MAD

Jan 11, 2022

PROJECT ID: 1204-05-73

WITH: 1204-05-76

COUNTY: DANE

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 = 356



02

N

DESIGN DESIGNATION

A.A.D.T.	2020	=	23,130
A.A.D.T.	2040	=	30,490
D.H.V.		=	2,400
D.D.		=	50/50
T.		=	15.5%
DESIGN SPEED		=	70 MPH
ESALS		=	11,000,000

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300 EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

DODGEVILLE - MOUNT HOREB

W COUNTY LINE TO TOWN HALL ROAD

USH 18

DANE COUNTY

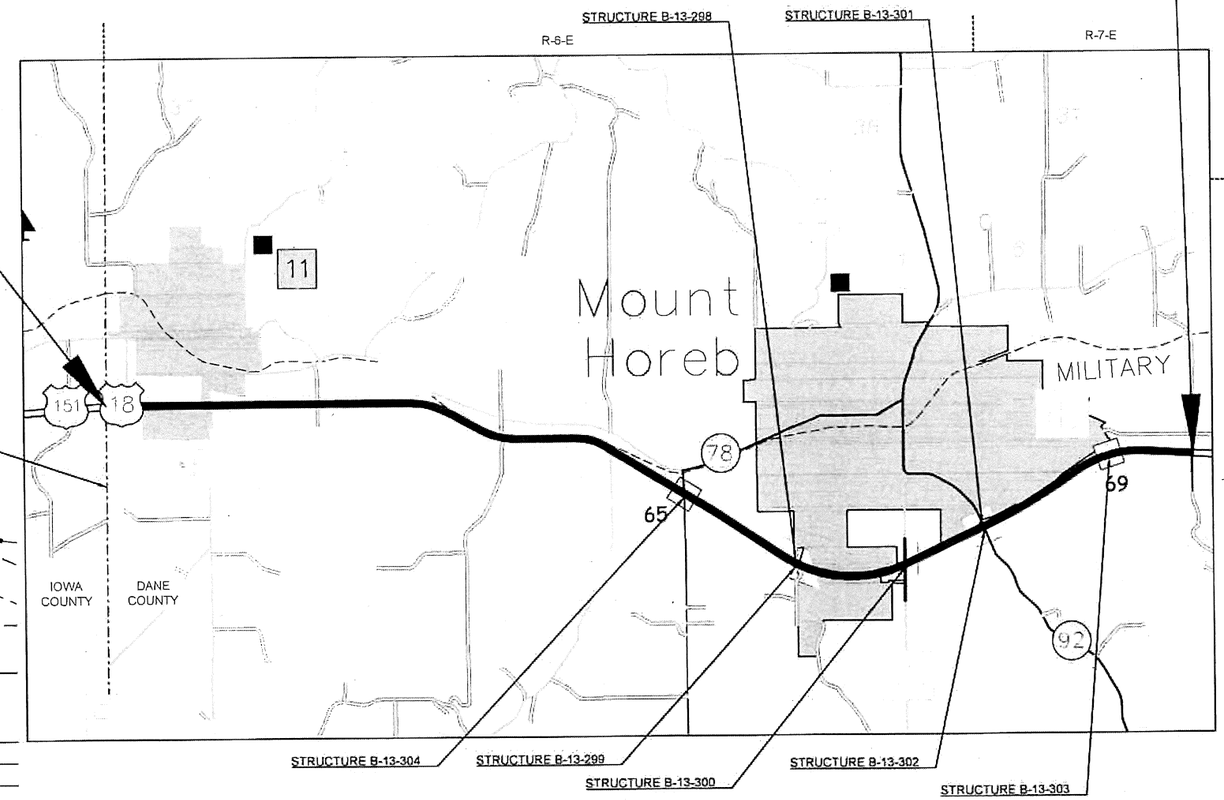
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1204-05-73	WISC 2022108	1

STATE PROJECT NUMBER

1204-05-73

BEGIN PROJECT
STA 1630+49'EB'
X=699,676.96
Y=459,608.74

END PROJECT
STA 2051+24.02'EB'



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 7.969 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, DANE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCE MAY BE USED AS GROUND DISTANCES. ELEVATION SHOWN ON THIS PLAN ARE REFERENCE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD (2012).

ORIGINAL PLANS PREPARED BY

ONEIDA Engineering Solutions

WISCONSIN
BRETT A. PETERSON
44665-6
SUN PRAIRIE
WI
PROFESSIONAL ENGINEER

DATE 7/27/21 [Professional Engineer Signature]

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	ONEIDA ENGINEERING SOLUTIONS
Designer	ONEIDA ENGINEERING SOLUTIONS
Project Manager	DELLA KOENIG
Regional Examiner	SW REGION
Regional Supervisor	TODD MATHESON

APPROVED FOR THE DEPARTMENT

DATE 10/26/2021 (Signature)

E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\010101-TI.DWG

PLOT DATE : 7/22/2021 3:32 PM

PLOT BY : BRETT PETERSON

PLOT NAME :

2

GENERAL NOTES

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

ALL RADII AREA MEASURED TO EDGE OF PAVEMENT UNLESS OTHERWISE SHOWN OR NOTED ON THE PLAN.

RESTORE EXISTING DRIVEWAYS IN KIND AND AT THE LOCATION AND WIDTH DETERMINED BY THE ENGINEER IN THE FIELD.

PRIOR TO THE PLACEMENT OF MGS GUARDRAIL, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITH THE DRIVING, TURNING, OR PARKING LANE.

PAVING LIMITS AT INTERSECTIONS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

THE EXACT LOCATIONS AND LIMITS OF PRIVATE ENTRANCES AND FIELD ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

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

THE RATE OF APPLICATION FOR TACK COAT IS 0.050 GAL/SY BETWEEN LAYERS, 0.070 GAL/SY ON MILLED SURFACES, OR AS DIRECTED BY THE ENGINEER.

THE LOCATION OF STOP LINES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE TOPSOILED (SALVAGED), FERTILIZED, SEEDED, AND EROSION MATTED AS DIRECTED BY THE ENGINEER.

EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATION WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE QUANTITY OF THE ITEMS FOR EROSION PROTECTION INCLUDES AN UNDISTRIBUTED AMOUNT FOR PROTECTION, CONTROL, AND ABATEMENT OF WATER POLLUTION RESULTING FROM SOIL EROSION. THE DISTRIBUTION AND LOCATION OF THESE MATERIALS ARE TO BE DETERMINED BY THE ENGINEER.

CONTRACTOR TO PROTECT 1F53, 1F54, 1F55, AND 1F56GPS AND KEEP CONSTRUCTION EQUIPMENT AT LEAST 10 FEET AWAY FROM 1F53, 1F54, 1F55 AND 1F56GPS.

ENSURE THAT 1F53, 1F54, 1F55 AND 1F56GPS ARE NOT DISTURBED, BUMPED OR MOVED DURING THE DURATION OF THE PROJECT. NOTIFY JACOB ROCKWEILER IMMEDIATELY IF 1F53, 1F54, 1F55 OR 1F56GPS ARE DISTURBED, BUMPED OR MOVED DURING CONSTRUCTION OPERATIONS.

JACOB ROCKWEILER, P.E., WISCONSIN HEIGHT MODERNIZATION PROGRAM MANAGER WITH WISCONSIN DEPARTMENT OF TRANSPORTATION WHOSE PHONE NUMBER IS (608) 516-6362 AND EMAIL IS JACOB.ROCKWEILER@DOT.WI.GOV.

HAND MILLING OPERATIONS MAY BE NECESSARY TO ENSURE THAT SURVEY MONUMENTS ARE NOT DISTURBED DURING MILLING OPERATIONS. PAYMENT IS INCLUDED AS PART OF REMOVING ASPHALTIC SURFACE MILLING.

MILL AND PAVE ADJACENT TO MONUMENT WITHOUT DAMAGING THE MONUMENT.

RESTORATION OF EXISTING HMA SHOULDER EDGE AFTER CONCRETE BASE PATCHING IS INCIDENTAL TO CONCRETE BASE PATCHING ITEM. INCIDENTAL ITEMS MAY INCLUDE SAW CUTTING REMOVAL AND HMA PLACEMENT TO RESTORE.

STANDARD ABBREVIATIONS

AGG	AGGREGATE	NB	NORTHBOUND
ASPH.	ASPHALTIC	PAV'T	PAVEMENT
BM	BENCH MARK	P.C.	POINT OF CURVATURE
C/L	CENTER LINE	P.I.	POINT OF INTERSECTION
CMCP	CORRUGATED METAL CULVERT PIPE	P.T.	POINT OF TANGENCY
CMP	CORRUGATED METAL PIPE	R	RADIUS OF CURVE
CO.	COUNTY	R/L	REFERENCE LINE
CTH	COUNTRY TRUCK HIGHWAY	REQ'D	REQUIRED
CONC	CONCRETE	RT	RIGHT
CPRC	CULVERT PIPE REINFORCED CONCRETE	R/W	RIGHT OF WAY
CY	CUBIC-YARD	SHLD.	SHOULDER(S)
C&G	CURB AND GUTTER	STA.	STATION
DIA.	DIAMETER	SY	SQUARE YARD
EB	EASTBOUND	TYP	TYPICAL
EL	ELEVATION	V.C.	VERTICAL CURVE
EXIST	EXISTING	V.C.L.	VERTICAL CURVE LENGTH
F.E.	FIELD ENTRANCE	V.P.C.	VERTICAL POINT OF CURVATURE
HMA	HOT MIX ASPHALT	V.P.I .	VERTICAL POINT OF INTERSECTION
INV	INVERT	V.P.T.	VERTICAL POINT OF TANGENCY
LT	LEFT	WB	WESTBOUND
M/L	MATCHLINE		

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLAN
INTERSECTION DETAILS
PLAN DETAILS
PAVEMENT MARKING
TRAFFIC CONTROL
STAGE CONSTRUCTION
DETOUR PLAN

DNR LIAISON

ERIC HEGGELUND
ENVIRONMENTAL ANALYSIS & REVIEW SPECIALIST
WISCONSIN DEPT. OF NATURAL RESOURCES
SOUTH CENTRAL REGION
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DESIGN CONTACTS

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BRETT PETERSON
PROJECT DESIGNER
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UTILITY CONTACTS

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DVOSBERG@ATCLLC.COM

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(608) 364-6229
KURTROSENBROOK@ALLIANTENERGY.COM

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MOUNT HOREB, WI 53572
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MG&E COMPANY - GAS/PETROLEUM
SHANE ENDRES
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IRON MOUNTAIN, MI 49801
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BARNEVELD@MHTC.NET

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

LOCATION	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	HMA PAVEMENT ITEM
USH 18 MAINLINE OVERLAY	3.5-INCHES	1.75" UPPER 1.75" LOWER	HMA PAVEMENT 4 HT 58-28 H HMA PAVEMENT 4 HT 58-28 S
MAINLINE SHOULDER PREP FOR STAGING	1.75-INCH	1.75" UPPER	HMA PAVEMENT 4 MT 58-28 S
CTH ID SHOULDERS	3.5-INCHES	3.5" UPPER	HMA PAVEMENT 4 LT 58-28 S
STH 78 ROADWAY	6.5-INCHES	2.00" UPPER (2) 2.25" LOWER	HMA PAVEMENT 4 MT 58-28 S HMA PAVEMENT 4 MT 58-28 S

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STRUCTURE B-13-304
REPLACEMENT OF
APPROACH SLABS

STRUCTURE B-13-298,
STRUCTURE B-13-299
REPLACEMENT OF
APPROACH SLABS

STRUCTURE B-13-301,
STRUCTURE B-13-302
REPLACEMENT OF
APPROACH SLABS

STRUCTURE B-13-303
REPLACEMENT OF
APPROACH SLABS

BEGIN PROJECT
STA 1630+49'EB'
WEST COUNTY LINE

END PROJECT
STA 2051+24.02'EB'
TOWN HALL ROAD

COUNTY LINE

IOWA COUNTY

DANE COUNTY

INTERSECTION IMPROVEMENTS AT CTH F

INTERSECTION IMPROVEMENTS AT CAVE OF THE MOUNDS ROAD

INTERSECTION IMPROVEMENTS AT ERBE ROAD

STH 78 - PAVEMENT REPLACEMENT

STRUCTURE B-13-299
OVER SAND ROCK ROAD
REPLACEMENT OF WING
WALLS

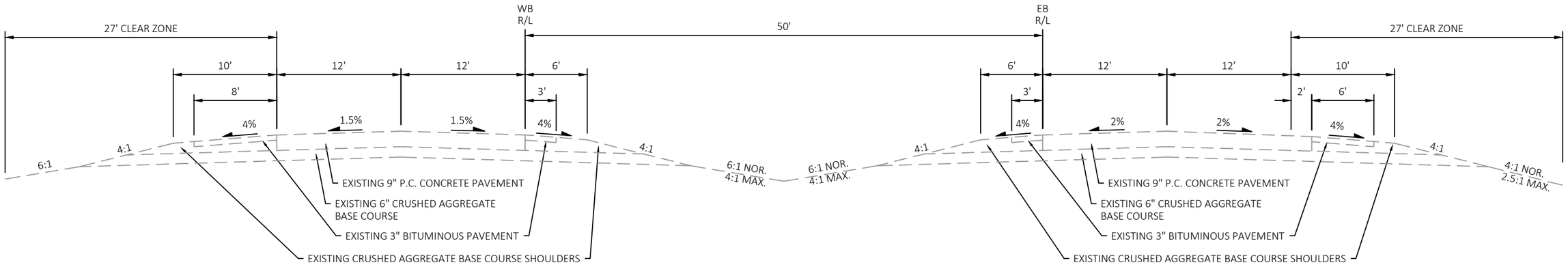
STRUCTURE B-13-300
AT CTH JG OVER USH 18
REPLACEMENT OF WING
WALLS

STRUCTURE B-13-303
AT CTH ID OVER USH 18
CONCRETE DECK OVERLAY
AND ABUTMENT REPAIRS

STRUCTURE B-13-301
OVER STH 92 REPLACEMENT
OF WING WALLS

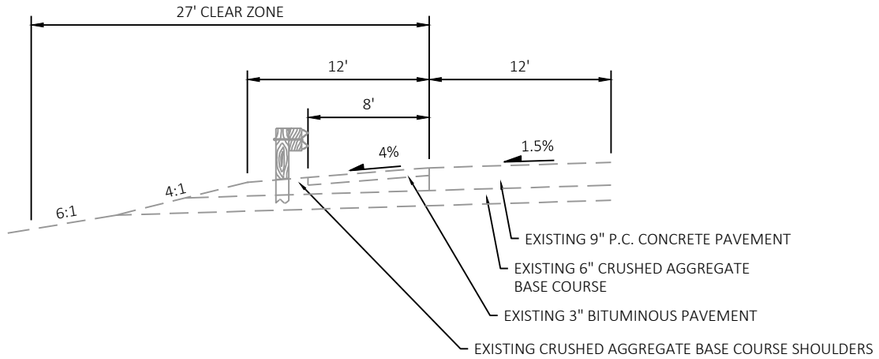
PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PROJECT OVERVIEW	SHEET 3	E

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LAYOUT NAME - 020201-po
PLOT DATE : 4/21/2020 10:44 AM
PLOT BY : BRETT PETERSON
PLOT NAME :
PLOT SCALE : 1 IN:4000 FT
WISDOT/CADDS SHEET 42



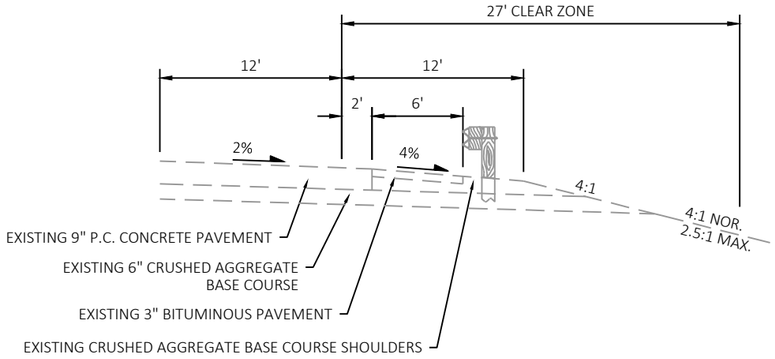
TYPICAL EXISTING SECTION

USH 18
STA. 1630+49'EB' TO STA. 2051+24.02'EB'



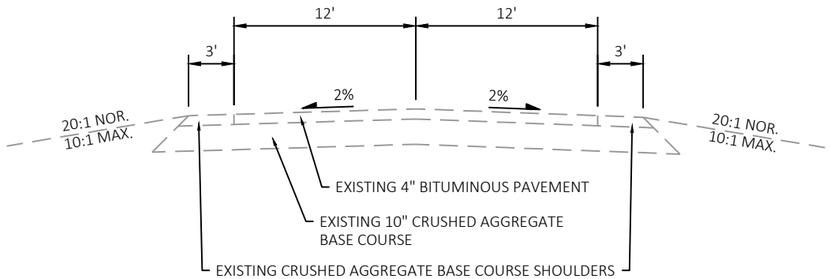
TYPICAL EXISTING SECTION

USH 18 (WB GUARDRAIL LOCATIONS)
(SEE PLAN DETAILS FOR LOCATIONS)



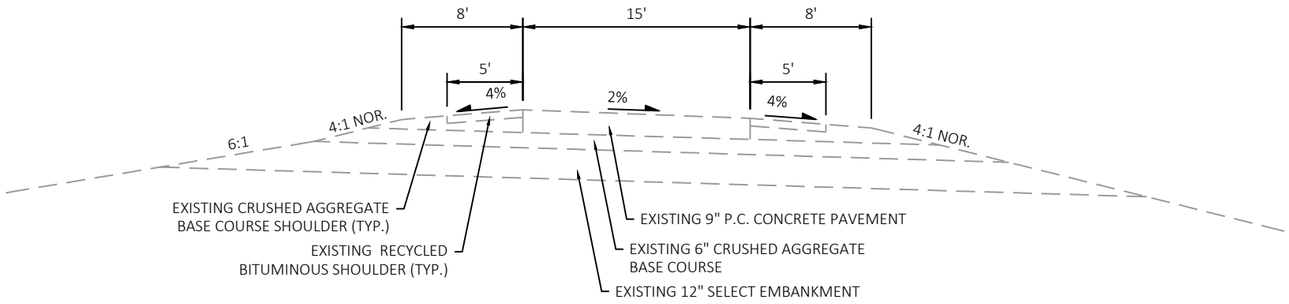
TYPICAL EXISTING SECTION

USH 18 (EB GUARDRAIL LOCATIONS)
(SEE PLAN DETAILS FOR LOCATIONS)



TYPICAL EXISTING SECTION

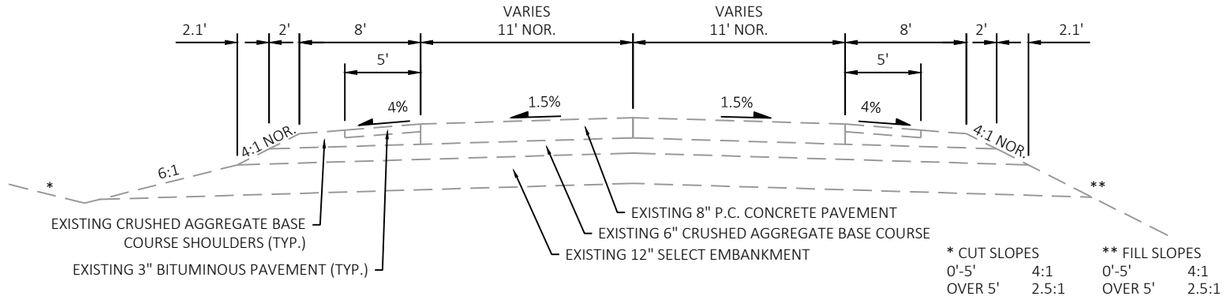
MAINTENANCE CROSSOVERS



TYPICAL EXISTING SECTION

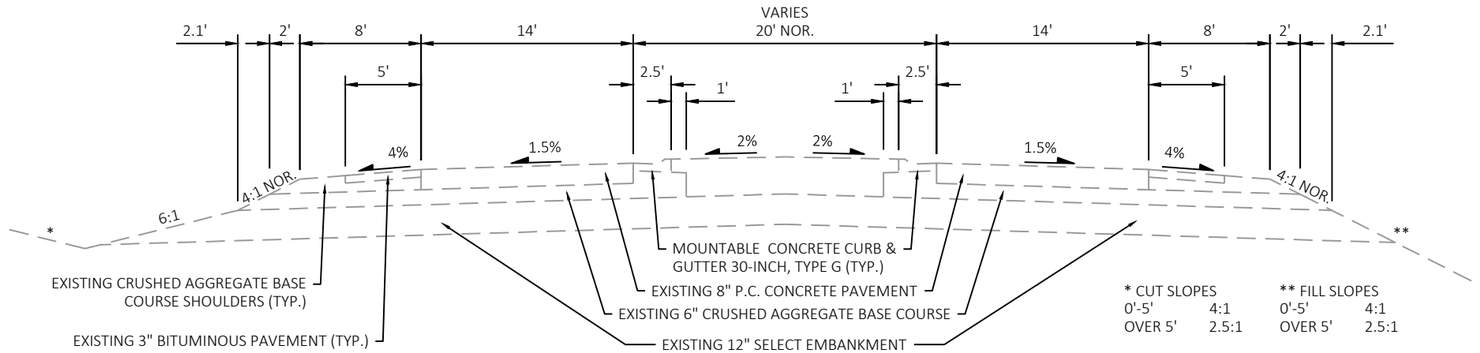
FOR INTERCHANGE RAMPS FOR STH 78 AND CTH ID

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	TYPICAL SECTIONS - EXISTING	SHEET 4	E



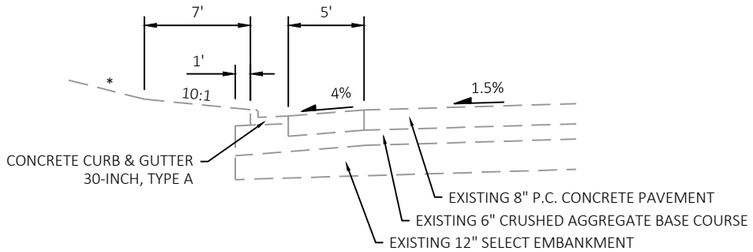
TYPICAL EXISTING SECTION

STH 78
12+50.00'ST' TO 15+60.00'ST'



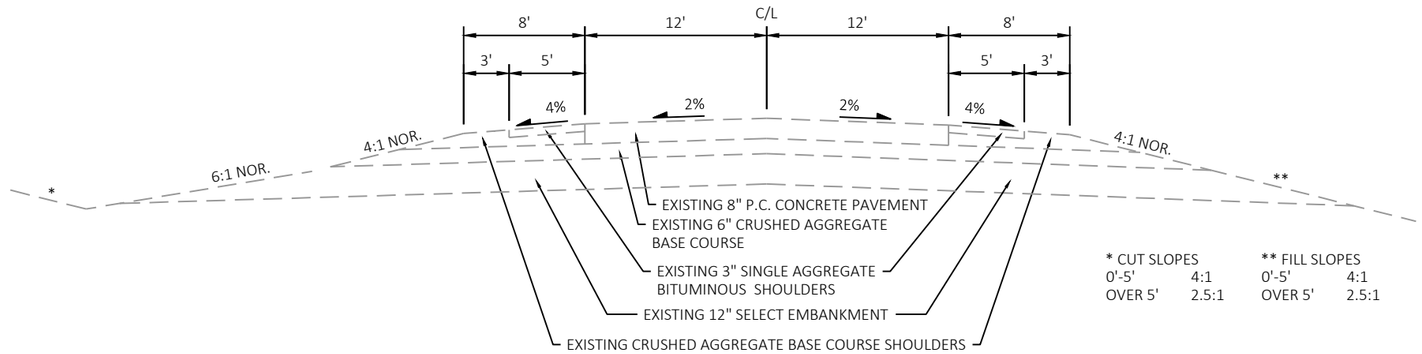
TYPICAL EXISTING SECTION

STH 78
15+60.00'ST' TO 29+60.00'ST'



TYPICAL EXISTING SECTION

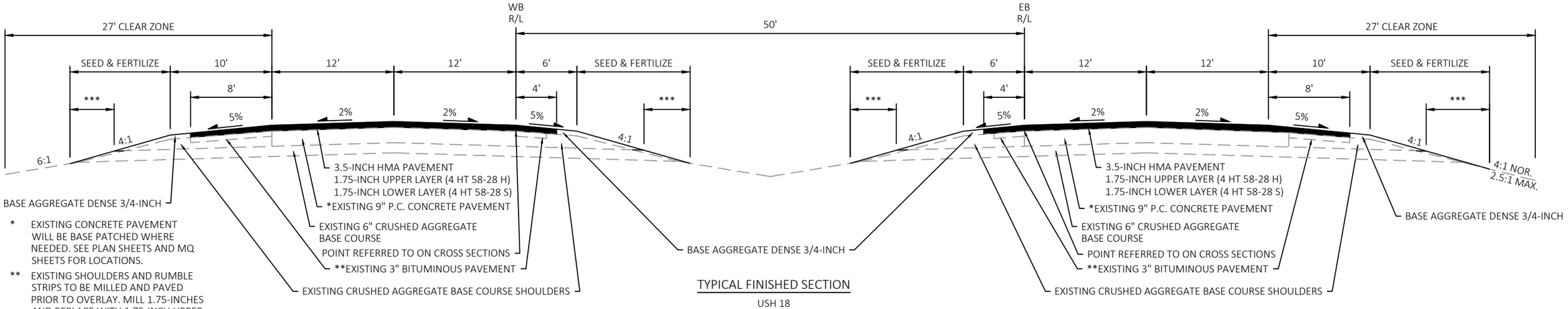
STH 78
WITH CURB & GUTTER LT & RT



TYPICAL EXISTING SECTION

CTH ID

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	TYPICAL SECTIONS - EXISTING	SHEET 5	E



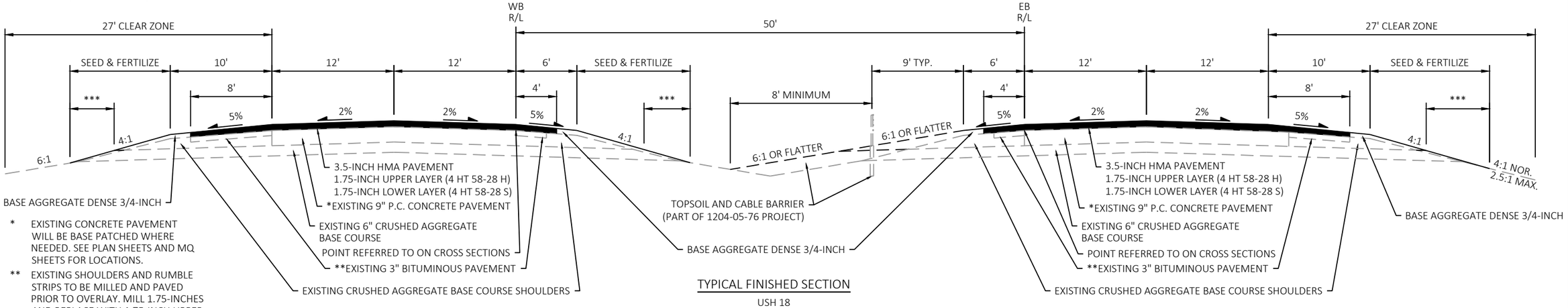
* EXISTING CONCRETE PAVEMENT WILL BE BASE PATCHED WHERE NEEDED. SEE PLAN SHEETS AND MQ SHEETS FOR LOCATIONS.

** EXISTING SHOULDERS AND RUMBLE STRIPS TO BE MILLED AND PAVED PRIOR TO OVERLAY. MILL 1.75-INCHES AND REPLACE WITH 1.75-INCH UPPER LAYER (4 MT 58-28 S)

*** TOPSOIL, SEED, FERTILIZE, & E-MAT

TYPICAL FINISHED SECTION

USH 18
STA. 1630+49'EB' TO STA. 1762+00'EB'
STA. 1936+00'EB' TO STA. 2051+24.02'EB'



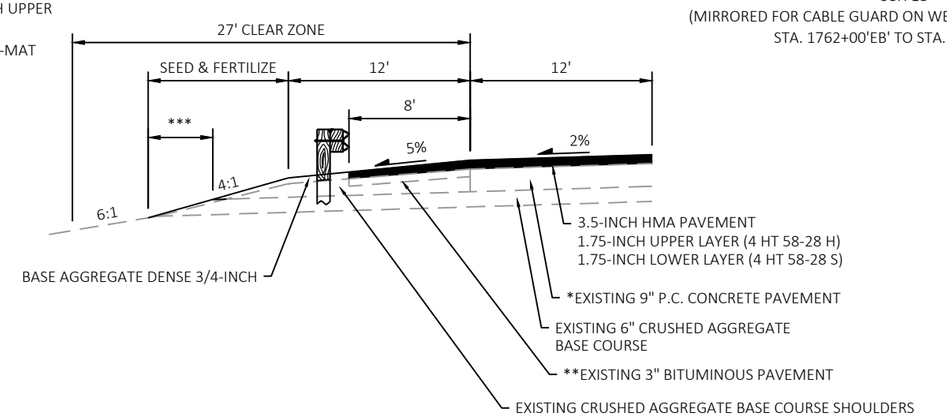
* EXISTING CONCRETE PAVEMENT WILL BE BASE PATCHED WHERE NEEDED. SEE PLAN SHEETS AND MQ SHEETS FOR LOCATIONS.

** EXISTING SHOULDERS AND RUMBLE STRIPS TO BE MILLED AND PAVED PRIOR TO OVERLAY. MILL 1.75-INCHES AND REPLACE WITH 1.75-INCH UPPER LAYER (4 MT 58-28 S)

*** TOPSOIL, SEED, FERTILIZE, & E-MAT

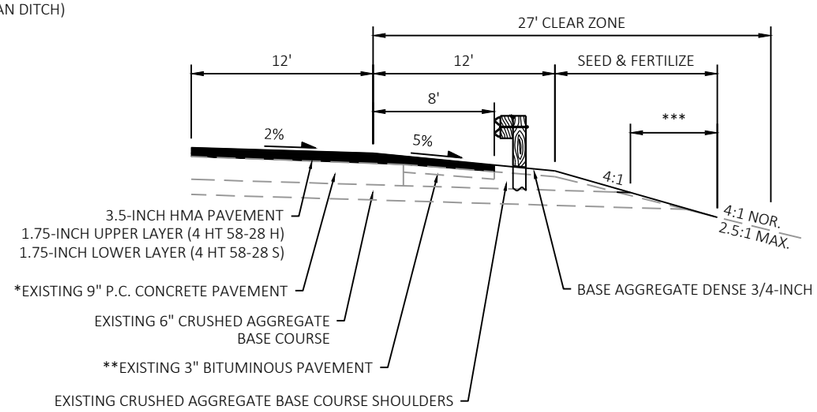
TYPICAL FINISHED SECTION

USH 18
(MIRRORED FOR CABLE GUARD ON WB SIDE OF MEDIAN DITCH)
STA. 1762+00'EB' TO STA. 1936+00'EB'



TYPICAL FINISHED SECTION

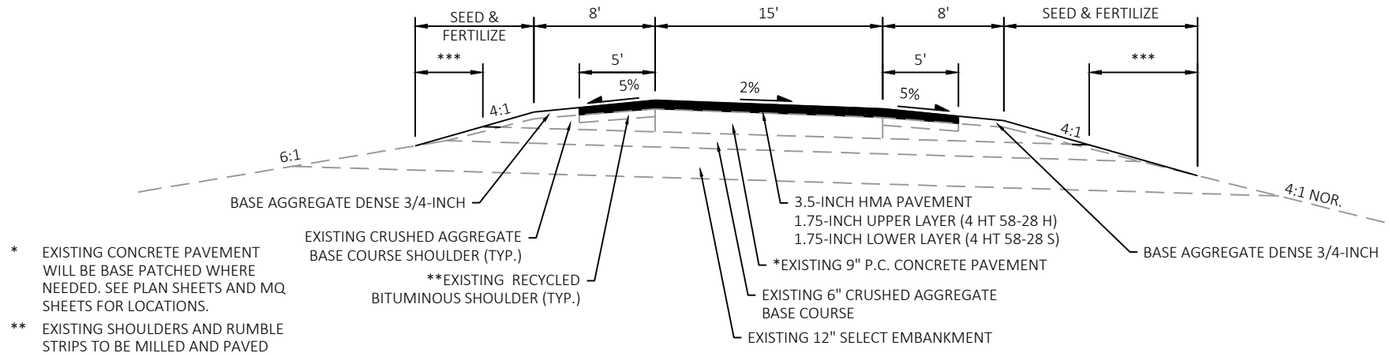
USH 18 (WB GUARDRAIL LOCATIONS)
(SEE PLAN DETAILS FOR LOCATIONS)



TYPICAL FINISHED SECTION

USH 18 (EB GUARDRAIL LOCATIONS)
(SEE PLAN DETAILS FOR LOCATIONS)

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	TYPICAL SECTIONS - FINISHED	SHEET 6	E



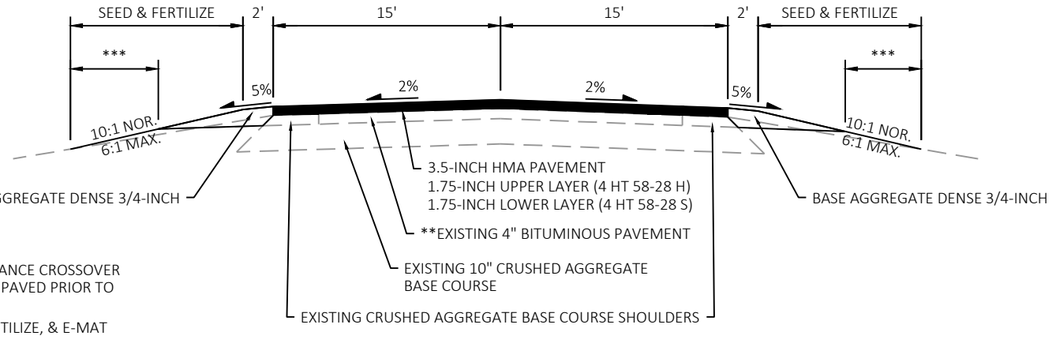
* EXISTING CONCRETE PAVEMENT WILL BE BASE PATCHED WHERE NEEDED. SEE PLAN SHEETS AND MQ SHEETS FOR LOCATIONS.

** EXISTING SHOULDERS AND RUMBLE STRIPS TO BE MILLED AND PAVED PRIOR TO OVERLAY. MILL 1.75-INCHES AND REPLACE WITH 1.75-INCH UPPER LAYER (4 MT 58-28 S)

*** TOPSOIL, SEED, FERTILIZE, & E-MAT

TYPICAL FINISHED SECTION

FOR INTERCHANGE RAMPS FOR STH 78 AND CTH ID

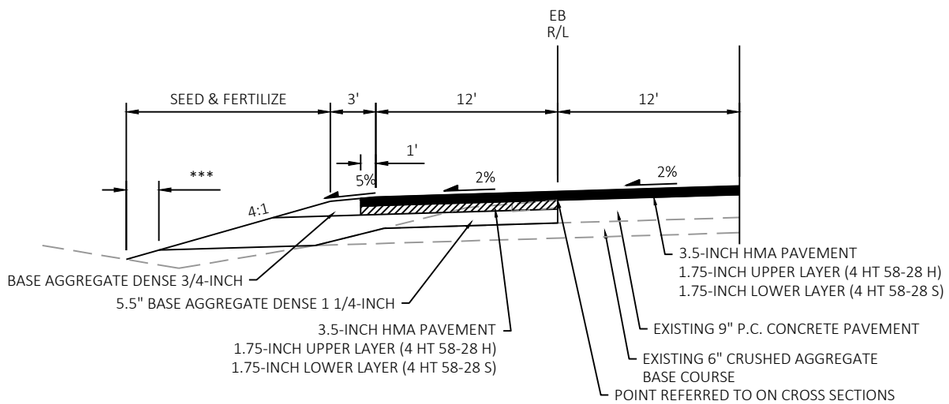


** EXISTING MAINTENANCE CROSSOVER TO BE MILLED AND PAVED PRIOR TO OVERLAY

*** TOPSOIL, SEED, FERTILIZE, & E-MAT

TYPICAL FINISHED SECTION

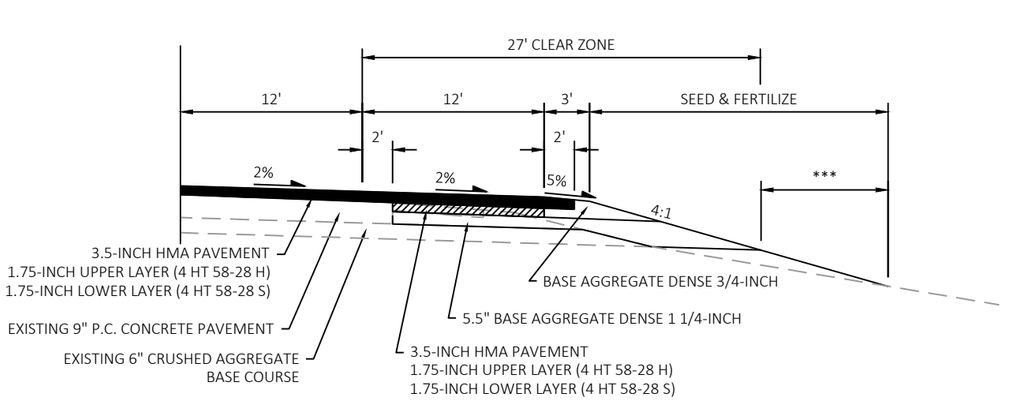
MAINTENANCE CROSSOVERS



*** TOPSOIL, SEED, FERTILIZE, & E-MAT

TYPICAL FINISHED SECTION

USH 18 - LEFT TURN LANE LENGTHENING
(MIRRORED FOR WB LANES)
STA. 1702+18.37'EB' TO STA. 1704+82.37'EB'
STA. 1708+21.05'WB' TO STA. 1709+74.18'WB'
STA. 1771+42.48'EB' TO STA. 1773+75.29'EB'
STA. 1777+91.07'WB' TO STA. 1781+83.21'WB'

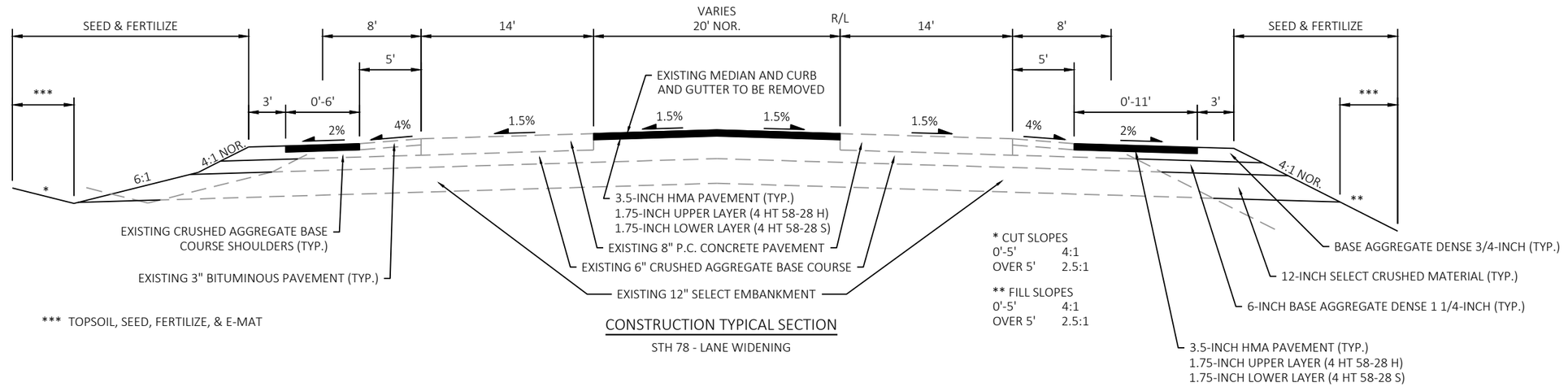


*** TOPSOIL, SEED, FERTILIZE, & E-MAT

TYPICAL FINISHED SECTION

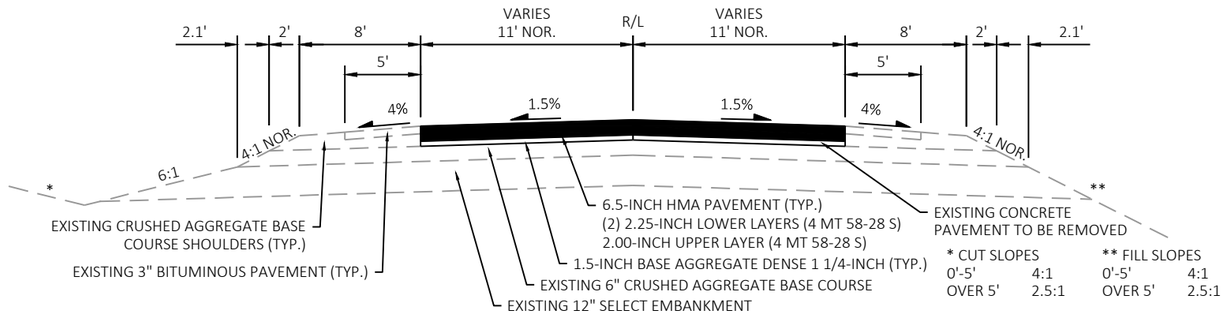
USH 18 - RIGHT TURN LANE LENGTHENING
(MIRRORED FOR WB LANES)
STA. 1710+71.11'WB' TO STA. 1712+47.85'WB'
STA. 1771+76.39'EB' TO STA. 1775+08.75'EB'
STA. 1778+49.65'WB' TO STA. 1781+78.14'WB'

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	TYPICAL SECTIONS - FINISHED	SHEET 7	E



CONSTRUCTION TYPICAL SECTION

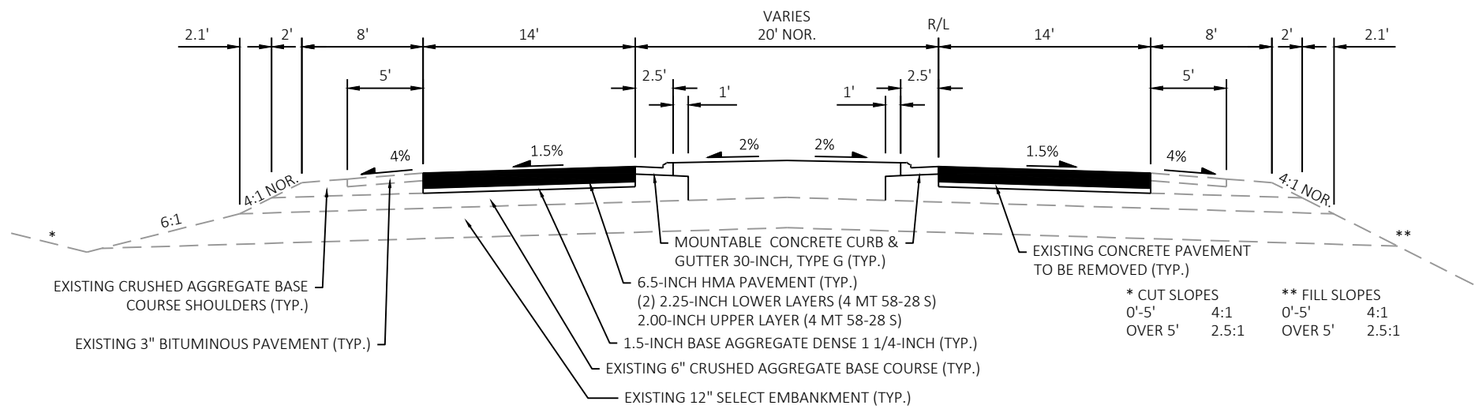
STH 78 - LANE WIDENING



TYPICAL FINISHED SECTION

STH 78

12+50.00'ST' TO 15+60.00'ST'



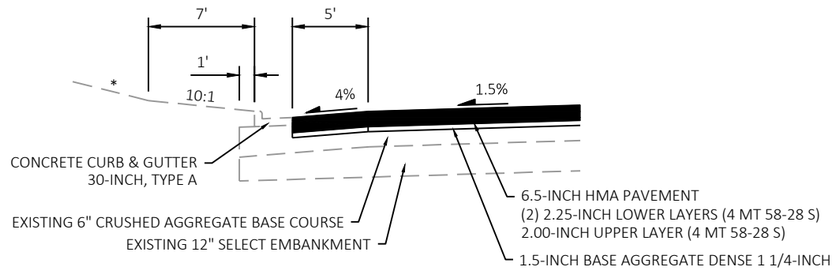
TYPICAL FINISHED SECTION

STH 78

15+60.00'ST' TO 29+60.00'ST'

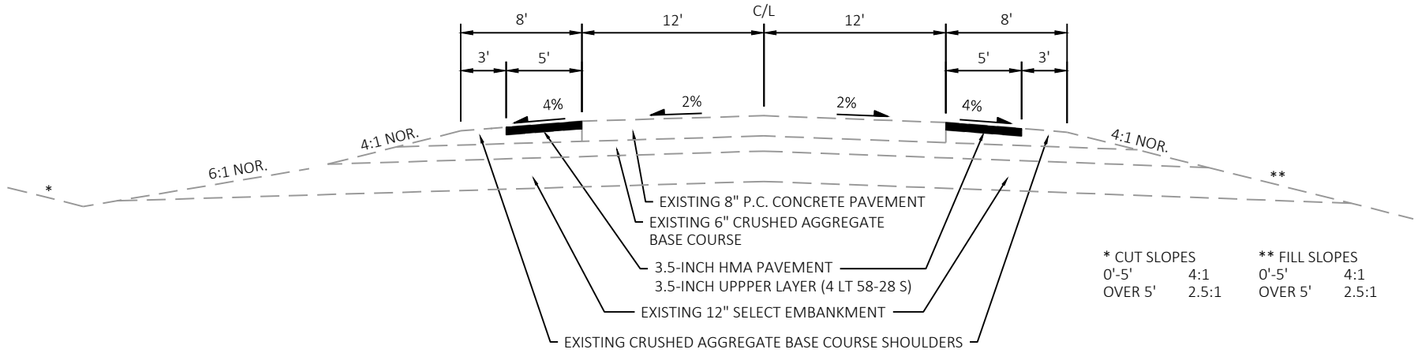
PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	TYPICAL SECTIONS - FINISHED	SHEET 8	E

2



TYPICAL FINISHED SECTION

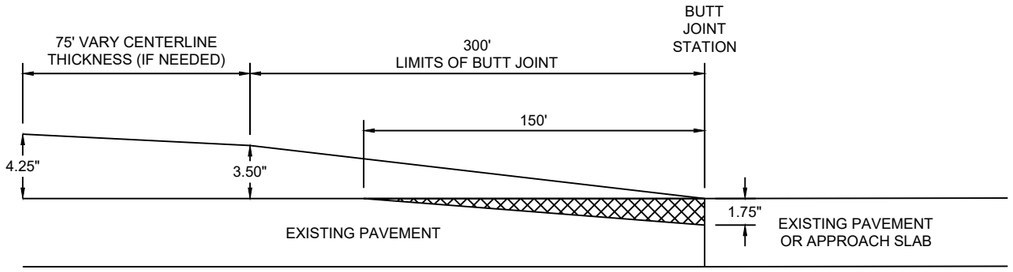
STH 78
WITH CURB & GUTTER LT & RT



* CUT SLOPES		** FILL SLOPES	
0'-5'	4:1	0'-5'	4:1
OVER 5'	2.5:1	OVER 5'	2.5:1

TYPICAL FINISHED SECTION

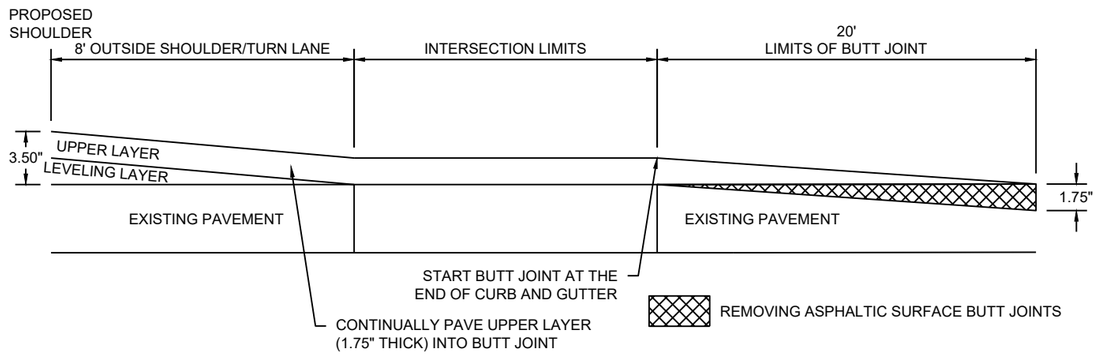
CTH ID



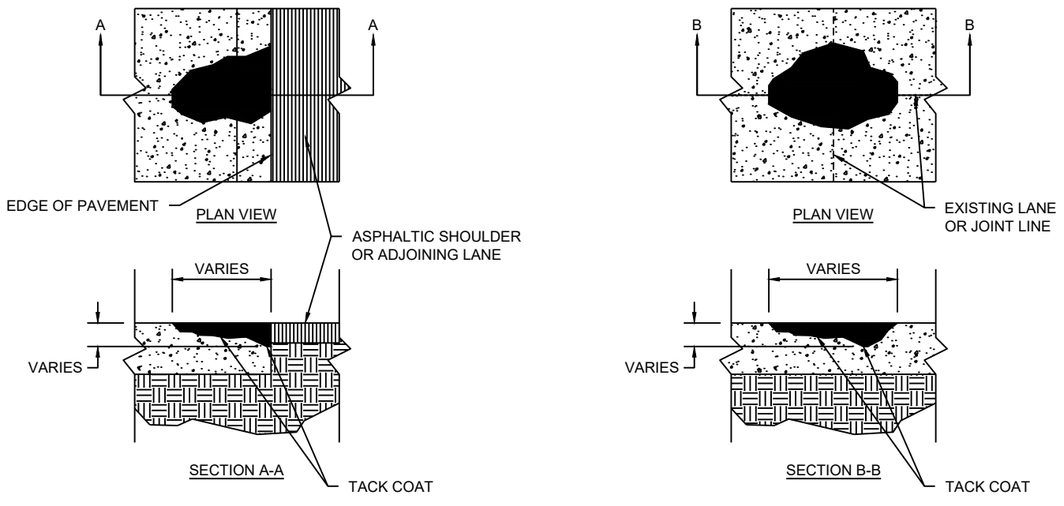
NOTES:
1. LEVELING LAYER TO BE FEATHER OUT.
2. MAINTAIN THE 1.75" THICKNESS OF THE UPPER LAYER.

REMOVING PAVEMENT BUTT JOINTS AND
REMOVING ASHPALTIC SURFACE BUTT JOINTS

MAINLINE BUTT JOINT DETAIL



INTERSECTION BUTT JOINT DETAIL

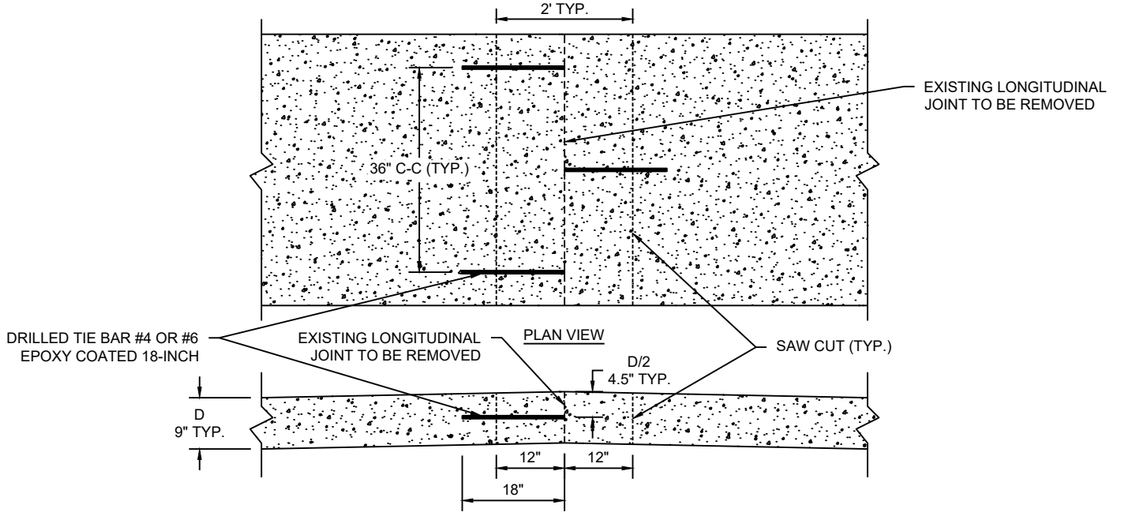


EDGE REPAIR

CRACK/JOINT REPAIR

NOTES:
1. REPAIR THE NARROW JOINT/CRACK DETERIORATION IN THE CONCRETE PAVEMENT WITH THE SPECIAL PROVISION ITEM CONCRETE JOINT AND CRACK CLEANING AND REPAIR.
2. THIS ITEM INCLUDES THE REMOVAL OF LOOSE CONCRETE, ASPHALT AND/OR CONTAMINANTS FROM THE JOINT OR CRACK.
3. BLOW OUT REPAIR AREA WITH 80 P.S.I MINIMUM COMPRESS AIR. THE AREA IS THEN CLEANED, TACK COAT APPLIED AND FILLED WITH ASPHALT. ASPHALTIC SURFACE AND TACK COAT ARE INCIDENTAL TO CONCRETE JOINT AND CRACK CLEANING AND REPAIR.
4. THESE ARE PARTIAL DEPTH REPAIRS.

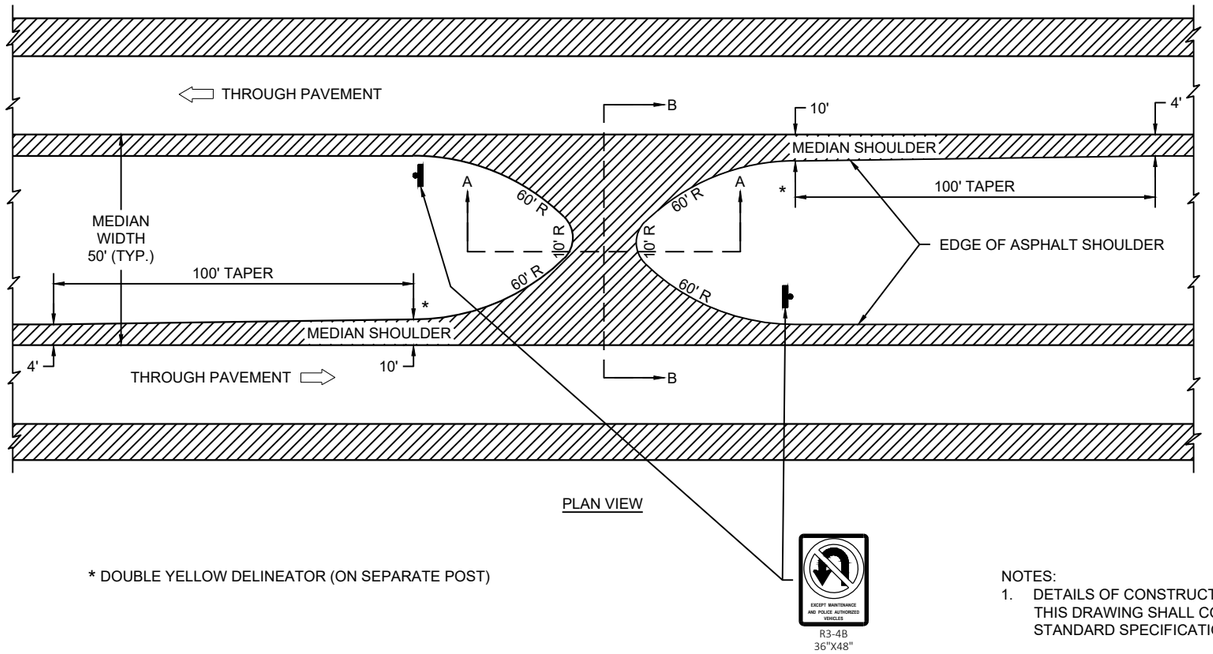
CONCRETE JOINT AND CRACK CLEANING AND REPAIR



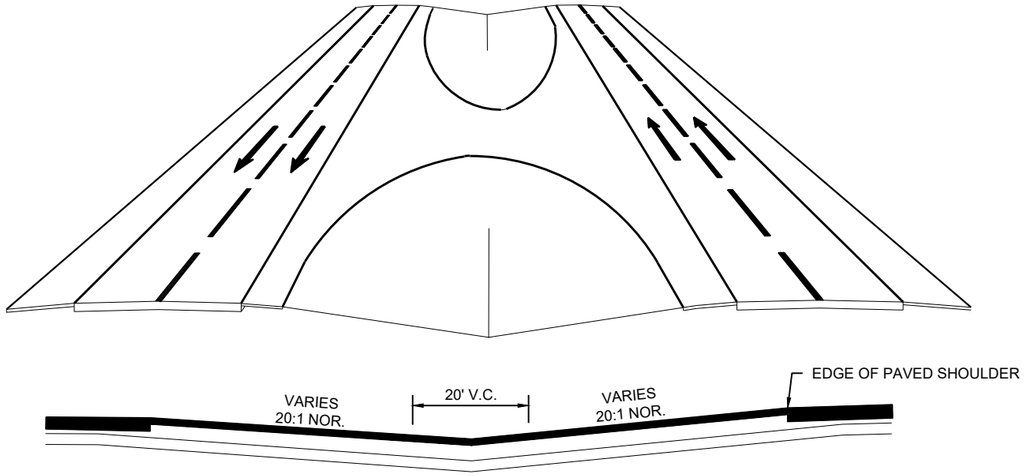
SECTION VIEW

NOTES:
1. REPAIR LONGITUDINAL JOINT DISTRESS THAT IS WIDE AND APPROACHING FULL DEPTH WITH THE SPECIAL PROVISION ITEM CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT.
2. THIS REPAIR IS 2' WIDE AND STRADDLES THE LONGITUDINAL JOINT BETWEEN DRIVING LANES. THESE ARE FULL DEPTH REPAIRS THAT INCLUDE SAWING CONCRETE, DRILLED TIE BARS AND ARE FILLED WITH CONCRETE. SAWING CONCRETE, DRILLED TIE BARS, AND CONCRETE USED TO FILL JOINT ARE INCIDENTAL TO CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT.
3. TIE BAR MAY BE DRILLED AT AN ANGLE, THEN BENT PERPENDICULAR TO JOINT AFTER INSTALLATION.

CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT



PLAN VIEW

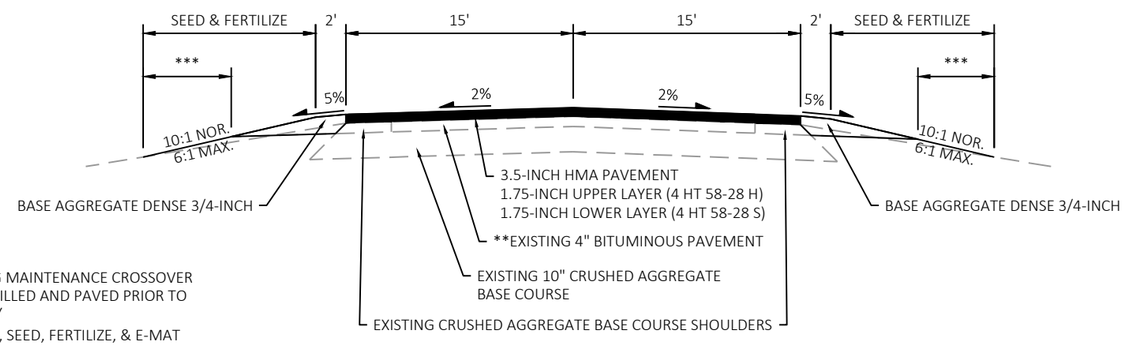


SECTION B-B

* DOUBLE YELLOW DELINEATOR (ON SEPARATE POST)

R3-4B
36"X48"

NOTES:
1. 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.



** EXISTING MAINTENANCE CROSSOVER TO BE MILLED AND PAVED PRIOR TO OVERLAY

*** TOPSOIL, SEED, FERTILIZE, & E-MAT

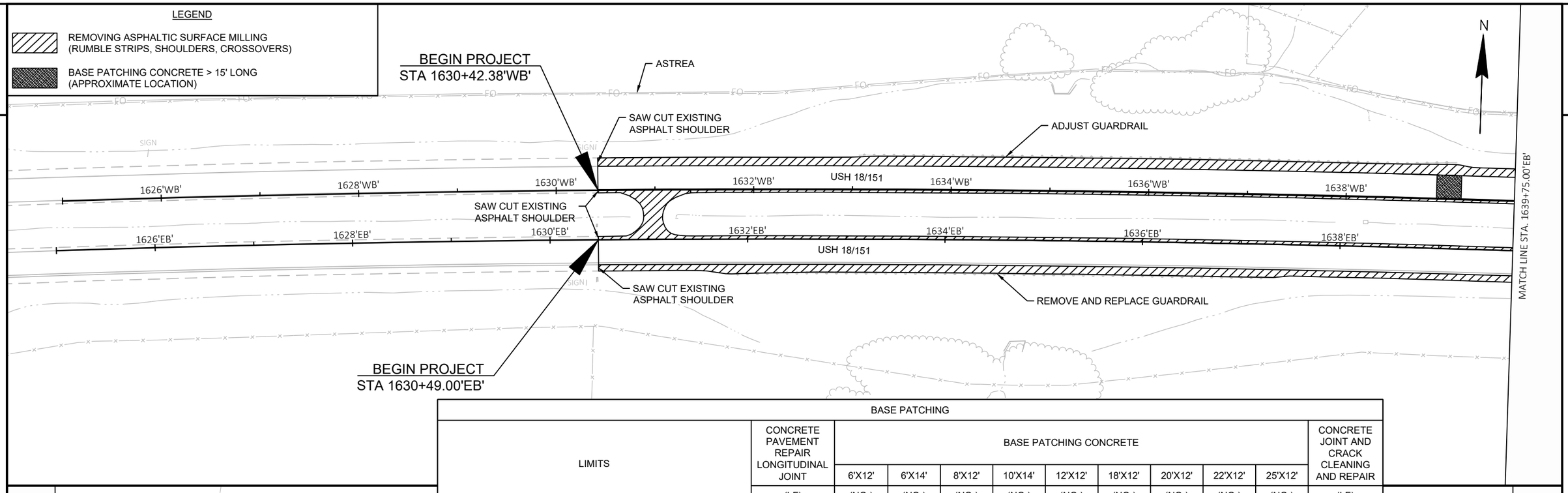
SECTION A-A

MAINTENANCE CROSSOVER DETAIL

LEGEND

REMOVING ASPHALTIC SURFACE MILLING (RUMBLE STRIPS, SHOULDERS, CROSSOVERS)

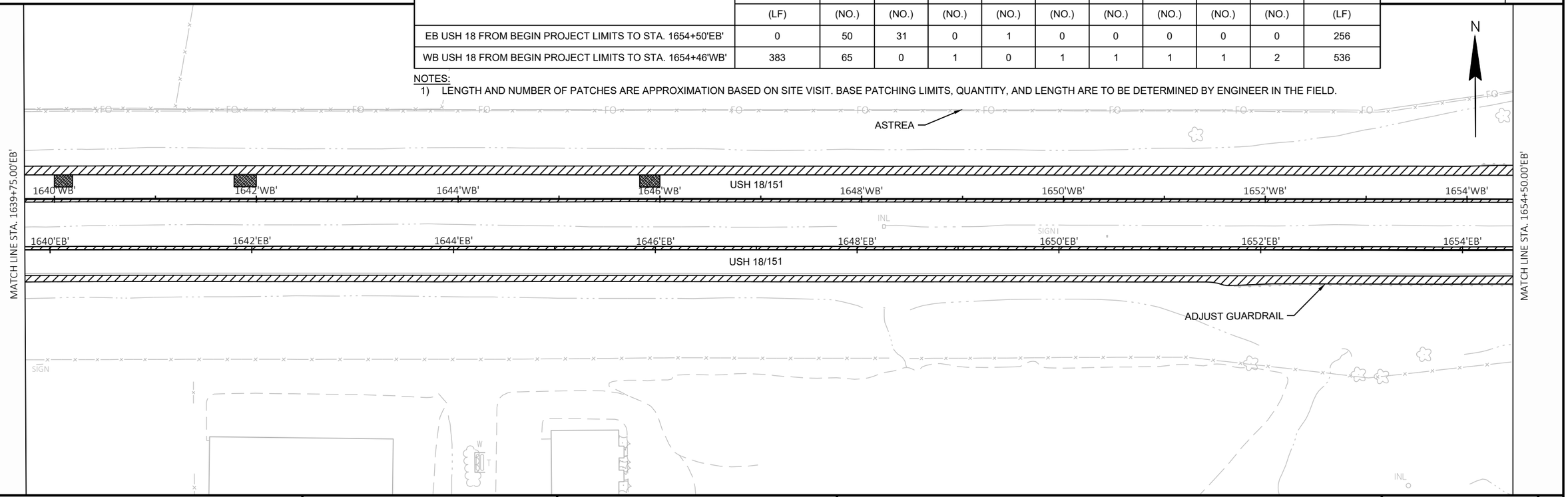
BASE PATCHING CONCRETE > 15' LONG (APPROXIMATE LOCATION)



BASE PATCHING											
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE									CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X12'	6'X14'	8'X12'	10'X14'	12'X12'	18'X12'	20'X12'	22'X12'	25'X12'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
EB USH 18 FROM BEGIN PROJECT LIMITS TO STA. 1654+50'EB'	0	50	31	0	1	0	0	0	0	0	256
WB USH 18 FROM BEGIN PROJECT LIMITS TO STA. 1654+46'WB'	383	65	0	1	0	1	1	1	1	2	536

NOTES:

1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.

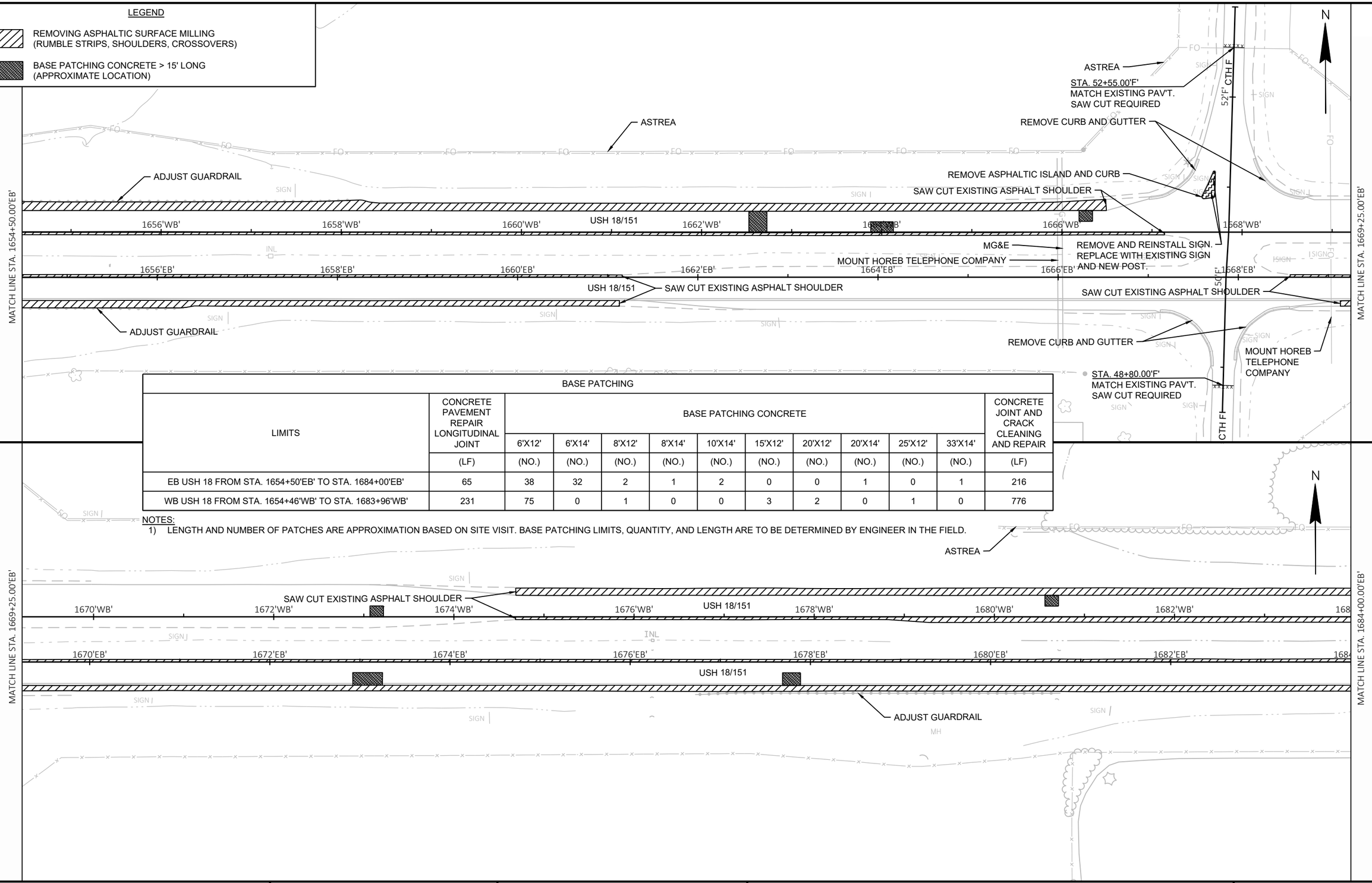


PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	REMOVAL PLAN	SHEET 12	E

LEGEND

REMOVING ASPHALTIC SURFACE MILLING (RUMBLE STRIPS, SHOULDERS, CROSSOVERS)

BASE PATCHING CONCRETE > 15' LONG (APPROXIMATE LOCATION)



BASE PATCHING

LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE										CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X12'	6'X14'	8'X12'	8'X14'	10'X14'	15'X12'	20'X12'	20'X14'	25'X12'	33'X14'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
EB USH 18 FROM STA. 1654+50'EB' TO STA. 1684+00'EB'	65	38	32	2	1	2	0	0	1	0	1	216
WB USH 18 FROM STA. 1654+46'WB' TO STA. 1683+96'WB'	231	75	0	1	0	0	3	2	0	1	0	776

NOTES:

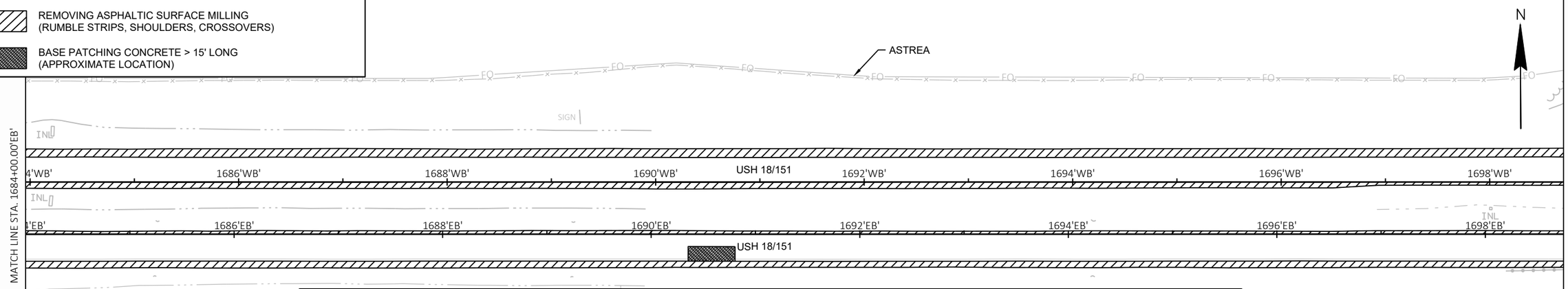
1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.

2

LEGEND

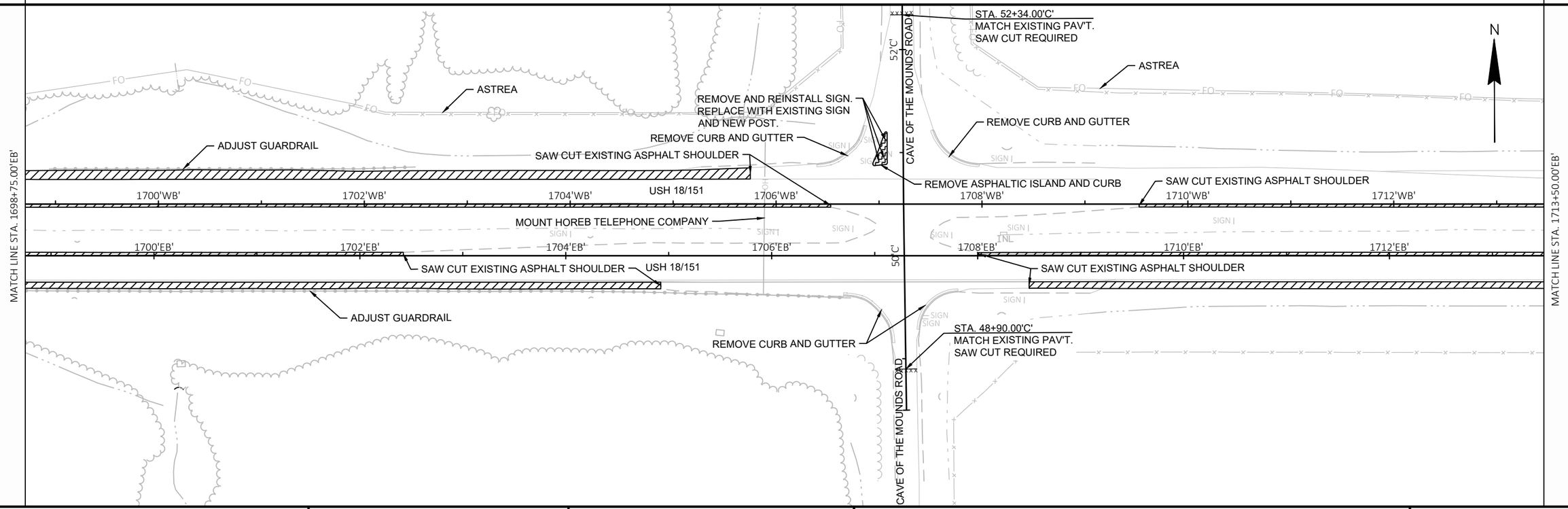
REMOVING ASPHALTIC SURFACE MILLING
(RUMBLE STRIPS, SHOULDERS, CROSSOVERS)

BASE PATCHING CONCRETE > 15' LONG
(APPROXIMATE LOCATION)



BASE PATCHING										
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE								CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X12'	6'X14'	8'X12'	8'X14'	12'X12'	12'X14'	14'X14'	45'X14'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
EB USH 18 FROM STA. 1684+00'EB' TO STA. 1713+50'EB'	160	54	41	1	3	1	1	1	1	336
WB USH 18 FROM STA. 1683+96'WB' TO STA. 1713+46'WB'	520	55	0	2	0	0	0	0	0	1216

NOTES:
1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	REMOVAL PLAN	SHEET 14	E

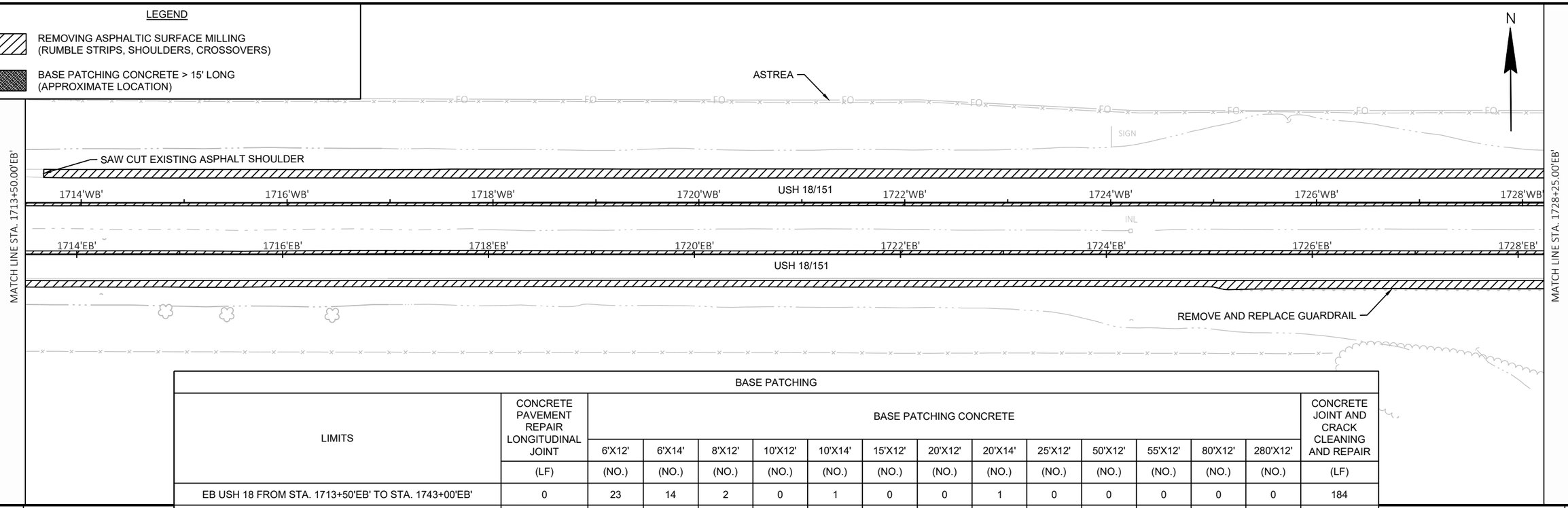
FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021011-CD TO 021028-CD.DWG
LAYOUT NAME - 021013-cd
PLOT DATE : 4/21/2020 11:29 AM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

LEGEND

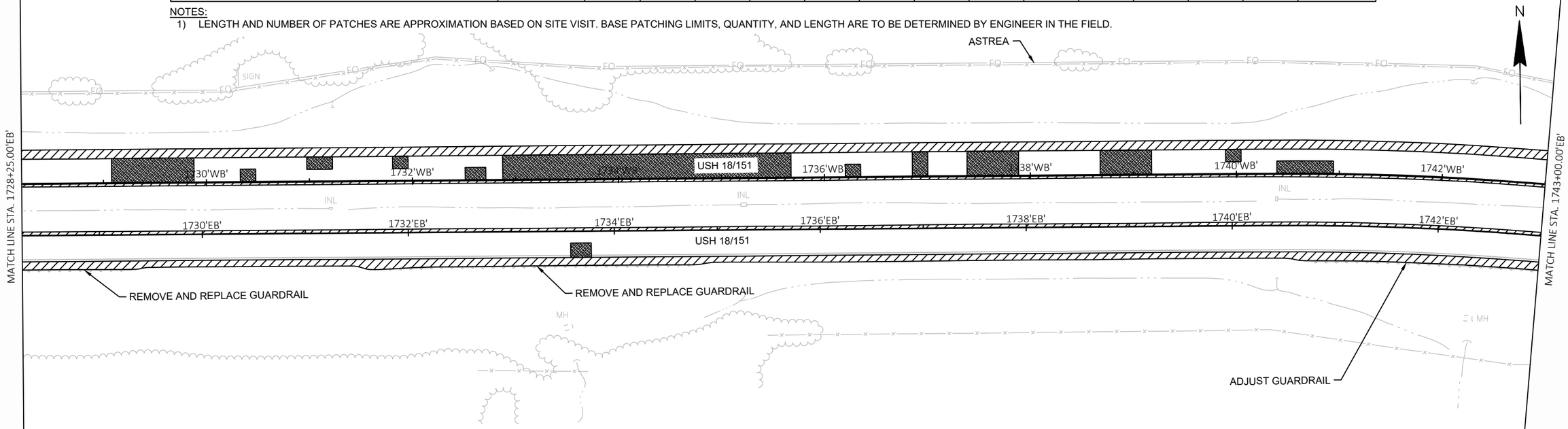
REMOVING ASPHALTIC SURFACE MILLING
(RUMBLE STRIPS, SHOULDERS, CROSSOVERS)

BASE PATCHING CONCRETE > 15' LONG
(APPROXIMATE LOCATION)



BASE PATCHING															
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE													CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X12'	6'X14'	8'X12'	10'X12'	10'X14'	15'X12'	20'X12'	20'X14'	25'X12'	50'X12'	55'X12'	80'X12'	280'X12'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
EB USH 18 FROM STA. 1713+50'EB' TO STA. 1743+00'EB'	0	23	14	2	0	1	0	0	1	0	0	0	0	0	184
WB USH 18 FROM STA. 1713+46'WB' TO STA. 1743+00'WB'	210	63	0	2	1	0	6	1	0	1	4	1	2	2	768

NOTES:
1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.



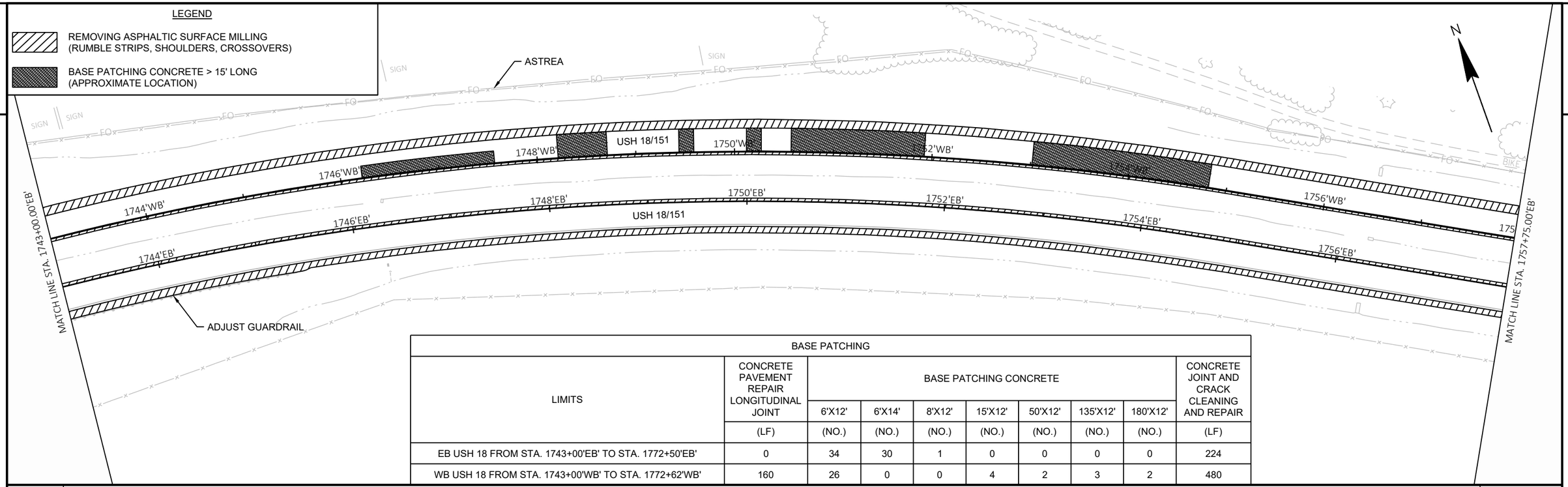
PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	REMOVAL PLAN	SHEET 15	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021011-CD TO 021028-CD.DWG
LAYOUT NAME - 021014-cd
PLOT DATE : 4/21/2020 11:30 AM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

LEGEND

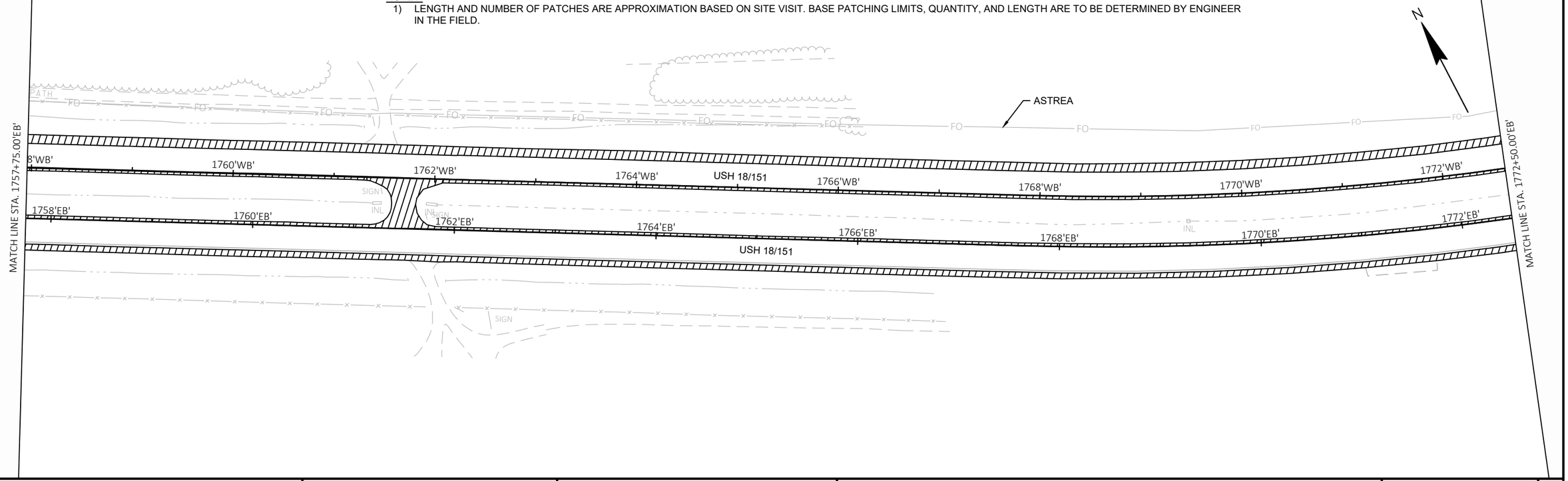
REMOVING ASPHALTIC SURFACE MILLING (RUMBLE STRIPS, SHOULDERS, CROSSOVERS)

BASE PATCHING CONCRETE > 15' LONG (APPROXIMATE LOCATION)



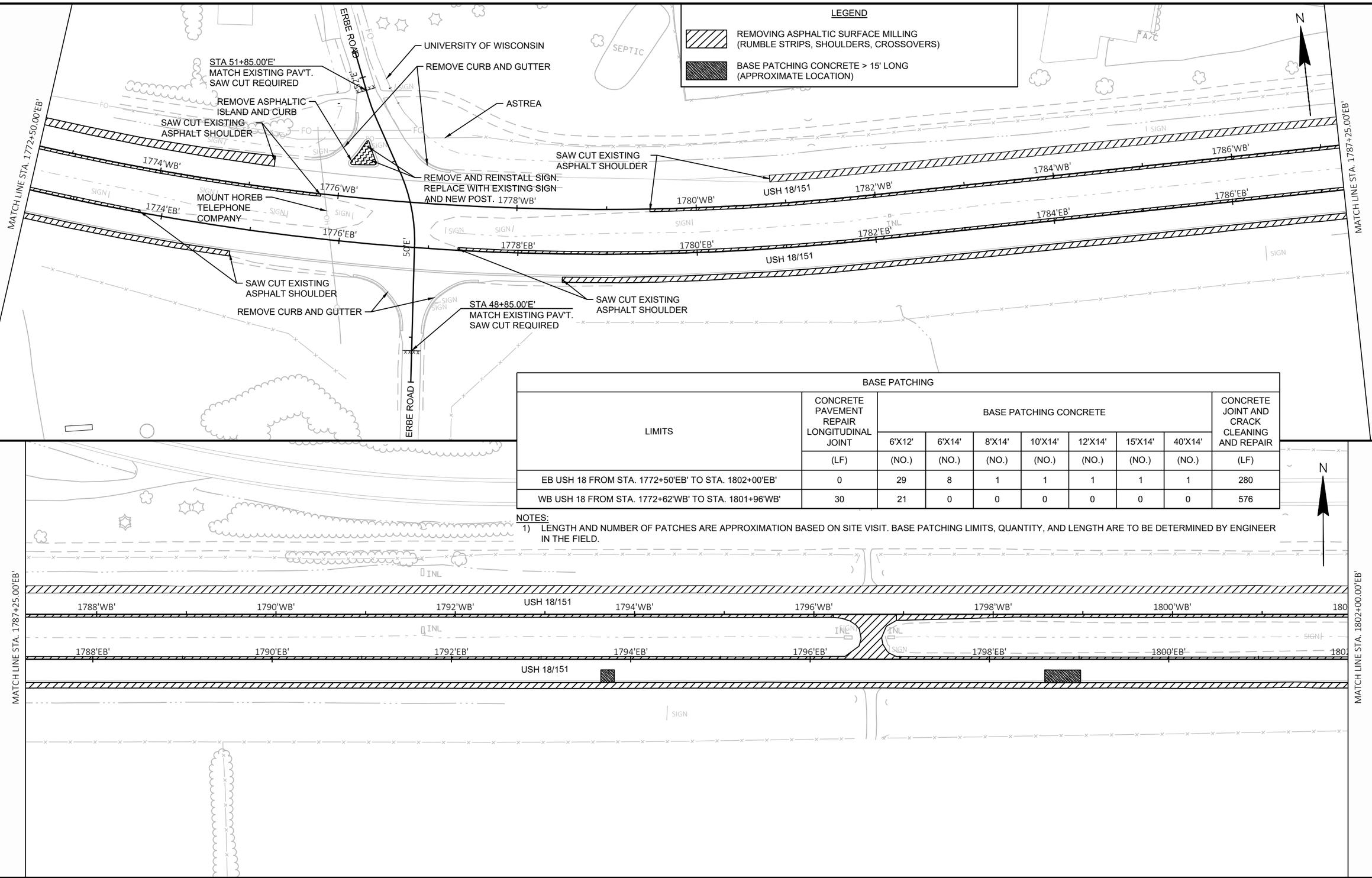
BASE PATCHING									
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE							CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X12'	6'X14'	8'X12'	15'X12'	50'X12'	135'X12'	180'X12'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
EB USH 18 FROM STA. 1743+00'EB' TO STA. 1772+50'EB'	0	34	30	1	0	0	0	0	224
WB USH 18 FROM STA. 1743+00'WB' TO STA. 1772+62'WB'	160	26	0	0	4	2	3	2	480

NOTES:
1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	REMOVAL PLAN	SHEET 16	E

2



BASE PATCHING									
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE							CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X12'	6'X14'	8'X14'	10'X14'	12'X14'	15'X14'	40'X14'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
EB USH 18 FROM STA. 1772+50'EB' TO STA. 1802+00'EB'	0	29	8	1	1	1	1	1	280
WB USH 18 FROM STA. 1772+62'WB' TO STA. 1801+96'WB'	30	21	0	0	0	0	0	0	576

NOTES:
1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.

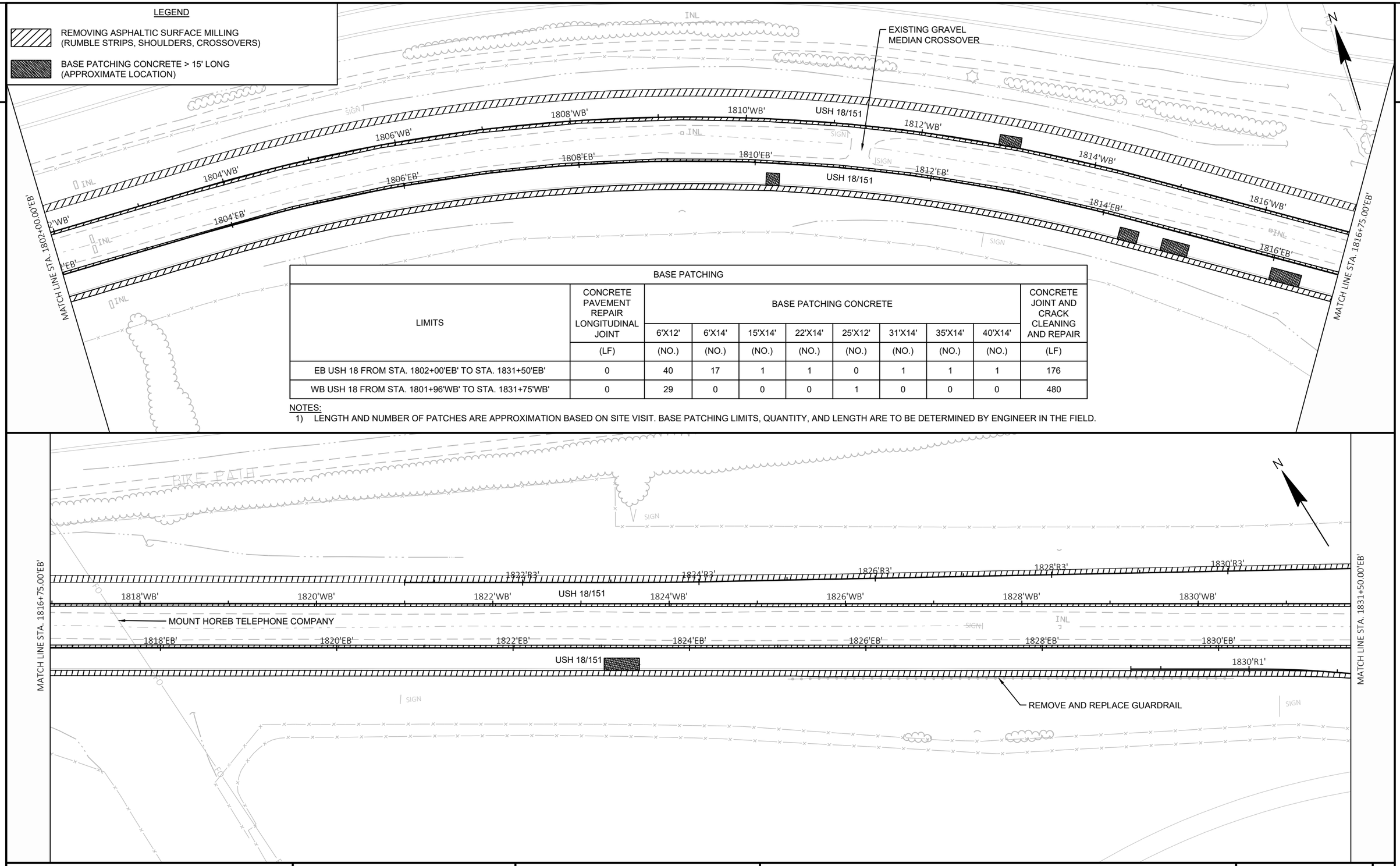
PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	REMOVAL PLAN	SHEET 17	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021011-CD TO 021028-CD.DWG
LAYOUT NAME - 021016-cd
PLOT DATE : 4/21/2020 11:33 AM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

LEGEND

REMOVING ASPHALTIC SURFACE MILLING
(RUMBLE STRIPS, SHOULDERS, CROSSOVERS)

BASE PATCHING CONCRETE > 15' LONG
(APPROXIMATE LOCATION)



BASE PATCHING										
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE								CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X12'	6'X14'	15'X14'	22'X14'	25'X12'	31'X14'	35'X14'	40'X14'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
EB USH 18 FROM STA. 1802+00'EB' TO STA. 1831+50'EB'	0	40	17	1	1	0	1	1	1	176
WB USH 18 FROM STA. 1801+96'WB' TO STA. 1831+75'WB'	0	29	0	0	0	1	0	0	0	480

NOTES:
1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	REMOVAL PLAN	SHEET 18	E

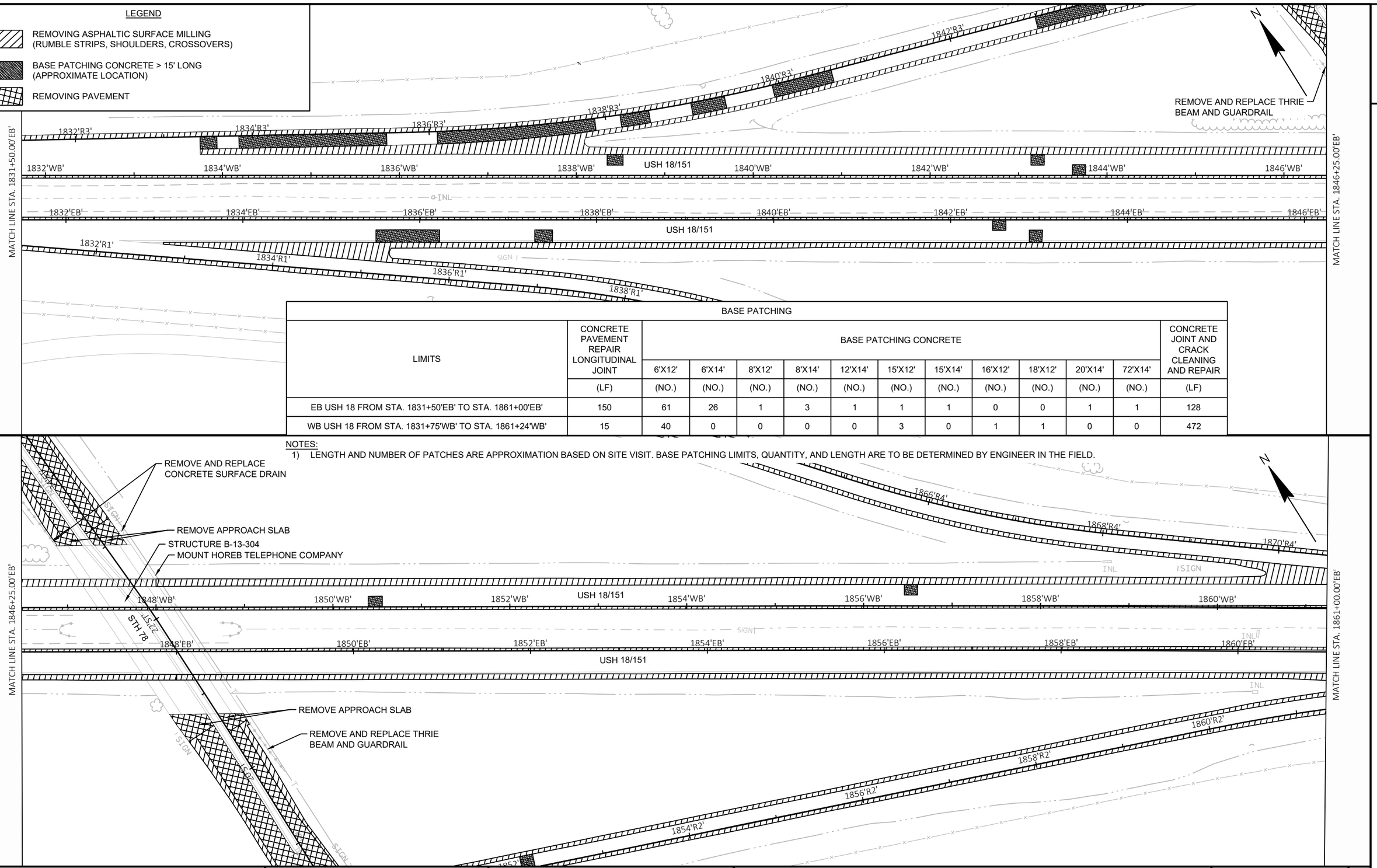
FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021011-CD TO 021028-CD.DWG
LAYOUT NAME - 021017-cd
PLOT DATE : 4/21/2020 11:34 AM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

LEGEND

REMOVING ASPHALTIC SURFACE MILLING (RUMBLE STRIPS, SHOULDERS, CROSSOVERS)

BASE PATCHING CONCRETE > 15' LONG (APPROXIMATE LOCATION)

REMOVING PAVEMENT



BASE PATCHING													
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE											CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X12'	6'X14'	8'X12'	8'X14'	12'X14'	15'X12'	15'X14'	16'X12'	18'X12'	20'X14'	72'X14'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
EB USH 18 FROM STA. 1831+50'EB' TO STA. 1861+00'EB'	150	61	26	1	3	1	1	1	0	0	1	1	128
WB USH 18 FROM STA. 1831+75'WB' TO STA. 1861+24'WB'	15	40	0	0	0	0	3	0	1	1	0	0	472

NOTES:
1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	REMOVAL PLAN	SHEET 19	E

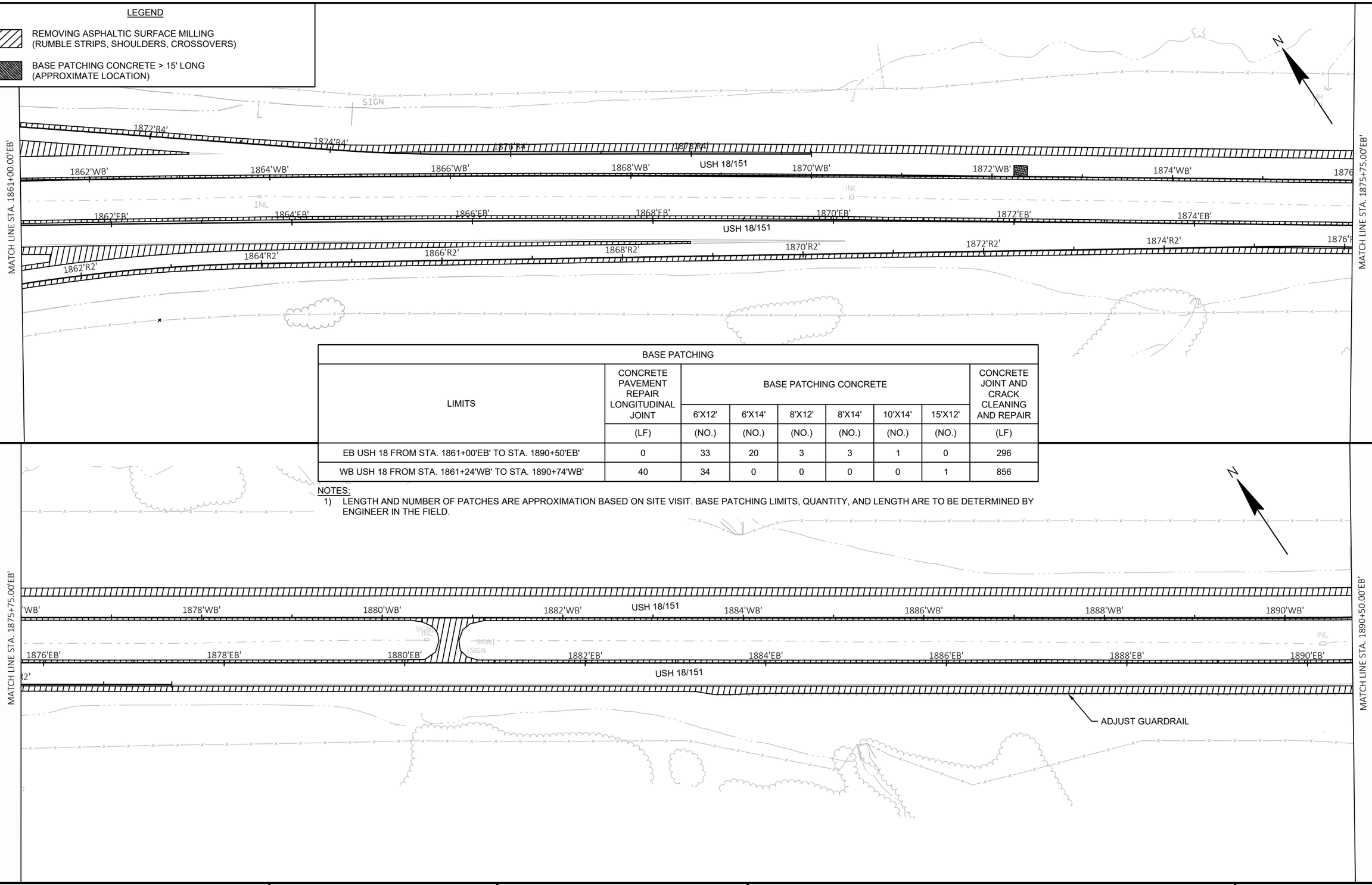
FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021011-CD TO 021028-CD.DWG
LAYOUT NAME - 021018-cd
PLOT DATE : 4/21/2020 11:36 AM
PLOT BY : BRETT PETERSON
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

LEGEND

REMOVING ASPHALTIC SURFACE MILLING (RUMBLE STRIPS, SHOULDERS, CROSSOVERS)

BASE PATCHING CONCRETE > 15' LONG (APPROXIMATE LOCATION)

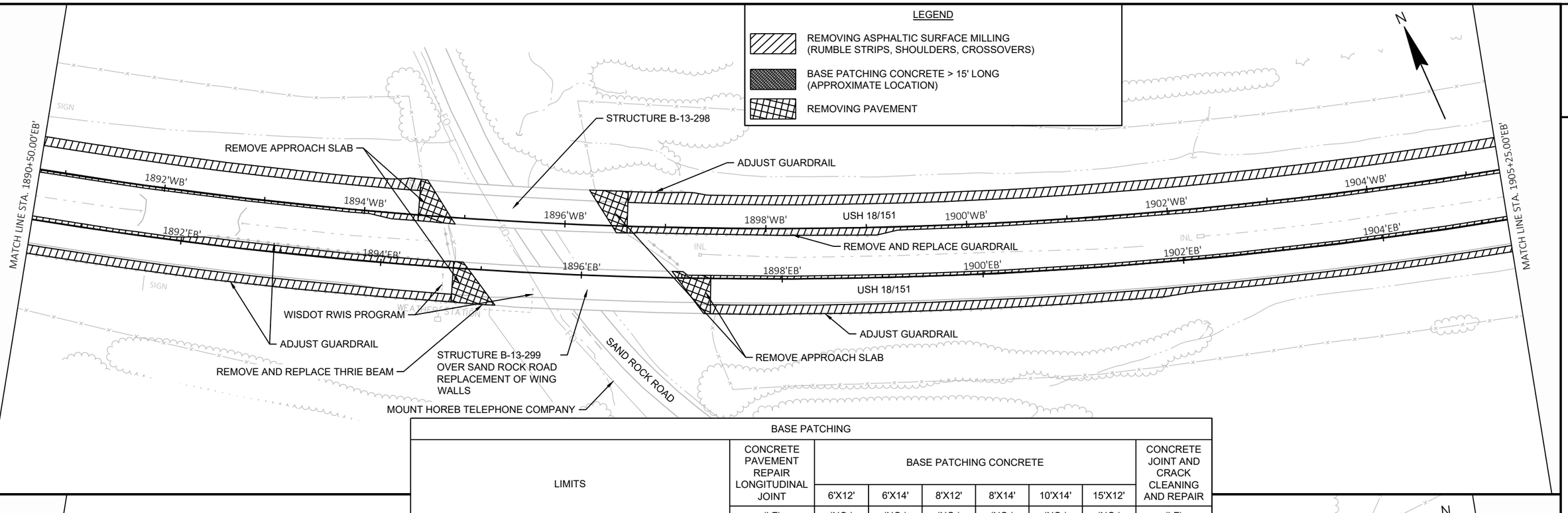


BASE PATCHING								
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE						CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X12'	6'X14'	8'X12'	8'X14'	10'X14'	15'X12'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
EB USH 18 FROM STA. 1861+00'EB' TO STA. 1890+50'EB'	0	33	20	3	3	1	0	296
WB USH 18 FROM STA. 1861+24'WB' TO STA. 1890+74'WB'	40	34	0	0	0	0	1	856

NOTES:

1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	REMOVAL PLAN	SHEET 20	E



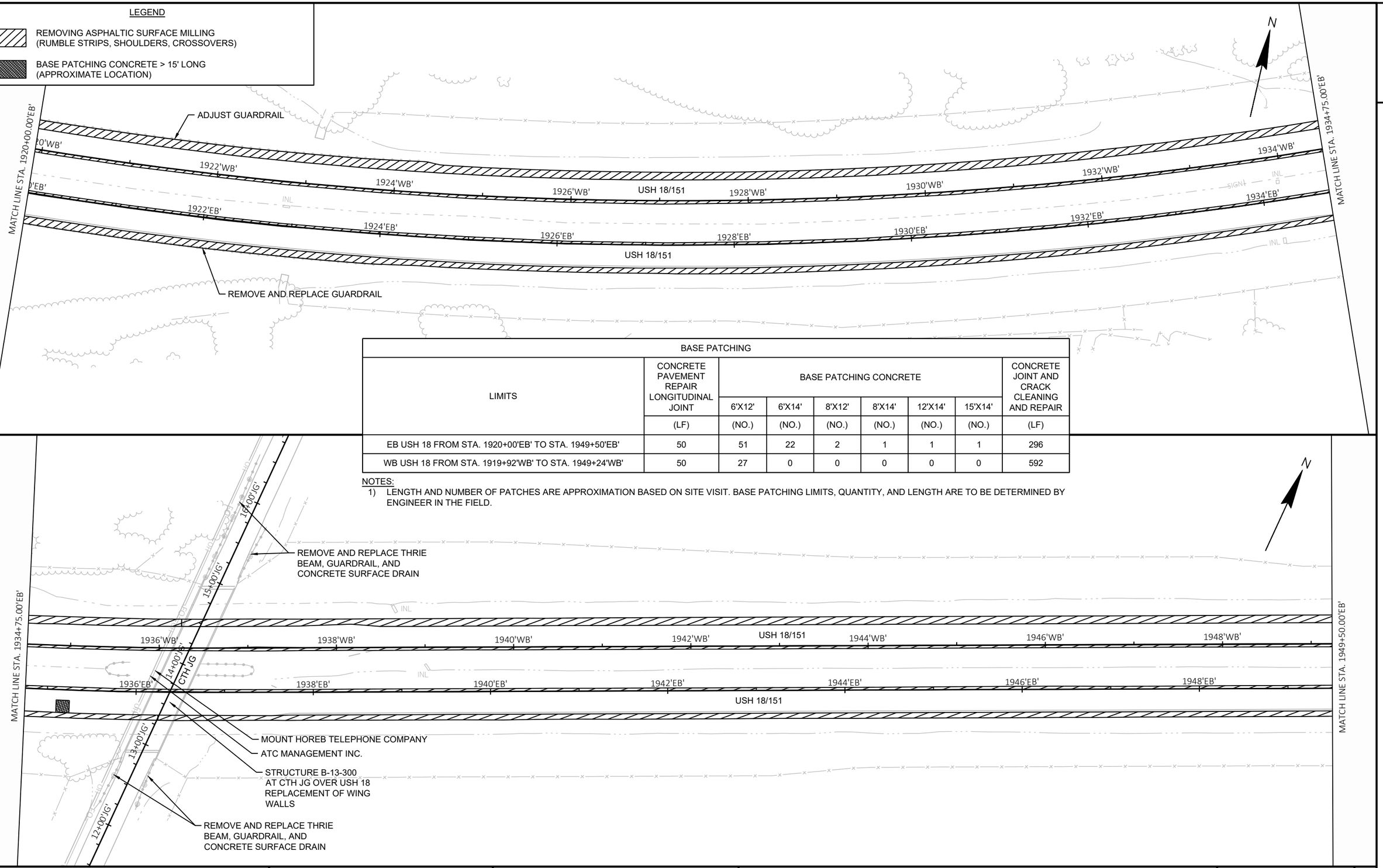
BASE PATCHING								
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE						CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X12'	6'X14'	8'X12'	8'X14'	10'X14'	15'X12'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
EB USH 18 FROM STA. 1890+50'EB' TO STA. 1920+00'EB'	10	69	17	4	1	1	0	280
WB USH 18 FROM STA. 1890+74'WB' TO STA. 1919+92'WB'	30	21	0	0	0	0	2	440

NOTES:
1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.

LEGEND

REMOVING ASPHALTIC SURFACE MILLING
(RUMBLE STRIPS, SHOULDERS, CROSSOVERS)

BASE PATCHING CONCRETE > 15' LONG
(APPROXIMATE LOCATION)



BASE PATCHING								
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE						CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X12'	6'X14'	8'X12'	8'X14'	12'X14'	15'X14'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
EB USH 18 FROM STA. 1920+00'EB' TO STA. 1949+50'EB'	50	51	22	2	1	1	1	296
WB USH 18 FROM STA. 1919+92'WB' TO STA. 1949+24'WB'	50	27	0	0	0	0	0	592

NOTES:
1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.

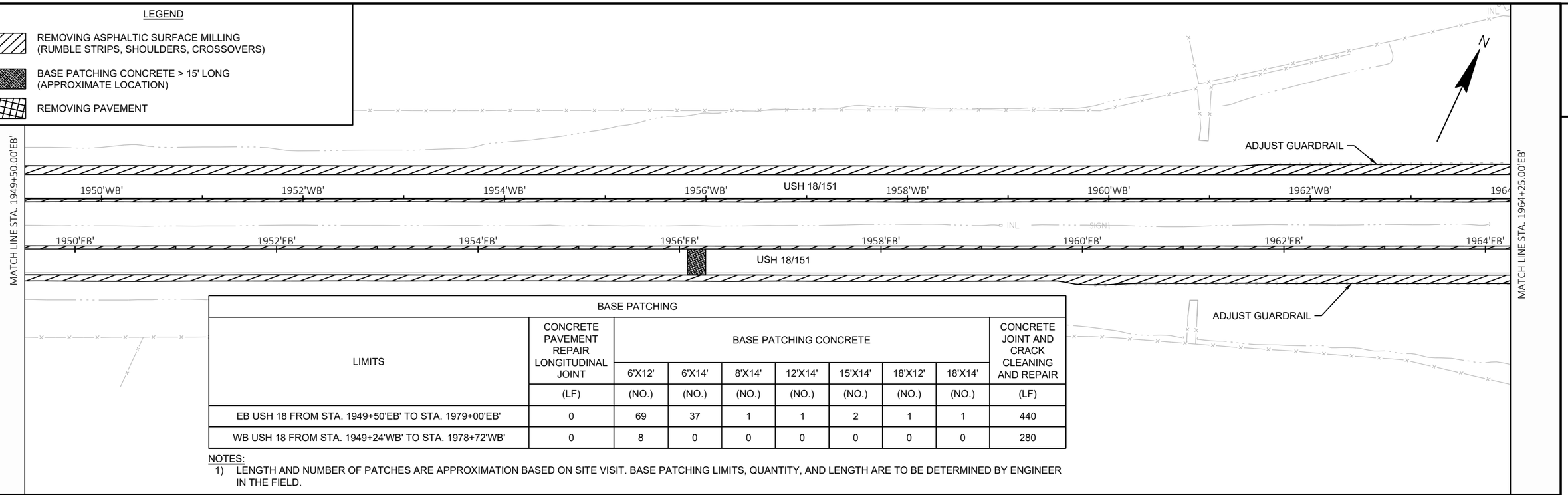
2

LEGEND

REMOVING ASPHALTIC SURFACE MILLING
(RUMBLE STRIPS, SHOULDERS, CROSSOVERS)

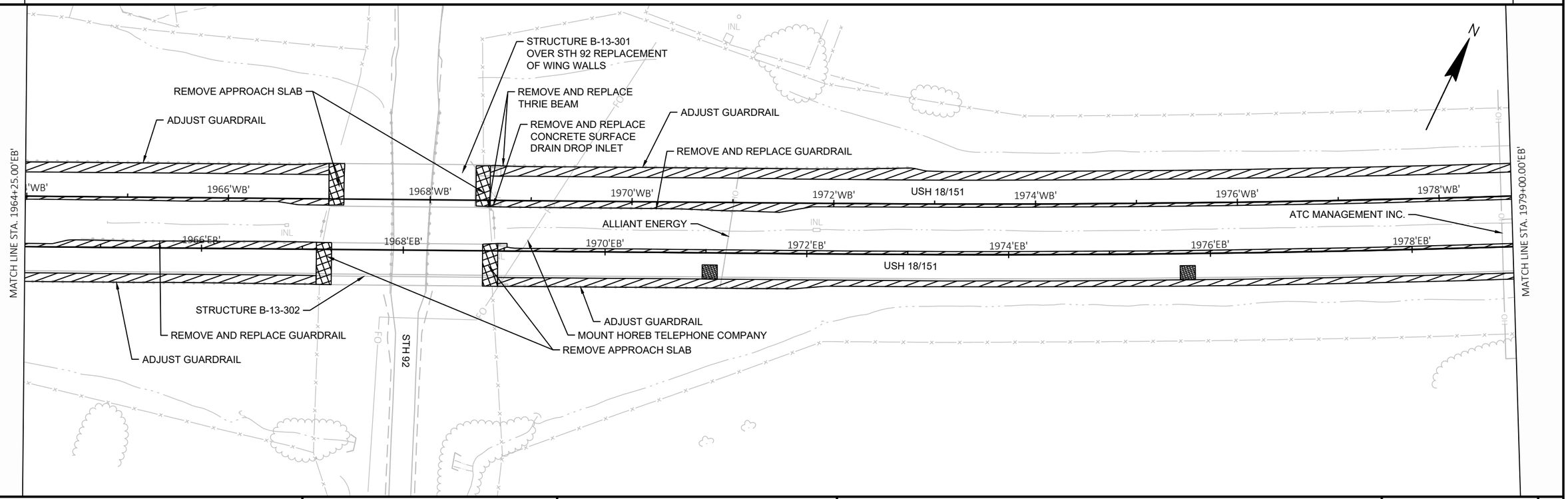
BASE PATCHING CONCRETE > 15' LONG
(APPROXIMATE LOCATION)

REMOVING PAVEMENT



BASE PATCHING									
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE							CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X12'	6'X14'	8'X14'	12'X14'	15'X14'	18'X12'	18'X14'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
EB USH 18 FROM STA. 1949+50'EB' TO STA. 1979+00'EB'	0	69	37	1	1	2	1	1	440
WB USH 18 FROM STA. 1949+24'WB' TO STA. 1978+72'WB'	0	8	0	0	0	0	0	0	280

NOTES:
1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	REMOVAL PLAN	SHEET 23	E

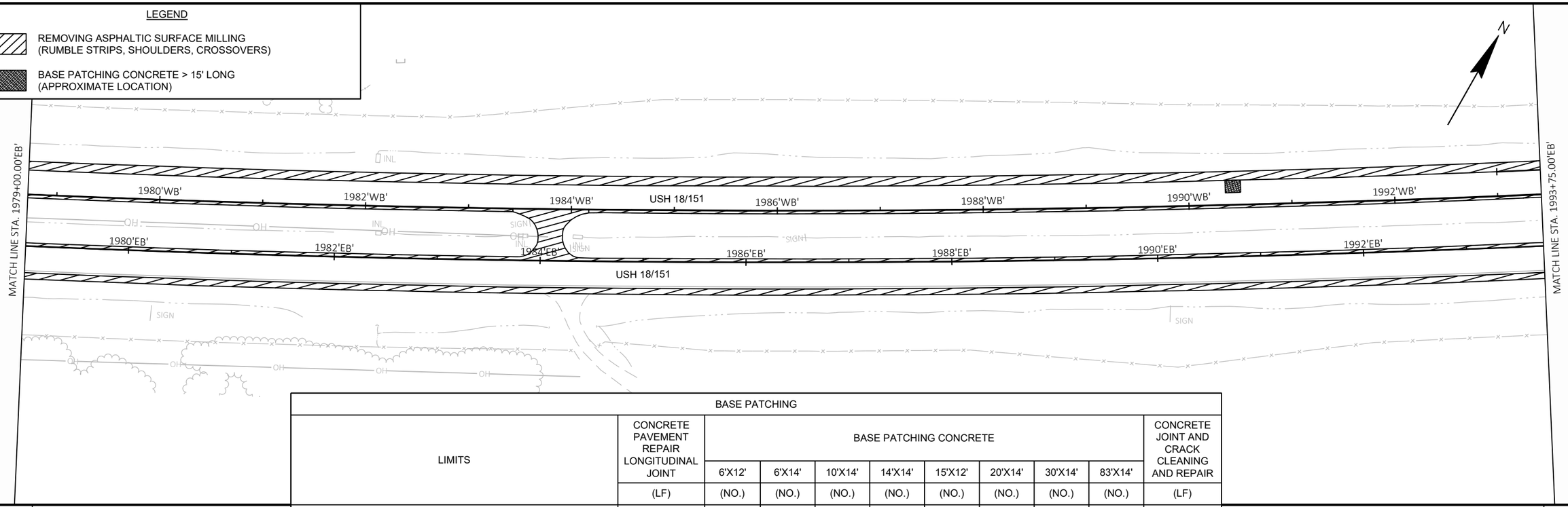
FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021011-CD TO 021028-CD.DWG
LAYOUT NAME - 021022-cd
PLOT DATE : 4/21/2020 11:41 AM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

LEGEND

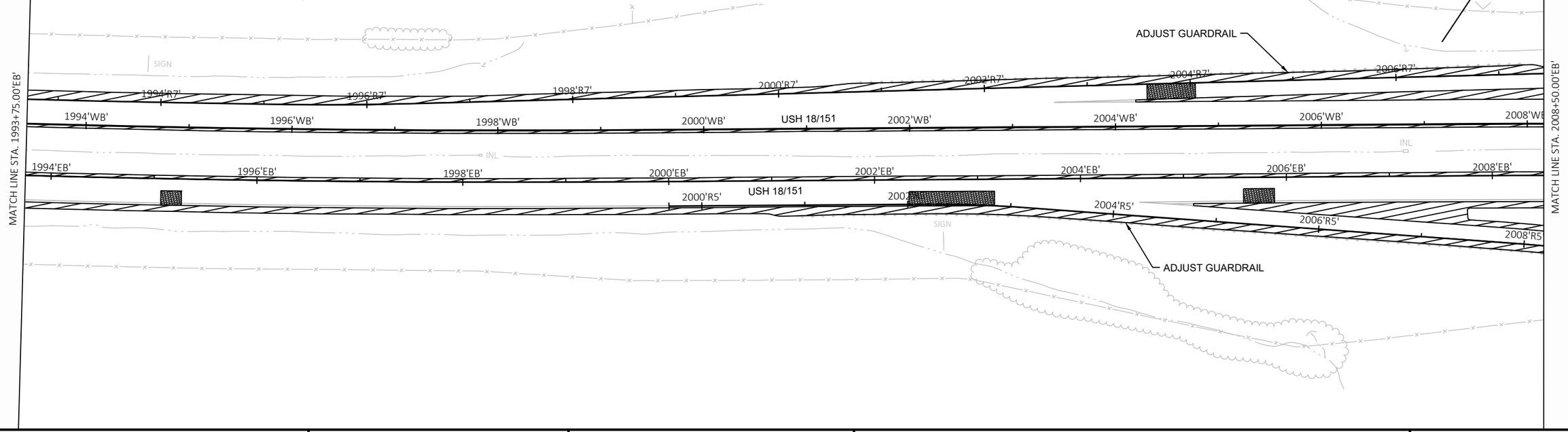
REMOVING ASPHALTIC SURFACE MILLING
(RUMBLE STRIPS, SHOULDERS, CROSSOVERS)

BASE PATCHING CONCRETE > 15' LONG
(APPROXIMATE LOCATION)



BASE PATCHING										
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE								CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X12'	6'X14'	10'X14'	14'X14'	15'X12'	20'X14'	30'X14'	83'X14'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
EB USH 18 FROM STA. 1979+00'EB' TO STA. 2008+50'EB'	15	69	74	1	1	0	1	1	1	360
WB USH 18 FROM STA. 1978+72'WB' TO STA. 2008+16'WB'	68	12	0	0	0	1	0	0	0	336

NOTES:
1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.



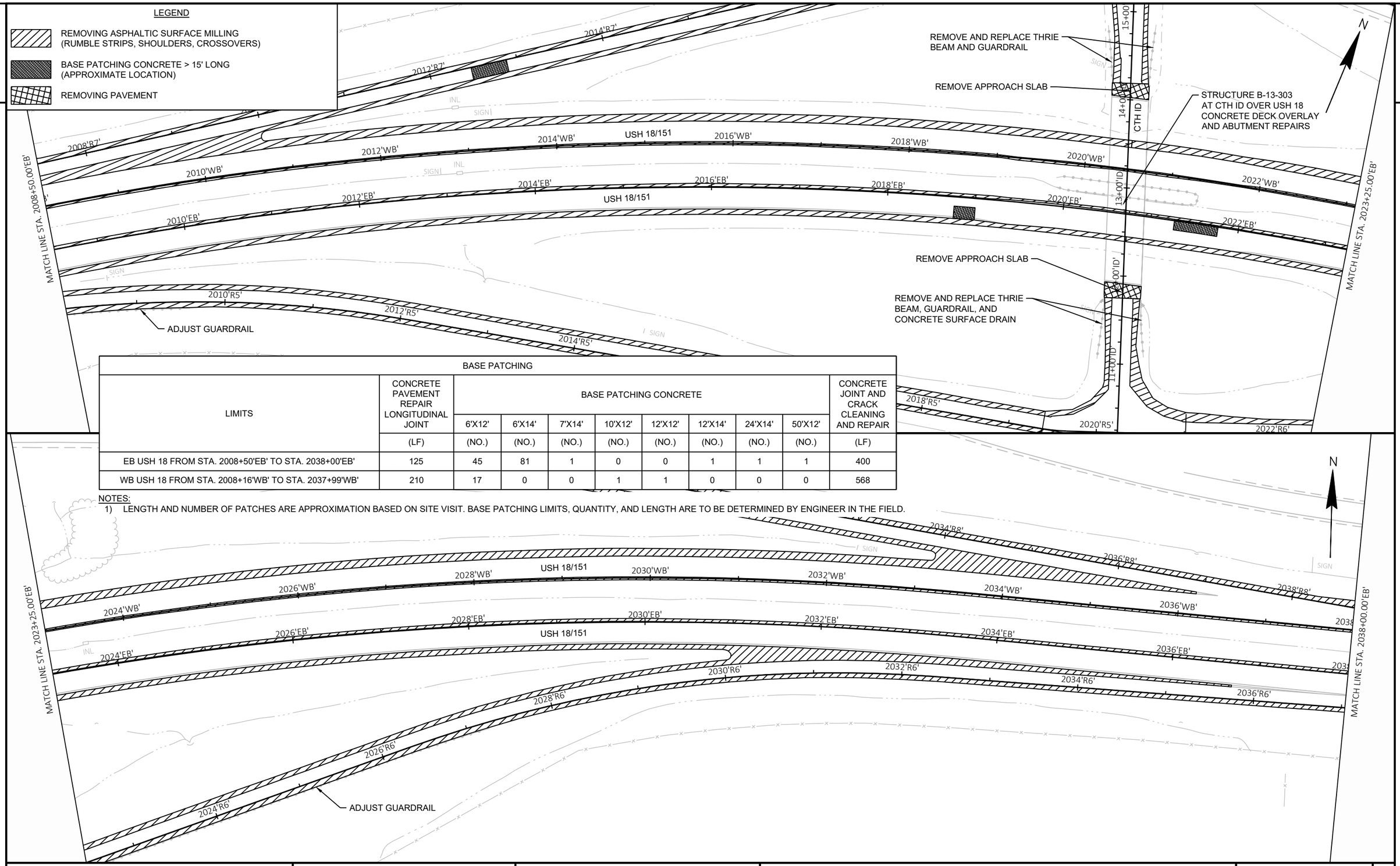
PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	REMOVAL PLAN	SHEET 24	E

LEGEND

REMOVING ASPHALTIC SURFACE MILLING (RUMBLE STRIPS, SHOULDERS, CROSSOVERS)

BASE PATCHING CONCRETE > 15' LONG (APPROXIMATE LOCATION)

REMOVING PAVEMENT



BASE PATCHING										
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE								CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X12'	6'X14'	7'X14'	10'X12'	12'X12'	12'X14'	24'X14'	50'X12'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
EB USH 18 FROM STA. 2008+50'EB' TO STA. 2038+00'EB'	125	45	81	1	0	0	1	1	1	400
WB USH 18 FROM STA. 2008+16'WB' TO STA. 2037+99'WB'	210	17	0	0	1	1	0	0	0	568

NOTES:

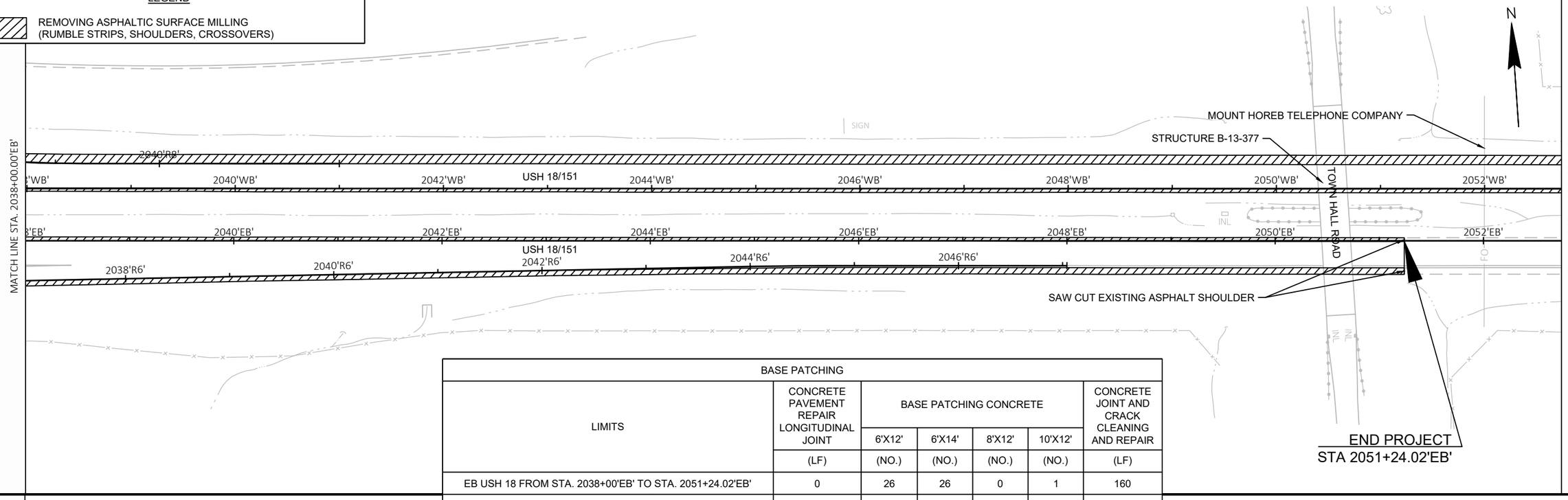
1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	REMOVAL PLAN	SHEET 25	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021011-CD TO 021028-CD.DWG
LAYOUT NAME - 021024-cd
PLOT DATE : 4/21/2020 11:44 AM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

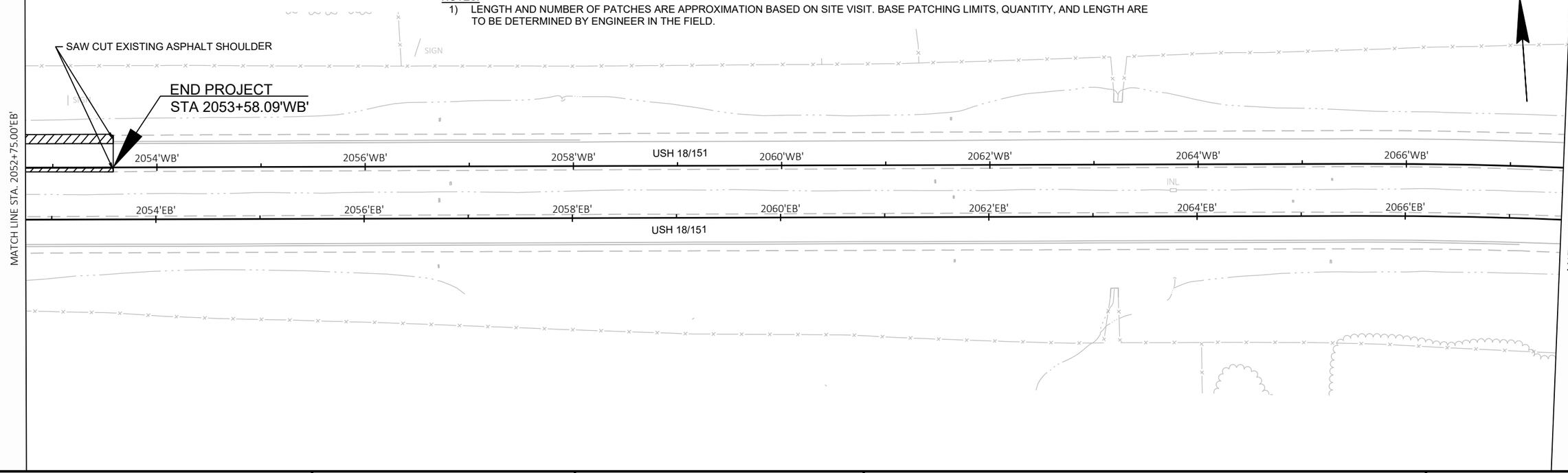
LEGEND

REMOVING ASPHALTIC SURFACE MILLING
(RUMBLE STRIPS, SHOULDERS, CROSSOVERS)



BASE PATCHING						
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE				CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X12'	6'X14'	8'X12'	10'X12'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
EB USH 18 FROM STA. 2038+00'EB' TO STA. 2051+24.02'EB'	0	26	26	0	1	160
WB USH 18 FROM STA. 2037+99'WB' TO STA. 2053+58.09'WB'	150	13	0	1	0	320

NOTES:
1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.



2

NOTE:
SPOT CURB AND GUTTER REPLACEMENT LOCATIONS ALONG STH 78 TO BE DETERMINED BY THE ENGINEER.

LEGEND

- REMOVING ASPHALTIC SURFACE MILLING (RUMBLE STRIPS, SHOULDERS, CROSSOVERS)
- BASE PATCHING CONCRETE > 15' LONG (APPROXIMATE LOCATION)
- REMOVING PAVEMENT

MATCH LINE STA. 27+00.00'ST

SAWCUT PAVEMENT

SAWCUT PAVEMENT

REMOVE AND REPLACE CONCRETE SURFACE DRAIN

REMOVE AND REPLACE THRIE BEAM AND GUARDRAIL

REMOVE APPROACH SLAB

STRUCTURE B-13-304

MOUNT HOREB TELEPHONE COMPANY

BASE PATCHING							
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE					
		55'X6'	150'X6'	6'X15'	8'X15'	10'X15'	15'X15'
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)
EB ON RAMP AT STH 78	0	0	1	64	2	1	1
EB OFF RAMP AT STH 78	0	1	0	16	0	1	1

BASE PATCHING													
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE											CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X6'	6'X15'	8'X15'	9'X15'	19'X15'	33'X15'	34'X15'	69'X15'	80'X15'	167'X15'	180'X15'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
WB ON RAMP AT STH 78	0	0	4	1	0	1	1	1	1	1	1	1	0
WB OFF RAMP AT STH 78	0	1	25	0	1	0	0	0	0	0	0	0	48

NOTES:
1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.
2) BASE PATCHING CONCRETE SHES SHALL BE USED ON ALL STH 78 RAMPS.

BASE PATCHING				
LIMITS	BASE PATCHING CONCRETE			CONCRETE JOINT AND CRACK CLEANING AND REPAIR
	20'X15'	22'X15'	25'X15'	
	(NO.)	(NO.)	(NO.)	(LF)
EB ON RAMP AT STH 78	0	0	0	80
EB OFF RAMP AT STH 78	1	1	1	104

REMOVE APPROACH SLAB

REMOVE AND REPLACE THRIE BEAM AND GUARDRAIL

ADJUST MANHOLE COVER

REMOVE AND REINSTALL SIGN. REPLACE WITH EXISTING SIGN AND NEW POST.

SAWCUT PAVEMENT

REMOVE ASPHALTIC ISLAND AND CURB

REMOVE CURB AND GUTTER

ADJUST MANHOLE COVER

REMOVE ASPHALTIC ISLAND

SAWCUT PAVEMENT

MATCH LINE STA. 17+00.00'ST

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	REMOVAL PLAN - STH 78 INTERCHANGE	SHEET 27	E

2

LEGEND

REMOVING ASPHALTIC SURFACE MILLING
(RUMBLE STRIPS, SHOULDERS, CROSSOVERS)

REMOVING PAVEMENT

N

NOTE:
SPOT CURB AND GUTTER REPLACEMENT LOCATIONS
ALONG STH 78 TO BE DETERMINED BY THE ENGINEER.

REMOVE AND REINSTALL SIGN.
REPLACE WITH EXISTING SIGN
AND NEW POST.

ADJUST MANHOLE COVER

STA. 29+60.00'ST'
MATCH EXISTING PAV'T.
SAW CUT REQUIRED

30'ST

REMOVE ASPHALTIC
ISLAND AND CURB

CTH ID

CTH ID

BIKE PATH

SIGN

SEPV

28'ST

STH 78

MATCH LINE STA. 27+00.00'ST'

MATCH LINE STA. 17+00.00'ST'

REMOVE ASPHALTIC ISLAND

REMOVE CURB AND GUTTER

REMOVE AND REINSTALL SIGN,
REPLACE WITH EXISTING SIGN
AND NEW POST.

REMOVE AND
REINSTALL
DELINEATOR

REMOVE
CORRUGATED
MEDIAN

STH 78

12'ST

STA. 12+50.00'ST'
MATCH EXISTING PAV'T.
SAW CUT REQUIRED

10'ST

CTH E

2

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	REMOVAL PLAN - STH 78 INTERCHANGE	SHEET 28	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021011-CD TO 021028-CD.DWG
LAYOUT NAME - 021027-cd

PLOT DATE : 4/21/2020 11:47 AM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : ##########

2

BASE PATCHING									
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	6'X12'	6'X15'	12'X15'	26'X15'	31'X15'	41'X15'	47'X15'	CONCRETE JOINT AND CRACK CLEANING AND REPAIR
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
WB ON RAMP AT CTH ID	0	0	12	1	0	0	1	1	88
WB OFF RAMP AT CTH ID	0	1	0	0	1	1	0	0	104

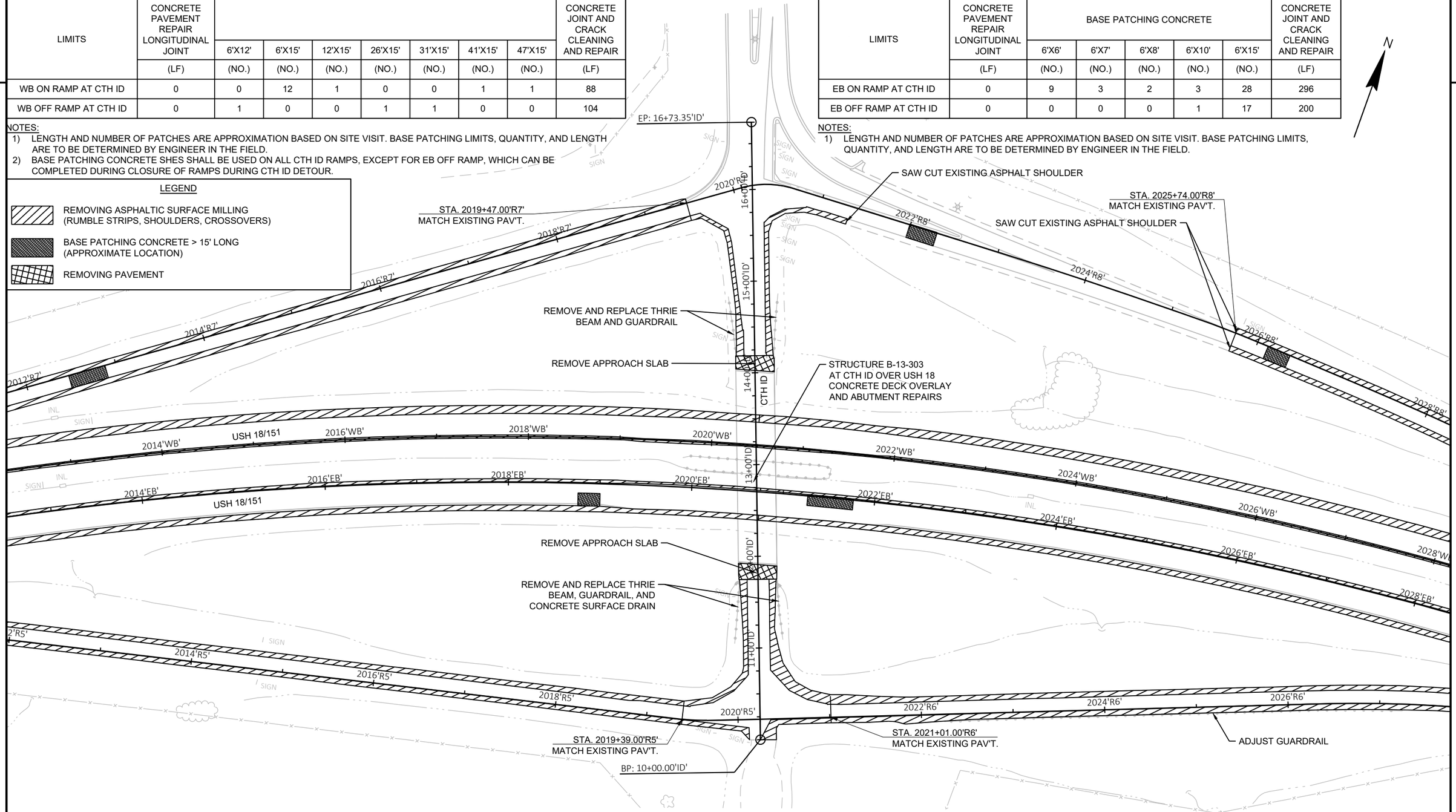
NOTES:
1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.
2) BASE PATCHING CONCRETE SHES SHALL BE USED ON ALL CTH ID RAMPS, EXCEPT FOR EB OFF RAMP, WHICH CAN BE COMPLETED DURING CLOSURE OF RAMPS DURING CTH ID DETOUR.

LEGEND

- REMOVING ASPHALTIC SURFACE MILLING (RUMBLE STRIPS, SHOULDERS, CROSSOVERS)
- BASE PATCHING CONCRETE > 15' LONG (APPROXIMATE LOCATION)
- REMOVING PAVEMENT

BASE PATCHING							
LIMITS	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT	BASE PATCHING CONCRETE					CONCRETE JOINT AND CRACK CLEANING AND REPAIR
		6'X6'	6'X7'	6'X8'	6'X10'	6'X15'	
	(LF)	(NO.)	(NO.)	(NO.)	(NO.)	(NO.)	(LF)
EB ON RAMP AT CTH ID	0	9	3	2	3	28	296
EB OFF RAMP AT CTH ID	0	0	0	0	1	17	200

NOTES:
1) LENGTH AND NUMBER OF PATCHES ARE APPROXIMATION BASED ON SITE VISIT. BASE PATCHING LIMITS, QUANTITY, AND LENGTH ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	REMOVAL PLAN - CTH ID INTERCHANGE	SHEET 29	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021011-CD TO 021028-CD.DWG
LAYOUT NAME - 021028-cd
PLOT DATE : 4/21/2020 11:47 AM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

N

CURB RADIUS POINTS					
POINT NO.	STATION	OFFSET	STATION	OFFSET	RADIUS
100	1667+69.58'WB'	69.81' LT	51+19.42'F'	17.50' LT	1'-6"
101	1666+71.83'WB'	97.16' LT	51+43.92'F'	116.00' LT	100'-0"
102	1667+56.28'WB'	39.07' LT	50+88.31'F'	29.90' LT	2'-6"
103	1667+67.72'WB'	40.26' LT	50+89.83'F'	18.50' LT	2'-6"

STA. 52+55.00'F'
MATCH EXISTING PAV'T.
SAW CUT REQUIRED

52'F' CTH F

ASTREA

ASTREA

STA. 1666+94.54'WB', 96.28' LT. =
STA. 51+43.70'F', 93.28' LT.
MATCH EXISTING 60' RADIUS

STA. 1668+70.56'WB', 96.00' LT. =
STA. 51+48.54'F', 82.68' RT.
MATCH EXISTING 60' RADIUS

STA. 1661+24.46'EB'
0.00' LT.

STA. 1662+74.46'EB'
12.00' LT.

STA. 1673+20.56'WB'
36.00' LT.

STA. 1674+70.56'WB'
24.00' LT.

100

101

100'

16'

10' TYP.

450'

1660'WB' 1662'WB' 1664'WB' USH 18/151 1666'WB' 1668'WB' 1670'WB' USH 18/151 1672'WB' 1674'WB'

102 103

MG&E
MOUNT HOREB TELEPHONE COMPANY

470'

462'

1660'EB' 1662'EB' 1664'EB' 1666'EB' 1668'EB' 1670'EB' 1672'EB' 1674'EB'

USH 18/151

50'F

USH 18/151

450'

10' TYP.

100'

STA. 1661+11.82'EB'
24.00' RT.

STA. 1662+61.82'EB'
36.00' RT.

MOUNT HOREB TELEPHONE COMPANY

STA. 1673+07.15'WB'
12.00' RT.

STA. 1674+57.17'WB'
0.00' RT.

STA. 1667+11.82'EB', 96.00' RT =
STA. 49+02.07'F', 72.00' LT.
MATCH EXISTING 60' RADIUS

STA. 1668+55.87'EB', 96.00' RT. =
STA. 49+05.87'F', 72.00' RT.
MATCH EXISTING 60' RADIUS

STA. 48+80.00'F'
MATCH EXISTING PAV'T.
SAW CUT REQUIRED

CTH F

A/C

FLAG

FLAG

RIPRAP

FO SIGN

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	INTERSECTION DETAILS - USH18/CTH F	SHEET 30	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021101-ID TO 021103-ID.DWG
LAYOUT NAME - 021101-id
PLOT DATE : 4/21/2020 11:54 AM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : ############
WISDOT/CADDS SHEET 42

2

2

N

CURB RADIUS POINTS					
POINT NO.	STATION	OFFSET	STATION	OFFSET	RADIUS
200	1707+05.82'WB'	68.04' LT	51+18.18'C'	17.50' LT	1'-6"
201	1706+07.14'WB'	91.79' LT	51+42.67'C'	116.00' LT	100'-0"
202	1706+95.04'WB'	39.08' LT	50+89.30'C'	28.49' LT	2'-6"
203	1707+05.03'WB'	40.23' LT	50+90.37'C'	18.50' LT	2'-6"

CAVE OF THE MOUNDS ROAD

52'C'

STA. 52+34.00'C'
MATCH EXISTING PAV'T.
SAW CUT REQUIRED

ASTREA

200

201

STA. 1706+38.92'WB', 86.00' LT. =
STA. 51+36.64'C', 84.26' LT.
MATCH EXISTING 50' RADIUS

100'

16'

10' TYP.

STA. 1707+97.85'WB', 86.00' LT. =
STA. 51+35.44'C', 74.67' RT.
MATCH EXISTING 50' RADIUS

STA. 1712+47.85'WB'
36.00' LT.

STA. 1713+97.85'WB'
24.00' LT.

450'

STA. 1700+68.37'EB'
0.00' LT.

STA. 1702+18.37'EB'
12.00' LT.

1700'WB' 1702'WB' 1704'WB' USH 18/151 1706'WB' 202 203 1708'WB' 1710'WB' USH 18/151 1712'WB' 1714'WB'

200'

MOUNT HOREB TELEPHONE COMPANY

1700'EB' 1702'EB' 1704'EB' 450' 1706'EB' 1708'EB' 1710'EB' 1712'EB' 1714'EB'

USH 18/151

50'C'

100'

10' TYP.

100'

STA. 1704+19.48'EB'
24.00' RT.

STA. 1705+69.48'EB'
36.00' RT.

STA. 1706+69.48'EB', 86.00' RT. =
STA. 49+14.92'C', 60.50' LT.
MATCH EXISTING 50' RADIUS

STA. 48+90.00'C'
MATCH EXISTING PAV'T.
SAW CUT REQUIRED

STA. 1707+80.34'EB', 76.00' RT. =
STA. 49+23.22'C', 50.50' RT.
MATCH EXISTING 40' RADIUS

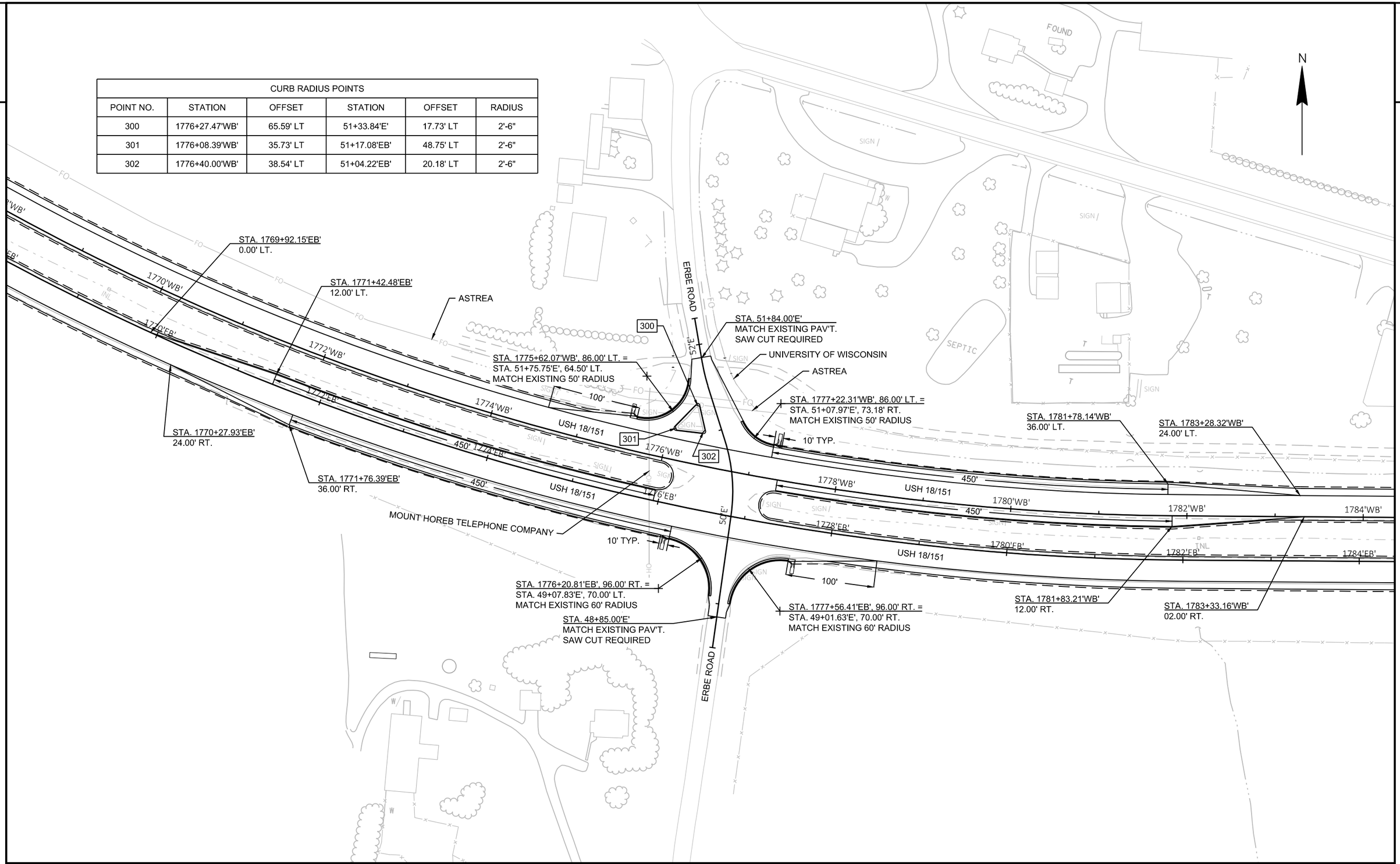
STA. 1709+74.18'WB'
12.00' RT.

STA. 1711+24.18'WB'
0.00' RT.

CAVE OF THE MOUNDS ROAD

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	INTERSECTION DETAILS - USH18/CAVE OF THE MOUNDS ROAD	SHEET 31	E

CURB RADIUS POINTS					
POINT NO.	STATION	OFFSET	STATION	OFFSET	RADIUS
300	1776+27.47'WB'	65.59' LT	51+33.84'E'	17.73' LT	2'-6"
301	1776+08.39'WB'	35.73' LT	51+17.08'EB'	48.75' LT	2'-6"
302	1776+40.00'WB'	38.54' LT	51+04.22'EB'	20.18' LT	2'-6"



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	INTERSECTION DETAILS - USH18/ERBE ROAD	SHEET 32	E

PI STA = 1632+96.93'WB'
Y = 459681.290
X = 699928.623
DELTA = 3°57'47"
D = 0°14'55"
T = 796.93'
L = 1593.22'
R = 23034.17'
PC STA = 1625+00.00'WB'
PT STA = 1640+93.22'WB'

BEGIN PROJECT
STA 1630+42.38'WB'
BUTT JOINT REQ'D.
X = 699,674.96
Y = 459,658.70

ASTREA

ADJUST GUARDRAIL
STA. 1633+06.22'WB' TO
STA. 1639+11.51'WB'

1626'WB' 1628'WB' 1630'WB' 1632'WB' 1634'WB' 1636'WB' 1638'WB'

USH 18/151

MATCH EXISTING PAV'T.

1626'EB' 1628'EB' 1630'EB' 1632'EB' 1634'EB' 1636'EB' 1638'EB'

USH 18/151

MATCH LINE STA. 1639+75.00'EB'

STA. 1631+75.91'EB'
34.06' RT.

EROSION MAT

SLOPE LIMITS

SILT FENCE (TYP.)

STA. 1632+29.07'EB'
32.00' RT.

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL

MGS GUARDRAIL TERMINAL TYPE 2

STA. 1637+29.77'EB'
32.00' RT.

PI STA = 1632+99.10'EB'
Y = 459631.303
X = 699926.181
DELTA = 3°58'57"
D = 0°14'57"
T = 799.10'
L = 1597.55'
R = 22984.17'
PC STA = 1625+00.00'EB'
PT STA = 1640+97.55'EB'

BEGIN PROJECT
STA 1630+49.00'EB'
BUTT JOINT REQ'D.
X = 699,676.96
Y = 459,608.74

T 6 N R 5 E | T 6 N R 6 E | 12 | 7

X = 699,675.30
Y = 459,518.93
(PUBLISHED ON TIE SHEET)

LEGEND
- EROSION MAT CLASS I TYPE B
- SILT FENCE
- SLOPE LIMITS

ASTREA

PT: 1640+93.22'WB'

1640'WB' 1642'WB' 1644'WB' 1646'WB' 1648'WB' 1650'WB' 1652'WB' 1654'WB'

USH 18/151

1640'EB' 1642'EB' 1644'EB' 1646'EB' 1648'EB' 1650'EB' 1652'EB' 1654'EB'

USH 18/151

MATCH LINE STA. 1639+75.00'EB'

MATCH LINE STA. 1654+50.00'EB'

PT: 1640+97.55'EB'

ADJUST GUARDRAIL
STA. 1651+73.29'EB' TO
STA. 1656+29.52'EB'

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 33	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021201-PD TO 021218-PD.DWG
LAYOUT NAME - 021201-pd
PLOT DATE : 4/21/2020 12:03 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

MATCH LINE STA. 1654+50.00'EB'

MATCH LINE STA. 1669+25.00'EB'

STA. 52+55.00'F'
MATCH EXISTING PAV'T.
BUTT JOINT REQUIRED
X = 703,424.41
Y = 459,867.23

ASTREA
ASPHALTIC FLUME (TYP.)

RIPRAP LIGHT AND GEOTEXTILE
FABRIC TYPE R (TYP.)

REINSTALL SIGN. REPLACE
WITH EXISTING SIGN AND
NEW POST.

3-INCH ASPHALTIC SURFACE
SAFETY ISLANDS

CONCRETE CURB TYPE J

52'F' CTH F

ASTREA

ADJUST GUARDRAIL
STA. 1654+14.11'WB' TO
STA. 1658+14.16'WB'

SLOPE LIMITS

1656'WB' 1658'WB' 1660'WB' 1662'WB' 1664'WB' 1666'WB' 1668'WB'

USH 18/151

MG&E

MOUNT HOREB TELEPHONE COMPANY

1656'EB' 1658'EB' 1660'EB' 1662'EB' 1664'EB' 1666'EB' 1668'EB'

50'F'

USH 18/151

ADJUST GUARDRAIL
STA. 1651+73.29'EB' TO
STA. 1656+29.52'EB'

SLOPE LIMITS

SILT FENCE (TYP.)

ASPHALTIC FLUME (TYP.)

RIPRAP LIGHT AND GEOTEXTILE
TYPE R (TYP.)

CONCRETE CURB & GUTTER 6-INCH
SLOPED 36-INCH TYPE D (TYP.)

MOUNT HOREB
TELEPHONE
COMPANY

STA. 48+80.00'F'
MATCH EXISTING PAV'T.
BUTT JOINT REQUIRED
X = 703,410.23
Y = 459,492.41

CTH F

T 6 N R 6 E Sec. 7

X = 702,079.30
Y = 459,511.00
(FROM GIS INFORMATION)

LEGEND

- EROSION MAT CLASS I TYPE B
- SILT FENCE
- SLOPE LIMITS

MOVE AND REINSTALL SIGN POST AS
NEEDED TO COMPLETE GRADING.
REPLACE WITH EXISTING SIGN AND
NEW POST.

ASTREA

SLOPE LIMITS

SILT FENCE (TYP.)

1670'WB' 1672'WB' 1674'WB' 1676'WB' 1678'WB' 1680'WB' S89° 41' 19"E 1682'WB'

USH 18/151

1670'EB' 1672'EB' 1674'EB' 1676'EB' 1678'EB' 1680'EB' S89° 41' 19"E 1682'EB'

USH 18/151

SLOPE LIMITS

INLET PROTECTION, TYPE A (TYP.)

ADJUST GUARDRAIL
STA. 1676+72.05'EB' TO
STA. 1680+77.59'EB'

HMOD MONUMENT (DH8283)
X = 703,600.72
Y = 459,510.65
(OBSERVED IN SURVEY)

NOTE:
CONTRACTOR TO PROTECT 1F53, 1F54, 1F55, AND 1F56GPS AND KEEP CONSTRUCTION EQUIPMENT AT LEAST 10 FEET AWAY FROM 1F53, 1F54, 1F55 AND 1F56GPS.

ENSURE THAT 1F53, 1F54, 1F55 AND 1F56GPS IS/ARE NOT DISTURBED, BUMPED OR MOVED DURING THE DURATION OF THE PROJECT. NOTIFY JACOB ROCKWEILER IMMEDIATELY IF 1F53, 1F54, 1F55 AND 1F56GPS IS/ARE DISTURBED, BUMPED OR MOVED DURING CONSTRUCTION OPERATIONS.

JACOB ROCKWEILER, P.E., WISCONSIN HEIGHT MODERNIZATION PROGRAM MANAGER WITH WISCONSIN DEPARTMENT OF TRANSPORTATION WHOSE PHONE NUMBER IS (608) 516-6362 AND EMAIL IS JACOB.ROCKWEILER@DOT.WI.GOV.

T 6 N R 6 E Sec. 7 8

X = 704,718.52
Y = 459,502.33
(PUBLISHED ON TIE SHEET)

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 34	E

2

2

MATCH LINE STA. 1684+00.00'EB'

MATCH LINE STA. 1698+75.00'EB'

ASTREA

N

4'WB' 1686'WB' 1688'WB' 1690'WB' USH 18/151 1692'WB' 1694'WB' 1696'WB' 1698'WB'

1'EB' 1686'EB' 1688'EB' 1690'EB' 1692'EB' 1694'EB' 1696'EB' 1698'EB'

USH 18/151

LEGEND

EROSION MAT CLASS I TYPE B

SILT FENCE

SLOPE LIMITS

MATCH LINE STA. 1698+75.00'EB'

MATCH LINE STA. 1713+50.00'EB'

3-INCH ASPHALTIC SURFACE SAFETY ISLANDS

ASPHALTIC FLUME (TYP.)

RIPRAP LIGHT AND GEOTEXTILE FABRIC TYPE R (TYP.)

REINSTALL SIGN. REPLACE WITH EXISTING SIGN AND NEW POST.

MOUNT HOREB TELEPHONE COMPANY

ADJUST GUARDRAIL STA. 1698+93.61'WB' TO STA. 1702+49.73'WB'

52'C'

CAVE OF THE MOUNDS ROAD

STA. 52+34.00'C'
MATCH EXISTING PAV'T.
BUTT JOINT REQUIRED
X = 707,355.66
Y = 459,824.62

ASTREA

MOVE AND REINSTALL SIGN POST AS NEEDED TO COMPLETE GRADING. REPLACE WITH EXISTING SIGN AND NEW POST.

SILT FENCE (TYP.)

SLOPE LIMITS

CONCRETE CURB TYPE J

N

1700'WB' 1702'WB' CULVERT PIPE CHECK 1704'WB' USH 18/151 1706'WB' 1708'WB' 1710'WB' 1712'WB'

1700'EB' 1702'EB' 1704'EB' 1706'EB' 1708'EB' 1710'EB' 1712'EB'

SLOPE LIMITS

SLOPE LIMITS

USH 18/151

50'C'

ADJUST GUARDRAIL STA. 1698+19.76'EB' TO STA. 1706+77.13'EB'

SLOPE LIMITS

EROSION MAT (TYP.)

SILT FENCE (TYP.)

CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D (TYP.)

MOVE AND REINSTALL SIGN POST AS NEEDED TO COMPLETE GRADING. REPLACE WITH EXISTING SIGN AND NEW POST.

STA. 48+90.00'C'
MATCH EXISTING PAV'T.
BUTT JOINT REQUIRED
X = 707,357.38
Y = 459,480.94

CAVE OF THE MOUNDS ROAD

INLET PROTECTION, TYPE A (TYP.)

RIPRAP LIGHT AND GEOTEXTILE TYPE R (TYP.)

ASPHALTIC FLUME (TYP.)

T 6 N
8
R 6 E

X = 707,363.20
Y = 459,489.00
(FROM GIS INFORMATION)

MOVE AND REINSTALL SIGN POST AS NEEDED TO COMPLETE GRADING. REPLACE WITH EXISTING SIGN AND NEW POST.

NOTE:
HAND MILLING OPERATIONS MAY BE NECESSARY TO ENSURE THAT SURVEY MONUMENTS ARE NOT DISTURBED DURING MILLING OPERATIONS. PAYMENT IS INCLUDED AS PART OF REMOVING ASPHALTIC SURFACE MILLING.

MILL AND PAVE ADJACENT TO MONUMENT WITHOUT DAMAGING THE MONUMENT.

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 35	E

2

SILT FENCE (TYP.)

SLOPE LIMITS

CULVERT PIPE CHECK

ASTREA

N

MATCH LINE STA. 1713+50.00'EB'

1714'WB' 1716'WB' 1718'WB' 1720'WB' USH 18/151 1722'WB' 1724'WB' 1726'WB' 1728'WB

1714'EB' 1716'EB' 1718'EB' 1720'EB' 1722'EB' 1724'EB' 1726'EB' 1728'EB'

USH 18/151

STA. 1725+28.25'EB'
34.12' RT.

EROSION MAT

SLOPE LIMITS

MGS GUARDRAIL TERMINAL EAT

STA. 1725+81.33'EB'
32.00' RT.

SILT FENCE (TYP.)

MGS GUARDRAIL

MATCH LINE STA. 1728+25.00'EB'

LEGEND

EROSION MAT CLASS I TYPE B

SILT FENCE

SLOPE LIMITS

N

ASTREA

PC: 1740+33.59'WB'

MATCH LINE STA. 1728+25.00'EB'

1730'WB' 1732'WB' 1734'WB' USH 18/151 1736'WB' 1738'WB' 1740'WB' 1742'WB'

1730'EB' 1732'EB' 1734'EB' 1736'EB' 1738'EB' 1740'EB' 1742'EB'

USH 18/151

STA. 1729+31.33'EB'
32.00' RT.

MGS GUARDRAIL TERMINAL TYPE 2

MGS GUARDRAIL

SLOPE LIMITS

STA. 1731+74.29'EB'
34.12' RT.

MGS GUARDRAIL TERMINAL EAT

SLOPE LIMITS

SILT FENCE (TYP.)

EROSION MAT (TYP.)

STA. 1732+27.37'EB'
32.00' RT.

MGS GUARDRAIL

STA. 1734+77.37'EB'
32.00' RT.

MGS GUARDRAIL TERMINAL TYPE 2

PC: 1740+37.93'EB'

ADJUST GUARDRAIL
STA. 1740+75.98'EB' TO
STA. 1745+36.85'EB'

MATCH LINE STA. 1743+00.00'EB'

T6N R6E 8 9

X = 709,997.30
Y = 459,475.80
(FROM GIS INFORMATION)

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 36	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021201-PD TO 021218-PD.DWG
LAYOUT NAME - 021204-pd

PLOT DATE : 4/21/2020 12:07 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

PI STA = 1747+77.61'WB'
Y = 459618.912
X = 711409.774
DELTA = 28°41'02"
D = 1°58'08"
T = 744.02'
L = 1456.83'
R = 2910.00'
PC STA = 1740+33.59'WB'
PT STA = 1754+90.42'WB'

SUPERELEVATION TABLE					
STATION	LT SHOULDER	LT LANE	RT LANE	RT SHOULDER	REMARKS
1737+81.59'WB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN
1738+71.59'WB'	0.00%	0.00%	-2.00%	-5.00%	LEVEL CROWN
1739+61.59'WB'	2.00%	2.00%	-2.00%	-5.00%	REVERSE CROWN
1741+14.59'WB'	5.40%	5.40%	-5.40%	-5.40%	BEGIN FULL SUPER
1754+09.43'WB'	5.40%	5.40%	-5.40%	-5.40%	END FULL SUPER
1755+62.43'WB'	2.00%	2.00%	-2.00%	-5.00%	REVERSE CROWN
1756+52.43'WB'	0.00%	0.00%	-2.00%	-5.00%	LEVEL CROWN
1757+42.43'WB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN

ASTREA

USH 18/151

1744'WB' 1746'WB' 1748'WB' 1750'WB' 1752'WB' 1754'WB' 1756'WB'

1744'EB' 1746'EB' 1748'EB' 1750'EB' 1752'EB' 1754'EB' 1756'EB'

PT: 1754+90.42'WB'

PT: 1754+69.72'EB'

MATCH LINE STA. 1743+00.00'EB'

MATCH LINE STA. 1757+75.00'EB'

ADJUST GUARDRAIL
STA. 1740+75.98'EB' TO
STA. 1745+36.85'EB'

PI STA = 1747+69.16'EB'
Y = 459568.983
X = 711396.719
DELTA = 28°41'02"
D = 2°00'12"
T = 731.24'
L = 1431.80'
R = 2860.00'
PC STA = 1740+37.93'EB'
PT STA = 1754+69.72'EB'

SUPERELEVATION TABLE					
STATION	LT SHOULDER	LT LANE	RT LANE	RT SHOULDER	REMARKS
1737+82.40'EB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN
1738+72.58'EB'	0.00%	0.00%	-2.00%	-5.00%	LEVEL CROWN
1739+62.77'EB'	2.00%	2.00%	-2.00%	-5.00%	REVERSE CROWN
1741+20.58'EB'	5.50%	5.50%	-5.50%	-5.50%	BEGIN FULL SUPER
1753+87.06'EB'	5.50%	5.50%	-5.50%	-5.50%	END FULL SUPER
1755+44.88'EB'	2.00%	2.00%	-2.00%	-5.00%	REVERSE CROWN
1756+35.06'EB'	0.00%	0.00%	-2.00%	-5.00%	LEVEL CROWN
1757+25.25'EB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN

LEGEND

- EROSION MAT CLASS I TYPE B
- SILT FENCE
- SLOPE LIMITS

MOVE AND REINSTALL SIGN POST AS NEEDED TO COMPLETE GRADING. REPLACE WITH EXISTING SIGN AND NEW POST.

ASTREA

USH 18/151

1758'EB' 1760'EB' 1762'EB' 1764'EB' 1766'EB' 1768'EB' 1770'EB' 1772'EB'

1758'WB' 1760'WB' 1762'WB' 1764'WB' 1766'WB' 1768'WB' 1770'WB' 1772'WB'

S61° 00' 17"E

PC: 1767+87.98'WB'

PC: 1767+67.29'EB'

INLET PROTECTION, TYPE A (TYP.)

EROSION MAT (TYP.)

SILT FENCE (TYP.)

SLOPE LIMITS

MATCH LINE STA. 1757+75.00'EB'

MATCH LINE STA. 1772+50.00'EB'

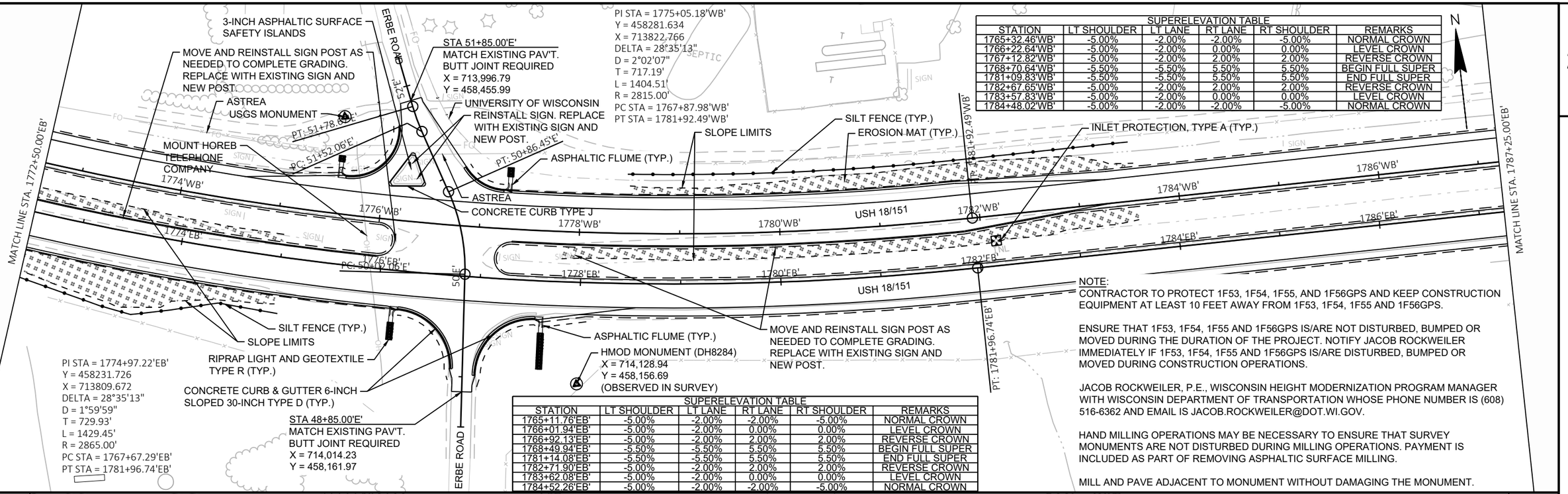
PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 37	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021201-PD TO 021218-PD.DWG
LAYOUT NAME - 021205-pd

PLOT DATE : 4/21/2020 12:08 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2



SUPERELEVATION TABLE

STATION	LT SHOULDER	LT LANE	RT LANE	RT SHOULDER	REMARKS
1765+32.46'WB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN
1766+22.64'WB'	-5.00%	-2.00%	0.00%	0.00%	LEVEL CROWN
1767+12.82'WB'	-5.00%	-2.00%	2.00%	2.00%	REVERSE CROWN
1768+70.64'WB'	-5.50%	-5.50%	5.50%	5.50%	BEGIN FULL SUPER
1781+09.83'WB'	-5.50%	-5.50%	5.50%	5.50%	END FULL SUPER
1782+67.65'WB'	-5.00%	-2.00%	2.00%	2.00%	REVERSE CROWN
1783+57.83'WB'	-5.00%	-2.00%	0.00%	0.00%	LEVEL CROWN
1784+48.02'WB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN

SUPERELEVATION TABLE

STATION	LT SHOULDER	LT LANE	RT LANE	RT SHOULDER	REMARKS
1765+11.76'EB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN
1766+01.94'EB'	-5.00%	-2.00%	0.00%	0.00%	LEVEL CROWN
1766+92.13'EB'	-5.00%	-2.00%	2.00%	2.00%	REVERSE CROWN
1768+49.94'EB'	-5.50%	-5.50%	5.50%	5.50%	BEGIN FULL SUPER
1781+14.08'EB'	-5.50%	-5.50%	5.50%	5.50%	END FULL SUPER
1782+71.90'EB'	-5.00%	-2.00%	2.00%	2.00%	REVERSE CROWN
1783+62.08'EB'	-5.00%	-2.00%	0.00%	0.00%	LEVEL CROWN
1784+52.26'EB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN

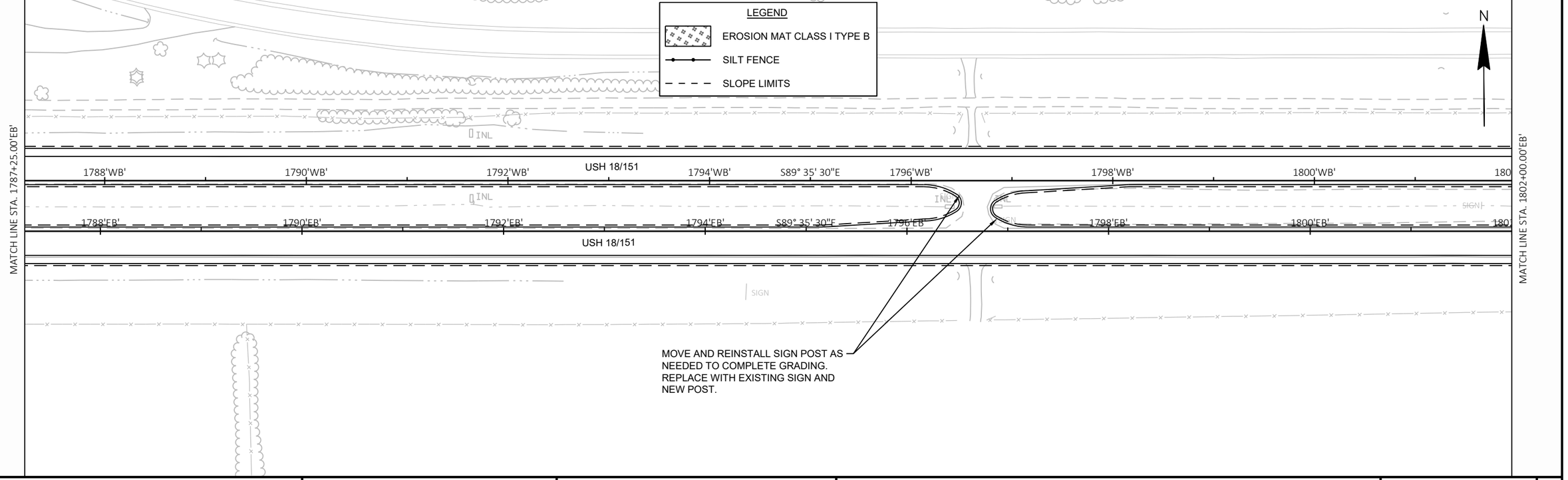
NOTE:
CONTRACTOR TO PROTECT 1F53, 1F54, 1F55, AND 1F56GPS AND KEEP CONSTRUCTION EQUIPMENT AT LEAST 10 FEET AWAY FROM 1F53, 1F54, 1F55 AND 1F56GPS.

ENSURE THAT 1F53, 1F54, 1F55 AND 1F56GPS IS/ARE NOT DISTURBED, BUMPED OR MOVED DURING THE DURATION OF THE PROJECT. NOTIFY JACOB ROCKWEILER IMMEDIATELY IF 1F53, 1F54, 1F55 AND 1F56GPS IS/ARE DISTURBED, BUMPED OR MOVED DURING CONSTRUCTION OPERATIONS.

JACOB ROCKWEILER, P.E., WISCONSIN HEIGHT MODERNIZATION PROGRAM MANAGER WITH WISCONSIN DEPARTMENT OF TRANSPORTATION WHOSE PHONE NUMBER IS (608) 516-6362 AND EMAIL IS JACOB.ROCKWEILER@DOT.WI.GOV.

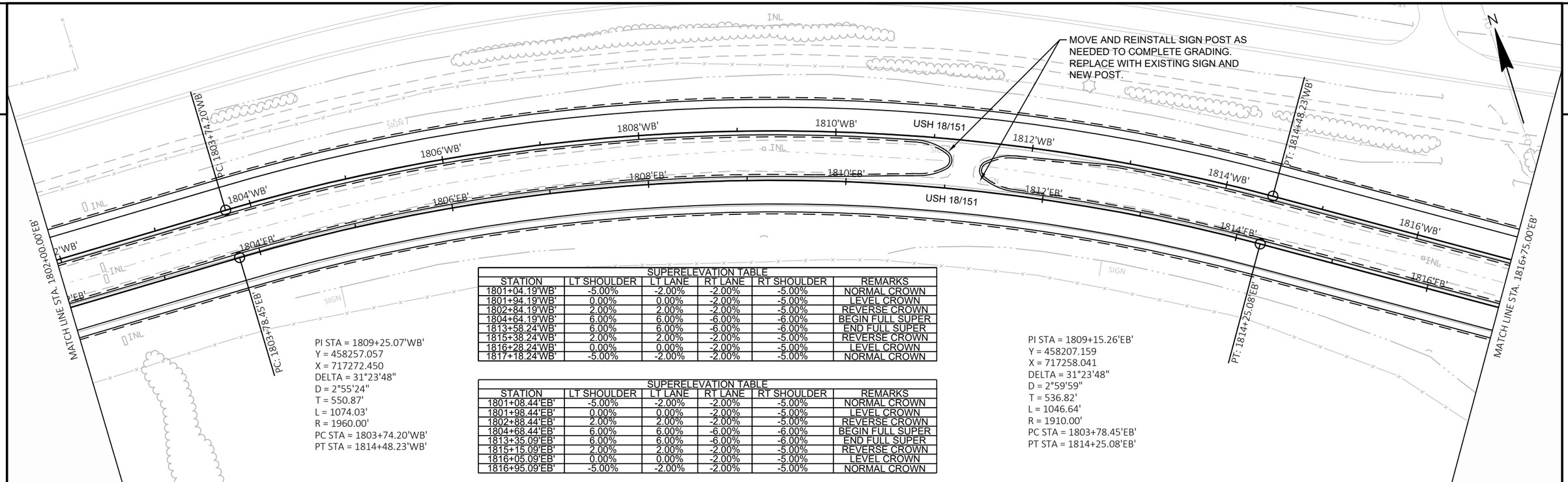
HAND MILLING OPERATIONS MAY BE NECESSARY TO ENSURE THAT SURVEY MONUMENTS ARE NOT DISTURBED DURING MILLING OPERATIONS. PAYMENT IS INCLUDED AS PART OF REMOVING ASPHALTIC SURFACE MILLING.

MILL AND PAVE ADJACENT TO MONUMENT WITHOUT DAMAGING THE MONUMENT.



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 38	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021201-PD TO 021218-PD.DWG
LAYOUT NAME - 021206-pd
PLOT DATE : 4/21/2020 12:09 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



PI STA = 1809+25.07'WB'
Y = 458257.057
X = 717272.450
DELTA = 31°23'48"
D = 2°55'24"
T = 550.87'
L = 1074.03'
R = 1960.00'
PC STA = 1803+74.20'WB'
PT STA = 1814+48.23'WB'

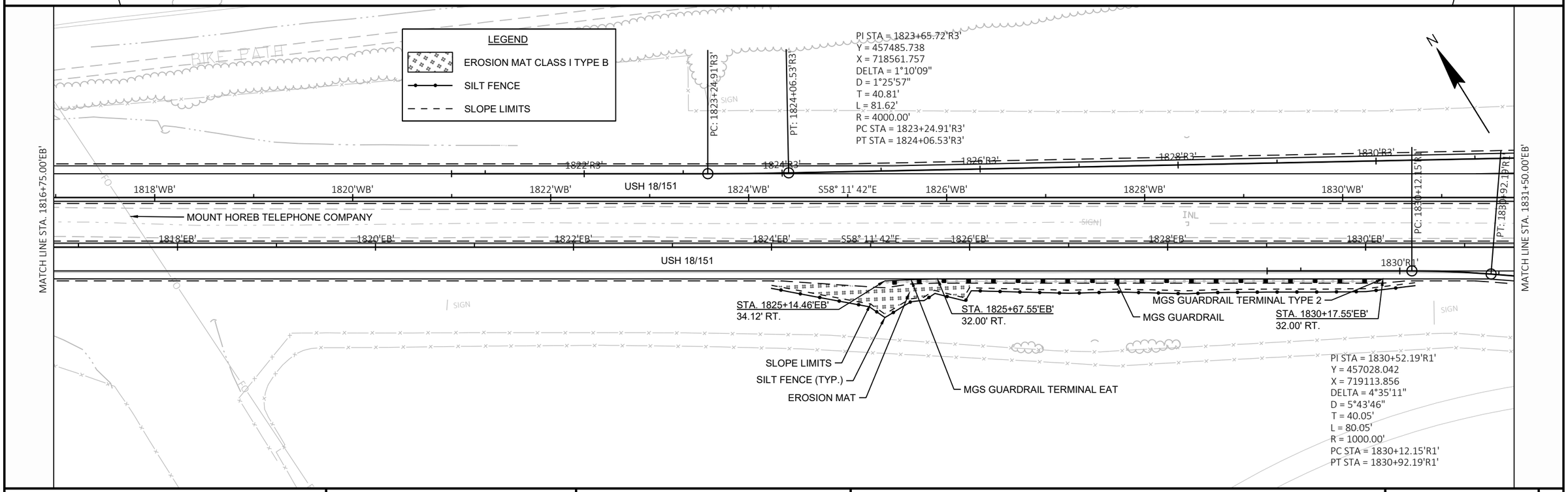
SUPERELEVATION TABLE

STATION	LT SHOULDER	LT LANE	RT LANE	RT SHOULDER	REMARKS
1801+04.19'WB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN
1801+94.19'WB'	0.00%	0.00%	-2.00%	-5.00%	LEVEL CROWN
1802+84.19'WB'	2.00%	2.00%	-2.00%	-5.00%	REVERSE CROWN
1804+64.19'WB'	6.00%	6.00%	-6.00%	-6.00%	BEGIN FULL SUPER
1813+58.24'WB'	6.00%	6.00%	-6.00%	-6.00%	END FULL SUPER
1815+38.24'WB'	2.00%	2.00%	-2.00%	-5.00%	REVERSE CROWN
1816+28.24'WB'	0.00%	0.00%	-2.00%	-5.00%	LEVEL CROWN
1817+18.24'WB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN

PI STA = 1809+15.26'EB'
Y = 458207.159
X = 717258.041
DELTA = 31°23'48"
D = 2°59'59"
T = 536.82'
L = 1046.64'
R = 1910.00'
PC STA = 1803+78.45'EB'
PT STA = 1814+25.08'EB'

SUPERELEVATION TABLE

STATION	LT SHOULDER	LT LANE	RT LANE	RT SHOULDER	REMARKS
1801+08.44'EB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN
1801+98.44'EB'	0.00%	0.00%	-2.00%	-5.00%	LEVEL CROWN
1802+88.44'EB'	2.00%	2.00%	-2.00%	-5.00%	REVERSE CROWN
1804+68.44'EB'	6.00%	6.00%	-6.00%	-6.00%	BEGIN FULL SUPER
1813+35.09'EB'	6.00%	6.00%	-6.00%	-6.00%	END FULL SUPER
1815+15.09'EB'	2.00%	2.00%	-2.00%	-5.00%	REVERSE CROWN
1816+05.09'EB'	0.00%	0.00%	-2.00%	-5.00%	LEVEL CROWN
1816+95.09'EB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 39	E

2

2

MATCH LINE STA. 1831+50.00'EB'

MATCH LINE STA. 1846+25.00'EB'

PI STA = 1838+00.99'R3'
Y = 456754.192
X = 719796.600
DELTA = 13°31'43"
D = 3°02'49"
T = 223.05'
L = 444.03'
R = 1880.51'
PC STA = 1835+77.94'R3'
PT STA = 1840+21.96'R3'

PC: 1835+77.94'R3'

PT: 1840+21.96'R3'

1832'R3' 1834'R3' 1836'R3' 1838'R3' 1840'R3' 1842'R3'

SLOPE LIMITS
SILT FENCE (TYP.)
STA. 20+17.53'ST', 24.00' RT
MGS GUARDRAIL TERMINAL EAT

N

1832'WB' 1834'WB' 1836'WB' 1838'WB' USH 18/151 1840'WB' 1842'WB' 1844'WB' 1846'WB'

1832'EB' 1834'EB' 1836'EB' 1838'EB' 1840'EB' 1842'EB' 1844'EB' 1846'EB'

USH 18/151

PC: 1836+80.13'R1'

1832'R1' 1834'R1' 1836'R1' 1838'R1' 1840'R1' 1842'R1'

PT: 1841+16.09'R1'

PI STA = 1838+99.83'R1'
Y = 456525.115
X = 719796.223
DELTA = 17°31'43"
D = 4°01'15"
T = 219.69'
L = 435.96'
R = 1425.00'
PC STA = 1836+80.13'R1'
PT STA = 1841+16.09'R1'

LEGEND
EROSION MAT CLASS I TYPE B
SILT FENCE
SLOPE LIMITS

MGS GUARDRAIL TERMINAL EAT
STA. 23+72.58'ST', 44.00' LT
MGS THRIE BEAM TRANSITION
INSTALL CONCRETE SURFACE DRAIN
RIPRAP LIGHT AND GEOTEXTILE TYPE R (TYP.)
REPLACE APPROACH SLAB
STRUCTURE B-13-304
MOUNT HOREB TELEPHONE COMPANY

PI STA = 22+09.70'ST'
Y = 456198.607
X = 720582.270
DELTA = 2°36'42"
D = 11°27'33"
T = 11.40'
L = 22.79'
R = 500.00'
PC STA = 21+98.30'ST'
PT STA = 22+21.09'ST'

PI STA = 1866+62.19'R4'
Y = 455789.860
X = 721431.681
DELTA = 12°09'12"
D = 3°54'40"
T = 155.96'
L = 310.75'
R = 1465.00'
PC STA = 1865+06.23'R4'
PT STA = 1868+16.98'R4'

PC: 1855+68.41'WB'

PT: 1868+16.98'R4'

1864'R4' 1866'R4' 1868'R4' 1870'R4'

N

1848'WB' 1850'WB' 1852'WB' USH 18/151 1854'WB' 1856'WB' 1858'WB' 1860'WB'

1848'EB' 1850'EB' 1852'EB' 1854'EB' 1856'EB' 1858'EB' 1860'EB'

USH 18/151

PT: 22+21.09'ST'
PC: 21+98.30'ST'

REPLACE APPROACH SLAB

PC: 1855+45.26'EB'

PC: 1860+06.33'R2'

1860'R2'

MGS THRIE BEAM TRANSITION
STA. 20+17.53'ST', 24.00' RT
MGS GUARDRAIL TERMINAL EAT
STA. 19+64.72'ST', 26.40' RT
SLOPE LIMITS
SILT FENCE (TYP.)

PT: 20+66.89'ST'

HMOD MONUMENT (DH8285)
X = 720,609.87
Y = 456,036.28
(OBSERVED IN SURVEY)

PC: 19+64.85'ST'

PI STA = 20+15.87'ST'
Y = 456004.809
X = 720585.596
DELTA = 1°10'09"
D = 1°08'45"
T = 51.02'
L = 102.04'
R = 5000.00'
PC STA = 19+64.85'ST'
PT STA = 20+66.89'ST'

PT: 1850+90.24'R2'

PI STA = 1850+43.66'R2'
Y = 455786.074
X = 720630.584
DELTA = 5°20'33"
D = 5°43'46"
T = 46.66'
L = 93.24'
R = 1000.00'
PC STA = 1849+97.00'R2'
PT STA = 1850+90.24'R2'

1852'R2' 1854'R2' 1856'R2' 1858'R2'

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 40	E

2

PI STA = 1874+72.24'R4'
Y = 455295.874
X = 722075.157
DELTA = 4°30'11"
D = 2°51'53"
T = 78.63'
L = 157.18'
R = 2000.00'
PC STA = 1873+93.61'R4'
PT STA = 1875+50.80'R4'

PC: 1873+93.61'R4'

PRC: 1875+50.80'R4'

PI STA = 1864+96.12'WB'
Y = 455306.345
X = 722030.541
DELTA = 2°07'49"
D = 0°06'53"
T = 927.71'
L = 1855.20'
R = 49900.00'
PC STA = 1855+68.41'WB'
PT STA = 1874+23.62'WB'

PT: 1874+23.62'WB'

PC: 1875+05.97'R2'

PT: 1875+62.62'R2'

1872'R4'
1874'R4'
1876'R4'
1878'R4'

1862'WB'
1864'WB'
1866'WB'
1868'WB'
1870'WB'
1872'WB'
1874'WB'
1876'

USH 18/151

PT: 1863+91.97'R2'

1862'EB'
1864'EB'
1866'EB'
1868'EB'
1870'EB'
1872'EB'
1874'EB'

USH 18/151

1862'R2'
1864'R2'
1866'R2'
1868'R2'
1870'R2'
1872'R2'
1874'R2'
1876'R

MATCH LINE STA. 1861+00.00'EB'

MATCH LINE STA. 1875+75.00'EB'

PI STA = 1861+99.37'R2'
Y = 455384.319
X = 721714.296
DELTA = 11°58'16"
D = 3°04'50"
T = 195.02'
L = 388.62'
R = 1860.00'
PC STA = 1860+04.35'R2'
PT STA = 1863+92.97'R2'

PI STA = 1864+72.04'EB'
Y = 455264.343
X = 722003.400
DELTA = 2°07'49"
D = 0°06'54"
T = 926.78'
L = 1853.35'
R = 49850.00'
PC STA = 1855+45.26'EB'
PT STA = 1873+98.61'EB'

PT: 1873+98.61'EB'

PI STA = 1875+34.30'R2'
Y = 454670.004
X = 722843.707
DELTA = 1°37'23"
D = 2°51'53"
T = 28.33'
L = 56.66'
R = 2000.00'
PC STA = 1875+05.97'R2'
PT STA = 1875+62.62'R2'

LEGEND

EROSION MAT CLASS I TYPE B

SILT FENCE

SLOPE LIMITS

N

MOVE AND REINSTALL SIGN POST AS NEEDED TO COMPLETE GRADING. REPLACE WITH EXISTING SIGN AND NEW POST.

PC: 1890+14.45'WB'

'WB'
1878'WB'
1880'WB'
S56° 03' 54"E
1882'WB'
USH 18/151
1884'WB'
1886'WB'
1888'WB'
1890'WB'

1876'EB'
1878'EB'
1880'EB'
S56° 03' 54"E
1882'EB'
1884'EB'
1886'EB'
1888'EB'
1890'EB'

USH 18/151

ADJUST GUARDRAIL
STA. 1883+54.64'EB' TO
STA. 1895+07.82'EB'

PC: 1889+89.44'EB'

MATCH LINE STA. 1875+75.00'EB'

MATCH LINE STA. 1890+50.00'EB'

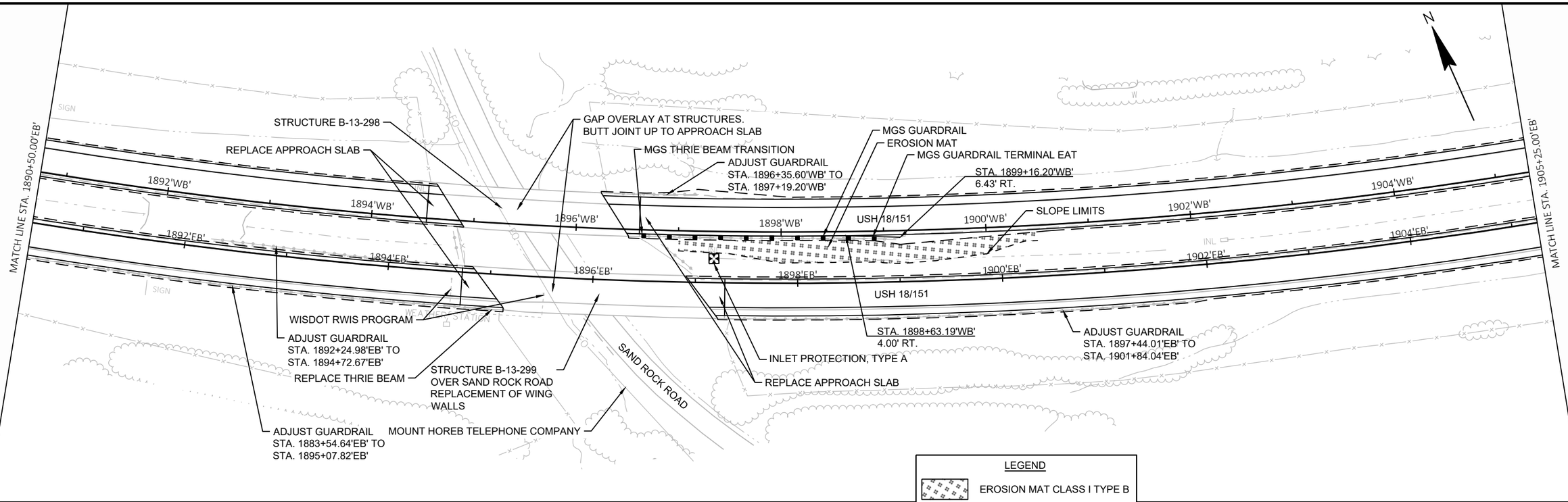
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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 41	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021201-PD TO 021218-PD.DWG
LAYOUT NAME - 021209-pd

PLOT DATE : 4/21/2020 12:13 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

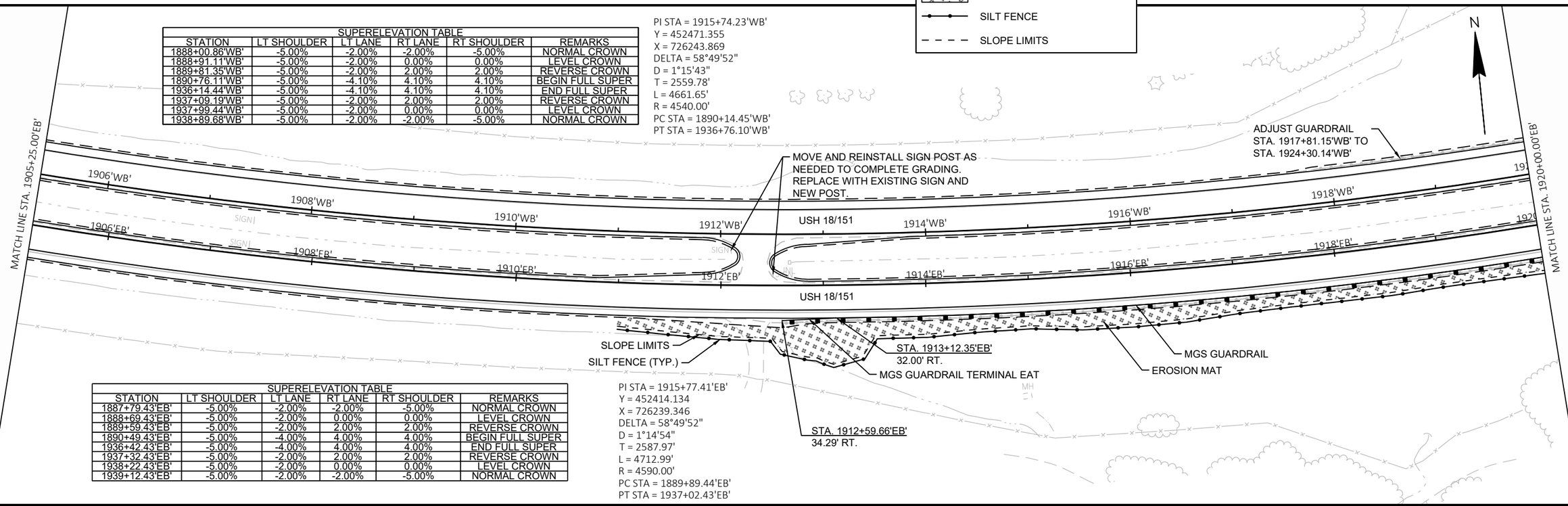


LEGEND

- EROSION MAT CLASS I TYPE B
- SILT FENCE
- SLOPE LIMITS

SUPERELEVATION TABLE					
STATION	LT SHOULDER	LT LANE	RT LANE	RT SHOULDER	REMARKS
1888+00.86'WB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN
1888+91.11'WB'	-5.00%	-2.00%	0.00%	0.00%	LEVEL CROWN
1889+81.35'WB'	-5.00%	-2.00%	2.00%	2.00%	REVERSE CROWN
1890+76.11'WB'	-5.00%	-4.10%	4.10%	4.10%	BEGIN FULL SUPER
1936+14.44'WB'	-5.00%	-4.10%	4.10%	4.10%	END FULL SUPER
1937+09.19'WB'	-5.00%	-2.00%	2.00%	2.00%	REVERSE CROWN
1937+99.44'WB'	-5.00%	-2.00%	0.00%	0.00%	LEVEL CROWN
1938+89.68'WB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN

PI STA = 1915+74.23'WB'
Y = 452471.355
X = 726243.869
DELTA = 58°49'52"
D = 1°15'43"
T = 2559.78'
L = 4661.65'
R = 4540.00'
PC STA = 1890+14.45'WB'
PT STA = 1936+76.10'WB'

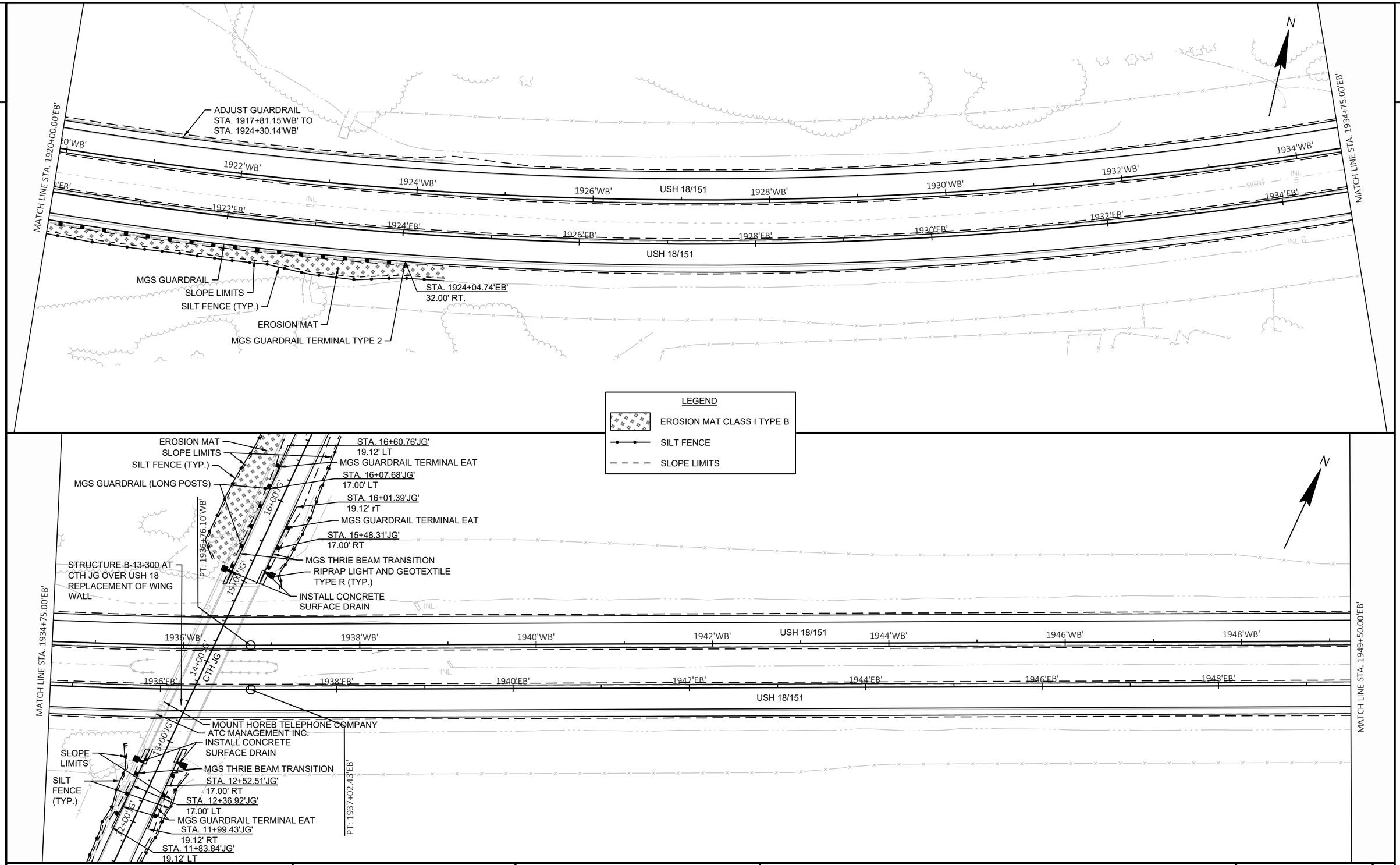


SUPERELEVATION TABLE					
STATION	LT SHOULDER	LT LANE	RT LANE	RT SHOULDER	REMARKS
1887+79.43'EB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN
1888+69.43'EB'	-5.00%	-2.00%	0.00%	0.00%	LEVEL CROWN
1889+59.43'EB'	-5.00%	-2.00%	2.00%	2.00%	REVERSE CROWN
1890+49.43'EB'	-5.00%	-4.00%	4.00%	4.00%	BEGIN FULL SUPER
1936+42.43'EB'	-5.00%	-4.00%	4.00%	4.00%	END FULL SUPER
1937+32.43'EB'	-5.00%	-2.00%	2.00%	2.00%	REVERSE CROWN
1938+22.43'EB'	-5.00%	-2.00%	0.00%	0.00%	LEVEL CROWN
1939+12.43'EB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN

PI STA = 1915+77.41'EB'
Y = 452414.134
X = 726239.346
DELTA = 58°49'52"
D = 1°14'54"
T = 2587.97'
L = 4712.99'
R = 4590.00'
PC STA = 1889+89.44'EB'
PT STA = 1937+02.43'EB'

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 42	E

2



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 43	E

2

2

MATCH LINE STA. 1949+50.00'EB'

MATCH LINE STA. 1964+25.00'EB'

ADJUST GUARDRAIL
STA. 1961+51.97'WB' TO
STA. 1967+02.88'WB'

1950'WB' 1952'WB' 1954'WB' N65° 06' 15"E 1956'WB' USH 18/151 1958'WB' 1960'WB' 1962'WB' 1964

1950'EB' 1952'EB' 1954'EB' N65° 06' 15"E 1956'EB' 1958'EB' 1960'EB' 1962'EB' 1964'EB'

USH 18/151

ADJUST GUARDRAIL
STA. 1960+06.17'EB' TO
STA. 1967+14.35'EB'

LEGEND

EROSION MAT CLASS I TYPE B

SILT FENCE

SLOPE LIMITS

STRUCTURE B-13-301
OVER STH 92 REPLACEMENT
OF WING WALLS

REPLACE THRIE BEAM

GAP OVERLAY AT STRUCTURES.
BUTT JOINT UP TO APPROACH SLAB

REPLACE APPROACH SLAB

STA. 1964+73.98'EB'
6.12' LT.

ADJUST GUARDRAIL
STA. 1961+51.97'WB' TO
STA. 1967+02.88'WB'

CONCRETE SURFACE
DRAIN DROP INLET

ADJUST GUARDRAIL
STA. 1968+55.19'WB' TO
STA. 1972+75.84'WB'

MGS GUARDRAIL

STA. 1970+58.72'WB'
4.00' RT.

PC: 1971+99.29'WB'

MATCH LINE STA. 1964+25.00'EB'

'WB' 1966'WB' 1968'WB' 1970'WB' 1972'WB' USH 18/151 1974'WB' 1976'WB' 1978'WB'

STA. 1965+27.06'EB'
4.00' LT.

RIPRAP LIGHT AND
GEOTEXTILE TYPE R (TYP.)

SLOPE LIMITS

ALLIANT ENERGY

ATC MANAGEMENT INC.

1966'EB' 1968'EB' 1970'EB' 1972'EB' 1974'EB' 1976'EB' 1978'EB'

USH 18/151

MGS GUARDRAIL

SLOPE LIMITS

ADJUST GUARDRAIL
STA. 1960+06.17'EB' TO
STA. 1967+14.35'EB'

MGS GUARDRAIL TERMINAL EAT

INLET PROTECTION, TYPE A

MGS THRIE BEAM TRANSITION

STRUCTURE B-13-302

STH 92

MGS THRIE BEAM
TRANSITION

ADJUST GUARDRAIL
STA. 1968+96.50'EB' TO
STA. 1971+89.99'EB'

REPLACE APPROACH SLAB

MGS GUARDRAIL TERMINAL EAT

MOUNT HOREB TELEPHONE COMPANY

STA. 1971+11.80'WB'
6.12' RT.

PC: 1972+25.62'EB'

INLET PROTECTION, TYPE A

MATCH LINE STA. 1979+00.00'EB'

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 44	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021201-PD TO 021218-PD.DWG
LAYOUT NAME - 021212-pd

PLOT DATE : 4/21/2020 12:17 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

PI STA = 1985+70.20'WB'
Y = 455609.221
X = 733005.092
DELTA = 9°10'02"
D = 0°20'06"
T = 1370.92'
L = 2735.98'
R = 17100.00'
PC STA = 1971+99.29'WB'
PT STA = 1999+35.26'WB'

MOVE AND REINSTALL SIGN POST AS NEEDED TO COMPLETE GRADING. REPLACE WITH EXISTING SIGN AND NEW POST.

MATCH LINE STA. 1979+00.00'EB'

MATCH LINE STA. 1993+75.00'EB'

1980'WB' 1982'WB' 1984'WB' USH 18/151 1986'WB' 1988'WB' 1990'WB' 1992'WB'

1980'EB' 1982'EB' 1984'EB' 1986'EB' 1988'EB' 1990'EB' 1992'EB'

USH 18/151

PI STA = 1986+00.54'EB'
Y = 455565.555
X = 733029.777
DELTA = 9°10'02"
D = 0°20'03"
T = 1374.92'
L = 2743.98'
R = 17150.00'
PC STA = 1972+25.62'EB'
PT STA = 1999+69.59'EB'

LEGEND

EROSION MAT CLASS I TYPE B

SILT FENCE

SLOPE LIMITS

PI STA = 1995+82.83'R7'
Y = 456242.230
X = 733894.589
DELTA = 2°15'13"
D = 1°54'35"
T = 59.01'
L = 118.00'
R = 3000.00'
PC STA = 1995+23.82'R7'
PT STA = 1996+41.82'R7'

PCC: 1995+23.82'R7'

PT: 1996+41.82'R7'

PT: 1999+35.26'WB'

ADJUST GUARDRAIL
STA. 2001+42.64'WB' TO
STA. 2007+97.93'WB'

PC: 2007+87.81'WB'

MATCH LINE STA. 1993+75.00'EB'

1994'R7' 1996'R7' 1998'R7' 2000'R7' 2002'R7' 2004'R7' 2006'R7'

1994'WB' 1996'WB' 1998'WB' 2000'WB' USH 18/151 2002'WB' 2004'WB' N55° 56' 13"E 2006'WB' 2008'WB'

1994'EB' 1996'EB' 1998'EB' 2000'EB' 2002'EB' 2004'EB' N55° 56' 13"E 2006'EB' 2008'EB'

2000'R5' USH 18/151 2002'R5' 2004'R5' 2006'R5' 2008'R5'

PC: 2002+25.78'R5'

PT: 2003+05.75'R5'

PT: 1999+69.59'EB'

ADJUST GUARDRAIL
STA. 2001+22.79'EB' TO
STA. 2009+92.03'EB'

PC: 2007+96.80'R5'

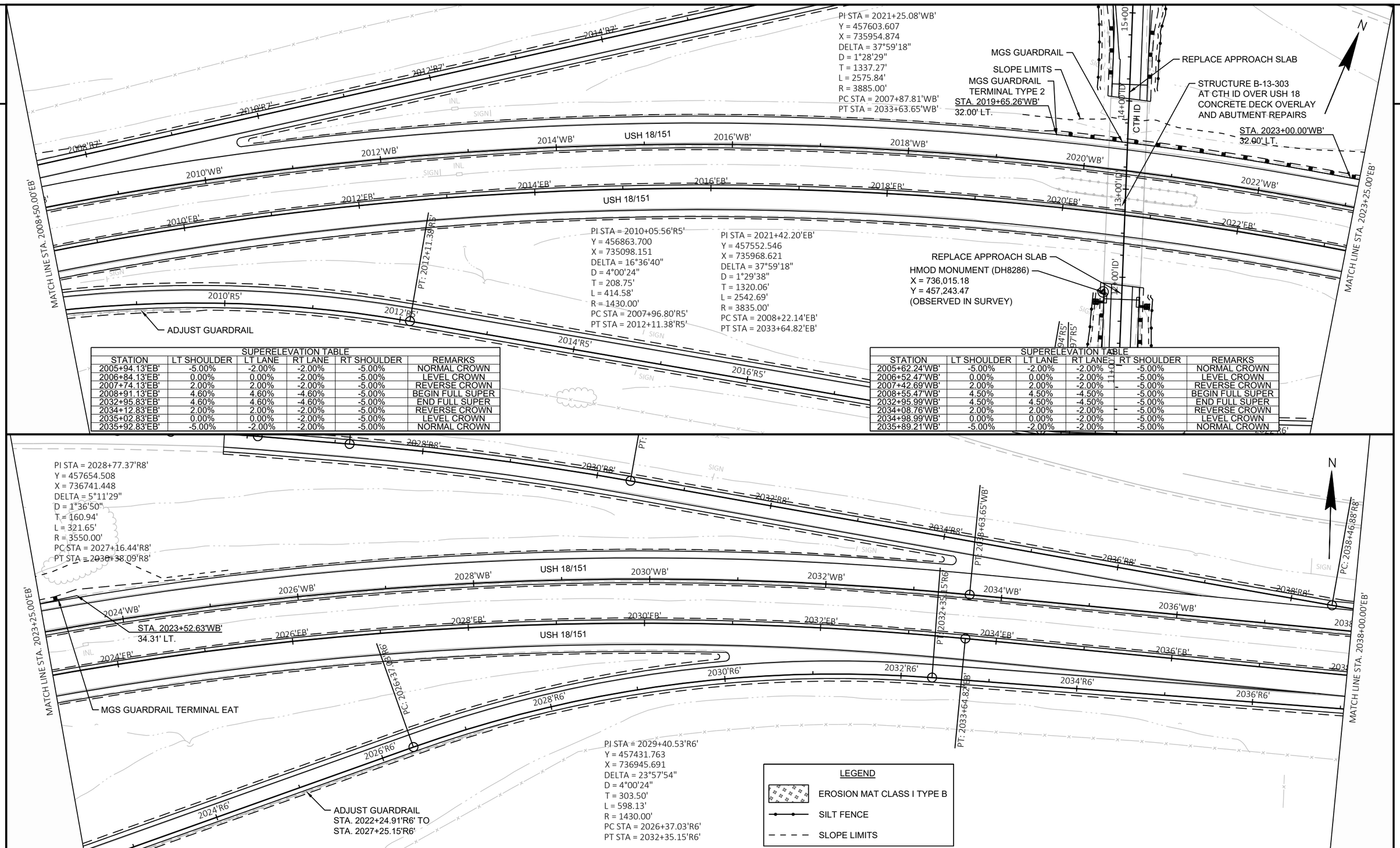
PC: 2008+72.20'R5'

MATCH LINE STA. 2008+50.00'EB'

PI STA = 2002+65.79'R5'
Y = 456499.608
X = 734454.131
DELTA = 4°34'55"
D = 5°43'46"
T = 40.01'
L = 79.97'
R = 1000.00'
PC STA = 2002+25.78'R5'
PT STA = 2003+05.75'R5'

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 45	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021201-PD TO 021218-PD.DWG
LAYOUT NAME - 021213-pd
PLOT DATE : 4/21/2020 12:18 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:100 FT



SUPERELEVATION TABLE					
STATION	LT SHOULDER	LT LANE	RT LANE	RT SHOULDER	REMARKS
2005+94.13'EB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN
2006+84.13'EB'	0.00%	0.00%	-2.00%	-5.00%	LEVEL CROWN
2007+74.13'EB'	2.00%	2.00%	-2.00%	-5.00%	REVERSE CROWN
2008+91.13'EB'	4.60%	4.60%	-4.60%	-5.00%	BEGIN FULL SUPER
2032+95.83'EB'	4.60%	4.60%	-4.60%	-5.00%	END FULL SUPER
2034+12.83'EB'	2.00%	2.00%	-2.00%	-5.00%	REVERSE CROWN
2035+02.83'EB'	0.00%	0.00%	-2.00%	-5.00%	LEVEL CROWN
2035+92.83'EB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN

SUPERELEVATION TABLE					
STATION	LT SHOULDER	LT LANE	RT LANE	RT SHOULDER	REMARKS
2005+62.24'WB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN
2006+52.47'WB'	0.00%	0.00%	-2.00%	-5.00%	LEVEL CROWN
2007+42.69'WB'	2.00%	2.00%	-2.00%	-5.00%	REVERSE CROWN
2008+55.47'WB'	4.50%	4.50%	-4.50%	-5.00%	BEGIN FULL SUPER
2032+95.99'WB'	4.50%	4.50%	-4.50%	-5.00%	END FULL SUPER
2034+08.76'WB'	2.00%	2.00%	-2.00%	-5.00%	REVERSE CROWN
2034+98.99'WB'	0.00%	0.00%	-2.00%	-5.00%	LEVEL CROWN
2035+89.21'WB'	-5.00%	-2.00%	-2.00%	-5.00%	NORMAL CROWN

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 46	E

2

PI STA = 2038+86.87'R8'
Y = 457505.173
X = 737740.062
DELTA = 4°34'48"
D = 5°43'46"
T = 39.99'
L = 79.93'
R = 1000.00'
PC STA = 2038+46.88'R8'
PT STA = 2039+26.82'R8'

PT: 2039+26.82'R8'

MATCH LINE STA. 2038+00.00'EB'

2040'R8'

'WB' 2040'WB' 2042'WB' USH 18/151 2044'WB' 2046'WB' S86° 04' 29"E 2048'WB' 2050'WB' 2052'WB'

'EB' 2040'EB' 2042'EB' 2044'EB' 2046'EB' S86° 04' 29"E 2048'EB' 2050'EB' 2052'EB'

USH 18/151

2038'R6' 2040'R6' 2042'R6' 2044'R6' 2046'R6'

PC: 2044+03.08'R6'

PT: 2044+81.50'R6'

SIGN

INL

MOUNT HOREB TELEPHONE COMPANY

STRUCTURE B-13-377

TOWN HALL ROAD

MATCH EXISTING PAV'T.

MATCH LINE STA. 2052+75.00'EB'

N

PI STA = 2044+42.29'R6'
Y = 457357.920
X = 738454.523
DELTA = 1°07'24"
D = 1°25'57"
T = 39.21'
L = 78.42'
R = 4000.00'
PC STA = 2044+03.08'R6'
PT STA = 2044+81.50'R6'

END PROJECT
STA 2051+24.02'EB'
BUTT JOINT REQ'D.
X = 739,040.65
Y = 457,341.76

LEGEND

EROSION MAT CLASS I TYPE B

SILT FENCE

SLOPE LIMITS

END PROJECT
STA 2053+58.09'WB'
BUTT JOINT REQ'D.
X = 739,278.77
Y = 457,375.53

SIGN

MATCH LINE STA. 2052+75.00'EB'

2054'WB' 2056'WB' 2058'WB' USH 18/151 2060'WB' 2062'WB' 2064'WB' 2066'WB'

MATCH EXISTING PAV'T.

2054'EB' 2056'EB' 2058'EB' 2060'EB' 2062'EB' 2064'EB' 2066'EB'

USH 18/151

PC: 2065+52.73'WB'

PC: 2065+53.91'EB'

INL

MATCH LINE STA. 2067+50.00'EB'

N

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 47	E

2

PI STA = 25+54.71'ST'
Y = 456542.943
X = 720560.636
DELTA = 1°22'41"
D = 2°51'53"
T = 24.05'
L = 48.10'
R = 2000.00'
PC STA = 25+30.66'ST'
PT STA = 25+78.76'ST'

PI STA = 1857+99.03'R4'
Y = 456466.460
X = 720857.192
DELTA = 38°20'16"
D = 6°07'40"
T = 325.03'
L = 625.63'
R = 935.00'
PC STA = 1854+74.00'R4'
PT STA = 1860+99.63'R4'

PI STA = 1845+25.73'R3'
Y = 456539.804
X = 720491.079
DELTA = 5°49'39"
D = 6°01'52"
T = 48.35'
L = 96.62'
R = 950.00'
PC STA = 1844+77.38'R3'
PT STA = 1845+74.00'R3'

PI STA = 22+09.70'ST'
Y = 456198.607
X = 720582.270
DELTA = 2°36'42"
D = 11°27'33"
T = 11.40'
L = 22.79'
R = 500.00'
PC STA = 21+98.30'ST'
PT STA = 22+21.09'ST'

PI STA = 1866+62.19'R4'
Y = 455789.860
X = 721431.681
DELTA = 12°09'12"
D = 3°54'40"
T = 155.96'
L = 310.75'
R = 1465.00'
PC STA = 1865+06.23'R4'
PT STA = 1868+16.98'R4'

PI STA = 20+15.87'ST'
Y = 456004.809
X = 720585.596
DELTA = 1°10'09"
D = 1°08'45"
T = 51.02'
L = 102.04'
R = 5000.00'
PC STA = 19+64.85'ST'
PT STA = 20+66.89'ST'

PI STA = 1850+43.66'R2'
Y = 455786.074
X = 720630.584
DELTA = 5°20'33"
D = 5°43'46"
T = 46.66'
L = 93.24'
R = 1000.00'
PC STA = 1849+97.00'R2'
PT STA = 1850+90.24'R2'

PI STA = 1846+88.97'R1'
Y = 455884.562
X = 720262.977
DELTA = 38°55'19"
D = 6°03'47"
T = 333.92'
L = 641.95'
R = 945.00'
PC STA = 1843+55.05'R1'
PT STA = 1849+97.00'R1'

MATCH LINE STA. 27+00.00'ST'

PT: 25+78.76'ST'

PC: 1844+77.38'R3'

26'ST

PC: 25+30.66'ST'

1844'R3'

1842'R3'

SIGN

MGS GUARDRAIL TERMINAL EAT
STA. 23+72.58'ST',
44.00' LT

MGS THRIE BEAM TRANSITION

INSTALL CONCRETE SURFACE DRAIN

RIPRAP LIGHT AND GEOTEXTILE TYPE R (TYP.)

REPLACE APPROACH SLAB

STRUCTURE B-13-304

SLOPE LIMITS

SILT FENCE (TYP.)

STA. 20+17.53'ST',
24.00' RT

MGS GUARDRAIL
TERMINAL EAT

MOUNT HOREB TELEPHONE COMPANY

1858'R4'

1856'R4'

1860'R4'

PT: 1860+99.63'R4'

1862'R4'

1864'R4'

PC: 1865+06.23'R4'

1866'R4'

PC: 1855+68.41'WB'

1842'WB' 1844'WB' 1846'WB' 1848'WB' 1850'WB' 1852'WB' 1854'WB' 1856'WB'

USH 18/151

PT: 22+21.09'ST'

PC: 21+98.30'ST'

STH 78

25'ST

1842'EB' 1844'EB' 1846'EB' 1848'EB' 1850'EB' 1852'EB' 1854'EB' 1856'EB'

USH 18/151

REPLACE APPROACH SLAB

PC: 1855+45.26'EB'

MGS THRIE BEAM TRANSITION

STA. 20+17.53'ST',
24.00' RT

MGS GUARDRAIL
TERMINAL EAT

STA. 19+64.72'ST',
26.40' RT

PT: 20+66.89'ST'

15'ST

HMOD MONUMENT (DH8285)
X = 720,609.87
Y = 456,036.28
(OBSERVED IN SURVEY)

PC: 19+64.85'ST'

PT: 1850+90.24'R2'

SLOPE LIMITS

SILT FENCE
(TYP.)

PT: 1841+16.09'R1'

1842'R1'

1844'R1'

1846'R1'

1848'R1'

1850'R2'

1852'R2'

1854'R2'

1856'R2'

10' R

3-INCH ASPHALTIC SURFACE
SAFETY ISLANDS

CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH
TYPE D (TYP.)

45' R

15'

CONCRETE CURB TYPE J

45' R

CONCRETE CURB & GUTTER 6-INCH
SLOPED 36-INCH TYPE D (TYP.)

REINSTALL SIGN. REPLACE
WITH EXISTING SIGN AND
NEW POST.

CONCRETE CURB &
GUTTER 30-INCH TYPE D
REPLACE IN-KIND

PC: 1843+55.05'R1'

MATCH LINE STA. 17+00.00'ST'

LEGEND

EROSION MAT CLASS I TYPE B

SILT FENCE

SLOPE LIMITS

NOTE:
CONTRACTOR TO PROTECT 1F53, 1F54, 1F55, AND 1F56GPS AND KEEP CONSTRUCTION EQUIPMENT AT LEAST 10 FEET AWAY FROM 1F53, 1F54, 1F55 AND 1F56GPS.

ENSURE THAT 1F53, 1F54, 1F55 AND 1F56GPS IS/ARE NOT DISTURBED, BUMPED OR MOVED DURING THE DURATION OF THE PROJECT. NOTIFY JACOB ROCKWEILER IMMEDIATELY IF 1F53, 1F54, 1F55 AND 1F56GPS IS/ARE DISTURBED, BUMPED OR MOVED DURING CONSTRUCTION OPERATIONS.

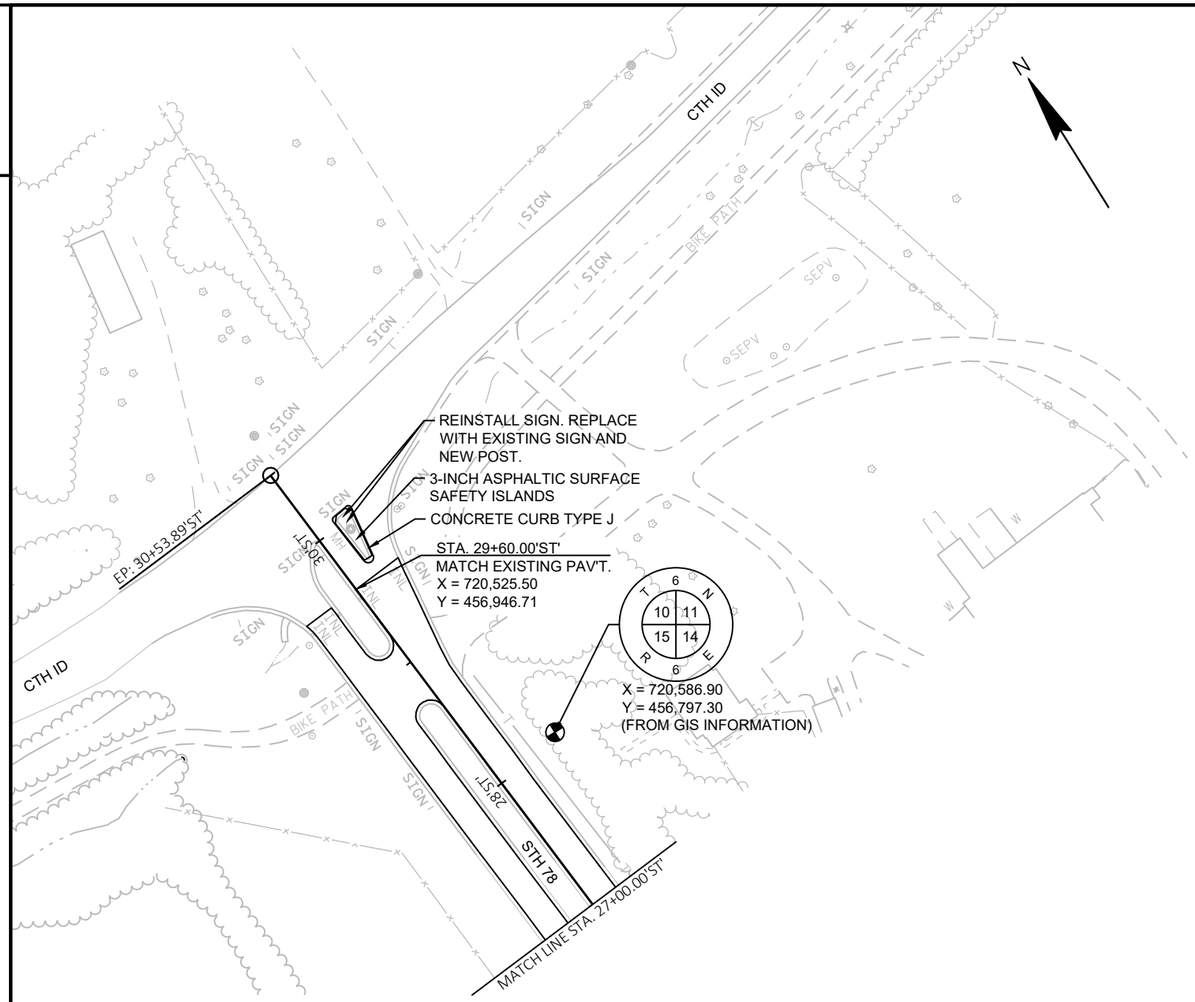
JACOB ROCKWEILER, P.E., WISCONSIN HEIGHT MODERNIZATION PROGRAM MANAGER WITH WISCONSIN DEPARTMENT OF TRANSPORTATION WHOSE PHONE NUMBER IS (608) 516-6362 AND EMAIL IS JACOB.ROCKWEILER@DOT.WI.GOV.

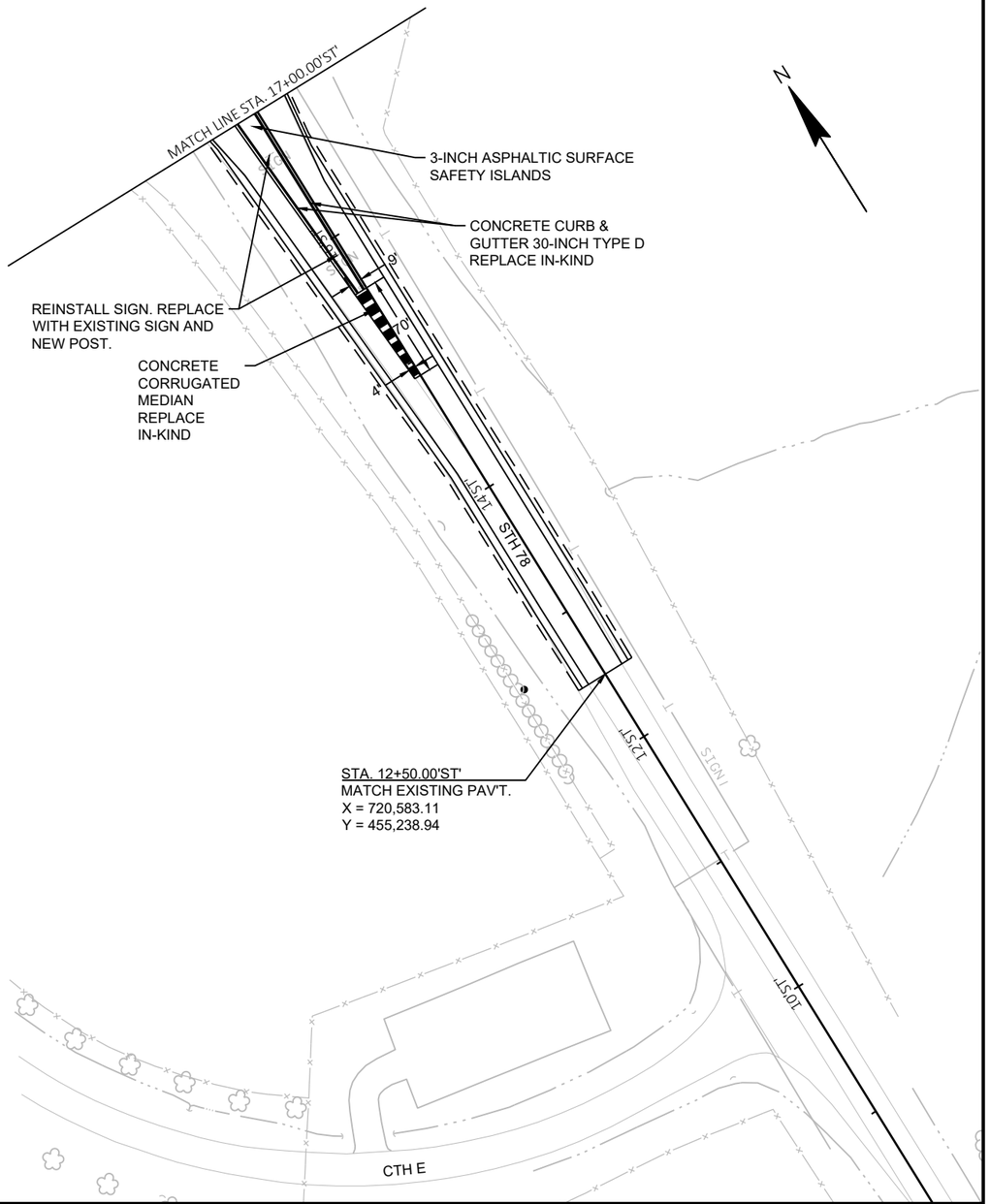
HAND MILLING OPERATIONS MAY BE NECESSARY TO ENSURE THAT SURVEY MONUMENTS ARE NOT DISTURBED DURING MILLING OPERATIONS. PAYMENT IS INCLUDED AS PART OF REMOVING ASPHALTIC SURFACE MILLING.

MILL AND PAVE ADJACENT TO MONUMENT WITHOUT DAMAGING THE MONUMENT.

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS - STH 78 INTERCHANGE	SHEET 48	E

2





PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS - STH 78 INTERCHANGE	SHEET 49	E

NOTE:
CONTRACTOR TO PROTECT 1F53, 1F54, 1F55, AND 1F56GPS AND KEEP CONSTRUCTION EQUIPMENT AT LEAST 10 FEET AWAY FROM 1F53, 1F54, 1F55 AND 1F56GPS.

ENSURE THAT 1F53, 1F54, 1F55 AND 1F56GPS IS/ARE NOT DISTURBED, BUMPED OR MOVED DURING THE DURATION OF THE PROJECT. NOTIFY JACOB ROCKWEILER IMMEDIATELY IF 1F53, 1F54, 1F55 AND 1F56GPS IS/ARE DISTURBED, BUMPED OR MOVED DURING CONSTRUCTION OPERATIONS.

JACOB ROCKWEILER, P.E., WISCONSIN HEIGHT MODERNIZATION PROGRAM MANAGER WITH WISCONSIN DEPARTMENT OF TRANSPORTATION WHOSE PHONE NUMBER IS (608) 516-6362 AND EMAIL IS JACOB.ROCKWEILER@DOT.WI.GOV.

HAND MILLING OPERATIONS MAY BE NECESSARY TO ENSURE THAT SURVEY MONUMENTS ARE NOT DISTURBED DURING MILLING OPERATIONS. PAYMENT IS INCLUDED AS PART OF REMOVING ASPHALTIC SURFACE MILLING.

MILL AND PAVE ADJACENT TO MONUMENT WITHOUT DAMAGING THE MONUMENT.

PI STA = 2020+38.51'R8'
Y = 457657.109
X = 735901.719
DELTA = 32°53'05"
D = 57°17'45"
T = 29.51'
L = 57.39'
R = 100.00'
PC STA = 2020+09.00'R8'
PT STA = 2020+66.39'R8'

PI STA = 2023+78.23'R8'
Y = 457670.786
X = 736242.791
DELTA = 1°41'55"
D = 1°08'45"
T = 74.12'
L = 148.22'
R = 5000.00'
PC STA = 2023+04.11'R8'
PT STA = 2024+52.33'R8'

PI STA = 2025+62.54'R8'
Y = 457672.709
X = 736427.101
DELTA = 3°54'42"
D = 3°57'05"
T = 49.51'
L = 98.99'
R = 1450.00'
PC STA = 2025+13.02'R8'
PT STA = 2026+12.01'R8'

PI STA = 2028+77.37'R8'
Y = 457654.508
X = 736741.448
DELTA = 5°11'29"
D = 1°36'50"
T = 160.94'
L = 321.65'
R = 3550.00'
PC STA = 2027+16.44'R8'
PT STA = 2030+38.09'R8'

PI STA = 2010+05.56'R5'
Y = 456863.700
X = 735098.151
DELTA = 16°36'40"
D = 4°00'24"
T = 208.75'
L = 414.58'
R = 1430.00'
PC STA = 2007+96.80'R5'
PT STA = 2012+11.38'R5'

PI STA = 2019+51.98'R5'
Y = 457075.164
X = 736023.650
DELTA = 8°01'44"
D = 28°38'52"
T = 14.04'
L = 28.03'
R = 200.00'
PC STA = 2019+37.94'R5'
PT STA = 2019+65.97'R5'

EP: 16+73.35'ID'

STA. 2019+47.00'R7'
MATCH EXISTING PAV'T.
BUTT JOINT REQUIRED

STA. 2025+74.00'R8'
MATCH EXISTING PAV'T.
BUTT JOINT REQUIRED

STA. 15+07.27'ID'
22.12' LT

STA. 15+04.09'ID'
22.12' RT

SILT FENCE (TYP.)

MGS GUARDRAIL TERMINAL EAT

STA. 14+54.19'ID'
20.00' LT

STA. 14+51.00'ID'
20.00' RT

SLOPE LIMITS

REPLACE APPROACH SLAB

MGS THRIE BEAM TRANSITION

STRUCTURE B-13-303
AT CTH ID OVER USH 18
CONCRETE DECK OVERLAY
AND ABUTMENT REPAIRS

MGS GUARDRAIL

MGS GUARDRAIL TERMINAL TYPE 2

STA. 2019+65.26'WB'
32.00' LT.

STA. 2023+00.00'WB'
32.00' LT.

SLOPE LIMITS

MGS GUARDRAIL TERMINAL EAT
STA. 202352.63'WB'
34.31' LT.

REPLACE APPROACH SLAB

HMOD MONUMENT (DH8286)
X = 736,015.18
Y = 457,243.47
(OBSERVED IN SURVEY)

MGS THRIE BEAM TRANSITION

STA. 11+42.05'ID'
20.00' LT

INSTALL CONCRETE SURFACE DRAIN

RIPRAP LIGHT AND GEOTEXTILE
TYPE R (TYP.)

STA. 11+38.59'ID'
20.00' RT

MGS GUARDRAIL TERMINAL EAT

SLOPE LIMITS

STA. 10+85.51'ID'
22.12' RT

STA. 10+88.96'ID'
22.12' LT

STA. 2019+39.00'R5'
MATCH EXISTING PAV'T.
BUTT JOINT REQUIRED

BP: 10+00.00'ID'

STA. 2021+01.00'R6'
MATCH EXISTING PAV'T.
BUTT JOINT REQUIRED

ADJUST GUARDRAIL
STA. 2022+24.91'R6' TO
STA. 2027+25.15'R6'

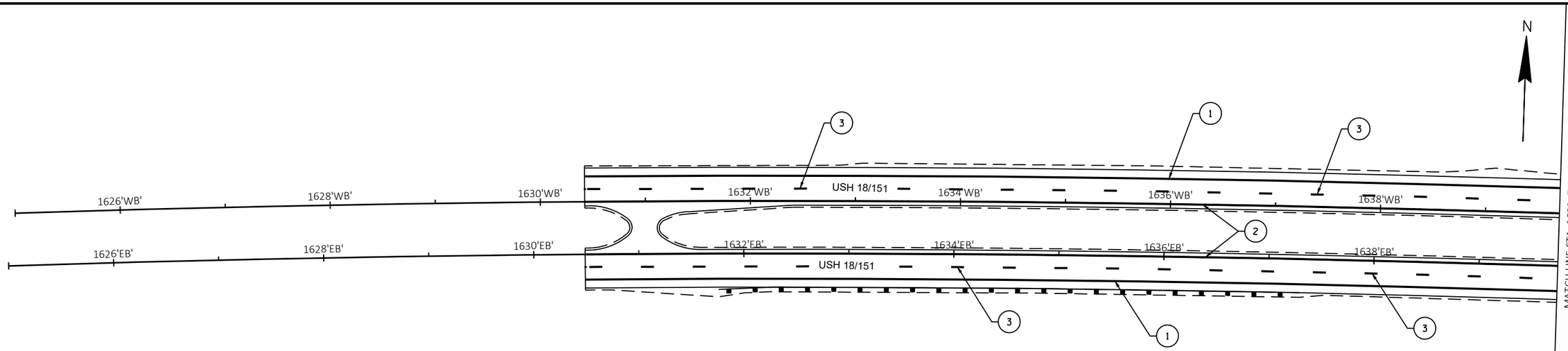
USH 18/151

CTH ID

LEGEND
- EROSION MAT CLASS I TYPE B
- SILT FENCE
- SLOPE LIMITS

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PLAN DETAILS - CTH ID INTERCHANGE	SHEET 50	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\021201-PD TO 021218-PD.DWG
LAYOUT NAME - 021218-pd
PLOT DATE : 4/21/2020 12:23 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

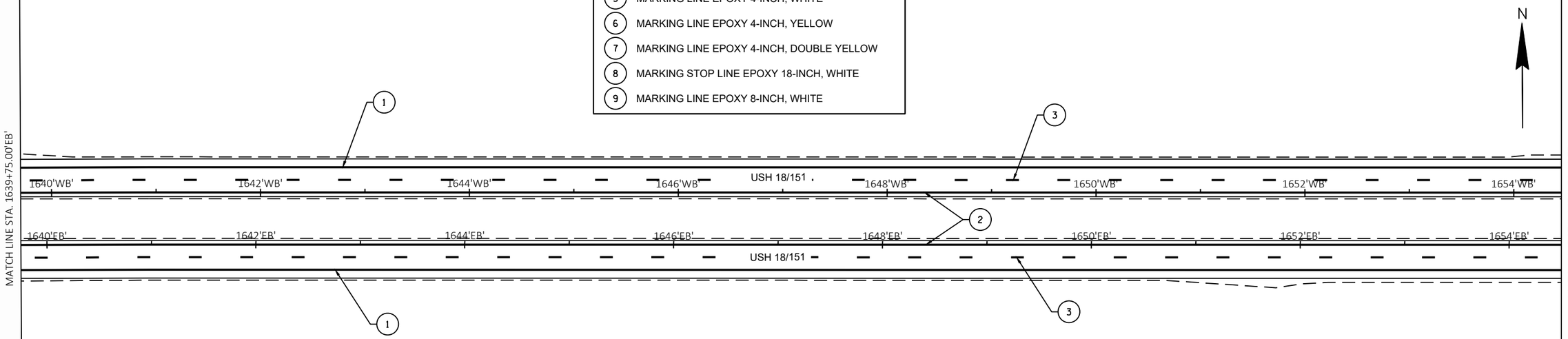


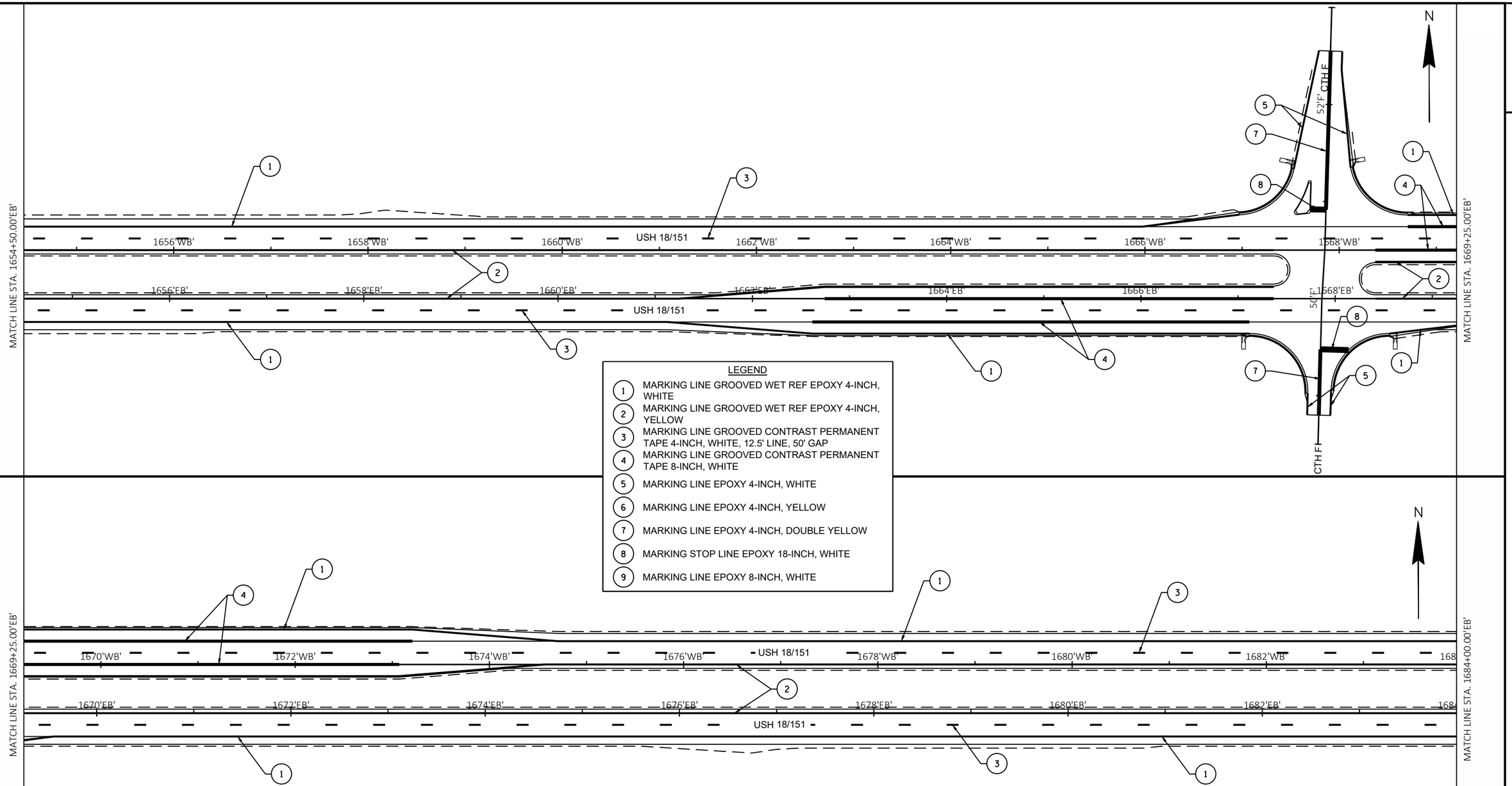
SEE THE FOLLOWING FOR MORE INFORMATION ON PAVEMENT MARKING:

- S.D.D. LONGITUDINAL MARKING (MAINLINE)
- S.D.D. MEDIAN ISLAND MARKING
- S.D.D. PAVEMENT MARKING (ISLANDS)
- S.D.D. PAVEMENT MARKING (RAMPS AND GORES)
- S.D.D. PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
- S.D.D. STOP LINE AND CROSSWALK PAVEMENT MARKING
- S.D.D. PAVEMENT MARKING (INTERSECTIONS)

LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE





LEGEND

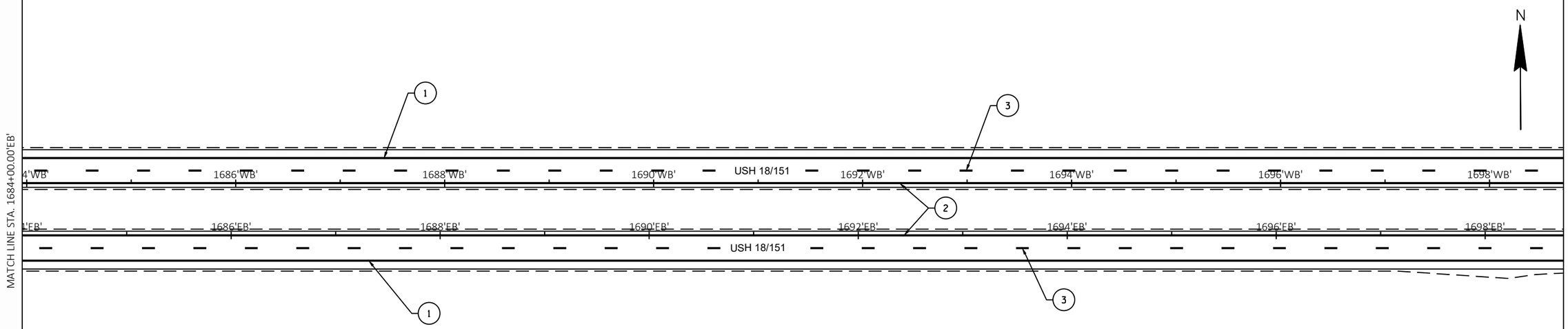
1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING	SHEET 52	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\024501-PM TO 024518-PM.DWG
LAYOUT NAME - 024502-pm

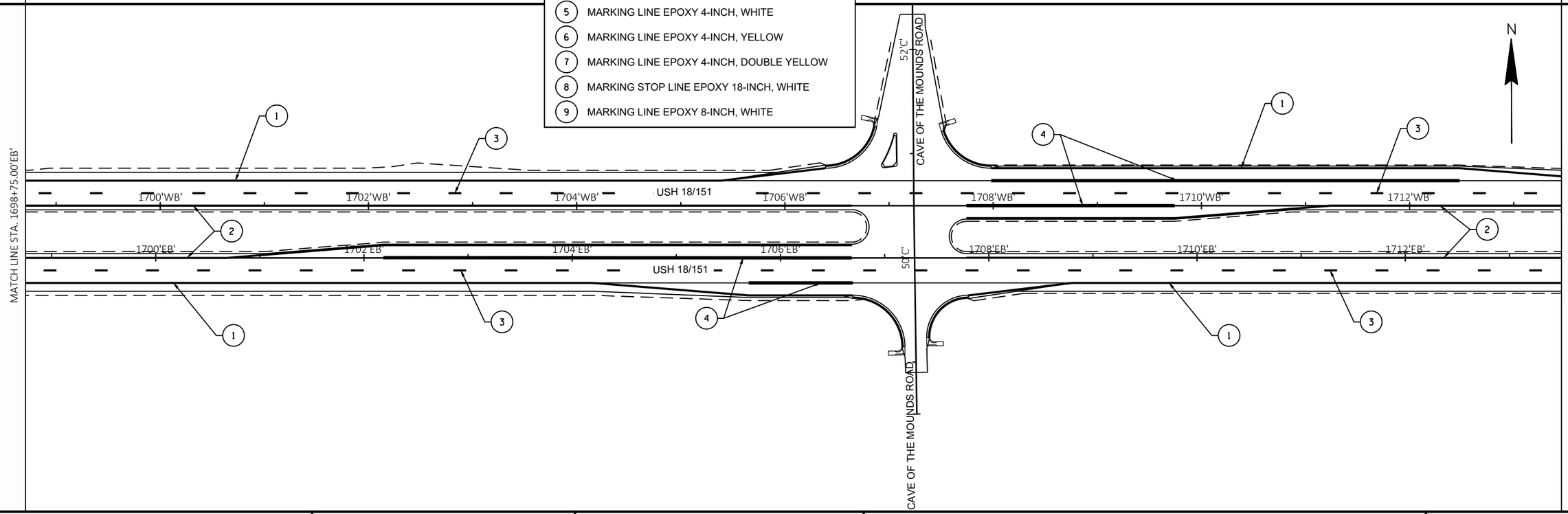
PLOT DATE : 4/21/2020 12:27 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



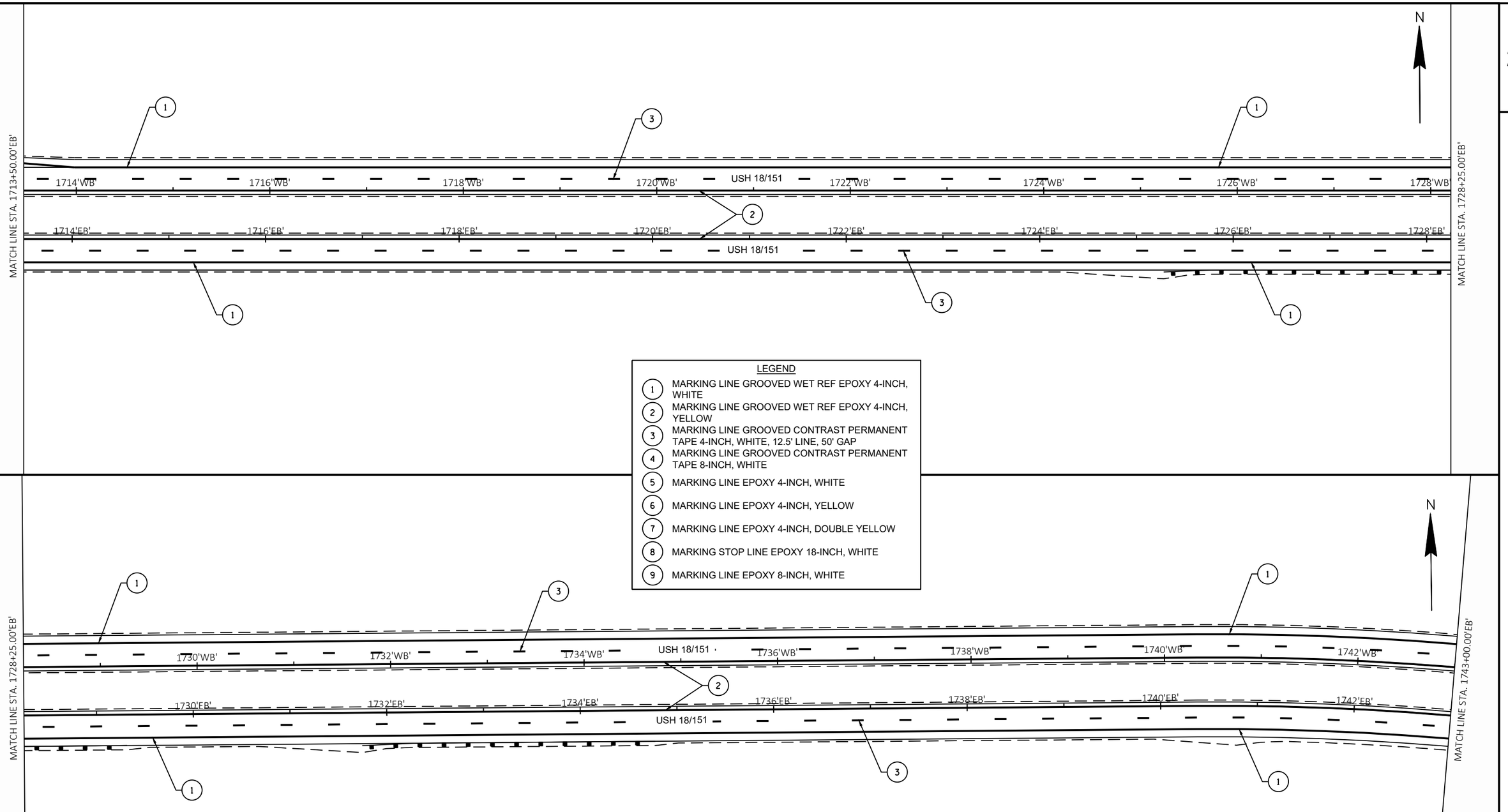
LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING	SHEET 53	E

2



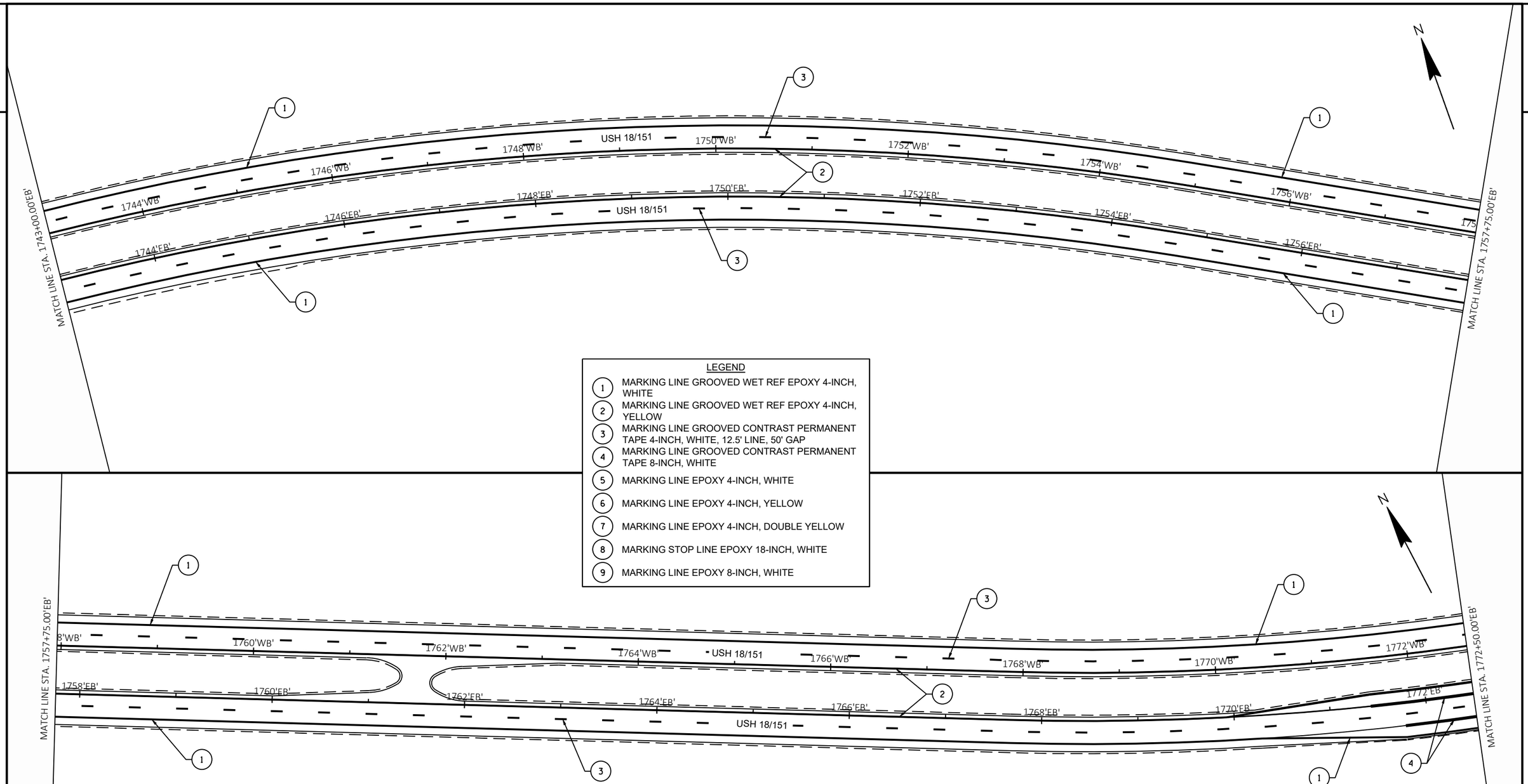
LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING	SHEET 54	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\024501-PM TO 024518-PM.DWG
LAYOUT NAME - 024504-pm

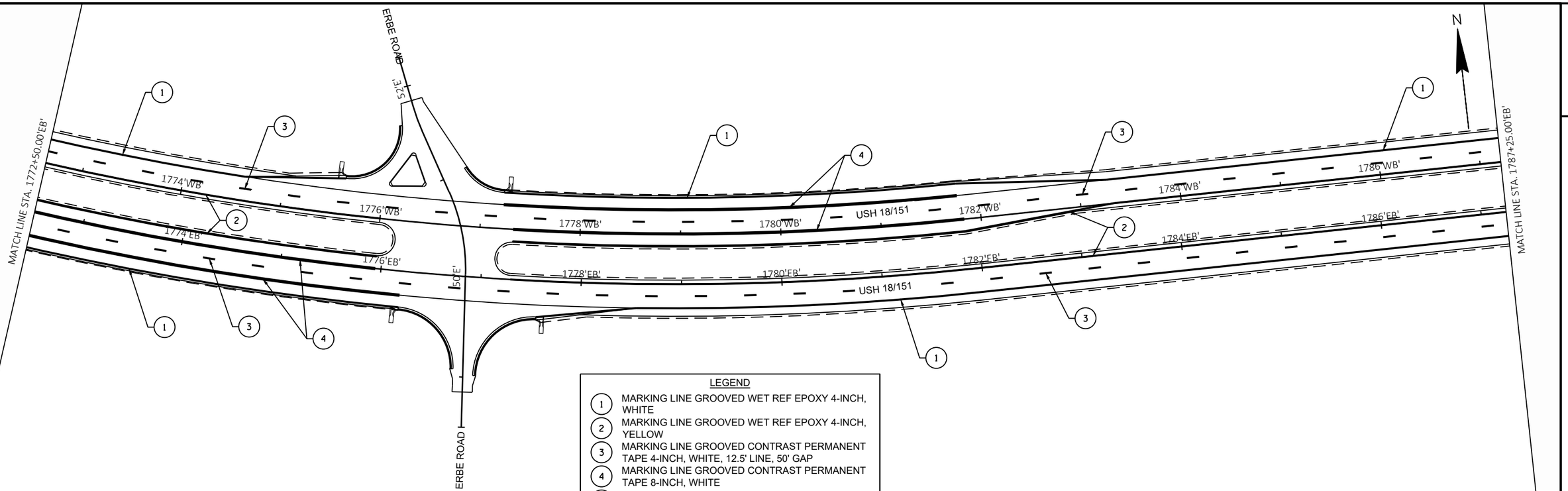
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LEGEND

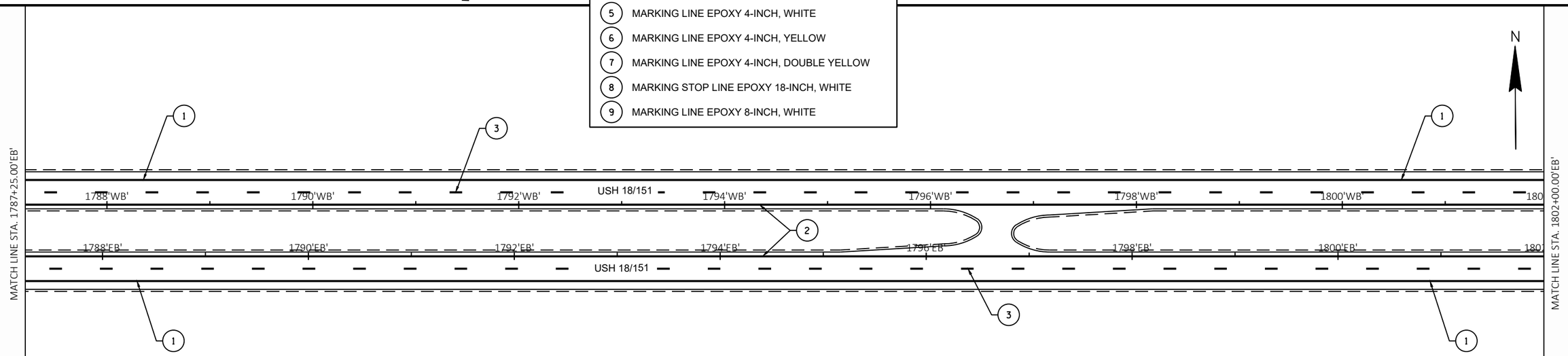
1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING	SHEET 55	E

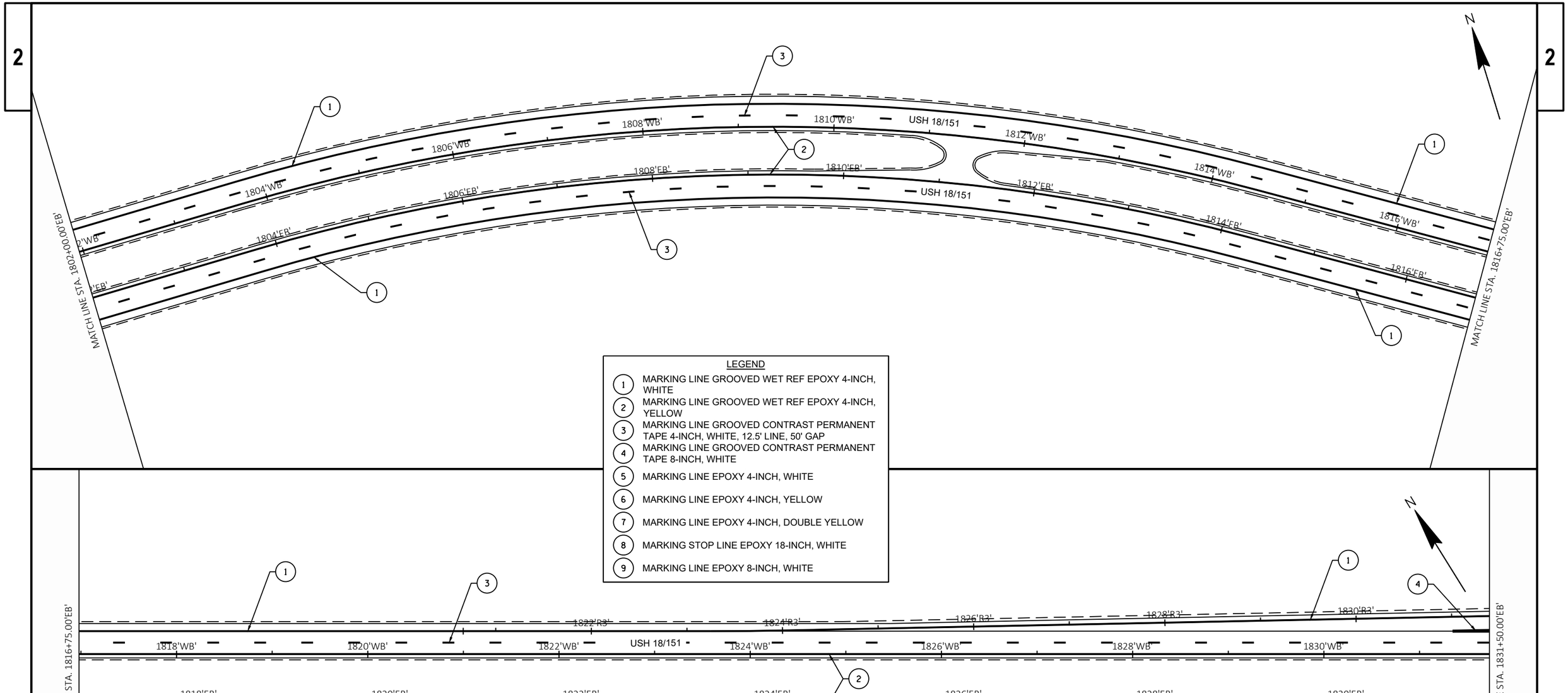


LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING	SHEET 56	E



LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING	SHEET 57	E

2

MATCH LINE STA. 1831+50.00'EB'

MATCH LINE STA. 1846+25.00'EB'

1832'WB' 1834'WB' 1836'WB' 1838'WB' USH 18/151 1840'WB' 1842'WB' 1844'WB' 1846'WB'

1832'EB' 1834'EB' 1836'EB' 1838'EB' 1840'EB' 1842'EB' 1844'EB' 1846'EB'

USH 18/151

1832'R3' 1834'R3' 1836'R3' 1838'R3' 1840'R3' 1842'R3'

1832'R1' 1834'R1' 1836'R1' 1838'R1' 1840'R1' 1842'R1'

3 (3' LINE, 9' GAP)

N

LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE

MATCH LINE STA. 1846+25.00'EB'

MATCH LINE STA. 1861+00.00'EB'

1848'WB' 1850'WB' 1852'WB' USH 18/151 1854'WB' 1856'WB' 1858'WB' 1860'WB'

1848'EB' 1850'EB' 1852'EB' 1854'EB' 1856'EB' 1858'EB' 1860'EB'

USH 18/151

1864'R4' 1866'R4' 1868'R4' 1870'R4'

1852'R2' 1854'R2' 1856'R2' 1858'R2' 1860'R2'

23.5'

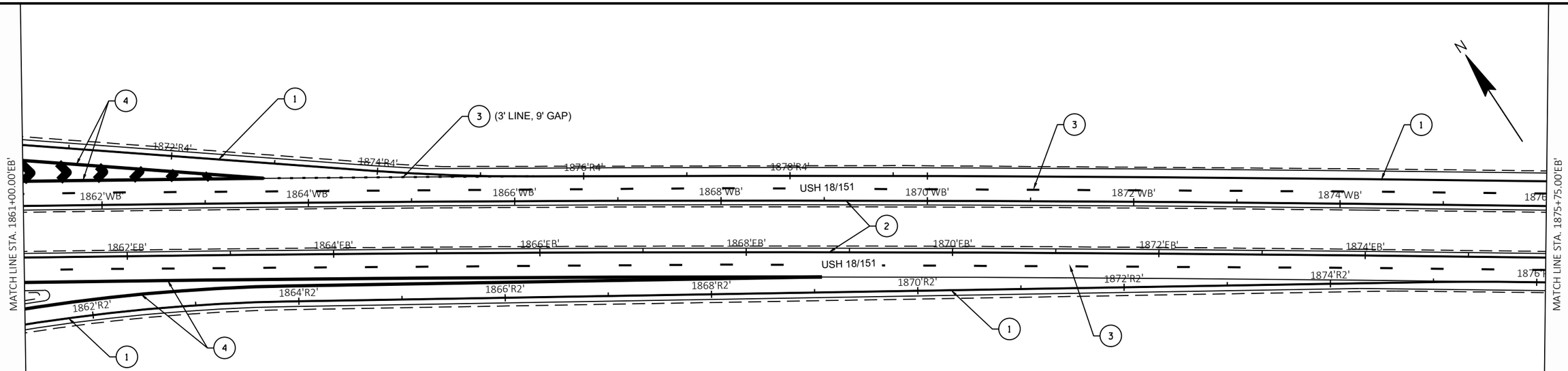
20.5'

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING	SHEET 58	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\024501-PM TO 024518-PM.DWG
LAYOUT NAME - 024508-pm

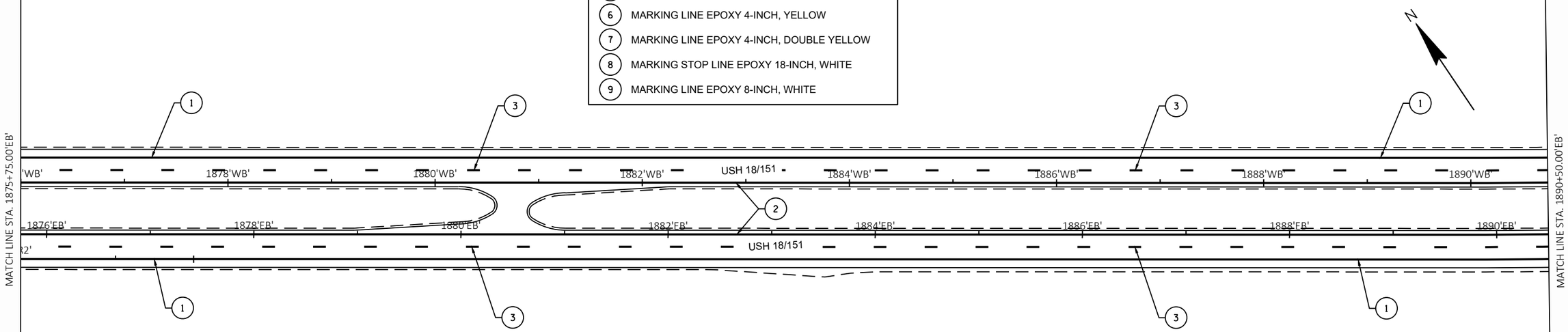
PLOT DATE : 4/21/2020 12:27 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

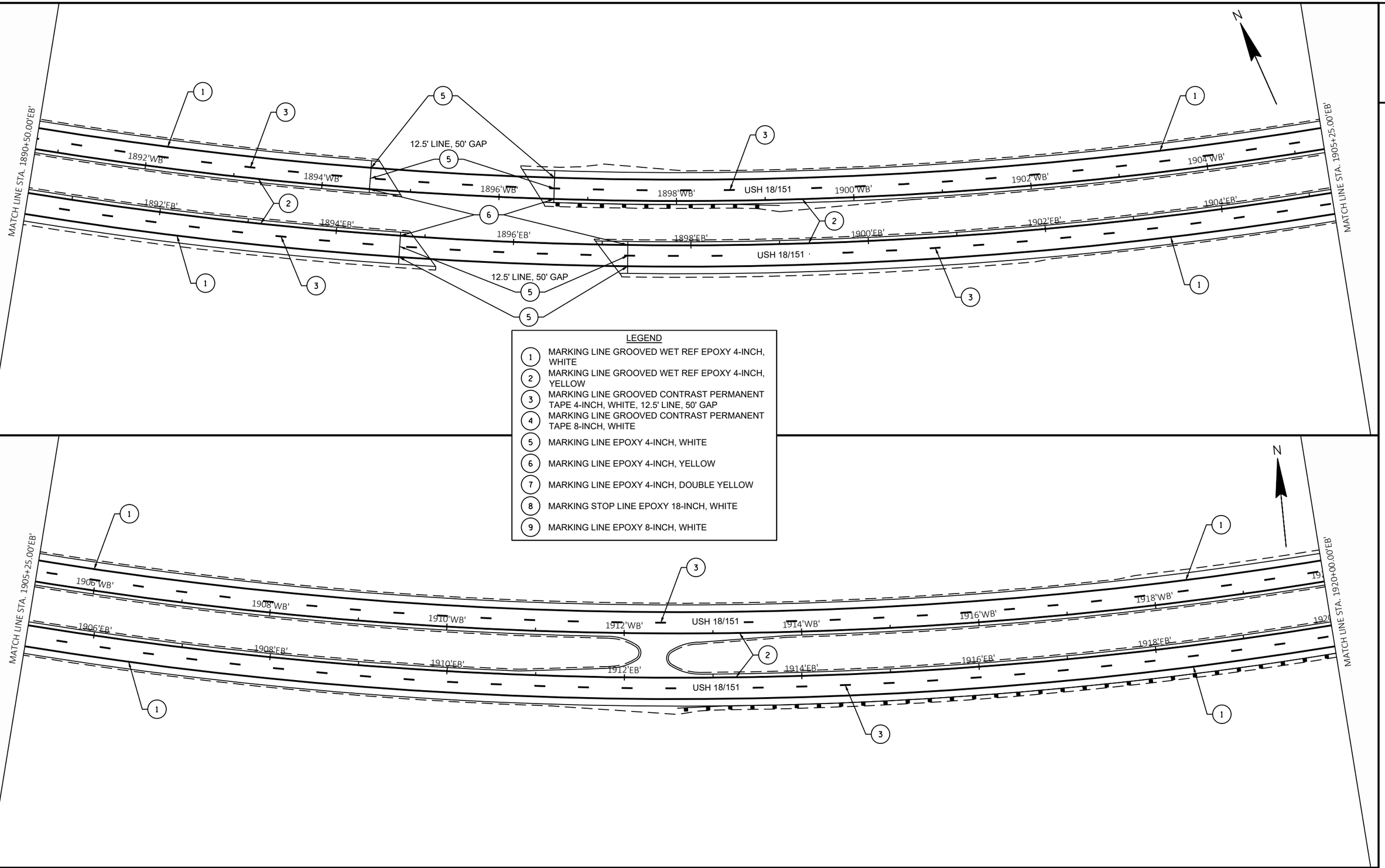


LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING	SHEET 59	E

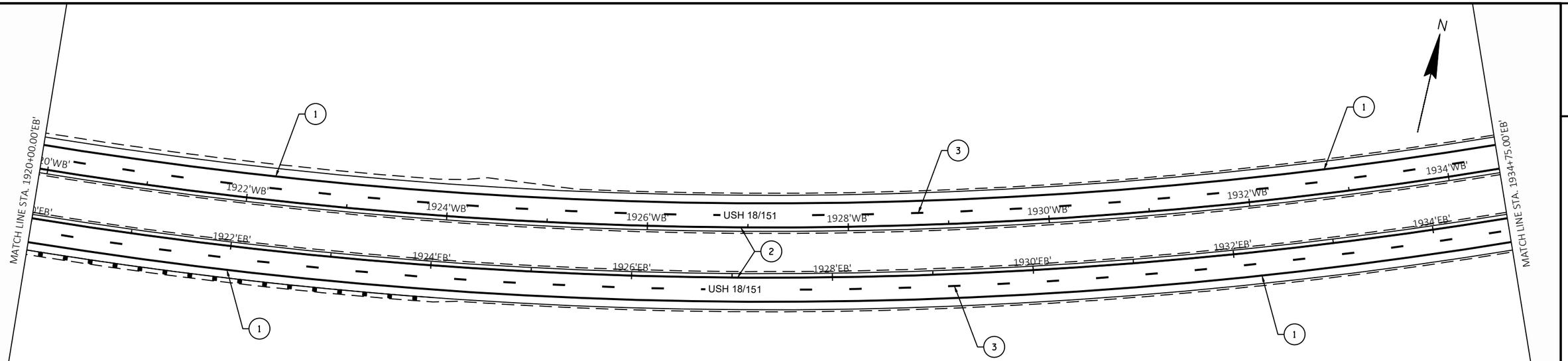


LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE

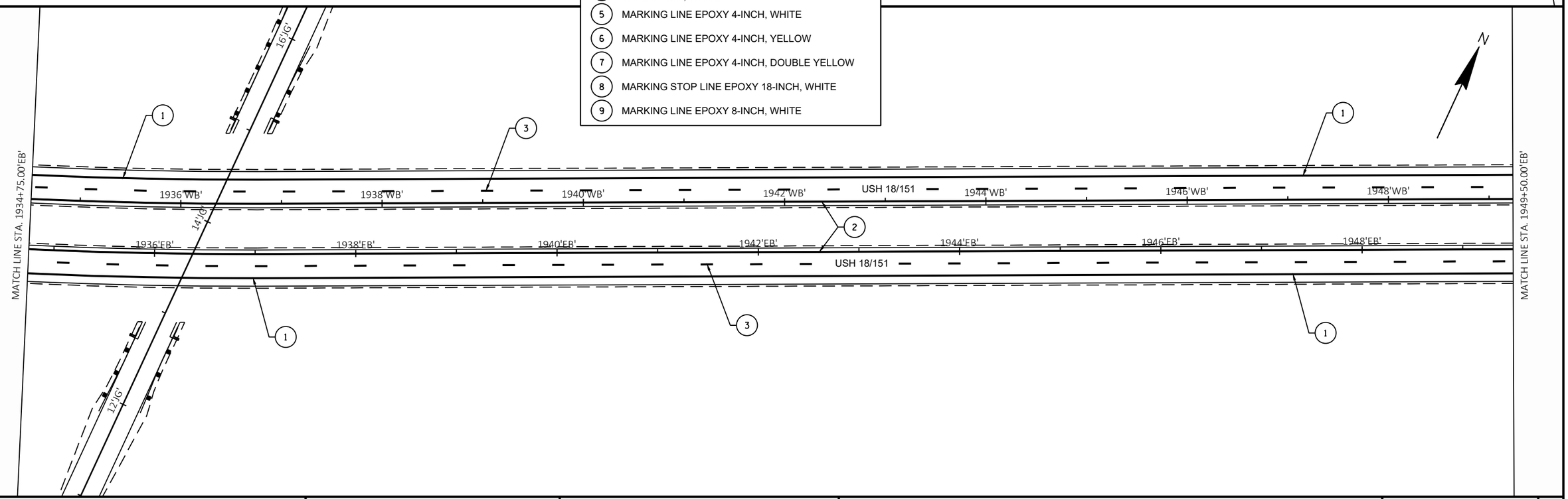
PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING	SHEET 60 E

2

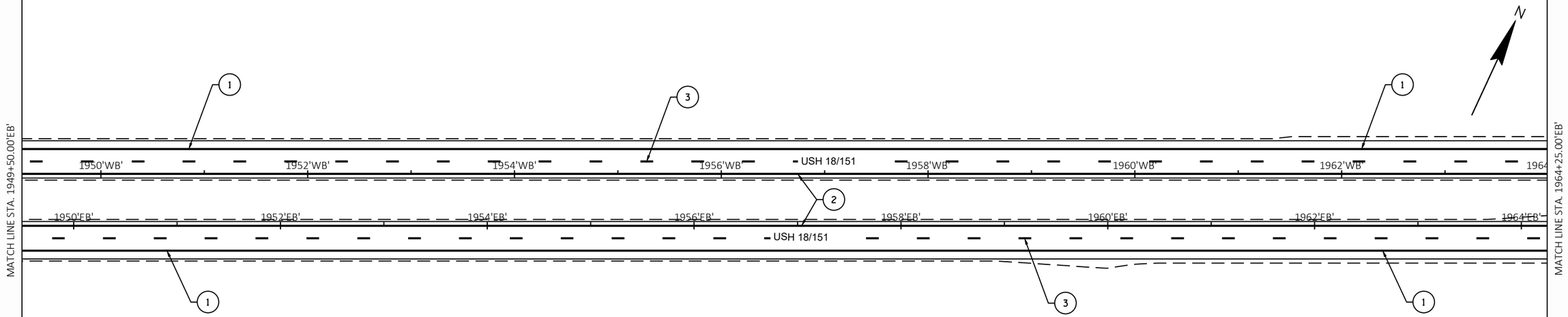


LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE

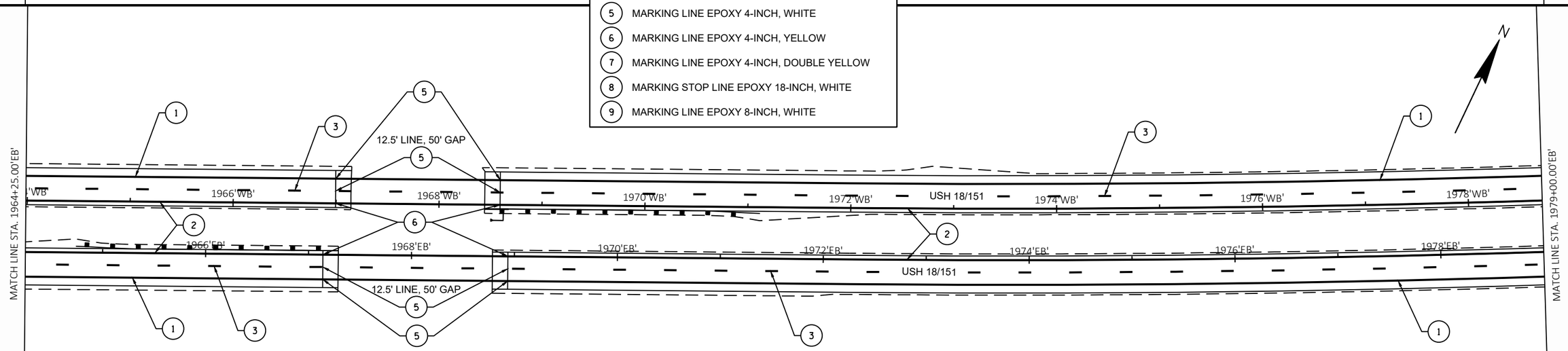


PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING	SHEET 61	E

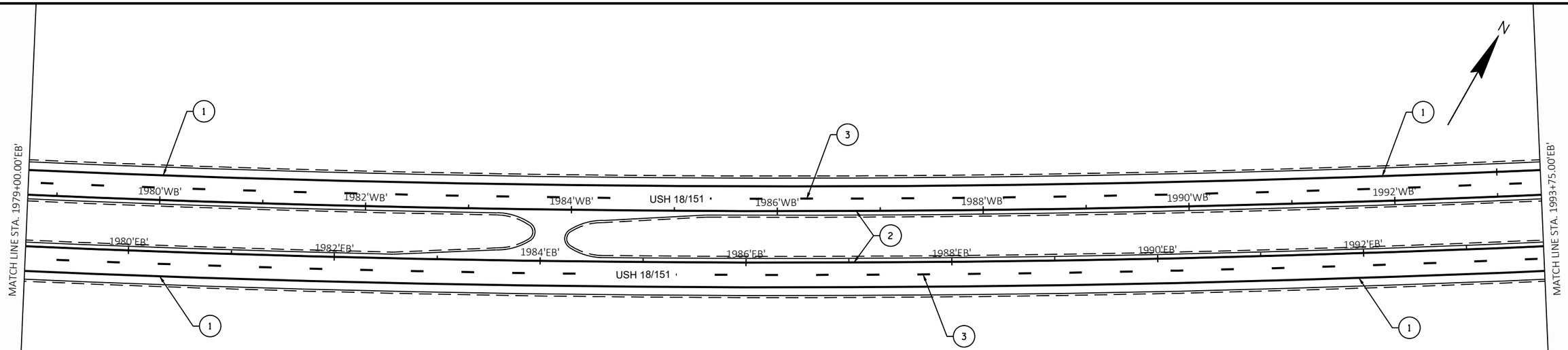


LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE

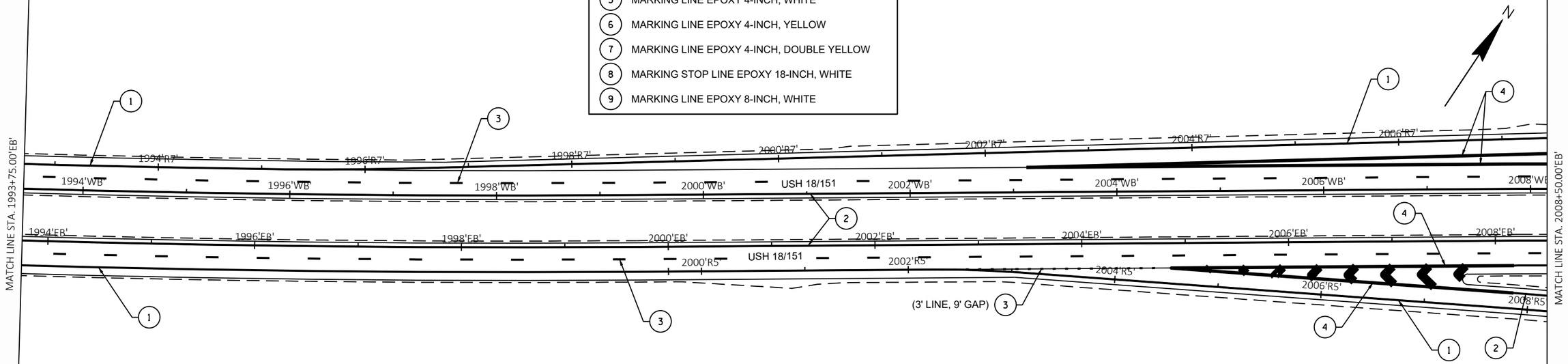


PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING	SHEET 62	E



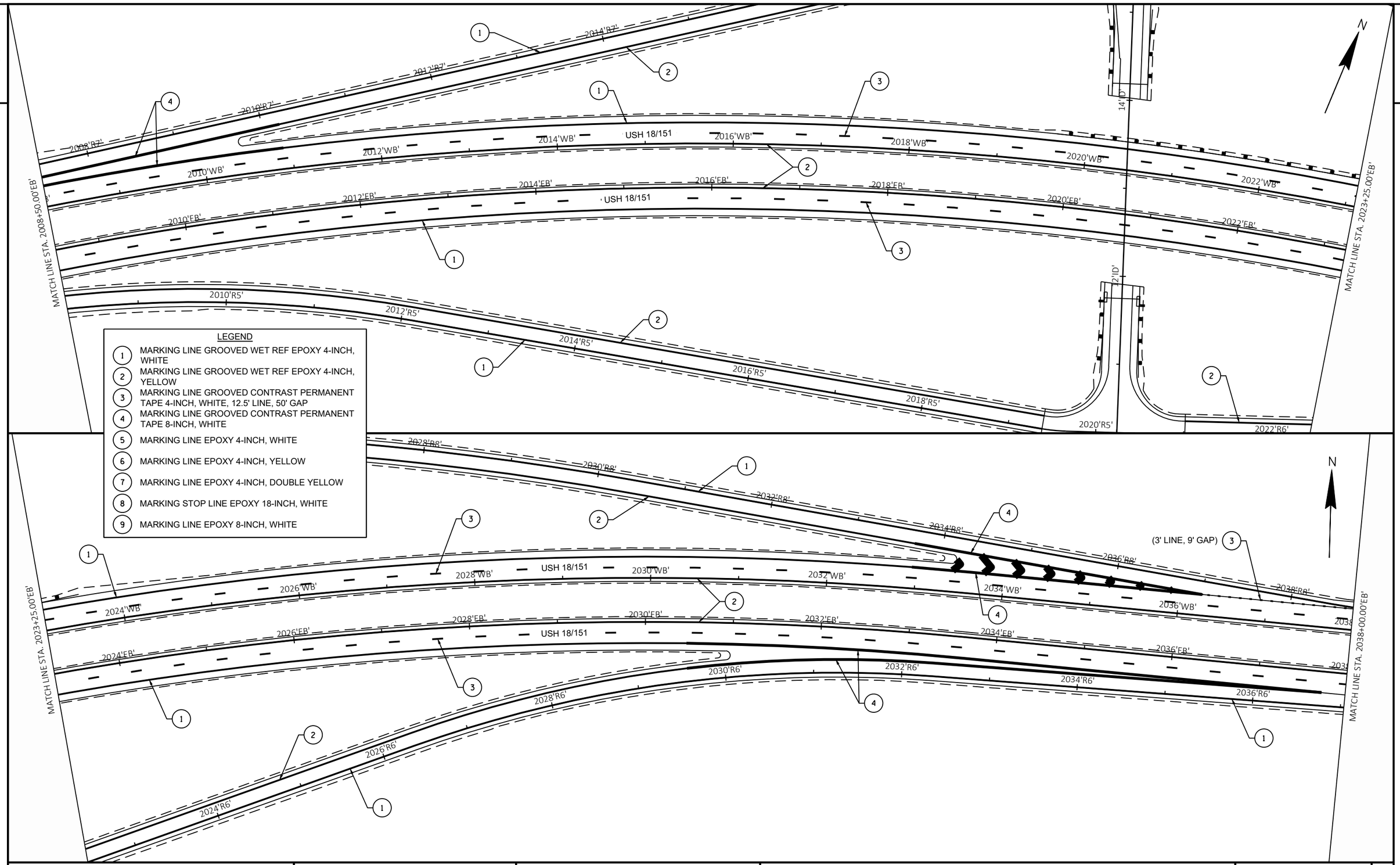
LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING	SHEET 63	E

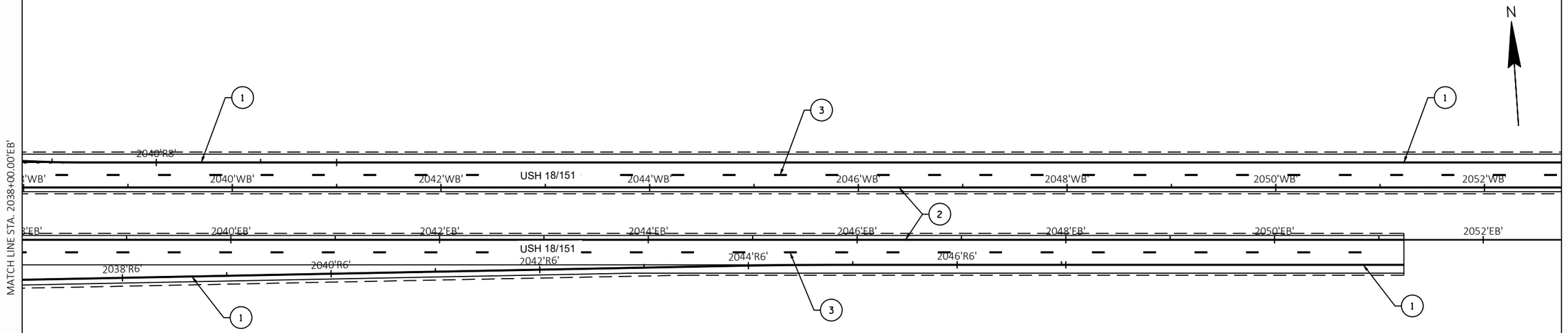
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LEGEND

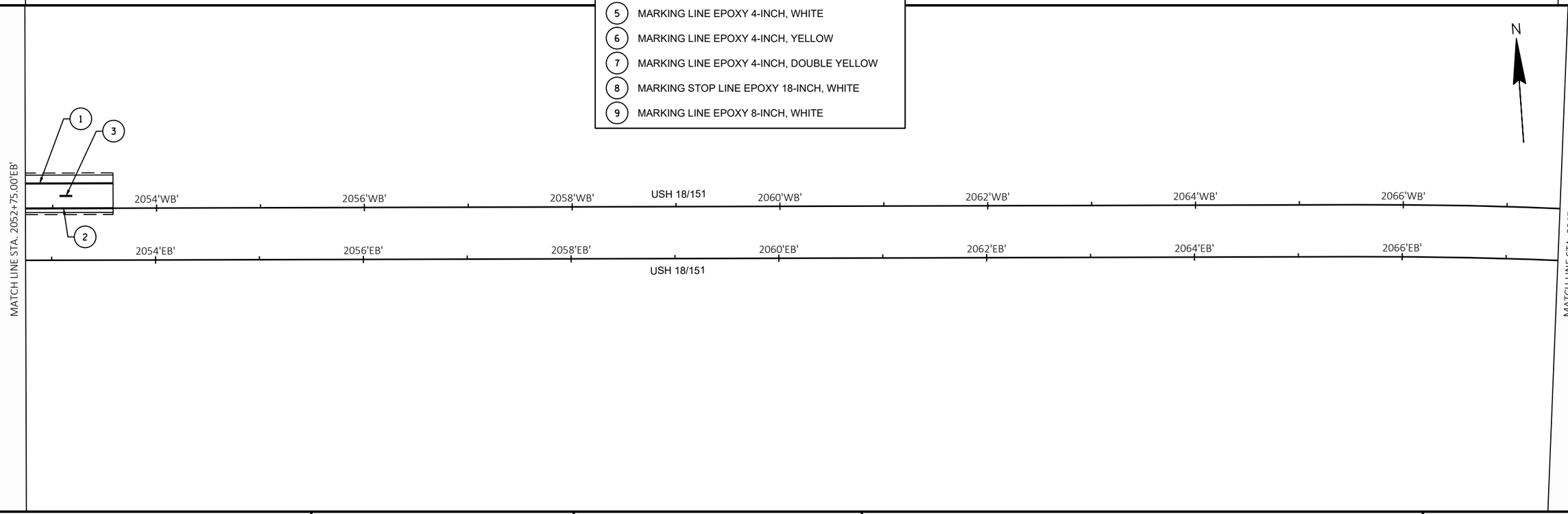
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2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING	SHEET 64	E



LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING	SHEET 65	E

2

2

MATCH LINE STA. 27+00.00'ST'

MATCH LINE STA. 17+00.00'ST'

1842'WB' 1844'WB' 1846'WB' 1848'WB' 1850'WB' 1852'WB' 1854'WB' 1856'WB'

1842'EB' 1844'EB' 1846'EB' 1848'EB' 1850'EB' 1852'EB' 1854'EB' 1856'EB'

USH 18/151

USH 18/151

1842'R3' 1844'R3' 1856'R4' 1858'R4' 1860'R4' 1862'R4' 1864'R4' 1866'R4'

1842'R1' 1844'R1' 1846'R1' 1848'R1' 1850'R2' 1852'R2' 1854'R2' 1856'R2'

26.5'LT

22.5'LT

16.0'LT

16.0'RT

22.5'RT

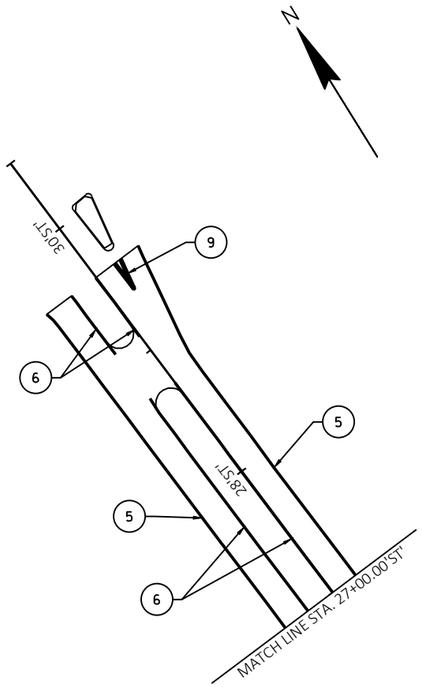
MARKING CURB EPOXY (YELLOW)

LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE

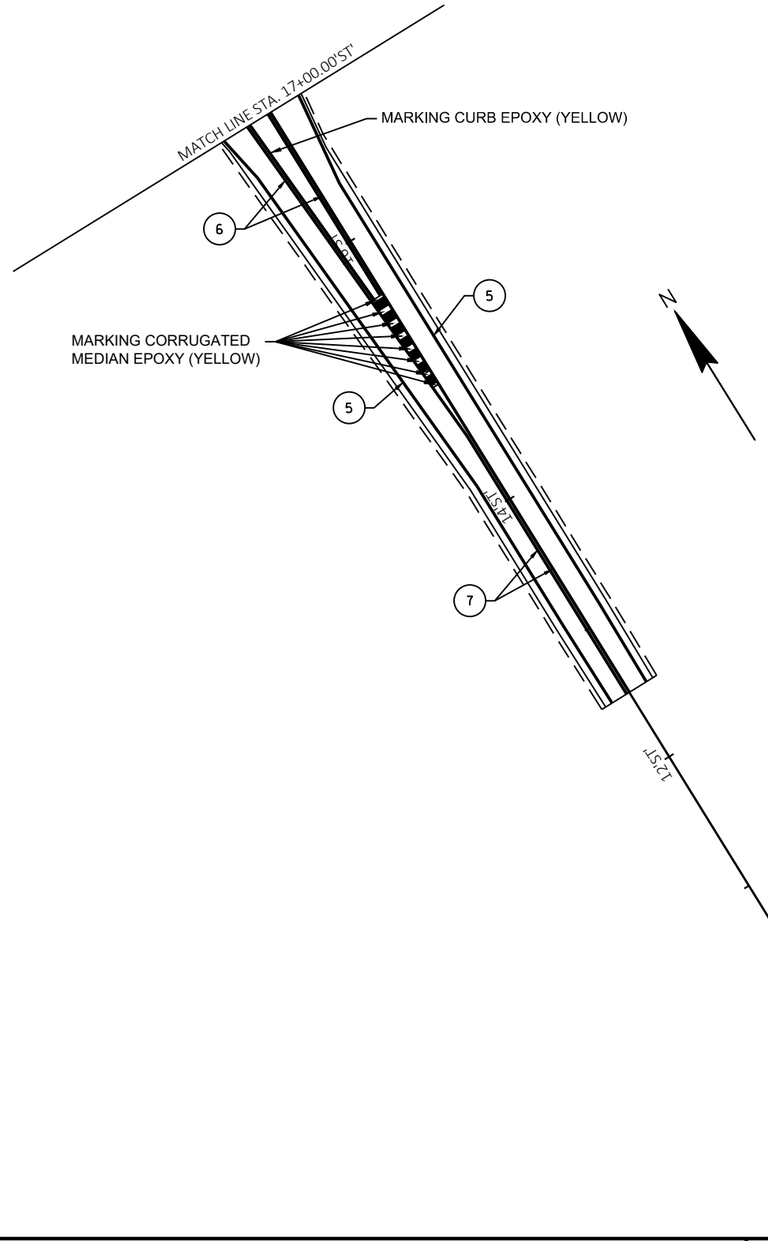
PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING - STH 78 INTERCHANGE	SHEET 66	E

2



LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING - STH 78 INTERCHANGE	SHEET 67	E

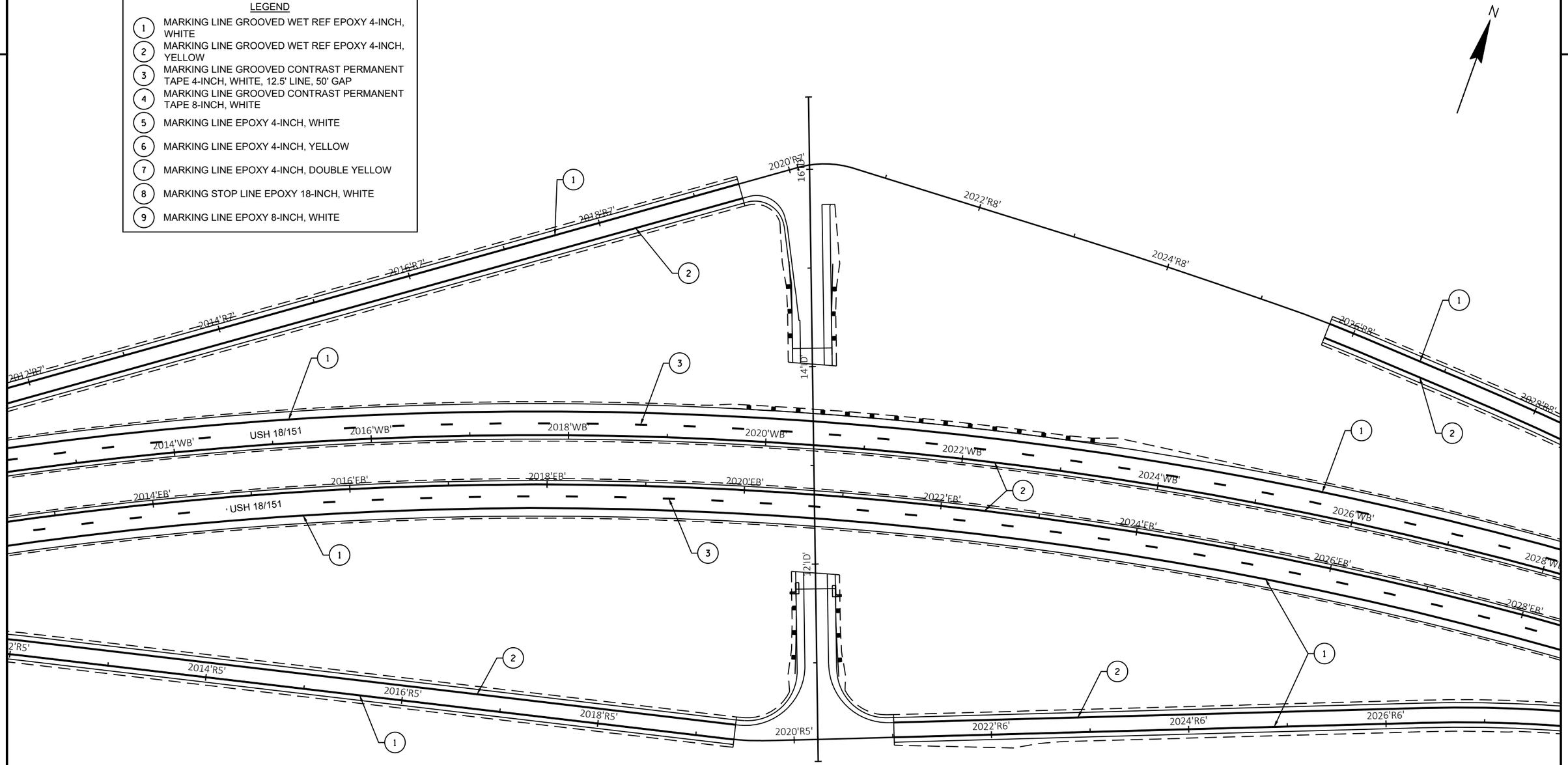
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LAYOUT NAME - 024517-pm

PLOT DATE : 4/21/2020 12:28 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : ##########

2

LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH, YELLOW
3. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH, WHITE, 12.5' LINE, 50' GAP
4. MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH, WHITE
5. MARKING LINE EPOXY 4-INCH, WHITE
6. MARKING LINE EPOXY 4-INCH, YELLOW
7. MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
8. MARKING STOP LINE EPOXY 18-INCH, WHITE
9. MARKING LINE EPOXY 8-INCH, WHITE



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	PAVEMENT MARKING - CTH ID INTERCHANGE	SHEET 68	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\024501-PM TO 024518-PM.DWG
LAYOUT NAME - 024518-pm
PLOT DATE : 4/21/2020 12:28 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : ############
WISDOT/CADDS SHEET 42

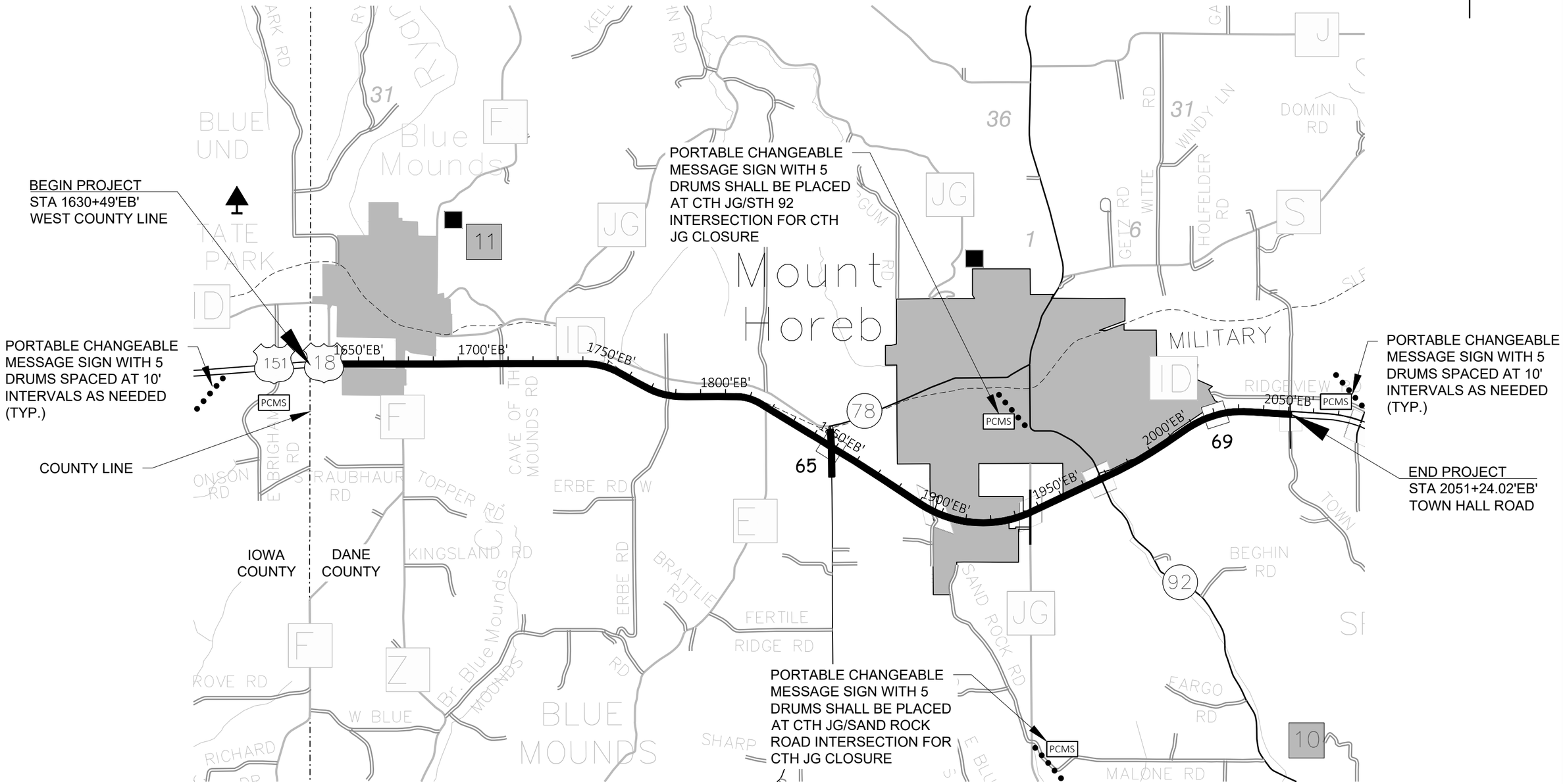
LEGEND

PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

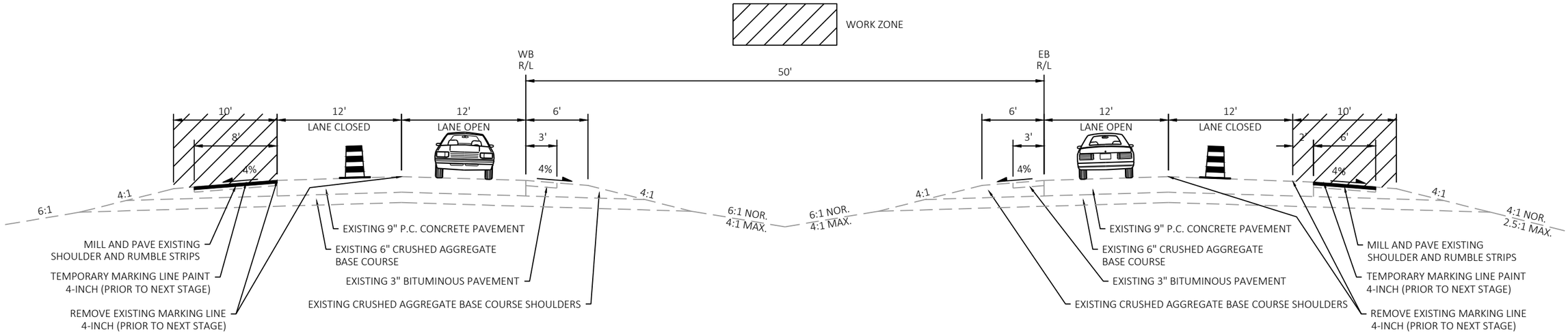
● — TRAFFIC CONTROL DRUM

GENERAL NOTES

1. THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE PLACED A MINIMUM OF 7 DAYS PRIOR TO CONSTRUCTION. CONTACT SW REGION TRAFFIC TEAM LEADER FOR MESSAGES.
3. PCMS MESSAGES SHALL READ (ROAD WORK):
   PHASE 1: ROAD WORK BEGINS
   PHASE 2: (DATE)
4. PCMS MESSAGE SHALL READ (ROAD CLOSURE):
   PHASE 1: ROAD CLOSED BEGINS
   PHASE 2: (DATE)

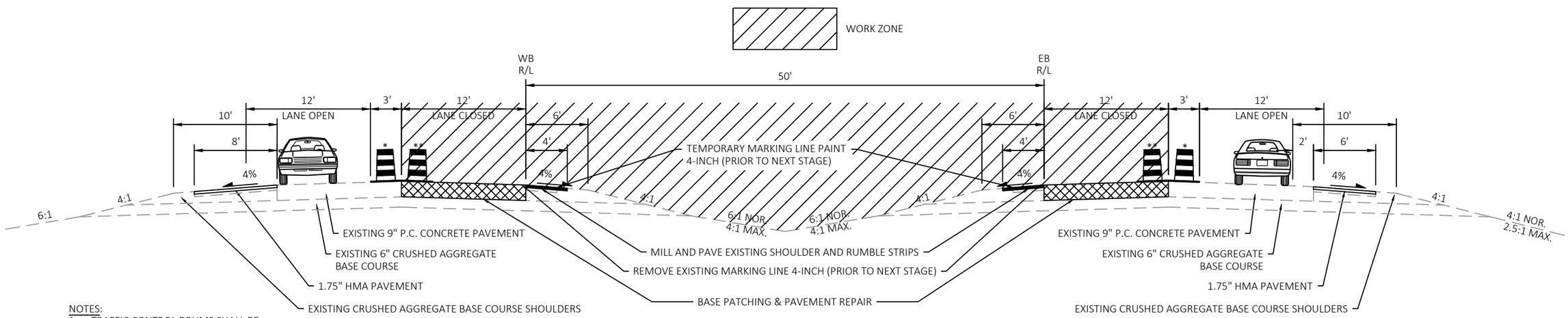


PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	TRAFFIC CONTROL OVERVIEW	SHEET 69	E



CONSTRUCTION STAGE 1 TYPICAL SECTION

STA. 1630+49'EB' TO STA. 2051+24.02'EB'
OUTSIDE LANES AND SHOULDERS CLOSED
MILLING OPERATION TO MILL SHOULDERS AND REMOVE EXISTING OUTSIDE SHOULDER RUMBLE STRIPS
MILLING AND PAVING 1.75" SHOULDER HMA 4 MT 58-28 S (6' WIDTH EB SIDE, 8' WIDTH WB SIDE)
SEE S.D.D. TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
SEE S.D.D. TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE
SEE S.D.D. TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
SEE S.D.D. TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE



NOTES:
1. TRAFFIC CONTROL DRUMS SHALL BE SHIFTED OVER COMPLETELY INTO CLOSED LANE WHEN WORK ZONE IS NON ACTIVE.

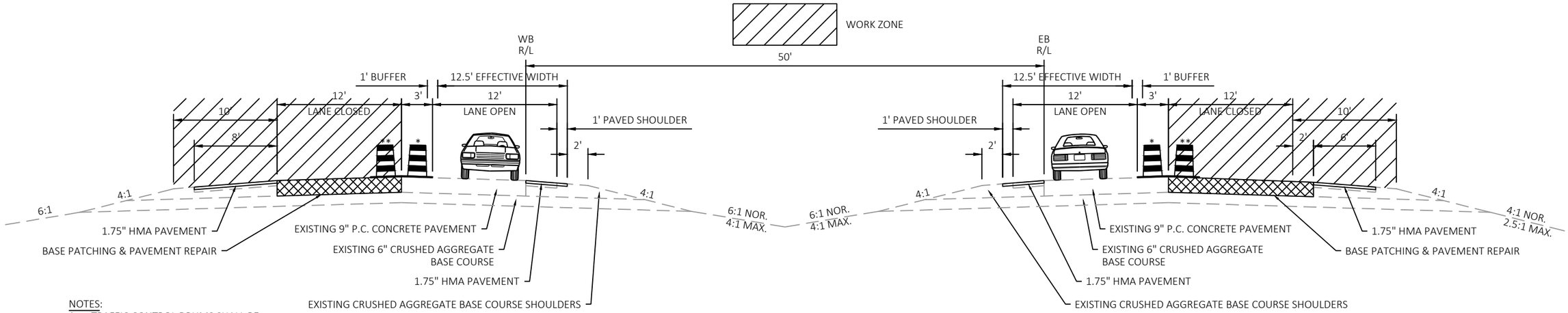
* ACTIVE WORK ZONE TRAFFIC CONTROL DRUM PLACEMENT

** NON ACTIVE WORK ZONE TRAFFIC CONTROL DRUM PLACEMENT

CONSTRUCTION STAGE 2 TYPICAL SECTION

STA. 1630+49'EB' TO STA. 2051+24.02'EB'
MEDIAN LANES AND SHOULDERS CLOSED
MILLING SHOULDERS, BASE PATCHING, & PAVEMENT REPAIR (MEDIAN LANES)
MILLING AND PAVING 1.75" SHOULDERS HMA 4 MT 58-28 S (4' WIDTH)
SEE S.D.D. TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
SEE S.D.D. TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LEFT LANE CLOSURE
SEE S.D.D. TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	STAGE CONSTRUCTION TYPICAL SECTIONS	SHEET 70	E



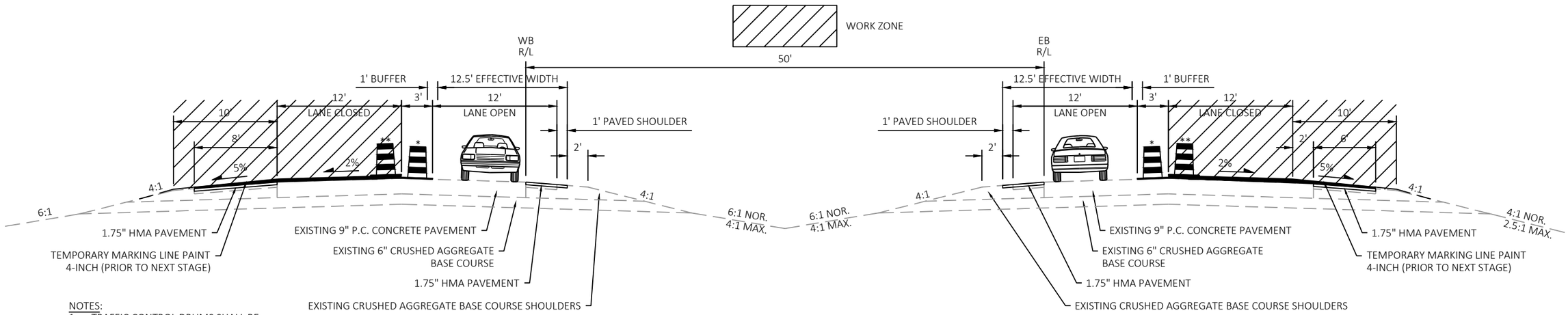
NOTES:
1. TRAFFIC CONTROL DRUMS SHALL BE SHIFTED OVER COMPLETELY INTO CLOSED LANE WHEN WORK ZONE IS NON ACTIVE.

* ACTIVE WORK ZONE TRAFFIC CONTROL DRUM PLACEMENT

** NON ACTIVE WORK ZONE TRAFFIC CONTROL DRUM PLACEMENT

CONSTRUCTION STAGE 3 TYPICAL SECTION

STA. 1630+49'EB' TO STA. 2051+24.02'EB'
OUTSIDE LANES AND SHOULDERS CLOSED
BASE PATCHING & PAVEMENT REPAIR (OUTSIDE LANES)
RESTRICTED WIDTH (12' MAX WIDTH) - SEE S.D.D ADVANCED WIDTH RESTRICTION SIGNING
SEE S.D.D. TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
SEE S.D.D. TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE
SEE S.D.D. TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
SEE S.D.D. TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE



NOTES:
1. TRAFFIC CONTROL DRUMS SHALL BE SHIFTED OVER COMPLETELY INTO CLOSED LANE WHEN WORK ZONE IS NON ACTIVE.

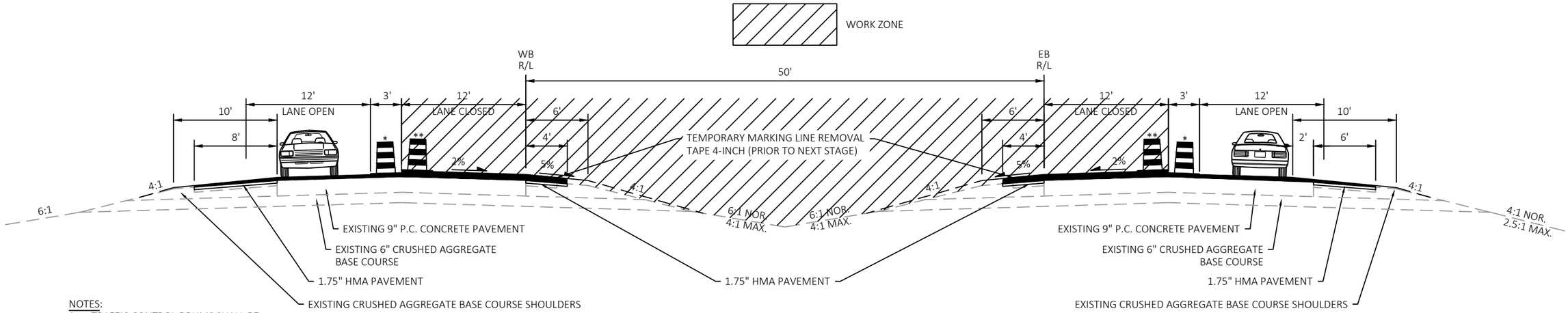
* ACTIVE WORK ZONE TRAFFIC CONTROL DRUM PLACEMENT

** NON ACTIVE WORK ZONE TRAFFIC CONTROL DRUM PLACEMENT

CONSTRUCTION STAGE 4 TYPICAL SECTION

STA. 1630+49'EB' TO STA. 2051+24.02'EB'
OUTSIDE LANES AND SHOULDERS CLOSED
LOWER LAYER OVERLAY WITH CROWN CORRECTION (OUTSIDE LANES AND SHOULDERS)
RESTRICTED WIDTH (12' MAX WIDTH) - SEE S.D.D ADVANCED WIDTH RESTRICTION SIGNING
SEE S.D.D. TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
SEE S.D.D. TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE
SEE S.D.D. TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
SEE S.D.D. TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	STAGE CONSTRUCTION TYPICAL SECTIONS	SHEET 71	E



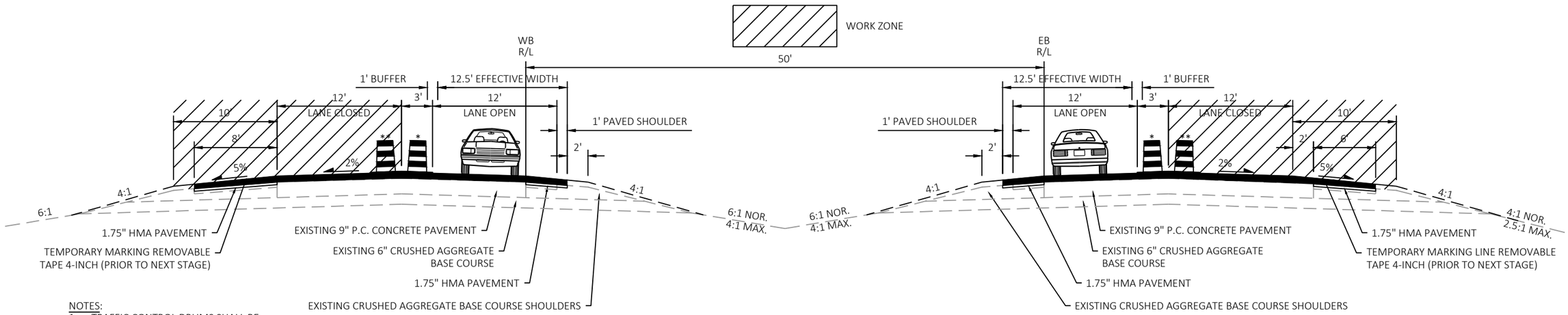
NOTES:
1. TRAFFIC CONTROL DRUMS SHALL BE SHIFTED OVER COMPLETELY INTO CLOSED LANE WHEN WORK ZONE IS NON ACTIVE.

* ACTIVE WORK ZONE TRAFFIC CONTROL DRUM PLACEMENT

** NON ACTIVE WORK ZONE TRAFFIC CONTROL DRUM PLACEMENT

CONSTRUCTION STAGE 5 TYPICAL SECTION

STA. 1630+49'EB' TO STA. 2051+24.02'EB'
MEDIAN LANES AND SHOULDERS CLOSED
LOWER LAYER OVERLAY WITH CROWN CORRECTION AND UPPER LAYER OVERLAY (MEDIAN LANES AND SHOULDERS)
GRAVEL MEDIAN SHOULDER, MEDIAN GRADING WORK, GUARDRAIL INSTALLATION
SEE S.D.D. TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
SEE S.D.D. TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LEFT LANE CLOSURE
SEE S.D.D. TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE



NOTES:
1. TRAFFIC CONTROL DRUMS SHALL BE SHIFTED OVER COMPLETELY INTO CLOSED LANE WHEN WORK ZONE IS NON ACTIVE.

* ACTIVE WORK ZONE TRAFFIC CONTROL DRUM PLACEMENT

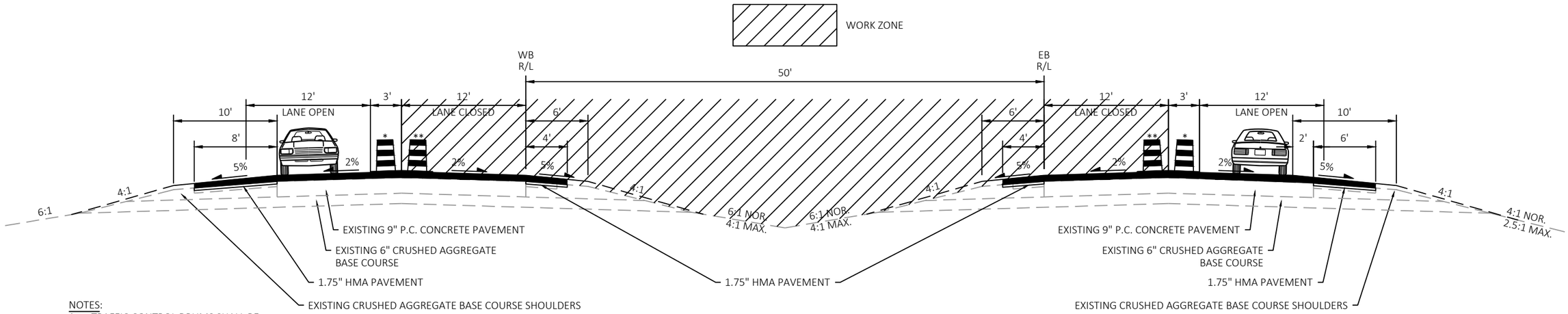
** NON ACTIVE WORK ZONE TRAFFIC CONTROL DRUM PLACEMENT

CONSTRUCTION STAGE 6 TYPICAL SECTION

STA. 1630+49'EB' TO STA. 2051+24.02'EB'
OUTSIDE LANES AND SHOULDERS CLOSED
UPPER LAYER OVERLAY (OUTSIDE LANES AND SHOULDERS)
GRAVEL OUTSIDE SHOULDER, OUTSIDE GRADING WORK, GUARDRAIL INSTALLATION, OUTSIDE RUMBLE STRIPS, OUTSIDE LANE AND CENTERLINE PAVEMENT MARKING
RESTRICTED WIDTH (12' MAX WIDTH) - SEE S.D.D ADVANCED WIDTH RESTRICTION SIGNING
SEE S.D.D. TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
SEE S.D.D. TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE
SEE S.D.D. TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
SEE S.D.D. TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	STAGE CONSTRUCTION TYPICAL SECTIONS	SHEET 72	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\026001-S1.DWG
LAYOUT NAME - 026003-s1
PLOT DATE : 4/21/2020 12:38 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



NOTES:

1. TRAFFIC CONTROL DRUMS SHALL BE SHIFTED OVER COMPLETELY INTO CLOSED LANE WHEN WORK ZONE IS NON ACTIVE.

* ACTIVE WORK ZONE TRAFFIC CONTROL DRUM PLACEMENT

** NON ACTIVE WORK ZONE TRAFFIC CONTROL DRUM PLACEMENT

CONSTRUCTION STAGE 7 TYPICAL SECTION

STA. 1630+49'EB' TO STA. 2051+24.02'EB'
MEDIAN LANES AND SHOULDERS CLOSED
MEDIAN RUMBLE STRIPS, MEDIAN LANE PAVEMENT MARKING
SEE S.D.D. TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
SEE S.D.D. TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LEFT LANE CLOSURE
SEE S.D.D. TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

2

N

NORTH M3-1 24"X12"
78 M1-6 24"X24"
MAX. 12' WIDTH W12-52
5 MILES AHEAD W057-52 36"X24"
STH 78
CTH H
DOCKEN DR
STH 78
MAX. 12' WIDTH W12-52

ROAD WORK AHEAD W20-1A

100' MAX DRUM SPACING FOR BUFFER SPACE

50' MAX DRUM SPACING FOR TAPER, 5 DRUM MIN.

END ROAD WORK G20-2A 48"X24"

CTH E

NORTH M3-1 24"X12"
78 M1-6 24"X24"
MAX. 12' WIDTH W12-52

WORK ALONG SHOULDERS AND WORK WITHIN MEDIAN SHALL NOT OCCUR AT THE SAME TIME

SOUTH M3-3 24"X12"
78 M1-6 24"X24"
MAX. 12' WIDTH W12-52

ROAD WORK AHEAD W20-1A

SHOULDER WORK W21-5

10'ST' 12'ST' STH 78 14'ST' 16'ST' 18'ST' 20'ST'

25' TYP.

1848'R1'

1852'R2'

1850'R3'

18'0"R3'

MATCH LINE STA. 20+75.00'ST'

END ROAD WORK G20-2A 48"X24"

A B C D E

MAX. 12' WIDTH W12-52
ROAD WORK AHEAD W20-1A
SHOULDER WORK W21-5

SPACING	
A	500'
B	1000'
C	500'
D	150' TAPER
E	495' BUFFER SPACE

SEE S.D.D ADVANCED WIDTH RESTRICTION SIGNING AND S.D.D. TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LINE, UNDIVIDED ROADWAY FOR MORE INFORMATION

N

ROAD WORK AHEAD W20-1A

USH 18/151

1846'EB'

1846'WB'

MAX. 12' WIDTH W12-52

STH 78

22'ST' 24'ST' 26'ST' 28'ST' 30'ST'

CTH ID

SOUTH M3-3 24"X12"
78 M1-6 24"X24"
MAX. 12' WIDTH W12-52

1855'R4'

1850'WB'

1858'EB'

MATCH LINE STA. 20+75.00'ST'

SOUTH M3-3 24"X12"
78 M1-6 24"X24"
MAX. 12' WIDTH W12-52

1847'R3'

LEGEND

- TRAFFIC CONTROL BARRICADES TYPE III
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED SIGN
- TRAFFIC CONTROL SIGNS ON PERMANENT SUPPORT
- TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE 'C' STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- WORK AREA

NOTES:

1) ACCESS TO SB AND NB STH 78 SHALL BE MAINTAINED AT ALL TIMES.
2) MINIMUM LANE WIDTH OF SB AND NB STH 78 SHALL BE 12'.
3) LOCATION OF TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED AS NECESSARY. COORDINATE ALL TRAFFIC CONTROL DEVICES WITH STH 78 DETOUR. SEE DETOUR PLAN.
4) ADJUST TRAFFIC CONTROL DEVICES AND SIGNS AS NECESSARY OR AS DIRECTED BY ENGINEER.
5) ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

WORK PERFORMED:

1) EXISTING CURB & GUTTER AND MEDIAN SOUTH OF THE US 18/STH 78 INTERCHANGE TO BE REMOVED AND REPLACED WITH HMA PAVEMENT.
2) TEMPORARY LANE WIDENING ALONG WEST SIDE OF SB STH 78 TO BE USED TO STAGE TRAFFIC DURING CONSTRUCTION OF NB STH 78.
3) TEMPORARY LANE WIDENING ALONG EAST SIDE OF NB STH 78 TO BE USED TO STAGE TRAFFIC DURING CONSTRUCTION OF SB STH 78.

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	STAGE CONSTRUCTION - STH 78 - STAGE 1	SHEET 74	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\026101-S2-STH 78.DWG
LAYOUT NAME - 026101-s2
PLOT DATE : 4/21/2020 12:55 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

N

NORTH M3-1 24"X12"
78 M1-6 24"X24"
MAX. 12' WIDTH W12-52
5 MILES AHEAD W057-52 36"X24"
STH 78
CTH H
DOCKEN DR
STH 78
MAX. 12' WIDTH W12-52

NORTH M3-1 24"X12"
78 M1-6 24"X24"
MAX. 12' WIDTH W12-52
ROAD WORK AHEAD W20-1A
END ROAD WORK G20-2A 48"X24"
CTH E
STH 78

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
REMOVE EXISTING PAVEMENT MARKING
CONCRETE BARRIER TEMPORARY PRECAST (TYP.)
10'ST' 12'ST' 14'ST' 12' MIN. 12' MIN. 16'ST'
STA. 9+80 'ST' 12' RT
25' TYP.
8:1 TAPER
STA. 12+50 'ST' 0' RT
STA. 14+19 'ST' 0' RT
WO1-6 48"X24"
LANE CLOSED R11-2L 48"X30"
WO1-1R
10 MPH WO13-1 36"X36"

FLEXIBLE TUBULAR MARKERS (TYP.)
COVER "WRONG WAY" SIGN
TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
TEMPORARY MARKING LINE PAINT 4-INCH (DOUBLE YELLOW)
EXISTING WHITE AND YELLOW EDGE LINES TO BE REMOVED
COVER "DO NOT ENTER" SIGN
ONLY R3-50R 30"X36"
TEMPORARY SIGN FLAGS (TYP.)

SOUTH M3-3 24"X12"
78 M1-6 24"X24"
MAX. 12' WIDTH W12-52
ROAD WORK AHEAD W20-1A
ONLY R3-50R 30"X36"
R3-2 24"X24"
WO1-6 48"X24"
STA. 17+09 'ST' 18.7' LT
75' R
TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
40' R
STA. 1850+31 'R2' 15' LT
STA. 1850+82 'R2' 0' LT
18'ST' 18'ST' 20'ST'
TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
LANE CLOSED R11-2L 48"X30"
COVER "DIVIDED HIGHWAY" SIGN
45 MPH WO13-1 36"X36"
COVER "ARROW" SIGN
LANE CLOSED R11-2L 48"X30"
R3-2 24"X24"
COVER "ONE WAY" SIGN
MATCH LINE STA. 20+75.00'ST'

A B C D

MAX. 12' WIDTH W12-52
ROAD WORK AHEAD W20-1A
WO1-4L
45 MPH WO13-1 36"X36"

SPACING	
A	500'
B	1000'
C	1000'
D	270' TAPER

SEE S.D.D ADVANCED WIDTH RESTRICTION SIGNING AND S.D.D. TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE-WAY ROAD FOR MORE INFORMATION.

N

LANE CLOSED R11-2L 48"X30"
USH 18/151
18.8'EB' 18.8'WB' 18.46'EB' 18.46'WB' 18.50'WB' 18.52'EB' 18.52'RP2' 18.50'EB'
MATCH LINE STA. 20+75.00'ST'
STH 78
22'ST' 24'ST' 26'ST' 30'ST'
25' TYP.
STOP R1-1 36"X36"
ONE WAY R6-2L 24"X30"
MAX. 12' WIDTH W12-52
LANE CLOSED R11-2L 48"X30"
TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
TEMPORARY SIGN FLAGS (TYP.)
SOUTH M3-3 24"X12"
78 M1-6 24"X24"
R3-1 24"X24"
ROAD WORK AHEAD W20-1A
MAX. 12' WIDTH W12-52

ROAD WORK AHEAD W20-1A 36"X36"
ROAD WORK AHEAD W20-1A
TYPE II BARRICADE (TYP.)
MAINTAIN ACCESS TO MILITARY RIDGE STATE TRAIL AT ALL TIMES. CONTRACTOR SHALL UTILIZE TEMPORARY CURB RAMPS AND TEMPORARY PEDESTRIAN SURFACES AS NEEDED TO MAINTAIN ACCESS.
EXISTING CURB & GUTTER AND MEDIAN TO BE REMOVED AND REPLACED WITH HMA PAVEMENT.
ROAD WORK AHEAD W20-1A 36"X36"
ROAD WORK AHEAD W20-1A
SOUTH M3-3 24"X12"
78 M1-6 24"X24"
MAX. 12' WIDTH W12-52
CTH ID
30'ST'

LEGEND

- TRAFFIC CONTROL BARRICADES TYPE III
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED SIGN
- TRAFFIC CONTROL SIGNS ON PERMANENT SUPPORT
- TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE 'C' STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- WORK AREA

NOTES:

1) ACCESS TO SB STH 78 SHALL BE MAINTAINED AT ALL TIMES.
2) MINIMUM LANE WIDTH OF SB AND NB STH 78 SHALL BE 12'
3) LOCATION OF TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED AS NECESSARY. COORDINATE ALL TRAFFIC CONTROL DEVICES WITH STH 78 DETOUR. SEE DETOUR PLAN.
4) ADJUST TRAFFIC CONTROL DEVICES AND SIGNS AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
5) ALL STH 78/RAMP INTERSECTION WORK TO BE COMPLETED AT NIGHT USING RAMP CLOSURES AND FLAGGING OPERATIONS.
6) ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

WORK PERFORMED:

1) EXISTING CONCRETE PAVEMENT ALONG NB STH 78 IS REMOVED AND REPLACED WITH HMA PAVEMENT.
2) EXISTING STRUCTURE APPROACH SLABS ALONG NB STH 78 FOR BRIDGE OVER US 18 EB & WB ARE REPLACED.
3) CURB & GUTTER ALONG NB STH 78 IS REPLACED AS NECESSARY.
4) EXISTING SHOULDERS ALONG NB STH 78 ARE REPLACED AS NECESSARY.
5) NB STH 78/RAMP INTERSECTION WORK TO BE COMPLETED UNDER NIGHTTIME RAMP CLOSURES.

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	STAGE CONSTRUCTION - STH 78 - STAGE 2	SHEET 75	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\026102-S2-STH 78.DWG
LAYOUT NAME - 026102-s2
PLOT DATE : 4/21/2020 1:00 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

N

NORTH M3-1 24"X12"
78 M1-6 24"X24"
MAX. 12' WIDTH W12-52
5 MILES AHEAD W057-52 36"X24"
STH 78
CTH H
DOCKEN DR
STH 78
MAX. 12' WIDTH W12-52

NORTH M3-1 24"X12"
78 M1-6 24"X24"
MAX. 12' WIDTH W12-52
ROAD WORK AHEAD W20-1A
CTH E
END ROAD WORK G20-2A 48"X24"

STA. 12+50 'ST' 0' LT
STA. 9+80 'ST' 12' LT
8:1 TAPER (TYP.)
TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
COVER "WRONG WAY" SIGN
COVER "DO NOT ENTER" SIGN
CONCRETE BARRIER TEMPORARY PRECAST (TYP.)
10'ST'
12'ST'
14'ST'
16'ST'
18'ST'
20'ST'
STH 78
12' MIN.
12' MIN.
25' TYP.
REMOVE EXISTING PAVEMENT MARKING

SOUTH M3-3 24"X12"
78 M1-6 24"X24"
MAX. 12' WIDTH W12-52
ONLY R3-50R 30"X36"
ROAD WORK AHEAD W20-1A
LANE CLOSED R11-2L 48"X30"
R3-2 24"X24"
TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
LANE CLOSED R11-2L 48"X30"
45 MPH WO13-1 36"X36"
WO24-1R
COVER "DIVIDED HIGHWAY" SIGN
COVER "ARROW" SIGN
LANE CLOSED R11-2L 48"X30"
COVER "ONE WAY" SIGN
WO1-6 48"X24"
MATCH LINE STA. 20+75.00'ST'

A
B
C
D

MAX. 12' WIDTH W12-52
ROAD WORK AHEAD W20-1A
WO1-4R
45 MPH WO13-1 36"X36"

SPACING	
A	500'
B	1000'
C	1000'
D	270' TAPER

SEE S.D.D ADVANCED WIDTH RESTRICTION SIGNING AND S.D.D. TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE-WAY ROAD FOR MORE INFORMATION

WO1-2R
10 MPH WO13-1 36"X36"

TEMPORARY SIGN FLAGS (TYP.)
ONLY R3-50R 30"X36"
FLEXIBLE TUBULAR MARKERS (TYP.)

N

SOUTH M3-3 24"X12"
78 M1-6 24"X24"
ROAD WORK AHEAD W20-1A
LANE CLOSED R11-2L 48"X30"
MAX. 12' WIDTH W12-52
CTH ID
30'ST'
28'ST'
26'ST'
24'ST'
22'ST'
STH 78
MATCH LINE STA. 20+75.00'ST'
USH 18/151
TYPE II BARRICADE (TYP.)
MAINTAIN ACCESS TO MILITARY RIDGE STATE TRAIL AT ALL TIMES. CONTRACTOR SHALL UTILIZE TEMPORARY CURB RAMPS AND TEMPORARY PEDESTRIAN SURFACES AS NEEDED TO MAINTAIN ACCESS.
DO NOT ENTER R5-1 30"X30"
ONE WAY R6-2L 24"X30"
LANE CLOSED R11-2L 48"X30"
25' TYP.
TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
TEMPORARY SIGN FLAGS (TYP.)
SOUTH M3-3 24"X12"
78 M1-6 24"X24"
R3-1 24"X24"
ROAD WORK AHEAD W20-1A
MAX. 12' WIDTH W12-52
ROAD WORK AHEAD W20-1A
ROAD WORK AHEAD W20-1A
ROAD WORK AHEAD W20-1A

LEGEND

- TRAFFIC CONTROL BARRICADES TYPE III
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED SIGN
- TRAFFIC CONTROL SIGNS ON PERMANENT SUPPORT
- TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE 'C' STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- WORK AREA

NOTES:

1) ACCESS TO SB STH 78 SHALL BE MAINTAINED AT ALL TIMES.
2) MINIMUM LANE WIDTH OF SB AND NB STH 78 SHALL BE 12'
3) LOCATION OF TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED AS NECESSARY. COORDINATE ALL TRAFFIC CONTROL DEVICES WITH STH 78 DETOUR. SEE DETOUR PLAN.
4) ADJUST TRAFFIC CONTROL DEVICES AND SIGNS AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
5) ALL STH 78/RAMP INTERSECTION WORK TO BE COMPLETED AT NIGHT USING RAMP CLOSURES AND FLAGGING OPERATIONS.
6) ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

WORK PERFORMED:

1) EXISTING CONCRETE PAVEMENT ALONG SB STH 78 IS REMOVED AND REPLACED WITH HMA PAVEMENT.
2) EXISTING STRUCTURE APPROACH SLABS ALONG SB STH 78 FOR BRIDGE OVER US 18 EB & WB ARE REPLACED.
3) CURB & GUTTER ALONG SB STH 78 IS REPLACED AS NECESSARY.
4) EXISTING SHOULDERS ALONG SB STH 78 ARE REPLACED AS NECESSARY.
5) SB STH 78/RAMP INTERSECTION WORK TO BE COMPLETED UNDER NIGHTTIME RAMP CLOSURES.
6) TEMPORARY PAVEMENT WIDENING ALONG SB STH 78 IS REMOVED.

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	STAGE CONSTRUCTION - STH 78 - STAGE 3	SHEET 76	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\026103-S2-STH 78.DWG
LAYOUT NAME - 026103-s2
PLOT DATE : 4/21/2020 1:04 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

N

NORTH M3-1 24"X12"
78 M1-6 24"X24"
MAX. 12' WIDTH W12-52
5 MILES AHEAD W057-52 36"X24"
STH 78
CTH H
DOCKEN DR
STH 78
MAX. 12' WIDTH W12-52

ROAD WORK AHEAD W20-1A

100' MAX DRUM SPACING FOR BUFFER SPACE

50' MAX DRUM SPACING FOR TAPER, 5 DRUM MIN.

END ROAD WORK G20-2A 48"X24"

NORTH M3-1 24"X12"
78 M1-6 24"X24"
MAX. 12' WIDTH W12-52

CTH E

WORK ALONG SHOULDER AND WORK WITHIN MEDIAN SHALL NOT OCCUR AT THE SAME TIME

SOUTH M3-3 24"X12"
78 M1-6 24"X24"
MAX. 12' WIDTH W12-52

ROAD WORK AHEAD W20-1A

10'ST' 12'ST' STH 78 14'ST' 16'ST' 18'ST' 20'ST'

25' TYP.

18.48'R1'

18.0'R2'

END ROAD WORK G20-2A 48"X24"

MATCH LINE STA. 20+75.00'ST'

A B C D E

MAX. 12' WIDTH W12-52
ROAD WORK AHEAD W20-1A
SHOULDER WORK W21-5

SPACING	
A	500'
B	1000'
C	500'
D	150' TAPER
E	495' BUFFER SPACE

SEE S.D.D ADVANCED WIDTH RESTRICTION SIGNING AND S.D.D. TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LINE, UNDIVIDED ROADWAY FOR MORE INFORMATION

44.8'R3'

18.46'EB'
18.46'WB'

ROAD WORK AHEAD W20-1A

USH 18/151

MAX. 12' WIDTH W12-52

STH 78 22'ST' 24'ST' 26'ST' 28'ST' 30'ST'

CTH ID

MATCH LINE STA. 20+75.00'ST'

18.56'R4'

18.50'WB'

18.58'EB'

SOUTH M3-3 24"X12"
78 M1-6 24"X24"
MAX. 12' WIDTH W12-52

18.52'R2'

18.50'EB'

N

LEGEND

- TRAFFIC CONTROL BARRICADES TYPE III
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED SIGN
- TRAFFIC CONTROL SIGNS ON PERMANENT SUPPORT
- TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE 'C' STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- WORK AREA

NOTES:
1) ACCESS TO SB AND NB STH 78 SHALL BE MAINTAINED AT ALL TIMES.
2) MINIMUM LANE WIDTH OF SB AND NB STH 78 SHALL BE 12'.
3) LOCATION OF TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED AS NECESSARY. COORDINATE ALL TRAFFIC CONTROL DEVICES WITH STH 78 DETOUR. SEE DETOUR PLAN.
4) ADJUST TRAFFIC CONTROL DEVICES AND SIGNS AS NECESSARY OR AS DIRECTED BY ENGINEER.
5) ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

WORK PERFORMED:
1) CURB & GUTTER AND MEDIAN SOUTH OF THE US 18/STH 78 INTERCHANGE TO BE INSTALLED
2) TEMPORARY LANE WIDENING ALONG NB STH 78 TO BE REMOVED.
3) CURB & GUTTER AND ISLAND NORTH OF THE US 18/STH 78 INTERCHANGE TO BE INSTALLED.

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	STAGE CONSTRUCTION - STH 78 - STAGE 4	SHEET 77	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\026104-S2-STH 78.DWG
LAYOUT NAME - 026104-s2
PLOT DATE : 4/21/2020 1:08 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

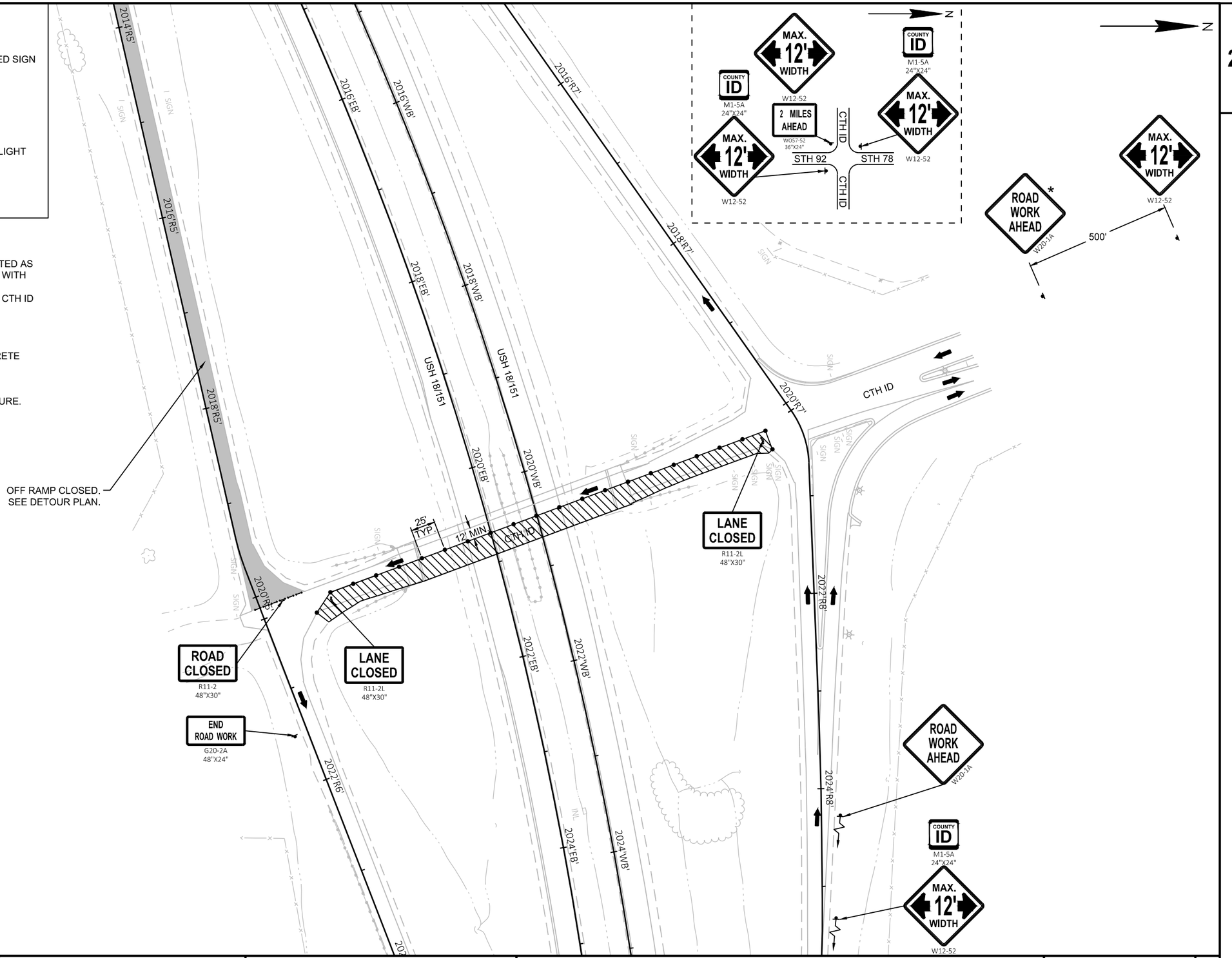
LEGEND

- TRAFFIC CONTROL BARRICADES TYPE III
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED SIGN
- TRAFFIC CONTROL SIGNS ON PERMANENT SUPPORT
- TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE 'C' STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- WORK AREA

NOTES:
1) ACCESS TO SB CTH ID SHALL BE MAINTAINED AT ALL TIMES.
2) MINIMUM LANE WIDTH OF CTH ID SHALL BE 12'.
3) LOCATION OF TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED AS NECESSARY. COORDINATE ALL TRAFFIC CONTROL DEVICES WITH CTH ID DETOUR. SEE DETOUR PLAN.
4) EB USH 18 OFF RAMP TO CTH ID CLOSED FOR DURATION OF CTH ID BRIDGE DECK OVERLAY WORK.
5) ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

WORK PERFORMED:
1) NB CTH ID BRIDGE OVER US 18 EB & WB TO RECEIVE CONCRETE DECK OVERLAY.

* PLACE AT LAST INTERSECTION PRIOR TO ROADWORK/CLOSURE.



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	STAGE CONSTRUCTION - CTH ID - STAGE 1	SHEET 78	E

2

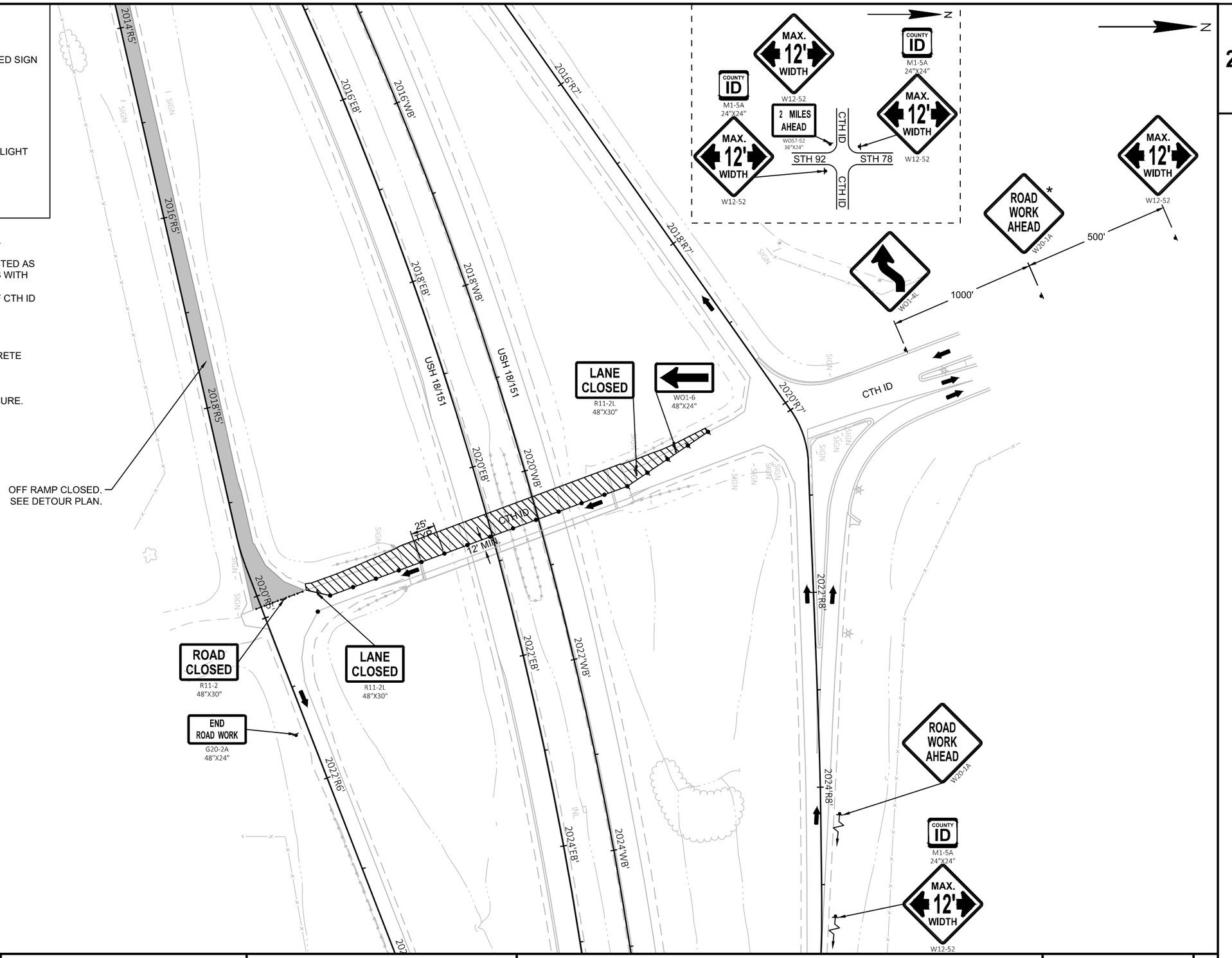
LEGEND

- TRAFFIC CONTROL BARRICADES TYPE III
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED SIGN
- TRAFFIC CONTROL SIGNS ON PERMANENT SUPPORT
- TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE 'C' STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- WORK AREA

NOTES:
1) ACCESS TO SB CTH ID SHALL BE MAINTAINED AT ALL TIMES.
2) MINIMUM LANE WIDTH OF CTH ID SHALL BE 12'.
3) LOCATION OF TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED AS NECESSARY. COORDINATE ALL TRAFFIC CONTROL DEVICES WITH CTH ID DETOUR. SEE DETOUR PLAN.
4) EB USH 18 OFF RAMP TO CTH ID CLOSED FOR DURATION OF CTH ID BRIDGE DECK OVERLAY WORK.
5) ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

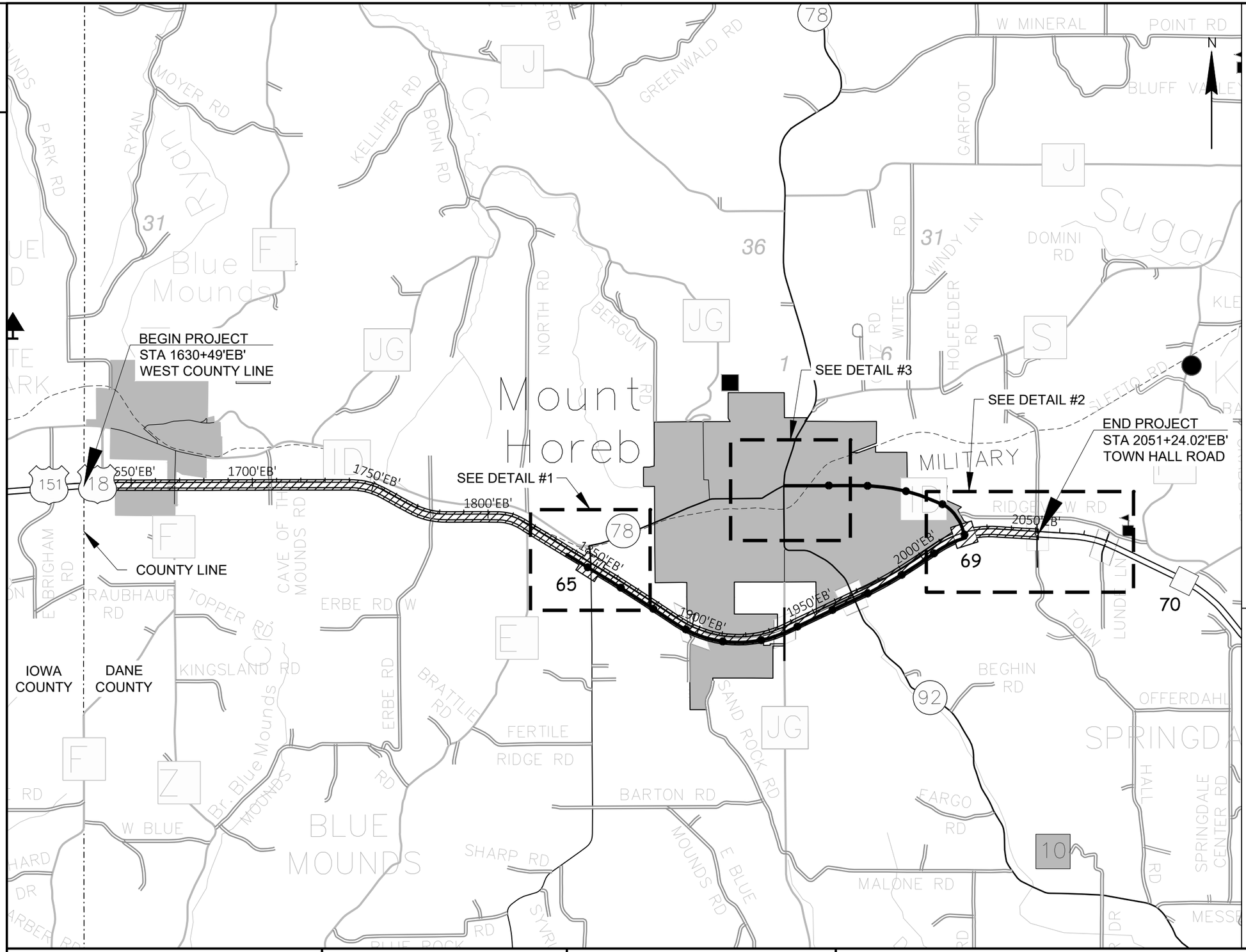
WORK PERFORMED:
1) SB CTH ID BRIDGE OVER US 18 EB & WB TO RECEIVE CONCRETE DECK OVERLAY.

* PLACE AT LAST INTERSECTION PRIOR TO ROADWORK/CLOSURE.



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	STAGE CONSTRUCTION - CTH ID - STAGE 2	SHEET 79	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\026202-S3-CTH ID.DWG
LAYOUT NAME - 026202-s3
PLOT DATE : 4/21/2020 1:37 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : ##########



DETOUR GENERAL NOTES

THE STH 78 DETOUR AND CTH ID DETOUR SHALL NOT OCCUR AT THE SAME TIME.

SB STH 78 ACCESS SHALL BE MAINTAINED AT ALL TIMES WHILE STH 78 DETOUR IS IN EFFECT. ALL RAMPS TO THE US18/US151/STH 78 INTERCHANGE AND THE US18/US151/CTH ID INTERCHANGE SHALL REMAIN OPEN AT ALL TIMES DURING STH 78 DETOUR.

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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE TRAFFIC CONTROL PLAN, INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

ALL"W" AND "WO" SIGNS SHALL BE 48" X48" UNLESS OTHERWISE NOTED.

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

ALL M3 SERIES SIGNS (NORTH, EAST, SOUTH, WEST) WHICH ARE PART OF ANY DETOUR ROUTE MARKER SIGNING ASSEMBLY OR ATTACHED TO ANY WARNING SIGN SHALL BE BLACK LETTERING ON A WHITE BACKGROUND.

ALL MO5 AND MO6 ARROW SIGNS SHALL BE THE SAME AS "M" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE PLACED A MINIMUM OF 7 DAYS PRIOR TO CONSTRUCTION. CONTACT SW REGION TRAFFIC TEAM LEADER FOR MESSAGES.

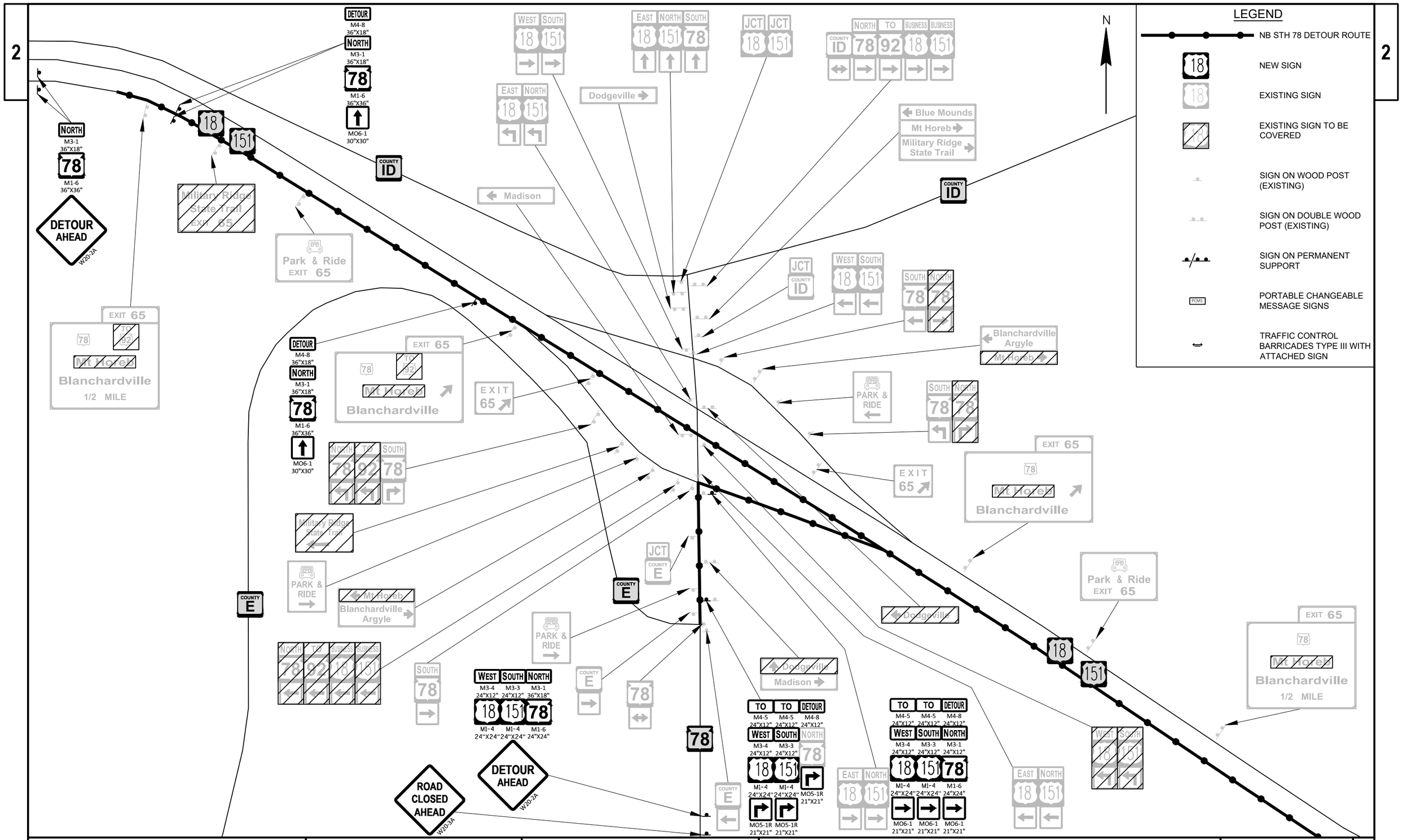
SEE S.D.D TRAFFIC CONTROL, GUIDANCE SIGNING FOR ON-RAMP CLOSURES & TRAFFIC CONTROL, GUIDANCE SIGNING FOR OFF-RAMP CLOSURES.

LEGEND

STH 78 DETOUR ROUTE

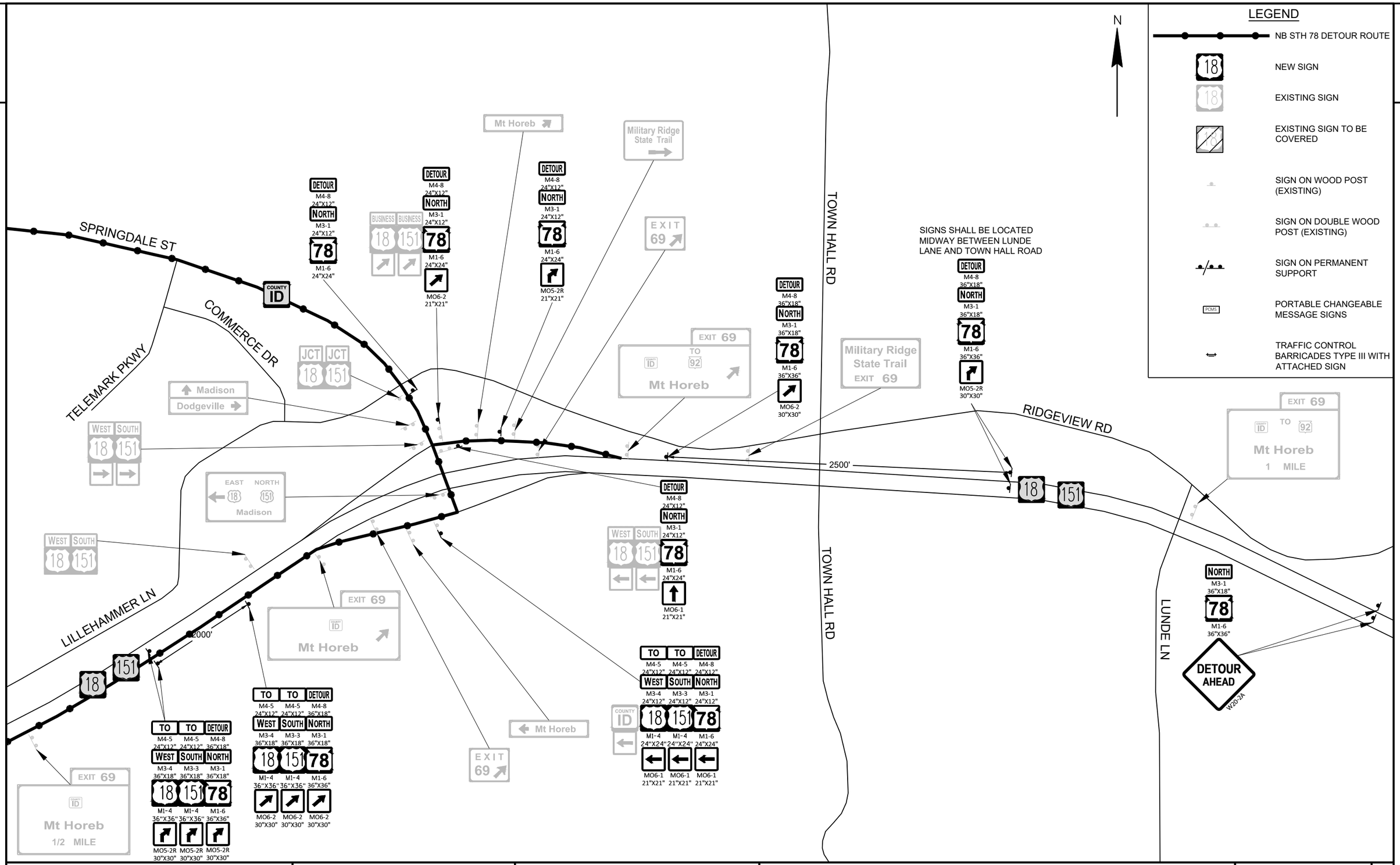
WORK ZONE

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	DETOUR PLAN - STH 78 DETOUR OVERVIEW	SHEET 80	E



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	DETOUR PLAN - STH 78 DETAIL #1	SHEET 81 E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\027001-DT TO 027004-DT.DWG
LAYOUT NAME - 027002-dt
PLOT DATE : 4/21/2020 1:41 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:500 FT



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	DETOUR PLAN - STH 78 DETAIL #2	SHEET 82	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\027001-DT TO 027004-DT.DWG
LAYOUT NAME - 027003-dt
PLOT DATE : 4/21/2020 1:42 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:700FT
WISDOT/CADDS SHEET 42

2

N

LEGEND

- NB STH 78 DETOUR ROUTE
- NEW SIGN
- EXISTING SIGN
- EXISTING SIGN TO BE COVERED
- SIGN ON WOOD POST (EXISTING)
- SIGN ON DOUBLE WOOD POST (EXISTING)
- SIGN ON PERMANENT SUPPORT
- PORTABLE CHANGEABLE MESSAGE SIGNS
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED SIGN

N 8TH ST

NORTH 78

SOUTH 78 COUNTY ID

EAST 92

92 COUNTY JG

NORTH 78

SOUTH 78 ID / EAST 92 JG / NORTH 78

END DETOUR
M4-8A
24"X18"

JCT 92 78

Military Ridge State Trail

FIELD CT

SPRINGDALE ST

COUNTY ID

OAK ST

ALASKA ST

9TH ST

BUSINESS 18 151 COUNTY ID

COX DR

PERIMETER RD

COUNTY ID

E MAIN ST

E MAIN ST

S 4TH ST

S 5TH ST

S 6TH ST

S 7TH ST

S 8TH ST

SOUTH 78 COUNTY JG NORTH 78

E LINCOLN ST

PERIMETER RD

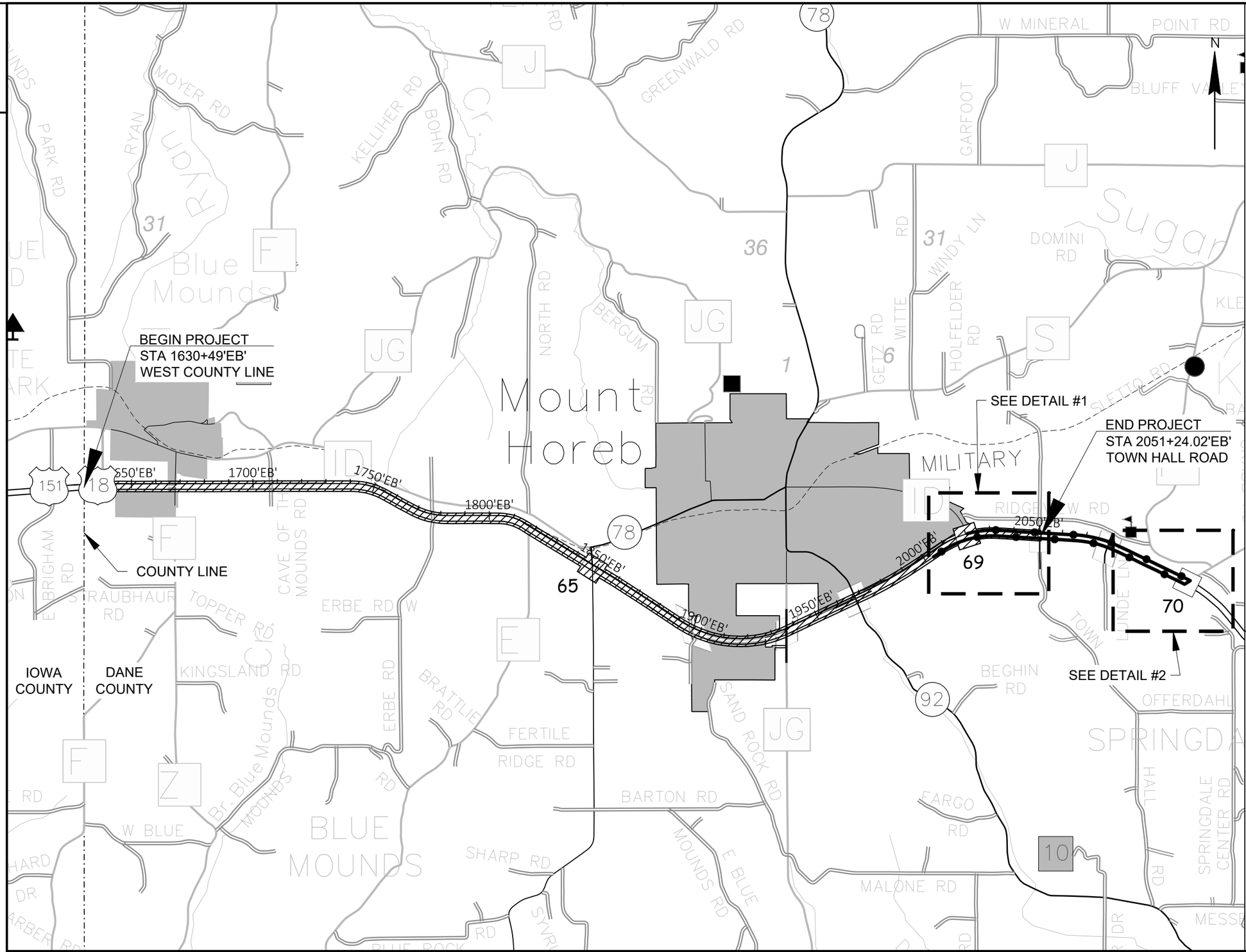
E GARFIELD ST

E GARFIELD ST

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	DETOUR PLAN - STH 78 DETAIL #3	SHEET 83	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\027001-DT TO 027004-DT.DWG
LAYOUT NAME - 027004-dt

PLOT DATE : 4/21/2020 1:43 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:500 FT



DETOUR GENERAL NOTES

THE STH 78 DETOUR AND CTH ID DETOUR SHALL NOT OCCUR AT THE SAME TIME.

SB CTH ID ACCESS SHALL BE MAINTAINED AT ALL TIMES WHILE CTH ID DETOUR IS IN EFFECT. THE EB US 18/US 151 OFF RAMP TO THE US 18/US 151/CTH ID INTERCHANGE SHALL REMAIN CLOSED DURING CTH ID DETOUR. ALL REMAINING RAMPS TO THE US18/US151/CTH ID INTERCHANGE SHALL REMAIN OPEN AT ALL TIMES DURING CTH ID DETOUR.

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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE TRAFFIC CONTROL PLAN, INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

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ALL MO5 AND MO6 ARROW SIGNS SHALL BE THE SAME AS "M" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE PLACED A MINIMUM OF 7 DAYS PRIOR TO CONSTRUCTION. CONTACT SW REGION TRAFFIC TEAM LEADER FOR MESSAGES.

SEE S.D.D TRAFFIC CONTROL, GUIDANCE SIGNING FOR ON-RAMP CLOSURES & TRAFFIC CONTROL, GUIDANCE SIGNING FOR OFF-RAMP CLOSURES.

LEGEND

CTH ID DETOUR ROUTE

WORK ZONE

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	DETOUR PLAN - CTH ID DETOUR OVERVIEW	SHEET 84	E

2

N

LEGEND

- NB STH 78 DETOUR ROUTE
- NEW SIGN
- EXISTING SIGN
- EXISTING SIGN TO BE COVERED
- SIGN ON WOOD POST (EXISTING)
- SIGN ON DOUBLE WOOD POST (EXISTING)
- SIGN ON PERMANENT SUPPORT
- PORTABLE CHANGEABLE MESSAGE SIGNS
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED SIGN

TELEMARK PKWY

COMMERCE DR

SPRINGDALE ST

RIDGEVIEW RD

LILLEHAMMER LN

TOWN HALL RD

COUNTY ID

BUSINESS 18 BUSINESS 151

JCT 18 JCT 151

Madison
Dodgeville

WEST 18 SOUTH 151

EAST 18 NORTH 151
Madison

Mt Horeb

Military Ridge State Trail

EXIT 69

EXIT 69
TO COUNTY ID TO 92
Mt Horeb

Military Ridge State Trail
EXIT 69

PCMS WITH 5 DRUMS
MESSAGE SHALL READ:

PHASE 1:	PHASE 2:
EXIT 69	USE
CLOSED	EXIT 70
AHEAD	

RAMP CLOSED AHEAD
W20-53A

EXIT 69
Mt Horeb
CLOSED
G20-61
120"X30"

RAMP CLOSED 1000 FT
W20-53C

EXIT 69
Mt Horeb
CLOSED
G20-60
108"X24"

PCMS

SEE S.D.D. TRAFFIC CONTROL, EXIT RAMP CLOSURE

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	DETOUR PLAN - CTH ID DETAIL #1	SHEET 85	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\027005-DT TO 027007-DT.DWG
LAYOUT NAME - 027006-dt

PLOT DATE : 4/21/2020 1:45 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:500 FT

2

RIDGEVIEW RD

LUNDE LN

PRAIRIE RIDGE RD

N

LEGEND

- NB STH 78 DETOUR ROUTE
- NEW SIGN
- EXISTING SIGN
- EXISTING SIGN TO BE COVERED
- SIGN ON WOOD POST (EXISTING)
- SIGN ON DOUBLE WOOD POST (EXISTING)
- SIGN ON PERMANENT SUPPORT
- PORTABLE CHANGEABLE MESSAGE SIGNS
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED SIGN

EXIT 69 — TO COUNTY ID 92 — Mt Horeb 1 MILE

EXIT 70 — TO P PD — Cross Plains 1/2 MILE

EXIT 70 — TO P PD — Cross Plains

WEST SOUTH 18 151

EAST NORTH 18 151 — Madison

Madison — Mt Horeb — Dodgeville

JCT 18 151 — JCT 18 151 — END COUNTY PD

COUNTY P

COUNTY PD

COUNTY P COUNTY PD

Cross Plains

TO COUNTY P COUNTY PD

EXIT 70

EXIT 70 — TO P PD — Cross Plains

EAST NORTH 18 151

2

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	DETOUR PLAN - CTH ID DETAIL #2	SHEET 86	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\027005-DT TO 027007-DT.DWG
LAYOUT NAME - 027007-dt

PLOT DATE : 4/21/2020 1:45 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:500 FT

WISDOT/CADDS SHEET 42

1204-05-73

Line	Item	Item Description	Unit	Total	Qty
0002	203.0220	Removing Structure (structure) 01. B-13-303	EACH	1.000	1.000
0004	203.0220	Removing Structure (structure) 02. B-13-300	EACH	1.000	1.000
0006	203.0220	Removing Structure (structure) 03. B-13-301	EACH	1.000	1.000
0008	203.0220	Removing Structure (structure) 04. B-13-299	EACH	1.000	1.000
0010	204.0100	Removing Concrete Pavement	SY	10,123.000	10,123.000
0012	204.0110	Removing Asphaltic Surface	SY	2,025.000	2,025.000
0014	204.0120	Removing Asphaltic Surface Milling	SY	118,549.000	118,549.000
0016	204.0126.S	Removing Asphaltic Longitudinal Notched Wedge Joint Milling	LF	175,532.000	175,532.000
0018	204.0130	Removing Curb	LF	462.000	462.000
0020	204.0150	Removing Curb & Gutter	LF	1,621.000	1,621.000
0022	204.0165	Removing Guardrail	LF	4,519.000	4,519.000
0024	204.0190	Removing Surface Drains	EACH	8.000	8.000
0026	204.0220	Removing Inlets	EACH	1.000	1.000
0028	204.0245	Removing Storm Sewer (size) 01. 12-INCH	LF	20.000	20.000
0030	206.1000	Excavation for Structures Bridges (structure) 01. B-13-303	LS	1.000	1.000
0032	206.1000	Excavation for Structures Bridges (structure) 02. B-13-300	LS	1.000	1.000
0034	206.1000	Excavation for Structures Bridges (structure) 03. B-13-301	LS	1.000	1.000
0036	206.1000	Excavation for Structures Bridges (structure) 04. B-13-299	LS	1.000	1.000
0038	208.0100	Borrow	CY	953.000	953.000
0040	210.1500	Backfill Structure Type A	TON	235.000	235.000
0042	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1204-05-73	LS	1.000	1.000
0044	213.0100	Finishing Roadway (project) 01. 1204-05-73	EACH	1.000	1.000
0046	305.0110	Base Aggregate Dense 3/4-Inch	TON	22,211.000	22,211.000
0048	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,867.000	1,867.000
0050	312.0115	Select Crushed Material	CY	435.000	435.000
0052	390.0303	Base Patching Concrete	SY	24,163.000	24,163.000
0054	390.0403	Base Patching Concrete Shes	SY	4,001.000	4,001.000
0056	415.0090	Concrete Pavement 9-Inch	SY	364.000	364.000
0058	415.0410	Concrete Pavement Approach Slab	SY	693.000	693.000
0060	416.0610	Drilled Tie Bars	EACH	3,894.000	3,894.000
0062	416.0620	Drilled Dowel Bars	EACH	44,203.000	44,203.000
0064	416.1010	Concrete Surface Drains	CY	14.000	14.000
0066	455.0605	Tack Coat	GAL	60,932.000	60,932.000
0068	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	2.000	2.000
0070	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0072	460.2005	Incentive Density PWL HMA Pavement	DOL	43,680.000	43,680.000
0074	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	101,844.000	101,844.000
0076	460.2010	Incentive Air Voids HMA Pavement	DOL	74,578.000	74,578.000
0078	460.6224	HMA Pavement 4 MT 58-28 S	TON	54,848.000	54,848.000
0080	460.6424	HMA Pavement 4 MT 58-28 H	TON	39,648.000	39,648.000
0082	465.0305	Asphaltic Surface Safety Islands	TON	83.000	83.000
0084	465.0315	Asphaltic Flumes	SY	108.000	108.000
0086	465.0400	Asphaltic Shoulder Rumble Strips	LF	158,358.000	158,358.000
0088	502.0100	Concrete Masonry Bridges	CY	53.000	53.000
0090	502.3101	Expansion Device	LF	89.000	89.000
0092	502.3200	Protective Surface Treatment	SY	1,005.000	1,005.000
0094	502.3210	Pigmented Surface Sealer	SY	698.000	698.000
0096	502.4204	Adhesive Anchors No. 4 Bar	EACH	9.000	9.000
0098	502.4205	Adhesive Anchors No. 5 Bar	EACH	86.000	86.000

1204-05-73

Line	Item	Item Description	Unit	Total	Qty
0100	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	11,290.000	11,290.000
0102	505.0905	Bar Couplers No. 5	EACH	3.000	3.000
0104	505.0906	Bar Couplers No. 6	EACH	9.000	9.000
0106	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	12.000	12.000
0108	506.2610	Bearing Pads Elastomeric Laminated	EACH	5.000	5.000
0110	506.7050.S	Removing Bearings (structure) 01. B-13-303	EACH	12.000	12.000
0112	506.7050.S	Removing Bearings (structure) 02. B-13-300	EACH	5.000	5.000
0114	509.0301	Preparation Decks Type 1	SY	66.000	66.000
0116	509.0302	Preparation Decks Type 2	SY	27.000	27.000
0118	509.0500	Cleaning Decks	SY	942.000	942.000
0120	509.1000	Joint Repair	SY	43.000	43.000
0122	509.1500	Concrete Surface Repair	SF	45.000	45.000
0124	509.2000	Full-Depth Deck Repair	SY	1.000	1.000
0126	509.2100.S	Concrete Masonry Deck Repair	CY	17.000	17.000
0128	509.2500	Concrete Masonry Overlay Decks	CY	69.000	69.000
0130	509.9050.S	Cleaning Parapets	LF	1,654.000	1,654.000
0132	511.1200	Temporary Shoring (structure) 01. B-13-303	SF	70.000	70.000
0134	516.0500	Rubberized Membrane Waterproofing	SY	28.000	28.000
0136	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	1.000	1.000
0138	601.0120	Concrete Curb Type J	LF	451.000	451.000
0140	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	607.000	607.000
0142	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	1,028.000	1,028.000
0144	603.8000	Concrete Barrier Temporary Precast Delivered	LF	713.000	713.000
0146	603.8125	Concrete Barrier Temporary Precast Installed	LF	1,188.000	1,188.000
0148	604.9010.S	Slope Paving Repair Crushed Aggregate	CY	141.000	141.000
0150	604.9015.S	Reseal Crushed Aggregate Slope Paving	SY	779.000	779.000
0152	606.0100	Riprap Light	CY	69.000	69.000
0154	611.0654	Inlet Covers Type V	EACH	1.000	1.000
0156	611.3220	Inlets 2x2-FT	EACH	1.000	1.000
0158	611.8110	Adjusting Manhole Covers	EACH	3.000	3.000
0160	612.0212	Pipe Underdrain Unperforated 12-Inch	LF	20.000	20.000
0162	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	231.000	231.000
0164	614.0010	Barrier System Grading Shaping Finishing	EACH	19.000	19.000
0166	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0168	614.0400	Adjusting Steel Plate Beam Guard	LF	10,109.000	10,109.000
0170	614.2300	MGS Guardrail 3	LF	3,475.000	3,475.000
0172	614.2330	MGS Guardrail 3 K	LF	75.000	75.000
0174	614.2500	MGS Thrie Beam Transition	LF	591.000	591.000
0176	614.2610	MGS Guardrail Terminal EAT	EACH	6.000	6.000
0178	614.2620	MGS Guardrail Terminal Type 2	EACH	19.000	19.000
0180	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1204-05-73	EACH	1.000	1.000
0182	619.1000	Mobilization	EACH	1.000	1.000
0184	620.0100	Concrete Corrugated Median	SF	473.000	473.000
0186	624.0100	Water	MGAL	361.000	361.000
0188	625.0500	Salvaged Topsoil	SY	3,295.000	3,295.000
0190	627.0200	Mulching	SY	659.000	659.000
0192	628.1504	Silt Fence	LF	8,201.000	8,201.000
0194	628.1520	Silt Fence Maintenance	LF	8,201.000	8,201.000
0196	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000

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Line	Item	Item Description	Unit	Total	Qty
0198	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0200	628.2004	Erosion Mat Class I Type B	SY	5,645.000	5,645.000
0202	628.7005	Inlet Protection Type A	EACH	7.000	7.000
0204	628.7555	Culvert Pipe Checks	EACH	9.000	9.000
0206	629.0210	Fertilizer Type B	CWT	2.100	2.100
0208	630.0120	Seeding Mixture No. 20	LB	101.000	101.000
0210	630.0200	Seeding Temporary	LB	34.000	34.000
0212	630.0500	Seed Water	MGAL	37.000	37.000
0214	633.0100	Delineator Posts Steel	EACH	12.000	12.000
0216	633.0500	Delineator Reflectors	EACH	24.000	24.000
0218	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	34.000	34.000
0220	638.2102	Moving Signs Type II	EACH	32.000	32.000
0222	638.3000	Removing Small Sign Supports	EACH	34.000	34.000
0224	642.5201	Field Office Type C	EACH	1.000	1.000
0226	643.0300	Traffic Control Drums	DAY	278,610.000	278,610.000
0228	643.0410	Traffic Control Barricades Type II	DAY	62.000	62.000
0230	643.0420	Traffic Control Barricades Type III	DAY	20,322.000	20,322.000
0232	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	102.000	102.000
0234	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	102.000	102.000
0236	643.0705	Traffic Control Warning Lights Type A	DAY	40,702.000	40,702.000
0238	643.0715	Traffic Control Warning Lights Type C	DAY	19,127.000	19,127.000
0240	643.0800	Traffic Control Arrow Boards	DAY	895.000	895.000
0242	643.0900	Traffic Control Signs	DAY	48,489.000	48,489.000
0244	643.0920	Traffic Control Covering Signs Type II	EACH	1,062.000	1,062.000
0246	643.1050	Traffic Control Signs PCMS	DAY	35.000	35.000
0248	643.4100.S	Traffic Control Interim Lane Closure	EACH	50.000	50.000
0250	643.5000	Traffic Control	EACH	1.000	1.000
0252	644.1410	Temporary Pedestrian Surface Asphalt	SF	325.000	325.000
0254	644.1601	Temporary Pedestrian Curb Ramp	DAY	56.000	56.000
0256	645.0111	Geotextile Type DF Schedule A	SY	52.000	52.000
0258	645.0130	Geotextile Type R	SY	177.000	177.000
0260	646.1020	Marking Line Epoxy 4-Inch	LF	7,898.000	7,898.000
0262	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	182,124.000	182,124.000
0264	646.1555	Marking Line Grooved Contrast Permanent Tape 4-Inch	LF	21,214.000	21,214.000
0266	646.3020	Marking Line Epoxy 8-Inch	LF	487.000	487.000
0268	646.3555	Marking Line Grooved Contrast Permanent Tape 8-Inch	LF	13,591.000	13,591.000
0270	646.6120	Marking Stop Line Epoxy 18-Inch	LF	125.000	125.000
0272	646.7220	Marking Chevron Epoxy 24-Inch	LF	552.000	552.000
0274	646.8020	Marking Corrugated Median Epoxy	SF	189.000	189.000
0276	646.8120	Marking Curb Epoxy	LF	502.000	502.000
0278	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	202,204.000	202,204.000
0280	649.0105	Temporary Marking Line Paint 4-Inch	LF	268,951.000	268,951.000
0282	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	199,168.000	199,168.000
0284	649.0250	Temporary Marking Line Removable Tape 8-Inch	LF	5,880.000	5,880.000
0286	650.4000	Construction Staking Storm Sewer	EACH	1.000	1.000
0288	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,991.000	1,991.000
0290	650.8000	Construction Staking Resurfacing Reference	LF	88,420.000	88,420.000
0292	650.9910	Construction Staking Supplemental Control (project) 01. 1204-05-73	LS	1.000	1.000
0294	650.9920	Construction Staking Slope Stakes	LF	9,545.000	9,545.000

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Line	Item	Item Description	Unit	Total	Qty
0296	690.0150	Sawing Asphalt	LF	414.000	414.000
0298	690.0250	Sawing Concrete	LF	91,113.000	91,113.000
0300	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	110.000	110.000
0302	740.0440	Incentive IRI Ride	DOL	168,781.000	168,781.000
0304	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,200.000	2,200.000
0306	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	5,000.000	5,000.000
0308	SPV.0060	Special 01. Verify Landmark Reference Monuments	EACH	6.000	6.000
0310	SPV.0060	Special 02. Landmark Reference Monuments Special	EACH	1.000	1.000
0312	SPV.0060	Special 03. Adjusting EATs	EACH	19.000	19.000
0314	SPV.0090	Special 01. Concrete Joint and Crack Cleaning and Repair	LF	17,060.000	17,060.000
0316	SPV.0090	Special 02. Concrete Pavement Repair Longitudinal Joint	LF	4,008.000	4,008.000
0318	SPV.0180	Special 01. Abutment Seat Cleaning and Sealing	SY	27.000	27.000

PAVEMENT REMOVAL

CATEGORY	STAGE	STATION	TO	STATION	LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
0010	STAGE 1	1630+49 EB	-	1661+13 EB	USH 18 (RT SHOULDERS)	-	-	2,343
0010	STAGE 1	1630+42 WB	-	1666+49 WB	USH 18 (LT SHOULDERS)	-	-	3,646
0010	STAGE 1	1669+13 EB	-	1704+92 EB	USH 18 (RT SHOULDERS)	-	-	2,509
0010	STAGE 1	1674+69 WB	-	1705+75 WB	USH 18 (LT SHOULDERS)	-	-	2,844
0010	STAGE 1	1708+50 EB	-	1774+81 EB	USH 18 (RT SHOULDERS)	-	-	4,794
0010	STAGE 1	1713+63 WB	-	1775+25 WB	USH 18 (LT SHOULDERS)	-	-	5,943
0010	STAGE 1	1778+50 EB	-	1848+00 EB	USH 18 (RT SHOULDERS) AND STH 78 EB OFF RAMP (RT & LT SHOULDERS)	-	-	6,698
0010	STAGE 1	1780+84 WB	-	1848+00 WB	USH 18 (LT SHOULDERS) AND STH 78 WB ON RAMP (RT & LT SHOULDERS)	-	-	7,047
0010	STAGE 1	1848+00 EB	-	1895+00 EB	USH 18 (RT SHOULDERS) AND STH 78 EB ON RAMP (RT & LT SHOULDERS)	-	-	5,036
0010	STAGE 1	1848+00 WB	-	1895+00 WB	USH 18 (LT SHOULDERS) AND STH 78 WB OFF RAMP (RT & LT SHOULDERS)	-	-	6,127
0010	STAGE 1	1897+00 EB	-	1936+25 EB	USH 18 (RT SHOULDERS)	-	-	3,071
0010	STAGE 1	1896+50 WB	-	1936+25 WB	USH 18 (LT SHOULDERS)	-	-	3,998
0010	STAGE 1	1936+25 EB	-	1967+25 EB	USH 18 (RT SHOULDERS)	-	-	2,274
0010	STAGE 1	1936+25 WB	-	1967+25 WB	USH 18 (LT SHOULDERS)	-	-	3,010
0010	STAGE 1	1968+75 EB	-	2020+75 EB	USH 18 (RT SHOULDERS) AND CTH ID EB OFF RAMP (RT & LT SHOULDERS)	-	-	5,709
0010	STAGE 1	1968+50 WB	-	2020+50 WB	USH 18 (LT SHOULDERS) AND CTH ID WB ON RAMP (RT & LT SHOULDERS)	-	-	6,940
0010	STAGE 1	2020+75 EB	-	2051+24 EB	USH 18 (RT SHOULDERS) AND CTH ID EB ON RAMP (RT & LT SHOULDERS)	-	-	3,885
0010	STAGE 1	2020+50 WB	-	2053+58 WB	USH 18 (LT SHOULDERS) AND CTH ID WB OFF RAMP (RT & LT SHOULDERS)	-	-	4,769
0010	STAGE 2	1630+49 EB	-	1661+16 EB	USH 18 (LT SHOULDERS AND CROSSOVER)	-	-	1,300
0010	STAGE 2	1630+42 WB	-	1667+14 WB	USH 18 (RT SHOULDERS)	-	-	1,320
0010	STAGE 2	1668+58 EB	-	1702+42 EB	USH 18 (LT SHOULDERS)	-	-	1,135
0010	STAGE 2	1674+68 WB	-	1706+53 WB	USH 18 (RT SHOULDERS)	-	-	1,654
0010	STAGE 2	1708+01 EB	-	1773+75 EB	USH 18 (LT SHOULDERS AND CROSSOVER)	-	-	2,509
0010	STAGE 2	1709+53 WB	-	1775+80 WB	USH 18 (RT SHOULDERS)	-	-	2,421
0010	STAGE 2	177+33 EB	-	1848+00 EB	USH 18 (LT SHOULDERS AND CROSSOVER)	-	-	2,405
0010	STAGE 2	1779+48 WB	-	1848+00 WB	USH 18 (RT SHOULDERS)	-	-	2,406
0010	STAGE 2	1848+00 EB	-	1895+00 EB	USH 18 (LT SHOULDERS AND CROSSOVER)	-	-	1,901
0010	STAGE 2	1848+00 WB	-	1895+00 WB	USH 18 (RT SHOULDERS)	-	-	1,601
0010	STAGE 2	1897+00 EB	-	1936+25 EB	USH 18 (LT SHOULDERS AND CROSSOVER)	-	-	1,593
0010	STAGE 2	1896+50 WB	-	1936+25 WB	USH 18 (RT SHOULDERS)	-	-	1,430
0010	STAGE 2	1936+25 EB	-	1967+25 EB	USH 18 (LT SHOULDERS)	-	-	1,283
0010	STAGE 2	1936+25 WB	-	1967+25 WB	USH 18 (RT SHOULDERS)	-	-	1,196
0010	STAGE 2	1968+75 EB	-	2020+75 EB	USH 18 (LT SHOULDERS AND CROSSOVER)	-	-	2,186
0010	STAGE 2	1968+50 WB	-	2020+50 WB	USH 18 (RT SHOULDERS)	-	-	2,059
0010	STAGE 2	2020+75 EB	-	2051+24 EB	USH 18 (LT SHOULDERS)	-	-	1,174
0010	STAGE 2	2020+50 WB	-	2053+58 WB	USH 18 (RT SHOULDERS)	-	-	1,243
0010					STH 78 (CTH E TO USH 18)	4,527	-	1,023
0010					STH 78 (USH 18 TO CTH ID)	3,991	-	422
0010					B-13-304 (NB STH 78 APPROACH SLABS)	133	-	-
0010					B-13-304 (SB STH 78 APPROACH SLABS)	144	-	-
0010					B-13-298 (WB USH 18 APPRACH SLABS)	212	-	-
0010					B-13-299 (EB USH 18 APPRACH SLABS)	214	-	-
0010					B-13-301 (WB USH 18 APPRACH SLABS)	131	-	-
0010					B-13-302 (EB USH 18 APPRACH SLABS)	139	-	-
0010					B-13-303 (CTH ID APPROACH SLABS)	150	-	-
0010					MEDIAN ISLANDS	-	442	-
0010					STH 78 (TEMP WIDENING)	-	1,487	-
0010					UNDISTRIBUTED	482	96	5,645
					TOTALS:	10,123	2,025	118,549

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REMOVING CURB AND GUTTER

CATEGORY	ROADWAY	LOCATION	204.0130 REMOVING CURB LF	204.0150 REMOVING CURB AND GUTTER LF
0010	CTH F	SW QUADRANT	-	93
0010	CTH F	SE QUADRANT	-	92
0010	CTH F	NW QUADRANT AND MEDIAN ISLAND CURB	80	74
0010	CTH F	NE QUADRANT	-	76
0010	CAVE OF THE MOUNDS ROAD	SW QUADRANT	-	74
0010	CAVE OF THE MOUNDS ROAD	SE QUADRANT	-	59
0010	CAVE OF THE MOUNDS ROAD	NW QUADRANT AND MEDIAN ISLAND CURB	84	65
0010	CAVE OF THE MOUNDS ROAD	NE QUADRANT	-	61
0010	ERBE ROAD	SW QUADRANT	-	89
0010	ERBE ROAD	SE QUADRANT	-	95
0010	ERBE ROAD	NW QUADRANT AND MEDIAN ISLAND CURB	106	80
0010	ERBE ROAD	NE QUADRANT	-	48
0010	STH 78	MEDIAN ISLAND BETWEEN CTH E AND USH 18	-	504
0010	STH 78	SW QUADRANT AND MEDIAN ISLAND CURB	97	35
0010	STH 78	SE QUADRANT	-	76
0010	STH 78	MEDIAN ISLAND AT CTH ID	95	-
0010	STH 78	SPOT REPLACEMENT	-	100
	TOTAL:		462	1,621

204.0190
REMOVING SURFACE DRAINS

CATEGORY	STATION	O/S	ROADWAY	EACH
0010	23+07 ST	RT	STH 78	1
0010	23+44 ST	LT	STH 78	1
0010	12+76 JG	LT	CTH JG	1
0010	12+92 JG	RT	CTH JG	1
0010	14+93 JG	LT	CTH JG	1
0010	15+09 JG	RT	CTH JG	1
0010	11+78 ID	RT	CTH ID	1
0010	11+81 ID	LT	CTH ID	1
			TOTAL:	8

REMOVING DROP INLET

CATEGORY	STATION	O/S	ROADWAY	204.0220 REMOVING INLETS EACH	204.0245.01 REMOVING STORM SEWER 12-INCH LF	COMMENTS
0010	1968+63 WB	RT	USH 18	1	20	DROP INLET AT STRUCTURE AND UNDERDRAIN
			TOTAL:	1	20	

204.0165
REMOVING GUARDRAIL

CATEGORY	STATION	TO	STATION	O/S	ROADWAY	LF	COMMENTS
0010	1631+86 EB	-	1637+30 EB	RT	USH 18	544	
0010	1725+26 EB	-	1729+31 EB	RT	USH 18	406	
0010	1731+72 EB	-	1734+77 EB	RT	USH 18	306	
0010	1825+11 EB	-	1830+18 EB	RT	USH 18	507	
0010	1894+69 EB	-	1895+08 EB	RT	USH 18	39	THRIE BEAM ONLY
0010	1896+65 WB	-	1899+12 WB	RT	USH 18	248	
0010	1912+59 EB	-	1924+05 EB	RT	USH 18	1,154	
0010	1964+80 EB	-	1967+14 EB	LT	USH 18	234	
0010	1968+70 WB	-	1971+03 WB	RT	USH 18	233	
0010	1968+55 WB		1968+94 WB	LT	USH 18	39	THRIE BEAM ONLY
0010	19+76 ST	-	20+57 ST	RT	STH 78	81	
0010	23+33 ST	-	24+10 ST	LT	STH 78	77	
0010	12+09 JG	-	12+76 JG	LT	CTH JG	67	
0010	12+28 JG	-	12+92 JG	RT	CTH JG	64	
0010	14+93 JG	-	16+51 JG	LT	CTH JG	158	
0010	15+09 JG	-	15+80 JG	RT	CTH JG	71	
0010	11+05 ID	-	11+81 ID	LT	CTH ID	77	
0010	11+09 ID	-	11+78 ID	RT	CTH ID	70	
0010	14+15 ID	-	14+84 ID	LT	CTH ID	69	
0010	14+12 ID	-	14+86 ID	RT	CTH ID	75	
					TOTAL:	4,519	

211.0100
PREPARE FOUNDATION FOR ASPHALTIC PAVING

CATEGORY	LOCATION	LS
0010	PROJECT 1204-05-73	1
	TOTAL:	1

213.0100
FINISHING ROADWAY (1204-05-73)

CATEGORY	LOCATION	EACH
0010	PROJECT LIMITS	1
	TOTAL:	1

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EARTHWORK SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	205.0100 EXCAVATION COMMON (1) CUT (2) CY	205.0100 EXCAVATION COMMON (1) EBS EXCAVATION (3) CY	AVAILABLE MATERIAL (4) CY	UNEXPANDED FILL CY	EXPANDED FILL (5) FACTOR = 1.15 CY	MASS ORDINATE +/- (6) CY	WASTE CY	208.0100 BORROW CY
0010	1661+00 EB	-	1663+00 EB	USH 18 (TURN LANE LENGTHENING)	0	0	0	27	31	-31	-31	31
0010	1673+00 WB	-	1675+00 WB	USH 18 (TURN LANE LENGTHENING)	0	0	0	129	148	-148	-148	148
0010	1700+50 EB	-	1706+50 EB	USH 18 (TURN LANE LENGTHENING)	0	0	0	94	108	-108	-108	108
0010	1708+00 WB	-	1714+25 WB	USH 18 (TURN LANE LENGTHENING)	0	0	0	78	90	-90	-90	90
0010	1769+75 EB	-	1775+00 EB	USH 18 (TURN LANE LENGTHENING)	0	0	0	299	344	-344	-344	344
0010	1777+75 WB	-	1783+75 WB	USH 18 (TURN LANE LENGTHENING)	0	0	0	202	232	-232	-232	232
				TOTALS:	0	0	0	829	953	-953	-953	953

NOTES:
1) EXCAVATION COMMON IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. BID ITEM NUMBER 205.0100. EXCAVATION COMMON WILL BE PAID AS PLAN QUANTITY EXCEPTING FOR EBS EXCAVATION. EBS WILL BE FIELD MEASURED PER STANDARD SPEC 205.
2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN THE CUT.
3) EBS EXCAVATION = 10 % OF THE CUT. EBS EXCAVATION TO BE BACKFILLED WITH SELECT CRUSHED MATERIAL.
4) AVAILABLE MATERIAL = CUT.
5) EXPANDED FILL = (UNEXPANDED FILL) * (EXPANDED FILL FACTOR). EXPANDED FILL FACTOR = 1.15.
6) MASS ORDINATE = AVAILABLE MATERIAL - EXPANDED FILL. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS INDICATES A SHORTAGE OF MATERIAL.

BASE AGGREGATE ITEMS

CATEGORY	STAGE	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0115 SELECT CRUSHED MATERIAL CY
0010	STAGE 5	1630+49 EB	-	2051+24 EB	USH 18 (LT SHOULDERS)	4,340	-	-
0010	STAGE 5	1630+42 WB	-	2053+58 WB	USH 18 (RT SHOULDERS)	4,400	-	-
0010	STAGE 6	1630+49 EB	-	2051+24 EB	USH 18 (RT SHOULDERS)	3,513	-	-
0010	STAGE 6	1630+42 WB	-	2053+58 WB	USH 18 (LT SHOULDERS)	3,908	-	-
0010	STAGE 6	1837+66 R3	-	1844+56 R3	WB ON RAMP AT STH 78 (SHOULDERS)	166	-	-
0010	STAGE 6	1856+76 R4	-	1869+80 R4	WB OFF RAMP AT STH 78 (SHOULDERS)	329	-	-
0010	STAGE 6	1851+06 R2	-	1861+56 R2	EB ON RAMP AT STH 78 (SHOULDERS)	250	-	-
0010	STAGE 6	1835+26 R1	-	1848+10 R1	EB OFF RAMP AT STH 78 (SHOULDERS)	315	-	-
0010	STAGE 6	2009+75 R7	-	2019+47 R7	WB ON RAMP AT CTH ID (SHOULDERS) AND CTH ID (SHOULDERS)	258	-	-
0010	STAGE 6	2025+74 R8	-	2034+13 R8	WB OFF RAMP AT CTH ID (SHOULDERS) AND CTH ID (SHOULDERS)	228	-	-
0010	STAGE 6	2021+01 R6	-	2030+02 R6	EB ON RAMP AT CTH ID (SHOULDERS) AND CTH ID (SHOULDERS)	263	-	-
0010	STAGE 6	2007+40 R5	-	2019+39 R5	EB OFF RAMP AT CTH ID (SHOULDERS) AND CTH ID (SHOULDERS)	323	-	-
0010	STAGE 6	-	-	-	USH 18 (TURN LANE LENGTHENING)	-	1,567	-
0010		12+50 ST	-	20+75 ST	STH 78 (CTH E TO USH 18)	170	-	-
0010		23+00 ST	-	29+60 ST	STH 78 (USH 18 TO CTH ID)	75	-	-
0010		-	-	-	STH 78 (TEMP WIDENING)	129	211	-
0010		2019+85 WB	-	2022+00 WB	USH 18 (LT)	-	-	414
0010		1762+20 WB	-	1935+50 WB	USH 18 (LT & RT ADDITIONAL SHOULDERING AROUND CABLE BARRIER)	2,484	-	-
0010					UNDISTRIBUTED	1,058	89	21
					TOTALS:	22,211	1,867	435

BASE PATCHING

CATEGORY	STAGE	STATION	TO	STATION	ROADWAY	390.0303 BASE PATCHING CONCRETE SY	390.0403 BASE PATCHING CONCRETE SHES SY	416.0610* DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	690.0250* SAWING CONCRETE LF	SPV.0090.02 CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT LF	SPV.0090.01 CONCRETE JOINT AND CRACK CLEANING AND REPAIR LF
0010	STAGE 2	1630+49 EB	-	1654+50 EB	USH 18 (PASSING LANE)	400	-	-	800	1,500	-	256
0010	STAGE 2	1630+42.38 WB	-	1654+46 WB	USH 18 (PASSING LANE)	376	-	255	736	2,156	383	536
0010	STAGE 2	1654+50 EB	-	1684+00 EB	USH 18 (PASSING LANE)	325	-	43	640	1,338	65	216
0010	STAGE 2	1654+46 WB	-	1683+96 WB	USH 18 (PASSING LANE)	527	-	184	912	2,229	231	776
0010	STAGE 2	1684+00 EB	-	1713+50 EB	USH 18 (PASSING LANE)	459	-	107	896	2,012	160	336
0010	STAGE 2	1683+96 WB	-	1713+46 WB	USH 18 (PASSING LANE)	381	-	347	752	2,458	520	1,216
0010	STAGE 2	1713+50 EB	-	1743+00 EB	USH 18 (PASSING LANE)	205	-	-	400	754	-	184
0010	STAGE 2	1713+46 WB	-	1743+00 WB	USH 18 (PASSING LANE)	1,053	-	372	736	2,318	210	768
0010	STAGE 2	1743+00 EB	-	1772+50 EB	USH 18 (PASSING LANE)	283	-	-	560	1,052	-	224
0010	STAGE 2	1743+00 WB	-	1772+62 WB	USH 18 (PASSING LANE)	823	-	325	304	1,397	160	480
0010	STAGE 2	1772+50 EB	-	1802+00 EB	USH 18 (PASSING LANE)	232	-	-	464	870	-	280
0010	STAGE 2	1772+62 WB	-	1801+96 WB	USH 18 (PASSING LANE)	96	-	20	192	424	30	576
0010	STAGE 2	1802+00 EB	-	1831+50 EB	USH 18 (PASSING LANE)	320	-	-	640	1,200	-	176
0010	STAGE 2	1801+96 WB	-	1831+75 WB	USH 18 (PASSING LANE)	208	-	-	416	780	-	480
0010	STAGE 2	1831+50 EB	-	1861+00 EB	USH 18 (PASSING LANE)	519	-	106	1,008	2,205	150	128
0010	STAGE 2	1831+75 WB	-	1861+24 WB	USH 18 (PASSING LANE)	377	-	41	624	1,253	15	472
0010	STAGE 2	1861+00 EB	-	1890+50 EB	USH 18 (PASSING LANE)	296	-	-	576	1,086	-	296
0010	STAGE 2	1861+24 WB	-	1890+74 WB	USH 18 (PASSING LANE)	276	-	33	528	1,083	40	856
0010	STAGE 2	1890+50 EB	-	1920+00 EB	USH 18 (PASSING LANE)	595	-	7	1,168	2,222	10	280
0010	STAGE 2	1890+74 WB	-	1919+92 WB	USH 18 (PASSING LANE)	116	-	26	208	463	30	440
0010	STAGE 2	1920+00 EB	-	1949+50 EB	USH 18 (PASSING LANE)	429	-	33	848	1,698	50	296
0010	STAGE 2	1919+92 WB	-	1949+24 WB	USH 18 (PASSING LANE)	160	-	33	320	704	50	592
0010	STAGE 2	1949+50 EB	-	1979+00 EB	USH 18 (PASSING LANE)	576	-	7	1,120	2,112	-	440
0010	STAGE 2	1949+24 WB	-	1978+72 WB	USH 18 (PASSING LANE)	48	-	-	96	180	-	280
0010	STAGE 2	1979+00 EB	-	2008+50 EB	USH 18 (PASSING LANE)	552	-	10	1,104	2,104	15	360
0010	STAGE 2	1978+72 WB	-	2008+16 WB	USH 18 (PASSING LANE)	92	-	51	160	449	68	336
0010	STAGE 2	2008+50 EB	-	2038+00 EB	USH 18 (PASSING LANE)	427	-	103	736	1,678	125	400
0010	STAGE 2	2008+16 WB	-	2037+99 WB	USH 18 (PASSING LANE)	125	-	140	240	878	210	568
0010	STAGE 2	2038+00 EB	-	2051+24.02 EB	USH 18 (PASSING LANE)	221	-	-	432	814	-	160
0010	STAGE 2	2037+99 WB	-	2053+58.09 WB	USH 18 (PASSING LANE)	80	-	100	160	604	150	320
0010	STAGE 3	1630+49 EB	-	1654+50 EB	USH 18 (DRIVING LANE)	305	-	-	640	1,092	-	-
0010	STAGE 3	1630+42.38 WB	-	1654+46 WB	USH 18 (DRIVING LANE)	317	-	44	416	862	-	-
0010	STAGE 3	1654+50 EB	-	1684+00 EB	USH 18 (DRIVING LANE)	425	-	21	740	1,309	-	-
0010	STAGE 3	1654+46 WB	-	1683+96 WB	USH 18 (DRIVING LANE)	231	-	14	400	773	-	-
0010	STAGE 3	1684+00 EB	-	1713+50 EB	USH 18 (DRIVING LANE)	530	-	18	940	1,657	-	-
0010	STAGE 3	1683+96 WB	-	1713+46 WB	USH 18 (DRIVING LANE)	80	-	-	160	300	-	-
0010	STAGE 3	1713+50 EB	-	1743+00 EB	USH 18 (DRIVING LANE)	177	-	8	320	562	-	-
0010	STAGE 3	1713+46 WB	-	1743+00 WB	USH 18 (DRIVING LANE)	965	-	212	592	1,612	-	-
0010	STAGE 3	1743+00 EB	-	1772+50 EB	USH 18 (DRIVING LANE)	280	-	-	600	1,020	-	-
0010	STAGE 3	1743+00 WB	-	1772+62 WB	USH 18 (DRIVING LANE)	619	-	152	288	896	-	-
0010	STAGE 3	1772+50 EB	-	1802+00 EB	USH 18 (DRIVING LANE)	207	-	22	260	497	-	-
0010	STAGE 3	1772+62 WB	-	1801+96 WB	USH 18 (DRIVING LANE)	72	-	-	144	270	-	-
0010	STAGE 3	1802+00 EB	-	1831+50 EB	USH 18 (DRIVING LANE)	381	-	57	440	861	-	-
0010	STAGE 3	1801+96 WB	-	1831+75 WB	USH 18 (DRIVING LANE)	57	-	10	64	139	-	-
0010	STAGE 3	1831+50 EB	-	1861+00 EB	USH 18 (DRIVING LANE)	465	-	42	660	1,223	-	-
0010	STAGE 3	1831+75 WB	-	1861+24 WB	USH 18 (DRIVING LANE)	48	-	-	96	180	-	-
0010	STAGE 3	1861+00 EB	-	1890+50 EB	USH 18 (DRIVING LANE)	240	-	-	480	826	-	-
0010	STAGE 3	1861+24 WB	-	1890+74 WB	USH 18 (DRIVING LANE)	16	-	-	32	60	-	-
0010	STAGE 3	1890+50 EB	-	1920+00 EB	USH 18 (DRIVING LANE)	187	-	-	380	652	-	-
0010	STAGE 3	1890+74 WB	-	1919+92 WB	USH 18 (DRIVING LANE)	92	-	6	160	309	-	-

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BASE PATCHING CONTINUED

CATEGORY	STAGE	STATION	TO	STATION	ROADWAY	390.0303 BASE PATCHING CONCRETE SY	390.0403 BASE PATCHING CONCRETE SHES SY	416.0610* DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	690.0250* SAWING CONCRETE LF	SPV.0090.02 CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT LF	SPV.0090.01 CONCRETE JOINT AND CRACK CLEANING AND REPAIR LF
0010	STAGE 3	1920+00 EB	-	1949+50 EB	USH 18 (DRIVING LANE)	260	-	6	500	867	-	-
0010	STAGE 3	1919+92 WB	-	1949+24 WB	USH 18 (DRIVING LANE)	56	-	-	112	210	-	-
0010	STAGE 3	1949+50 EB	-	1979+00 EB	USH 18 (DRIVING LANE)	451	-	19	840	1,466	-	-
0010	STAGE 3	1949+24 WB	-	1978+72 WB	USH 18 (DRIVING LANE)	16	-	-	32	60	-	-
0010	STAGE 3	1979+00 EB	-	2008+50 EB	USH 18 (DRIVING LANE)	935	-	54	1,580	2,813	-	-
0010	STAGE 3	1978+72 WB	-	2008+16 WB	USH 18 (DRIVING LANE)	24	-	-	48	90	-	-
0010	STAGE 3	2008+50 EB	-	2038+00 EB	USH 18 (DRIVING LANE)	823	-	10	1,680	2,881	-	-
0010	STAGE 3	2008+16 WB	-	2037+99 WB	USH 18 (DRIVING LANE)	40	-	-	64	126	-	-
0010	STAGE 3	2038+00 EB	-	2051+24.02 EB	USH 18 (DRIVING LANE)	243	-	-	520	884	-	-
0010	STAGE 3	2037+99 WB	-	2053+58.09 WB	USH 18 (DRIVING LANE)	35	-	-	64	122	-	-
0010	STAGE 3	-	-	-	WB ON RAMP AT STH 78 (R3)	-	1,023	-	264	974	-	-
0010	STAGE 3	-	-	-	WB OFF RAMP AT STH 78 (R4)	-	269	-	580	957	-	48
0010	STAGE 3	-	-	-	EB ON RAMP AT STH 78 (R2)	-	808	-	1,504	2,627	-	80
0010	STAGE 3	-	-	-	EB OFF RAMP AT STH 78 (R1)	-	350	-	470	885	-	104
0010	STAGE 3	-	-	-	WB ON RAMP AT CTH ID (R7)	-	287	-	330	622	-	88
0010	STAGE 3	-	-	-	WB OFF RAMP AT CTH ID (R8)	-	103	-	52	147	-	104
0010	STAGE 3	-	-	-	EB ON RAMP AT CTH ID (R6)	-	361	-	752	1,352	-	296
0010	STAGE 3	-	-	-	EB OFF RAMP AT CTH ID (R5)	177	-	-	382	638	-	200
0010				UNDISTRIBUTED		4,833	800	760	8,841	18,211	1,336	3,412
					TOTALS:	24,163	4,001	3,798	44,203	91,053	4,008	17,060

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

CONCRETE PAVEMENT APPROACH SLAB

CATEGORY	ROADWAY	415.0090 CONCRETE PAVEMENT 9-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY
0010	B-13-304 (NB STH 78 APPROACH SLABS)	50	92
0010	B-13-304 (SB STH 78 APPROACH SLABS)	48	98
0010	B-13-298 (WB USH 18 APPRACH SLABS)	62	125
0010	B-13-299 (EB USH 18 APPRACH SLABS)	67	132
0010	B-13-301 (WB USH 18 APPRACH SLABS)	40	80
0010	B-13-302 (EB USH 18 APPRACH SLABS)	40	80
0010	B-13-303 (CTH ID APPROACH SLABS)	57	86
	TOTALS:	364	693

NOTE: CONCRETE PAVEMENT 9-INCH CORRESPONDS TO PAVED CONCRETE SHOULDERS ADJACENT TO APPROACH SLAB.

CONCRETE SURFACE DRAINS

CATEGORY	STATION	LOCATION	416.1010 CONCRETE SURFACE DRAINS CY	416.0610* DRILLED TIE BARS EACH
0010	22+96 ST	STH 78, RT	1	10
0010	23+44 ST	STH 78, LT	1	10
0010	12+66 JG	CTH JG, LT	2	10
0010	12+82 JG	CTH JG, RT	2	10
0010	15+04 JG	CTH JG, LT	2	10
0010	15+19 JG	CTH JG, RT	2	10
0010	1968+63 WB	USH 18, RT	2	16
0010	11+68 ID	CTH ID, RT	1	10
0010	11+71 ID	CTH ID, LT	1	10
		TOTALS:	14	96

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

ASPHALT PAVEMENT ITEMS

CATEGORY	STAGE	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.0105.S TEST STRIP VOLUMETRICS EACH	460.0110.S TEST STRIP DENSITY EACH	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	460.6424 HMA PAVEMENT 4 MT 58-28 H TON	465.0305 ASPHALTIC SURFACE SAFETY ISLANDS TON	204.0126.S REMOVING ASPHALTIC LONGINTUDINAL NOTCHED WEDGE JOINT MILLING LF
0010	STAGE 1	1630+49 EB	-	2051+24 EB	USH 18 (RT SHOULDERS AFTER MILLING RUMBLE STRIPS)	2,542	-	-	3,559	-	-	-
0010	STAGE 1	1630+42 WB	-	2053+58 WB	USH 18 (LT SHOULDERS AFTER MILLING RUMBLE STRIPS)	3,103	-	-	4,344	-	-	-
0010	STAGE 2	1630+49 EB	-	2051+24 EB	USH 18 (LT SHOULDERS AFTER MILLING RUMBLE STRIPS)	1,084	-	-	1,517	-	-	-
0010	STAGE 2	1630+42 WB	-	2053+58 WB	USH 18 (RT SHOULDERS AFTER MILLING RUMBLE STRIPS)	1,073	-	-	1,502	-	-	-
0010	STAGE 3	-	-	-	USH 18 (TURN LANE LENGTHENING)	232	-	-	325	325	-	-
0010	STAGE 4	1630+49 EB	-	1669+00 EB	USH 18 (WCL TO CTH F - DRIVING/TURN LANE AND INTERSECTION)	454	-	-	635	-	-	-
0010	STAGE 4	1630+42 WB	-	1669+00 WB	USH 18 (WCL TO CTH F - DRIVING LANE AND INTERSECTION)	455	-	-	637	-	-	-
0010	STAGE 4	1669+00 EB	-	1709+00 EB	USH 18 (CTH F TO CAVE OF THE MOUNDS ROAD - DRIVING/TURN LANE AND INTERSECTION)	427	-	-	598	-	-	-
0010	STAGE 4	1669+00 WB	-	1709+00 WB	USH 18 (CTH F TO CAVE OF THE MOUNDS ROAD - DRIVING/TURN LANE AND INTERSECTION)	511	-	-	715	-	-	-
0010	STAGE 4	1709+00 EB	-	1778+00 EB	USH 18 (CAVE OF THE MOUNDS ROAD TO ERBE ROAD - DRIVING/TURN LANE AND INTERSECTION)	733	-	-	1,026	-	-	-
0010	STAGE 4	1709+00 WB	-	1778+00 WB	USH 18 (CAVE OF THE MOUNDS ROAD TO ERBE ROAD - DRIVING/TURN LANE AND INTERSECTION)	745	-	-	1,044	-	-	-
0010	STAGE 4	1778+00 EB	-	1848+00 EB	USH 18 (ERBE ROAD TO STH 78 - DRIVING LANE)	724	-	-	1,014	-	-	-
0010	STAGE 4	1778+00 WB	-	1848+00 WB	USH 18 (ERBE ROAD TO STH 78 - DRIVING/TURN LANE)	856	-	-	1,199	-	-	-
0010	STAGE 4	1848+00 EB	-	1894+72 EB	USH 18 (STH 78 TO SAND ROCK ROAD - DRIVING LANE)	601	-	-	841	-	-	-
0010	STAGE 4	1848+00 WB	-	1894+54 WB	USH 18 (STH 78 TO SAND ROCK ROAD - DRIVING LANE)	513	-	-	719	-	-	-
0010	STAGE 4	1897+29 EB	-	1936+25 EB	USH 18 (SAND ROCK ROAD TO CTH JG - DRIVING LANE)	365	-	-	511	-	-	-
0010	STAGE 4	1896+62 WB	-	1936+25 WB	USH 18 (SAND ROCK ROAD TO CTH JG - DRIVING LANE)	368	-	-	516	-	-	-
0010	STAGE 4	1936+25 EB	-	1967+14 EB	USH 18 (CTH JG TO STH 92 - DRIVING LANE)	288	-	-	404	-	-	-
0010	STAGE 4	1936+25 WB	-	1966+99 EB	USH 18 (CTH JG TO STH 92 - DRIVING LANE)	287	-	-	402	-	-	-
0010	STAGE 4	1968+94 EB	-	2020+75 EB	USH 18 (STH 92 TO CTH ID - DRIVING LANE)	553	-	-	775	-	-	-
0010	STAGE 4	1968+59 WB	-	2020+50 WB	USH 18 (STH 92 TO CTH ID - DRIVING LANE)	659	-	-	923	-	-	-
0010	STAGE 4	2020+75 EB	-	2051+24 EB	USH 18 (CTH ID TO TOWN HALL ROAD - DRIVING LANE)	448	-	-	627	-	-	-
0010	STAGE 4	2020+50 WB	-	2053+58 WB	USH 18 (CTH ID TO TOWN HALL ROAD - DRIVING LANE)	379	-	-	531	-	-	-
0010	STAGE 4	1630+49 EB	-	2051+24 EB	USH 18 (RT SHOULDERS)	2,066	-	-	3,374	-	-	-
0010	STAGE 4	1630+42 WB	-	2053+58 WB	USH 18 (LT SHOULDERS)	2,063	-	-	3,370	-	-	-
0010	STAGE 4	1837+66 R3	-	1844+56 R3	WB ON RAMP AT STH 78 (RAMP AND SHOULDERS)	134	-	-	188	-	-	-
0010	STAGE 4	1856+76 R4	-	1869+80 R4	WB OFF RAMP AT STH 78 (RAMP AND SHOULDERS)	253	-	-	355	-	-	-
0010	STAGE 4	1851+06 R2	-	1861+56 R2	EB ON RAMP AT STH 78 (RAMP AND SHOULDERS)	204	-	-	286	-	-	-
0010	STAGE 4	1835+26 R1	-	1848+10 R1	EB OFF RAMP AT STH 78 (RAMP AND SHOULDERS)	249	-	-	349	-	-	-
0010	STAGE 4	2009+75 R7	-	2019+47 R7	WB ON RAMP AT CTH ID (RAMP AND SHOULDERS)	189	-	-	265	-	-	-
0010	STAGE 4	2025+74 R8	-	2034+13 R8	WB OFF RAMP AT CTH ID (RAMP AND SHOULDERS)	163	-	-	228	-	-	-
0010	STAGE 4	2021+01 R6	-	2030+02 R6	EB ON RAMP AT CTH ID (RAMP AND SHOULDERS)	175	-	-	246	-	-	-
0010	STAGE 4	2007+40 R5	-	2019+39 R5	EB OFF RAMP AT CTH ID (RAMP AND SHOULDERS)	233	-	-	327	-	-	-
0010	STAGE 5	1630+49 EB	-	1669+00 EB	USH 18 (WCL TO CTH F - PASSING LANE)	795	-	-	600	600	-	3,851
0010	STAGE 5	1630+42 WB	-	1669+00 WB	USH 18 (WCL TO CTH F - PASSING LANE)	711	-	-	536	536	-	3,858
0010	STAGE 5	1669+00 EB	-	1709+00 EB	USH 18 (CTH F TO CAVE OF THE MOUNDS ROAD - PASSING LANE)	818	-	-	617	617	-	4,000
0010	STAGE 5	1669+00 WB	-	1709+00 WB	USH 18 (CTH F TO CAVE OF THE MOUNDS ROAD - PASSING LANE)	832	-	-	627	627	-	4,000
0010	STAGE 5	1709+00 EB	-	1778+00 EB	USH 18 (CAVE OF THE MOUNDS ROAD TO ERBE ROAD - PASSING LANE)	1,331	-	-	1,003	1,003	-	6,900
0010	STAGE 5	1709+00 WB	-	1778+00 WB	USH 18 (CAVE OF THE MOUNDS ROAD TO ERBE ROAD - PASSING LANE)	1,276	-	-	961	961	-	6,900
0010	STAGE 5	1778+00 EB	-	1848+00 EB	USH 18 (ERBE ROAD TO STH 78 - PASSING LANE)	1,213	-	-	914	914	-	7,000
0010	STAGE 5	1778+00 WB	-	1848+00 WB	USH 18 (ERBE ROAD TO STH 78 - PASSING LANE)	1,293	-	-	975	975	-	7,000
0010	STAGE 5	1848+00 EB	-	1894+72 EB	USH 18 (STH 78 TO SAND ROCK ROAD - PASSING LANE)	810	-	-	611	611	-	4,672
0010	STAGE 5	1848+00 WB	-	1894+54 WB	USH 18 (STH 78 TO SAND ROCK ROAD - PASSING LANE)	806	-	-	608	608	-	4,654
0010	STAGE 5	1897+29 EB	-	1936+25 EB	USH 18 (SAND ROCK ROAD TO CTH JG - PASSING LANE)	676	-	-	510	510	-	3,896
0010	STAGE 5	1896+62 WB	-	1936+25 WB	USH 18 (SAND ROCK ROAD TO CTH JG - PASSING LANE)	686	-	-	517	517	-	3,963
0010	STAGE 5	1936+25 EB	-	1967+14 EB	USH 18 (CTH JG TO STH 92 - PASSING LANE)	535	-	-	404	404	-	3,089
0010	STAGE 5	1936+25 WB	-	1966+99 EB	USH 18 (CTH JG TO STH 92 - PASSING LANE)	533	-	-	402	402	-	3,074
0010	STAGE 5	1968+94 EB	-	2020+75 EB	USH 18 (STH 92 TO CTH ID - PASSING LANE)	897	-	-	677	677	-	5,181
0010	STAGE 5	1968+59 WB	-	2020+50 WB	USH 18 (STH 92 TO CTH ID - PASSING LANE)	900	-	-	678	678	-	5,191
0010	STAGE 5	2020+75 EB	-	2051+24 EB	USH 18 (CTH ID TO TOWN HALL ROAD - PASSING LANE)	528	-	-	398	398	-	3,049

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ASPHALT PAVEMENT ITEMS (CONTINUED)

CATEGORY	STAGE	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.0105.S TEST STRIP VOLUMETRICS EACH	460.0110.S TEST STRIP DENSITY EACH	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	460.6424 HMA PAVEMENT 4 MT 58-28 H TON	465.0305 ASPHALTIC SURFACE SAFETY ISLANDS TON	204.0126.S REMOVING ASPHALTIC LONGINTUDINAL NOTCHED WEDGE JOINT MILLING LF
0010	STAGE 5	2020+50 WB	-	2053+58 WB	USH 18 (CTH ID TO TOWN HALL ROAD - PASSING LANE)	574	-	-	433	433	-	3,308
0010	STAGE 5	1630+49 EB	-	2051+24 EB	USH 18 (LT SHOULDERS AND MAINTENANCE CROSSOVERS)	2,444	-	-	1,842	1,842	-	-
0010	STAGE 5	1630+42 WB	-	2053+58 WB	USH 18 (RT SHOULDERS AND MAINTENANCE CROSSOVERS)	2,482	-	-	1,871	1,871	-	-
0010	STAGE 6	1630+49 EB	-	1669+00 EB	USH 18 (WCL TO CTH F - DRIVING/TURN LANE AND INTERSECTION)	389	-	-	-	635	-	3,851
0010	STAGE 6	1630+42 WB	-	1669+00 WB	USH 18 (WCL TO CTH F - DRIVING LANE AND INTERSECTION)	390	-	-	-	637	5	3,858
0010	STAGE 6	1669+00 EB	-	1709+00 EB	USH 18 (CTH F TO CAVE OF THE MOUNDS ROAD - DRIVING/TURN LANE AND INTERSECTION)	366	-	-	-	598	-	4,000
0010	STAGE 6	1669+00 WB	-	1709+00 WB	USH 18 (CTH F TO CAVE OF THE MOUNDS ROAD - DRIVING/TURN LANE AND INTERSECTION)	438	-	-	-	715	4	4,000
0010	STAGE 6	1709+00 EB	-	1778+00 EB	USH 18 (CAVE OF THE MOUNDS ROAD TO ERBE ROAD - DRIVING/TURN LANE AND INTERSECTION)	628	-	-	-	1,026	-	6,900
0010	STAGE 6	1709+00 WB	-	1778+00 WB	USH 18 (CAVE OF THE MOUNDS ROAD TO ERBE ROAD - DRIVING/TURN LANE AND INTERSECTION)	639	-	-	-	1,044	12	6,900
0010	STAGE 6	1778+00 EB	-	1848+00 EB	USH 18 (ERBE ROAD TO STH 78 - DRIVING LANE)	621	-	-	-	1,014	-	7,000
0010	STAGE 6	1778+00 WB	-	1848+00 WB	USH 18 (ERBE ROAD TO STH 78 - DRIVING/TURN LANE)	734	-	-	-	1,199	-	7,000
0010	STAGE 6	1848+00 EB	-	1894+72 EB	USH 18 (STH 78 TO SAND ROCK ROAD - DRIVING LANE)	515	-	-	-	841	-	4,672
0010	STAGE 6	1848+00 WB	-	1894+54 WB	USH 18 (STH 78 TO SAND ROCK ROAD - DRIVING LANE)	440	-	-	-	719	-	4,654
0010	STAGE 6	1897+29 EB	-	1936+25 EB	USH 18 (SAND ROCK ROAD TO CTH JG - DRIVING LANE)	313	-	-	-	511	-	3,896
0010	STAGE 6	1896+62 WB	-	1936+25 WB	USH 18 (SAND ROCK ROAD TO CTH JG - DRIVING LANE)	316	-	-	-	516	-	3,963
0010	STAGE 6	1936+25 EB	-	1967+14 EB	USH 18 (CTH JG TO STH 92 - DRIVING LANE)	247	-	-	-	404	-	3,089
0010	STAGE 6	1936+25 WB	-	1966+99 EB	USH 18 (CTH JG TO STH 92 - DRIVING LANE)	246	-	-	-	402	-	3,074
0010	STAGE 6	1968+94 EB	-	2020+75 EB	USH 18 (STH 92 TO CTH ID - DRIVING LANE)	474	-	-	-	775	-	5,181
0010	STAGE 6	1968+59 WB	-	2020+50 WB	USH 18 (STH 92 TO CTH ID - DRIVING LANE)	565	-	-	-	923	-	5,191
0010	STAGE 6	2020+75 EB	-	2051+24 EB	USH 18 (CTH ID TO TOWN HALL ROAD - DRIVING LANE)	384	-	-	-	627	-	3,049
0010	STAGE 6	2020+50 WB	-	2053+58 WB	USH 18 (CTH ID TO TOWN HALL ROAD - DRIVING LANE)	325	-	-	-	531	-	3,308
0010	STAGE 6	1630+49 EB	-	2051+24 EB	USH 18 (RT SHOULDERS)	2,066	-	-	-	3,374	-	-
0010	STAGE 6	1630+42 WB	-	2053+58 WB	USH 18 (LT SHOULDERS)	2,063	-	-	-	3,370	-	-
0010	STAGE 6	1837+66 R3	-	1844+56 R3	WB ON RAMP AT STH 78 (RAMP AND SHOULDERS)	115	-	-	-	188	-	-
0010	STAGE 6	1856+76 R4	-	1869+80 R4	WB OFF RAMP AT STH 78 (RAMP AND SHOULDERS)	217	-	-	-	355	-	-
0010	STAGE 6	1851+06 R2	-	1861+56 R2	EB ON RAMP AT STH 78 (RAMP AND SHOULDERS)	175	-	-	-	286	-	-
0010	STAGE 6	1835+26 R1	-	1848+10 R1	EB OFF RAMP AT STH 78 (RAMP AND SHOULDERS)	214	-	-	-	349	-	-
0010	STAGE 6	2009+75 R7	-	2019+47 R7	WB ON RAMP AT CTH ID (RAMP AND SHOULDERS) AND CTH ID (SHOULDERS)	162	-	-	19	265	-	-
0010	STAGE 6	2025+74 R8	-	2034+13 R8	WB OFF RAMP AT CTH ID (RAMP AND SHOULDERS) AND CTH ID (SHOULDERS)	140	-	-	25	228	-	-
0010	STAGE 6	2021+01 R6	-	2030+02 R6	EB ON RAMP AT CTH ID (RAMP AND SHOULDERS) AND CTH ID (SHOULDERS)	150	-	-	25	246	-	-
0010	STAGE 6	2007+40 R5	-	2019+39 R5	EB OFF RAMP AT CTH ID (RAMP AND SHOULDERS) AND CTH ID (SHOULDERS)	200	-	-	25	327	-	-
0010		12+50 ST	-	20+75 ST	STH 78 (CTH E TO USH 18)	610	-	-	1,850	-	54	-
0010		23+00 ST	-	29+60 ST	STH 78 (USH 18 TO CTH ID)	530	-	-	1,610	-	4	-
0010		-	-	-	STH 78 (TEMP WIDENING)	89	-	-	146	146	-	-
					PROJECT 1204-05-73	-	2	2	-	-	-	-
					UNDISTRIBUTED (CROSS SLOPE AND SUPERELEVATION CORRECTION)	2,902	-	-	2,612	1,888	4	8,359
					TOTALS:	60,932	2	2	54,848	39,648	83	175,532

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465.0315
ASPHALTIC FLUMES

CATEGORY	LOCATION	SY
0010	CTH F (SW QUADRANT)	9
0010	CTH F (SE QUADRANT)	9
0010	CTH F (NW QUADRANT)	9
0010	CTH F (NE QUADRANT)	9
0010	CAVE OF THE MOUNDS ROAD (SW QUADRANT)	9
0010	CAVE OF THE MOUNDS ROAD (SE QUADRANT)	9
0010	CAVE OF THE MOUNDS ROAD (NW QUADRANT)	9
0010	CAVE OF THE MOUNDS ROAD (NE QUADRANT)	9
0010	ERBE ROAD (SW QUADRANT)	9
0010	ERBE ROAD (SE QUADRANT)	9
0010	ERBE ROAD (NW QUADRANT)	9
0010	ERBE ROAD (NE QUADRANT)	9
	TOTALS:	108

PWL MIXTURE USE TABLE

LOCATION	STATION	TO	STATION	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
12' TRAVEL LANES	1630+49.00 EB	-	2051+24.02 EB	EXISTING CONCRETE PAVEMENT	4HT 58-28 S	10,880	1.75 ''	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
8' SHOULDER	1630+49.00 EB	-	2051+24.02 EB	EXISTING BITUMINOUS PAVEMENT	4HT 58-28 S	3,630	1.75 ''	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT TESTED, NOT ELIGIBLE FOR INCENTIVE
4' SHOULDER	1630+49.00 EB	-	2051+24.02 EB	EXISTING BITUMINOUS PAVEMENT AND BASE COURSE	4HT 58-28 S	1,810	1.75 ''	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT TESTED, NOT ELIGIBLE FOR INCENTIVE
MISCELLANEOUS /SIDE ROADS	1630+49.00 EB	-	2051+24.02 EB	EXISTING BITUMINOUS PAVEMENT	4HT 58-28 S	2,269	1.75 ''	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT TESTED, NOT ELIGIBLE FOR INCENTIVE
12' TRAVEL LANES	1630+49.00 EB	-	2051+24.02 EB	1.75" 4HT 58-28 S	4HT 58-28 H	10,880	1.75 ''	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
8' SHOULDER	1630+49.00 EB	-	2051+24.02 EB	1.75" 4HT 58-28 S	4HT 58-28 H	3,630	1.75 ''	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT TESTED, NOT ELIGIBLE FOR INCENTIVE
4' SHOULDER	1630+49.00 EB	-	2051+24.02 EB	1.75" 4HT 58-28 S	4HT 58-28 H	1,810	1.75 ''	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT TESTED, NOT ELIGIBLE FOR INCENTIVE
MISCELLANEOUS /SIDE ROADS	1630+49.00 EB	-	2051+24.02 EB	1.75" 4HT 58-28 S	4HT 58-28 H	2,269	1.75 ''	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT TESTED, NOT ELIGIBLE FOR INCENTIVE
12' TRAVEL LANES	1630+42.38 WB	-	2053+58.09 WB	EXISTING CONCRETE PAVEMENT	4HT 58-28 S	10,960	1.75 ''	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
8' SHOULDER	1630+42.38 WB	-	2053+58.09 WB	EXISTING BITUMINOUS PAVEMENT	4HT 58-28 S	3,650	1.75 ''	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT TESTED, NOT ELIGIBLE FOR INCENTIVE
4' SHOULDER	1630+42.38 WB	-	2053+58.09 WB	EXISTING BITUMINOUS PAVEMENT AND BASE COURSE	4HT 58-28 S	1,830	1.75 ''	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT TESTED, NOT ELIGIBLE FOR INCENTIVE
MISCELLANEOUS /SIDE ROADS	1630+42.38 WB	-	2053+58.09 WB	EXISTING BITUMINOUS PAVEMENT	4HT 58-28 S	2,260	1.75 ''	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT TESTED, NOT ELIGIBLE FOR INCENTIVE
12' TRAVEL LANES	1630+42.38 WB	-	2053+58.09 WB	1.75" 4HT 58-28 S	4HT 58-28 H	10,960	1.75 ''	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
8' SHOULDER	1630+42.38 WB	-	2053+58.09 WB	1.75" 4HT 58-28 S	4HT 58-28 H	3,650	1.75 ''	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT TESTED, NOT ELIGIBLE FOR INCENTIVE
4' SHOULDER	1630+42.38 WB	-	2053+58.09 WB	1.75" 4HT 58-28 S	4HT 58-28 H	1,830	1.75 ''	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT TESTED, NOT ELIGIBLE FOR INCENTIVE
MISCELLANEOUS /SIDE ROADS	1630+42.38 WB	-	2053+58.09 WB	1.75" 4HT 58-28 S	4HT 58-28 H	2,260	1.75 ''	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT TESTED, NOT ELIGIBLE FOR INCENTIVE

465.0400

ASPHALTIC SHOULDER RUMBLE STRIPS

CATEGORY	STATION	TO	STATION	ROADWAY	LF	COMMENTS
0010	1630+49 EB	-	1661+24 EB	USH 18 (LT)	3,075	WCL TO CTH F
0010	1630+49 EB	-	1661+12 EB	USH 18 (RT)	3,063	WCL TO CTH F
0010	1630+42 WB	-	1665+97 WB	USH 18 (LT)	3,554	WCL TO CTH F
0010	1630+42 WB	-	1667+32 WB	USH 18 (RT)	3,690	WCL TO CTH F
0010	1668+41 EB	-	1700+68 EB	USH 18 (LT)	3,227	CTH F TO CAVE OF THE MOUNDS ROAD
0010	1669+56 EB	-	1704+19 EB	USH 18 (RT)	3,464	CTH F TO CAVE OF THE MOUNDS ROAD
0010	1674+71 WB	-	1705+39 WB	USH 18 (LT)	3,068	CTH F TO CAVE OF THE MOUNDS ROAD
0010	1674+57 WB	-	1706+64 WB	USH 18 (RT)	3,207	CTH F TO CAVE OF THE MOUNDS ROAD
0010	1707+79 EB	-	1769+92 EB	USH 18 (LT)	6,214	CAVE OF THE MOUNDS ROAD TO ERBE ROAD
0010	1708+80 EB	-	1770+28 EB	USH 18 (RT)	6,148	CAVE OF THE MOUNDS ROAD TO ERBE ROAD
0010	1713+98 WB	-	1774+61 WB	USH 18 (LT)	6,063	CAVE OF THE MOUNDS ROAD TO ERBE ROAD
0010	1711+24 WB	-	1776+01 WB	USH 18 (RT)	6,476	CAVE OF THE MOUNDS ROAD TO ERBE ROAD
0010	1777+29 EB	-	1848+00 EB	USH 18 (LT)	7,071	ERBE ROAD TO STH 78
0010	1778+55 EB	-	1848+00 EB	USH 18 (RT)	6,945	ERBE ROAD TO STH 78
0010	1783+28 WB	-	1848+00 WB	USH 18 (LT)	6,472	ERBE ROAD TO STH 78
0010	1783+33 WB	-	1848+00 WB	USH 18 (RT)	6,467	ERBE ROAD TO STH 78
0010	1848+00 EB	-	1894+72 EB	USH 18 (LT)	4,672	STH 78 TO SAND ROCK ROAD
0010	1848+00 EB	-	1894+72 EB	USH 18 (RT)	4,672	STH 78 TO SAND ROCK ROAD
0010	1848+00 WB	-	1894+54 WB	USH 18 (LT)	4,654	STH 78 TO SAND ROCK ROAD
0010	1848+00 WB	-	1894+54 WB	USH 18 (RT)	4,654	STH 78 TO SAND ROCK ROAD
0010	1897+29 EB	-	1936+25 EB	USH 18 (LT)	3,896	SAND ROCK ROAD TO CTH JG
0010	1897+29 EB	-	1936+25 EB	USH 18 (RT)	3,896	SAND ROCK ROAD TO CTH JG
0010	1896+62 WB	-	1936+25 WB	USH 18 (LT)	3,963	SAND ROCK ROAD TO CTH JG
0010	1896+62 WB	-	1936+25 WB	USH 18 (RT)	3,963	SAND ROCK ROAD TO CTH JG
0010	1936+25 EB	-	1967+14 EB	USH 18 (LT)	3,089	CTH JG TO STH 92
0010	1936+25 EB	-	1967+14 EB	USH 18 (RT)	3,089	CTH JG TO STH 92
0010	1936+25 WB	-	1966+99 EB	USH 18 (LT)	3,074	CTH JG TO STH 92
0010	1936+25 WB	-	1966+99 EB	USH 18 (RT)	3,074	CTH JG TO STH 92
0010	1968+94 EB	-	2020+75 EB	USH 18 (LT)	5,181	STH 92 TO CTH ID
0010	1968+94 EB	-	2020+75 EB	USH 18 (RT)	5,181	STH 92 TO CTH ID
0010	1968+59 WB	-	2020+50 WB	USH 18 (LT)	5,191	STH 92 TO CTH ID
0010	1968+59 WB	-	2020+50 WB	USH 18 (RT)	5,191	STH 92 TO CTH ID
0010	2020+75 EB	-	2051+24 EB	USH 18 (LT)	3,049	CTH ID TO TOWN HALL ROAD
0010	2020+75 EB	-	2051+24 EB	USH 18 (RT)	3,049	CTH ID TO TOWN HALL ROAD
0010	2020+50 WB	-	2053+58 WB	USH 18 (LT)	3,308	CTH ID TO TOWN HALL ROAD
0010	2020+50 WB	-	2053+58 WB	USH 18 (RT)	3,308	CTH ID TO TOWN HALL ROAD
				TOTALS:	158,358	

CONCRETE BARRIER TEMPORARY PRECAST

			603.8000	603.8125	
CATEGORY	ROADWAY	LOCATION	DELIVERED LF	INSTALLED LF	COMMENTS
0010	STH 78	STH 78 WORK/DETOUR	475	475	STAGE 2
0010	STH 78	STH 78 WORK/DETOUR	238	713	STAGE 3
		TOTALS:	713	1,188	

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CONCRETE CURB AND GUTTER

CATEGORY	ROADWAY	LOCATION	601.0120 CONCRETE CURB TYPE J LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF
0010	CTH F	SW QUADRANT	-	-	93	93
0010	CTH F	SE QUADRANT	-	-	90	90
0010	CTH F	NW QUADRANT AND MEDIAN ISLAND CURB	88	-	77	165
0010	CTH F	NE QUADRANT	-	-	80	80
0010	CAVE OF THE MOUNDS ROAD	SW QUADRANT	-	-	75	75
0010	CAVE OF THE MOUNDS ROAD	SE QUADRANT	-	-	60	60
0010	CAVE OF THE MOUNDS ROAD	NW QUADRANT AND MEDIAN ISLAND CURB	82	-	65	147
0010	CAVE OF THE MOUNDS ROAD	NE QUADRANT	-	-	61	61
0010	ERBE ROAD	SW QUADRANT	-	-	87	87
0010	ERBE ROAD	SE QUADRANT	-	-	92	92
0010	ERBE ROAD	NW QUADRANT AND MEDIAN ISLAND CURB	112	-	84	196
0010	ERBE ROAD	NE QUADRANT	-	-	47	47
0010	STH 78	MEDIAN ISLAND BETWEEN CTH E AND USH 18	-	507	-	507
0010	STH 78	SW QUADRANT AND MEDIAN ISLAND CURB	74	-	34	108
0010	STH 78	SE QUADRANT	-	-	83	83
0010	STH 78	MEDIAN ISLAND AT CTH ID	95			
0010	STH 78	SPOT REPLACEMENT	-	100		100
		TOTALS:	451	607	1,028	1,991

ADJUSTING STEEL PLATE BEAM GUARD AND EATS

CATEGORY	STA	TO	STA	O/S	ROADWAY	614.0400 ADJUSTING STEEL PLATE BEAM GUARD LF	SPV.0060.03 ADJUSTING EATS EACH
0010	1633+06 WB	-	1639+12 WB	LT.	USH 18	606	1
0010	1651+73 EB	-	1656+30 EB	RT.	USH 18	457	1
0010	1654+14 WB	-	1658+14 WB	LT.	USH 18	400	1
0010	1676+72 EB	-	1680+78 EB	RT.	USH 18	406	1
0010	1698+20 EB	-	1706+77 EB	RT.	USH 18	857	1
0010	1698+94 WB	-	1702+50 WB	LT.	USH 18	356	1
0010	1740+76 EB	-	1745+37 EB	RT.	USH 18	455	1
0010	1883+55 EB	-	1895+08 EB	RT.	USH 18	1,157	1
0010	1892+25 EB	-	1894+73 EB	LT.	USH 18	248	1
0010	1896+36 WB	-	1897+19 WB	LT.	USH 18	83	1
0010	1897+44 EB	-	1901+84 EB	RT.	USH 18	443	1
0010	1917+81 WB	-	1924+30 WB	LT.	USH 18	644	1
0010	1960+06 EB	-	1967+14 EB	RT.	USH 18	708	1
0010	1961+52 WB	-	1967+03 WB	LT.	USH 18	551	1
0010	1968+55 WB	-	1972+76 WB	LT.	USH 18	421	1
0010	1968+97 EB	-	1971+90 EB	RT.	USH 18	293	1
0010	2001+23 EB	-	2009+92 EB	RT.	USH 18	868	1
0010	2001+43 WB	-	2007+98 WB	LT.	USH 18	656	1
0010	2022+25 R6	-	2027+25 R6	RT.	USH 18 (EB ON-RAMP AT CTH ID)	500	1
					TOTALS:	10,109	19

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DROP INLET AT STRUCTURE

CATEGORY	STATION	O/S	ROADWAY	521.1012 APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH EACH	611.3220 INLETS 2X2-FT EACH	611.0654 INLETS COVERS TYPE V EACH	612.0212 PIPE UNDERDRAIN UNPERFORATED 12-INCH LF	650.4000 CONSTRUCTION STAKING STORM SEWER EACH
0010	1968+63 WB	RT	USH 18	1	1	1	20	1
			TOTALS:	1	1	1	20	1

619.1000 MOBILIZATION

CATEGORY	LOCATION	EACH
0010	PROJECT 1204-05-73	1
	TOTAL:	1

611.8110 ADJUSTING MANHOLE COVERS

CATEGORY	STATION	O/S	ROADWAY	EACH
0010	17+52 ST	LT	STH 78	1
0010	18+20 ST	LT	STH 78	1
0010	29+94 ST	RT	STH 78	1
			TOTALS:	3

WATER

CATEGORY	LOCATION	USE	624.0100 WATER MGAL
0010	PROJECT 1204-05-73	BASE AND SUBGRADE PLACEMENT	361
	TOTAL:		361

620.0100 CONCRETE CORRUGATED MEDIAN

CATEGORY	LOCATION	SF
0010	STH 78	473
	TOTAL:	473

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MGS GUARDRAIL

CATEGORY	STA	TO	STA	O/S	ROADWAY	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3K LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH
0010	1631+76 EB	-	1637+30 EB	RT	USH 18	500	-	-	1	1
0010	1725+28 EB	-	1729+31 EB	RT	USH 18	350	-	-	1	1
0010	1731+74 EB	-	1734+77 EB	RT	USH 18	250	-	-	1	1
0010	1825+14 EB	-	1830+18 EB	RT	USH 18	450	-	-	1	1
0010	1894+69 EB		1895+08 EB	RT	USH 18	-	-	39.4	-	-
0010	1896+50 WB	-	1899+16 WB	RT	USH 18	150	-	39.4	-	1
0010	1912+60 EB	-	1924+05 EB	RT	USH 18	1,100	-	-	1	1
0010	1964+74 EB	-	1967+29 EB	LT	USH 18	163	-	39.4	-	1
0010	1968+71 WB	-	1971+12 WB	RT	USH 18	175	-	39.4	-	1
0010	1968+55 WB	-	1968+94 WB	RT	USH 18	-	-	39.4	-	-
0010	2019+65 WB	-	2023+53 WB	LT	USH 18	338	-	-	1	1
0010	19+65 ST	-	20+55 ST	RT	STH 78	-	-	39.4	-	1
0010	23+33 ST	-	24+26 ST	LT	STH 78	-	-	39.4	-	1
0010	11+84 JG	-	12+76 JG	LT	CTH JG	-	-	39.4	-	1
0010	11+99 JG	-	12+92 JG	RT	CTH JG	-	-	39.4	-	1
0010	14+93 JG	-	16+61 JG	LT	CTH JG	-	75	39.4	-	1
0010	15+09 JG	-	16+01 JG	RT	CTH JG	-	-	39.4	-	1
0010	10+86 ID	-	11+78 ID	RT	CTH ID	-	-	39.4	-	1
0010	10+89 ID	-	11+81 ID	LT	CTH ID	-	-	39.4	-	1
0010	14+12 ID	-	15+04 ID	RT	CTH ID	-	-	39.4	-	1
0010	14+15 ID	-	15+07 ID	LT	CTH ID	-	-	39.4	-	1
					TOTALS:	3,475	75	591	6	19

INLET PROTECTION

CATEGORY	STATION	O/S	LOCATION	628.7005 TYPE A EACH	COMMENTS
0010	1676+25 EB	LT	USH 18	1	INLET MEDIAN 2 GRATE
0010	1708+25 EB	LT	USH 18	1	INLET MEDIAN 2 GRATE
0010	1769+29 EB	LT	USH 18	1	INLET MEDIAN 1 GRATE
0010	1782+18 EB	LT	USH 18	1	INLET MEDIAN 1 GRATE
0010	1897+18 EB	LT	USH 18	1	INLET MEDIAN 1 GRATE
0010	1966+84 EB	LT	USH 18	1	INLET MEDIAN 2 GRATE
0010	1972+10 EB	LT	USH 18	1	INLET MEDIAN 1 GRATE
			TOTALS:	7	

MOBILIZATION FOR EROSION CONTROL

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	PROJECT 1204-05-73	5	3
	TOTAL:	5	3

614.0010

BARRIER SYSTEM GRADING SHAPING FINISHING

FOR INFORMATION PURPOSES ONLY

CATEGORY	STA	TO	STA	O/S	ROADWAY	EACH	BORROW (CY)	SALVAGED TOPSOIL (SY)	MULCHING (SY)	FERTILIZER TYPE B (CWT)	SEEDING MIXTURE NO. 20 (LB)	SEEDING TEMPORARY (LB)	SEED WATER MGAL
0010	1631+76 EB	-	1637+30 EB	RT	USH 18	1	131	379	0	0.2	10	3	4
0010	1725+28 EB	-	1729+31 EB	RT	USH 18	1	95	296	0	0.2	8	3	3
0010	1731+74 EB	-	1734+77 EB	RT	USH 18	1	72	336	0	0.2	9	3	4
0010	1825+14 EB	-	1830+18 EB	RT	USH 18	1	71	148	0	0.1	4	1	2
0010	1896+50 WB	-	1899+16 WB	RT	USH 18	1	63	336	0	0.2	9	3	4
0010	1912+60 EB	-	1924+05 EB	RT	USH 18	1	189	928	0	0.6	25	8	10
0010	1964+74 EB	-	1967+29 EB	LT	USH 18	1	36	154	154	0.1	4	1	2
0010	1968+71 WB	-	1971+38 WB	RT	USH 18	1	38	242	242	0.2	7	2	3
0010	2019+94 WB	-	2023+67 WB	LT	USH 18	1	176	434	434	0.3	12	4	5
0010	19+65 ST	-	20+55 ST	RT	STH 78	1	13	91	91	0.1	2	1	1
0010	23+33 ST	-	24+26 ST	LT	STH 78	1	11	35	35	0.0	1	0	0
0010	11+84 JG	-	12+76 JG	LT	CTH JG	1	12	70	70	0.0	2	1	1
0010	11+99 JG	-	12+92 JG	RT	CTH JG	1	7	49	49	0.0	1	0	1
0010	14+93 JG	-	16+61 JG	LT	CTH JG	1	40	313	0	0.2	8	3	4
0010	15+09 JG	-	16+01 JG	RT	CTH JG	1	22	116	116	0.1	3	1	1
0010	10+86 ID	-	11+78 ID	RT	CTH ID	1	15	45	45	0.0	1	0	1
0010	10+89 ID	-	11+81 ID	LT	CTH ID	1	13	48	48	0.0	1	0	1
0010	14+12 ID	-	15+04 ID	RT	CTH ID	1	11	38	38	0.0	1	0	0
0010	14+15 ID	-	15+07 ID	LT	CTH ID	1	9	61	61	0.0	2	1	1
					TOTALS:	19	1,022	4,119	1,383	3	110	35	48

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LANDSCAPING

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
0010	1661+00 EB	-	1663+00 EB	USH 18 (TURN LANE LENGTHENING)	235	235	0.1	6	2	3
0010	1673+00 WB	-	1675+00 WB	USH 18 (TURN LANE LENGTHENING)	364	364	0.2	10	3	4
0010	1700+50 EB	-	1706+50 EB	USH 18 (TURN LANE LENGTHENING)	467	-	0.3	13	4	5
0010	1708+00 WB	-	1714+25 WB	USH 18 (TURN LANE LENGTHENING)	414	-	0.3	11	4	5
0010	1769+75 EB	-	1775+00 EB	USH 18 (TURN LANE LENGTHENING)	779	-	0.5	21	7	9
0010	1777+75 WB	-	1783+75 WB	USH 18 (TURN LANE LENGTHENING)	736	-	0.5	20	7	8
0010				UNDISTRIBUTED	300	60	0.2	20	7	3
				TOTALS:	3,295	659	2.10	101	34	37

EROSION CONTROL ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7555 CULVERT PIPE CHECKS EACH	628.2004 EROSION MAT CLASS I TYPE B SY	606.0100 RIPRAP LIGHT CY	645.0130 GEOTEXTILE TYPE R SY
0010	1630+49 EB	-	1654+50 EB	USH 18	730	730	-	379	-	-
0010	1654+50 EB	-	1684+00 EB	USH 18	400	400	-	-	11	28
0010	1684+00 EB	-	1713+50 EB	USH 18	560	560	4	881	18	52
0010	1713+50 EB	-	1743+00 EB	USH 18	1,045	1,045	4	632	-	-
0010	1743+00 EB	-	1772+50 EB	USH 18	260	260	-	299	-	-
0010	1772+50 EB	-	1802+00 EB	USH 18	765	765	-	1,216	16	45
0010	1802+00 EB	-	1831+50 EB	USH 18	670	670	-	148	-	-
0010	1831+50 EB	-	1861+00 EB	USH 18	-	-	-	-	-	-
0010	1861+00 EB	-	1890+50 EB	USH 18	-	-	-	-	-	-
0010	1890+50 EB	-	1920+00 EB	USH 18	935	935	-	1,264	-	-
0010	1920+00 EB	-	1949+50 EB	USH 18	455	455	-	-	-	-
0010	1949+50 EB	-	1979+00 EB	USH 18	-	-	-	-	2	4
0010	1979+00 EB	-	2008+50 EB	USH 18	-	-	-	-	-	-
0010	2008+50 EB	-	2038+00 EB	USH 18	-	-	-	-	-	-
0010	2038+00 EB	-	2054+00 EB	USH 18	-	-	-	-	-	-
0010	12+50 ST	-	29+60 ST	STH 78	360	360	-	-	4	8
0010	10+75 JG	-	17+00 JG	CTH JG	780	780	-	313	8	16
0010	10+75 ID	-	15+50 ID	CTH ID	495	495	-	-	4	8
0010				UNDISTRIBUTED	746	746	1	513	6	16
				TOTALS:	8,201	8,201	9	5,645	69	177

3

MOVING SIGNS

CATEGORY	STATION	LOCATION	SIGN MESSAGE	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENTS
0010	1667+67 WB	USH 18, LT	STOP/DIVIDED HWY/ONE WAY/DOUBLE ARROW	2	2	2	SIGNS LOCATED IN MEDIAN ISLAND
0010	1674+17 WB	USH 18, LT	INDUSTRIAL PARK/BLUE MOUNDS	3	1	3	
0010	1704+05 EB	USH 18, LT	WRONG WAY	1	1	1	
0010	1707+02 WB	USH 18, LT	CAVE OF THE MOUNDS ROAD	1	1	1	SIGN LOCATED IN MEDIAN ISLAND
0010	1707+05 WB	USH 18, LT	STOP/DIVIDED HWY/ONE WAY/DOUBLE ARROW	2	2	2	SIGNS LOCATED IN MEDIAN ISLAND
0010	1708+45 WB	USH 18, RT	DO NOT ENTER	1	1	1	
0010	1710+45 WB	USH 18, RT	WRONG WAY	1	1	1	
0010	1761+27 EB	USH 18, LT	NO U-TURN	1	1	1	
0010	1761+72 EB	USH 18, LT	NO U-TURN	1	1	1	
0010	1773+38 EB	USH 18, LT	WRONG WAY	1	1	1	
0010	1776+34 WB	USH 18, LT	STOP/DIVIDED HWY/ONE WAY/DOUBLE ARROW	2	2	2	SIGNS LOCATED IN MEDIAN ISLAND
0010	1777+96 WB	USH 18, RT	DO NOT ENTER	1	1	1	
0010	1779+95 WB	USH 18, RT	WRONG WAY	1	1	1	
0010	1796+52 EB	USH 18, LT	NO U-TURN	1	1	1	
0010	1796+88 EB	USH 18, LT	NO U-TURN	1	1	1	
0010	1811+02 EB	USH 18, LT	NO U-TURN	1	1	1	
0010	1811+36 EB	USH 18, LT	NO U-TURN	1	1	1	
0010	1880+31 EB	USH 18, LT	NO U-TURN	1	1	1	
0010	1880+70 EB	USH 18, LT	NO U-TURN	1	1	1	
0010	1912+10 EB	USH 18, LT	NO U-TURN	1	1	1	
0010	1912+51 EB	USH 18, LT	NO U-TURN	1	1	1	
0010	1983+90 EB	USH 18, LT	NO U-TURN	1	1	1	
0010	1984+29 EB	USH 18, LT	NO U-TURN	1	1	1	
0010	15+88 ST	STH 78, LT	ARROW	1	1	1	SIGN LOCATED IN MEDIAN ISLAND
0010	16+71 ST	STH 78, LT	DIVIDED HIGHWAY ENDS	1	1	1	SIGN LOCATED IN MEDIAN ISLAND
0010	17+97 ST	STH 78, LT	US 18/US151/NO LEFT TURN	1	1	1	SIGNS LOCATED IN MEDIAN ISLAND
0010	18+12 ST	STH 78, LT	STOP/DIVIDED HWY/ONE WAY	1	1	1	SIGNS LOCATED IN MEDIAN ISLAND
0010	29+98 ST	STH 78, RT	STOP	1	1	1	SIGN LOCATED IN MEDIAN ISLAND
0010	29+99 ST	STH 78, RT	DO NOT ENTER	1	1	1	SIGN LOCATED IN MEDIAN ISLAND
			TOTALS:	34	32	34	

3

DELINEATORS

CATEGORY	STATION	ROADWAY	LOCATION	633.0100 DELINEATOR POSTS STEEL EACH	633.0500 DELINEATOR REFLECTORS EACH	COMMENTS
0010	1761+27 EB	USH 18, LT	MAINTENANCE CROSSOVER	1	2	DOUBLE YELLOW DELINEATORS
0010	1761+72 EB	USH 18, LT	MAINTENANCE CROSSOVER	1	2	DOUBLE YELLOW DELINEATORS
0010	1796+52 EB	USH 18, LT	MAINTENANCE CROSSOVER	1	2	DOUBLE YELLOW DELINEATORS
0010	1796+88 EB	USH 18, LT	MAINTENANCE CROSSOVER	1	2	DOUBLE YELLOW DELINEATORS
0010	1811+02 EB	USH 18, LT	MAINTENANCE CROSSOVER	1	2	DOUBLE YELLOW DELINEATORS
0010	1811+36 EB	USH 18, LT	MAINTENANCE CROSSOVER	1	2	DOUBLE YELLOW DELINEATORS
0010	1880+31 EB	USH 18, LT	MAINTENANCE CROSSOVER	1	2	DOUBLE YELLOW DELINEATORS
0010	1880+70 EB	USH 18, LT	MAINTENANCE CROSSOVER	1	2	DOUBLE YELLOW DELINEATORS
0010	1912+10 EB	USH 18, LT	MAINTENANCE CROSSOVER	1	2	DOUBLE YELLOW DELINEATORS
0010	1912+51 EB	USH 18, LT	MAINTENANCE CROSSOVER	1	2	DOUBLE YELLOW DELINEATORS
0010	1983+90 EB	USH 18, LT	MAINTENANCE CROSSOVER	1	2	DOUBLE YELLOW DELINEATORS
0010	1984+29 EB	USH 18, LT	MAINTENANCE CROSSOVER	1	2	DOUBLE YELLOW DELINEATORS
			TOTALS:	12	24	

TRAFFIC CONTROL - FLEXIBLE TUBULAR MARKER

CATEGORY	STAGE	643.0500 POSTS EACH	643.0600 BASES EACH	COMMENTS
0010	STH 78 WORK/DETOUR	35	35	STAGE 2
0010	STH 78 WORK/DETOUR	67	67	STAGE 3
	TOTALS:	102	102	

TRAFFIC CONTROL - PEDESTRIAN ACCOMODATIONS

CATEGORY	STAGE	DURATION CALENDAR DAYS*	644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT SF	644.1601 TEMPORARY PEDESTRIAN CURB RAMP DAY	COMMENTS
0010	STH 78 WORK/DETOUR	28	325	56	MILITARY RIDGE STATE TRAIL
	TOTALS:		325	56	

* FOR INFORMATION ONLY

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PAVEMENT MARKING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH (WHITE) LF	646.1020 MARKING LINE EPOXY 4-INCH (YELLOW) LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE) LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH (YELLOW) LF	646.1555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (WHITE) EACH	646.3020 MARKING LINE EPOXY 8-INCH (WHITE) LF	646.3555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE) EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH (WHITE) LF	646.7220 MARKING CHEVRON EPOXY 24-INCH (WHITE) LF	646.8020 MARKING CORRUGATED MEDIAN EPOXY (YELLOW) SF	646.8120 MARKING CURB EPOXY (YELLOW) LF
0010	1630+49 EB	-	1668+00 EB	USH 18 (BEGIN TO CTH F)	-	-	7,318	7,378	1,876	-	912	-	-	-	-
0010	1668+00 EB	-	1707+25 EB	USH 18 (CTH F TO CAVE OF THE MOUNDS ROAD)	-	-	7,585	7,654	1,963	-	1,470	-	-	-	-
0010	1707+25 EB	-	1776+50 EB	USH 18 (CAVE OF THE MOUNDS ROAD TO ERBE ROAD)	-	-	13,610	13,641	3,465	-	1,550	-	-	-	-
0010	1776+50 EB	-	1847+50 EB	USH 18 (ERBE ROAD TO STH 78)	-	-	14,041	14,063	3,631	-	3,020	-	130	-	-
0010	1847+50 EB	-	1895+50 EB	USH 18 (STH 78 TO SAND ROCK ROAD)	581	465	9,400	9,403	2,438	-	2,303	-	159	-	-
0010	1895+50 EB	-	1936+50 EB	USH 18 (SAND ROCK ROAD TO CTH JG)	-	-	7,883	7,883	1,971	-	-	-	-	-	-
0010	1936+50 EB	-	1968+00 EB	USH 18 (CTH JG TO STH 92)	425	340	6,139	6,139	1,535	-	-	-	-	-	-
0010	1968+00 EB	-	2020+75 EB	USH 18 (STH 92 TO CTH ID)	-	-	10,379	10,379	2,671	-	2,225	-	131	-	-
0010	2020+75 EB	-	2051+24 EB	USH 18 (CTH ID TO END)	-	-	6,346	6,350	1,664	-	2,111	-	132	-	-
0010	48+80 F	-	52+55 F	CTH F	292	464	-	-	-	-	-	45	-	-	-
0010	12+50 ST	-	20+75 ST	STH 78 (CTH E TO USH 18)	1,528	1,489	-	-	-	241	-	-	-	189	502
0010	23+00 ST	-	29+60 ST	STH 78 (USH 18 TO CTH ID)	1,259	1,055	-	-	-	246	-	-	-	-	-
0010	1838+11 R3	-	1844+83 R3	WB ON RAMP AT STH 78	-	-	673	742	-	-	-	-	-	-	-
0010	1855+32 R4	-	1869+37 R4	WB OFF RAMP AT STH 78	-	-	1,411	1,412	-	-	-	38	-	-	-
0010	1850+88 R2	-	1861+11 R2	EB ON RAMP AT STH 78	-	-	1,023	1,092	-	-	-	-	-	-	-
0010	1835+86 R1	-	1849+33 R1	EB OFF RAMP AT STH 78	-	-	1,352	1,362	-	-	-	42	-	-	-
0010	2010+20 R7	-	2019+47 R7	WB ON RAMP AT CTH ID	-	-	927	927	-	-	-	-	-	-	-
0010	2025+74 R8	-	2033+68 R8	WB OFF RAMP AT CTH ID	-	-	794	792	-	-	-	-	-	-	-
0010	2021+01 R6	-	2029+57 R6	EB ON RAMP AT CTH ID	-	-	856	859	-	-	-	-	-	-	-
0010	2007+85 R5	-	2019+38 R5	EB OFF RAMP AT CTH ID	-	-	1,153	1,158	-	-	-	-	-	-	-
				TOTALS:	7,898		182,124		21,214	487	13,591	125	552	189	502

TEMPORARY PAVEMENT MARKING

CATEGORY	STAGE	STATION	TO	STATION	LOCATION	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH (WHITE) LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW) LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW) LF	649.0250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) LF	REMARKS
0010	STAGE 1	1630+49 EB	-	2051+24 EB	USH 18	650	-	-	2260	400	1600	REMOVALS AND TEMPORARY MARKING AT RAMPS AND BEGINNING OF LANE CLOSURE
0010	STAGE 1	1630+42 WB	-	2053+58 WB	USH 18	650	-	-	2260	400	1600	REMOVALS AND TEMPORARY MARKING AT RAMPS AND BEGINNING OF LANE CLOSURE
0010	STAGE 2	1630+49 EB	-	2051+24 EB	USH 18	52,594	42,075	-	-	660	-	REMOVE OUTSIDE EDGE LINE AND CENTER LINE
0010	STAGE 2	1630+42 WB	-	2053+58 WB	USH 18	52,895	42,316	-	-	660	-	REMOVE OUTSIDE EDGE LINE AND CENTER LINE
0010	STAGE 3	1630+49 EB	-	2051+24 EB	USH 18 (INSIDE EDGE LINE)	42,075	-	42,075	2260	400	1200	REMOVE INSIDE EDGE LINE
0010	STAGE 3	1630+42 WB	-	2053+58 WB	USH 18 (INSIDE EDGE LINE)	42,316	-	42,316	2260	400	1200	REMOVE INSIDE EDGE LINE
0010	STAGE 5	1630+49 EB	-	2051+24 EB	USH 18 (OUTSIDE EDGE LINE)	-	42,075	-	-	660	-	REMOVE OUTSIDE EDGE LINE
0010	STAGE 5	1630+42 WB	-	2053+58 WB	USH 18 (OUTSIDE EDGE LINE)	-	42,316	-	-	660	-	REMOVE OUTSIDE EDGE LINE
0010	STAGE 6	1630+49 EB	-	2051+24 EB	USH 18 (INSIDE EDGE LINE)	-	-	-	660	42,075	-	REMOVE INSIDE EDGE LINE
0010	STAGE 6	1630+42 WB	-	2053+58 WB	USH 18 (INSIDE EDGE LINE)	-	-	-	660	42,316	-	REMOVE INSIDE EDGE LINE
0010	STAGE 7	1630+49 EB	-	2051+24 EB	USH 18 (OUTSIDE EDGE LINE)	-	-	-	42,075	660	-	REMOVE OUTSIDE EDGE LINE
0010	STAGE 7	1630+42 WB	-	2053+58 WB	USH 18 (OUTSIDE EDGE LINE)	-	-	-	42,316	660	-	REMOVE OUTSIDE EDGE LINE
0010					STH 78 (WORK/DETOUR)	1,395	1,790	1,180	2,290	2,692	-	
0010	UNDISTRIBUTED					9,629	8,529	4,279	4,852	4,632	280	
	TOTALS:					202,204	268,951		199,168		5,880	

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TRAFFIC CONTROL SUMMARY

CATEGORY	STAGE	DURATION CALENDAR DAYS*	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0410 TRAFFIC CONTROL BARRICADES TYPE II 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	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II			643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.4100.S TRAFFIC CONTROL INTERIM LANE CLOSURE EACH	643.5000 TRAFFIC CONTROL EACH
										SIGNS	# CYLES	EACH			
0010	1	24	30,456	-	2,160	4,320	2,400	96	4,128	4	24	96	14	-	-
0010	2	48	56,496	-	3,936	7,872	2,880	192	7,200	-	-	-	-	-	-
0010	3	44	55,836	-	3,960	7,920	4,400	176	10,208	4	44	176	-	-	-
0010	4	15	19,035	-	1,350	2,700	1,500	60	3,480	4	15	60	-	-	-
0010	5	26	30,602	-	2,132	4,264	1,560	104	3,900	-	-	-	-	-	-
0010	6	34	43,146	-	3,060	6,120	3,400	136	7,888	4	34	136	-	-	-
0010	7	22	25,894	-	1,804	3,608	1,320	88	3,300	-	-	-	-	-	-
0010	STH 78 WORK/DETOUR	28	2,912	56	616	1,288	616	-	4,984	52	2	104	-	-	-
0010	CTH ID DETOUR	28	756	-	252	504	140	-	1,008	11	2	22	7	-	-
0010	CTH JG CLOSURE	21	210	-	84	168	-	-	84	-	-	-	14	-	-
0010	UNDISTRIBUTED		13,267	6	968	1,938	911	43	2,309	4	117	468	-	-	-
0010	PROJECT 1204-05-73		-	-	-	-	-	-	-	-	-	-	-	50	1
	TOTALS:		278,610	62	20,322	40,702	19,127	895	48,489	83	238	1,062	35	50	1

LANDMARK REFERENCE MONUMENTS

CATEGORY	STATION	LOCATION	SPV.0060.01 VERIFY LANDMARK REFERENCE MONUMENTS EACH	SPV.0060.02 LANDMARK REFERENCE MONUMENTS SPECIAL EACH
0010	1630+44 EB	USH 18, RT	1	-
0010	1654+52 EB	USH 18, RT	1	-
0010	1680+91 EB	USH 18, RT	1	-
0010	1707+36 EB	USH 18, RT	1	1
0010	1733+70 EB	USH 18, RT	1	-
0010	28+06 ST	STH 78, RT	1	-
		TOTALS:	6	1

SAW CUTTING

CATEGORY	STATION	ROADWAY	690.0150 SAWING ASPHALT LF	690.0250* SAWING CONCRETE LF
0010	1630+49 EB	USH 18 (RT)	6	-
0010	1630+49 EB	USH 18 (LT)	3	-
0010	1630+42 WB	USH 18 (RT)	3	-
0010	1630+42 WB	USH 18 (LT)	8	-
0010	1661+13 EB	USH 18 (RT)	6	-
0010	1661+16 EB	USH 18 (LT)	3	-
0010	1667+14 WB	USH 18 (RT)	3	-
0010	1666+49 WB	USH 18 (LT)	12	-
0010	48+80 F	CTH F	24	-
0010	52+55 F	CTH F	24	-
0010	1669+13 EB	USH 18 (RT)	6	-
0010	1668+58 EB	USH 18 (LT)	3	-
0010	1674+68 WB	USH 18 (RT)	3	-
0010	1674+69 WB	USH 18 (LT)	8	-
0010	1704+92 EB	USH 18 (RT)	6	-
0010	1702+42 EB	USH 18 (LT)	3	-
0010	1706+53 WB	USH 18 (RT)	3	-
0010	1705+75 WB	USH 18 (LT)	11	-
0010	48+90 C	CAVE OF THE MOUNDS ROAD	21	-
0010	52+34 C	CAVE OF THE MOUNDS ROAD	23	-
0010	1708+50 EB	USH 18 (RT)	6	-
0010	1708+01 EB	USH 18 (LT)	3	-
0010	1709+53 WB	USH 18 (RT)	3	-
0010	1713+63 WB	USH 18 (LT)	8	-
0010	1774+81 EB	USH 18 (RT)	6	-
0010	1773+75 EB	USH 18 (LT)	3	-
0010	1775+80 WB	USH 18 (RT)	3	-
0010	1775+25 WB	USH 18 (LT)	12	-
0010	48+85 E	ERBE ROAD	21	-
0010	51+85 E	ERBE ROAD	22	-
0010	1778+50 EB	USH 18 (RT)	6	-
0010	1777+33 EB	USH 18 (LT)	3	-
0010	1779+48 WB	USH 18 (RT)	3	-
0010	1780+84 WB	USH 18 (LT)	8	-
0010	2051+24 EB	USH 18 (RT)	6	-
0010	2051+24 EB	USH 18 (LT)	3	-
0010	2053+58 WB	USH 18 (RT)	3	-
0010	2053+58 WB	USH 18 (LT)	8	-
0010	12+50 ST	STH 78	35	-
0010	29+60 ST	STH 78	55	-
0010	1844+56 R3	WB ON RAMP AT STH 78	-	15
0010	1856+76 R4	WB OFF RAMP AT STH 78	-	15
0010	1851+06 R2	EB ON RAMP AT STH 78	-	15
0010	1848+10 R1	EB OFF RAMP AT STH 78	-	15
0010	2021+32 R8	WB OFF RAMP AT CTH ID	6	-
0010	2025+74 R8	WB OFF RAMP AT CTH ID	6	-
0010	2025+74 R8	WB OFF RAMP AT CTH ID	6	-
		TOTALS:	414	60

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.8000 RESURFACING REFERENCE LF	650.9910 SUPPLEMENTAL CONTROL LS	650.9920 SLOPE STAKES LF
0010	1630+49 EB	-	2051+24 EB	USH 18	42,075	-	-
0010	1630+42 WB	-	2053+58 WB	USH 18	42,316	-	-
0010	48+80 F	-	52+55 F	CTH F	375	-	-
0010	48+90 C	-	52+34 C	CAVE OF THE MOUNDS	344	-	-
0010	48+85 E	-	51+85 E	ERBE ROAD	300	-	-
0010	12+50 ST	-	29+60 ST	STH 78	1,710	-	-
0010	10+00 JG	-	17+00 JG	CTH JG	700	-	-
0010	10+00 ID	-	16+00 ID	CTH ID	600	-	-
0010	1631+76 EB	-	1637+30 EB	USH 18, RT	-	-	554
0010	1661+00 EB	-	1663+00 EB	USH 18, RT	-	-	200
0010	1661+00 EB	-	1663+00 EB	USH 18, LT	-	-	200
0010	1673+00 WB	-	1675+00 WB	USH 18, RT	-	-	200
0010	1673+00 WB	-	1675+00 WB	USH 18, LT	-	-	200
0010	1700+50 EB	-	1705+00 EB	USH 18, LT	-	-	450
0010	1704+00 EB	-	1706+50 EB	USH 18, RT	-	-	250
0010	1707+50 WB	-	1711+50 WB	USH 18, RT	-	-	400
0010	1710+50 WB	-	1714+00 WB	USH 18, LT	-	-	350
0010	1725+28 EB	-	1729+31 EB	USH 18, RT	-	-	403
0010	1731+74 EB	-	1734+77 EB	USH 18, RT	-	-	303
0010	1769+50 EB	-	1775+00 EB	USH 18, LT	-	-	550
0010	1770+00 EB	-	1775+00 EB	USH 18, RT	-	-	500
0010	1777+50 WB	-	1783+50 WB	USH 18, RT	-	-	600
0010	1778+50 WB	-	1783+50 WB	USH 18, LT	-	-	500
0010	1825+14 EB	-	1830+18 EB	USH 18, RT	-	-	503
0010	1894+69 EB	-	1895+08 EB	USH 18, RT	-	-	39
0010	1896+50 WB	-	1899+16 WB	USH 18, RT	-	-	267
0010	1912+60 EB	-	1924+05 EB	USH 18, RT	-	-	1,145
0010	1964+74 EB	-	1967+29 EB	USH 18, LT	-	-	255
0010	1968+71 WB	-	1971+38 WB	USH 18, RT	-	-	267
0010	1968+55 WB	-	1968+94 WB	USH 18, LT	-	-	39
0010	2019+94 WB	-	2023+67 WB	USH 18, LT	-	-	373
0010	19+65 ST	-	20+55 ST	STH 78, RT	-	-	90
0010	23+33 ST	-	24+26 ST	STH 78, LT	-	-	92
0010	11+84 JG	-	12+76 JG	CTH JG, LT	-	-	92
0010	11+99 JG	-	12+92 JG	CTH JG, RT	-	-	92
0010	14+93 JG	-	16+61 JG	CTH JG, LT	-	-	167
0010	15+09 JG	-	16+01 JG	CTH JG, RT	-	-	92
0010	10+86 ID	-	11+78 ID	CTH ID, RT	-	-	92
0010	10+89 ID	-	11+81 ID	CTH ID, LT	-	-	92
0010	14+12 ID	-	15+04 ID	CTH ID, RT	-	-	92
0010	14+15 ID	-	15+07 ID	CTH ID, LT	-	-	92
0010		-		PROJECT 1204-05-73	-	1	0
				TOTALS:	88,420	1	9,545

Standard Detail Drawing List

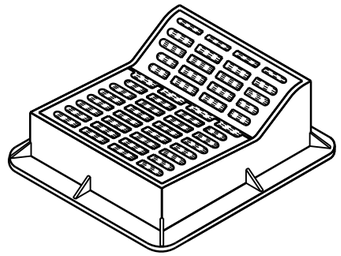
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-07A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-07B	CONCRETE SURFACE 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
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
11A01-06	MAINTENANCE CROSSOVER FOR FREEWAYS
11B01-05	CONCRETE CORRUGATED MEDIAN
11B02-02	CONCRETE MEDIAN NOSE
13A03-06	CONCRETE PAVEMENT SHOULDERS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13B02-09B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C08-02	CONCRETE PAVEMENT PARTIAL DEPTH REPAIR
13C09-15A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C11-12A	RURAL DOWELED CONCRETE PAVEMENT
13C11-12B	RURAL DOWELED CONCRETE PAVEMENT
13C14-07A	BASE PATCHING CONCRETE
13C14-07B	BASE PATCHING CONCRETE
13C14-07C	BASE PATCHING CONCRETE
13C17-01A	CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI
13C17-01B	CONCRETE JOINT DETAIL FOR ENTRANCE RAMP TERMINI
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
13C18-07G	CONCRETE PAVEMENT JOINTING ACCELERATION/DECELERATION LANE
13C19-03	HMA LONGITUDINAL JOINTS
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
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

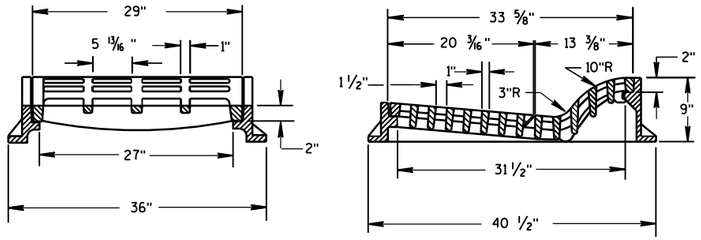
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Standard Detail Drawing List

14B26-04D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-02A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A04-06A	PERMANENT FLEXIBLE DELINEATOR POST
15A04-06B	DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A04-06C	DELINEATOR POST WITH REFLECTIVE SHEETING
15A04-06D	DELINEATOR POST WITH REFLECTIVE SHEETING
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-08E	OFF RAMP LANE CLOSURE
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-08A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-08B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-05	MEDIAN ISLAND MARKING
15C19-06C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C31-03A	PAVEMENT MARKING (RAMPS AND GORES)
15C31-03C	PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D04-01	TRAFFIC CONTROL, RAMP CONSTRUCTION STAGING
15D12-09B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D15-05C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D16-04	TRAFFIC CONTROL, EXIT RAMP CLOSURE
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
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

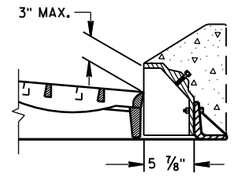
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TYPE "F"

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



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

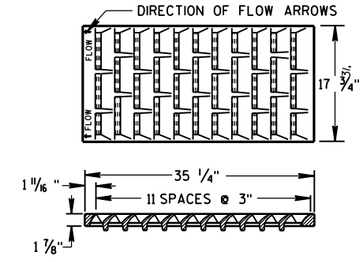
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

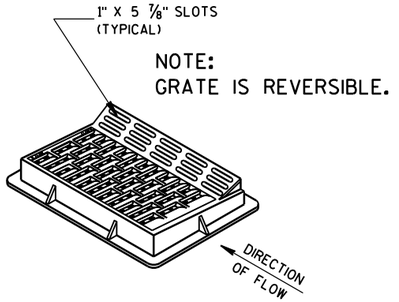
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

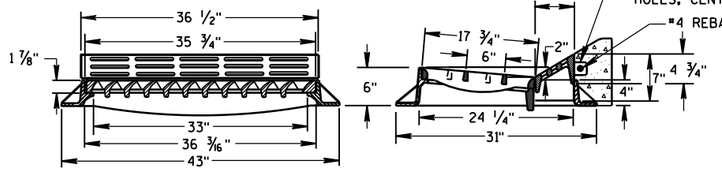
GENERAL NOTES

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

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



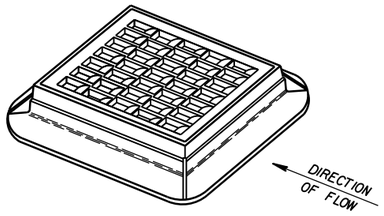


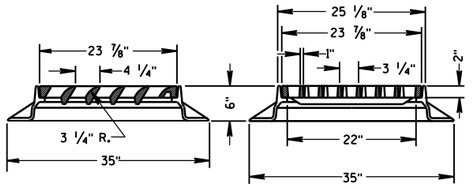


TYPE "HM"

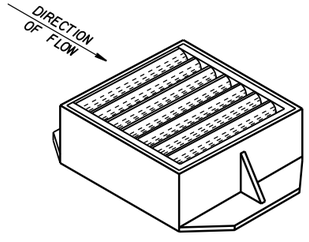
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

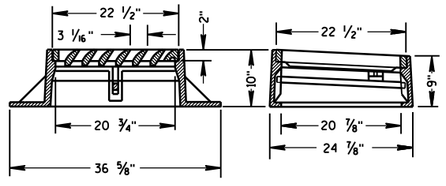
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



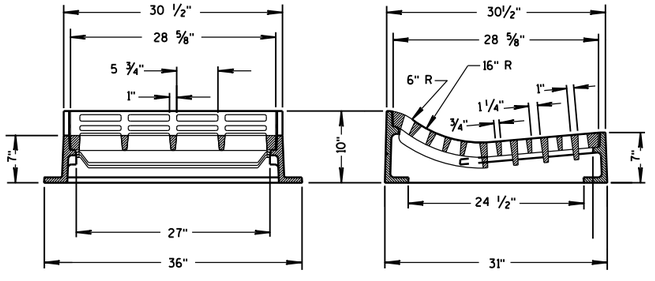


TYPE "S"



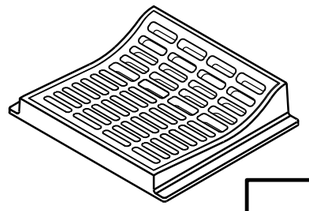


TYPE "V"



TYPE "T"

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

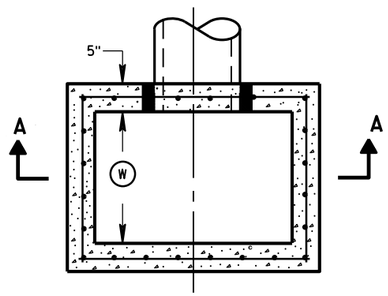
APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

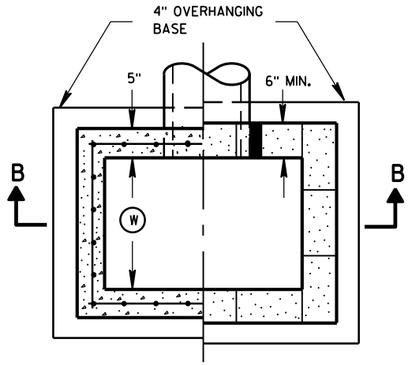
FHWA

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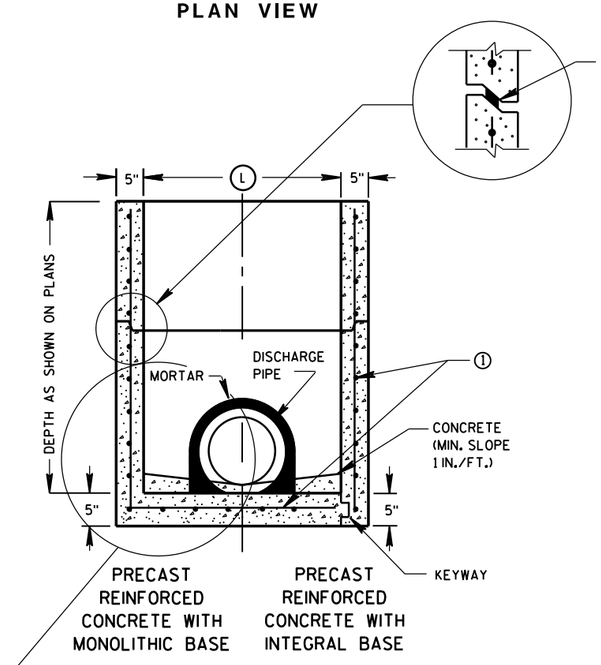
S.D.D. 8 A 5-19c



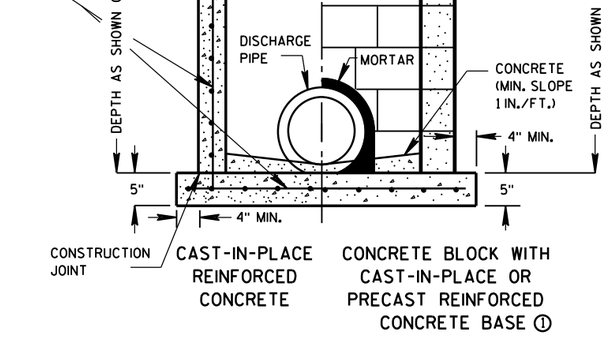
PLAN VIEW



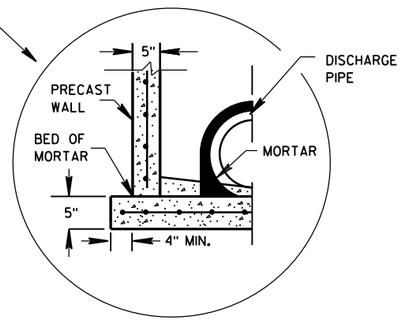
PLAN VIEW



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.

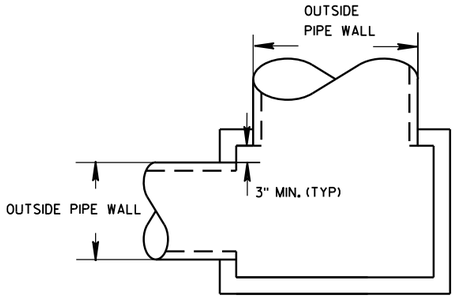
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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

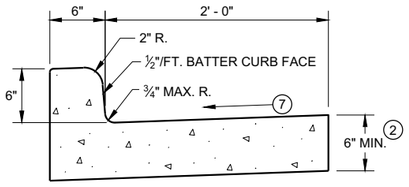
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

6

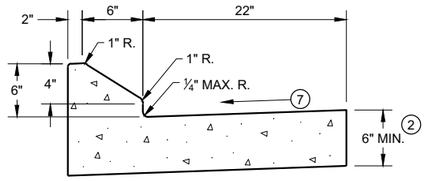
S.D.D. 8 C 7-2

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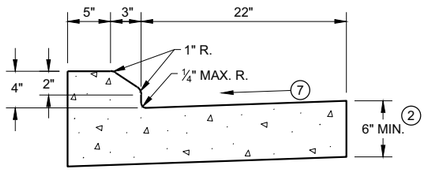
S.D.D. 8 C 7-2



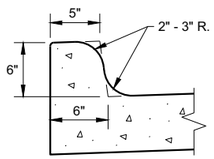
TYPES A (1) & D



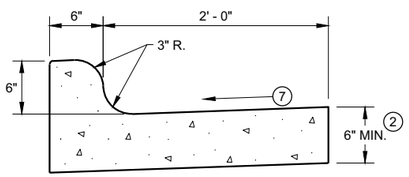
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

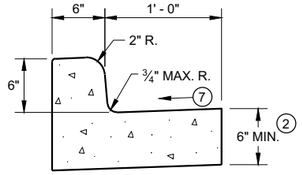


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



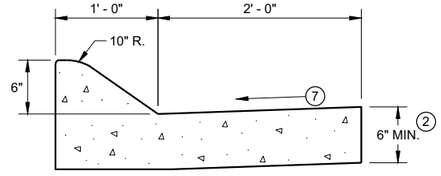
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

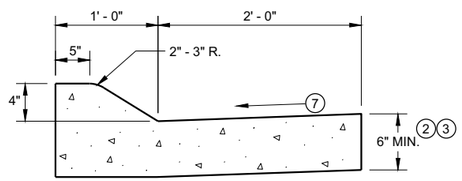


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

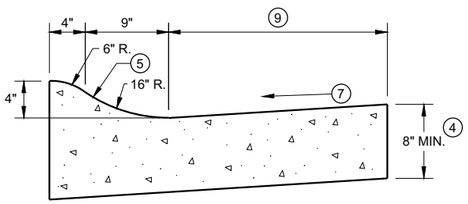


6" SLOPED CURB TYPES A (1) & D



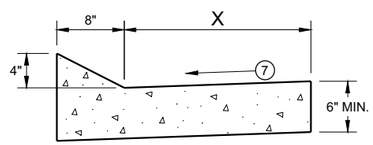
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

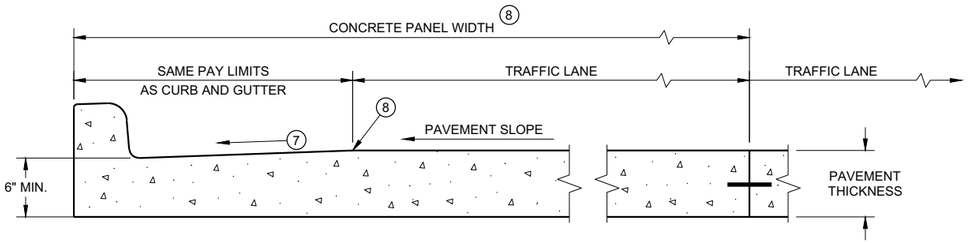


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

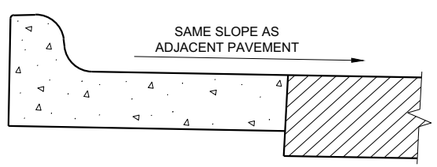
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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

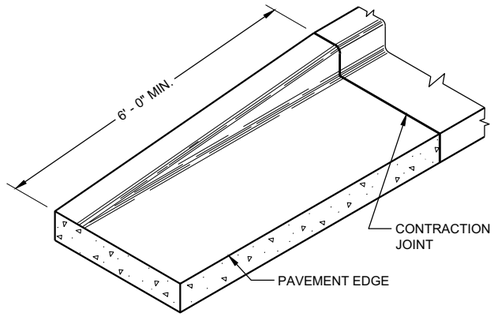
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

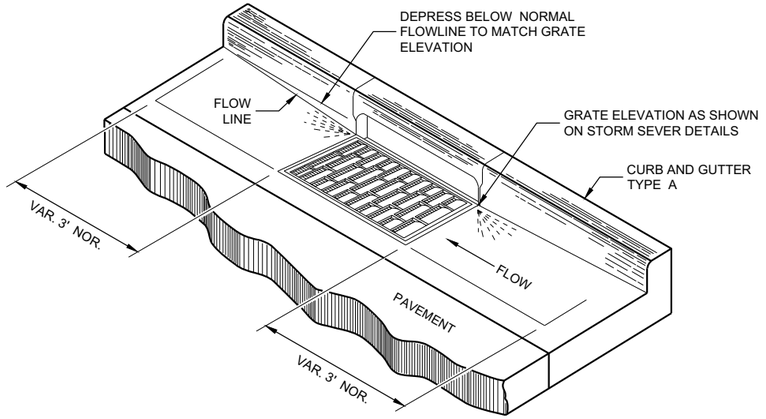
6

SDD 08D01 - 22a

SDD 08D01 - 22a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

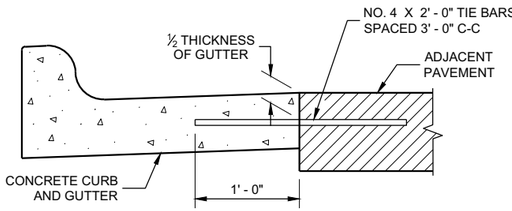
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

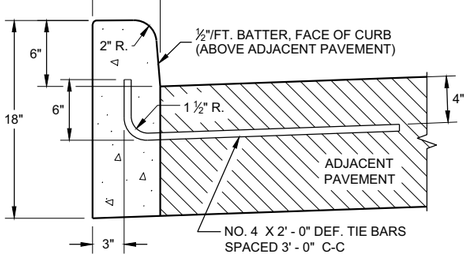
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

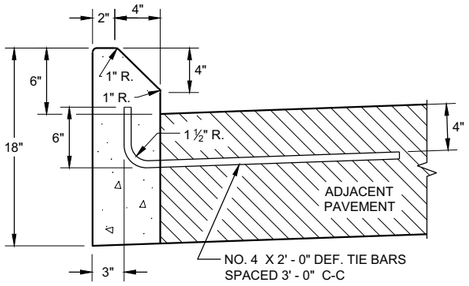
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

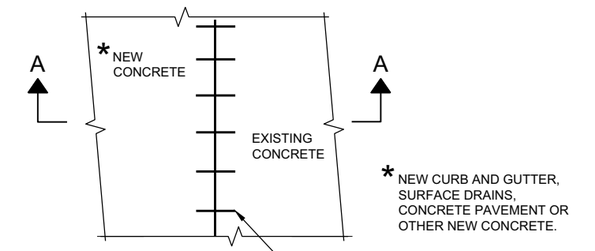


TYPES A (1) & D

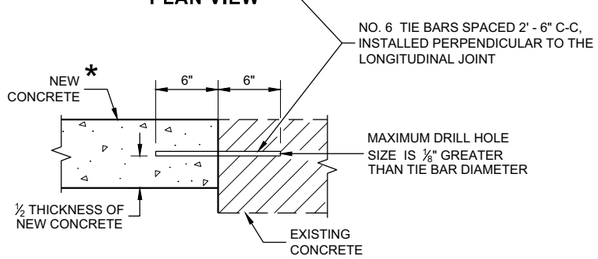


TYPES G (1) & J

CONCRETE CURB

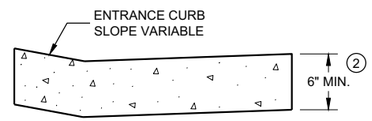


PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

SDD08D01 - 22b

6

SDD08D01 - 22b

GENERAL NOTES

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

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

(1) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

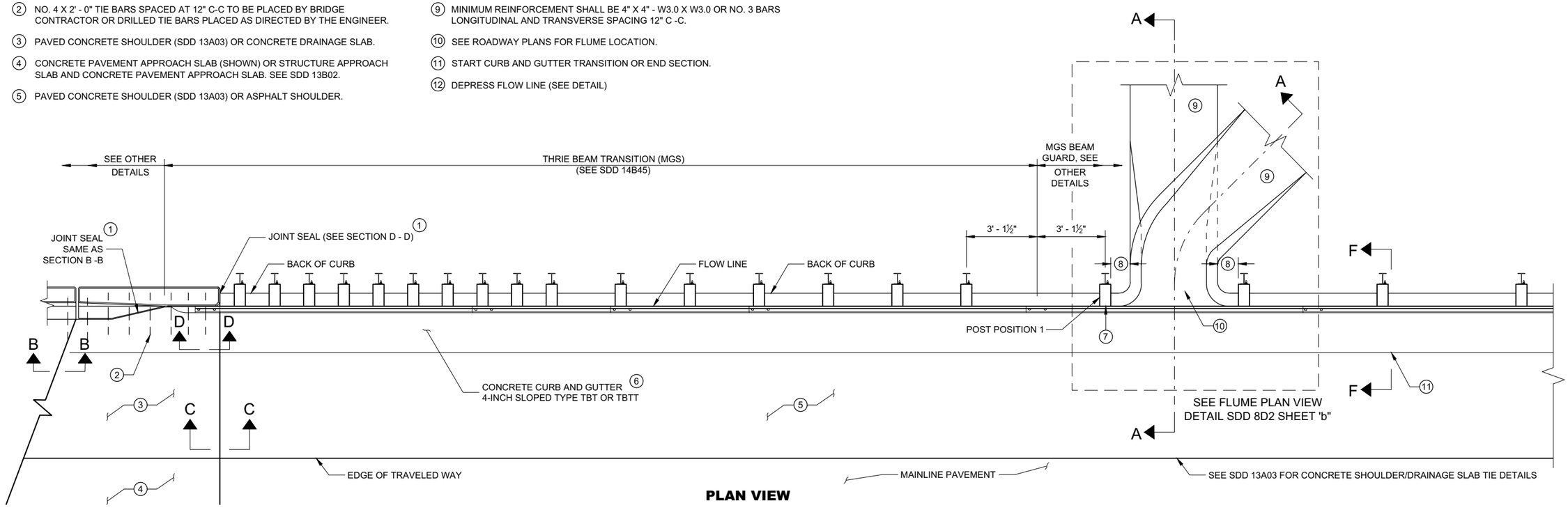
(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

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

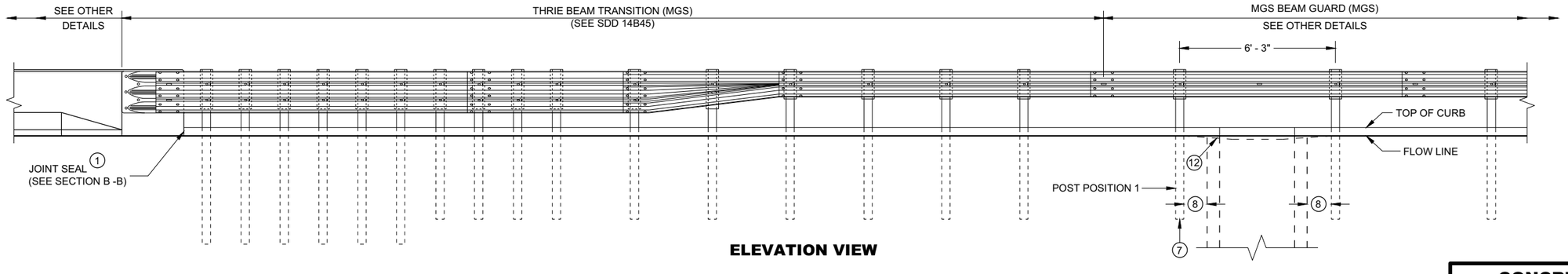
(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)



PLAN VIEW



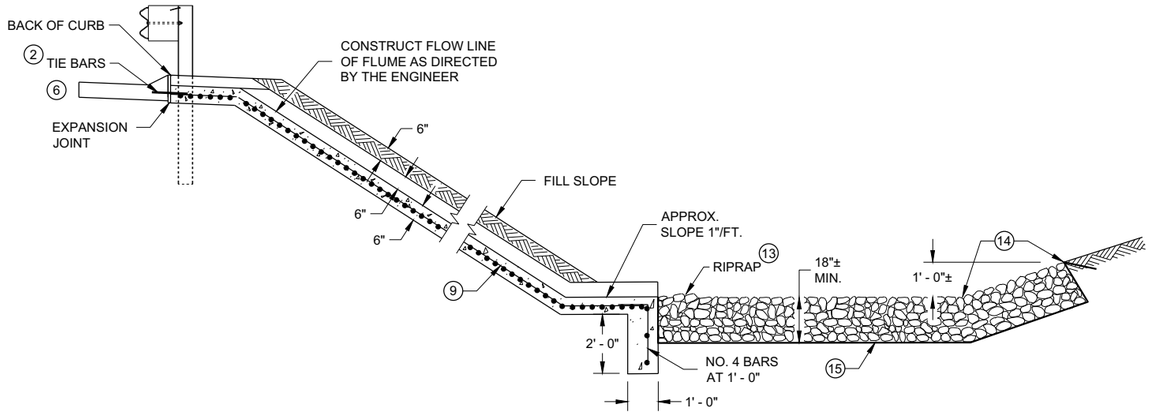
ELEVATION VIEW

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

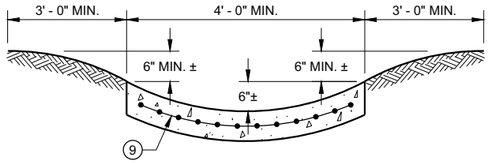
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D02 - 07a

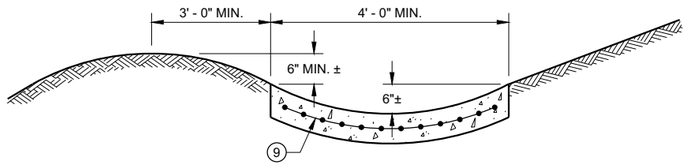
SDD 08D02 - 07a



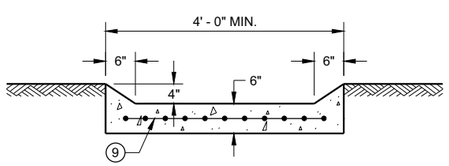
SECTION A - A



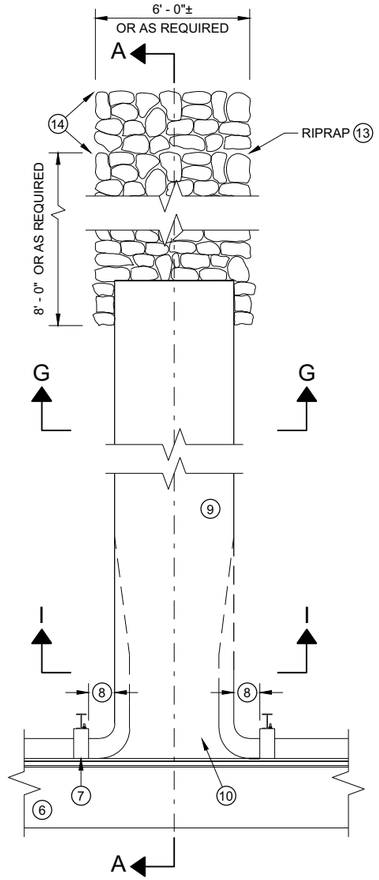
SECTION G - G



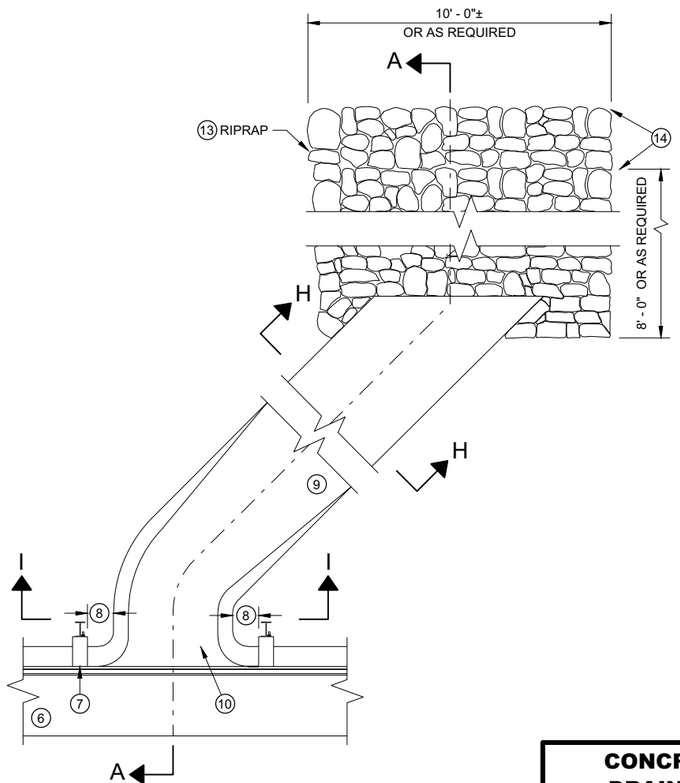
SECTION H - H



SECTION I - I



PLAN VIEW PERPENDICULAR FLUME



PLAN VIEW SKEWED FLUME

GENERAL NOTES

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

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

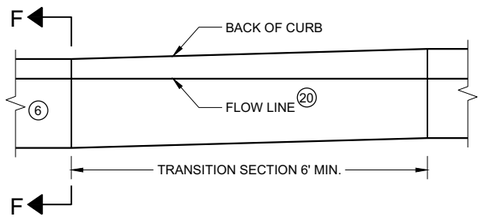
1. USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
2. NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
3. PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
4. CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
5. PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
6. CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
7. PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
8. CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
9. MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.
10. SEE ROADWAY PLANS FOR FLUME LOCATION.
11. START CURB AND GUTTER TRANSITION OR END SECTION.
12. DEPRESS FLOW LINE (SEE DETAIL)
13. MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
14. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED.
15. GEOTEXTILE FABRIC TYPE HR.

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

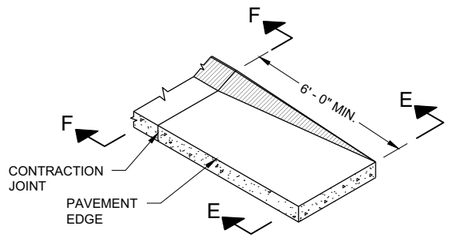
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

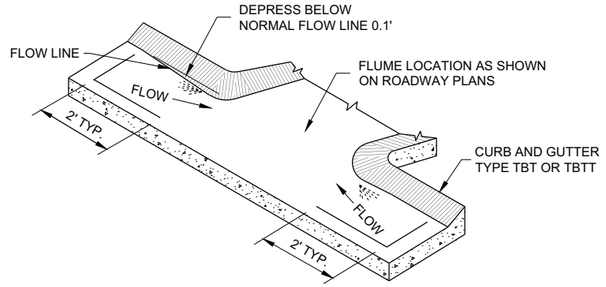
SDD 08D02 - 07b
SDD 08D02 - 07b



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



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



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

GENERAL NOTES

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

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(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

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

(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)

(13) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(14) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(15) GEOTEXTILE FABRIC TYPE HR.

(16) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.

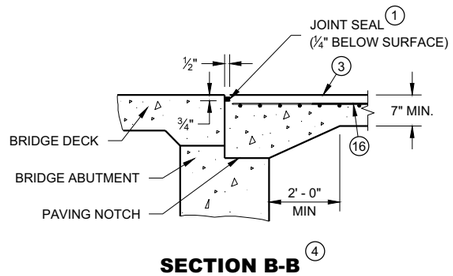
(17) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

(18) MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.

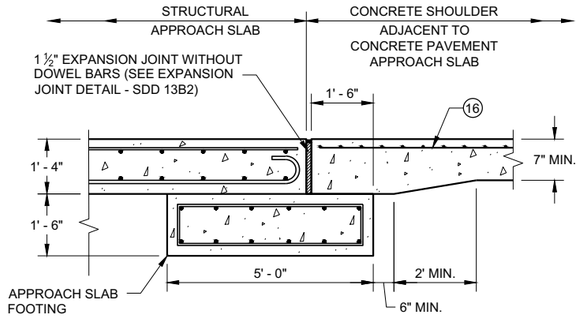
(19) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

(20) MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.

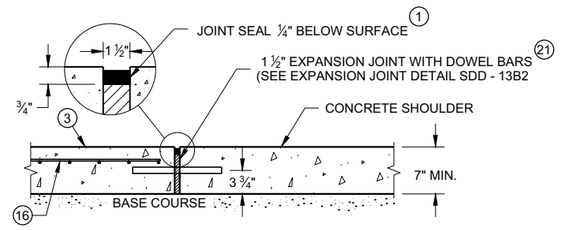
(21) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



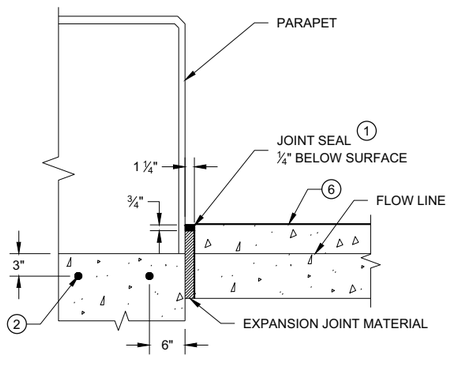
SECTION B-B



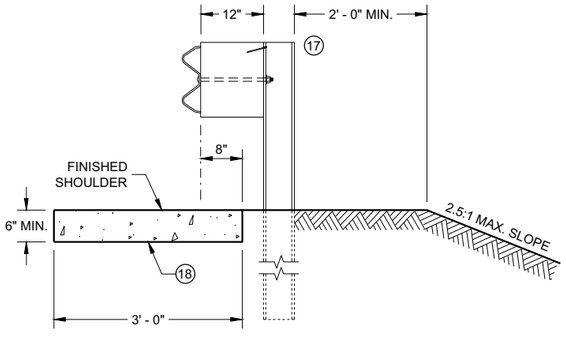
SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



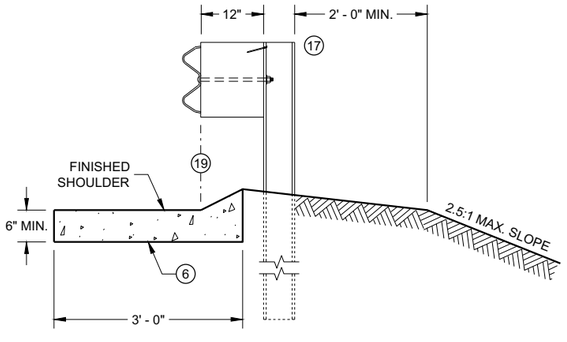
SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



SECTION D - D



SECTION E - E



SECTION F - F

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

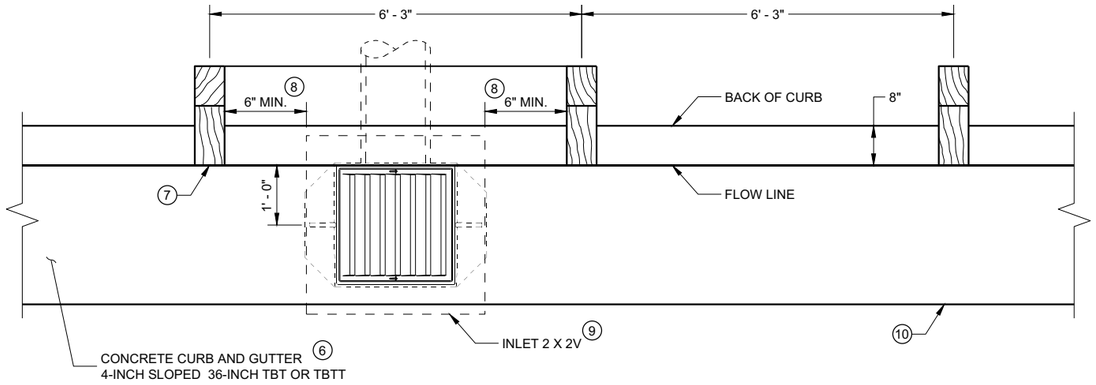
FHWA

SDD 08D02 - 07c

SDD 08D02 - 07c

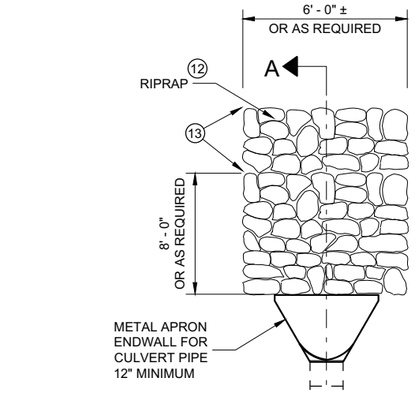
6

6



INLET PLAN VIEW

(NOTE: RAIL NOT SHOWN FOR CLARITY)



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 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.

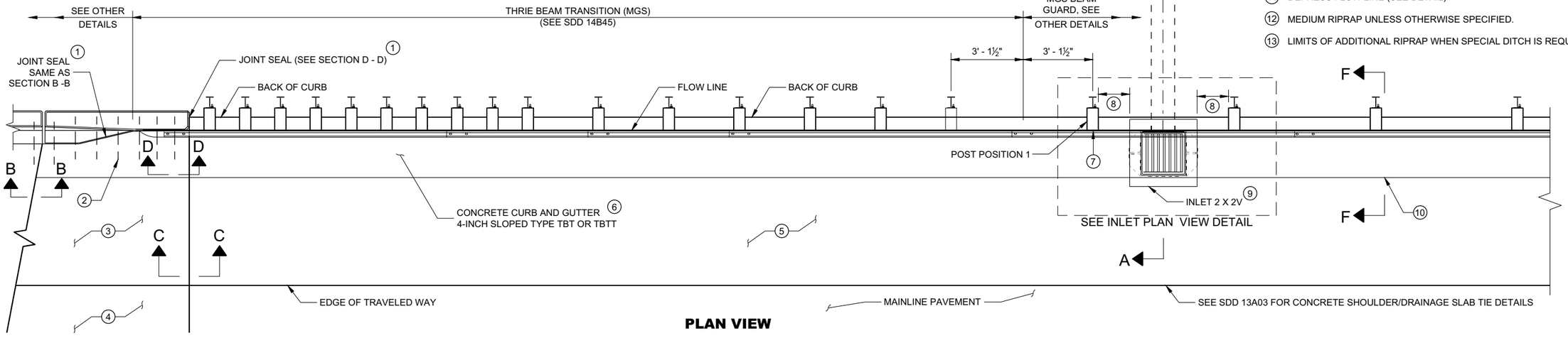
(9) SEE SDD 08A05 AND 08C07 FOR DETAILS. SEE ROADWAY PLANS FOR LOCATION.

(10) START CURB AND GUTTER TRANSITION OR END SECTION.

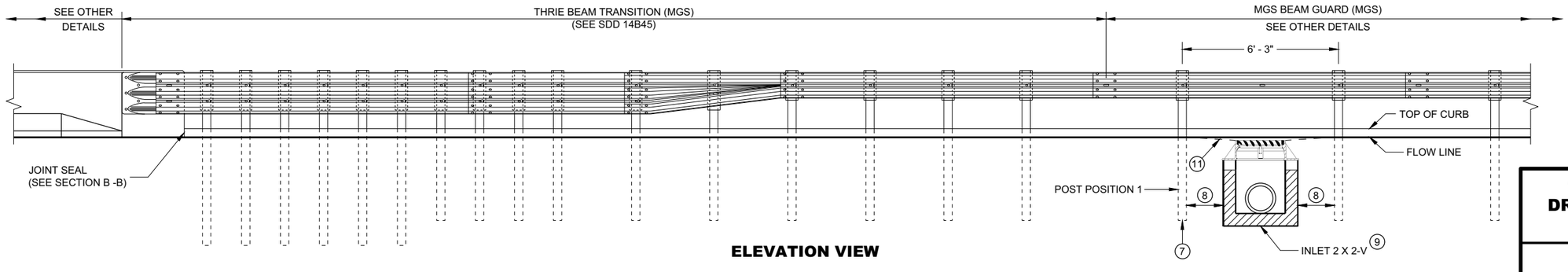
(11) DEPRESS FLOW LINE (SEE DETAIL)

(12) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(13) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.



PLAN VIEW



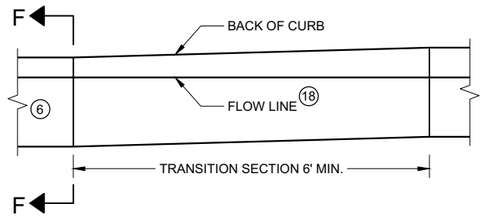
ELEVATION VIEW

CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES

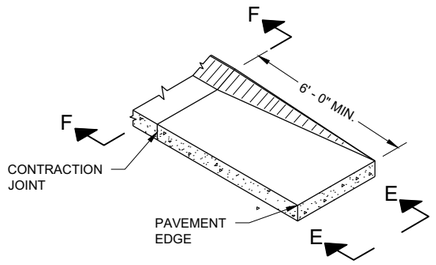
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D03 - 08a

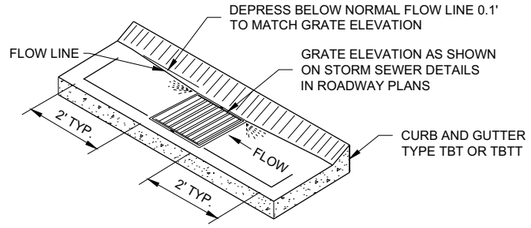
SDD 08D03 - 08a



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

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.

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(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

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(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.

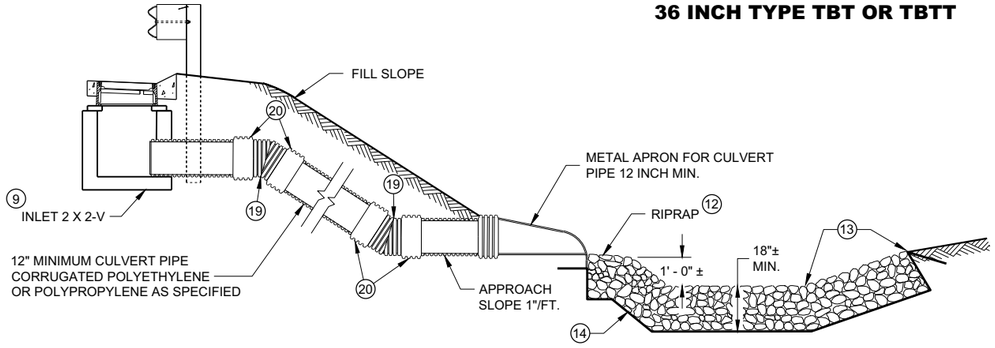
(18) MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.

(19) MANUFACTURER SUPPLIED BEND.

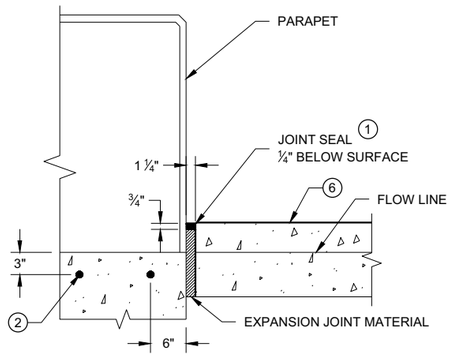
(20) MANUFACTURER SUPPLIED EXTERNAL MECHANICAL COUPLING OR A MANUFACTURER RECOMMENDED COUPLING WITH A MASTIC IMPREGNATED GEOTEXTILE WRAP AND MECHANICAL FASTENING BANDS.

(21) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.

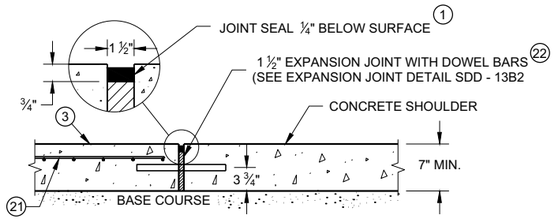
(22) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



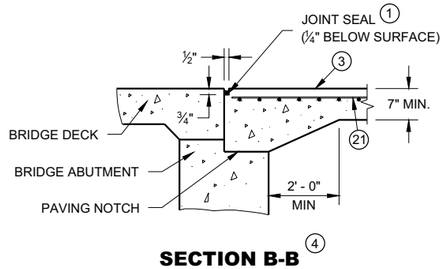
SECTION A - A



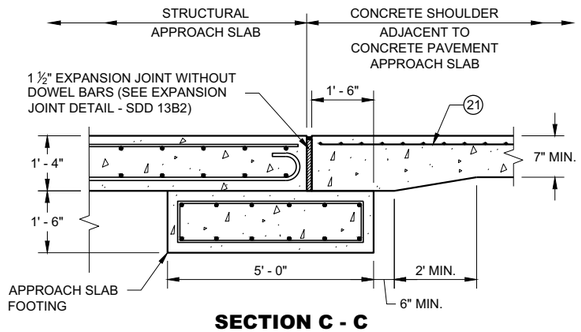
SECTION D - D



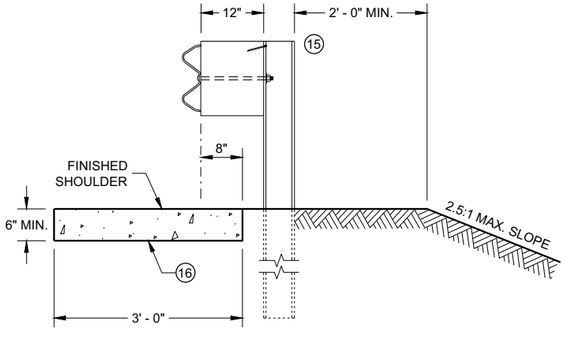
SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



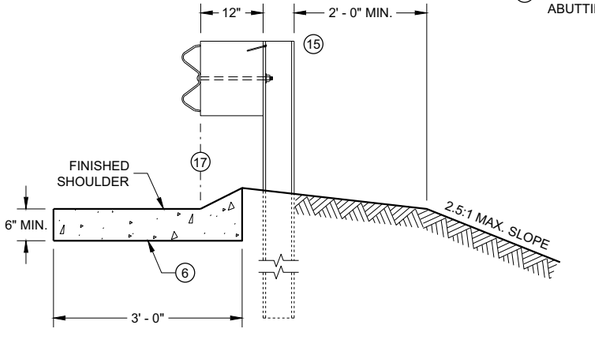
SECTION B-B (4)



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

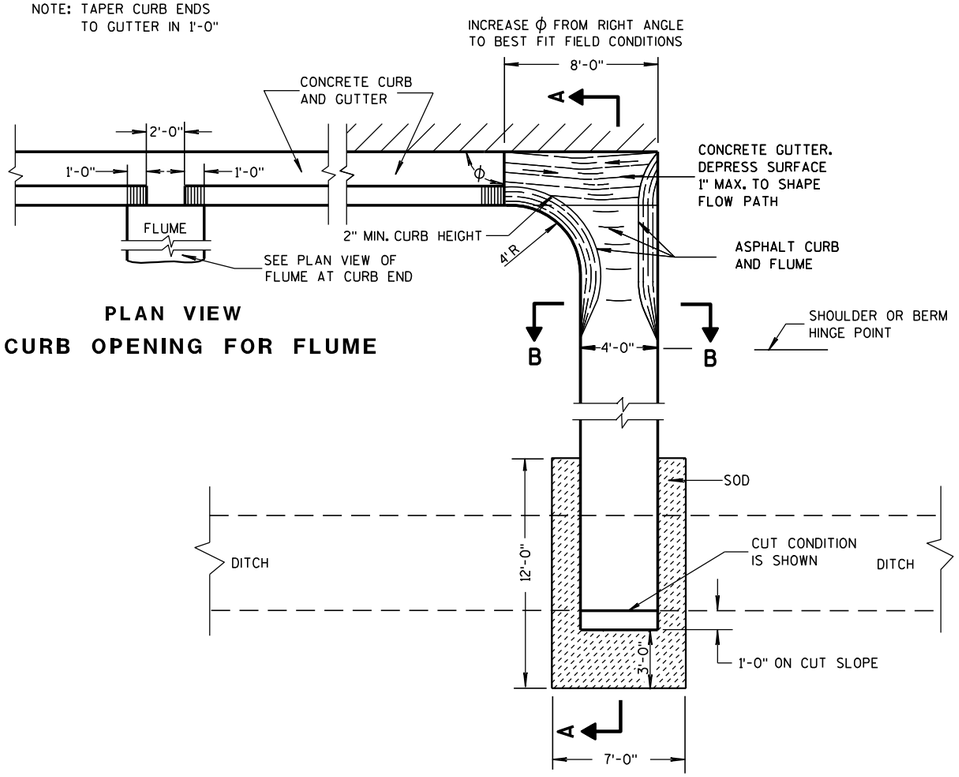
APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

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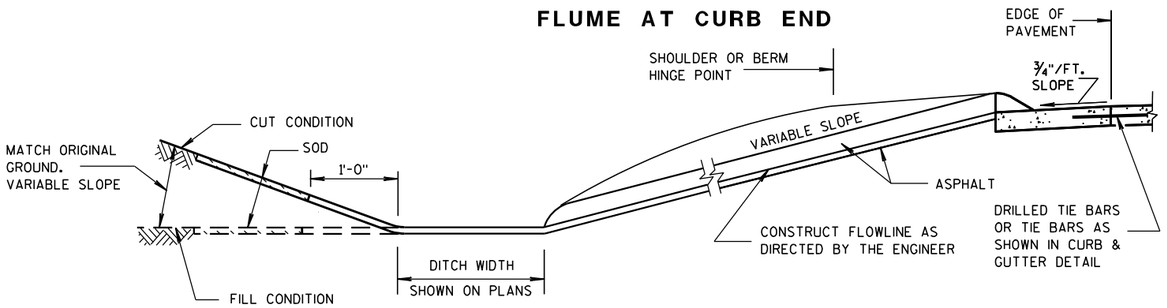
SDD 08D03 - 08b
SDD 08D03 - 08b

ASPHALTIC FLUME

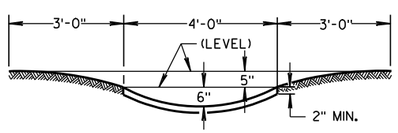


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

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.

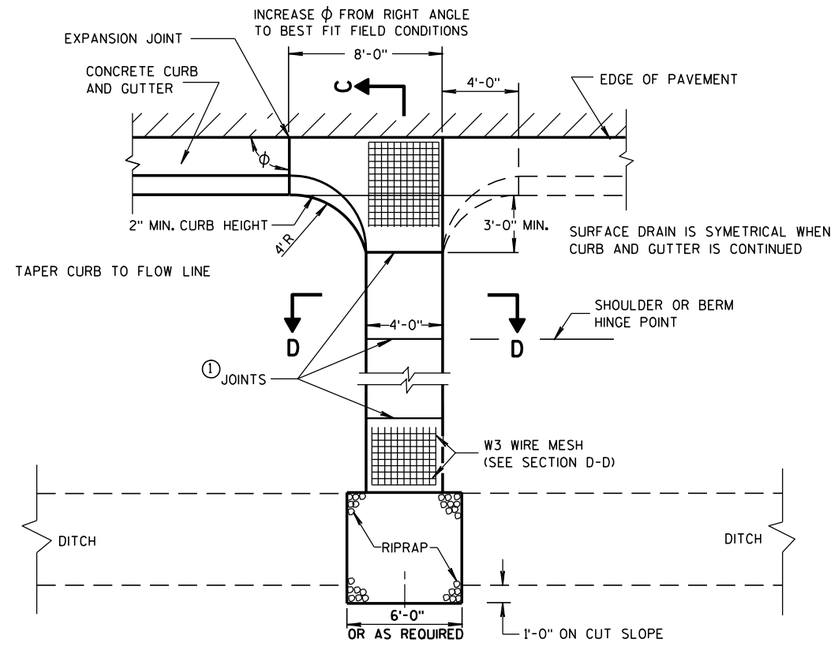
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

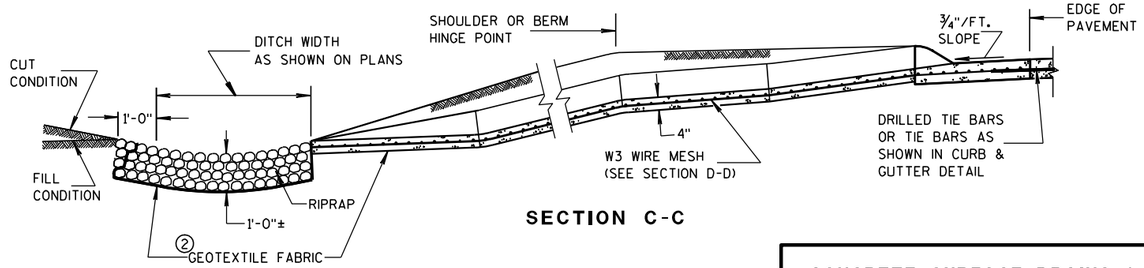
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

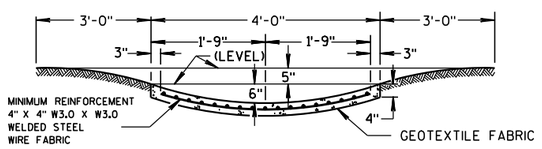
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C

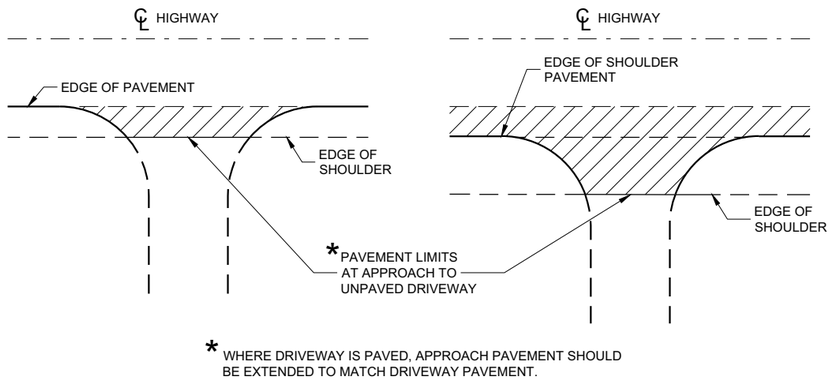


SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

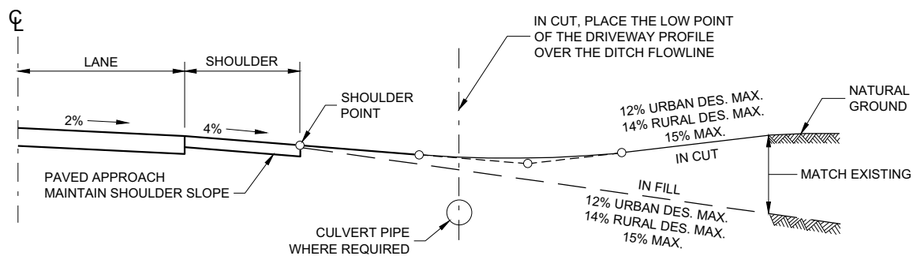
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT
FHWA



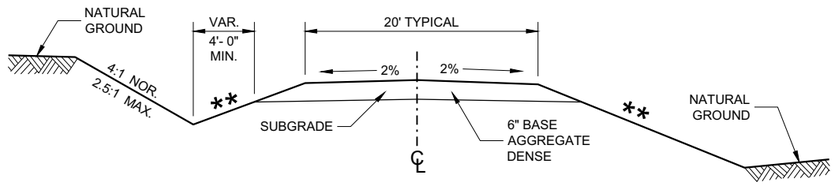
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

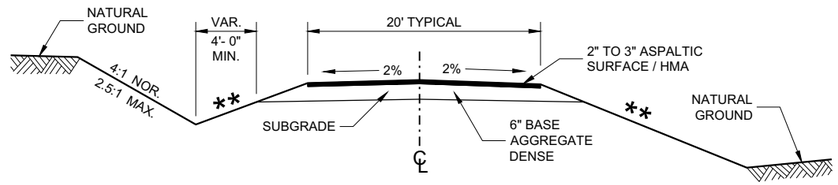


IN CUT IN FILL

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



IN CUT IN FILL

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

6

SDD 08D21 - 01

DRIVEWAYS WITHOUT CURB AND GUTTER

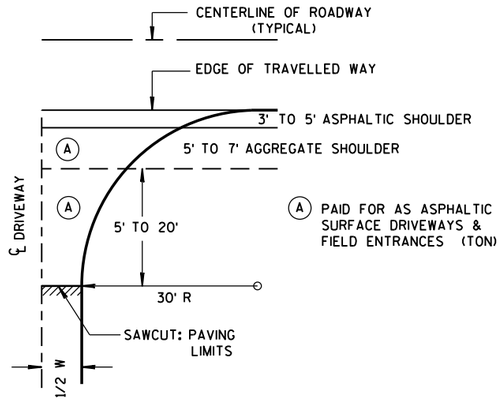
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

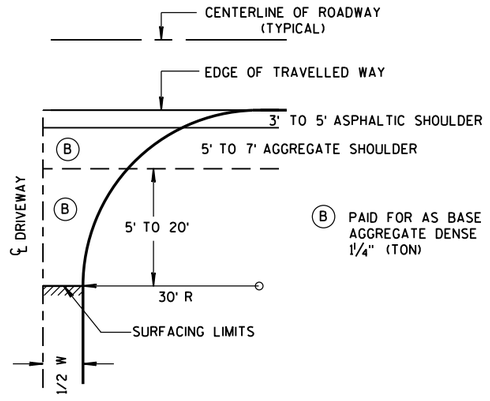
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SDD 08D21 - 01



PLAN VIEW
HALF SECTION

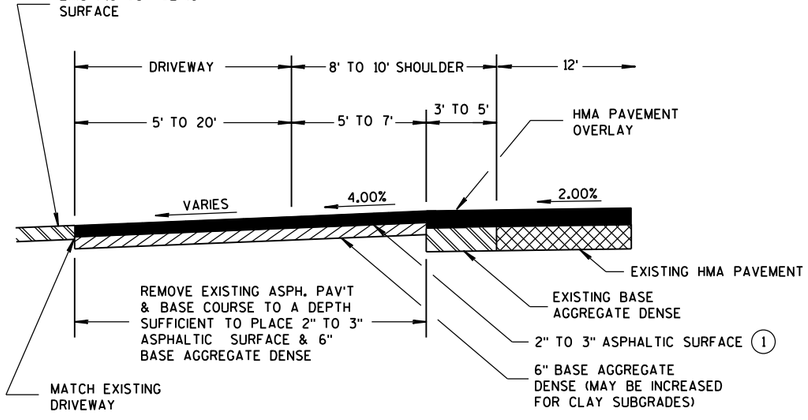
W MIN. = 16'
W MAX. = 24'



PLAN VIEW
HALF SECTION

GENERAL NOTES

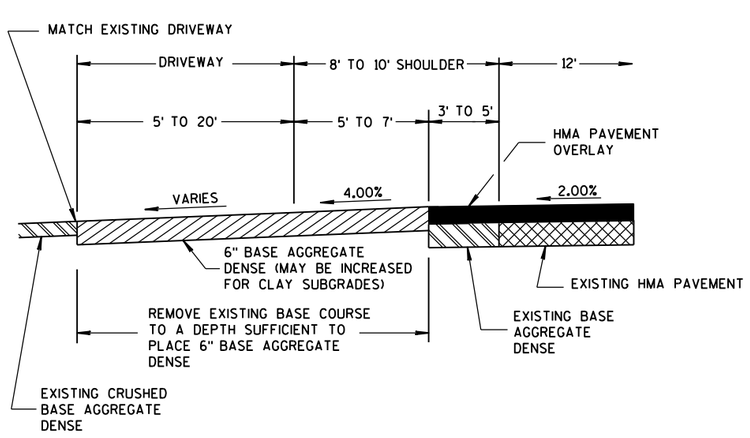
(1) DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.



PROFILE VIEW

RURAL ENTRANCE WITH ASPHALTIC SURFACE

RESURFACING PROJECTS



PROFILE VIEW

RURAL ENTRANCE WITH AGGREGATE SURFACE

6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

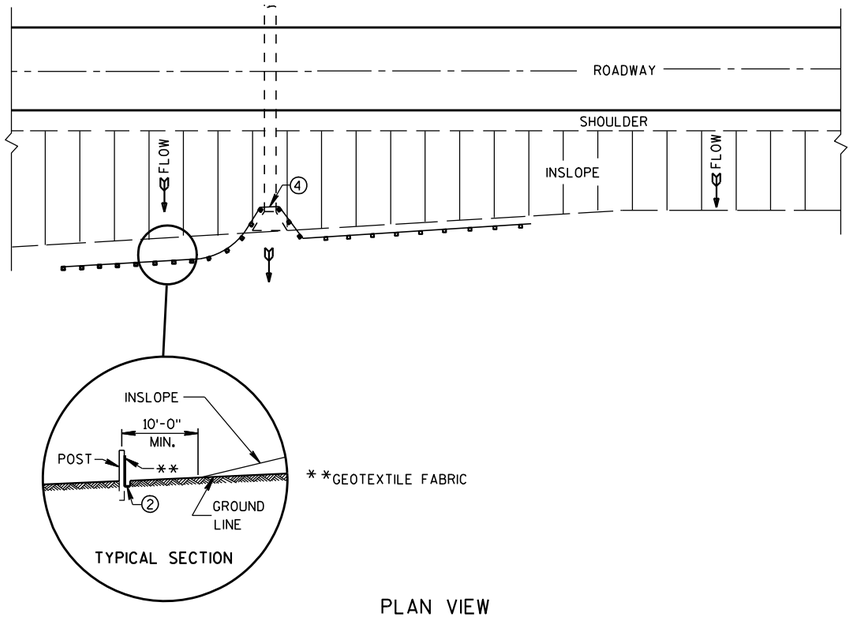
APPROVED
December, 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
ENT
FHWA

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S.D.D. 8 D 22-1

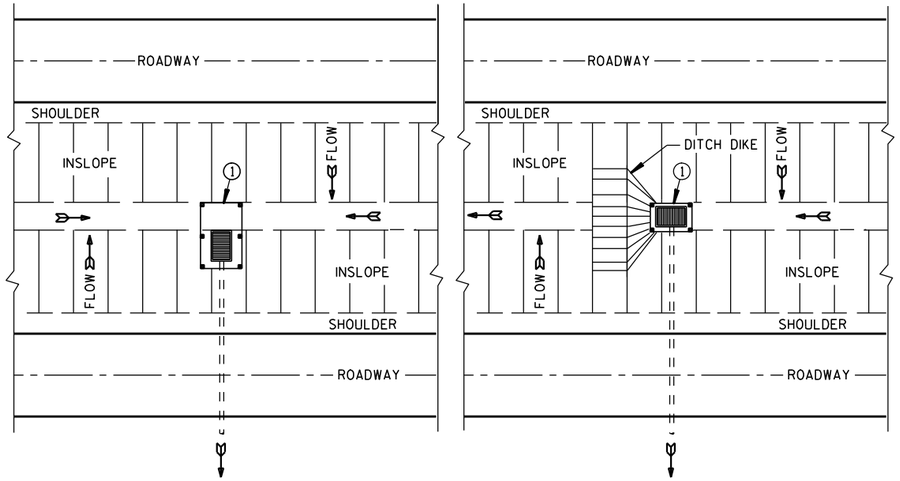
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S.D.D. 8 D 22-1



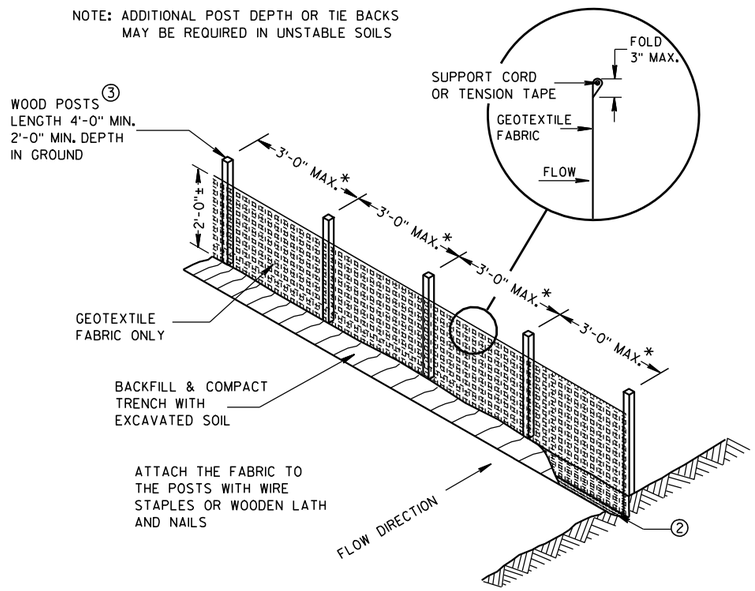
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



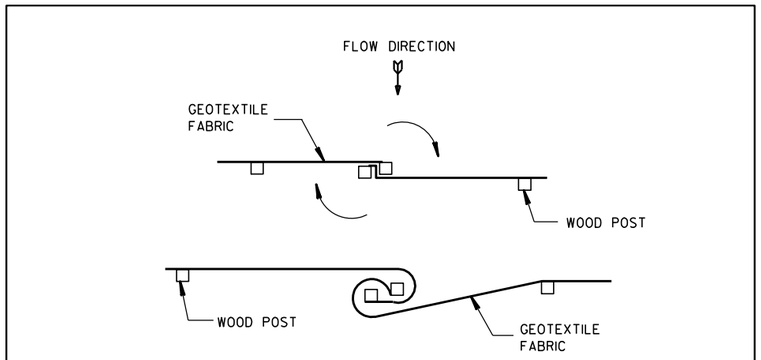
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS



*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

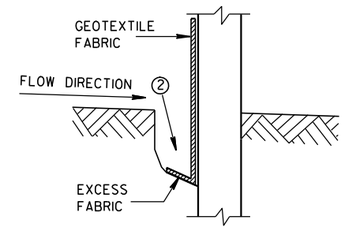


JOINING TWO LENGTHS OF SILT FENCE 5

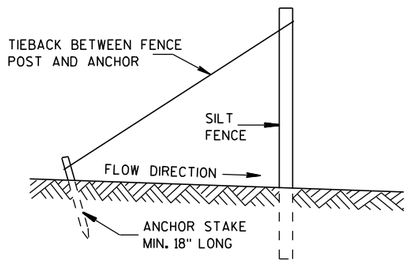
GENERAL NOTES

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 TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

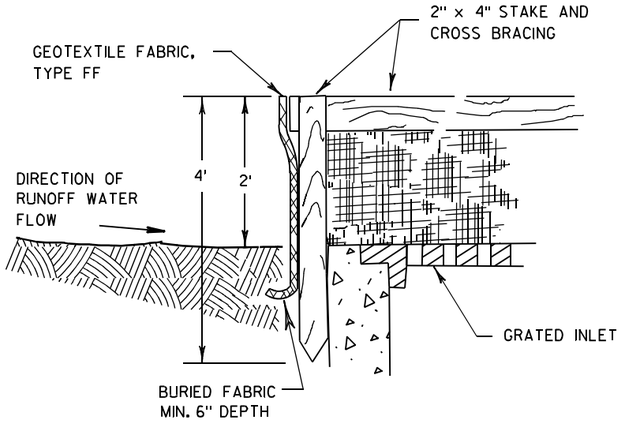
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

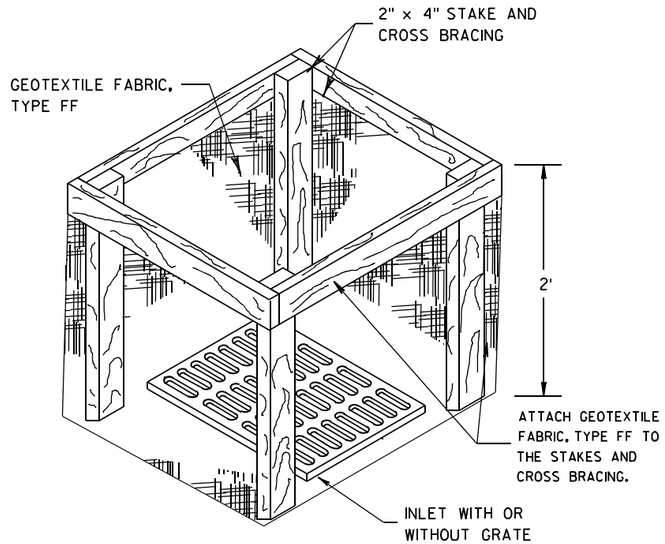
6

S.D.D. 8 E 9-6

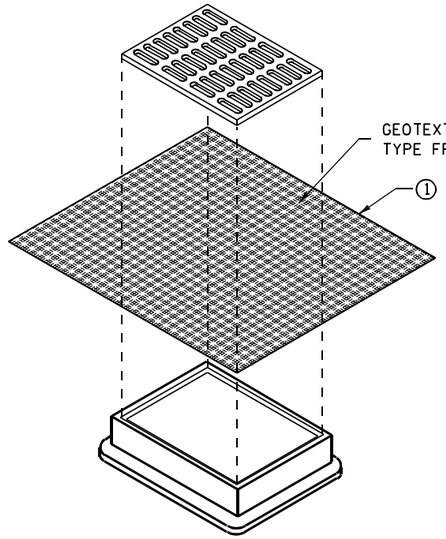
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S.D.D. 8 E 9-6



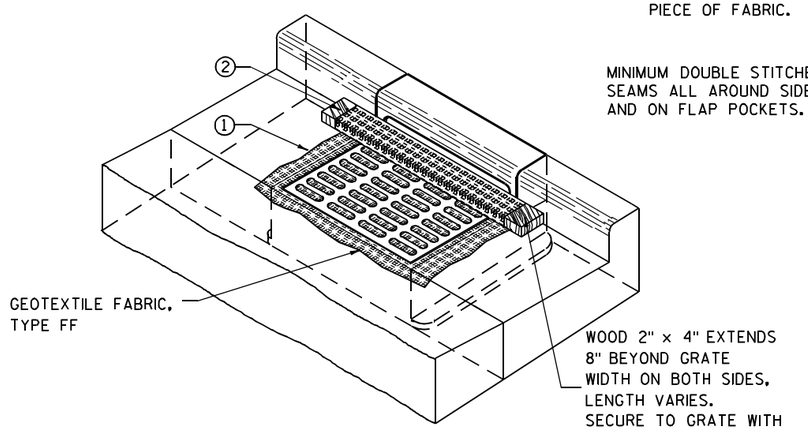


INLET PROTECTION, TYPE A

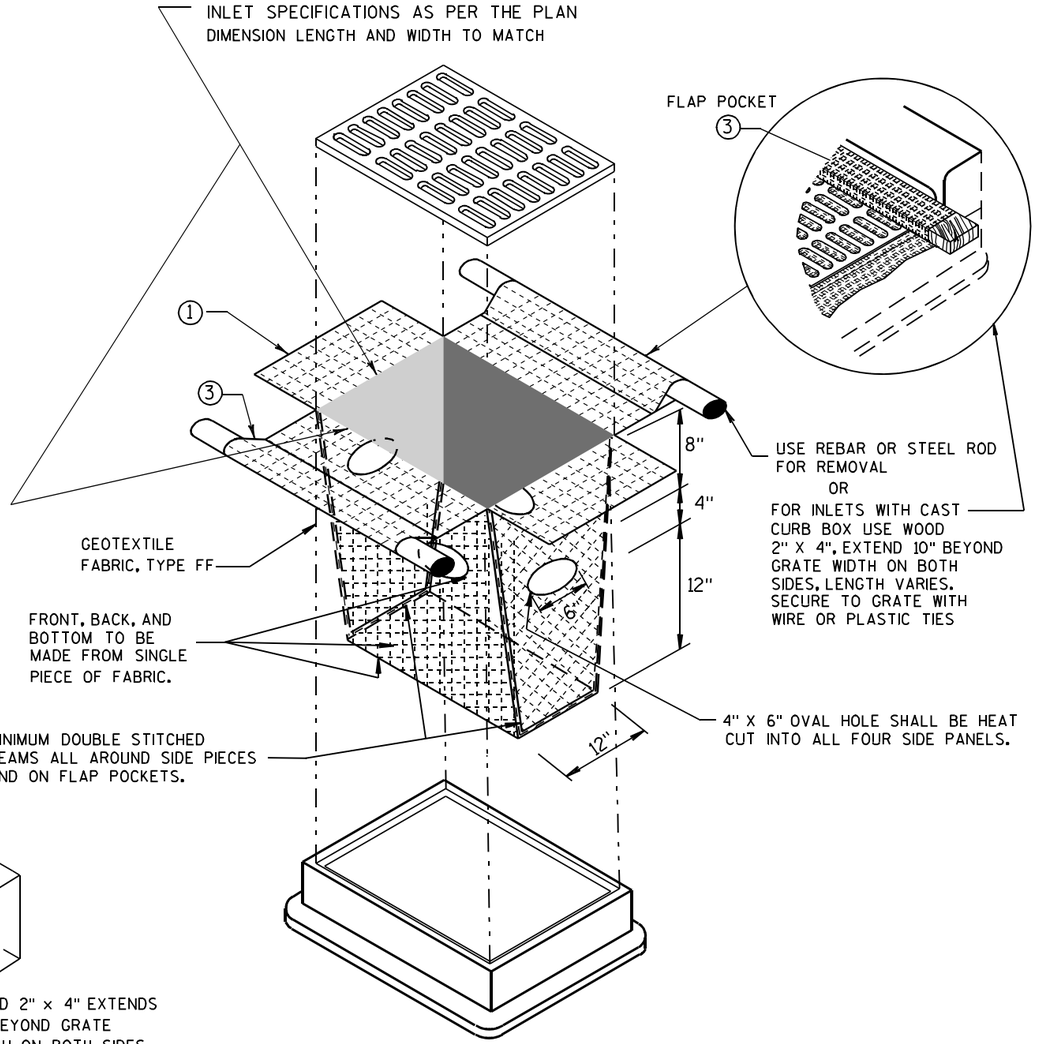


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

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

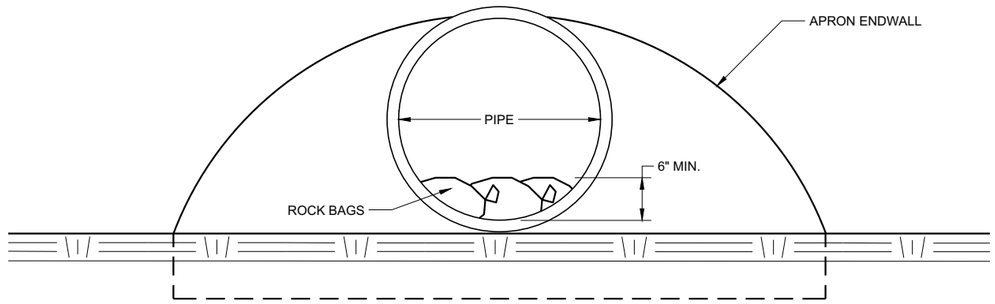
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

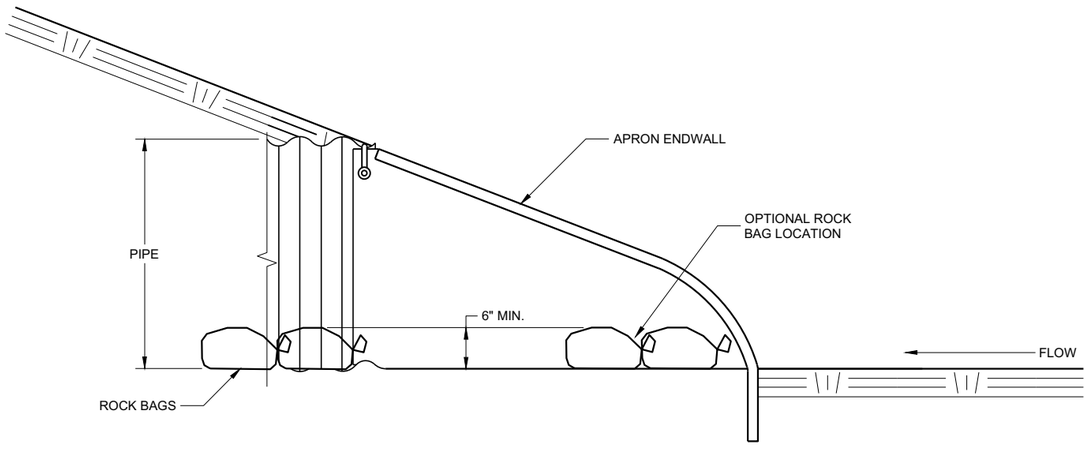
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI
FHWA	

6

SDD 08E15 - 01

METAL APRON ENDWALLS

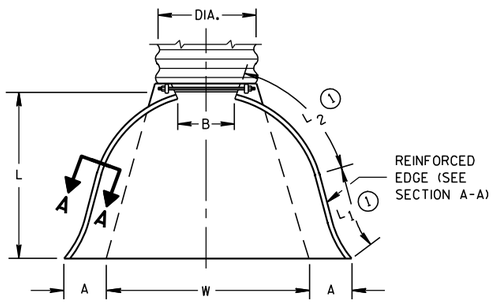
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

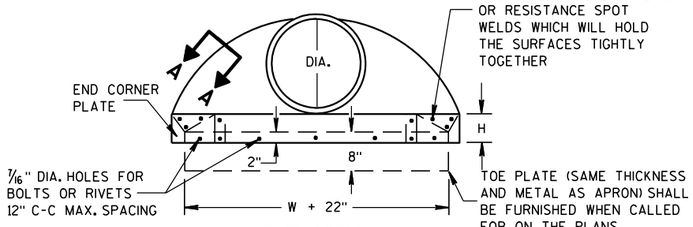
REINFORCED CONCRETE APRON ENDWALLS

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

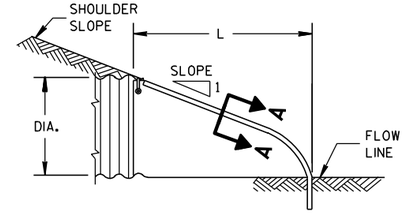
*MINIMUM
**MAXIMUM



PLAN VIEW

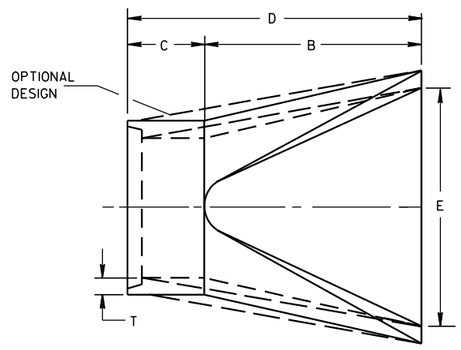


END VIEW

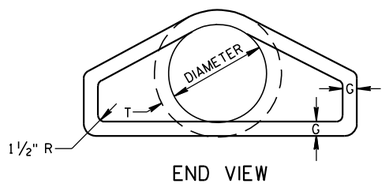


SIDE ELEVATION

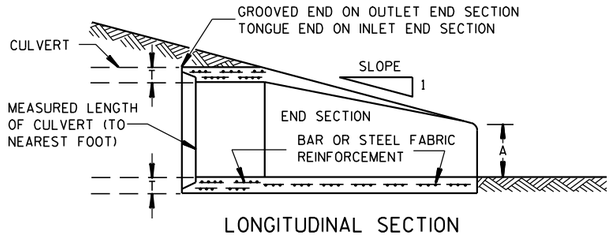
METAL ENDWALLS



PLAN

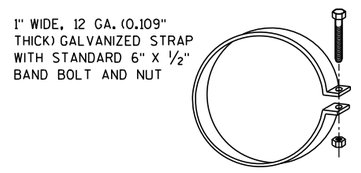


END VIEW



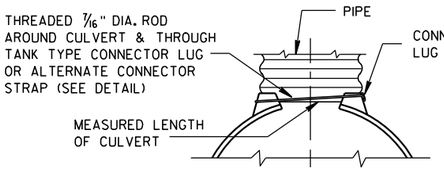
LONGITUDINAL SECTION

CONCRETE ENDWALLS

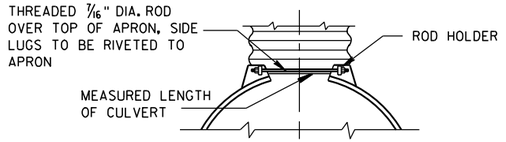


ALTERNATE FOR TYPE 1 CONNECTION

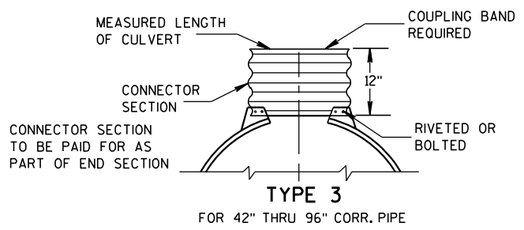
END SECTION CONNECTOR STRAP



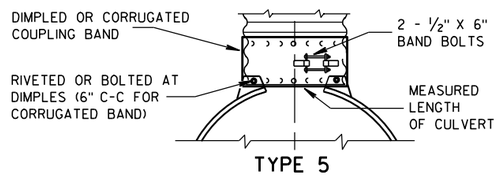
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

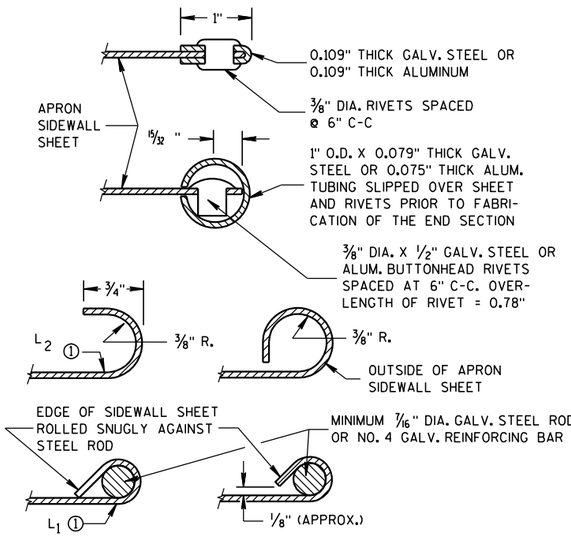
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

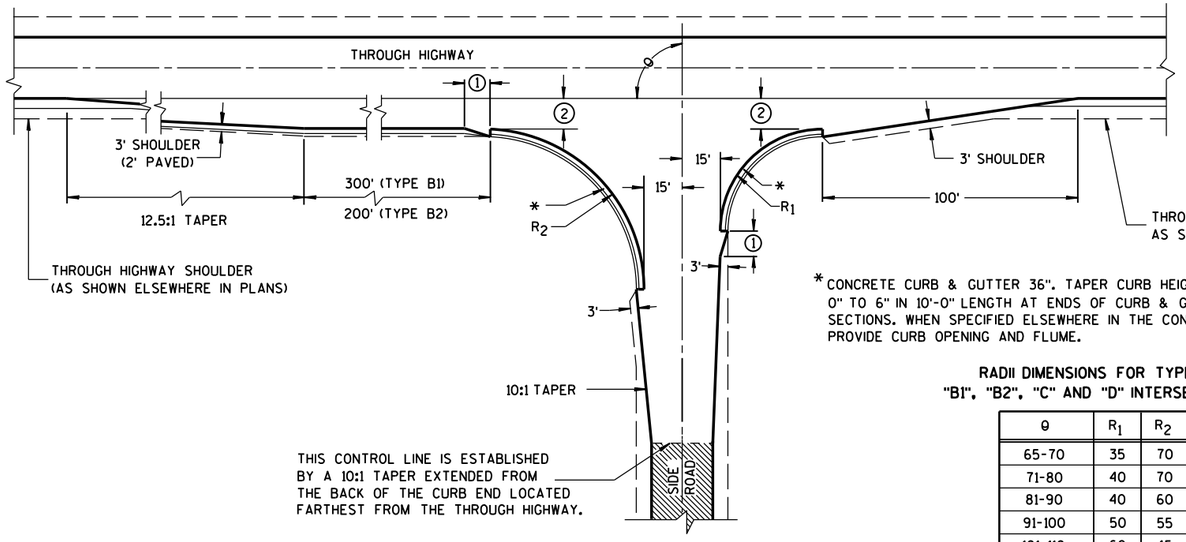
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

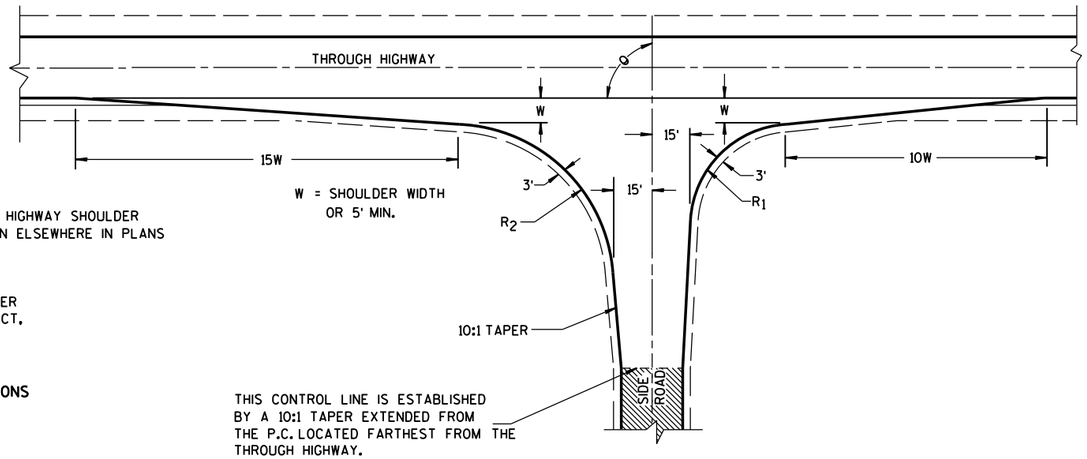


TYPE "B1" AND "B2"

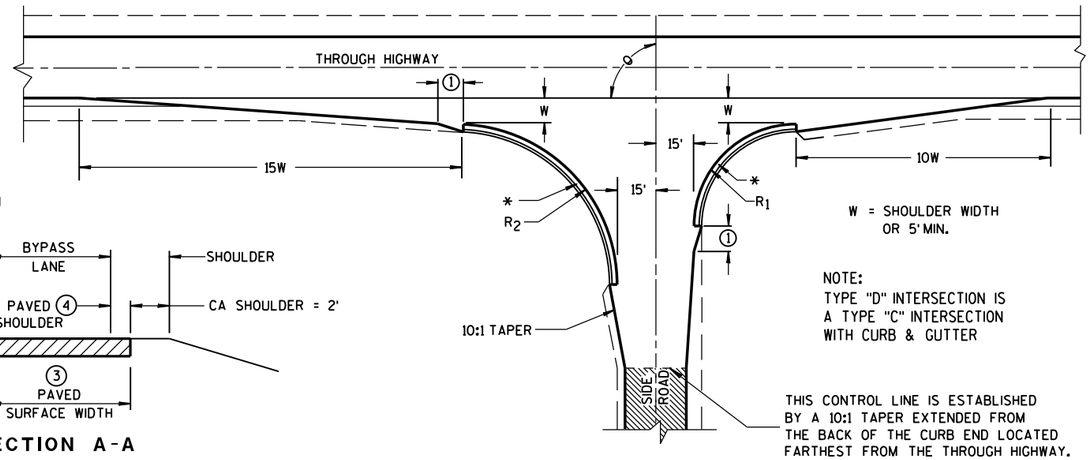
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

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



TYPE "C"



TYPE "D"

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

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

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

EXISTING PAVED SURFACE

BYPASS LANE

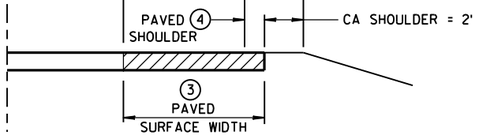
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

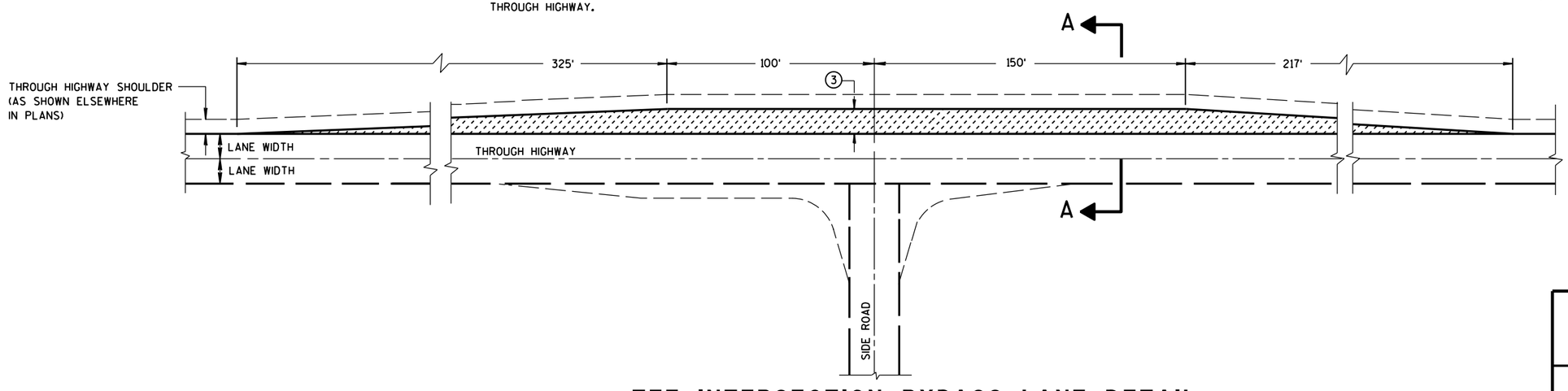
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)

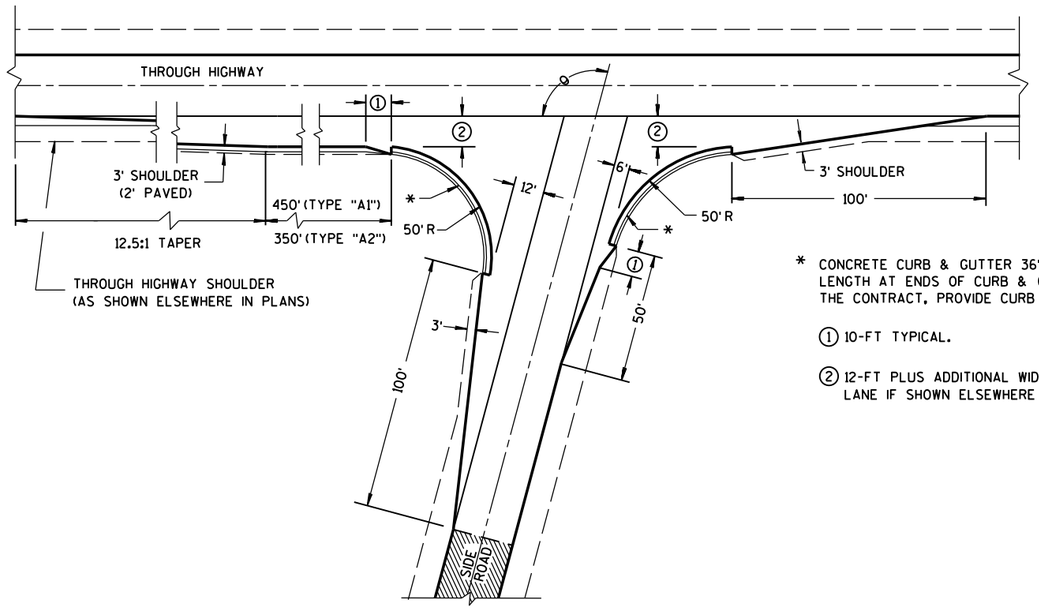


TEE INTERSECTION BYPASS LANE DETAIL

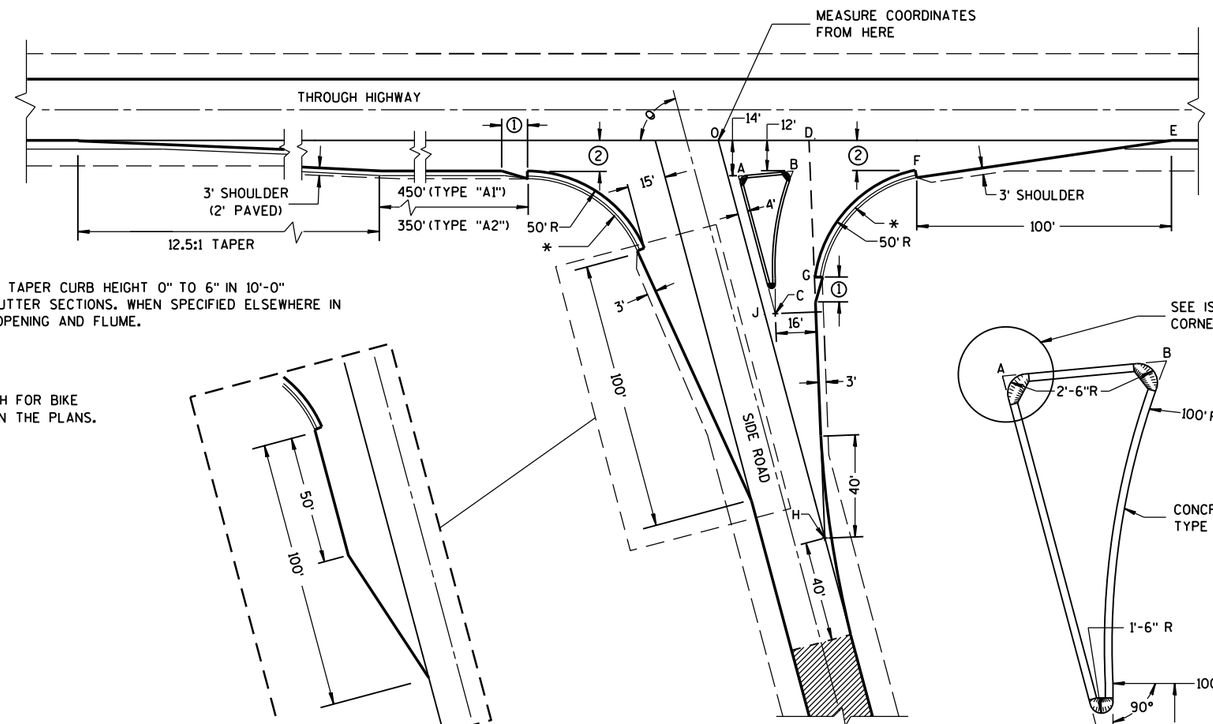
AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 9 A 1-13a



θ = MORE THAN 80°

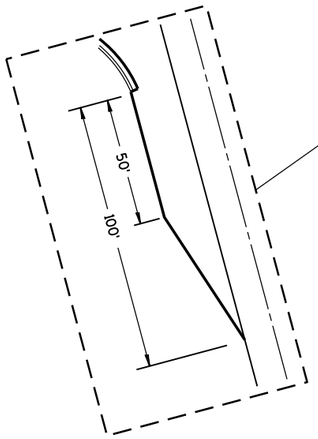


θ = ACUTE ANGLES 80° OR LESS

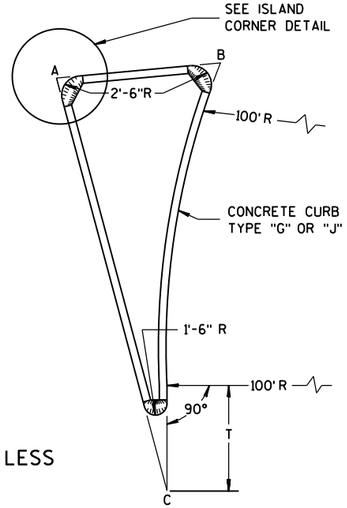
* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

① 10-FT TYPICAL.

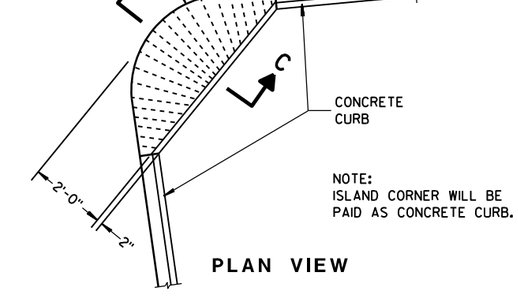
② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.



SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
θ = ACUTE ANGLES 70° OR LESS

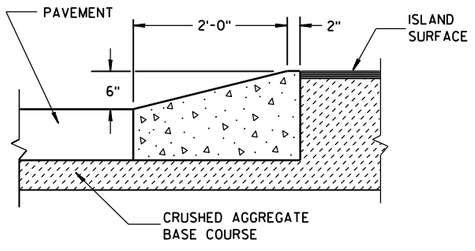


EXISTING PAVED SURFACE



NOTE:
ISLAND CORNER WILL BE PAID AS CONCRETE CURB.

PLAN VIEW



SECTION C-C

ISLAND CORNER DETAIL

(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

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

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

TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS

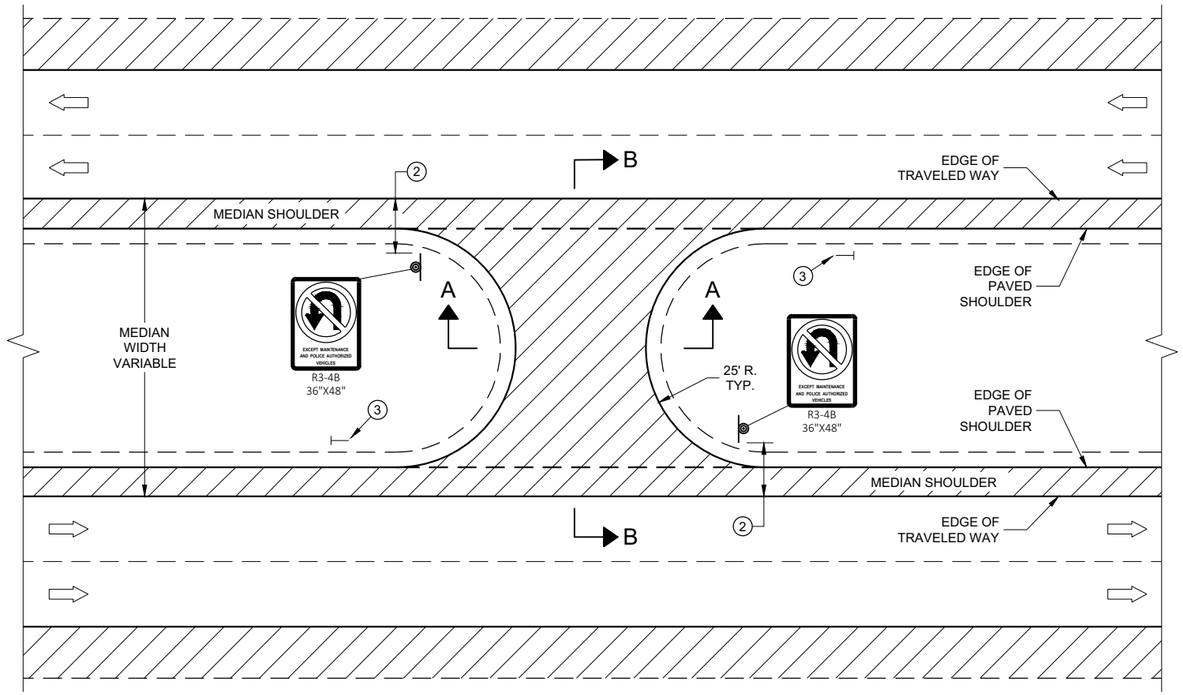
AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

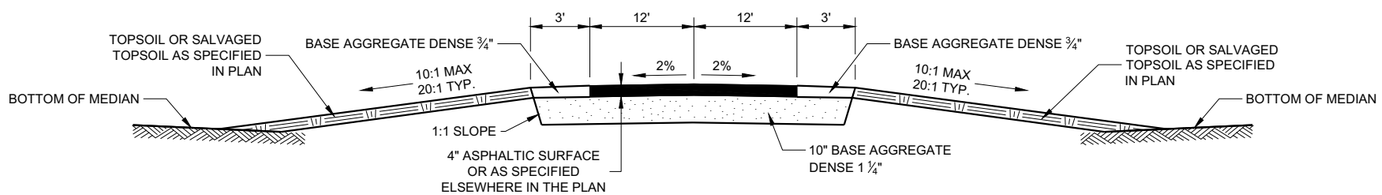
APPROVED
12/18/12 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

S.D.D. 9 A 1-13b

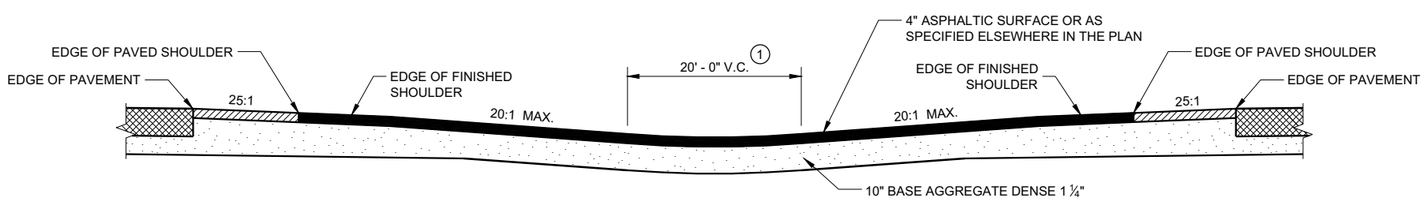
S.D.D. 9 A 1-13b



PLAN VIEW



SECTION A-A



SECTION B-B

GENERAL NOTES

1. ADJUST VERTICAL CURVE LOCATION LATERALLY TO MAINTAIN 20:1 MAX.
2. SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.
3. INSTALL DELINEATOR. SEE STANDARD DETAIL DRAWING 15A4.

LEGEND

- SIGN ON PERMANENT SUPPORT
- DELINEATOR
- DIRECTION OF TRAFFIC

MAINTENANCE CROSSOVER FOR FREEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

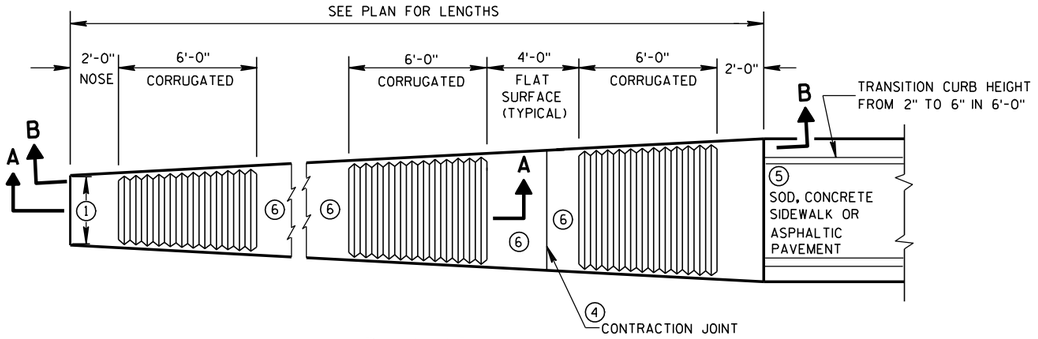
APPROVED
November 2019
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

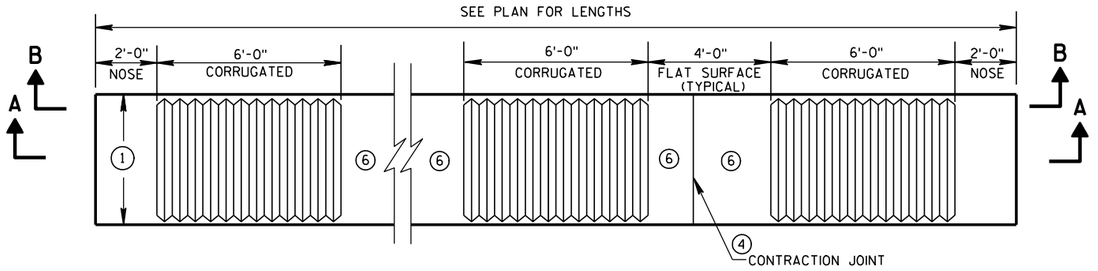
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SDD 11A01 - 06
SDD 11A01 - 06



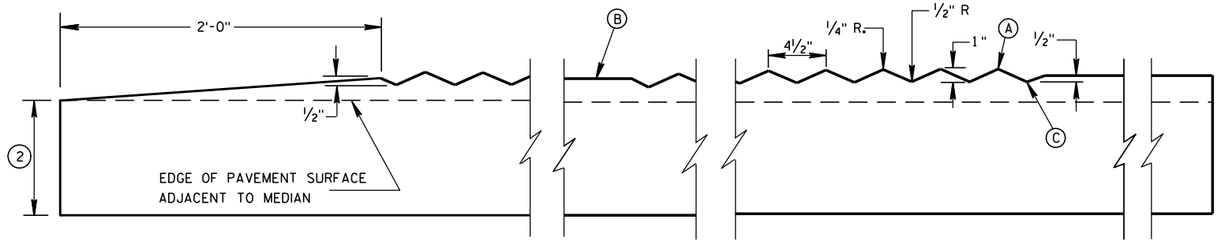
PLAN VIEW

VARIABLE WIDTH CONCRETE CORRUGATED MEDIAN



PLAN VIEW

UNIFORM WIDTH CONCRETE CORRUGATED MEDIAN



SECTION A-A

LONGITUDINAL SECTION

GENERAL NOTES

(1) SEE PLANS FOR CONSTANT OR VARIABLE WIDTH.

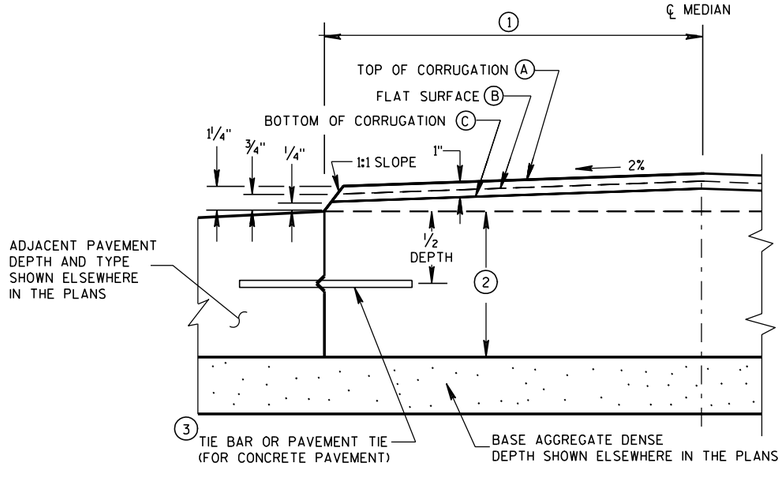
(2) THE DEPTH OF THE CONCRETE CORRUGATED MEDIAN SHALL BE 9-INCHES UNLESS SHOWN OTHERWISE IN THE PLAN.
ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN IN THE PLAN. TYPICAL OPTIONS ARE:
(1) NEW OR EXISTING CONCRETE PAVEMENT.
(2) ASPHALTIC CONCRETE OVER NEW OR EXISTING CONCRETE BASE COURSE, OR PAVEMENT.
(3) ASPHALTIC PAVEMENT OVER BASE AGGREGATE DENSE.

(3) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.
INSTALL TIE BARS TO MAINTAIN A MINIMUM OF 3-INCHES OF COVER BETWEEN THE TIE BAR AND THE CONCRETE SURFACE (BOTTOM AND TOP).
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE PAVEMENT OR CONCRETE BASE COURSE, PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(4) CONCRETE CORRUGATED MEDIAN CONTRACTION JOINTS SHALL BE CONSTRUCTED TO MATCH THE JOINTS IN ADJACENT CONCRETE PAVEMENT. WHERE ADJACENT PAVEMENT IS ASPHALT WITH BASE AGGREGATE DENSE. TRANSVERSE CONTRACTION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS.

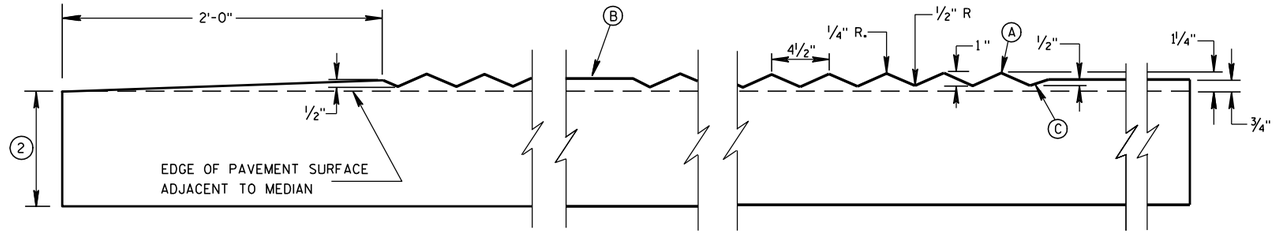
(5) SURFACE TYPE AND DETAILS ARE DEFINED ELSEWHERE IN THE PLAN.

(6) YELLOW MARKING ON FLAT SURFACE WHEN MEDIAN SEPARATES OPPOSING TRAFFIC.



HALF CROSS SECTION

(2) CONCRETE CORRUGATED MEDIAN AND ADJACENT PAVEMENT



SECTION B-B

LONGITUDINAL SECTION

CONCRETE CORRUGATED MEDIAN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/07 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

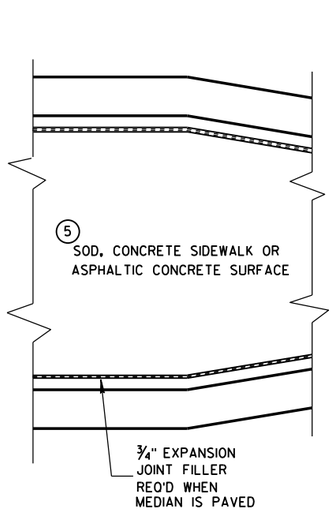
FHWA

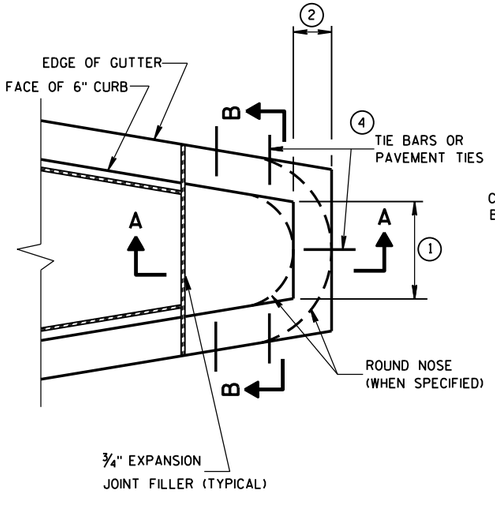
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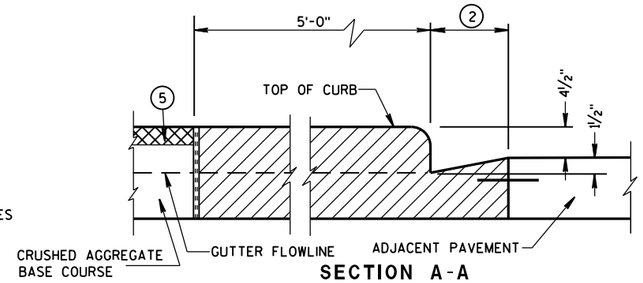
S.D.D. 11 B 1-5

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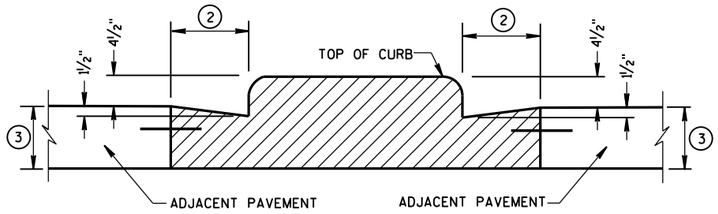
S.D.D. 11 B 1-5







SECTION A-A



SECTION B-B

CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

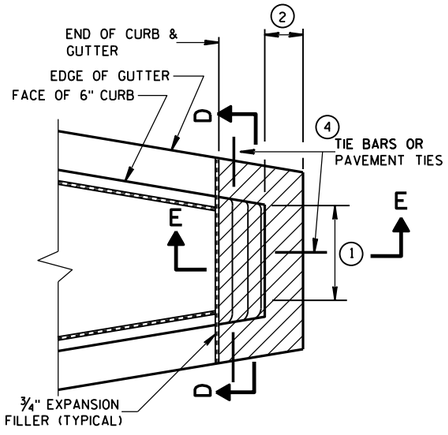
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

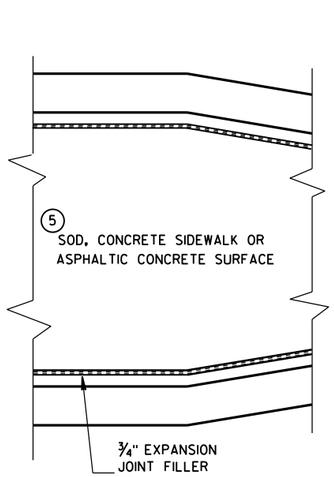
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

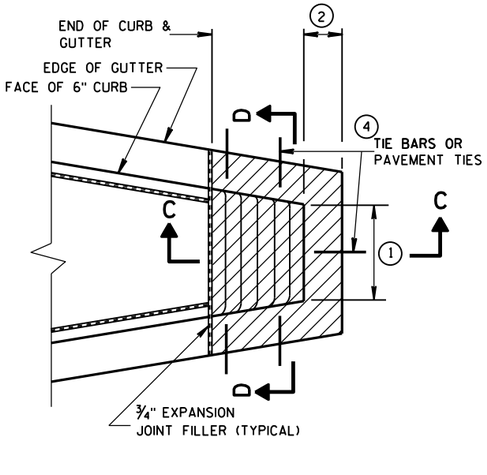
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

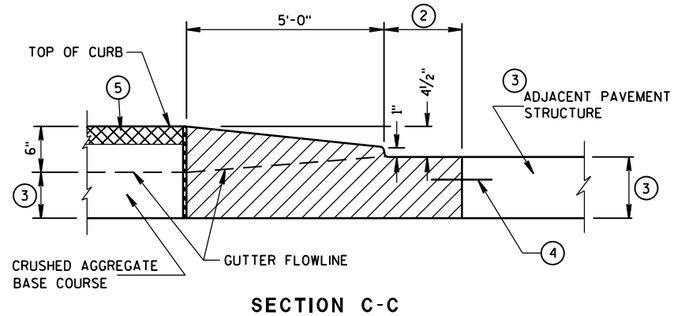
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



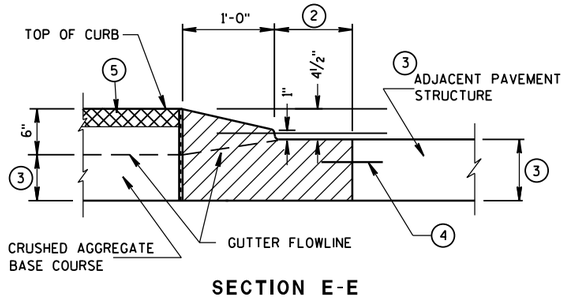




CONCRETE MEDIAN SLOPED NOSE TYPE 1

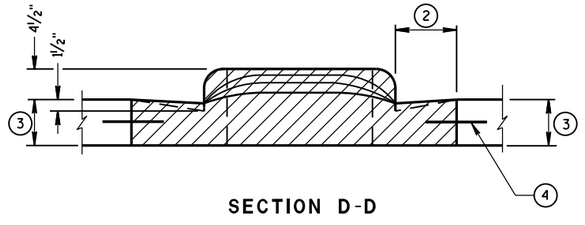


SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

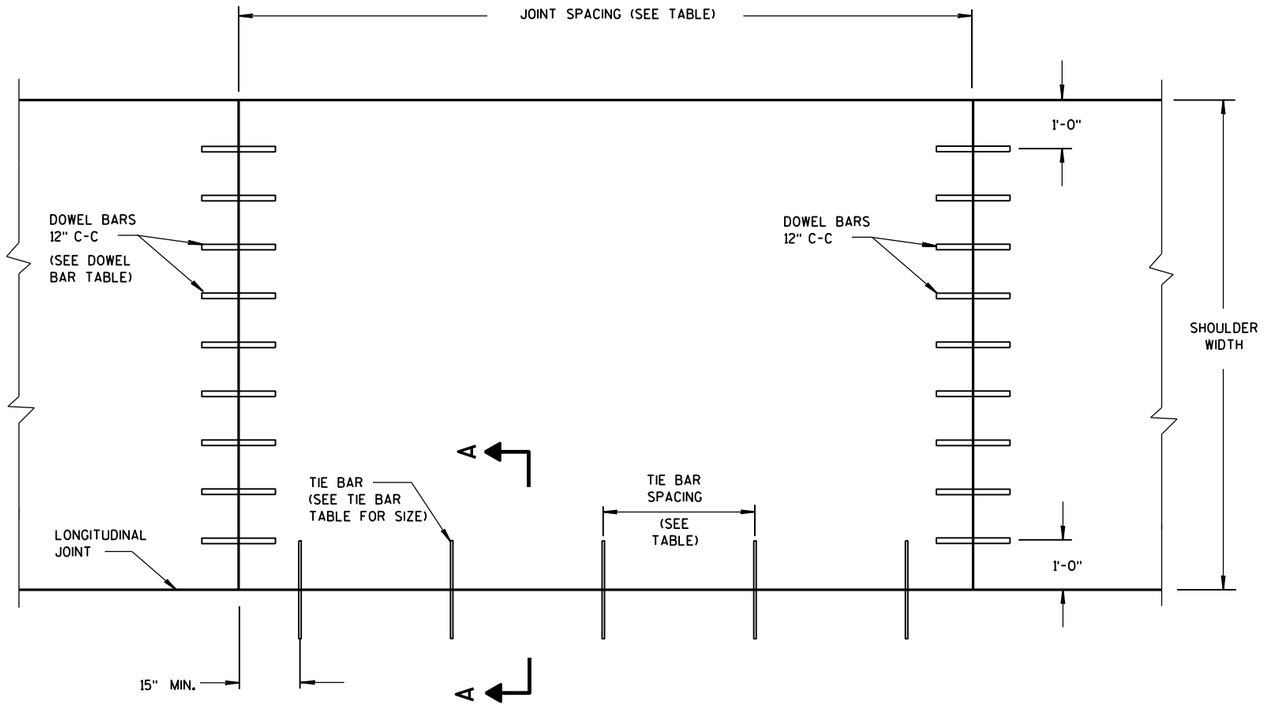
APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER
FHWA

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S.D.D. 11 B 2-2

6

S.D.D. 11 B 2-2



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

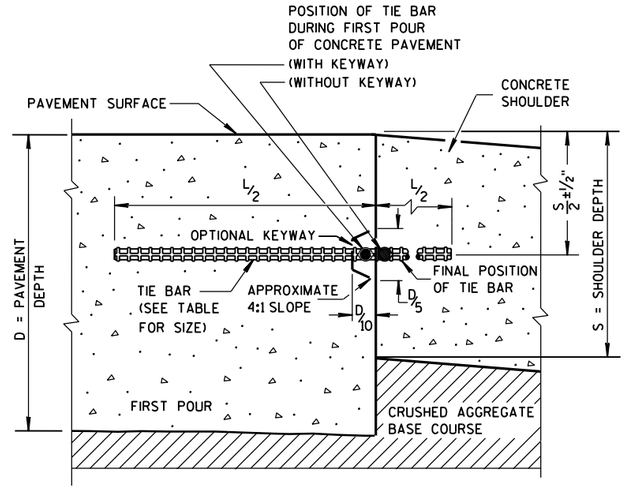
GENERAL NOTES

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

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER***	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FOR THE AVERAGE THICKNESS OF THE CROSS SECTION.

CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

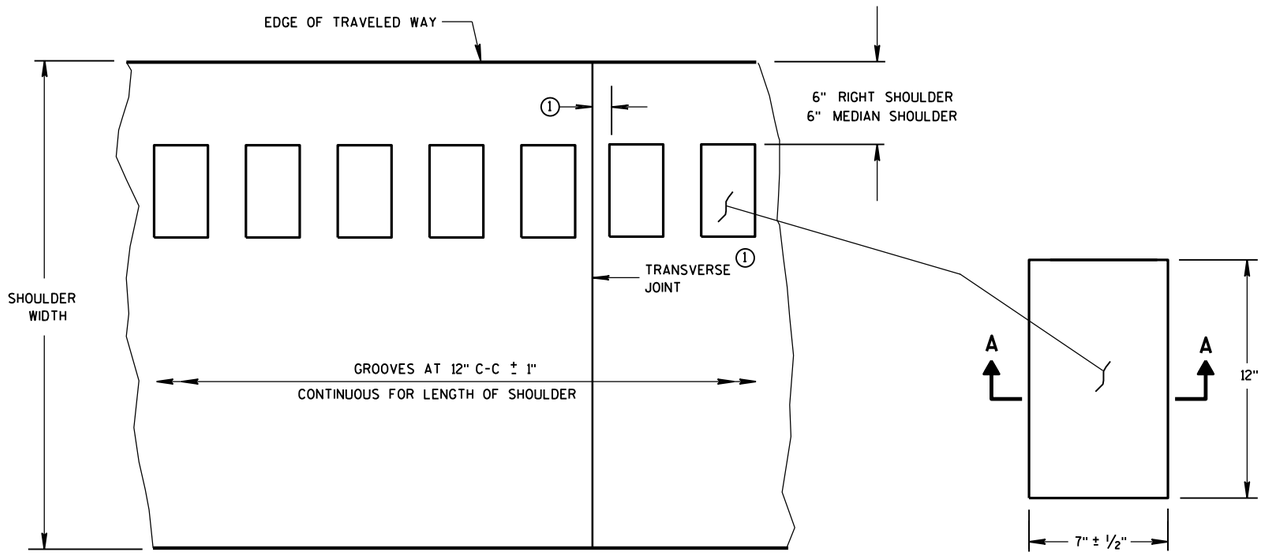
APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPEF
FHWA

6

S.D.D. 13 A 3-6

6

S.D.D. 13 A 3-6



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

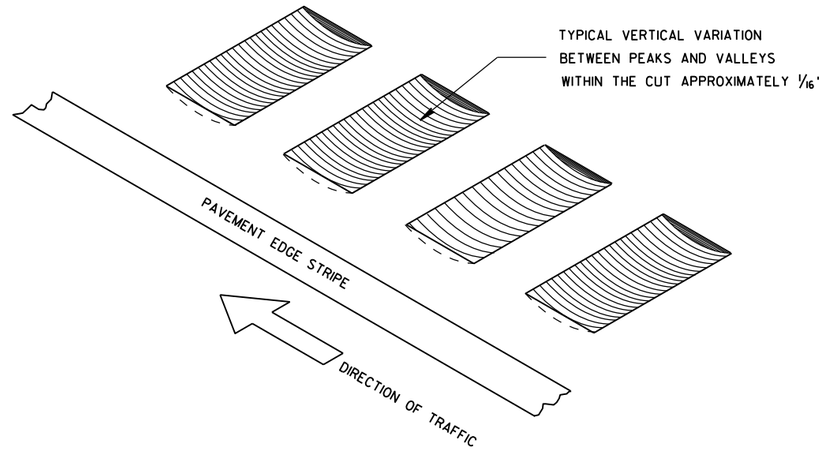
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

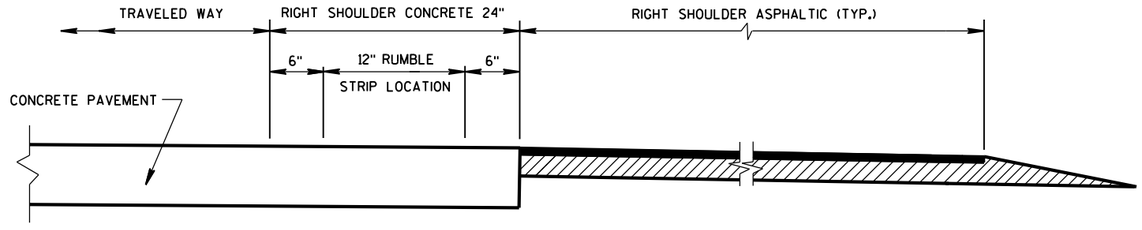
RUMBLE STRIPS ON EXPRESSWAYS

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.

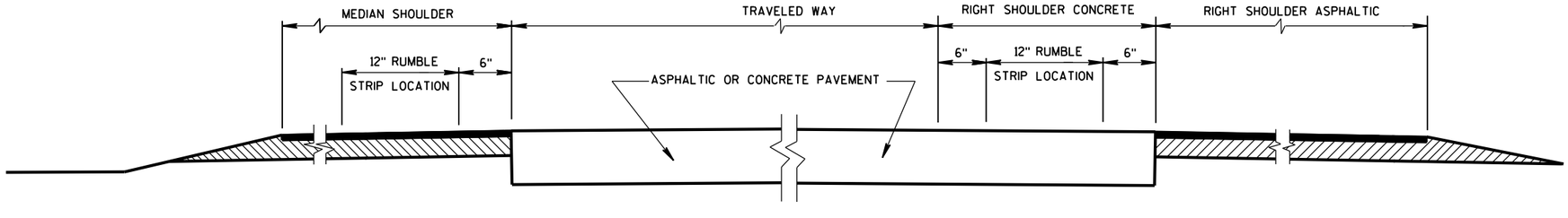
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



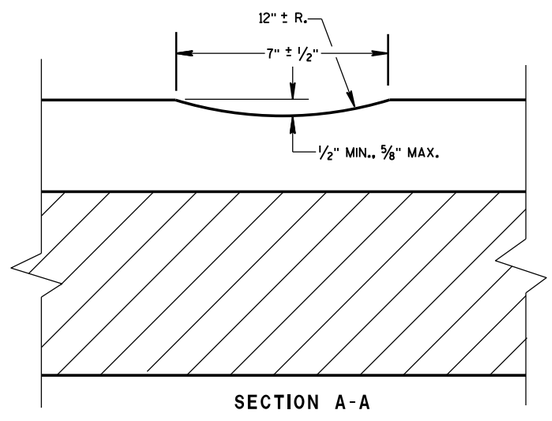
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

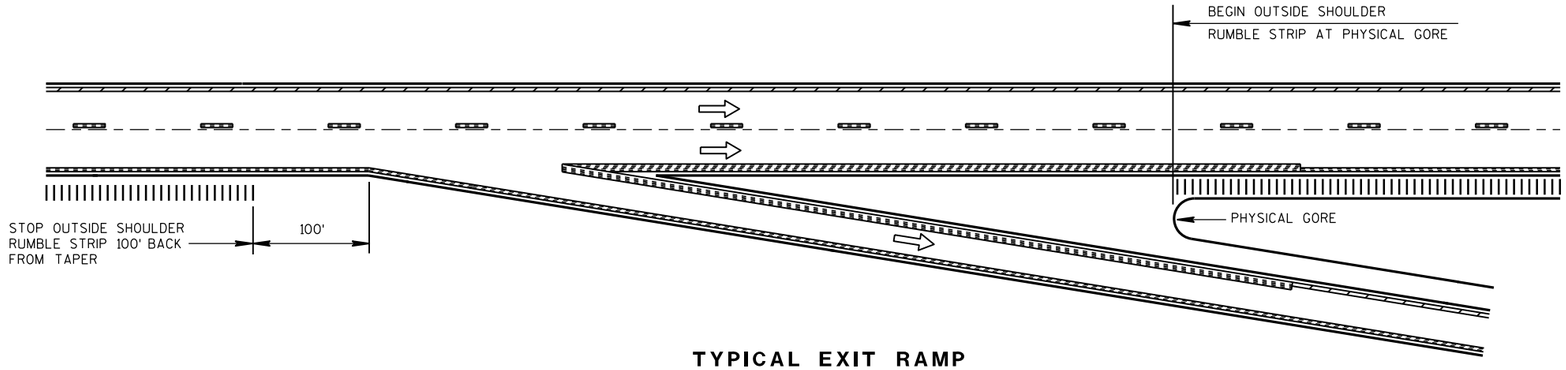
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 13 A 5-5a

6

S.D.D. 13 A 5-5a



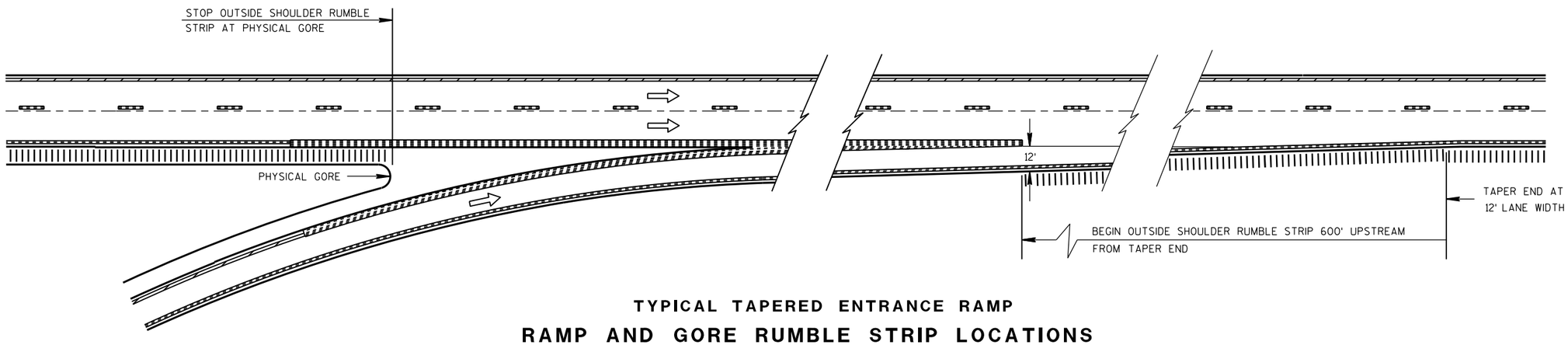
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

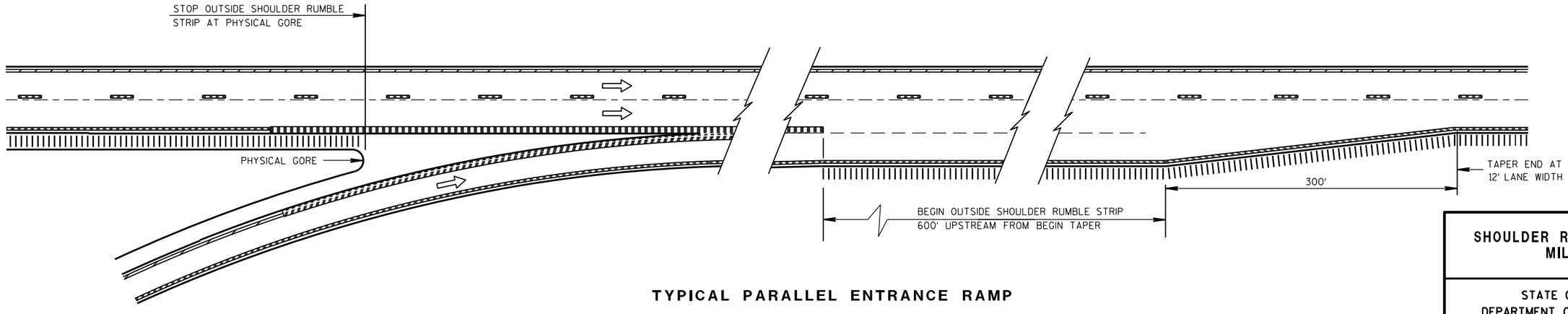
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

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

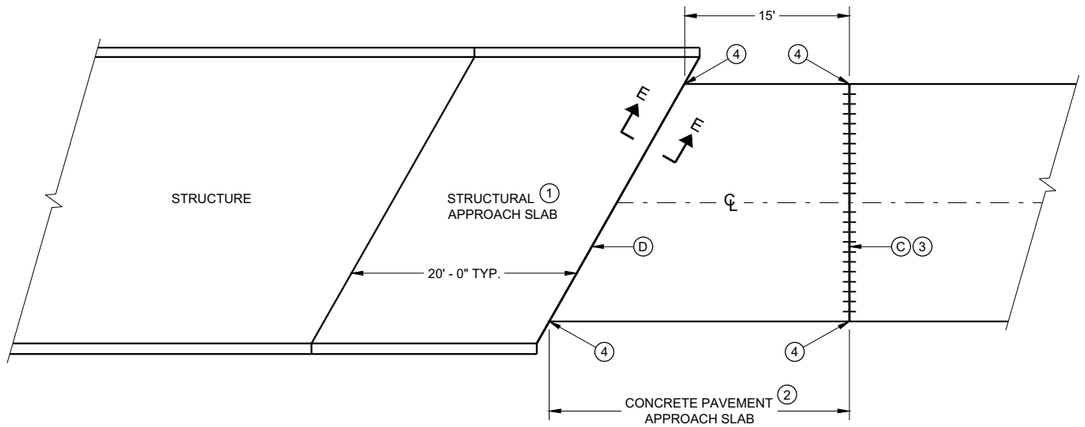
SHOULDER RUMBLE STRIP, MILLING

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



BRIDGE APPROACHES

GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

(1) SEE BRIDGE PLAN.

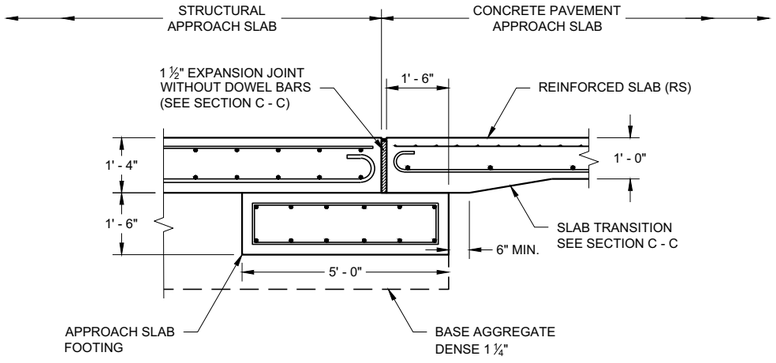
(2) CONFORM TO SDD 13B02 SHEET A FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS

(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

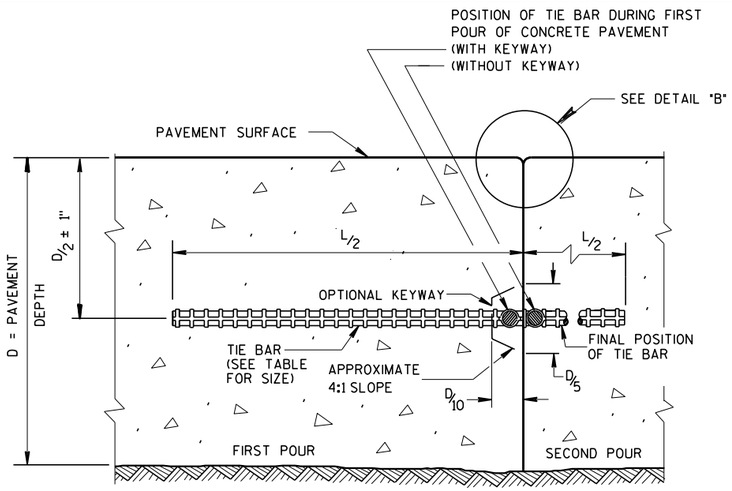
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

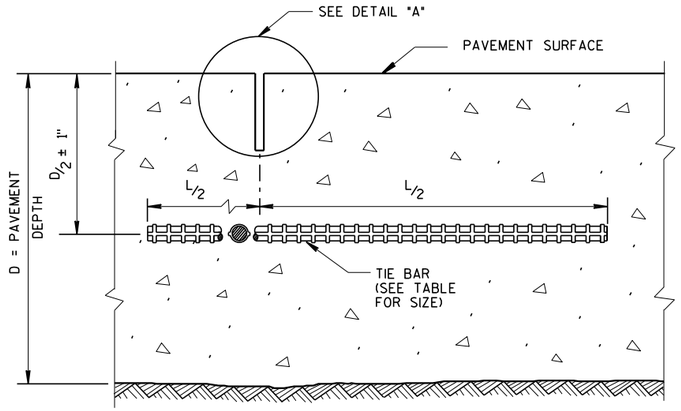
FHWA

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SDD 13B02 - 09b



CONSTRUCTION JOINT



SAWED JOINT

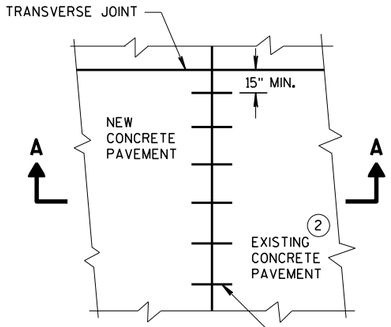
GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

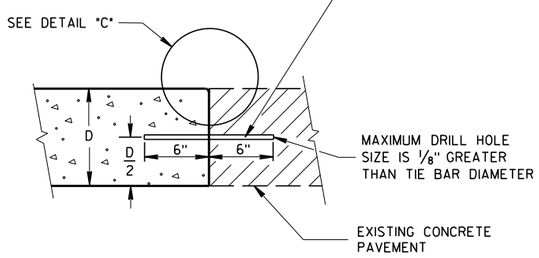
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

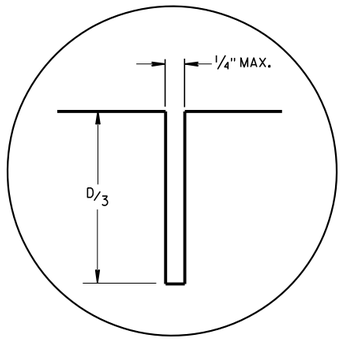


PLAN VIEW

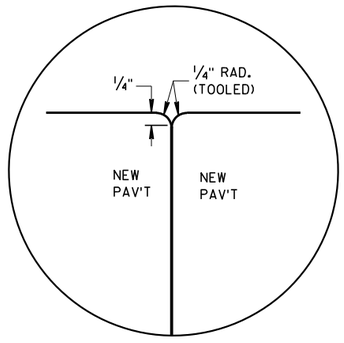


SECTION A-A

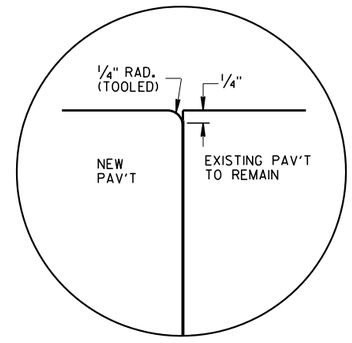
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



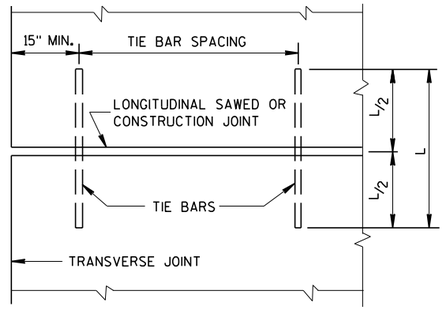
DETAIL "C"

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.

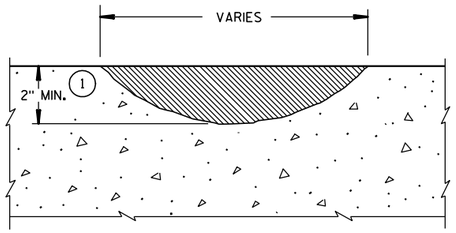


PLAN VIEW
SHOWING LOCATION OF TIE BARS

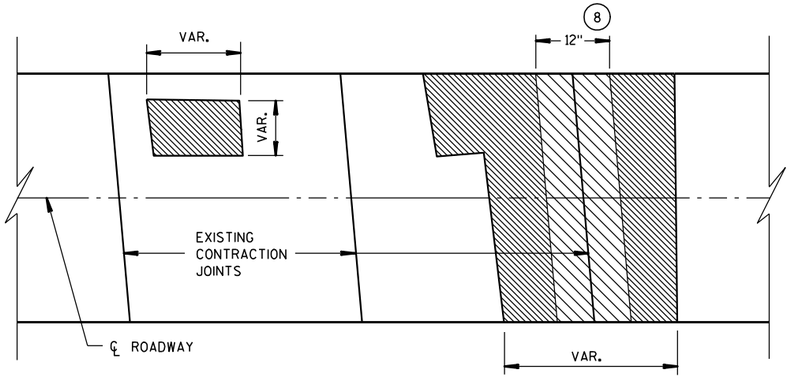
CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp PE — PAVEMENT SUPE
FHWA

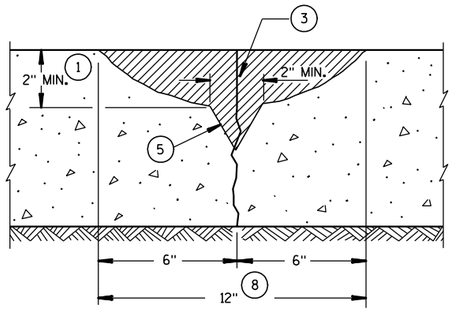


PROFILE VIEW

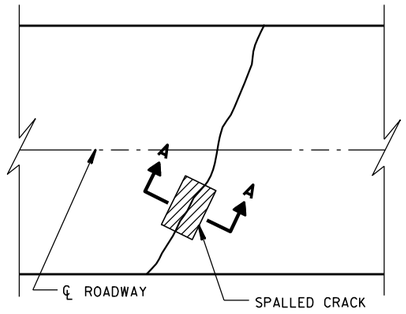


PLAN VIEW

SURFACE REPAIR



SECTION A-A

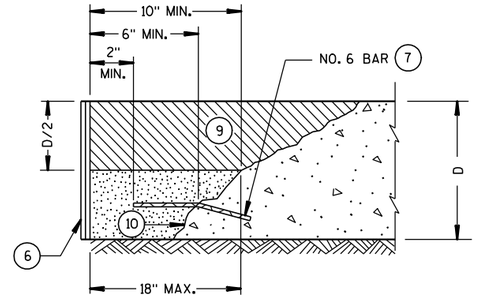


PLAN VIEW

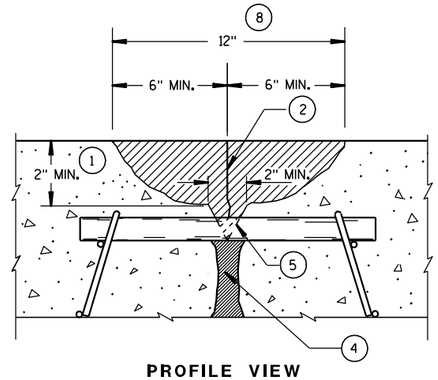
CRACK REPAIR

GENERAL NOTES

1. REMOVE ALL CONCRETE, TO LIMITS SHOWN, TO A MAXIMUM OF ½ THE PAVEMENT DEPTH OR TOP OF DOWELS.
2. IF REPAIR IS DEEPER THAN ANTICIPATED SAWCUT, COMPRESSION RELIEF MATERIAL MUST BE USED. THE THICKNESS OF COMPRESSION RELIEF MATERIAL MUST BE EQUAL TO OR GREATER THAN THE WIDTH OF THE JOINT OR CRACK (1/4"). THIS MATERIAL SHOULD EXTEND FULL DEPTH OF THE REPAIR.
3. COMPRESSION RELIEF MATERIAL MUST BE USED. THE THICKNESS OF COMPRESSION RELIEF MATERIAL MUST BE EQUAL TO OR GREATER THAN THE WIDTH OF THE JOINT OR CRACK (1/4"). THIS MATERIAL SHOULD EXTEND FULL DEPTH OF THE REPAIR.
4. CLEAN, DRY SAND WHEN NECESSARY.
5. REMOVE UNSOUND MATERIAL BY CHIPPING AT 1:1 SLOPE.
6. ¼" MINIMUM PREFORMED JOINT FILLER IF ADJACENT TO CONCRETE. EDGING REQUIRED. FULLY FORMED EDGE IF ADJACENT TO SHOULDER.
7. PAVEMENT TIES AS SHOWN. ALL EMBEDMENTS 6" MINIMUM AND INSTALLED WITH GROUT.
8. OVER 12" (NOMINAL WIDTH) WILL BE PAID AS SURFACE REPAIR.
9. PAID AS JOINT OR CRACK REPAIR.
10. FULL-DEPTH ADJUSTMENT SHALL BE CHIPPED TO BOTTOM OF PCC PAVEMENT AT 1:1 SLOPE.
11. BEYOND 18" WILL BE PAID AS SURFACE REPAIR.

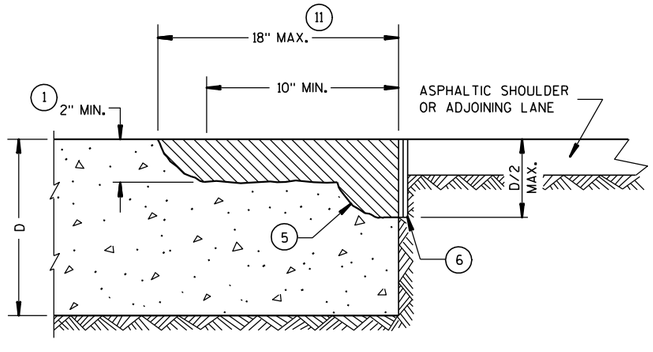


PROFILE VIEW

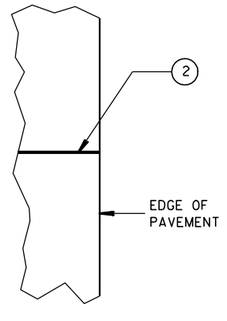


PROFILE VIEW

JOINT REPAIR

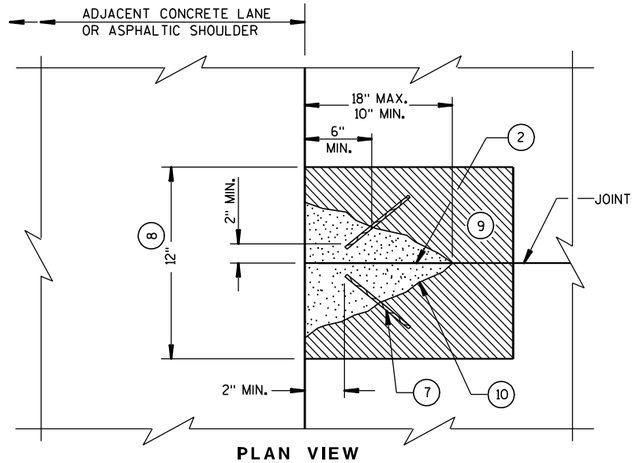


PROFILE VIEW



PLAN VIEW

EDGE REPAIR



PLAN VIEW

FULL DEPTH REPAIR ADJUSTMENT

CONCRETE PAVEMENT PARTIAL DEPTH REPAIR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/21/03 DATE
/S/ Bill Ducker PAVEMENT ENGR
FHWA

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S.D.D. 13 C 8-2

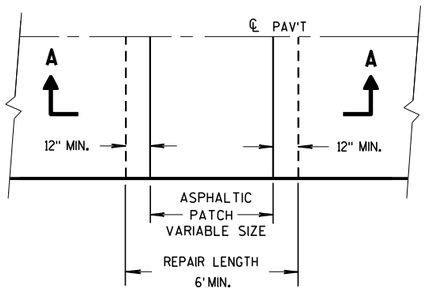
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

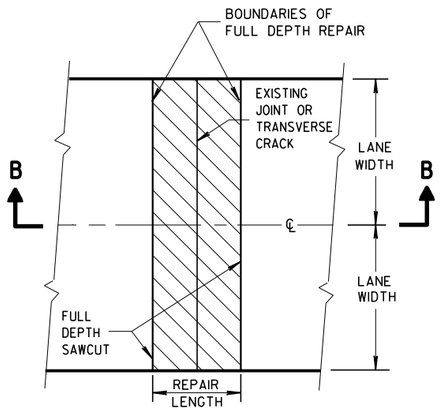
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

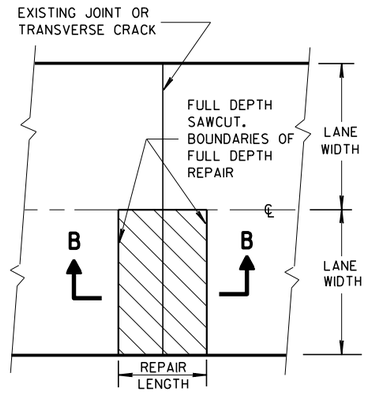
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

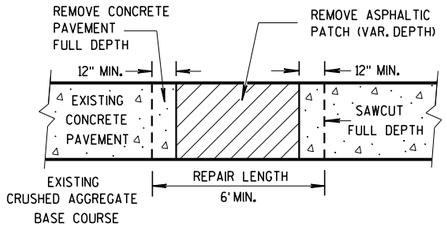


PLAN VIEW
(DOUBLE LANE REPAIR)



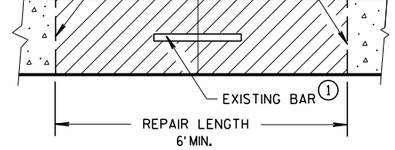
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

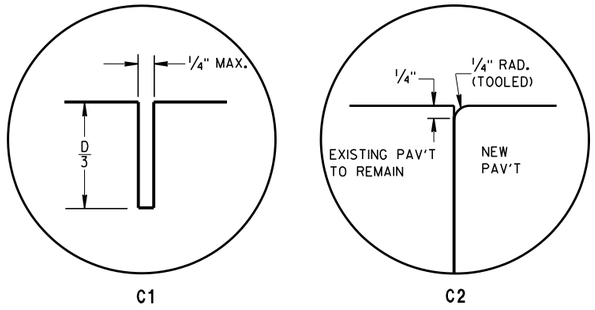
CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 9-15a



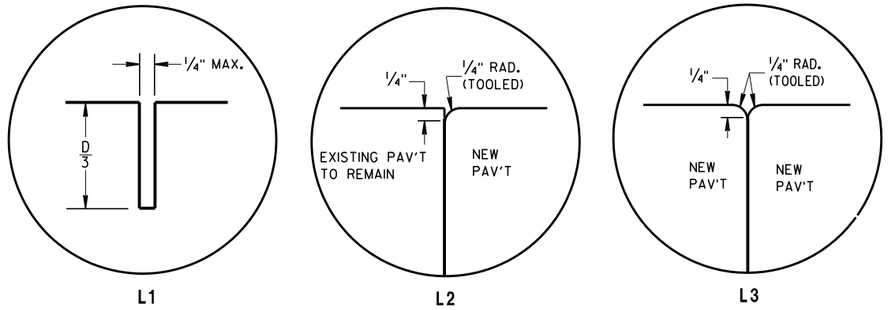
TRANSVERSE JOINTS

TIE BAR TABLE

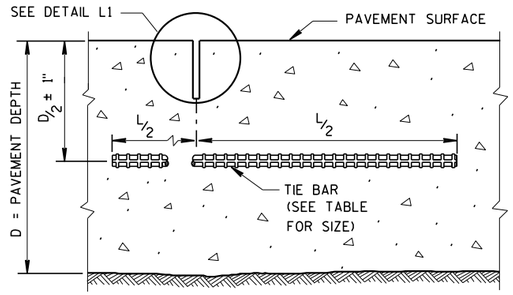
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* 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.



LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

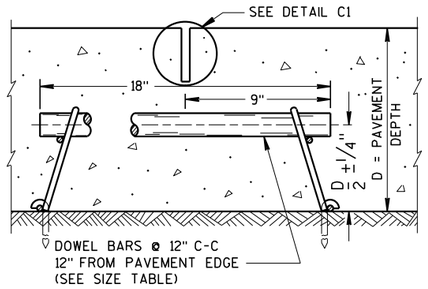
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

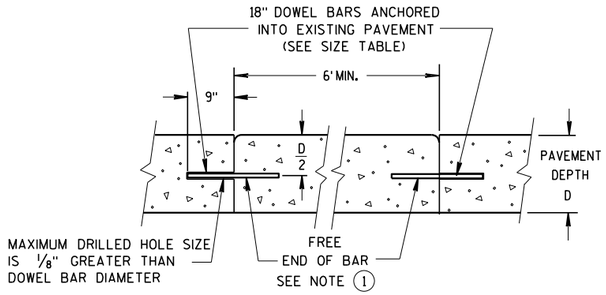
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

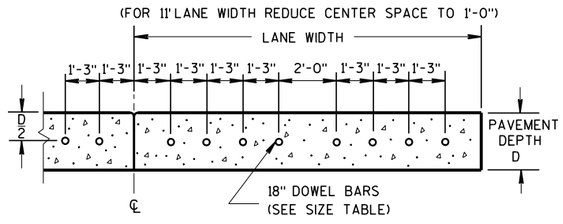


SECTION F-F

CONTRACTION JOINT



SECTION D-D

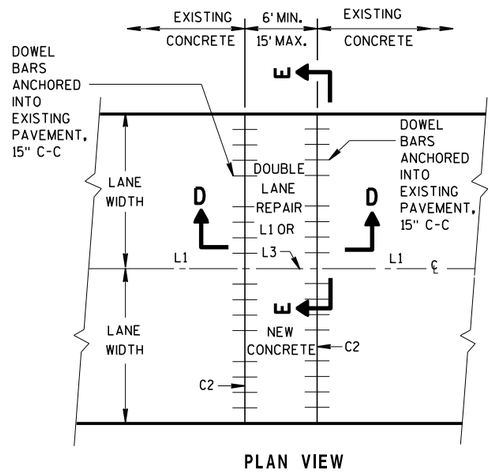


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

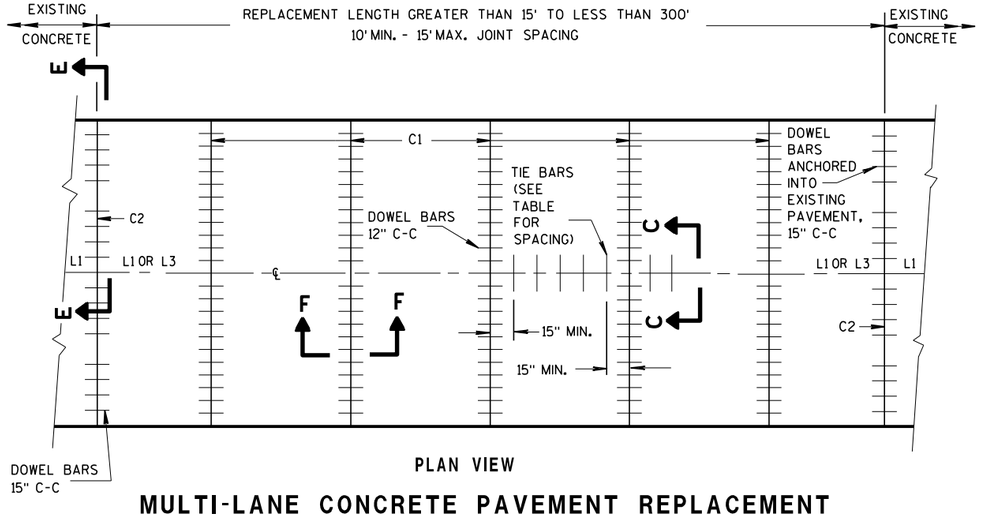
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	DRILLED DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	NONE	12'
7", 7 1/2"	1"	1"	14'
8", 8 1/2"	1 1/4"	1 1/4"	15'
9", 9 1/2"	1 1/4"	1 1/4"	15'
10" & ABOVE	1 1/2"	1 1/4"	15'



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR

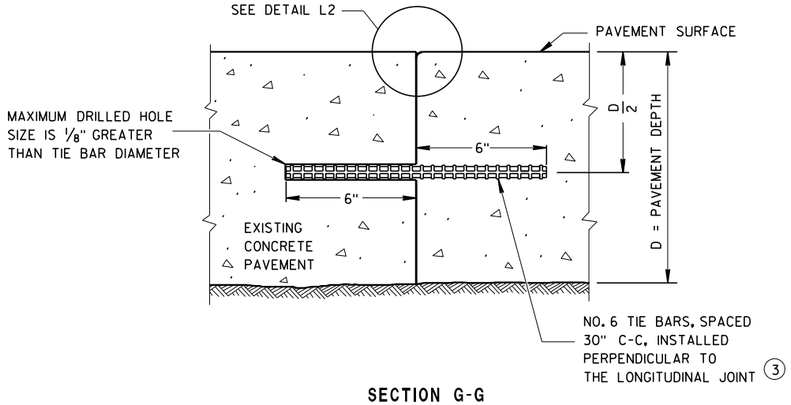


PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

6
S.D.D. 13 C 9-15b



SECTION G-G

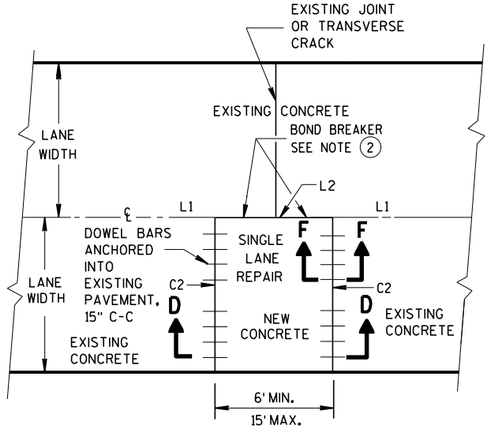
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

(1) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

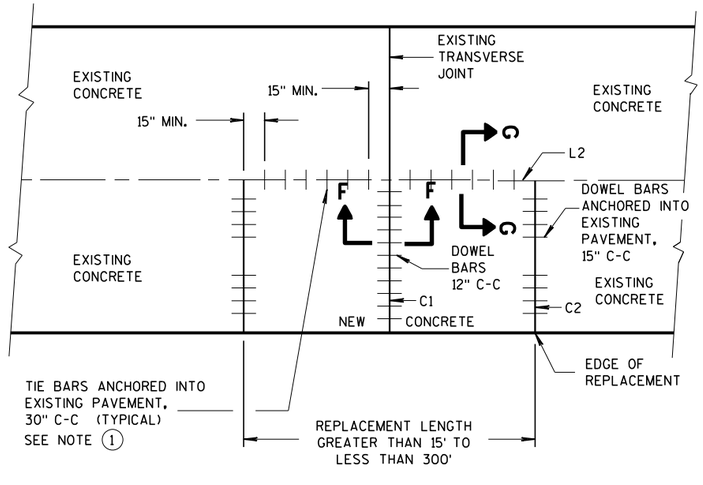
(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

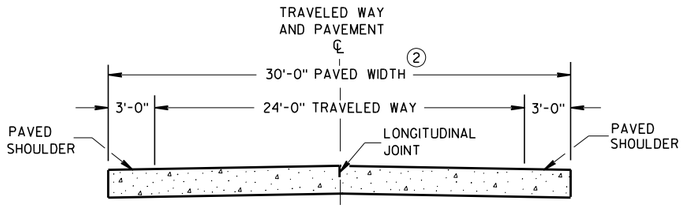
March 2018 — DATE

/S/ Peter Ken... — PAVEMENT SUPE...

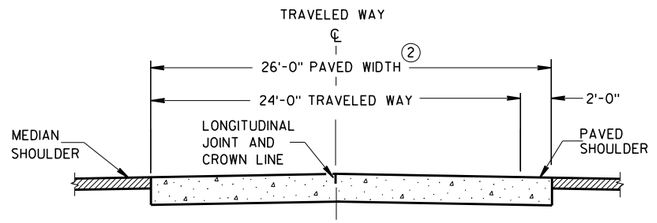
FHWA

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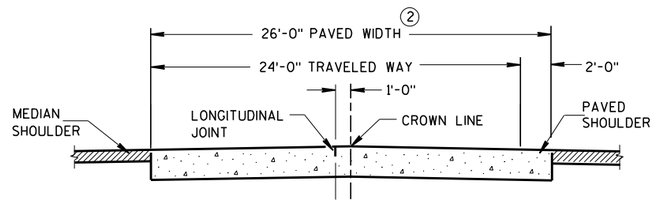
S.D.D. 13 C 9-15c



SECTION A-A
TWO-LANE TWO-WAY HIGHWAY ①



SECTION B-B



ALTERNATIVE SECTION B-B
①
DIVIDED HIGHWAY

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

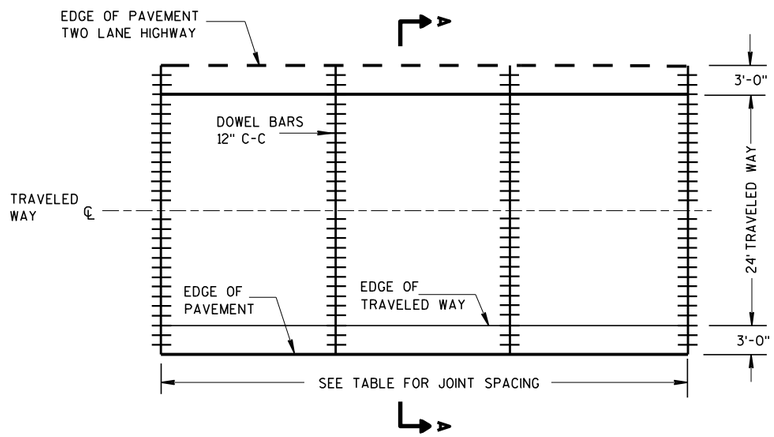
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

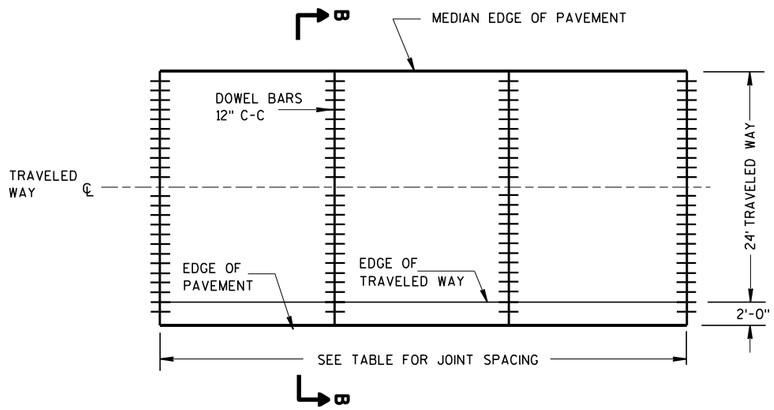
② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



CONTRACTION JOINT LAYOUT
FOR TWO-LANE TWO-WAY HIGHWAY



CONTRACTION JOINT LAYOUT
FOR DIVIDED HIGHWAY

RURAL DOWELED CONCRETE PAVEMENT

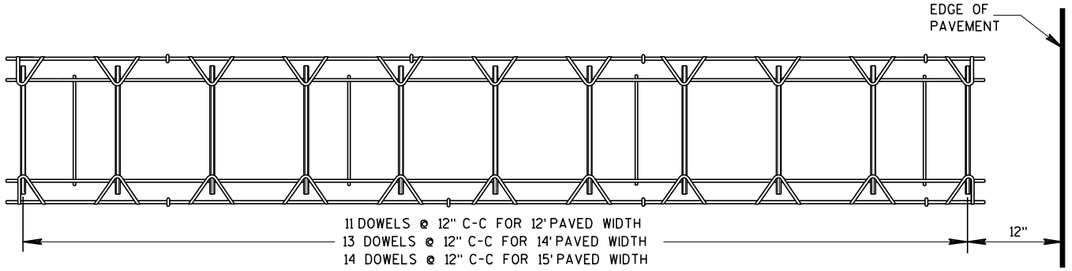
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

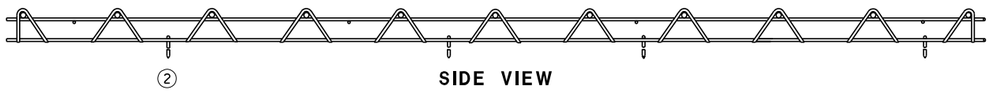
S.D.D. 13 C 11-12a

6

S.D.D. 13 C 11-12a



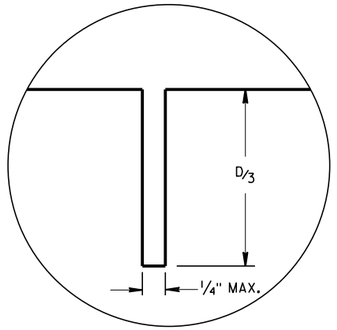
PLAN VIEW



SIDE VIEW

(NORMAL TO CENTERLINE)

CONTRACTION JOINT DOWEL ASSEMBLY ①



JOINT DETAIL

GENERAL NOTES

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

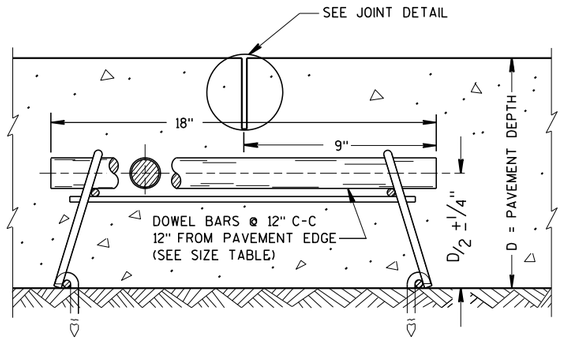
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

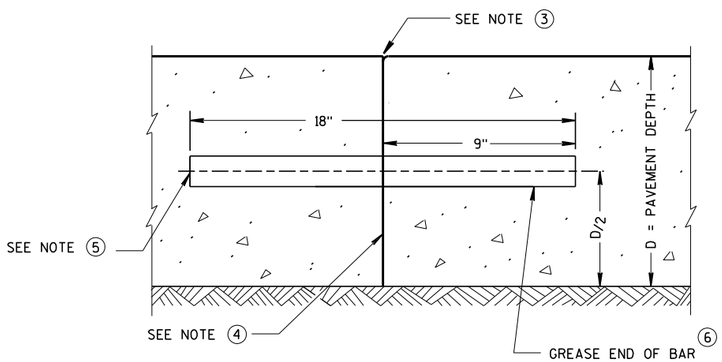
⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

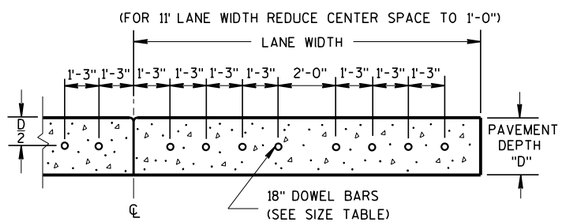
⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦

RURAL DOWELED CONCRETE PAVEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2018 DATE FHWA	/S/ Peter Kemp P.E. PAVEMENT SUP

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S.D.D. 13 C 11-12b

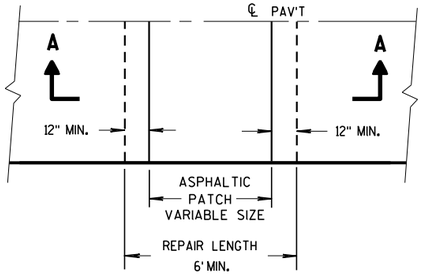
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

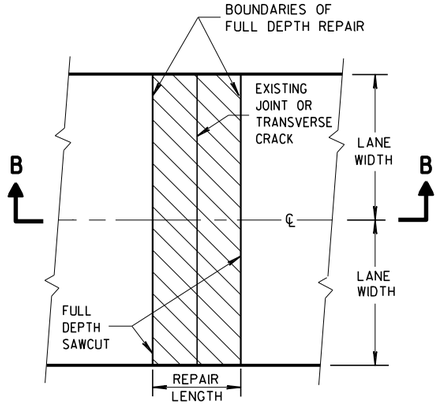
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

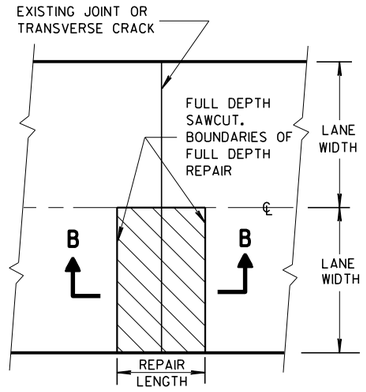
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

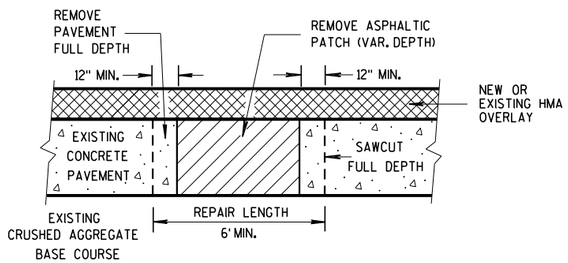


PLAN VIEW
(DOUBLE LANE REPAIR)



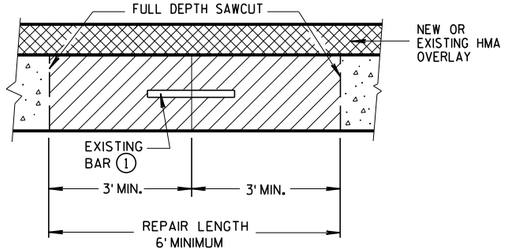
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

BASE PATCHING CONCRETE

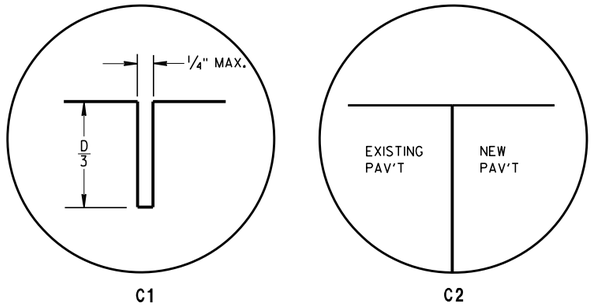
STATE OF WISCONSI
DEPARTMENT OF TRANSPORTATION

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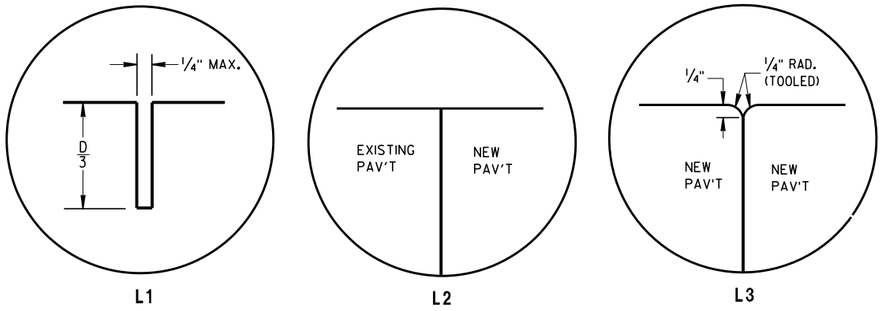
S.D.D. 13 C 14-7a

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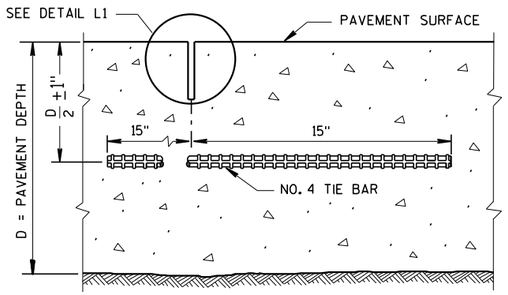
S.D.D. 13 C 14-7a



TRANSVERSE JOINTS

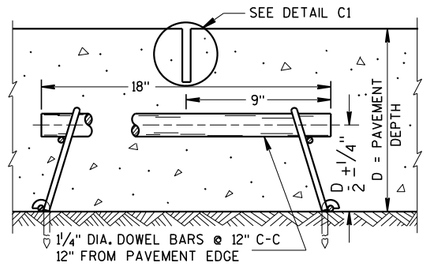


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

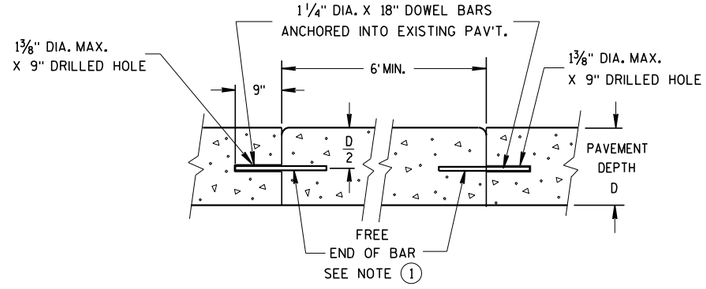
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

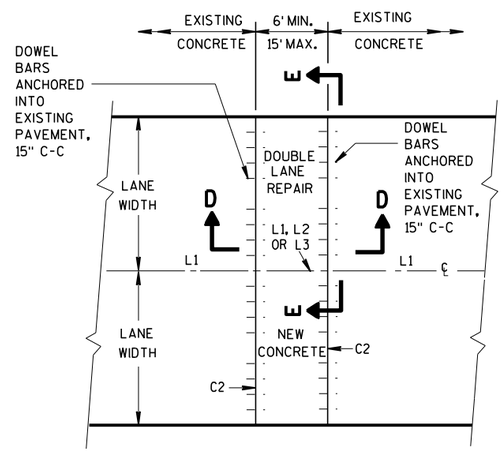
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

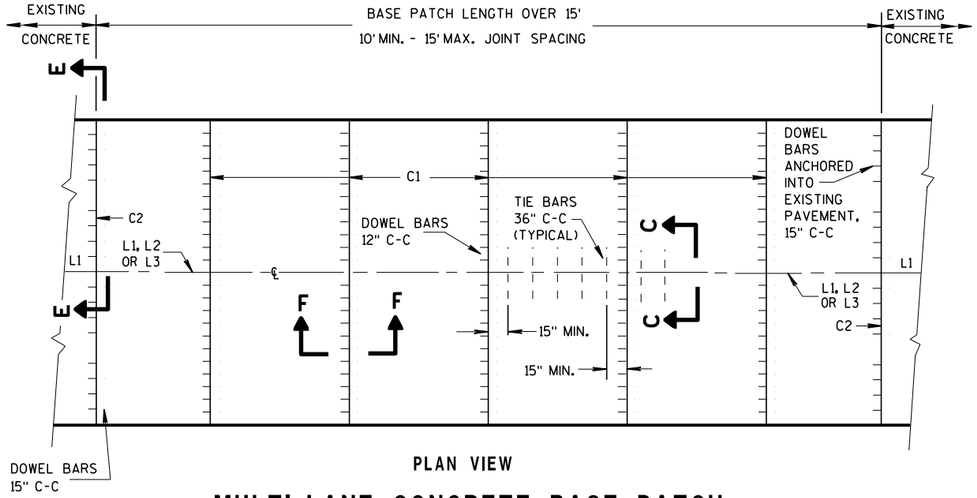


SECTION D-D



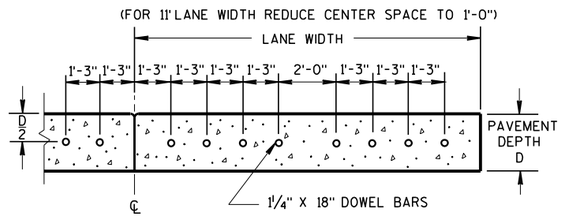
PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH



SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

BASE PATCHING CONCRETE

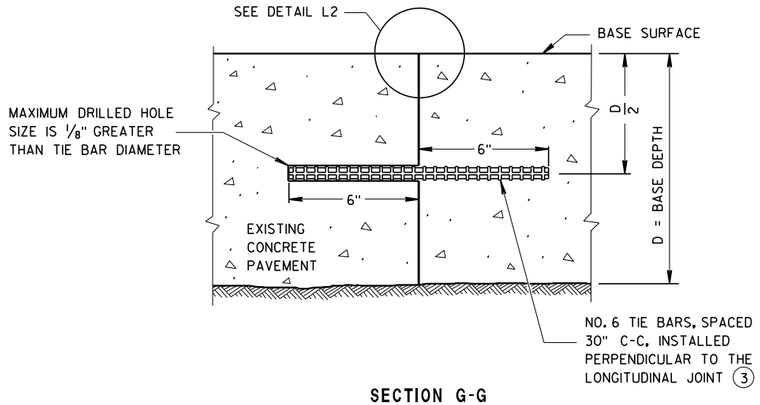
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S.D.D. 13 C 14-7b

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

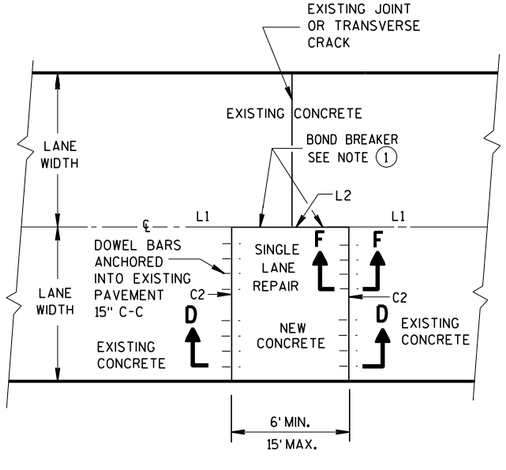
(2) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



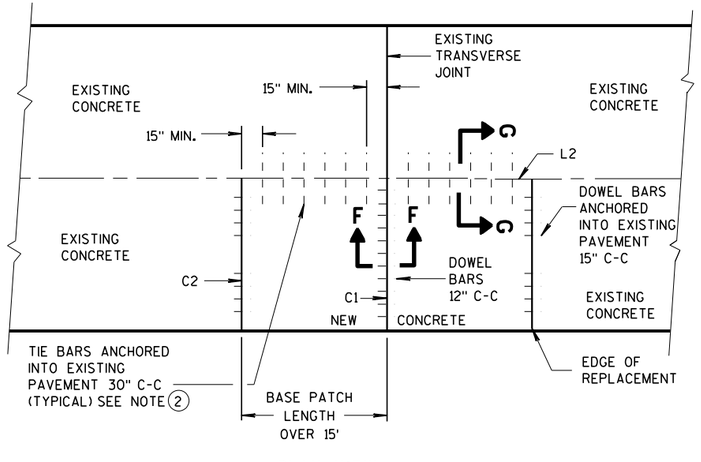
SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

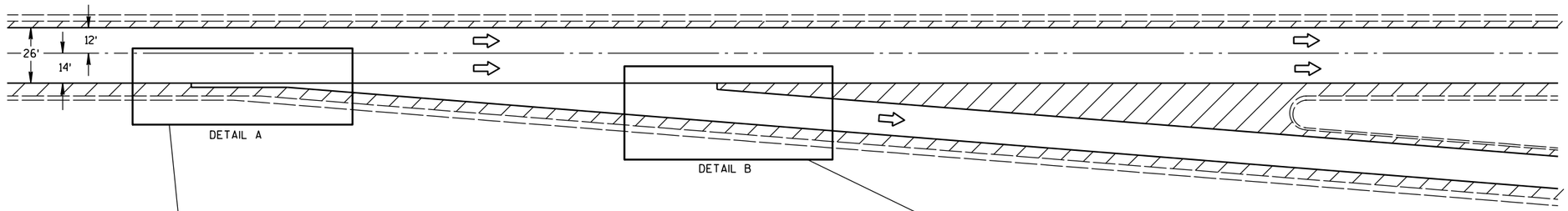
BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

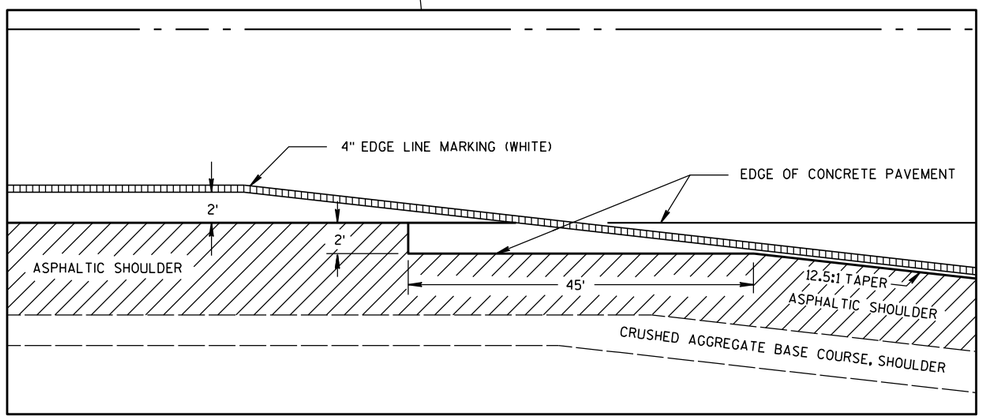
APPROVED
March 2018 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUPERVISOR
FHWA

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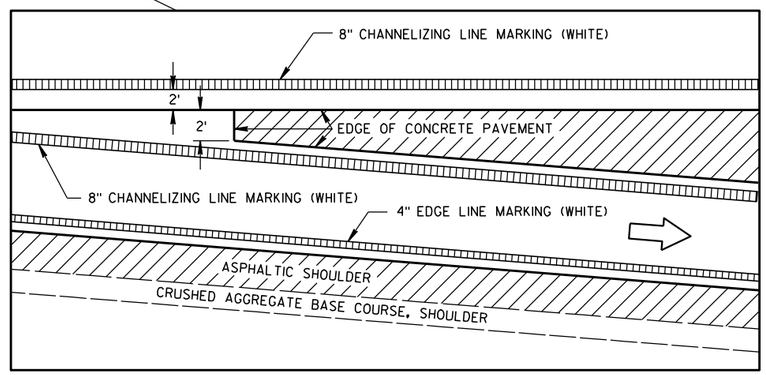
S.D.D. 13 C 14-7c



EXIT RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI

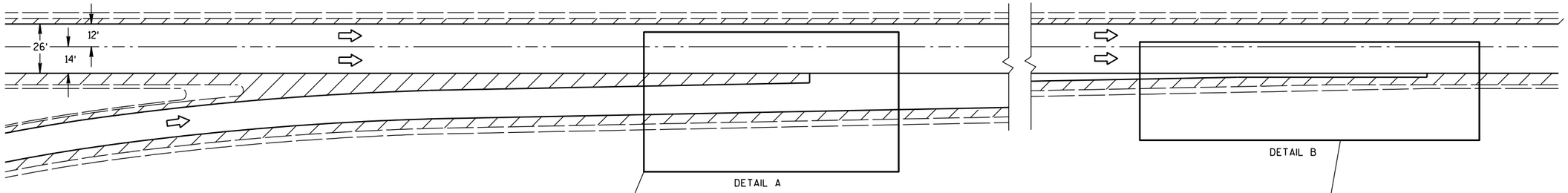
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

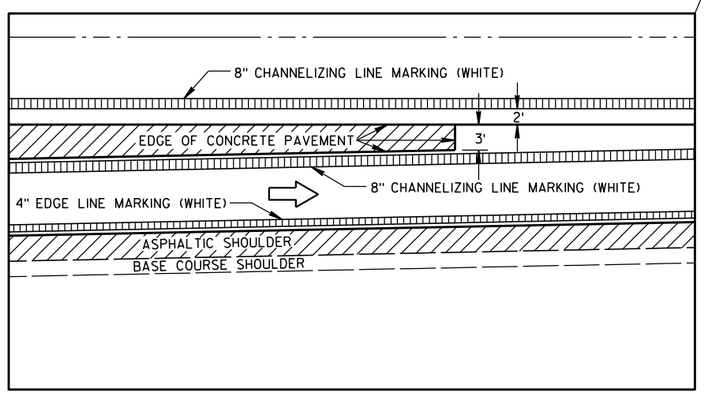
S.D.D. 13 C 17-1a

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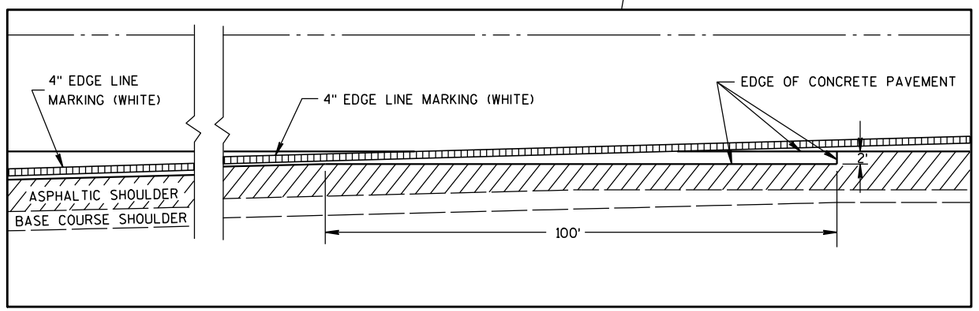
S.D.D. 13 C 17-1a



ENTRANCE RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR ENTRANCE RAMP TERMINI

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

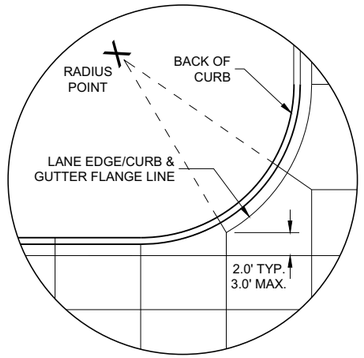
5/27/98
DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

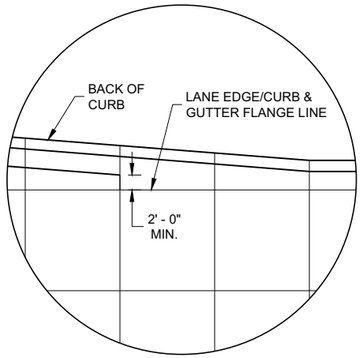
FHWA

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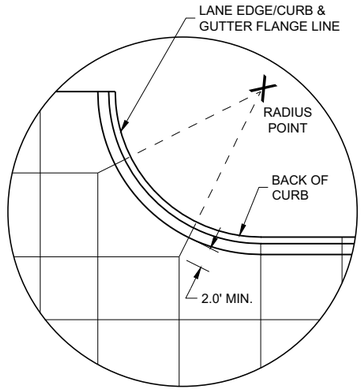
S.D.D. 13 C 17-1b



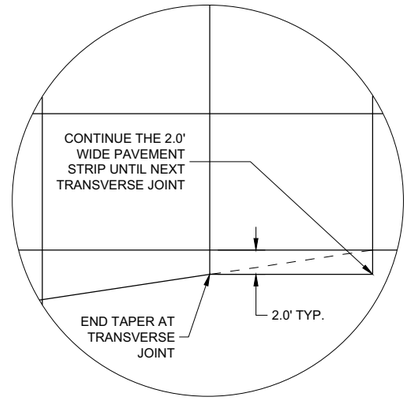
DETAIL "A"



DETAIL "B"



DETAIL "C"



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.

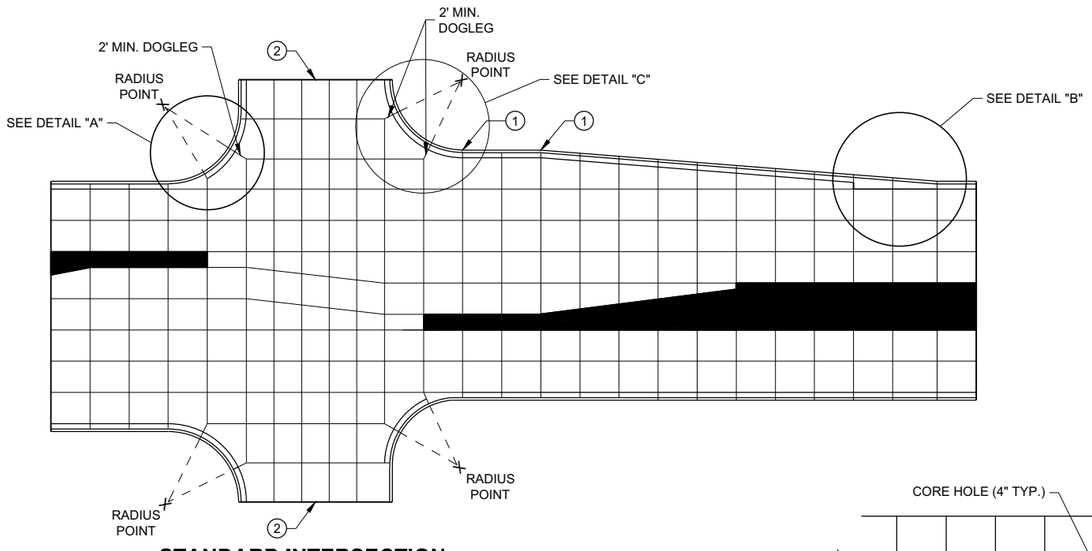
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

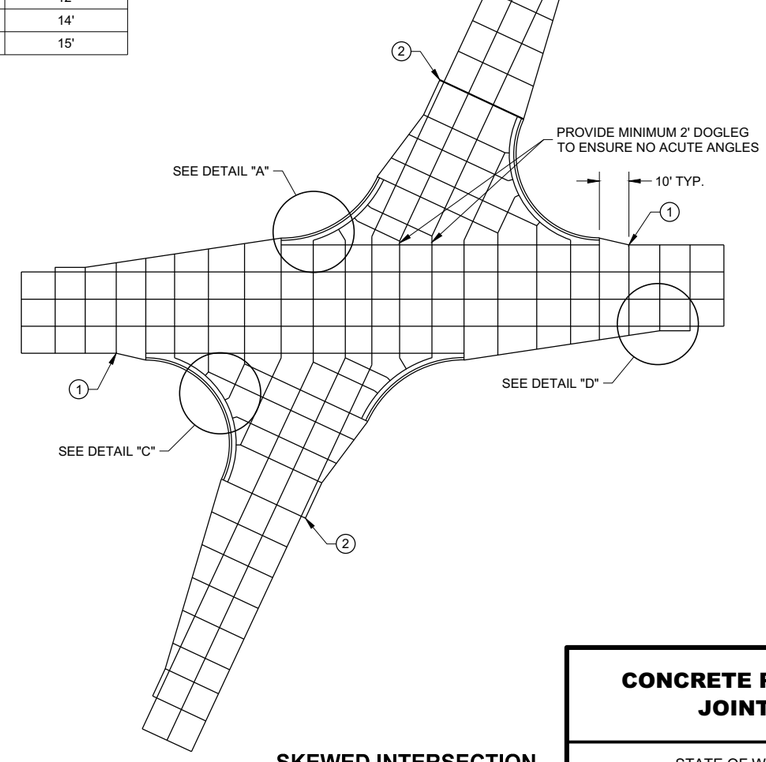
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITHEDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



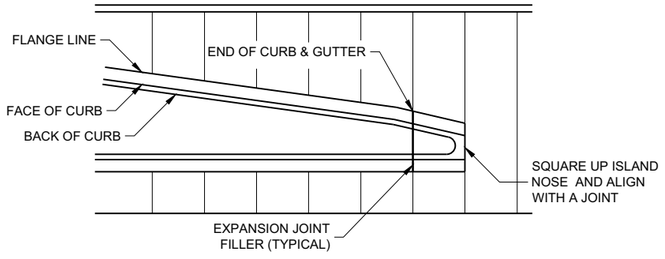
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

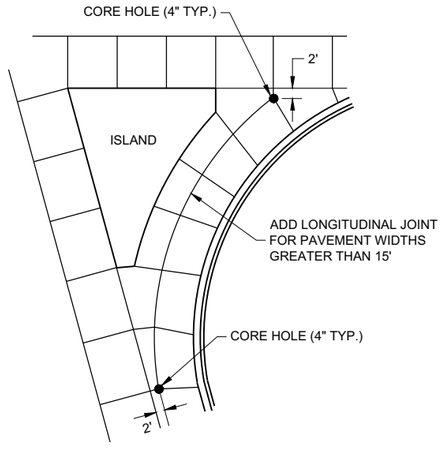
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 07a

6

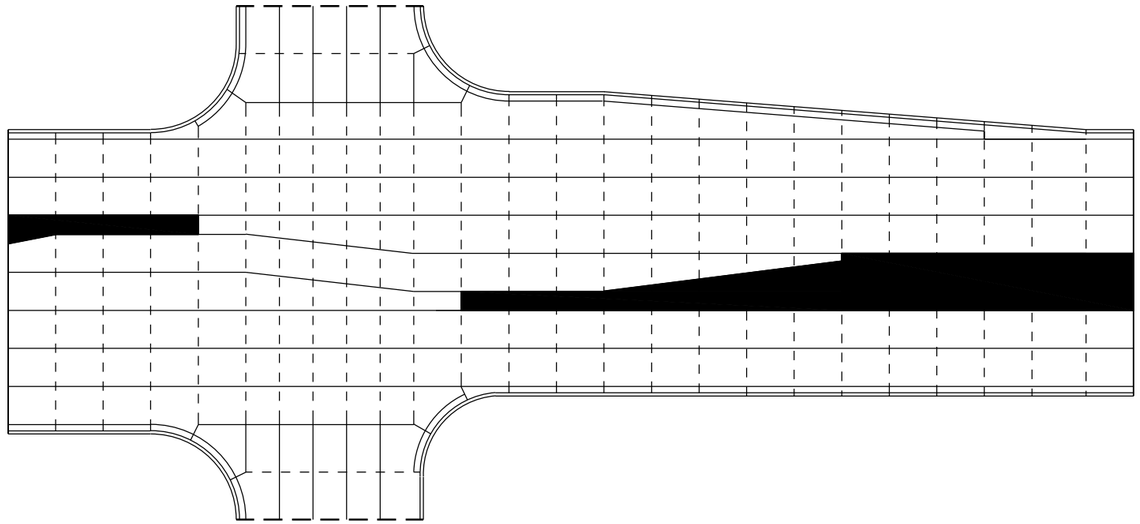
SDD 13C18 - 07a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

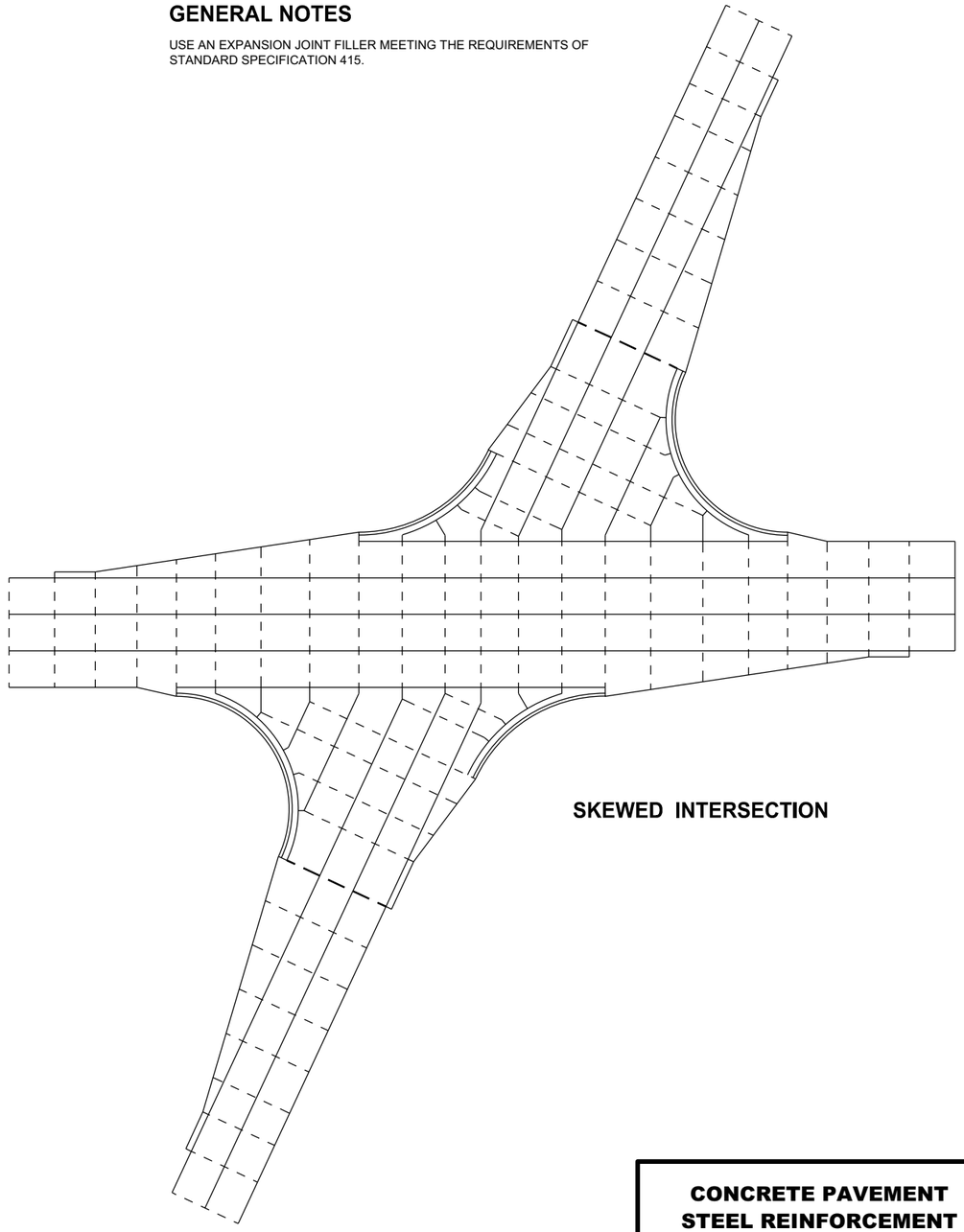
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

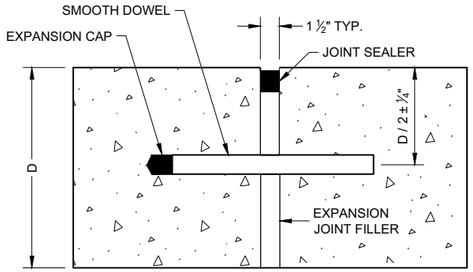
SDD 13C18 - 07b

CONCRETE PAVEMENT STEEL REINFORCEMENT

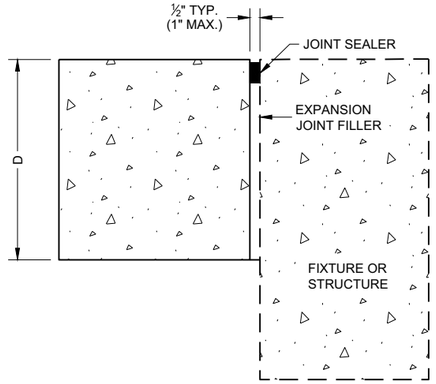
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

SDD 13C18 - 07b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

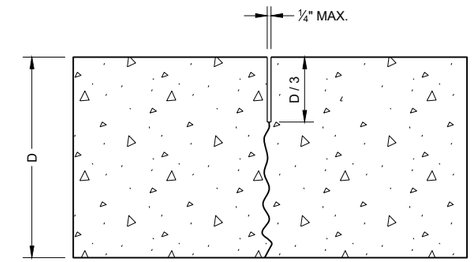
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

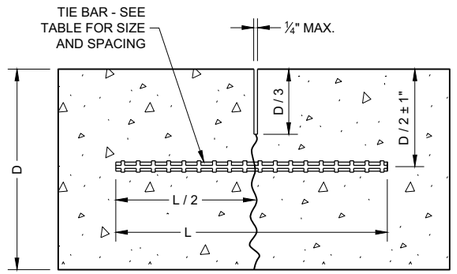
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

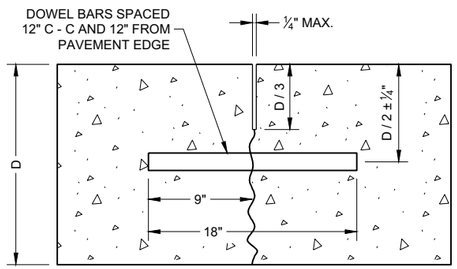
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM 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

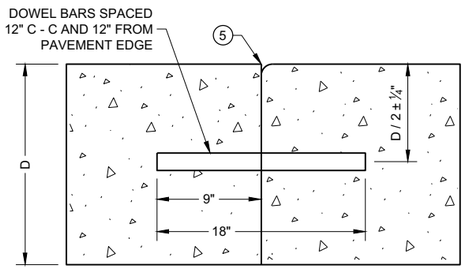


TIED LONGITUDINAL

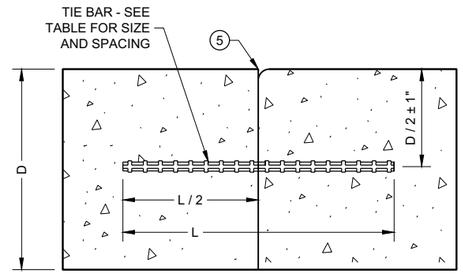


DOWELED TRANSVERSE

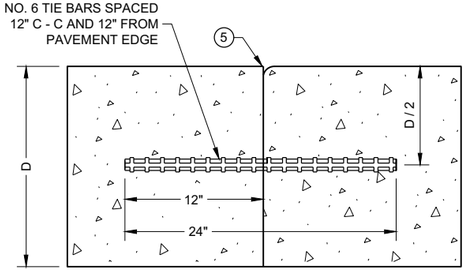
CONTRACTION JOINTS (2)



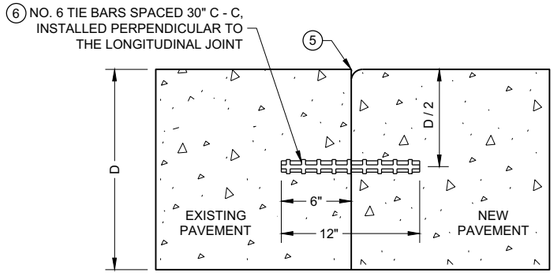
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

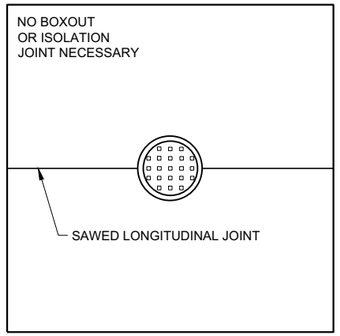
CONSTRUCTION JOINTS (4)

CONCRETE PAVEMENT JOINT TYPES

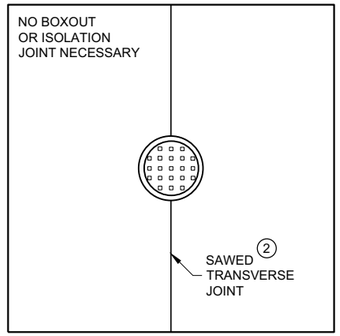
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

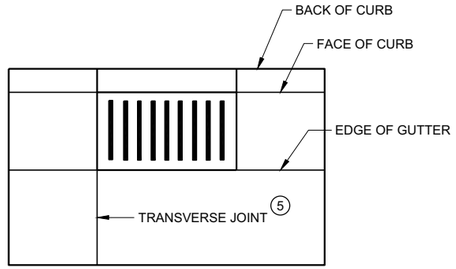
SDD 13C18 - 07c



MANHOLE WITH LONGITUDINAL JOINT



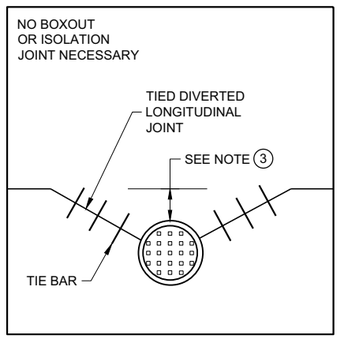
MANHOLE WITH TRANSVERSE JOINT



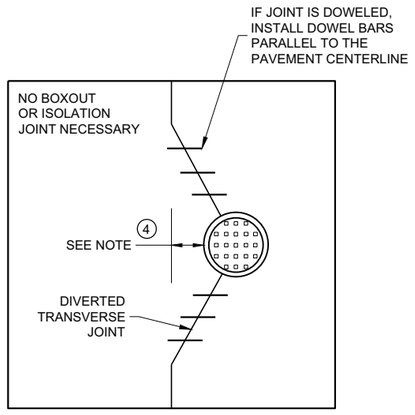
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

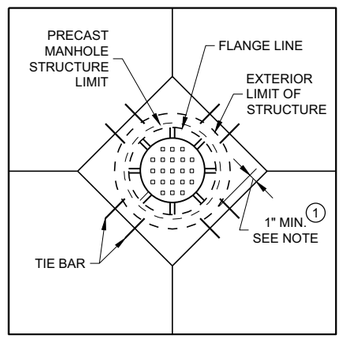
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF 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

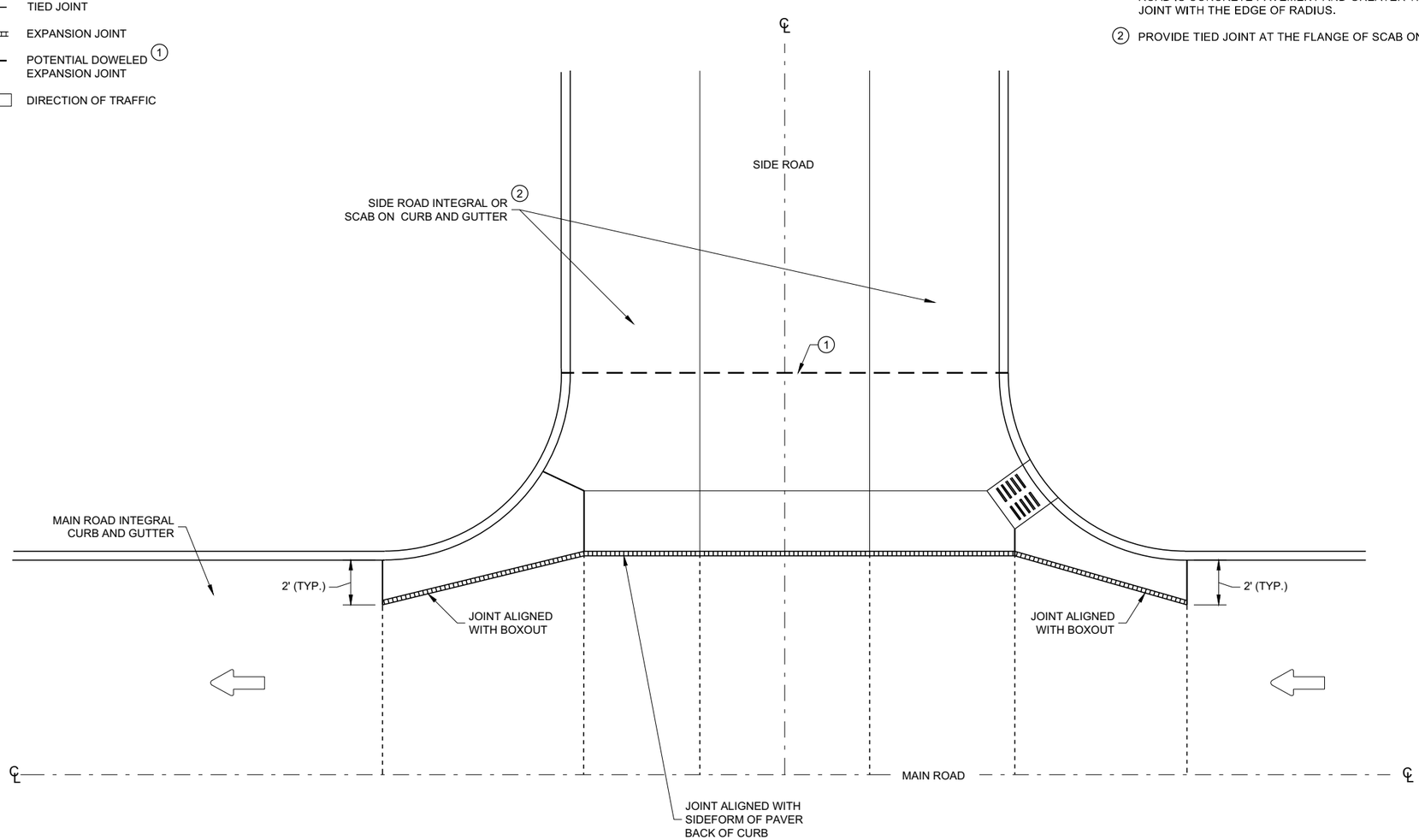
FHWA

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SDD 13C18 - 07d

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

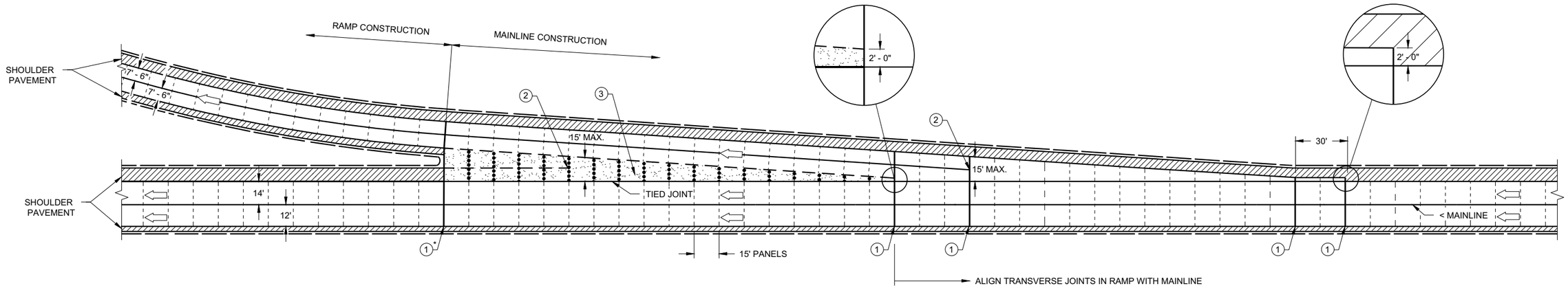
FHWA

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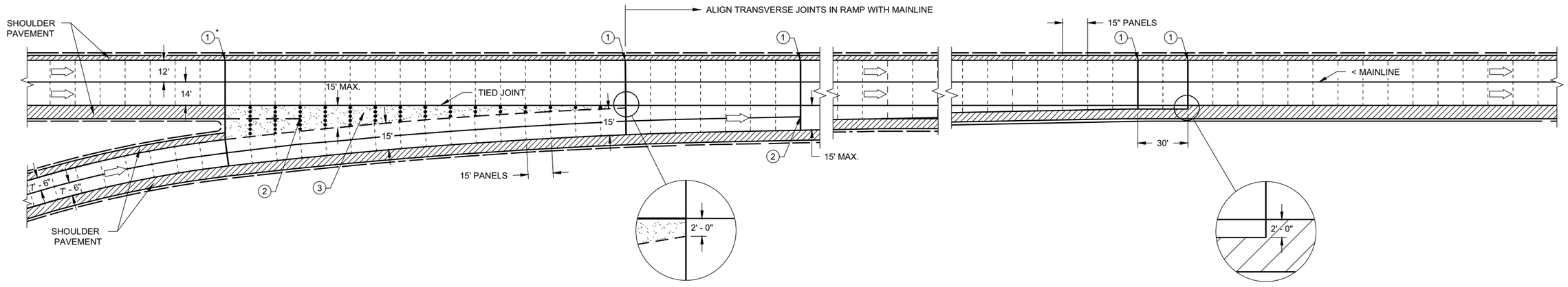
SDD 13C18 - 07f

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SDD 13C18 - 07f



DECELERATION LANE



ACCELERATION LANE

GENERAL NOTES

PAVEMENT AND BASE THICKNESS, PANEL LENGTHS, JOINTS AND REINFORCEMENT FOR THE DECELERATION AND ACCELERATION LANES, INCLUDING TAPERS, SHALL BE THE SAME AS THE MAINLINE, EXCEPT WHERE OTHERWISE NOTED.

ALL REINFORCEMENT BARS SHALL BE EPOXY COATED CONFORMING TO SUBSECTION 505.2.6 OF THE STANDARD SPECIFICATIONS.

LANE AND SHOULDER WIDTHS MAY VARY FROM SHOWN. SEE CONSTRUCTION PLANS FOR ACTUAL PROPOSED WIDTHS.

(1) CRITICAL TRANSVERSE JOINT LOCATIONS AT PAVEMENT WIDTH CHANGES. ((1)* IS NOT A CRITICAL TRANSVERSE JOINT WHEN ASPHALTIC GORE IS INSTALLED).

(2) STOP LONGITUDINAL JOINT WITH CORE HOLE (2" TYP.) WHEN IT MEETS THE FIRST TRANSVERSE JOINT LESS THAN 15' WIDE OR STOP LONGITUDINAL JOINT WHEN IT MEETS 2' AWAY FROM THE TIED JOINT OF THE MAINLINE.

(3) DISREGARD THE JOINT DETAILS IN AND AROUND THE GORE WHEN ASPHALTIC GORE IS INSTALLED.

LEGEND

- DOWELED JOINT
- UNDOWELED JOINT
- TIED JOINT
- UNTIED JOINT
- GORE
- DIRECTION OF TRAVEL

CONCRETE PAVEMENT JOINTING ACCELERATION/ DECELERATION LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

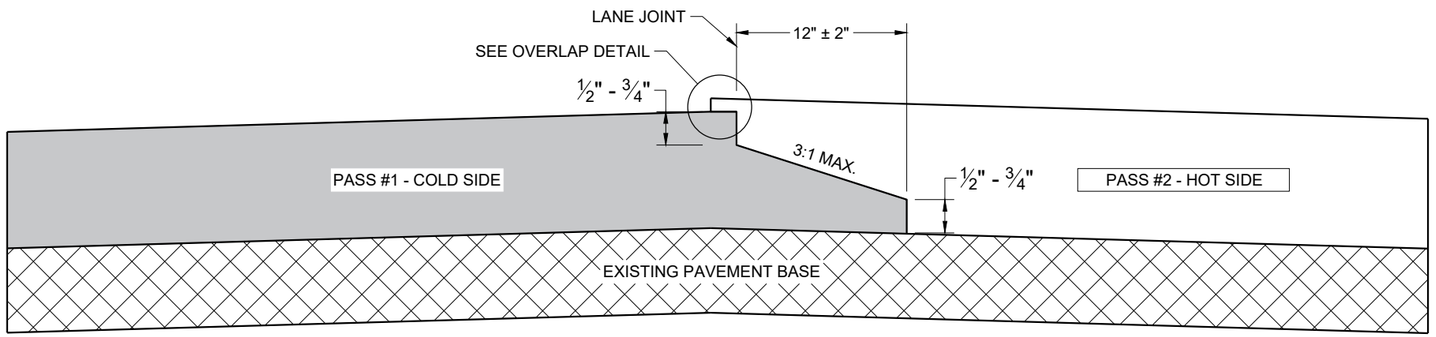
APPROVED
November 2018 — DATE
/S/ Peter Kemp P.E. — ROADWAY STANDARDS DEVE ENGINEER
FHWA

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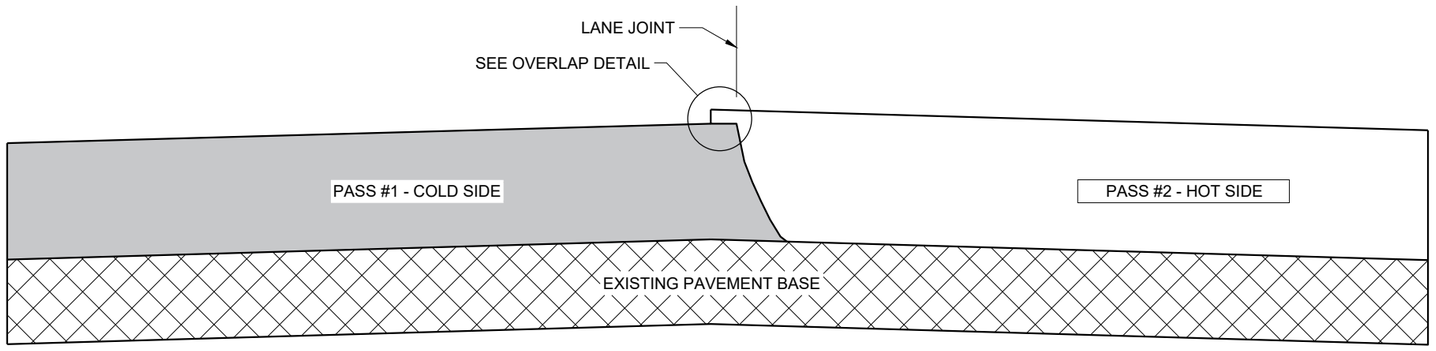
SDD 13C18 - 07g

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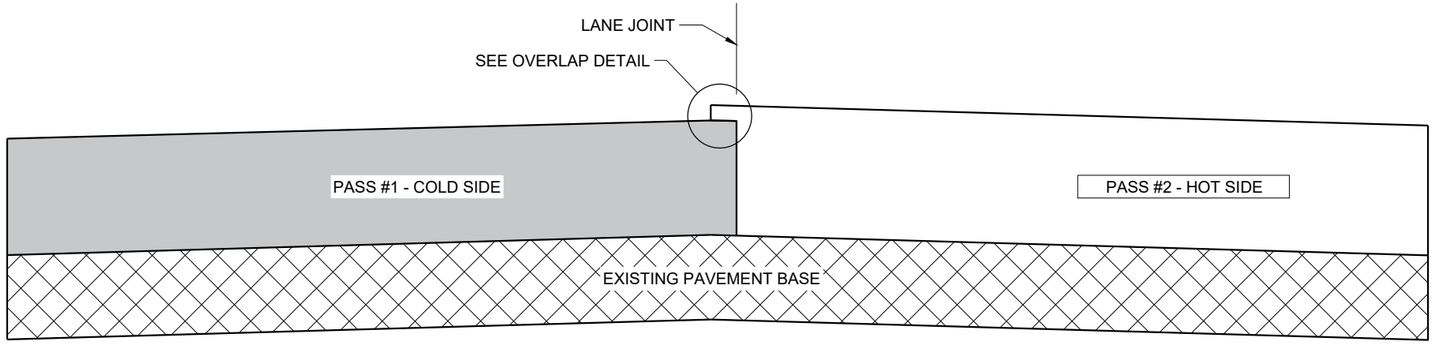
SDD 13C18 - 07g



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

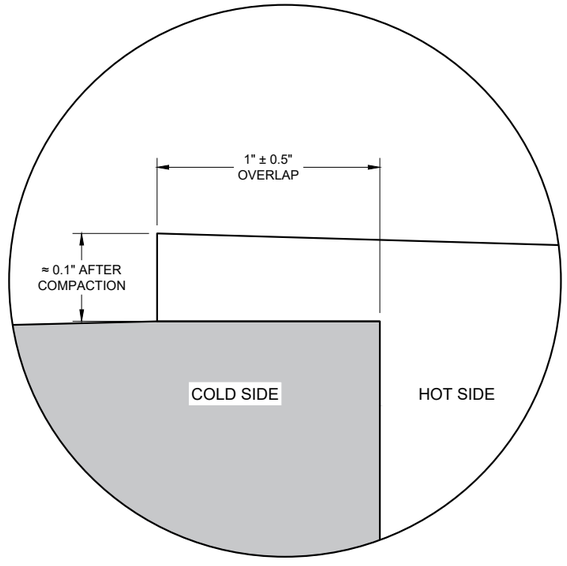
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

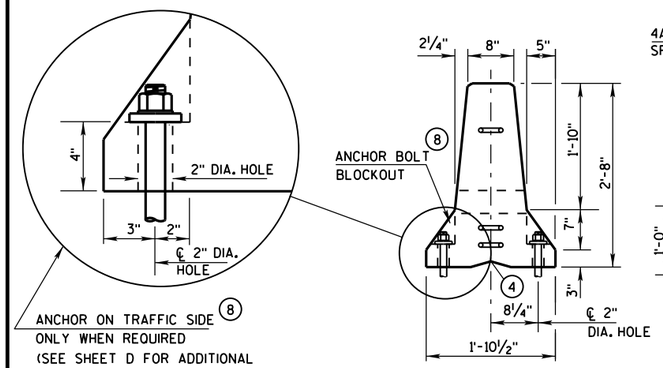
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

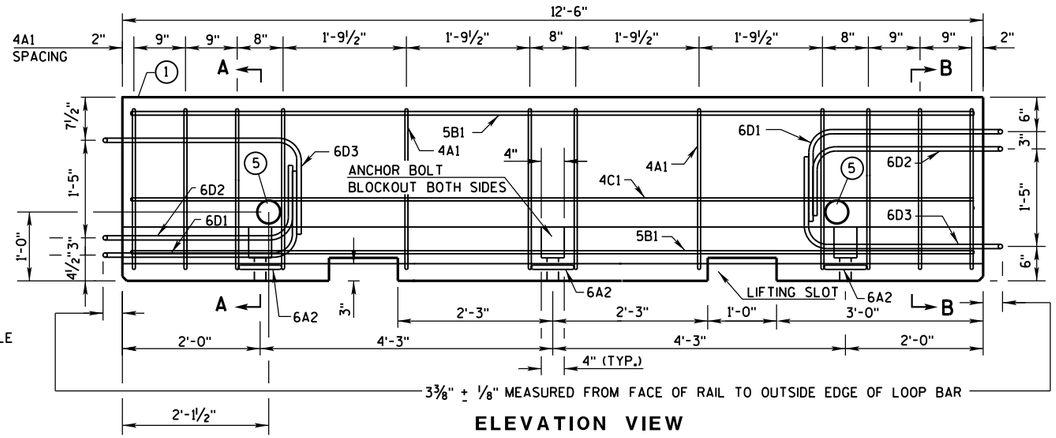
APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

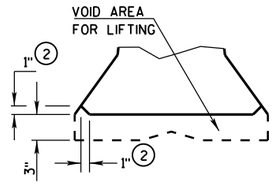
FHWA



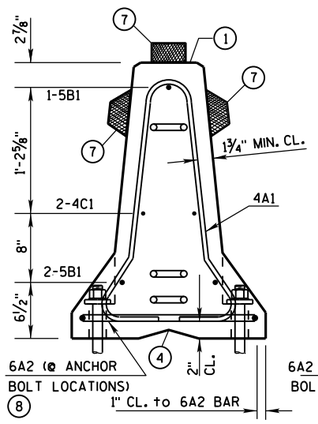
END VIEW



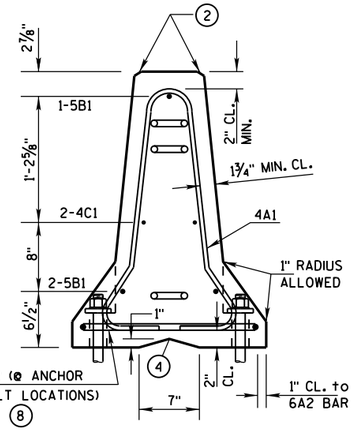
ELEVATION VIEW



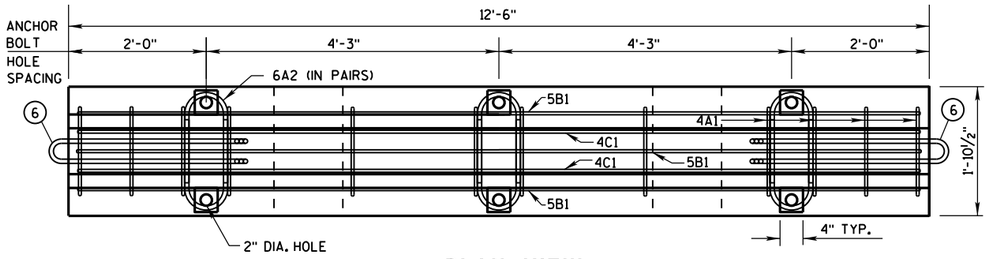
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

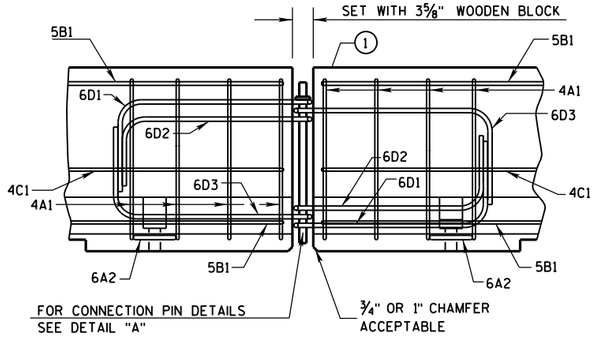


SECTION B-B
(STIRRUP PLACEMENT)

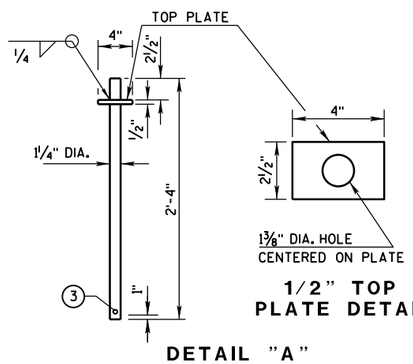


PLAN VIEW

DETAILS OF BARRIER SECTION

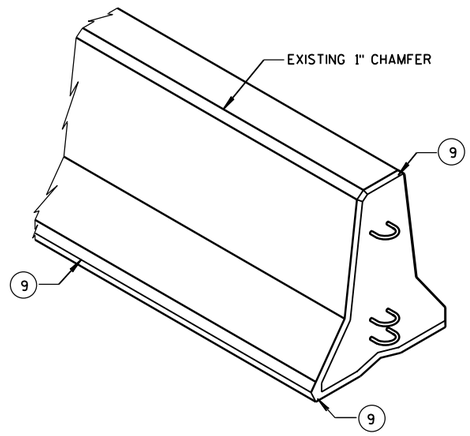


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(a) THRU 14B7-15(i).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.

(9) 1" CHAMFER OPTIONAL.

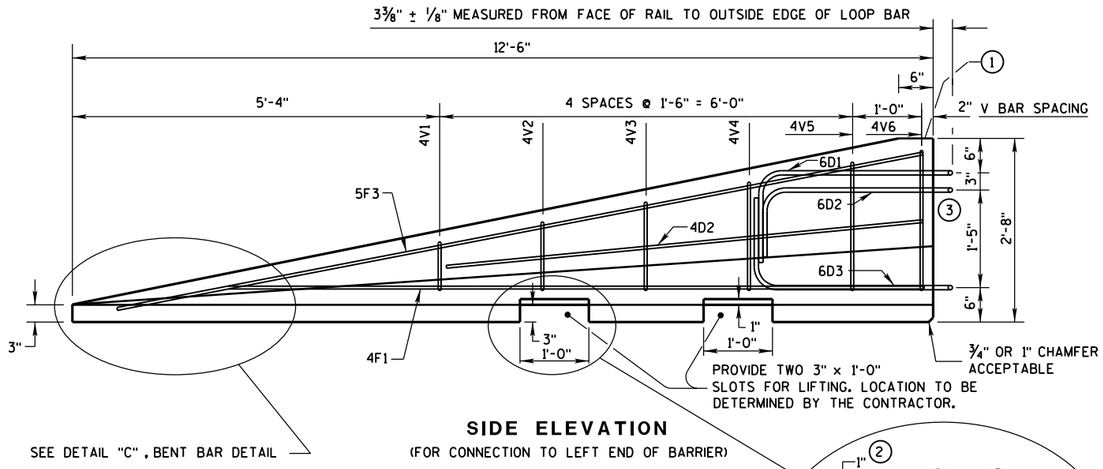
f'c = 4,000 psi

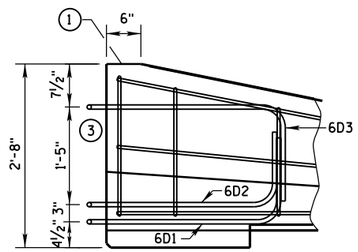
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

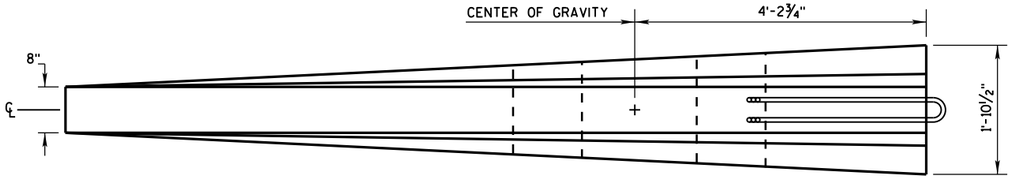
S.D.D. 14 B 7-15a

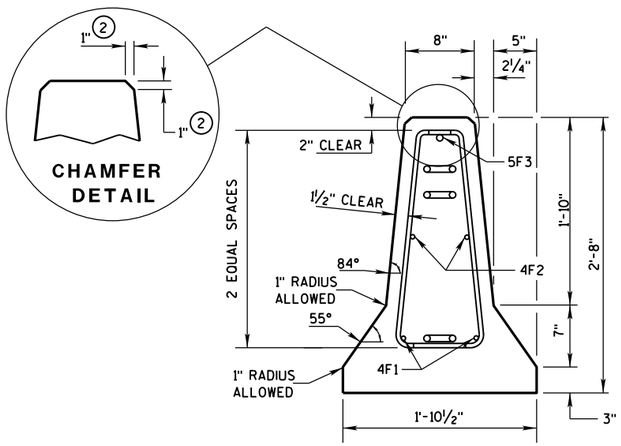


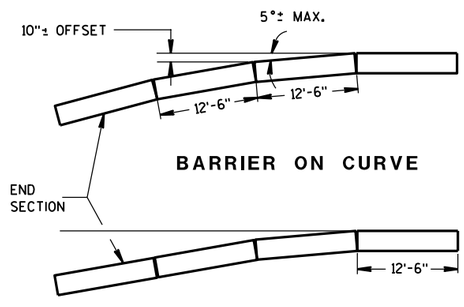


GENERAL NOTES

1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.







POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

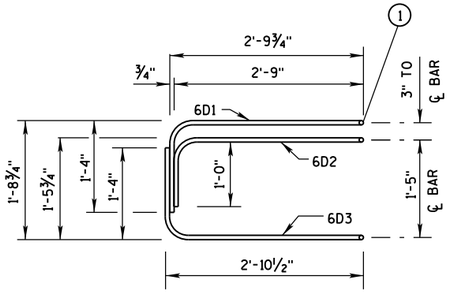
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-15b

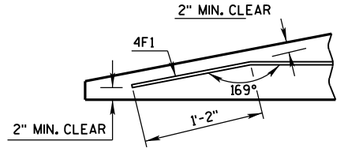
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

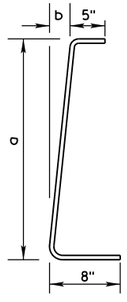
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

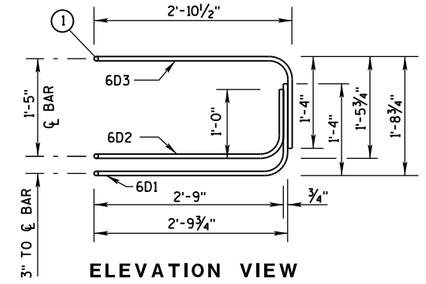
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

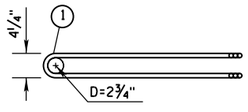
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

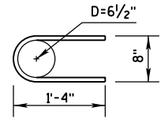
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



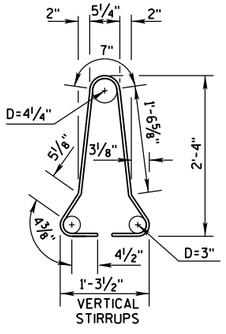
ELEVATION VIEW



PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



4A1

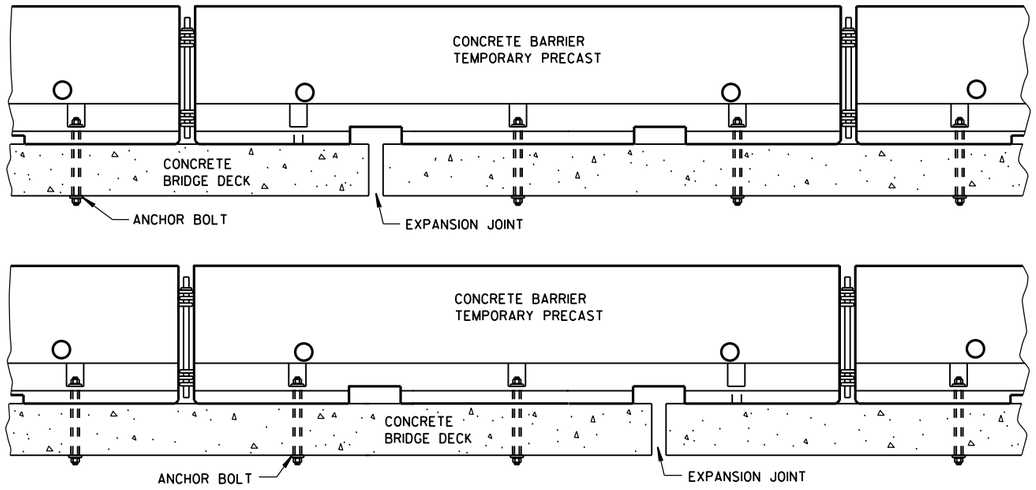
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 14 B 7-15c



TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(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.)

GENERAL NOTES

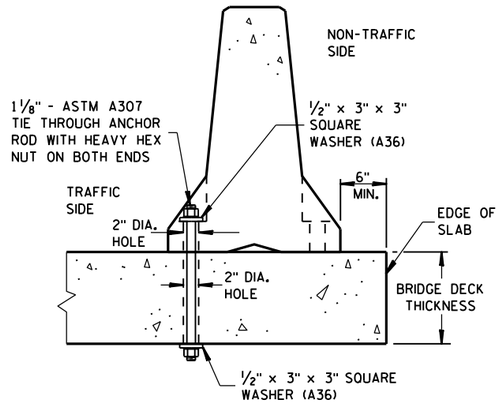
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERICAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(1) 1⅛" DIAMENTER A307 THREADED ROD. ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL. ASTM A563A HEAVY HEX NUT.

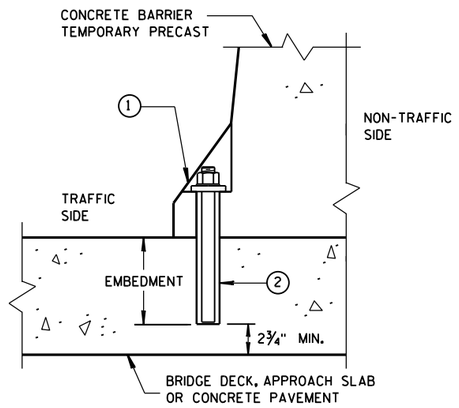
(2) ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

(3) ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THAN DRIVE ASPHALT ANCHOR PIN.



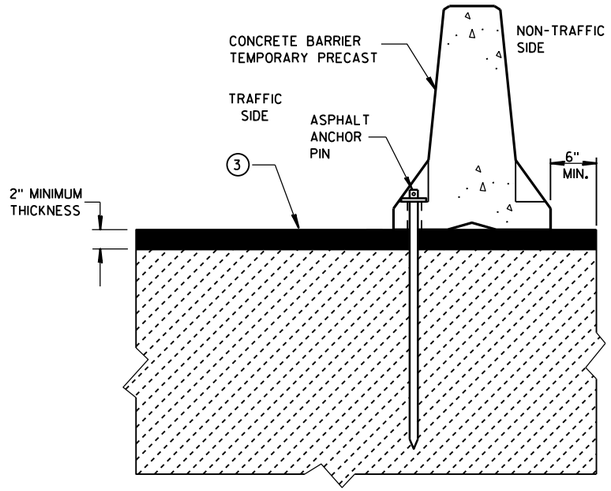
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)

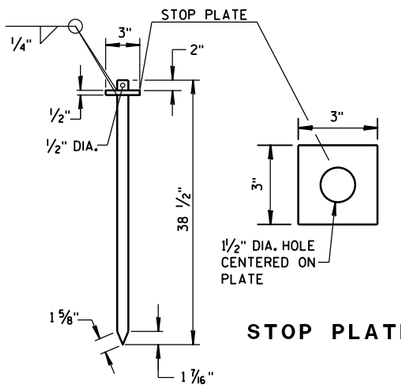


REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



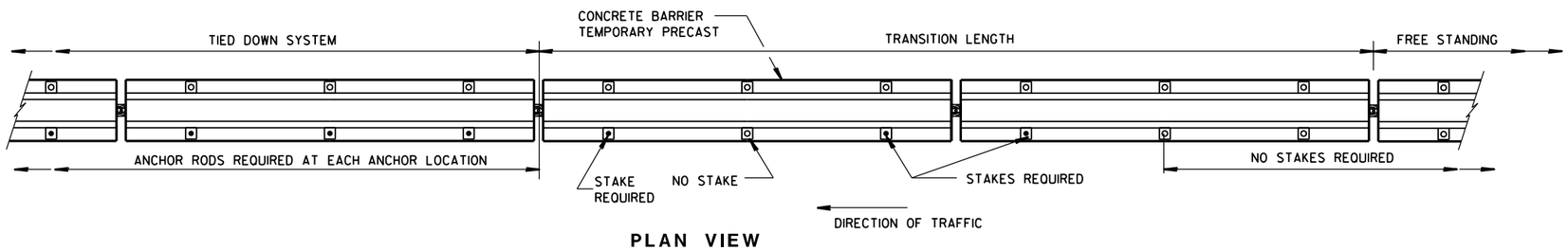
STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



STOP PLATE

ASPHALT ANCHOR PIN

(ASTM A36 STEEL)



PLAN VIEW

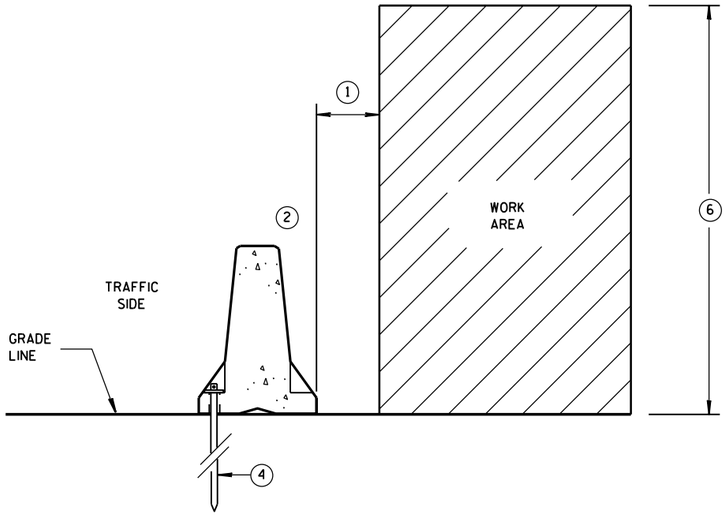
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

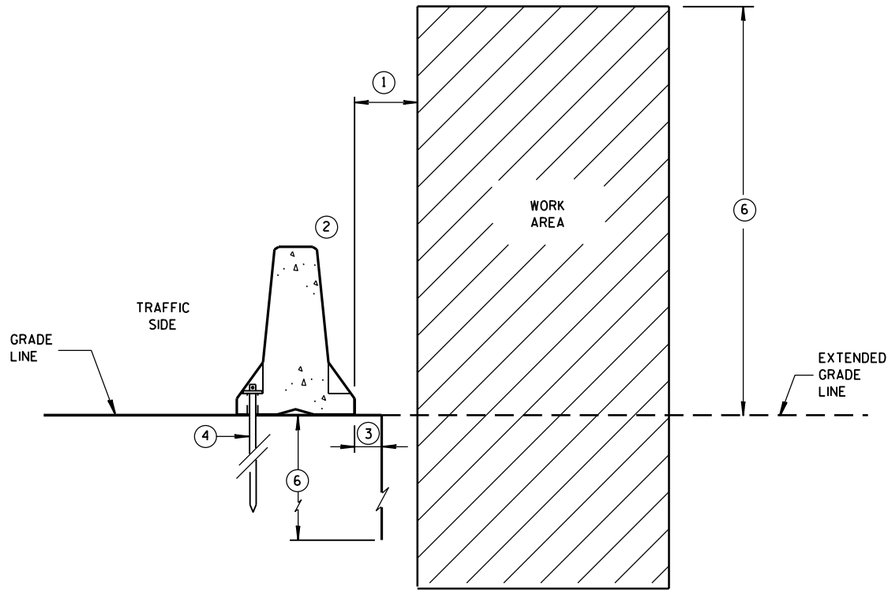
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 7-15d



ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

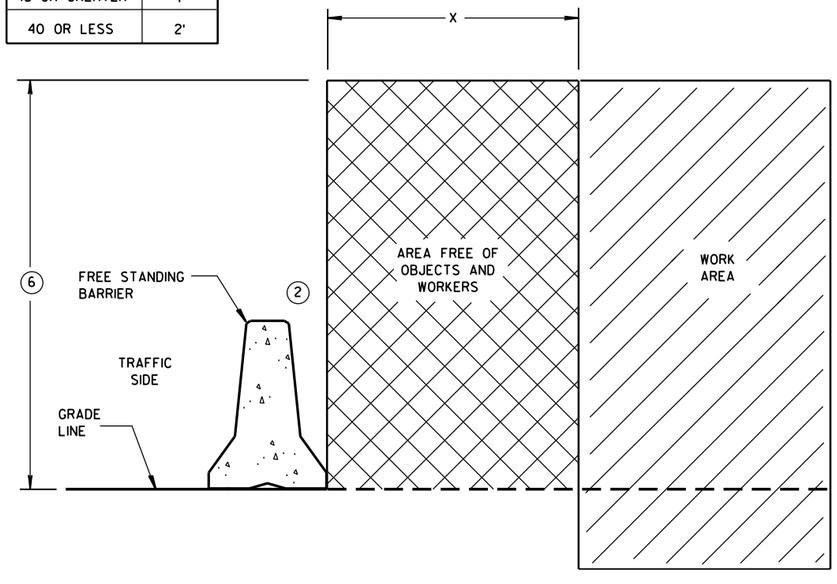


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

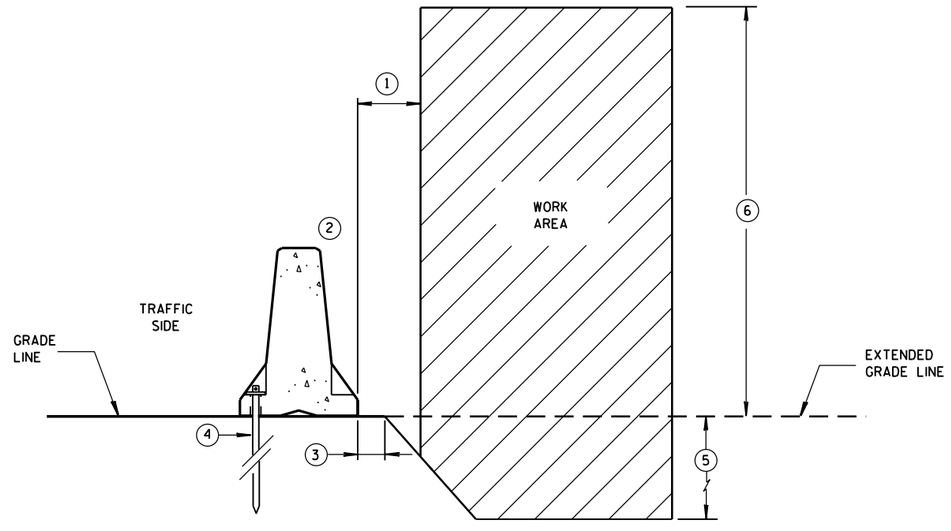
GENERAL NOTES

1. WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
2. OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
3. SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
4. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
5. DEPTH OF 3 FEET OR MORE.
6. Y = 6'-6".

POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



FREE STANDING BARRIER SPACE REQUIREMENTS



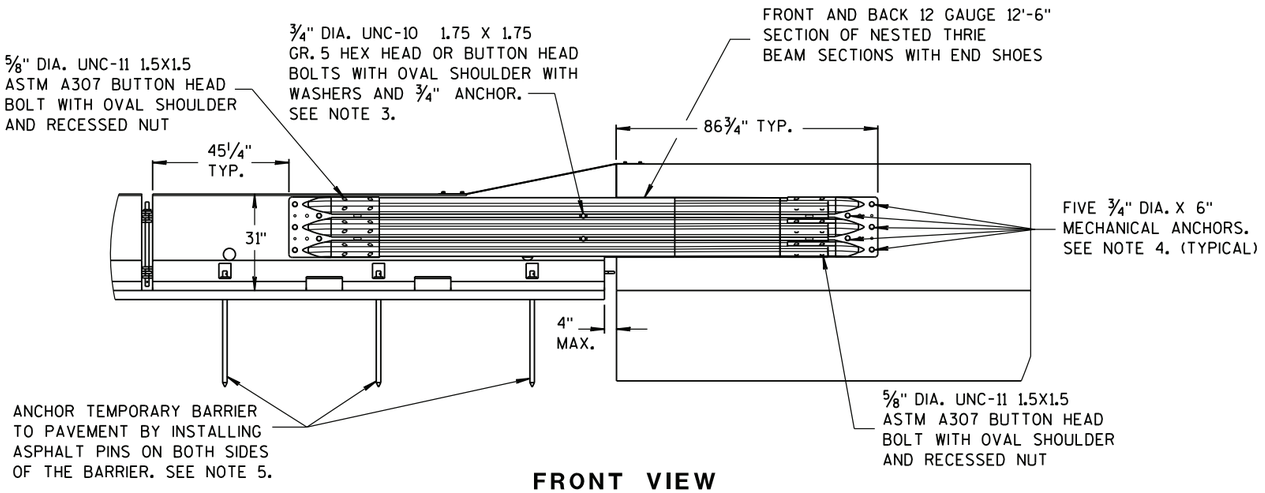
ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

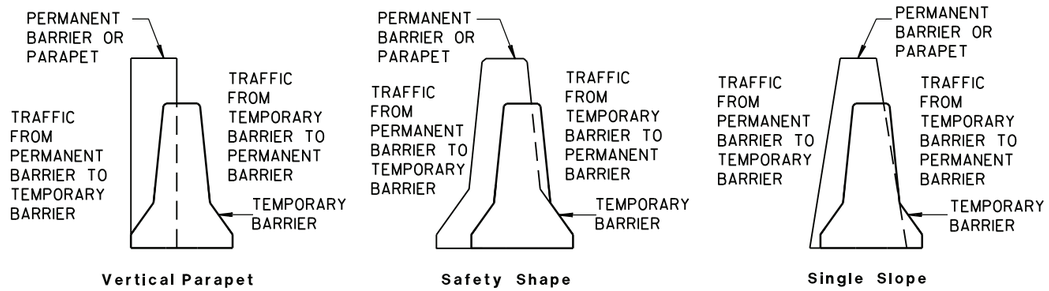
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

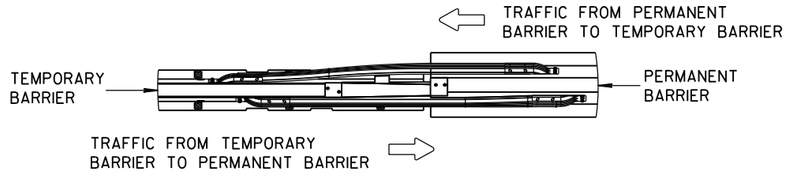
6

S.D.D. 14 B 7-15e



FRONT VIEW



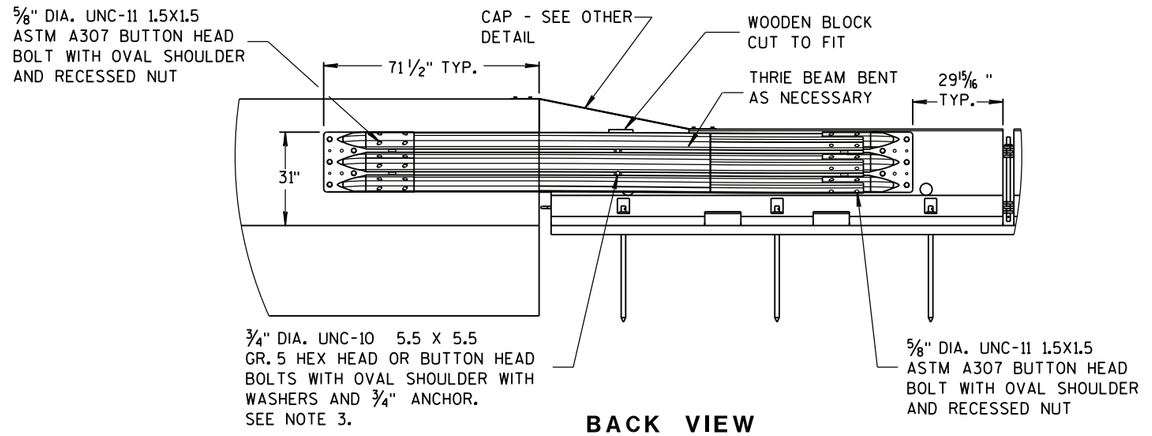


TEMPORARY BARRIER PLACEMENT FOR TRANSITION TO TIED DOWN SYSTEM

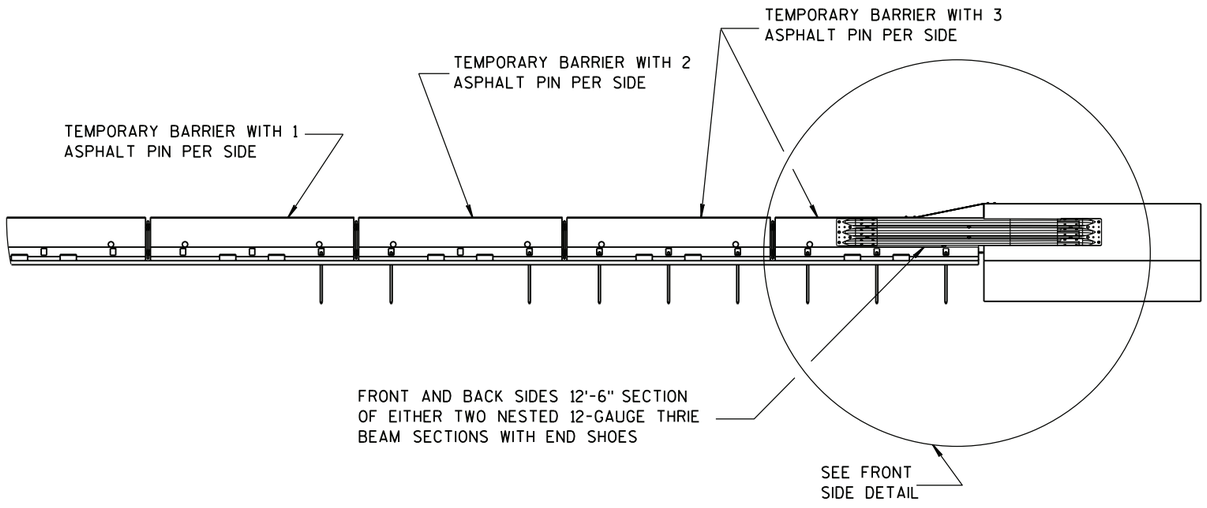
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS REGARDLESS OF TRAFFIC.

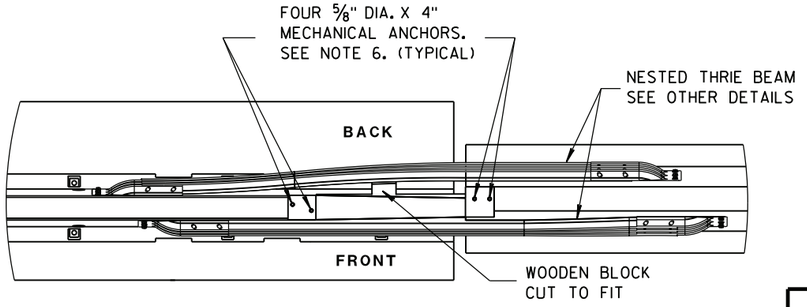
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



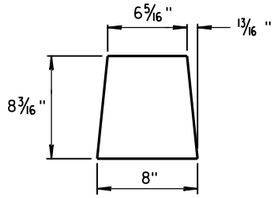
PLAN VIEW

TRANSITION TO TIED DOWN SYSTEM

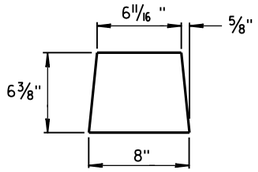
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

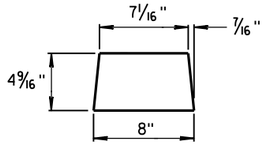
6
S.D.D. 14 B 7-15f



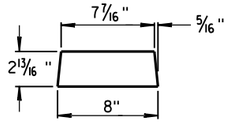
GUSSET 1



GUSSET 2

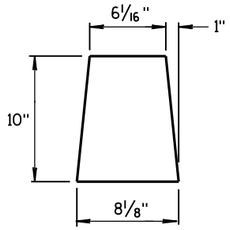


GUSSET 3

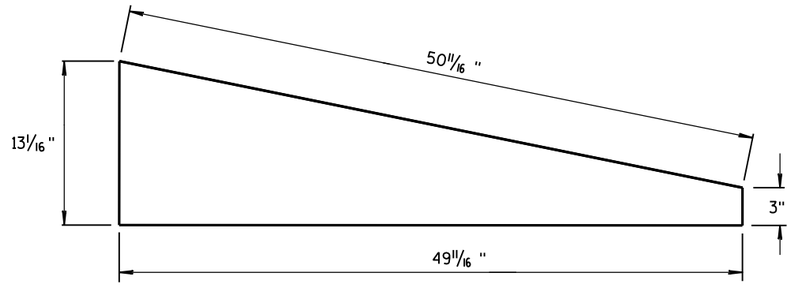


GUSSET 4

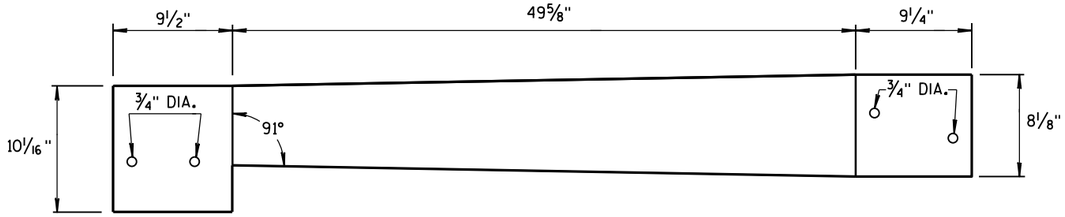
GUSSETS

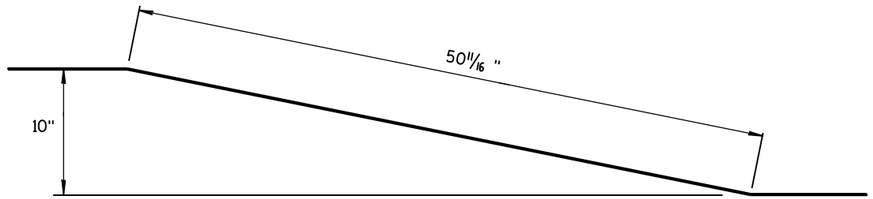


END PLATE

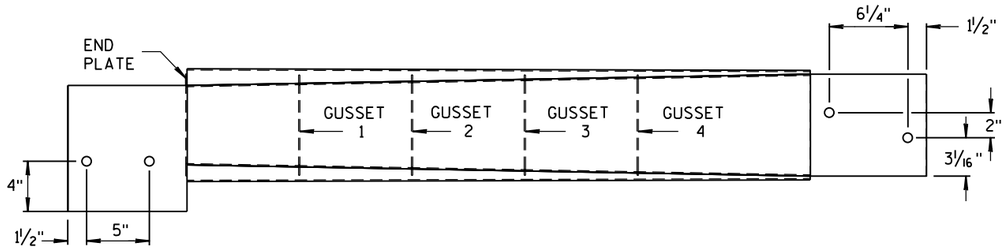


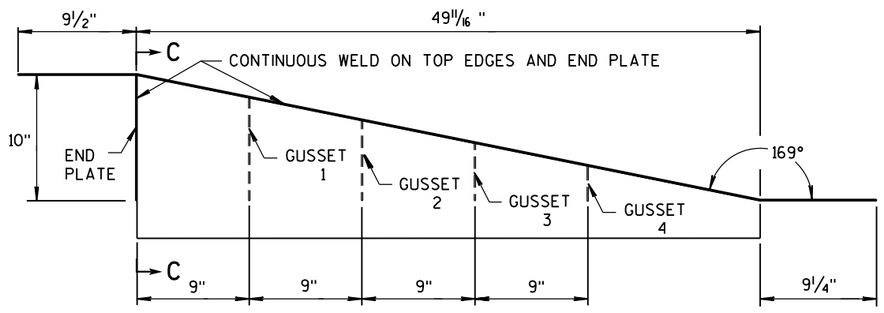
SIDE PLATE

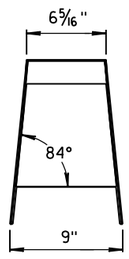




TOP PLATE







SECTION C-C

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

NOTES

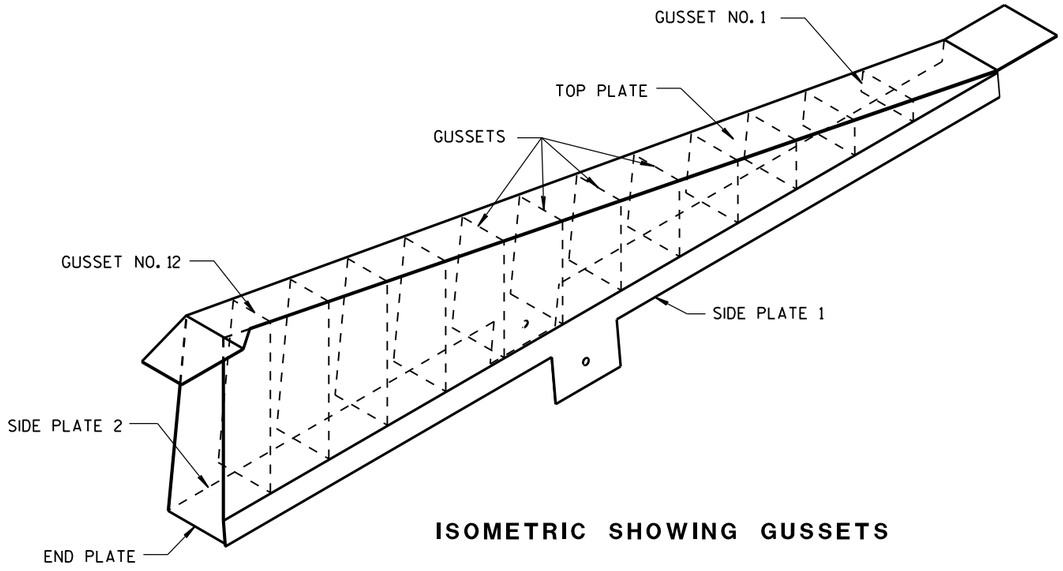
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

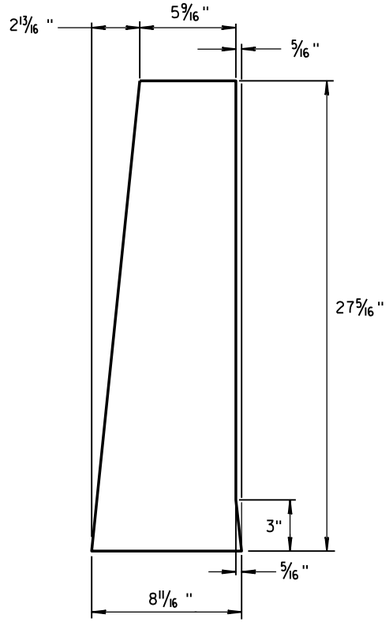
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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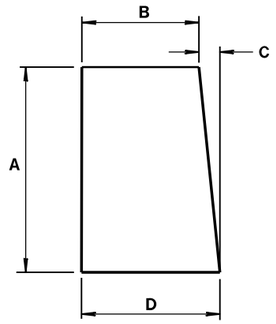


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



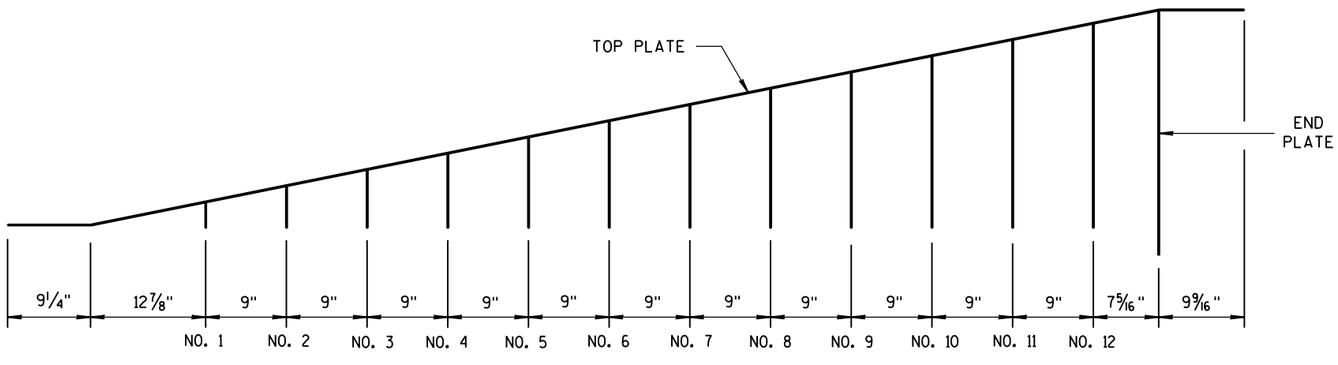
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



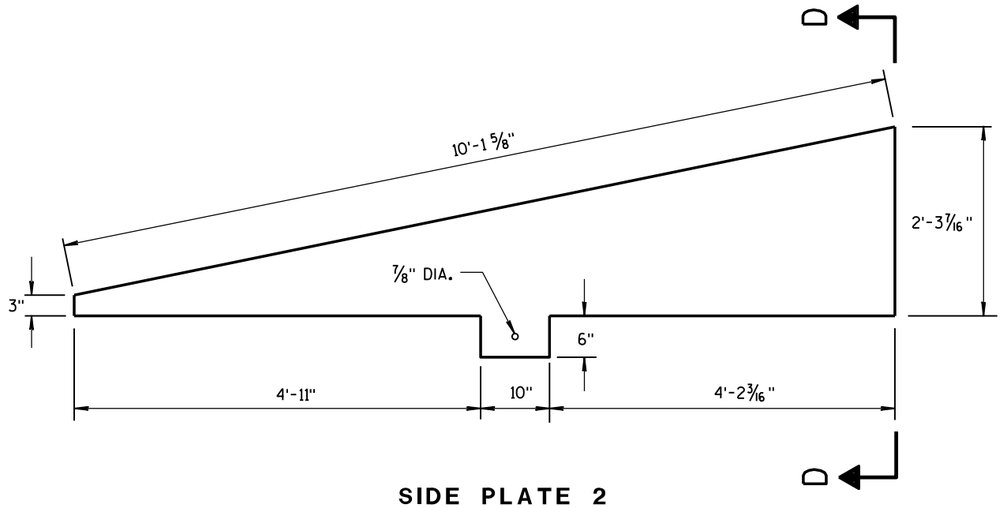
GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

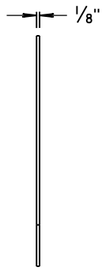
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
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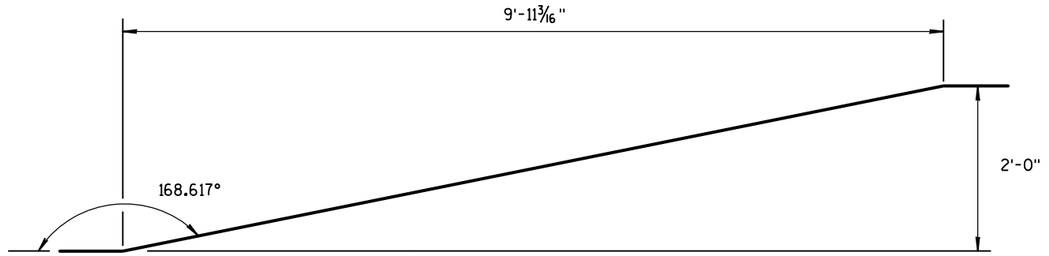
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S.D.D. 14 B 7-15h



SIDE PLATE 2

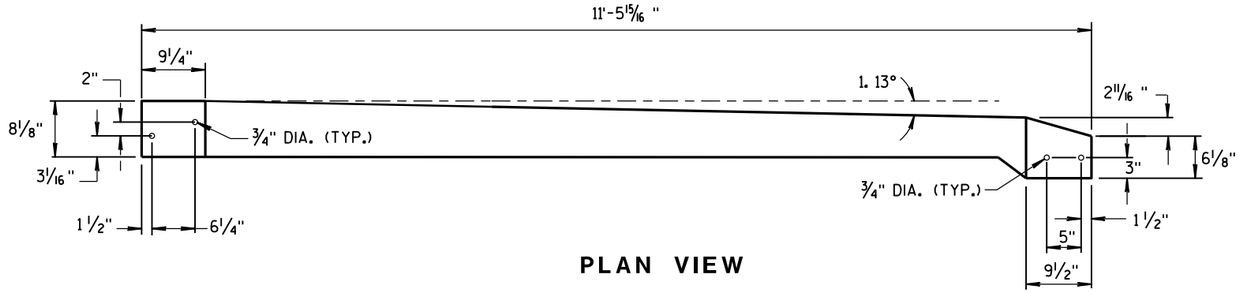


END VIEW



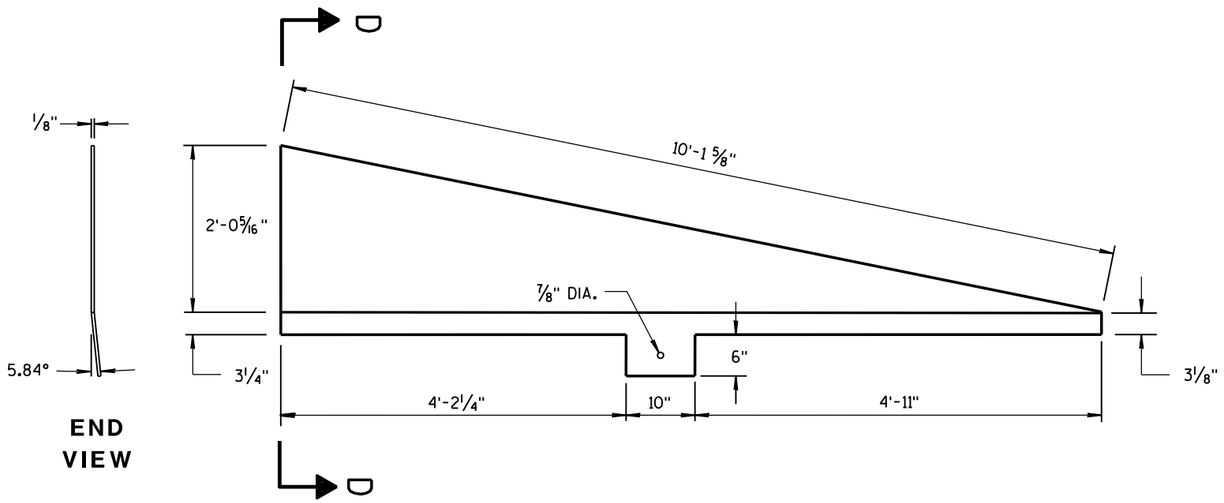
SIDE VIEW

TOP PLATE



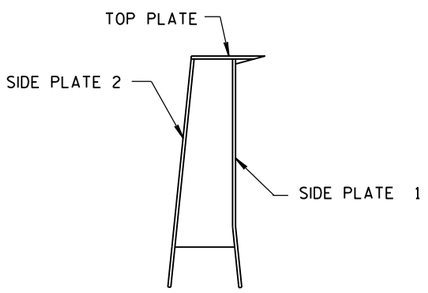
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
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GENERAL NOTES

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

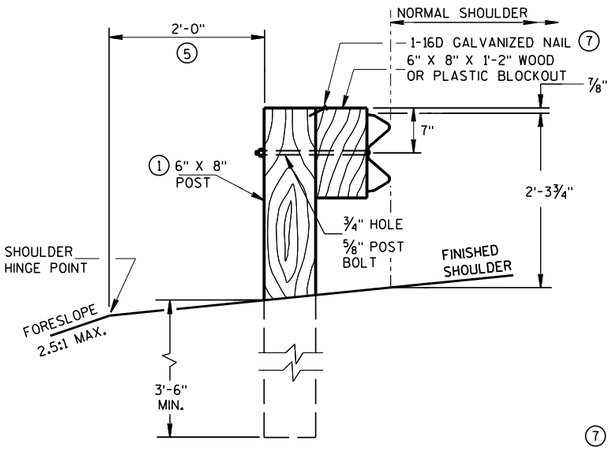
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

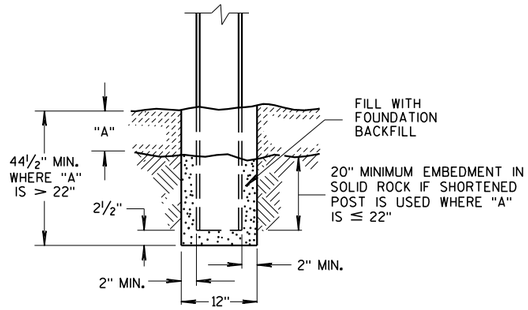
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

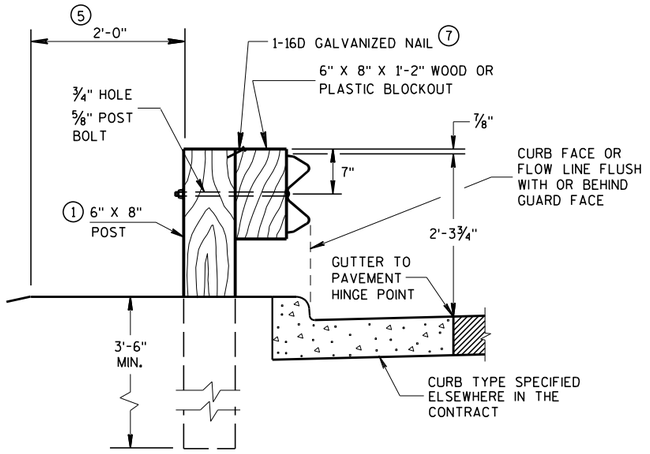
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



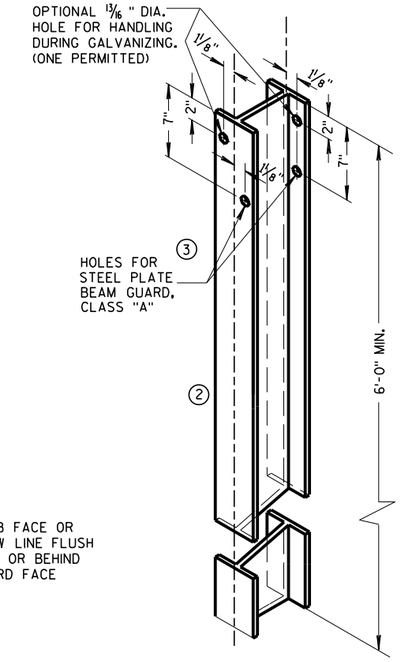
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)

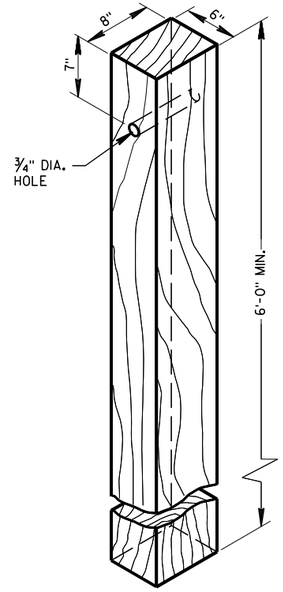


END VIEW
LOCATED ALONG A CURBED ROADWAY

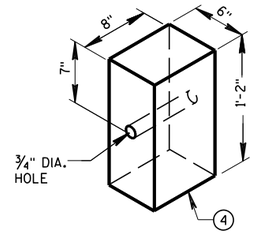


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) ①

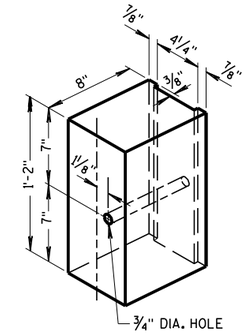
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



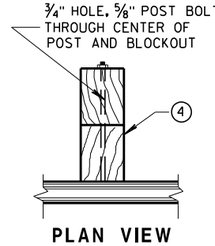
WOOD POST
(6"X8") NOMINAL



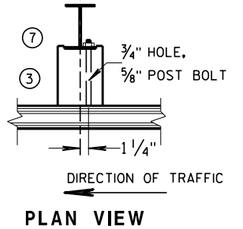
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



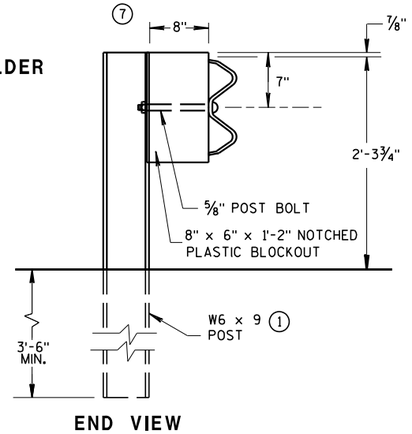
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS (1)



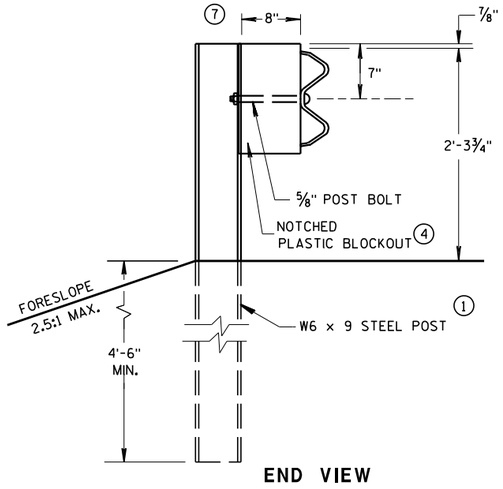
PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



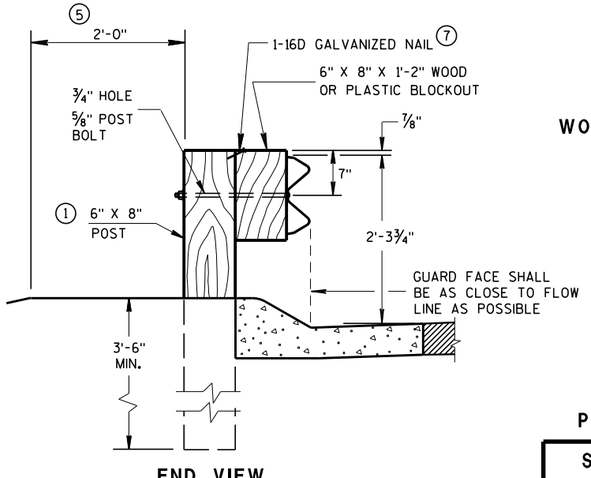
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)



END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

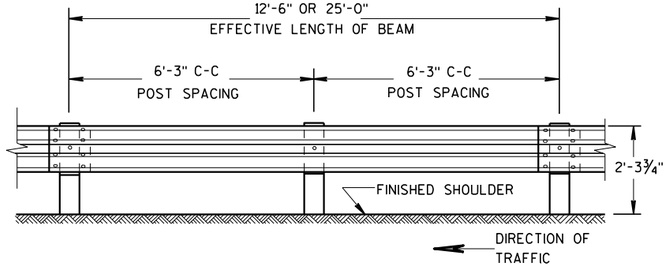
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

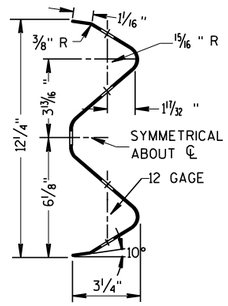
S.D.D. 14 B 15-11a

S.D.D. 14 B 15-11a

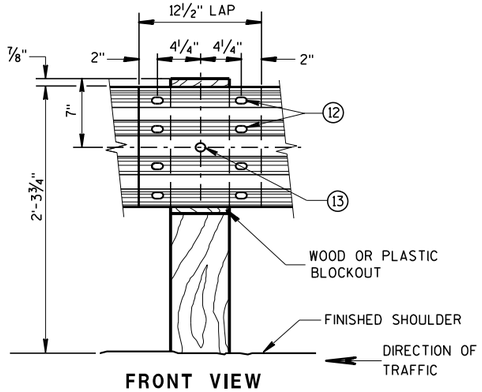


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

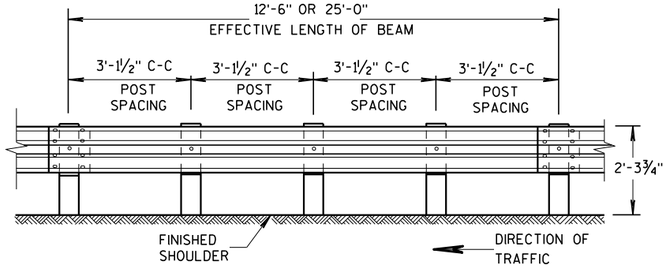
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

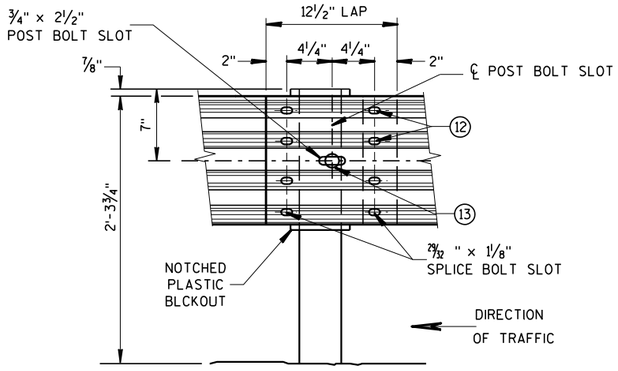
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) ⅝" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH ⅝" DIA. F844 FLAT WASHER UNDER NUT.



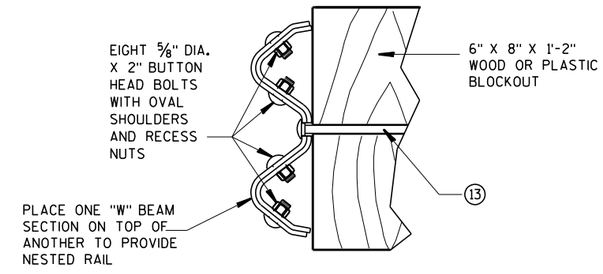
FRONT VIEW

POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

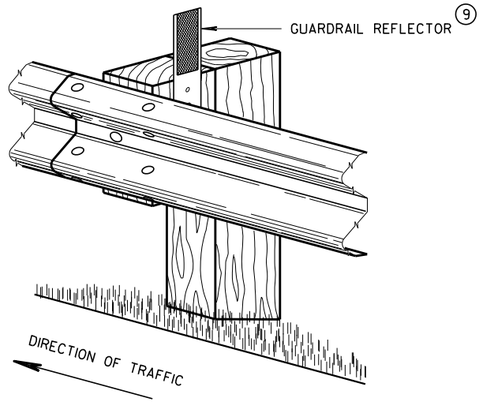


NESTED W BEAM (NW)

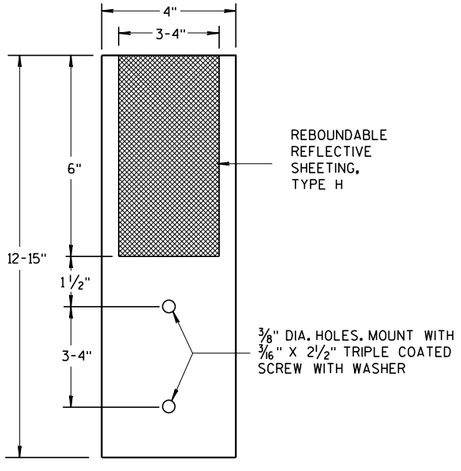
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

* USE DOUBLE SIDED WHITE GUADRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

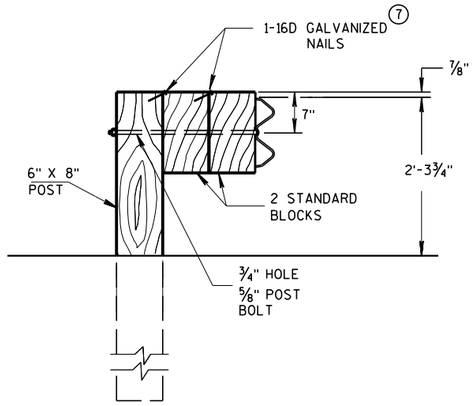
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DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 15-11b

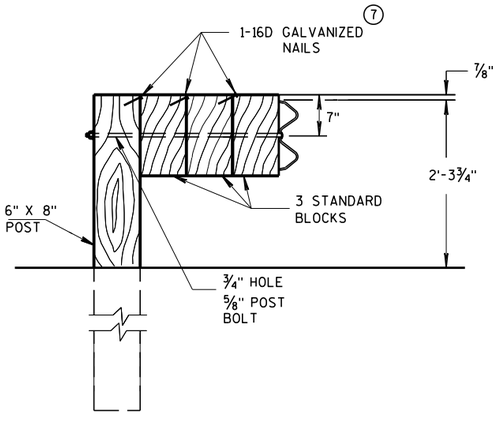
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S.D.D. 14 B 15-11b



DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

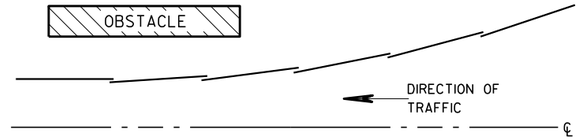


DETAIL FOR TRIPLE BLOCKS

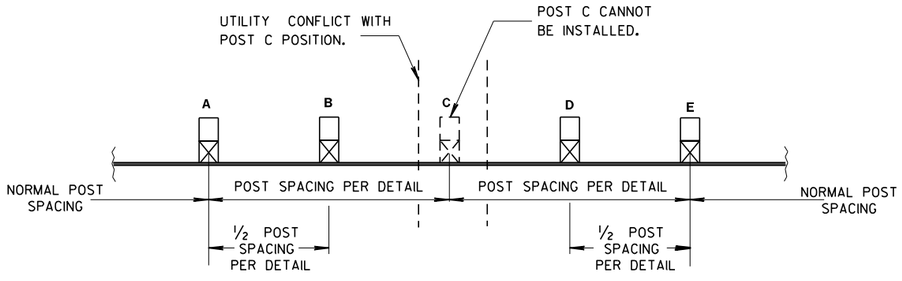
TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA 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.



PLAN VIEW
BEAM LAPPING DETAIL



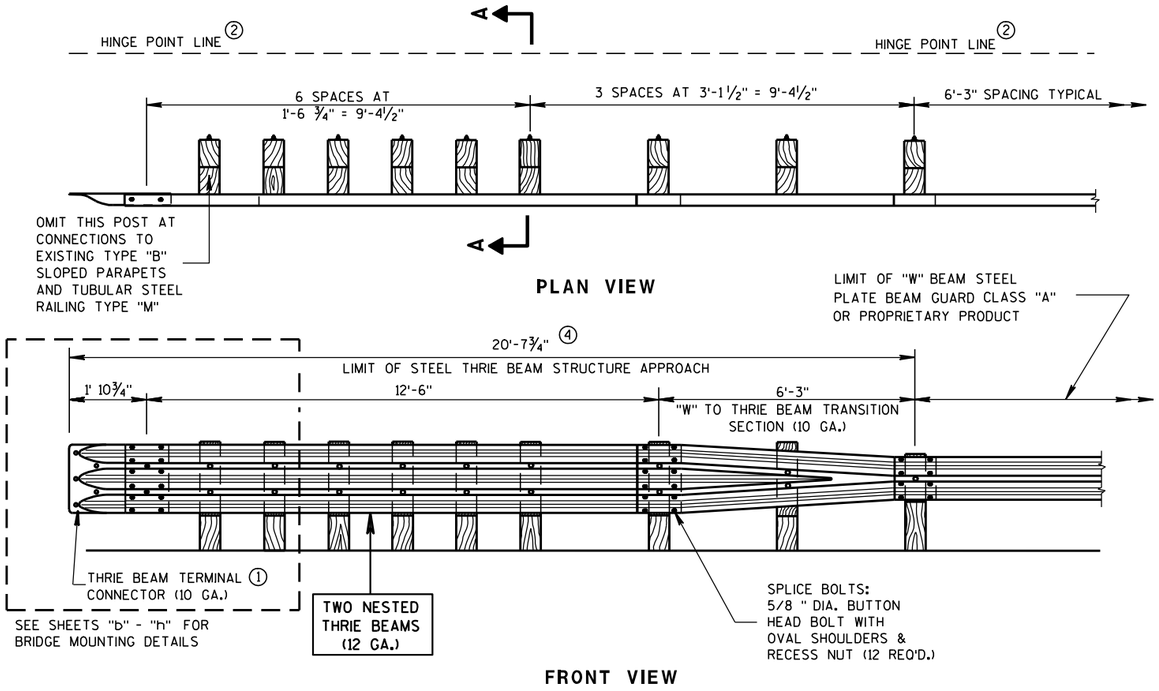
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6
S.D.D. 14 B 15-11c



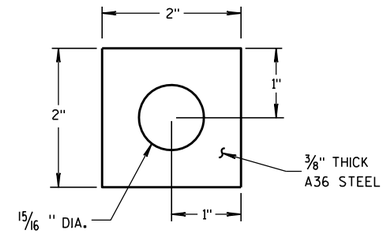


PLATE WASHER DETAIL

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.

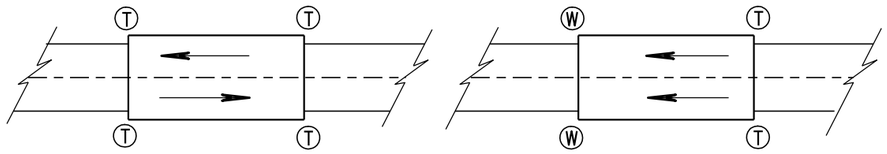
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

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.



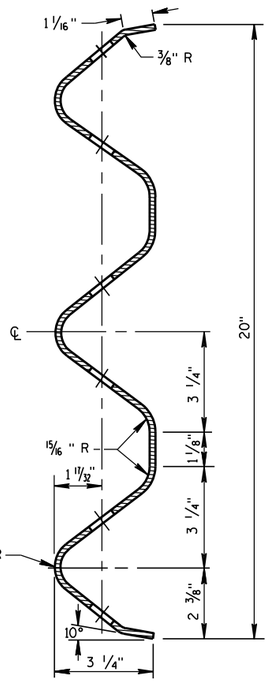
TWO WAY TRAFFIC

ONE WAY TRAFFIC

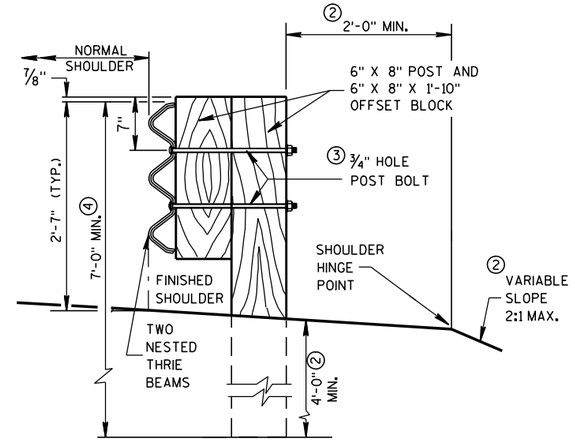
(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

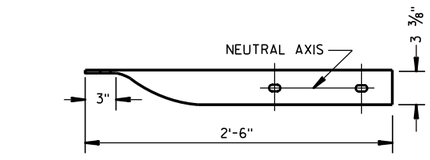
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

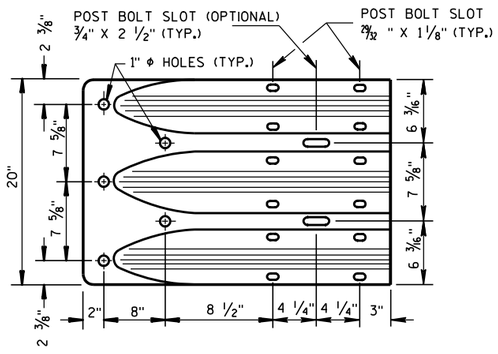


SECTION THRU THRIE BEAM RAIL ELEMENT

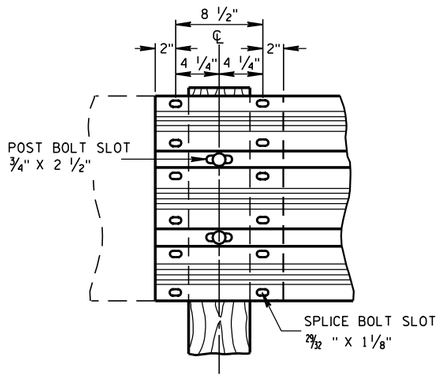


SECTION A-A





THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE

STEEL THRIE BEAM STRUCTURE APPROACH

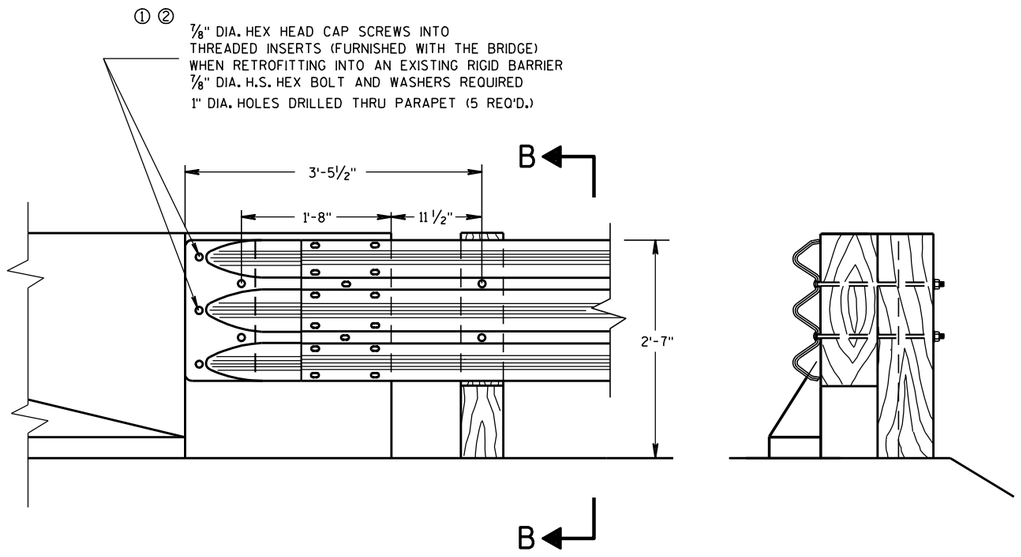
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DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

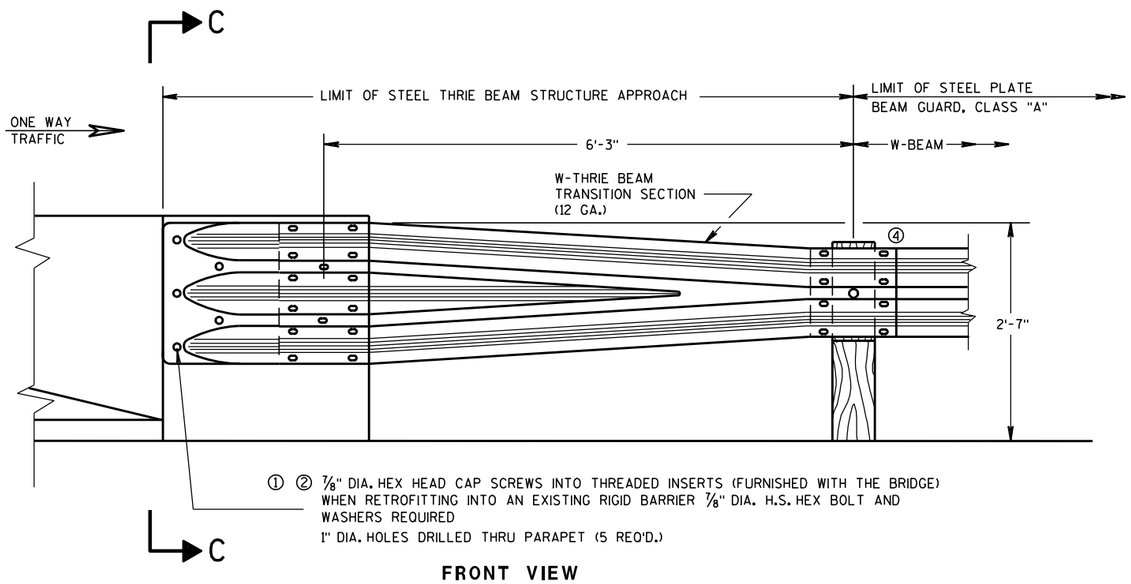
FHWA



FRONT VIEW

SECTION B-B

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



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)

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.

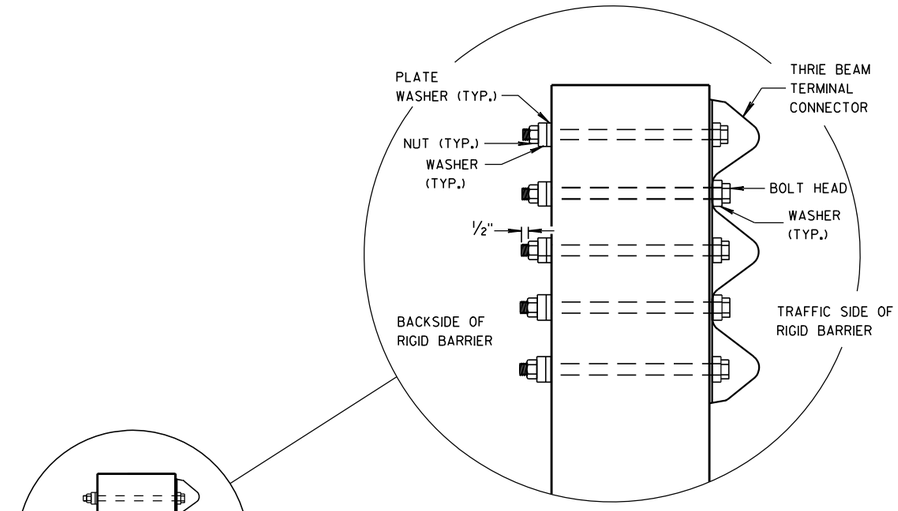
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

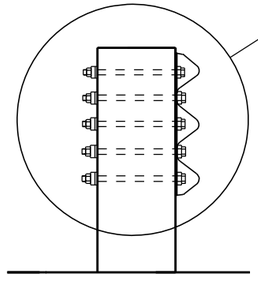
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. 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

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS [illegible] ENGINEER
FHWA

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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.

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.

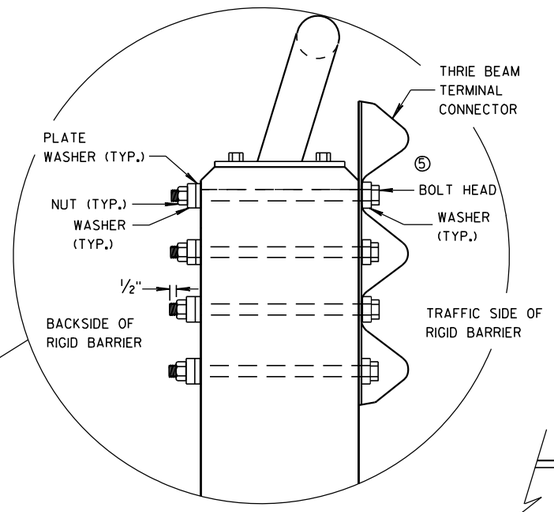
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. 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.

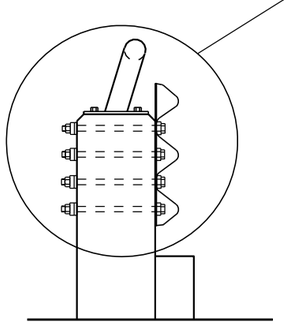
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

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.

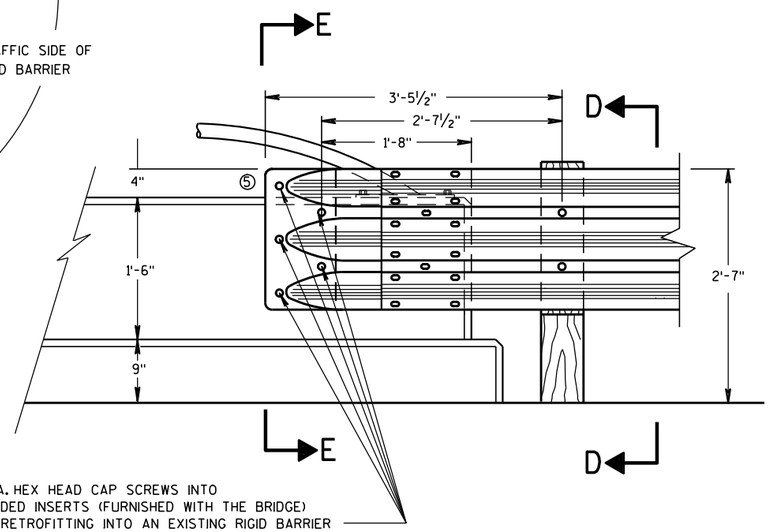
⑤ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

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.





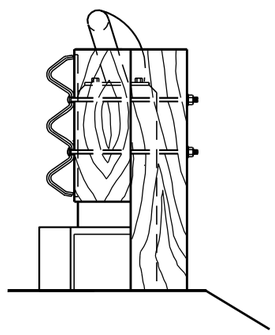
SECTION E-E



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

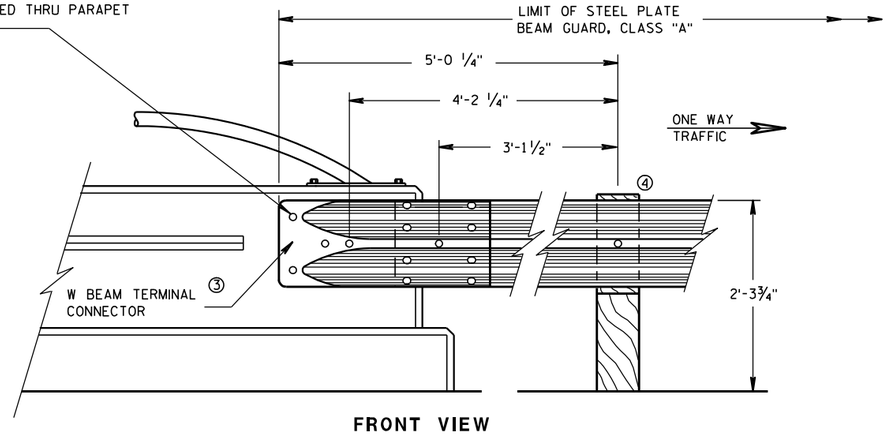


SECTION D-D

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. 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 [ENT
ENGINEER

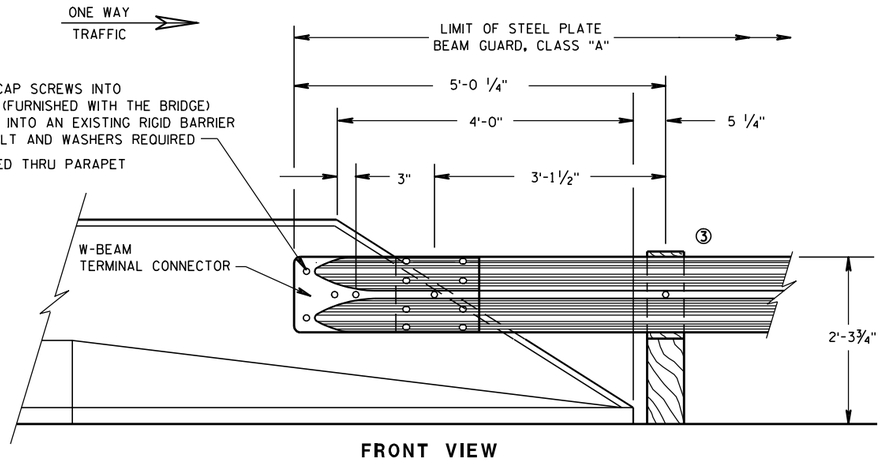
FHWA

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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.

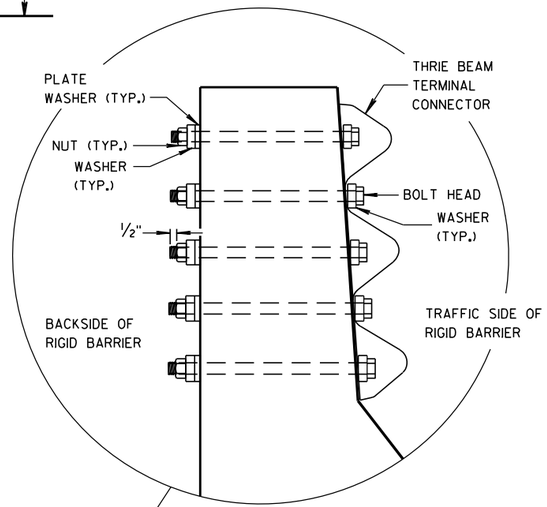
BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

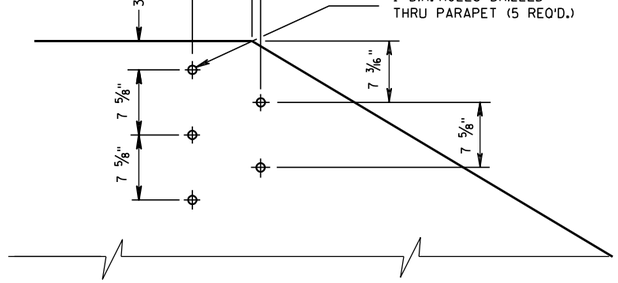
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

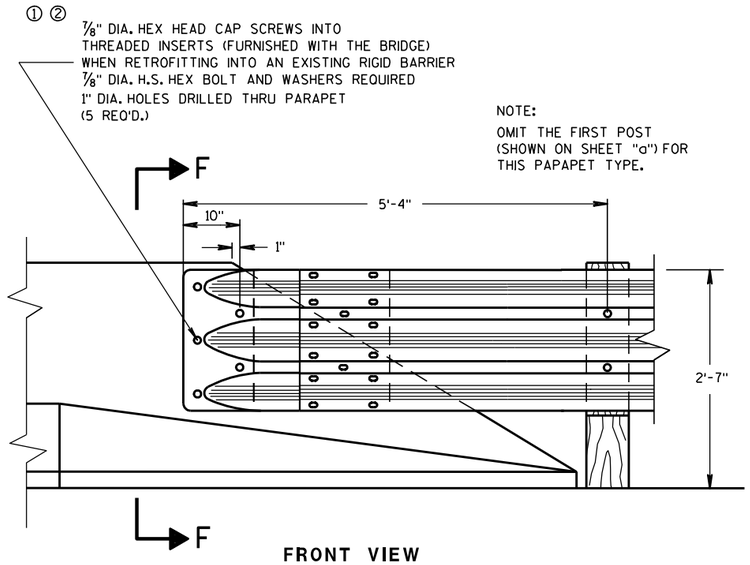
③ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

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.

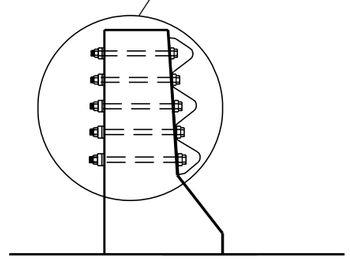




DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION F-F

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

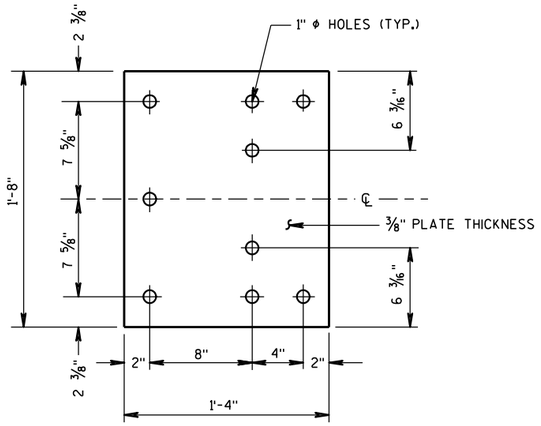
STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

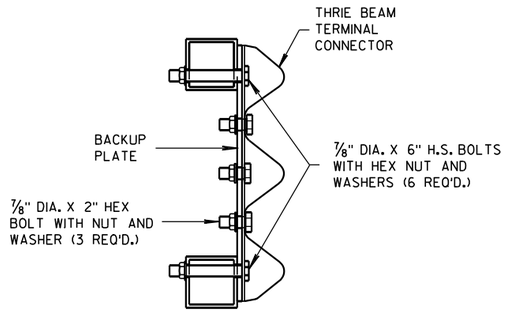
APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS [illegible]ENT ENGINEER
FHWA

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S.D.D. 14 B 20-11d



BACK-UP PLATE DETAIL



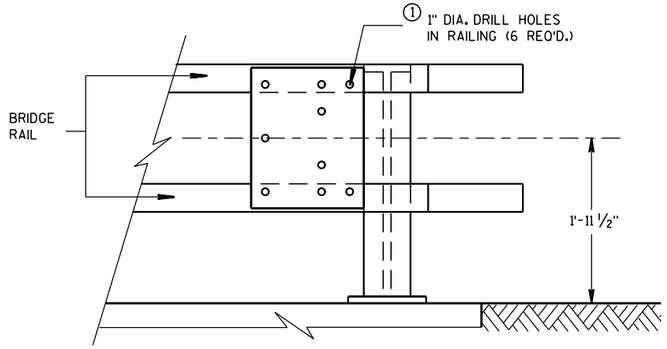
SECTION G-G

GENERAL NOTES

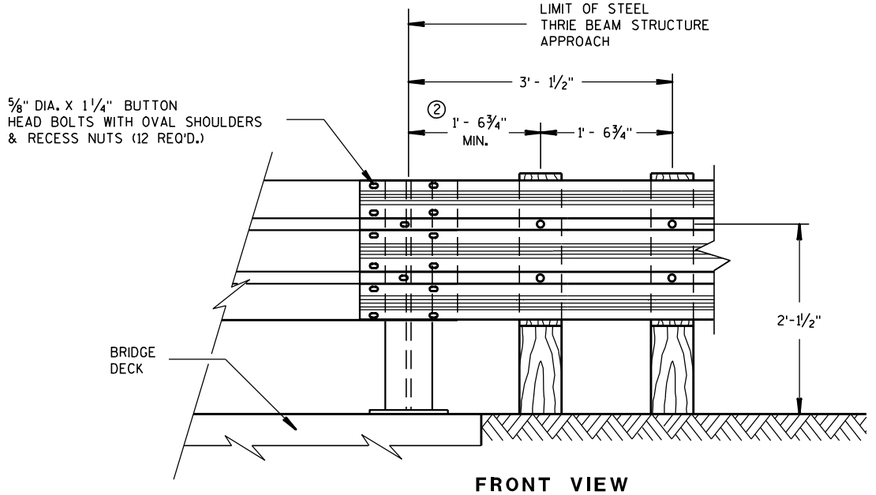
BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

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.

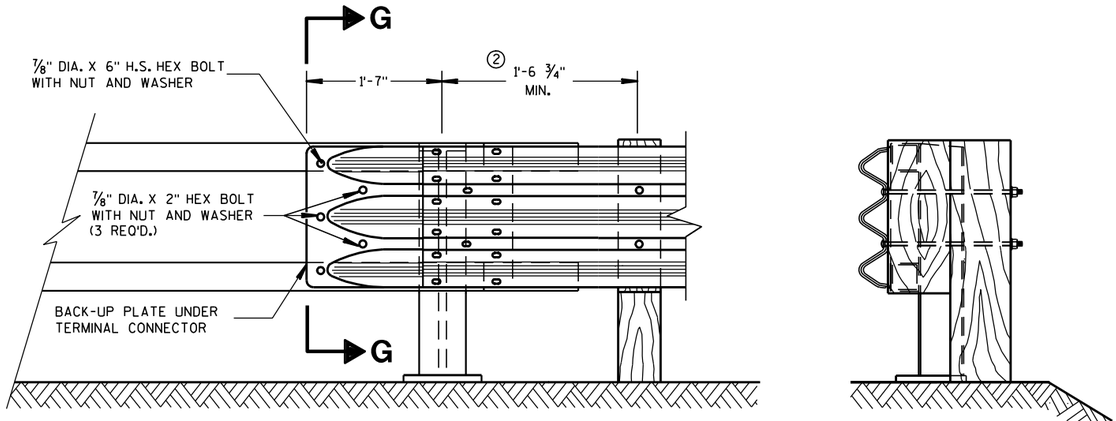


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



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"

STATE OF WISCONSIN
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8/31/2012
DATE

/S/ Jerry H ...
ROADWAY STANDARDS ENGINEER

ENT

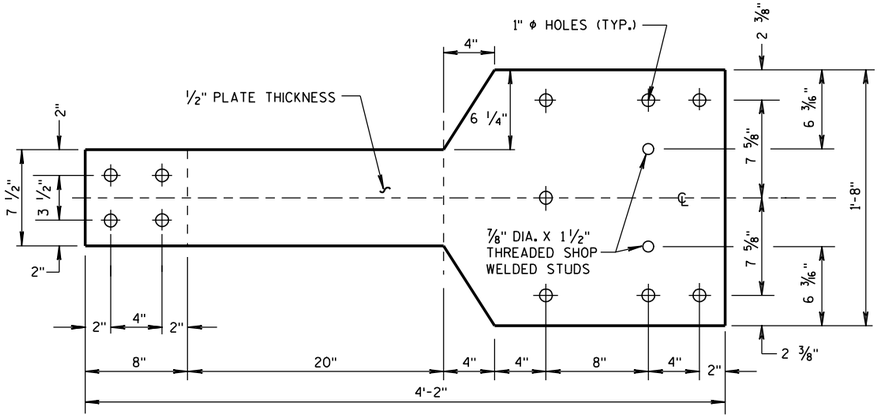
FHWA

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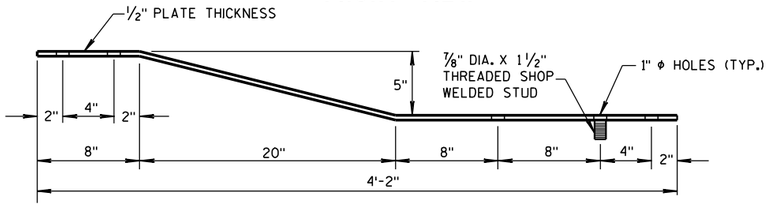
S.D.D. 14 B 20-11e

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.

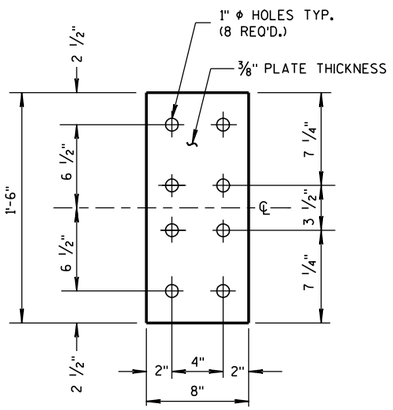


FRONT VIEW



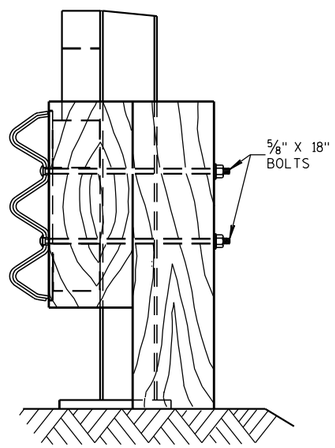
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

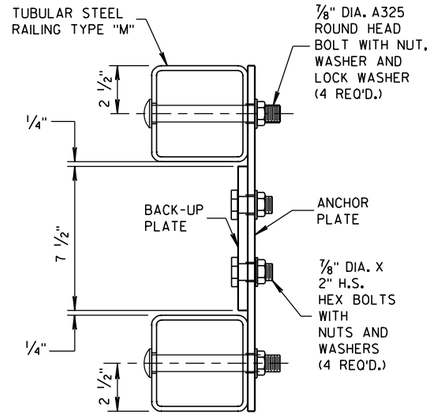


FRONT VIEW

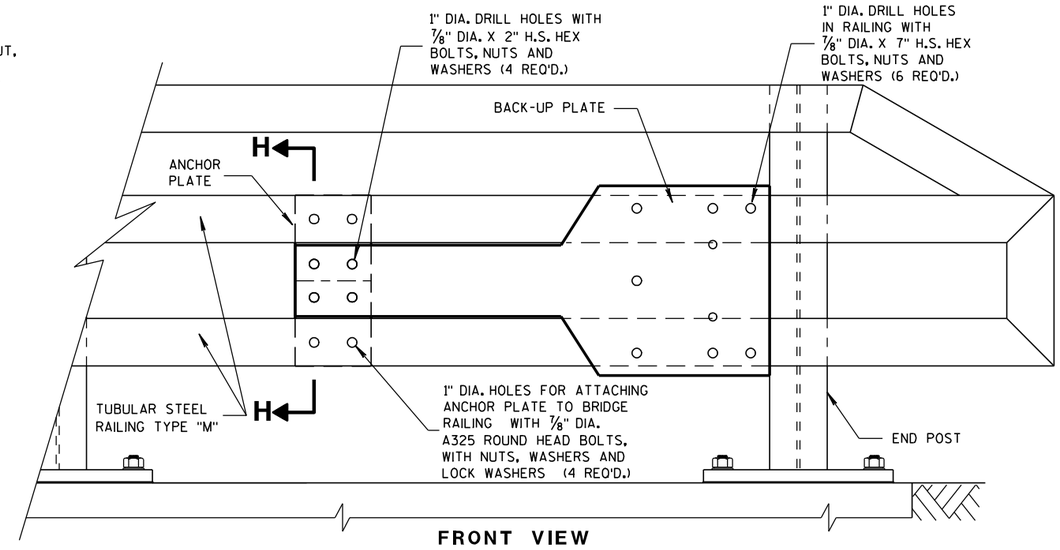
ANCHOR PLATE DETAIL, TYPE "M"



SECTION I-I

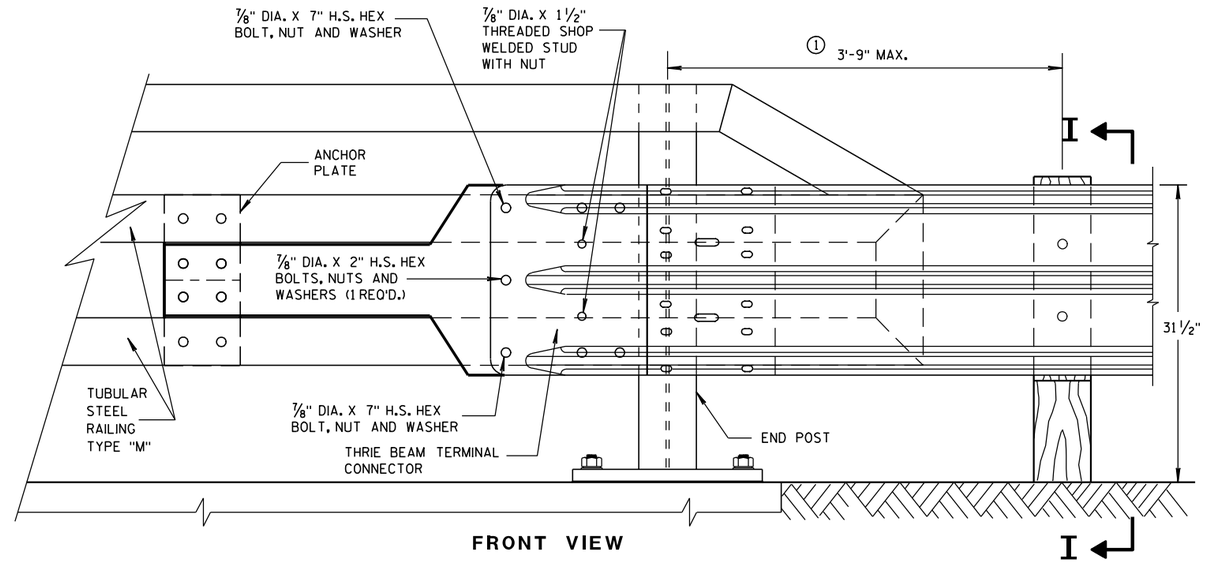


SECTION H-H

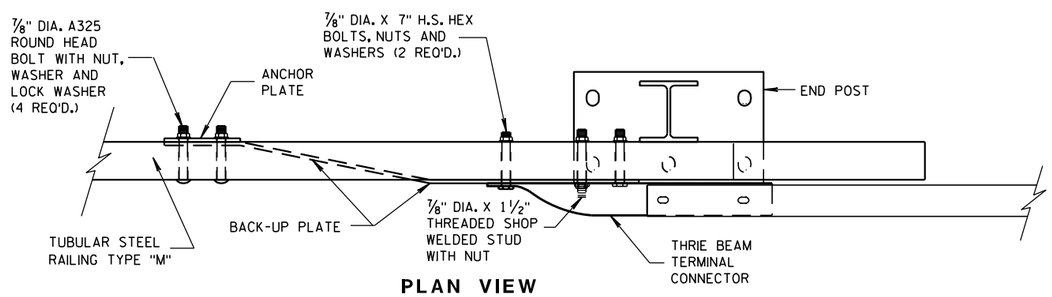


FRONT VIEW

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



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 14 B 20-11f

6

S.D.D. 14 B 20-11f

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.

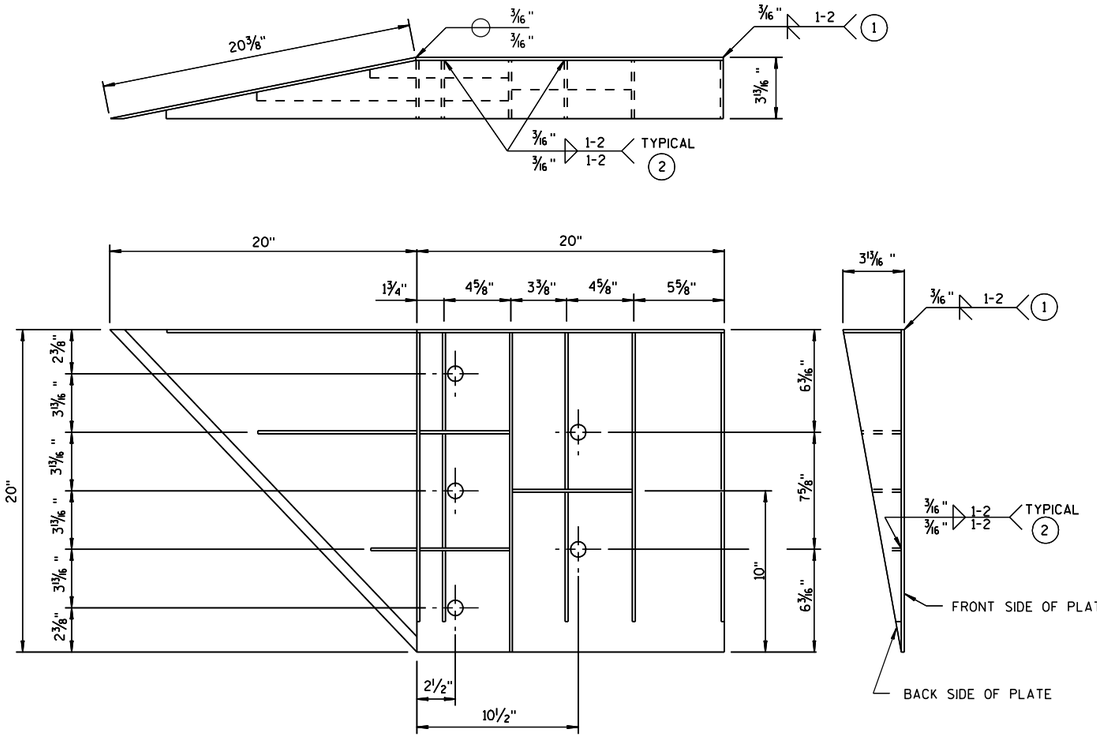
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

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)

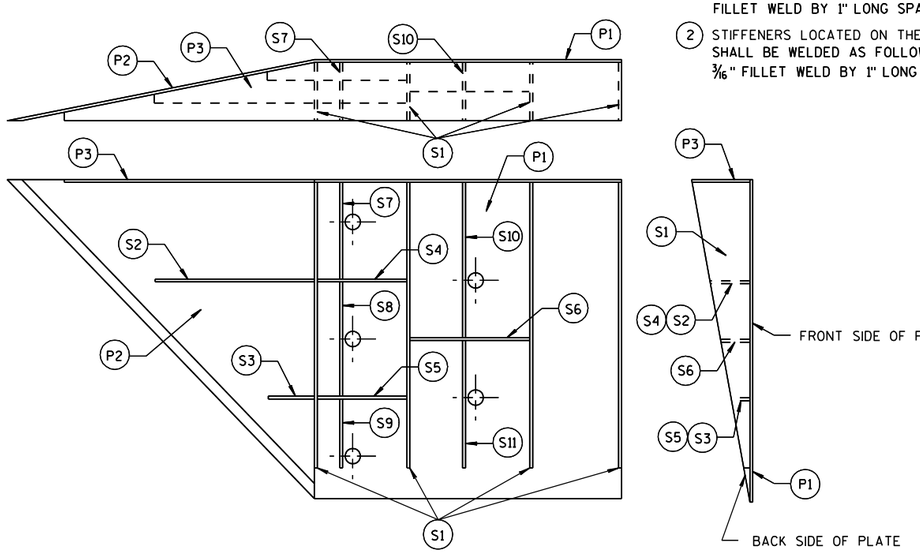


PLATE AND STIFFENER IDENTIFICATION

(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"

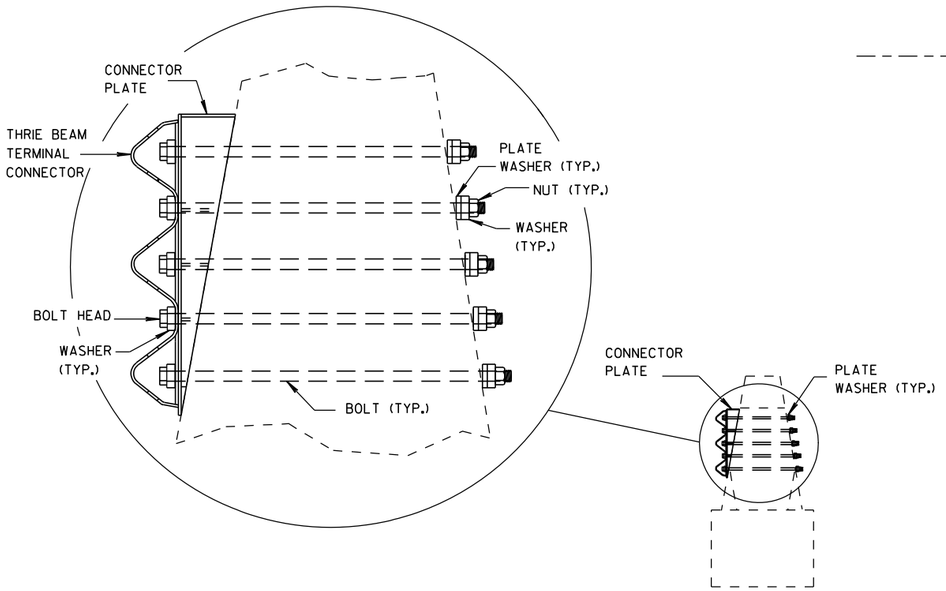
STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL

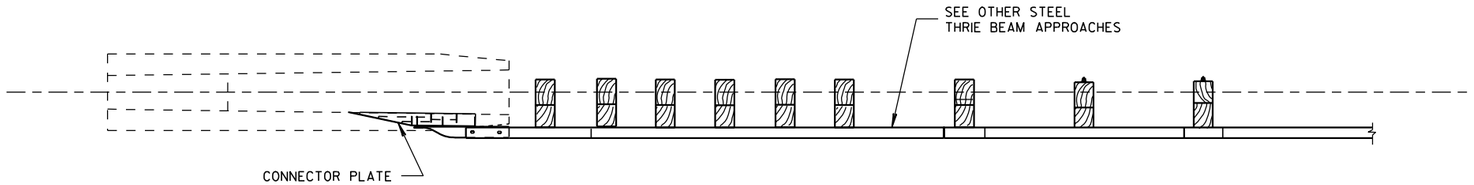
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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8/31/2012 — DATE
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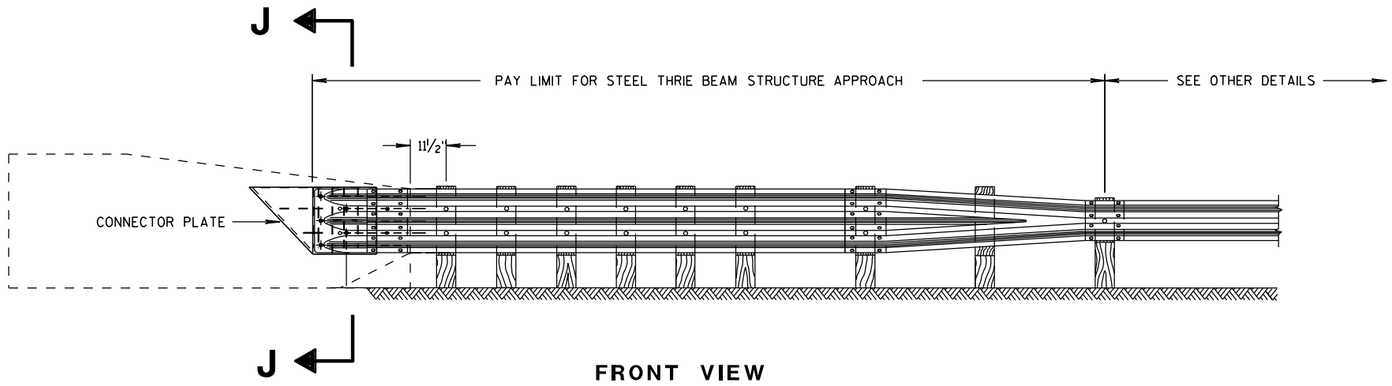
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S.D.D. 14 B 20-11g



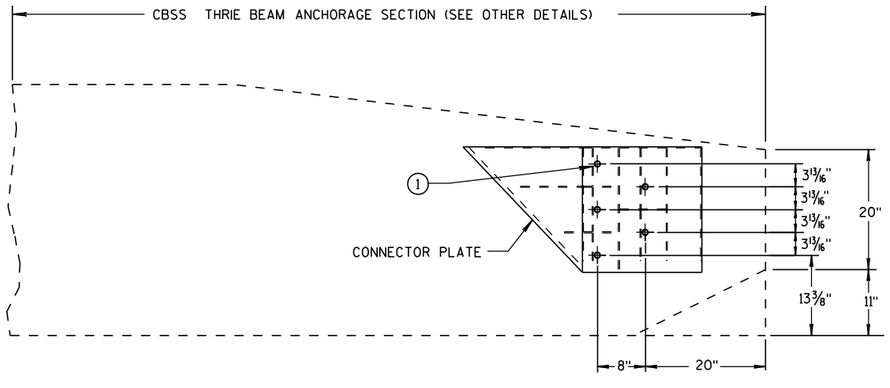
SECTION J-J



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
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

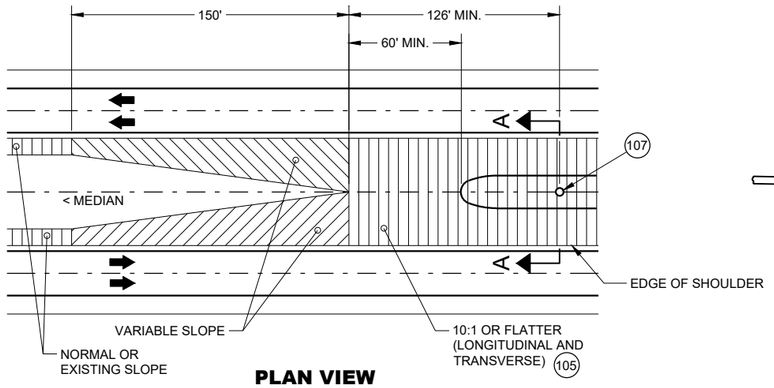
FHWA

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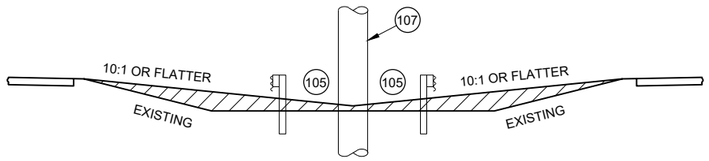
S.D.D. 14 B 20-11h

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S.D.D. 14 B 20-11h



PLAN VIEW
GRADING AT BULLNOSE
(ALL INSTALLATIONS)



SECTION A -A
MEDIAN GRADING
(ALL INSTALLATIONS)

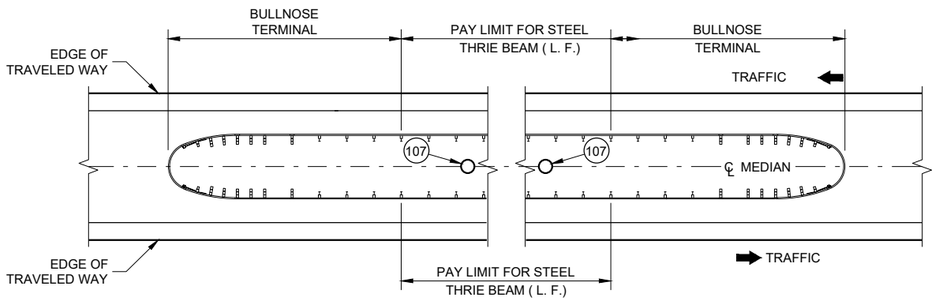
GENERAL NOTES

THRIE BEAM RAILS MAY NEED TO BE FIELD BENT TO FIT THE LOCATION.

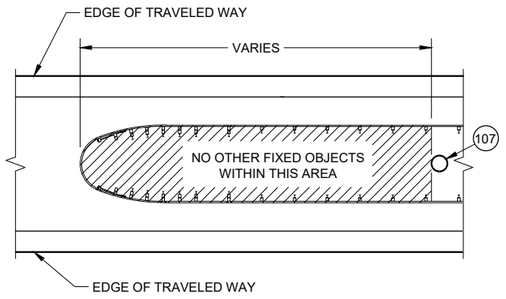
SEE STANDARD DETAIL DRAWINGS 14B26 SHEETS a-h.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 ½". MINIMUM DIAMETER OF THE ROCK REMOVAL IS 12" DIAMETER

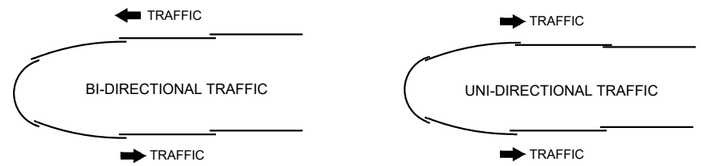
- E1 UNBENT STANDARD THRIE BEAM RAIL B1 (POST 8 TO POST 10 AND POST 10 TO POST 12)
- E2 SLOTTED THRIE BEAM RAIL E1 (POST 1 TO POST 1)
- E3 SLOTTED THRIE BEAM RAIL B3 (POST 5 TO POST 8)
- E4 SLOTTED THRIE BEAM RAIL E4 (POST 1 TO POST 5)
- 5 BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD 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.



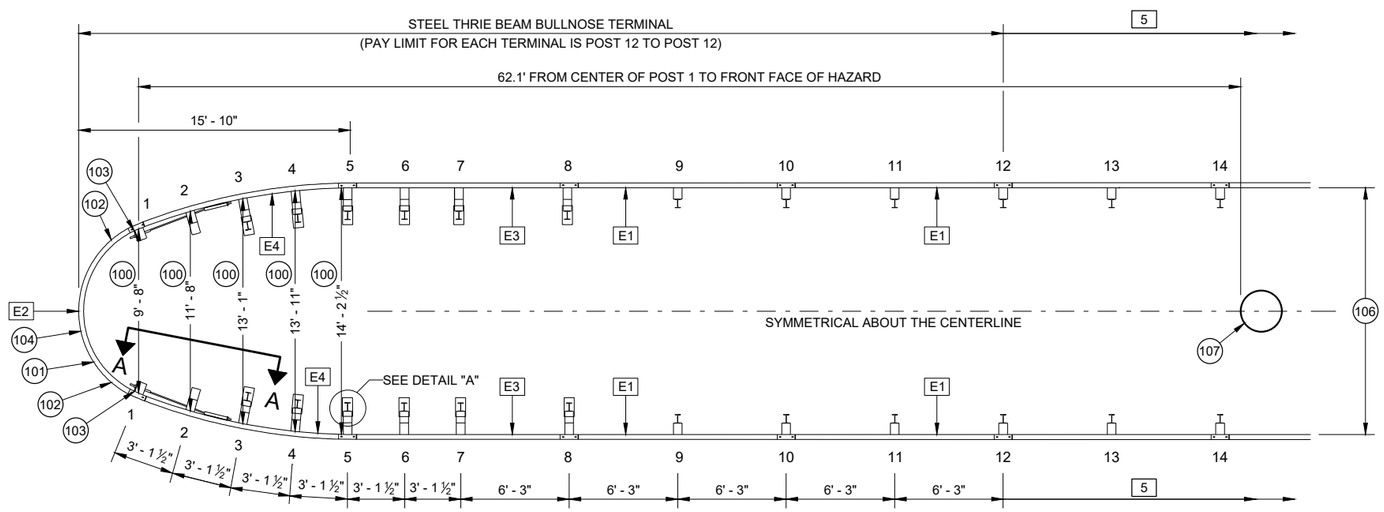
MEDIAN HAZARD PROTECTION PAY LIMITS



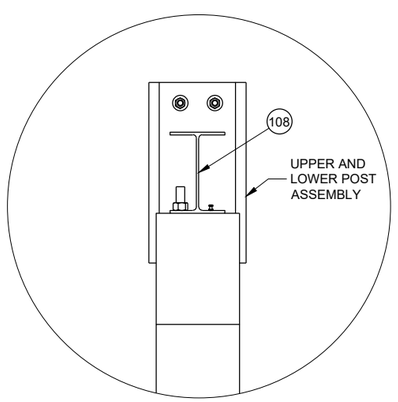
HAZARD FREE AREA
INSIDE BULLNOSE



LAPPING DETAIL



PLAN VIEW
TYPICAL BULLNOSE LAYOUT



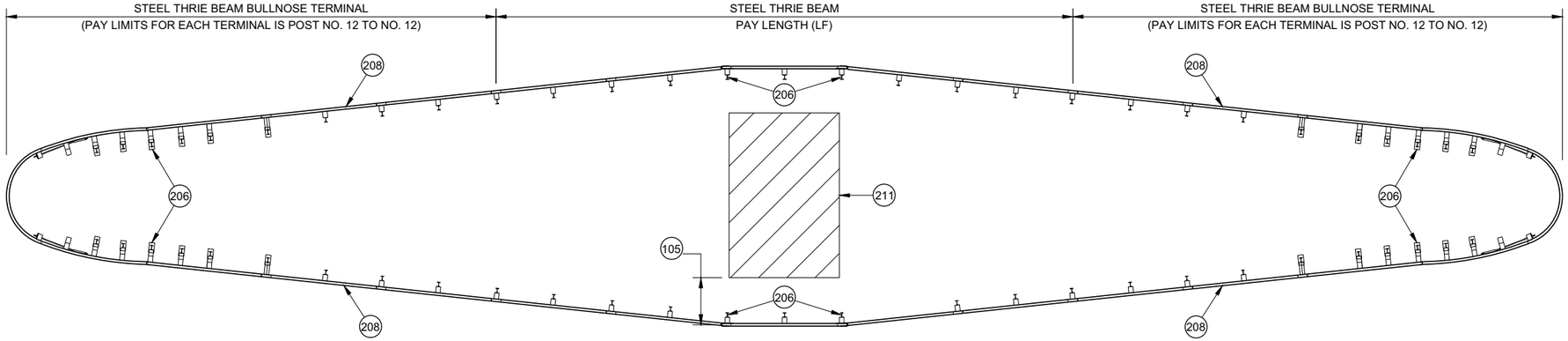
DETAIL "A"

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B26 - 04a

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.

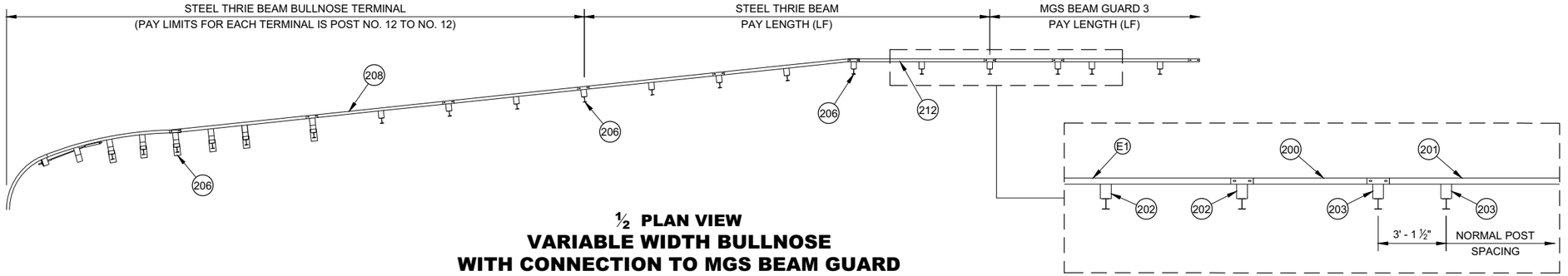
208 SEE PLAN FOR FLARE RATE.

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.

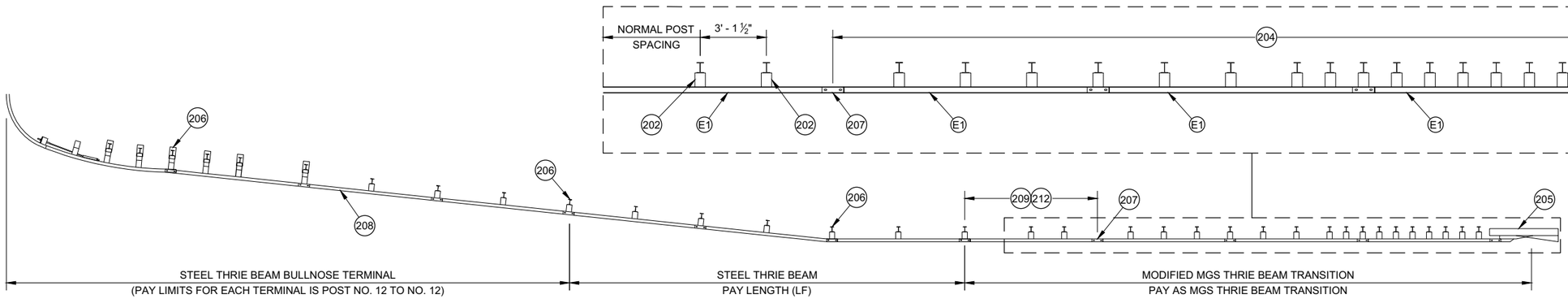
211 WIDER HAZARD TO BE SHIELDED.

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

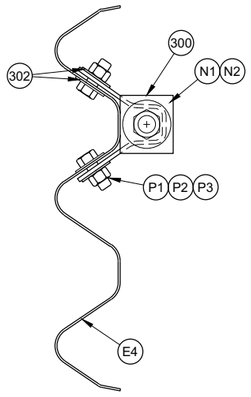
VARIABLE WIDTH BULLNOSE WITH CONNECTION TO RIGID BARRIER

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

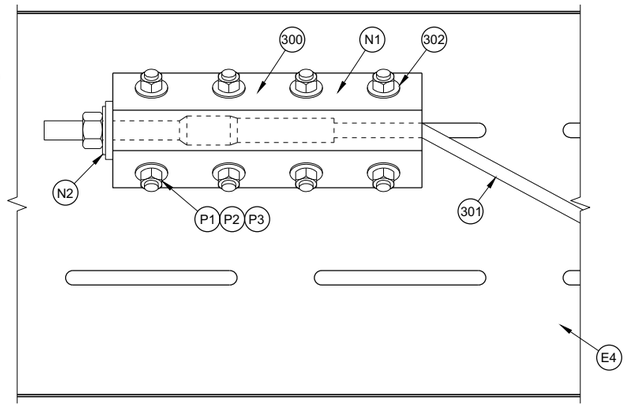
6

SDD 14B26 - 04b

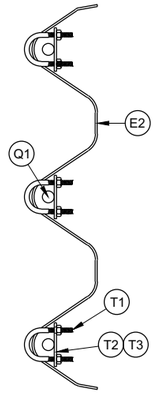


PROFILE VIEW

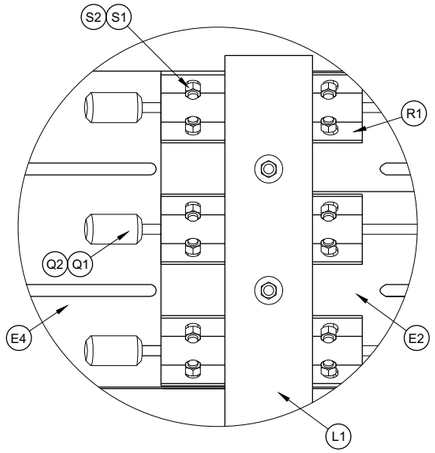
CABLE ANCHOR ASSEMBLY CONNECTION



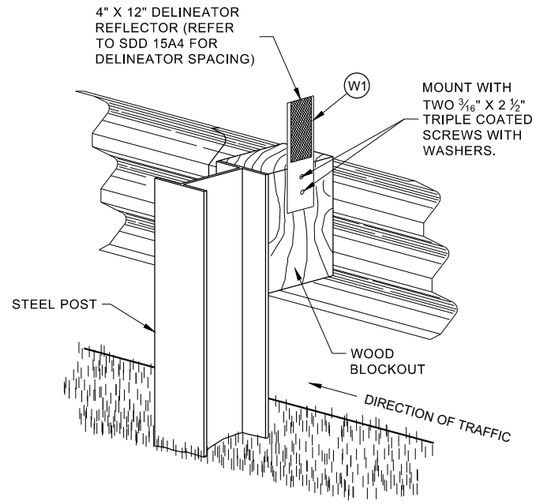
CABLE ANCHOR ASSEMBLY



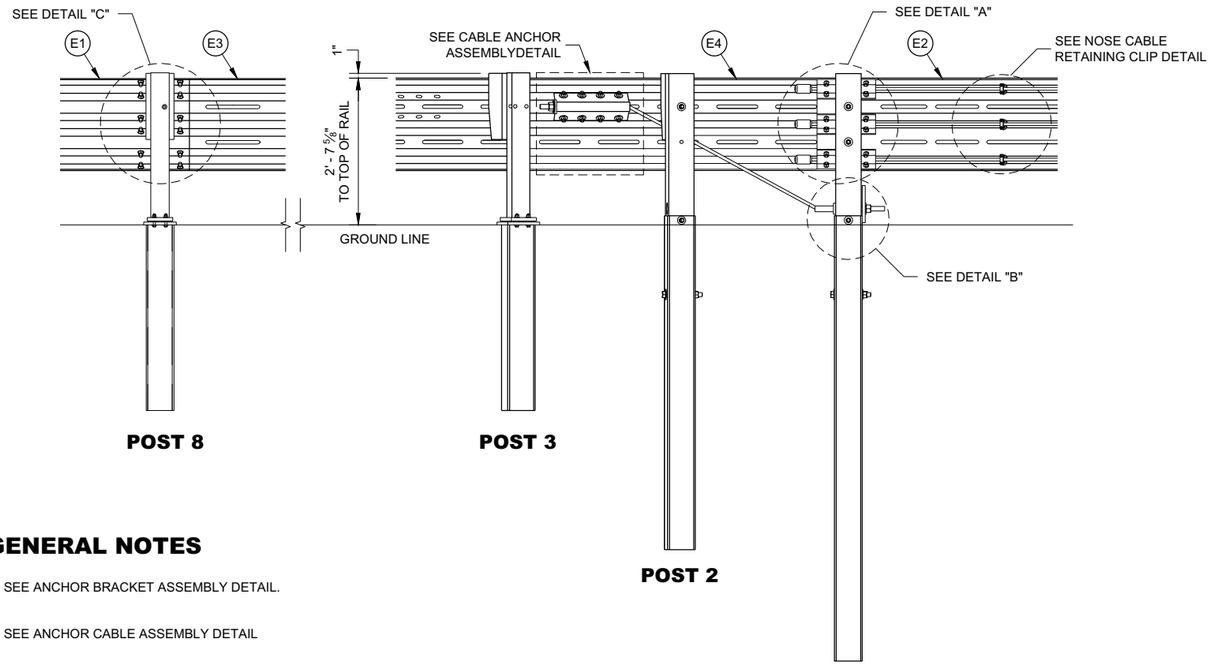
NOSE CABLE RETAINING CLIP



DETAIL "A"



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION



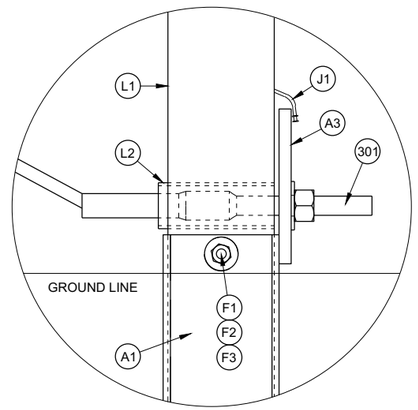
POST 8

POST 3

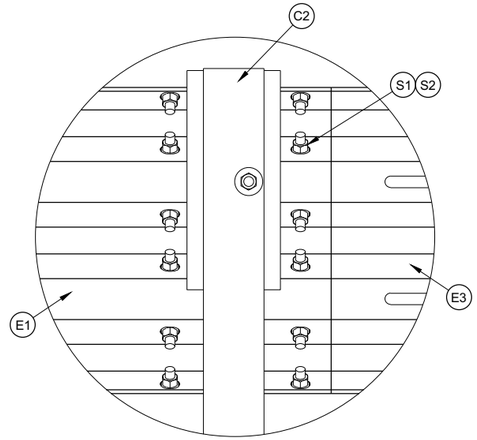
POST 2

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.

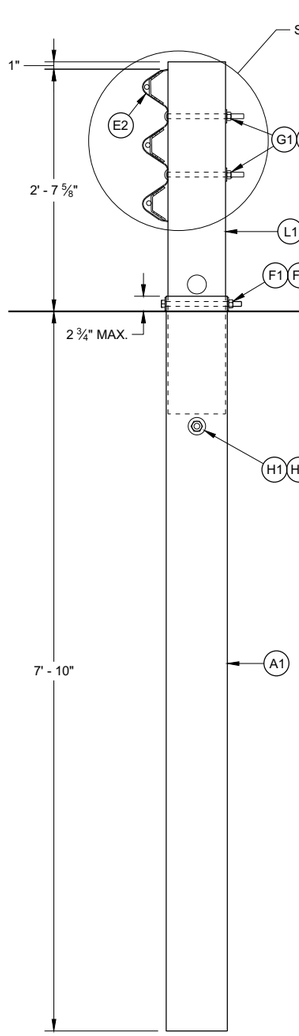
STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

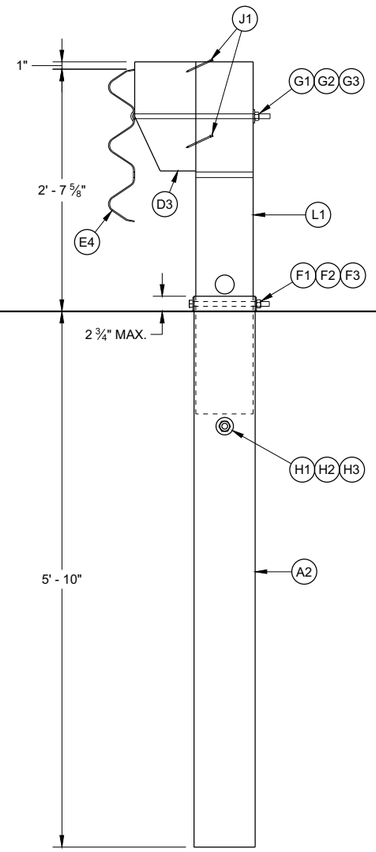
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SDD 14B26 - 04c

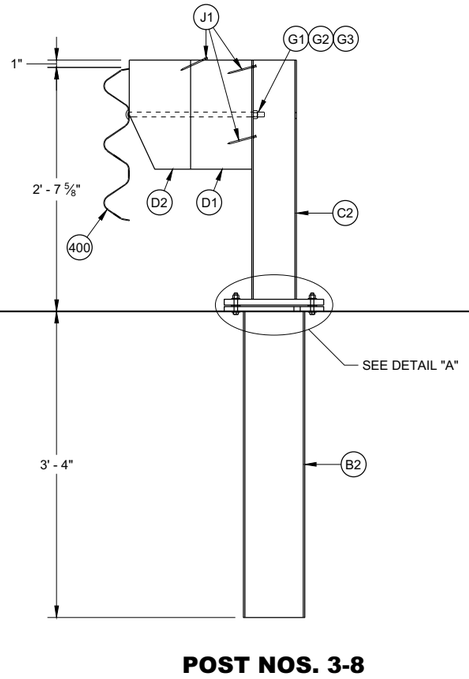
SDD 14B26 - 04c



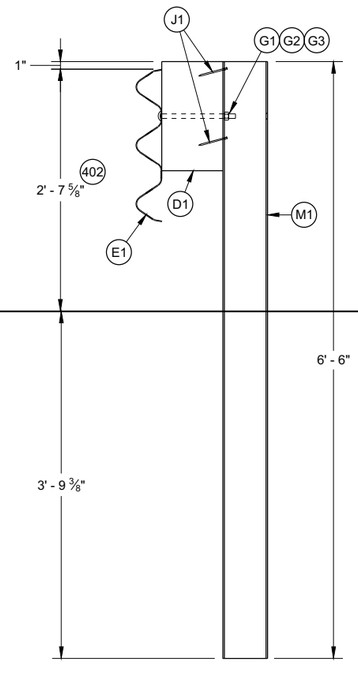
POST NO. 1



POST NO. 2



POST NOS. 3-8



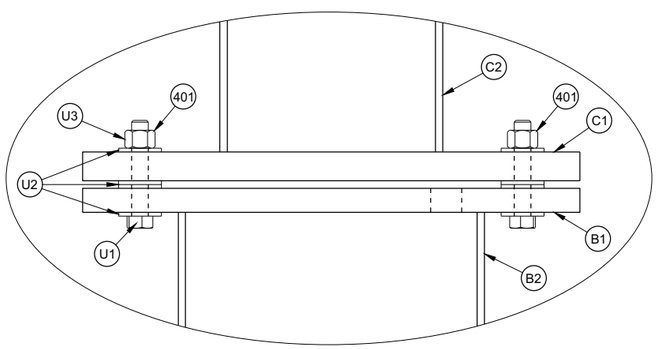
POST NOS. 9 AND ALL STEEL THRIE BEAM POSTS BEYOND

GENERAL NOTES

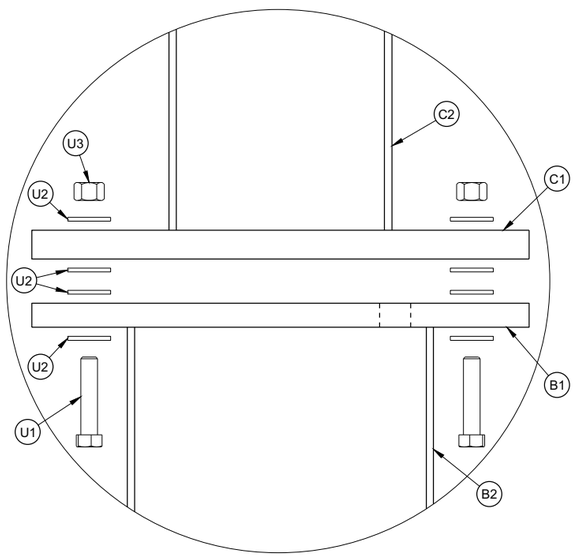
400 RAIL CAN BE E3 OR E4 DEPENDING ON POST LOCATION.

401 TORQUE BOLD BETWEEN 60-75 FT-LB

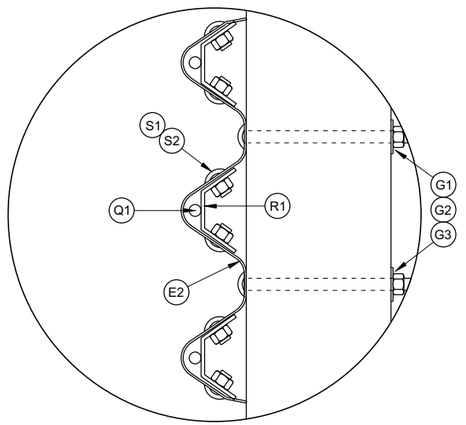
402 HEIGHT WILL VARY WITHIN HEIGHT TRANSITION TO OTHER HARDWARE. SEE NOTE 213, SHEET "b".



DETAIL "A"



EXPLODED VIEW
DETAIL "A"



DETAIL "B"

STEEL THRIE BEAM BULLNOSE TERMINAL

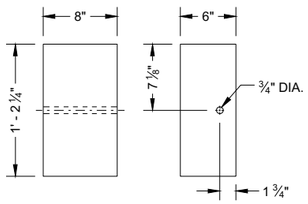
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B26 - 04d

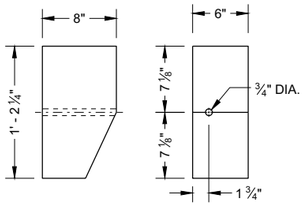
6

SDD 14B26 - 04d



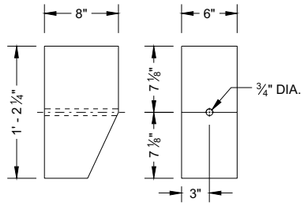
ELEVATION PROFILE

BLOCKOUT (D1)



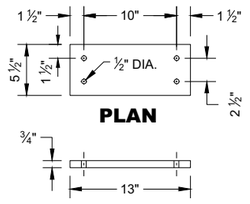
ELEVATION PROFILE

BLOCKOUT (D2)



ELEVATION PROFILE

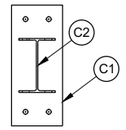
BLOCKOUT (D3)



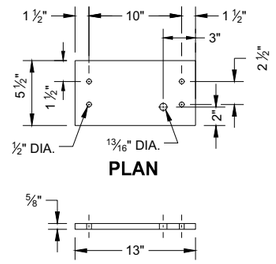
PLAN

PROFILE

UPPER SHEAR PLATE (C1)



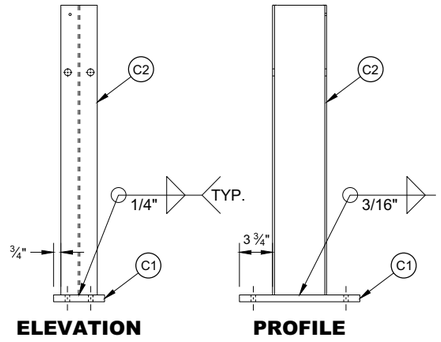
PLAN



PLAN

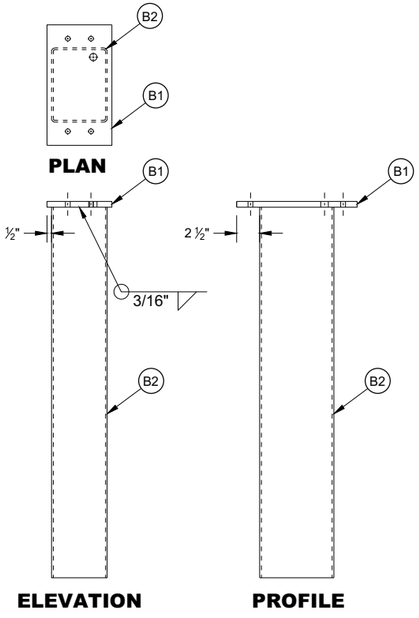
PROFILE

LOWER SHEAR PLATE (B1)



ELEVATION PROFILE

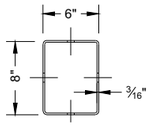
UPPER POST ASSEMBLY



PLAN

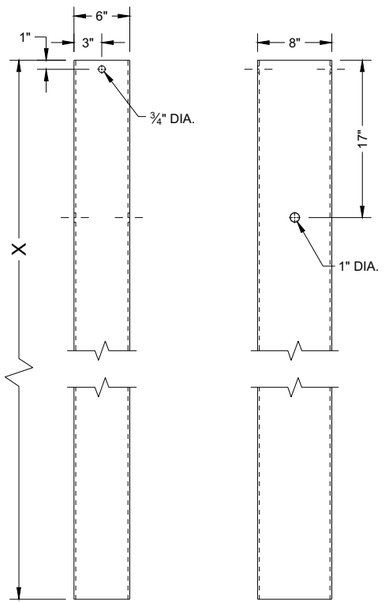
ELEVATION PROFILE

LOWER POST ASSEMBLY



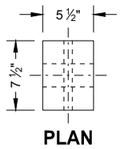
PLAN

PART	LENGTH "X"
A1	8' - 0"
A2	6' - 0"
B2	3' - 6"

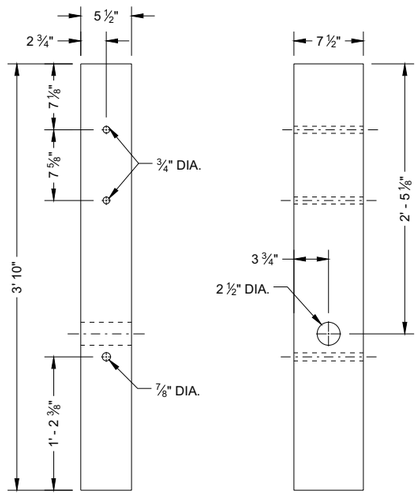


ELEVATION PROFILE

FOUNDATION TUBE

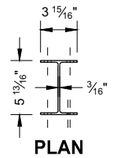


PLAN

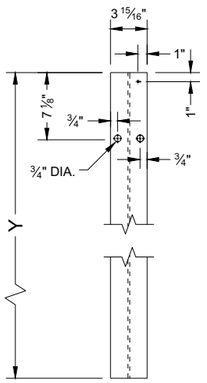


ELEVATION PROFILE

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 TRANSPORTA

6

SDD 14B26 - 04e

6

SDD 14B26 - 04e

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

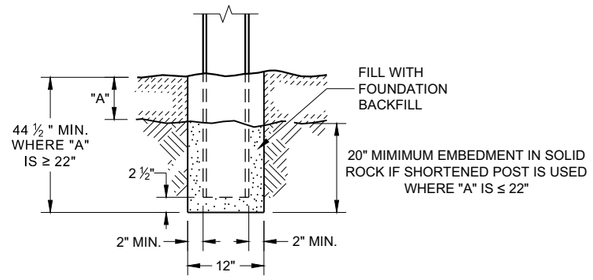
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

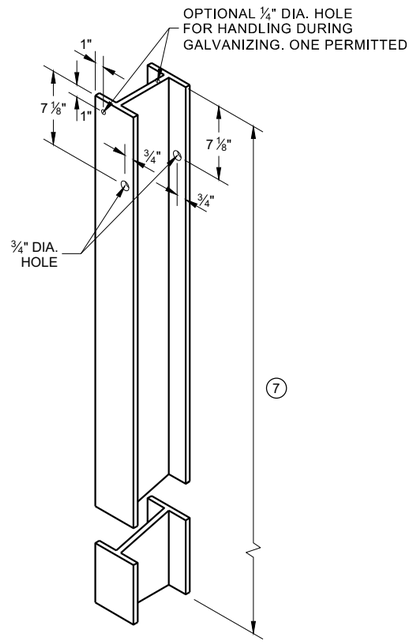
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

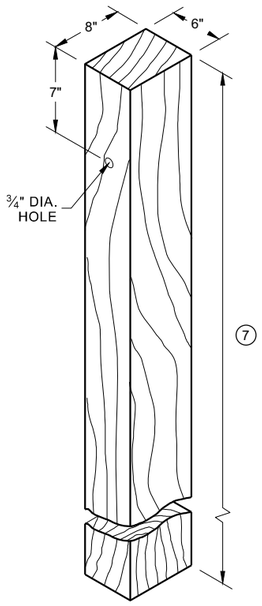
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



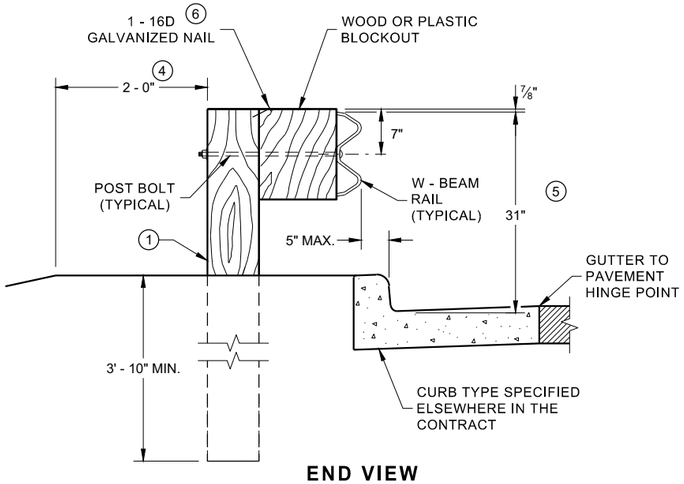
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



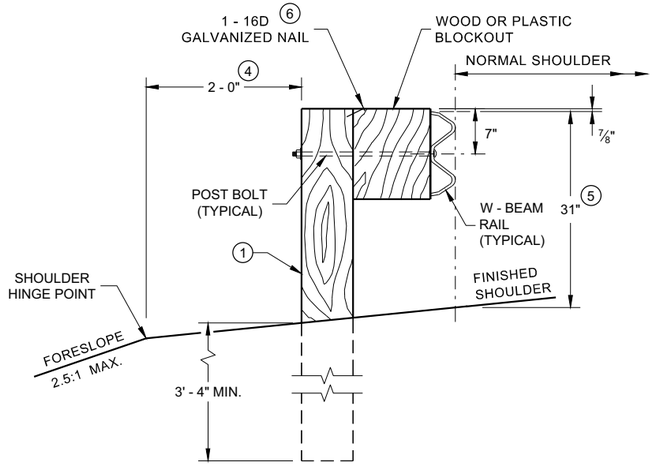
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



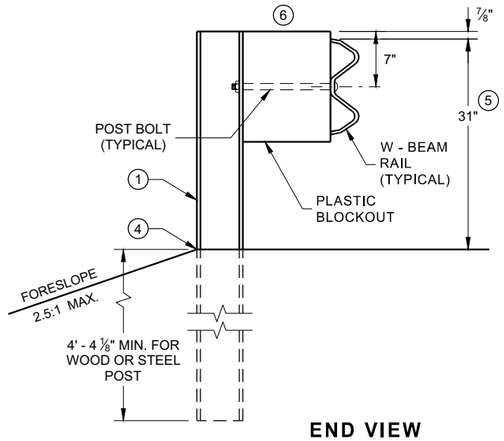
WOOD POST (6" X 8") NOMINAL (1)



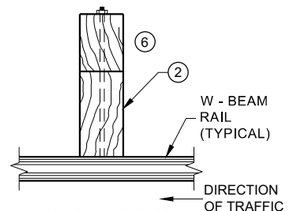
END VIEW
LOCATED ALONG A CURBED ROADWAY



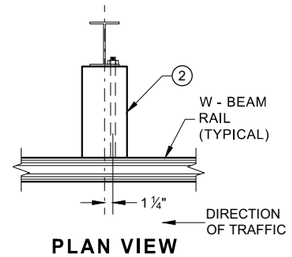
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



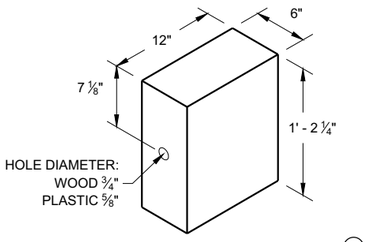
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

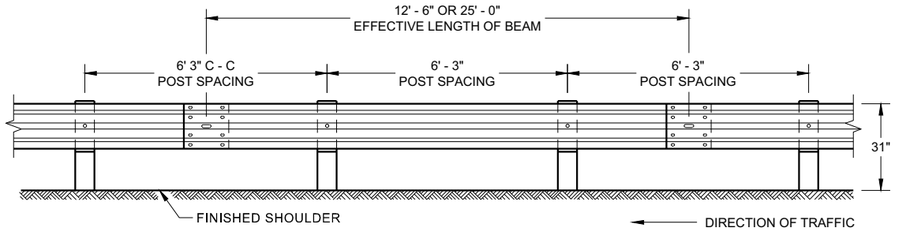
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

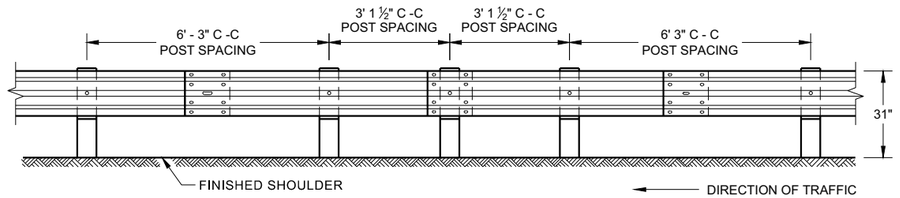
SDD 14B42 - 06a

6

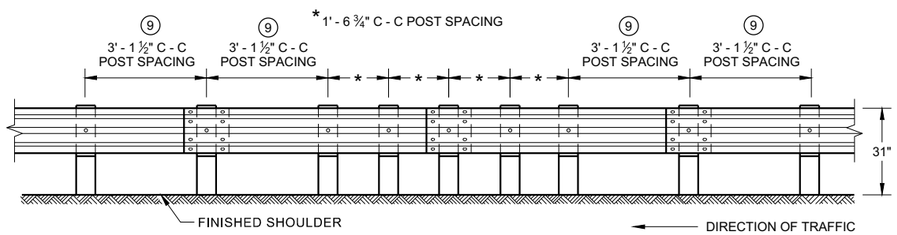
SDD 14B42 - 06a



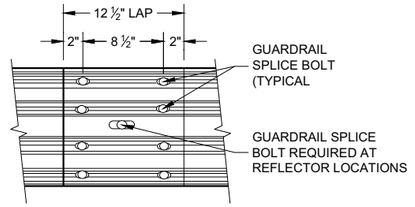
FRONT VIEW
POST SPACING STANDARD INSTALLATION



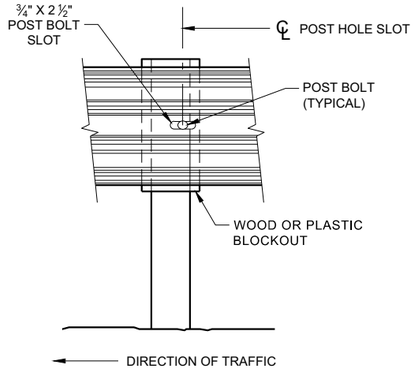
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



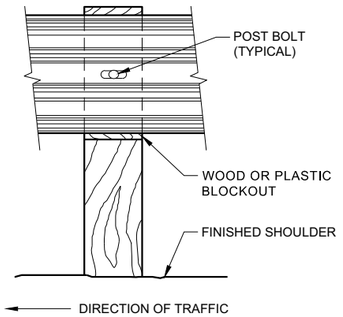
FRONT VIEW
QUARTER POST SPACING (QS)



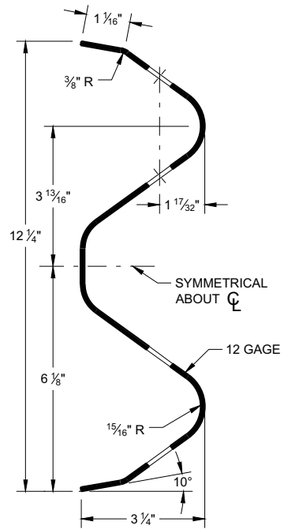
FRONT VIEW
MID-SPAN BEAM SPLICE



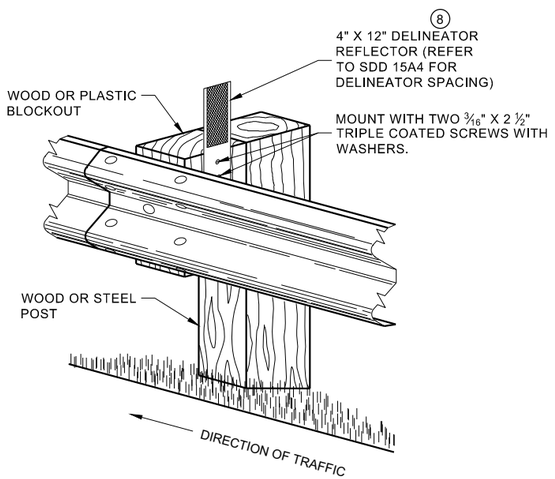
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

GENERAL NOTES

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

(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

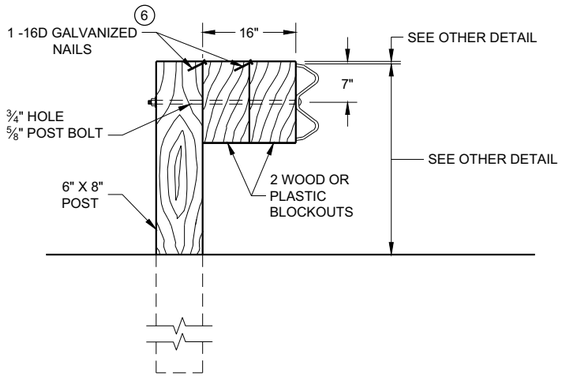
POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

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

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B42 - 06b

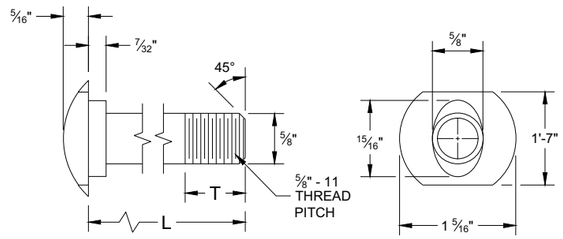


DETAIL FOR 16" BLOCKOUT DEPTH

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

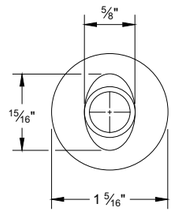
NOTE:

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

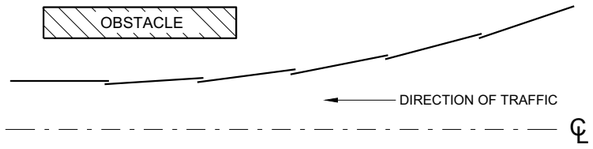


POST BOLT TABLE

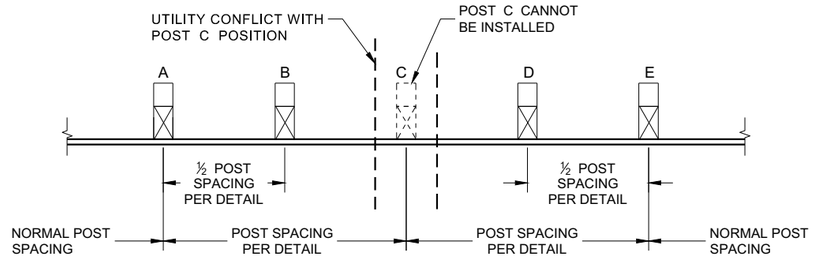
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



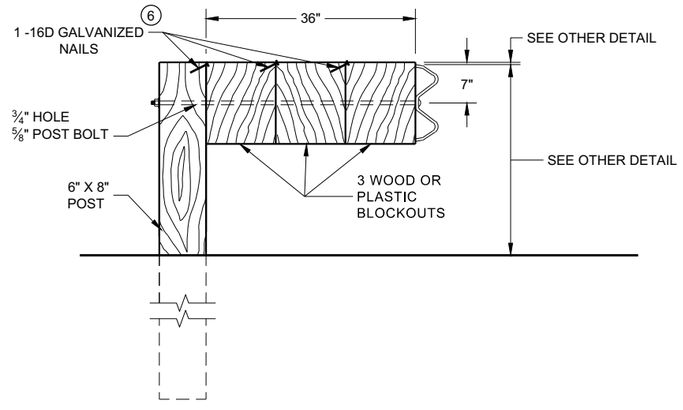
ALTERNATE BOLT HEAD



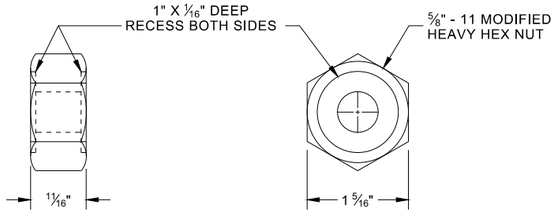
PLAN VIEW
BEAM LAPPING DETAIL



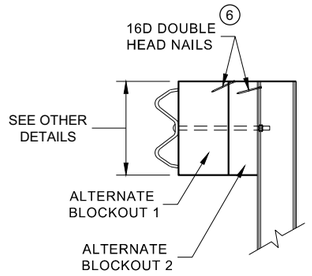
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



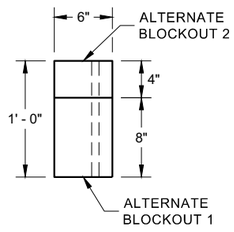
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

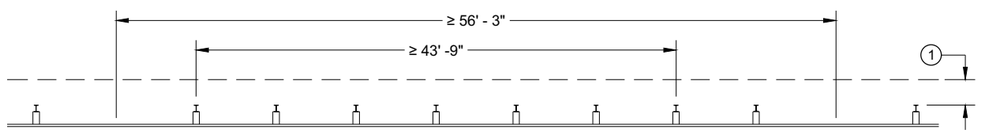
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

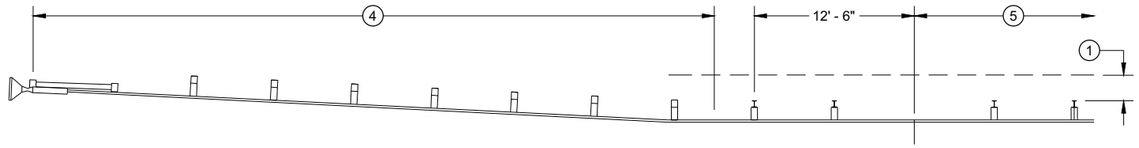
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

6

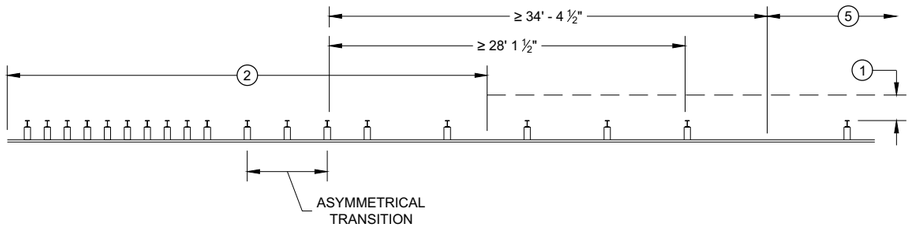
SDD 14B42 - 06c



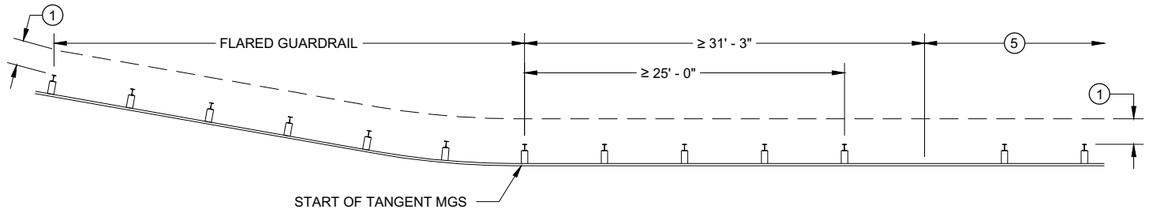
MISSING POST IN NORMAL BEAM GUARD RUN



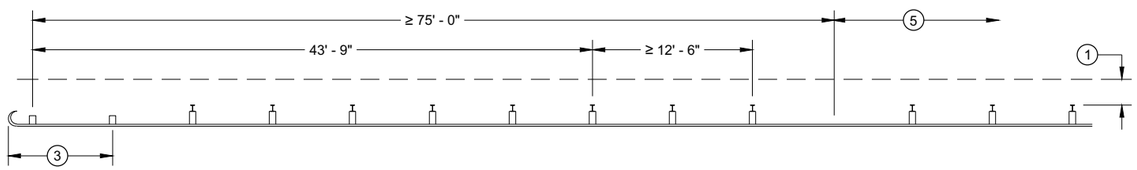
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



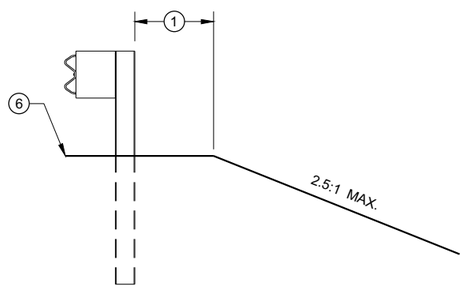
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

1. MINIMUM OF 2 FEET OF GRADING BEHIND POST.
2. SEE SDD 14B45 FOR MORE DETAILS.
3. SEE SDD 14B47 FOR MORE DETAILS.
4. SEE SDD 14B44 FOR MORE DETAILS.
5. SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
6. SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

6

SDD 14B42 - 06d

6

SDD 14B42 - 06d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

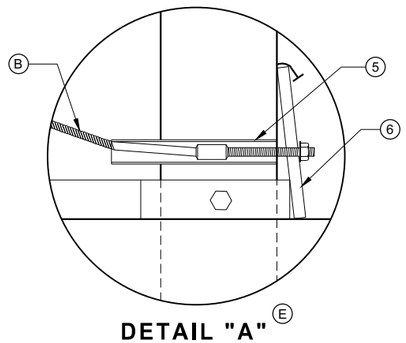
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

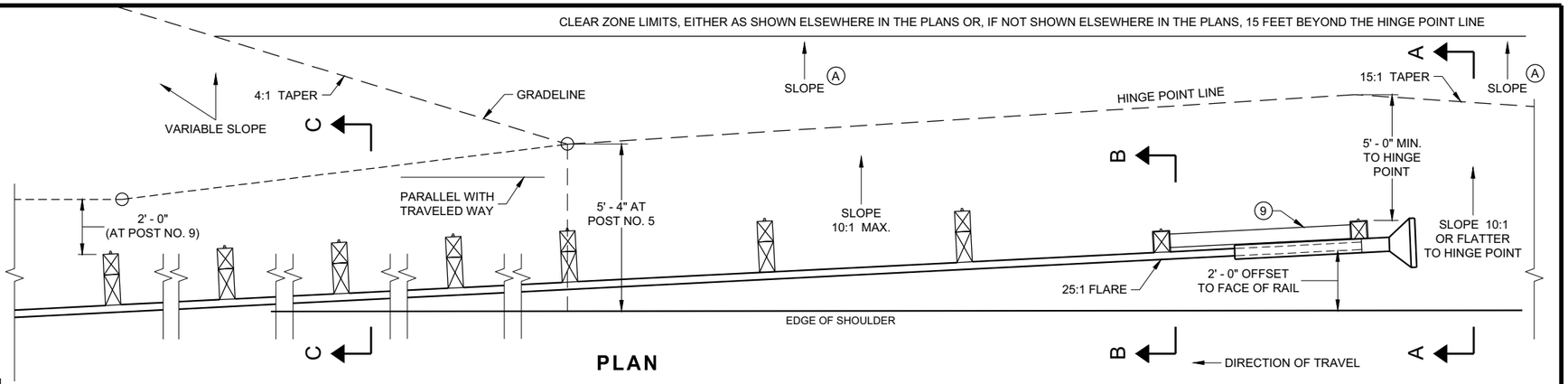
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

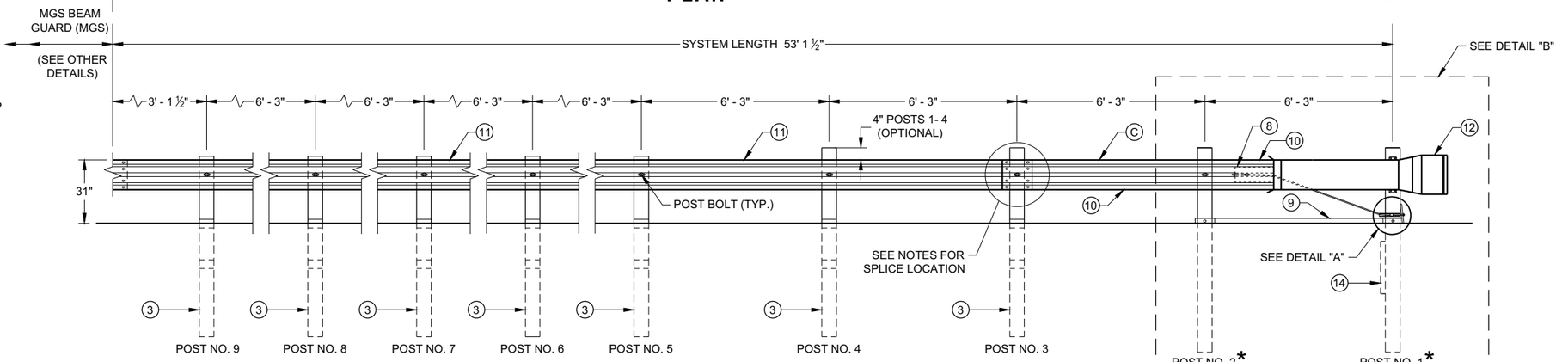
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

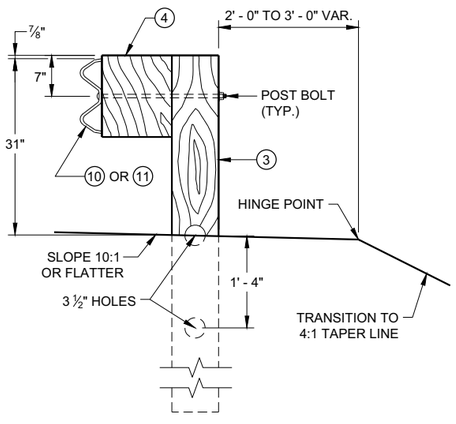
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



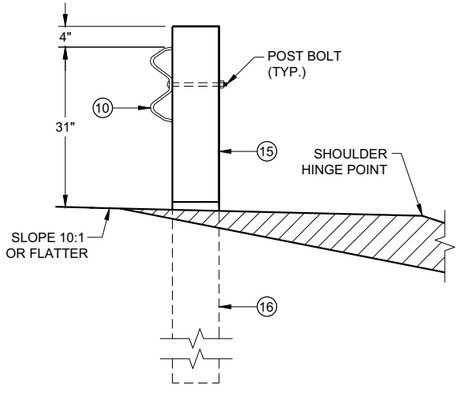
DETAIL "A" (E)



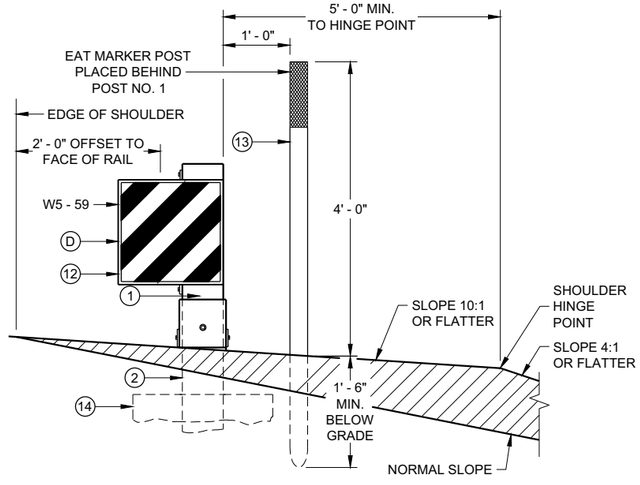




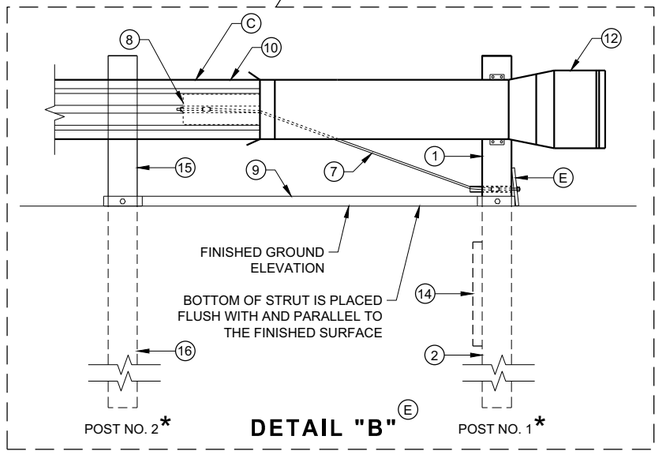
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*

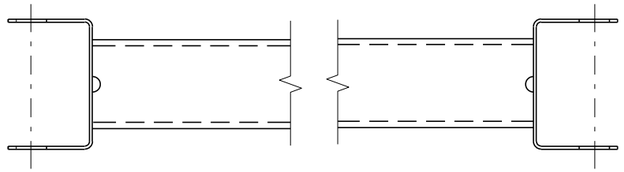


MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

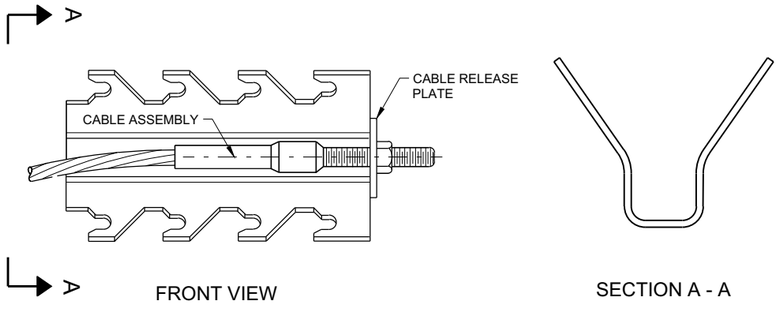
SDD 14B44 - 04a



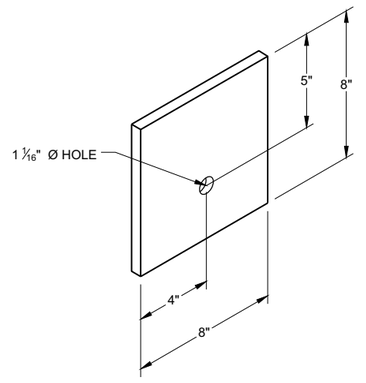
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX ⑧ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

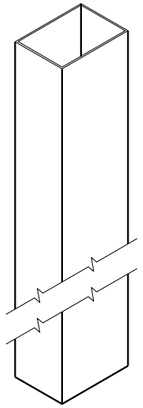
6

SDD 14B44 - 04b

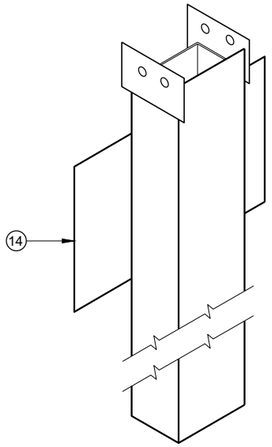
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

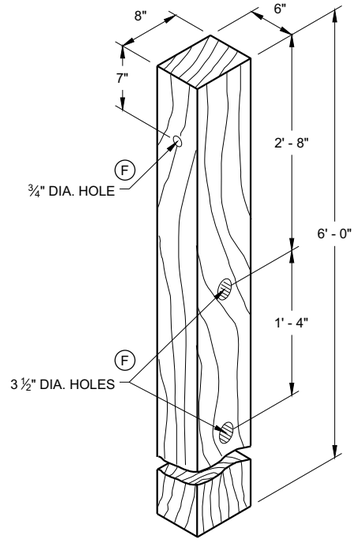
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



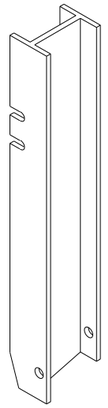
UPPER POST NO. 1 ① Ⓔ



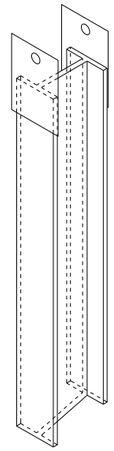
LOWER POST NO. 1 ② Ⓔ



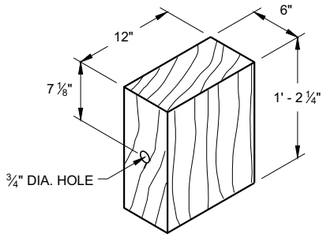
WOOD CRT POST ③ Ⓔ
POSTS NUMBER 3-9



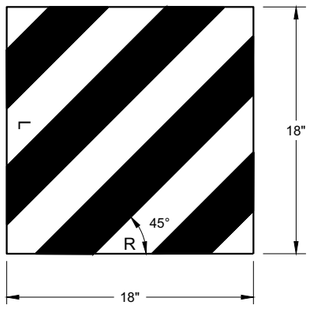
UPPER POST NO. 2 ⑮ Ⓔ



LOWER POST NO. 2 ⑯ Ⓔ

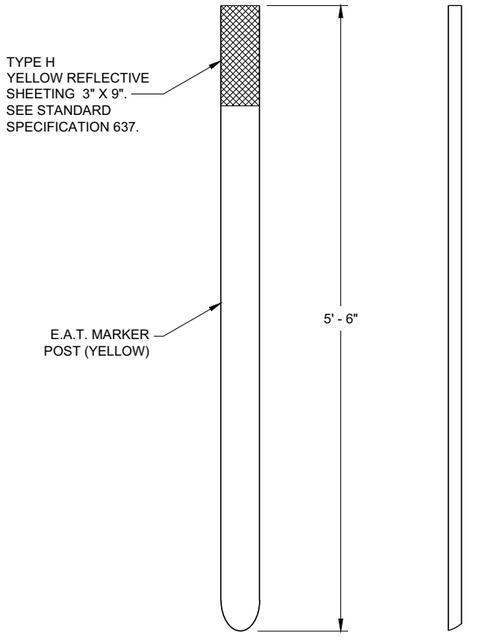


WOOD BLOCKOUT ④
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



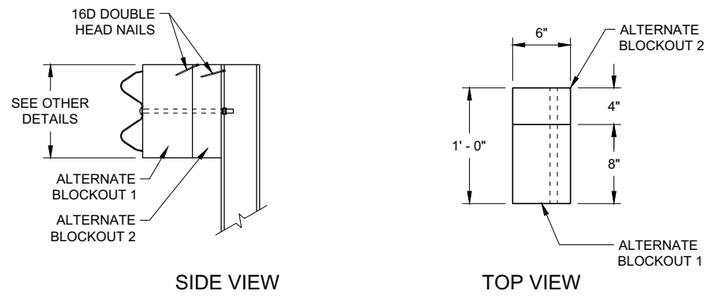
W5 - 59

REFLECTIVE SHEETING DETAIL Ⓔ



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)

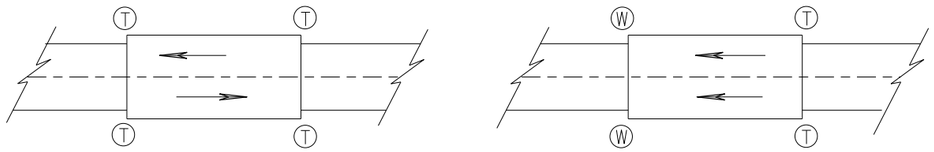
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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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.

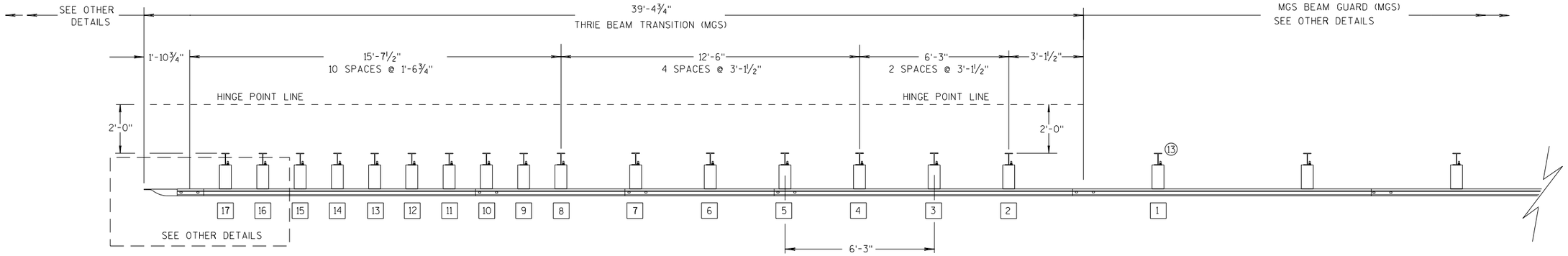
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

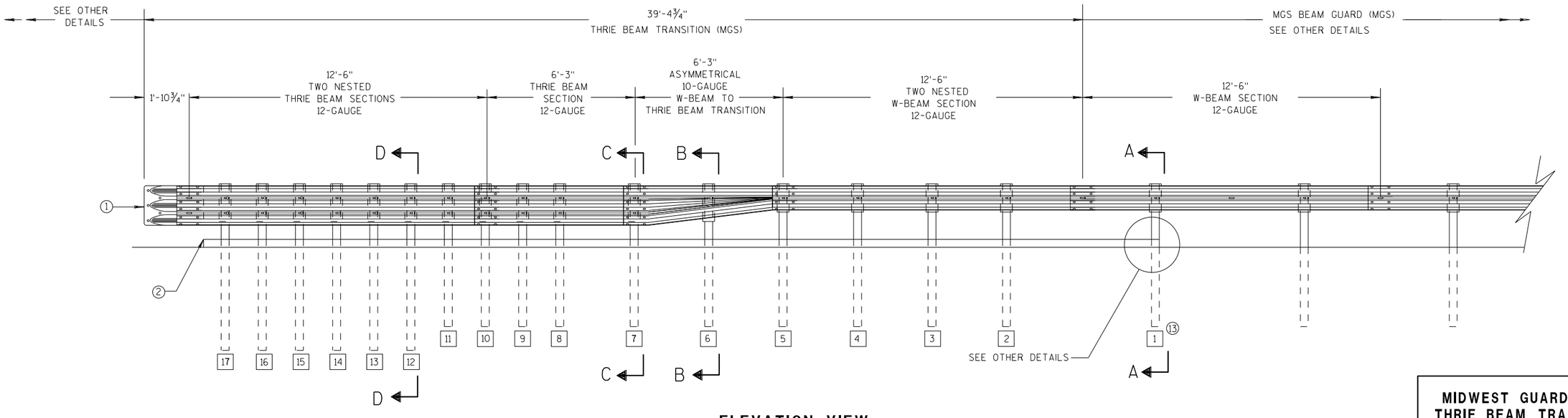
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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

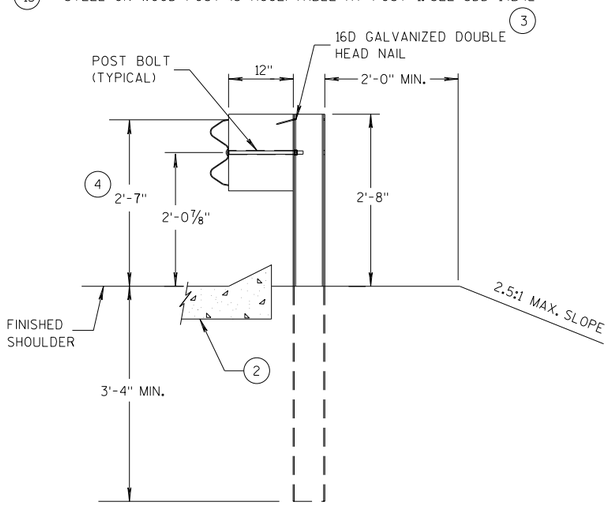
GENERAL NOTES

(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.

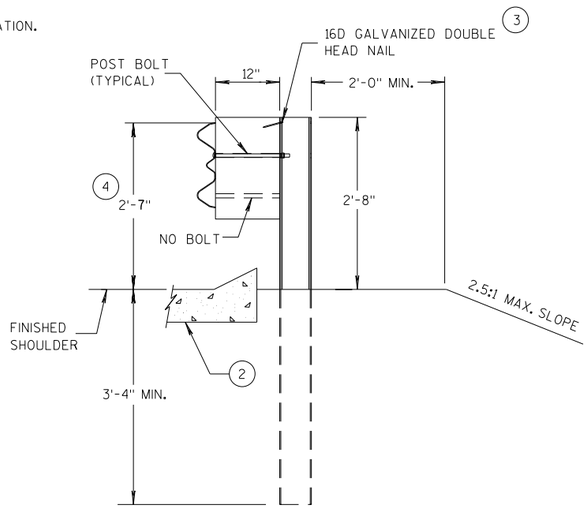
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



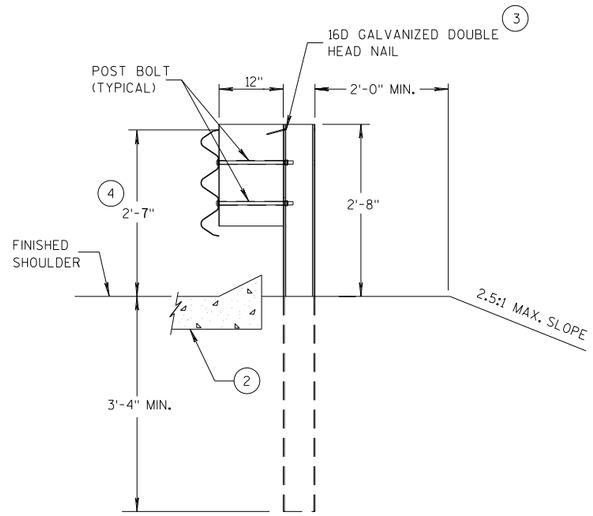
SECTION A-A (13)

POSTS 1-5



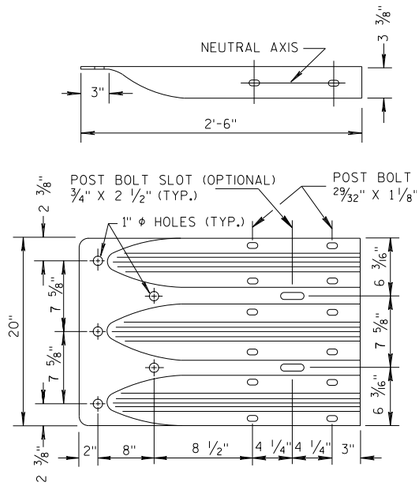
SECTION B-B

POST 6

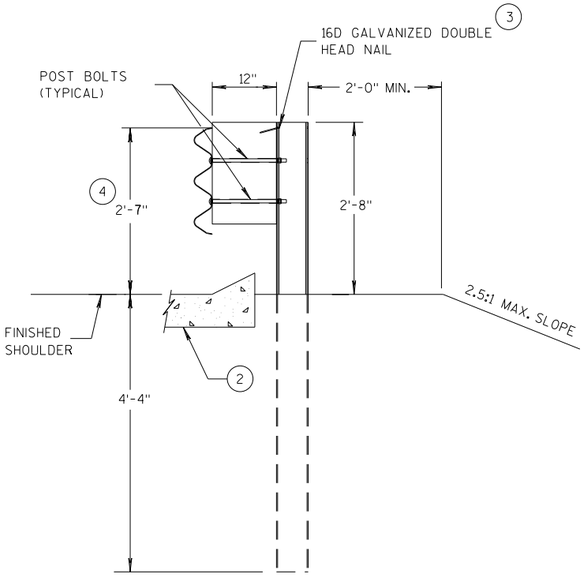


SECTION C-C

POSTS 7-11

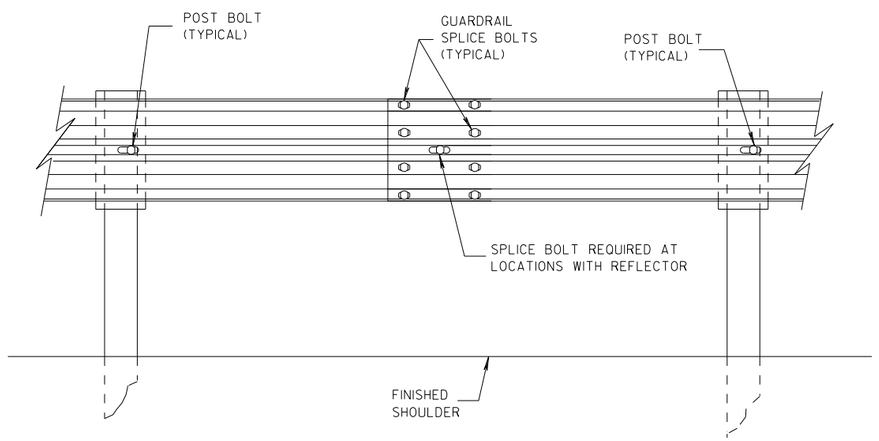


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

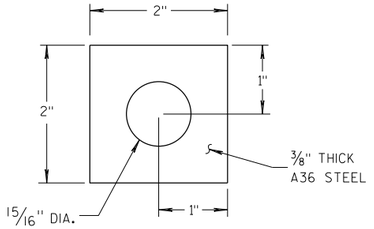
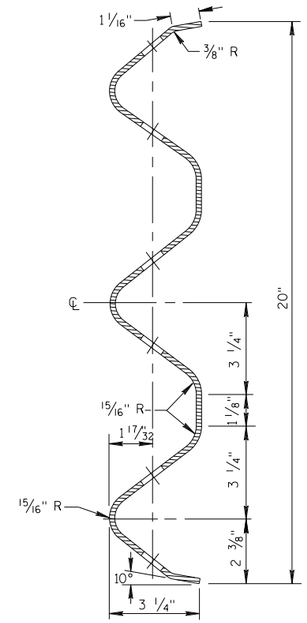


PLATE WASHER DETAIL



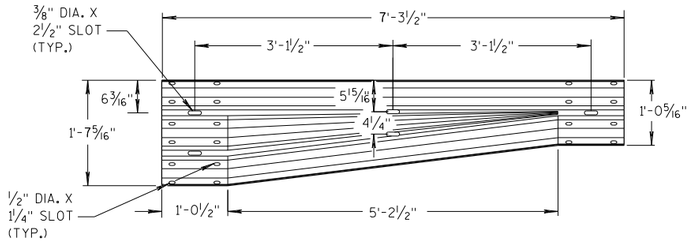
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

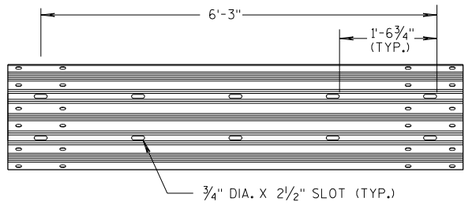
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

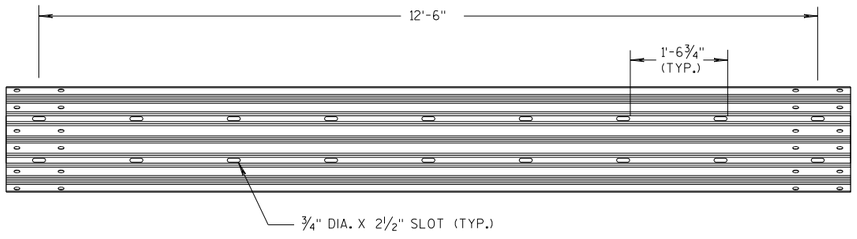
S.D.D. 14 B 45-5b



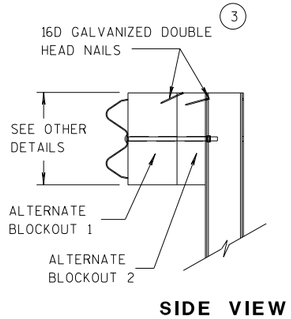
W-BEAM TO THRIE BEAM TRANSITION SECTION



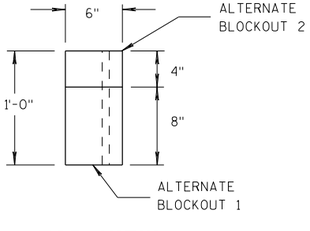
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

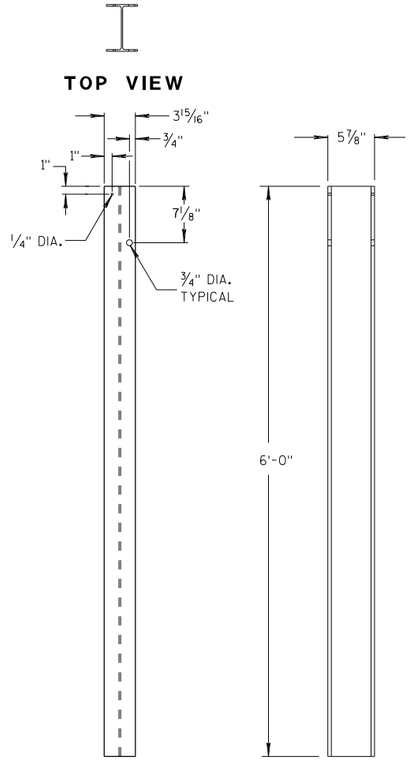


SIDE VIEW



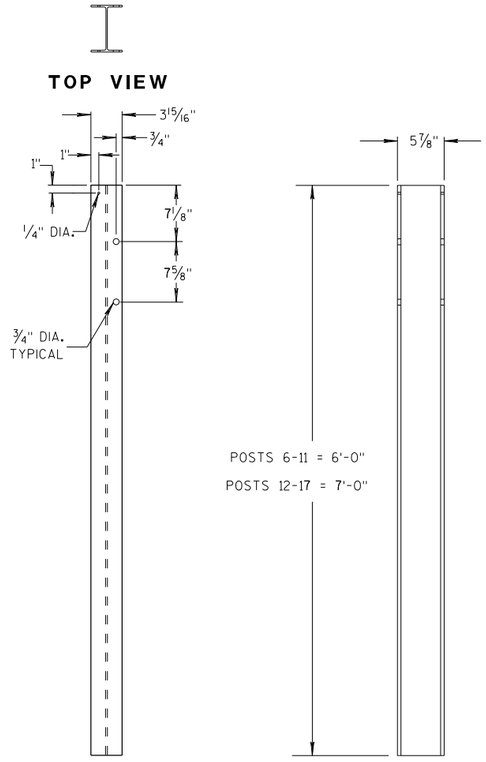
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



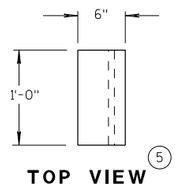
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

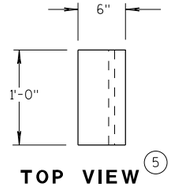


FRONT VIEW SIDE VIEW

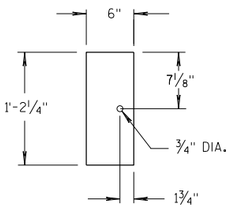
STEEL POSTS 6-17



TOP VIEW (5)

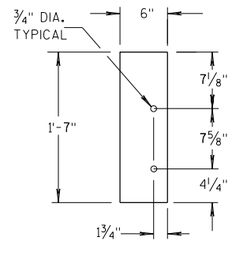


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

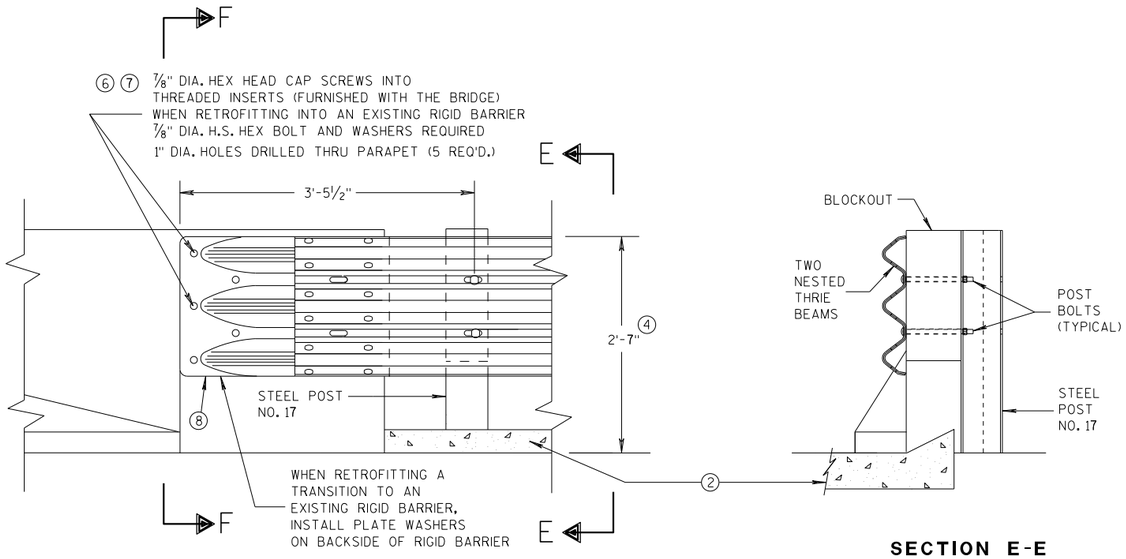
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

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.

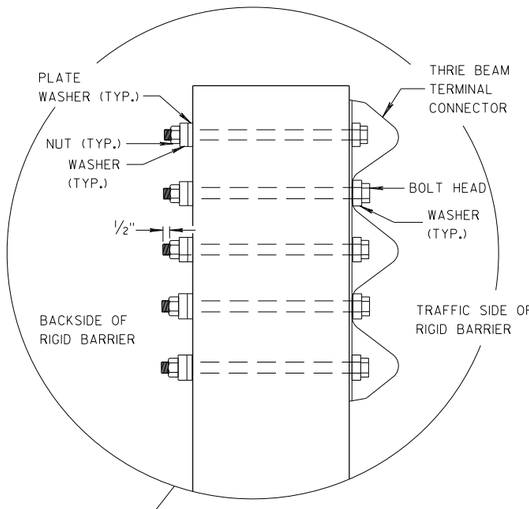
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

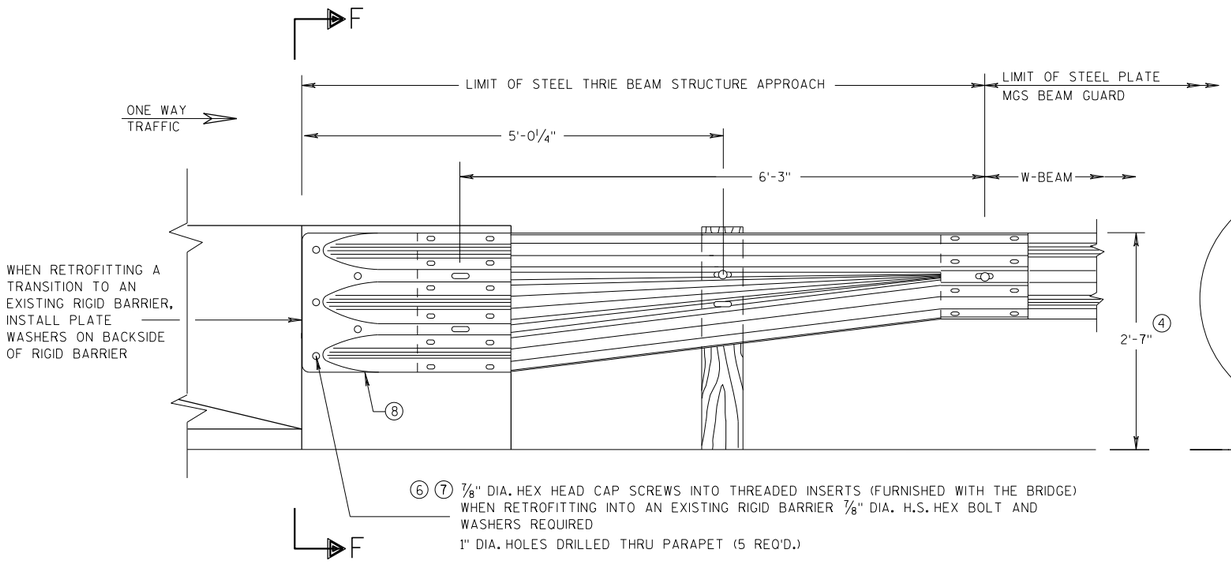
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

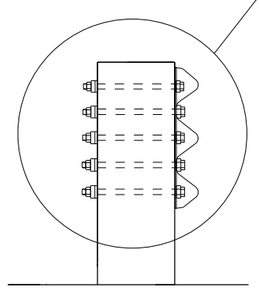
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE.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

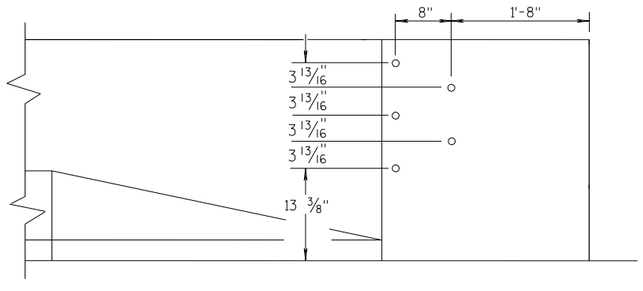




FRONT VIEW



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]
[illegible]NT
FHWA

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

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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.

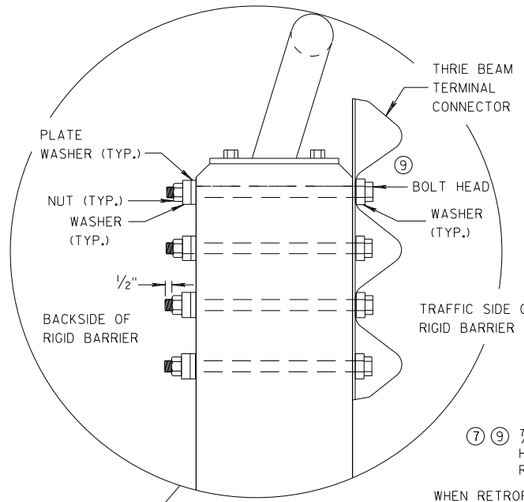
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

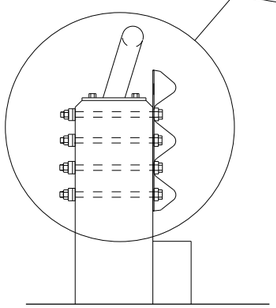
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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.

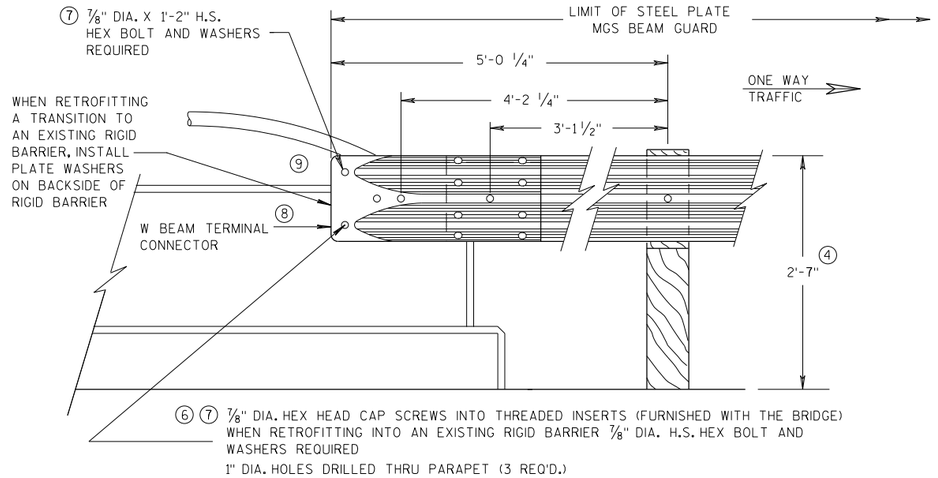
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(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.





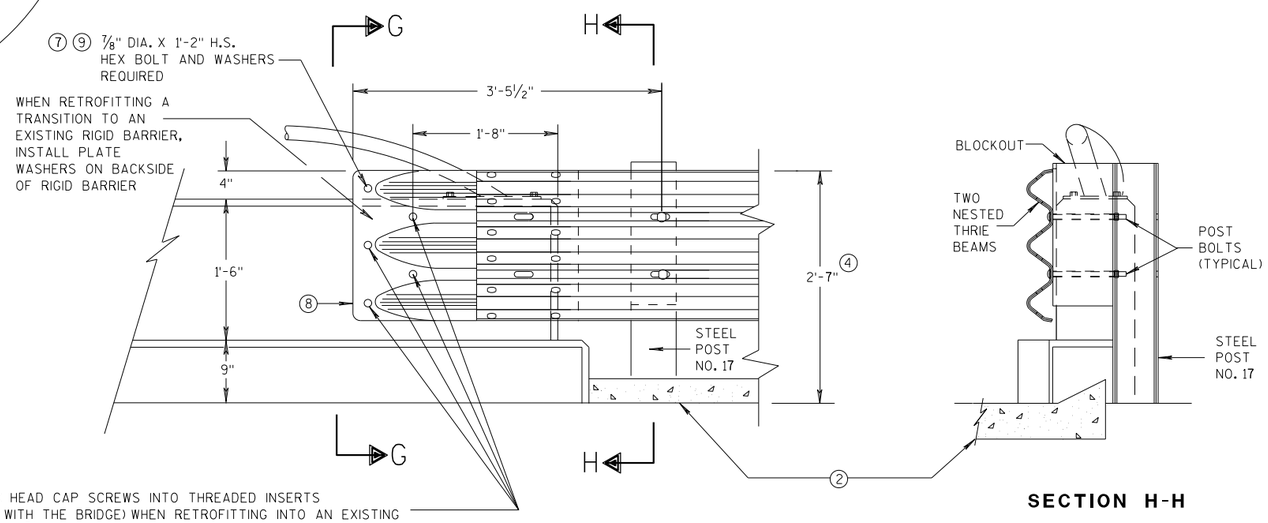
SECTION G-G



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

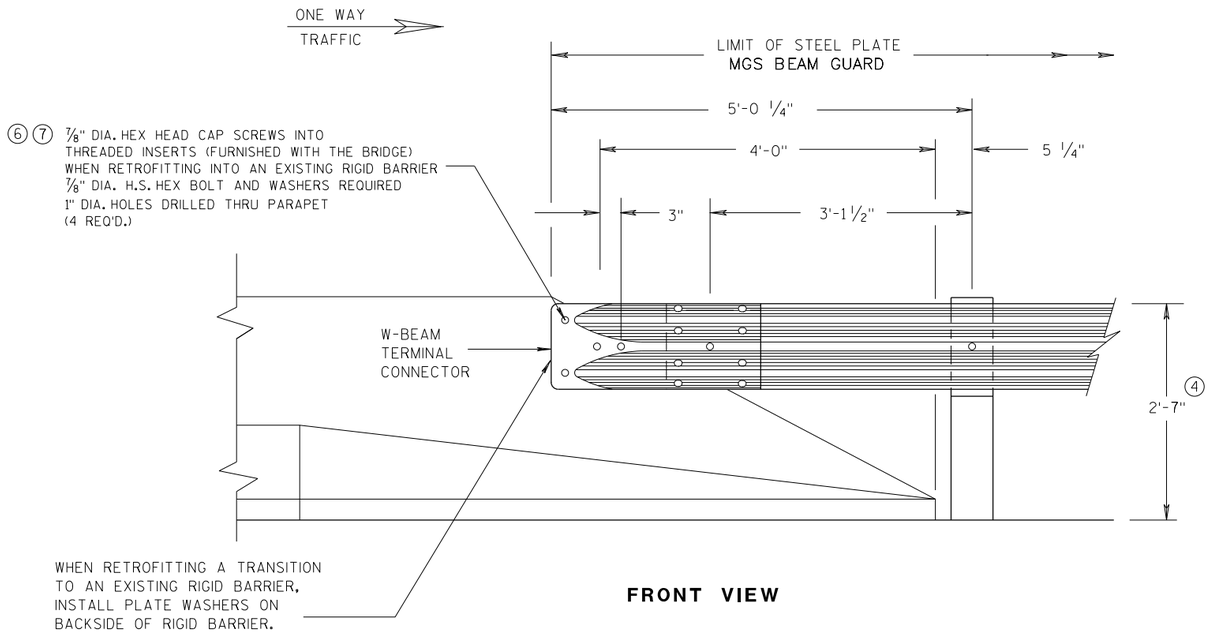
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ROADWAY STANDARDS D UNIT SUPERVIS NT
FHWA

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



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

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

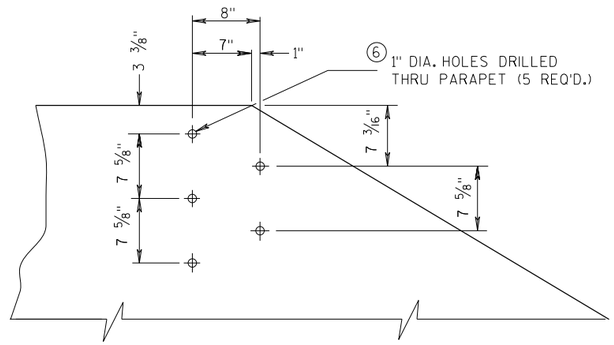
GENERAL NOTES

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

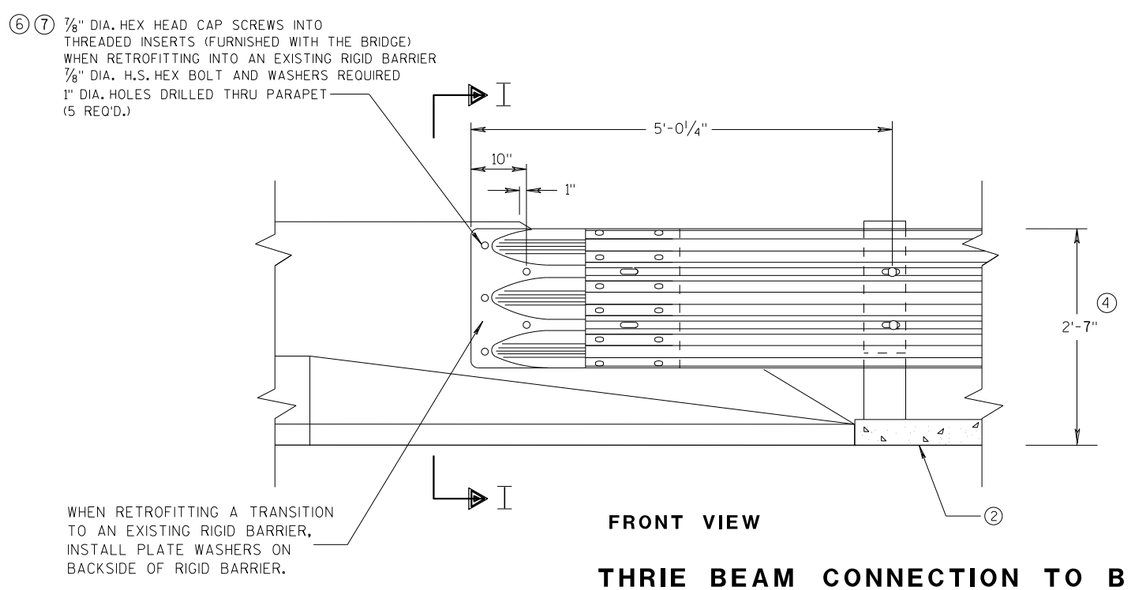
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

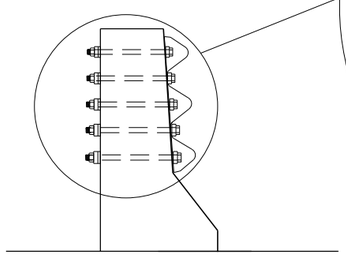
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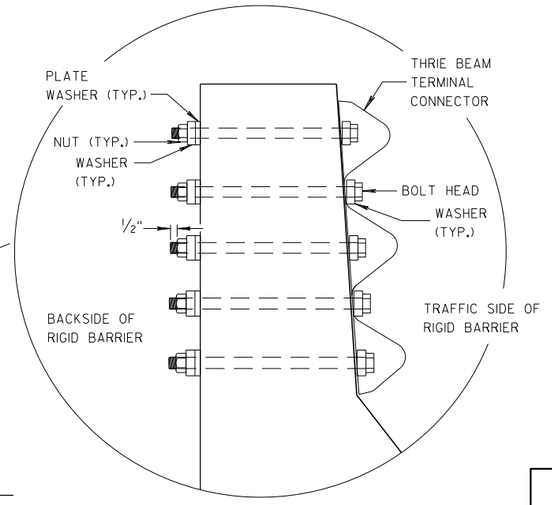
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



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

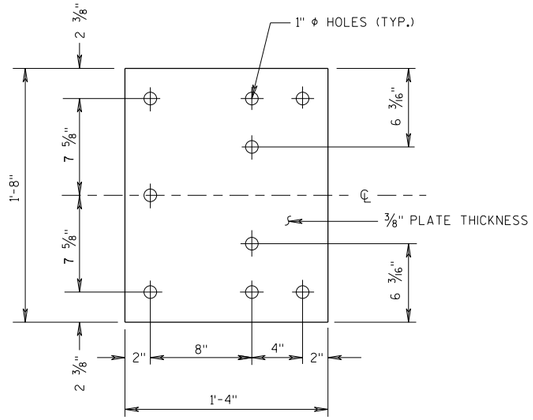
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07/2018 — DATE
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FHWA

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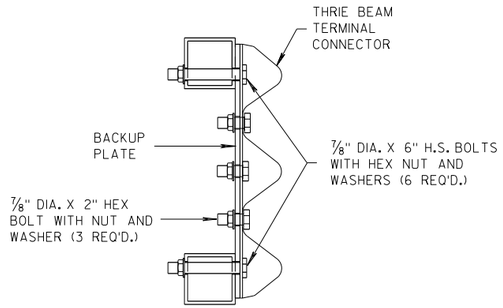
S.D.D. 14 B 45-5f

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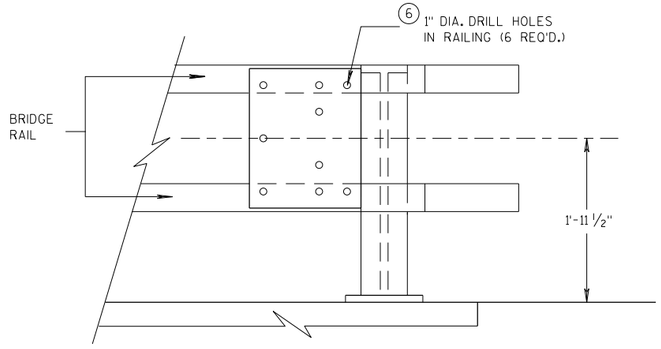
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL



SECTION J-J

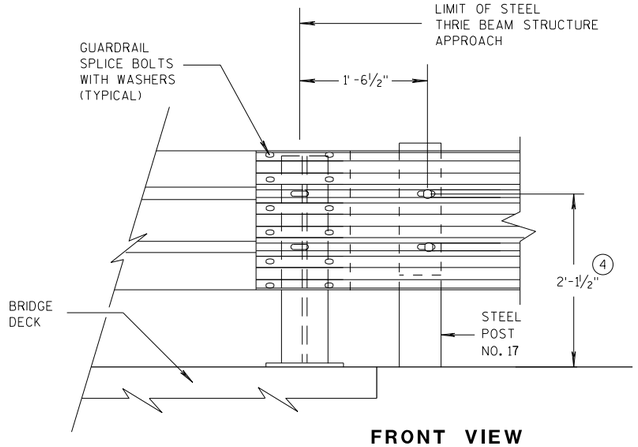


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

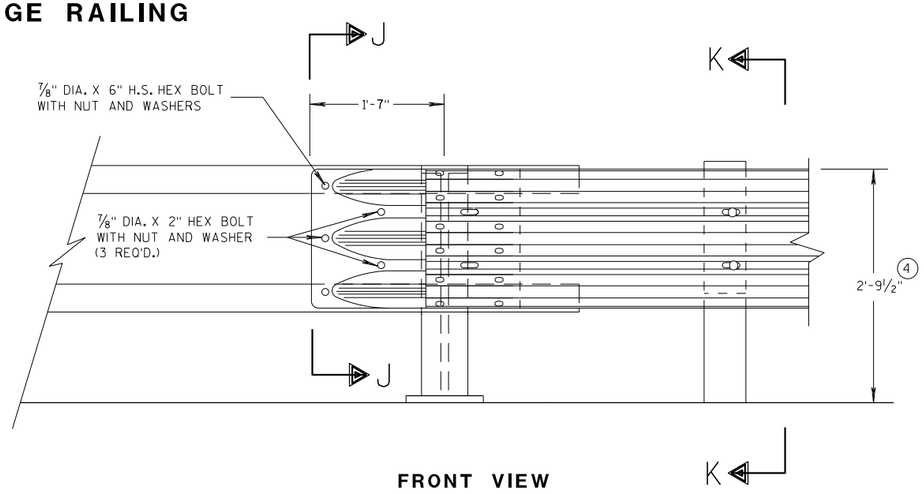
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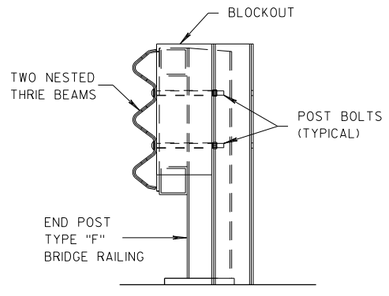


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE
FHWA

/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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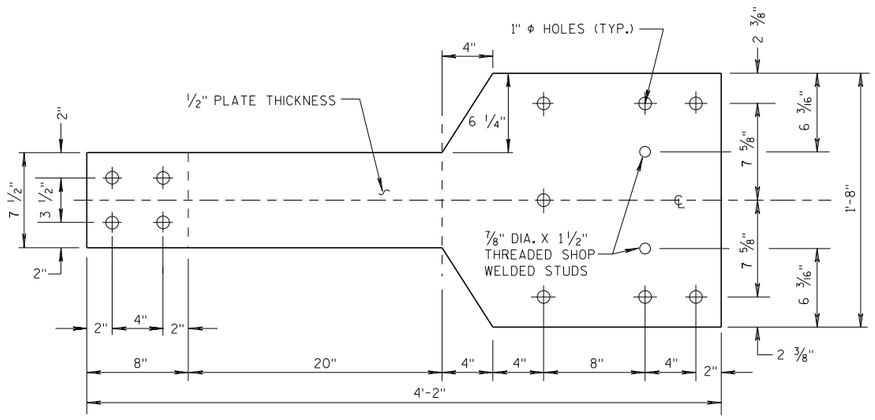
S.D.D. 14 B 45-5g

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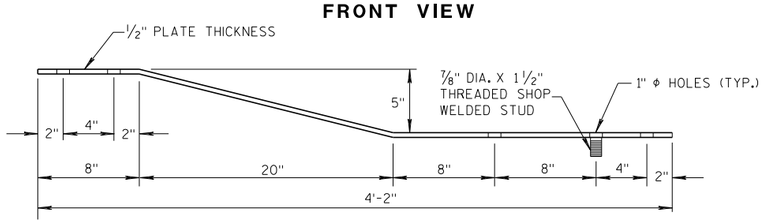
S.D.D. 14 B 45-5g

GENERAL NOTES

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

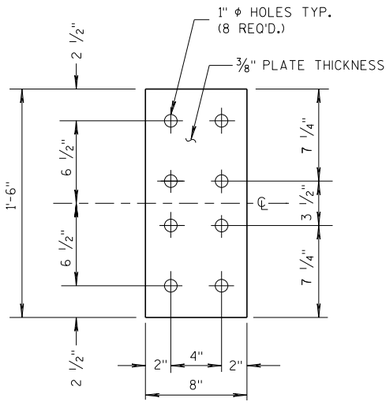


FRONT VIEW



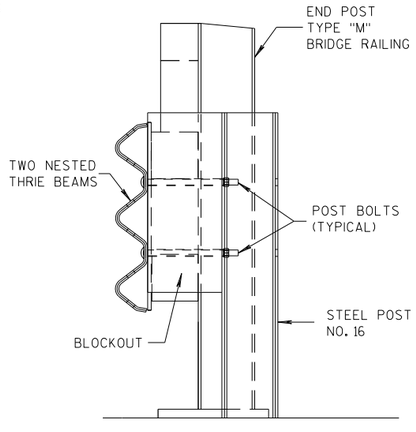
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

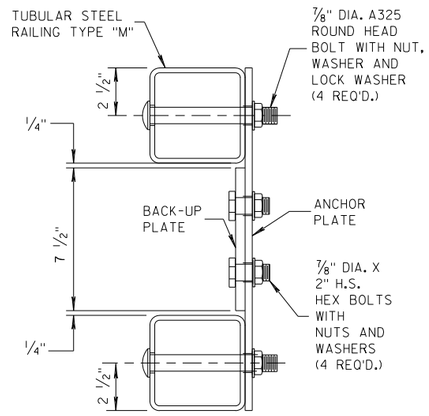


FRONT VIEW

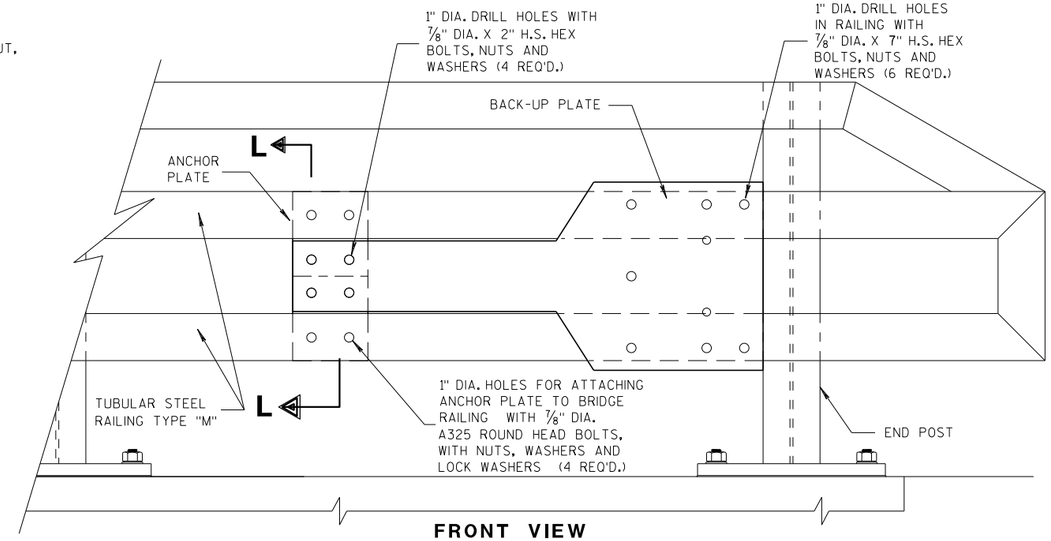
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

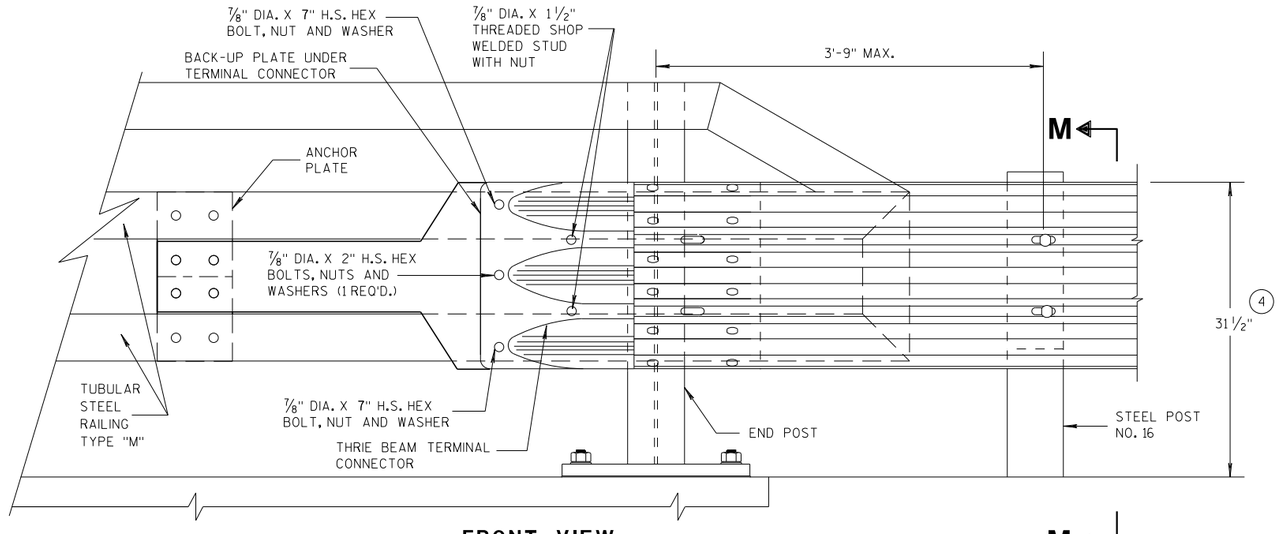


SECTION L-L

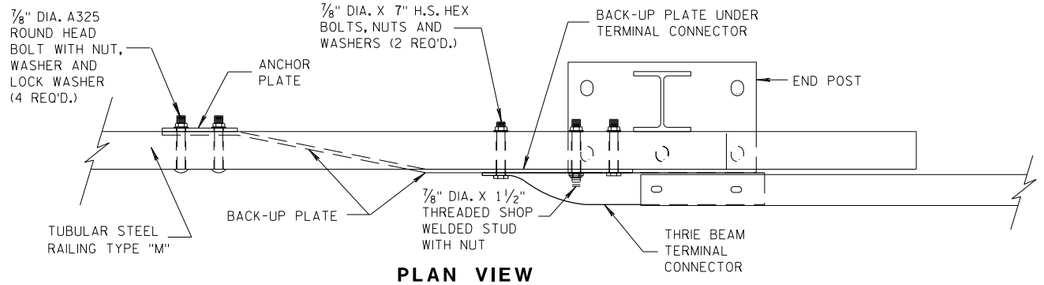


FRONT VIEW

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



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

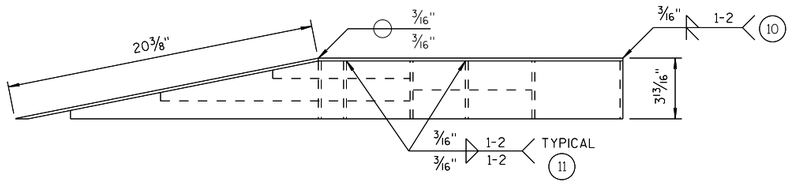
APPROVED
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/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

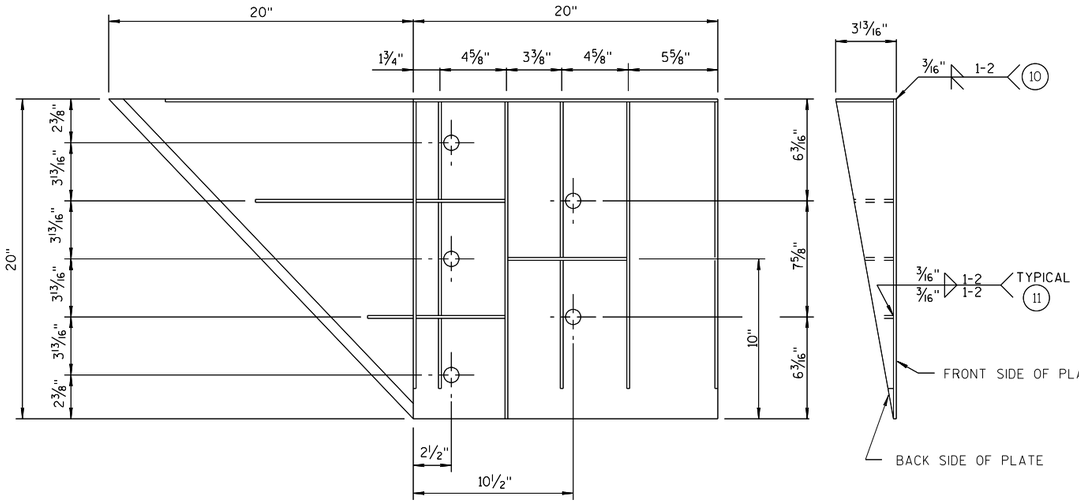
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S.D.D. 14 B 45-5h

6

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





WELDING INSTRUCTION

(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".

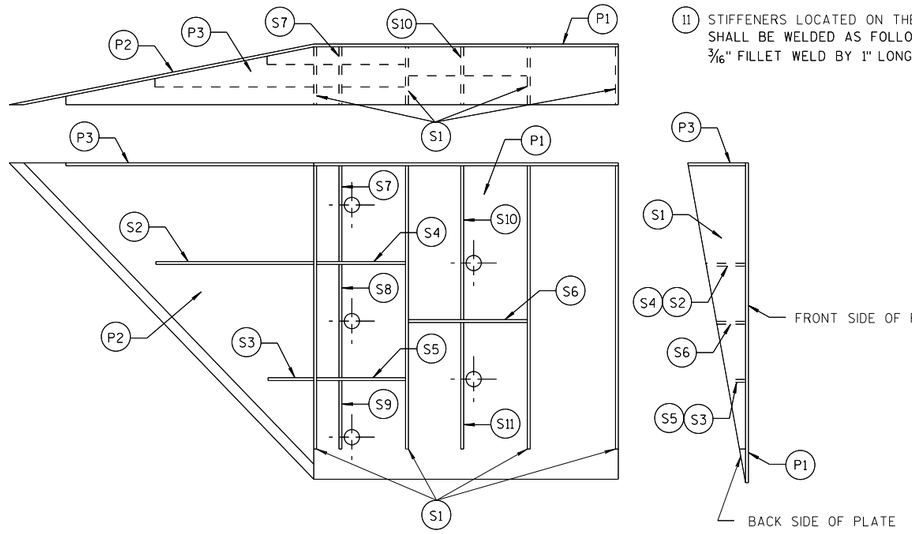


PLATE AND STIFFENER IDENTIFICATION

(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"

SINGLE SLOPE CONNECTION PLATE

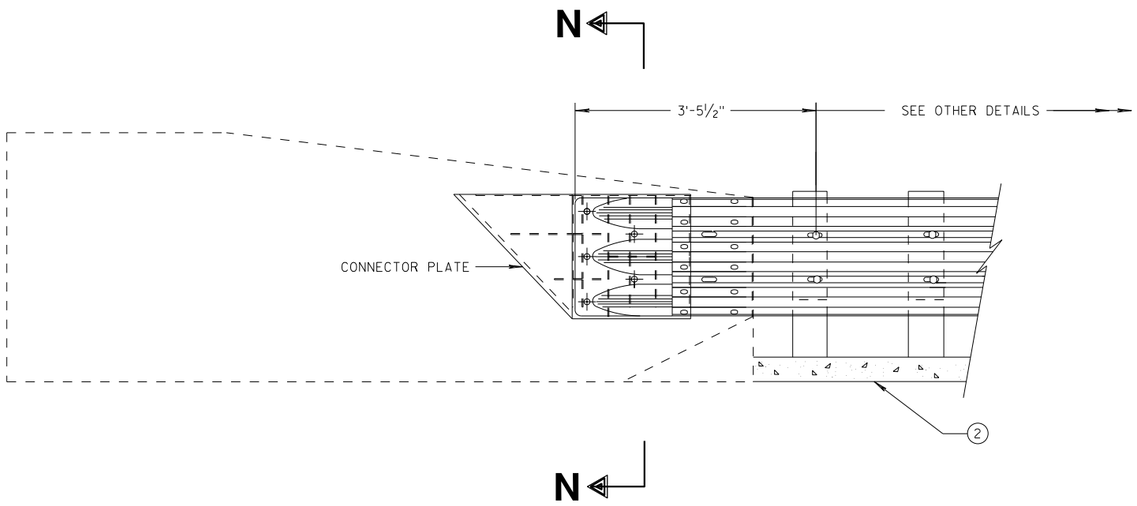
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

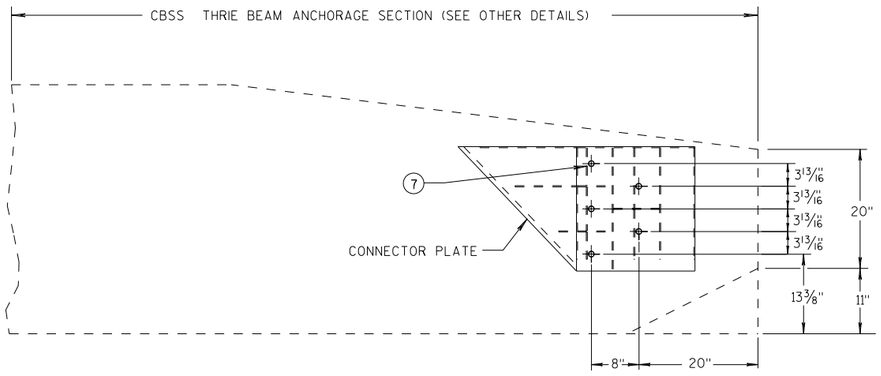
APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS I
UNIT SUPERVI
ENT
FHWA

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



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



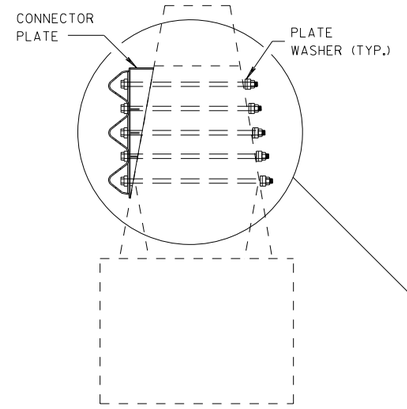
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

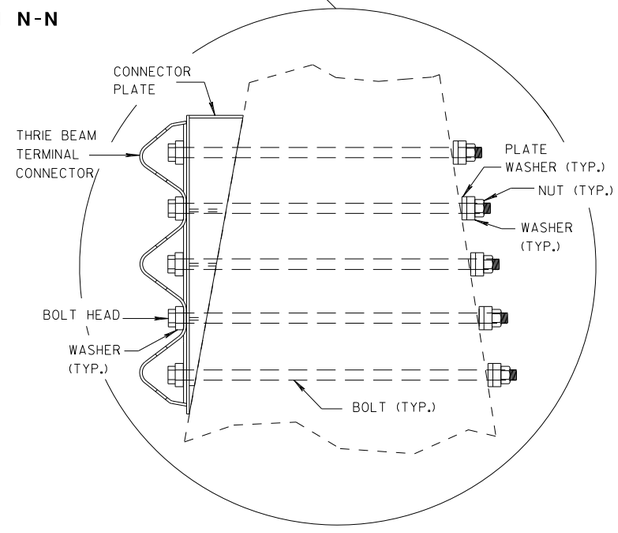
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

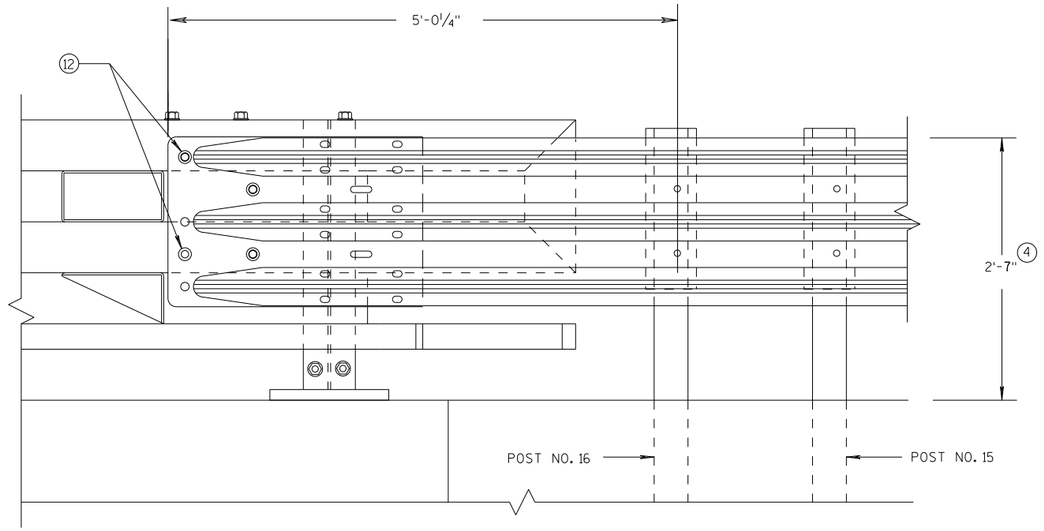
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS DI
UNIT SUPERVIS

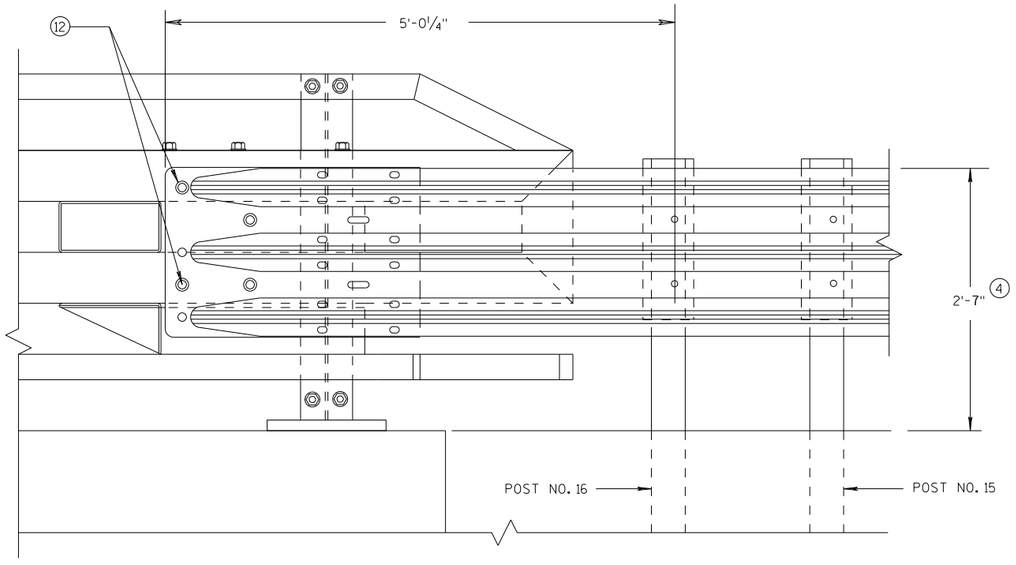
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S.D.D. 14 B 45-5j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

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

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS D
UNIT SUPERVIS

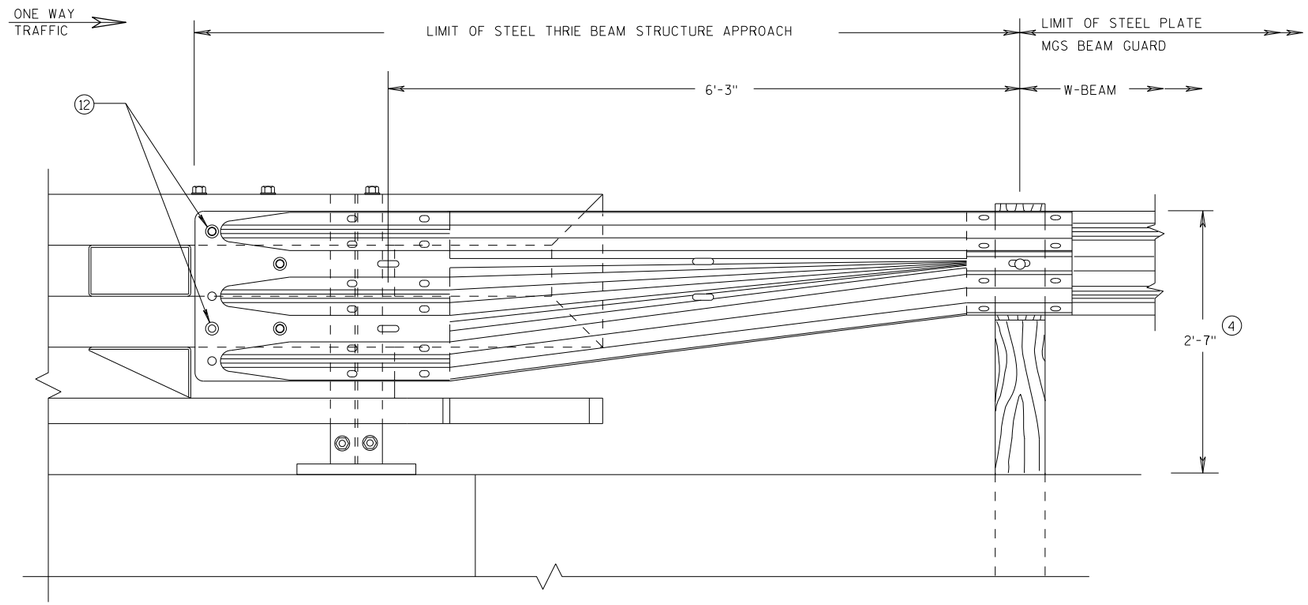
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S.D.D. 14 B 45-5k

6

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



FRONT VIEW

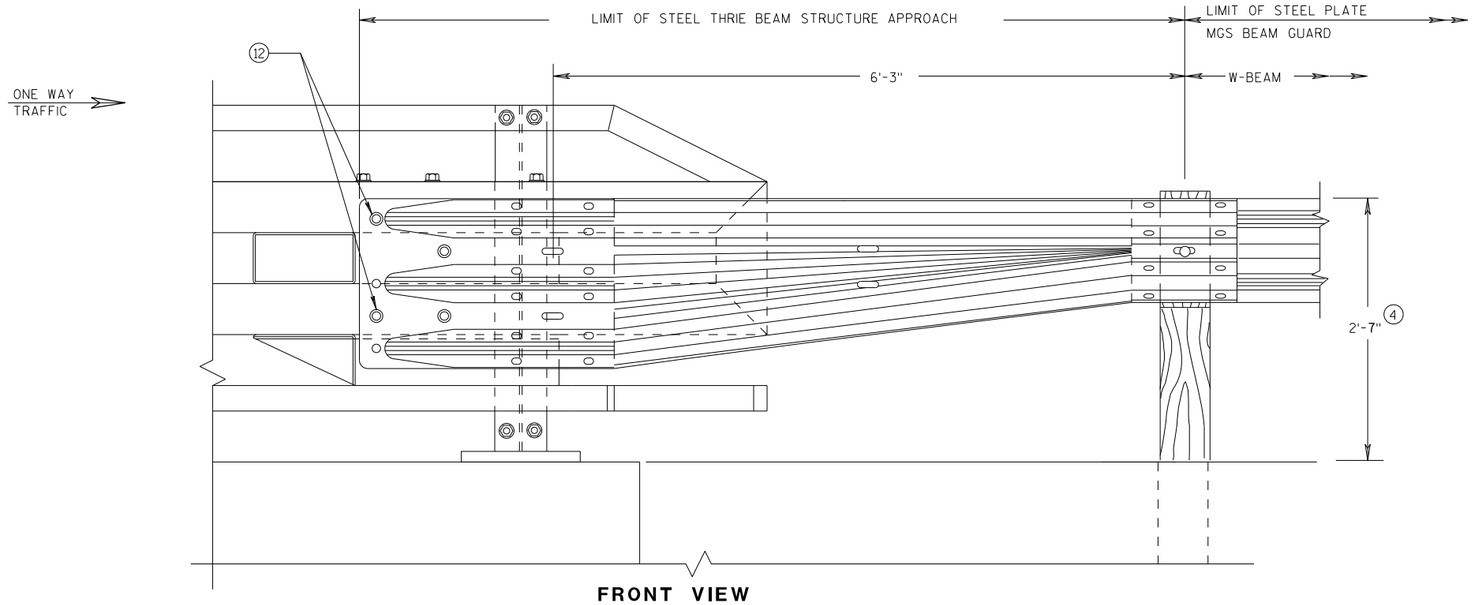
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

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

GENERAL NOTES

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

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

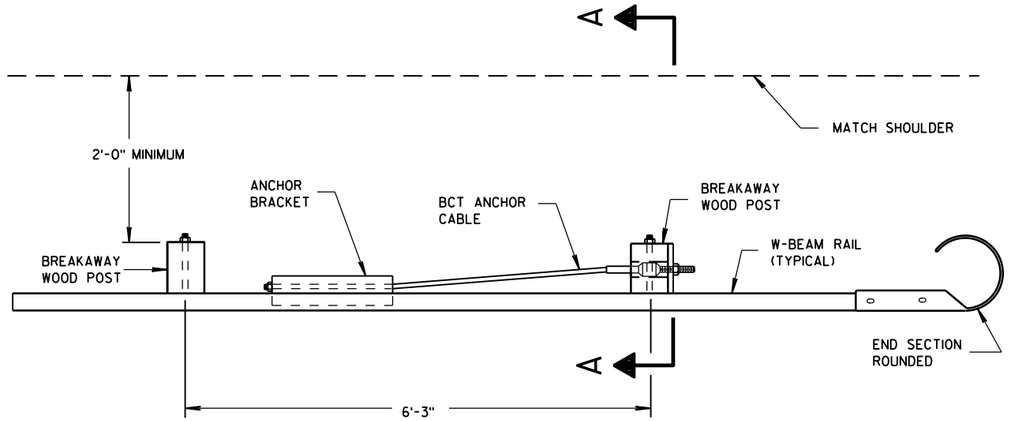
APPROVED
7/2018 DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D UNIT SUPERVIS
FHWA

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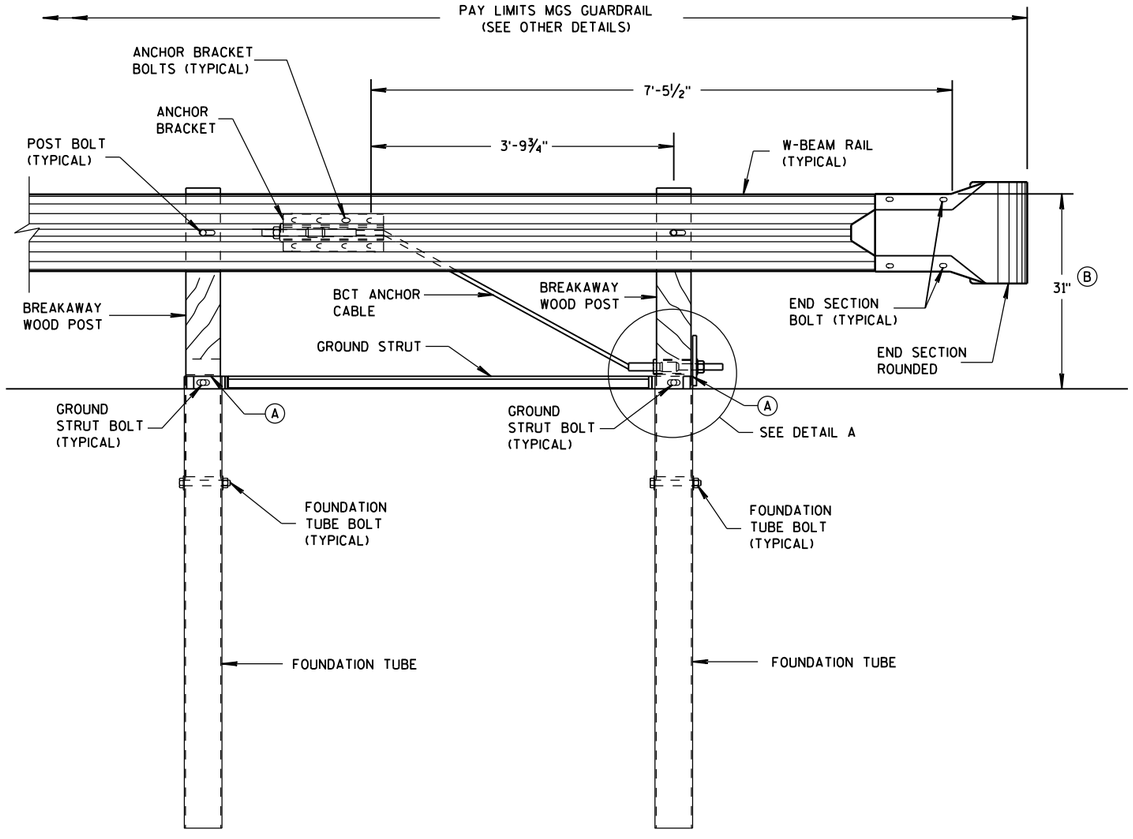
S.D.D. 14 B 45-5L

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

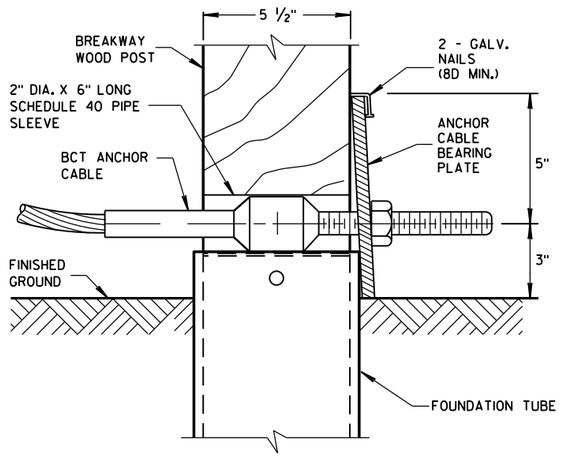


PLAN VIEW



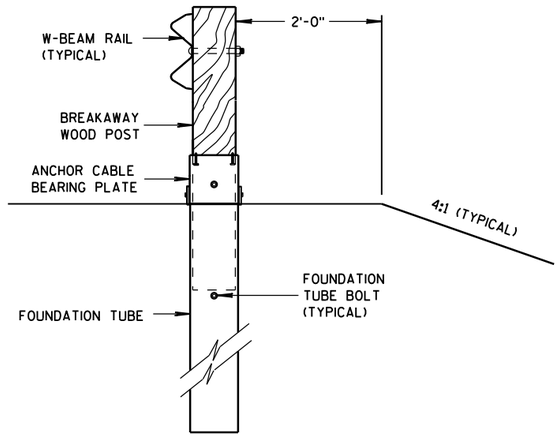
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.

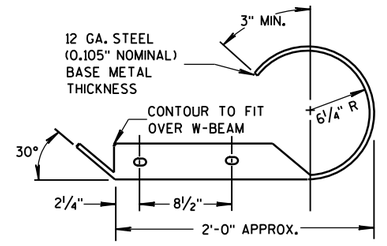
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

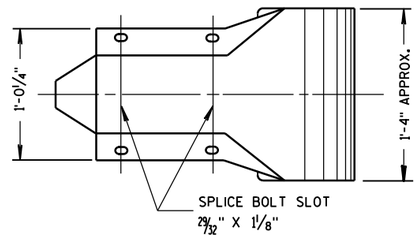
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



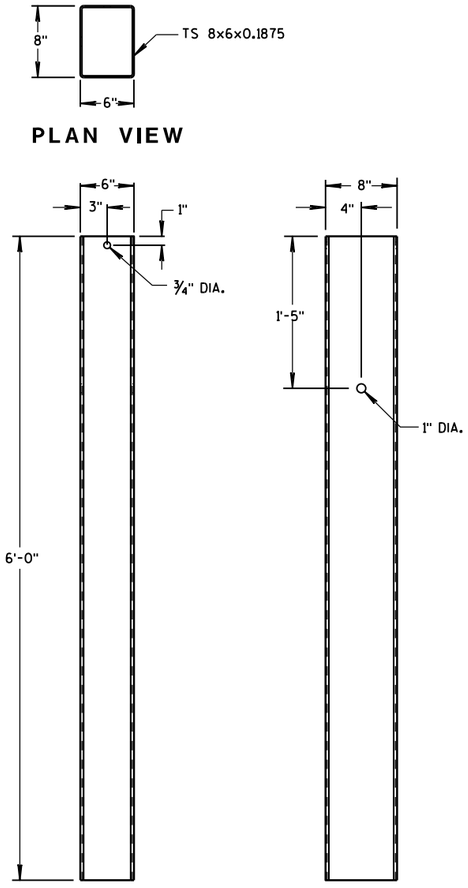
FRONT VIEW

W BEAM END SECTION ROUNDED

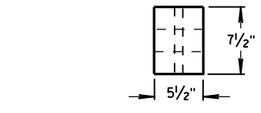
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

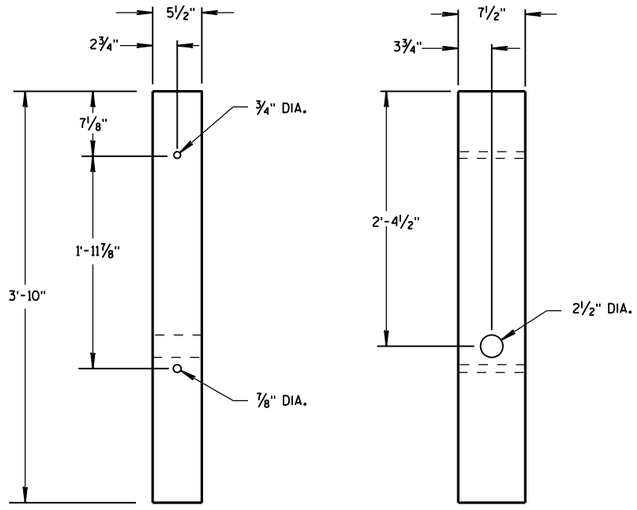
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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S.D.D. 14 B 47-2a



FOUNDATION TUBE

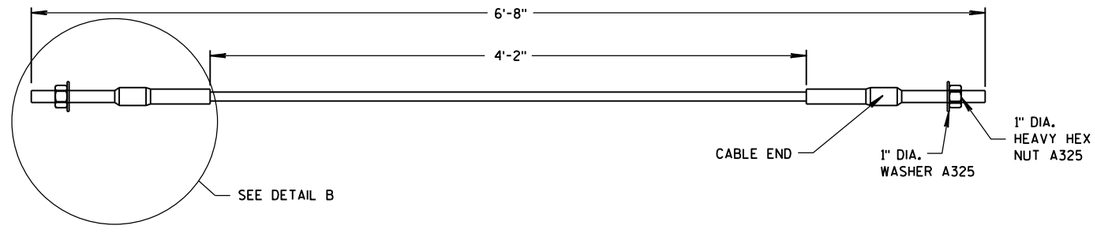




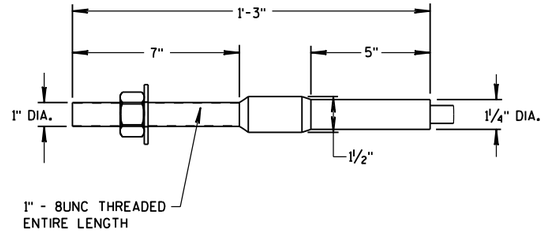
BREAKAWAY WOOD POST

GENERAL NOTES

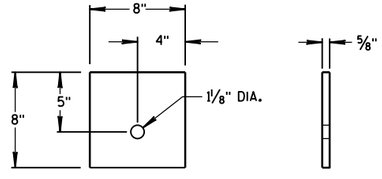
BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.



BCT ANCHOR CABLE



DETAIL B



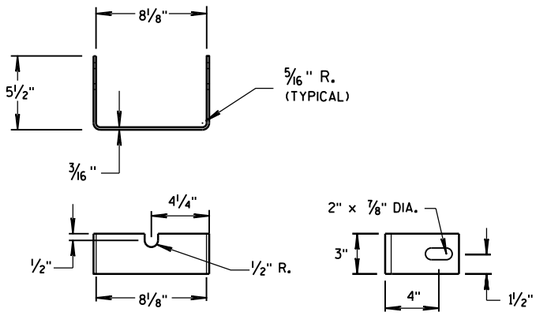
ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

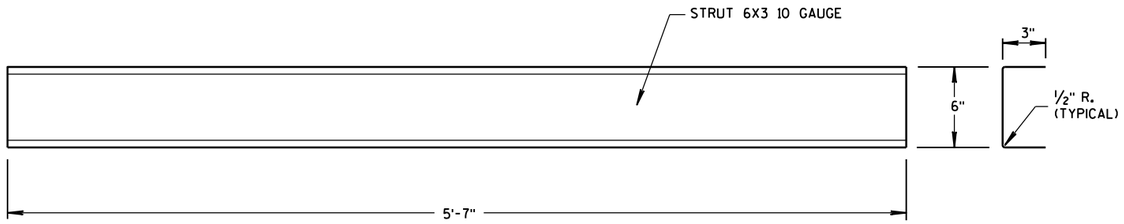
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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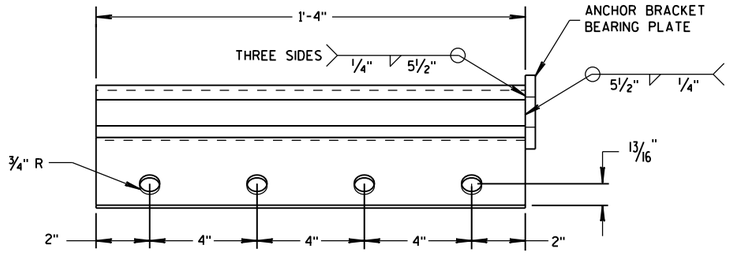
S.D.D. 14 B 47-2b

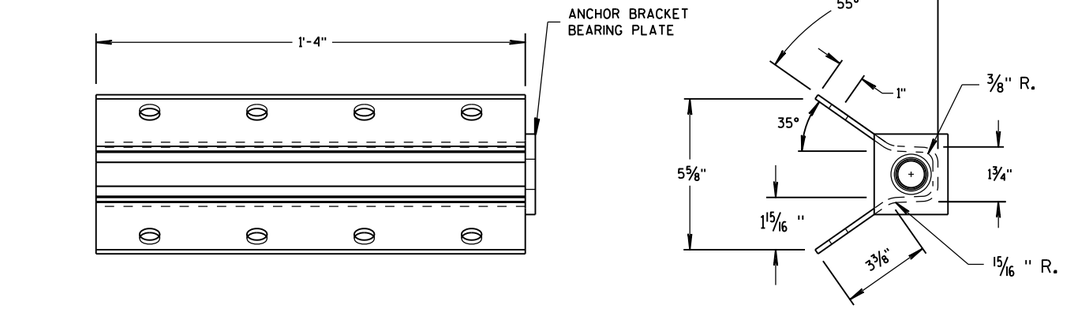


YOKE DETAIL

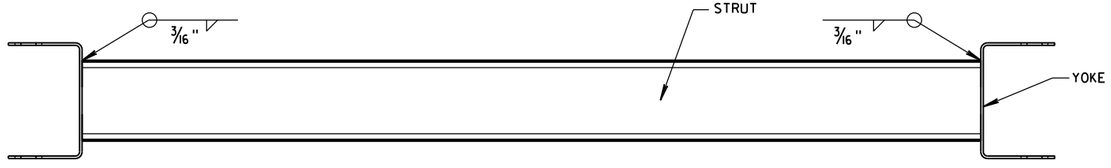


STRUT DETAIL

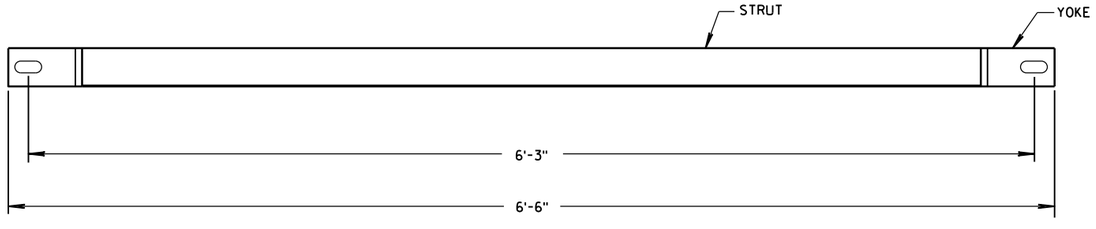




ANCHOR BRACKET

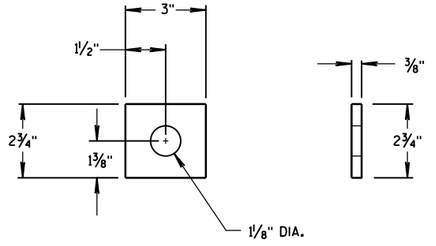


PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET BEARING PLATE

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

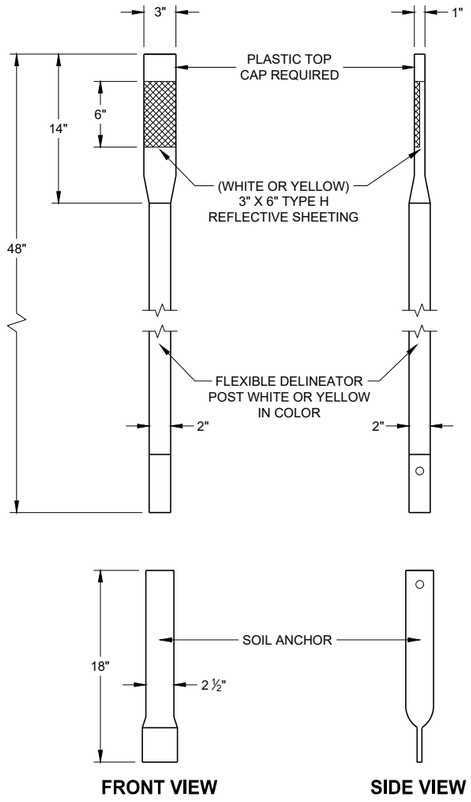
APPROVED
June 2014
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

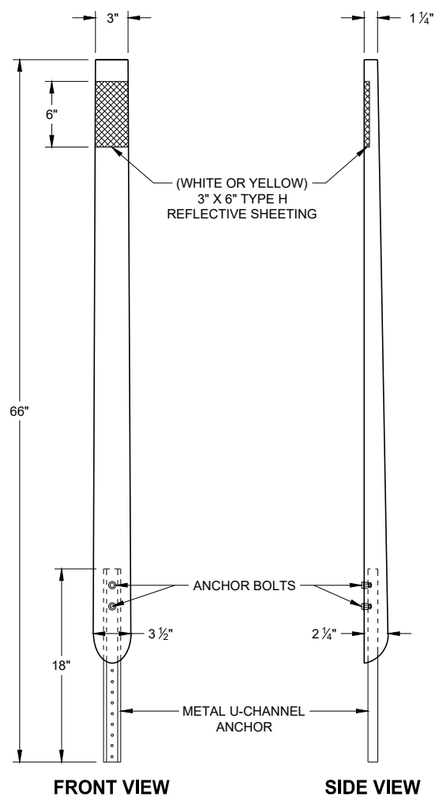
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S.D.D. 14 B 47-2c



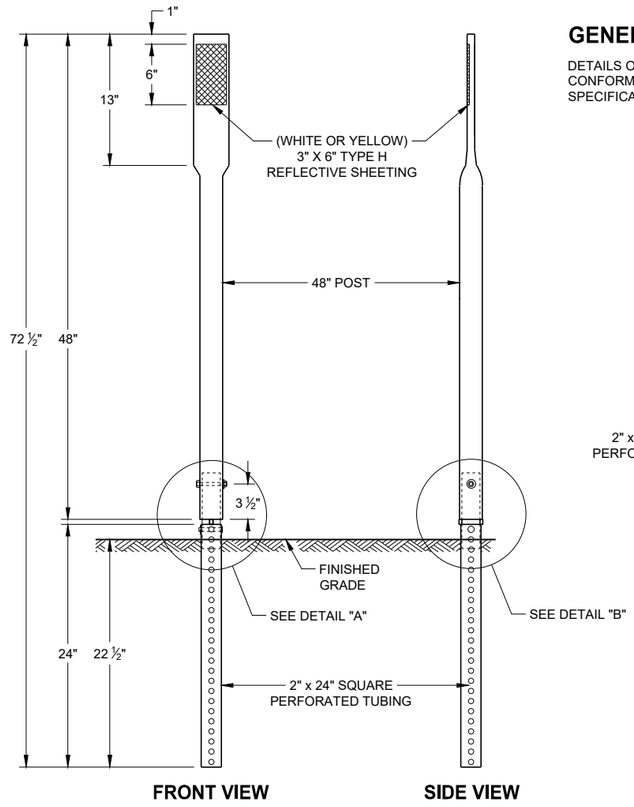
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2



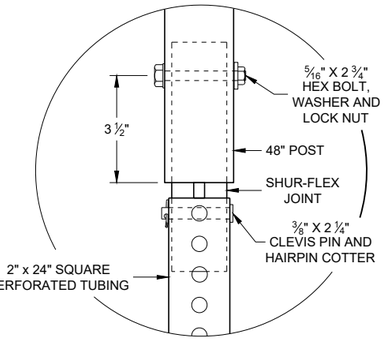
FRONT VIEW SIDE VIEW

ALTERNATE 3

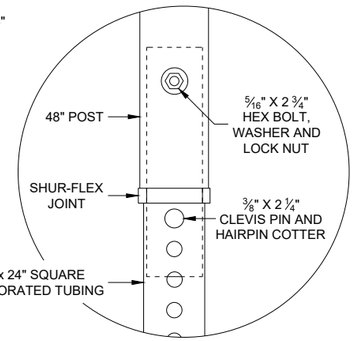
FLEXIBLE DELINEATOR POSTS

GENERAL NOTES

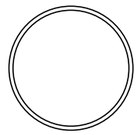
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



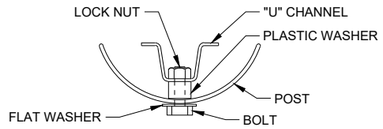
DETAIL A



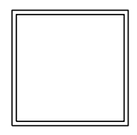
DETAIL B



SECTION A - A



SECTION B - B

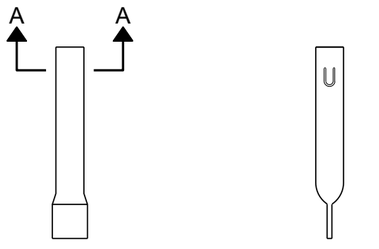


SECTION C - C

REFLECTOR SPACING TABLE

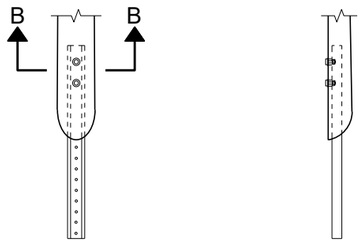
REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER



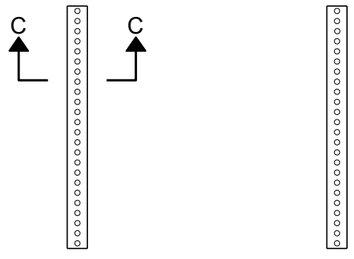
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

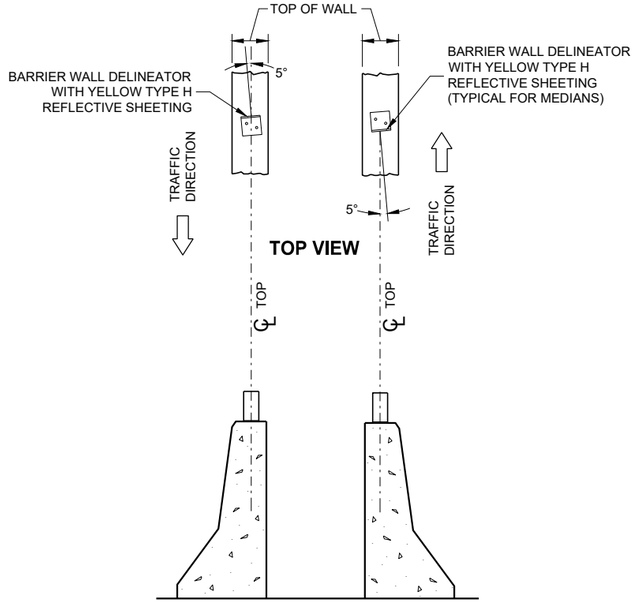
APPROVED
May 2021 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

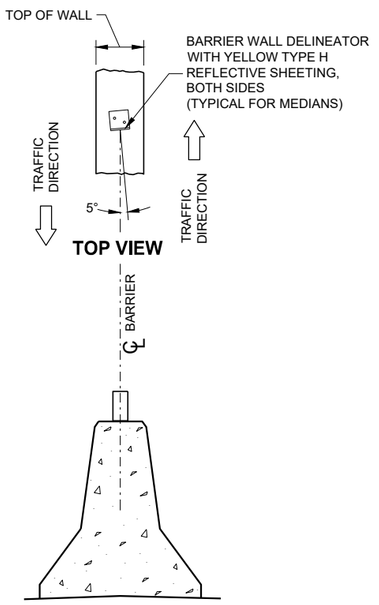
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SDD 15A04 - 06a

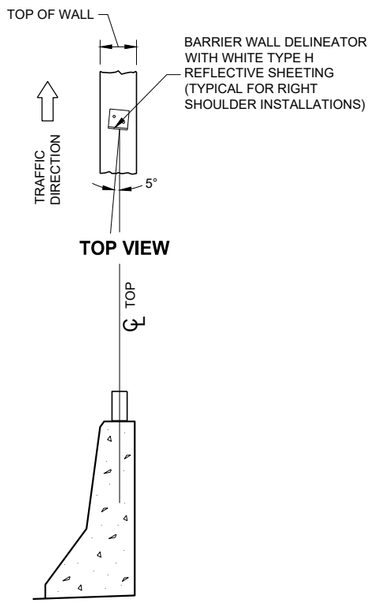
SDD 15A04 - 06a



SIDE VIEW
DOUBLE BARRIERS IN MEDIAN

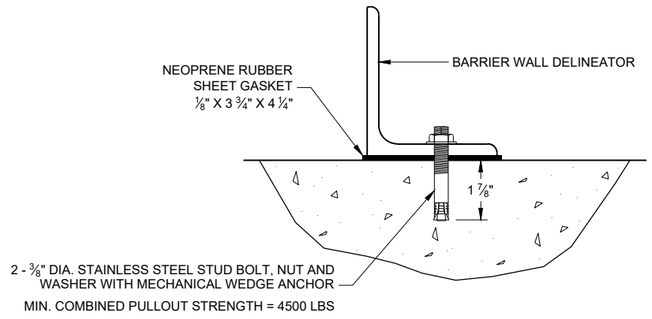


SIDE VIEW
MEDIAN BARRIER

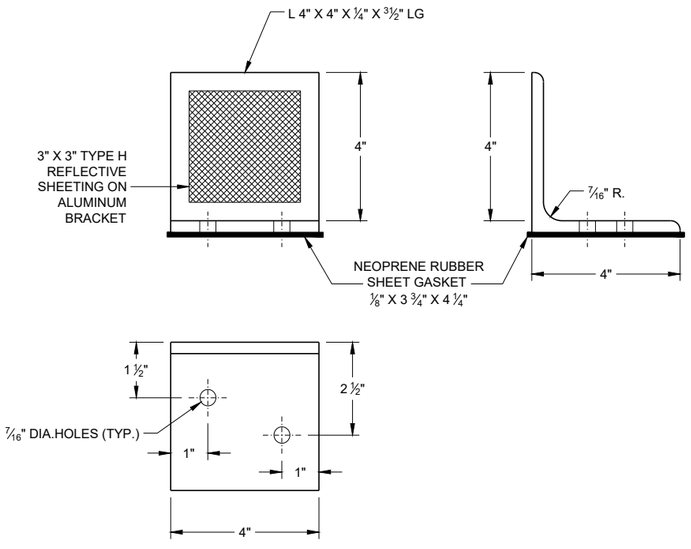


SIDE VIEW
TO RIGHT OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR BARRIER WALL DELINEATOR MOUNTED ON CONCRETE BARRIERS



BARRIER WALL DELINEATOR MOUNTING DETAIL



BARRIER WALL DELINEATOR

REFLECTOR SPACING TABLE

REFLECTOR SPACING	MINIMUM NUMBER OF REFLECTORS
100' C-C	3

BARRIER WALL DELINEATOR WITH REFLECTIVE SHEETING

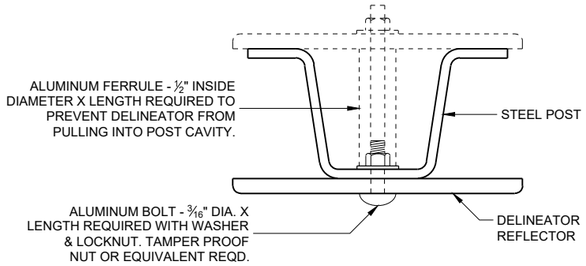
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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May 2021 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

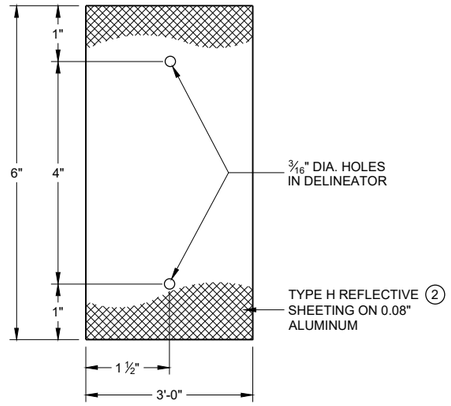
FHWA

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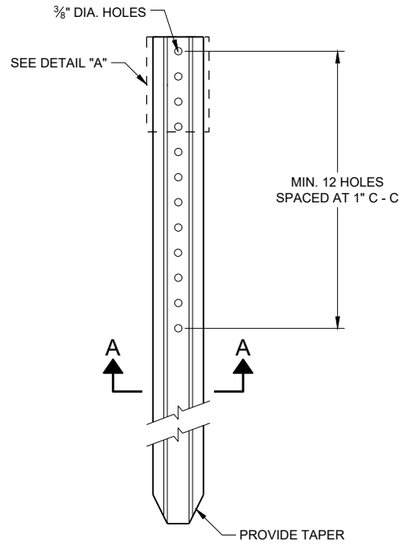
SDD 15A04 - 06b



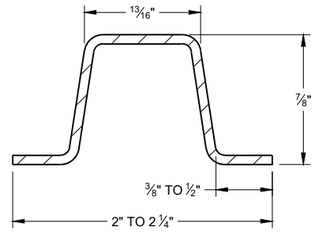
MOUNTING DETAIL FOR DELINEATOR REFLECTOR



DETAIL "A" 3" X 6" DELINEATOR REFLECTOR



DELINEATOR POST



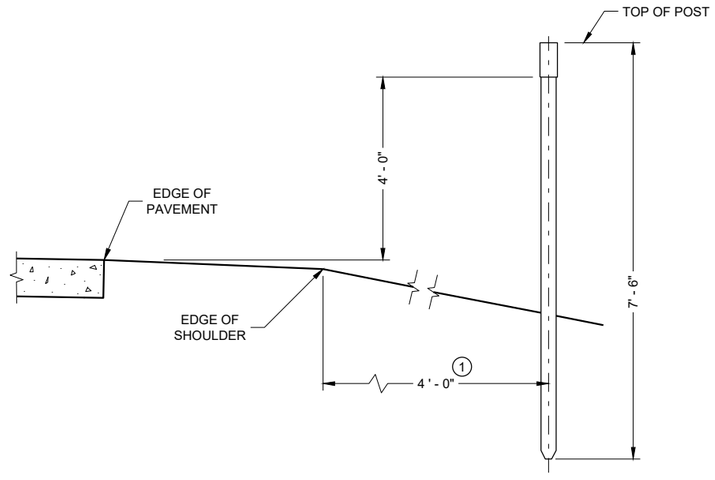
SECTION A - A

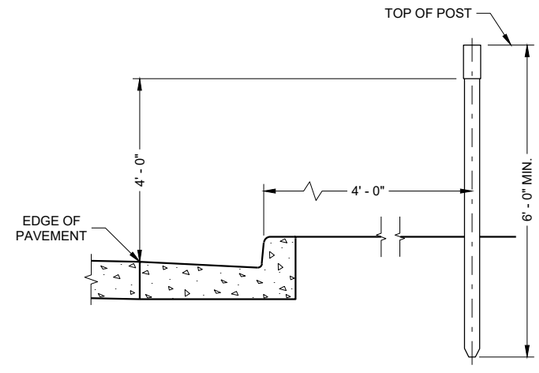
WEIGHT 1.12 LBS PER FT. \ 0.1 LB.

REFLECTOR SPACING TABLE

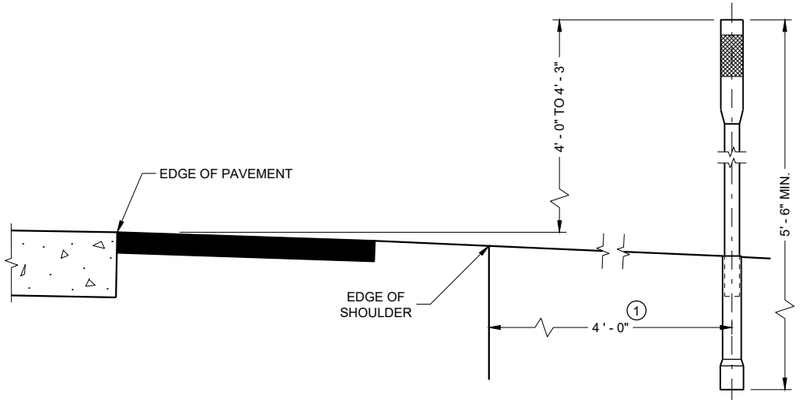
REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

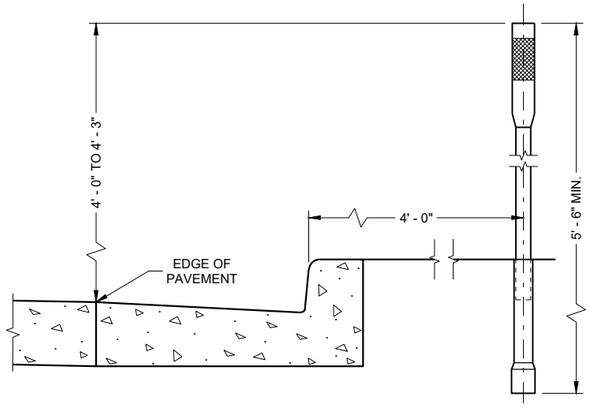
* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER





TYPICAL INSTALLATIONS OF DELINEATOR POSTS





TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS

GENERAL NOTES

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

1. DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.
2. FURNISH TYPE H SHEETING FROM THE APPROVED PRODUCTS LIST.

DELINEATOR POST WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

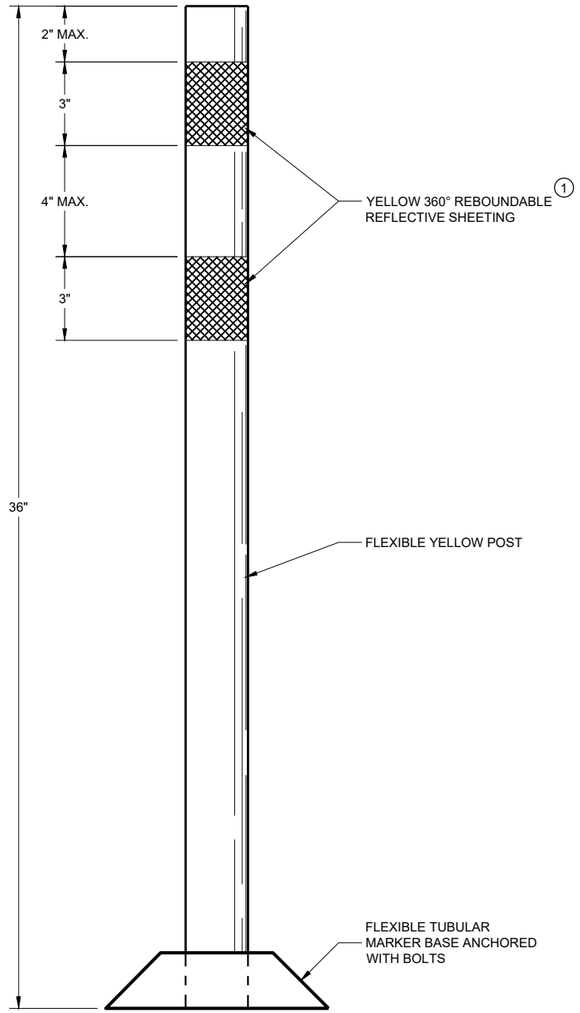
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SDD 15A04 - 06c

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SDD 15A04 - 06c



PERMANENT FLEXIBLE TUBULAR MARKER POST

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

6

SDD 15A04 - 06d

CHANNELIZING DEVICES
PERMANENT FLEXIBLE
TUBULAR MARKER POST

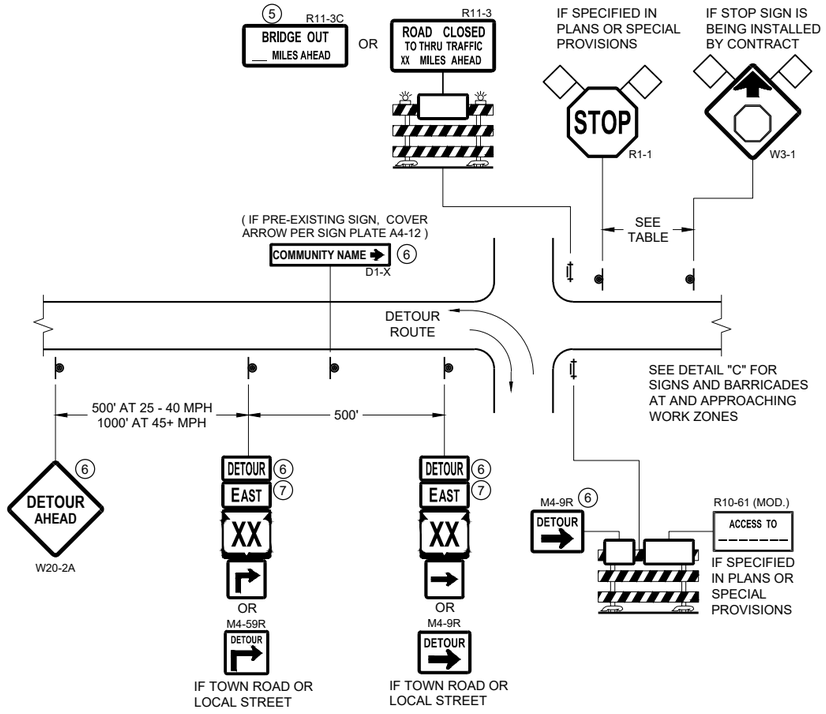
STATE OF WISCONSIN
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May 2021 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

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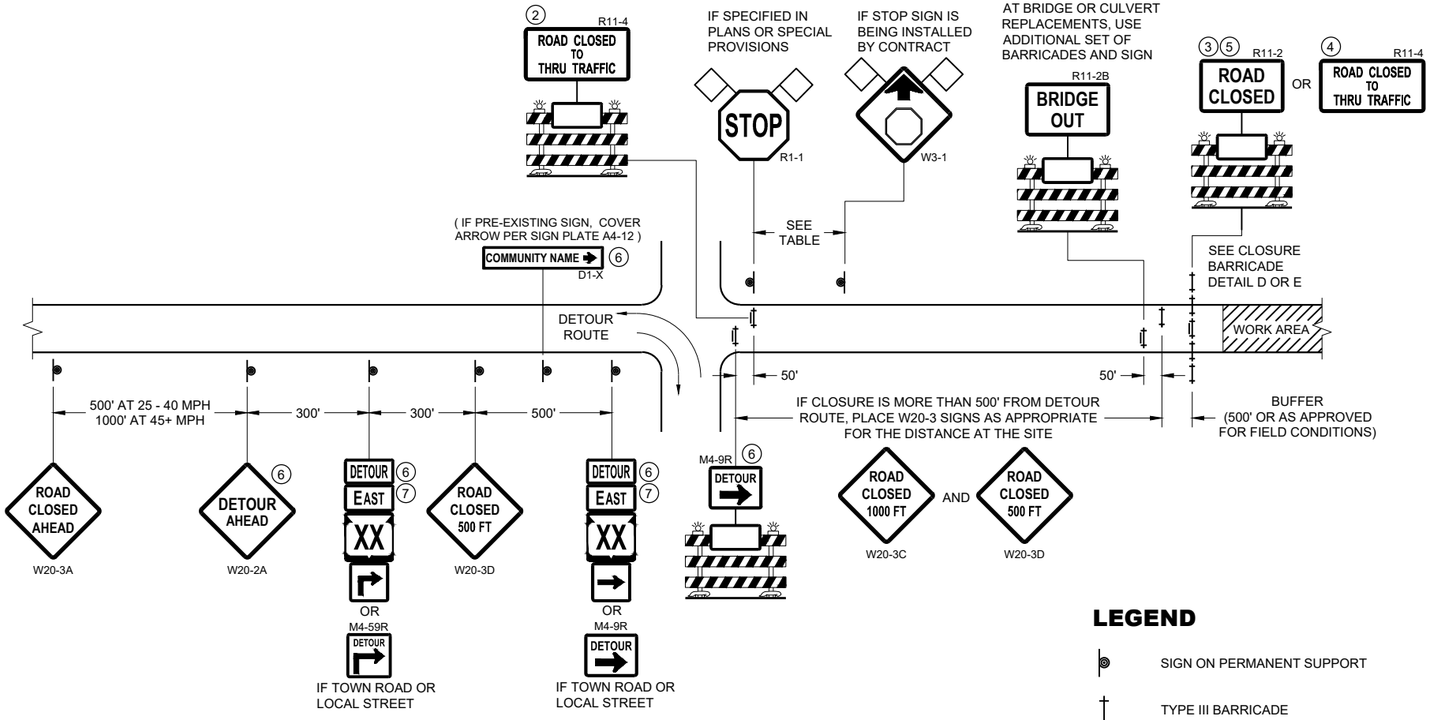
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SDD 15A04 - 06d



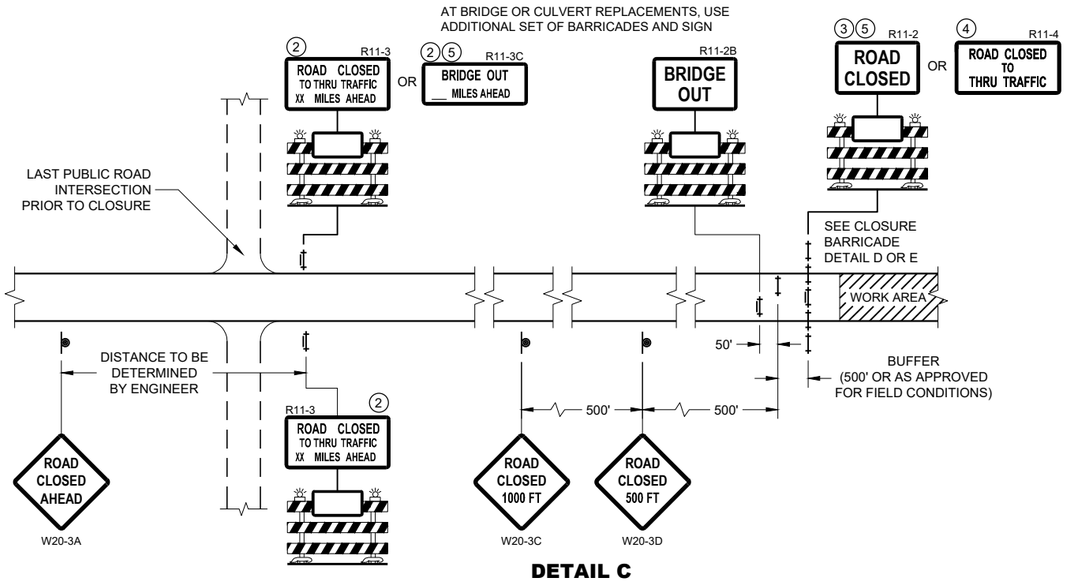
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

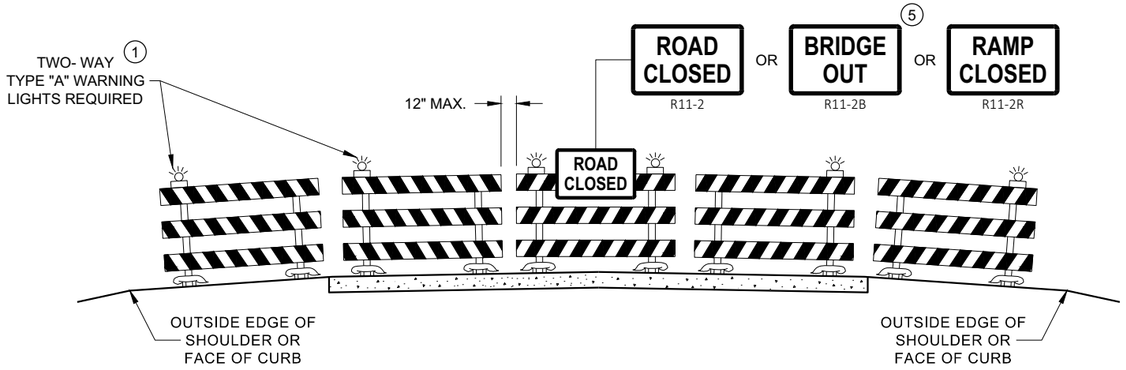
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

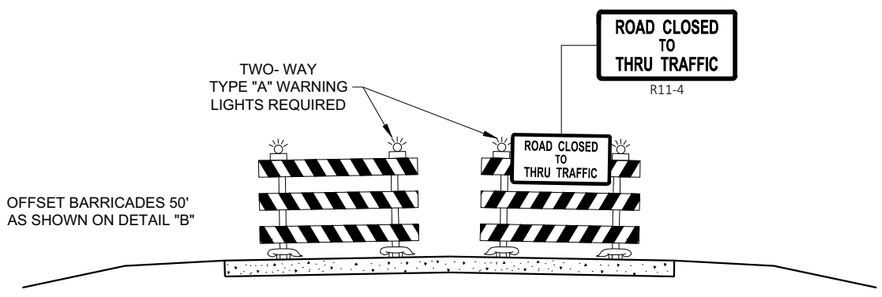
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SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 15C02 - 08b

6

SDD 15C02 - 08b

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

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

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

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

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

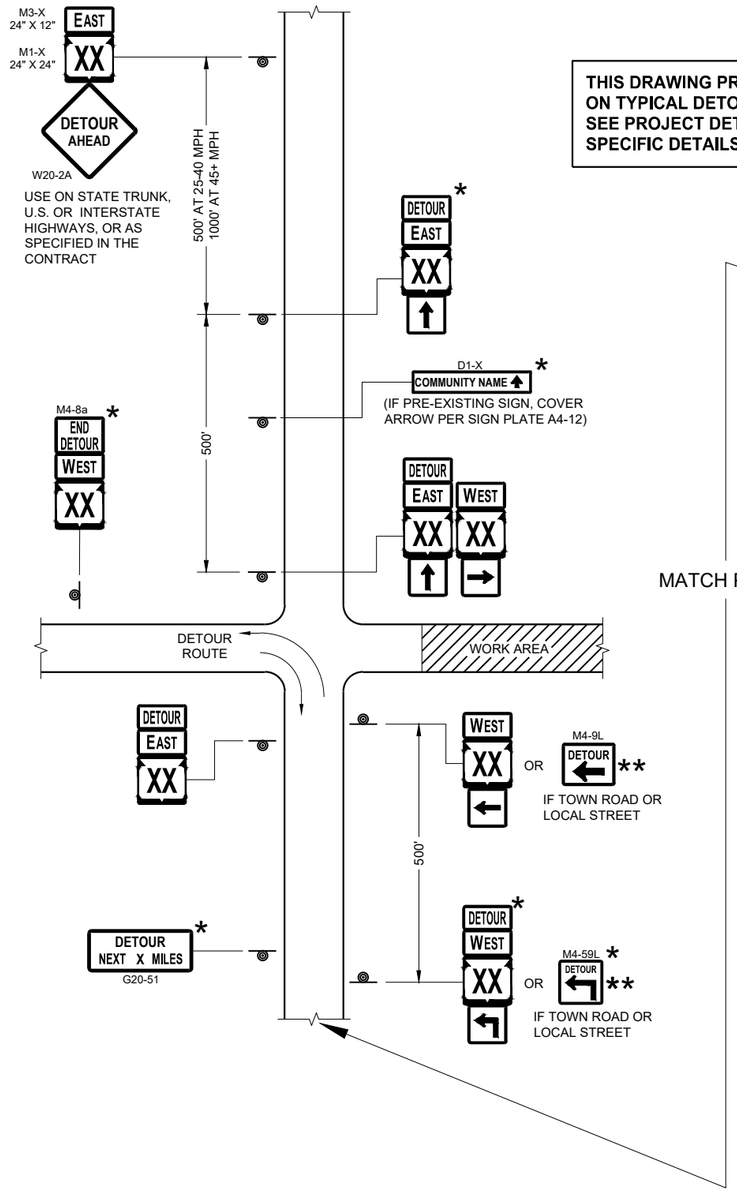
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

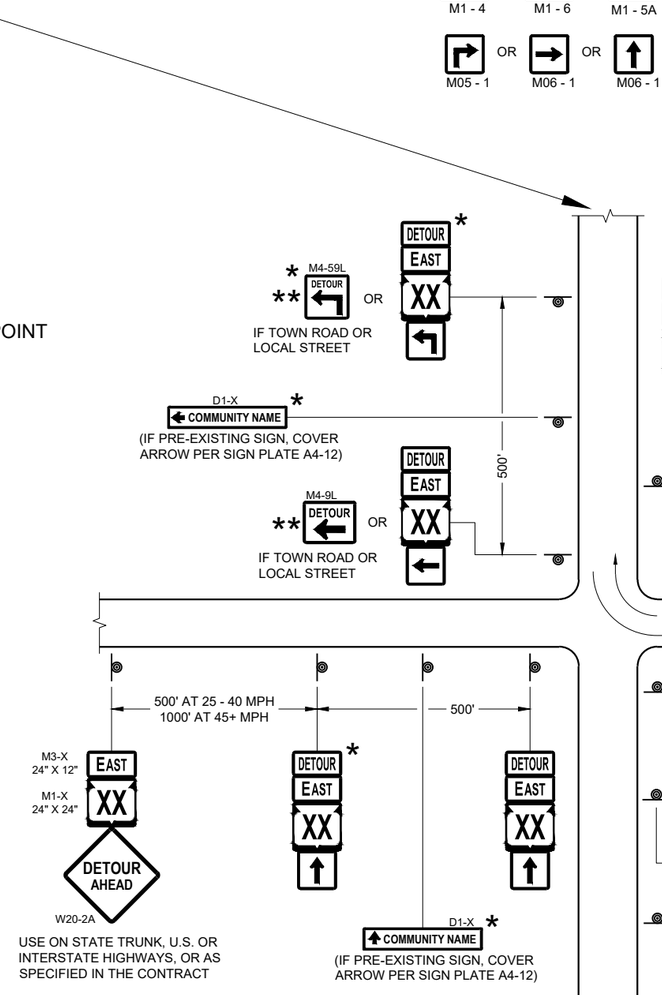
SIGN SIZES SHALL BE AS FOLLOWS:

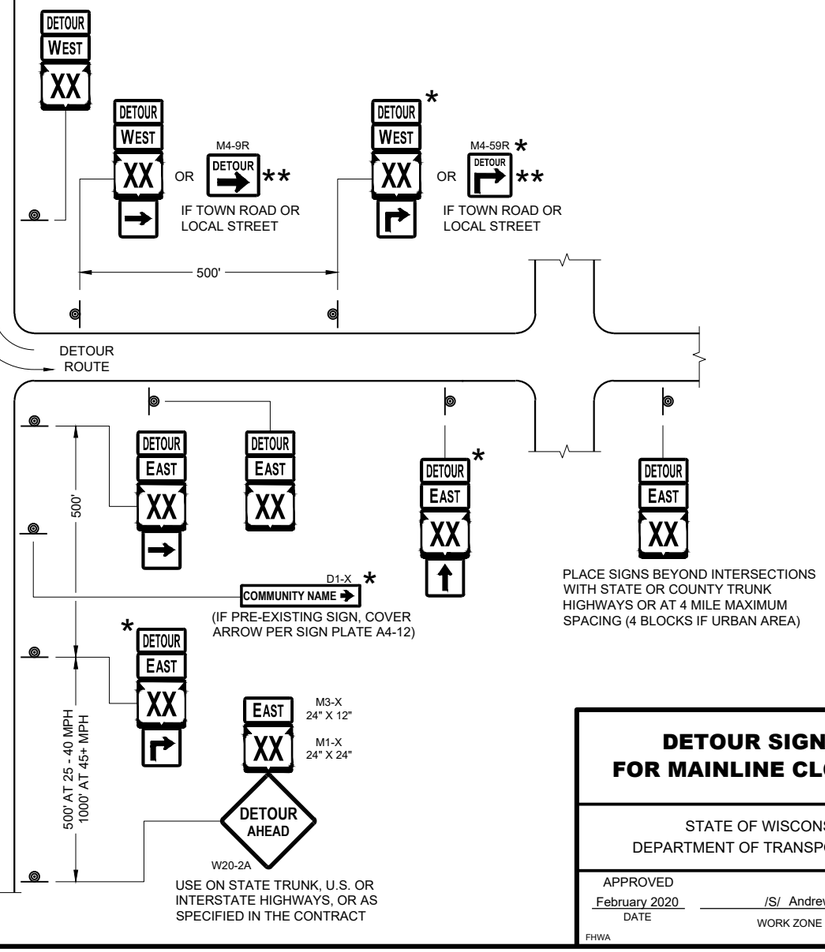
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING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







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

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

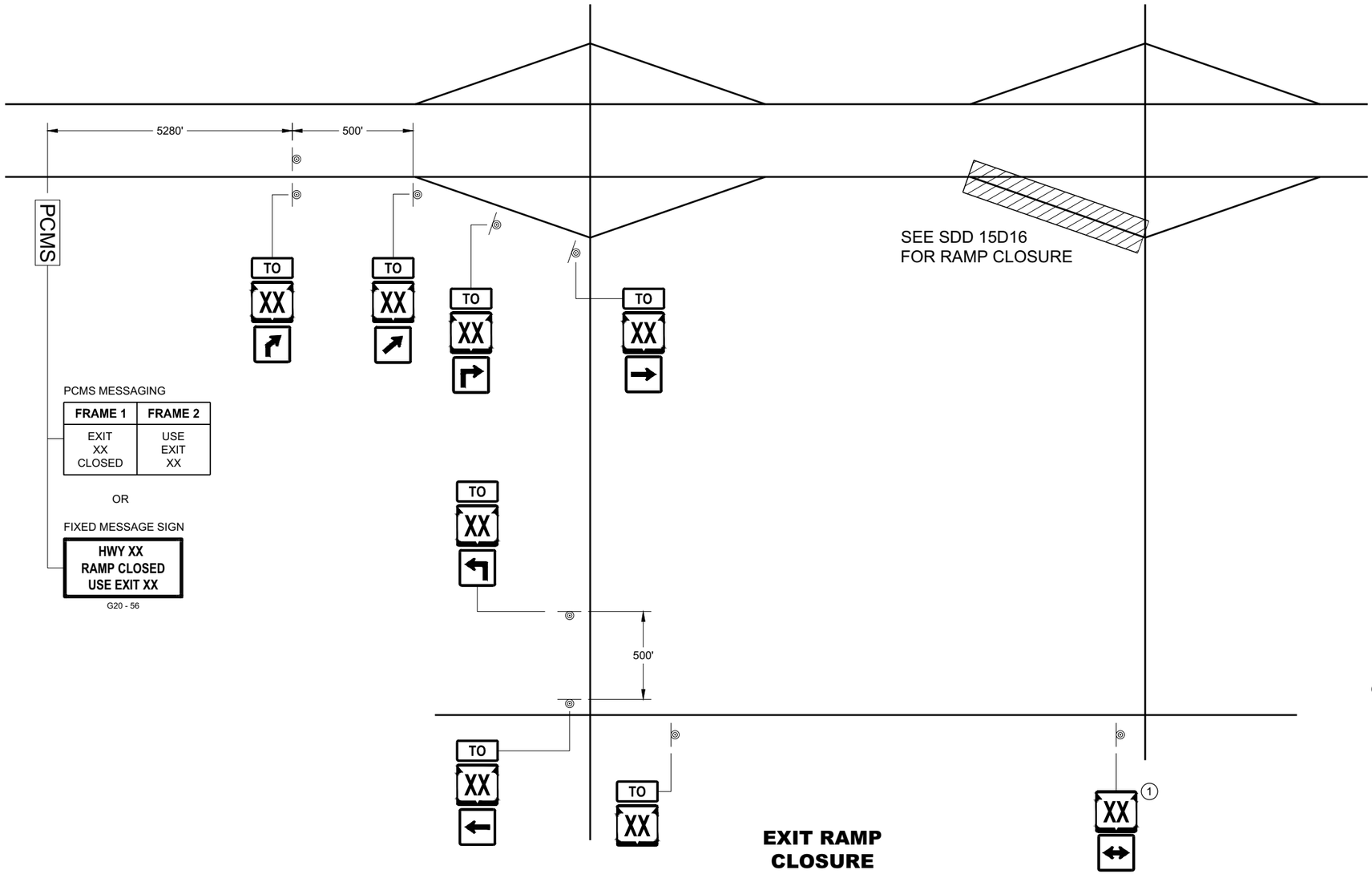
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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SDD 15C02 - 08c

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.

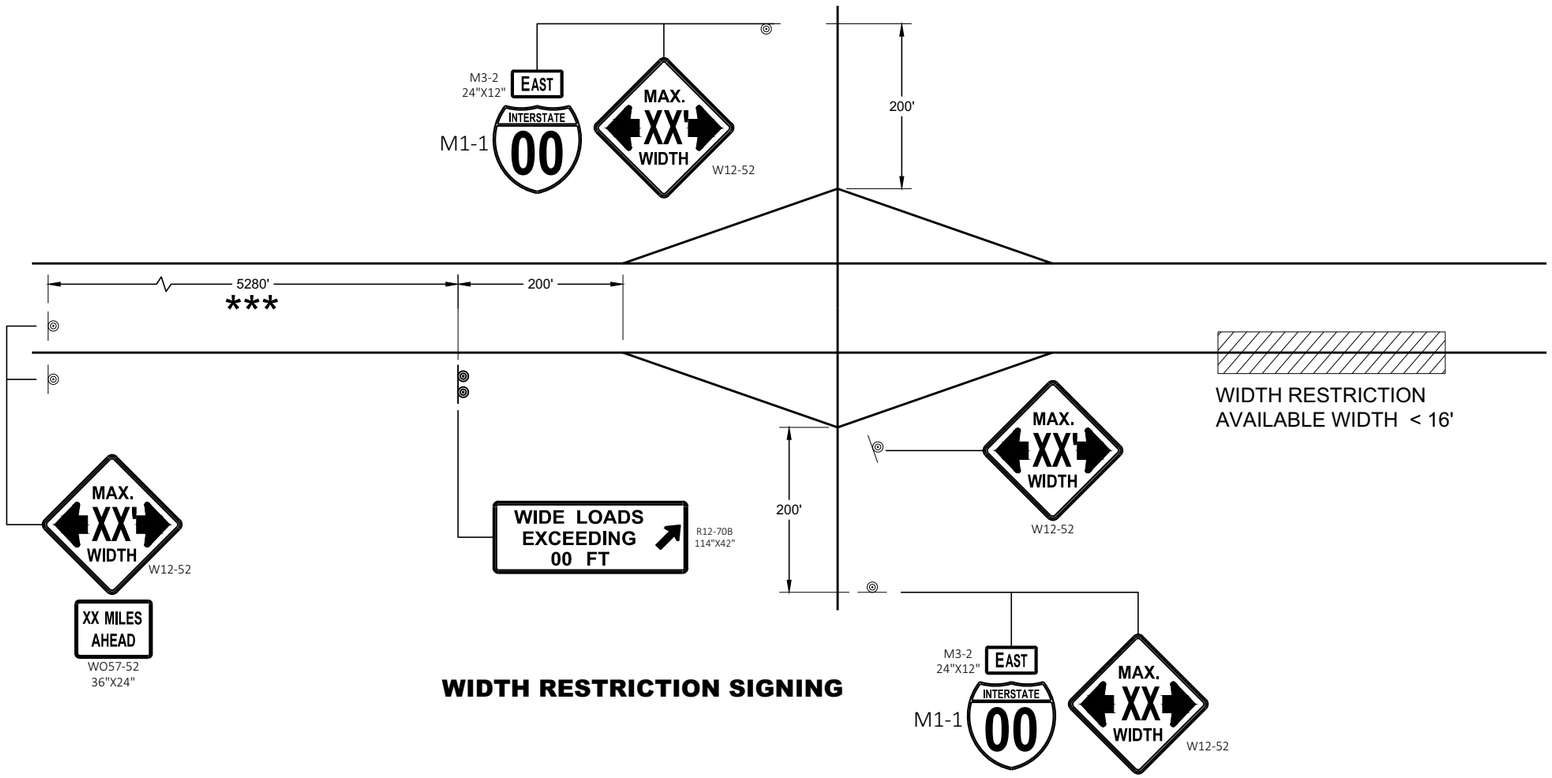
OFF RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 DATE
/S/ Andrew Heidtke WORK ZONE ENGINEE
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SDD 15C02 - 08e
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.

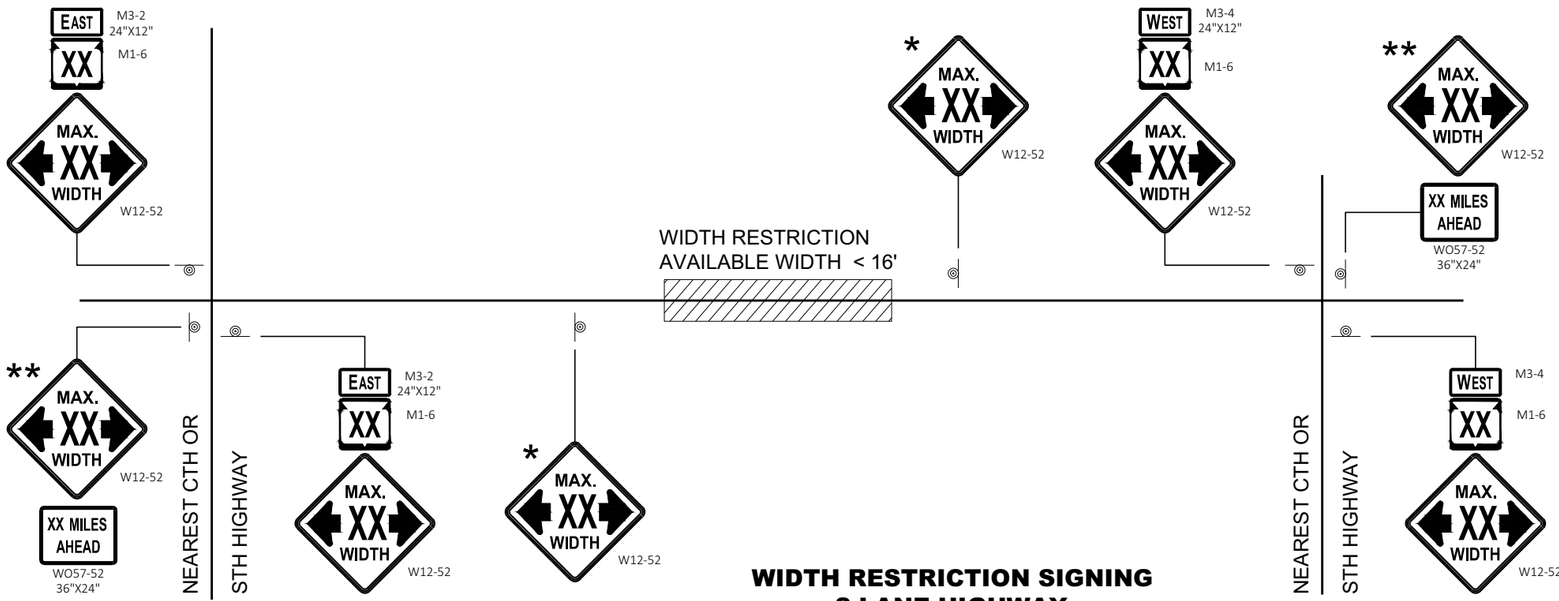
* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** 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

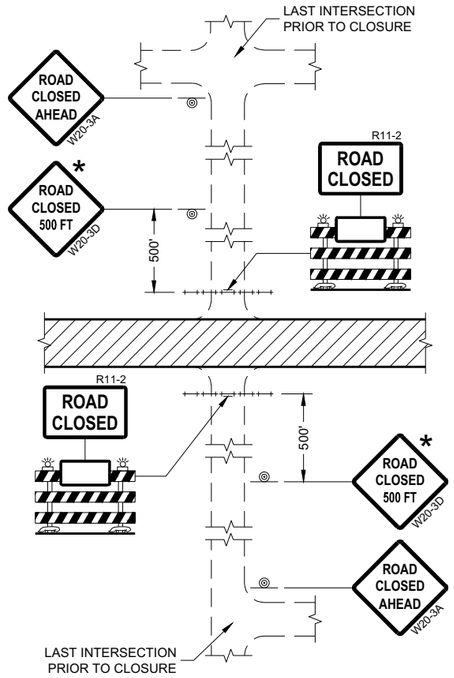
APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

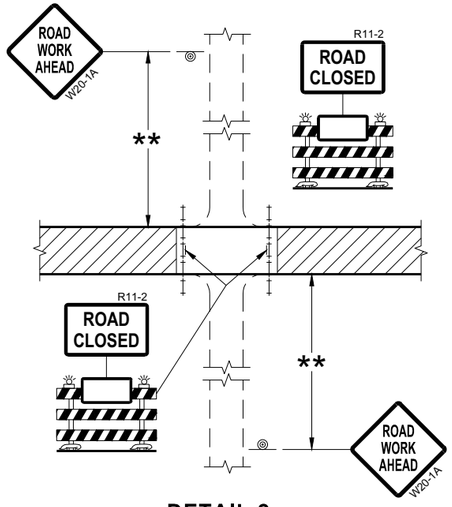
FHWA

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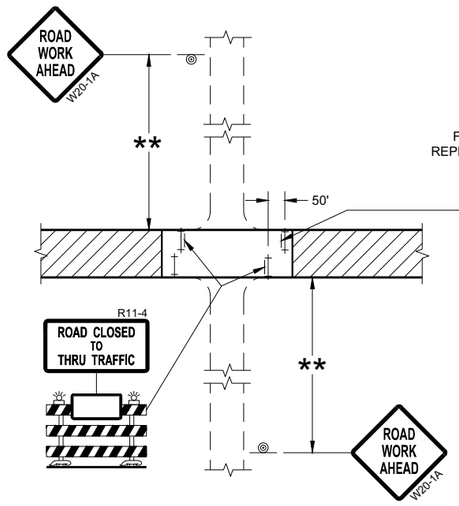
SDD 15C02 - 08f



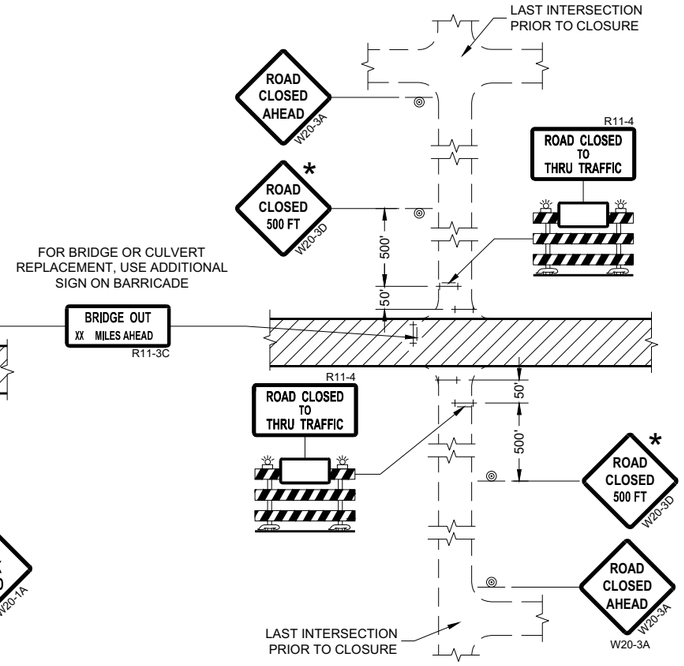
DETAIL 1
(NO ACCESS TO PROJECT)



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 ENGINEER

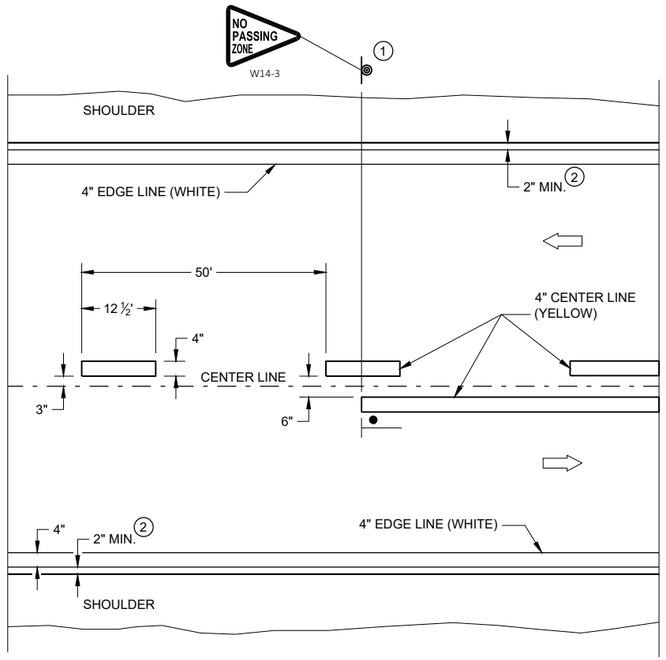
FHWA

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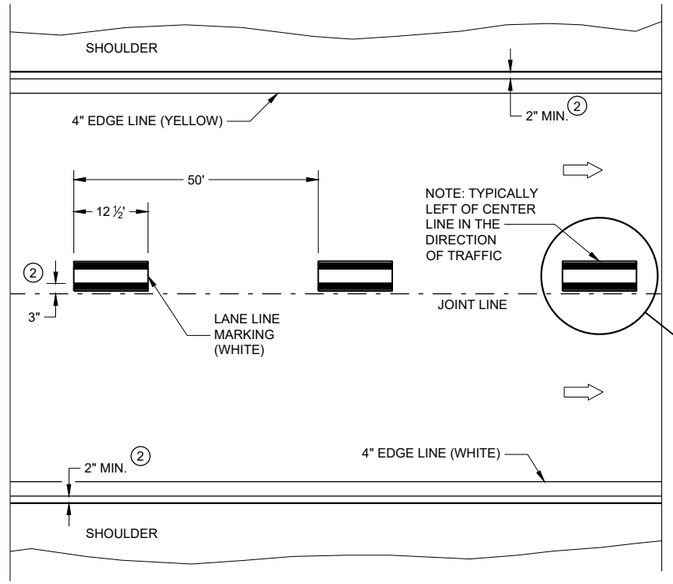
SDD 15C03 - 05

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SDD 15C03 - 05

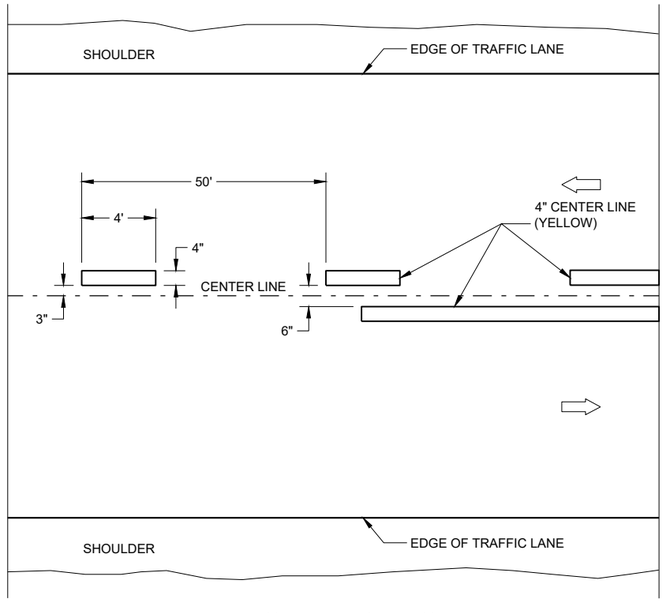


TWO WAY TRAFFIC

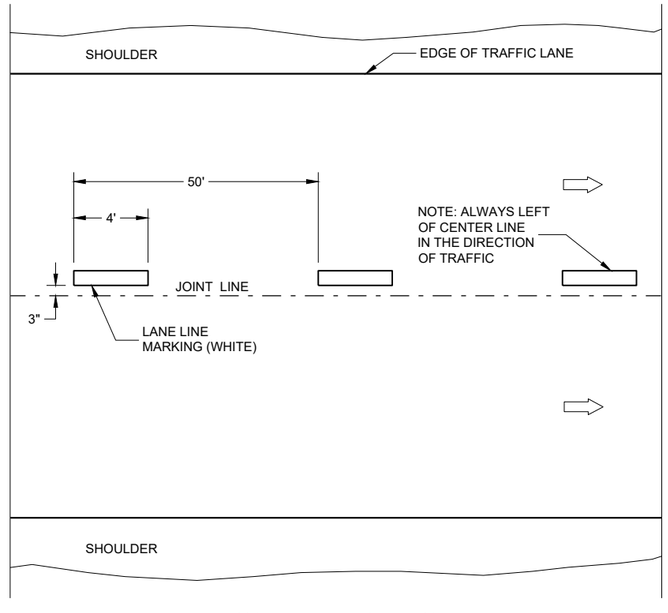


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

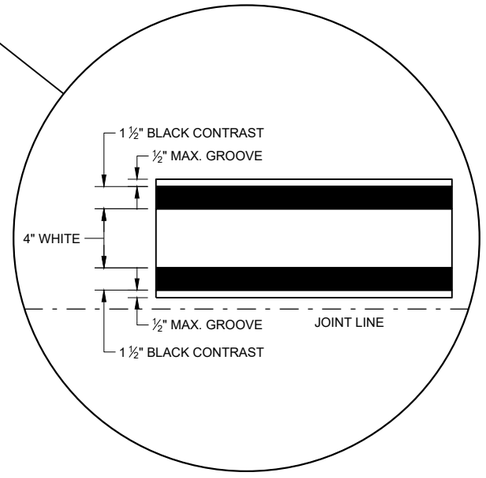
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

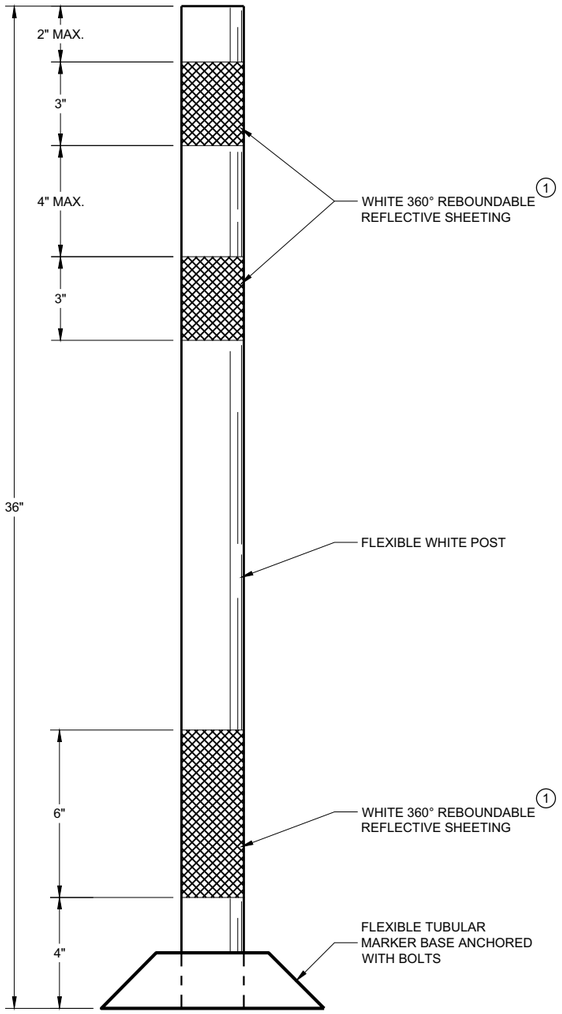
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

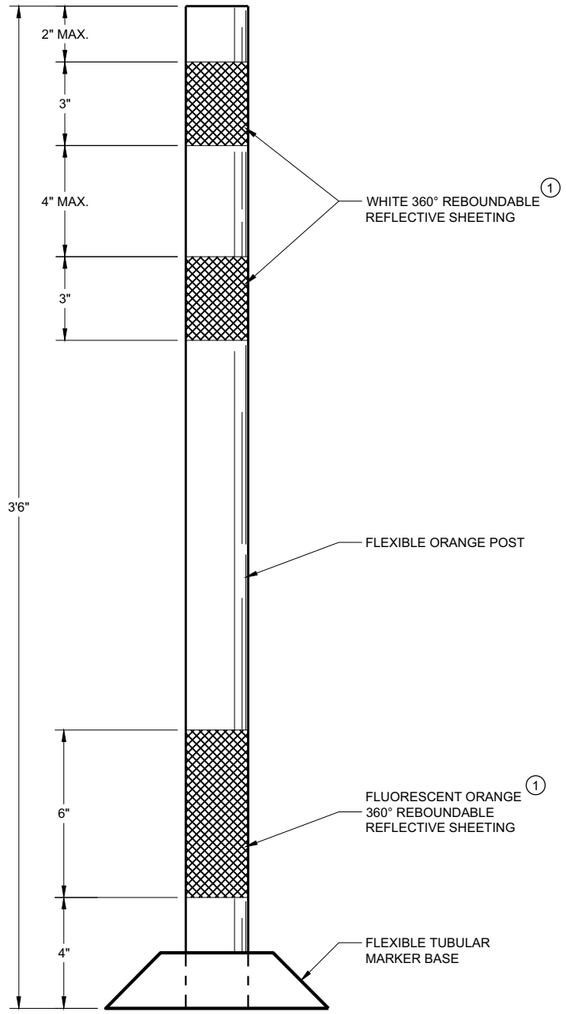
FHWA

SDD 15C08 - 20a

SDD 15C08 - 20a



FLEXIBLE TUBULAR MARKER POST PERMANENT CROSSOVER



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

6

SDD 15C11 - 08a

CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

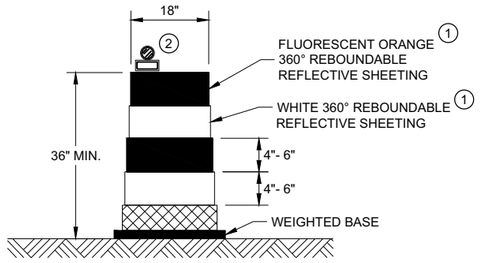
FHWA

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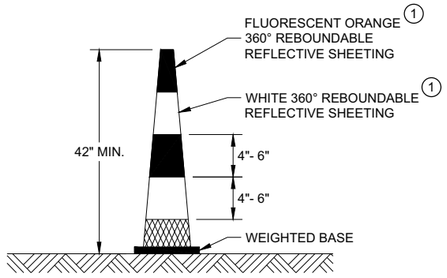
SDD 15C11 - 08a

GENERAL NOTES

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

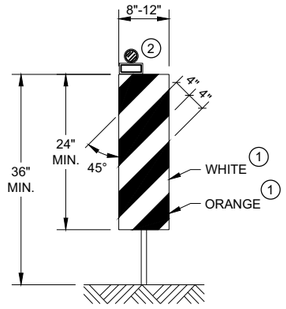


DRUM



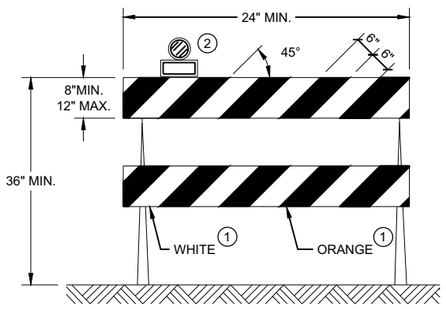
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



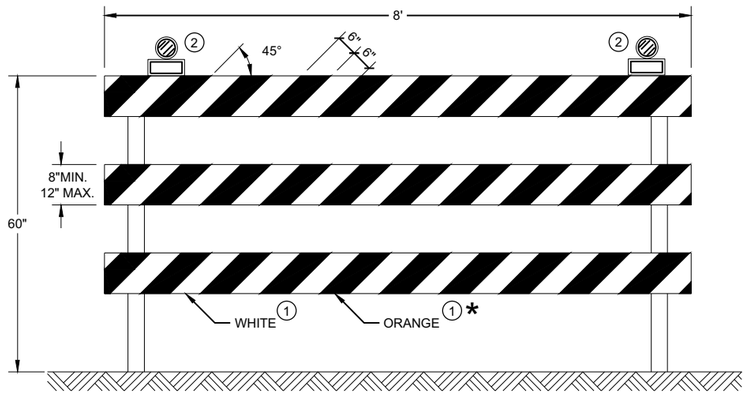
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C11 - 08b

6

SDD 15C11 - 08b

LEGEND

V1 MARKING VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE

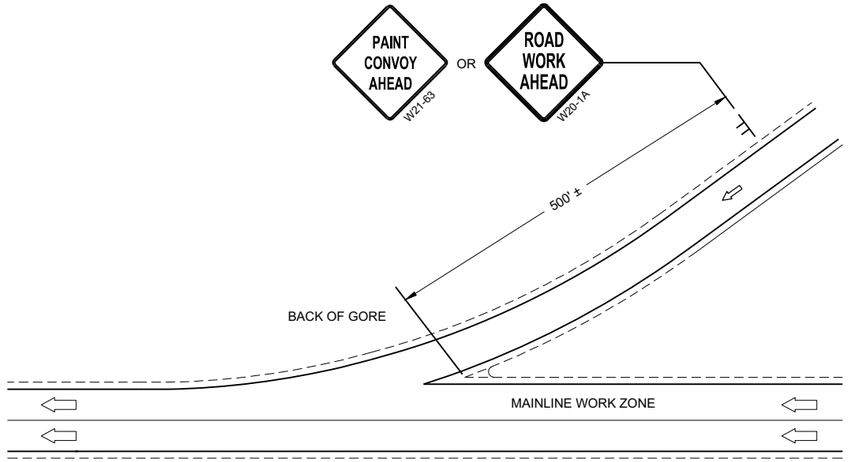
TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (MERGE)

FLASHING ARROW PANEL (CAUTION)



GENERAL NOTES

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

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

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

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

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

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

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.

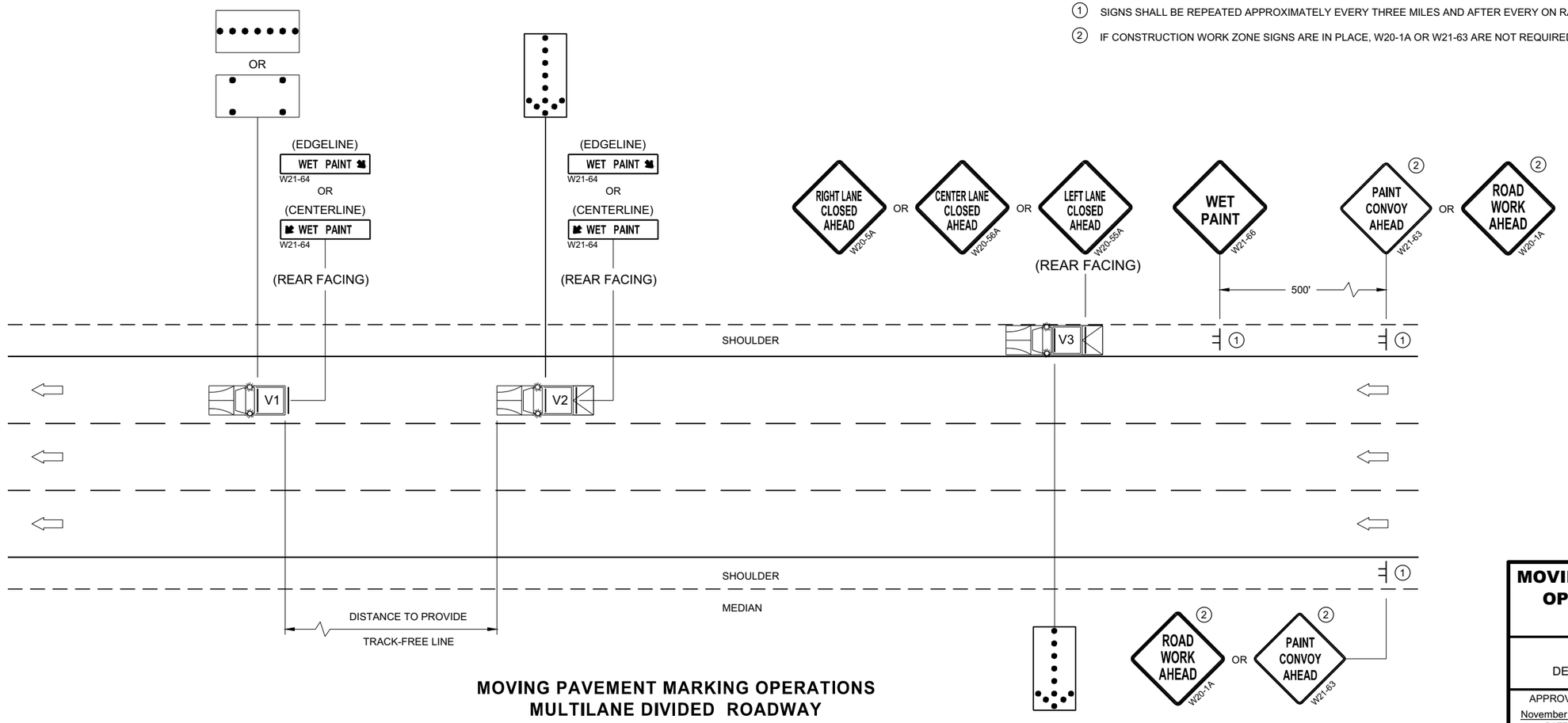
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

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

CONES SHALL BE A MINIMUM HEIGHT OF 18" FOR WET PAVEMENT MARKINGS

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY ON RAMP.

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



MOVING PAVEMENT MARKING OPERATIONS
MULTILANE DIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

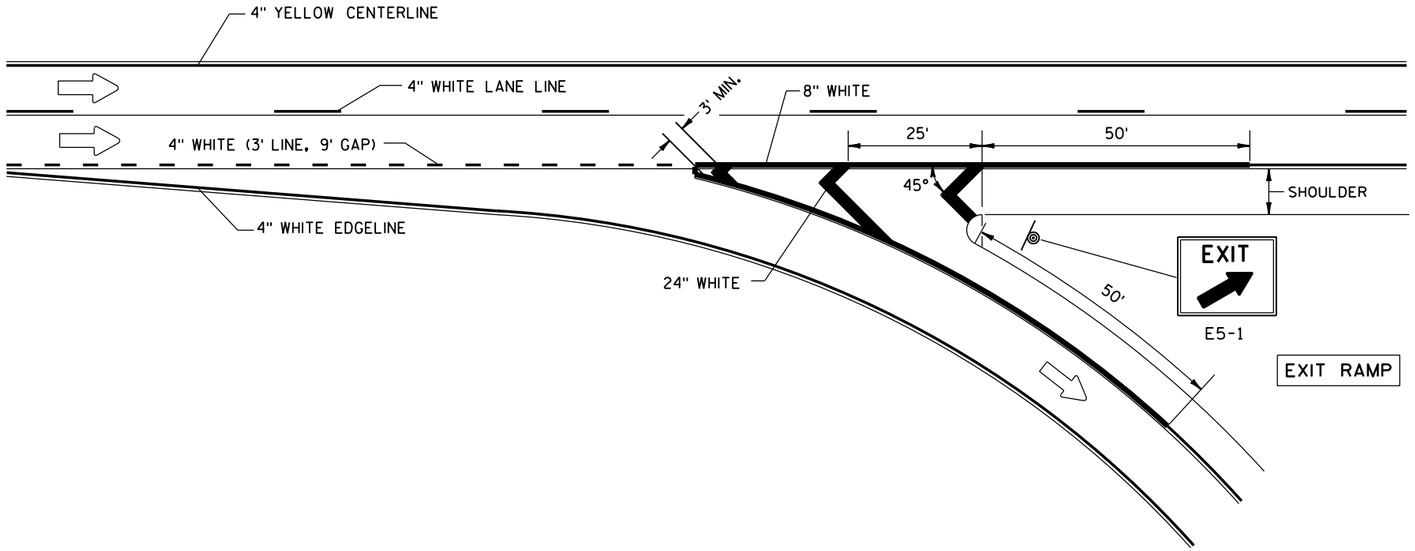
FHWA

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SDD 15C19 - 06c

6

SDD 15C19 - 06c



PAVEMENT MARKING FOR EXIT RAMP

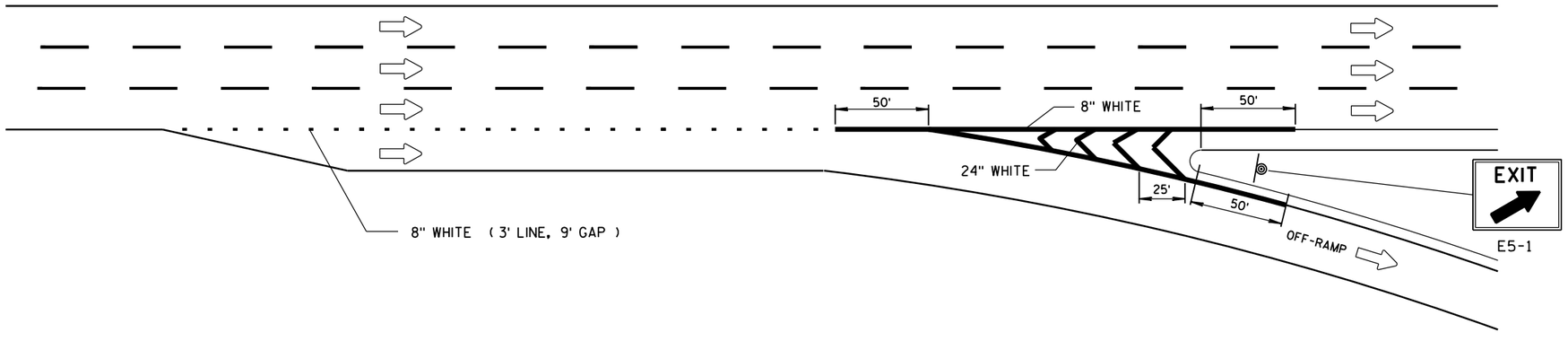
GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

DIRECTION OF TRAVEL

SIGN ON PERMANENT SUPPORT



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT-RAMP

6

S.D.D. 15 C 31-3a

PAVEMENT MARKING (RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

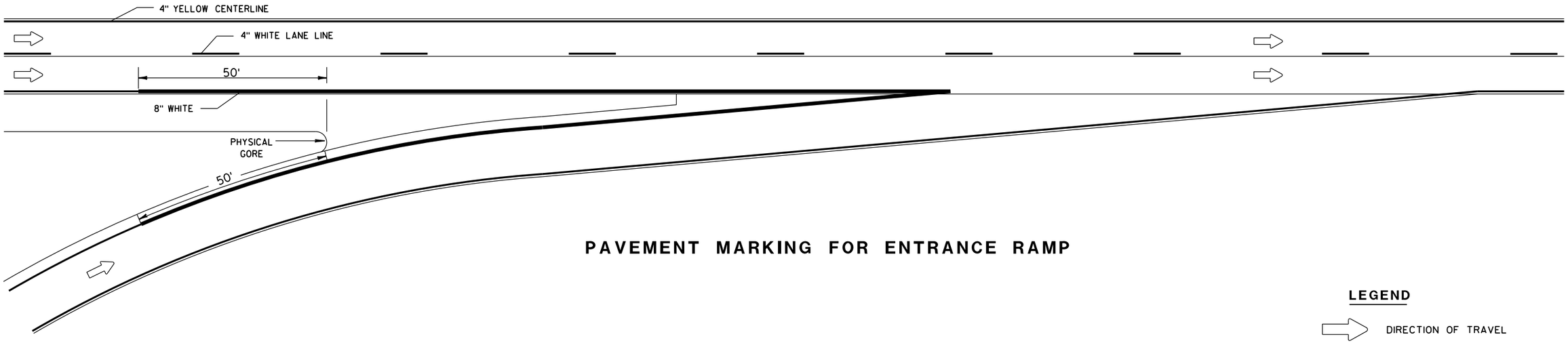
6

S.D.D. 15 C 31-3a

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

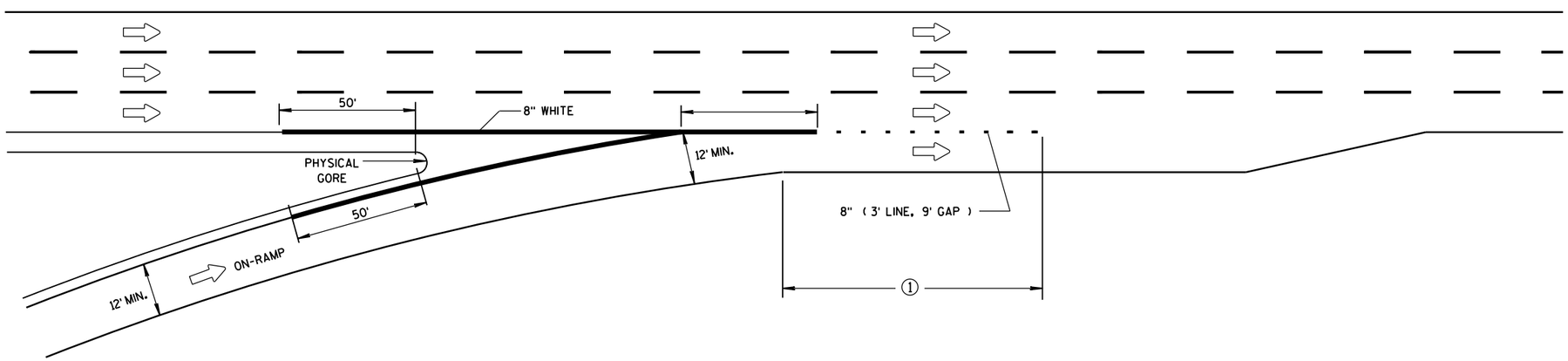
① ½ LENGTH OF FULL WIDTH ACCELERATION LANE.



PAVEMENT MARKING FOR ENTRANCE RAMP

LEGEND

DIRECTION OF TRAVEL



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE-RAMP

PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2017
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA

6

S.D.D. 15 C 31-3c

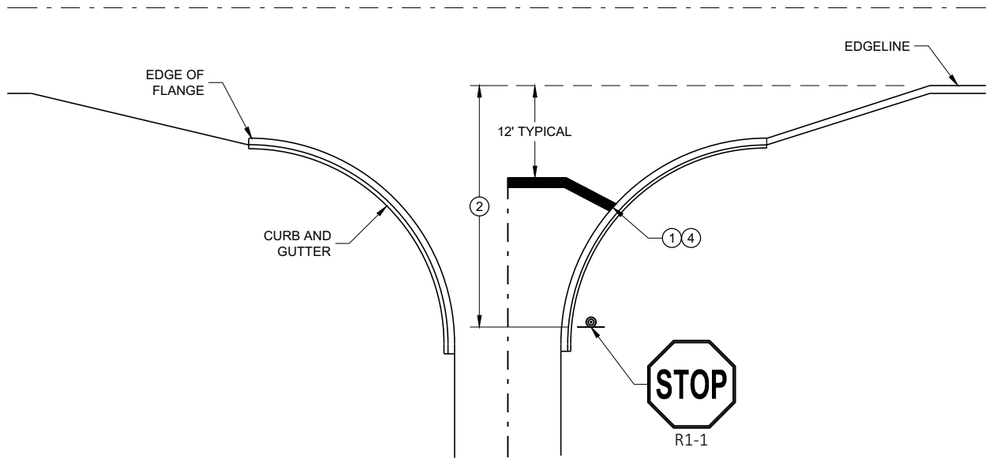
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S.D.D. 15 C 31-3c

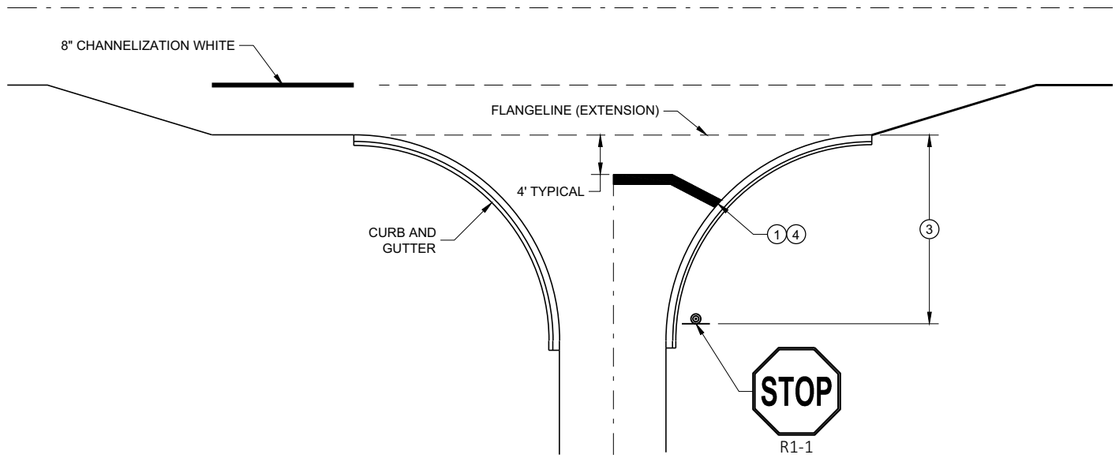
GENERAL NOTES

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

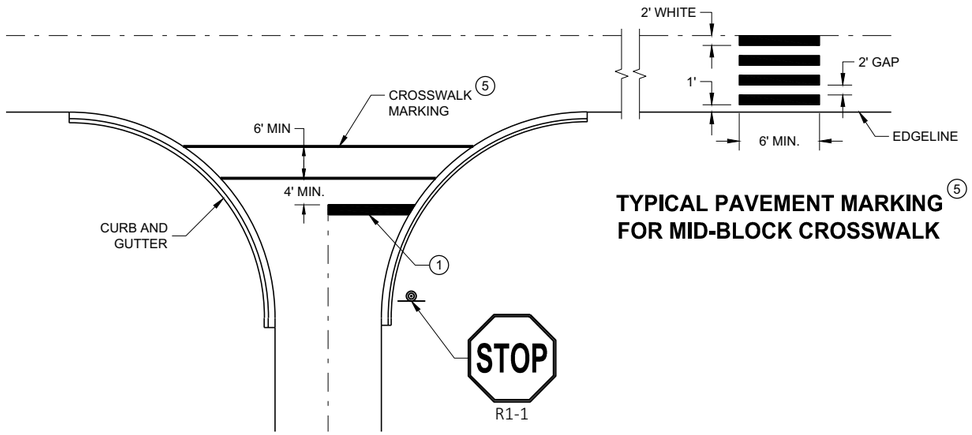
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE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



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

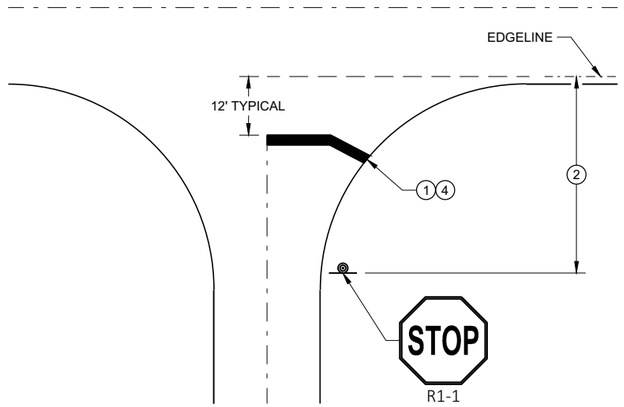


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

6
SDD 15C33 - 04

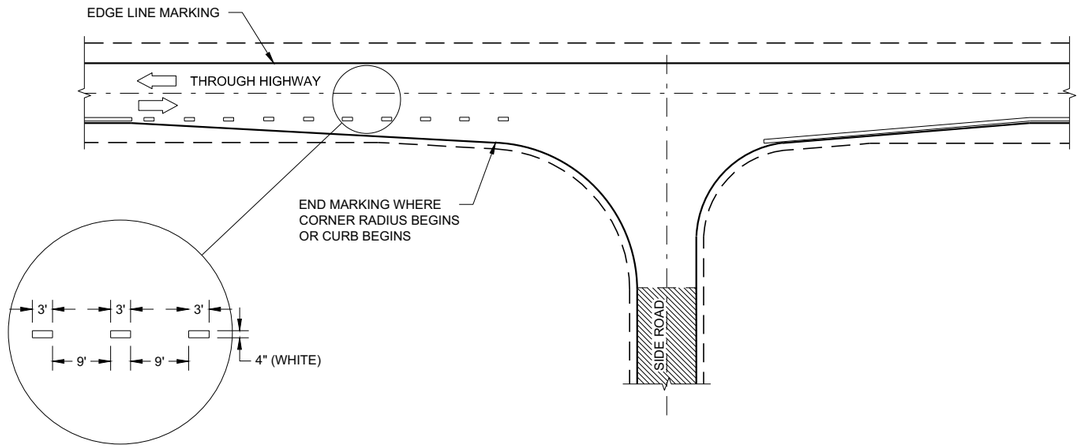
GENERAL NOTES

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

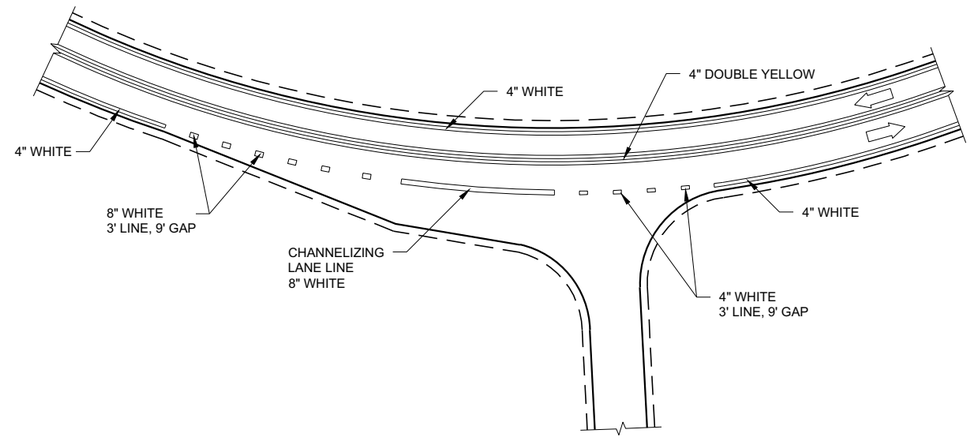
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

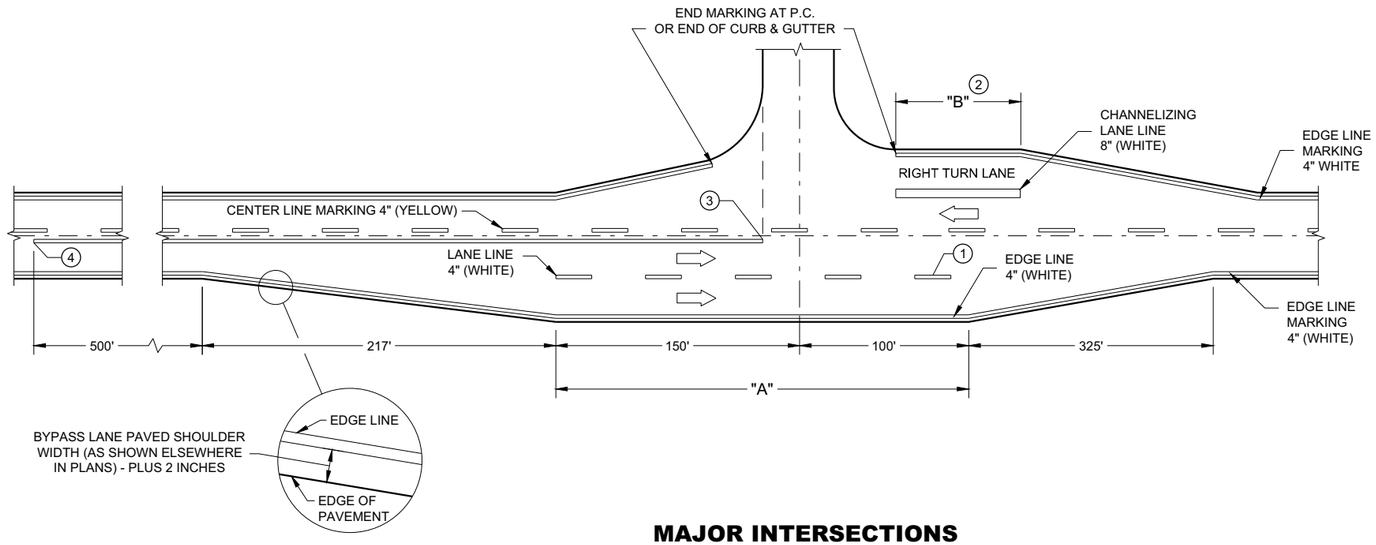
DIRECTION OF TRAVEL



MINOR INTERSECTION



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

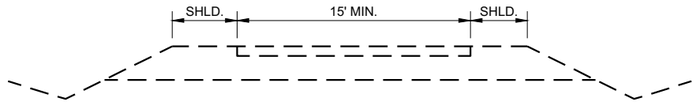
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

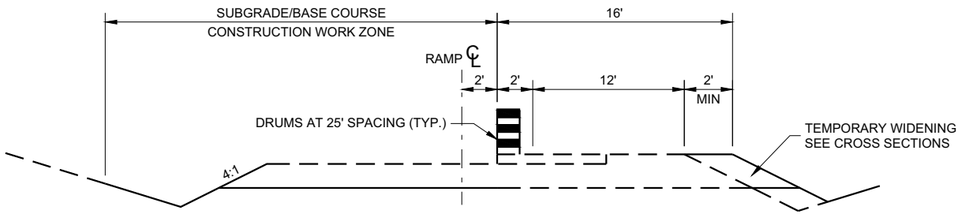
SDD 15C35 - 04a

6

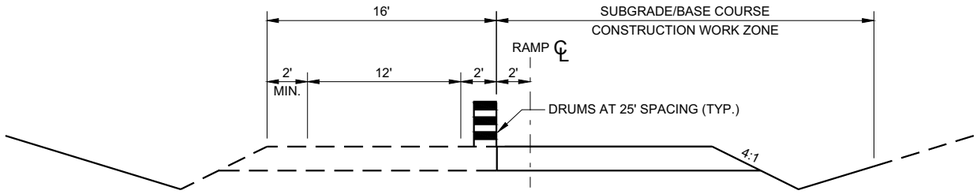
SDD 15C35 - 04a



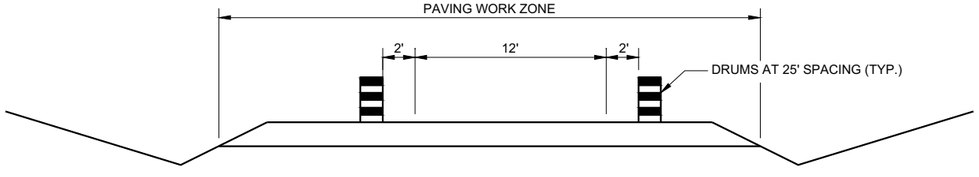
INITIAL RAMP - TYPICAL



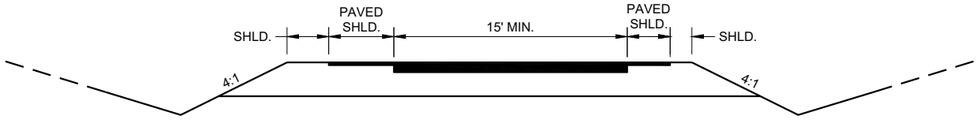
STAGE I - CONSTRUCTION TO SUBGRADE, LEFT



STAGE II - CONSTRUCTION TO SUBGRADE, RIGHT



STAGE III - TRAFFIC ON BASE COURSE



STAGE IV - PAVING

GENERAL NOTES

WORK SHALL BE SCHEDULED FOR ALL STAGES TO MINIMIZE INCONVENIENCE TO THE TRAFFIC USING THE RAMP WHILE IT IS ONLY BASE COURSE.

IN STATE III, A MINIMUM 12' LANE WIDTH SHALL BE DELINEATED WITH DRUMS ALONG BOTH EDGES AT ALL TIMES UNTIL PAVED AND PAVEMENT MARKINGS ARE PLACED.

6

SDD 15D04 - 01

TRAFFIC CONTROL, RAMP CONSTRUCTION STAGING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 1994
DATE

/S/ Chester J. Spano
DIRECTOR, OFFICE OF TR

FHWA

6

SDD 15D04 - 01

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" 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.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE 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 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.

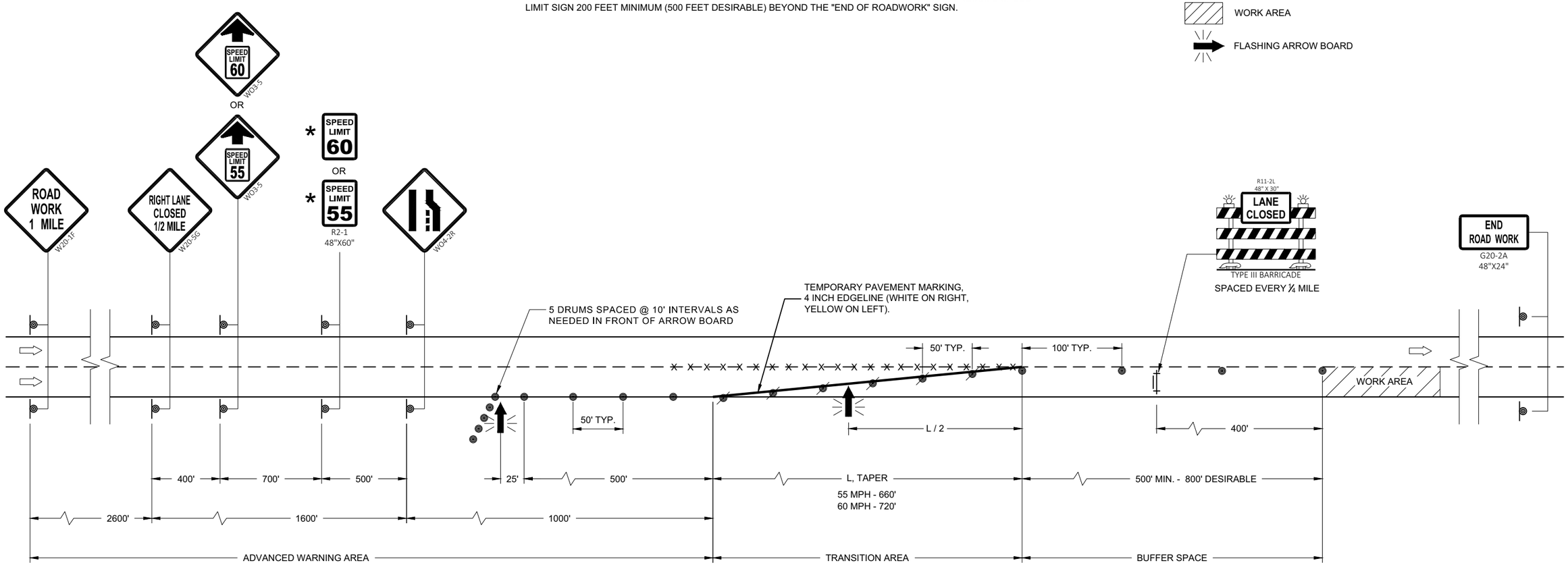
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

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.

* 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 (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN.

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, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15D12 - 09b

6
SDD 15D12 - 09b

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.

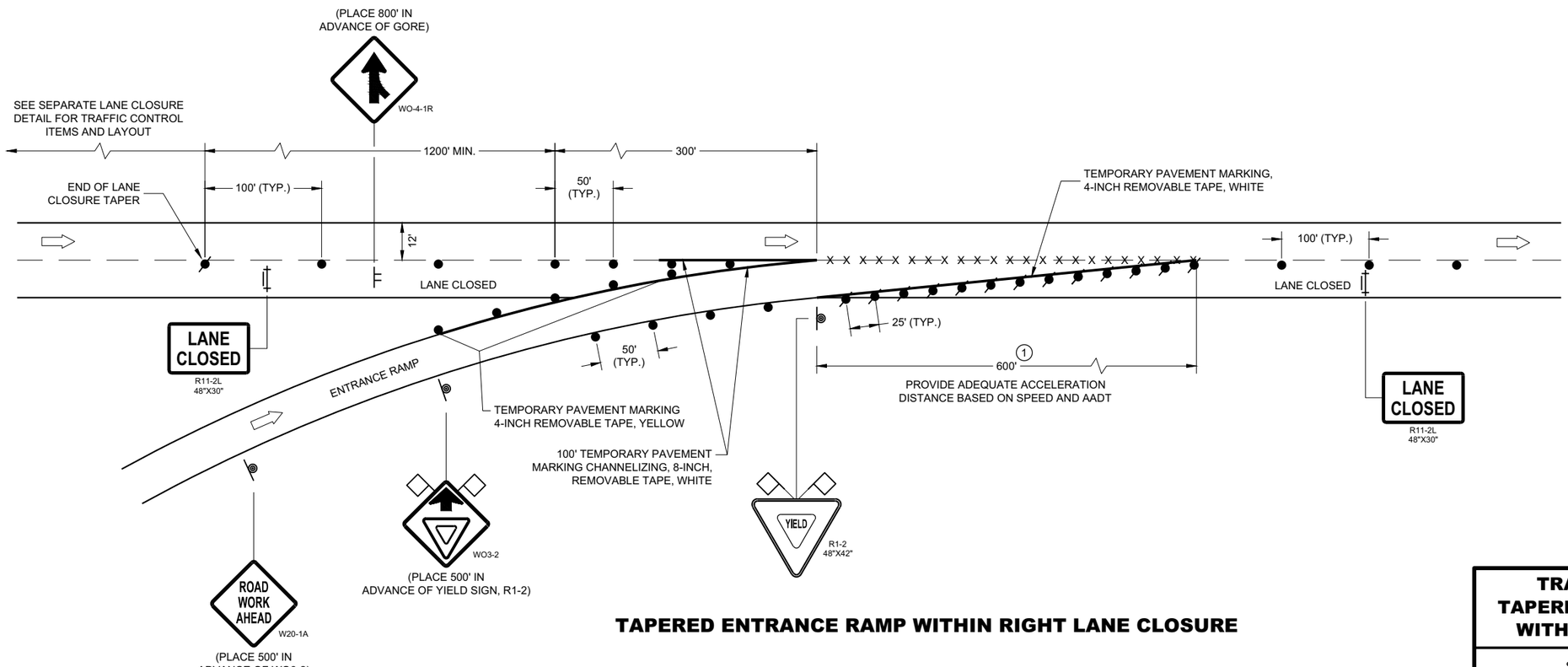
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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, REMOVABLE TAPE 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.



TAPERED ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE

TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 05c

6

SDD 15D15 - 05c

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.

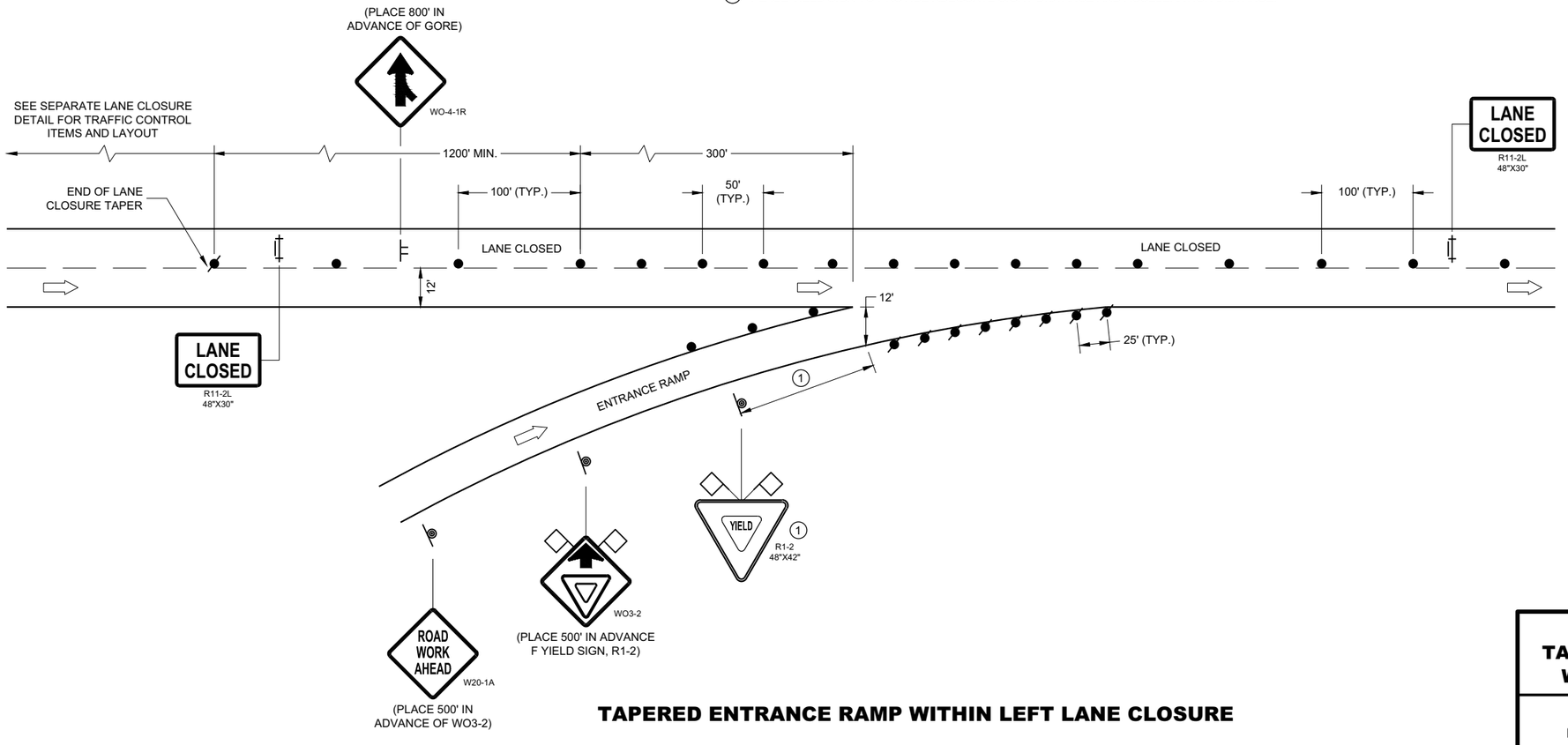
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE 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) PLACE YIELD SIGN TO PROVIDE ADEQUATE SIGHT DISTANCE AND ACCELERATION DISTANCE.



TAPERED ENTRANCE RAMP WITHIN LEFT LANE CLOSURE

TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 05d

6

SDD15D15 - 05d

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.

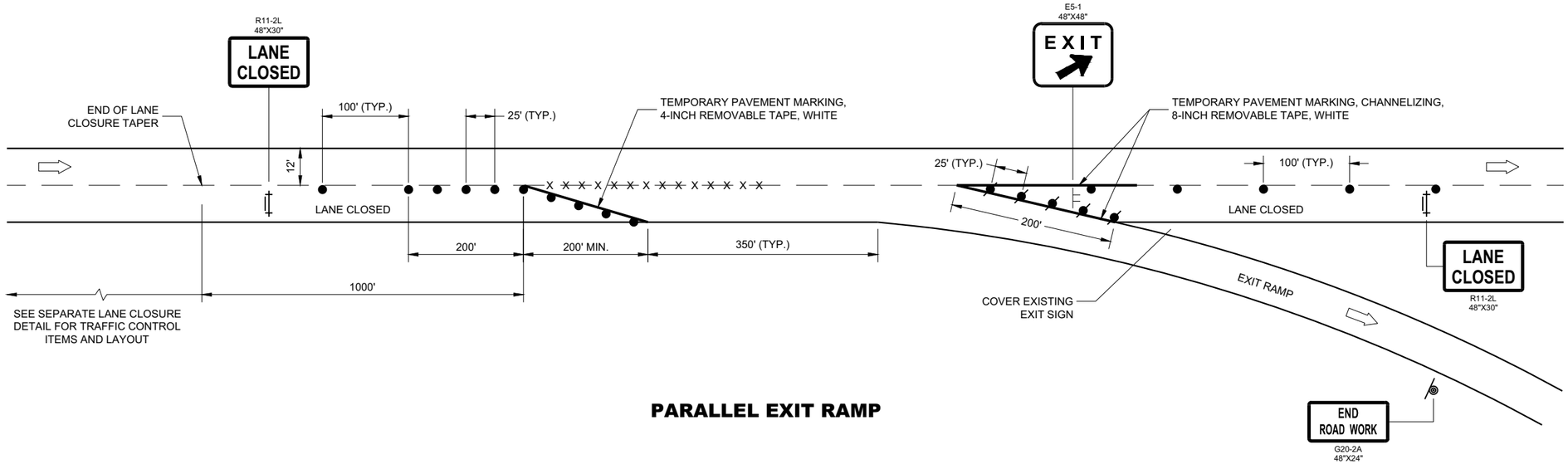
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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, REMOVABLE TAPE 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.



PARALLEL EXIT RAMP

TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 05e

6

SDD15D15 - 05e

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.

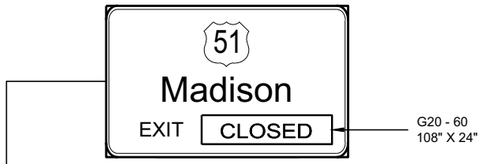
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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.

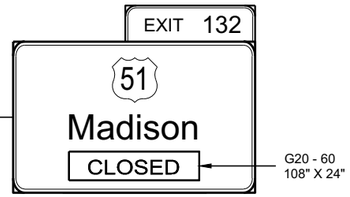
WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

* 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.

** 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

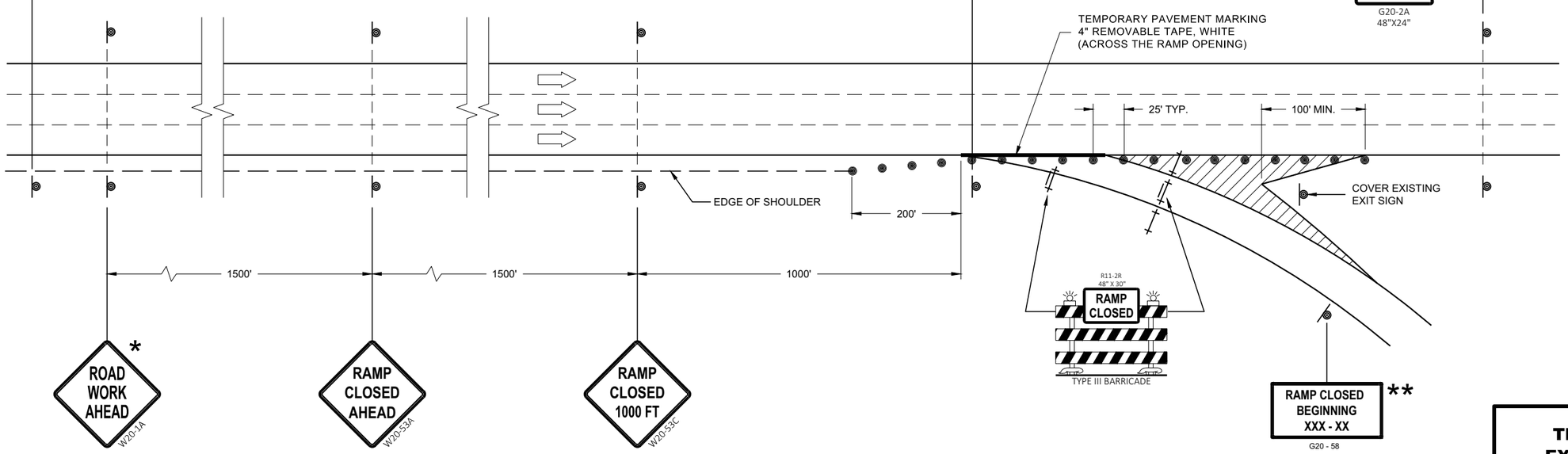


PLACE SIGN G20 - 60 OVER MILEAGE ON EXISTING E1 - 1A SIGN



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

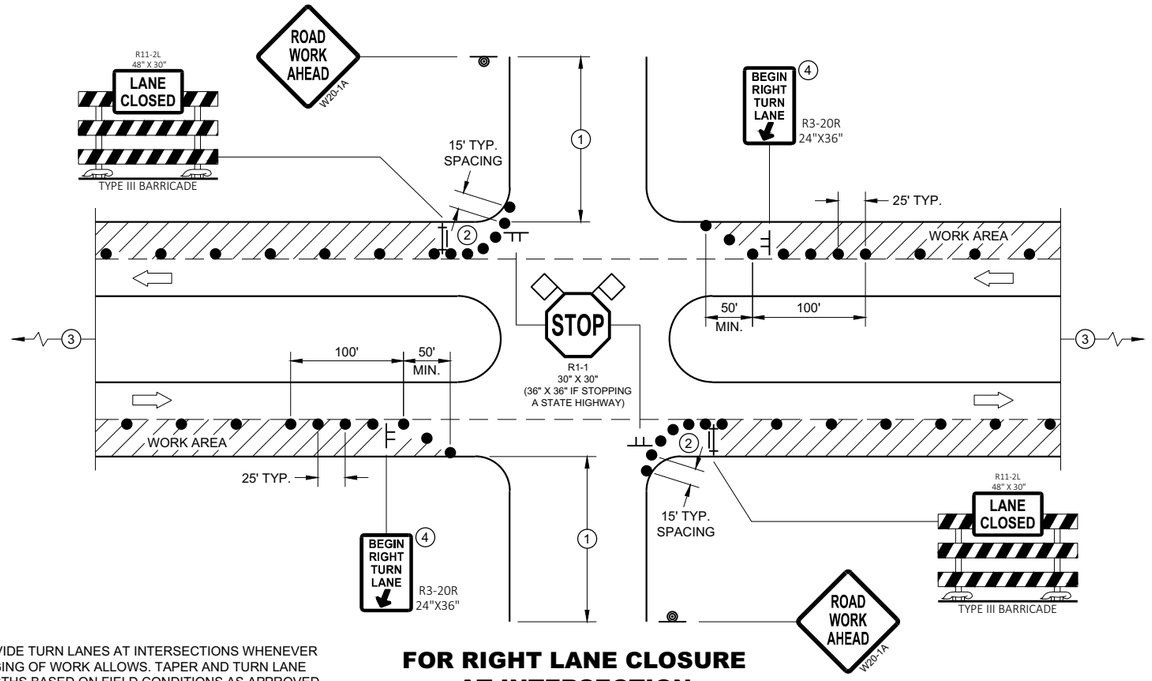
APPROVED
November 2018
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVE ENGINEER

FHWA

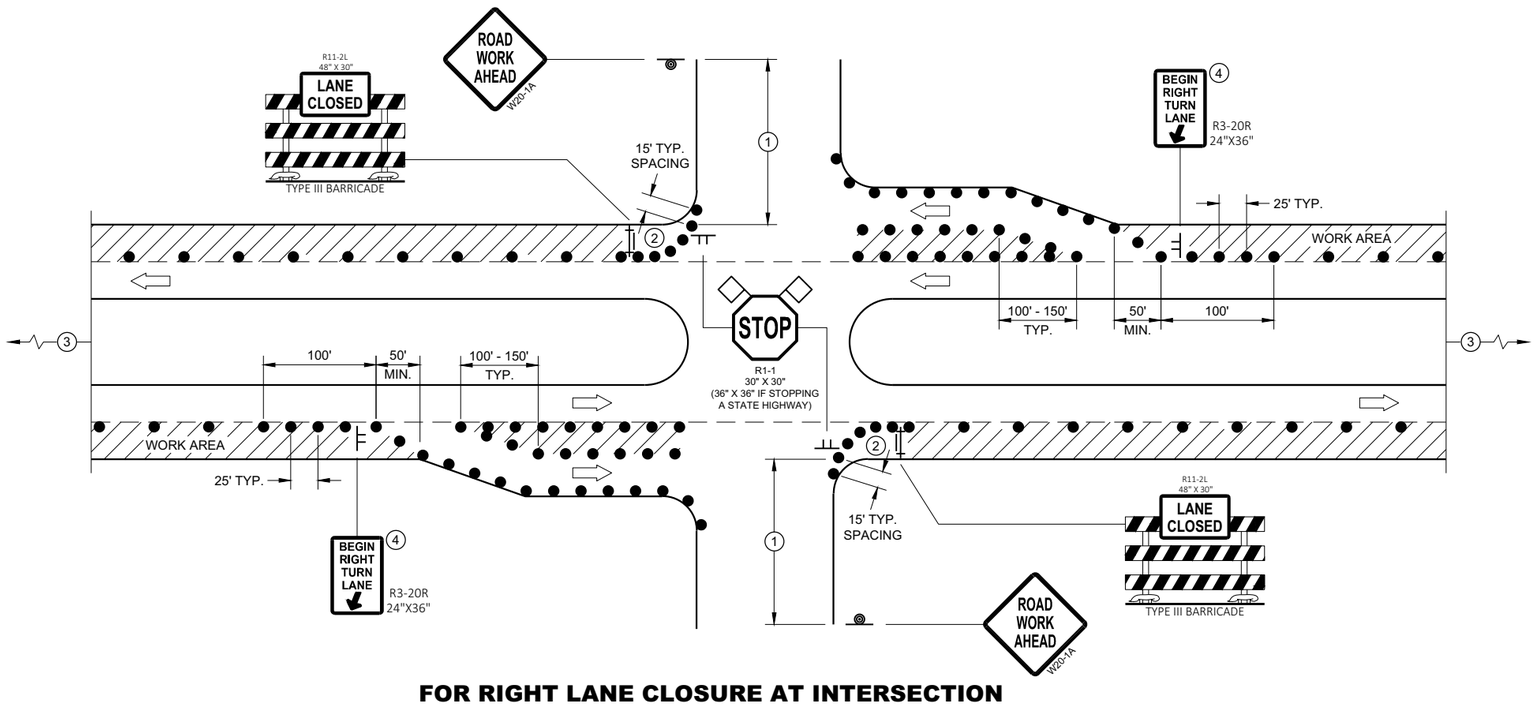
SDD 15D16 - 04

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SDD 15D16 - 04



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.

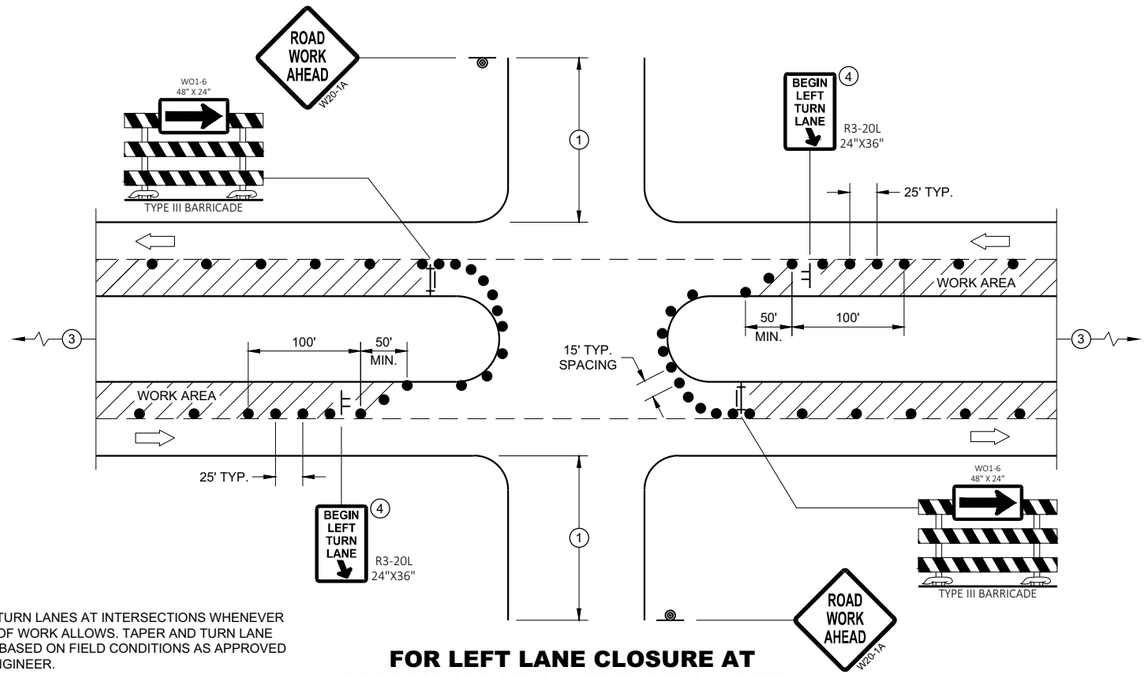
LEGEND

- 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

6

SDD 15D21 - 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.

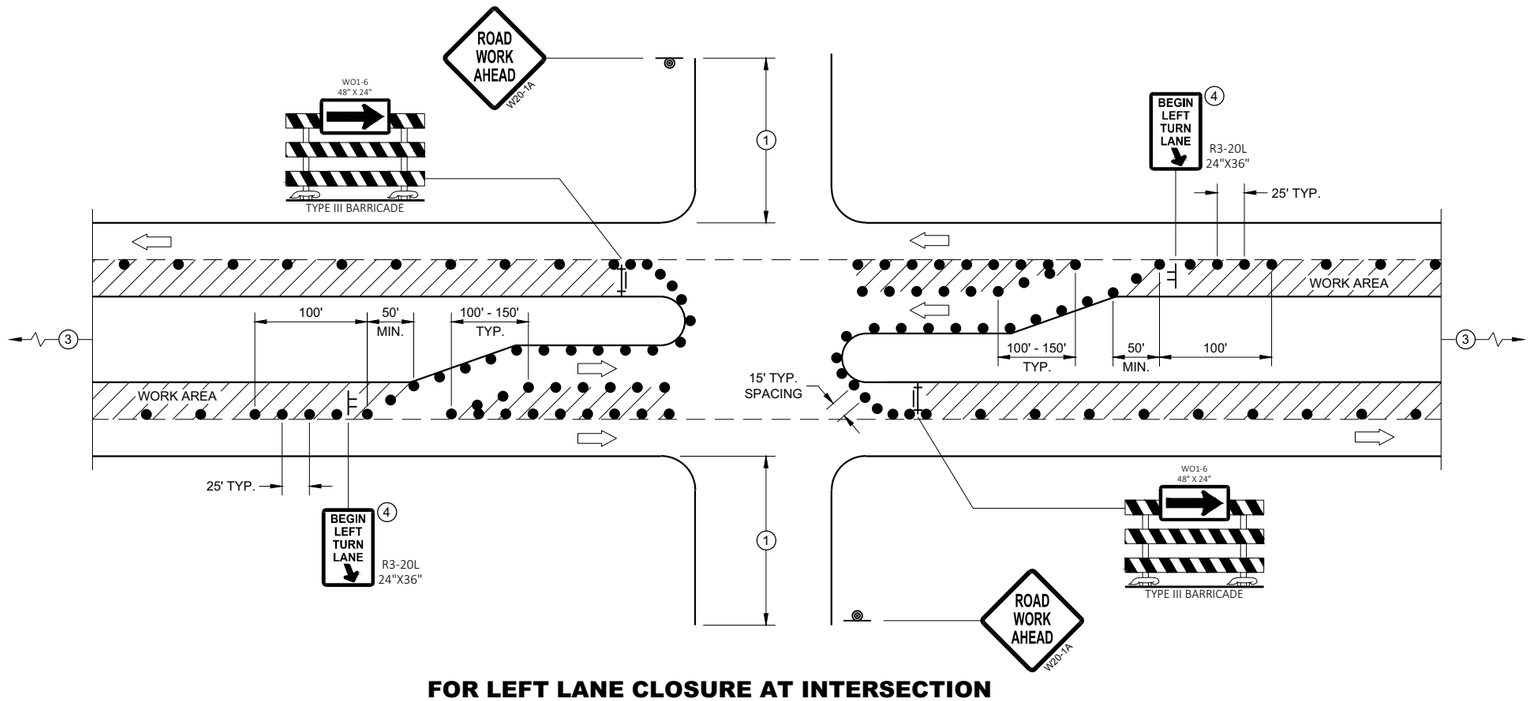
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(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.

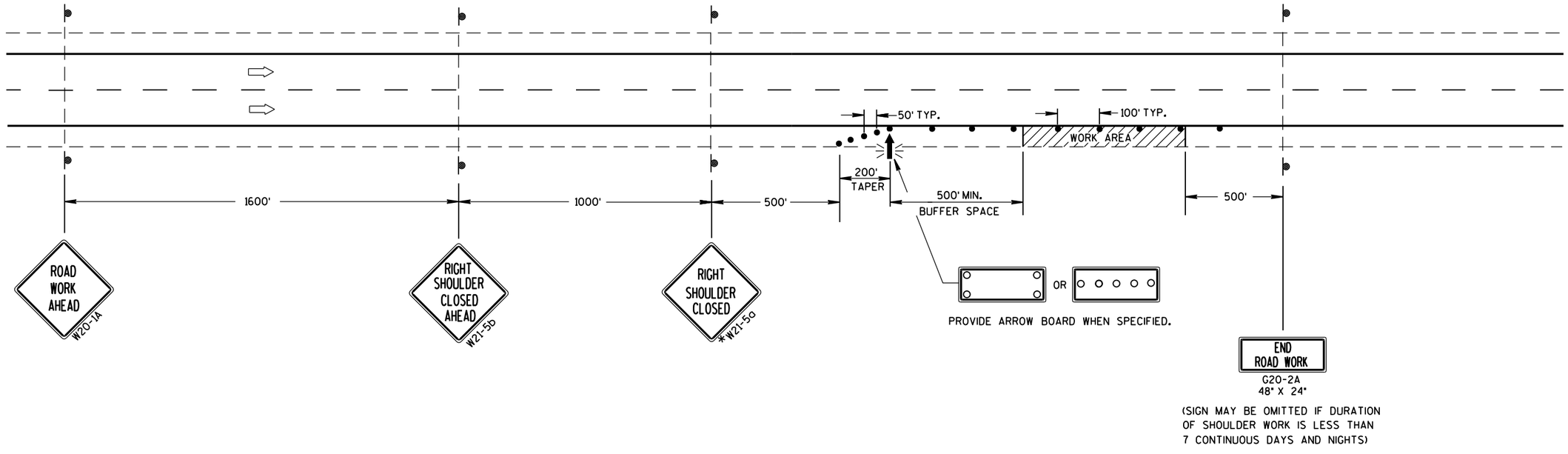
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

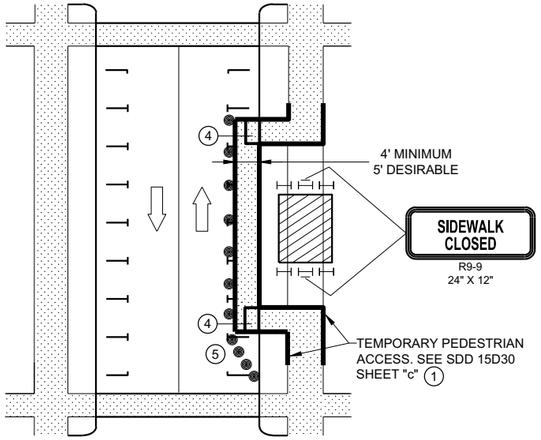
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

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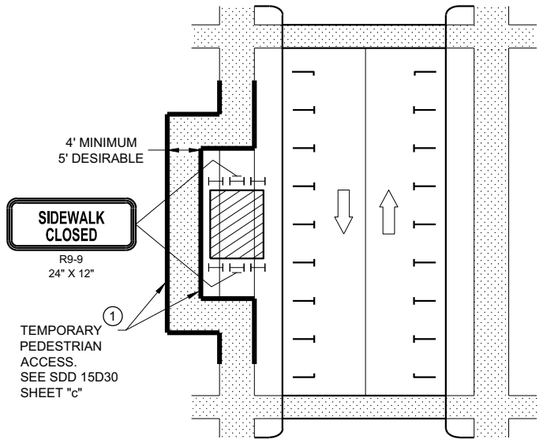
S.D.D. 15 D 27-3

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

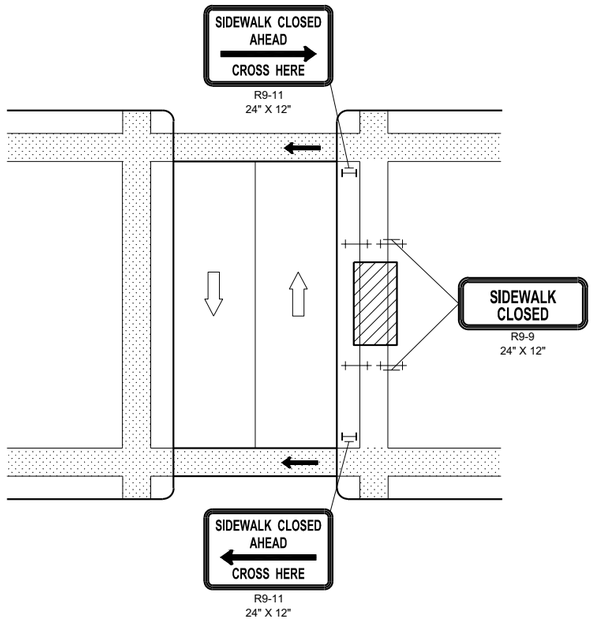


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

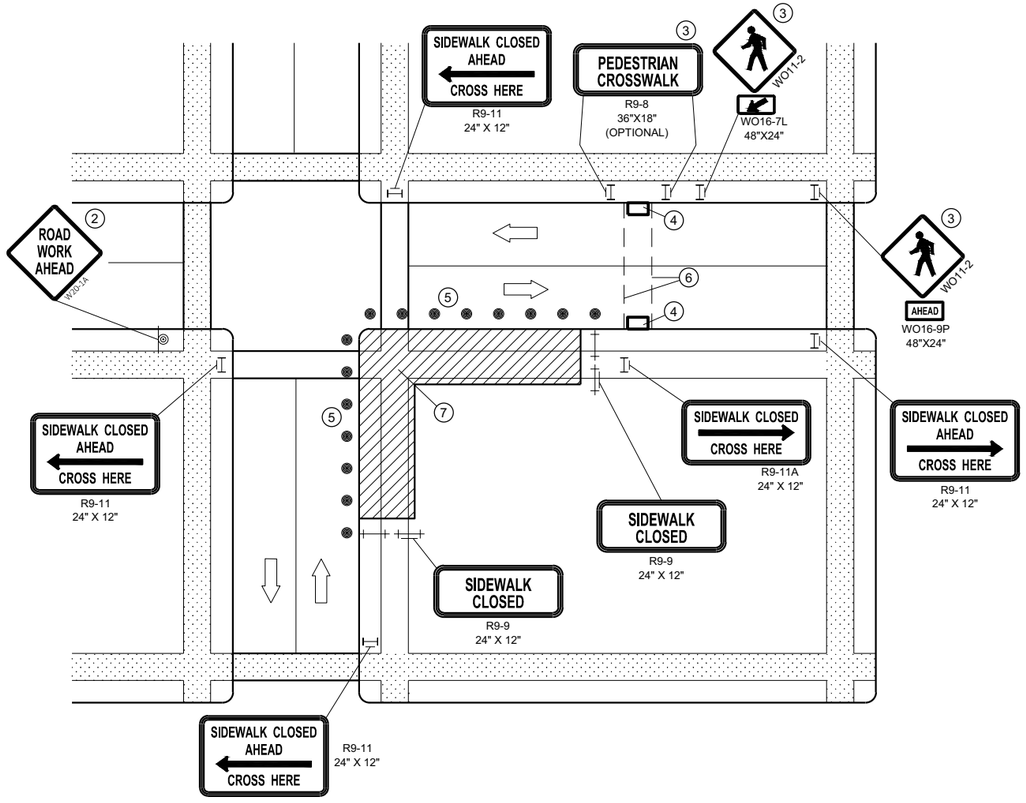
NOTE: LAYOUT SAME AS ABOVE.



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

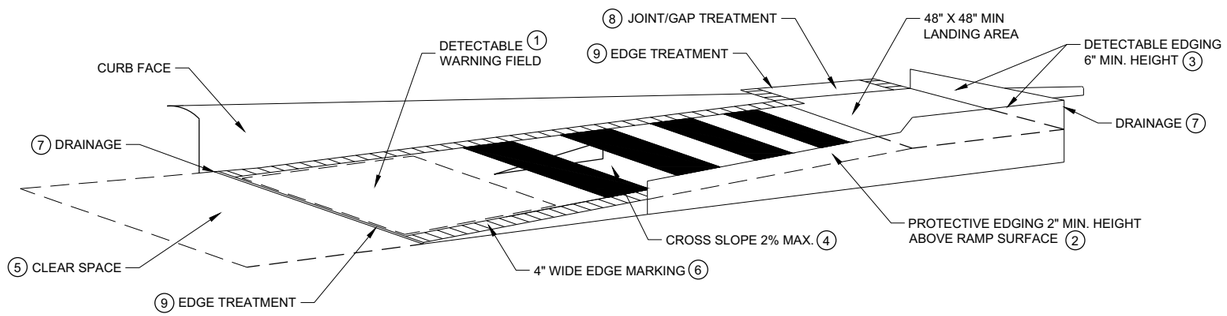
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

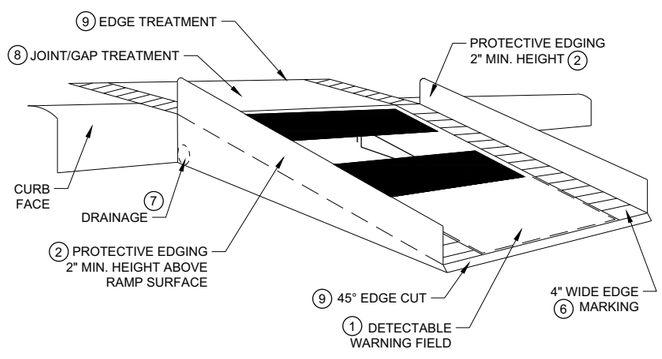
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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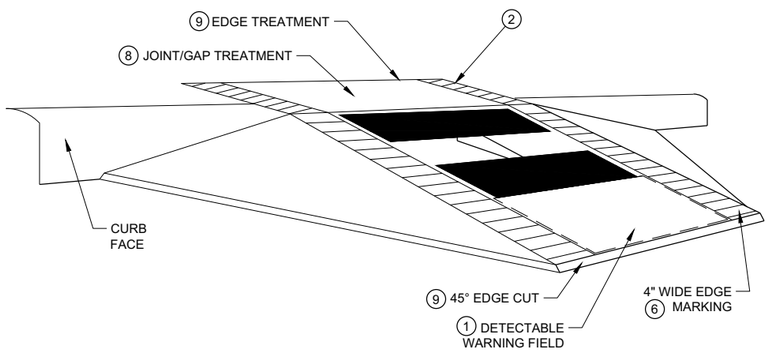
SDD 15D30 - 06a
SDD15D30 - 06a



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE



WITH SIDE APRON

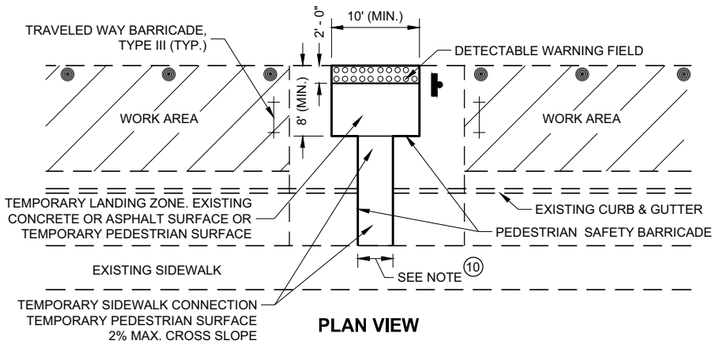
TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

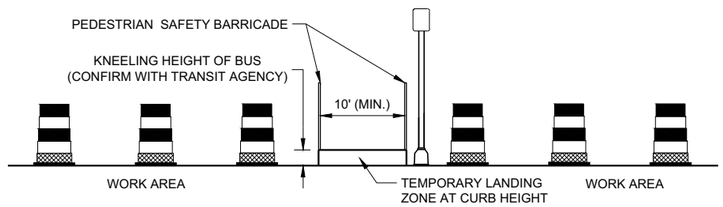
NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

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

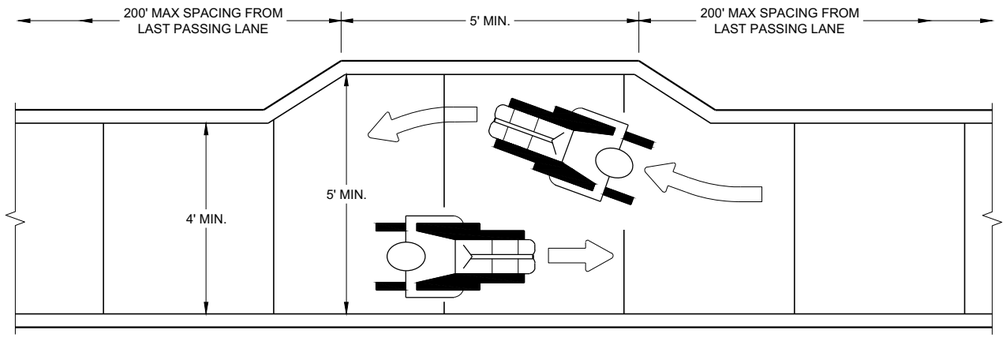
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

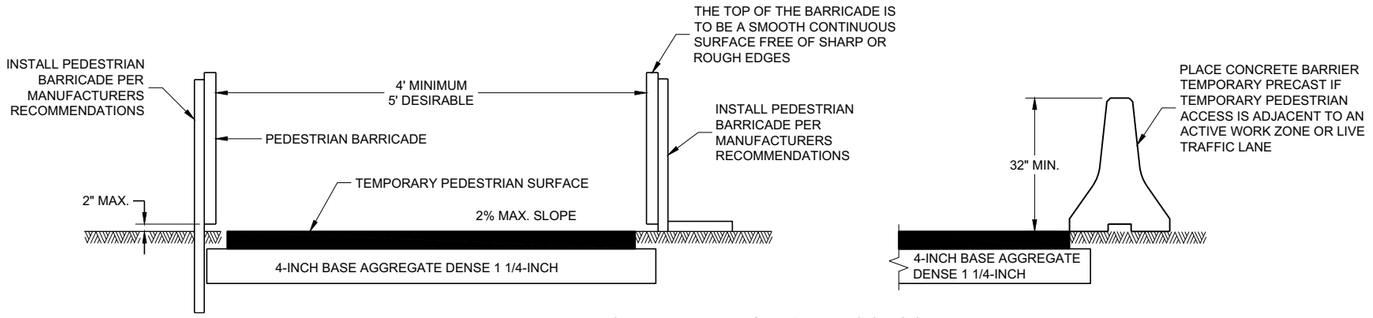
SDD 15D30 - 06b

6

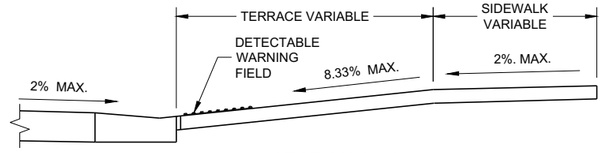
SDD 15D30 - 06b



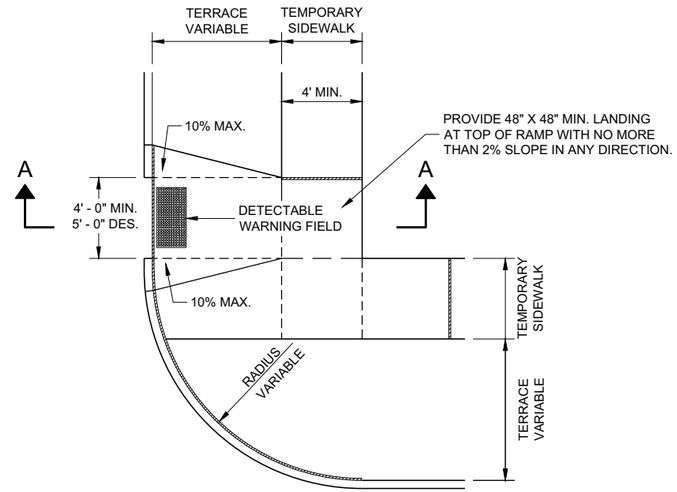
NARROW SIDEWALK PASSING DETAIL



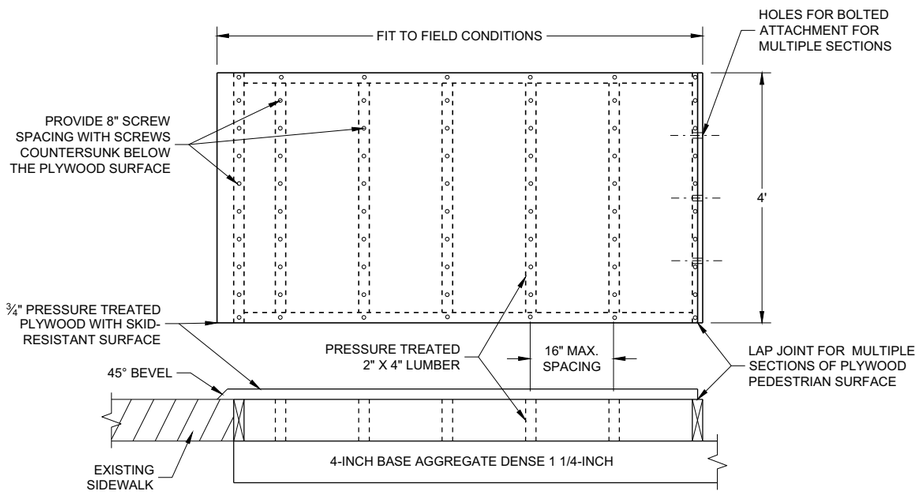
TEMPORARY PEDESTRIAN ACCESS



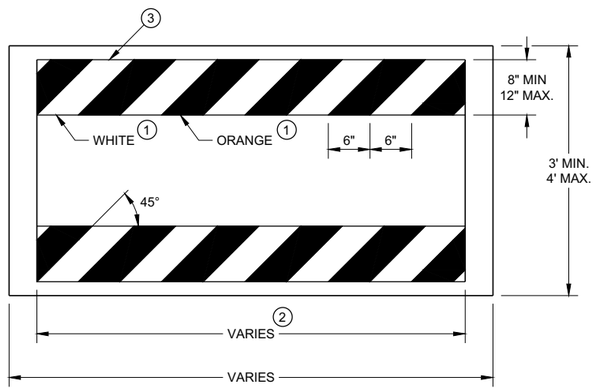
SECTION A - A



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

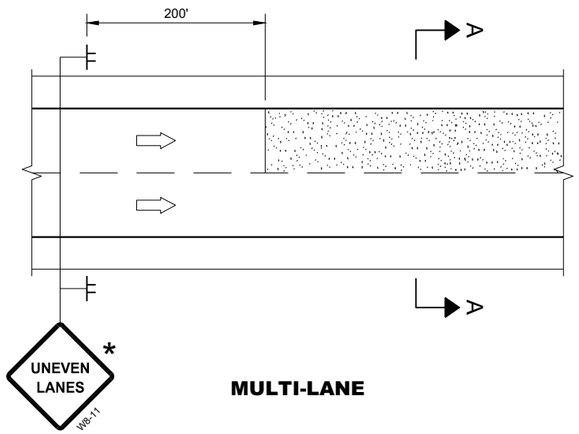
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

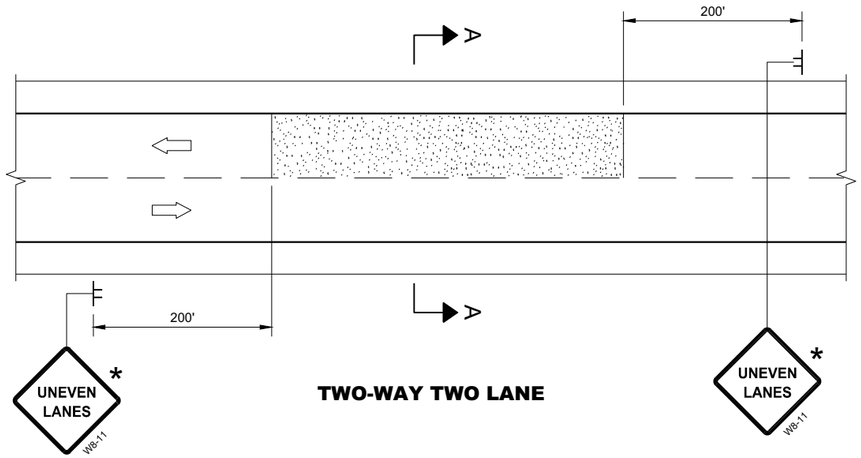
SDD 15D30 - 06c

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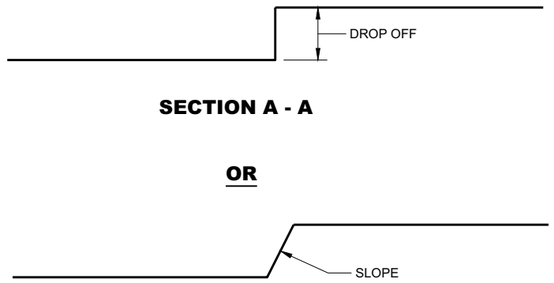
SDD 15D30 - 06c



MULTI-LANE

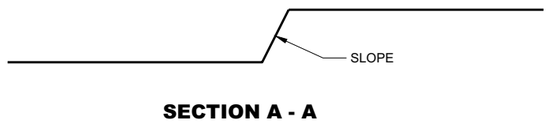


TWO-WAY TWO LANE

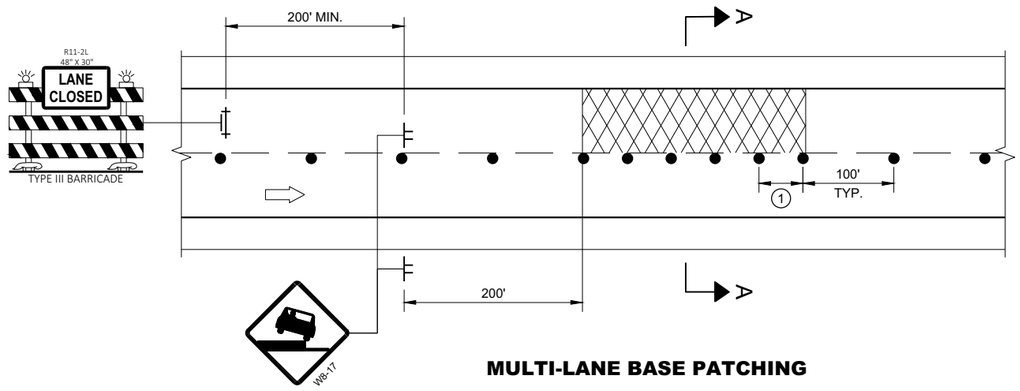


SECTION A - A

OR



SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

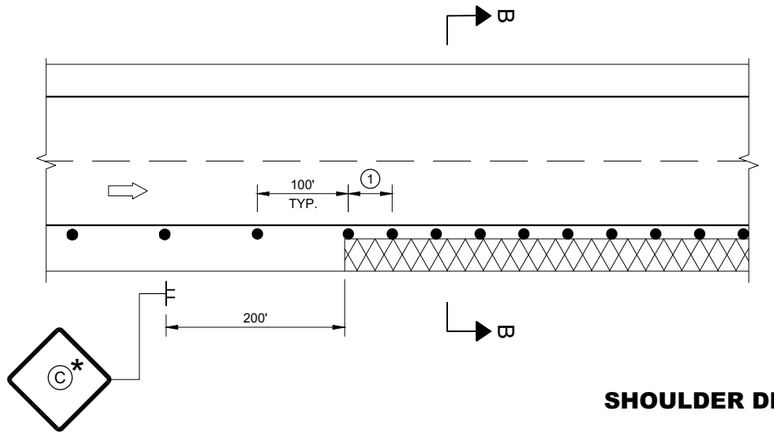
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

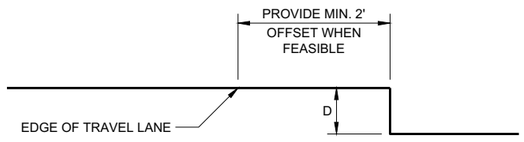
(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

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



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

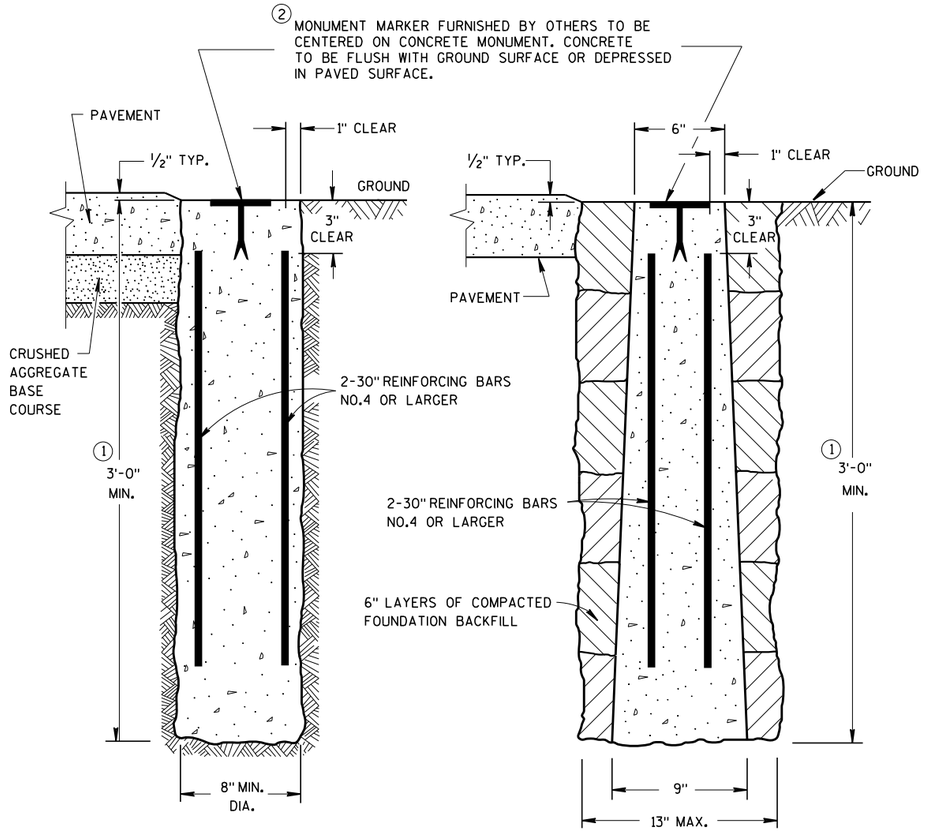
APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15D39 - 02

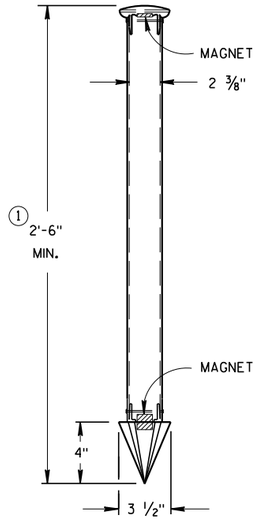


CAST-IN-PLACE

PRECAST

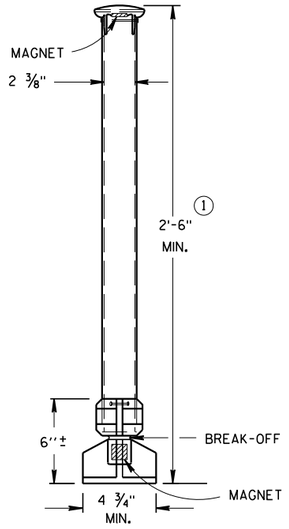
CONCRETE MONUMENTS

TYPE A



TYPE C

DRIVE-IN MONUMENT



TYPE D
NON-DRIVEN
BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

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.

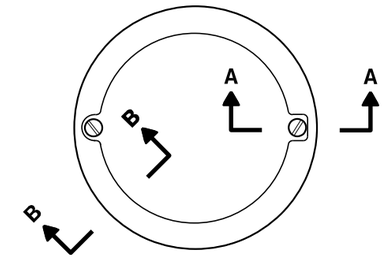
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

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.

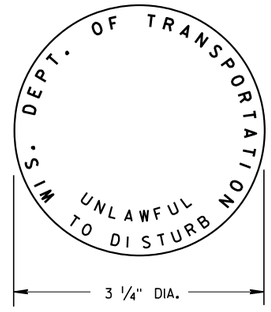
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER

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 WIS DOT MARKER.

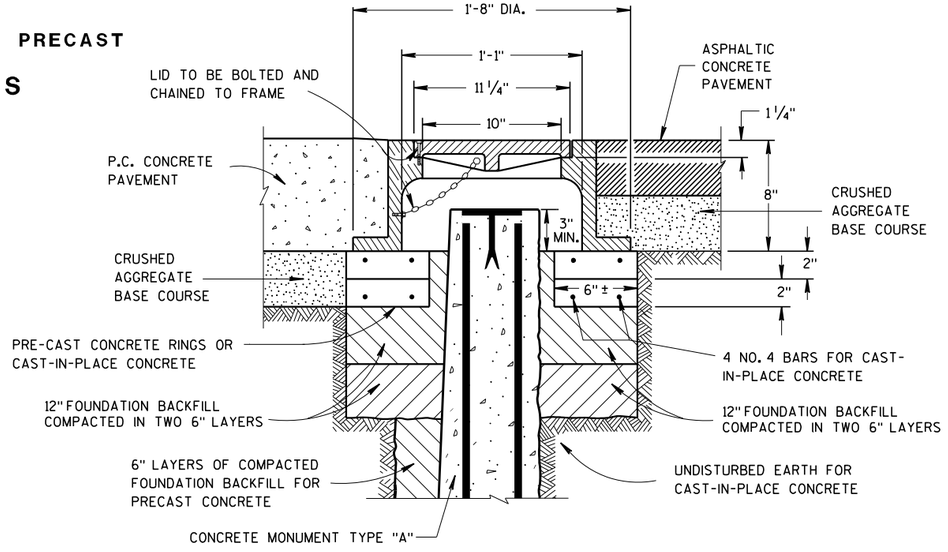


TOP VIEW



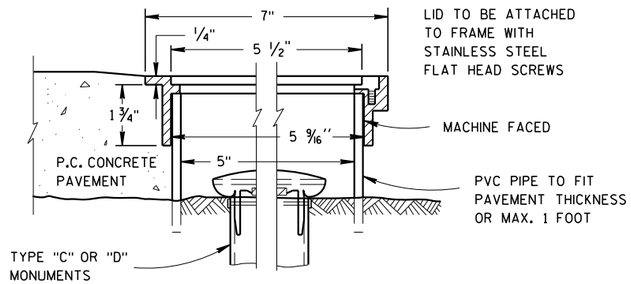
② WIS DOT MONUMENT MARKER LOGO

FOR TYPES "A", "C", & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT 95 LBS)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MONUMENTS AND COVERS

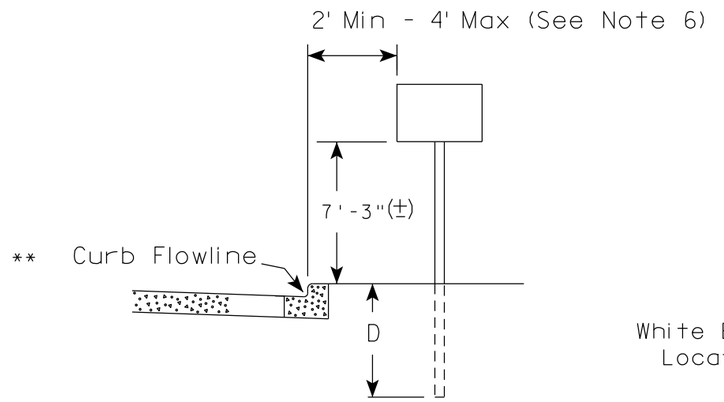
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Raymond A. Kumagai — CHIEF SURVEYING AND MAPPING ENGINEER
FHWA

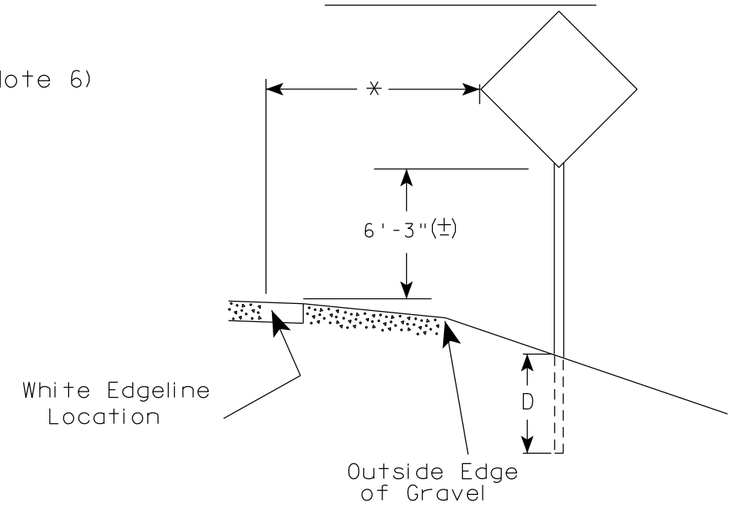
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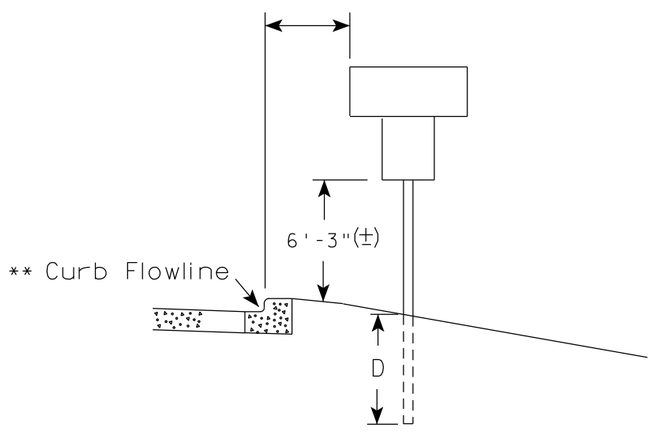
S.D.D. 16 A 1-7

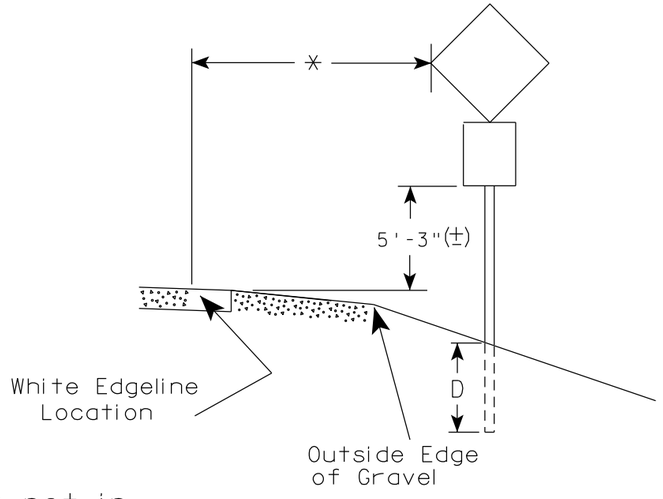
URBAN AREA



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.

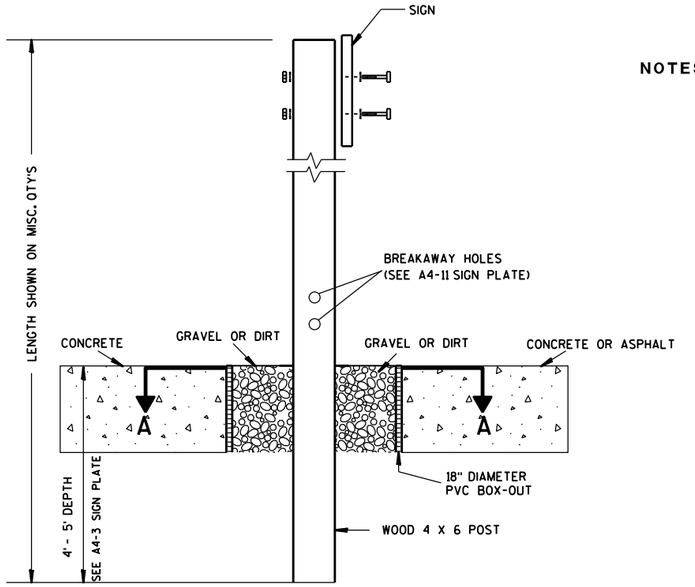
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

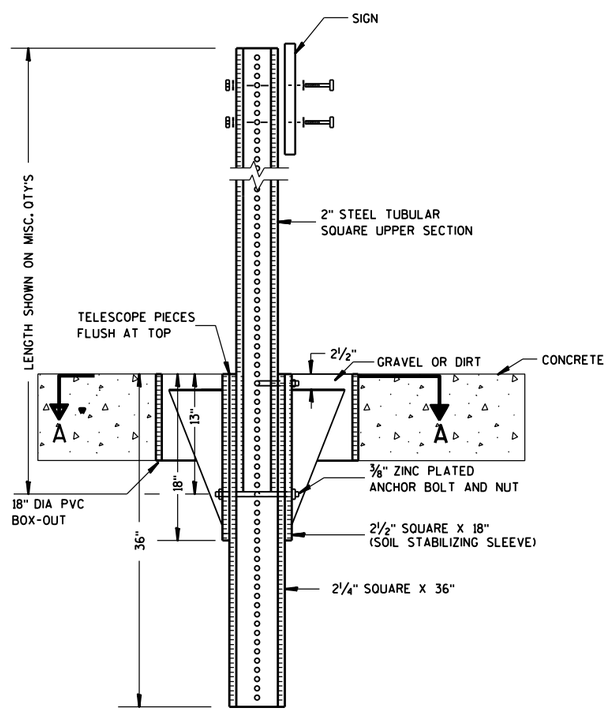
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 233	E



ELEVATION VIEW

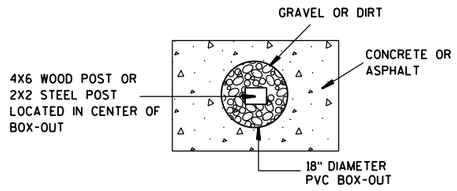
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

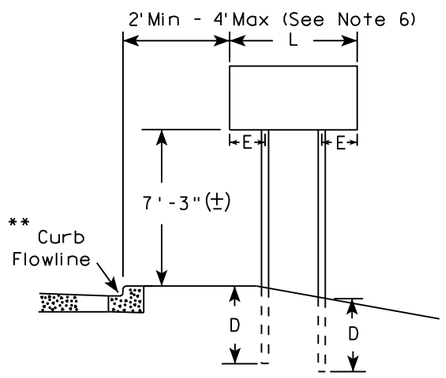
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

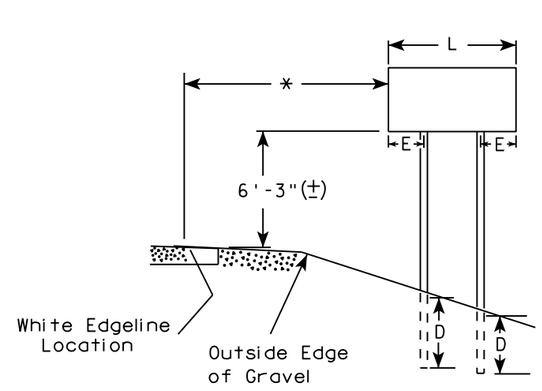
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

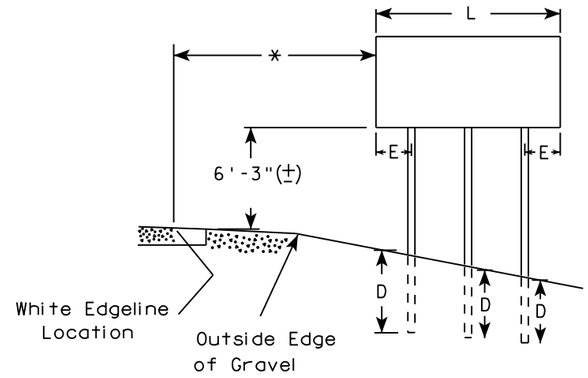
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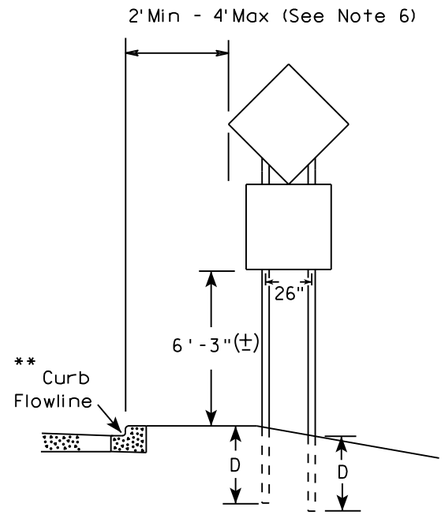
URBAN AREA



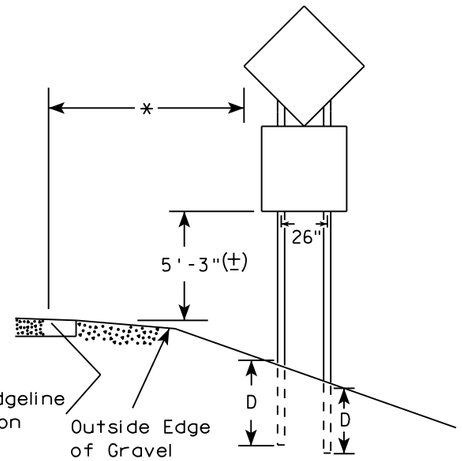
RURAL AREA (See Note 3)







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'

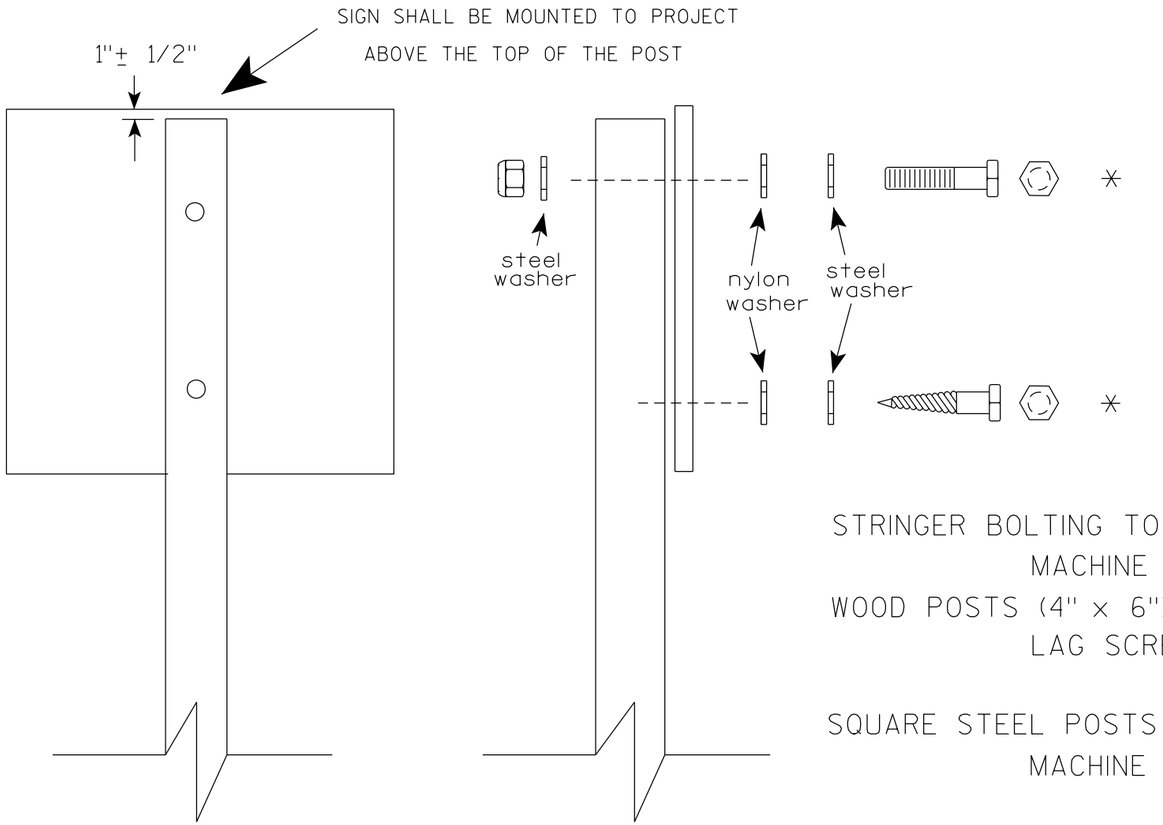
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 235	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

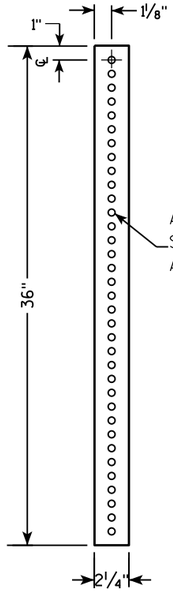
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

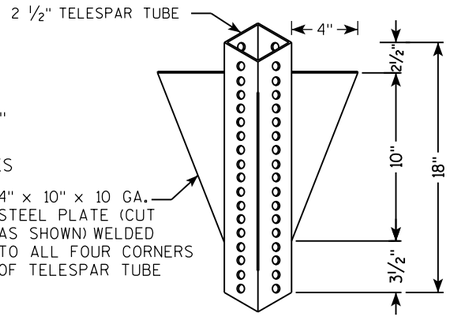
SHEET NO: 236 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

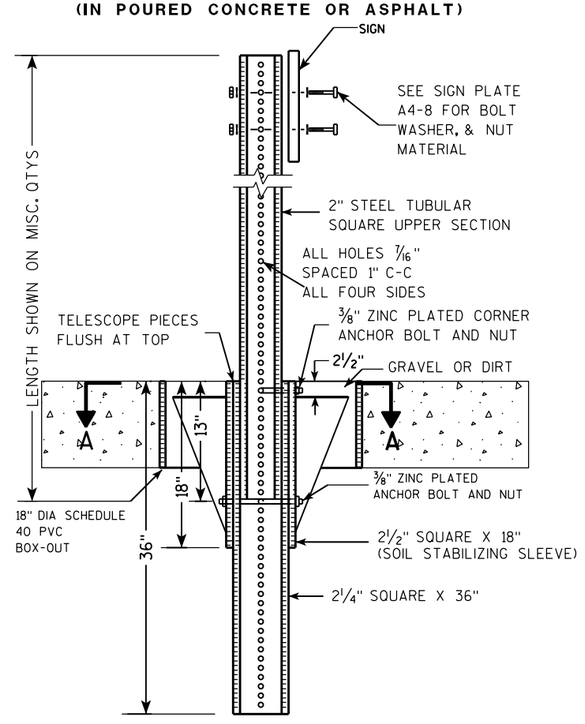
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



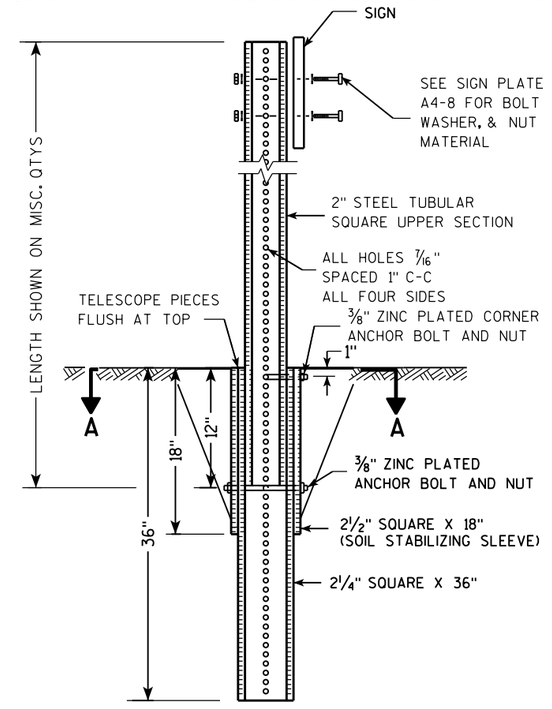
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

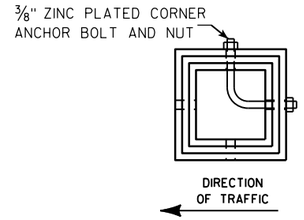


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

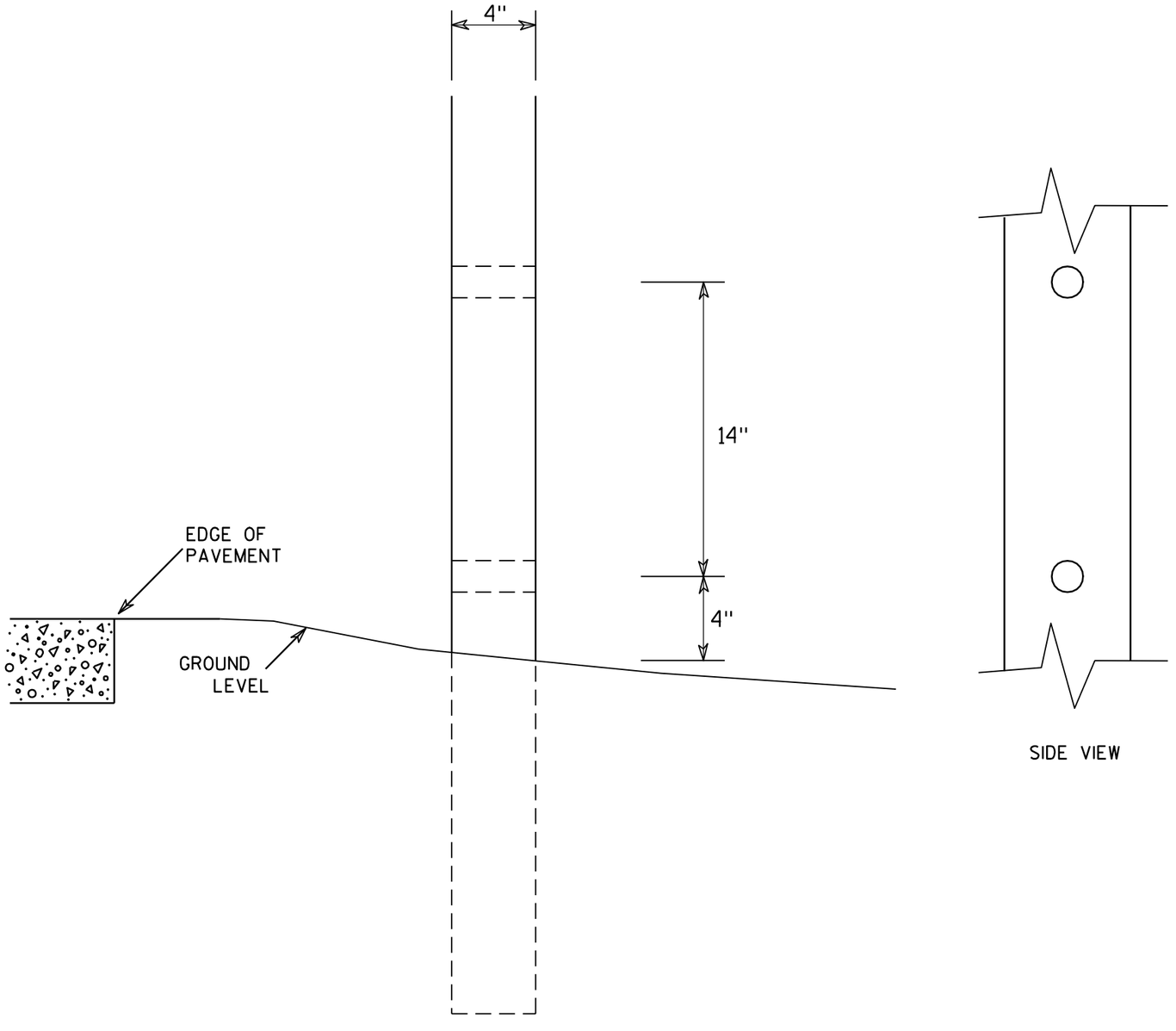
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 237 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

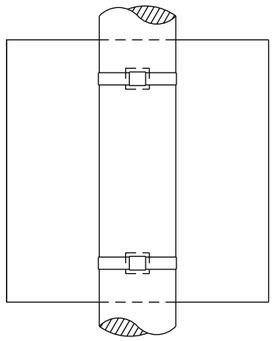
APPROVED Chester J Spang for State Traffic Engineer

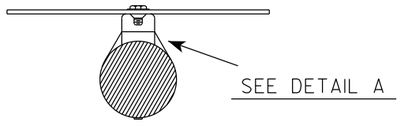
DATE 3/27/97 PLATE NO. A4-11.2

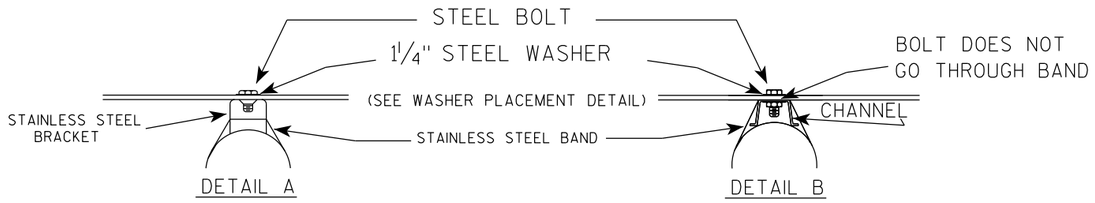
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 238	E

BANDING

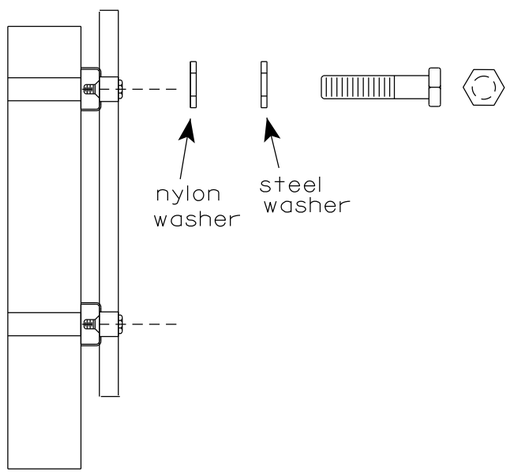
SINGLE SIGN







WASHER PLACEMENT

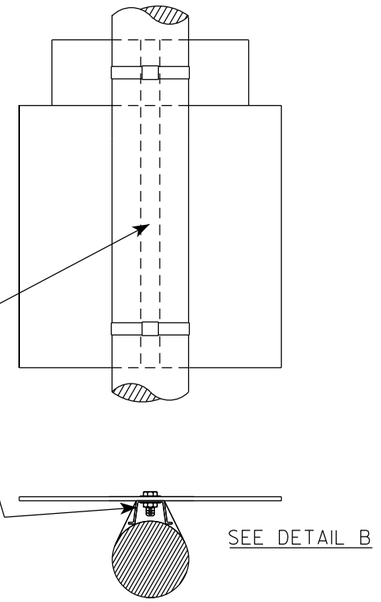


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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

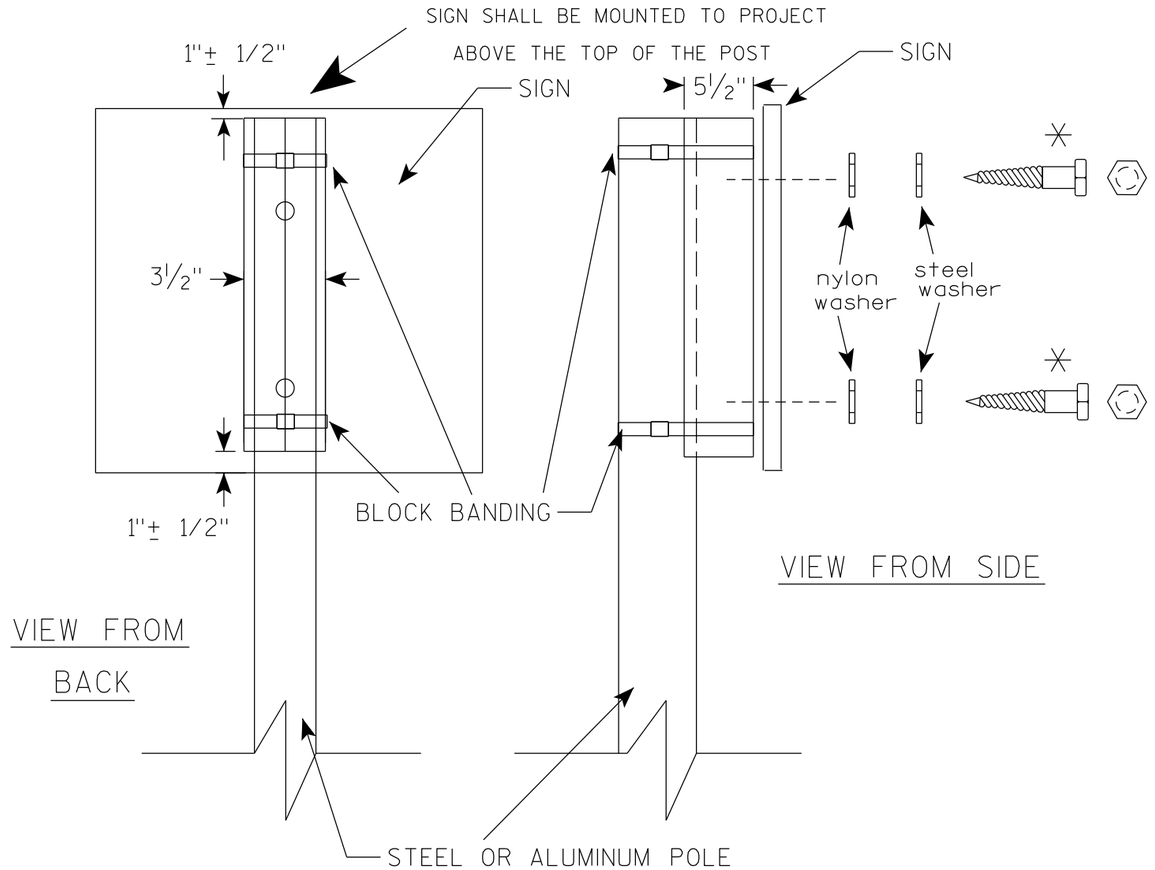
DATE 6/10/19 PLATE NO. A5-9.4

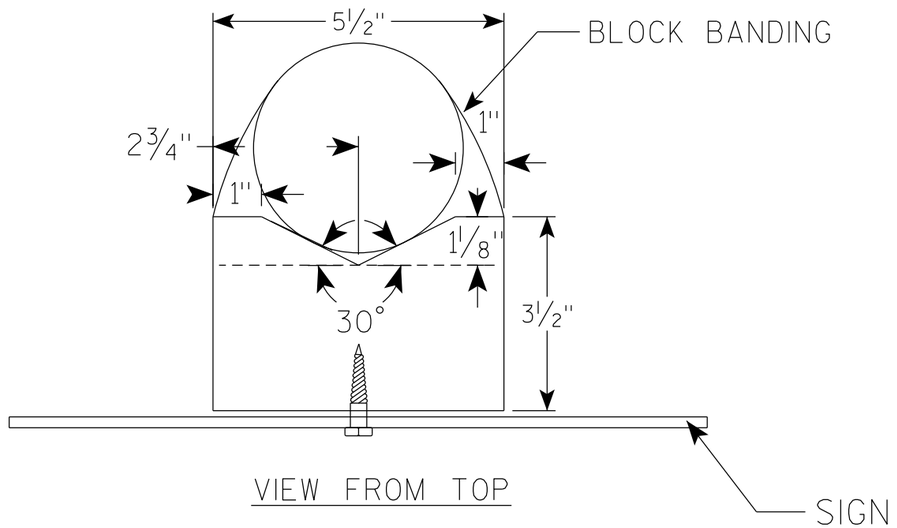
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 239	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

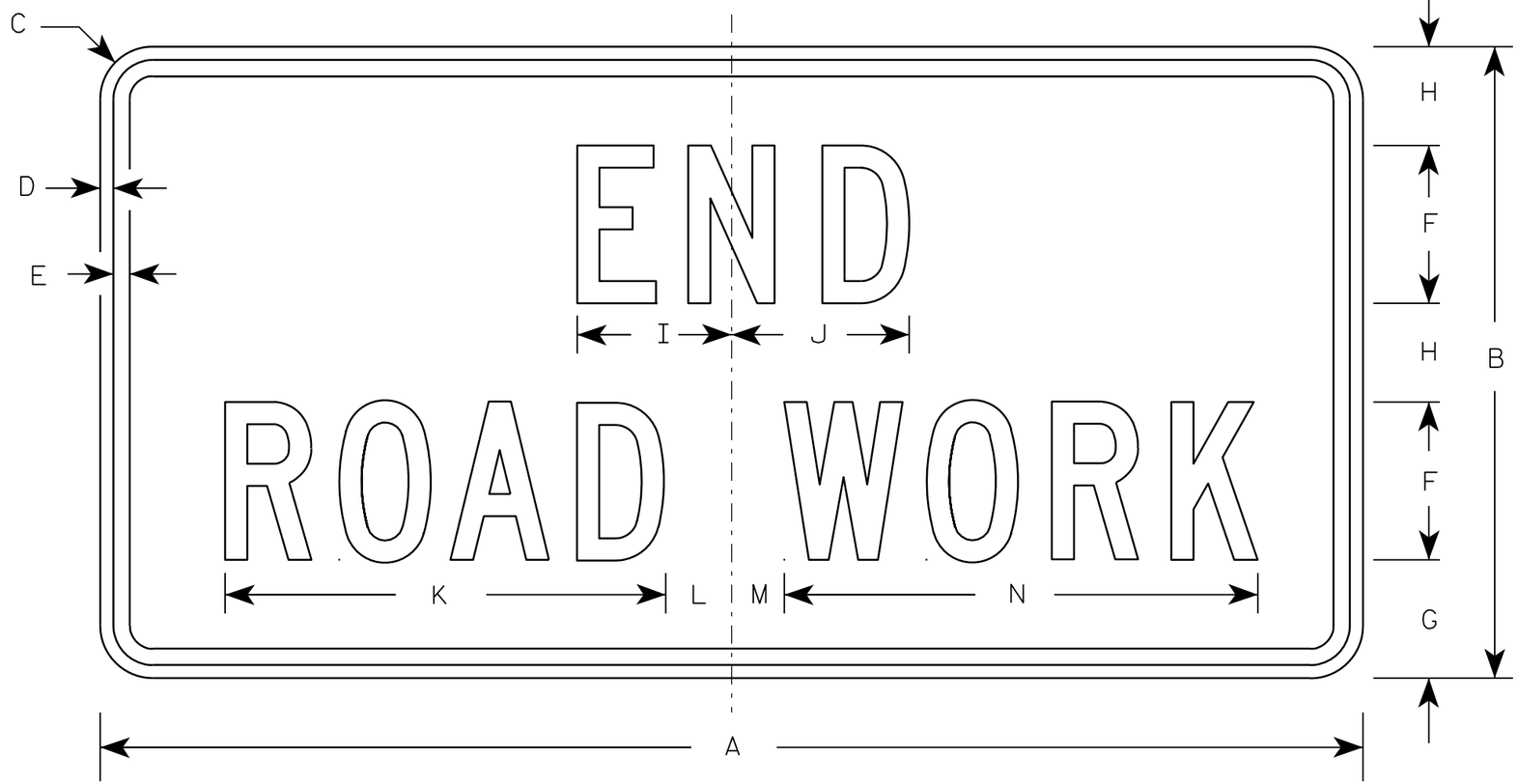
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO: | SHEET NO: 240 | 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: 241	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

7

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - E



G20-61

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	120	30	6		2	12	9	21	78 1/4	20 3/4																	25.0
5																											

STANDARD SIGN
G20-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

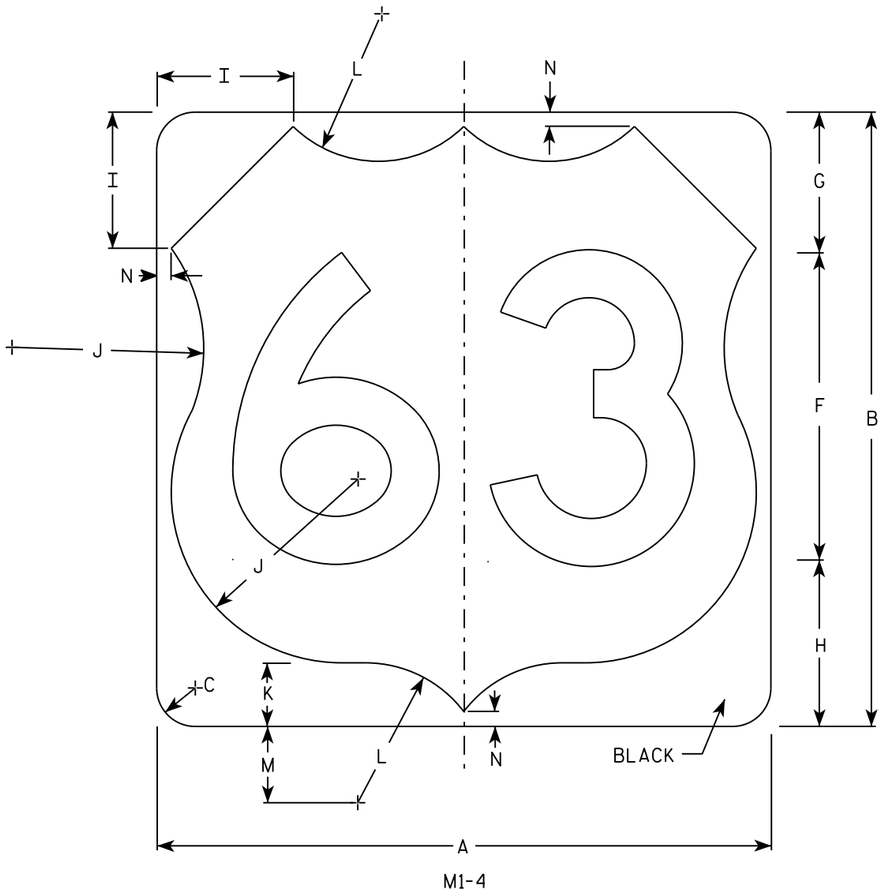
DATE 5/07/15 PLATE NO G20-61.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

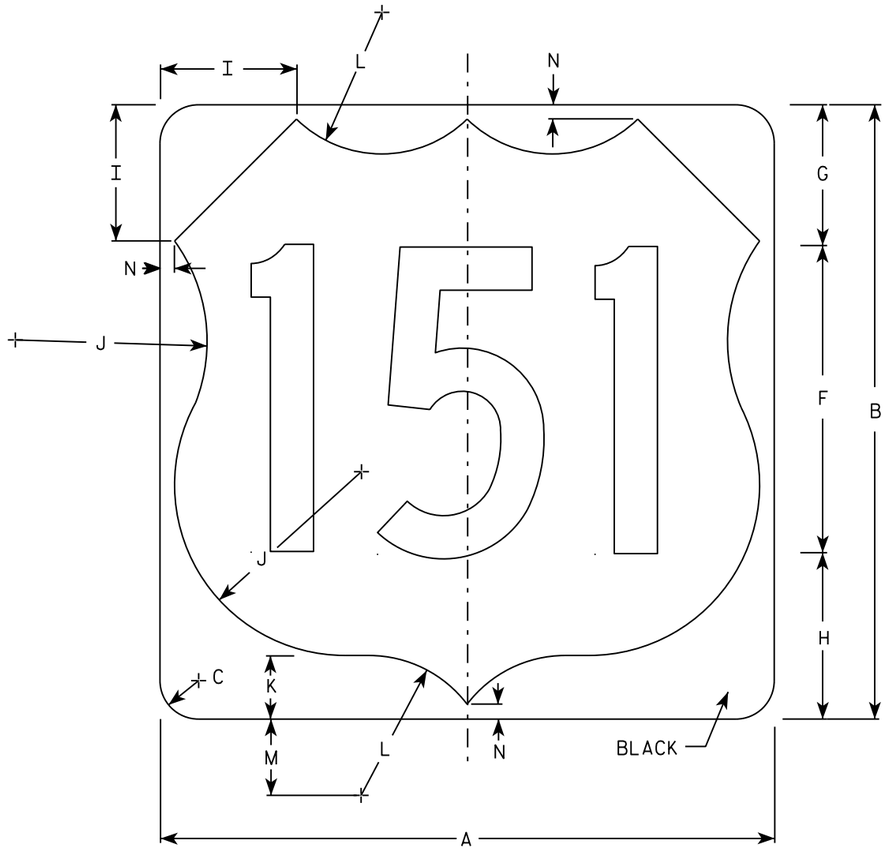
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\G2061.DGN PLOT DATE : 07-MAY-2015 13:47 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 20.431338:1.000000 WISDOT/CADDS SHEET 42

NOTES

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



M1-4



M1-4

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

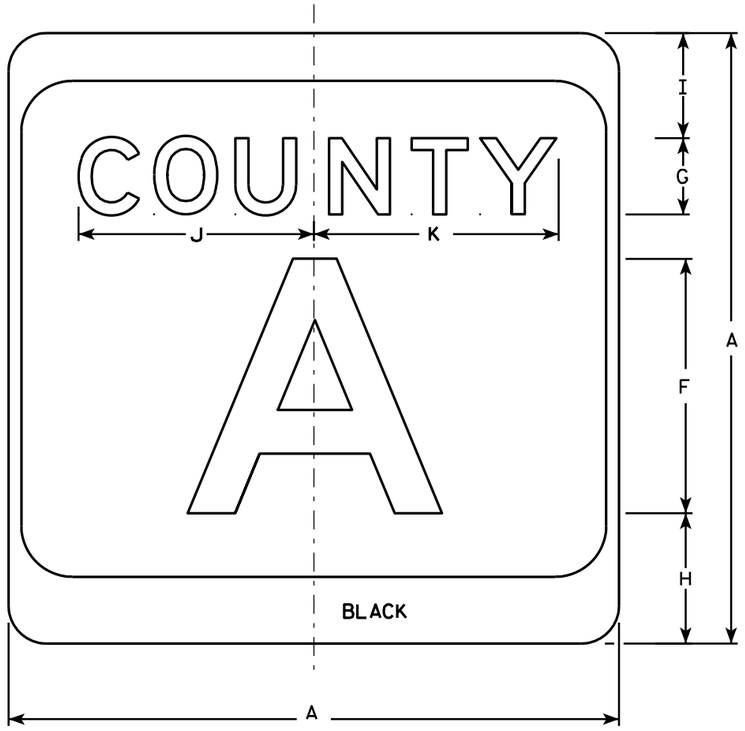
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

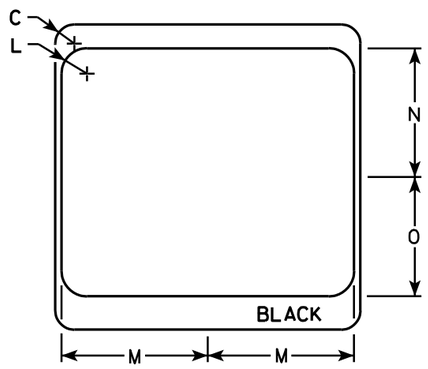
APPROVED Matthew R Rauch
for State Traffic Engineer

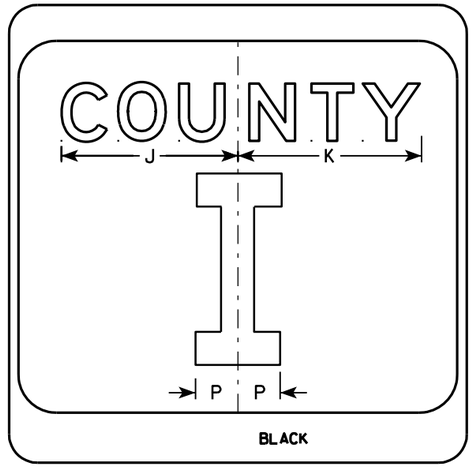
DATE 3/16/18 PLATE NO. M1-4.10

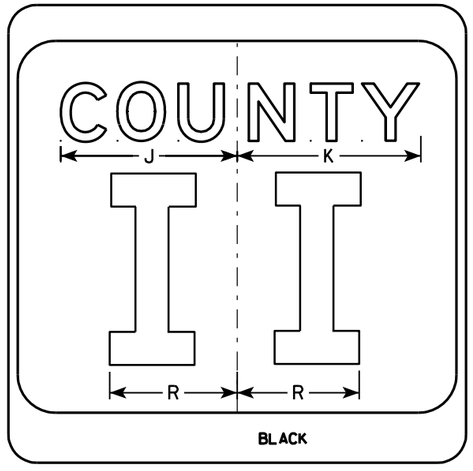
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 244	E



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

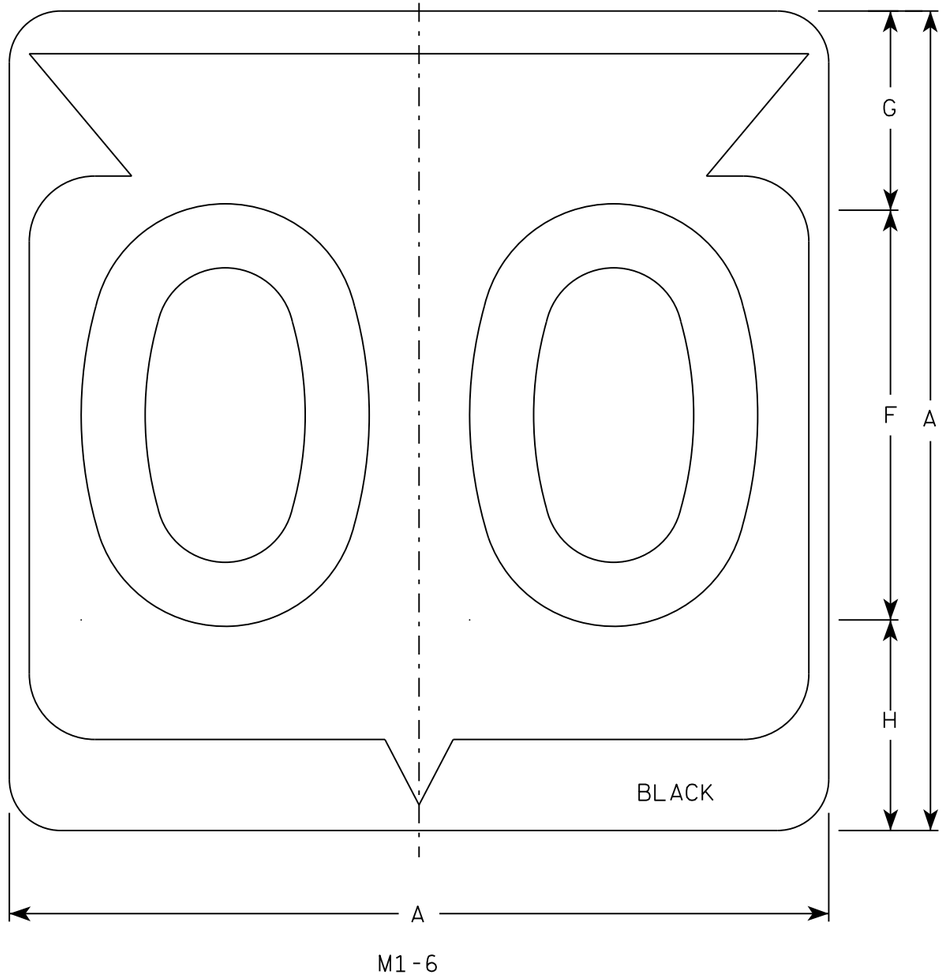
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

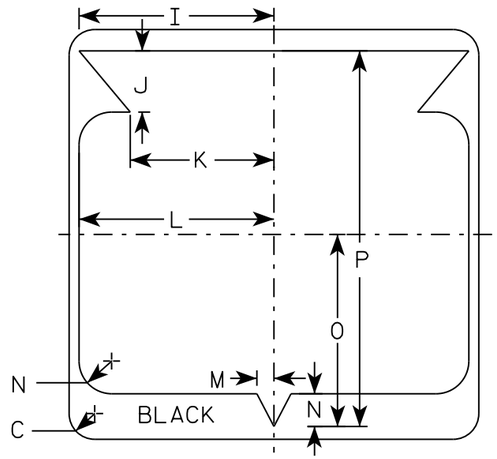
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 245	E



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

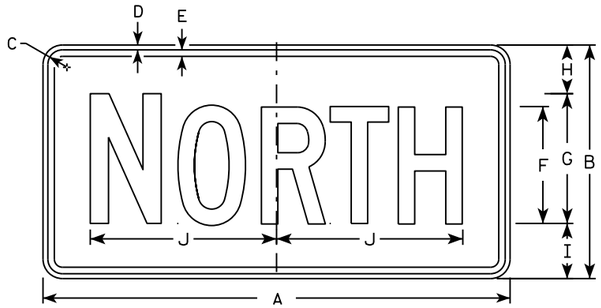
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

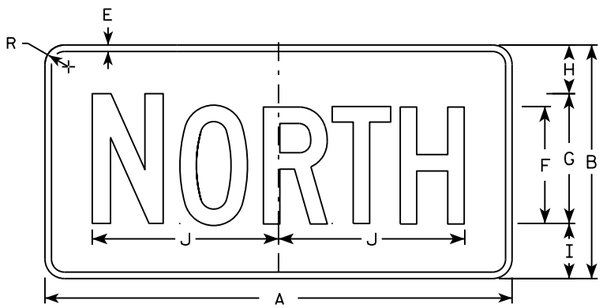
APPROVED Matthew R Rauch for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 246 E



M3-1
MM3-1
MP3-1



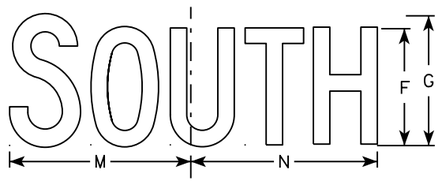
MB3-1
MK3-1
MN3-1



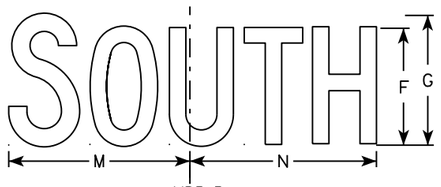
M3-2
MM3-2
MP3-2



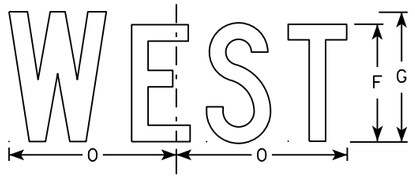
MB3-2
MK3-2
MN3-2



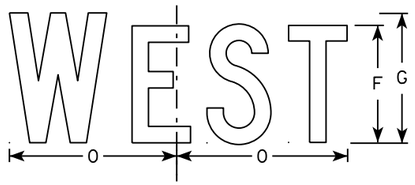
M3-3
MM3-3
MP3-3



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

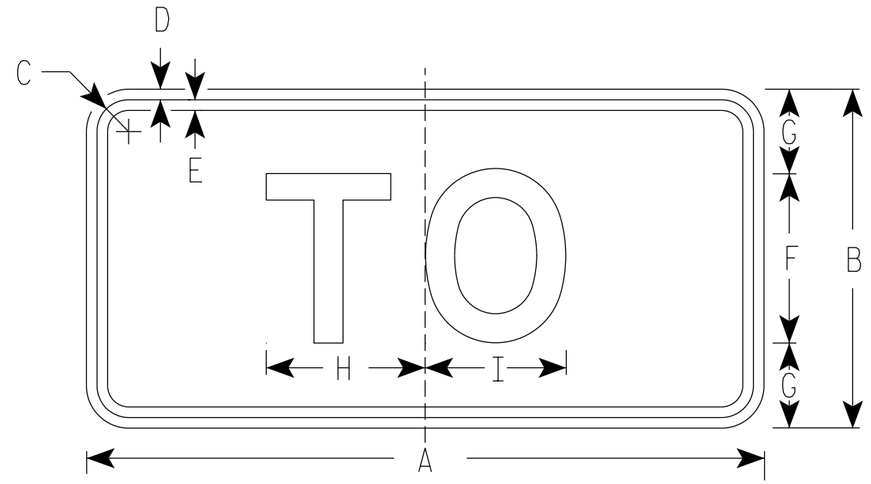
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

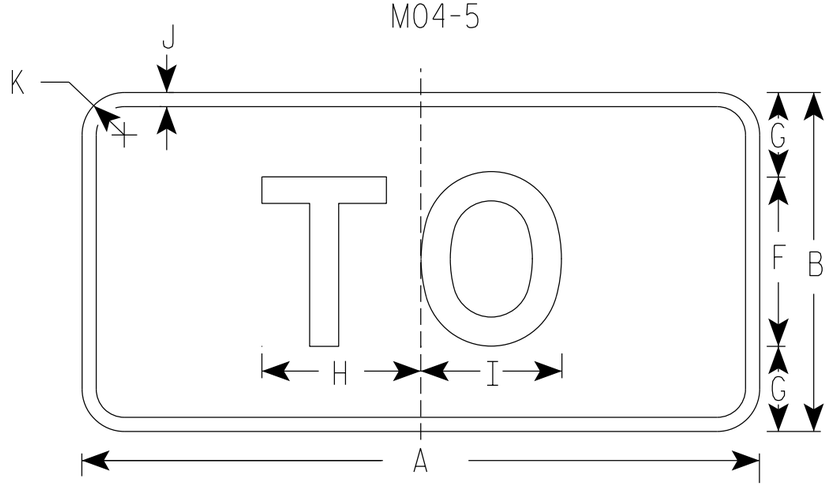
DATE 10/15/15 PLATE NO M3-1.14

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



M4-5
MM4-5
MP4-5
M04-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
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. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

   M04-5 Background - Orange Type F Reflective
   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	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

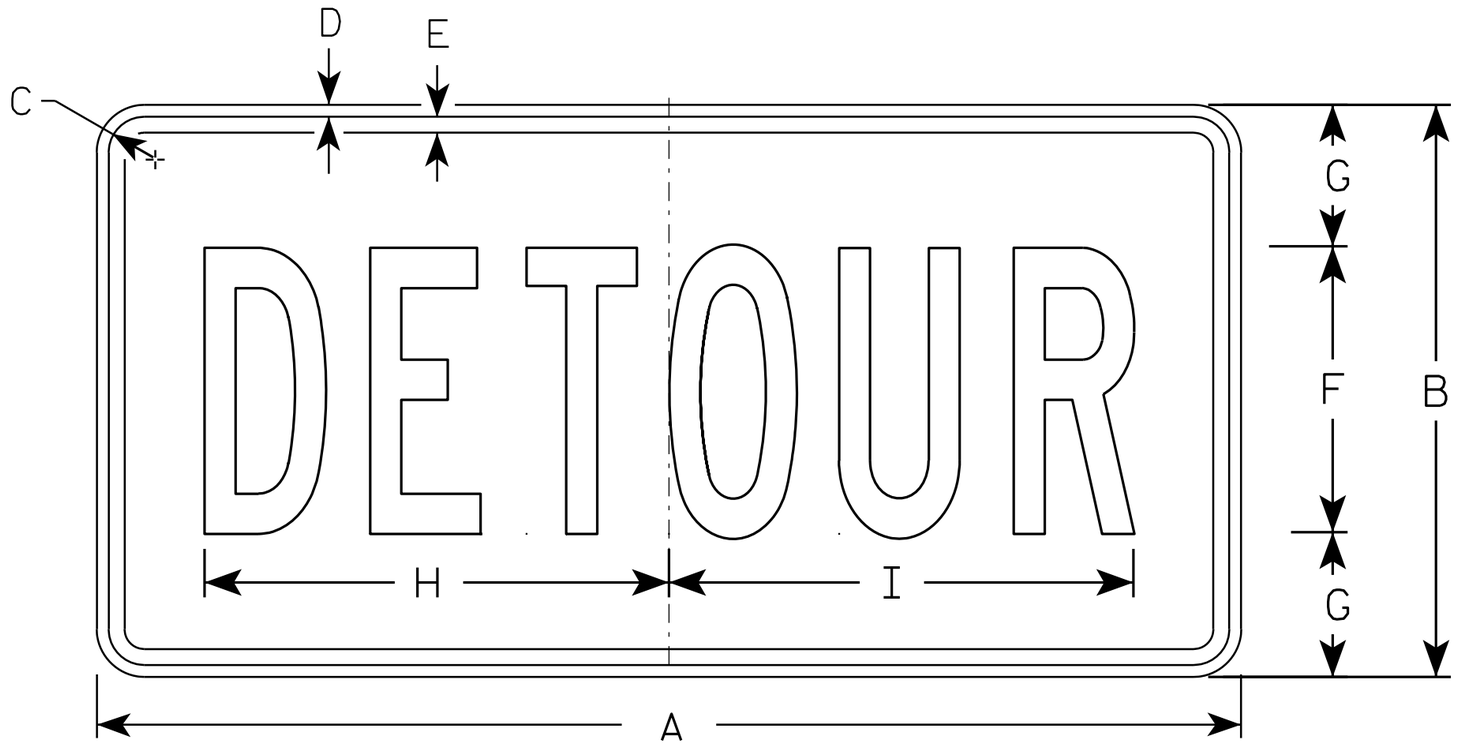
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/7/19 PLATE NO. M4-5.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 248 | 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																											

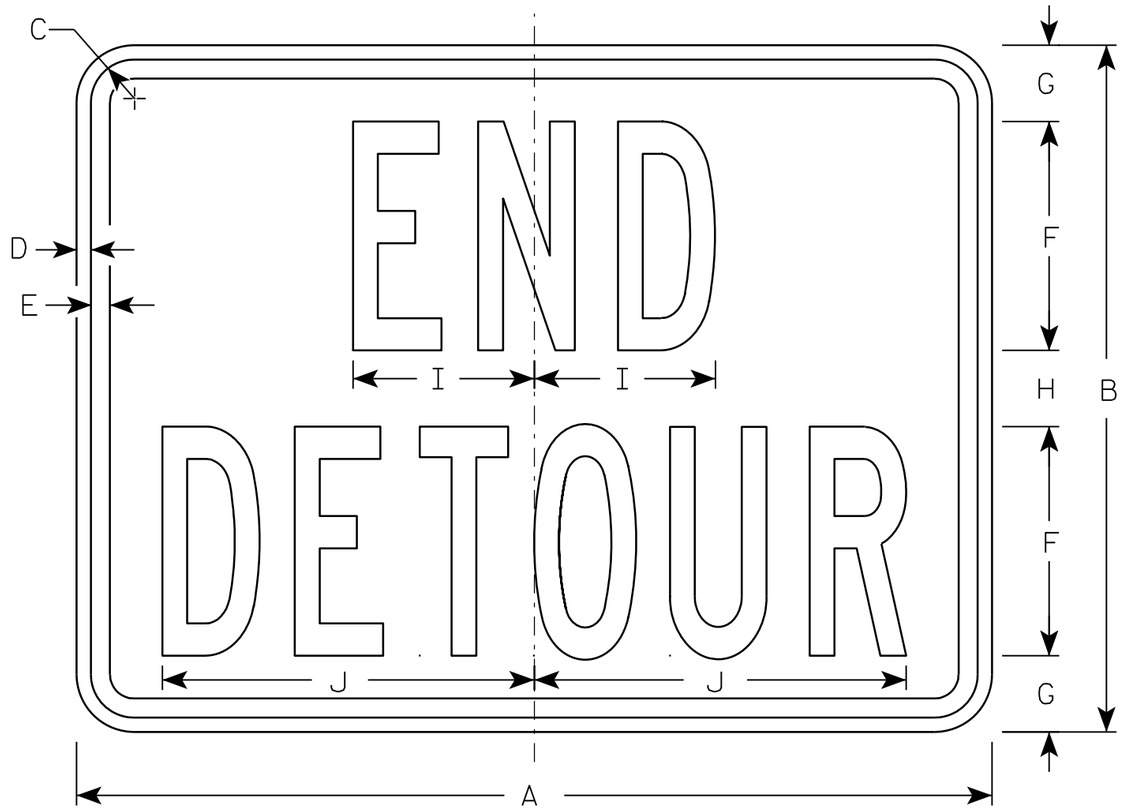
STANDARD SIGN
M4-8

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: 249	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																											

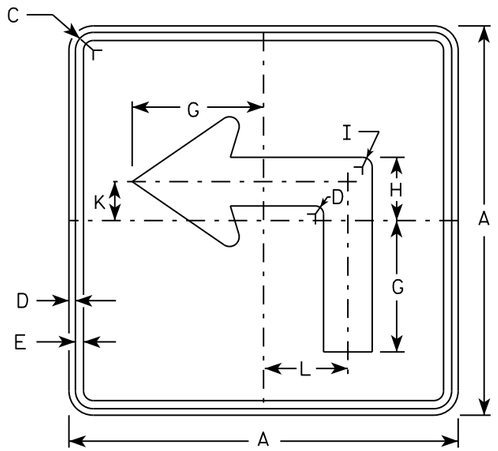
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

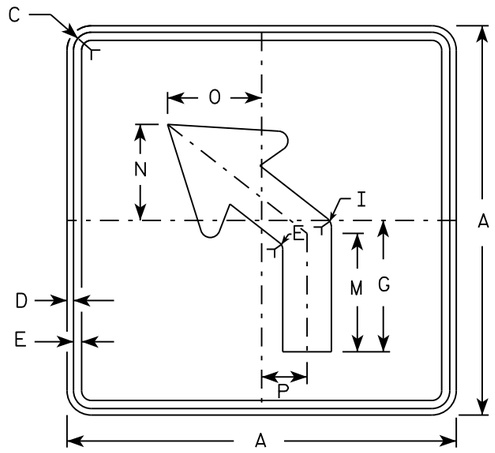
APPROVED Matthew R Rauch
for State Traffic Engineer

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

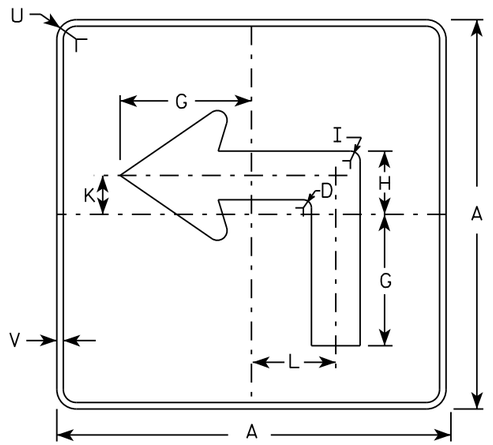
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 250	E



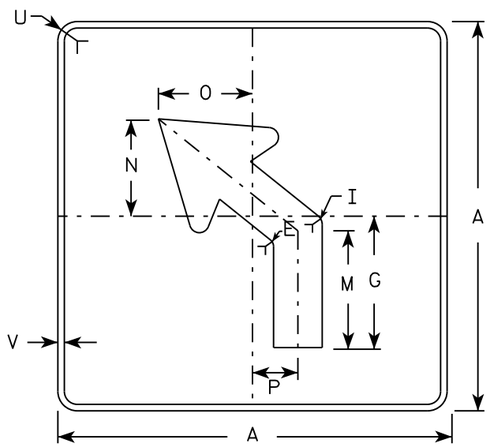
M5-1L
MM5-1L
MO5-1L
MP5-1L



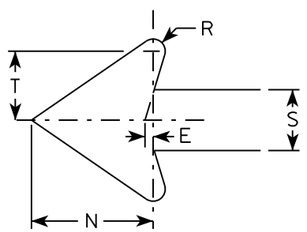
M5-2L
MM5-2L
MO5-2L
MP5-2L



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

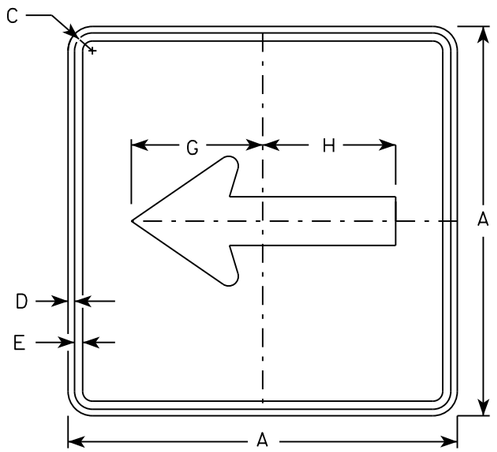
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

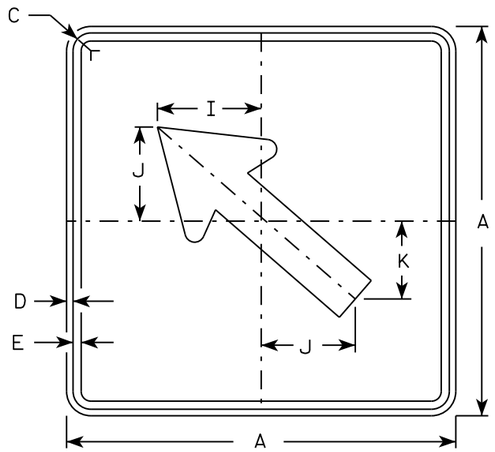
DATE 10/15/15 PLATE NO. M5-1.13

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



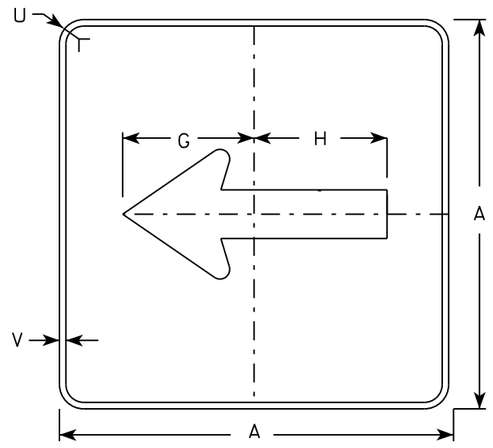
M6-1
MM6-1
MO6-1
MP6-1



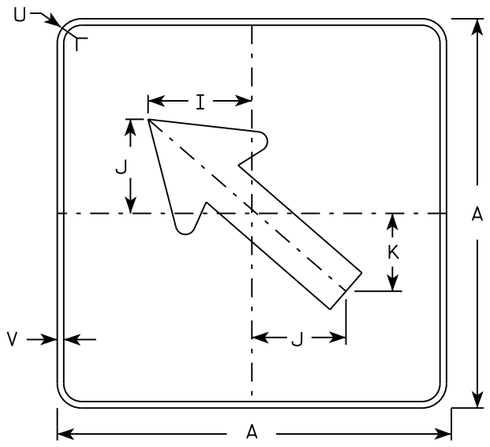
M6-2
MM6-2
MO6-2
MP6-2

NOTES

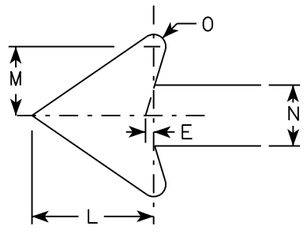
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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

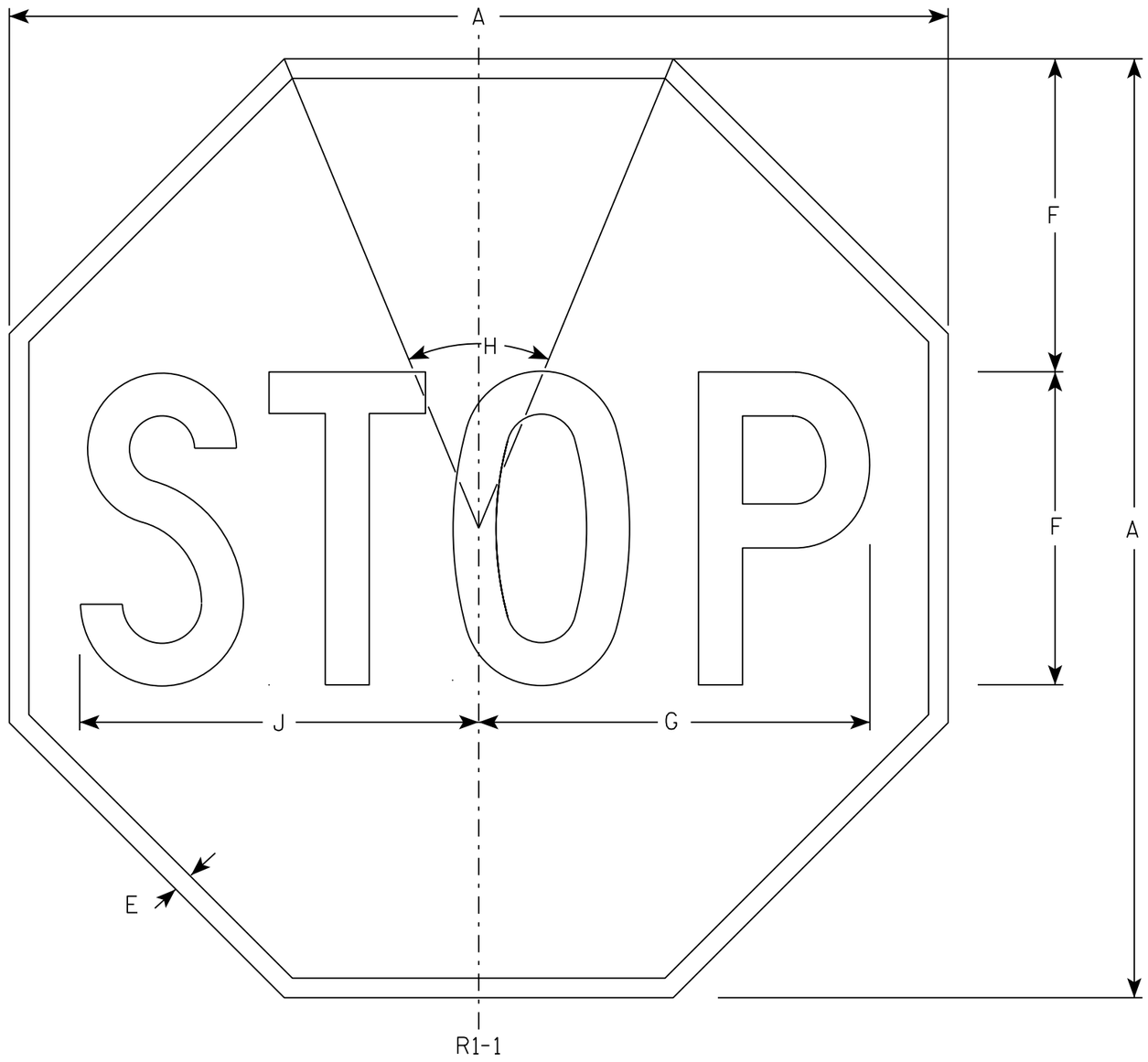
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 252 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

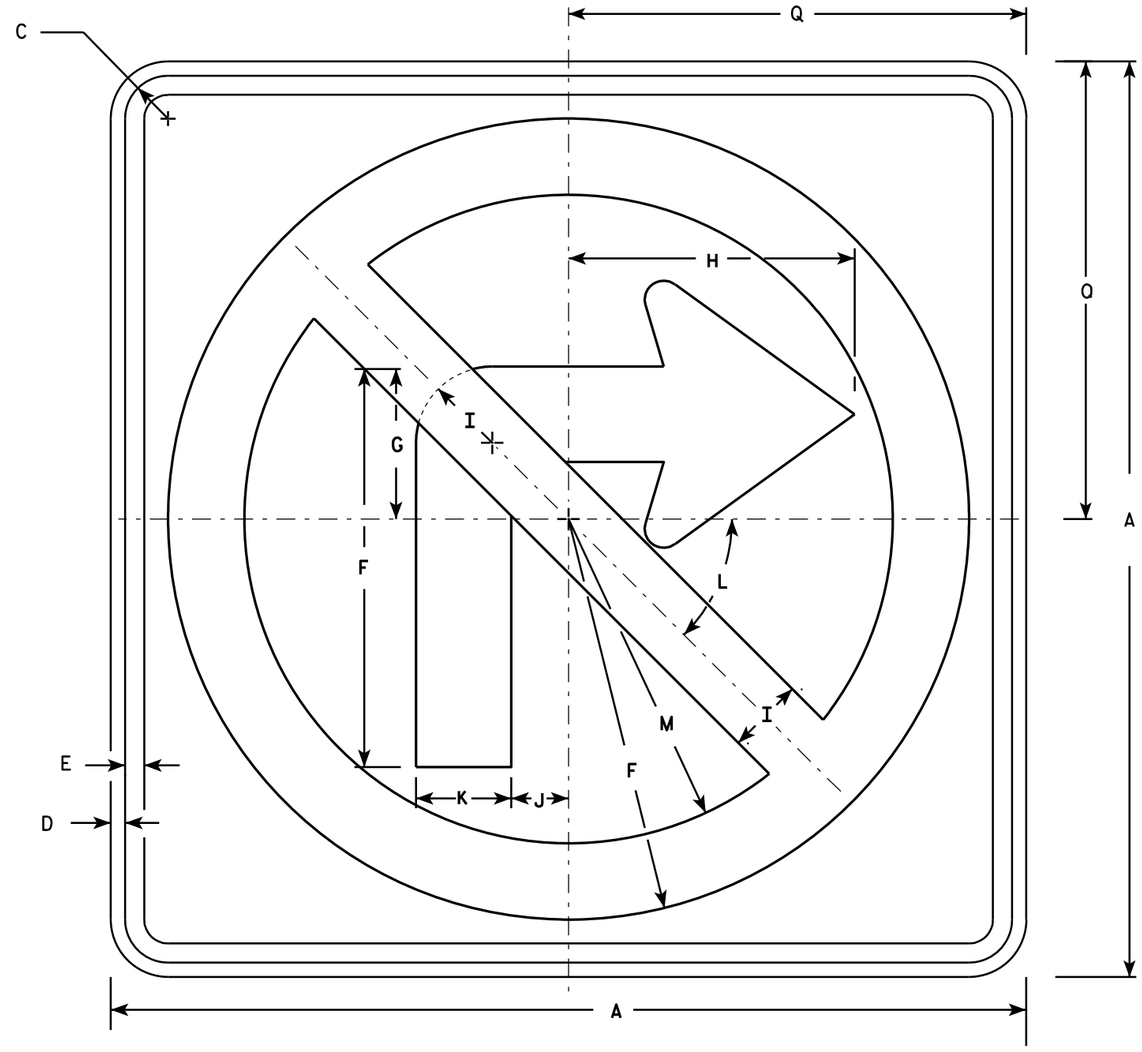
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

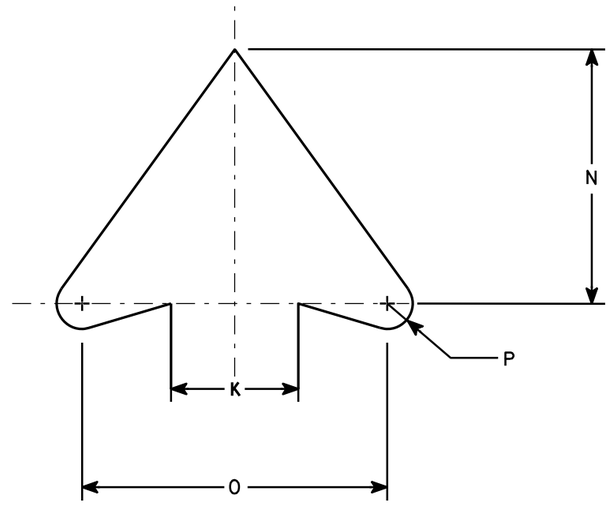
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 253	E



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

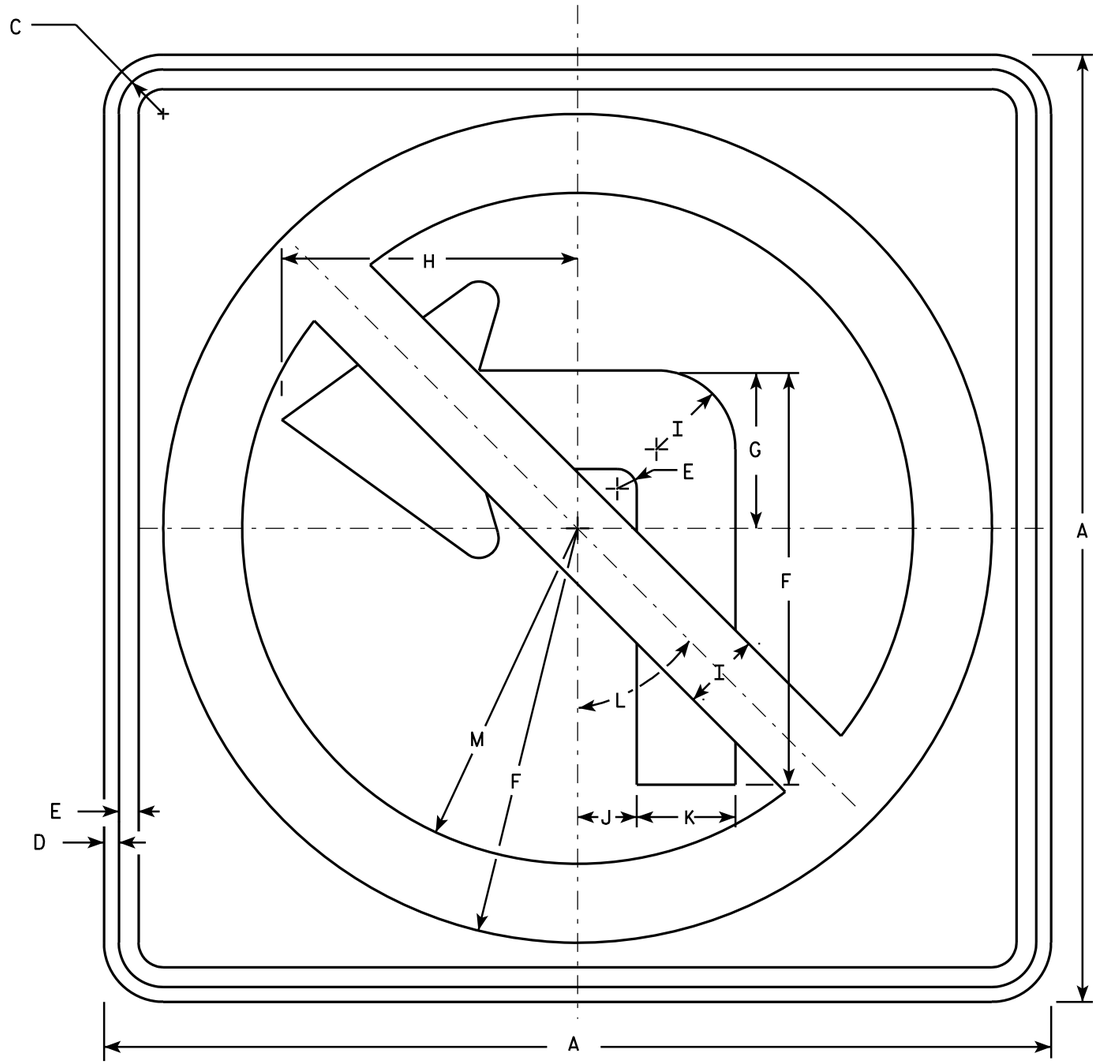
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

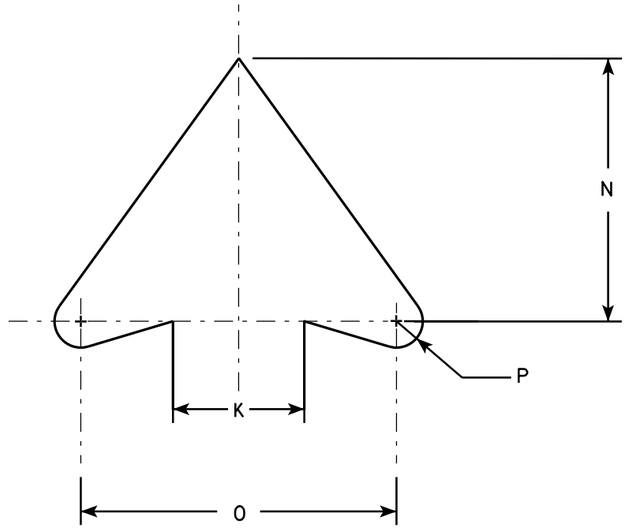
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 254	E



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

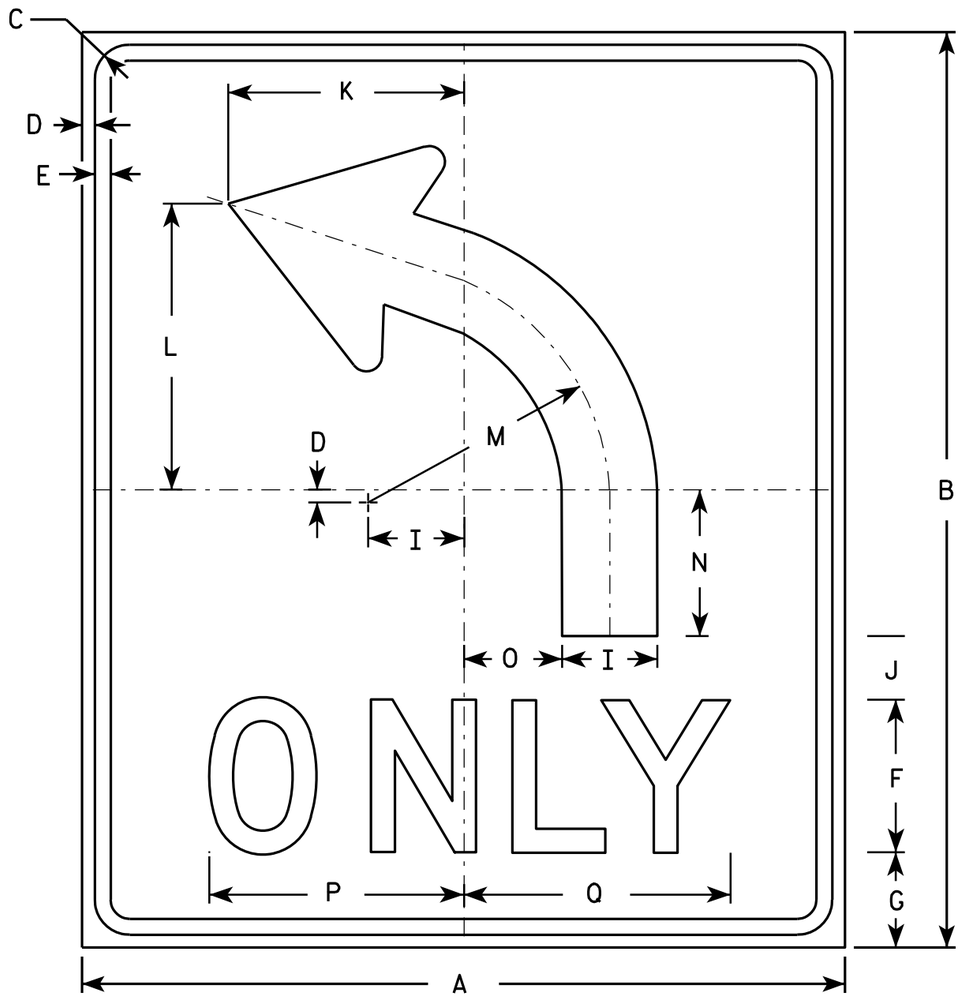
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

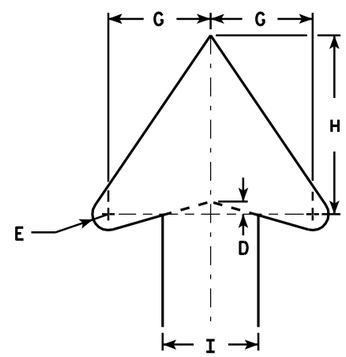
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 255	E



R3-50L

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.
5. R3-50R is the same as R3-50L except curved portion of arrow points right.



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	30	36	1 3/8	1/2	5/8	6	4	7	3 3/4	2 1/2	9 1/4	11 1/4	9 1/2	5 3/4	3 7/8	10	10 1/2										7.5
2M	30	36	1 3/8	1/2	5/8	6	4	7	3 3/4	2 1/2	9 1/4	11 1/4	9 1/2	5 3/4	3 7/8	10	10 1/2										7.5
3																											
4																											
5																											

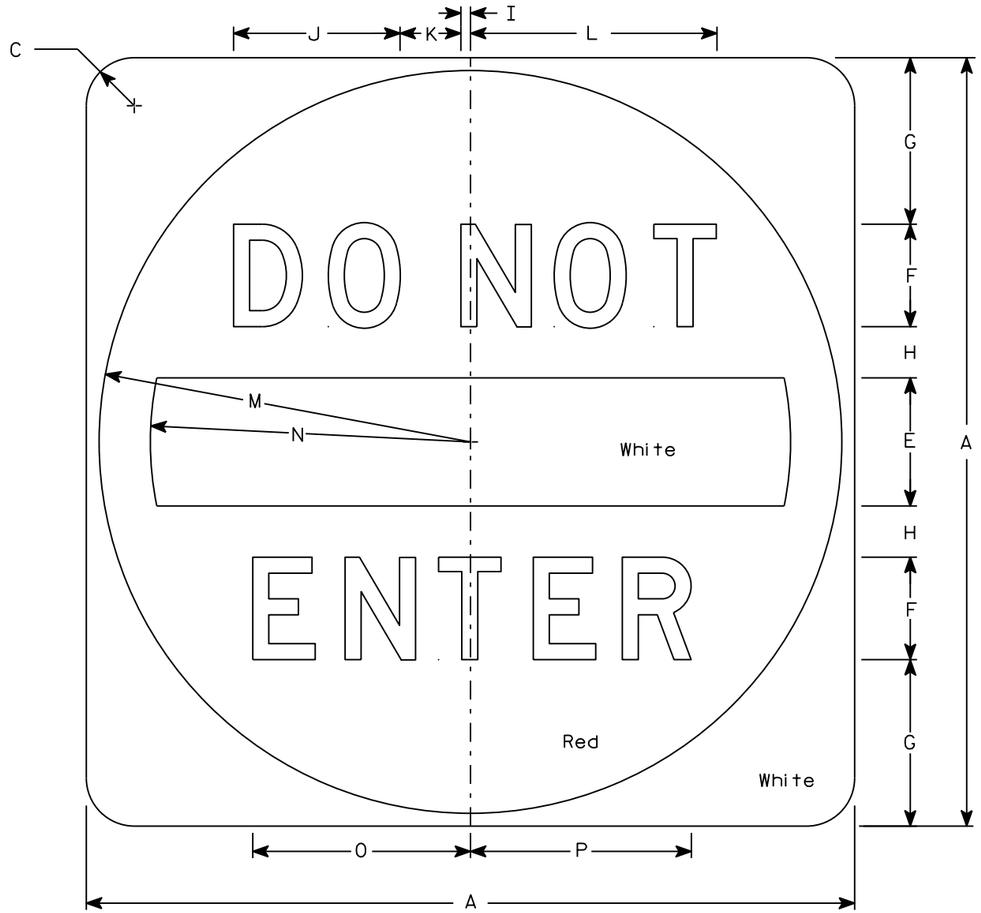
STANDARD SIGN
R3-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-50.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 256 | E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

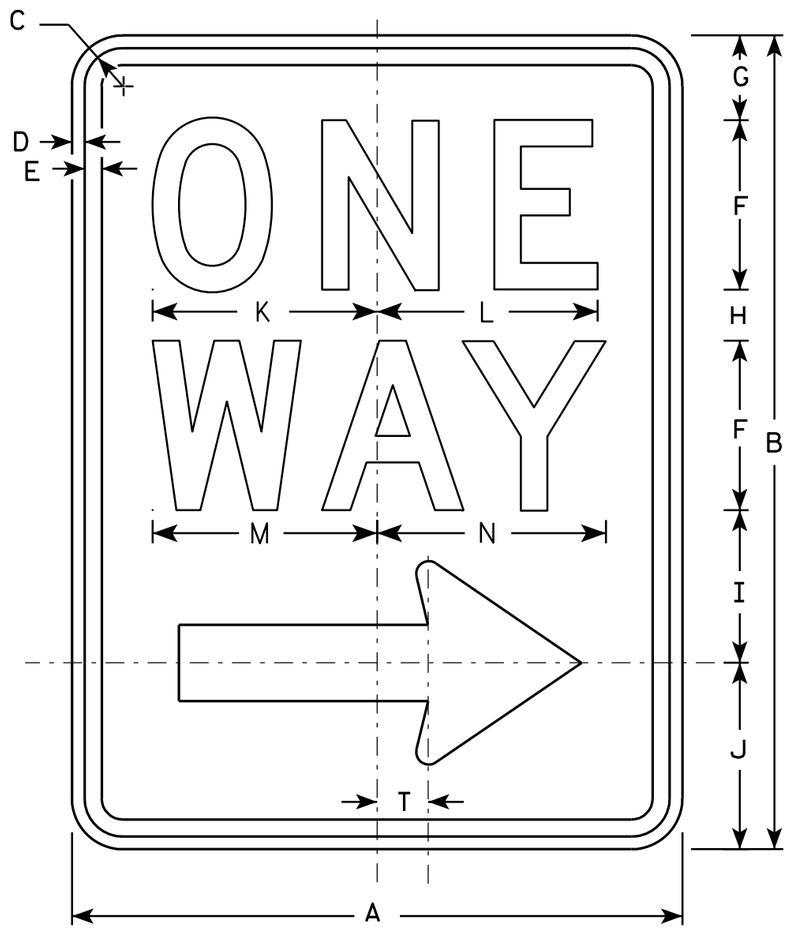
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

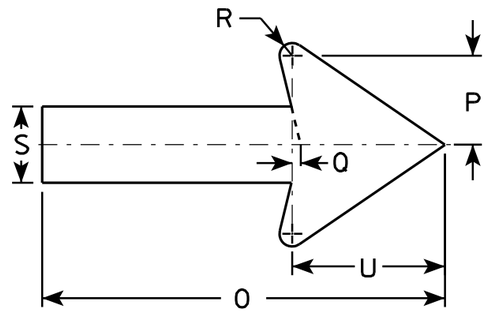
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 257 | E



R6-2R

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.
5. R6-2L same as R6-2R except arrow points to the left.



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
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

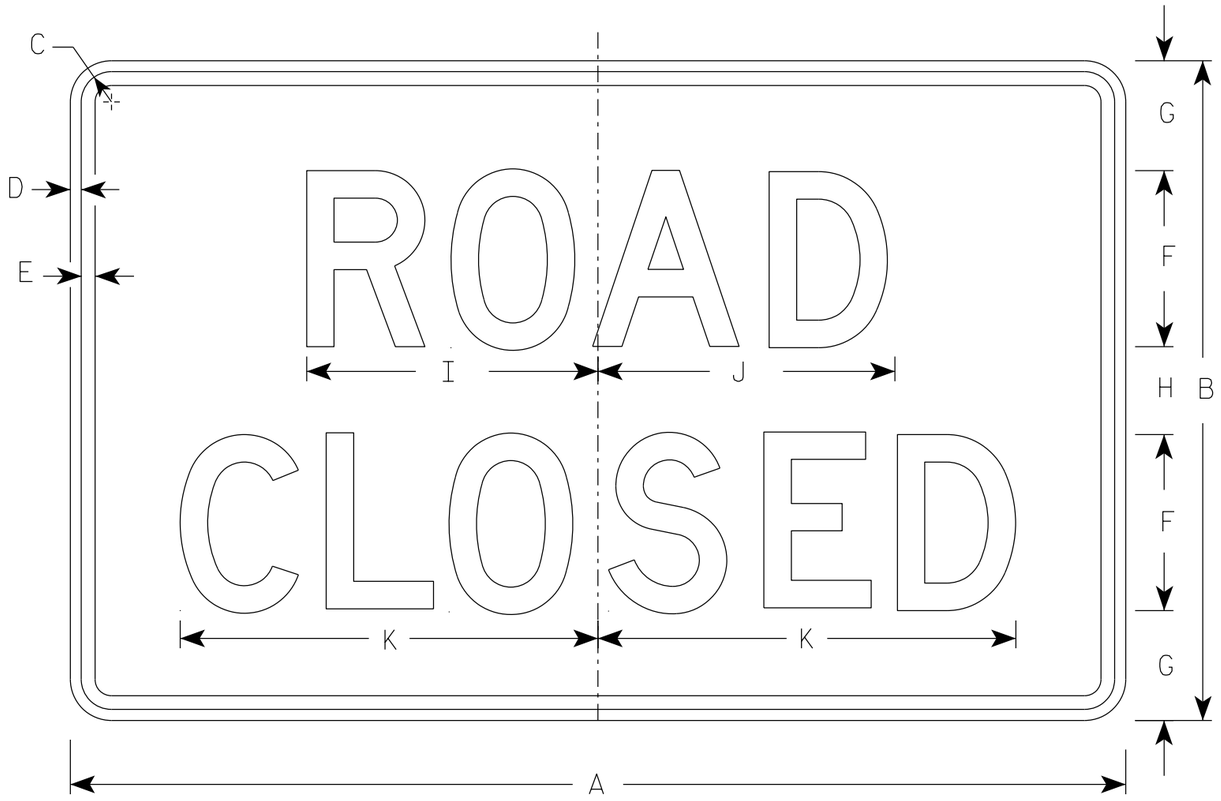
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

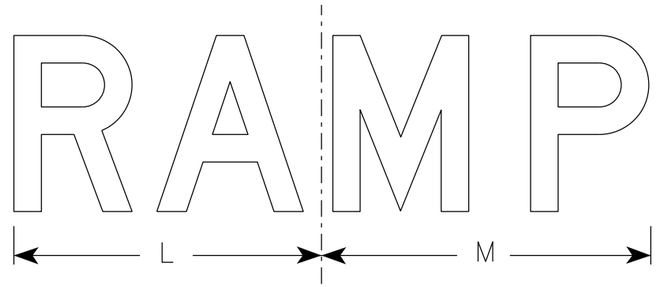
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 258	E



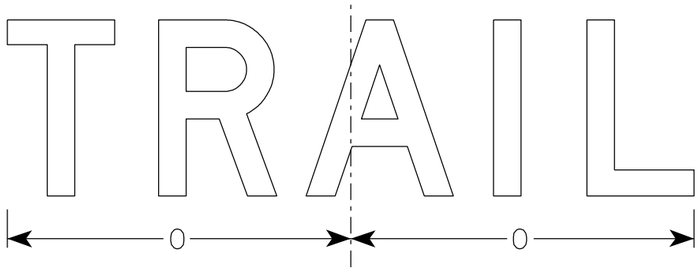
R11-2

NOTES

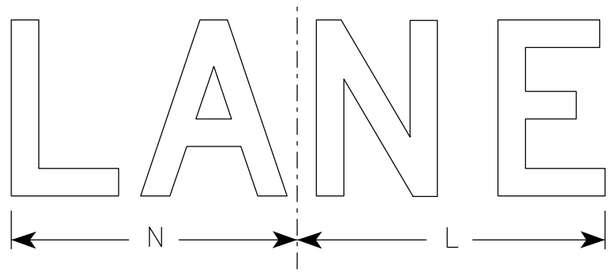
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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

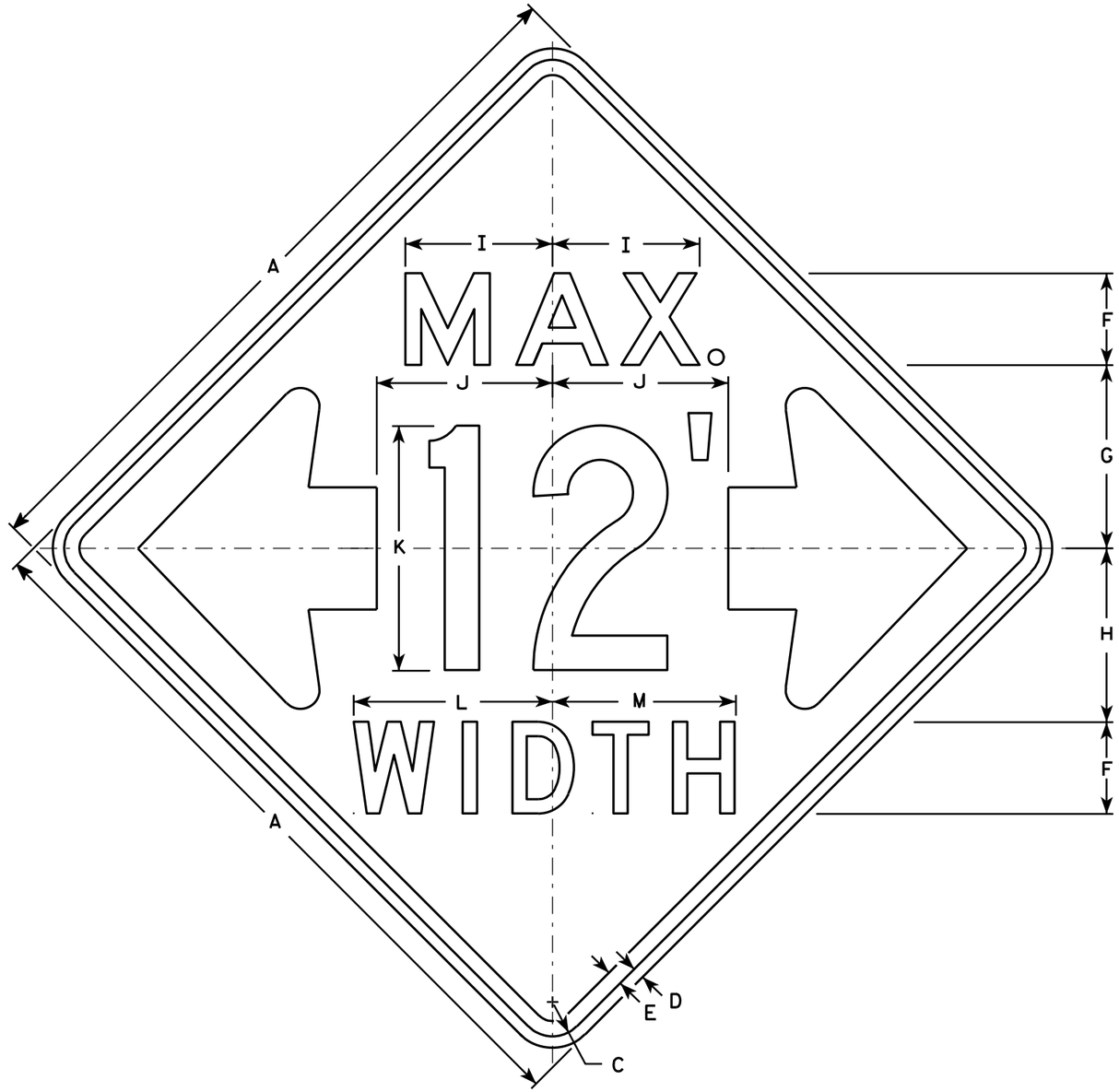
APPROVED Matthew R Rauch
for State Traffic Engineer

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

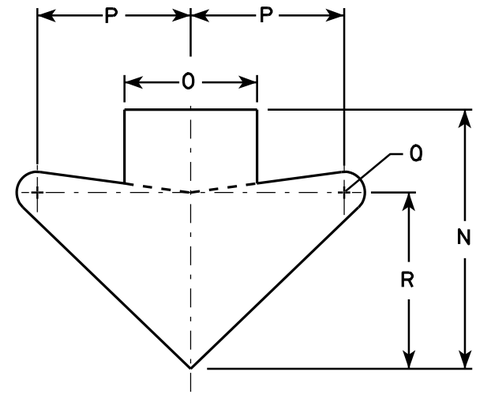
7



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																											

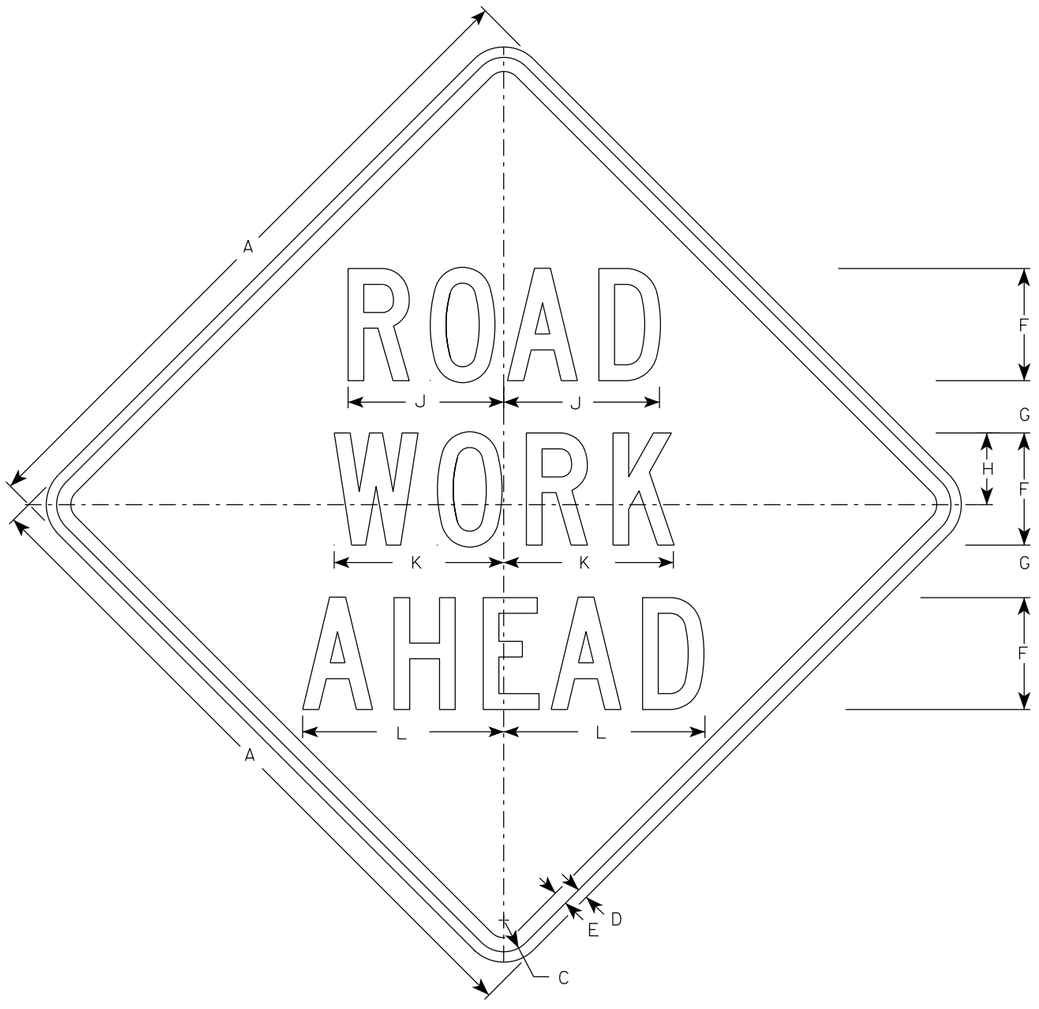
STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

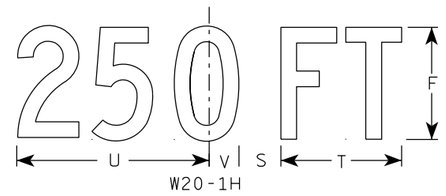
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

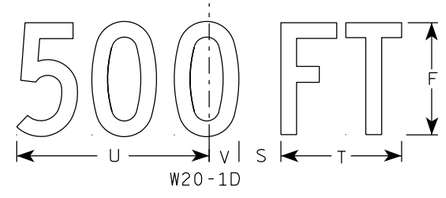
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 260	E



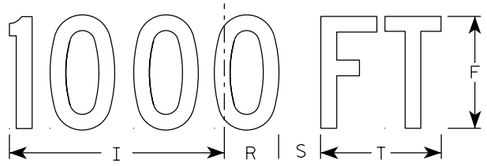
W20-1A



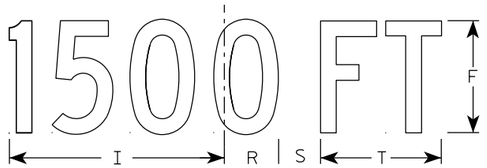
W20-1H



W20-1D



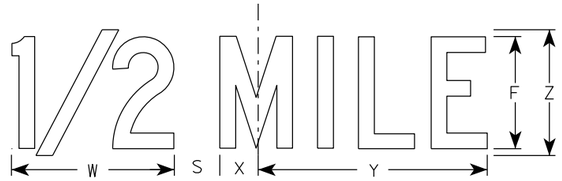
W20-1C



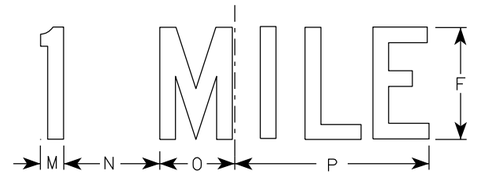
W20-1B

NOTES

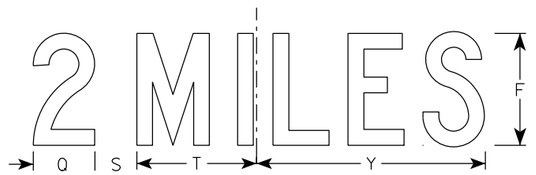
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

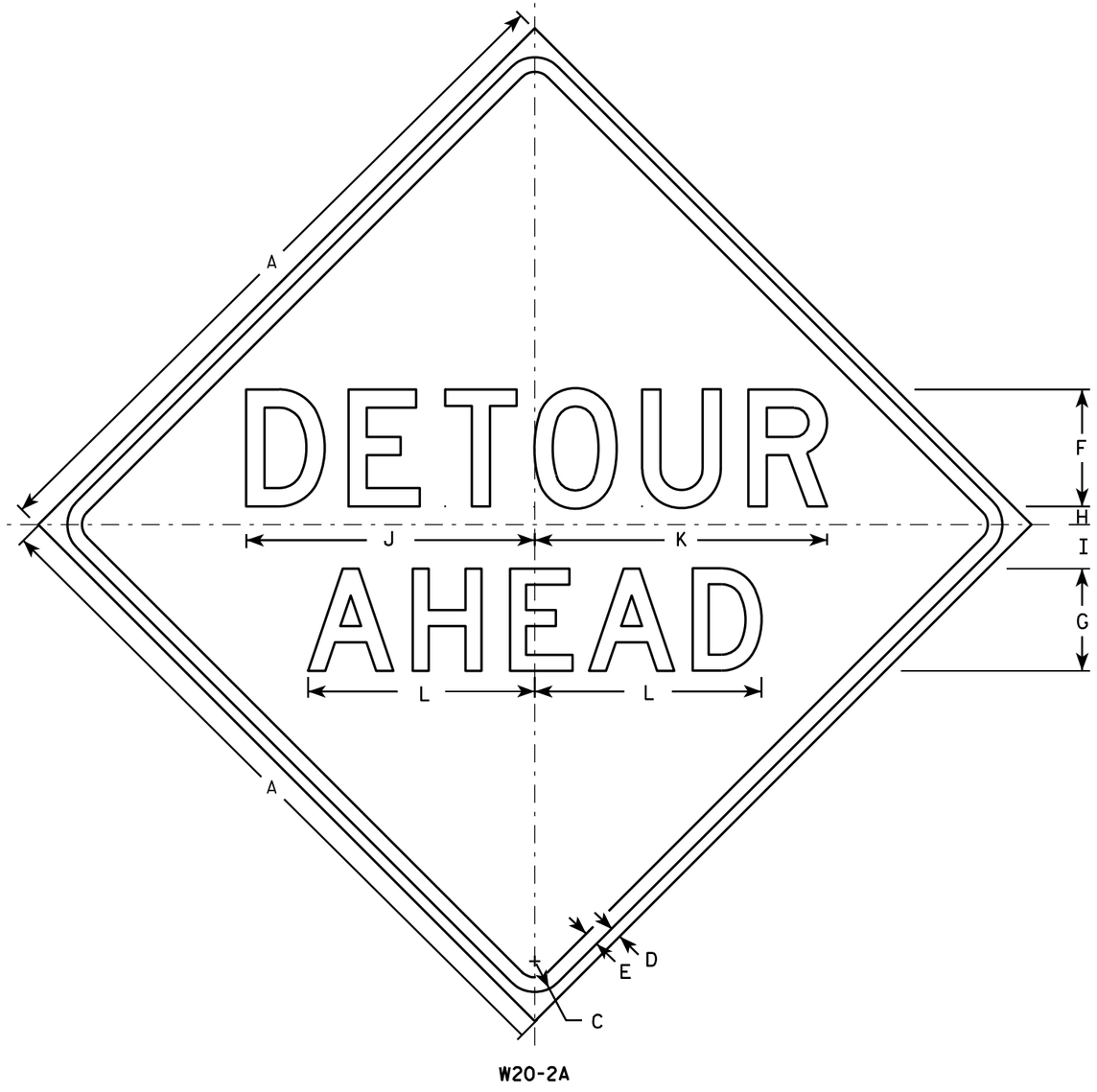
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

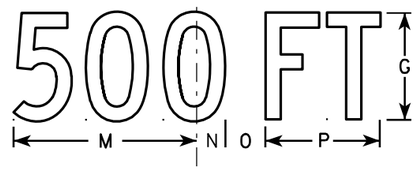
WISDOT/CADDS SHEET 42

7

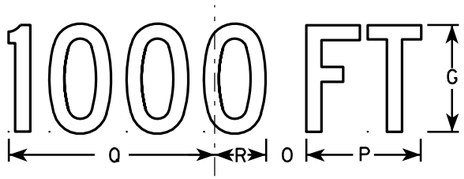
7



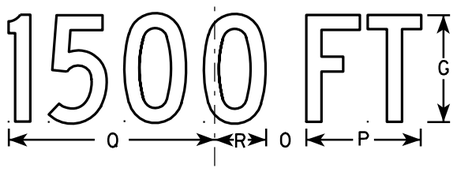
W20-2A



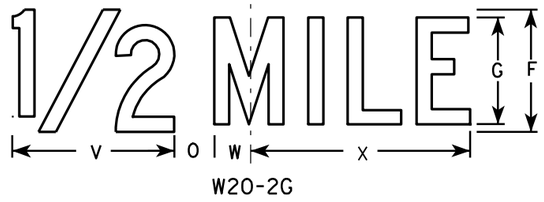
W20-2D



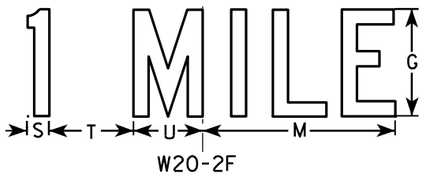
W20-2C



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

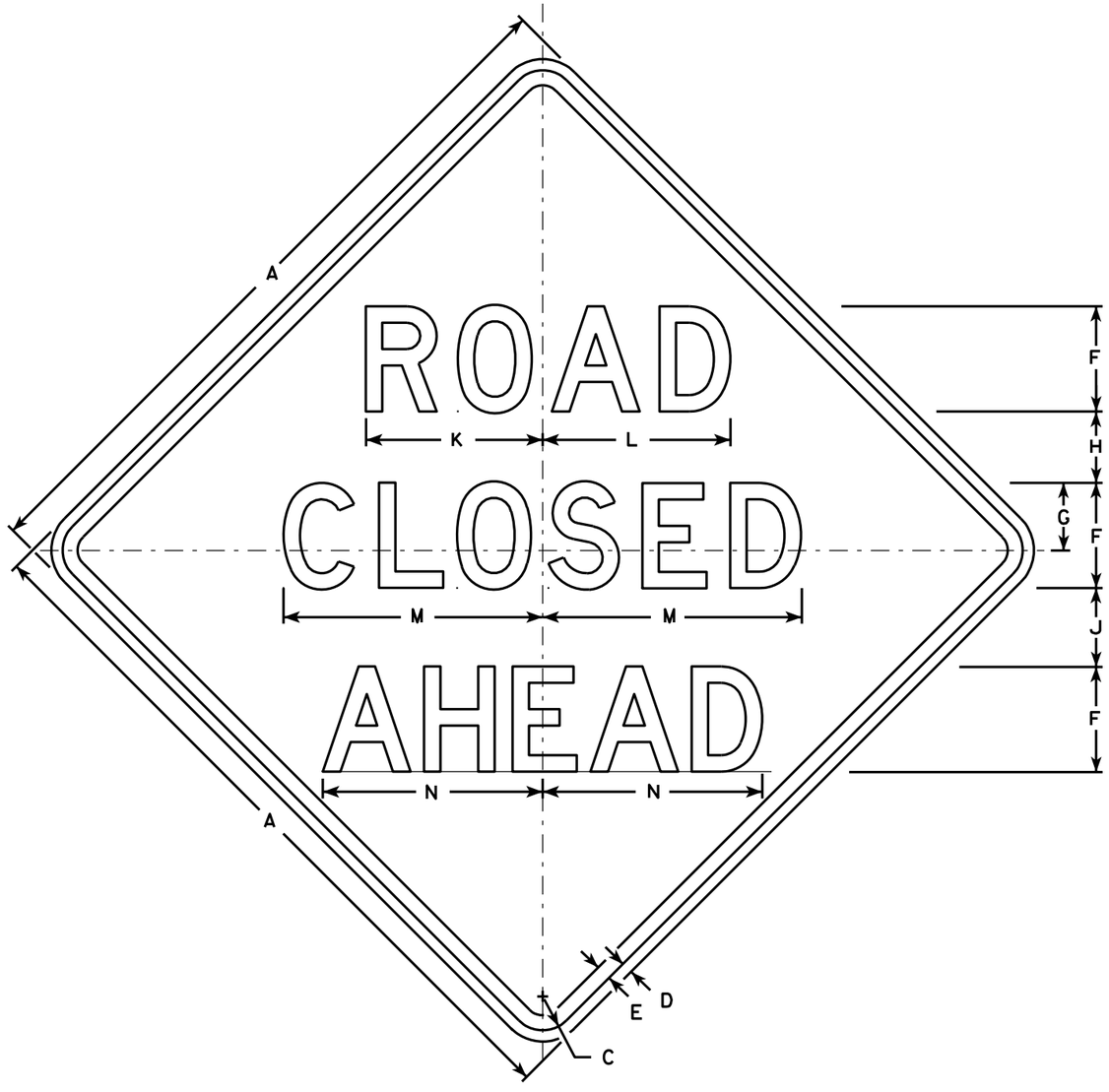
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

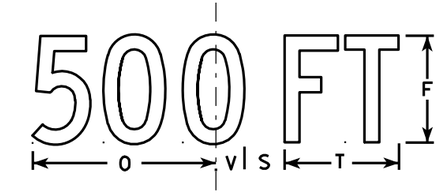
APPROVED Matthew R Rauch
for State Traffic Engineer

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

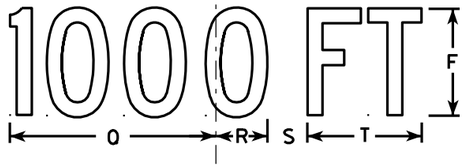
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 262 | E



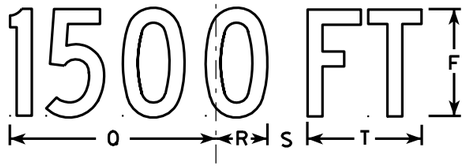
W20-3A



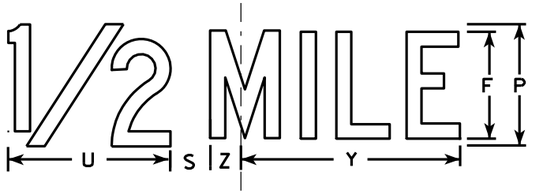
W20-3D



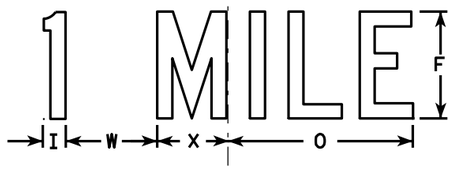
W20-3C



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

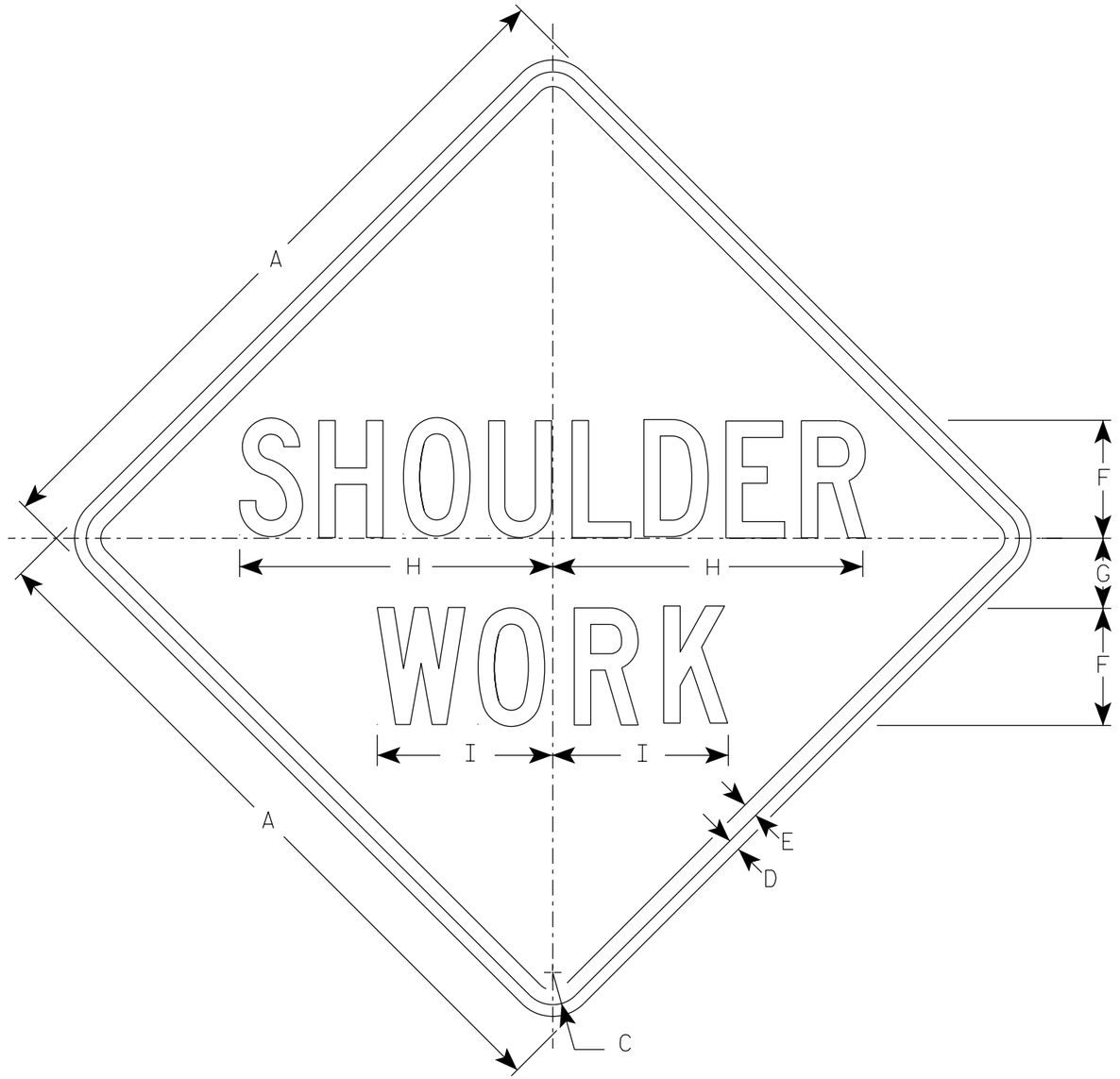
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 263 | 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



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

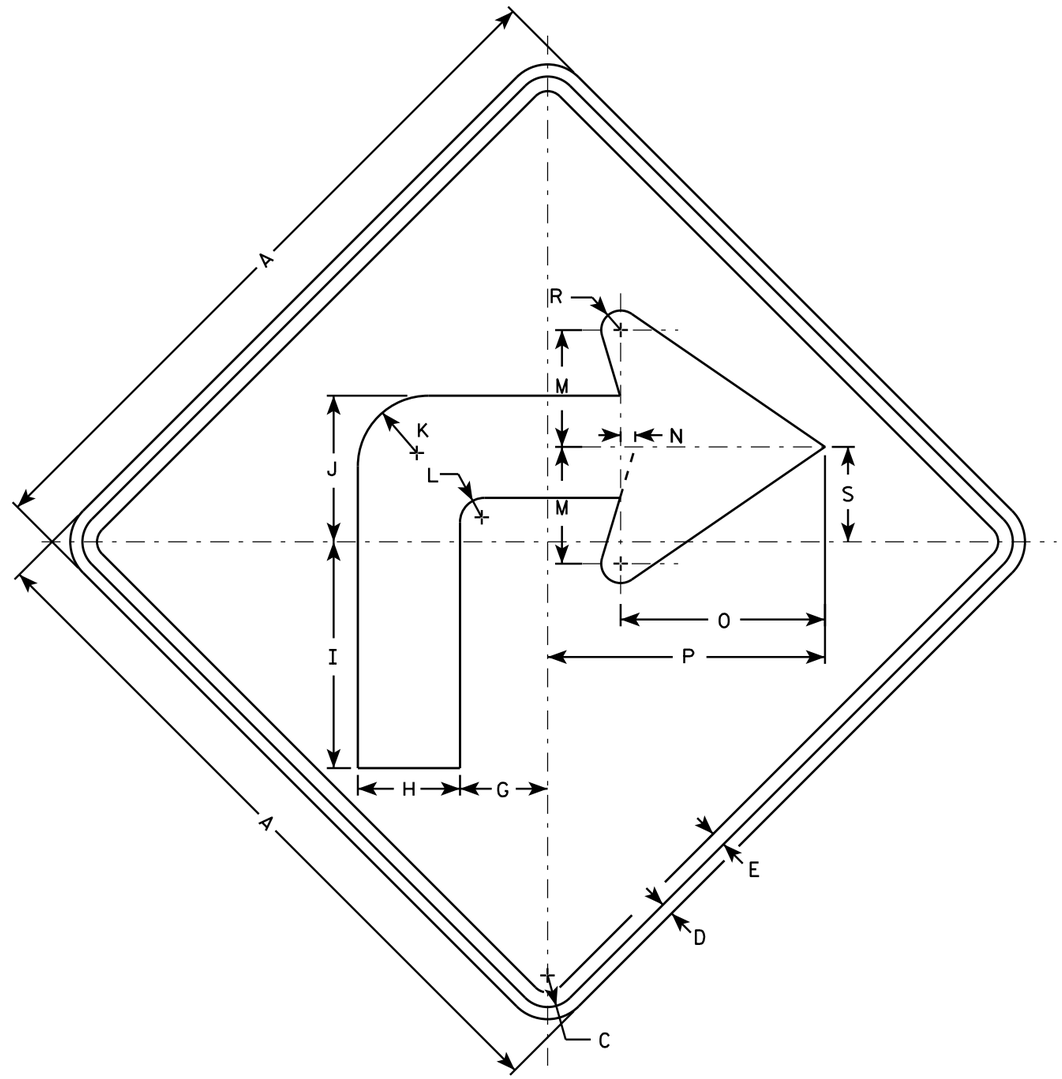
STANDARD SIGN
W21-5

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: 264 E



W01-1R

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. W01-1L is the same as W01-1R 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		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
2S	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
2M	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
3	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
4	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
5	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0

STANDARD SIGN
W01-1

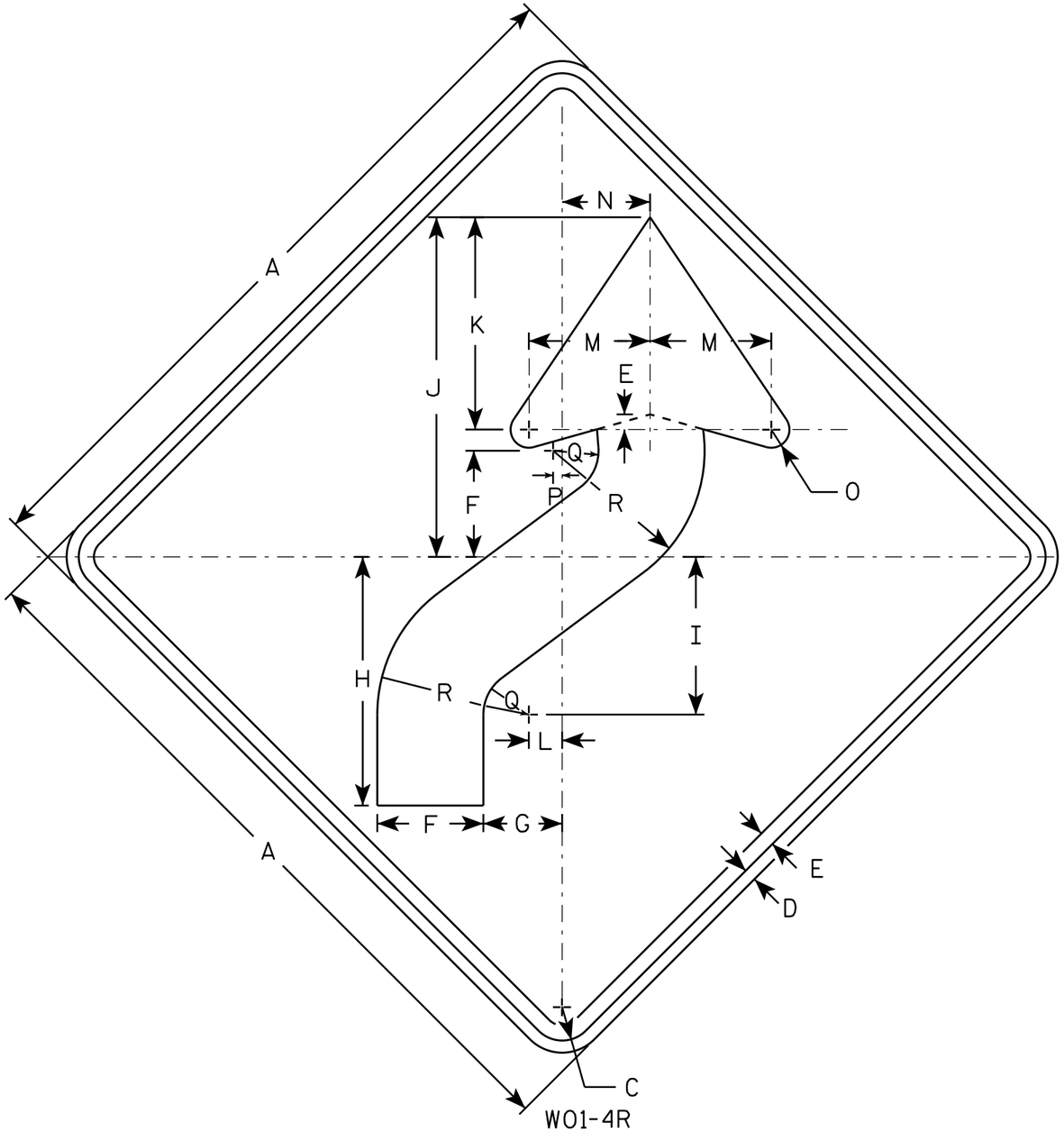
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W011.DGN PLOT DATE : 28-FEB-2014 11:34 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 7.783368:1.000000
WISDOT/CADDS SHEET 42



W01-4R

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. W01-4L is the same as W01-4R 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
W01-4

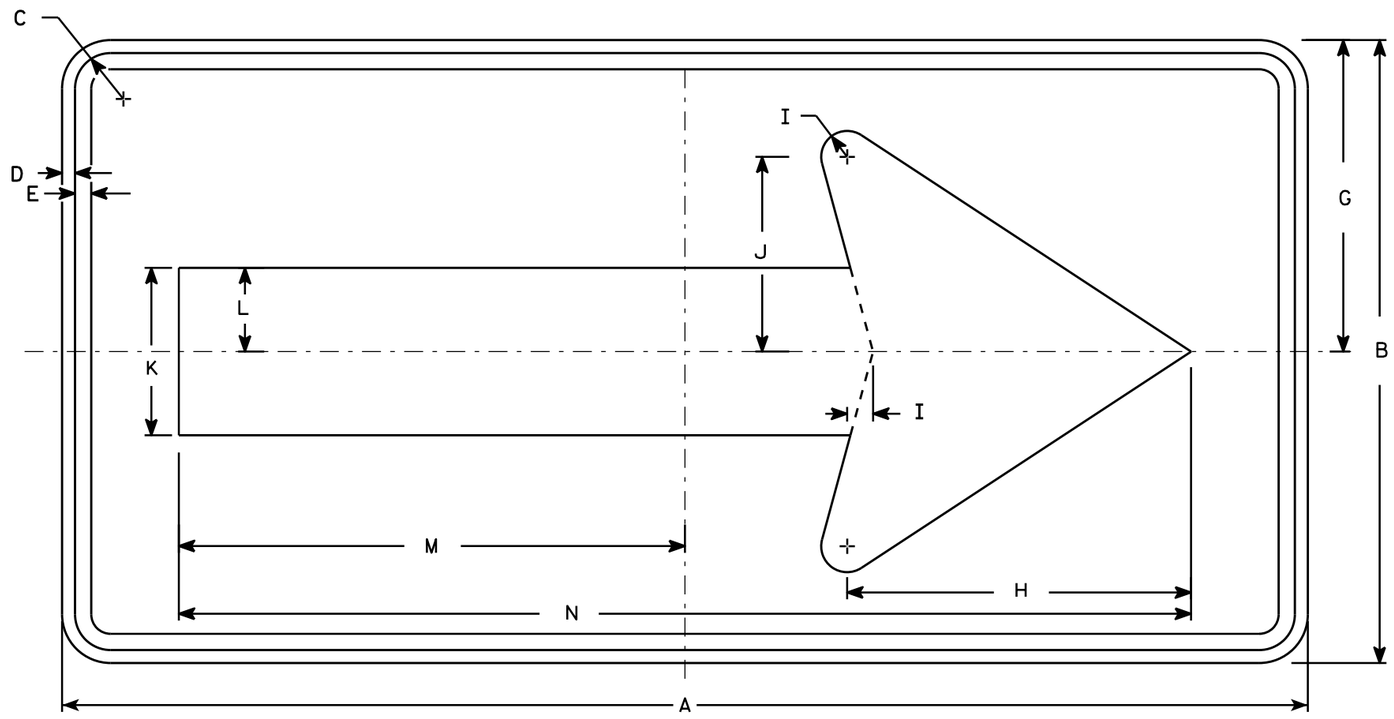
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.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

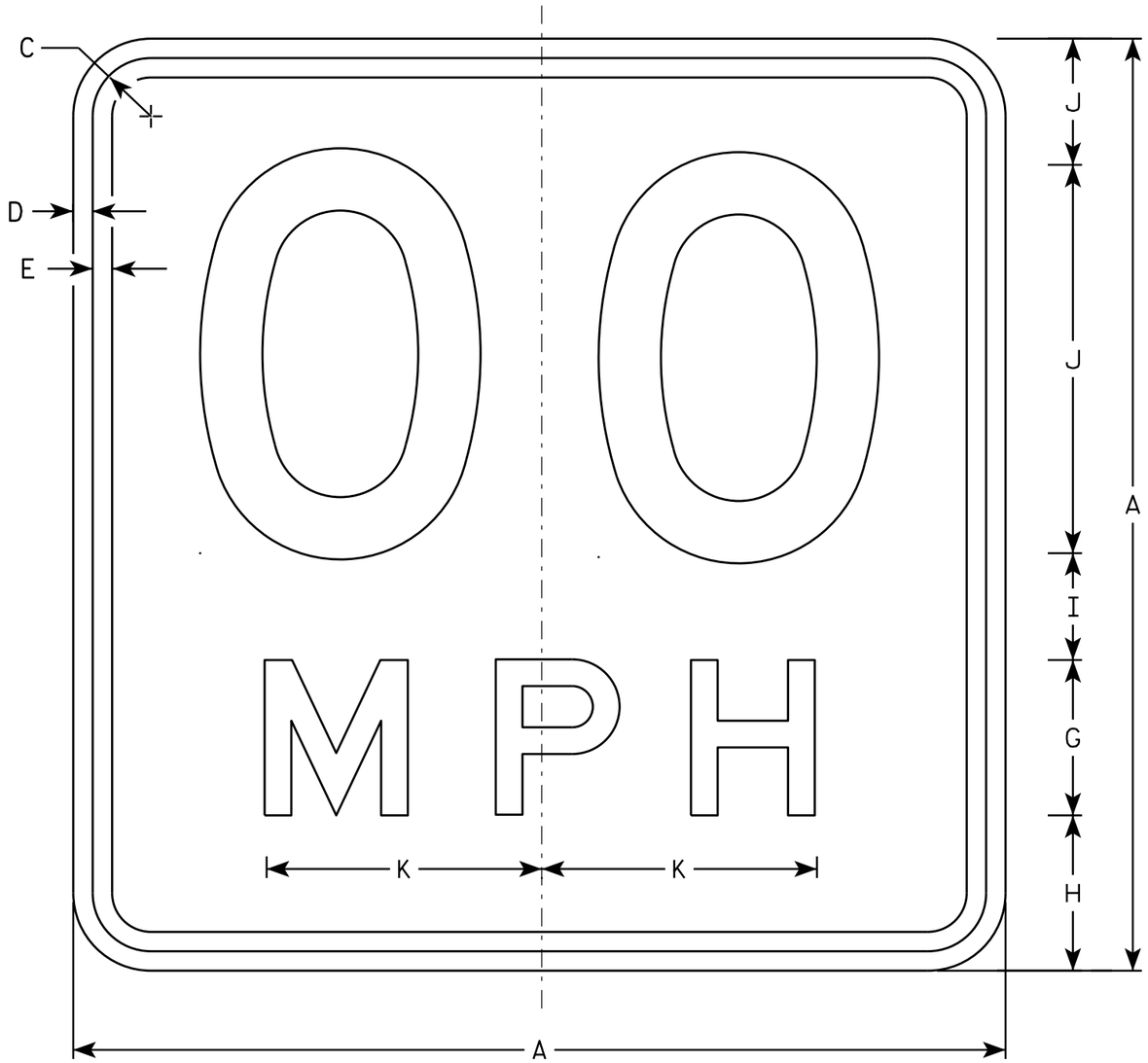
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. 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



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

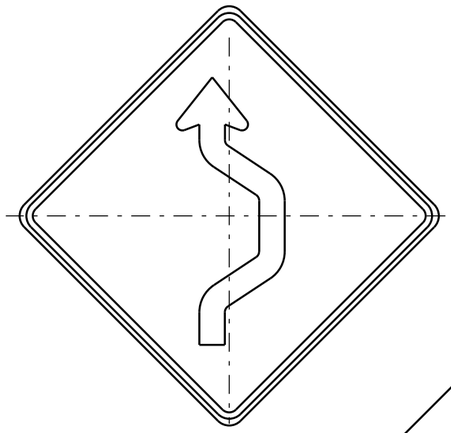
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

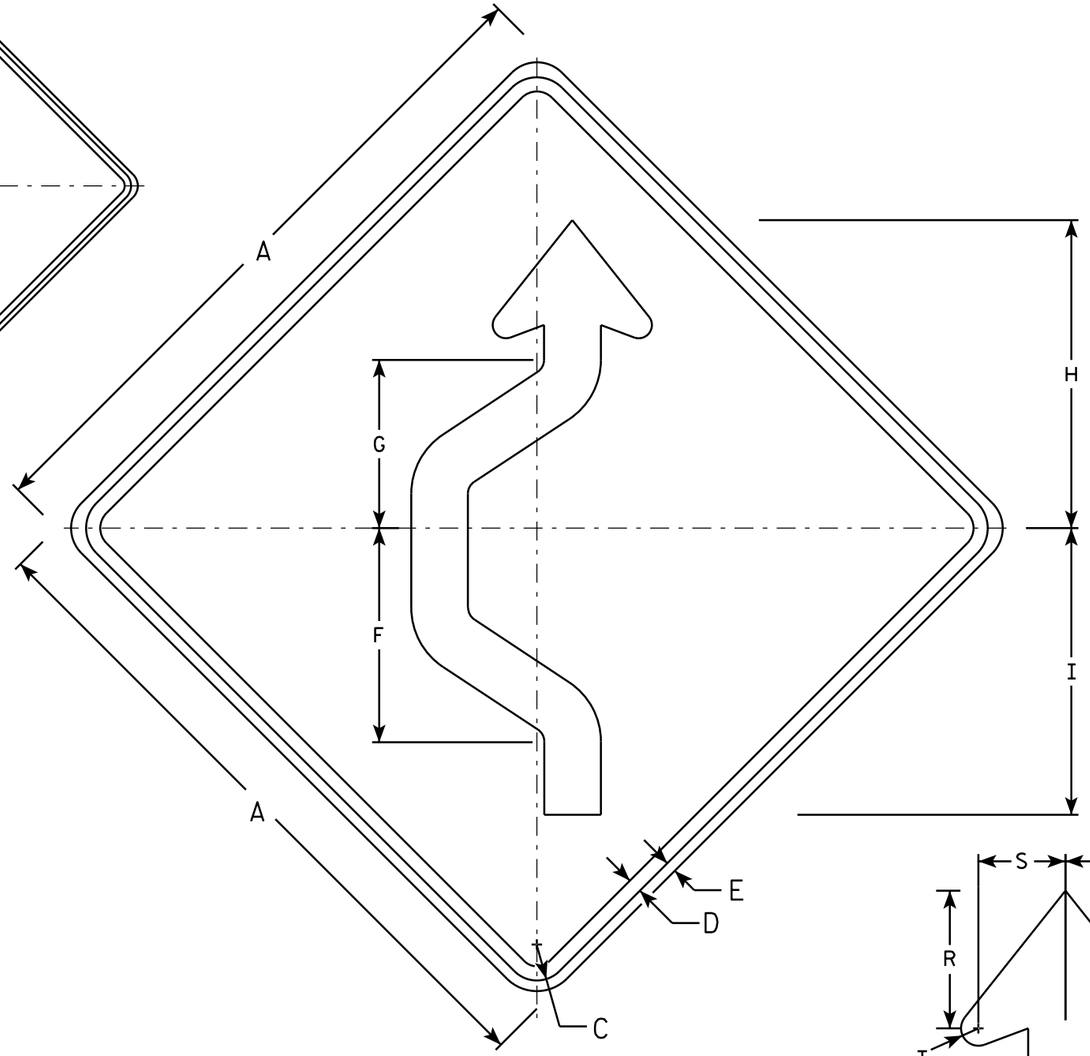
DATE 11/21/13 PLATE 268 W013-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

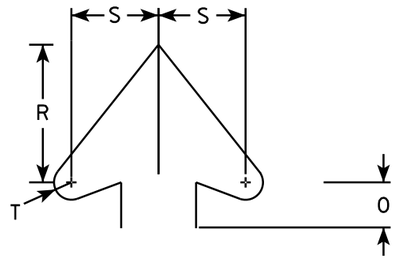
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W0131.DGN PLOT DATE : 02-DEC-2013 13:55 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.794391:1.000000
WISDOT/CADDS SHEET 42



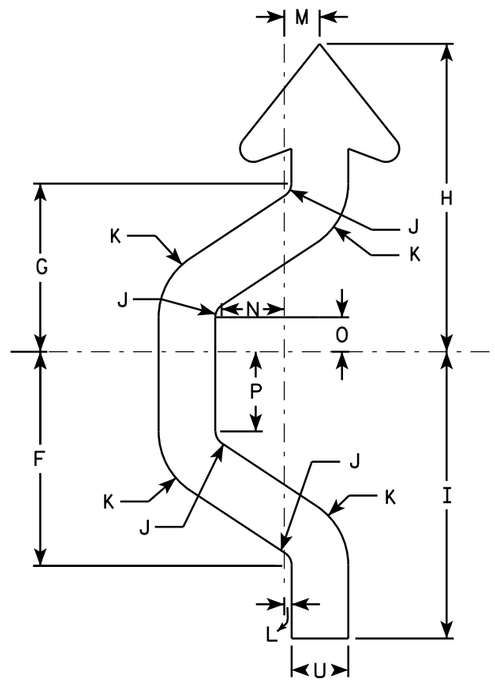
W024-1R



W024-1L



Arrowhead Detail



Arrow Detail

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. W024-1R is the same as W024-1L except 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 3/8	5/8	1/2	11 3/8	8 7/8	16 3/8	15 1/4	3/4	3 3/4	3/8	2	3 3/8	1 7/8	4 1/4		5 1/2	3 1/2	5/8	3						9
2S	48		2 1/4	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16
2M	48		2 1/4	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16
3	48		2 1/4	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16
4	48		2 1/4	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16
5	48		2 1/4	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16

STANDARD SIGN
W024-1 L & R

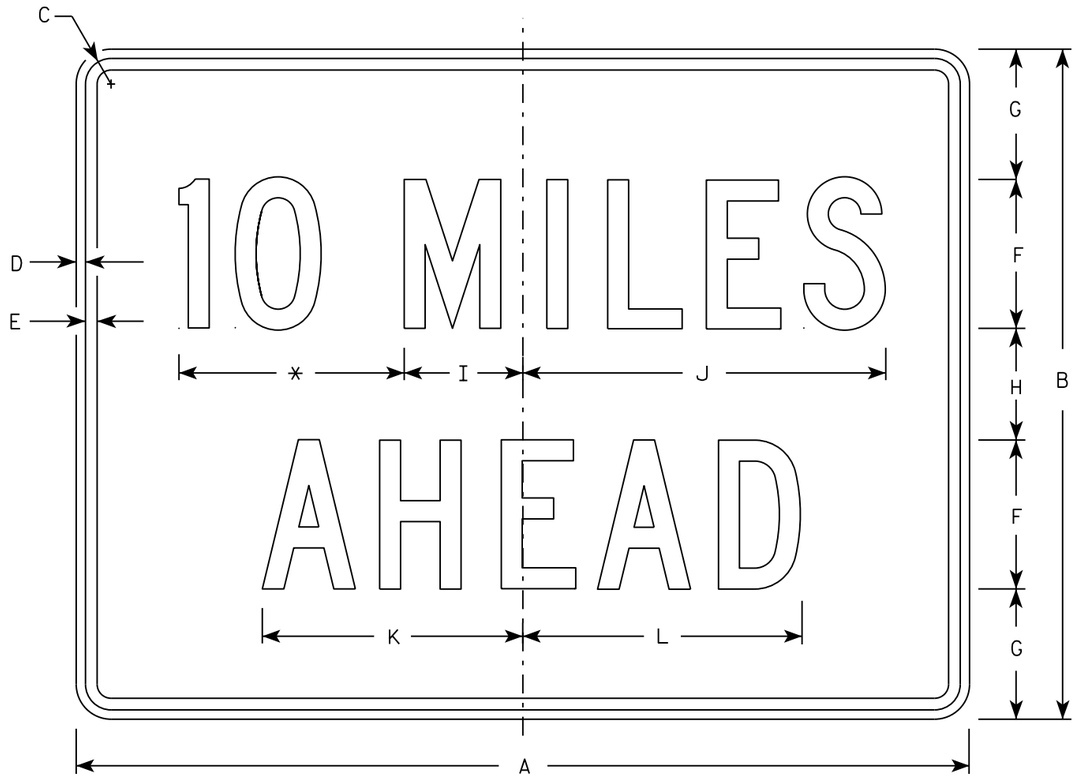
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

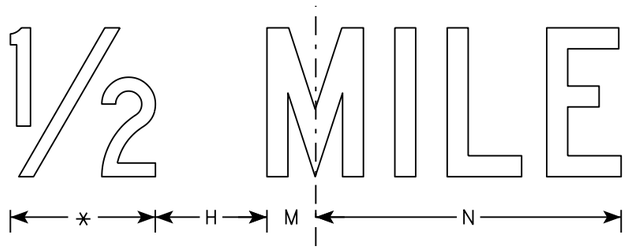
DATE 9/25/2013 PLATE NO. W024-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W0241.DGN PLOT DATE : 25-SEP-2013 13:08 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 10.702132:1.000000
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

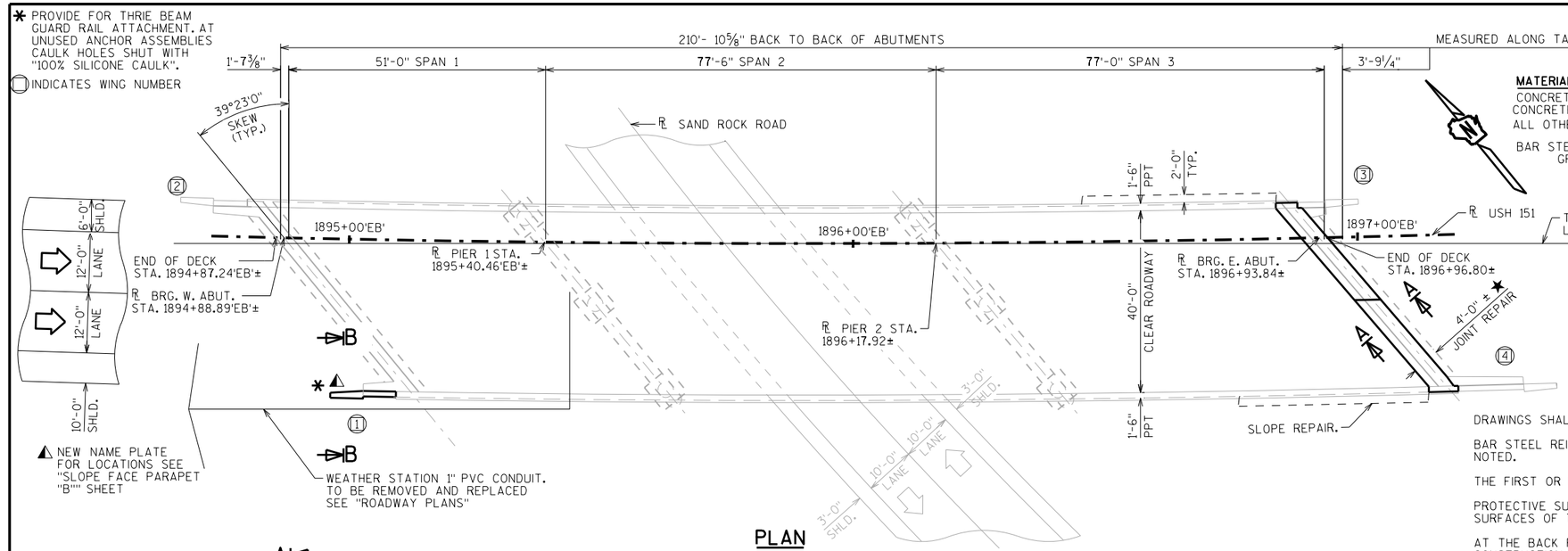
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 270	E

STATE PROJECT NUMBER

1204-05-73

✱ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

(1) INDICATES WING NUMBER



PLAN

MATERIAL PROPERTIES:

CONCRETE MASONRY:
CONCRETE SURFACE REPAIR/CONCRETE MASONRY DECK REPAIR —— 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

USH 151
ADT = 19,400. (2018)
R.D.S. = 70 M.P.H.

SAND ROCK ROAD
ADT = 251 (2012)
R.D.S. = 40 M.P.H.

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.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AND JOINT REPAIR AT EAST ABUTMENT.

AT THE BACK FACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE WING CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW WING SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE A.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

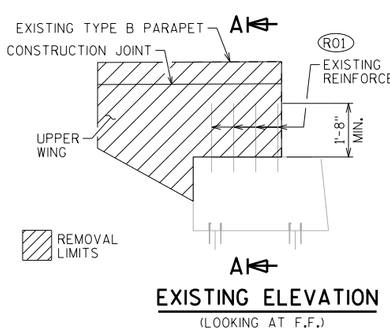
ALL CONCRETE REMOVAL SHALL BE DEFINED BY A ½" DEEP SAWCUT.

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 1988.

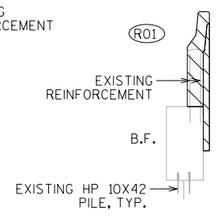
THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES B-13-299" SHALL BE THE EXISTING GROUNDLINE.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPET, INCLUDING PARAPETS ON WINGS. SURFACE PREPARATION PRIOR TO APPLICATION OF PIGMENTED SURFACE SEALER TO BE INCLUDED IN BID ITEM, "CLEANING PARAPETS."

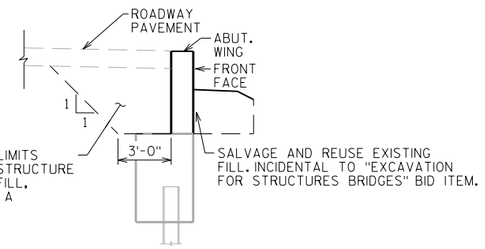
CONTRACTOR SHALL TAKE CARE DURING REMOVAL OF EXISTING UPPER WING. SALVAGE AND INCORPORATE VERTICAL REINFORCEMENT INTO NEW WORK.



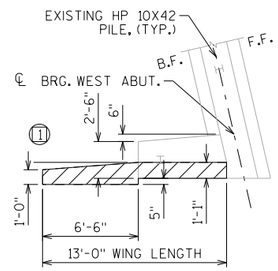
EXISTING ELEVATION
(LOOKING AT F.F.)



SECTION B-B



TYPICAL SECTION THRU WING



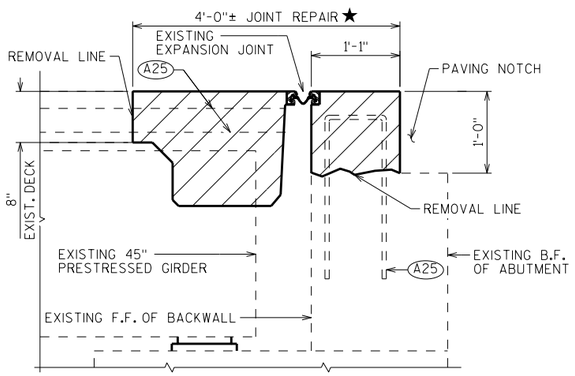
PARTIAL PLAN
EXISTING WING 1

(R01) CLEAN, STRAIGHTEN & INCORPORATE INTO NEW WORK. MAINTAIN LAPS INTO NEW WORK AS SHOWN.

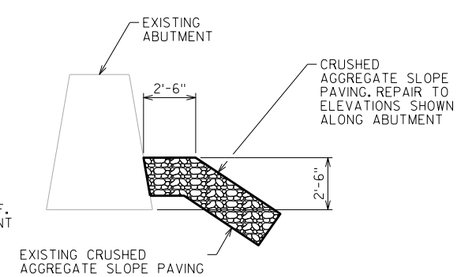
(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
	203.0220	REMOVING STRUCTURE (B-13-299)	EACH	1
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (B-13-299)	LS	1
	210.1500	BACKFILL STRUCTURE TYPE A	TON	24
**	502.0100	CONCRETE MASONRY BRIDGES	CY	5
	502.3101	EXPANSION DEVICE B-13-299	LF	52
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	33
	502.3210	PIGMENTED SURFACE SEALER	SY	193
	502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	3
	502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	18
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,690
	505.0905	BAR COUPLERS NO. 5	EACH	3
	505.0906	BAR COUPLERS NO. 6	EACH	9
	509.1000	JOINT REPAIR	SY	25
***	509.2100.S	CONCRETE MASONRY DECK REPAIR	CY	10
	509.9050.S	CLEANING PARAPETS	LF	451
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	3
	604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	76
	604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	650
	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	20
	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1
	SPV.0180	ABUTMENT SEAT CLEARNING AND SEALING	SY	16
		NON-BID ITEMS		
		FILLER	SIZE	½"



SECTION A-A SHOWING DECK REMOVAL



SLOPE PAVING REPAIR DETAIL

LIST OF DRAWINGS

1. GENERAL PLAN
2. STAGING DETAILS
3. WING 1 DETAILS
4. JOINT REPAIR DETAILS 1
5. JOINT REPAIR DETAILS 2
6. EXPANSION DEVICE
7. COVER PLACE
8. SLOPED FACE PARAPET 'B'

★ MEASURED NORMAL TO ABUTMENT
** INCLUDES CONCRETE FOR WING REPAIR
*** INCLUDES CONCRETE WITHIN THE JOINT REPAIR AREAS

STRUCTURE DESIGN CONTACTS:
DAN MONROE (608) 266-8490
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURES

ACCEPTED 11/1/21
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-13-299

USH 151 OVER SAND ROCK ROAD

COUNTY	VILLAGE
DANE	MOUNT HOREB

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
JDM	DLM	JDM	DLM

GENERAL PLAN

SHEET 1 OF 8

271

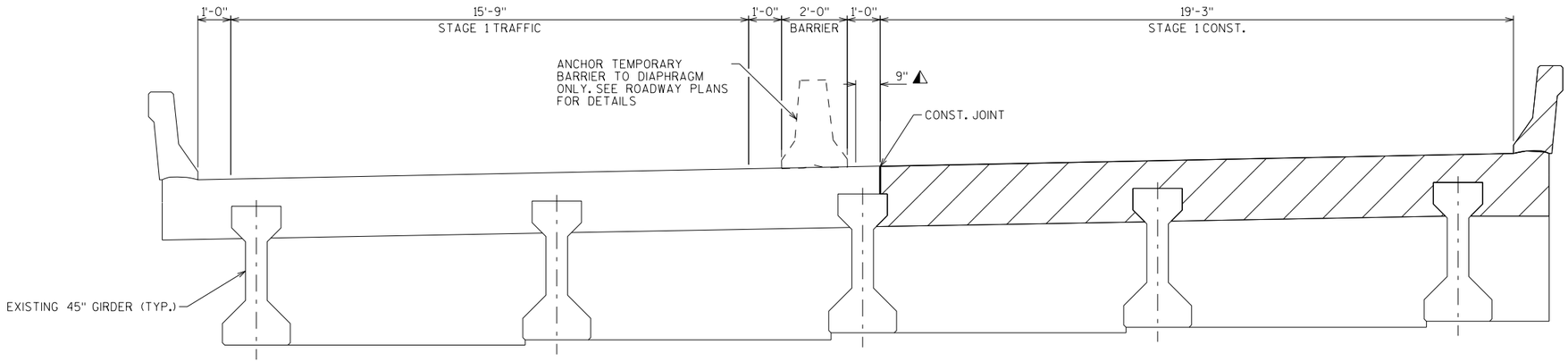
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STATE PROJECT NUMBER

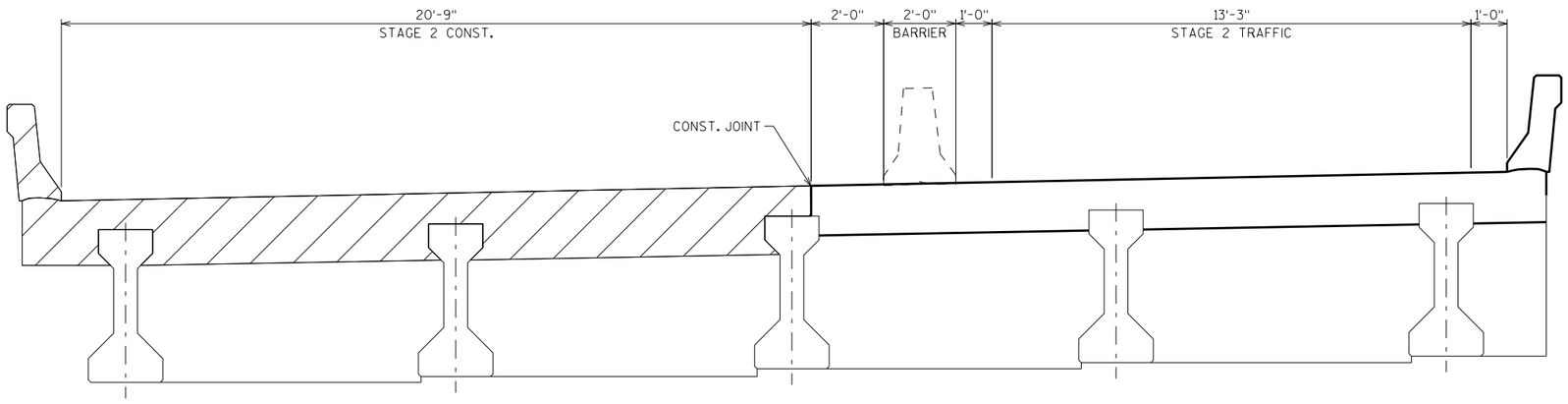
1204-05-73



STAGE 1 CONSTRUCTION

LOOKING UP STATION

⚠ STAGE 1 REMOVAL LIMITS



STAGE 2 CONSTRUCTION

LOOKING UP STATION

NOTE: ALL DIMENSIONS MEASURED RADIALLY

REMOVAL AREA

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-299

DRAWN BY JDM | PLANS CK'D. DLM

STAGING DETAILS

SHEET 2

272

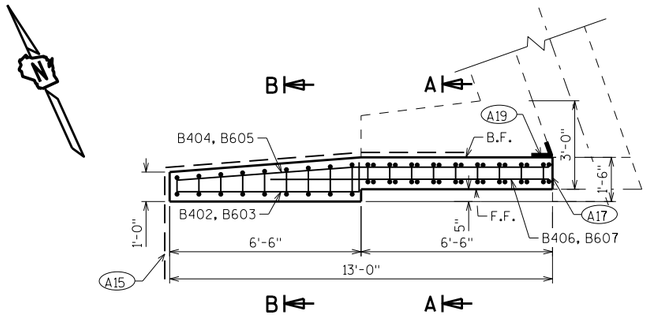
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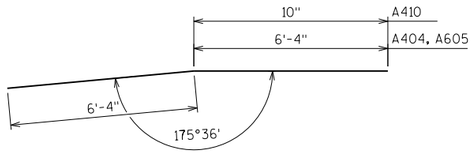
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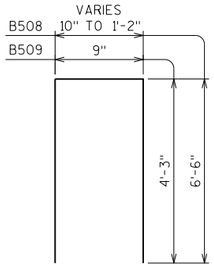
1204-05-73



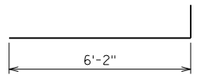
WING 1 PLAN



A404, A605, A410



B508, B509



B402, B603

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

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501	X	18	3'-8"			WING-VERT.-ANCHORS
B402	X	5	7'-1"	X		WING.-HORIZ.-F.F.
B603	X	1	7'-0"	X		WING.-HORIZ.-F.F.
B404	X	6	12'-8"	X		WING.-HORIZ.-B.F.
B605	X	1	12'-8"	X		WING.-HORIZ.-B.F.
B406	X	4	9'-5"			WING-HORIZ.-F.F.
B607	X	1	9'-5"			WING.-HORIZ.-F.F.
B508	X	9	13'-9"	X	⚠	WING-VERT.
B509	X	9	9'-0"	X		WING-VERT.
B410	X	3	7'-2"	X		WING-HORIZ.-ANCHORS

BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
B508	1 SERIES OF 9	13'-7" TO 13'-11"

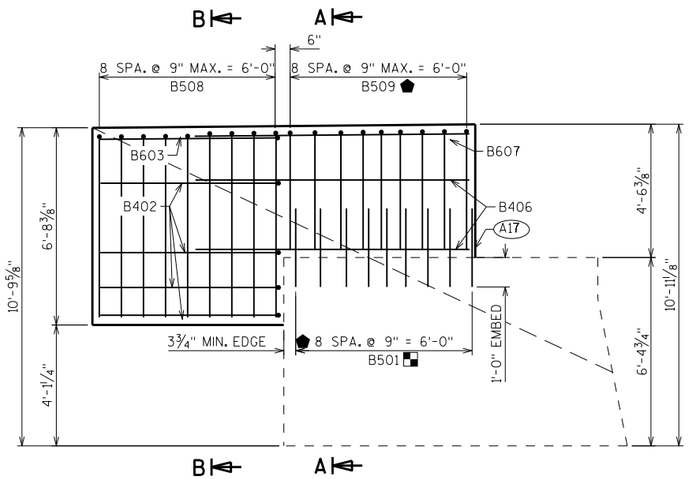
BUNDLE AND TAG EACH SERIES SEPARATELY.

- ADHESIVE ANCHORS, NO. 4 BAR EMBED 10" INTO CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.
- ADHESIVE ANCHORS, NO. 5 BAR EMBED 1'-0" INTO CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.
- ☆ CONST. JOINT STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- ⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.
- ⬟ PLACE BETWEEN EXISTING VERTICAL REINFORCEMENT
- ⬬ MEASURED FROM EDGE OF LOWER WING POUR

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

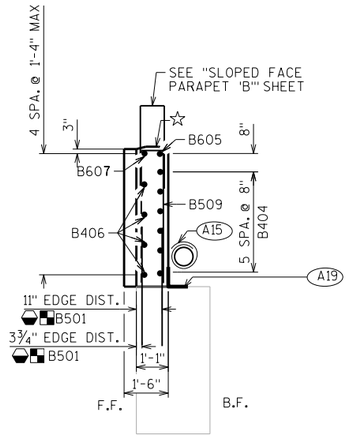
(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

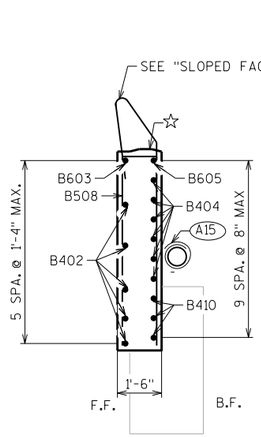


WING 1 ELEVATION

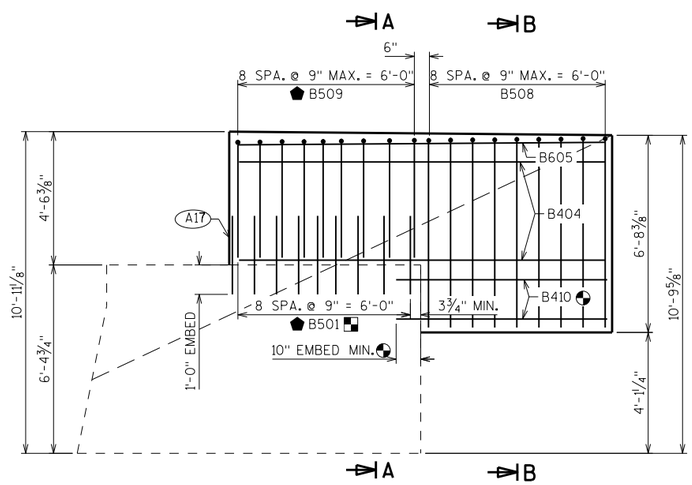
(SHOWING F.F)



SECTION A-A

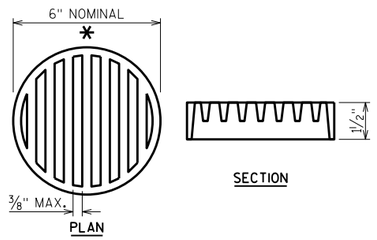


SECTION B-B



WING 1 ELEVATION

(SHOWING B.F.)



RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-299

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WING 1 DETAILS

SHEET 3

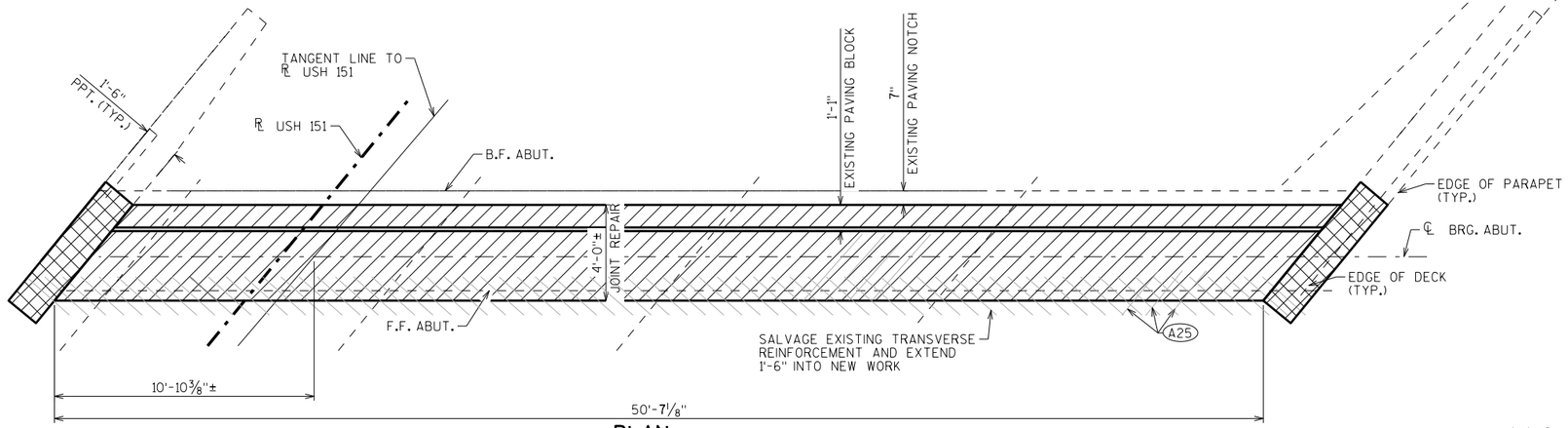
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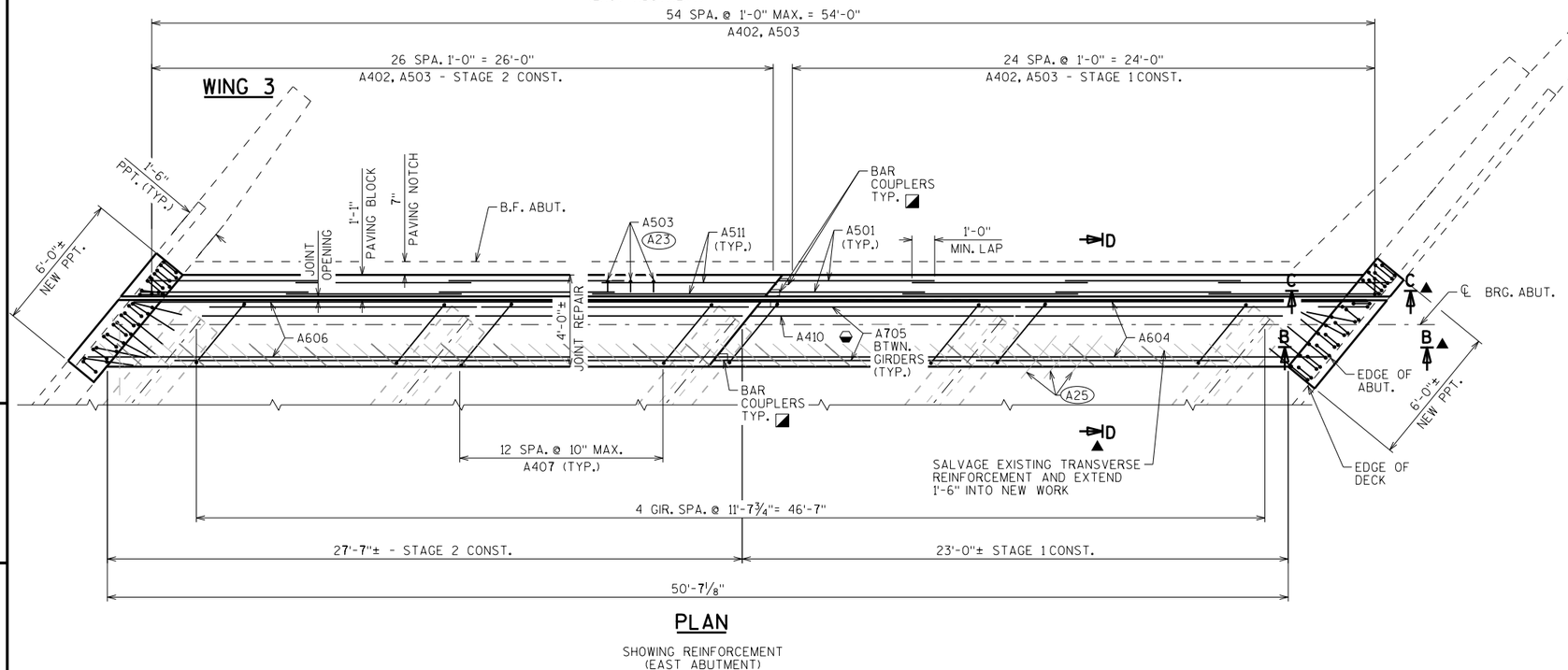
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STATE PROJECT NUMBER
1204-05-73



PLAN

SHOWING REMOVAL AREAS
(EAST ABUTMENT)



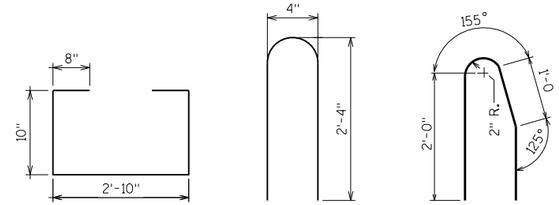
PLAN

SHOWING REINFORCEMENT
(EAST ABUTMENT)

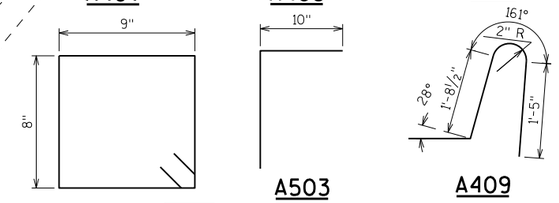
BILL OF BARS

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
A501	X	12	7'-4"			PAVING BLOCK - TRANSVERSE - STAGE 1
A402	X	52	3'-4"	X		PAVING BLOCK - STIRRUPS - VERTICAL
A503	X	52	2'-6"	X		PAVING BLOCK - VERTICAL
A604	X	9	25'-6"			SUPERSTRUCTURE - TRANSVERSE - STAGE 1
A705	X	24	9'-6"			DIAPHRAGM - TRANSVERSE - BOTTOM
A606	X	9	27'-5"			SUPERSTRUCTURE - TRANSVERSE - STAGE 2
A407	X	52	5'-6"	X		DIAPHRAGM - VERTICAL
A408	X	20	4'-10"	X		PARAPET - VERTICAL
A409	X	14	4'-3"	X		PARAPET - VERTICAL
A410	X	8	11'-5"			EXPANSION DEVICE - TRANSVERSE
A511	X	12	7'-8"			PAVING BLOCK - TRANSVERSE - STAGE 2
A412	X	7	4'-7"	X		PARAPET - VERTICAL



A407 A408 A412



A402 A503 A409

INDICATES JOINT REPAIR REMOVAL LOCATIONS.

INDICATES PARAPET REMOVAL AREAS. PRESERVE EXIST. LONGIT. STEEL IN PARAPETS.

BAR COUPLERS REQUIRED AT CONSTRUCTION JOINT. BAR LENGTHS ARE CALCULATED TO ℄ OF JOINT AT SPLICE LOCATION. MODIFY IF NECESSARY TO BAR COUPLER MANUFACTURER'S SPECIFICATIONS. PAY BASED ON BARS AS DETAILED.

(A23) ADHESIVE ANCHORS. EMBED 1'-0" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

(A25) SALVAGE EXIST. LONGITUDINAL REINF. & EXTEND FULL LENGTH INTO NEW WORK.

SEE "EXPANSION DEVICE" SHEET FOR DETAILS

SEE "JOINT REPAIR DETAILS 2" SHEET FOR SECTIONS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-299

DRAWN BY JDM | PLANS CK'D. DLM

JOINT REPAIR DETAILS 1

SHEET 4

274

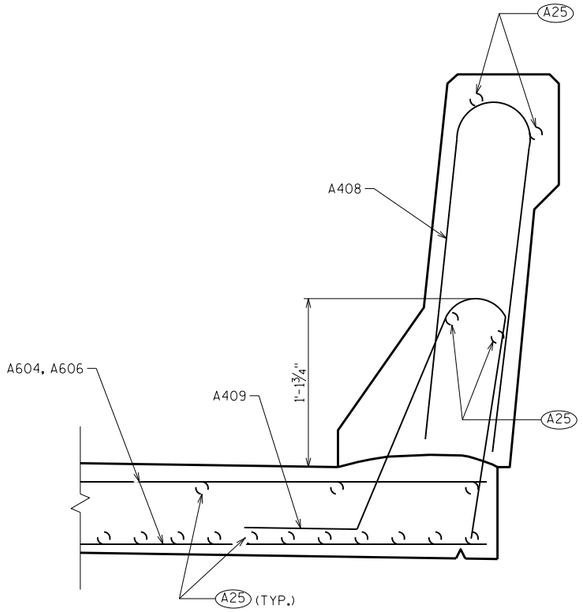
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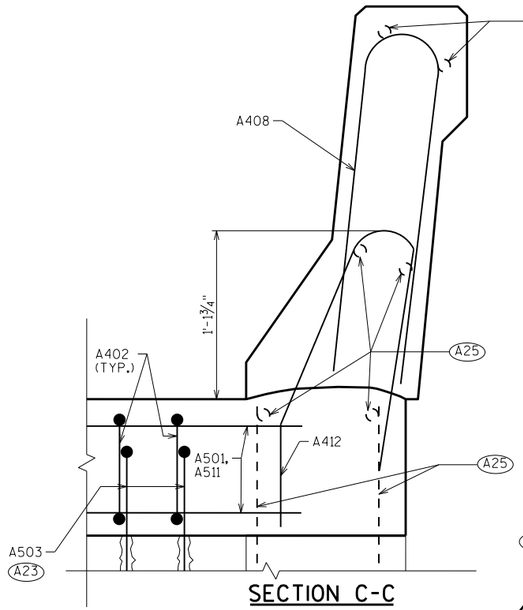
STATE PROJECT NUMBER

1204-05-73

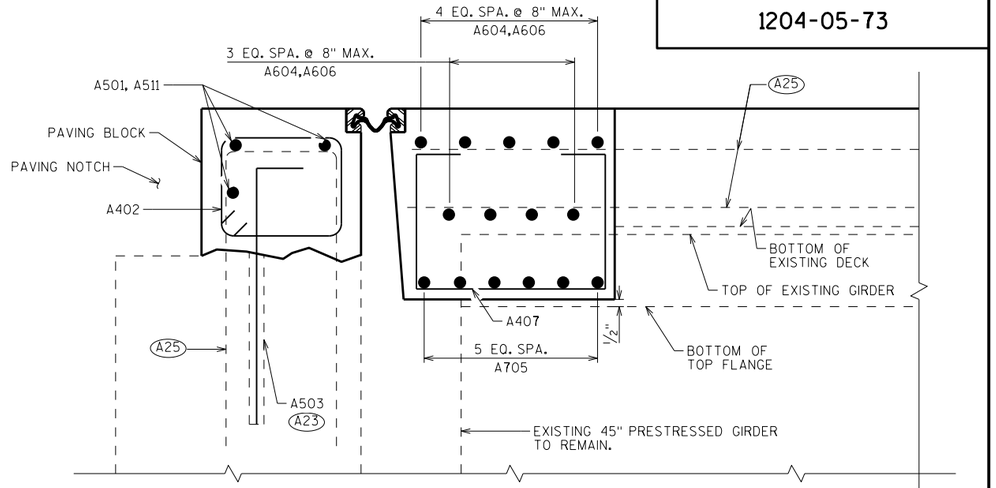


SECTION B-B

(FROM "JOINT REPAIR DETAILS 1" SHEET)

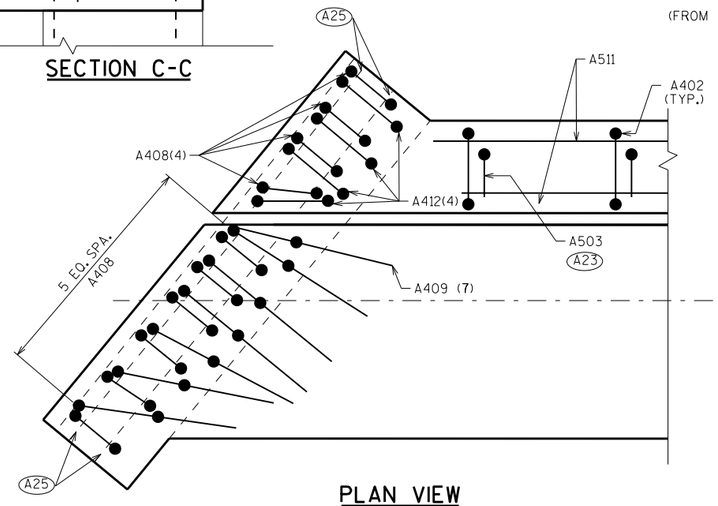


SECTION C-C



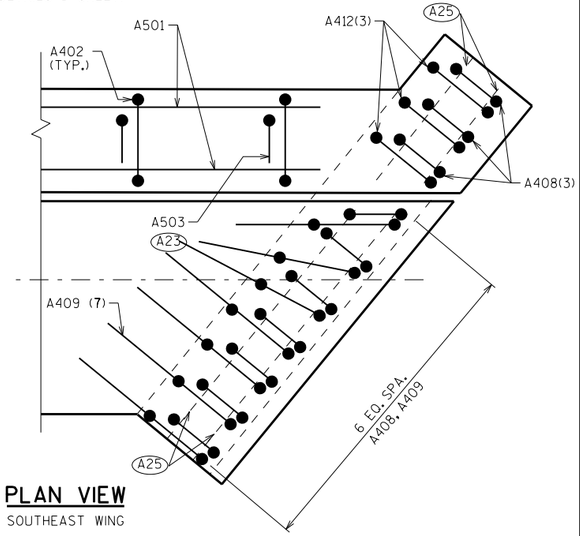
SECTION D-D

(FROM "JOINT REPAIR DETAILS 1" SHEET)



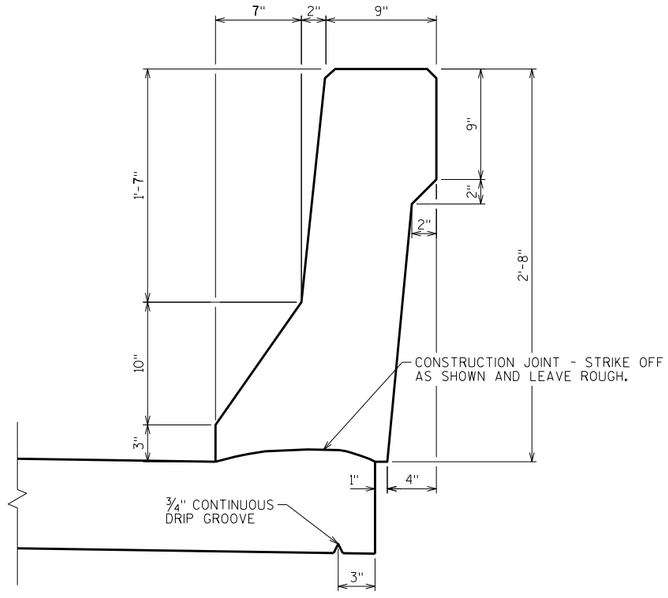
PLAN VIEW

NORTHEAST WING

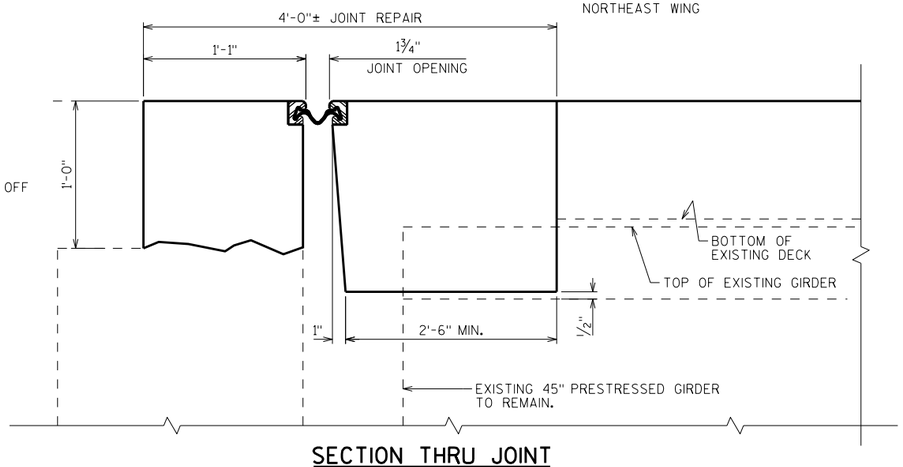


PLAN VIEW

SOUTHEAST WING



SECTION THRU PARAPET



SECTION THRU JOINT

(A23) ADHESIVE ANCHORS. EMBED 1'-0" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

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STATE OF WISCONSIN
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STRUCTURE B-13-299

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JOINT REPAIR DETAILS 2

SHEET 5

275

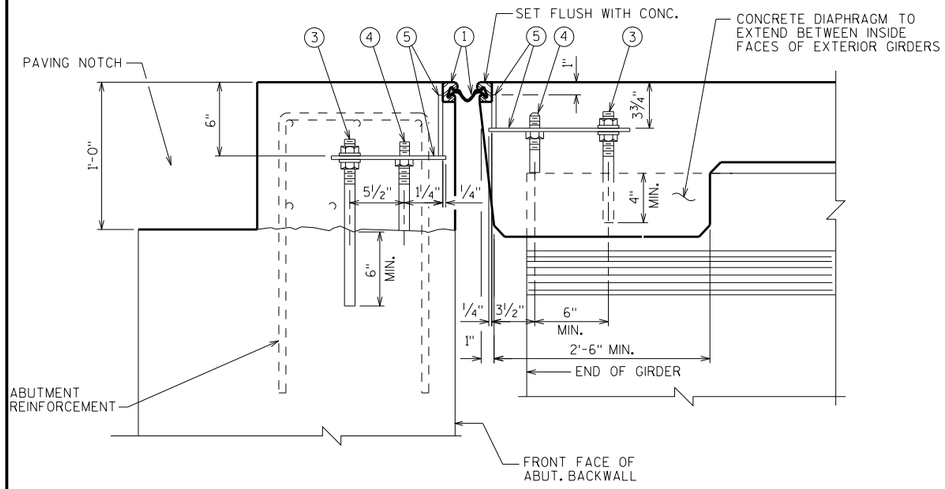
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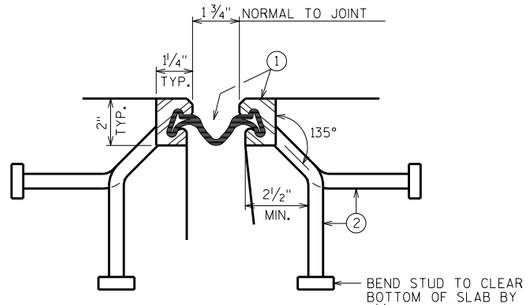
STATE PROJECT NUMBER

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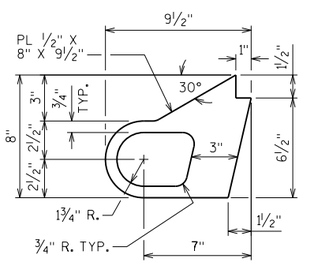
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

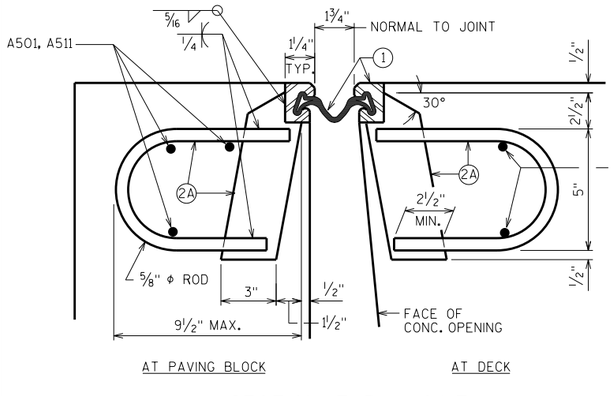


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS

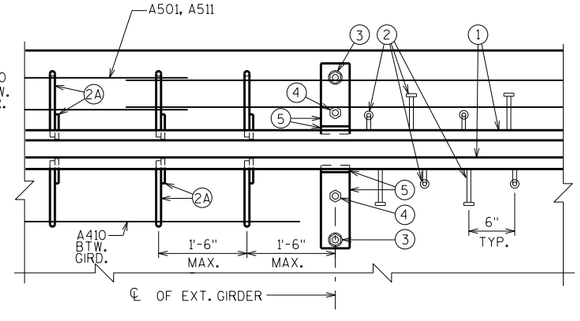


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝"ø X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"ø 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" ø THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"ø 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" ø HOLE FOR NO. 3 AND 1" ø HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" X 1'-2" X 2'-0" LONG WITH HOLES FOR NO. 7.
7. ¾"ø X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾"ø X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾"ø X 2¼" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

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 ASSEMBLY, INCLUDING ANCHER STUDS AND HARDWARE, SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE B-13-299, LF."

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-299

DRAWN BY JDM | PLANS CK'D. DLM

EXPANSION DEVICE

SHEET 6

276

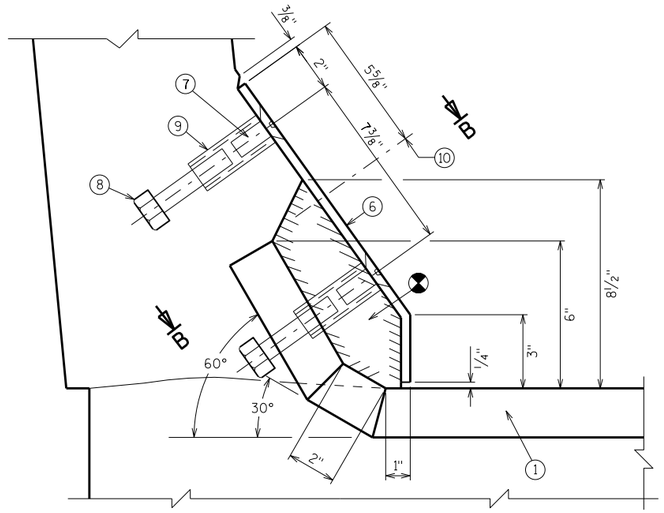
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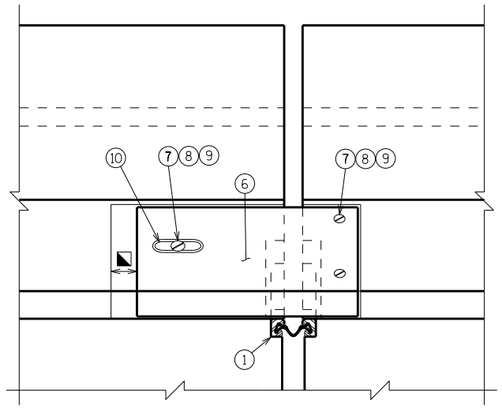
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STATE PROJECT NUMBER

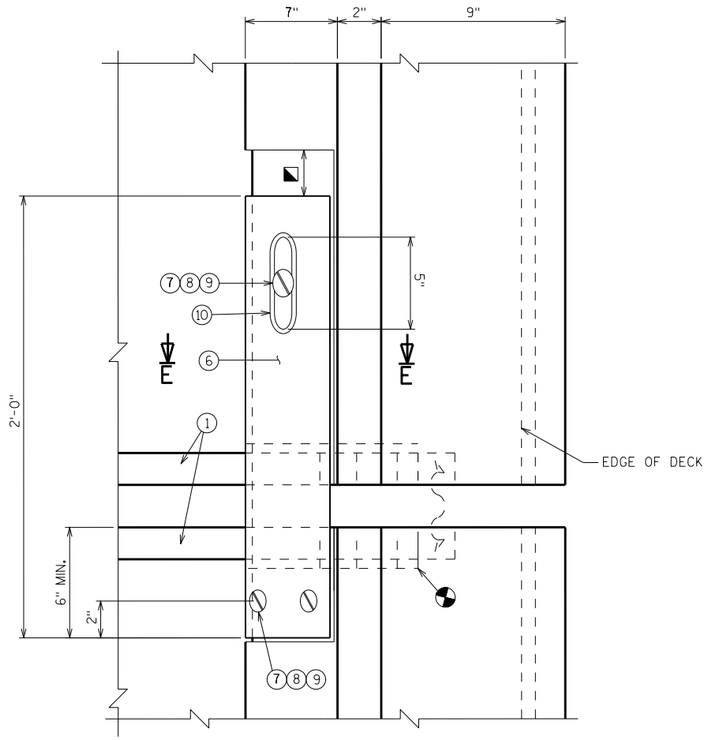
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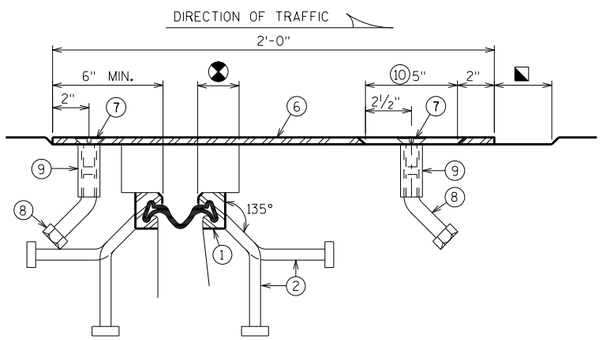
SECTION E-E



VIEW OF PARAPET PLATE FROM ROADWAY



PLAN



SECTION B-B

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◪ JOINT OPENING DIM. ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-299

DRAWN BY JDM | PLANS CK'D. DLM

COVER PLATE

SHEET 7

277

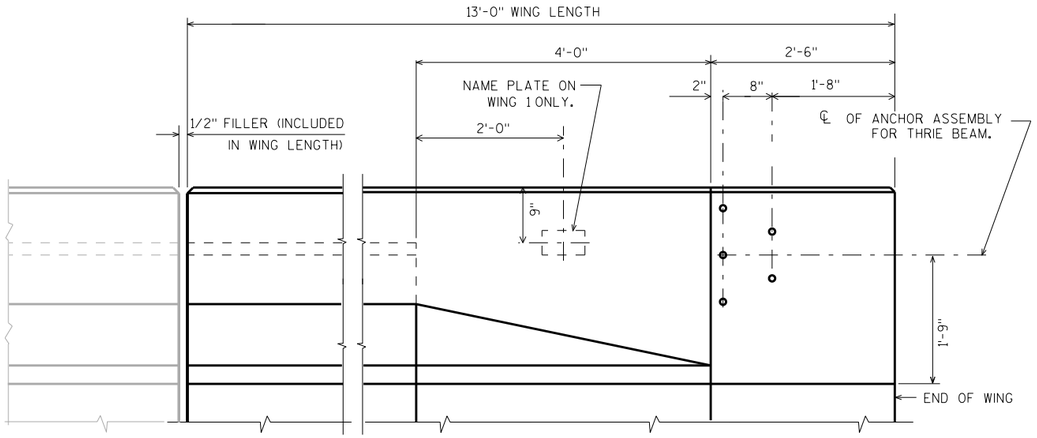
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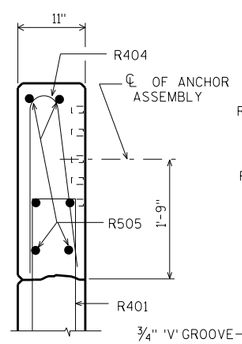
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STATE PROJECT NUMBER

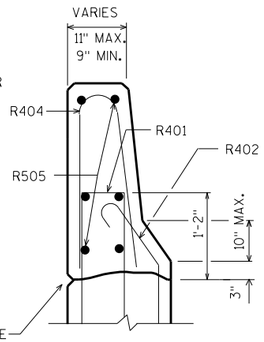
1204-05-73



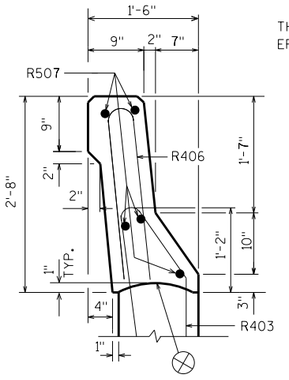
INSIDE ELEVATION



SECTION A



SECTION B



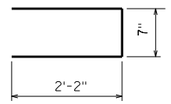
SECTION C

BILL OF BARS

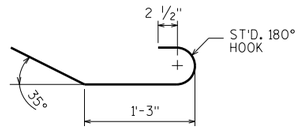
FOR ABUTMENT PARAPETS

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.
EPOXY COAT ALL PARAPET REINF.

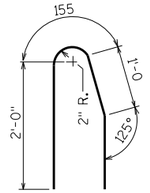
BAR MARK	NO. REQ'D. WEST ABUT.	LENGTH	BENT	LOCATION
R401	15	4'-9"	X	WINGS STIRRUPS
R402	4	3'-1"	X	WINGS
R403	9	4'-9"	X	WINGS STIRRUPS
R404	15	4'-9"	X	WINGS
R505	6	6'-2"		WINGS
R406	9	4'-10"	X	WINGS
R507	5	9'-0"		WINGS



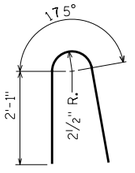
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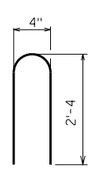
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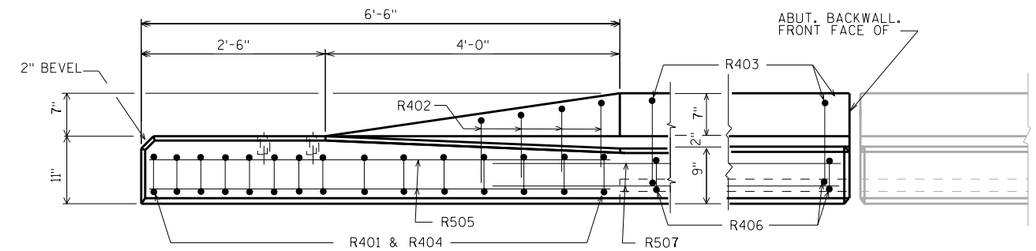
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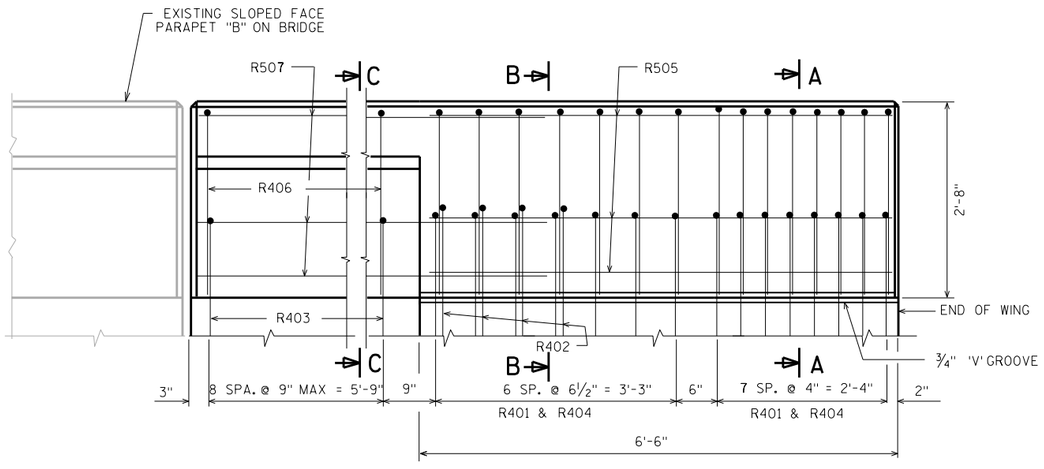
R404



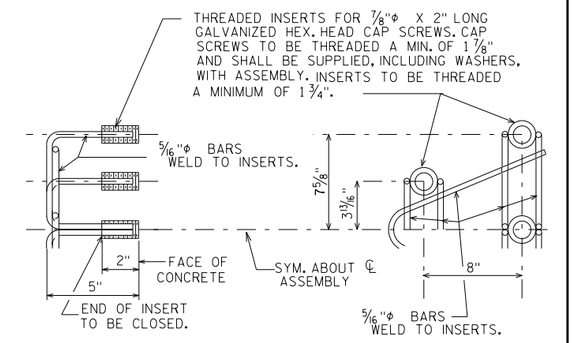
R406



PLAN



OUTSIDE ELEVATION



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 ASSEMBLES FOR STEEL PLATE BEAM GUARD" EACH.

⊗ CONST. JOINT - STRIKE OFF AS SHOWN. + FINISHED WITH A WOODEN TROWEL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-299

DRAWN BY JDM | PLANS CK'D. DLM

SLOPED FACE PARAPET "B"

SHEET 8

278

8

8

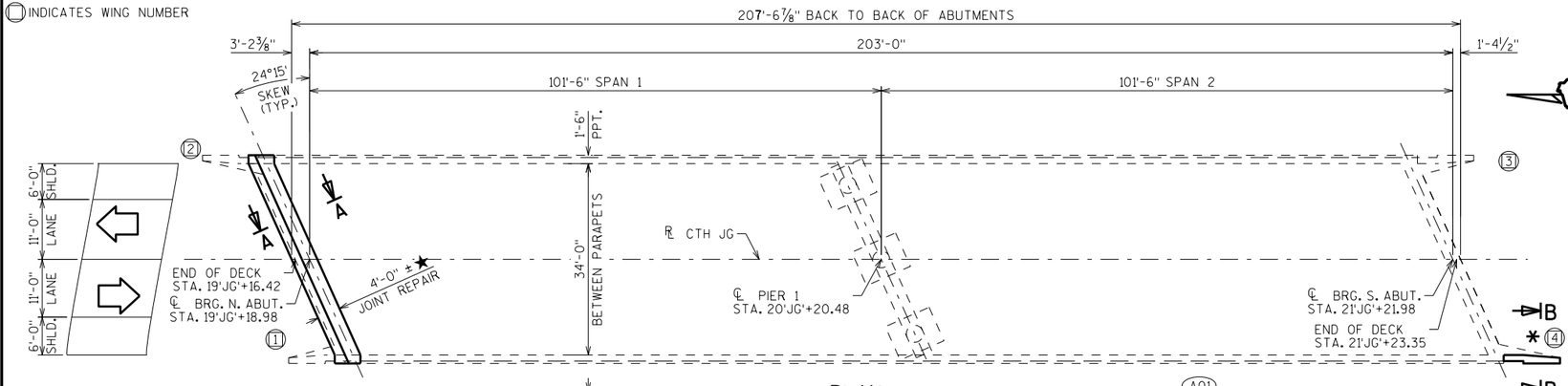
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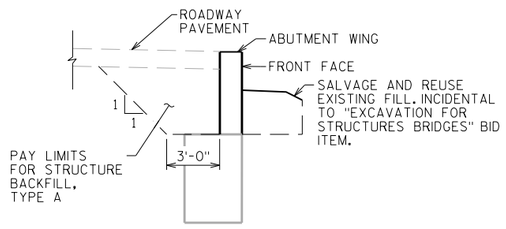
1204-05-73

* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

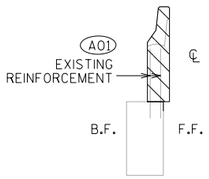
(1) INDICATES WING NUMBER



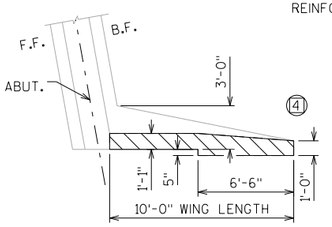
PLAN



TYPICAL SECTION THRU WING

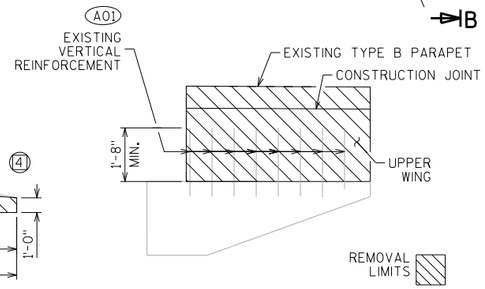


SECTION B-B



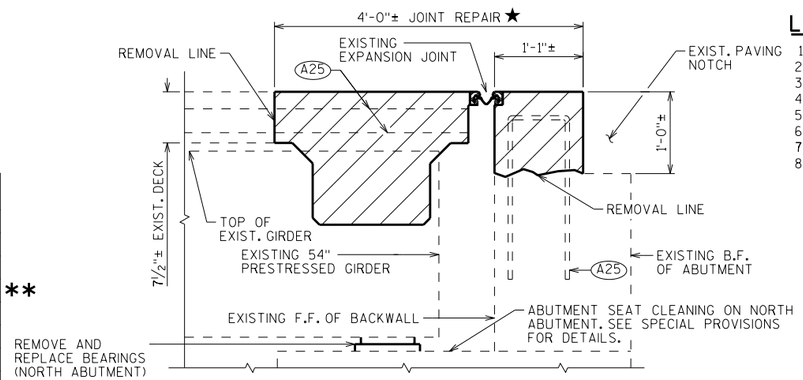
PARTIAL PLAN

EXISTING WING 4



EXISTING ELEVATION

(LOOKING AT F.F.)



SECTION A-A - SHOWING DECK REMOVAL

(A01) CLEAN, STRAIGHTEN & INCORPORATE INTO NEW WORK. MAINTAIN LAPS INTO NEW WORK AS SHOWN. REPLACE DAMAGED OR CORRODED REINFORCEMENT AS DIRECTED BY THE ENGINEER.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

★ MEASURED NORMAL TO ABUTMENT

** INCLUDES CONCRETE FOR WING REPAIR

*** INCLUDES ALL CONCRETE WITHIN THE JOINT REPAIR AREAS

DESIGN DATA

MATERIAL PROPERTIES:

CONCRETE MASONRY BRIDGES:
- WING — f'c = 3,500 P.S.I.
- ALL OTHER — f'c = 4,000 P.S.I.

CONCRETE MASONRY DECK REPAIR: — f'c = 4,000 P.S.I.

BAR STEEL REINFORCEMENT:
- GRADE 60 — fy = 60,000 P.S.I.

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.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT THE NORTH ABUTMENT DIAPHRAGM.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A ½" DEEP SAW CUT.

* (4) AT THE BACK FACE OF WALLS AND ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE WING CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW WORK SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

CONCRETE SURFACE REPAIR ANTICIPATED AT SOUTH ABUTMENT UNDER WING 4. LOCATIONS AND EXTENTS TO BE DETERMINED BY THE FIELD ENGINEER.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS, INCLUDING PARAPETS ON WINGS. SURFACE PREPARATION PRIOR TO APPLICATION OF PIGMENTED SURFACE SEALER TO BE INCLUDED IN BID ITEM, "CLEANING PARAPETS."

CONTRACTOR SHALL TAKE CARE DURING REMOVAL. SALVAGE AND INCORPORATE VERTICAL REINFORCEMENT INTO NEW WORK.

THE UPPER LIMITS OF 'EXCAVATION FOR STRUCTURES BRIDGES B-13-300' SHALL BE THE EXISTING GROUNDLINE.

CONCRETE FOR JOINT REPAIRS IS INCLUDED IN BID ITEM "CONCRETE MASONRY DECK REPAIR"

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS	
203.0220	REMOVING STRUCTURE (B-13-300)	EACH	1	
206.1000	EXCAVATION FOR STRUCTURES BRIDGES (B-13-300)	LS	1	
210.1500	BACKFILL STRUCTURE TYPE A	TONS	16	
502.0100	CONCRETE MASONRY BRIDGES	CY	3	**
502.3101	EXPANSION DEVICE B-13-300	LF	37	
502.3200	PROTECTIVE SURFACE TREATMENT	SY	21	
502.3210	PIGMENTED SURFACE SEALER	SY	184	
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	28	
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,830	
506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	5	
506.7050.S	REMOVING BEARINGS B-13-300	EACH	5	
509.1000	JOINT REPAIR	SY	18	
509.1500	CONCRETE SURFACE REPAIR	SF	5	
509.2100.S	CONCRETE MASONRY DECK REPAIR	CY	7	***
509.9050.S	CLEANING PARAPETS	LF	437	
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	3	
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	15	
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1	
SPV.0180	ABUTMENT SEAT CLEANING AND SEALING	SY	11	
	NON-BID ITEM			
	FILLER	SIZE	½"	

LIST OF DRAWINGS

1. GENERAL PLAN
2. WING WALL DETAILS
3. ELASTOMERIC BEARINGS
4. JOINT REPAIR DETAILS 1
5. JOINT REPAIR DETAILS 2
6. EXPANSION DEVICE
7. COVER PLATE
8. SLOPED FACE PARAPET "B"

TRAFFIC VOLUME

CTH JG
ADT = 890 (2009)
R.D.S. = 60 M.P.H.

USH 18/151
ADT = 19,400 (2018)
R.D.S. = 70 M.P.H.

STRUCTURE DESIGN CONTACTS:
DAN MONROE (608) 266-8490
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED 11/1/21
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-13-300

CTH JG OVER USH 18

COUNTY	VILLAGE
DANE	MOUNT HOREB

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
JDM	DLM	JDM	DLM

GENERAL PLAN

SHEET 1 OF 8

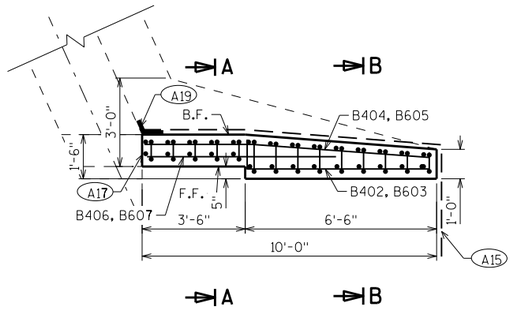
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I.D. 1204-05-03A DATE: NOV 2021

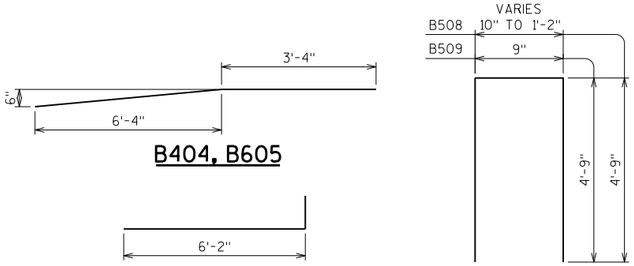
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STATE PROJECT NUMBER

1204-05-73



WING 4 PLAN



B404, B605

B402, B603

B508, B509

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
B501	X	28	3'-5"			WING-VERT.-ANCHORS
B402	X	4	7'-1"	X		WING.-HORIZ.-F.F.
B603	X	1	7'-0"	X		WING.-HORIZ.-F.F.
B404	X	7	9'-8"			WING.-HORIZ.-B.F.
B605	X	1	9'-8"			WING.-HORIZ.-B.F.
B406	X	4	6'-5"			WING-HORIZ.-F.F.
B607	X	1	6'-5"			WING.-HORIZ.-F.F.
B508	X	9	10'-3"	X	◐	WING-VERT.-STIRRUPS
B509	X	5	10'-0"	X		WING-VERT.-STIRRUPS

BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
B508	1 SERIES OF 9	10'-1" TO 10'-5"

BUNDLE AND TAG EACH SERIES SEPARATELY.

◕ ADHESIVE ANCHORS, NO. 5 BAR EMBED 10" INTO CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.

☆ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.

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

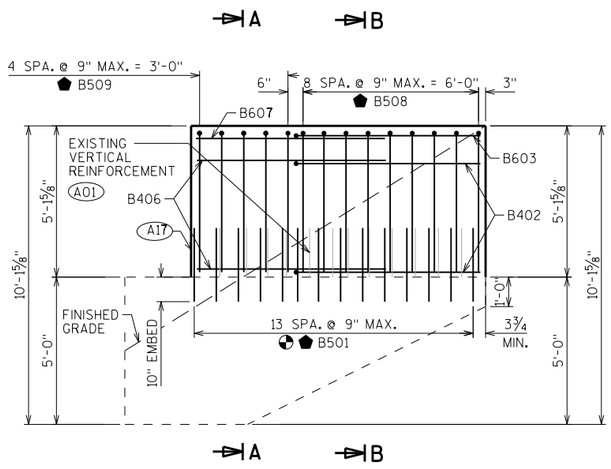
⬟ PLACE BAR BETWEEN EXISTING VERTICAL REINFORCEMENT

(A01) CLEAN, STRAIGHTEN & INCORPORATE INTO NEW WORK. MAINTAIN LAPS INTO NEW WORK AS SHOWN. REPLACE DAMAGED OR CORRODED REINFORCEMENT AS DIRECTED BY THE ENGINEER.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

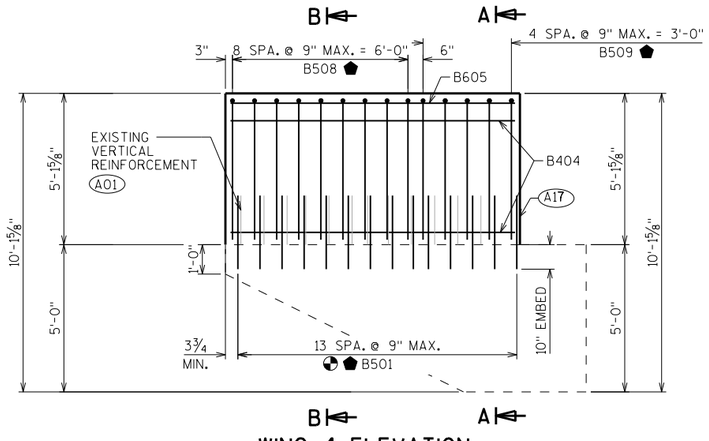
(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.



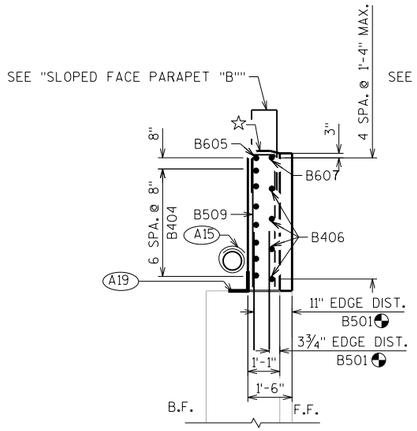
WING 4 ELEVATION

(SHOWING F.F)

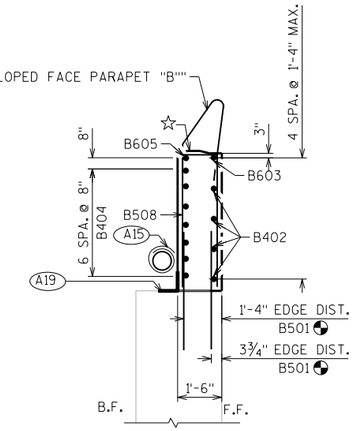


WING 4 ELEVATION

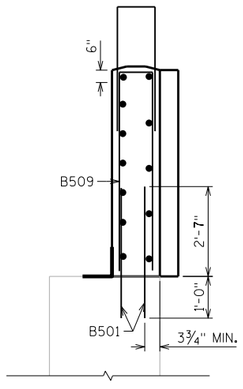
(SHOWING B.F.)

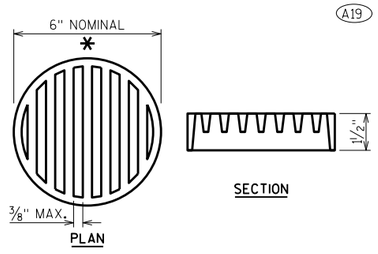


SECTION A-A



SECTION B-B





RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-300

DRAWN BY JDM | PLANS CK'D. DLM

WING WALL DETAILS

SHEET 2

280

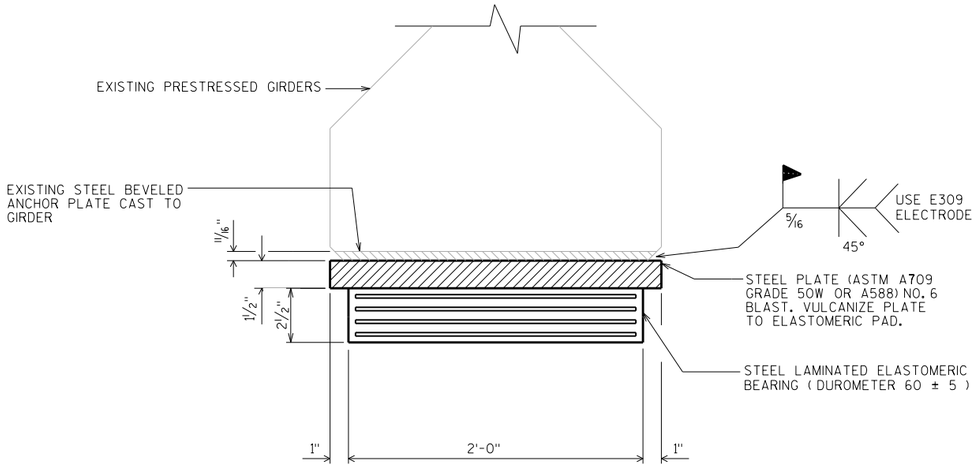
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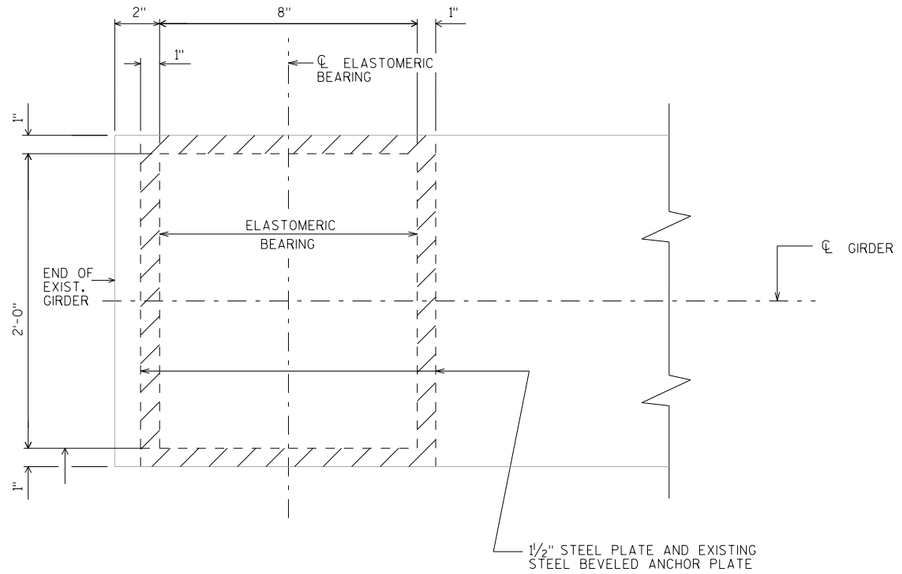
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STATE PROJECT NUMBER

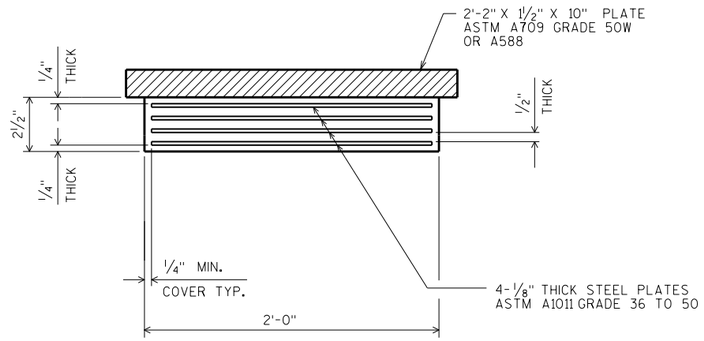
1204-05-73



END VIEW



PLAN VIEW



SECTION THRU ELASTOMERIC BEARING

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.

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-13-300

DRAWN BY JDM | PLANS CK'D. DLM

ELASTOMERIC BEARINGS

SHEET 3

281

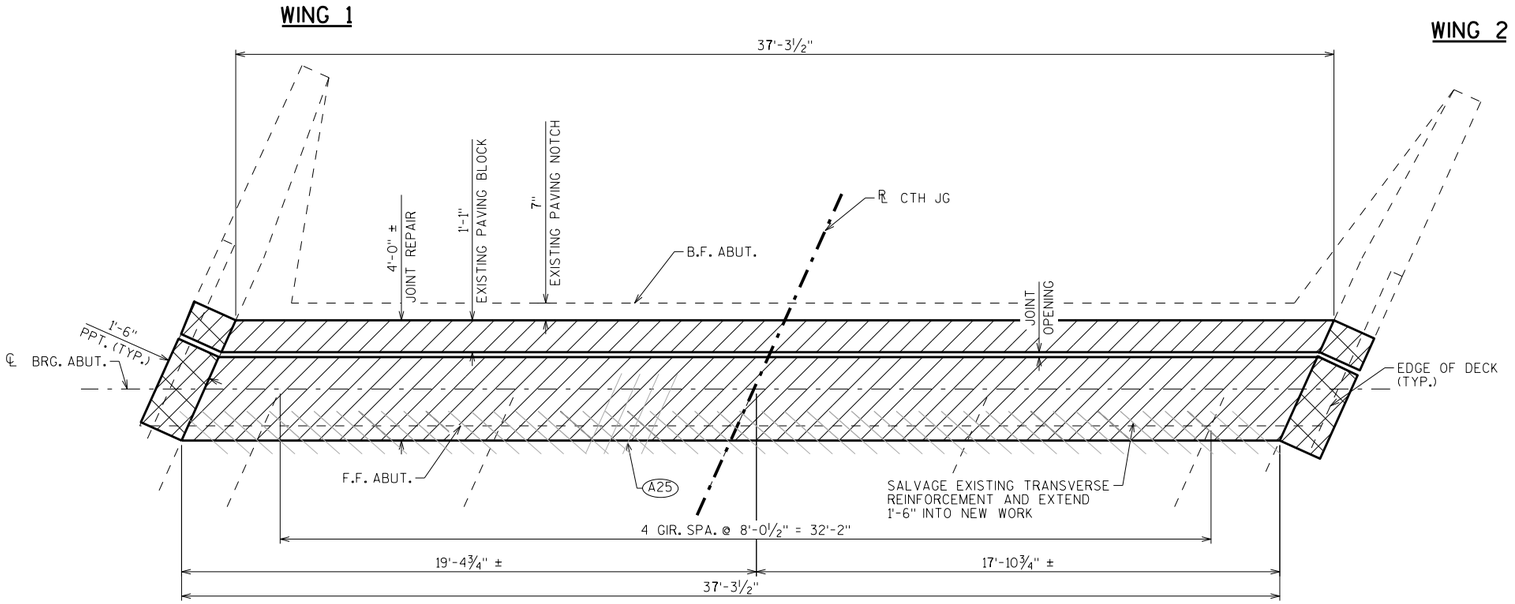
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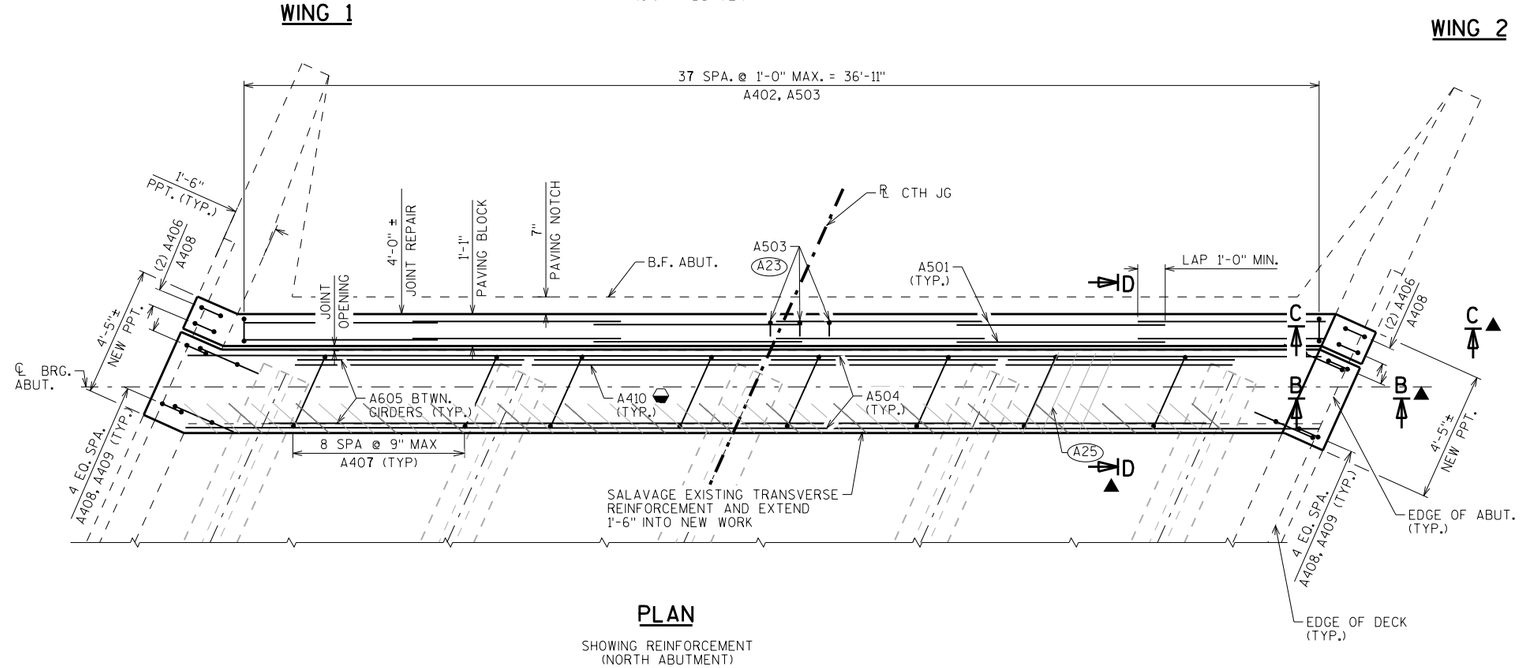
STATE PROJECT NUMBER

1204-05-73



PLAN

SHOWING REMOVAL AREAS
(NORTH ABUTMENT)



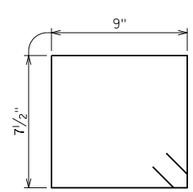
PLAN

SHOWING REINFORCEMENT
(NORTH ABUTMENT)

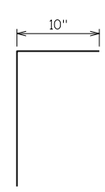
BILL OF BARS

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

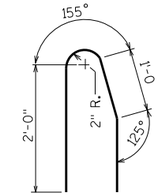
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501	X	18	7'-3"			PAVING BLOCK - TRANSVERSE
A402	X	38	3'-3"	X		PAVING BLOCK - STIRRUPS - VERTICAL
A503	X	38	2'-6"	X		PAVING BLOCK - VERTICAL
A504	X	11	38'-4"			SUPERSTRUCTURE - TRANSVERSE
A605	X	24	6'-11"			DIAPHRAGM - TRANSVERSE - BOTTOM-BTWN.-GIRDERS
A406	X	4	4'-7"	X		PARAPET - VERTICAL
A407	X	36	5'-4"	X		DIAPHRAGM - VERTICAL
A408	X	14	4'-10"	X		PARAPET - VERTICAL
A409	X	10	4'-3"	X		PARAPET - VERTICAL
A410	X	8	7'-8"			EXPANSION DEVICE - TRANSVERSE



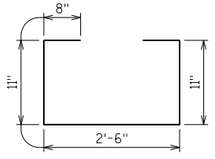
A402



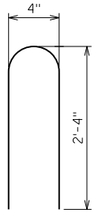
A503



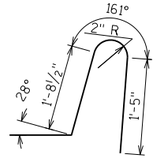
A406



A407



A408



A409

INDICATES JOINT REPAIR REMOVAL LOCATIONS

INDICATES PARAPET REMOVAL AREAS. PRESERVE EXIST. LONGIT. REINFORCEMENT IN PARAPETS. PRESERVE EXISTING VERTICAL WING REINFORCEMENT AT PARAPET REMOVAL AT WINGS.

(A23) ADHESIVE ANCHORS. EMBED 1'-0" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

(A25) SALVAGE EXIST. LONGITUDINAL REINF. & EXTEND FULL LENGTH INTO NEW WORK.

⬬ SEE "EXPANSION DEVICE" SHEET FOR DETAILS

▲ SEE "JOINT REPAIR DETAILS 2" SHEET FOR SECTIONS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-300

DRAWN BY JDM | PLANS CK'D. DLM

JOINT REPAIR DETAILS 1

SHEET 4

282

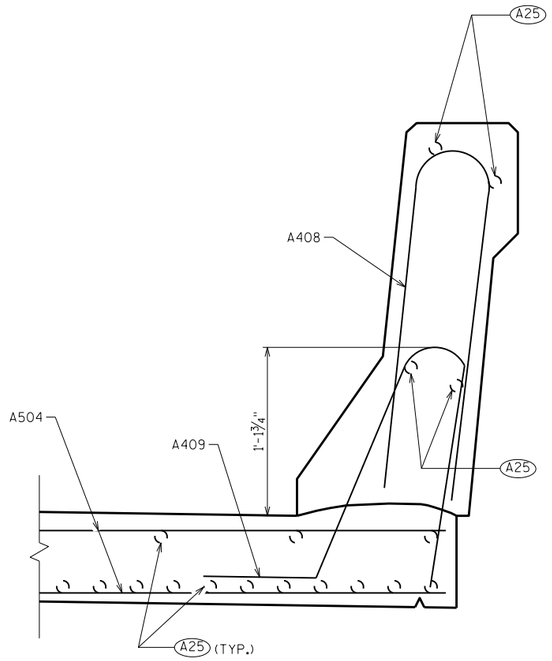
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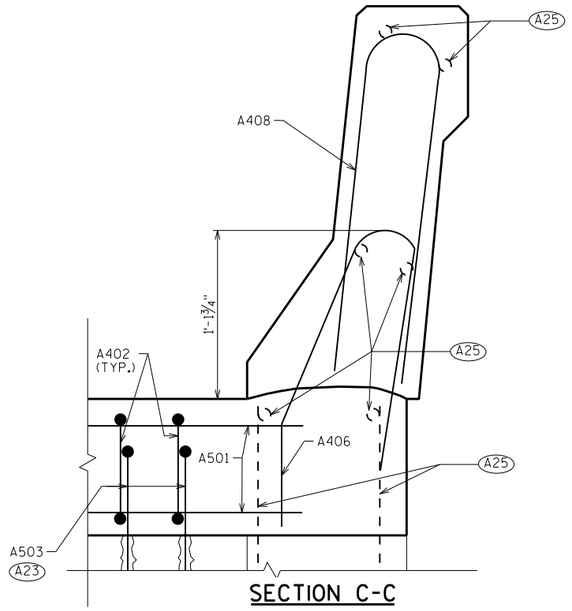
STATE PROJECT NUMBER

1204-05-73

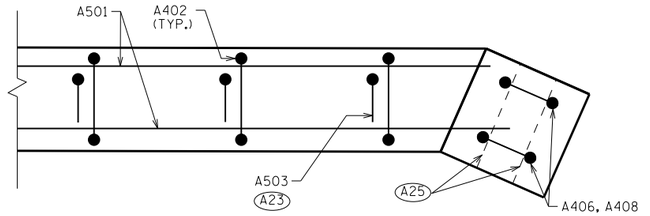


SECTION B-B

(FROM "JOINT REPAIR DETAILS 1" SHEET)

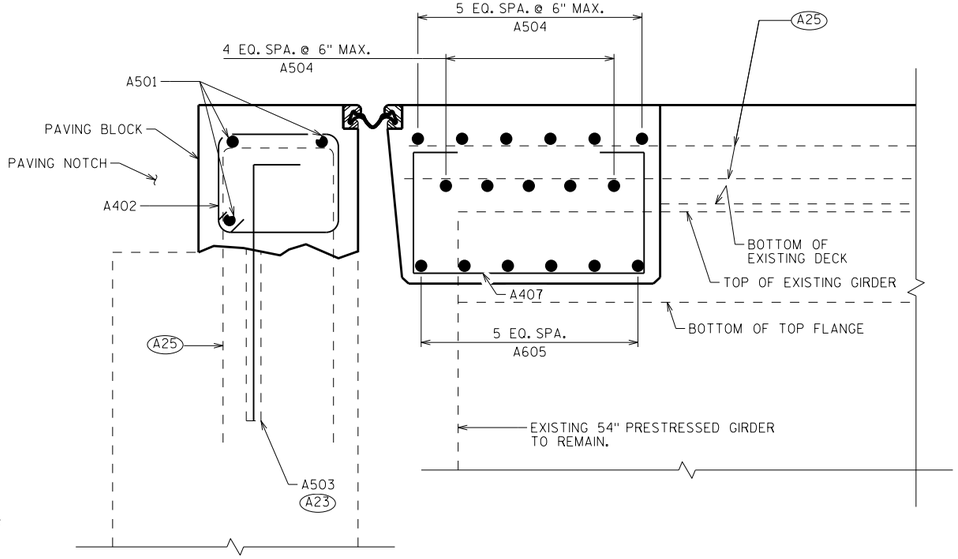


SECTION C-C



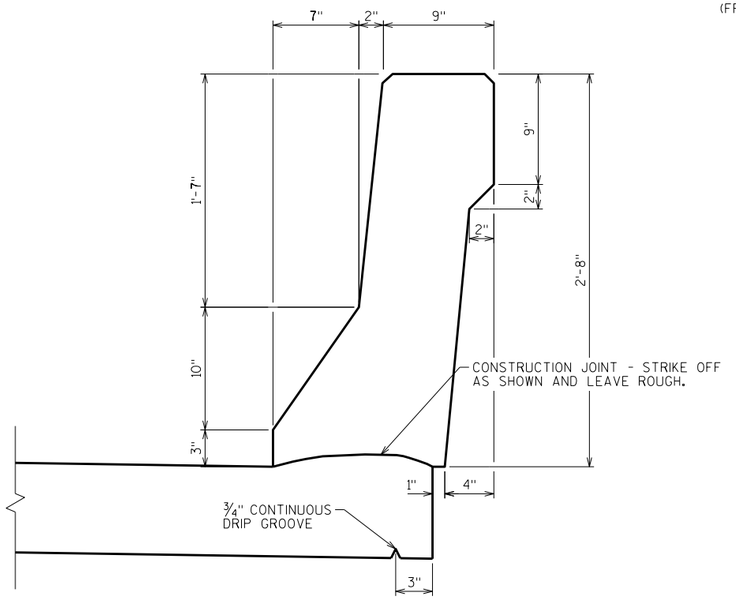
PLAN VIEW AT SECTION C-C

(FROM "JOINT REPAIR DETAILS 1" SHEET)

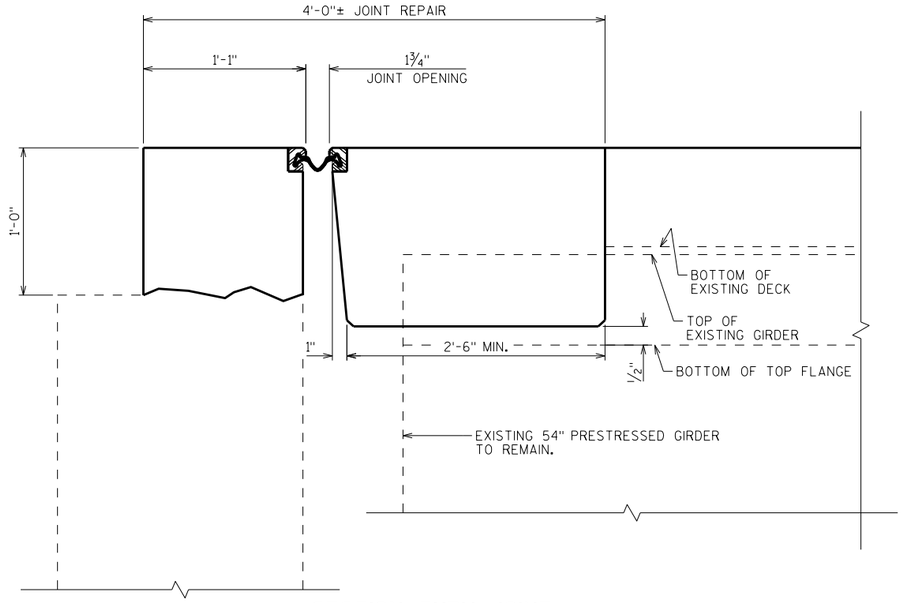


SECTION D-D

(FROM "JOINT REPAIR DETAILS 1" SHEET)



SECTION THRU PARAPET



SECTION THRU JOINT

(A23) ADHESIVE ANCHORS. EMBED 1'-0" IN CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-300

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JOINT REPAIR DETAILS 2

SHEET 5

283

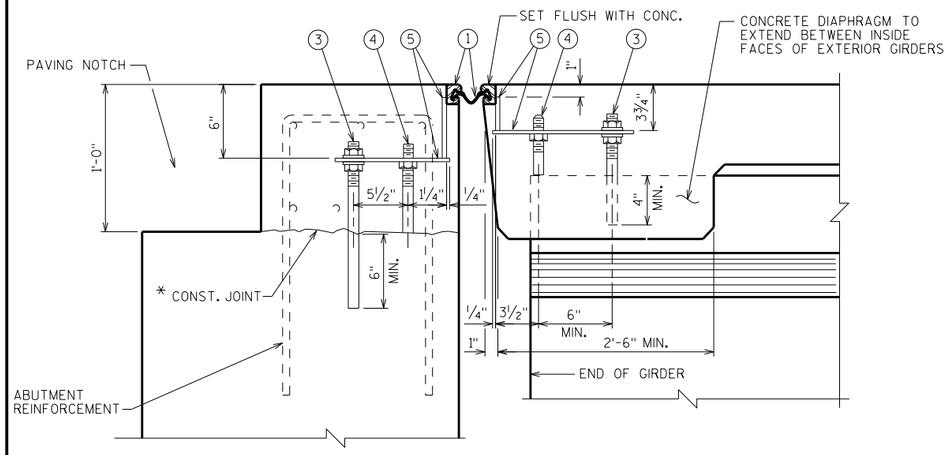
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STATE PROJECT NUMBER

1204-05-73



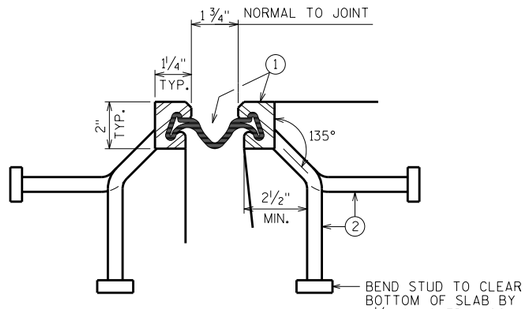
* POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

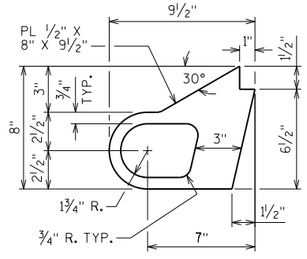
LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝"Φ X 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. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. 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" 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" Φ HOLE FOR NO. 3 AND 1" Φ HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" X 1'-2" X 2'-0" LONG WITH HOLES FOR NO. 7.
7. ¾"Φ X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾"Φ X 2¼" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

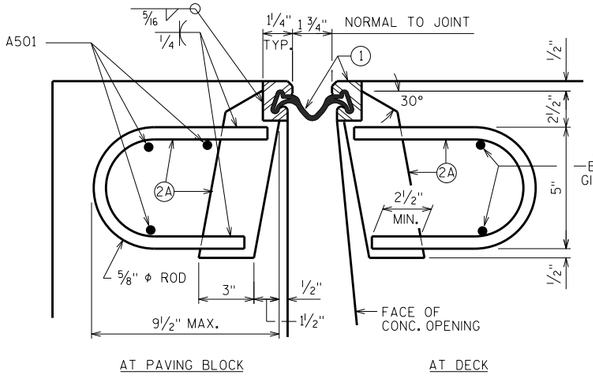


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS

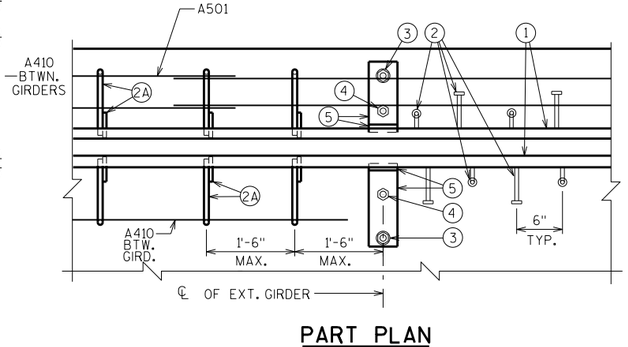


ALTERNATE STRIP SEAL ANCHOR



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 ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE B-13-300", LF.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-300

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EXPANSION DEVICE

SHEET 6

284

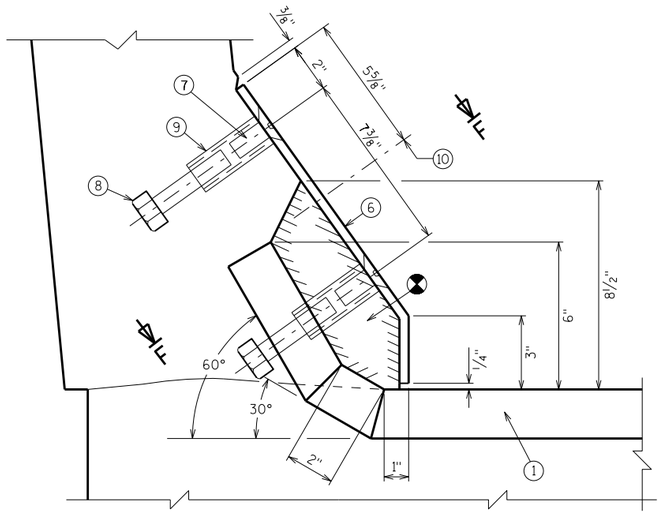
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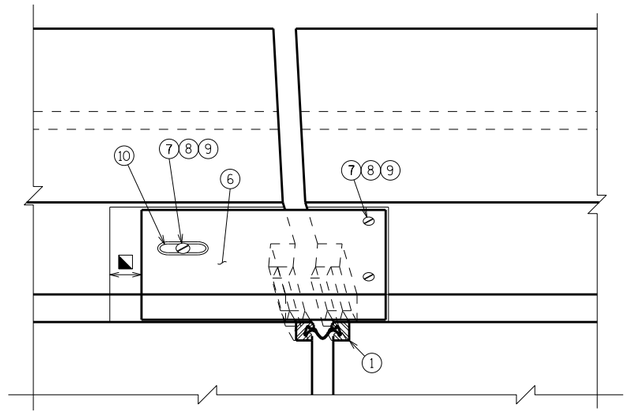
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STATE PROJECT NUMBER

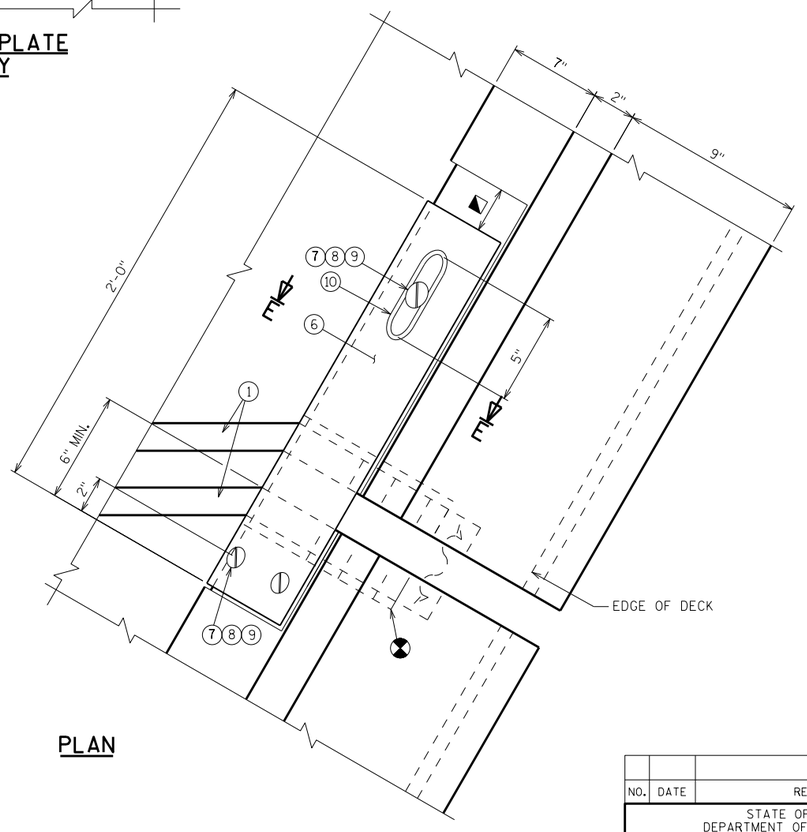
1204-05-73



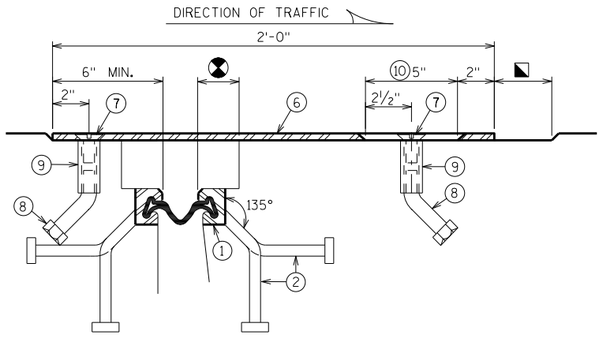
SECTION E-E



VIEW OF PARAPET PLATE FROM ROADWAY



PLAN



SECTION F-F

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◪ JOINT OPENING DIM. ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-300

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COVER PLATE

SHEET 7

285

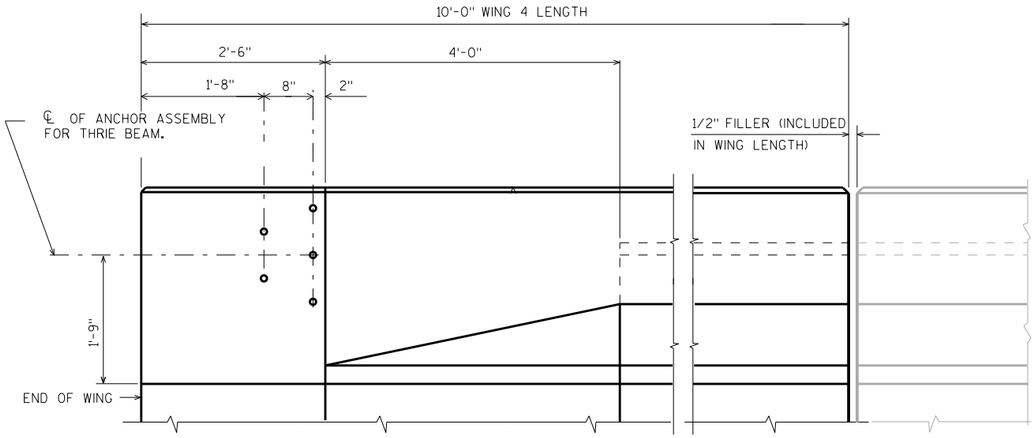
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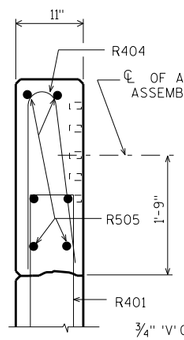
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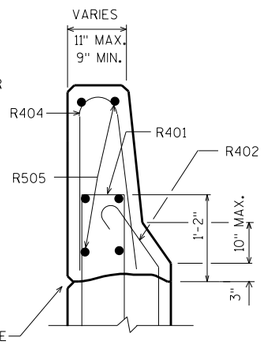
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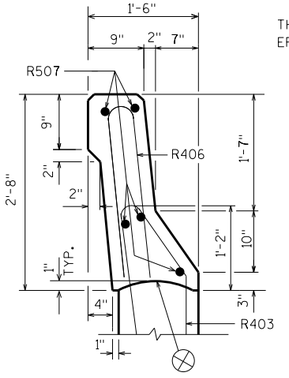
INSIDE ELEVATION



SECTION A



SECTION B



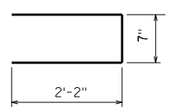
SECTION C

BILL OF BARS

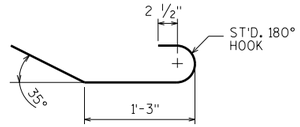
FOR ABUTMENT PARAPET AT WING 4

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.
EPOXY COAT ALL PARAPET REINF.

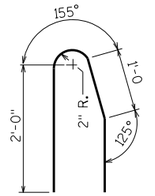
BAR MARK	NO. REQ'D. SOUTH ABUT.	LENGTH	BENT	LOCATION
R401	15	4'-9"	X	WINGS STIRRUPS
R402	4	3'-1"	X	WINGS
R403	5	4'-9"	X	WINGS STIRRUPS
R404	15	4'-9"	X	WINGS
R505	6	6'-2"		WINGS
R406	5	4'-10"	X	WINGS
R507	5	6'-5"		WINGS



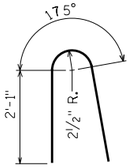
R401



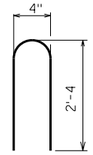
R402



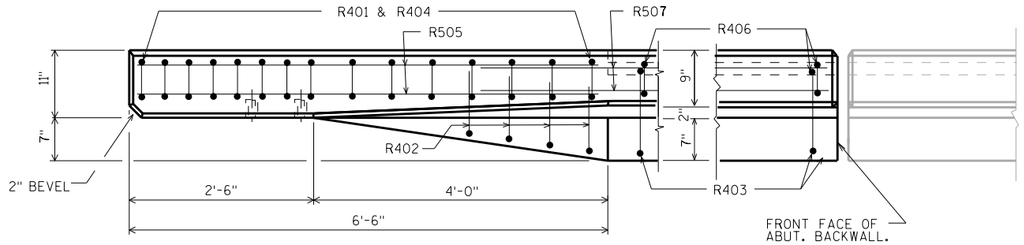
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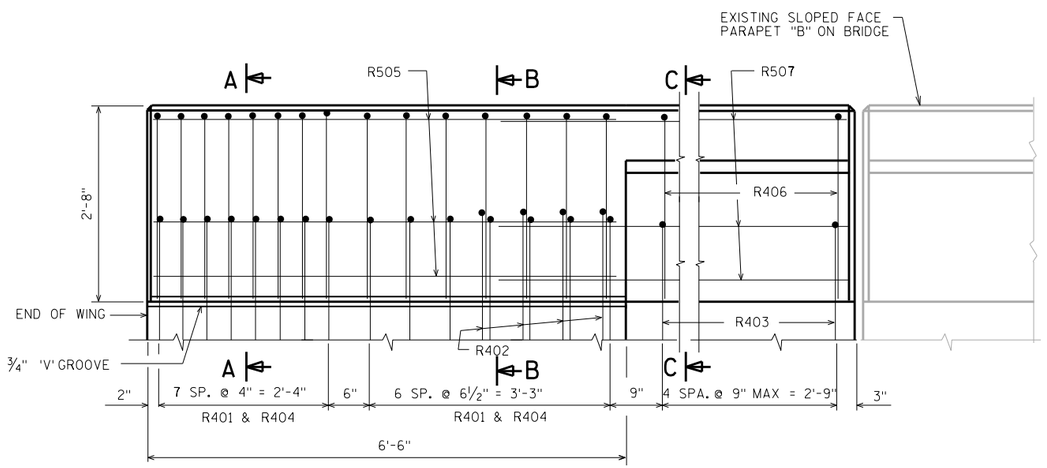
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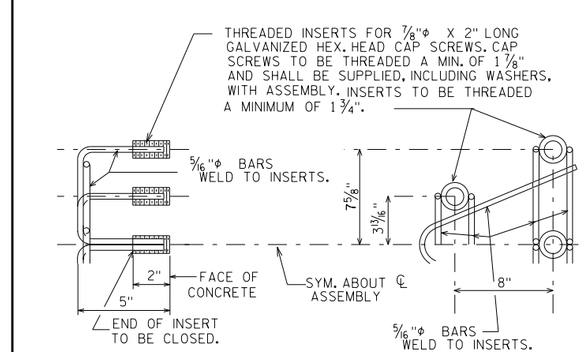
R406



PLAN



OUTSIDE ELEVATION



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 ASSEMBLES FOR STEEL PLATE BEAM GUARD" EACH.

⊗ CONST. JOINT - STRIKE OFF AS SHOWN. + FINISHED WITH A WOODEN TROWEL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-300

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SLOPED FACE PARAPET "B"

SHEET 8

286

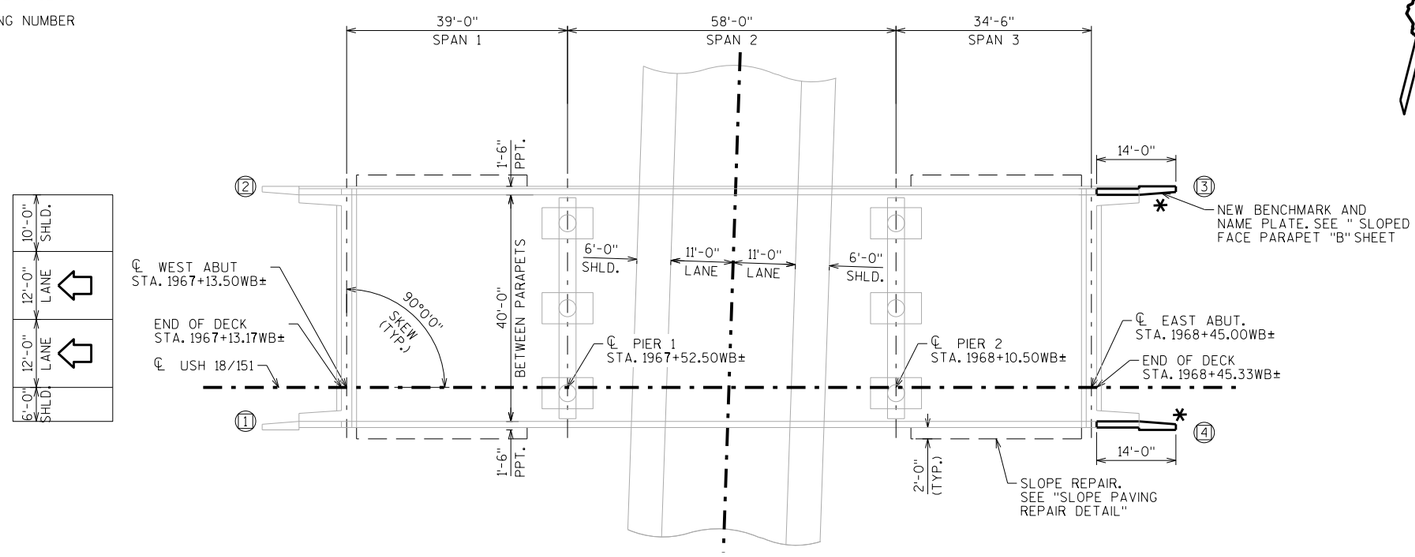
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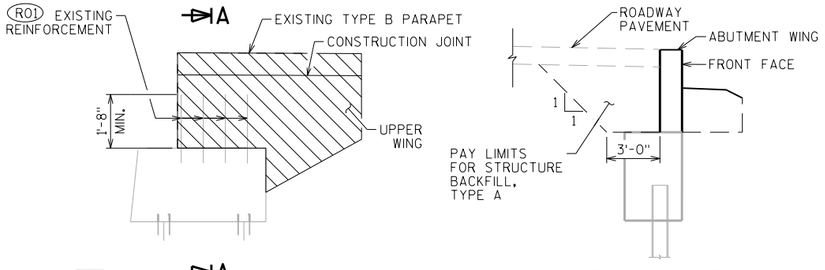
SCALE = 1.00

* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

(□) INDICATES WING NUMBER



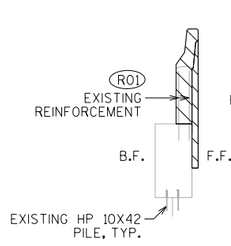
PLAN



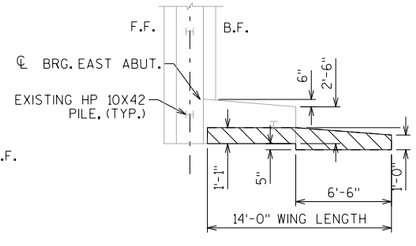
ELEVATION

(LOOKING AT F.F.)

TYPICAL SECTION THRU WING



SECTION A-A



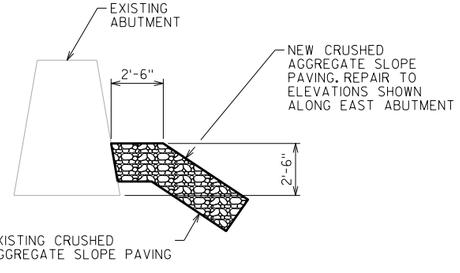
PARTIAL PLAN

WING 4 SHOWN - WING 3 SIMILAR

R01 CLEAN, STRAIGHTEN & INCORPORATE INTO NEW WORK. MAINTAIN LAPS INTO NEW WORK. REPLACE DAMAGED OR CORRODED REINFORCEMENT AS DIRECTED BY ENGINEER

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0220	REMOVING STRUCTURE (B-13-301)	EACH	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES (B-13-301)	LS	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	47
502.0100	CONCRETE MASONRY BRIDGES	CY	9
502.3210	PIGMENTED SURFACE SEALER	SY	131
502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	6
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	40
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,440
509.9050.S	CLEANING PARAPETS	LF	292
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	4
604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	30
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	46
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2
	NON-BID ITEMS		
	FILLER	SIZE	½"



SLOPE PAVING REPAIR DETAIL

STATE PROJECT NUMBER

1204-05-73

MATERIAL PROPERTIES:

CONCRETE MASONRY:
- CONCRETE SURFACE REPAIR — 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

USH 18/151
ADT = 19,400. (2018)
R.D.S. = 70 M.P.H.

STH 92
ADT = 1,600 (2018)
R.D.S. = 60 M.P.H.

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.

AT THE BACK FACE OF WING ALL VOLUME WHICH CANNOT BE PLACED BEFORE WING CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW WORK SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE A.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A ½" DEEP SAWCUT.

SURFACE DRAINS LOCATED NEAR WINGS 3 AND 4 (SEE ROADWAY PLANS).

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES B-13-301" SHALL BE THE EXISTING GROUNDLINE.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS ON THE ENTIRE BRIDGE. SURFACE PREPARATION PRIOR TO APPLICATION OF PIGMENTED SURFACE SEALER TO BE INCLUDED IN BID ITEM, "CLEANING PARAPETS."

CONCRETE SURFACE REPAIR ANTICIPATED ON NW, NE, SE AND SW FACES OF DIAPHRAGMS AND ABUTMENT BODIES. LOCATIONS AND EXTENTS SHALL BE DETERMINED BY THE FIELD ENGINEER.

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 1984.

LIST OF DRAWINGS

1. GENERAL PLAN
2. STAGING
3. WING WALL 3 DETAILS
4. WING WALL 4 DETAILS
5. SLOPED FACE PARAPET 'B'

STRUCTURE DESIGN CONTACTS:
DAN MONROE (608) 266-8490
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION — BUREAU OF STRUCTURES

ACCEPTED _____ LLS 11/1/21
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-13-301

USH 18/151 WB OVER STH 92

COUNTY	VILLAGE
DANE	MOUNT HOREB

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
JDM	DLM	JDM	DLM

GENERAL PLAN

SHEET 1 OF 5

287

I.D. 1204-05-03B DATE: NOV 2021

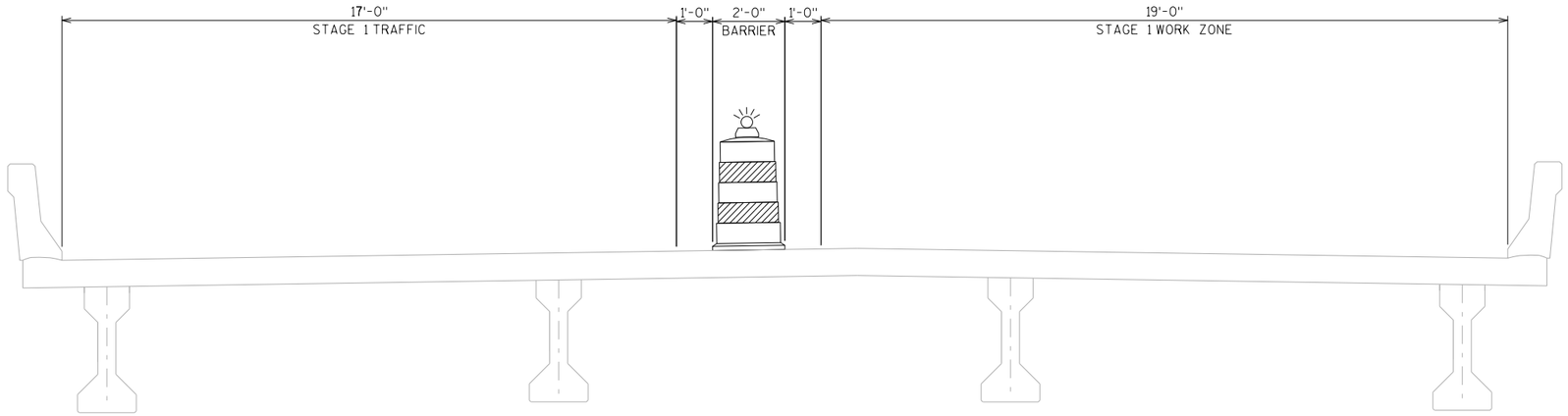
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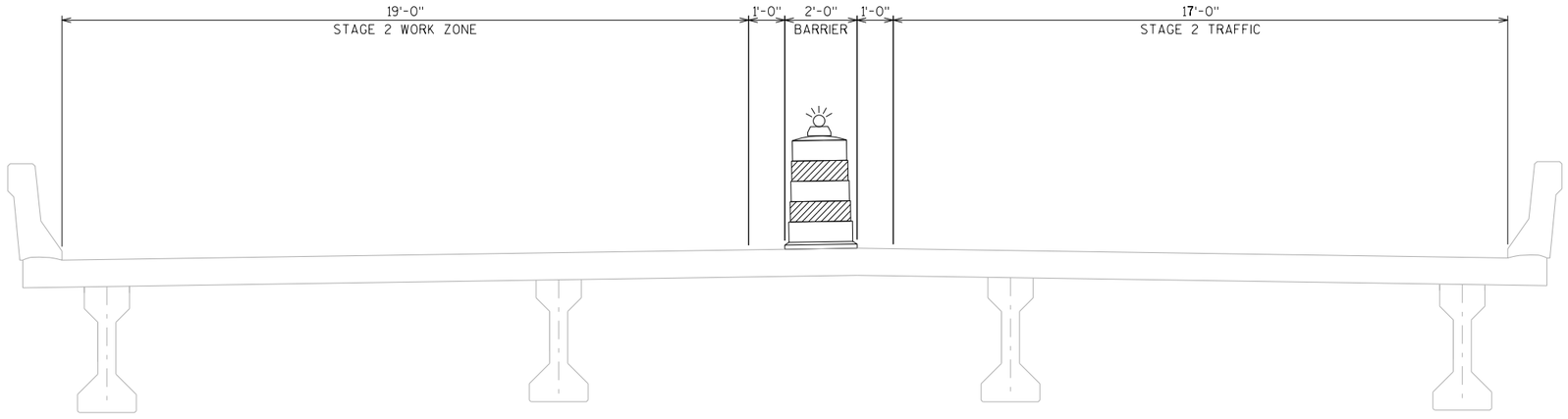
STATE PROJECT NUMBER

1204-05-73



STAGE 1 CONSTRUCTION

LOOKING UP STATION



STAGE 2 CONSTRUCTION

LOOKING UP STATION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-301

DRAWN BY JDM | PLANS CK'D. DLM

STAGING

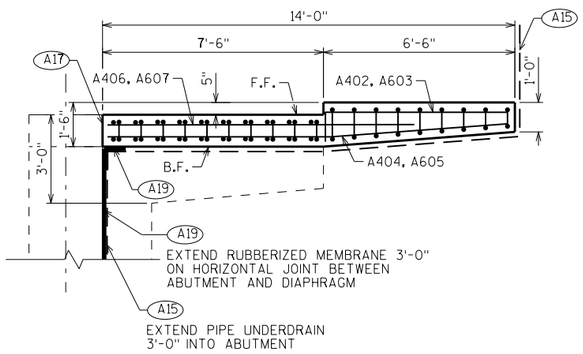
SHEET 2

288

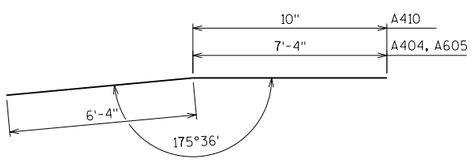
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STATE PROJECT NUMBER

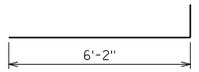
1204-05-73



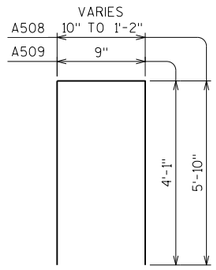
WING 3 PLAN



A404, A605, A410



A402, A603

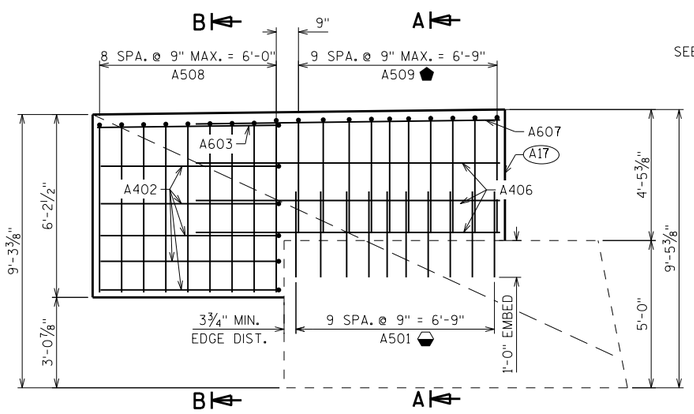


A508, A509

BILL OF BARS

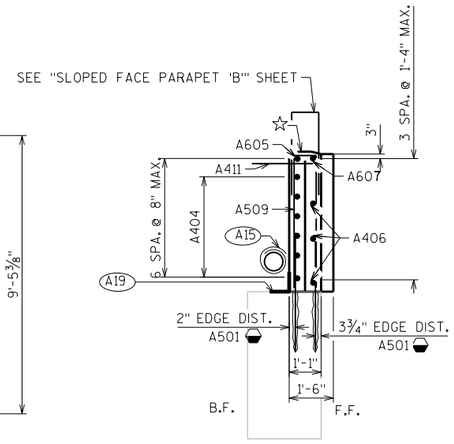
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501	X	20	3'-7"			WING-VERT.-ANCHORS
A402	X	5	7'-1"	X		WING.-HORIZ.-F.F.
A603	X	1	7'-0"	X		WING.-HORIZ.-F.F.
A404	X	6	13'-8"	X		WING.-HORIZ.-B.F.
A605	X	1	13'-8"	X		WING.-HORIZ.-B.F.
A406	X	3	10'-5"			WING-HORIZ.-F.F.
A607	X	1	10'-5"			WING.-HORIZ.-F.F.
A508	X	9	12'-5"	X	⚠	WING-VERT.
A509	X	10	8'-8"	X		WING-VERT.
A410	X	3	7'-2"	X		WING-HORIZ.-ANCHORS
A411	X	15	2'-0"			SURFACE DRAIN-HORIZ.

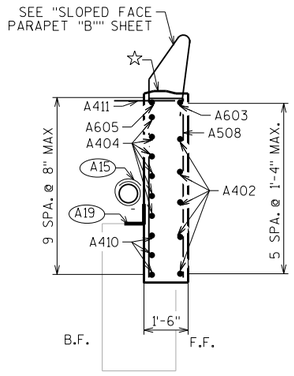


WING 3 ELEVATION

(SHOWING F.F)



SECTION A-A



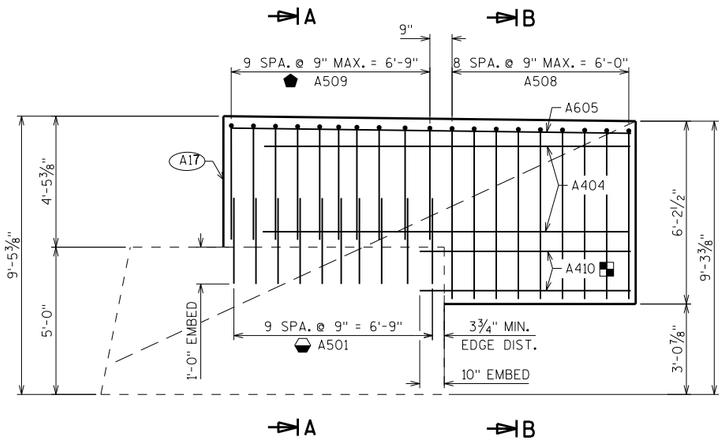
SECTION B-B

BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
A508	1 SERIES OF 9	12'-3" TO 12'-7"

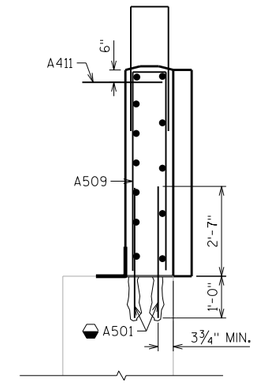
BUNDLE AND TAG EACH SERIES SEPARATELY.

- ■ ADHESIVE ANCHORS, NO. 4 BAR EMBED 10" INTO CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.
- ⬬ ADHESIVE ANCHORS, NO. 5 BAR EMBED 1'-0" INTO CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.
- ☆ CONSTRUCTION JOINT. STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- ⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.
- ⬟ PLACE BETWEEN EXISTING VERTICAL REINFORCEMENT
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) 1/2" FILLER (INCLUDED IN WING LENGTH): 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). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

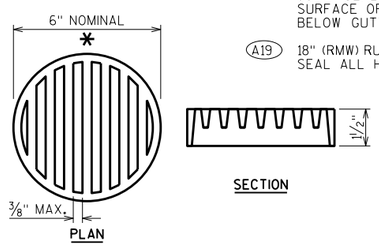


WING 3 ELEVATION

(SHOWING B.F)



SECTION A-A: ADHESIVE ANCHOR LAYOUT DETAIL



RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-301

DRAWN BY JDM | PLANS CK'D. DLM

WING WALL 3 DETAILS

SHEET 3

289

SCALE = 2.50

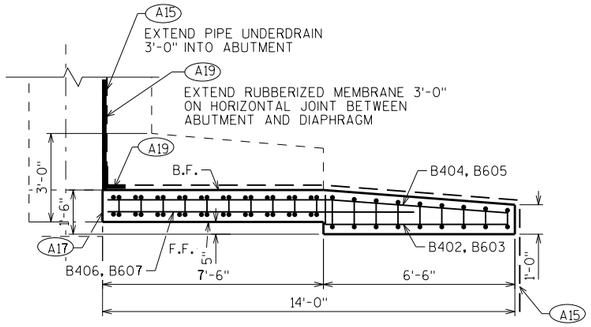
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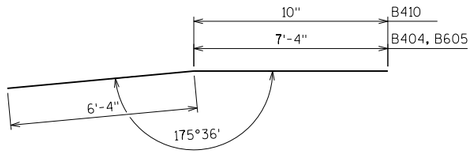
STATE PROJECT NUMBER

1204-05-73

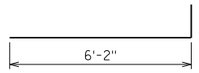




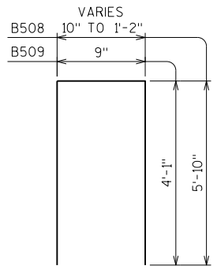
WING 4 PLAN



B404, B605, B410



B402, B603



B508, B509

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
B501	X	20	3'-7"			WING-VERT.-ANCHORS
B402	X	5	7'-1"	X		WING.-HORIZ.-F.F.
B603	X	1	7'-0"	X		WING.-HORIZ.-F.F.
B404	X	6	13'-8"	X		WING.-HORIZ.-B.F.
B605	X	1	13'-8"	X		WING.-HORIZ.-B.F.
B406	X	3	10'-5"			WING-HORIZ.-F.F.
B607	X	1	10'-5"			WING.-HORIZ.-F.F.
B508	X	9	12'-5"	X	◭	WING-VERT.
B509	X	10	8'-8"	X		WING-VERT.
B410	X	3	7'-2"	X		WING-HORIZ.-ANCHORS
B411	X	15	2'-0"			SURFACE DRAIN-HORIZ.

BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
B508	1 SERIES OF 9	12'-3" TO 12'-7"

BUNDLE AND TAG EACH SERIES SEPARATELY.

■ ADHESIVE ANCHORS, NO. 4 BAR EMBED 10" INTO CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.

⬬ ADHESIVE ANCHORS, NO. 5 BAR EMBED 1'-0" INTO CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.

☆ STRIKE OFF AS SHOWN AND LEAVE ROUGH.

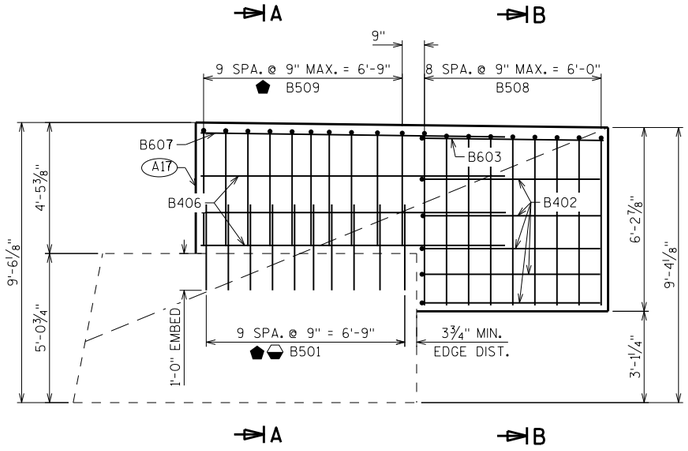
◭ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

⬟ PLACE BETWEEN EXISTING VERTICAL REINFORCEMENT

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

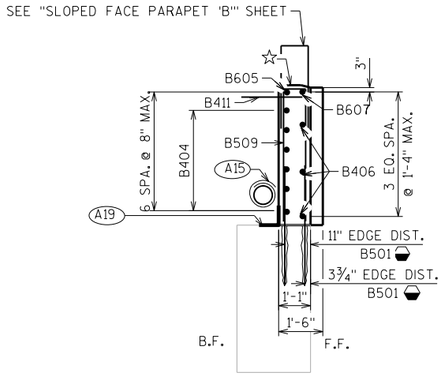
(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

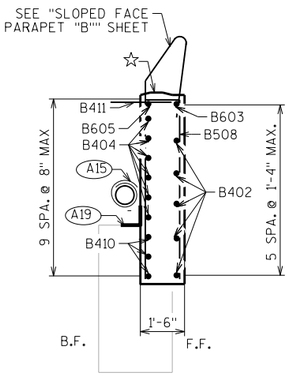


WING 4 ELEVATION

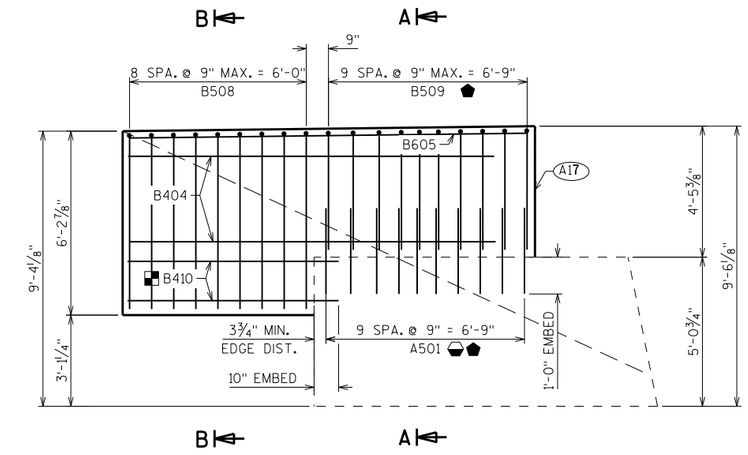
(SHOWING F.F)



SECTION A-A

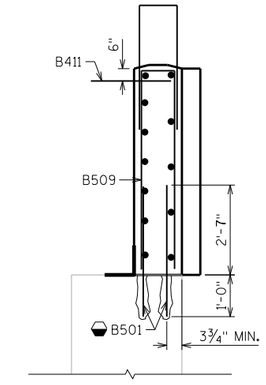


SECTION B-B

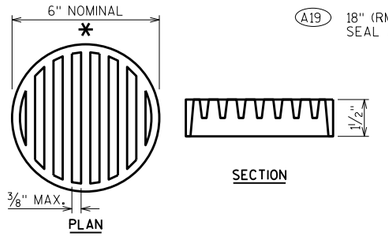


WING 4 ELEVATION

(SHOWING B.F)



SECTION A-A: ADHESIVE ANCHOR LAYOUT DETAIL



RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-301

DRAWN BY JDM | PLANS CK'D. DLM

WING WALL 4 DETAILS

SHEET 4

290

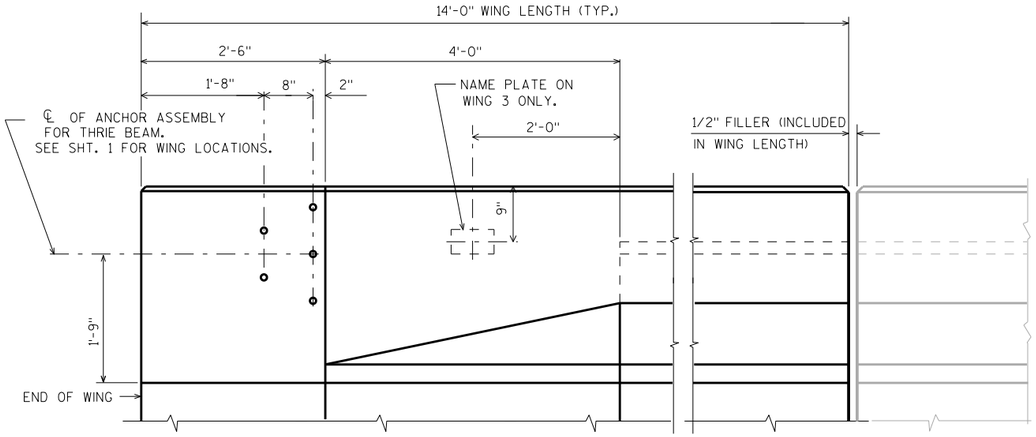
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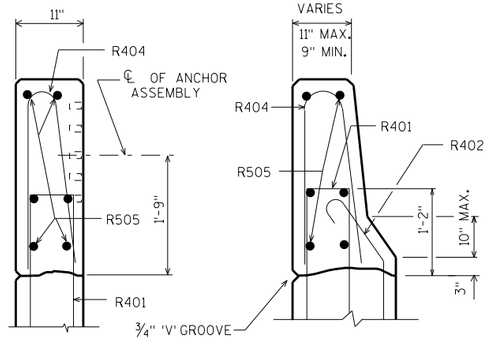
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STATE PROJECT NUMBER

1204-05-73

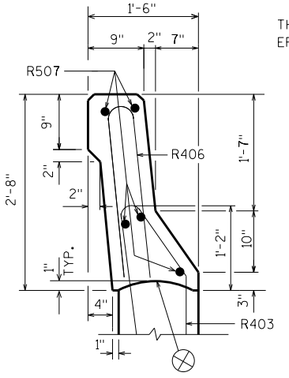


INSIDE ELEVATION



SECTION A

SECTION B



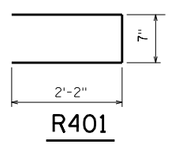
SECTION C

BILL OF BARS

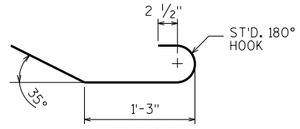
FOR ABUTMENT PARAPETS

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.
EPOXY COAT ALL PARAPET REINF.

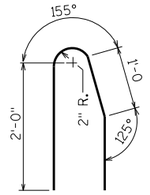
BAR MARK	NO. REQ'D. EAST ABUT.	LENGTH	BENT	LOCATION
R401	30	4'-9"	X	WINGS STIRRUPS
R402	8	3'-1"	X	WINGS
R403	20	4'-9"	X	WINGS STIRRUPS
R404	30	4'-9"	X	WINGS
R505	12	6'-2"		WINGS
R406	20	4'-10"	X	WINGS
R507	10	10'-0"		WINGS



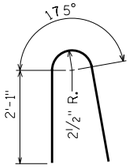
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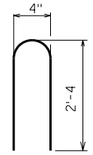
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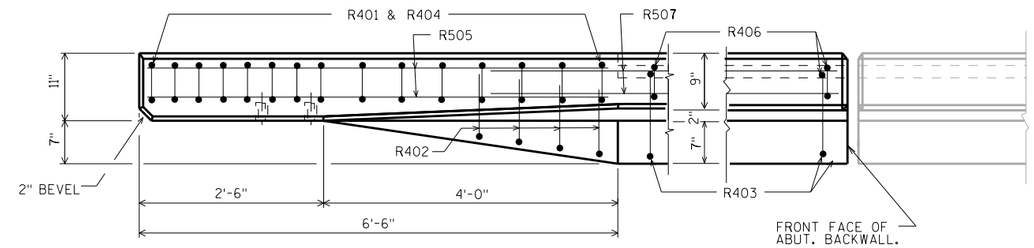
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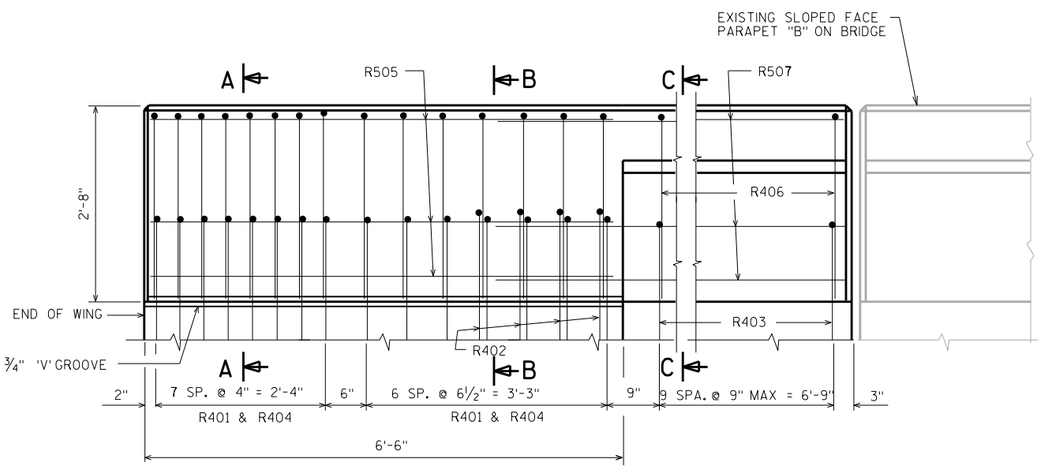
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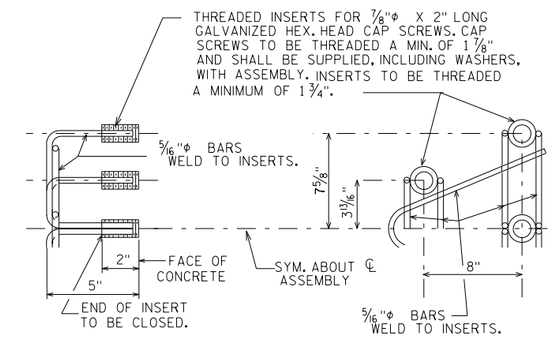
R406



PLAN



OUTSIDE ELEVATION



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 ASSEMBLES FOR STEEL PLATE BEAM GUARD" EACH.

⊗ CONST. JOINT - STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-301

DRAWN BY JDM | PLANS CK'D. DLM

SLOPED FACE PARAPET "B"

SHEET 5

291

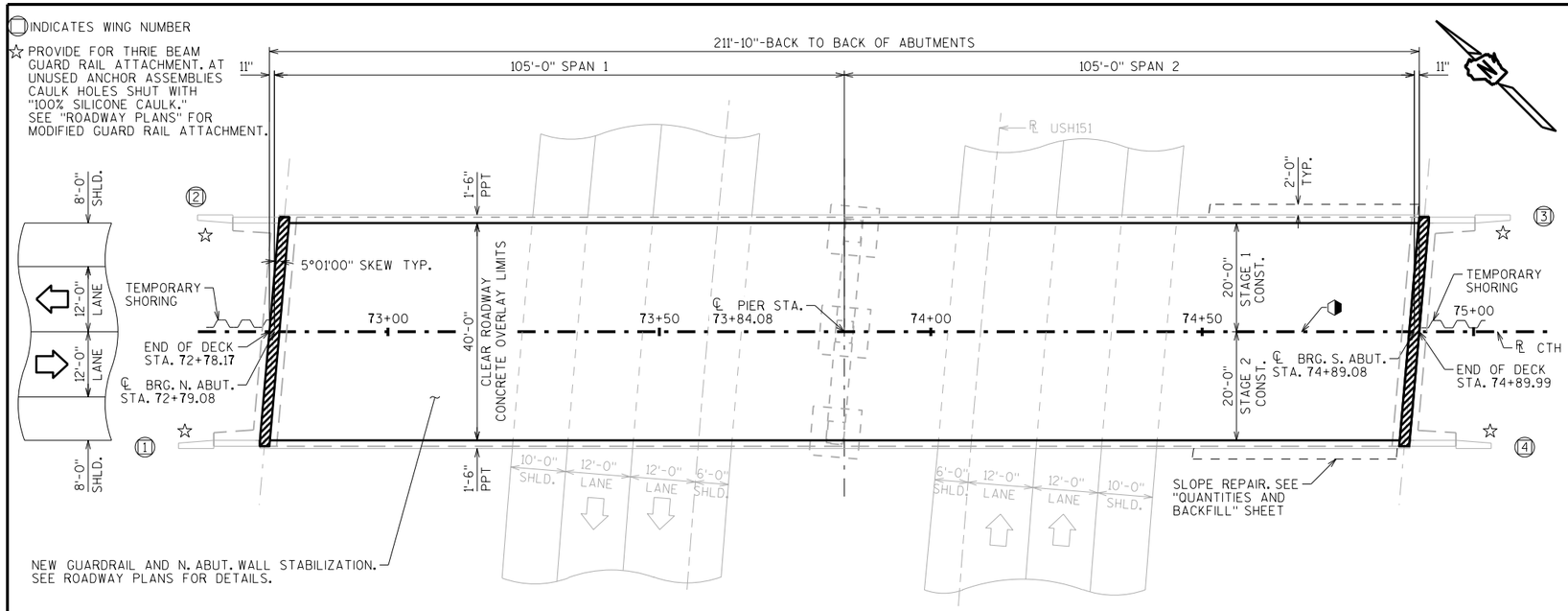
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8

SCALE = 1.00

STATE PROJECT NUMBER

1204-05-73



PLAN

2-SPAN 54" PRESTRESSED GIRDERS

GENERAL NOTES

THE PROPOSED WORK INCLUDES PLACEMENT OF A CONCRETE OVERLAY, MODIFICATION AT BOTH ABUTMENTS, CONCRETE SURFACE REPAIR AND SLOPE PAVING REPAIR

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.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF CONCRETE OVERLAY AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS INCLUDING PARAPETS ON WINGS. SURFACE PREPARATION PRIOR TO APPLICATION OF PIGMENTED SURFACE SEALER TO BE INCLUDED IN BID ITEM, "CLEANING PARAPETS".

THE SLOPE OF THE FILL IN FRONT OF THE SOUTH ABUTMENT SHALL BE REPAIRED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON SHEET 2.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

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 2⅝". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½". CONTACT THE WISDOT BUREAU OF STRUCTURES DESIGN SECTION.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

CLEAN, STRAIGHTEN AND EXTEND EXISTING BAR STEEL REINFORCEMENT INTO NEW CONSTRUCTION WHERE APPLICABLE.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A ½" DEEP SAW CUT.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, FULL DEPTH DECK REPAIR, AND CONCRETE SURFACE REPAIR AREAS ARE FOR INFORMATIONAL PURPOSES ONLY. FINAL AREAS TO BE DETERMINED BY THE FIELD ENGINEER. PREPARATION DECKS TYPE 2 AREAS ESTIMATED AT APPROXIMATELY 50% OF TYPE 1 AREAS FOR THIS BRIDGE. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS."

◑ CONCRETE OVERLAY AND DIAPHRAGM CONSTRUCTION JOINT LOCATION.

▨ ABUTMENT MODIFICATION. SEE ABUTMENT MODIFICATION AND DIAPHRAGM SHEETS FOR DETAILS.

TRAFFIC VOLUME

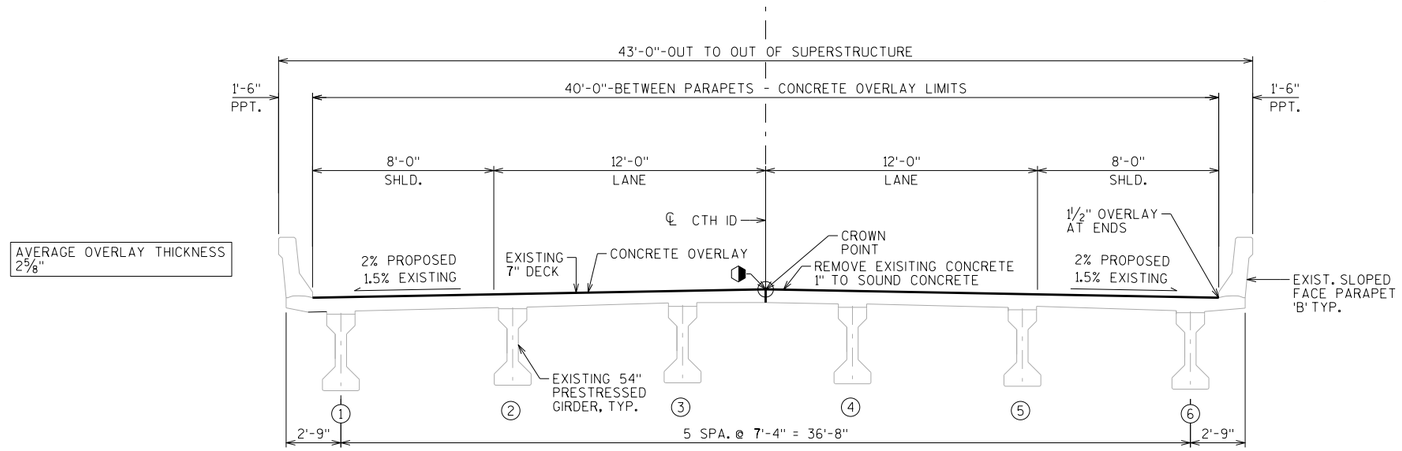
CTH ID
ADT = 1,600 (2018)
R.D.S. = 45 M.P.H.

RL USH 18/151
ADT = 19,400 (2018)
R.D.S. = 70 M.P.H.

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS-20
INVENTORY RATING: HS-18
OPERATING RATING: HS-39
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

MATERIAL PROPERTIES:
CONCRETE MASONRY:
ALL — f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT:
GRADE 60 — fy = 60,000 P.S.I.



CROSS-SECTION THRU DECK

LOOKING SOUTH

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES AND BACKFILL
3. STAGING DETAILS
4. REMOVAL DETAILS
5. ABUTMENT MODIFICATION DETAILS
6. ABUTMENT DIAPHRAGM DETAILS
7. DECK CONDITION SURVEY

STRUCTURE DESIGN CONTACTS:
DAN MONROE (608) 266-8490
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED LLS 11/1/21
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-13-303

CTH ID OVER CL USH 18/151

COUNTY	TOWN
DANE	MOUNT HOREB

DESIGN SPEC.
REHABILITATION - N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
JDM	DLM	JDM	DLM

GENERAL PLAN

SHEET 1 OF 7

292

I.D. 1204-05-03C DATE: NOV 2021

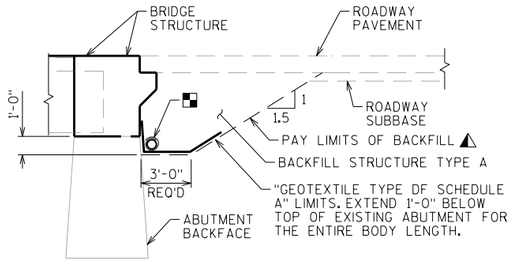
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STATE PROJECT NUMBER

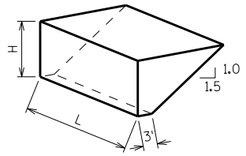
1204-05-73



TYPICAL SECTION THRU ABUTMENT

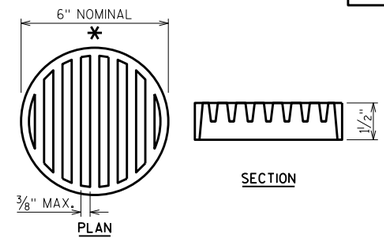
⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

■ PIPE UNDERDRAIN WRAPPED (6 INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.



ABUTMENT BACKFILL DIAGRAM FOR WINGS PARALLEL TO ROADWAY

L = OUT TO OUT OF ABUTMENT, INCLUDING WINGS (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H)
V_{CY} = V_{CF} (EF)/27
V_{TON} = V_{CY} (2.0)

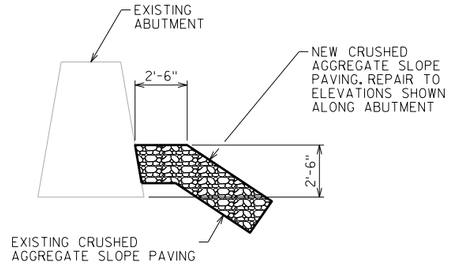


RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



SLOPE PAVING REPAIR DETAIL

(SOUTH ABUTMENT ONLY)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	NORTH ABUT.	SOUTH ABUT.	TOTALS
203.0220	REMOVING STRUCTURE (B-13-303)	EACH	———	———	———	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES (B-13-303)	LS	———	———	———	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	———	74	74	148
502.0100	CONCRETE MASONRY BRIDGES	CY	36	———	———	36
502.3200	PROTECTIVE SURFACE TREATMENT	SY	951	———	———	951
502.3210	PIGMENTED SURFACE SEALER	SY	190	———	———	190
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	5,330	———	———	5,330
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	———	6	6	12
506.7050.S	REMOVING BEARINGS B-13-303	EACH	———	6	6	12
509.0301	PREPARATION DECKS TYPE 1	SY	66	———	———	66
509.0302	PREPARATION DECKS TYPE 2	SY	27	———	———	27
509.0500	CLEANING DECKS	SY	942	———	———	942
509.1500	CONCRETE SURFACE REPAIR	SF	———	20	20	40
509.2000	FULL-DEPTH DECK REPAIR	SY	1	———	———	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	69	———	———	69
509.9050.S	CLEANING PARAPETS	LF	474	———	———	474
511.1200	TEMPORARY SHORING B-13-303	SF	———	35	35	70
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	———	9	9	18
604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	———	———	35	35
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	———	———	129	129
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	———	75	75	150
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	———	26	26	52
	NON-BID ITEMS					
	FILLER	SIZE	———	———	———	½"

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-303

DRAWN BY JDM | PLANS CK'D. DLM

QUANTITIES & BACKFILL

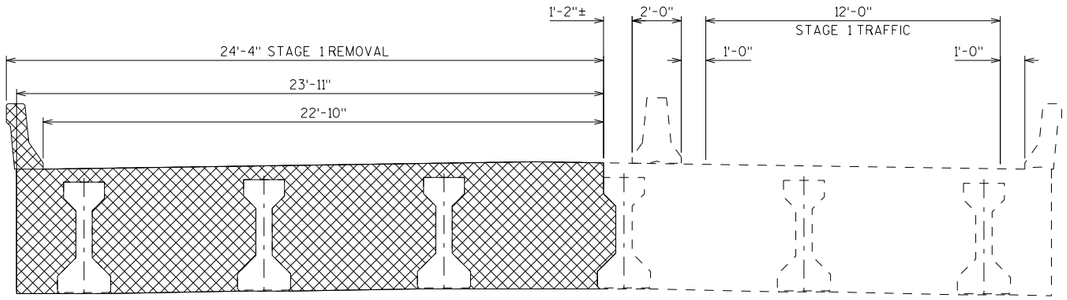
SHEET 2

293

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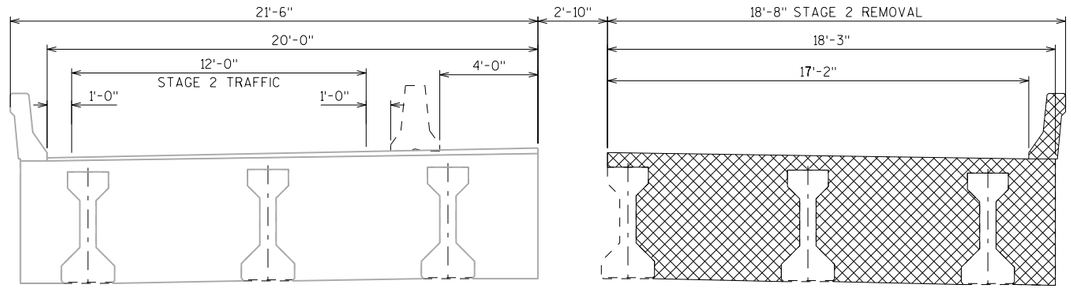
STATE PROJECT NUMBER

1204-05-73

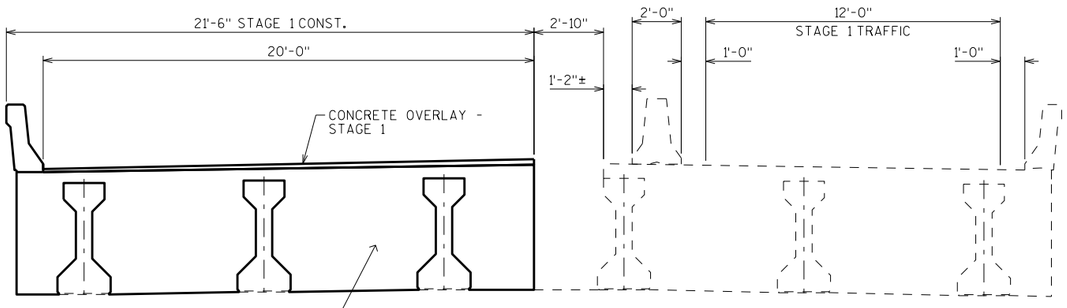


STAGE 1 REMOVAL

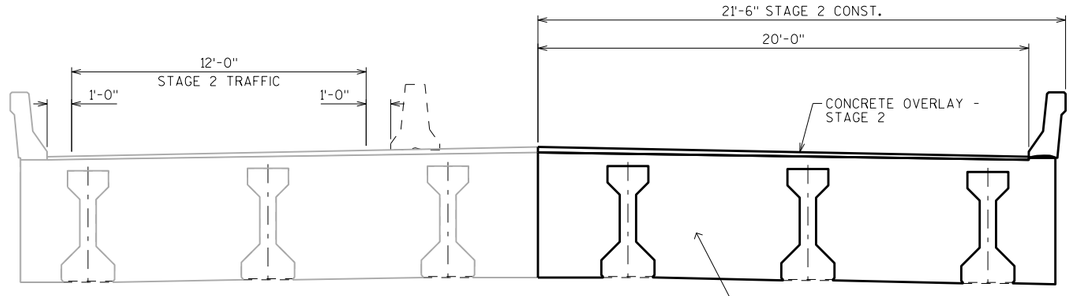
LOOKING UPSTATION (TYP.)
LOOKING THRU ABUTMENT
DIAPHRAGM.



STAGE 2 REMOVAL



STAGE 1 CONSTRUCTION



STAGE 2 CONSTRUCTION

REMOVAL AREA

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-303

DRAWN BY JDM | PLANS CK'D. DLM

STAGING DETAILS

SHEET 3

294

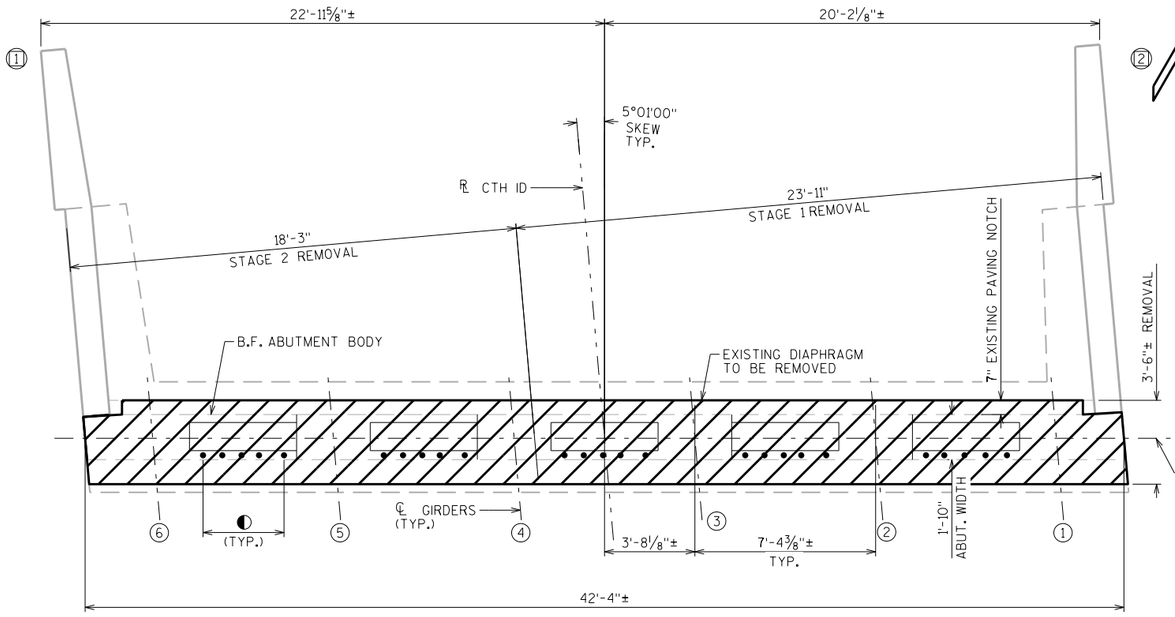
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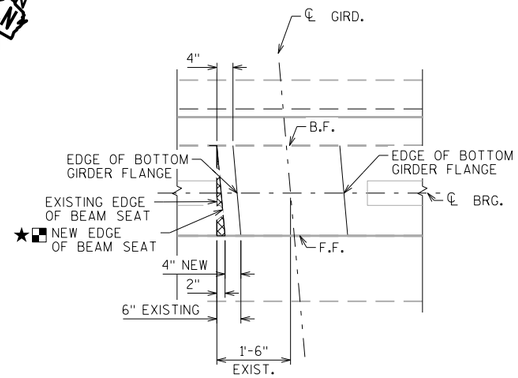
STATE PROJECT NUMBER

1204-05-73



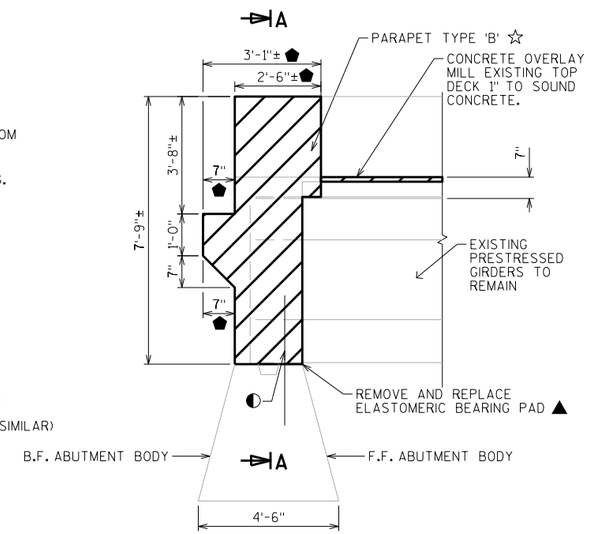
REMOVAL PLAN

(NORTH ABUTMENT)



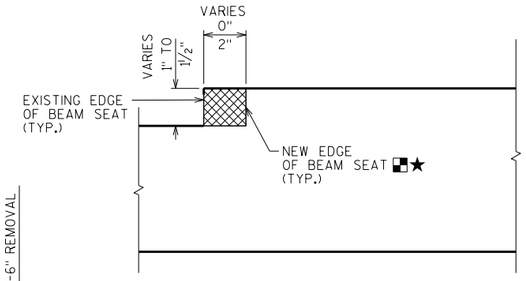
BEAM SEAT MODIFICATION PLAN

(GIRDER 5 NORTH ABUTMENT SHOWN, OTHER BEAM SEATS SIMILAR)



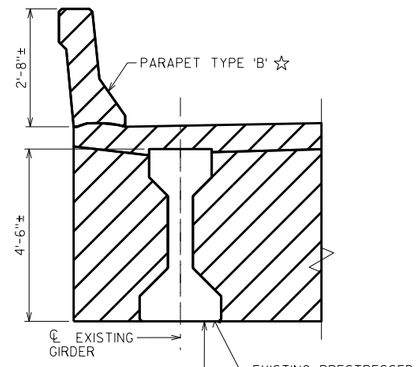
SECTION THRU ABUTMENTS

TYP. BOTH ABUTMENTS



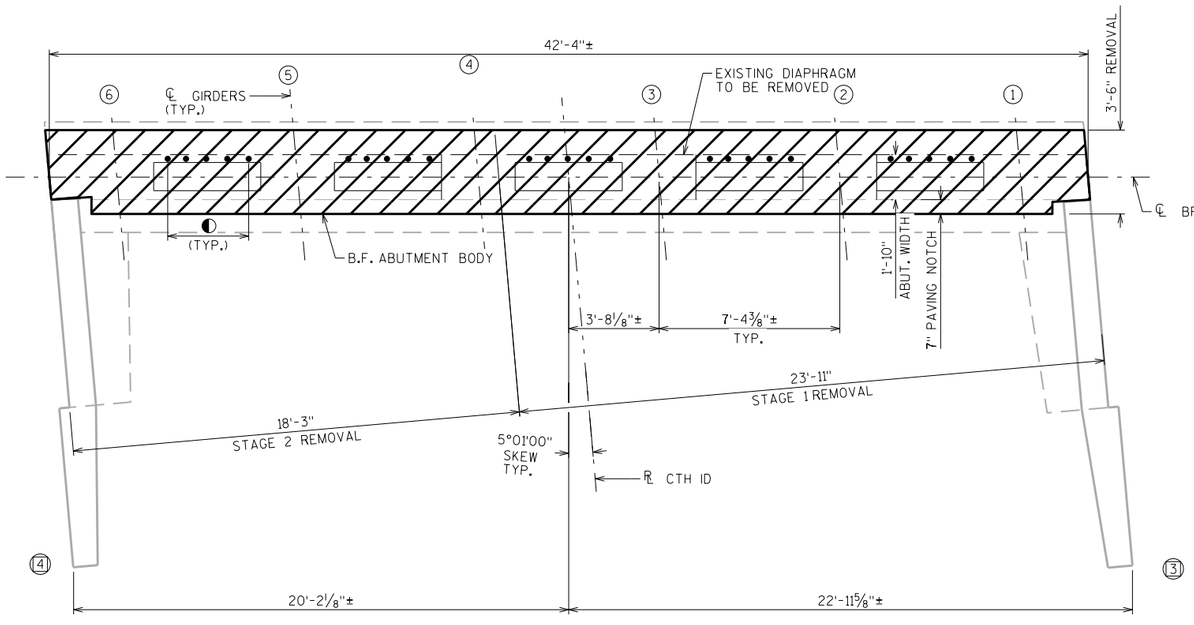
BEAM SEAT MODIFICATION ELEVATION F.F.

(NORTH ABUTMENT SHOWN, SOUTH ABUTMENT SIMILAR)



SECTION A-A

(SHOWING END OF ABUTMENT)



REMOVAL PLAN

(SOUTH ABUTMENT)

★ ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

REMOVAL LIMITS BEAM SEATS, GRIND HORIZONTAL SURFACE SMOOTH.

INDICATES REMOVAL LIMITS

◐ SAWCUT THROUGH EXISTING REINFORCEMENT. REMOVE EXISTING REINFORCEMENT FLUSH WITH CONCRETE BEARING SURFACE AND GRIND SMOOTH.

⬟ DIMENSION SHOWN ARE NORMAL TO ℄ OF SUBSTRUCTURE UNIT.

▲ ESTABLISH EXISTING BOTTOM OF GIRDER ELEVATION PRIOR TO REMOVAL OF THE EXISTING BEARINGS. BOTTOM OF GIRDER ELEVATION SHALL REMAIN UNCHANGED FOR THE PROPOSED CONDITION.

☆ CLEAN, STRAIGHTEN AND INCORPORATE EXISTING PARAPET REINFORCEMENT INTO NEW CONSTRUCTION. DO NOT CUT UNLESS CLEARANCE REQUIREMENTS ARE VIOLATED. REPLACE DAMAGED OF CORRODED REINFORCEMENT AS DIRECTED BY ENGINEER.

■ EXTEND ½" FILLER ALONG EDGE OF BEAM SEAT.

⬡ INDICATES WING NUMBER

◯ INDICATES GIRDER NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-303

DRAWN BY JDM | PLANS CK'D. DLM

REMOVAL DETAILS

SHEET 4

295

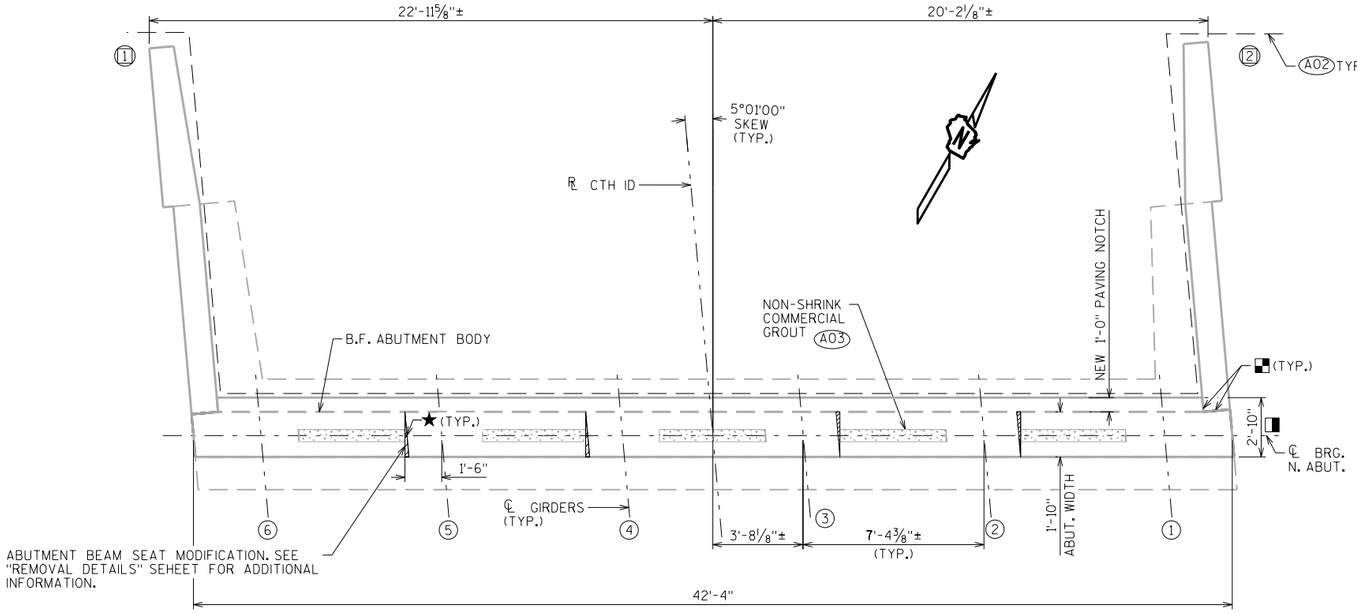
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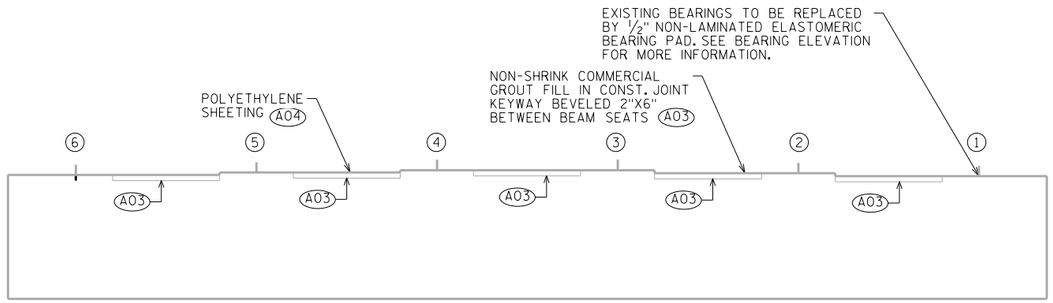
STATE PROJECT NUMBER

1204-05-73



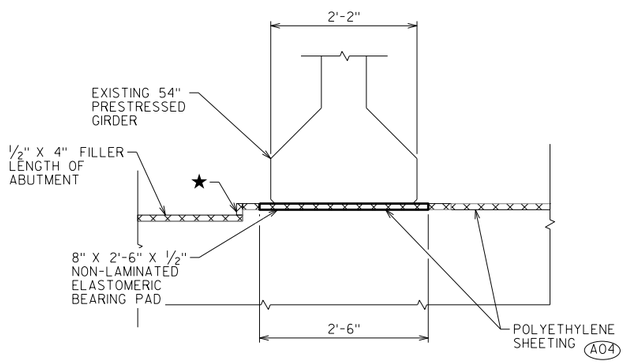
NORTH ABUTMENT MODIFICATION PLAN

SOUTH ABUTMENT SIMILAR

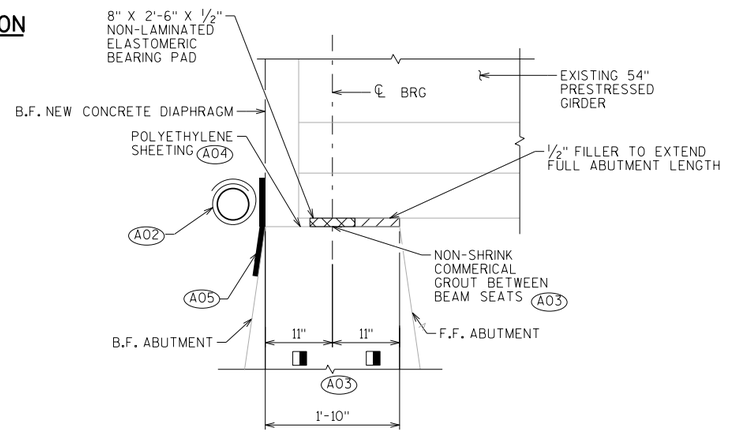


NORTH ABUTMENT MODIFICATION ELEVATION

SOUTH ABUTMENT SIMILAR
(LOOKING NORTH)



BEARING ELEVATION



SECTION THRU ABUTMENT

★ ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

INDICATES WING NUMBER

DENOTES EXISTING GIRDER NUMBER

DIMENSION MEASURED NORMAL TO ℄ OF SUBSTRUCTURE

PLACE ½" FILLER BETWEEN EXISTING WINGWALL AND NEW CONCRETE DIAPHRAGM. EXTEND ½" FILLER TO TOP OF PARAPET.

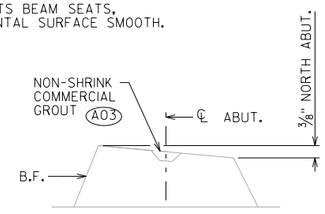
A02 PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

A03 PLACE A DEPARTMENT APPROVED NON-SHRINK COMMERCIAL GROUT OVER THE WIDTH OF ABUTMENT TOP BETWEEN EXISTNG BEAM SEATS PRIOR TO PLACING POLYETHYLENE SHEETS. PLACE GROUT AS REQUIRED TO PRODUCE A SMOOTH SLIDING SURFACE FREE OF PROTRUSIONS. REMOVE DELAMINATED OR LOOSE CONCRETE AND CLEAN THE SURFACE PRIOR TO PLACING GROUT. ADDITIONAL SURFACE PREPARATION MAY BE REQUIRED PER THE MANUFACTURER'S INSTRUCTION. MIX, PLACE AND CURE NON-SHRINK COMMERCIAL GROUT PER THE MANUFACTURER'S RECOMMENDATIONS AND AS DIRECTED BY THE ENGINEER. DO NOT APPLY LOADS TO THE NON-SHRINK COMMERCIAL GROUT UNTIL A MINIMUM COMPRESSIVE STRENGTH OF 3,500 P.S.I. IS ACHIEVED. NON-SHRINK COMMERCIAL GROUT AND SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES."

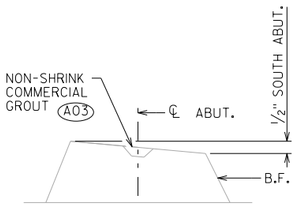
A04 PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

A05 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE.

REMOVAL LIMITS BEAM SEATS, GRIND HORIZONTAL SURFACE SMOOTH.



SECTION THRU NORTH ABUTMENT



SECTION THRU SOUTH ABUTMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-303

DRAWN BY JDM | PLANS CK'D. DLM

ABUTMENT MODIFICATION DETAILS

SHEET 5

296

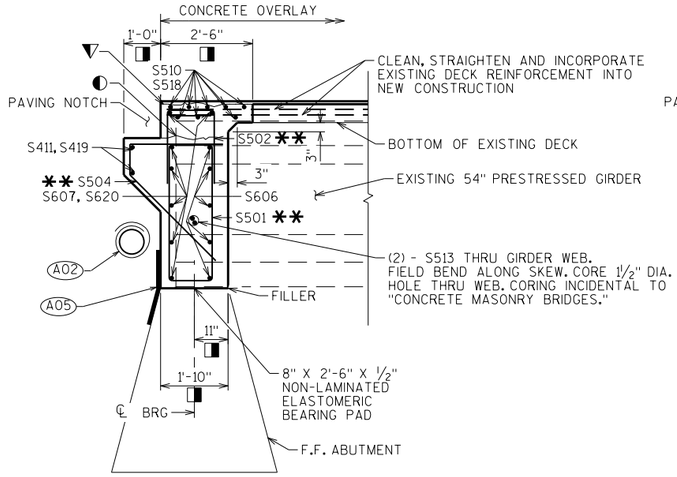
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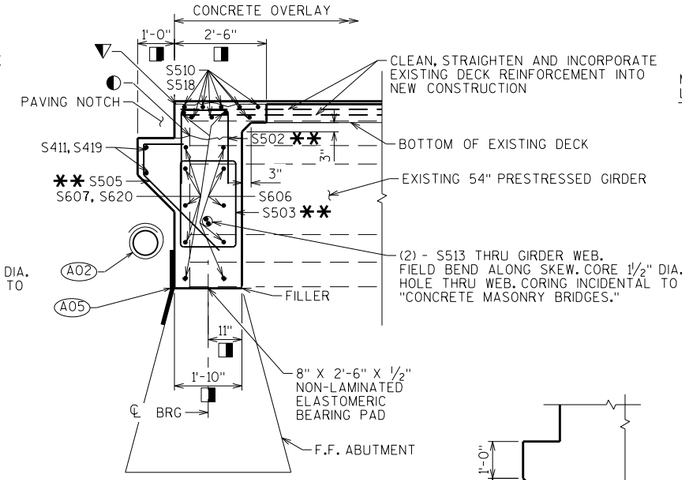
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STATE PROJECT NUMBER

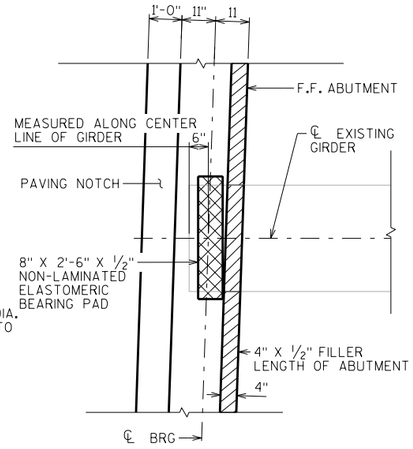
1204-05-73



ABUTMENT DIAPHRAGM SECTION



ABUTMENT DIAPHRAGM SECTION
INSIDE GIRDER FLANGES

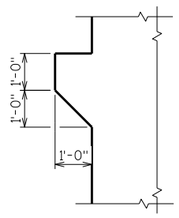


BEARING PAD DETAIL

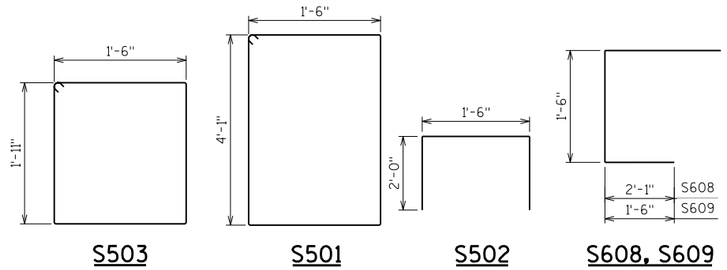
BILL OF BARS

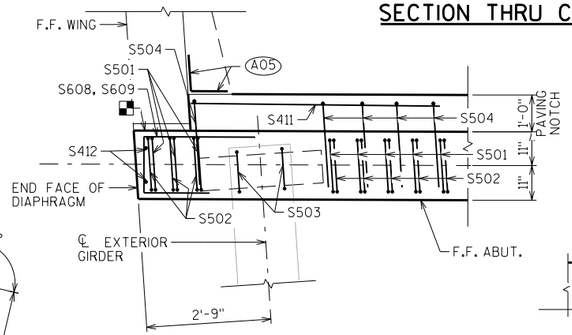
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
S501	X	92	11'-10"	X	ABUT. DIAPH.-STIRRUPS
S502	X	92	5'-3"	X	ABUT. DIAPH.-VERT. TOP
S503	X	24	7'-6"	X	ABUT. DIAPH.-STIRRUPS
S504	X	64	6'-5"	X	ABUT. DIAPH.-VERT. CORBEL
S505	X	24	3'-11"	X	ABUT. DIAPH.-VERT. CORBEL
S606	X	100	4'-3"		ABUT. DIAPH.-HORIZ.- F.F. BTW GIRD.
S607	X	14	24'-1"		ABUT. DIAPH.-HORIZ.-TOP & B.F.-STAGE 1
S608	X	12	6'-9"	X	ABUT. DIAPH.-HORIZ. ENDS
S609	X	4	6'-2"	X	ABUT. DIAPH.-HORIZ. ENDS
S510	X	16	20'-11"		ABUT. DIAPH.-TOP TRANS. DECK-STAGE 2
S411	X	4	20'-11"		ABUT. DIAPH.-TOP-HORIZ.-CORBEL-STAGE 2
S412	X	8	4'-2"		ABUT. DIAPHRAGM - VERT. ENDS
S513	X	24	6'-0"		ABUT. DIAPH.-THRU GIRDER WEBS
S614	X	4	1'-4"		ABUT. DIAPH.-HORIZ. END
S515	X	16	4'-10"	X	PARAPET-VERT.
S516	X	16	4'-4"	X	PARAPET-VERT.
S517	X	16	2'-2"		PARAPET-HORIZ.
S518	X	16	23'-8"		ABUT. DIAPH.-TOP TRANS. DECK-STAGE 1
S419	X	4	22'-8"		ABUT. DIAPH.-TOP-HORIZ.-CORBEL-STAGE 1
S620	X	14	21'-0"		ABUT. DIAPH.-HORIZ.-TOP & B.F.-STAGE 2



SECTION THRU CORBEL

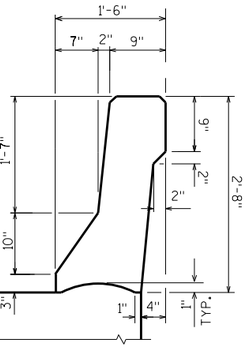


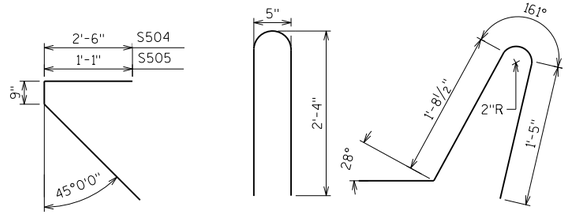


WINGS 1 & 3

WINGS 2 & 4 SIMILAR

SECTION THRU PARAPET

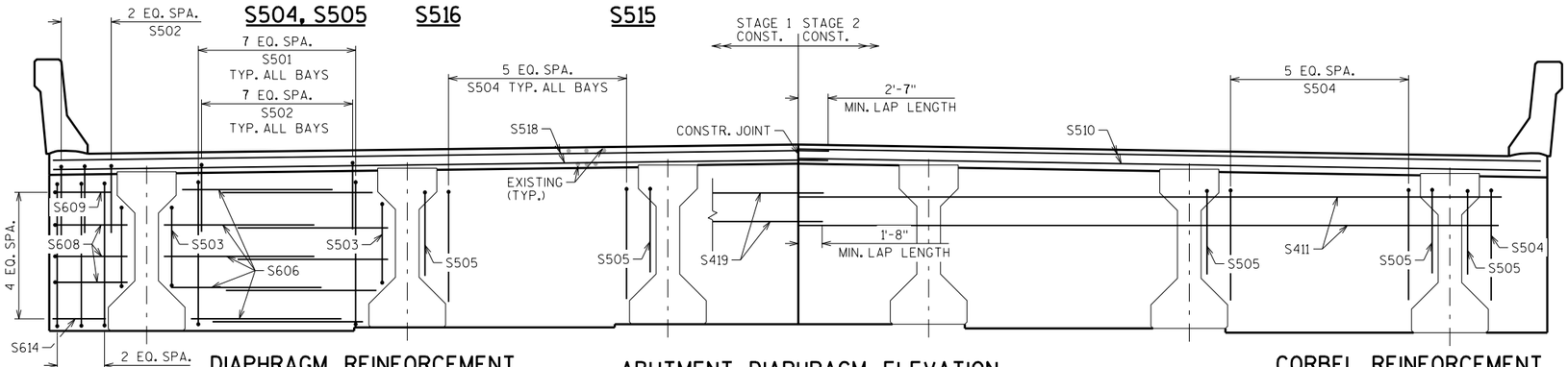




S504, S505 S516 S515

ABUTMENT DIAPHRAGM CORNER PLAN DETAILS

(HORIZONTAL DIAPHRAGM REINFORCING NOT SHOWN FOR CLARITY)



DIAPHRAGM REINFORCEMENT

ABUTMENT DIAPHRAGM ELEVATION

NORTH ABUTMENT SHOWN, SOUTH ABUTMENT SIMILAR

CORBEL REINFORCEMENT

▼ HOLD BACK TOP OF NEW ABUTMENT DIAPHRAGM TO ALLOW FOR CONCRETE OVERLAY

◨ DIMENSION MEASURED NORMAL TO ℄ OF SUBSTRUCTURE

** BARS PLACED PARALLEL TO ℄ OF GIRDERS AND SPACED PERPENDICULAR TO ℄ OF GIRDERS.

◐ OPTIONAL CONSTRUCTION JOINT

▪ ½" FILLER BETWEEN WINGS & DIAPHRAGM. EXTEND TO TOP OF PARAPET. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACES OF CONCRETE).

(A02) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

(A05) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-303

DRAWN BY JDM | PLANS CK'D. DLM

ABUTMENT DIAPHRAGM DETAILS

SHEET 6

297

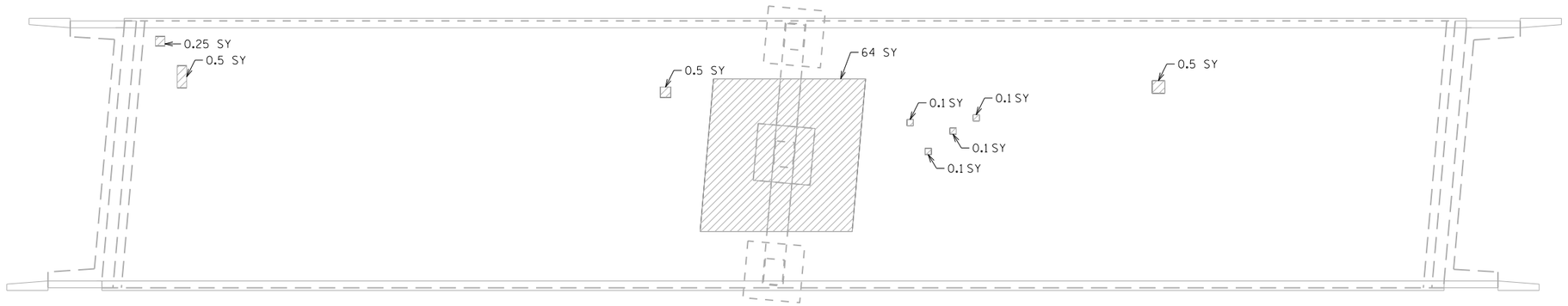
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8

SCALE = 2.00

STATE PROJECT NUMBER

1204-05-73



PLAN

FROM CHAINING ON 3/26/2019. FOR REFERENCE ONLY.
DELAMINATED AREA TO BE DETERMINED BY FIELD ENGINEER

NOTE: DECK SURVEY IS SHOWN FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT BE ALL INCLUSIVE. ADDITIONAL PATCHING/PREPARATION MAY BE REQUIRED AND SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER.

ESTIMATED DELAMINTATION AREA

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-303

DRAWN BY	JDM	PLANS CK'D.	DLM

DECK CONDITION SURVEY

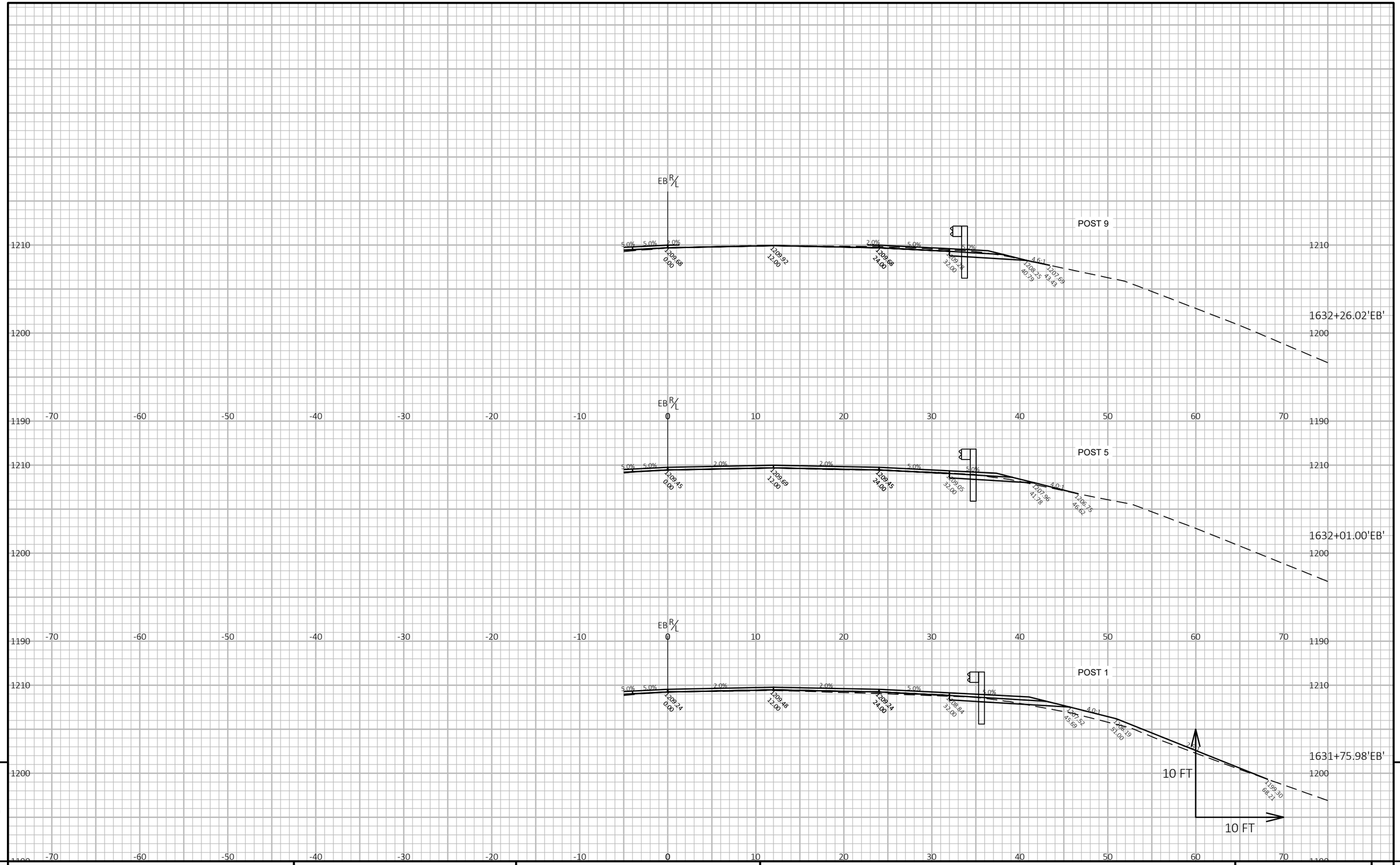
SHEET 7

298

8

8

SCALE = 10.00



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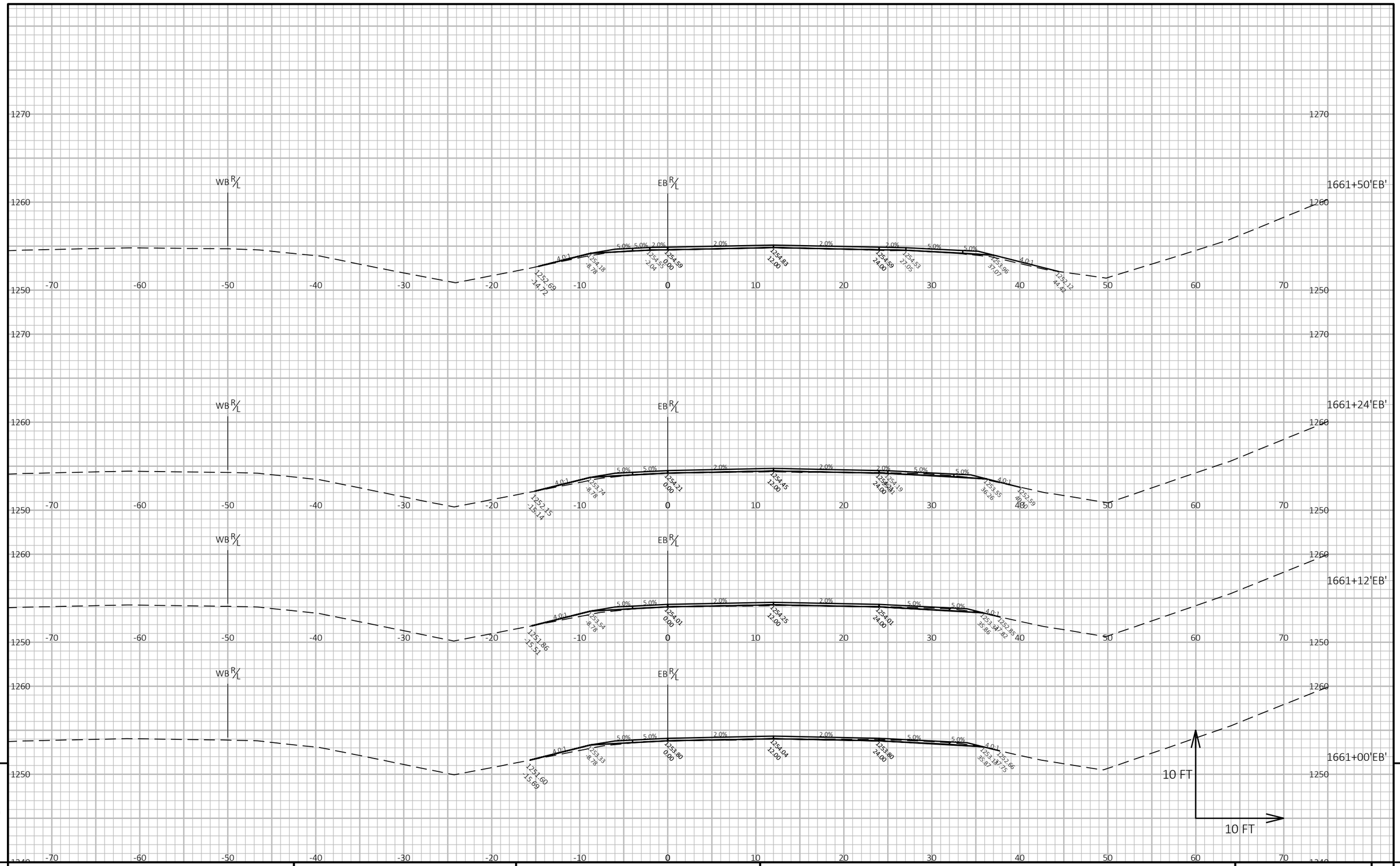
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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 299	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 1

PLOT DATE : 4/21/2020 2:42 PM PLOT BY : BRETT PETERSON PLOT NAME :

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



9

9

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 300	E

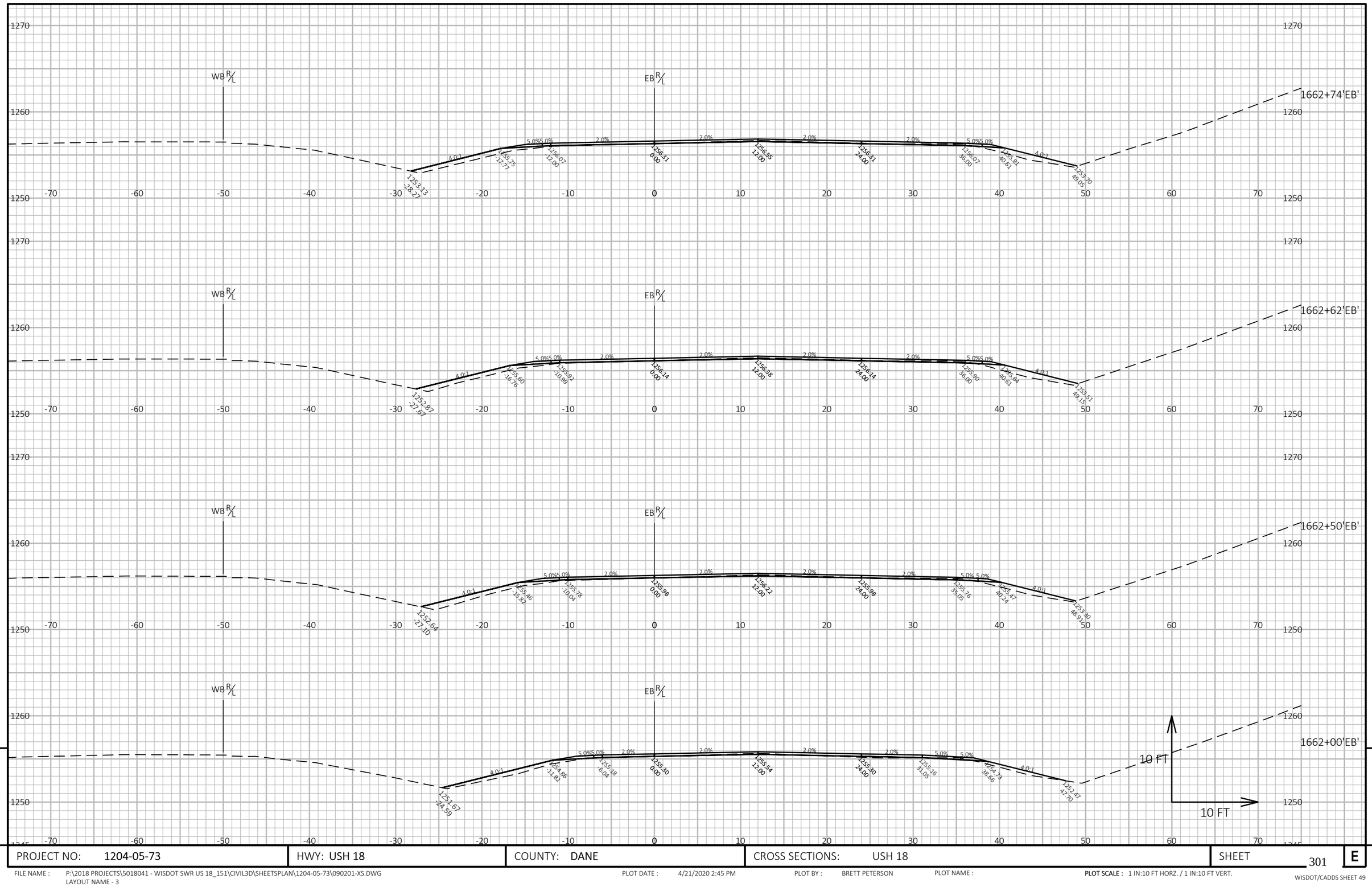
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LAYOUT NAME - 2

PLOT DATE : 4/21/2020 2:44 PM

PLOT BY : BRETT PETERSON

PLOT NAME :

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



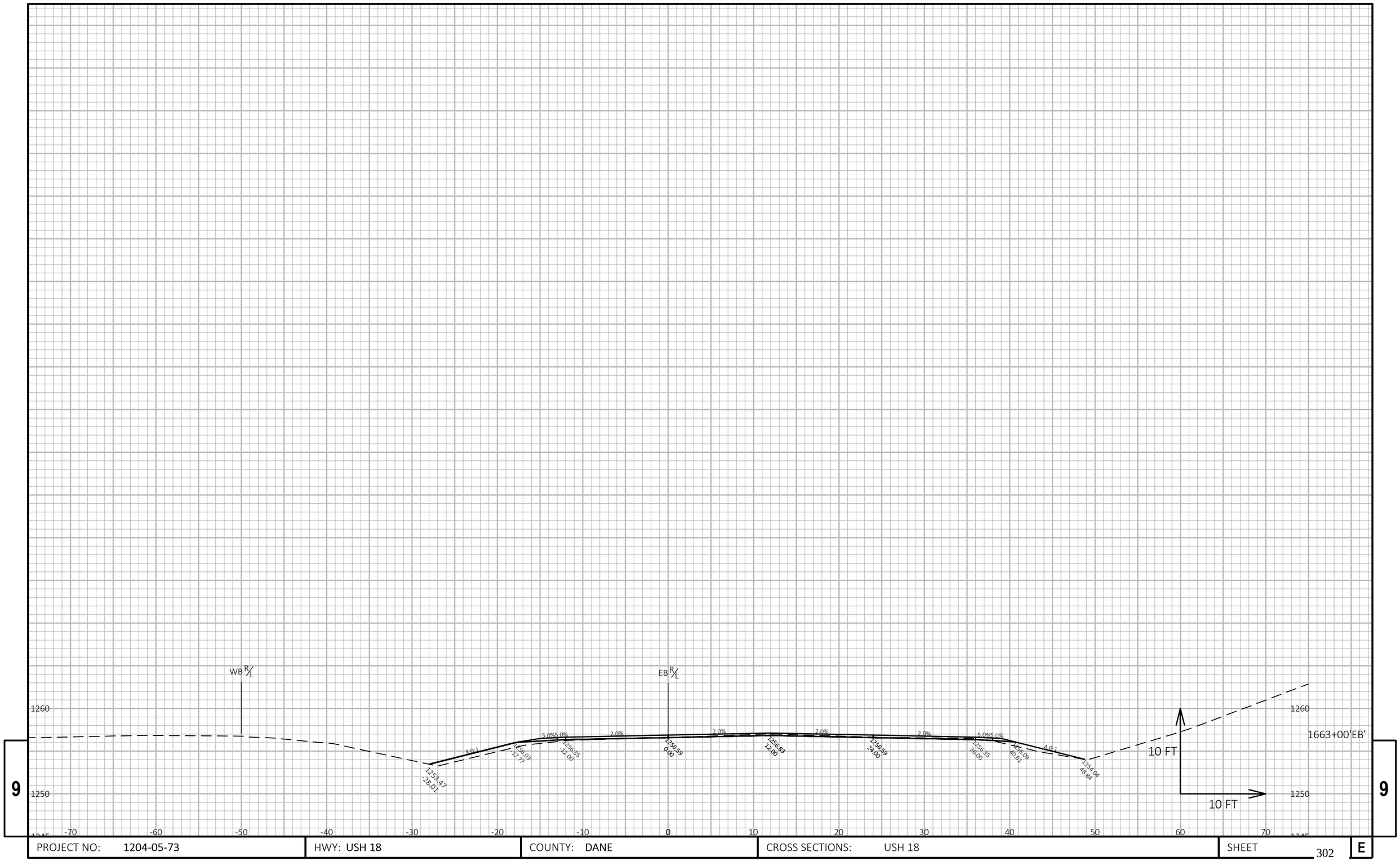
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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 301	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 3

PLOT DATE : 4/21/2020 2:45 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



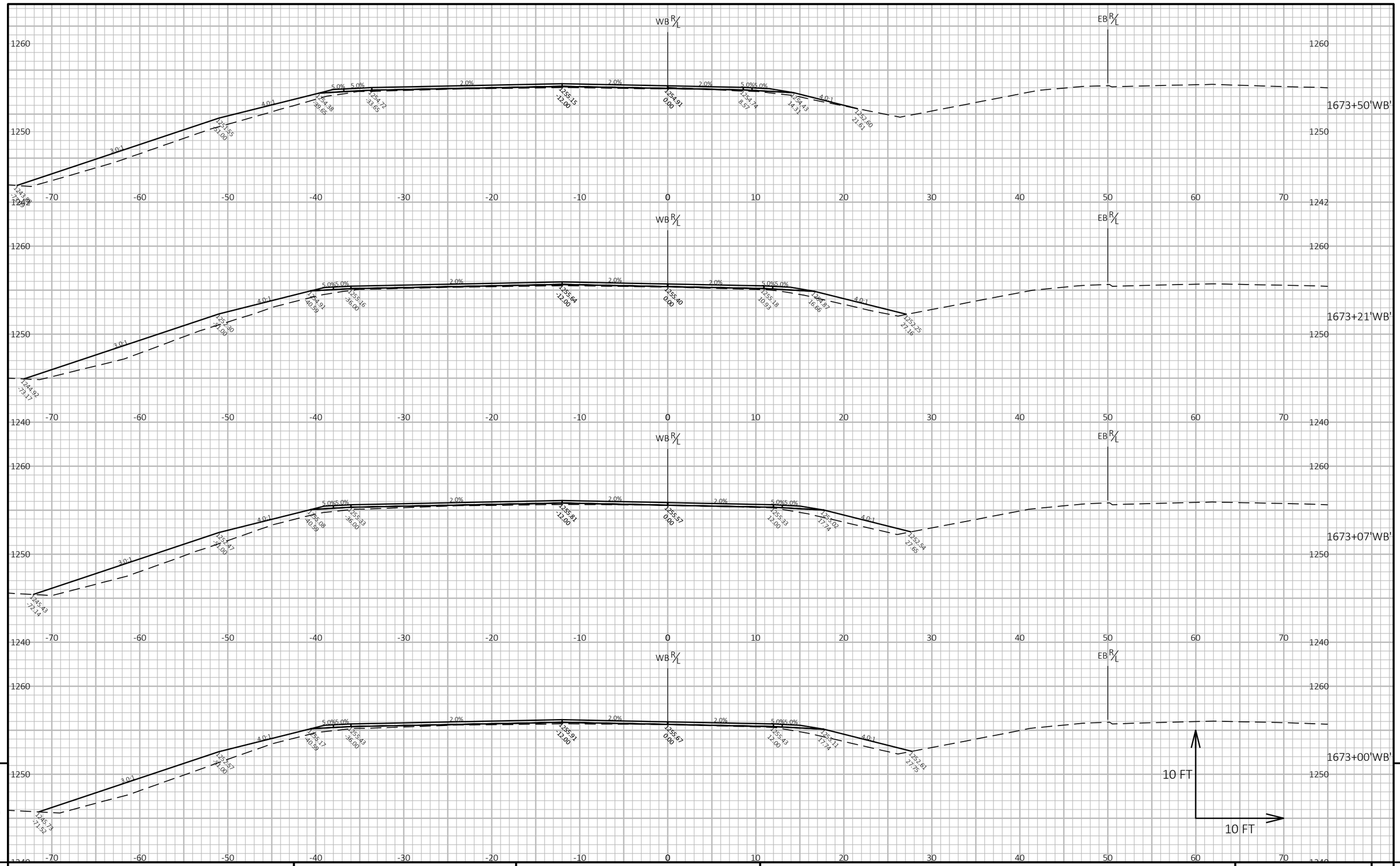
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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 302	E

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LAYOUT NAME - 4

PLOT DATE : 4/21/2020 2:46 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 303	E

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LAYOUT NAME - 5

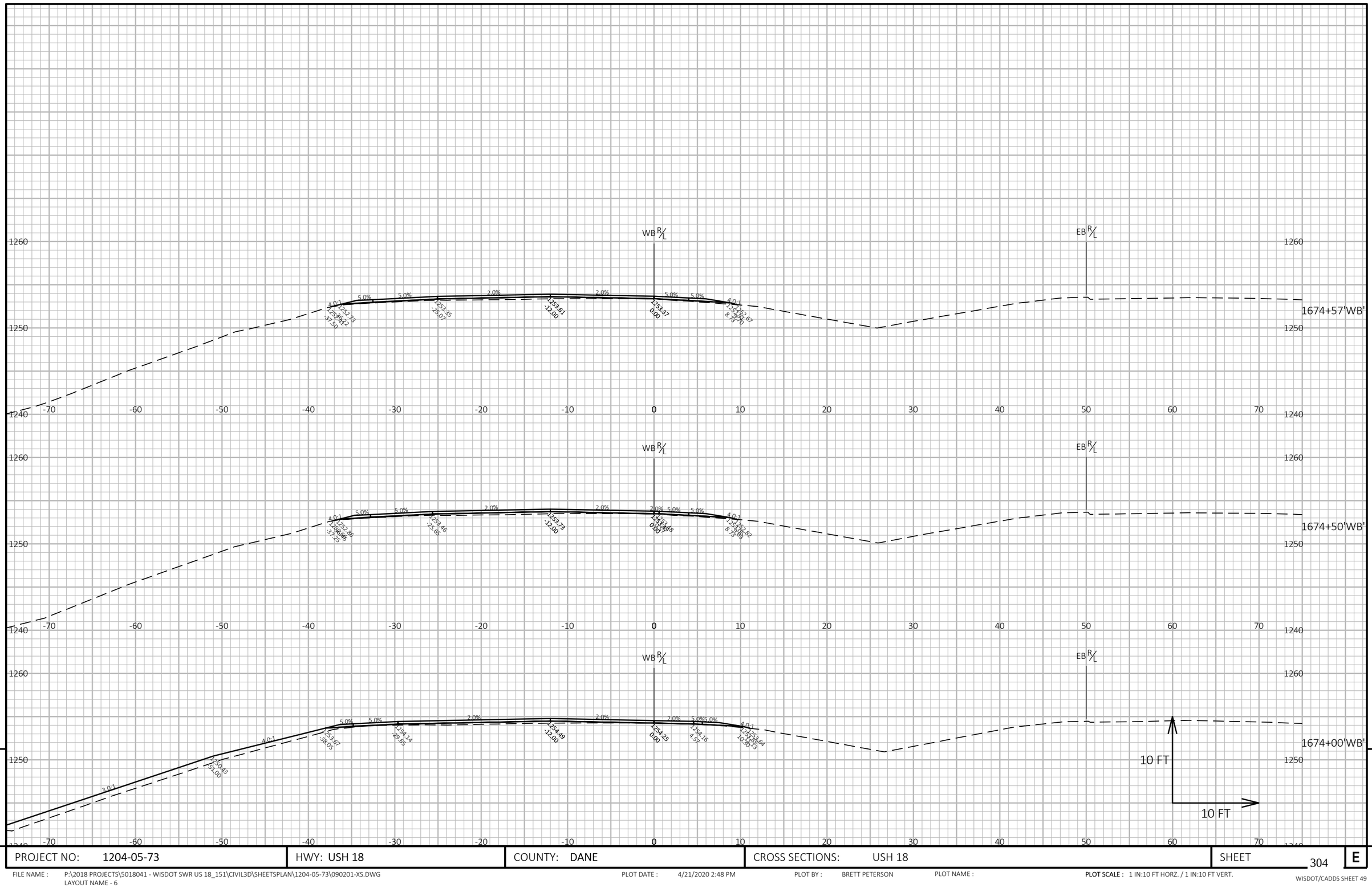
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PLOT BY : BRETT PETERSON

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

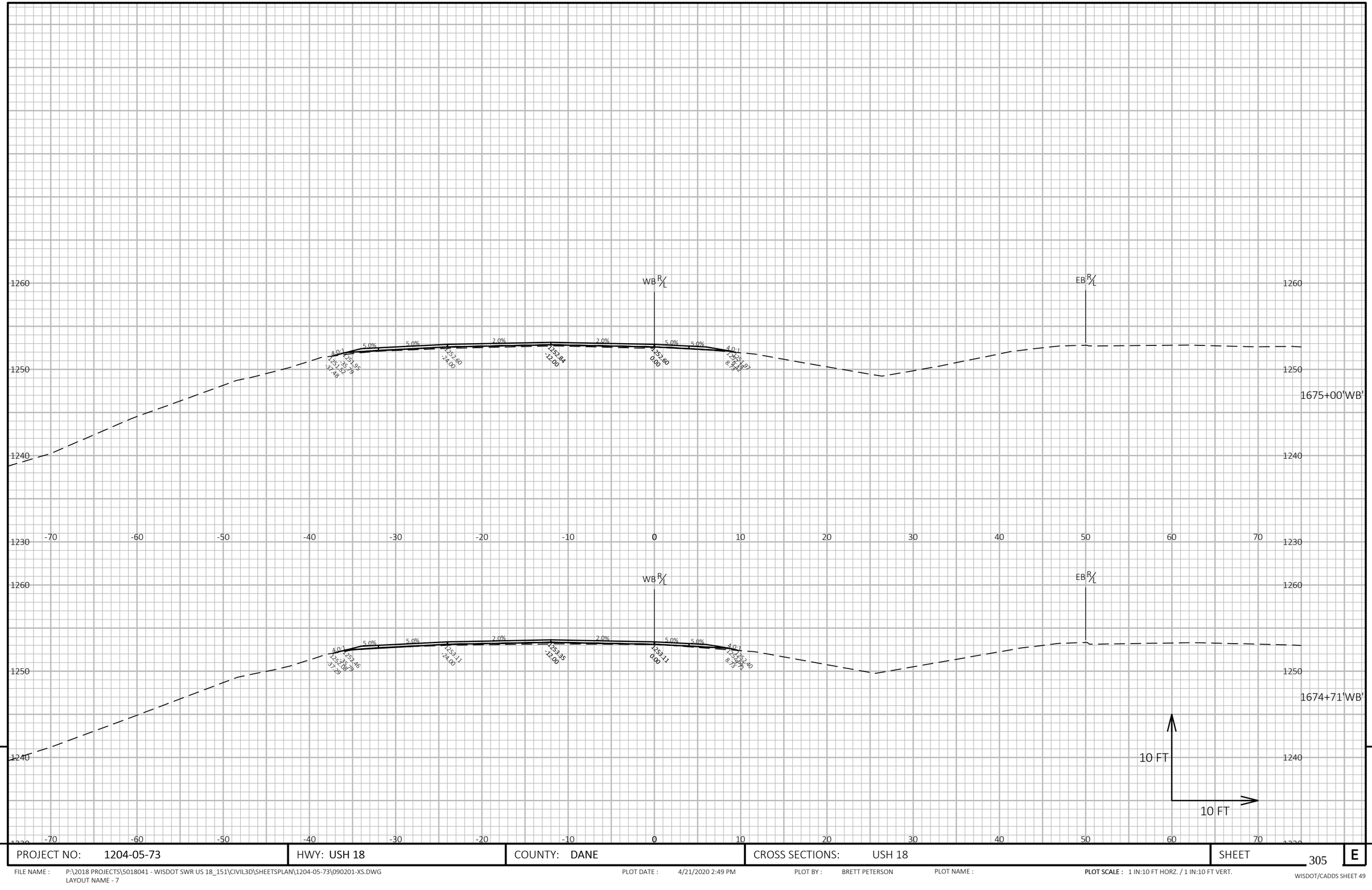
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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 304	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 6

PLOT DATE : 4/21/2020 2:48 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

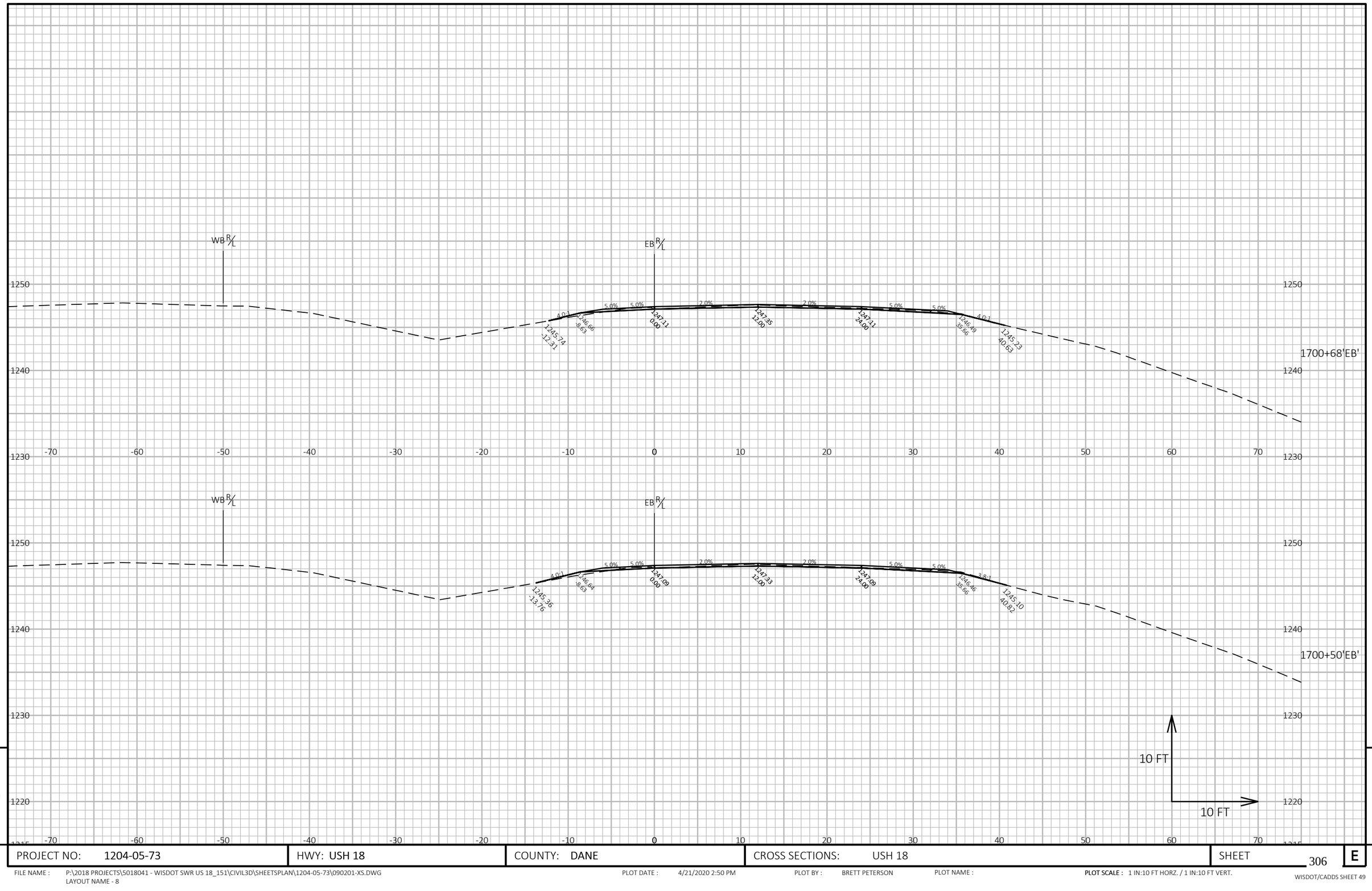
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FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 7

PLOT DATE : 4/21/2020 2:49 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 306	E

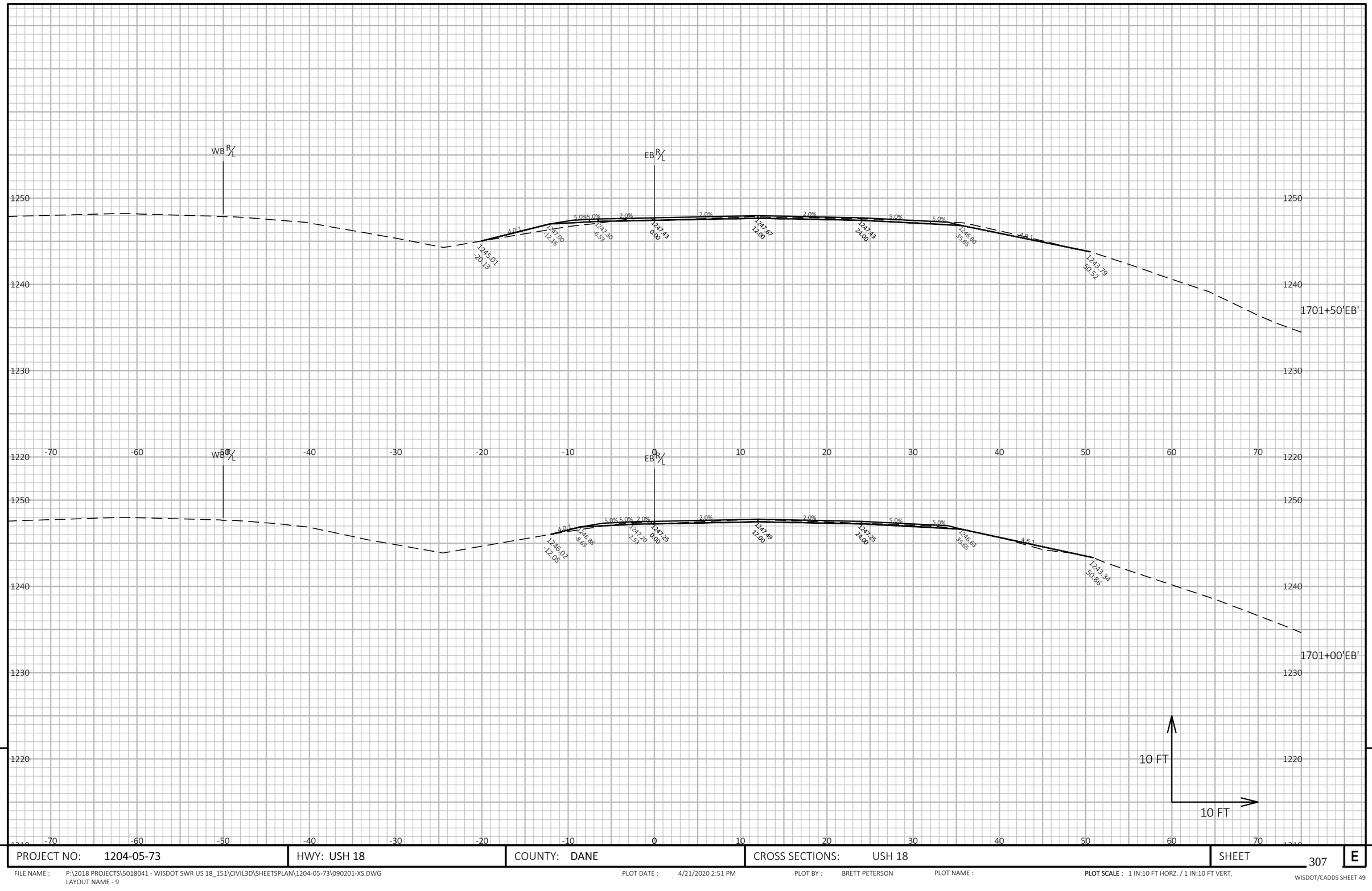
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LAYOUT NAME - 8

PLOT DATE : 4/21/2020 2:50 PM

PLOT BY : BRETT PETERSON

PLOT NAME :

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



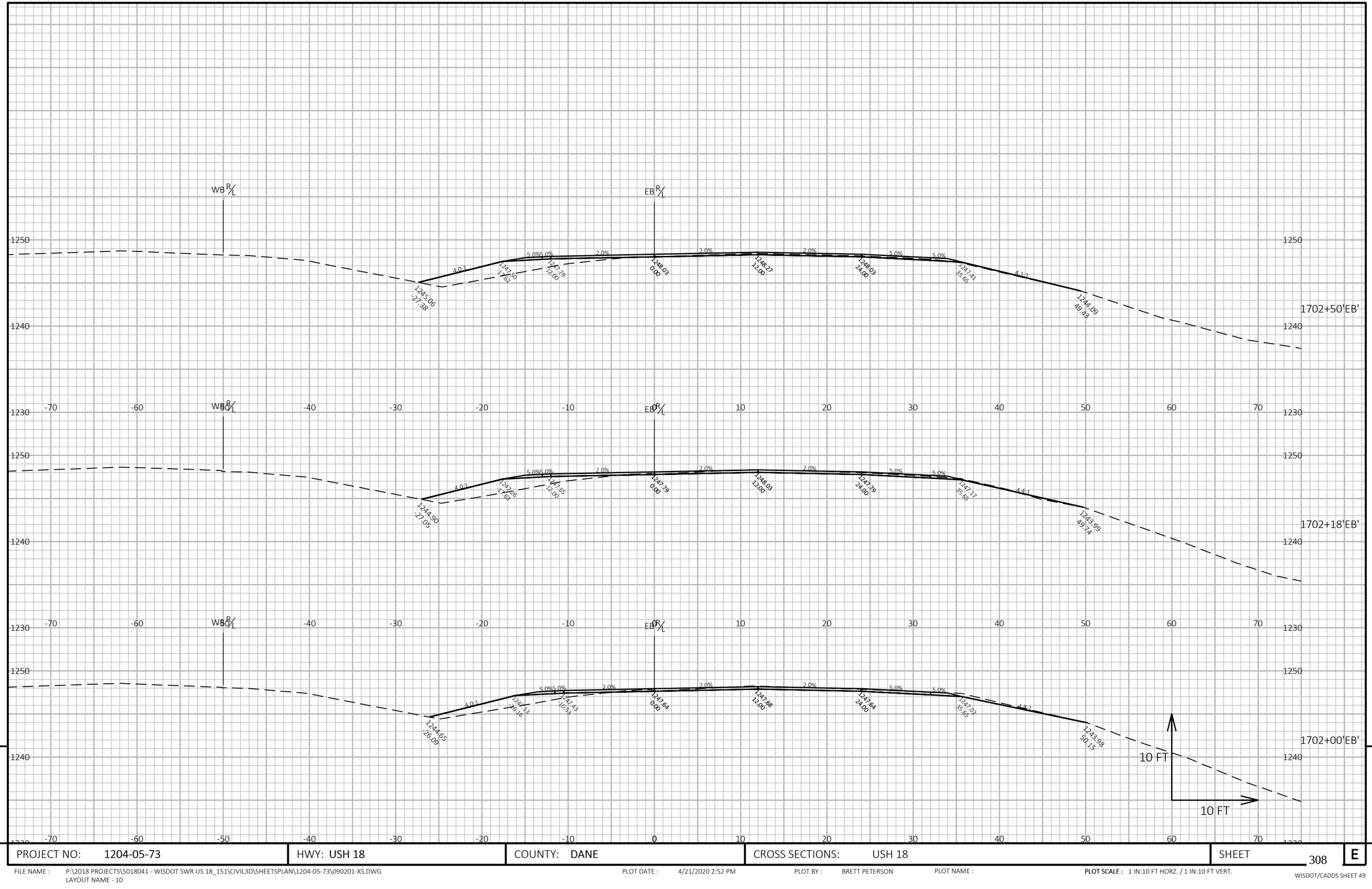
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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 307	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 9

PLOT DATE : 4/21/2020 2:51 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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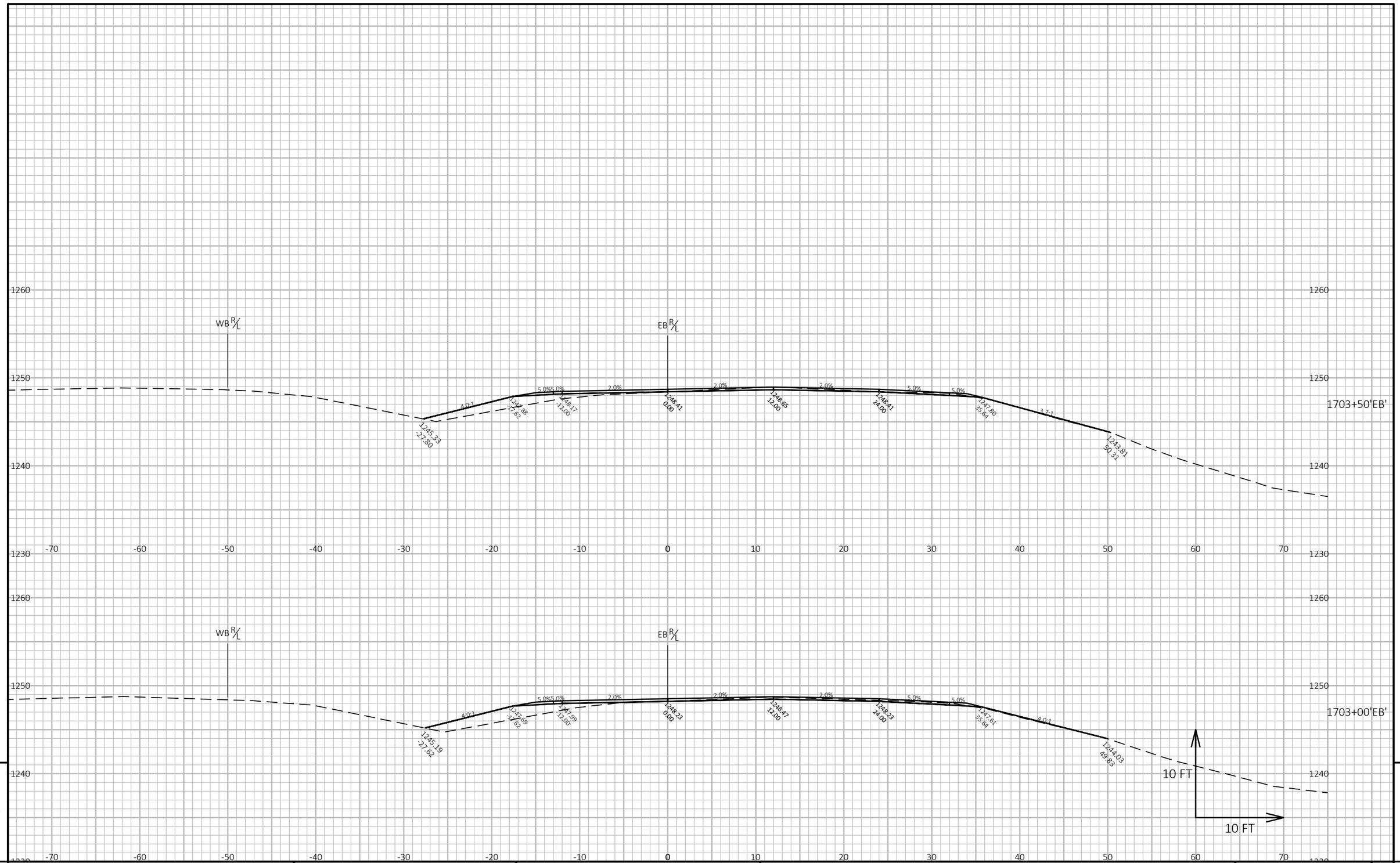
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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 308	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 10

PLOT DATE : 4/21/2020 2:52 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

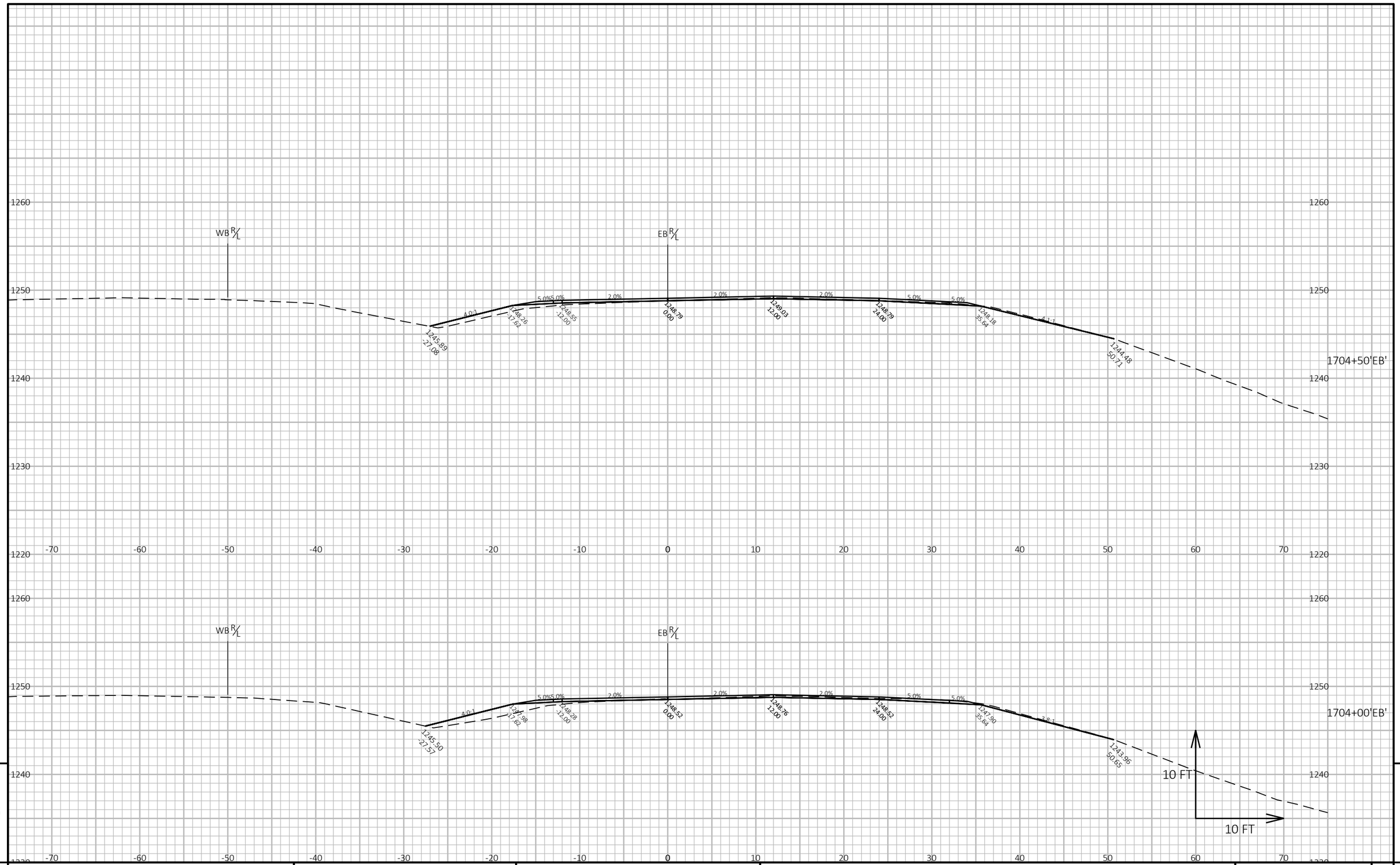


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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 309	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 11

PLOT DATE : 4/21/2020 2:53 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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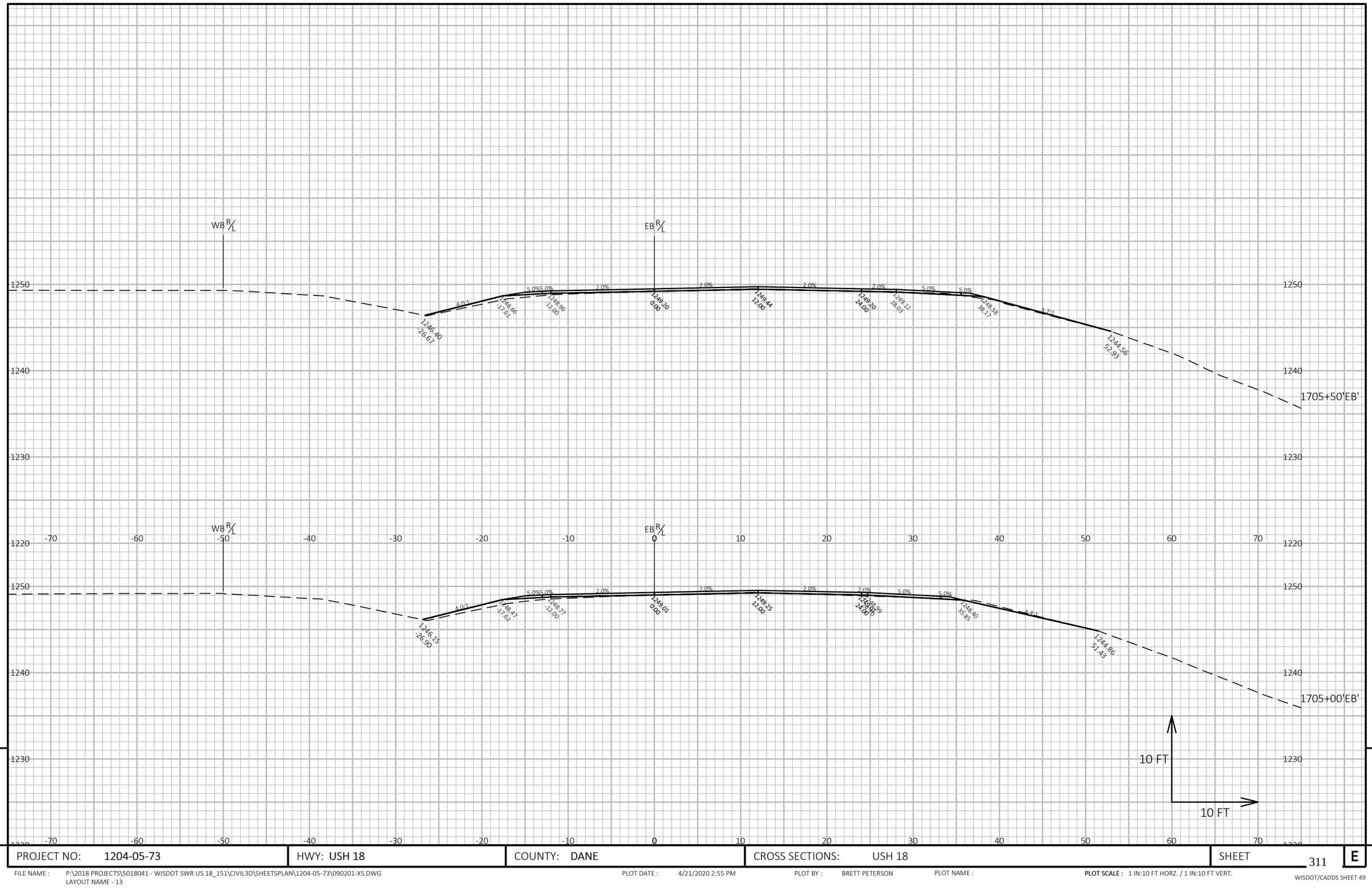
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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 310	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 12

PLOT DATE : 4/21/2020 2:54 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

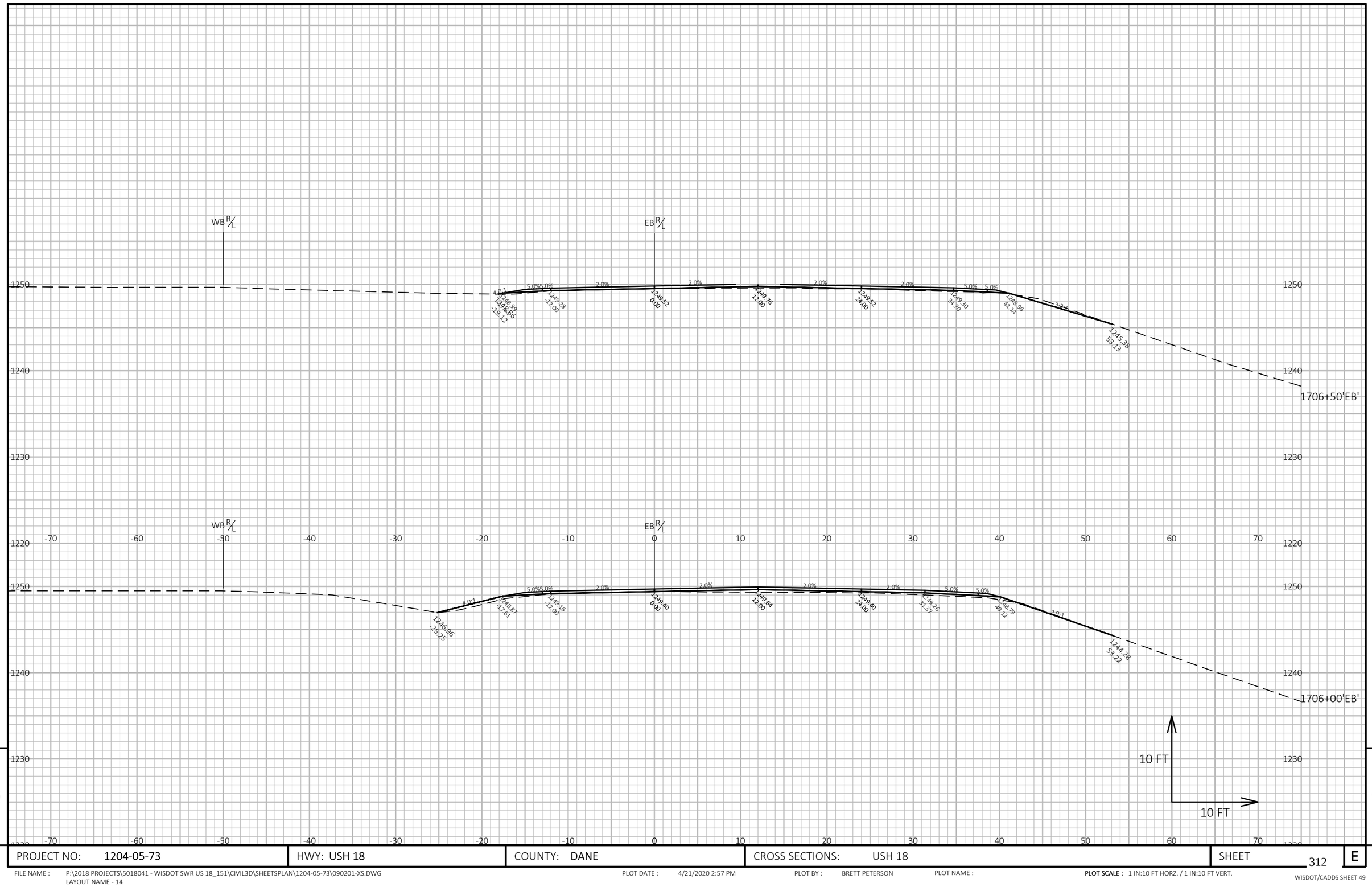


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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 311 E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 13

PLOT DATE : 4/21/2020 2:55 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

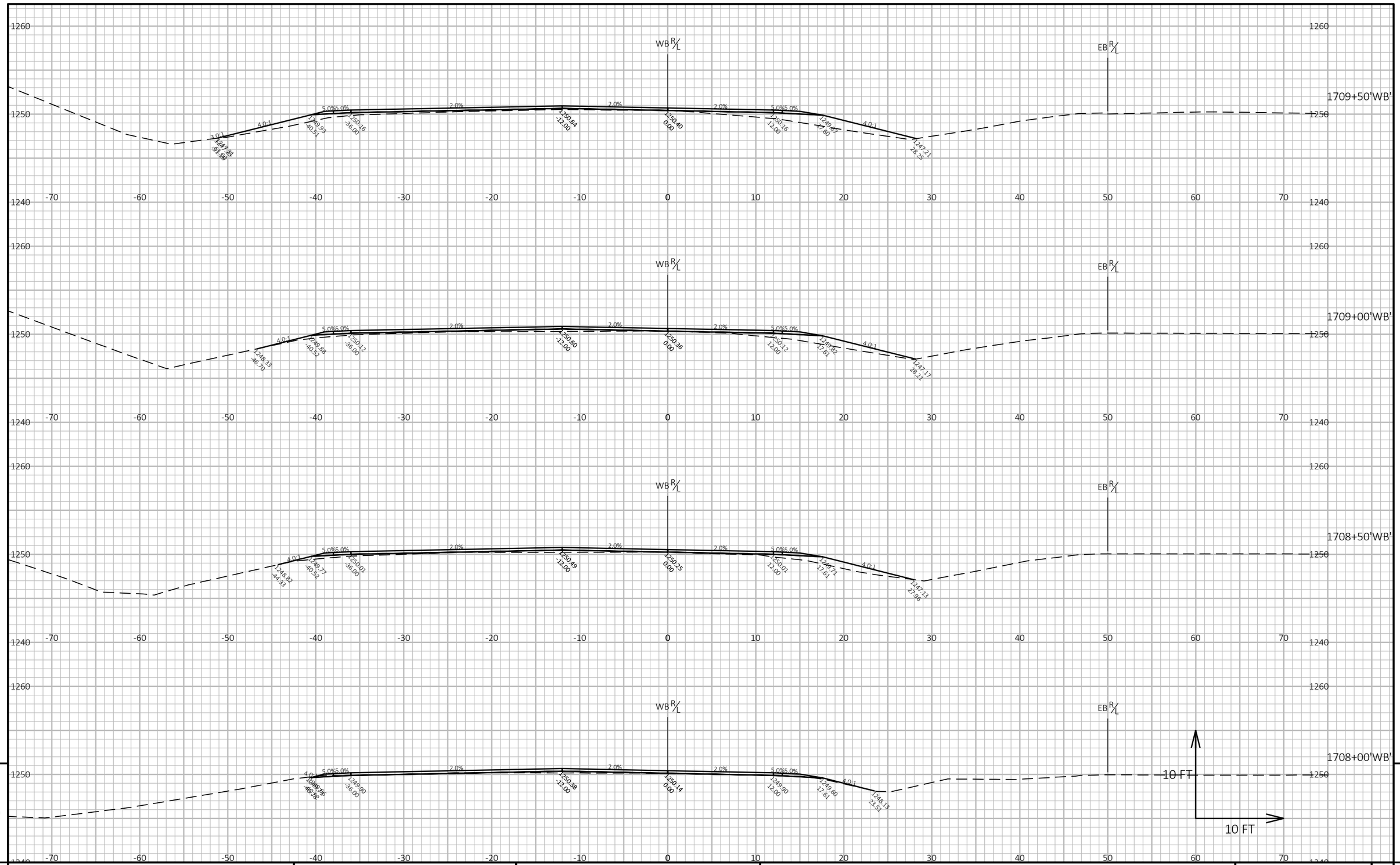
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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 312	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 14

PLOT DATE : 4/21/2020 2:57 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

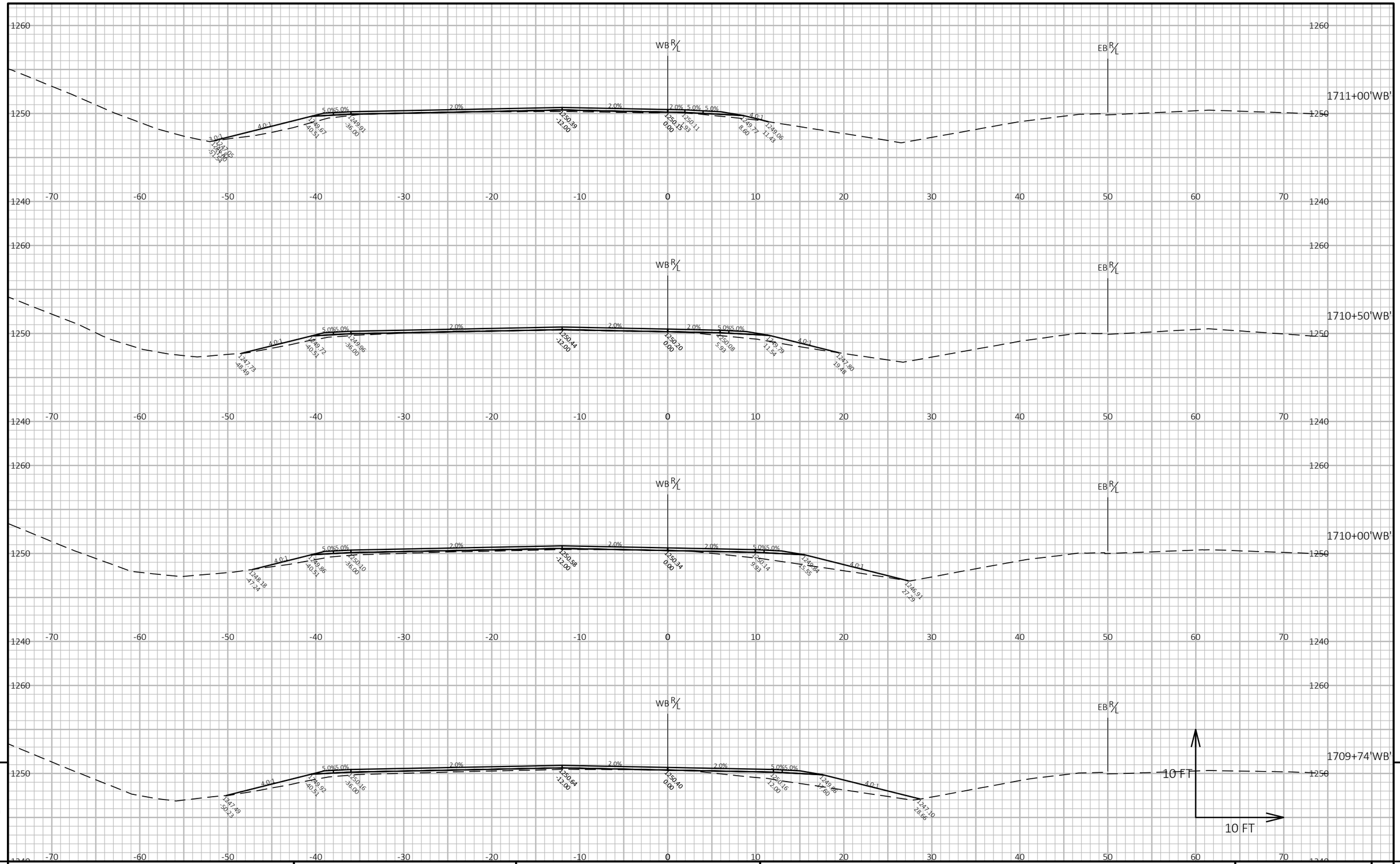
9

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 313	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 15

PLOT DATE : 4/21/2020 2:58 PM PLOT BY : BRETT PETERSON 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: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 314	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 16

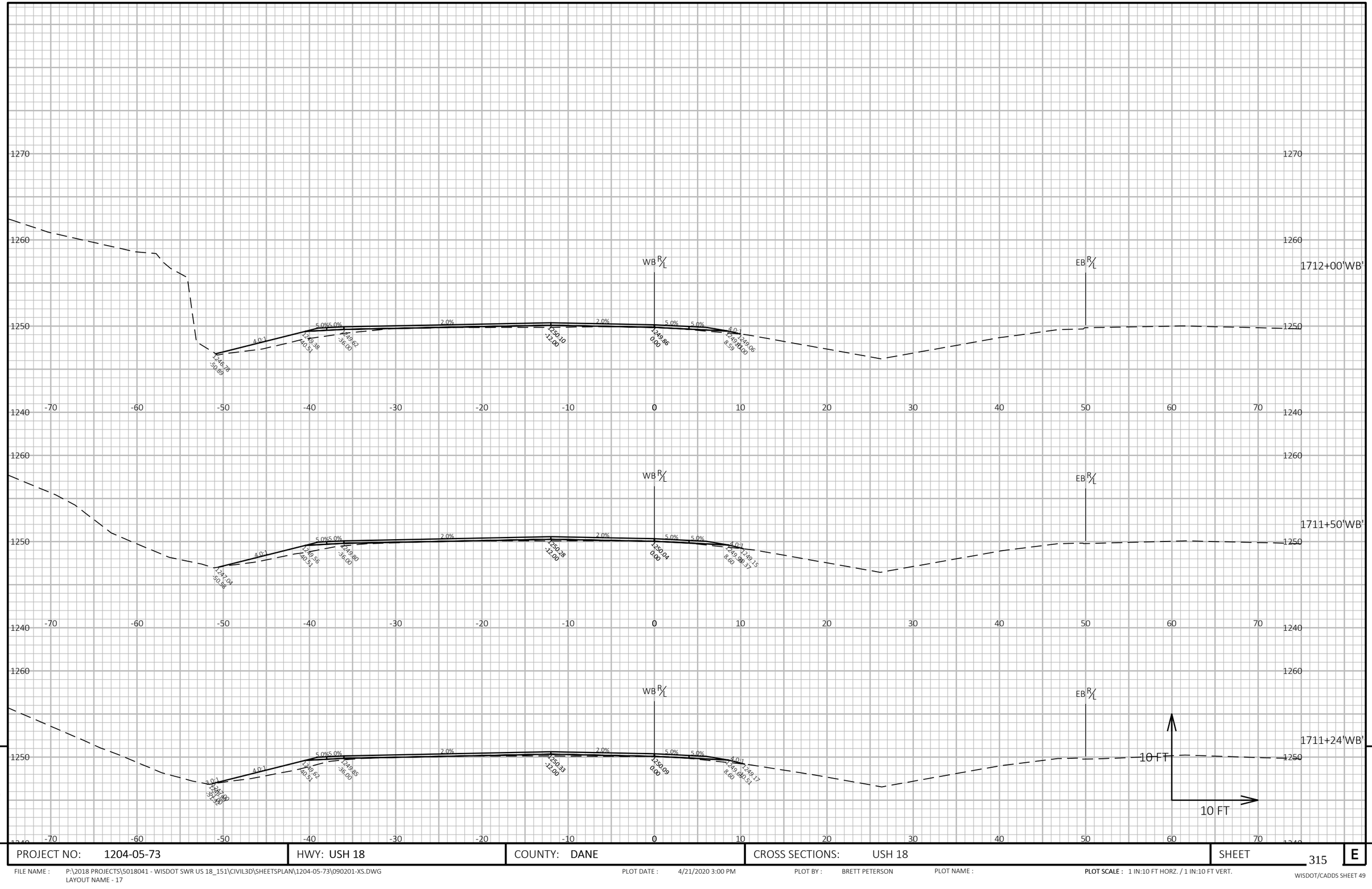
PLOT DATE : 4/21/2020 2:59 PM

PLOT BY : BRETT PETERSON

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

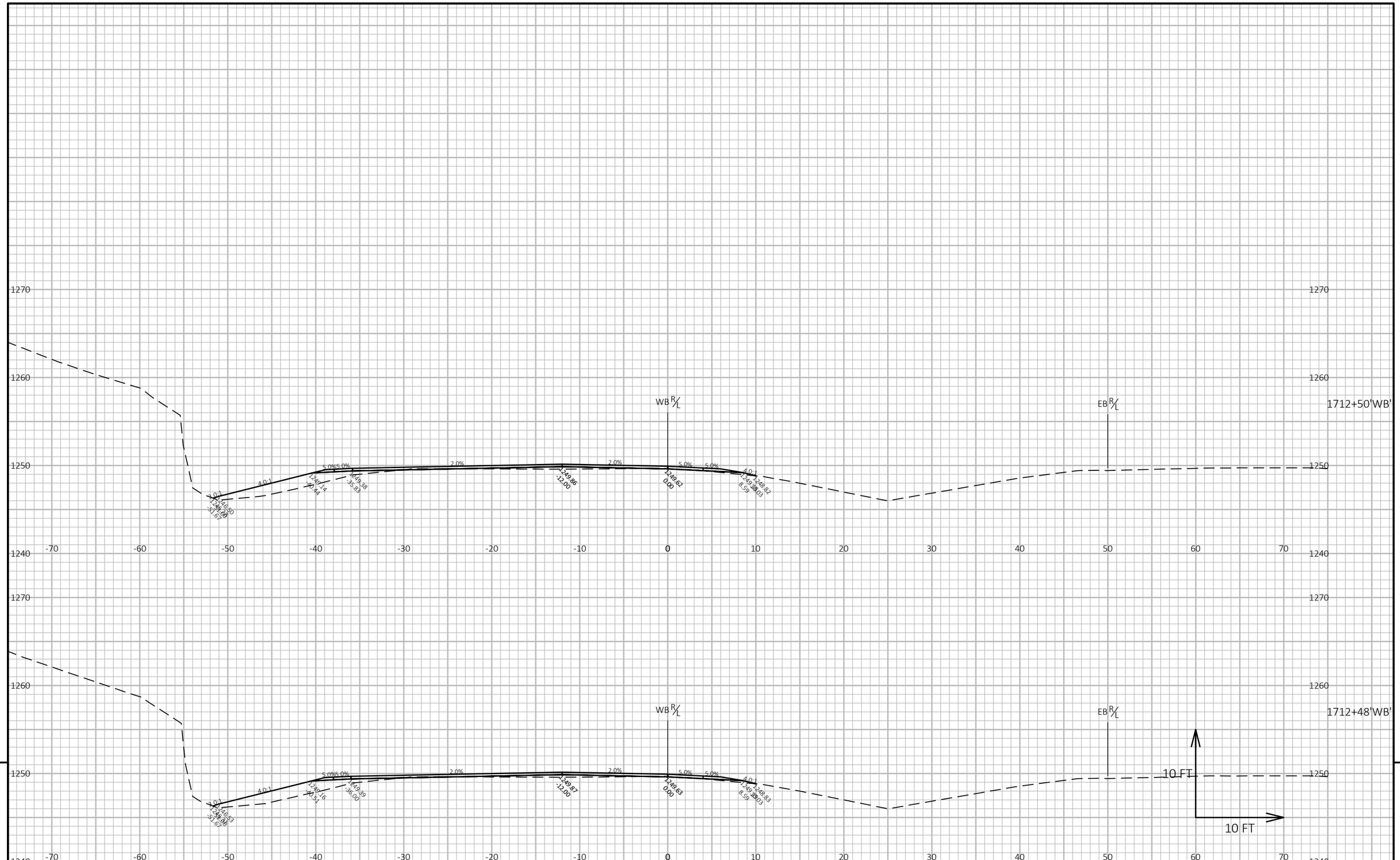
9

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 315	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 17

PLOT DATE : 4/21/2020 3:00 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 316	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 18

PLOT DATE : 4/21/2020 3:01 PM

PLOT BY : BRETT PETERSON

PLOT NAME :

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

WISDOT/CADDS SHEET 49

1713+50'WB'

WB R/L

EB R/L

1270
1260
1250
1240

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

4.0:1 5.0% 5.0% 2.0% 2.0% 5.0% 5.0% 4.0:1

1247.87 -39.95
1248.56 -37.16
1249.05 -27.83
1249.37 -12.00
1249.13 0.00
1248.89 8.59
1249.15 10.72

1713+00'WB'

WB R/L

EB R/L

1270
1260
1250
1240

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

4.0:1 5.0% 5.0% 2.0% 2.0% 5.0% 5.0% 4.0:1

1246.20 -49.43
1248.85 -39.80
1249.22 -31.83
1249.61 -12.00
1249.37 0.00
1248.99 8.59
1248.54 9.18

10 FT
10 FT

9

9

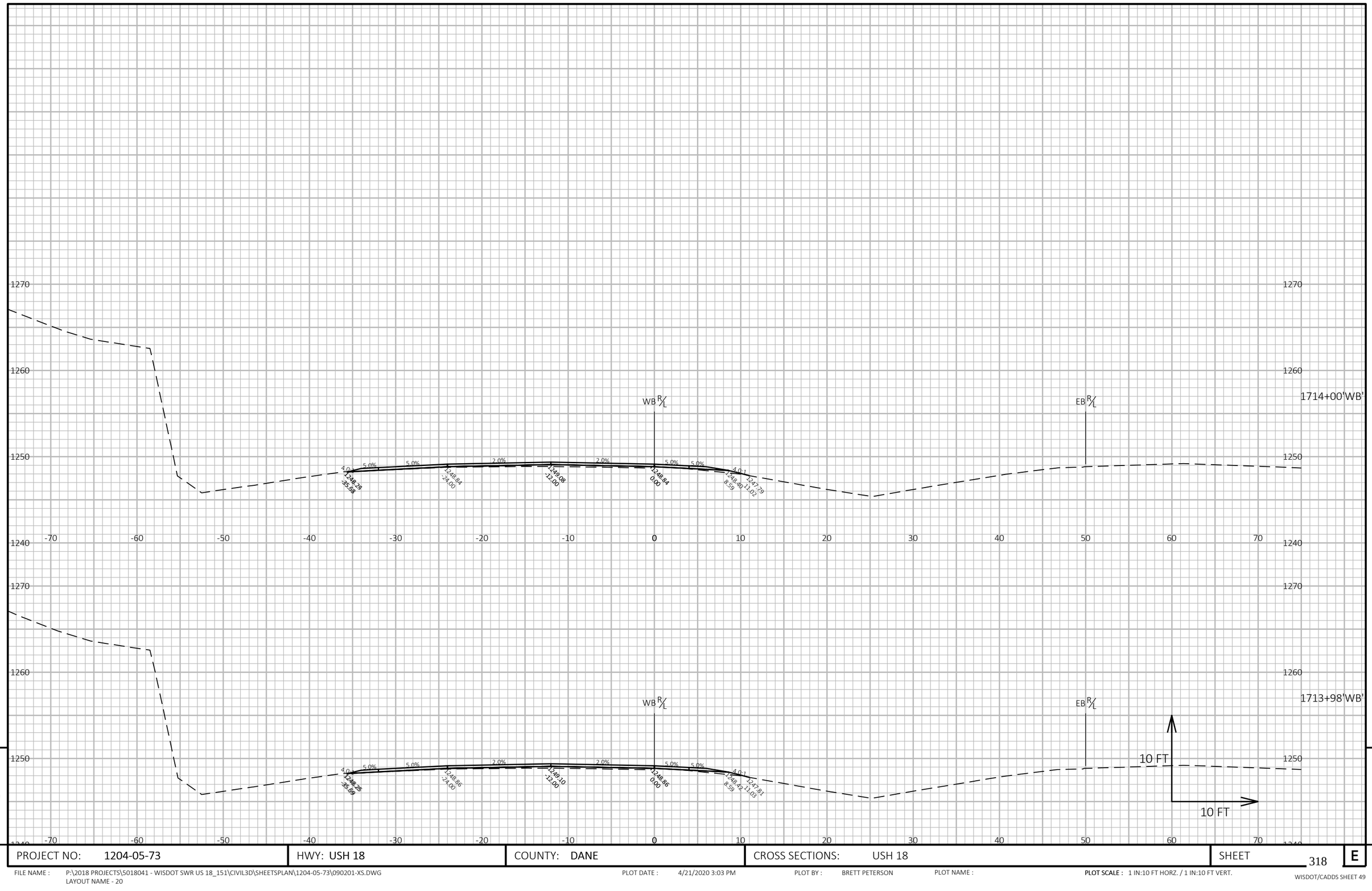
PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 317	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 19

PLOT DATE : 4/21/2020 3:02 PM PLOT BY : BRETT PETERSON PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

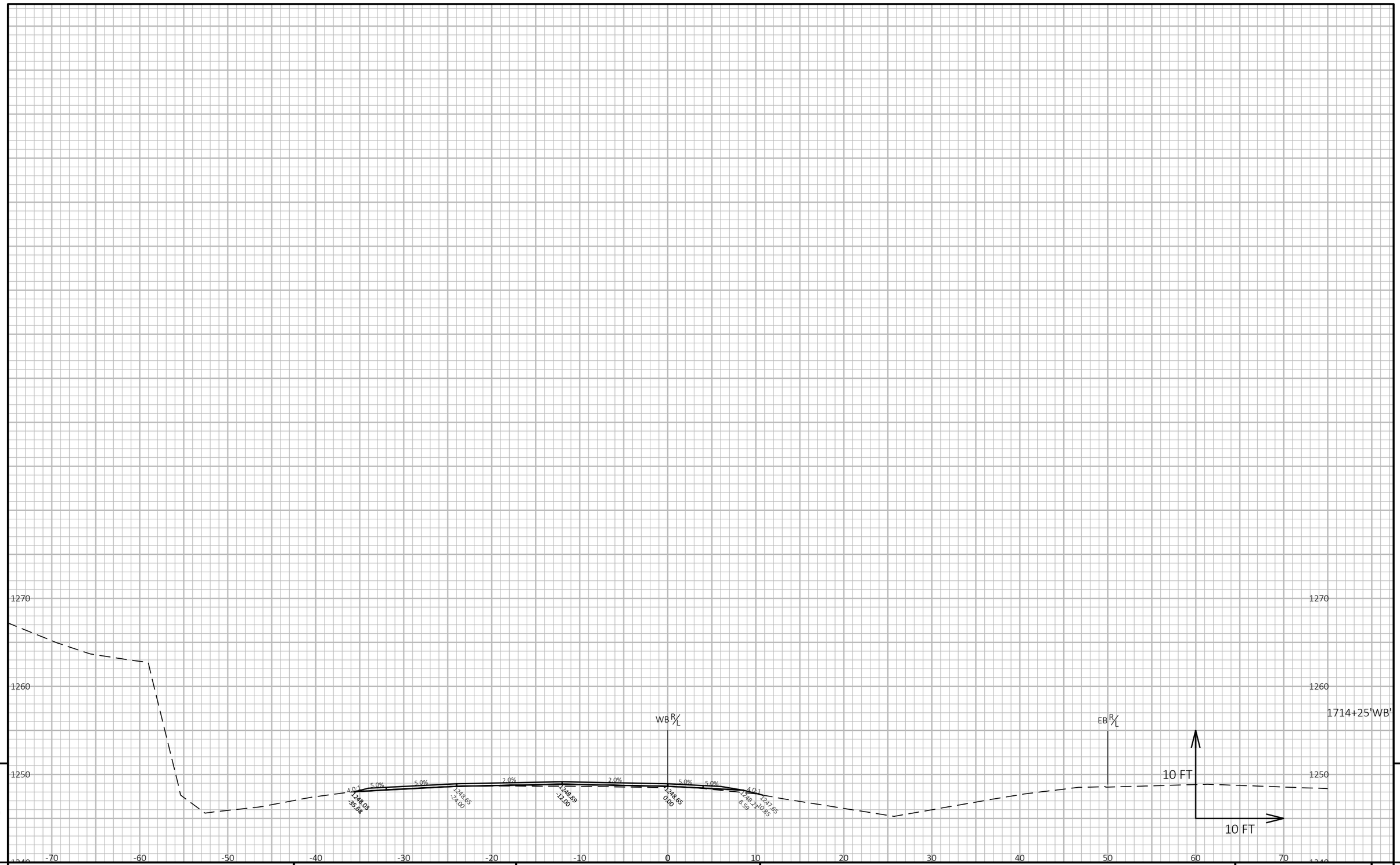
PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 318	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 20

PLOT DATE : 4/21/2020 3:03 PM PLOT BY : BRETT PETERSON PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

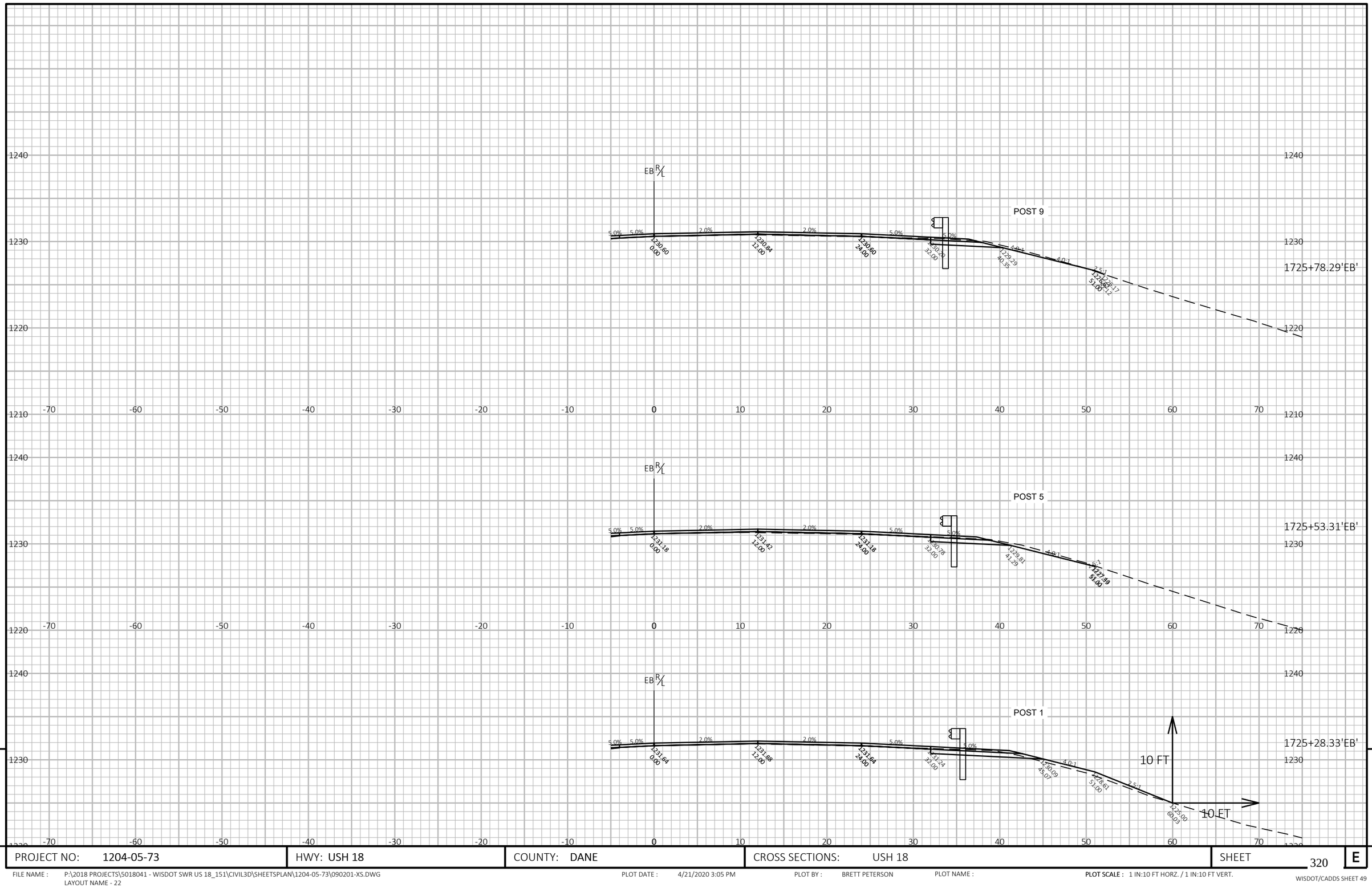
9

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 319	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 21

PLOT DATE : 4/21/2020 3:04 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

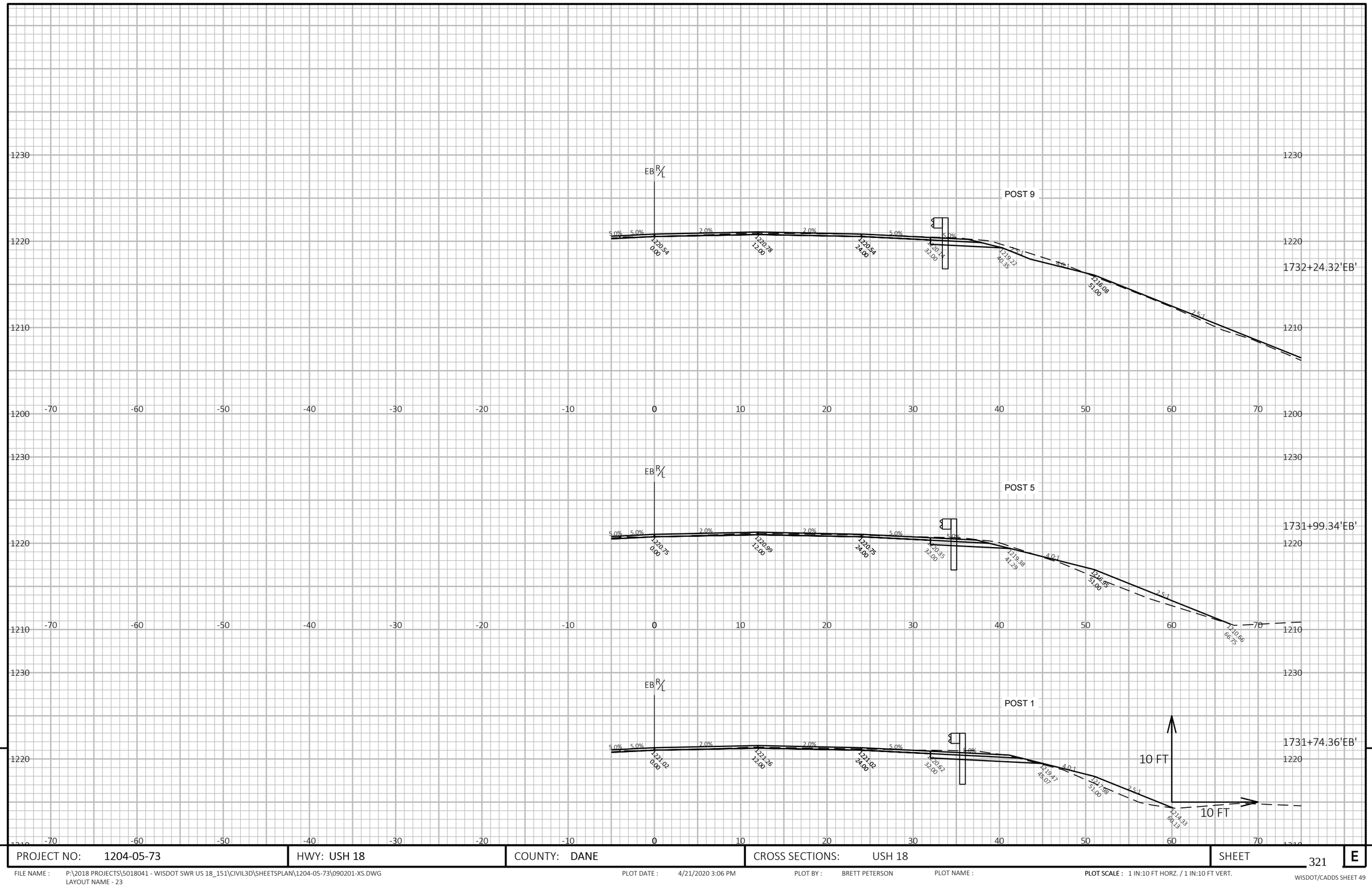


PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 320	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 22

PLOT DATE : 4/21/2020 3:05 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

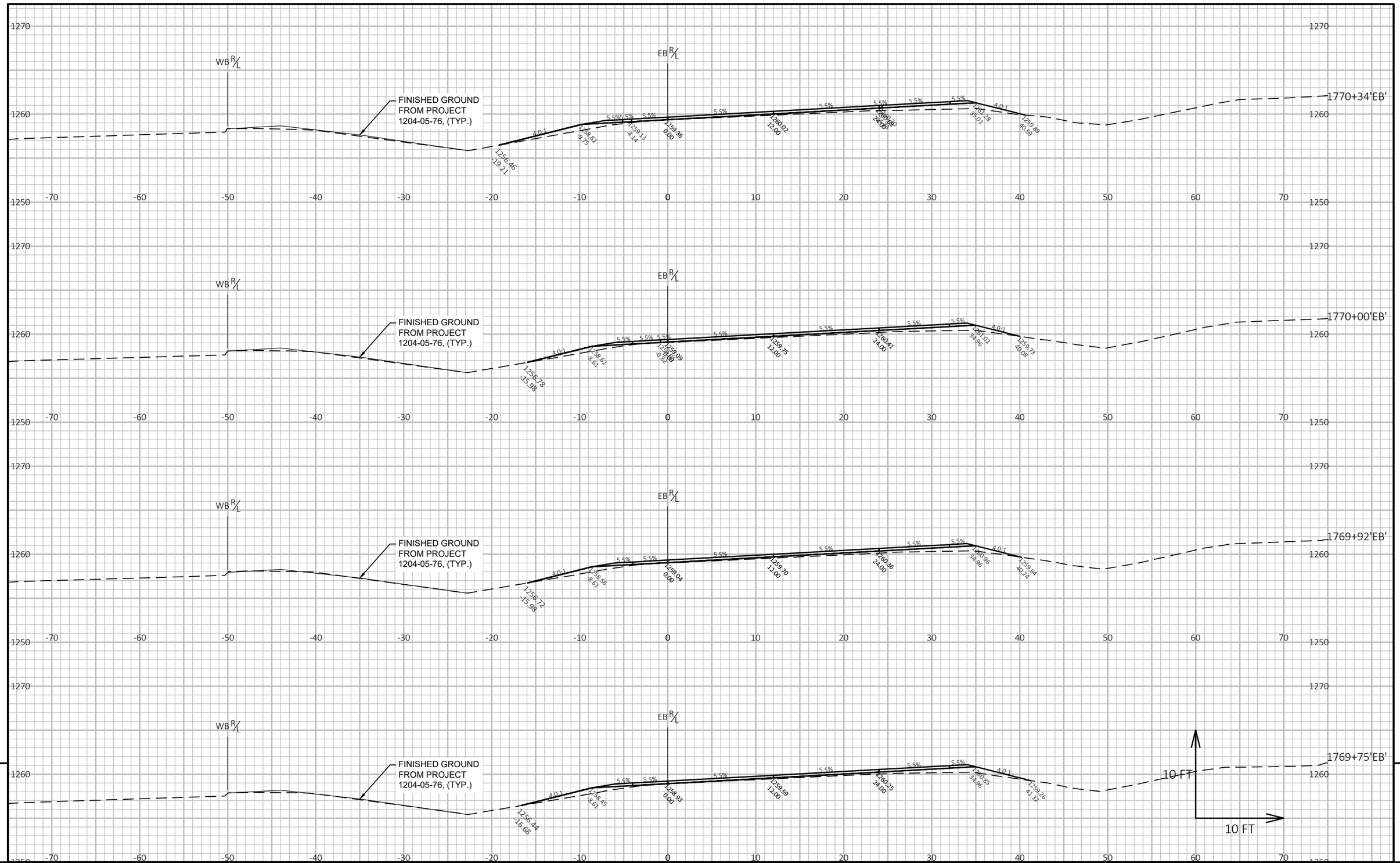


PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 321	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 23

PLOT DATE : 4/21/2020 3:06 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

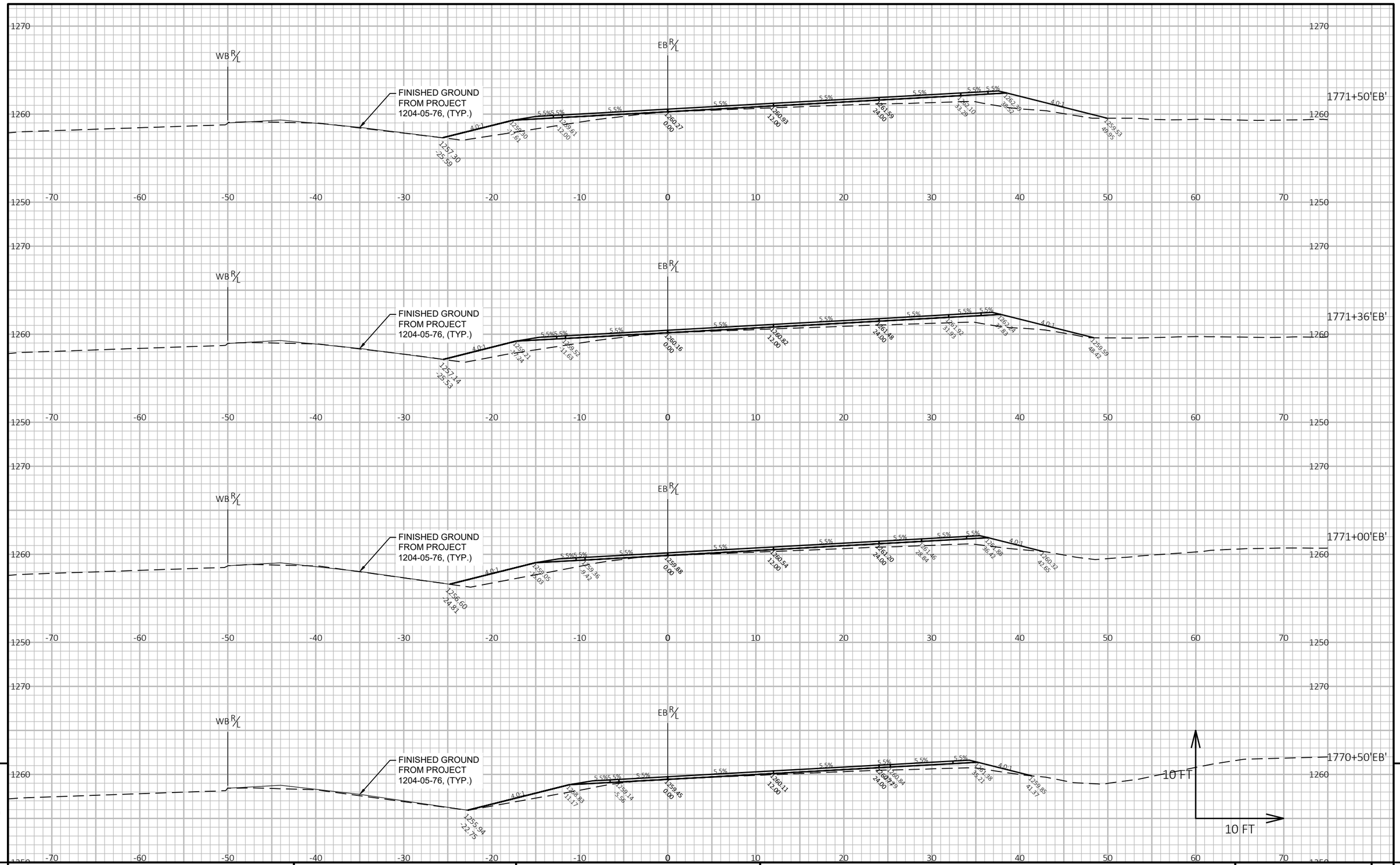


PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 322 E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 24

PLOT DATE : 4/21/2020 3:07 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

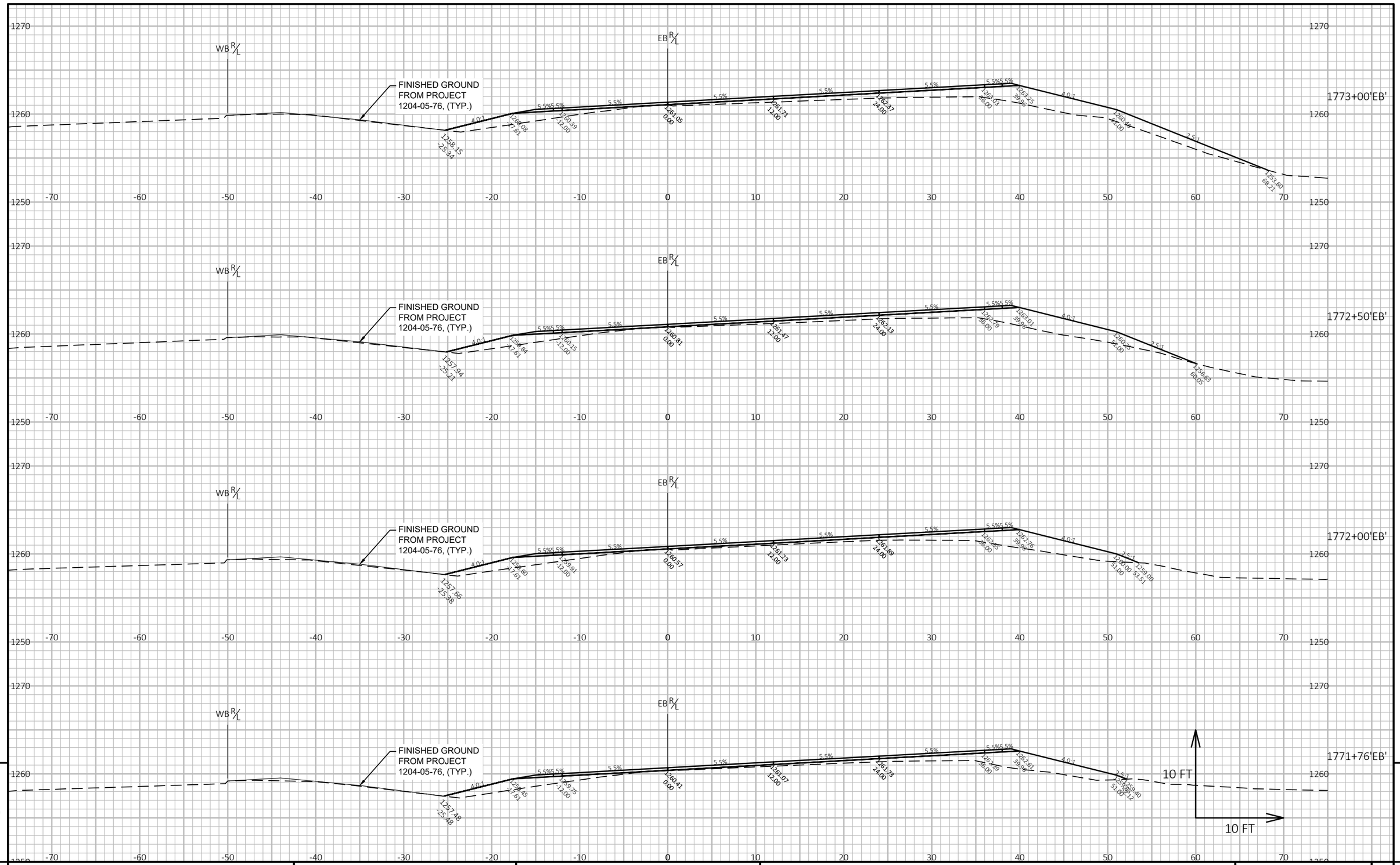
9

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 323	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 25

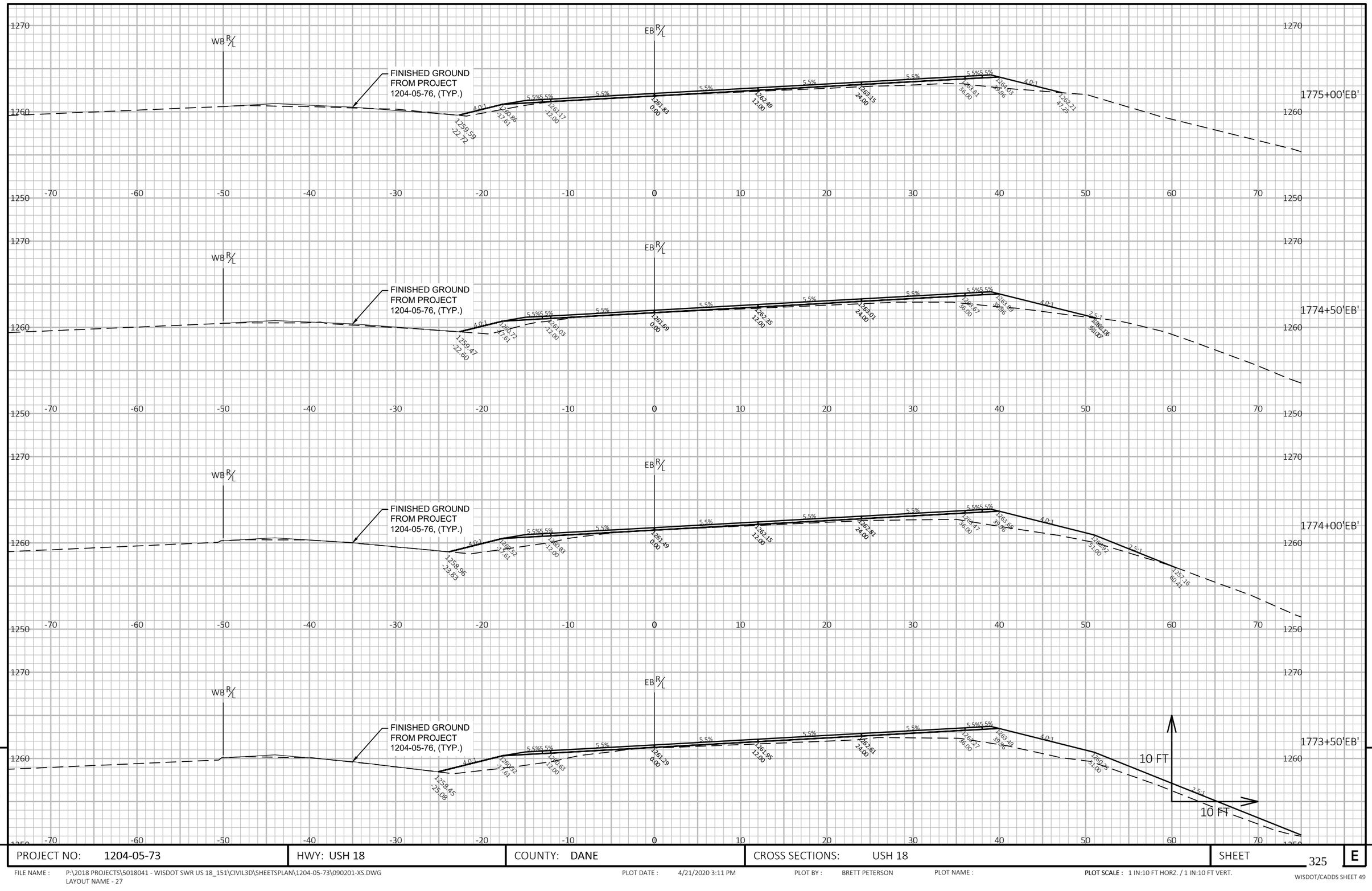
PLOT DATE : 4/21/2020 3:08 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 324	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 26
PLOT DATE : 4/21/2020 3:10 PM
PLOT BY : BRETT PETERSON
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

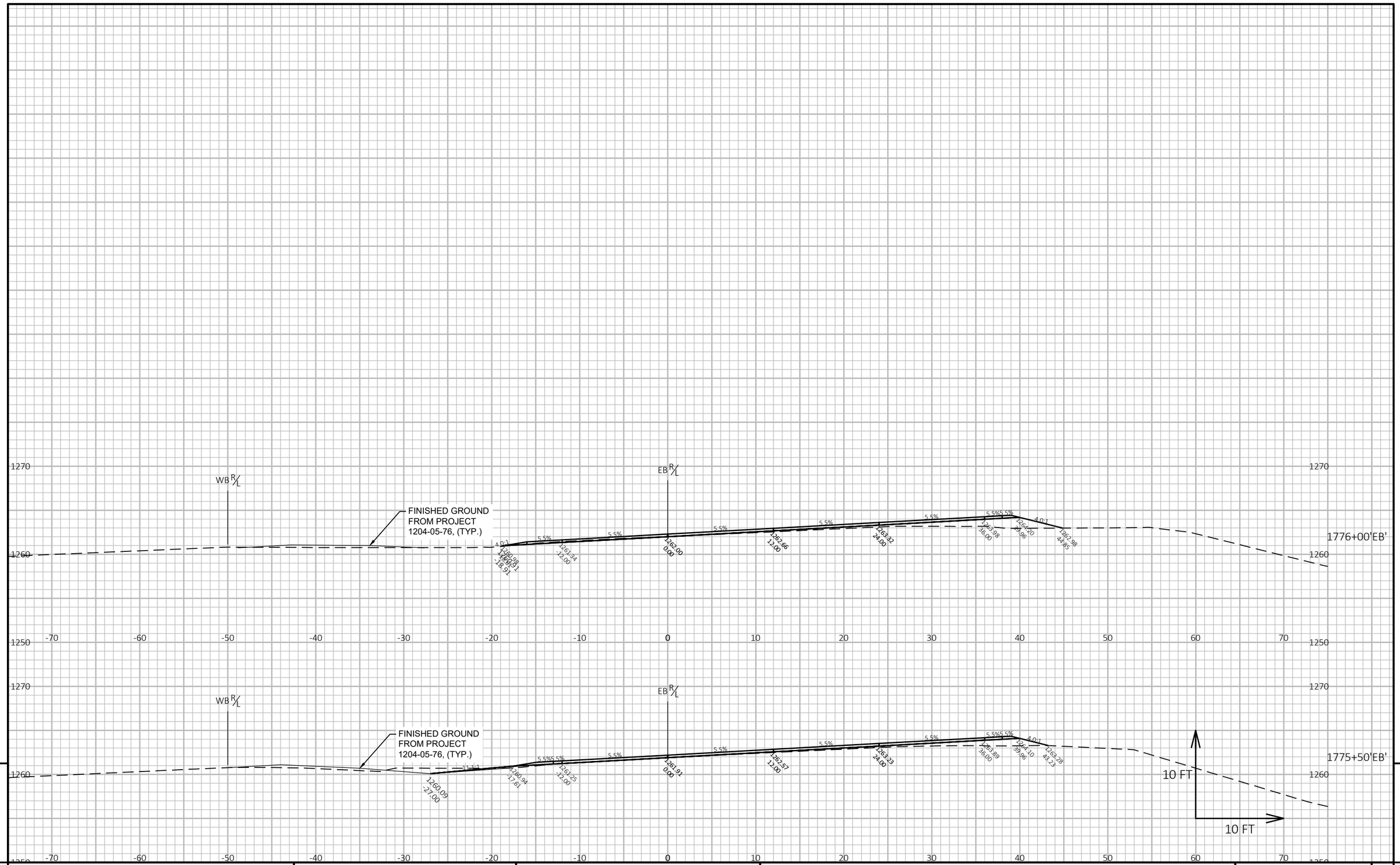


PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 325	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 27

PLOT DATE : 4/21/2020 3:11 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

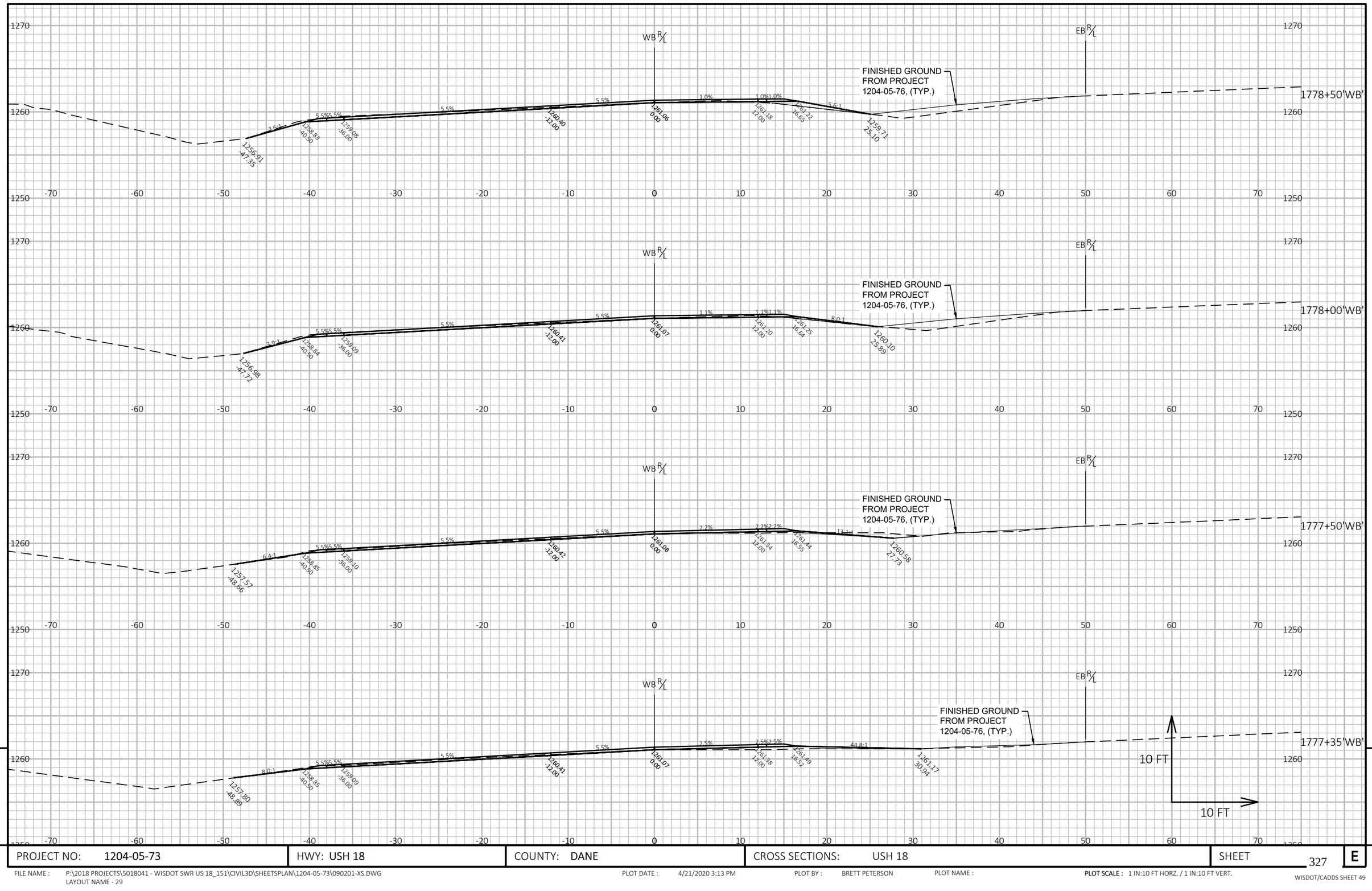
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 326	E

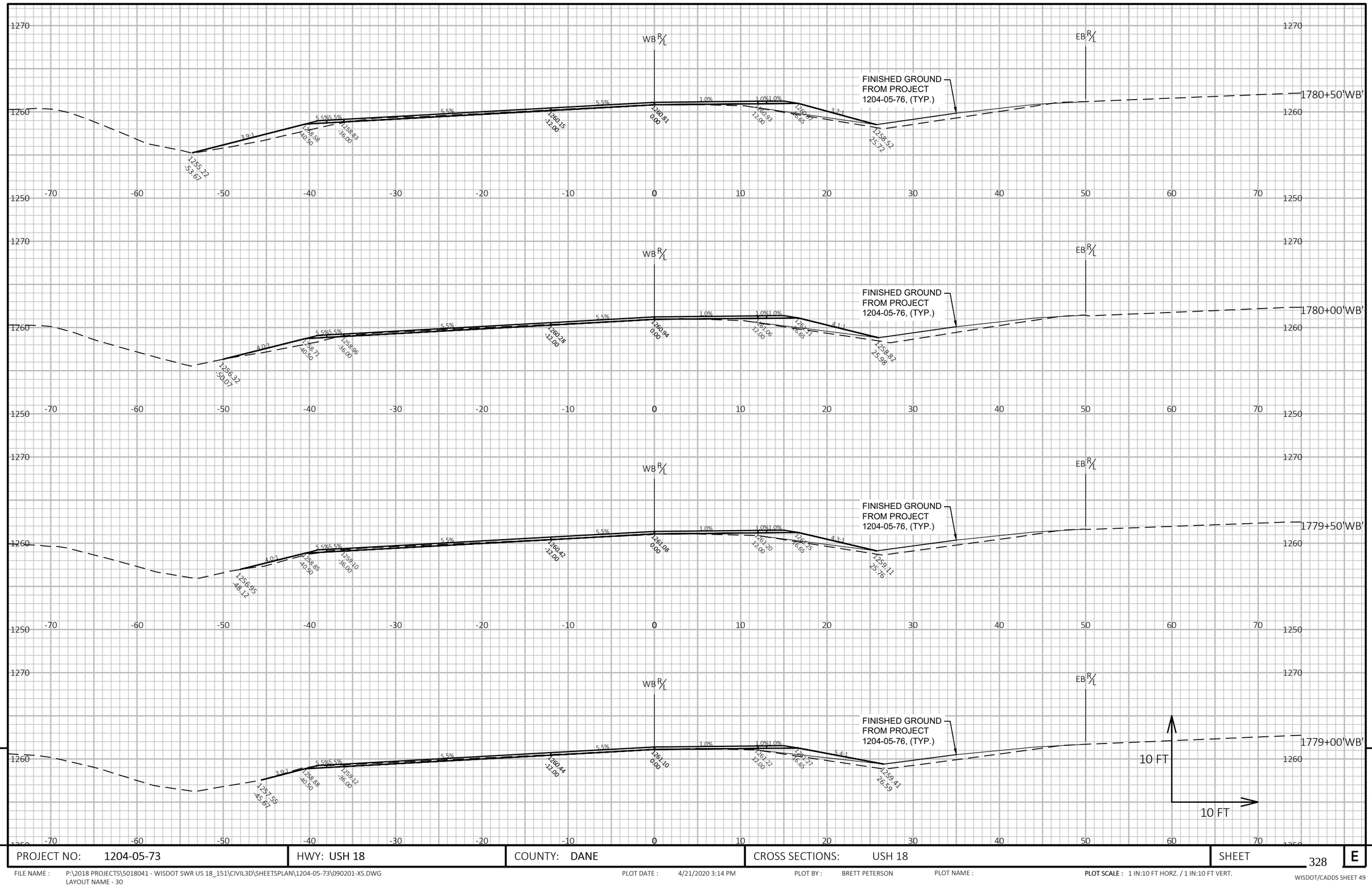


PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 327 E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 29

PLOT DATE : 4/21/2020 3:13 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

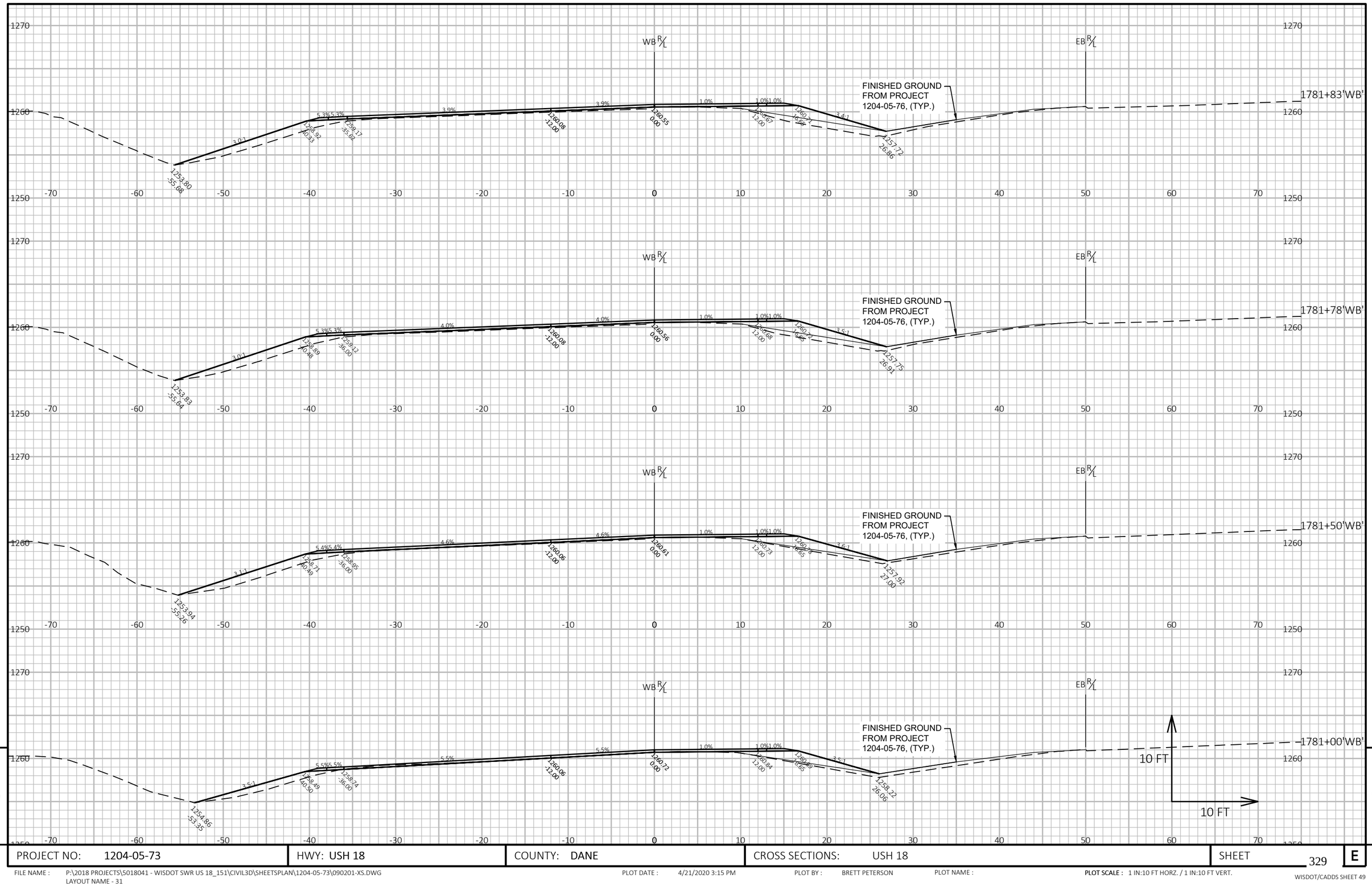


PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 328 E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 30

PLOT DATE : 4/21/2020 3:14 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



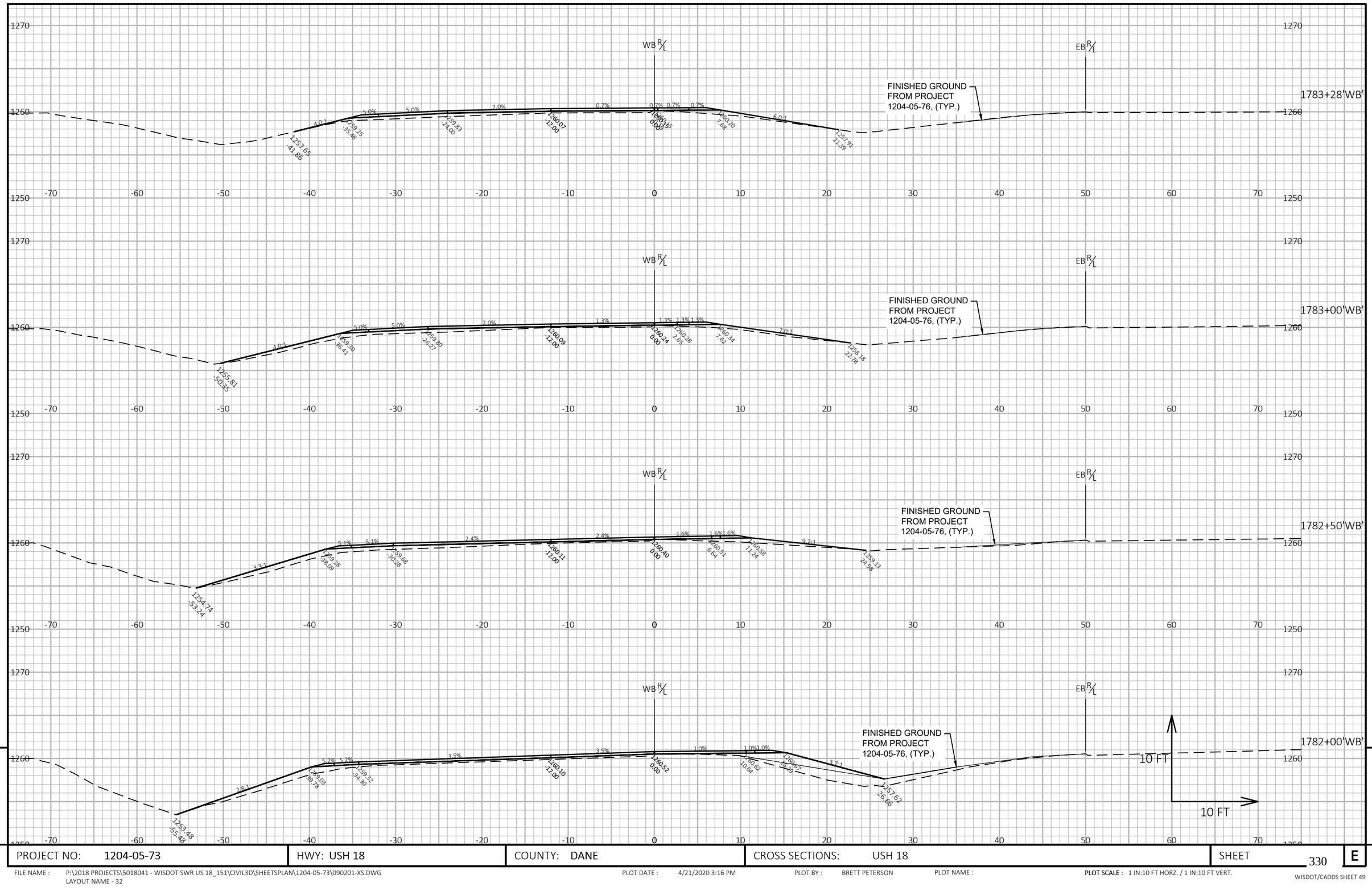
9

9

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 329	E

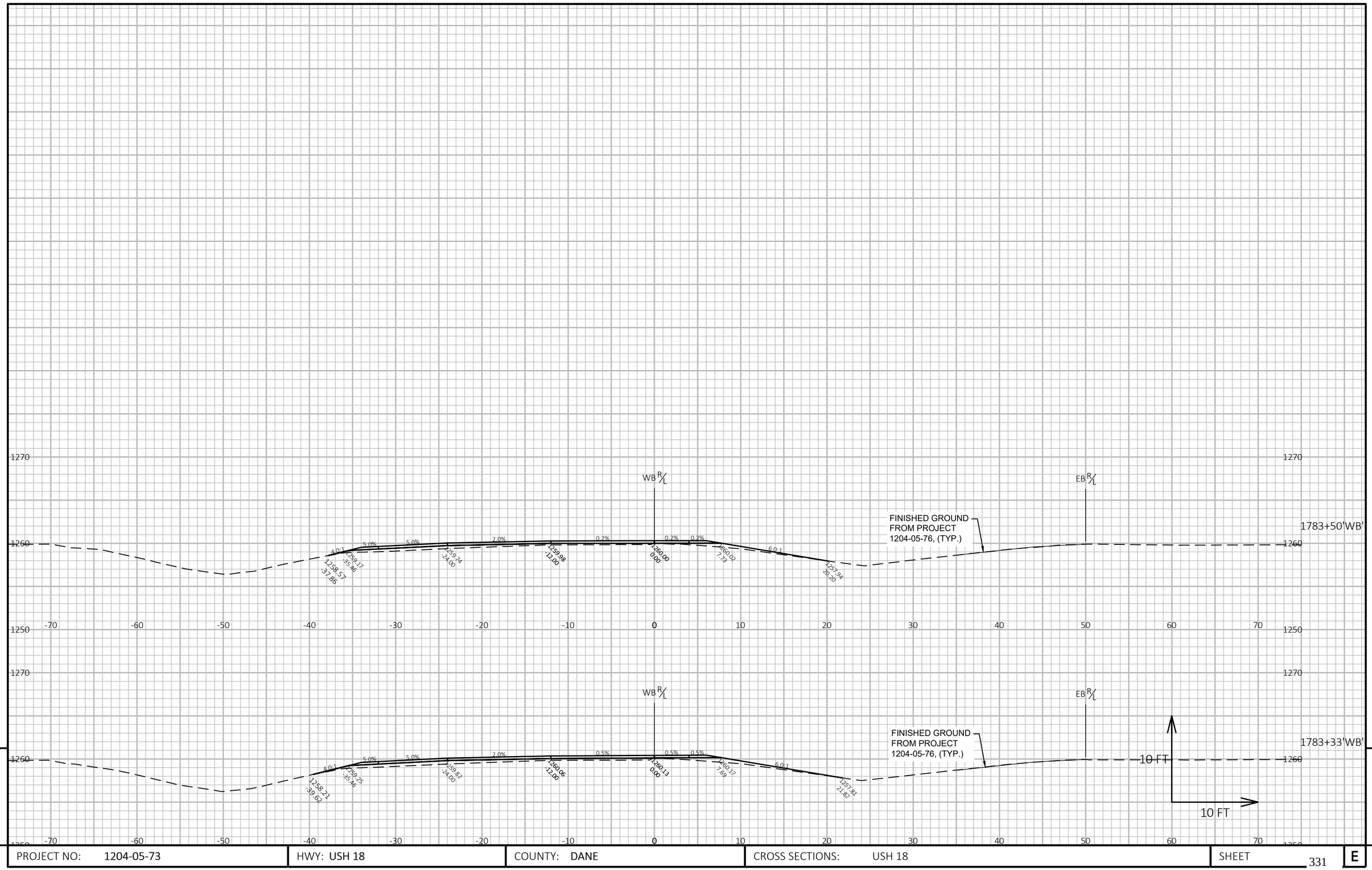
FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 31

PLOT DATE : 4/21/2020 3:15 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 330 E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 32
PLOT DATE : 4/21/2020 3:16 PM
PLOT BY : BRETT PETERSON
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



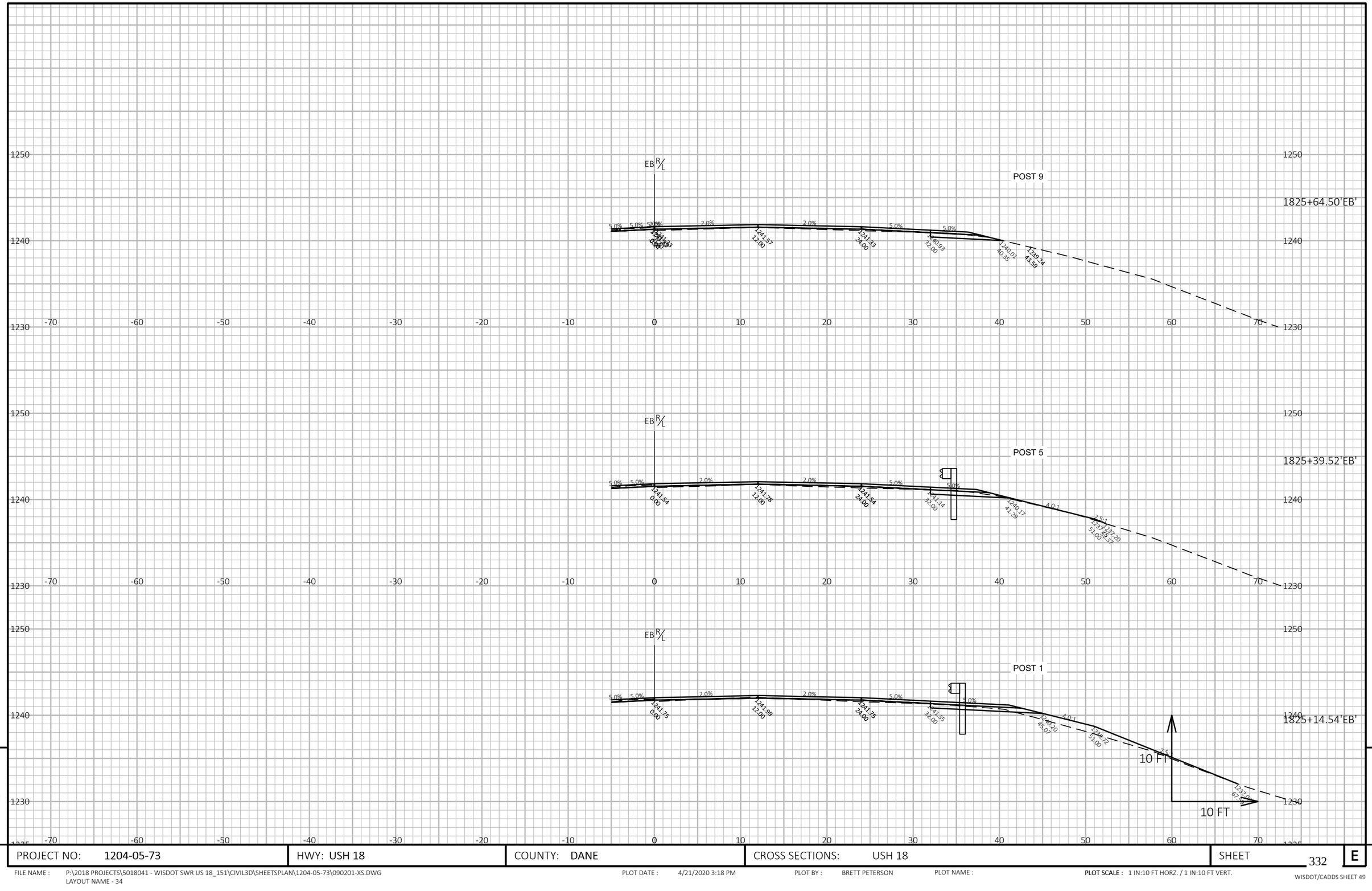
9

9

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 331	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 33

PLOT DATE : 4/21/2020 3:17 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

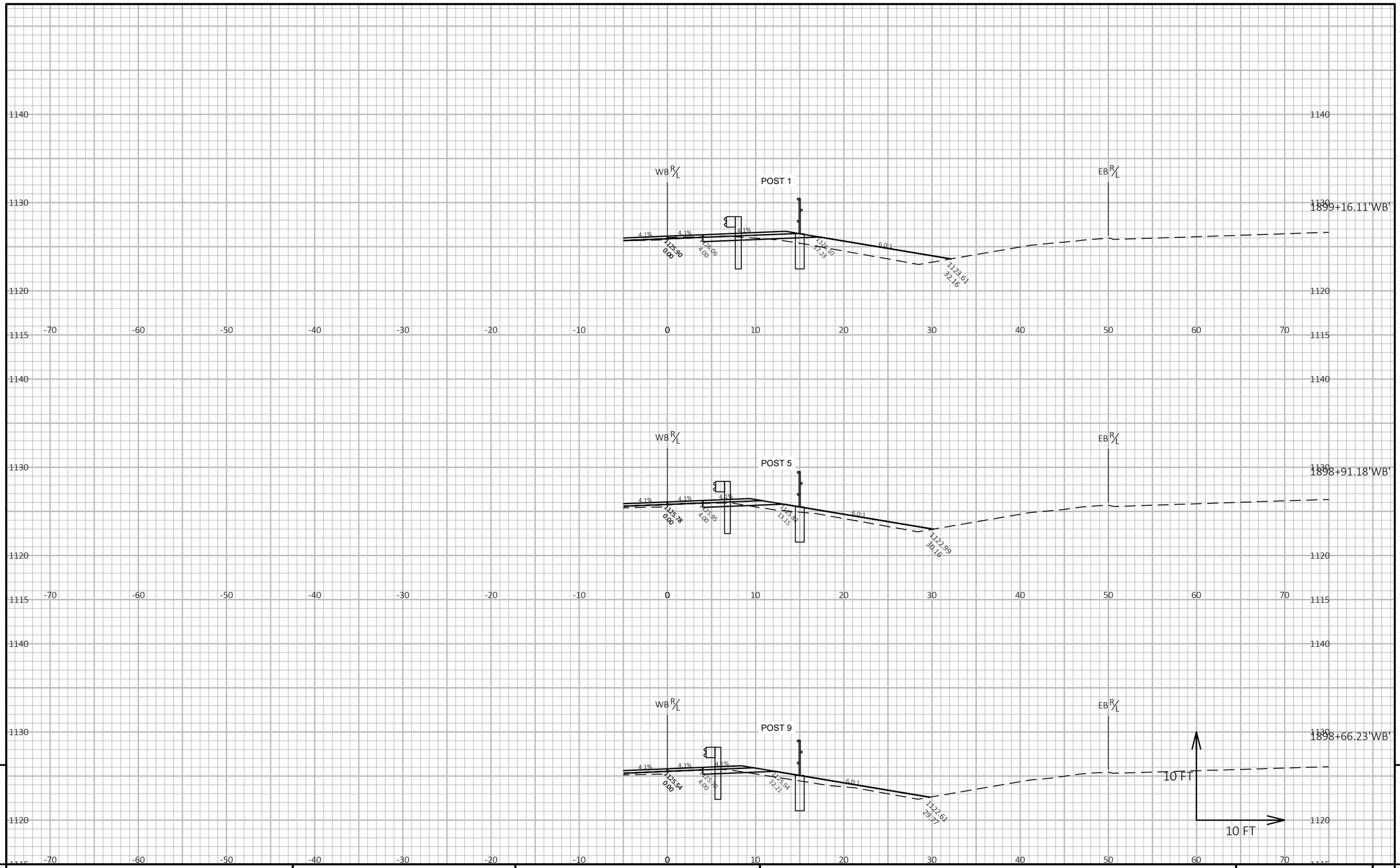
9

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 332	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 34

PLOT DATE : 4/21/2020 3:18 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



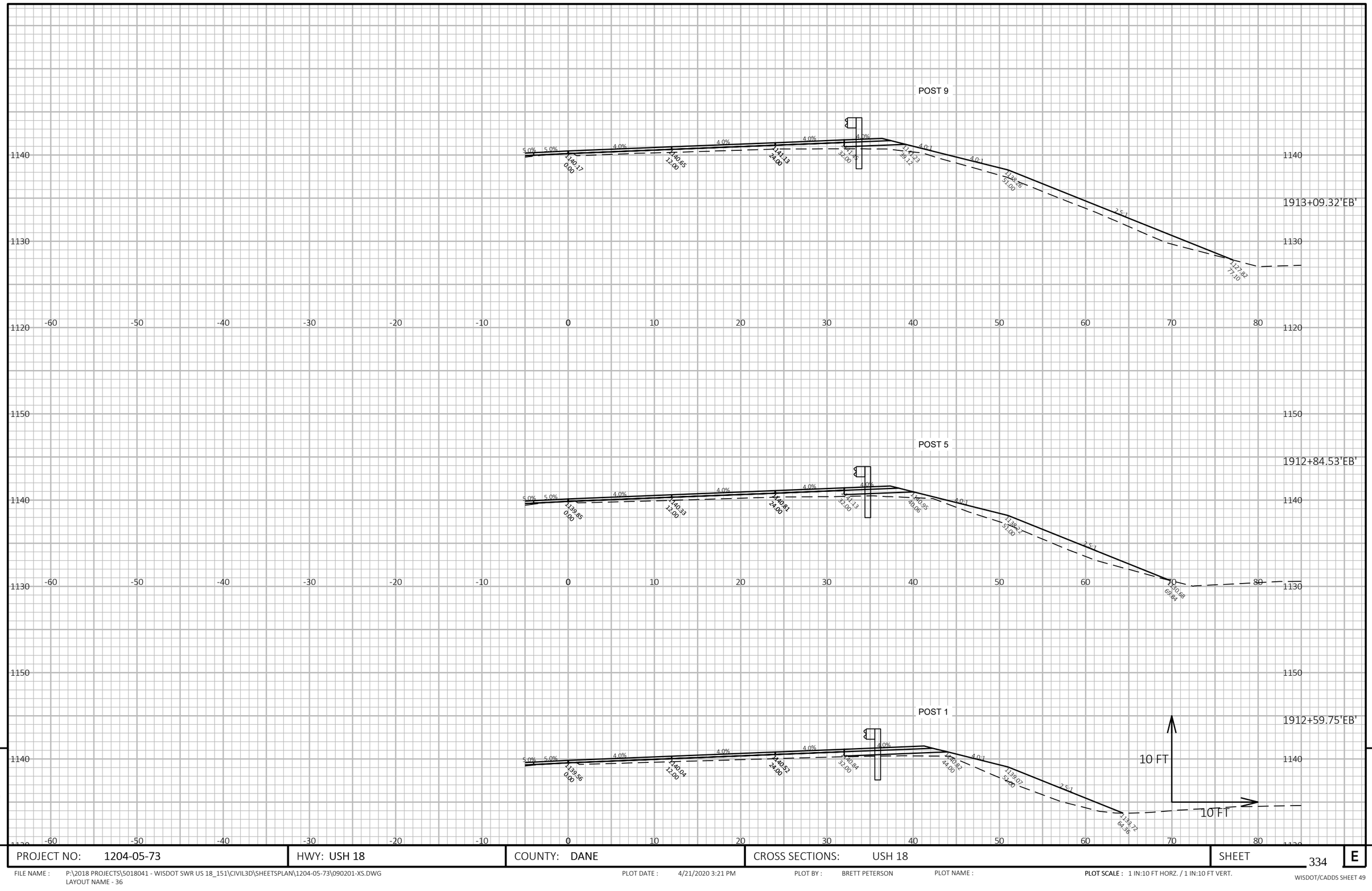
9

9

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 333	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 35

PLOT DATE : 4/21/2020 3:19 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 334	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 36

PLOT DATE : 4/21/2020 3:21 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9

9

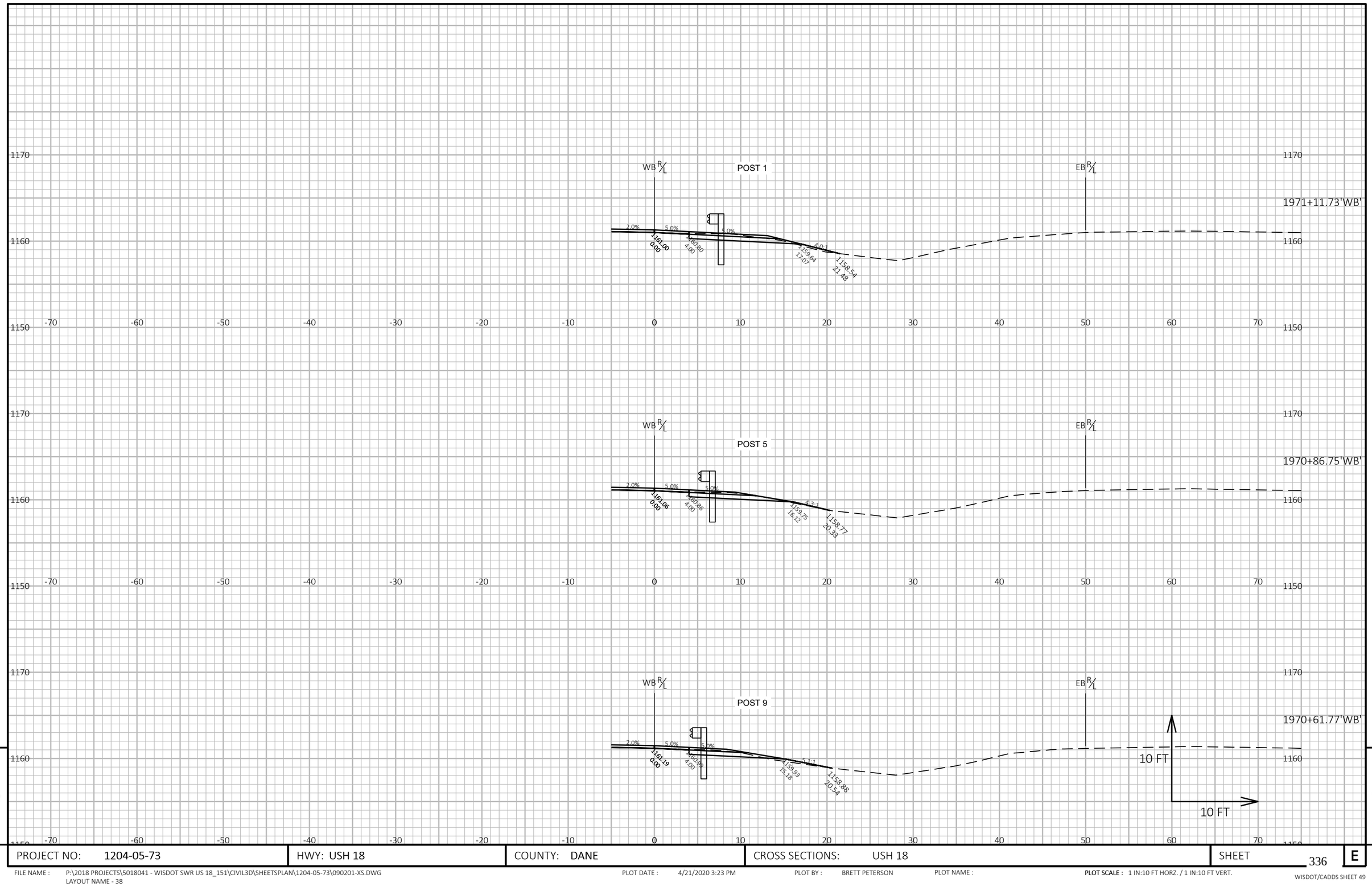
PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 335	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 37

PLOT DATE : 4/21/2020 3:22 PM PLOT BY : BRETT PETERSON PLOT NAME :

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

WISDOT/CADDS SHEET 49



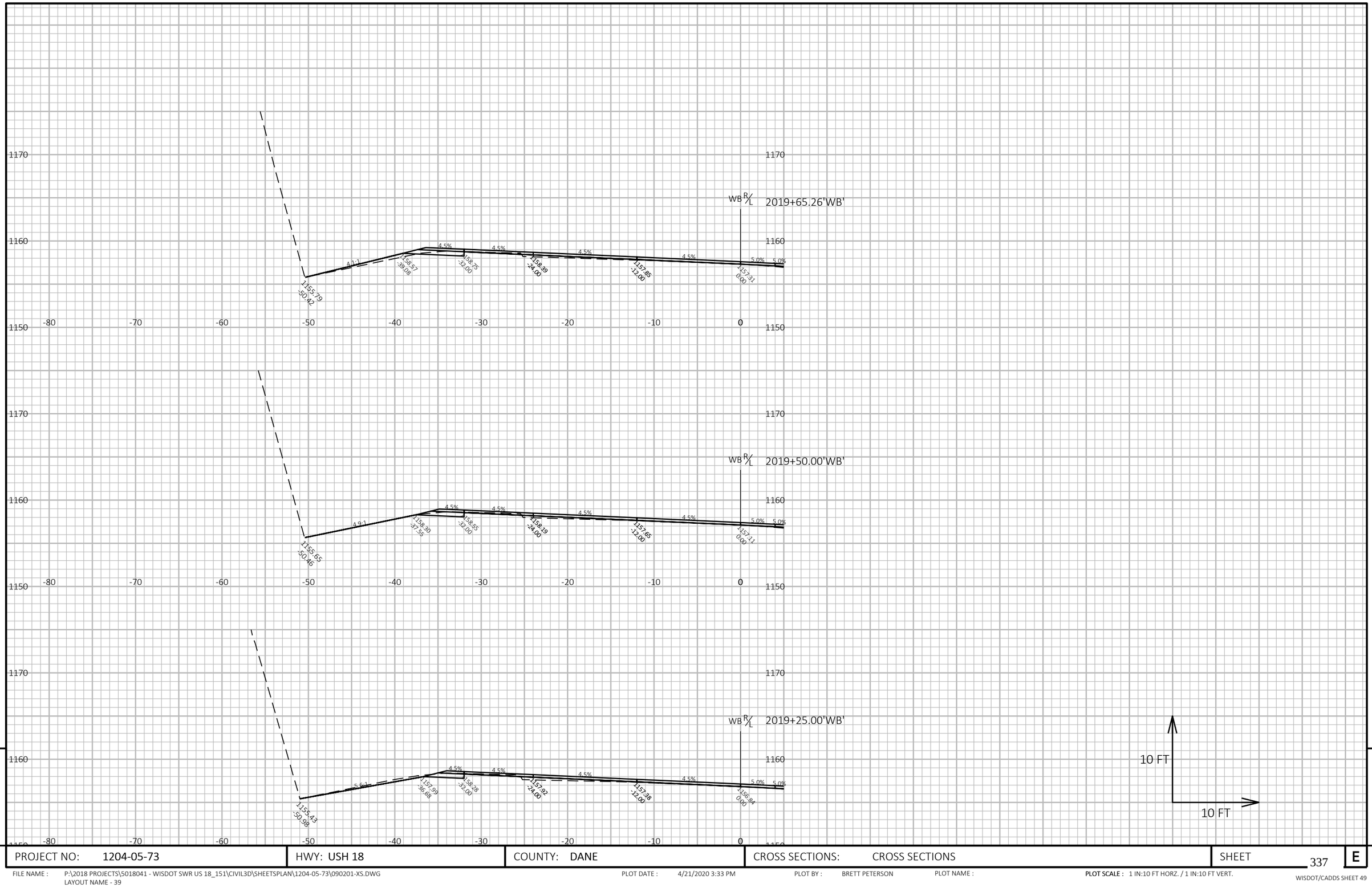
9

9

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: USH 18	SHEET 336	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 38

PLOT DATE : 4/21/2020 3:23 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

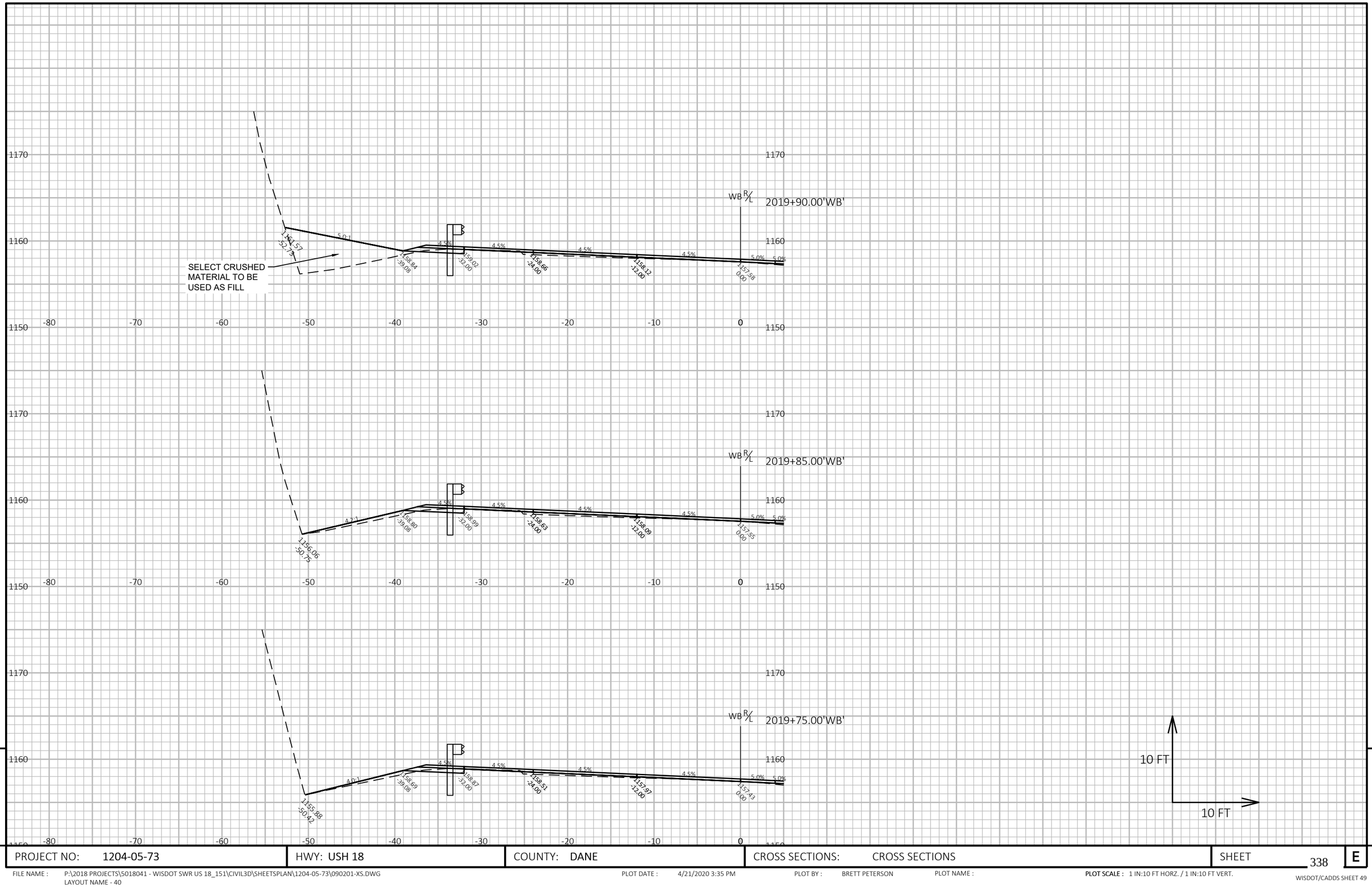
9

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CROSS SECTIONS	SHEET 337	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 39

PLOT DATE : 4/21/2020 3:33 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

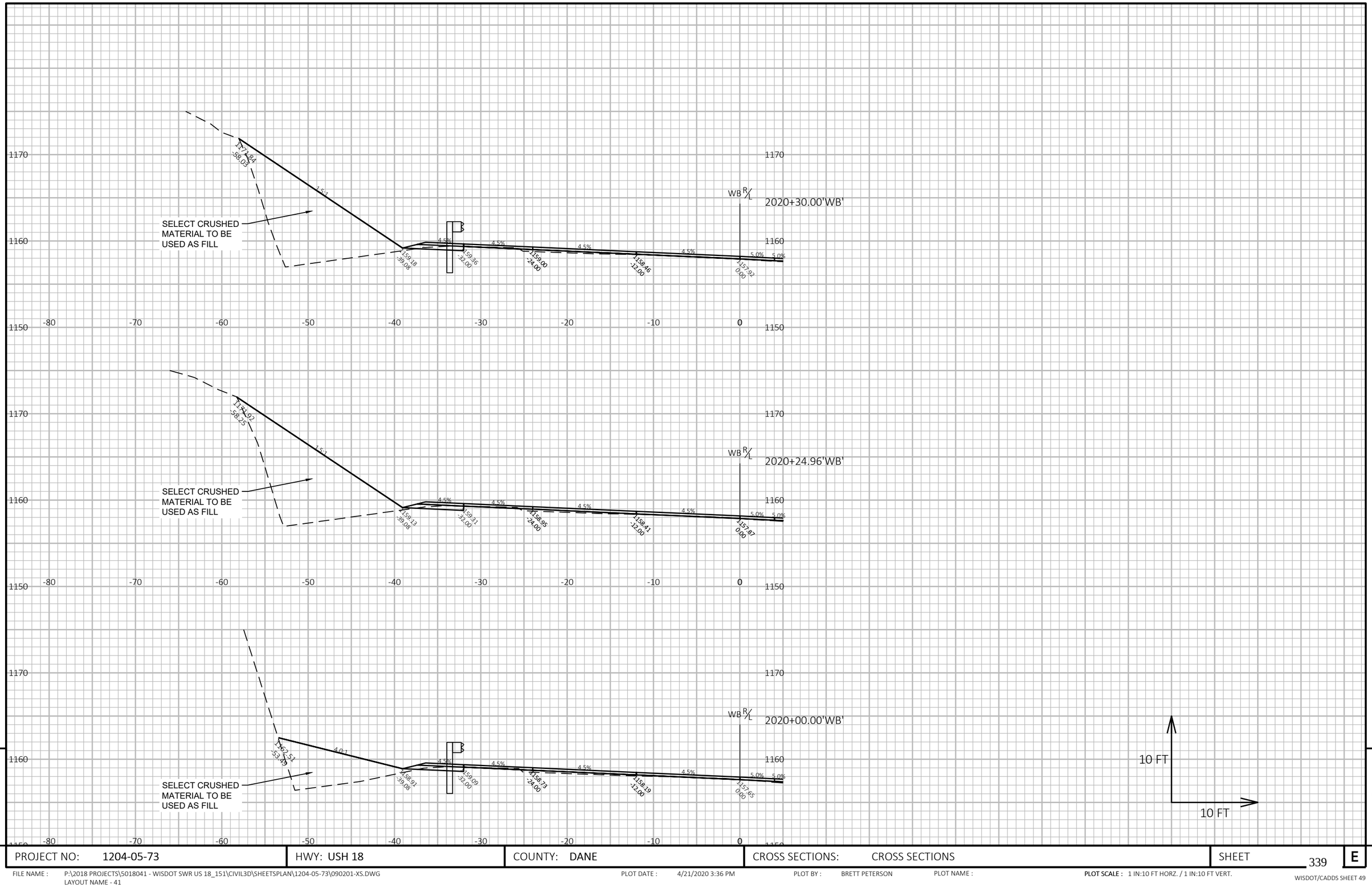


PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CROSS SECTIONS	SHEET 338	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 40

PLOT DATE : 4/21/2020 3:35 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

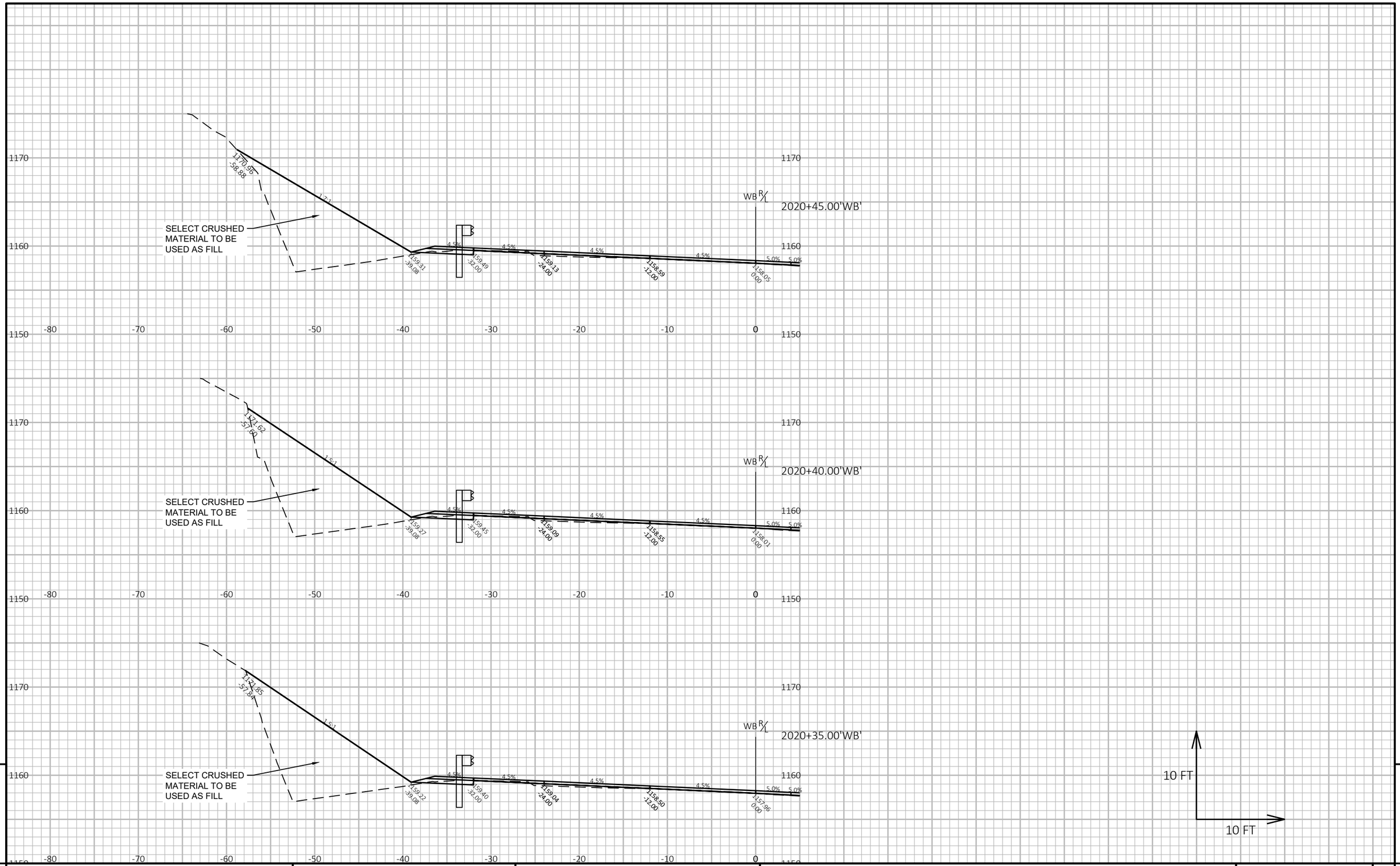


PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CROSS SECTIONS	SHEET 339	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 41

PLOT DATE : 4/21/2020 3:36 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CROSS SECTIONS	SHEET 340	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 42

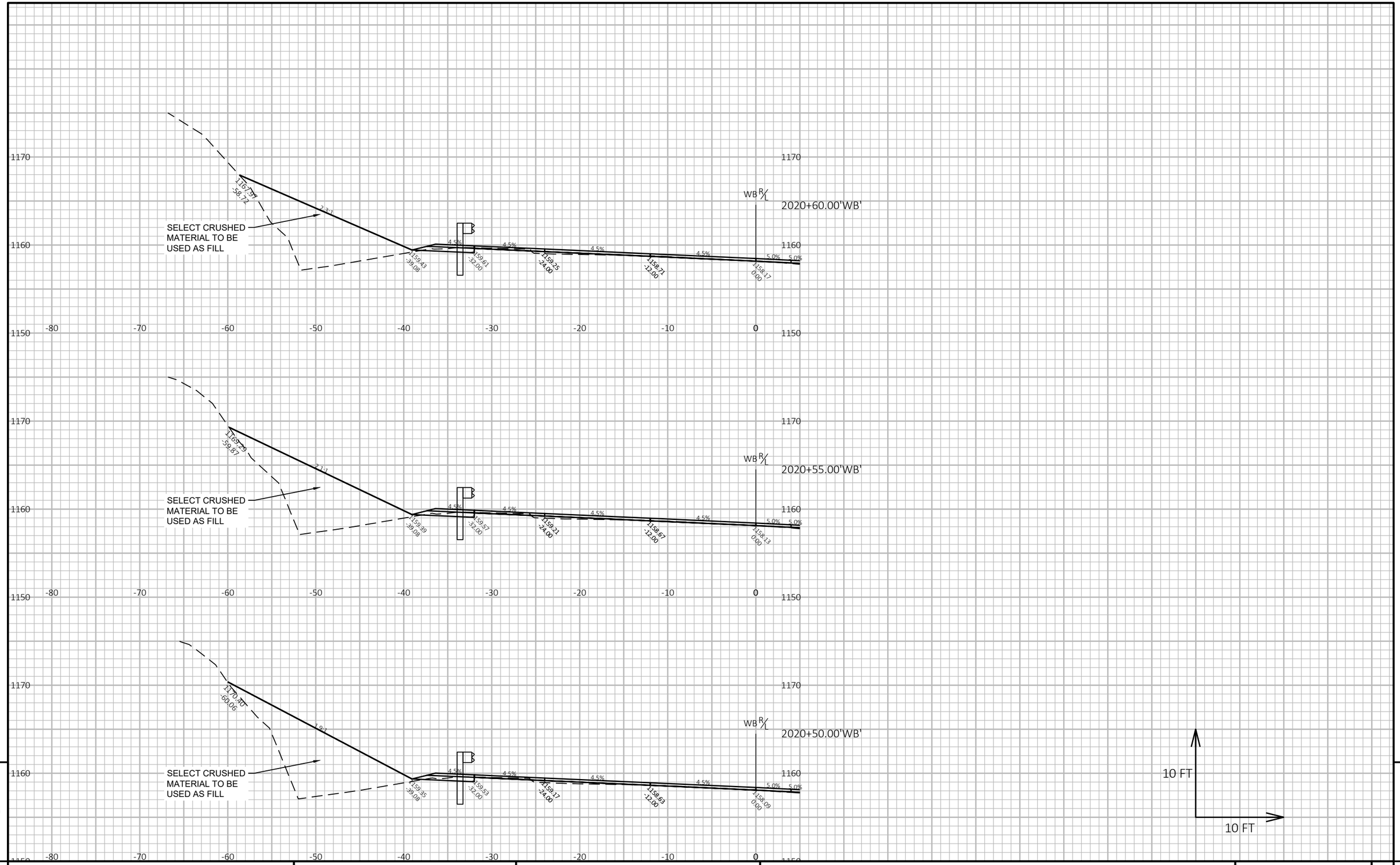
PLOT DATE : 4/21/2020 3:37 PM

PLOT BY : BRETT PETERSON

PLOT NAME :

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

WISDOT/CADDS SHEET 49



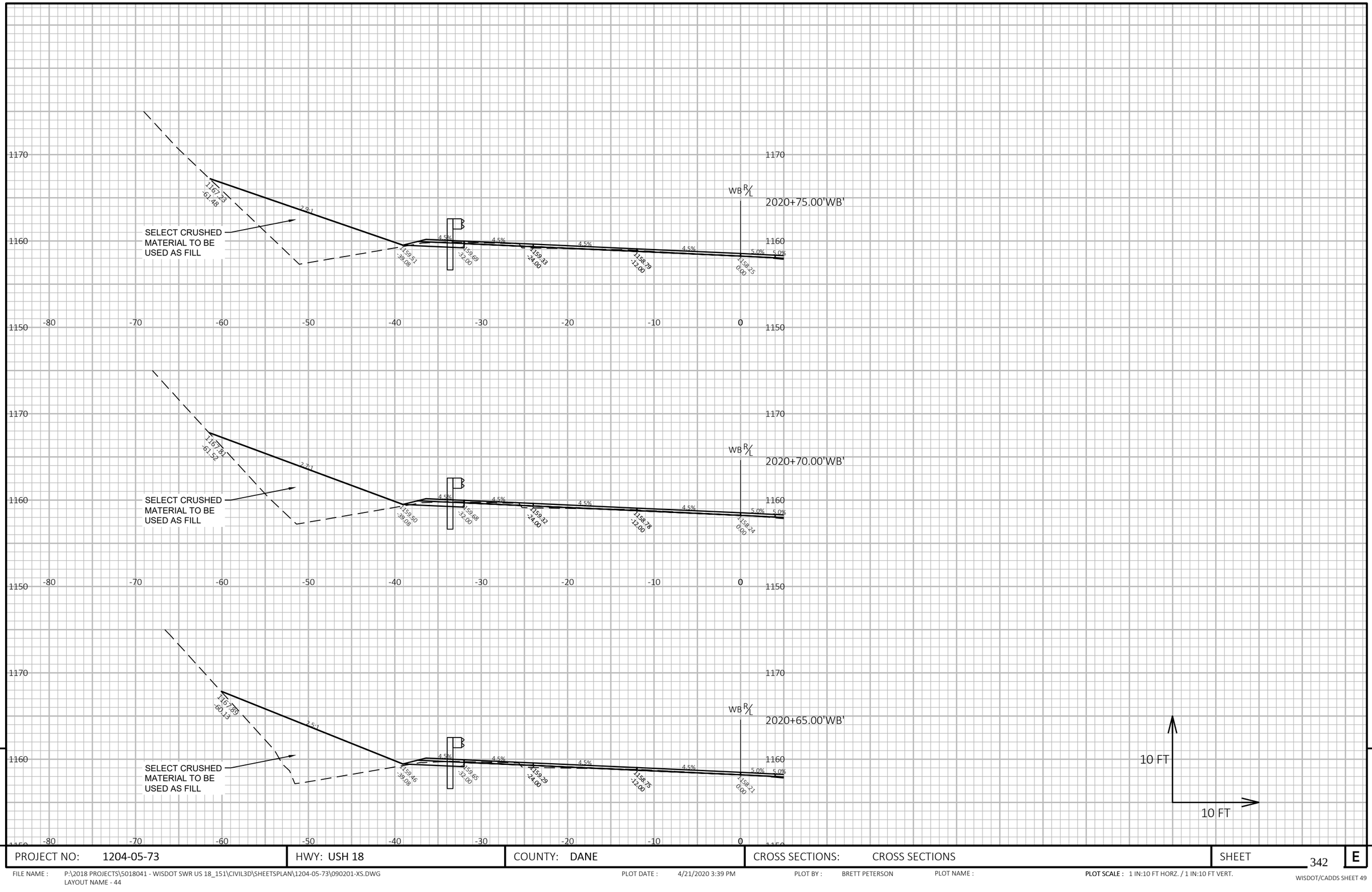
PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CROSS SECTIONS	SHEET 341	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 43

PLOT DATE : 4/21/2020 3:38 PM PLOT BY : BRETT PETERSON PLOT NAME :

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

WISDOT/CADDS SHEET 49



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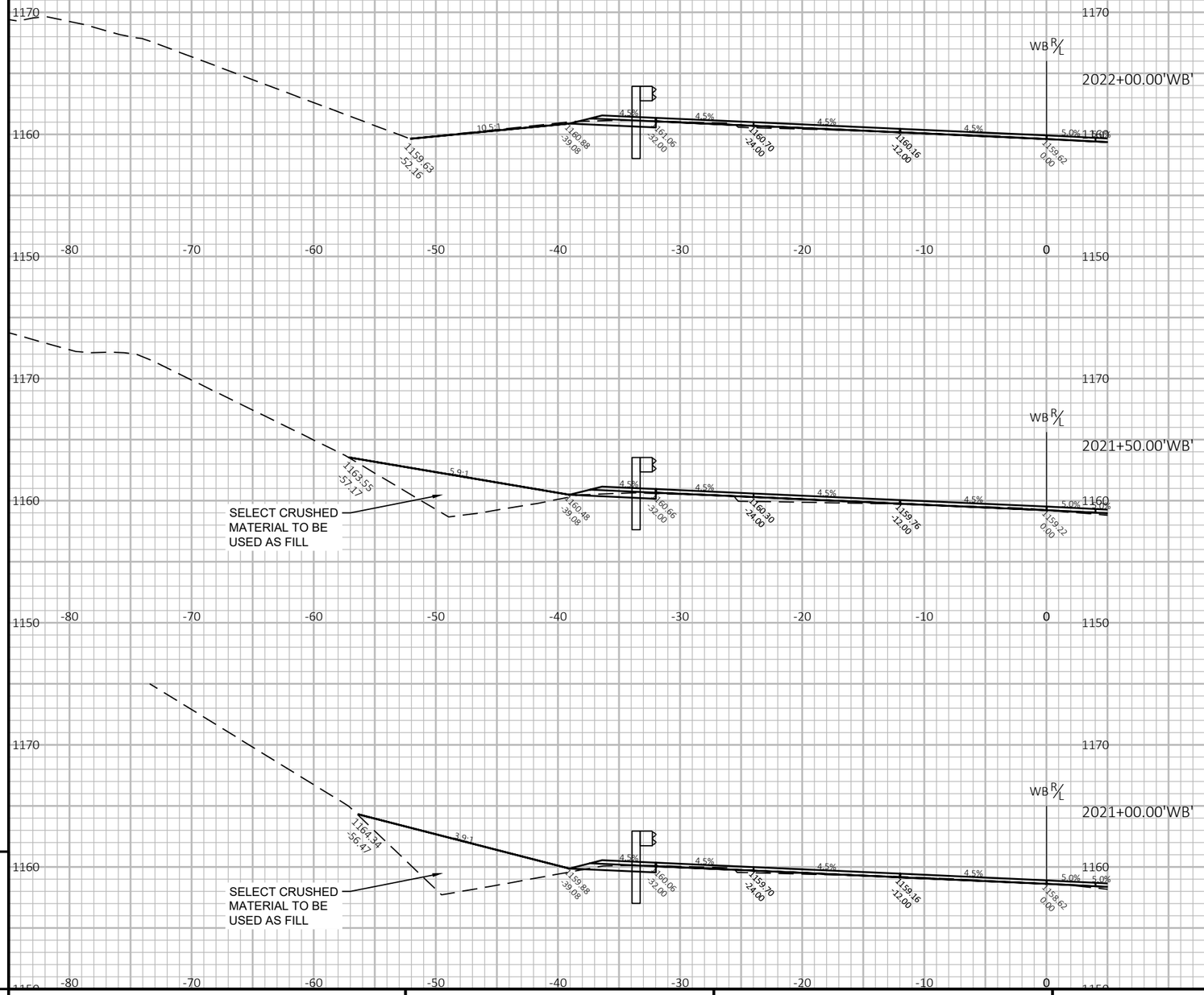
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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CROSS SECTIONS	SHEET 342	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 44

PLOT DATE : 4/21/2020 3:39 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CROSS SECTIONS	SHEET 343	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 45

PLOT DATE : 4/21/2020 3:40 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

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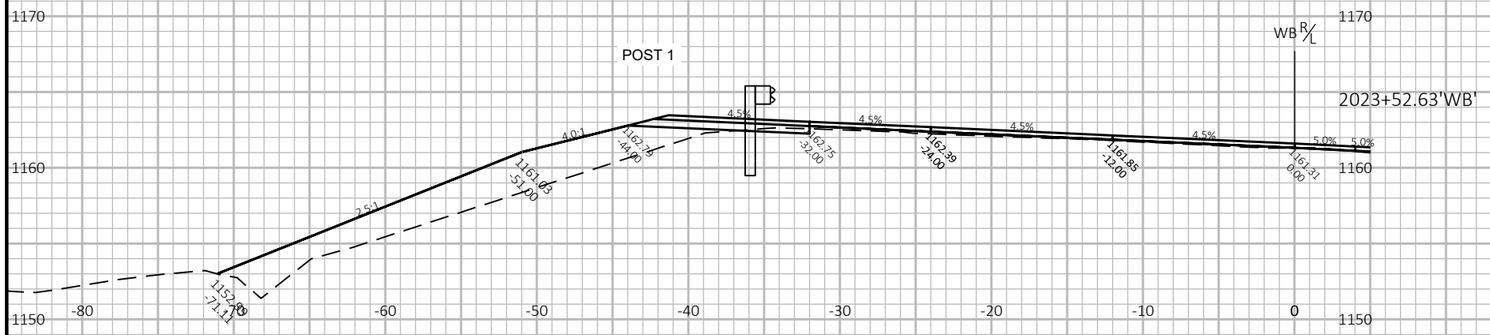
PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CROSS SECTIONS	SHEET 344	E

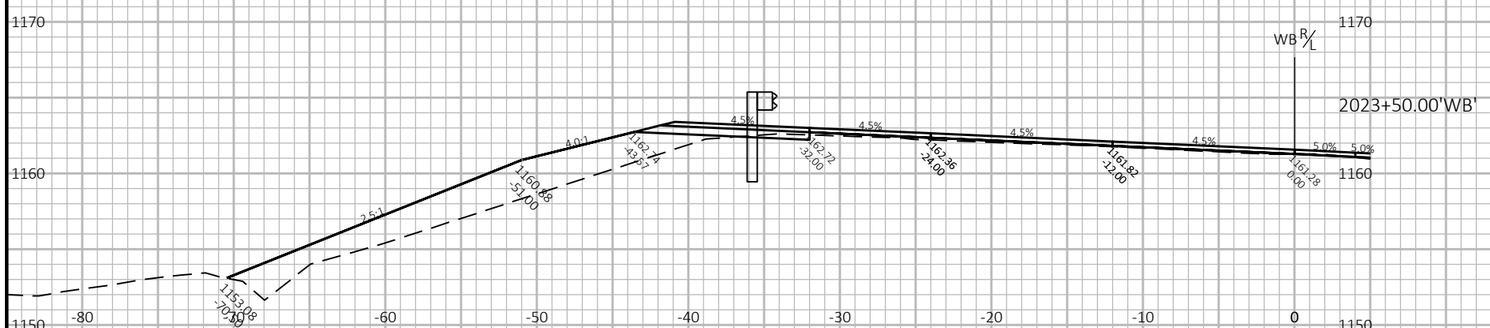
FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 46

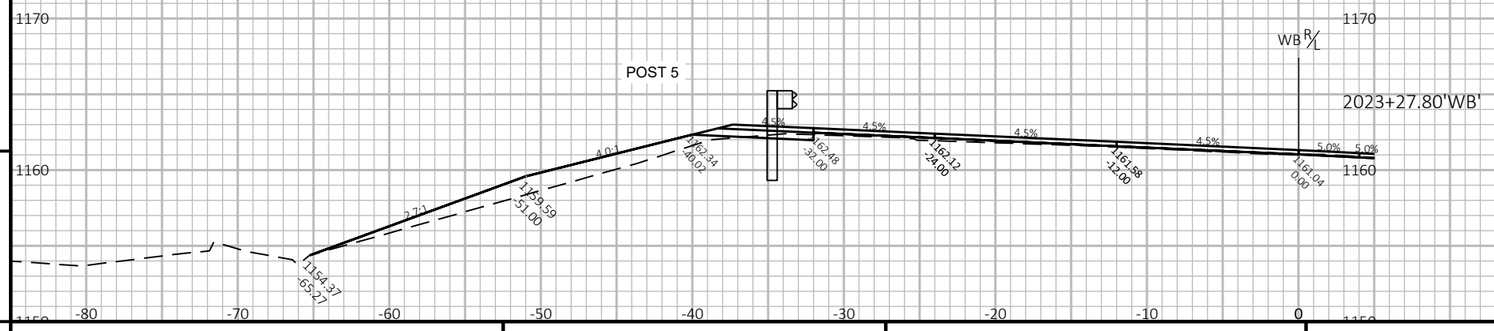
PLOT DATE : 4/21/2020 3:41 PM PLOT BY : BRETT PETERSON PLOT NAME :

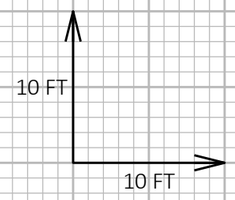
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49









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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CROSS SECTIONS	SHEET 345	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090201-XS.DWG
LAYOUT NAME - 47

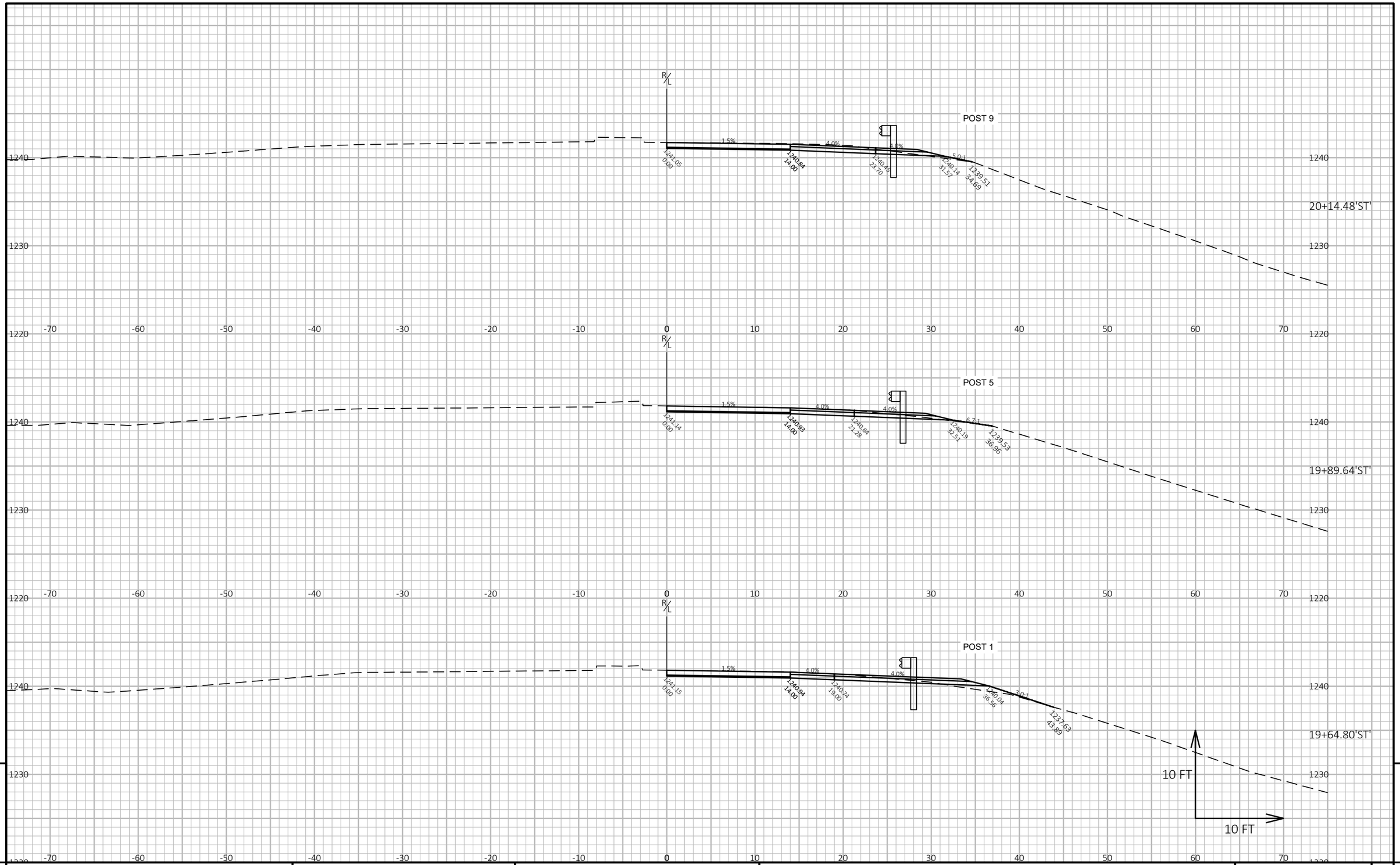
PLOT DATE : 4/21/2020 3:42 PM

PLOT BY : BRETT PETERSON

PLOT NAME :

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

WISDOT/CADDS SHEET 49

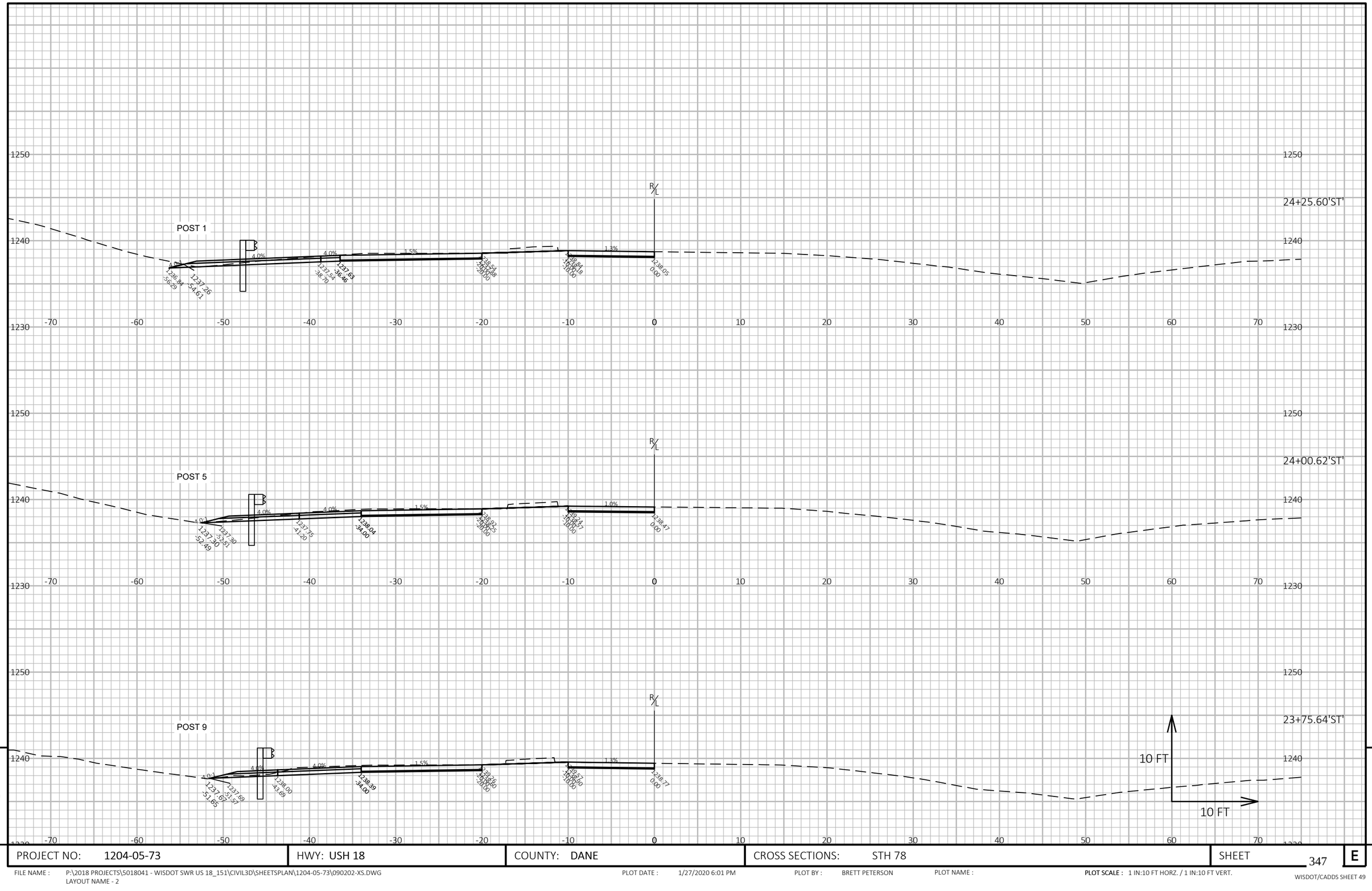


PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: STH 78	SHEET 346 E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090202-XS.DWG
LAYOUT NAME - 1

PLOT DATE : 1/27/2020 5:59 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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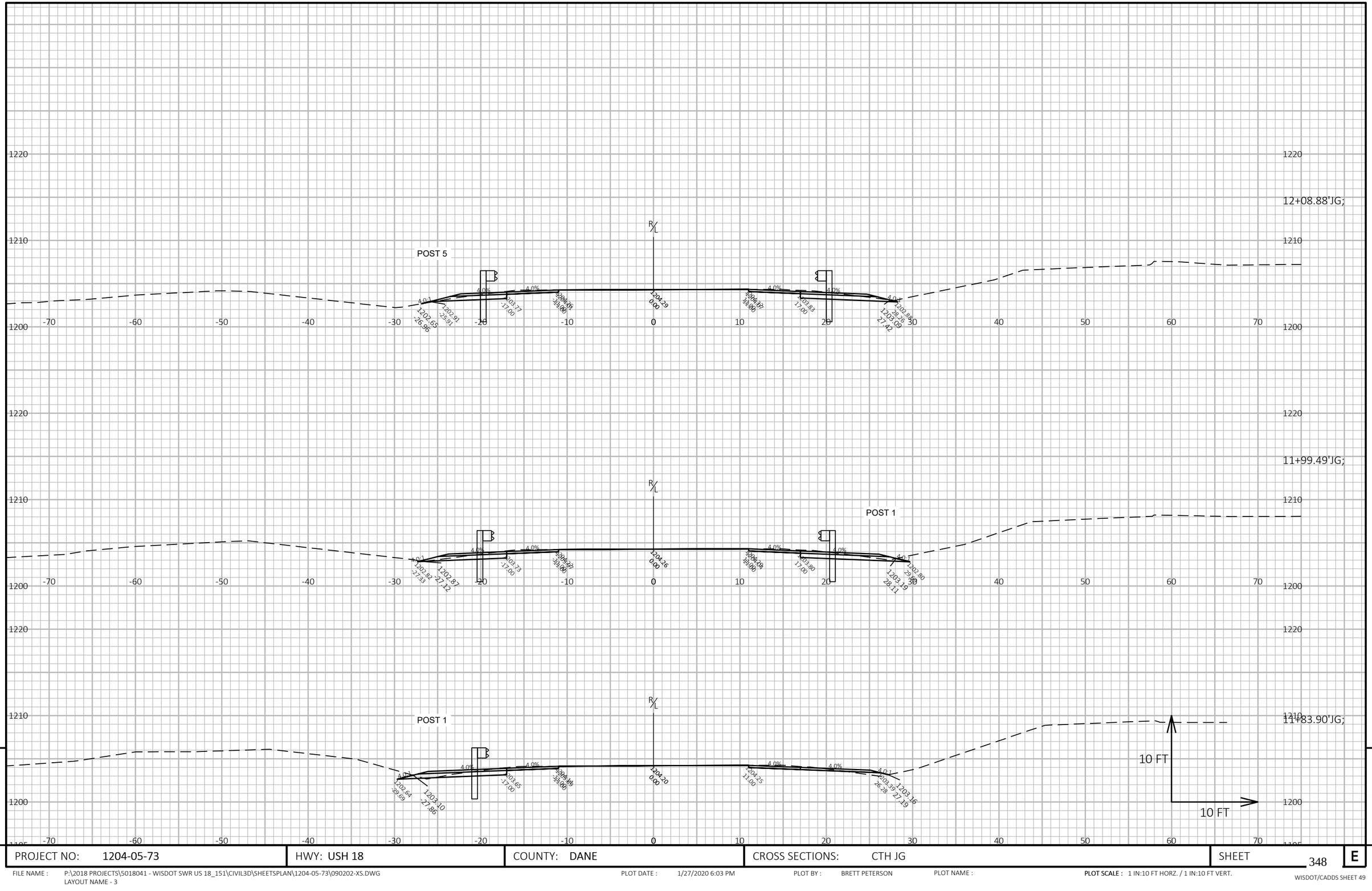
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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: STH 78	SHEET 347	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090202-XS.DWG
LAYOUT NAME - 2

PLOT DATE : 1/27/2020 6:01 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

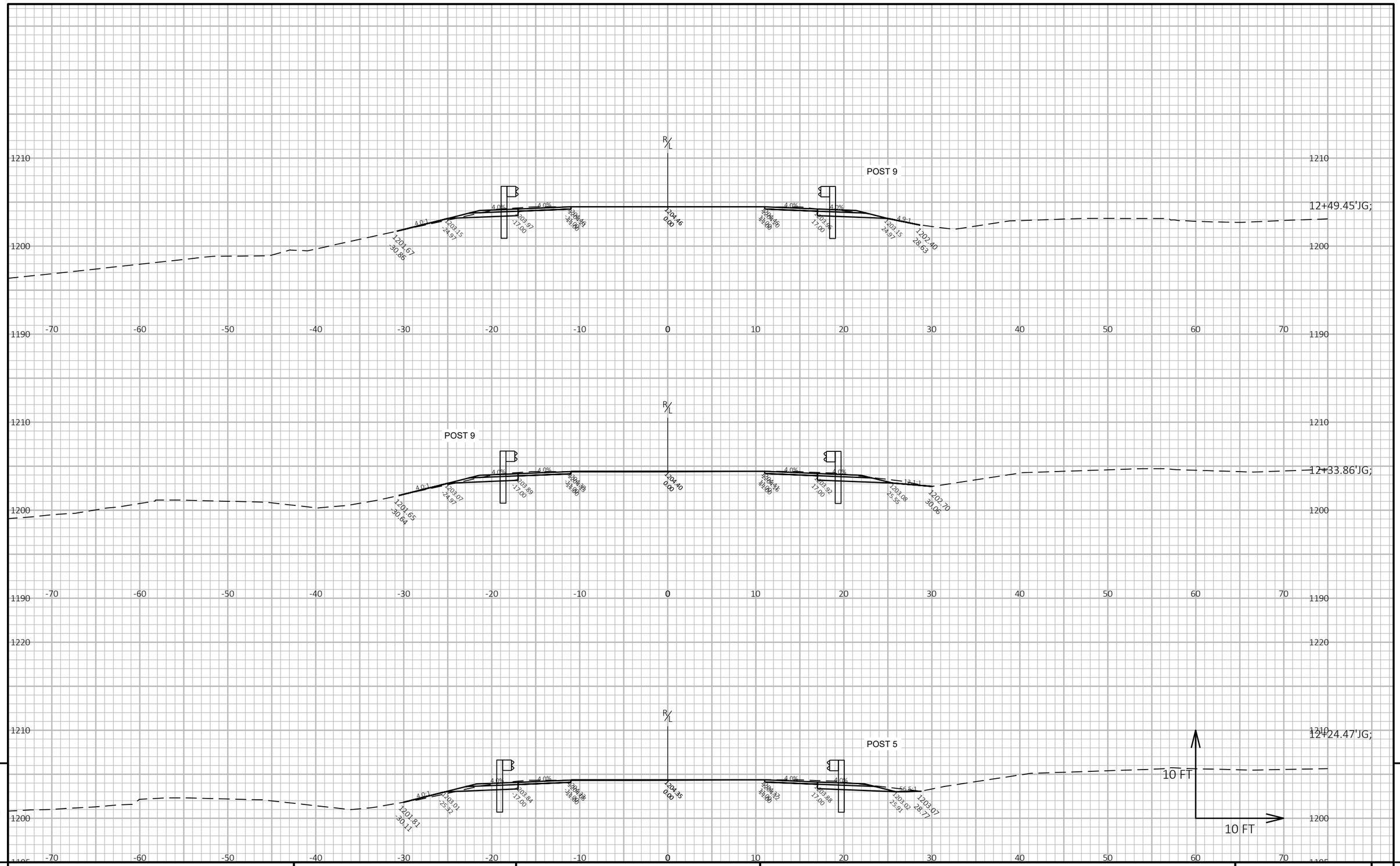
WISDOT/CADDS SHEET 49



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CTH JG	SHEET 348	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090202-XS.DWG
LAYOUT NAME - 3

PLOT DATE : 1/27/2020 6:03 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



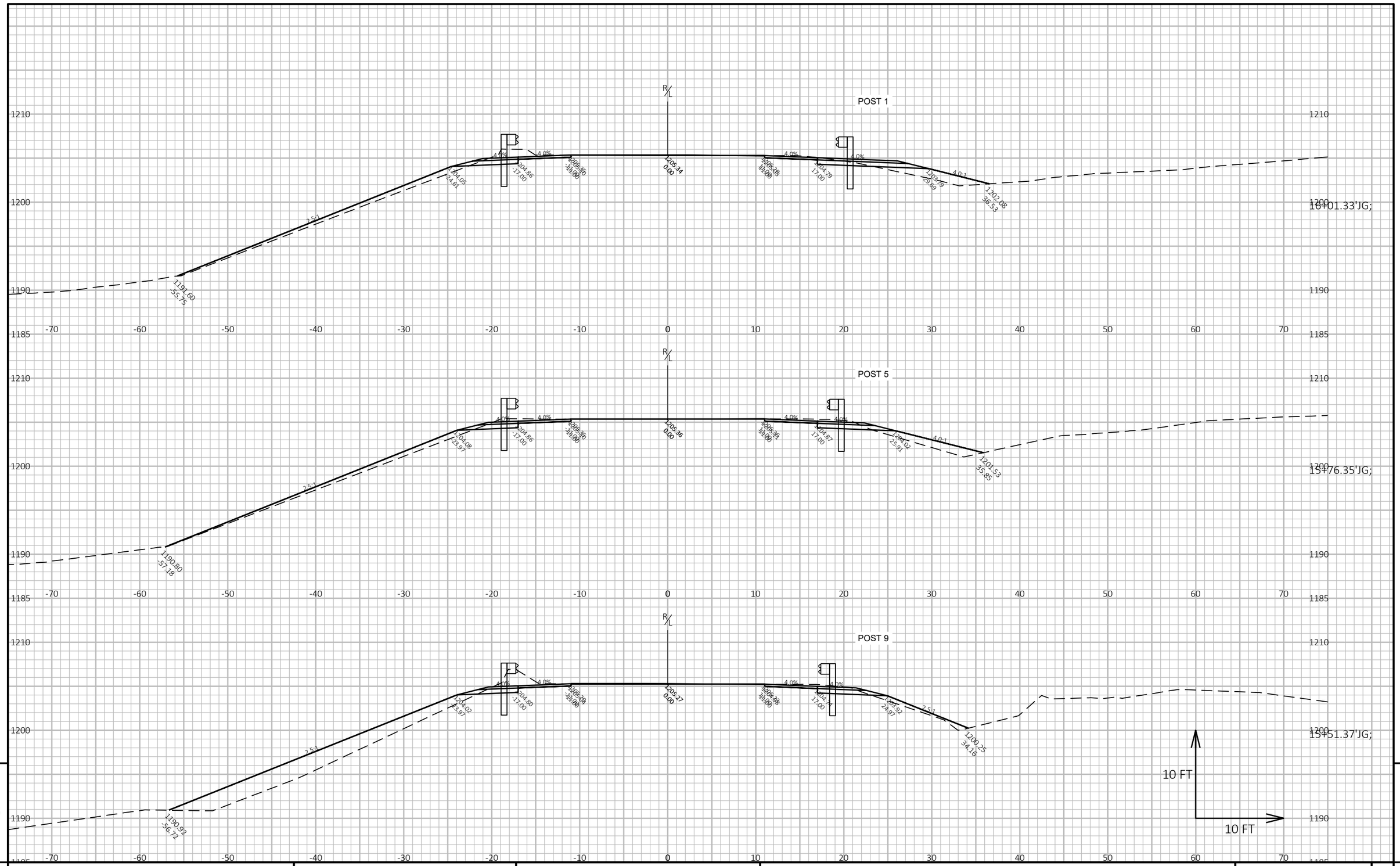
9

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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CTH JG	SHEET 349	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090202-XS.DWG
LAYOUT NAME - 4

PLOT DATE : 1/27/2020 6:04 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CTH JG	SHEET 350	E

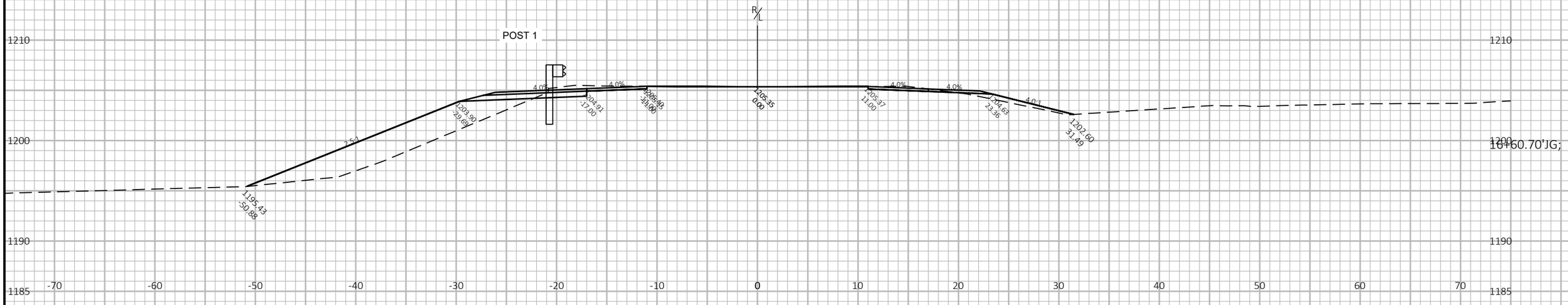
FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090202-XS.DWG
LAYOUT NAME - 5

PLOT DATE : 1/27/2020 6:06 PM PLOT BY : BRETT PETERSON PLOT NAME :

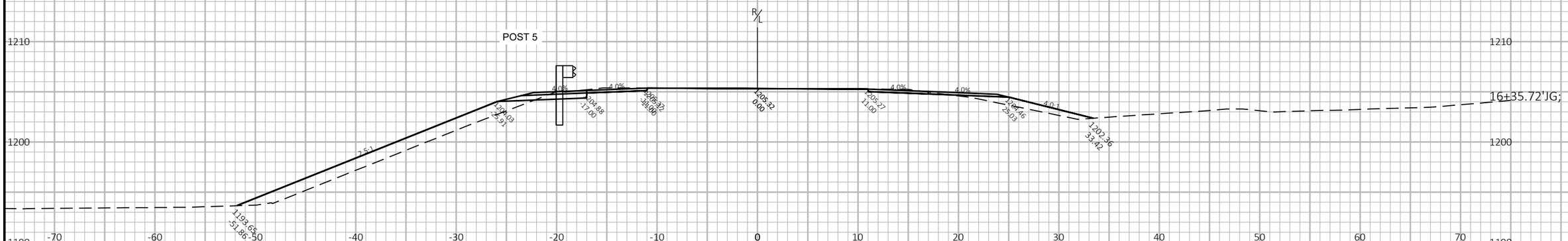
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

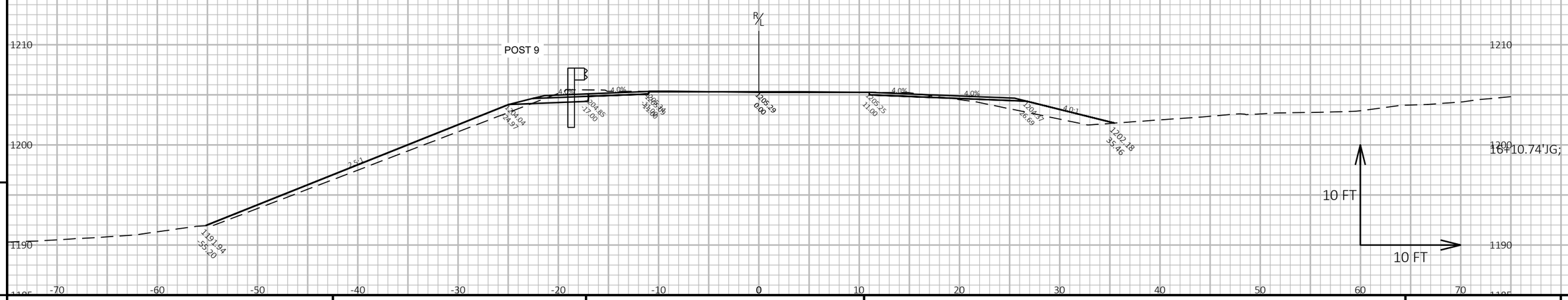
POST 1



POST 5



POST 9



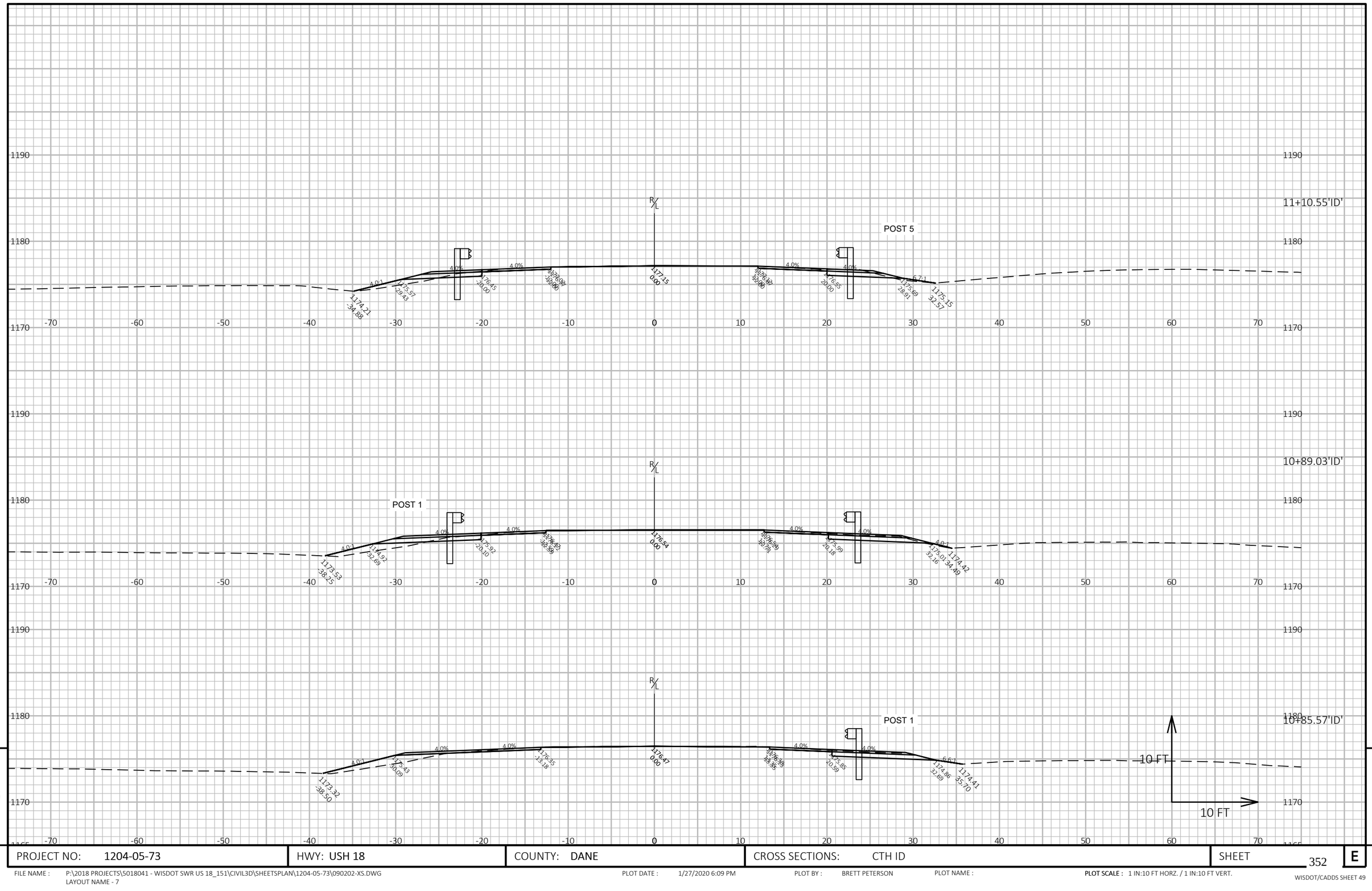
9 9

PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CTH JG	SHEET 351	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090202-XS.DWG
LAYOUT NAME - 6

PLOT DATE : 1/27/2020 6:08 PM PLOT BY : BRETT PETERSON PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

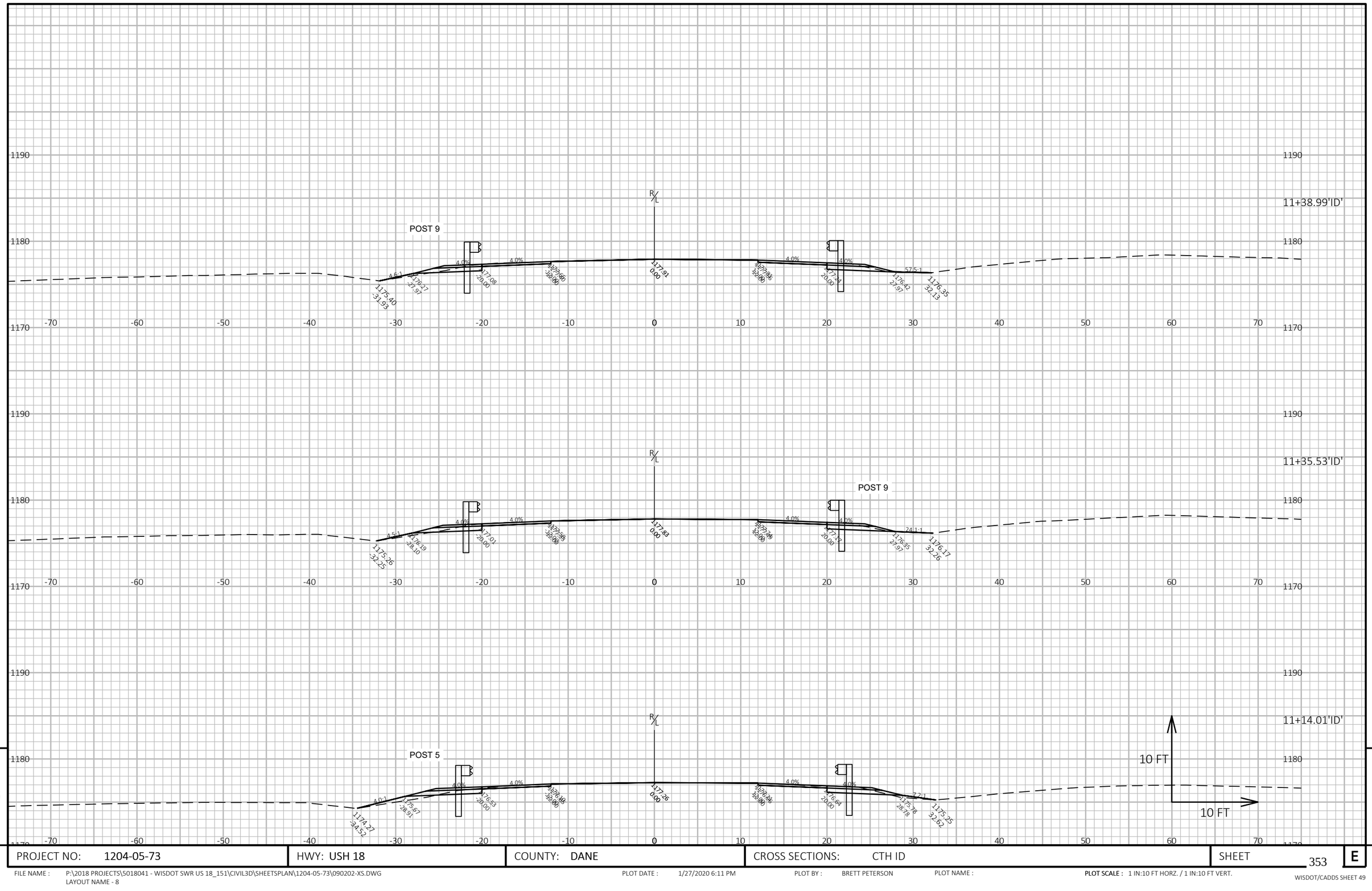


PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CTH ID	SHEET 352	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090202-XS.DWG
LAYOUT NAME - 7

PLOT DATE : 1/27/2020 6:09 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

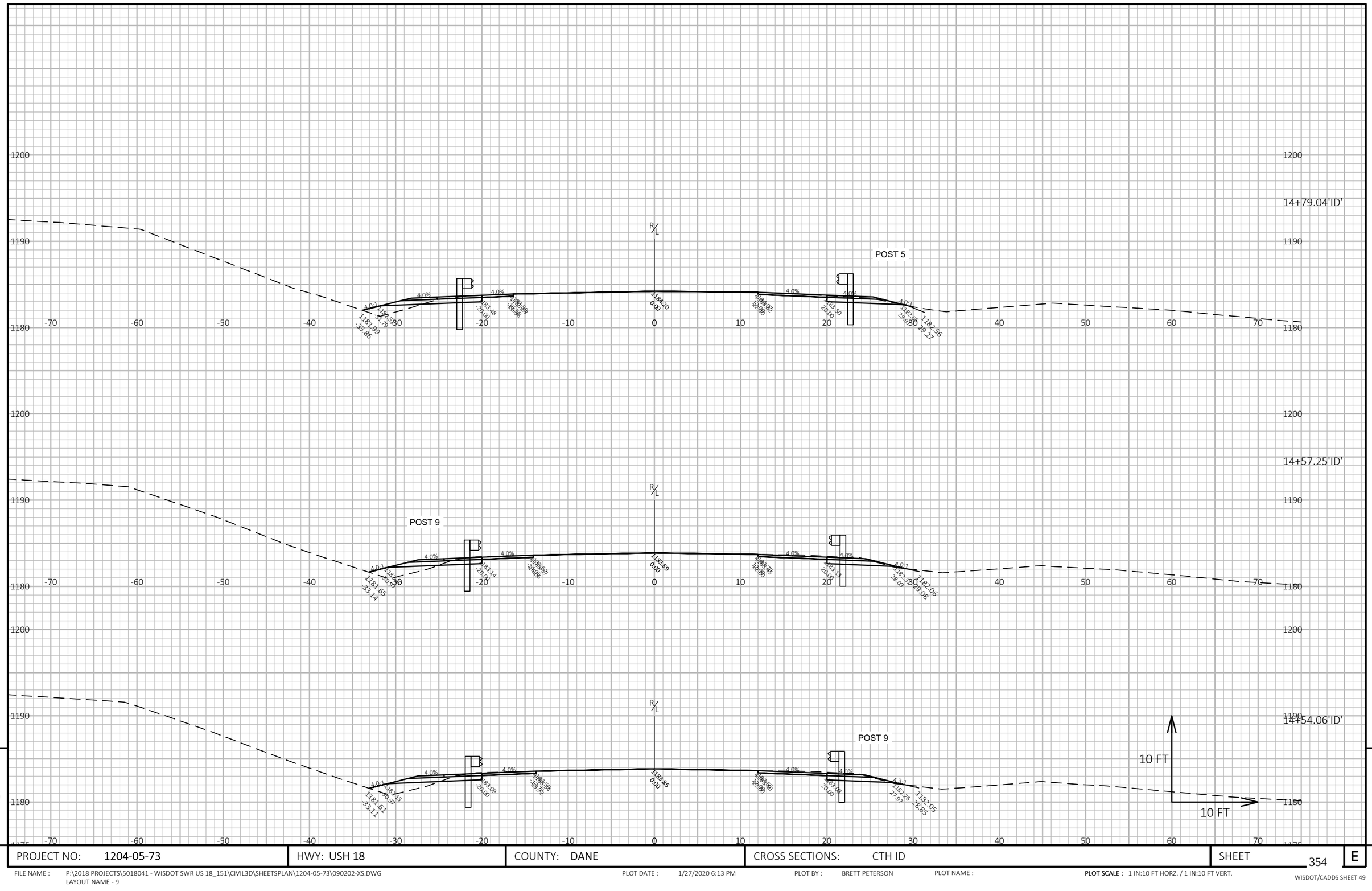
WISDOT/CADDS SHEET 49



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CTH ID	SHEET 353	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090202-XS.DWG
LAYOUT NAME - 8

PLOT DATE : 1/27/2020 6:11 PM PLOT BY : BRETT PETERSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CTH ID	SHEET 354	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090202-XS.DWG
LAYOUT NAME - 9

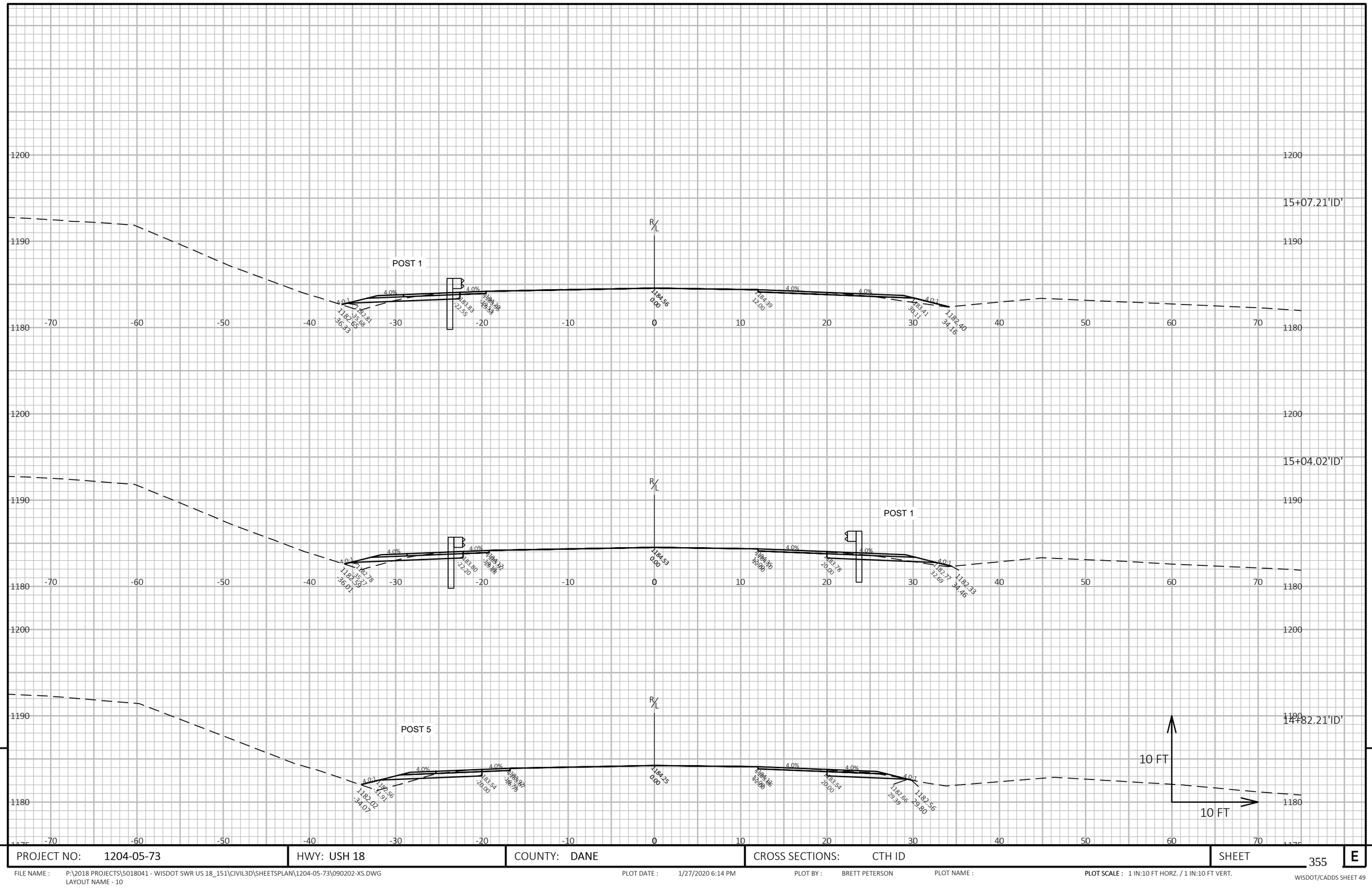
PLOT DATE : 1/27/2020 6:13 PM

PLOT BY : BRETT PETERSON

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 1204-05-73	HWY: USH 18	COUNTY: DANE	CROSS SECTIONS: CTH ID	SHEET 355	E

FILE NAME : P:\2018 PROJECTS\5018041 - WISDOT SWR US 18_151\CIVIL3D\SHEETSPLAN\1204-05-73\090202-XS.DWG
LAYOUT NAME - 10

PLOT DATE : 1/27/2020 6:14 PM PLOT BY : BRETT PETERSON 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
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