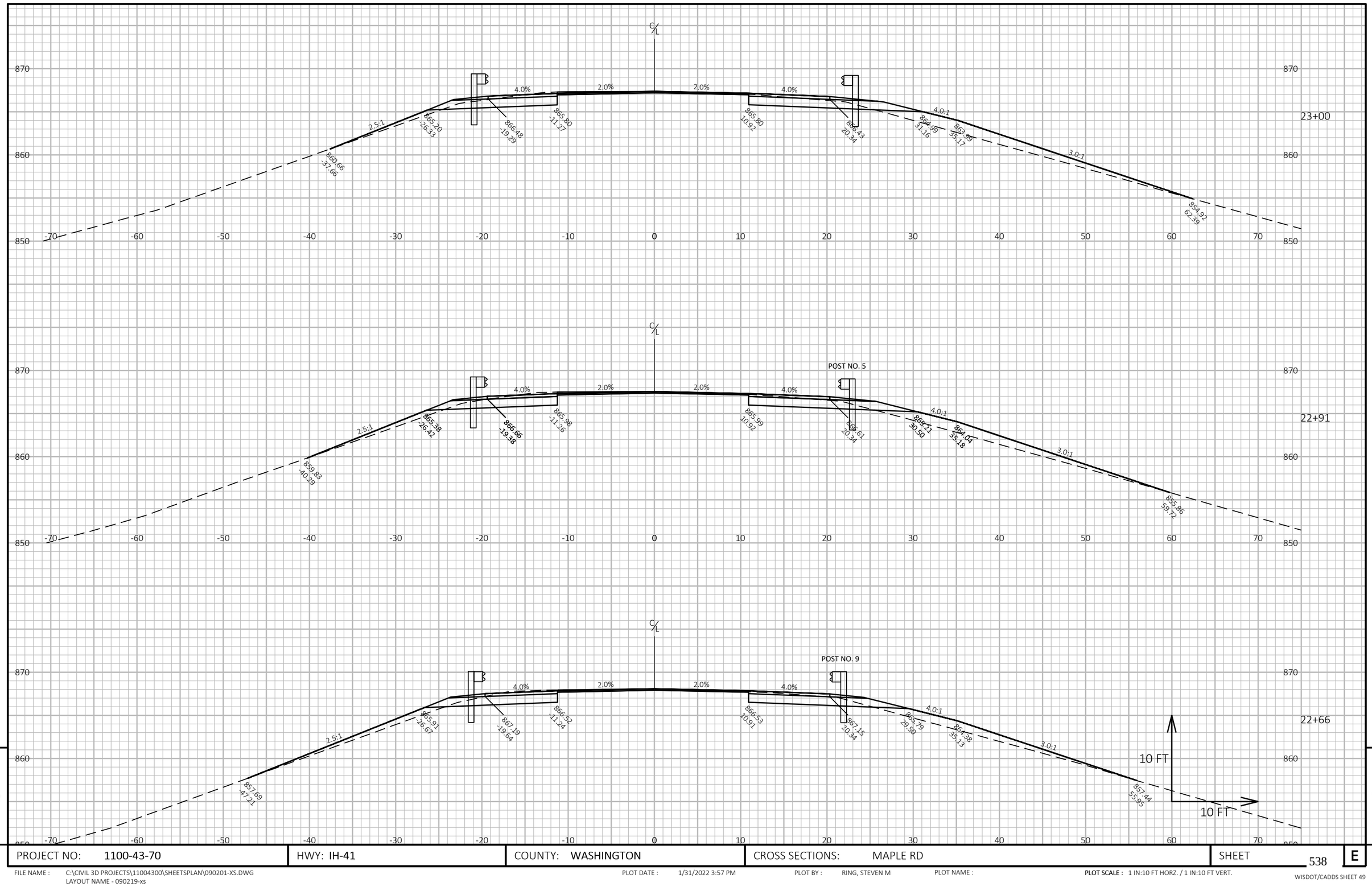
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MAPLE RD	SHEET 537	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090218-xs

PLOT DATE : 1/31/2022 3:57 PM PLOT BY : RING, STEVEN M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

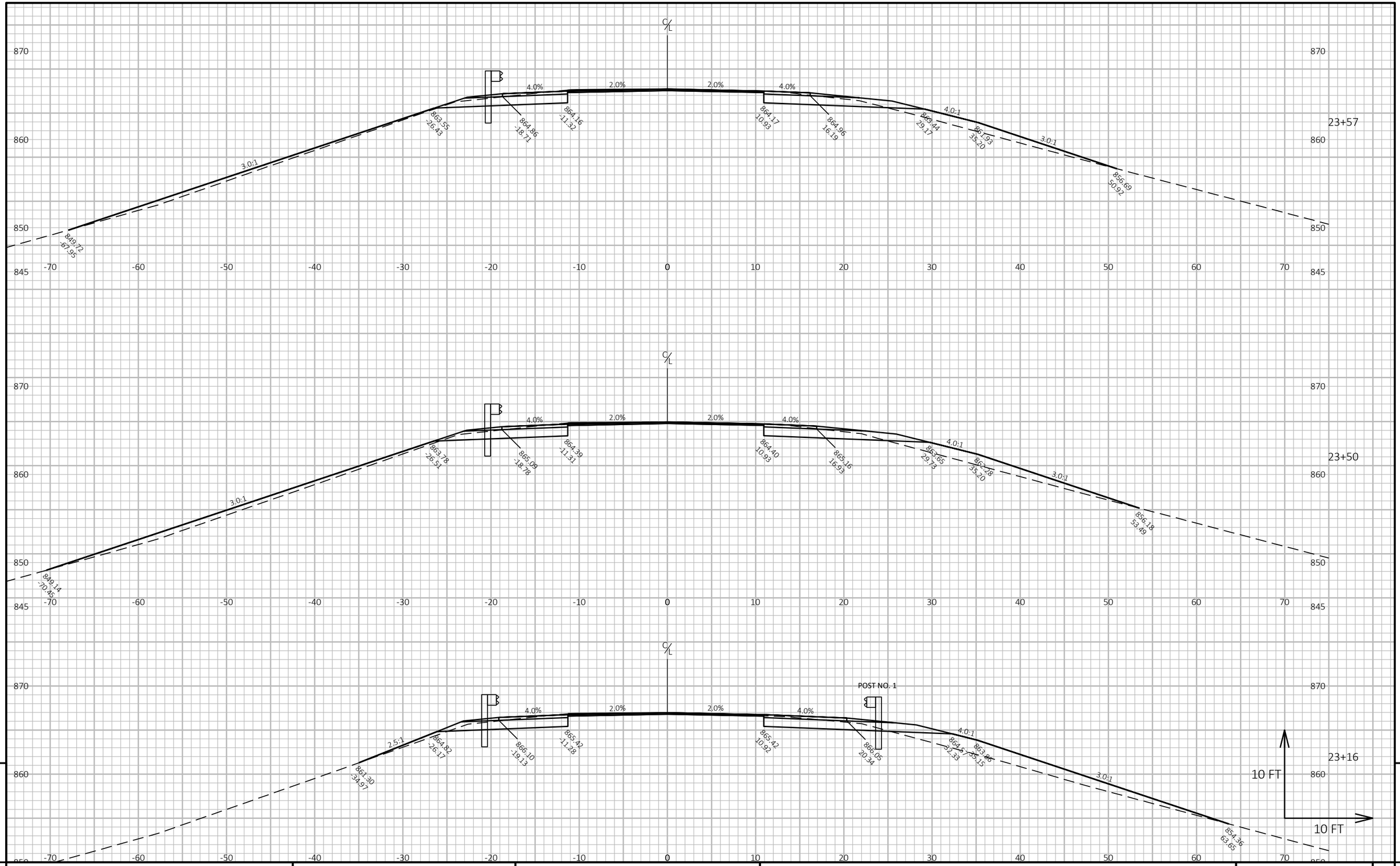


PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MAPLE RD	SHEET 538	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090219-xs

PLOT DATE : 1/31/2022 3:57 PM PLOT BY : RING, STEVEN M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MAPLE RD	SHEET 539	E

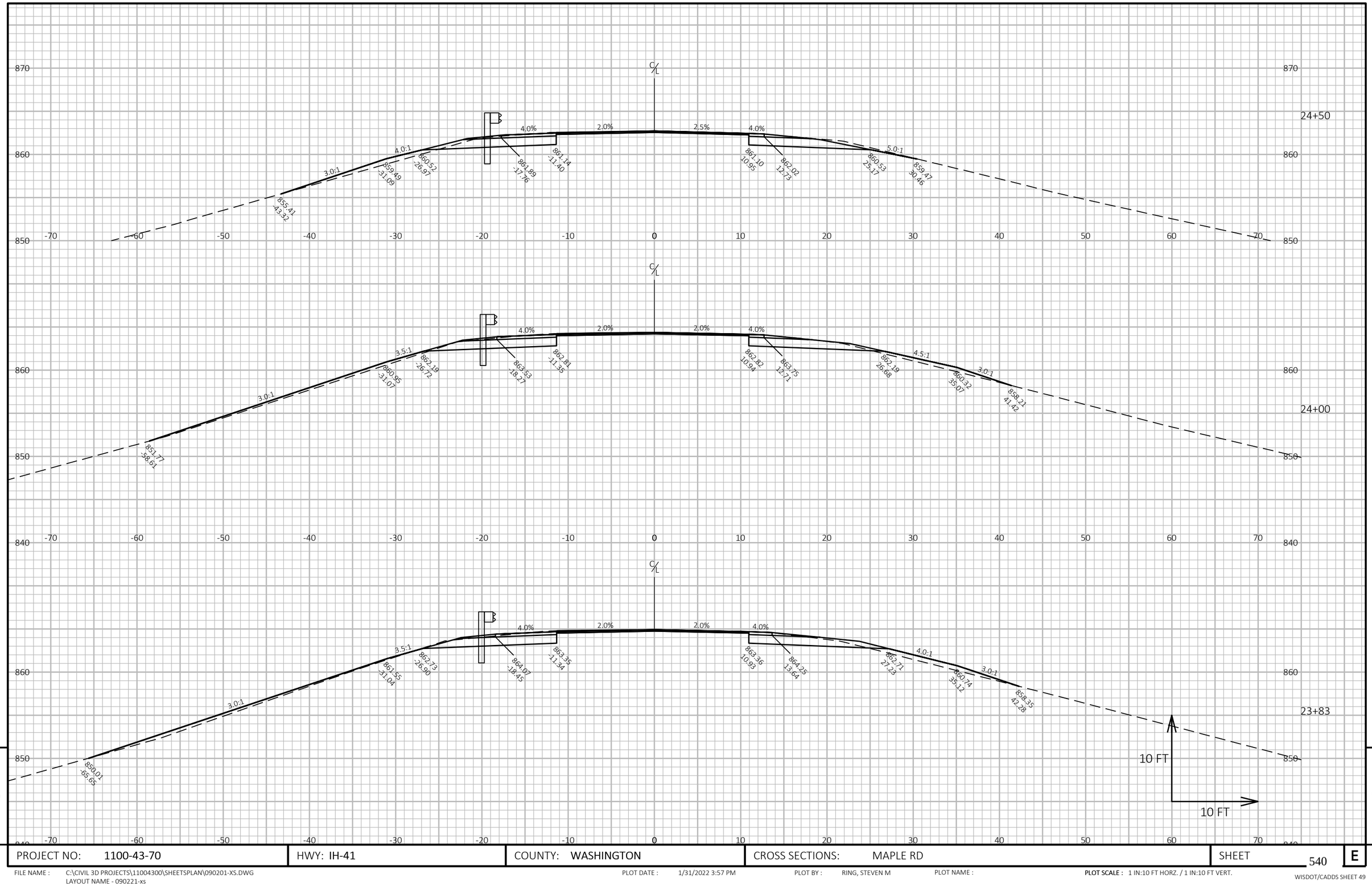
FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090220-xs

PLOT DATE : 1/31/2022 3:57 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MAPLE RD	SHEET 540	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090221-xs

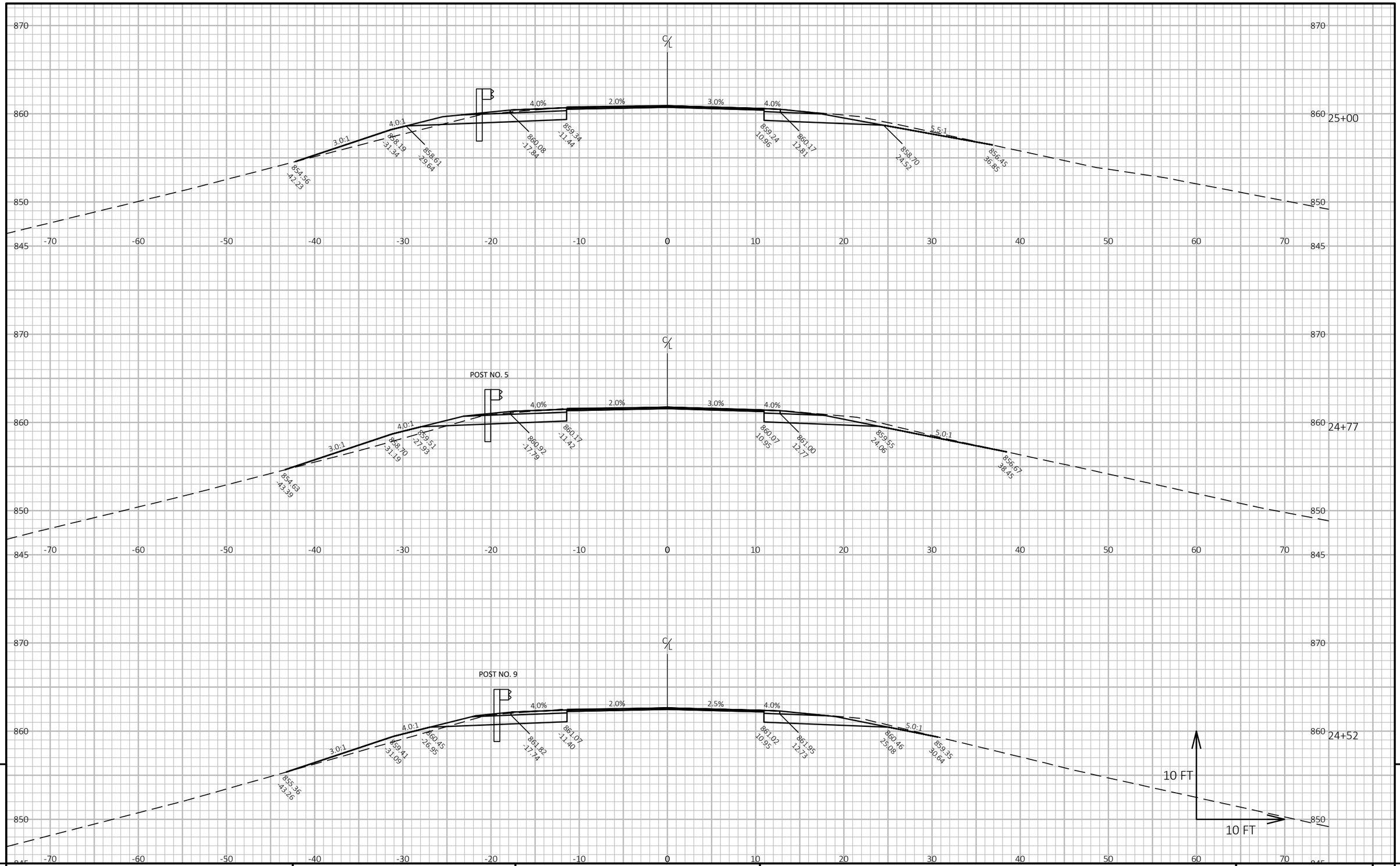
PLOT DATE : 1/31/2022 3:57 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

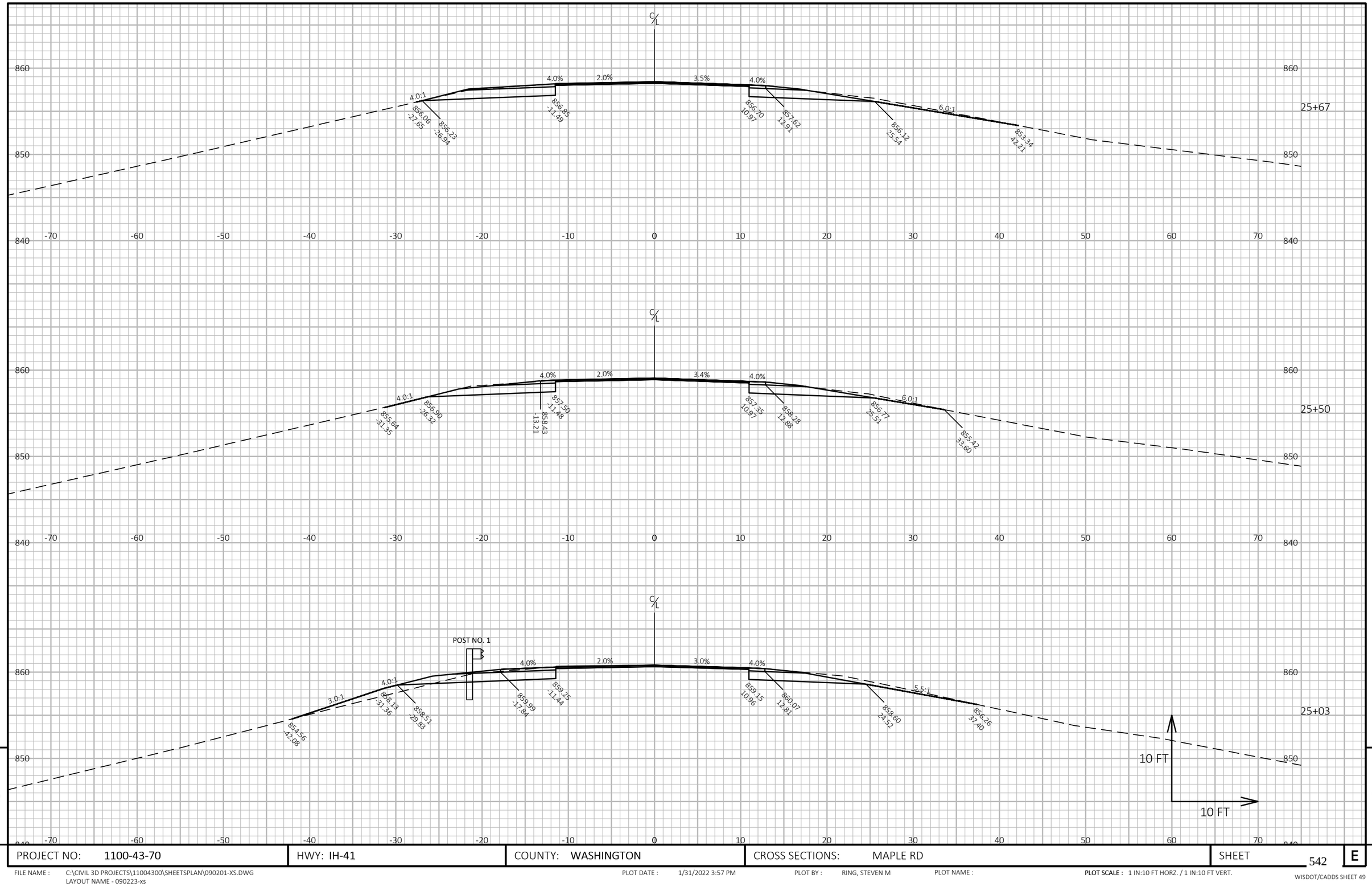
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MAPLE RD	SHEET 541	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090222-xs

PLOT DATE : 1/31/2022 3:57 PM PLOT BY : RING, STEVEN M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MAPLE RD	SHEET 542	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090223-xs

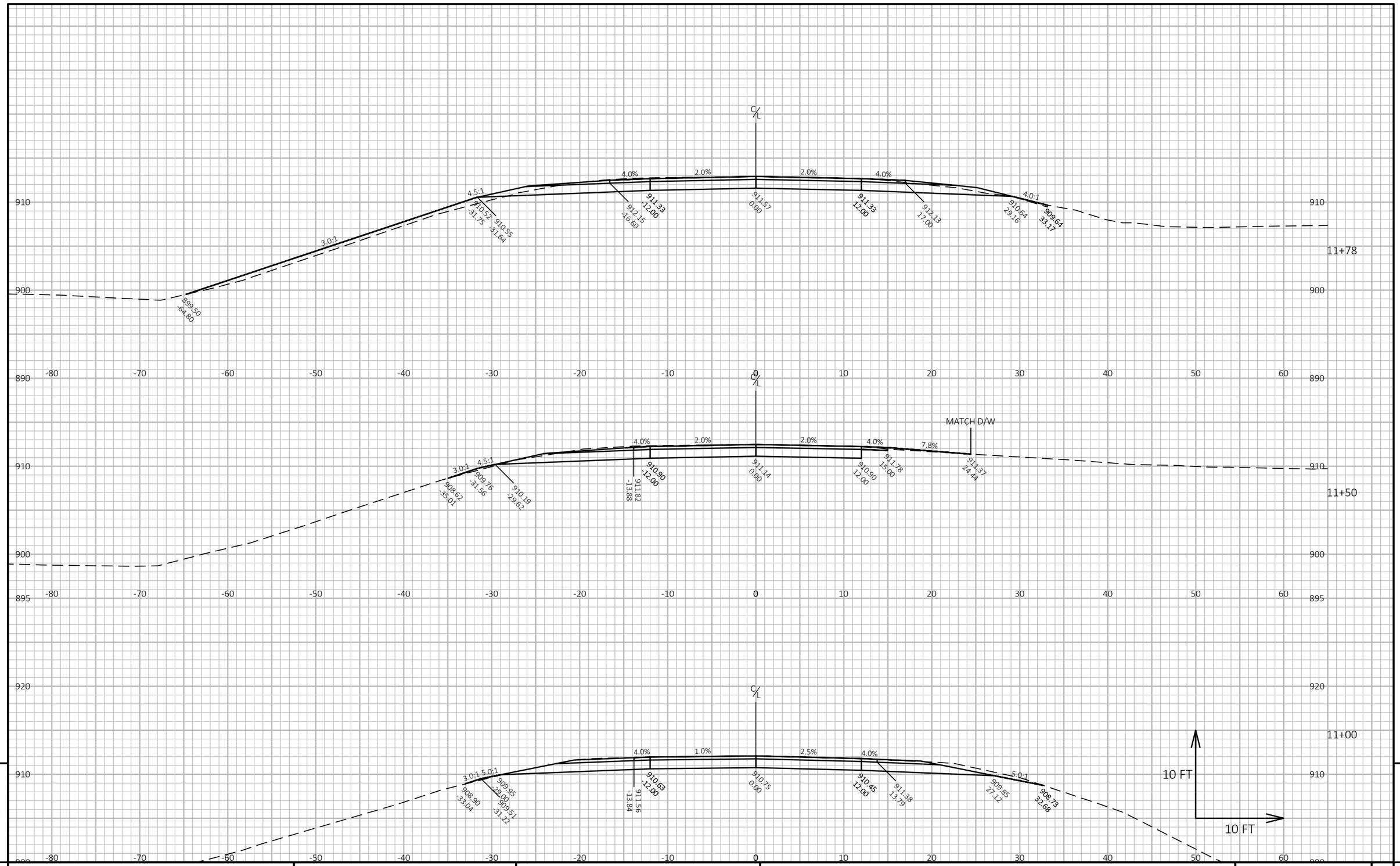
PLOT DATE : 1/31/2022 3:57 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49


C/L
910
900
890
-80
-70
-60
-50
-40
-30
-20
-10
0
10
20
30
40
50
60
4.5:1
3.0:1
4.0%
2.0%
2.0%
4.0%
4.0:1
910.57
-31.75
910.55
-31.64
911.33
12.00
912.15
-16.60
911.57
0.00
911.33
12.00
912.13
17.00
910.64
29.16
909.64
33.17
899.50
-64.80
11+78
MATCH D/W
7.8%
910.90
-12.00
911.82
-13.88
911.14
0.00
910.90
12.00
911.78
15.00
911.37
24.44
908.62
-35.01
909.76
-31.56
910.19
-29.62
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895
920
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-12.00
911.56
-13.84
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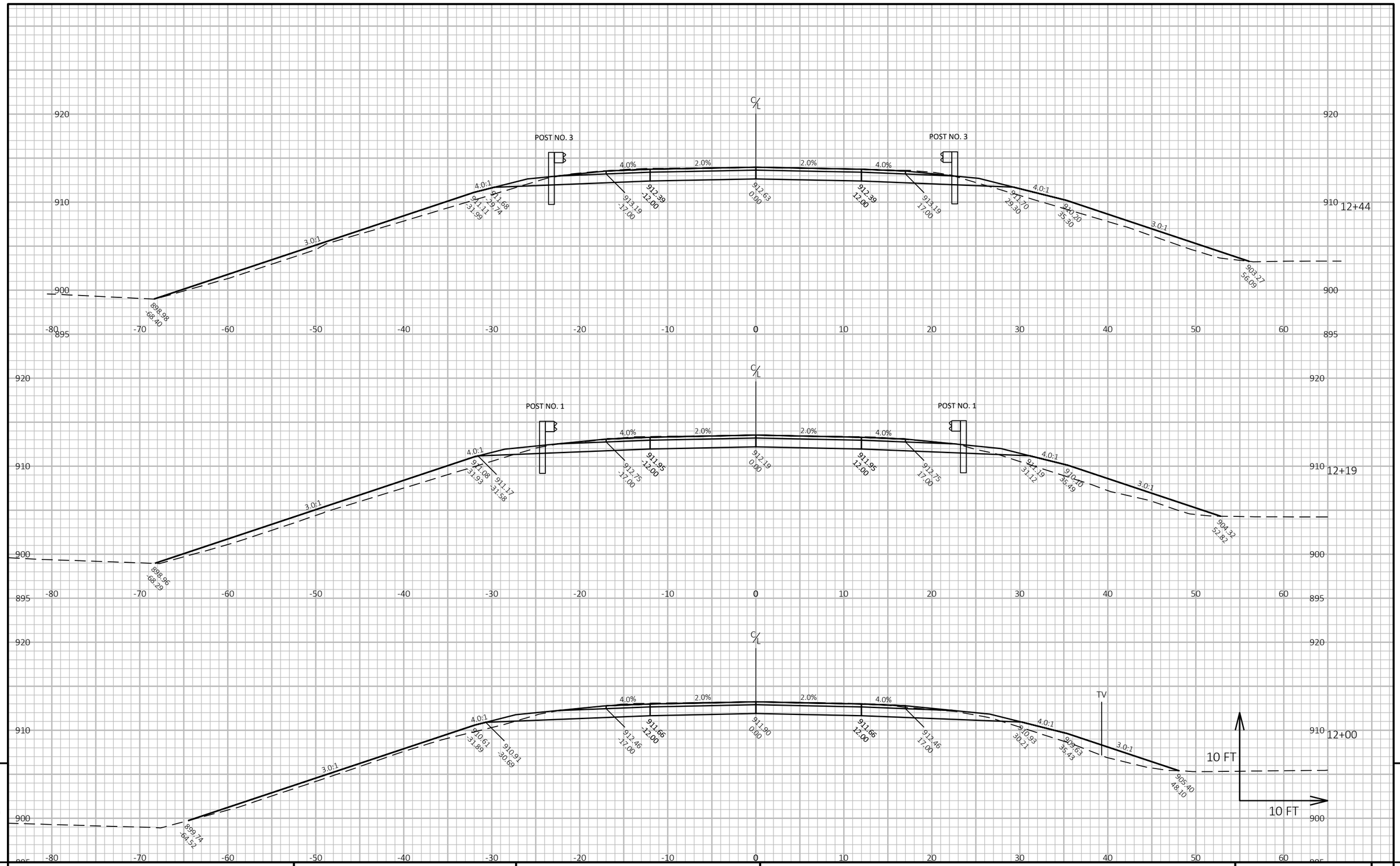
12.00
911.38
13.79
909.85
27.12
908.73
32.68
908.90
-33.04
909.95
-29.00
909.51
-31.22
11+00
1.0%
2.5%
5.0:1
10 FT
9
PROJECT NO: 1100-43-70
HWY: IH-41
COUNTY: WASHINGTON
CROSS SECTIONS: MEQUON RD
SHEET 543 E
FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090224-xs
PLOT DATE : 1/31/2022 3:57 PM
PLOT BY : RING, STEVEN M
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MEQUON RD	SHEET 544	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090225-xs

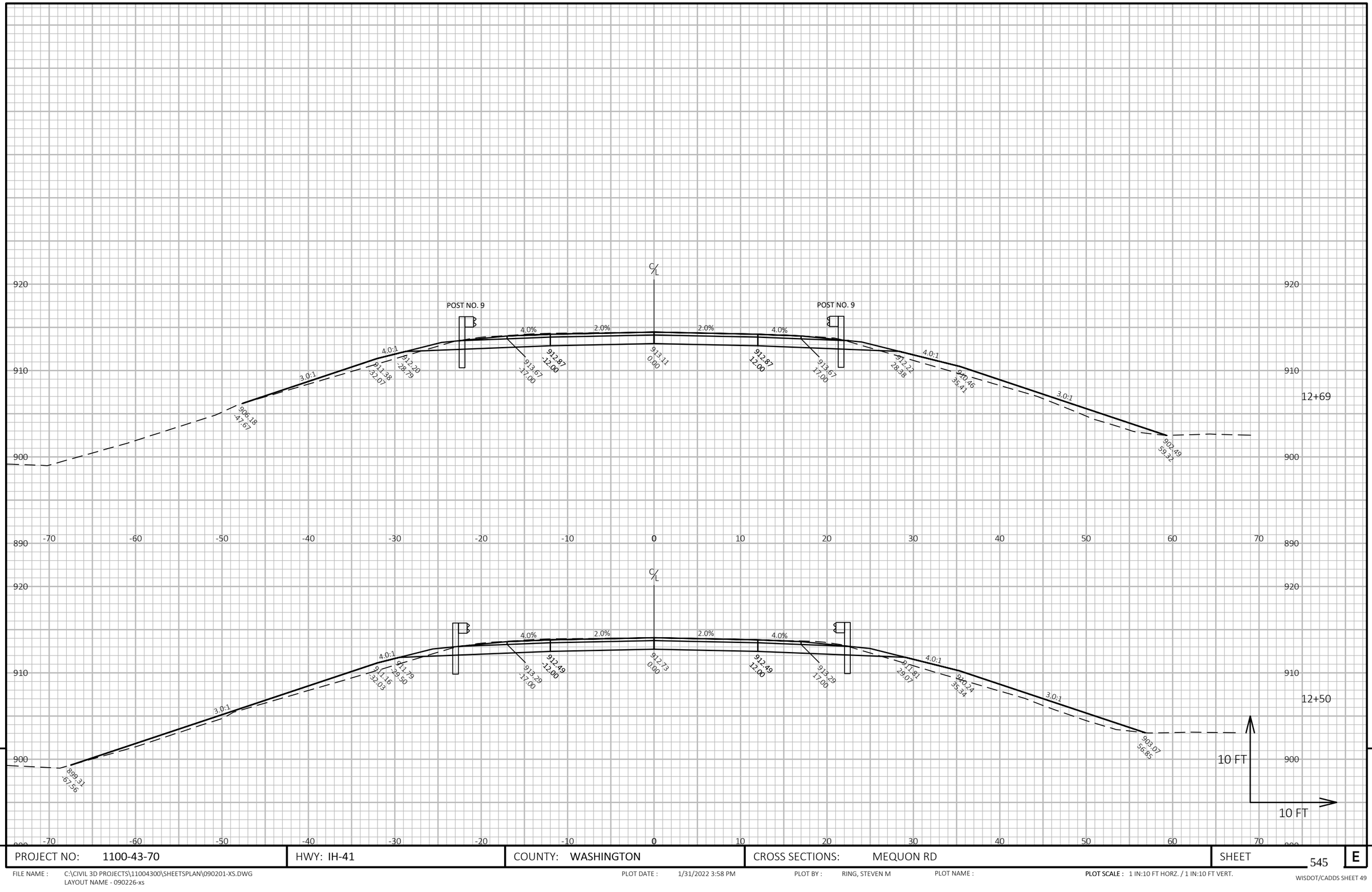
PLOT DATE : 1/31/2022 3:58 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49

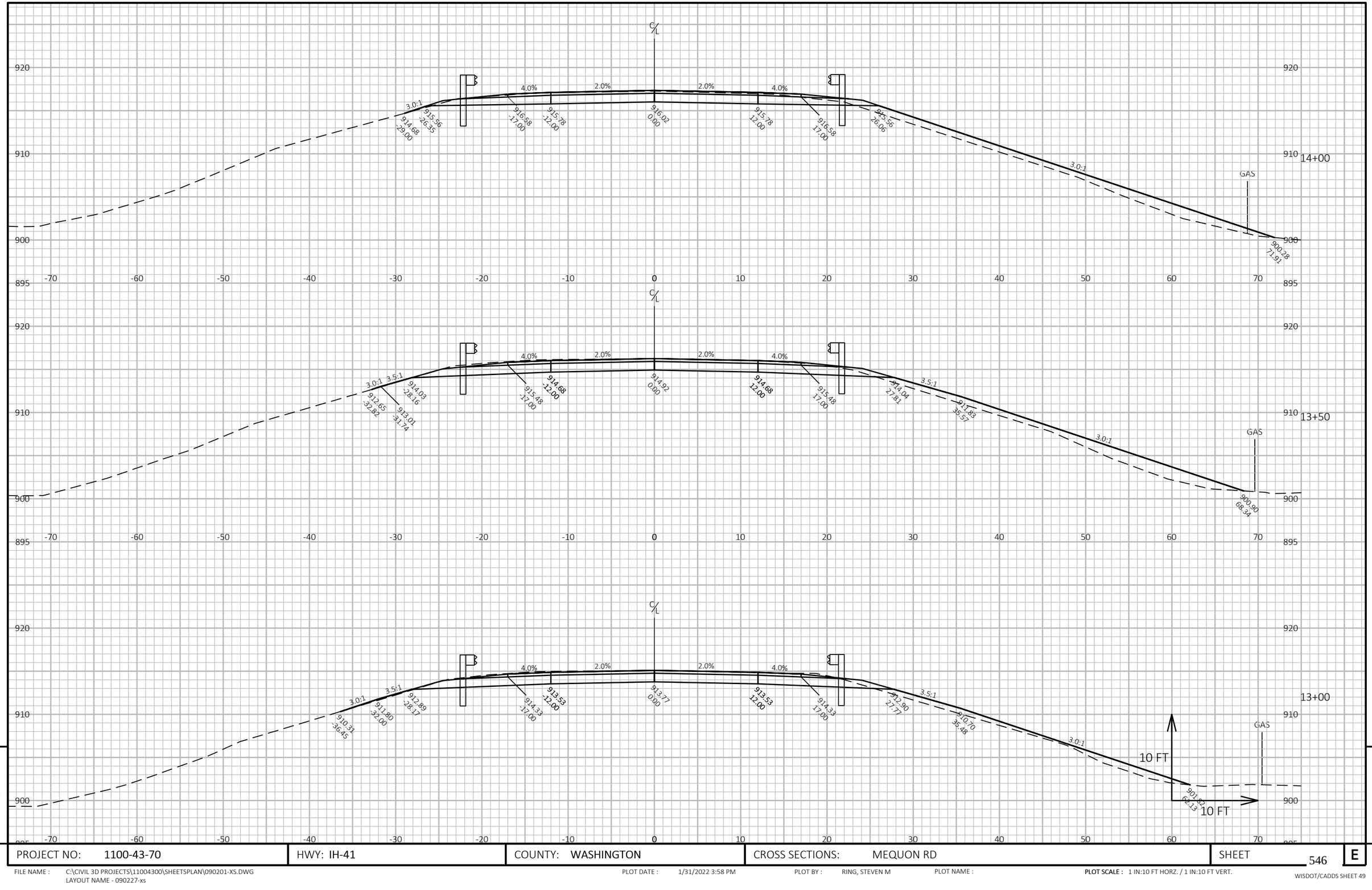


PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MEQUON RD	SHEET 545	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090226-xs

PLOT DATE : 1/31/2022 3:58 PM PLOT BY : RING, STEVEN M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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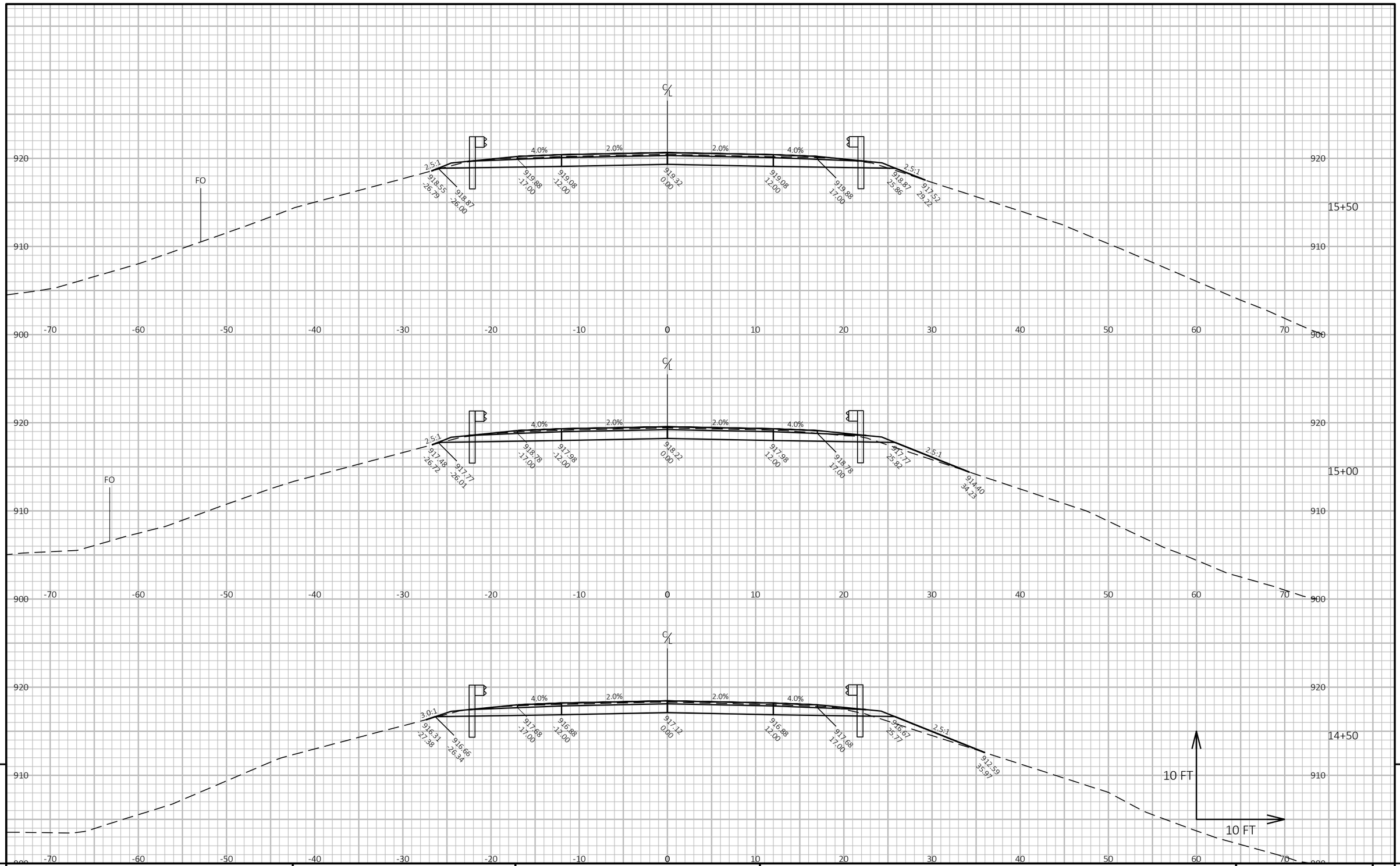
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MEQUON RD	SHEET 546	E

9

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090227-xs

PLOT DATE : 1/31/2022 3:58 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MEQUON RD	SHEET 547	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090228-xs

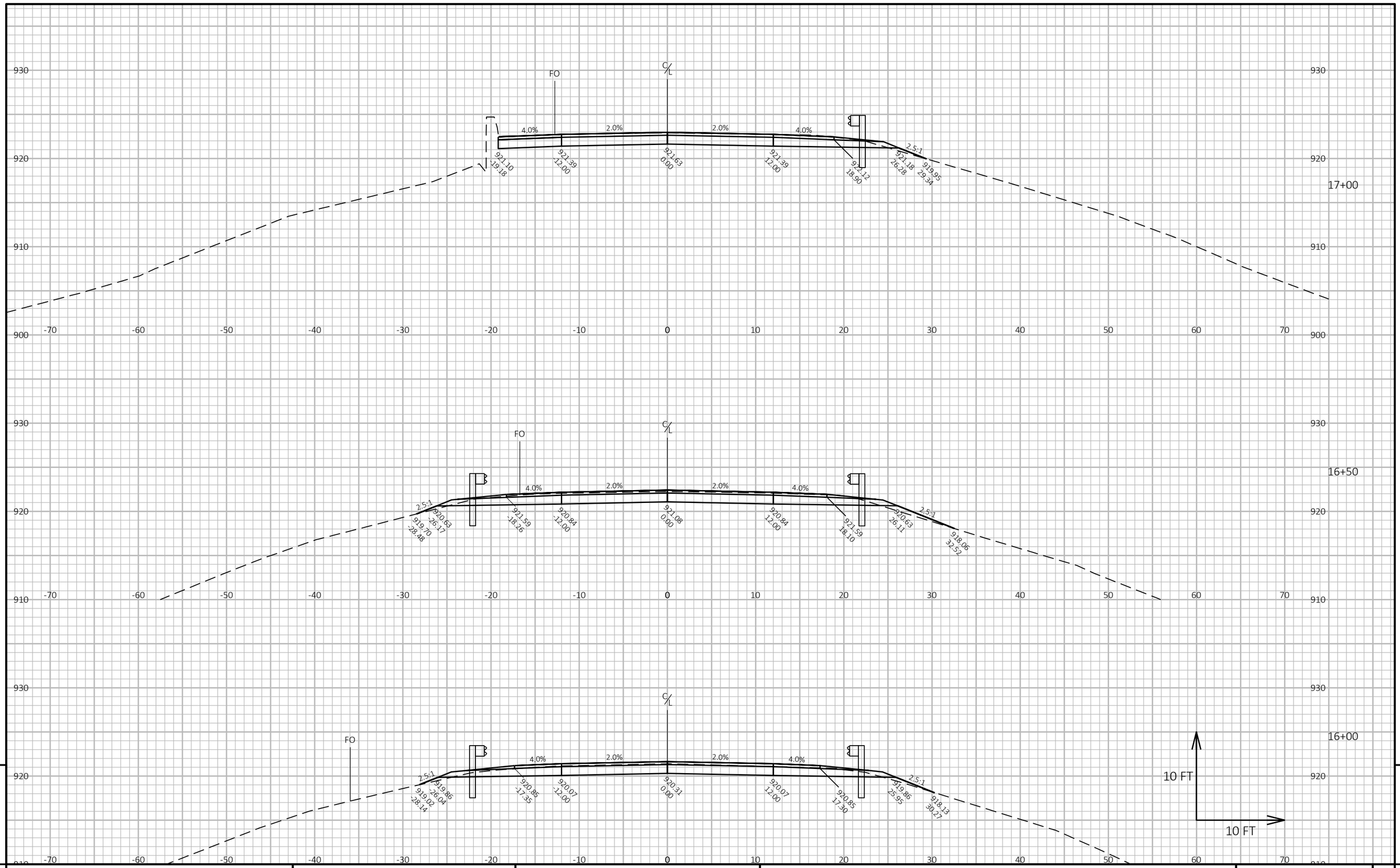
PLOT DATE : 1/31/2022 3:58 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



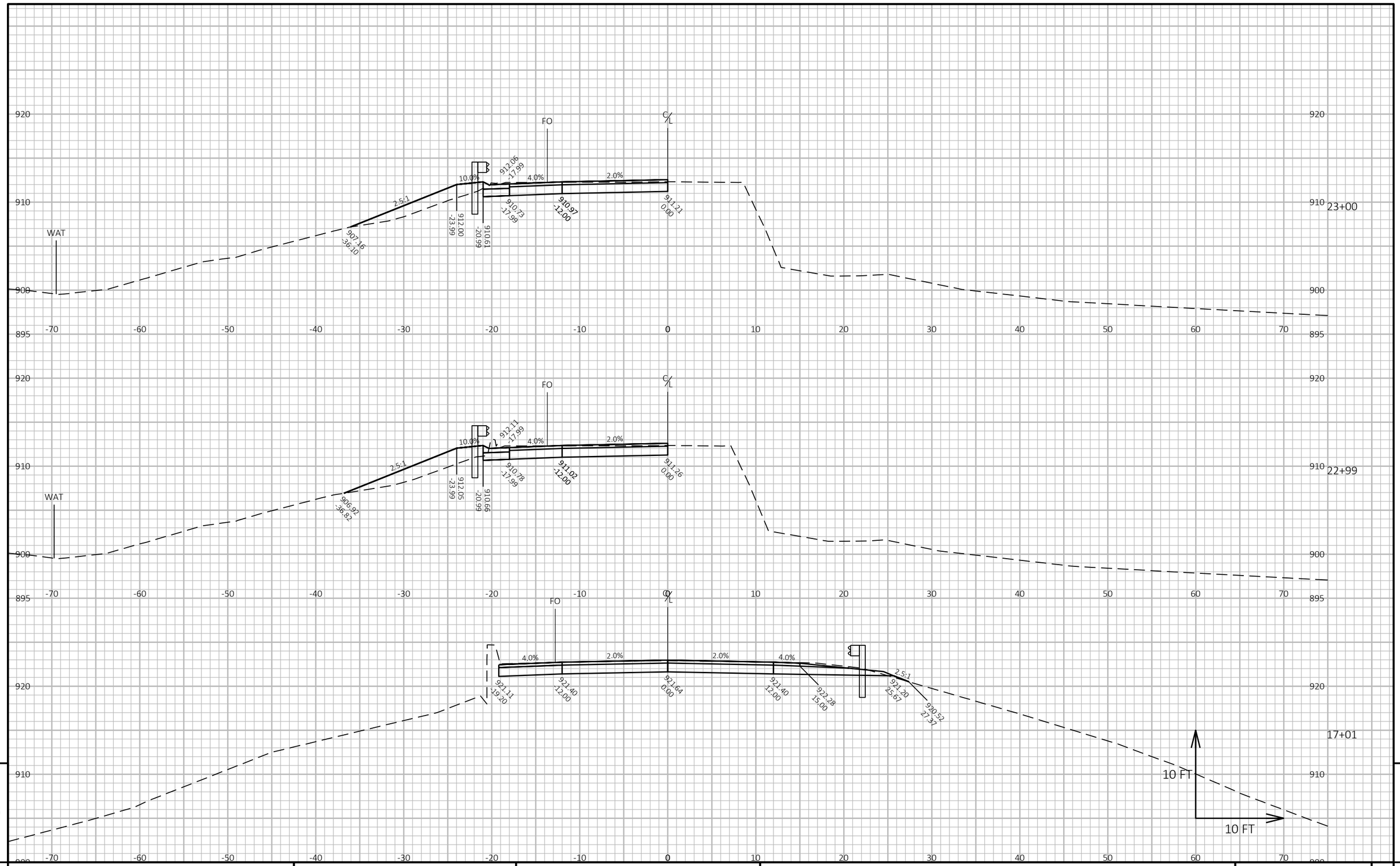
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MEQUON RD	SHEET 548	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090229-xs

PLOT DATE : 1/31/2022 3:58 PM PLOT BY : RING, STEVEN M PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MEQUON RD	SHEET 549	E

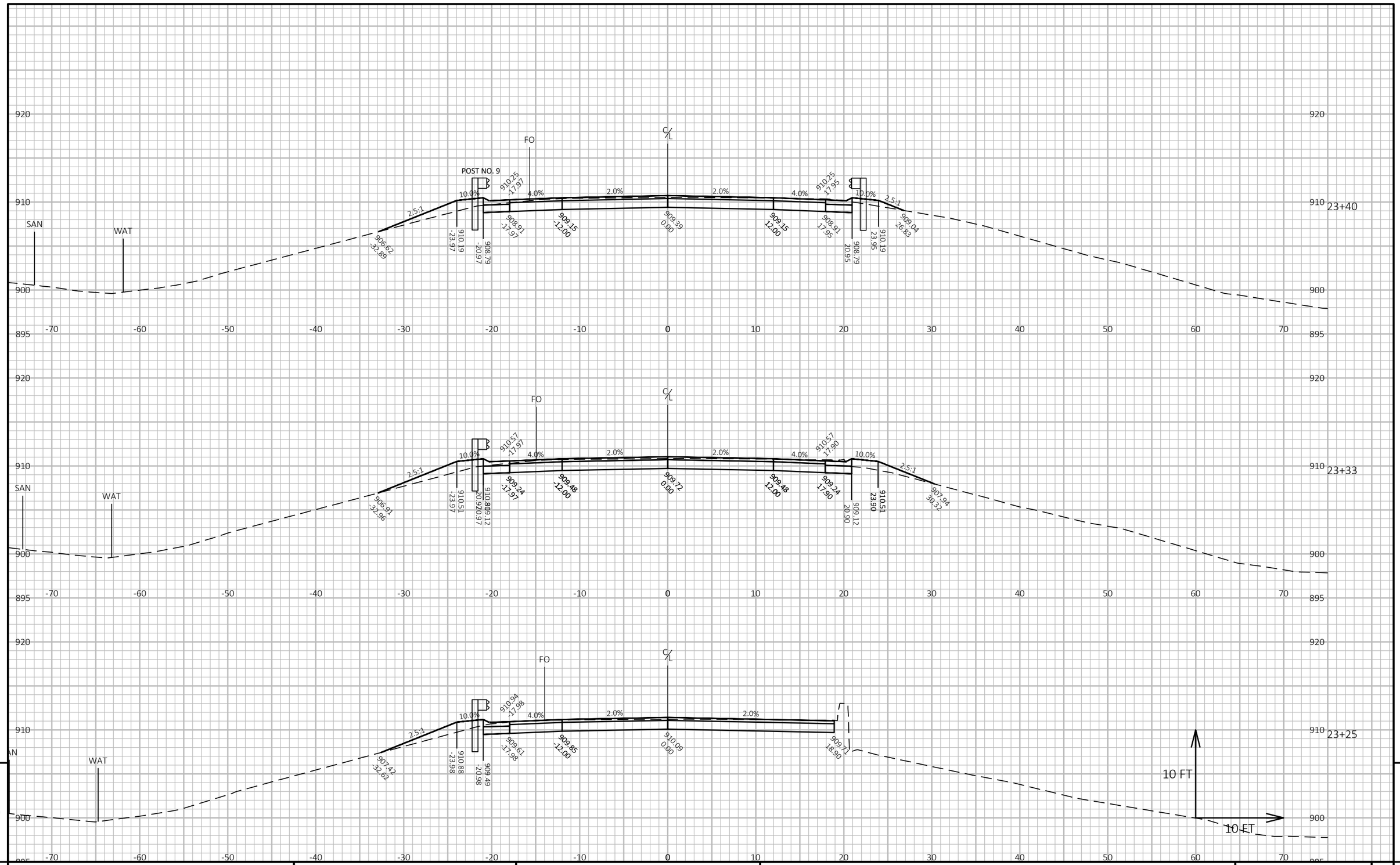
FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090230-xs

PLOT DATE : 1/31/2022 3:58 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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



9

9

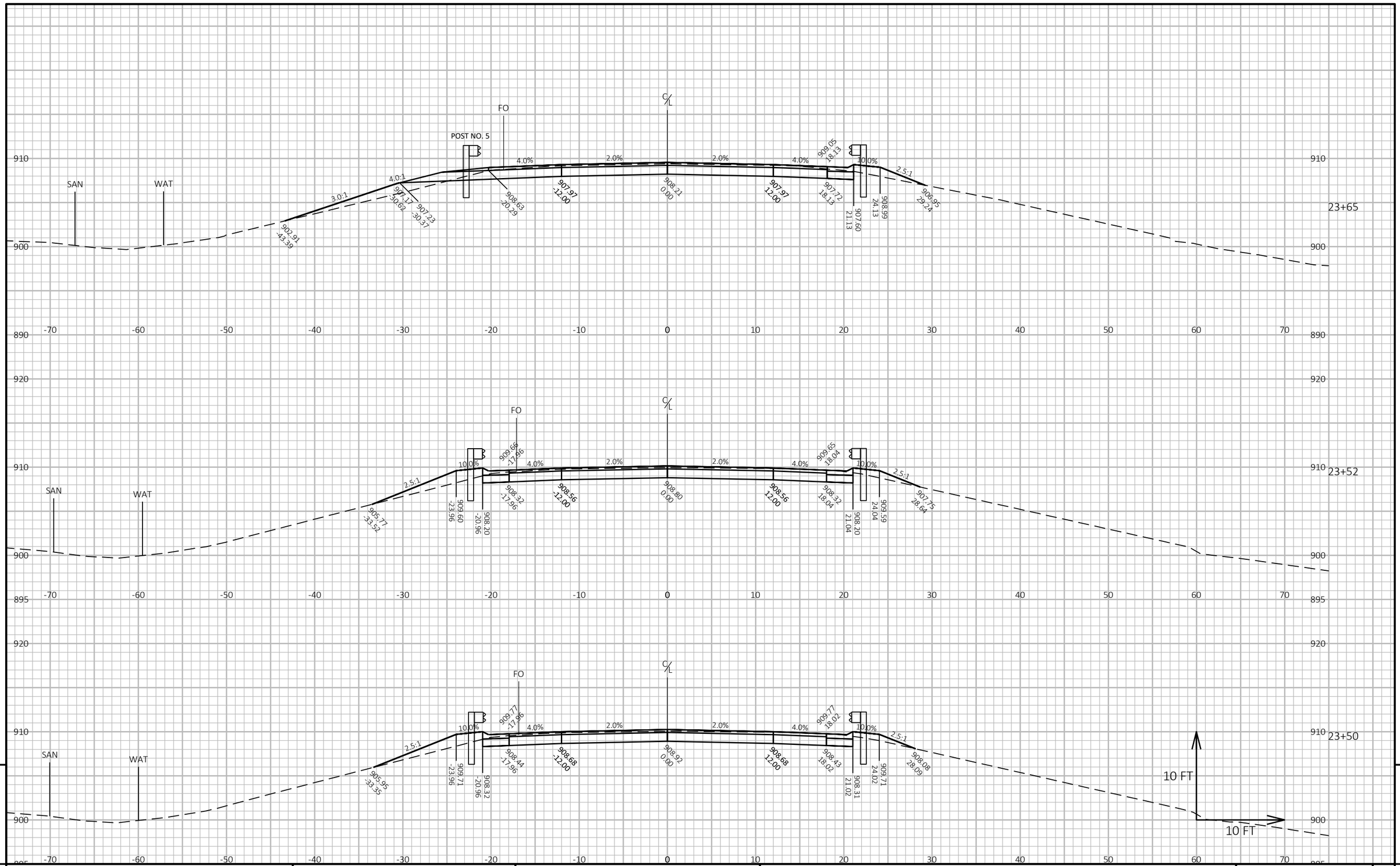
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MEQUON RD	SHEET 550	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090231-xs

PLOT DATE : 1/31/2022 3:58 PM PLOT BY : RING, STEVEN M PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MEQUON RD	SHEET 551	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090232-xs

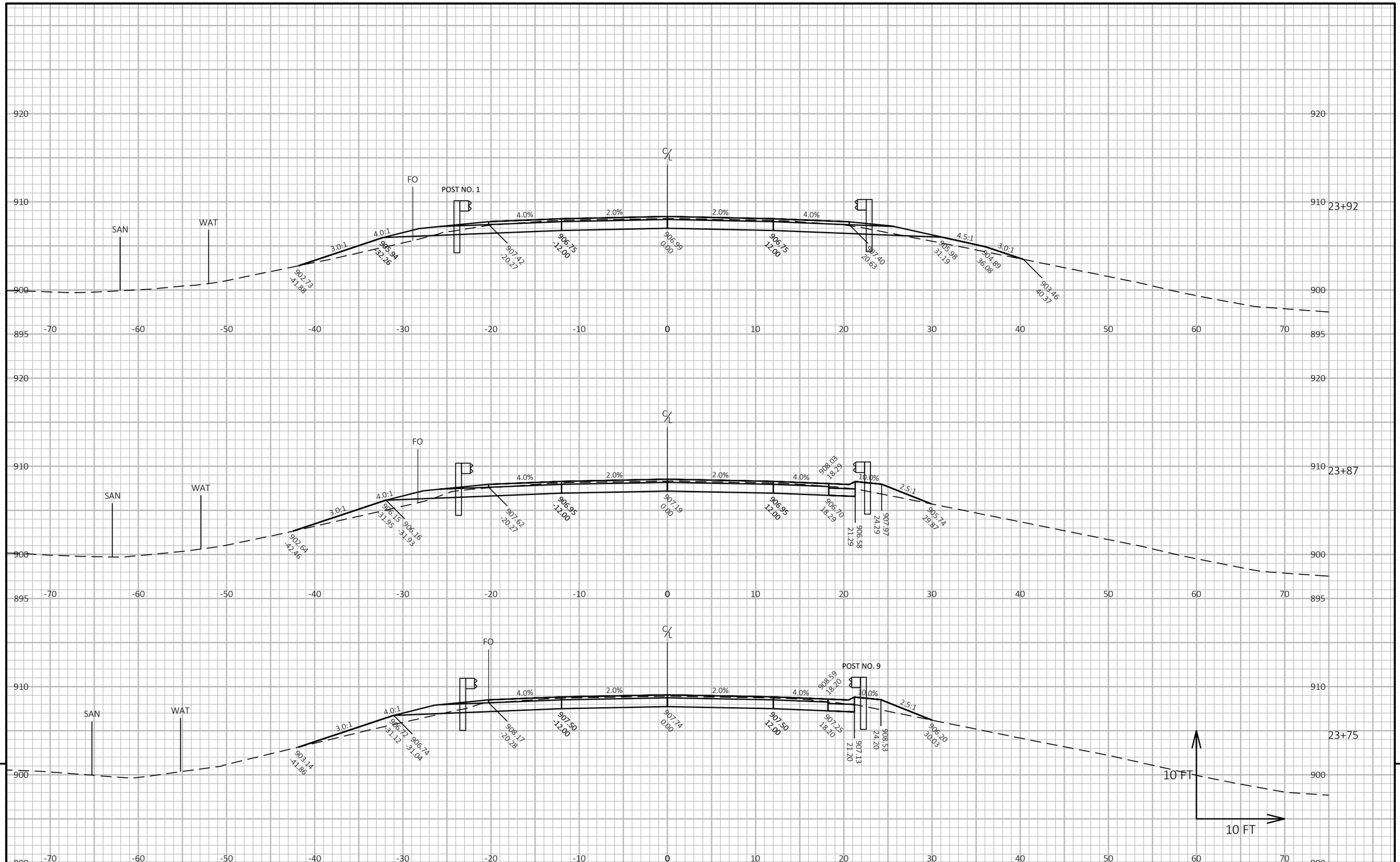
PLOT DATE : 1/31/2022 3:58 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MEQUON RD	SHEET 552	E

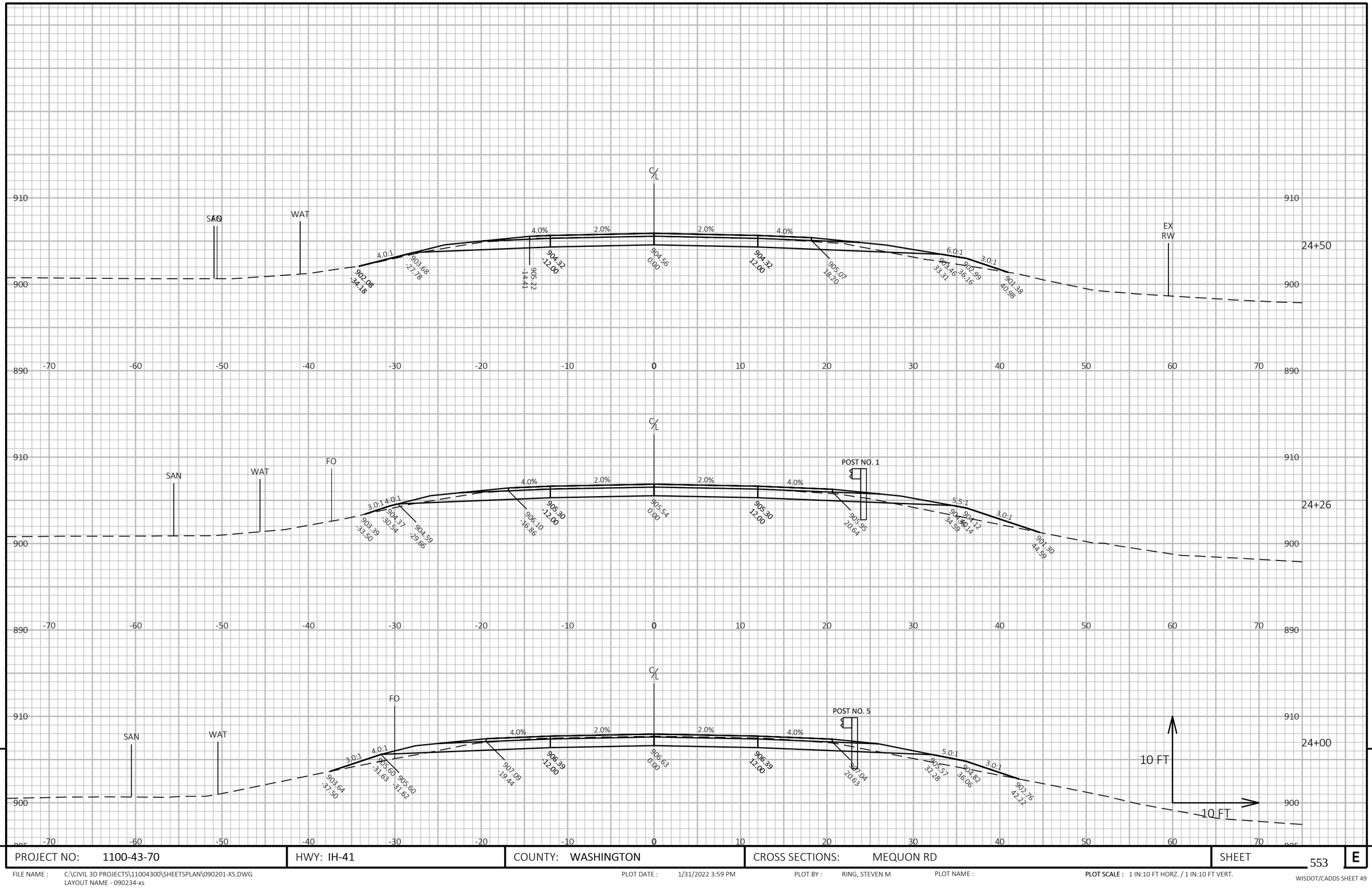
FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090233-xs

PLOT DATE : 1/31/2022 3:59 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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



9

9

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MEQUON RD	SHEET 553	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090234-xs

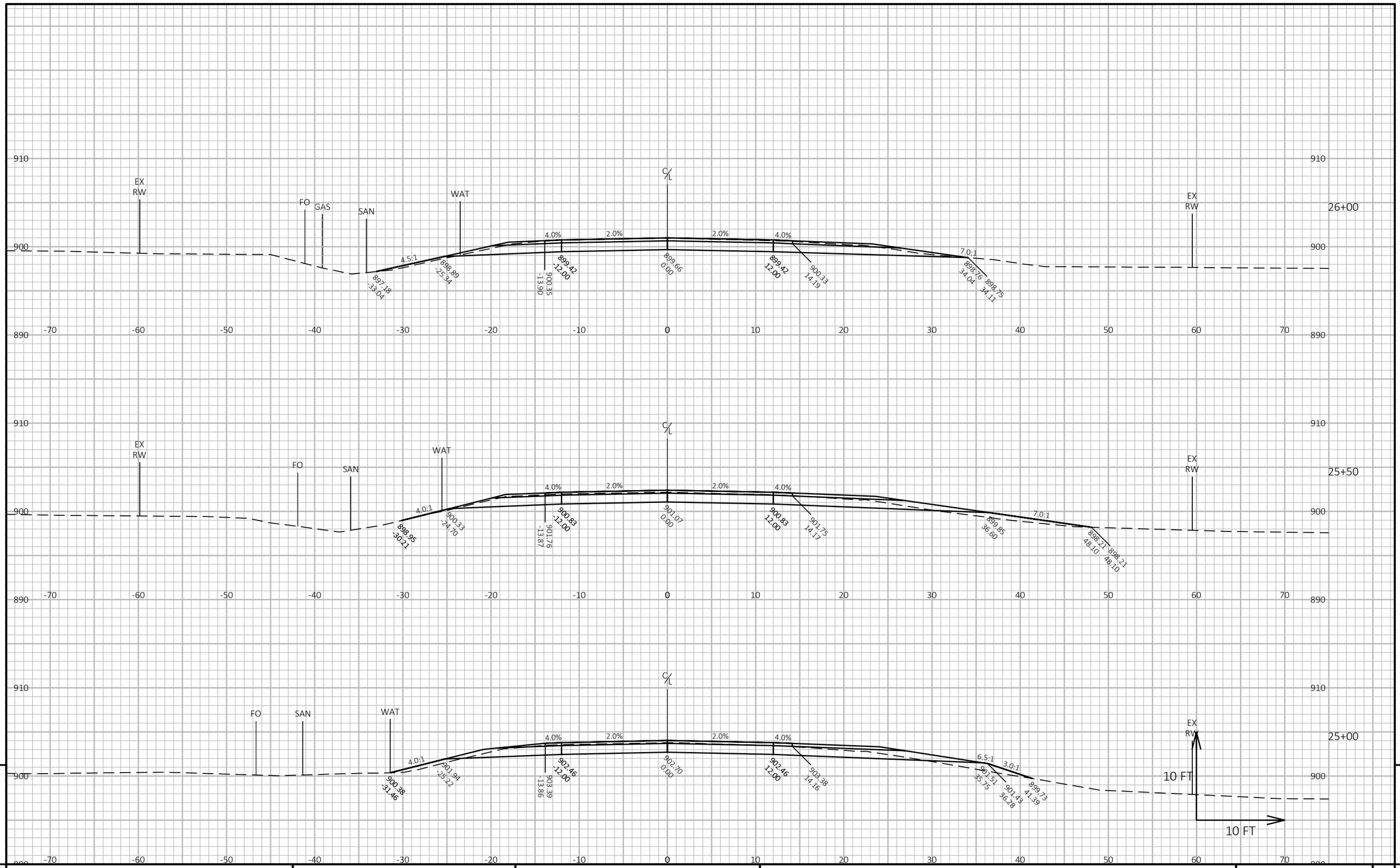
PLOT DATE : 1/31/2022 3:59 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MEQUON RD	SHEET 554	E

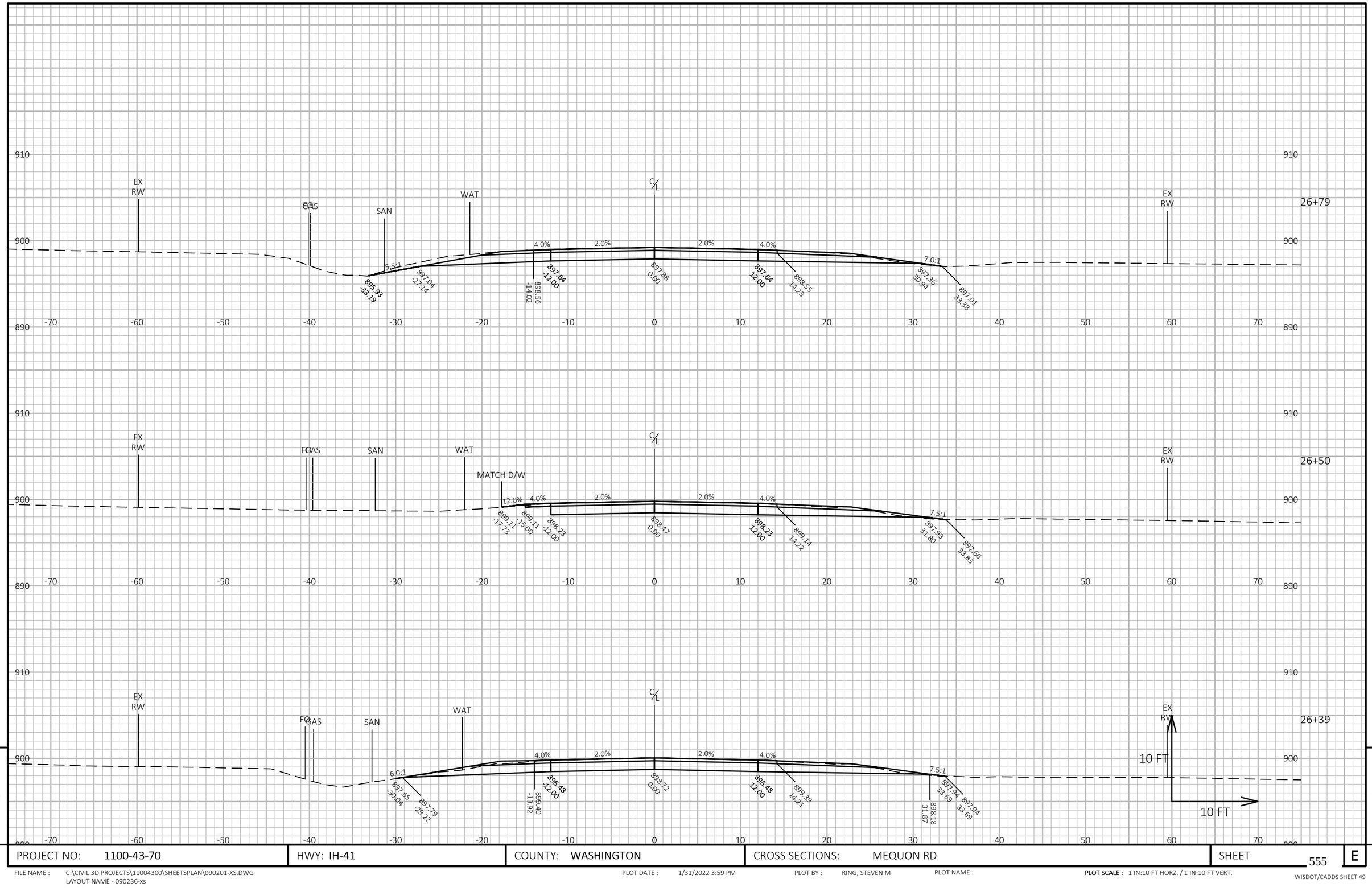
FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090235-xs

PLOT DATE : 1/31/2022 3:59 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MEQUON RD	SHEET 555	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090236-xs

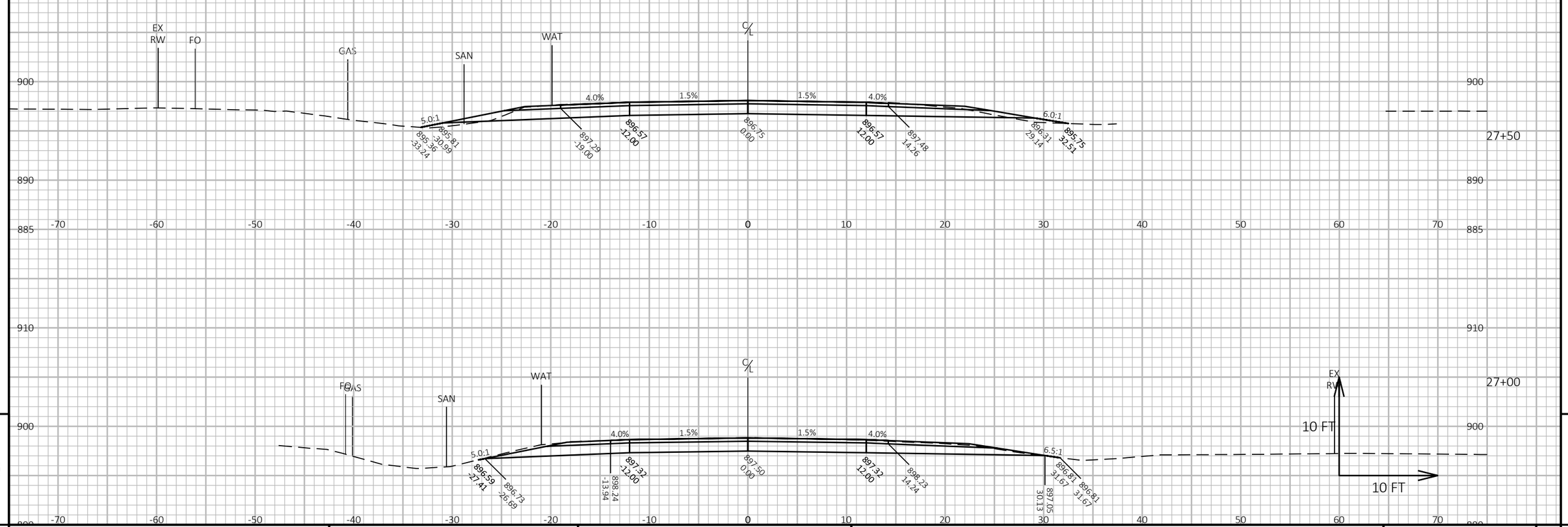
PLOT DATE : 1/31/2022 3:59 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: MEQUON RD	SHEET 556	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090237-xs

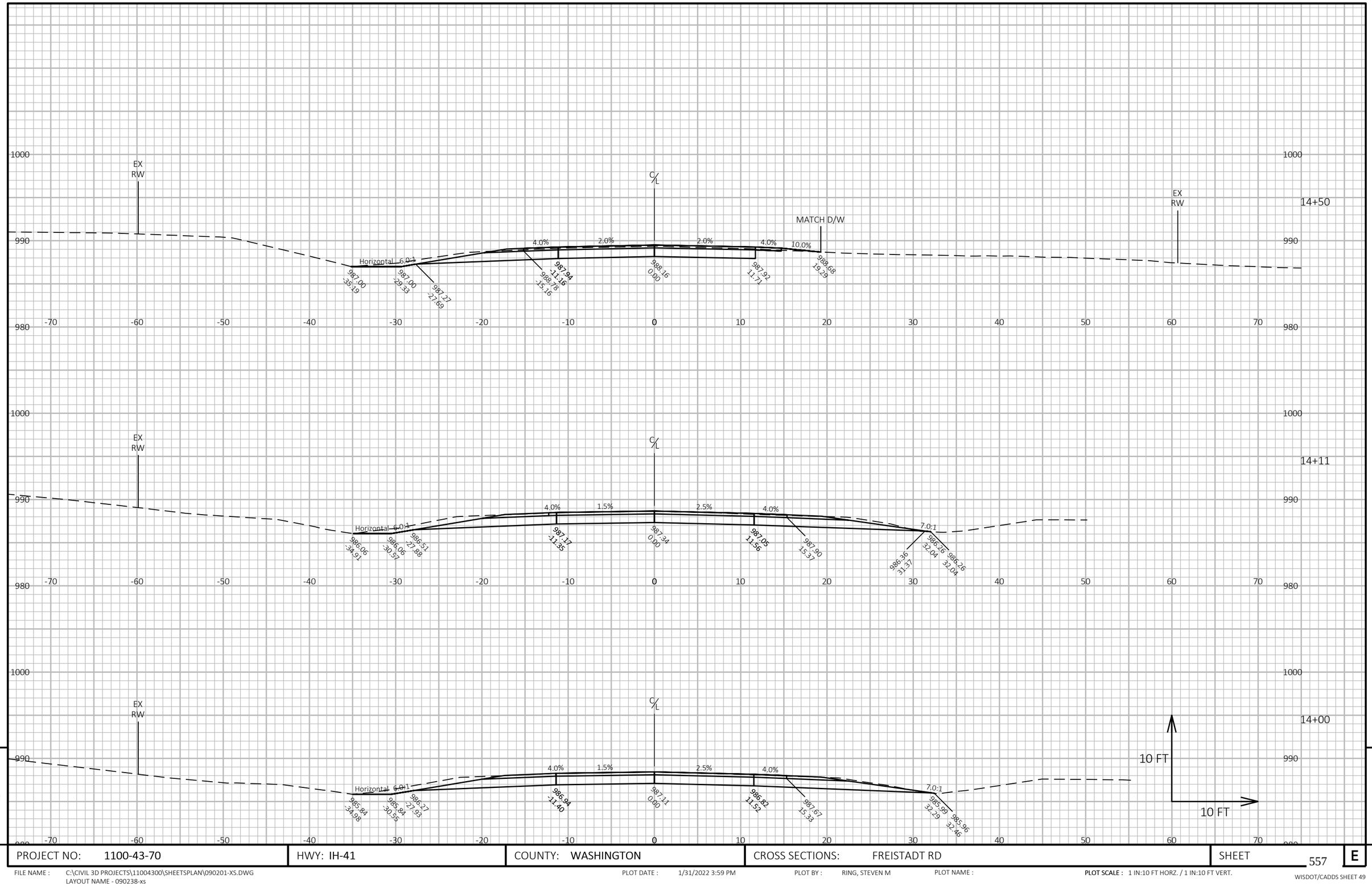
PLOT DATE : 1/31/2022 3:59 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

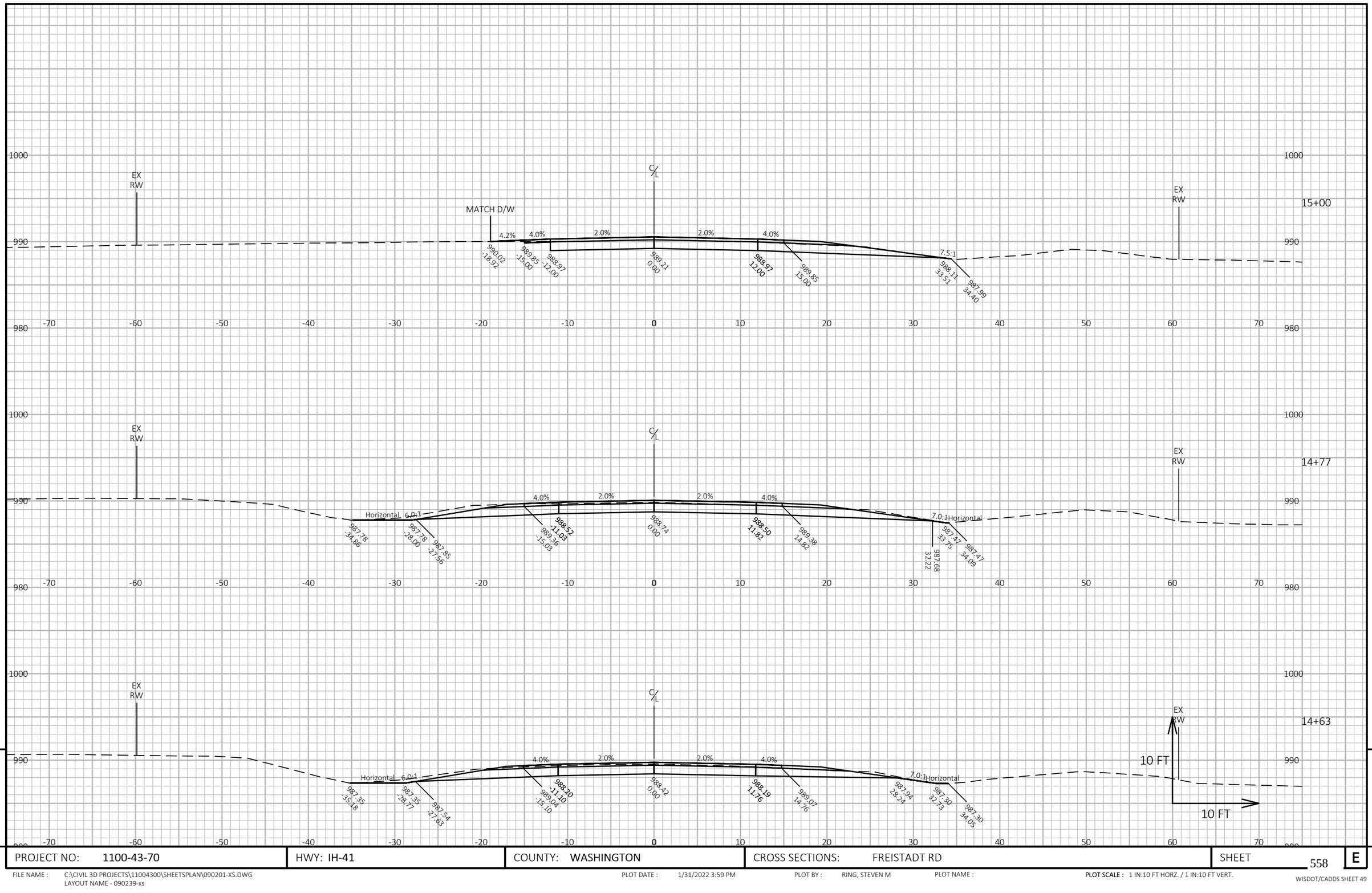
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 557	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090238-xs

PLOT DATE : 1/31/2022 3:59 PM PLOT BY : RING, STEVEN M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

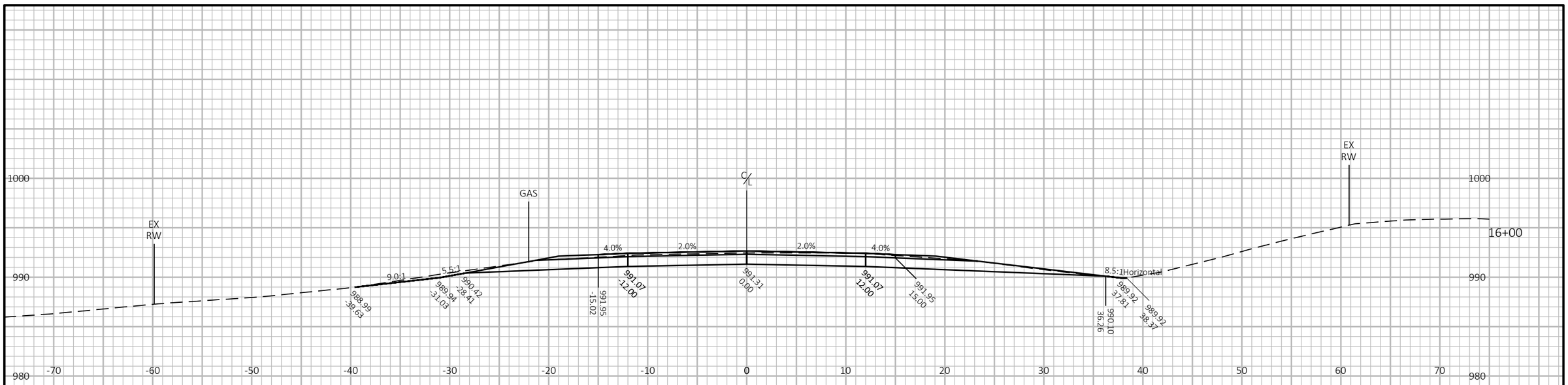
9

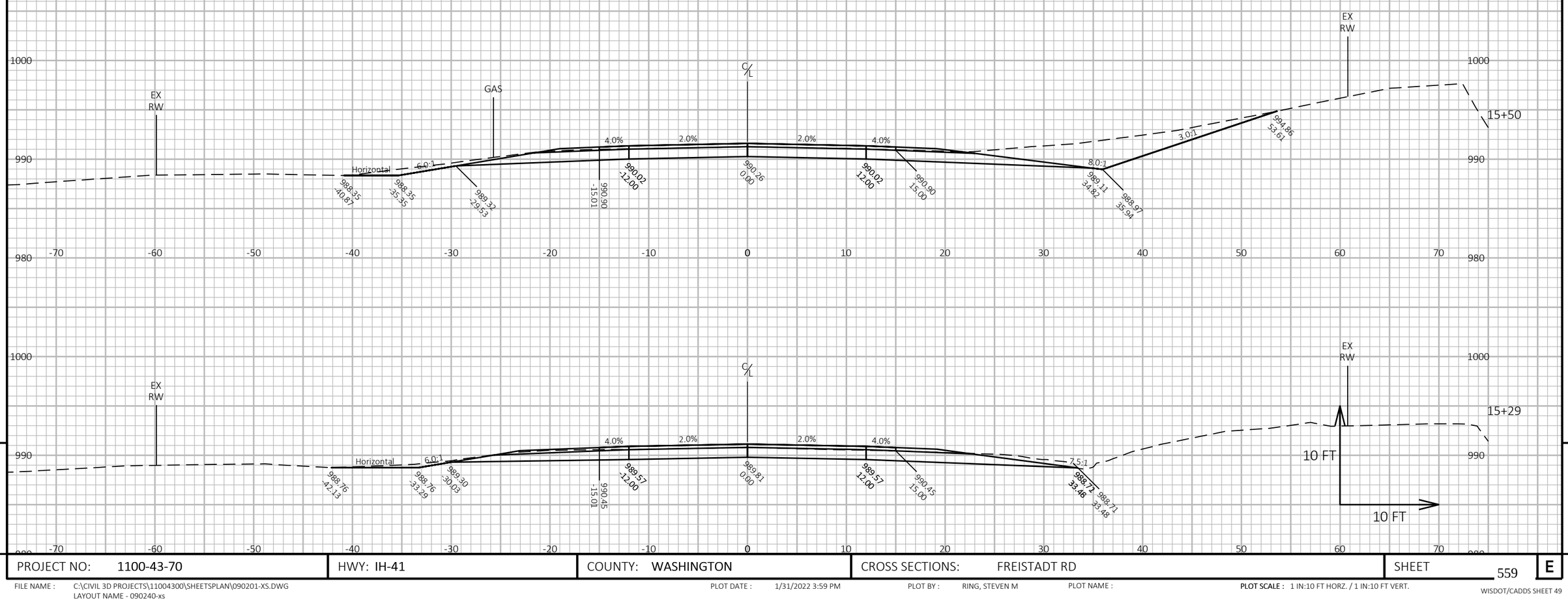
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 558	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090239-xs

PLOT DATE : 1/31/2022 3:59 PM PLOT BY : RING, STEVEN M PLOT NAME :

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





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9

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 559	E

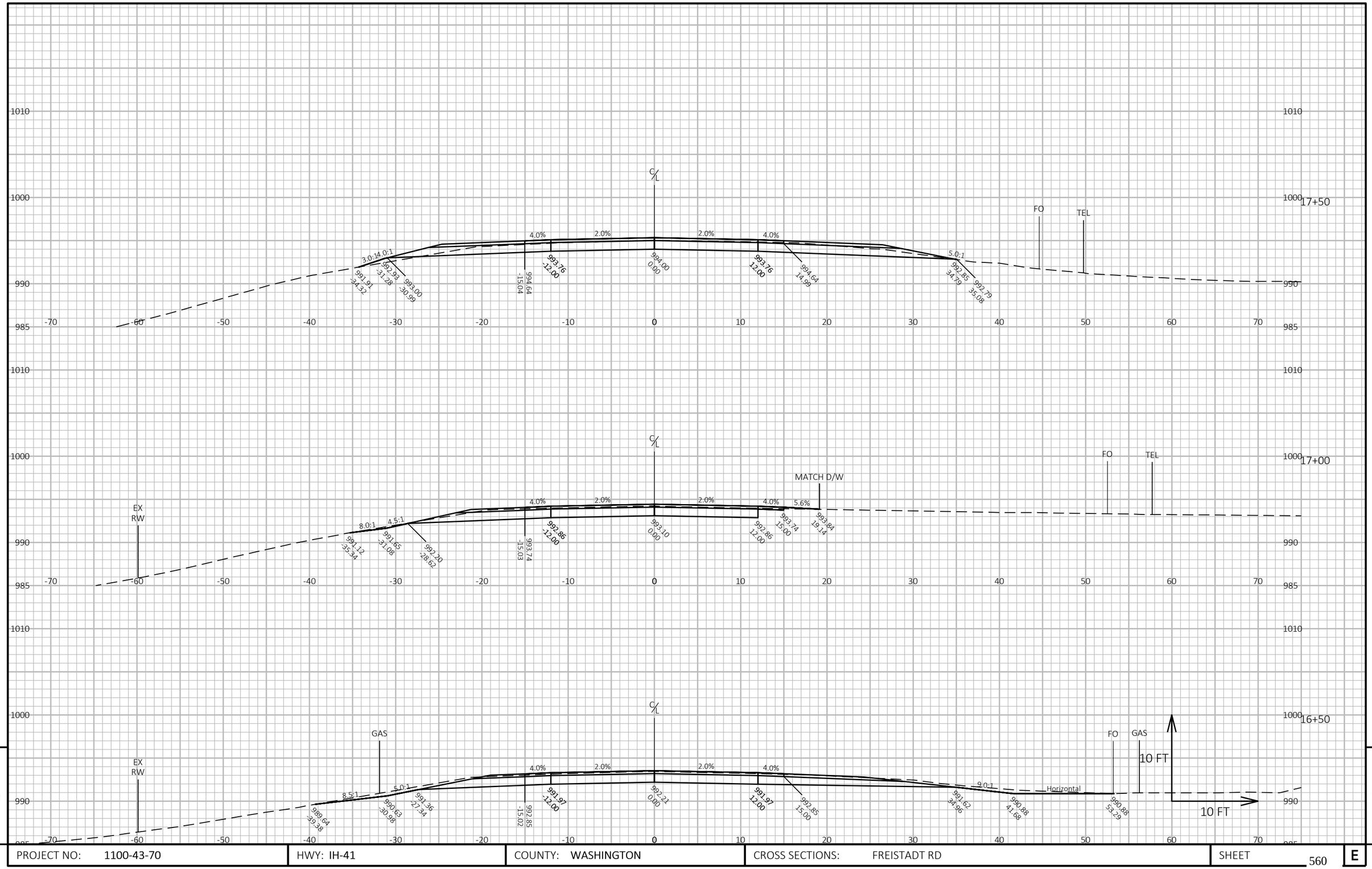
FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090240-xs

PLOT DATE : 1/31/2022 3:59 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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



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PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 560	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090241-xs

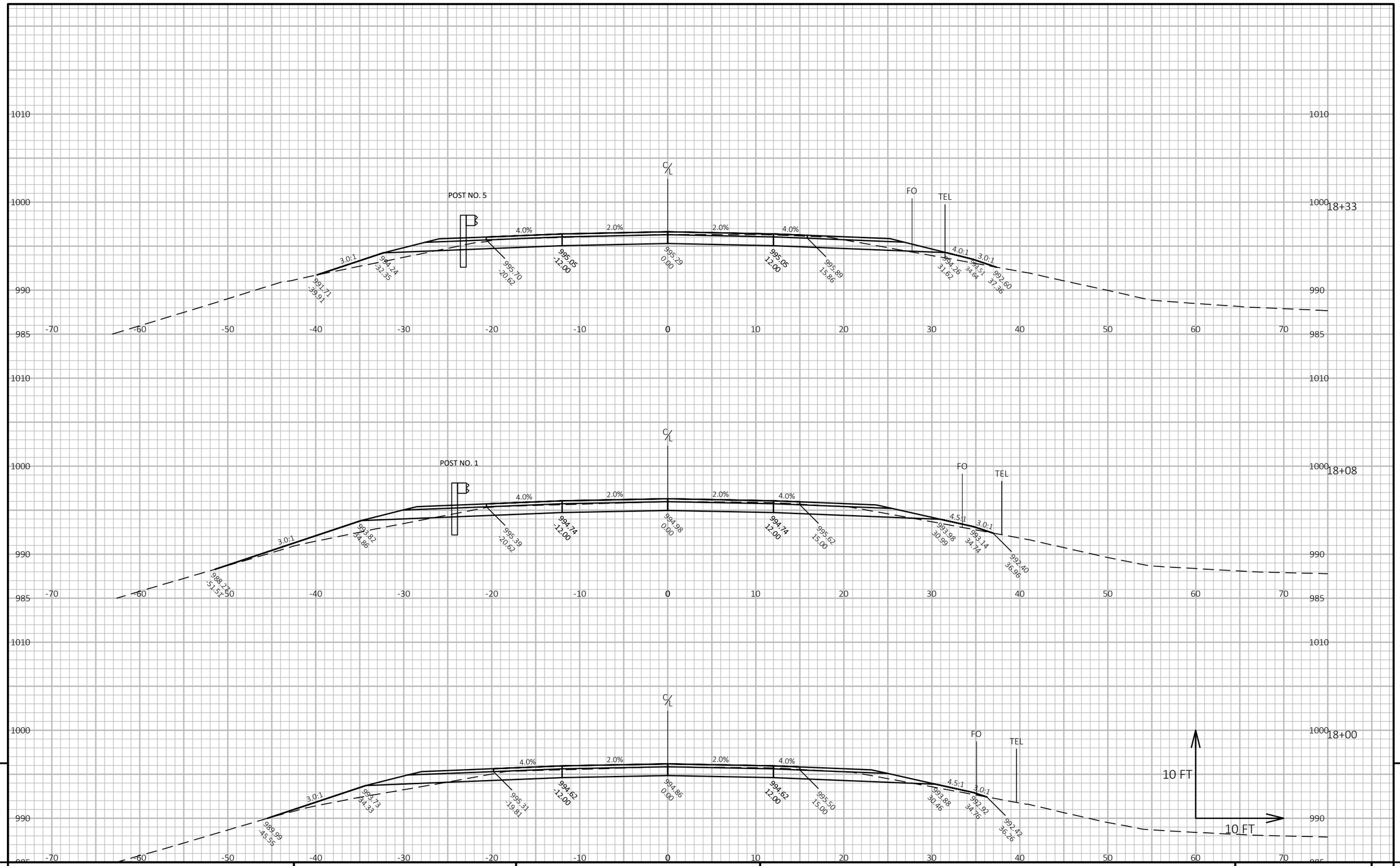
PLOT DATE : 1/31/2022 4:00 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

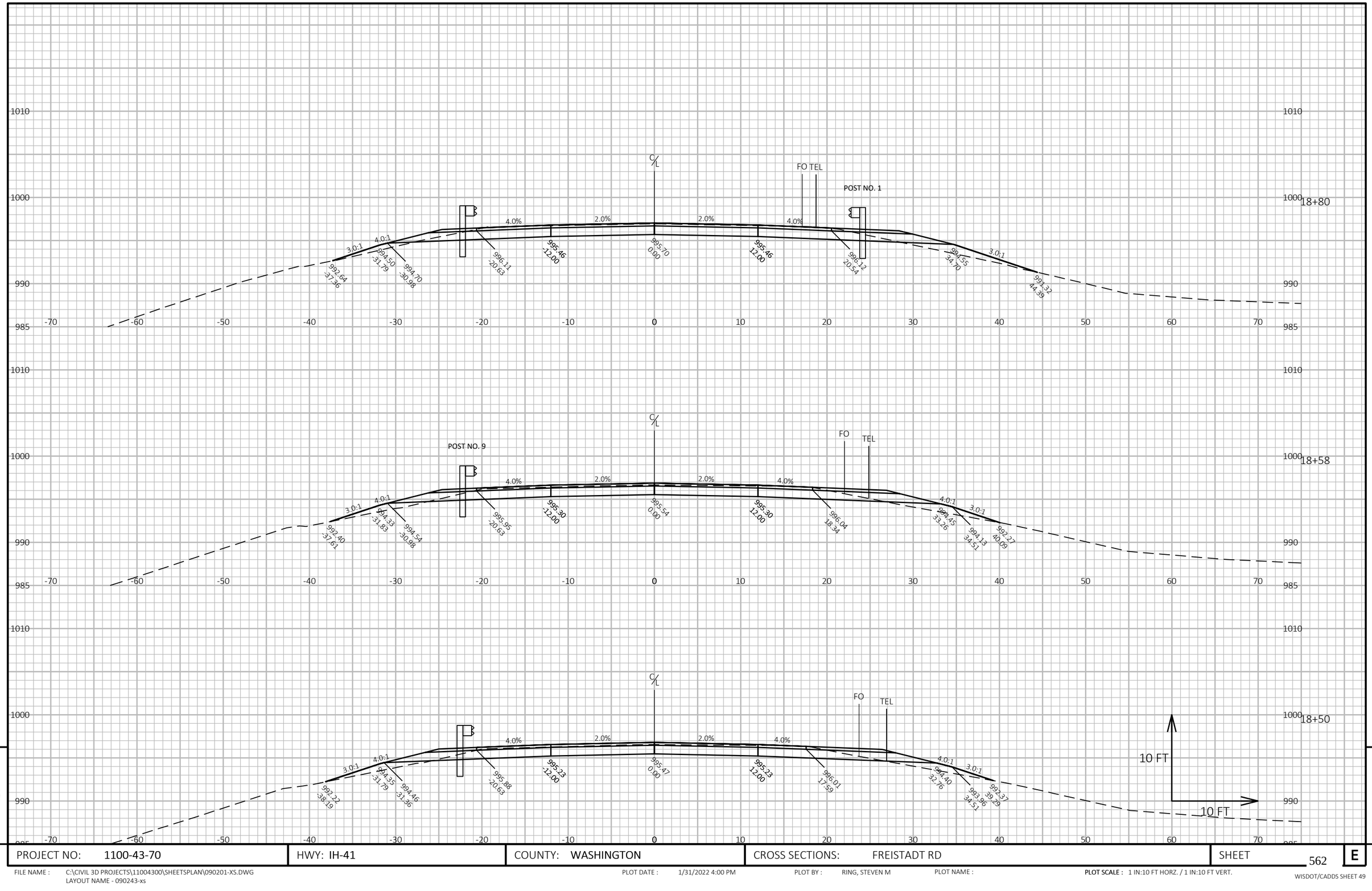
9

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 561	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090242-xs

PLOT DATE : 1/31/2022 4:00 PM PLOT BY : RING, STEVEN M PLOT NAME :

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



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PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 562	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090243-xs

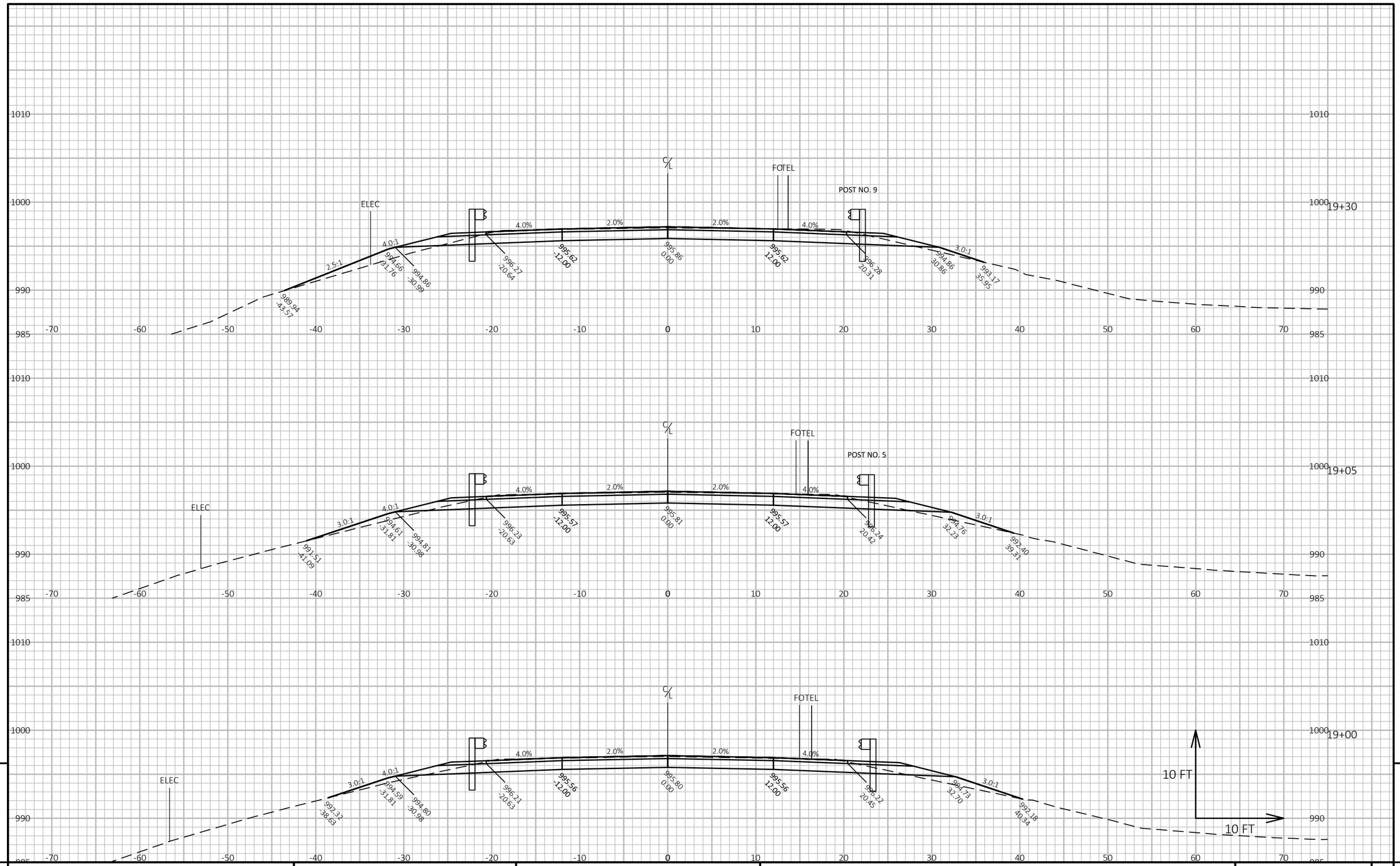
PLOT DATE : 1/31/2022 4:00 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 563	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090244-xs

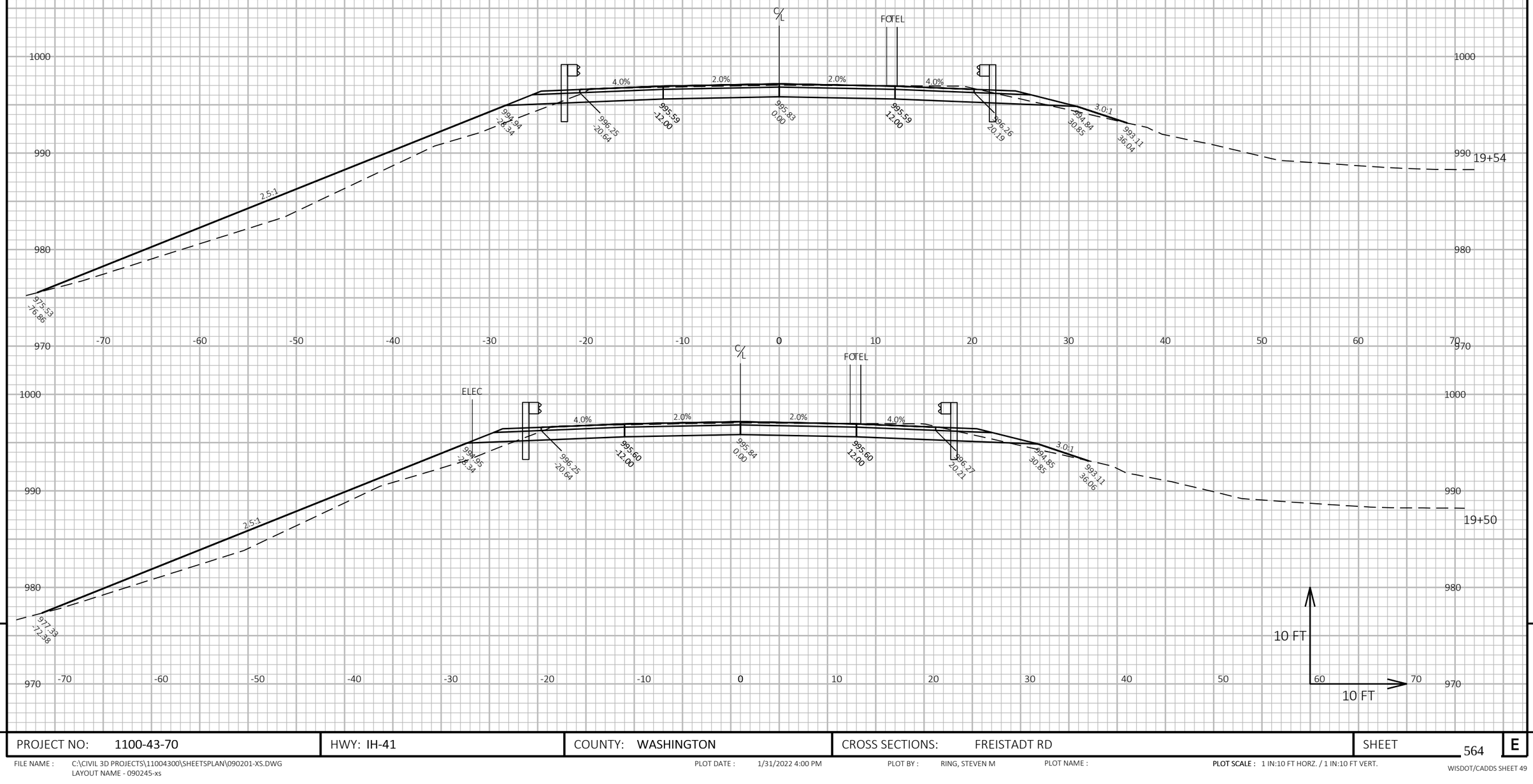
PLOT DATE : 1/31/2022 4:00 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 564	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090245-xs

PLOT DATE : 1/31/2022 4:00 PM

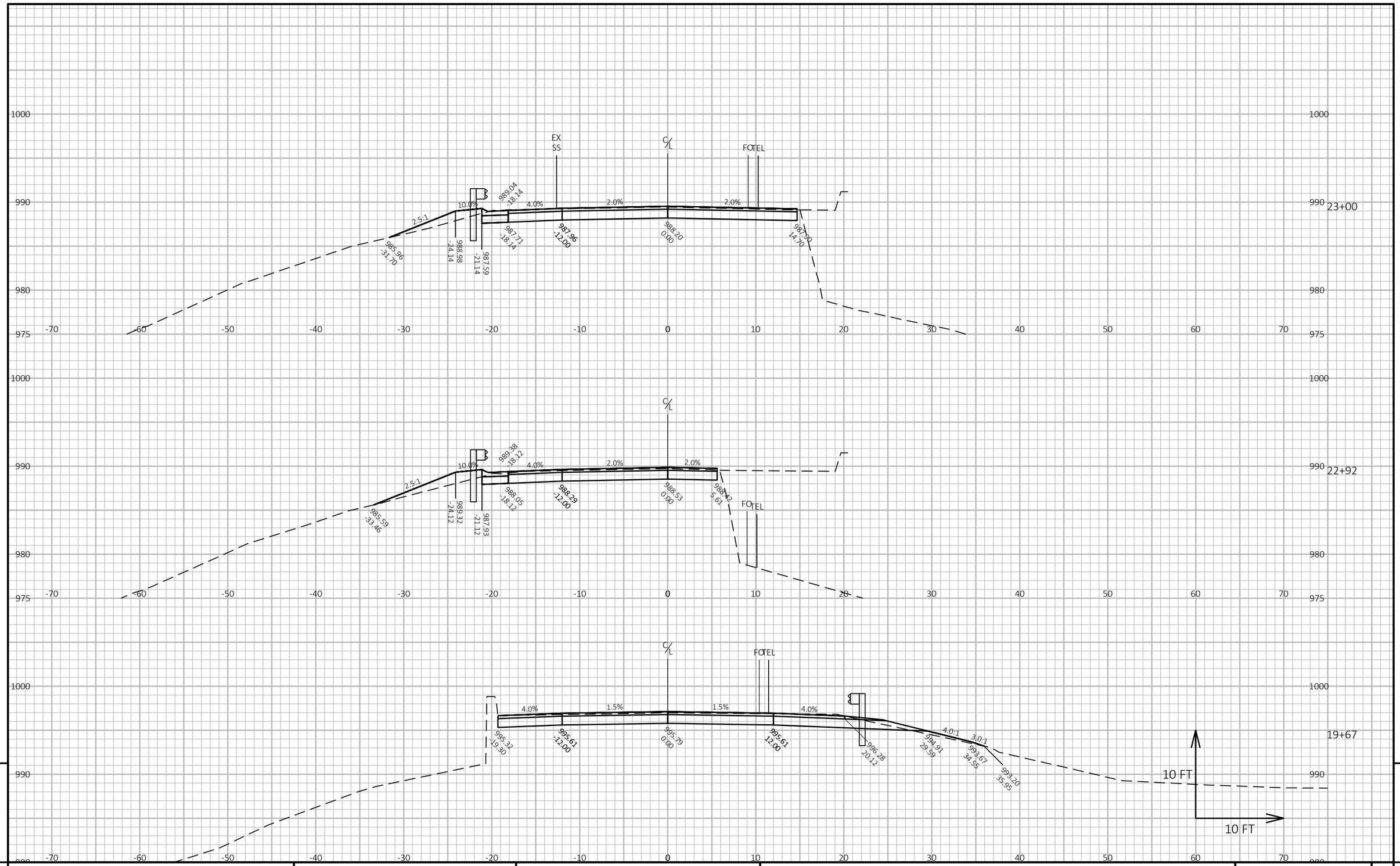
PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49

9



9

9

PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 565	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090246-xs

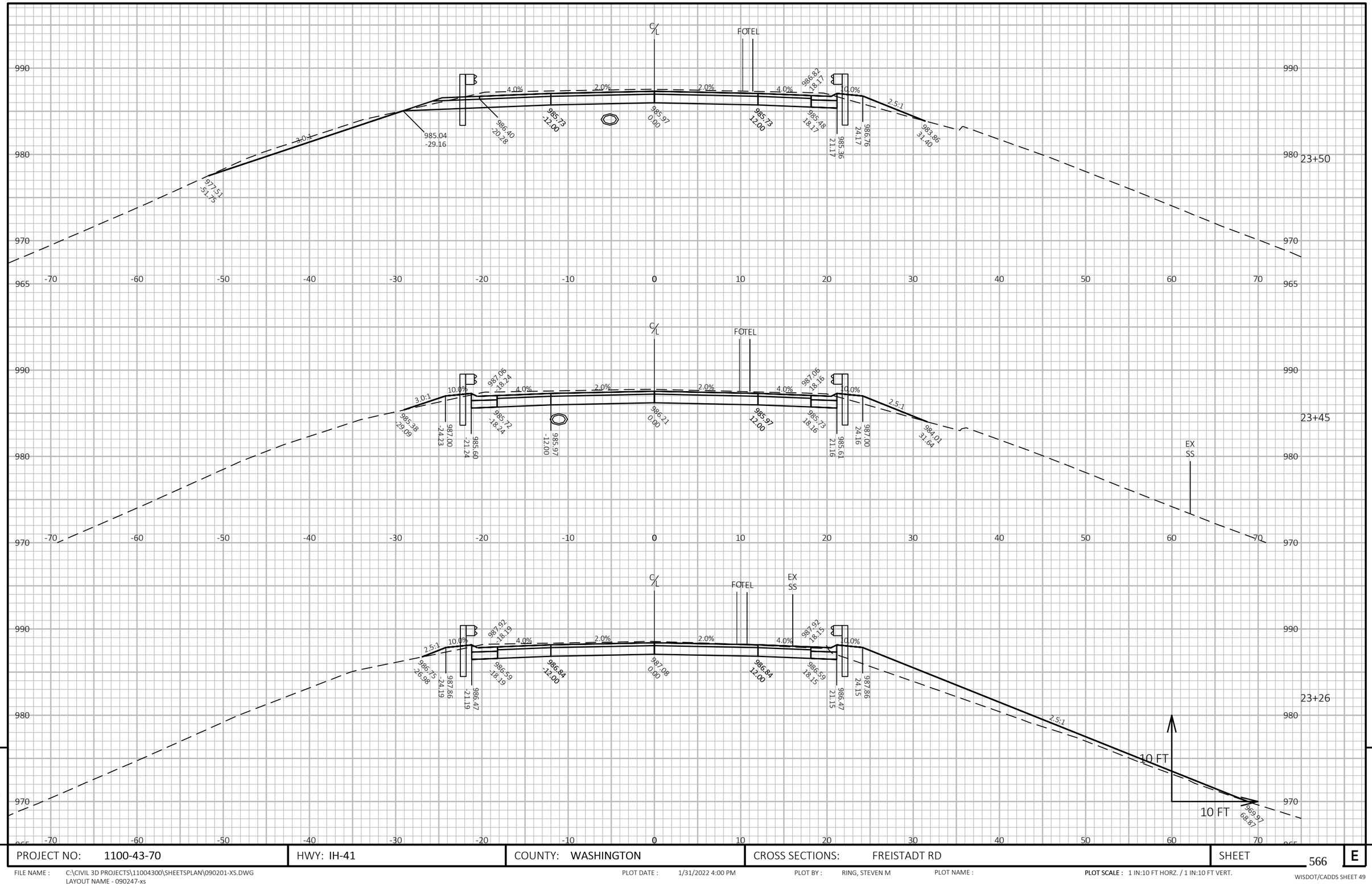
PLOT DATE : 1/31/2022 4:00 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49

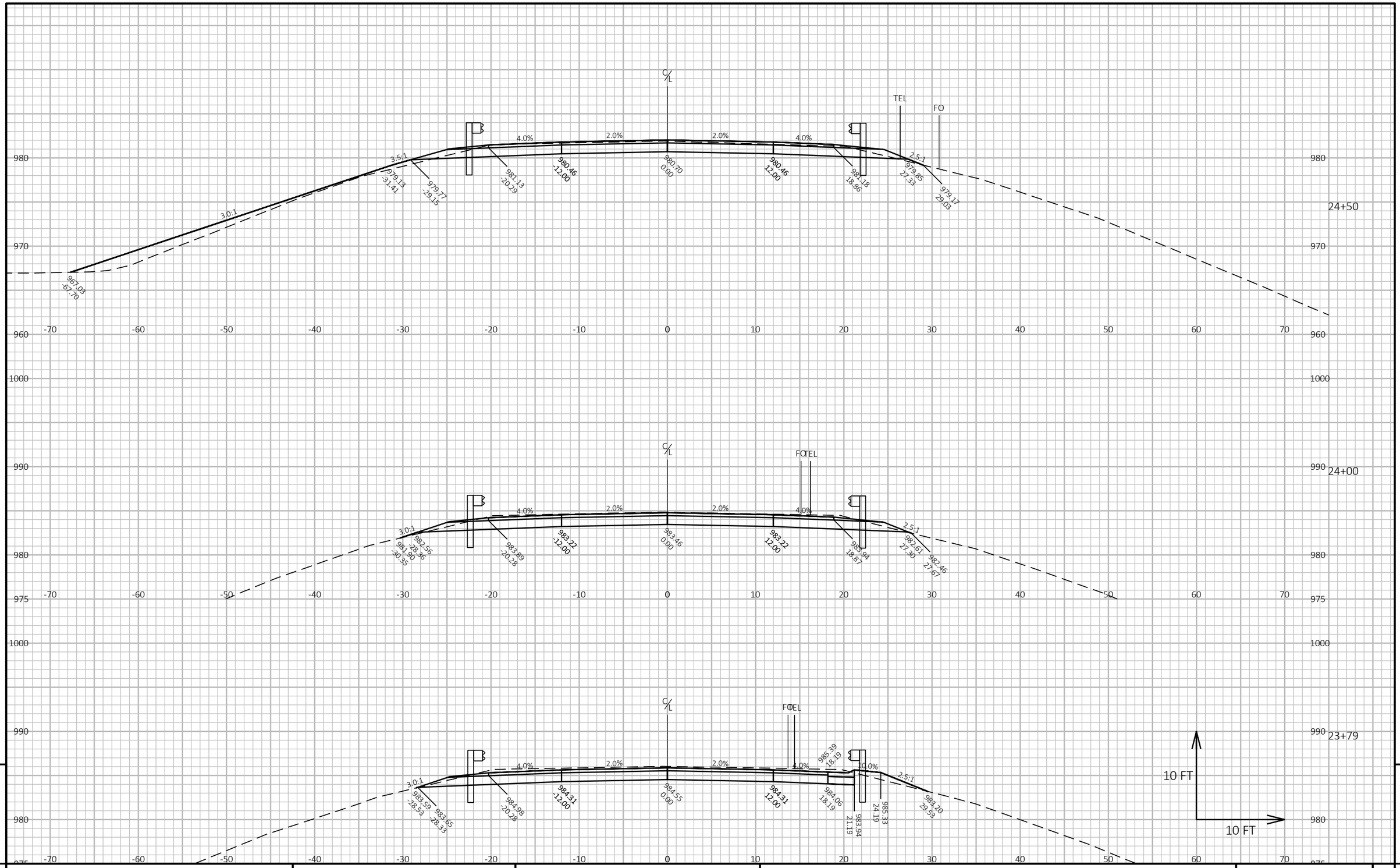


PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 566	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090247-xs

PLOT DATE : 1/31/2022 4:00 PM PLOT BY : RING, STEVEN M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

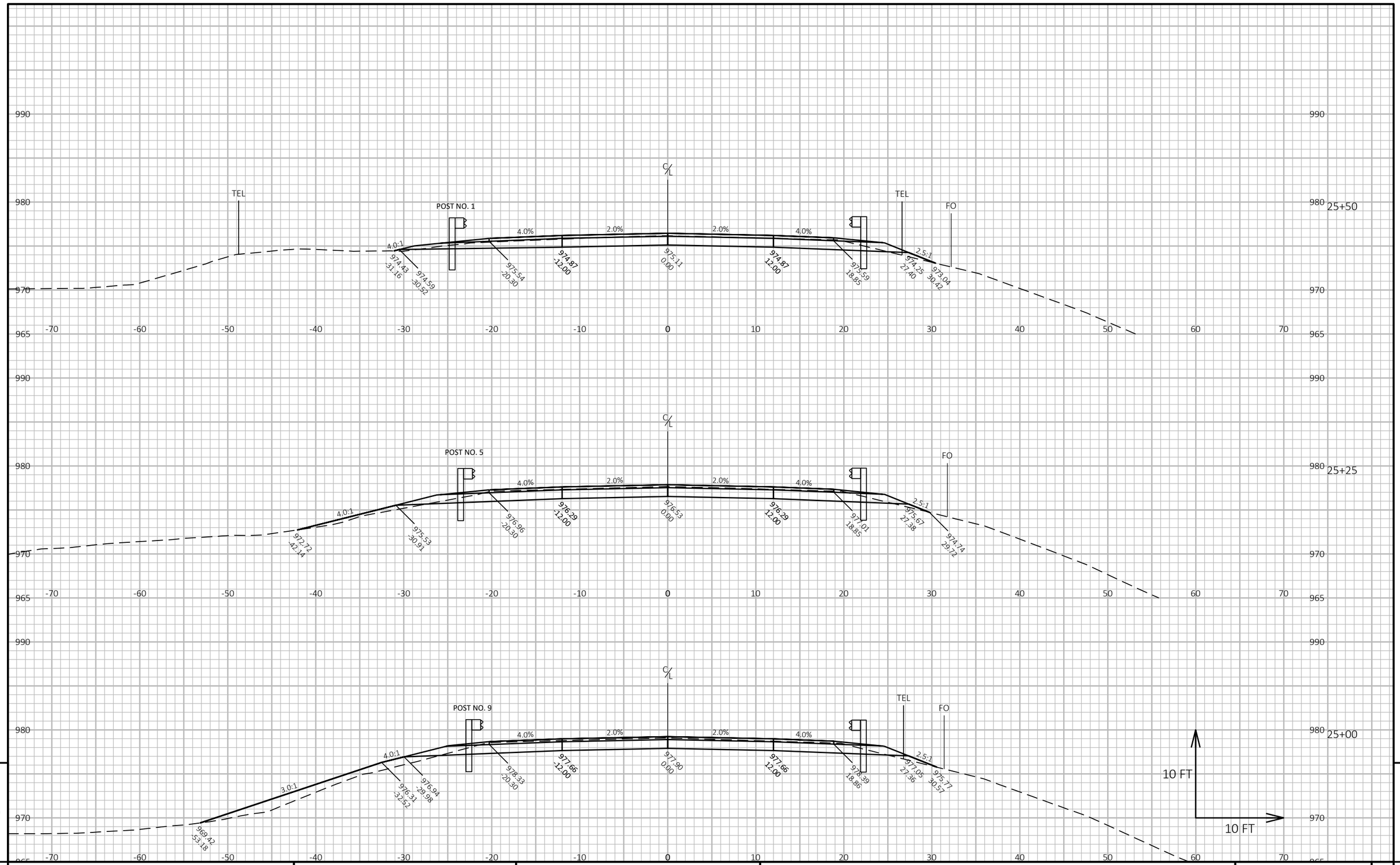


PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 567	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090248-xs

PLOT DATE : 1/31/2022 4:00 PM PLOT BY : RING, STEVEN M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

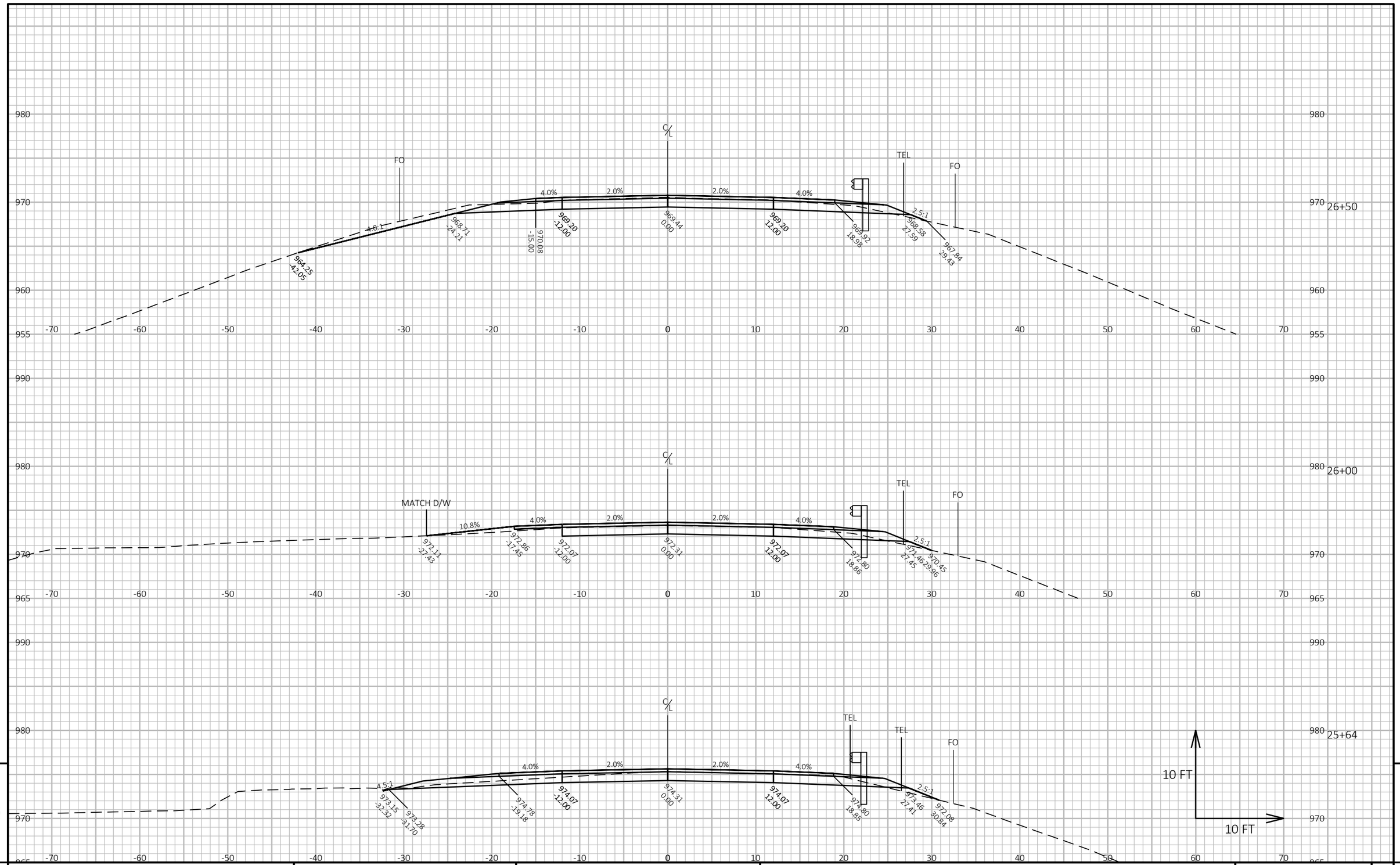


PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 568	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090249-xs

PLOT DATE : 1/31/2022 4:01 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 569	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090250-xs

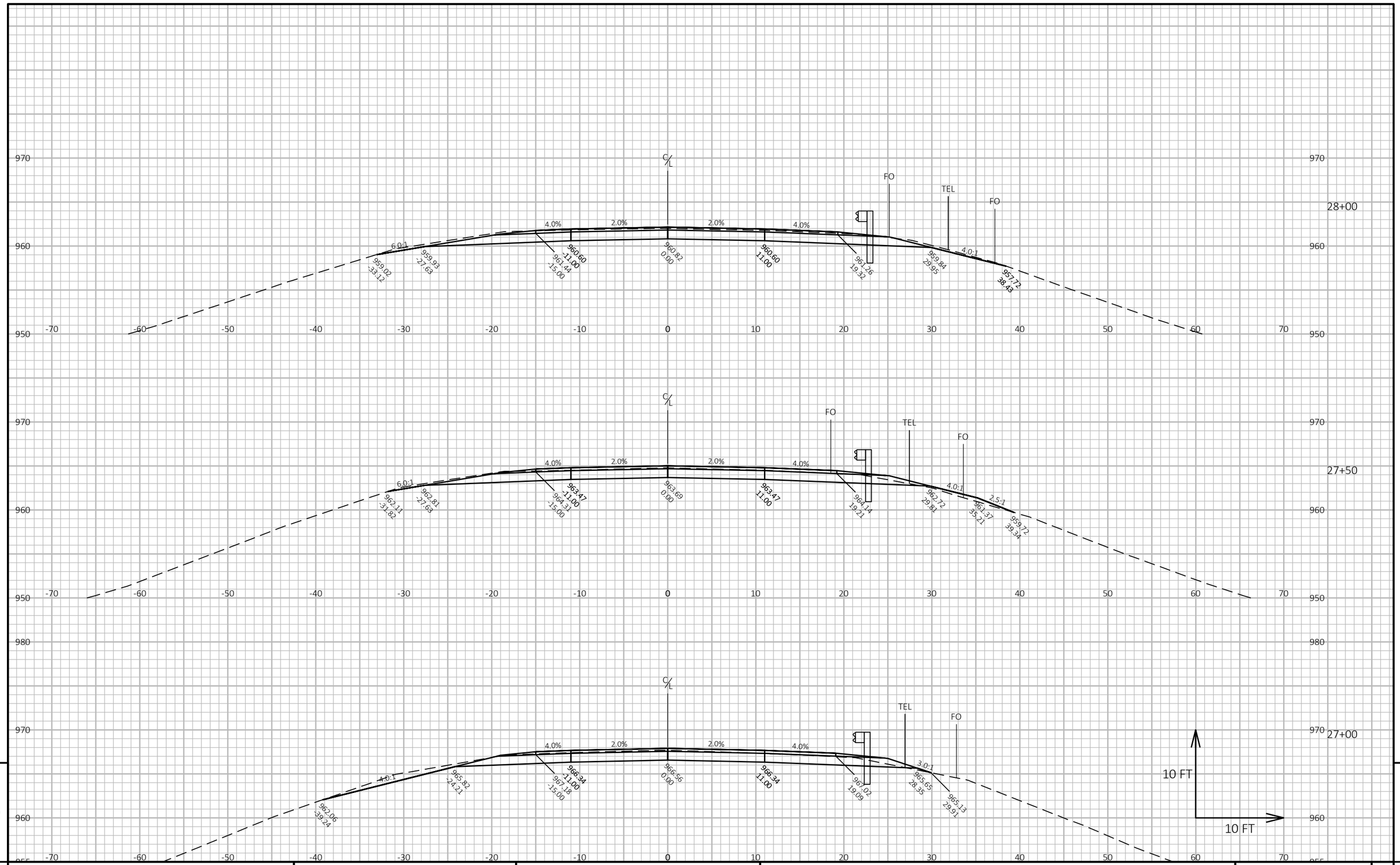
PLOT DATE : 1/31/2022 4:01 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49

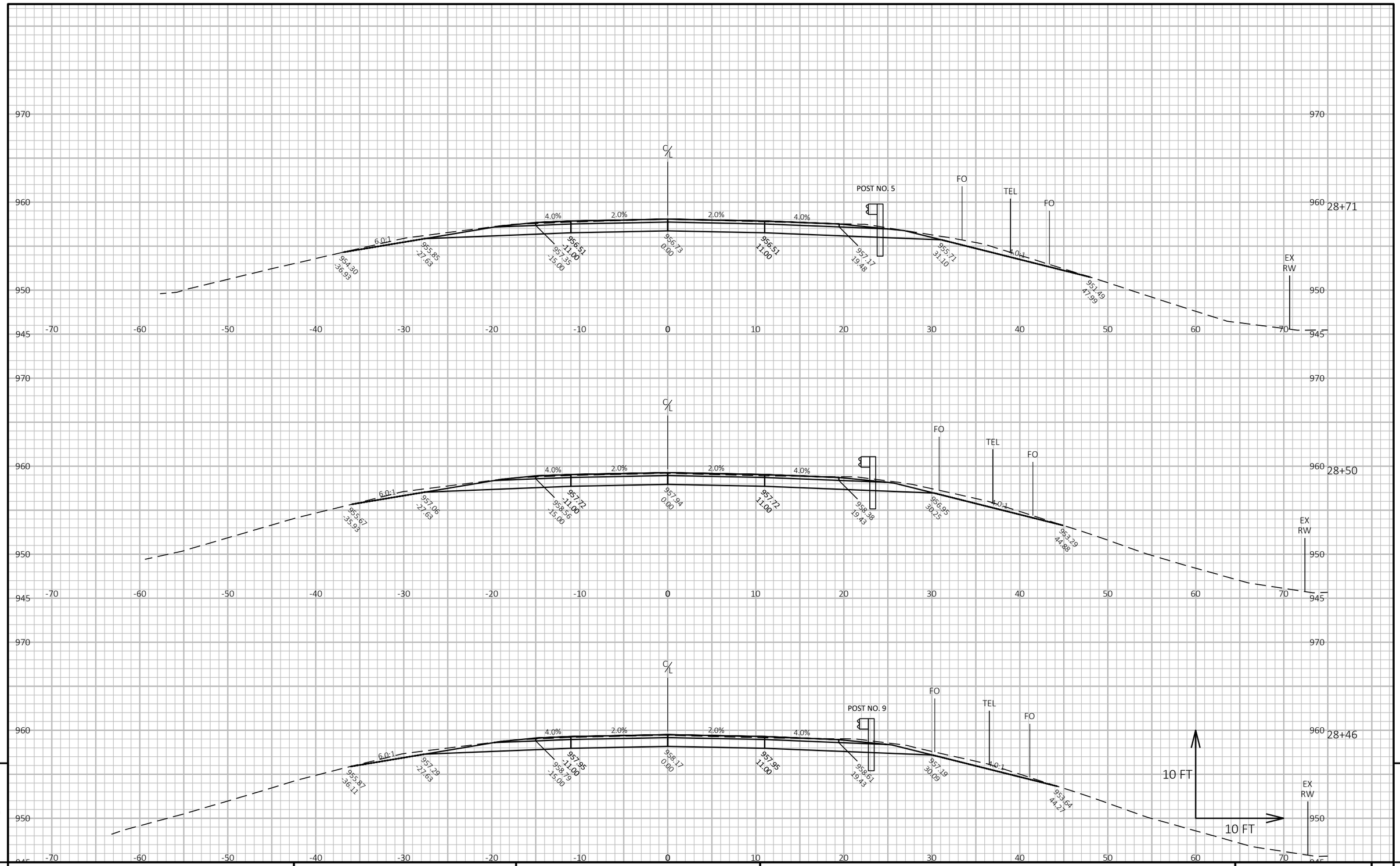


PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 570	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090251-xs

PLOT DATE : 1/31/2022 4:01 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 571	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090252-xs

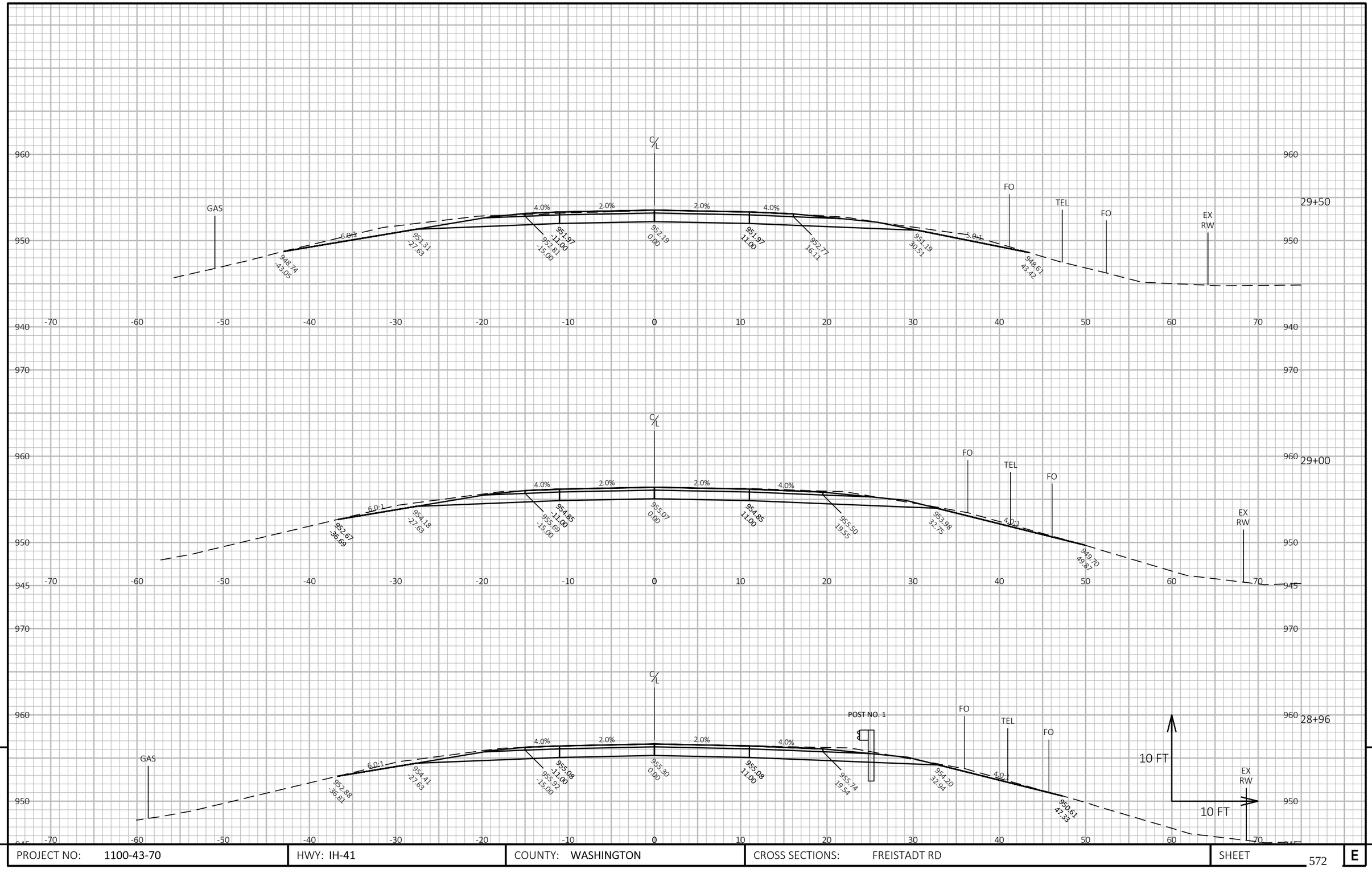
PLOT DATE : 1/31/2022 4:01 PM

PLOT BY : RING, STEVEN M

PLOT NAME :

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

WISDOT/CADDS SHEET 49

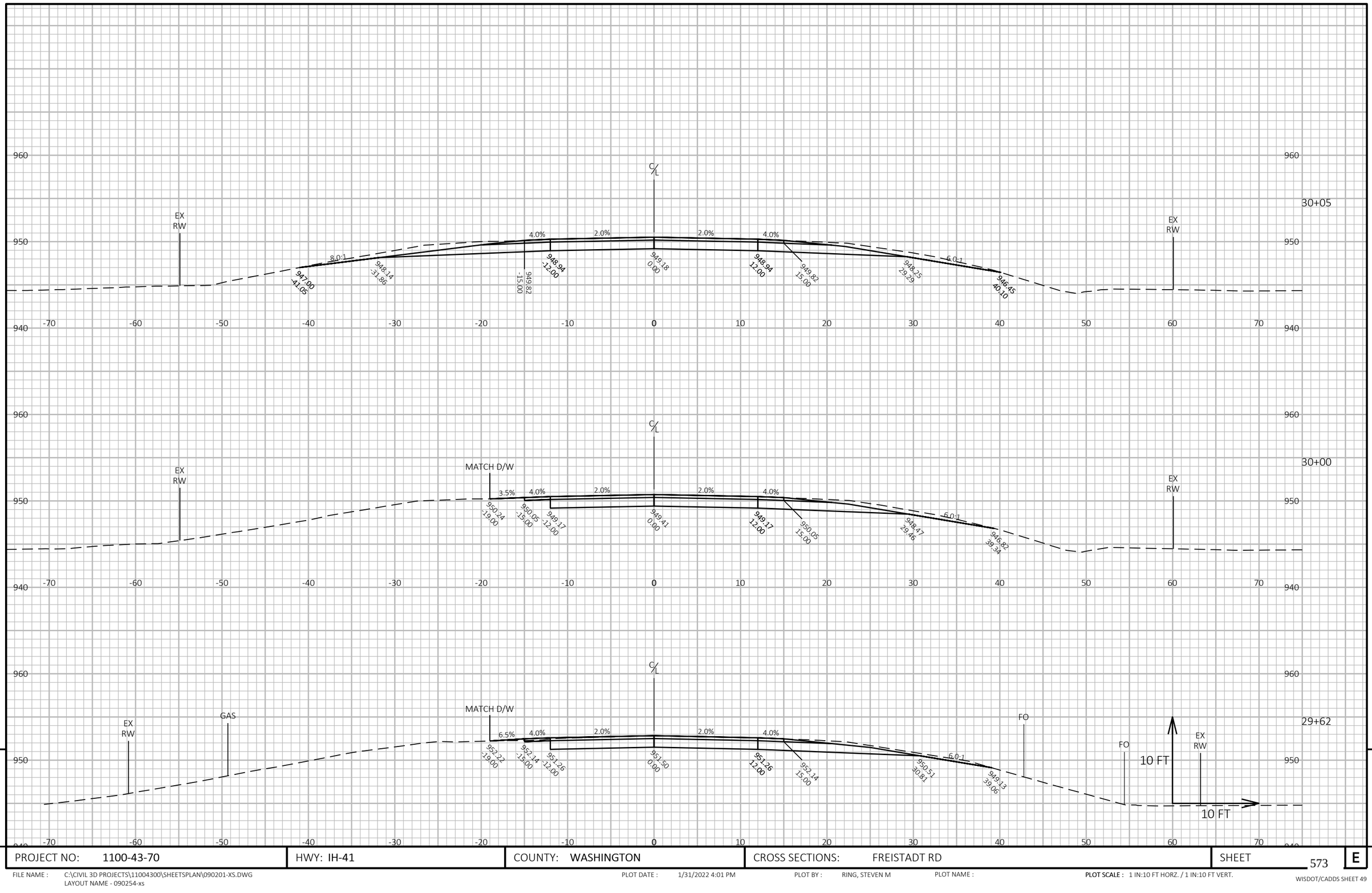


9	PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 572 E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090253-xs

PLOT DATE : 1/31/2022 4:01 PM PLOT BY : RING, STEVEN M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

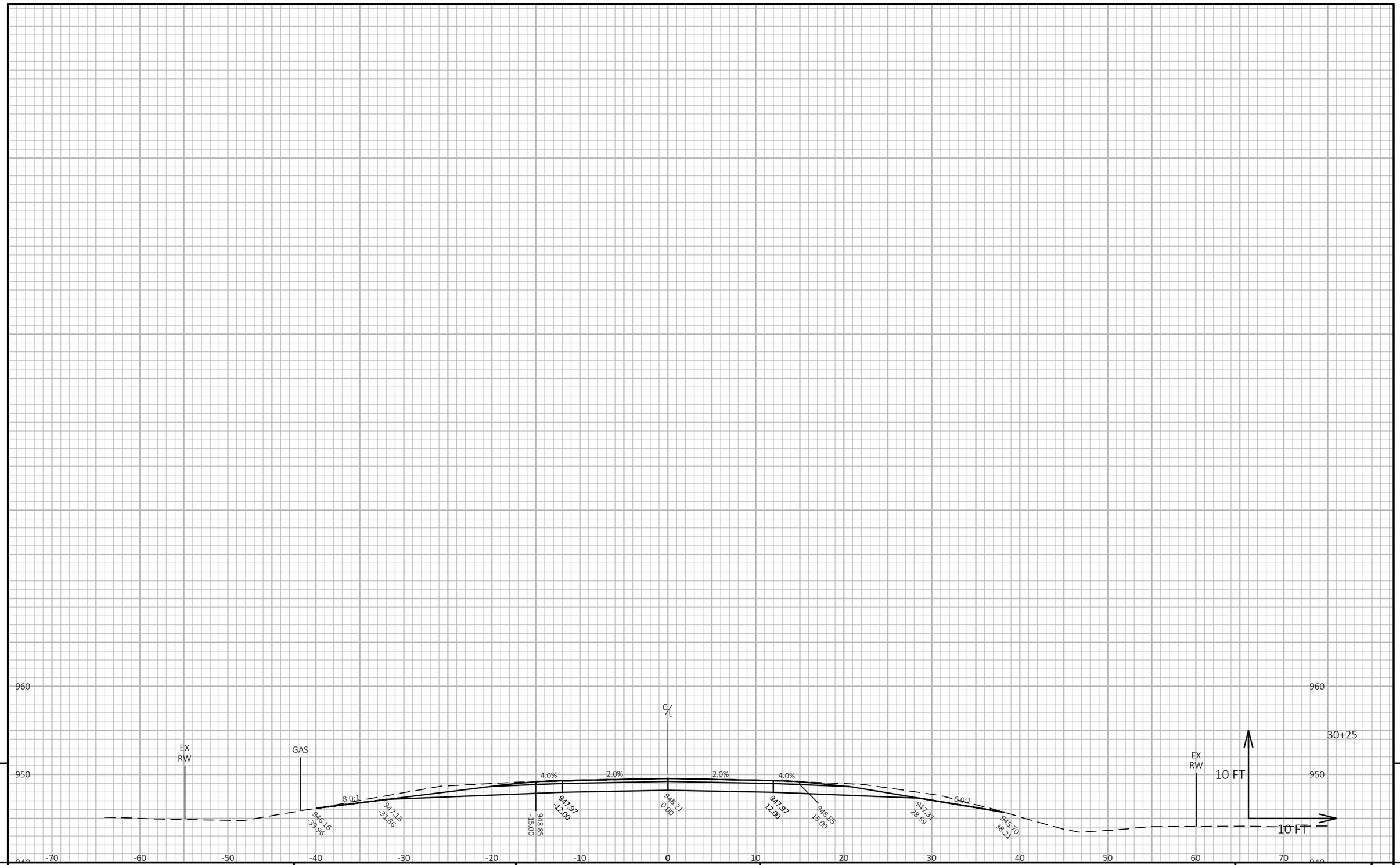
PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 573	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090254-xs

PLOT DATE : 1/31/2022 4:01 PM PLOT BY : RING, STEVEN M PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-43-70	HWY: IH-41	COUNTY: WASHINGTON	CROSS SECTIONS: FREISTADT RD	SHEET 574	E

FILE NAME : C:\CIVIL 3D PROJECTS\11004300\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090255-xs

PLOT DATE : 1/31/2022 4:01 PM PLOT BY : RING, STEVEN M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

WKE Jan 10, 2023

PROJECT ID: 3360-17-70

WITH: 10000986, 11004370, 37004370

COUNTY: WASHINGTON

ORDER OF SHEETS

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

TOTAL SHEETS = 142

N

DESIGN DESIGNATION 3360-17-00

A.A.D.T.	=	N/A
A.A.D.T.	=	N/A
D.H.V.	=	N/A
D.D.	=	N/A
T.	=	N/A
DESIGN SPEED	=	N/A
ESALS	=	N/A

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'ER')
- 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

STH 175 AND STH 167

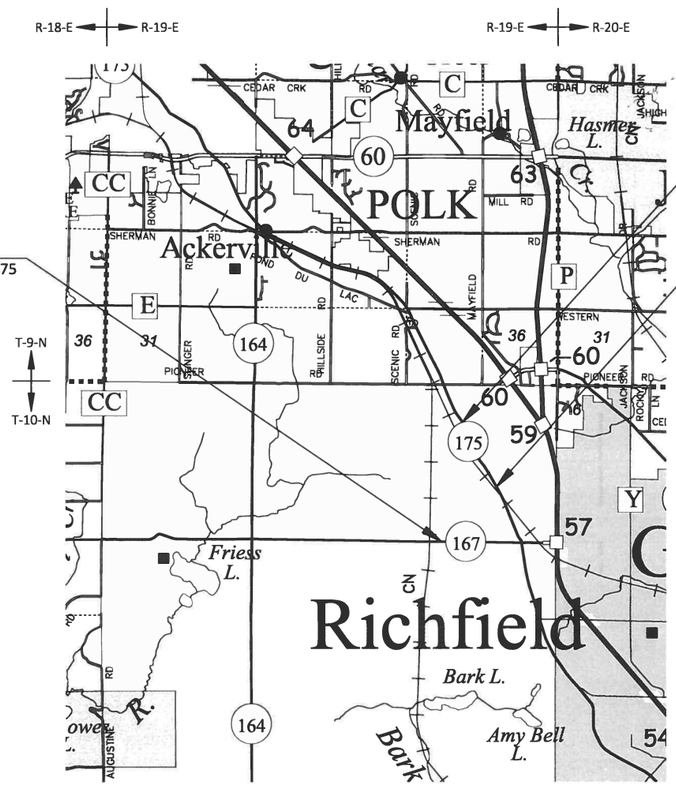
LOCATIONS ON STN PER PLAN

VAR HWY

WASHINGTON COUNTY

STATE PROJECT NUMBER
3360-17-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3360-17-70	WISC 2023155	1



R-66-62
BEGIN CONSTRUCTION STA 630+75
X:354,373.87
Y:121,369.98
END CONSTRUCTION 634+00

C-66-48 EXIST, C-66-159 NEW
BEGIN CONSTRUCTION STA 1242+60
X:356,151.07
Y:129,382.91
END CONSTRUCTION 1247+65

C-66-47
BEGIN CONSTRUCTION STA 1193+50
X:358,426.81
Y:125,077.87
END CONSTRUCTION 1196+00

LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.000

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

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ORIGINAL PLANS PREPARED BY

benesch
Alfred Benesch & Company
1300 West Canal Street, Suite 150
Milwaukee, Wisconsin 53233
(414) 385-1300 Web ID: 20289.00

WISCONSIN PROFESSIONAL ENGINEER
BENJAMIN J. WEIGAND
E-39495
RACINE, WI

DATE: 10/24/22 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SIGMA
Designer	ALFRED BENESCH & CO
Project Manager	JULIE JENKS
Regional Examiner	SE REGION
Regional Supervisor	JANET CANNON

APPROVED FOR THE DEPARTMENT

DATE: 10/24/2022 (Signature)

E

UTILITY CONTACTS

AT&T WISCONSIN - COMMUNICATION LINE

ROB WIECZOREK
MILWAUKEE, WI
262-994-8074
rw2712@us.att.com

CHARTER/SPECTRUM - COMMUNICATION LINE

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1515 W WASHINGTON ST
WEST BEND, WI 53095
414-312-2652
Ronald.Mueller@charter.com

WE ENERGIES - ELECTRIC DISTRIBUTION

JONATHAN SCHALOW
W140 N9100 LILLY RD.
MENOMONEE FALLS, WI 53051
262-502-6814 - MOBILE: 414-881-4743
Jonathan.Schalow@we-energies.com

WE ENERGIES - GAS

JACOB HULBERT
500 S 116th STREET
WEST ALLIS, WI 53214
414-944-5575 - MOBILE: 414-651-1577
Jacob.Hulbert@we-energies.com

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

PAVEMENT LOCATION	TOTAL PAVEMENT THICKNESS	LAYER	TYPE
STH 175 (C-66-47) SHOULDERS	5 INCHES	UPPER 1 3/4 INCHES	4 LT 58-28 S
		LOWER 3 1/4 INCHES	3 LT 58-28 S
STH 175 (C-66-159) LANES AND SHOULDERS	5 1/2 INCHES	UPPER 1 3/4 INCHES	4 LT 58-28 S
		LOWER 3 3/4 INCHES	3 LT 58-28 S

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
EROSION CONTROL
PAVEMENT MARKING
DETOUR PLAN
ALIGNMENT DETAIL

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANCE (PERCENT)			SLOPE RANCE (PERCENT)			SLOPE RANCE (PERCENT)			SLOPE RANCE (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	0.08 0.22	0.16 0.30	0.22 0.38	0.12 0.26	0.20 0.34	0.27 0.44	0.15 0.30	0.24 0.37	0.33 0.50	0.19 0.34	0.28 0.41	0.38 0.56
MEDIAN STRIP TURF	0.19 0.24	0.20 0.26	0.24 0.30	0.19 0.25	0.22 0.28	0.26 0.33	0.20 0.26	0.23 0.30	0.30 0.37	0.20 0.27	0.25 0.32	0.30 0.40
SIDE SLOPE TURF	0.25 0.34	0.27 0.36	0.25 0.32	0.30		0.27 0.34			0.28 0.36			0.30 0.38
PAVEMENT:												
ASPHALT	0.70 - 0.95											
CONCRETE	0.80 - 0.95											
BRICK	0.70 -0.80											
DRIVES, WALKS	0.75 - 0.85											
ROOFS	0.75 - 0.95											
GRAVEL ROADS, SHOULDERS	0.40 - 0.60											

TOTAL PROJECT AREA = 1.44 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.52 ACRES

GENERAL NOTES

1. THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA.
2. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.
3. THE COST OF GRADING, CONSTRUCTING, MAINTAINING, AND REMOVING TEMPORARY ACCESS IS INCIDENTAL TO THE CONTRACT.
4. DO NOT PLACE ANY TRAFFIC CONTROL WITHIN 50 FEET OF THE RAILROAD RIGHT-OF-WAY
5. REPLACE ALL GROUND LEVEL ITEMS (FENCES, ETC) THAT ARE DISTURBED IN THE TLE AREA OF PARCEL 1. NO SEPARATE PAYMENT WILL BE MADE, PAYMENT FOR WORK AND MATERIALS IS INCIDENTAL TO THE CONTRACT.
6. CONTACT THE PROJECT ENGINEER AND THE WASHINGTON COUNTY HIGHWAY COMMISSIONER, AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

EROSION CONTROL NOTES

1. RE-TOPSOIL DISTURBED AREAS, AS DESIGNATED BY THE ENGINEER. SEED AND E-MAT TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED.
2. STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED.
3. QUANTITIES FOR EROSION CONTROL ITEMS HAVE BEEN INCLUDED IN THE PROJECT, BUT MAY NOT BE REPRESENTED ON THE PLAN. THE LOCATIONS AND TYPE OF EROSION CONTROL ITEMS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL ITEMS SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE ITEM IS NO LONGER REQUIRED

OTHER AGENCIES

WISDNR

SOUTHERN REGION
KRISTINA BETZOLD
2300 N DR MARTIN LUTHER KING DR
MILWAUKEE, WI 53212
414-507-4946
Kristina.Betzold@wisconsin.gov

WISDOT

SOUTHEAST REGION
JULIE JENKS
141 NW BARSTOW ST
WAUKESHA, WI 53187
262-548-6462
Julie.Jenks@dot.wi.gov

DESIGN

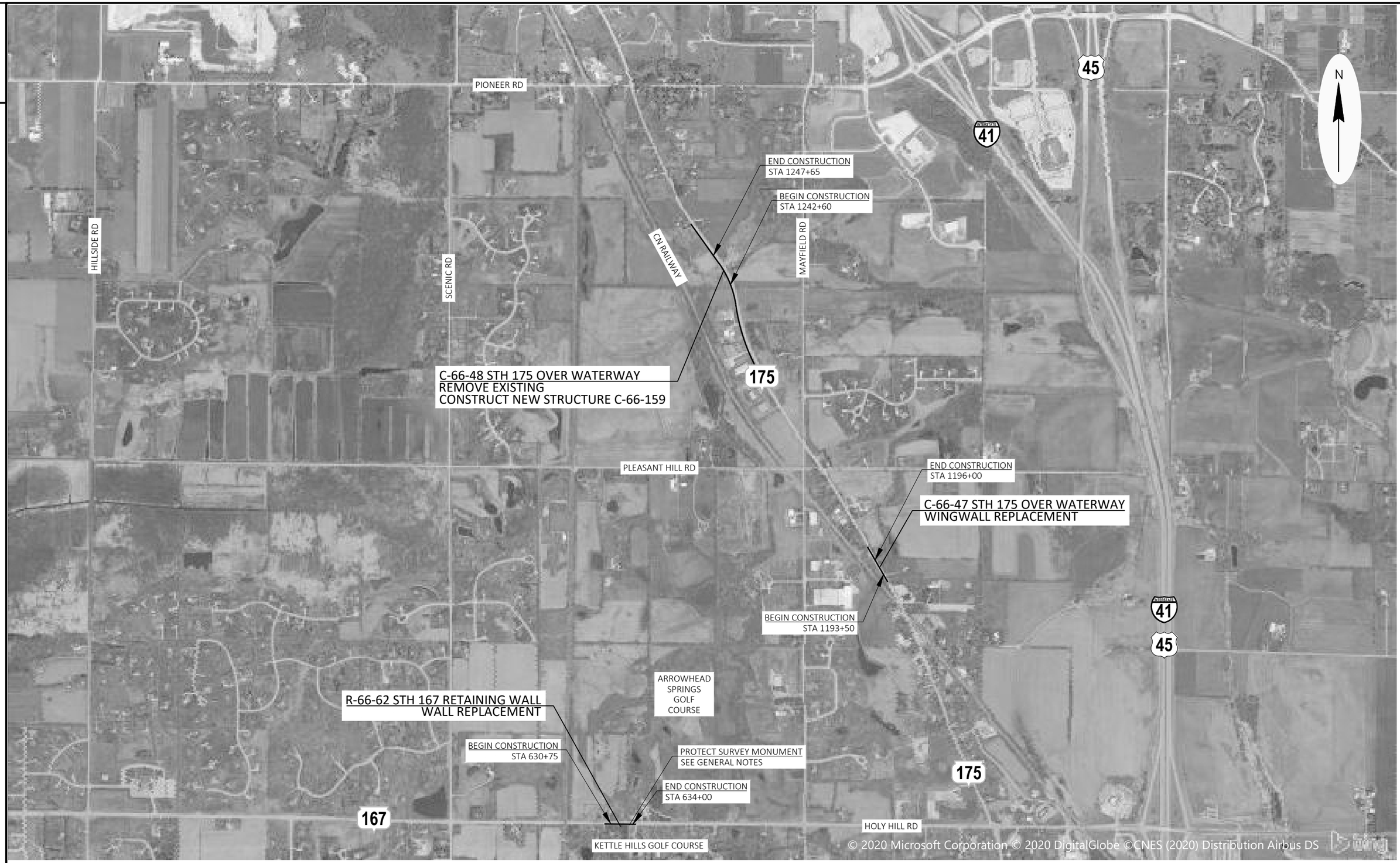
ALFRED BENESCH & CO
BEN WEIGAND
1300 W CANAL ST, SUITE 150
MILWAUKEE, WI 53233
414-308-1322
bweigand@benesch.com

WASHINGTON COUNTY

HIGHWAY COMMISSIONER
SCOTT M SCHMIDT, PE, PLS
900 LANG STREET
WEST BEND, WI 53090
262-335-6881
scott.schmidt@co.washington.wi.us

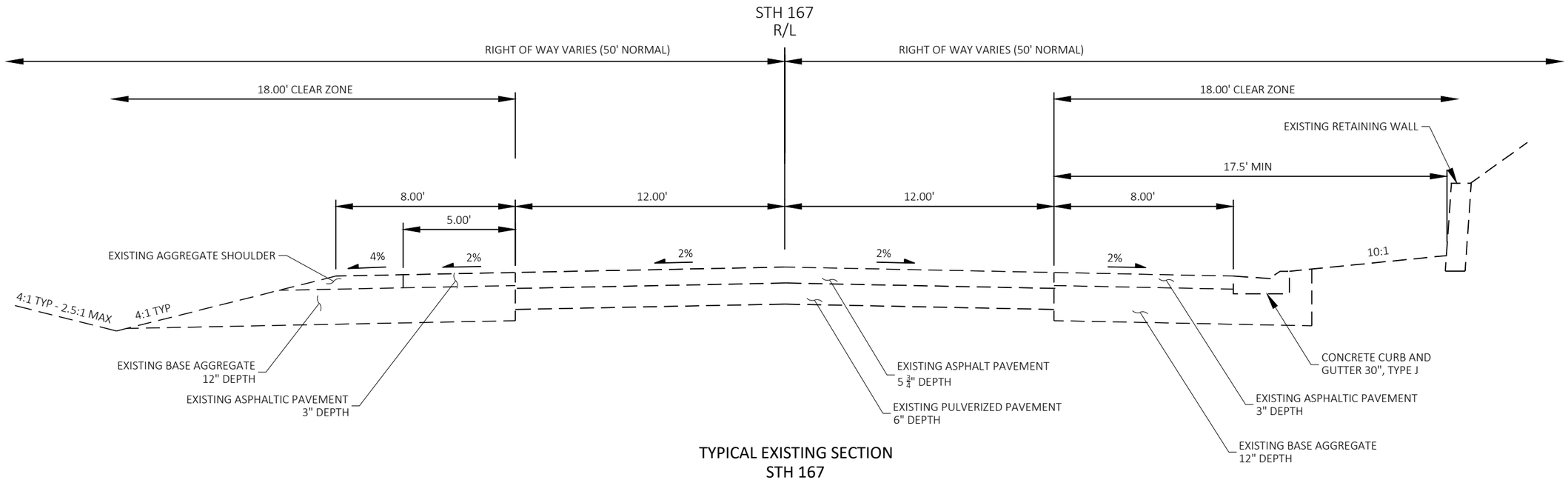
VILLAGE OF RICHFIELD

PUBLIC WORKS SUPERVISOR
BRETT THICKE
4128 HUBERTUS RD
HUBERTUS, WI 53033
262-628-2260
dpw@richfieldwi.gov

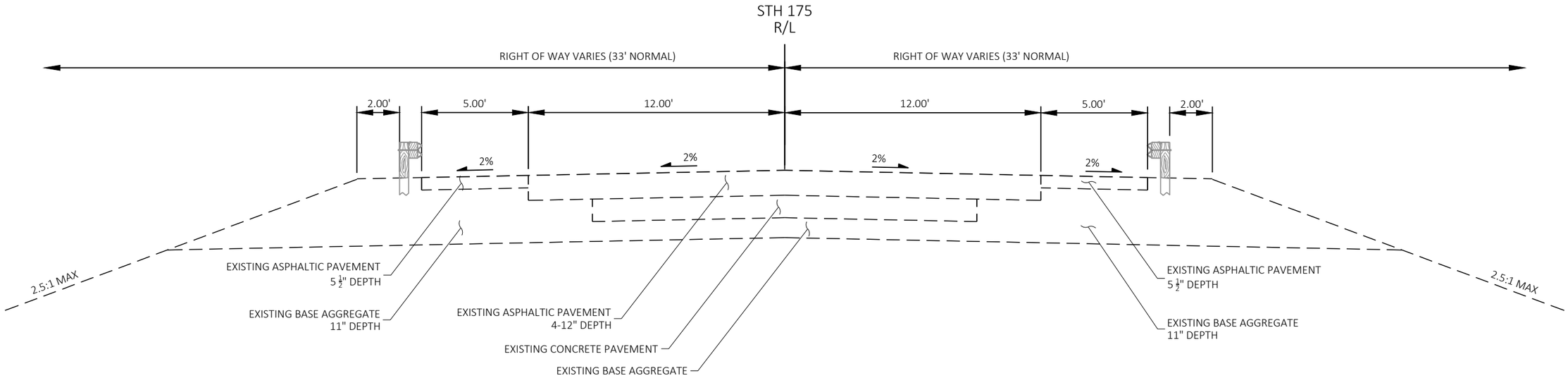


PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\020201_PO.DWG
LAYOUT NAME - 01
PLOT DATE : 1/17/2022 2:49 PM PLOT BY : WEIGAND, BEN PLOT NAME : PLOT SCALE : #########
WISDOT/CADDS SHEET 42



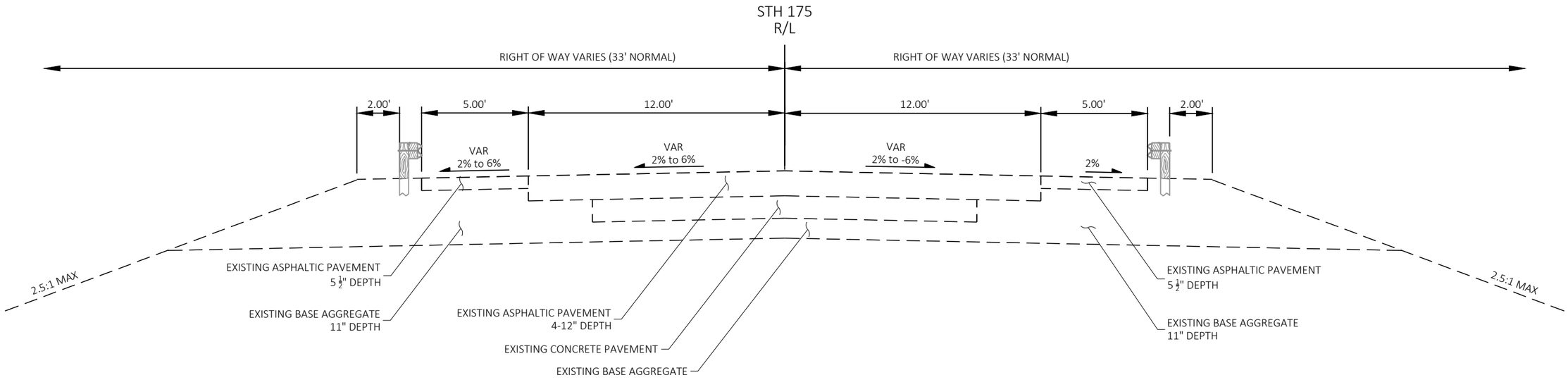
TYPICAL EXISTING SECTION
STH 167
(R-66-62)
STA 630+75 to 634+00



TYPICAL EXISTING SECTION
STH 175
(C-66-47)
STA 1194+50 to 1195+10

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET 4	E

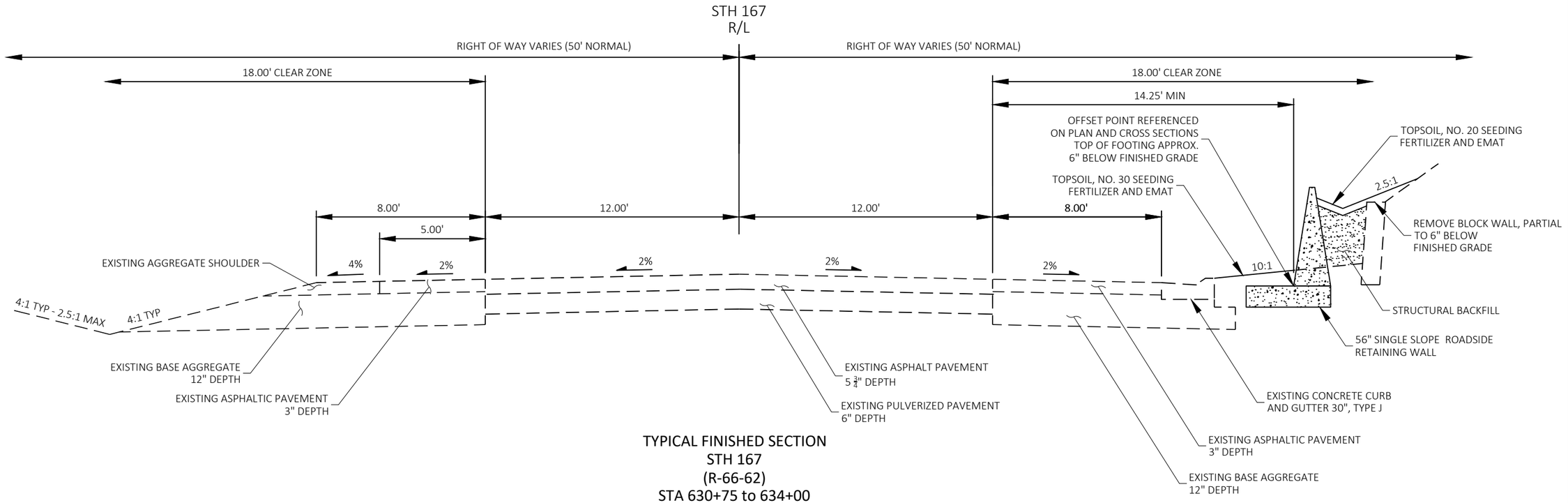
2



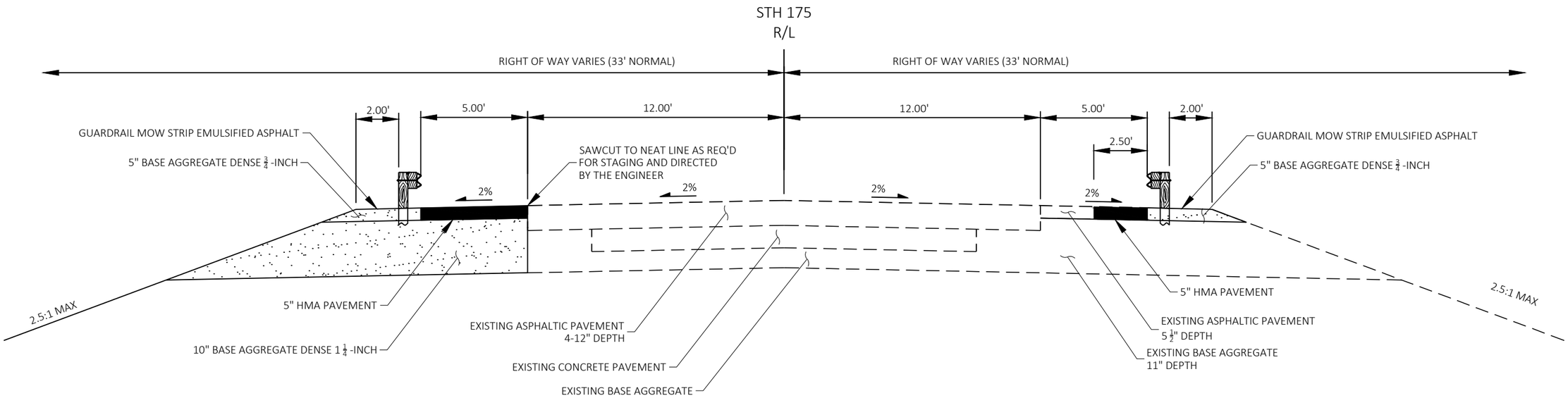
TYPICAL EXISTING SECTION
STH 175
(C-66-159)
STA 1242+60 to 1247+65

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET 5	E

2



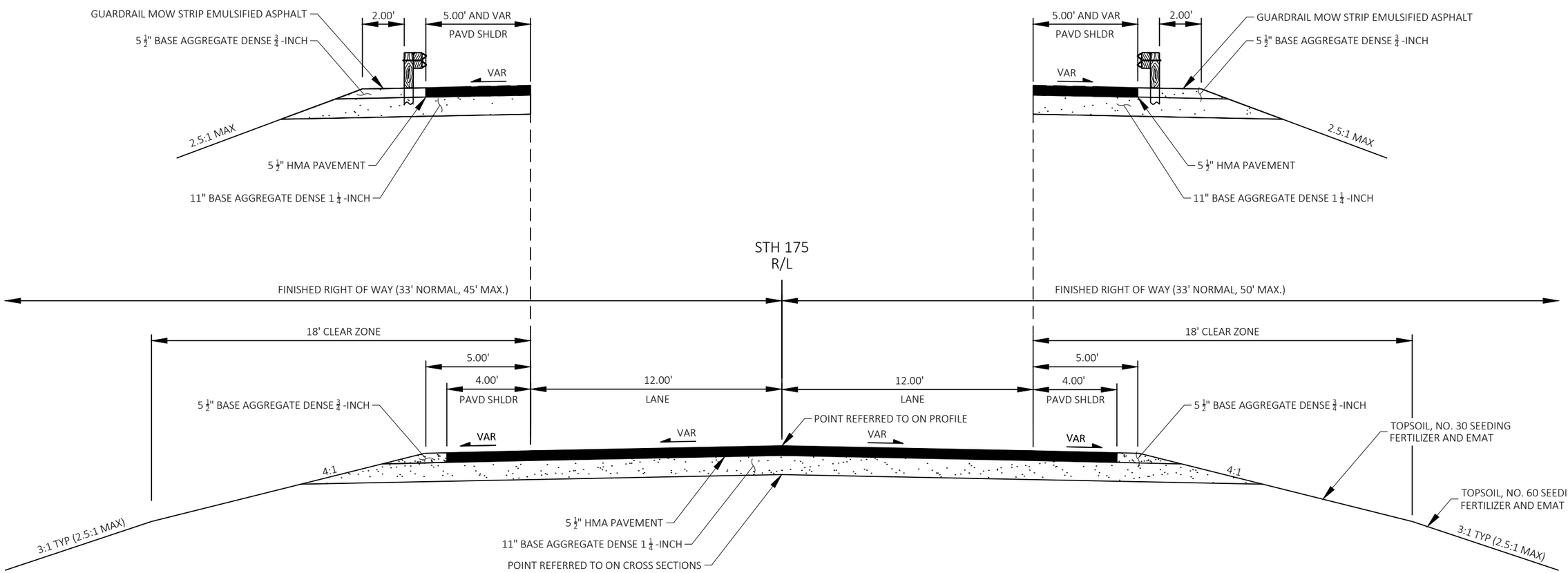
TYPICAL FINISHED SECTION
STH 167
(R-66-62)
STA 630+75 to 634+00



TYPICAL FINISHED SECTION
STH 175
(C-66-47)
STA 1194+50 to 1195+10

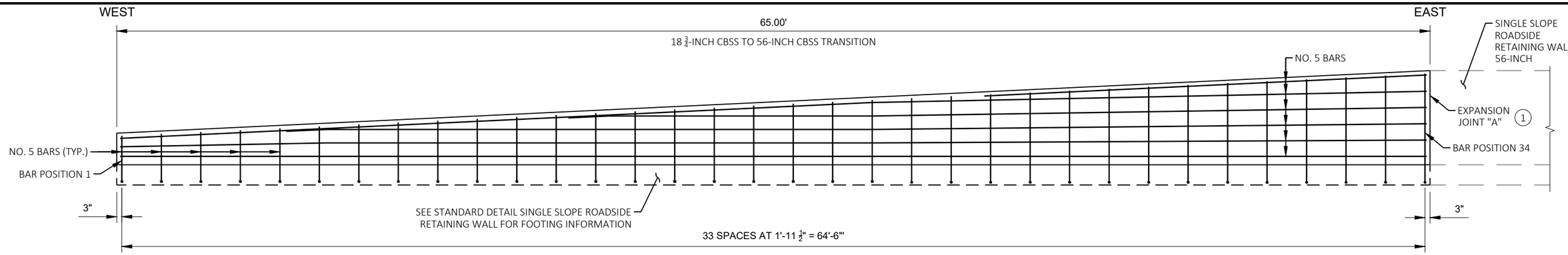
PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	PLAN: TYPICAL SECTIONS	SHEET 6	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\020301_TS.DWG
LAYOUT NAME - 08
PLOT DATE : 10/25/2022 9:17 AM
PLOT BY : WEIGAND, BEN
PLOT NAME :
PLOT SCALE : 1 IN:5 FT
WISDOT/CADDS SHEET 42

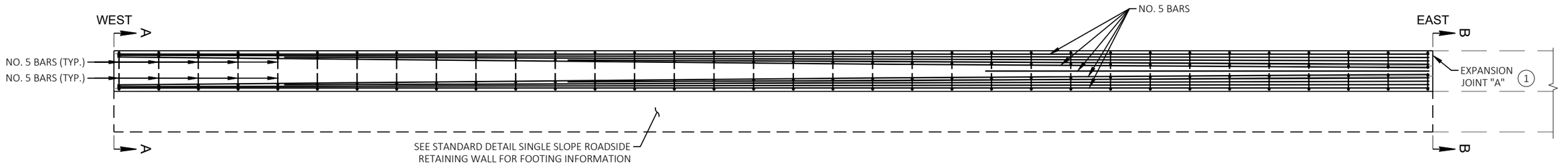


TYPICAL FINISHED SECTION
STH 175
(C-66-159)
STA 1242+60 to 1247+65

SUPERELEVATION TRANSITION EVENT POINTS		RATE			
LOCATION	STATION	LEFT OF CROWNLINE		RIGHT OF CROWNLINE	
		LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
Begin Project	1242+60.00	-5.10%	-5.10%	2.80%	-4.00%
Full Super Left	1242+84.07	-6.00%	-6.00%	3.70%	-4.00%
Full Super Both	1243+45.57	-6.00%	-6.00%	6.00%	-2.00%
End Full Super	1245+68.92	-6.00%	-6.00%	6.00%	-2.00%
Low Shoulder Match	1246+22.26	-4.00%	-4.00%	4.00%	-4.00%
Reverse Crown	1246+75.59	-4.00%	-2.00%	2.00%	-4.00%
Level Crown	1247+28.92	-4.00%	-2.00%	0.00%	-4.00%
End Project	1247+65.00	-4.00%	-2.00%	-1.40%	-4.00%



ELEVATION VIEW



PLAN VIEW

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS OTHERWISE NOTED.

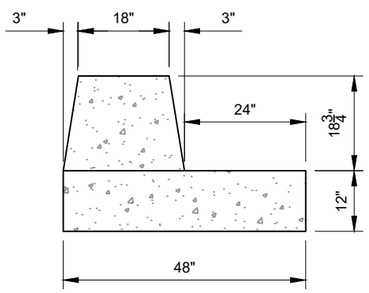
4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

USE 3/4" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.

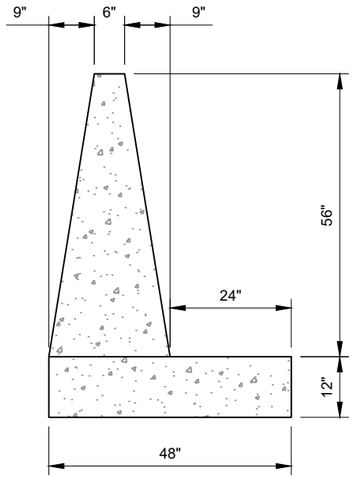
THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

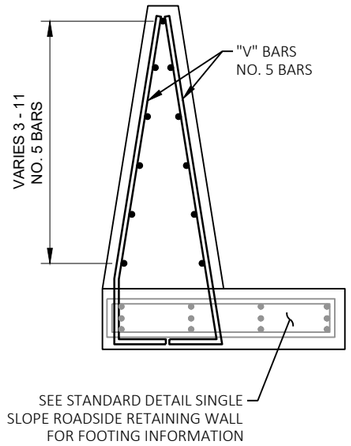
(1) EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD JOINT IS USED, ANCHOR IS NOT REQUIRED.



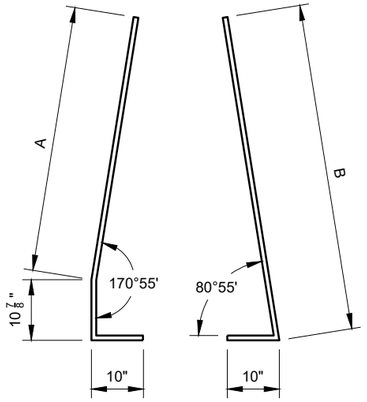
SECTION A - A



SECTION B - B



BAR DETAIL
BAR POSITIONS



BENDING DETAIL

BAR CHART
BAR POSITIONS
V1-V34

BAR	A	B
V1	1'-4 1/4"	2'-3 1/2"
V2	1'-5 1/4"	2'-4 1/2"
V3	1'-6 1/2"	2'-5 3/4"
V4	1'-7 1/2"	2'-7"
V5	1'-8 3/4"	2'-8"
V6	1'-9 3/4"	2'-9 1/4"
V7	1'-11"	2'-10 1/4"
V8	2'-0"	2'-11 1/2"
V9	2'-1 1/4"	3'-0 1/2"
V10	2'-2 1/2"	3'-1 3/4"
V11	2'-3 1/2"	3'-2 3/4"
V12	2'-4 3/4"	3'-4"
V13	2'-5 3/4"	3'-5"
V14	2'-7"	3'-6 1/4"
V15	2'-8"	3'-7 1/4"
V16	2'-9 1/4"	3'-8 1/2"
V17	2'-10 1/4"	3'-9 3/4"

BAR	A	B
V18	2'-11 1/2"	3'-10 3/4"
V19	3'-0 1/2"	4'-0"
V20	3'-1 3/4"	4'-1"
V21	3'-2 3/4"	4'-2 1/4"
V22	3'-4"	4'-3 1/4"
V23	3'-5"	4'-4 1/2"
V24	3'-6 1/4"	4'-5 1/2"
V25	3'-7 1/2"	4'-6 3/4"
V26	3'-8 1/2"	4'-7 3/4"
V27	3'-9 3/4"	4'-9"
V28	3'-10 3/4"	4'-10"
V29	4'-0"	4'-11 1/4"
V30	4'-1"	5'-0 1/2"
V31	4'-2 1/4"	5'-1 1/2"
V32	4'-3 1/4"	5'-2 3/4"
V33	4'-4 1/2"	5'-3 3/4"
V34	4'-5 1/2"	5'-5"

2

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS OTHERWISE NOTED.

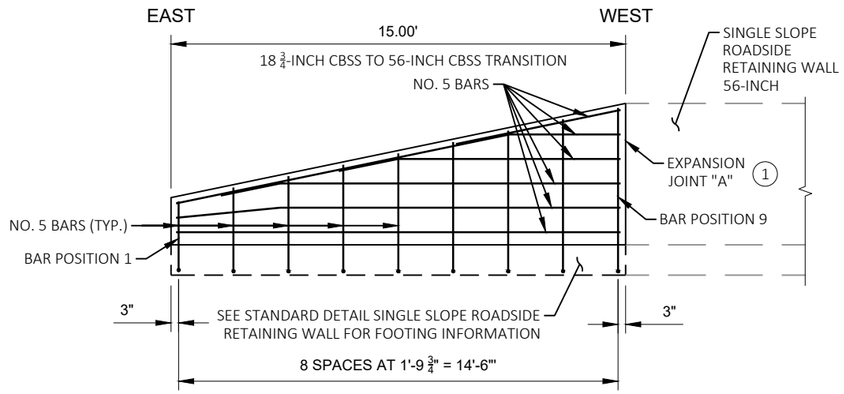
4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

USE $\frac{3}{4}$" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.

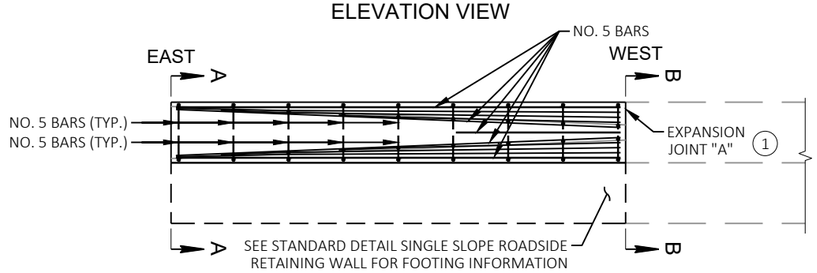
THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

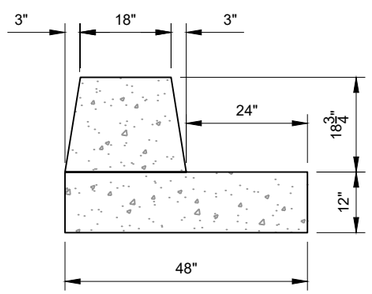
(1) EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD JOINT IS USED, ANCHOR IS NOT REQUIRED.



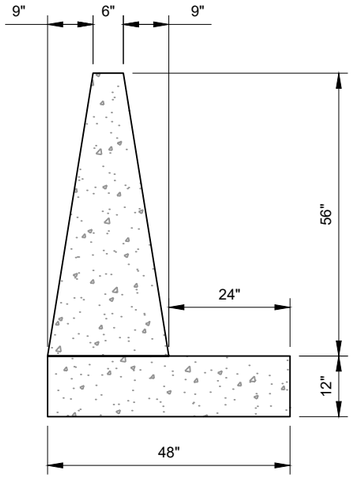
ELEVATION VIEW



PLAN VIEW



SECTION A - A



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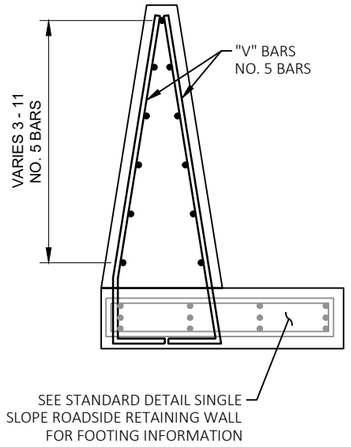
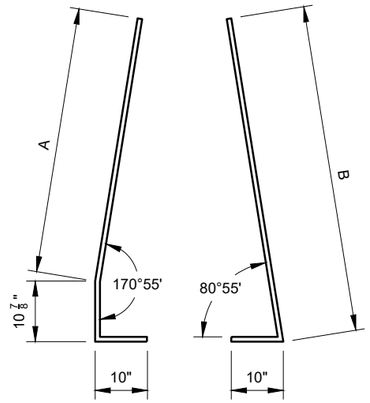


BAR DETAIL
BAR POSITIONS

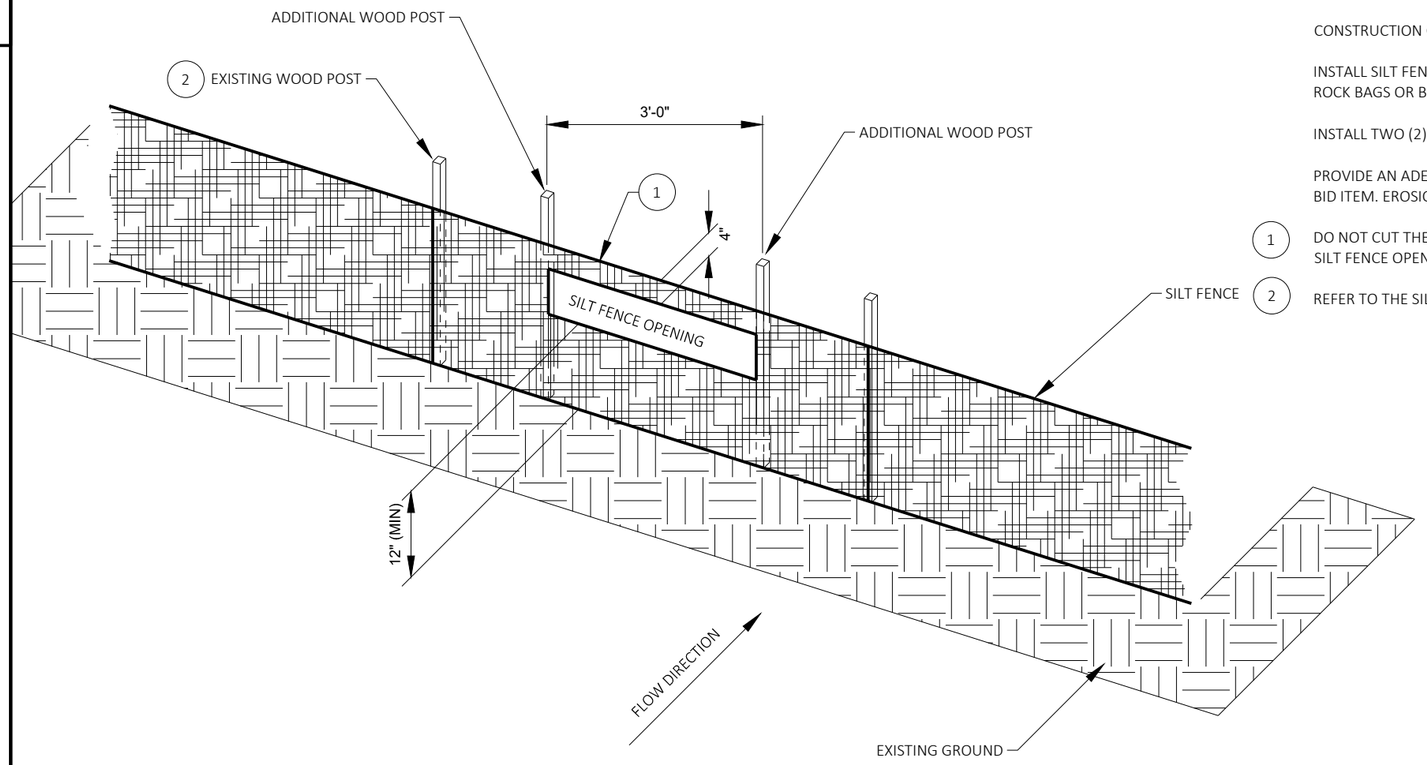


BENDING DETAIL

BAR CHART
BAR POSITIONS
V1-V9

BAR	A	B
V1	1'-4 $\frac{3}{4}$"	2'-4"
V2	1'-9 $\frac{1}{4}$"	2'-8 $\frac{1}{2}$"
V3	2'-1 $\frac{3}{4}$"	3'-1"
V4	2'-6 $\frac{1}{4}$"	3'-5 $\frac{3}{4}$"
V5	2'-11"	3'-10 $\frac{1}{4}$"
V6	3'-3 $\frac{1}{2}$"	4'-2 $\frac{3}{4}$"
V7	3'-8"	4'-7 $\frac{1}{4}$"
V8	4'-0 $\frac{1}{2}$"	4'-11 $\frac{3}{4}$"
V9	4'-5"	5'-4 $\frac{1}{2}$"

2



GENERAL NOTES

THE SILT FENCE RELIEF DETAIL IS A SUPPLEMENTAL DETAIL TO THE SILT FENCE STANDARD DETAILS AND SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONSTRUCTION OF THE SILT FENCE OPENING SHALL BE INCIDENTAL TO THE COST OF THE SILT FENCE MAINTENANCE BID ITEM.

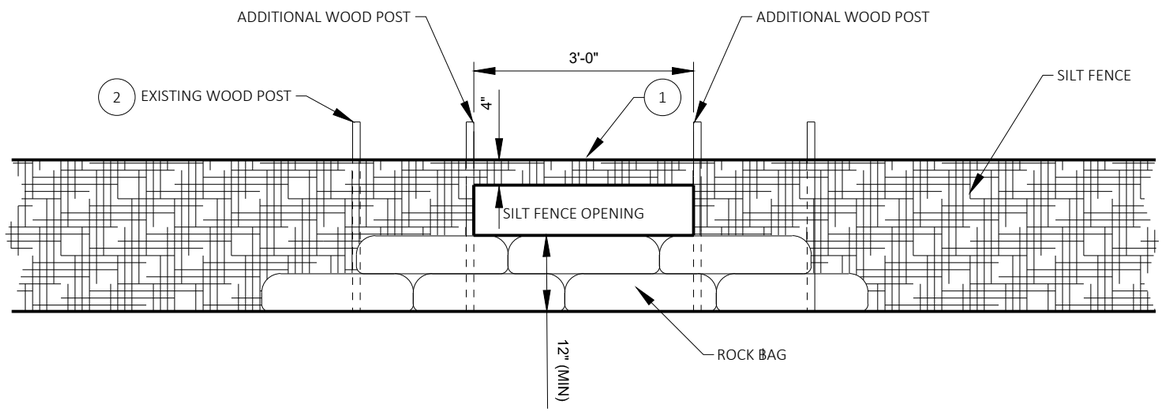
INSTALL SILT FENCE PRIOR TO CONSTRUCTING THE SILT FENCE OPENING. PRIOR TO CUTTING THE SILT FENCE OPENING, PLACE ROCK BAGS OR BALES AT THE SILT FENCE OPENING AS SHOWN IN THIS DETAIL. SILT FENCE OPENING SHOULD BE BETWEEN 4" - 8" TALL

INSTALL TWO (2) ADDITIONAL POSTS AT 3' SPACING AT LOCATION OF OPENING.

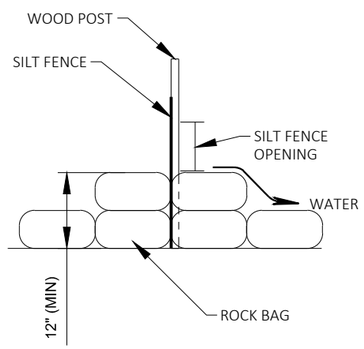
PROVIDE AN ADEQUATE NUMBER OF ROCK BAGS OR BALES TO STACK TO A HEIGHT OF 1' (MINIMUM). ROCK BAGS SHALL BE PAID UNDER THE ROCK BAGS BID ITEM. EROSION BALES SHALL BE PAID UNDER THE EROSION BALES BID ITEM.

(1) DO NOT CUT THE SUPPORT CORD OR TENSION TAPE WHEN CONSTRUCTING THE SILT FENCE OPENING. CUT THE SILT FENCE OPENING AT LEAST 1" BELOW THE 3" FOLD AT THE SUPPORT CORD OR TENSION TAPE.

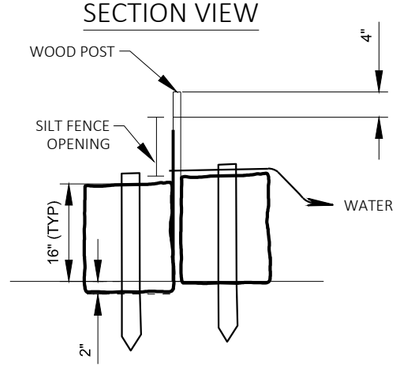
(2) REFER TO THE SILT FENCE STANDARD DETAILS FOR ALLOWABLE ADJUSTMENTS TO POST SPACING.



SECTION VIEW



SECTION VIEW

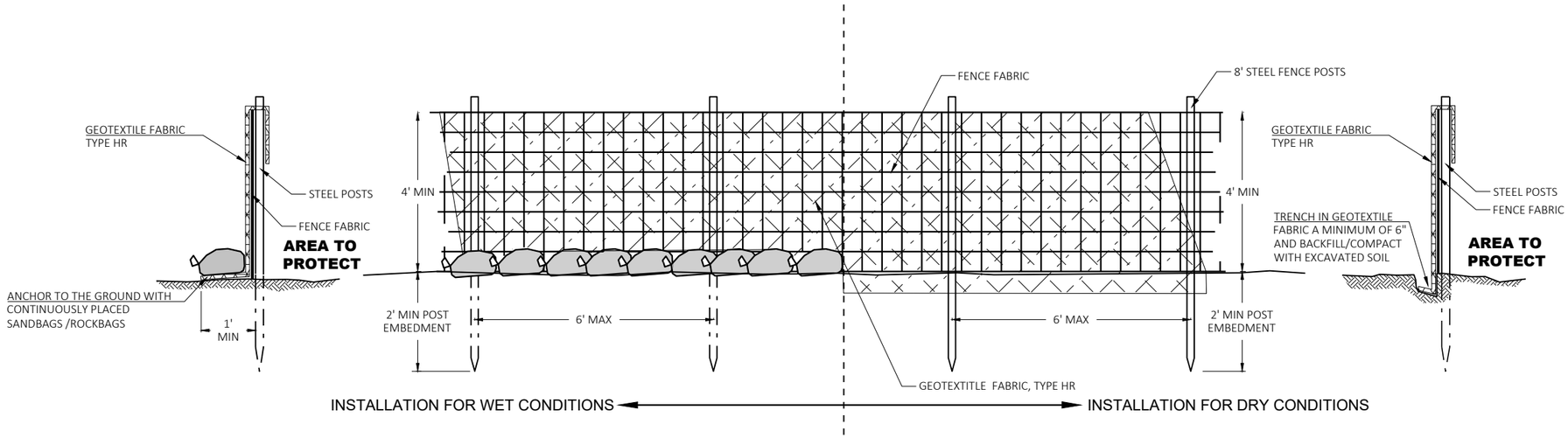


SILT FENCE RELIEF DETAIL

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CONSTRUCTION DETAILS	SHEET 10	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\021001_CD.DWG
LAYOUT NAME - 03
PLOT DATE : 10/18/2021 7:46 AM
PLOT BY : WEIGAND, BEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

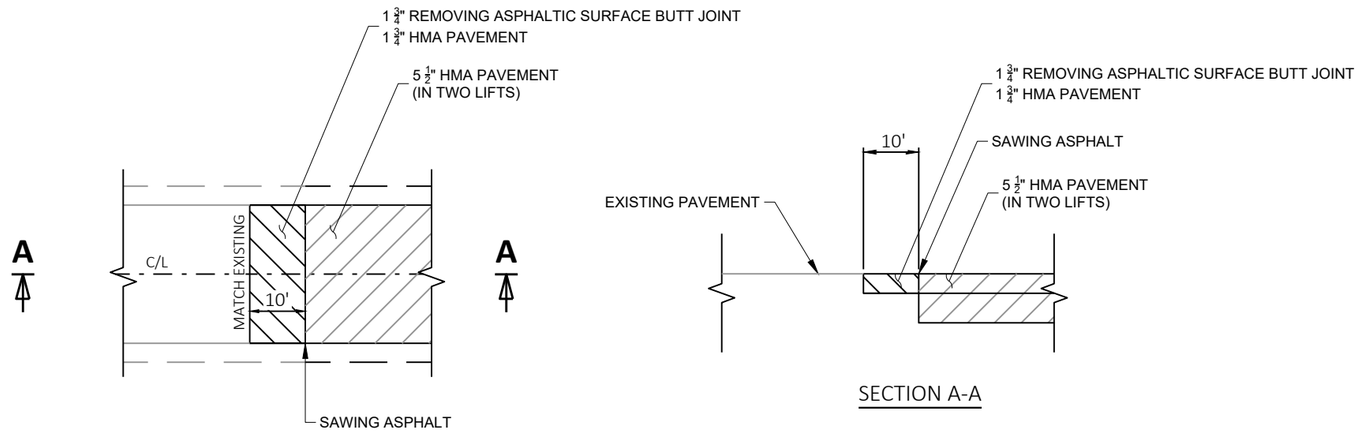
2



SILT FENCE HEAVY DUTY

GENERAL NOTES:

1. ATTACH FENCE FABRIC TO POSTS A MINIMUM OF 3 TIES PER POST (TOP, MIDDLE, BOTTOM)
2. ATTACH GEOTEXTILE FABRIC TO FENCE FABRIC AND/OR POSTS AT A MAXIMUM SPACING OF EVERY 2 FEET ALONG THE TOP AND ADDITIONALLY AS NECESSARY TO PREVENT DISPLACEMENT BY WIND AND WAVE ACTIONS.



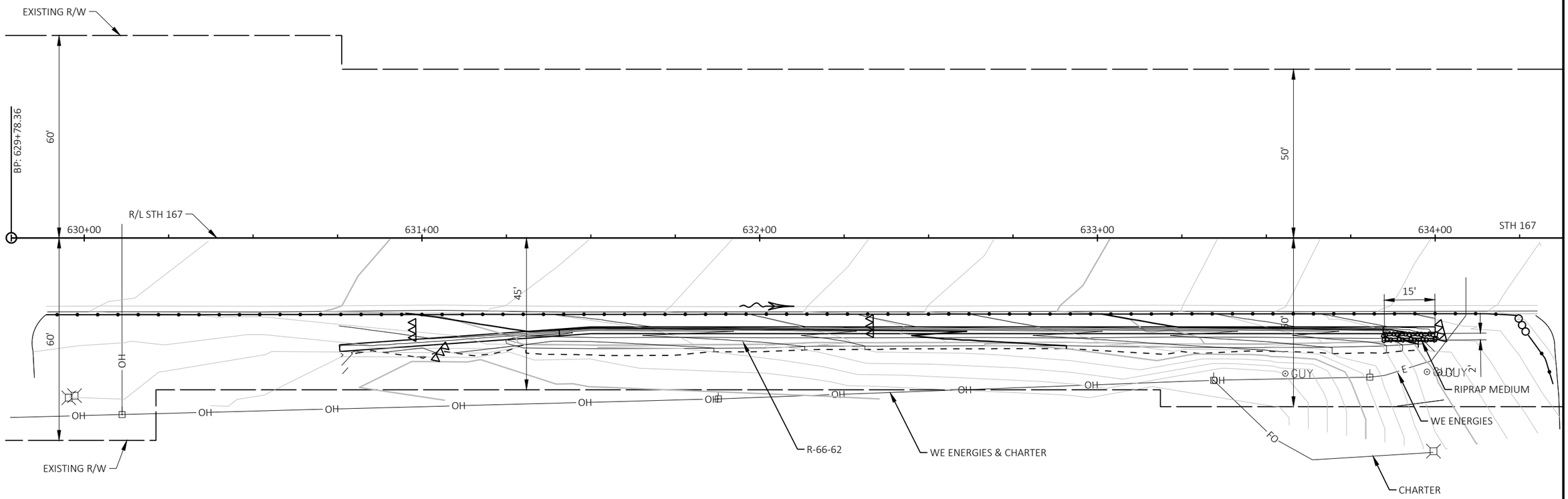
SECTION A-A

BUTT JOINT

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CONSTRUCTION DETAILS	SHEET 11	E

2

N



NOTES

1. ALL DISTURBED GROUND TO RECEIVE SALVAGED TOPSOIL, SEEDING, AND EROSION MAT URBAN CLASS I TYPE B
2. LIMITS OF DISTURBANCE ARE APPROXIMATE. ACTUAL LIMITS OF DISTURBANCE TO COORDINATED WITH THE ENGINEER. NO ADDITIONAL WETLAND IMPACTS WILL BE ALLOWED BEYOND WHAT IS SHOWN ON THE PLAN.
3. SEE GENERAL NOTES FOR MORE ACCESS AND EROSION CONTROL INFORMATION.

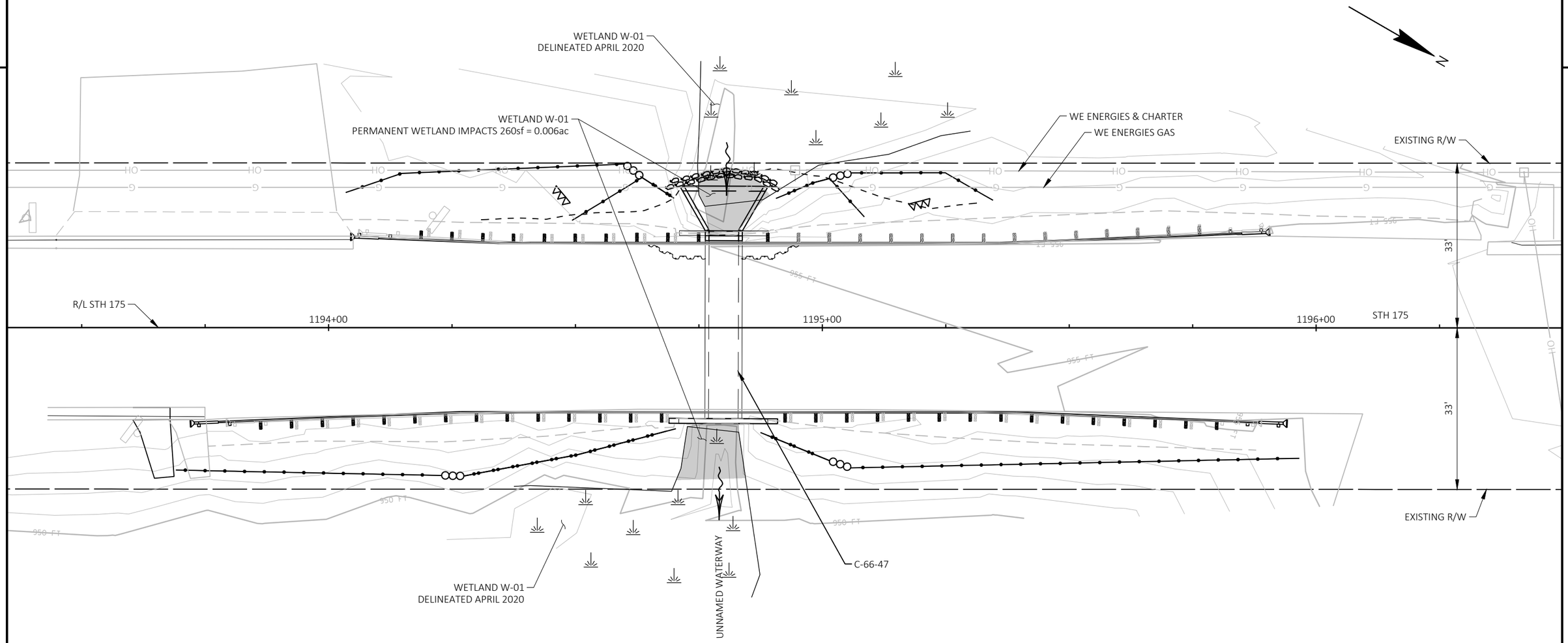
LEGEND

- SILT FENCE
- LIMITS OF DISTURBANCE
- SILT FENCE RELIEF
- TEMPORARY DITCH CHECK

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	EROSION CONTROL: R-66-62 (STH 167)	SHEET 12	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 01
PLOT DATE : 1/18/2022 3:38 PM
PLOT BY : WEIGAND, BEN
PLOT NAME :
PLOT SCALE : 1 IN:30 FT
WISDOT/CADDS SHEET 42

2



LEGEND

- SILT FENCE
- HEAVY DUTY SILT FENCE
- LIMITS OF DISTURBANCE
- TEMPORARY SHORING
- COFFERDAM
- SILT FENCE RELIEF
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- WETLAND IMPACTS

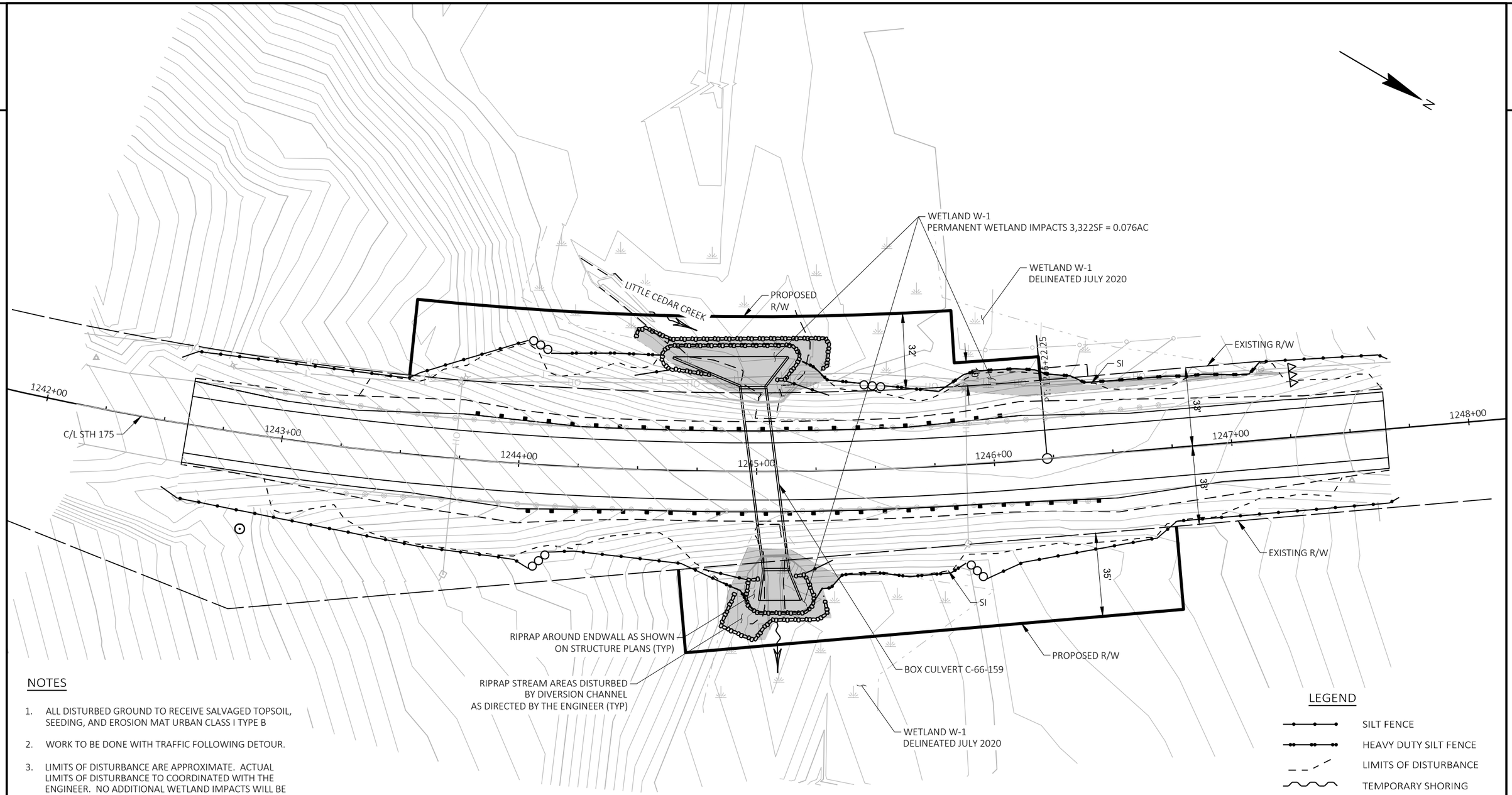
NOTES

1. ALL DISTURBED GROUND TO RECEIVE SALVAGED TOPSOIL, SEEDING MIXTURE NO. 30, AND EROSION MAT URBAN CLASS I TYPE B
2. WORK TO BE DONE WITH TRAFFIC UNDER DETOUR. SEE DETOUR PLAN.
3. LIMITS OF DISTURBANCE ARE APPROXIMATE. ACTUAL LIMITS OF DISTURBANCE TO COORDINATED WITH THE ENGINEER. NO ADDITIONAL WETLAND IMPACTS WILL BE ALLOWED BEYOND WHAT IS SHOWN ON THE PLAN.
4. SEE GENERAL NOTES FOR MORE ACCESS AND EROSION CONTROL INFORMATION.
5. SEE STRUCTURE PLANS FOR LIMITS OF FINAL RIPRAP.
6. HEAVY DUTY SILT FENCE TO BE USED ADJACENT TO WETLAND AREAS TO A MINIMUM OF 10 FEET BEYOND THE WETLAND LIMITS.

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	EROSION CONTROL: C-66-47 (STH 175)	SHEET 13	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\022002_EC.DWG
LAYOUT NAME - 01
PLOT DATE : 1/18/2022 3:39 PM
PLOT BY : WEIGAND, BEN
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2



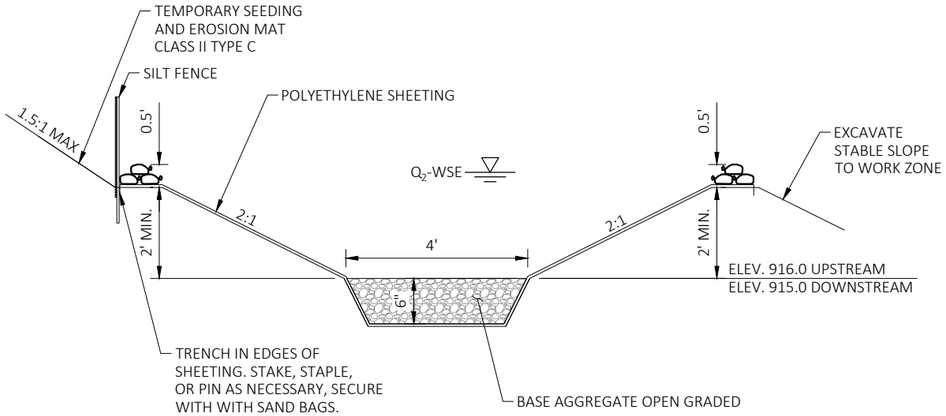
NOTES

1. ALL DISTURBED GROUND TO RECEIVE SALVAGED TOPSOIL, SEEDING, AND EROSION MAT URBAN CLASS I TYPE B
2. WORK TO BE DONE WITH TRAFFIC FOLLOWING DETOUR.
3. LIMITS OF DISTURBANCE ARE APPROXIMATE. ACTUAL LIMITS OF DISTURBANCE TO COORDINATED WITH THE ENGINEER. NO ADDITIONAL WETLAND IMPACTS WILL BE ALLOWED BEYOND WHAT IS SHOWN ON THE PLAN.
4. SEE GENERAL NOTES FOR MORE ACCESS AND EROSION CONTROL INFORMATION.

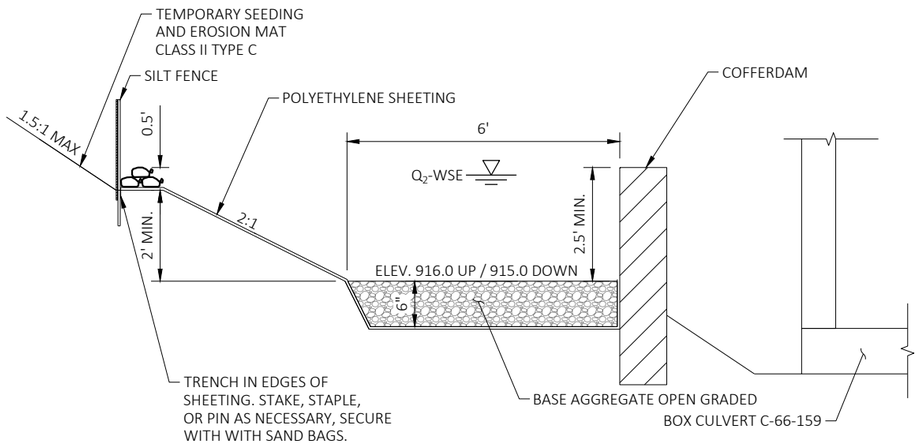
LEGEND

- SILT FENCE
- HEAVY DUTY SILT FENCE
- LIMITS OF DISTURBANCE
- TEMPORARY SHORING
- COFFERDAM
- SILT FENCE RELIEF
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- WETLAND IMPACTS

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	EROSION CONTROL : C-66-159 (STH 175)	SHEET 14	E



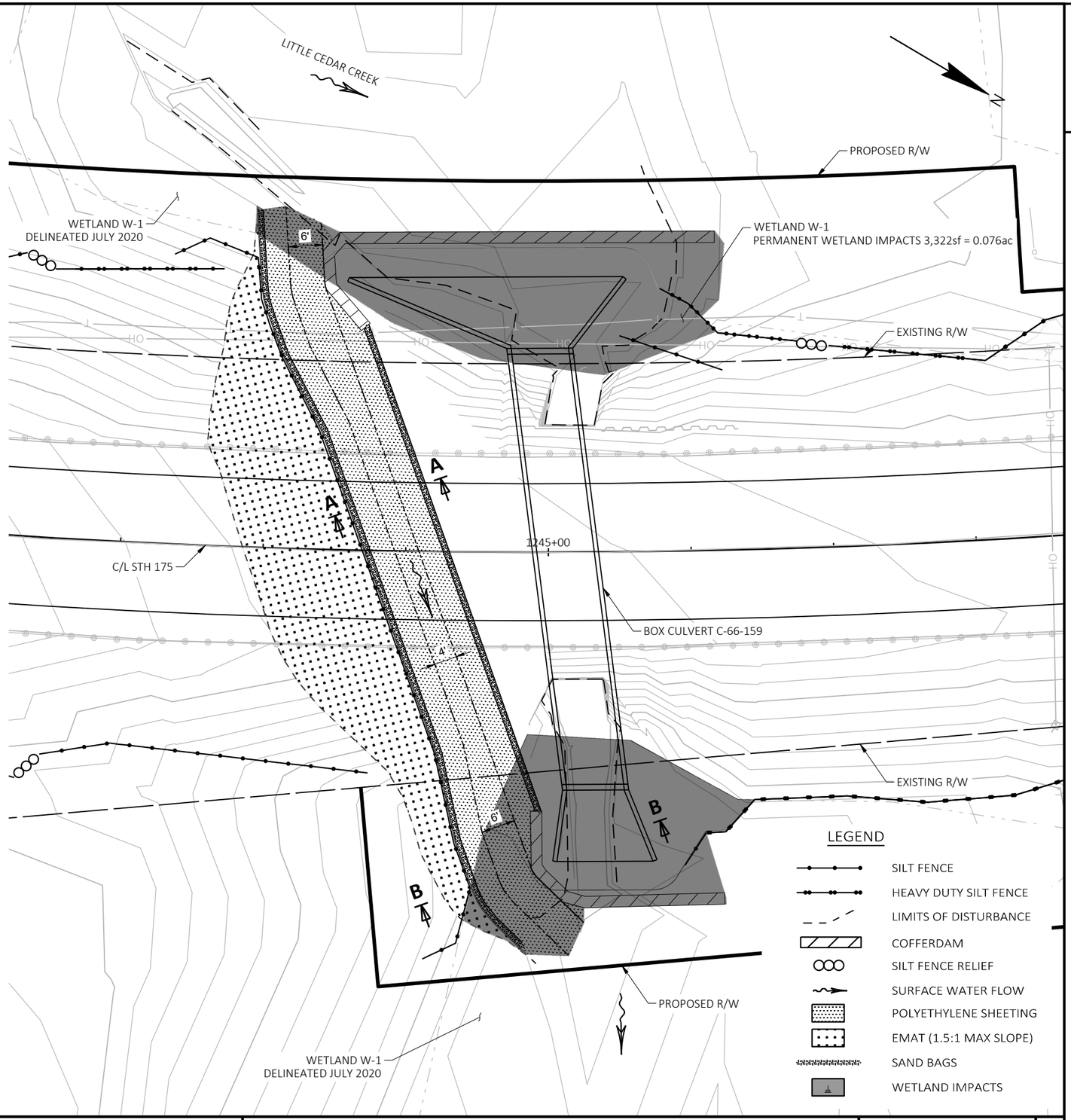
SECTION A-A



SECTION B-B

NOTES

1. DIVERSION CHANNEL SHOWN FOR INFORMATION ONLY.
   CONTRACTOR MAY CHOOSE DEWATERING METHODS WHICH SUIT THEIR BEST PRACTICES.
2. SUBMIT A WATER DIVERSION PLAN TO THE ENGINEER AS PART OF THE EROSION CONTROL IMPLEMENTATION PLAN.
3. THE TEMPORARY DIVERSION CHANNEL MUST BE CAPABLE OF DIVERTING THE 2-YEAR RAINFALL EVENT STREAM FLOW (Q_2). FISH AND AQUATIC SPECIES THAT BECOME STRANDED IN DEWATERED AREAS OR TEMPORARY CHANNELS SHOULD BE CAPTURED AND RETURNED TO THE ACTIVE CHANNEL IMMEDIATELY.
4. Q_2 IS ESTIMATED TO BE 80 CFS. WATER SURFACE ELEVATION (WSE) SHOWN IN DETAIL IS APPROXIMATE EXPECTED ELEVATION BASED ON THE CHANNEL INFORMATION SHOWN. IT IS ASSUMED THE WORK ZONE WILL BE INUNDATED FOR RAINFALL EVENTS WITH FLOWS EXCEEDING THE 2-YEAR EVENT.
5. EXCAVATION, AND BACKFILL, POLYETHYLENE SHEETING, TEMPORARY SAND BAGS, AND COFFERDAM REQUIRED FOR DIVERSION CHANNEL AND FOR DEWATERING WORK ZONE WILL BE INCLUDED IN BID ITEM "COFFERDAMS C-66-159."
6. BASE AGGREGATE OPEN GRADED, SILT FENCE, SEEDING TEMPORARY, AND EROSION MAT WILL BE PAID UNDER THEIR RESPECTIVE STANDARD ITEMS.
7. WETLAND IMPACT AREAS TO BE RESTORED USING RIPRAP AS DIRECTED BY THE ENGINEER.



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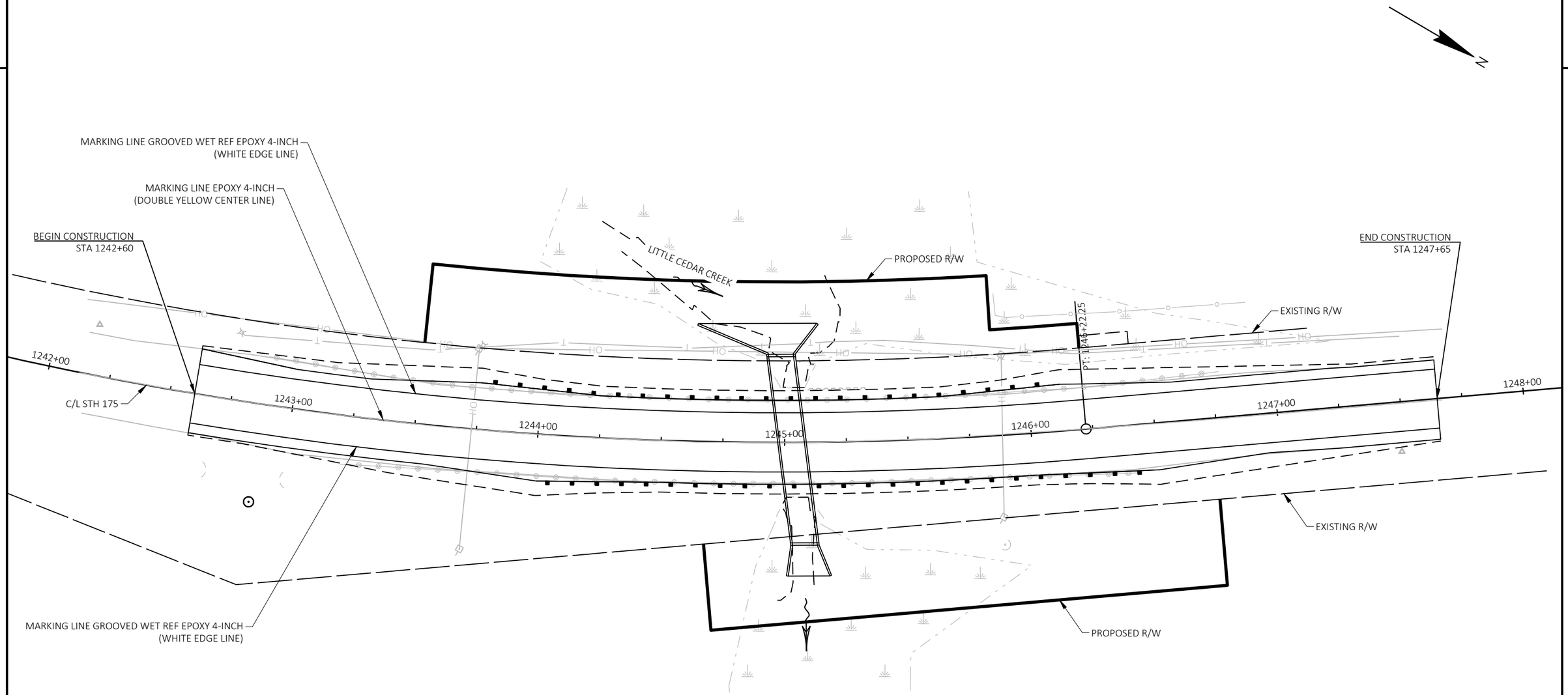
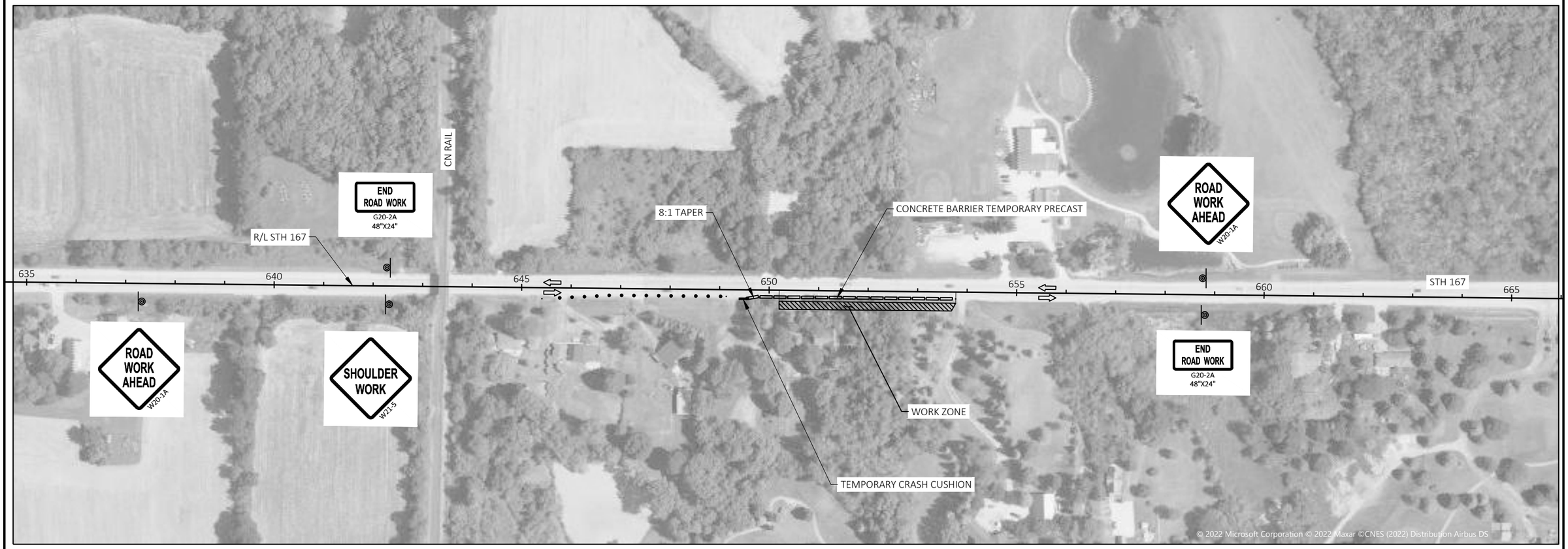
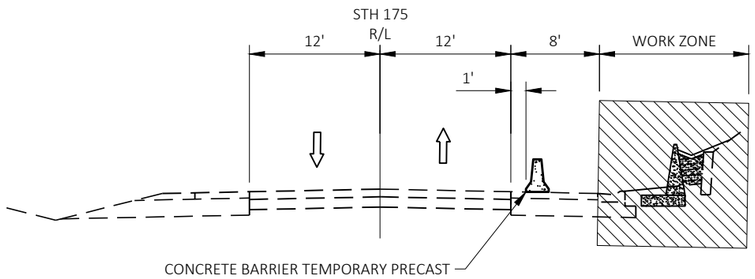


PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	PAVEMENT MARKING : C-66-159 (STH 175)	SHEET 16	E

2

N

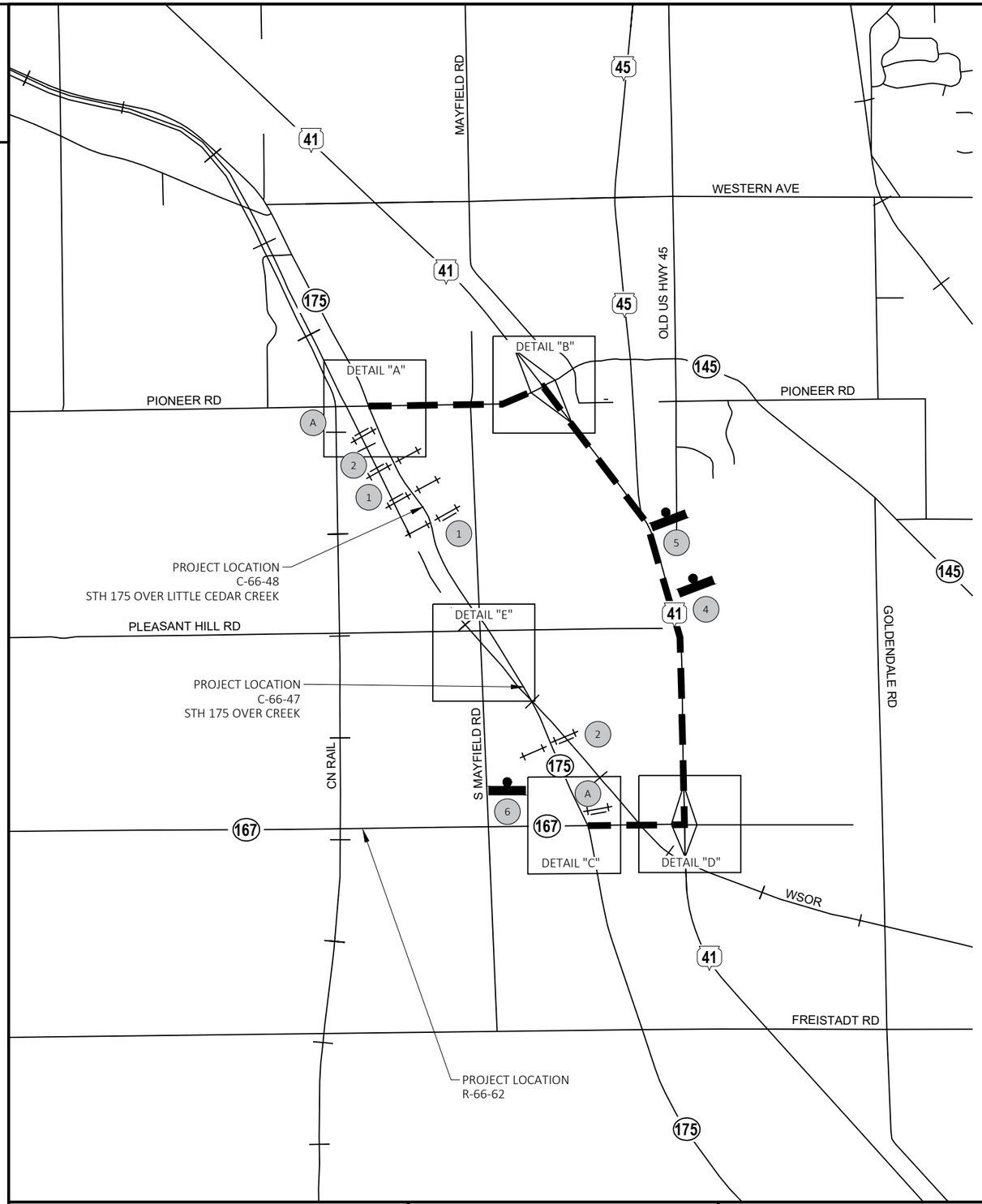




NOTES:

1. USE CONCRETE BARRIER TEMPORARY PRECAST WHEN MATERIALS AND EQUIPMENT ARE USED OR STORED OVERNIGHT WITHIN THE CLEAR ZONE OF STH 167.
2. FOR SHORT TERM DAYTIME WORK THE WORK ZONE MAY BE PROTECTED WITH BARRELS FOLLOWING THE STANDARD DETAIL FOR TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY.
3. WHEN MATERIAL IS DELIVERED TO THE SITE CONTROL TRAFFIC FOLLOWING THE STANDARD DETAIL FOR TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION.
4. DO NOT PLACE TRAFFIC CONTROL SIGNS OR DEVICES WITHIN 50 FEET OF THE RAILROAD RIGHT OF WAY.

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	TRAFFIC CONTROL: R-66-62 (STH 167)	SHEET 17	E



R11-2B
48" X 30"

TYPE III BARRICADE

1

R11-4
60" X 30"

TYPE III BARRICADE

2

R11-3B
60" X 30"

TYPE III BARRICADE

3

PLACE ALONG STH 175 THE APPROPRIATE DISTANCE FROM "ROAD CLOSED" BARRICADE

M4-8, 36"X18"
M3-1, 36"X18"
M1-6, 36"X36"
MO5-2L, 30"X30"

4

M4-8, 36"X18"
M3-1, 36"X18"
M1-6, 36"X36"
MO6-1, 30"X30"

5

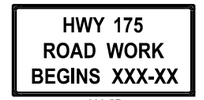
R5-54
24"X30"

6

POSTED DETOUR

NOTES:

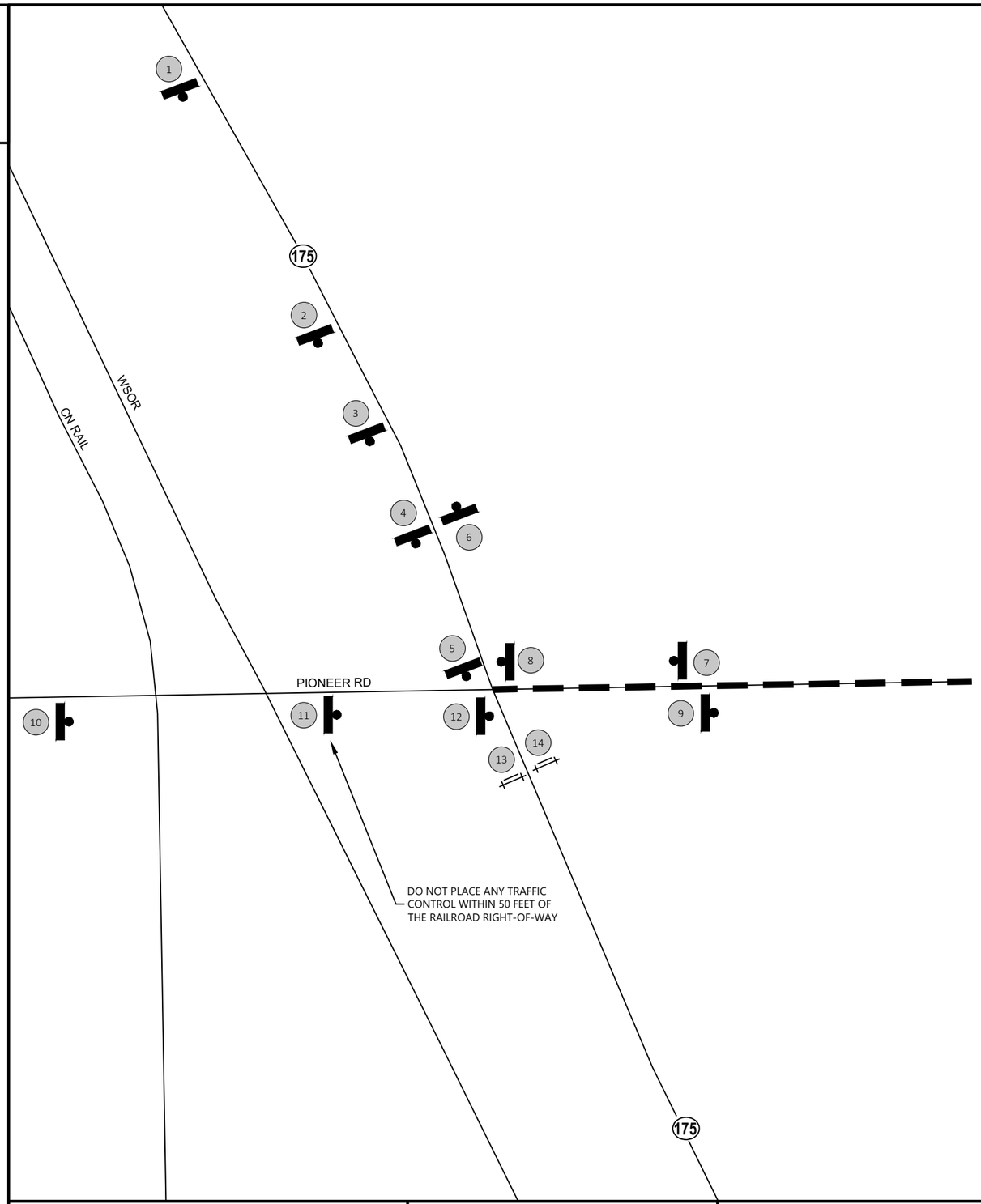
1. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER. NO TRAFFIC CONTROL SIGNS OR DEVICES TO BE PLACED WITHIN 50 FEET OF ANY RAILROAD RIGHT OF WAY.
2. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE.
3. THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
4. 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.
5. "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
6. SEE STANDARD DETAIL DRAWING (SDD), "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" AND "DETOUR SIGNING FOR MAINLINE CLOSURES", FOR SIGN SPACING, BARRICADE LOCATIONS AND OTHER DETAILS.
7. ALL SIGNS 48" X 48" UNLESS OTHERWISE NOTED.
8. G-20-57 SIGNS TO BE PLACED 10 DAYS BEFORE CONSTRUCTION AND REMOVED WHEN CONSTRUCTION BEGINS.
9. DO NOT PLACE ANY TRAFFIC CONTROL SIGNS WITHIN 50 FEET OF RAILROAD RIGHT-OF-WAY.



G20-57
72"X36"
SEE NOTE 8

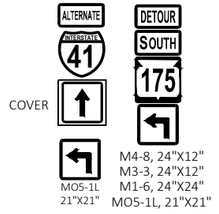
A

PROJECT NO: 1000-09-74	HWY: STH 175	COUNTY: WASHINGTON	DETOUR PLAN - STH 175 OVERVIEW	SHEET 18	E



1

2



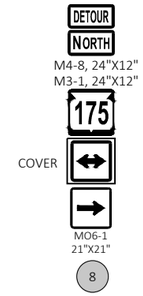
3

4

5

6

7



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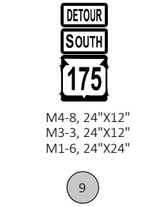
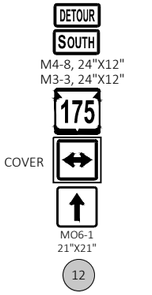


9

10

11



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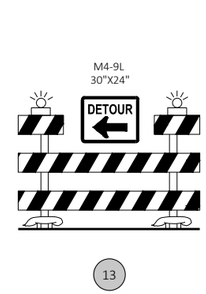


13

TYPE III BARRICADE

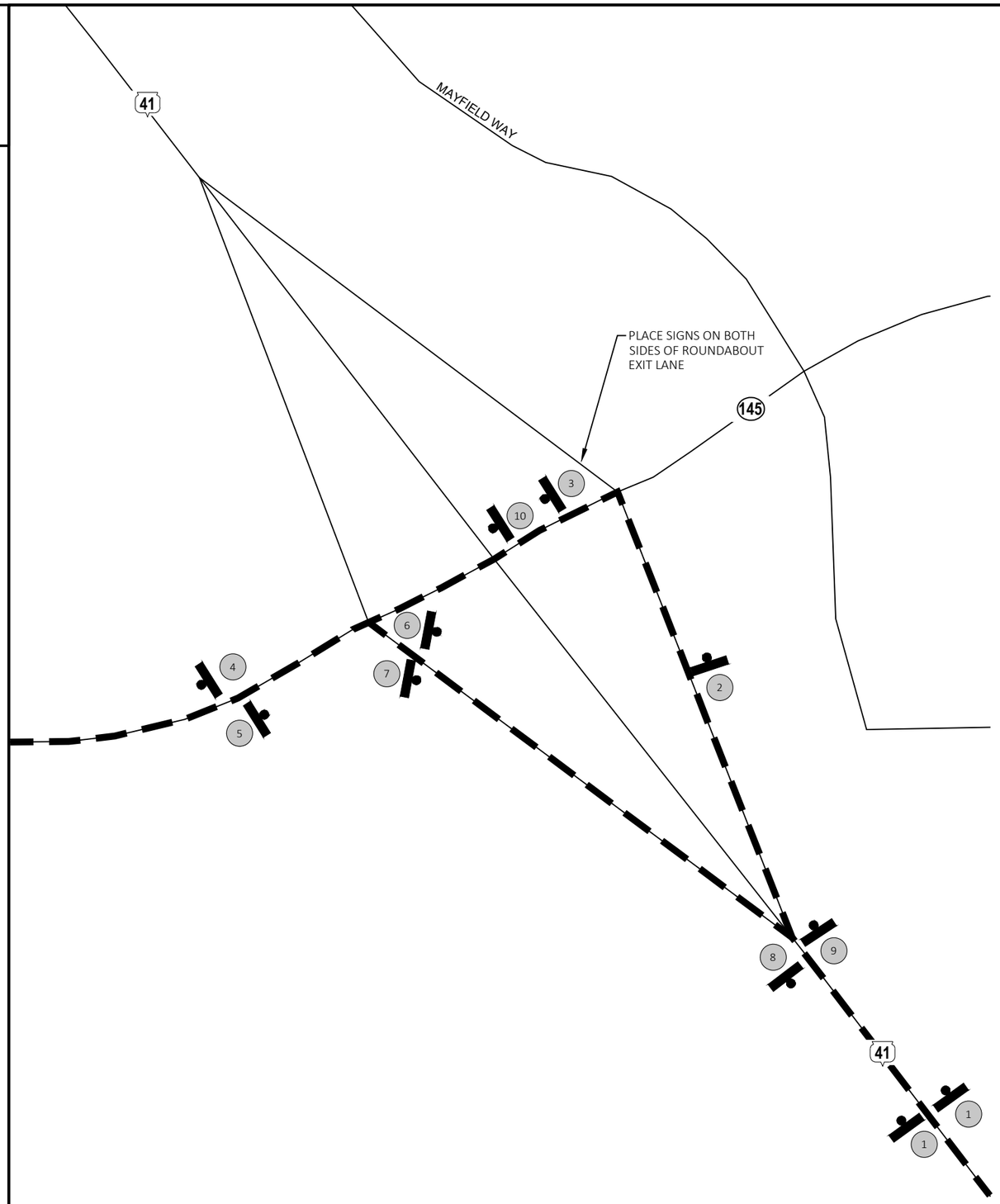
14

POSTED DETOUR

NOTES:

SEE DETOUR PLAN - STH 175 OVERVIEW FOR ADDITIONAL INFORMATION

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	DETOUR PLAN - DETAIL "A"	SHEET 19	E



M4-8, 36"X18"
M3-1, 36"X18"
M1-6, 36"X36"
MO5-2R, 30"X30"

1

M4-8, 24"X12"
M3-1, 24"X12"
M1-6, 24"X24"
MO5-1L, 21"X21"

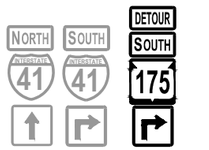
2

M4-8, 24"X12"
M3-1, 24"X12"
M1-6, 24"X24"
MO6-2, 21"X21"

3

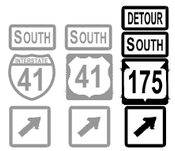
M4-8, 24"X12"
M3-1, 24"X12"
M1-6, 24"X24"

4



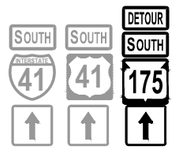
M4-8, 24"X12"
M3-3, 24"X12"
M1-6, 24"X24"
MO5-1R, 21"X21"

5



M4-8, 24"X12"
M3-3, 24"X12"
M1-6, 24"X24"
MO6-2, 21"X21"

6



M4-8, 24"X12"
M3-3, 24"X12"
M1-6, 24"X24"
MO6-1, 21"X21"

7

M4-8, 24"X12"
M3-3, 24"X12"
M1-6, 24"X24"

8

M4-8, 36"X18"
M3-1, 36"X18"
M1-6, 36"X36"
MO6-2R, 30"X30"

9

M4-8, 24"X12"
M3-1, 24"X12"
M1-6, 24"X24"
MO6-1, 21"X21"

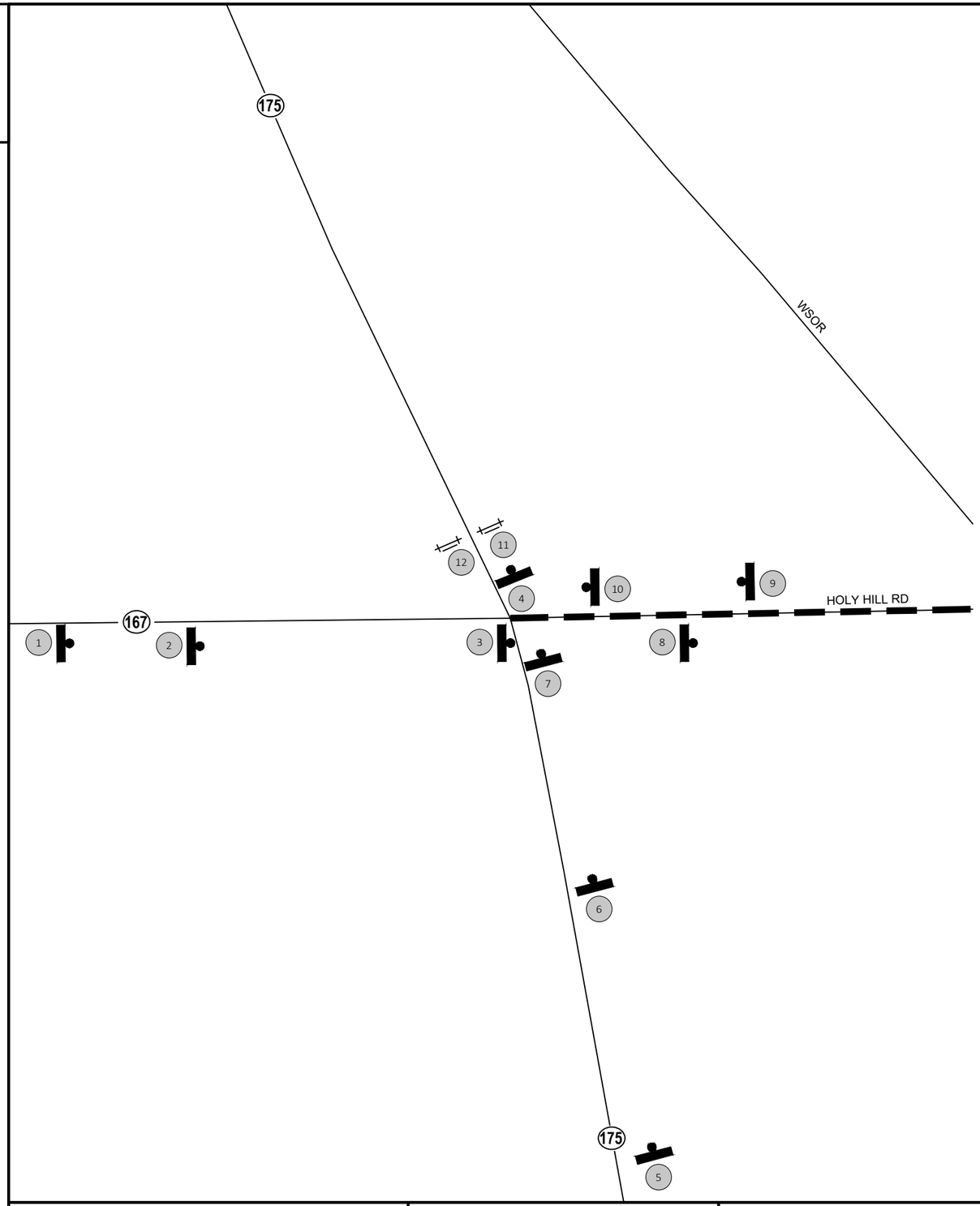
10

POSTED DETOUR

NOTES:

SEE DETOUR PLAN - STH 175 OVERVIEW FOR ADDITIONAL INFORMATION

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	DETOUR PLAN - DETAIL "B"	SHEET 20	E



N

1

NORTH
175
M3-1, 24"X12"
M1-6, 24"X24"
DETOUR AHEAD
W20-2A

2

COVER
EAST
167
Germantown
NORTH
175
Slinger
SOUTH
175
Menomonee Falls
DETOUR
NORTH
175
M4-8, 24"X12"
M3-1, 24"X12"
M1-6, 24"X24"
MO6-1, 21"X21"

3

EAST
167
TO
41
DETOUR
NORTH
175
M4-8, 24"X12"
M3-1, 24"X12"
M1-6, 24"X24"
MO6-2, 21"X21"

4

COVER
NORTH
175

5

DETOUR AHEAD
W20-2A

6

COVER
NORTH
175
Slinger
WEST
167
EAST
167
Germantown
DETOUR
NORTH
175
M4-8, 24"X12"
M3-1, 24"X12"
M1-6, 24"X24"
MO5-1R, 21"X21"

7

TO
41
TO
45
DETOUR
NORTH
175
M4-8, 24"X12"
M3-1, 24"X12"
M1-6, 24"X24"
MO6-1, 21"X21"

8

DETOUR
NORTH
175
M4-8, 24"X12"
M3-1, 24"X12"
M1-6, 24"X24"

9

WEST
167
SOUTH
175
NORTH
175
Menomonee Falls
Slinger
COVER

10

ALTERNATE
SOUTH
41
ALTERNATE
SOUTH
45
ALTERNATE
NORTH
41
ALTERNATE
NORTH
45
COVER
END DETOUR
SOUTH
175
M4-8A, 24"X18"
M3-3, 24"X12"
M1-6, 24"X24"

11

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

12

R10-71
66"X36"
ACCESS TO LOCAL BUSINESSES

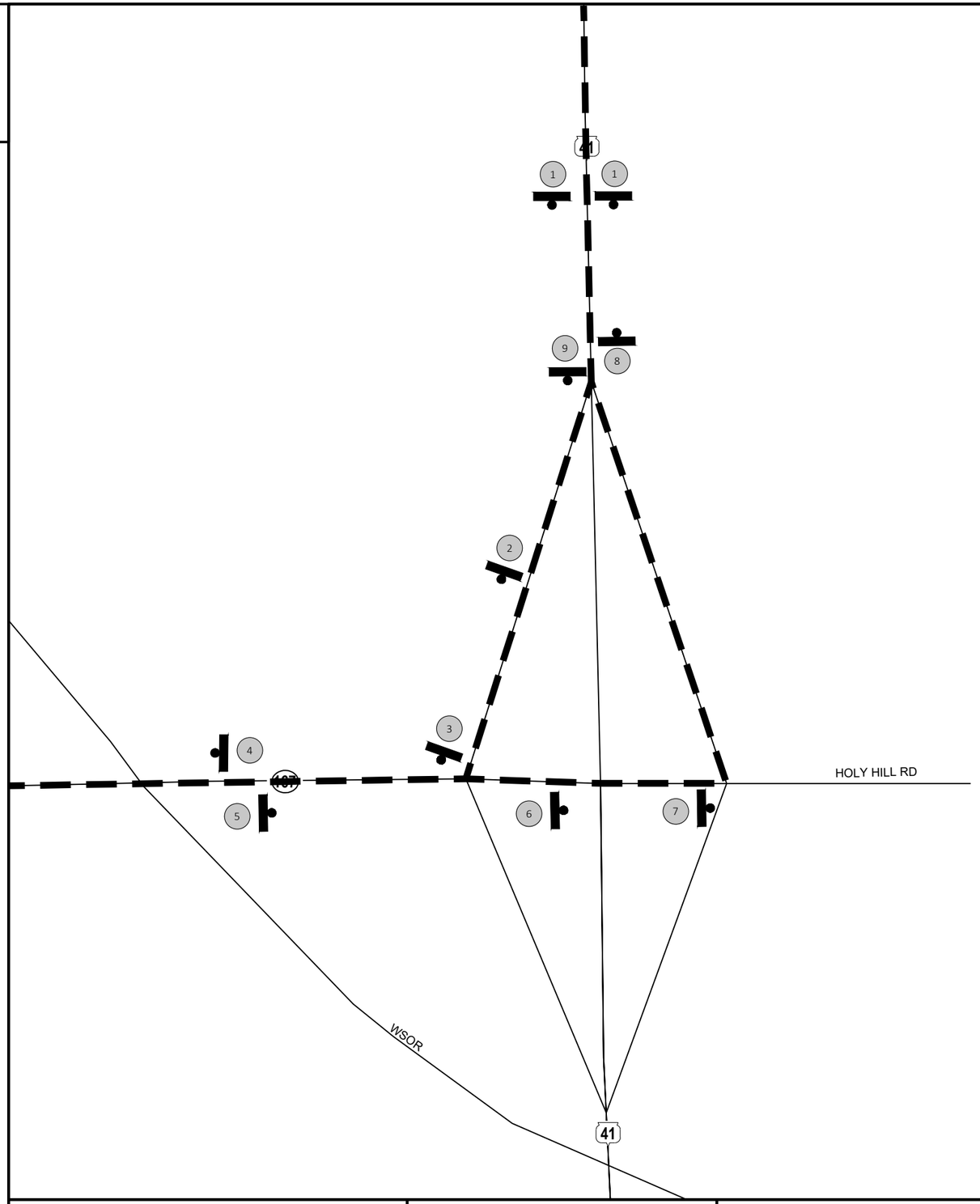
POSTED DETOUR

NOTES:

SEE DETOUR PLAN - STH 175 OVERVIEW FOR ADDITIONAL INFORMATION

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	DETOUR PLAN - DETAIL "C"	SHEET 21	E

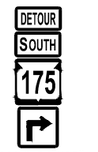
FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - 04
PLOT DATE : 10/25/2022 10:28 AM
PLOT BY : WEIGAND, BEN
PLOT NAME :
PLOT SCALE : Custom
WISDOT/CADDS SHEET 42



N

M4-8, 36"X18"
M3-3, 36"X18"
M1-6, 36"X36"
MO5-2R, 30"X30"

1



M4-8, 24"X12"
M3-3, 24"X12"
M1-6, 24"X24"
MO5-1R, 21"X21"

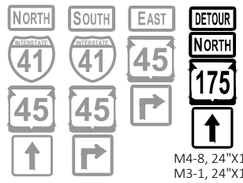
2

M4-8, 24"X12"
M3-3, 24"X12"
M1-6, 24"X24"
MO6-1, 21"X21"

3

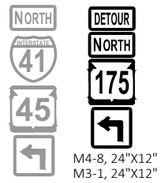
M4-8, 24"X12"
M3-3, 24"X12"
M1-6, 24"X24"

4



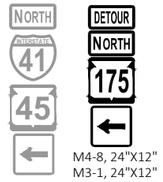
M4-8, 24"X12"
M3-1, 24"X12"
M1-6, 24"X24"
MO6-1, 21"X21"

5



M4-8, 24"X12"
M3-1, 24"X12"
M1-6, 24"X24"
MO5-1L, 21"X21"

6



M4-8, 24"X12"
M3-1, 24"X12"
M1-6, 24"X24"
MO6-1, 21"X21"

7

M4-8, 24"X12"
M3-1, 24"X12"
M1-6, 24"X24"

8

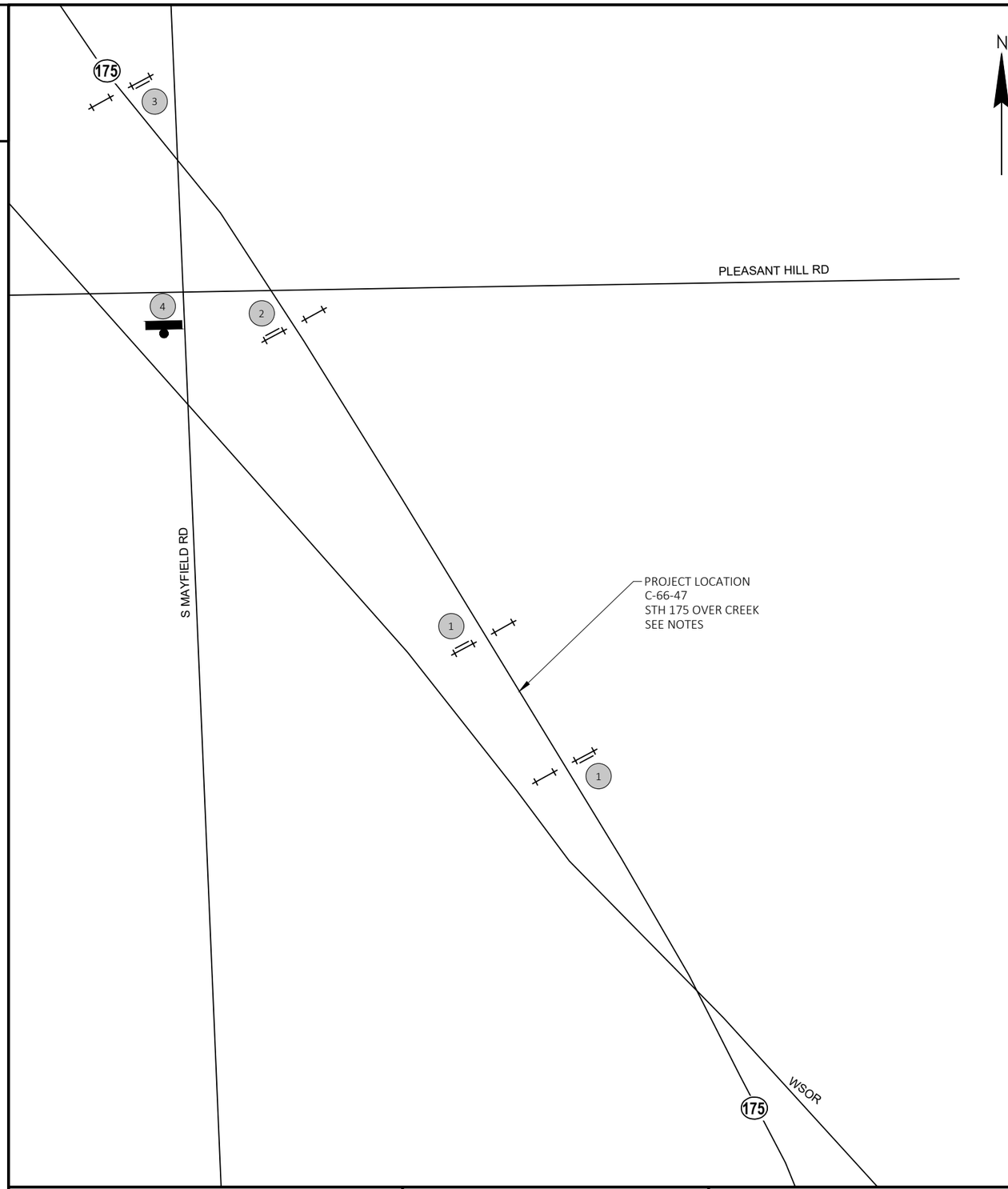
M4-8, 36"X18"
M3-3, 36"X18"
M1-6, 36"X36"
MO6-2R, 30"X30"

9

POSTED DETOUR

NOTES:

SEE DETOUR PLAN - STH 175 OVERVIEW FOR ADDITIONAL INFORMATION



N

R11-2B
48" X 30"

TYPE III BARRICADE

1

R11-4
60" X 30"

TYPE III BARRICADE

2

R11-3B
60" X 30"

TYPE III BARRICADE

3

R5-54
24"X30"

4

NOTES:

SEE DETOUR PLAN - STH 175 OVERVIEW FOR ADDITIONAL INFORMATION

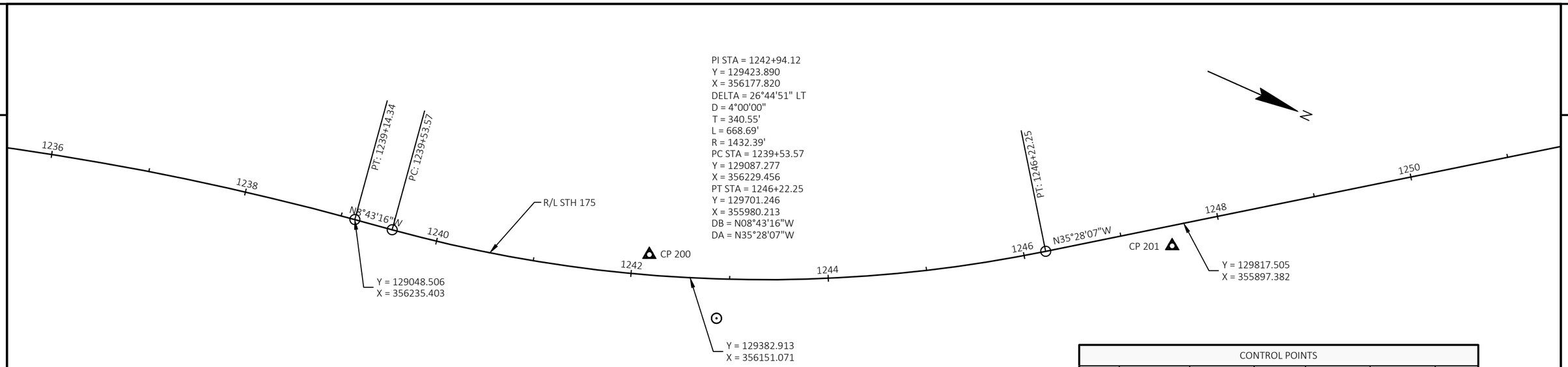
MAINTAIN LOCAL ACCESS ACROSS C-66-47 THROUGHOUT CONSTRUCTION FOLLOWING THE STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION.

DO NOT PLACE ANY TRAFFIC CONTROL SIGNS WITHIN 50 FEET OF RAILROAD RIGHT-OF-WAY.

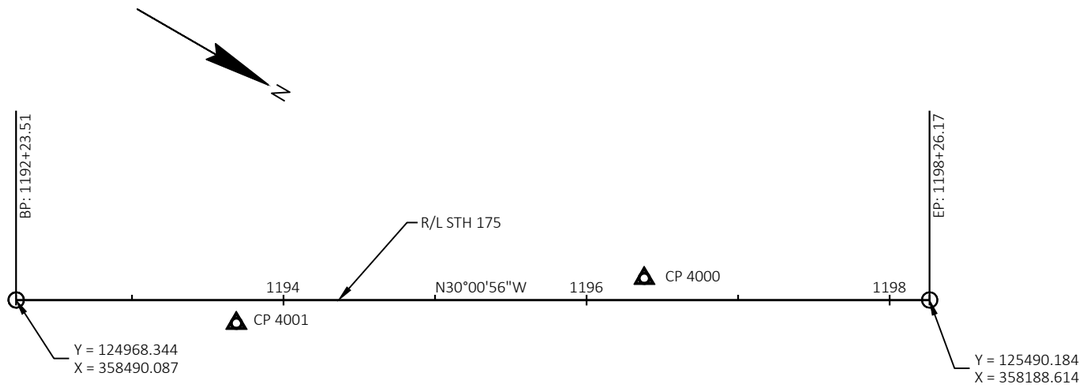
SEE STANDARD DETAIL DRAWING BARRICADES AND SIGNS FOR VARIOUS CLOSURE FOR MORE INFORMATION.

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	DETOUR PLAN - DETAIL "E"	SHEET 23	E

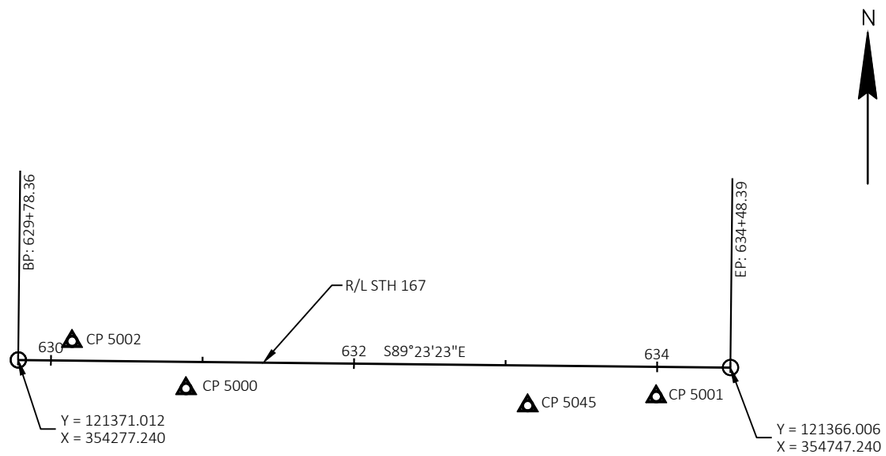
2



CONTROL POINTS						
POINT	DESCRIPTION	STATION	OFFSET	Y	X	ELEV
200	REBAR	1242+16.81	20.58 LT	129335.575	356146.494	943.14
201	REBAR	1247+48.95	20.15 RT	129816.126	355923.101	929.45



CONTROL POINTS						
POINT	DESCRIPTION	STATION	OFFSET	Y	X	ELEV
4000	REBAR	1196+37.98	14.34 LT	125320.053	358270.339	956.30
4001	REBAR	1193+68.82	15.32 RT	125101.828	358430.667	954.80



CONTROL POINTS						
POINT	DESCRIPTION	STATION	OFFSET	Y	X	ELEV
5000	REBAR	630+89.31	17.58 RT	121352.253	354387.996	1004.84
5001	REBAR	633+99.51	19.58 RT	121346.943	354698.160	996.68
5002	REBAR	630+13.74	12.75 LT	121383.386	354312.749	1006.20
5045	MONUMENT	633+14.84	26.53 RT	121340.904	354613.418	999.97

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	ALIGNMENT DETAIL	SHEET 24	E

3360-17-70

Line	Item	Item Description	Unit	Total	Qty
0004	201.0105	Clearing	STA	4.000	4.000
0020	203.0220	Removing Structure (structure) 02. C-66-48	EACH	1.000	1.000
0026	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 02. C-66-47	EACH	1.000	1.000
0032	204.0115	Removing Asphaltic Surface Butt Joints	SY	76.000	76.000
0042	204.0165	Removing Guardrail	LF	1,080.000	1,080.000
0054	204.9060.S	Removing (item description) 01. Block Wall Partial	EACH	1.000	1.000
0058	204.9165.S	Removing (item description) 50. Loose Concrete	SF	15.000	15.000
0060	204.9180.S	Removing (item description) 01. Asphaltic Flumes	SY	10.000	10.000
0062	205.0100	Excavation Common	CY	1,012.000	1,012.000
0066	206.2001	Excavation for Structures Culverts (structure) 01. C-66-159	EACH	1.000	1.000
0068	206.2001	Excavation for Structures Culverts (structure) 02. C-66-47	EACH	1.000	1.000
0072	206.5001	Cofferdams (structure) 02. C-66-47	EACH	1.000	1.000
0074	208.0100	Borrow	CY	894.000	894.000
0078	210.1100	Backfill Structure Type A	CY	120.000	120.000
0080	210.2500	Backfill Structure Type B	TON	1,128.000	1,128.000
0088	213.0100	Finishing Roadway (project) 03. 3360-17-70	EACH	1.000	1.000
0092	305.0110	Base Aggregate Dense 3/4-Inch	TON	107.000	107.000
0094	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	234.000	234.000
0096	310.0110	Base Aggregate Open-Graded	TON	67.000	67.000
0098	311.0110	Breaker Run	TON	12.000	12.000
0100	311.0115	Breaker Run	CY	92.000	92.000
0112	455.0605	Tack Coat	GAL	142.000	142.000
0114	460.2000	Incentive Density HMA Pavement	DOL	380.000	380.000
0116	460.5223	HMA Pavement 3 LT 58-28 S	TON	396.000	396.000
0118	460.5224	HMA Pavement 4 LT 58-28 S	TON	195.000	195.000
0132	465.0315	Asphaltic Flumes	SY	10.000	10.000
0150	502.4204	Adhesive Anchors No. 4 Bar	EACH	54.000	54.000
0154	504.0100	Concrete Masonry Culverts	CY	120.000	120.000
0156	505.0400	Bar Steel Reinforcement HS Structures	LB	16,148.000	16,148.000
0158	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	2,928.000	2,928.000
0160	505.0904	Bar Couplers No. 4	EACH	10.000	10.000
0198	509.1500	Concrete Surface Repair	SF	5.000	5.000
0210	511.1200	Temporary Shoring (structure) 02. C-66-47	SF	130.000	130.000
0216	516.0500	Rubberized Membrane Waterproofing	SY	34.000	34.000
0280	603.1456	Concrete Barrier Type S56C	LF	325.000	325.000
0282	603.8000	Concrete Barrier Temporary Precast Delivered	LF	425.000	425.000
0284	603.8125	Concrete Barrier Temporary Precast Installed	LF	425.000	425.000
0294	606.0200	Riprap Medium	CY	2.000	2.000
0296	606.0300	Riprap Heavy	CY	161.000	161.000
0310	614.0010	Barrier System Grading Shaping Finishing	EACH	2.000	2.000
0320	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	990.000	990.000
0322	614.0905	Crash Cushions Temporary	EACH	1.000	1.000
0324	614.0925	Salvaged Guardrail End Treatments	EACH	1.000	1.000
0326	614.2300	MGS Guardrail 3	LF	62.500	62.500
0328	614.2340	MGS Guardrail 3 L	LF	426.500	426.500
0332	614.2610	MGS Guardrail Terminal EAT	EACH	7.000	7.000
0342	618.0100	Maintenance And Repair of Haul Roads (project) 03. 3360-17-70	EACH	1.000	1.000
0346	619.1000	Mobilization	EACH	0.050	0.050
0350	624.0100	Water	MGAL	7.100	7.100

3360-17-70

Line	Item	Item Description	Unit	Total	Qty
0354	625.0500	Salvaged Topsoil	SY	1,951.000	1,951.000
0358	628.1104	Erosion Bales	EACH	36.000	36.000
0360	628.1504	Silt Fence	LF	1,700.000	1,700.000
0362	628.1520	Silt Fence Maintenance	LF	2,030.000	2,030.000
0364	628.1530.S	Silt Fence Heavy Duty	LF	330.000	330.000
0366	628.1535.S	Silt Fence Heavy Duty Maintenance	LF	330.000	330.000
0368	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0370	628.1910	Mobilizations Emergency Erosion Control	EACH	7.000	7.000
0374	628.2008	Erosion Mat Urban Class I Type B	SY	1,894.000	1,894.000
0376	628.2027	Erosion Mat Class II Type C	SY	195.000	195.000
0382	628.7504	Temporary Ditch Checks	LF	130.000	130.000
0386	628.7560	Tracking Pads	EACH	3.000	3.000
0388	628.7570	Rock Bags	EACH	48.000	48.000
0392	629.0210	Fertilizer Type B	CWT	0.300	0.300
0394	630.0120	Seeding Mixture No. 20	LB	4.000	4.000
0396	630.0130	Seeding Mixture No. 30	LB	29.000	29.000
0398	630.0160	Seeding Mixture No. 60	LB	5.000	5.000
0404	630.0200	Seeding Temporary	LB	5.000	5.000
0406	630.0500	Seed Water	MGAL	44.000	44.000
0408	631.1100	Sod Erosion Control	SY	60.000	60.000
0410	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	8.000	8.000
0414	637.2210	Signs Type II Reflective H	SF	30.000	30.000
0416	637.2230	Signs Type II Reflective F	SF	20.000	20.000
0418	638.2102	Moving Signs Type II	EACH	6.000	6.000
0420	638.2602	Removing Signs Type II	EACH	7.000	7.000
0422	638.3000	Removing Small Sign Supports	EACH	8.000	8.000
0426	642.5201	Field Office Type C	EACH	0.050	0.050
0428	643.0300	Traffic Control Drums	DAY	789.000	789.000
0432	643.0420	Traffic Control Barricades Type III	DAY	2,380.000	2,380.000
0434	643.0705	Traffic Control Warning Lights Type A	DAY	2,880.000	2,880.000
0436	643.0715	Traffic Control Warning Lights Type C	DAY	320.000	320.000
0440	643.0900	Traffic Control Signs	DAY	12,330.000	12,330.000
0444	643.0920	Traffic Control Covering Signs Type II	EACH	52.000	52.000
0460	643.5000	Traffic Control	EACH	0.050	0.050
0468	645.0105	Geotextile Type C	SY	280.000	280.000
0470	645.0120	Geotextile Type HR	SY	288.000	288.000
0472	646.1020	Marking Line Epoxy 4-Inch	LF	1,010.000	1,010.000
0474	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	1,070.000	1,070.000
0508	650.4500	Construction Staking Subgrade	LF	260.000	260.000
0510	650.5000	Construction Staking Base	LF	260.000	260.000
0512	650.6501	Construction Staking Structure Layout (structure) 01. C-66-159	EACH	1.000	1.000
0514	650.6501	Construction Staking Structure Layout (structure) 02. C-66-47	EACH	1.000	1.000
0520	650.7500	Construction Staking Concrete Barrier	LF	325.000	325.000
0522	650.8000	Construction Staking Resurfacing Reference	LF	305.000	305.000
0526	650.9911	Construction Staking Supplemental Control (project) 02. 3360-17-70	EACH	1.000	1.000
0530	650.9920	Construction Staking Slope Stakes	LF	1,395.000	1,395.000
0578	690.0150	Sawing Asphalt	LF	173.000	173.000
0580	690.0250	Sawing Concrete	LF	10.000	10.000
0582	715.0502	Incentive Strength Concrete Structures	DOL	1,160.000	1,160.000

3360-17-70

Line	Item	Item Description	Unit	Total	Qty
0584	715.0603	Incentive Strength Concrete Barrier	DOL	163.000	163.000
0588	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	350.000	350.000
0590	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0612	SPV.0060	Special 11. Reinstall Guardrail End Treatment	EACH	1.000	1.000

3

CLEARING & GRUBBING

LOCATION	201.0105 CLEARING (STA)
630+75 - 634+00	4
TOTALS	**4**

REMOVALS

LOCATION	204.9060.S.01 REMOVING BLOCK WALL, PARTIAL (EACH)	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS (SY)	204.9180.S REMOVING ASPHALTIC FLUME (SY)
R-66-62 (STH 167)	1	-	-
C-66-47 (STH 175)	-	-	10
C-66-159 (STH 175)			
1242+60 to 1242+70	-	38	-
1247+55 to 1247+65	-	38	-
TOTALS	**1**	**76**	**10**

MGS GUARDRAIL

LOCATION				204.0165 REMOVING GUARDRAIL (LF)	614.0397 GUARDRAIL MOW STRIP EMULSIFIED ASPHALT (SY)	614.0925 SALVAGED GUARDRAIL END TREATMENT (EACH)	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING (EACH)	614.2300 MGS GUARDRAIL 3 (LF)	614.2340 MGS GUARDRAIL 3 L (LF)	614.2610 MGS GUARDRAIL TERMINAL EAT (EACH)	SPV.0060 0.11 REINSTALL GUARDRAIL END TREATMENT (EACH)	* EXCAVATION COMMON (CY)	* FILL (CY)	* BORROW (CY)
C-66-47 (STH 175)														
1194+49	to	1195+11.5	LT	150	228	1	1	-	101.5	1	1	-	15.0	15.0
1194+49	to	1195+11.5	RT	210	240	-	1	-	112.5	2	-	-	15.0	15.0
C-66-159 (STH 175)														
1245+55	to	1247+70	LT	400	252	-	-	25.0	106.25	2	-	See Earthw ork Table		
1245+55	to	1247+70	RT	320	270	-	-	37.5	106.25	2	-	See Earthw ork Table		
				1,080	**990**	**1**	**2**	**62.5**	**426.5**	**7**	**1**			

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

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (6) FACTOR 1.25	MASS ORDINATE +/- (7)	WASTE	208.0100 BORROW	COMMENT
DIVISION 1												
C-66-159	1242+60/1247+60		940	0	715	225	895	1,119	-894	0	894	
DIVISION 1 SUBTOTAL			940	0	715	225	895	1,119	-894	0	894	
DIVISION 2												
R-66-62	630+76/633+99		72	0	0	72	0	0	72	72	0	
DIVISION 2 SUBTOTAL			72	0	0	72	0	0	72	72	0	
GRAND TOTAL			1,012	0	715	297	895	1,119	-822	72	894	
TOTAL COMMON EXC			1,012									

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) EBS EXCAVATION TO BE BACKFILLED WITH SELECT BORROW MATERIAL. NOTE: THIS IS DESIGNERS CHOICE, CAN BE BACKFILLED WITH BORROW, OR CUT AS WELL.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(6) EXPANDED FILL FACTOR = 1.25

EXPANDED FILL = (UNEXPANDED FILL - REDUCED EBS) * FILL FACTOR

(7) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(8) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010

3

PAVEMENT & SHOULDERS

LOCATION				305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)	455.0605 TACK COAT (GAL)	460.5223 HMA PAVEMENT 3 LT 58-28 S *LOWER LAYER* (TON)	460.5224 HMA PAVEMENT 4 LT 58-28 S *UPPER LAYER* (TON)	465.0315 ASPHALTIC FLUMES (SY)	624.0100 WATER (MGAL)
C-66-47 (STH 175) LEFT										
1194+50	to	1195+10	LOWER	-	30	-	7	-	-	0.6
1194+50	to	1195+10	UPPER	6	-	5	-	4	-	0.2
C-66-47 (STH 175) RIGHT										
1194+60	to	1195+00	LOWER	-	-	-	3	-	-	-
1194+60	to	1195+00	UPPER	-	-	2	-	2	10	-
C-66-159 (STH 175)										
1242+60	to	1242+70	UPPER	1	-	3	-	4	-	0.1
1242+70	to	1247+55	LOWER	-	204	-	386	-	-	4.1
1242+70	to	1247+55	UPPER	99	-	129	-	181	-	2.0
1247+55	to	1247+65	UPPER	1	-	3	-	4	-	0.1
TOTALS				**107**	**234**	**142**	**396**	**195**	**10**	**7.1**

CONCRETE BARRIER

LOCATION				210.1100 STRUCTURAL BACKFILL TYPE A (CY)	603.1456 CONCRETE BARRIER TYPE S56C (LF)
R-66-62 (STH 167)					
631+08	to	633+98	LT	120	325
				120	**325**

3

EROSION CONTROL

LOCATION	310.0110 BASE AGGREGATE OPEN GRADED (TON)	606.0200 RIPRAP MEDIUM (CY)	606.0300 RIPRAP HEAVY (CY)	628.1104 EROSION BALES (EA)	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)	628.1530.S SILT FENCE HEAVY DUTY (LF)	628.1535.S SILT FENCE HEAVY DUTY MAINTENANCE (LF)	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)	628.2008 EROSION MAT URBAN CLASS I TYPE B (SY)	628.2027 EROSION MAT CLASS II TYPE C (SY)	628.7504 TEMPORARY DITCH CHECKS (LF)	628.7560 TRACKING PADS (EACH)	628.7570 ROCK BAGS (EACH)	630.0200 SEEDING TEMPORARY (LB)	631.1100 SOD EROSION CONTROL (SY)	645.0120 GEOTEXTILE TYPE HR * (SY)	** EXCAVATION (CY)	** BACKFILL (CY)	** POLYETHYLENE SHEETING (SY)
C-66-47 (STH 175)	-	-	-	12	260	340	80	80	2	2	15	10	20	1	48	-	20	-	-	-	-
R-66-62 (STH 167)	-	2	-	12	430	430	-	-	2	1	356	-	48	1	-	-	20	4	-	-	-
C-66-159 (STH 175) - DIVERSION CHANNEL	67	-	92	-	150	150	-	-	-	-	-	185	-	-	-	5	-	138	1000	1000	210
C-66-159 (STH 175)	-	-	-	12	860	1110	250	250	2	4	1523	-	62	1		-	20	-	-	-	-
TOTALS	**67**	**2**	**92**	**36**	**1700**	**2030**	**330**	**330**	**6**	**7**	**1894**	**195**	**130**	**3**	**48**	**5**	**60**	**142**			

* SEE STRUCTURE PLAN FOR ADDITIONAL QUANTITY

** NON-BID ITEM, ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY, ITEMS INCIDENTAL TO COFFERDAM. SEE STRUCTURE PLANS FOR COFFERDAM C-66-159.

RESTORATION

LOCATION	625.0500 SALVAGED TOPSOIL (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0120 SEEDING MIXTURE NO. 20 (LB)	630.0130 SEEDING MIXTURE NO. 30 (LB)	630.0160 SEEDING MIXTURE NO. 60 (LB)	630.0500 SEED WATER (MGAL)
C-66-47 (STH 175)	25	-	-	1	-	0.6
R-66-62 (STH 167)	356	0.3	4	3	-	8.0
C-66-159 (STH 175) - DIVERSION CHANNEL	47	-	-	-	1	1.1
C-66-159 (STH 175)	1523	-	-	25	4	34.3
TOTALS	**1951**	**0.3**	**4**	**29**	**5**	**44.0**

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010

TRAFFIC CONTROL

LOCATION	DESCRIPTION	DURATION CALANDAR DAYS	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED (LF)	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED (LF)	614.0905 CRASH CUSHIONS TEMPORARY (EACH)	#	643.0300 TC DRUMS (DAY)	#	643.0420 TC BARRICADES TYPE III (DAY)	#	643.0705 TC WARNING LIGHTS TYPE A (DAY)	#	643.0715 TC WARNING LIGHTS TYPE C (DAY)	#	643.0900 TC SIGNS (DAY)	*Cycles*	#	643.0920 TC COVERING SIGNS TYPE II (EACH)
C-66-47 & 48 (STH 175)	G20-57	10	-	-	-	-	-	*2*	20	-	-	-	-	*2*	20	-	-	-
C-66-47 & 48 (STH 175)	DETOUR	90	-	-	-	-	-	*20*	1800	*32*	2880	-	-	*120*	10800	1	*44*	44
R-66-62 (STH 167)	SHOULDER CLOSURE	30	425	425	1	*25*	750	-	-	-	-	-	-	*5*	150	-	-	-
C-66-47 (STH 175)	LOCAL ACCESS	40	-	-	-	-	24	*2*	80	-	-	*8*	320	*22*	880	-	-	-
UNDISTRIBUTED			-	-	-		15		480		-		-		480	1	8	8
		TOTALS	**425**	**425**	**1**		**789**		**2,380**		**2,880**		**320**		**12,330**			**52**

PAVEMENT MARKING

LOCATION	646.1020 MARKING LINE EPOXY 4-INCH *YELLOW* (LF)	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH *WHITE* (LF)
C-66-47 (STH 175)		
1194+50 to 1195+10	-	60
C-66-159 (STH 175)		
1242+60 to 1247+65	*1010*	1010
TOTALS	**1010**	**1070**

CONSTRUCTION STAKING

LOCATION	650.4500 SUBGRADE CAT 0010 (LF)	650.5000 BASE CAT 0010 (LF)	650.6501 STRUCTURE LAYOUT (EA)	650.7500 CONCRETE BARRIER CAT 0010 (LF)	650.8000 RESURFACING REFERENCE CAT 0010 (LF)	650.9920 SLOPE STAKES CAT 0010 (LF)
R-66-62	-	-	-	325	-	325
C-66-47	60	60	1 - CAT 0030	-	-	60
C-66-159	200	200	1 - CAT 0020	-	305	1010
CATEGORY 0010 TOTAL	260	260	-	325	305	1395
CATEGORY 0020 TOTAL	-	-	1	-	-	-
CATEGORY 0030 TOTAL	-	-	1	-	-	-
TOTALS	**260**	**260**	**2**	**325**	**305**	**1395**

SAWING

LOCATION	690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)
C-66-47 (STH 175)	105	10
C-66-159 (STH 175)		
1242+70	34	-
1247+55	34	-
TOTALS	**173**	**10**

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

TYPE II PERMANENT SIGNING 3360-17-70

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP [EA]	634.0618 POSTS WOOD 4" X 6" X 18' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
1	R7-1D(2S)	NO PARKING	24	X	30	5.000			1	1	1		LOCATED AT C-66-47 ON STH 175
2	R7-1D(2S)	NO PARKING	24	X	30	5.000			1	1	1		LOCATED AT C-66-47 ON STH 175
3	W14-3	NO PASSING PENNANT						1		1	1		LOCATED AT C-66-47 ON STH 175
		UNDISTRIBUTED				20.000	20.000	5	5	5	5		
TOTALS						30.000	20.000	6	7	8	8		

SHEET: 1 OF 1

SCHEDULE OF LANDS AND INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.
***=CALCULATED **=SQUARE FEET**

PARCEL NUMBER	OWNER	INTEREST REQUIRED	TOTAL ACRES	R/W REQUIRED ACRES NEW	R/W REQUIRED ACRES EXISTING	R/W REQUIRED ACRES TOTAL	TOTAL REMAINING ACRES	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES	PARCEL NUMBER
1 (2)	KARA KASTEN-OLSEN FAMILY TRUST ETAL	HE,TLE	32.18	0.175		0.175	32.005	0.002		1
2 (2)	KARA KASTEN-OLSEN FAMILY TRUST ETAL	HE	30.41	0.169		0.169	30.241			2
UTILITY NUMBER	**OWNER**	**INTEREST REQUIRED**								
51	AT&T WISCONSIN	ROR								51

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
3360-17-20		
FEDERAL PROJECT NUMBER	4.01	

PLAT OF RIGHT OF WAY REQUIRED FOR

STH 175 OVER LITTLE CEDAR CREEK

CULVERT REPLACEMENT

CONSTRUCTION I.D. 3360-17-70	WASHINGTON COUNTY

GN

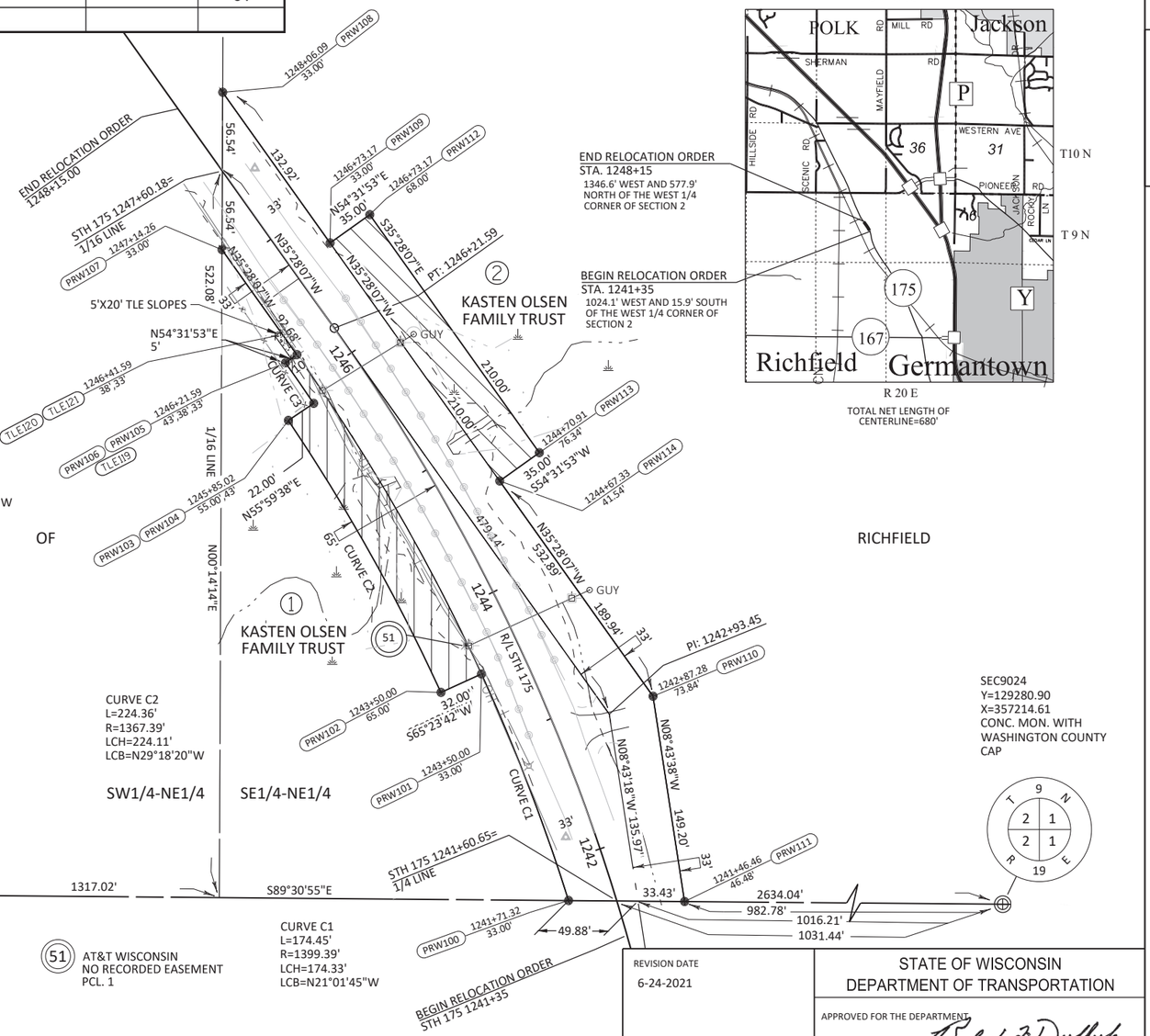
SCALE, FEET
0 50 100

LOCATION MAP
NOT TO SCALE

TOTAL NET LENGTH OF CENTERLINE=680'

END RELOCATION ORDER
STA. 1248+15
1346.6' WEST AND 577.9' NORTH OF THE WEST 1/4 CORNER OF SECTION 2

BEGIN RELOCATION ORDER
STA. 1241+35
1024.1' WEST AND 15.9' SOUTH OF THE WEST 1/4 CORNER OF SECTION 2



CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	⌀ (1" UNLESS NOTED)	PROPOSED R/W LINE	
		EXISTING H.E. LINE	
R/W MONUMENT	●(SET)	PROPERTY LINE	
R/W STANDARD	▲(SET)	LOT & TIE LINES	
SIGN	SIGN	SLOPE INTERCEPTS	
SECTION CORNER MONUMENT		CORPORATE LIMITS	
SECTION CORNER SYMBOL		NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	
FEE (HATCH VARIES)		ACCESS RESTRICTED (BY ACQUISITION)	
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
PERMANENT LIMITED EASEMENT		SECTION LINE	
R/W BOUNDARY POINT	RWB20	QUARTER LINE	
PARCEL NUMBER	102	SIXTEENTH LINE	
UTILITY INTEREST	40	EXISTING CENTERLINE	
SIGN NUMBER (OFF PREMISE)	21-1	PROPOSED REFERENCE LINE	
BUILDING		PARALLEL OFFSET	

CONVENTIONAL UTILITY SYMBOLS

		NON COMPENSABLE	COMPENSABLE
WATER	W		
GAS	G		
TELEPHONE	T		
OVERHEAD TRANSMISSION LINES	OH		
ELECTRIC	E		
CABLE TELEVISION	TV		
FIBER OPTIC	FO		
SANITARY SEWER	SAN		
STORM SEWER	SS		
POWER POLE			
TELEPHONE POLE			
TELEPHONE PEDESTAL			
ELECTRIC TOWER			

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		
REFERENCE LINE	R/L		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 175	TERRITORIAL ROAD	66'	1843
STH 175	PROJECT 2608	VARIES	1925

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), WASHINGTON 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.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

REVISION DATE
6-24-2021

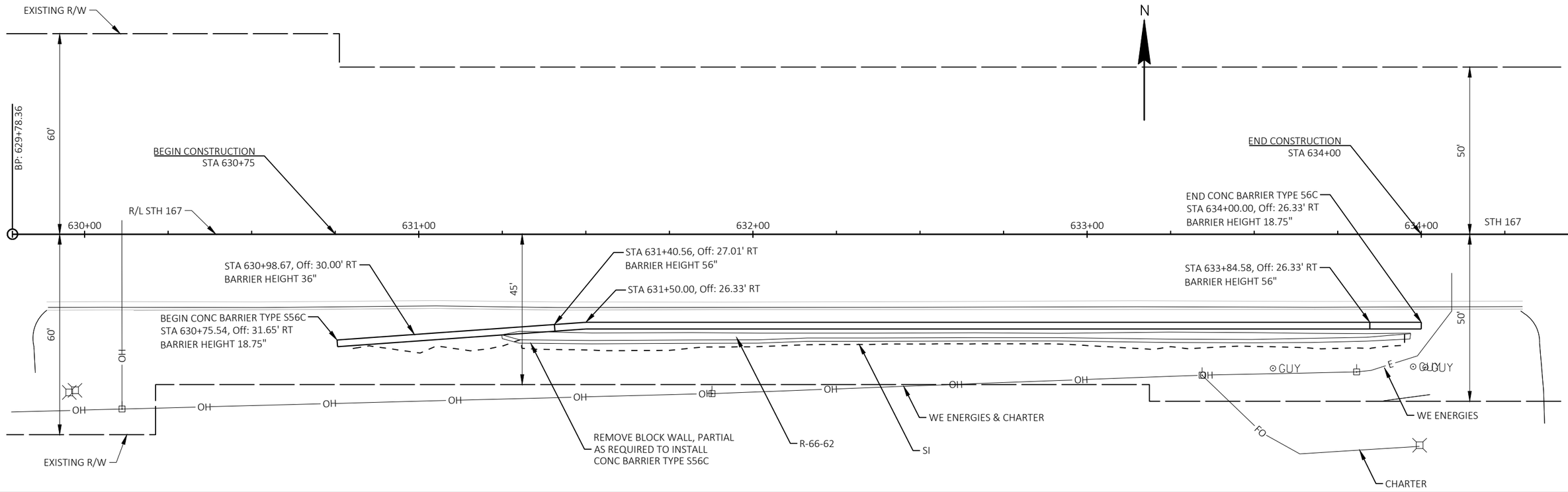
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

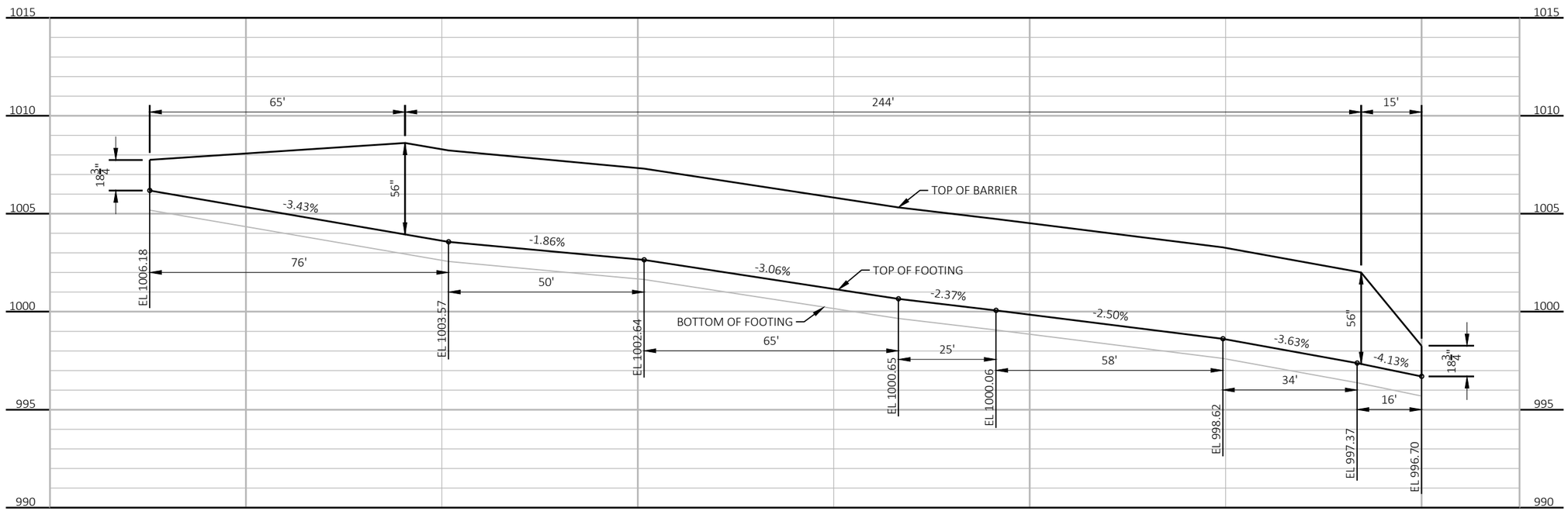
APPROVED FOR THE DEPARTMENT

DATE: 04/26/21 Robert J Duffek (Signature)

FILE NAME : 040401_RP.DWG PLOT DATE : 6/24/2021 8:19 AM PLOT BY : KARPEN, WILLIAM PLOT NAME : PLOT SCALE : 1 IN:100 FT

CONST. I.D. 3360-17-70 3360-17-20 4.01

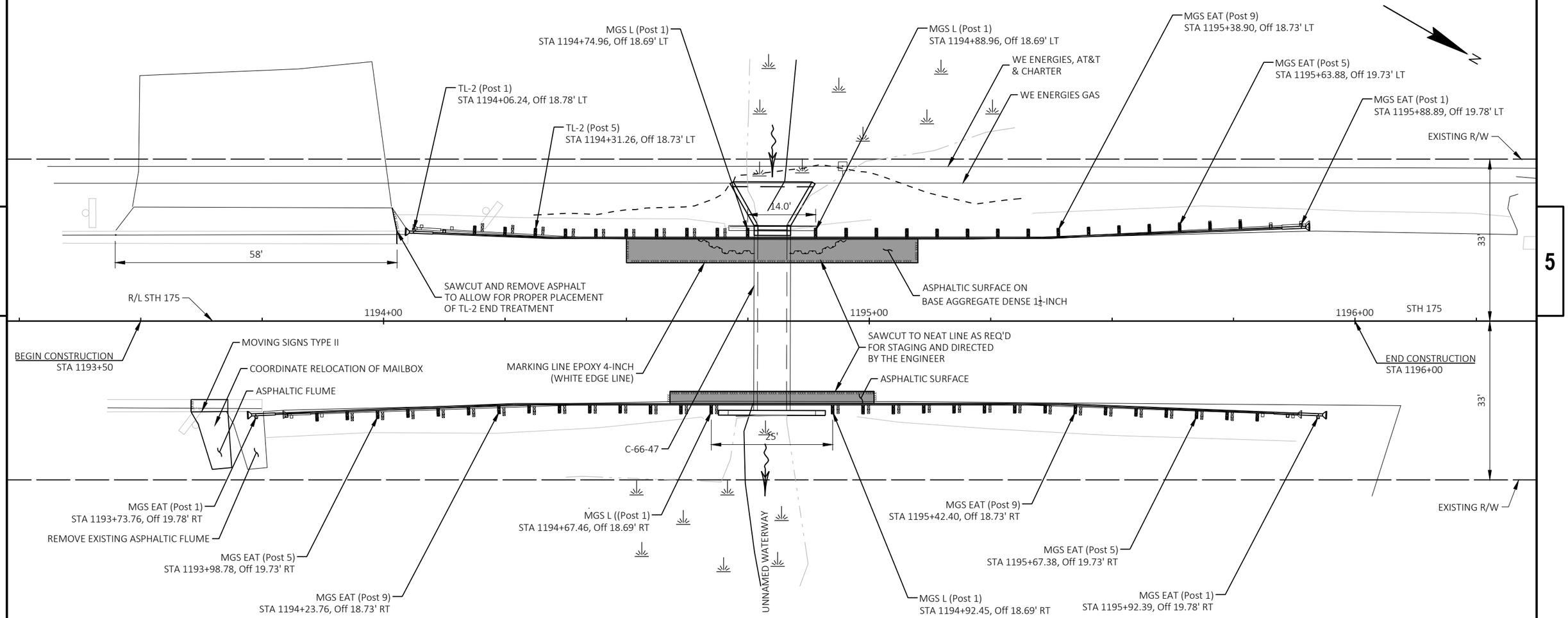




PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	PLAN AND PROFILE: R-66-62 (STH 167)	SHEET 33	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\050202_PP.DWG
LAYOUT NAME - 01

PLOT DATE : 10/25/2022 9:17 AM PLOT BY : WEIGAND, BEN PLOT NAME : PLOT SCALE : 1 IN:30 FT



PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	PLAN: C-66-47 (STH 175)	SHEET 34	E

LEGEND

5 ½" HMA PAVEMENT

1 ¾" ASPHALTIC SURFACE MILLING BUTT JOINT
1 ¾" HMA PAVEMENT

N

BEGIN MGS 3L
STA 1244+53.63, Off 17.00' LT

MGS EAT (POST 9)
STA 1244+25.50, Off 17.00' LT

MGS EAT (POST 5)
STA 1244+00.50, Off 18.00' LT

EX LINE
FIBER 950.8'
NEUTRAL 958.2'
ELECTRIC 966.9'

MGS EAT (POST 1)
STA 1243+75.52, Off 19.00' LT

EXISTING R/W

EX LINE
FIBER 957.5'
NEUTRAL 959.5'
ELECTRIC 967.7'

END MGS 3L
STA 1245+59.88, Off 17.00' LT

PROPOSED ROW

EX LINE
FIBER 954.7'
NEUTRAL 957.3'
ELECTRIC 965.4'

LITTLE CEDAR CREEK

ATT

MGS EAT (POST 9)
STA 1245+63.00, Off 17.00' LT

EX LINE
FIBER 962.7'
NEUTRAL 967.5'
ELECTRIC 975.4'

MGS EAT (POST 5)
STA 1245+88.00, Off 18.00' LT

MGS EAT (POST 1)
STA 1246+13.00, Off 19.00' LT

TLE

SI

WE ENERGIES

PT: 1246+22.25

1242+00

STH 175

1243+00

1244+00

1245+00

1246+00

1247+00

1248+00

STH 175

33'

33'

32'

17'

10'

5'

4'

12'

REMOVE STRUCTURE C-66-48
INSTALL NEW STRUCTURE C-66-159
SEE STRUCTURE PLANS

BEGIN CONSTRUCTION
STA 1242+60
MATCH EXISTING
BUTT JOINT REQ'D

END CONSTRUCTION
STA 1247+65
MATCH EXISTING
BUTT JOINT REQ'D

EXISTING R/W

MGS EAT (POST 1)
STA 1244+00.50, Off 19.00' RT

MGS EAT (POST 5)
STA 1244+25.50, Off 18.00' RT

MGS EAT (POST 9)
STA 1244+50.50, Off 17.00' RT

PROPOSED ROW

35'

SI

BEGIN MGS 3L
STA 1244+53.63, Off 17.00' RT

MGS EAT (POST 1)
STA 1246+50.50, Off 19.00' RT

MGS EAT (POST 5)
STA 1246+25.50, Off 18.00' RT

MGS EAT (POST 9)
STA 1246+00.50, Off 17.00' RT

END MGS 3L
STA 1245+59.88, Off 17.00' RT

VCL = 340.00
K = 30.78

ORIGINAL GROUND

-5.79%
-5.97%
-6.32%
-6.11%
4.93%

STA 1242+12.54
EL 944.95

STA 1242+40.14
EL 943.35

STA 1242+71.99
EL 941.45

STA 1243+25.06
EL 938.09

VPC STA 1244+16.89
VPC EL 932.48

BOX CULVRT
C-66-159

VPI STA 1245+86.89
VPI EL 922.09

VPT STA 1247+56.89
VPT EL 930.47

STA 1247+65.74
EL 930.91

960 955 950 945 940 935

940 935 930 925 920 915

942.77 942.76 939.66 939.68 936.53 936.57 933.47 933.51 930.70 930.63 928.49 928.52 927.18 927.22 926.74 926.73 926.96 927.06 928.05 928.19 930.13 930.14

1242 1243 1244 1245 1246 1247 1248

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	PLAN AND PROFILE: C-66-159 (STH 175)	SHEET 35	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\050101_PP.DWG
LAYOUT NAME - 01

PLOT DATE : 10/25/2022 9:18 AM PLOT BY : WEIGAND, BEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

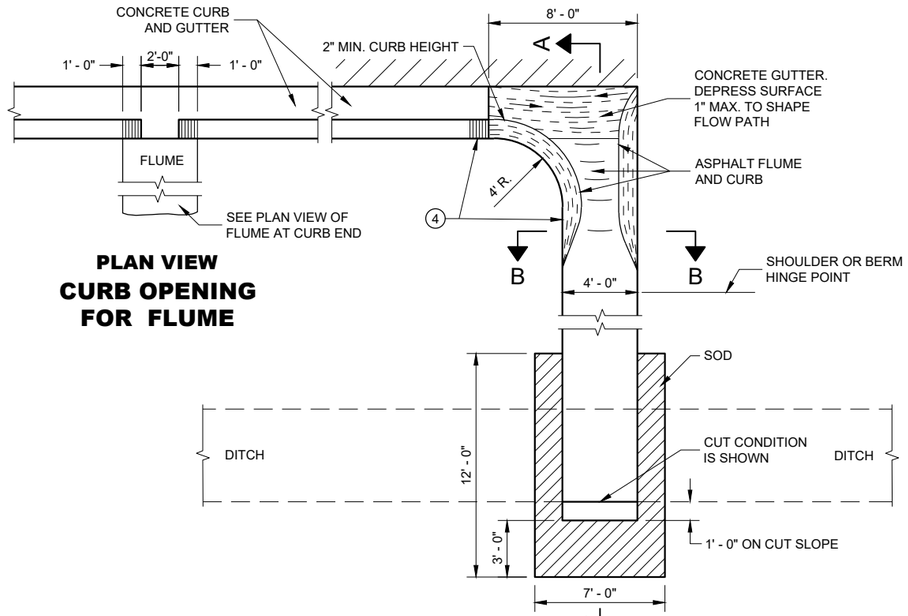
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

08D04-06	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E14-01	TRACKING PAD
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
14B07-16A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16J	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16K	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16L	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16M	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B28-04A	GUARDRAIL MOW STRIP
14B28-04B	GUARDRAIL MOW STRIP
14B34-02A	32", 36" & 42" CONCRETE BARRIER SINGLE SLOPE CLASS B
14B41-03A	SINGLE SLOPE ROADSIDE RETAINING WALL
14B41-03B	SINGLE SLOPE ROADSIDE RETAINING WALL
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)
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D32-06	TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION

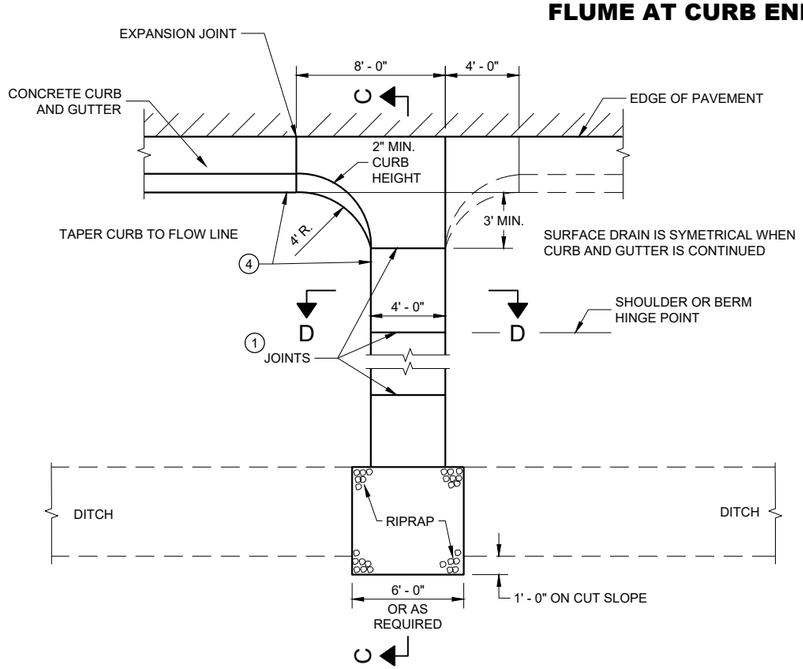
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



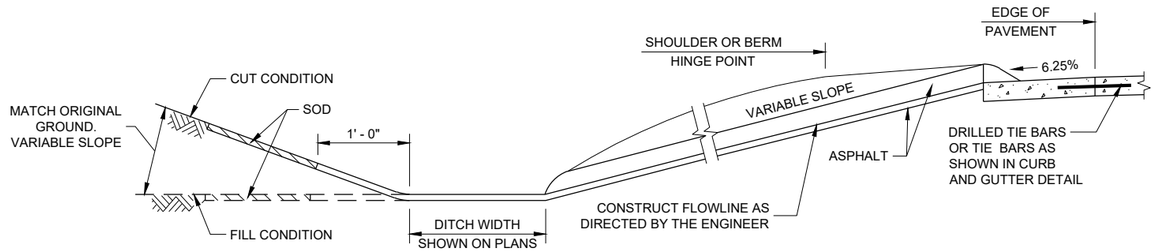
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

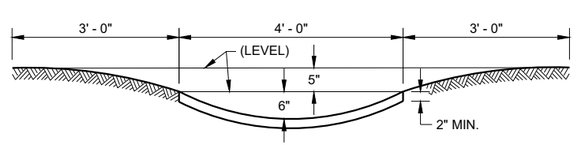
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

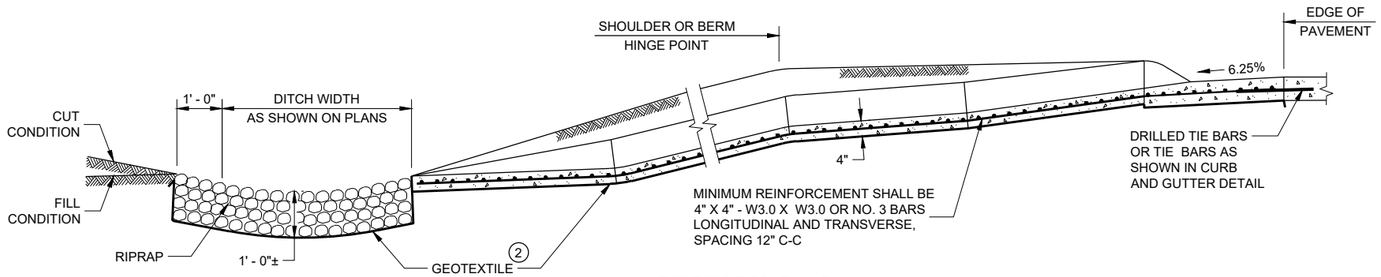
1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. 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.



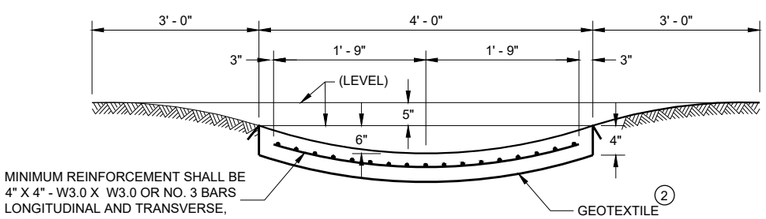
SECTION A - A



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

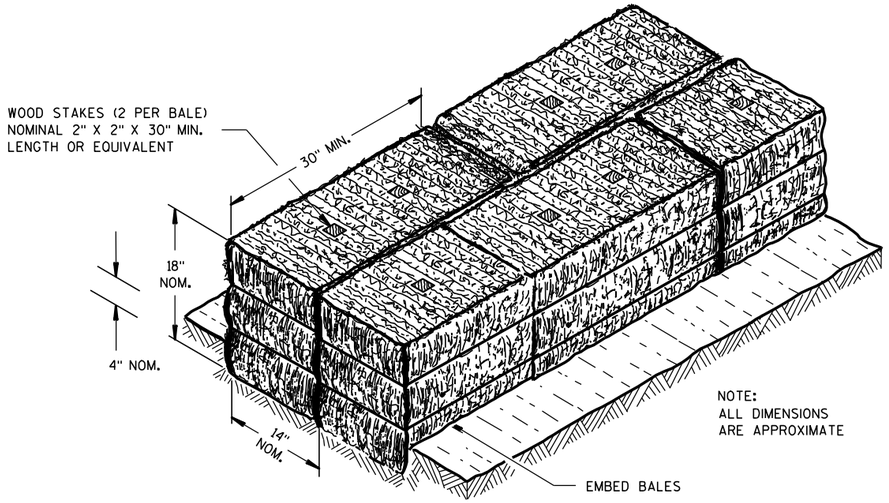
FHWA

6

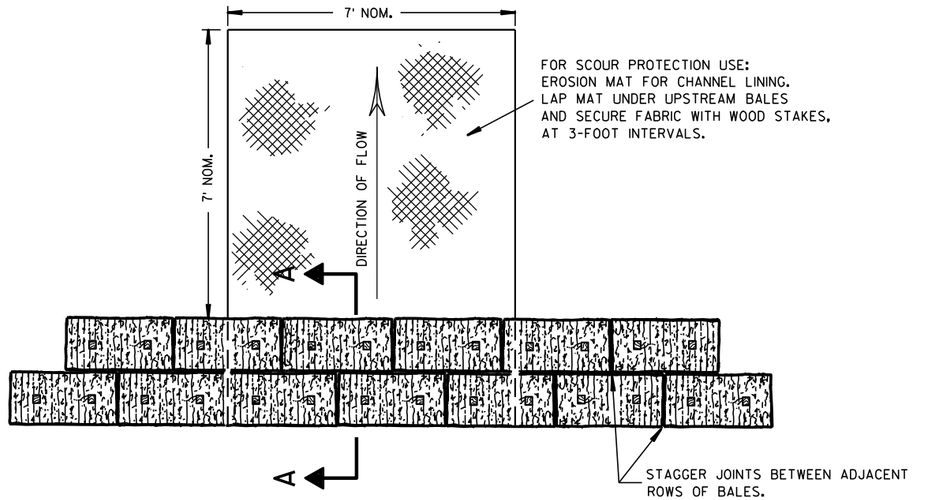
SDD 08D04 - 06

6

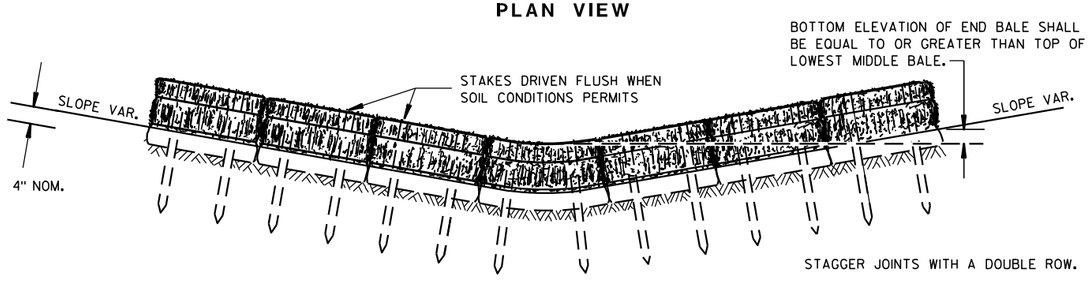
SDD 08D04 - 06



SECTION A-A



PLAN VIEW



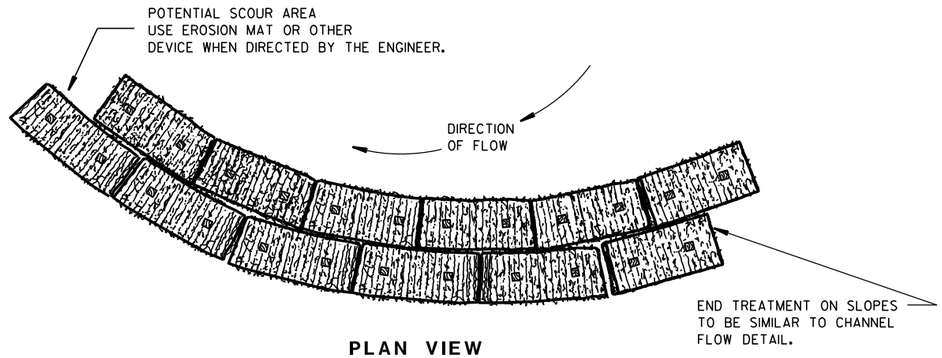
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

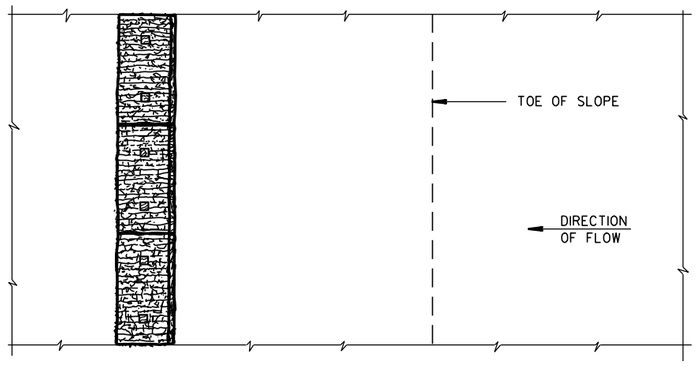
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

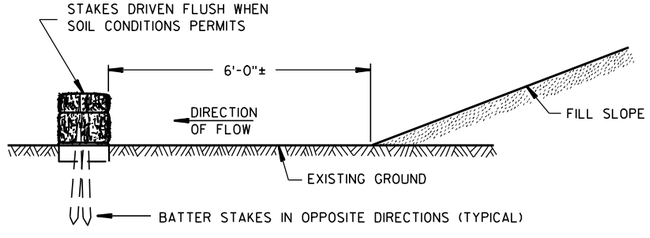


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

FHWA

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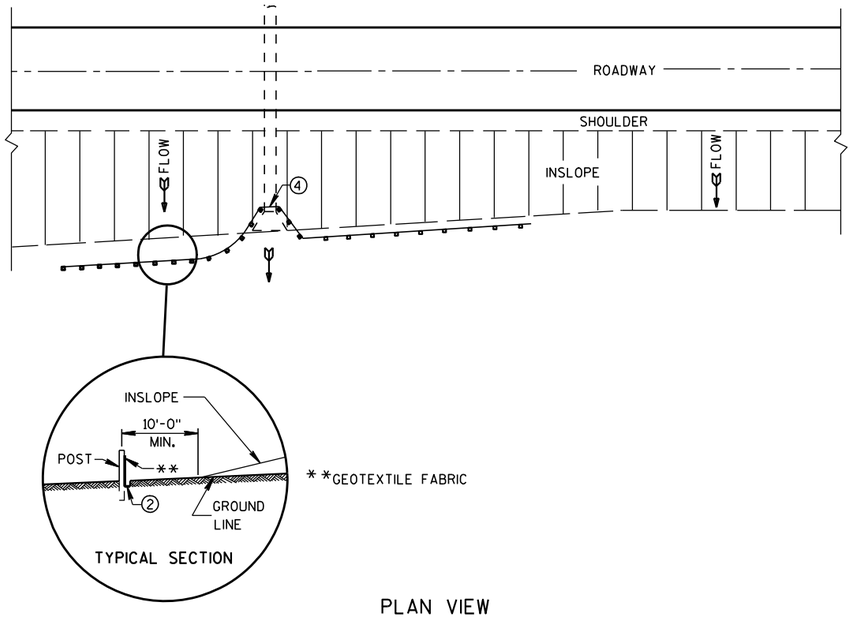
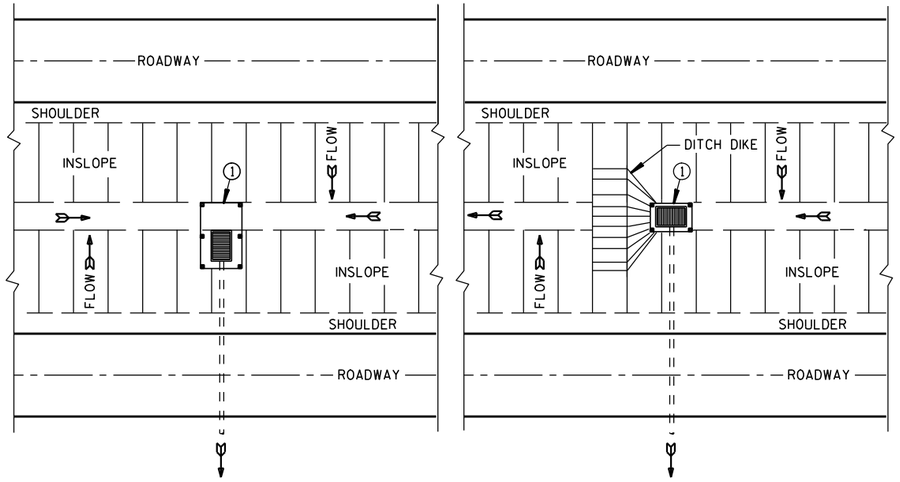
S.D.D. 8 E 8-3



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.

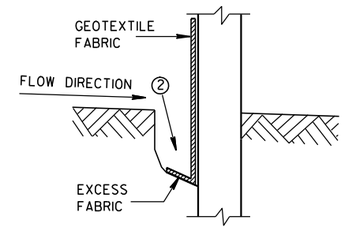
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

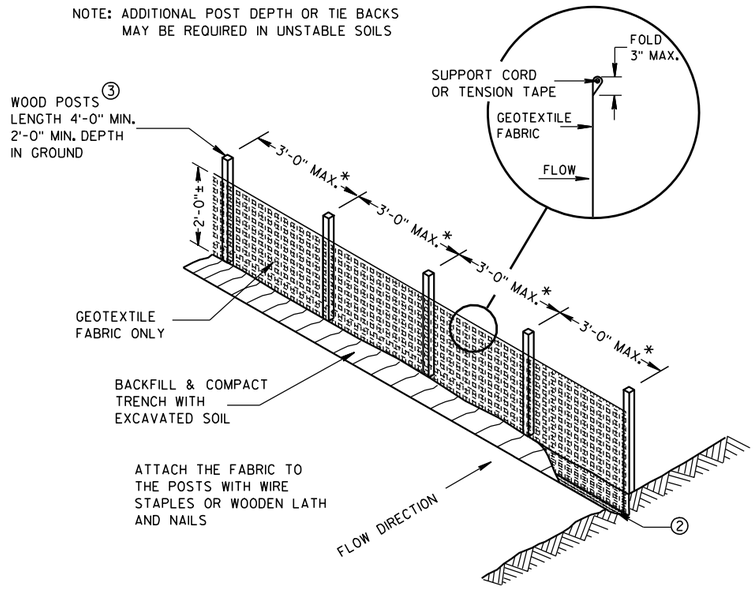
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

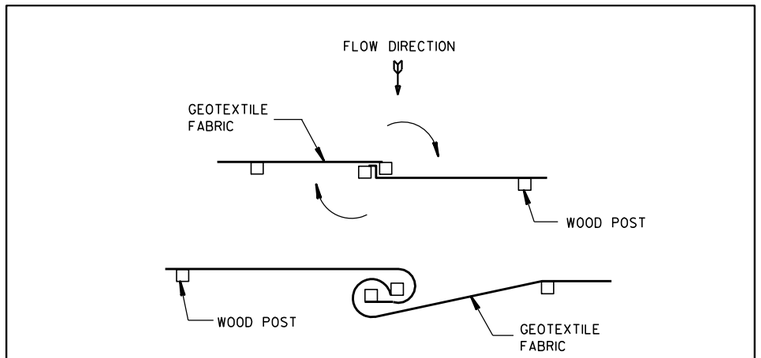
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



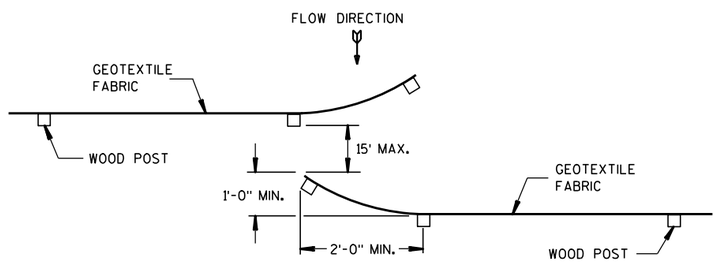
TRENCH DETAIL



SILT FENCE

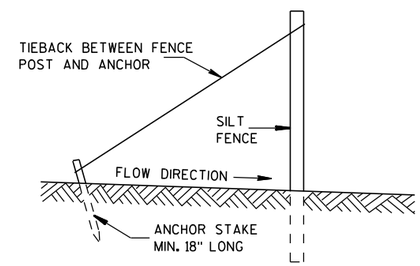


TWIST METHOD



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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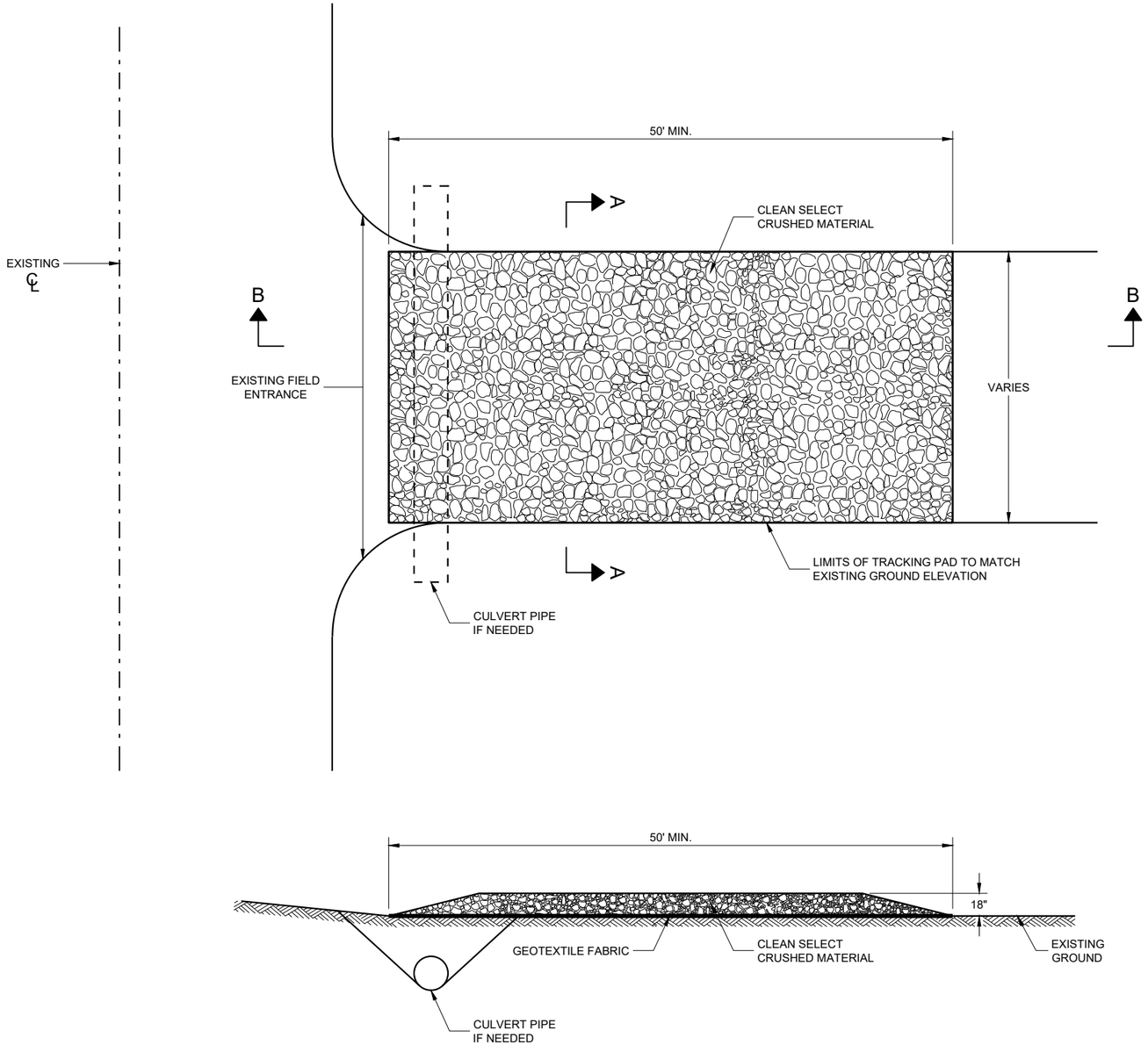
S.D.D. 8 E 9-6



SECTION B - B

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

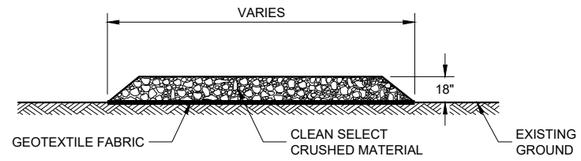
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A

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SDD 08E14 - 01

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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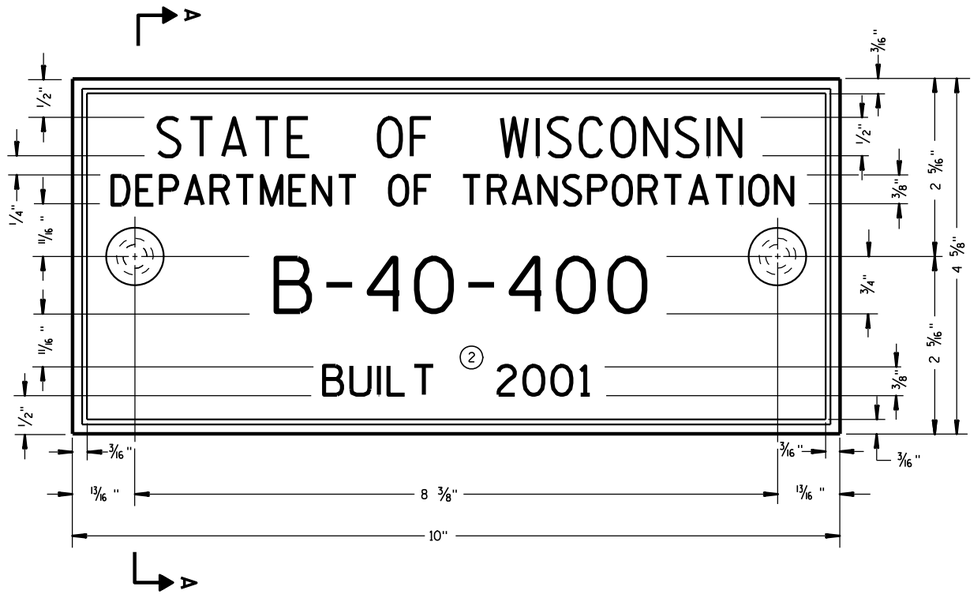
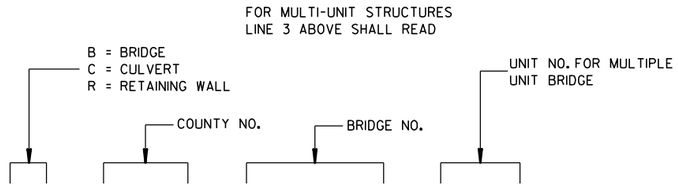
SDD 08E14 - 01



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

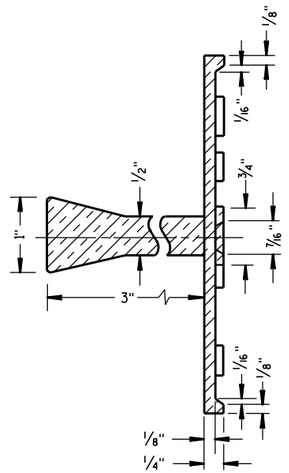
GENERAL NOTES

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

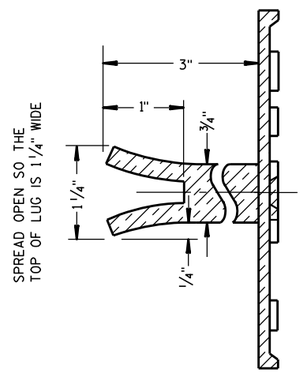
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

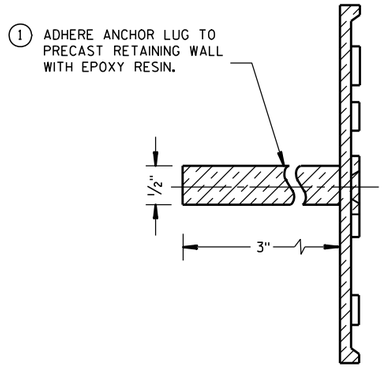
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

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

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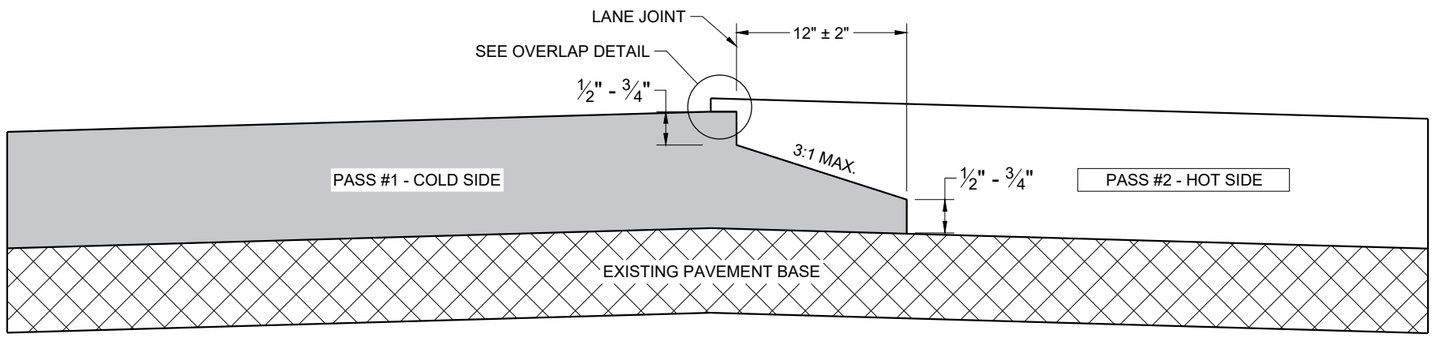
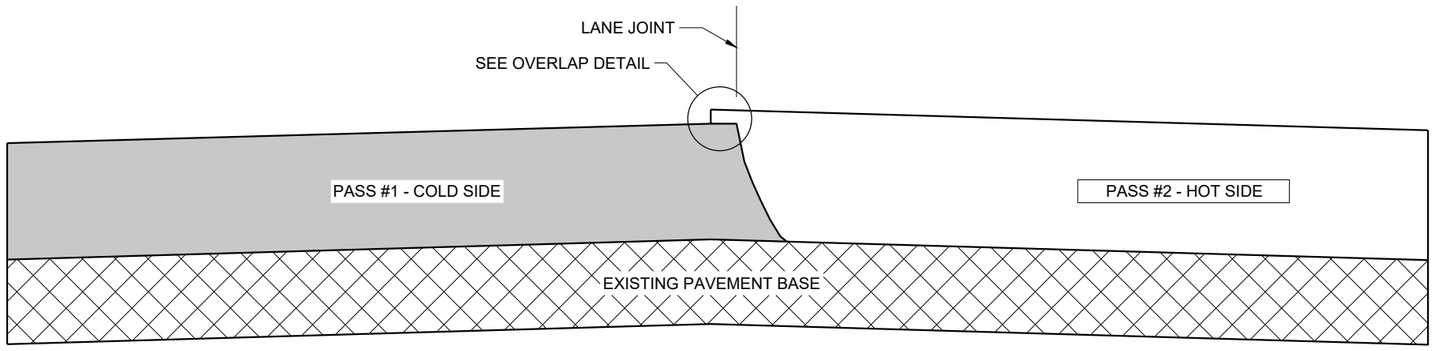
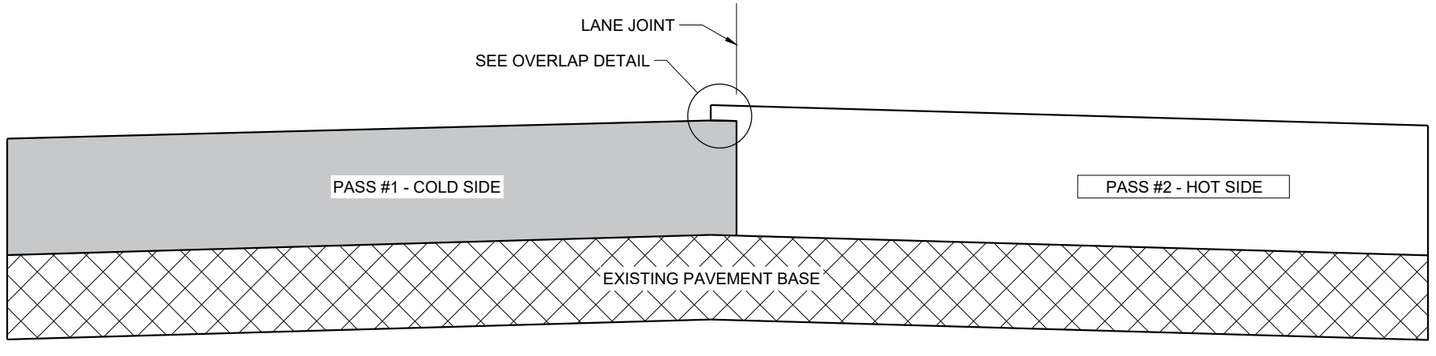
S.D.D. 12 A 3-10



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

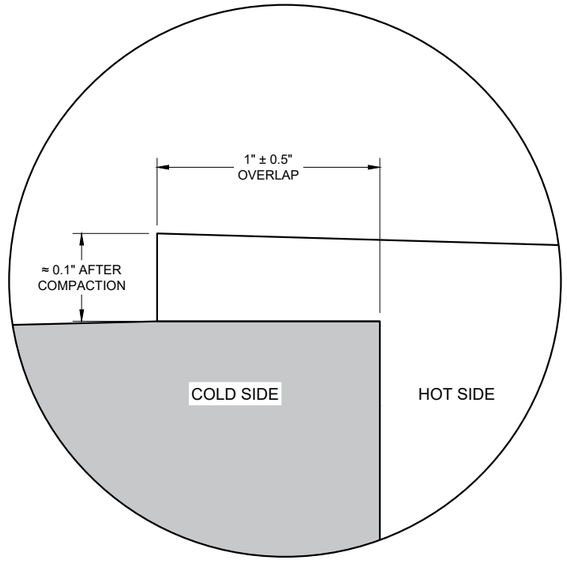
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

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SDD 13C19 - 03

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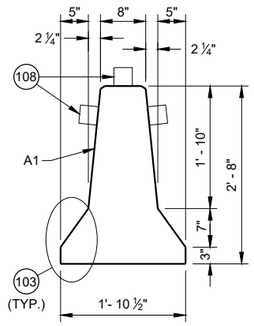
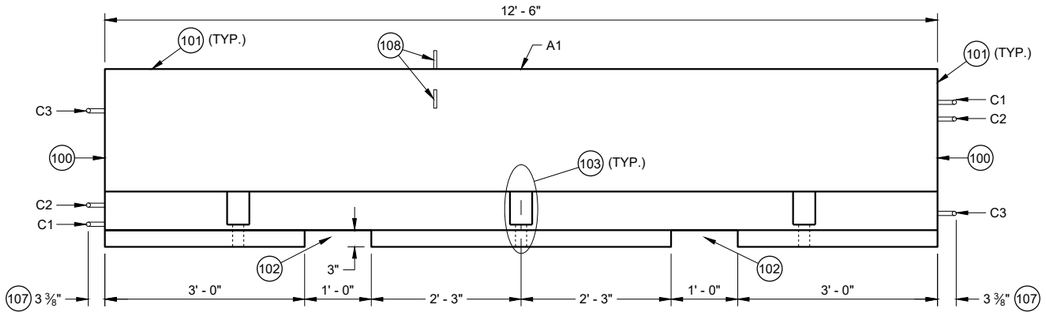
SDD 13C19 - 03



CROSS SECTION



PROFILE VIEW

GENERAL NOTES

PLACE BARRIER ON PAVED SURFACE. BEFORE PLACEMENT OF TEMPORARY BARRIER, REMOVE ALL LOOSE MATERIAL FROM PAVED SURFACE.

LOOP BARS C1, C2 AND C3 ARE NOT FOR PLACEMENT OR MOVEMENT OF BARRIER.

(100) PERMANENTLY FORM INTO ONE END OF BARRIER THE FOLLOWING INFORMATION:
- A. TYPE OF BARRIER: WI-CBTP
- B. MANUFACTURER
- C. DATE OF MANUFACTURE (MONTH AND YEAR)

(101) 1" OPTIONAL CHAMFER

(102) SEE LIFTING SLOT DETAIL

(103) SEE ANCHOR BLOCK DETAIL

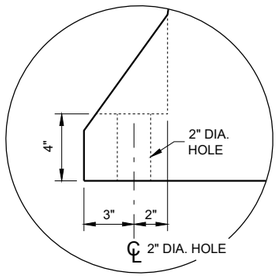
(104) 1 ¾" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

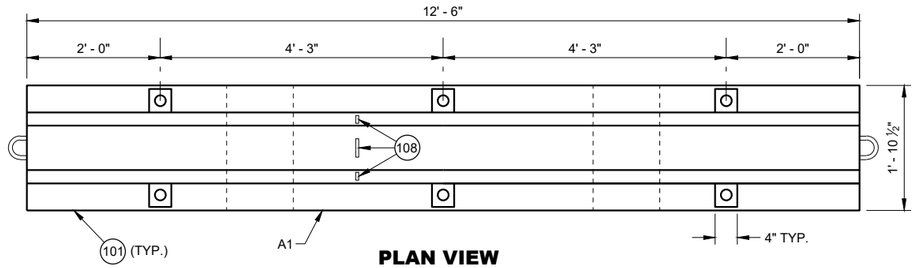
(106) 1" MIN. CLEAR COVER

(107) ± ⅛" MEASURED FROM FACE OF CONCRETE BARRIER TO OUTSIDE OF LOOP BAR (TYP.)

(108) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURERS INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED LEFT OF TRAFFIC AND WHITE WHEN BARRIER IS LOCATED RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART, PROVIDE TO MOUNTED DELINEATORS IN ADDITION TO SIDE MOUNTED DELINEATORS ON BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAT 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

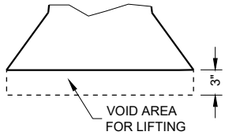


ANCHOR BLOCK DETAIL

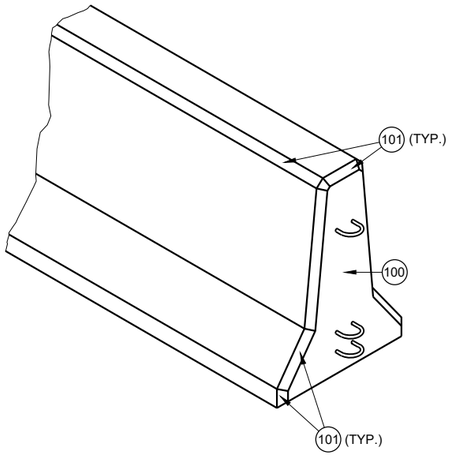


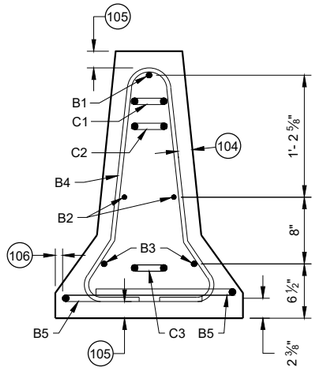
PLAN VIEW

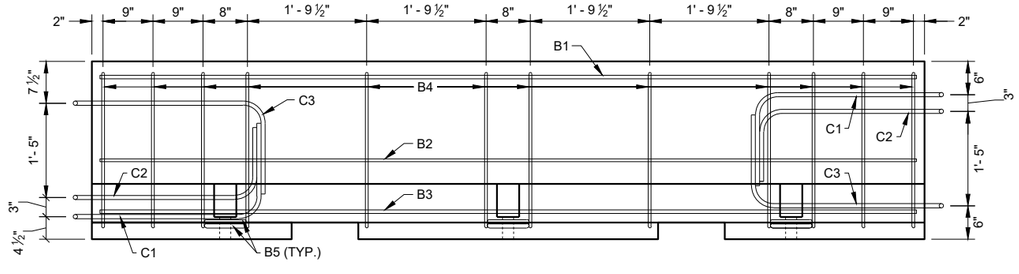
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)







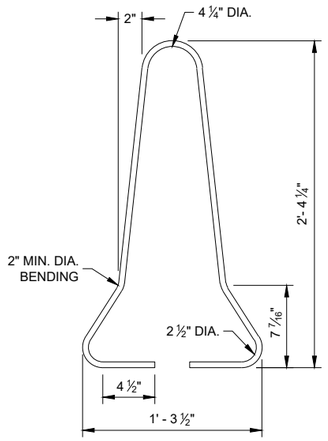
PROFILE VIEW

TEMPORARY BARRIER REINFORCEMENT

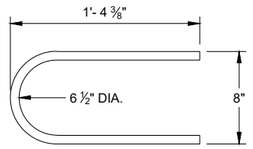
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

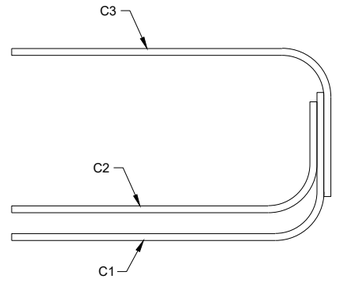
6
SDD14B07 - 16a



B4 BAR DETAIL

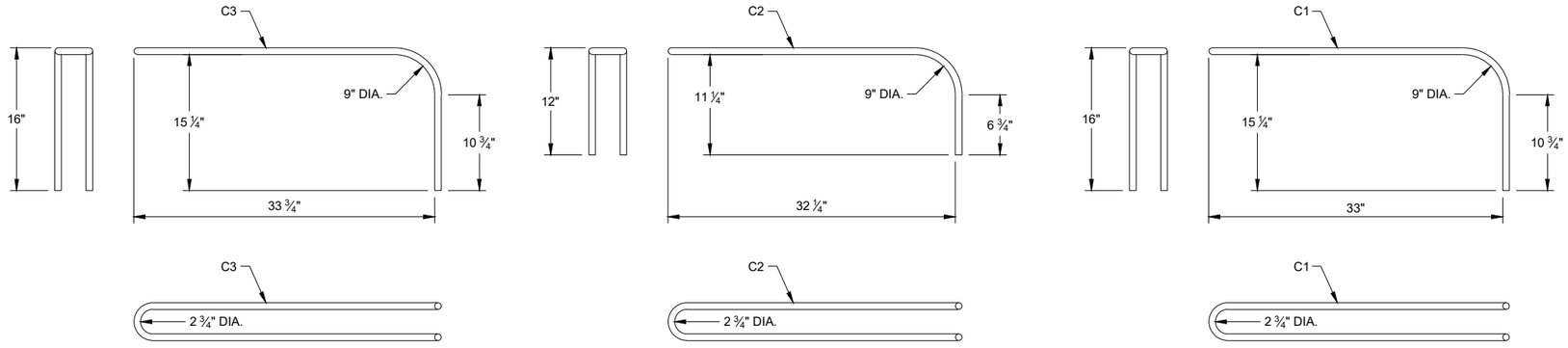


B5 BAR DETAIL



PROFILE VIEW

LOOP BAR ASSEMBLY



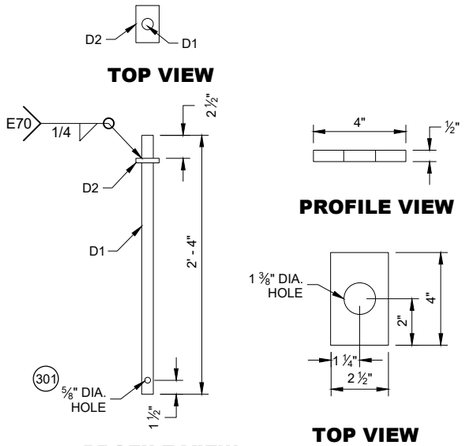
C BAR DETAILS

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

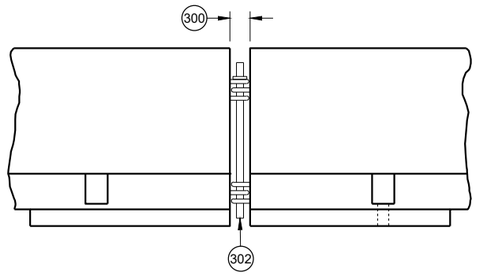
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16b



CONNECTOR PIN ASSEMBLY



CONNECTING TEMPORARY BARRIER SECTIONS

GENERAL NOTES

300 SET WITH 3 ⅝" WOOD BLOCK.

301 HOLE IS OPTIONAL.

302 CONNECTOR PIN ASSEMBLY.

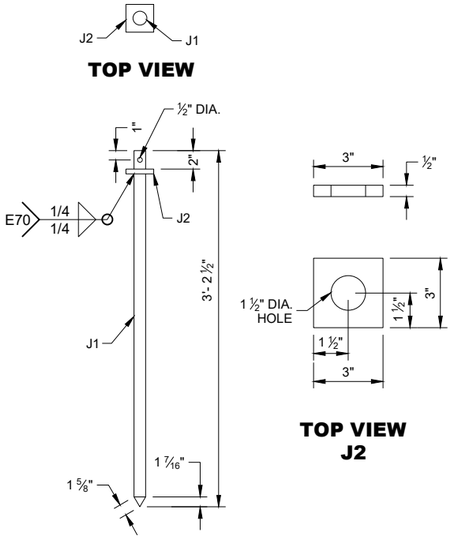
303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.

304 CONCRETE DECK.

305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

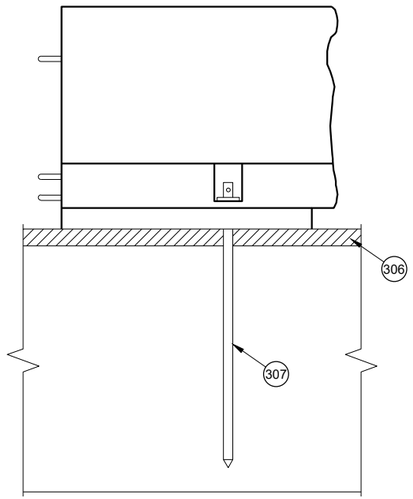
306 MINIMUM OF 2" OF ASPHALT.

307 ASPHALT ANCHOR PIN ASSEMBLY



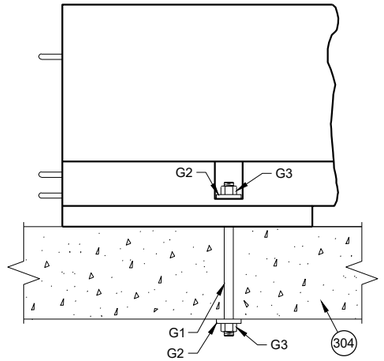
PROFILE VIEW

ASPHALT ANCHOR PIN ASSEMBLY



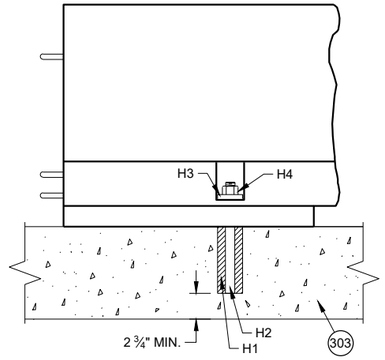
SIDE VIEW

ASPHALT ANCHOR INSTALLATION



SIDE VIEW

THROUGH BOLT ANCHOR INSTALLATION 305



SIDE VIEW

ADHESIVE ANCHOR INSTALLATION 305

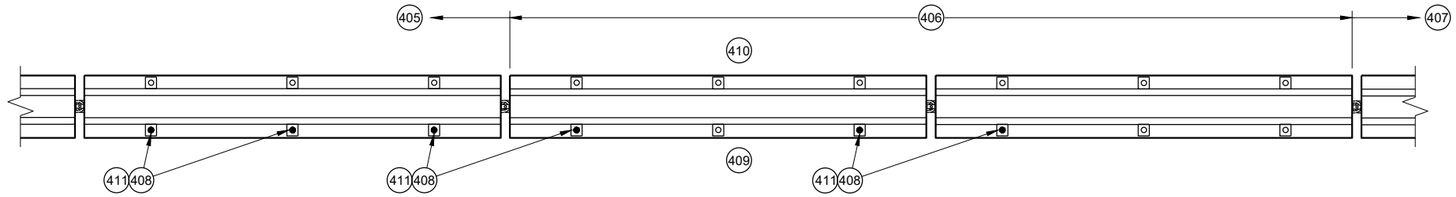
6

SDD 14B07 - 16c

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

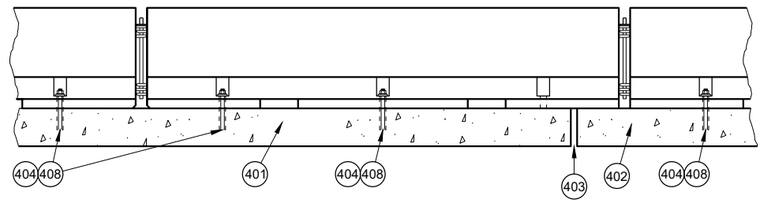
6

SDD 14B07 - 16c



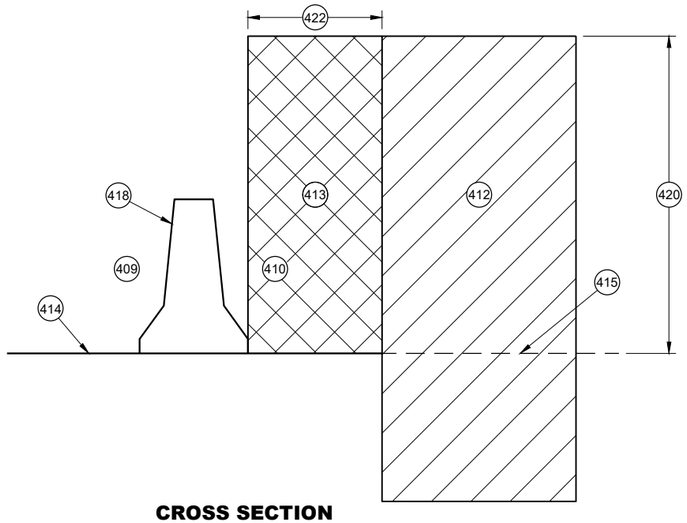
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



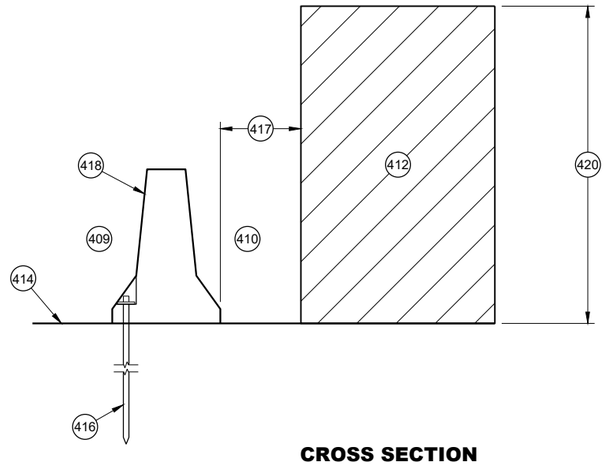
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



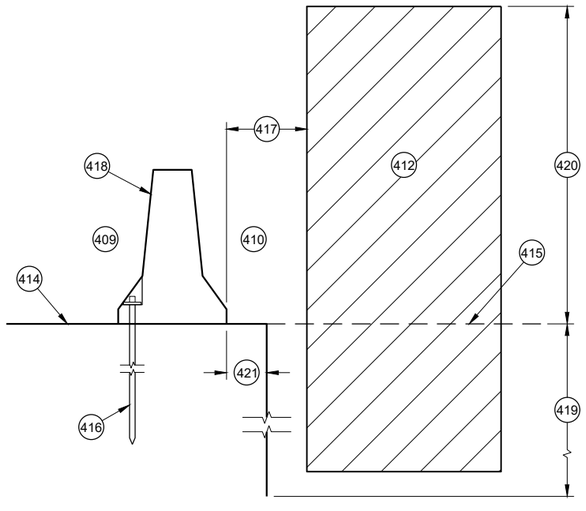
CROSS SECTION

FREE STANDING BARRIER



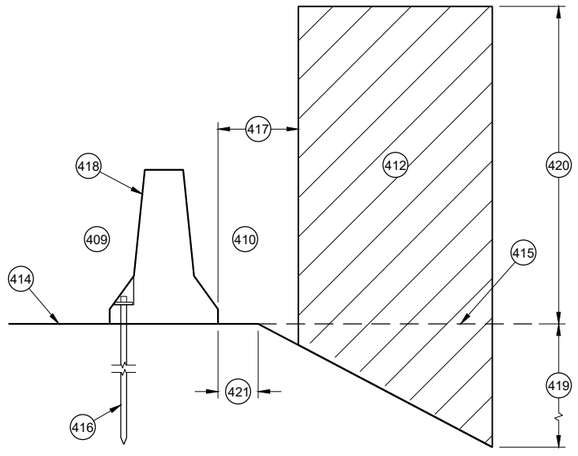
CROSS SECTION

ANCHORED BARRIER FOR OBJECTS ABOVE THE GRADE LINE AND NEAR THE BARRIER



CROSS SECTION

ANCHORED BARRIER NEAR VERTICAL DROP OFF



CROSS SECTION

ANCHORED BARRIER NEAR A SLOPE

GENERAL NOTES

(400) NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.

(401) CONCRETE DECK

(402) CONCRETE DECK OR APPROACH SLAB.

(403) EXPANSION JOINT

(404) ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.

(405) ANCHORED TEMPORARY BARRIER

(406) TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING

(407) FREE STANDING BARRIER

(408) REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(409) TRAFFIC SIDE

(410) NON-TRAFFIC SIDE

(411) ANCHOR LOCATION. SEE ANCHORING DETAILS.

(412) WORK AREA

(413) AREA FREE OF OBJECTS AND WORKERS

(414) GRADE LINE

(415) EXTENDED GRADE LINE

(416) ANCHORED TEMPORARY BARRIER. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR AN ASPHALT ANCHOR ROD DETAILS FOR MORE INFORMATION. ASPHALT ANCHOR ROD SHOWN.

(417) WHEN OBJECTS EXTEND ABOVE THE GRADE. A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT.

(418) OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR ALLOWED TO LEAN AGAINST THE BARRIER WITHOUT WRITTEN PERMISSION OF THE PROJECT ENGINEER.

(419) DEPTHS OF 3 FEET OR MORE.

(420) Y = 6.5'

(421) OFFSET FROM BACK OF BARRIER EDGE:

CONCRETE PAVEMENT	0.5'
ASPHALT	0.5'

(422) POSTED SPEED (MPH):

45 OR GREATER	4.0'
40 OR LOWER	2.0'

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16d

GENERAL NOTES

(500) EXISTING RIGID BARRIERS (VARIES)

(501) TEMPORARY BARRIER

(502) SEE OTHER DETAIL ON HOW TO ANCHOR TEMPORARY BARRIER (BARRIER ASPHALT ANCHOR SHOWN).

(503) ANCHORS ARE REQUIRED ON BOTH SIDE OF THE TEMPORARY BARRIER.

(504) NESTED RAILS ARE REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

(505) TRAFFIC TRAVELS FROM PERMANENT BARRIER TO TEMPORARY BARRIER.

(506) TRAFFIC TRAVELS FROM TEMPORARY BARRIER TO PERMANENT BARRIER.

(507) VERTICAL BARRIER

(508) SAFETY SHAPE BARRIER

(509) SINGLE SLOPE BARRIER

(510) CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF RIGID BARRIER.

(511) BENT THRIE BEAM TO FIT.

(512) THRIE BEAM PIECES ARE OFFSET 15 ¼" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.

(513) TWO (2) P1, P2 AND P3 ARE REQUIRED

(514) FIVE (5) N1, N2 AND N3 ARE REQUIRED

(515) TWO (2) R1, R2 AND R3 ARE REQUIRED

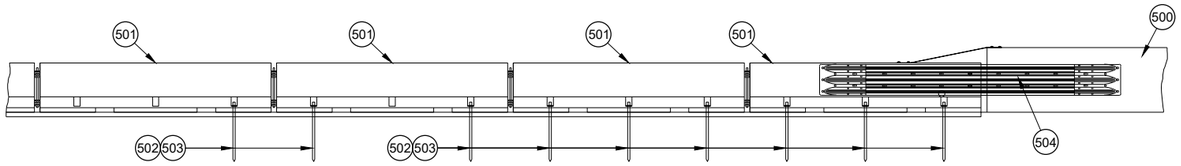
(516) CUT WOOD BLOCK TO FIT.

(517) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL ASSEMBLY.

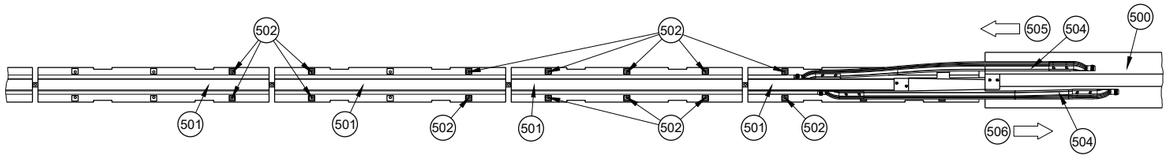
(518) CAP ASSEMBLY

(519) 4" MAX. GAP BETWEEN TEMPORARY BARRIER AND RIGID BARRIER.

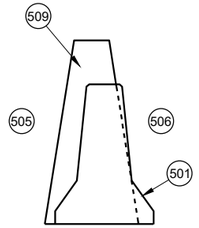
(520) ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



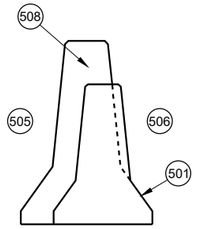
PROFILE VIEW



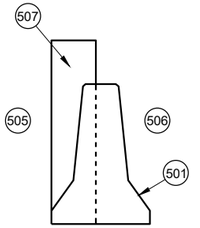
PLAN VIEW
TRANSITION TO RIGID BARRIER



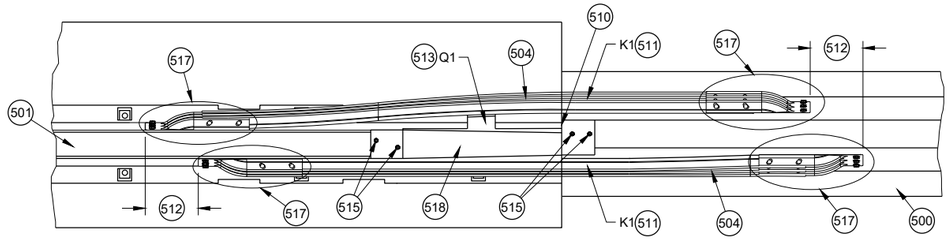
CROSS SECTION TEMPORARY BARRIER PLACEMENT SINGLE SLOPE



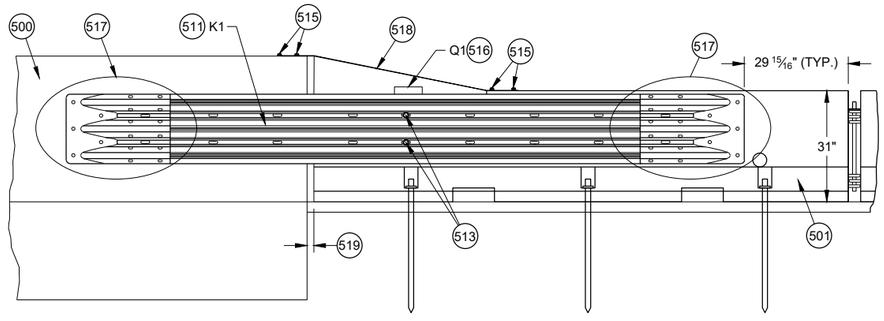
CROSS SECTION TEMPORARY BARRIER PLACEMENT SAFETY SHAPE



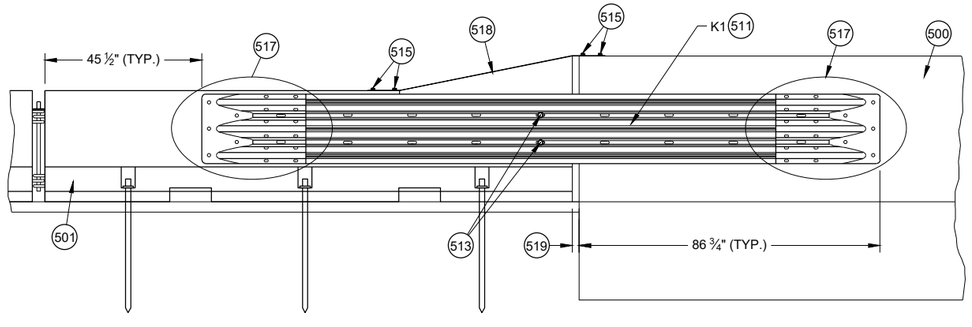
CROSS SECTION TEMPORARY BARRIER PLACEMENT VERTICAL



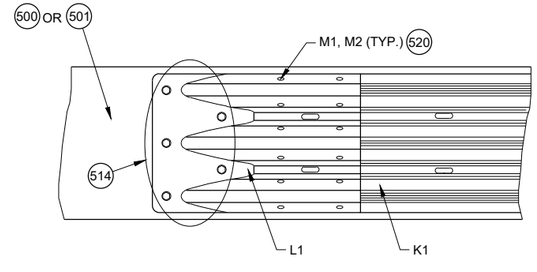
PLAN DETAIL VIEW
TRANSITION TO RIGID BARRIER



BACK DETAIL VIEW
TRANSITION TO RIGID BARRIER



FRONT DETAIL VIEW
TRANSITION TO RIGID BARRIER



(517) **DETAIL PLAN VIEW**
THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

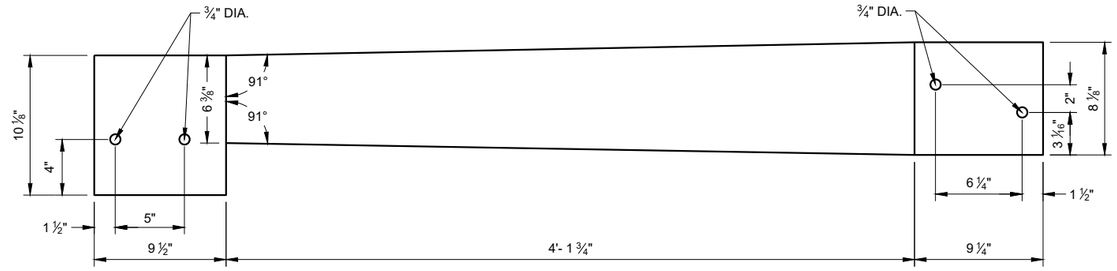
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16e

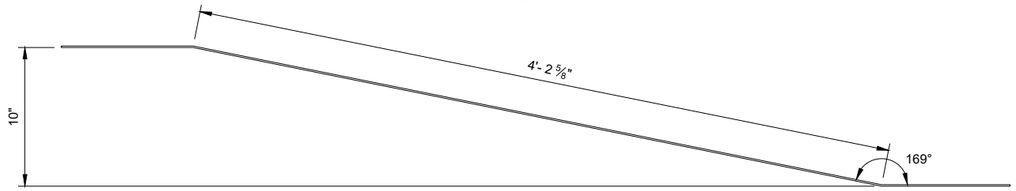
6

SDD 14B07 - 16e



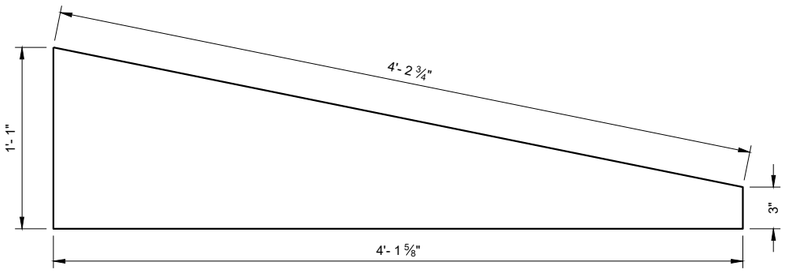
TOP VIEW

S1



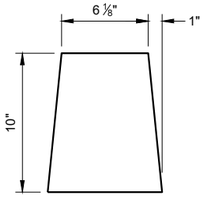
ELEVATION VIEW

S1

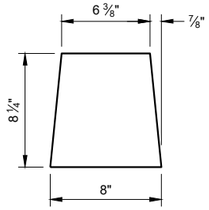


SIDE VIEW

S3



S2



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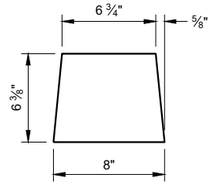
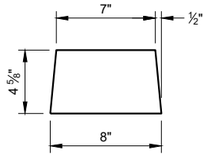
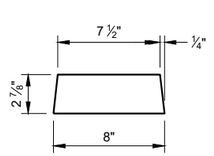


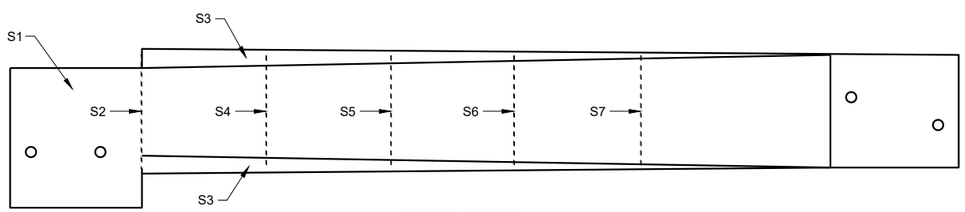
S5



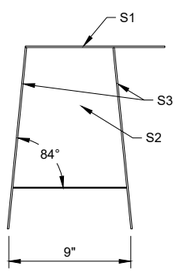
S6



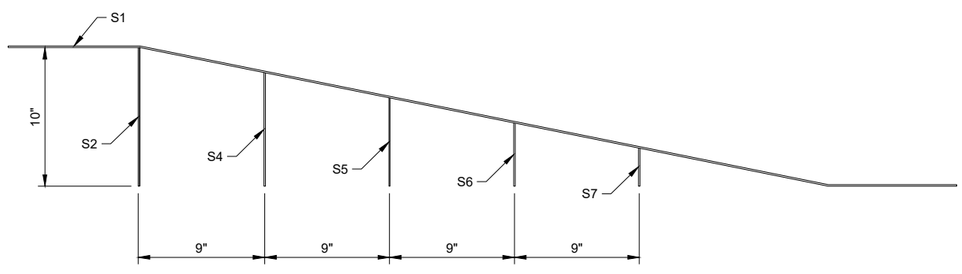
S7



PLAN VIEW



BACK VIEW



SIDE VIEW (600)

42" TOP CAP ASSEMBLY

GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THREE SIDES

STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

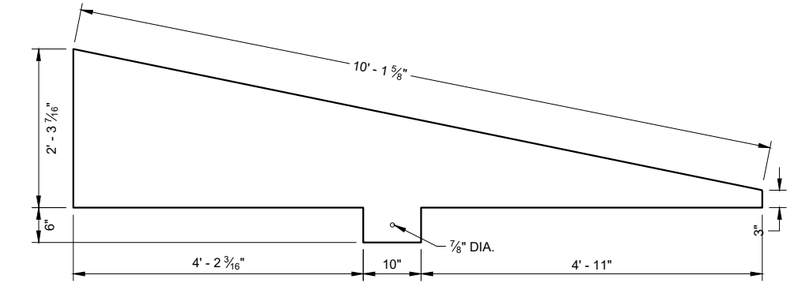
(600) SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT

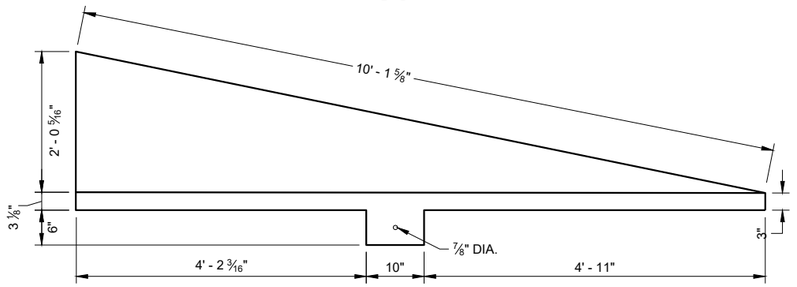
6

SDD 14B07 - 16f



SIDE VIEW
T4

END VIEW



SIDE VIEW
T3

END VIEW

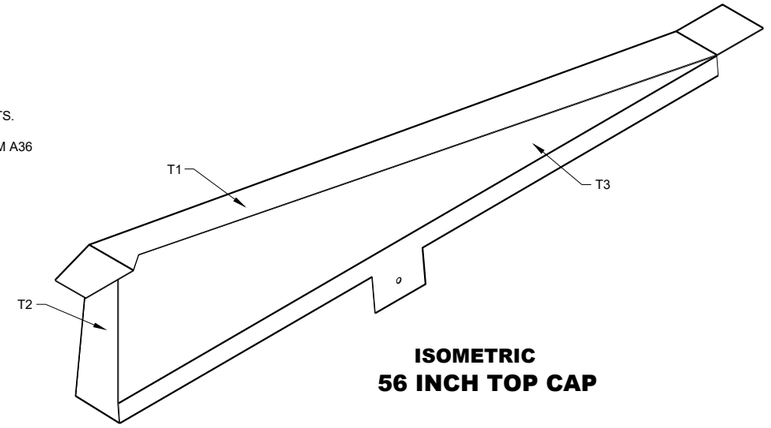
GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES

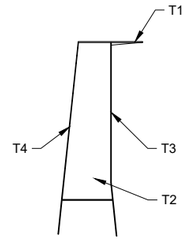
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

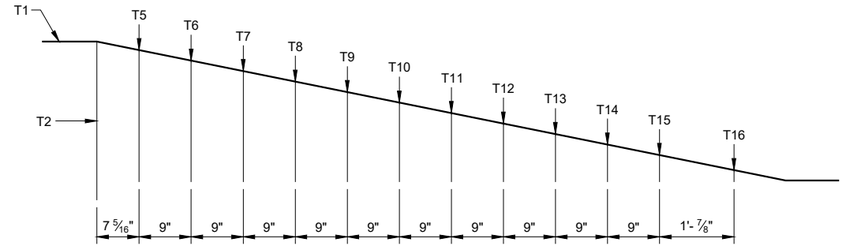
(700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.



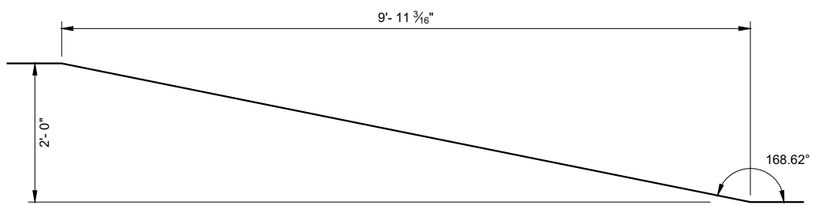
ISOMETRIC
56 INCH TOP CAP



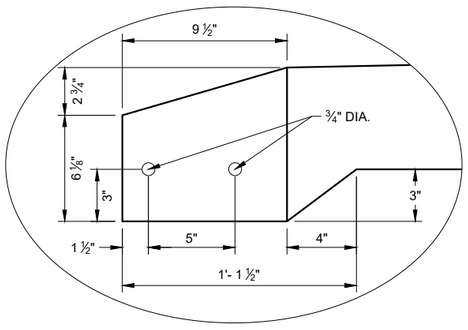
END VIEW
56 INCH TOP CAP



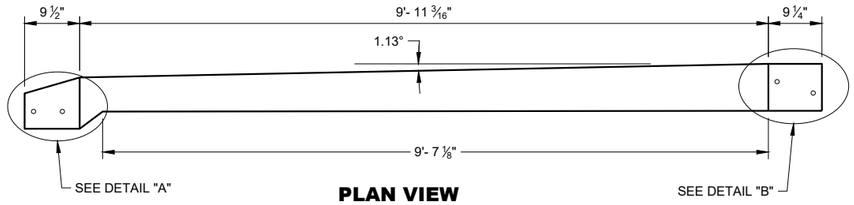
SIDE VIEW (700)
56 INCH TOP CAP



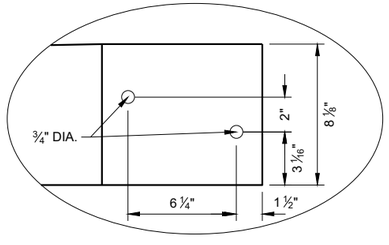
SIDE VIEW
TOP PLATE T1



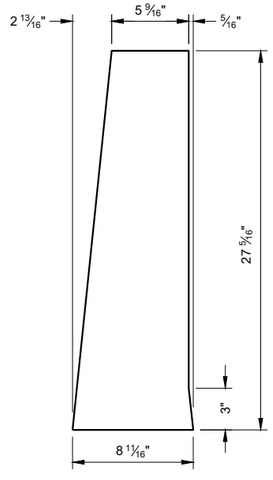
DETAIL "A"



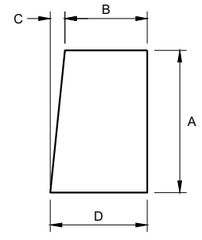
PLAN VIEW
TOP PLATE T1



DETAIL "B"



END PLATE T2



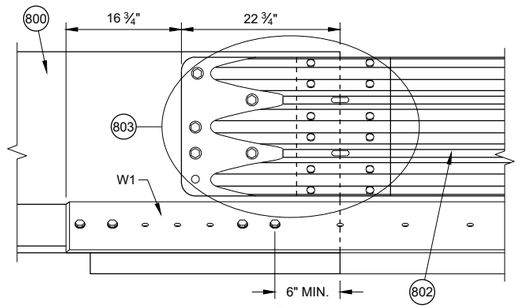
GUSSET PLATES
T5 - T16

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 1/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/16"	1 15/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 5/16"	6 7/16"	1 9/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"	7"	1 1/16"	8 1/16"
T13	8 5/16"	7 3/16"	7/8"	8 1/16"
T14	6 1/2"	7 3/8"	1 1/16"	8 1/16"
T15	4 11/16"	7 9/16"	1/2"	8"
T16	2 7/8"	7 3/4"	1/4"	8"

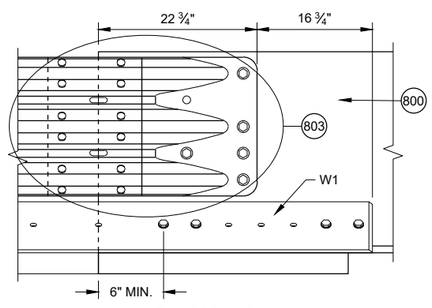
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B07 - 16g



DETAIL D



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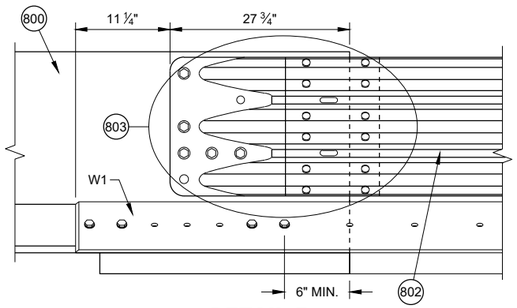

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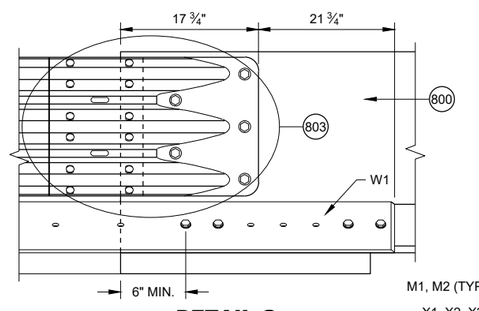
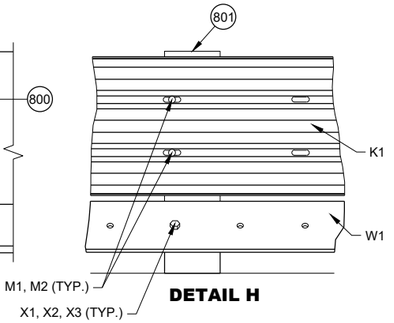
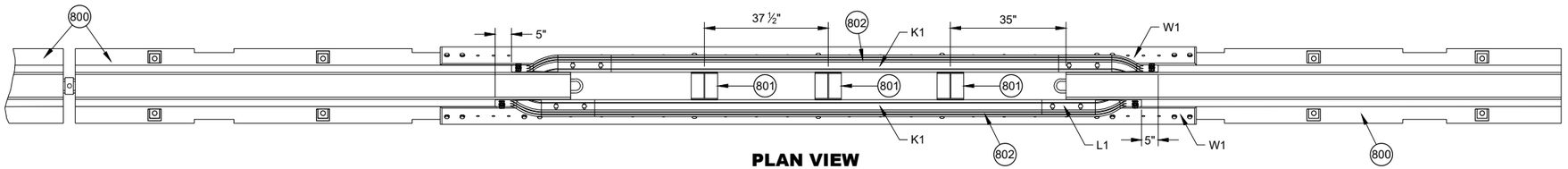


DETAIL G



DETAIL H



PLAN VIEW

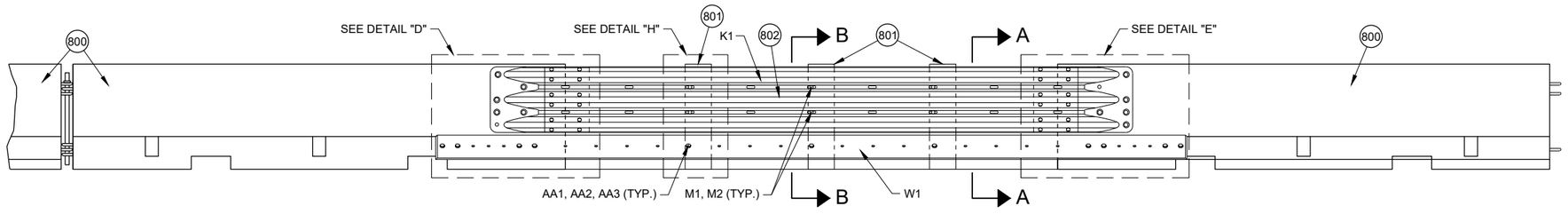
GENERAL NOTES

(800) FREE STANDING TEMPORARY BARRIER

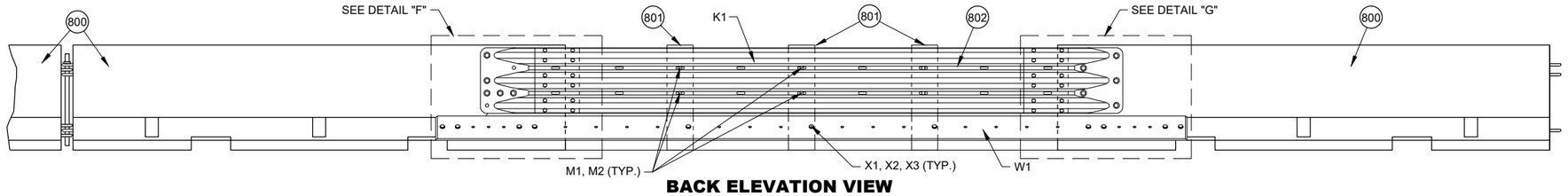
(801) GAP STIFFENER ASSEMBLY

(802) THRIE BEAMS ARE NESTED ON BOTH SIDES OF THE TEMPORARY BARRIER.

(803) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



FRONT ELEVATION VIEW



BACK ELEVATION VIEW

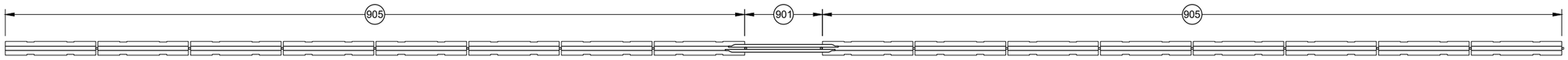
PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

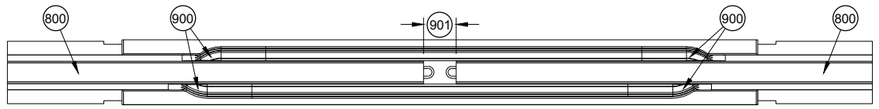
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16h



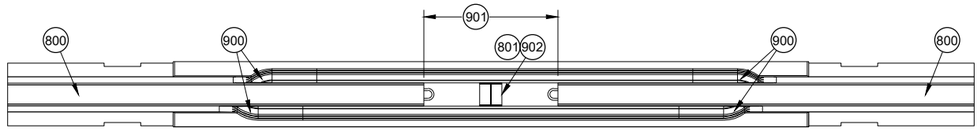
PLAN VIEW
GAP WITHIN SPACING



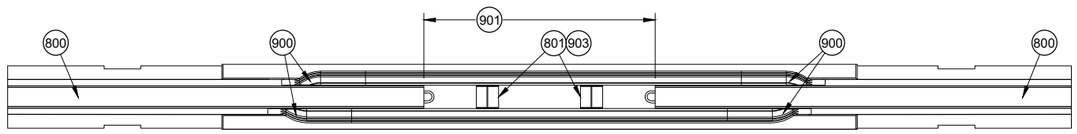
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. (904)

GENERAL NOTES

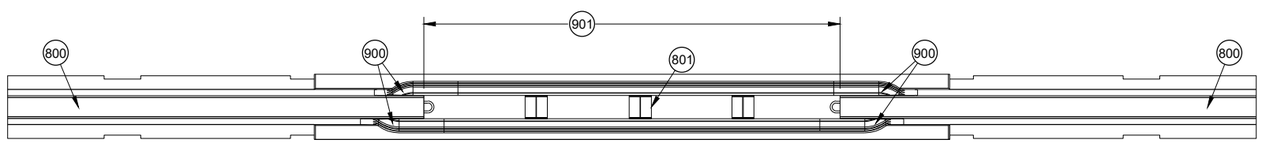
(900) SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)
(901) TEMPORARY BARRIER GAP
(902) GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
(903) GAP STIFFENER ASSEMBLY IS OFFSET 18 ¾" FROM CENTER
(904) MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
(905) MINIMUM OF 8 CONTINUOUS FREE STANDING TEMPORARY BARRIERS



PLAN VIEW
TEMPORARY BARRIER GAP OVER 1' TO 4' MAX. (904)



PLAN VIEW
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX. (904)



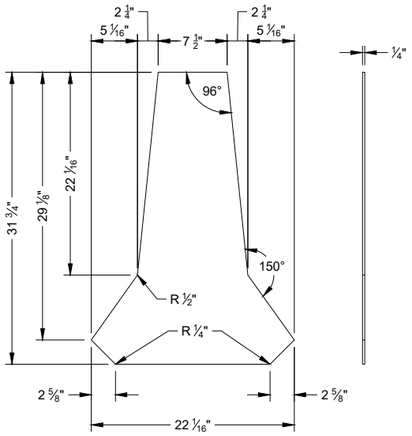
PLAN VIEW
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX. (904)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

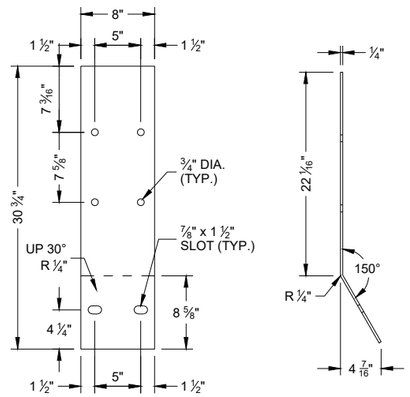
6

SDD 14B07 - 16i



PROFILE VIEW SIDE VIEW

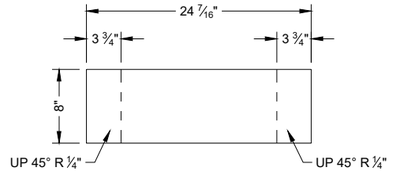
STIFFENER ASSEMBLY CENTER PANEL U1



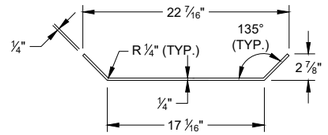
FLAT PATTERN

SIDE VIEW

STIFFENER ASSEMBLY SIDE PANEL U2

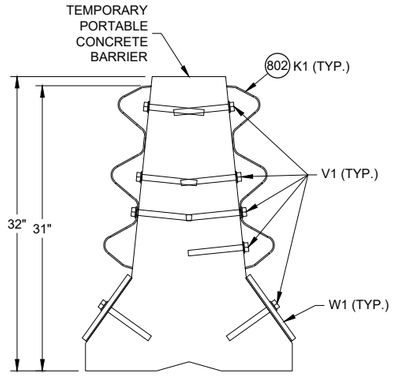


FLAT PATTERN

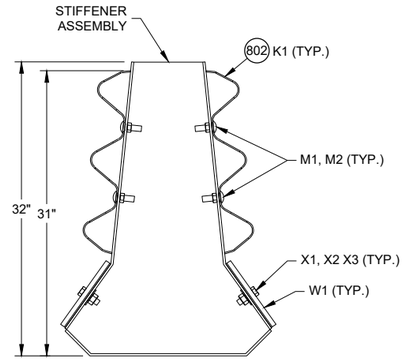


PROFILE VIEW

STIFFENER ASSEMBLY BOTTOM PANEL U3



SECTION A - A



SECTION B - B

PLAN VIEW

PROFILE VIEW

SIDE VIEW

ISOMETRIC

GAP STIFFENER ASSEMBLY

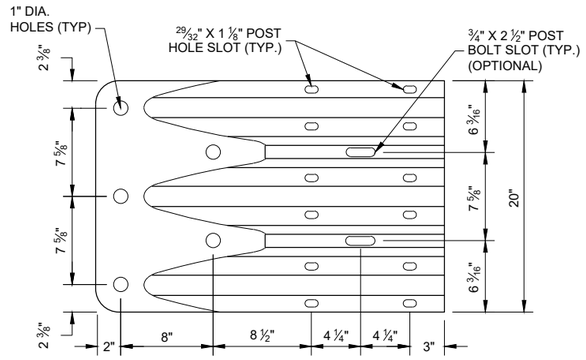
PLAN VIEW

SIDE VIEW

ELEVATION VIEW

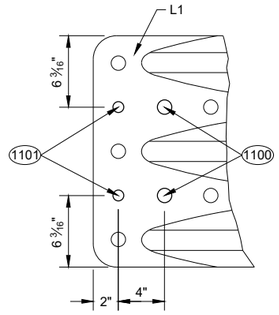
W1 TOE PLATE

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"



ELEVATION VIEW

THRIE BEAM TERMINAL CONNECTOR



ELEVATION VIEW

ADDITIONAL THRIE BEAM (1102) TERMINAL CONNECTOR HOLE DETAIL

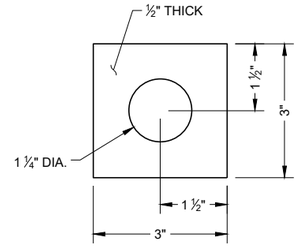


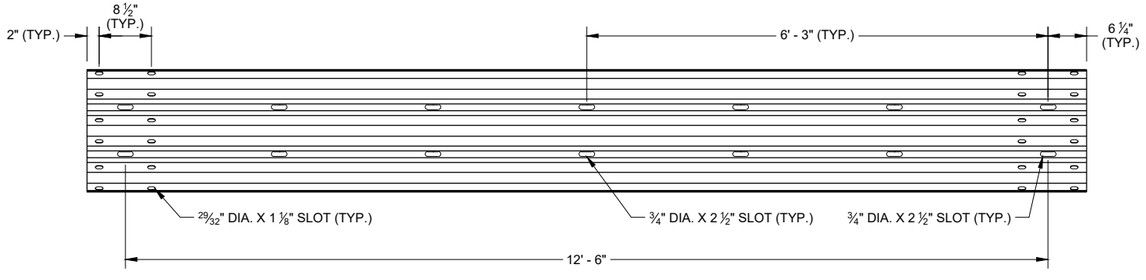
PLATE WASHER DETAIL G2, H3

GENERAL NOTES

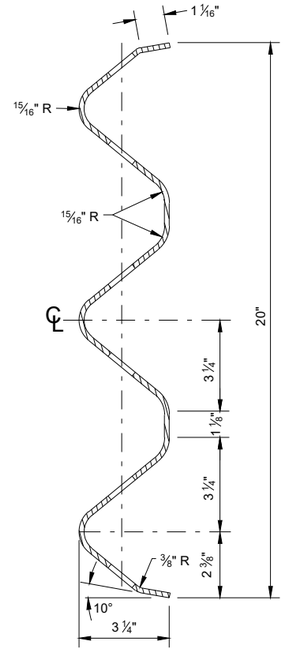
(1100) 1" DIA. HOLE

(1101) 3/4" DIA. HOLE

(1102) PROVIDE HOLES IN THRIE BEAM TERMINAL CONNECTOR TO LIMIT STEEL REINFORCEMENT OR LOOP BAR CONFLICT. CONTRACTOR MAY FIELD DRILL ADDITIONAL HOLE OR PROVIDE THRIE BEAM TERMINAL CONNECTOR WITH ADDITIONAL HOLES FROM SUPPLIER.



SLOTTED THRIE BEAM RAIL K1



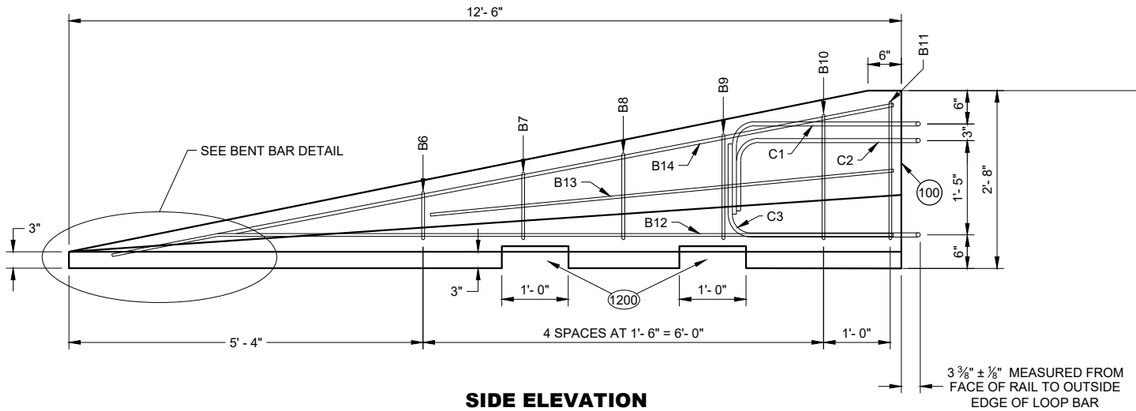
SECTION THROUGH BEAM K1

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

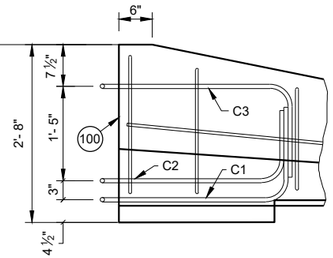
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16k



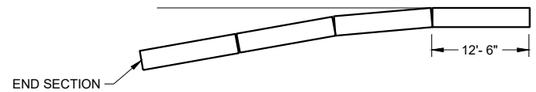
SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED FOR OPPOSITE END
(FOR CONNECTION TO RIGHT END OF BARRIER)

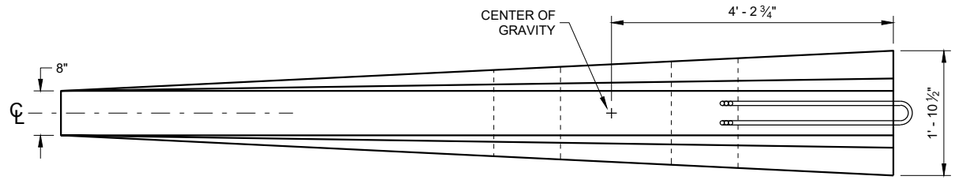
GENERAL NOTES

(1200) SEE LIFTING SLOT DETAIL. LOCATION OF LIFTING SLOTS DETERMINED BY CONTRACTOR.

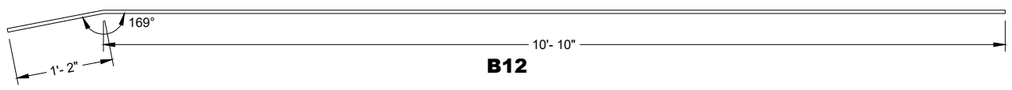


FLARE AT BARRIER END

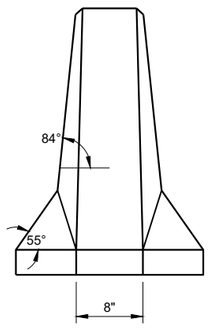
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



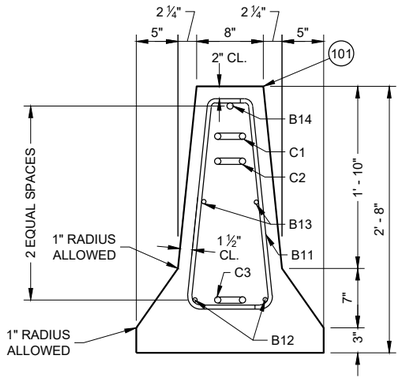
PLAN VIEW



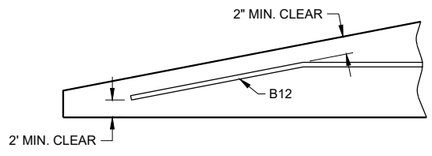
B12



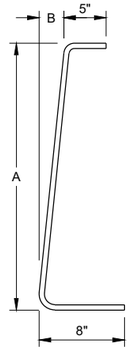
FRONT ELEVATION



END SECTION



BENT BAR DETAIL



BAR	A	B
B6	10"	1"
B7	1'- 1"	1 ¼"
B8	1'- 5"	1 ⅝"
B9	1'- 8"	1 ⅞"
B10	2'- 0 ½"	2 ⅜"
B11	2'- 3"	2 ¾"

B BARS
2 OF EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16I

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	PRECAST TEMPORARY BARRIER - CONCRETE	MIN. = f'c 5000 PSI	
B1	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B2	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-2"
B3	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B4	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 6'-0"
B5	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 2'-11"
B6	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 1'-11"
B7	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-2"
B8	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-6"
B9	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-9"
B10	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-2"
B11	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-4"
B12	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-0"
B13	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 7'-9"
B14	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 11'-9"
C1	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C2	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C3	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
D1	CONNECTION PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ¼" DIA.
D2	CONNECTION PIN - TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G1	BOLT THROUGH ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A OR SAE J429 GRADE 2 UNC	1 ⅛" DIA.
G2	BOLT THROUGH ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G3	BOLT THROUGH ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
H1	ADHESIVE ANCHOR - ADHESIVE	ICC-ES-AC308 5 ¼" EMBEDMENT WITH A MIN. STRENGTH OF 1,800 PSI. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
H2	ADHESIVE ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A / SAE J429 GRADE 2 UNC	1 ⅛" DIA.
H3	ADHESIVE ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
H4	ADHESIVE ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
J1	ASPHALT ANCHOR PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ½" DIA.
J2	ASPHALT ANCHOR PIN - STOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
K1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE
L1	THRIE BEAM RAIL - TERMINAL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
M1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	⅝" DIA.
M2	SPLICE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
N1	THRIE BEAM RAIL TERMINAL - MECHANICAL ANCHOR	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA. LENGTH 6"
N2	THRIE BEAM RAIL TERMINAL - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
N3	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
P1	THRIE BEAM RAIL CONNECTION 1-BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA.
P2	THRIE BEAM RAIL CONNECTION 1-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
P3	THRIE BEAM RAIL CONNETION 1- MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
Q1	BLOCK WOOD	SEE STANDARD SPEC. 614	
R1	CAP - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	⅝" DIA.
R2	CAP- BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
R3	CAP - BOLT - MECHANICAL ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	12 GAUGE
S1	CAP 42-INCH TOP PLATE	AASHTO M111 / ASTM A123 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	12 GAUGE
S2	CAP 42-INCH END PLATE	AASHTO M111 / ASTM A123 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	12 GAUGE
S3	CAP 42-INCH SIDE PLATE	AASHTO M111 / ASTM A123 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	12 GAUGE
S4	CAP 42-INCH GUSSET 1	AASHTO M111 / ASTM A123 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	12 GAUGE
S5	CAP 42-INCH GUSSET 2	AASHTO M111 / ASTM A123 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	12 GAUGE
S6	CAP 42-INCH GUSSET 3	AASHTO M111 / ASTM A123 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	12 GAUGE
S7	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 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	12 GAUGE

6

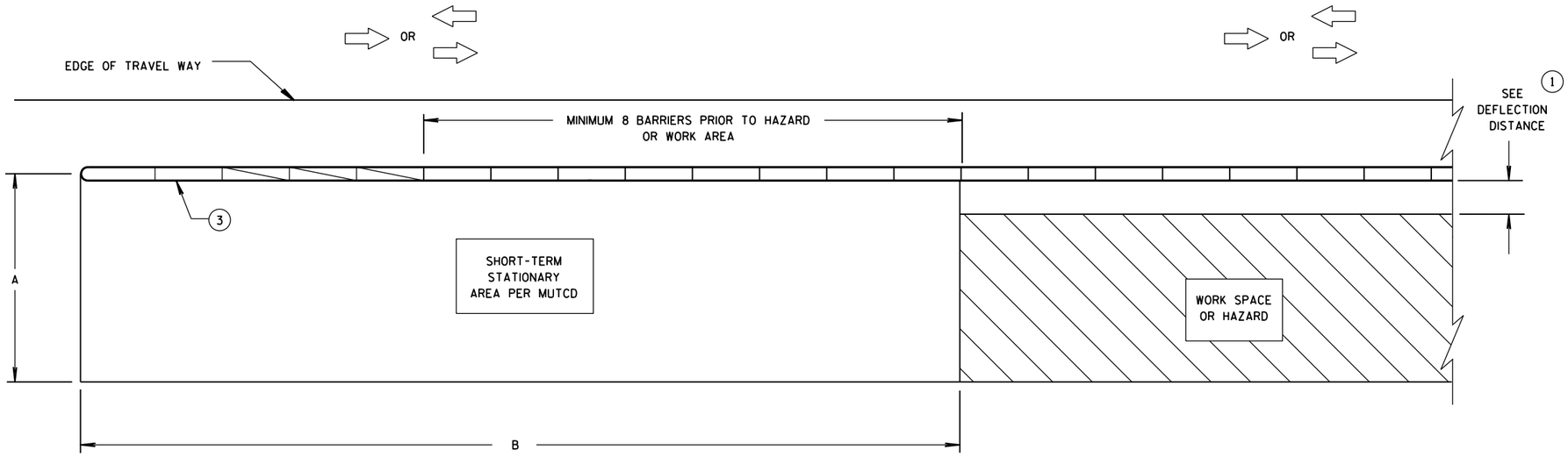
SDD14B07 - 16m

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD14B07 - 16m



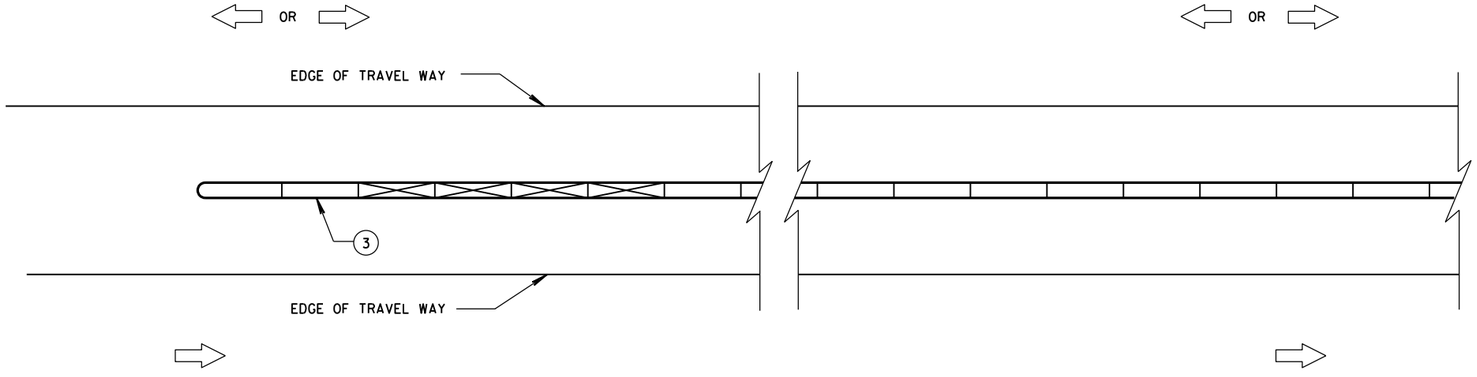
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

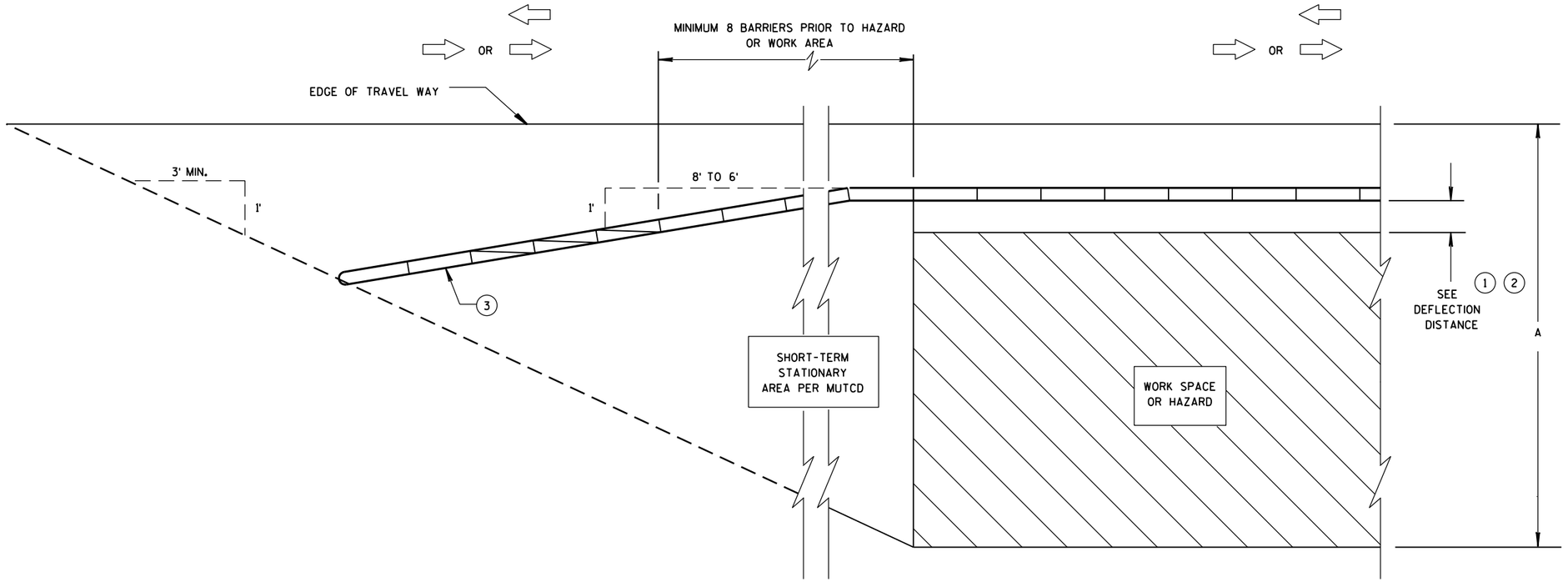
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

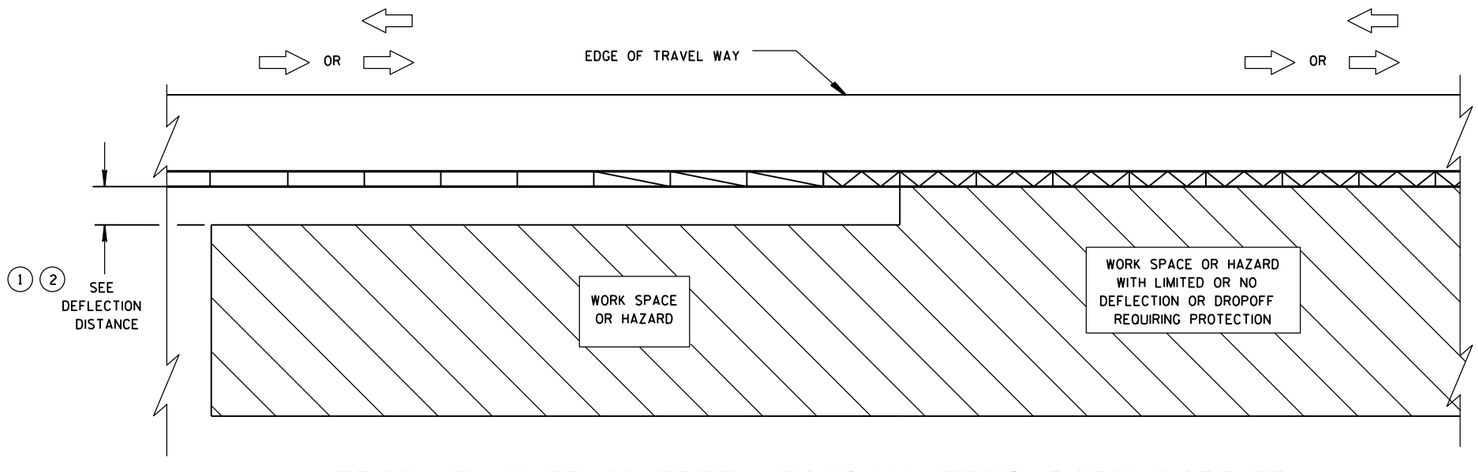
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2a
S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

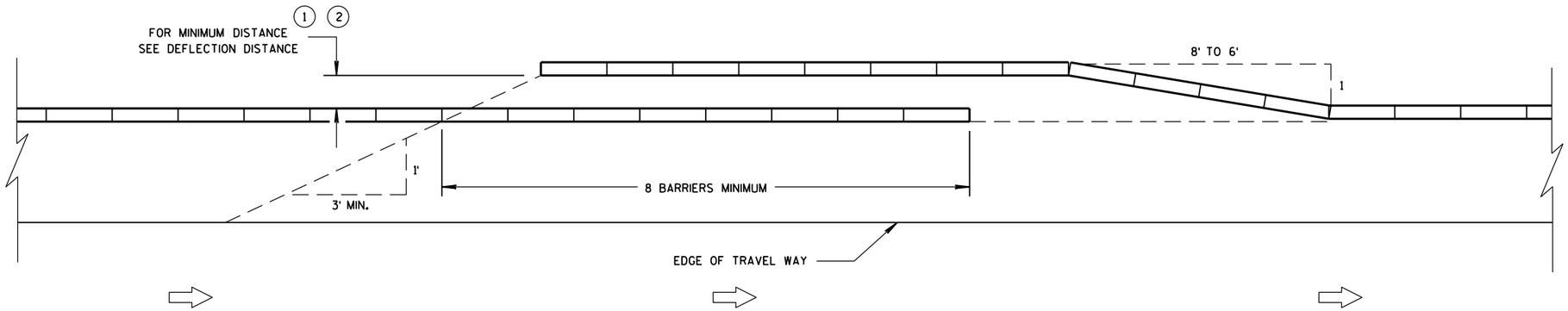
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

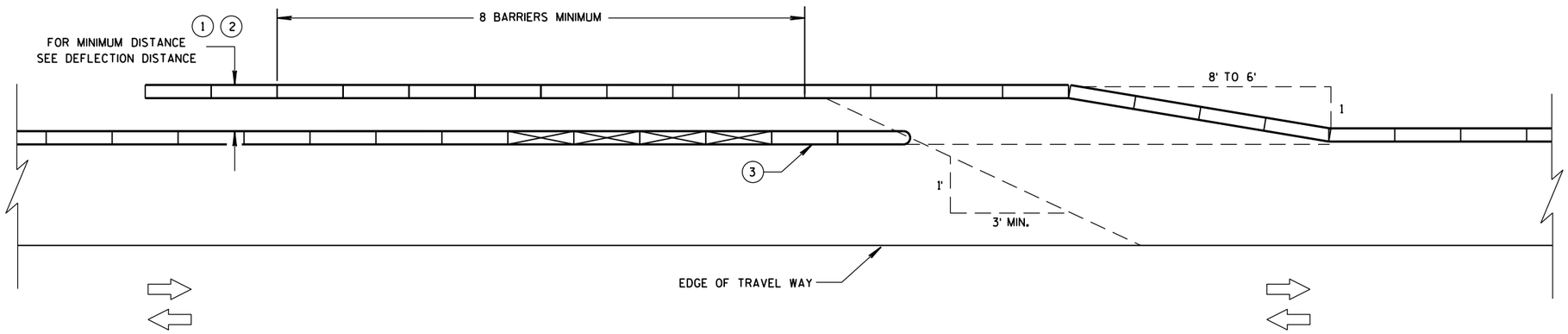
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

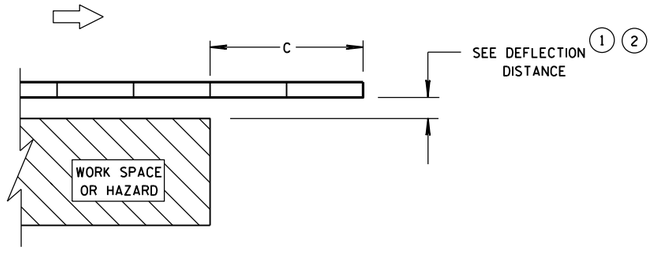
S.D.D. 14 B 8-2b



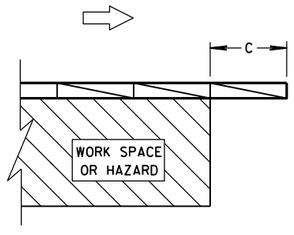
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

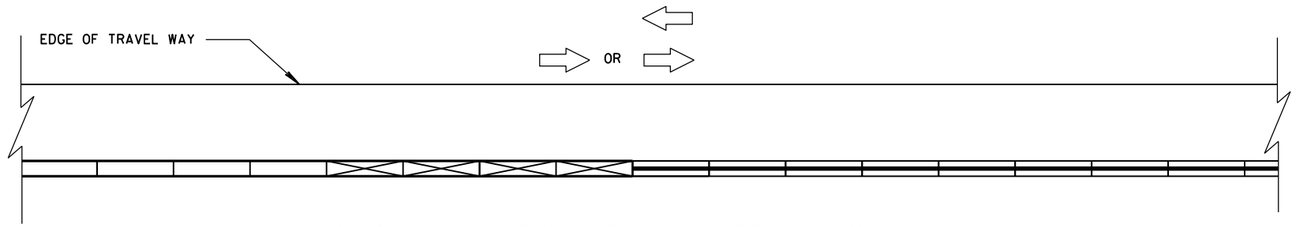
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

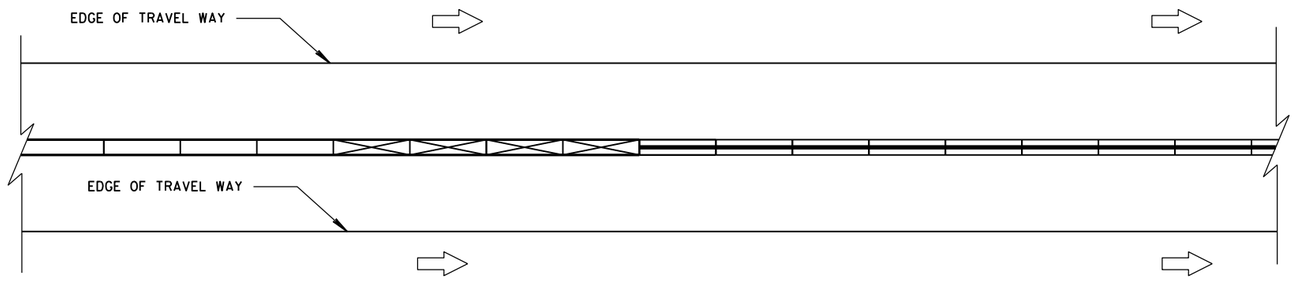
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

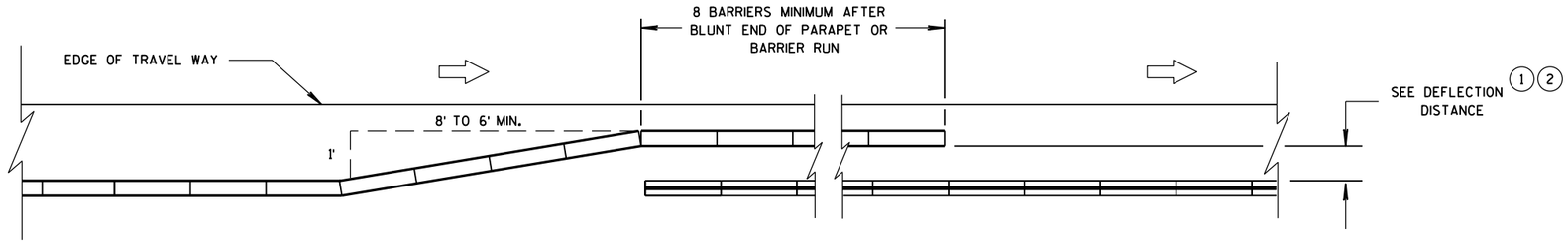
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

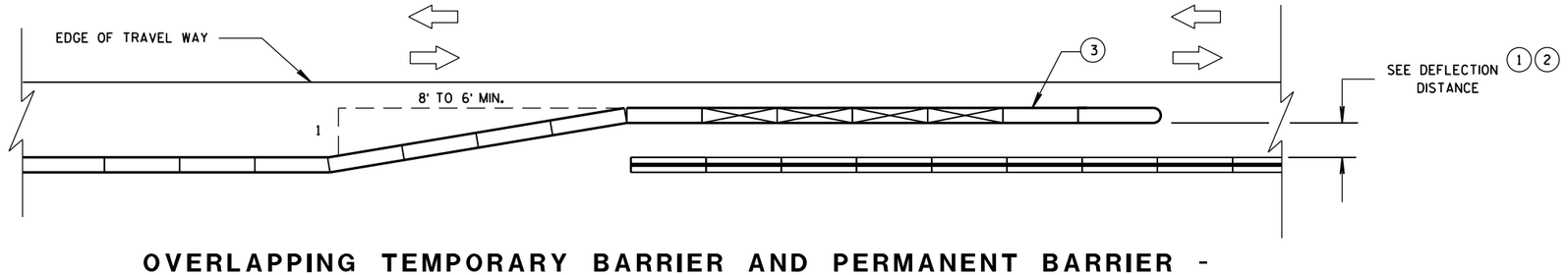
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

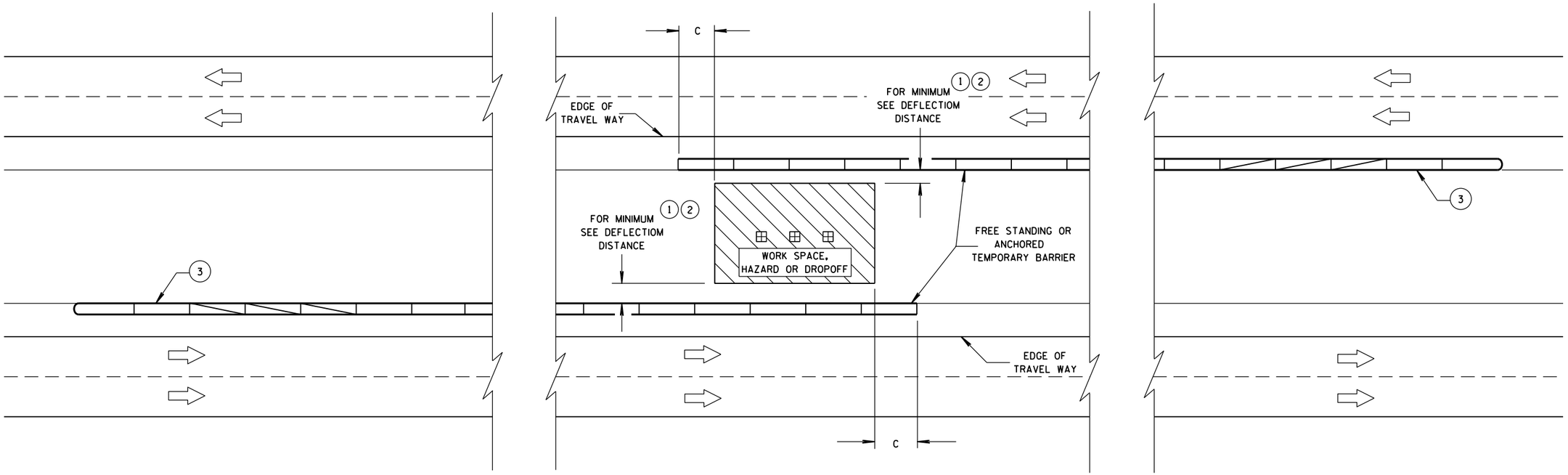
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINNER
FHWA

6

S.D.D. 14 B 8-2e

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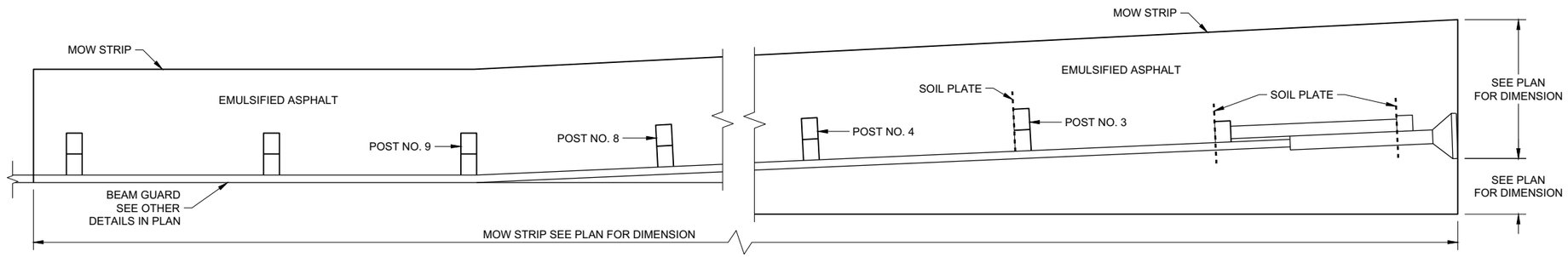
S.D.D. 14 B 8-2e



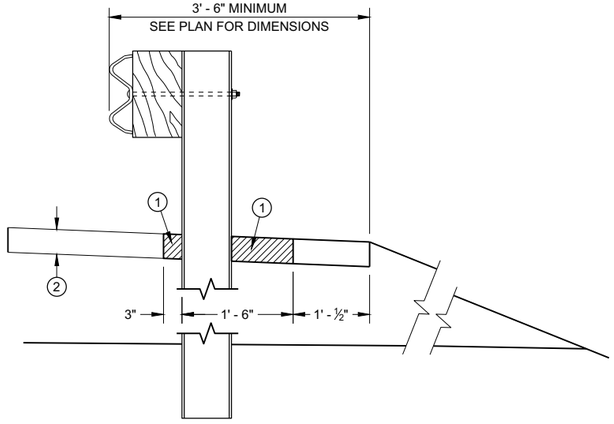
PLAN VIEW

MOW STRIP LAYOUT FOR ENERGY ABSORBING TERMINAL

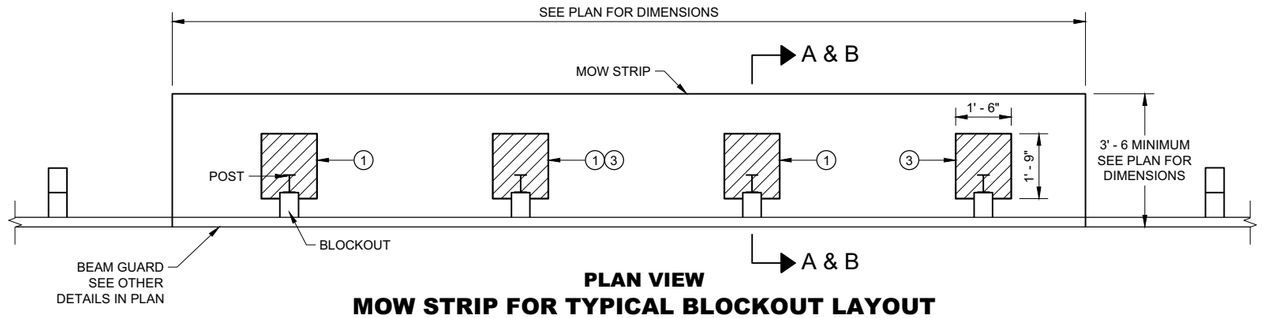
GENERAL NOTES

ONLY USE STEEL POSTS IN CONCRETE AND ASPHALT MOW STRIPS.

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

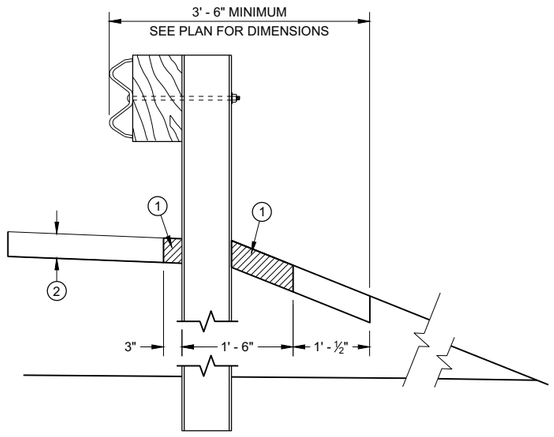


SECTION A - A

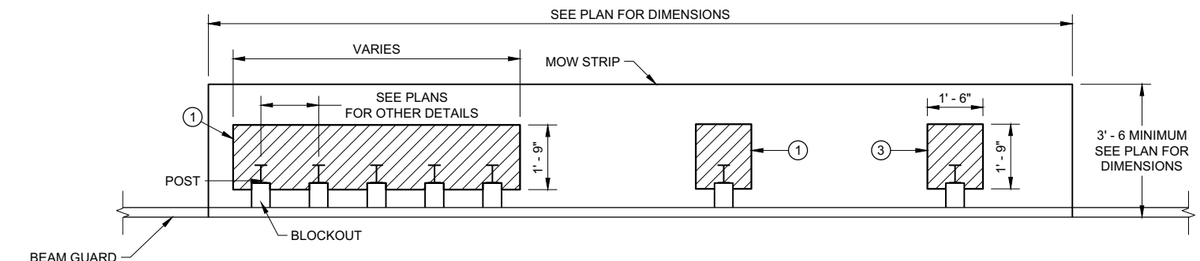


PLAN VIEW

MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT

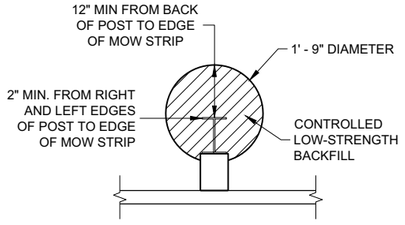


SECTION B - B

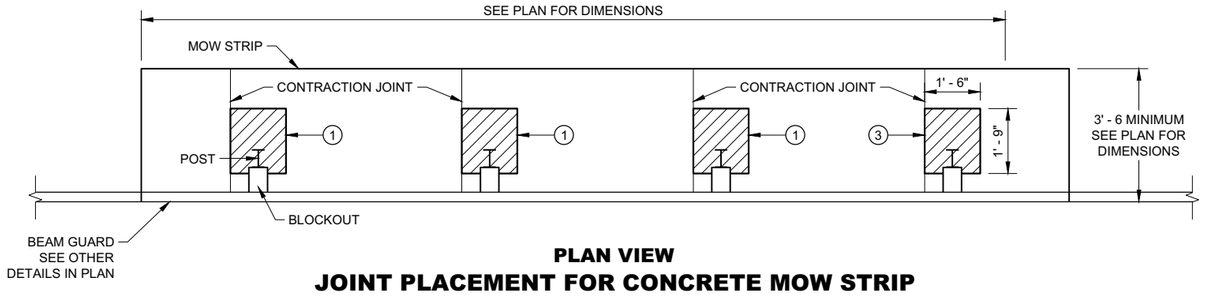


PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



ALTERNATIVE HMA MOW STRIP DESIGN



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B28 - 04a

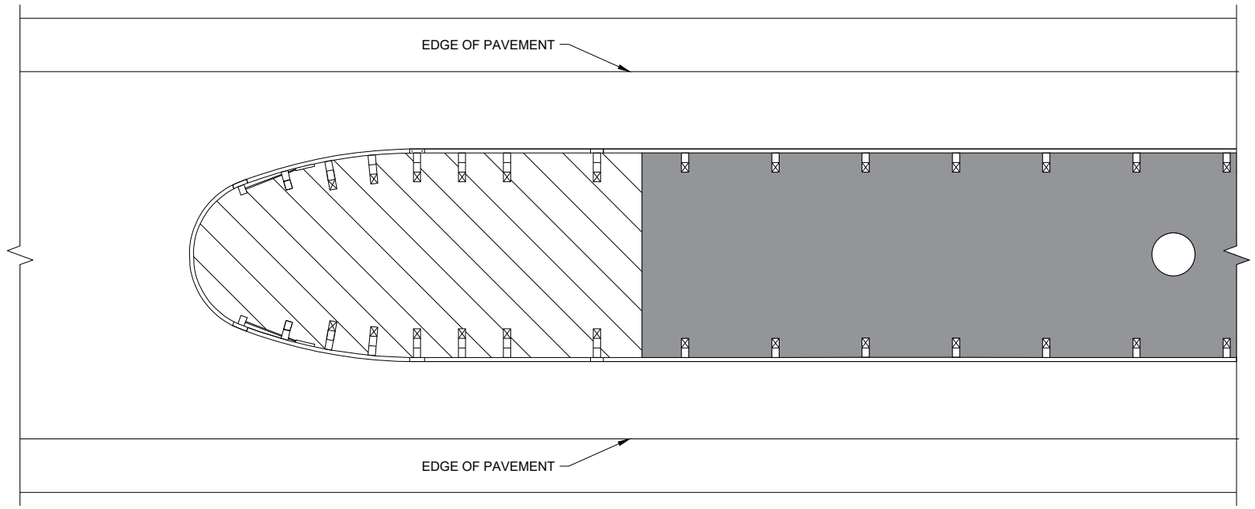
LEGEND

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

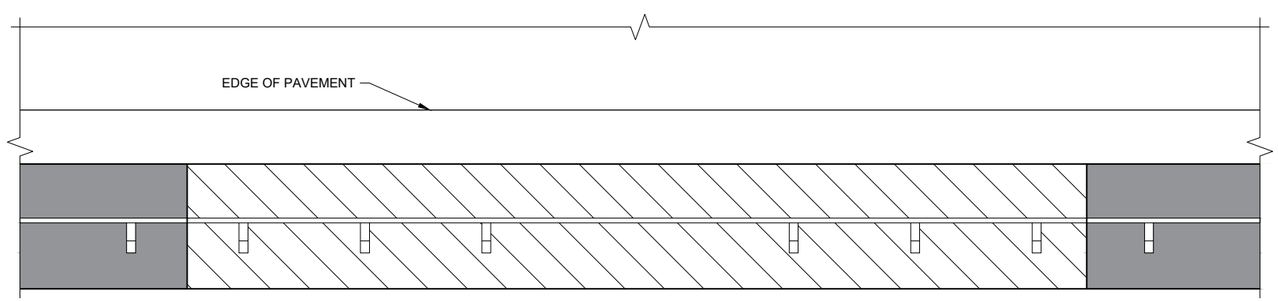
EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

GENERAL NOTES

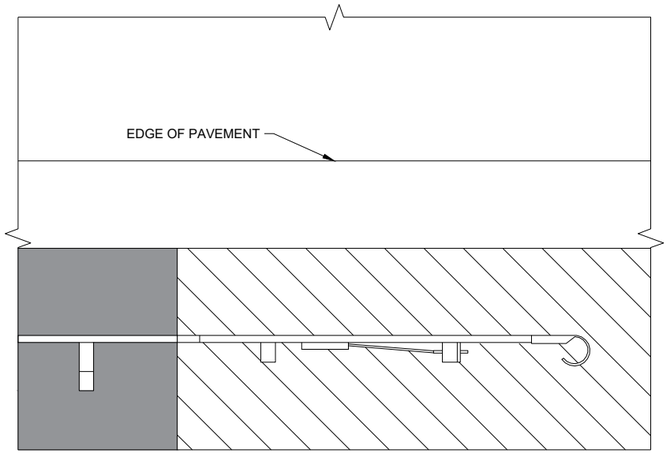
EXISTING THRIE BEAM BULLNOSES MAY HAVE WOOD POSTS. NEW THRIE BEAM BULLNOSE WILL HAVE STEEL POSTS.



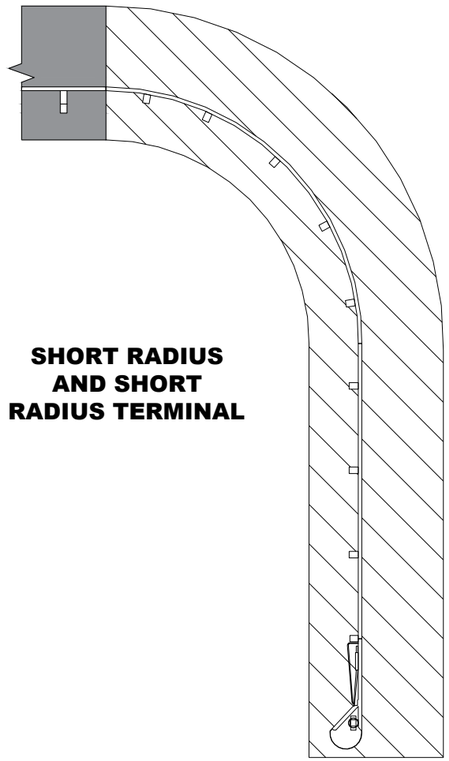
THRIE BEAM BULLNOSE



LONG - SPAN



TYPE 2 TERMINAL



SHORT RADIUS AND SHORT RADIUS TERMINAL

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
ENGINEER

FHWA

6

SDD 14B28 - 04b

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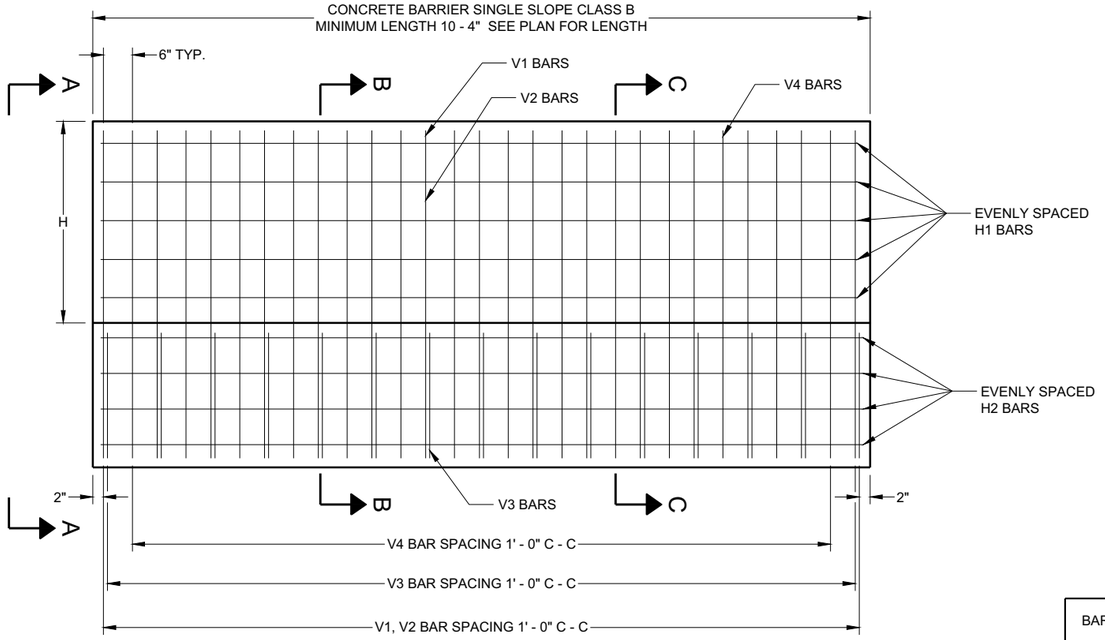
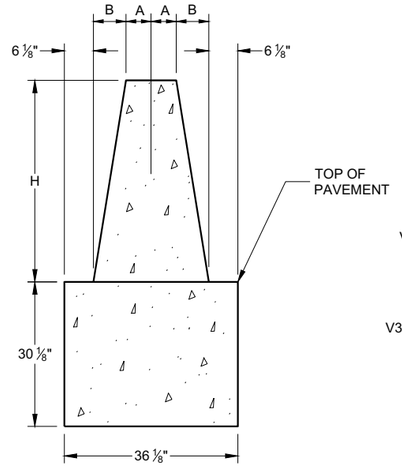
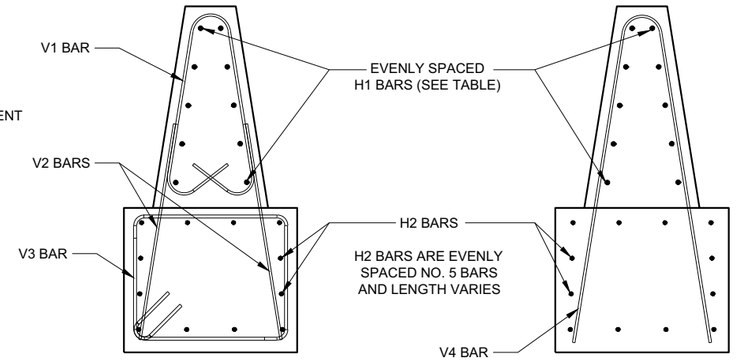
SDD 14B28 - 04b



ELEVATION VIEW



SECTION A - A

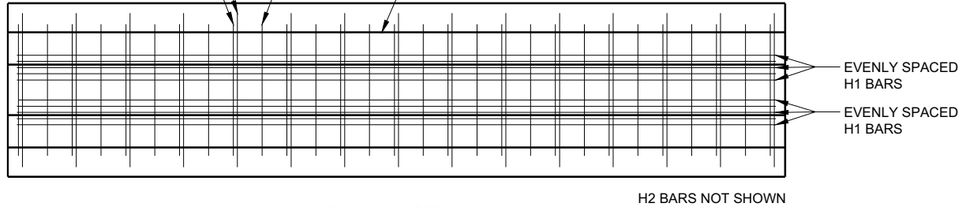


SECTION B - B

SECTION C - C

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF H1 BARS EACH
32	7	5	8
36	6 ¼	5 ¾	8
42	5 ¼	6 ¾	10

BARRIER HEIGHT H INCHES	V1 BAR		V4 BAR	
	C RAD. INCHES	D INCHES	E RAD. INCHES	F INCHES
32	5 ⅝	18 ¾	5 ½	53 ¾
36	4 ¾	23 ¾	4 ⅞	58 ⅜
42	3 ⅝	30 ½	3 ⅝	65 ⅜



PLAN VIEW

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS 501.

USE ¾ " BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

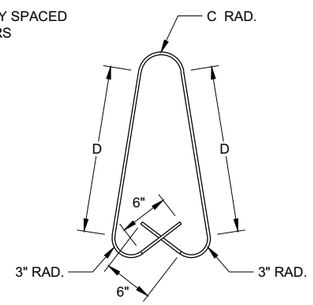
WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.

PAVEMENT AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL.

PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.

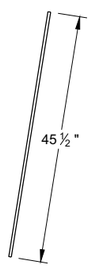
WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.

IF REQUIRED USE THRIE BEAM ANCHOR. NO OTHER ANCHOR REQUIRED.



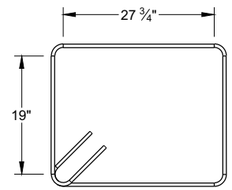
V1 BAR BENDING DETAIL

V1 BARS ARE NO. 4 BARS



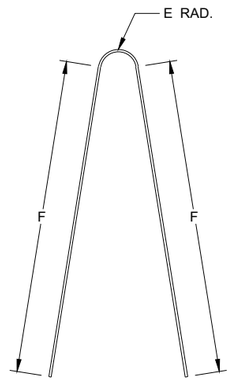
V2 BAR DETAIL

V2 BARS ARE NO. 5 BARS



V3 BAR BENDING DETAIL

V3 BARS ARE NO. 6 BARS



V4 BAR BENDING DETAIL

V4 BARS ARE NO. 6 BARS

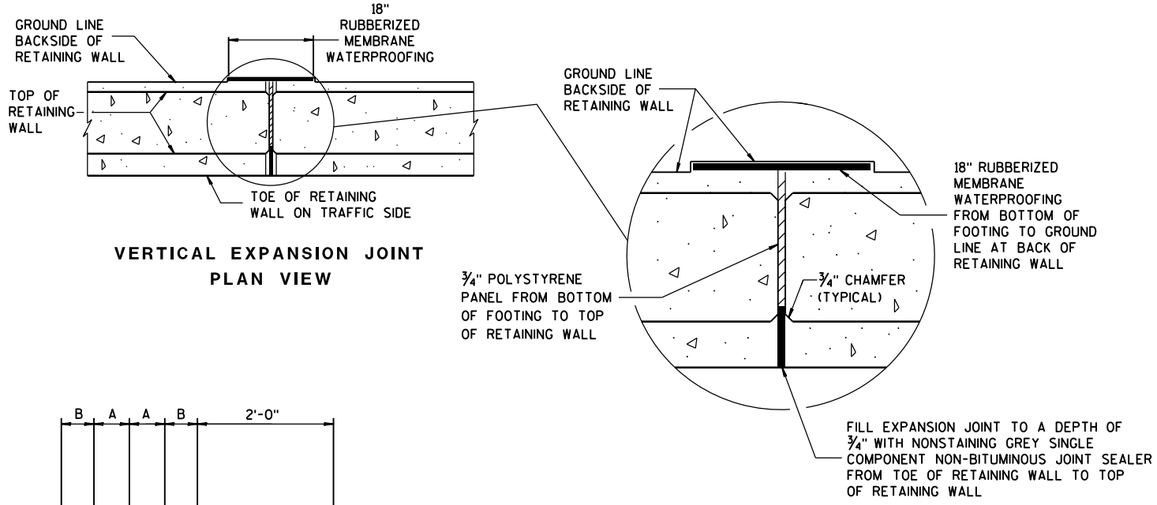
32", 36", & 42"
CONCRETE BARRIER
SINGLE SLOPE CLASS B

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B34 - 02a

SDD 14B34 - 02a



VERTICAL EXPANSION JOINT
PLAN VIEW

DELINEATION

GENERAL NOTES

PROVIDE EXPANSION JOINTS WHERE THERE ARE EXISTING EXPANSION JOINTS OR AT THE END OF EACH POUR.

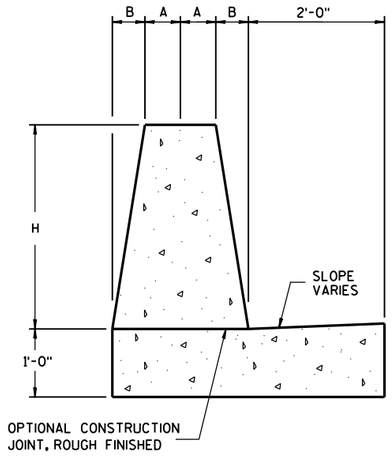
NO HORIZONTAL STEEL CROSSES EXPANSION JOINTS.

CONSTRUCT PER STANDARD SPECIFICATION 603. SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASETENED TOGETHER UNLESS NOTED OTHERWISES.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS 501.

USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR.



ROADSIDE RETAINING WALL

BARRIER WALL DIMENSIONS

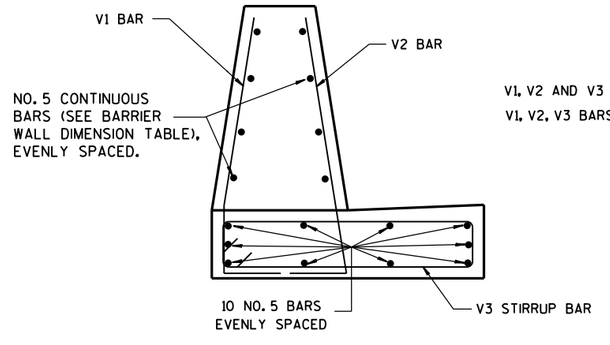
BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6¼	5¾	8
42	5¼	6¾	10
56	3	9	11

V1 BAR
BENDING DETAIL

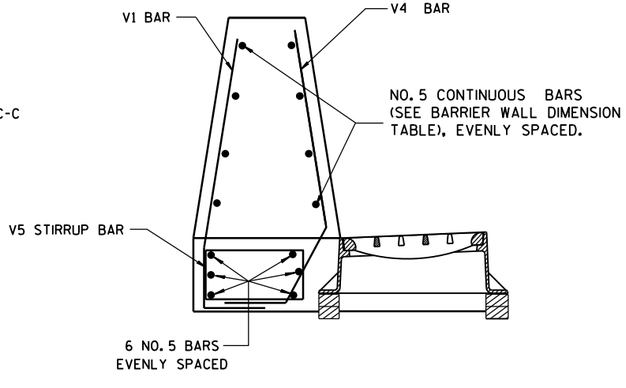
V2 BAR
BENDING DETAIL

BAR CHART
ROADSIDE RETAINING WALL

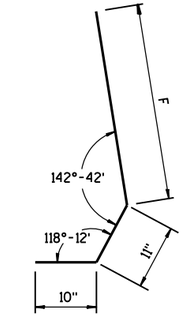
BARRIER HEIGHT	V1 BAR D	V2 BAR E	V4 BAR F
32"	2'-5½"	3'-4½"	2'-6½"
36"	2'-9½"	3'-9¾"	2'-10¾"
42"	3'-3½"	4'-2½"	3'-4¾"
56"	4'-5¾"	5'-4¾"	4'-6¾"



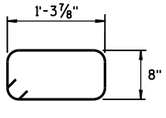
ROADSIDE RETAINING WALL
NORMAL BAR PLACEMENT



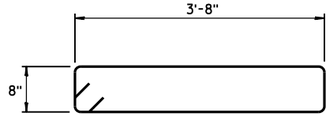
ROADSIDE RETAINING WALL
BAR PLACEMENT NEAR
INLET



V4 BAR
BENDING DETAIL



V5 STIRRUP BAR
BENDING DETAIL



V3 STIRRUP BAR
BENDING DETAIL

SINGLE SLOPE
ROADSIDE RETAINING WALL

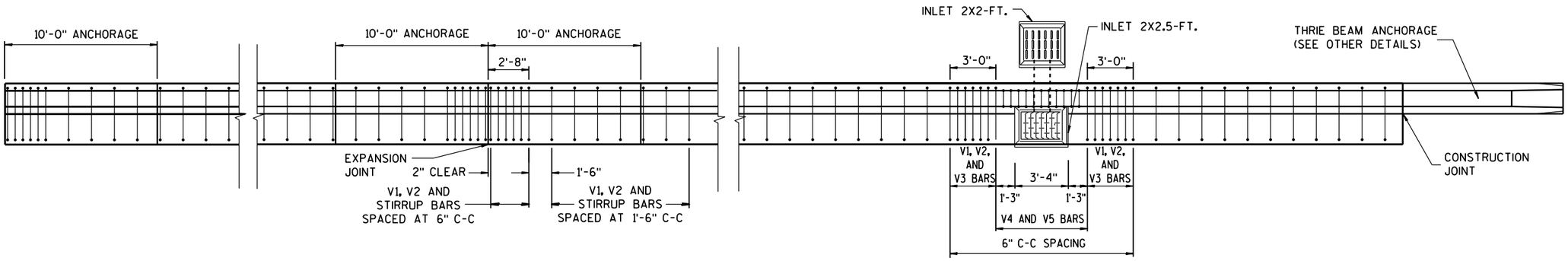
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 41-3a

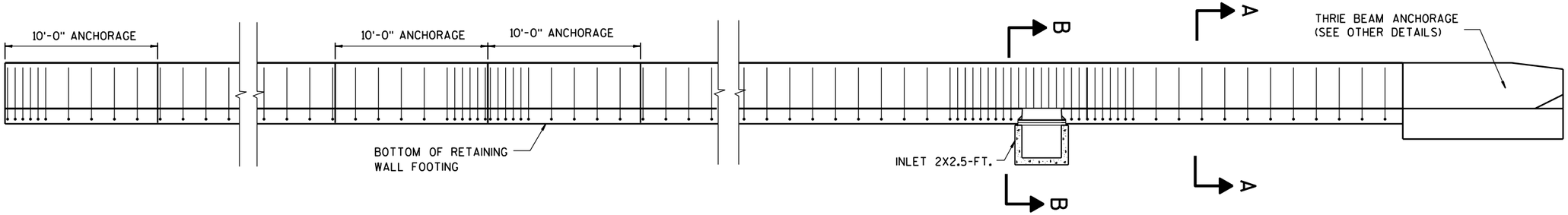
6

S.D.D. 14 B 41-3a



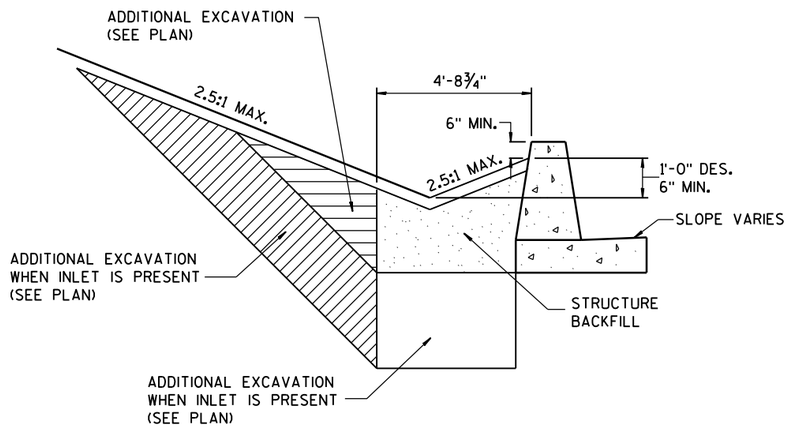
PLAN VIEW

NOTE: HORIZONTAL BARS ARE NOT SHOWN. SEE OTHER DETAILS FOR HORIZONTAL BARS.

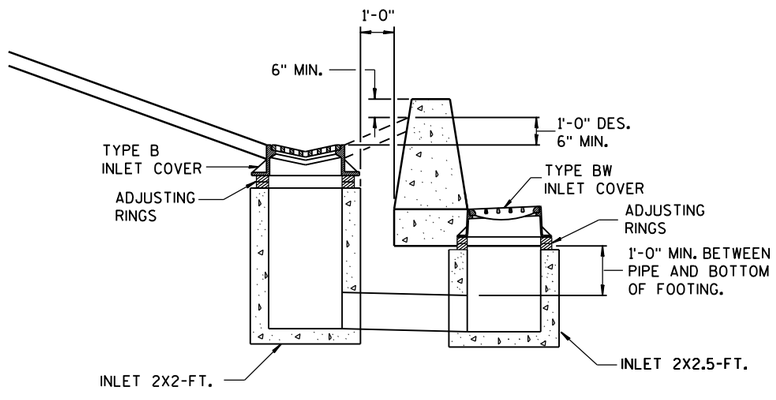


ELEVATION VIEW

NOTE: HORIZONTAL BARS ARE NOT SHOWN. SEE OTHER DETAILS FOR HORIZONTAL BARS.

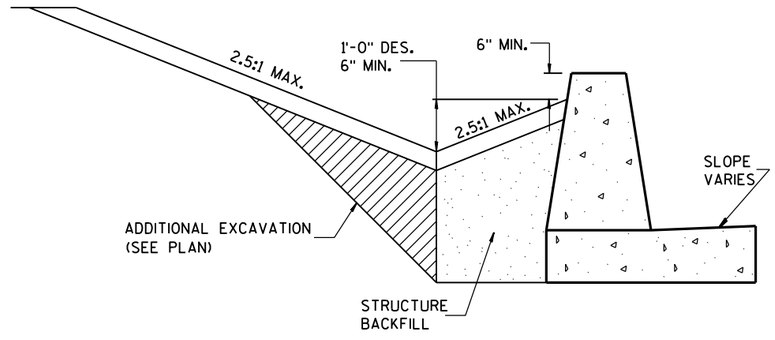


SECTION A-A



SECTION B-B

MINIMUM DESIGN OF EARTH WORK FOR INLET



MINIMUM DESIGN OF EARTH WORK

SINGLE SLOPE ROADSIDE RETAINING WALL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV...

65

ENT

FHWA

6

S.D.D. 14 B 41-3b

6

S.D.D. 14 B 41-3b

(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.

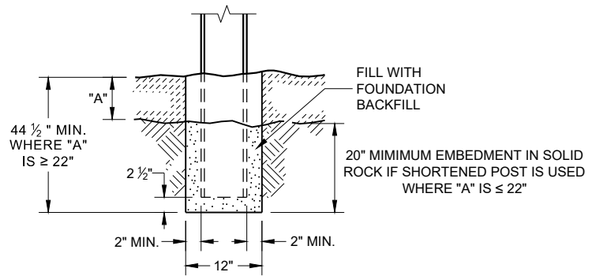
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

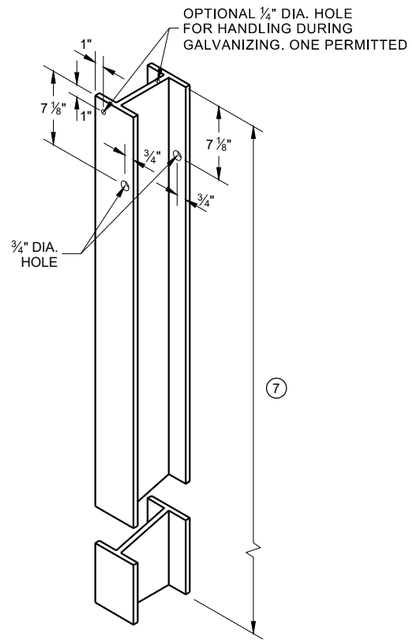
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

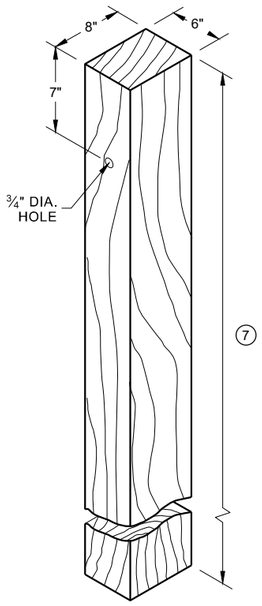
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



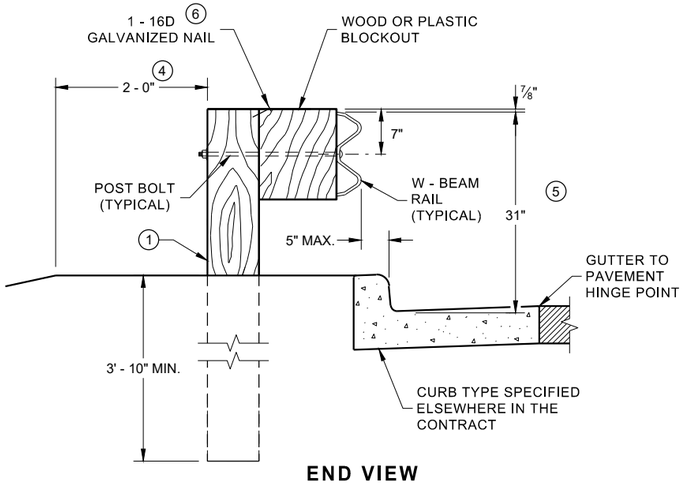
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



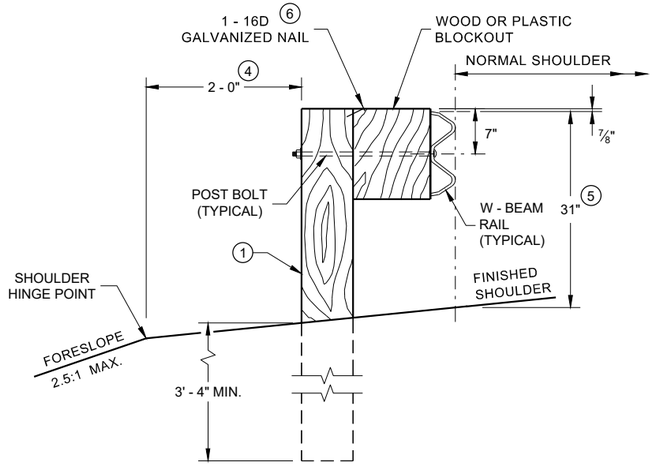
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



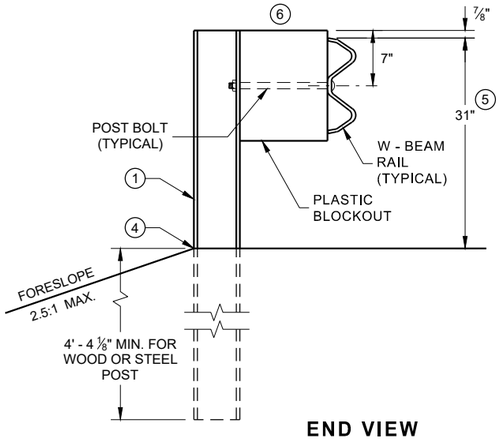
WOOD POST (6" X 8") NOMINAL (1)



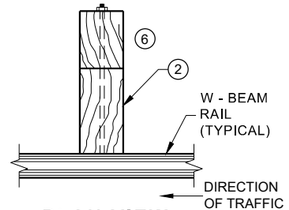
END VIEW
LOCATED ALONG A CURBED ROADWAY



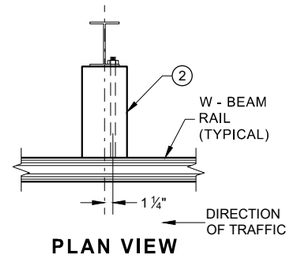
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



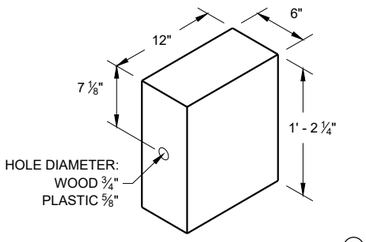
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

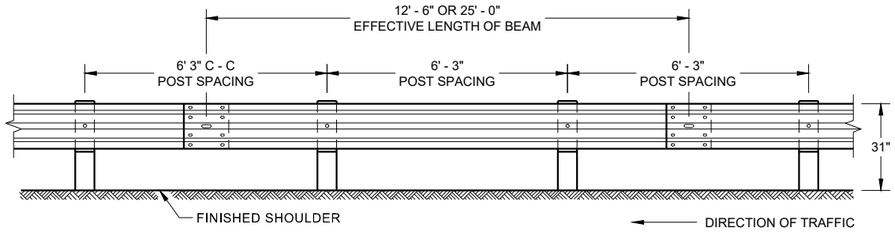
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

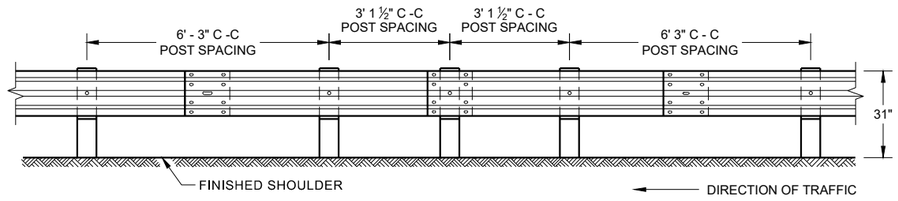
SDD 14B42 - 07a

6

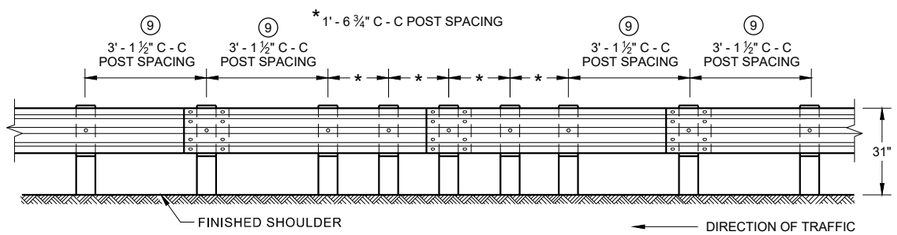
SDD 14B42 - 07a



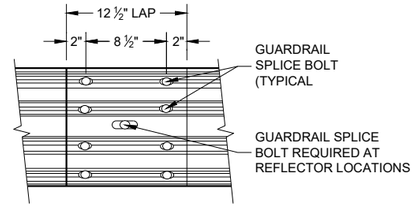
FRONT VIEW
POST SPACING STANDARD INSTALLATION



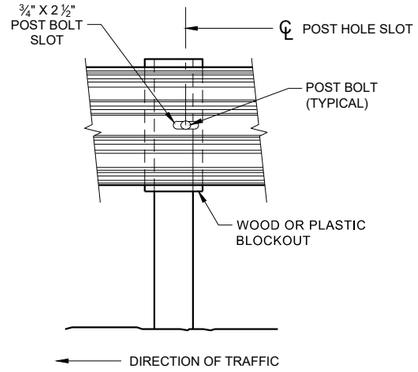
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



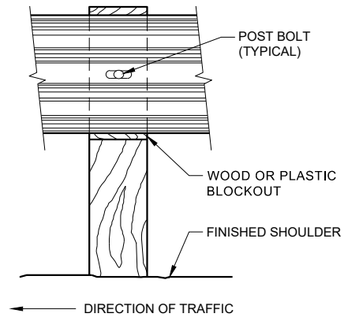
FRONT VIEW
QUARTER POST SPACING (QS)



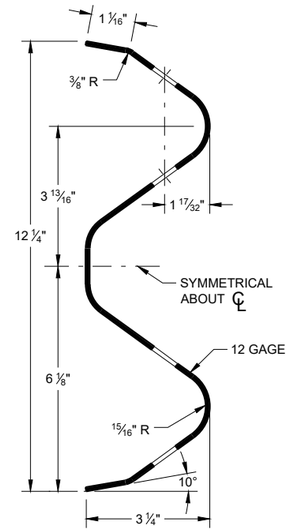
FRONT VIEW
MID-SPAN BEAM SPLICE



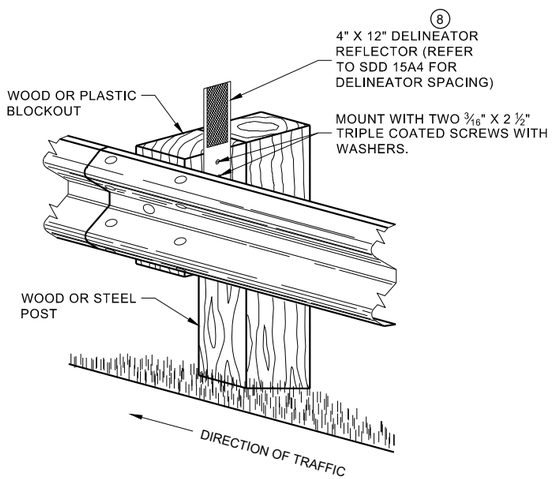
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



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.

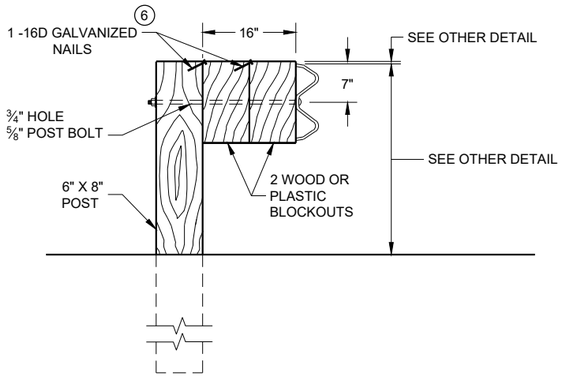
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

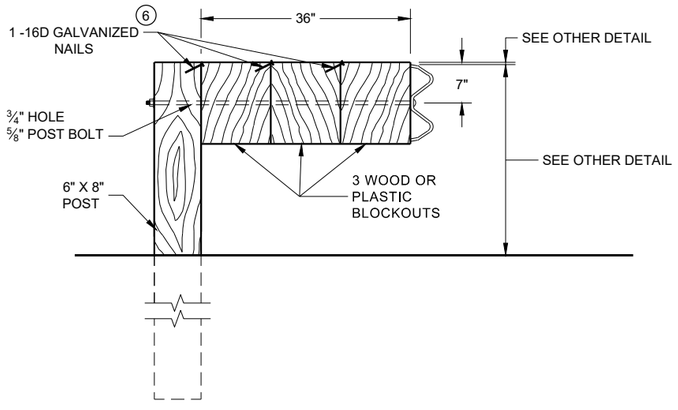
6

SDD 14B42 - 07b
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.



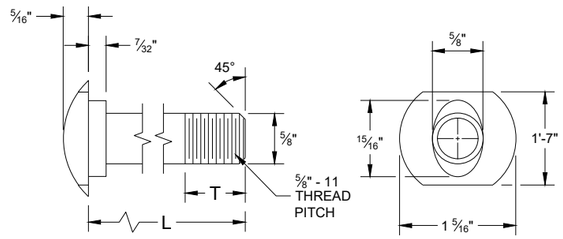
DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

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

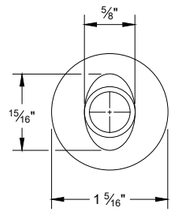
NOTE:

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.

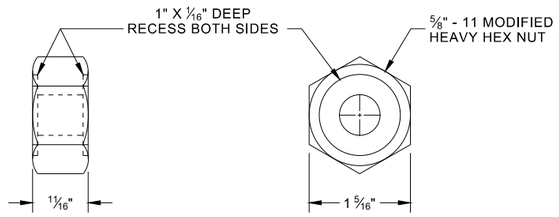


POST BOLT TABLE

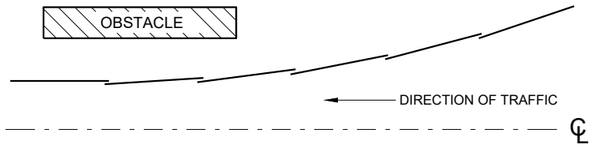
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



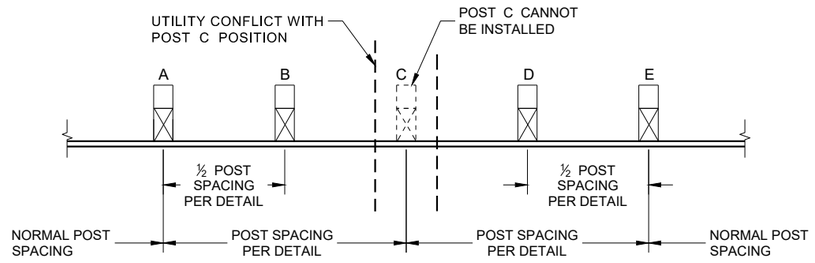
ALTERNATE BOLT HEAD



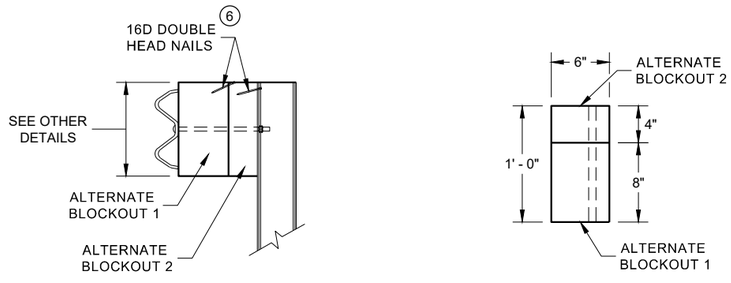
POST BOLT, SPLICE BOLT AND RECESS NUT



PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



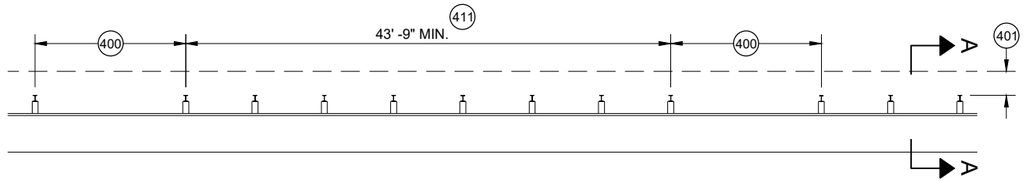
SIDE VIEW

PLAN VIEW

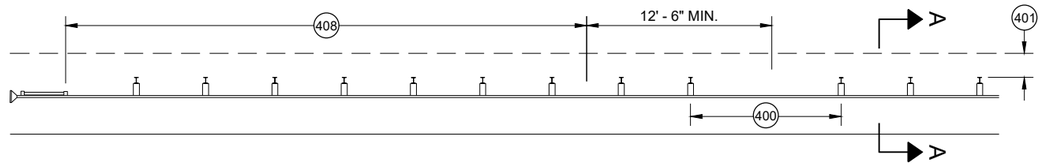
ALTERNATE WOOD BLOCKOUT DETAIL

(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.

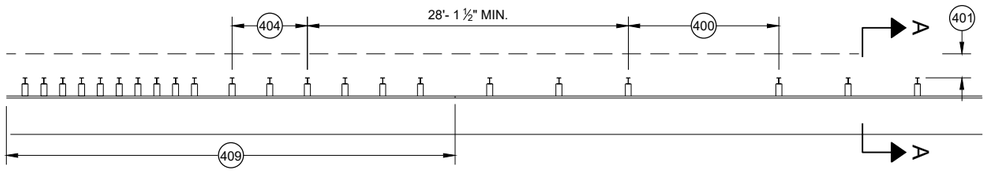
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



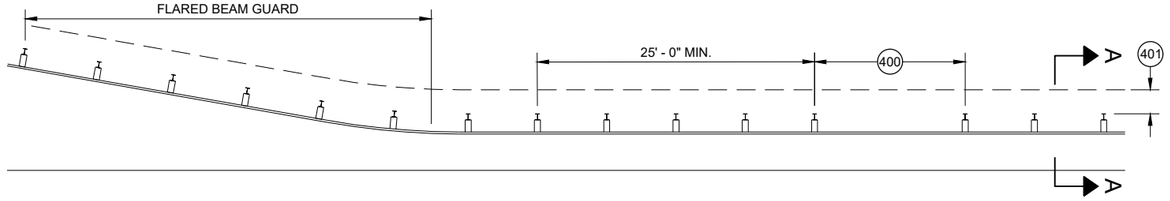
MISSING POST IN MGS GUARDRAIL



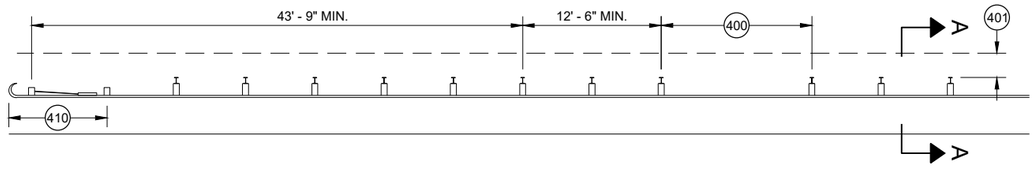
MISSING POST IN MGS GUARDRAIL NEAR EAT



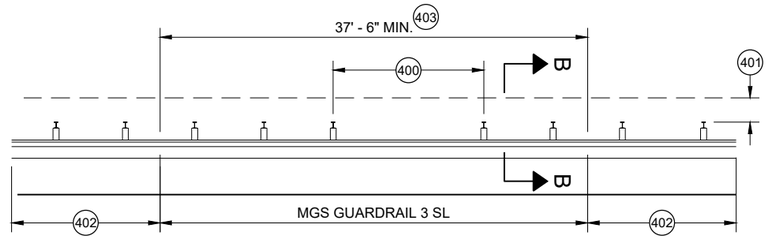
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

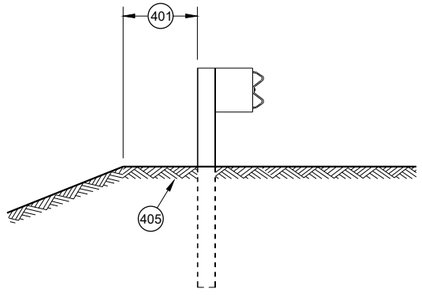


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

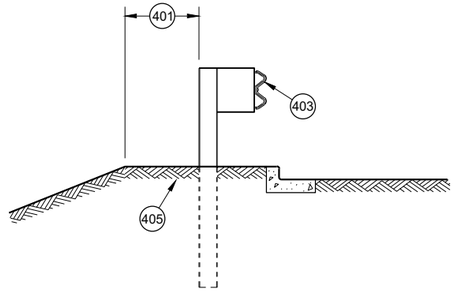


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(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

SDD 14B42 - 07d

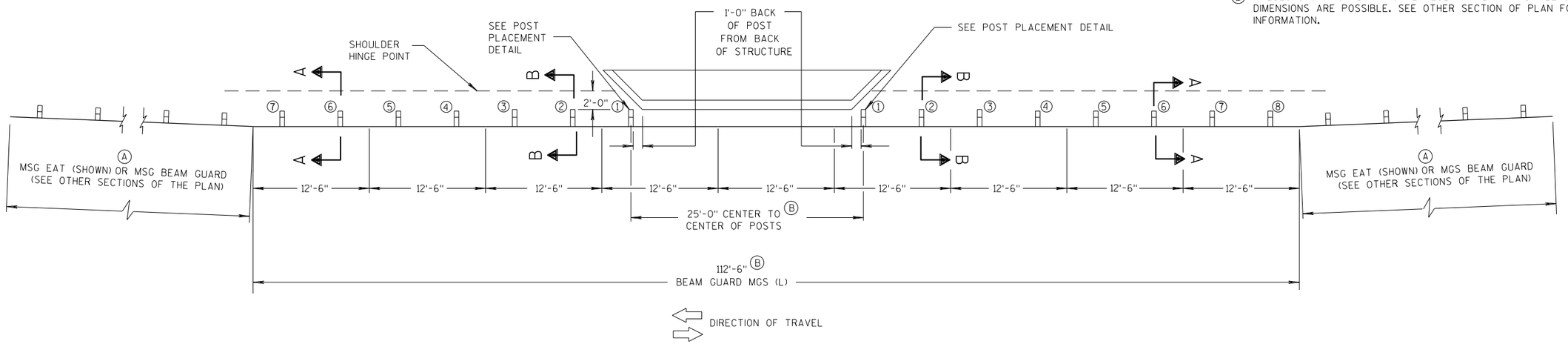
GENERAL NOTES

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

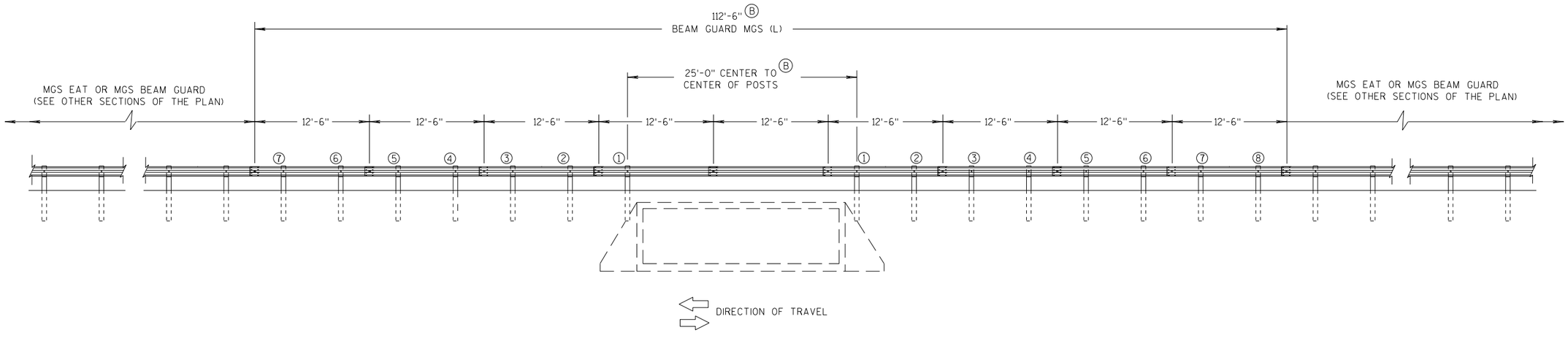
SEE SDD 14 B 42 FOR MORE DETAILS.

(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

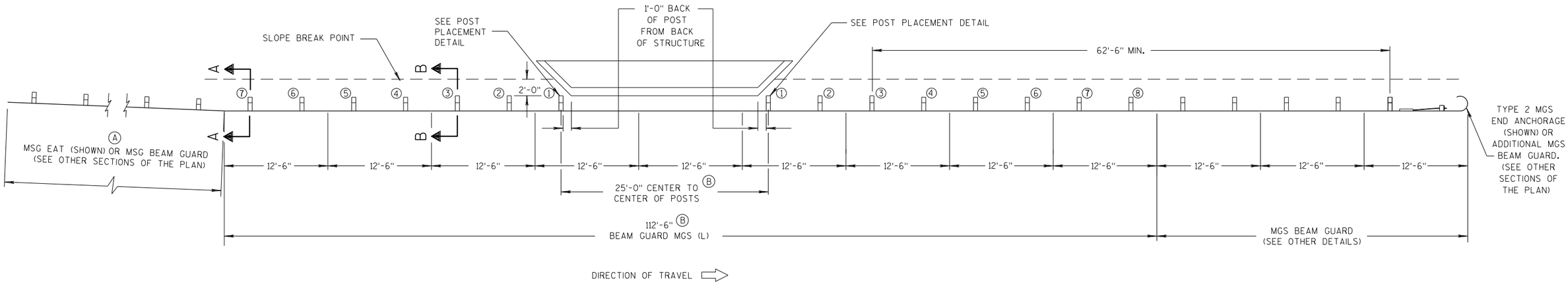
GENERAL NOTES

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

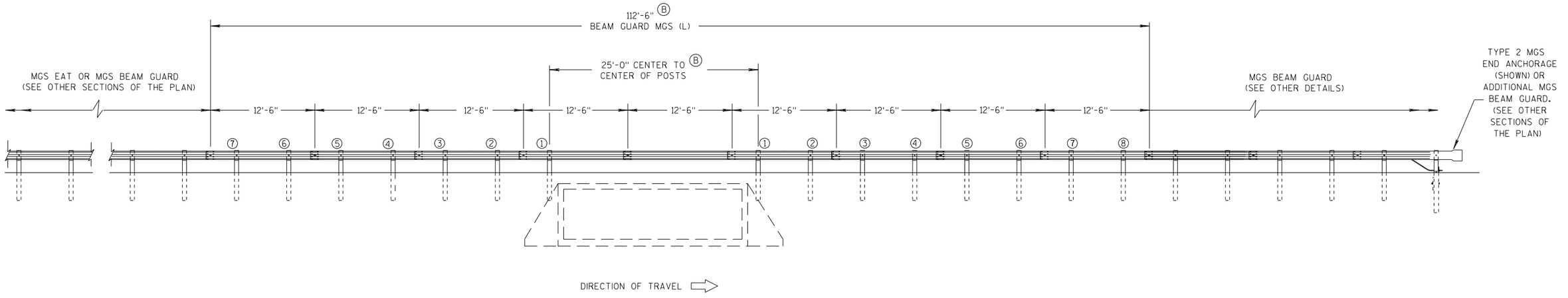
SEE SDD 14 B 42 FOR MORE DETAILS.

(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



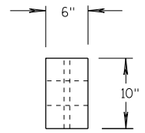
ELEVATION VIEW

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

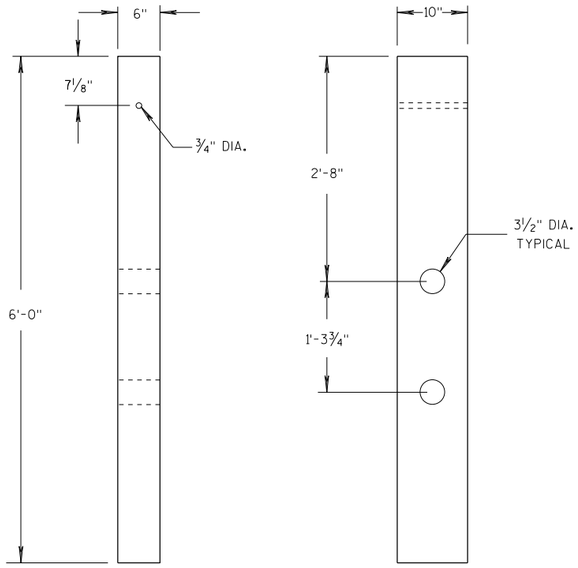
MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	

6

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

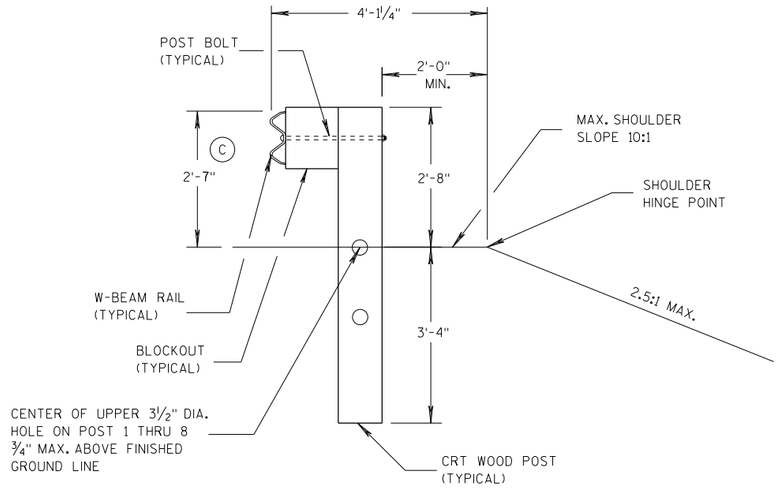


PLAN VIEW



FRONT VIEW SIDE VIEW

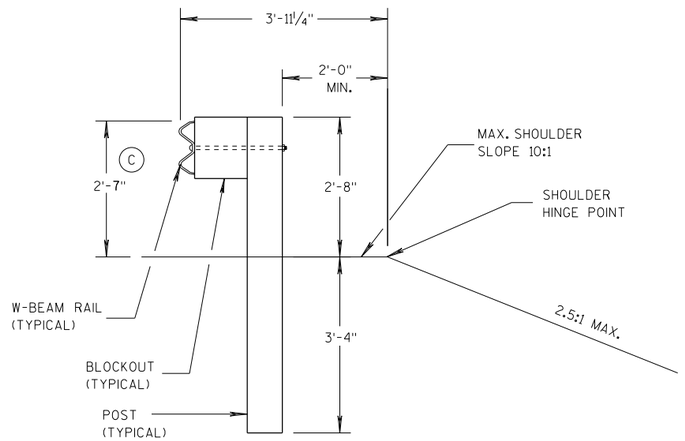
CRT WOOD POST



SECTION B-B

POSTS NO. 1-3

SEE OTHER DETAILS



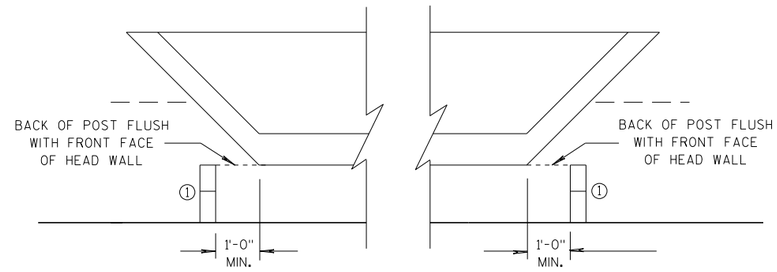
SECTION A-A

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 D72 NT
ENGINEER

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.

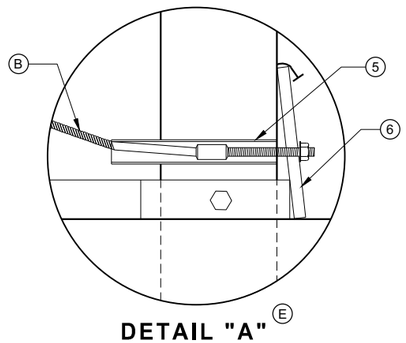
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

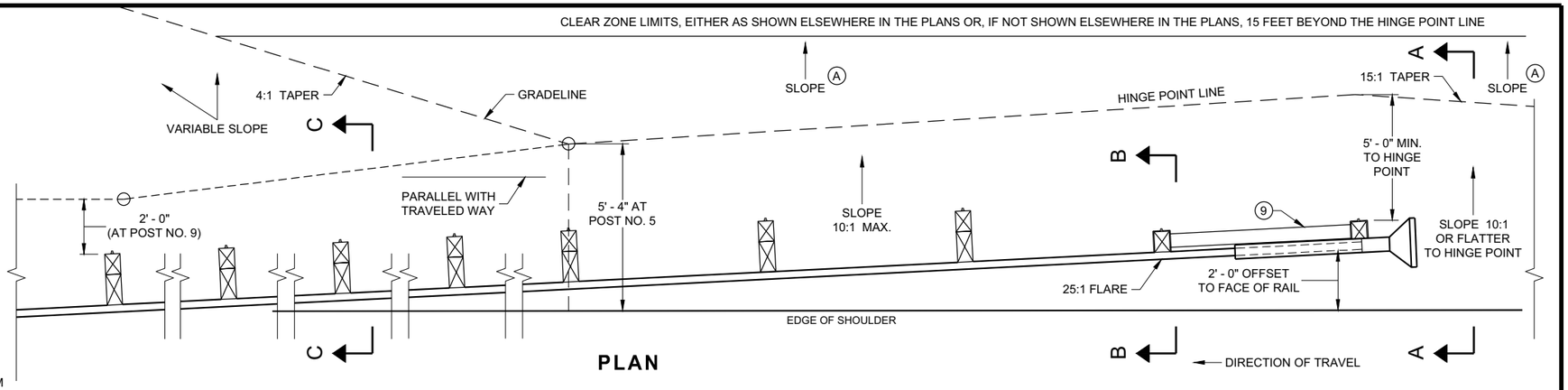
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

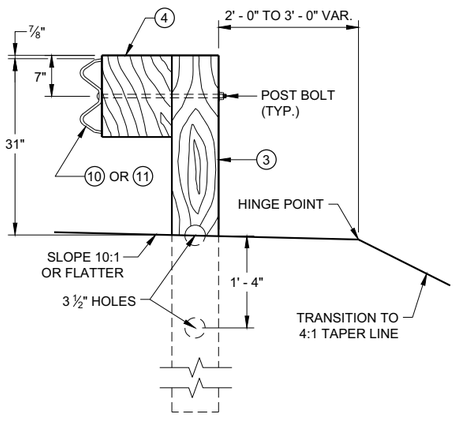
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

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.

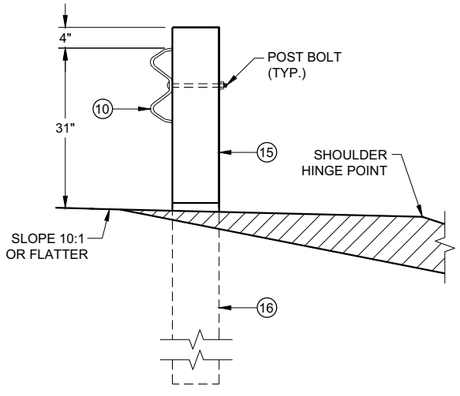


DETAIL "A" (E)

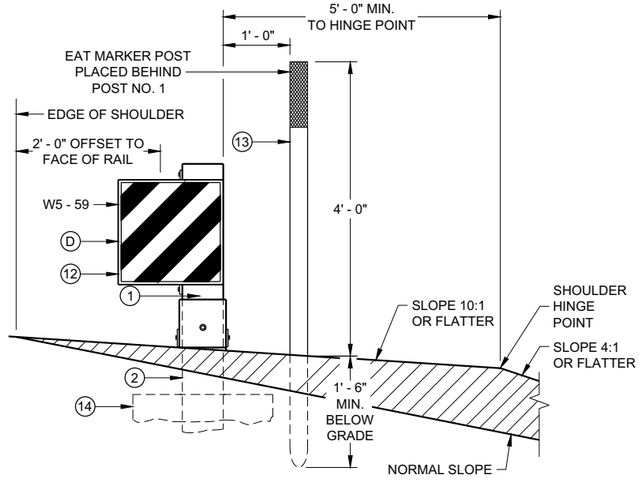




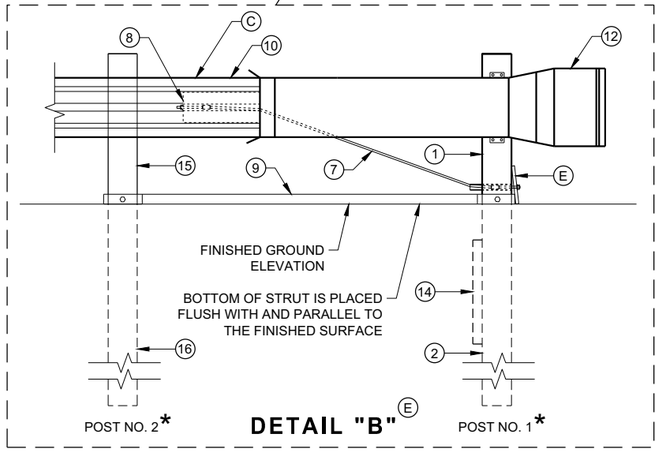
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*

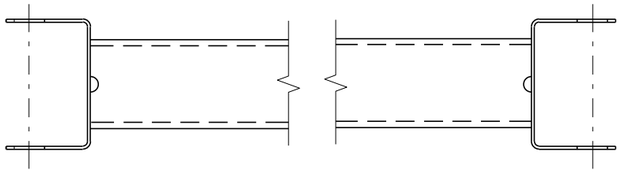


MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

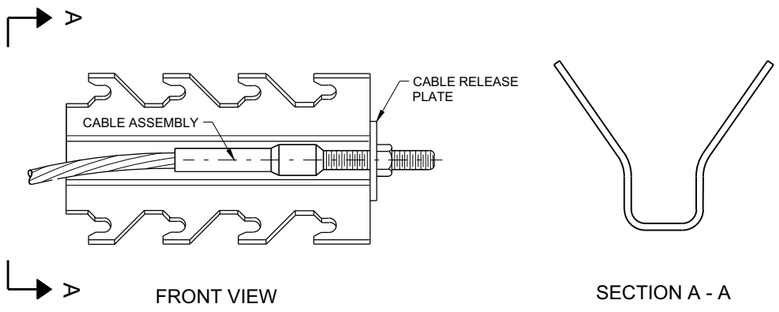
6



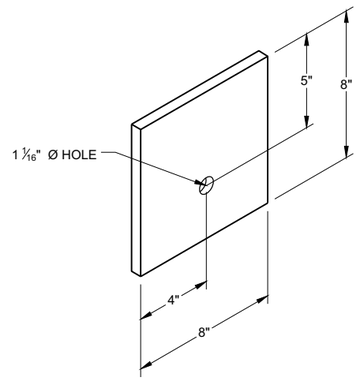
GENERIC GROUND STRUT (9) (E)

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX (9) (E)



BEARING PLATE (6) (E)

6

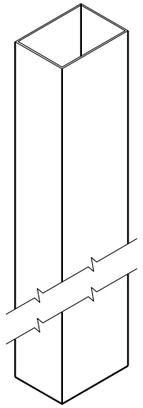
6

SDD 14B44 - 04b

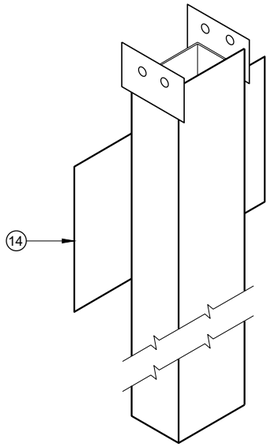
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

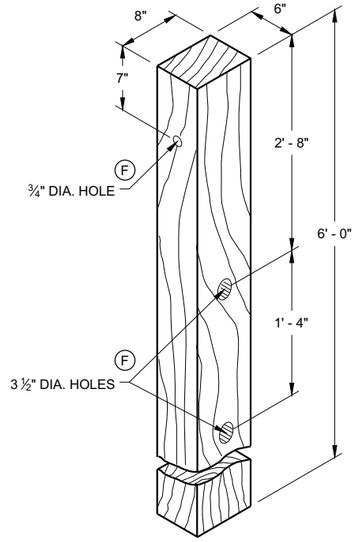
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



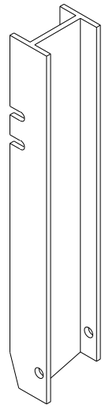
UPPER POST NO. 1 (1) (E)



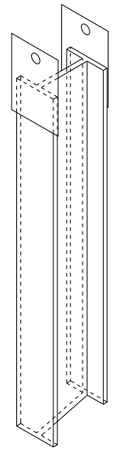
LOWER POST NO. 1 (2) (E)



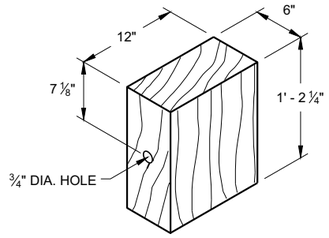
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



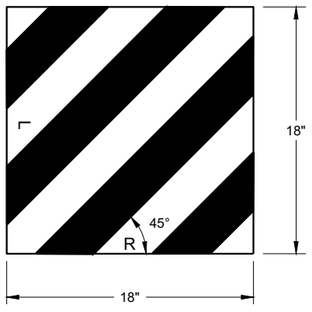
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

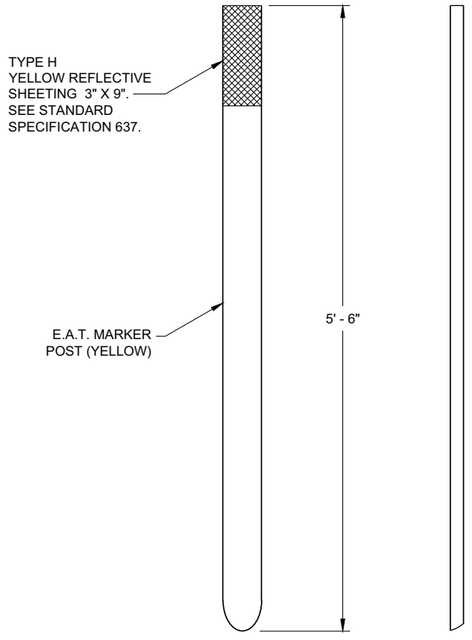


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



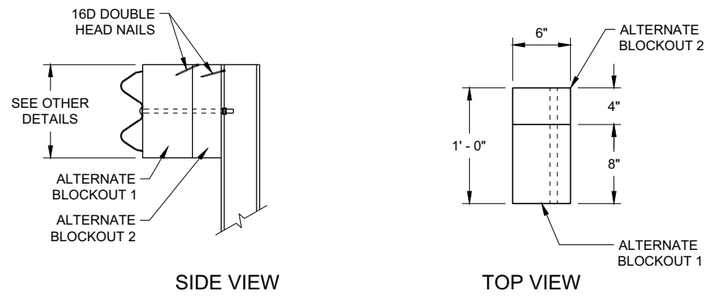
W5 - 59

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)

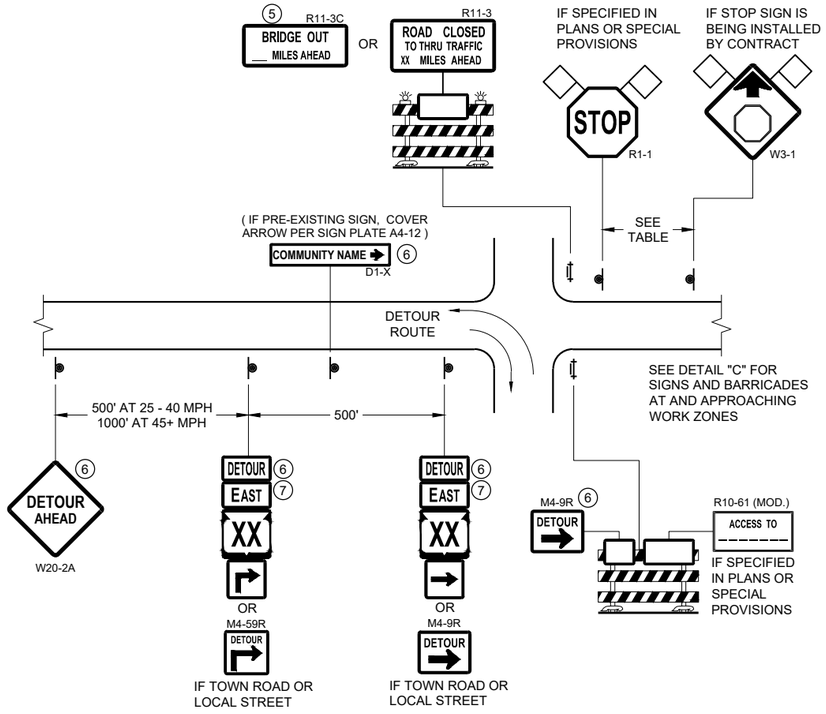
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

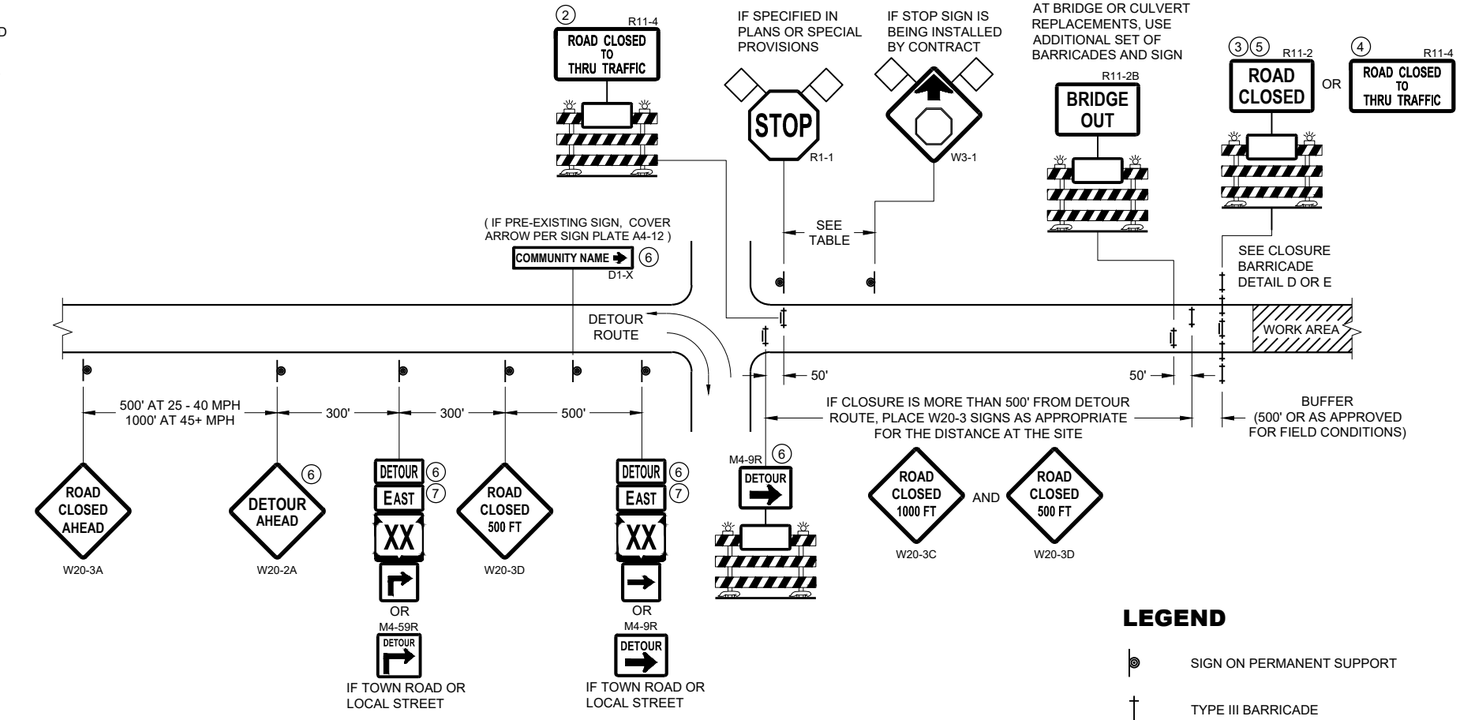
6

SDD 14B44 - 04c
SDD 14B44 - 04c



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

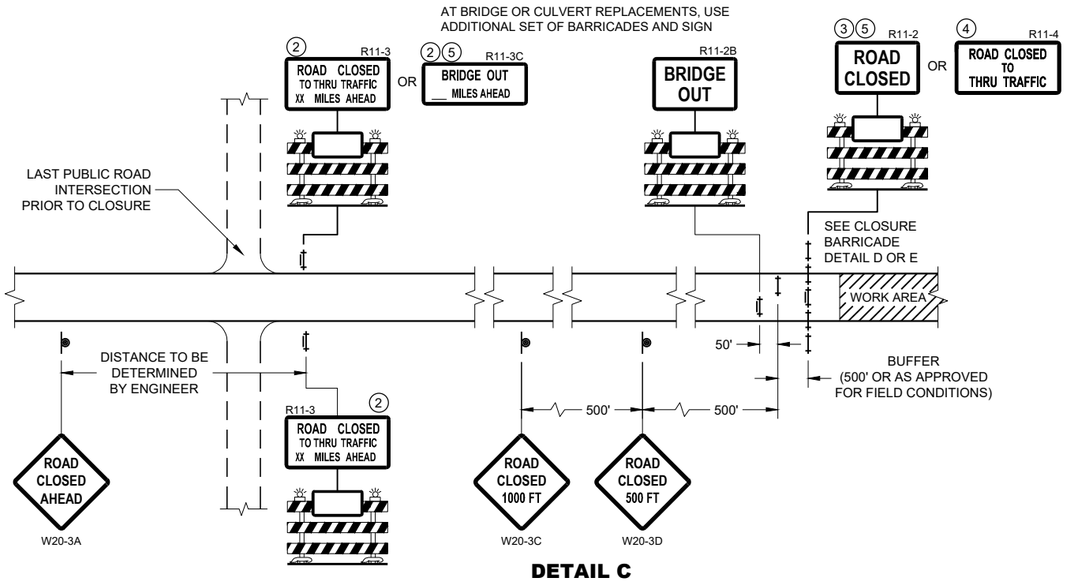
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8

EAST M3 - X

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M06 - 1



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

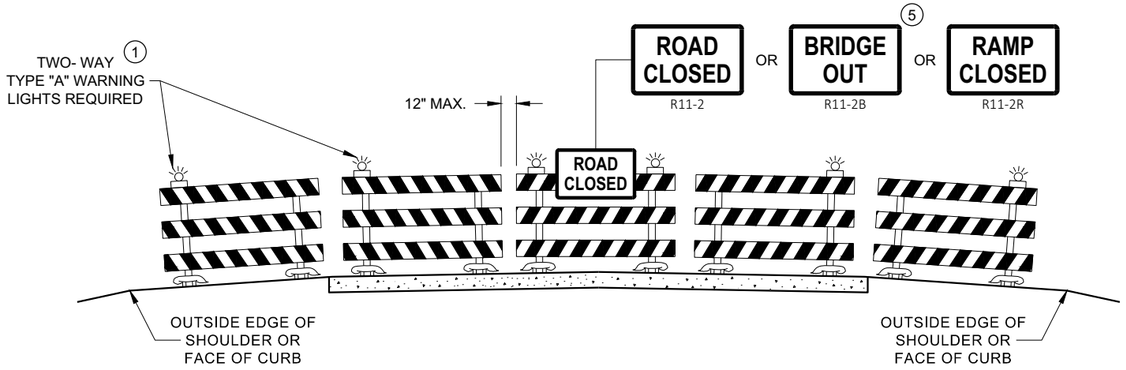
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

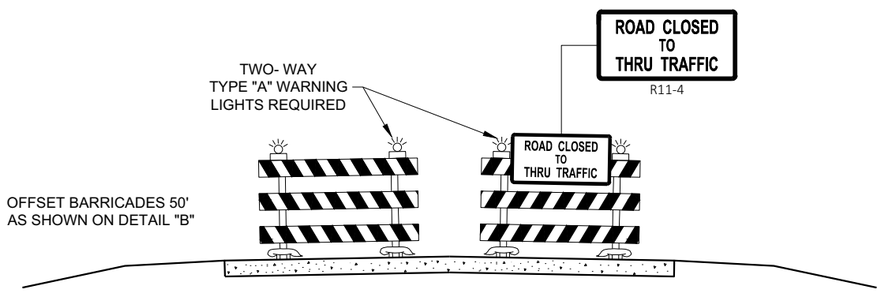
6

SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 08b

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SDD 15C02 - 08b

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR / EAST — M4 - 8, M3 - X
- XX — M1 - 4; XX — M1 - 6; COUNTY X — M1 - 5A
- M05 - 1; M06 - 1; M06 - 1

GENERAL NOTES

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

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

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

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

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

500' AT 25-40 MPH
1000' AT 45+ MPH

500'

M4-8a *
END DETOUR WEST XX

DETOUR EAST XX *

D1-X *
COMMUNITY NAME
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR EAST WEST XX XX

DETOUR ROUTE

WORK AREA

DETOUR EAST XX

WEST XX OR M4-9L DETOUR ** IF TOWN ROAD OR LOCAL STREET

500'

DETOUR NEXT X MILES *
G20-51

DETOUR WEST XX *
OR M4-59L * DETOUR **
IF TOWN ROAD OR LOCAL STREET

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

MATCH POINT

* M4-59L ** DETOUR OR DETOUR EAST XX *
IF TOWN ROAD OR LOCAL STREET

D1-X *
COMMUNITY NAME
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

500'

M4-9L ** DETOUR OR DETOUR EAST XX
IF TOWN ROAD OR LOCAL STREET

DETOUR WEST XX

DETOUR WEST XX OR M4-9R DETOUR **
IF TOWN ROAD OR LOCAL STREET

DETOUR WEST XX * OR M4-59R * DETOUR **
IF TOWN ROAD OR LOCAL STREET

500'

DETOUR ROUTE

500' AT 25 - 40 MPH
1000' AT 45+ MPH

500'

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

DETOUR EAST XX *

D1-X *
COMMUNITY NAME
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR EAST XX

500'

DETOUR EAST XX DETOUR EAST XX DETOUR EAST XX *

D1-X *
COMMUNITY NAME
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

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

500' AT 25 - 40 MPH
1000' AT 45+ MPH

DETOUR EAST XX *

EAST XX M3-X 24" X 12" M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 08c

SDD 15C02 - 08c

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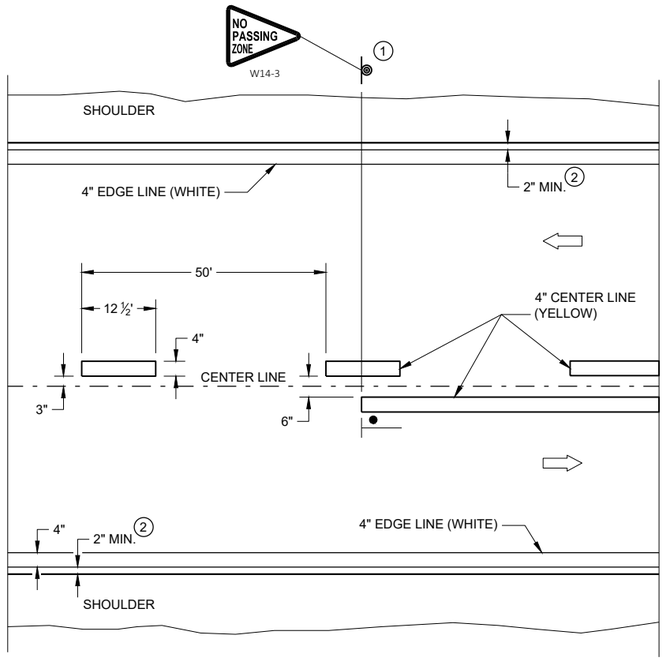
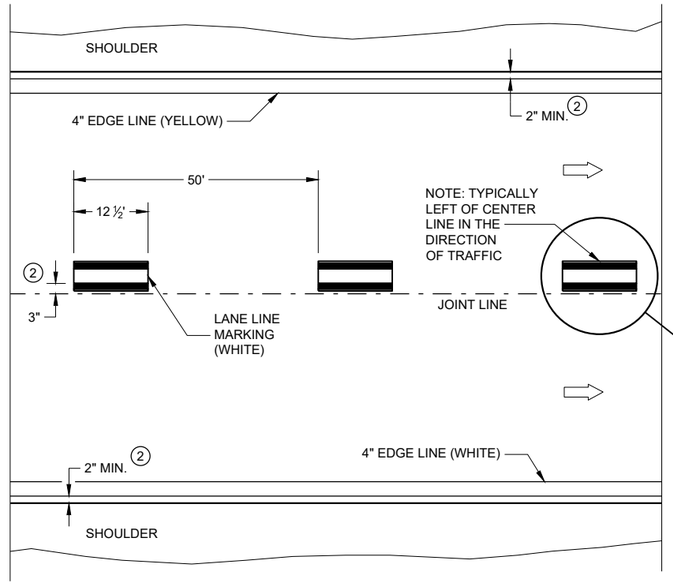
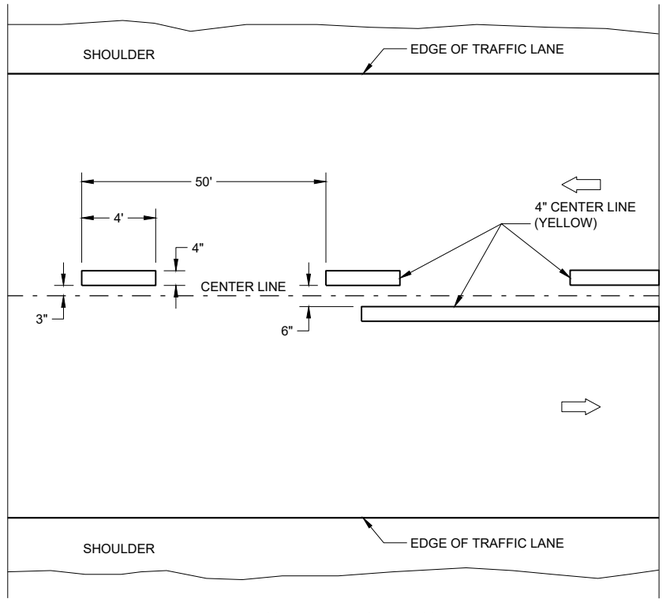


TWO WAY TRAFFIC

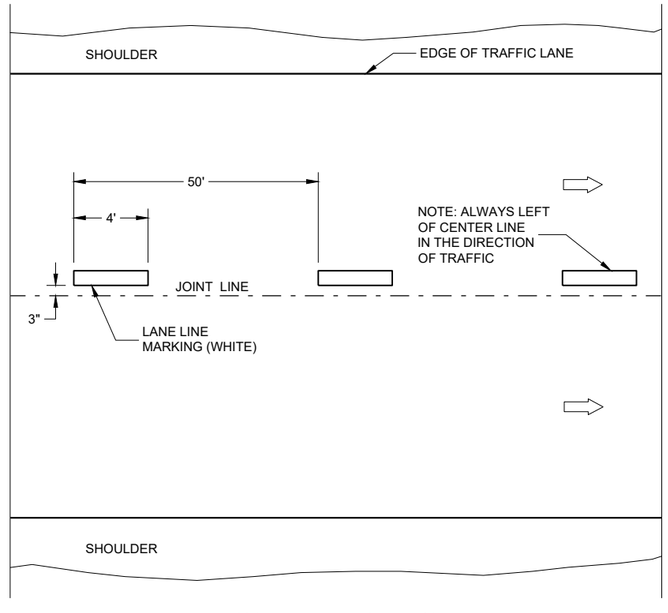


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

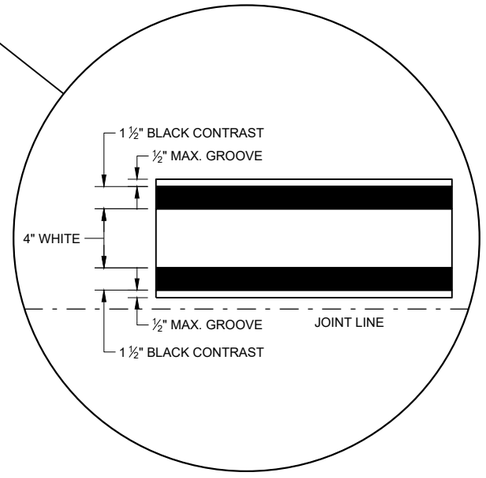
GENERAL NOTES

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

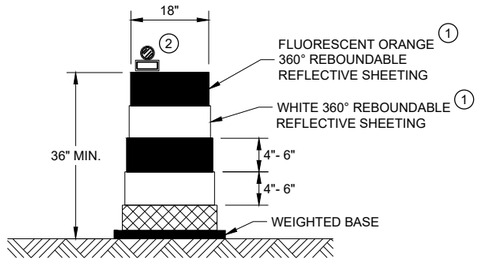
FHWA

SDD 15C08 - 20a

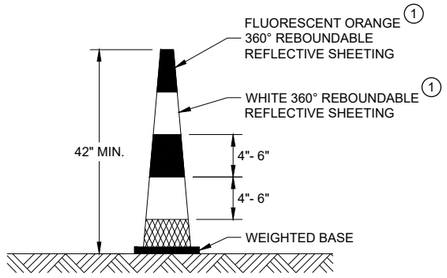
SDD 15C08 - 20a

GENERAL NOTES

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

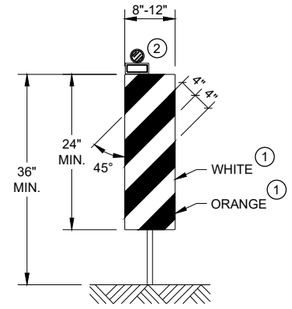


DRUM



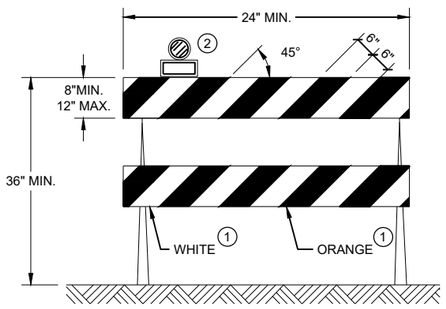
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



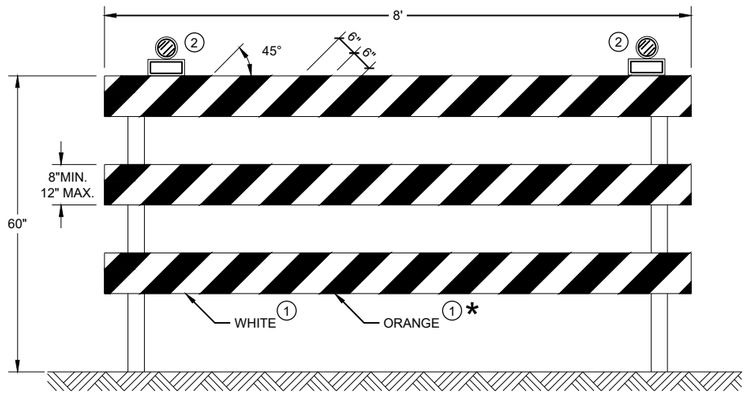
VERTICAL PANEL

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 ENGINEER
FHWA

6

SDD 15C11 - 09b

6

SDD 15C11 - 09b

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

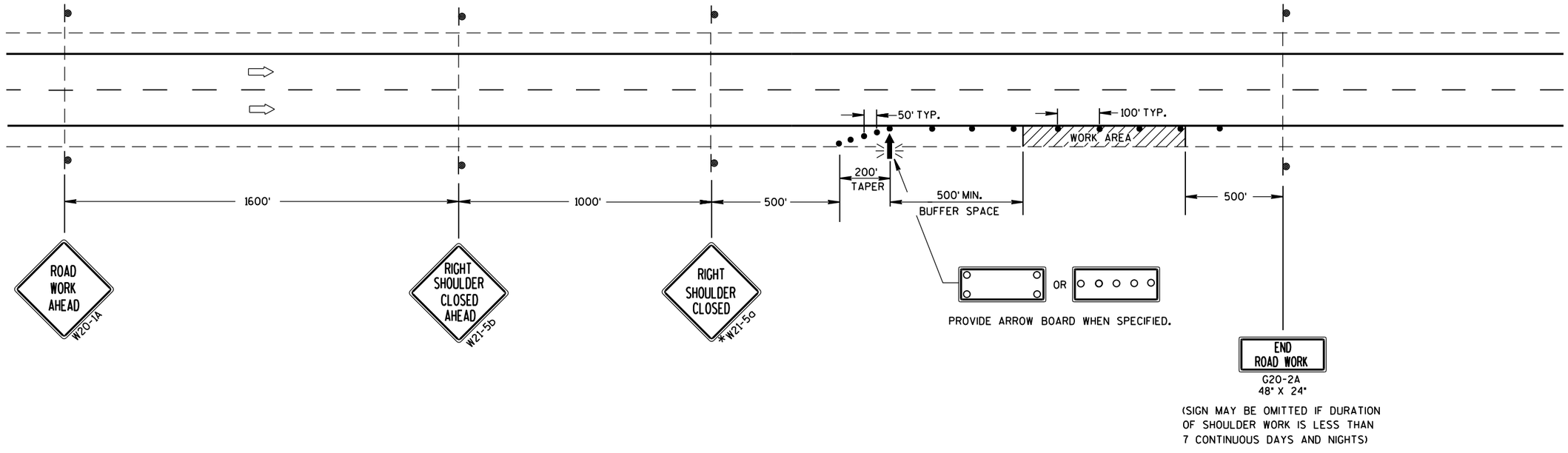
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

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

WHEN A 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.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

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S.D.D. 15 D 27-3

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.

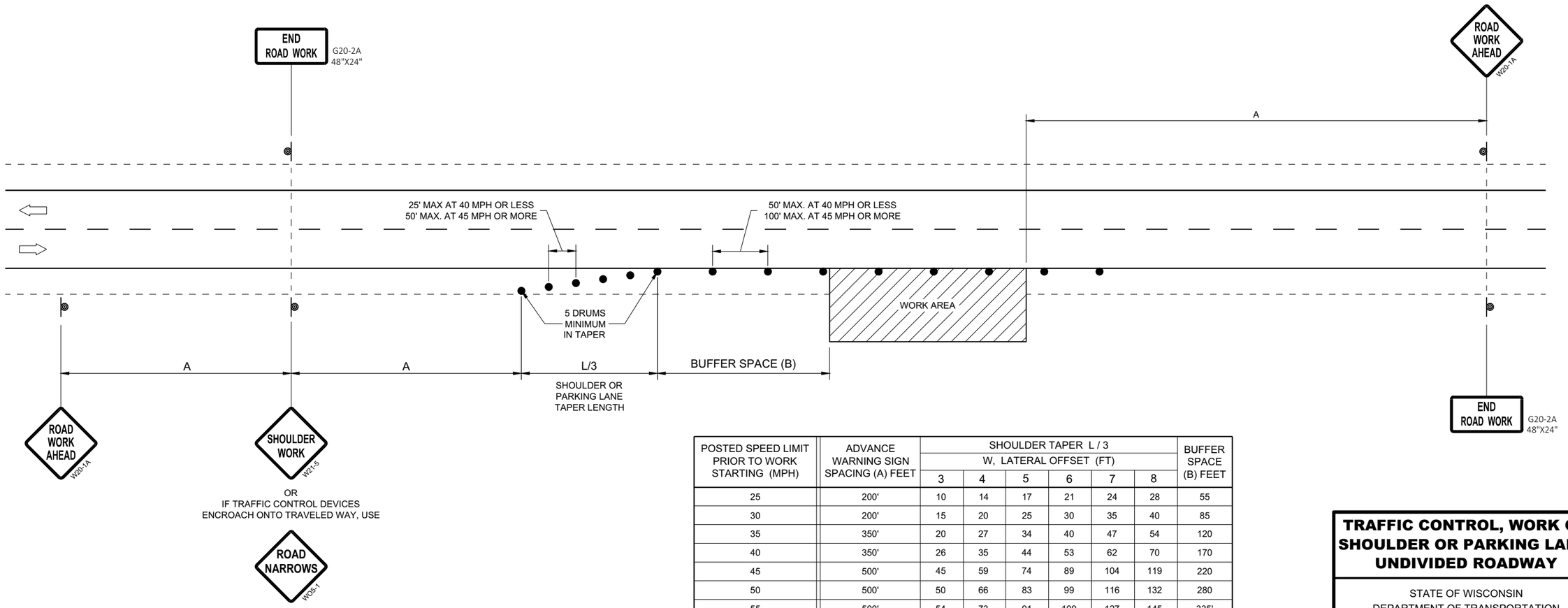
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

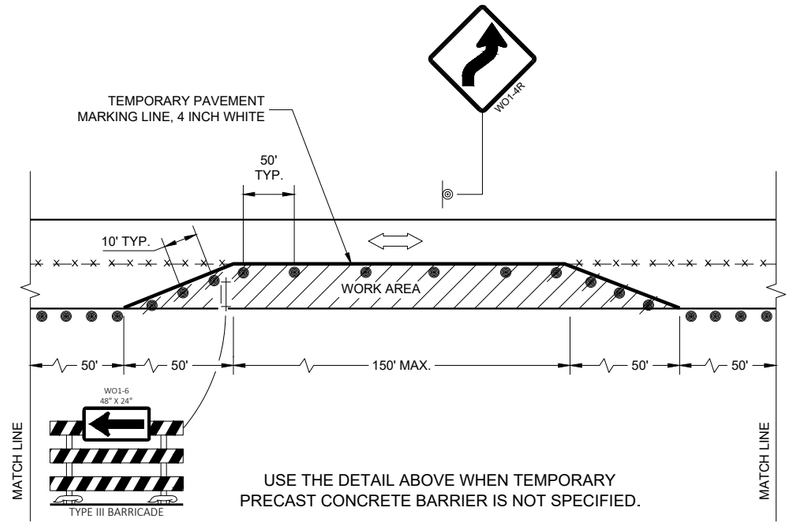
FHWA

6

SDD 15D28 - 04

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLAGS, 16" X 16" MIN. (ORANGE)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- ASPHALTIC PAVEMENT WIDENING
- CONCRETE BARRIER TEMPORARY PRECAST



USE THE DETAIL ABOVE WHEN TEMPORARY PRECAST CONCRETE BARRIER IS NOT SPECIFIED.

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

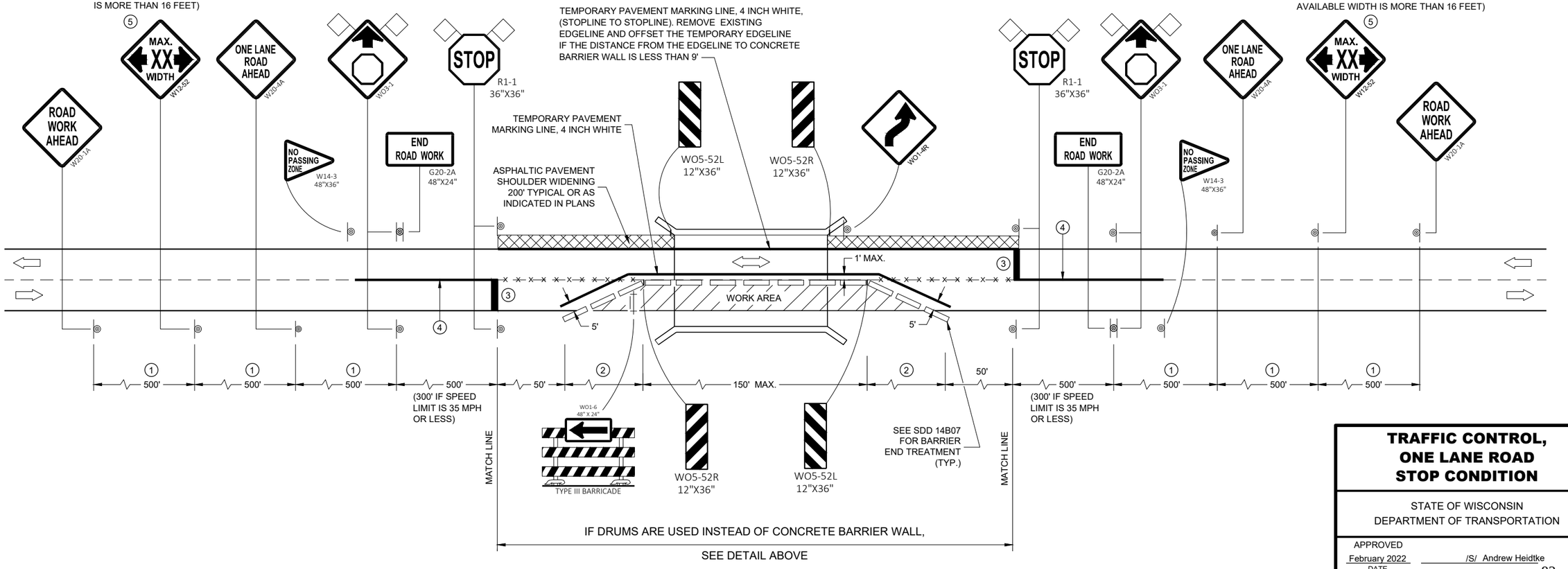
ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

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

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

1. 500 FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY 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.
2. DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.
3. TEMPORARY PAVEMENT MARKING LINE, 18 INCH WHITE STOP LINE.
4. 700 FOOT TEMPORARY PAVEMENT MARKING LINE, 4 INCH DOUBLE YELLOW. WHEN THE DISTANCE FOR THE PRECEDING NO - PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
5. SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.



TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

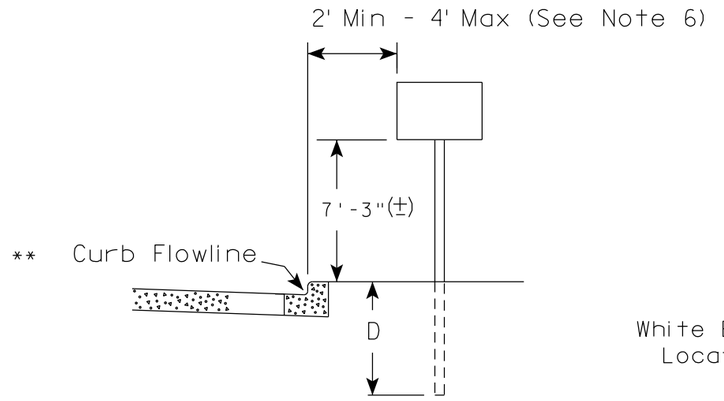
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

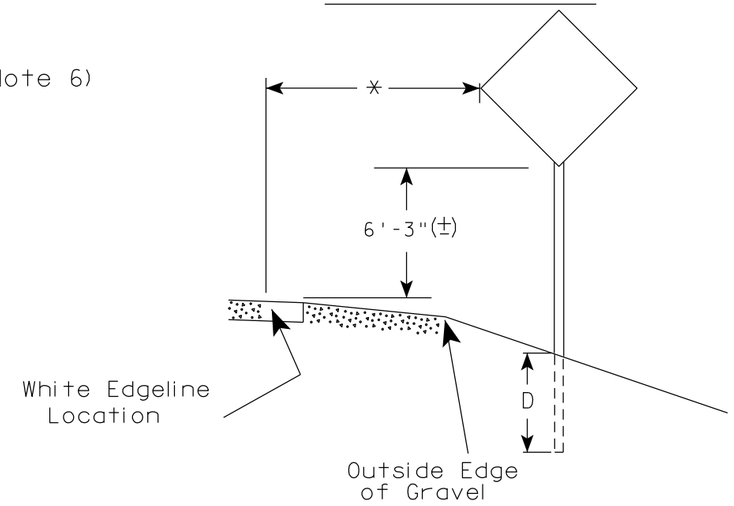
SDD 15D32 - 06

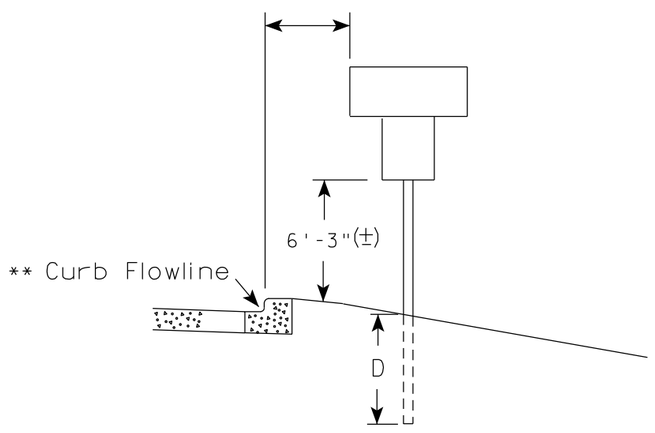
SDD 15D32 - 06

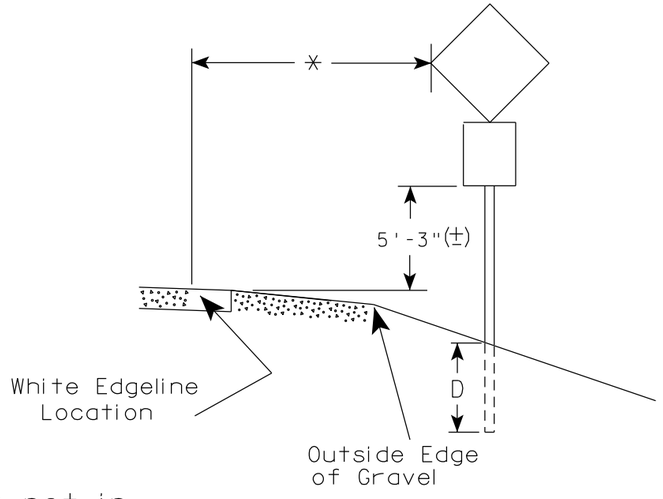
URBAN AREA



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.

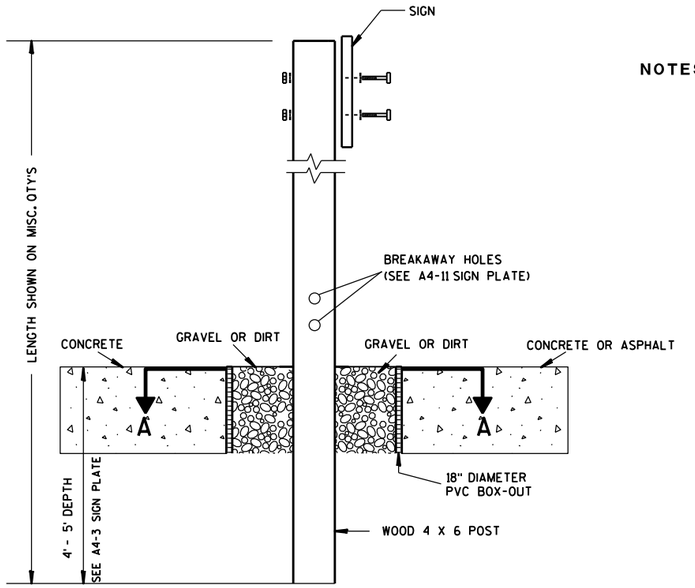
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

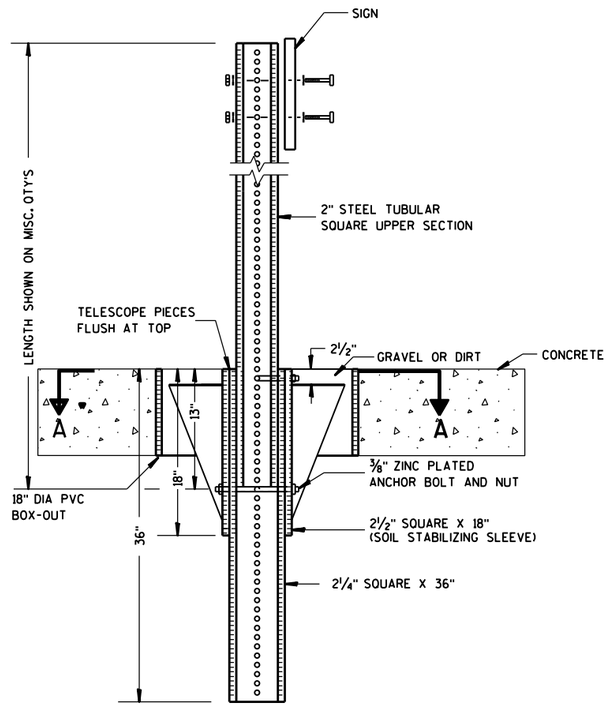
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 84	E



ELEVATION VIEW

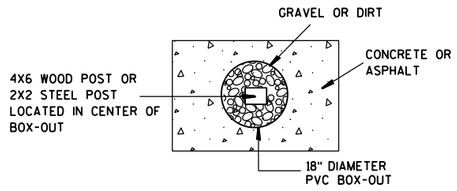
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

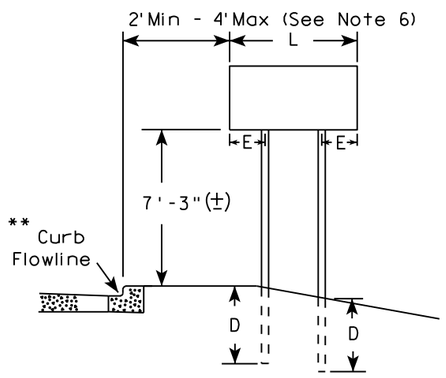
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

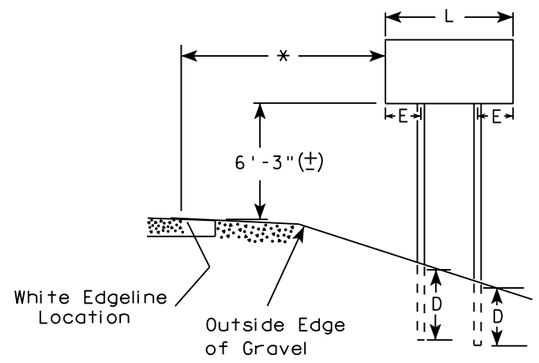
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

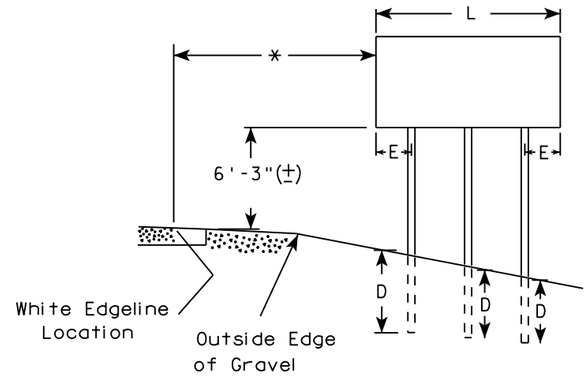
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

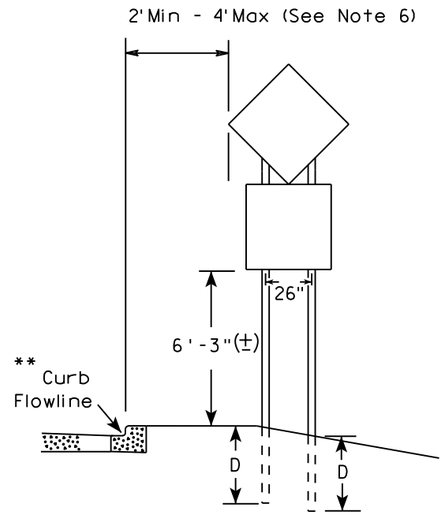
URBAN AREA



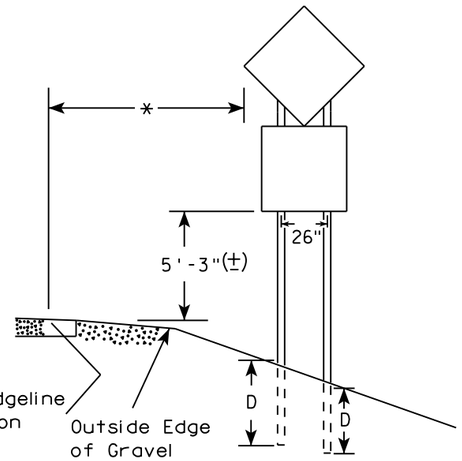
RURAL AREA (See Note 3)







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'

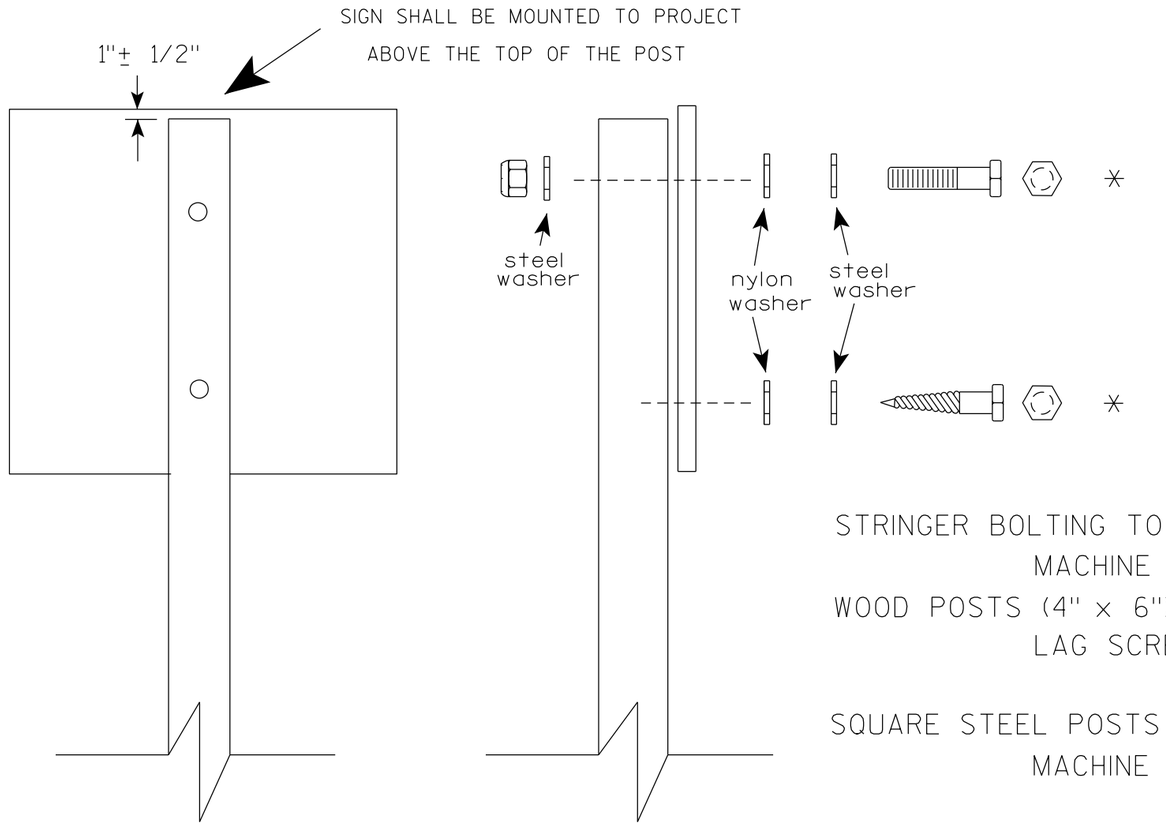
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 86	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

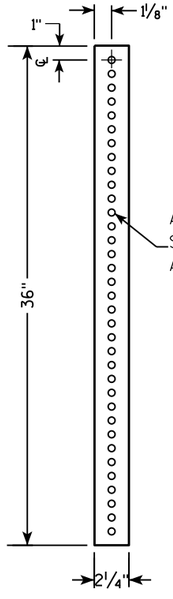
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

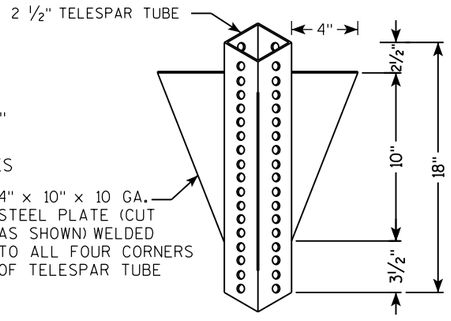
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

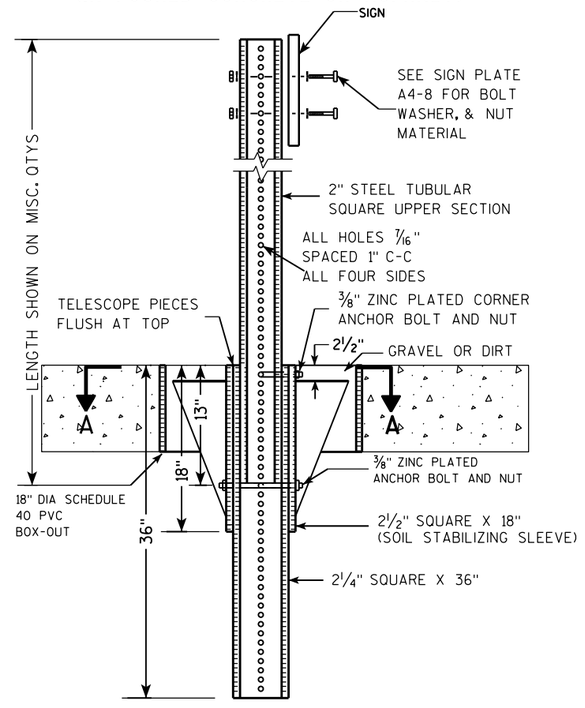
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



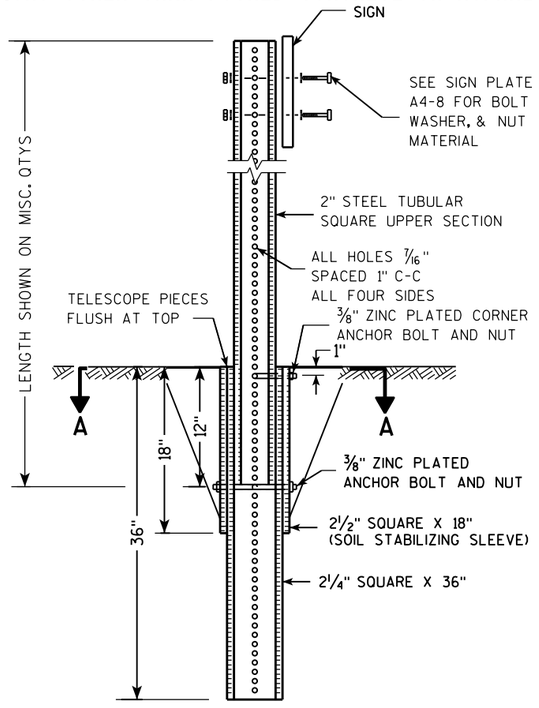
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

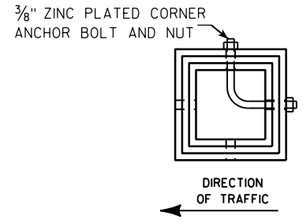


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

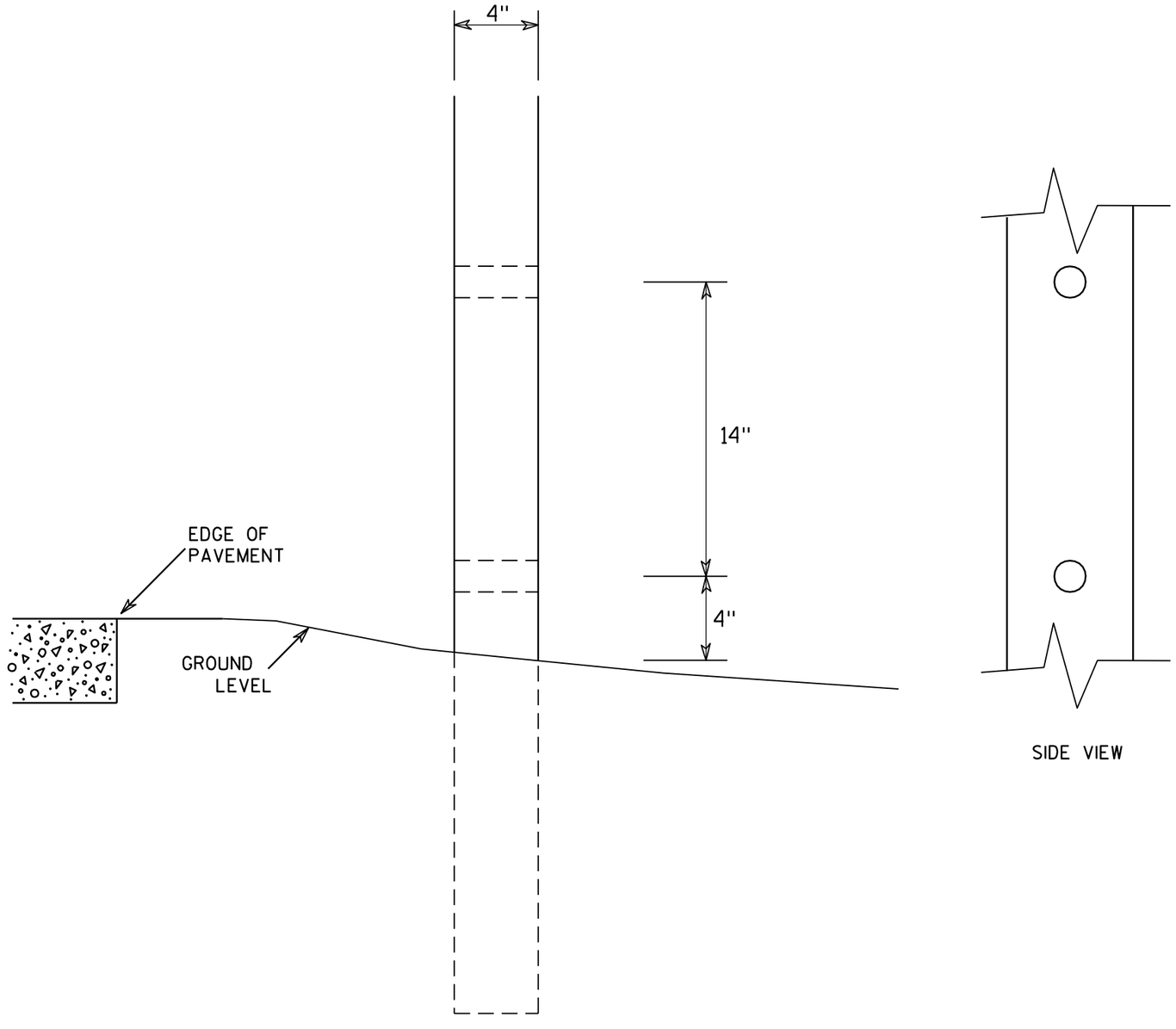
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 88 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



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.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

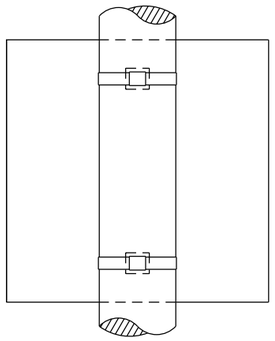
APPROVED Chester J Spang for State Traffic Engineer

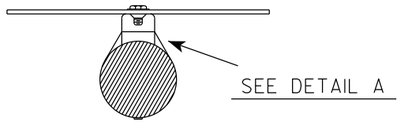
DATE 3/27/97 PLATE NO. A4-11.2

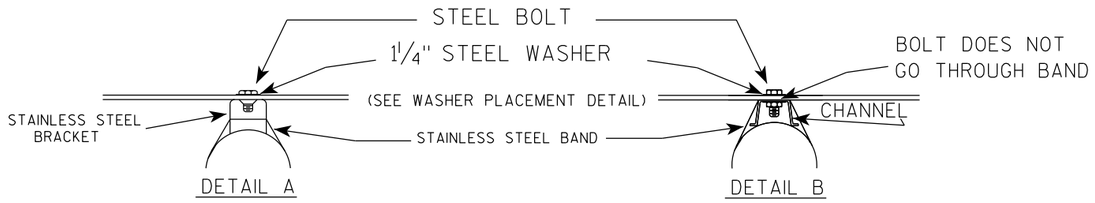
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 89	E

BANDING

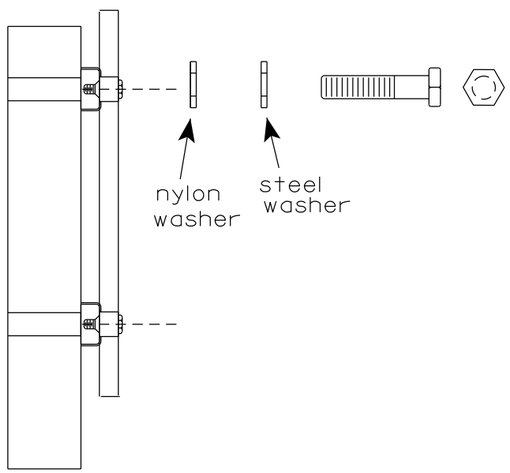
SINGLE SIGN







WASHER PLACEMENT

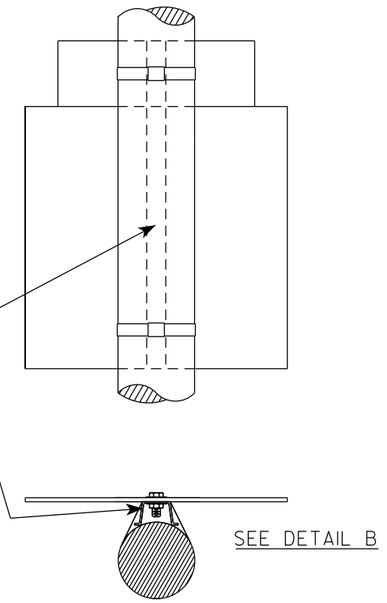


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

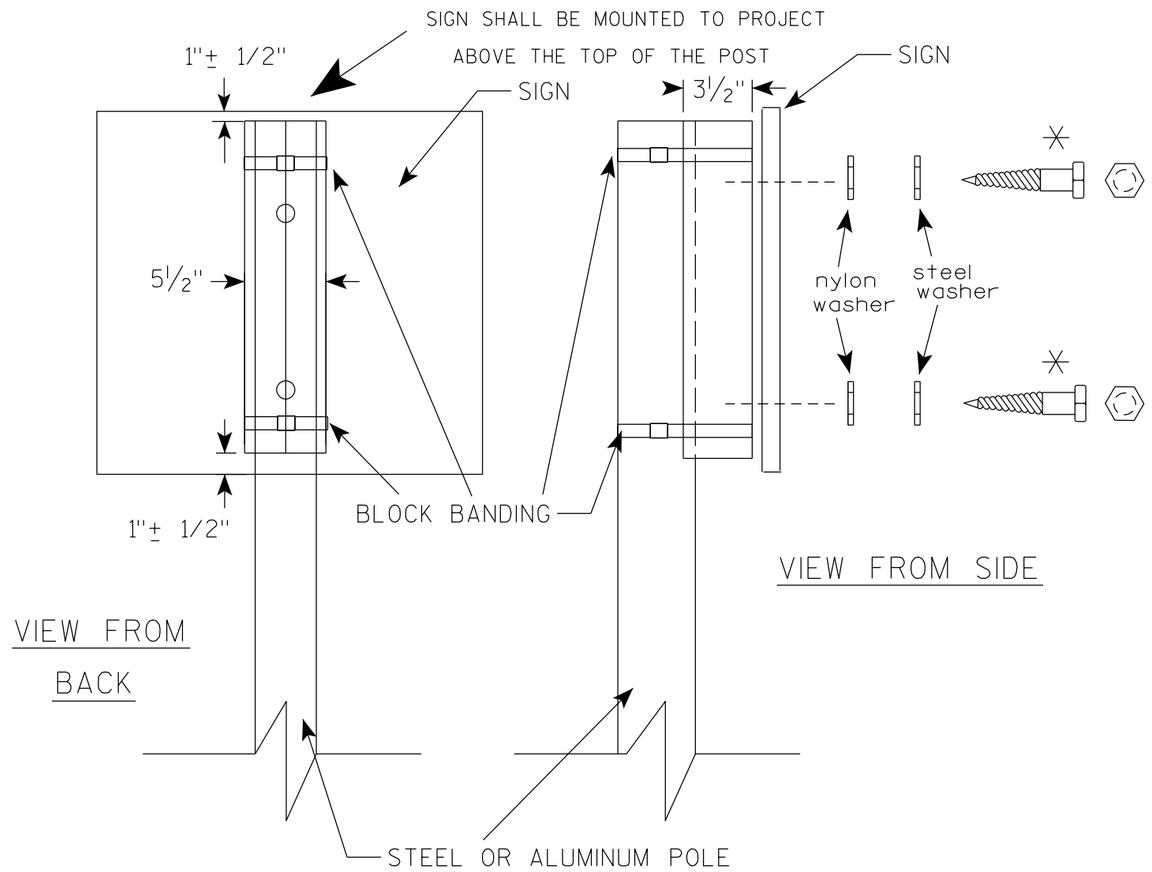
DATE 6/10/19 PLATE NO. A5-9.4

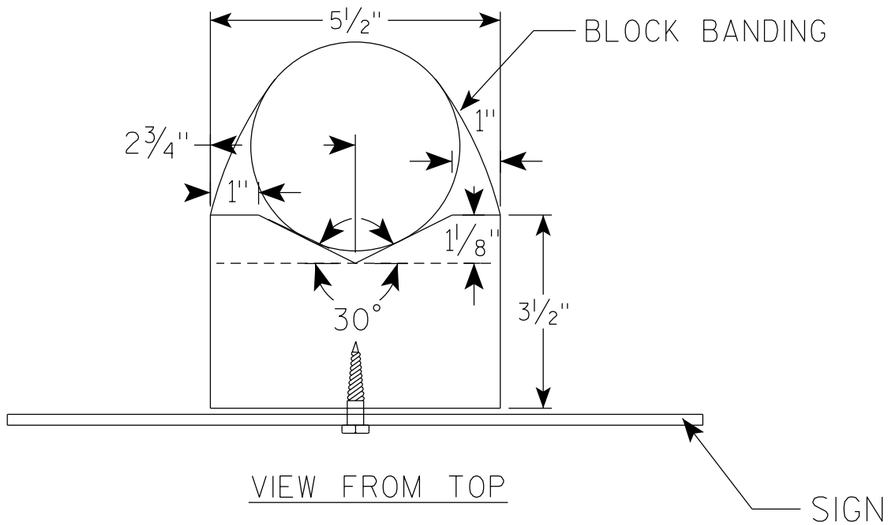
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 90	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

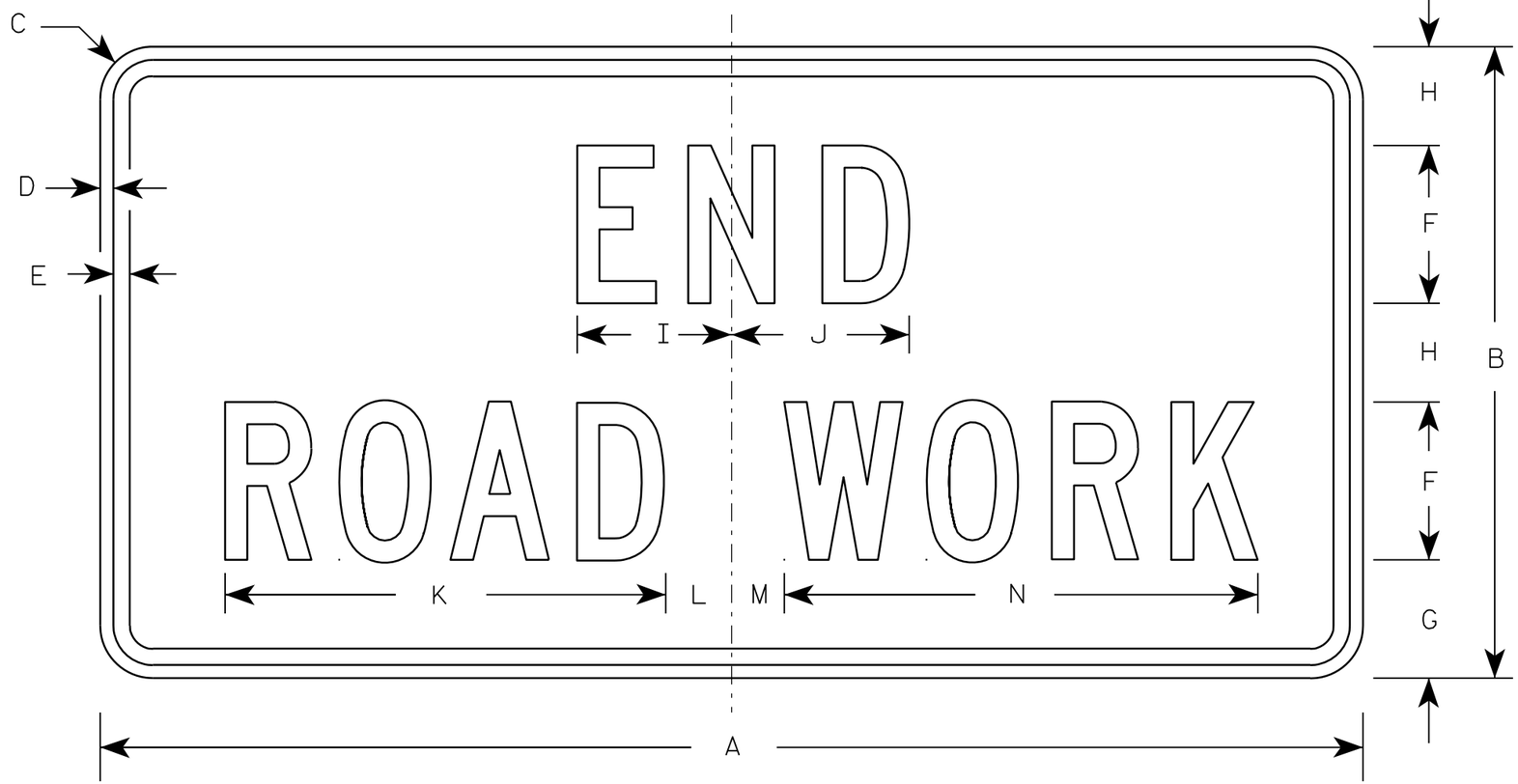
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 91 E



G20-2A

NOTES

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

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

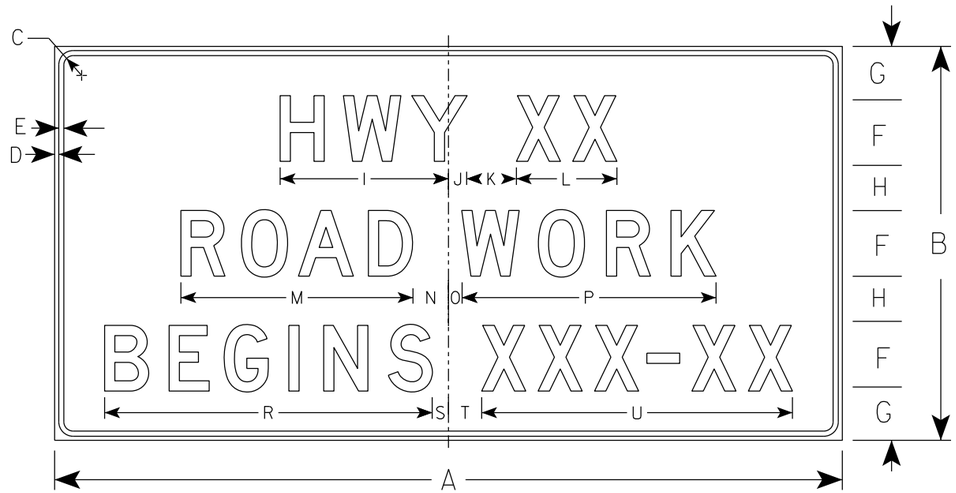
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 92	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																											

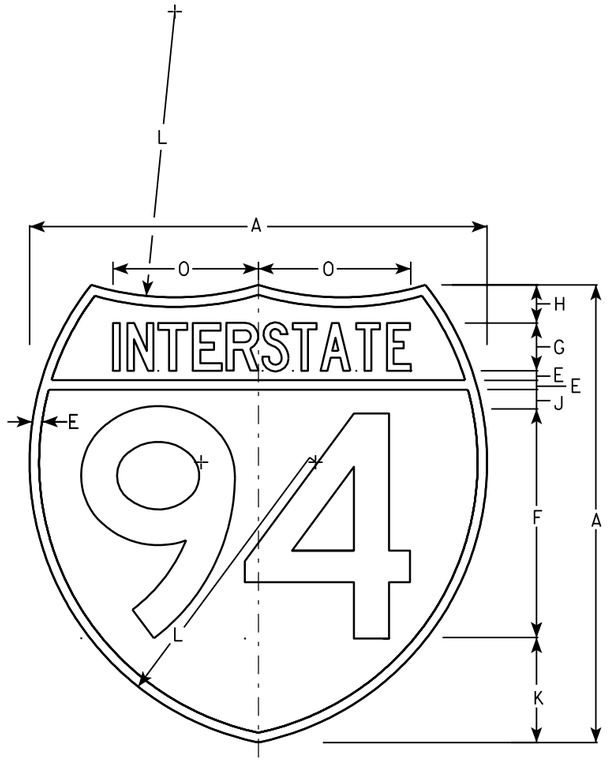
STANDARD SIGN
G20-57

WISCONSIN DEPT OF TRANSPORTATION

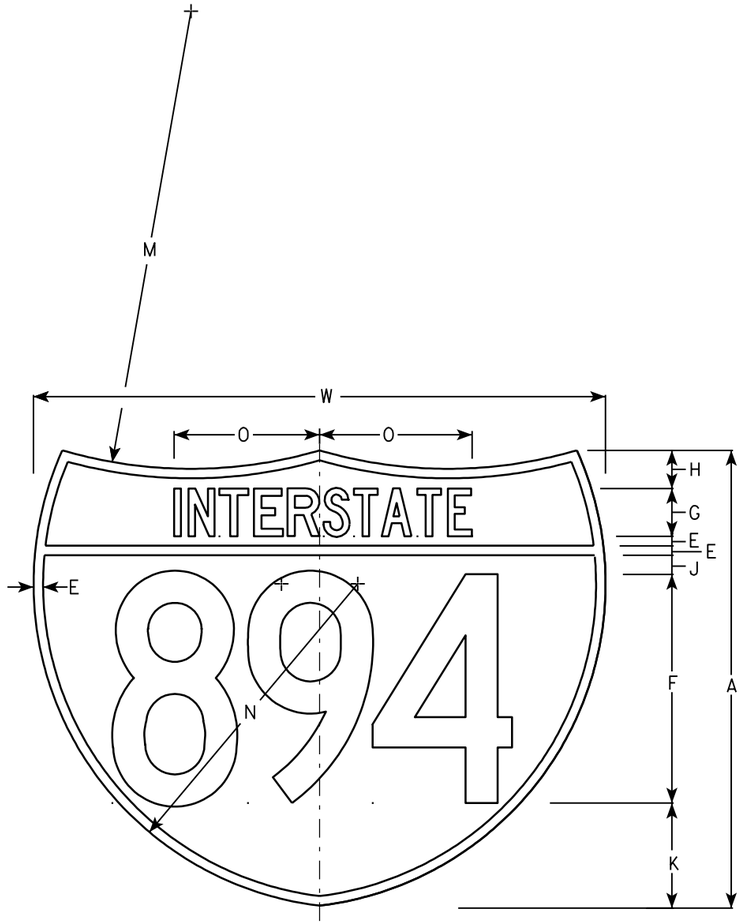
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/22/19 PLATE NO. G20-57.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 93	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

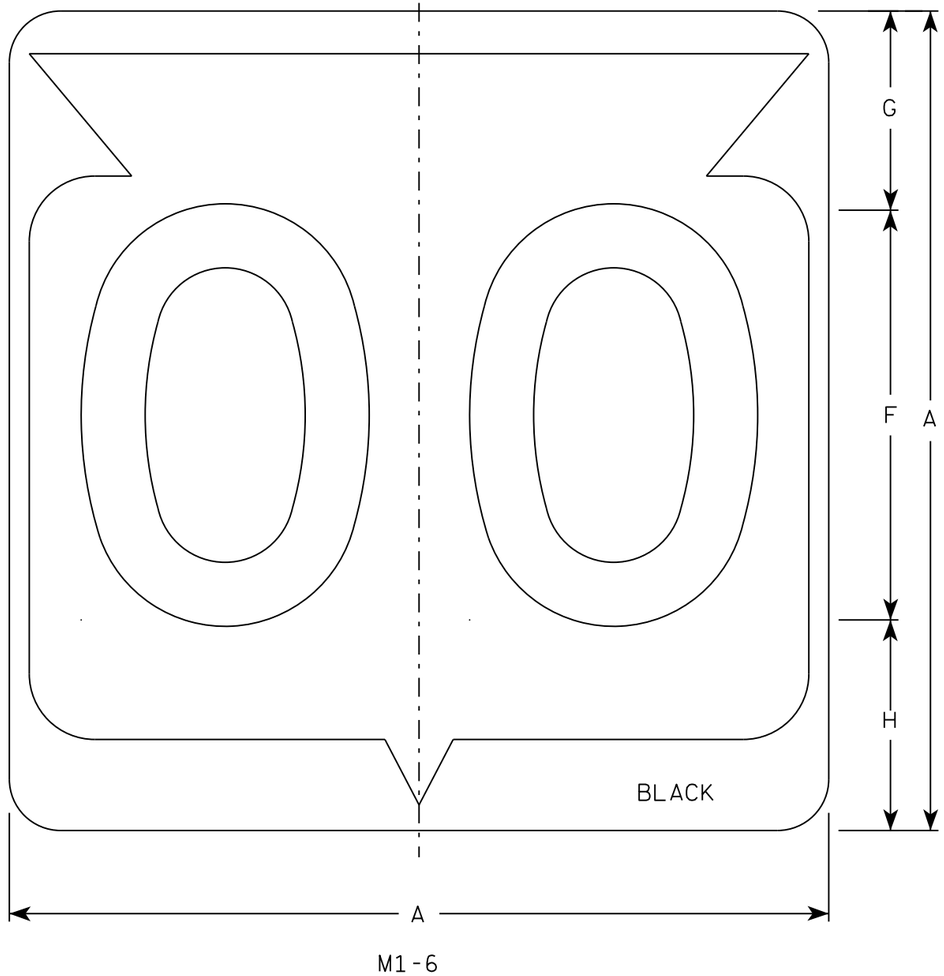
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

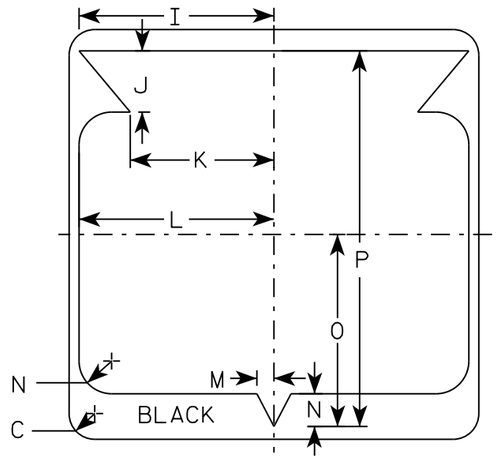
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 94	E



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

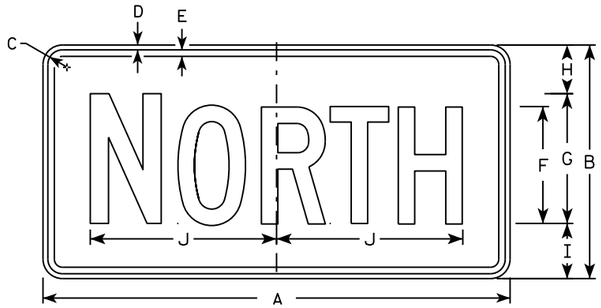
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

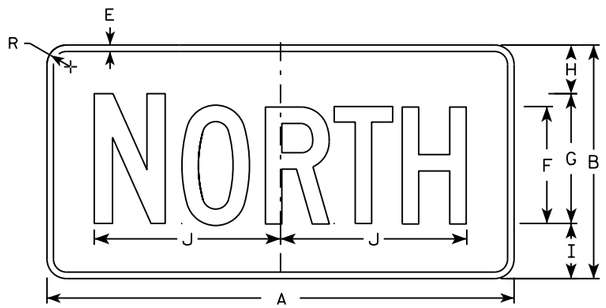
APPROVED Matthew R Rauch for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 95 E



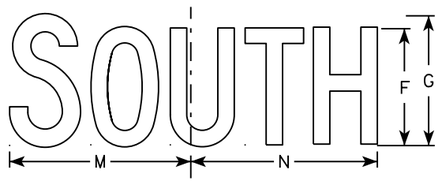
M3-1
MM3-1
MP3-1



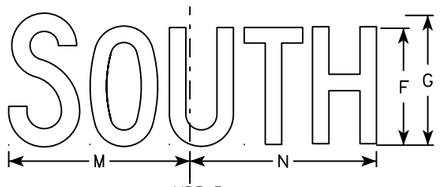
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

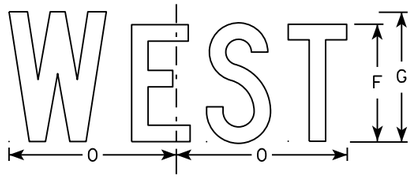
MB3-2
MK3-2
MN3-2



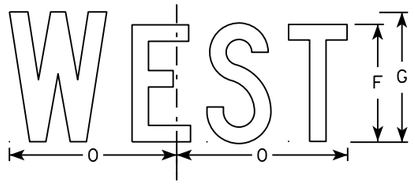
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

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

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

STANDARD SIGNS
M3-1 thur M3-4
SERIES

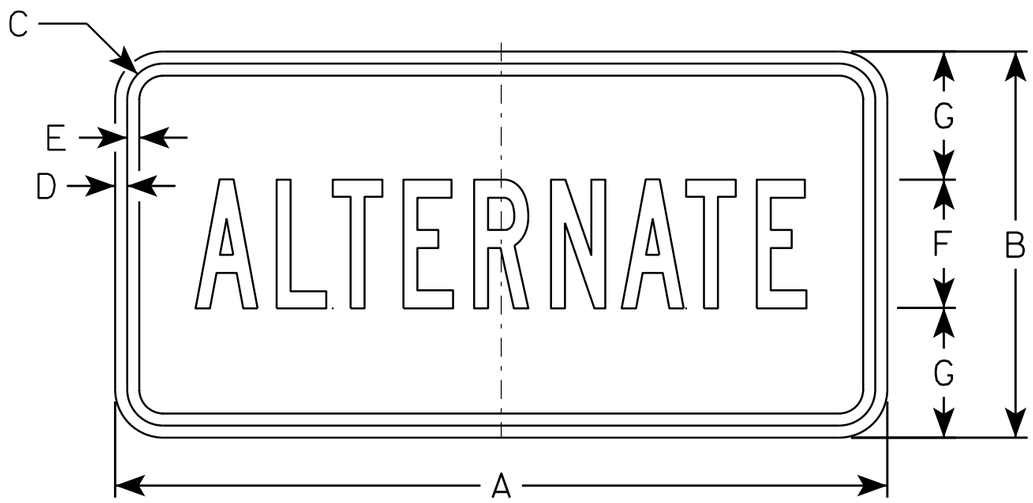
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

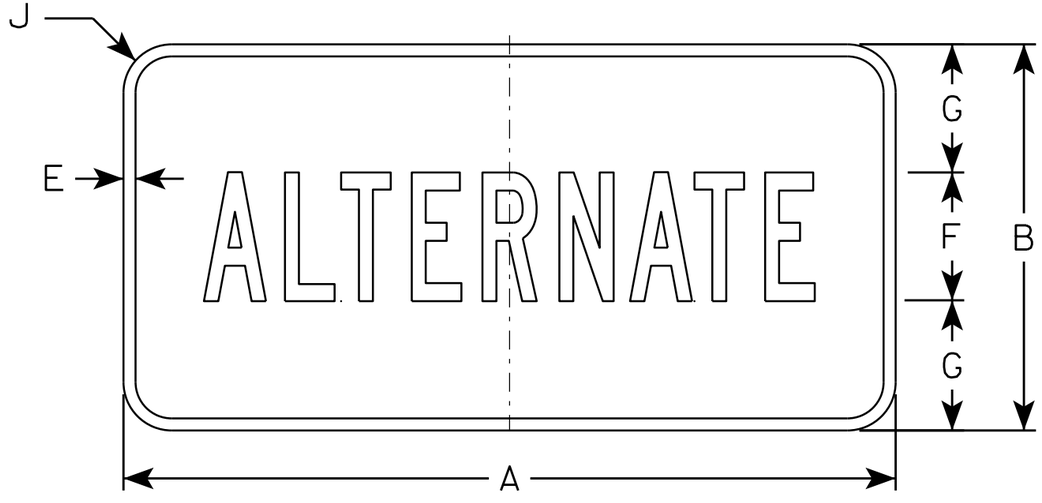
DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-1
M04-1



MB4-1

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See Note 5
   Message - See note 5
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-1 Background - White
   Message - Black

   MB4-1 Background - Blue
   Message - White

   M04-1 Background - Orange - Type F
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	4	4	9 3/4	9 1/2	1 1/2																	2.00
3	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
4	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
5	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5

STANDARD SIGN
M4-1

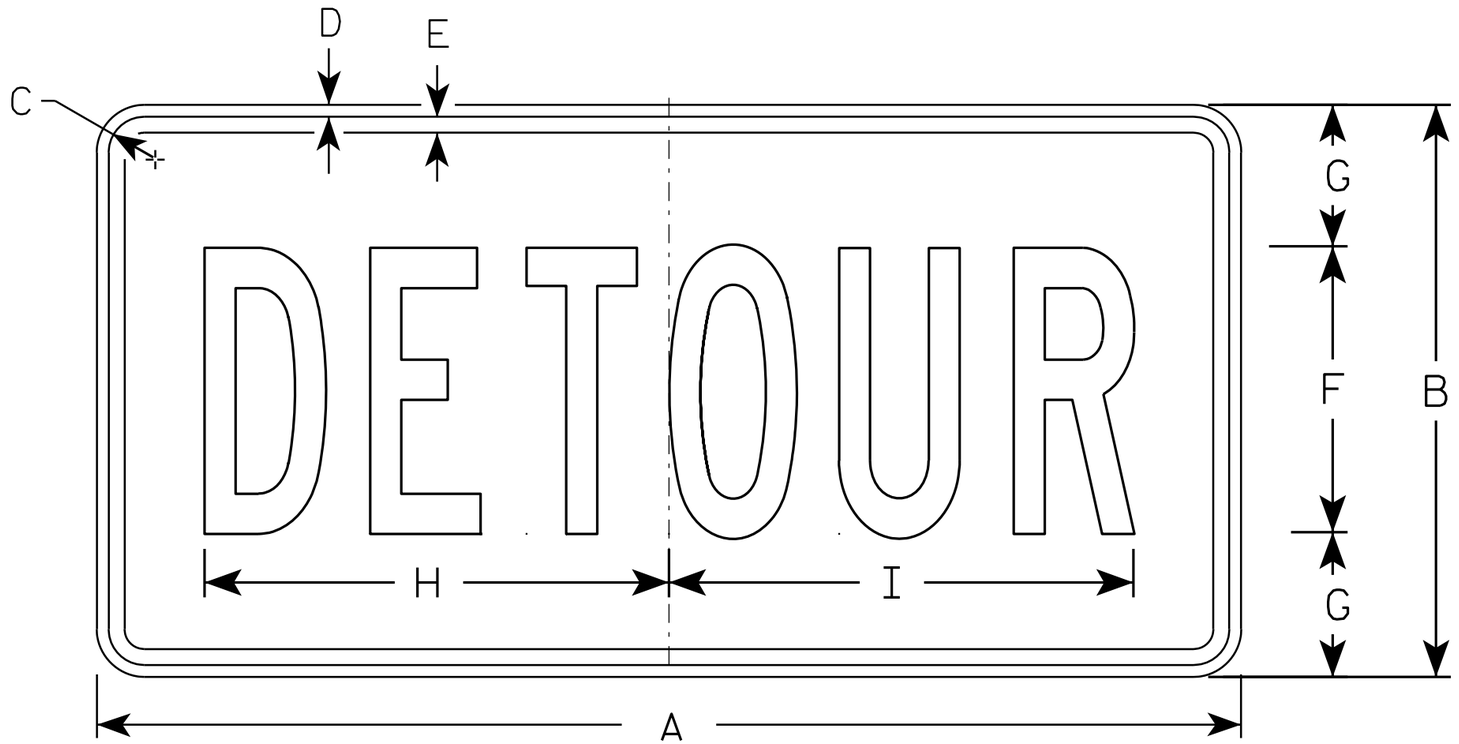
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/14 PLATE 14-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M41.DGN PLOT DATE : 30-JUN-2014 15:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.708937:1.000000 WISDOT/CADDS SHEET 42



M4-8

NOTES

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

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

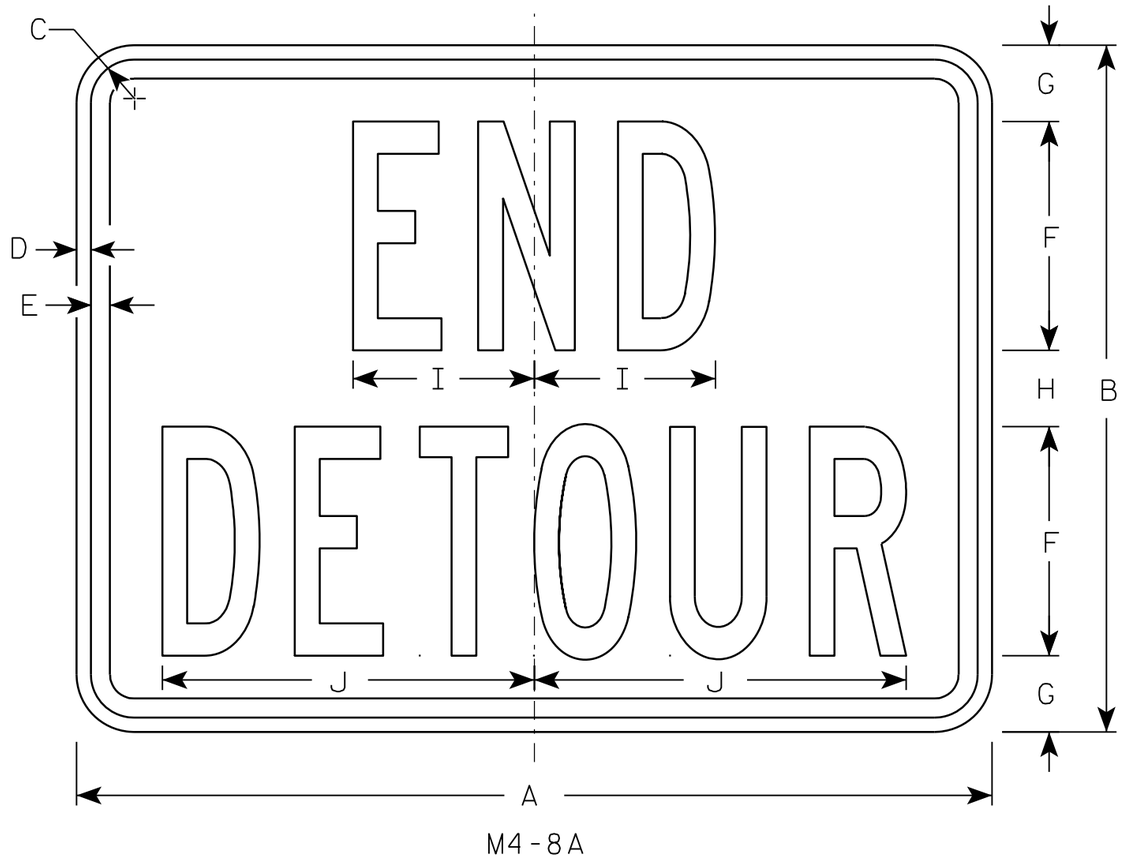
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 98	E



M4-8A

NOTES

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

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

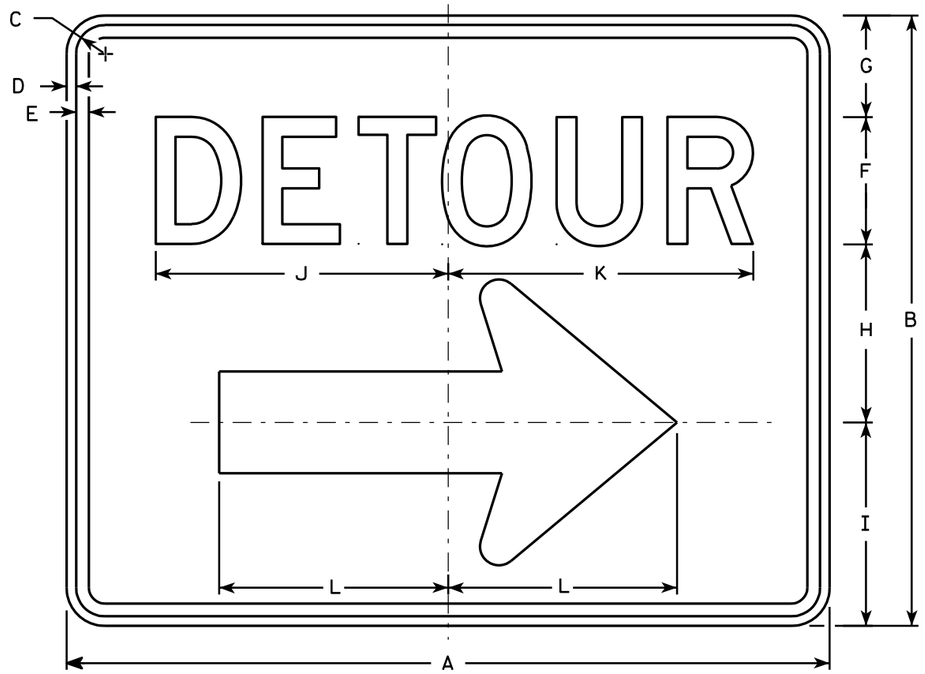
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

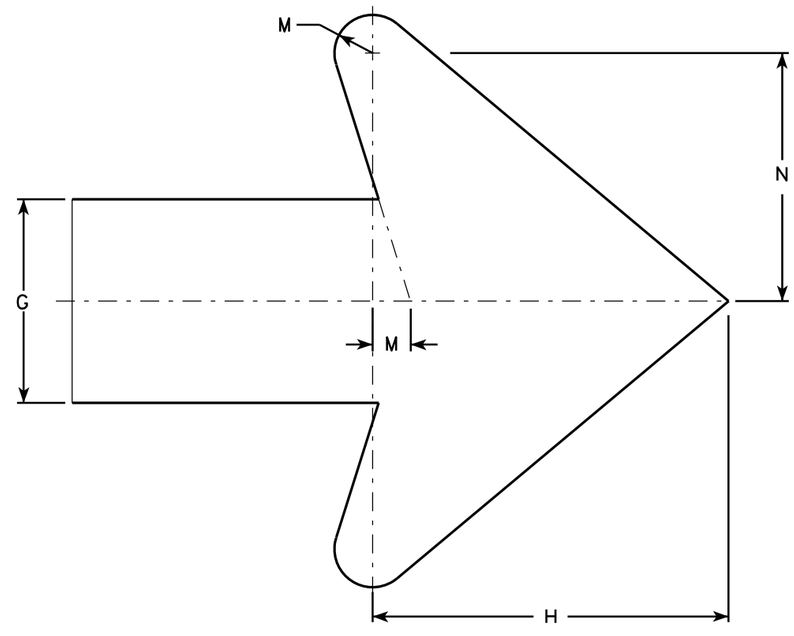
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 99	E



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

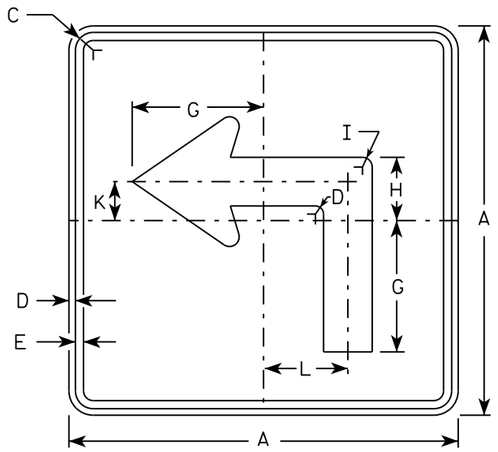
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

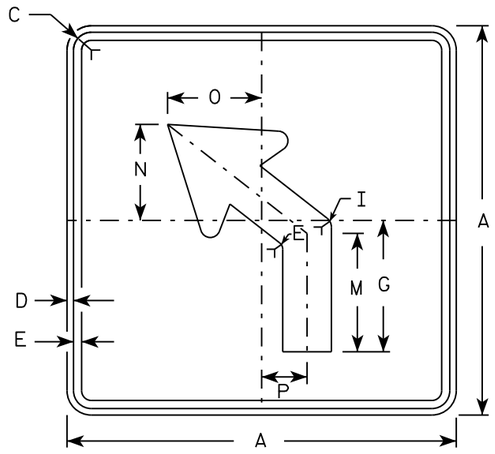
APPROVED Matthew R Rauch
for State Traffic Engineer

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

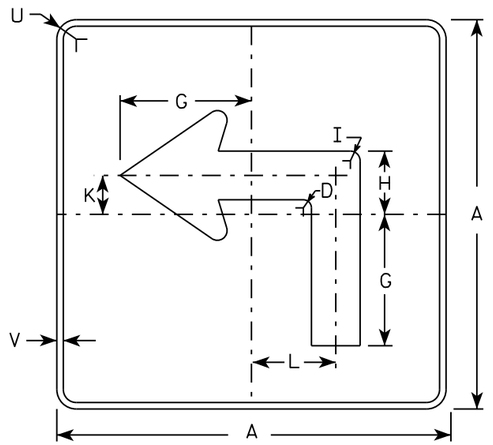
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 100 | E



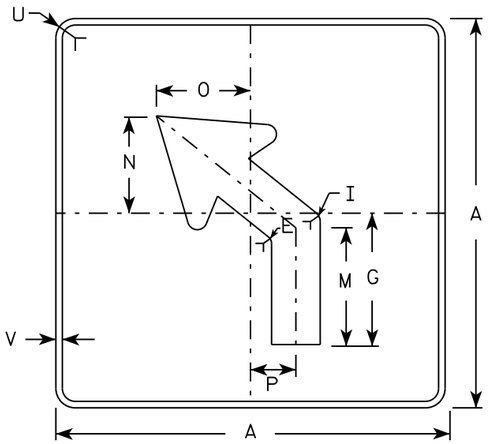
M5-1L
MM5-1L
MO5-1L
MP5-1L



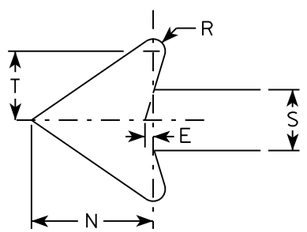
M5-2L
MM5-2L
MO5-2L
MP5-2L



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



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



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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

STANDARD SIGN
M5-1 & M5-2

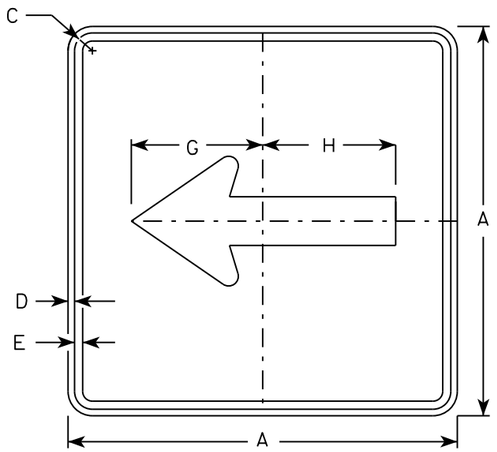
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

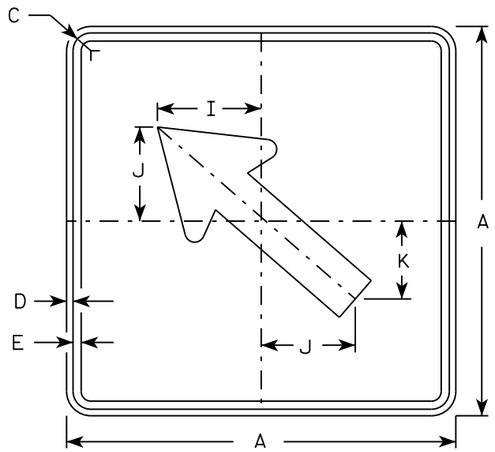
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



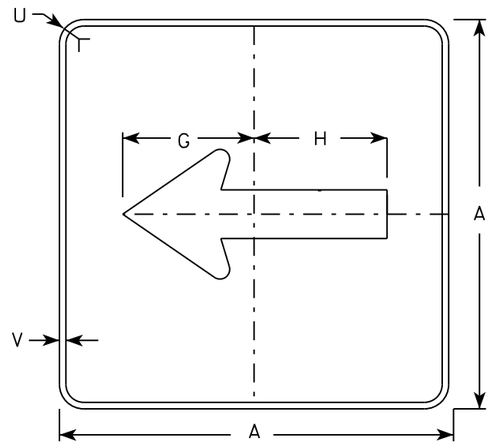
M6-1
MM6-1
MO6-1
MP6-1



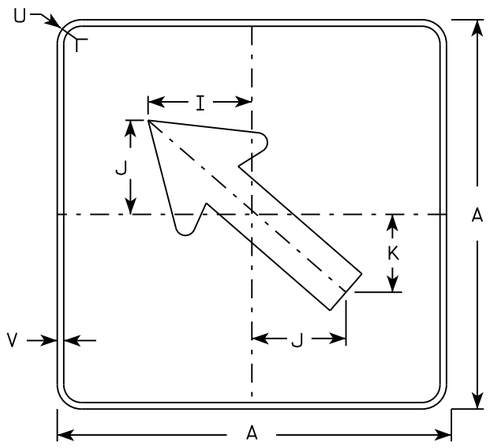
M6-2
MM6-2
MO6-2
MP6-2

NOTES

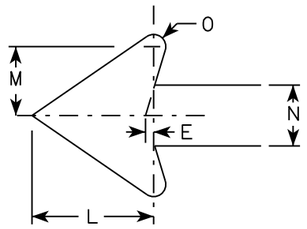
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



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



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



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

STANDARD SIGN
M6-1 & M6-2
SERIES

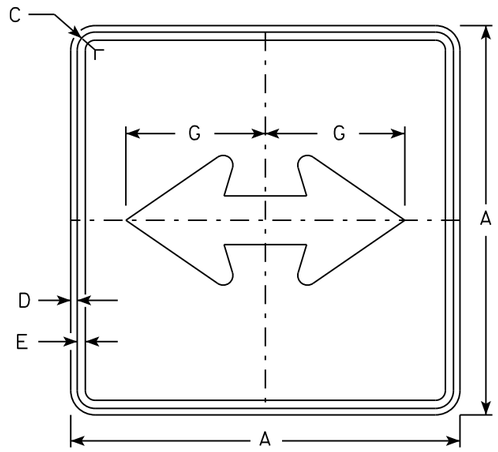
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

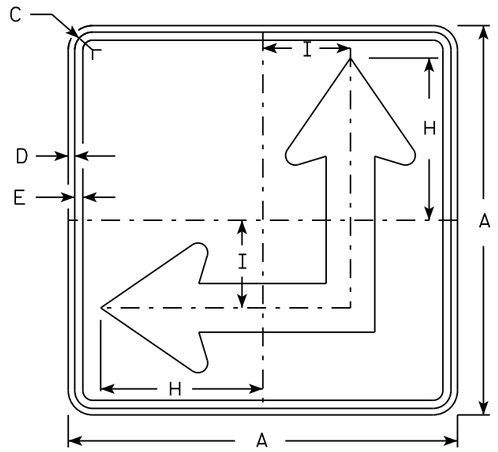
DATE 10/15/15 PLATE 102 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



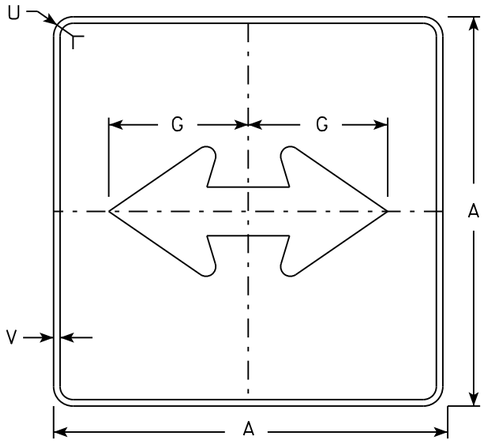
M6-4
MM6-4
MO6-4
MP6-4



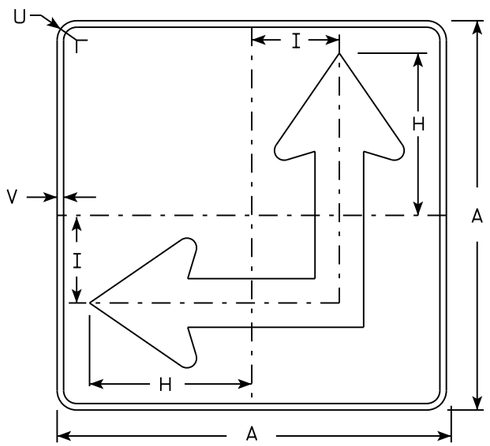
M6-6
MM6-6
MO6-6
MP6-6

NOTES

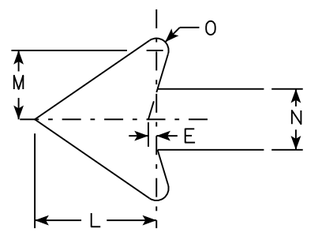
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN
M6-4 & M6-6
SERIES

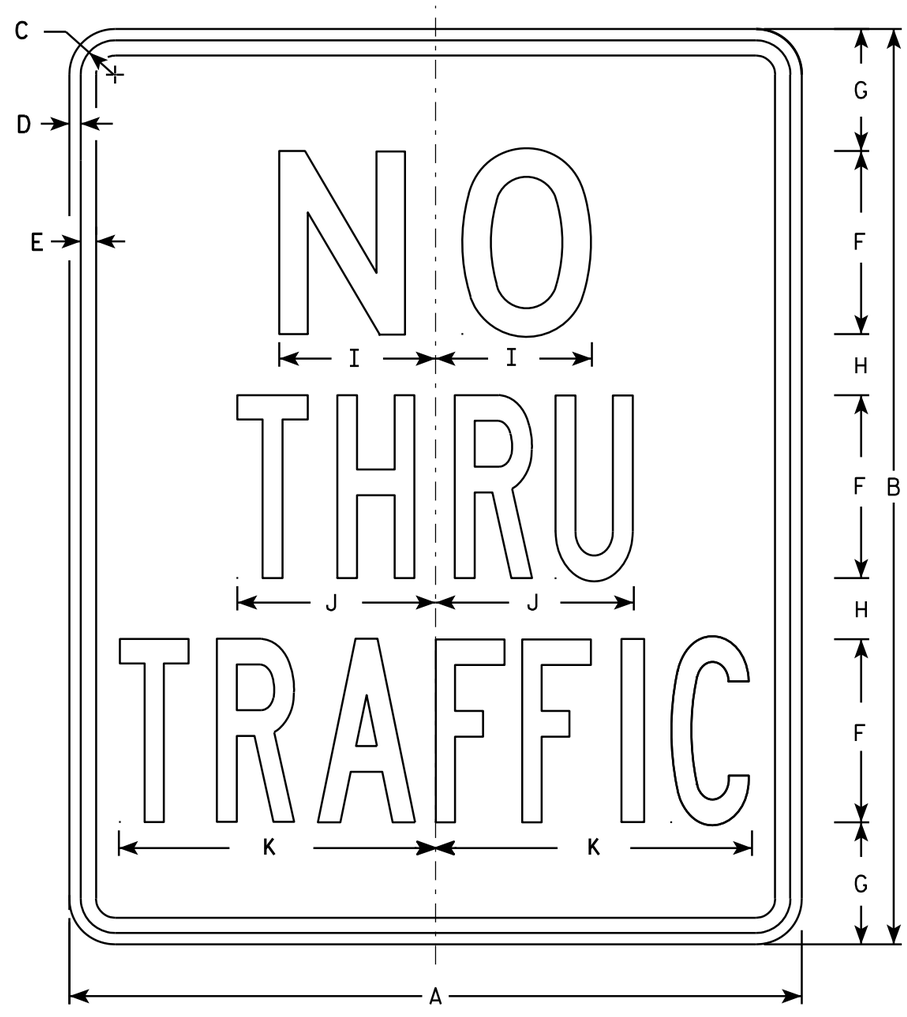
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 103 M6-4.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M64.DGN PLOT DATE : 01-DEC-2015 17:58 PLOT BY : $$ platuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R5-54

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	6	4	2	5 1/8	6 1/2	10 3/8																5.0
2M	24	30	1 1/8	3/8	1/2	6	4	2	5 1/8	6 1/2	10 3/8																5.0
3																											
4																											
5																											

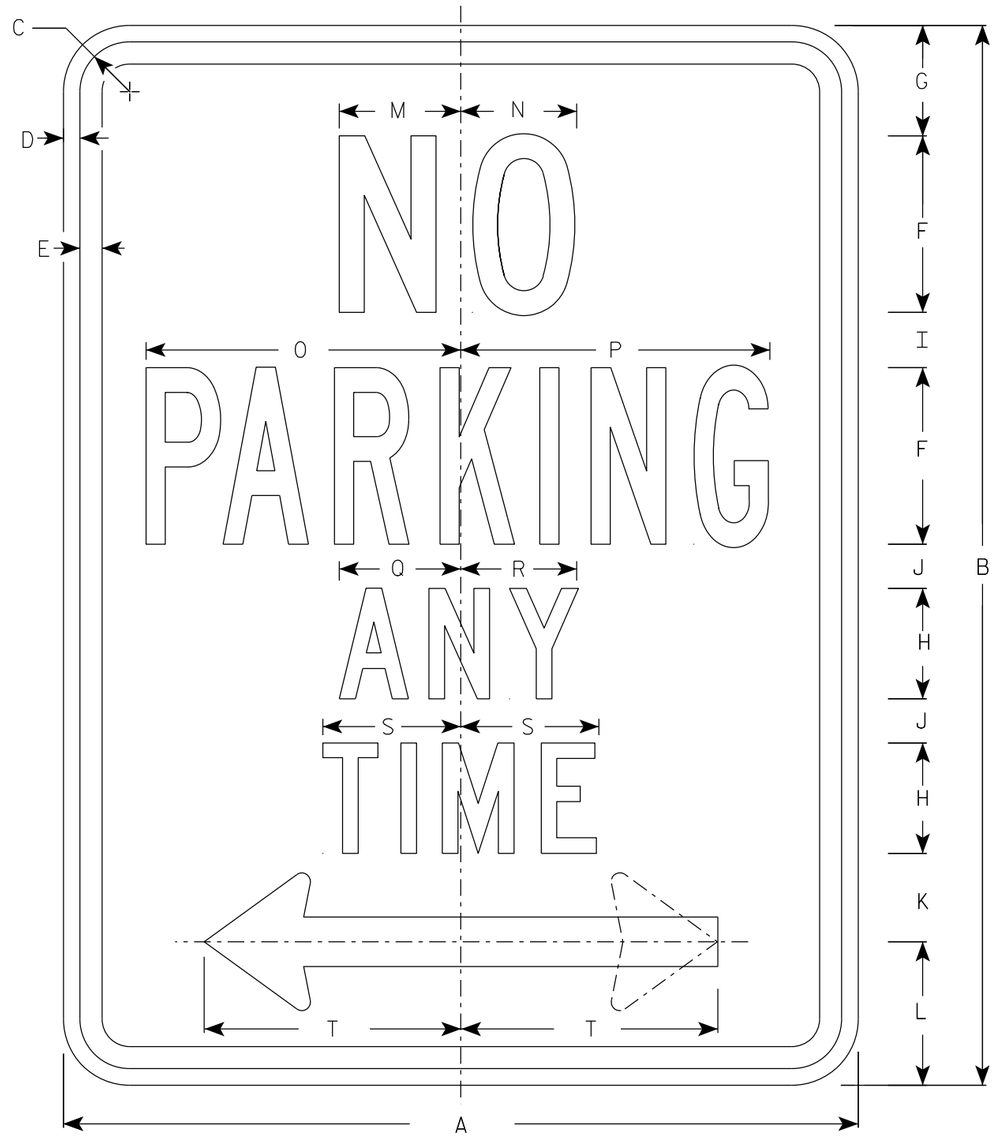
STANDARD SIGN
R5-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-54.6

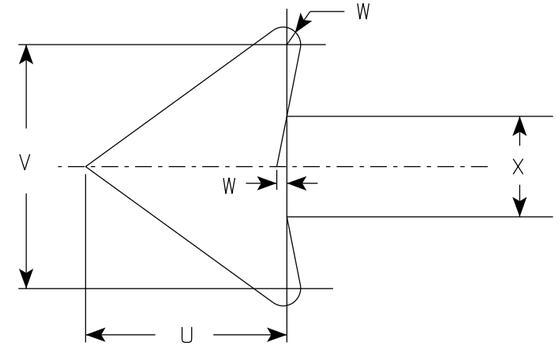
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 104	E



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: 105 E

R10-71

R10-71L

NOTES

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

R10-71R

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	R10-71L&R Area sq. ft.	R10-71 Area sq. ft.
1																												
2S	72	36	2 1/4	3/4	1	18	5	4	6	20 5/8	11 3/4	9 1/8	8 1/2	12 7/8	9 7/8	16 1/8	23 7/8	30	5 5/8	26 3/4	66	23 5/8	8 3/4	13	26 7/8	27	18.0	16.5
2M	72	36	2 1/4	3/4	1	18	5	4	6	20 5/8	11 3/4	9 1/8	8 1/2	12 7/8	9 7/8	16 1/8	23 7/8	30	5 5/8	26 3/4	66	23 5/8	8 3/4	13	26 7/8	27	18.0	16.5
3																												
4																												
5																												

STANDARD SIGN
R10-71

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-71.3

PROJECT NO:

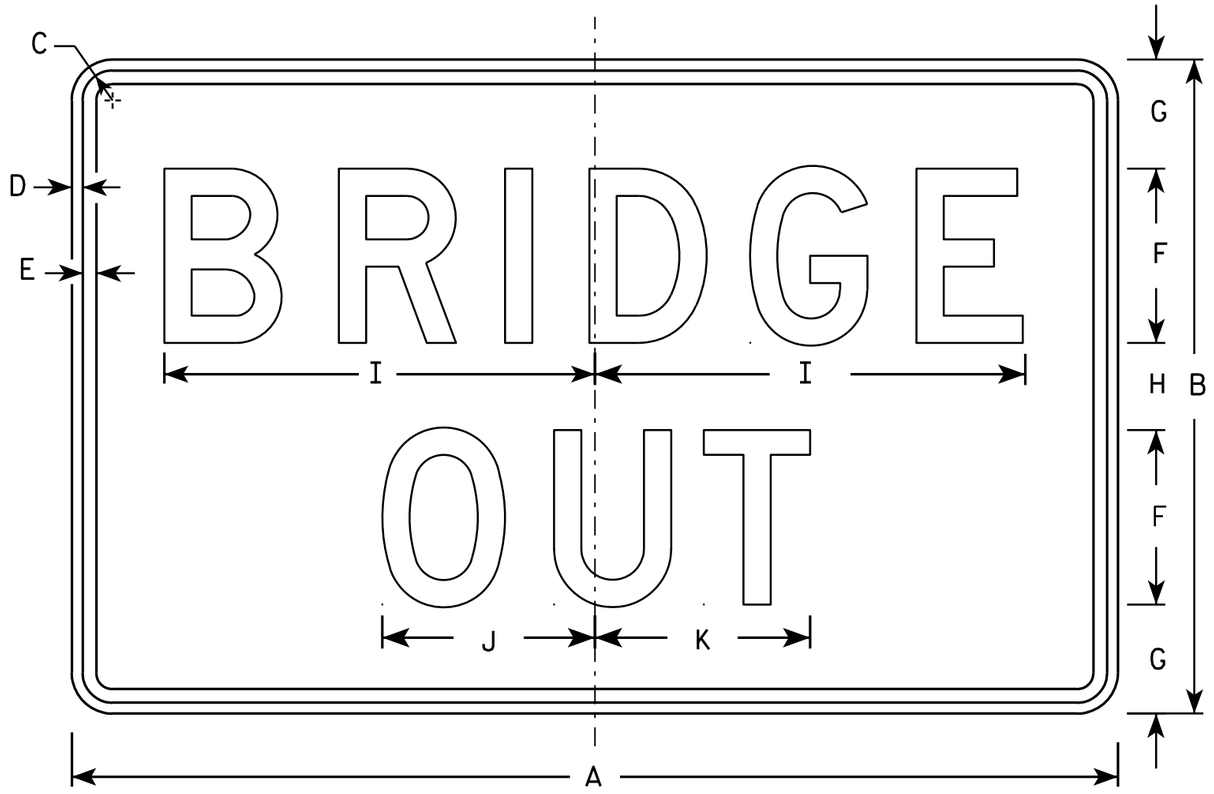
SHEET NO: 106 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R1071.DGN PLOT DATE : 04-APR-2011 14:36 PLOT BY : mscj9h PLOT NAME :

WISDOT/CADDS SHEET 42

7

7



R11-2B

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2B.2

PROJECT NO:

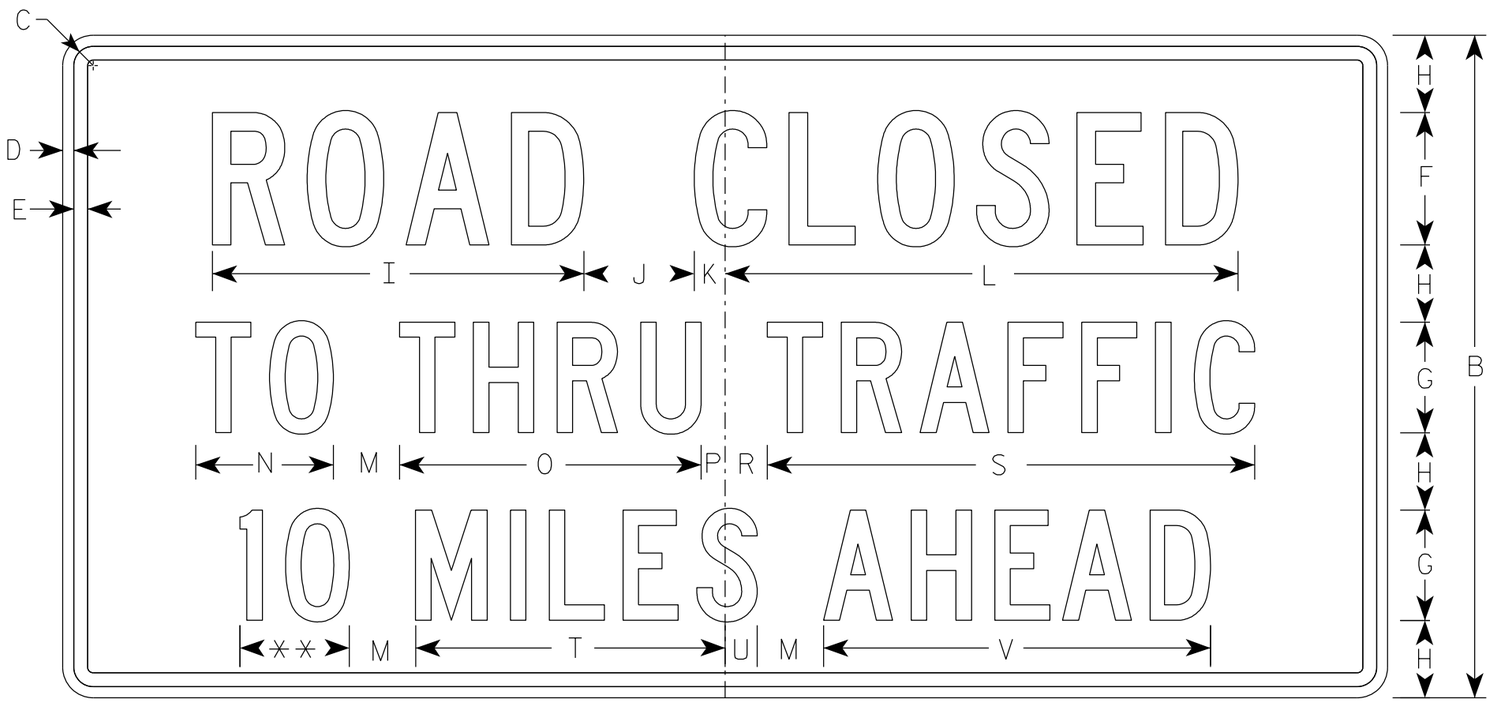
SHEET NO: 107 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112B.DGN PLOT DATE : 01-APR-2011 14:23 PLOT BY : mscj9h

WISDOT/CADDS SHEET 42

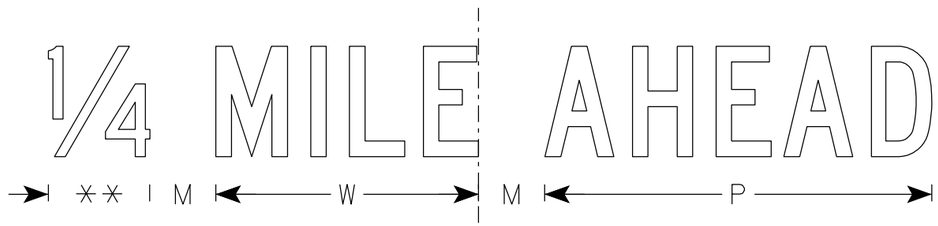
NOTES

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



R11-3

** See Note 5



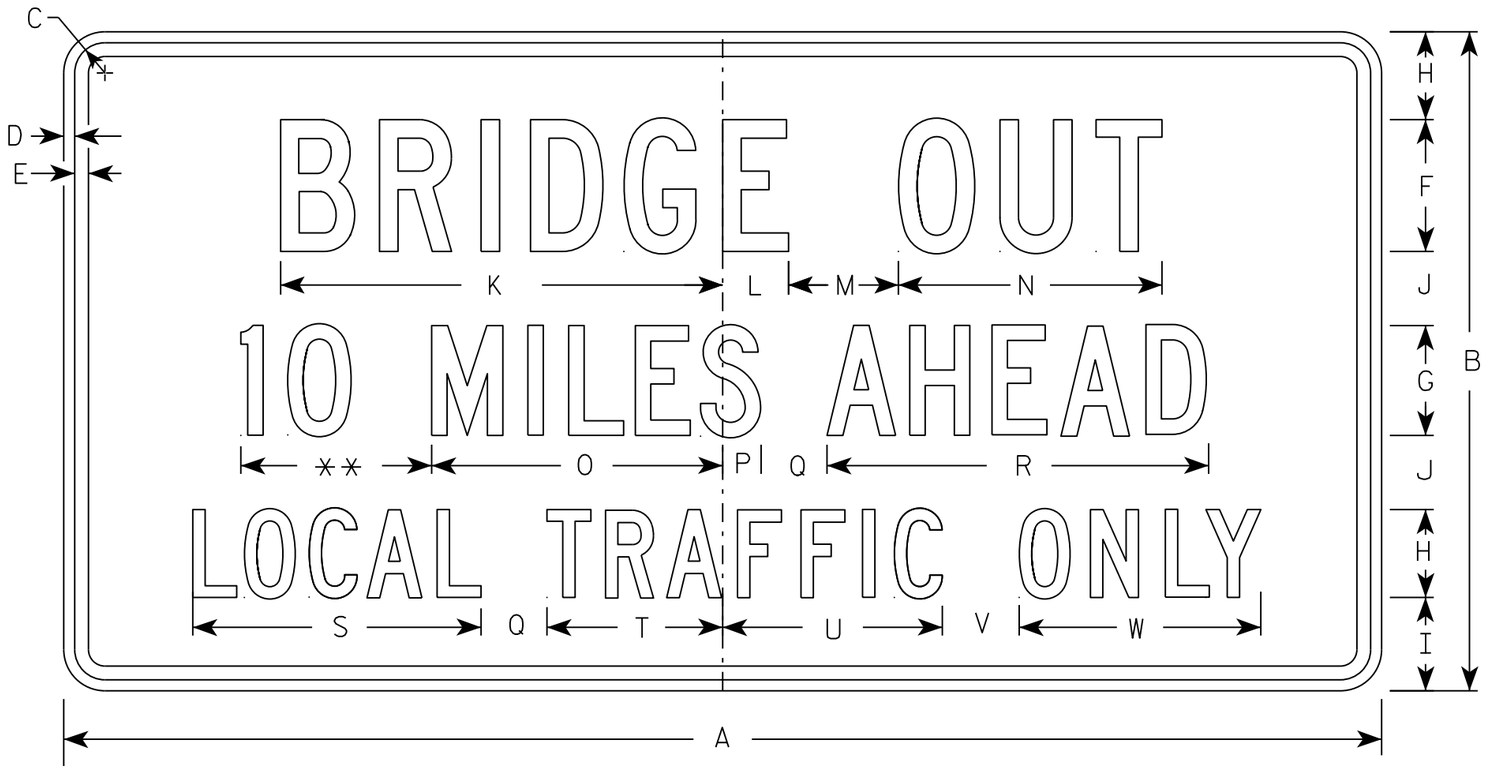
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/4	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8				4.5
2S	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5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

STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

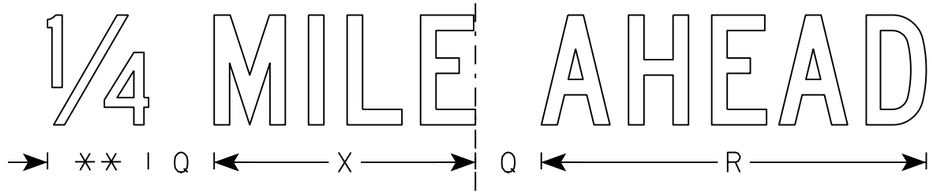
APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 6/14/2021 PLATE NO. R11-3.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 108	E



R11-3B

** See Note 5



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4	7 1/8			4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
3																											
4																											
5																											

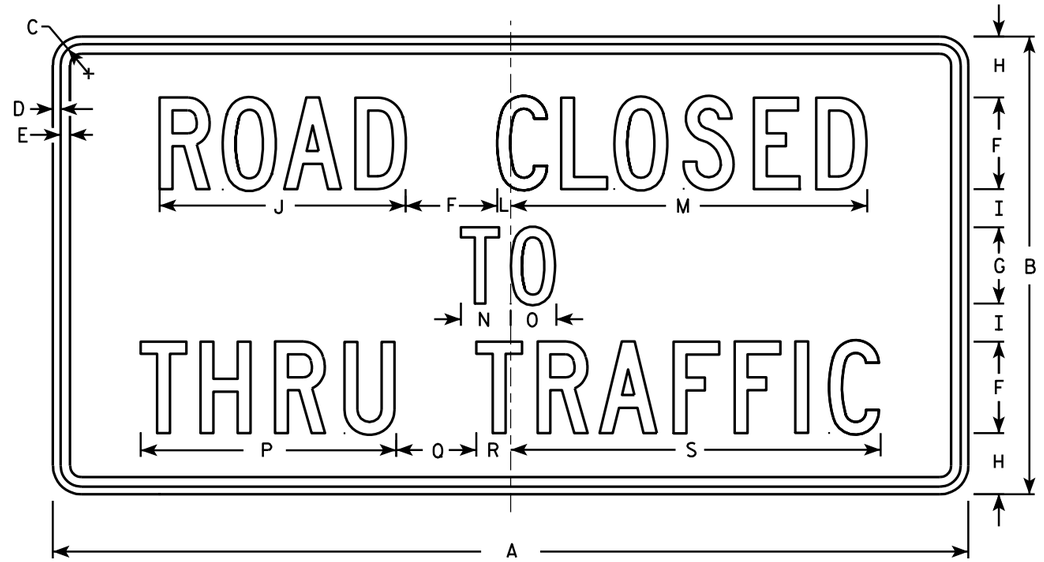
STANDARD SIGN
R11-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. R11-3B.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 109 | E



R11-4

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

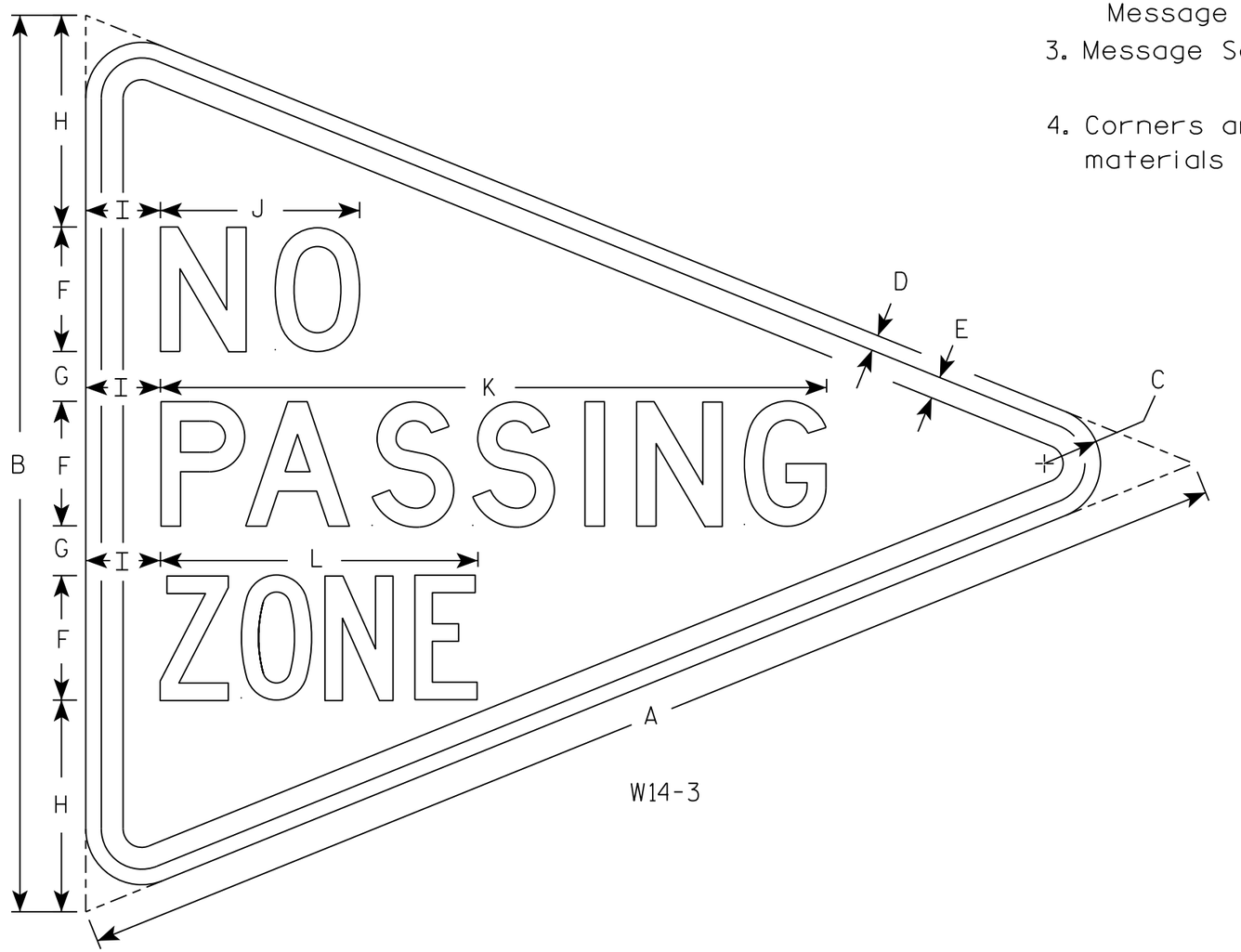
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 110 | E

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - Lines 1 and 2 are Series D.
   Line 3 is series C.
4. Corners and borders shall be rounded on all base materials for this sign.



W14-3

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	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															5.56
2M																											
3																											
4																											
5																											

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

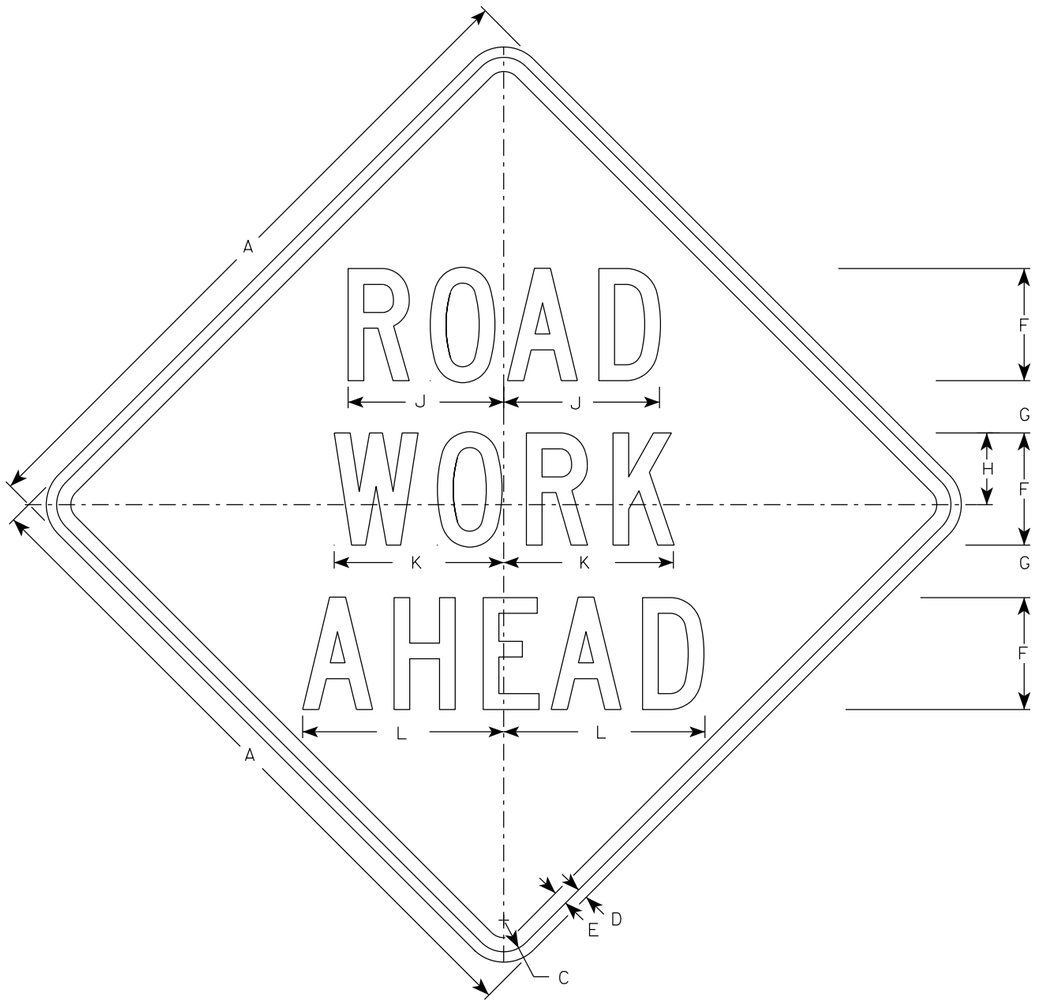
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W14-3.10

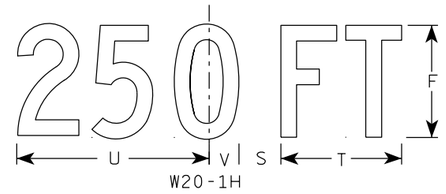
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 111	E

NOTES

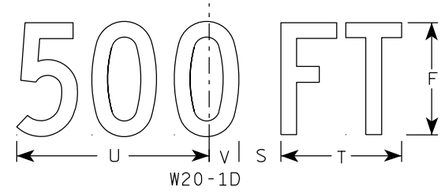
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



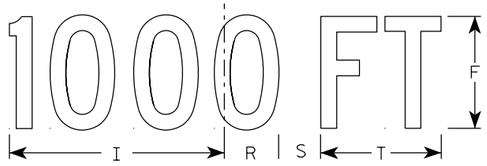
W20-1A



W20-1H

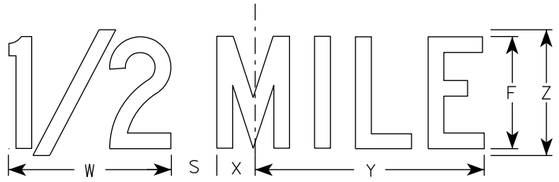


W20-1D

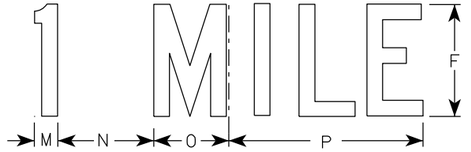


W20-1C

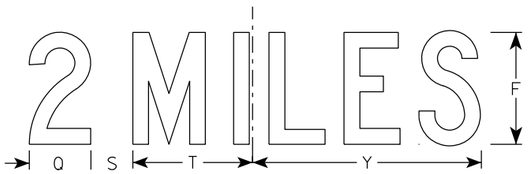
W20-1B



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

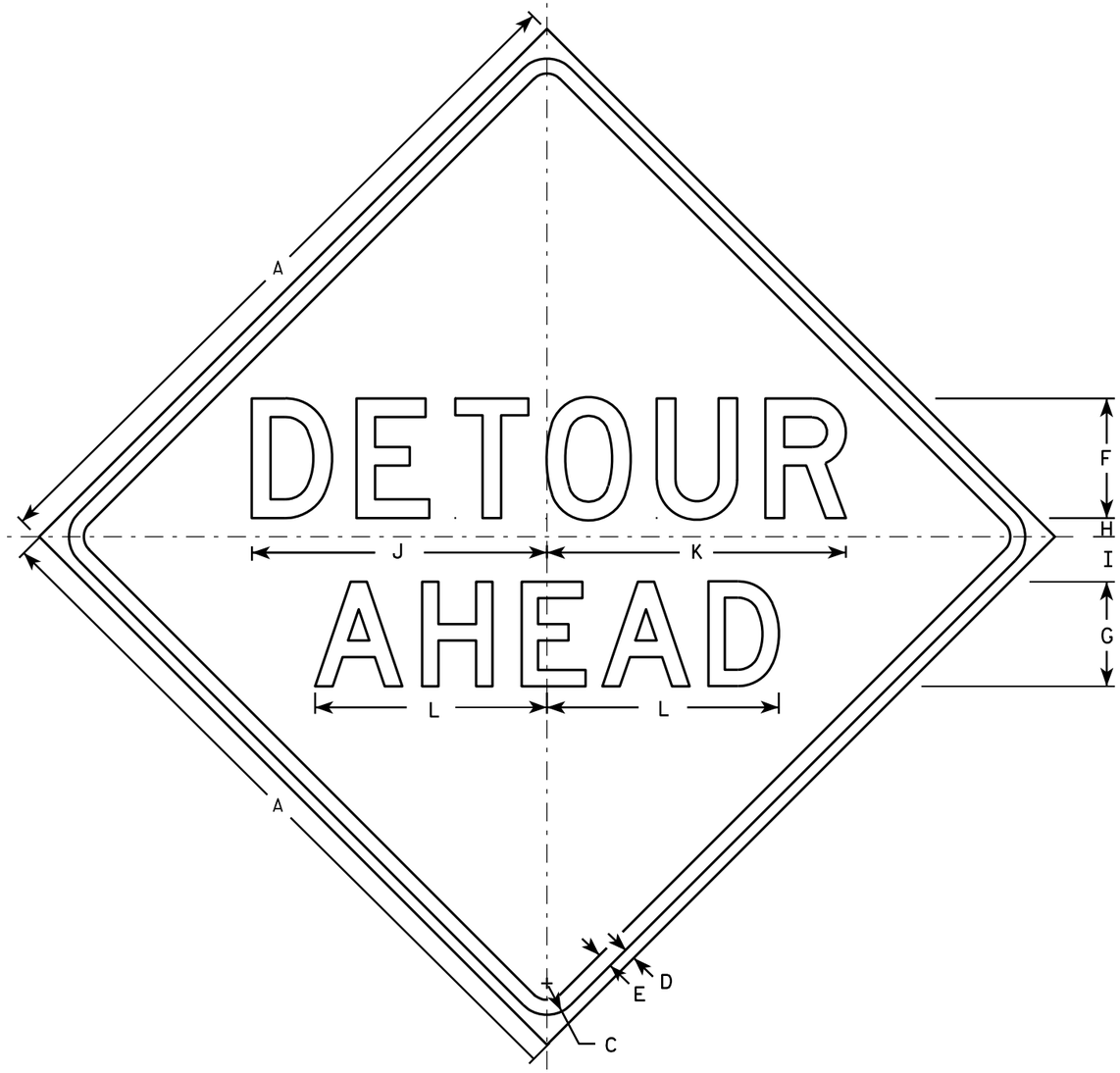
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

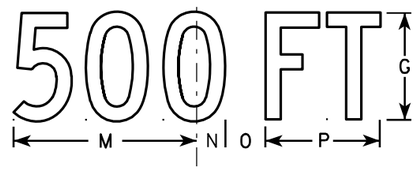
DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

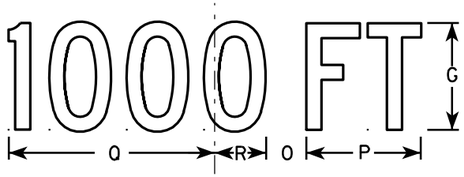
SHEET NO: E



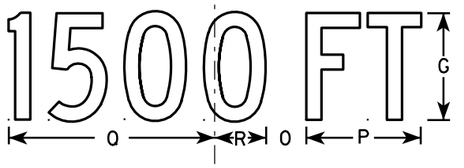
W20-2A



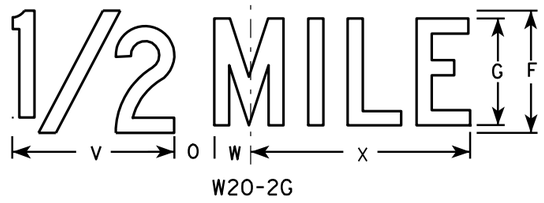
W20-2D



W20-2C



W20-2B



W20-2G

W20-2F

NOTES

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

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

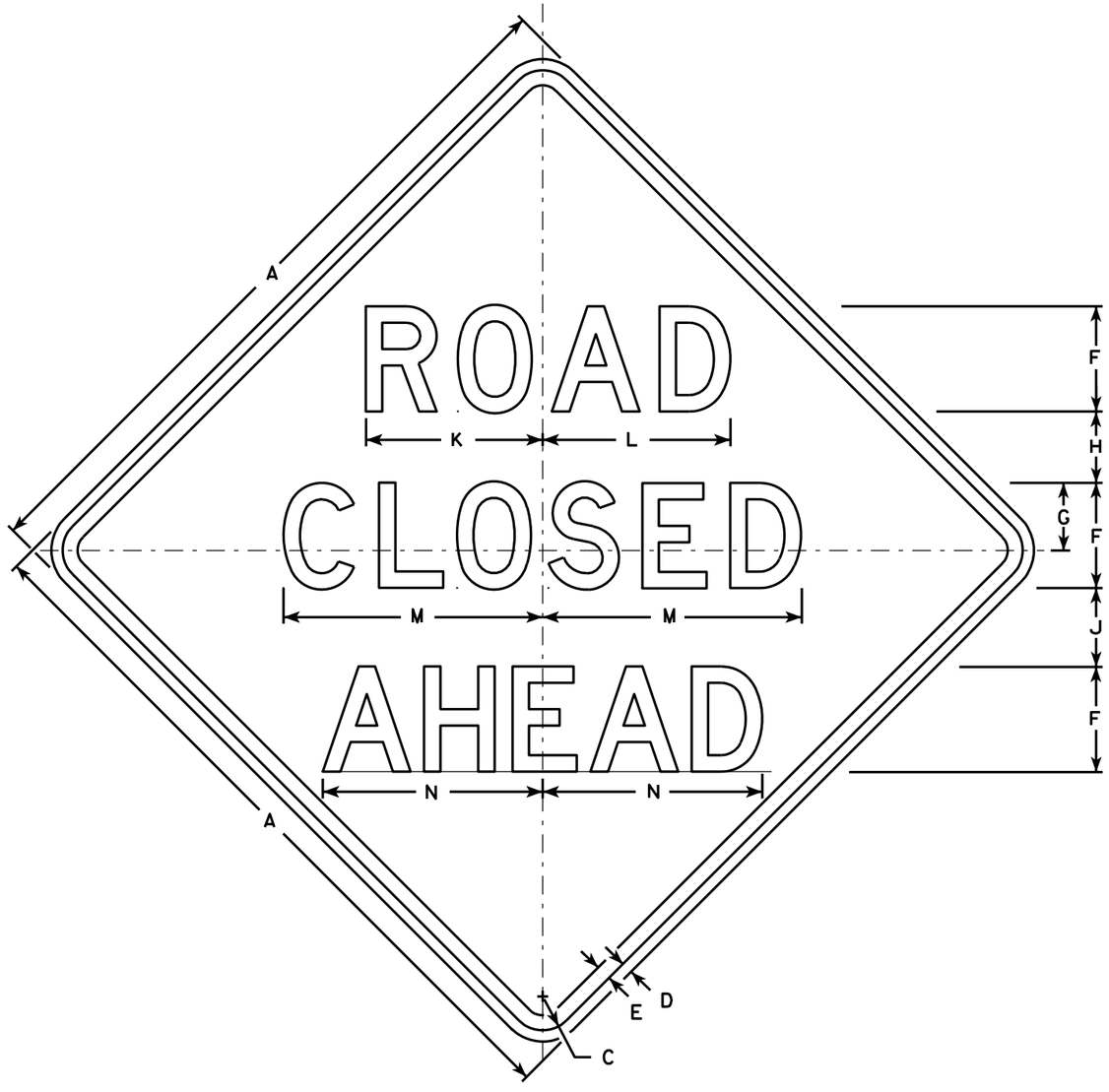
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

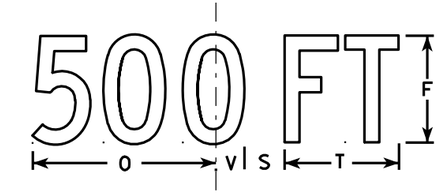
APPROVED Matthew R Rauch
for State Traffic Engineer

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

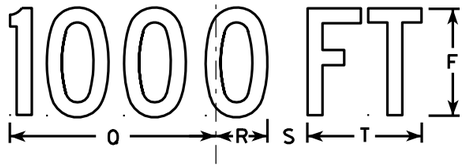
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 113	E



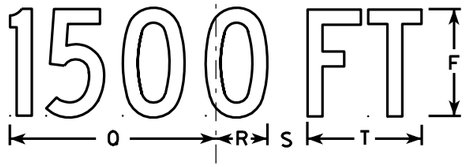
W20-3A



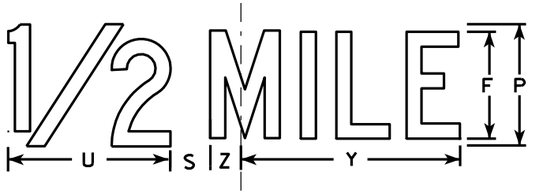
W20-3D



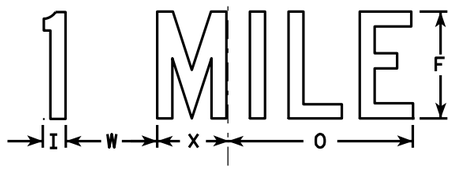
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

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

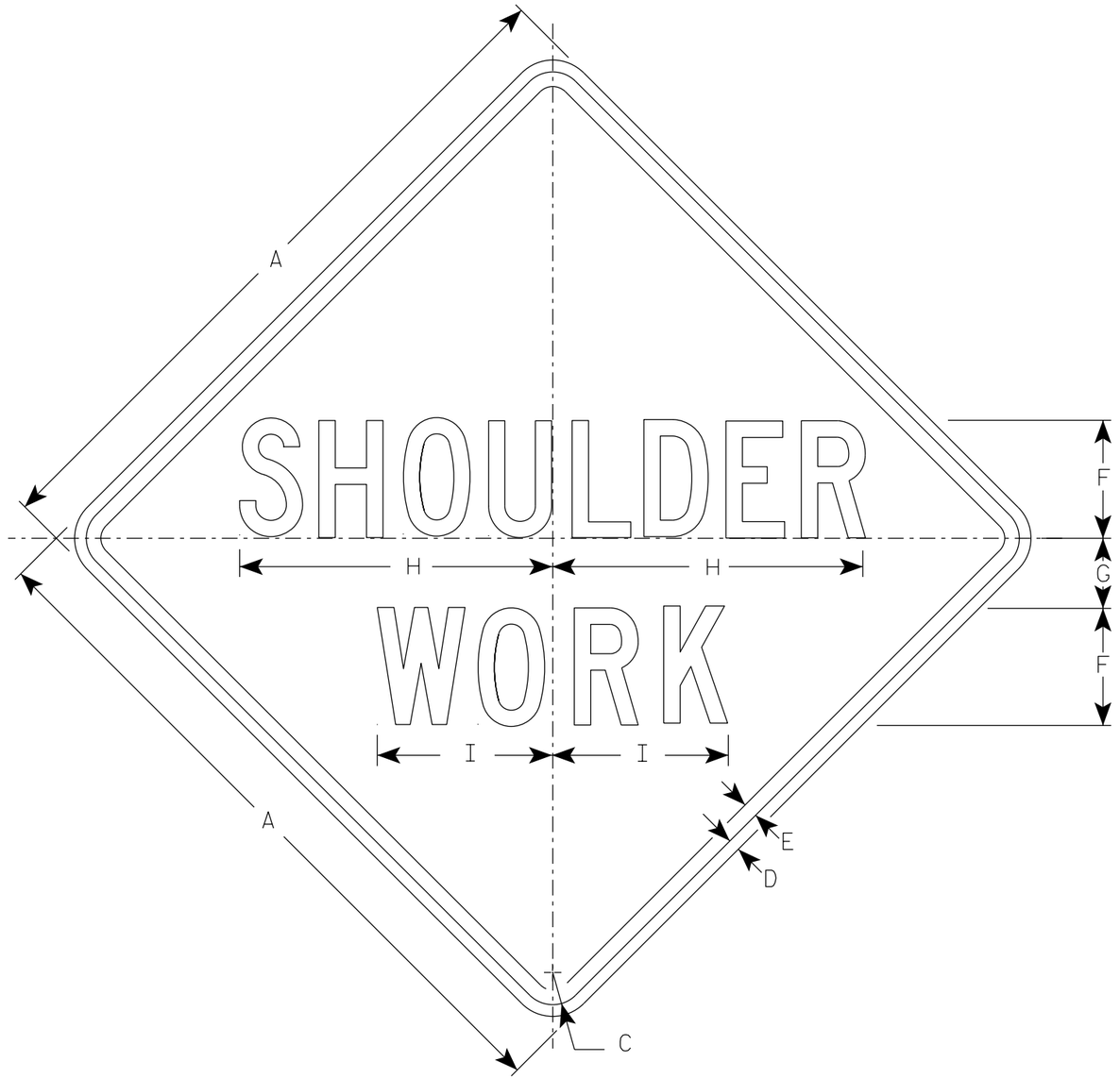
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 114 | E



W21-5

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	3 1/2	16	9																		9.0
2S	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
2M	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
3	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
4	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0

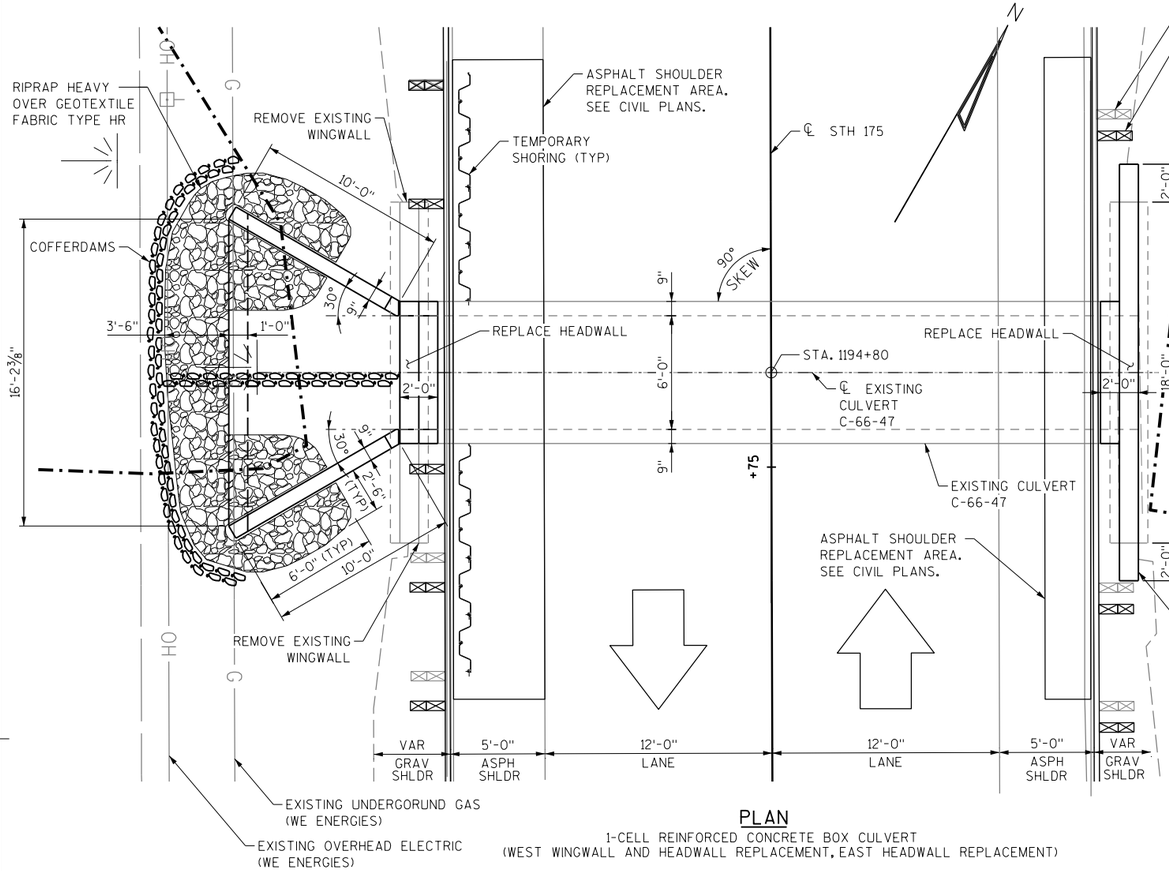
STANDARD SIGN
W21-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

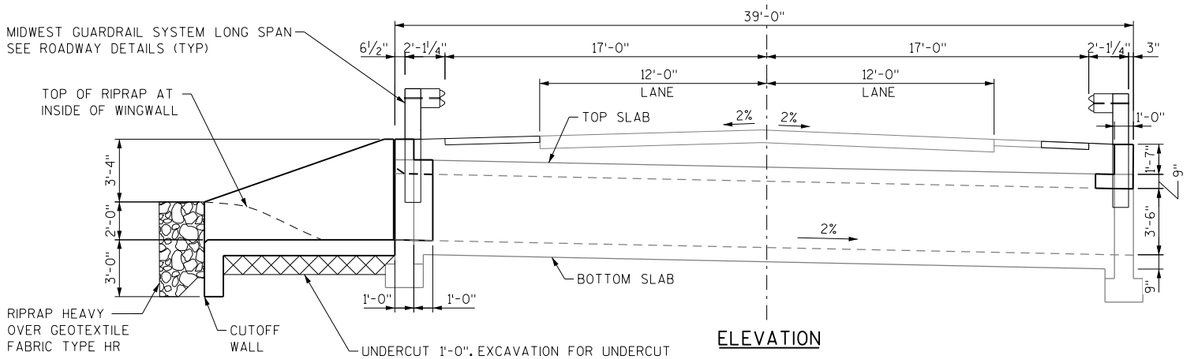
DATE 4/30/2020 PLATE NO. W21-5.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 115	E



PLAN

1-CELL REINFORCED CONCRETE BOX CULVERT
(WEST WINGWALL AND HEADWALL REPLACEMENT, EAST HEADWALL REPLACEMENT)



ELEVATION

LIST OF DRAWINGS:

1. GENERAL PLAN & ELEVATION
2. UPSTREAM APRON
3. DOWNSTREAM HEADWALL

DESIGN DATA

MATERIAL PROPERTIES:

CONCRETE MASONRY..... f'c = 3,500 psi
BAR STEEL REINFORCEMENT..... fy = 60,000 psi

TRAFFIC DATA

STH 175
AADT (2019) = 4,100

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK, PE
(608) 261-0261

CONSULTANT:
WILLIAM J. ZIPPEL, PE, SE
ALFRED BENESCH & CO
1300 W CANAL ST, SUITE 150
MILWAUKEE, WI 53233
(414) 308-1321

GENERAL NOTES:

1. DRAWINGS SHALL NOT BE SCALED.
2. DIMENSIONS AND ELEVATIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS
3. BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
4. THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
5. ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS NOTED OTHERWISE. STATIONS AND ELEVATIONS ARE IN FEET.
6. BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.
7. THE UPPER LIMITS FOR "EXCAVATION FOR STRUCTURES CULVERTS C-66-47" SHALL BE THE EXISTING GROUND LINE.
8. AT THE BACK FACE OF THE WEST WINGWALLS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE WINGWALL CONSTRUCTION AND NOT ACCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE B.
9. THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON SHEET 3 OF THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO THE BID ITEM "EXCAVATION FOR STRUCTURES CULVERTS C-66-47". LIMITS OF EXCAVATION SHALL BE DETERMINIED BY THE CONTRACTOR.
10. THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR, ORIGINAL CONSTRUCTION YEAR IS 1925.
11. UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE. EXISTING BARS SHALL BE CLEANED AND STRAIGHTENED.
12. TRANSVESE SAWCUTTING OF TOP SLAB SHALL BE PARTIAL DEPTH TO PREVENT SLURRY FROM POURING THROUGH INTO WATERWAY. FINAL REMOVAL SHALL BE DONE WITH BREAKER.
13. REMOVE CONCRETE DEBRIS RESULTING FROM CONCRETE REMOVAL FROM THE WATERWAY
14. TEMPORARY SHORING SHALL NOT BE PLACED WITHIN THE 12'-0" WIDE DRIVING LANES OF STH 175. EXACT LOCATION AND LIMITS OF TEMPORAY SHORING SHALL BE DETERMINED BY THE CONTRACTOR.
15. CONCRETE IN THE CUTOFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED. THE ALTERNATIVE CUTOFF WALL DETAIL SHOWN ON SHEET 3 OF THE PLANS MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUTOFF WALL. PAYMENT SHALL BE BASED ON THE CONCRETE CUTOFF WALL.

CONCRETE REPAIR NOTES:

1. ALL CONCRETE REMOVAL FOR CONCRETE SURFACE REPAIR SHALL BE DEFINED BY A ½" DEEP SAW CUT.
2. CLEAN COAT AND SECURE EXISTING REINFORCING STEEL. ADDITIONAL REINFORCING STEEL SHALL BE TIED IN PLACE TO EXISTING REINFORCEMENT STEEL AS SHOWN IN THE DETAILS AND AS DIRECTED BY THE ENGINEER.
3. THE ITEM "REMOVING LOOSE CONCRETE" IS INTENDED FOR USE AT AREAS OF SPALLING AND DELAMINATION ON THE UNDERSIDE OF THE TOP SLAB. THE QUANTITY IS APPROXIMATE AND THE EXACT LIMITS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
4. CONCRETE SURFACE REPAIR AREAS OF SPALLING AND DELAMINATION ON THE CULVERT WALLS AND WINGWALLS AT LOCATIONS DETERMINIED BY THE ENGINEER.

TOTAL ESTIMATE OF QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS C-66-47	EACH	1
204.9165.S	REMOVING LOOSE CONCRETE	SF	15
206.2001	EXCAVATION FOR STRUCTURES CULVERTS C-66-47	EACH	1
206.5001	COFFERDAMS C-66-47	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	90
311.0110	BREAKER RUN	TON	12
502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	54
504.0100	CONCRETE MASONRY CULVERTS	CY	10
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	288
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	708
505.0904	BAR COUPLERS NO. 4	EACH	10
509.1500	CONCRETE SURFACE REPAIR	SF	5
511.1200	TEMPORARY SHORING C-66-47	SF	130
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	13
606.0300	RIPRAP HEAVY	CY	18
645.0105	GEOTEXTILE TYPE C	SY	17
645.0120	GEOTEXTILE TYPE HR	SY	10
	NON-BID ITEMS		
	JOINT FILLER - ¾"		
	NAME PLATE		

STATE PROJECT NUMBER

3360-17-70

NO.	DATE	REVISION	BY

benesch
Alfred Benesch & Company
1300 West Canal Street, Suite 150
Milwaukee, Wisconsin 53233
414-308-1310 Job No. 20289.00

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ SDR 10/26/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE C-66-47

STH 175 OVER WATERWAY

COUNTY WASHINGTON | TOWN ~~CITY/VILLAGE~~ RICHFIELD

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	JAP	DESIGN CK'D.	WJZ	DRAWN BY	HRC	PLANS CK'D.	WJZ

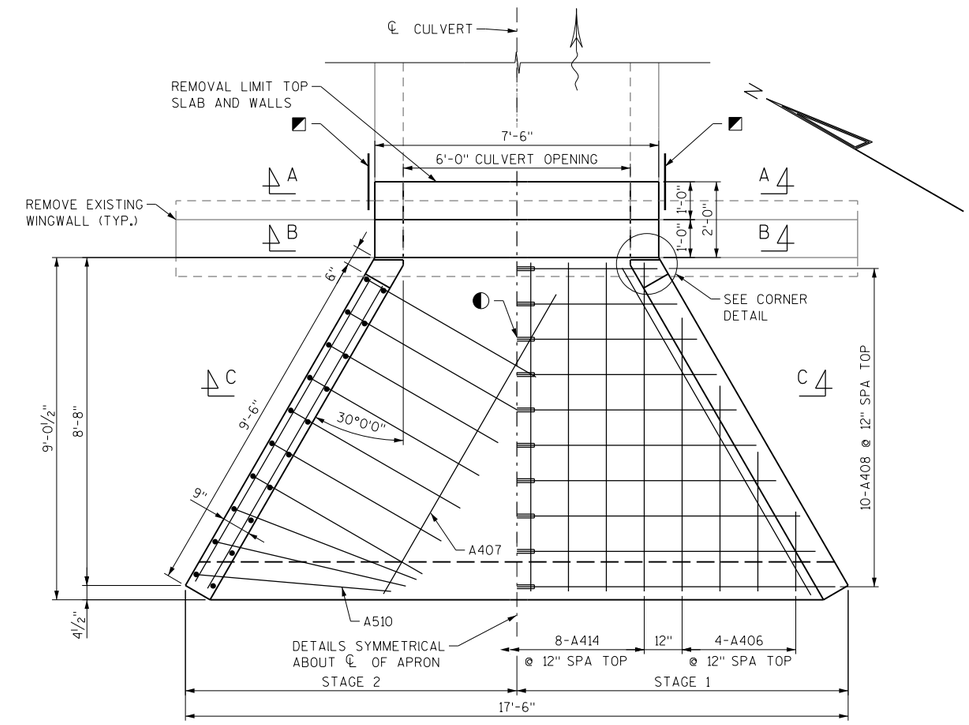
GENERAL PLAN & ELEVATION

SHEET 1 OF 3

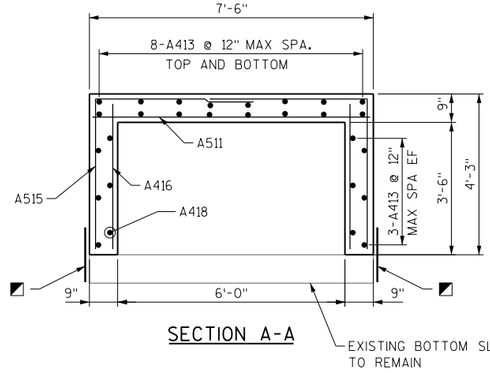
116

FILE= C-66_47-010_GP_DGN
SCALE = 1:8

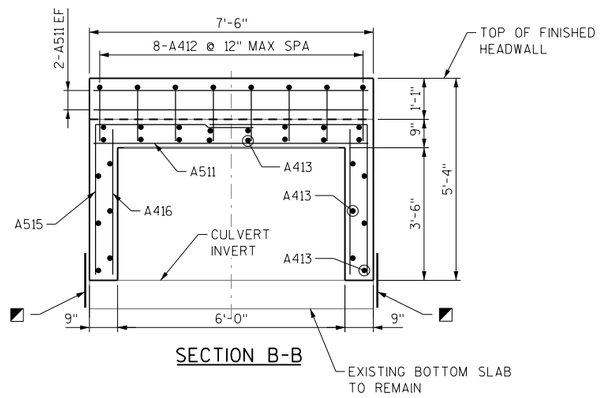
STATE PROJECT NUMBER
3360-17-70



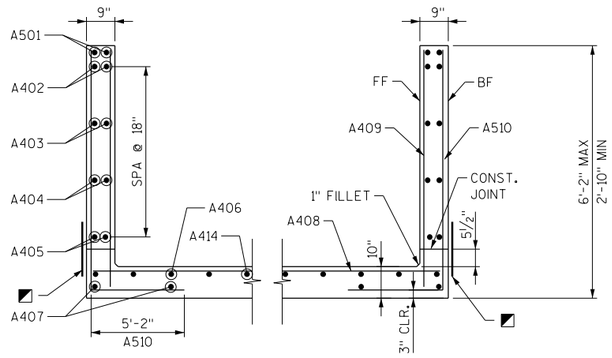
APRON DETAIL



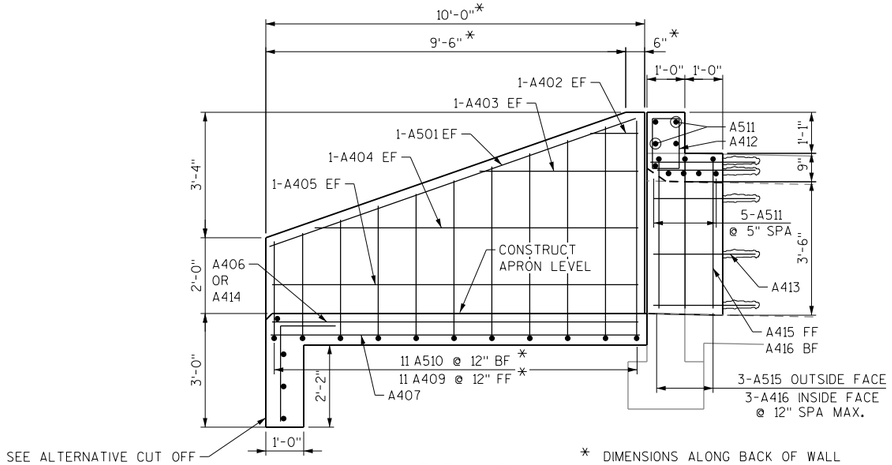
SECTION A-A



SECTION B-B

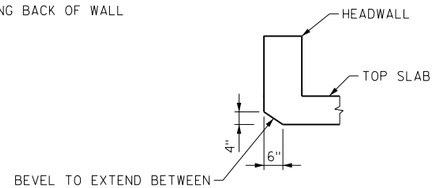


SECTION C-C

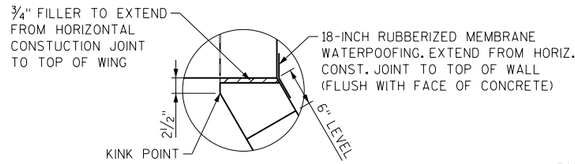


ELEVATION
WING AND PORTION OF BARREL

* DIMENSIONS ALONG BACK OF WALL



INLET DETAIL



CORNER DETAIL

BILL OF BARS

	BAR NO.	COATED BAR	NO. REQ'D	LENGTH	BENT BAR	BAR SERIES	470 # COATED 288 # UNCOATED LOCATION
	A501	X	4	10'-1"			WINGWALL TOP DIAGONAL
	A402	X	4	1'-3"			WINGWALL HORIZONTAL
	A403	X	4	5'-0"			WINGWALL HORIZONTAL
	A404	X	4	8'-9"			WINGWALL HORIZONTAL
	A405	X	4	9'-7"			WINGWALL HORIZONTAL
	A406		8	4'-7"		⚠	APRON LONGITUDINAL
◐	A407		4	9'-8"			APRON BOTTOM OUTSIDE CORNERS
◐	A408		20	6'-1"		⚠	APRON TRANSVERSE
	A409	X	22	4'-1"		⚠	WINGWALL VERTICAL FF
	A510	X	22	9'-2"	X	⚠	WINGWALL VERTICAL BF
	A511	X	9	7'-2"			HEADWALL AND BARREL TRANSVERSE
	A412	X	8	4'-6"	X		HEADWALL VERTICAL
	A413		28	2'-3"			BARREL LONGITUDINAL ADHESIVE ANCHORS
	A414		8	8'-9"			APRON LONGITUDINAL
	A515		6	8'-2"	X		BARREL OUTSIDE CORNERS
	A416		6	3'-11"			BARREL INSIDE VERTICAL

BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
A406	2 SERIES OF 4	2'-0" TO 7'-2"
◐ A408	2 SERIES OF 10	3'-7" TO 8'-6"
A409	2 SERIES OF 11	2'-5" TO 5'-9"
A510	2 SERIES OF 11	7'-6" TO 10'-10"

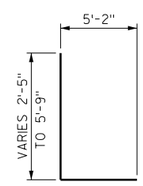
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

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

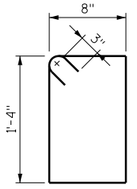
5" MIN EMBEDMENT AND 3" MIN COVER REQUIRED FOR #4 ADHESIVE ANCHORS.

◐ SEE BAR COUPLER DETAILS ON SHEET 3.

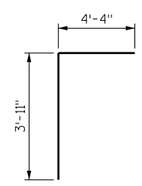
◩ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG ALL CONSTRUCTION JOINTS AND AT JOINTS BETWEEN EXISTING AND PROPOSED CONCRETE



A510



A412



A515

LEGEND
FF = FRONT FACE
BF = BACK FACE
EF = EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-66-47

DRAWN BY HRC | PLANS CK'D. WJZ

UPSTREAM APRON

SHEET 2 OF 3

117

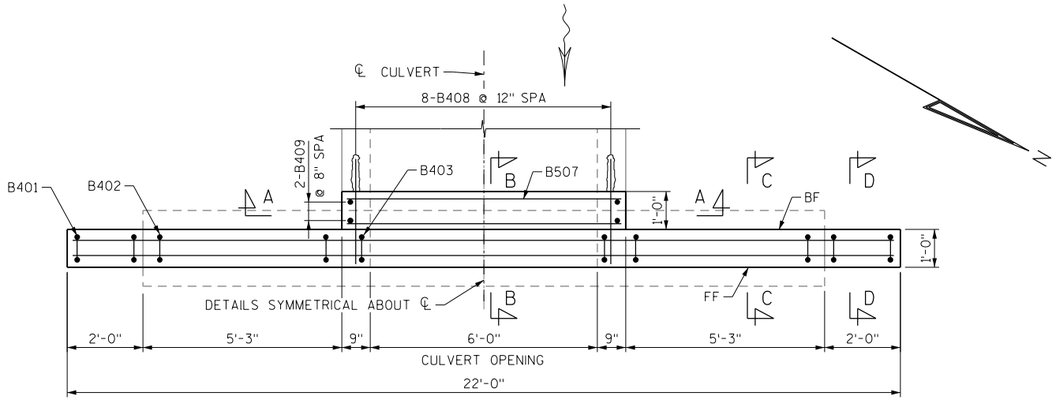
FILE= C-66.47-030_DETAILSOLDGN
SCALE = 1:4

8

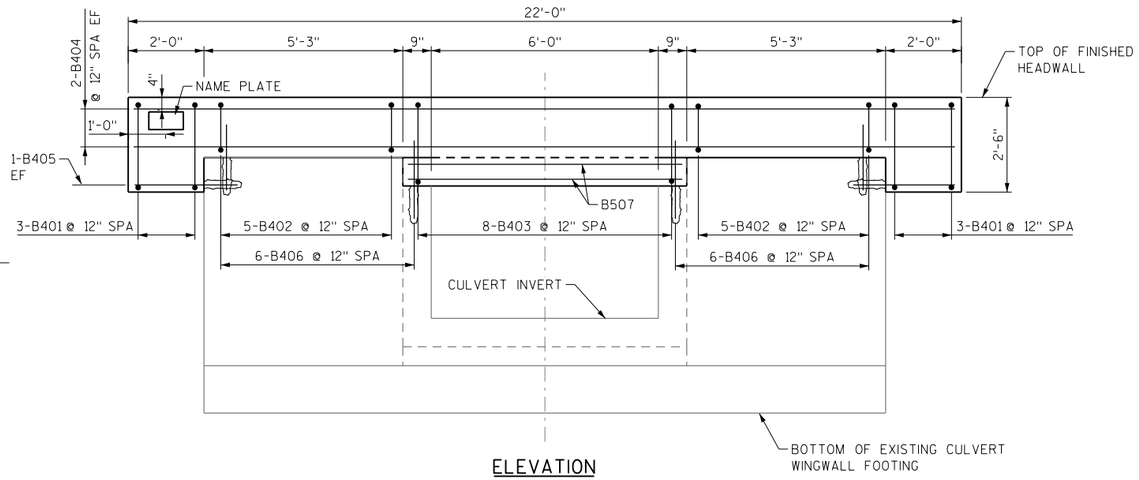
8

STATE PROJECT NUMBER

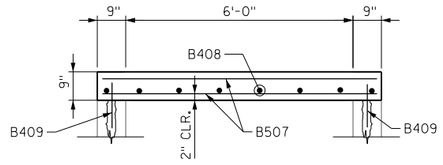
3360-17-70



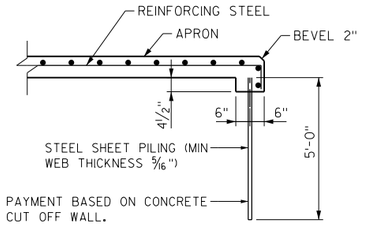
PLAN



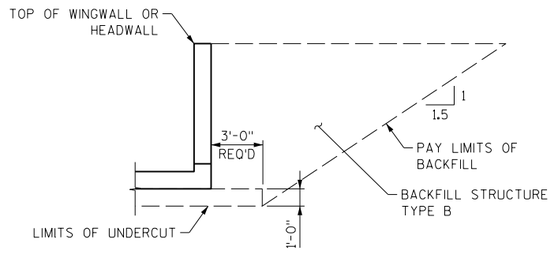
ELEVATION



SECTION A-A



ALTERNATIVE CUT-OFF WALL
FOR USE AT UPSTREAM APRON



TYPICAL BACKFILL PAY LIMITS

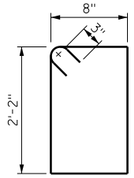
BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BAR SERIES	238 # COATED 0 # UNCOATED — LOCATION
B401	X	6	6'-2"	X		HEADWALL VERTICAL
B402	X	10	4'-4"	X		HEADWALL VERTICAL
B403	X	8	5'-10"	X		HEADWALL VERTICAL
B404	X	4	21'-8"			HEADWALL HORIZONTAL
B405	X	4	2'-3"			HEADWALL HORIZONTAL ADHESIVE ANCHOR
B406	X	12	1'-9"			HEADWALL VERTICAL ADHESIVE ANCHOR
B507	X	8	7'-2"			BARREL TRANSVERSE
B408	X	8	2'-3"			BARREL LONGITUDINAL ADHESIVE ANCHOR
B409	X	4	11"			BARREL VERTICAL ADHESIVE ANCHOR

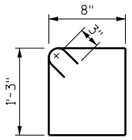
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

5" MIN EMBEDMENT AND 3" MIN COVER REQUIRED FOR #4 ADHESIVE ANCHORS.

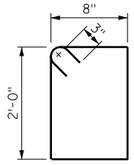
◥ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG ALL CONSTRUCTION JOINTS AND AT JOINTS BETWEEN EXISTING AND PROPOSED CONCRETE



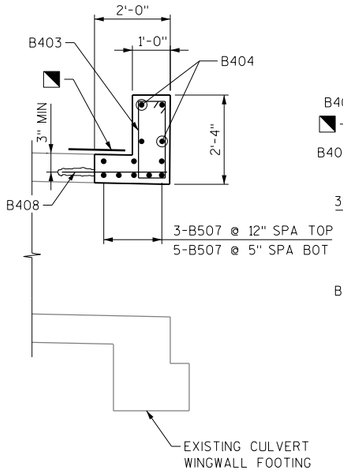
B401



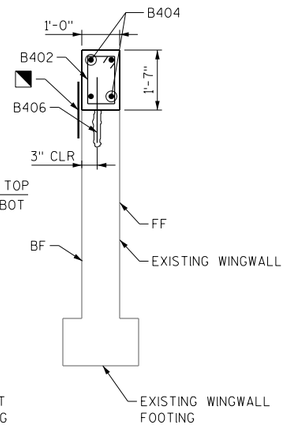
B402



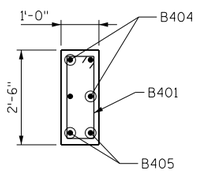
B403



SECTION B-B



SECTION C-C



SECTION D-D

LEGEND
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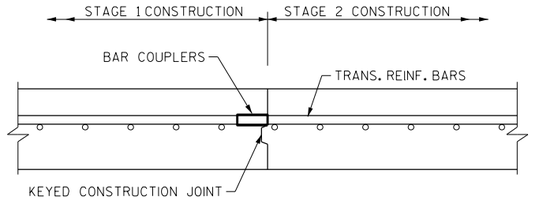
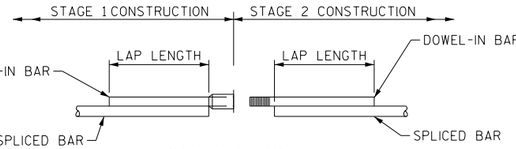
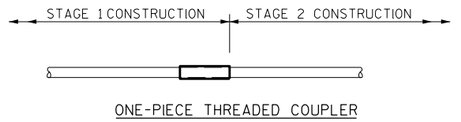
BF = BACK FACE
EF = EACH FACE



SECTION THRU APRON
ONE-PIECE THREADED COUPLER SHOWN



DOWEL BAR COUPLER
STAGE 2 DOWEL SCREWS INTO COUPLER PLACED IN STAGE 1



ONE-PIECE THREADED COUPLER

BAR COUPLER ALTERNATIVES

BAR COUPLER NOTES

FOR DOWEL BAR COUPLERS, ALL DOWEL BARS SHALL BE LAPPED AND TIED TO THE REINFORCEMENT BARS.

BAR COUPLERS REQUIRED FOR THE A408 BARS. BAR LENGTHS ARE COMPUTED TO THE ℄ OF THE CONSTRUCTION JOINT AND SHALL BE MODIFIED PER THE BAR COUPLER MANUFACTURERS RECOMMENDATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-66-47

DRAWN BY HRC | PLANS CK'D. WJZ

DOWNSTREAM HEADWALL

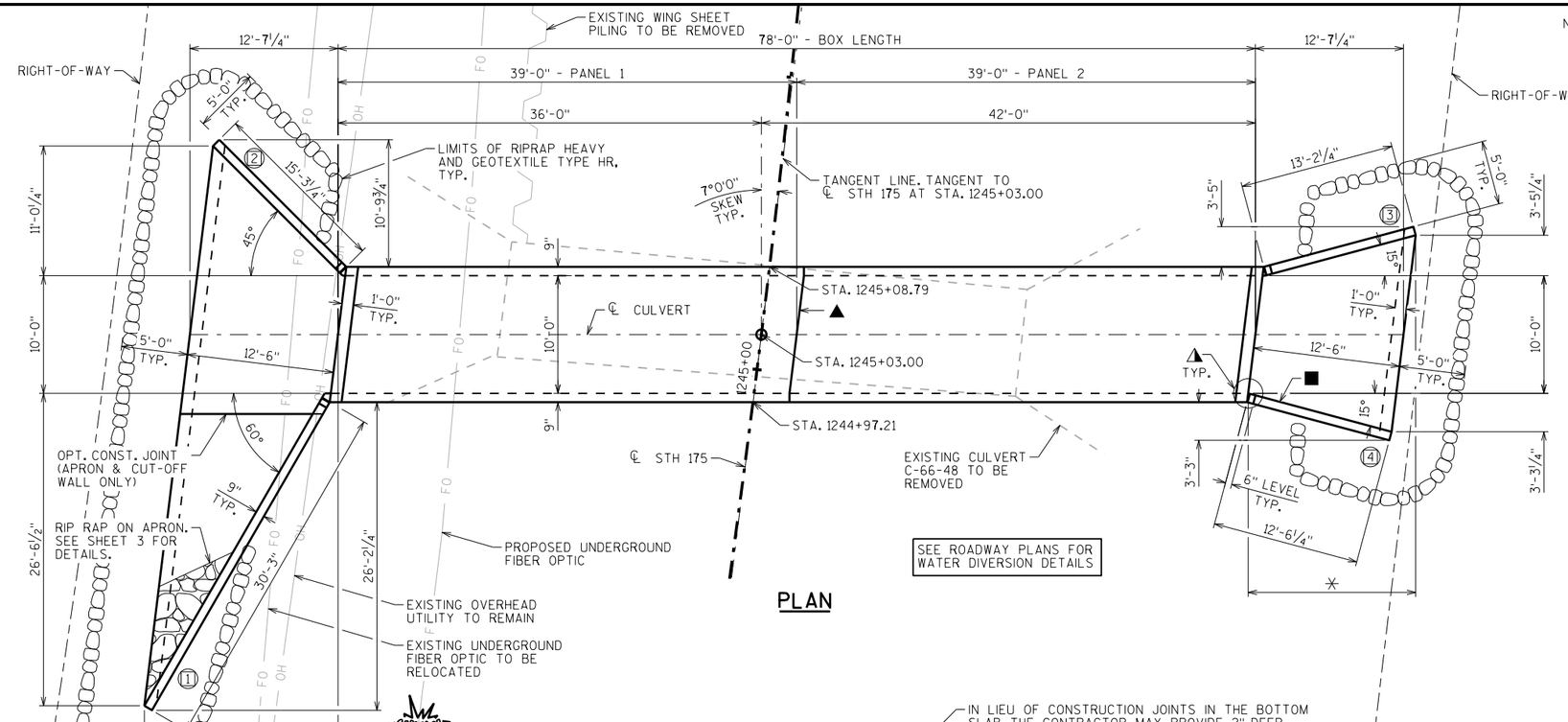
SHEET 3 OF 3

118

FILE= C-66.47-030.DETAILS02.DGN
SCALE = 1:4

8

8



STATE PROJECT NUMBER

3360-17-70

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

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-66-159" SHALL BE THE EXISTING GROUNDLINE.

ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

PLACE 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO 6" BELOW TOP OF BOTTOM SLAB.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS ON CHAPTER 36 STANDARDS OF THE CURRENT WISC. DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER, IN LIEU OF THE BREAKER RUN, TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL.

EXISITING STRUCTURE, C-66-48, IS A SINGLE CELL CONCRETE BOX CULVERT AND SHALL BE REMOVED. REMOVAL OF SHEET PILING AT NORTHWEST WING IS ALSO INCLUDED IN THE "REMOVING STRUCTURE C-66-48" BID ITEM.

STRUCTURE DESIGN CONTACTS:

ADAM SWIERCZEK (608) 267-4593
DOMINIQUE BECHLE (608) 261-8205

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0220	REMOVING STRUCTURE C-66-48	EACH	1
206.2001	EXCAVATION FOR STRUCTURES CULVERTS C-66-159	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	1,038
311.0115	BREAKER RUN	CY	92
504.0100	CONCRETE MASONRY CULVERTS	CY	110
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	15,860
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,220
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	21
606.0300	RIPRAP HEAVY	CY	51
645.0105	GEOTEXTILE TYPE C	SY	263
645.0120	GEOTEXTILE TYPE HR	SY	136
	NON-BID ITEMS		
	FILLER	SIZE	¾"

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.22
OPERATING RATING FACTOR: RF = 1.59
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250 (KIPS)

EARTHLOAD:
DESIGNED FOR 5.5 TO 8.5 FT. OF FILL

MATERIAL PROPERTIES:
CONCRETE MASONRY: ——— f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT:
GRADE 60 ——— fy = 60,000 P.S.I.

HYDRAULIC DATA

100 YEAR FREQUENCY
Q_{100} = 285 C.F.S.
$VEL._{100}$ = 9.7 F.P.S.
$HW._{100}$ = EL. 919.48
WATERWAY AREA = 60 SQ. FT.
DRAINAGE AREA = 2.6 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 8

2 YEAR FREQUENCY
Q_2 = 80 C.F.S.
$VEL._2$ = 3.5 F.P.S.
$HW._2$ = EL. 917.34

LIST OF DRAWINGS

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

TRAFFIC VOLUME

STH 175
ADT = 3,800 (2013)
R.D.S. = 60 M.P.H.

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED DMB 10/28/22
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE C-66-159

STH 175 OVER LITTLE CEDAR CREEK

COUNTY: WASHINGTON | TOWN: RICHFIELD

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	CK'D.	DRAWN BY	CK'D.
ABS	MJK	ABS	MJK

LAYOUT

SHEET 1 OF 6

119

I.D. 3360-17-00A

DATE: MARCH 2022

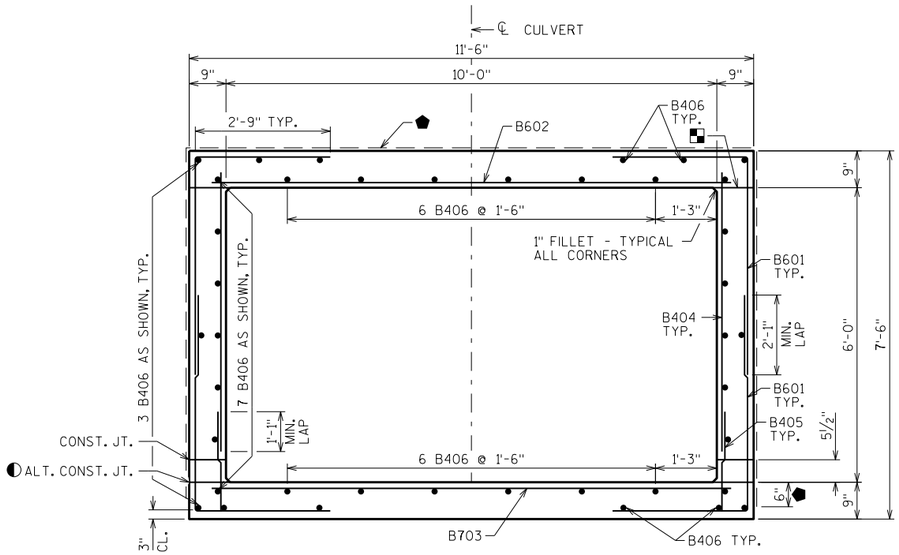
SCALE = 6.00

8

8

STATE PROJECT NUMBER

3360-17-70

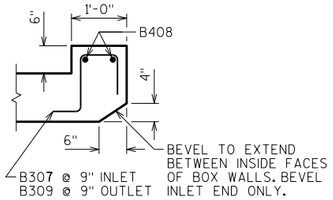


TYPICAL SECTION THRU BOX

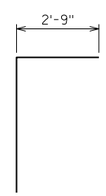
▪ OPTIONAL CONST. JOINT. OMIT 1" FILLET IF OPTIONAL CONST. JOINT IS USED.

◐ OMIT 1" FILLET IF ALT. CONST. JOINT IS USED.

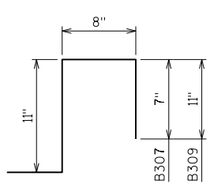
⬟ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL JOINTS UP THE WALLS AND ACROSS THE TOP SLAB.



SECTION THRU HEADER



B601

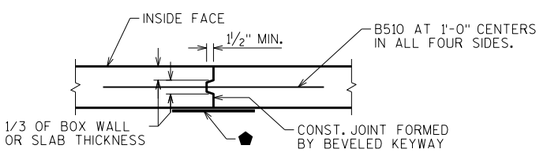


B307, B309

BILL OF BARS

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

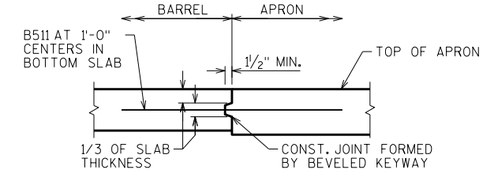
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B601		624	7'-2"	X		CORNERS
B602		118	11'-1"			TOP SLAB - TRANSVERSE
B703		118	11'-1"			BOT. SLAB - TRANSVERSE
B404		164	5'-11"			WALLS - VERT.
B405		164	2'-3"			WALLS - DOWELS - VERT.
B406		160	20'-7"			TOP & BOT. SLAB & WALLS - LONGIT.
B307		16	2'-6"	X		HEADER - VERT. - INLET
B408		4	11'-3"			HEADER - HORIZ.
B309		16	2'-10"	X		HEADER - VERT. - INLET
B510		34	4'-0"			DOWELS - VERT. CONST. JT.
B511		22	4'-0"			DOWELS - APRON CONNECTION



VERTICAL CONSTRUCTION JOINT

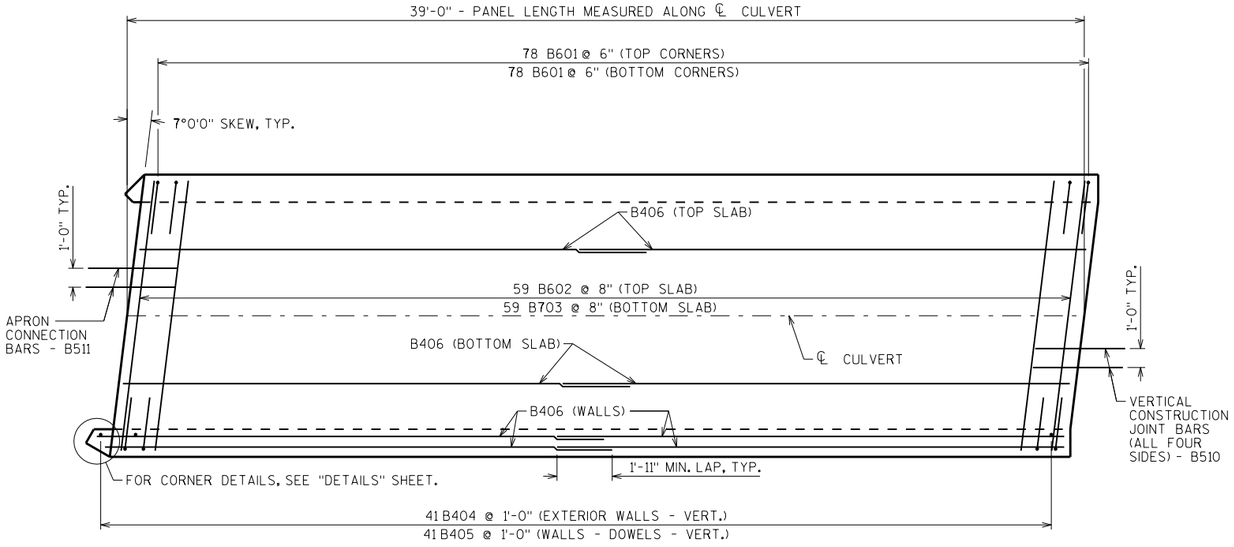
2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONST. JT. IN BOTTOM SLAB. B510 BARS REQUIRED.

⬟ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL JOINTS UP THE WALLS AND ACROSS THE TOP SLAB.



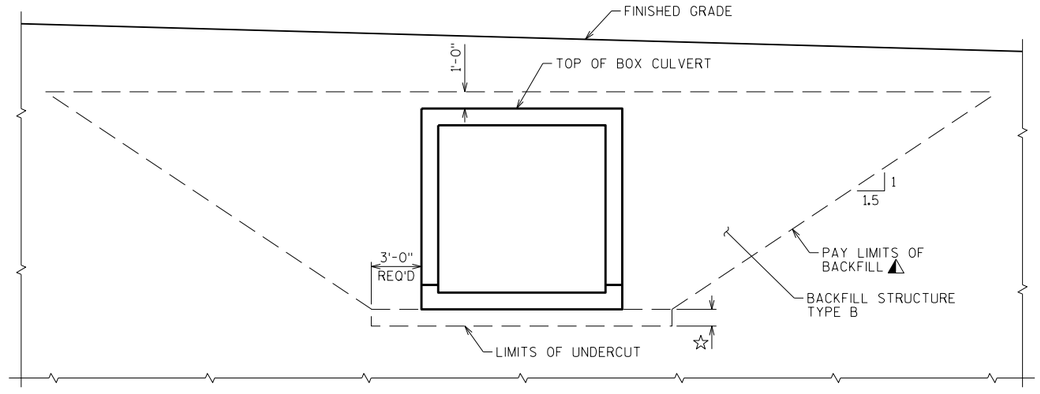
APRON CONNECTION DETAIL

2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONST. JT. IN BOTTOM SLAB. B511 BARS REQUIRED.



PLAN VIEW OF PANELS

HEADER & APRON NOT SHOWN FOR CLARITY.
PANEL 1 SHOWN. PANEL 2 SIMILAR.



TYPICAL SECTION THRU BOX CULVERT

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

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

IN LIEU OF USING BREAKER RUN FOR THE BOX CONSTRUCTION PLATFORM, THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL. THE REGION GEOTECHNICAL ENGINEER MAY BE CONTACTED TO DETERMINE IF "OTHER GRANULAR MATERIAL" IS ACCEPTABLE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-66-159

DRAWN BY ABS | PLANS CK'D. MJK

BOX DETAILS

SHEET 2

120

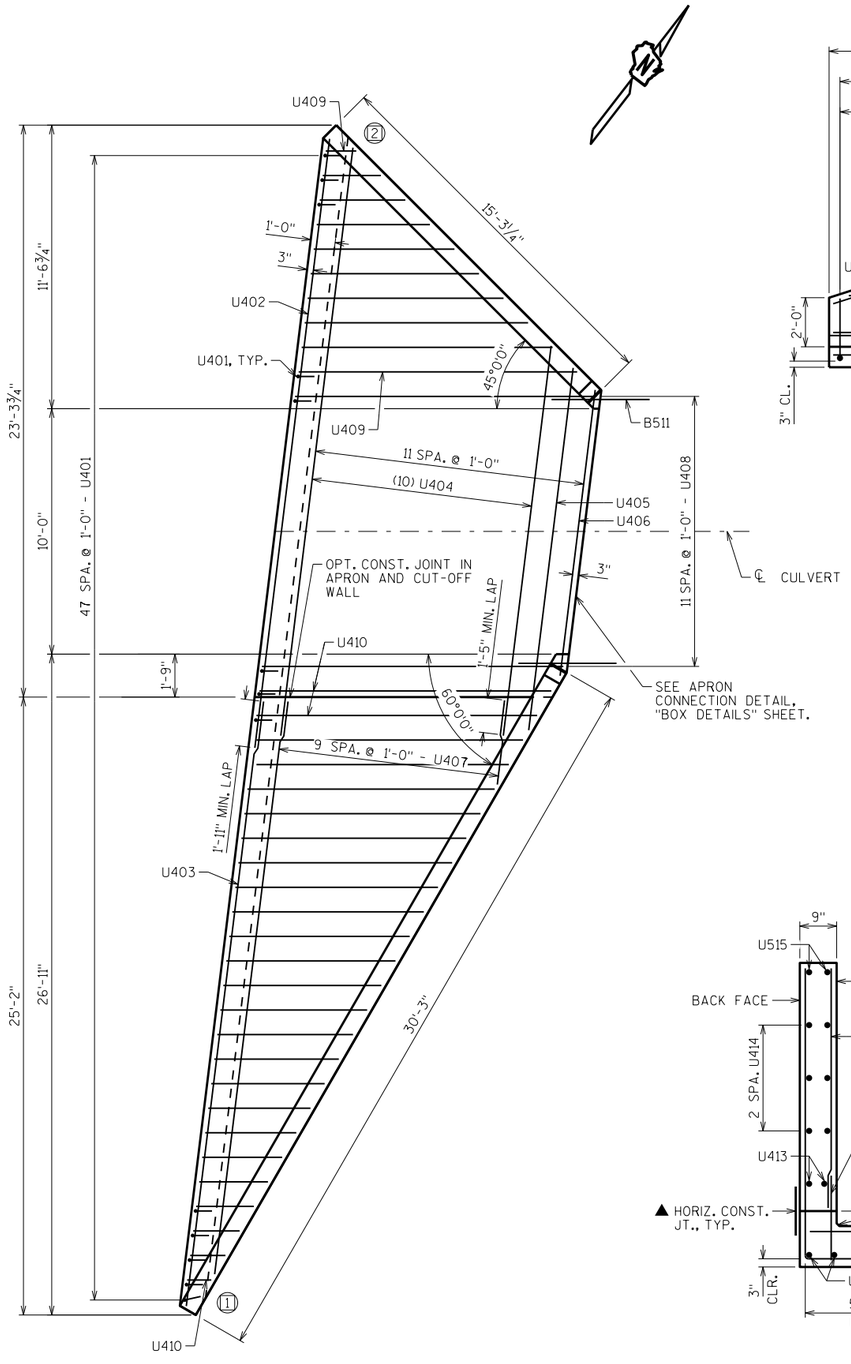
8

8

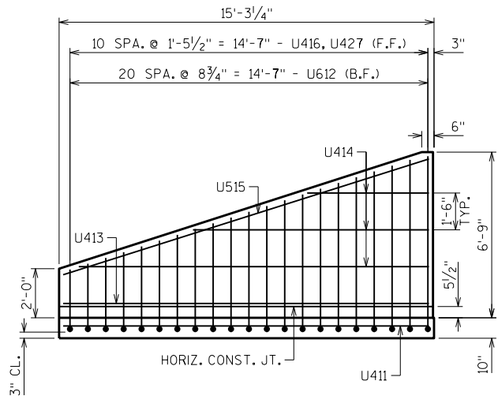
SCALE = 3.00

STATE PROJECT NUMBER

3360-17-70

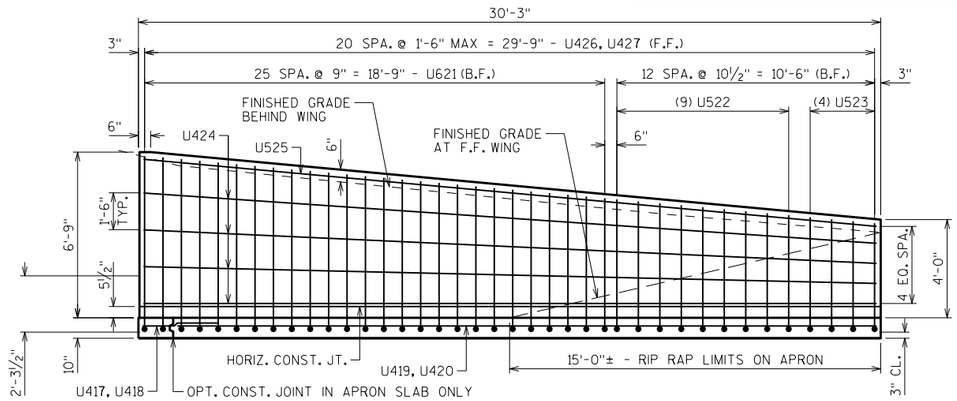


PLAN - INLET APRON



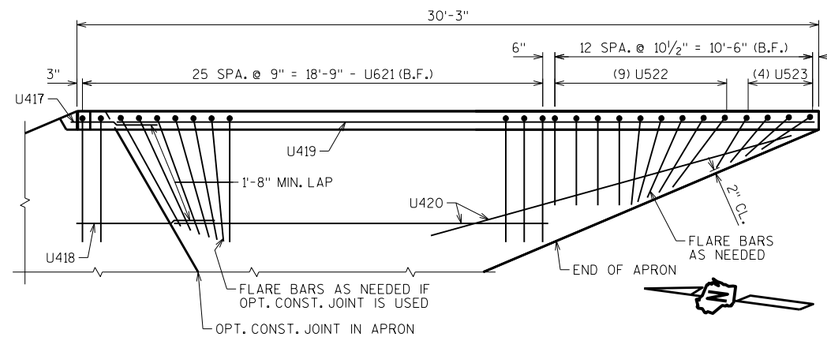
WING 2 ELEVATION

LOOKING NORTH AT F.F.
SHOWING B.F. REINFORCEMENT



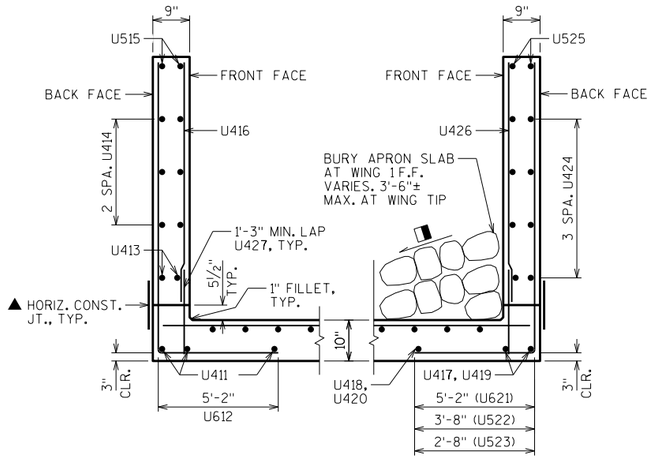
WING 1 ELEVATION

LOOKING EAST AT F.F.
SHOWING B.F. REINFORCEMENT



WING 1 PLAN

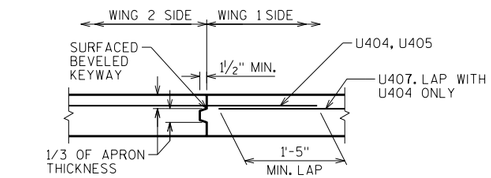
SHOWING B.F. WING REINFORCEMENT



WING 2 SECTION WING 1 SECTION

◨ SLOPE TO MATCH STREAM BANK. 1.5 MIN.:1 (H:V)

▲ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. CONSTR. JT. IN WING



OPTIONAL APRON & CUT-OFF WALL CONSTRUCTION JOINT

LOOKING EAST

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-66-159

DRAWN BY ABS | PLANS CK'D. MJK

INLET APRON DETAILS

SHEET 3

121

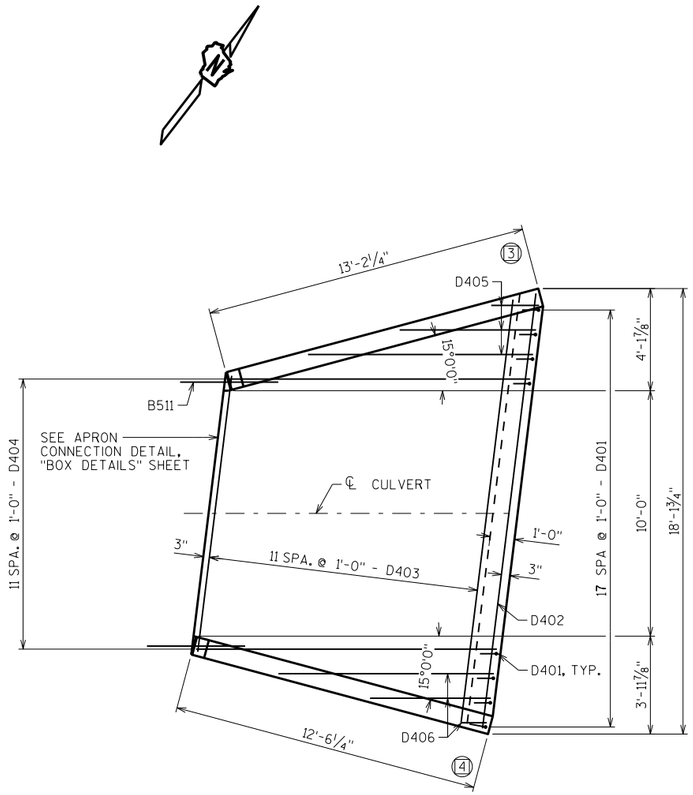
SCALE = 3.00

8

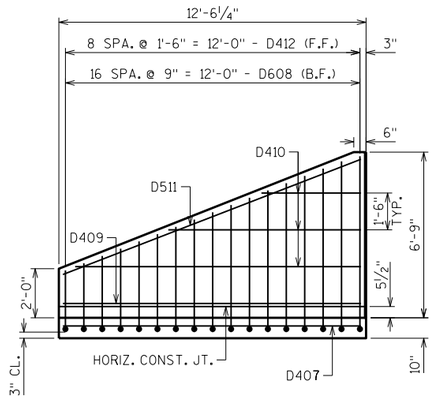
8

STATE PROJECT NUMBER

3360-17-70

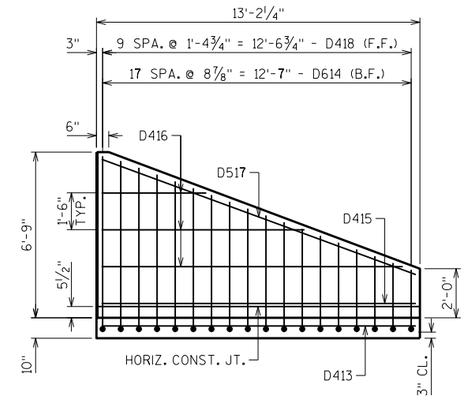


PLAN OUTLET APRON



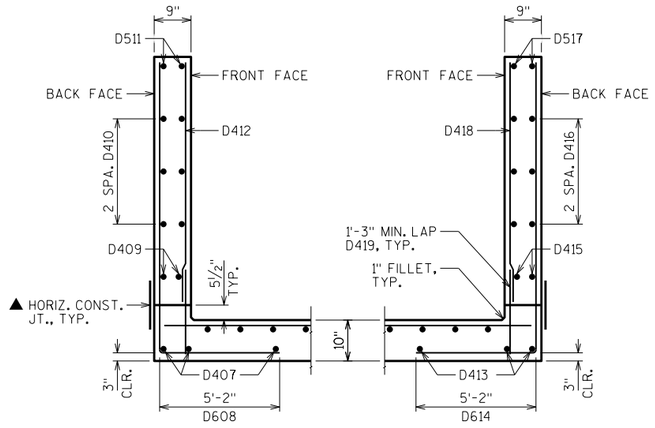
WING 4 ELEVATION

LOOKING SOUTH AT F.F.
SHOWING B.F. REINFORCEMENT



WING 3 ELEVATION

LOOKING WEST AT F.F.
SHOWING B.F. REINFORCEMENT



WING 4 SECTION WING 3 SECTION

▲ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. CONSTR. JT. IN WING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-66-159

DRAWN BY ABS | PLANS CK'D. MJK

OUTLET APRON DETAILS

SHEET 4

122

SCALE = 3.00

8

8

STATE PROJECT NUMBER

3360-17-70

BILL OF BARS

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

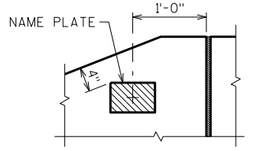
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
U401		48	3'-6"	X		INLET APRON & CUTOFF WALL - VERT.
U402		4	25'-0"			INLET APRON & CUTOFF WALL - HORIZ.
U403		4	24'-8"			INLET APRON & CUTOFF WALL - HORIZ.
U404		10	20'-0"		⚠	INLET APRON SLAB - HORIZ.
U405		1	14'-10"			INLET APRON SLAB - HORIZ.
U406		1	11'-8"			INLET APRON SLAB - HORIZ.
U407		10	13'-11"		⚠	INLET APRON SLAB - HORIZ.
U408		12	12'-3"			INLET APRON SLAB - HORIZ.
U409		10	6'-4"		⚠	INLET APRON SLAB - HORIZ.
U410		25	6'-6"		⚠	INLET APRON SLAB - HORIZ.
U411	X	3	14'-11"			WING 2 - HORIZ. - APRON SLAB
U612	X	21	9'-10"	X	⚠	WING 2 - VERT. B.F.
U413	X	2	14'-11"			WING 2 - HORIZ. - F.F. & B.F.
U414	X	6	9'-7"		⚠	WING 2 - HORIZ. - F.F. & B.F.
U515	X	2	15'-8"			WING 2 - HORIZ. - F.F. & B.F.
U416	X	11	3'-8"		⚠	WING 2 - VERT. - F.F.
U417	X	2	3'-6"			WING 1 - HORIZ. - APRON SLAB
U418	X	1	4'-2"			WING 1 - HORIZ. - APRON SLAB
U419	X	2	28'-5"			WING 1 - HORIZ. - APRON SLAB
U420	X	2	15'-3"			WING 1 - HORIZ. - APRON SLAB
U621	X	26	11'-4"	X	⚠	WING 1 - VERT. B.F.
U522	X	9	8'-8"	X	⚠	WING 1 - VERT. B.F.
U523	X	4	6'-11"	X	⚠	WING 1 - VERT. B.F.
U424	X	8	29'-10"			WING 1 - HORIZ. - F.F. & B.F.
U525	X	2	30'-0"			WING 1 - HORIZ. - F.F. & B.F.
U426	X	21	4'-7"		⚠	WING 1 - VERT. - F.F.
U427	X	32	2'-5"			WINGS 1 & 2 - DOWELS - VERT.
D401		18	5'-6"	X		OUTLET APRON & CUTOFF WALL - VERT.
D402		6	17'-9"			OUTLET APRON & CUTOFF WALL - HORIZ.
D403		12	14'-4"		⚠	OUTLET APRON SLAB - HORIZ.
D404		12	12'-3"			OUTLET APRON SLAB - HORIZ.
D405		3	5'-7"		⚠	OUTLET APRON SLAB - HORIZ.
D406		3	4'-11"		⚠	OUTLET APRON SLAB - HORIZ.
D407	X	3	12'-2"			WING 4 - HORIZ. - APRON SLAB
D608	X	17	9'-10"	X	⚠	WING 4 - VERT. B.F.
D409	X	2	12'-2"			WING 4 - HORIZ. - F.F. & B.F.
D410	X	6	7'-10"		⚠	WING 4 - HORIZ. - F.F. & B.F.
D511	X	2	13'-0"			WING 4 - HORIZ. - F.F. & B.F.
D412	X	9	3'-8"		⚠	WING 4 - VERT. - F.F.
D413	X	3	12'-10"			WING 3 - HORIZ. - APRON SLAB
D614	X	18	9'-10"	X	⚠	WING 3 - VERT. B.F.
D415	X	2	12'-10"			WING 3 - HORIZ. - F.F. & B.F.
D416	X	6	8'-3"		⚠	WING 3 - HORIZ. - F.F. & B.F.
D517	X	2	13'-7"			WING 3 - HORIZ. - F.F. & B.F.
D418	X	10	3'-8"		⚠	WING 3 - VERT. - F.F.
D419	X	19	2'-5"			WINGS 3 & 4 - DOWELS - VERT.

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

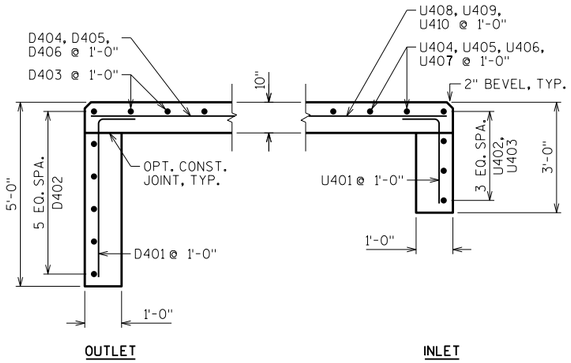
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
U404	1 SERIES OF 10	15'-11" TO 24'-1"
U407	1 SERIES OF 11	3'-4" TO 24'-6"
U409	1 SERIES OF 10	1'-3" TO 11'-4"
U410	1 SERIES OF 25	1'-0" TO 11'-11"
U612	1 SERIES OF 21	7'-6" TO 12'-2"
U414	2 SERIES OF 3	4'-11" TO 14'-3"
U416	1 SERIES OF 11	1'-4" TO 5'-11"
U621	1 SERIES OF 26	10'-6" TO 12'-2"
U522	1 SERIES OF 9	8'-3" TO 9'-0"
U523	1 SERIES OF 4	6'-10" TO 7'-1"
U426	1 SERIES OF 21	3'-3" TO 5'-11"
D403	1 SERIES OF 12	11'-4" TO 17'-4"
D405	1 SERIES OF 3	1'-11" TO 9'-3"
D406	1 SERIES OF 3	1'-1" TO 8'-9"
D608	1 SERIES OF 17	7'-6" TO 12'-2"
D410	2 SERIES OF 3	4'-0" TO 11'-8"
D412	1 SERIES OF 9	1'-4" TO 5'-11"
D614	1 SERIES OF 18	7'-6" TO 12'-2"
D416	2 SERIES OF 3	4'-3" TO 12'-3"
D418	1 SERIES OF 10	1'-4" TO 5'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY.

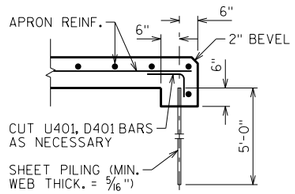


NAME PLATE LOCATION
WING 4



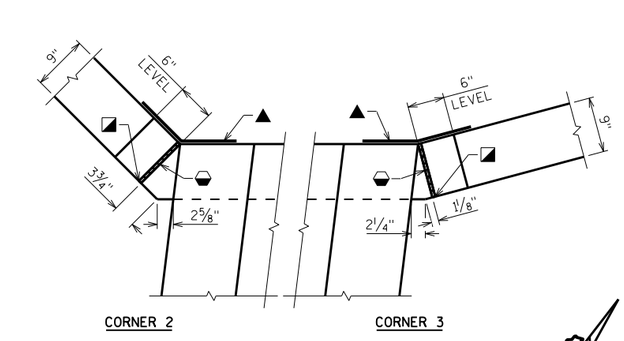
OUTLET INLET

CUT-OFF WALLS



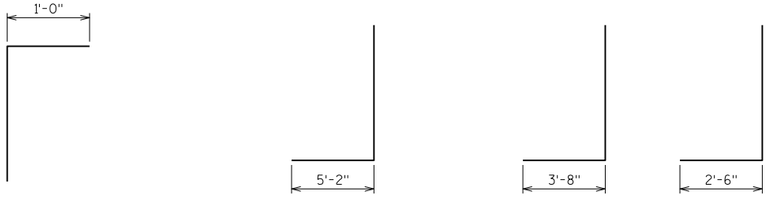
ALTERNATE CUT-OFF WALLS

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



CORNER DETAILS

- 3/4" FILLER, TYP. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING.
- 1" BEVEL, TYP.
- 18" RUBBERIZED MEMBRANE WATERPROOFING, EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL. (FLUSH WITH FACE OF CONCRETE)



U401, D401 U612, U621, D608, D614 U522 U523

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-66-159

DRAWN BY ABS | PLANS CK'D. MJK

DETAILS

SHEET 5

123

SCALE = 1.00

8

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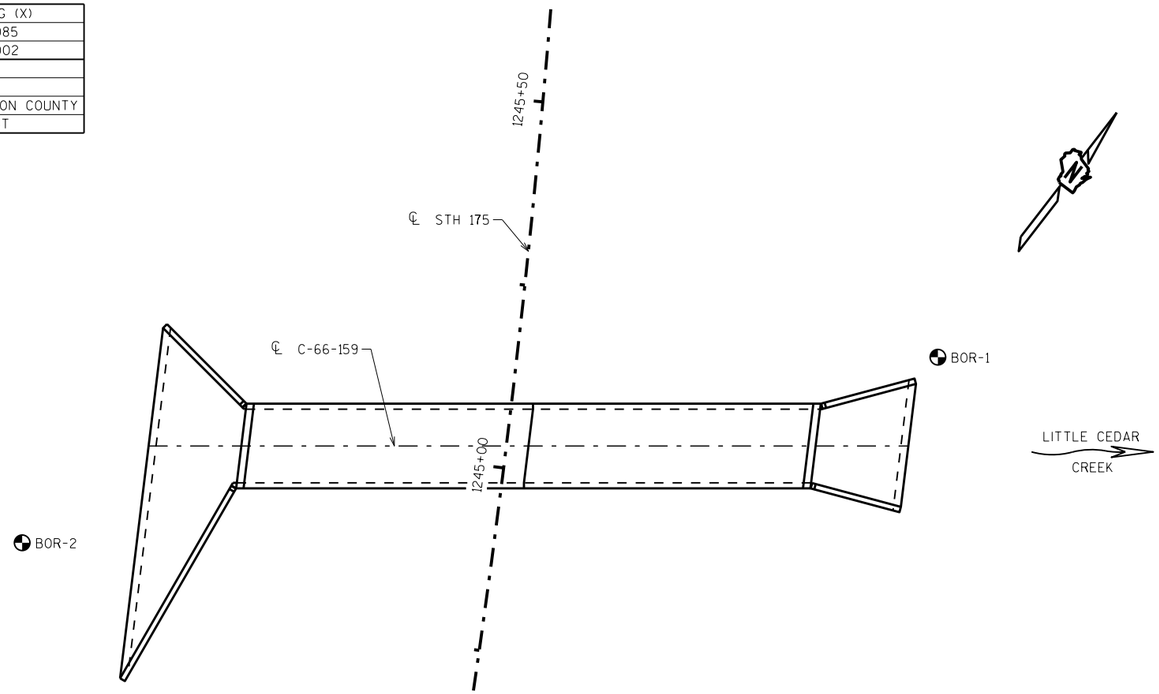
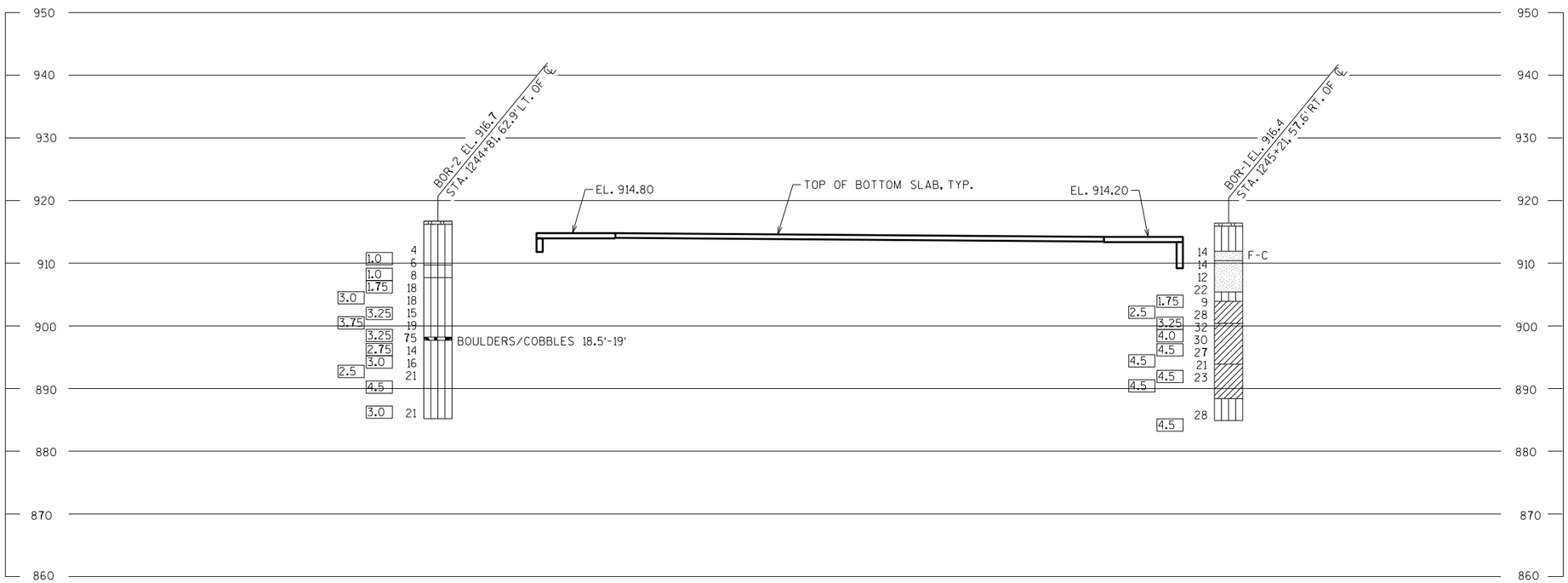
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	5/05/2021	129647	356085
2	5/11/2021	129551	356002
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) WASHINGTON COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			





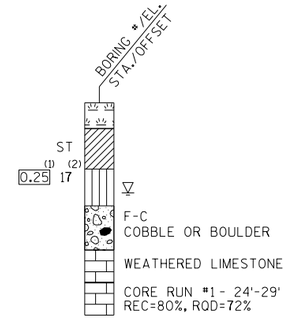
STATE PROJECT NUMBER

3360-17-70

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-66-159

DRAWN BY JJ/ABS PLANS CK'D. MJK

SUBSURFACE EXPLORATION

SHEET 6

124

SCALE = 10.00

8

8

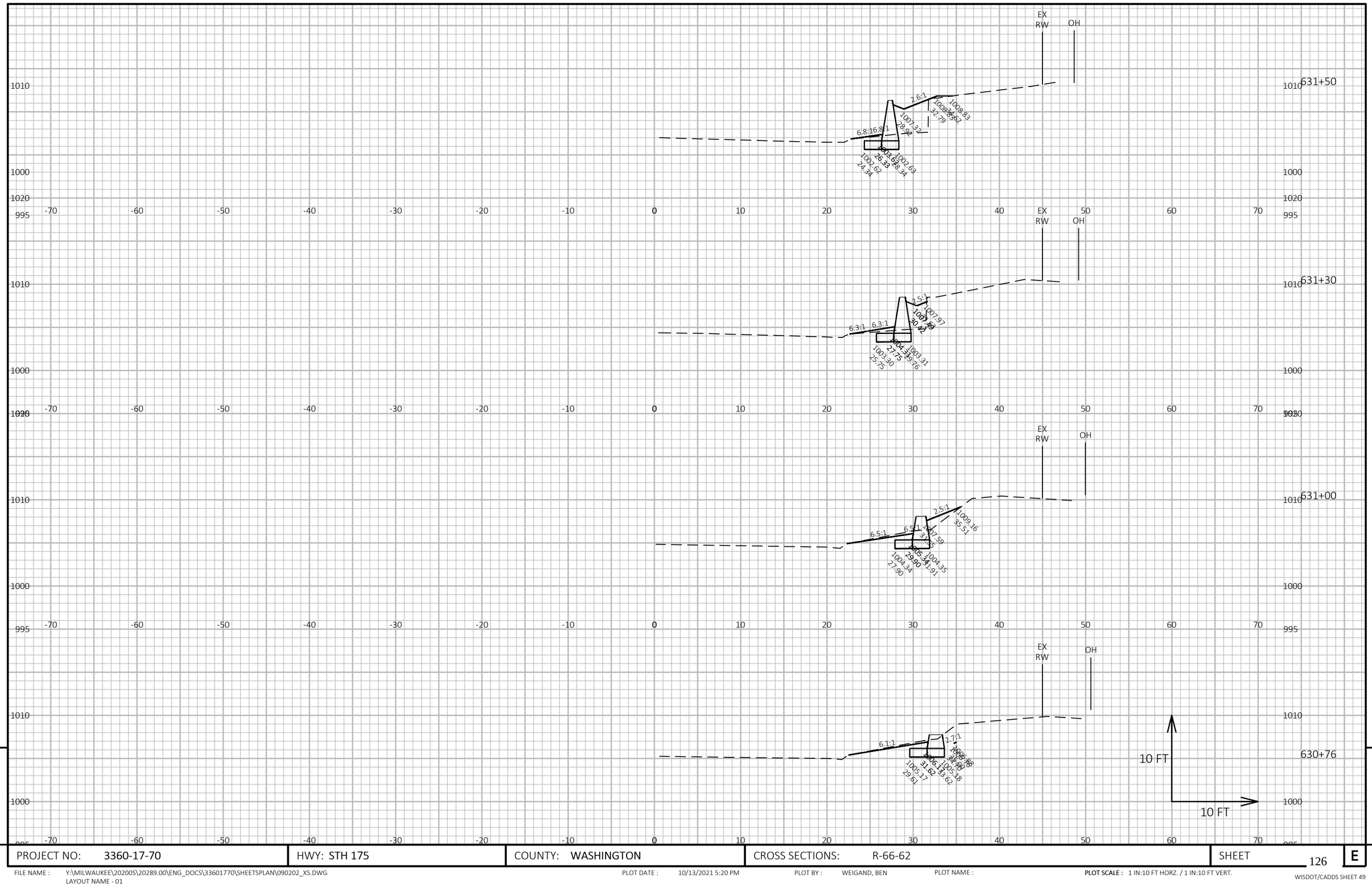
DIVISION 1 - C-66-159

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 3	1.00 NOTE 1	1.25	NOTE 8
1242+60	0.00	46.94	38.58	0.00	0	0	0	0	0	0
1243+00	40.00	56.34	38.58	0.28	77	57	0	77	0	20
1243+50	50.00	57.90	38.58	7.13	106	71	7	183	9	46
1243+75.5	25.50	51.18	38.58	26.85	52	36	16	235	29	42
1244+00.5	25.00	52.38	38.58	22.33	48	36	23	283	58	26
1244+25.5	25.00	48.86	38.58	19.96	47	36	20	330	83	12
1244+50.5	25.00	52.73	38.58	8.99	47	36	13	377	99	6
1245+05	54.50	46.03	38.58	387.07	100	78	400	477	599	-472
1245+50	45.00	50.22	38.58	20.09	80	64	339	557	1,023	-880
1245+63	13.00	50.30	38.58	13.55	24	19	8	581	1,033	-885
1245+88	25.00	46.90	38.58	14.36	45	36	13	626	1,049	-892
1246+00	12.00	45.46	38.58	21.22	21	17	8	647	1,059	-898
1246+13	13.00	46.07	38.58	21.86	22	19	10	669	1,071	-907
1246+25.5	12.50	45.84	38.58	18.21	21	18	9	690	1,083	-916
1246+50.5	25.00	50.38	38.58	11.78	45	36	14	735	1,100	-924
1247+00	49.50	50.33	38.58	2.04	92	71	13	827	1,116	-919
1247+50	50.00	51.07	38.58	0.00	94	71	2	921	1,119	-899
1247+60	10.00	49.05	38.58	0.00	19	14	0	940	1,119	-894

DIVISION 2 - R-66-62

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	1.00 NOTE 1	1.25	NOTE 8
630+76	63076.00	0.00	7.93	0.00	0.00	0	0	0	0	0	0
631+00	63100.00	24.00	7.91	0.00	0.00	7	0	0	7	0	7
631+30.126	63130.13	30.13	5.30	0.00	0.00	7	0	0	14	0	14
631+50	63150.00	19.87	6.61	0.00	0.00	4	0	0	18	0	18
632+00	63200.00	50.00	6.53	0.00	0.00	12	0	0	30	0	30
632+50	63250.00	50.00	4.51	0.00	0.00	10	0	0	40	0	40
633+00	63300.00	50.00	6.71	0.00	0.00	10	0	0	50	0	50
633+50	63350.00	50.00	5.60	0.00	0.00	11	0	0	61	0	61
633+84.583	63384.58	34.58	6.21	0.00	0.00	8	0	0	69	0	69
633+99	63399.00	14.42	6.54	0.00	0.00	3	0	0	72	0	72

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME



9

9

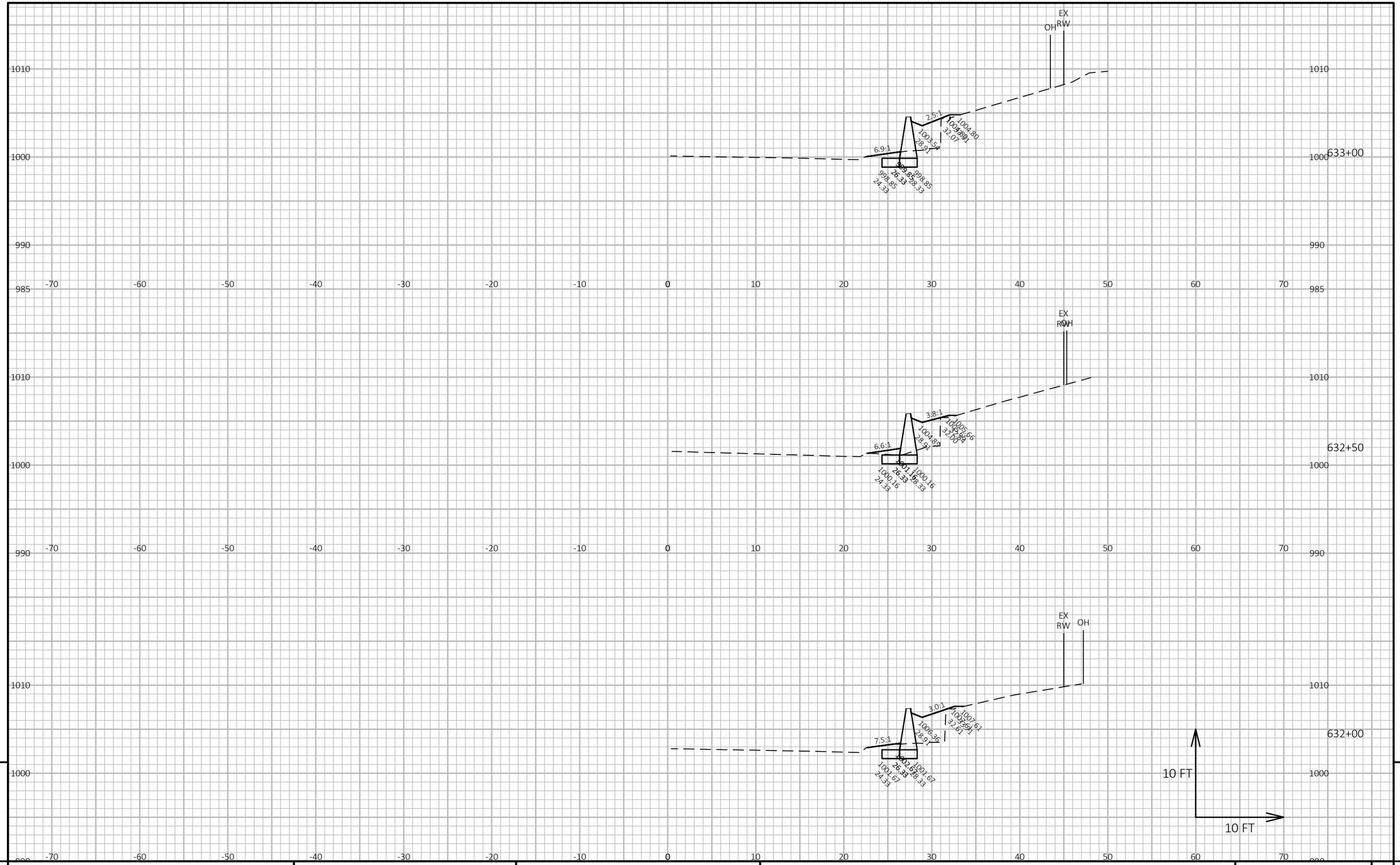
PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CROSS SECTIONS: R-66-62	SHEET 126	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 01

PLOT DATE : 10/13/2021 5:20 PM PLOT BY : WEIGAND, BEN PLOT NAME :

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

WISDOT/CADDS SHEET 49



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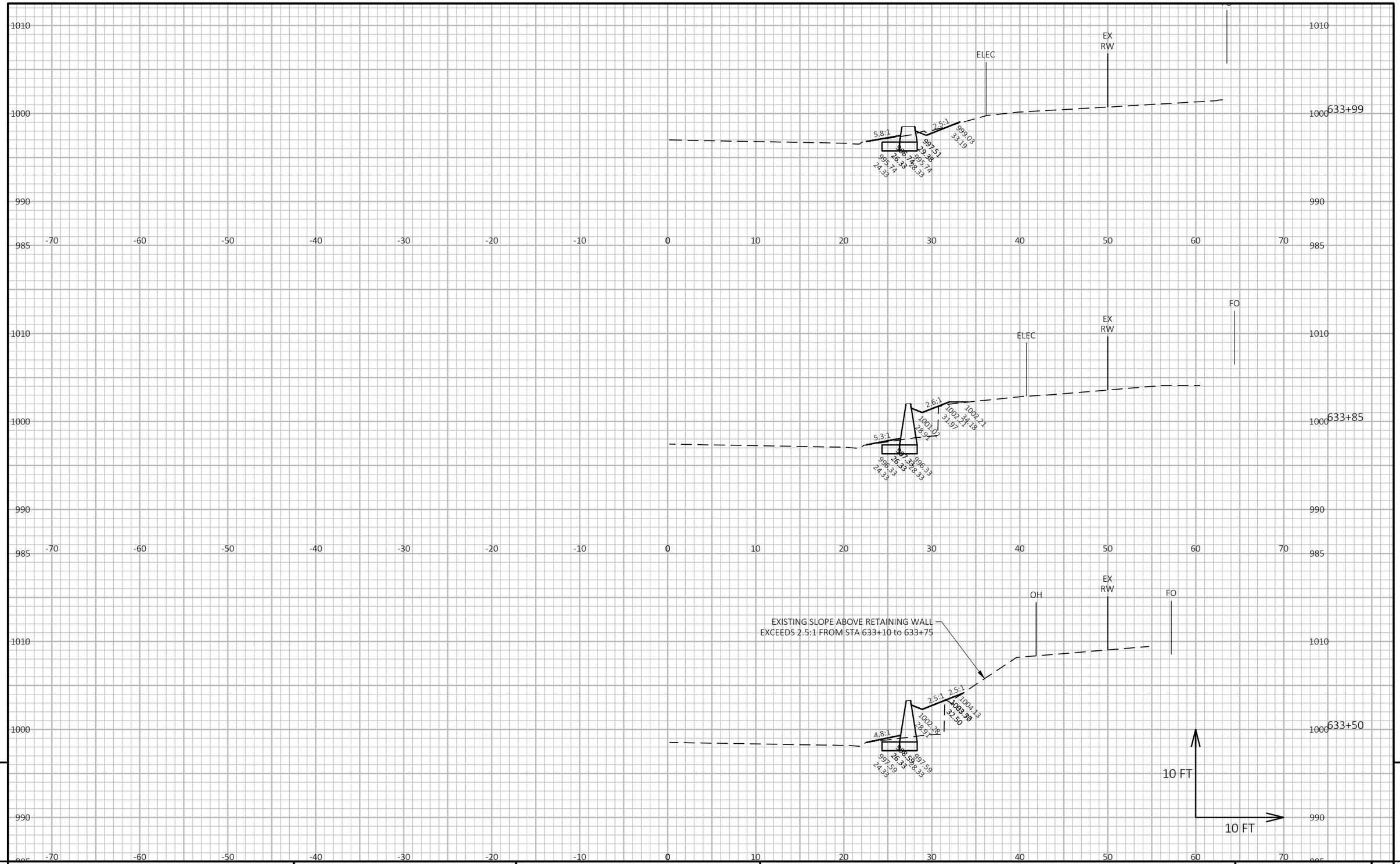
9

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CROSS SECTIONS: R-66-62	SHEET 127	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 02

PLOT DATE : 10/13/2021 5:20 PM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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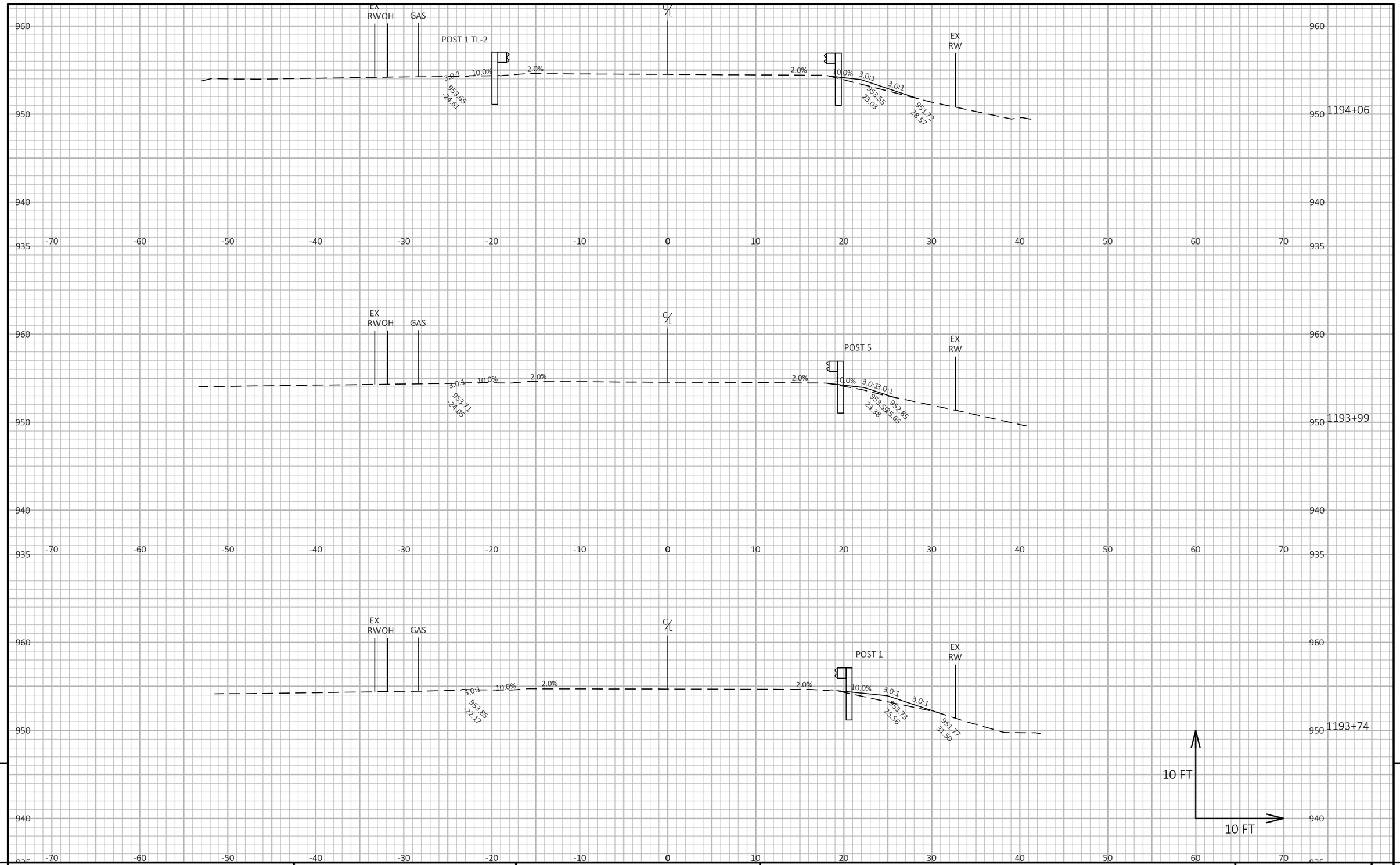
9

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CROSS SECTIONS: R-66-62	SHEET 128	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 03

PLOT DATE : 10/13/2021 5:20 PM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

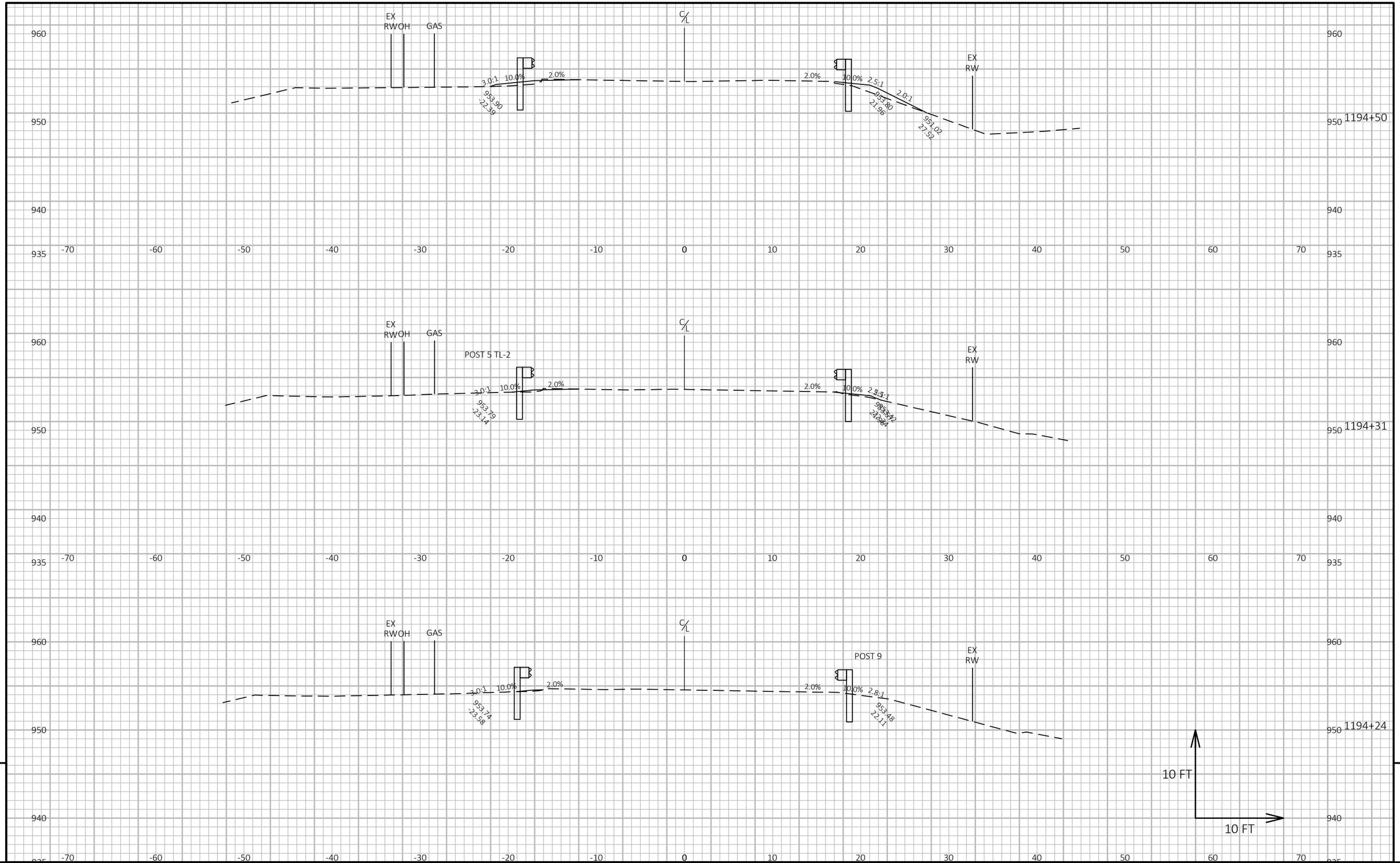
PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CROSS SECTIONS: C-66-47	SHEET 129	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\090215_XS.DWG
LAYOUT NAME - 01

PLOT DATE : 10/13/2021 5:23 PM PLOT BY : WEIGAND, BEN PLOT NAME :

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

WISDOT/CADDS SHEET 49

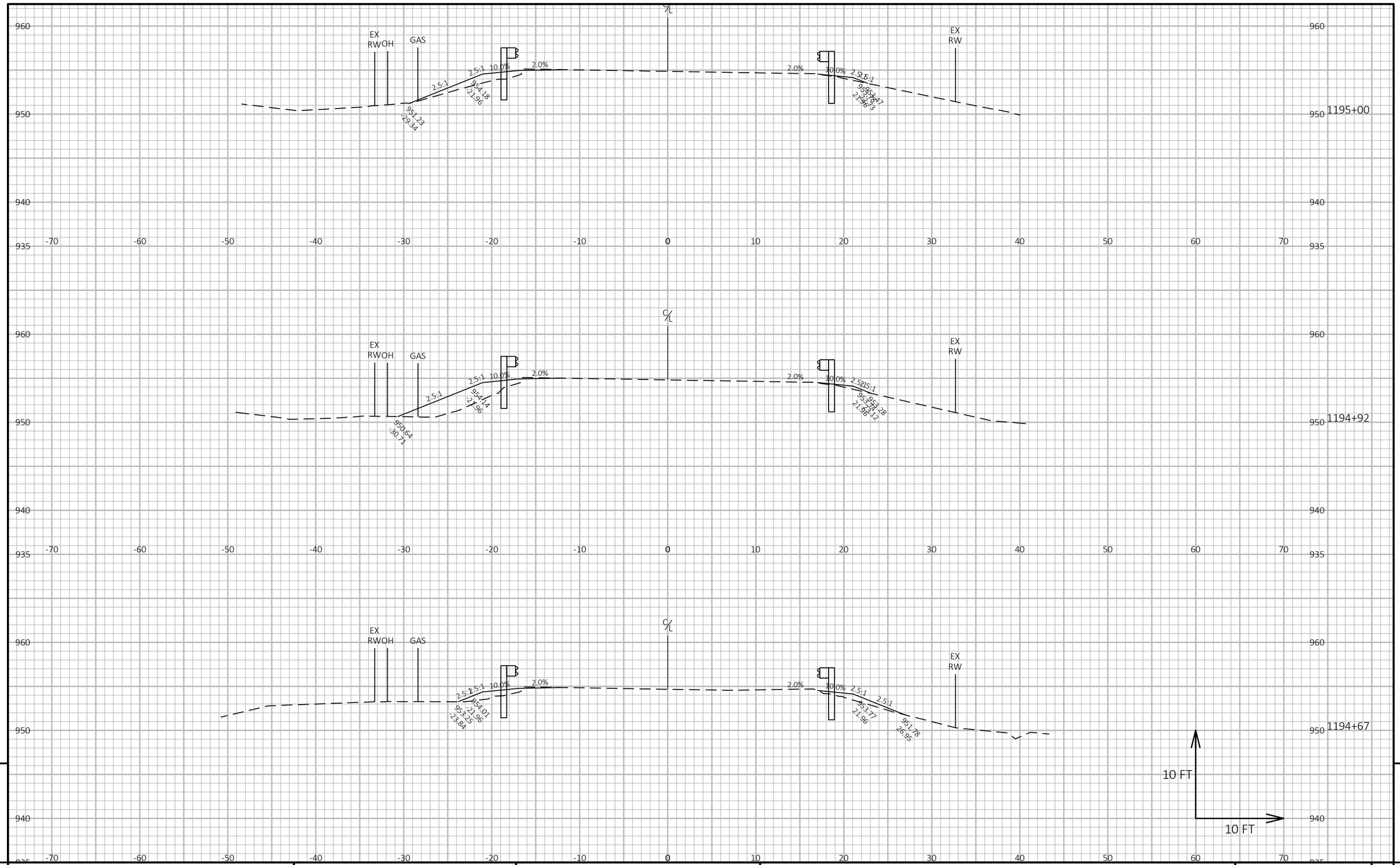


PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CROSS SECTIONS: C-66-47	SHEET 130	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\090215_XS.DWG
LAYOUT NAME - 02

PLOT DATE : 10/13/2021 5:23 PM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



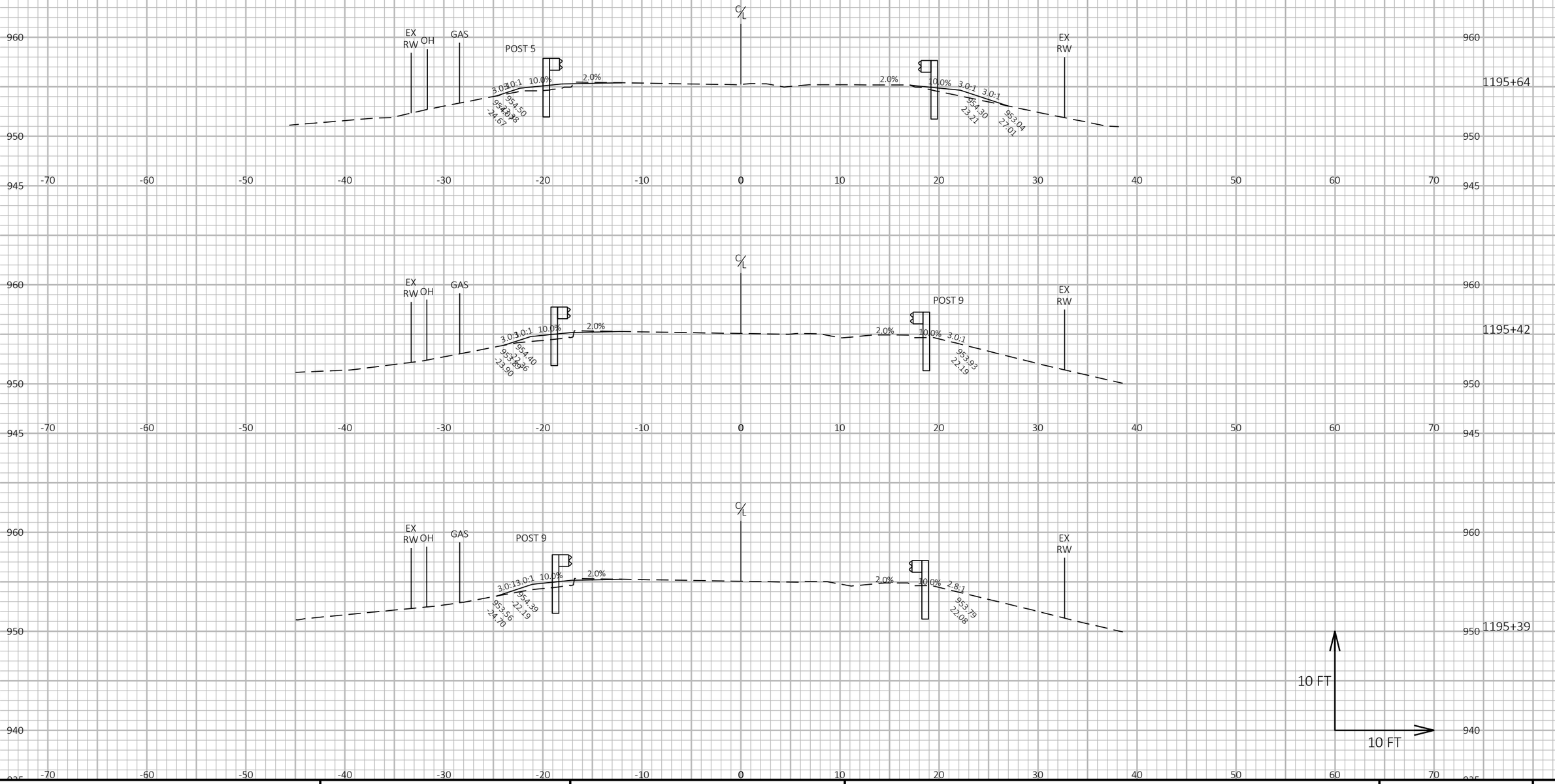
9	PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CROSS SECTIONS: C-66-47	SHEET 131 E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\090215_XS.DWG
LAYOUT NAME - 03

PLOT DATE : 10/13/2021 5:23 PM PLOT BY : WEIGAND, BEN PLOT NAME :

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

WISDOT/CADDS SHEET 49



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9

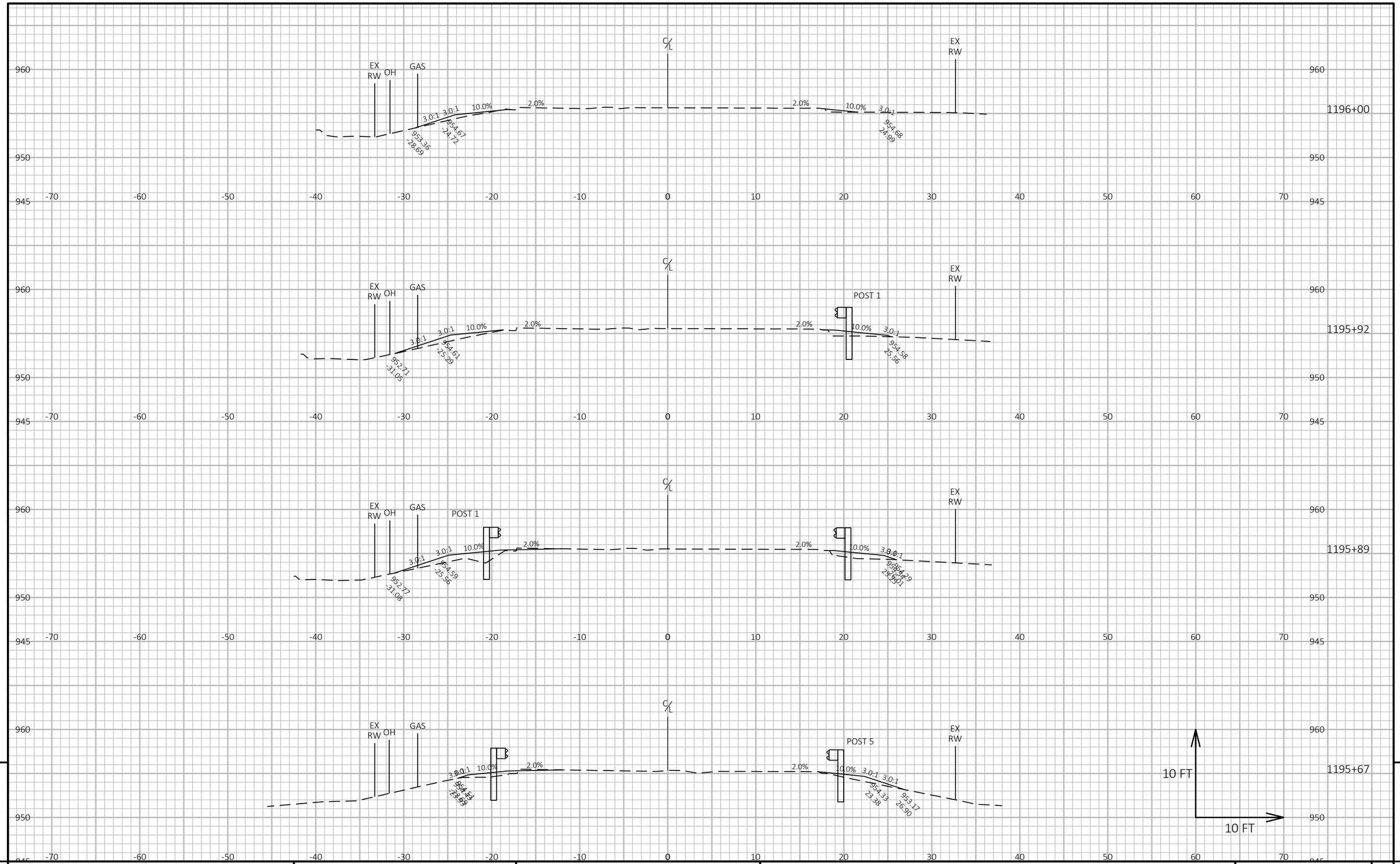
PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CROSS SECTIONS: C-66-47	SHEET 132	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\090215_XS.DWG
LAYOUT NAME - 04

PLOT DATE : 10/13/2021 5:23 PM PLOT BY : WEIGAND, BEN PLOT NAME :

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

WISDOT/CADDS SHEET 49



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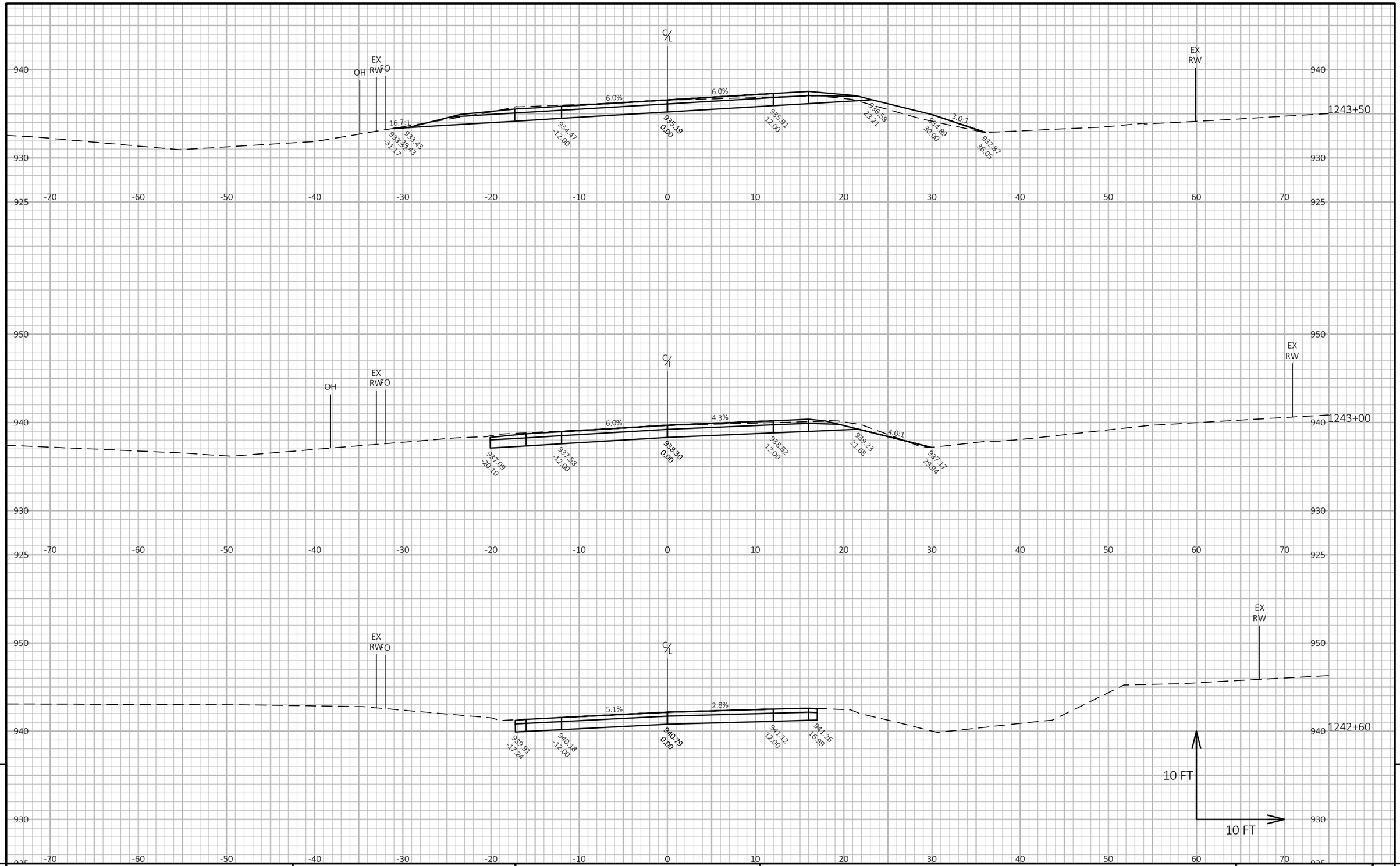
PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CROSS SECTIONS: C-66-47	SHEET 133	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\090215_XS.DWG
LAYOUT NAME - 05

PLOT DATE : 10/13/2021 5:23 PM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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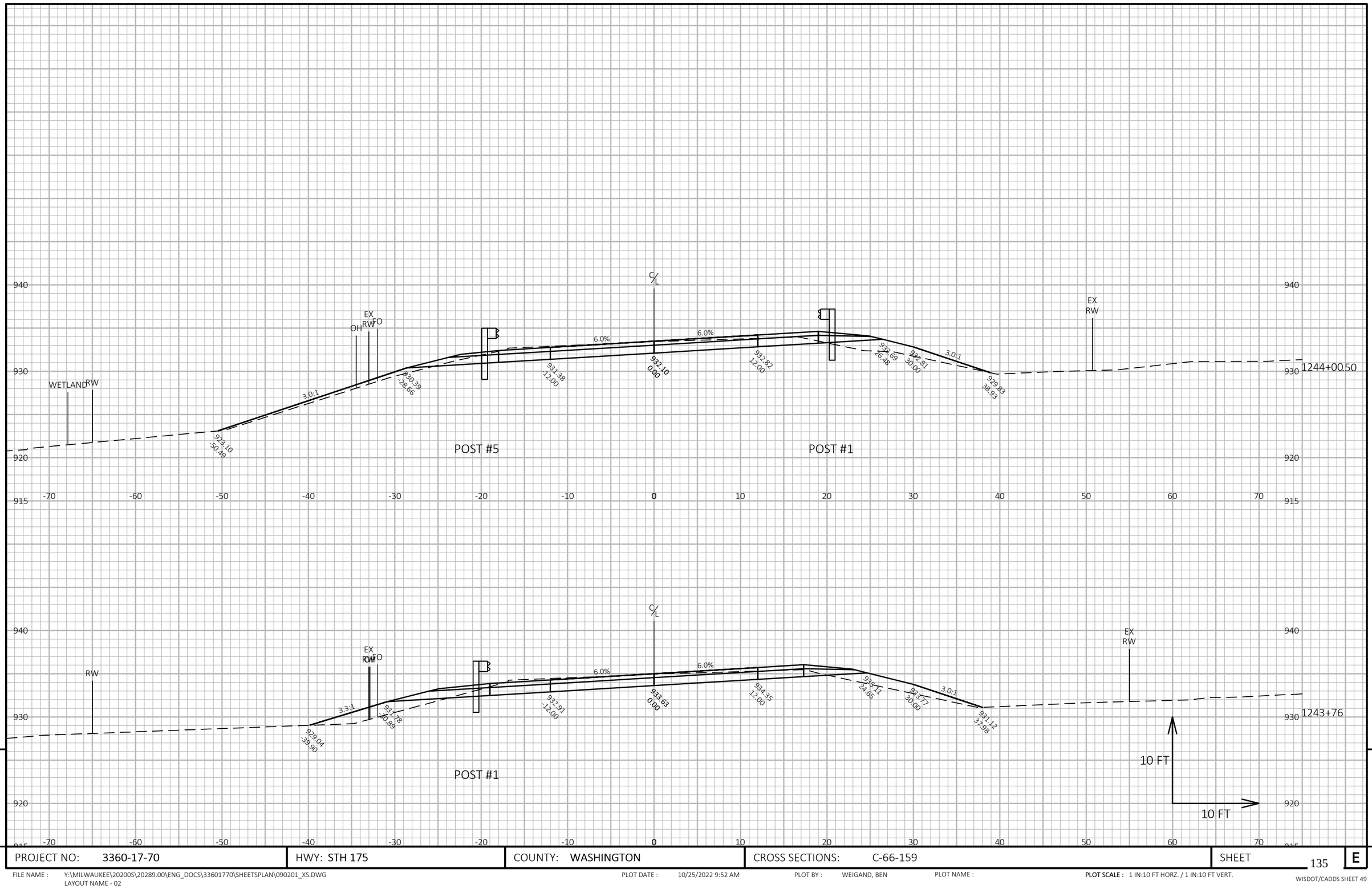
9

PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CROSS SECTIONS: C-66-159	SHEET 134	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 01

PLOT DATE : 10/25/2022 9:18 AM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

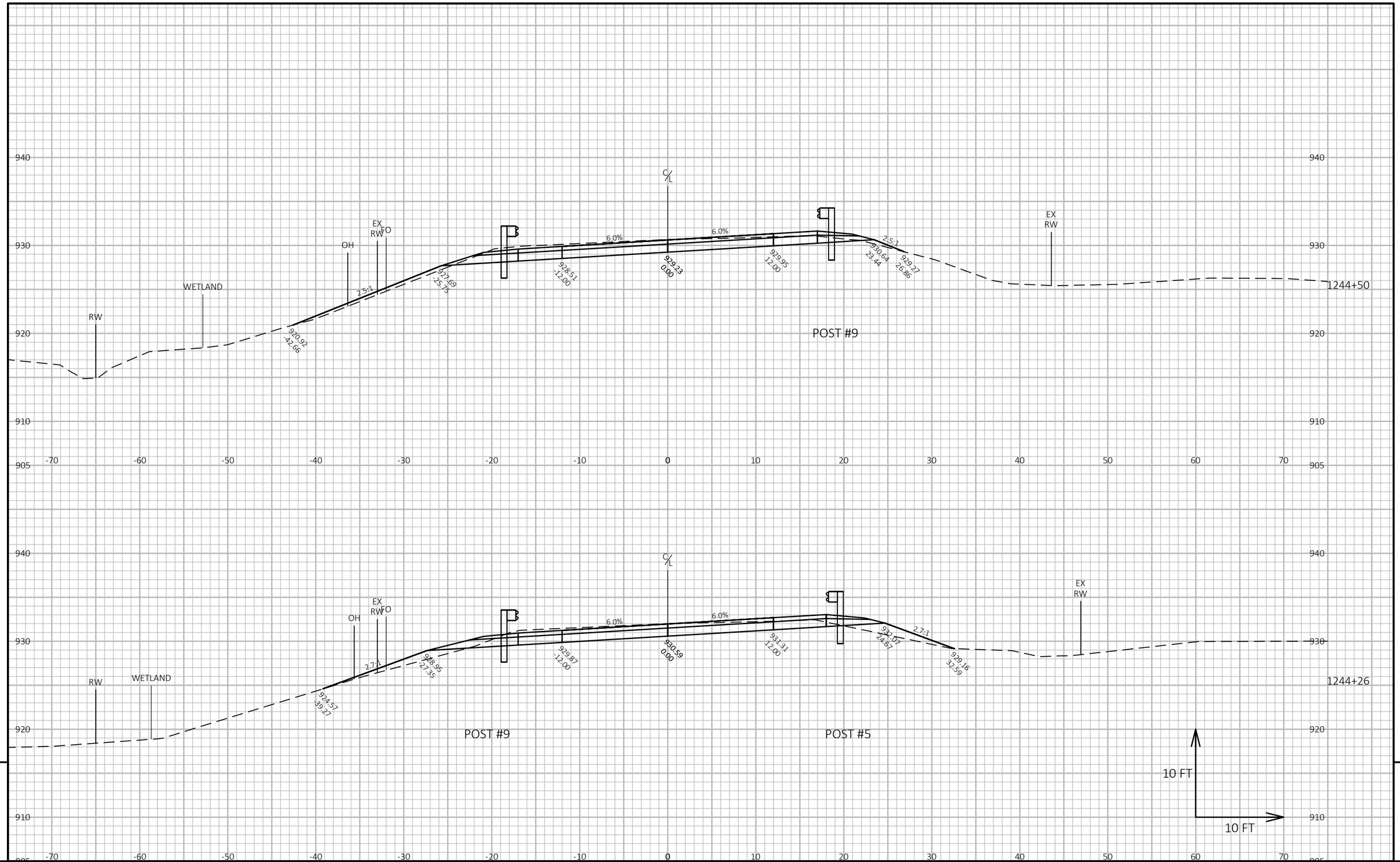


PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CROSS SECTIONS: C-66-159	SHEET 135	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 02

PLOT DATE : 10/25/2022 9:52 AM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

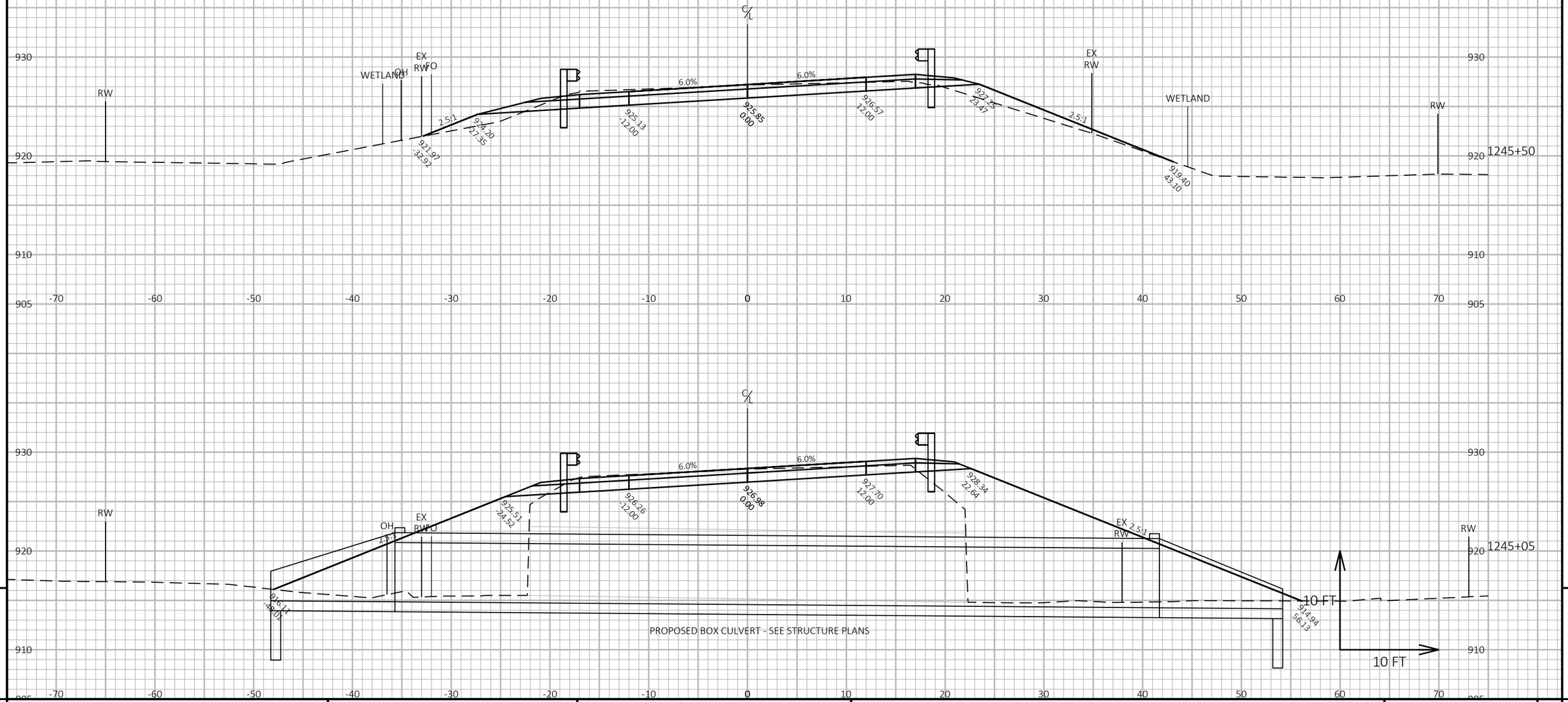
WISDOT/CADDS SHEET 49



PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CROSS SECTIONS: C-66-159	SHEET 136	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 03

PLOT DATE : 10/25/2022 9:18 AM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

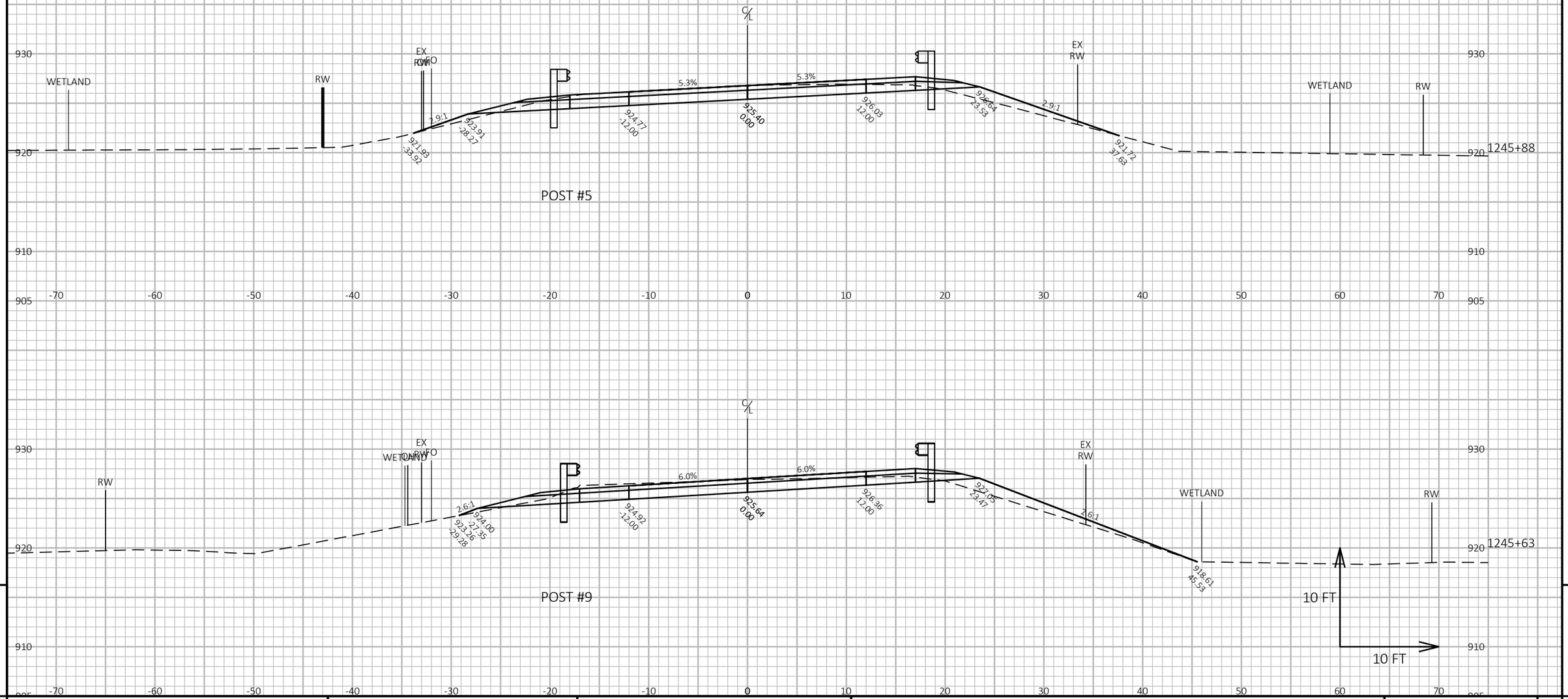


PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CROSS SECTIONS: C-66-159	SHEET 137	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 04

PLOT DATE : 10/25/2022 9:18 AM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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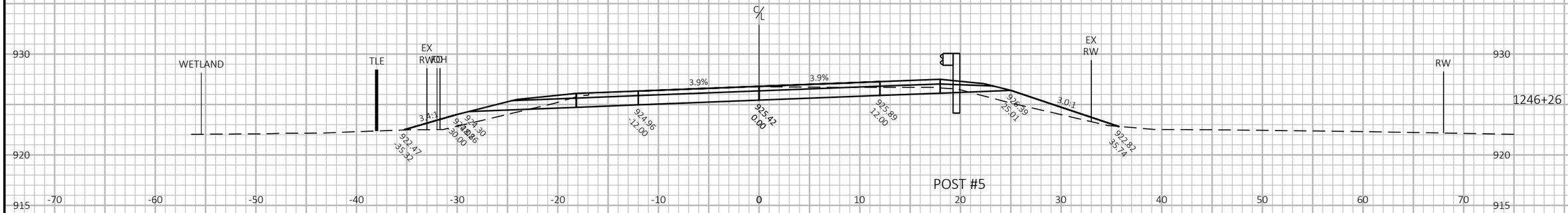
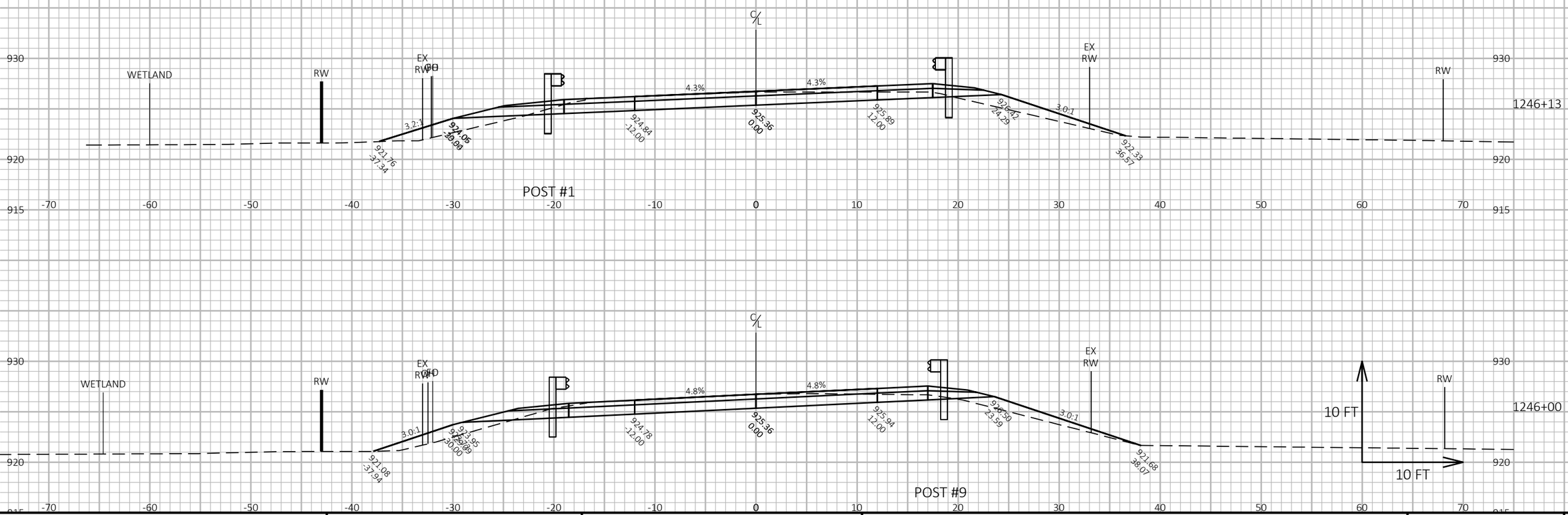
PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CROSS SECTIONS: C-66-159	SHEET 138	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 05

PLOT DATE : 10/25/2022 9:18 AM PLOT BY : WEIGAND, BEN 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: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CROSS SECTIONS: C-66-159	SHEET 139	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 06

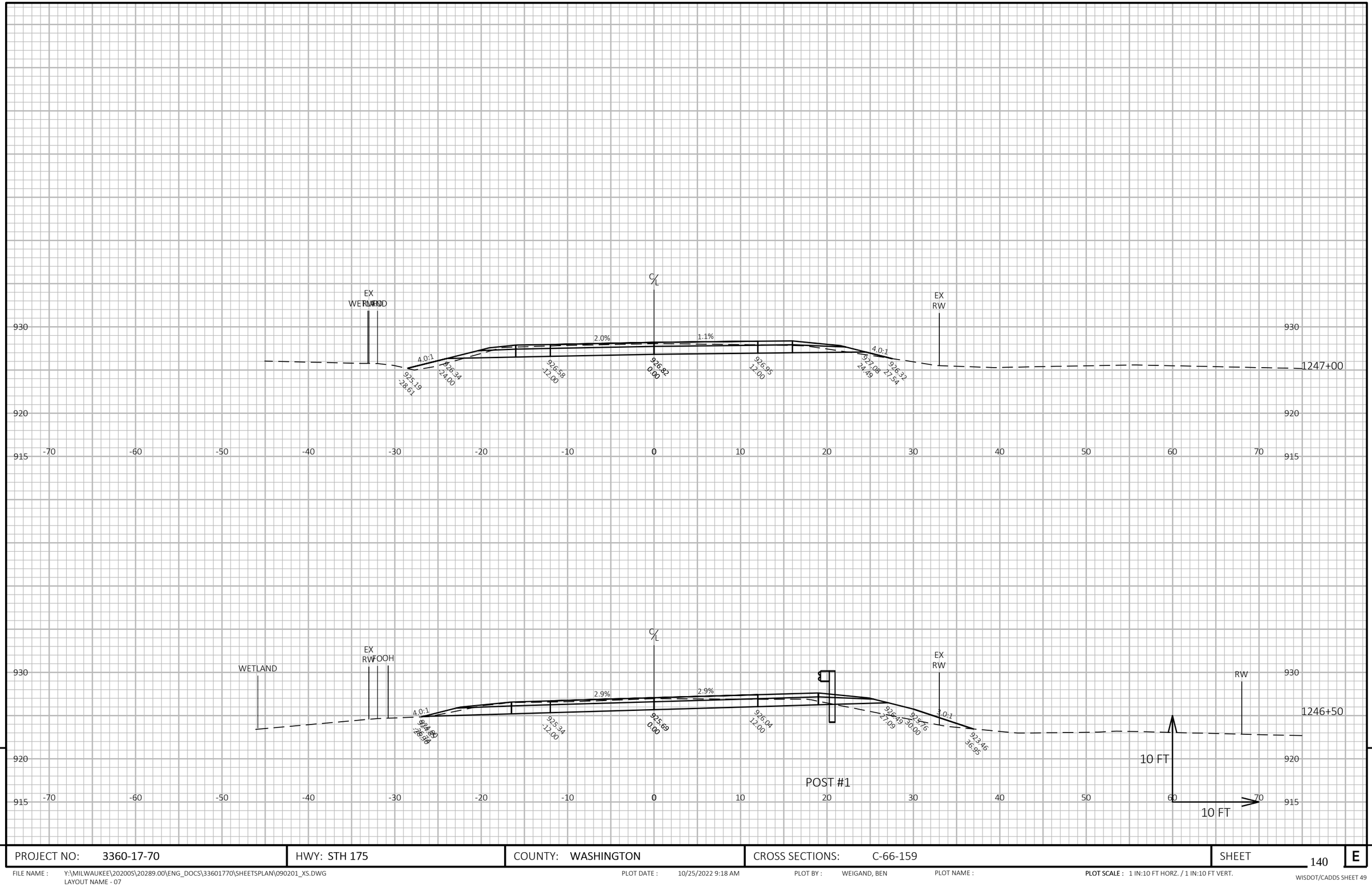
PLOT DATE : 10/25/2022 9:18 AM

PLOT BY : WEIGAND, BEN

PLOT NAME :

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

WISDOT/CADDS SHEET 49

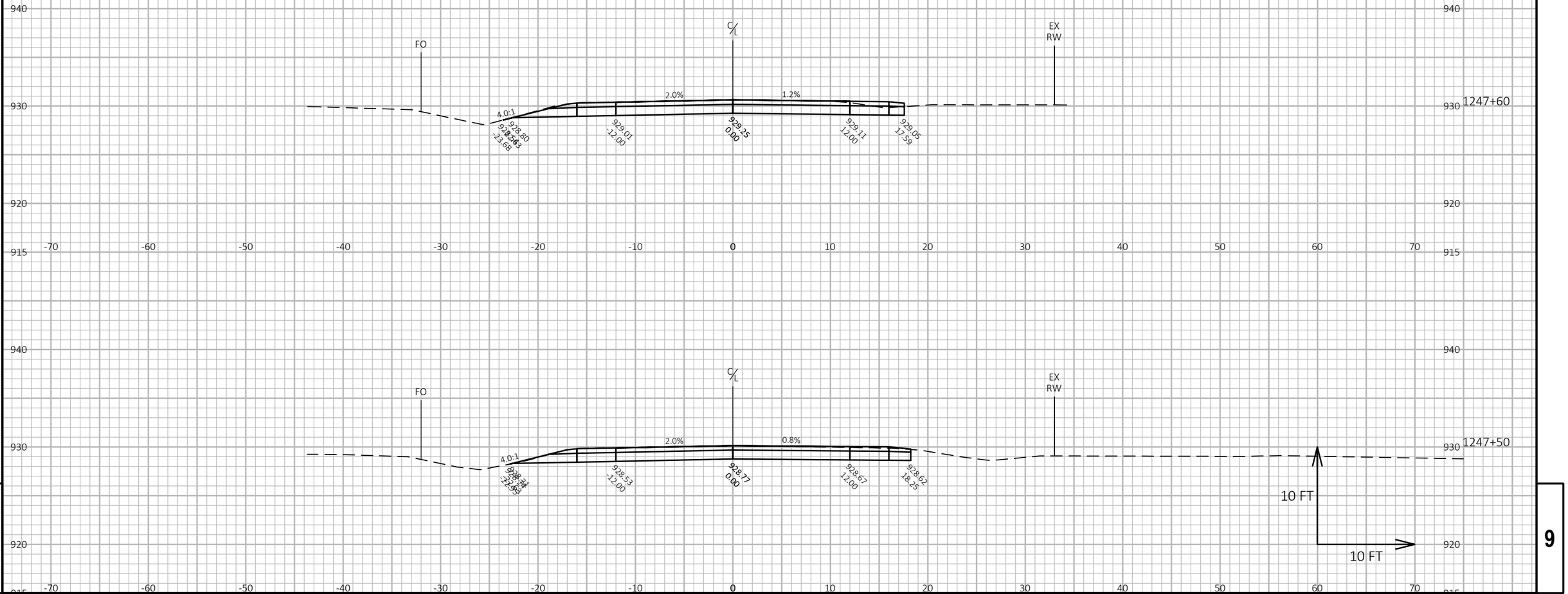


PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CROSS SECTIONS: C-66-159	SHEET 140	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 07

PLOT DATE : 10/25/2022 9:18 AM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 3360-17-70	HWY: STH 175	COUNTY: WASHINGTON	CROSS SECTIONS: C-66-159	SHEET 141	E

FILE NAME : Y:\MILWAUKEE\20200S\20289.00\ENG_DOCS\33601770\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 08

PLOT DATE : 10/25/2022 9:18 AM PLOT BY : WEIGAND, BEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

WKE

Jan 10, 2023

PROJECT ID: **3700-43-70**

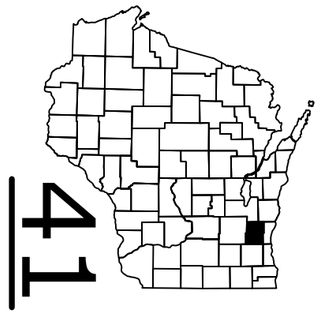
WITH: 1000-09-86, 1100-43-70, 3360-17-70

COUNTY: **WASHINGTON**

ORDER OF SHEETS

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

TOTAL SHEETS = 156



N

DESIGN DESIGNATION

A.A.D.T.	2019	=	80,900
A.A.D.T.	2040	=	90,000
D.H.V.		=	6,500
D.D.		=	60/40
T.		=	18.6%
DESIGN SPEED		=	75 MPH
ESALS		=	-

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

MILWAUKEE - FOND DU LAC

762 FT N OF 1 MI ADV SIGN STH 167

IH 41

WASHINGTON COUNTY

STATE PROJECT NUMBER
3700-43-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3700-43-70		

END PROJECT
STA 388+35.65
Y=102,890.728
X=375,817.913

STRUCTURE S-66-401
STA 382+00

BEGIN PROJECT
STA 375+69.06
Y=101,929.757
X=376,643.013

LAYOUT

SCALE 0 1.0 MI

TOTAL NET LENGTH OF CENTERLINE = 0.000

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

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ORIGINAL PLANS PREPARED BY

GRAEF 275 W. Wisconsin Avenue, Suite 300 Milwaukee, WI 53203

WISCONSIN ROBERT J. STEUCK 41177 NEW BERLIN WI PROFESSIONAL ENGINEER

7/29/2022

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	GRAEF
Designer	GRAEF
Project Manager	DAVID PITTMAN
Regional Examiner	WISDOT - SE REGION
Regional Supervisor	JOE GALLAMORE

APPROVED FOR THE DEPARTMENT

DATE: 8/1/2022 (Signature)

E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\010101_TI.DWG

PLOT DATE : 10/22/2022 11:07 AM

PLOT BY : STEUCK, BOB

PLOT NAME :

GENERAL NOTES

THE LOCATION OF KNOWN EXISTING UTILITIES IN THE VICINITY OF THE PROJECT ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITIES IN THE AREA THAT ARE NOT SHOWN.

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

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER.

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM THE ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES OR FROM GRUBBING OF TREES OR STUMPS SHALL BE BACKFILLED WITH GRANULAR BACKFILL. BACKFILL GRANULAR MATERIAL IS INCIDENTAL TO THE REMOVAL ITEM.

HMA PAVEMENT, WHERE INDICATED ON THE PLANS, SHALL CONSIST OF LAYERS AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER.

PAVEMENT THICKNESS	HMA PAVEMENT	TOTAL PAVEMENT LAYER THICKNESS	LAYER
2" DEPTH	4MT 58-28 S	2 -INCHES	UPPER
5¾" DEPTH	3 MT 58-28 S	3¾ -INCHES	LOWER
	4 MT 58-28 S	2 -INCHES	UPPER
8½" DEPTH	3 MT 58-28 S	3¼ -INCHES	LOWER
	3 MT 58-28 S	3¼ -INCHES	MIDDLE
	4 MT 58-28 S	2-INCHES	UPPER

ALL EROSION CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.

LANDSCAPE ALL TOPSOILED AREAS AS THE PLAN SHOWS OR AS DIRECTED BY THE ENGINEER WITHIN 5 CALENDAR DAYS AFTER THE PLACEMENT OF TOPSOIL.

THE LOCATIONS OF LONGITUDINAL JOINTS IN HMA PAVEMENT SHALL BE APPROVED BY THE ENGINEER.

STANDARD ABBREVIATIONS

AEW	APRON END WALL
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CONC	CONCRETE
CP	CULVERT PIPE
CPCM	CULVERT PIPE CORRUGATED METAL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CSCP	CORRUGATED STEEL CULVERT PIPE
CSPA	CORRUGATED STEEL PIPE ARCH
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC-YARD
D	DEGREE OF CURVE
	DELTA
DISCH	DISCHARGE
FE	FIELD ENTRANCE
HERCP	HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
NTS	NOT TO SCALE
PAVT	PAVEMENT
PB	PULL BOX
PC	POINT-OF-CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASMENT
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RAD	RADIUS
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
RCHESS	REINFORCED CONCRETE HORIZONTAL ELLIPTICAL STORM SEWER
RCPSS	REINFORCED CONCRETE PIPE - STORM SEWER
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RT	RIGHT
SALV	SALVAGED
SB	SIGNAL BASE
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SF	SQUARE FOOT
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TC	TOP OF CURB
TLE	TEMPORARY LIMITED EASEMENT

DEPT. OF NATURAL RESOURCES

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141 NW BARSTOW STREET, #180
WAUKESHA, WI 53188
262-623-0194
BENTON.STELZEL@WISCONSIN.GOV

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414-430-5812 CELL
CHARLES.BRASILE@CHARTER.COM

GREGORY BOERNER
WE ENERGIES - ELECTRIC
500 S. 116TH ST.
WEST ALLIS, WI 53214
618-409-5861
GREGORY.BOERNER@WE-ENERGIES.COM
ELECTRIC DISPATCH #1-800-662-4797

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414-651-1577 CELL
JACEOB.HULBERT@WE-ENERGIES.COM
GAS DISPATCH #1-800-261-5325

INDEX OF DETAIL SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
EROSION CONTROL PLAN
FTMS PLAN
TRAFFIC CONTROL PLAN
DETOUR PLAN
ALIGNMENT PLAN
SURVEY CONTROL

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

2

2

VILLAGE OF MENOMONEE FALLS

WAUKESHA COUNTY

WASHINGTON COUNTY

N

BEGIN PROJECT
STA 375+69.06
Y=101,929.757
X=376,643.013

END PROJECT
STA 388+35.65
Y=102,890.728
X=375,817.913

EXISTING SIGN
STA. 374+38

MAPLE ROAD

STH 167/
LANNON ROAD

IH 41

340+00 350+00 360+00 370+00 380+00 390+00 400+00 410+00 420+00 430+00 440+00 450+00

CTH Q/
COUNTY LINE ROAD

DMS STRUCTURE
S-66-401
STA. 382+00

E1-5P
84"X30"

EXIT 54

167 EAST Y

Lannon Rd
Mequon Rd
1 MILE

VILLAGE OF GERMANTOWN

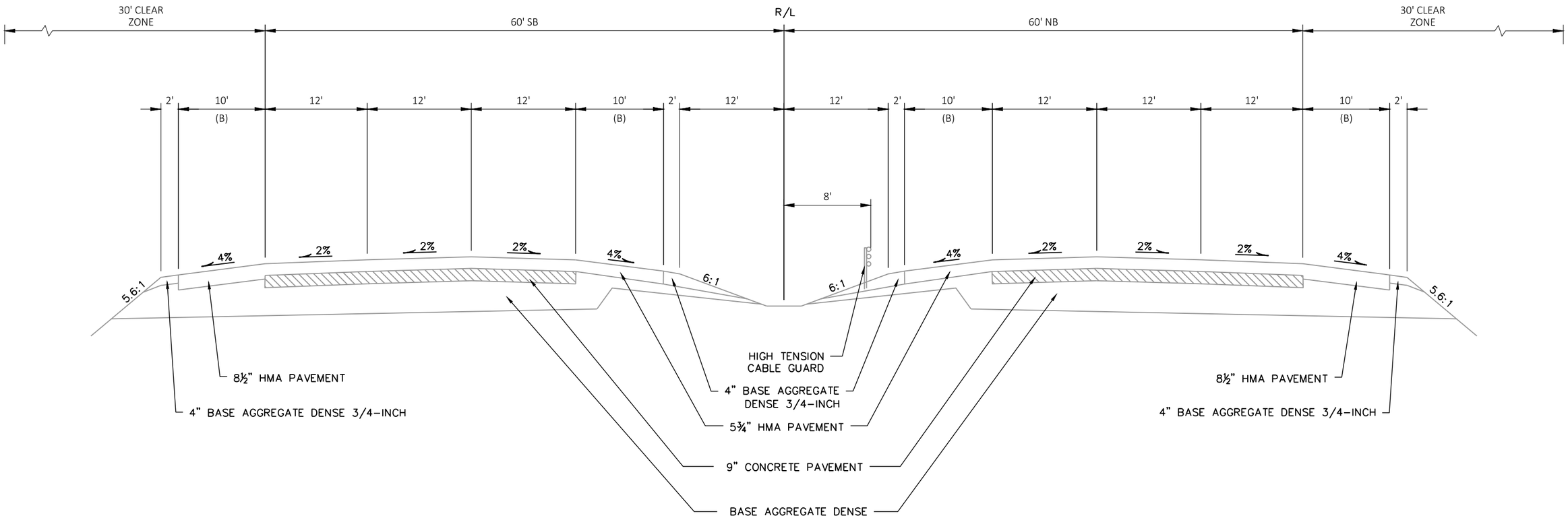
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\020201_PO.DWG
LAYOUT NAME - 020201_po

PLOT DATE : 7/29/2022 9:58 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN: 750 FT

WISDOT/CADDS SHEET 42

2



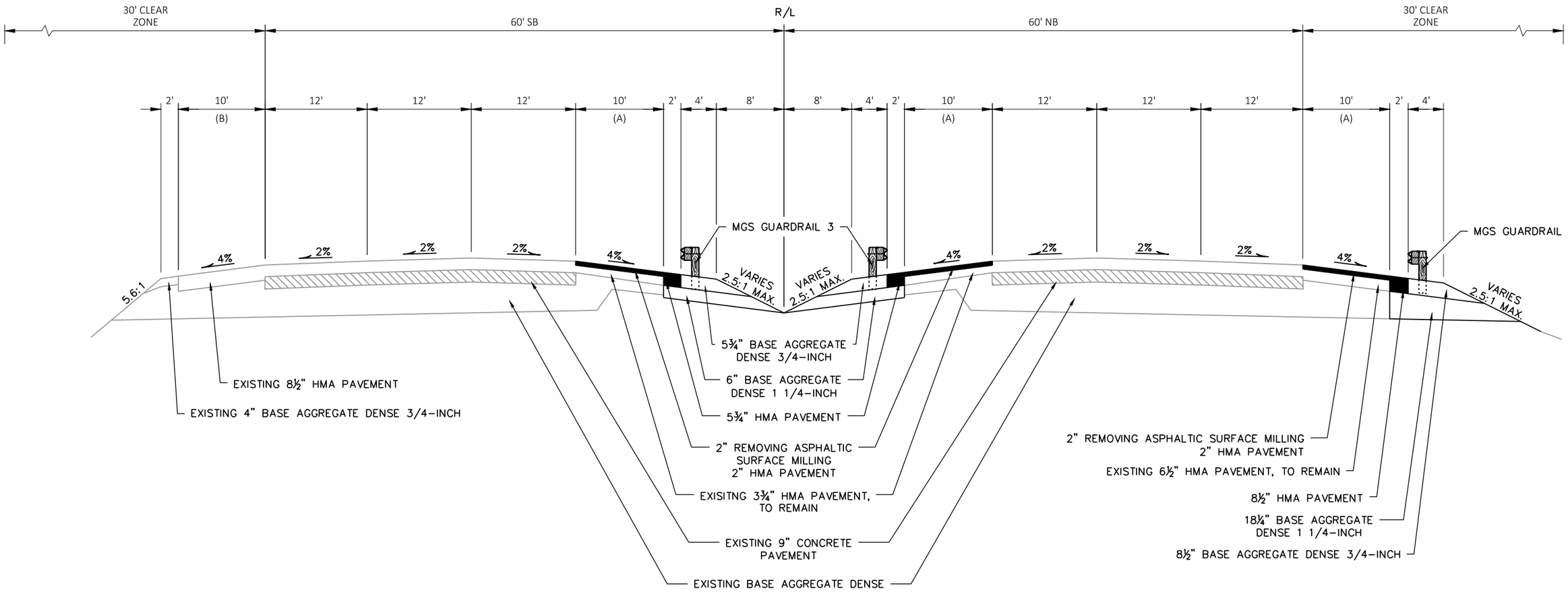
EXISTING TYPICAL SECTION

IH 41
STA. 378+11 TO STA. 388+36

(B) EXISTING ASPHALTIC SHOULDER RUMBLE STRIP

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET 4	E

2



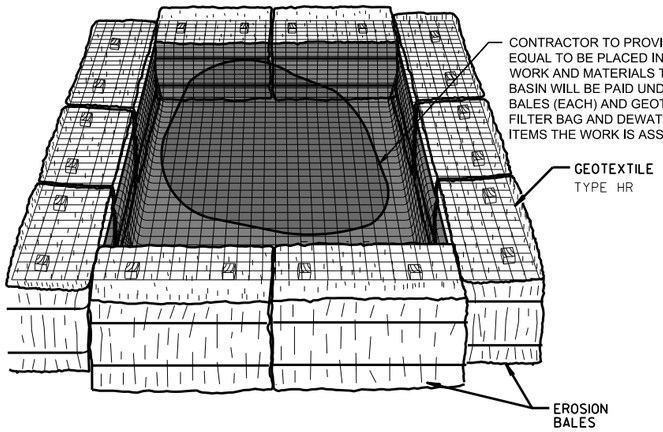
FINISHED TYPICAL SECTION

IH 41
STA. 378+11 TO STA. 388+36

(A) ASPHALTIC SHOULDER RUMBLE STRIP REQUIRED

(B) EXISTING ASPHALTIC SHOULDER RUMBLE STRIP

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET 5	E



(SIZE TO BE DETERMINED IN FIELD AS INDICATED BELOW:)

STORAGE VOLUME (C.F.) = 16 X GPM (PUMP RATE)

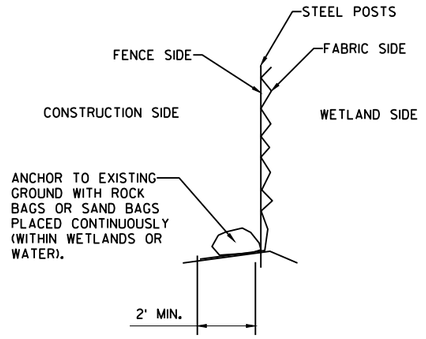
EXAMPLE:
CONTRACTOR INDICATES PUMP CAPABLE OF 50 GPM
HEIGHT OF BALES = 1.5 FT.

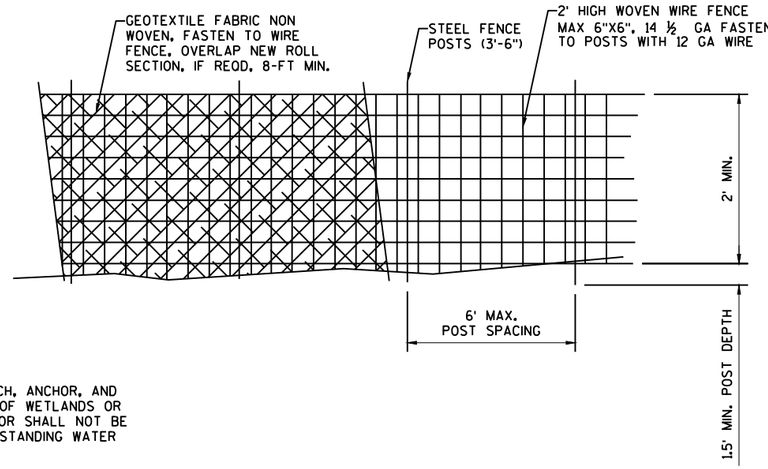
SOLUTION:
SV (C.F.) = 16 X 50
SV = 800 C.F.

$\frac{800\ C.F.}{1.5\ FT.}$ = 533 S.F.

USE A 20 FT. X 27 FT. BASIN

TEMPORARY SETTLING BASIN



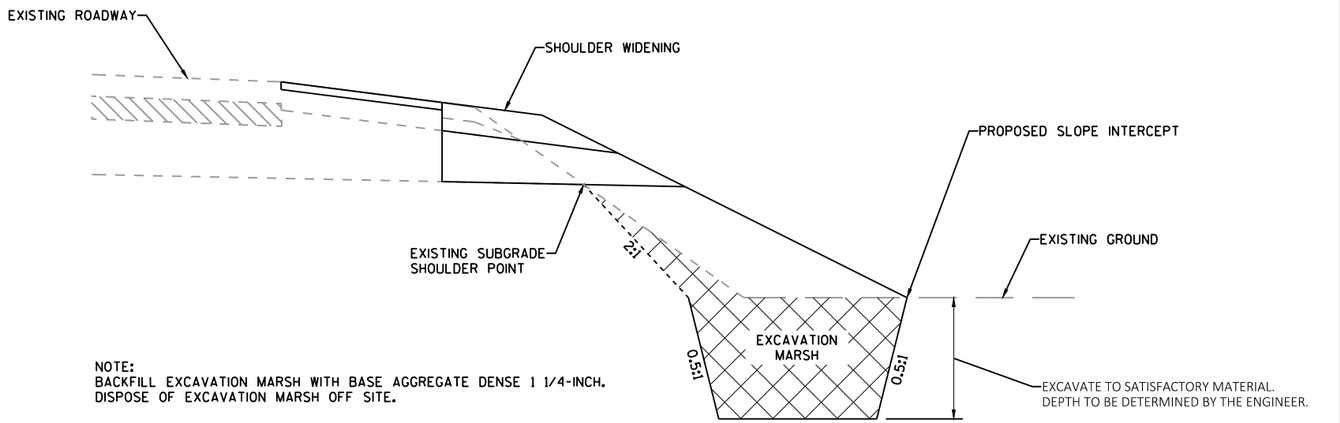


NOTES:
ANCHOR GEOTEXTILE FABRIC A MINIMUM OF 6" BELOW GRADE. TRENCH, ANCHOR, AND BACKFILL SIMILAR TO REGULAR SILT FENCE INSTALLATION OUTSIDE OF WETLANDS OR WHEN THE GROUND IS DRY ENOUGH FOR TRENCHING. THE CONTRACTOR SHALL NOT BE REQUIRED TO TRENCH IF THE SNAKE EXCLUSION FENCING IS WITHIN STANDING WATER AT THE TIME OF INSTALLATION.

ANCHOR MATERIAL IS INCIDENTAL TO SILT FENCE - SNAKE EXCLUSION BARRIER.

SILT FENCE - SNAKE EXCLUSION FENCING

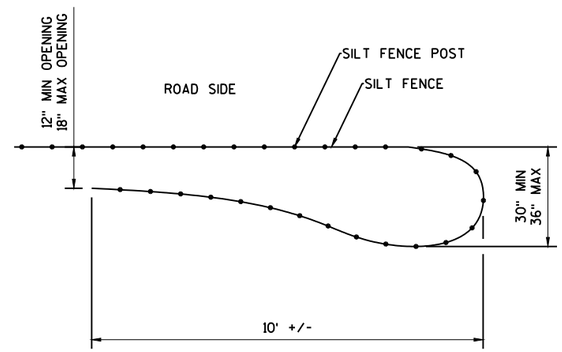
LOCATIONS SHOWN ON EROSION CONTROL PLANS OR AS DIRECTED BY THE ENGINEER.



NOTE:
BACKFILL EXCAVATION MARSH WITH BASE AGGREGATE DENSE 1 1/4-INCH.
DISPOSE OF EXCAVATION MARSH OFF SITE.

PARTIAL MARSH EXCAVATION DETAIL

STA. 380+00 TO 380+60, RT
OR AS DIRECTED BY THE ENGINEER.



SILT FENCE TURN-AROUND DETAIL

LOCATIONS SHOWN ON EROSION CONTROL
PLANS OR AS DIRECTED BY THE ENGINEER.

2

LEGEND

PAV1 — 5 ¾" HMA PAVEMENT OVER 6" BASE AGGREGATE DENSE 1 ¼"

PAV2 — 2" REMOVING ASPHALTIC SURFACE MILLING & 2" HMA PAVEMENT OVERLAY

PAV3 — 8 ¼" HMA PAVEMENT OVER 18 ¼" BASE AGGREGATE DENSE 1 ¼"

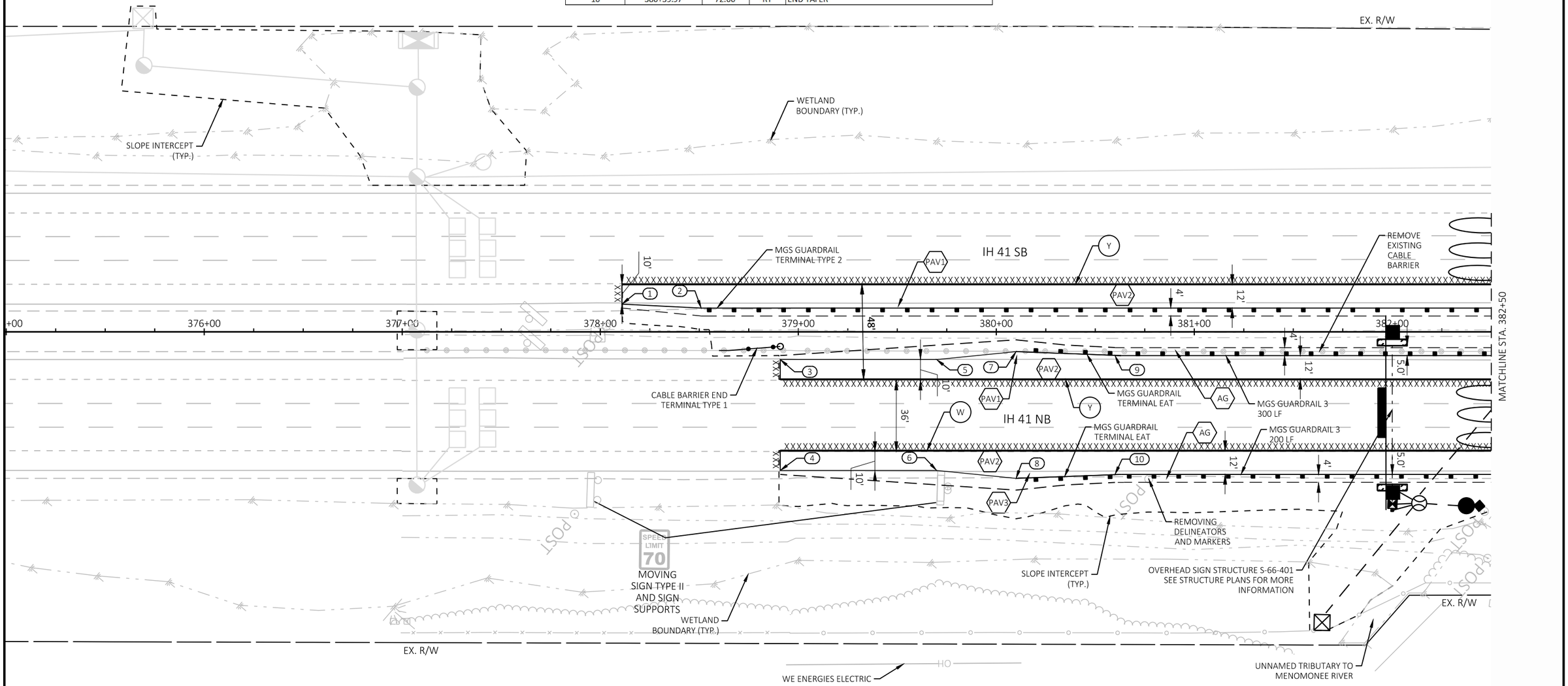
AG — BASE AGGREGATE DENSE ¾-INCH

XXXXXXXXX — SAWCUT

Y — MARKING LINE EPOXY 4-INCH, YELLOW

W — MARKING LINE EPOXY 4-INCH, WHITE

POINT	STATION	OFFSET		DESCRIPTION
1	378+10.99	14.00'	LT	BEGIN CONSTRUCTION, MATCH EXISTING
2	378+50.99	12.00'	LT	END TAPER, BEGIN MGS TERMINAL
3	378+90.93	14.00'	RT	BEGIN CONSTRUCTION, MATCH EXISTING
4	378+90.93	70.00'	RT	BEGIN CONSTRUCTION, MATCH EXISTING
5	379+69.90	14.00'	RT	BEGIN TAPER
6	379+69.90	70.00'	RT	BEGIN TAPER
7	380+10.00	10.00'	RT	END TAPER, BEGIN EAT
8	380+10.00	74.00'	RT	END TAPER, BEGIN EAT
9	380+59.97	12.00'	RT	END TAPER
10	380+59.97	72.00'	RT	END TAPER



PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 7	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021201_pd

PLOT DATE : 7/29/2022 9:59 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

LEGEND

PAV1 — 5 ¾ " HMA PAVEMENT OVER 6" BASE AGGREGATE DENSE 1 ¼"

PAV2 — 2" REMOVING ASPHALTIC SURFACE MILLING & 2" HMA PAVEMENT OVERLAY

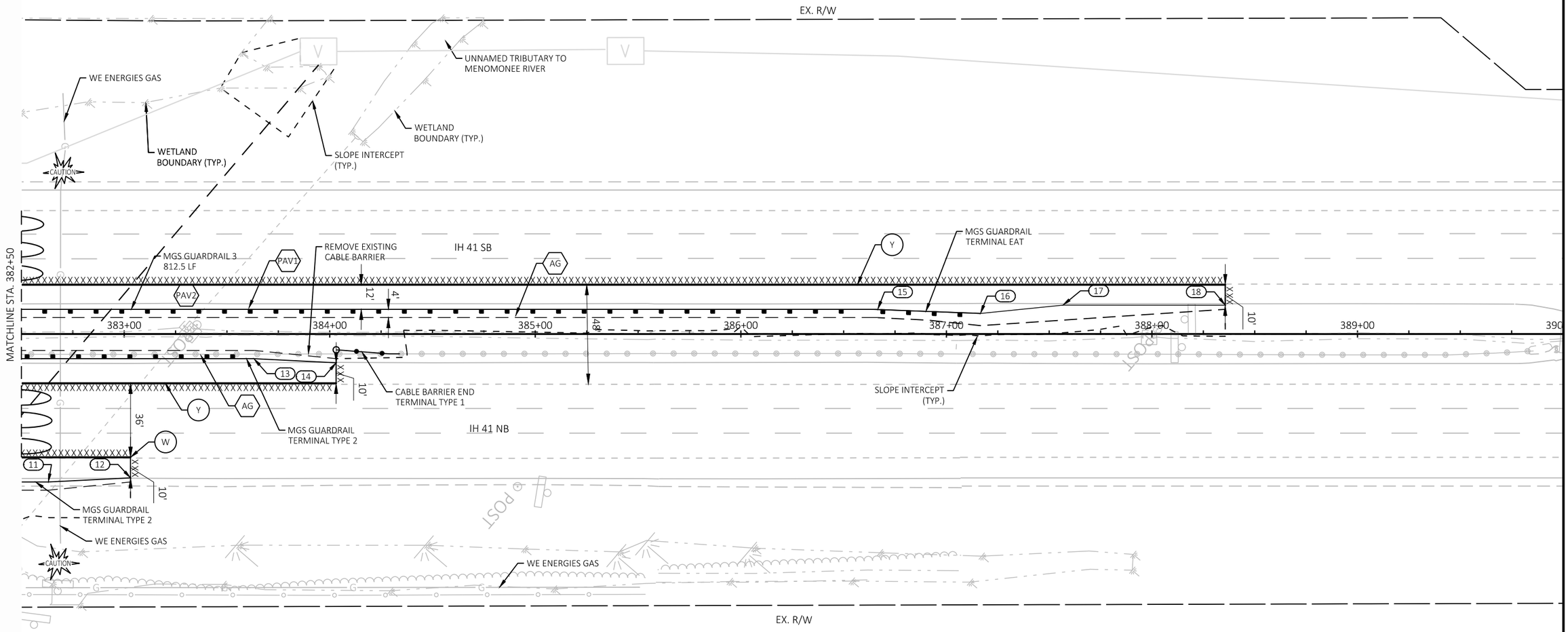
PAV3 — 8 ½" HMA PAVEMENT OVER 18 ½" BASE AGGREGATE DENSE 1 ¼"

AG — BASE AGGREGATE DENSE ¾-INCH

XXXXXXXXX — SAWCUT

Y — MARKING LINE EPOXY 4-INCH, YELLOW

W — MARKING LINE EPOXY 4-INCH, WHITE



POINT	STATION	OFFSET		DESCRIPTION
11	382+63.09	72.00'	RT	END MGS TERMINAL, BEGIN TAPER
12	383+03.09	70.00'	RT	END CONSTRUCTION, MATCH EXISTING
13	383+63.09	12.00'	RT	END MGS TERMINAL, BEGIN TAPER
14	384+03.09	14.00'	RT	END CONSTRUCTION, MATCH EXISTING
15	386+66.62	12.00'	LT	BEGIN TAPER
16	387+16.58	10.00'	LT	END TAPER, END EAT
17	387+56.69	14.00'	LT	END TAPER
18	388+35.65	14.00'	LT	END CONSTRUCTION, MATCH EXISTING

2

2

N

EX. R/W

WETLAND
BOUNDARY (TYP.)

IH 41 SB

+00 376+00 377+00 378+00 379+00 380+00 381+00 382+00

A

MATCHLINE STA. 382+50

IH 41 NB

WETLAND
BOUNDARY (TYP.)

EX. R/W

EX. R/W

UNNAMED TRIBUTARY TO
MENOMONEE RIVER

LEGEND

- EROSION MAT URBAN CLASS I, TYPE B SEEDING MIXTURE NO.60 AND TOPSOIL
- SEEDING MIXTURE NO. 30 AND FERTILIZER
- SILT FENCE - SNAKE EXCLUSION BARRIER
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- A B C INLET PROTECTION TYPE
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW

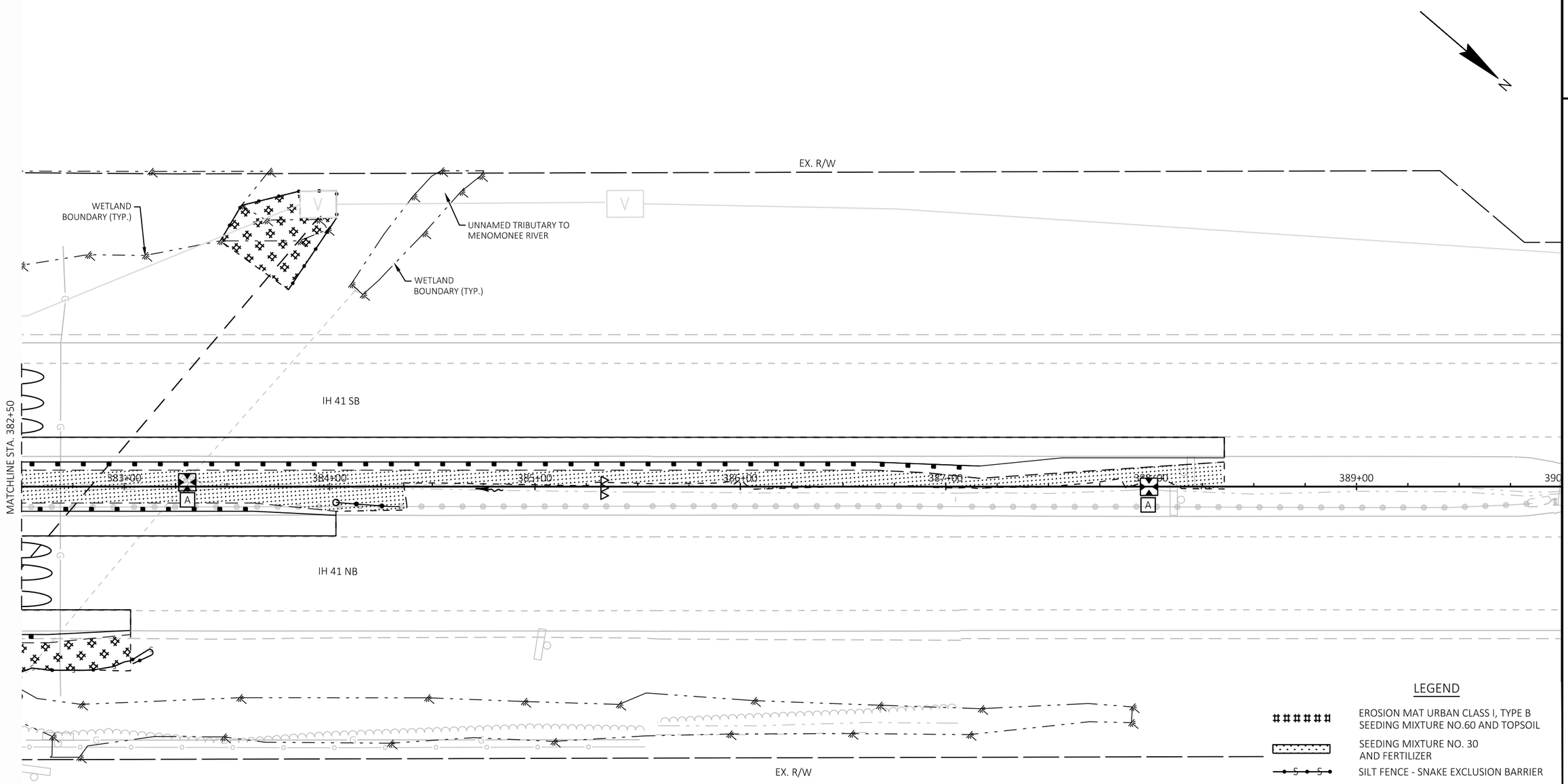
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 9	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 021201_ec

PLOT DATE : 10/22/2022 11:18 AM PLOT BY : STEUCK, BOB PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 10	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 021202_ec
PLOT DATE : 10/22/2022 11:18 AM
PLOT BY : STEUCK, BOB
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

EX-CB-SDS-66-0062
(1) REMOVE CONTROLLER CABINET
(1) REMOVE CONTROLLER CABINET CONCRETE BASE

EXCV383
(1) INSTALL PROPOSED CONDUIT
INTO EXISTING VAULT
(4) F.O. SPLICES IN NEW
F.O. SPLICE ENCLOSURE (S-F)

EX-MBSDS660062
(1) REMOVE ELECTRICAL SERVICE
METER BREAKER PEDESTAL

REMOVE CABLES

REMOVE CABLES

EXPB375
(1) REMOVE PULL BOX

EXDP374
(1) SALVAGE POLE
(1) REMOVE CONCRETE BASE

REMOVE CABLES

REMOVE CABLES

EXPB374
(1) REMOVE PULL BOX

EXPB373
(1) REMOVE PULL BOX

EXPB372
(1) REMOVE PULL BOX

EXPB371
(1) REMOVE PULL BOX

S-66-401 / DMS-66-0041 / SDS-66-0062
(1) OVERHEAD FREEWAY DMS (S-F)
(1) POLE-MOUNTED CABINET (S-F)
(1) ELECTRICAL SERVICE BREAKER DISCONNECT BOX
(1) 12-COUNT F.O. TERMINATION PANEL (S-F)
(6) F.O. TERMINATIONS
(1) ETHERNET SWITCH (S-F)

(2) 2-INCH HDPE DUCTS, DIRECTIONAL BORE
(1) WITH (1) 6-COUNT FOC (S-F) AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

DP382
(1) TYPE 5 CONCRETE BASE
(1) 11-1/2-INCH TRANSFORMER BASE (SALVAGED)
(1) TYPE 5 POLE (SALVAGED)
(1) ETHERNET MICROWAVE VEHICLE DETECTORS (S-F)

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) OUTDOOR RATED NETWORK CABLE AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

MBDMS660041
(1 ELECTRICAL SERVICE
METER BREAKER PEDESTAL

PB382

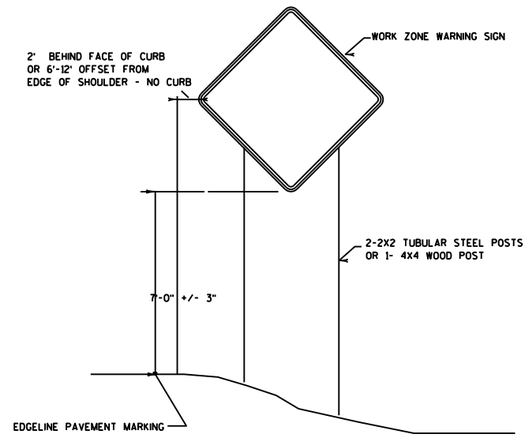
(1) 2-INCH NONMETALLIC CONDUIT WITH
(4) NO. 2 AWG TRAFFIC SIGNAL WIRES

DMS-66-0041 SITE CONDUIT AND CABLING ROUTING
PB382 - BREAKER DISCONNECT BOX
(2) 2-INCH METALLIC CONDUITS
(1) WITH (4) NO. 2 AWG TRAFFIC SIGNAL WIRES
(1) WITH DMS POWER WIRES
PB382 - S-66-401 CONCRETE FOOTING
(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH DMS POWER WIRES
(1) WITH DMS CONTROL CABLE
PB382 - BOTTOM OF CB-DMS-66-0041/SDS-66-0062
(2) 2-INCH METALLIC CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F) AND (1) NO. 10 AWG TRAFFIC SIGNAL WIRE
(1) WITH (1) OUTDOOR RATED NETWORK CABLE

PROJECT NO: 3700-43-70	HWY: IH 41 / US 45	COUNTY: WASHINGTON	FTMS PLANS	SHEET 11	E

GENERAL NOTES FOR TRAFFIC CONTROL

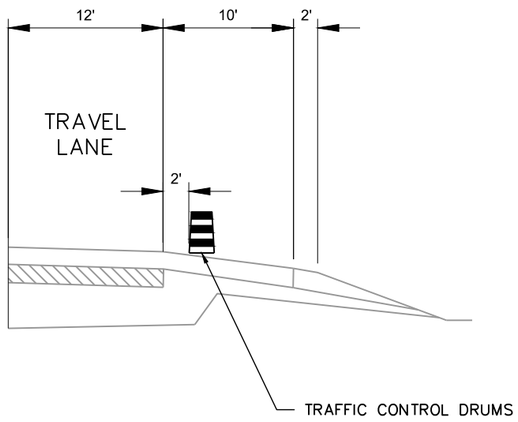
1. TRAFFIC CONTROL DRUMS IN TAPERS, SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE "C", ONE WAYLIGHTS IN TAPERS ONLY, UNLESS OTHERWISE SHOWN.
2. SIGN LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATION SPACING MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER TO MEET FIELD CONDITIONS.
3. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
4. ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.
5. BARRICADE STRIPES ARE TO BE SLOPED DOWNWARD IN THE DIRECTION OF TRAFFIC FLOW.



TYPICAL TEMPORARY TRAFFIC CONTROL DETAIL

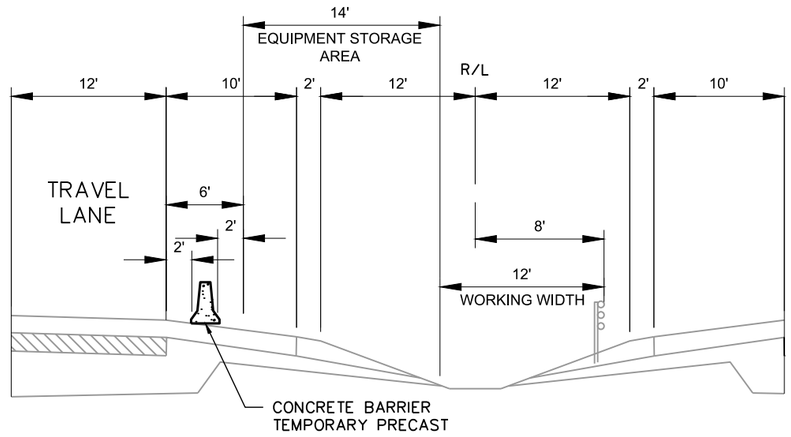
MOUNTING ON FIXED SUPPORT

LONG TERM
7 DAYS OR MORE

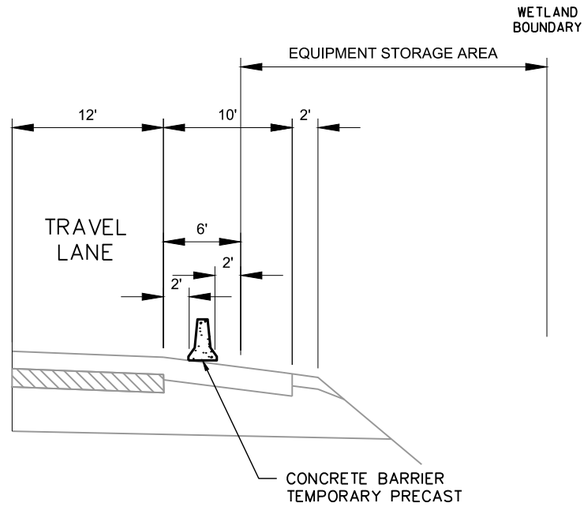


SHOULDER CLOSURE DETAIL

MAINTAIN SHOULDER CLOSER WHEN WORK IS NOT TAKING PLACE.
PLACE DRUM 2' FROM EDGE OF TRAVEL LANE.



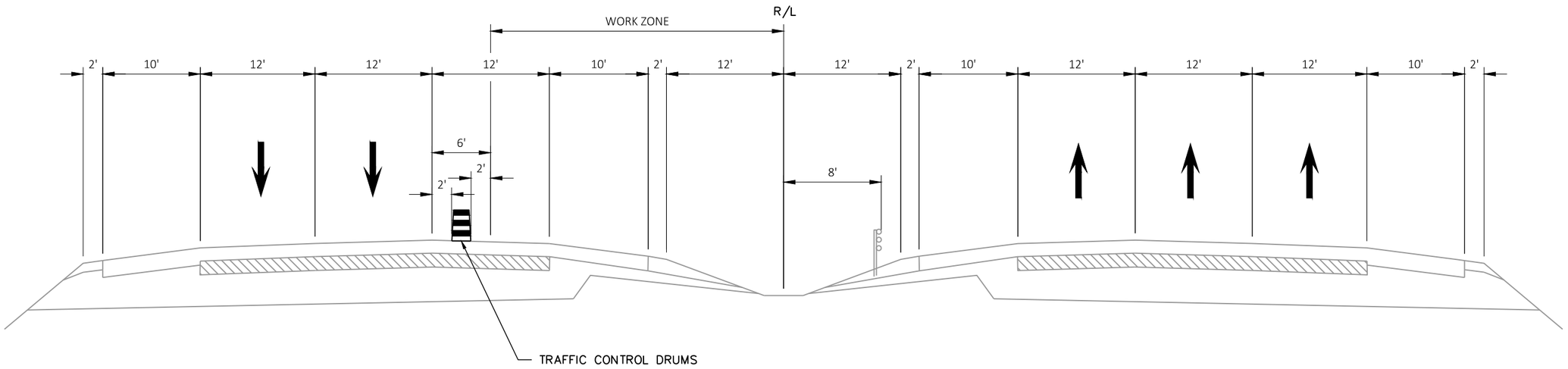
MEDIAN STORAGE



OUTSIDE STORAGE

EQUIPMENT STORAGE AREA

EQUIPMENT STORED ON-SITE SHALL BE PROTECTED BEHIND CONCRETE BARRIER TEMPORARY PRECAST.
PLACE TEMPORARY BARRIER 2' FROM EDGE OF TRAVEL LANE.



STAGE 1

CLOSE SOUTHBOUND MEDIAN LANE
CONSTRUCT SOUTHBOUND MEDIAN SHOULDER AND GUARDRAIL

NOTE:
OFF-PEAK LANE CLOSURE SHOWN, WHEN WORK IS NOT TAKING PLACE, OPEN TRAVEL LANE AND FOLLOW SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" TO MAINTAIN SHOULDER CLOSER .

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 1	SHEET 13	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026002_S1.DWG
LAYOUT NAME - Stage 1
PLOT DATE : 7/29/2022 9:59 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:10 FT

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- CONSTRUCT SOUTHBOUND MEDIAN SHOULDER
- CONSTRUCT SOUTHBOUND MEDIAN GUARDRAIL

NOTE:
OFF-PEAK LANE CLOSURE SHOWN, WHEN WORK IS NOT TAKING PLACE, OPEN TRAVEL LANE AND FOLLOW SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" TO MAINTAIN SHOULDER CLOSER .

END ROAD WORK
G20-2A
48"X24"

500'

100' TYP.

IH 41 SB

IH 41 NB

376+00 377+00 378+00 379+00 380+00 381+00 382

MATCH LINE 382+00

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 1	SHEET 14	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026001_S1.DWG
LAYOUT NAME - 026001_s1

PLOT DATE : 7/29/2022 10:01 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

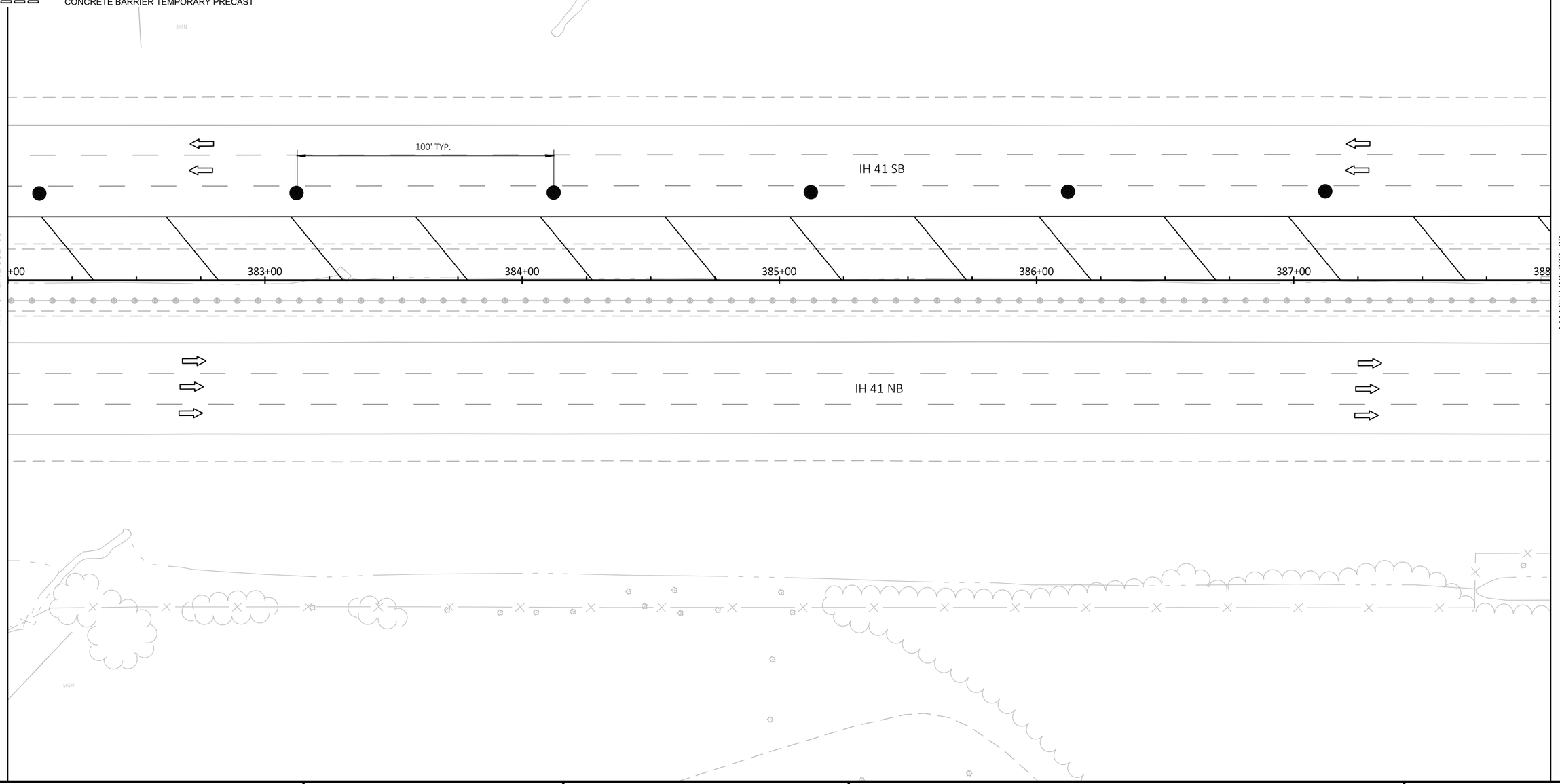
2

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- CONSTRUCT SOUTHBOUND MEDIAN SHOULDER
- CONSTRUCT SOUTHBOUND MEDIAN GUARDRAIL

NOTE:
OFF-PEAK LANE CLOSURE SHOWN, WHEN WORK IS NOT TAKING PLACE, OPEN TRAVEL LANE AND FOLLOW SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" TO MAINTAIN SHOULDER CLOSER .



PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 1	SHEET 15	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026001_S1.DWG
LAYOUT NAME - 026002_s1

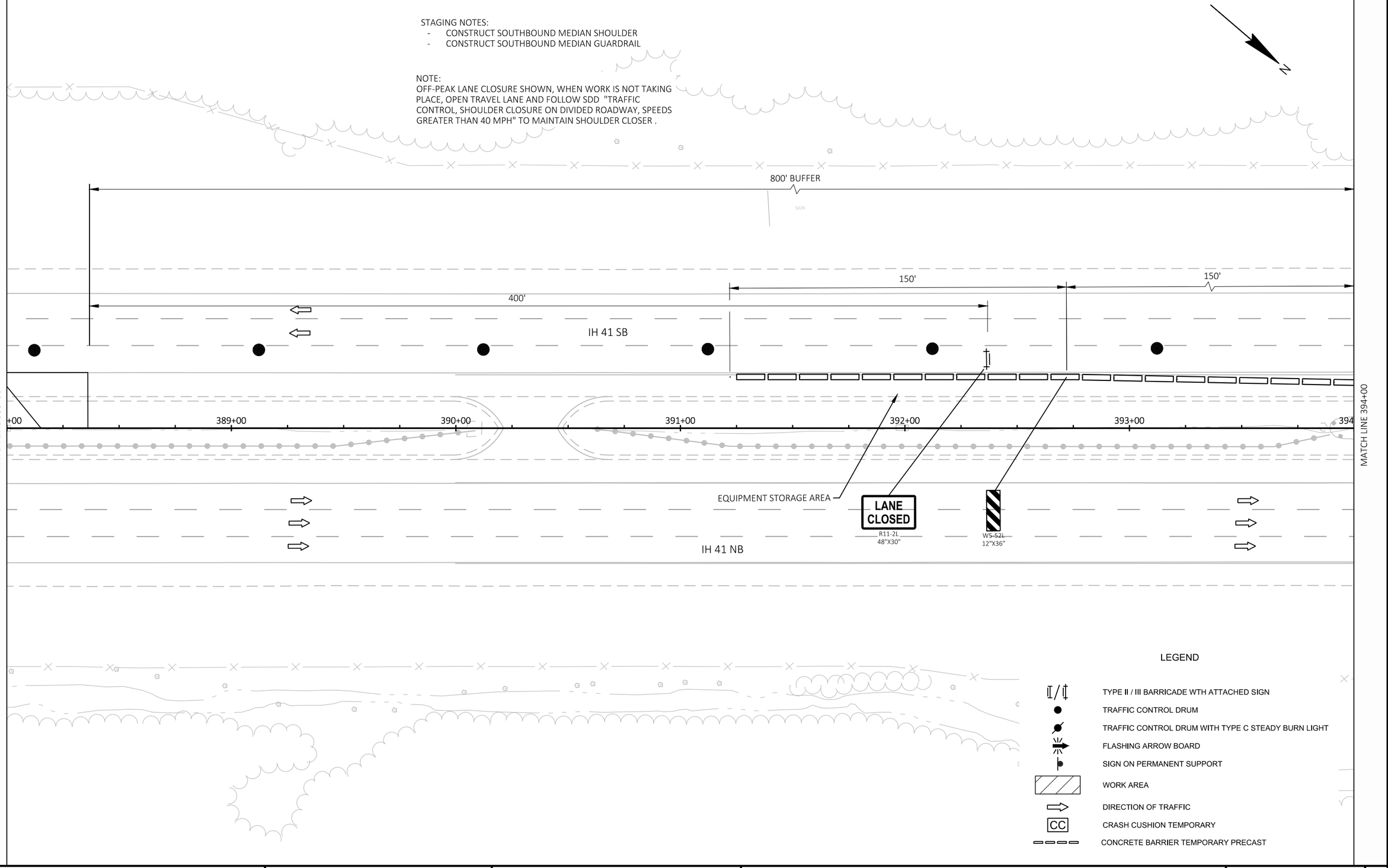
PLOT DATE : 7/29/2022 10:02 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

STAGING NOTES:
- CONSTRUCT SOUTHBOUND MEDIAN SHOULDER
- CONSTRUCT SOUTHBOUND MEDIAN GUARDRAIL

NOTE:
OFF-PEAK LANE CLOSURE SHOWN, WHEN WORK IS NOT TAKING PLACE, OPEN TRAVEL LANE AND FOLLOW SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" TO MAINTAIN SHOULDER CLOSER .



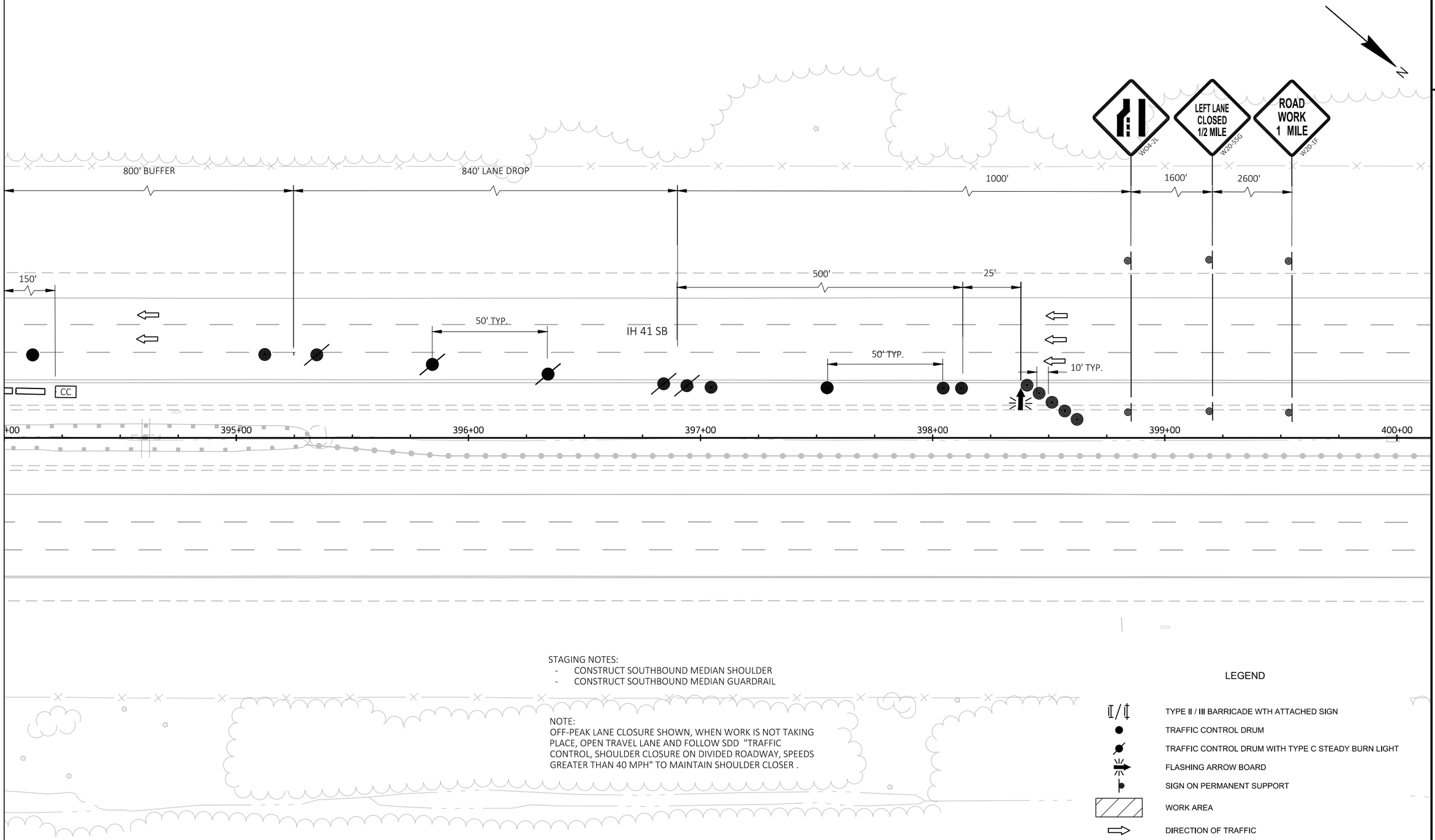
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 1	SHEET 16	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026001_S1.DWG
LAYOUT NAME - 026003_s1

PLOT DATE : 7/29/2022 10:04 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



STAGING NOTES:
- CONSTRUCT SOUTHBOUND MEDIAN SHOULDER
- CONSTRUCT SOUTHBOUND MEDIAN GUARDRAIL

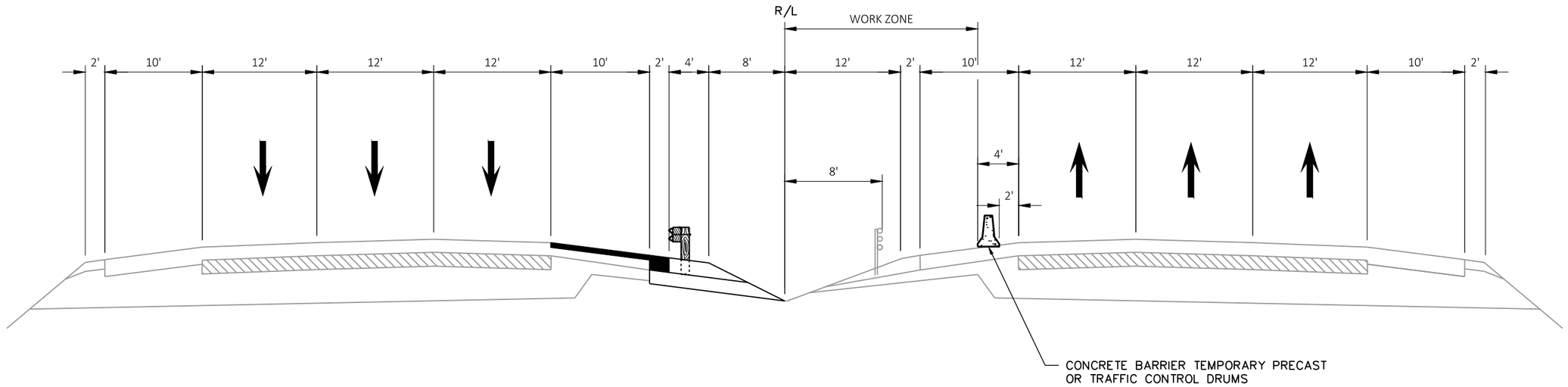
NOTE:
OFF-PEAK LANE CLOSURE SHOWN, WHEN WORK IS NOT TAKING PLACE, OPEN TRAVEL LANE AND FOLLOW SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" TO MAINTAIN SHOULDER CLOSER .

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

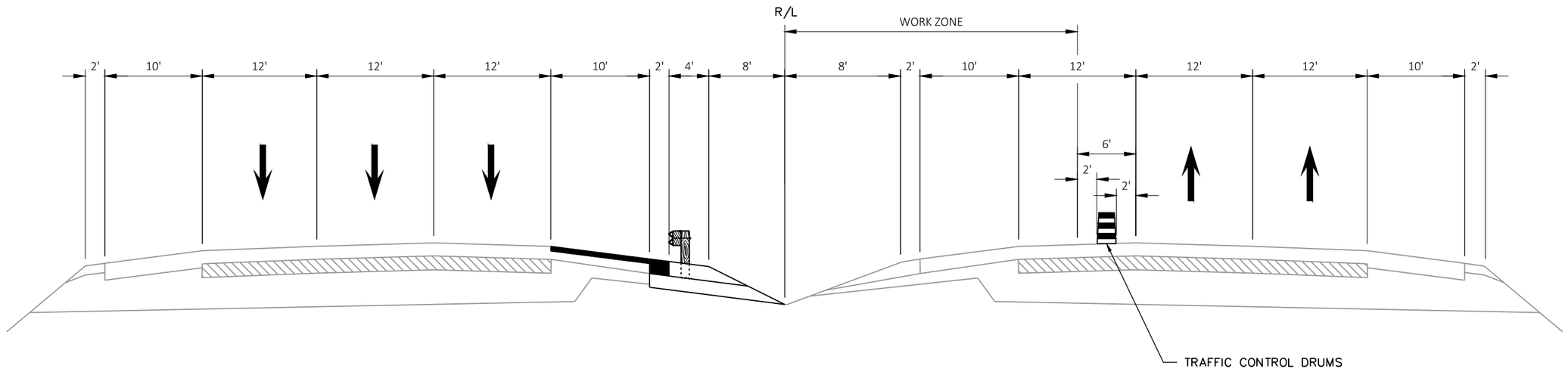
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 1	SHEET 17	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026001_S1.DWG
LAYOUT NAME - 026004_s1
PLOT DATE : 7/29/2022 10:05 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



STAGE 2A

CLOSE NORTHBOUND MEDIAN SHOULDER
CONSTRUCT MEDIAN FOOTING FOR SIGN BRIDGE



STAGE 2B

CLOSE NORTHBOUND MEDIAN LANE
CONSTRUCT NORTHBOUND MEDIAN SHOULDER AND GUARDRAIL

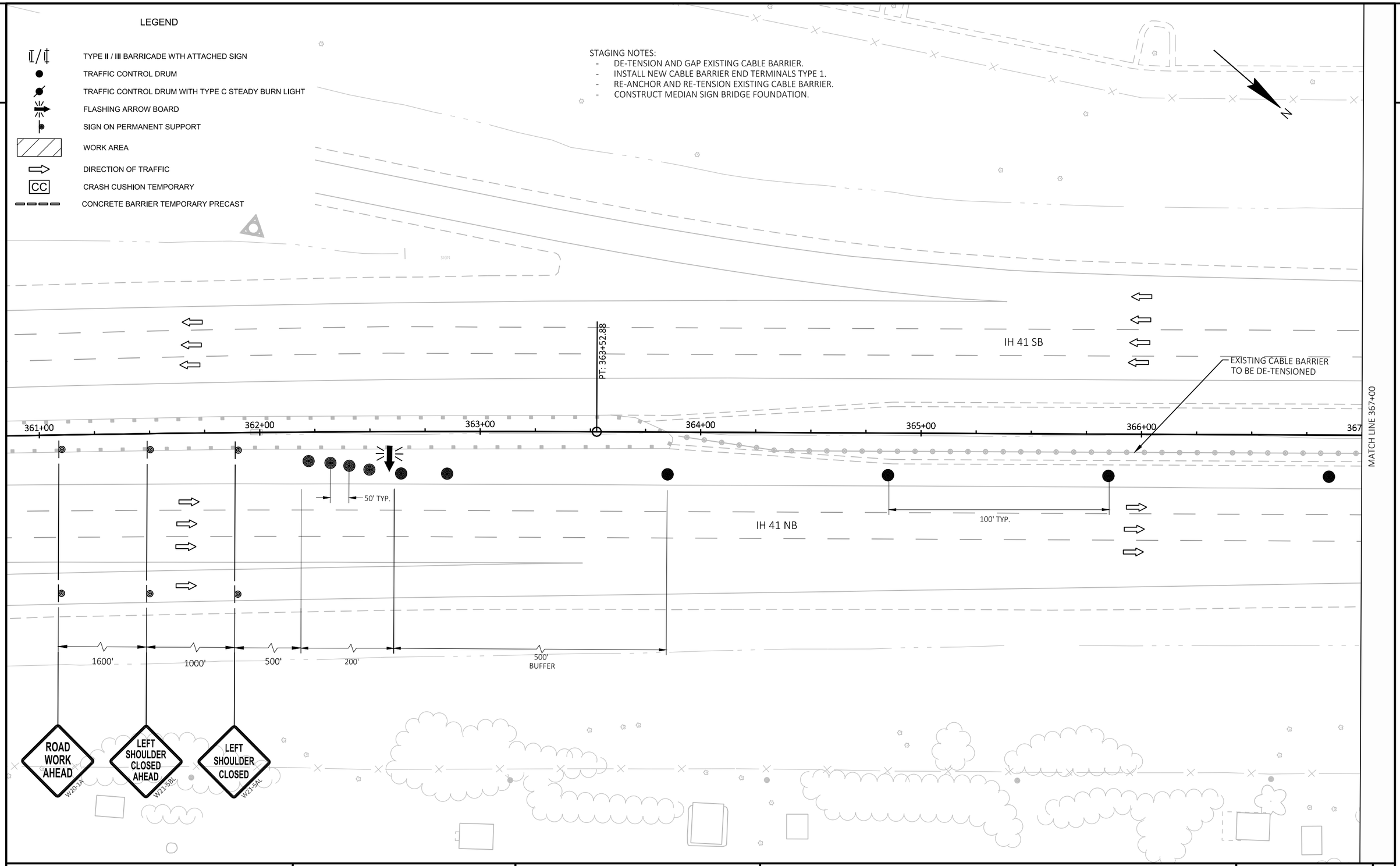
NOTE:
OFF-PEAK LANE CLOSURE SHOWN, WHEN WORK IS NOT TAKING PLACE, OPEN TRAVEL LANE AND FOLLOW SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" TO MAINTAIN SHOULDER CLOSER .

2

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- DE-TENSION AND GAP EXISTING CABLE BARRIER.
- INSTALL NEW CABLE BARRIER END TERMINALS TYPE 1.
- RE-ANCHOR AND RE-TENSION EXISTING CABLE BARRIER.
- CONSTRUCT MEDIAN SIGN BRIDGE FOUNDATION.



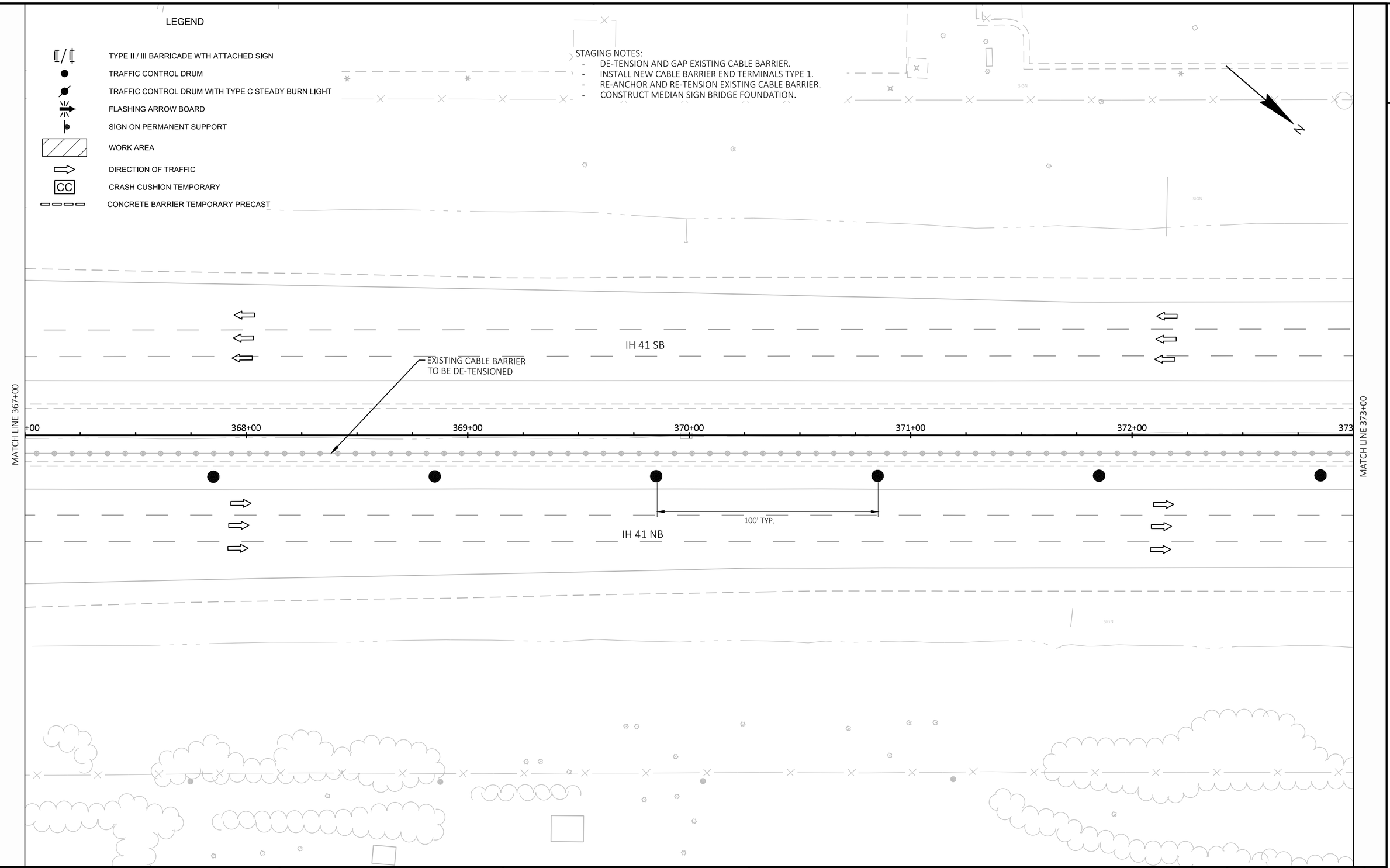
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 2A	SHEET 19	E

2

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- DE-TENSION AND GAP EXISTING CABLE BARRIER.
- INSTALL NEW CABLE BARRIER END TERMINALS TYPE 1.
- RE-ANCHOR AND RE-TENSION EXISTING CABLE BARRIER.
- CONSTRUCT MEDIAN SIGN BRIDGE FOUNDATION.



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PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 2A	SHEET 20	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026101_S2A.DWG
LAYOUT NAME - 026102_s2a

PLOT DATE : 7/29/2022 10:08 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

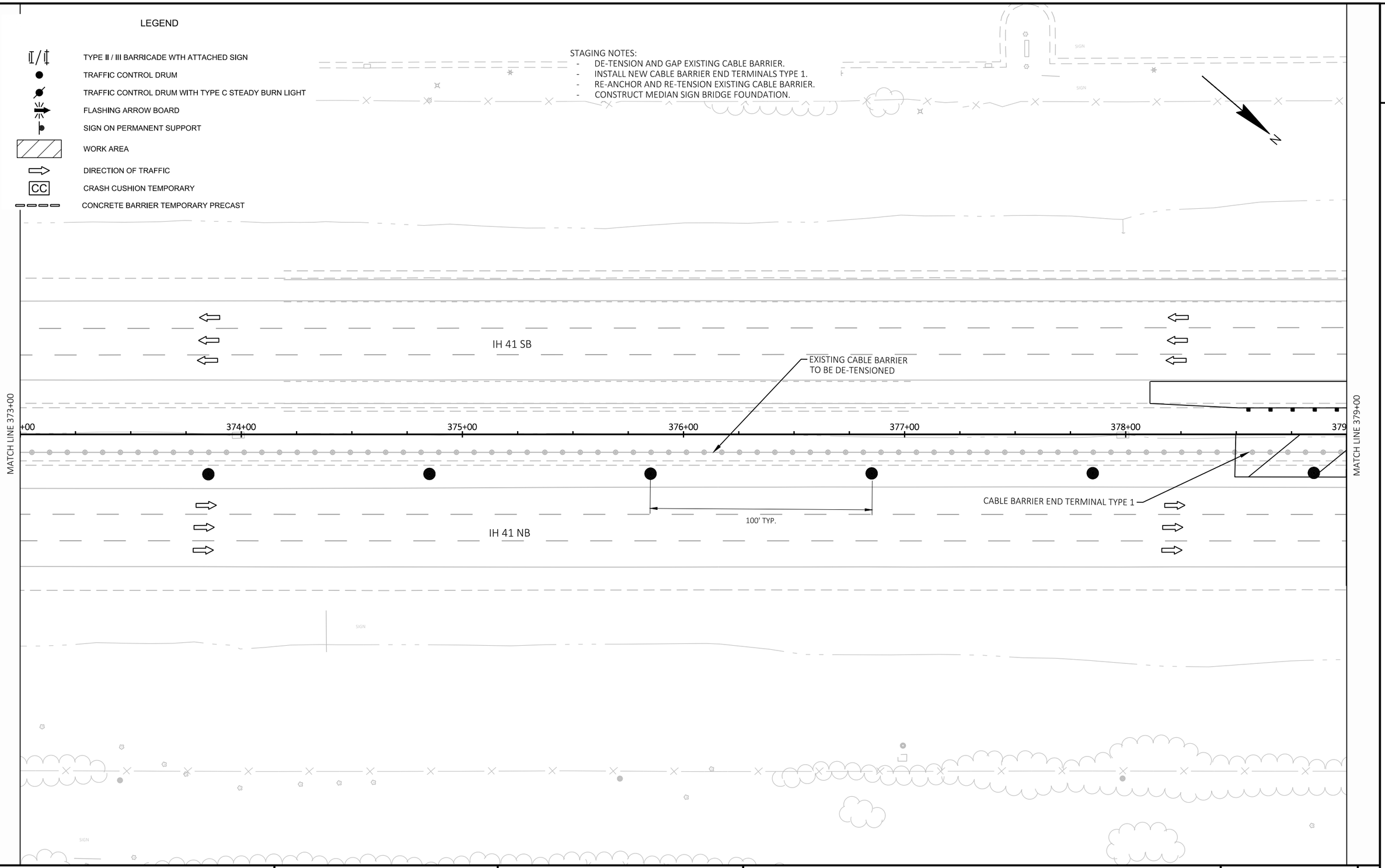
WISDOT/CADDS SHEET 42

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:

- DE-TENSION AND GAP EXISTING CABLE BARRIER.
- INSTALL NEW CABLE BARRIER END TERMINALS TYPE 1.
- RE-ANCHOR AND RE-TENSION EXISTING CABLE BARRIER.
- CONSTRUCT MEDIAN SIGN BRIDGE FOUNDATION.



PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 2A	SHEET 21	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026101_S2A.DWG
LAYOUT NAME - 026103_s2a

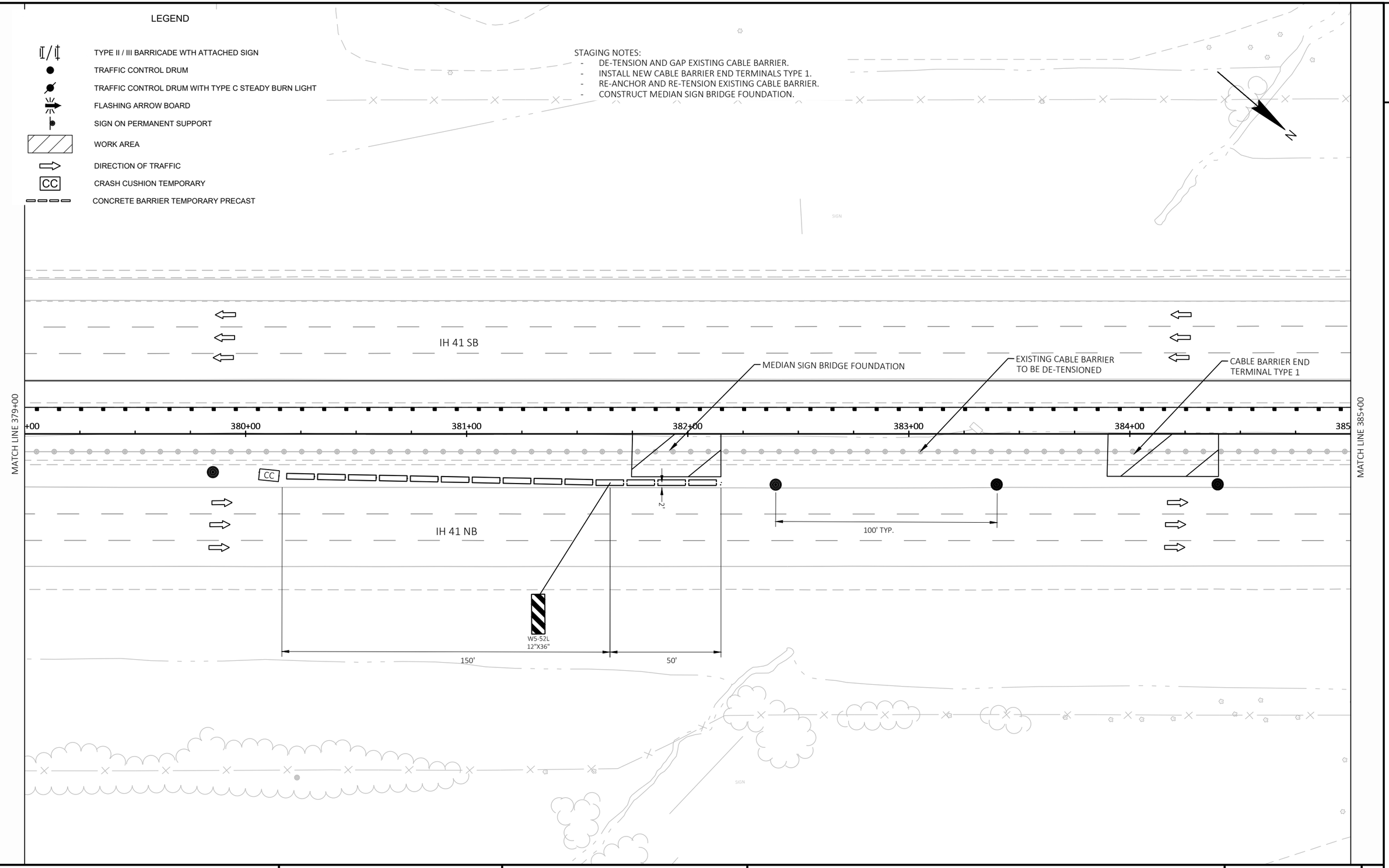
PLOT DATE : 7/29/2022 10:09 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- DE-TENSION AND GAP EXISTING CABLE BARRIER.
- INSTALL NEW CABLE BARRIER END TERMINALS TYPE 1.
- RE-ANCHOR AND RE-TENSION EXISTING CABLE BARRIER.
- CONSTRUCT MEDIAN SIGN BRIDGE FOUNDATION.



PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 2A	SHEET 22	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026101_S2A.DWG
LAYOUT NAME - 026104_s2a

PLOT DATE : 7/29/2022 1:43 PM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

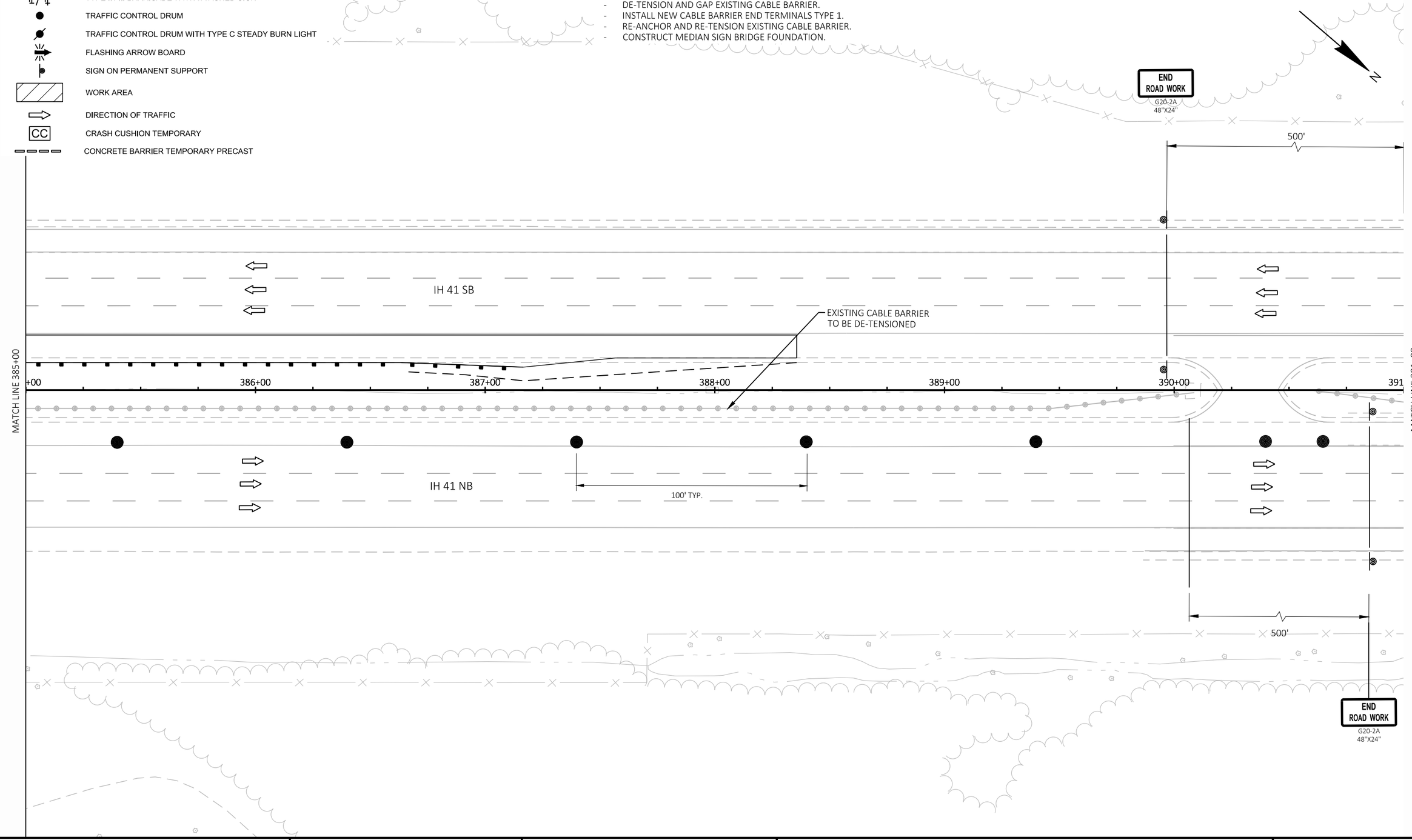
2

2

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- DE-TENSION AND GAP EXISTING CABLE BARRIER.
- INSTALL NEW CABLE BARRIER END TERMINALS TYPE 1.
- RE-ANCHOR AND RE-TENSION EXISTING CABLE BARRIER.
- CONSTRUCT MEDIAN SIGN BRIDGE FOUNDATION.



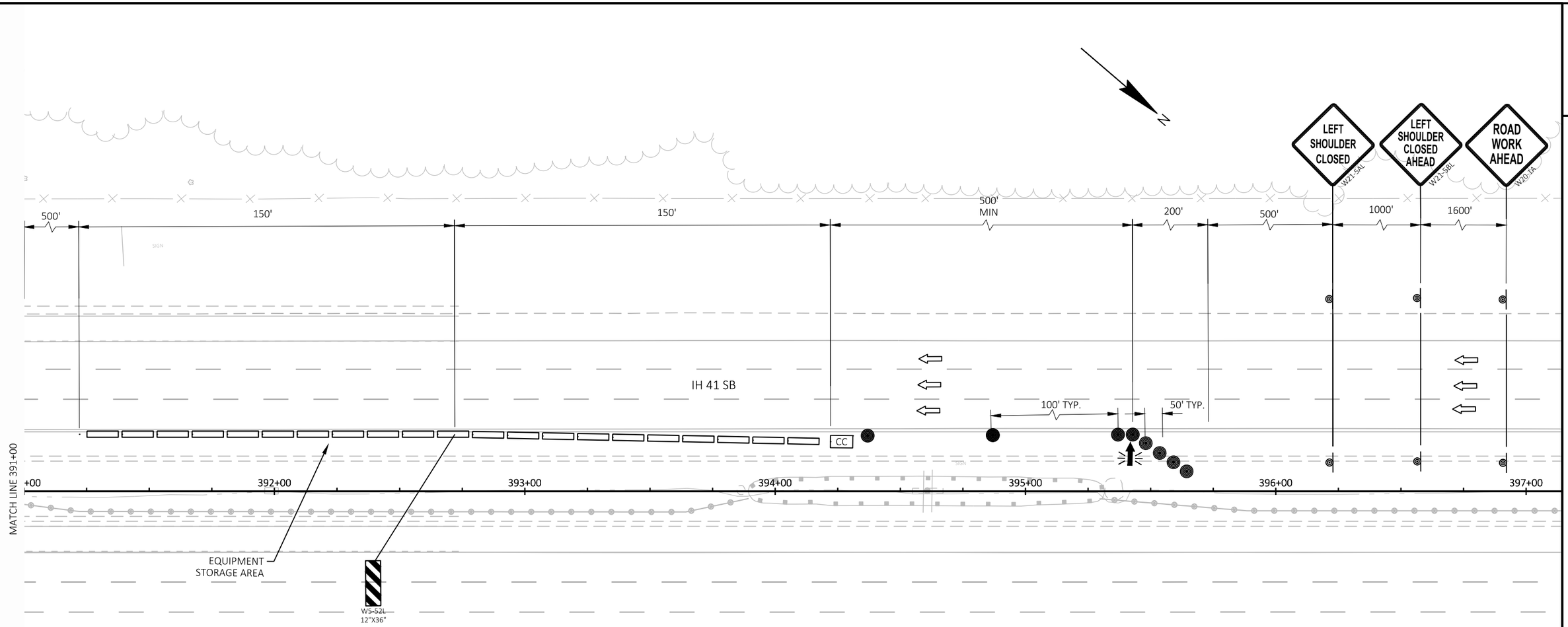
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 2A	SHEET 23	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026101_S2A.DWG
LAYOUT NAME - 026105_s2a

PLOT DATE : 7/29/2022 10:11 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



STAGING NOTES:

- DE-TENSION AND GAP EXISTING CABLE BARRIER.
- INSTALL NEW CABLE BARRIER END TERMINALS TYPE 1.
- RE-ANCHOR AND RE-TENSION EXISTING CABLE BARRIER.
- CONSTRUCT MEDIAN SIGN BRIDGE FOUNDATION.

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 2A	SHEET 24	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026101_S2A.DWG
LAYOUT NAME - 026106_s2a

PLOT DATE : 7/29/2022 10:12 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- CONSTRUCT NORTHBOUND MEDIAN SHOULDER
- CONSTRUCT NORTHBOUND MEDIAN GUARDRAIL

NOTE:
OFF-PEAK LANE CLOSURE SHOWN, WHEN WORK IS NOT TAKING PLACE, OPEN TRAVEL LANE AND FOLLOW SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" TO MAINTAIN SHOULDER CLOSER .

IH 41 SB

LANE CLOSED
R11-2L
48"X30"

373+00 374+00 375+00 376+00 377+00 378+00 379

MATCH LINE 379+00

10' TYP.
50' TYP.
50' TYP.
IH 41 NB
400'
25'
500'
2600'
1600'
1000'
840' LANE DROP
800' BUFFER

ROAD WORK 1 MILE W20-1F
LEFT LANE CLOSED 1/2 MILE W20-5aG
W04-2L

2

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 2B	SHEET 25	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026102_S2B.DWG
LAYOUT NAME - 026111_s2b
PLOT DATE : 7/29/2022 10:14 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- CONSTRUCT NORTHBOUND MEDIAN SHOULDER
- CONSTRUCT NORTHBOUND MEDIAN GUARDRAIL

NOTE:
OFF-PEAK LANE CLOSURE SHOWN, WHEN WORK IS NOT TAKING PLACE, OPEN TRAVEL LANE AND FOLLOW SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" TO MAINTAIN SHOULDER CLOSER .

N

IH 41 SB

MATCH LINE 379+00

380+00 381+00 382+00 383+00 384+00 385

MATCH LINE 385+00

IH 41 NB

100' TYP.

500'

END ROAD WORK
G20-2A
48"X24"

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 2B	SHEET 26	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026102_S2B.DWG
LAYOUT NAME - 026112_s2b

PLOT DATE : 7/29/2022 10:15 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

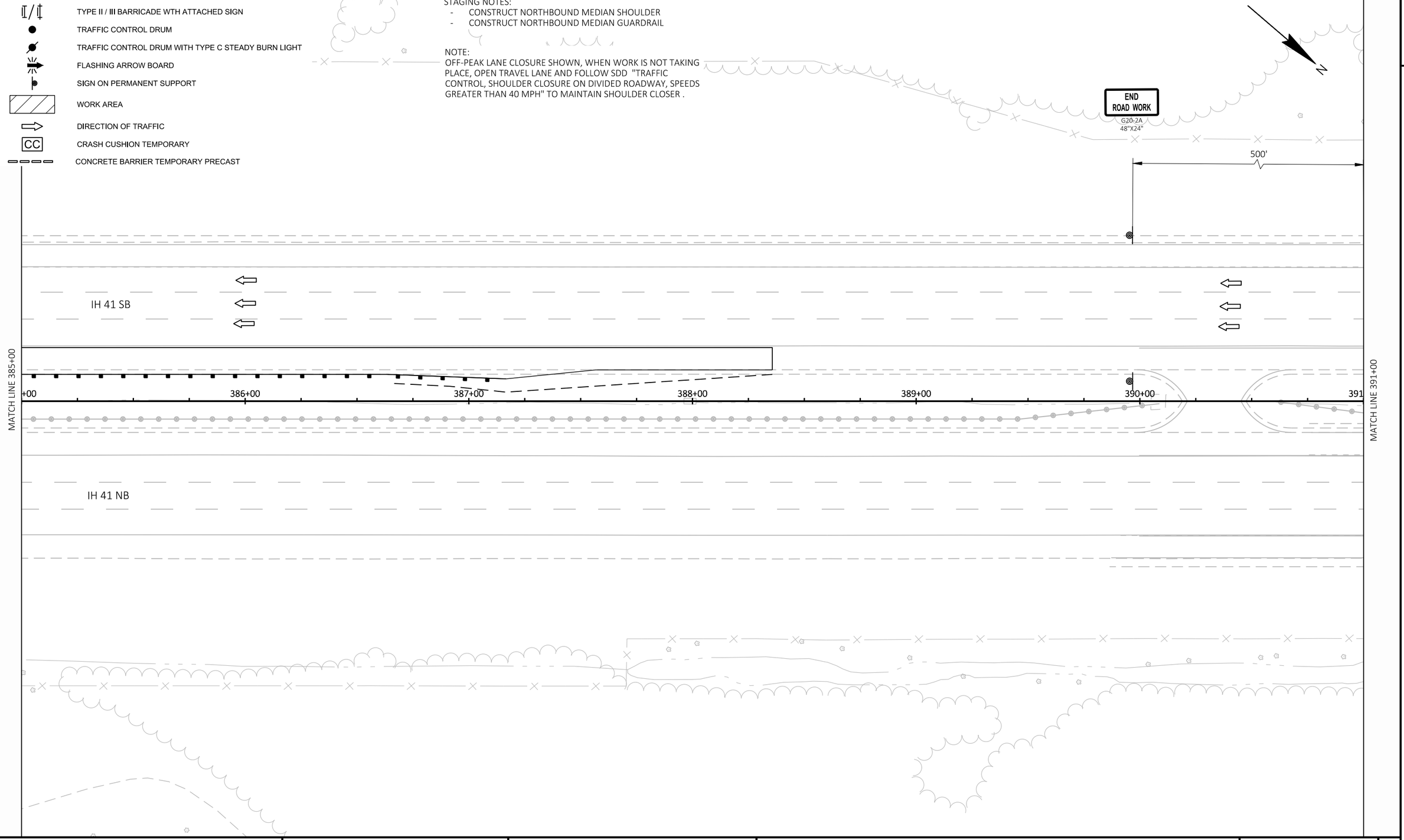
2

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- CONSTRUCT NORTHBOUND MEDIAN SHOULDER
- CONSTRUCT NORTHBOUND MEDIAN GUARDRAIL

NOTE:
OFF-PEAK LANE CLOSURE SHOWN, WHEN WORK IS NOT TAKING PLACE, OPEN TRAVEL LANE AND FOLLOW SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" TO MAINTAIN SHOULDER CLOSER .



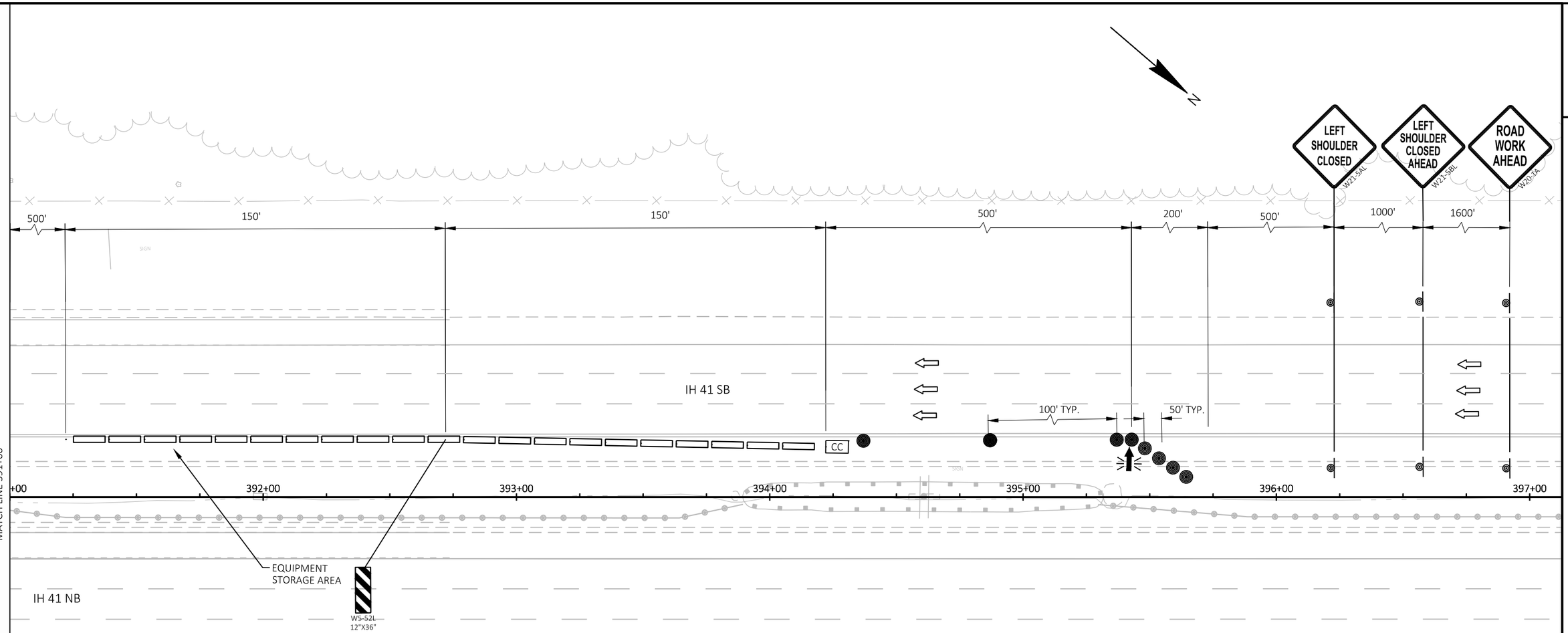
2

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 2B	SHEET 27	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026102_S2B.DWG
LAYOUT NAME - 026113_s2b
PLOT DATE : 7/29/2022 10:16 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2



STAGING NOTES:
- CONSTRUCT NORTHBOUND MEDIAN SHOULDER
- CONSTRUCT NORTHBOUND MEDIAN GUARDRAIL

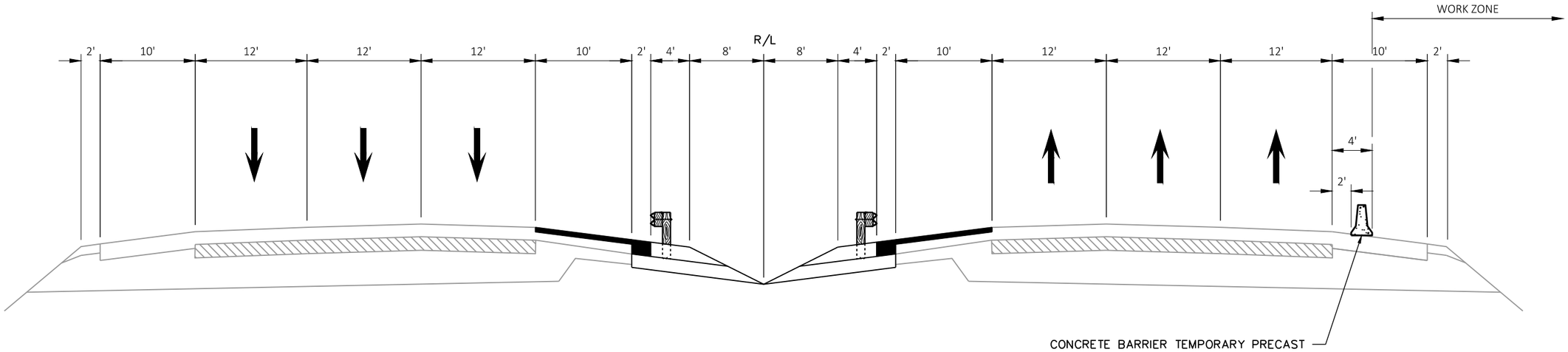
NOTE:
OFF-PEAK LANE CLOSURE SHOWN, WHEN WORK IS NOT TAKING PLACE, OPEN TRAVEL LANE AND FOLLOW SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" TO MAINTAIN SHOULDER CLOSER .

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

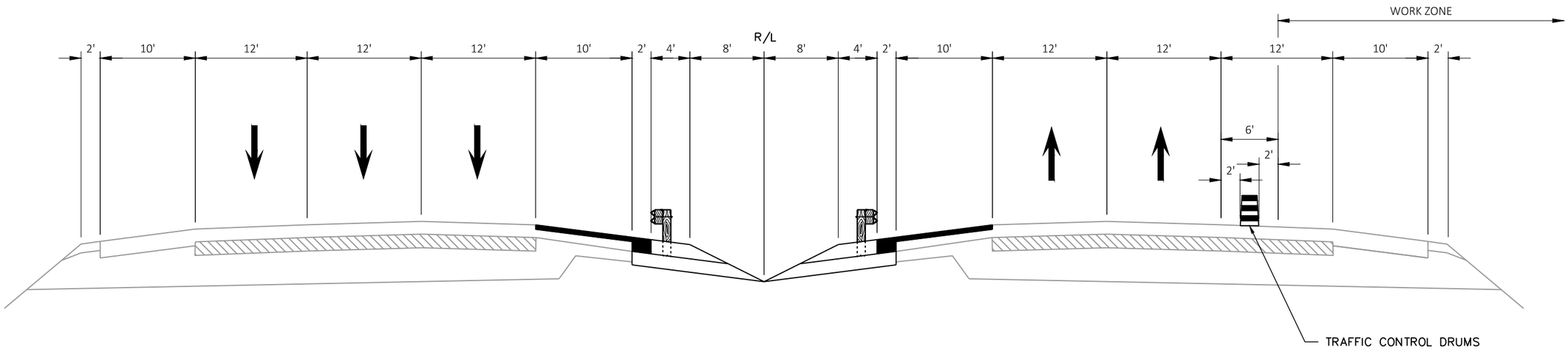
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 2B	SHEET 28	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026102_S2B.DWG
LAYOUT NAME - 026114_s2b
PLOT DATE : 7/29/2022 10:17 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT



STAGE 3A

CLOSE NORTHBOUND OUTSIDE SHOULDER
CONSTRUCT OUTSIDE FOOTING FOR SIGN BRIDGE



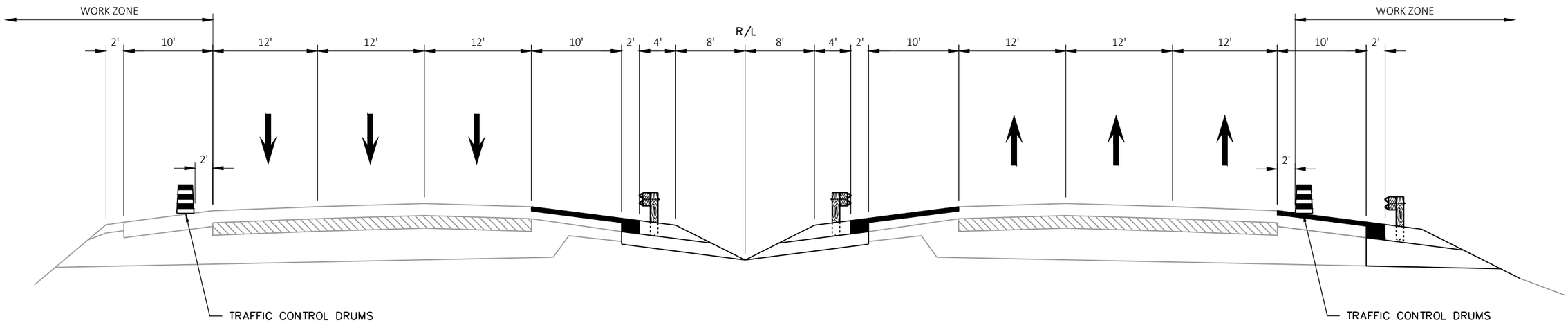
STAGE 3B

CLOSE NORTHBOUND OUTSIDE LANE
CONSTRUCT NORTHBOUND OUTSIDE SHOULDER AND GUARDRAIL

NOTE:
OFF-PEAK LANE CLOSURE SHOWN, WHEN WORK IS NOT TAKING PLACE, OPEN TRAVEL LANE AND FOLLOW SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" TO MAINTAIN SHOULDER CLOSER .

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL -STAGE 3	SHEET 29	E

2



STAGE 3C

CLOSE NORTHBOUND AND SOUTHBOUND OUTSIDE SHOULDERS
INSTALL FTMS EQUIPMENT

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL -STAGE 3	SHEET 30	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026002_S1.DWG
LAYOUT NAME - Stage 3C

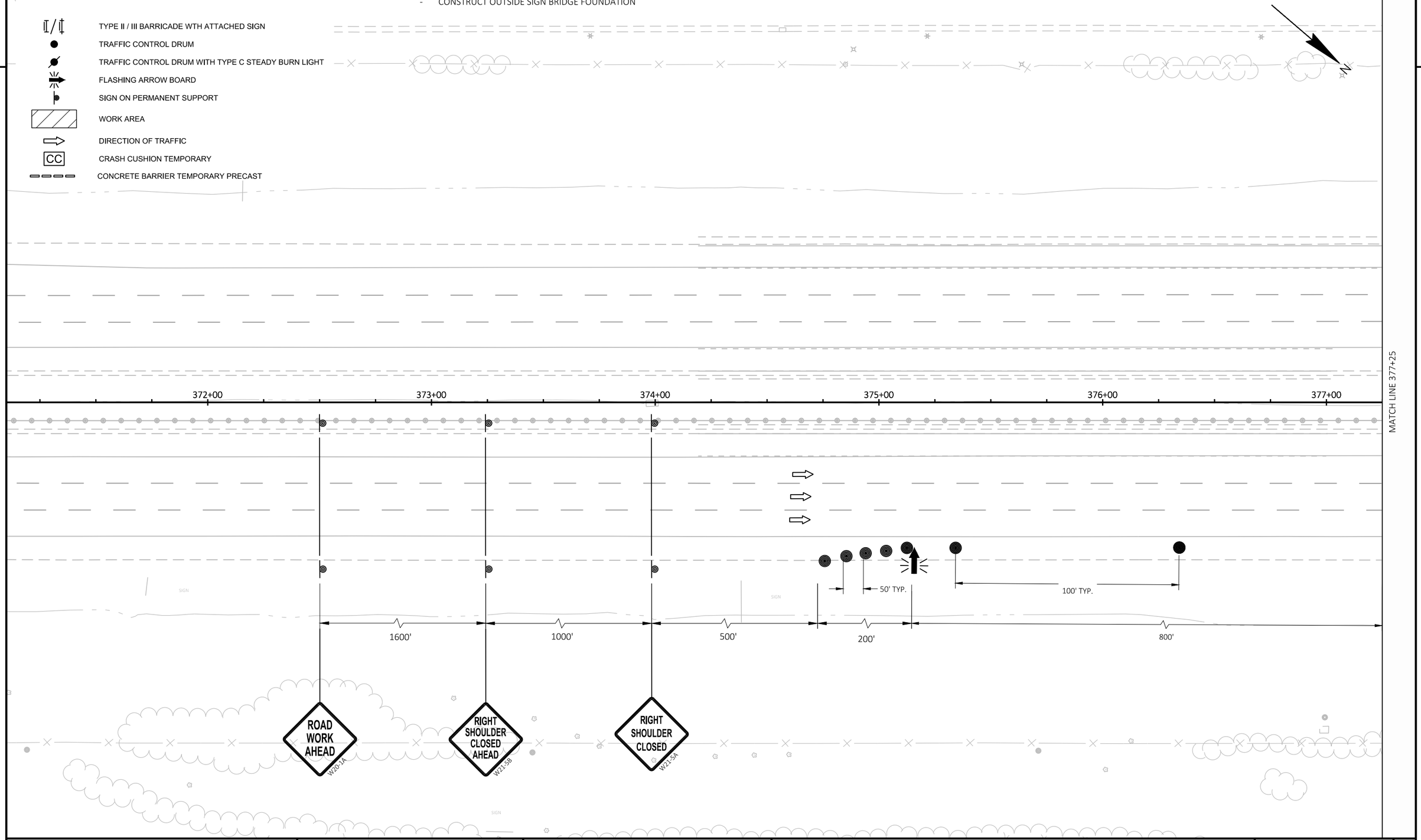
PLOT DATE : 7/29/2022 10:17 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:10 FT

2

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- CONSTRUCT OUTSIDE SIGN BRIDGE FOUNDATION



PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 3A	SHEET 31	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026201_S3A.DWG
LAYOUT NAME - 026201_s3a

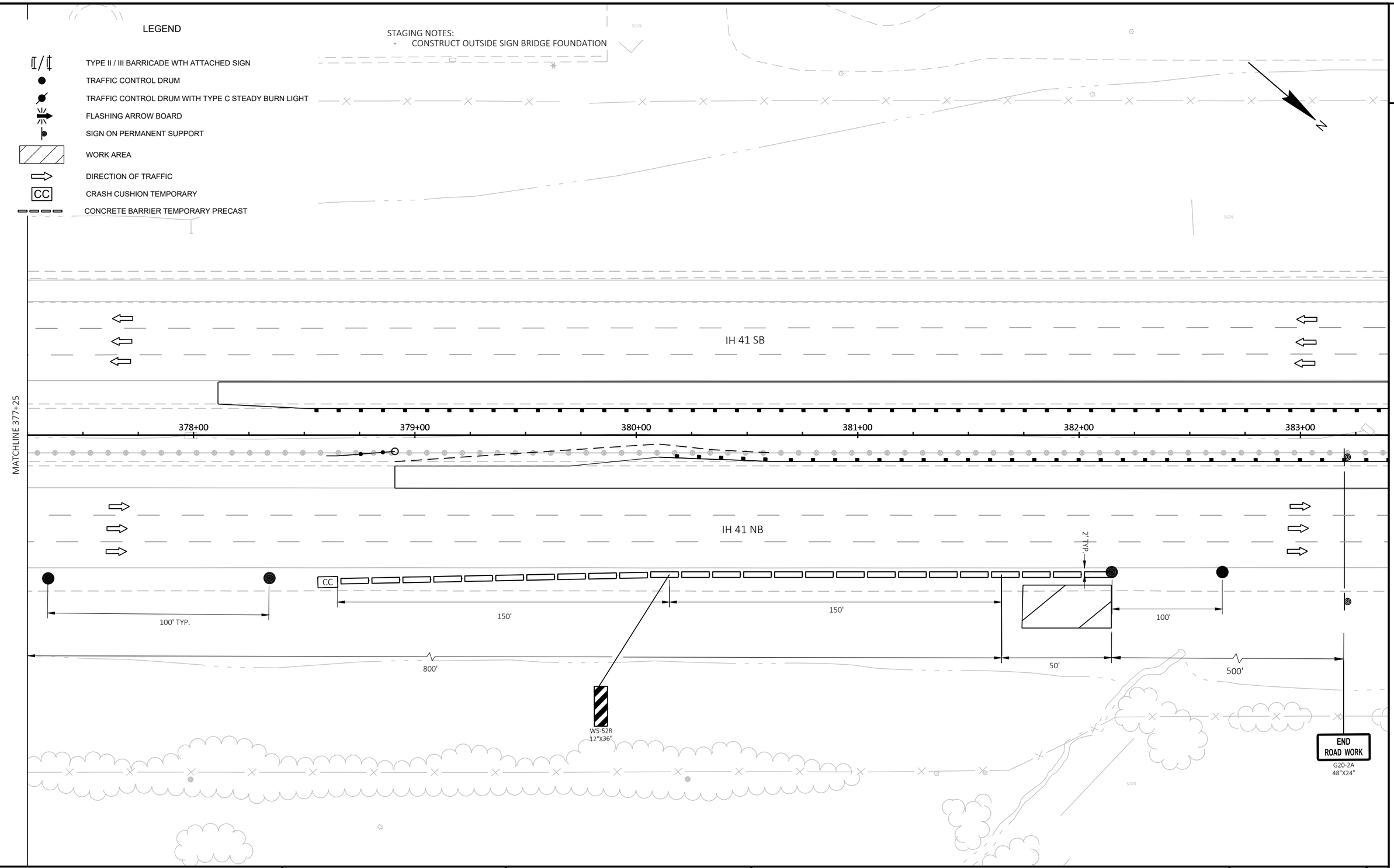
PLOT DATE : 7/29/2022 10:19 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- CONSTRUCT OUTSIDE SIGN BRIDGE FOUNDATION



PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 3A	SHEET 32	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026201_S3A.DWG
LAYOUT NAME - 026202_s3a

PLOT DATE : 7/29/2022 1:50 PM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

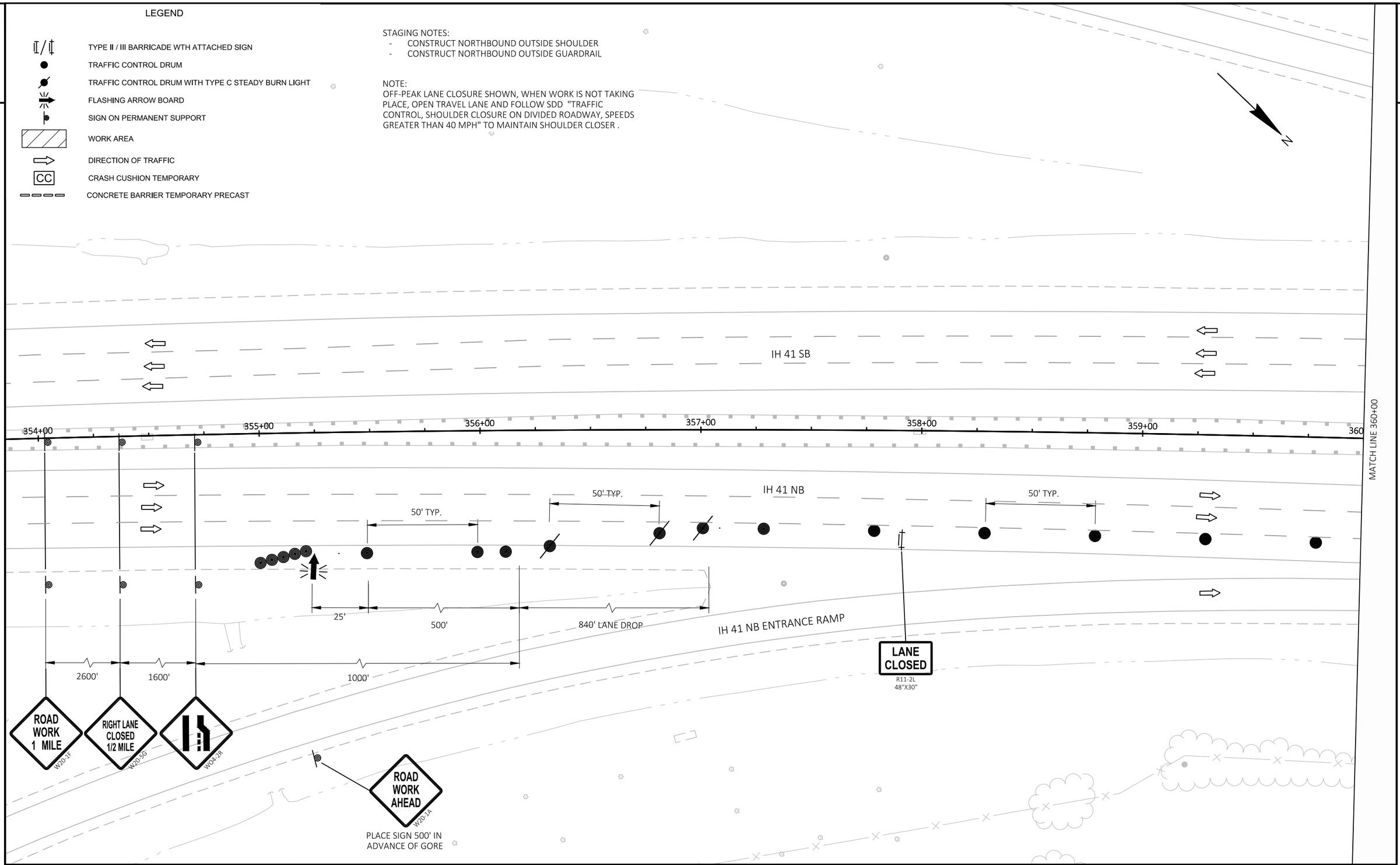
2

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- CONSTRUCT NORTHBOUND OUTSIDE SHOULDER
- CONSTRUCT NORTHBOUND OUTSIDE GUARDRAIL

NOTE:
OFF-PEAK LANE CLOSURE SHOWN, WHEN WORK IS NOT TAKING PLACE, OPEN TRAVEL LANE AND FOLLOW SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" TO MAINTAIN SHOULDER CLOSER .



PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 3B	SHEET 33	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026202_S3B.DWG
LAYOUT NAME - 026205_s3b
PLOT DATE : 7/29/2022 10:21 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

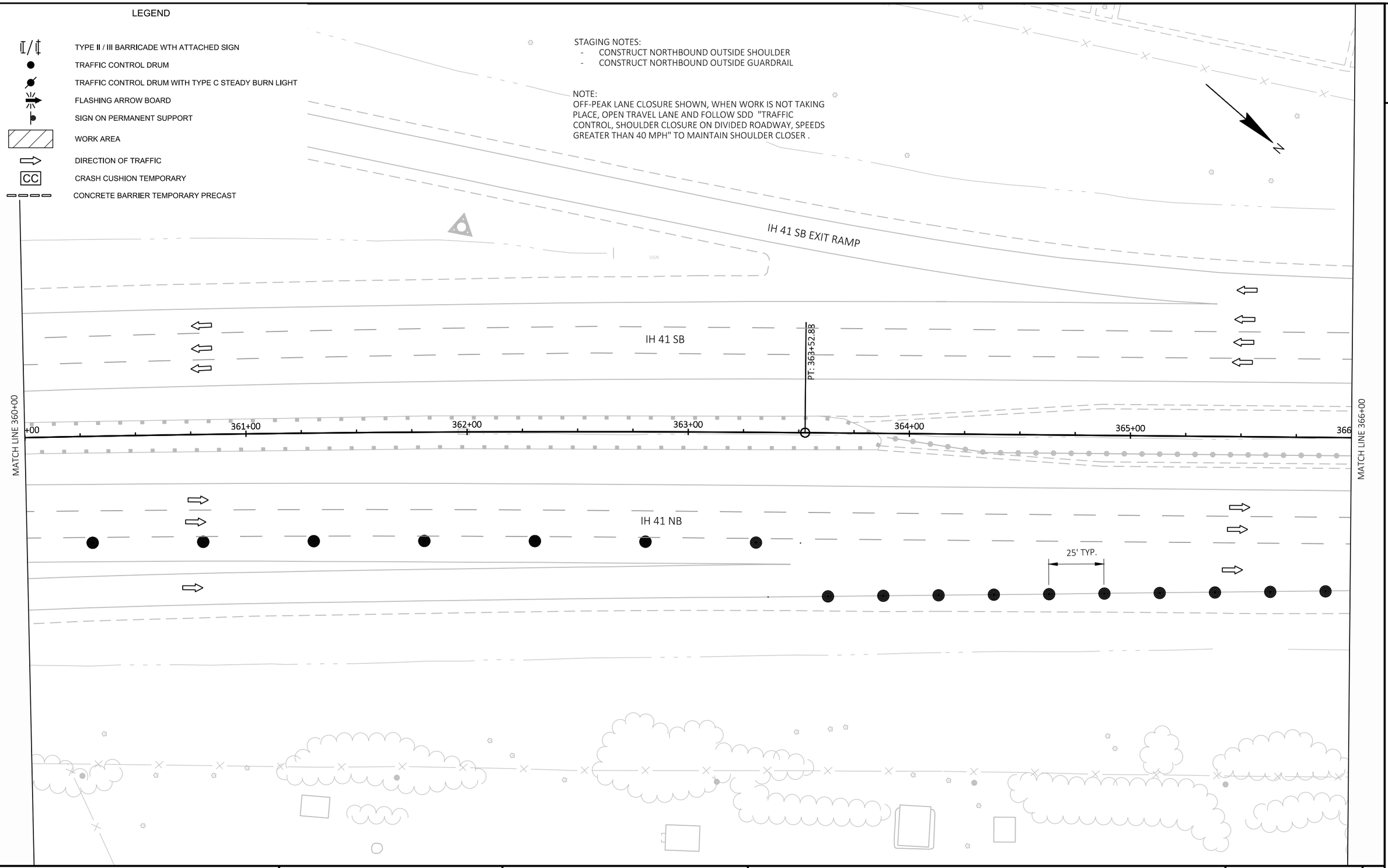
2

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- CONSTRUCT NORTHBOUND OUTSIDE SHOULDER
- CONSTRUCT NORTHBOUND OUTSIDE GUARDRAIL

NOTE:
OFF-PEAK LANE CLOSURE SHOWN, WHEN WORK IS NOT TAKING PLACE, OPEN TRAVEL LANE AND FOLLOW SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" TO MAINTAIN SHOULDER CLOSER .



2

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 3B	SHEET 34	E

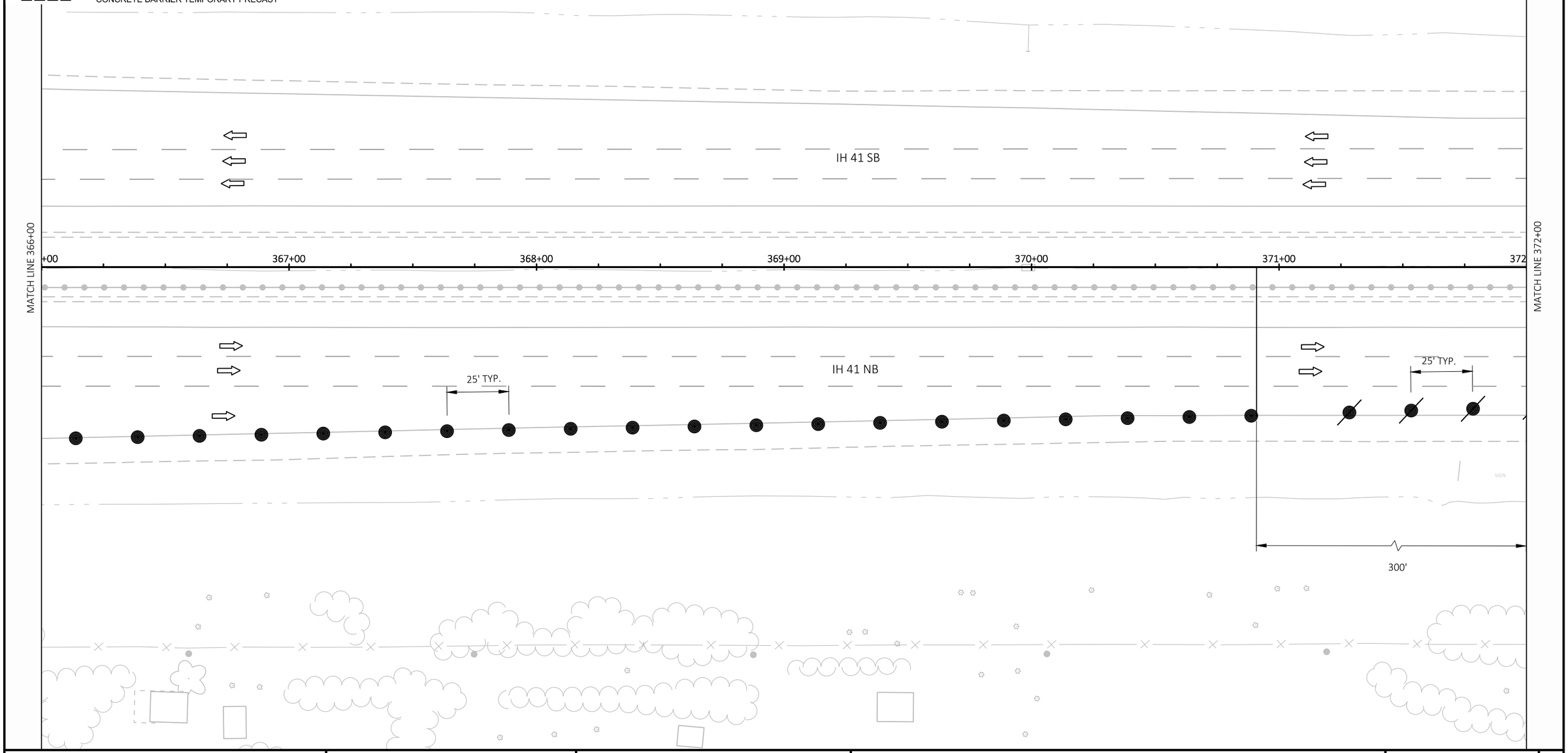
2

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CC CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- CONSTRUCT NORTHBOUND OUTSIDE SHOULDER
- CONSTRUCT NORTHBOUND OUTSIDE GUARDRAIL

NOTE:
OFF-PEAK LANE CLOSURE SHOWN, WHEN WORK IS NOT TAKING PLACE, OPEN TRAVEL LANE AND FOLLOW SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" TO MAINTAIN SHOULDER CLOSER .



2

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 3B	SHEET 35	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026202_S3B.DWG
LAYOUT NAME - 026207_s3b
PLOT DATE : 7/29/2022 10:24 AM
PLOT BY : STRASSER, JEFFREY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

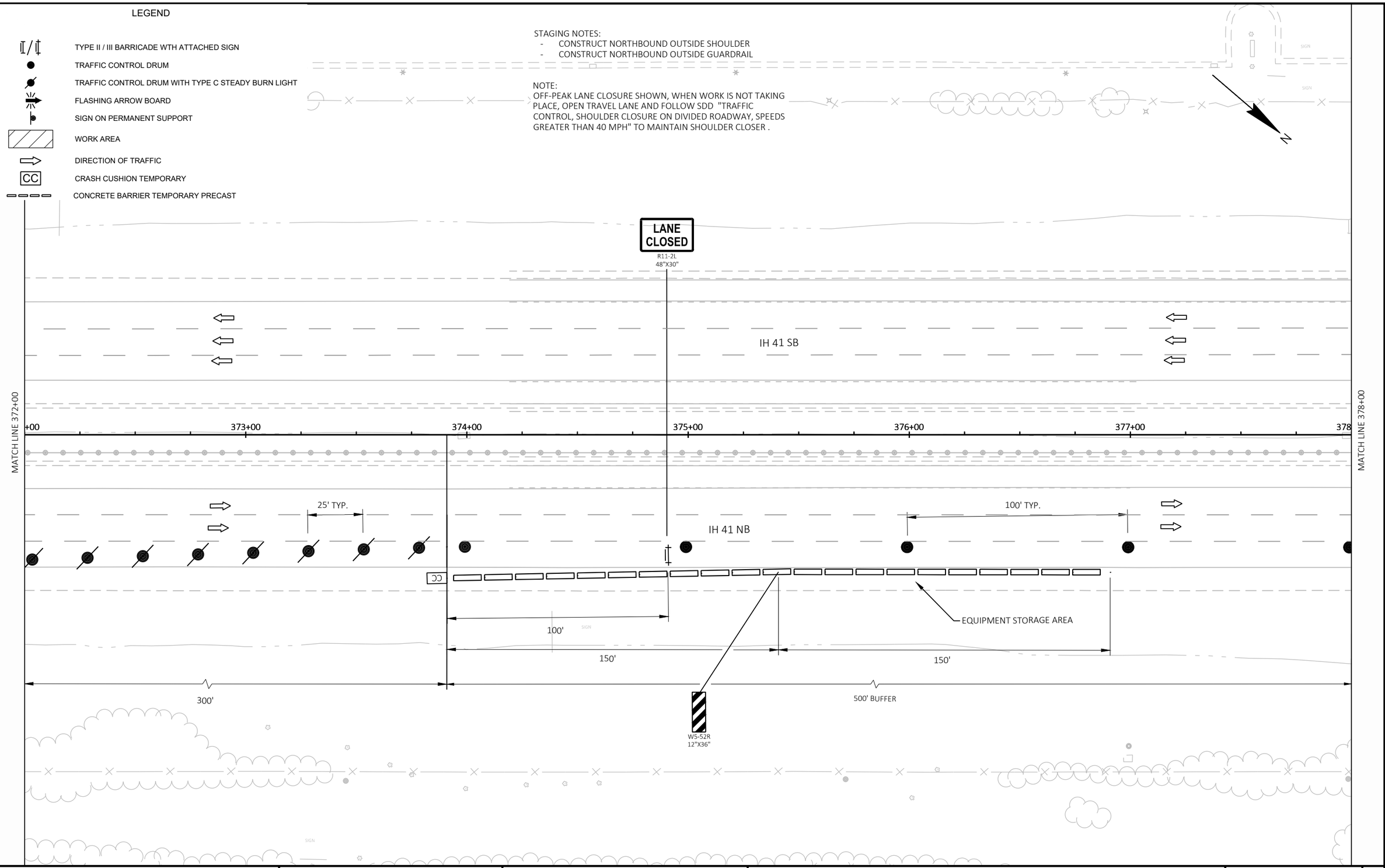
2

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- CONSTRUCT NORTHBOUND OUTSIDE SHOULDER
- CONSTRUCT NORTHBOUND OUTSIDE GUARDRAIL

NOTE:
OFF-PEAK LANE CLOSURE SHOWN, WHEN WORK IS NOT TAKING PLACE, OPEN TRAVEL LANE AND FOLLOW SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" TO MAINTAIN SHOULDER CLOSER .



PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 3B	SHEET 36	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026202_S3B.DWG
LAYOUT NAME - 026208_s3b

PLOT DATE : 7/29/2022 1:58 PM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

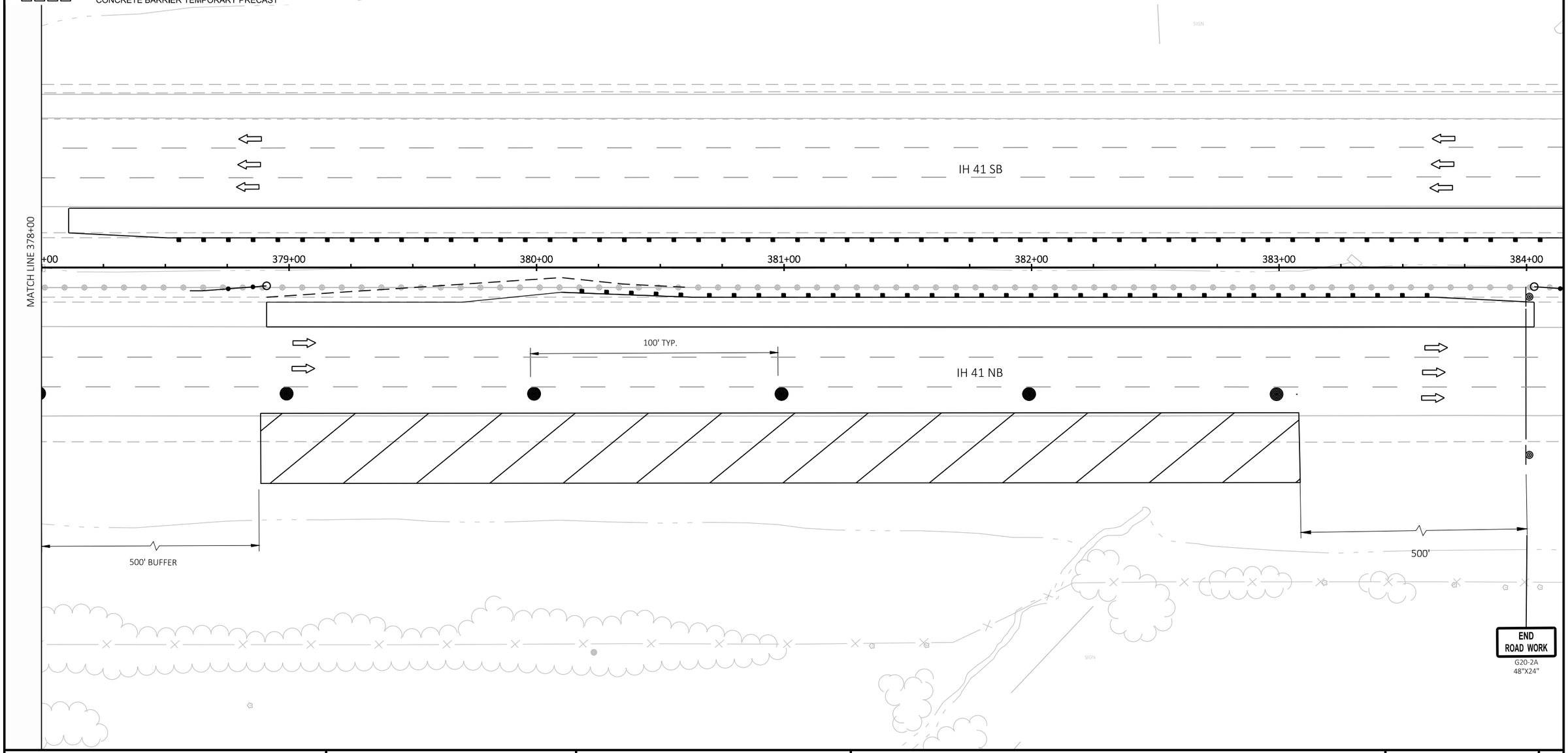
2

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CC CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- CONSTRUCT NORTHBOUND OUTSIDE SHOULDER
- CONSTRUCT NORTHBOUND OUTSIDE GUARDRAIL

NOTE:
OFF-PEAK LANE CLOSURE SHOWN, WHEN WORK IS NOT TAKING PLACE, OPEN TRAVEL LANE AND FOLLOW SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" TO MAINTAIN SHOULDER CLOSER .



PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 3B	SHEET 37	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026202_S3B.DWG
LAYOUT NAME - 026209_s3b
PLOT DATE : 7/29/2022 10:26 AM
PLOT BY : STRASSER, JEFFREY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

STAGING NOTES:
- INSTALL FTMS EQUIPMENT

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

END ROAD WORK
G20-2A
48"X24"

500'

100'

IH 41 SB

100' TYP.

374+00 375+00 376+00 377+00 378+00 379+00 380

MATCH LINE 380+00

IH 41 NB

100' TYP.

1600' 1000' 500' 200' 500'

ROAD WORK AHEAD W20-1A

RIGHT SHOULDER CLOSED AHEAD W21-5B

RIGHT SHOULDER CLOSED W21-5A

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 3C	SHEET 38	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026203_S3C.DWG
LAYOUT NAME - 026211_s3c

PLOT DATE : 7/29/2022 10:27 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

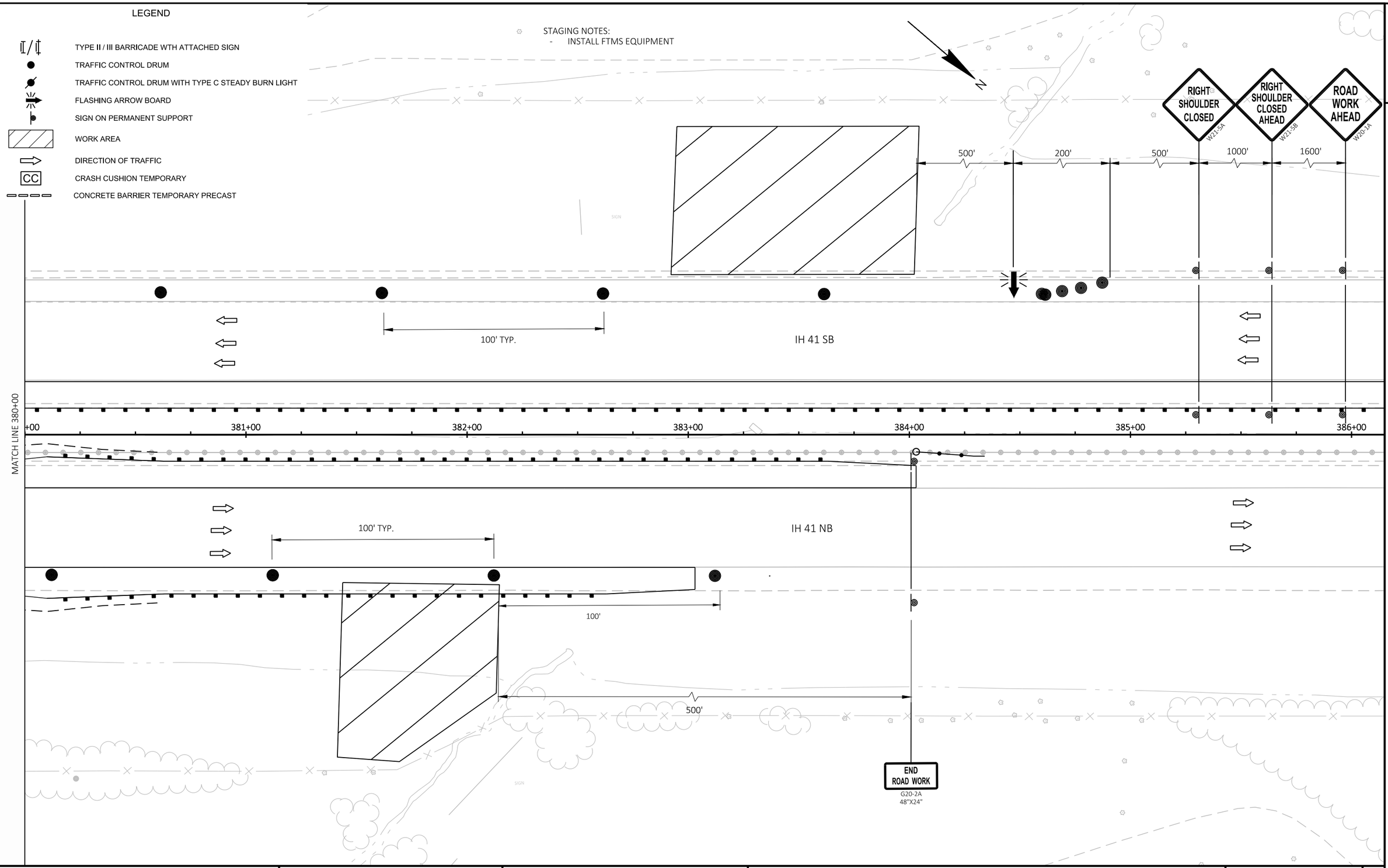
WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

STAGING NOTES:
- INSTALL FTMS EQUIPMENT



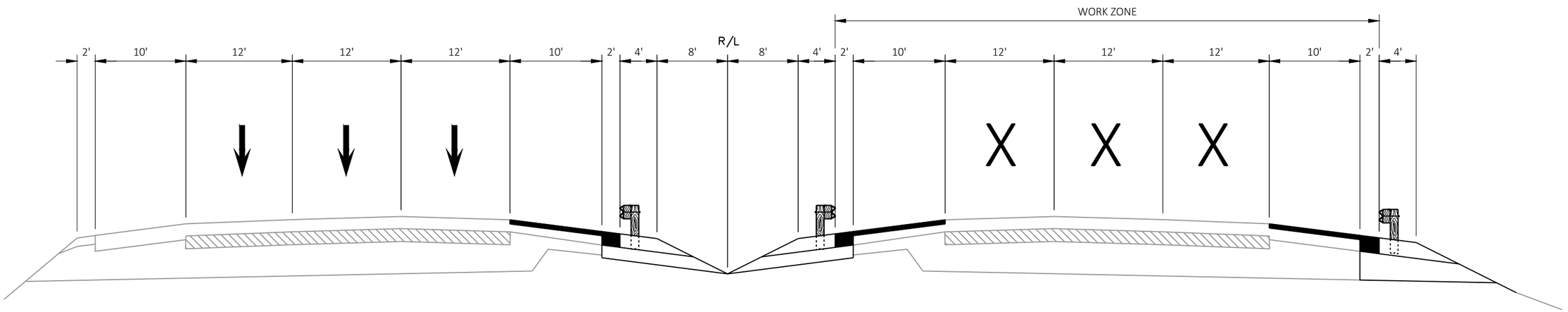
2

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 3C	SHEET 39	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026203_S3C.DWG
LAYOUT NAME - 026212_s3c

PLOT DATE : 7/29/2022 10:28 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



STAGE 4

CLOSE ALL NORTHBOUND LANES
INSTALL SIGN BRIDGE TRUSS

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 4	SHEET 40	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026002_S1.DWG
LAYOUT NAME - Stage 4

PLOT DATE : 7/29/2022 10:28 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:10 FT

2

N

DIVISION RD.

NB ENTRANCE RAMP

35144
CP FENO 105

35291
CP FENO

34950
BM DISK CTH Q BRIDGE NE

RAMP CLOSED
R11-2R
48"X30"

RAMP CLOSED AHEAD
W20-3A

34223
CP FENO 104

35080
BM DISK CTH Q BRIDGE SW

CTH Q / COUNTY LINE RD.

25'
TYP.

RAMP CLOSED AHEAD
W20-3A

LANE CLOSED
R11-2L
48"X30"

34762
CP FENO

IH 41

NB EXIT RAMP

CUMBERLAND CT.

CUMBERLAND RD.

SB ENTRANCE RAMP

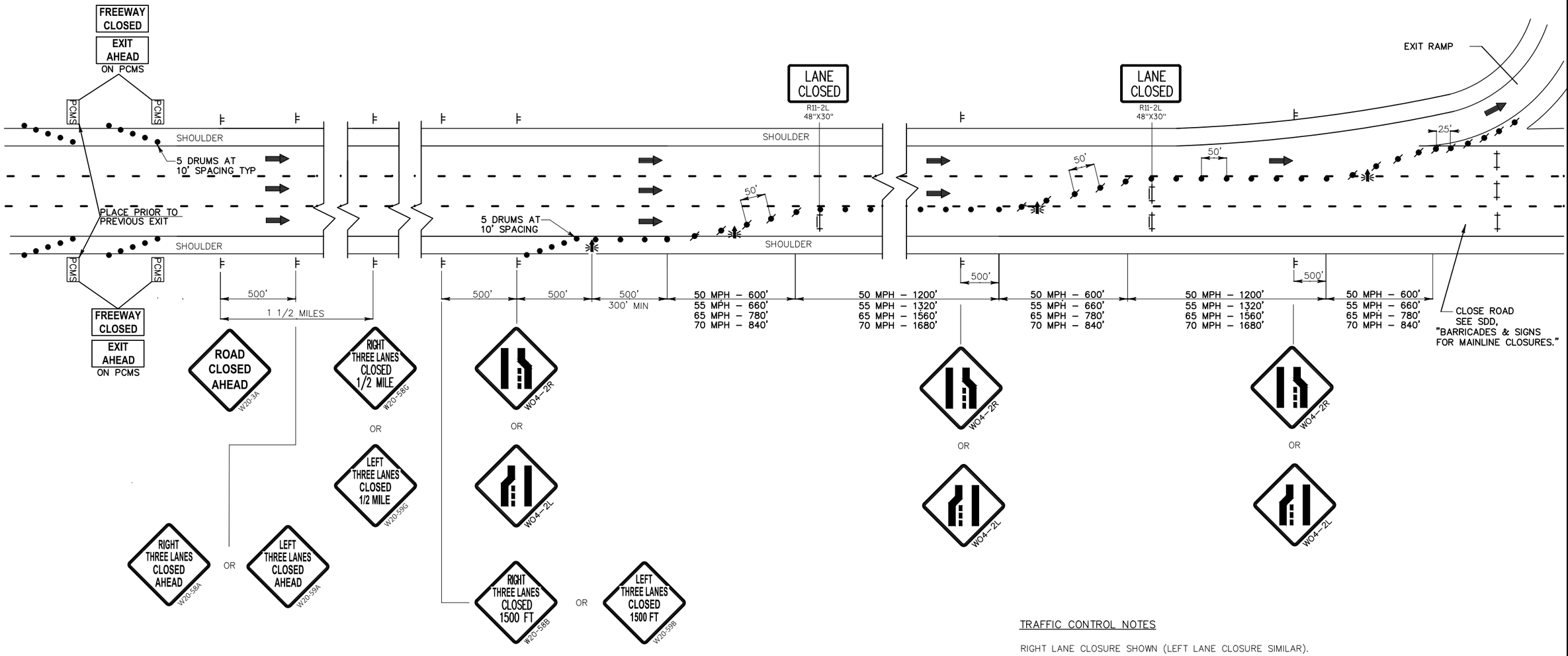
FALLS PARKWAY

LEGEND

- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL - STAGE 4	SHEET 41	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\026301_S4.DWG
LAYOUT NAME - 01
PLOT DATE : 7/29/2022 10:29 AM
PLOT BY : STRASSER, JEFFREY
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WITH SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE BOARD
- WORK AREA

THREE LANE FULL FREEWAY CLOSURE

TRAFFIC CONTROL NOTES

RIGHT LANE CLOSURE SHOWN (LEFT LANE CLOSURE SIMILAR).

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

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

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

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

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

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS EACH CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS, WITH LANE CLOSED SIGN.

REFER TO DETOUR ROUTES FOR TRAFFIC CLOSING SIGNS.

2

2

N

IH-41

MAPLE RD.

CTH Y/LANNON RD.

IH 41

STH 175 / APPLETON AVE.

DIVISION RD.

CTH Q / COUNTY LINE RD.

7 DAYS PRIOR TO CLOSURE

IH 41 NB TO CLOSE	'DAY' 'TIME - TIME'
FRAME 1	FRAME 2

DETOUR M4-8 24"X12"

DURING CLOSURE

IH 41 NB RAMP CLOSED	FOLLOW ALT ROUTE
FRAME 1	FRAME 2

DETOUR M4-8 24"X12"

DURING CLOSURE

FOLLOW ALT ROUTE

FRAME 1

PCMS

PCMS

PCMS

DETOUR M4-8 24"X12"

NORTH MB3-1 24"X12"

M1-1 24"X24"

M1-6 24"X24"

MO6-1 21"X21"

DURING CLOSURE

IH 41 NB RAMP CLOSED	FOLLOW ALT ROUTE
FRAME 1	FRAME 2

PCMS

LEGEND

- DETOUR ROUTE
- WORK ZONE
- PCMS — TRAFFIC CONTROL SIGNS PCMS
- SIGN ON TEMPORARY SUPPORT
- SIGN ON EXISTING SUPPORT
- TRAFFIC CONTROL DRUMS

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	DETOUR PLAN	SHEET 43	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - Plan 1 IN 1000 FT

PLOT DATE : 7/29/2022 10:31 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:1000 FT

2

N

BEGIN PROJECT
STA 375+69.06
Y=101,929.757
X=376,643.013

END PROJECT
STA 388+35.65
Y=102,890.728
X=375,817.913

376 378 380 21193.155 382 384 386 388 390

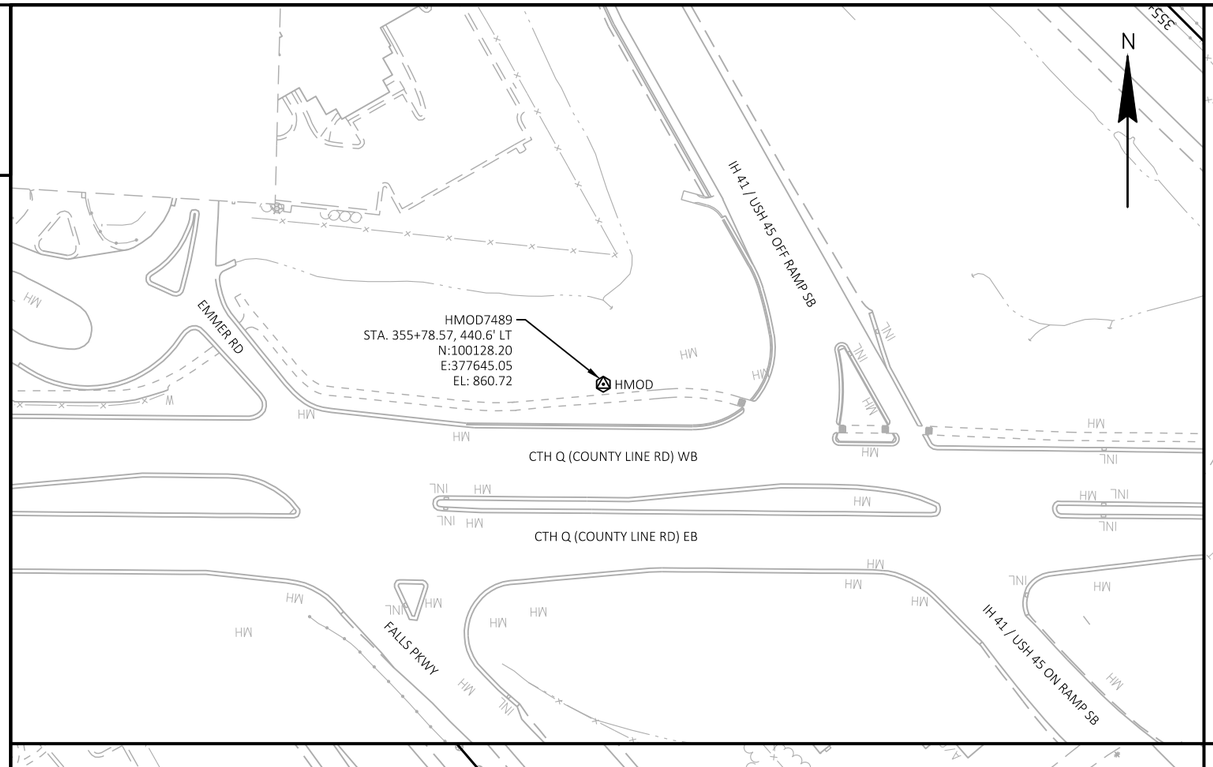
N40° 38' 59.15"W

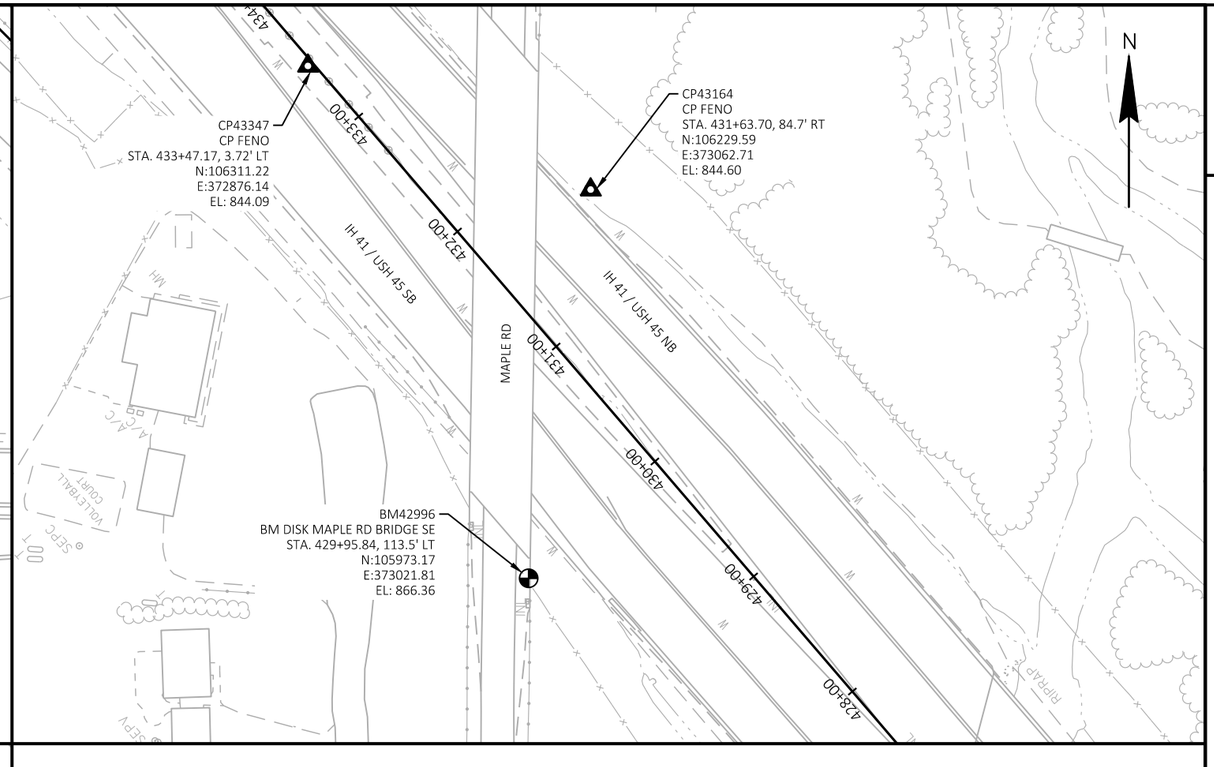
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT PLAN	SHEET 44	E

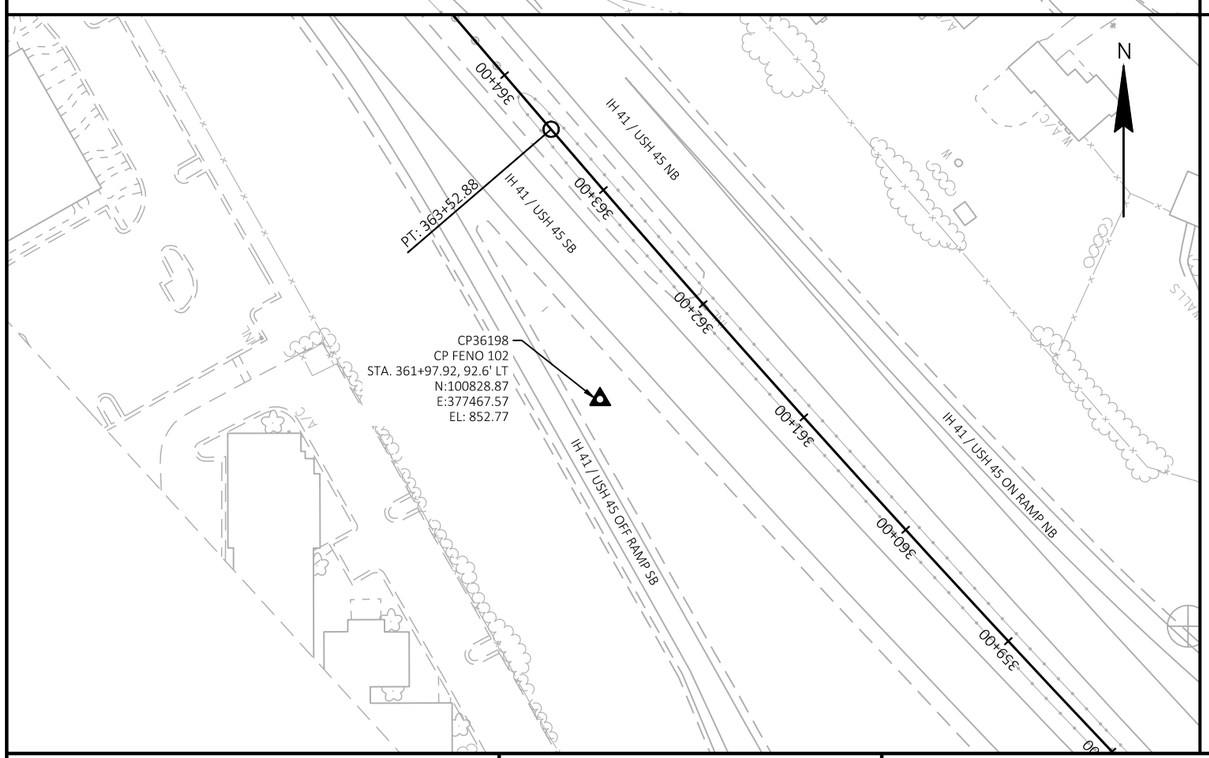
FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\027201_AD.DWG
LAYOUT NAME - 027201-ad

PLOT DATE : 7/29/2022 10:31 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:100 FT

2







PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	SURVEY CONTROL	SHEET 45	E

3700-43-70

Line	Item	Item Description	Unit	Total	Qty
0034	204.0120	Removing Asphaltic Surface Milling	SY	2,166.000	2,166.000
0046	204.0180	Removing Delineators and Markers	EACH	1.000	1.000
0048	204.0195	Removing Concrete Bases	EACH	1.000	1.000
0056	204.9090.S	Removing (item description) 01. Cable Barrier	LF	570.000	570.000
0062	205.0100	Excavation Common	CY	707.000	707.000
0064	205.0400	Excavation Marsh	CY	26.000	26.000
0076	209.2500	Backfill Granular Grade 2	TON	17.000	17.000
0090	213.0100	Finishing Roadway (project) 04. 3700-43-70	EACH	1.000	1.000
0092	305.0110	Base Aggregate Dense 3/4-Inch	TON	449.000	449.000
0094	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,217.000	1,217.000
0112	455.0605	Tack Coat	GAL	131.000	131.000
0114	460.2000	Incentive Density HMA Pavement	DOL	260.000	260.000
0120	460.6223	HMA Pavement 3 MT 58-28 S	TON	96.000	96.000
0122	460.6224	HMA Pavement 4 MT 58-28 S	TON	296.000	296.000
0134	465.0400	Asphaltic Shoulder Rumble Strips	LF	1,950.000	1,950.000
0256	531.2036	Drilling Shaft 36-Inch	LF	88.000	88.000
0258	531.6120	Foundation Two-Shaft Type FF-II (structure) 01. S-66-401	EACH	2.000	2.000
0260	532.6120	Truss Full Span 4-Chord Type II (structure) 01. S-66-401	EACH	1.000	1.000
0282	603.8000	Concrete Barrier Temporary Precast Delivered	LF	750.000	750.000
0284	603.8125	Concrete Barrier Temporary Precast Installed	LF	750.000	750.000
0308	613.1200.S	Cable Barrier End Terminal Type 1	EACH	2.000	2.000
0318	614.0396	Guardrail Mow Strip Asphalt	SY	917.000	917.000
0322	614.0905	Crash Cushions Temporary	EACH	4.000	4.000
0326	614.2300	MGS Guardrail 3	LF	1,312.500	1,312.500
0332	614.2610	MGS Guardrail Terminal EAT	EACH	3.000	3.000
0334	614.2620	MGS Guardrail Terminal Type 2	EACH	3.000	3.000
0344	618.0100	Maintenance And Repair of Haul Roads (project) 04. 3700-43-70	EACH	1.000	1.000
0346	619.1000	Mobilization	EACH	0.040	0.040
0350	624.0100	Water	MGAL	33.000	33.000
0352	625.0100	Topsoil	SY	2,780.000	2,780.000
0358	628.1104	Erosion Bales	EACH	50.000	50.000
0360	628.1504	Silt Fence	LF	733.000	733.000
0362	628.1520	Silt Fence Maintenance	LF	733.000	733.000
0368	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0370	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0374	628.2008	Erosion Mat Urban Class I Type B	SY	2,780.000	2,780.000
0378	628.7005	Inlet Protection Type A	EACH	3.000	3.000
0382	628.7504	Temporary Ditch Checks	LF	75.000	75.000
0384	628.7555	Culvert Pipe Checks	EACH	13.000	13.000
0392	629.0210	Fertilizer Type B	CWT	1.100	1.100
0396	630.0130	Seeding Mixture No. 30	LB	33.000	33.000
0398	630.0160	Seeding Mixture No. 60	LB	50.000	50.000
0404	630.0200	Seeding Temporary	LB	124.000	124.000
0406	630.0500	Seed Water	MGAL	103.000	103.000
0418	638.2102	Moving Signs Type II	EACH	1.000	1.000
0424	638.4000	Moving Small Sign Supports	EACH	2.000	2.000
0426	642.5201	Field Office Type C	EACH	0.040	0.040
0428	643.0300	Traffic Control Drums	DAY	4,045.000	4,045.000
0432	643.0420	Traffic Control Barricades Type III	DAY	77.000	77.000

3700-43-70

Line	Item	Item Description	Unit	Total	Qty
0434	643.0705	Traffic Control Warning Lights Type A	DAY	154.000	154.000
0436	643.0715	Traffic Control Warning Lights Type C	DAY	971.000	971.000
0438	643.0800	Traffic Control Arrow Boards	DAY	111.000	111.000
0440	643.0900	Traffic Control Signs	DAY	1,134.000	1,134.000
0448	643.1050	Traffic Control Signs PCMS	DAY	23.000	23.000
0458	643.4100.S	Traffic Control Interim Lane Closure	EACH	31.000	31.000
0460	643.5000	Traffic Control	EACH	0.040	0.040
0470	645.0120	Geotextile Type HR	SY	150.000	150.000
0472	646.1020	Marking Line Epoxy 4-Inch	LF	1,950.000	1,950.000
0508	650.4500	Construction Staking Subgrade	LF	1,950.000	1,950.000
0510	650.5000	Construction Staking Base	LF	1,950.000	1,950.000
0518	650.6501	Construction Staking Structure Layout (structure) 04. S-66-401	EACH	1.000	1.000
0528	650.9911	Construction Staking Supplemental Control (project) 04. 3700-43-70	EACH	1.000	1.000
0530	650.9920	Construction Staking Slope Stakes	LF	1,950.000	1,950.000
0532	652.0125	Conduit Rigid Metallic 2-Inch	LF	100.000	100.000
0534	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	155.000	155.000
0536	652.0700.S	Install Conduit into Existing Item	EACH	1.000	1.000
0538	653.0140	Pull Boxes Steel 24x42-Inch	EACH	1.000	1.000
0540	653.0905	Removing Pull Boxes	EACH	5.000	5.000
0542	654.0106	Concrete Bases Type 6	EACH	1.000	1.000
0544	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	325.000	325.000
0546	655.0635	Electrical Wire Lighting 2 AWG	LF	400.000	400.000
0548	656.0201	Electrical Service Meter Breaker Pedestal (location) 01. MBDMS660041	EACH	1.000	1.000
0550	656.0501	Electrical Service Breaker Disconnect Box (location) 01. MBDMS660041	EACH	1.000	1.000
0552	670.0101	Field System Integrator	EACH	1.000	1.000
0554	670.0201	ITS Documentation	EACH	1.000	1.000
0556	671.0222	Conduit HDPE Directional Bore 2-Duct 2-Inch	LF	285.000	285.000
0558	673.1225.S	Install Pole Mounted Cabinet	EACH	1.000	1.000
0560	674.0300	Remove Cable	LF	360.000	360.000
0562	675.0300	Install Mounted Controller Microwave Detector Assembly	EACH	1.000	1.000
0564	678.0006	Install Fiber Optic Cable Outdoor Plant 6-CT	LF	345.000	345.000
0566	678.0100.S	Install Overhead Freeway DMS Full Matrix	EACH	1.000	1.000
0568	678.0200	Fiber Optic Splice Enclosure	EACH	1.000	1.000
0570	678.0300	Fiber Optic Splice	EACH	4.000	4.000
0572	678.0400	Fiber Optic Termination	EACH	6.000	6.000
0574	678.0501	Communication System Testing	EACH	1.000	1.000
0576	678.0600	Install Ethernet Switches	EACH	1.000	1.000
0578	690.0150	Sawing Asphalt	LF	2,009.000	2,009.000
0614	SPV.0060	Special 12. Removing Electrical Service Meter Breaker Pedestal	EACH	1.000	1.000
0616	SPV.0060	Special 13. Removing controller Cabinet	EACH	1.000	1.000
0618	SPV.0060	Special 14. Removing Controller Cabinet Base	EACH	1.000	1.000
0620	SPV.0060	Special 15. Removing Pole	EACH	1.000	1.000
0622	SPV.0060	Special 16. Ground Rod	EACH	1.000	1.000
0624	SPV.0060	Special 17. Install Salvaged Pole	EACH	1.000	1.000
0632	SPV.0090	Special 04. Silt Fence - Snake Exclusion Fencing	LF	1,023.000	1,023.000
0634	SPV.0090	Special 05. Outdoor Rated Network Cable	LF	50.000	50.000

3

REMOVING ASPHALTIC SURFACE MILLING

STREET	STATION	TO	STATION	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
IH-41	378+11	-	388+36	2166
			PROJECT TOTAL	2,166

REMOVING DELINEATORS AND MARKERS

STREET	FROM	TO	204.0180 EACH
IH-41	378+11	- 388+36	1
	PROJECT TOTAL		1

REMOVING CABLE BARRIER

STREET	FROM	TO	204.9090.S.01 LF
IH-41	378+11	- 388+36	570
	PROJECT TOTAL		570

FINISHING ROADWAY

LOCATION	213.0100.04 EACH
PROJECT 3700-43-70	1
PROJECT TOTAL	1

3

DIVISION	FROM/TO STATION	LOCATION	205.0100 EXCAVATION COMMON CUT	AVAILABLE MATERIAL (1)	205.0400 EXCAVATION MARSH (2)	UNEXPANDED FILL	EXPANDED FILL (3) FACTOR 1.25	MASS ORDINATE +/- (4)	WASTE (5)
DIVISION 1									
QUANTITYREPORTTEMP	387+00/378+90.931	IH 41	707	707	26	11	14	693	719
DIVISION 1 SUBTOTAL			707	707	26	11	14	693	719
GRAND TOTAL			707	707	26	11	14	693	719
TOTAL COMMON EXC			707						

NOTES:

(1) AVAILABLE MATERIAL = CUT.
(2) EXCAVATION MARSH - TO BE BACKFILLED WITH BASE AGGREGATE DENSE 1 1/4-INCH. MARSH EXCAVATION IS CONSIDERED WASTE.
(3) EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR. EXPANDED FILL FACTOR = 1.25.
(4) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(5) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

ALL ITEMS CATEGORY 1000 UNLESS OTHERWISE NOTED

3

BACKFILL GRANULAR GRADE 2

STREET	STA	TO	STA	209.2500 TON
IH-41	378+11	-	388+36	17
		PROJECT	TOTAL	17

BASE AGGREGATE DENSE 3/4 INCH

STREET	STA	TO	STA	305.0110 TON
IH-41	378+11	-	388+36	449
		PROJECT	TOTAL	449

BASE AGGREGATE DENSE 1 1/4 INCH

STREET	STA	TO	STA	305.0120 TON
IH-41	378+11	-	388+36	1,217
		PROJECT	TOTAL	1,217

3

ASPHALTIC PAVEMENT

STREET	FROM	TO	455.0605 TACK COAT GAL	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6224 HMA PAVEMENT 4 MT 58-28 S TON
IH-41	378+11	- 388+36	131	96	296
PROJECT TOTALS			131	96	296

ASPHALTIC SHOULDER RUMBLE STRIPS

STREET	FROM	TO	465.0400 LF
IH-41	378+11	- 388+36	1950
	PROJECT TOTAL		1,950

ALL ITEMS CATEGORY 1000 UNLESS OTHERWISE NOTED

3

CONCRETE BARRIER TEMPORARY PRECAST

LOCATION	603.8000 DELIVERED LF	603.8125 INSTALLED LF
STAGE 1	300	300
STAGE 2A	150	150
STAGE 3A	300	300
STAGE 3B	300	300
PROJECT TOTALS	750	750

CABLE BARRIER END TERMINAL TYPE 1

STREET	FROM	TO	613.1200.S EACH
IH-41	378+11	- 388+36	2
PROJECT TOTAL			2

GUARDRAIL

STREET	STATION	TO	STATION	614.2300 MGS GUARDRAIL 3 LF	614.2610 MGS GUARDRAL TERMINAL EAT EACH	614.2620 MGS GUARDRAL TERMINAL TYPE 2 EACH
IH-41	378+11	-	388+36	1,312.5	3	3
PROJECT TOTAL				1,312.5	3	3

MAINTENANCE AND REPAIR OF HAUL ROADS

LOCATION	618.0100.04 EACH
PROJECT 3700-43-70	1
PROJECT TOTAL	1

ALL ITEMS CATEGORY 1000 UNLESS OTHERWISE NOTED

3

GUARDRAIL MOW STRIP ASPHALT

STREET	FROM	TO	614.0396 SY
IH-41	378+11 -	388+36	917
PROJECT TOTAL			917

WATER

STREET	STA TO STA	624.0100 WATER MGAL
IH-41	378+11 -388+36	33
PROJECT TOTAL		33

3

MOBILIZATION

LOCATION	619.1000 EACH
PROJECT 3700-43-70	0.04
PROJECT TOTAL	0.04

SILT FENCE

STREET	FROM	TO	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	SPV.0090.04 SILT FENCE-SNAKE EXLUSION FENCING LF
IH-41	378+11	388+36	586	586	818
UNDISTRIBUTED			147	147	205
		PROJECT TOTALS	733	733	1,023

TEMPORARY SETTLING BASINS

STREET	628.1104 EROSION BALES EACH	645.0120 GEOTEXTILE TYPE HR SY
UNDISTRIBUTED	50	150
PROJECT TOTALS	50	150

EROSION CONTROL MOBILIZATIONS

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
PROJECT 3700-43-00	6	3
PROJECT TOTAL	6	3

ALL ITEMS CATEGORY 1000 UNLESS OTHERWISE NOTED

3

INLET PROTECTION

STREET	FROM	TO	628.7005 INLET PROTECTION TYPE A EACH
IH-41	378+11	388+36	3
PROJECT TOTAL			3

DITCH CHECKS

STREET	FROM	TO	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH
IH-41	378+11	388+36	60	10
UNDISTRIBUTED			15	3
PROJECT TOTAL			75	13

SIGNING

STREET	FROM	TO	638.2102 MOVING SIGNS TYPE 2 EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH
IH-41	378+11 -	388+36	1	2
PROJECT TOTAL			1	2

3

EROSION CONTROL

STREET	FROM	TO	625.0100 TOPSOIL SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0160 SEEDING MIXTURE NO. 60 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
IH-41	378+11	388+36	2224	2224	0.9	26	40	99	82
UNDISTRIBUTED			556	556	0.2	7	10	25	21
PROJECT TOTALS			2780	2780	1.1	33	50	124.0	103

ALL ITEMS CATEGORY 1000 UNLESS OTHERWISE NOTED

3

CRASH CUSHIONS

LOCATION		614.0905 CRASH CUSHIONS TEMPORARY EACH	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
STAGE 1/2B	STA 394+22, 19' LT	1	2	OM-3L (W05-58L)	TL-3	UNIDIRECTIONAL	R	TEMPORARY CONCRETE BARRIER ON SHOULDER
STAGE 2A	STA 381+40, 19' RT	1	2	OM-3L (W05-58L)	TL-3	UNIDIRECTIONAL	R	TEMPORARY CONCRETE BARRIER ON SHOULDER
STAGE 3A	STA 381+40, 65' RT	1	2	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	L	TEMPORARY CONCRETE BARRIER ON SHOULDER
STAGE 3B	STA 373+91, 65' RT	1	2	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	L	TEMPORARY CONCRETE BARRIER ON SHOULDER
PROJECT TOTALS		4						

3

TRAFFIC CONTROL

LOCATION	643.5000 EACH
PROJECT 3700-43-70	0.04
PROJECT TOTAL	0.04

FIELD OFFICE TYPE C

LOCATION	642.5201 EACH
PROJECT 3700-43-70	0.04
PROJECT TOTAL	0.04

TRAFFIC CONTROL

LOCATION	DAYS	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.4100.S TRAFFIC CONTROL INTERIM LANE CLOSURES EACH
STAGE 1	16	800	16	32	272	16	176		10
STAGE 2A	19	855				38	342		
STAGE 2B	13	611	13	26	221	26	234		10
STAGE 3A	10	110					90		
STAGE 3B	13	1,053	26	52	364	13	156		10
STAGE 3C	5	185				10	80		
STAGE 4	2	431	22	44	114	8	56	23	1
PROJECT TOTALS		4,045	77	154	971	111	1,134	23	31

ALL ITEMS CATEGORY 1000 UNLESS OTHERWISE NOTED

3

MARKING LINE

STREET	LOCATION			646.1020 MARKING LINE EPOXY 4-INCH WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF
IH-41	378+11	-	388+36	413	1537
PROJECT TOTAL				1,950	

SAWING ASPHALT

STREET	LOCATION	TO	LOCATION	690.0150 SAWING ASPHALT LF
IH-41	378+11	-	388+36	2009
PROJECT TOTAL				2,009

CONSTRUCTION STAKING ITEMS

ITEM	QUANTITY	UNIT	DESCRIPTION
650.4500	1,950	LF	CONSTRUCTION STAKING SUBGRADE
650.5000	1,950	LF	CONSTRUCTION STAKING BASE
650.6501.04	1	EACH	CONSTRUCTION STAKING STRUCTURE LAYOUT (S-66-401)
650.9911.04	1	EACH	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (ID 3700-43-70)
650.9920	1,950	LF	CONSTRUCTION STAKING SLOPE STAKES

3

ALL ITEMS CATEGORY 1000 UNLESS OTHERWISE NOTED

FTMS CABLE REMOVALS

CATEGORY	ROADWAY	ITEM ID	674.0300 REMOVE CABLE LF
1300	IH 41 / US 45		
		EX-MBSDS660062 - EXPB375	15
		EXPB375 - EXPB374	130
		EX-CB-SDS-66-0062 - EXPB374	15
		EXPB374 - EXPB373	35
		EXPB373 - EXDP374	25
		EXPB373 - EXPB372	70
		EXPB372 - EXPB371	70
		TOTAL	360

FTMS EACH REMOVALS

CATEGORY	ROADWAY	ITEM ID.	204.0195 REMOVING CONCRETE BASES EACH	653.0905 REMOVING PULL BOXES EACH	SPV.0060.12 REMOVING ELECTRICAL SERVICE METER BREAKER PEDESTAL EACH	SPV.0060.13 REMOVING CONTROLLER CABINET EACH	SPV.0060.14 REMOVING CONTROLLER CABINET BASE EACH	SPV.0060.15 REMOVE POLE EACH
1300	IH 41 / US 45							
		EX-MBSDS660062	--	--	1	--	--	--
		EXPB375	--	1	--	--	--	--
		EXPB374	--	1	--	--	--	--
		EXPB373	--	1	--	--	--	--
		EXDP374	1	--	--	--	--	1
		EXPB372	--	1	--	--	--	--
		EXPB371	--	1	--	--	--	--
		EX-CB-SDS-66-0062	--	--	--	1	1	--
		TOTALS	1	5	1	1	1	1

FTMS EACH ITEMS

CATEGORY	ROADWAY	ITEM ID.	LOCATION STATION	LOCATION OFFSET	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH	653.0140 PULL BOXES STEEL 24 X 42 - INCH EACH	654.0106 CONCRETE BASES TYPE 6 EACH	656.0201.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL (01. MBDMS66041) EACH	656.0501.01 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (01. MBDMS66041) EACH	675.0300 INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY EACH	673.1225.S INSTALL POLE MOUNTED CABINET EACH	678.0100.S INSTALL OVERHEAD FREEWAY DMS FULL MATRIX EACH	678.0200 FIBER OPTIC SPLICE ENCLOSURE EACH	678.0300 FIBER OPTIC SPLICE EACH	678.0400 FIBER OPTIC TERMINATION EACH	678.0600 INSTALL ETHERNET SWITCHES EACH	SPV.0060.16 GROUND ROD EACH	SPV.0060.17 INSTALL SALVAGED POLE EACH
1300	IH 41 / US 45																	
		EXCV383	--		1	--	--	--	--	--	--	--	1	4	--	--	--	--
		PB382	382+14	87' RT	--	1	--	--	--	--	--	--	--	--	--	--	--	--
		DP382	382+37	88' RT	--	--	1	--	--	1	..	--	--	--	--	--	1	1
		S-66-401 / DMS-66-0041	382+00		--	--	--	--	1	--	1	1	--	--	6	1	--	--
		MBDMS660041	381+65	147' RT	--	--	--	1	--	--	--	--	--	--	--	--	--	--
		TOTALS			1	1	1	1	1	1	1	1	1	4	6	1	1	1

FTMS CONDUIT AND WIRE

CATEGORY	ROADWAY	ITEM ID	LINEAR DISTANCE	652.0125 CONDUIT RIGID METALLIC 2-INCH LF	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF	655.0635 ELECTRICAL WIRE LIGHTING 2 AWG LF	671.0222 CONDUIT HDPE DIRECTIONAL BORE 2-DUCT 2-INCH LF	678.0006 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT LF	SPV.0090.05 OUTDOOR RATED NETWORK CABLE LF
1300	IH 41 / US 45									
		EXCV383	--	--	--	--	--	--	50	--
		EXCV383 - PB382	285	--	--	285	--	285	285	--
		PB382 - S-66-0041	15	60	30	15	60	--	--	15
		PB382 - DP382	15	--	30	15	--	--	--	15
		PB382 - CB-DMS-66-0041	10	40	20	10	40	--	10	20
		MBDMS660041 - PB382	75	--	75	--	300	--	--	--
		TOTALS		100	155	325	400	285	345	50

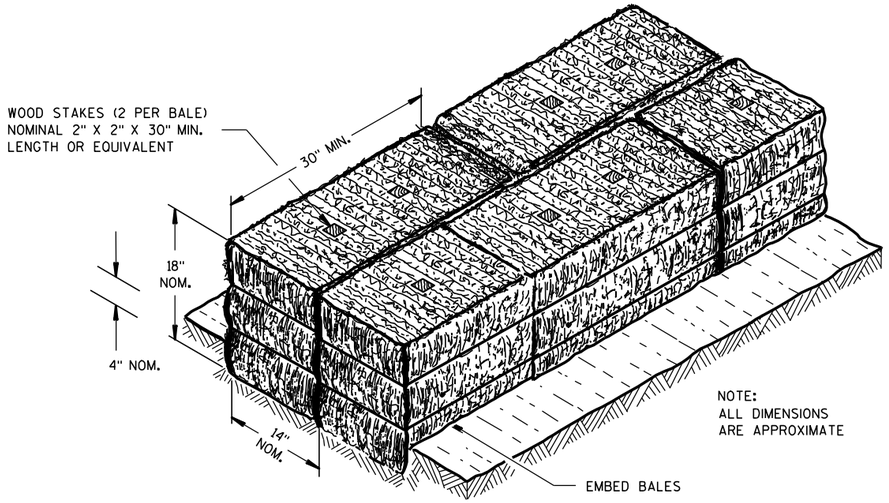
MISCELLANEOUS ITEMS

CATEGORY	ROADWAY	670.0101 FIELD SYSTEM INTEGRATOR EACH	670.0201 ITS DOCUMENTATION EACH	678.0501 COMMUNICATION SYSTEM TESTING EACH
1300	IH 41 / US 45			
	PROJECT	1	1	1
	TOTALS	1	1	1

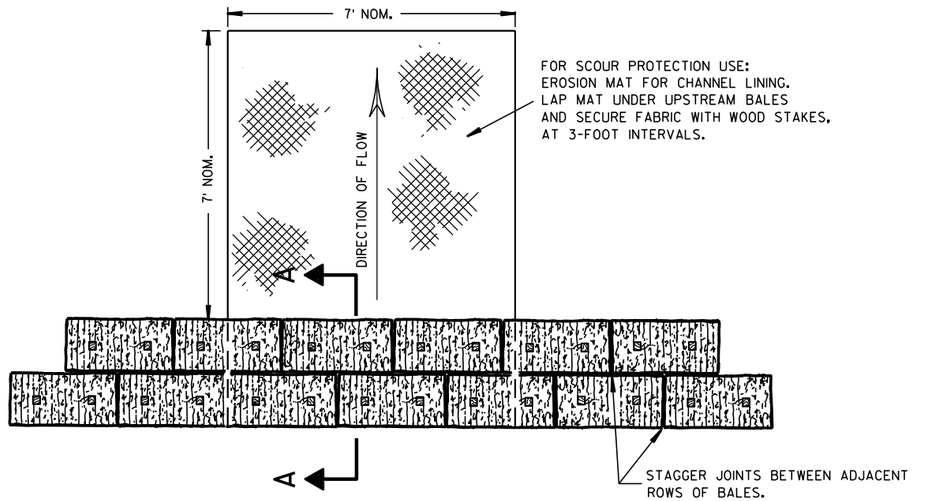
Standard Detail Drawing List

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
09B02-10	CONDUIT
09B04-12	PULL BOX
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09H03-01	2 CIRCUIT METER BREAKER PEDESTAL
09H11-01	IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
14B07-16A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16J	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16K	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16L	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16M	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B28-04A	GUARDRAIL MOW STRIP
14B28-04B	GUARDRAIL MOW STRIP
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B47-03A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03D	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03E	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03F	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03G	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B52-03A	CABLE BARRIER TYPE 1 LAYOUT
14B52-03B	CABLE BARRIER TYPE 1 LAYOUT
14B52-03C	CABLE BARRIER TYPE 1 LAYOUT
15C08-21A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D12-10A	TRAFFIC CONTROL, LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING

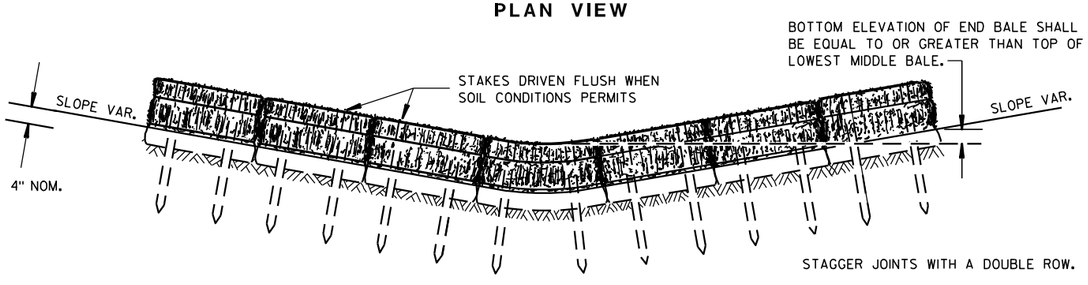
6



SECTION A-A



PLAN VIEW



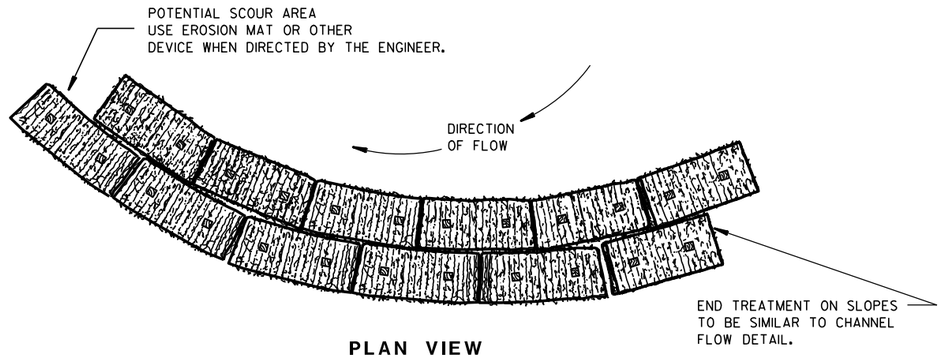
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

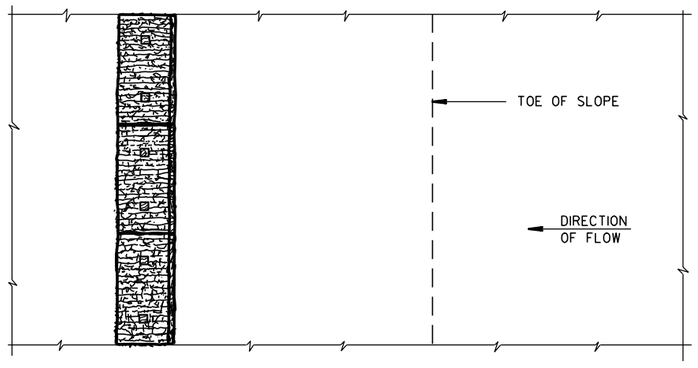
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

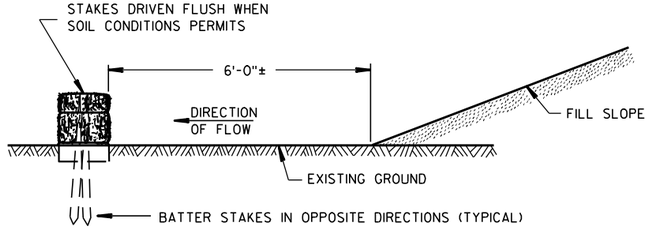


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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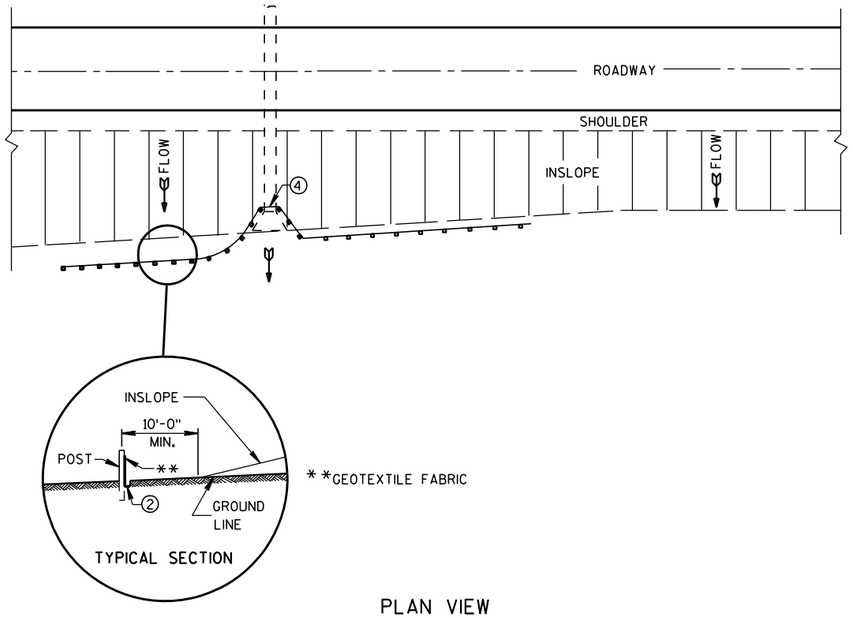
S.D.D. 8 E 8-3

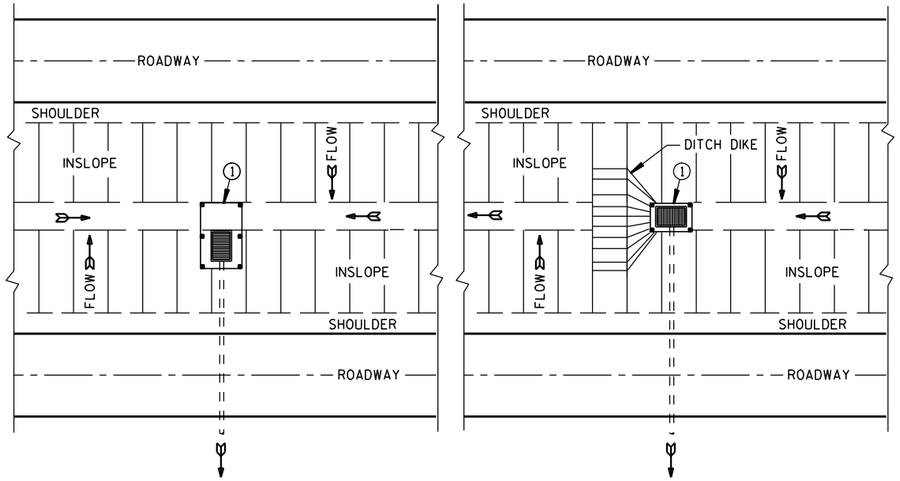
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

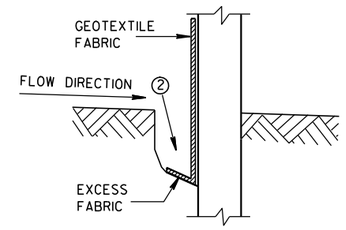
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

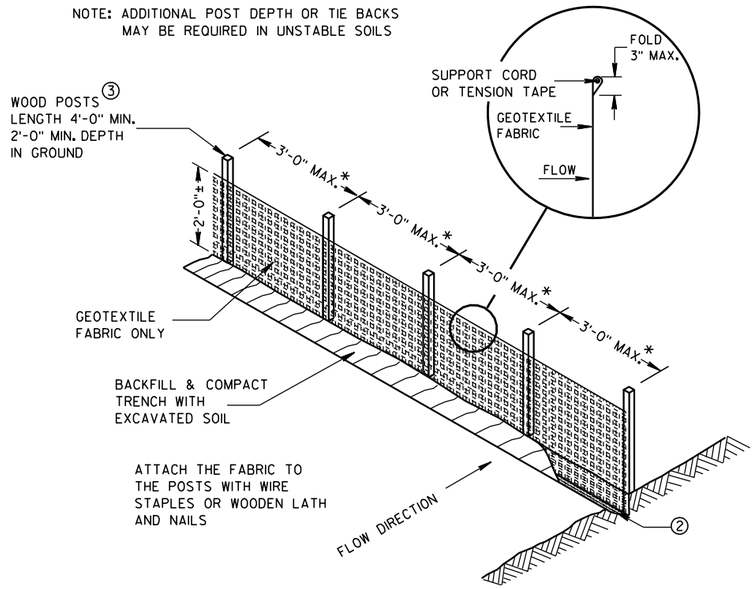
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

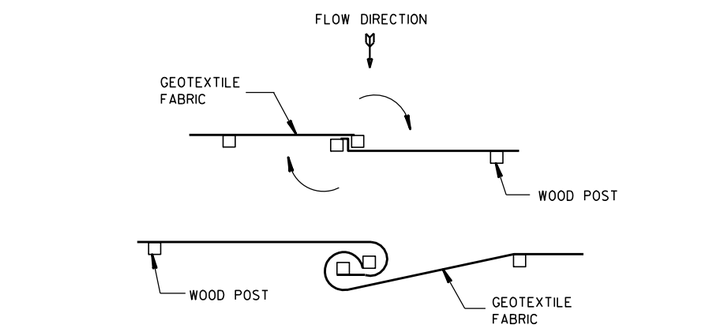
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



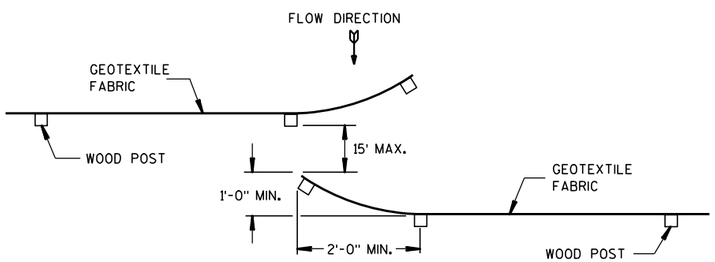
TRENCH DETAIL



SILT FENCE

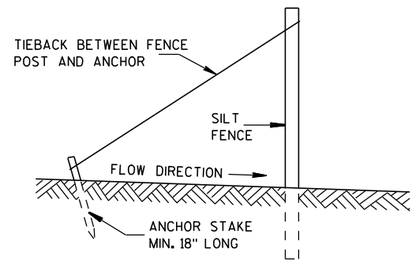


TWIST METHOD



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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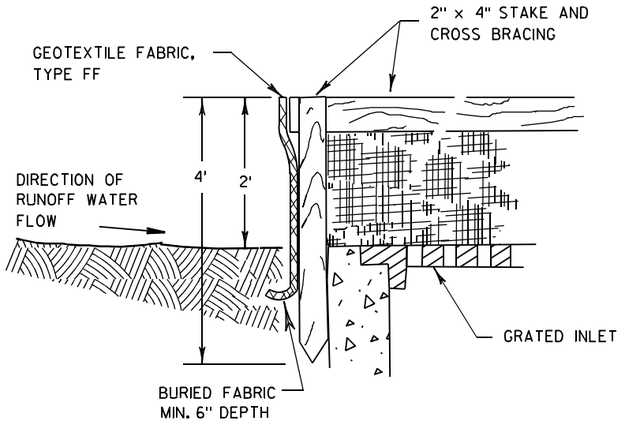
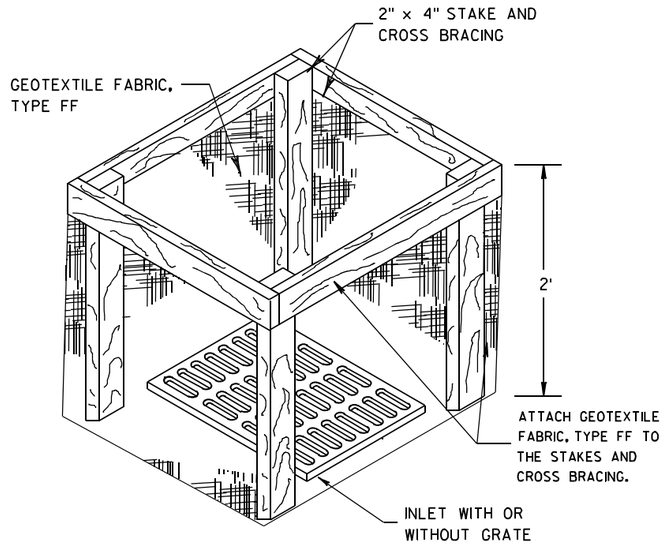
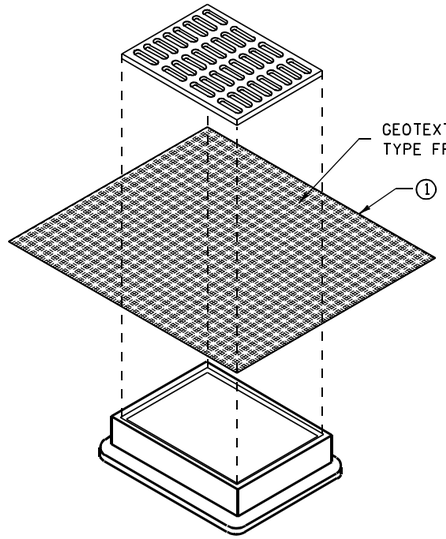


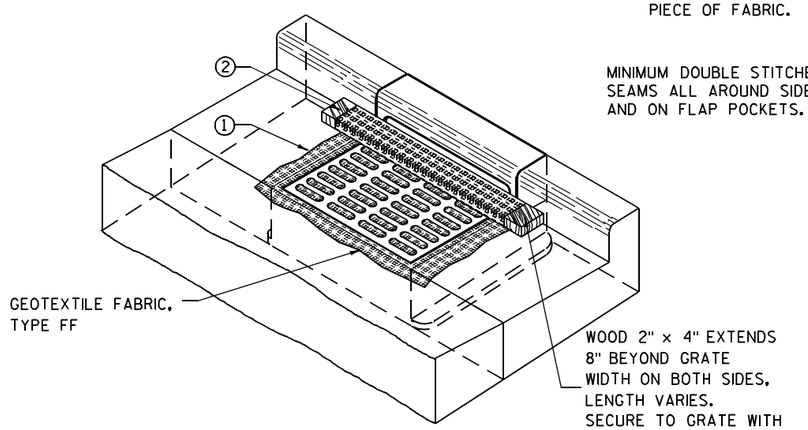


INLET PROTECTION, TYPE A

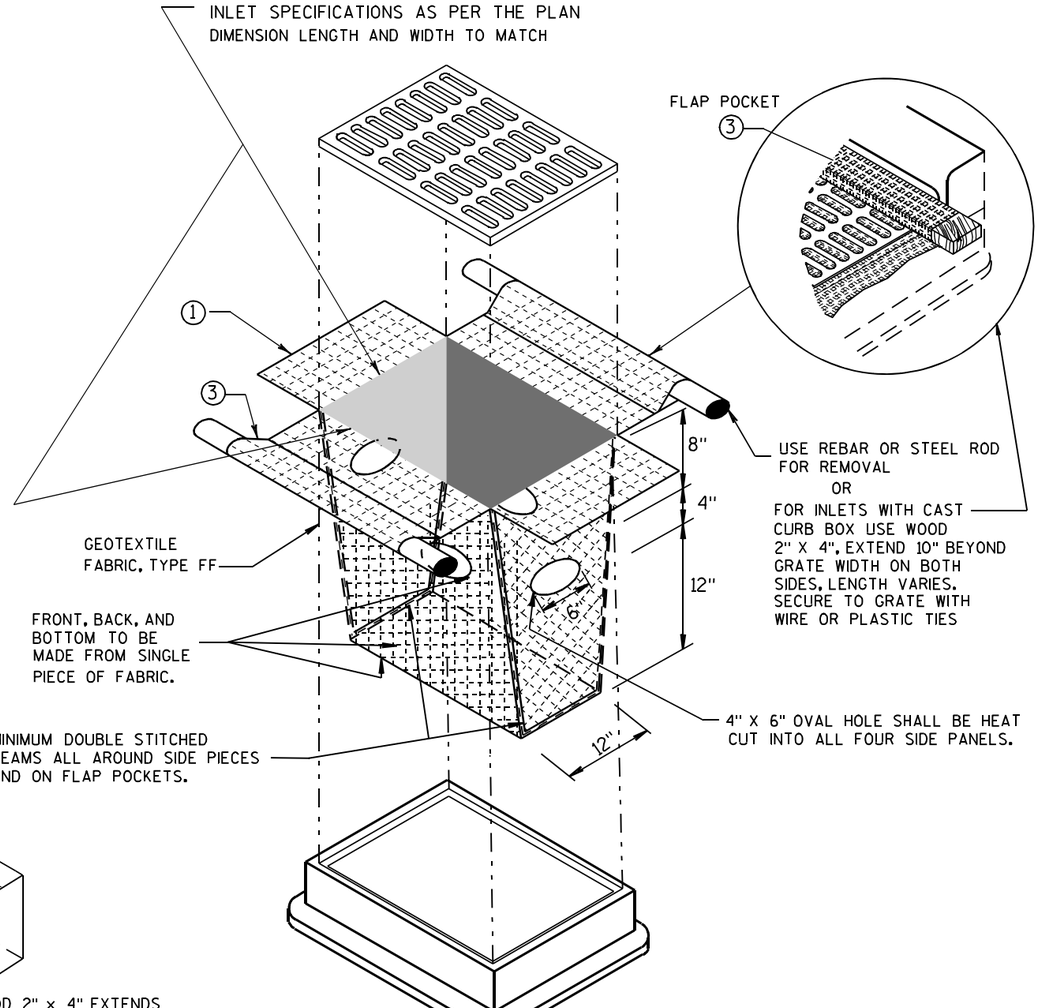


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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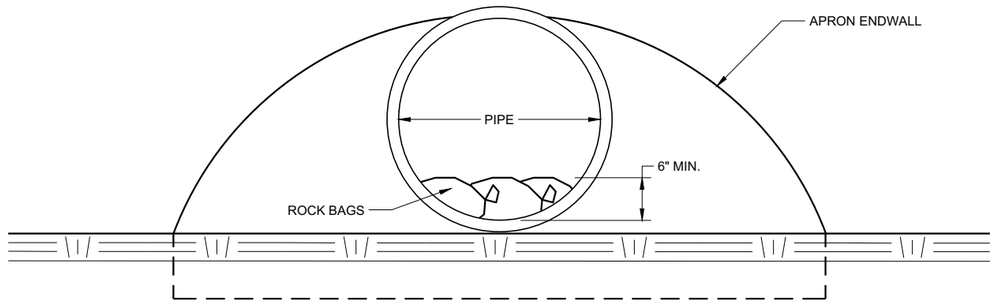
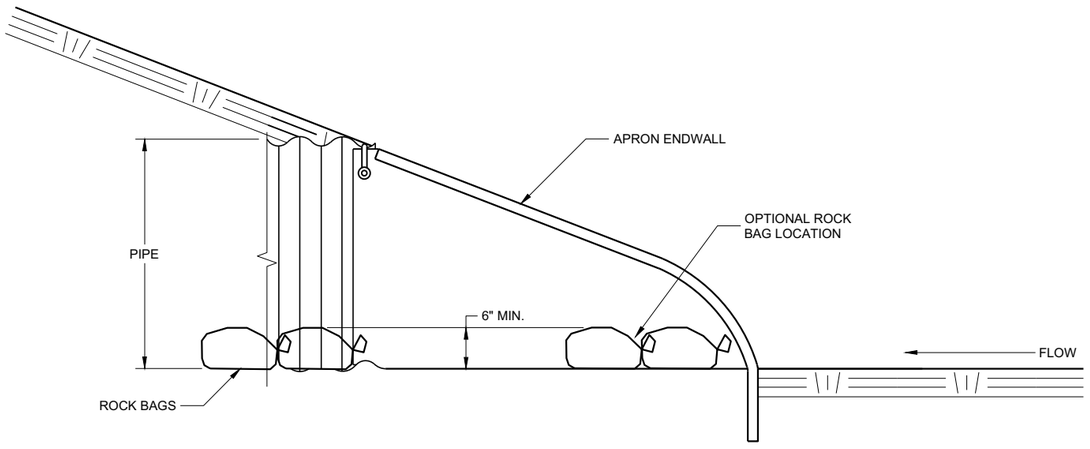
S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI
FHWA	

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SDD 08E15 - 01

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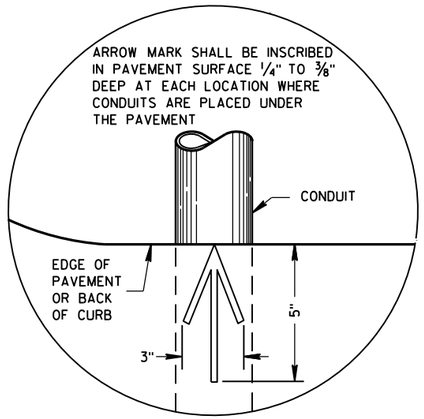
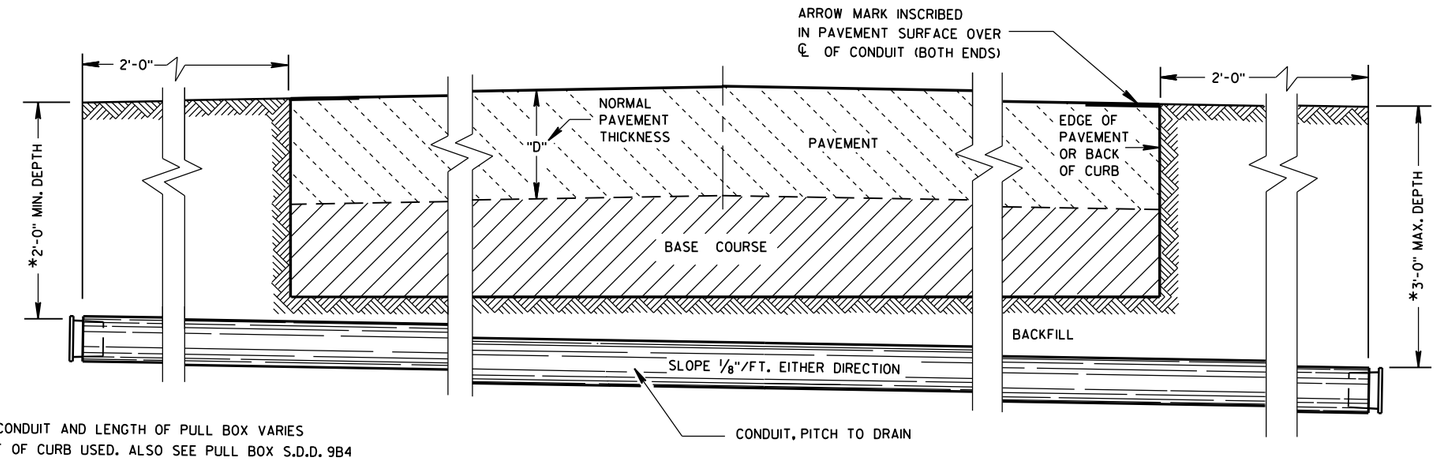
SDD 08E15 - 01



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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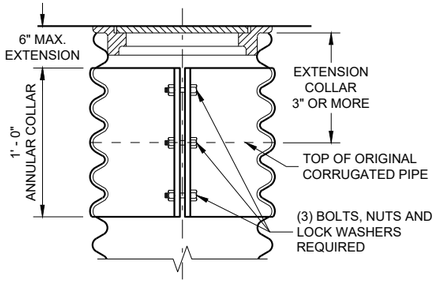
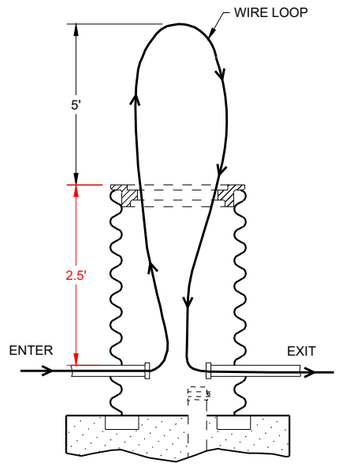
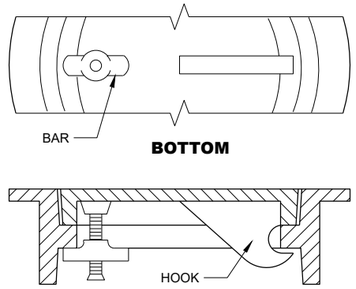


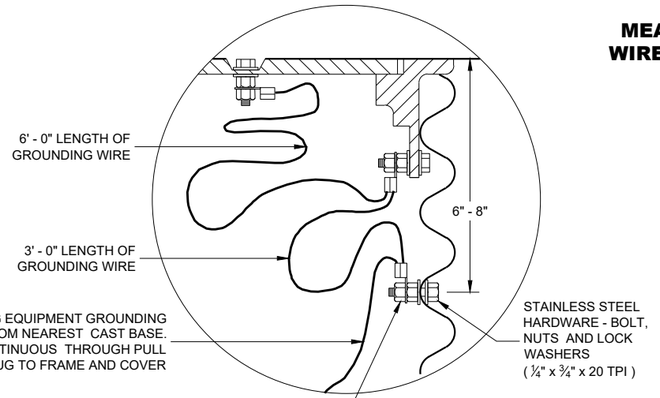
CORRUGATED PIPE EXTENDER



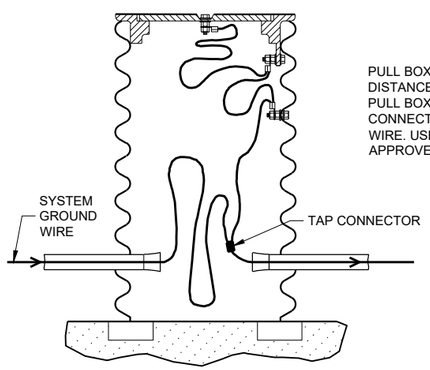
MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



ALTERNATE COVER (LOCKING)
TIGHTENING BAR TYPE

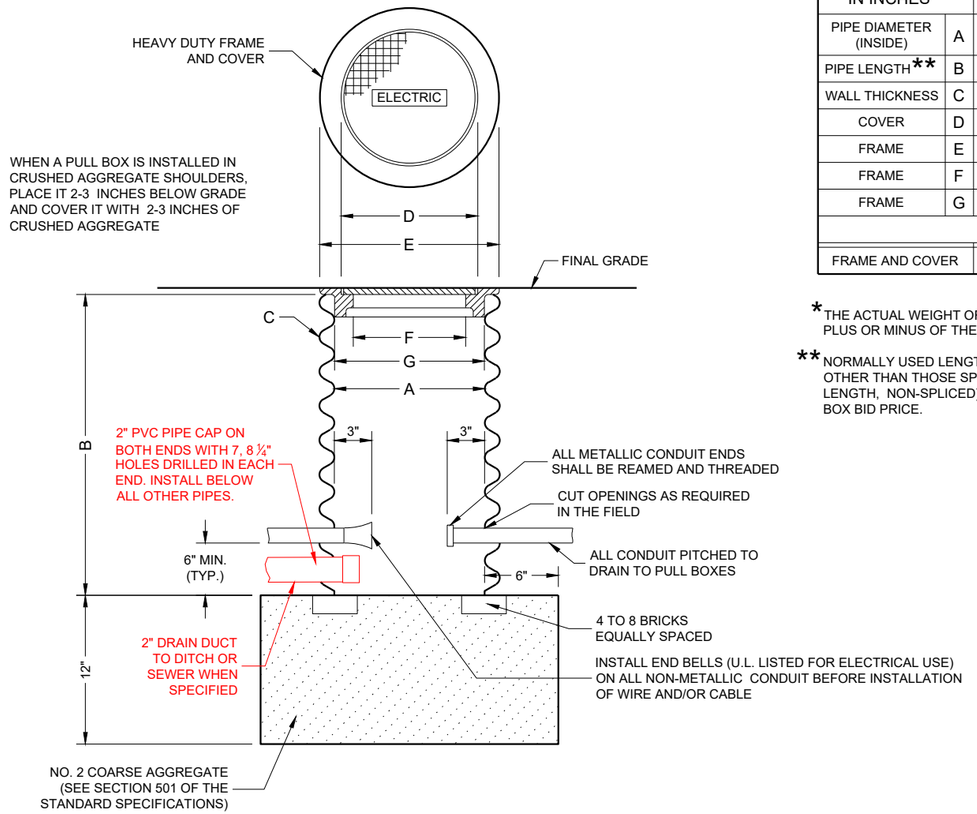


EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN ¼".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH**	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 ¼	10 ¼	10 ¼	16 ¼	16 ¼	16 ¼	22 ¼	22 ¼	22 ¼
FRAME	E	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½	26 ½	26 ½	26 ½
FRAME	F	8 ½	8 ½	8 ½	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½
FRAME	G	11 ½	11 ½	11 ½	17 ½	17 ½	17 ½	23 ½	23 ½	23 ½
WEIGHT IN POUNDS*										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

*THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

**NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

PULL BOX

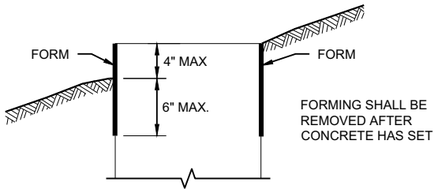
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWINGSHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

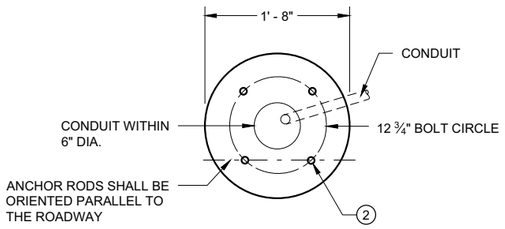
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

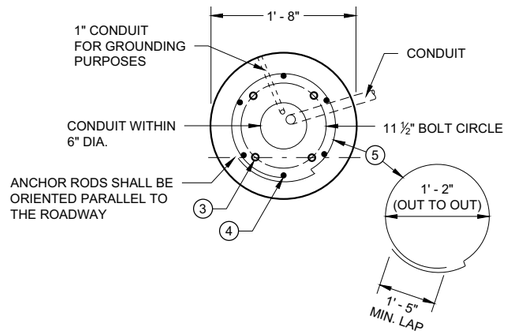
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

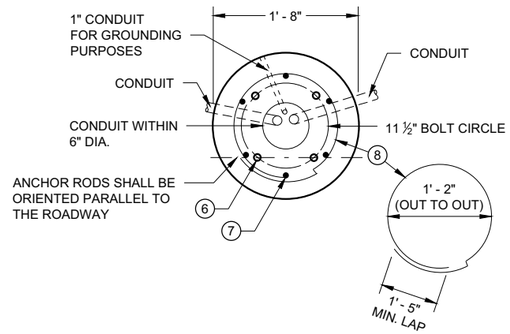
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).







1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

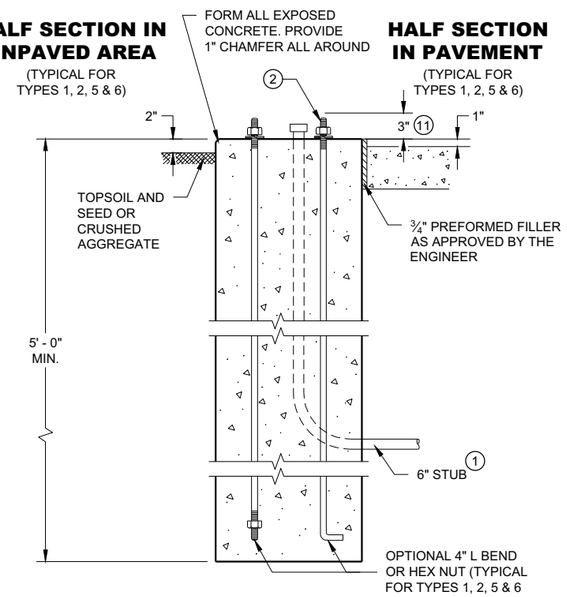
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

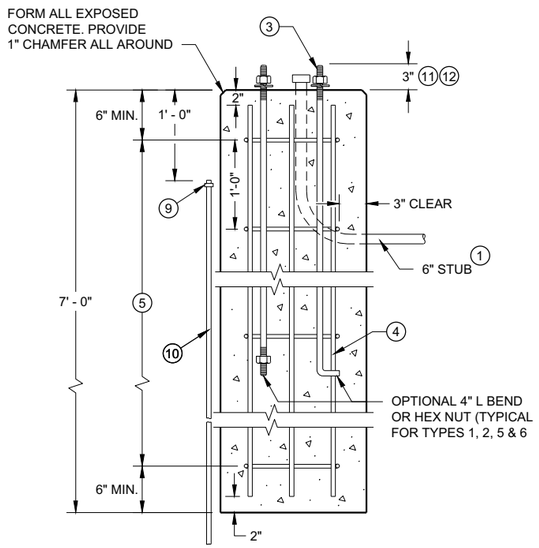
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



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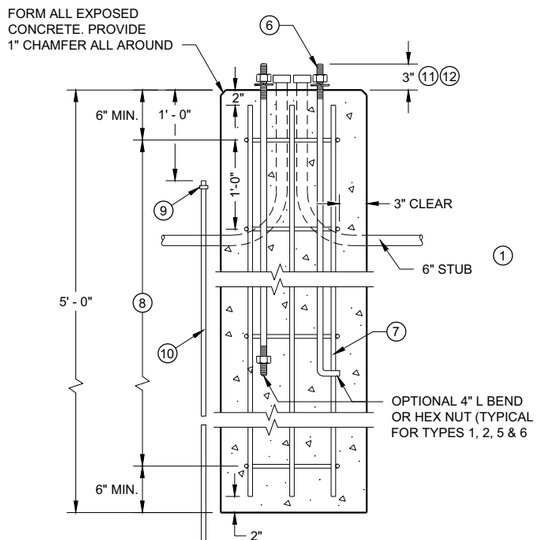

TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

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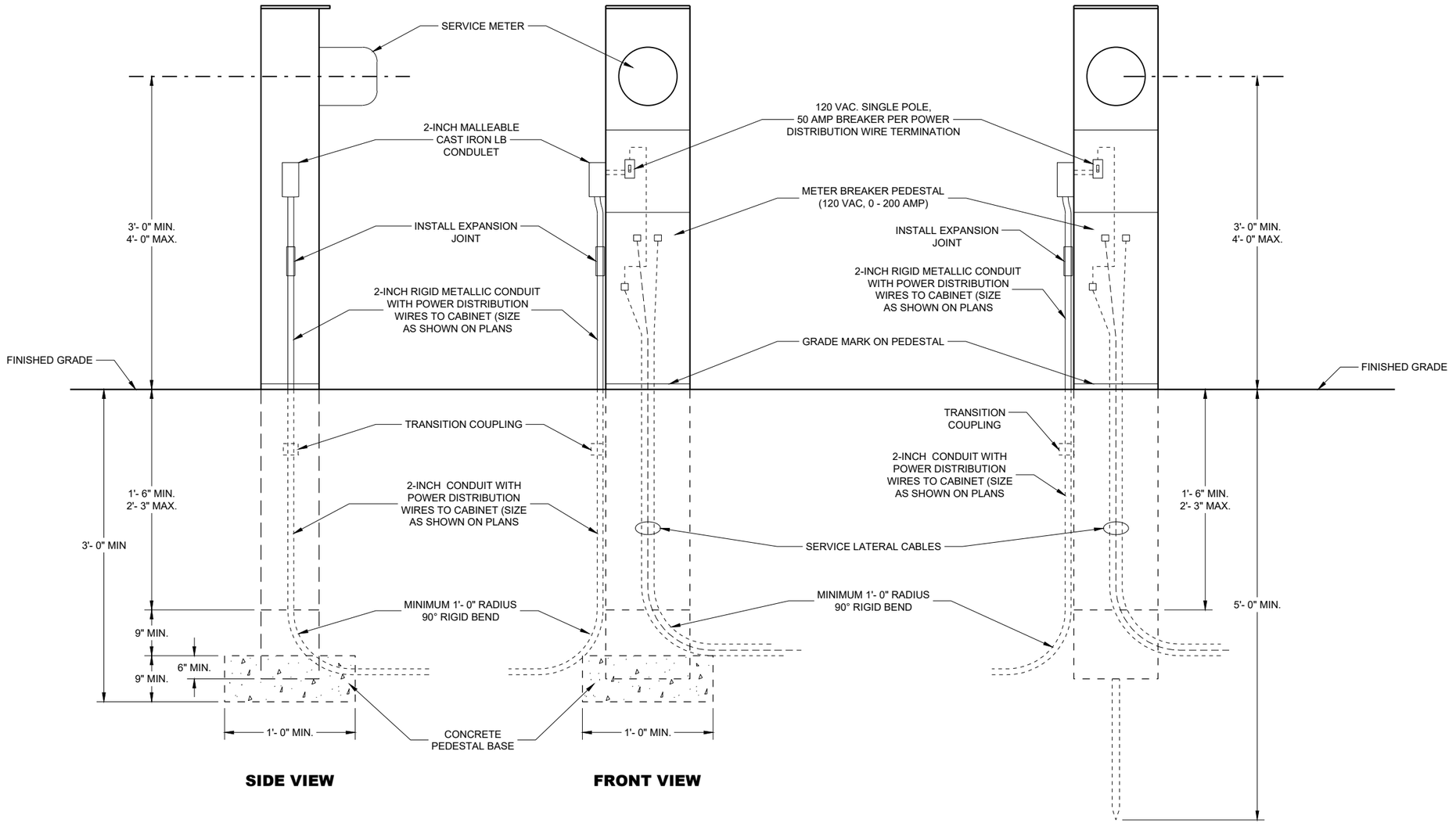
SDD 09C02 - 09



2 CIRCUIT METER BREAKER PEDESTAL

ALTERNATE SUPPORTING STAKE
(IF APPROVED BY UTILITY)

2 CIRCUIT METER BREAKER PEDESTAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

SDD 09H03 - 01

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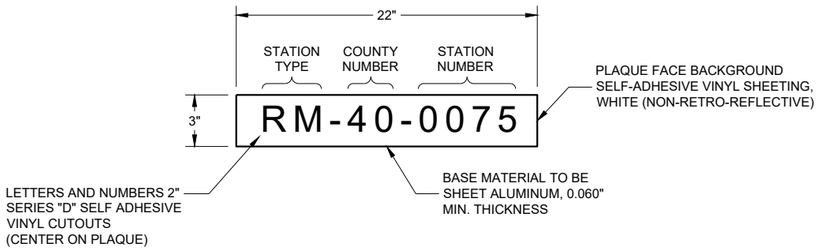
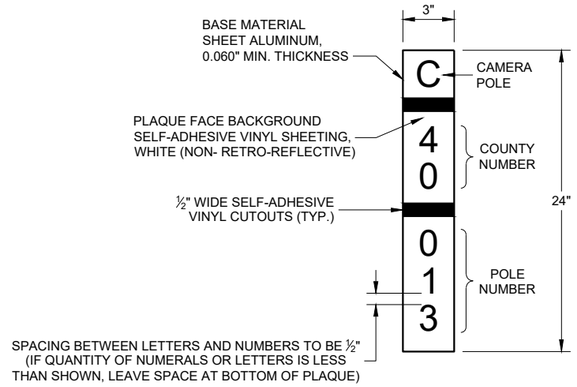
SDD 09H03 - 01



CONTROL CABINET IDENTIFICATION PLAQUE DETAIL



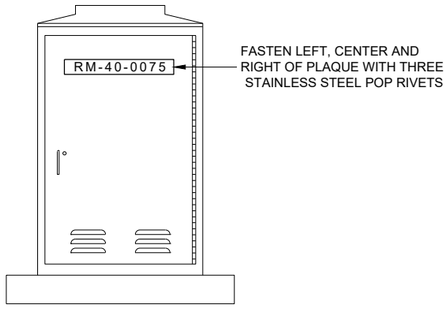
POLE IDENTIFICATION PLAQUE DETAIL

GENERAL NOTES

1. TWO PLAQUES PER CABINET REQUIRED ON CONTROL CABINET.
2. FASTEN ONE PLAQUE ON FRONT DOOR, UPPER HALF.
3. FASTEN ONE PLAQUE ON SIDE FACING LOCAL STREET. IF NO LOCAL STREET NEARBY, OR IF SUCH LOCATION COINCIDES WITH LOCATION OF PLAQUE IN NOTE 2 , FASTEN PLAQUE ON REAR OF CABINET, UPPER HALF.
4. COUNTY NUMBER NOT REQUIRED ON RAMP METER CABINETS.

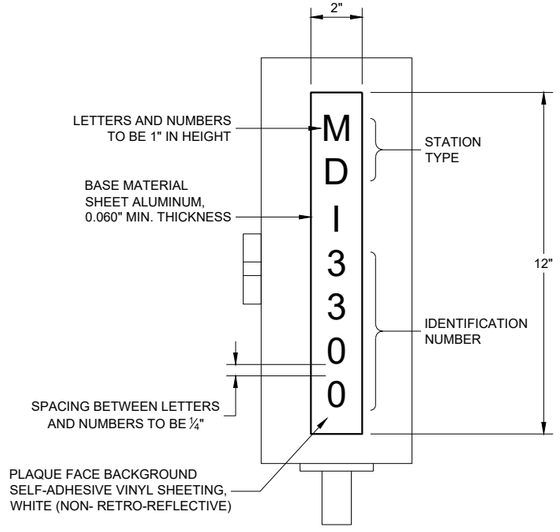
LEGEND STATION TYPE

RM - RAMP METER
CCTV - CLOSED CIRCUIT TELEVISION
ATR - AUTOMATIC TRAFFIC RECORDER
SDS - SYSTEM DETECTOR STATION
MD - MICROWAVE DETECTOR



CONTROL CABINET IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS

(TYPICAL ALL CONTROL CABINETS)



MICROWAVE DETECTOR FIELD CABINET IDENTIFICATION PLAQUE DETAIL

IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI
FHWA

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SDD 09H11 - 01

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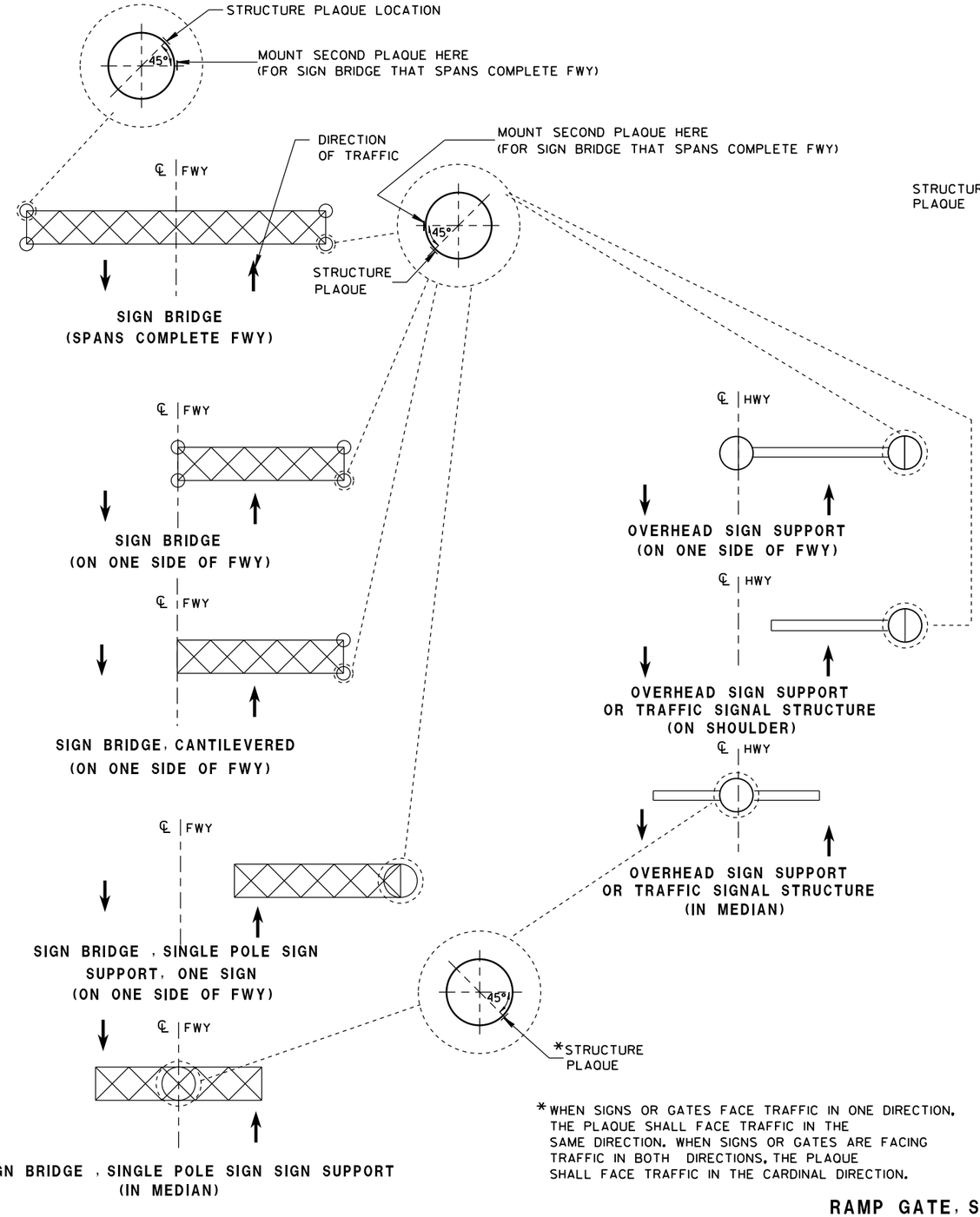
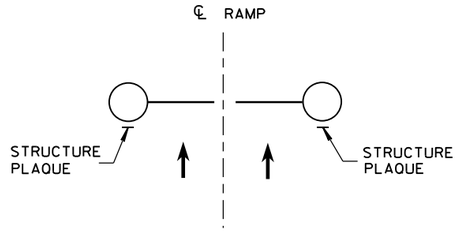
SDD 09H11 - 01

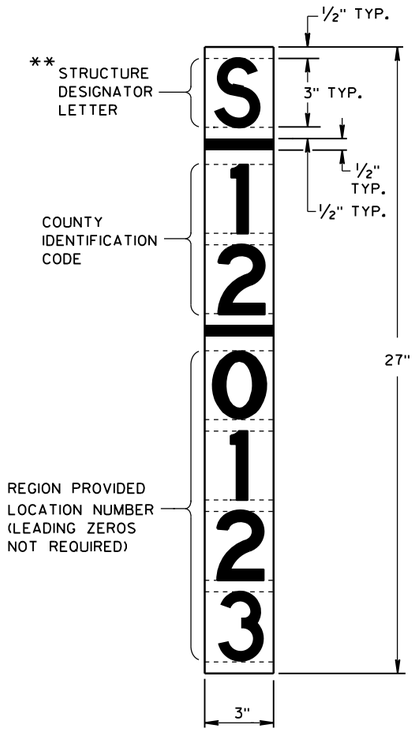


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



**RAMP GATE
(ACROSS FWY ON-RAMP)**



RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

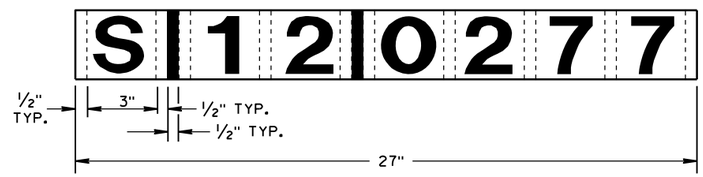
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 12 A 4-3

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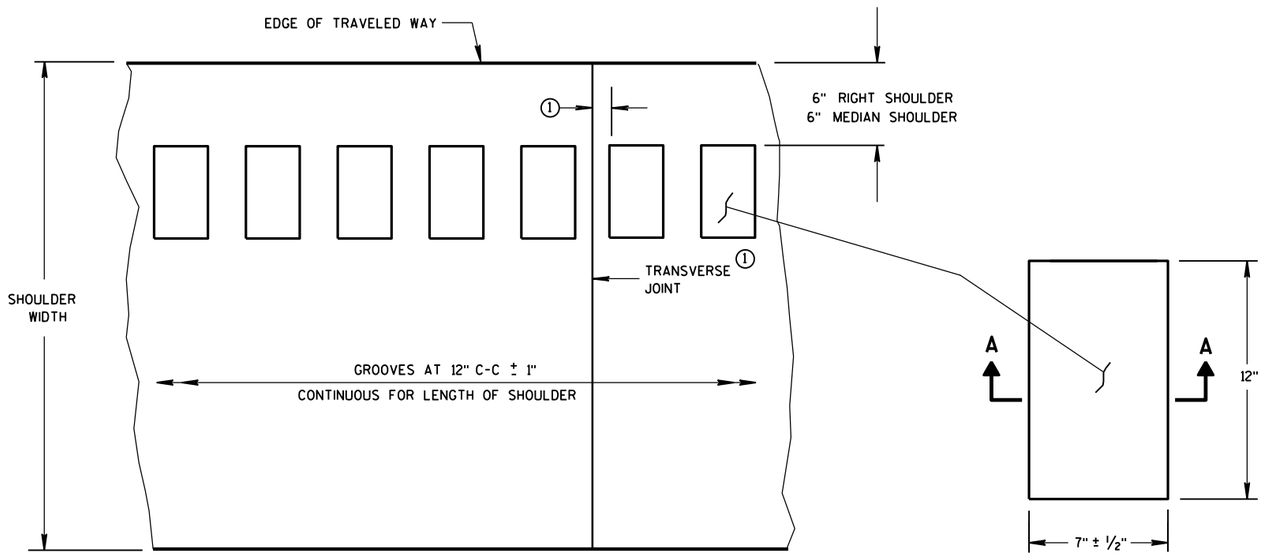
S.D.D. 12 A 4-3



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

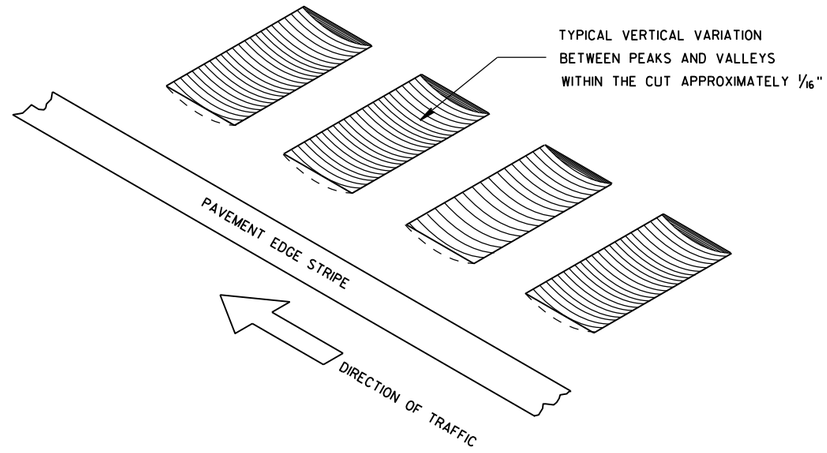
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



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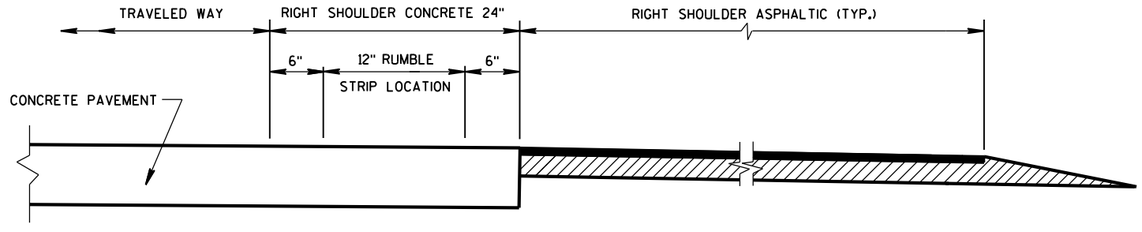
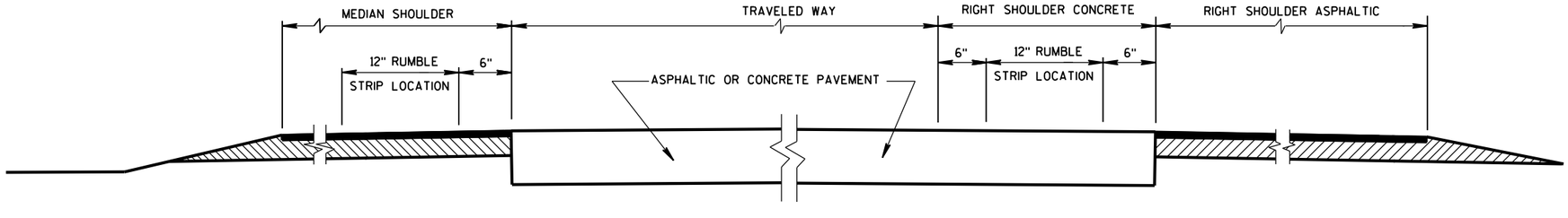


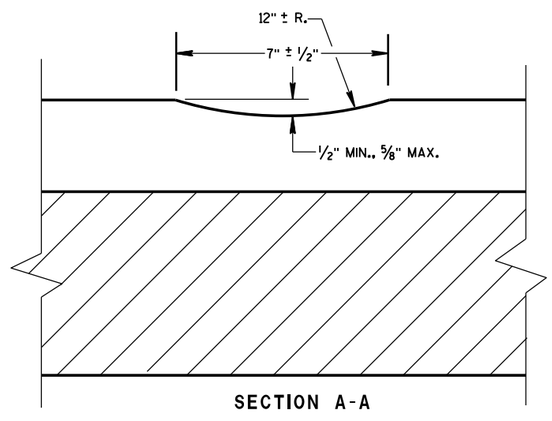
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

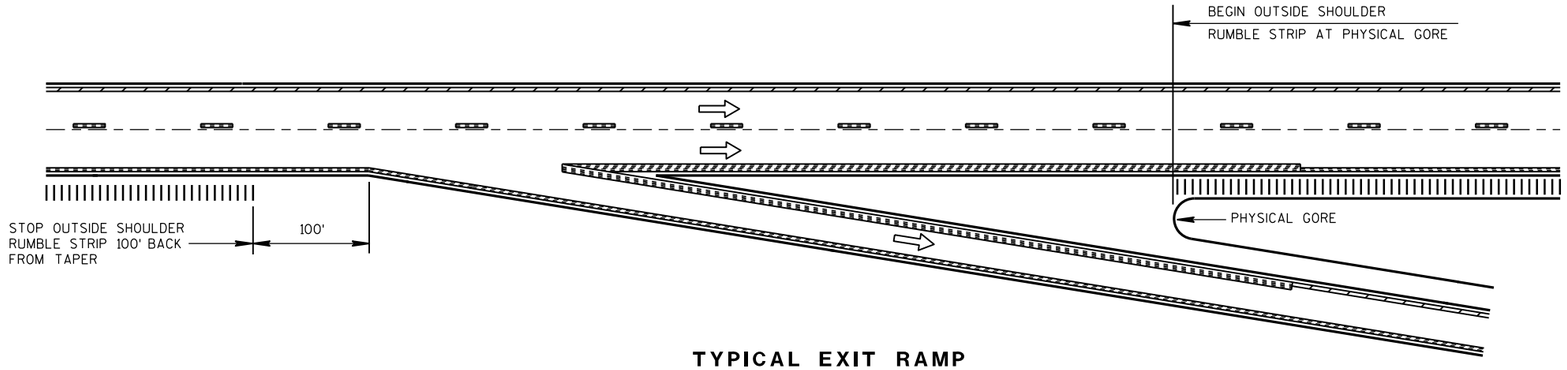
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 13 A 5-5a

6

S.D.D. 13 A 5-5a



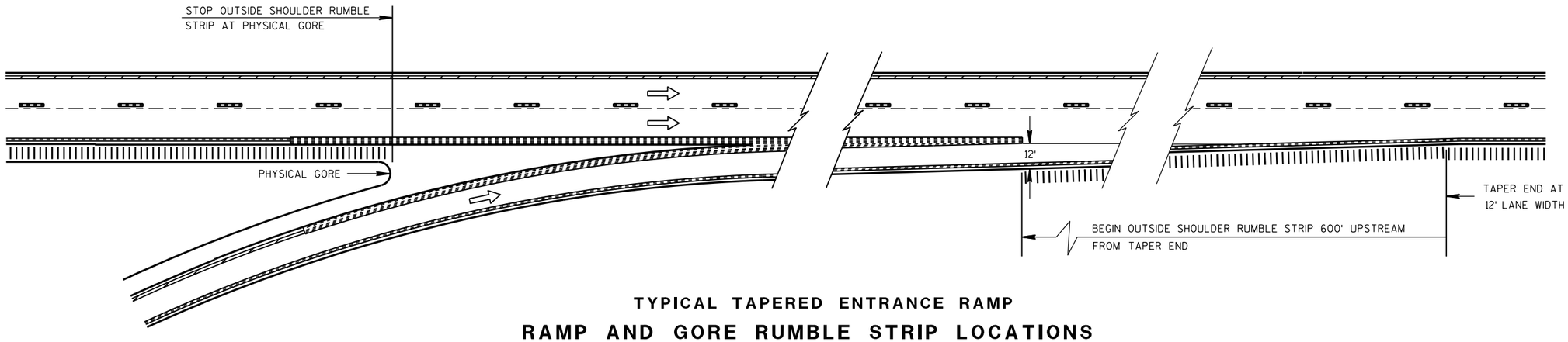
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

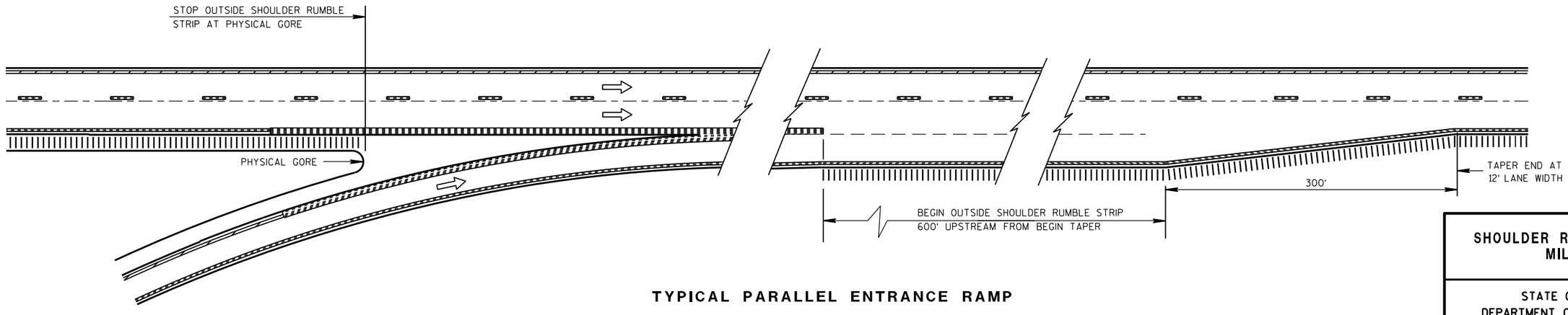
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

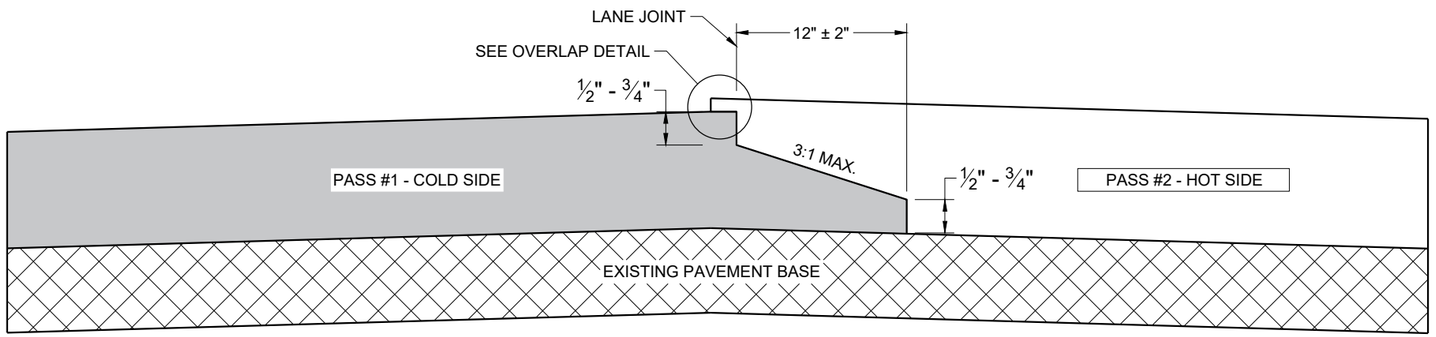
12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

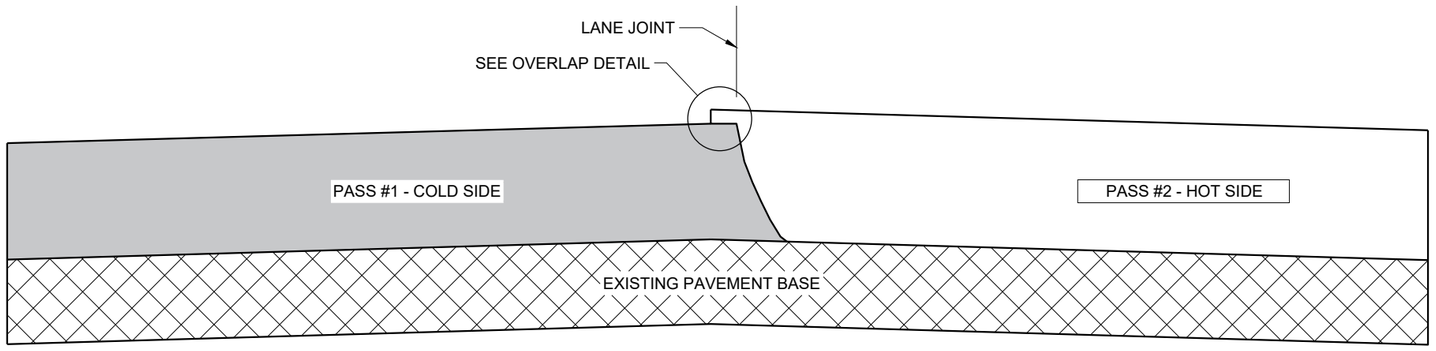
FHWA

6

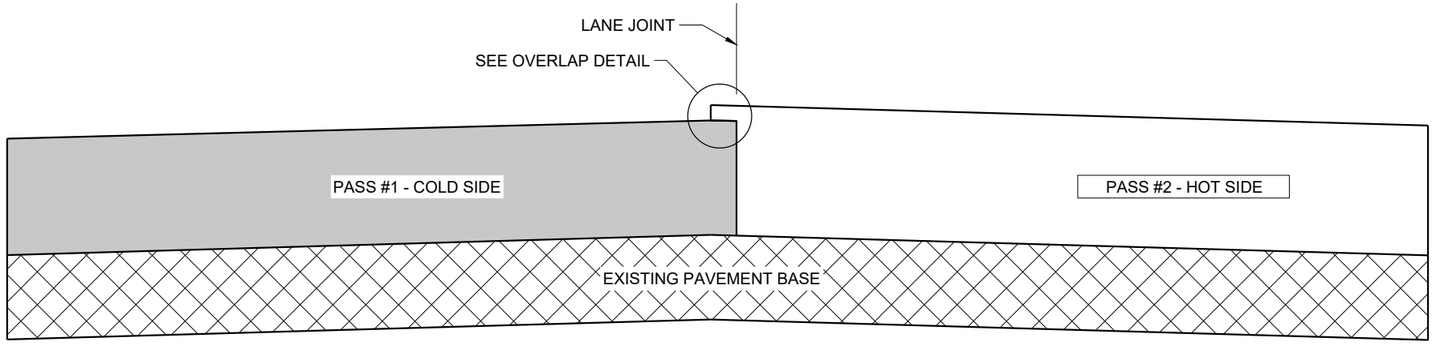
S.D.D. 13 A 5-5b



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

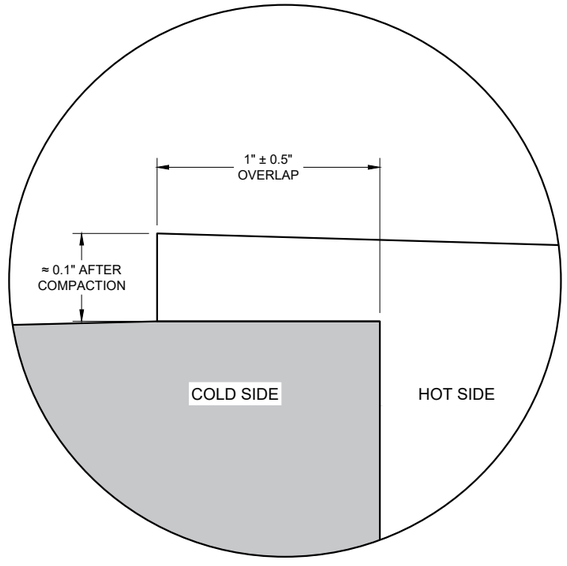
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

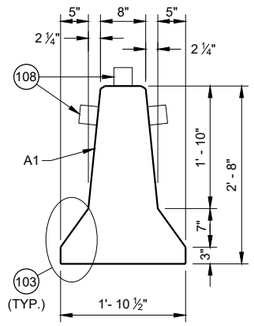
APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

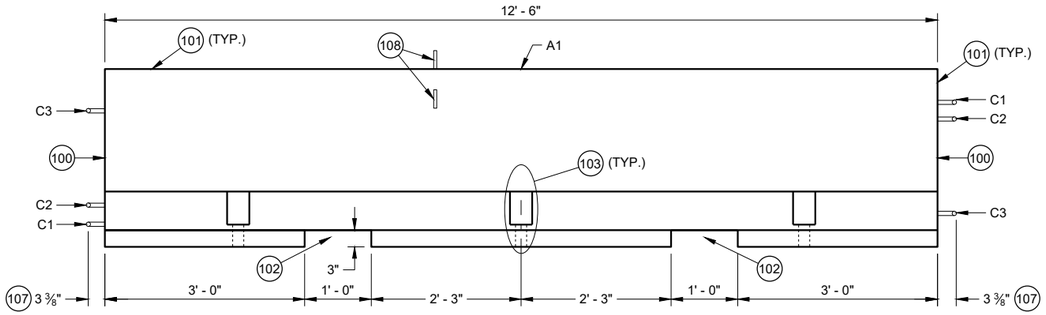
FHWA

6

SDD 13C19 - 03



CROSS SECTION



PROFILE VIEW

GENERAL NOTES

PLACE BARRIER ON PAVED SURFACE. BEFORE PLACEMENT OF TEMPORARY BARRIER, REMOVE ALL LOOSE MATERIAL FROM PAVED SURFACE.

LOOP BARS C1, C2 AND C3 ARE NOT FOR PLACEMENT OR MOVEMENT OF BARRIER.

(100) PERMANENTLY FORM INTO ONE END OF BARRIER THE FOLLOWING INFORMATION:
- A. TYPE OF BARRIER: WI-CBTP
- B. MANUFACTURER
- C. DATE OF MANUFACTURE (MONTH AND YEAR)

(101) 1" OPTIONAL CHAMFER

(102) SEE LIFTING SLOT DETAIL

(103) SEE ANCHOR BLOCK DETAIL

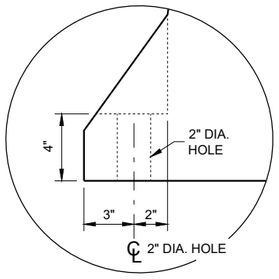
(104) 1 ¾" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

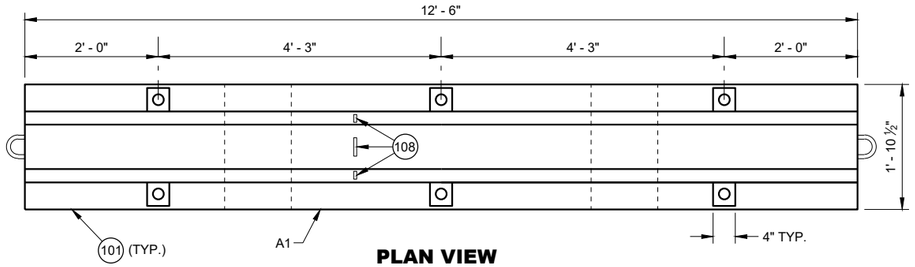
(106) 1" MIN. CLEAR COVER

(107) ± ⅛" MEASURED FROM FACE OF CONCRETE BARRIER TO OUTSIDE OF LOOP BAR (TYP.)

(108) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURERS INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED LEFT OF TRAFFIC AND WHITE WHEN BARRIER IS LOCATED RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART, PROVIDE TO MOUNTED DELINEATORS IN ADDITION TO SIDE MOUNTED DELINEATORS ON BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAT 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

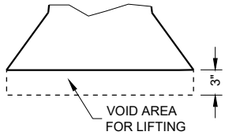


ANCHOR BLOCK DETAIL

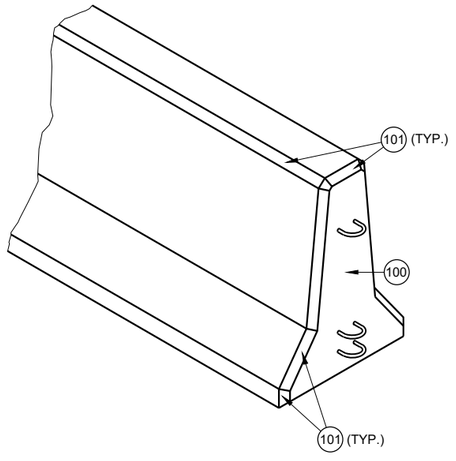


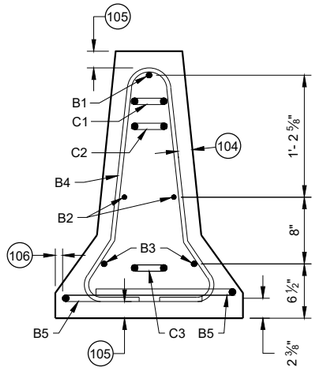
PLAN VIEW

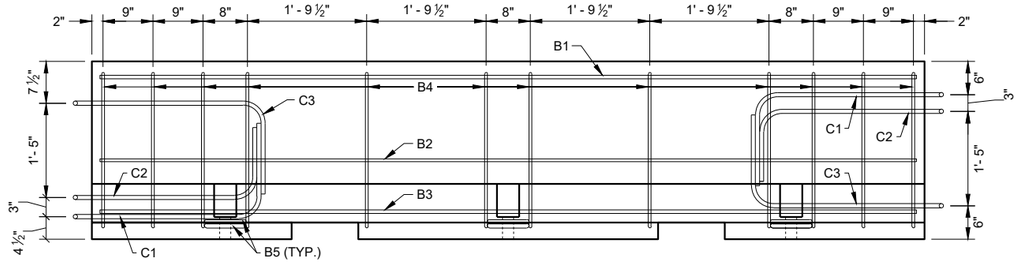
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)







PROFILE VIEW

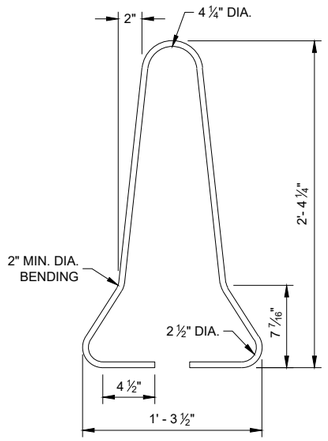
TEMPORARY BARRIER REINFORCEMENT

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

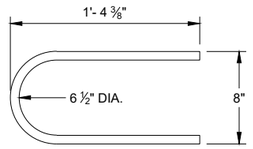
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

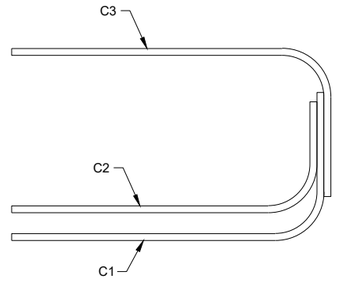
SDD14B07 - 16a



B4 BAR DETAIL

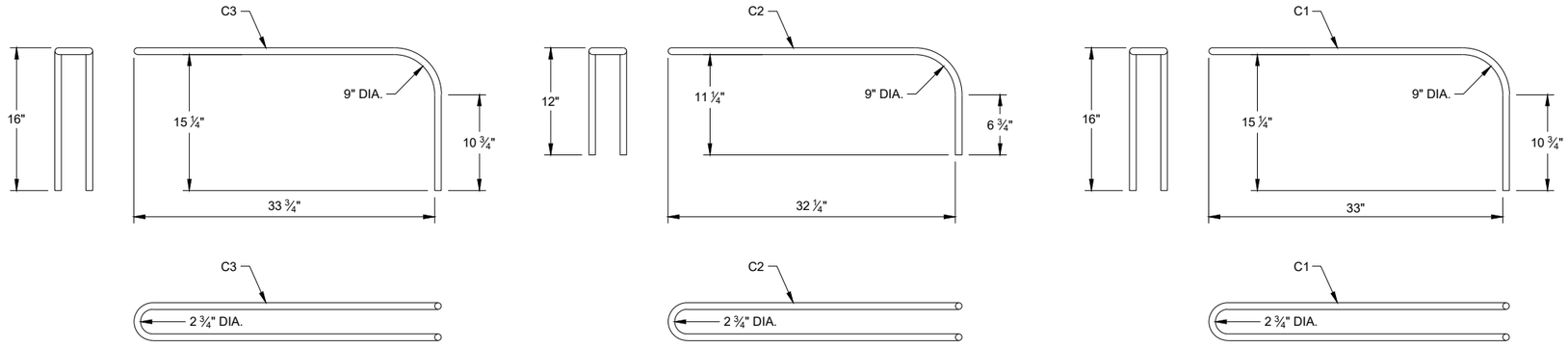


B5 BAR DETAIL



PROFILE VIEW

LOOP BAR ASSEMBLY



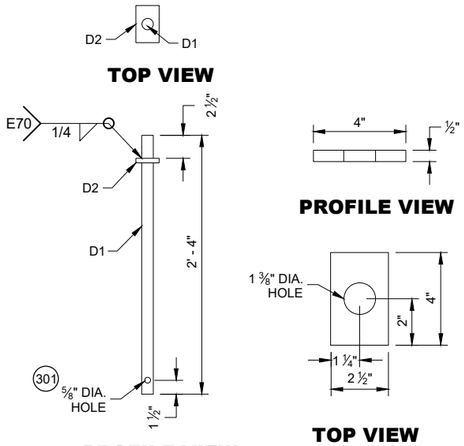
C BAR DETAILS

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

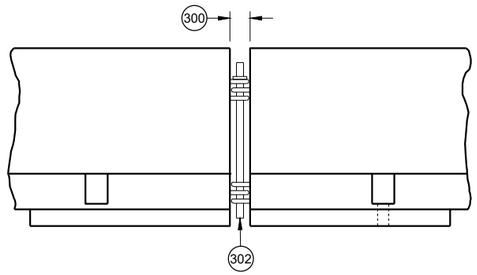
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16b



CONNECTOR PIN ASSEMBLY



CONNECTING TEMPORARY BARRIER SECTIONS

GENERAL NOTES

300 SET WITH 3 ⅝" WOOD BLOCK.

301 HOLE IS OPTIONAL.

302 CONNECTOR PIN ASSEMBLY.

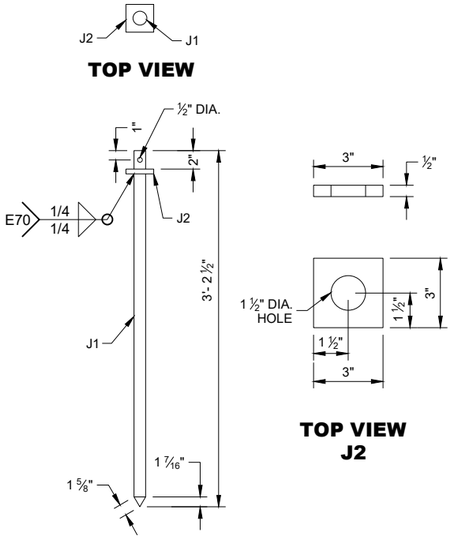
303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.

304 CONCRETE DECK.

305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

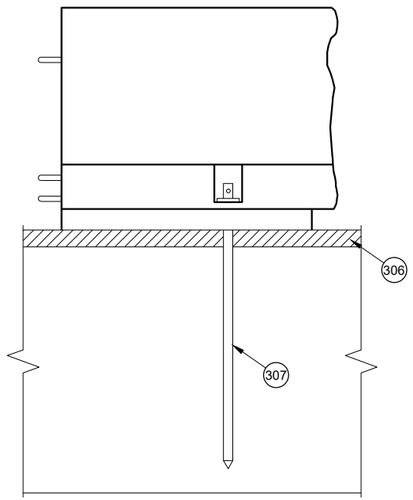
306 MINIMUM OF 2" OF ASPHALT.

307 ASPHALT ANCHOR PIN ASSEMBLY



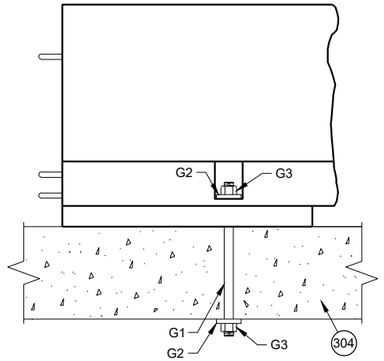
PROFILE VIEW

ASPHALT ANCHOR PIN ASSEMBLY



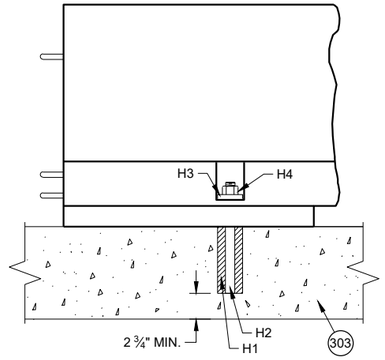
SIDE VIEW

ASPHALT ANCHOR INSTALLATION



SIDE VIEW

THROUGH BOLT ANCHOR INSTALLATION 305



SIDE VIEW

ADHESIVE ANCHOR INSTALLATION 305

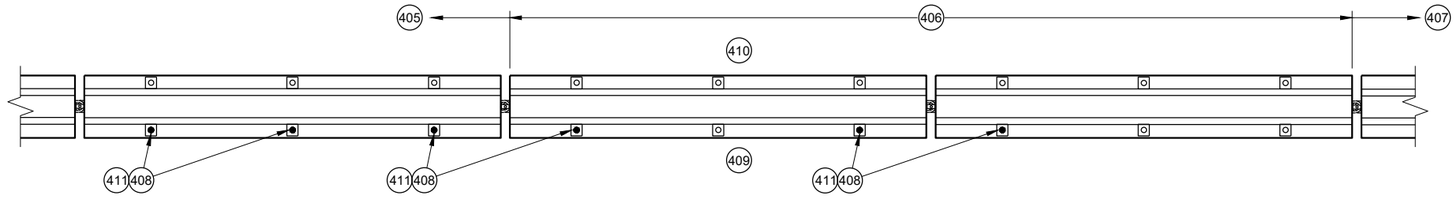
6

SDD 14B07 - 16c

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

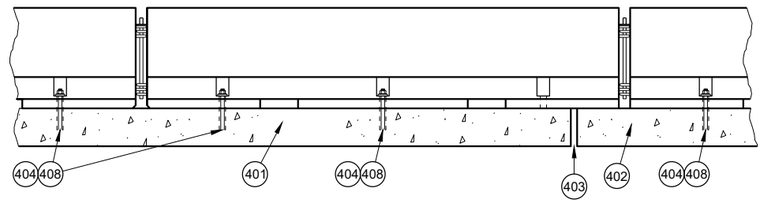
6

SDD 14B07 - 16c



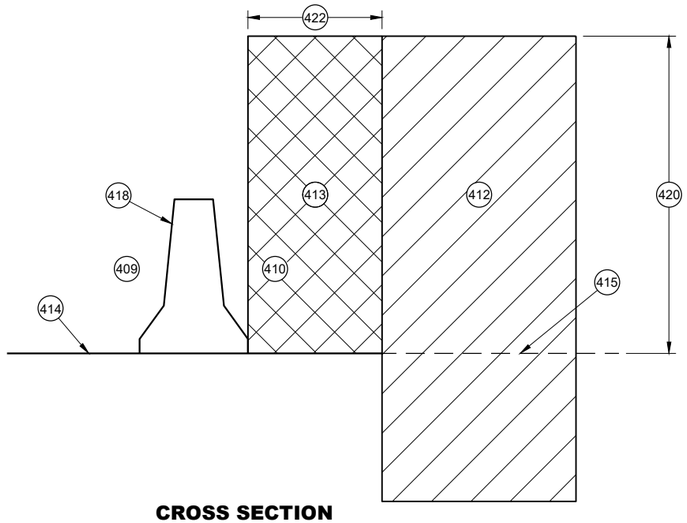
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



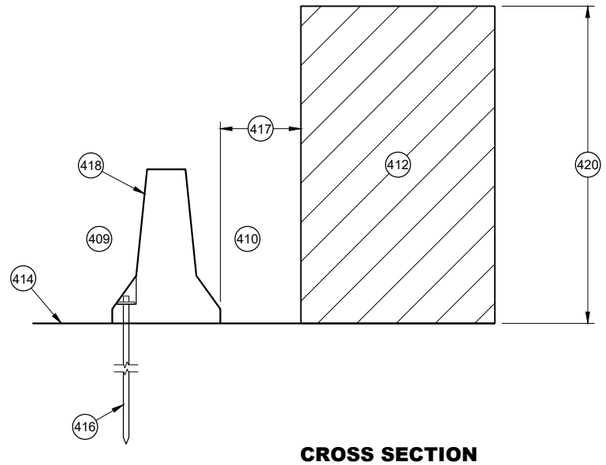
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



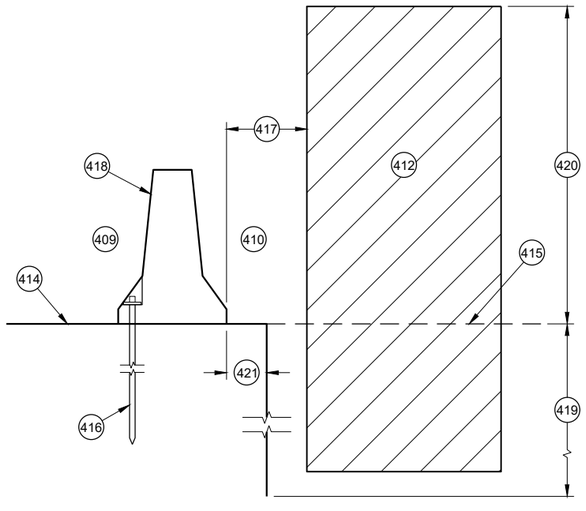
CROSS SECTION

FREE STANDING BARRIER



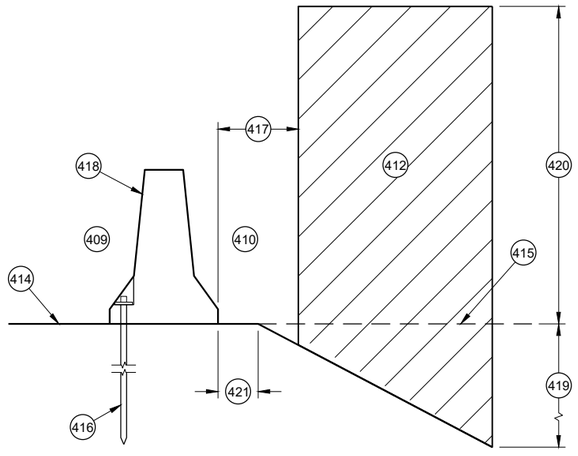
CROSS SECTION

ANCHORED BARRIER FOR OBJECTS ABOVE THE GRADE LINE AND NEAR THE BARRIER



CROSS SECTION

ANCHORED BARRIER NEAR VERTICAL DROP OFF



CROSS SECTION

ANCHORED BARRIER NEAR A SLOPE

GENERAL NOTES

(400) NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.

(401) CONCRETE DECK

(402) CONCRETE DECK OR APPROACH SLAB.

(403) EXPANSION JOINT

(404) ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.

(405) ANCHORED TEMPORARY BARRIER

(406) TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING

(407) FREE STANDING BARRIER

(408) REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(409) TRAFFIC SIDE

(410) NON-TRAFFIC SIDE

(411) ANCHOR LOCATION. SEE ANCHORING DETAILS.

(412) WORK AREA

(413) AREA FREE OF OBJECTS AND WORKERS

(414) GRADE LINE

(415) EXTENDED GRADE LINE

(416) ANCHORED TEMPORARY BARRIER. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR AN ASPHALT ANCHOR ROD DETAILS FOR MORE INFORMATION. ASPHALT ANCHOR ROD SHOWN.

(417) WHEN OBJECTS EXTEND ABOVE THE GRADE. A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT.

(418) OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR ALLOWED TO LEAN AGAINST THE BARRIER WITHOUT WRITTEN PERMISSION OF THE PROJECT ENGINEER.

(419) DEPTHS OF 3 FEET OR MORE.

(420) Y = 6.5'

(421) OFFSET FROM BACK OF BARRIER EDGE:

CONCRETE PAVEMENT	0.5'
ASPHALT	0.5'

(422) POSTED SPEED (MPH):

45 OR GREATER	4.0'
40 OR LOWER	2.0'

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16d

GENERAL NOTES

(500) EXISTING RIGID BARRIERS (VARIES)

(501) TEMPORARY BARRIER

(502) SEE OTHER DETAIL ON HOW TO ANCHOR TEMPORARY BARRIER (BARRIER ASPHALT ANCHOR SHOWN).

(503) ANCHORS ARE REQUIRED ON BOTH SIDE OF THE TEMPORARY BARRIER.

(504) NESTED RAILS ARE REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

(505) TRAFFIC TRAVELS FROM PERMANENT BARRIER TO TEMPORARY BARRIER.

(506) TRAFFIC TRAVELS FROM TEMPORARY BARRIER TO PERMANENT BARRIER.

(507) VERTICAL BARRIER

(508) SAFETY SHAPE BARRIER

(509) SINGLE SLOPE BARRIER

(510) CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF RIGID BARRIER.

(511) BENT THRIE BEAM TO FIT.

(512) THRIE BEAM PIECES ARE OFFSET 15 ¼" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.

(513) TWO (2) P1, P2 AND P3 ARE REQUIRED

(514) FIVE (5) N1, N2 AND N3 ARE REQUIRED

(515) TWO (2) R1, R2 AND R3 ARE REQUIRED

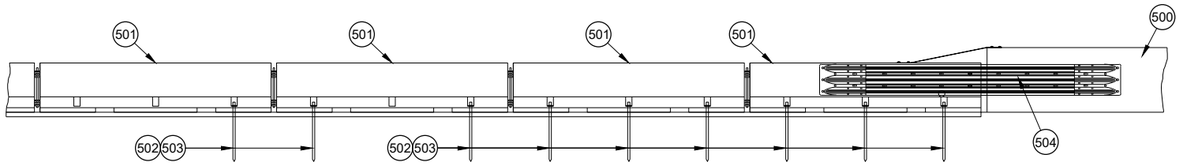
(516) CUT WOOD BLOCK TO FIT.

(517) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL ASSEMBLY.

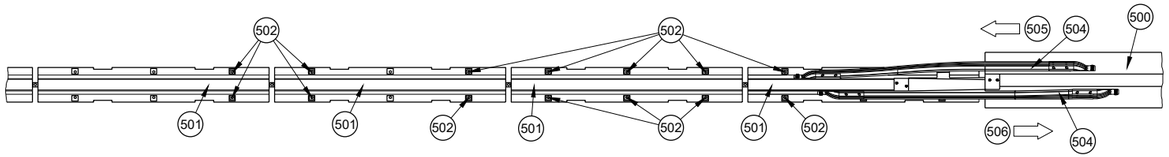
(518) CAP ASSEMBLY

(519) 4" MAX. GAP BETWEEN TEMPORARY BARRIER AND RIGID BARRIER.

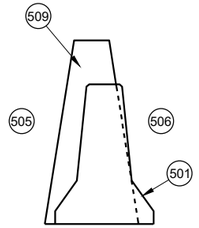
(520) ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



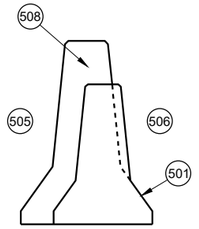
PROFILE VIEW



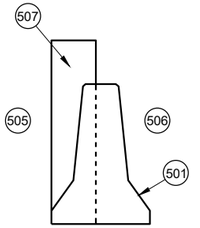
PLAN VIEW
TRANSITION TO RIGID BARRIER



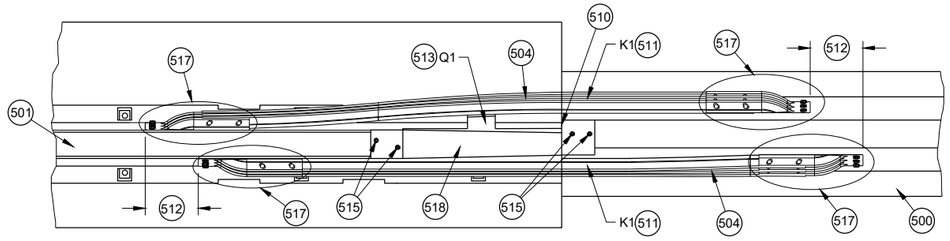
CROSS SECTION TEMPORARY BARRIER PLACEMENT SINGLE SLOPE



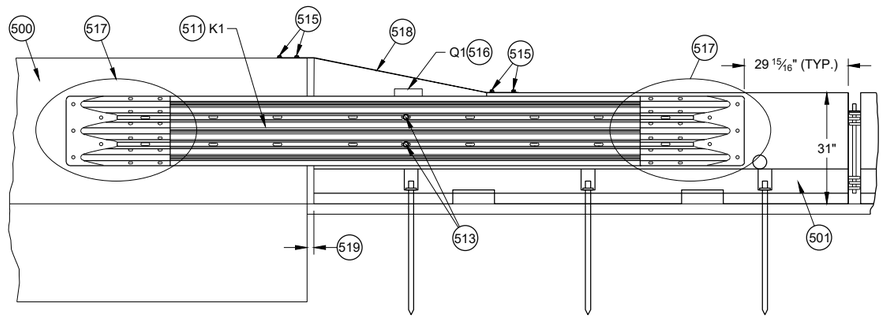
CROSS SECTION TEMPORARY BARRIER PLACEMENT SAFETY SHAPE



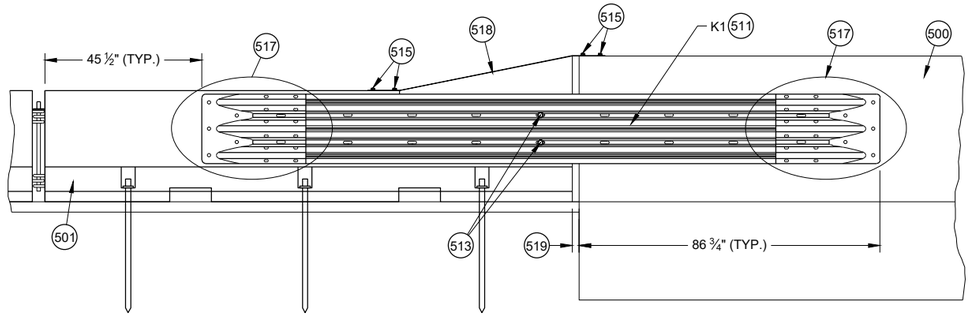
CROSS SECTION TEMPORARY BARRIER PLACEMENT VERTICAL



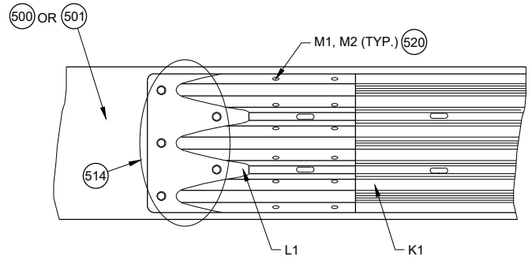
PLAN DETAIL VIEW
TRANSITION TO RIGID BARRIER



BACK DETAIL VIEW
TRANSITION TO RIGID BARRIER



FRONT DETAIL VIEW
TRANSITION TO RIGID BARRIER

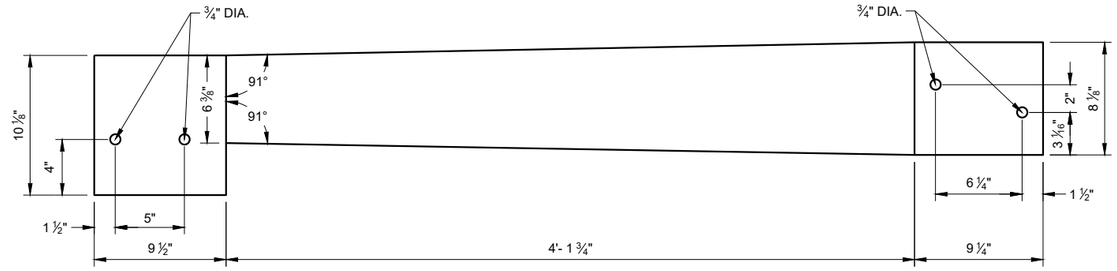


517 DETAIL PLAN VIEW
THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

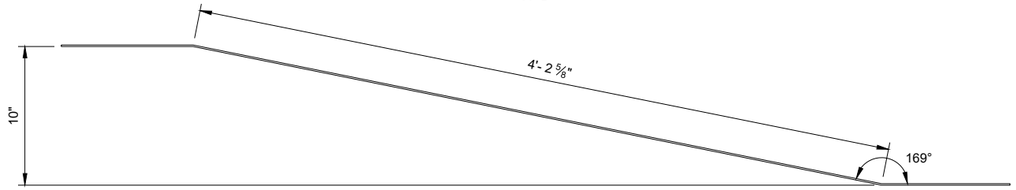
6

SDD 14B07 - 16e



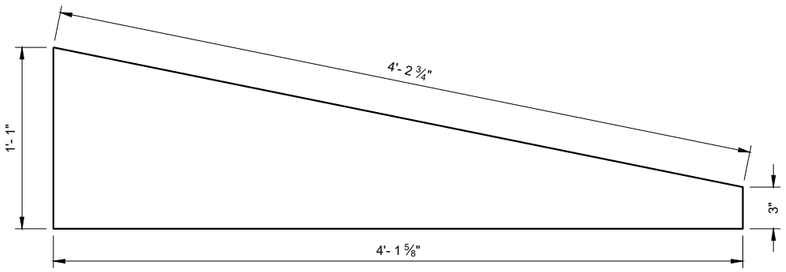
TOP VIEW

S1



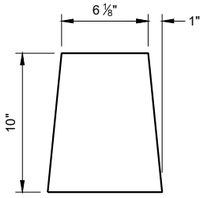
ELEVATION VIEW

S1



SIDE VIEW

S3



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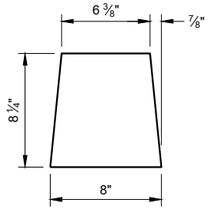

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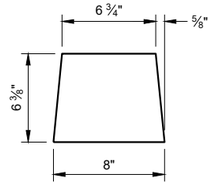
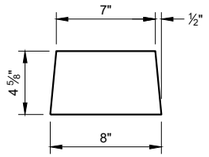
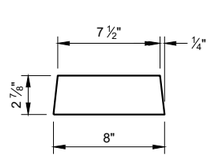


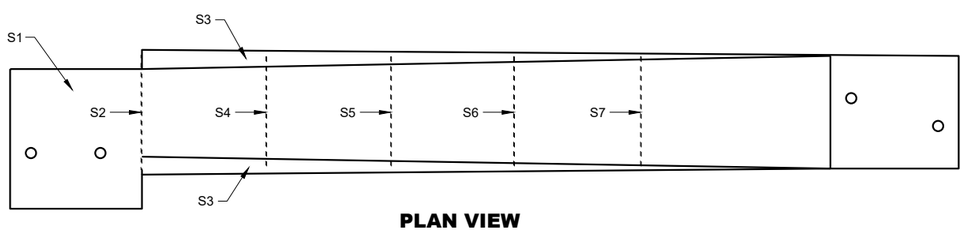
S5



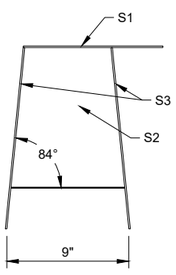
S6



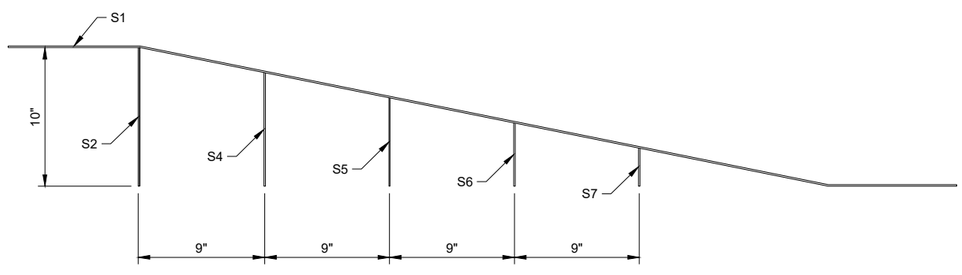
S7



PLAN VIEW



BACK VIEW



SIDE VIEW (600)

42" TOP CAP ASSEMBLY

GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THREE SIDES

STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

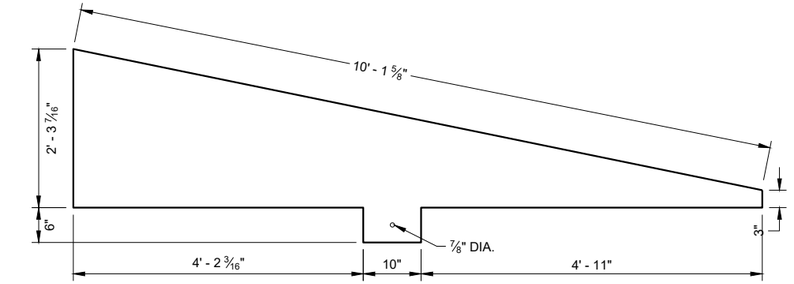
(600) SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

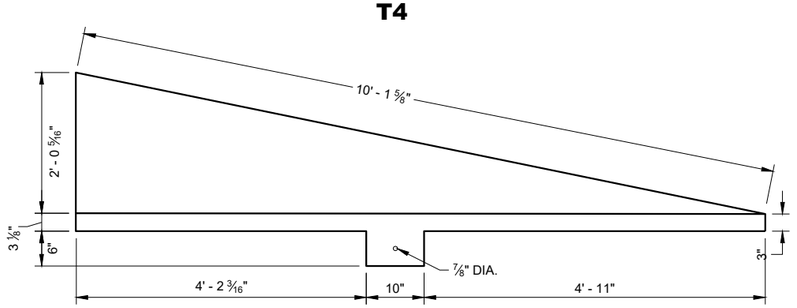
6

SDD 14B07 - 16f



SIDE VIEW
T4

END VIEW



SIDE VIEW
T3

END VIEW

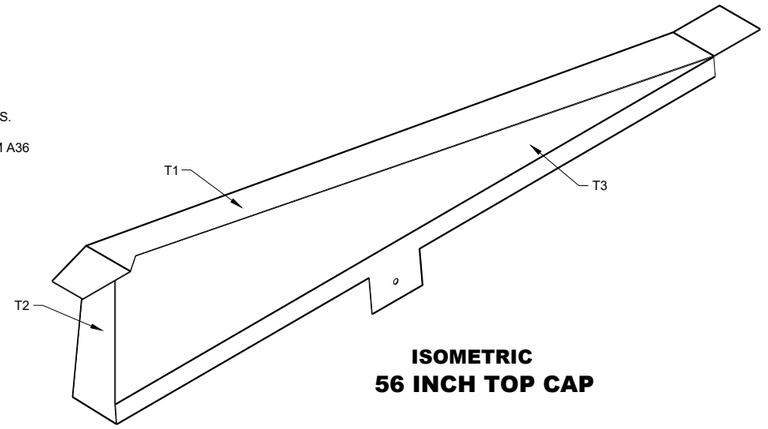
GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES

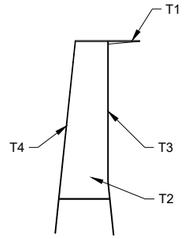
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

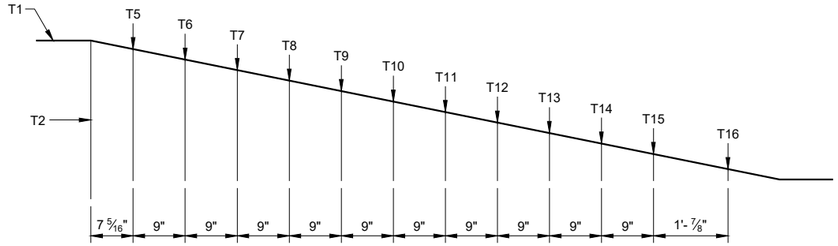
(700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.



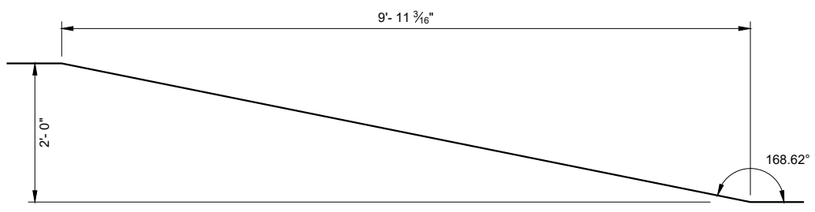
ISOMETRIC
56 INCH TOP CAP



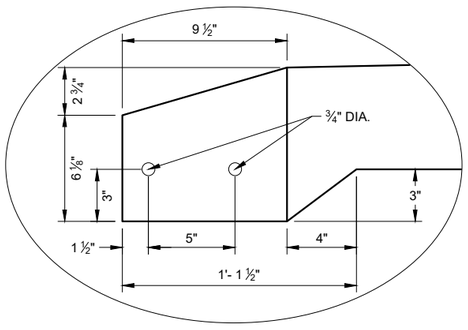
END VIEW
56 INCH TOP CAP



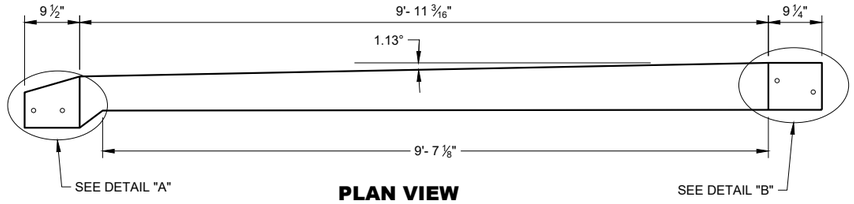
SIDE VIEW (700)
56 INCH TOP CAP



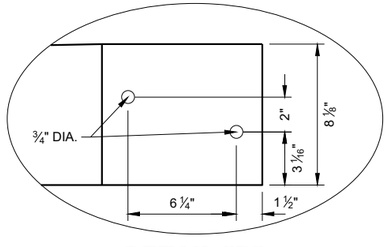
SIDE VIEW
TOP PLATE T1



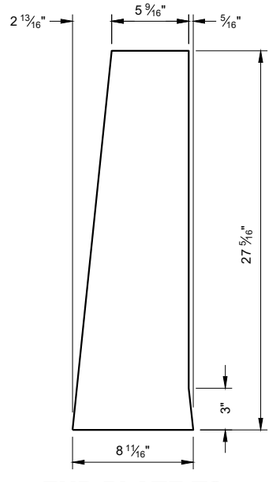
DETAIL "A"



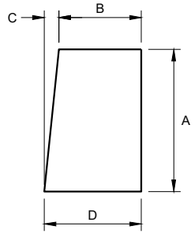
PLAN VIEW
TOP PLATE T1



DETAIL "B"



END PLATE T2



GUSSET PLATES
T5 - T16

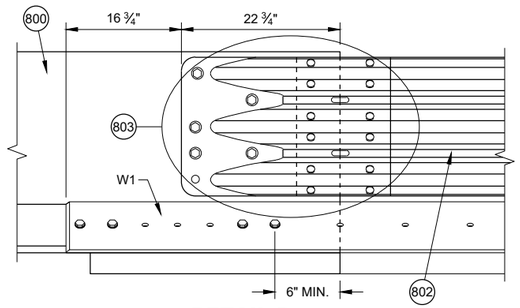
GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 1/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/16"	1 15/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 5/16"	6 7/16"	1 9/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"	7"	1 1/16"	8 1/16"
T13	8 5/16"	7 3/16"	7/8"	8 1/16"
T14	6 1/2"	7 3/8"	1 1/16"	8 1/16"
T15	4 11/16"	7 9/16"	1/2"	8"
T16	2 7/8"	7 3/4"	1/4"	8"

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

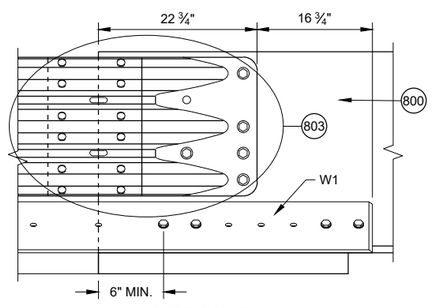
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

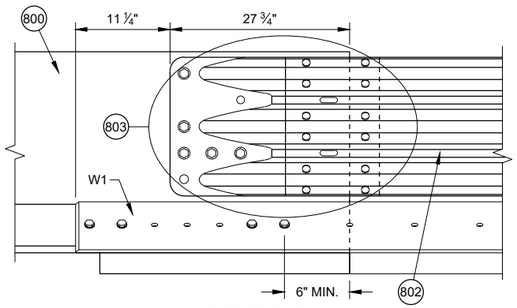
SDD 14B07 - 16g



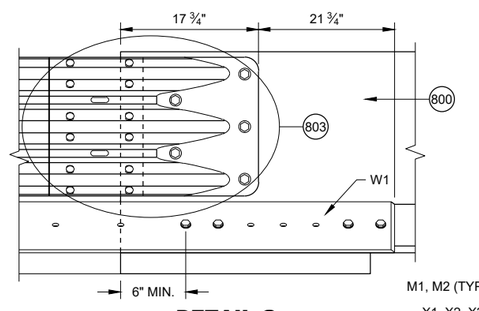
DETAIL D



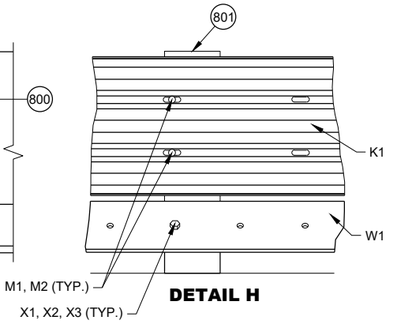
DETAIL E



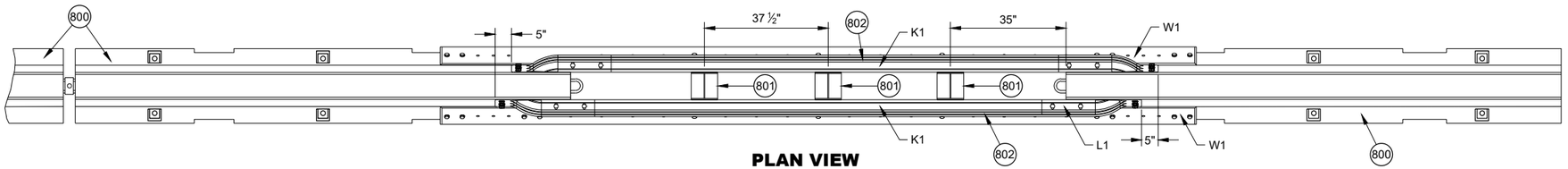
DETAIL F



DETAIL G



DETAIL H



PLAN VIEW

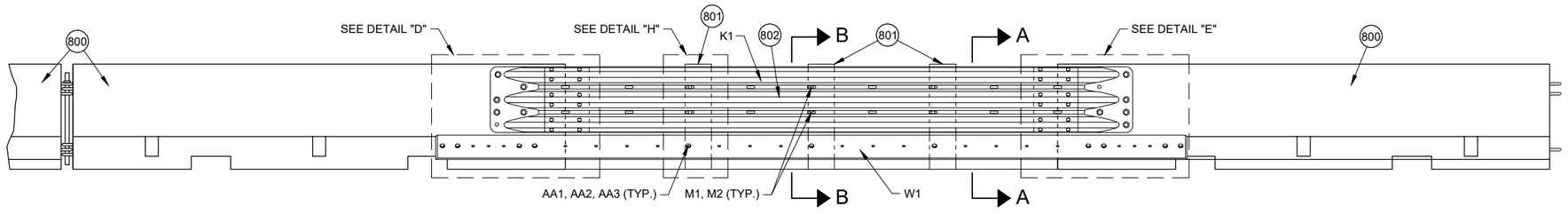
GENERAL NOTES

(800) FREE STANDING TEMPORARY BARRIER

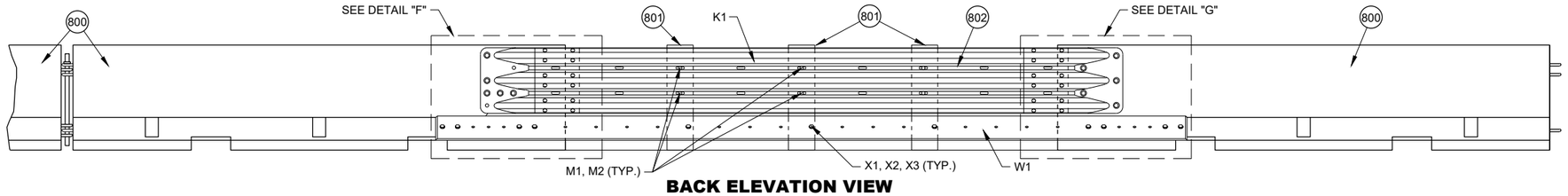
(801) GAP STIFFENER ASSEMBLY

(802) THRIE BEAMS ARE NESTED ON BOTH SIDES OF THE TEMPORARY BARRIER.

(803) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



FRONT ELEVATION VIEW



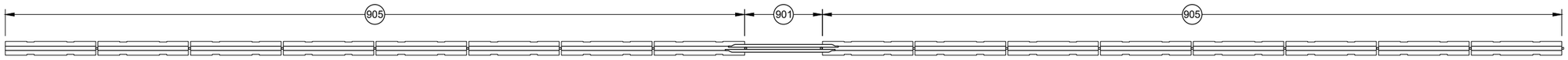
BACK ELEVATION VIEW

PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER

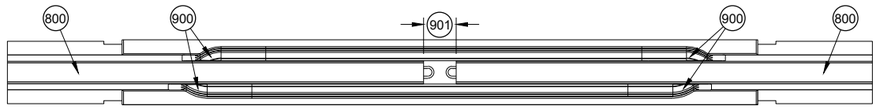
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07 - 16h



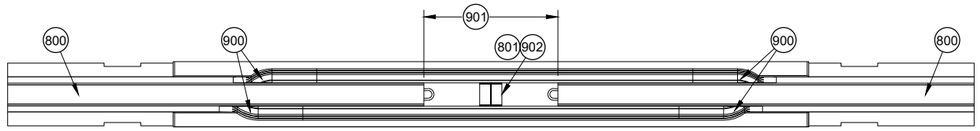
PLAN VIEW
GAP WITHIN SPACING



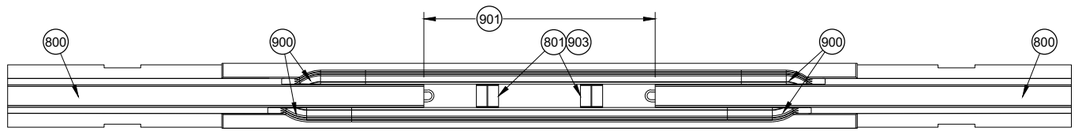
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. (904)

GENERAL NOTES

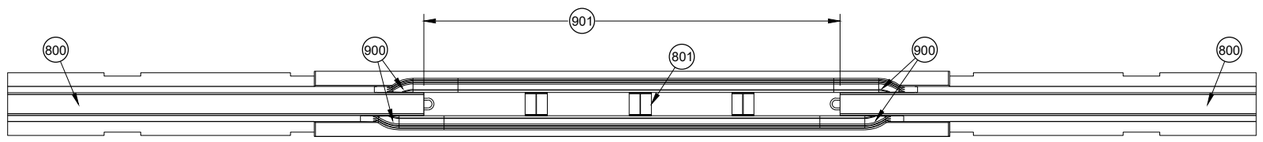
(900) SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)
(901) TEMPORARY BARRIER GAP
(902) GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
(903) GAP STIFFENER ASSEMBLY IS OFFSET 18 ¾" FROM CENTER
(904) MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
(905) MINIMUM OF 8 CONTINUOUS FREE STANDING TEMPORARY BARRIERS



PLAN VIEW
TEMPORARY BARRIER GAP OVER 1' TO 4' MAX. (904)



PLAN VIEW
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX. (904)

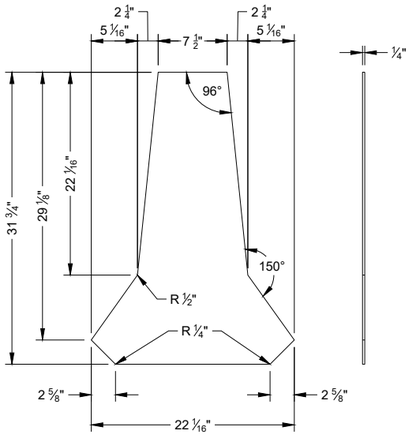


PLAN VIEW
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX. (904)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

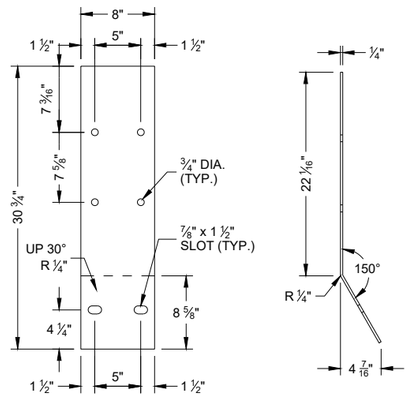
6

SDD 14B07 - 16i



PROFILE VIEW **SIDE VIEW**

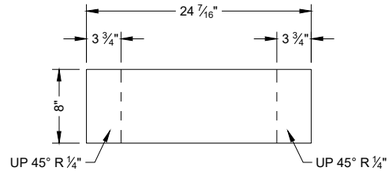
STIFFENER ASSEMBLY CENTER PANEL U1



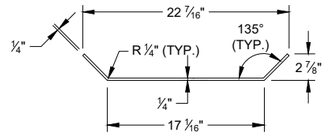
FLAT PATTERN

SIDE VIEW

STIFFENER ASSEMBLY SIDE PANEL U2

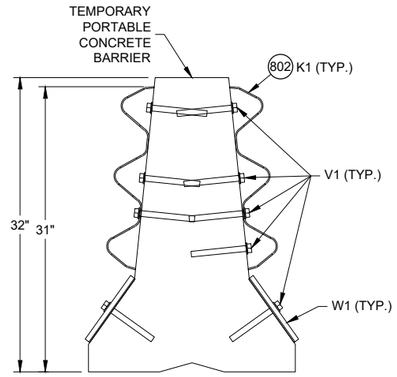


FLAT PATTERN

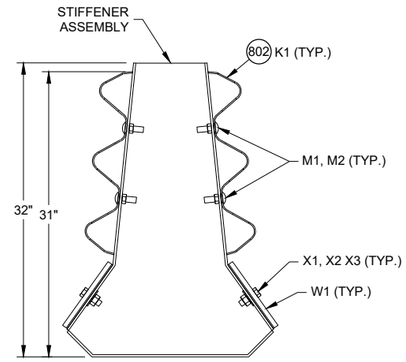


PROFILE VIEW

STIFFENER ASSEMBLY BOTTOM PANEL U3



SECTION A - A



SECTION B - B

PLAN VIEW

PROFILE VIEW

SIDE VIEW

ISOMETRIC

GAP STIFFENER ASSEMBLY

PLAN VIEW

SIDE VIEW

ELEVATION VIEW

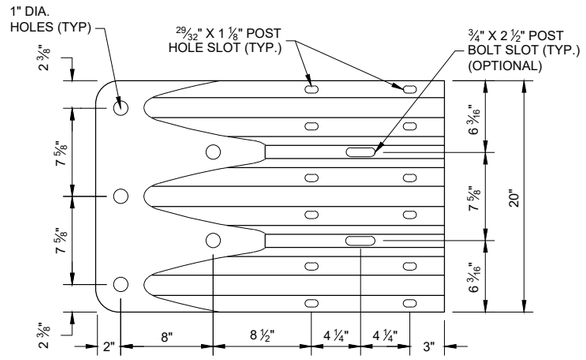
W1 TOE PLATE

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

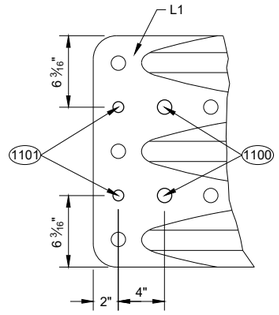
6

SDD 14B07 - 16j



ELEVATION VIEW

THRIE BEAM TERMINAL CONNECTOR



ELEVATION VIEW

ADDITIONAL THRIE BEAM (1102) TERMINAL CONNECTOR HOLE DETAIL

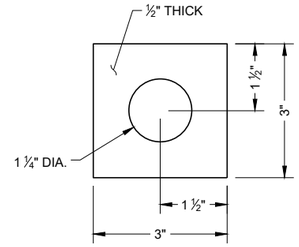


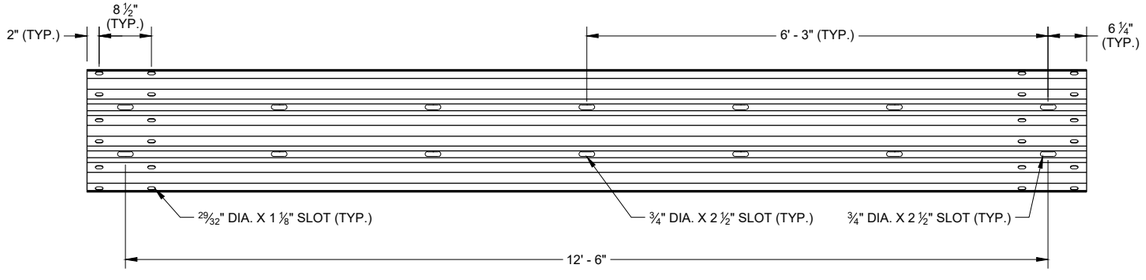
PLATE WASHER DETAIL G2, H3

GENERAL NOTES

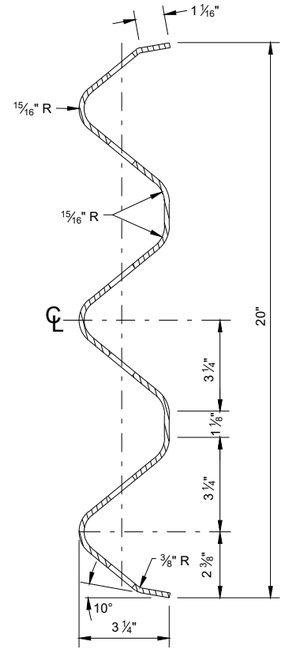
(1100) 1" DIA. HOLE

(1101) 3/4" DIA. HOLE

(1102) PROVIDE HOLES IN THRIE BEAM TERMINAL CONNECTOR TO LIMIT STEEL REINFORCEMENT OR LOOP BAR CONFLICT. CONTRACTOR MAY FIELD DRILL ADDITIONAL HOLE OR PROVIDE THRIE BEAM TERMINAL CONNECTOR WITH ADDITIONAL HOLES FROM SUPPLIER.



SLOTTED THRIE BEAM RAIL K1



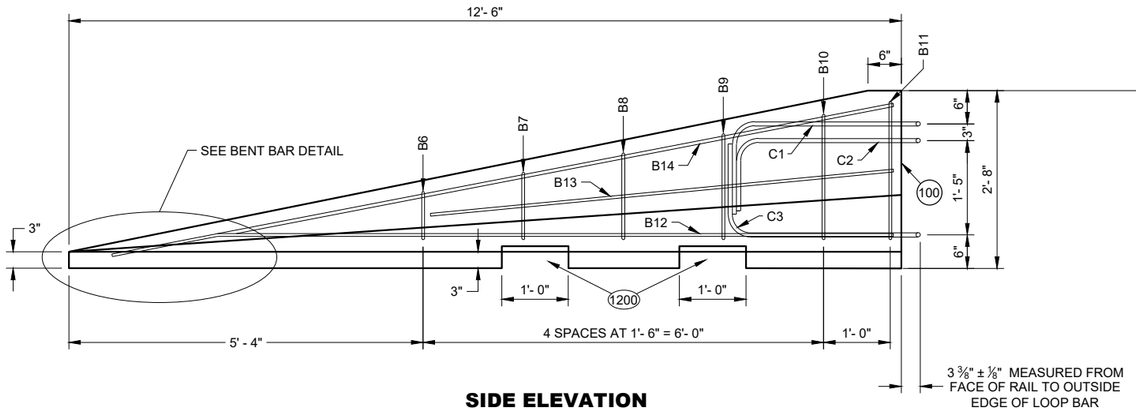
SECTION THROUGH BEAM K1

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

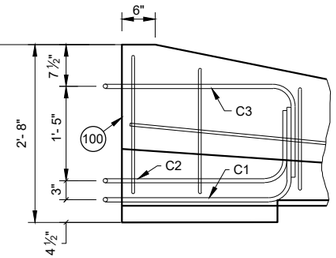
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16k



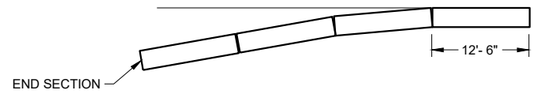
SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED FOR OPPOSITE END
(FOR CONNECTION TO RIGHT END OF BARRIER)

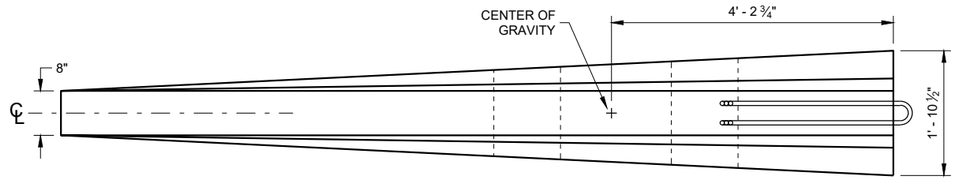
GENERAL NOTES

(1200) SEE LIFTING SLOT DETAIL. LOCATION OF LIFTING SLOTS DETERMINED BY CONTRACTOR.

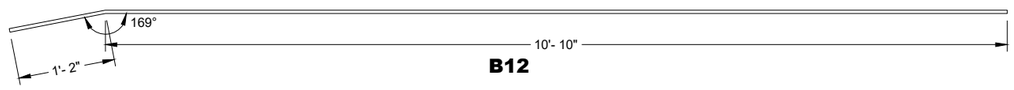


FLARE AT BARRIER END

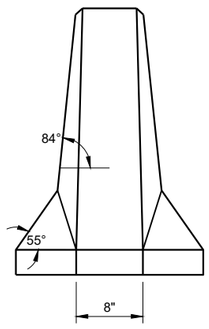
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



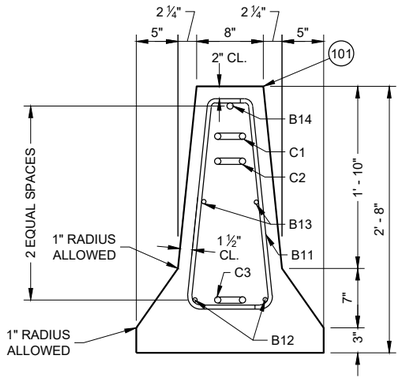
PLAN VIEW



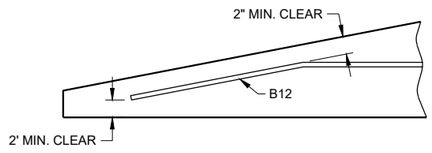
B12



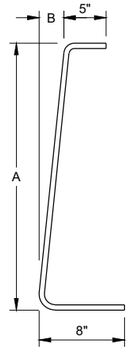
FRONT ELEVATION



END SECTION



BENT BAR DETAIL



BAR	A	B
B6	10"	1"
B7	1'- 1"	1 ¼"
B8	1'- 5"	1 ⅝"
B9	1'- 8"	1 ⅞"
B10	2'- 0 ½"	2 ⅜"
B11	2'- 3"	2 ¾"

B BARS
2 OF EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16I

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	PRECAST TEMPORARY BARRIER - CONCRETE	MIN. = f'c 5000 PSI	
B1	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B2	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-2"
B3	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B4	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 6'-0"
B5	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 2'-11"
B6	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 1'-11"
B7	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-2"
B8	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-6"
B9	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-9"
B10	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-2"
B11	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-4"
B12	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-0"
B13	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 7'-9"
B14	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 11'-9"
C1	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C2	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C3	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
D1	CONNECTION PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ¼" DIA.
D2	CONNECTION PIN - TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G1	BOLT THROUGH ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A OR SAE J429 GRADE 2 UNC	1 ⅛" DIA.
G2	BOLT THROUGH ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G3	BOLT THROUGH ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
H1	ADHESIVE ANCHOR - ADHESIVE	ICC-ES-AC308 5 ¼" EMBEDMENT WITH A MIN. STRENGTH OF 1,800 PSI. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
H2	ADHESIVE ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A / SAE J429 GRADE 2 UNC	1 ⅛" DIA.
H3	ADHESIVE ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
H4	ADHESIVE ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
J1	ASPHALT ANCHOR PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ½" DIA.
J2	ASPHALT ANCHOR PIN - STOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
K1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE
L1	THRIE BEAM RAIL - TERMINAL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
M1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	⅝" DIA.
M2	SPLICE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
N1	THRIE BEAM RAIL TERMINAL - MECHANICAL ANCHOR	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA. LENGTH 6"
N2	THRIE BEAM RAIL TERMINAL - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
N3	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
P1	THRIE BEAM RAIL CONNECTION 1-BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA.
P2	THRIE BEAM RAIL CONNECTION 1-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
P3	THRIE BEAM RAIL CONNETION 1- MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
Q1	BLOCK WOOD	SEE STANDARD SPEC. 614	
R1	CAP - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	⅝" DIA.
R2	CAP- BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
R3	CAP - BOLT - MECHANICAL ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	12 GAUGE
S1	CAP 42-INCH TOP PLATE	AASHTO M111 / ASTM A123 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	12 GAUGE
S2	CAP 42-INCH END PLATE	AASHTO M111 / ASTM A123 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	12 GAUGE
S3	CAP 42-INCH SIDE PLATE	AASHTO M111 / ASTM A123 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	12 GAUGE
S4	CAP 42-INCH GUSSET 1	AASHTO M111 / ASTM A123 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	12 GAUGE
S5	CAP 42-INCH GUSSET 2	AASHTO M111 / ASTM A123 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	12 GAUGE
S6	CAP 42-INCH GUSSET 3	AASHTO M111 / ASTM A123 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	12 GAUGE
S7	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 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	12 GAUGE

6

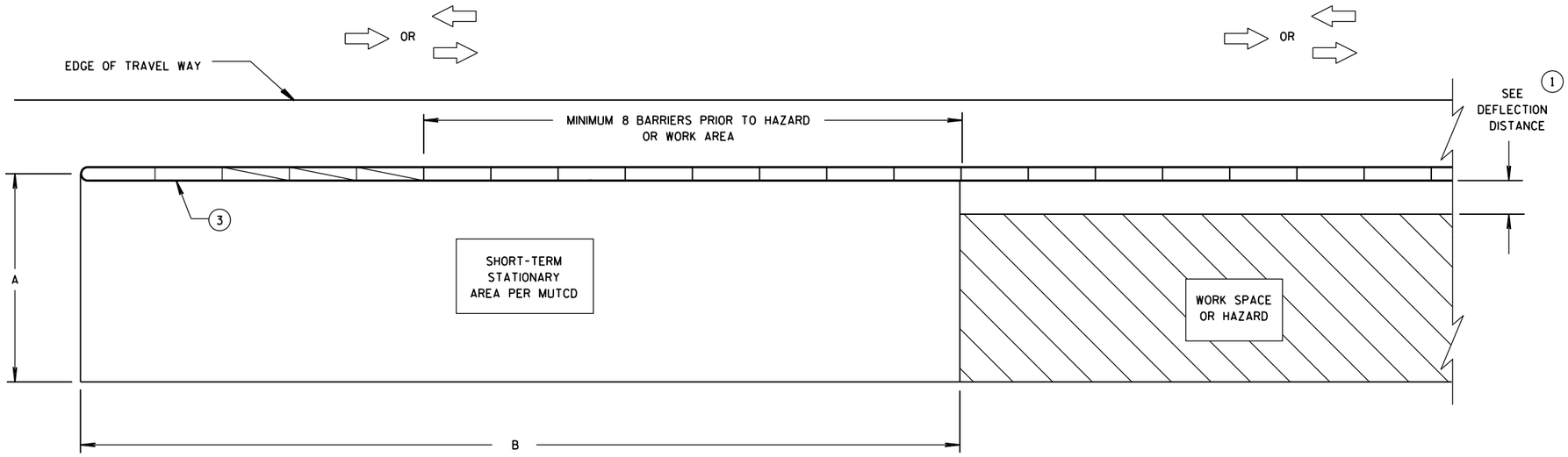
SDD14B07 - 16m

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD14B07 - 16m



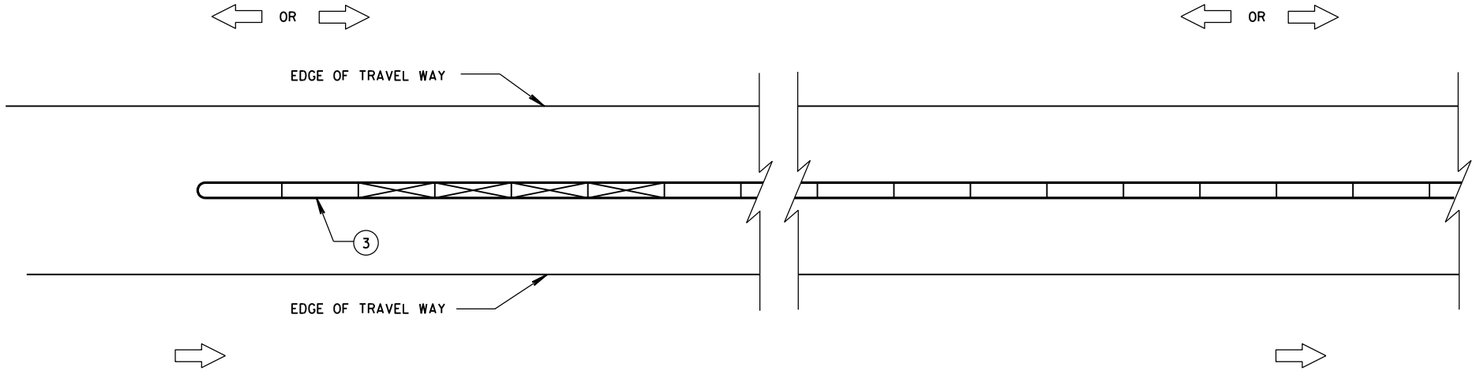
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

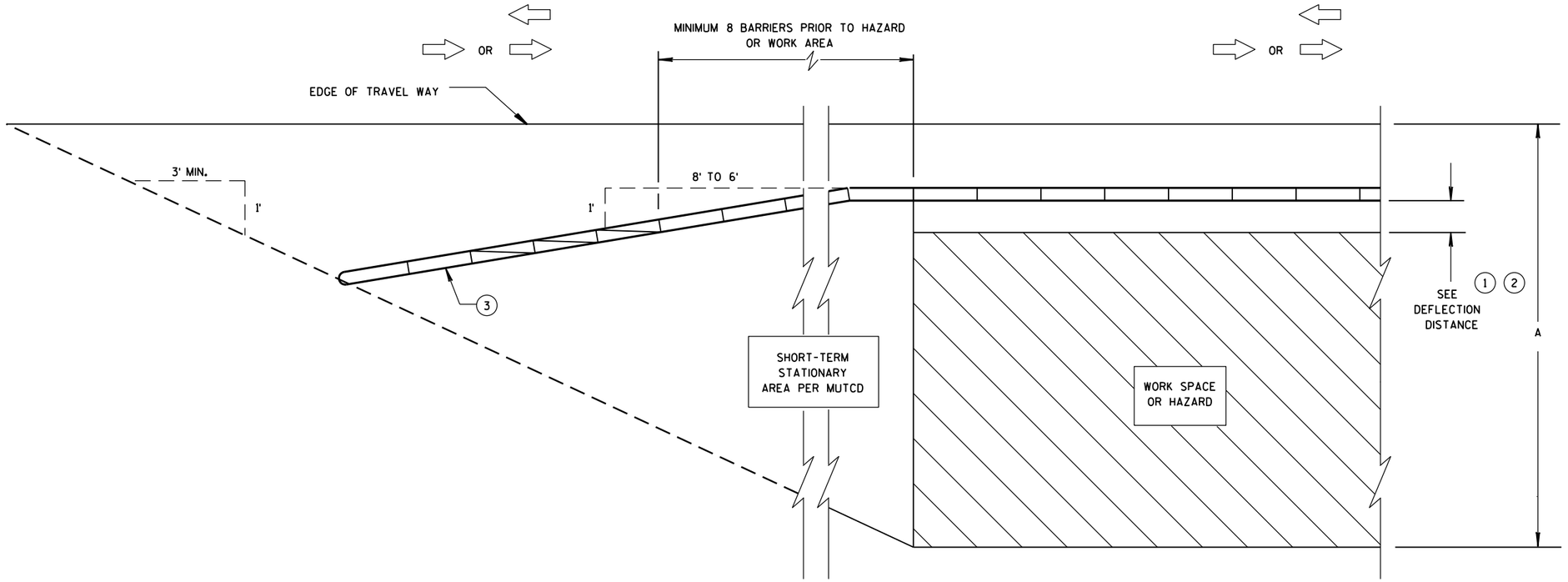
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

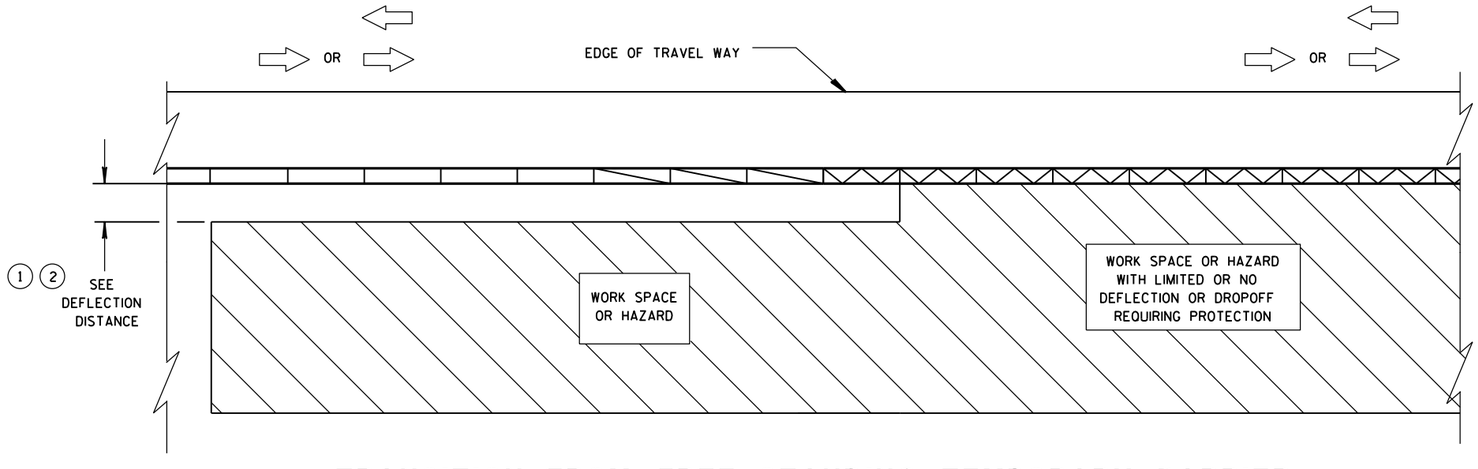
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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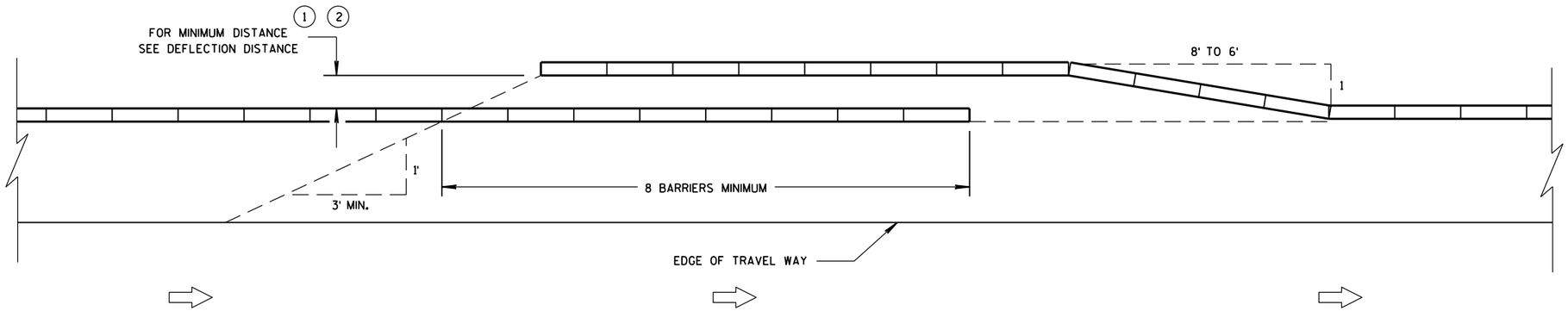
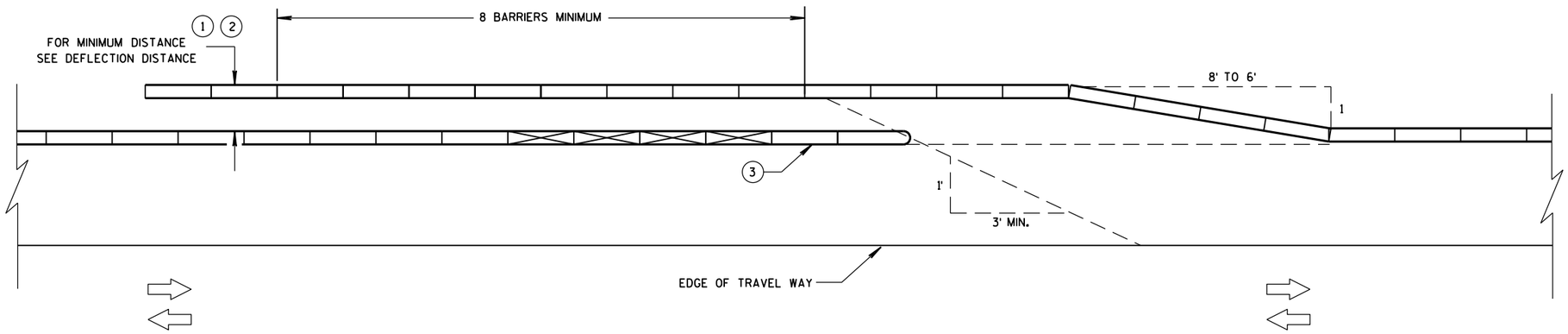
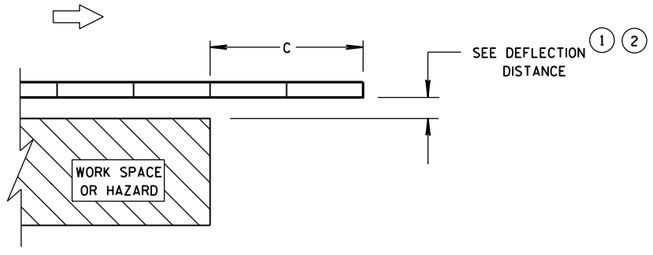
S.D.D. 14 B 8-2b



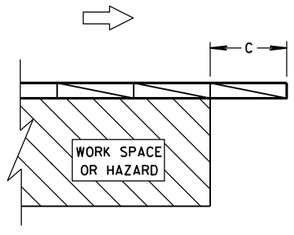
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

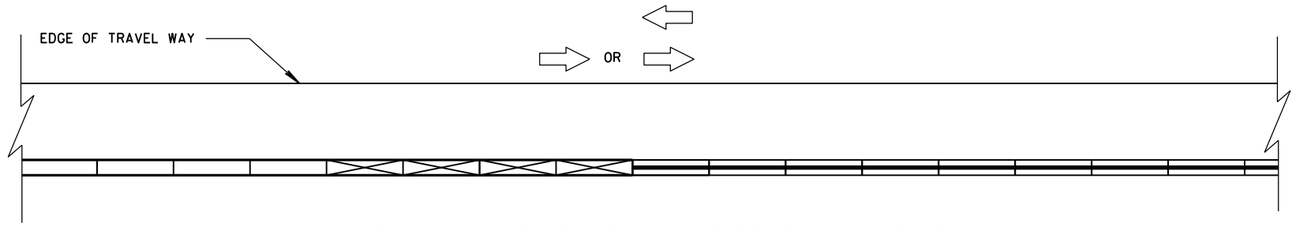
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

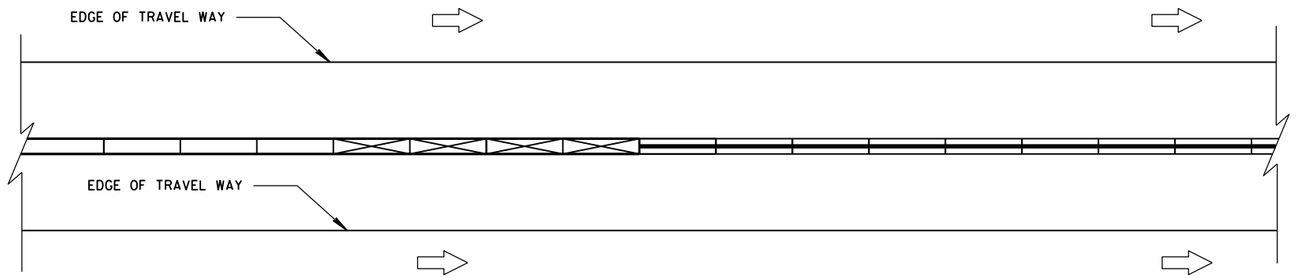
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



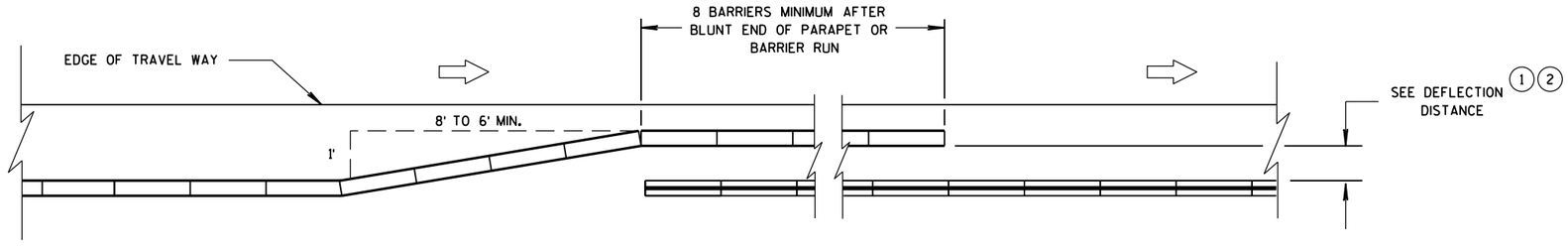
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



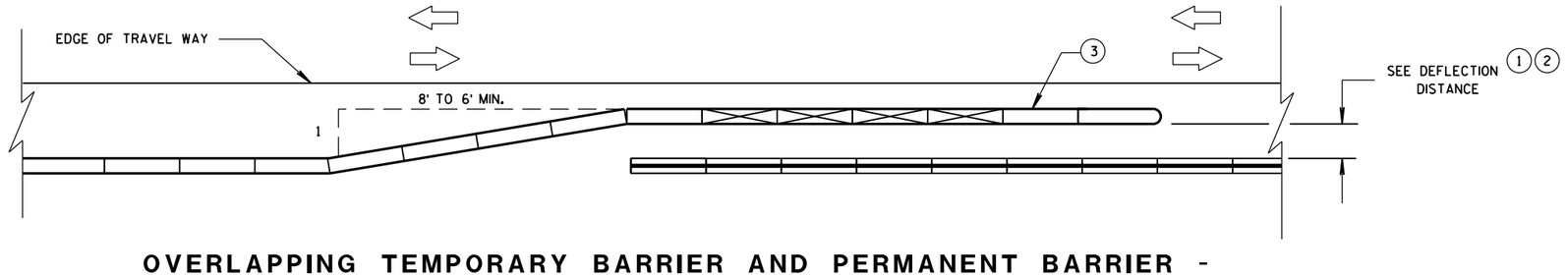
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

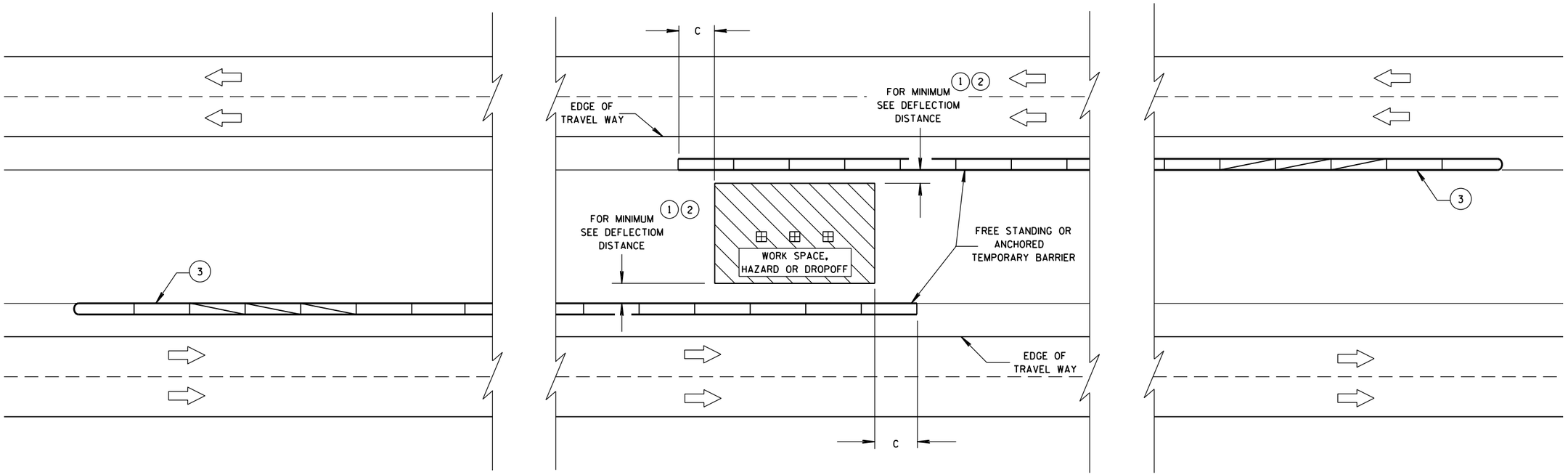
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINNER
FHWA

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S.D.D. 14 B 8-2e

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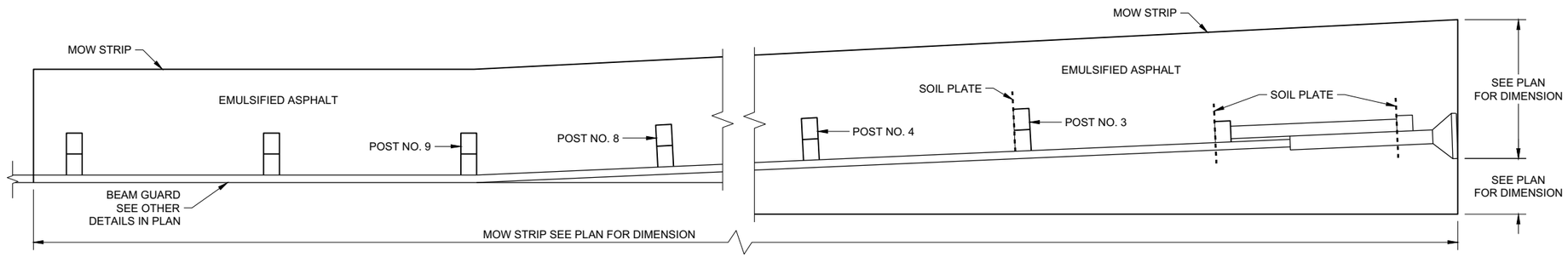
S.D.D. 14 B 8-2e



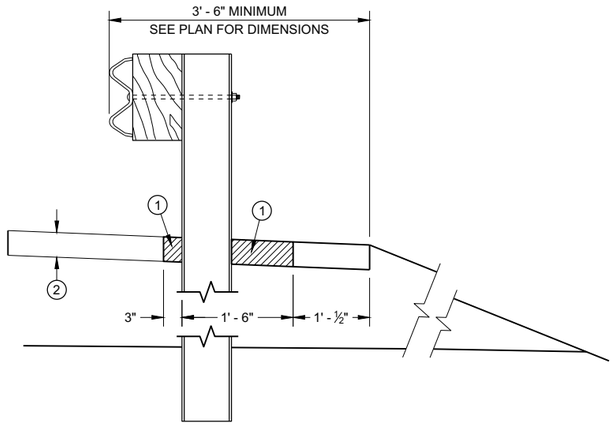
PLAN VIEW

MOW STRIP LAYOUT FOR ENERGY ABSORBING TERMINAL

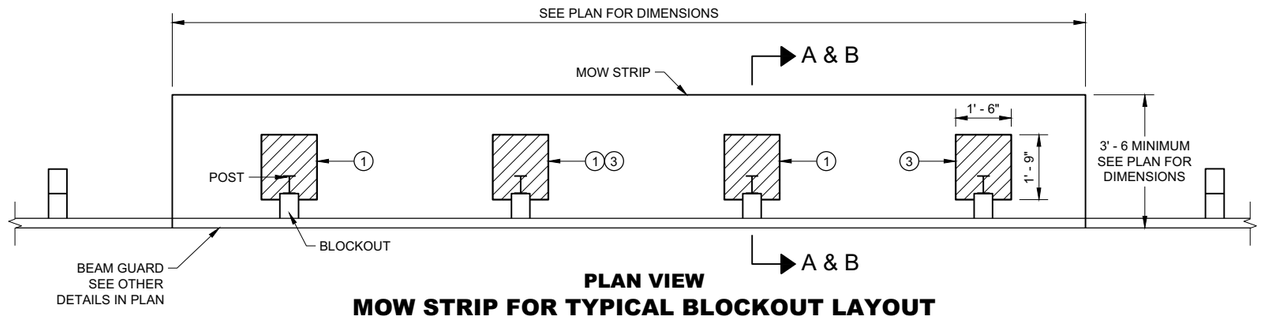
GENERAL NOTES

ONLY USE STEEL POSTS IN CONCRETE AND ASPHALT MOW STRIPS.

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

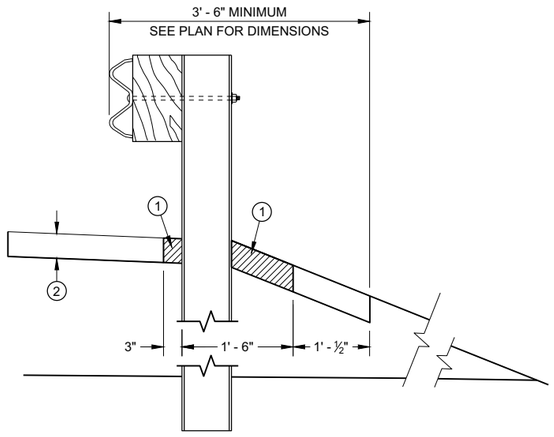


SECTION A - A

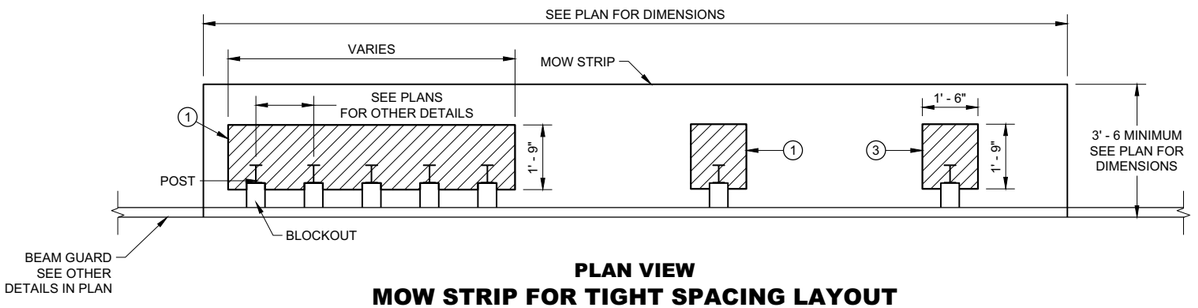


PLAN VIEW

MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT

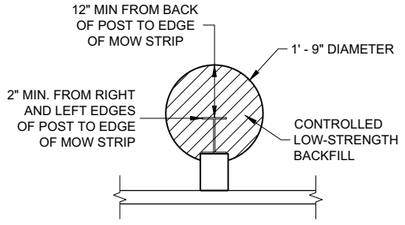


SECTION B - B

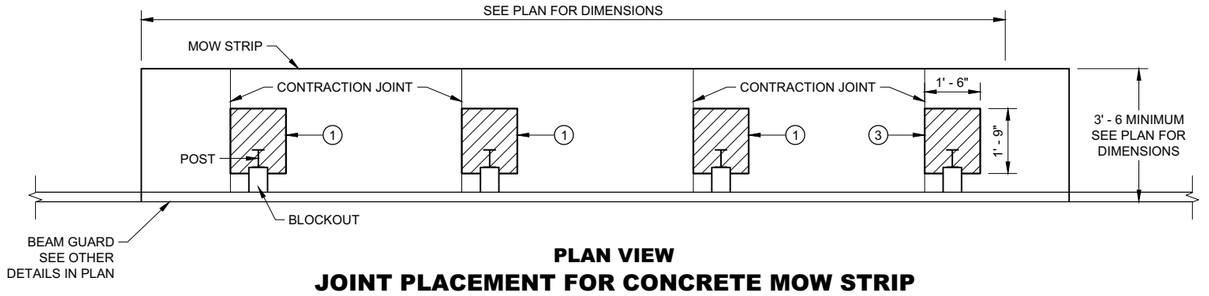


PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



ALTERNATIVE HMA MOW STRIP DESIGN



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B28 - 04a

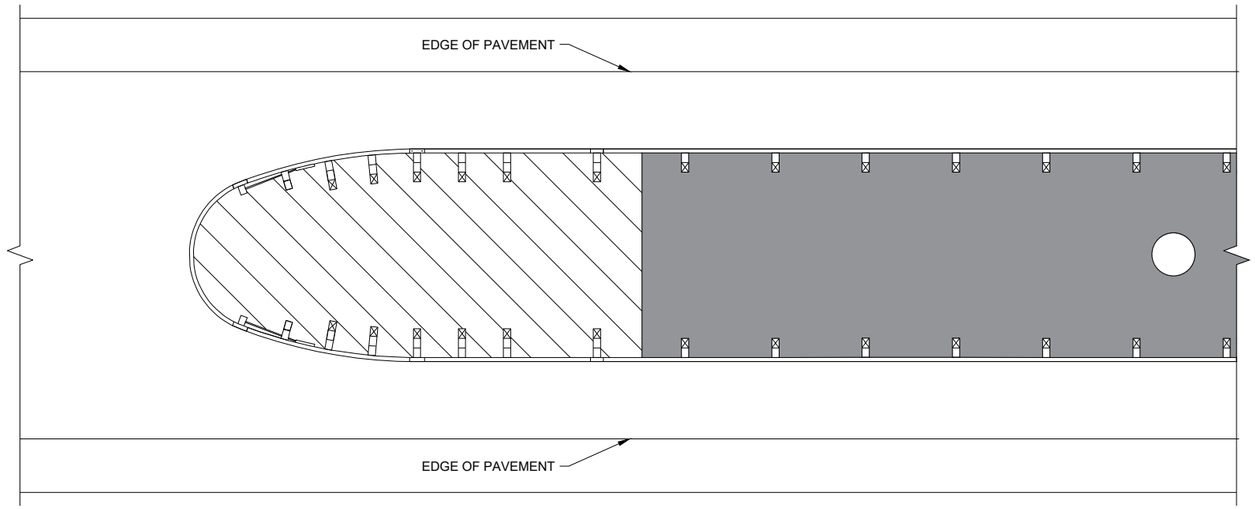
LEGEND

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

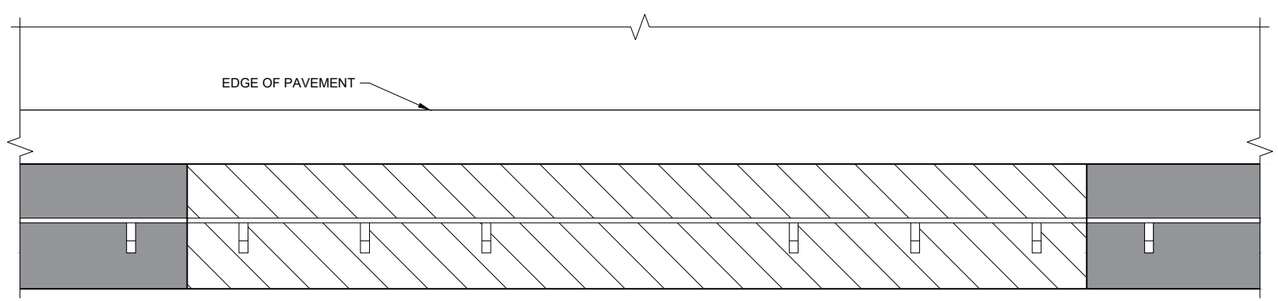
EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

GENERAL NOTES

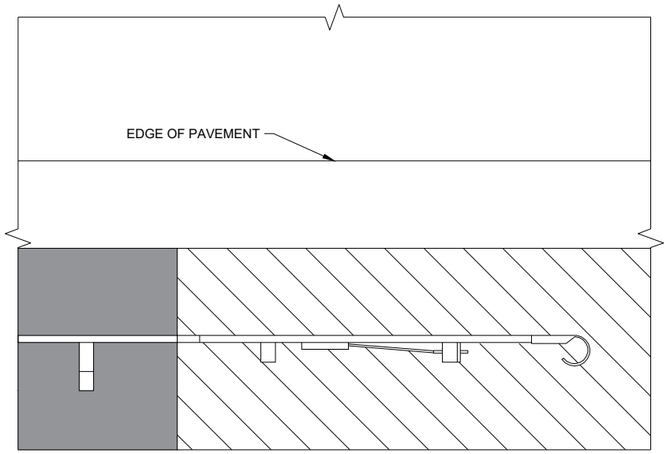
EXISTING THRIE BEAM BULLNOSES MAY HAVE WOOD POSTS. NEW THRIE BEAM BULLNOSE WILL HAVE STEEL POSTS.



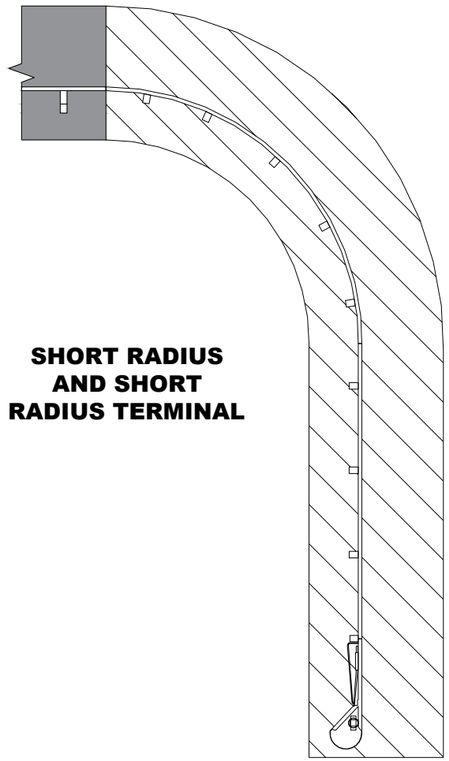
THRIE BEAM BULLNOSE



LONG - SPAN



TYPE 2 TERMINAL



SHORT RADIUS AND SHORT RADIUS TERMINAL

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 14B28 - 04b

6

SDD 14B28 - 04b

(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.

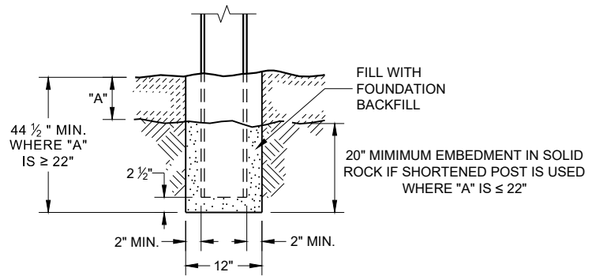
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

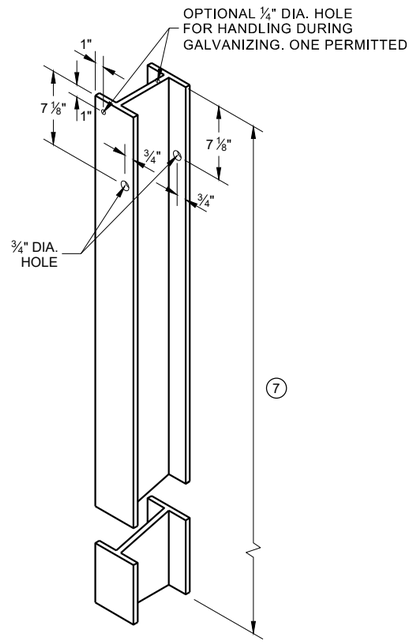
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

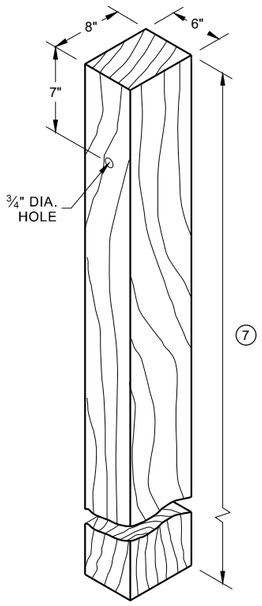
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



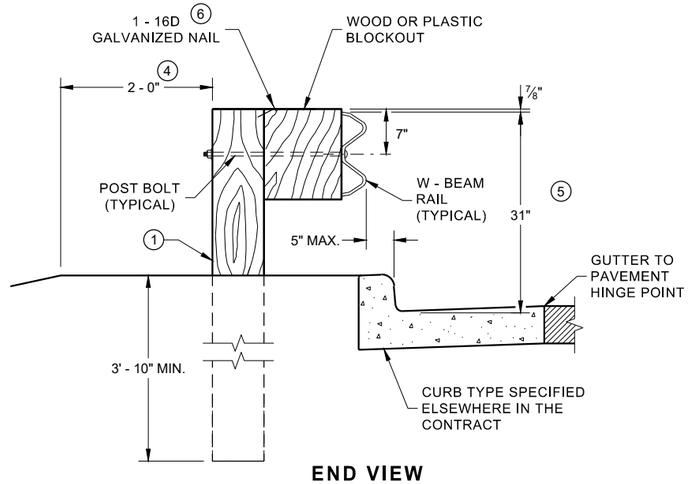
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



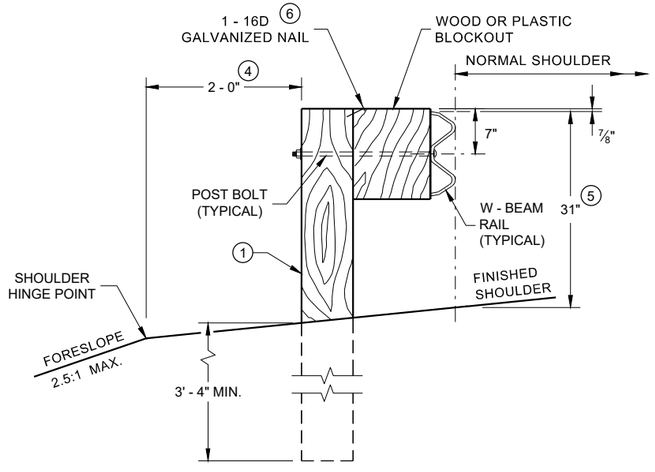
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



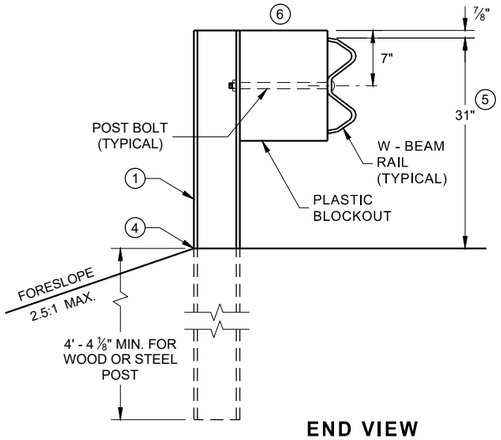
WOOD POST (6" X 8") NOMINAL (1)



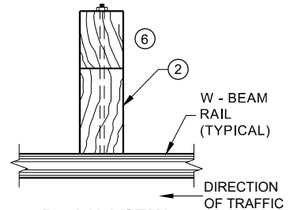
END VIEW
LOCATED ALONG A CURBED ROADWAY



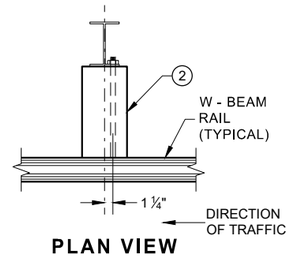
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



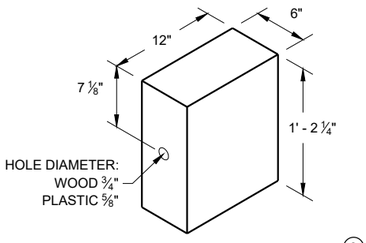
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

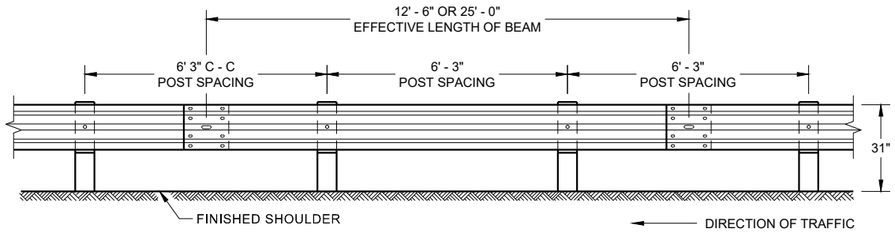
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

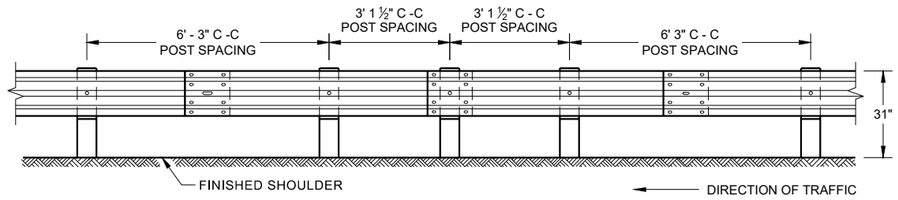
SDD 14B42 - 07a

6

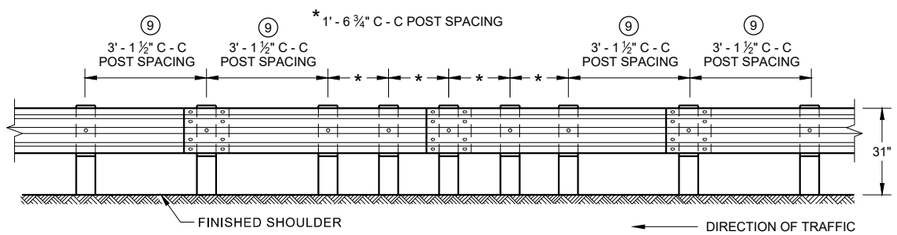
SDD 14B42 - 07a



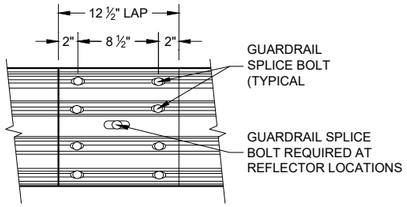
FRONT VIEW
POST SPACING STANDARD INSTALLATION



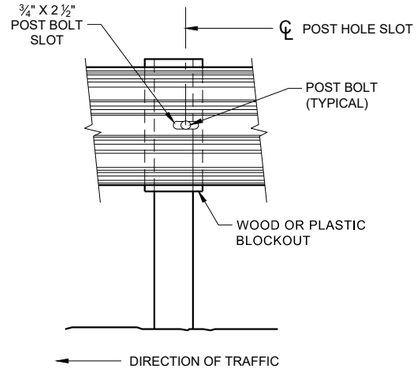
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



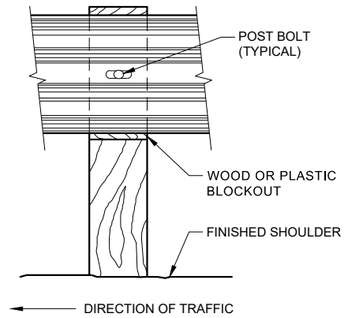
FRONT VIEW
QUARTER POST SPACING (QS)



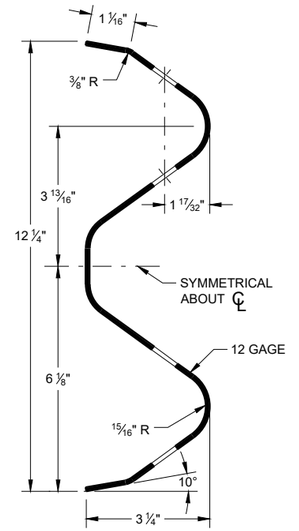
FRONT VIEW
MID-SPAN BEAM SPLICE



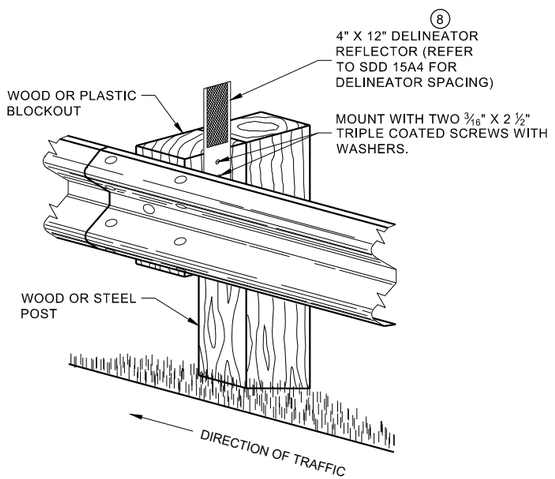
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



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.

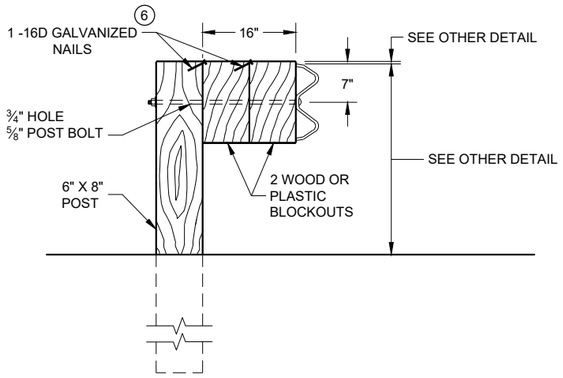
POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

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

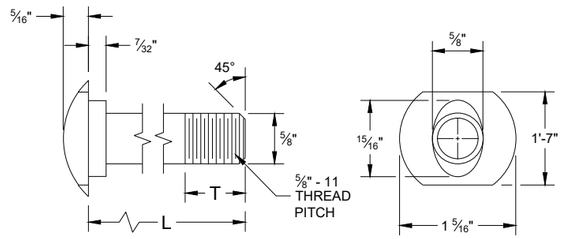


DETAIL FOR 16" BLOCKOUT DEPTH

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.

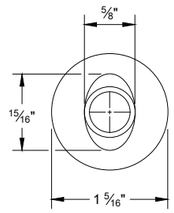
NOTE:

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.

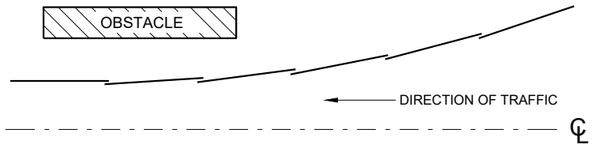


POST BOLT TABLE

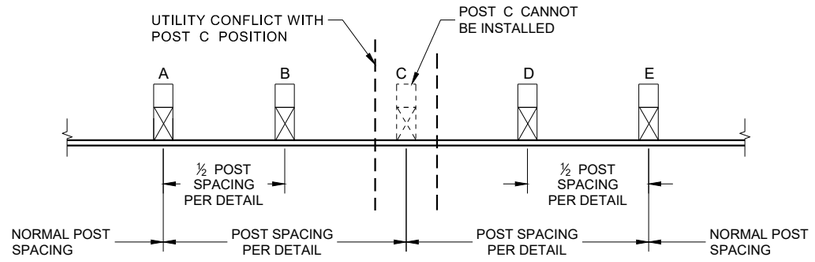
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



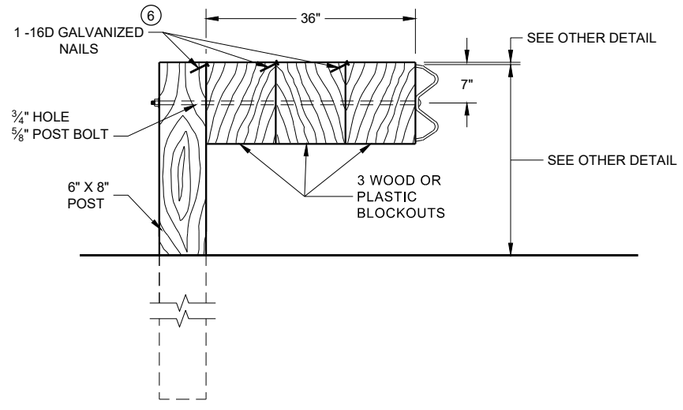
ALTERNATE BOLT HEAD



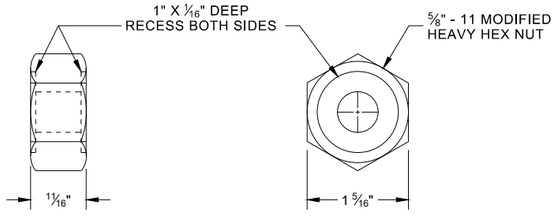
PLAN VIEW
BEAM LAPPING DETAIL



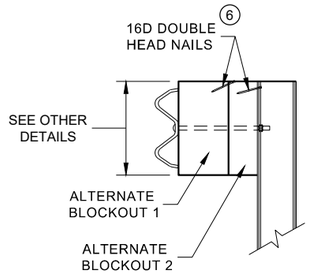
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



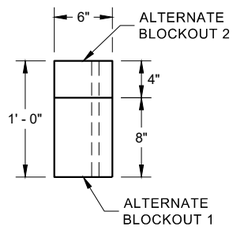
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

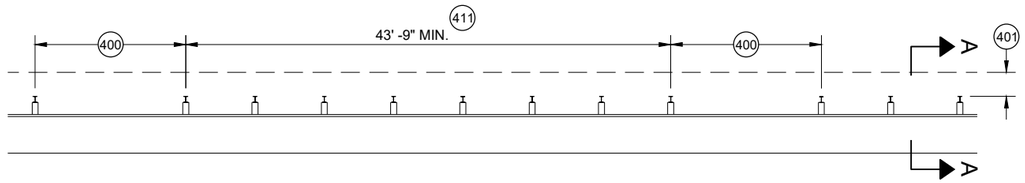
ALTERNATE WOOD BLOCKOUT DETAIL

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.

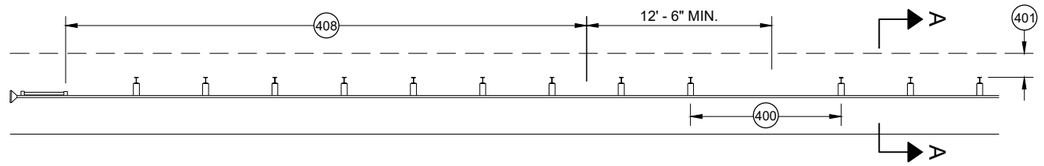
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(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.

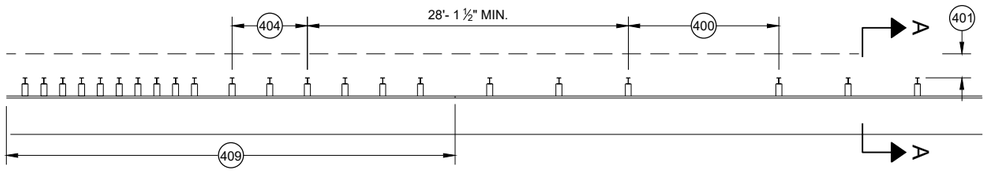
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



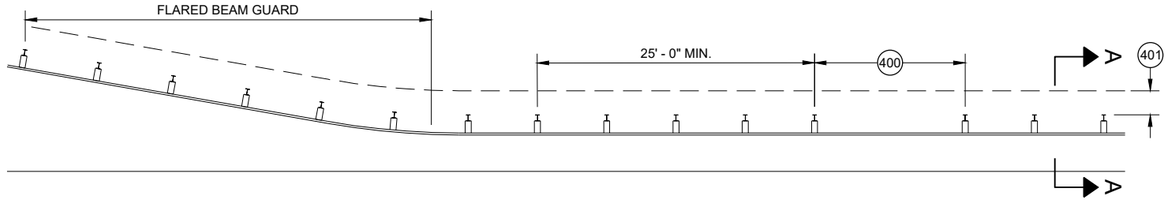
MISSING POST IN MGS GUARDRAIL



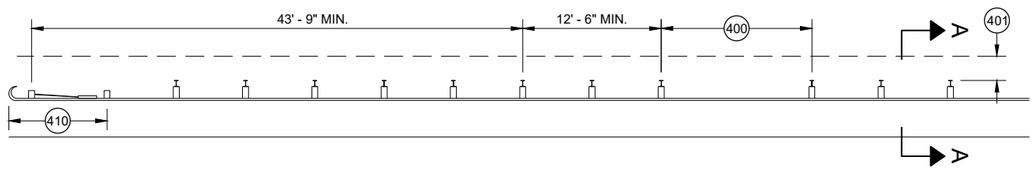
MISSING POST IN MGS GUARDRAIL NEAR EAT



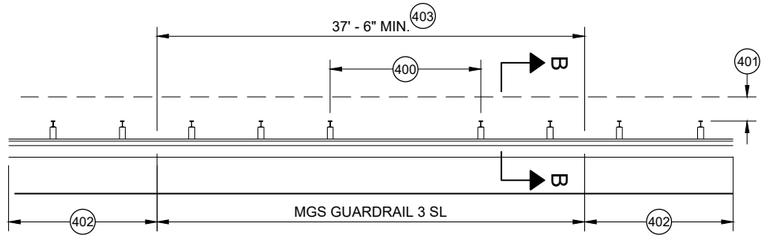
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

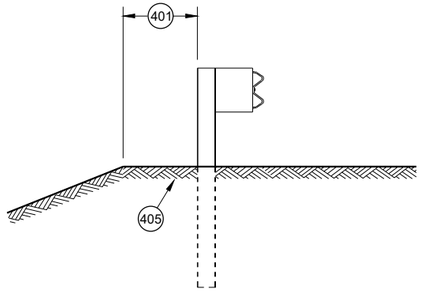


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

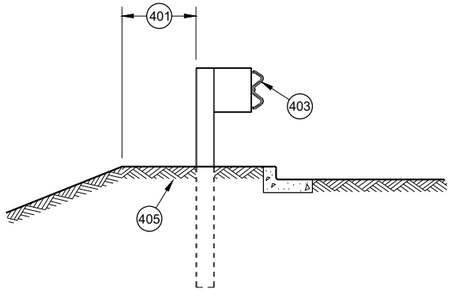


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(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

(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.

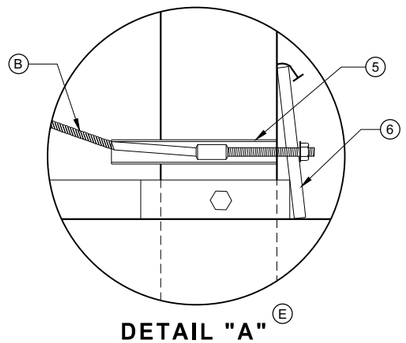
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

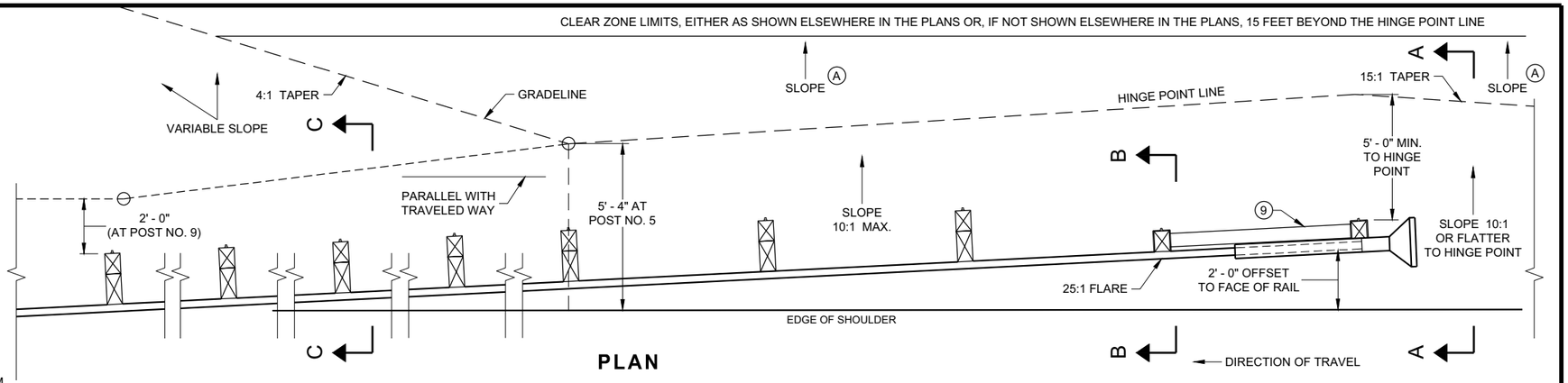
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

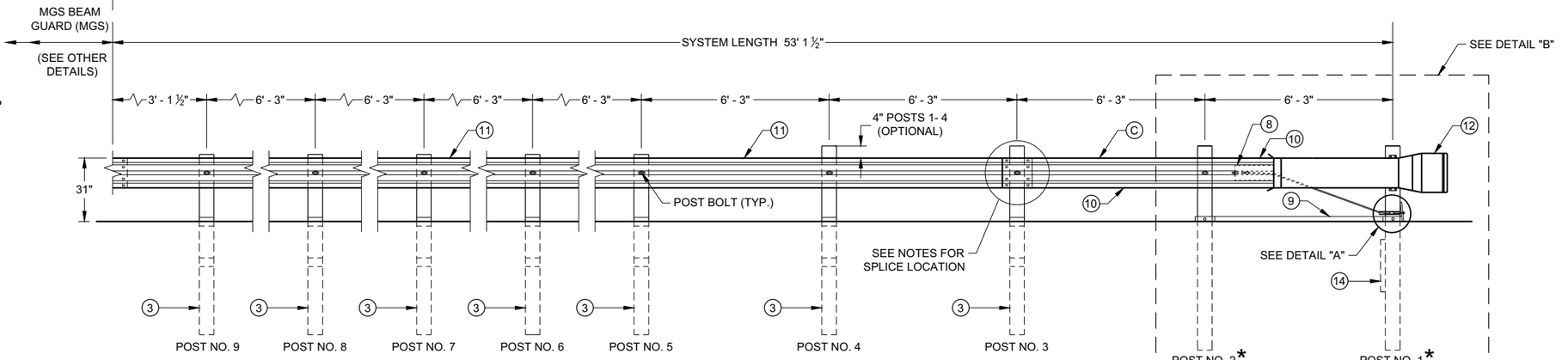
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



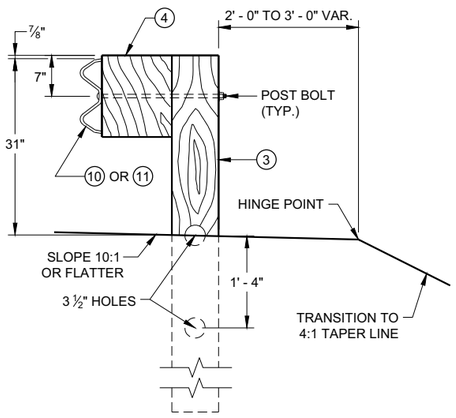
DETAIL "A" (E)



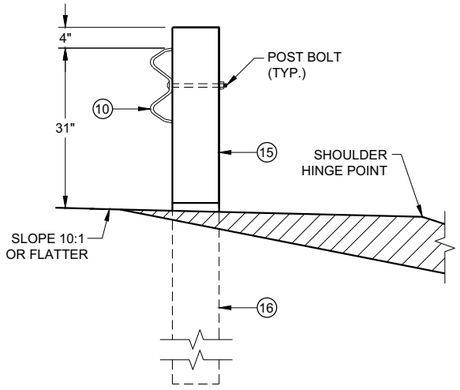
PLAN



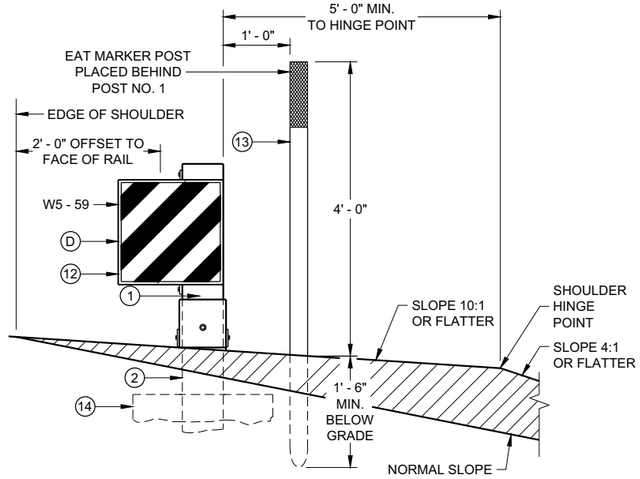
ELEVATION



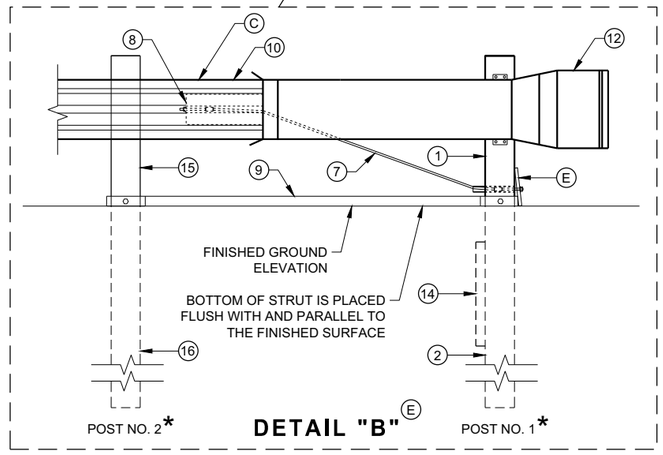
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



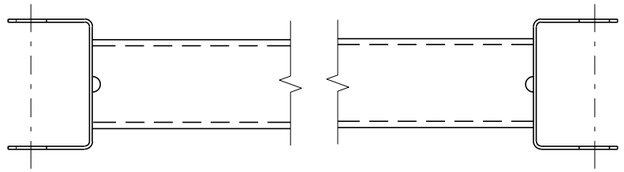
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

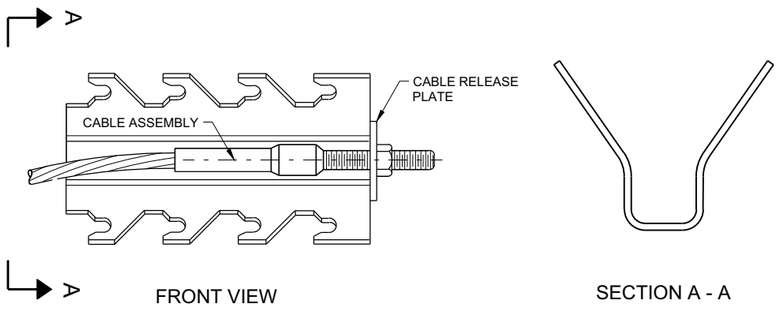
SDD 14B44 - 04a



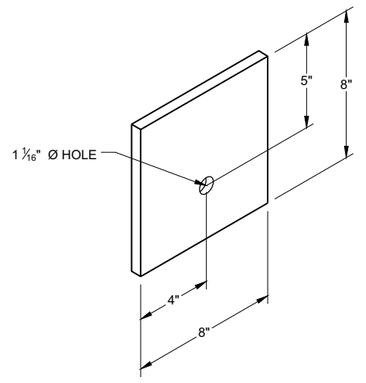
GENERIC GROUND STRUT ⑨ Ⓔ

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

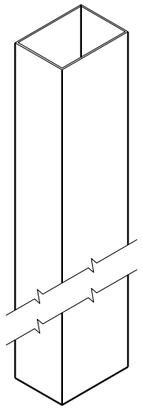
6

SDD 14B44 - 04b

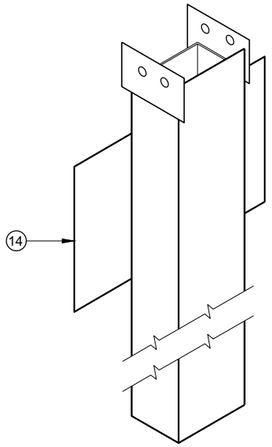
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

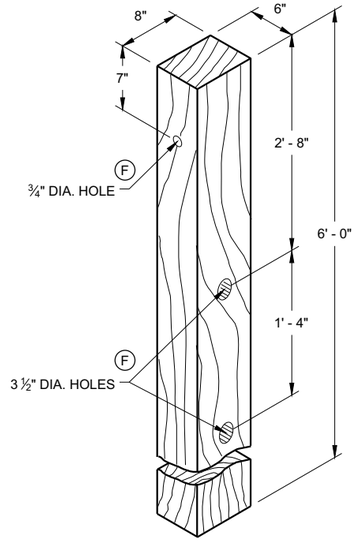
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



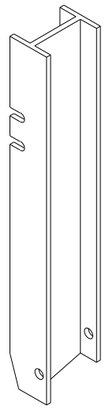
UPPER POST NO. 1 (1) (E)



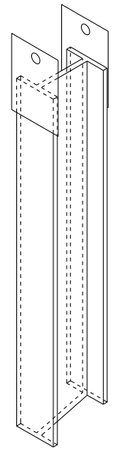
LOWER POST NO. 1 (2) (E)



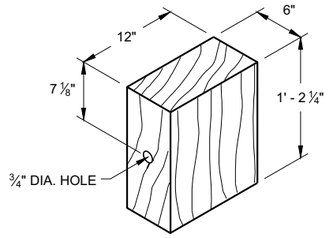
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



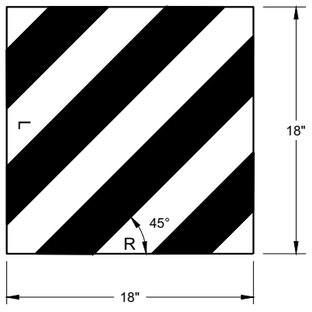
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

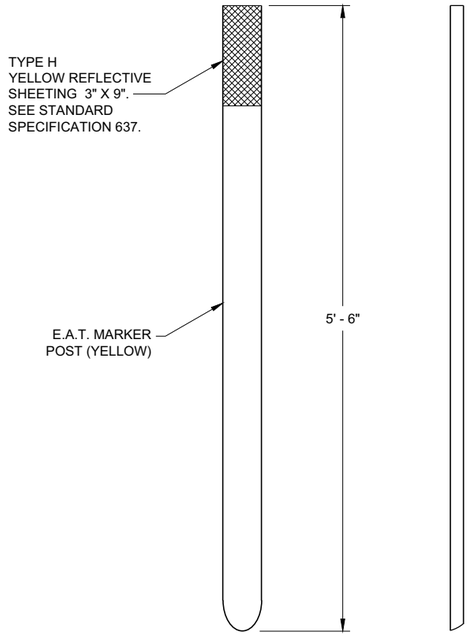


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



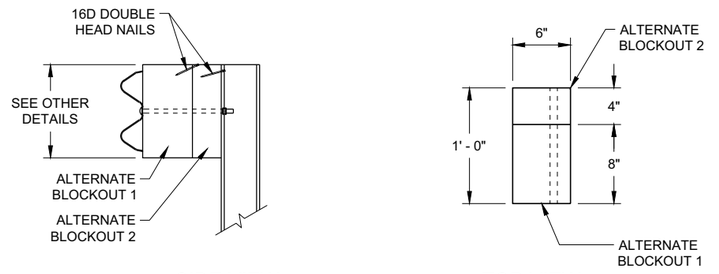
W5 - 59

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)

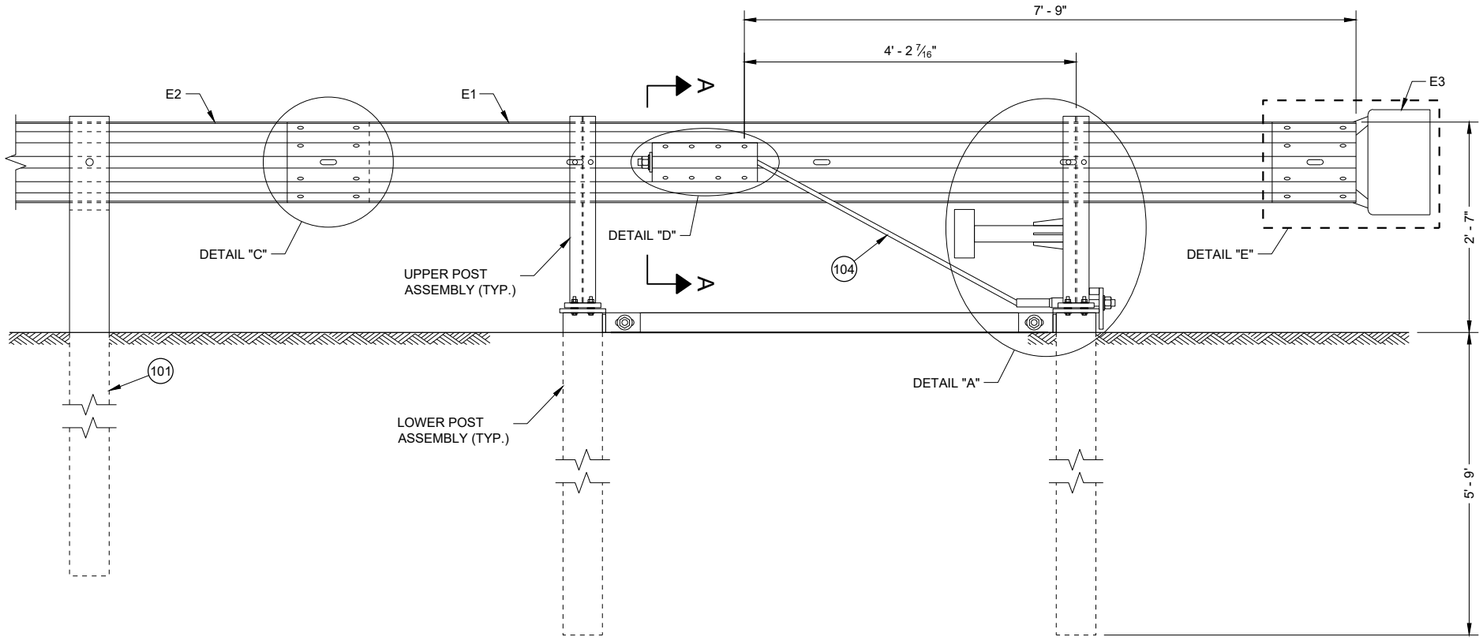
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

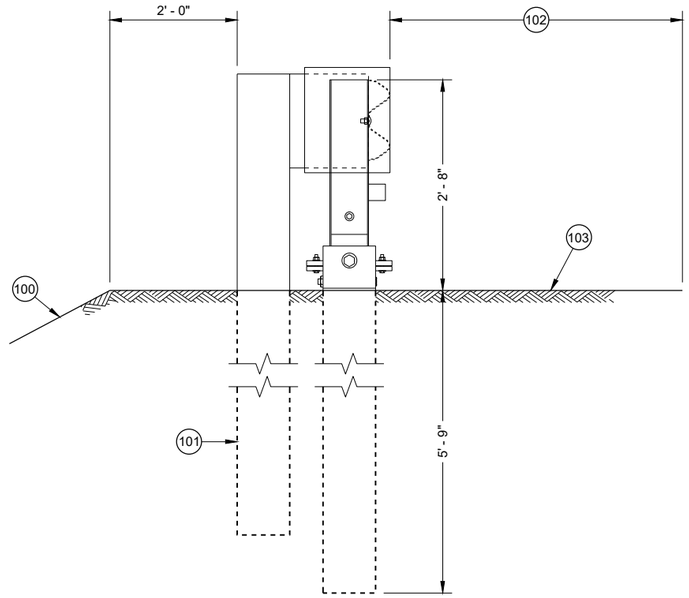
FHWA

6

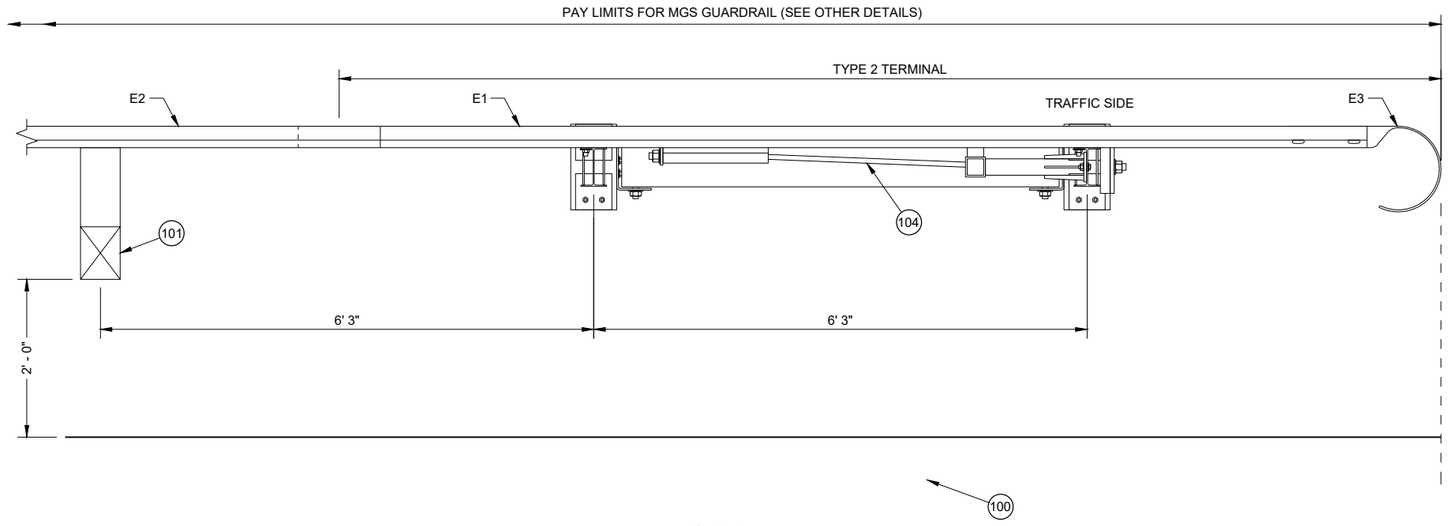
SDD 14B44 - 04c



BACK VIEW
TYPE 2 TERMINAL



SIDE VIEW
TYPE 2 TERMINAL



TOP VIEW
TYPE 2 TERMINAL

GENERAL NOTES

(100) MAXIMUM SLOPE IS 2.5:1.
(101) SEE SDD 14B42 FOR MORE INFORMATION.
(102) SHOULDER
(103) MAXIMUM SLOPE IS 10:1.
(104) AFTER ASSEMBLY, CABLE IS TO BE TIGHTENED WITHOUT TWISTING THE CABLE.

MIDWEST GUARDRAIL SYSTEM (MGS)
TYPE 2 TERMINAL

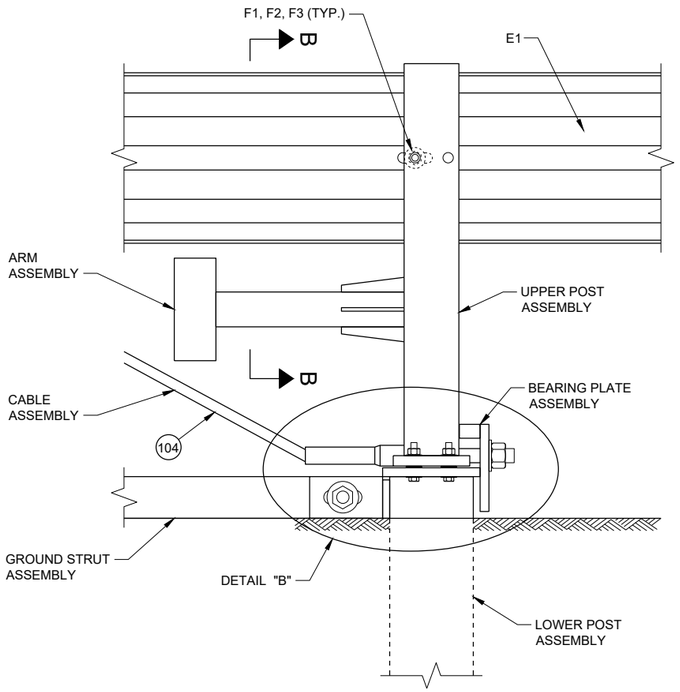
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

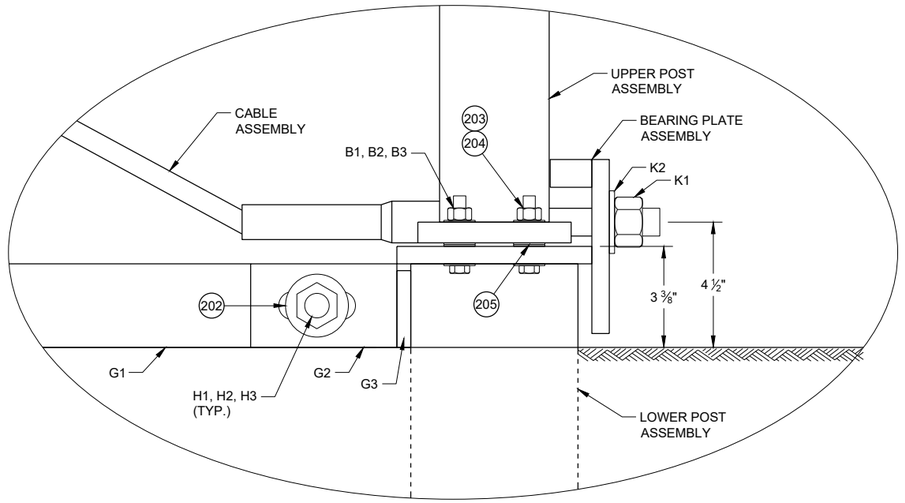
SDD 14B47 - 03a

6

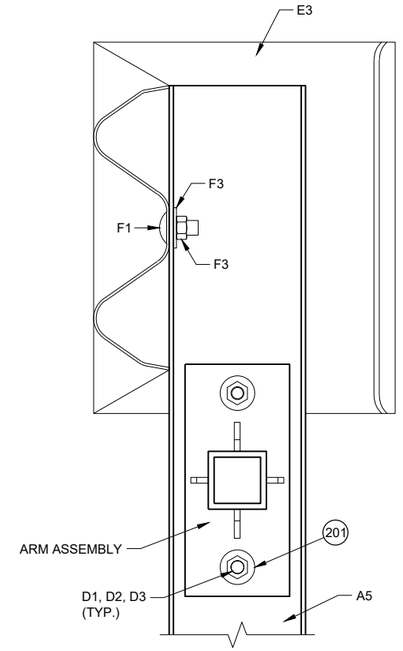
SDD 14B47 - 03a



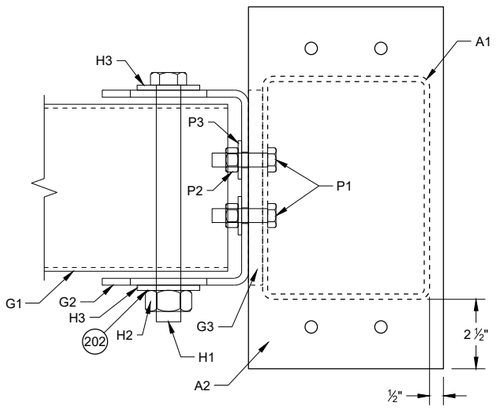
DETAIL "A"



DETAIL "B"

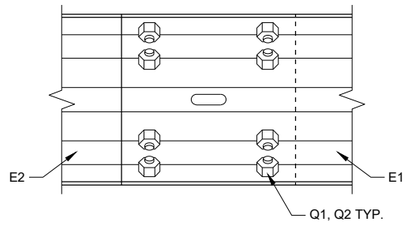


SECTION B - B

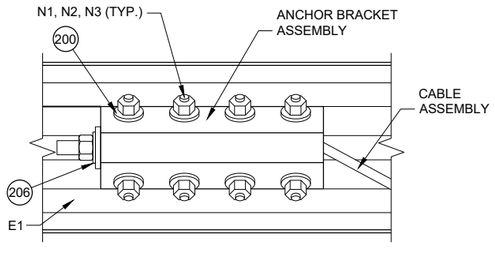


TOP VIEW

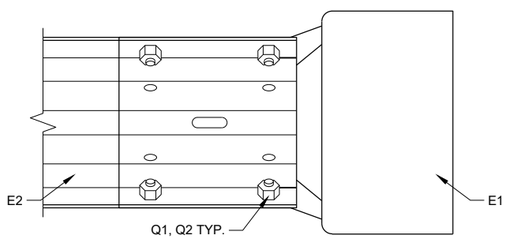
GROUND STRUT CONNECTION DETAIL



DETAIL "C"



DETAIL "D"



DETAIL "E"

GENERAL NOTES

200 INSTALL ONE WASHER UNDER BOLT HEAD AND RAIL AND ON WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

201 INSTALL ONE WASHER UNDER BOLT HEAD AND UPPER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND ARM PLATE.

202 INSTALL ONE WASHER UNDER BOLT HEAD AND GROUND STRUT CONNECTOR AND ONE WASHER BETWEEN NUT AND GROUND STRUT CONNECTOR.

203 INSTALL ONE WASHER UNDER BOLT HEAD AND LOWER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND UPPER POST ASSEMBLY.

204 TORQUE VALUE IS BETWEEN 60 - 75 FT-LB.

205 TWO WASHERS BETWEEN UPPER AND LOWER POST ASSEMBLY.

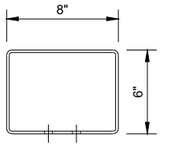
206 INSTALL ONE WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

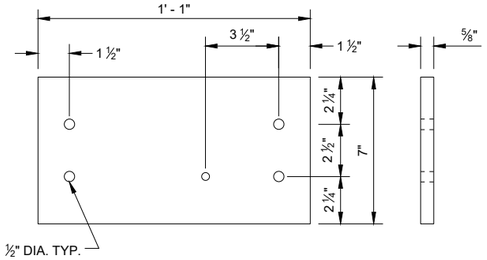
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

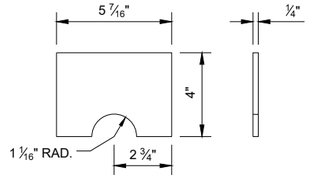
SDD 14B47 - 03b



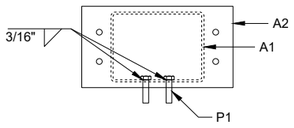
TOP VIEW



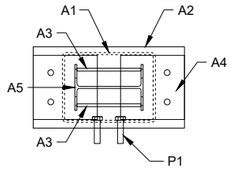
LOWER PLATE (A2)

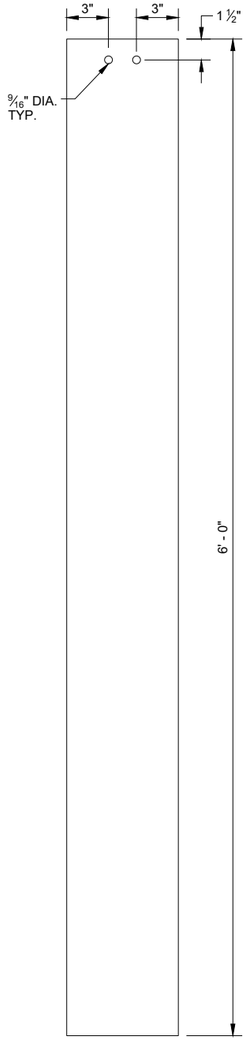


POST GUSSET (A3)



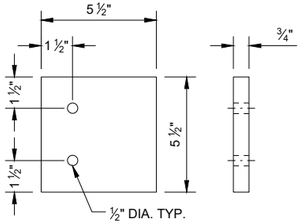
PLAN VIEW



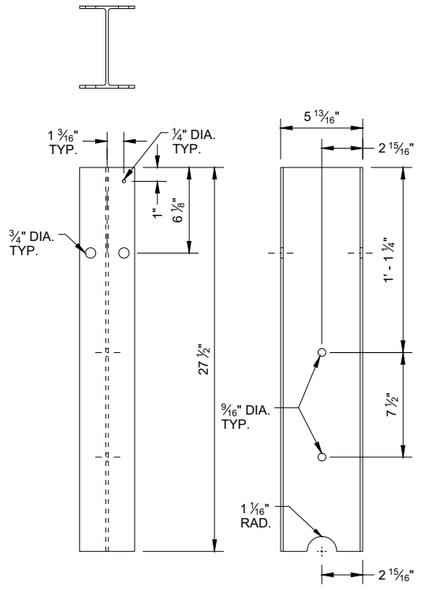


SIDE VIEW

FOUNDATION TUBE (A1)

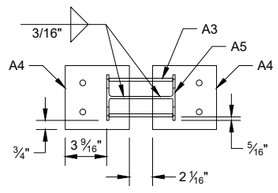


UPPER PLATE (A4)

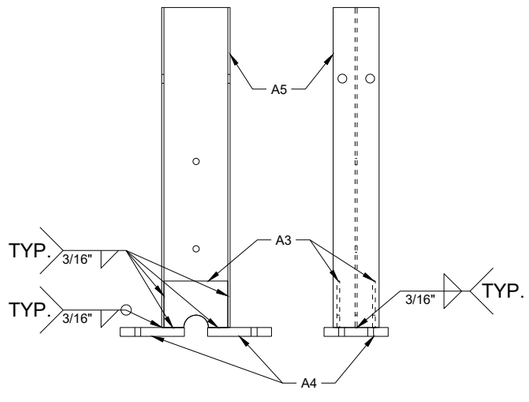


FRONT VIEW SIDE VIEW

TYPE 2 POST (A5)

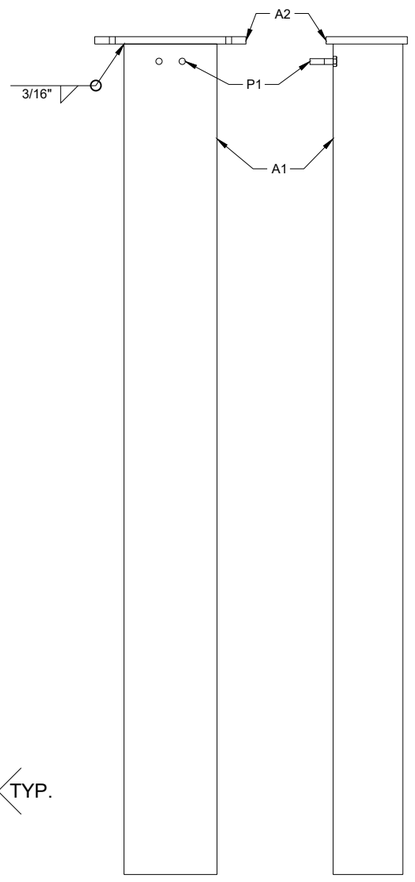


PLAN VIEW



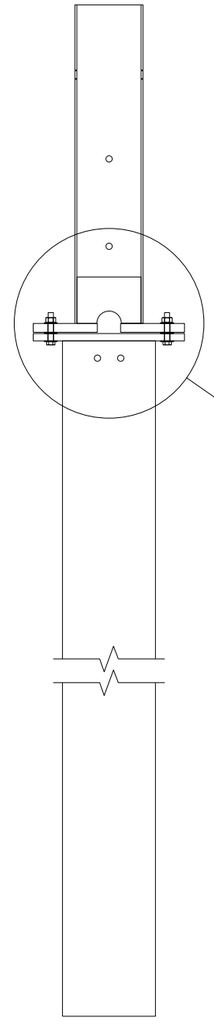
SIDE VIEW FRONT VIEW

UPPER POST ASSEMBLY

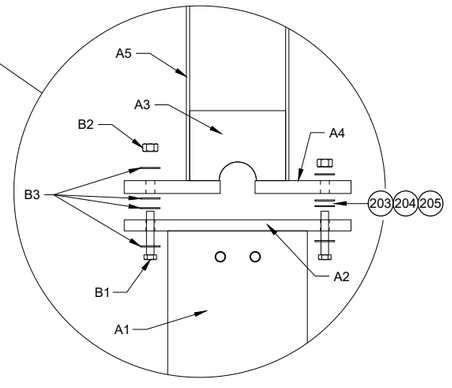


FRONT VIEW SIDE VIEW

LOWER POST ASSEMBLY



ASSEMBLED POST



POST CONNECTION DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

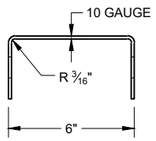
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

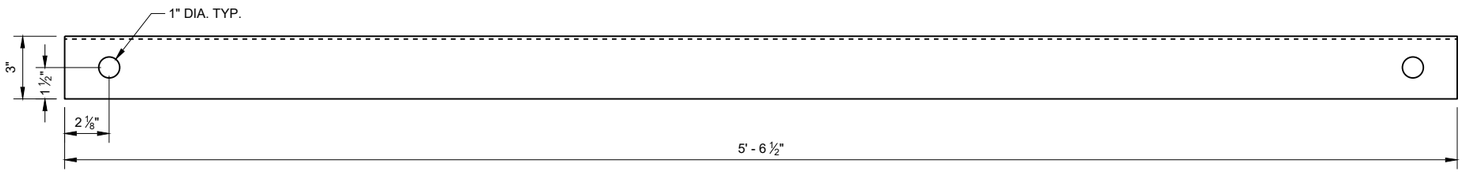
SDD14B47 - 03c

6

SDD14B47 - 03c

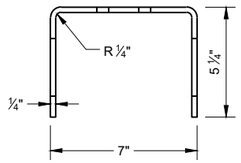


SIDE VIEW

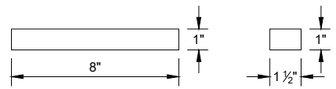


FRONT VIEW

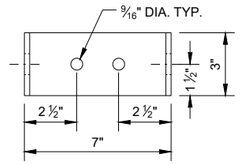
GROUND STRUT CHANNEL (G1)



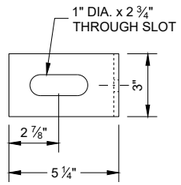
TOP VIEW



BEARING PLATE FLANGE (L2)

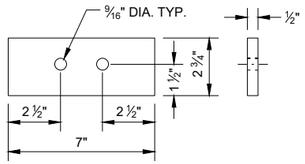


FRONT VIEW

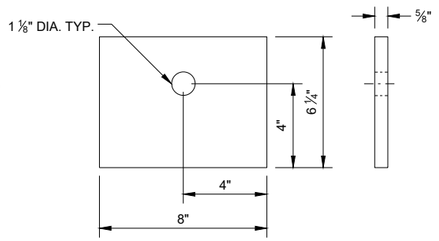


SIDE VIEW

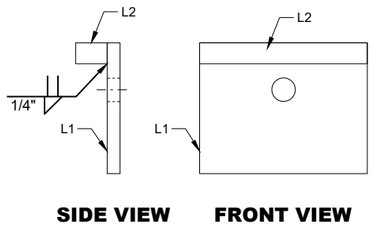
GROUND STRUT CONNECTOR (G2)



GROUND STRUT PLATE (G3)

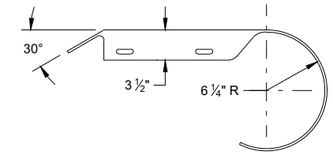


BEARING PLATE (L1)

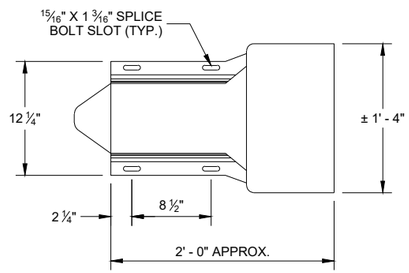


SIDE VIEW FRONT VIEW

BEARING PLATE ASSEMBLY

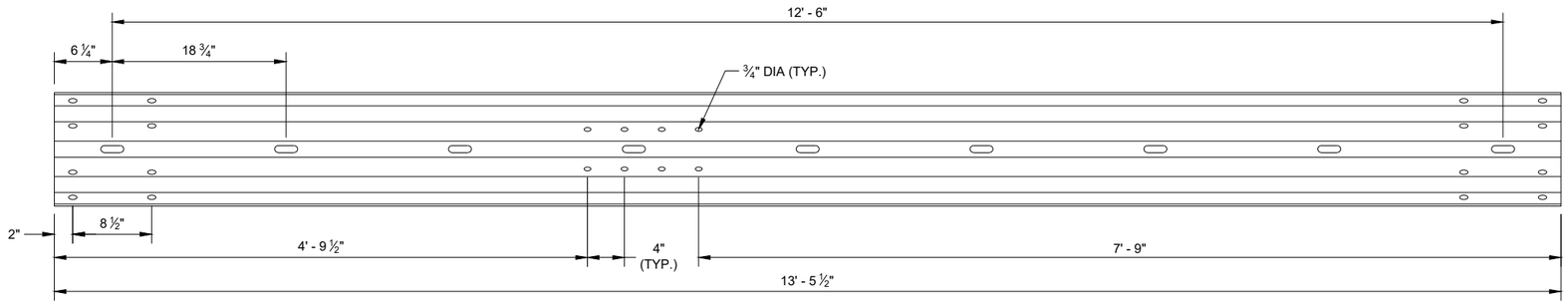


PLAN VIEW

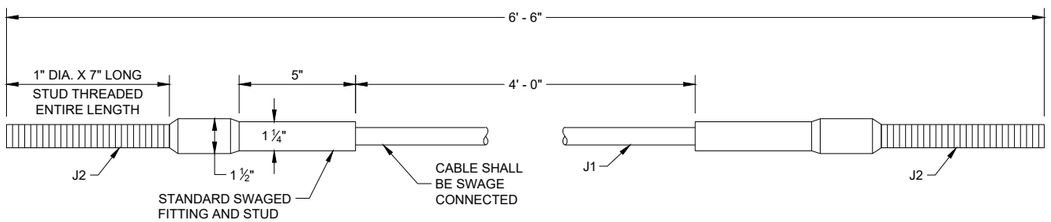


ELEVATION VIEW

ROUNDED BUFFER END (E3)



TYPE 2 GUARDRAIL (E1)



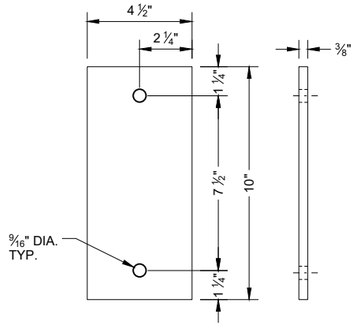
CABLE ASSEMBLY

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

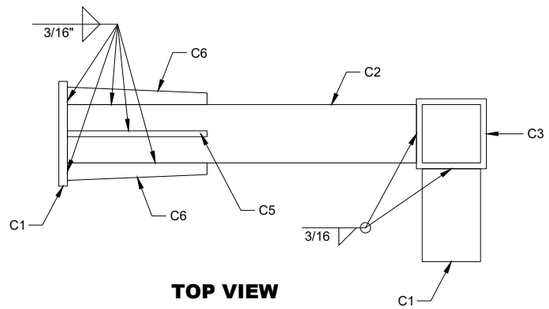
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

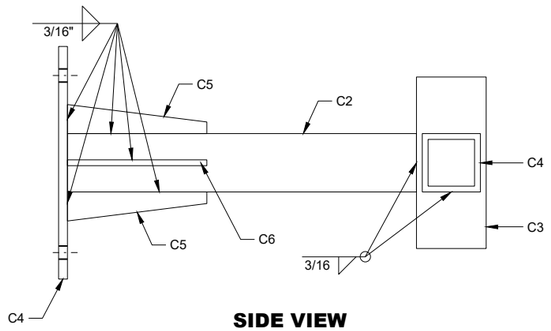
SDD 14B47 - 03d



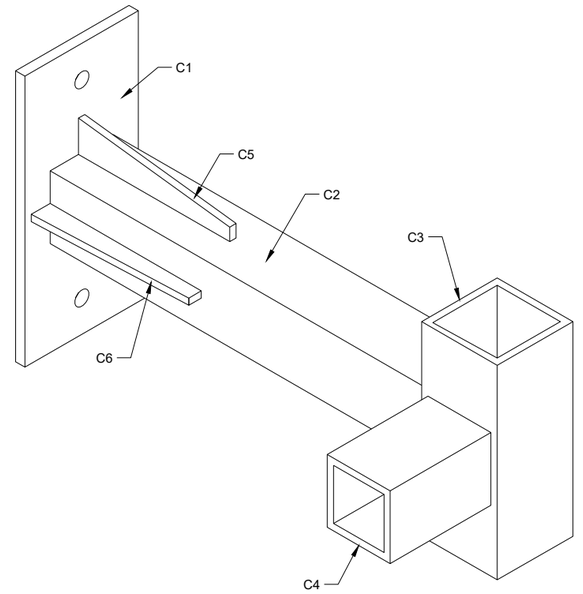
ARM PLATE (C1)



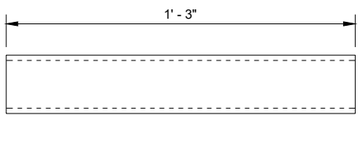
TOP VIEW
ARM ASSEMBLY



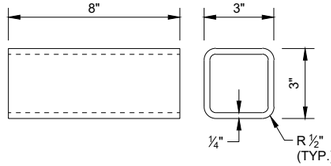
SIDE VIEW
ARM ASSEMBLY



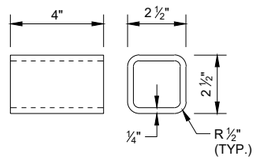
ISOMETRIC VIEW
ARM ASSEMBLY



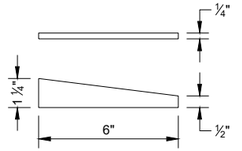
ARM TUBE 1 (C2)



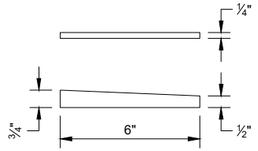
ARM TUBE 2 (C3)



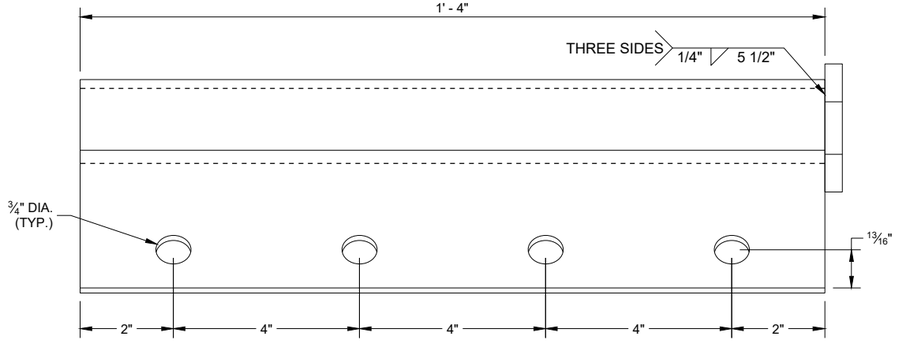
ARM TUBE 3 (C4)

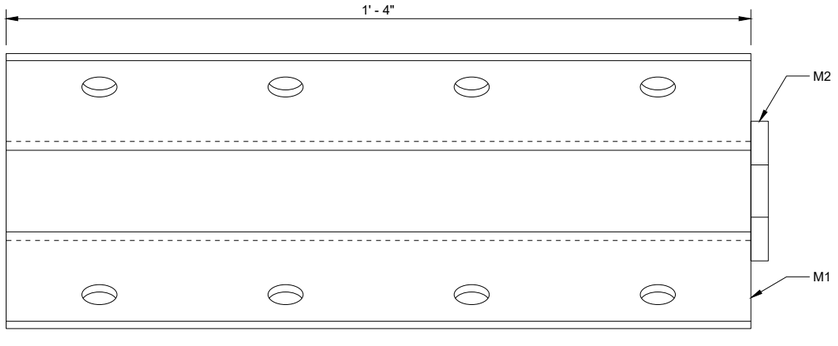


ARM GUSSET PLATE 1 (C5)

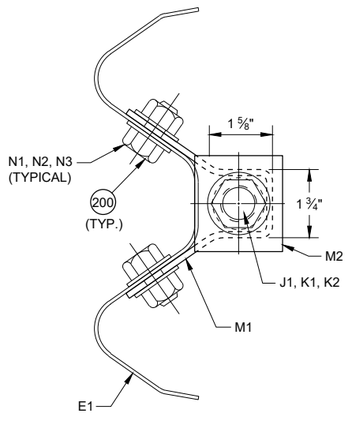


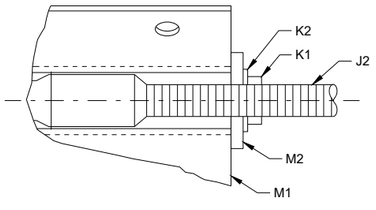
ARM GUSSET PLATE 2 (C6)



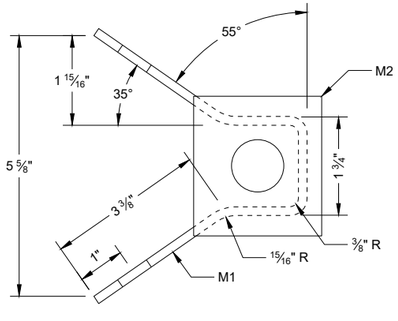


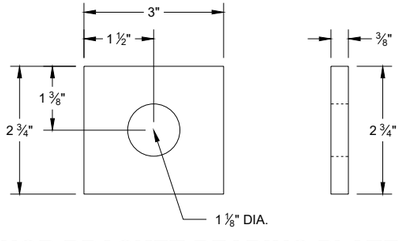
ANCHOR BRACKET (M1, M2)





SECTION A - A





ANCHOR BRACKET BEARING PLATE (M2)

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

SDD 14B47 - 03e

BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	TYPE 2 FOUNDATION TUBE	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
A2	LOWER PLATE	AASHTO M111 / ASTM A123 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	5/8" THICKNESS
A3	POST GUSSET	AASHTO M111 / ASTM A123 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	1/4" THICKNESS
A4	UPPER PLATE	AASHTO M111 / ASTM A123 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	3/4" THICKNESS
A5	TYPE 2 POST	AASHTO M111 / ASTM A123 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	
B1	BREAKAWAY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED . PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	7/16" DIA.
B2	BREAKAWAY BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/16" DIA.
B3	BREAKAWAY BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
C1	ARM ASSEMBLY PLATE	AASHTO M111 / ASTM A123 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	3/8" THICKNESS
C2	ARM ASSEMBLY TUBE 1	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
C3	ARM ASSEMBLY TUBE 2	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 3" x 3" x 1/4"
C4	ARM ASSEMBLY TUBE 3	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 2 1/2" x 2 1/2" X 1/4"
C5	ARM ASSEMBLY GUSSET PLATE 1	AASHTO M111 / ASTM A123 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	1/4" THICKNESS
C6	ARM ASSEMBLY GUSSET PLATE 2	AASHTO M111 / ASTM A123 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	1/4" THICKNESS
D1	ARM ASSEMBLY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	1/2" DIA.
D2	ARM ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	1/2" DIA.
D3	ARM ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
E1	TYPE 2 GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E2	BEAM GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E3	BEAM GUARD ROUNDED BUFFER END	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
F1	POST BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
F2	POST BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
F3	POST BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
G1	GROUND STRUT CHANNEL	AASHTO M111 / ASTM A123 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	1/2" x 11 3/4" x 10 GAUGE
G2	GROUND STRUT CONNECTOR	AASHTO M111 / ASTM A123 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	1/4" THICKNESS
G3	GROUND STRUT PLATE	AASHTO M111 / ASTM A123 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	1/2" THICKNESS

6

SDD 14B47 - 03f

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

SDD 14B47 - 03f

BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
H1	GROUND STRUT BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	7/8" DIA.
H2	GROUND STRUT BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/8" DIA.
H3	GROUND STRUT BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
J1	BCT CABLE	AASHTO M30 / ASTM A741 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS) TYPE II OR IIC, CLASS C ZINC COATED MIN. BREAKING STRENGTH OF 42.7 KIPS	**3/4" DIA.**
J2	BCT CABLE	UNC 1" ASTM A576 GRADE 1035 SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. MIN BREAKING STRENGTH OF 42.7 KIPS ASME B30.26 "FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR ALLOY EYEBOLTS."	
K1	CABLE ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1" DIA.
K2	CABLE ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1	1" DIA.
L1	BEARING PLATE	AASHTO M111 / ASTM A123 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	5/8" THICKNESS
L2	BEARING PLATE FLANGE	AASHTO M111 / ASTM A123 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	1" THICKNESS
M1	BEAM GUARD ANCHOR BRACKET	AASHTO M111 / ASTM A123 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	
M2	BEAM GUARD ANCHOR END PLATE	AASHTO M111 / ASTM A123 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	3/8" THICKNESS
N1	ANCHOR BRACKET BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
N2	ANCHOR BRACKET BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
N3	ANCHOR BRACKET BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 /ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
P1	FOUNDATION TUBE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 /ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
P2	FOUNDATION TUBE WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 7/8" ASTM F844 TYPE 1 (HARDENED WASHER ONLY)	1/2" DIA.
P3	FOUNDATION TUBE NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
Q1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
Q2	SPLICE NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	5/8" DIA.

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SDD 14B47 - 03g

SDD 14B47 - 03g

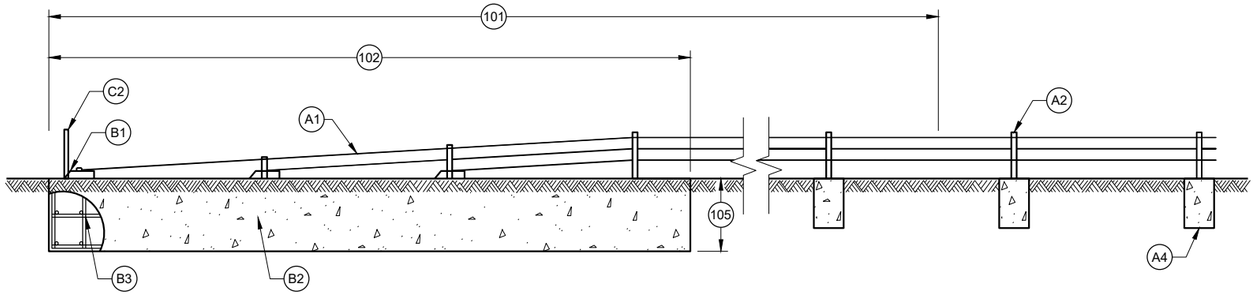
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

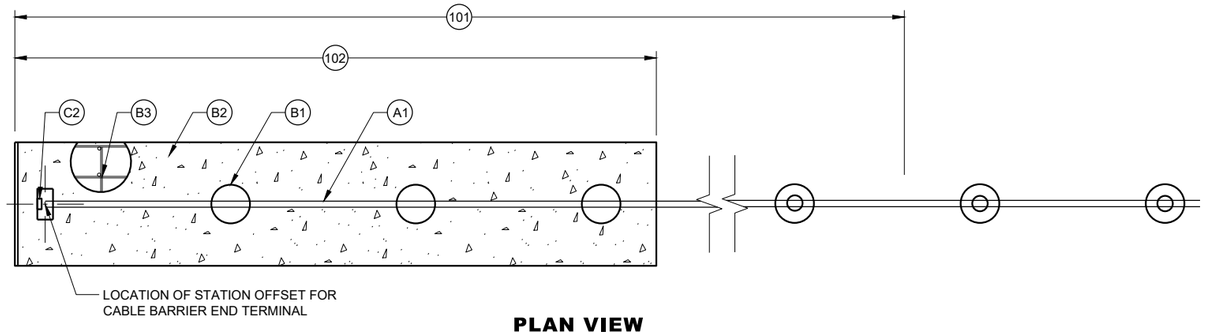
APPROVED
August 2021
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

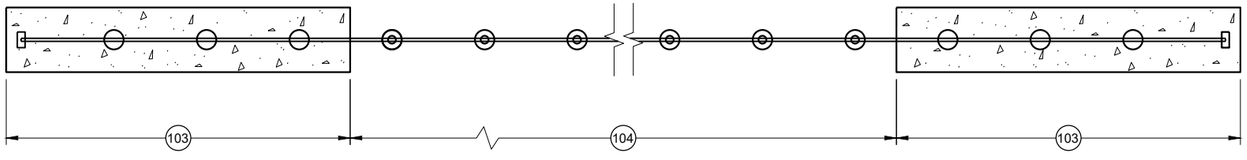


PROFILE VIEW

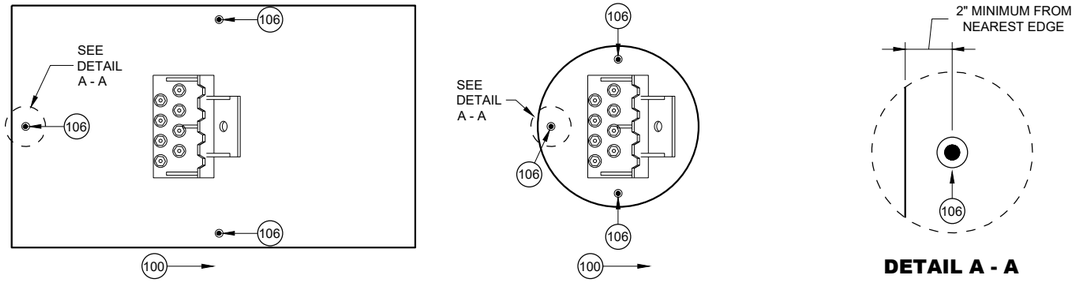


PLAN VIEW

TRANSITION FROM CABLE BARRIER TERMINAL TO CABLE BARRIER LINE POSTS



TYPICAL PLAN VIEW



DETAIL A - A

ANCHOR MONITOR POINTS FOR CABLE BARRIER END TERMINAL ANCHORS

GENERAL NOTES

DRAWINGS ARE GENERAL IN NATURE. SEE MANUFACTURER'S INFORMATION FOR MORE DETAIL.

PROVIDE 2 INCH CLEAR COVER FROM OUTER EDGE OF CONCRETE FOOTINGS TO REINFORCEMENT.

INSTALL LINE POSTS PLUMB. LINE POSTS ARE TO BE EASILY REMOVED BY HAND AND HOLD CABLES AT THE PROPER ELEVATION.

PROVIDE CABLE BARRIER SYSTEM FROM APPROVED PRODUCT LIST.

PROVIDE A SYSTEM TO HAVE THE WORKING WIDTH INDICATED IN PLAN.

PROVIDE DOCUMENTATION HOW POST SPACING, RADIUS OF CURVE AND ANCHOR SPACING INFLUENCES WORKING WIDTH TO CONSTRUCTION STAFF.

CONSTRUCT SHAFTS VERTICALLY. VERTICAL TOLERANCE OF SHAFT IS $\frac{1}{8}$" PER FOOT OF DEPTH. SHAFTS ARE TO MINIMIZE DISTURBANCE TO ADJACENT SOILS.

SECURE STEEL REINFORCEMENT AND STEEL SLEEVE PRIOR TO PLACEMENT OF CONCRETE. MAINTAIN CLEAR DISTANCE BETWEEN SOIL AND REINFORCEMENT CAGE.

PLACE CONCRETE IN ONE CONTINUOUS POUR FOR EACH FOOTING. USE VIBRATION TO CONSOLIDATE CONCRETE.

PROVIDE CASING AS NECESSARY TO PREVENT INTRUSION OF UNCONSOLIDATED MATERIALS OR WATER. USE CASINGS WHEN THERE IS 3 OR MORE INCHES OF WATER IN EXCAVATION.

PROVIDE WISCONSIN PROFESSIONAL ENGINEER SIGNED AND APPROVED FOOTING DESIGN USING A CASING AND CONSTRUCTION SEQUENCE. PROJECT ENGINEER WILL REVIEW AND APPROVED CASING DESIGN AND CONSTRUCTION SEQUENCE. CASING IS TO HAVE INTIMATE CONTACT WITH SHAFT SIDEWALL. CASING IT TO WITHSTAND INSERTION STRESS, REMOVAL STRESS, CONCRETE PRESSURE AND SOIL PRESSURE. REMOVE CASING DURING CONCRETE PLACEMENT OR IMMEDIATELY AFTER CONCRETE PLACEMENT. NO TEMPORARY CASING MAY REMAIN IN-PLACE.

PROVIDE WISCONSIN PROFESSIONAL ENGINEER SIGNED AND APPROVED FOOTING DESIGN AND CONSTRUCTION SEQUENCE WHEN OVER EXCAVATION IS REQUIRED NEAR A FOOTING. PROJECT ENGINEER WILL REVIEW AND APPROVED DESIGN AND CONSTRUCTION SEQUENCE.

FINISH TOP OF FOOTINGS TO THE DIMENSIONS INDICATED IN PLAN. REMOVE EXCESS CONCRETE.

DESIGN POST FOOTINGS SO THAT LINE POST FOOTING MOVE LESS THAN 1 INCH WHEN LINE POST IS IMPACTED BY A NCHRP 350 TL-3 SMALL CAR.

USE MARINE GRADE ANTI-SEIZE LUBRICANT FOR THREADING FITTINGS THAT IS ACCEPTABLE FOR USE ON GALVANIZED STEEL.

(100) DIRECTION THAT THE CABLE PULLS THE END ANCHOR FOOTING

(101) LOCATION OF LENGTH OF NEED POINT FOR CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(102) PAY LIMIT FOR CABLE BARRIER END TERMINAL. LENGTH OF CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(103) CABLE BARRIER END TERMINAL

(104) CABLE BARRIER AND LINE POSTS

(105) IN SOIL MINIMUM DEPTH OF CABLE BARRIER END TERMINAL FOOTING IS 60 INCHES. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENDATION ARE ACCEPTABLE.

(106) ANCHOR MONITOR POINTS ARE GALVANIZED SURVEY NAIL, OR MASONRY NAIL, PLACED INTO CONCRETE FOOTING BEFORE HARDENING. IF THERE ARE MULTIPLE ANCHOR POINTS WITHIN A PAY LIMIT FOR A CABLE BARRIER END TERMINAL, EACH ANCHOR POINT NEEDS THREE ANCHOR MONITOR POINTS.

CABLE BARRIER TYPE 1 LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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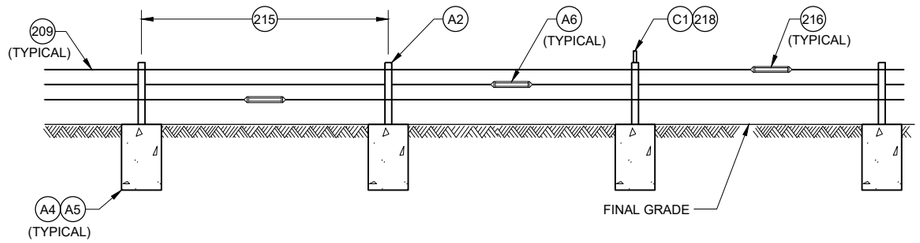
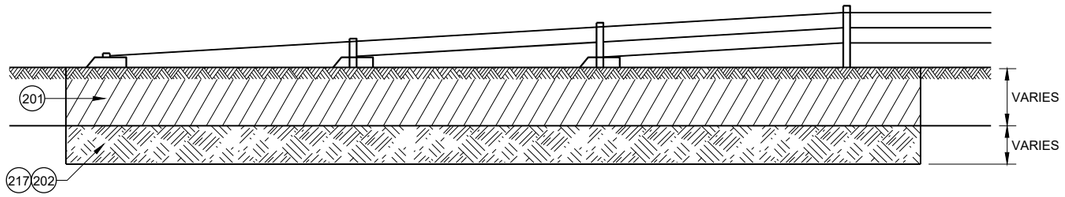
SDD14B52 - 03a



PROFILE VIEW
LINE POST INSTALLATION



CABLE BARRIER END TERMINAL
ROCK EXCAVATION DETAIL

GENERAL NOTES

201 SOIL TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES)

202 ROCK TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES)

203 SOIL TO BE EXCAVATED FOR LINE POST (VARIES)

204 ROCK TO BE EXCAVATED FOR LINE POST (VARIES)

205 EXCAVATE AND GRADE LINE FOR LINE POST FOOTINGS. INSTALL LINE POST FOOTING TO MINIMIZE 4 INCH TALL OBJECT ON 5 FOOT CHORD.

206 2 INCHES OF CLEAR COVER FROM EDGE OF CONCRETE TO REINFORCEMENT.

207 DIAMETER OF LINE POST FOOTING VARIES. SEE MANUFACTURERS' INFORMATION.

208 MINIMUM DEPTH OF LINE POST FOOTING IS 4' - 0" IN SOIL. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENDATION ARE ACCEPTABLE.

209 NUMBER AND LOCATION OF CABLES VARY. SEE MANUFACTURERS' INFORMATION.

210 LINE POST DIMENSIONS AND CONNECTION HARDWARE VARY. SEE MANUFACTURERS' INFORMATION.

211 LANE OF ROADWAY (VARIES). SEE PLAN FOR MORE INFORMATION.

212 PAVED SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

213 GRAVEL SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

214 CABLE BARRIER OFFSET FROM CENTERLINE OF MEDIAN DITCH (8 FOOT MINIMUM). SEE PLAN FOR MORE INFORMATION.

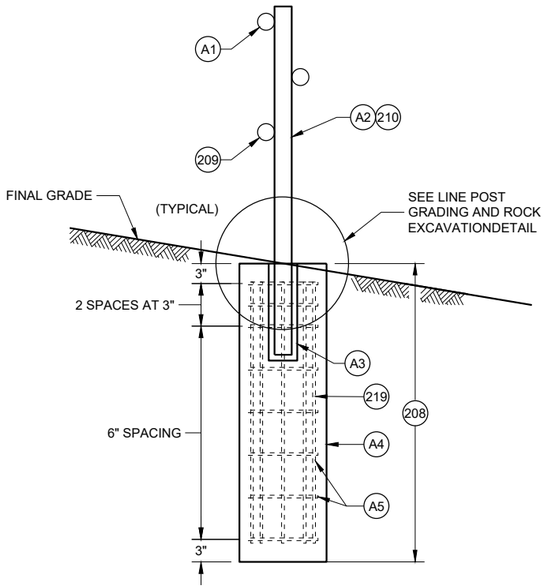
215 MAXIMUM POST SPACING IS 15 FEET.

216 STAGGER TURNBUCKLES (TYPICAL).

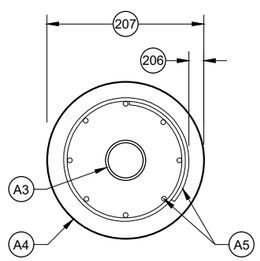
217 SEE MANUFACTURER'S DESIGN WHEN ROCK IS ENCOUNTERED.

218 LINE POST DELINEATOR SPACING IS 100 FEET.

219 MINIMUM LINE POST FOOTING REINFORCEMENT SHOWN. MANUFACTURER IS TO INDICATE REINFORCEMENT IS ADEQUATE FOR THEIR SYSTEM. IF REINFORCEMENT IS NOT ADEQUATE, PROVIDE FOOTING DESIGN WITH A ADEQUATE REINFORCEMENT.

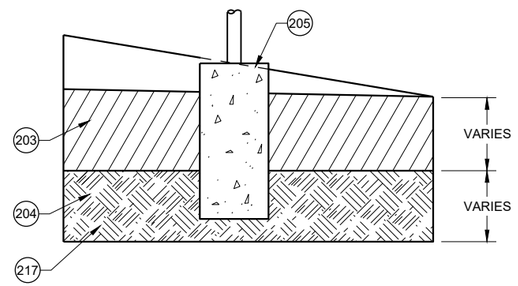


CROSS SECTION

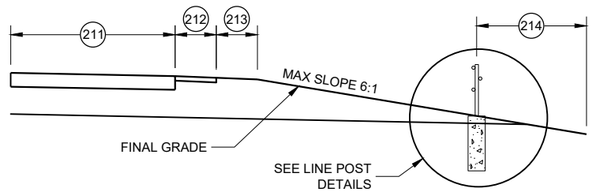


PROFILE VIEW
(LINE POSTS AND CABLES NOT SHOWN)

LINE POST DETAILS



LINE POST GRADING
AND ROCK EXCAVATION DETAIL



CABLE BARRIER OFFSET FROM DITCH LINE

CABLE BARRIER
TYPE 1 LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

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SDD 14B52 - 03b

BILL OF MATERIALS

PART NUMBER	QTY.	DESCRIPTION	MATERIALS SPECIFICATIONS
A1	3 OR 4	¾" 3x7 PRESTRECHED GALVANIZED STEEL WIRE ROPE	AASHTO M30 TYPE 1 CLASS A OR ASTM A741 TYPE 1 CLASS A WITH MINIMUM BREAKING STRENGTH = 39 KIPS (173.5 KN)
A2	1 PER LINE POST	GALVANIZED REMOVABLE STEEL LINE POST	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
A3	1 PER LINE POST	GALVANIZED STEEL SLEEVE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
A4	VARIES	CONCRETE FOR LINE POST FOOTING	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2 OR AS MANUFACTURER SPECIFIES.
			STANDARD SPECIFICATION 716 QMP FOR CLASS II ANCILLARY CONCRETE
			SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
A5	MINIMUM REINFORCEMENT: 8 HORIZONTAL LOOP BARS 8 VERTICAL BARS	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
			ALL BARS ARE NO. 4 BARS
A6	VARIES	TURNBUCKLES AND OTHER CABLE CONNECTING HARDWARE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
			MINIMUM BREAKING STRENGTH OF TURNBUCKLES AND CONNECTION HARDWARE IS EQUAL TO CABLE.
			TURNBUCKLES AND OTHER CABLE CONNECTION HARDWARE IS FIELD SWAGED PER MANUFACTURER'S RECOMMENDATION AND DETAILS.
			PROVIDE DOCUMENTATION THAT THE FITTINGS ARE STRONGER THAN THE CABLE BARRIER. DOCUMENTATION IS TO INCLUDE: MANUFACTURER NAME, TESTING RESULTS, AND DATE OF TESTING.
B1	VARIES	CABLE CONNECTION TO CABLE BARRIER END TERMINAL	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
B2	VARIES	CONCRETE FOR CABLE BARRIER END TERMINAL	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2.
			STANDARD SPECIFICATION 716 QMP FOR CLASS II ANCILLARY CONCRETE
B3	VARIES	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
C1	VARIES	LINE POST DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVED PRODUCT LIST YELLOW.
C2	VARIES	CABLE BARRIER END TERMINAL DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVED PRODUCT LIST OBJECT MARKER TYPE 3 PATTERN

6

CABLE BARRIER TYPE 1 LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

SDD 14B52 - 03c

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

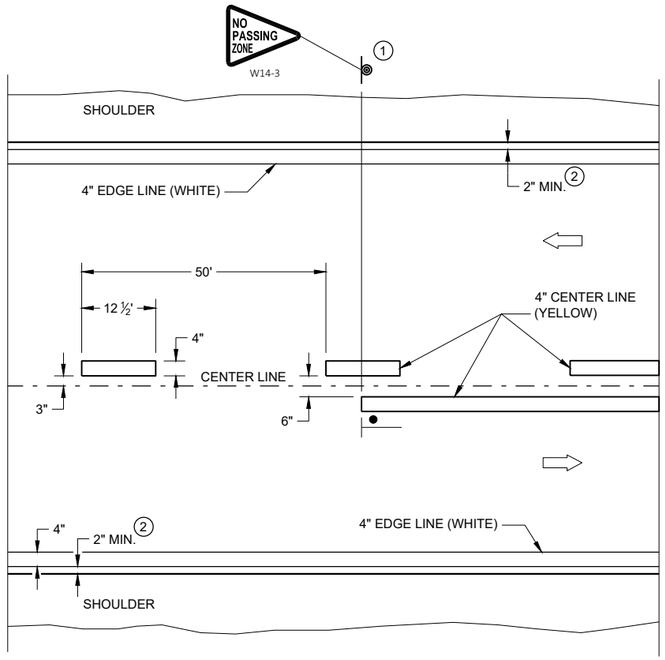
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

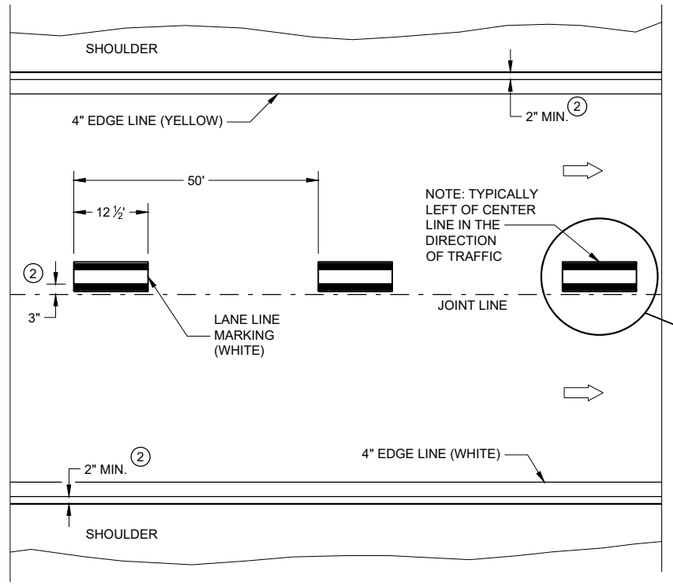
"T" MARKING

SIGN ON PERMANENT SUPPORT

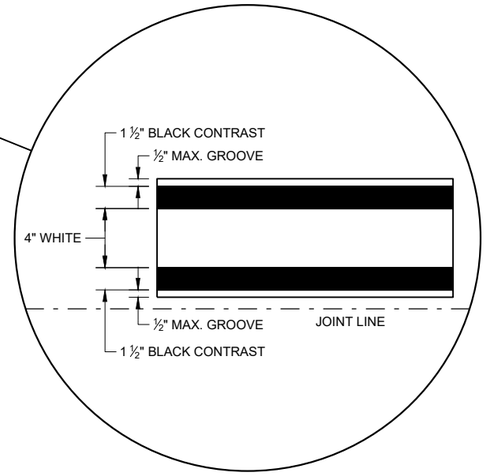
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

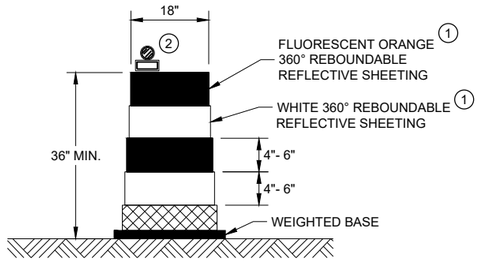
FHWA

SDD 15C08 - 21a

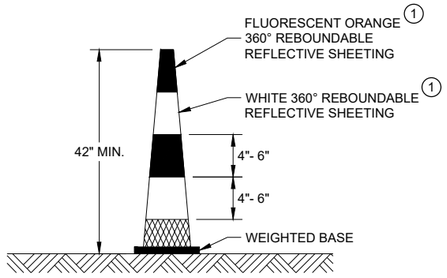
SDD 15C08 - 21a

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.

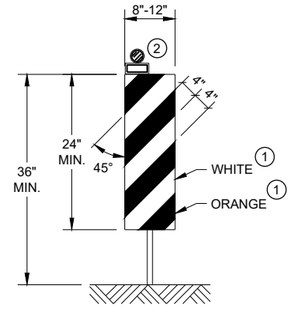


DRUM



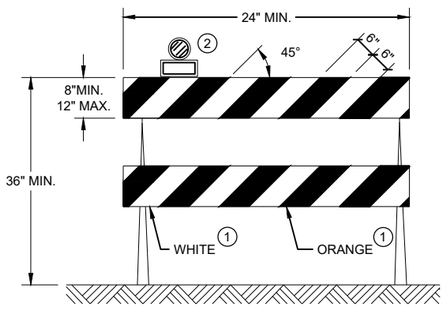
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



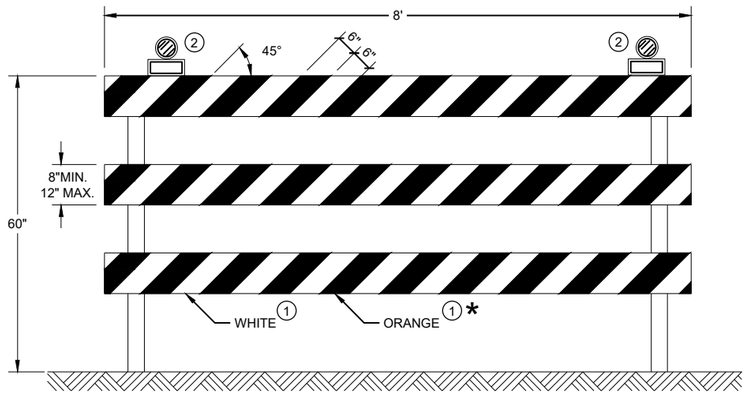
VERTICAL PANEL

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 ENGINEER
FHWA

6

SDD15C11 - 09b

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SDD15C11 - 09b

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

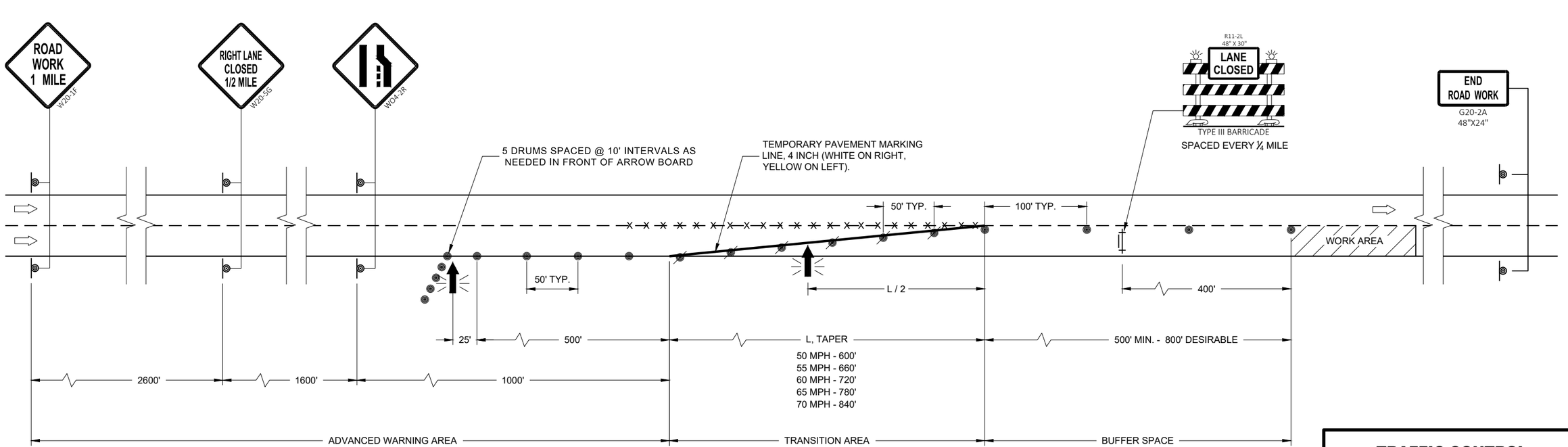
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15D12 - 10a

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SDD15D12 - 10a

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

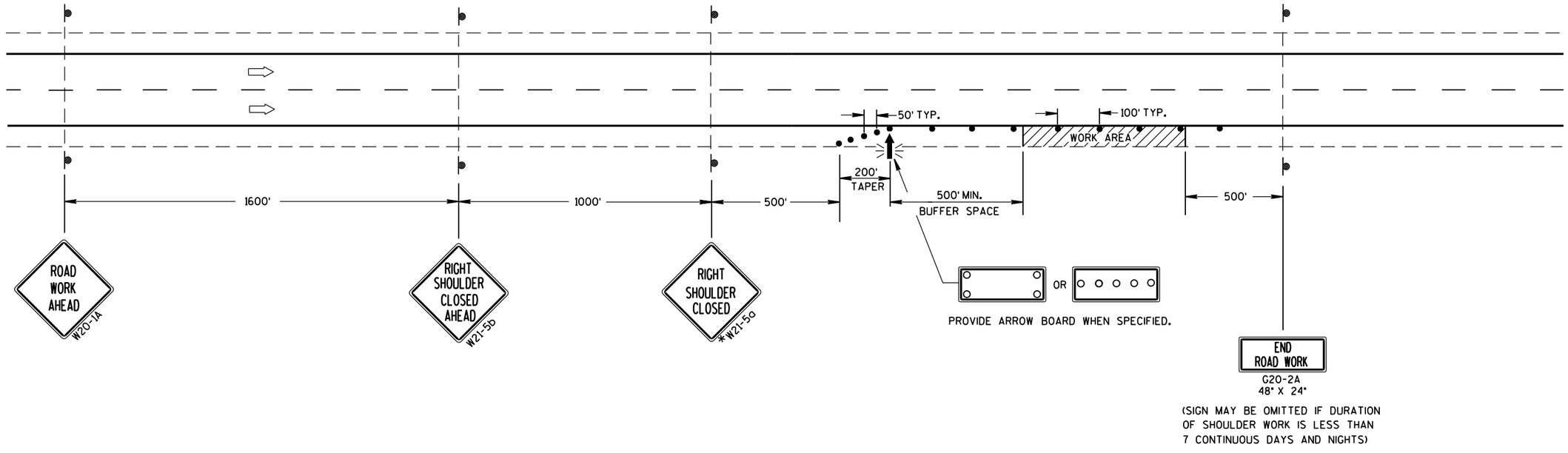
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

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

WHEN A 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.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

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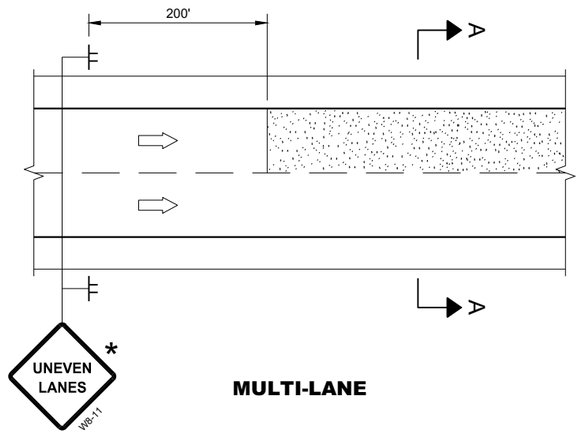
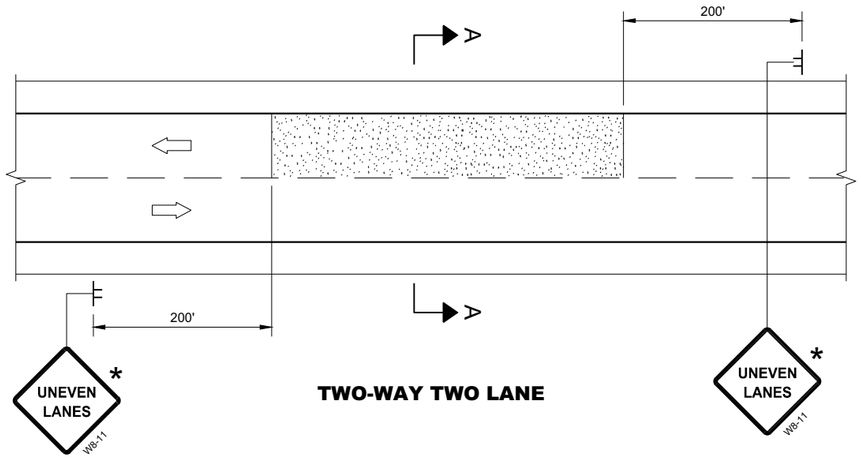
6

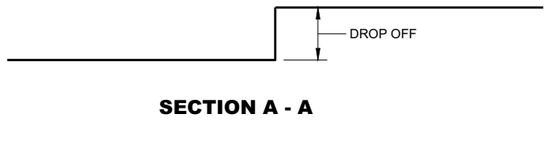
S.D.D. 15 D 27-3



MULTI-LANE

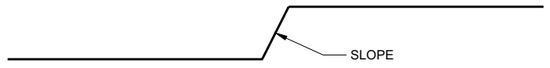


TWO-WAY TWO LANE

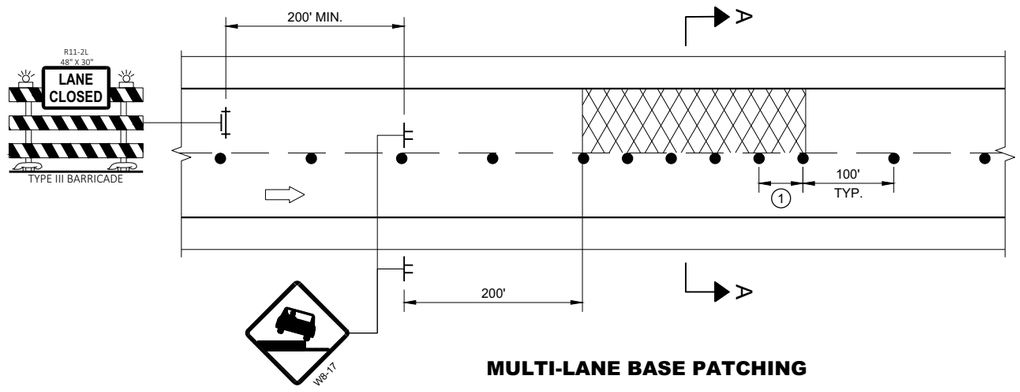


SECTION A - A

OR

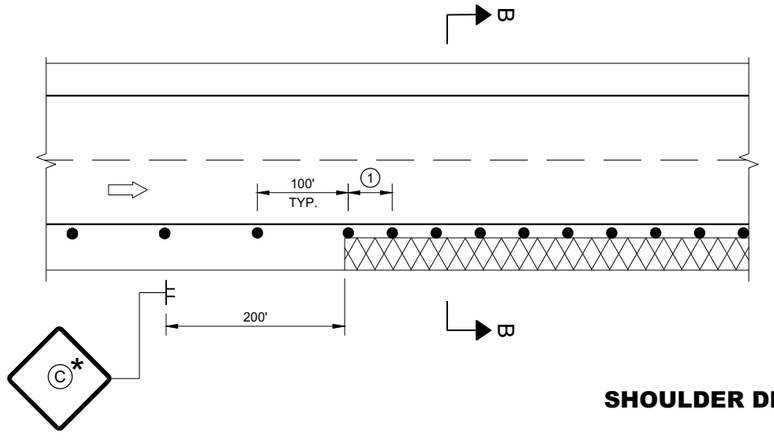


SECTION A - A

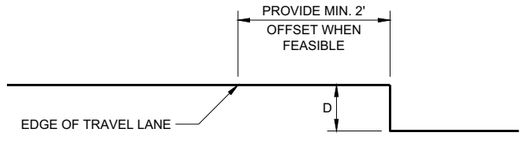


MULTI-LANE BASE PATCHING

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

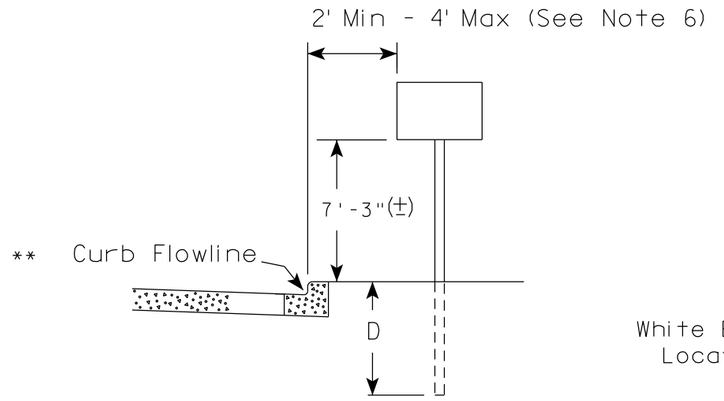
6

SDD 15D39 - 02

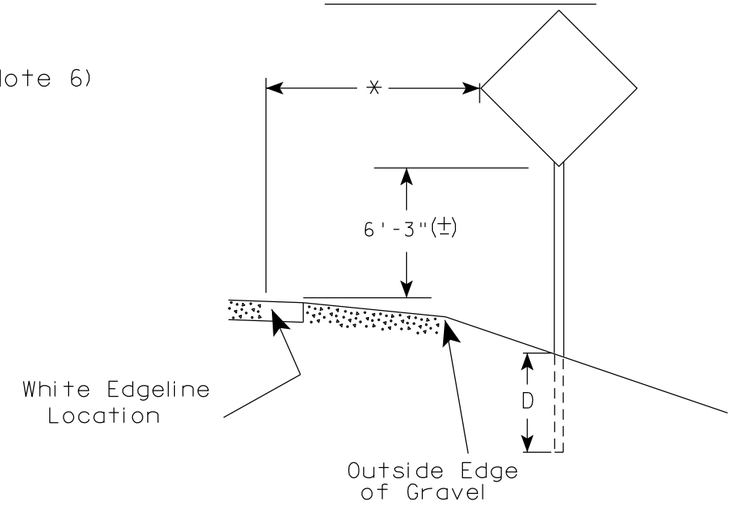
6

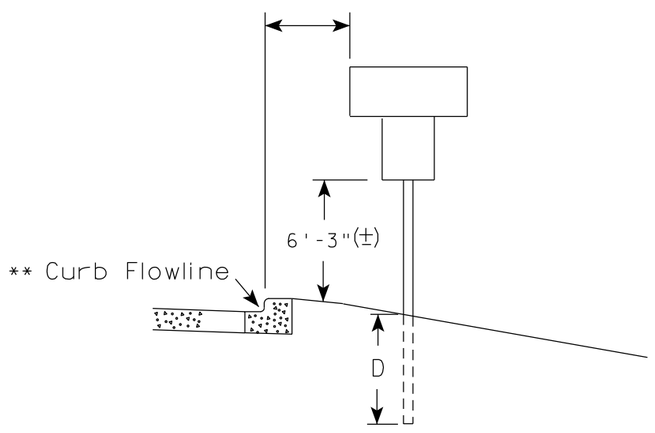
SDD 15D39 - 02

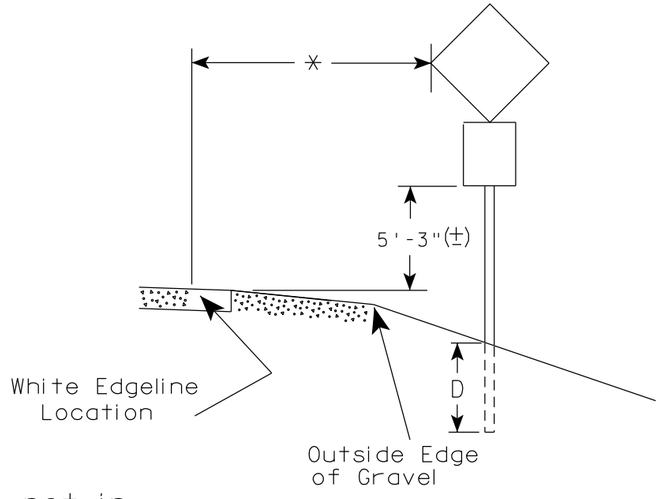
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

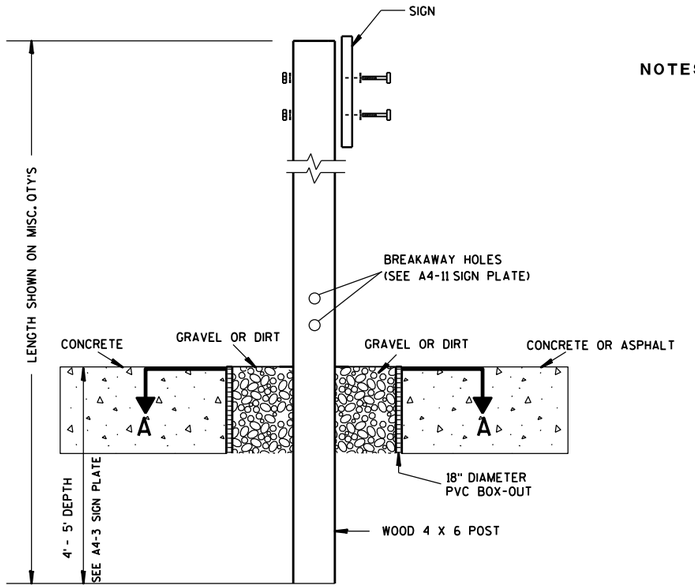
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

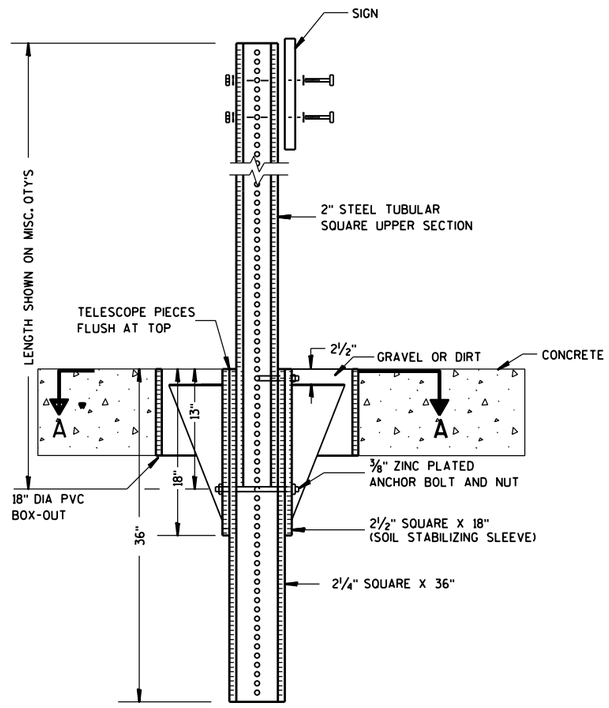
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 112	E



ELEVATION VIEW

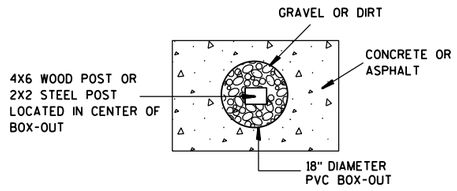
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

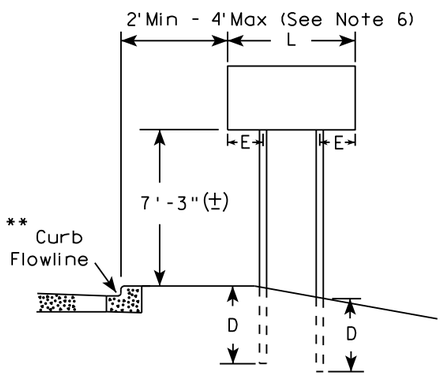
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

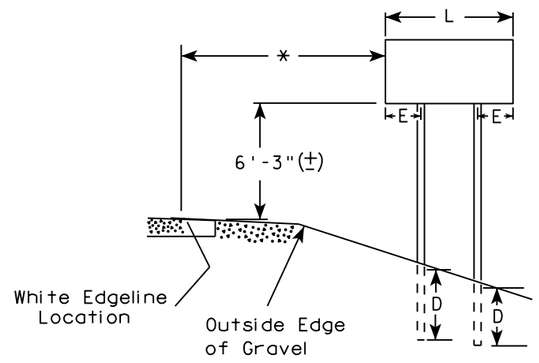
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

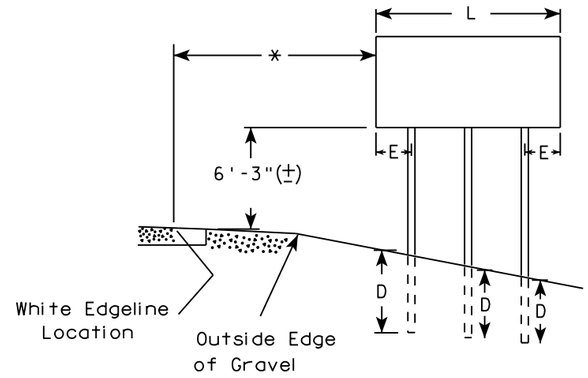
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

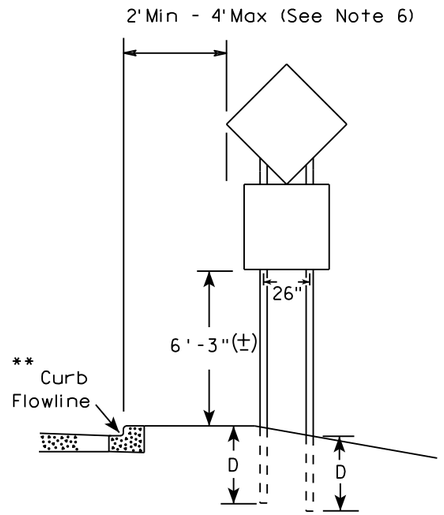
URBAN AREA



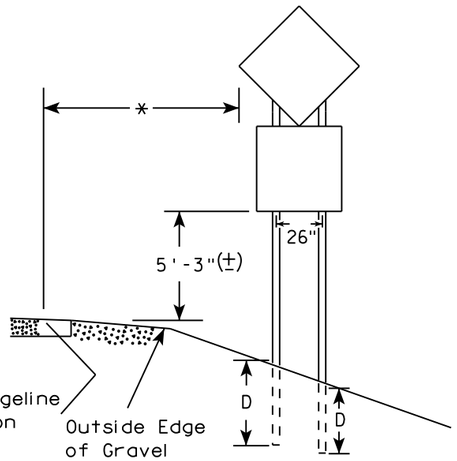
RURAL AREA (See Note 3)







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'

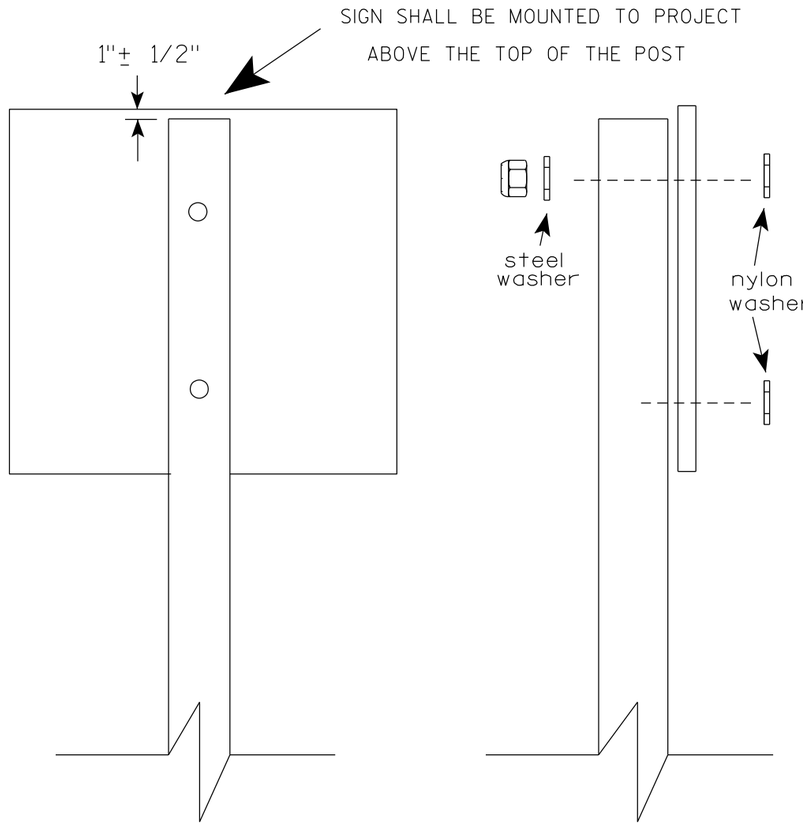
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

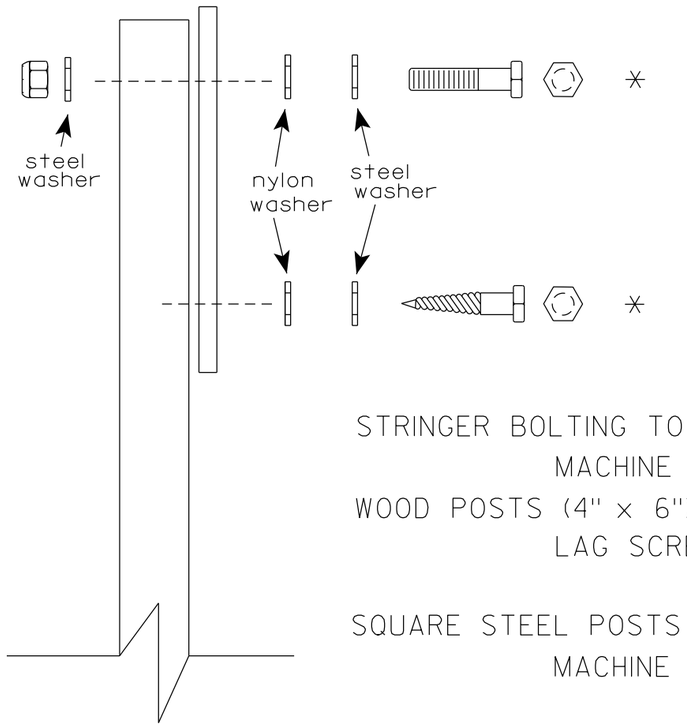
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 114	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

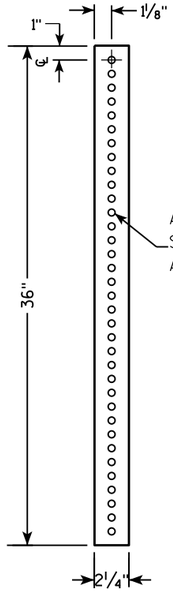
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

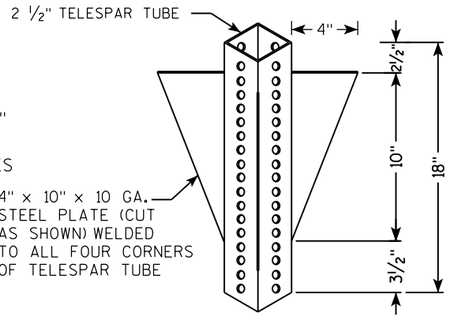
SHEET NO: 115 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

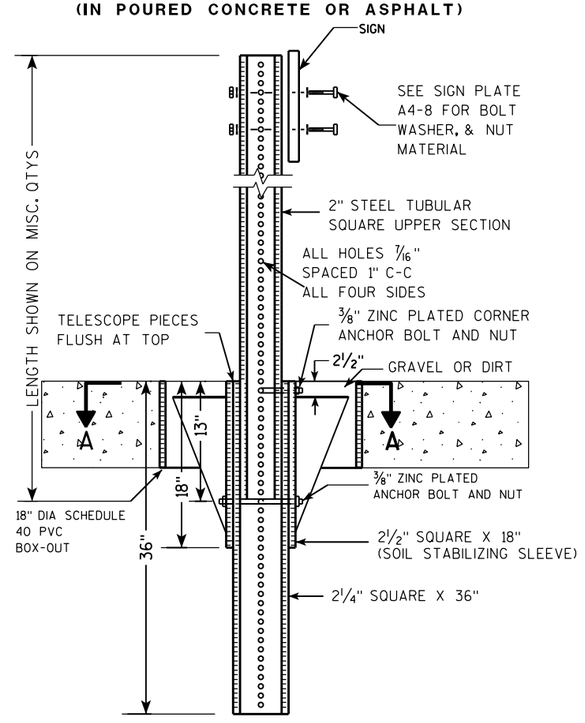
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



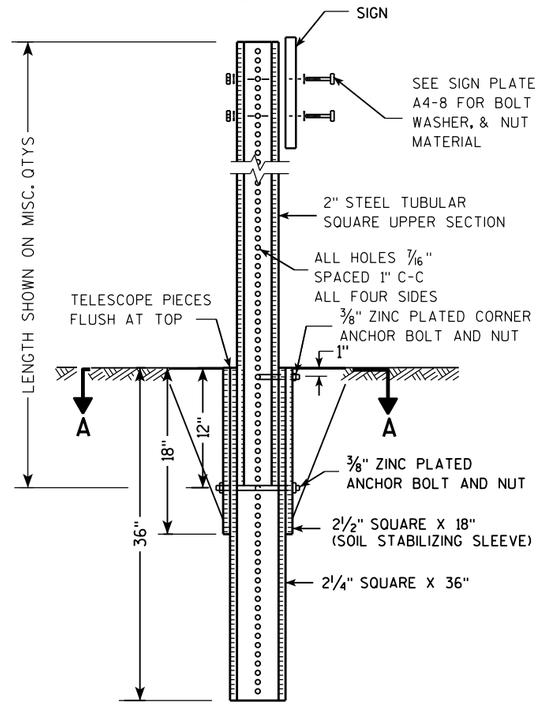
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

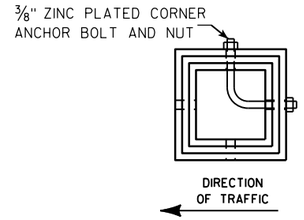


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

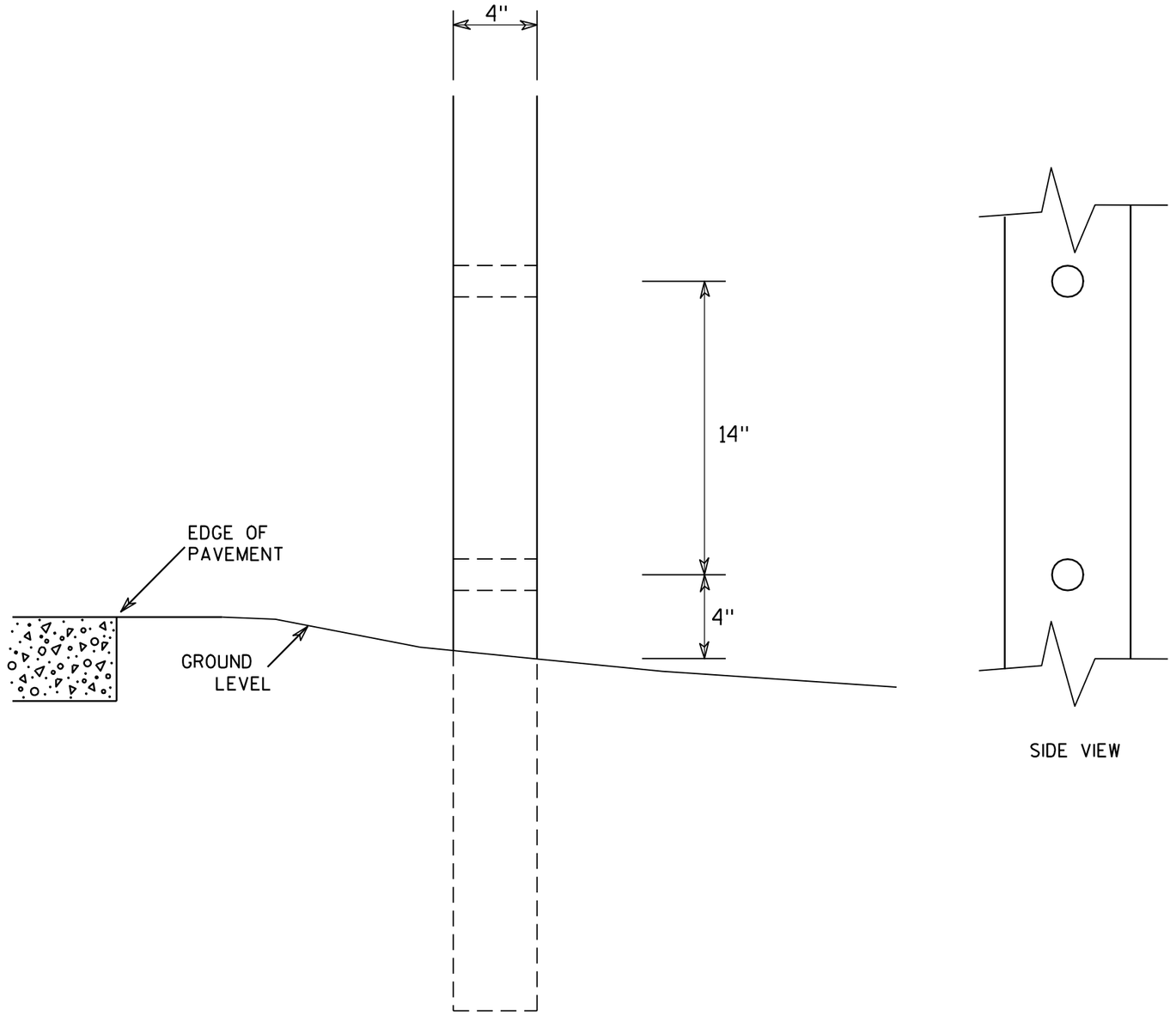
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 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.

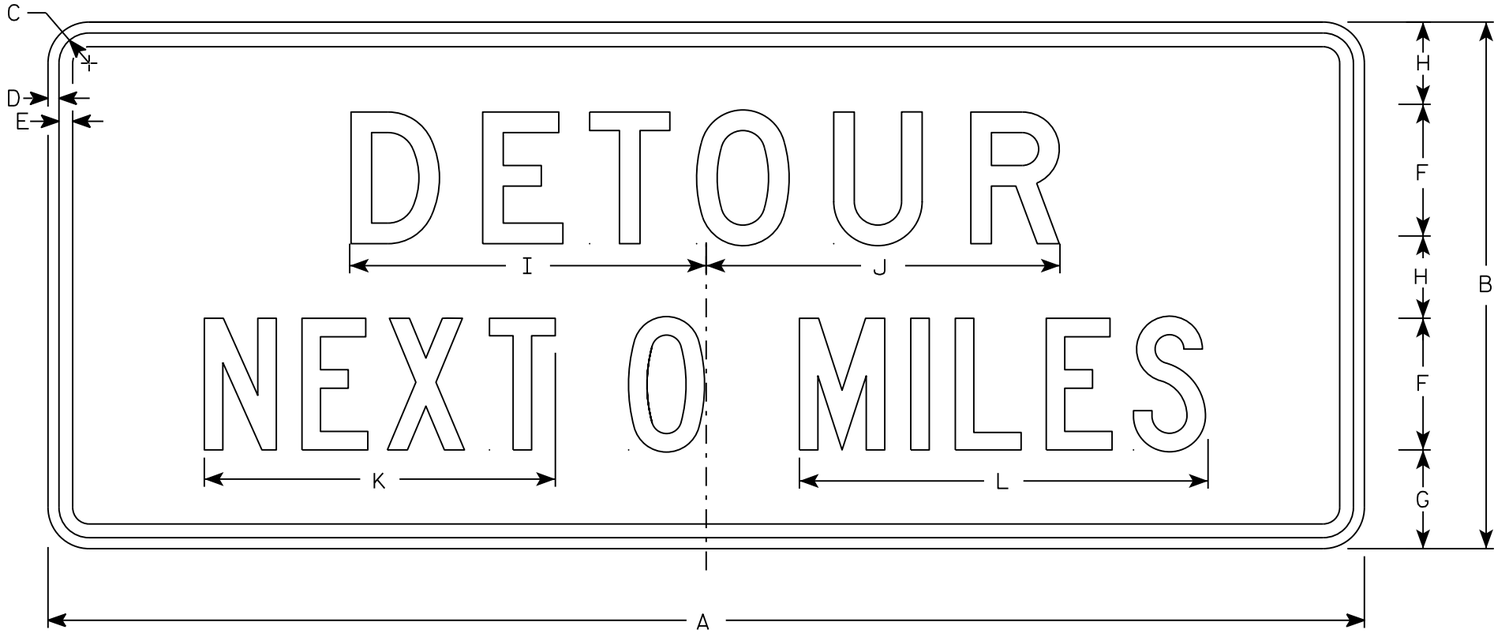
4 X 6 WOOD POST MODIFICATIONS

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: 117	E



G20-51

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - Line 1 is D and Line 2 is C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Round distance to nearest whole Mile and substitute appropriate numerals and optically adjust spacing to achieve proper balance

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10
3																											
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10
5																											

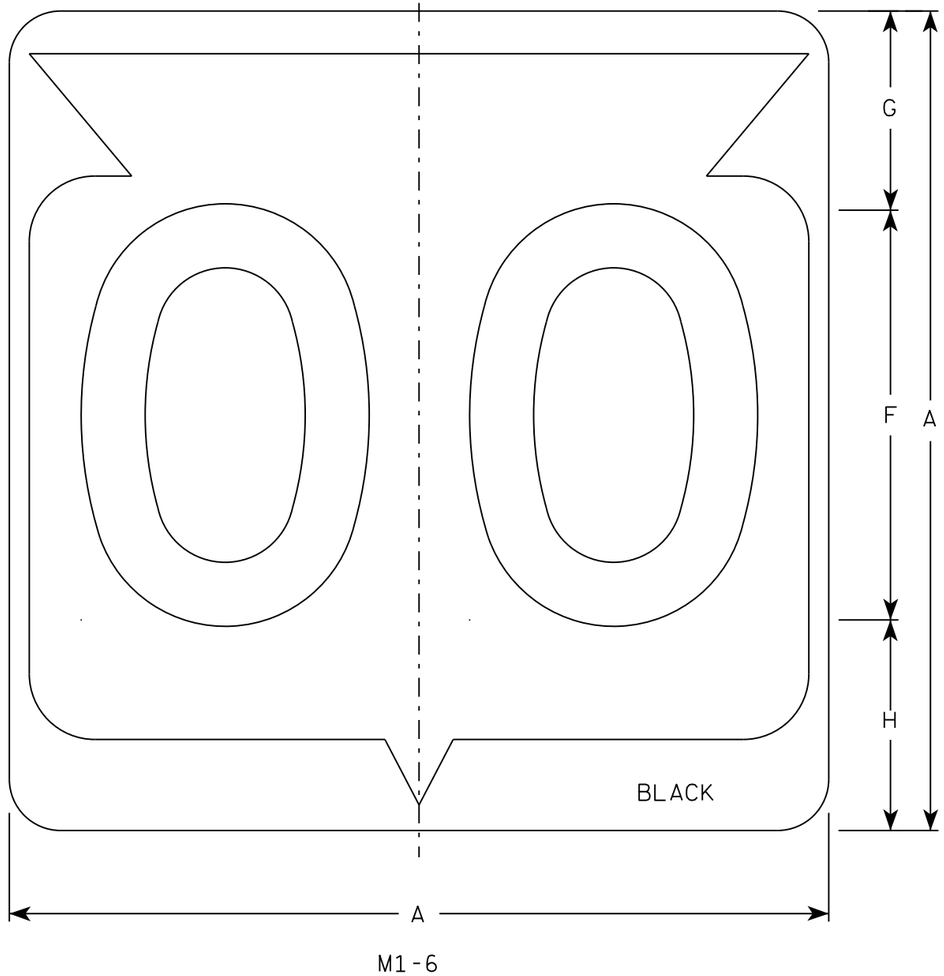
STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/14/17 PLATE NO. G20-51.2

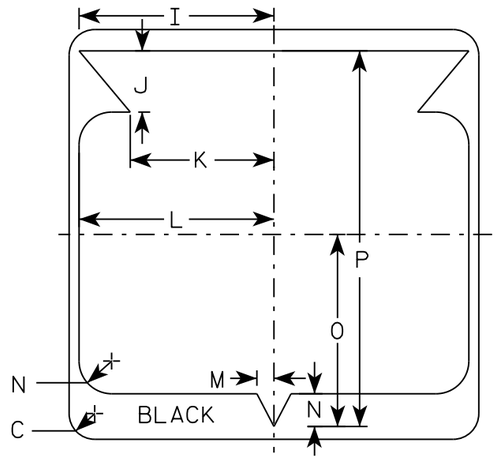
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 118 | E



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

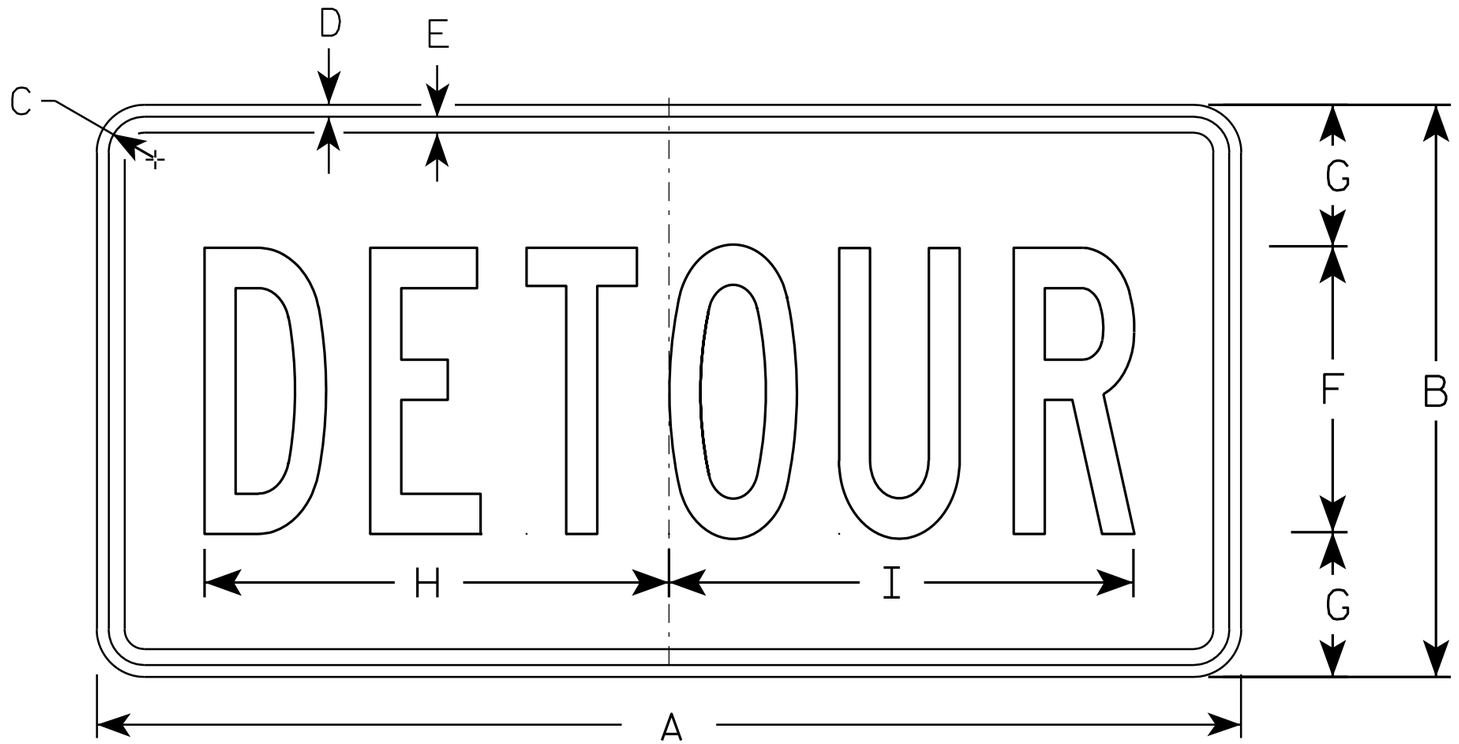
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

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: 119 | E



M4-8

NOTES

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

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

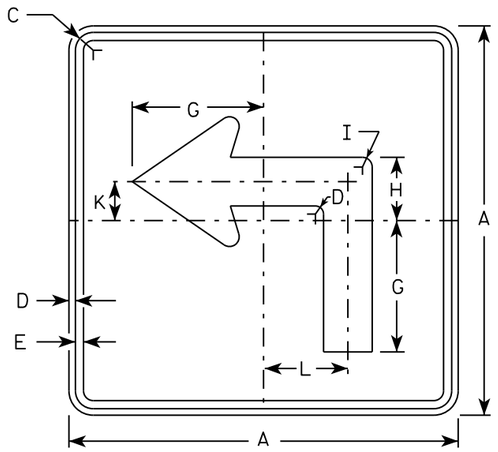
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

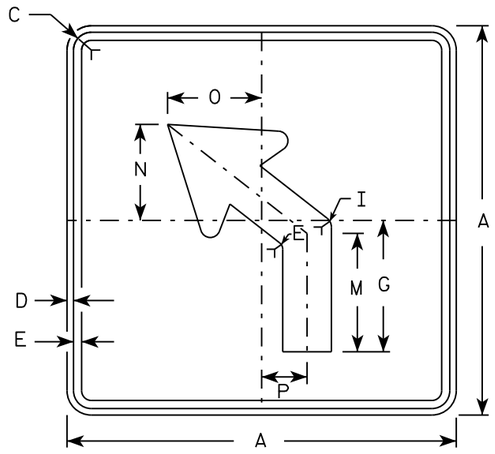
APPROVED Matthew R Rauch
for State Traffic Engineer

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

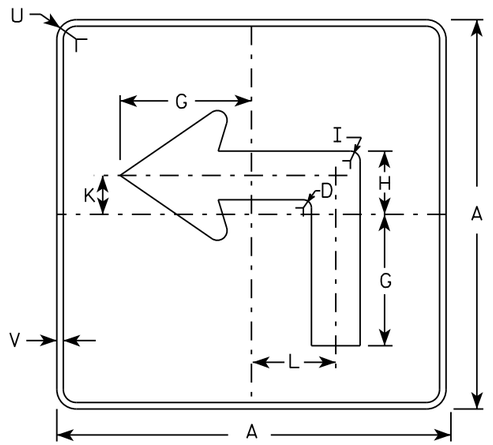
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 120	E



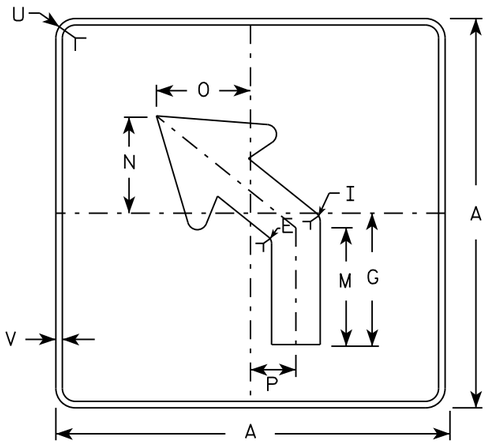
M5-1L
MM5-1L
MO5-1L
MP5-1L



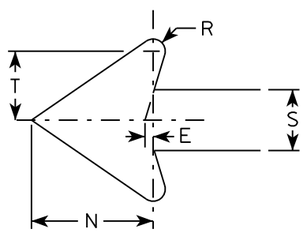
M5-2L
MM5-2L
MO5-2L
MP5-2L



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



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



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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

STANDARD SIGN
M5-1 & M5-2

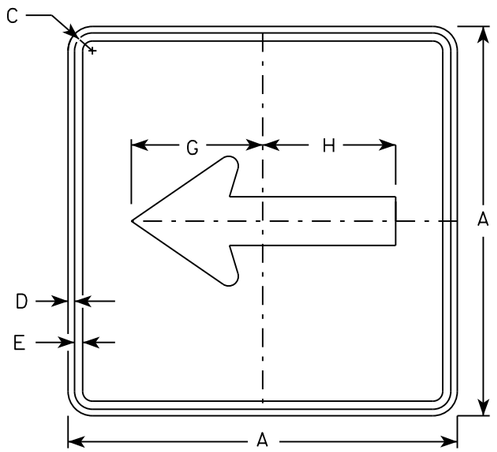
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

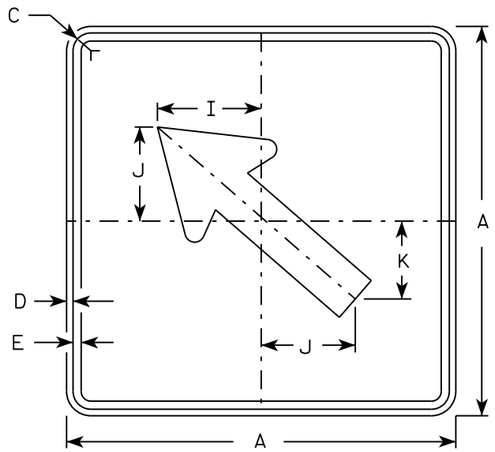
DATE 10/15/15 PLATE No. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



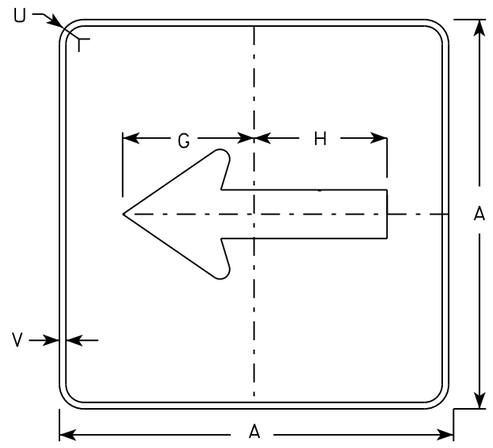
M6-1
MM6-1
MO6-1
MP6-1



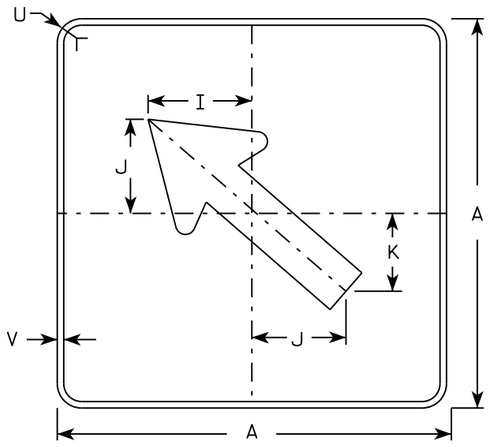
M6-2
MM6-2
MO6-2
MP6-2

NOTES

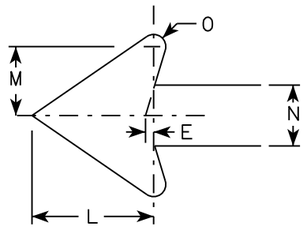
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



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



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



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

STANDARD SIGN
M6-1 & M6-2
SERIES

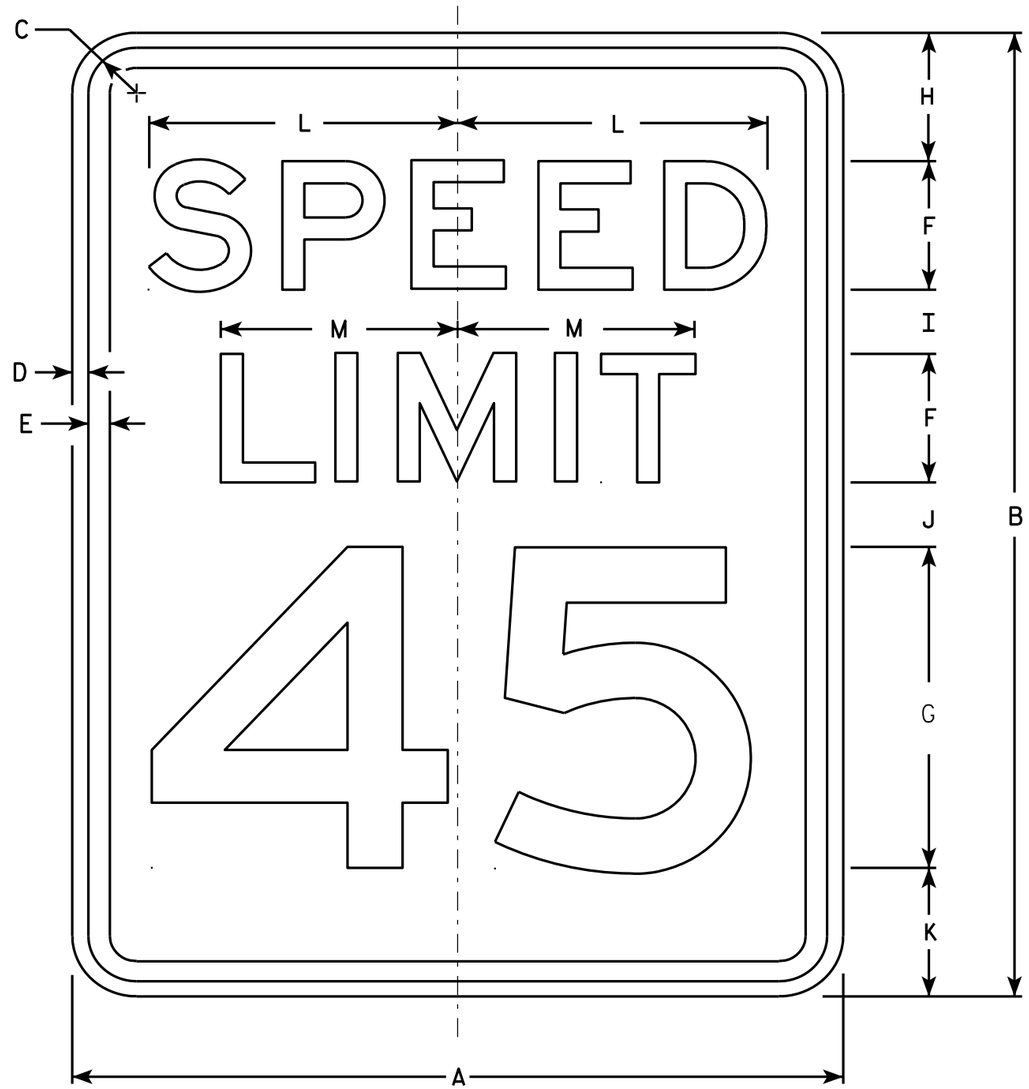
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 122 M6-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

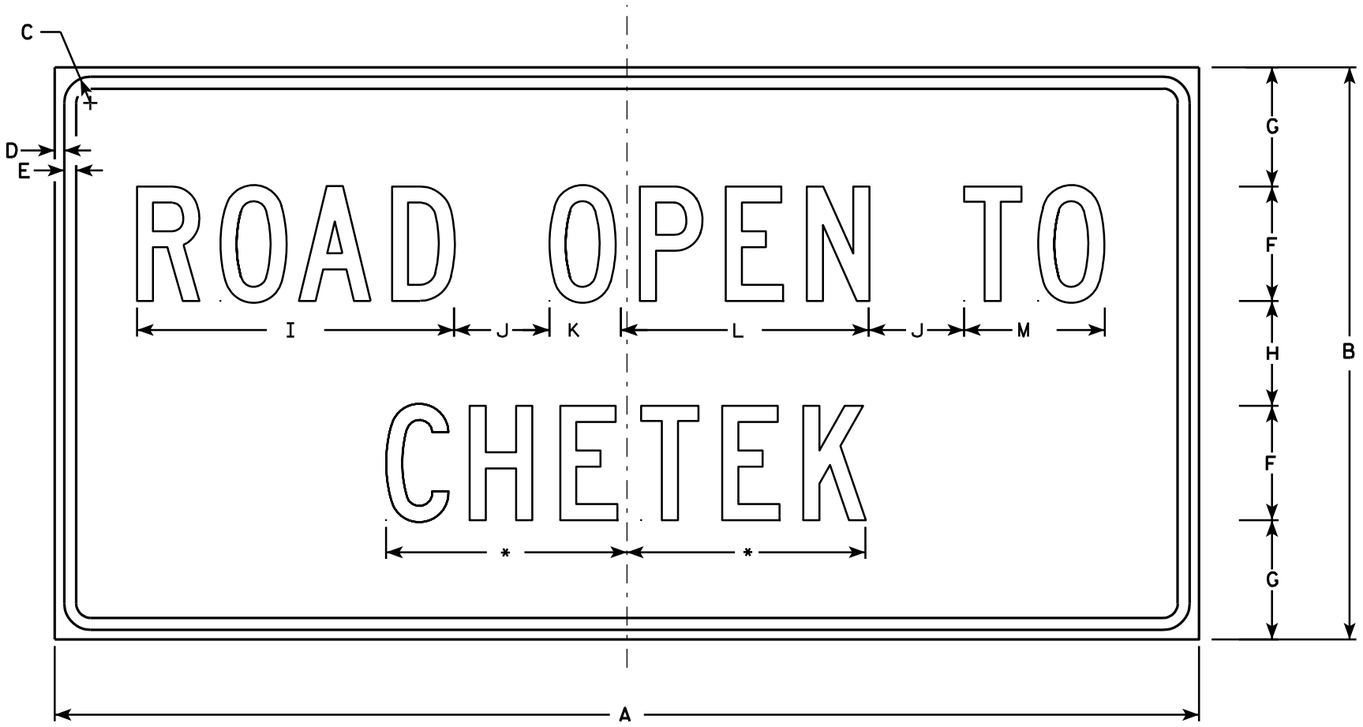
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 123	E



R10-61

NOTES

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

*See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 3/8	1/2	5/8	4	5 1/2	5	10 3/4	2	2 1/8	8 3/8	4 5/8														6.0
2S	60	30	1 3/8	1/2	5/8	6	6 1/4	5 1/2	16 5/8	5	3 3/4	13	7 3/8														12.5
2M	60	30	1 3/8	1/2	5/8	6	6 1/4	5 1/2	16 5/8	5	3 3/4	13	7 3/8														12.5
3																											
4																											
5																											

STANDARD SIGN
R10-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-61.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 124	E

R10-71

R10-71L

NOTES

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

R10-71R

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	R10-71L&R Area sq. ft.	R10-71 Area sq. ft.
1																												
2S	72	36	2 1/4	3/4	1	18	5	4	6	20 5/8	11 3/4	9 1/8	8 1/2	12 7/8	9 7/8	16 1/8	23 7/8	30	5 5/8	26 3/4	66	23 5/8	8 3/4	13	26 7/8	27	18.0	16.5
2M	72	36	2 1/4	3/4	1	18	5	4	6	20 5/8	11 3/4	9 1/8	8 1/2	12 7/8	9 7/8	16 1/8	23 7/8	30	5 5/8	26 3/4	66	23 5/8	8 3/4	13	26 7/8	27	18.0	16.5
3																												
4																												
5																												

STANDARD SIGN
R10-71

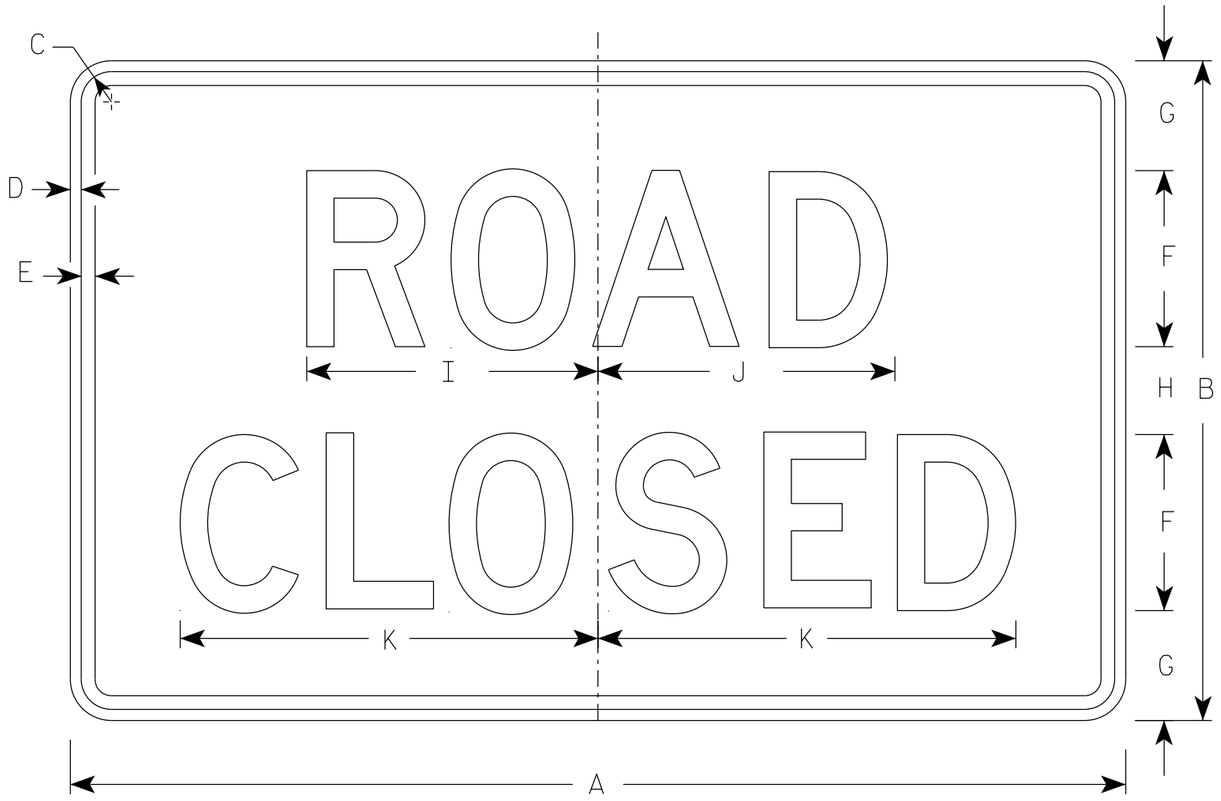
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-71.3

PROJECT NO:

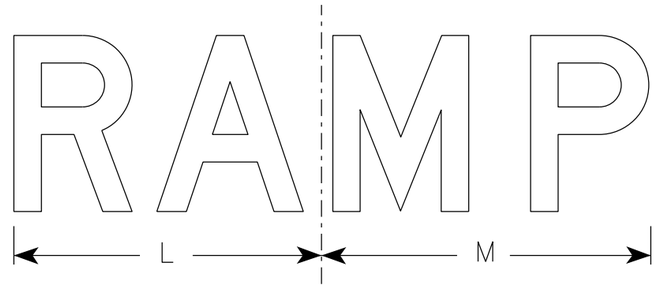
SHEET NO: 125 E



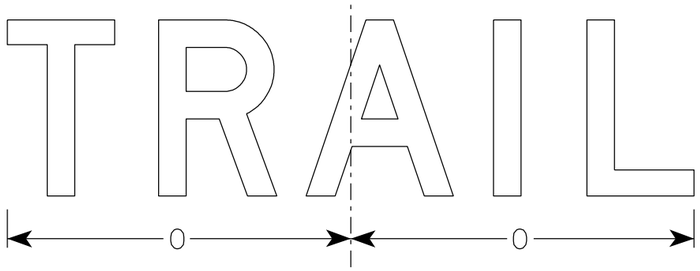
R11-2

NOTES

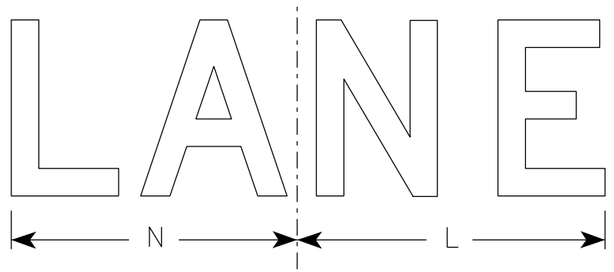
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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



R11-2R



R11-2T



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

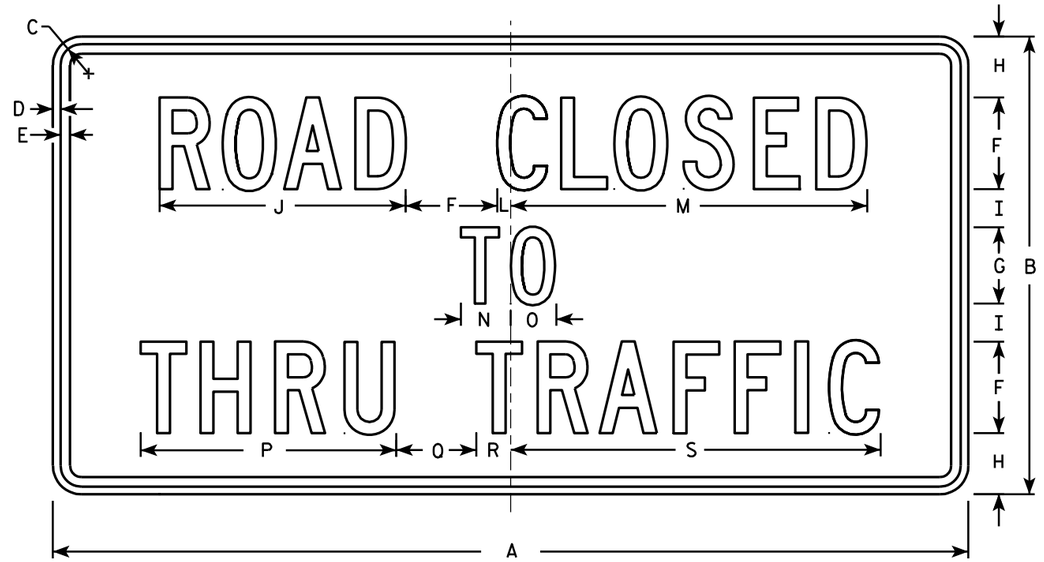
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112.dgn PLOT DATE : 29-MAR 2021 8:15 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7



R11-4

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

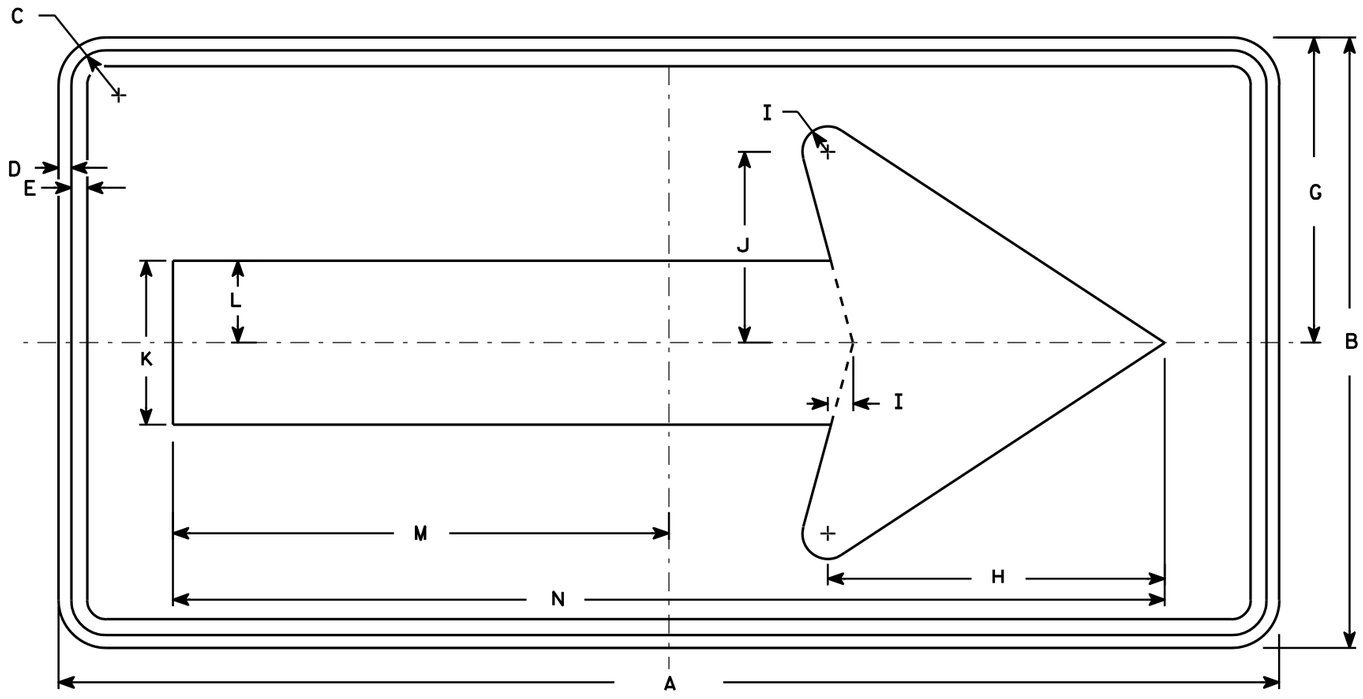
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 127 | E



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

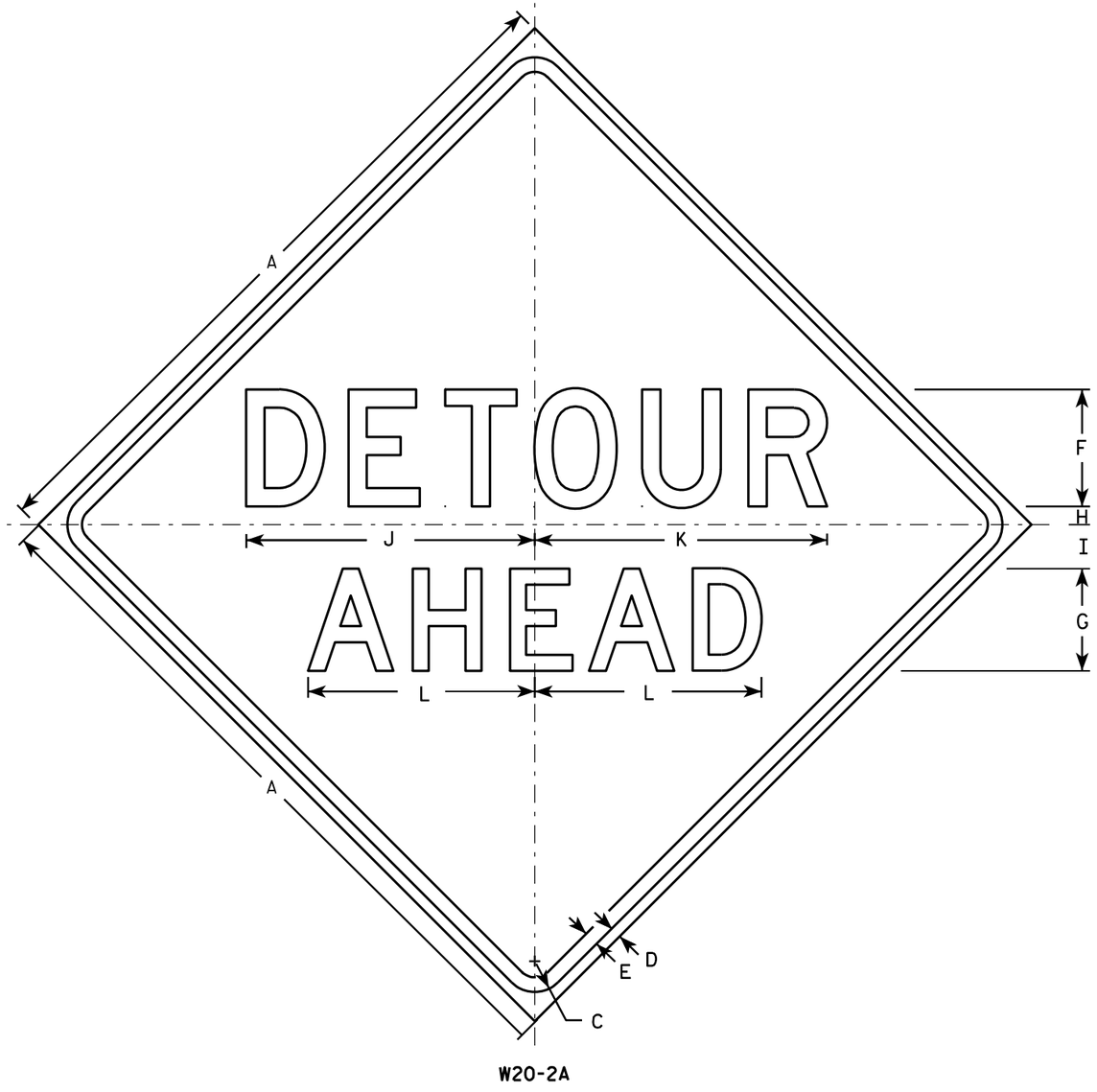
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

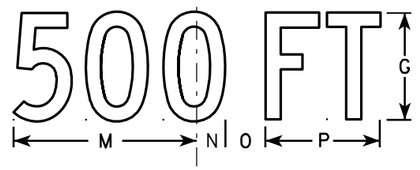
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

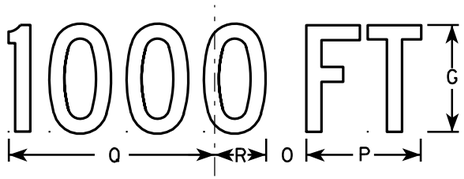
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 128



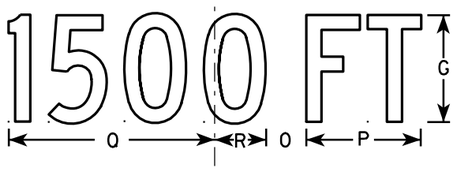
W20-2A



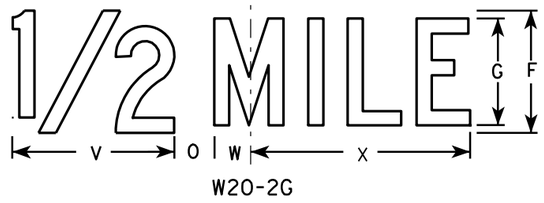
W20-2D



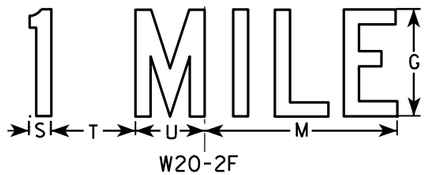
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

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

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

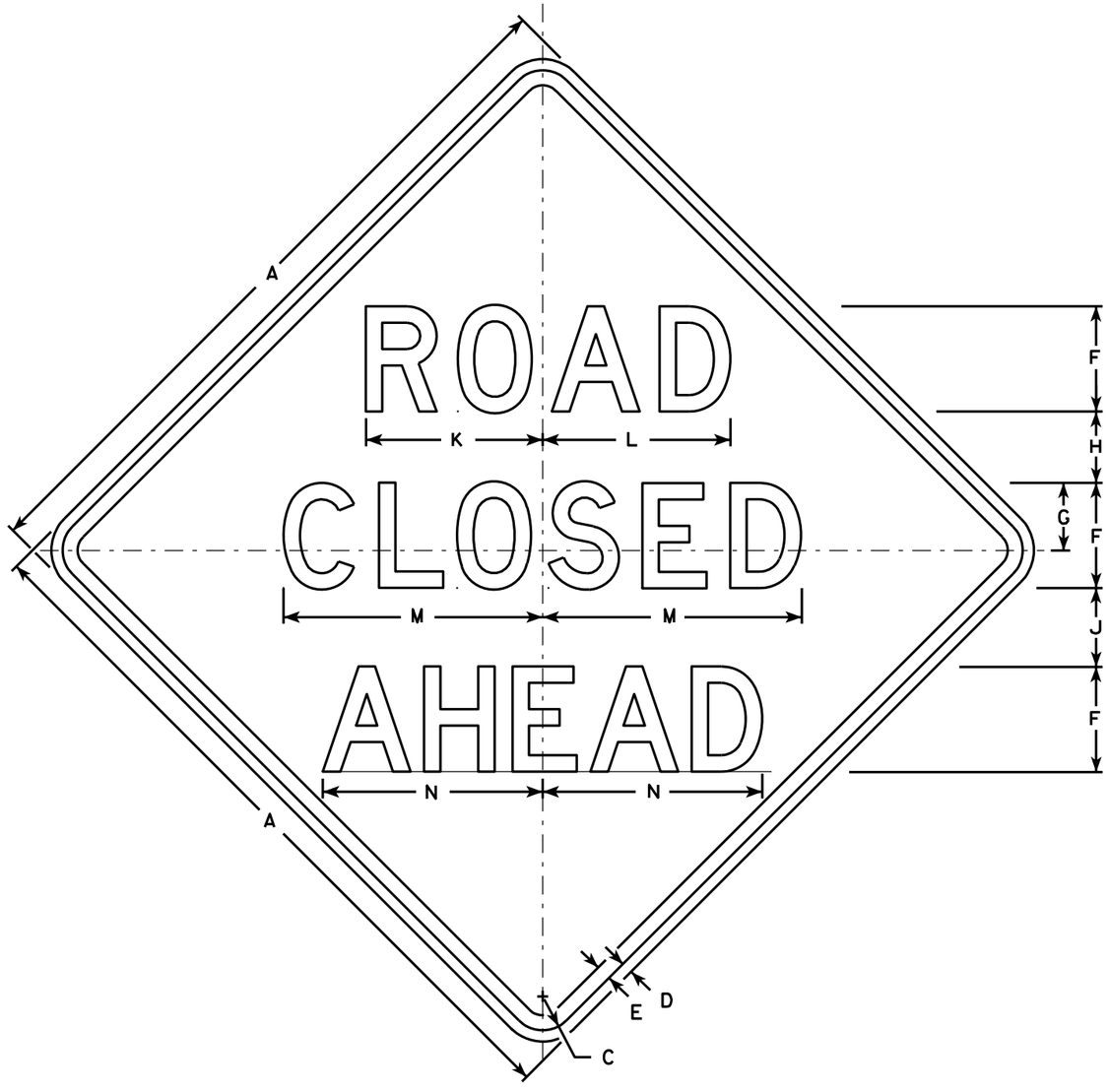
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

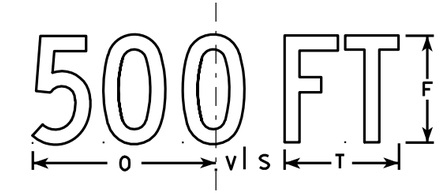
APPROVED Matthew R Rauch
for State Traffic Engineer

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

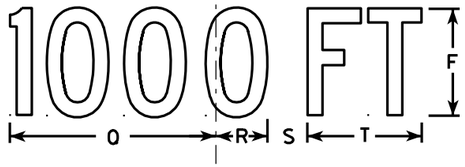
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 129	E



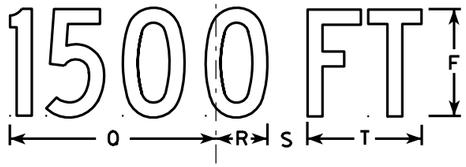
W20-3A



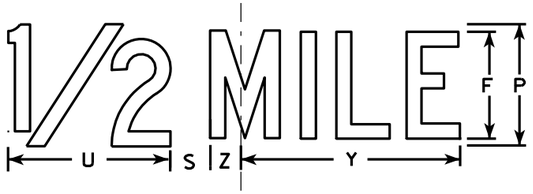
W20-3D



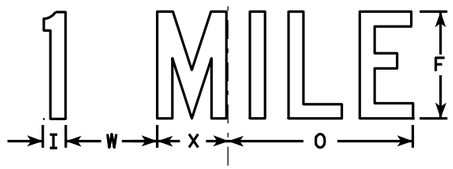
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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   Message - Black
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2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 130 | E

DESIGN DATA

DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL.

FOUNDATION DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS.
WIND PRESSURE: 120 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (1700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS	
STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTREME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATUGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION)
	1.0 TRG (TRUCK INDUCED GUST VIBRATION)

MATERIAL PROPERTIES

CONCRETE MASONRY ..... f'c = 3,500 psi

HIGH STRENGTH STEEL
REINFORCEMENT, GRADE 60 ..... fy = 60,000 psi

STRUCTURAL ANGLES,
PLATE AND BARS - ASTM A709 GRADE 36 ..... fy = 36,000 psi

CHORDS & COLUMN PIPE - ASTM A500 GRADE C ..... fy = 46,000 psi

HIGH STRENGH BOLTS - A325 ..... fy = 92,000 psi

ANCHOR RODS - ASTM F1554 GRADE 55 ..... fy = 55,000 psi

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

GENERAL NOTES

DRAWING SHALL NOTE BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), WASHINGTON COUNTY ZONE, NAD 83 (2011), US SURVEY FEET. ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2012).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "TRUSS FULL SPAN 4-CHORD TYPE II" FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D.12 A 4-3.

CATWALKS ARE USED ON 4-CHORD STRUCTURES CARRYING DMS SIGNS. CATWALKS SHALL BE INCIDENTAL TO BID ITEM "TRUSS FULL SPAN 4-CHORD II" FOR EACH DMS SIGN STRUCTURE IN THE PLAN SET.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT THE TIME OF ERECTION. BLANKS SHALL BE ¼ THE LENGTH OF THE CANTILEVER SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOWN SIGNS ON THE SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT 36-INCH".

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	S-66-401
531.2036	DRILLING SHAFT 36-INCH	LF	88
531.6120	FOUNDATION TWO-SHAFT TYPE FF-II S-66-401	EA	2
532.6120	TRUSS FULL SPAN 4-CHORD TYPE II	EA	1

STRUCTURE DATA

SIGN STR	ACTUAL DMS SIGN AREA	ACTUAL DMS SIGN DEPTH	ACTUAL DMS SIGN WEIGHT	STANDARD DESIGN TRUSS
S-66-401	194.3 SF	7'-10 ⅛"	3400 LB	II

TRAFFIC VOLUME

IH-41
A.D.T. (2040) = 95,000
R.D.S = 75 MPH

LIST OF DRAWINGS

1. GENERAL NOTES & DESIGN DATA
2. GENERAL LAYOUT S-66-401

LIST OF STANDARD DESIGN DRAWINGS

3. I. 4-CHORD TRUSS FULL SPAN TRUSS DETAILS
4. II. 4-CHORD TRUSS FULL SPAN COLUMN DETAILS
5. III. 4-CHORD TRUSS FULL SPAN CONNECTIONS 1
6. IV. 4-CHORD TRUSS FULL SPAN CONNECTIONS 2
7. V. 4-CHORD TRUSS FULL SPAN CATWALK DETAILS
8. VI. 4-CHORD TRUSS FULL SPAN ELECTRICAL DETAILS
9. VII. 4-CHORD TRUSS FULL SPAN FOUNDATIONS 1
10. VIII. 4-CHORD TRUSS FULL SPAN FOUNDATIONS 2

STATE PROJECT NUMBER
3700-43-70

STRUCTURE DESIGN CONTACTS:
WYATT ROZMENOSKI 414-266-9066
AARON BONK 608-261-0261

THESE ARE STANDARD DESIGN PLANS, DEVELOPED AND MAINTAINED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION. THE DESIGNER CERTIFIES THAT THE DESIGN AND PLAN DETAILS CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

WISCONSIN PROFESSIONAL ENGINEER
WYATT ROZMENOSKI
47659
MILWAUKEE, WI
6/24/22

NO.	DATE	REVISION	BY

GRÄEF
275 W. WISCONSIN AVENUE
SUITE 300
MILWAUKEE, WI 53203

ACCEPTED SDR 10/18/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

4-CHORD TRUSS FULL SPAN PLANS

IH-41 NB, SOUTH OF JUNCTION STH 167

COUNTY	VILLAGE
WASHINGTON	GERMANTOWN

DESIGN SPEC.
AASHTO LRFDLTS-1 W/ INTERIMS

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
WAR	KGW	WAR	KGW

GENERAL NOTES & DESIGN DATA

SHEET 1 OF 10
131

SCALE = SCALE

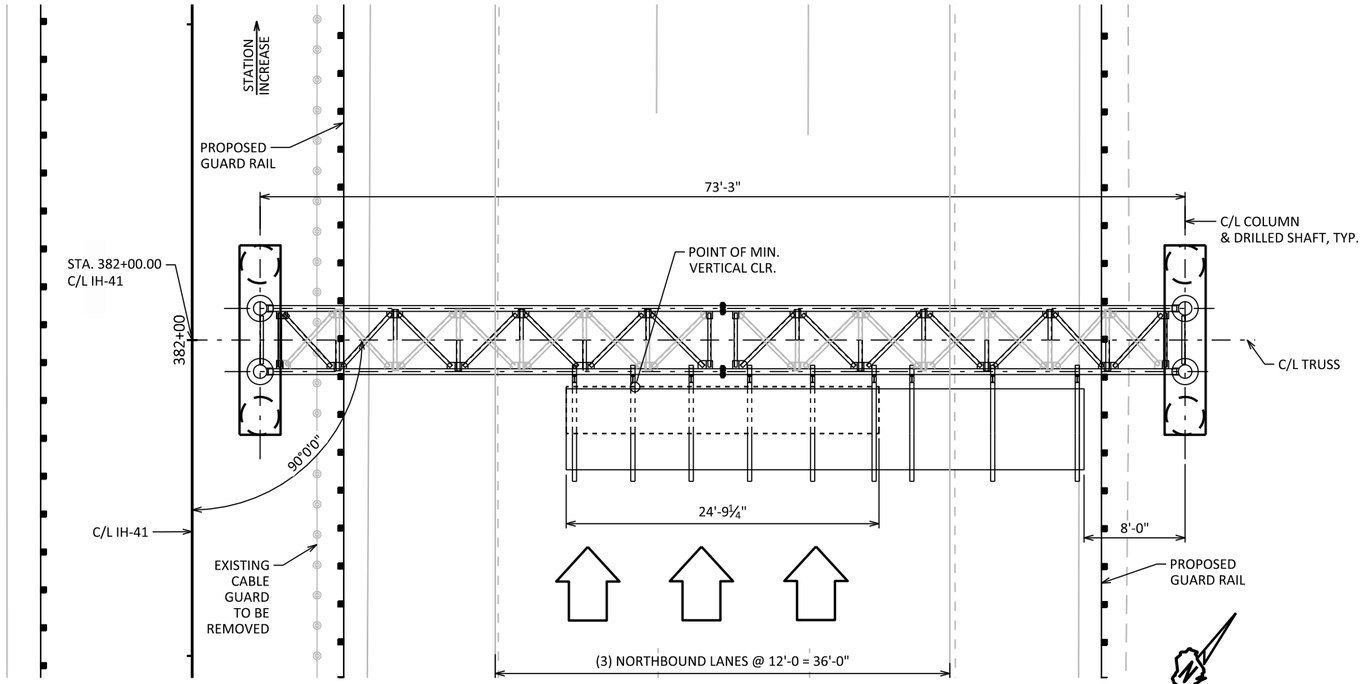
I.D. 3700-43-00 DATE: DATE

8

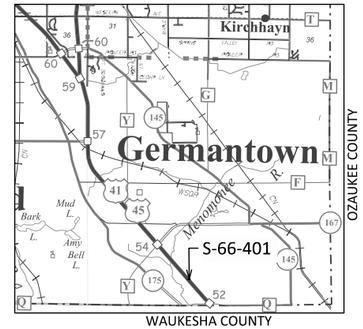
8

STATE PROJECT NUMBER

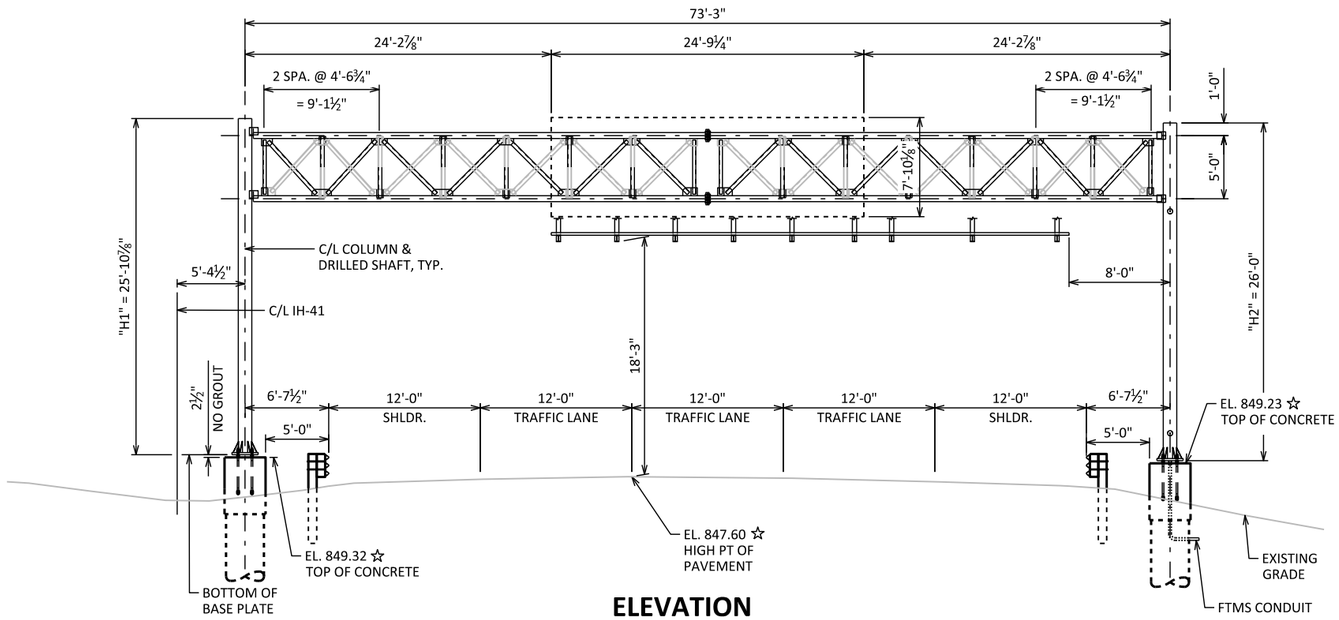
3700-43-70



PLAN

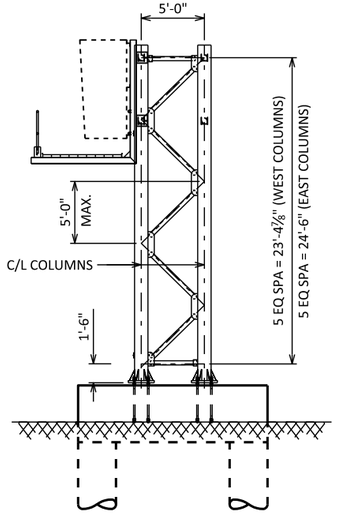


LOCATION MAP



ELEVATION

STA. 382+00
(LOOKING UPSTATION AT FRONT OF SIGN)
IH-41 NB LOCATED NORTH OF CTH Q



END VIEW

(LOOKING WEST)

NOTE

POINT OF MIN. VERTICAL CLEARANCE
STA. 382+00.00, 36.00' RT.
EL. 847.60

"H" DIMENSIONS SHOWN INCLUDE ADDTIONAL 2 INCH FOR VERTICAL CLEARANCE TOLERANCE.

LEGEND

☆ ELEVATIONS GIVEN ALONG C/L TRUSS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-66-401

DRAWN BY WAR | PLANS CK'D KGW

GENERAL LAYOUT S-66-401

SHEET 2 OF 10
132

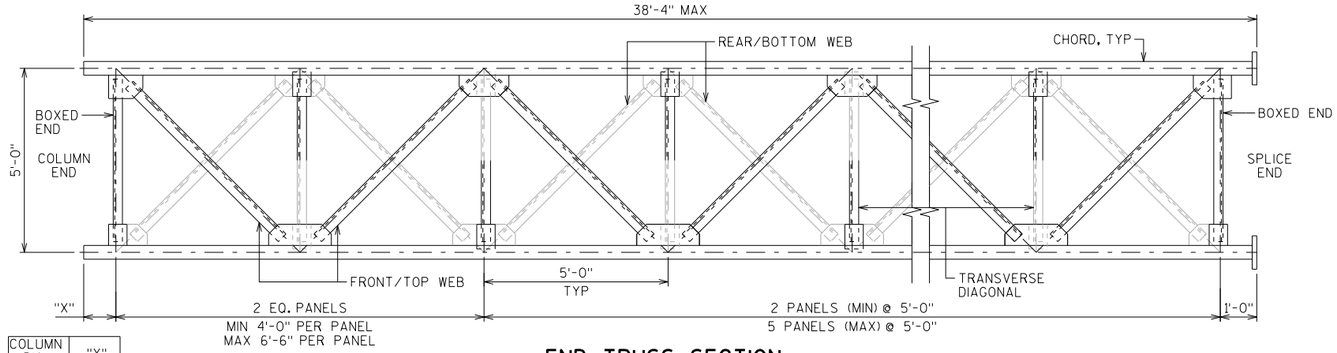
SCALE =

8

8

STATE PROJECT NUMBER

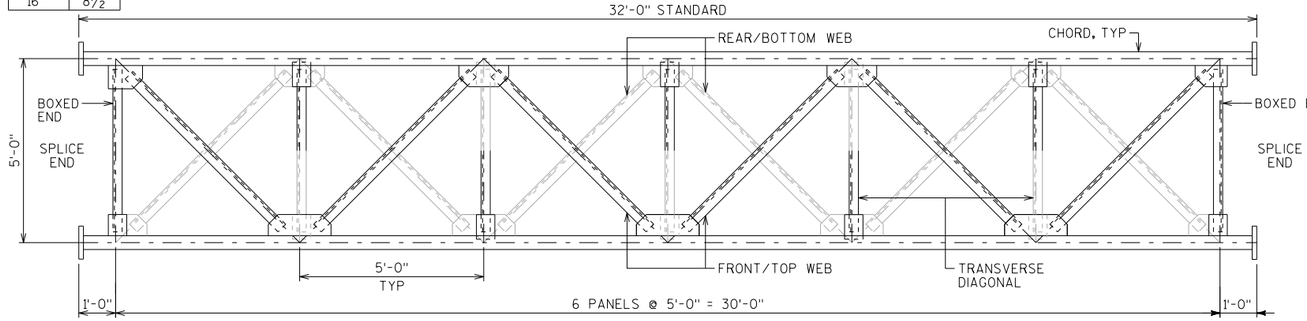
STANDARD



COLUMN DIA.	"X"
12¾"	10⅛"
14"	9½"
16"	8½"

END TRUSS SECTION

LOOKING AT F.F./TOP OF TRUSS

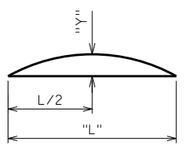


CENTER TRUSS SECTION

LOOKING AT F.F./TOP OF TRUSS

INTERPOLATE FOR VALUES NOT SHOWN

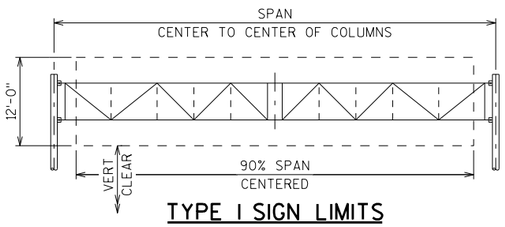
CAMBER VALUES		
SPAN "L"	"Y"	
	TYPE I	DMS
60'-0"	1"	1¼"
82'-0"	1½"	1⅞"
102'-0"	2⅛"	2⅝"
114'-0"	2⅝"	3¼"
130'-0"	3¼"	4"



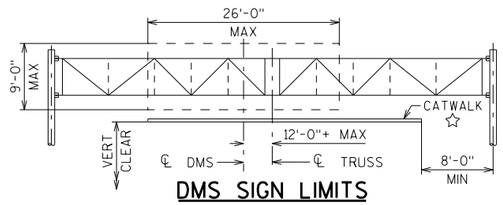
INTERPOLATE FOR VALUES NOT SHOWN. DMS VALUES INCLUDE DL OF CATWALK.

CAMBER DIAGRAM

CAMBER SHALL BE BUILT INTO THE TRUSS DURING FABRICATION. SHIM PLATES BETWEEN TRUSS SECTIONS TO CREATE CAMBER SHALL NOT BE ALLOWED.

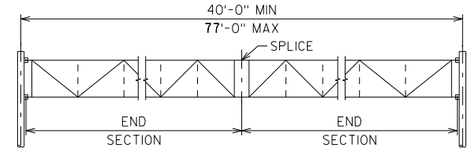


TYPE I SIGN LIMITS

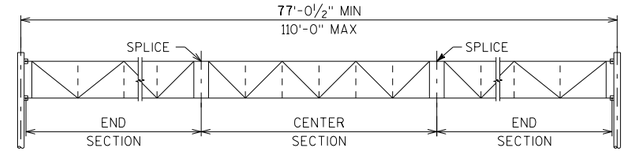


DMS SIGN LIMITS

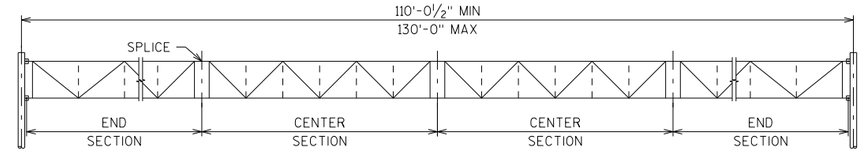
4,500 LB MAX DMS WEIGHT, INCLUDES DMS VERTICAL SUPPORT MEMBERS



2 SECTION TRUSS



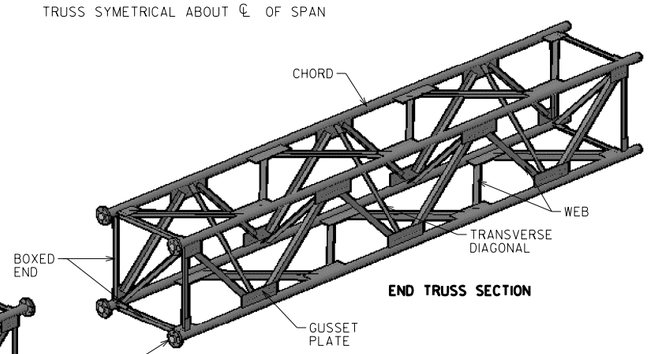
3 SECTION TRUSS



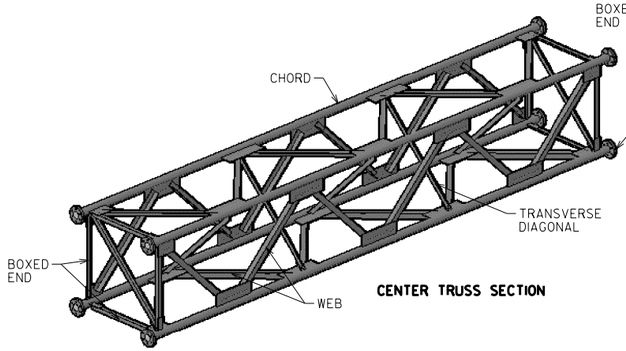
4 SECTION TRUSS

TRUSS CONFIGURATIONS

TRUSS SYMETRICAL ABOUT ℄ OF SPAN



END TRUSS SECTION



CENTER TRUSS SECTION

TYPICAL TRUSS SECTION

THE GENERAL PATTERN SHOWN ABOVE IS TO BE MAINTAINED WHEN ASSEMBLING TRUSSES. INTERIOR DIAGONALS SHOULD CONNECT TO TOP AND BOTTOM TRUSS WEB PANEL POINTS.

FULL SPAN 4-CHORD TRUSS MEMBER TABLE

STANDARD DESIGN TRUSS	TYPE I SIGN AREA (FT^2)	DMS AREA (FT^2)	MAXIMUM SPAN RANGE	CHORD OUTER DIA. X THK	WEB W X D X THK	BOXED END W X D X THK	TRANSVERSE DIAGONAL W X D X THK	SPLICE PLATE OUTER DIA. X THK	CHORD SPLICE NO. ¾" BOLTS
I	648	234	60'-0"	5.563" X 0.258"	L3½X3½X5⁄16	L3X3X¼	L3X3X¼	11" X 1½"	8
II	885	234	82'-0"	5.563" X 0.375"	L3½X3½X⅜	L3X3X¼	L3X3X¼	11⅝" X 1½"	8
III	1102	234	102'-0"	5.563" X 0.500"	L4X4X⅜	L3X3X¼	L3X3X¼	11⅝" X 1½"	8
IV	1232	234	114'-0"	6.625" X 0.375"	L4X4X7⁄16	L3X3X¼	L3X3X¼	1'-0⅝" X 1½"	8
V	1404	234	130'-0"	6.625" X 0.500"	L4X4X½	L3X3X¼	L3X3X¼	1'-0⅝" X 1½"	8

LEGEND

☆FOR OSS WITH DMS ONLY, SEE "CATWALK DETAILS" SHEET

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

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4-CHORD TRUSS FULL SPAN TRUSS DETAILS

SHEET I OF VIII

133

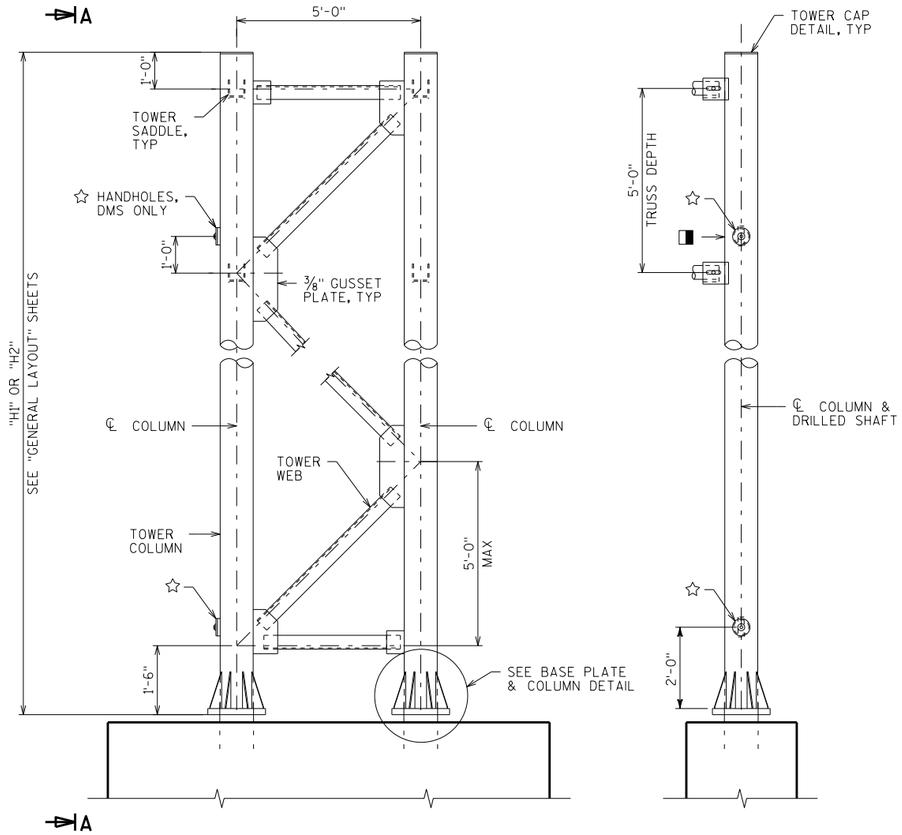
SCALE = 2.00

8

8

STATE PROJECT NUMBER

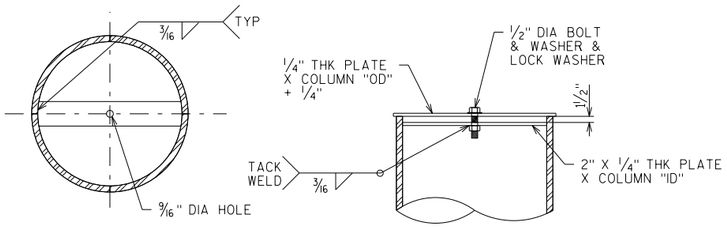
STANDARD



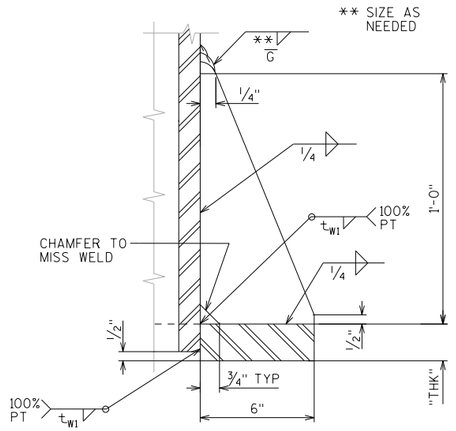
END VIEW COLUMN TRUSS

SECTION A-A

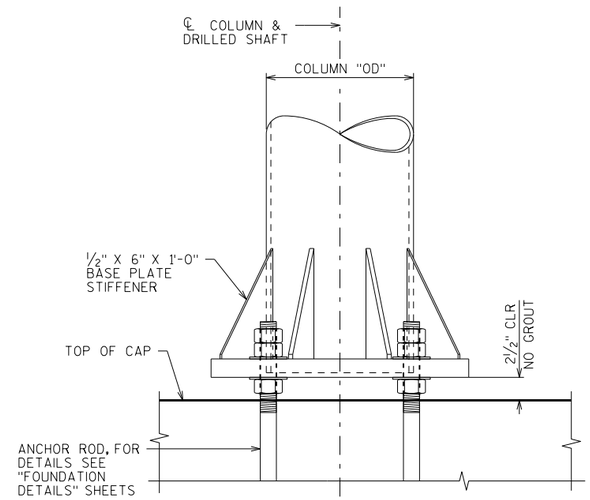
LOOKING AT F.F. OF STRUCTURE
OTHER COLUMN TRUSS SIMILAR



TOWER CAP DETAIL

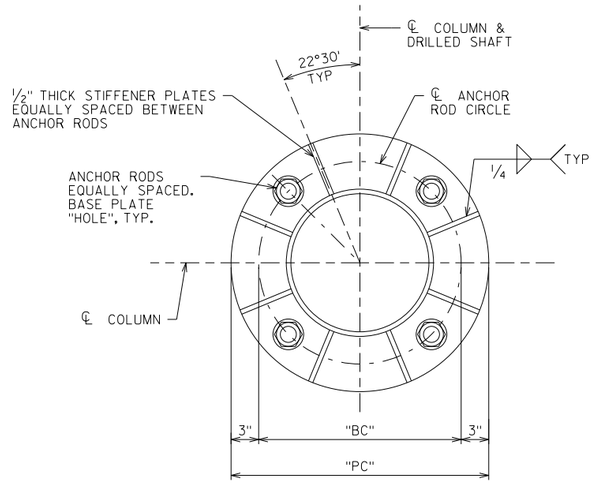


BASE PLATE STIFFENER DETAIL



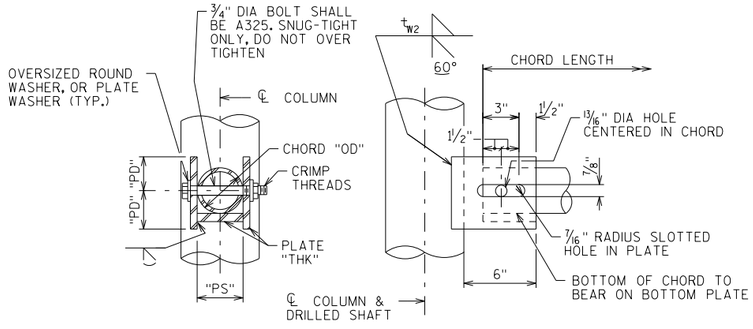
BASE PLATE & COLUMN DETAIL

LOOKING AT FRONT FACE OF STRUCTURE



BASE PLATE

PLAN



TOWER SADDLE CONNECTION DETAILS

BOLT AND HOLE DIMENSIONS SHOWN ARE MINIMUM

FULL SPAN 4-CHORD COLUMN MEMBER TABLE

STANDARD DESIGN TYPE	MAXIMUM COLUMN HEIGHT	COLUMN OUTER DIA x THK	WEB W x D x THK	STIFFENER W x D x THK	BASE PLATE					TOWER SADDLE CONNECTION			
					"t_{w1}"	"HOLE"	"THK"	"BC"	"PC"	"t_{w2}"	"THK"	"PS"	"PD"
I	31'-0"	12.75" x 0.250"	L3 1/2x3 1/2x3/8	6" x 12" x 1/2"	5/16"	1 13/16"	2"	1'-6 3/4"	2'-0 3/4"	1/4"	3/8"	5 3/16"	3 1/4"
II	31'-0"	12.75" x 0.375"	L4x4x3/8	6" x 12" x 1/2"	5/16"	1 13/16"	2"	1'-6 3/4"	2'-0 3/4"	1/4"	3/8"	5 3/4"	3 9/16"
III	31'-0"	12.75" x 0.500"	L4x4x1/2	6" x 12" x 1/2"	5/16"	2 1/16"	2"	1'-6 3/4"	2'-0 3/4"	1/4"	7/16"	5 3/4"	3 9/16"
IV	31'-0"	14.00" x 0.500"	L5x5x7/16	6" x 12" x 1/2"	5/16"	2 1/16"	2"	1'-8"	2'-2"	1/4"	7/16"	6 13/16"	4 1/16"
V	31'-0"	16.00" x 0.500"	L5x5x1/2	6" x 12" x 1/2"	5/16"	2 1/16"	2"	1'-10"	2'-4"	1/4"	1/2"	6 13/16"	4 1/16"

LEGEND

☆ FOR OSS WITH DMS ONLY, PROVIDE HANDHOLES AT COLUMN ADJACENT TO DMS. SEE "ELECTRICAL DETAILS" SHEET

◨ FOR OSS WITH DMS ONLY, DRILL HOLE AND TAP FOR (2) 2" STD. PIPE THREADS. LOCATE BOTTOM HOLE 6" UP FROM TOP OF BOTTOM CHORD AND SPACE VERTICALLY AT 6" C/C. PLACE CONDUIT PLUG IN HOLES THAT ARE NOT USED FOR WIRING SIGN PANELS.

NO.	DATE	REVISION	BY

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4-CHORD TRUSS FULL SPAN COLUMN DETAILS

SHEET II OF VIII

134

SCALE = 2.00

8

8

STATE PROJECT NUMBER

STANDARD

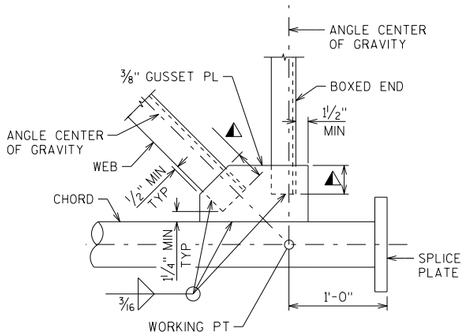
NOTE

FABRICATOR HAS THE OPTION TO USE NON-MITERED, RECTANGULAR GUSSET PLATES IN LIEU OF MITERED PLATES SHOWN ON THESE DETAILS.

MEMBER CONNECTION DATA

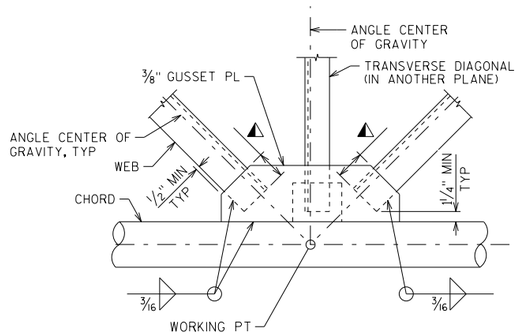
STANDARD DESIGN TYPE	WELD LEG LENGTH		NO. OF BOLTS	
	◭	◐	◪	☆
I	3" MIN	4" MIN	3	3
II	3½" MIN	6" MIN	3	3
III	3½" MIN	6" MIN	5	3
IV	4" MIN	6¼" MIN	5	4
V	4½" MIN	7¼" MIN	5	4

FOR ALL ANGLE TO GUSSET CONNECTIONS, BOLT SPACING = 2½"

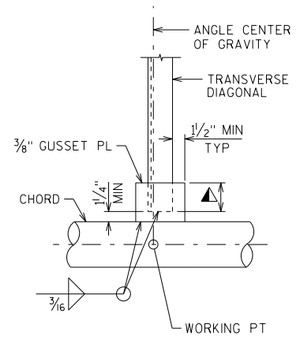


WELDED BOXED END CONNECTION

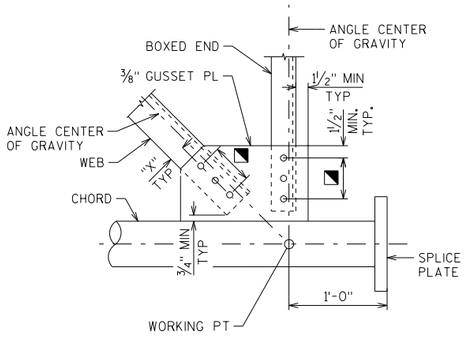
CONNECTION SHOWN AT CHORD SPLICE, CONNECTION AT COLUMN END SIMILAR



WELDED PANEL CONNECTION

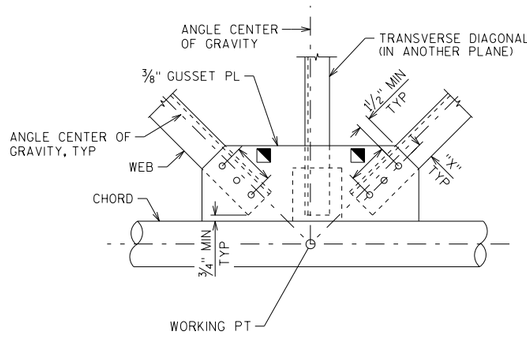


WELDED TRANSVERSE DIAGONAL CONNECTION

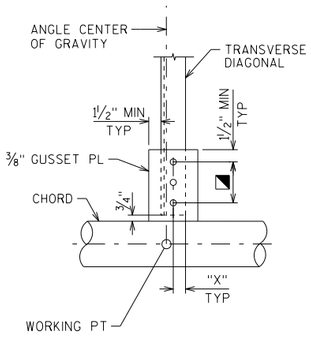


BOLTED BOXED END CONNECTION

CONNECTION SHOWN AT CHORD SPLICE, CONNECTION AT COLUMN END SIMILAR



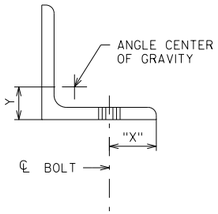
BOLTED PANEL CONNECTION

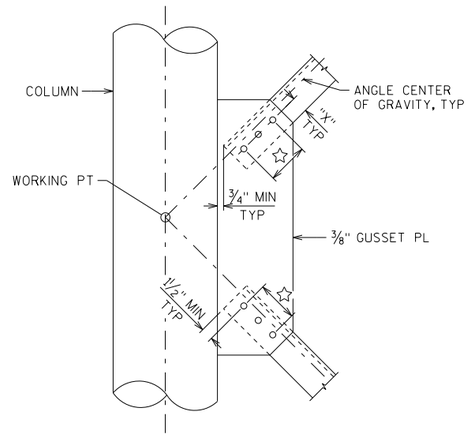


BOLTED TRANSVERSE DIAGONAL CONNECTION

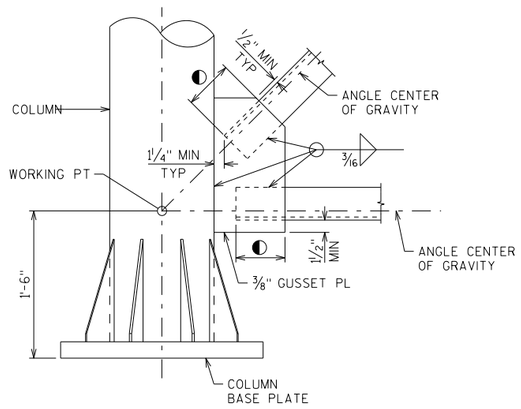
ANGLE DATA

ANGLE SIZE	$\bar{y}$	"X"
L3X3X¼	0.836"	1¼"
L3½X3½X5/16	0.979"	1½"
L3½X3½X⅜	1.00"	1½'
L4X4X⅜	1.13"	1½"
L4X4X7/16	1.15"	1½"
L4X4X½	1.18	1½"
L5X5X7/16	1.40"	2"
L5X5X½	1.42"	2"



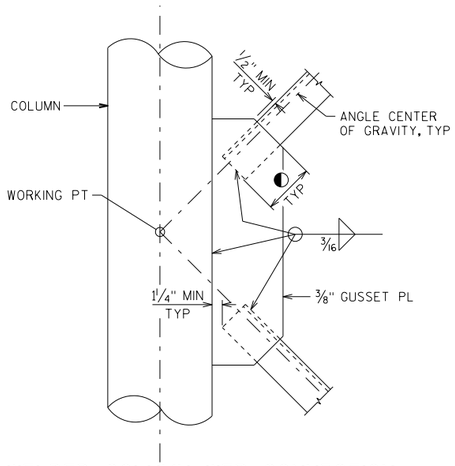


BOLTED COLUMN WEB CONNECTION

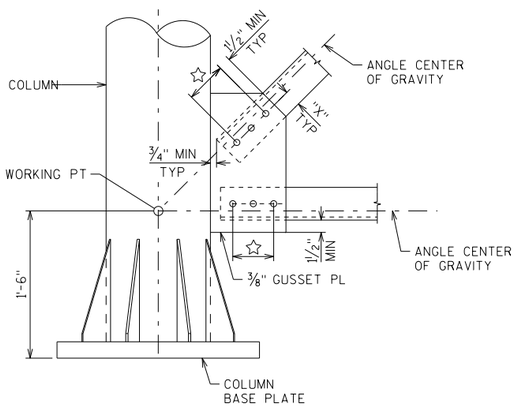


WELDED COLUMN BOTTOM CONNECTION

TOP CONNECTION SIMILAR



WELDED COLUMN WEB CONNECTION



BOLTED COLUMN BOTTOM CONNECTION

TOP CONNECTION SIMILAR

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4-CHORD TRUSS FULL SPAN CONNECTIONS 1

SHEET III OF VIII

135

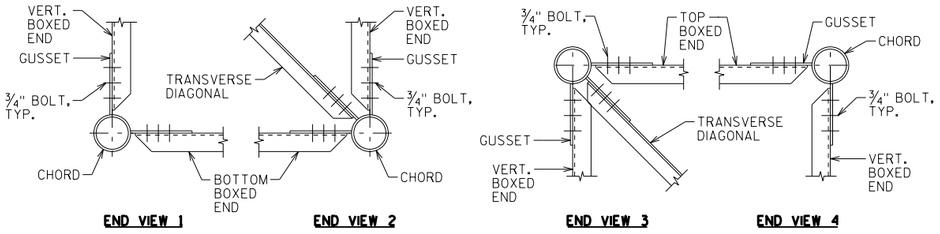
SCALE = 1.50

8

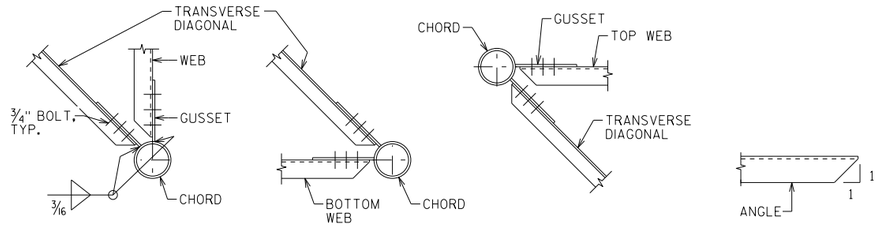
8

STATE PROJECT NUMBER

STANDARD



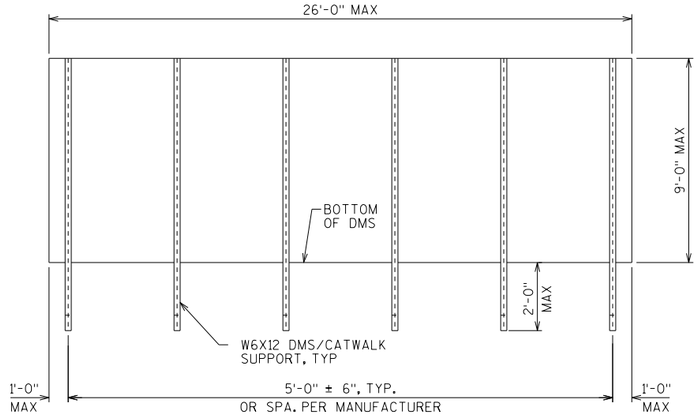
END VIEW 1 | END VIEW 2 | END VIEW 3 | END VIEW 4



END VIEW 1 | END VIEW 2 | END VIEW 3 | CLIP DETAIL

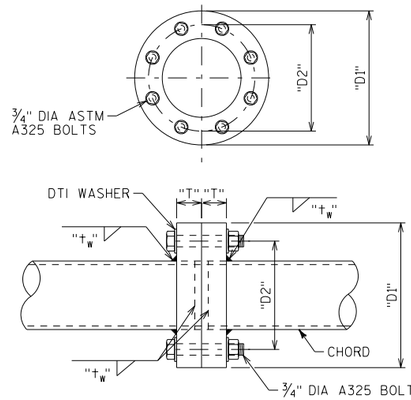
TRUSS CONNECTION DETAILS

BOLTED CONNECTIONS SHOWN, WELDED CONNECTIONS SIMILAR

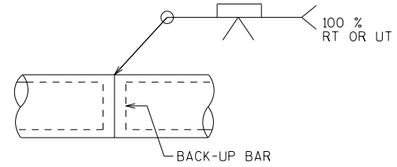


DMS MOUNTING POST SPACING DETAIL

POST SPACING MAY BE ADJUSTED AS REQUIRED IF CONFLICT WITH TRUSS IS ENCOUNTERED.



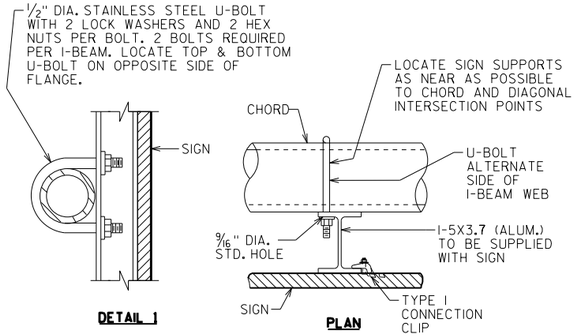
CHORD SPLICE PLATE DETAIL



CHORD SPLICE

CHORD SPLICE CONNECTION DATA

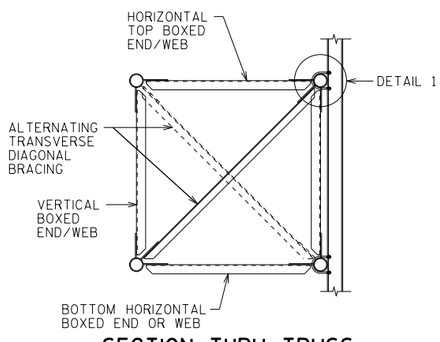
STANDARD DESIGN TRUSS	"D1"	"D2"	"T"	"+w"	# OF BOLTS
I	11"	8"	1½"	5/16"	8
II	11⅝"	8⅝"	1½"	5/16"	8
III	11⅝"	8⅝"	1½"	⅜"	8
IV	1'-0⅝"	9⅝"	1½"	⅜"	8
V	1'-0⅝"	9⅝"	1½"	⅜"	8



DETAIL 1 | PLAN

TYPICAL SIGN CONNECTION

USE FOR TYPE I AND II SIGNS
SEE SIGN PLATE MANUAL A4-7A & A4-7B FOR DETAILS

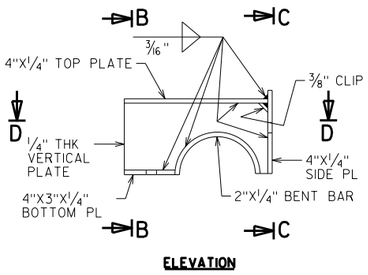


SECTION THRU TRUSS

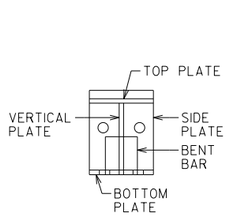
FOR SIGN CONNECTION

ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL

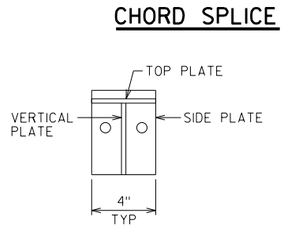
HARDWARE TO BE SUPPLIED BY THE CONTRACTOR



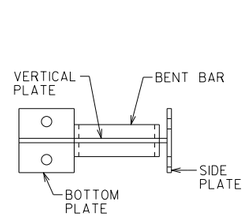
ELEVATION



SECTION B-B



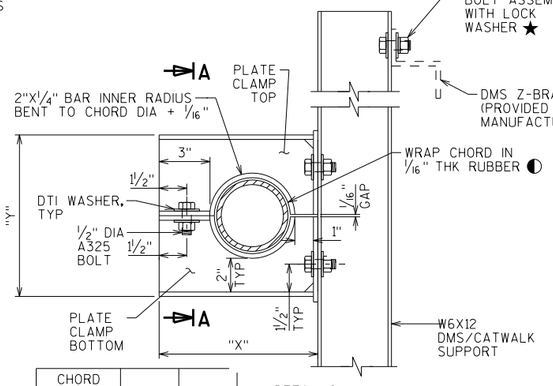
SECTION C-C



SECTION D-D

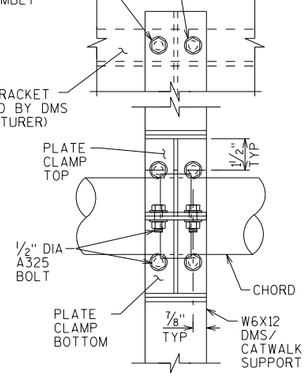
DMS WELDED PLATE CONNECTION DETAILS

TOP PLATE CLAMP SHOWN
BOTTOM PLATE CLAMP SIMILAR



CHORD OUTER DIA	"X"	"Y"
5.000"	9 13/16"	10 1/16"
5.563"	10 3/8"	10 5/8"
6.625"	11 7/16"	11 11/16"

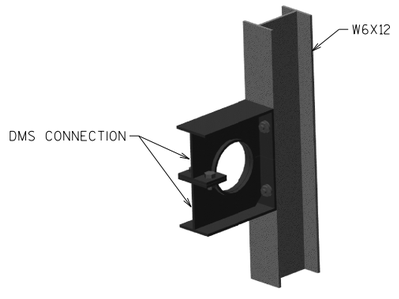
DETAIL 2



SECTION A-A

TYPICAL DMS CONNECTION

◐ NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD SPEC 506.2.6.1



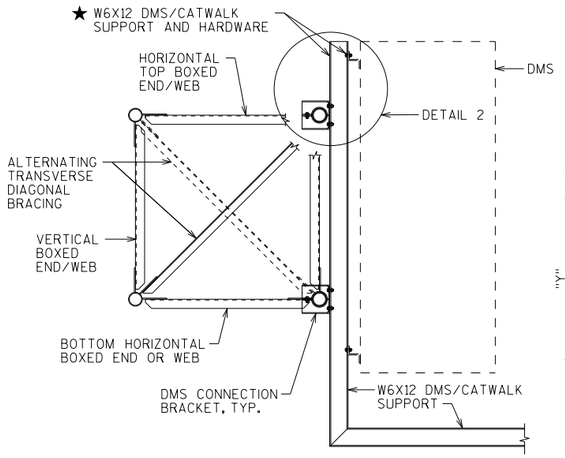
3-D VIEW DMS CONNECTION

CHORD NOT SHOWN FOR CLARITY

SECTION THRU TRUSS

FOR DMS/CATWALK CONNECTION

★ W6X12 SUPPORTS AND HARDWARE ARE TO BE SUPPLIED BY THE CONTRACTOR. ½" STAINLESS BOLT, NUT, WASHER AND LOCK WASHER REQUIRED, 4 PER W6X12.



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4-CHORD TRUSS FULL SPAN CONNECTIONS 2

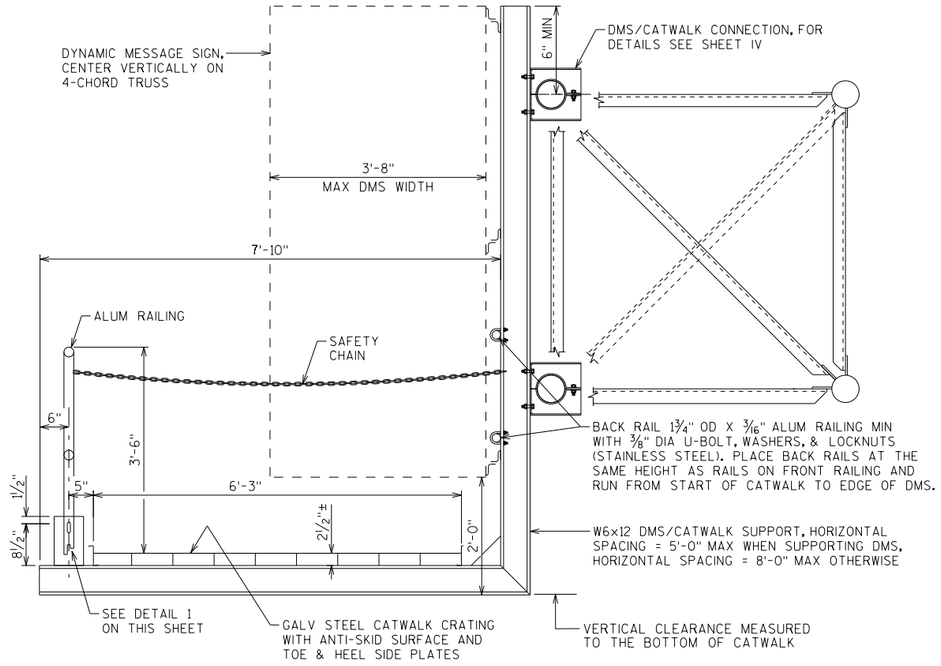
SHEET IV OF VIII

136

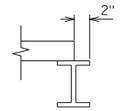
SCALE = 2.00

STATE PROJECT NUMBER

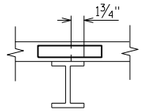
STANDARD



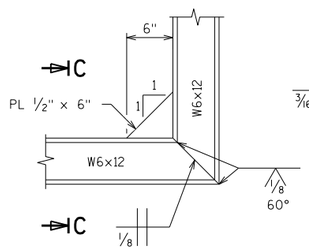
SECTION THRU WALKWAY



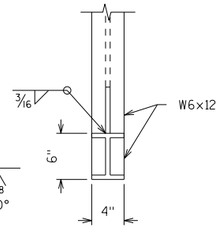
CATWALK TERMINATION DETAIL



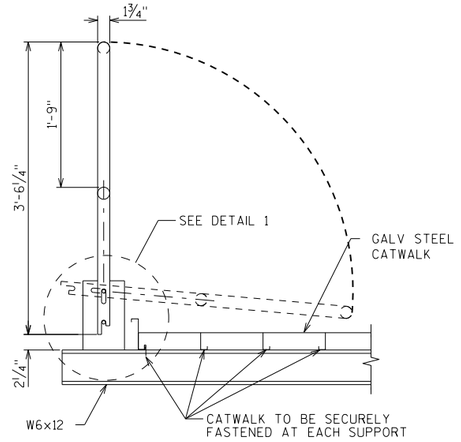
CATWALK SPLICE LOCATION DETAIL



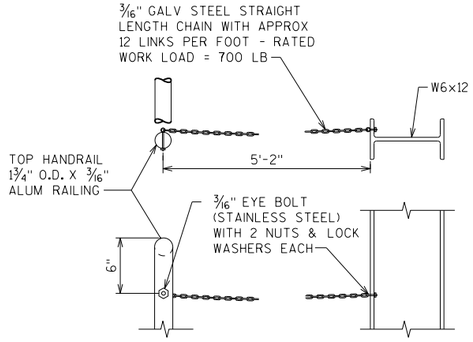
BRACKET DETAIL



SECTION C-C

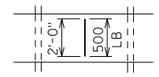


RAIL POST DETAIL

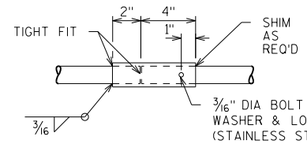


SAFETY CHAIN DETAIL

(PROVIDE SAFETY CHAIN AT EACH END OF THE CATWALK)

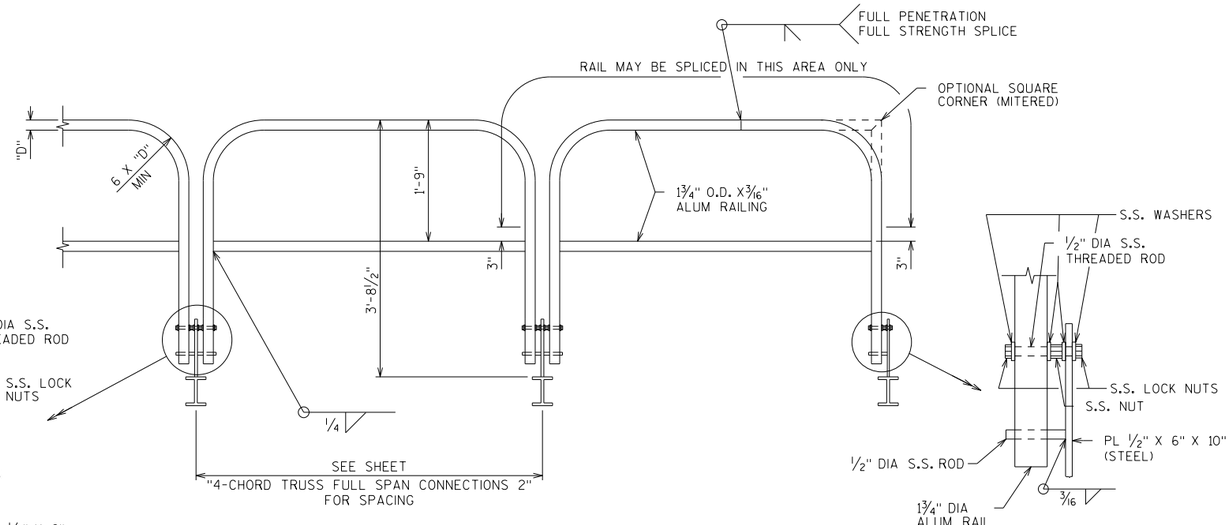


NOTE:
CATWALK GRATING SHALL MEET THE CURRENT AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", (500 LB LIVE LOAD DISTRIBUTED OVER 2'-0" TRANSVERSELY - MAX SPAN IS 8'-0"). CATWALK SHALL ALSO MEET CURRENT OSHA STD'S FOR WALKING-WORKING SURFACES.

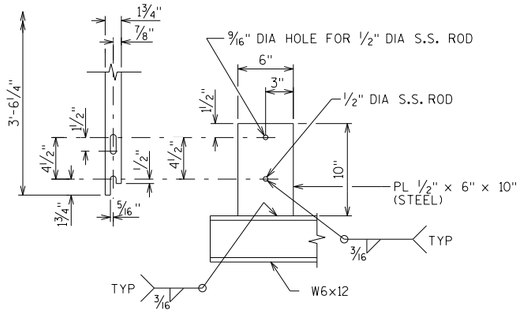


BACKRAIL SPLICE

ONE SPLICE ALLOWED FOR LENGTHS OVER 30'-0"



TYPICAL FRONT RAILING DETAILS



DETAIL 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

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4-CHORD TRUSS FULL SPAN CATWALK DETAILS

SHEET V OF VIII

137

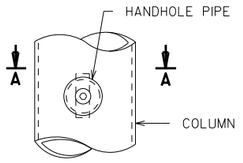
SCALE = 1.25

8

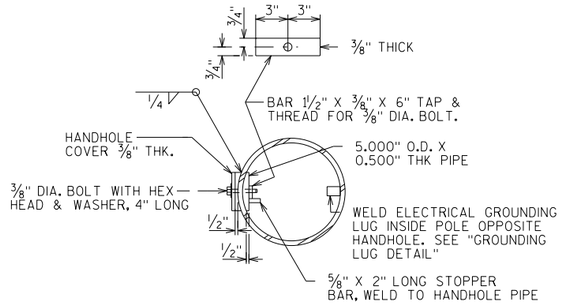
8

STATE PROJECT NUMBER

STANDARD



HANDHOLE DETAILS

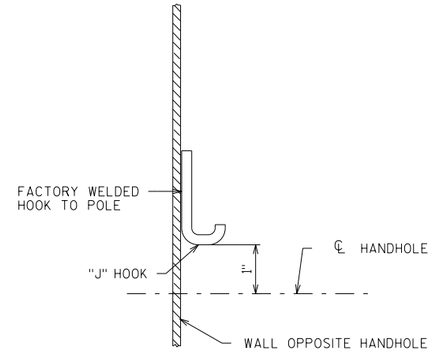


SECTION A-A

HANDHOLE NOTES

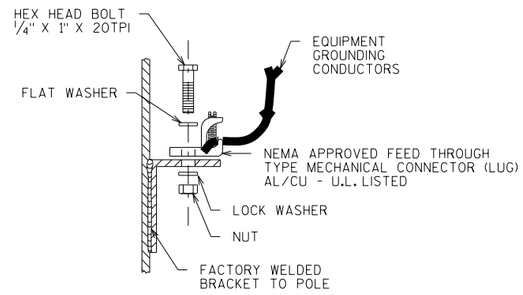
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION PRIOR TO FABRICATION OF THE SIGN BRIDGE COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN ON THE ELECTRICAL PLAN DETAIL SHEETS.

UNLESS NOTED OTHERWISE, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER THE WISDOT STANDARD SPECIFICATIONS.



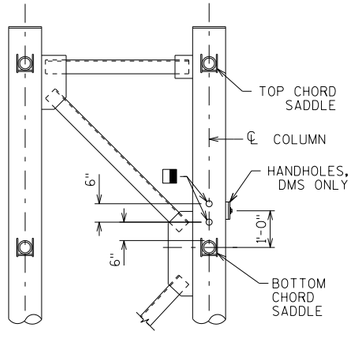
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF ALL COLUMNS CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.



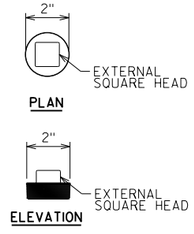
GROUNDING LUG DETAIL

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

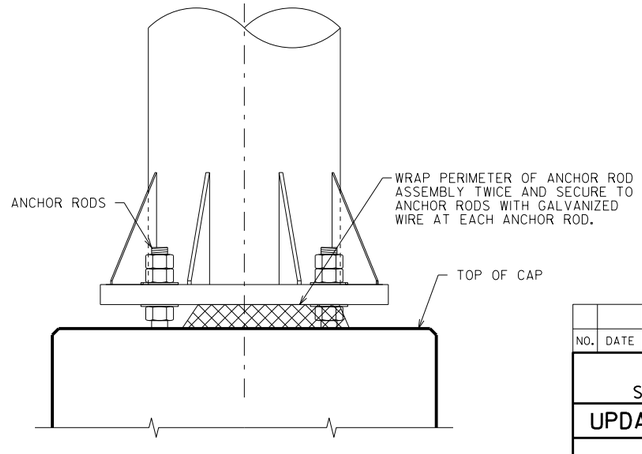


CONDUIT HOLE LOCATIONS

◧ 2" THREADED HOLE USE THREADED CONDUIT PLUG FOR UNUSED HOLES



CONDUIT PLUG DETAILS



RODENT SCREEN

(ONLY REQ'D. WHEN ELECTRICAL DEVICES ARE INSTALLED)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS FULL SPAN ELECTRICAL DETAILS

SHEET VI OF VIII

138

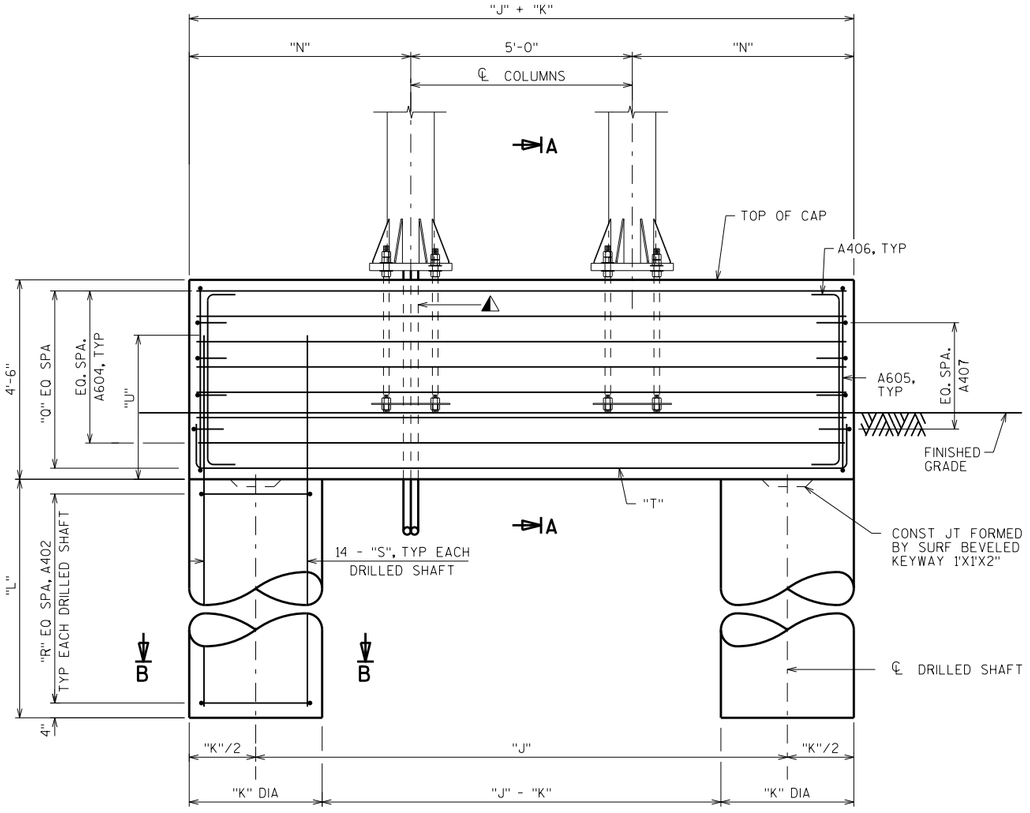
SCALE = 1.00

8

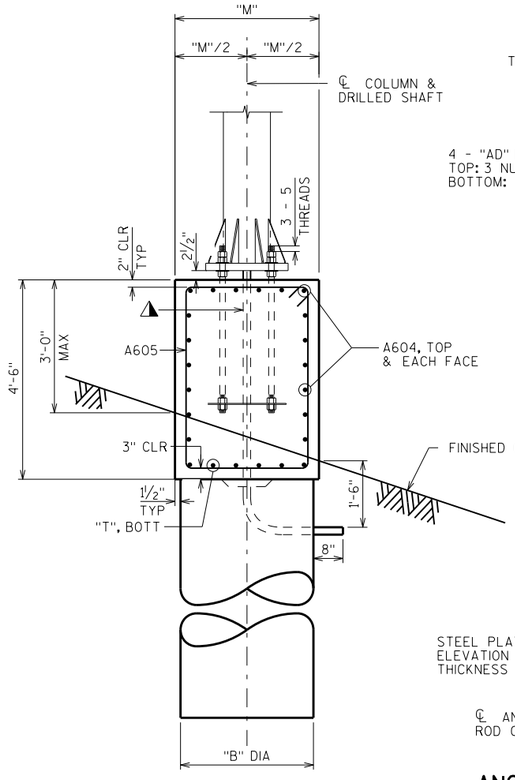
8

STATE PROJECT NUMBER

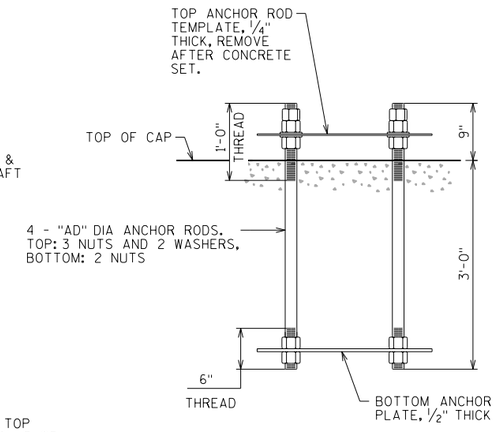
STANDARD



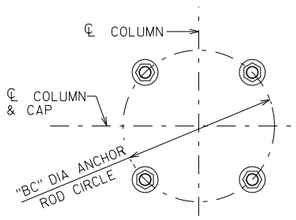
ELEVATION



SECTION A-A



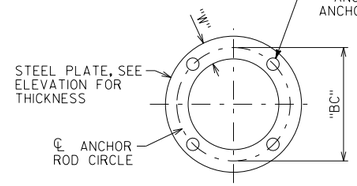
ELEVATION



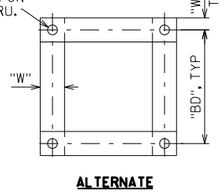
PLAN

ANCHOR ROD ASSEMBLY DETAILS

SINGLE ASSEMBLY SHOWN
4 ANCHOR RODS REQ'D PER ASSEMBLY



ANCHOR PLATE/TOP TEMPLATE
PLAN

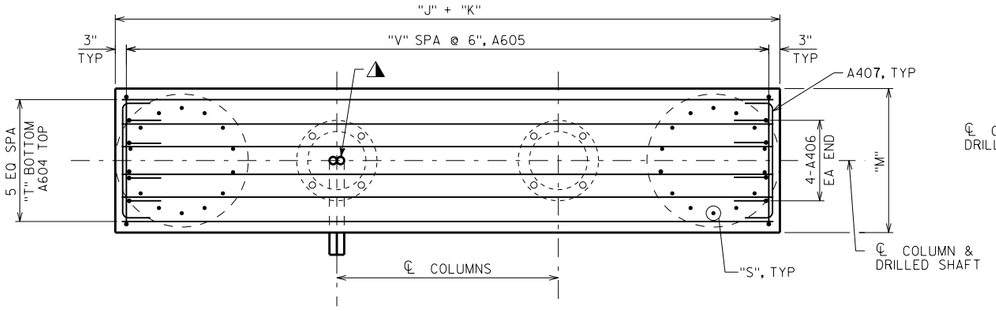


ALTERNATE

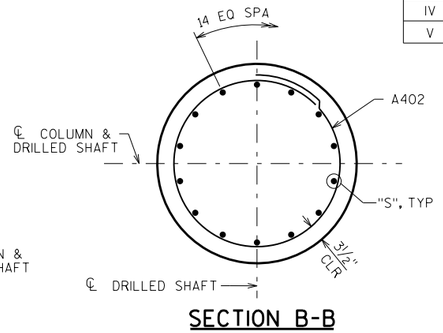
ANCHOR PLATE/TOP TEMPLATE
PLAN

FOUNDATION, REINFORCING & ANCHOR PLATE DATA

STD DESIGN TRUSS	FOUNDATION DIMENSIONS											ANCHOR PLATE DIMENSIONS			
	"J"	"K"	"L"	"M"	"N"	"Q"	"R"	"S"	"T"	"U"	"V"	"AD"	"BC"	"BD"	"W"
I	9'-0"	3'-0"	19'-0"	3'-3"	3'-6"	7	19	A801	A603	2'-2"	17	1½"	1'-6¾"	1'-1¼"	3"
II	12'-0"	3'-0"	22'-0"	3'-3"	5'-0"	7	22	A801	A603	2'-2"	23	1½"	1'-6¾"	1'-1¼"	3"
III	12'-0"	3'-6"	23'-0"	3'-9"	5'-3"	7	23	A901	A703	2'-9"	23	1¾"	1'-6¾"	1'-1¼"	3½"
IV	15'-0"	3'-6"	23'-0"	3'-9"	6'-9"	7	29	A901	A703	2'-9"	29	1¾"	1'-8"	1'-2⅛"	3½"
V	15'-0"	4'-0"	23'-0"	4'-3"	7'-0"	8	23	A1001	A703	3'-5"	29	1¾"	1'-10"	1'-3⅝"	3½"



PLAN



SECTION B-B

TYPICAL FOR EACH DRILLED SHAFT FOOTING

NOTES

CENTER ANCHOR ROD ASSEMBLY AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED ON PLAN. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR RODS.

LEGEND

⚠ 2 - 2" DIA NONMETALLIC CONDUITS, INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO THE DMS. CONDUITS INCIDENTAL TO THE FOUNDATION BID ITEMS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS FULL SPAN FOUNDATIONS 1

SHEET VII OF VIII

139

8

8

SCALE = 1.66

STATE PROJECT NUMBER

STANDARD

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

BILL OF BARS - STANDARD DESIGN TYPE I

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		56	24'-2"			DRILLED SHAFT - VERTICAL
A402		80	9'-0"	X		DRILLED SHAFT - HORIZONTAL
A603	X	12	13'-3"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	11'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	48	14'-10"	X		CAP - STIRRUP
A406	X	16	5'-2"	X		CAP - VERTICAL - EACH END
A407	X	16	3'-5"	X		CAP - HORIZONTAL - EACH END

BILL OF BARS - STANDARD DESIGN TYPE II

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		56	24'-2"			DRILLED SHAFT - VERTICAL
A402		92	9'-0"	X		DRILLED SHAFT - HORIZONTAL
A603	X	12	16'-3"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	14'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	60	14'-10	X		CAP - STIRRUP
A406	X	16	5'-2"	X		CAP - VERTICAL - EACH END
A407	X	16	3'-5"	X		CAP - HORIZONTAL - EACH END

BILL OF BARS - STANDARD DESIGN TYPE III

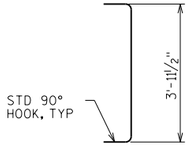
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		56	25'-9"			DRILLED SHAFT - VERTICAL
A402		96	10'-6"	X		DRILLED SHAFT - HORIZONTAL
A703	X	12	17'-1"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	15'-2"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	62	15'-10	X		CAP - STIRRUP
A406	X	16	5'-2"	X		CAP - VERTICAL - EACH END
A407	X	16	3'-11"	X		CAP - HORIZONTAL - EACH END

BILL OF BARS - STANDARD DESIGN TYPE IV

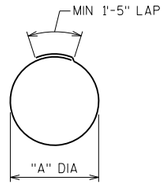
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		56	25'-9"			DRILLED SHAFT - VERTICAL
A402		120	10'-6"	X		DRILLED SHAFT - HORIZONTAL
A703	X	12	20'-1"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	18'-2"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	74	15'-10	X		CAP - STIRRUP
A406	X	16	5'-2"	X		CAP - VERTICAL - EACH END
A407	X	16	3'-11"	X		CAP - HORIZONTAL - EACH END

BILL OF BARS - STANDARD DESIGN TYPE V

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		56	26'-5"			DRILLED SHAFT - VERTICAL
A402		96	12'-1"	X		DRILLED SHAFT - HORIZONTAL
A703	X	12	20'-7"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	36	18'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	76	16'-10	X		CAP - STIRRUP
A406	X	16	5'-2"	X		CAP - VERTICAL - EACH END
A407	X	16	4'-5"	X		CAP - HORIZONTAL - EACH END

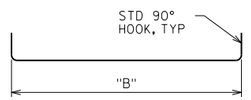


A406



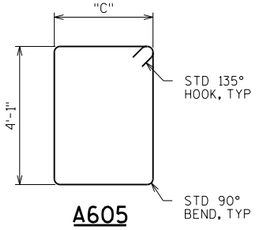
A402

DESIGN TYPE	"A"
I	2'-5"
II	2'-5"
III	2'-11"
IV	2'-11"
V	3'-5"



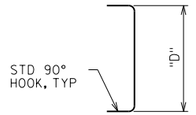
A603, A703

DESIGN TYPE	BAR MARK	"B"
I	A603	11'-7"
II	A603	14'-7"
III	A703	15'-1"
IV	A703	18'-1"
V	A703	18'-7"



A605

DESIGN TYPE	"C"
I	2'-11"
II	2'-11"
III	3'-5"
IV	3'-5"
V	3'-11"



A407

DESIGN TYPE	"D"
I	2'-9½"
II	2'-9½"
III	3'-3½"
IV	3'-3½"
V	3'-9½"

BAR BENDING DIAGRAMS

NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

ESTIMATED QUANTITIES - FOUNDATION

STANDARD DESIGN TRUSS	CONCRETE MASONRY (CY)	STEEL REINFORCEMENT HS (LBS)	STEEL REINFORCEMENT HS COATED (LBS)	ANCHOR ASSEMBLY 1½-INCH (EACH)	ANCHOR ASSEMBLY 1¾-INCH (EACH)	FOUNDATION DRILLNG (LF)		
						36" DIA.	42" DIA.	48" DIA.
I	33	4,100	2,030	4	----	76	----	----
II	40	4,170	2,520	4	----	88	----	----
III	53	5,580	2,810	----	4	----	92	----
IV	56	5,750	3,340	----	4	----	92	----
V	70	7,140	3,540	----	4	----	----	92

** QUANTITIES ARE FOR INFORMATION ONLY AND ARE BASED ON STANDARD STRUCTURE DIMENSIONS**

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS
FULL SPAN
FOUNDATIONS 2

SHEET VIII OF VIII

140

SCALE = 0.50

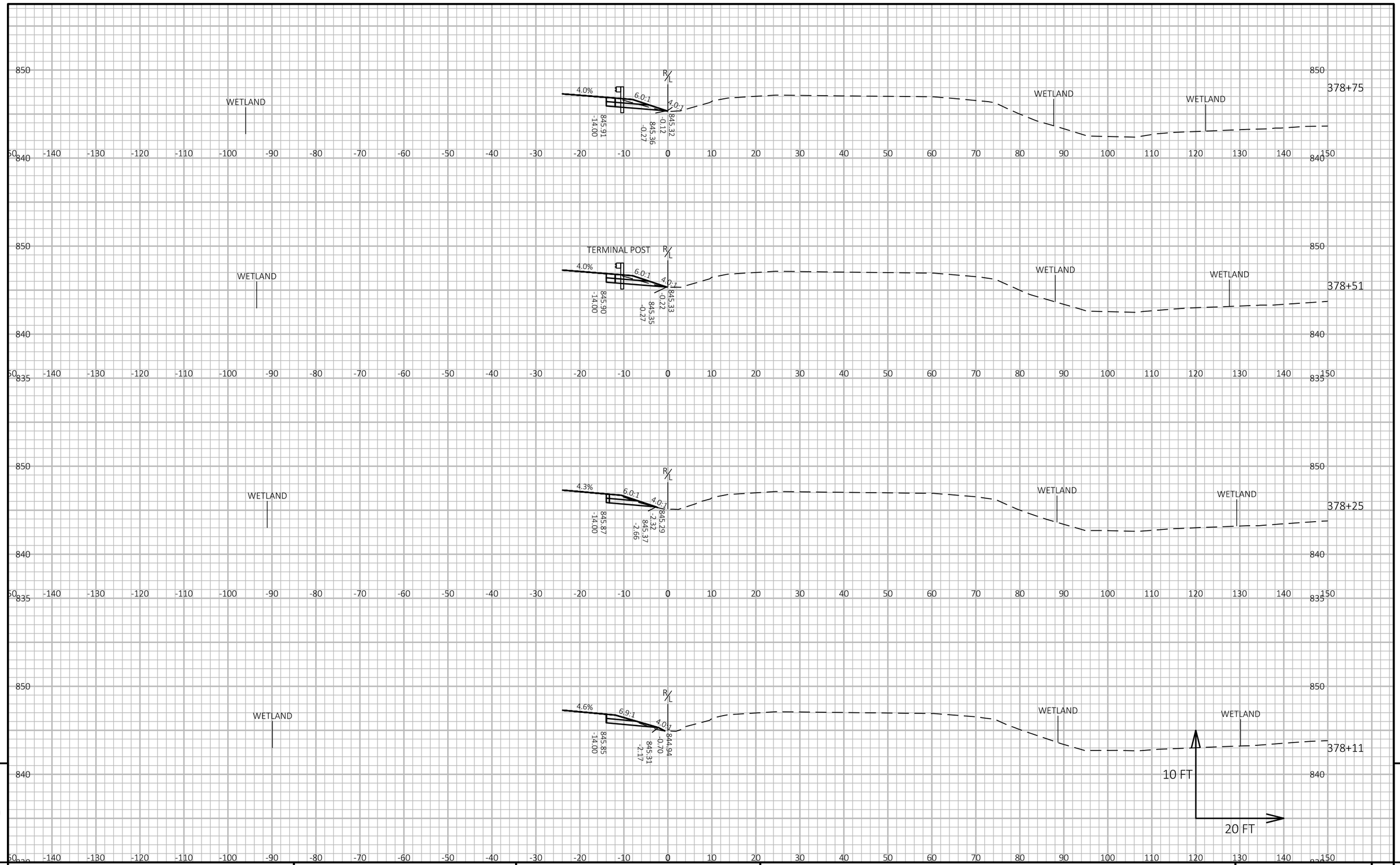
DIVISION 1 - USH 41 - SECTION A

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	FILL	MARSH EXC	CUT	FILL	MARSH EXC	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
378+11.216	37811.22	0.00	6.24	0.46	0.00	0	0	0	0	0	0
378+25	37825.00	13.78	6.46	0.02	0.00	3	0	0	3	0	3
378+51.202	37851.20	26.20	0.00	0.00	0.00	3	0	0	6	0	6
378+75	37875.00	23.80	7.30	0.03	0.00	3	0	0	9	0	9
378+90.931	37890.93	15.93	32.86	0.23	0.00	12	0	0	21	0	21
379+00	37900.00	9.07	32.91	0.75	0.00	11	0	0	32	0	32
379+25	37925.00	25.00	35.49	0.20	0.00	32	0	0	64	0	64
379+50	37950.00	25.00	35.89	0.12	0.00	33	0	0	97	0	97
379+70	37970.00	20.00	35.99	0.29	0.00	27	0	0	124	0	124
379+75	37975.00	5.00	36.03	0.24	0.00	7	0	0	131	0	131
380+00	38000.00	25.00	35.77	1.60	8.00	33	1	4	164	1	163
380+10	38010.00	10.00	36.13	2.41	8.00	13	1	3	177	3	175
380+25	38025.00	15.00	34.88	0.81	8.00	20	1	4	197	4	193
380+34.985	38034.99	9.99	35.01	0.22	8.00	13	0	3	210	4	206
380+50	38050.00	15.01	35.13	0.74	8.00	20	0	4	230	4	226
380+59.967	38059.97	9.97	34.81	1.10	0.00	13	0	1	243	4	239
380+75	38075.00	15.03	34.24	0.87	0.00	19	1	0	262	5	257
381+00	38100.00	25.00	33.41	1.11	0.00	31	1	0	293	6	287
381+25	38125.00	25.00	35.17	0.69	0.00	32	1	0	325	8	318
381+50	38150.00	25.00	37.06	0.28	0.00	33	0	0	358	8	351
381+75	38175.00	25.00	35.15	0.45	0.00	33	0	0	391	8	384
382+00	38200.00	25.00	34.01	0.68	0.00	32	1	0	423	9	414
382+25	38225.00	25.00	35.10	0.31	0.00	32	0	0	455	9	446
382+50	38250.00	25.00	35.49	0.29	0.00	33	0	0	488	9	479
382+63	38263.00	13.00	35.71	0.28	0.00	17	0	0	505	9	496
382+75	38275.00	12.00	34.53	0.53	0.00	16	0	0	521	9	512
383+03.09	38303.09	28.09	32.21	0.80	0.00	35	1	0	556	10	546
383+25	38325.00	21.91	11.39	0.13	0.00	18	0	0	574	10	564
383+50	38350.00	25.00	11.51	0.36	0.00	11	0	0	585	10	575
383+63	38363.00	13.00	11.94	0.78	0.00	6	0	0	591	10	581
383+75	38375.00	12.00	11.34	0.72	0.00	5	0	0	596	10	586
384+03	38403.00	28.00	9.68	0.35	8.00	11	1	4	607	11	596
384+25	38425.00	22.00	6.32	2.89	0.00	7	1	3	614	13	602
384+50	38450.00	25.00	6.46	0.02	0.00	6	1	0	620	14	606
384+75	38475.00	25.00	6.76	0.02	0.00	6	0	0	626	14	612
385+00	38500.00	25.00	7.02	0.01	0.00	6	0	0	632	14	618
385+25	38525.00	25.00	6.95	0.01	0.00	6	0	0	638	14	624
385+50	38550.00	25.00	6.92	0.04	0.00	6	0	0	644	14	630
385+75	38575.00	25.00	5.25	0.11	0.00	6	0	0	650	14	636
386+00	38600.00	25.00	4.73	0.03	0.00	5	0	0	655	14	641
386+25	38625.00	25.00	5.63	0.50	0.00	5	0	0	660	14	646
386+50	38650.00	25.00	5.79	0.21	0.00	5	0	0	665	14	651
386+66.616	38666.62	16.62	6.70	0.01	0.00	4	0	0	669	14	655
386+75	38675.00	8.38	6.91	0.00	0.00	2	0	0	671	14	657
386+91.599	38691.60	16.60	7.60	0.01	0.00	4	0	0	675	14	661
387+00	38700.00	8.40	8.08	0.03	0.00	2	0	0	677	14	663
387+16.581	38716.58	16.58	7.85	0.06	0.00	5	0	0	682	14	668
387+25	38725.00	8.42	7.49	0.07	0.00	2	0	0	684	14	670
387+50	38750.00	25.00	6.54	0.32	0.00	6	0	0	690	14	676
387+57	38757.00	7.00	6.47	0.27	0.00	2	0	0	692	14	678
387+75	38775.00	18.00	6.24	0.06	0.00	4	0	0	696	14	682
388+00	38800.00	25.00	5.26	0.08	0.00	5	0	0	701	14	687
388+25	38825.00	25.00	6.40	0.43	0.00	5	0	0	706	14	692
388+35.653	38835.65	10.65	0.00	0.00	0.00	1	0	0	707	14	693

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\090202_EARTHWORK.DWG
LAYOUT NAME - 01

PLOT DATE : 7/29/2022 3:31 PM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1" = 1'

WISDOT/CADDS SHEET 49



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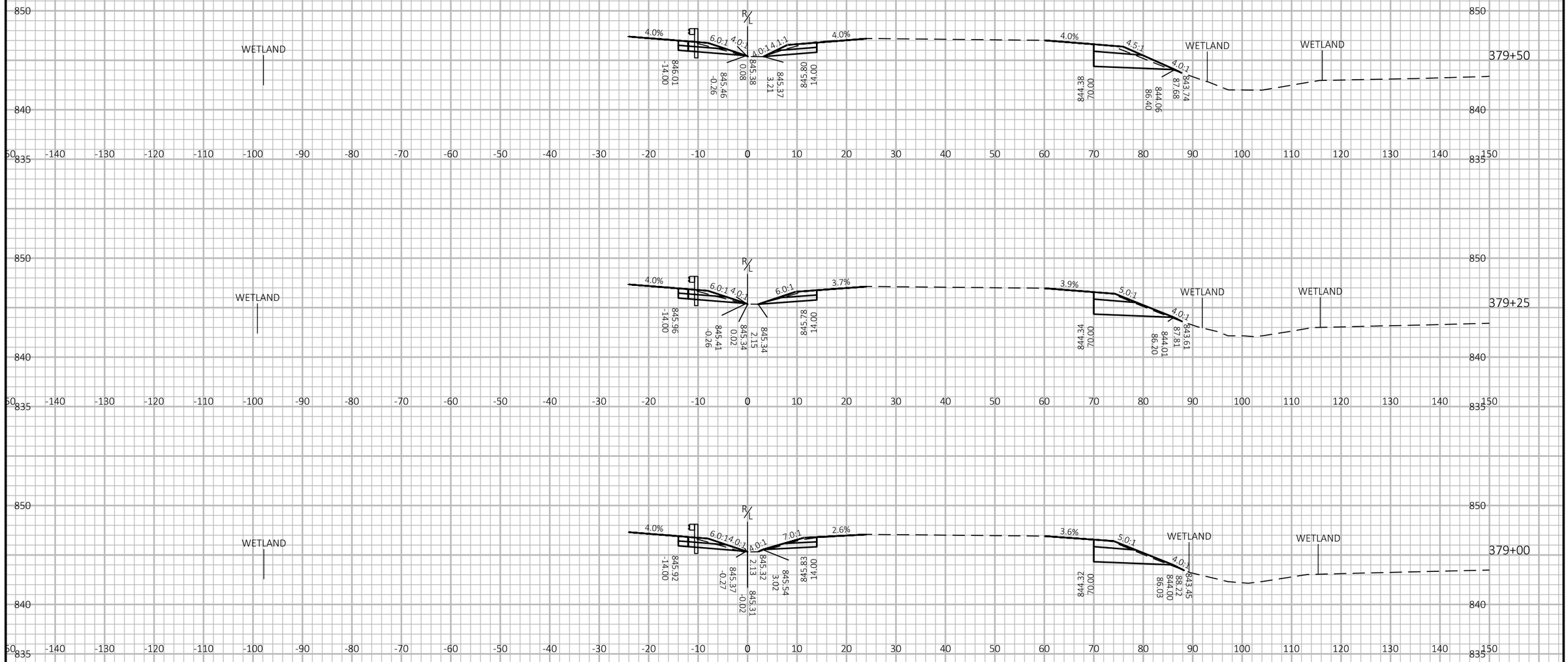
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: CROSS SECTIONS	SHEET 142	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090201_xs

PLOT DATE : 7/29/2022 10:34 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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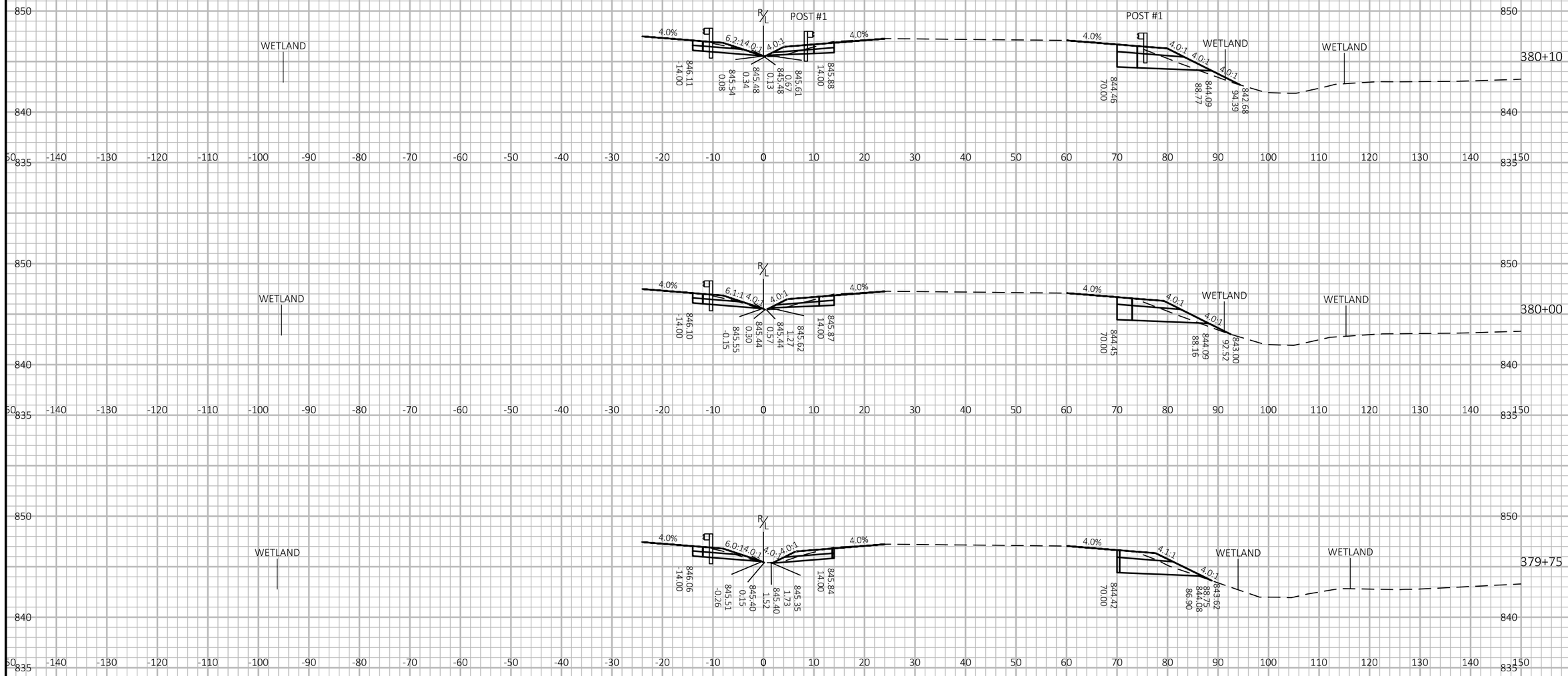
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: CROSS SECTIONS	SHEET 143	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090202_xs

PLOT DATE : 7/29/2022 10:34 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

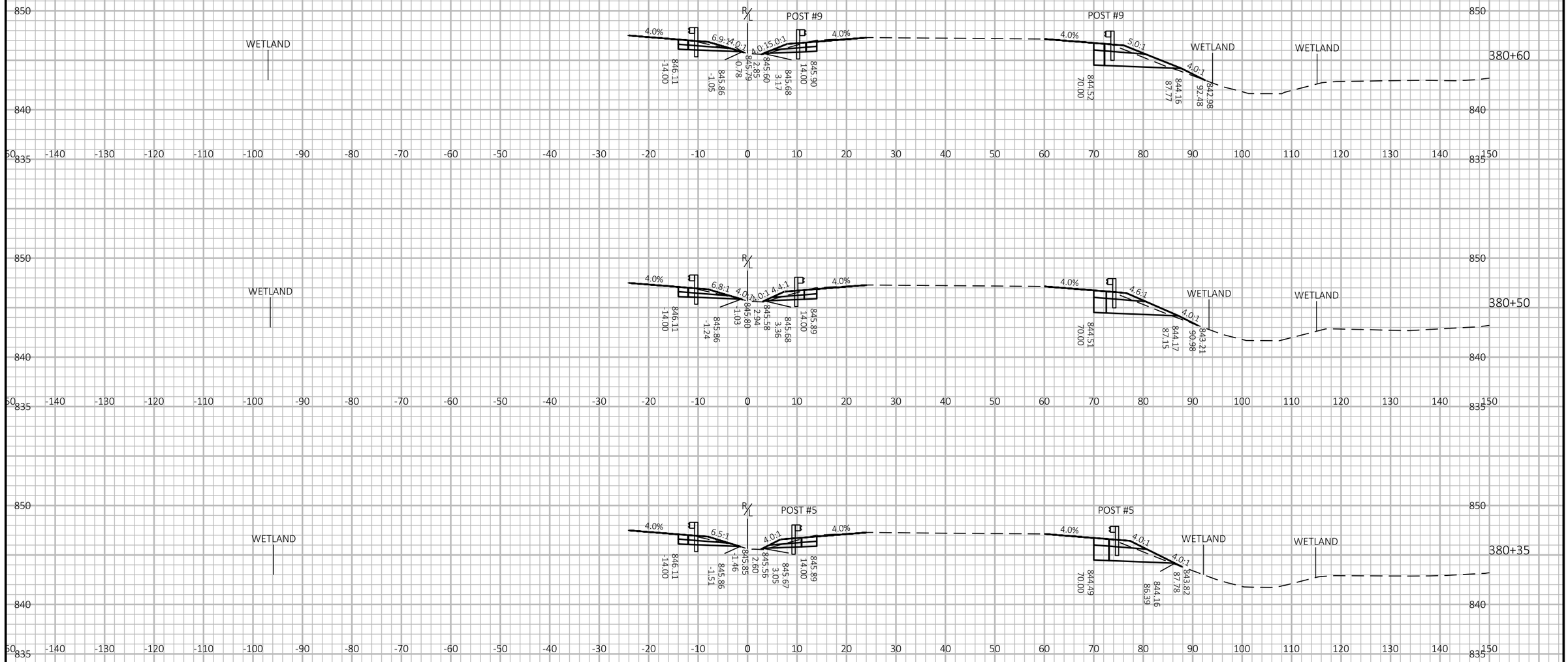


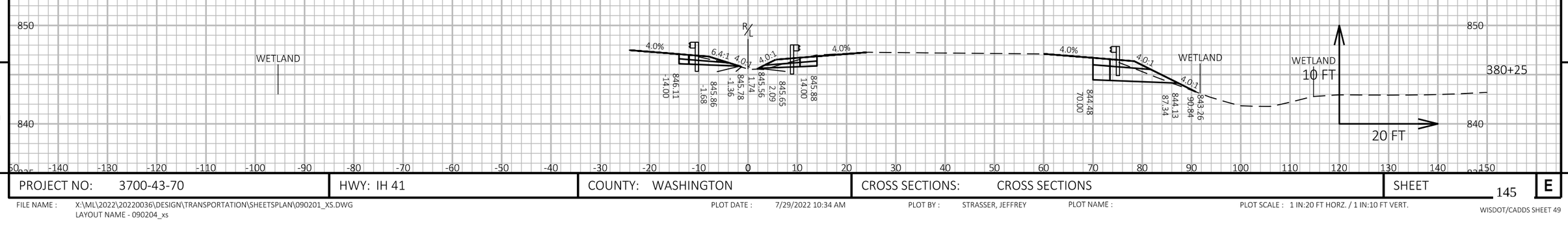
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: CROSS SECTIONS	SHEET 144 E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090203_xs

PLOT DATE : 7/29/2022 10:34 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





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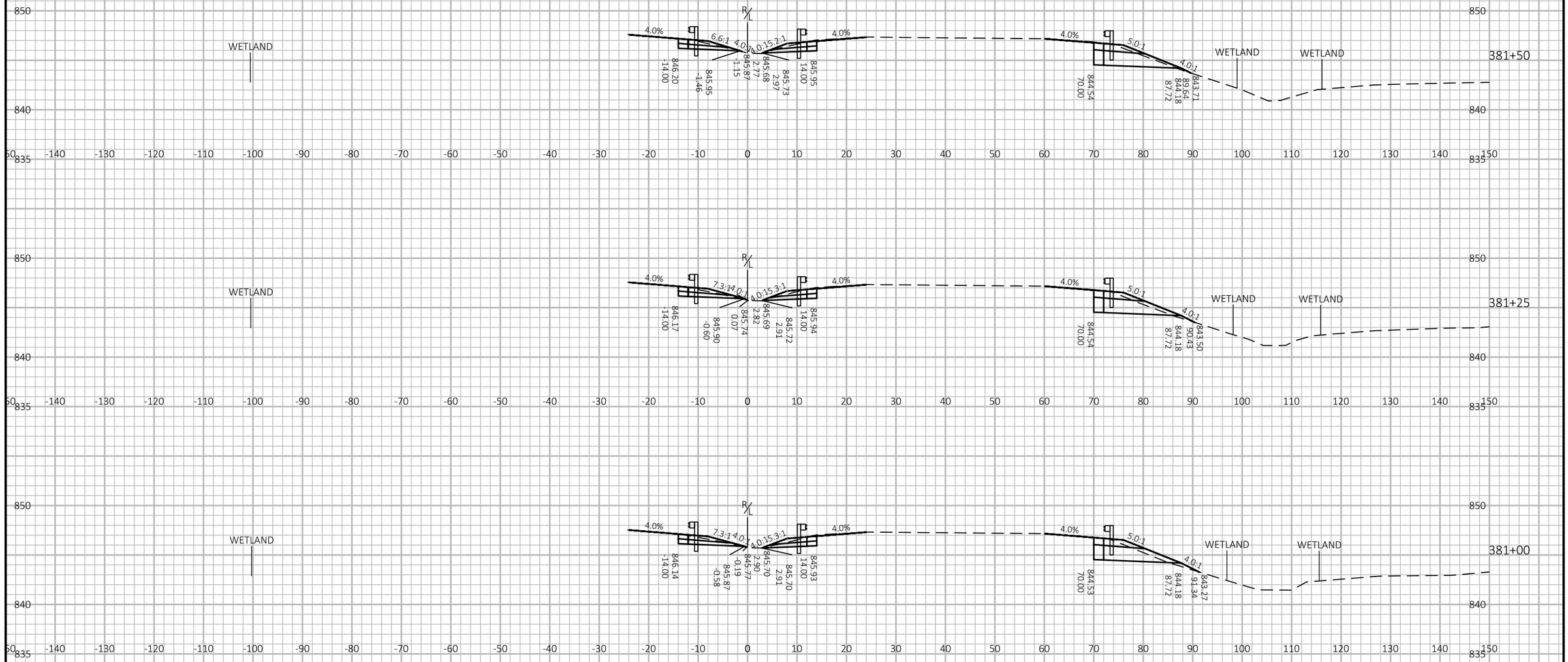
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: CROSS SECTIONS	SHEET 145	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090204_xs

PLOT DATE : 7/29/2022 10:34 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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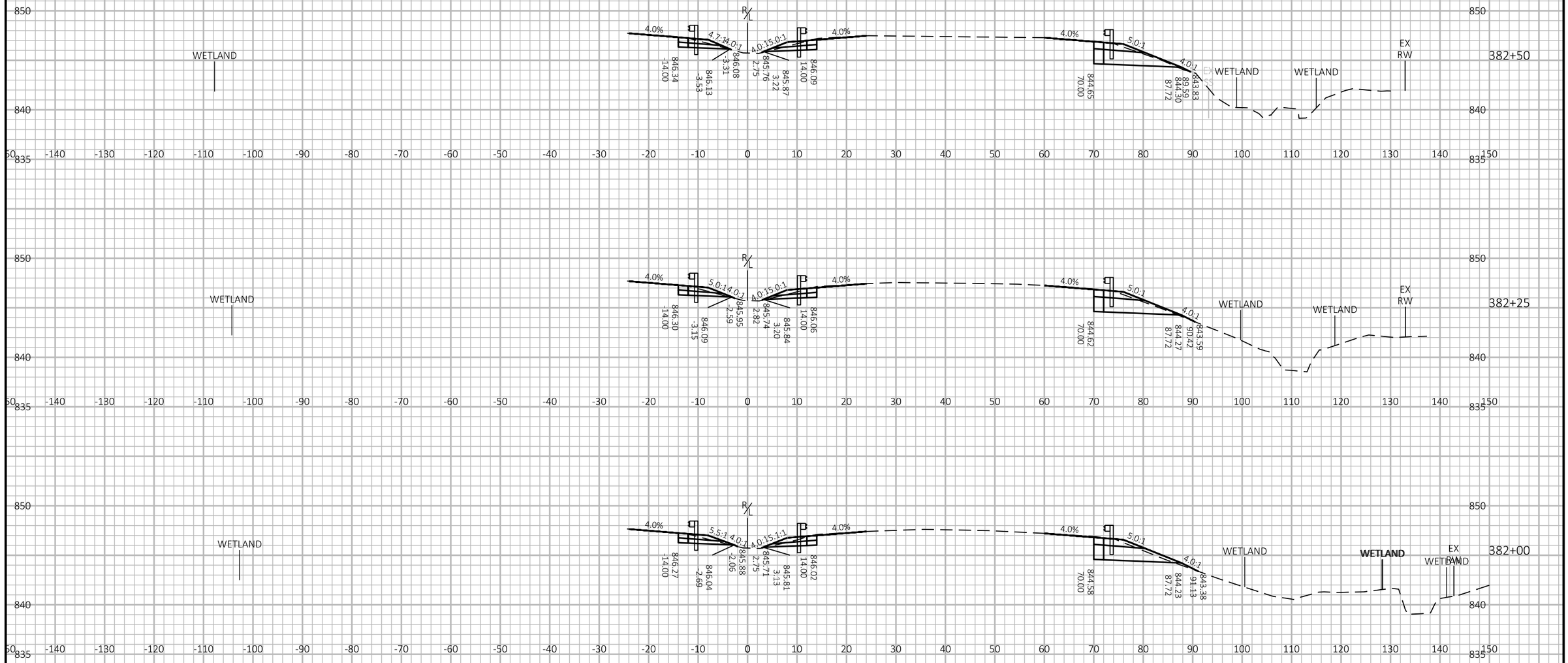
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: CROSS SECTIONS	SHEET 146	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090205_xs

PLOT DATE : 7/29/2022 10:34 AM PLOT BY : STRASSER, JEFFREY PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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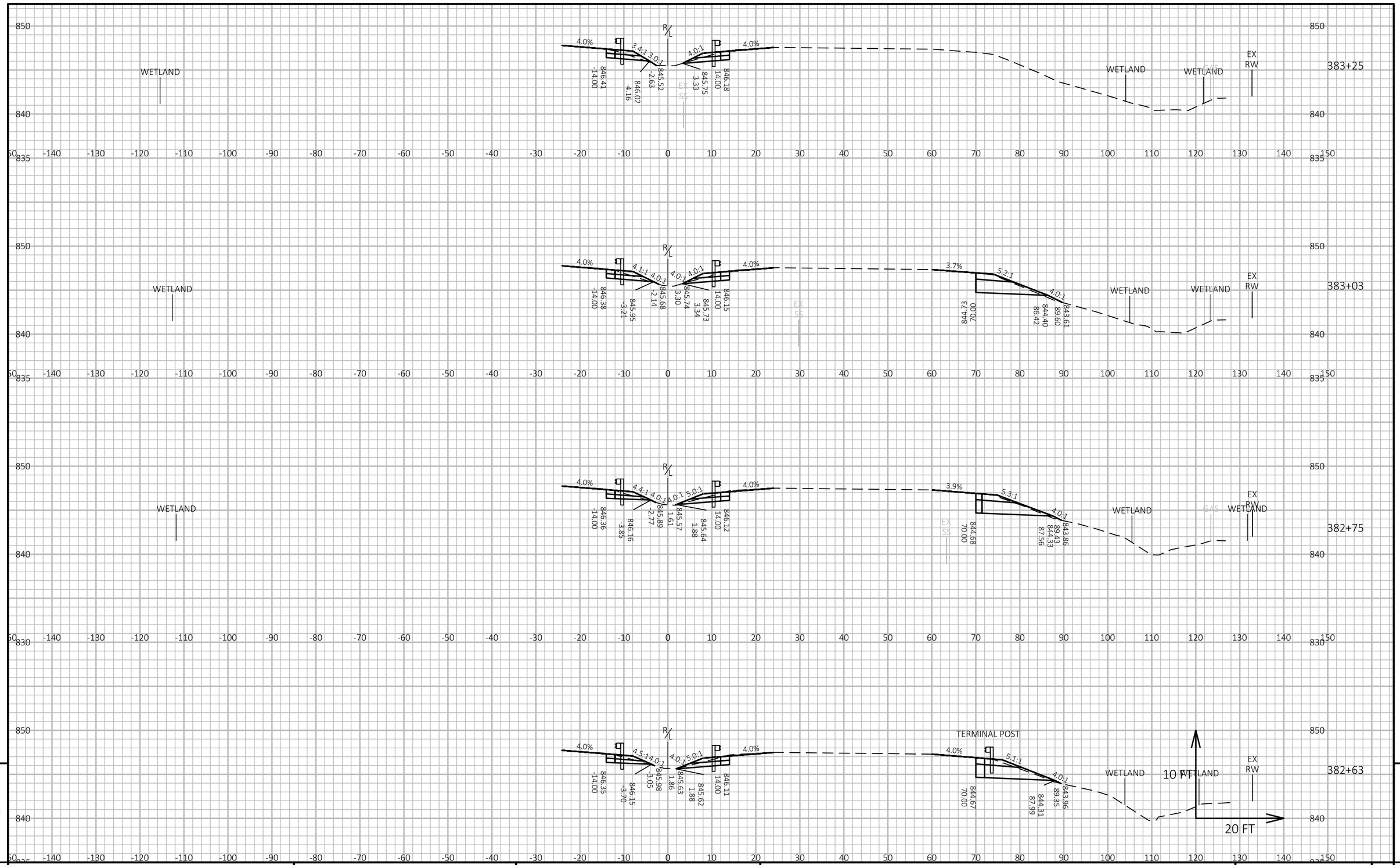
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: CROSS SECTIONS	SHEET 147	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090206_xs

PLOT DATE : 7/29/2022 10:34 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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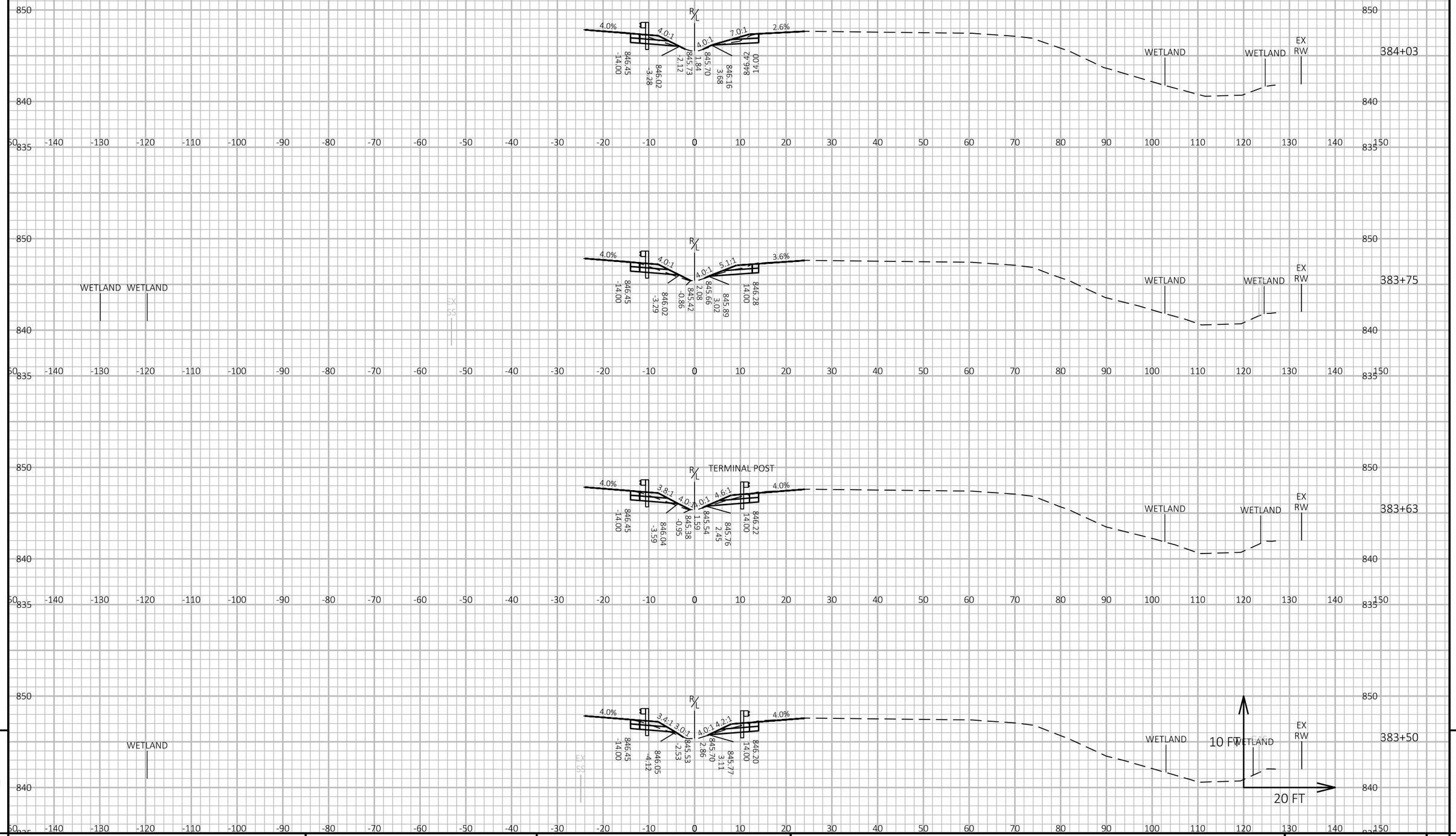
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: CROSS SECTIONS	SHEET 148	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090207_xs

PLOT DATE : 7/29/2022 10:34 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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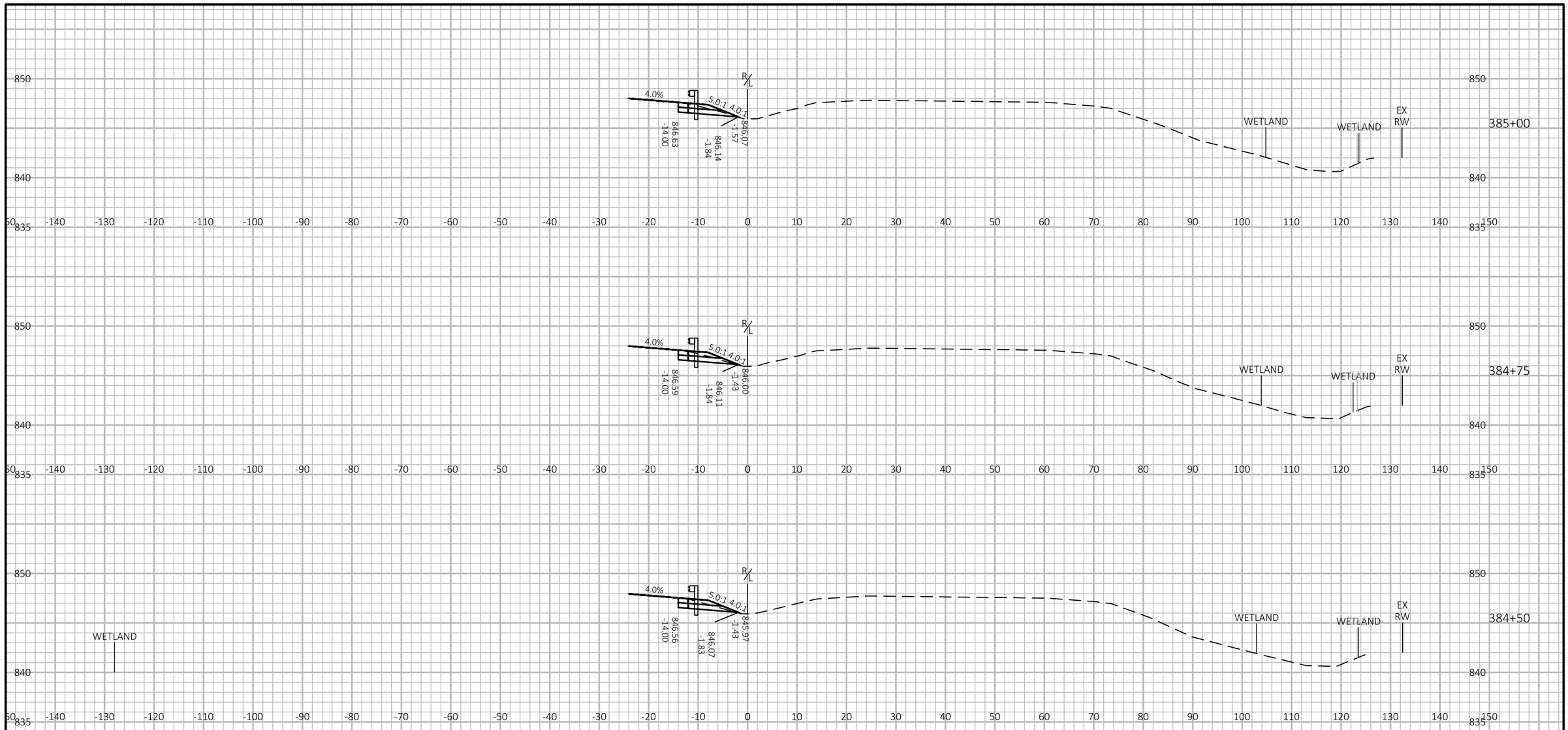
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: CROSS SECTIONS	SHEET 149	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090208_xs

PLOT DATE : 7/29/2022 10:34 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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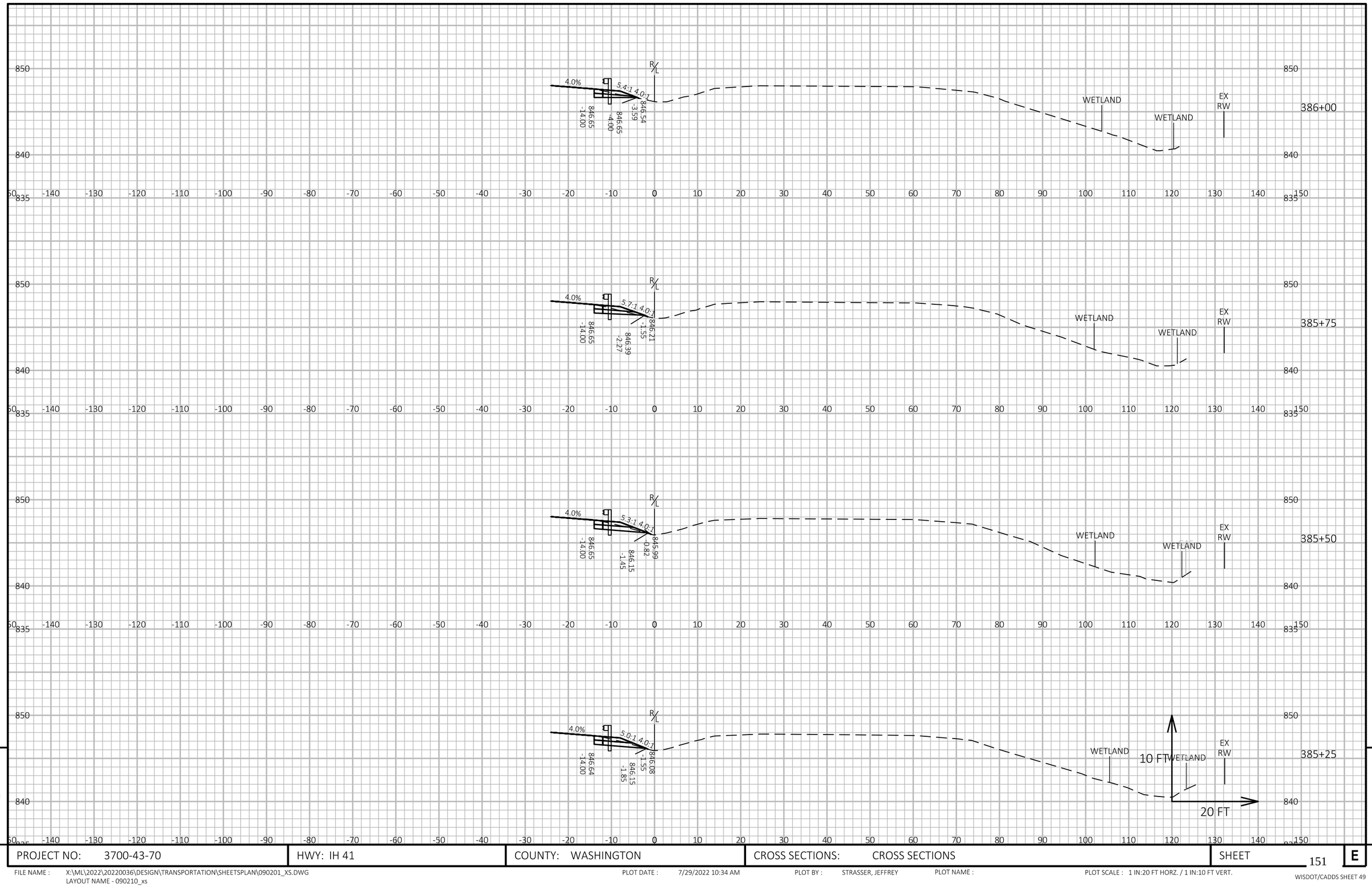
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: CROSS SECTIONS	SHEET 150	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090209_xs

PLOT DATE : 7/29/2022 10:34 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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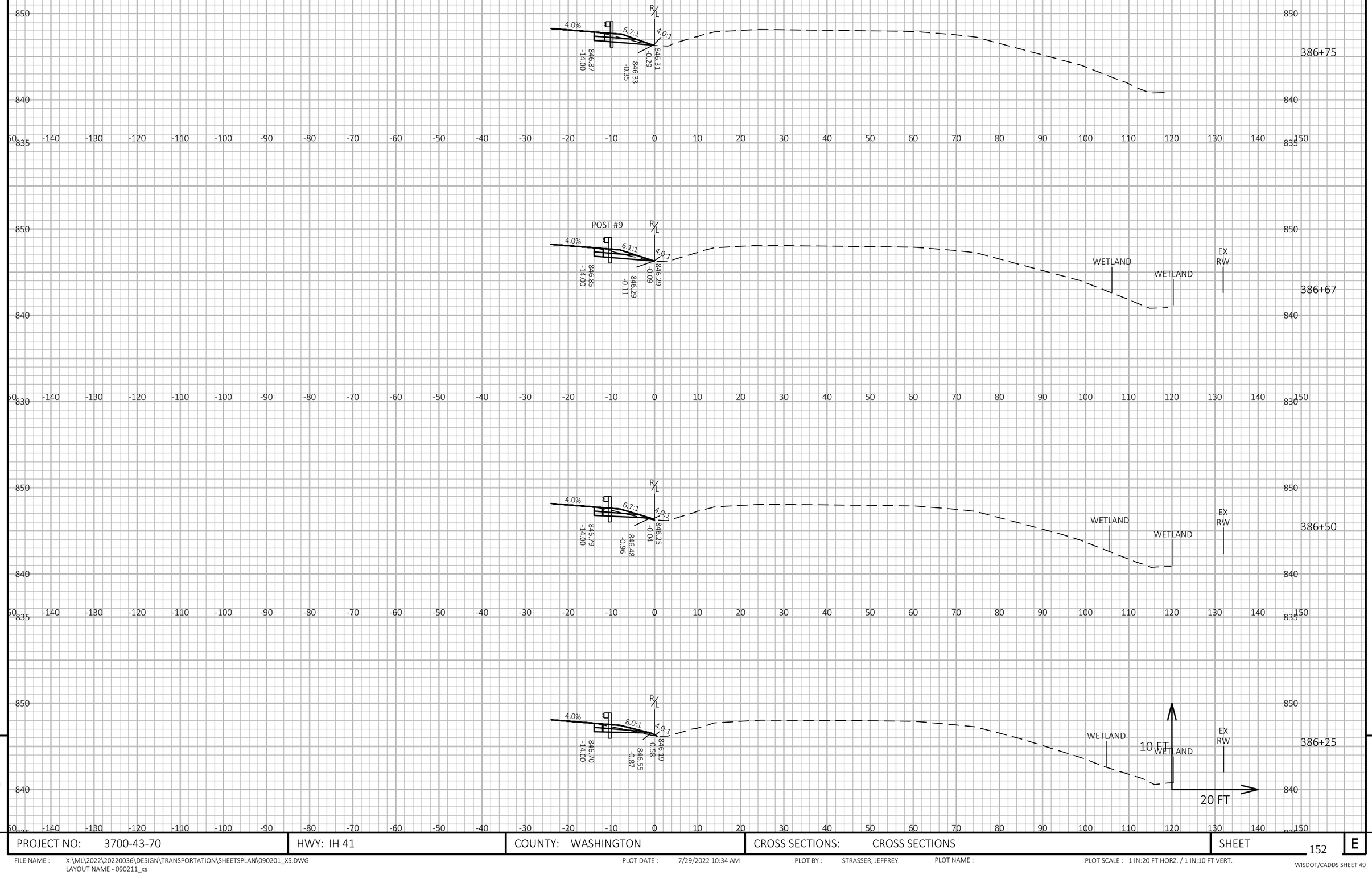
9

PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: CROSS SECTIONS	SHEET 151	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090210_xs

PLOT DATE : 7/29/2022 10:34 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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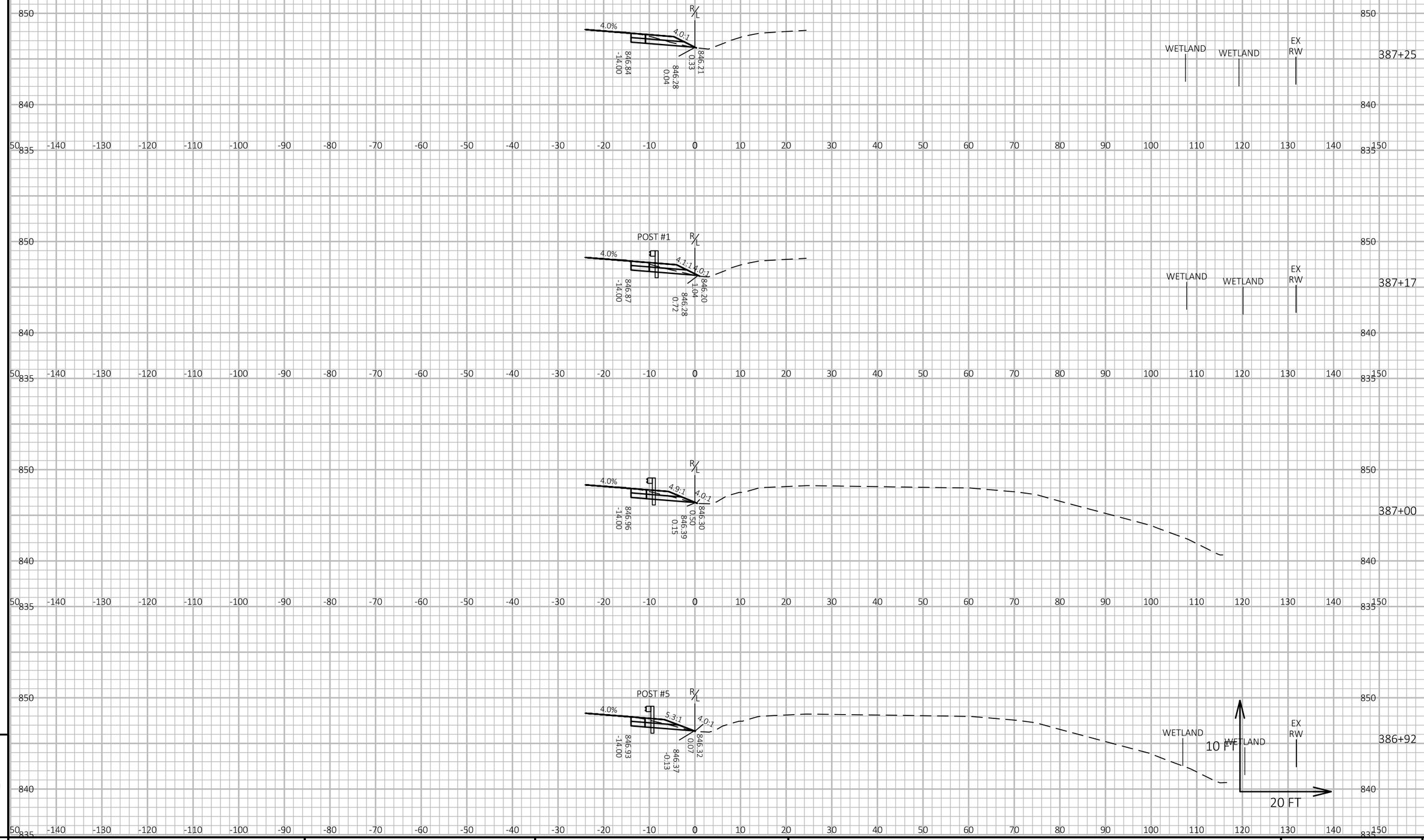
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: CROSS SECTIONS	SHEET 152	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090211_xs

PLOT DATE : 7/29/2022 10:34 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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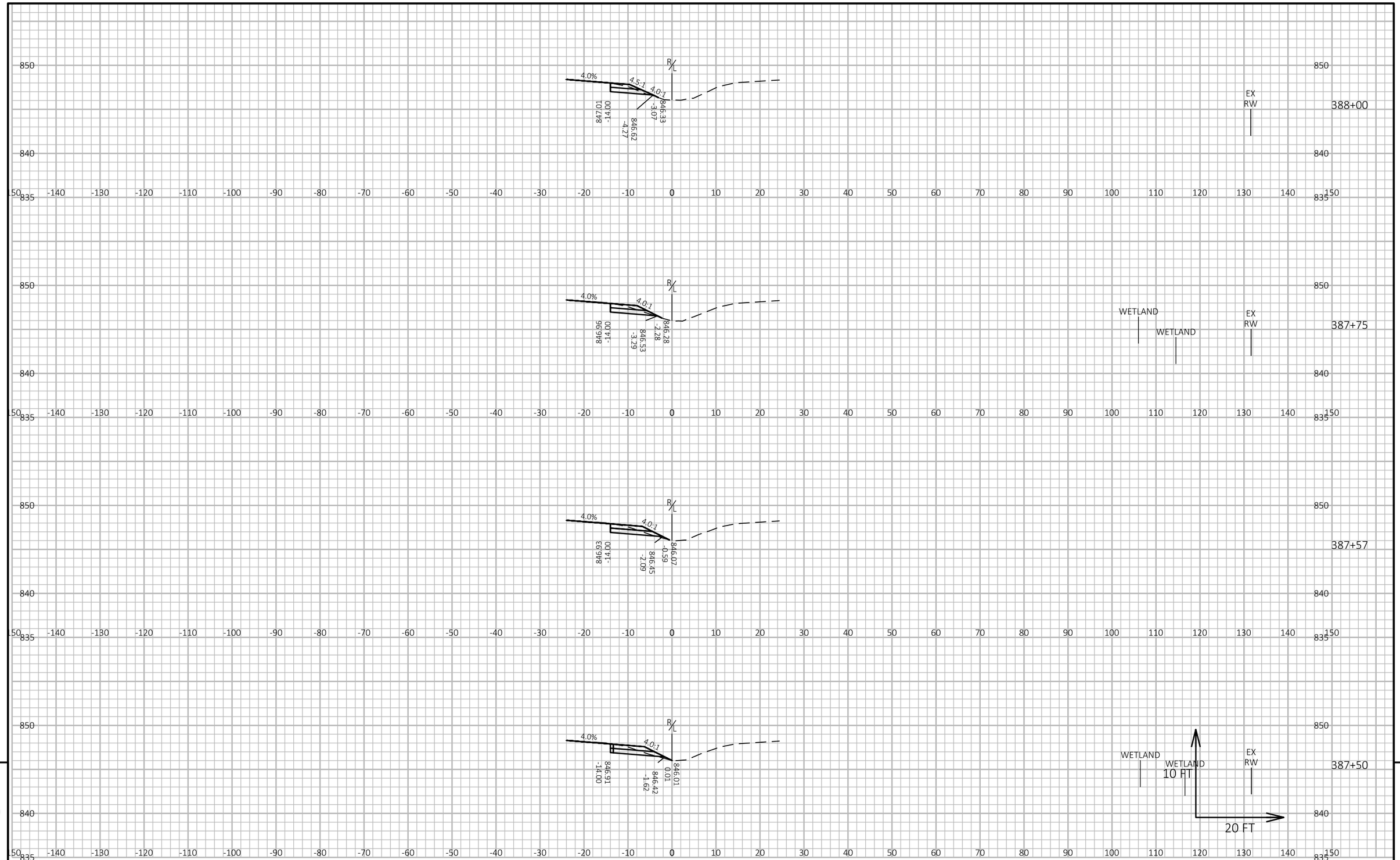
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: CROSS SECTIONS	SHEET 153	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090212_xs

PLOT DATE : 7/29/2022 10:34 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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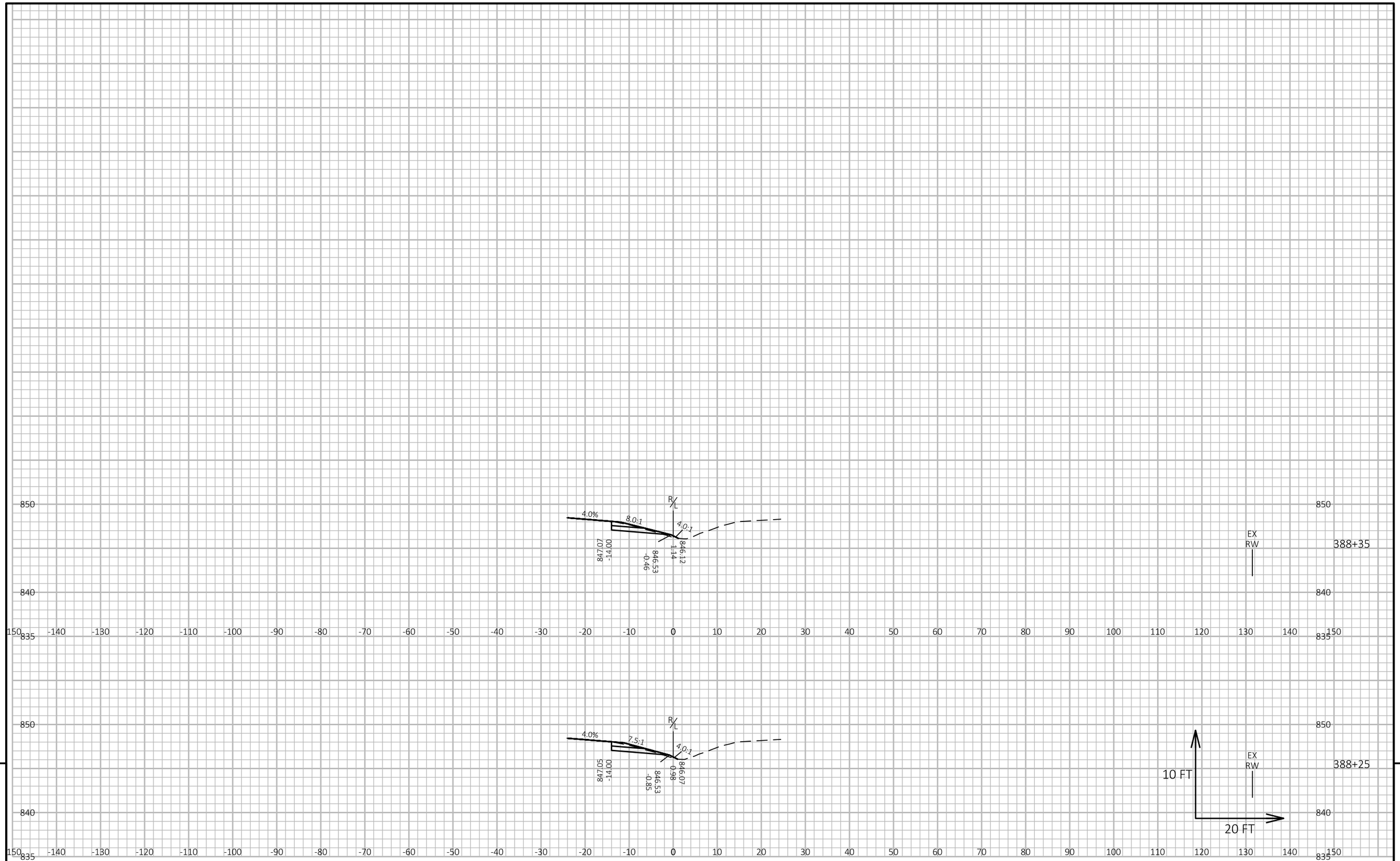
PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: CROSS SECTIONS	SHEET 154	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090213_xs

PLOT DATE : 7/29/2022 10:34 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 3700-43-70	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: CROSS SECTIONS	SHEET 155	E

FILE NAME : X:\ML\2022\20220036\DESIGN\TRANSPORTATION\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090214_xs

PLOT DATE : 7/29/2022 10:34 AM PLOT BY : STRASSER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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