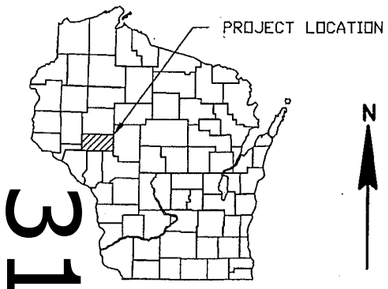
EAU DECEMBER 2015

PROJECT ID: 7080-00-74
WITH: 7080-03-74

COUNTY: EAU CLAIRE

ORDER OF SHEETS

TOTAL SHEETS = 192



31

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7080-00-74	WISC 2015435	1
7080-03-74	WISC 2015436	1

C ALTOONA, USH 12
MC CANN DRIVE INTERSECTION

USH 12

EAU CLAIRE COUNTY

STATE PROJECT NUMBER
7080-00-74

EAU CLAIRE - FAIRCHILD
OTTER CR TO 500 FT W INDUSTRIAL DR

USH 12

EAU CLAIRE COUNTY

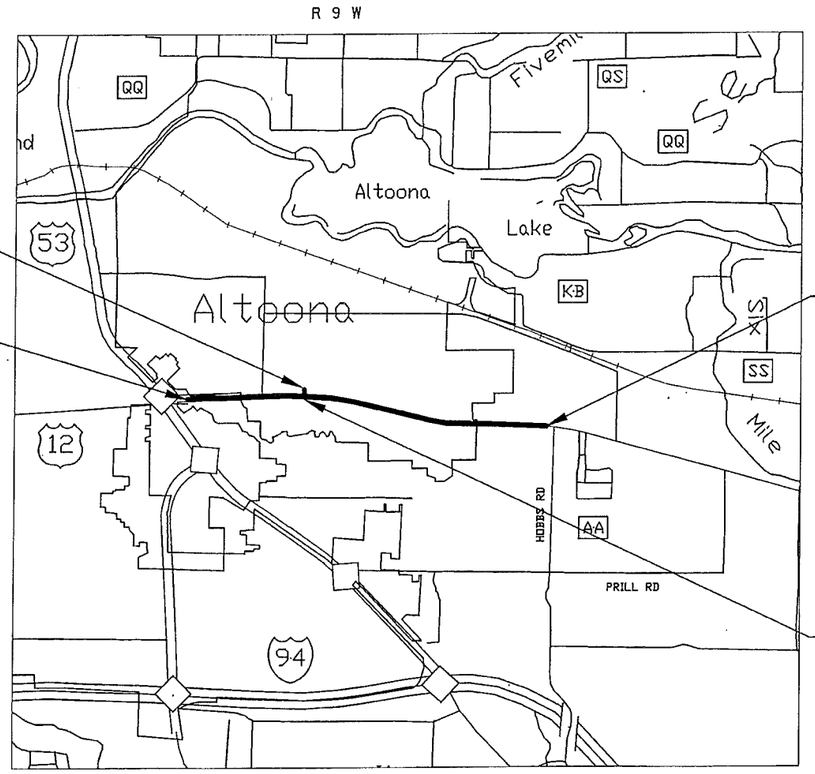
STATE PROJECT NUMBER
7080-03-74

DESIGN DESIGNATION

A.A.D.T.	2016	= 18,600
A.A.D.T.	2035	= 22,800
D.H.V.		= 11.3
D.D.		= 58
T.		= 6.3 %
DESIGN SPEED		= 45 MPH / 55 MPH (POSTED)
ESALS		= 6,548,100

BEGIN PROJECT (7080-00-74)
STA 398+86.51
Y = 272963.664
X = 354590.633

BEGIN PROJECT (7080-03-74)
STA 48+80.09'EB'
Y = 272735.201
X = 351073.224



END PROJECT (7080-03-74)
STA 158+50.00'EB'
Y = 271861.368
X = 361920.585

END PROJECT (7080-00-74)
STA 400+00.00
Y = 272850.193
X = 354589.807

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

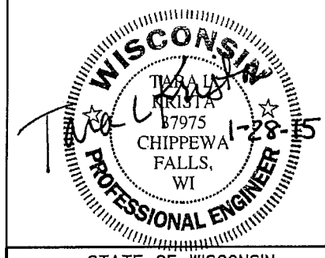
LAYOUT
SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 2.078 MI (7080-03-74)
TOTAL NET LENGTH OF CENTERLINE = 0.021 MI (7080-00-74)
2.099 MI TOTAL

Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), Eau Claire County.

ORIGINAL PLANS PREPARED BY

SEH



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SEH
Designer	SEH
Project Manager	DAVID KOEPP
Regional Examiner	DAN OJIBWAY
Regional Supervisor	TIM MASON

APPROVED FOR THE DEPARTMENT
DATE: 1/28/2015 (Signature)

E

STANDARD ABBREVIATIONS

ABUT	ABUTMENT
AC	ACRE
AGG	AGGREGATE
AECPRC	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
ASPH	ASPHALTIC
AVG	AVERAGE
ADT	AVERAGE DAILY TRAFFIC
BF	BACK FACE
BM	BENCH MARK
BR	BRIDGE
CE	COMMERCIAL ENTRANCE
CL OR C/L OR ℄	CENTER LINE
△	CENTRAL ANGLE OR DELTA
CONC	CONCRETE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CR	CREEK
CY	CUBIC YARD
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DISCH	DISCHARGE
DG	DITCH GRADE
DWY	DRIVEWAY
X	EAST GRID COORDINATE
EAT	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
EOR	END POINT OF RADIUS
EL	ELEVATION
ENT	ENTRANCE
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FC	FACE OF CURB
FF	FACE TO FACE
FERT	FERTILIZE
FE	FIELD ENTRANCE
FL	FLOW LINE
FO	FIBER OPTIC
CWT	HUNDREDWEIGHT
HYD	HYDRANT
ID	INSIDE DIAMETER
INV	INVERT
IP	IRON PIPE ON PIN
LHF	LEFT-HAND FORWARD
L	LENGTH OF CURVE
LF	LINEAR FOOT
LC	LONG CHORD OF CURVE
LS	LUMP SUM
MH	MANHOLE
MOR	MID POINT OF RADIUS
NC	NORMAL CROWN
NO	NUMBER
OBLIT	OBLITERATE
PAVT	PAVEMENT
PE	PRIVATE ENTRANCE
PVRC	POINT OF VERTICAL REVERSE CURVE
QOR	QUARTER POINT OF RADIUS
R	RADIUS
REQ'D	REQUIRED
RES	RESIDENCE OR RESIDENTIAL
RHF	RIGHT-HAND FORWARD
R/W	RIGHT-OF-WAY
R	RIVER
RDWY	ROADWAY
R/L OR ℞	REFERENCE LINE
SALV	SALVAGED
SAN	SANITARY SEWER
SF	SQUARE FEET
SY	SQUARE YARD
SDD	STANDARD DETAIL DRAWINGS
STA	STATION
SS	STORM SEWER
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SE	SUPERELEVATION RATE
TC	TOP OF CURB
T OR TN	TOWN
T	TRUCKS (PERCENT OF)
TYP	TYPICAL
VAR	VARIABLE
VC	VERTICAL CURVE
Y	NORTH GRID COORDINATE
YD	YARD

GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE APPROXIMATE USGS DATUM.

WHEN THE QUANTITY OF BASE AGGREGATE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

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

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

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

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH SALVAGED TOPSOILED, FERTILIZED, AND SEEDED AND MULCHED. FINISHED SEEDED SURFACE SHALL BE 1-INCH BELOW THE TOP OF ADJACENT CONCRETE.

ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

TOP OF CASTING ELEVATIONS SHOWN FOR INLETS REFER TO THE CASTING ELEVATION AT THE FRONT EDGE OF CASTING/FLOWLINE OF GRATE/TOP OF CURB BOX VERIFY ALL CONNECTIONS ELEVATIONS PRIOR TO INSTALLATION OF NEW STORM SEWER.

ALL STORM SEWER INVERTS, ELEVATIONS, PIPE LENGTHS, AND GRADES ARE COMPUTED CENTER-TO-CENTER OF STRUCTURES.

THE 3-INCH HMA PAVEMENT TYPE E-10 MAINLINE AND TURN LANES SHALL BE CONSTRUCTED IN A 1.25-INCH LOWER LAYER AND A 1.75-INCH UPPER LAYER WITH PG64-34P BINDER. EITHER 9.5-MM OR 12.5-MM NOMINAL AGGREGATE SIZE MAY BE USED IN THE LOWER LAYER. 12.5-MM NOMINAL AGGREGATE SIZE SHALL BE USED IN THE UPPER LAYER.

THE 3-INCH HMA PAVEMENT TYPE E-0.3 SHOULDERS SHALL BE CONSTRUCTED IN ONE LAYER WITH PG58-34 BINDER.

SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, AND IN PLACE PRIOR TO CONSTRUCTION.

UTILITY CONTACTS

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

HEARING IMPAIRED TDD (800) 542-2289

** NOT A MEMBER OF DIGGERS HOTLINE

AT&T WI
304 S. DEWEY STREET
EAU CLAIRE, WI 54701
TELEPHONE: 715.839.5565
ATTENTION: RICK PODOLAK
EMAIL: RP4514@ATT.COM

CCI SYSTEMS INC.
PACKERLAND BROADBAND
105 KENT STREET
IRON MOUNTAIN, MI 49801
TELEPHONE: 877.800.2098
ATTENTION: BRAD WEBER
EMAIL: BRAD.WEBER@PACKERLANDBROADBAND.COM

CHARTER COMMUNICATIONS
1201 McMANN DRIVE
ALTOONA, WI 54720
TELEPHONE 715.831.8940 EXT. 619
ATTENTION: SHANE YODER
EMAIL: SHANE.YODER@CHARTERCOM.COM

CITY OF ALTOONA
1303 LYNN AVENUE
ALTOONA, WI 54720
TELEPHONE: 715.839.1629
ATTENTION: DAVID WALTER
EMAIL: DAVIDW@CI.ALTOONA.WI.US

EAU CLAIRE ENERGY COOPERATIVE
8214 USH 12
PO BOX 368
FALL CREEK, WI 54742
TELEPHONE: 715.836.6479
ATTENTION: DON DRAEGER
EMAIL: DDRAEGER@ECEC.COM

WISDOT-NORTHWEST REGION
718 WEST CLAIREMONT AVE.
EAU CLAIRE, WI 54701
TELEPHONE: 715.855.7667 (OFFICE)
TELEPHONE: 715.225.9302 (MOBILE)
ATTENTION: TIM MASON
EMAIL: TIMOTHY.MASON@DOT.WI.GOV

XCEL ENERGY, INC. - DISTRIBUTION
1414 W. HAMILTON
PO BOX 8
EAU CLAIRE, WI 54702
TELEPHONE: 715.737.4203
ATTENTION: DAN KLEIN
EMAIL: DANIEL.J.KLEIN@XCELENERGY.COM

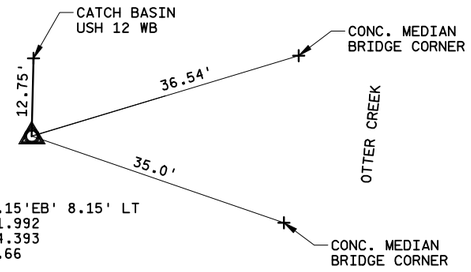
XCEL ENERGY, INC. - GAS
1414 W. HAMILTON
PO BOX 8
EAU CLAIRE, WI 54702
TELEPHONE: 715.737.2584
ATTENTION: SCOTT SEAHOLM
EMAIL: SCOTT.J.SEAHOLM@XCELENERGY.COM

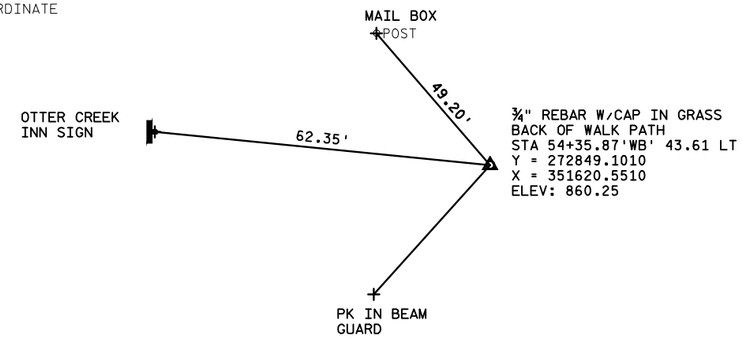
DESIGN CONTACT

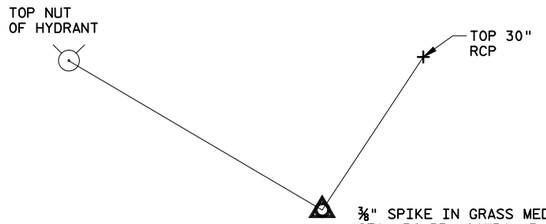
SEH
10 NORTH BRIDGE STREET
CHIPPEWA FALLS, WI 54729
TELEPHONE: 715.720.6200
EMAIL: TKRISTA@SEHINC.COM
ATTENTION: TARA KRISTA

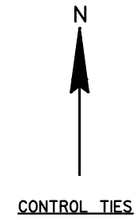
W.D.N.R. CONTACT

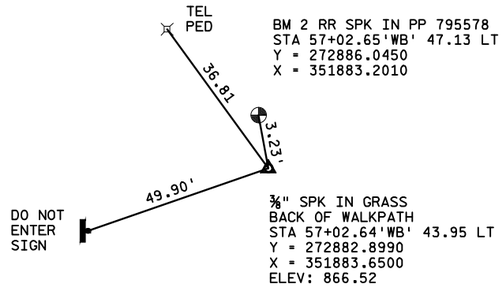
DNR WEST CENTRAL REGION HQ
1300 W CLAIREMONT AVENUE
EAU CLAIRE, WI 54702
TELEPHONE: 715.839.1609
ATTENTION: CHRIS WILLGER
EMAIL: CHRISTOPHERJ.WILLGER@WISCONSIN.GOV



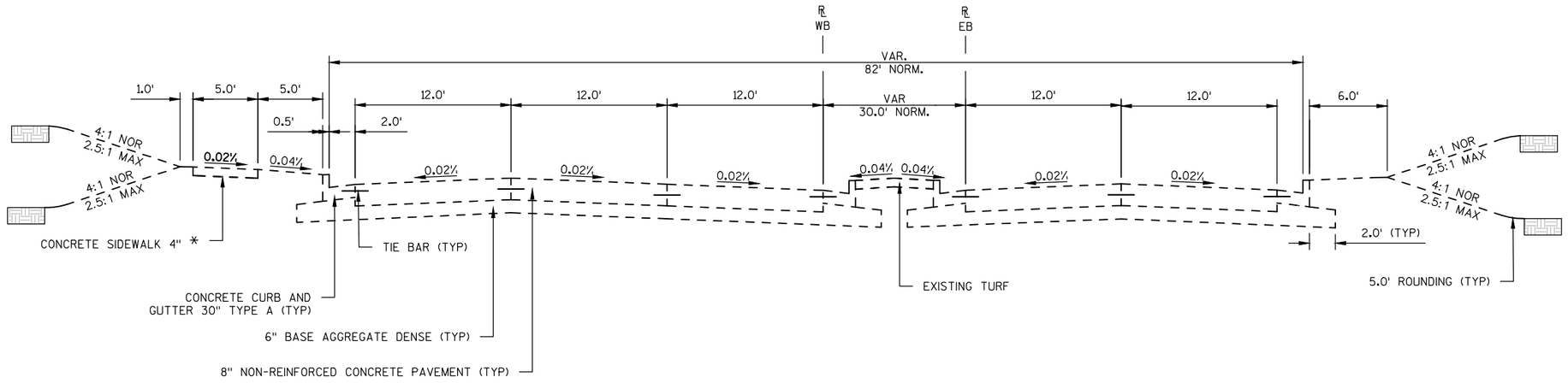






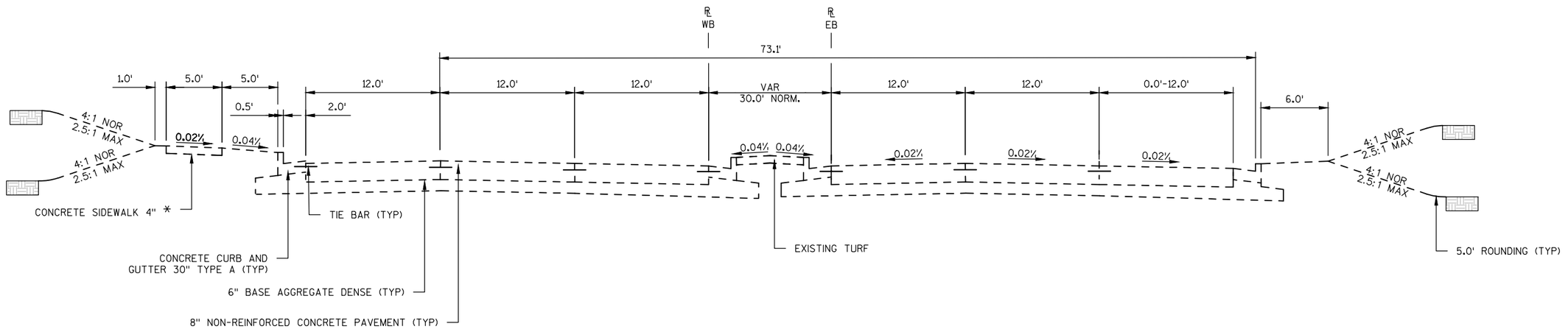


PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	GENERAL NOTES	SHEET 2	E



TYPICAL EXISTING SECTION

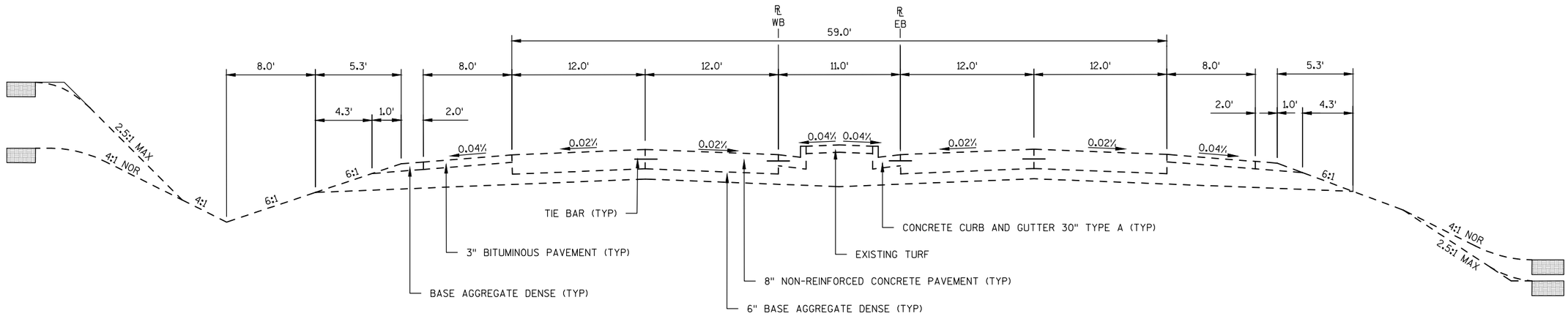
STA 48+80.09'EB' TO STA 59+51.68'EB'
STA 67+66.06'EB' TO STA 78+36.76'EB'
*STA 48+75.00'EB' TO STA 64+73.69'EB' ONLY



TYPICAL EXISTING SECTION

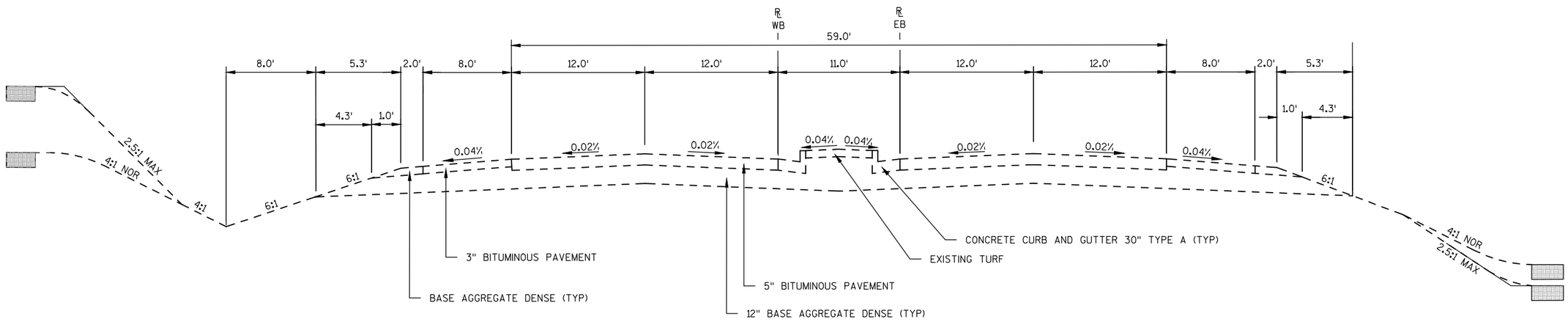
STA 59+51.68'EB' TO STA 67+66.06'EB'
STA 78+36.76'EB' TO STA 84+86.76'EB'
*STA 59+51.68'EB' TO STA 64+73.69'EB' ONLY

PROJECT NO: 7080-03-74/7080-00-74	HWY: USH 12	COUNTY: EAU CLAIRE	TYPICAL SECTIONS	SHEET 3	E



TYPICAL EXISTING SECTION

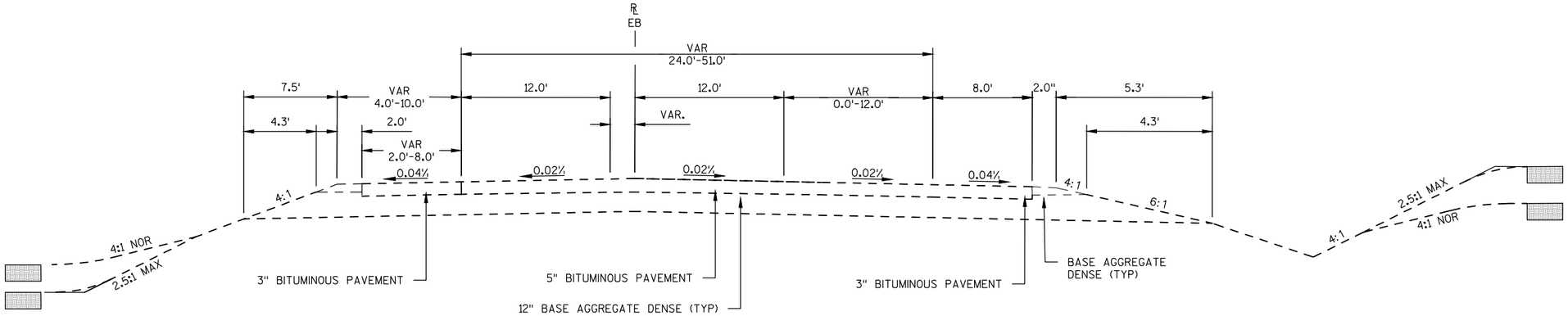
STA 84+86.76'EB' TO STA 141+36.36'EB'



TYPICAL EXISTING SECTION

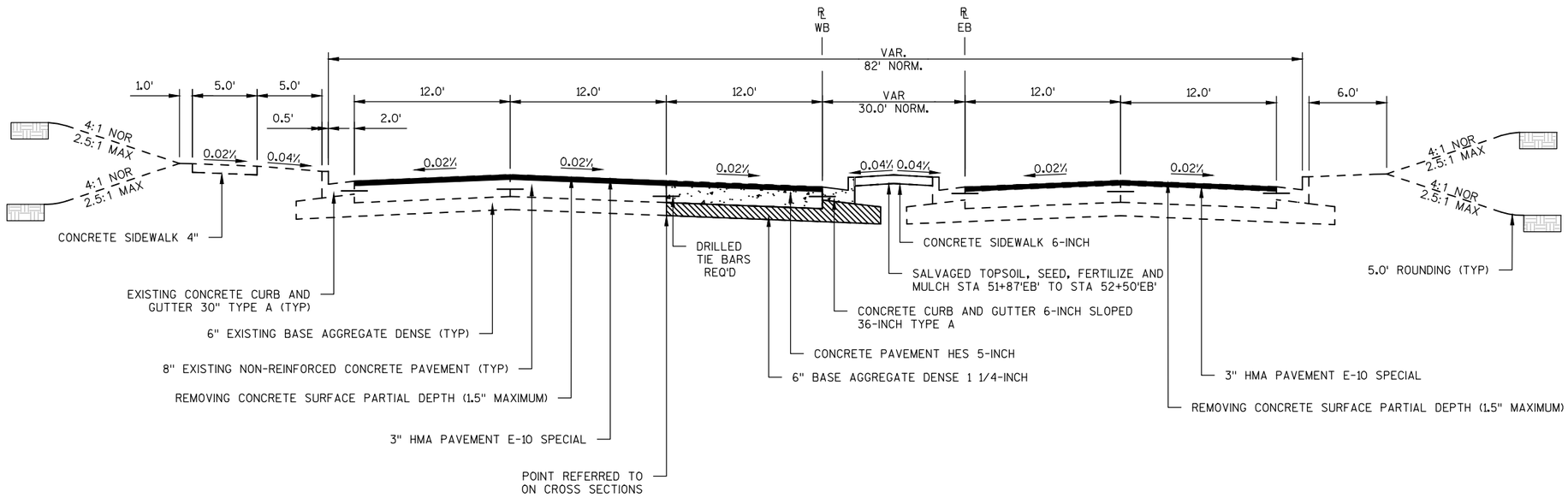
STA 141+36.36'EB' TO STA 146+33.00'EB'

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TYPICAL SECTIONS	SHEET 4	E



TYPICAL EXISTING SECTION

STA 146+33'EB' TO STA 158+50'EB'

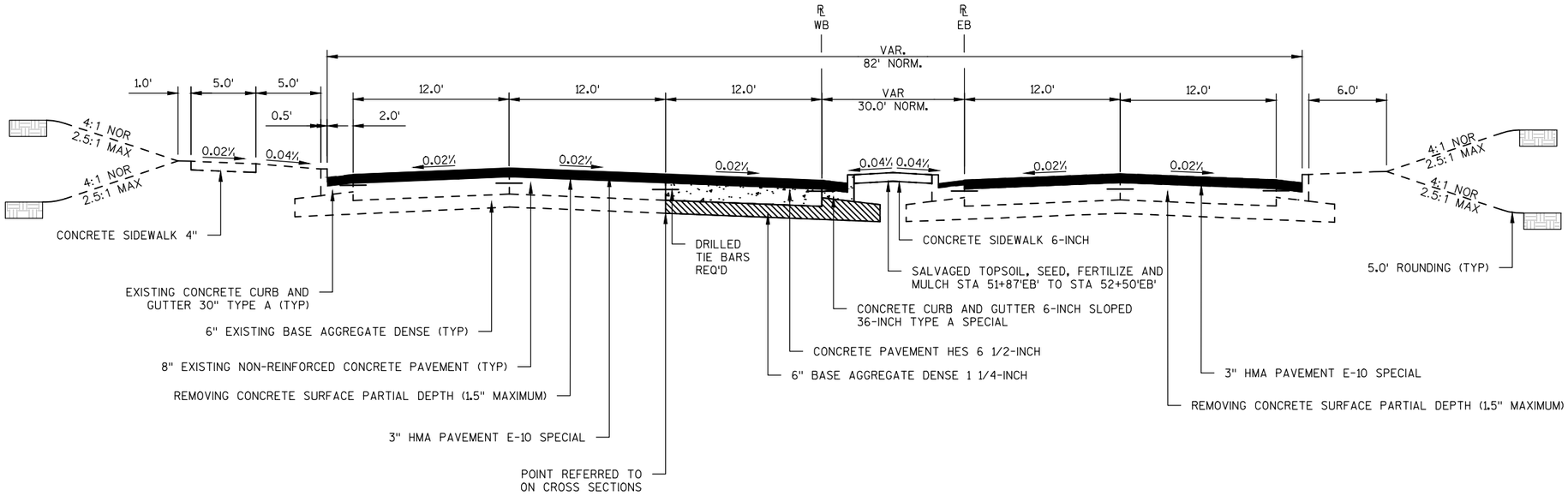


FINISHED TYPICAL SECTION

STA 48+80.09'EB' TO STA 50+36.66'EB'

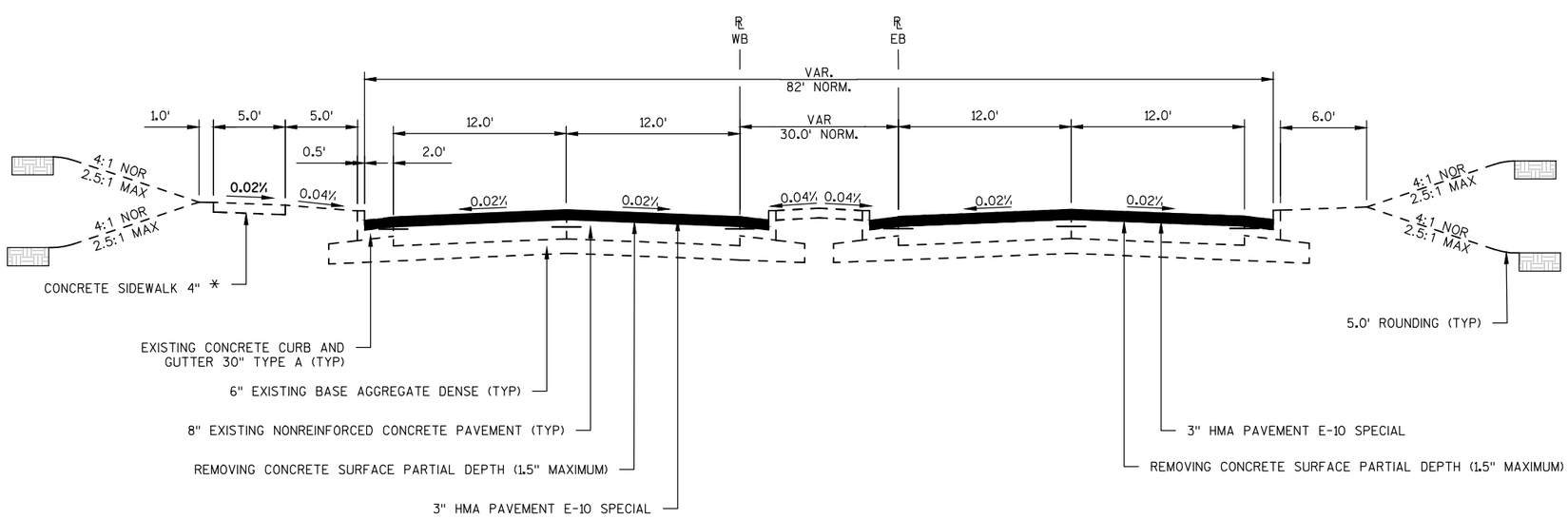
PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TYPICAL SECTIONS	SHEET 5	E

2



FINISHED TYPICAL SECTION

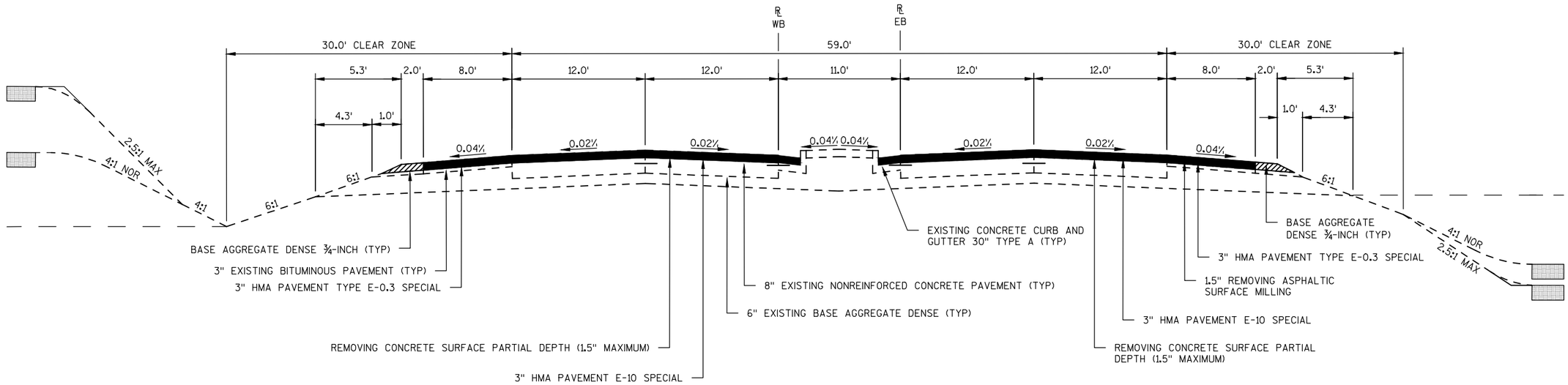
STA 51+87.34'EB' TO STA 52+50.00'EB'



FINISHED TYPICAL SECTION

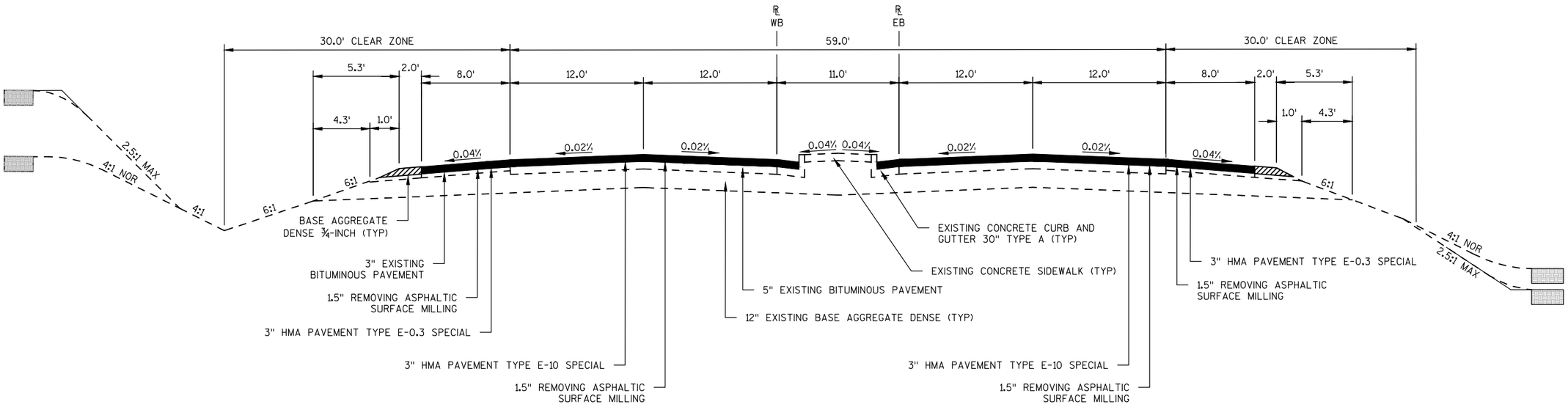
STA 52+50.00'EB' TO STA 59+51.68'EB'
STA 67+66.06'EB TO STA 78+36.76'EB'
*STA 52+50.00'EB' TO STA 64+73.69'EB' ONLY

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TYPICAL SECTIONS	SHEET 6	E



FINISHED TYPICAL SECTION

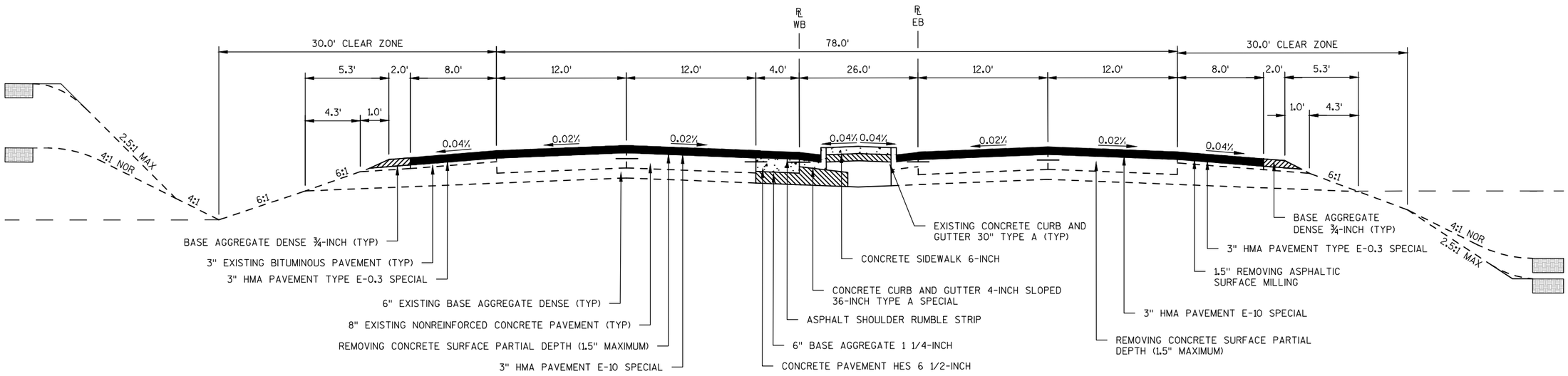
STA 87+55.81'EB' TO STA 115+31.20'EB'
STA 120+60.69'EB' TO STA 130+81.11'EB'
STA 137+21.66'EB' TO STA 141+36.36'EB'



FINISHED TYPICAL SECTION

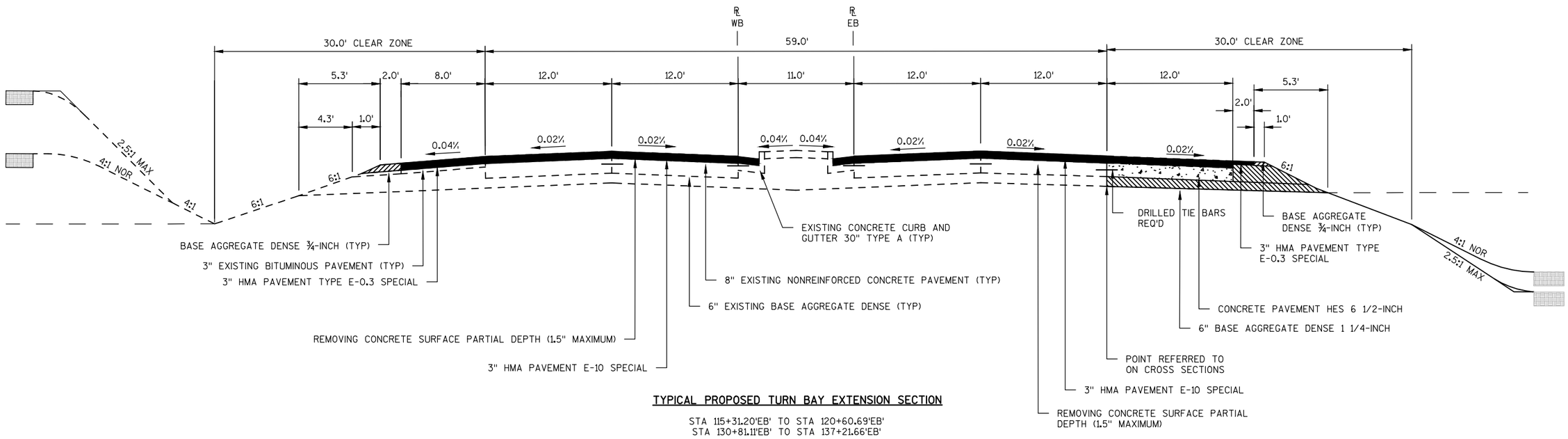
STA 141+36.36'EB' TO STA 146+33.00'EB'

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TYPICAL SECTIONS	SHEET 7	E



FINISHED TYPICAL SECTION

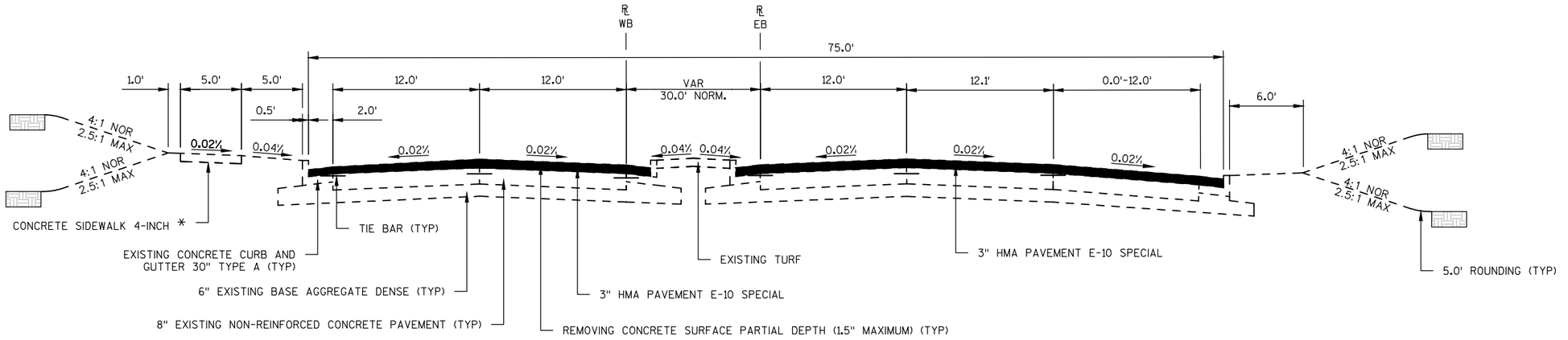
STA 84+02.07'EB' TO STA 87+55.81'EB'



TYPICAL PROPOSED TURN BAY EXTENSION SECTION

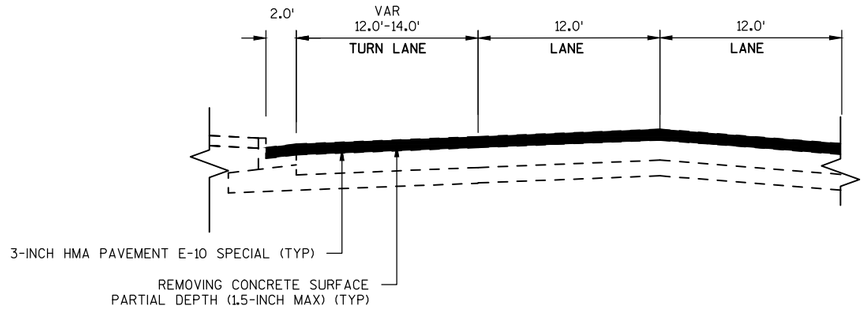
STA 115+31.20'EB' TO STA 120+60.69'EB'
STA 130+81.11'EB' TO STA 137+21.66'EB'

PROJECT NO: 7080-03-74/7080-00-74	HWY: USH 12	COUNTY: EAU CLAIRE	TYPICAL SECTIONS	SHEET 8	E



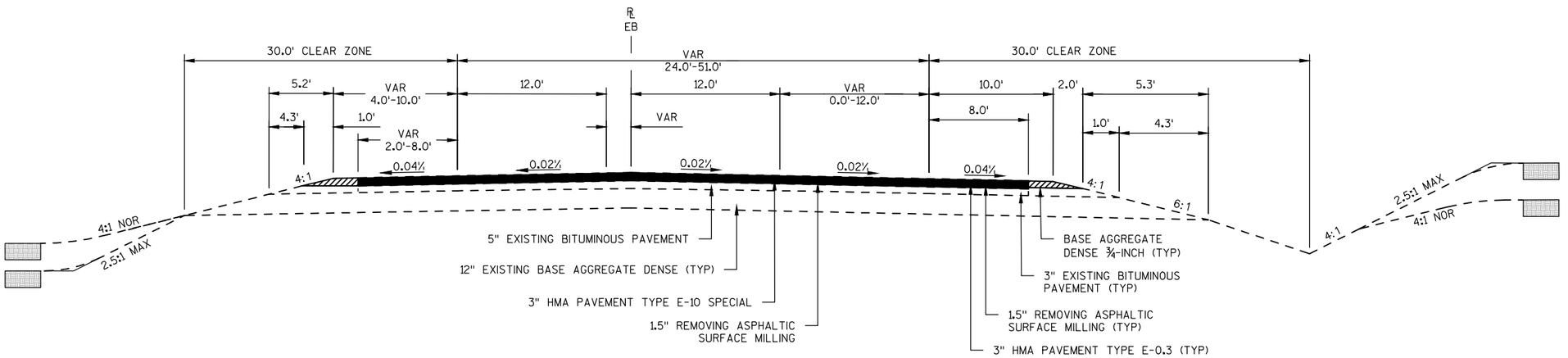
FINISHED TYPICAL SECTION

STA 59+51.68'EB' TO STA 67+66.06'EB'
STA 78+36.76'EB' TO STA 84+02.07'EB'
*STA 59+51.68'EB' TO STA 64+73.69'EB' ONLY



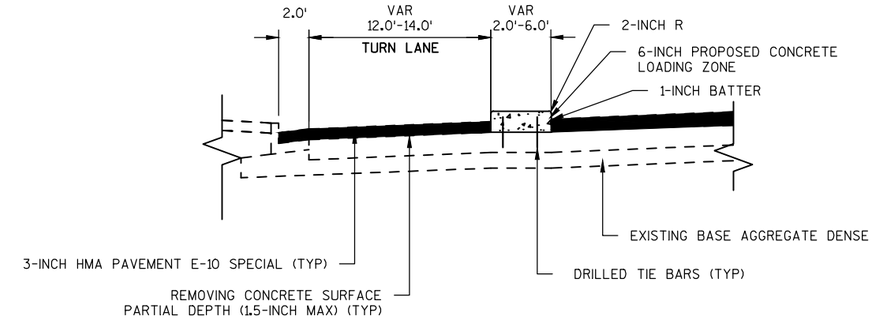
TYPICAL PROPOSED LEFT TURN LANE WITHOUT LOADING ZONE

MCCANN DRIVE
HILLCREST PARKWAY
HILLCREST DRIVE



FINISHED TYPICAL SECTION

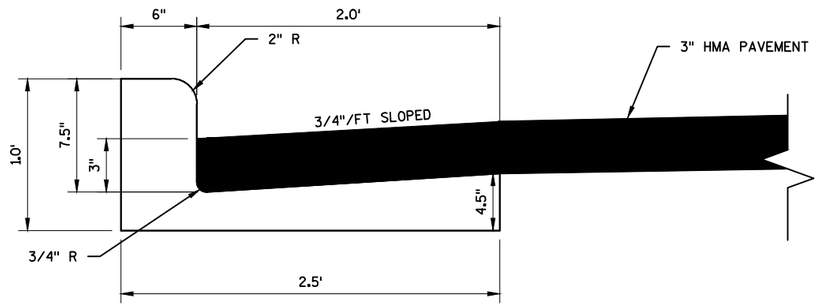
STA 146+33'EB' TO STA 158+50'EB'



TYPICAL PROPOSED TURN LANE LOADING ZONE

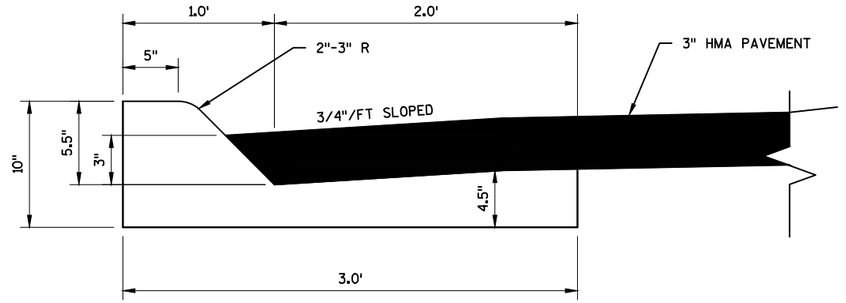
STA 62+94'EB' TO STA 65+51'EB'
STA 65+97'EB' TO STA 67+24'EB'
STA 110+07'EB' TO STA 110+19'EB'

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TYPICAL SECTIONS	SHEET 9	E

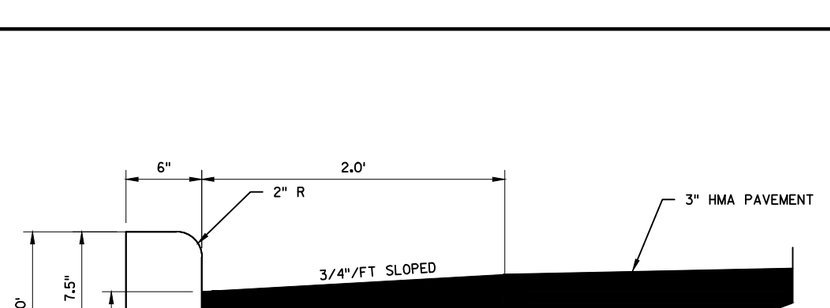


CONCRETE CURB AND GUTTER 30-INCH TYPE A & D SPECIAL

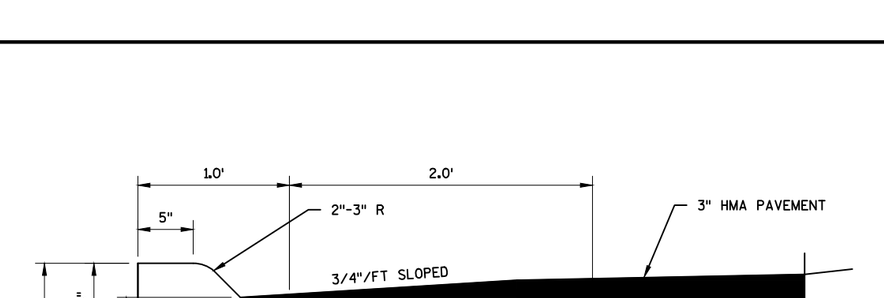
(FOR MCCANN DR AND SPOT REPAIRS ONLY)



CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A SPECIAL



CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A & D SPECIAL



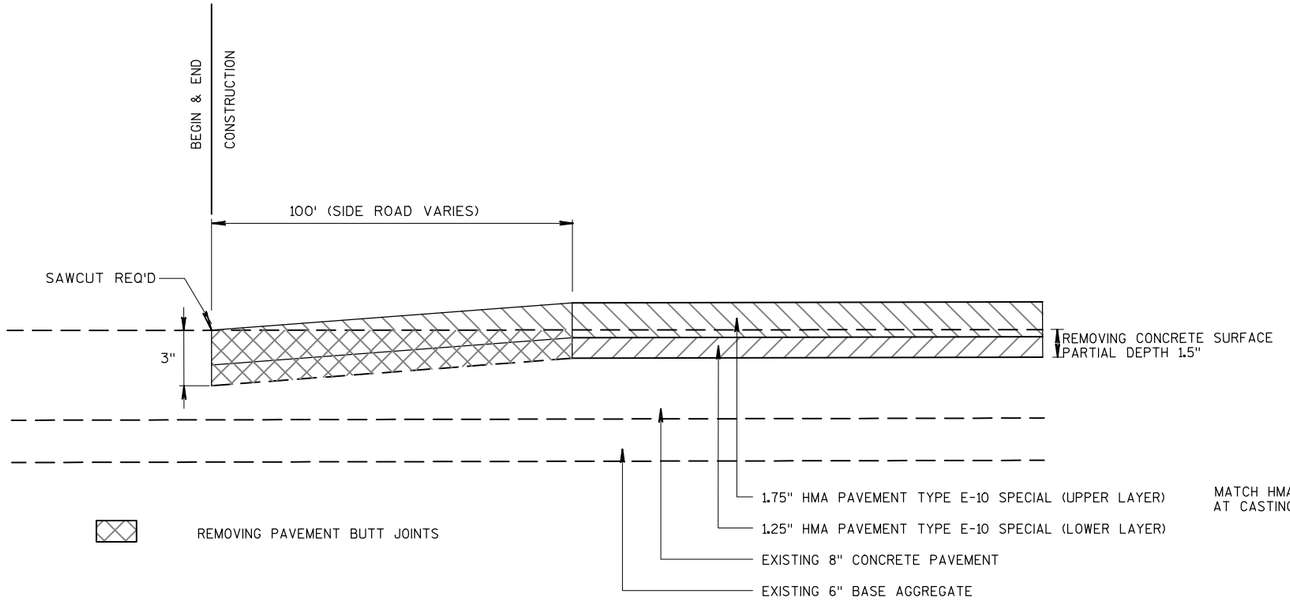
NOTES:

AFTER THE EXISTING PAVEMENT IS GROUND TO DEPTH SPECIFIED ON TYPICAL, REMOVE REMAINDER OF CRACKFILL, PATCHING AND UNSOUND PCC TO A MINIMUM DEPTH OF 4".

REPAVE AREAS WITH ASPHALTIC SURFACE PATCHING PAID SEPARATELY FROM THIS ITEM.

CLEANING AND REPAIRING DISTRESSED PCC AREAS

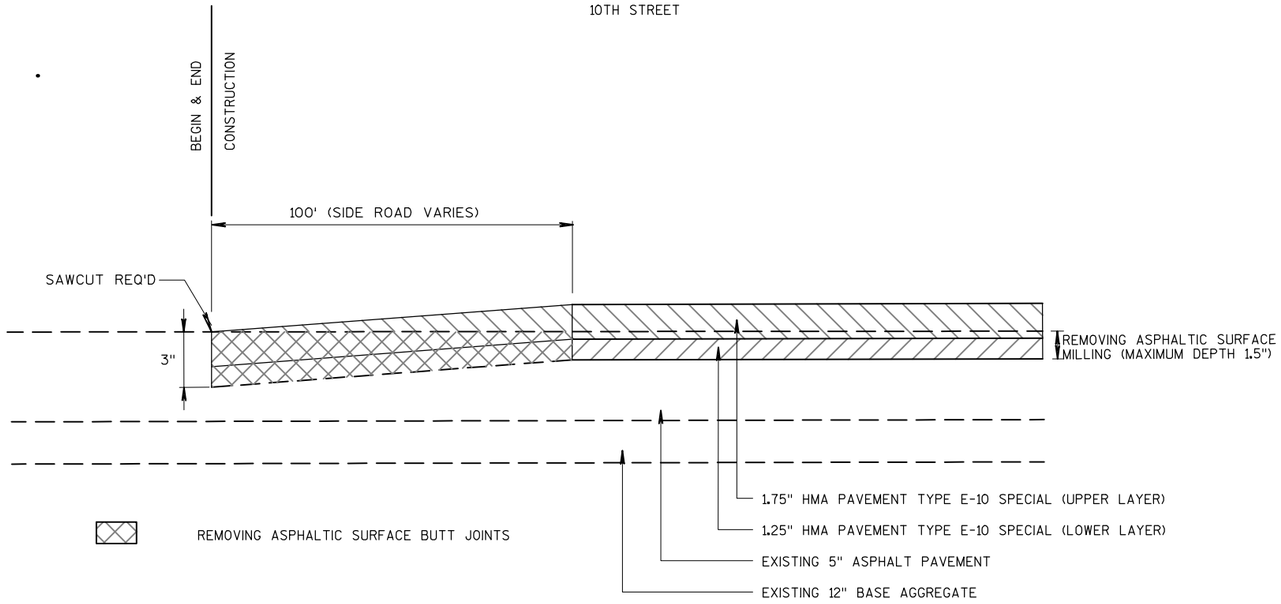
PREPARE FOUNDATION FOR ASPHALT PAVING - SPECIAL



BUTT JOINTS

USH 12 STA 51+87.34'EB'

10TH STREET



BUTT JOINTS

USH 12 STA 158+50.00'EB'

10TH STREET

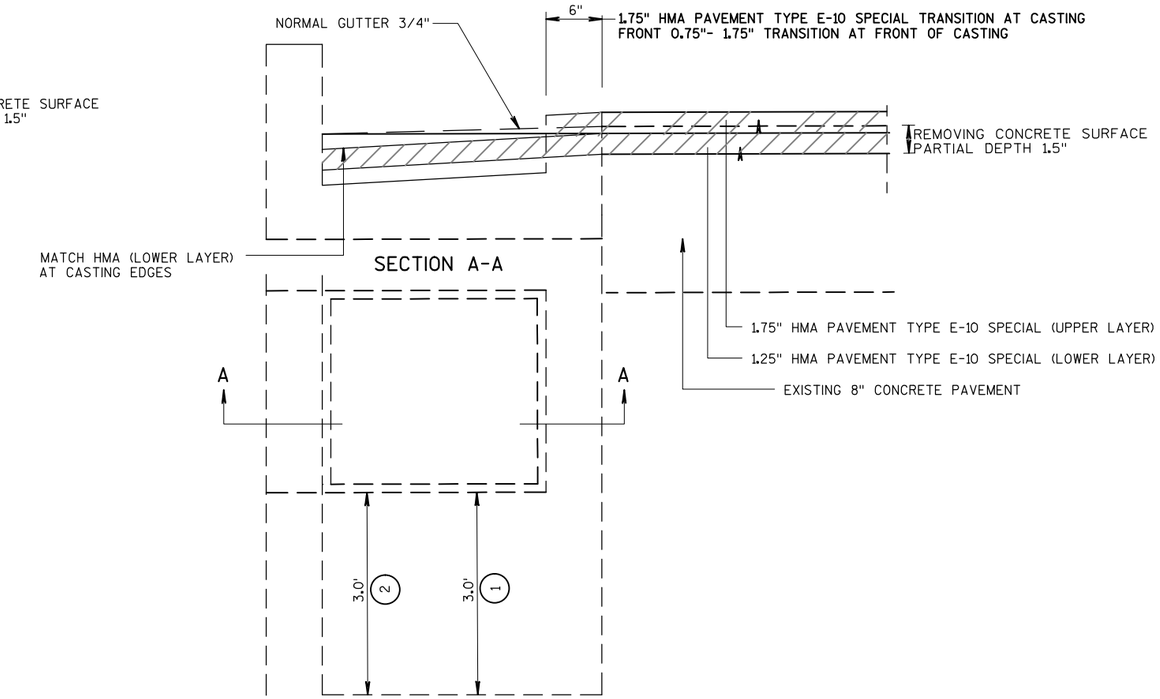
MCCANN DRIVE

HILLCREST PARKWAY

3RD STREET

NOTTINGHAM WAY

WINCHESTER WAY WAY



TOP VIEW

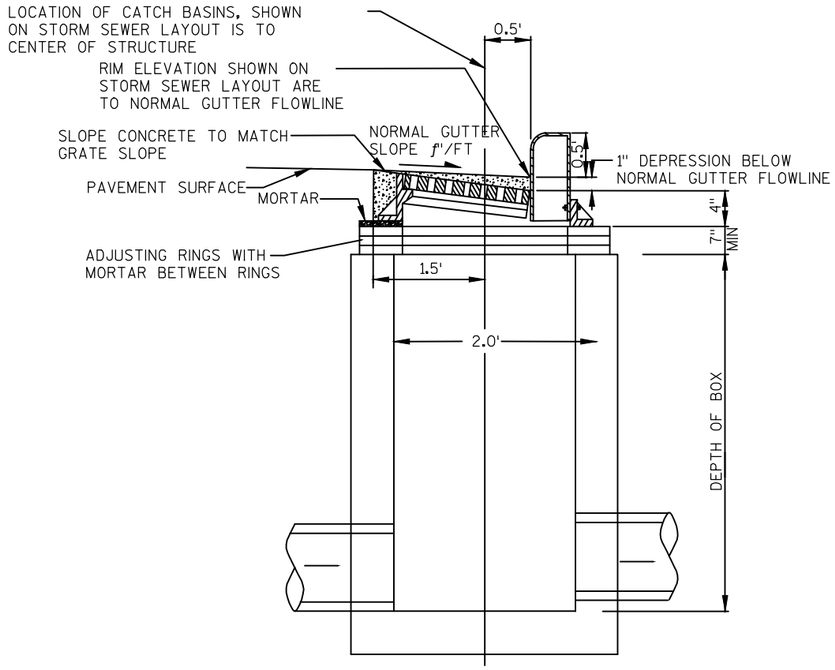
(1) FROM GUTTER TRANSITION TO INLET CASTING, REMOVE CONCRETE SURFACE PARTIAL DEPTH 0" TO 1.25" DEPTH (INCIDENTAL TO REMOVING CONCRETE SURFACE PARTIAL DEPTH 1.5") INSTALL 1.25" HMA PAVEMENT TYPE E-10 SPECIAL (LOWER LAYER) TO BUTT UP TO CASTINGS ON THREE SIDES.

(2) INSTALL 1.75" HMA PAVEMENT TYPE E-10 SPECIAL (UPPER LAYER) BY TRANSITIONING FULL DEPTH 1.75" TO 0.75" AT EDGE OF CASTING ALONG 3.0' GUTTER TRANSITION.

RESURFACING AT INLETS

USH 12

2



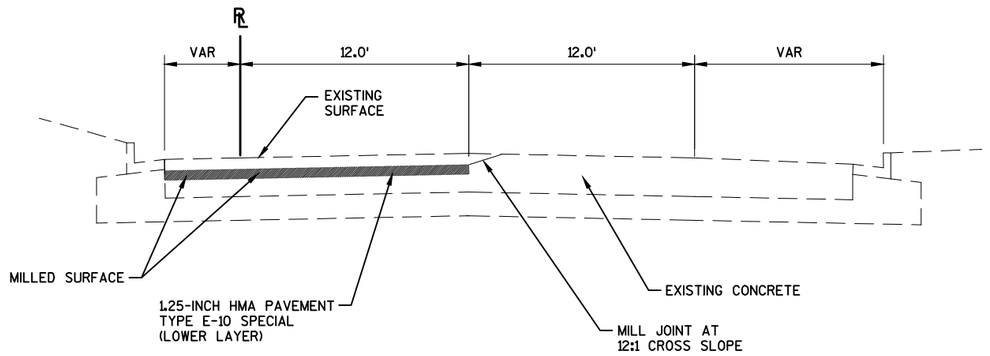
DETAIL OF CURB AND GUTTER AT CATCH BASINS

PROJECT NO: 7080-03-04	HWY: USH 12	COUNTY: EAU CLAIRE	CONSTRUCTION DETAILS	SHEET 12	E

NOTES:
MILL AND REMOVE TEMPORARY JOINT PRIOR TO OPENING LANE TO TRAFFIC.

DETAIL ASSUMES MILL AND OVERLAY IN PASSING LANE FIRST, MIRROR JOINT IF MILL & OVERLAY IS COMPLETED IN DRIVING LANE FIRST.

MILLED TEMPORARY LONGITUDINAL JOINT PAID FOR UNDER ITEM "MILLING AND REMOVING TEMPORARY JOINT".



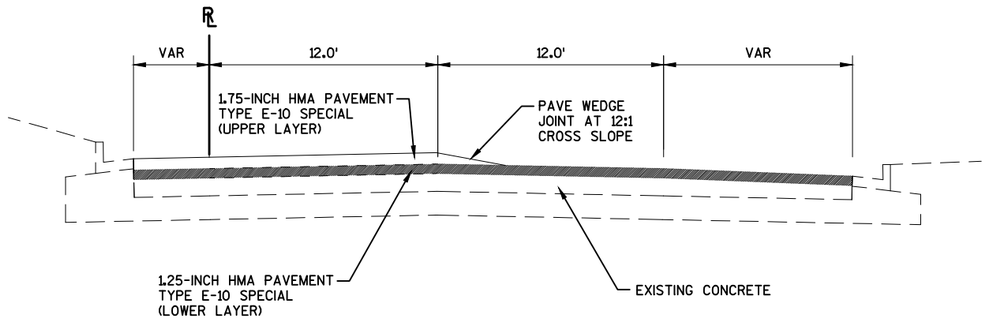
MILLED TEMPORARY LONGITUDINAL JOINT DETAIL

NOTES:
PLACE TEMPORARY WEDGE JOINT PRIOR TO OPENING LANE TO TRAFFIC.

DETAIL ASSUMES MILL & OVERLAY IN PASSING LANE FIRST. MIRROR JOINT IF MILL & OVERLAY IS COMPLETED IN DRIVING LANE FIRST.

PLACING TEMPORARY WEDGE JOINT PAID FOR UNDER ITEM "HMA PAVEMENT TYPE E-10 SPECIAL".

TEMPORARY WEDGE JOINT REMOVAL PAID FOR UNDER ITEM "MILLING AND REMOVING TEMPORARY JOINT".



TEMPORARY LONGITUDINAL WEDGE JOINT DETAIL

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	CONSTRUCTION DETAILS	SHEET 13	E

2

ELEVATION TABLE

POINT	ELEVATION	COMMENTS	COORDINATE
A	860.03	FLAG	N = 272747.801 E = 351072.146
B	859.59	FLAG	N = 272748.968 E = 351092.219
C	857.83	FLAG	N = 272755.195 E = 351192.002
D	857.01	FLAG	N = 272769.694 E = 351382.009
E	856.89	FLAG	N = 272772.503 E = 351391.518

MGS THRIE BEAM TRANSITION
STA 52+17.21'EB' 50.56'LT TO STA 52+56.77'EB' 49.88'LT

MGS GUARDRAIL 3
STA 52+56.77'EB' 49.88'LT TO STA 54+07.36'EB' 50.00'LT

MGS GUARDRAIL TERMINAL EAT
STA 54+07.36'EB' 50.00'LT TO STA 54+60.53'EB' 52.11'LT

STEEL THRIE BEAM BULLNOSE TERMINAL
STA 52+37.75'EB' 10.59'LT TO STA 52+91.27'EB' 4.51'LT
STA 53+28.78'EB' 5.28'LT TO STA 53+82.00'EB' 13.76'LT

STEEL THRIE BEAM
STA 52+90.95'EB' 19.26'LT TO STA 53+28.50'EB' 20.02'LT
STA 52+91.27'EB' 4.51'LT TO STA 53+28.78'EB' 5.28'LT

N

2

XCEL ENERGY

CONCRETE CURB & GUTTER 30-INCH
TYPE A SPECIAL (FLATHEAD REQ'D)
STA 54+35.52'EB' TO STA 55+45.96'EB'

EXISTING STRUCTURE
B-18-113

CITY OF ALTOONA

MEDIAN REPLACEMENT AND
CONCRETE OVERLAY
(SEE PROPOSED STRUCTURE
REHAB PLANS)

STA 50+02.15'WB' 13.5'RT
MANHOLE COVER TYPE J REQ'D
RECONSTRUCT INLET
RIM 857.60*

3" HMA PAVEMENT TYPE E-10 SPECIAL OVER
CONCRETE PAVEMENT HES 5-INCH

STA 50+07.87'EB' 9.93'LT
2X3 INLET REQ'D
INLET COVER TYPE H REQ'D
RIM 857.63*

50+18.56'EB

PC: 50+18.56'EB'

49+00'WB'
50+00'WB'
51+00'WB'
52+00'WB'
53+00'WB'
54+00'WB'

49+00'EB'
50+00'EB'
51+00'EB'
52+00'EB'
53+00'EB'
54+00'EB'

A
B
C
D
E
P-1
P-2

USH 12

STA 50+11.57'EB' 1.25'LT
RECONSTRUCT INLET
RIM 857.67*

CONCRETE CURB & GUTTER 6-INCH SLOPED
36-INCH TYPE A SPECIAL (FLATHEAD REQ'D)
STA 51+90'WB' TO STA 52+50'WB'

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

STA 48+80'WB' TO STA 49+00'WB'
TAPER FROM 30-INCH CURB &
GUTTER TO 36-INCH

OTTER CREEK

CHARTER COMMUNICATIONS

CITY OF ALTOONA

XCEL ENERGY

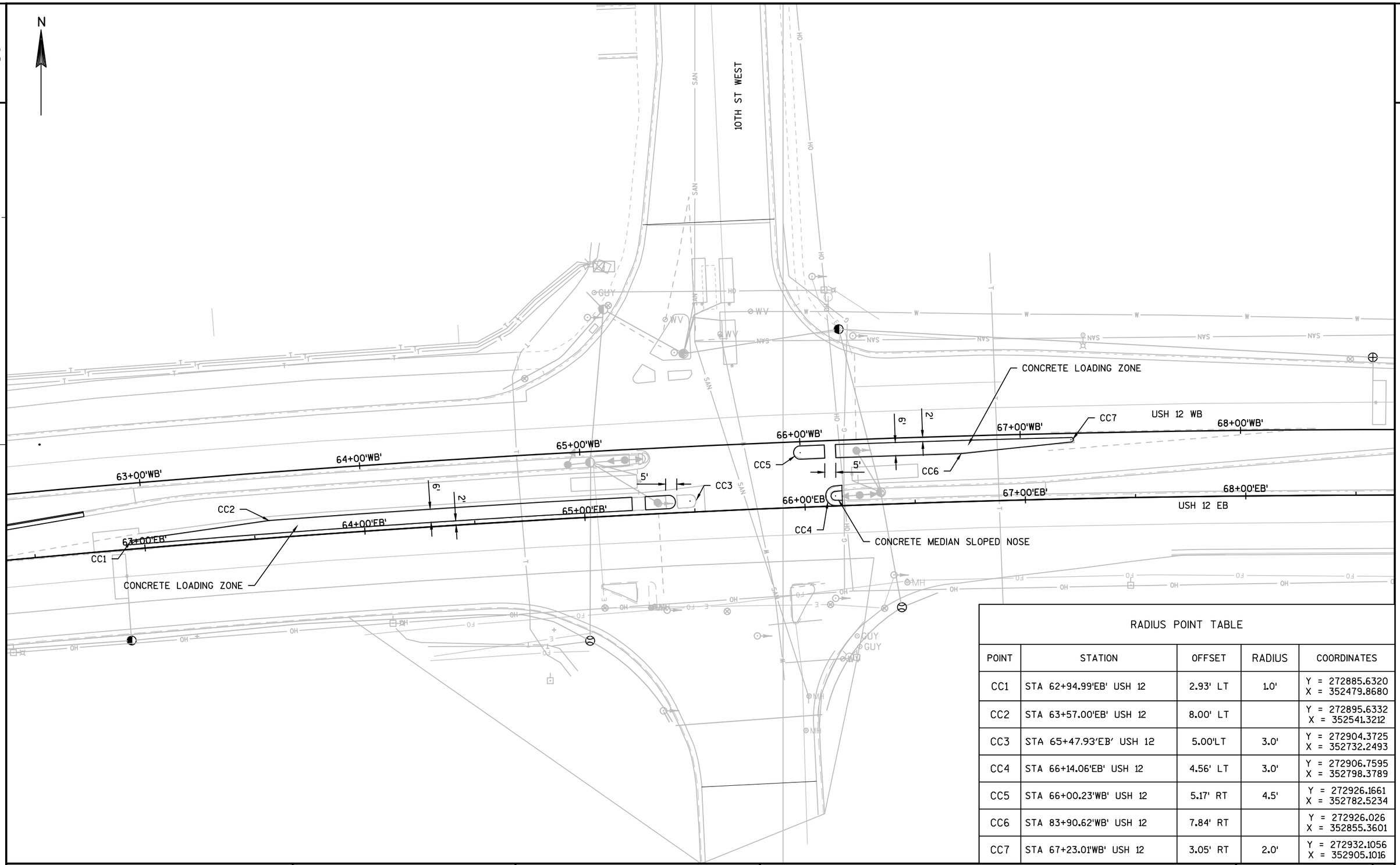
PIPE P-1
13'-12-INCH RCP CL III 0.46%
START INV: 854.01
END INV: 853.95

PIPE P-2
9'-12-INCH RCP CL III 0.33%
START INV: 853.89
END INV: 853.86

* FIELD VERIFY ELEVATION

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TURN LANE DETAIL	SHEET 14	E

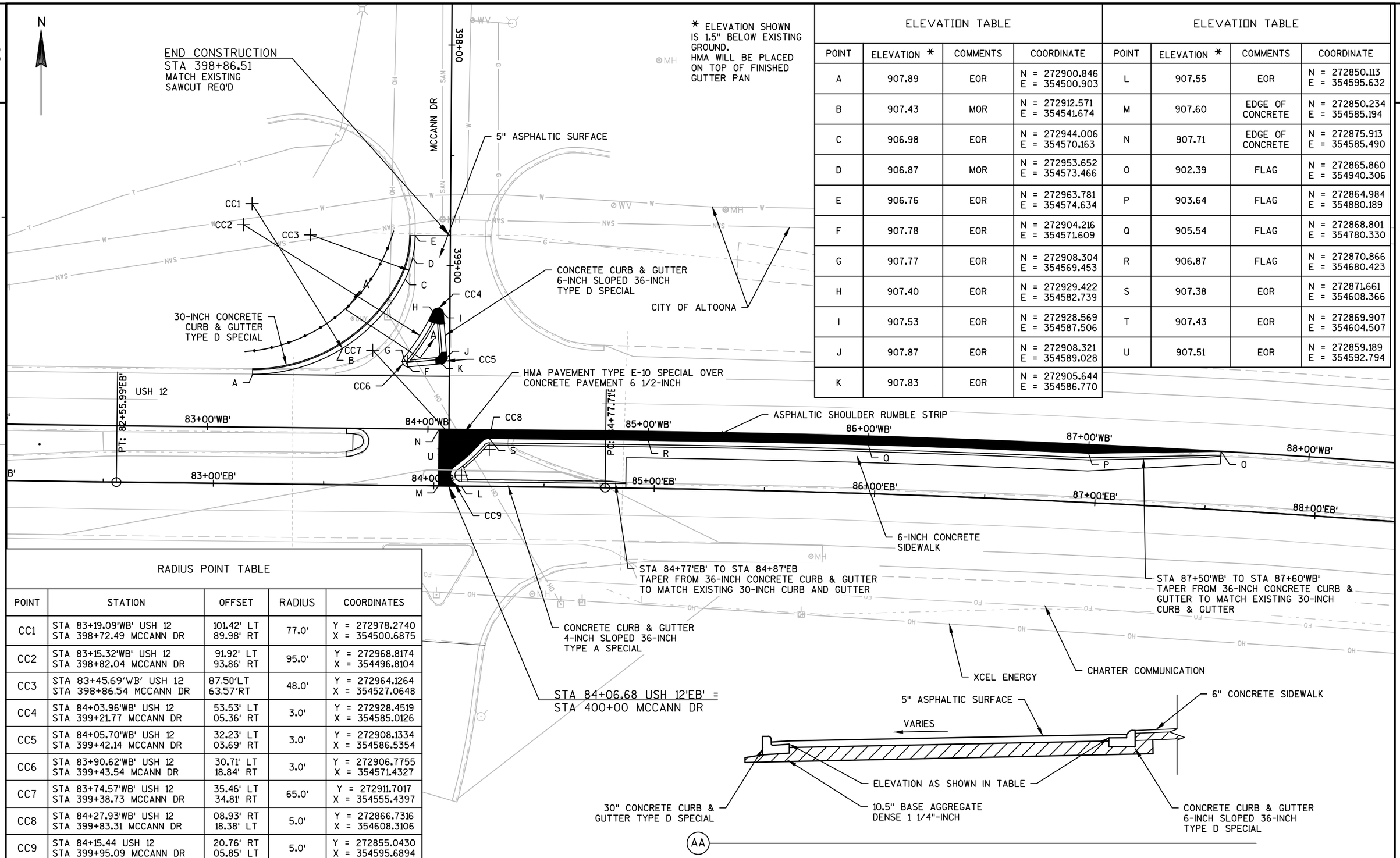
2



RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	STA 62+94.99'EB' USH 12	2.93' LT	1.0'	Y = 272885.6320 X = 352479.8680
CC2	STA 63+57.00'EB' USH 12	8.00' LT		Y = 272895.6332 X = 352541.3212
CC3	STA 65+47.93'EB' USH 12	5.00'LT	3.0'	Y = 272904.3725 X = 352732.2493
CC4	STA 66+14.06'EB' USH 12	4.56' LT	3.0'	Y = 272906.7595 X = 352798.3789
CC5	STA 66+00.23'WB' USH 12	5.17' RT	4.5'	Y = 272926.1661 X = 352782.5234
CC6	STA 83+90.62'WB' USH 12	7.84' RT		Y = 272926.026 X = 352855.3601
CC7	STA 67+23.01'WB' USH 12	3.05' RT	2.0'	Y = 272932.1056 X = 352905.1016

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	INTERSECTION DETAIL	SHEET 15	E



* ELEVATION SHOWN IS 1.5" BELOW EXISTING GROUND.
HMA WILL BE PLACED ON TOP OF FINISHED GUTTER PAN

ELEVATION TABLE

POINT	ELEVATION *	COMMENTS	COORDINATE
A	907.89	EOR	N = 272900.846 E = 354500.903
B	907.43	MOR	N = 272912.571 E = 354541.674
C	906.98	EOR	N = 272944.006 E = 354570.163
D	906.87	MOR	N = 272953.652 E = 354573.466
E	906.76	EOR	N = 272963.781 E = 354574.634
F	907.78	EOR	N = 272904.216 E = 354571.609
G	907.77	EOR	N = 272908.304 E = 354569.453
H	907.40	EOR	N = 272929.422 E = 354582.739
I	907.53	EOR	N = 272928.569 E = 354587.506
J	907.87	EOR	N = 272908.321 E = 354589.028
K	907.83	EOR	N = 272905.644 E = 354586.770

ELEVATION TABLE

POINT	ELEVATION *	COMMENTS	COORDINATE
L	907.55	EOR	N = 272850.113 E = 354595.632
M	907.60	EDGE OF CONCRETE	N = 272850.234 E = 354585.194
N	907.71	EDGE OF CONCRETE	N = 272875.913 E = 354585.490
O	902.39	FLAG	N = 272865.860 E = 354940.306
P	903.64	FLAG	N = 272864.984 E = 354880.189
Q	905.54	FLAG	N = 272868.801 E = 354780.330
R	906.87	FLAG	N = 272870.866 E = 354680.423
S	907.38	EOR	N = 272871.661 E = 354608.366
T	907.43	EOR	N = 272869.907 E = 354604.507
U	907.51	EOR	N = 272859.189 E = 354592.794

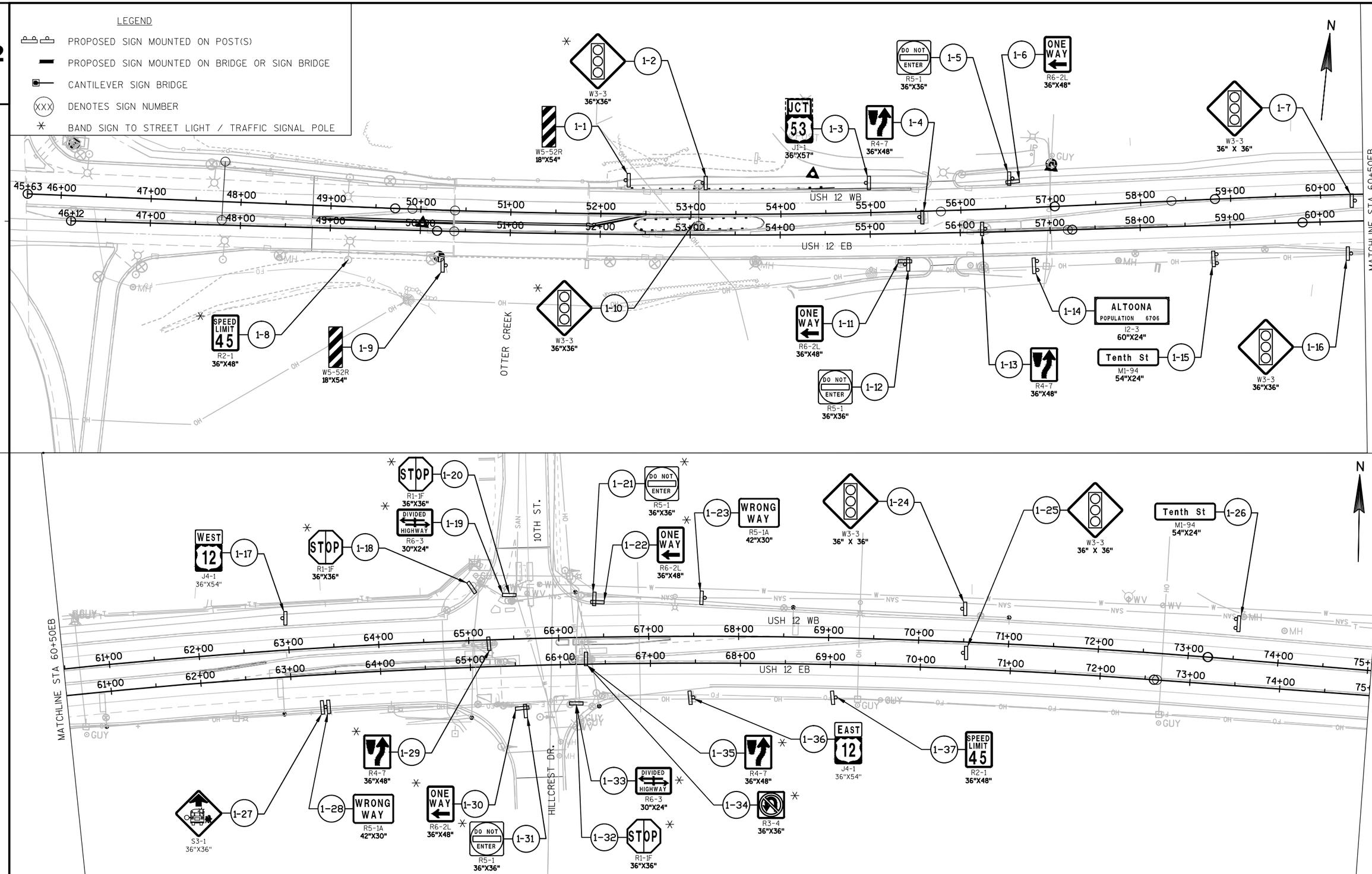
RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	STA 83+19.09'WB' USH 12 STA 398+72.49 MCCANN DR	101.42' LT 89.98' RT	77.0'	Y = 272978.2740 X = 354500.6875
CC2	STA 83+15.32'WB' USH 12 STA 398+82.04 MCCANN DR	91.92' LT 93.86' RT	95.0'	Y = 272968.8174 X = 354496.8104
CC3	STA 83+45.69'WB' USH 12 STA 398+86.54 MCCANN DR	87.50'LT 63.57'RT	48.0'	Y = 272964.1264 X = 354527.0648
CC4	STA 84+03.96'WB' USH 12 STA 399+21.77 MCCANN DR	53.53' LT 05.36' RT	3.0'	Y = 272928.4519 X = 354585.0126
CC5	STA 84+05.70'WB' USH 12 STA 399+42.14 MCCANN DR	32.23' LT 03.69' RT	3.0'	Y = 272908.1334 X = 354586.5354
CC6	STA 83+90.62'WB' USH 12 STA 399+43.54 MCANN DR	30.71' LT 18.84' RT	3.0'	Y = 272906.7755 X = 354571.4327
CC7	STA 83+74.57'WB' USH 12 STA 399+38.73 MCCANN DR	35.46' LT 34.81' RT	65.0'	Y = 272911.7017 X = 354555.4397
CC8	STA 84+27.93'WB' USH 12 STA 399+83.31 MCCANN DR	08.93' RT 18.38' LT	5.0'	Y = 272866.7316 X = 354608.3106
CC9	STA 84+15.44 USH 12 STA 399+95.09 MCCANN DR	20.76' RT 05.85' LT	5.0'	Y = 272855.0430 X = 354595.6894

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	INTERSECTION DETAIL	SHEET 16	E

LEGEND

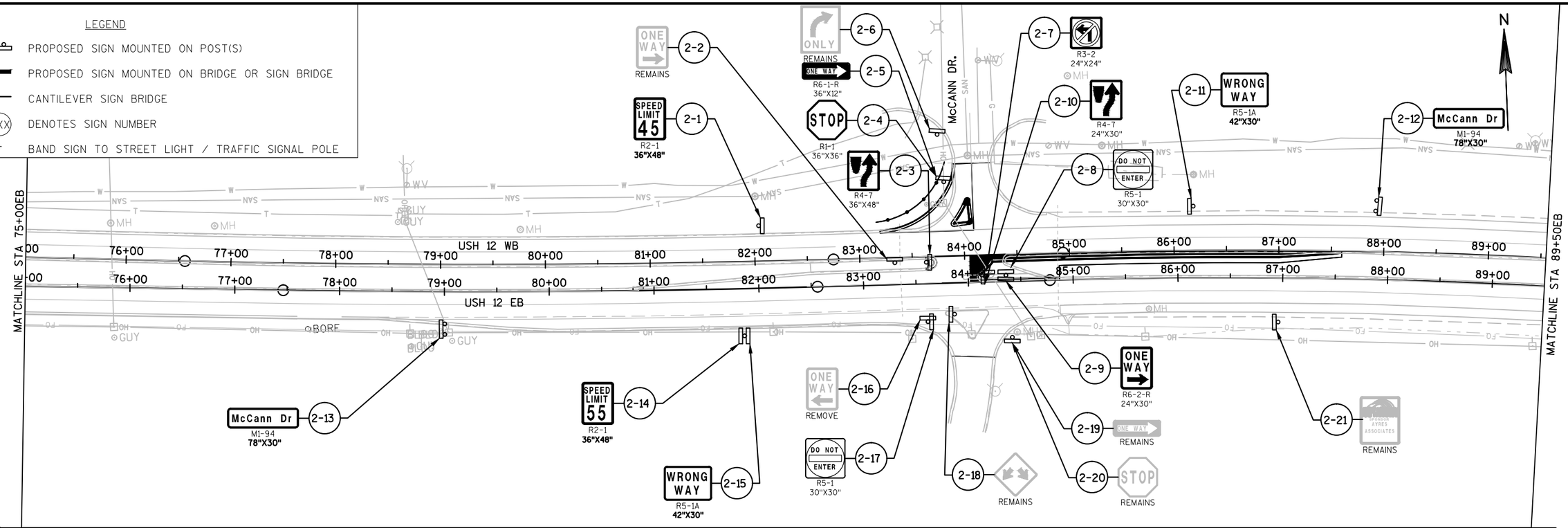
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- BAND SIGN TO STREET LIGHT / TRAFFIC SIGNAL POLE

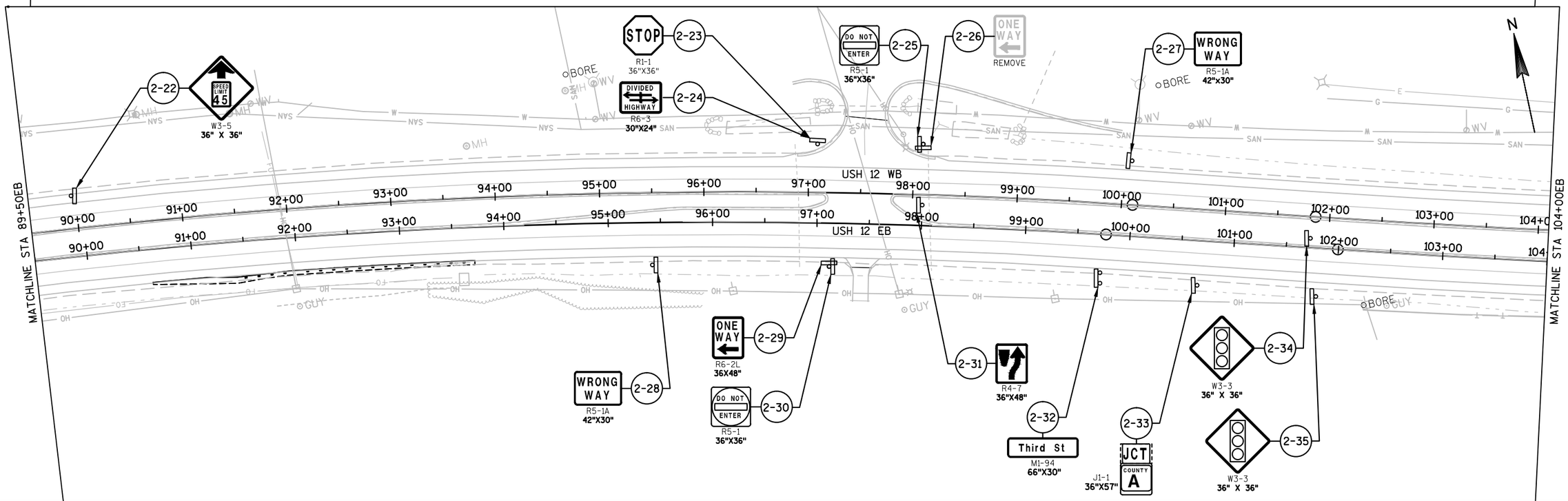


PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET 17	E

LEGEND

- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- BAND SIGN TO STREET LIGHT / TRAFFIC SIGNAL POLE





PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\023202_PS.DWG PLOT DATE : 10/1/2015 8:30 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : **********

2

MATCHLINE STA 104+00EB

MATCHLINE STA 118+50EB

USH 12 WB

USH 12 EB

CTH A

3-1 REMAINS

3-2 WEST 12 J4-1 36"X54"

3-3 R4-7 36"X48"

3-4 STOP R1-1F 36"X36"

3-5 STOP R1-1F 36"X36"

3-6 DIVIDED HIGHWAY R6-3 30"X24"

3-7 DO NOT ENTER R5-1 36"X36"

3-8 ONE WAY R6-2L 36"X48"

3-9 LEFT TURN LANE R3-55L(MOD) 36"X48"

3-10 WRONG WAY R5-1A 42"X30"

3-11 COUNTY A J13-1 24"X45"

3-12 ALTOONA D1-53 78"X21"

Third St M1-94 66"X30"

3-39

JCT COUNTY A J1-1 24"X39"

3-13

3-14 COUNTY A J13-1 36" X 66"

3-15 WRONG WAY R5-1A 42"X30"

3-16 ONE WAY R6-2L 36"X48"

3-17 DO NOT ENTER R5-1 36"X36"

3-18 STOP R1-1F 36"X36"

3-19 DIVIDED HIGHWAY R6-3 30"X24"

3-20 R4-7 36"X48"

3-21 R3-4 24"X24"

3-22 EAST 12 J4-1 36"X54"

LEGEND

- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- BAND SIGN TO STREET LIGHT / TRAFFIC SIGNAL POLE

MATCHLINE STA 118+50EB

MATCHLINE STA 133+00EB

NOTTINGHAM WAY

3-23 W3-3 36" X 36"

3-24 W3-3 36" X 36"

3-25 STOP R1-1 36" X 36"

3-26 DIVIDED HIGHWAY R6-3 30"X24"

3-27 DO NOT ENTER R5-1 36"X36"

3-28 ONE WAY R6-2L 36"X48"

3-29 WRONG WAY R5-1A 42"X30"

3-30 $500 FINE FOR THROWING LITTER/TRASH ON HIGHWAYS KEEP WISCONSIN CLEAN R5-56 48"X36"

3-31 WRONG WAY R5-1A 42X30"

3-32 ONE WAY R6-2L 36"X48"

3-33 DO NOT ENTER R5-1 36"X36"

3-34 STOP R1-1 36" X 36"

3-35 DIVIDED HIGHWAY R6-3 30"X24"

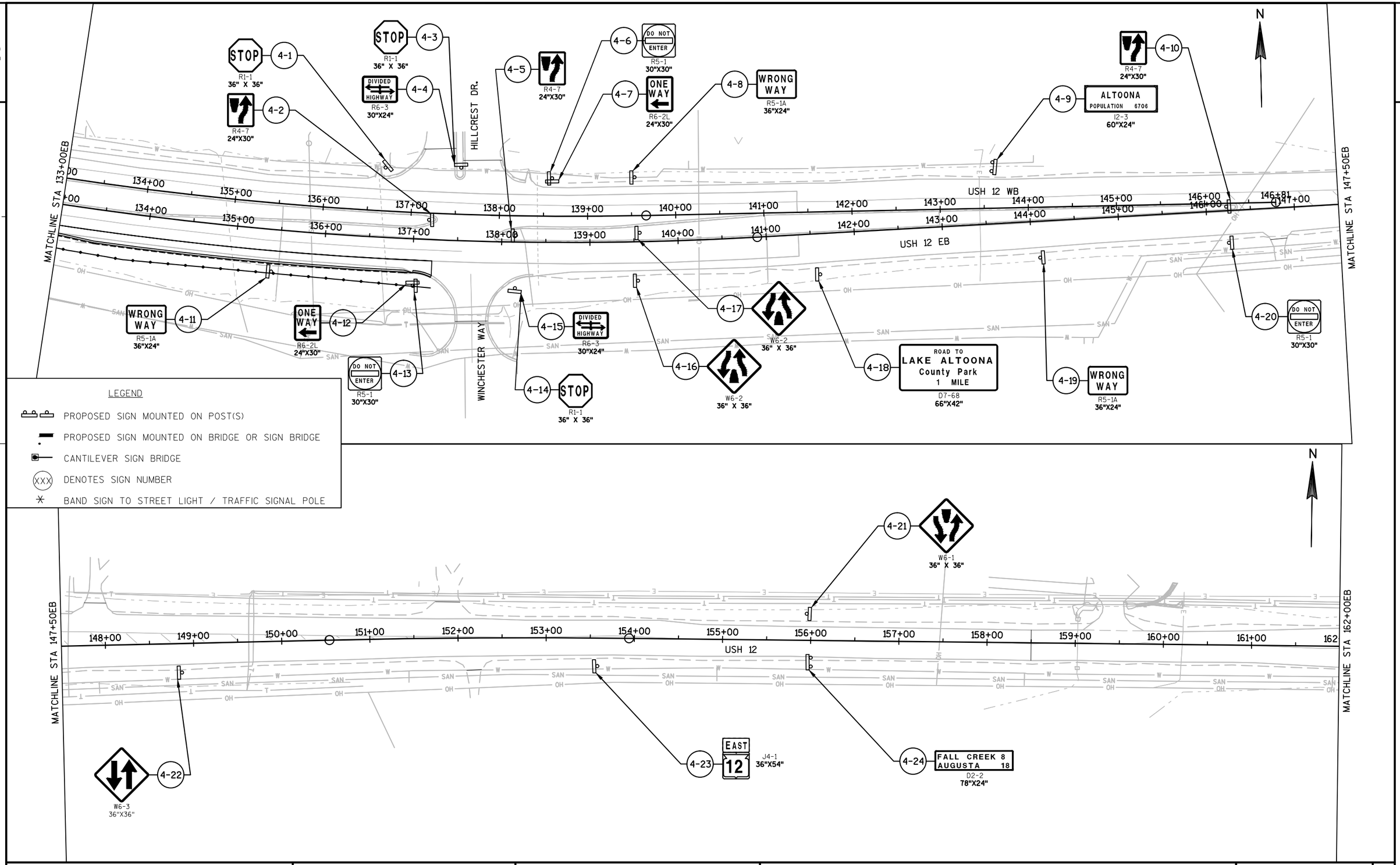
3-36 R4-7 36"X48"

3-37 W4-2L 36"X36"

3-38 W4-2L 36"X36"

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET	E

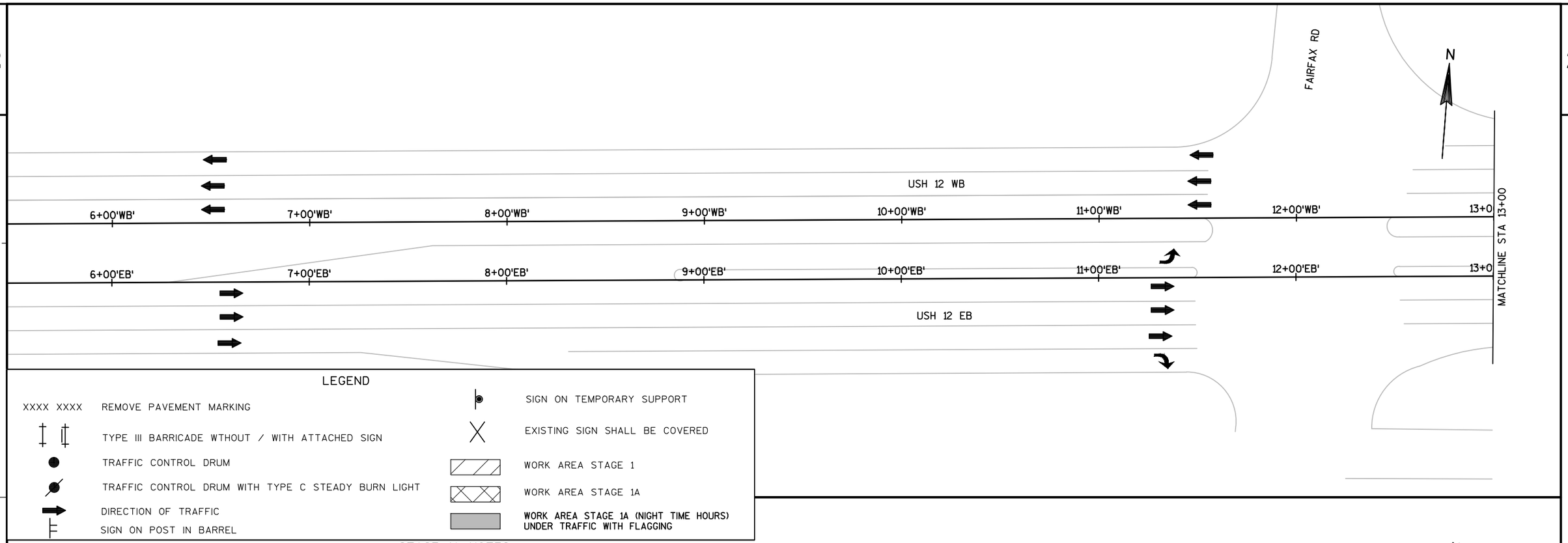
FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\023203_PS.DWG PLOT DATE : 10/1/2015 8:32 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : **********



PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET 20	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\023204_PS.DWG PLOT DATE : 10/1/2015 8:33 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 42



LEGEND

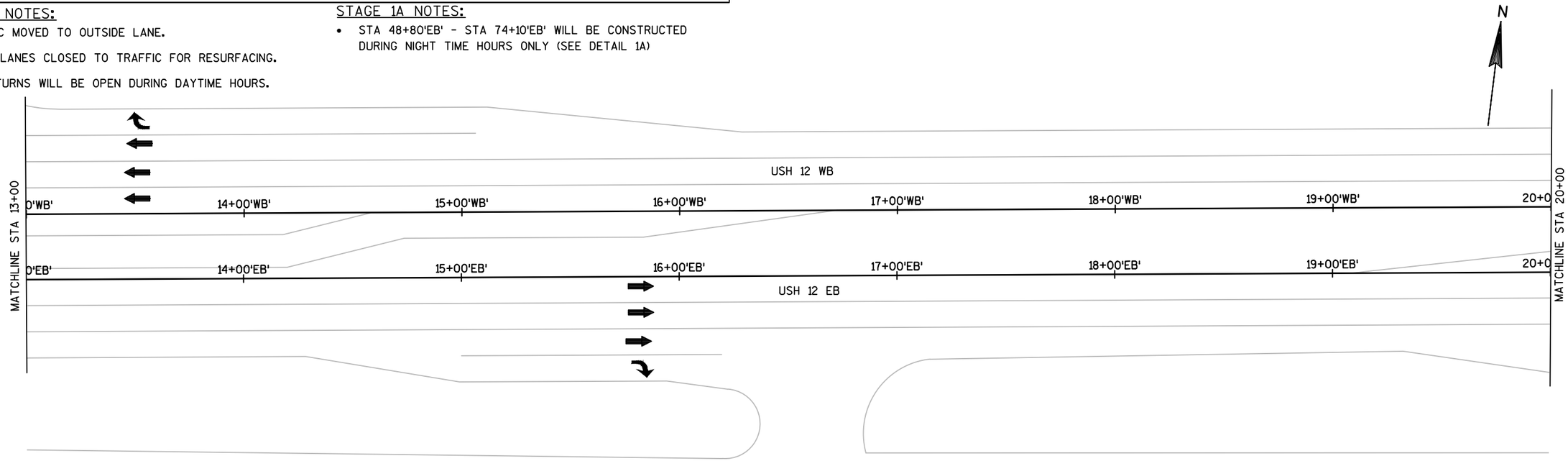
XXXX XXXX REMOVE PAVEMENT MARKING	SIGN ON TEMPORARY SUPPORT
TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN	EXISTING SIGN SHALL BE COVERED
TRAFFIC CONTROL DRUM	WORK AREA STAGE 1
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	WORK AREA STAGE 1A
DIRECTION OF TRAFFIC	WORK AREA STAGE 1A (NIGHT TIME HOURS) UNDER TRAFFIC WITH FLAGGING
SIGN ON POST IN BARREL	

STAGE 1 NOTES:

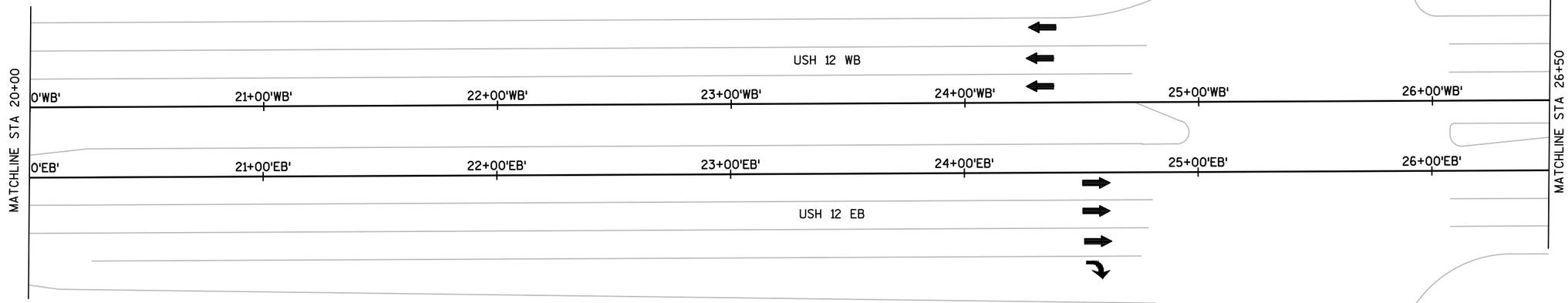
- TRAFFIC MOVED TO OUTSIDE LANE.
- INSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING.
- LEFT TURNS WILL BE OPEN DURING DAYTIME HOURS.

STAGE 1A NOTES:

- STA 48+80'EB' - STA 74+10'EB' WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY (SEE DETAIL 1A)



PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1	SHEET 21	E



LEGEND

XXXX XXXX — REMOVE PAVEMENT MARKING	SIGN ON TEMPORARY SUPPORT
TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN	EXISTING SIGN SHALL BE COVERED
TRAFFIC CONTROL DRUM	WORK AREA STAGE 1
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	WORK AREA STAGE 1A
DIRECTION OF TRAFFIC	WORK AREA STAGE 1A (NIGHT TIME HOURS) UNDER TRAFFIC WITH FLAGGING
SIGN ON POST IN BARREL	

STAGE 1 NOTES:

- TRAFFIC MOVED TO OUTSIDE LANE.
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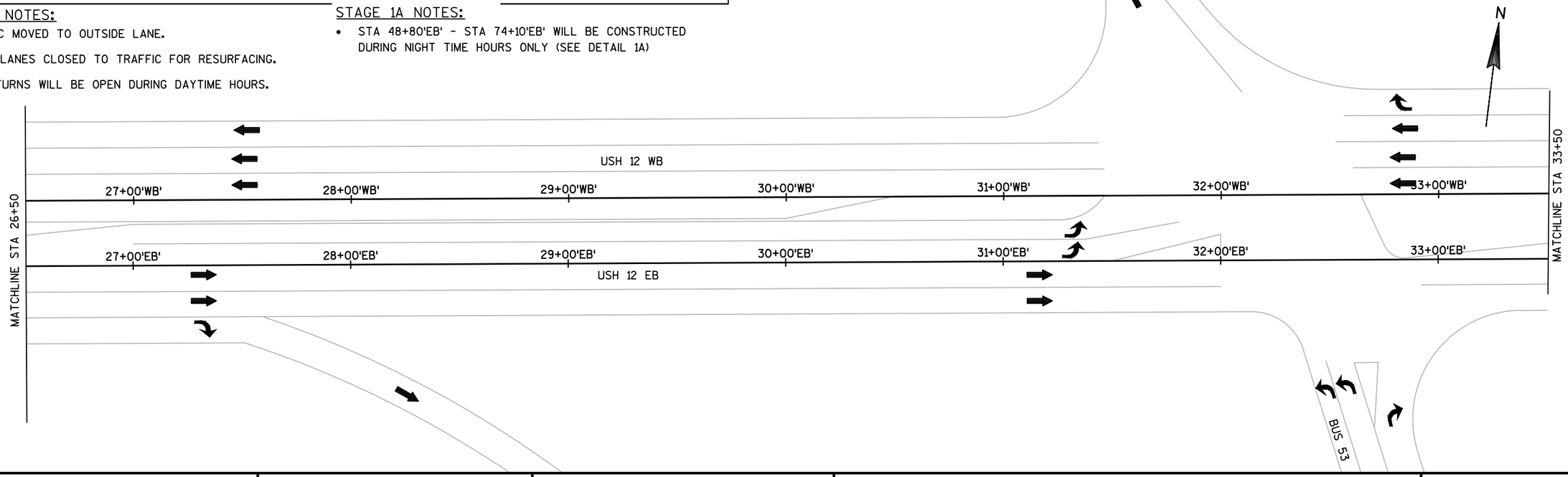
- LEFT TURNS WILL BE OPEN DURING DAYTIME HOURS.

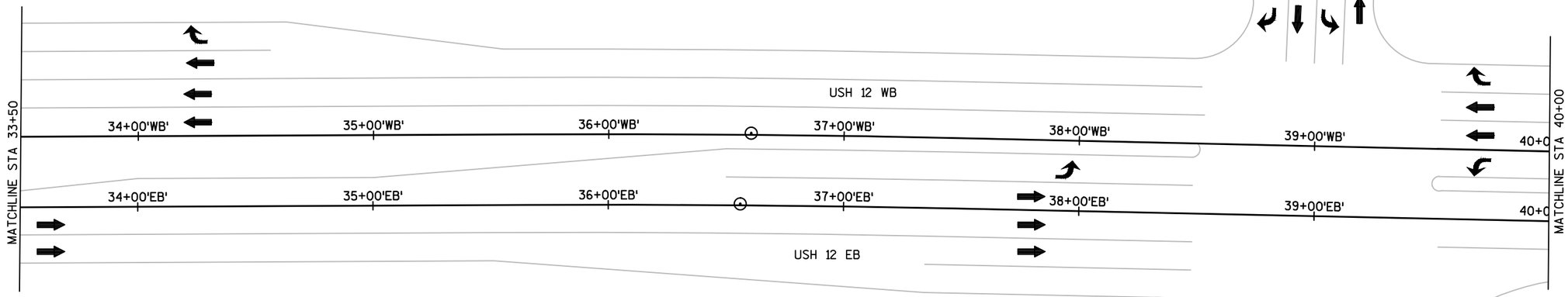
STAGE 1A NOTES:

- STA 48+80'EB' - STA 74+10'EB' WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY (SEE DETAIL 1A)



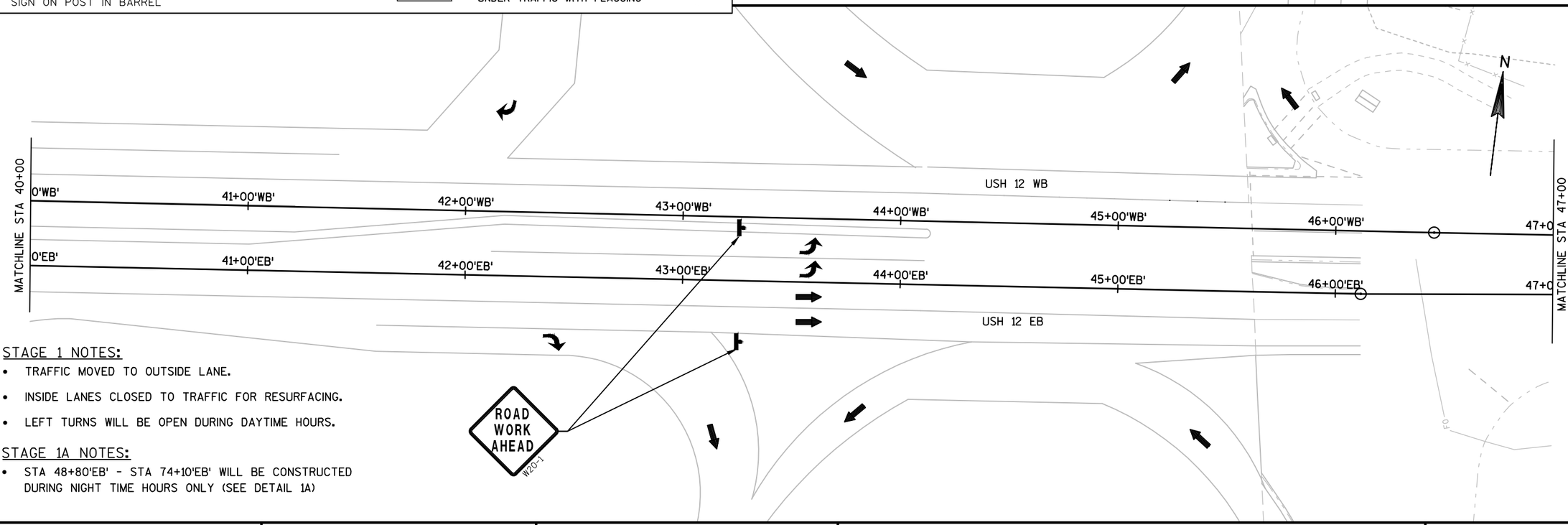
PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1	SHEET 22	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\025001_TC_STAGE1.DWG PLOT DATE : 10/1/2015 8:34 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1" = 50'_XREF



LEGEND

XXXX XXXX — REMOVE PAVEMENT MARKING	SIGN ON TEMPORARY SUPPORT
TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN	EXISTING SIGN SHALL BE COVERED
TRAFFIC CONTROL DRUM	WORK AREA STAGE 1
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	WORK AREA STAGE 1A
DIRECTION OF TRAFFIC	WORK AREA STAGE 1A (NIGHT TIME HOURS) UNDER TRAFFIC WITH FLAGGING
SIGN ON POST IN BARREL	



STAGE 1 NOTES:

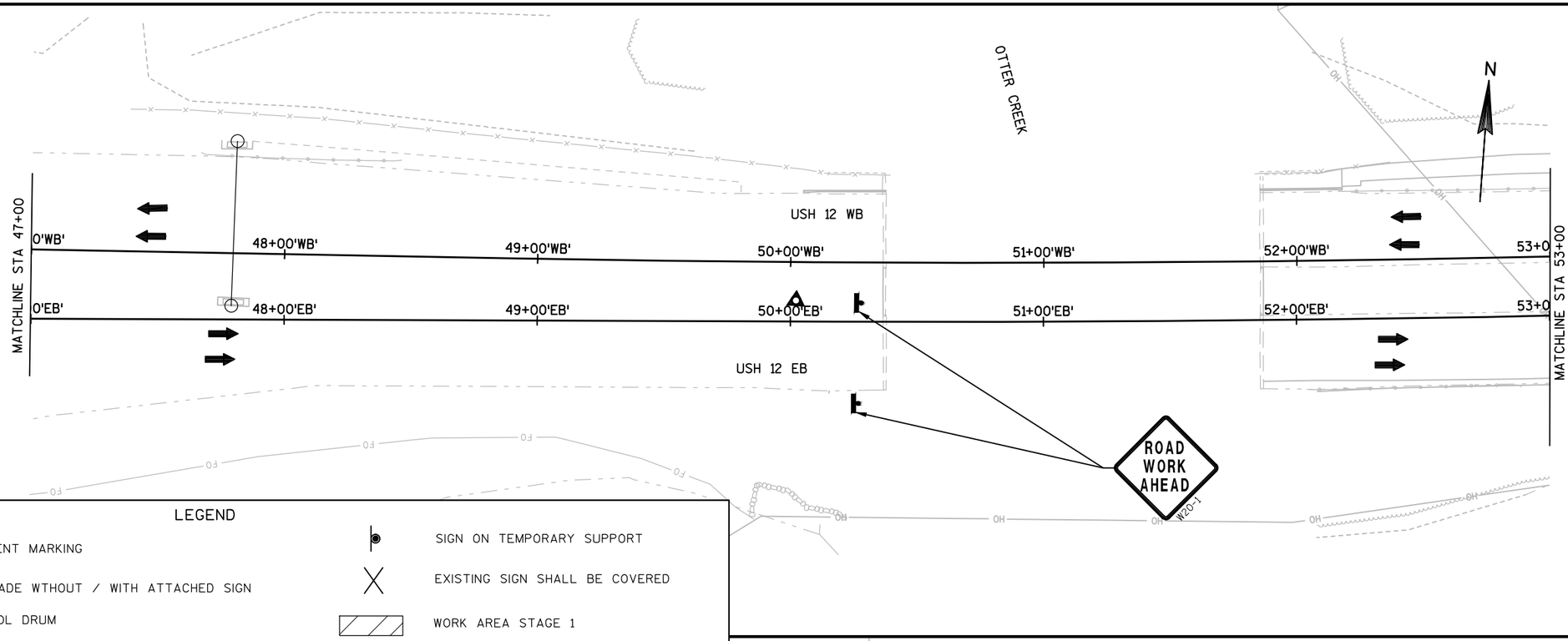
- TRAFFIC MOVED TO OUTSIDE LANE.
- INSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING.
- LEFT TURNS WILL BE OPEN DURING DAYTIME HOURS.

STAGE 1A NOTES:

- STA 48+80'EB' - STA 74+10'EB' WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY (SEE DETAIL 1A)

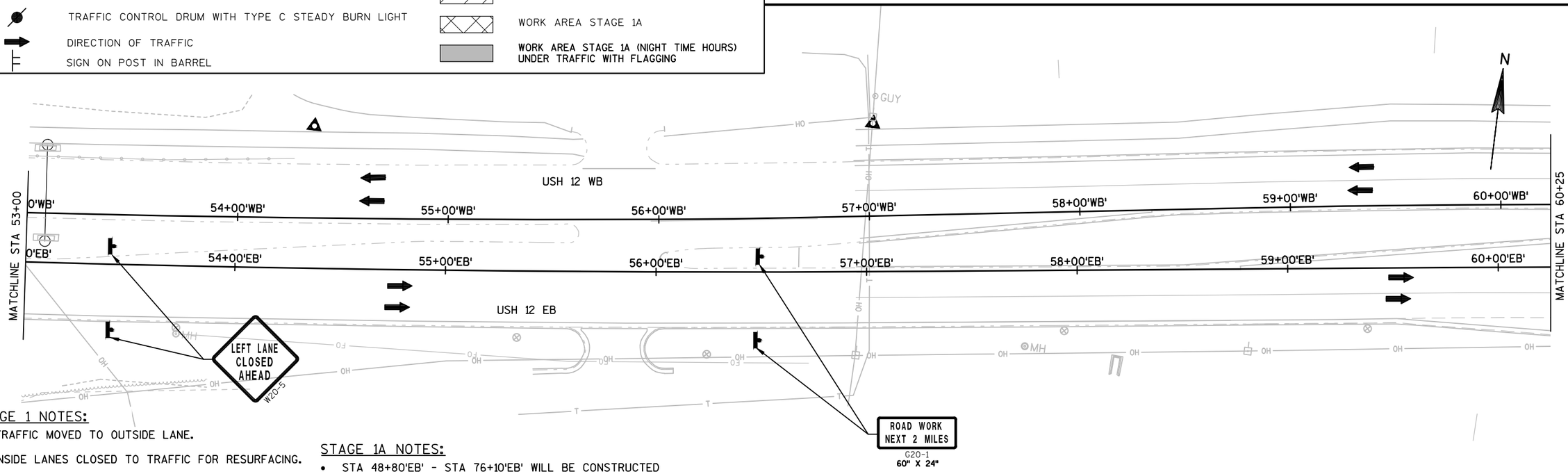
PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1	SHEET 23	E

2



LEGEND

XXXX XXXX — REMOVE PAVEMENT MARKING	SIGN ON TEMPORARY SUPPORT
TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN	EXISTING SIGN SHALL BE COVERED
TRAFFIC CONTROL DRUM	WORK AREA STAGE 1
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	WORK AREA STAGE 1A
DIRECTION OF TRAFFIC	WORK AREA STAGE 1A (NIGHT TIME HOURS) UNDER TRAFFIC WITH FLAGGING
SIGN ON POST IN BARREL	



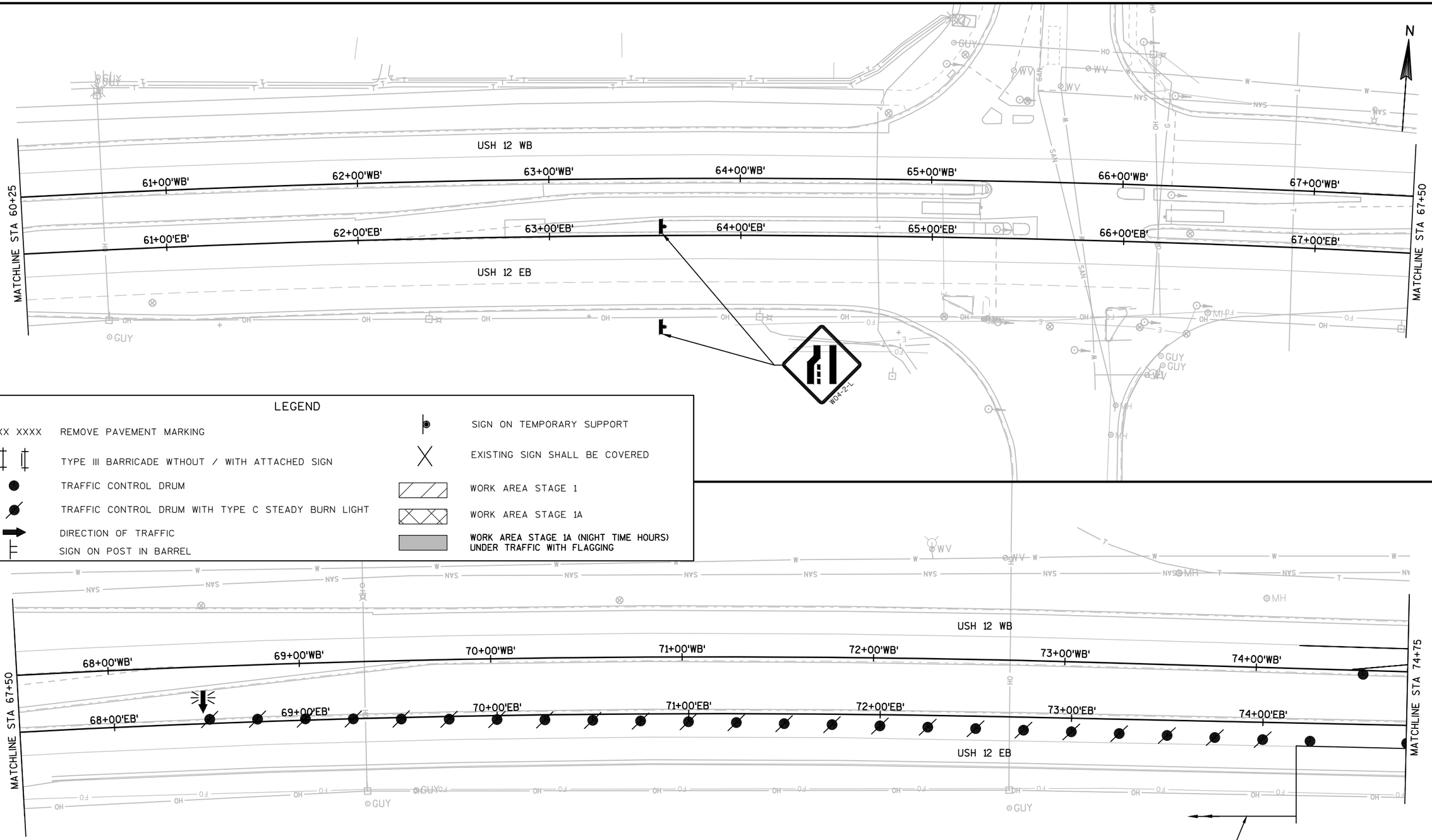
STAGE 1 NOTES:

- TRAFFIC MOVED TO OUTSIDE LANE.
- INSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING.
- LEFT TURNS WILL BE OPEN DURING DAYTIME HOURS.

STAGE 1A NOTES:

- STA 48+80'EB' - STA 76+10'EB' WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY (SEE DETAIL 1A)

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1	SHEET 24	E



LEGEND

XXXX XXXX	REMOVE PAVEMENT MARKING
	TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DIRECTION OF TRAFFIC
	SIGN ON POST IN BARREL
	SIGN ON TEMPORARY SUPPORT
	EXISTING SIGN SHALL BE COVERED
	WORK AREA STAGE 1
	WORK AREA STAGE 1A
	WORK AREA STAGE 1A (NIGHT TIME HOURS) UNDER TRAFFIC WITH FLAGGING

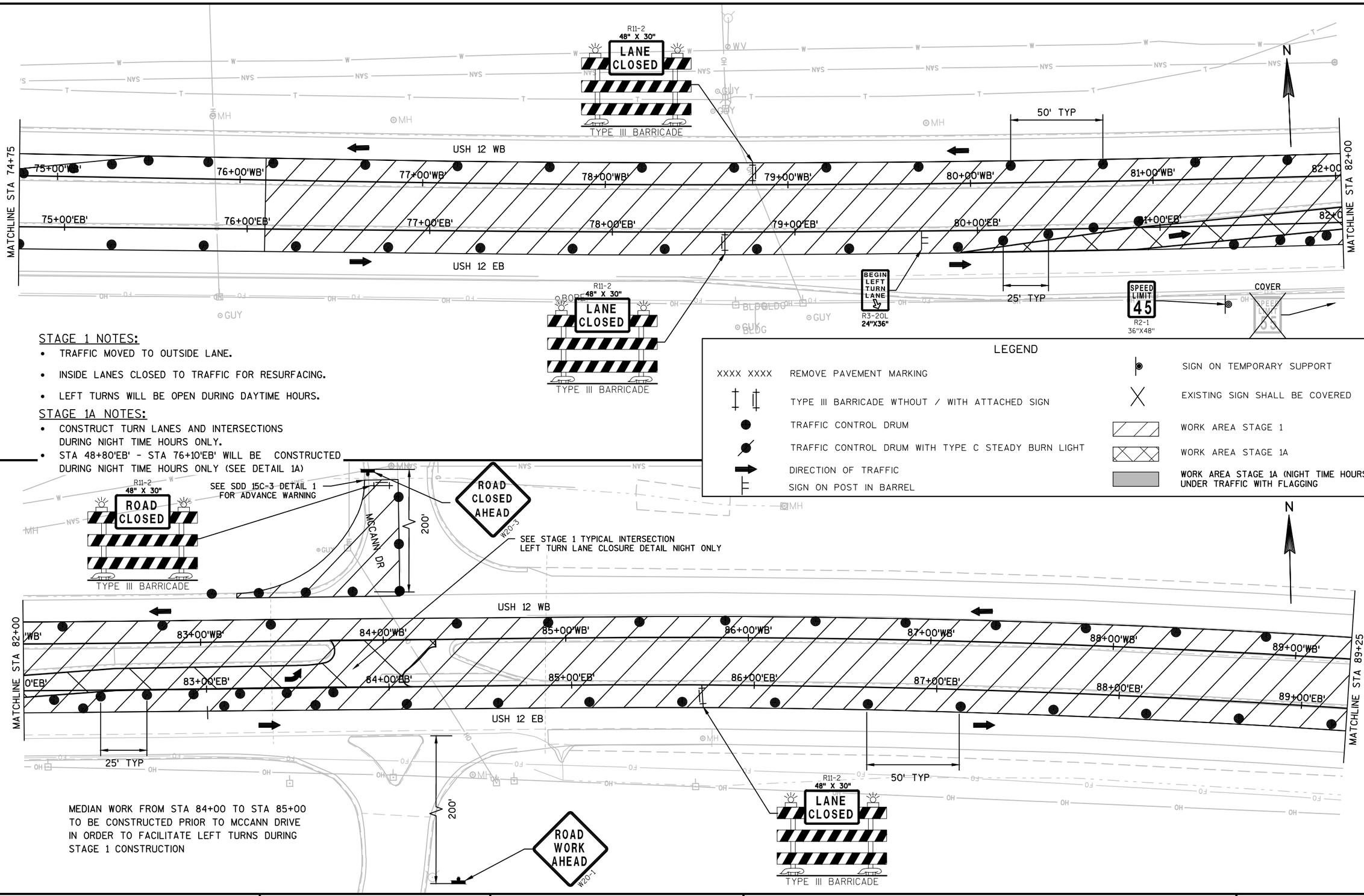
STAGE 1 NOTES:

- TRAFFIC MOVED TO OUTSIDE LANE.
- INSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING.
- LEFT TURNS WILL BE OPEN DURING DAYTIME HOURS.

STAGE 1A NOTES:

- STA 48+80'EB' - STA 76+10'EB' WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY (SEE DETAIL 1A)

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1	SHEET 25	E



STAGE 1 NOTES:

- TRAFFIC MOVED TO OUTSIDE LANE.
- INSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING.
- LEFT TURNS WILL BE OPEN DURING DAYTIME HOURS.

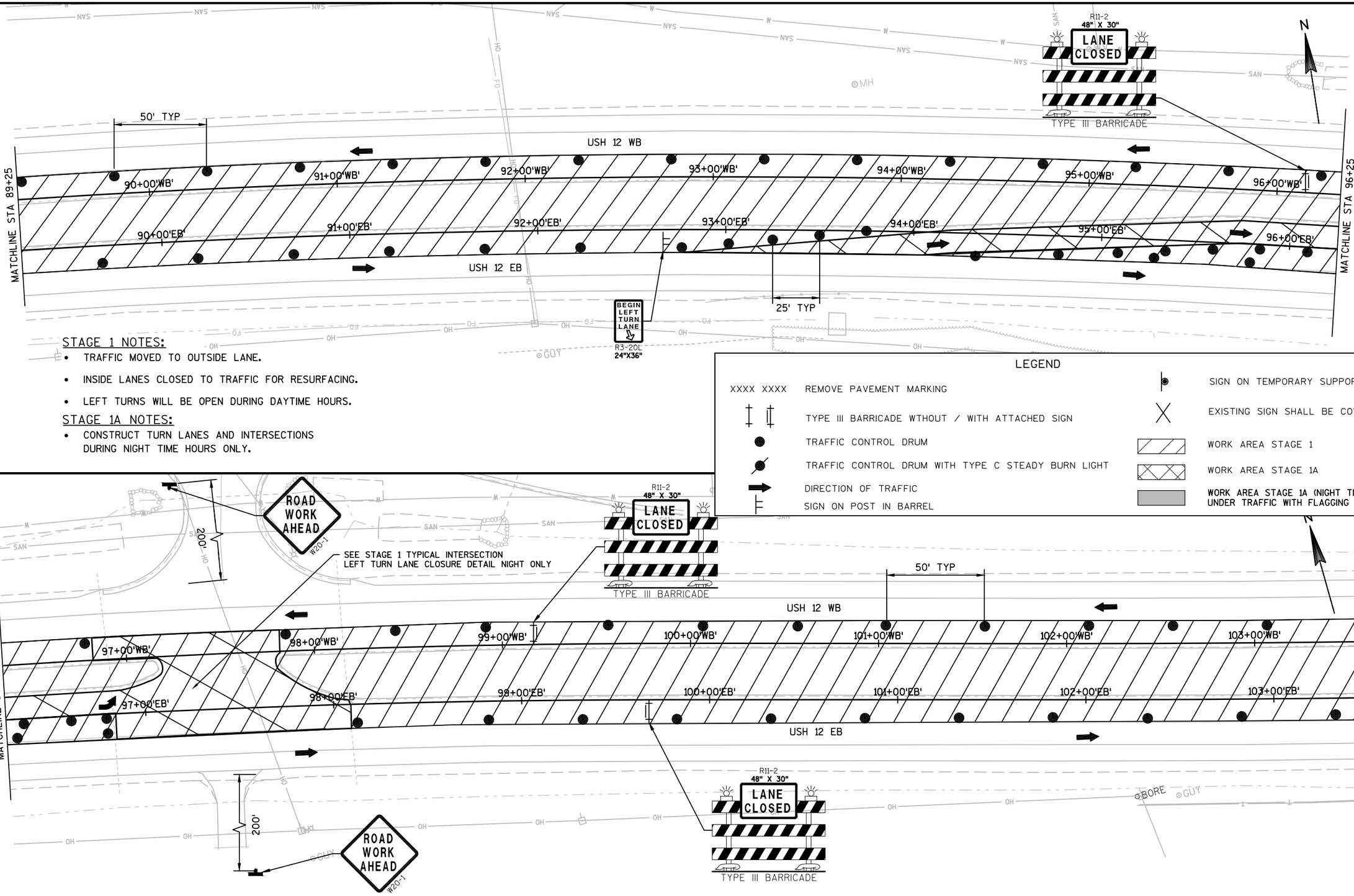
STAGE 1A NOTES:

- CONSTRUCT TURN LANES AND INTERSECTIONS DURING NIGHT TIME HOURS ONLY.
- STA 48+80'EB' - STA 76+10'EB' WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY (SEE DETAIL 1A)

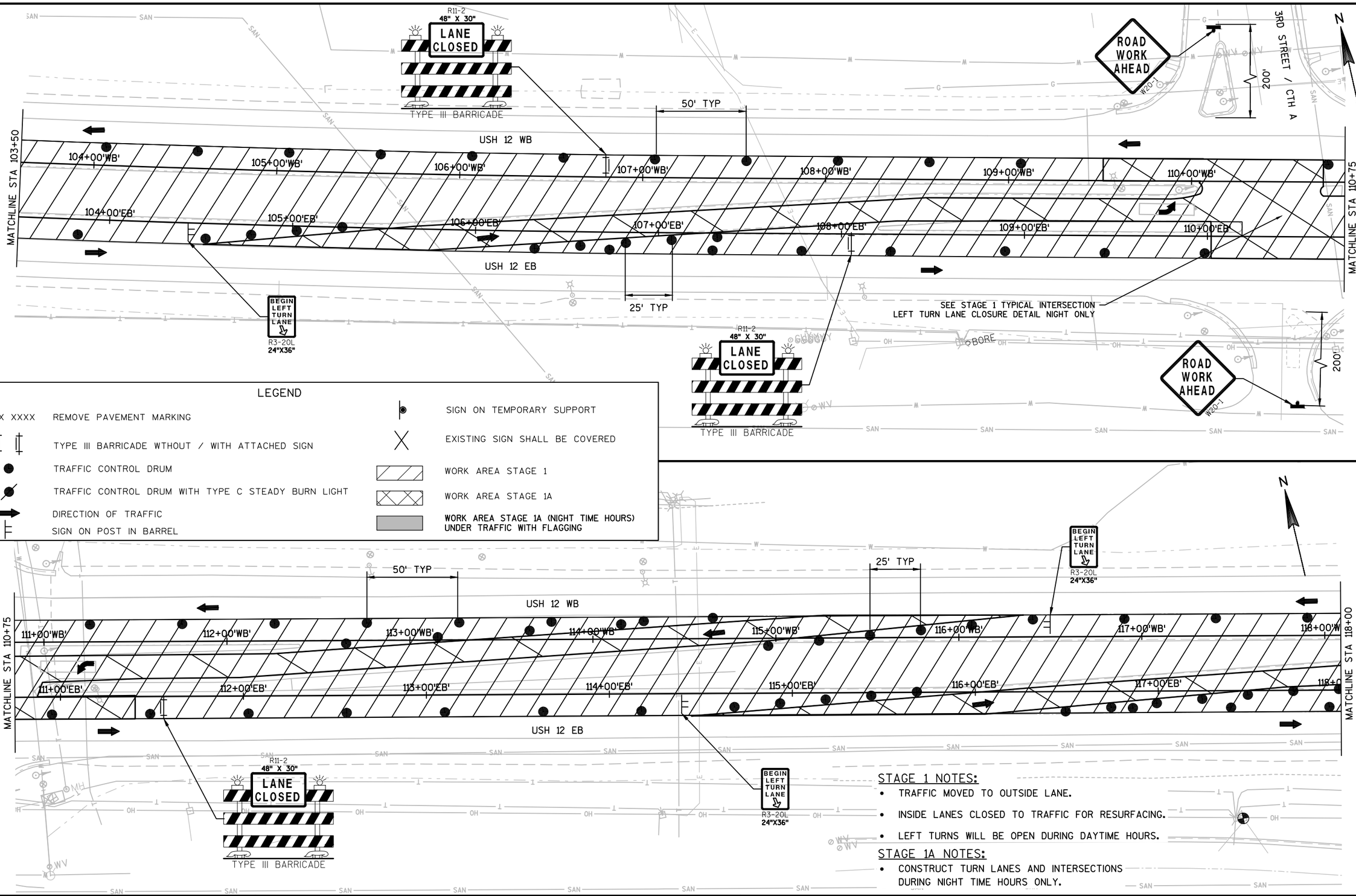
LEGEND

XXXX XXXX	REMOVE PAVEMENT MARKING
	TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DIRECTION OF TRAFFIC
	SIGN ON POST IN BARREL
	SIGN ON TEMPORARY SUPPORT
	EXISTING SIGN SHALL BE COVERED
	WORK AREA STAGE 1
	WORK AREA STAGE 1A
	WORK AREA STAGE 1A (NIGHT TIME HOURS) UNDER TRAFFIC WITH FLAGGING

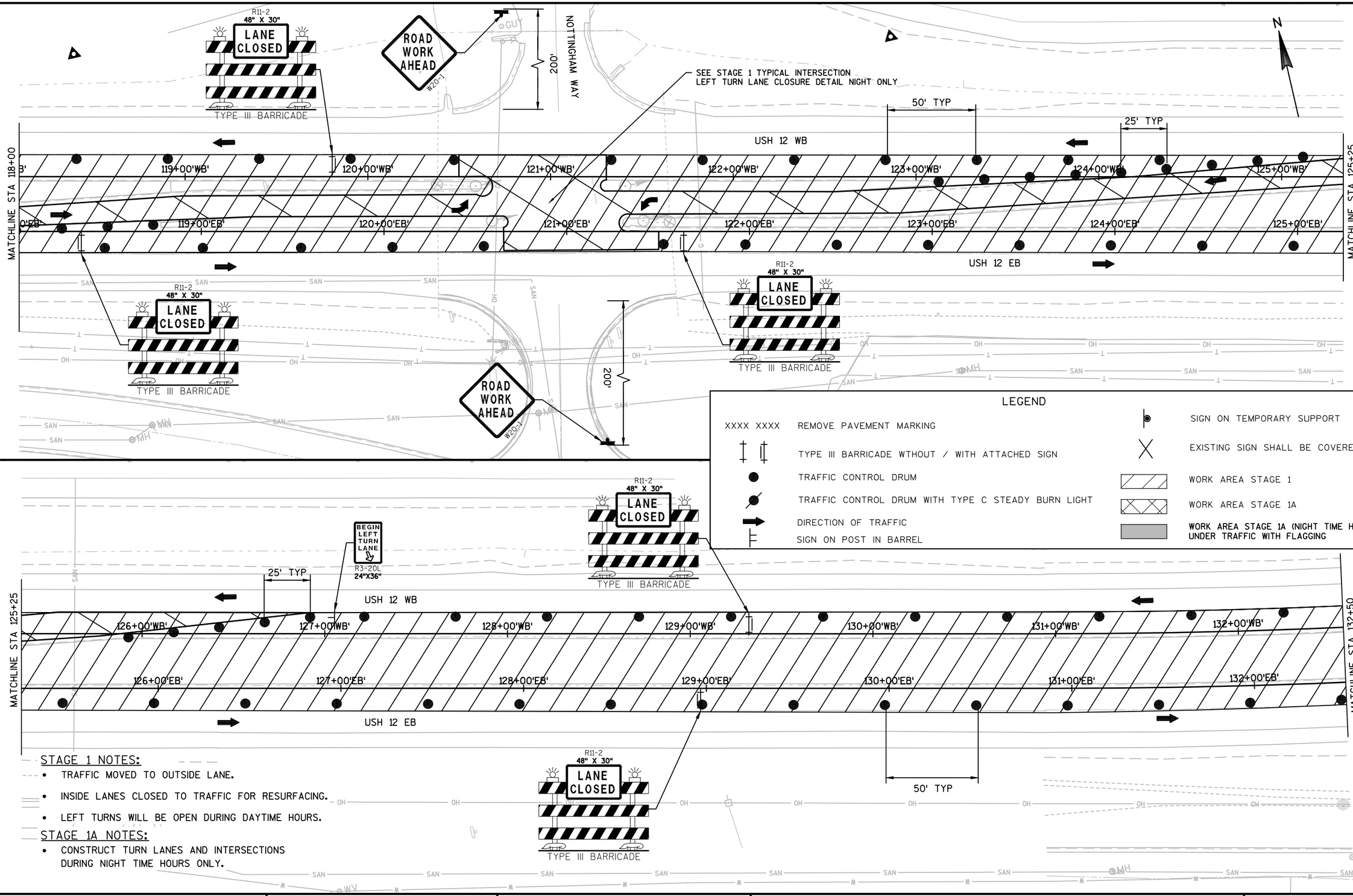
PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1	SHEET 26	E



PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1	SHEET 27	E



PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1	SHEET 28	E



LEGEND

- XXXX XXXX — REMOVE PAVEMENT MARKING
- TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- SIGN ON POST IN BARREL
- SIGN ON TEMPORARY SUPPORT
- EXISTING SIGN SHALL BE COVERED
- WORK AREA STAGE 1
- WORK AREA STAGE 1A
- WORK AREA STAGE 1A (NIGHT TIME HOURS) UNDER TRAFFIC WITH FLAGGING

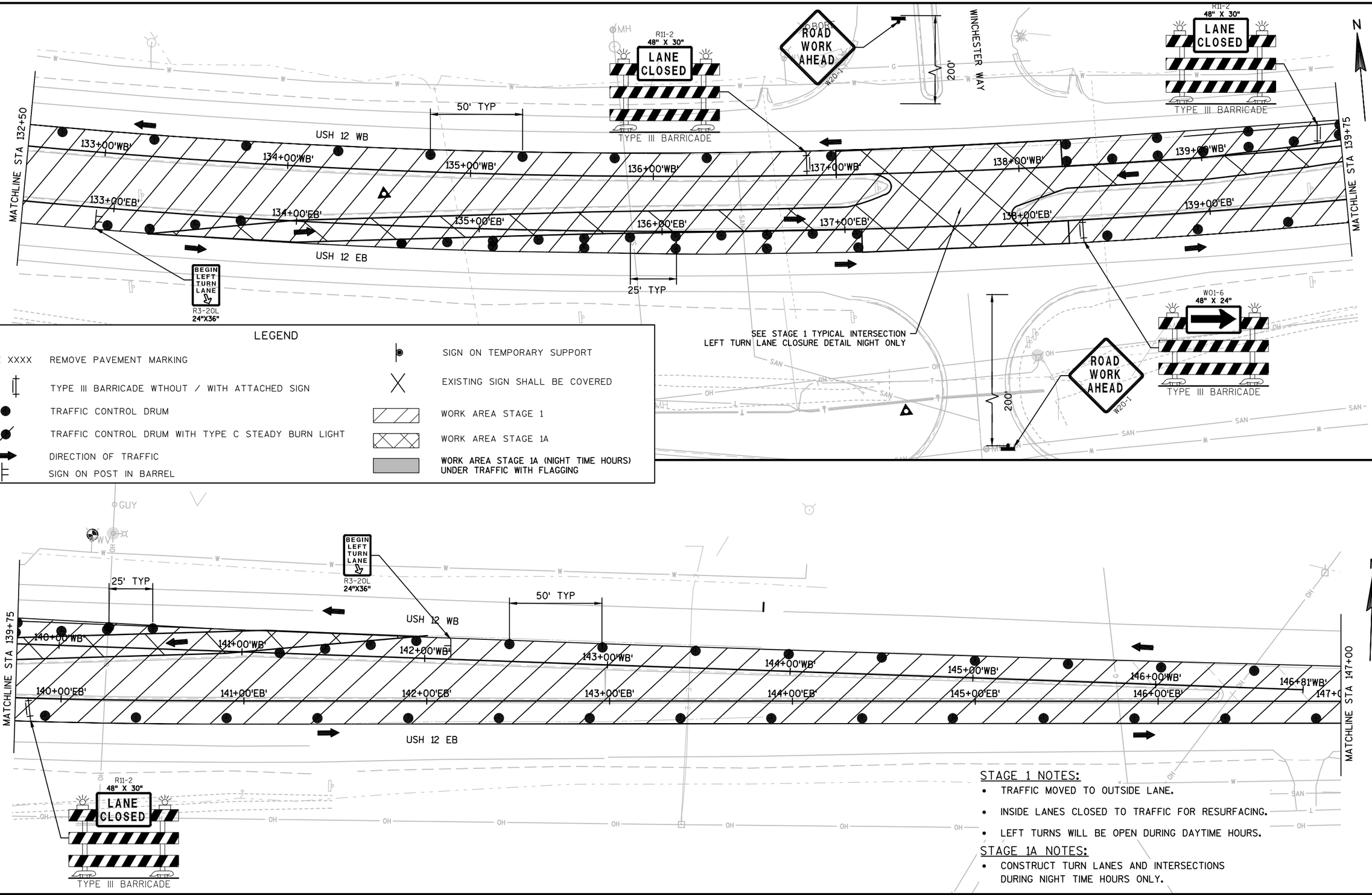
STAGE 1 NOTES:

- TRAFFIC MOVED TO OUTSIDE LANE.
- INSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING.
- LEFT TURNS WILL BE OPEN DURING DAYTIME HOURS.

STAGE 1A NOTES:

- CONSTRUCT TURN LANES AND INTERSECTIONS DURING NIGHT TIME HOURS ONLY.

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1	SHEET 29	E



LEGEND

XXXX XXXX — REMOVE PAVEMENT MARKING	SIGN ON TEMPORARY SUPPORT
TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN	EXISTING SIGN SHALL BE COVERED
TRAFFIC CONTROL DRUM	WORK AREA STAGE 1
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	WORK AREA STAGE 1A
DIRECTION OF TRAFFIC	WORK AREA STAGE 1A (NIGHT TIME HOURS) UNDER TRAFFIC WITH FLAGGING
SIGN ON POST IN BARREL	

STAGE 1 NOTES:

- TRAFFIC MOVED TO OUTSIDE LANE.
- INSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING.
- LEFT TURNS WILL BE OPEN DURING DAYTIME HOURS.

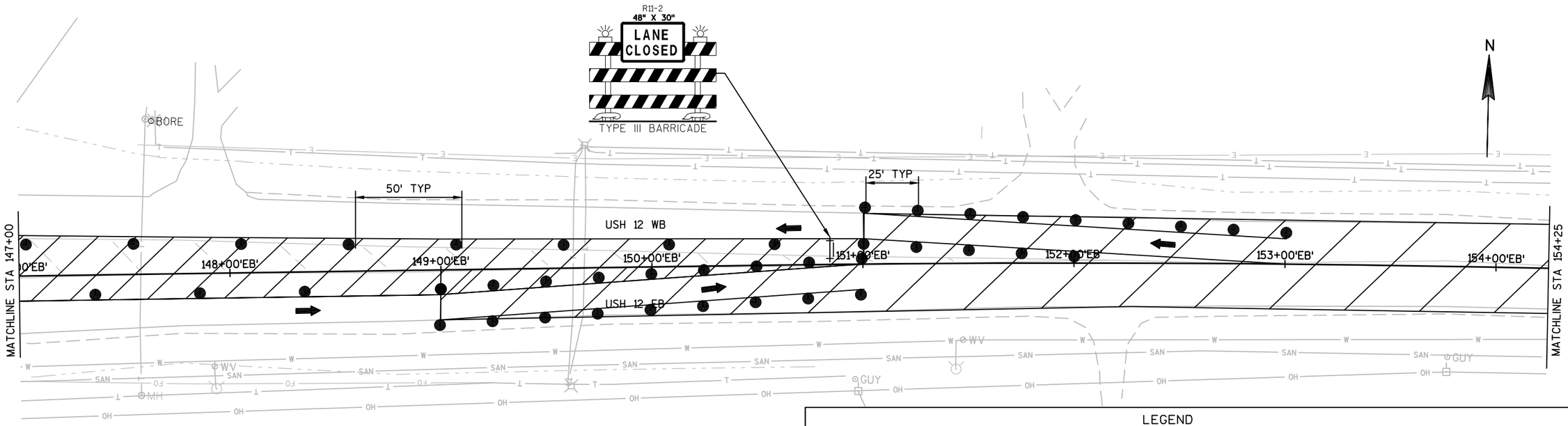
STAGE 1A NOTES:

- CONSTRUCT TURN LANES AND INTERSECTIONS DURING NIGHT TIME HOURS ONLY.

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1	SHEET 30	E

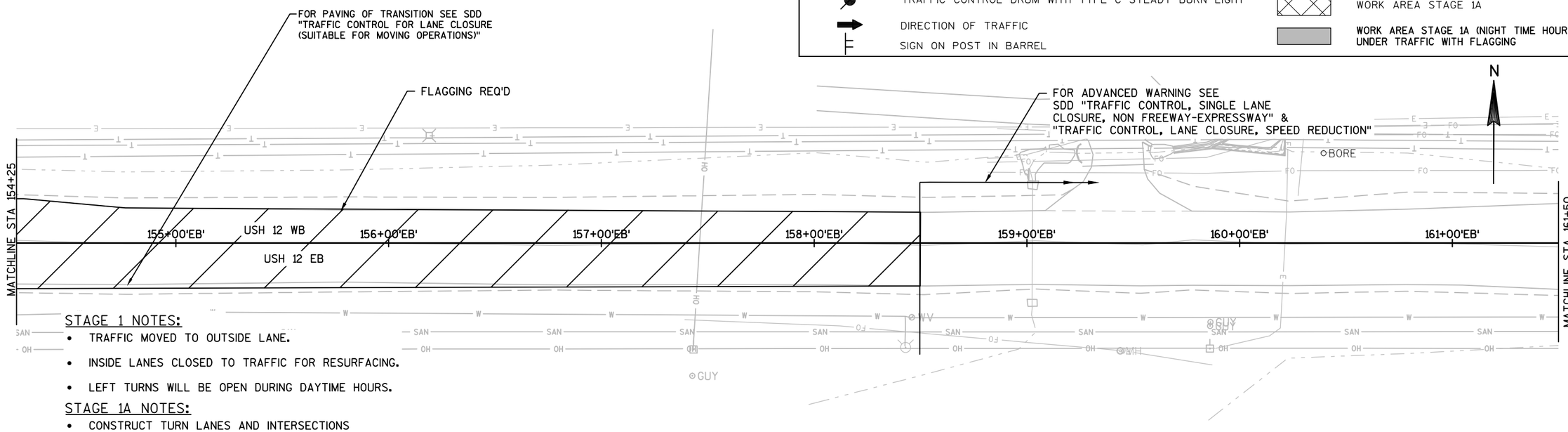
FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\025001_TC_STAGE1.DWG PLOT DATE : 10/1/2015 8:37 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : ********** WISDOT/CADDS SHEET 44

2



LEGEND

- XXXX XXXX — REMOVE PAVEMENT MARKING
- TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- SIGN ON POST IN BARREL
- SIGN ON TEMPORARY SUPPORT
- EXISTING SIGN SHALL BE COVERED
- WORK AREA STAGE 1
- WORK AREA STAGE 1A
- WORK AREA STAGE 1A (NIGHT TIME HOURS) UNDER TRAFFIC WITH FLAGGING



STAGE 1 NOTES:

- TRAFFIC MOVED TO OUTSIDE LANE.
- INSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING.
- LEFT TURNS WILL BE OPEN DURING DAYTIME HOURS.

STAGE 1A NOTES:

- CONSTRUCT TURN LANES AND INTERSECTIONS DURING NIGHT TIME HOURS ONLY.

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1	SHEET 31	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\025001_TC_STAGE1.DWG PLOT DATE : 10/1/2015 8:37 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : ********** WISDOT/CADDS SHEET 44

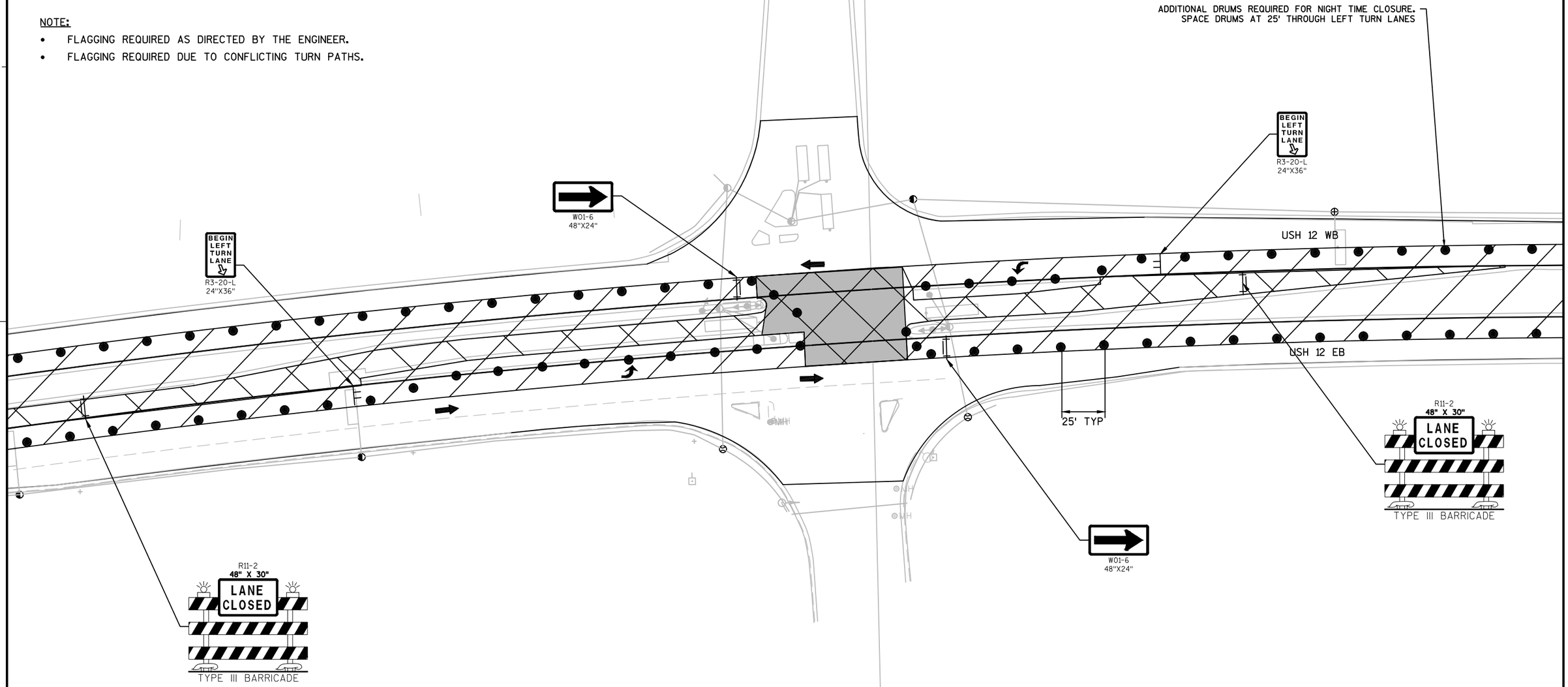
2

LEGEND

XXXX XXXX	REMOVE PAVEMENT MARKING		SIGN ON TEMPORARY SUPPORT
	TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN		EXISTING SIGN SHALL BE COVERED
	TRAFFIC CONTROL DRUM		WORK AREA STAGE 1
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		WORK AREA STAGE 1A (NIGHT TIME HOURS)
	DIRECTION OF TRAFFIC		**WORK AREA STAGE 1A (NIGHT TIME HOURS) UNDER TRAFFIC WITH FLAGGING**
	SIGN ON POST IN BARREL		

NOTE:

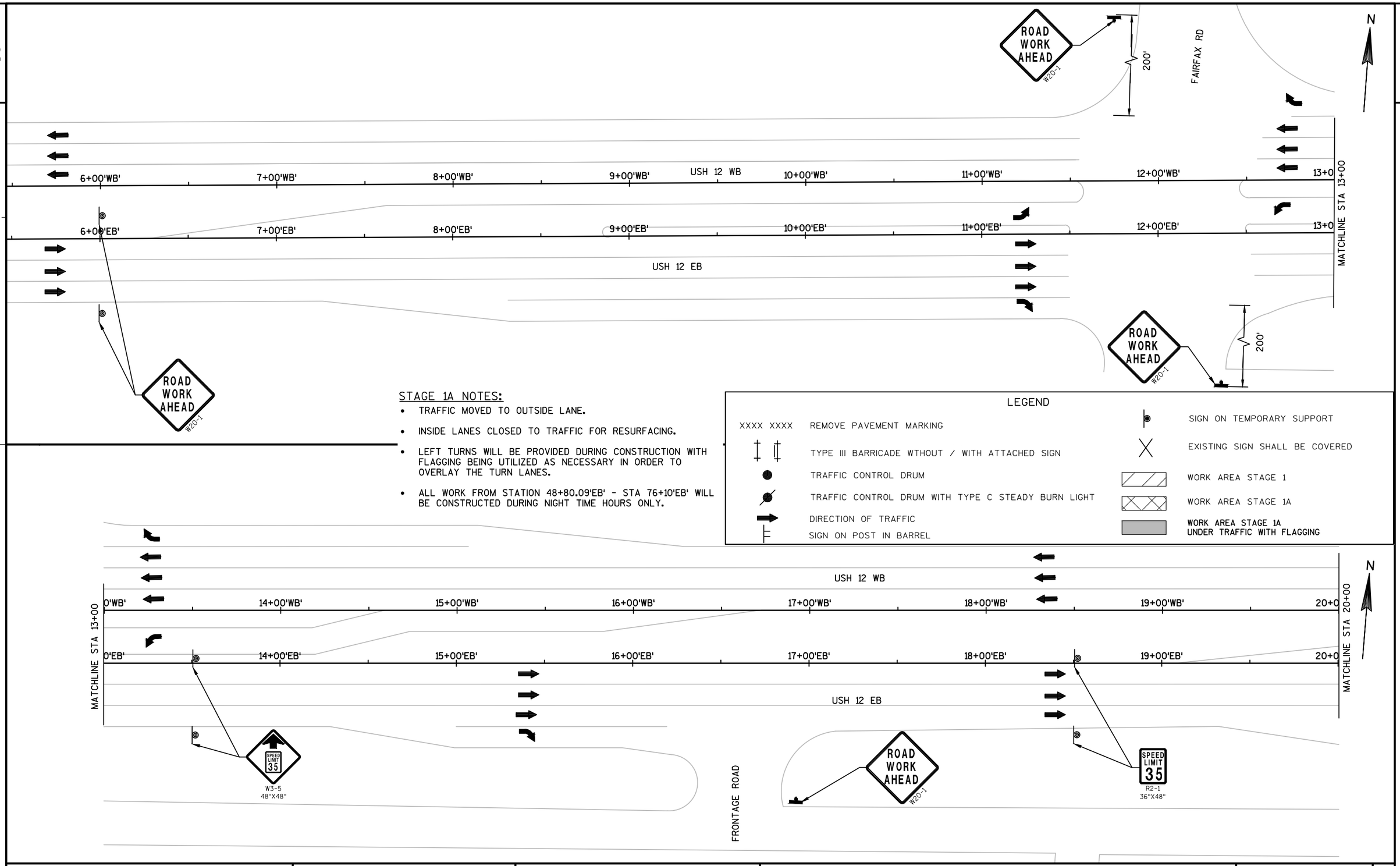
- FLAGGING REQUIRED AS DIRECTED BY THE ENGINEER.
- FLAGGING REQUIRED DUE TO CONFLICTING TURN PATHS.



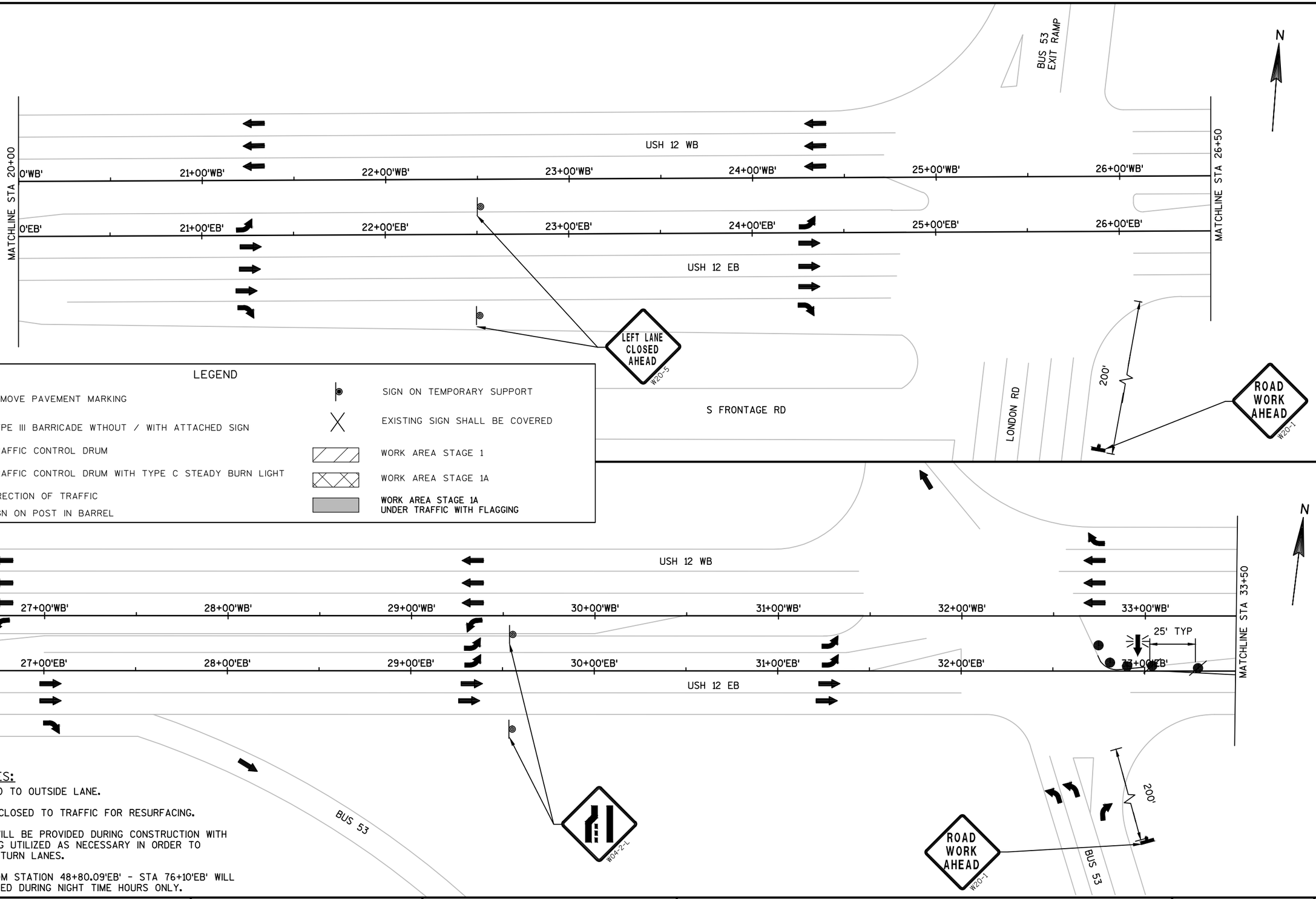
STAGE 1 TYPICAL INTERSECTION LEFT TURN LANE CLOSURE DETAIL
NIGHT TIME HOURS ONLY
PROVIDE TEMPORARY LEFT TURN

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1	SHEET	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\025001_TC_STAGE1 DETAIL.DWG PLOT DATE : 10/1/2015 8:38 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : **********



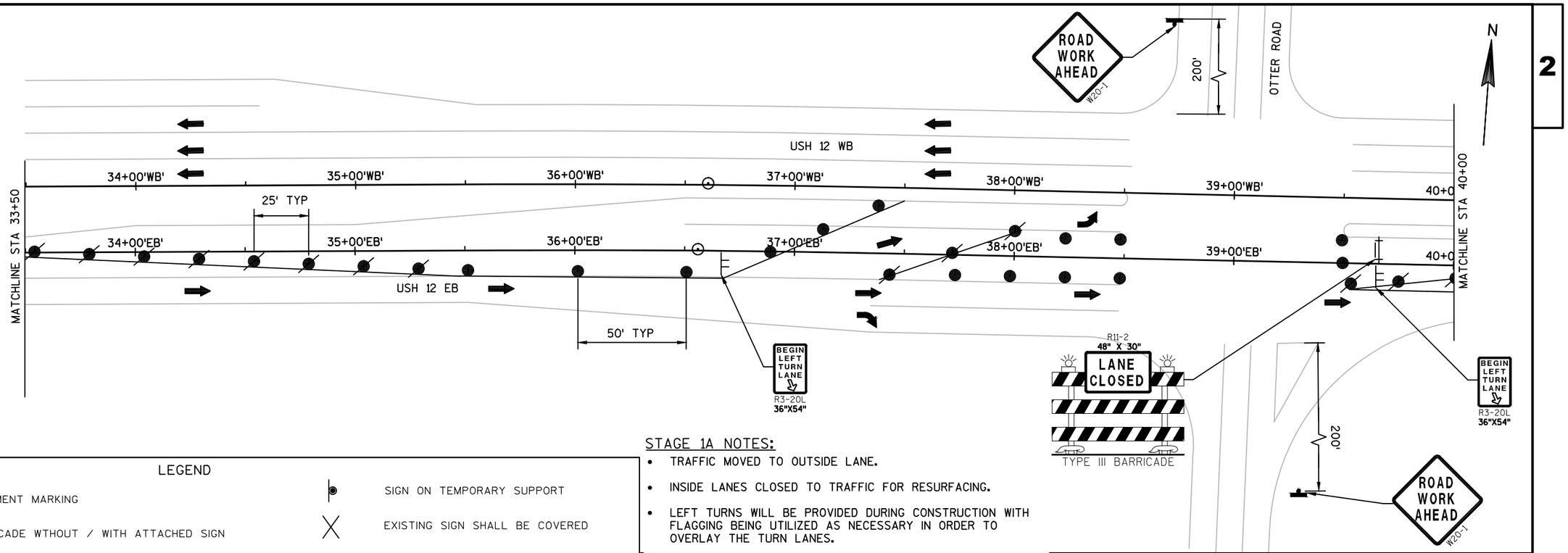
PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1A	SHEET 33	E



STAGE 1A NOTES:

- TRAFFIC MOVED TO OUTSIDE LANE.
- INSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING.
- LEFT TURNS WILL BE PROVIDED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES.
- ALL WORK FROM STATION 48+80.09'EB' - STA 76+10'EB' WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY.

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1A	SHEET 34	E

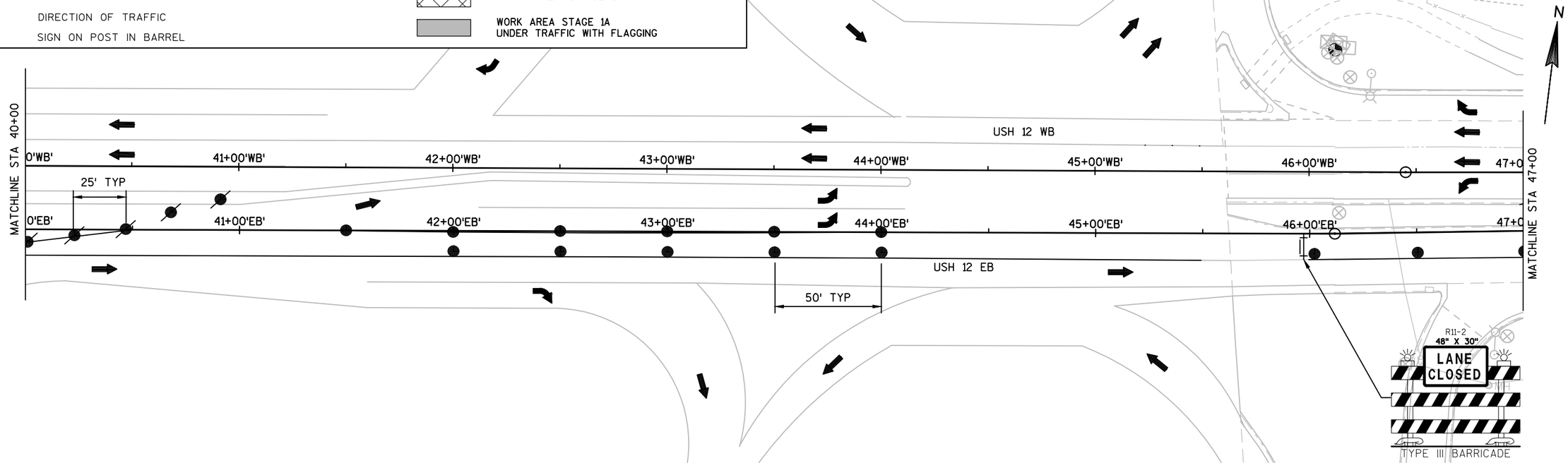


LEGEND

XXXX XXXX	REMOVE PAVEMENT MARKING
	TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DIRECTION OF TRAFFIC
	SIGN ON POST IN BARREL
	SIGN ON TEMPORARY SUPPORT
	EXISTING SIGN SHALL BE COVERED
	WORK AREA STAGE 1
	WORK AREA STAGE 1A
	WORK AREA STAGE 1A UNDER TRAFFIC WITH FLAGGING

STAGE 1A NOTES:

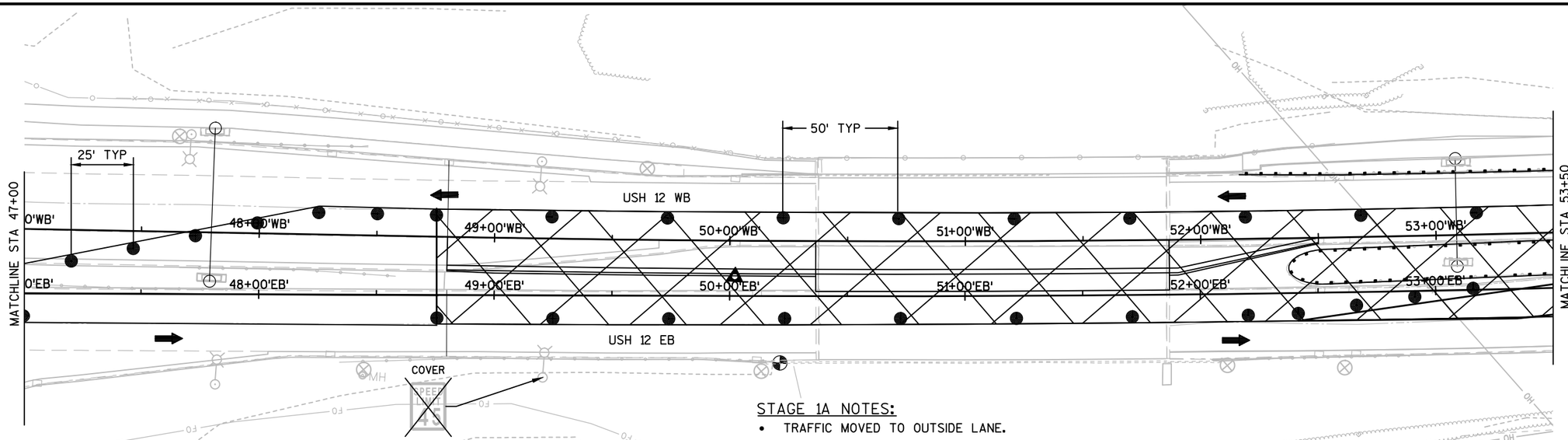
- TRAFFIC MOVED TO OUTSIDE LANE.
- INSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING.
- LEFT TURNS WILL BE PROVIDED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES.
- ALL WORK FROM STATION 48+80.09'EB' - STA 76+10'EB' WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY.



PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1A	SHEET 35	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\025001_TC_STAGE1A.DWG PLOT DATE : 10/1/2015 8:40 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1" = 50'_XREF

WISDOT/CADDS SHEET 44



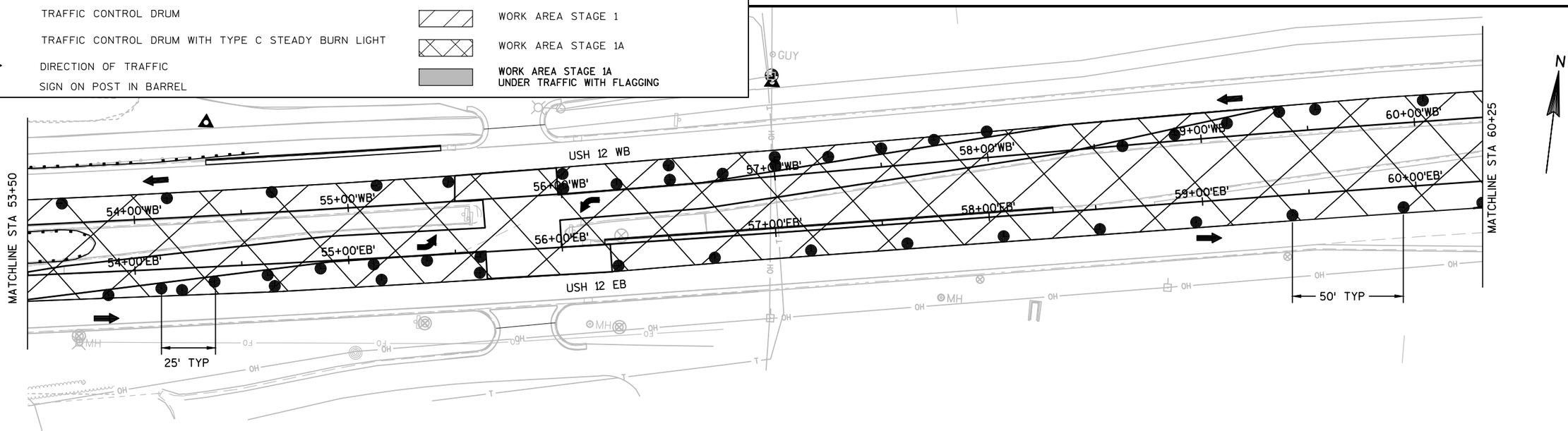
N

STAGE 1A NOTES:

- TRAFFIC MOVED TO OUTSIDE LANE.
- INSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING.
- LEFT TURNS WILL BE PROVIDED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES.
- ALL WORK FROM STATION 48+80.09'EB' - STA 76+10'EB' WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY.

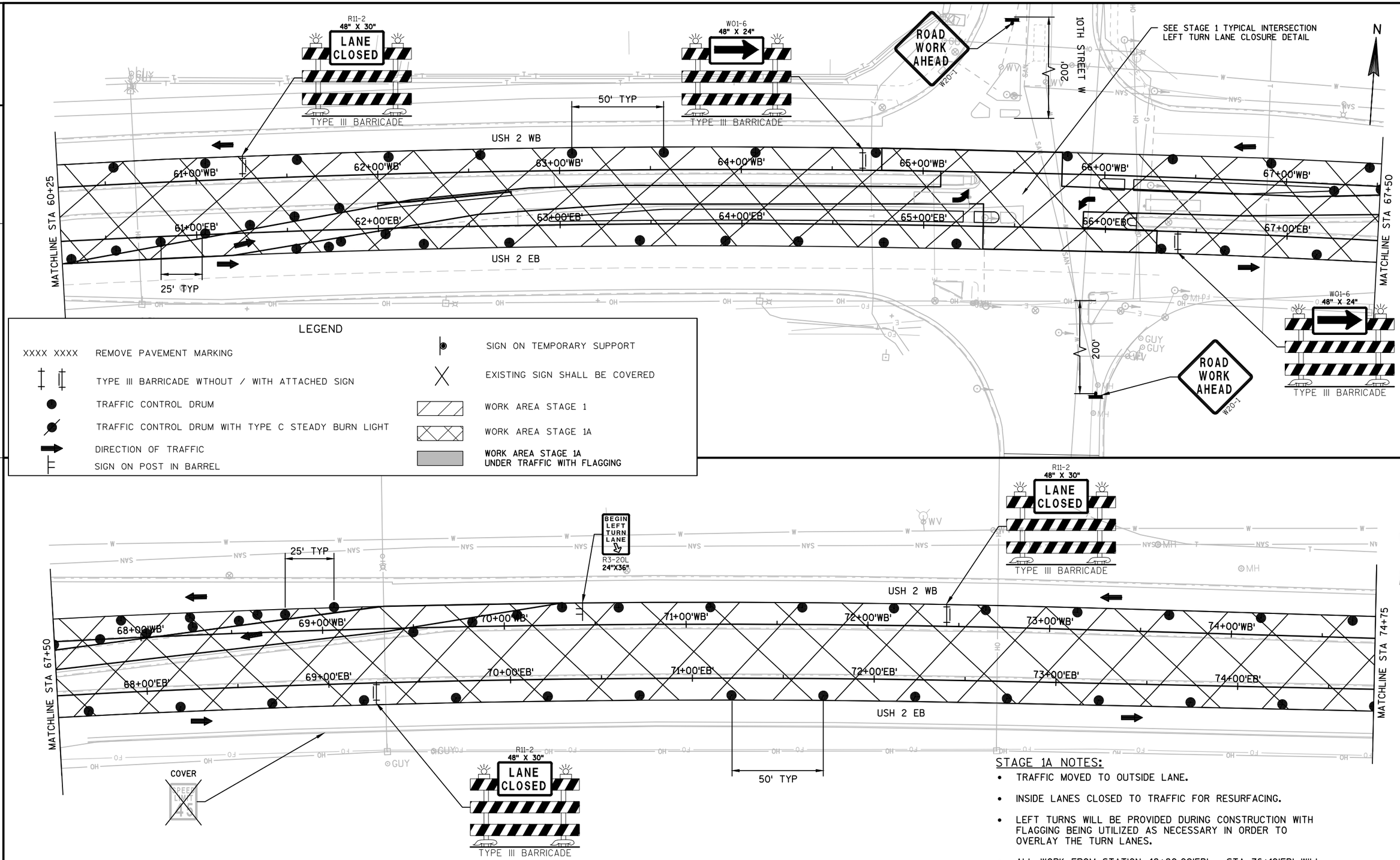
LEGEND

XXXX XXXX	REMOVE PAVEMENT MARKING
	TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DIRECTION OF TRAFFIC
	SIGN ON POST IN BARREL
	SIGN ON TEMPORARY SUPPORT
	EXISTING SIGN SHALL BE COVERED
	WORK AREA STAGE 1
	WORK AREA STAGE 1A
	WORK AREA STAGE 1A UNDER TRAFFIC WITH FLAGGING



N

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1A	SHEET 36	E

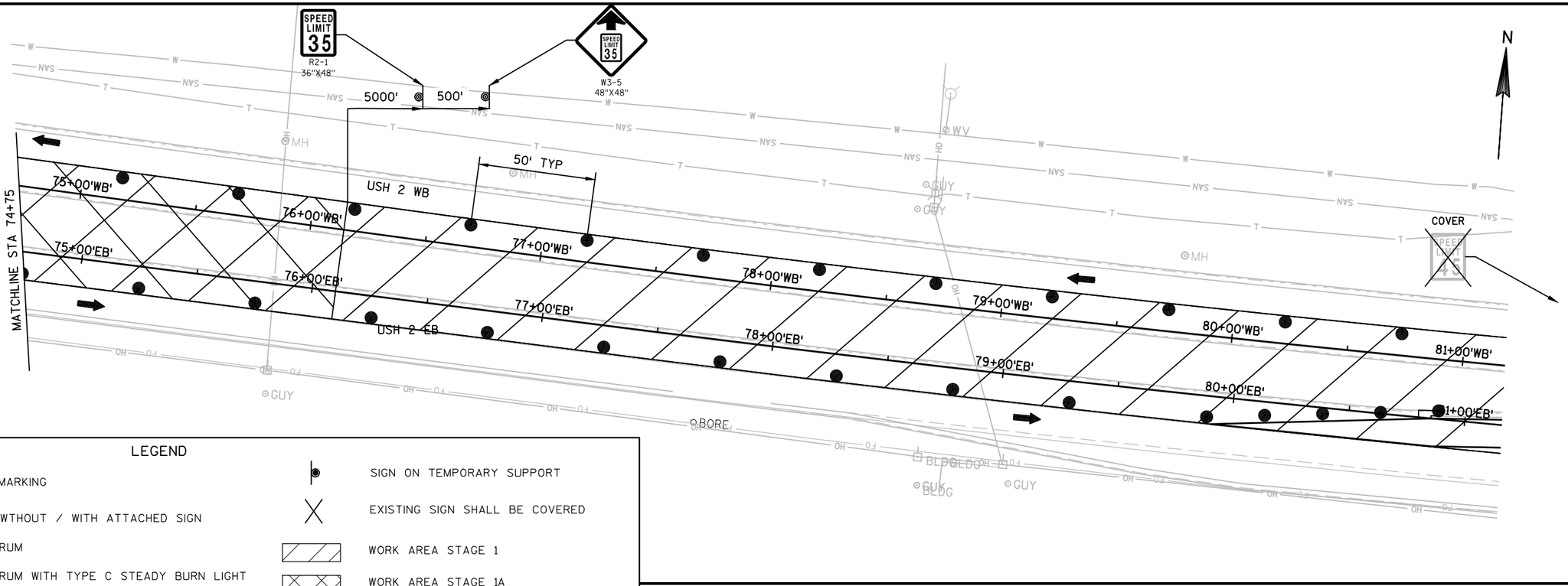


STAGE 1A NOTES:

- TRAFFIC MOVED TO OUTSIDE LANE.
- INSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING.
- LEFT TURNS WILL BE PROVIDED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES.
- ALL WORK FROM STATION 48+80.09'EB' - STA 76+10'EB' WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY.

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1A	SHEET 37	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\025001_TC_STAGE1A.DWG PLOT DATE : 10/1/2015 8:41 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : ********** WISDOT/CADDS SHEET 44



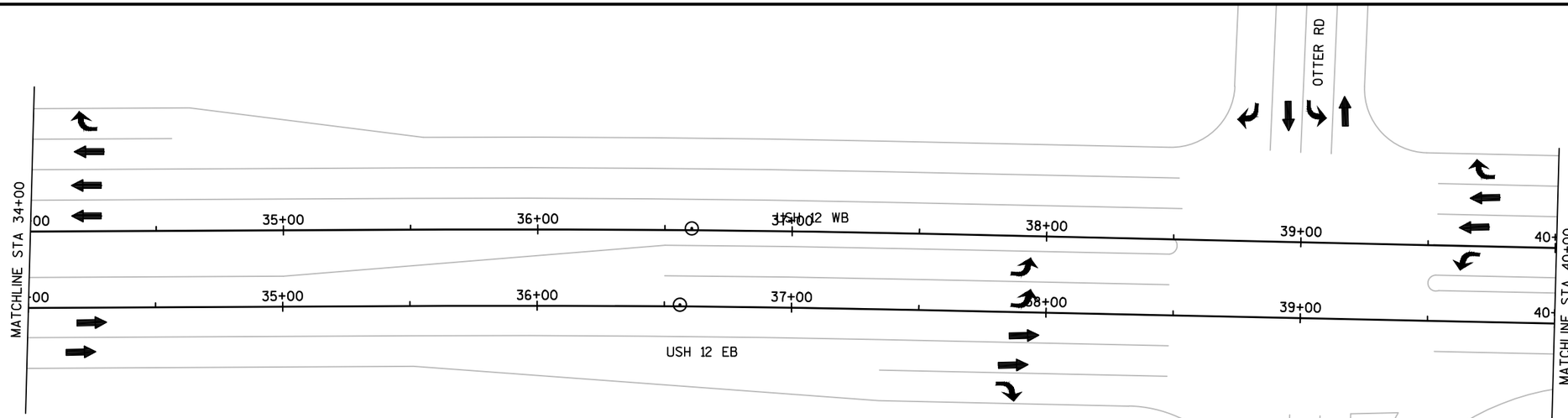
LEGEND

XXXX XXXX	REMOVE PAVEMENT MARKING
	TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DIRECTION OF TRAFFIC
	SIGN ON POST IN BARREL
	SIGN ON TEMPORARY SUPPORT
	EXISTING SIGN SHALL BE COVERED
	WORK AREA STAGE 1
	WORK AREA STAGE 1A
	WORK AREA STAGE 1A UNDER TRAFFIC WITH FLAGGING

STAGE 1A NOTES:

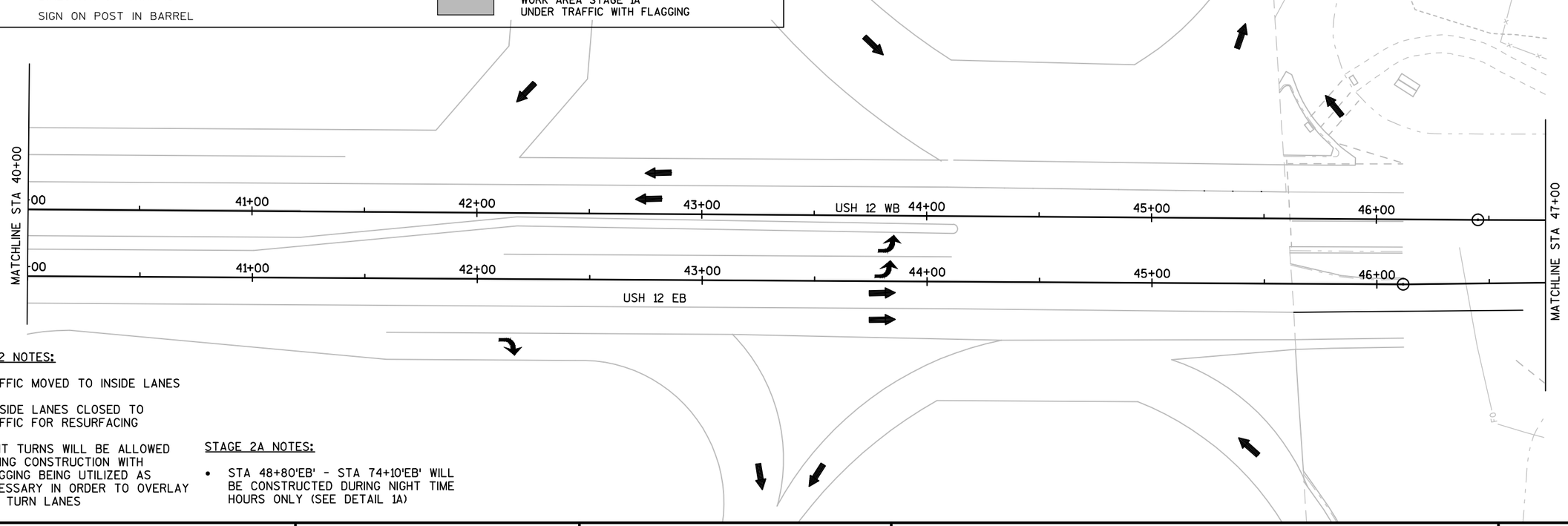
- TRAFFIC MOVED TO OUTSIDE LANE.
- INSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING.
- LEFT TURNS WILL BE PROVIDED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES.
- ALL WORK FROM STATION 48+80.09'EB' - STA 76+10'EB' WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY.

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 1A	SHEET 38	E



LEGEND

XXXX XXXX — REMOVE PAVEMENT MARKING	SIGN ON TEMPORARY SUPPORT
TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN	EXISTING SIGN SHALL BE COVERED
TRAFFIC CONTROL DRUM	WORK AREA STAGE 2
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	WORK AREA STAGE 2A
DIRECTION OF TRAFFIC	WORK AREA STAGE 1A UNDER TRAFFIC WITH FLAGGING
SIGN ON POST IN BARREL	



STAGE 2 NOTES:

- TRAFFIC MOVED TO INSIDE LANES
- OUTSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING
- RIGHT TURNS WILL BE ALLOWED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES

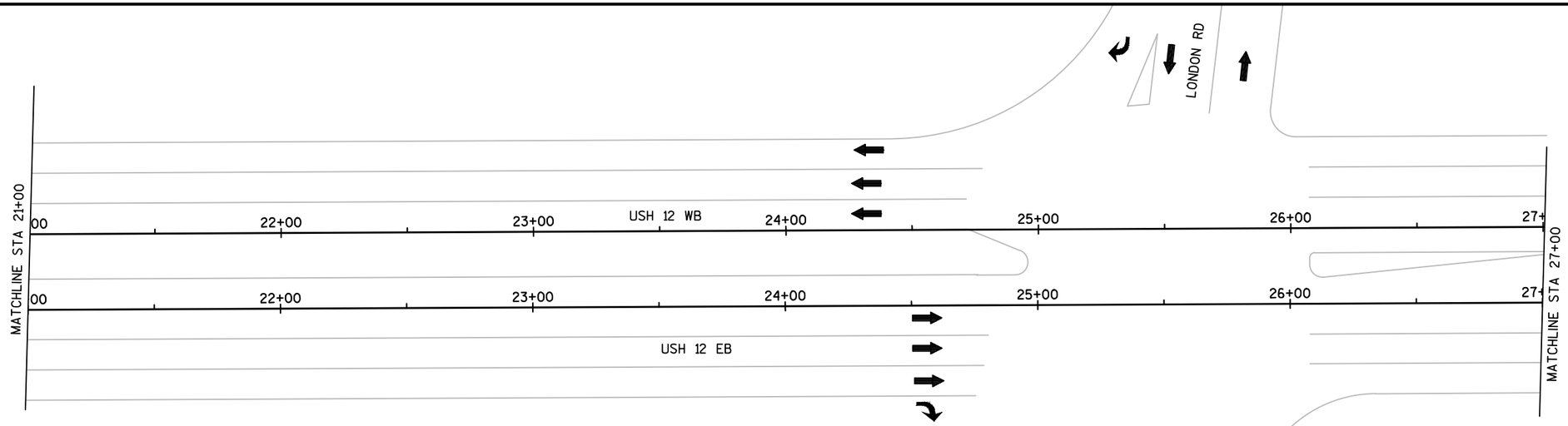
STAGE 2A NOTES:

- STA 48+80'EB' - STA 74+10'EB' WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY (SEE DETAIL 1A)

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2	SHEET 39	E

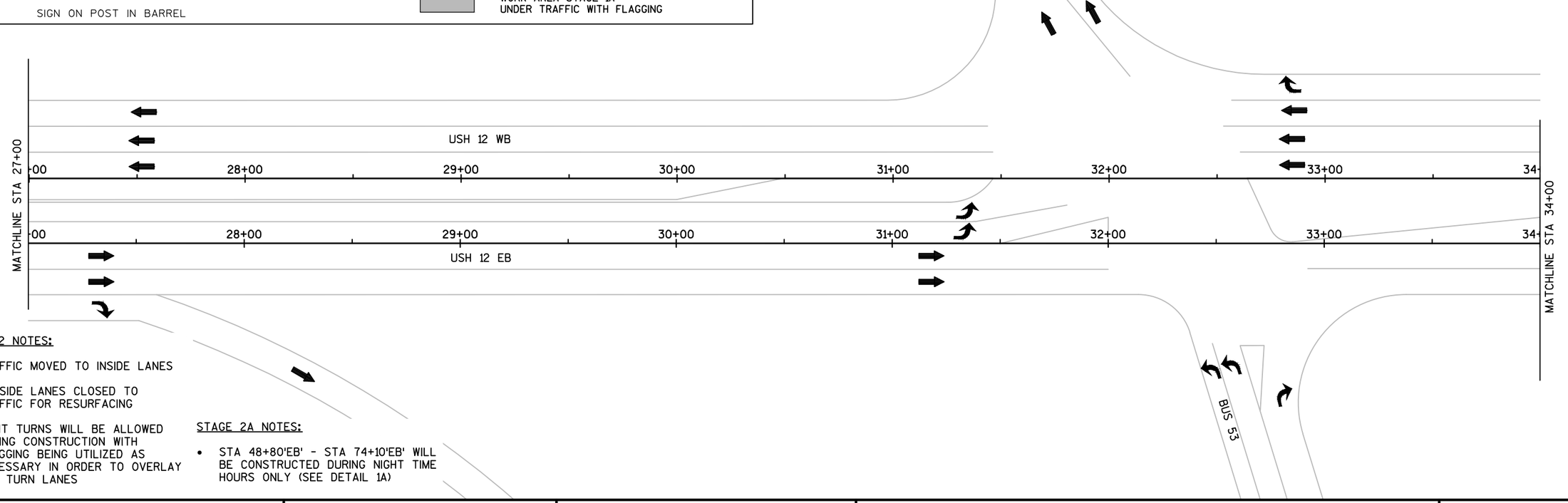
FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\025001_TC_STAGE2.DWG PLOT DATE : 10/1/2015 8:42 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1" = 50'_XREF
WISDOT/CADDS SHEET 44

2



LEGEND

XXXX XXXX — REMOVE PAVEMENT MARKING	SIGN ON TEMPORARY SUPPORT
TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN	EXISTING SIGN SHALL BE COVERED
TRAFFIC CONTROL DRUM	WORK AREA STAGE 2
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	WORK AREA STAGE 2A
DIRECTION OF TRAFFIC	WORK AREA STAGE 1A UNDER TRAFFIC WITH FLAGGING
SIGN ON POST IN BARREL	



STAGE 2 NOTES:

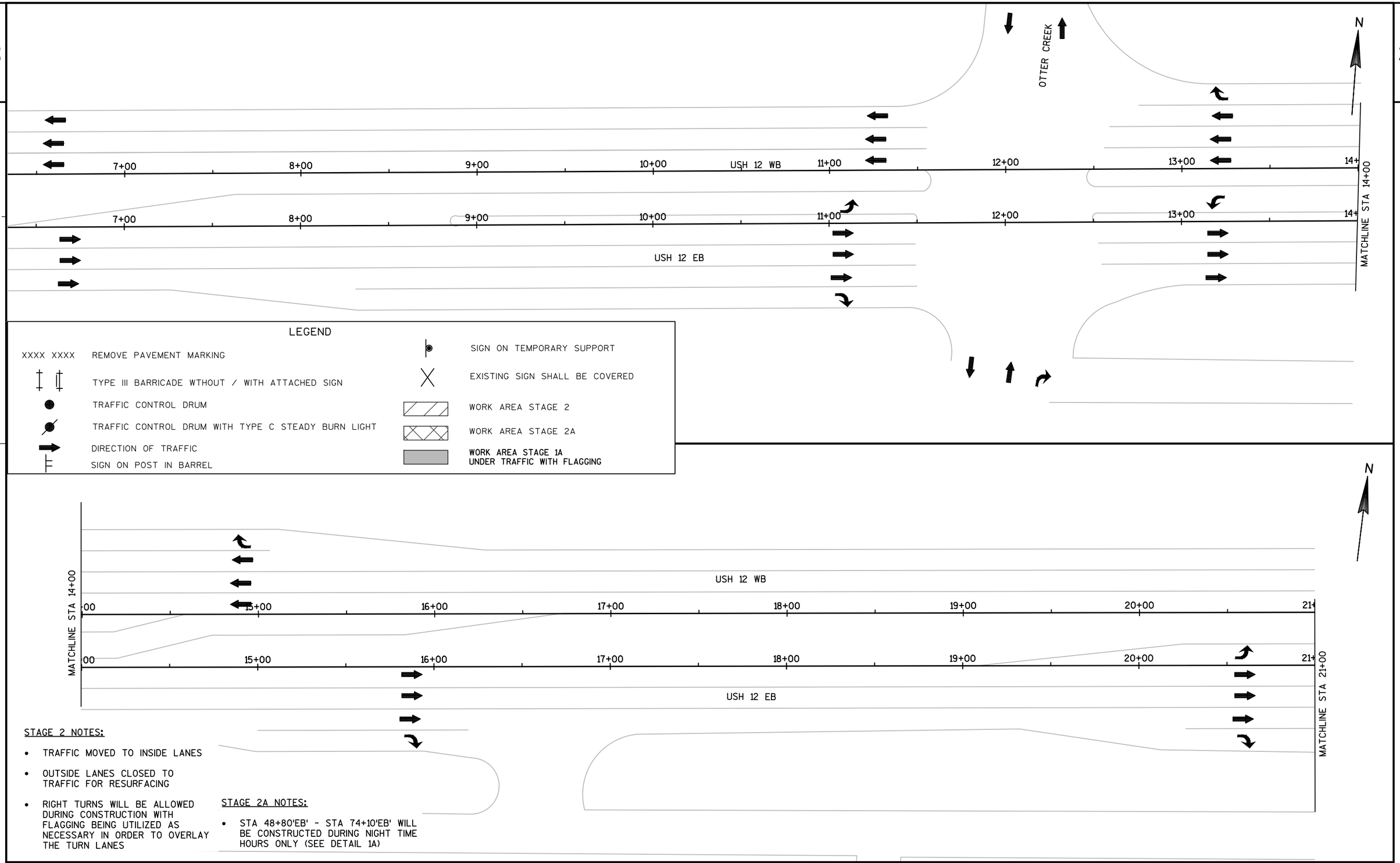
- TRAFFIC MOVED TO INSIDE LANES
- OUTSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING
- RIGHT TURNS WILL BE ALLOWED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES

STAGE 2A NOTES:

- STA 48+80'EB' - STA 74+10'EB' WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY (SEE DETAIL 1A)

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2	SHEET 40	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\025001_TC_STAGE2.DWG PLOT DATE : 10/1/2015 8:43 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1" = 50'_XREF
WISDOT/CADDS SHEET 44



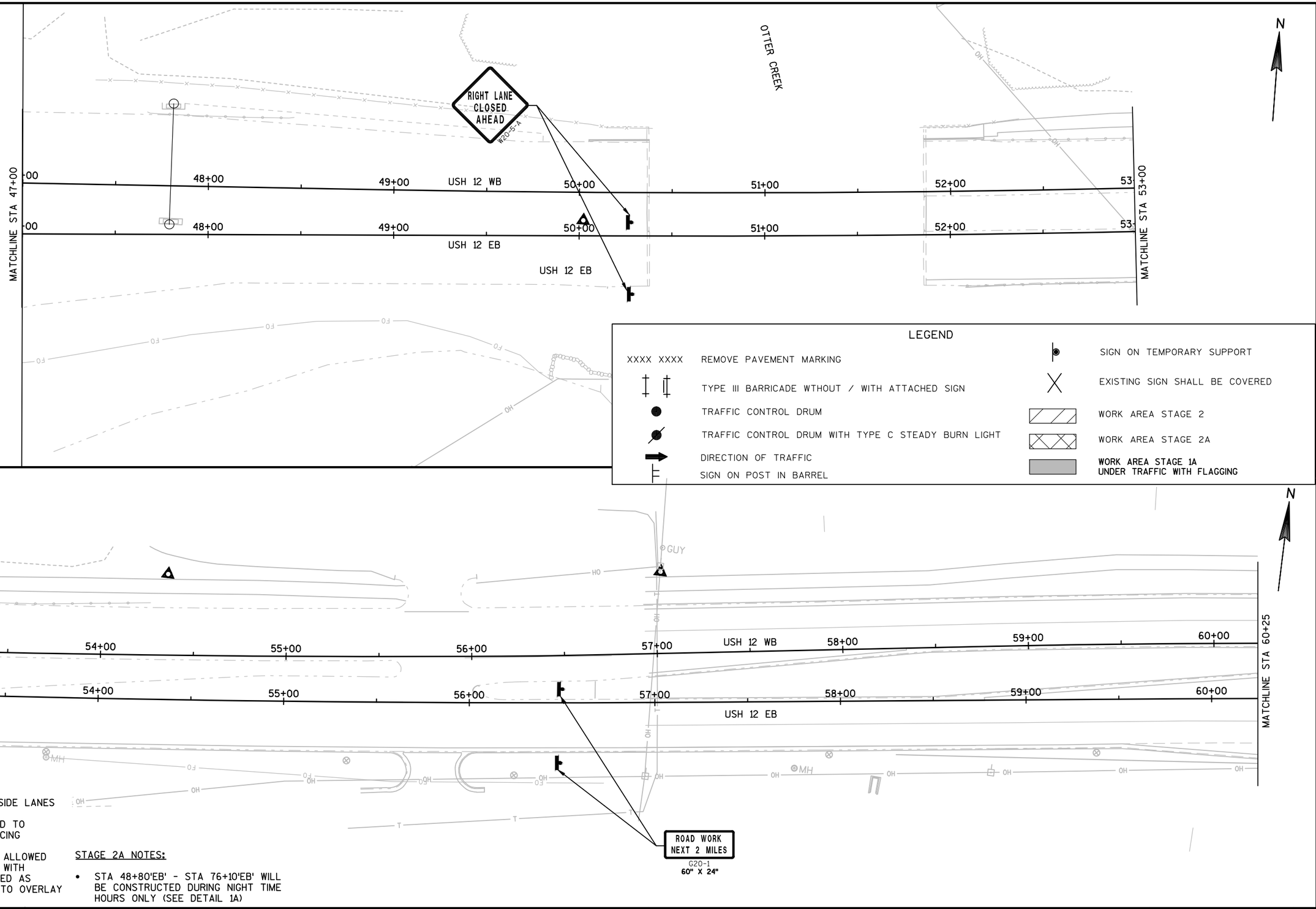
STAGE 2 NOTES:

- TRAFFIC MOVED TO INSIDE LANES
- OUTSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING
- RIGHT TURNS WILL BE ALLOWED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES

STAGE 2A NOTES:

- STA 48+80'EB' - STA 74+10'EB' WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY (SEE DETAIL 1A)

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2	SHEET 41	E



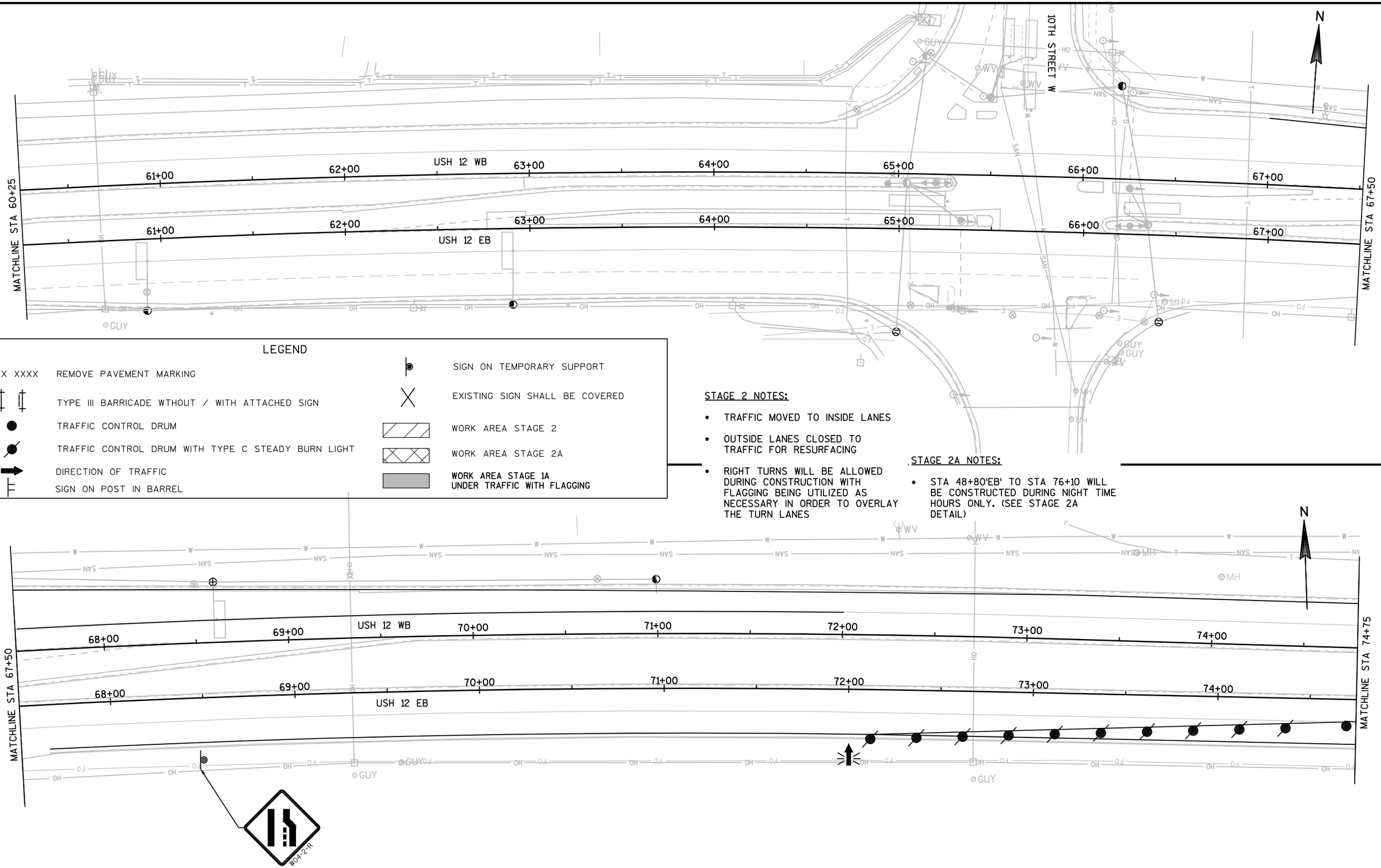
STAGE 2 NOTES:

- TRAFFIC MOVED TO INSIDE LANES
- OUTSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING
- RIGHT TURNS WILL BE ALLOWED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES

STAGE 2A NOTES:

- STA 48+80'EB' - STA 76+10'EB' WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY (SEE DETAIL 1A)

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2	SHEET 42	E



LEGEND

XXXX XXXX REMOVE PAVEMENT MARKING	SIGN ON TEMPORARY SUPPORT
TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN	EXISTING SIGN SHALL BE COVERED
TRAFFIC CONTROL DRUM	WORK AREA STAGE 2
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	WORK AREA STAGE 2A
DIRECTION OF TRAFFIC	WORK AREA STAGE 1A UNDER TRAFFIC WITH FLAGGING
SIGN ON POST IN BARREL	

STAGE 2 NOTES:

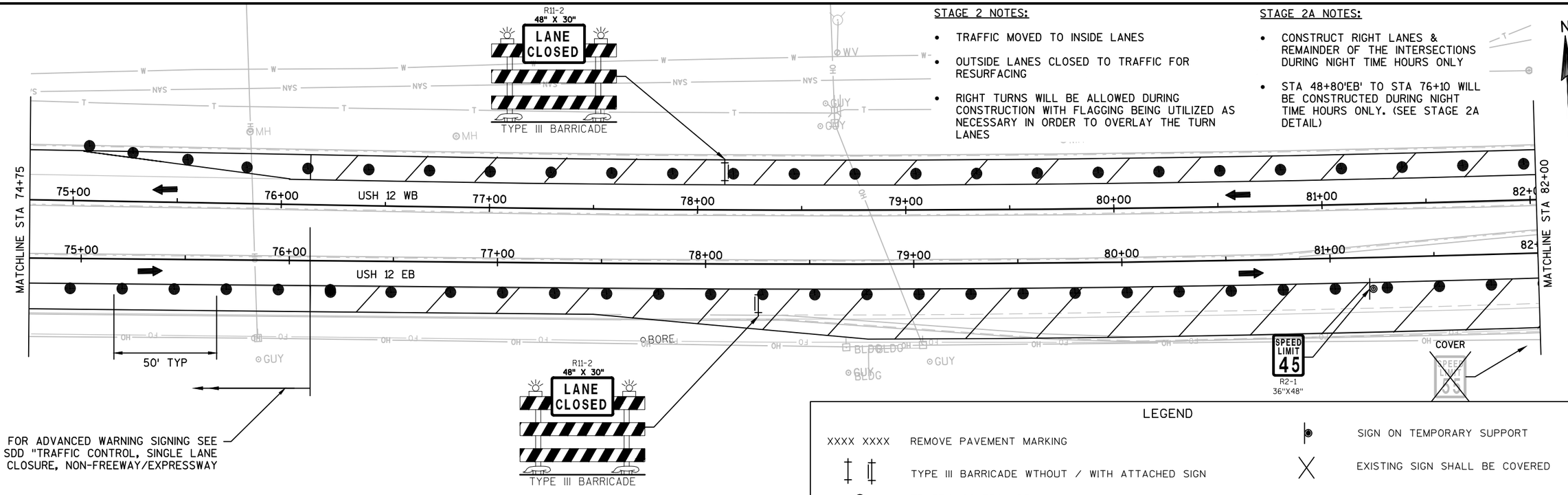
- TRAFFIC MOVED TO INSIDE LANES
- OUTSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING
- RIGHT TURNS WILL BE ALLOWED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES

STAGE 2A NOTES:

- STA 48+80'EB' TO STA 76+10 WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY. (SEE STAGE 2A DETAIL)

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2	SHEET 43	E

2



STAGE 2 NOTES:

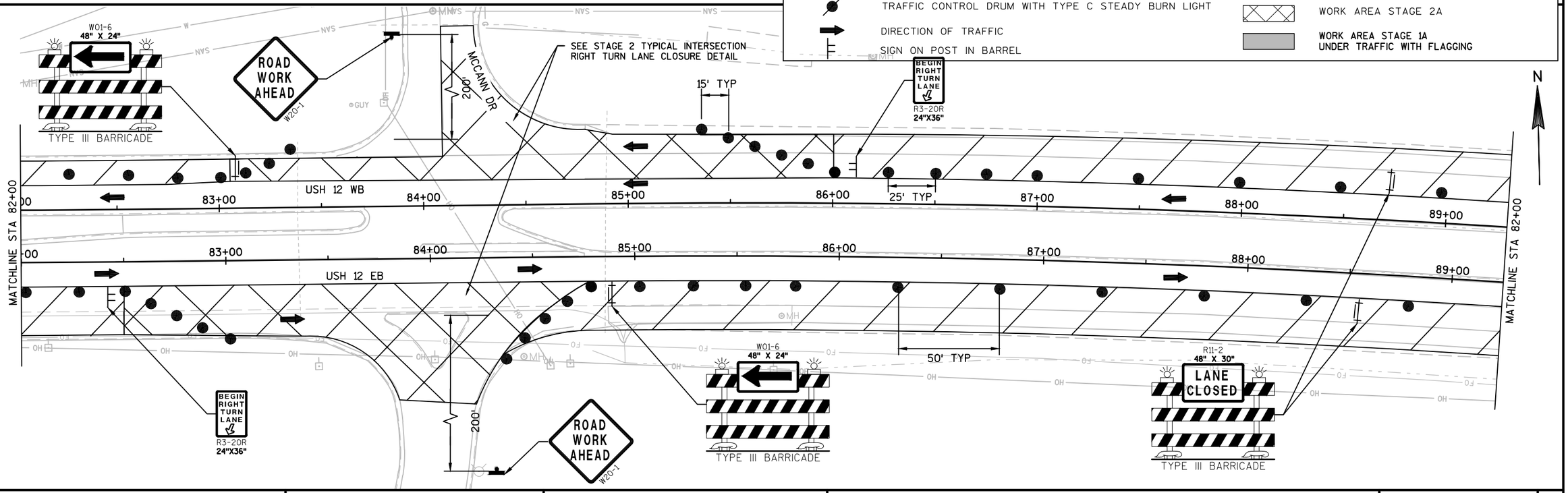
- TRAFFIC MOVED TO INSIDE LANES
- OUTSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING
- RIGHT TURNS WILL BE ALLOWED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES

STAGE 2A NOTES:

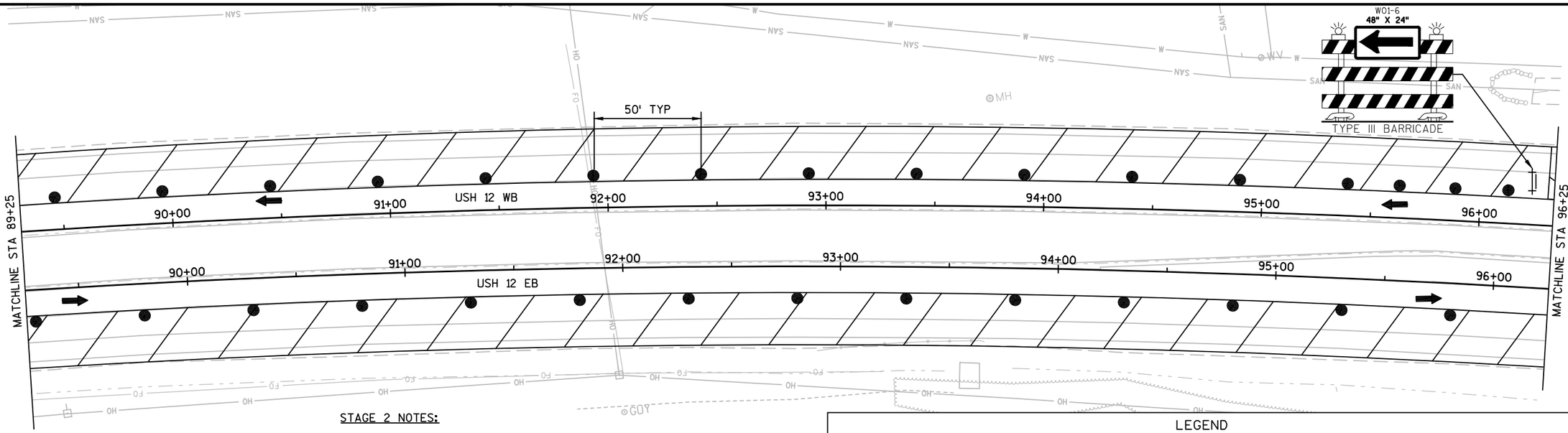
- CONSTRUCT RIGHT LANES & REMAINDER OF THE INTERSECTIONS DURING NIGHT TIME HOURS ONLY
- STA 48+80'EB' TO STA 76+10 WILL BE CONSTRUCTED DURING NIGHT TIME HOURS ONLY. (SEE STAGE 2A DETAIL)

LEGEND

XXXX XXXX	REMOVE PAVEMENT MARKING
	TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DIRECTION OF TRAFFIC
	SIGN ON POST IN BARREL
	SIGN ON TEMPORARY SUPPORT
	EXISTING SIGN SHALL BE COVERED
	WORK AREA STAGE 2
	WORK AREA STAGE 2A
	WORK AREA STAGE 1A UNDER TRAFFIC WITH FLAGGING



PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2	SHEET 44	E



STAGE 2 NOTES:

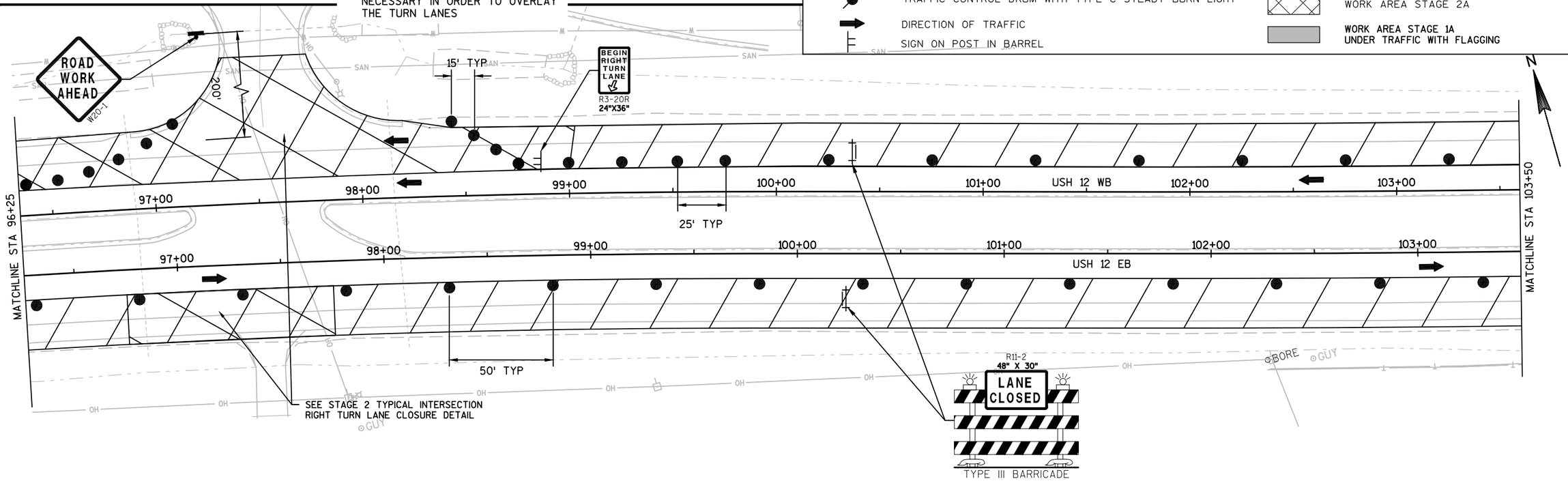
- TRAFFIC MOVED TO INSIDE LANES
- OUTSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING
- RIGHT TURNS WILL BE ALLOWED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES

STAGE 2A NOTES:

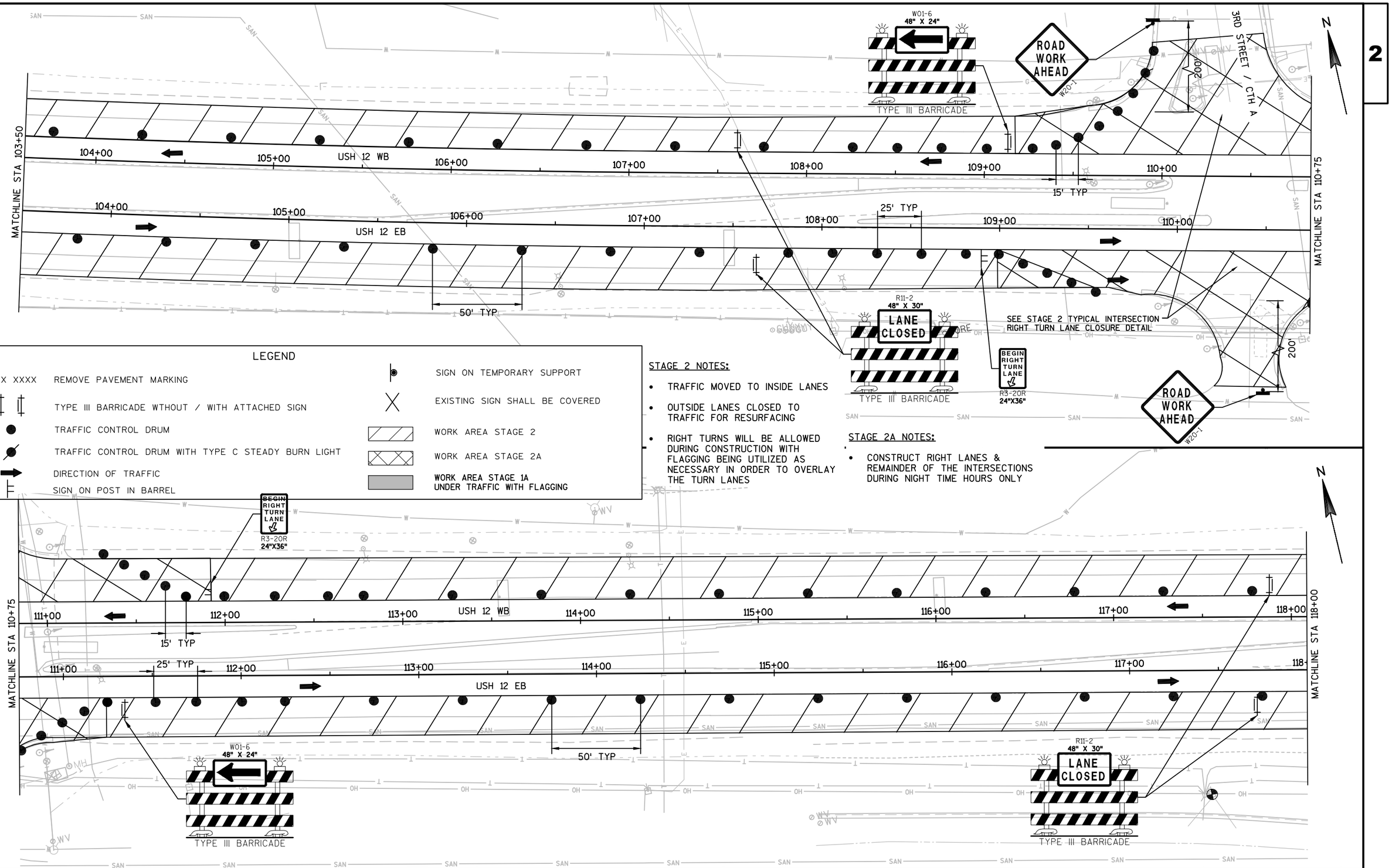
- CONSTRUCT RIGHT LANES & REMAINDER OF THE INTERSECTIONS DURING NIGHT TIME HOURS ONLY

LEGEND

- XXXX XXXX — REMOVE PAVEMENT MARKING
- TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- SIGN ON POST IN BARREL
- SIGN ON TEMPORARY SUPPORT
- EXISTING SIGN SHALL BE COVERED
- WORK AREA STAGE 2
- WORK AREA STAGE 2A
- WORK AREA STAGE 1A UNDER TRAFFIC WITH FLAGGING



PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2	SHEET 45	E



LEGEND

- XXXX XXXX — REMOVE PAVEMENT MARKING
- TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- SIGN ON POST IN BARREL
- SIGN ON TEMPORARY SUPPORT
- EXISTING SIGN SHALL BE COVERED
- WORK AREA STAGE 2
- WORK AREA STAGE 2A
- WORK AREA STAGE 1A UNDER TRAFFIC WITH FLAGGING

STAGE 2 NOTES:

- TRAFFIC MOVED TO INSIDE LANES
- OUTSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING
- RIGHT TURNS WILL BE ALLOWED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES

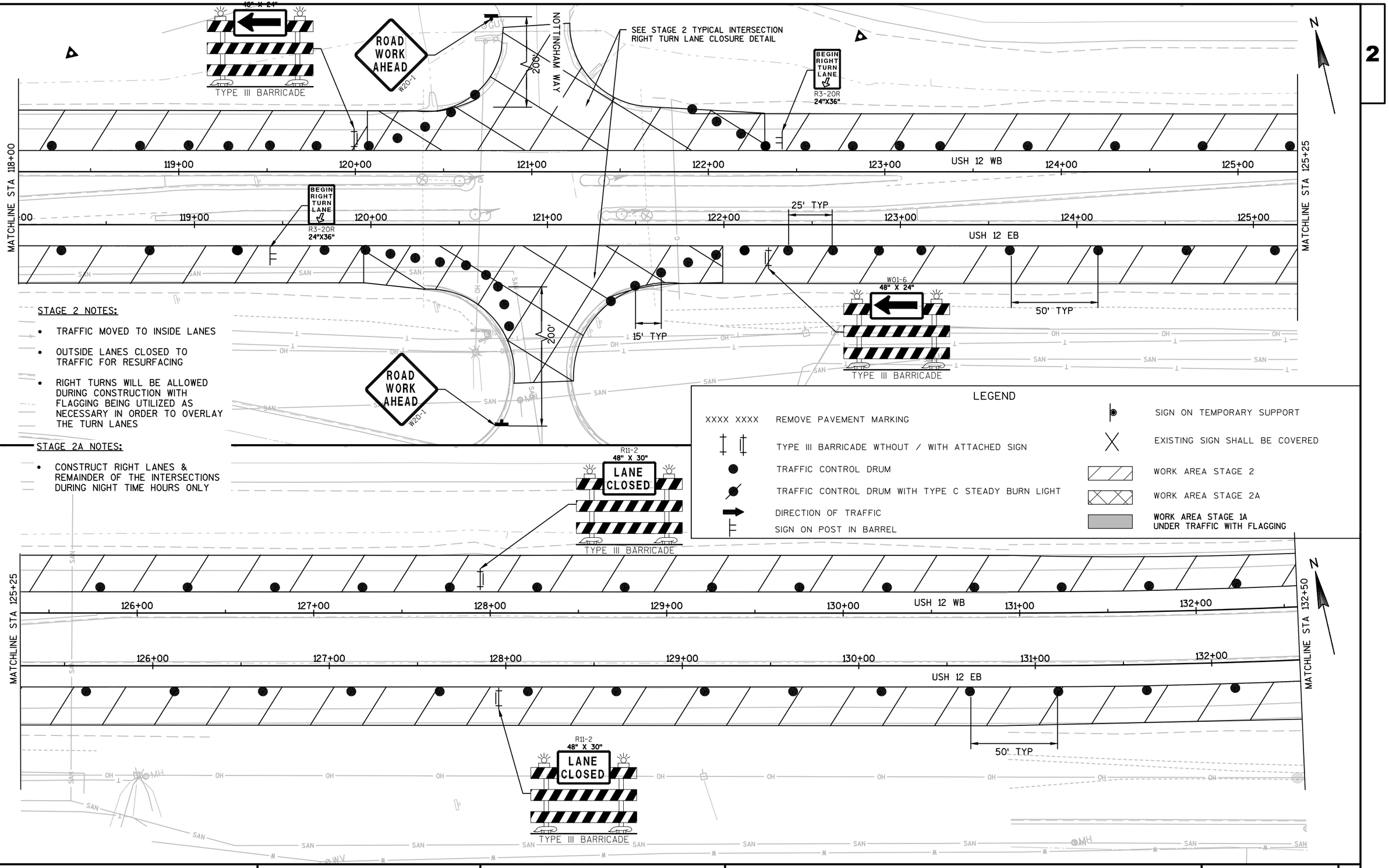
STAGE 2A NOTES:

- CONSTRUCT RIGHT LANES & REMAINDER OF THE INTERSECTIONS DURING NIGHT TIME HOURS ONLY

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2	SHEET 46	E

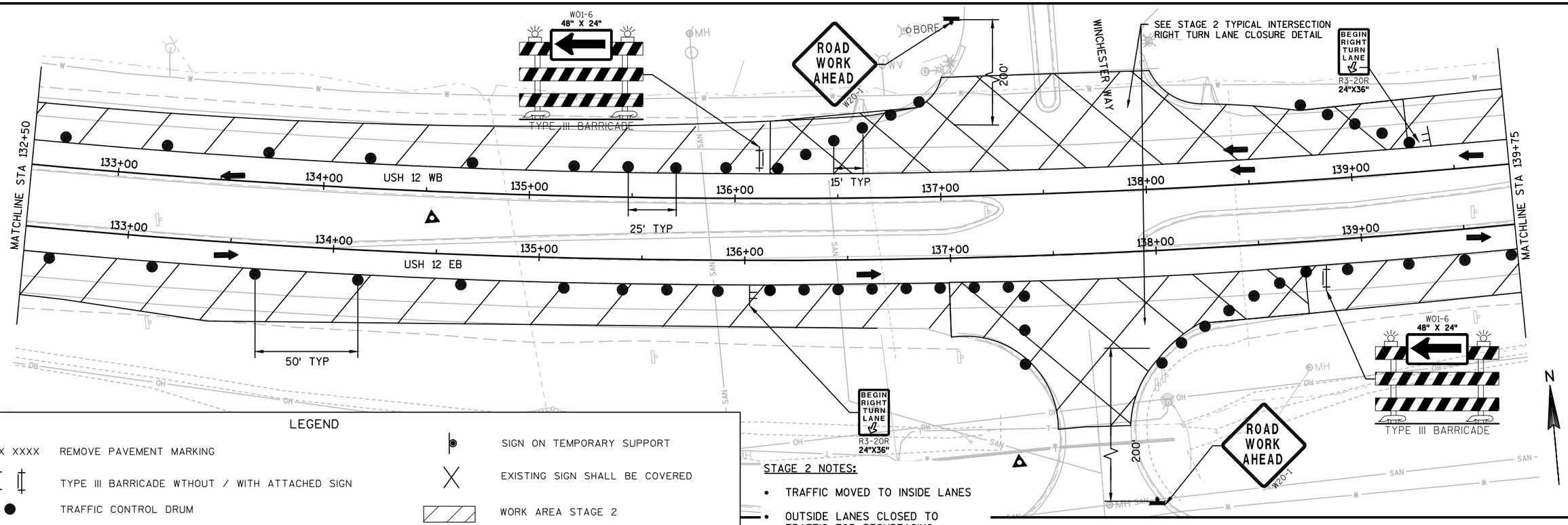
FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\025001_TC_STAGE2.DWG PLOT DATE : 10/1/2015 8:45 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 44



PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2	SHEET 47	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\025001_TC_STAGE2.DWG PLOT DATE : 10/1/2015 8:45 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : **********



LEGEND

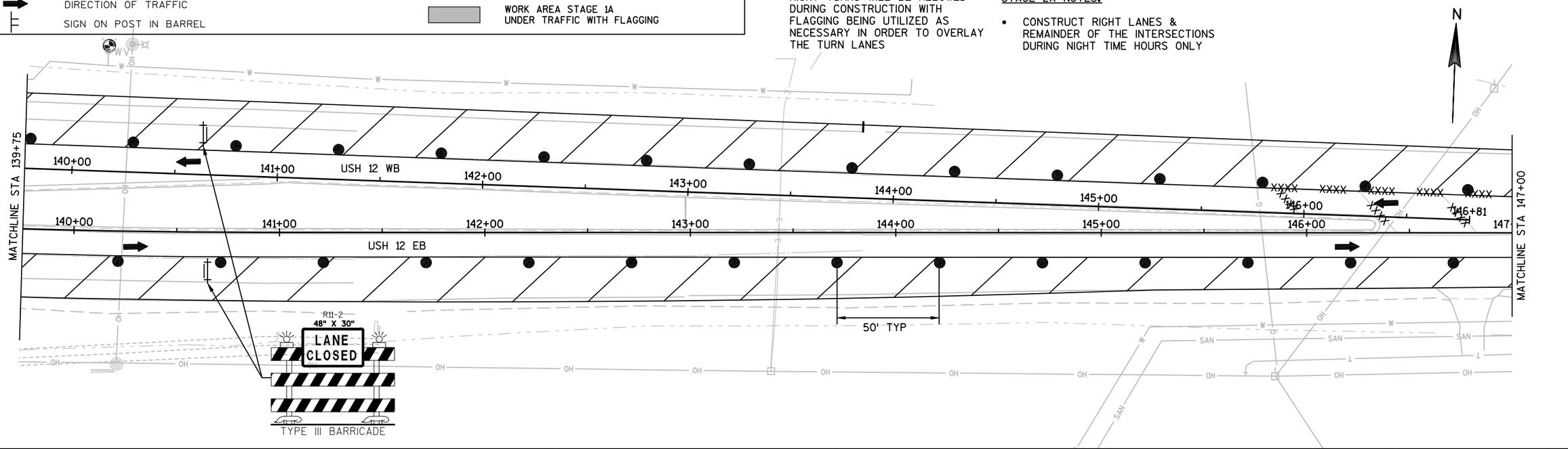
XXXX XXXX — REMOVE PAVEMENT MARKING	SIGN ON TEMPORARY SUPPORT
TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN	EXISTING SIGN SHALL BE COVERED
TRAFFIC CONTROL DRUM	WORK AREA STAGE 2
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	WORK AREA STAGE 2A
DIRECTION OF TRAFFIC	WORK AREA STAGE 1A UNDER TRAFFIC WITH FLAGGING
SIGN ON POST IN BARREL	

STAGE 2 NOTES:

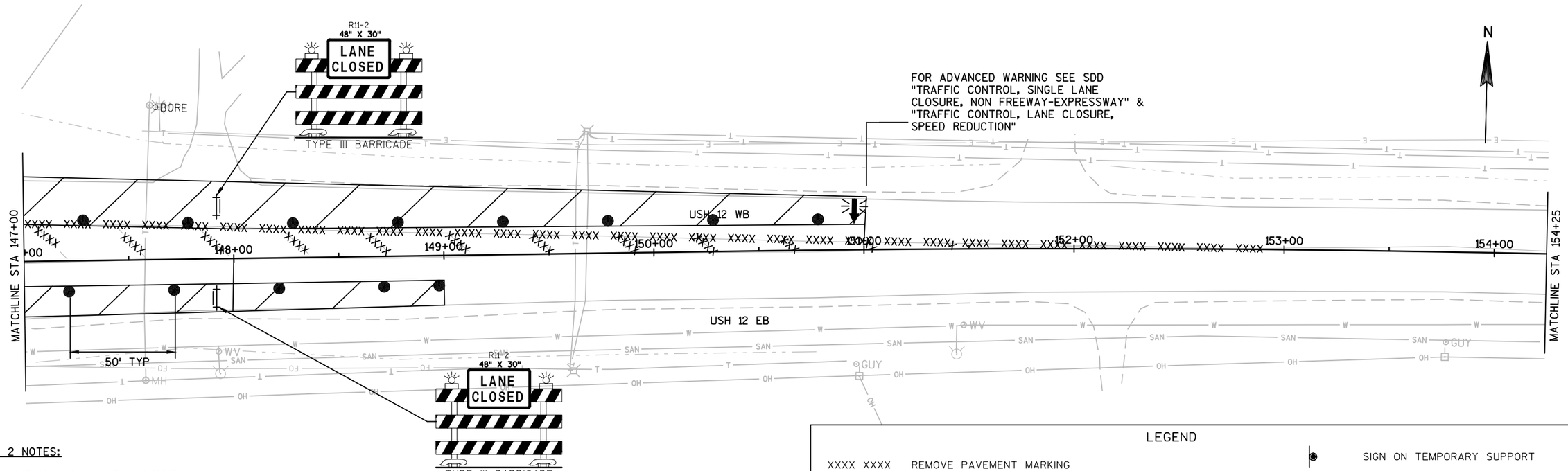
- TRAFFIC MOVED TO INSIDE LANES
- OUTSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING
- RIGHT TURNS WILL BE ALLOWED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES

STAGE 2A NOTES:

- CONSTRUCT RIGHT LANES & REMAINDER OF THE INTERSECTIONS DURING NIGHT TIME HOURS ONLY



PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2	SHEET 48	E



STAGE 2 NOTES:

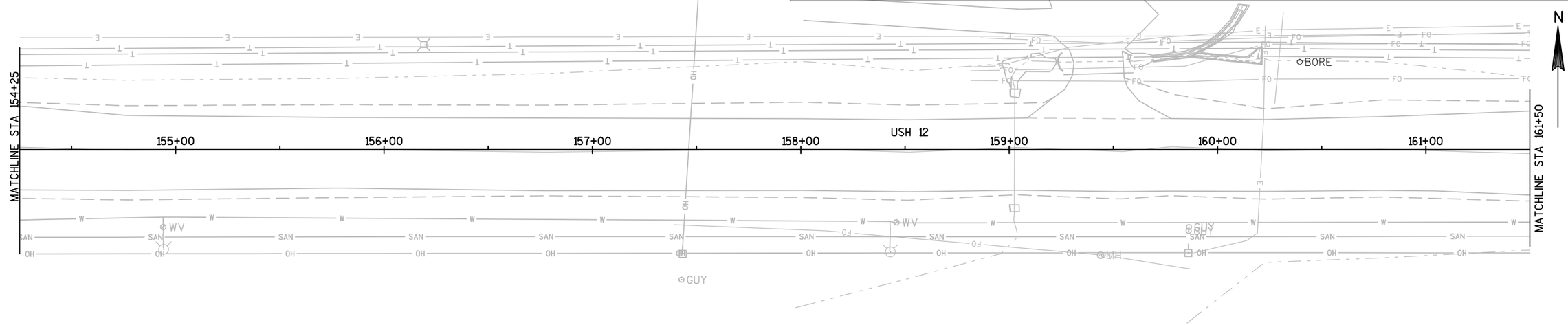
- TRAFFIC MOVED TO INSIDE LANES
- OUTSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING
- RIGHT TURNS WILL BE ALLOWED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES

STAGE 2A NOTES:

- CONSTRUCT RIGHT LANES & REMAINDER OF THE INTERSECTIONS DURING NIGHT TIME HOURS ONLY

LEGEND

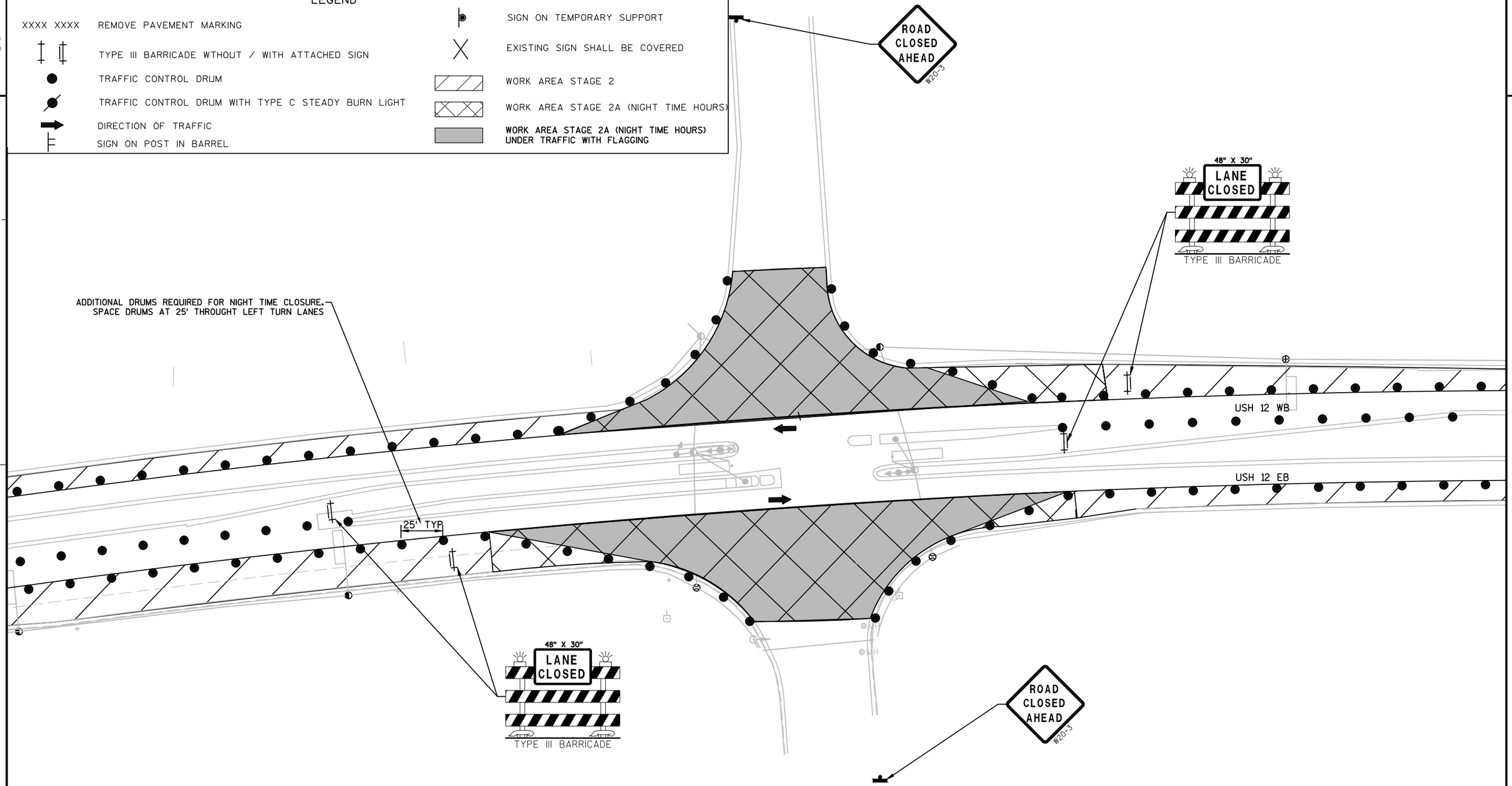
XXXX XXXX	REMOVE PAVEMENT MARKING
	TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DIRECTION OF TRAFFIC
	SIGN ON POST IN BARREL
	SIGN ON TEMPORARY SUPPORT
	EXISTING SIGN SHALL BE COVERED
	WORK AREA STAGE 2
	WORK AREA STAGE 2A
	WORK AREA STAGE 1A UNDER TRAFFIC WITH FLAGGING



PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2	SHEET 49	E

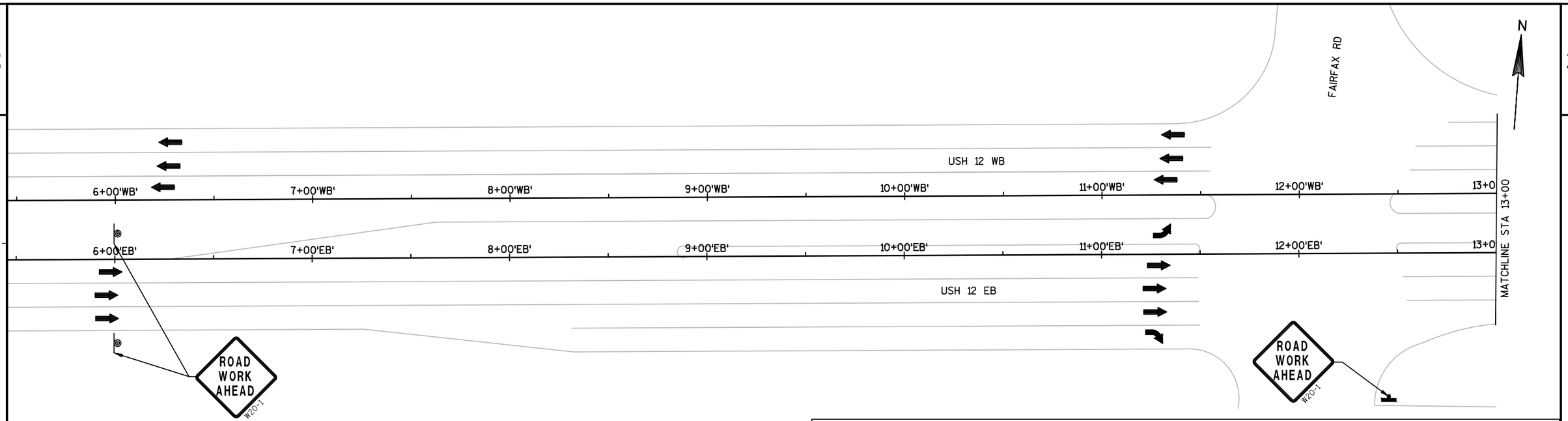
LEGEND

XXXX XXXX — REMOVE PAVEMENT MARKING	SIGN ON TEMPORARY SUPPORT
TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN	EXISTING SIGN SHALL BE COVERED
TRAFFIC CONTROL DRUM	WORK AREA STAGE 2
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	WORK AREA STAGE 2A (NIGHT TIME HOURS)
DIRECTION OF TRAFFIC	WORK AREA STAGE 2A (NIGHT TIME HOURS) UNDER TRAFFIC WITH FLAGGING
SIGN ON POST IN BARREL	



STAGE 2 TYPICAL INTERSECTION RIGHT TURN LANE CLOSURE DETAIL
NIGHT TIME HOURS ONLY

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2	SHEET 50	E

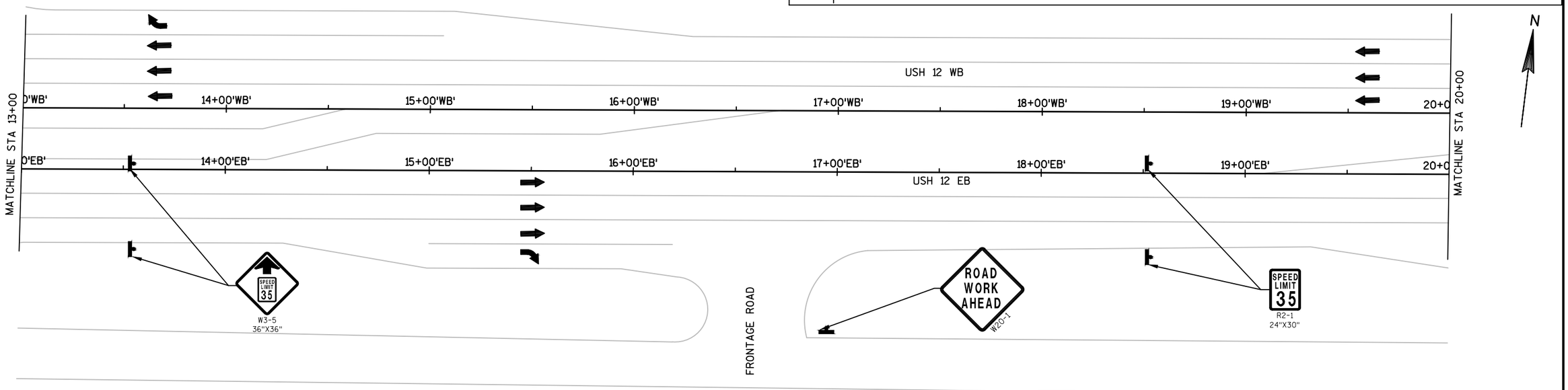


STAGE 2A NOTES:

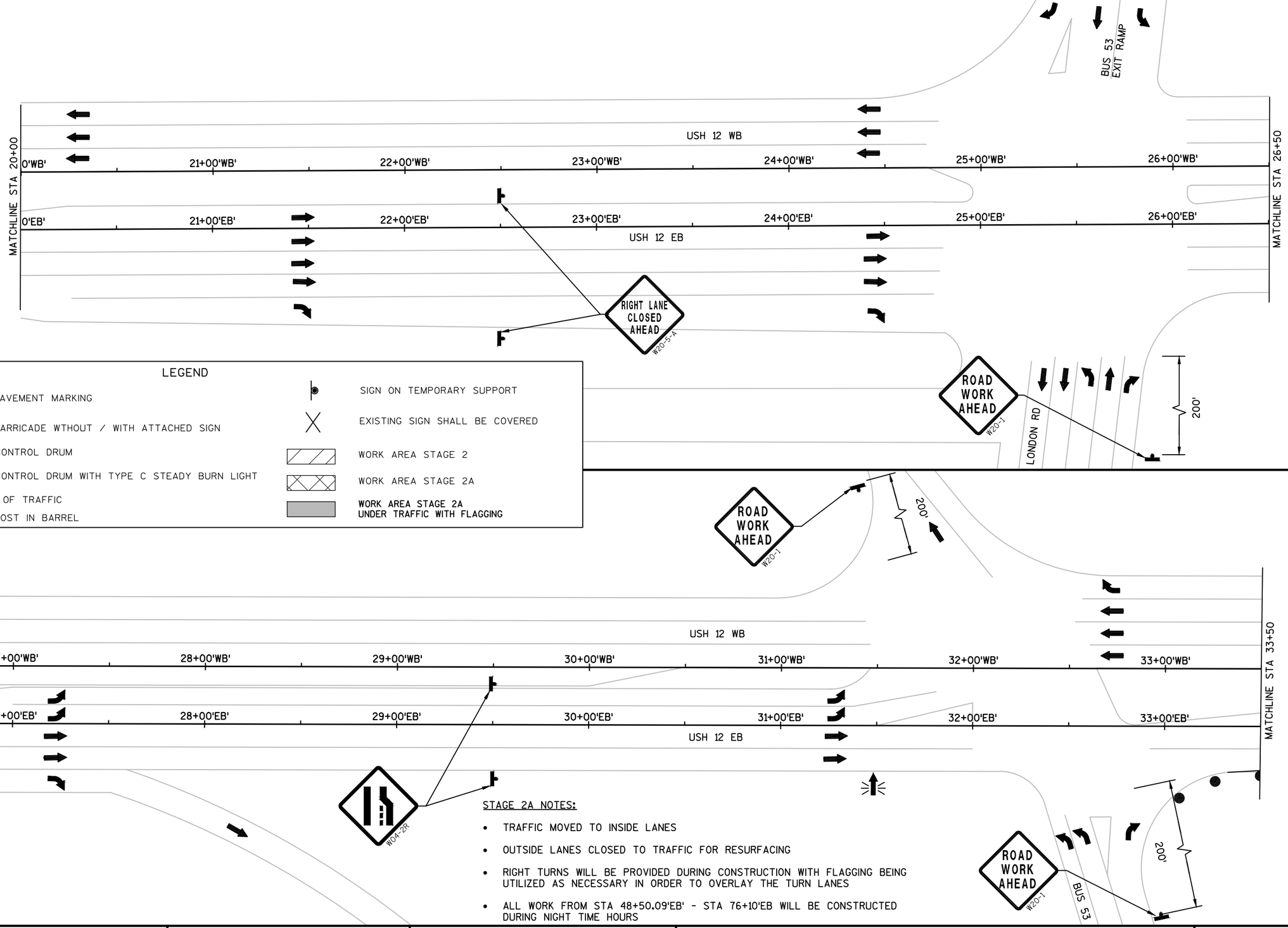
- TRAFFIC MOVED TO INSIDE LANES
- OUTSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING
- RIGHT TURNS WILL BE PROVIDED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES
- ALL WORK FROM STA 48+50.09'EB' - STA 76+10'EB WILL BE CONSTRUCTED DURING NIGHT TIME HOURS

LEGEND

XXXX XXXX	REMOVE PAVEMENT MARKING
	TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DIRECTION OF TRAFFIC
	SIGN ON POST IN BARREL
	SIGN ON TEMPORARY SUPPORT
	EXISTING SIGN SHALL BE COVERED
	WORK AREA STAGE 2
	WORK AREA STAGE 2A
	WORK AREA STAGE 2A UNDER TRAFFIC WITH FLAGGING



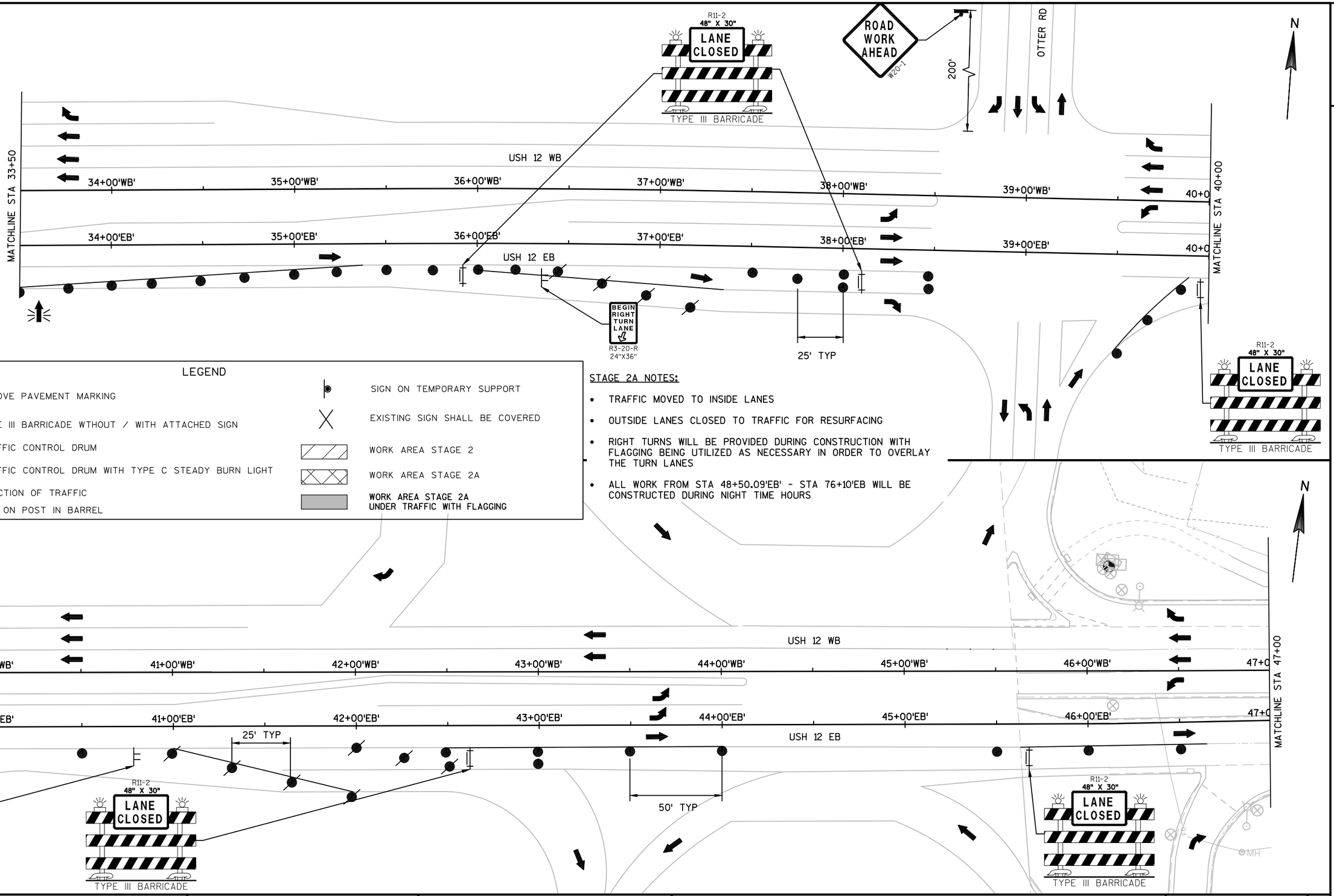
PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2A	SHEET 51 E



STAGE 2A NOTES:

- TRAFFIC MOVED TO INSIDE LANES
- OUTSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING
- RIGHT TURNS WILL BE PROVIDED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES
- ALL WORK FROM STA 48+50.09'EB' - STA 76+10'EB WILL BE CONSTRUCTED DURING NIGHT TIME HOURS

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2A	SHEET 52	E



LEGEND

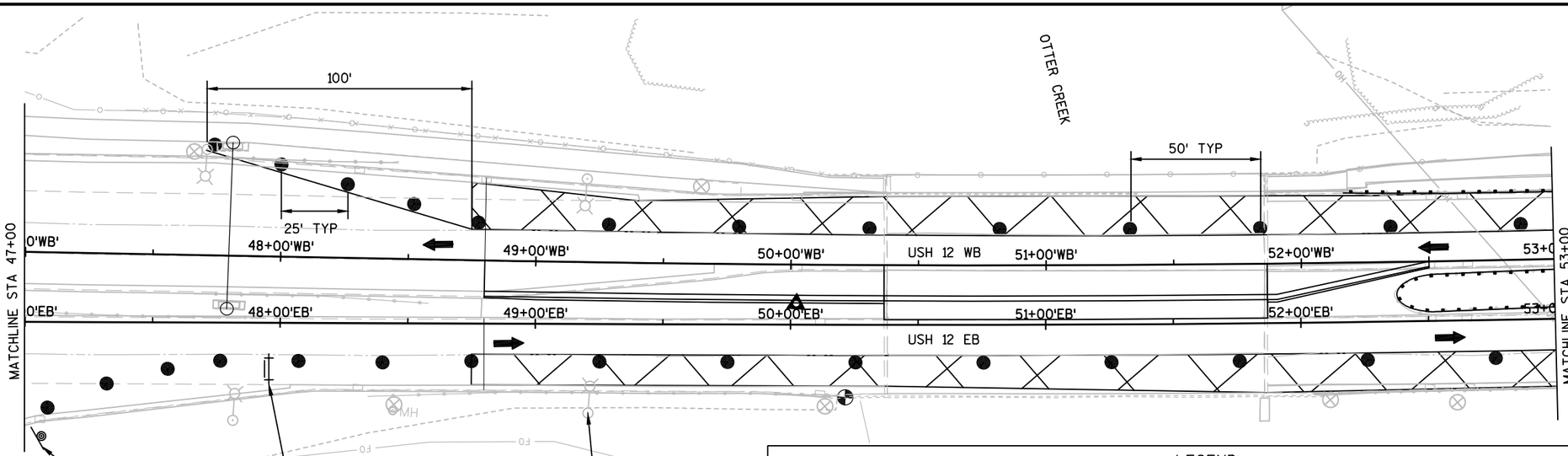
XXXX XXXX	REMOVE PAVEMENT MARKING
	TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DIRECTION OF TRAFFIC
	SIGN ON POST IN BARREL
	SIGN ON TEMPORARY SUPPORT
	EXISTING SIGN SHALL BE COVERED
	WORK AREA STAGE 2
	WORK AREA STAGE 2A
	WORK AREA STAGE 2A UNDER TRAFFIC WITH FLAGGING

STAGE 2A NOTES:

- TRAFFIC MOVED TO INSIDE LANES
- OUTSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING
- RIGHT TURNS WILL BE PROVIDED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES
- ALL WORK FROM STA 48+50.09'EB' - STA 76+10'EB WILL BE CONSTRUCTED DURING NIGHT TIME HOURS

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2A	SHEET	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\025001_TC_STAGE2A.DWG PLOT DATE : 10/1/2015 8:49 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1" = 50'_XREF

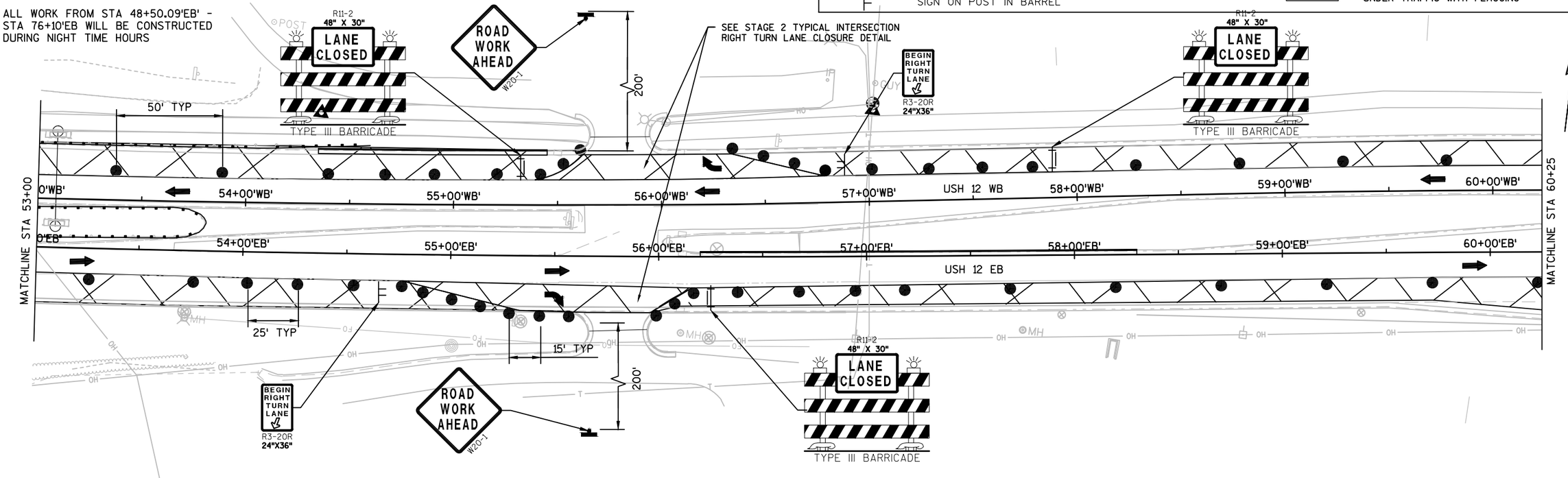


STAGE 2A NOTES:

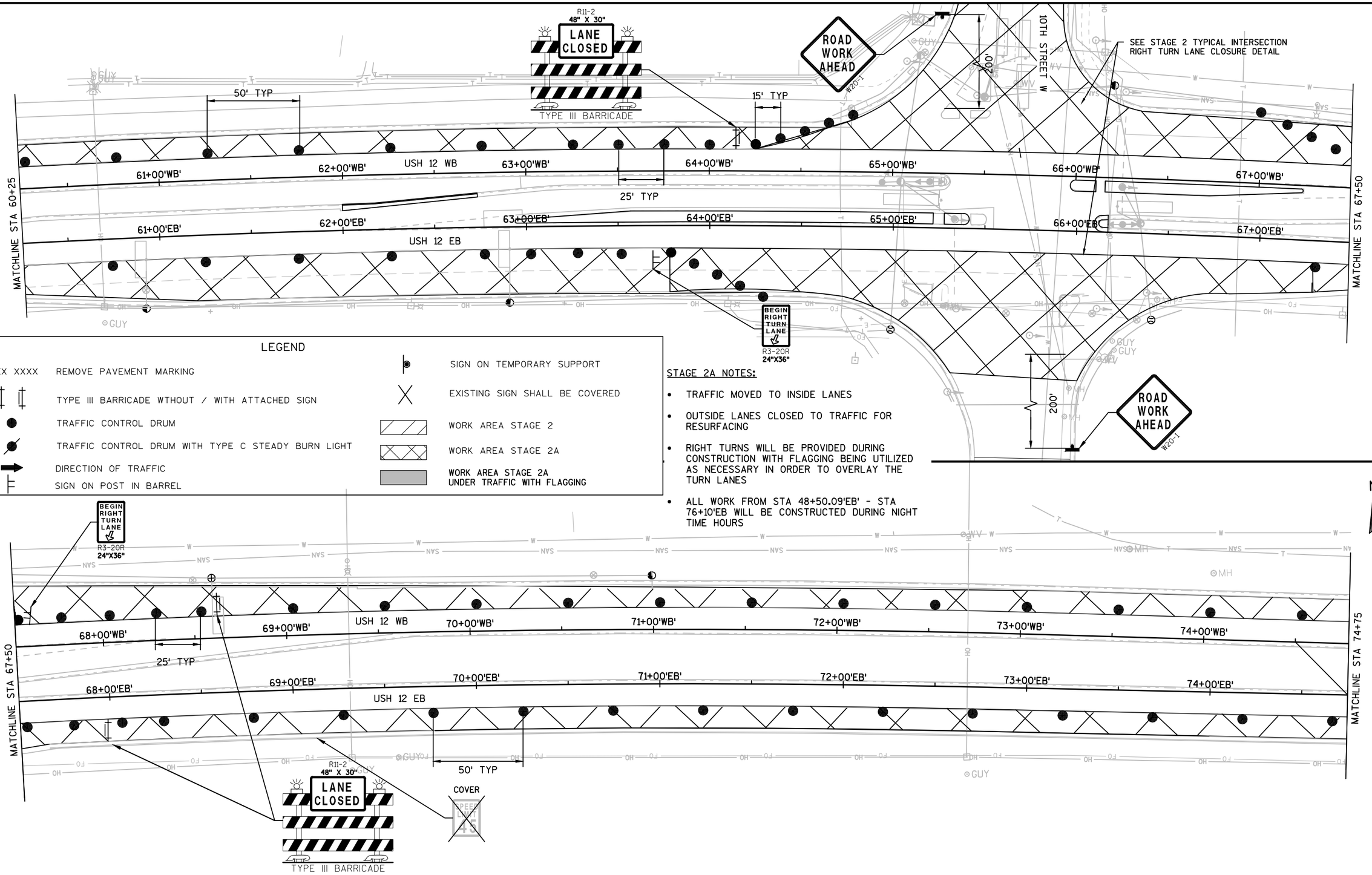
- TRAFFIC MOVED TO INSIDE LANES
- OUTSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING
- RIGHT TURNS WILL BE PROVIDED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES
- ALL WORK FROM STA 48+50.09'EB' - STA 76+10'EB WILL BE CONSTRUCTED DURING NIGHT TIME HOURS

LEGEND

XXXX XXXX	REMOVE PAVEMENT MARKING
	TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DIRECTION OF TRAFFIC
	SIGN ON POST IN BARREL
	SIGN ON TEMPORARY SUPPORT
X	EXISTING SIGN SHALL BE COVERED
	WORK AREA STAGE 2
	WORK AREA STAGE 2A
	WORK AREA STAGE 2A UNDER TRAFFIC WITH FLAGGING



PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2A	SHEET 54	E



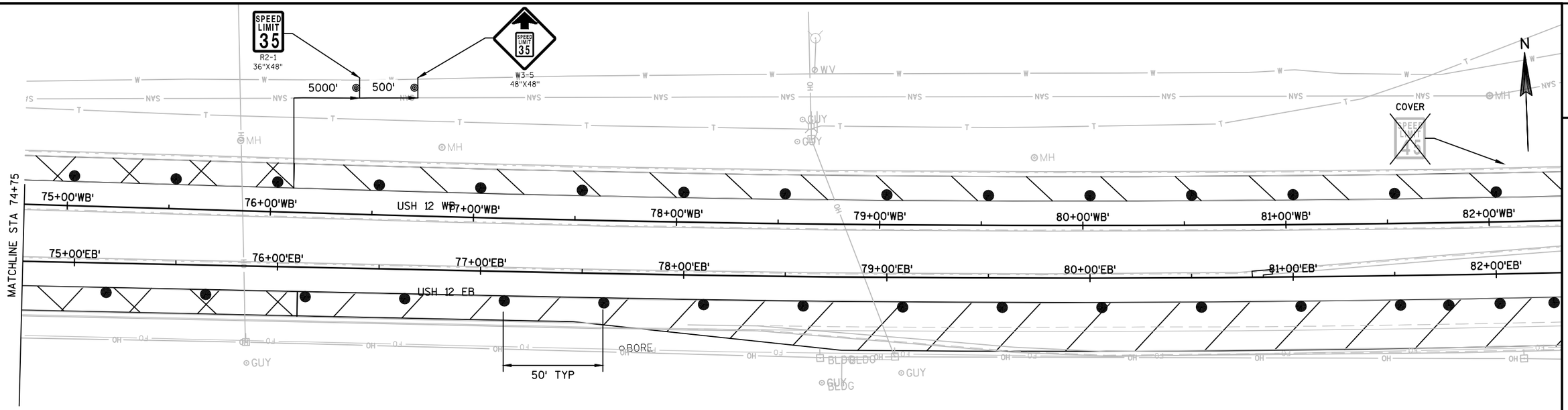
LEGEND

XXXX XXXX REMOVE PAVEMENT MARKING	SIGN ON TEMPORARY SUPPORT
TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN	EXISTING SIGN SHALL BE COVERED
TRAFFIC CONTROL DRUM	WORK AREA STAGE 2
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	WORK AREA STAGE 2A
DIRECTION OF TRAFFIC	WORK AREA STAGE 2A UNDER TRAFFIC WITH FLAGGING
SIGN ON POST IN BARREL	

STAGE 2A NOTES:

- TRAFFIC MOVED TO INSIDE LANES
- OUTSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING
- RIGHT TURNS WILL BE PROVIDED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES
- ALL WORK FROM STA 48+50.09'EB' - STA 76+10'EB WILL BE CONSTRUCTED DURING NIGHT TIME HOURS

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2A	SHEET 55	E



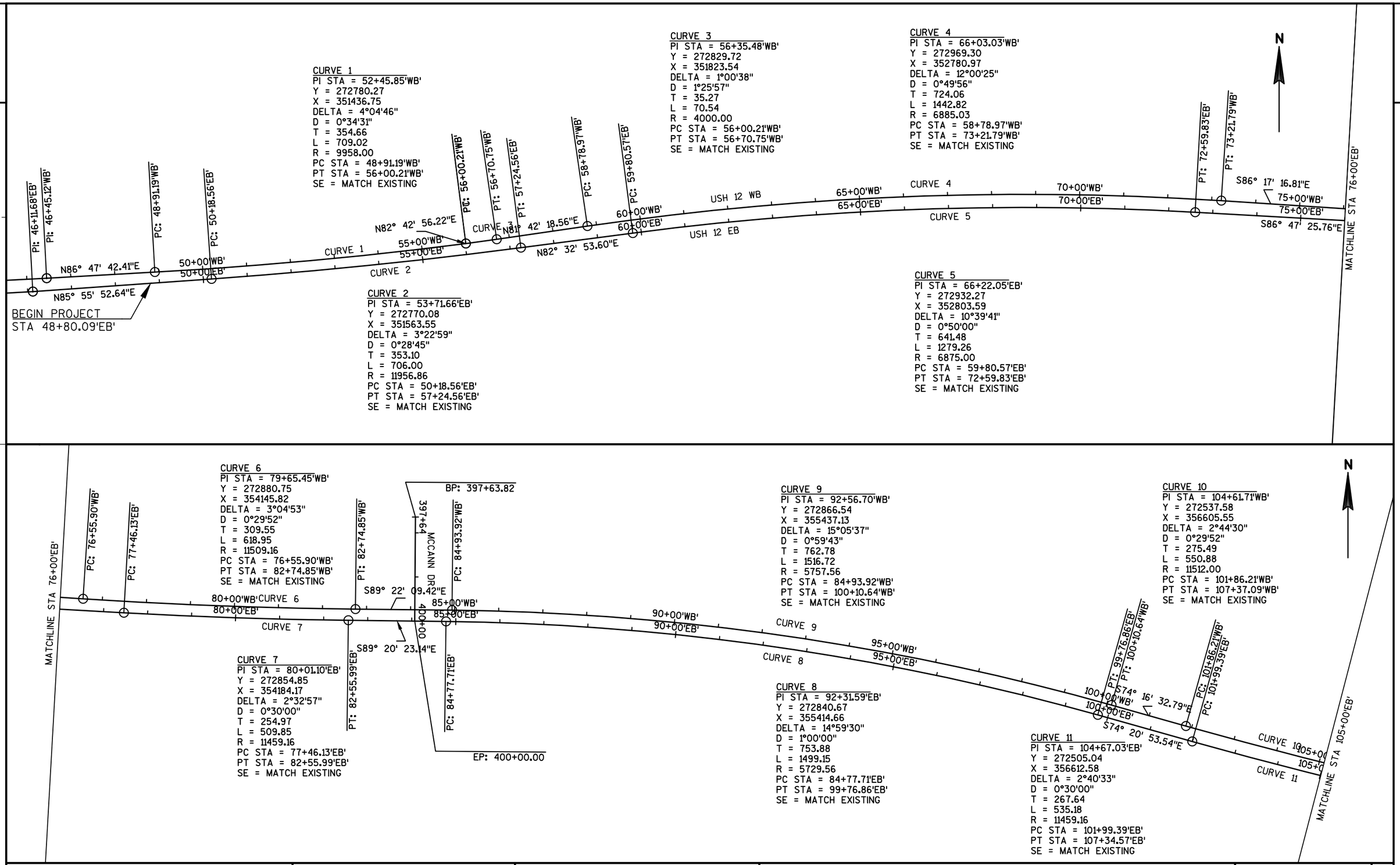
LEGEND

XXXX XXXX — REMOVE PAVEMENT MARKING	SIGN ON TEMPORARY SUPPORT
TYPE III BARRICADE WTHOUT / WITH ATTACHED SIGN	EXISTING SIGN SHALL BE COVERED
TRAFFIC CONTROL DRUM	WORK AREA STAGE 2
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	WORK AREA STAGE 2A
DIRECTION OF TRAFFIC	WORK AREA STAGE 2A UNDER TRAFFIC WITH FLAGGING
SIGN ON POST IN BARREL	

STAGE 2A NOTES:

- TRAFFIC MOVED TO INSIDE LANES
- OUTSIDE LANES CLOSED TO TRAFFIC FOR RESURFACING
- RIGHT TURNS WILL BE PROVIDED DURING CONSTRUCTION WITH FLAGGING BEING UTILIZED AS NECESSARY IN ORDER TO OVERLAY THE TURN LANES
- ALL WORK FROM STA 48+50.09'EB' - STA 74+10'EB WILL BE CONSTRUCTED DURING NIGHT TIME HOURS

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	TRAFFIC CONTROL STAGE 2A	SHEET 56	E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PI STA = 52+45.85'WB'
Y = 272780.27
X = 351436.75
DELTA = 4°04'46"
D = 0°34'31"
T = 354.66
L = 709.02
R = 9958.00
PC STA = 48+91.19'WB'
PT STA = 56+00.21'WB'
SE = MATCH EXISTING
CURVE 2
PI STA = 53+71.66'EB'
Y = 272770.08
X = 351563.55
DELTA = 3°22'59"
D = 0°28'45"
T = 353.10
L = 706.00
R = 11956.86
PC STA = 50+18.56'EB'
PT STA = 57+24.56'EB'
SE = MATCH EXISTING
CURVE 3
PI STA = 56+35.48'WB'
Y = 272829.72
X = 351823.54
DELTA = 1°00'38"
D = 1°25'57"
T = 35.27
L = 70.54
R = 4000.00
PC STA = 56+00.21'WB'
PT STA = 56+70.75'WB'
SE = MATCH EXISTING
CURVE 4
PI STA = 66+03.03'WB'
Y = 272969.30
X = 352780.97
DELTA = 12°00'25"
D = 0°49'56"
T = 724.06
L = 1442.82
R = 6885.03
PC STA = 58+78.97'WB'
PT STA = 73+21.79'WB'
SE = MATCH EXISTING
CURVE 5
PI STA = 66+22.05'EB'
Y = 272932.27
X = 352803.59
DELTA = 10°39'41"
D = 0°50'00"
T = 641.48
L = 1279.26
R = 6875.00
PC STA = 59+80.57'EB'
PT STA = 72+59.83'EB'
SE = MATCH EXISTING
N
BEGIN PROJECT
STA 48+80.09'EB'
N85° 55' 52.64"E
N86° 47' 42.41"E
N82° 42' 56.22"E
N81° 42' 18.56"E
N82° 32' 53.60"E
S86° 17' 16.81"E
S86° 47' 25.76"E
PI: 46+11.68'EB'
PI: 46+45.12'WB'
PC: 48+91.19'WB'
PC: 50+18.56'EB'
PC: 56+00.21'WB'
PT: 56+70.75'WB'
PT: 57+24.56'EB'
PC: 58+78.97'WB'
PC: 59+80.57'EB'
PT: 72+59.83'EB'
PT: 73+21.79'WB'
CURVE 1
CURVE 2
CURVE 3
CURVE 4
CURVE 5
USH 12 WB
USH 12 EB
50+00'WB'
50+00'EB'
55+00'WB'
55+00'EB'
60+00'WB'
60+00'EB'
65+00'WB'
65+00'EB'
70+00'WB'
70+00'EB'
75+00'WB'
75+00'EB'
MATCHLINE STA 76+00'EB'

CURVE 6
PI STA = 79+65.45'WB'
Y = 272880.75
X = 354145.82
DELTA = 3°04'53"
D = 0°29'52"
T = 309.55
L = 618.95
R = 11509.16
PC STA = 76+55.90'WB'
PT STA = 82+74.85'WB'
SE = MATCH EXISTING
CURVE 7
PI STA = 80+01.10'EB'
Y = 272854.85
X = 354184.17
DELTA = 2°32'57"
D = 0°30'00"
T = 254.97
L = 509.85
R = 11459.16
PC STA = 77+46.13'EB'
PT STA = 82+55.99'EB'
SE = MATCH EXISTING
CURVE 8
PI STA = 92+31.59'EB'
Y = 272840.67
X = 355414.66
DELTA = 14°59'30"
D = 1°00'00"
T = 753.88
L = 1499.15
R = 5729.56
PC STA = 84+77.71'EB'
PT STA = 99+76.86'EB'
SE = MATCH EXISTING
CURVE 9
PI STA = 92+56.70'WB'
Y = 272866.54
X = 355437.13
DELTA = 15°05'37"
D = 0°59'43"
T = 762.78
L = 1516.72
R = 5757.56
PC STA = 84+93.92'WB'
PT STA = 100+10.64'WB'
SE = MATCH EXISTING
CURVE 10
PI STA = 104+61.71'WB'
Y = 272537.58
X = 356605.55
DELTA = 2°44'30"
D = 0°29'52"
T = 275.49
L = 550.88
R = 11512.00
PC STA = 101+86.21'WB'
PT STA = 107+37.09'WB'
SE = MATCH EXISTING
CURVE 11
PI STA = 104+67.03'EB'
Y = 272505.04
X = 356612.58
DELTA = 2°40'33"
D = 0°30'00"
T = 267.64
L = 535.18
R = 11459.16
PC STA = 101+99.39'EB'
PT STA = 107+34.57'EB'
SE = MATCH EXISTING
N
BP: 397+63.82
EP: 400+00.00
MCCANN DR
397+64
S89° 22' 09.42"E
S89° 20' 23.14"E
S74° 16' 32.79"E
S74° 20' 53.54"E
PC: 76+55.90'WB'
PC: 77+46.13'EB'
PT: 82+74.85'WB'
PC: 84+93.92'WB'
PT: 82+55.99'EB'
PC: 84+77.71'EB'
PT: 99+76.86'EB'
PT: 100+10.64'WB'
PC: 101+86.21'WB'
PC: 101+99.39'EB'
80+00'WB'
80+00'EB'
85+00'WB'
85+00'EB'
90+00'WB'
90+00'EB'
95+00'WB'
95+00'EB'
100+00'WB'
100+00'EB'
105+00'WB'
105+00'EB'
CURVE 6
CURVE 7
CURVE 8
CURVE 9
CURVE 10
CURVE 11
MATCHLINE STA 76+00'EB'
MATCHLINE STA 105+00'EB'

2

2

N

MATCHLINE STA 135+00'EB'

PT: 107+37.09

PT: 107+34.57'EB'

110+00'WB'

110+00'EB'

115+00'WB'

115+00'EB'

S77° 01' 03.13"E

S77° 01' 26.70"E

EP: 200+00.00

120+00'WB'

120+00'EB'

200+00

NOTTINGHAM WAY

198+34

BP: 198+34.03

125+00'WB'

125+00'EB'

130+00'WB'

130+00'EB'

PC: 130+92.03'WB'

PC: 130+90.48'EB'

135+0

135+

MATCHLINE STA 135+00'EB'

N

CURVE 12
PI STA = 135+31.08'WB'
Y = 271848.01
X = 359596.57
DELTA = 12°58'18"
D = 1°29'01"
T = 439.05
L = 874.35
R = 3862.00
PC STA = 130+92.03'WB'
PT STA = 139+66.38'WB'
SE = MATCHLINE EXISTING

MATCHLINE STA 135+00'EB'

EP: 300+00.00

0'WB' CURVE 12

0'EB'

CURVE 13

300+00

WINCHESTER WAY

298+46

BP: 298+46.10

PT: 139+66.38'WB'

PT: 140+89.82'EB'

140+00'WB'

140+00'EB'

S89° 59' 21.04"E

145+00'WB'

145+00'EB'

146+81'WB'

EP: 146+80.68'WB'

CURVE 13
PI STA = 135+93.02'EB'
Y = 271803.10
X = 359658.85
DELTA = 14°59'24"
D = 1°30'00"
T = 502.54
L = 999.34
R = 3819.72
PC STA = 130+90.48'EB'
PT STA = 140+89.82'EB'
SE = MATCH EXISTING

PC: 150+54.11'EB'

150+00'EB'

N87° 59' 08.96"E

CURVE 14

PT: 153+93.85'EB'

155+00'EB'

160+00'EB'

N89° 55' 56.61"E

164+77.44'EB'

EP: 164+77.44'EB'

END PROJECT
STA 158+50'EB'

CURVE 14
PI STA = 152+24.00'EB'
Y = 271860.63
X = 361294.55
DELTA = 1°56'48"
D = 0°34'23"
T = 169.89
L = 339.74
R = 10000.00
PC STA = 150+54.11'EB'
PT STA = 153+93.85'EB'
SE = MATCH EXISTING

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	ALIGNMENT	SHEET 58	E

USH 12 EB ALIGNMENT DATA

Tangent Data

Description	PT Station	Northing	Easting
Start:	46+11.68	272716.16	350805.48
End:	50+18.56	272745.03	351211.34

Tangent Data

Parameter	Value	Parameter	Value
Length:	406.88	Course:	N 85° 55' 52.64" E

Curve Point Data

Description	Station	Northing	Easting
PC:	50+18.56	272745.03	351211.34
PI:	53+71.66	272770.08	351563.55
PT:	57+24.56	272815.87	351913.68

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 22' 59.03"	Type:	Left
Radius:	11956.86		
Length:	706.00	Tangent:	353.10
Mid-Ord:	5.21	External:	5.21
Chord:	705.90	Course:	N 84° 14' 23.12" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	57+24.56	272815.87	351913.68
End:	59+80.57	272849.08	352167.52

Tangent Data

Parameter	Value	Parameter	Value
Length:	256.01	Course:	N 82° 32' 53.60" E

Curve Point Data

Description	Station	Northing	Easting
PC:	59+80.57	272849.08	352167.52
PI:	66+22.05	272932.27	352803.59
PT:	72+59.83	272896.36	353444.07

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	10° 39' 40.63"	Type:	Right
Radius:	6875.00		
Length:	1279.26	Tangent:	641.48
Mid-Ord:	29.73	External:	29.86
Chord:	1277.42	Course:	N 87° 52' 43.92" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	72+59.83	272896.36	353444.07
End:	77+46.13	272869.13	353929.60

Tangent Data

Parameter	Value	Parameter	Value
Length:	486.30	Course:	S 86° 47' 25.76" E

Curve Point Data

Description	Station	Northing	Easting
PC:	77+46.13	272869.13	353929.60
PI:	80+01.10	272854.85	354184.17
PT:	82+55.99	272851.92	354439.12

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	02° 32' 57.38"	Type:	Left
Radius:	11459.16		
Length:	509.85	Tangent:	254.97
Mid-Ord:	2.84	External:	2.84
Chord:	509.81	Course:	S 88° 03' 54.45" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	82+55.99	272851.92	354439.12
End:	84+77.71	272849.36	354660.83

Tangent Data

Parameter	Value	Parameter	Value
Length:	221.72	Course:	S 89° 20' 23.14" E

Curve Point Data

Description	Station	Northing	Easting
PC:	84+77.71	272849.36	354660.83
PI:	92+31.59	272840.67	355414.66
PT:	99+76.86	272637.29	356140.59

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 59' 29.60"	Type:	Right
Radius:	5729.56		
Length:	1499.15	Tangent:	753.88
Mid-Ord:	48.96	External:	49.38
Chord:	1494.88	Course:	S 81° 50' 38.3427" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	99+76.86	272637.29	356140.59
End:	101+99.39	272577.25	356354.87

Tangent Data

Parameter	Value	Parameter	Value
Length:	222.54	Course:	S 74° 20' 53.54" E

Curve Point Data

Description	Station	Northing	Easting
PC:	101+99.39	272577.25	356354.87
PI:	104+67.03	272505.04	356612.58
PT:	107+34.57	272444.95	356873.39

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	02° 40' 33.15"	Type:	Left
Radius:	11459.16		
Length:	535.18	Tangent:	267.64
Mid-Ord:	3.12	External:	3.13
Chord:	535.13	Course:	S 75° 41' 10.12" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	107+34.57	272444.95	356873.39
End:	130+90.49	271915.95	359169.14

Tangent Data

Parameter	Value	Parameter	Value
Length:	2355.92	Course:	S 77° 01' 26.70" E

Curve Point Data

Description	Station	Northing	Easting
PC:	130+90.49	271915.95	359169.14
PI:	135+93.02	271803.10	359658.85
PT:	140+89.82	271820.77	360161.08

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 59' 24.34"	Type:	Left
Radius:	3819.72		
Length:	999.34	Tangent:	502.54
Mid-Ord:	32.64	External:	32.92
Chord:	996.49	Course:	S 84° 31' 08.87" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	140+89.82	271820.77	360161.08
End:	150+54.11	271854.66	361124.77

Tangent Data

Parameter	Value	Parameter	Value
Length:	964.29	Course:	N 87° 59' 08.9613" E

Curve Point Data

Description	Station	Northing	Easting
PC:	150+54.11	271854.66	361124.77
PI:	152+24.00	271860.63	361294.55
PT:	153+93.85	271860.83	361464.44

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	01° 56' 47.65"	Type:	Right
Radius:	10000.00		
Length:	339.74	Tangent:	169.89
Mid-Ord:	1.44	External:	1.44
Chord:	339.72	Course:	N 88° 57' 32.7874" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	153+93.85	271860.83	361464.44
End:	164+77.44	271862.11	362548.03

Tangent Data

Parameter	Value	Parameter	Value
Length:	1083.59	Course:	N 89° 55' 56.6135" E

2

USH 12 WB ALIGNMENT DATA

Tangent Data

Description	PT Station	Northing	Easting
Start:	46+45.12	272746.69	350836.96
End:	48+91.19	272760.45	351082.65

Tangent Data

Parameter	Value	Parameter	Value
Length:	246.07	Course:	N 86° 47' 42.41" E

Curve Point Data

Description	Station	Northing	Easting
PC:	48+91.19	272760.45	351082.65
PI:	52+45.85	272780.27	351436.75
PT:	56+00.21	272825.24	351788.55

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	04° 04' 46.20"	Type:	Left
Radius:	9958.00		
Length:	709.02	Tangent:	354.66
Mid-Ord:	6.31	External:	6.31
Chord:	708.87	Course:	N 84° 45' 19.31" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	56+00.21	272825.24	351788.55
End:	56+00.21	272825.24	351788.55

Tangent Data

Parameter	Value	Parameter	Value
Length:	0.00	Course:	N 82° 42' 56.22" E

Curve Point Data

Description	Station	Northing	Easting
PC:	56+00.21	272825.24	351788.55
PI:	56+35.48	272829.72	351823.54
PT:	56+70.76	272834.80	351858.44

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	01° 00' 37.65"	Type:	Left
Radius:	4000.00		
Length:	70.54	Tangent:	35.27
Mid-Ord:	0.16	External:	0.16
Chord:	70.54	Course:	N 82° 12' 37.39" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	56+70.76	272834.80	351858.44
End:	58+78.97	272864.84	352064.48

Tangent Data

Parameter	Value	Parameter	Value
Length:	208.22	Course:	N 81° 42' 18.56" E

Curve Point Data

Description	Station	Northing	Easting
PC:	58+78.97	272864.84	352064.48
PI:	66+03.03	272969.30	352780.97
PT:	73+21.79	272922.43	353503.51

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	12° 00' 24.62"	Type:	Right
Radius:	6885.04		
Length:	1442.82	Tangent:	724.06
Mid-Ord:	37.76	External:	37.97
Chord:	1440.18	Course:	N 87° 42' 30.88" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	73+21.79	272922.43	353503.51
End:	76+55.90	272900.79	353836.92

Tangent Data

Parameter	Value	Parameter	Value
Length:	334.11	Course:	S 86° 17' 16.81" E

Curve Point Data

Description	Station	Northing	Easting
PC:	76+55.90	272900.79	353836.92
PI:	79+65.45	272880.75	354145.82
PT:	82+74.85	272877.35	354455.35

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 04' 52.61"	Type:	Left
Radius:	11509.16		
Length:	618.95	Tangent:	309.55
Mid-Ord:	4.16	External:	4.16
Chord:	618.87	Course:	S 87° 49' 43.12" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	82+74.85	272877.35	354455.35
End:	84+93.92	272874.94	354674.40

Tangent Data

Parameter	Value	Parameter	Value
Length:	219.07	Course:	S 89° 22' 09.42" E

Curve Point Data

Description	Station	Northing	Easting
PC:	84+93.92	272874.94	354674.40
PI:	92+56.70	272866.54	355437.13
PT:	100+10.64	272659.82	356171.37

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 05' 36.63"	Type:	Right
Radius:	5757.56		
Length:	1516.72	Tangent:	762.78
Mid-Ord:	49.87	External:	50.31
Chord:	1512.34	Course:	S 81° 49' 21.11" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	100+10.64	272659.82	356171.37
End:	101+86.21	272612.24	356340.37

Tangent Data

Parameter	Value	Parameter	Value
Length:	175.57	Course:	S 74° 16' 32.79" E

Curve Point Data

Description	Station	Northing	Easting
PC:	101+86.21	272612.24	356340.37
PI:	104+61.71	272537.58	356605.55
PT:	107+37.09	272475.69	356874.00

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	02° 44' 30.34"	Type:	Left
Radius:	11512.00		
Length:	550.88	Tangent:	275.49
Mid-Ord:	3.30	External:	3.30
Chord:	550.83	Course:	S 75° 38' 47.96" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	107+37.09	272475.69	356874.00
End:	130+92.03	271946.64	359168.75

Tangent Data

Parameter	Value	Parameter	Value
Length:	2354.94	Course:	S 77° 01'

Curve Point Data

Description	Station	Northing	Easting
PC:	130+92.03	271946.64	359168.75
PI:	135+31.08	271848.01	359596.57
PT:	139+66.38	271847.93	360035.63

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	12° 58' 17.91"	Type:	Left
Radius:	3862.00		
Length:	874.35	Tangent:	439.05
Mid-Ord:	24.72	External:	24.88
Chord:	872.48	Course:	S 83° 30'

Tangent Data

Description	PT Station	Northing	Easting
Start:	139+66.38	271847.93	360035.63
End:	146+80.68	271847.79	360749.93

Tangent Data

Parameter	Value	Parameter	Value
Length:	714.30	Course:	S 89° 59'

DATE 26OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7080-00-74 QUANTITY	7080-03-74 QUANTITY
0010	203.0200	Removing Old Structure (station) 01. 51+12.00 'EB'	LS	1.000		1.000
0020	204.0100	Removing Pavement	SY	455.000	145.000	310.000
0030	204.0105	Removing Pavement Butt Joints	SY	915.000		915.000
0040	204.0109.S	Removing Concrete Surface Partial Depth	SF	540,330.000		540,330.000
0050	204.0115	Removing Asphaltic Surface Butt Joints	SY	4,600.000		4,600.000
0060	204.0120	Removing Asphaltic Surface Milling	SY	20,485.000		20,485.000
0070	204.0150	Removing Curb & Gutter	LF	807.000	330.000	477.000
0080	204.0165	Removing Guardrail	LF	75.000		75.000
0090	204.0170	Removing Fence	LF	293.000		293.000
0100	204.9165.S	Removing (item description) 01. Concrete Loading Zone	SF	2,073.000		2,073.000
0110	204.9165.S	Removing (item description) 02. Concrete Median Sloped Nose	SF	315.000		315.000
0120	205.0100	Excavation Common	CY	1,059.000	210.000	849.000
0130	208.0100	Borrow	CY	83.000	83.000	
0140	211.0200	Prepare Foundation for Concrete Pavement (project) 01. 7080-03-74	LS	1.000		1.000
0150	211.0200	Prepare Foundation for Concrete Pavement (project) 02. 7080-00-74	LS	1.000	1.000	
0160	213.0100	Finishing Roadway (project) 01. 7080-03-74	EACH	1.000		1.000
0170	213.0100	Finishing Roadway (project) 02. 7080-00-74	EACH	1.000	1.000	
0180	305.0110	Base Aggregate Dense 3/4-Inch	TON	470.000		470.000
0190	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,690.000	355.000	1,335.000
0200	416.0610	Drilled Tie Bars	EACH	1,147.000	234.000	913.000
0210	416.0620	Drilled Dowel Bars	EACH	73.000	20.000	53.000
0220	440.4410	Incentive IRI Ride	DOL	15,900.000		15,900.000
0230	455.0605	Tack Coat	GAL	5,250.000	30.000	5,220.000
0240	460.2000	Incentive Density HMA Pavement	DOL	6,370.000	80.000	6,290.000
0250	465.0110	Asphaltic Surface Patching	TON	50.000		50.000
0260	465.0400	Asphaltic Shoulder Rumble Strips	LF	275.000	275.000	
0270	502.0100	Concrete Masonry Bridges	CY	33.000		33.000
0280	502.3100	Expansion Device (structure) 01. B-18-113	LS	1.000		1.000
0290	502.3200	Protective Surface Treatment	SY	329.000		329.000
0300	502.5005	Masonry Anchors Type L No. 5 Bars	EACH	40.000		40.000
0310	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	2,270.000		2,270.000
0320	509.0301	Preparation Decks Type 1	SY	2.000		2.000
0330	509.0500	Cleaning Decks	SY	329.000		329.000
0340	509.1000	Joint Repair	SY	18.000		18.000
0350	509.2500	Concrete Masonry Overlay Decks	CY	11.000		11.000
0360	601.0555	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A	LF	157.000		157.000
0370	602.0415	Concrete Sidewalk 6-Inch	SF	2,510.000	2,510.000	
0380	602.1000	Concrete Loading Zone	SF	2,075.000		2,075.000
0390	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	22.000		22.000
0400	611.0430	Reconstructing Inlets	EACH	2.000		2.000
0410	611.0530	Manhole Covers Type J	EACH	1.000		1.000
0420	611.0624	Inlet Covers Type H	EACH	1.000		1.000
0430	611.3230	Inlets 2x3-FT	EACH	1.000		1.000
0440	614.0220	Steel Thrie Beam Bullnose Terminal	EACH	2.000		2.000
0450	614.0230	Steel Thrie Beam	LF	75.000		75.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7080-00-74 QUANTITY	7080-03-74 QUANTITY
0460	614.2300	MGS Guardrail 3	LF	325.000		325.000
0470	614.2500	MGS Thrie Beam Transition	LF	39.400		39.400
0480	614.2610	MGS Guardrail Terminal EAT	EACH	2.000		2.000
0490	614.2620	MGS Guardrail Terminal Type 2	EACH	1.000		1.000
0500	616.0205	Fence Chain Link 5-FT	LF	293.000		293.000
0510	619.1000	Mobilization	EACH	1.000	0.050	0.950
0520	620.0300	Concrete Median Sloped Nose	SF	510.000	195.000	315.000
0530	624.0100	Water	MGAL	43.000	7.000	36.000
0540	625.0500	Salvaged Topsoil	SY	1,870.000	205.000	1,665.000
0550	627.0200	Mulching	SY	2,549.000	307.000	2,242.000
0560	628.1504	Silt Fence	LF	1,200.000	100.000	1,100.000
0570	628.1520	Silt Fence Maintenance	LF	2,400.000	200.000	2,200.000
0580	628.1905	Mobilizations Erosion Control	EACH	4.000	1.000	3.000
0590	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	1.000	3.000
0600	628.7005	Inlet Protection Type A	EACH	75.000		75.000
0610	628.7015	Inlet Protection Type C	EACH	75.000		75.000
0620	629.0210	Fertilizer Type B	CWT	1.600	0.200	1.400
0630	630.0120	Seeding Mixture No. 20	LB	71.000	9.000	62.000
0640	630.0200	Seeding Temporary	LB	71.000	9.000	62.000
0650	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	33.000		33.000
0660	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	48.000		48.000
0670	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	10.000		10.000
0680	637.2210	Signs Type II Reflective H	SF	1,033.850		1,033.850
0690	637.2215	Signs Type II Reflective H Folding	SF	42.480		42.480
0700	637.2230	Signs Type II Reflective F	SF	167.000		167.000
0710	638.2602	Removing Signs Type II	EACH	100.000		100.000
0720	638.3000	Removing Small Sign Supports	EACH	85.000		85.000
0730	642.5001	Field Office Type B	EACH	1.000	1.000	
0740	643.0100	Traffic Control (project) 01. 7080-03-74	EACH	1.000		1.000
0750	643.0100	Traffic Control (project) 02. 7080-00-74	EACH	1.000	1.000	
0760	643.0300	Traffic Control Drums	DAY	63,050.000	5,000.000	58,050.000
0770	643.0420	Traffic Control Barricades Type III	DAY	2,600.000	400.000	2,200.000
0780	643.0705	Traffic Control Warning Lights Type A	DAY	5,200.000	800.000	4,400.000
0790	643.0715	Traffic Control Warning Lights Type C	DAY	1,900.000		1,900.000
0800	643.0800	Traffic Control Arrow Boards	DAY	200.000		200.000
0810	643.0900	Traffic Control Signs	DAY	10,800.000	900.000	9,900.000
0820	643.0920	Traffic Control Covering Signs Type II	EACH	4.000		4.000
0830	643.1050	Traffic Control Signs PCMS	DAY	200.000		200.000
0840	646.0106	Pavement Marking Epoxy 4-Inch	LF	29,394.000		29,394.000
0850	646.0126	Pavement Marking Epoxy 8-Inch	LF	2,510.000		2,510.000
0860	646.0136	Pavement Marking Epoxy 12-Inch	LF	206.000		206.000
0870	646.0600	Removing Pavement Markings	LF	1,456.000		1,456.000
0880	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	8.000		8.000
0890	647.0356	Pavement Marking Words Epoxy	EACH	7.000		7.000
0900	647.0456	Pavement Marking Curb Epoxy	LF	365.000	40.000	325.000
0910	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	322.000		322.000
0920	647.0606	Pavement Marking Island Nose Epoxy	EACH	30.000	4.000	26.000
0930	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	480.000		480.000
0940	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	29,800.000		29,800.000
0950	650.4000	Construction Staking Storm Sewer	EACH	1.000		1.000
0960	650.5000	Construction Staking Base	LF	64.000	64.000	

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7080-00-74 QUANTITY	7080-03-74 QUANTITY
0970	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	223.000	170.000	53.000
0980	650.7000	Construction Staking Concrete Pavement	LF	575.000	355.000	220.000
0990	650.8500	Construction Staking Electrical Installations (project) 01. 7080-03-74	LS	1.000		1.000
1000	650.9910	Construction Staking Supplemental Control (project) 01. 7080-03-74	LS	1.000		1.000
1010	650.9910	Construction Staking Supplemental Control (project) 02. 7080-00-74	LS	1.000	1.000	
1020	650.9920	Construction Staking Slope Stakes	LF	1,722.000	332.000	1,390.000
1030	652.0800	Conduit Loop Detector	LF	807.000		807.000
1040	652.0900	Loop Detector Slots	LF	643.000		643.000
1050	653.0900	Adjusting Pull Boxes	EACH	9.000		9.000
1060	655.0800	Loop Detector Wire	LF	2,980.000		2,980.000
1070	690.0150	Sawing Asphalt	LF	175.000	80.000	95.000
1080	690.0250	Sawing Concrete	LF	1,270.000	490.000	780.000
1090	715.0415	Incentive Strength Concrete Pavement	DOL	1,000.000	500.000	500.000
1100	715.0502	Incentive Strength Concrete Structures	DOL	500.000		500.000
1110	ASP.1T0A	On-the-Job Training Apprentice at $5. 00/HR	HRS	2,000.000		2,000.000
1120	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	630.000		630.000
1130	SPV.0035	Special 01. Concrete Masonry Deck Patching	CY	1.000		1.000
1140	SPV.0045	Special 01. Portable Changeable Message Sign (PCMS) Cellular Communications	DAY	100.000		100.000
1150	SPV.0090	Special 01. Concrete Curb & Gutter 30-Inch Type A Special	LF	483.000	5.000	478.000
1160	SPV.0090	Special 02. Concrete Curb & Gutter 30-Inch Type D Special	LF	105.000	105.000	
1170	SPV.0090	Special 03. Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A Special	LF	420.000	420.000	
1180	SPV.0090	Special 04. Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A Special	LF	65.000		65.000
1190	SPV.0090	Special 05. Concrete Curb & Gutter Cure And Seal Treatment	LF	1,295.000	595.000	700.000
1200	SPV.0090	Special 06. Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D Special	LF	65.000	65.000	
1210	SPV.0105	Special 01. Preparation Of Foundation For Asphaltic Paving Special	LS	1.000		1.000
1220	SPV.0105	Special 02. Salvage Loop Detector Wire, USH 12 & 10th Street	LS	1.000		1.000
1230	SPV.0105	Special 03. Salvage Loop Detector Wire, USH 12 & 3rd Street	LS	1.000		1.000
1240	SPV.0105	Special 04. Construction Staking Concrete Pavement Joint Layout Project 7080-03-74	LS	1.000		1.000
1250	SPV.0105	Special 05. Construction Staking Concrete Pavement Joint Layout Project 7080-00-74	LS	1.000	1.000	
1260	SPV.0105	Special 06. Milling and Removing Temporary Joint	LS	1.000		1.000
1270	SPV.0165	Special 01. Concrete Sidewalk Cure And Seal Treatment	SF	2,510.000	2,510.000	
1280	SPV.0165	Special 02. Concrete Loading Zone Cure And Seal Treatment	SF	2,075.000		2,075.000
1290	SPV.0165	Special 03. Concrete Median Sloped Nose Cure And Seal Treatment	SF	510.000	195.000	315.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7080-00-74 QUANTITY	7080-03-74 QUANTITY
1300	SPV.0170	Special 01. Reheating HMA Pavement Longitudinal Joints Special	STA	208.000		208.000
1310	SPV.0180	Special 01. Concrete Pavement HES 6 1/2-Inch	SY	1,490.000	175.000	1,315.000
1320	SPV.0180	Special 02. Concrete Pavement HES 5-Inch	SY	210.000		210.000
1330	SPV.0195	Special 01. HMA Pavement Type E-0.3 Special	TON	3,255.000	115.000	3,140.000
1340	SPV.0195	Special 02. HMA Pavement Type E-10 Special	TON	11,615.000		11,615.000

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REMOVALS (PROJECT 7080-03-74)

STATION	LOCATION	204.0100* REMOVING PAVEMENT SY	204.0105 REMOVING PAVEMENT BUTT JOINTS SY	204.0109.S REMOVING CONCRETE SURFACE PARTIAL DEPTH SF	204.0170 REMOVING FENCE LF	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0150 REMOVING CURB & GUTTER LF	204.0165 REMOVING GUARDRAIL LF	204.9165.S.01 REMOVING CONCRETE LOADING ZONE SF	204.9165.S.02 REMOVING CONCRETE MEDIAN SLOPED NOSE SF	REMARKS
USH 12												
48+80 - 50+37	EB & WB			980								MAINLINE
48+80 - 50+37	WB	250										TURN LANE EXTENSION
49+64- 50+14	WB				50							
51+87 - 52+87	EB & WB		615									MAINLINE
51+87 - 52+50	WB	60										TURN LANE EXTENSION
52+10 - 52+60	WB				50							
52+87 - 141+36	EB & WB			530650								MAINLINE
54+35 - 55+45	WB RT							110				MAINLINE
56+20 58+50	EB LT							230				MAINLINE
62+00 - 62+75	EB LT							75				MAINLINE
62+94 - 65+51	EB LT									1380		SAFETY ISLAND
65+97 - 67+24	WB RT									625		SAFETY ISLAND
66+12	EB LT										65	MEDIAN
80+80 - 80+90	EB LT							10				MAINLINE
84+87 - 158+50	EB & WB						7400					SHOULDERS
92+90 - 93+65	EB RT								75			MAINLINE
110+03	WB RT										60	MEDIAN
110+07 - 110+19	EB LT									68		SAFETY ISLAND
110+89	EB LT										60	MEDIAN
120+65	WB RT										65	MEDIAN
121+31	EB LT										65	MEDIAN
141+36 - 157+50	EB & WB						6630					MAINLINE
157+50 - 158+50	EB & WB					270						MAINLINE
10TH ST.	LT & RT		300	8700		320	1500					SIDE ROAD & TURN LANE
MCCANN DR	LT & RT					380	1200					SIDE ROAD & TURN LANE
HILLCREST PARKWAY	LT					505	475					SIDE ROAD
3RD ST.	LT & RT					1055	1050					SIDE ROAD
NOTTINGHAM WAY	LT & RT					880	880	30				SIDE ROAD
WINCHESTER WAY	LT & RT					1190	1350	22				SIDE ROAD
ITEM TOTALS		310	915	540330	100	4600	20485	477	75	2073	315	

REMOVALS (PROJECT 7080-00-74)

STATION	LOCATION	204.0100* REMOVING PAVEMENT SY	204.0105 REMOVING PAVEMENT BUTT JOINTS SY	204.0109.S REMOVING CONCRETE SURFACE PARTIAL DEPTH SF	204.0170 REMOVING FENCE LF	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0150 REMOVING CURB & GUTTER LF	204.0165 REMOVING GUARDRAIL LF	204.9165.S.01 REMOVING CONCRETE LOADING ZONE SF	204.9165.S.02 REMOVING CONCRETE MEDIAN SLOPED NOSE SF	REMARKS
USH 12												
83+61 - 83+66	WB RT							5				MAINLINE
84+05 - 84+40	WB	145										MEDIAN EXTENSION
84+40 - 87+60	WB							325				MEDIAN EXTENSION
ITEM TOTALS		145	0	0		0	0	330	0	0	0	

PREPARE FOUNDATION FOR CONCRETE PAVEMENT (7080-03-74)

STATION	LOCATION	211.0200.01 LS
USH 12	LT & RT	1
ITEM TOTAL		1

PREPARE FOUNDATION FOR CONCRETE PAVEMENT (7080-00-74)

STATION	LOCATION	211.0200.02 LS
MCCANN DR	LT & RT	1
ITEM TOTAL		1

FINISHING ROADWAY (PROJECT 7080-03-74)

STATION	LOCATION	213.0100.01 EACH
USH 12	LT & RT	1
ITEM TOTAL		1

FINISHING ROADWAY (PROJECT 7080-00-74)

STATION	LOCATION	213.0100.02 EACH
MCCANN DR	LT & RT	1
ITEM TOTAL		1

BASE AGGREGATE DENSE (PROJECT 7080-03-74)

STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	624.0100 WATER MGAL	REMARKS
USH 12					
48+80 - 50+36	WB		95	2	TURN LANE EXTENSION
51+86 - 52+50	WB		25	1	TURN LANE EXTENSION
84+87 - 158+50	EB & WB	470		9	SHOULDER
115+31 - 120+60			555	11	TURN LANE EXTENSION
130+81 - 137+22			660	13	TURN LANE EXTENSION
ITEM TOTALS		470	1335	36	

BASE AGGREGATE DENSE (PROJECT 7080-00-74)

STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	624.0100 WATER MGAL	REMARKS
USH 12					
84+05 - 87+60	WB		190	4	MEDIAN EXTENSION
MCCANN DR	RT		165	3	INTERSECTION
ITEM TOTALS		0	355	7	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED

EXCAVATION (PROJECT 7080-03-74)

STATION	LOCATION	205.0100 COMMON CY	AIR FILL CY	*EXPANDED FILL CY	WASTE CY	REMARKS
USH 12						
48+80 - 52+50	LT & RT	149	0	0	149	TURN LANE EXTENSION
90+50 - 93+72	LT & RT	68	0	0	68	GUARDRAIL GRADING
114+94 - 120+21	LT & RT	286	49	64	222	TURN LANE EXTENSION
130+81 - 136+91	LT & RT	346	99	129	217	TURN LANE EXTENSION
ITEM TOTALS		849	148	193	656	

EXCAVATION (PROJECT 7080-00-74)

STATION	LOCATION	205.0100 COMMON CY	AIR FILL CY	*EXPANDED FILL CY	208.0100 BORROW CY	REMARKS
USH 12						
MCCANN DR	LT & RT	210	187	243	83	INTERSECTION
ITEM TOTALS		210	187	243	83	

NOTES:
1) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN COMMON EXCAVATION.
2) FILL DOES NOT INCLUDE UNUSABLE PAVEMENT EXCAVATION VOLUME.
3) FILL WILL BE BACKFILLED WITH CUT OR BORROW.
4) POSITIVE BORROW INDICATES A SHORTAGE OF MATERIAL.
5) EXPANSION FACTOR = 1.3

ASPHALTIC PAVEMENT ITEMS (PROJECT 7080-03-74)

STATION	LOCATION	455.0605 TACK COAT GAL	465.0110 ASPHALTIC SURFACE PATCHING TON	SPV.0170.01 REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL STA	SPV.0195.01 HMA PAVEMENT TYPE E-0.3 SPECIAL TON	SPV.0195.02 HMA PAVEMENT TYPE E-10 SPECIAL TON	REMARKS
USH 12							
48+80 - 158+50	EB & WB	4075		208		11400	MAINLINE
84+77 - 158+50	EB & WB	675			1890		SHOULDERS
115+31 - 120+60	EB	40				105	TURN LANE EXTENSION
130+81 - 137+22	EB	40				110	TURN LANE EXTENSION
10TH ST.	LT & RT	150			415		SIDE ROAD & TURN LANE
MCCANN DR	LT & RT	75			205		SIDE ROAD & TURN LANE
HILLCREST PARKWAY	LT	30			80		SIDE ROAD
3RD ST.	LT & RT	65			180		SIDE ROAD
NOTTINGHAM WAY	LT & RT	55			150		SIDE ROAD
WINCHESTER WAY	LT & RT	15			220		SIDE ROAD
UNDISTRIBUTED			50				PATCHING FOR DETERIORATED JOINTS & CRACK
ITEM TOTALS		5220	50	208	3140	11615	

ASPHALTIC PAVEMENT ITEMS (PROJECT 7080-00-74)

STATION	LOCATION	455.0605 TACK COAT GAL	465.0110 ASPHALTIC SURFACE PATCHING TON	SPV.0170.01 REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL STA	SPV.0195.01 HMA PAVEMENT TYPE E-0.3 SPECIAL TON	460.1101 HMA PAVEMENT TYPE E-10 SPECIAL TON	REMARKS
USH 12							
84+01 - 87+55	LT	15			45		
MCCANN DR	LT	15			70		INTERSECTION
ITEM TOTALS		30	0	0	115	0	

CONCRETE PAVEMENT (PROJECT 7080-03-74)

STATION	LOCATION	416.0610* DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	SPV.0180.01 CONCRETE PAVEMENT HES 6 1/2-INCH SY	SPV.0180.02 CONCRETE PAVEMENT HES 5-INCH SY	REMARKS
USH 12						
48+80 - 50+36	WB	78	22		210	TURN LANE EXTENSION
51+86 - 52+50	WB	32	11	45		TURN LANE EXTENSION
115+31 - 120+60	EB	220	20	616		TURN LANE EXTENSION
130+81 - 137+22	EB	262		654		TURN LANE EXTENSION
ITEM TOTALS		592	53	1315	210	

CONCRETE PAVEMENT (PROJECT 7080-00-74)

STATION	LOCATION	416.0610* DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	SPV.0180.01 CONCRETE PAVEMENT HES 6 1/2-INCH SY	SPV.0180.02 CONCRETE PAVEMENT HES 5-INCH SY	REMARKS
USH 12						
84+05 - 87+60	WB	178	20	175		MEDIAN EXTENSION
ITEM TOTALS		178	20	175	0	

*ITEM LOCATED ELSEWHERE IN PLANS

ASPHALTIC SHOULDER RUMBLE STRIP (PROJECT 7080-00-74)

STATION	LOCATION	465.0400 LF	REMARKS
USH 12			
84+25 - 87+00	WB	275	MEDIAN EXTENSION
ITEM TOTALS		275	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED

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CONCRETE CURB & GUTTER (PROJECT 7080-03-74)

STATION	LOCATION	416.0610* DRILLED TIE BARS EACH	601.0555 6-INCH SLOPED 36-INCH TYPE A LF	SPV.0090.01 30-INCH TYPE A SPECIAL LF	SPV.0090.02 30-INCH TYPE D SPECIAL LF	SPV.0090.03 4-INCH SLOPED 36-INCH TYPE A SPECIAL LF	SPV.0090.04 6-INCH SLOPED 36-INCH TYPE A SPECIAL LF	SPV.0090.06 6-INCH SLOPED 36-INCH TYPE D SPECIAL LF	SPV.0090.05 CURE AND SEAL TREATMENT LF	REMARKS
USH 12										
48+80 - 50+36	WB RT		157						157	TURN LANE EXTENSION
51+86 - 52+50	WB RT						65		65	TURN LANE EXTENSION
54+35 - 55+45	WB RT	35		110					110	
56+20 58+50	EB LT	75		230					230	
62+00 - 62+75	EB LT	25		75					75	
80+80 - 80+90	EB LT	3		10					10	MAINLINE
120+31 - 120+60	EB RT			31					31	TURN LANE EXTENSION
137+01 - 137+22	EB RT			22					22	TURN LANE EXTENSION
ITEM TOTALS		138	157	478	0	0	65	0	700	

CONCRETE CURB & GUTTER (PROJECT 7080-00-74)

STATION	LOCATION	416.0610* DRILLED TIE BARS EACH	601.0555 6-INCH SLOPED 36-INCH TYPE A LF	SPV.0090.01 30-INCH TYPE A SPECIAL LF	SPV.0090.02 30-INCH TYPE D SPECIAL LF	SPV.0090.03 4-INCH SLOPED 36-INCH TYPE A SPECIAL LF	SPV.0090.04 6-INCH SLOPED 36-INCH TYPE A SPECIAL LF	SPV.0090.06 6-INCH SLOPED 36-INCH TYPE D SPECIAL LF	SPV.0090.05 CURE AND SEAL TREATMENT LF	REMARKS
USH 12										
83+61 - 83+66	WB RT	21		5					5	
84+12 - 87+60	WB	25				420			420	MEDIAN EXTENSION
MCCANN DR	RT				105			65	170	INTERSECTION & ISLAND
ITEM TOTALS		46	0	5	105	420	0	65	595	

*ITEM LOCATED ELSEWHERE IN PLANS

STORM SEWER STRUCTURE ITEMS (PROJECT 7080-03-74)

STRUCTURE NUMBER	STATION	LOCATION	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	611.0430 RECONSTRUCTING INLETS EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0624 INLET COVERS TYPE H EACH	611.3230 INLETS 2X3-FT EACH	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH
USH 12										
1	50+02.15	WB RT		1	1					
P1	50+02.15 - 50+07.72	WB RT	13							
1A	50+07.72	WB RT				1	1			1
P2	50+07.72 - 50+11.57	WB RT	9							
1B	50+11.57	EB LT		1						
UNDISTRIBUTED								75	75	
ITEM TOTALS			22	2	1	1	1	75	75	1

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED

CONCRETE SIDEWALK 6-INCH (PROJECT 7080-00-74)

STATION	LOCATION	602.0415 SF	SPV.0165.01 CURE AND SEAL TREATMENT SF	REMARKS
USH 12				
84+13 - 87+60	WB	2400	2400	MEDIAN EXTENSION
MCCANN DR	RT	110	110	ISLAND
ITEM TOTALS		2510	2510	

MEDIAN ITEMS (PROJECT 7080-03-74)

STATION	LOCATION	416.0610* DRILLED TIE BARS EACH	602.1000 CONCRETE LOADING ZONE SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	SPV.0165.02 CONCRETE LOADING ZONE CURE AND SEAL TREATMENT SF	SPV.0165.03 CONCRETE MEDIAN SLOPED NOSE CURE AND SEAL TREATMENT SF
USH 12						
62+94 - 65+51	EB LT	100	1380		1380	
65+97 - 67+24	WB RT	50	625		625	
66+12	EB LT	5		65		65
110+03	WB RT	5		60		60
110+07 - 110+19	EB LT	8	70		70	
110+89	EB LT	5		60		60
120+65	WB RT	5		65		65
121+31	EB LT	5		65		65
ITEM TOTALS		183	2075	315	2075	315

MEDIAN ITEMS (PROJECT 7080-00-74)

STATION	LOCATION	416.0610* DRILLED TIE BARS EACH	602.1000 CONCRETE LOADING ZONE SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	SPV.0165.02 CONCRETE LOADING ZONE CURE AND SEAL TREATMENT SF	SPV.0165.03 CONCRETE MEDIAN SLOPED NOSE CURE AND SEAL TREATMENT SF
USH 12						
83+70	WB RT	5		75		75
84+15	EB LT	5		62		62
MCCANN CRIVE						
399+21.77	RT			38		38
399+42.14	RT			20		20
ITEM TOTALS		10	0	195	0	195

*ITEM LOCATED ELSEWHERE IN PLANS

GUARDRAIL (PROJECT 7080-03-74)

STATION	LOCATION	614.0220 STEEL THRIE BEAM BULLNOSE TERMINAL EACH	614.0230 STEEL THRIE BEAM LF	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH	616.0205 FENCE CHAIN LINK 5-FT LF
USH 12								
49+64 - 50+14	WB LT							50
52+37.75 - 52+91.25	EB LT	1						
52+91.25 - 53+28.75	EB LT		75					
53+28.75 - 53+82.00	EB LT	1						
52+10 - 52+60	WB LT							50
52+16.76 - 52+56.26	WB LT				39.4			
52+56.26 - 54+06.63	WB LT			150				
54+06.63 - 54+59.72	WB LT					1		
91+41.53 - 91+94.92	EB RT					1		
91+94.92 - 93+70.90	EB RT			175				
93+70.90	EB RT						1	
ITEM TOTALS		2	75	325	39.4	2	1	100

3

3

MOBILIZATION (7080-03-74)

STATION	619.1000 EACH
USH 12	
CATEGORY 0010	
40+80.09 - 158+50	0.9
CATEGORY 0020	
50+36.66 - 51+87.34	0.05
ITEM TOTAL	0.95

MOBILIZATION (7080-00-74)

STATION	619.1000 EACH
MCCANN DR	0.05
ITEM TOTAL	0.05

EROSION CONTROL ITEMS (PROJECT 7080-03-74)

STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
USH 12			
115+31 - 120+60	EB RT	550	1100
130+81 - 137+22	EB RT	550	1100
ITEM TOTALS		1100	2200

EROSION CONTROL ITEMS (PROJECT 7080-00-74)

STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
MCCANN DR	RT	100	200
ITEM TOTALS		100	200

MOBILIZATIONS EROSION CONTROL (PROJECT 7080-03-74)

STATION	628.1905 EROSION CONTROL EACH	628.1910 EMERGENCY EROSION CONTROL EACH
USH 12	3	3
ITEM TOTALS	3	3

MOBILIZATIONS EROSION CONTROL (PROJECT 7080-00-74)

STATION	628.1905 EROSION CONTROL EACH	628.1910 EMERGENCY EROSION CONTROL EACH
MCCANN DR	1	1
ITEM TOTALS	1	1

SALVAGED TOPSOIL, MULCHING AND SEEDING (PROJECT 7080-03-74)

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 TEMPORARY SEEDING LB
USH 12						
48+80 - 50+36	WB RT	60	105	0.1	3	3
51+86 - 52+51	WB RT	25	44	0.1	1	1
52+17 - 54+60	WB LT	121	189	0.1	5	5
52+37 - 53+83	EB LT	282	322	0.2	9	9
90+60 - 93+72	EB RT	121	209	0.1	6	6
114+94 - 120+21	EB RT	360	507	0.3	14	14
130+81 - 136+91	EB RT	696	866	0.5	24	24
ITEM TOTALS		1665	2242	1.4	62	62

SALVAGED TOPSOIL, MULCHING AND SEEDING (PROJECT 7080-00-74)

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 TEMPORARY SEEDING LB
USH 12						
84+89 - 87+61	WB RT	105	182	0.1	5	5
MCCANN DR						
398+86 - 399+50	RT	100	125	0.1	4	4
ITEM TOTALS		205	307	0.2	9	9

PERMANENT SIGNING (PROJECT 7080-03-74)

SIGN GROUP CODE	SIGN CODE	MESSAGE	SIGN SIZE W X H (INCHES)	634.0614 POSTS WOOD 4X6-INCH 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH 16-FT EACH	634.0618 POSTS WOOD 4X6-INCH 18-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENTS
1-1	W5-52R	CLEARANCE STRIPER DOWN LEFT	18 X 54	1					6.75	1	1	
1-2	W3-3	SIGNAL AHEAD	36 X 36						9.00	1		BAND TO SIGN BRIDGE
1-3	J1-1	JCT USH 53	36 X 57		1		14.25			1	1	
1-4	R4-7	KEEP RIGHT	36 X 48		1		12.00			1	1	
1-5	R5-1	DO NOT ENTER	36 X 36			1	9.00			1	1	
1-6	R6-2L	ONE WAY LEFT	36 X 48				12.00					ON 1-5 POST
1-7	W3-3	SIGNAL AHEAD	36 X 36		1				9.00	1	1	
1-8	R2-1	SPEED LIMIT 45	36 X 48				12.00			1		BAND TO POST
1-9	W5-52R	CLEARANCE STRIPER	18 X 54	1					6.75	1	1	
1-10	W3-3	SIGNAL AHEAD	36 X 36						9.00	1		BAND TO SIGN BRIDGE
1-11	R6-2L	ONE WAY LEFT	36 X 48			1	12.00			1	1	
1-12	R5-1	DO NOT ENTER	36 X 36				9.00					ON 1-11 POST
1-13	R4-7	KEEP RIGHT	36 X 48		1		12.00			1	1	
1-14	I2-3	ALTOONA POPULATION 6706	60 X 24	2			10.00			1	2	
1-15	M1-94	TENTH ST	54 X 24	2			9.00			1	2	
1-16	W3-3	SIGNAL AHEAD	36 X 36		1				9.00	1	1	
1-17	J4-1	WEST STH 12	36 X 54		1		13.50			1	1	
1-18	R1-1F	FOLDING STOP	36 X 36					7.46		1		BAND TO POST
1-19	R6-3	DIVIDED HIGHWAY CROSSING	30 X 24				5.00					BAND TO POST
1-20	R1-1F	FOLDING STOP	36 X 36					7.46		1		BAND TO POST
1-21	R5-1	DO NOT ENTER	36 X 36				9.00					BAND TO POST
1-22	R6-2L	ONE WAY LEFT	36 X 48				12.00			1		BAND TO POST
1-23	R5-1A	WRONG WAY	42 X 30	1			8.75			1	1	
1-24	W3-3	SIGNAL AHEAD	36 X 36		1				9.00	1	1	
1-25	W3-3	SIGNAL AHEAD	36 X 36		1				9.00	1	1	
1-26	M1-94	TENTH ST	54 X 24	2			9.00			1	2	
1-27	S3-1	STOP FOR SCHOOL BUS	36 X 36		1		9.00			1	1	
1-28	R5-1A	WRONG WAY	42 X 30				8.75					ON 1-27 POST
1-29	R4-7	KEEP RIGHT	36 X 48				12.00			1		BAND TO POST
1-30	R6-2L	ONE WAY LEFT	36 X 48				12.00			1		BAND TO POST
1-31	R5-1	DO NOT ENTER	36 X 36				9.00					BAND TO POST
1-32	R1-1F	FOLDING STOP	36 X 36					7.46		1		BAND TO POST
1-33	R6-3	DIVIDED HIGHWAY CROSSING	30 X 24				5.00			1		BAND TO POST
1-34	R3-4	NO U-TURN SYMBOL	36 X 36				9.00			1		BAND TO POST
1-35	R4-7	KEEP RIGHT	36 X 48				12.00					BAND TO POST
1-36	J4-1	EAST STH 12	36 X 54		1		13.50			1	1	
1-37	R2-1	SPEED LIMIT 45	36 X 48		1		12.00			1	1	
SHEET SUBTOTALS				9	11	2	270.75	22.38	68	30	22	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED

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PERMANENT SIGNING CONTINUED (PROJECT 7080-03-74)

SIGN GROUP CODE	SIGN CODE	MESSAGE	SIGN SIZE W X H (INCHES	634.0614 POSTS WOOD 4X6-INCH 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH 16-FT EACH	634.0618 POSTS WOOD 4X6-INCH 18-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENTS
2-1	R2-1	SPEED LIMIT 45	36 X 48		1		12.00			1	1	
2-2	R6-2R	ONE WAY RIGHT										EXISTING TO REMAIN
2-3	R4-7	KEEP RIGHT	36 X 48		1		12.00			1	1	
2-4	R1-1	STOP	36 X 36		1		7.46			1	1	
2-5	R6-1R	ONE WAY RIGHT	36 X 12				3.00					ON 2-4 POST
2-6	R3-50R	RIGHT TURN ONLY										EXISTING TO REMAIN
2-7	R3-2	NO LEFT TURN SYMBOL	24 X 24	1			4.00			1	1	
2-8	R5-1	DO NOT ENTER	36 X 36		1		9.00			1	1	
2-9	R6-2R	ONE WAY RIGHT	36 X 48				12.00					ON 2-8 POST
2-10	R4-7	KEEP RIGHT	36 X 48		1		12.00			1	1	
2-11	R5-1A	WRONG WAY	42 X 30	1			8.75			1	1	
2-12	M1-94	McCANN DR	78 X 30	2			16.25			1	2	
2-13	M1-94	McCANN DR	78 X 30	2			16.25			1	2	
2-14	R2-1	SPEED LIMIT 55	36 X 48		1		12.00			1	1	
2-15	R5-1A	WRONG WAY	42 X 30				8.75					ON 2-9 POST
2-16	R6-2L	ONE WAY LEFT								1	1	REMOVE
2-17	R5-1	DO NOT ENTER	36 X 36		1		9.00					
2-18	W12-1D	DOUBLE DOWN ARROW										EXISTING TO REMAIN
2-19	R6-1R	ONE WAY RIGHT										EXISTING TO REMAIN
2-20	R1-1	STOP										EXISTING TO REMAIN
2-21	I55-56	ADOPT A HIGHWAY AYRES ASSOCIATES										EXISTING TO REMAIN
2-22	W3-5	SPEED REDUCTION AHEAD 45 MPH	36 X 36		1				9.00	1	1	
2-23	R1-1	STOP	36 X 36		1		7.46			1	1	
2-24	R6-3	DIVIDED HIGHWAY CROSSING	30 X 24				5.00					ON 2-16 POST
2-25	R5-1	DO NOT ENTER	36 X 36			1	9.00			1	1	
2-26	R6-2L	ONE WAY LEFT										REMOVE
2-27	R5-1A	WRONG WAY	42 X 30	1			8.75			1	1	
2-28	R5-1A	WRONG WAY	42 X 30	1			8.75			1	1	
2-29	R6-2L	ONE WAY LEFT	36 X 48			1	12.00			1	1	
2-30	R5-1	DO NOT ENTER	36 X 36				9.00					ON 2-22 POST
2-31	R4-7	KEEP RIGHT	36 X 48		1		12.00			1	1	
2-32	M1-94	THIRD ST	66 X 30	2			13.75			1		
2-33	J1-1	JCT CTH A	36 X 57			1	14.25			1	1	
2-34	W3-3	SIGNAL AHEAD	36 X 36		1				9.00	1	1	
2-35	W3-3	SIGNAL AHEAD	36 X 36		1				9.00	1	1	
SHEET SUBTOTALS				10	12	3	242.42	0.00	27	22	23	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED

PERMANENT SIGNING CONTINUED (PROJECT 7080-03-74)

SIGN GROUP CODE	SIGN CODE	MESSAGE	SIGN SIZE W X H (INCHES	634.0614 POSTS WOOD 4X6-INCH 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH 16-FT EACH	634.0618 POSTS WOOD 4X6-INCH 18-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENTS
3-1	I55-56	ADOPT A HIGHWAY AYRES ASSOCIATES										EXISTING TO REMAIN
3-2	J4-1	WEST STH 12	36 X 54		1		13.50			1	1	
3-3	R4-7	KEEP RIGHT	36 X 48				12.00			1		BAND TO POST
3-4	R1-1F	FOLDING STOP	36 X 36					7.46		1		BAND TO POST
3-5	R1-1F	FOLDING STOP	36 X 36					7.46		1		BAND TO POST
3-6	R6-3	DIVIDED HIGHWAY CROSSING	30 X 24				5.00					BAND TO POST
3-7	R5-1	DO NOT ENTER	36 X 36				9.00			1		BAND TO POST
3-8	R6-2L	ONE WAY LEFT	36 X 48				12.00					BAND TO POST
3-9	R3-55L	LEFT TURN LANE	36 X 48	1			12.00			1	1	
3-10	R5-1A	WRONG WAY	42 X 30				8.75			1		BAND TO POST
3-11	J13-1	CTH A RA	36 X 66		1		16.50			1	1	
3-12	D1-53	ALTOONA ARROW	78 X 21	2			11.38			1	2	
3-13	J1-1	JCT CTH A	36 X 57		1		14.25			1	1	
3-14	J13-1	CTH A LA	36 X 66		1		16.50			1	1	
3-15	R5-1A	WRONG WAY	42 X 30	1			8.75			1	1	
3-16	R6-2L	ONE WAY LEFT	36 X 48				12.00			1		BAND TO POST
3-17	R5-1	DO NOT ENTER	36 X 36				9.00					BAND TO POST
3-18	R1-1F	FOLDING STOP	36 X 36					5.18		1		BAND TO POST
3-19	R6-3	DIVIDED HIGHWAY CROSSING	30 X 24				5.00					BAND TO POST
3-20	R4-7	KEEP RIGHT	36 X 48				12.00			1		BAND TO POST
3-21	R3-4	NO U-TURN SYMBOL	24 X 24				4.00					BAND TO POST
3-22	J4-1	EAST STH 12	36 X 54		1		13.50			1	1	
3-23	W3-3	SIGNAL AHEAD	36 X 36		1				9.00	1	1	
3-24	W3-3	SIGNAL AHEAD	36 X 36		1				9.00	1	1	
3-25	R1-1	STOP	36 X 36		1		7.46			1	1	
3-26	R6-3	DIVIDED HIGHWAY CROSSING	30 X 24				5.00					ON 3-24 POST
3-27	R5-1	DO NOT ENTER	36 X 36			1	9.00			1	1	
3-28	R6-2L	ONE WAY LEFT	36 X 48				12.00					ON 3-26 POST
3-29	R5-1A	WRONG WAY	42 X 30	1			8.75			1	1	
3-30	R5-56	$500 FINE FOR LITTERING	48 X 36		1		12.00			1	1	
3-31	R5-1A	WRONG WAY	42 X 30				8.75					ON 3-29 POST
3-32	R6-2L	ONE WAY LEFT	36 X 48			1	12.00			1	1	
3-33	R5-1	DO NOT ENTER	36 X 36				9.00					ON 3-31 POST
3-34	R1-1	STOP	36 X 36		1		7.46			1	1	
3-35	R6-3	DIVIDED HIGHWAY CROSSING	30 X 24				5.00					ON 3-33 POST
3-36	R4-7	KEEP RIGHT	36 X 48				12.00			1		BAND TO POST
3-37	W4-2L	LEFT LANE ENDS	36 X 36		1				9.00	1	1	
3-38	W4-2L	LEFT LANE ENDS	36 X 36		1				9.00	1	1	
3-39	M1-94	THIRD ST	66 X 30	2			13.75			1		
4-1	R1-1	STOP	36 X 36		1		7.46			1	1	
4-2	R4-7	KEEP RIGHT	36 X 48		1		12.00			1	1	
4-3	R1-1	STOP	36 X 36		1		7.00			1	1	
4-4	R6-3	DIVIDED HIGHWAY CROSSING	30 X 24				7.46					ON 4-3 POST
4-5	R4-7	KEEP RIGHT	36 X 48		1		12.00			1	1	
4-6	R5-1	DO NOT ENTER	36 X 36			1	9.00			1	1	
4-7	R6-2L	ONE WAY LEFT	36 X 48				12.00					ON 4-6 POST
4-8	R5-1A	WRONG WAY	42 X 30	1			8.75			1	1	
4-9	I2-3	ALTOONA POPULATION 6706	60 X 24	2			10.00			1	2	
4-10	R4-7	KEEP RIGHT	36 X 48		1		12.00			1	1	
4-11	R5-1A	WRONG WAY	42 X 30	1			8.75			1	1	
4-12	R6-2L	ONE WAY LEFT	36 X 48			1	12.00			1	1	
4-13	R5-1	DO NOT ENTER	36 X 36				9.00					ON 4-12 POST
4-14	R1-1	STOP	36 X 36		1		7.46			1	1	
4-15	R6-3	DIVIDED HIGHWAY CROSSING	30 X 24				5.00					ON 4-14 POST
4-16	W6-2	DIVIDED HIGHWAY SYMBOL	36 X 36		1				9.00	1	1	
4-17	W6-2	DIVIDED HIGHWAY SYMBOL	36 X 36		1				9.00	1	1	
4-18	D7-68	ROAD TO LAKE ALTOONA COUNTY PARK 1 MILE	66 X 42		2		19.25			1	2	
4-19	R5-1A	WRONG WAY	42 X 30	1			8.75			1	1	
4-20	R5-1	DO NOT ENTER	36 X 36		1		9.00			1	1	
4-21	W6-1	DIVIDED HIGHWAY SYMBOL	36 X 36		1				9.00	1	1	
4-22	W6-3	TWO-WAY TRAFFIC SYMBOL	36 X 36		1				9.00	1	1	
4-23	J4-1	EAST STH 12	36 X 54			1	13.50			1	1	
4-24	D2-2	FALL CREEK 8 AUGUSTA 18	78 X 24	2			13.00			1		
SHEET SUBTOTALS				14	25	5	520.68	20.10	72	48	40	
ITEM TOTALS				33	48	10	1033.85	42.48	167	100	85	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED

FIELD OFFICE TYPE B (PROJECT 7080-03-74)

STATION	642.5001 EACH
USH 12	0
ITEM TOTAL	0

FIELD OFFICE TYPE B (PROJECT 7080-00-74)

STATION	642.5001 EACH
USH 12	1
ITEM TOTAL	1

PAVEMENT MARKING (PROJECT 7080-03-74)

STATION	LOCATION	646.0106 EPOXY 4-INCH LF	646.0126 EPOXY 8-INCH LF	646.0136 EPOXY 12-INCH LF	646.0600 REMOVING PAVEMENT MARKINGS LF	647.0166 ARROWS EPOXY TYPE 2 EACH	647.0356 WORDS EPOXY EACH	647.0456 CURB EPOXY LF	647.0566 STOP LINE EPOXY 18-INCH LF	647.0606 ISLAND NOSE EPOXY EACH	647.0766 CROSSWALK EPOXY 6-INCH LF	REMARKS
USH 12												
48+80 - 137+50	EB	2068										WHITE SKIP
48+80 - 145+85	WB	2201										WHITE SKIP
48+80 - 158+50	EB	4850										YELLOW (LT TURN LANE)
48+80 - 158+50	WB	2440										WHITE (RT TURN LANE)
54+78 - 55+65	EB		87									WHITE CHANNELIZING
55+57	EB							10		1		YELLOW
55+97 - 56+76	WB		79									WHITE CHANNELIZING
56+04	EB							10		1		YELLOW
62+08 - 63-03	EB		190									WHITE CHANNELIZING
62-94	EB							10		1		YELLOW
64+79 - 65+34	EB		55									WHITE CHANNELIZING
65+25	EB								48		96	WHITE
65+25	EB										48	WHITE
65+28	WB							10		1		YELLOW
65+50	EB									1		YELLOW
66+00	WB									1		YELLOW
66+13	EB							10		1		YELLOW
66+25	WB								48		96	WHITE
66+25 - 66+92	WB		67									WHITE CHANNELIZING
67+13 - 68+34	WB		240									WHITE CHANNELIZING
82+50 - 83+75			125									WHITE CHANNELIZING
82+70	EB						1					WHITE (ONLY)
83+40	EB					1						WHITE (LEFT)
83+66	EB							10		1		YELLOW
84+15	EB							10		1		YELLOW
84+90 - 158+50	EB	6910										WHITE EDGE
84+90 - 158+50	WB	6760										WHITE EDGE
95+70 - 97+10			140									WHITE CHANNELIZING
95+95	EB						1					WHITE (ONLY)
96+75	EB					1						WHITE (LEFT)
97+06	EB							10		1		YELLOW
97+74	EB							10		1		YELLOW
107+05 - 108+30	EB		250									WHITE CHANNELIZING
108+20	EB							10		1		YELLOW
109+90	EB								36			WHITE
110+03	WB							10		1		YELLOW
110+07 - 110+19	EB									1		YELLOW
110+72	WB									1		YELLOW
110+89	EB							10		1		YELLOW
111+05	WB								48			WHITE
111+05 - 112+50	WB		145									WHITE CHANNELIZING
112+25 - 113+35	WB		220									WHITE CHANNELIZING
117+70 - 118+85	EB		230									WHITE CHANNELIZING
118+77	EB							10		1		YELLOW
120+65	WB							10		1		YELLOW
120+65	EB									1		YELLOW
121+28	WB									1		YELLOW
121+31	EB							10		1		YELLOW
123+00 - 124+20	WB		240									WHITE CHANNELIZING
123+10	WB							10		1		YELLOW
136+00 - 137+30	EB		130									WHITE CHANNELIZING
136+25	EB						1					WHITE (ONLY)
136+85	EB					1						WHITE (LEFT)
137+00 - 137+25	EB							40				YELLOW
137+94 - 138+20	EB							40				YELLOW
137+90 - 139+20	WB		130									WHITE CHANNELIZING
138+45	WB					1						WHITE (LEFT)
138+95	WB						1					WHITE (ONLY)
145+85 - 151+43	WB & EB			206	206						206	YELLOW
145+85 - 158+50	WB & EB	3700			1250							DOUBLE YELLOW
146+30	EB							10		1		YELLOW
10TH STREET		300	162			4	3		82		34	
CTH A		165	20					75	60	3		
ITEM TOTALS		29394	2510	206	1456	8	7	325	322	26	480	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED

PAVEMENT MARKING (PROJECT 7080-00-74)

STATION	LOCATION	646.0106 EPOXY 4-INCH LF	646.0126 EPOXY 8-INCH LF	646.0136 EPOXY 12-INCH LF	646.0600 REMOVING PAVEMENT MARKINGS LF	647.0166 ARROWS EPOXY TYPE 2 EACH	647.0356 WORDS EPOXY EACH	647.0456 CURB EPOXY LF	647.0566 STOP LINE EPOXY 18-INCH LF	647.0606 ISLAND NOSE EPOXY EACH	646.0136 EPOXY 12-INCH LF	REMARKS
USH 12												
83+70	WB							10		1		YELLOW
84+15	EB							10		1		YELLOW
MCCANN DRIVE								20		2		
ITEM TOTALS		0	0	0	0	0	0	40	0	4	0	

TRAFFIC CONTROL (PROJECT 7080-03-74)

STATION	LOCATION	643.0100.01 EACH	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C DAY	643.0800 ARROW BOARDS DAY	643.0900 SIGNS DAY	643.0920 COVERING SIGNS TYPE II EACH	643.1050 SIGNS PCMS DAY	SPV.0045.01 PCMS CELLULAR COMMUNICATIONS DAY	REMARKS
USH 12		1										
48+80.09 - 158+50.00	LT & RT		29400	950	1900	1150	100	4750	2	100	100	STAGE 1
48+80.09 - 158+50.00	LT & RT		28650	1250	2500	750	100	5150	2	100	100	STAGE 2
ITEM TOTALS		1	58050	2200	4400	1900	200	9900	4	200	200	

TRAFFIC CONTROL (PROJECT 7080-00-74)

STATION	LOCATION	643.0100.02 EACH	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C DAY	643.0800 ARROW BOARDS DAY	643.0900 SIGNS DAY	643.0920 COVERING SIGNS TYPE II EACH	643.1050 SIGNS PCMS DAY	SPV.0045.01 PCMS CELLULAR COMMUNICATIONS DAY	REMARKS
USH 12		1										
398+86.51 - 400+00	LT & RT		2500	200	400			400				STAGE 1
398+86.51 - 400+00	LT & RT		2500	200	400			500				STAGE 2
ITEM TOTALS		1	5000	400	800	0	0	900	0	0	0	

TEMPORARY PAVEMENT MARKING (PROJECT7080-03-74)

STATION	LOCATION	649.0400 REMOVABLE TAPE 4-INCH YELLOW LF	649.0400 REMOVABLE TAPE 4-INCH WHITE LF	REMARKS
USH 12				
68+50 - 158+50	EB & WB	16000		STAGE 1
72+00 - 151+00	EB & WB		13800	STAGE 2
ITEM TOTALS		29800		

CONSTRUCTION STAKING (PROJECT 7080-03-74)

STATION	LOCATION	650.5000 BASE LF	650.5500 CURB GUTTER AND CURB & GUTTER LF	650.7000 CONCRETE PAVEMENT LF	650.8500 ELECTRICAL INSTALLATIONS (7080-03-74) LS	650.9910 SUPPLEMENTAL CONTROL (7080-03-74) LS	650.9920 SLOPE STAKES LF	SPV.0105.04 CONCRETE PAVEMENT JOINT LAYOUT (7080-03-74) LS
USH 12					1	1		1
48+80 - 50+36	WB RT			156			156	
51+86 - 52+50	WB RT			64			64	
115+31 - 120+60	EB RT						529	
120+31 - 120+60	EB RT		31					
130+81 - 137+22	EB RT						641	
137+01 - 137+22	EB RT		22					
ITEM TOTALS		0	53	220	1	1	1390	1

CONSTRUCTION STAKING (PROJECT 7080-00-74)

STATION	LOCATION	650.5000 BASE LF	650.5500 CURB GUTTER AND CURB & GUTTER LF	650.7000 CONCRETE PAVEMENT LF	650.8500 ELECTRICAL INSTALLATIONS (7080-00-74) LS	650.9910 SUPPLEMENTAL CONTROL (7080-00-74) LS	650.9920 SLOPE STAKES LF	SPV.0105.05 CONCRETE PAVEMENT JOINT LAYOUT (7080-00-74) LS
USH 12						1	332	1
84+05 - 87+60				355				
84+12 - 87+60	WB							
MCCANN DR	RT	64	170					
ITEM TOTALS		64	170	355	0	1	332	1

SAWING (PROJECT 7080-03-74)

STATION	LOCATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF	REMARKS
USH 12				
48+75	EB & EB		75	PROJECT LIMITS - PARTIAL DEPTH
48+80 - 50+37	WB RT		170	TURN LANE EXTENSION
51+86 - 52+50	WB RT		65	TURN LANE EXTENSION
54+35 - 55+45	WB RT		115	CURB & GUTTER REPLACEMENT
56+20 58+50	EB LT		235	CURB & GUTTER REPLACEMENT
62+00 - 62+75	EB LT		80	CURB & GUTTER REPLACEMENT
80+80 - 80+90	EB LT		15	CURB & GUTTER REPLACEMENT
115+31 - 120+60	EB RT	30	2.5	TURN LANE EXTENSION
130+81 - 137+22	EB RT	30	2.5	TURN LANE EXTENSION
158+50	EB & EB	35		PROJECT LIMITS - PARTIAL DEPTH
UNDISTRIBUTED			20	CURB & GUTTER REPAIR
ITEM TOTALS		95	780	

SAWING (PROJECT 7080-00-74)

STATION	LOCATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF	REMARKS
USH 12				
83+61 - 83+66	WB RT		10	
84+05 - 87+60	WB RT		475	
MCCANN DR				
398+86 - 399+50	RT	80	5	
ITEM TOTALS		80	490	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED

UTILITY ITEMS (PROJECT 7080-03-74)

STATION	LOCATION	LOOP #	SPV.0105.02 SALVAGE LOOP DETECTOR WIRE USH 12 & 10TH ST LS	SPV.0105.03 SALVAGE LOOP DETECTOR WIRE USH 12 & 3RD ST LS	652.0800 CONDUIT LOOP DETECTOR LF	652.0900 LOOP DETECTOR SLOTS LF	653.0900 ADJUSTING PULL BOXES EACH	655.0800 LOOP DETECTOR WIRE LF	REMARKS
USH 12									
10TH ST.			1						
3RD ST.				1					
60+93 'EB'	MAINLINE	1			81	69		344	
62+93 'EB'	MAINLINE	2					1		JUNCTION BOX IN CONCRETE
65+25 'EB'	LT TURN LANE	3					1		JUNCTION BOX IN CONCRETE
65+58 'WB'	10TH STREET	4			100	76	1	400	JUNCTION BOX IN CONCRETE
65+70 'WB'	10TH STREET	5			90	71		270	
65+70 'WB'	10TH STREET	6			116	84		348	
66+23 'WB'	LT TURN LANE	7					1		JUNCTION BOX IN CONCRETE
68+60 'WB'	MAINLINE	8					1		JUNCTION BOX IN CONCRETE
105+10 'EB'	MAINLINE	9			80	66		320	
107+50 'EB'	MAINLINE	10					1		JUNCTION BOX IN CONCRETE
109+68 'EB'	LT TURN LANE	11					1		JUNCTION BOX IN CONCRETE
110+40 'WB'	3RD STREET	12			76	64		304	
110+40 'WB'	3RD STREET	13			44	34		132	
110+50 'EB'	3RD STREET	14			58	41		174	
110+50 'EB'	3RD STREET	15			81	69		344	
111+30 'WB'	LT TURN LANE	16					1		JUNCTION BOX IN CONCRETE
113+45 'WB'	MAINLINE	17					1		JUNCTION BOX IN CONCRETE
115+85 'WB'	MAINLINE	18			81	69		344	
ITEM TOTALS			1	1	807	643	9	2980	

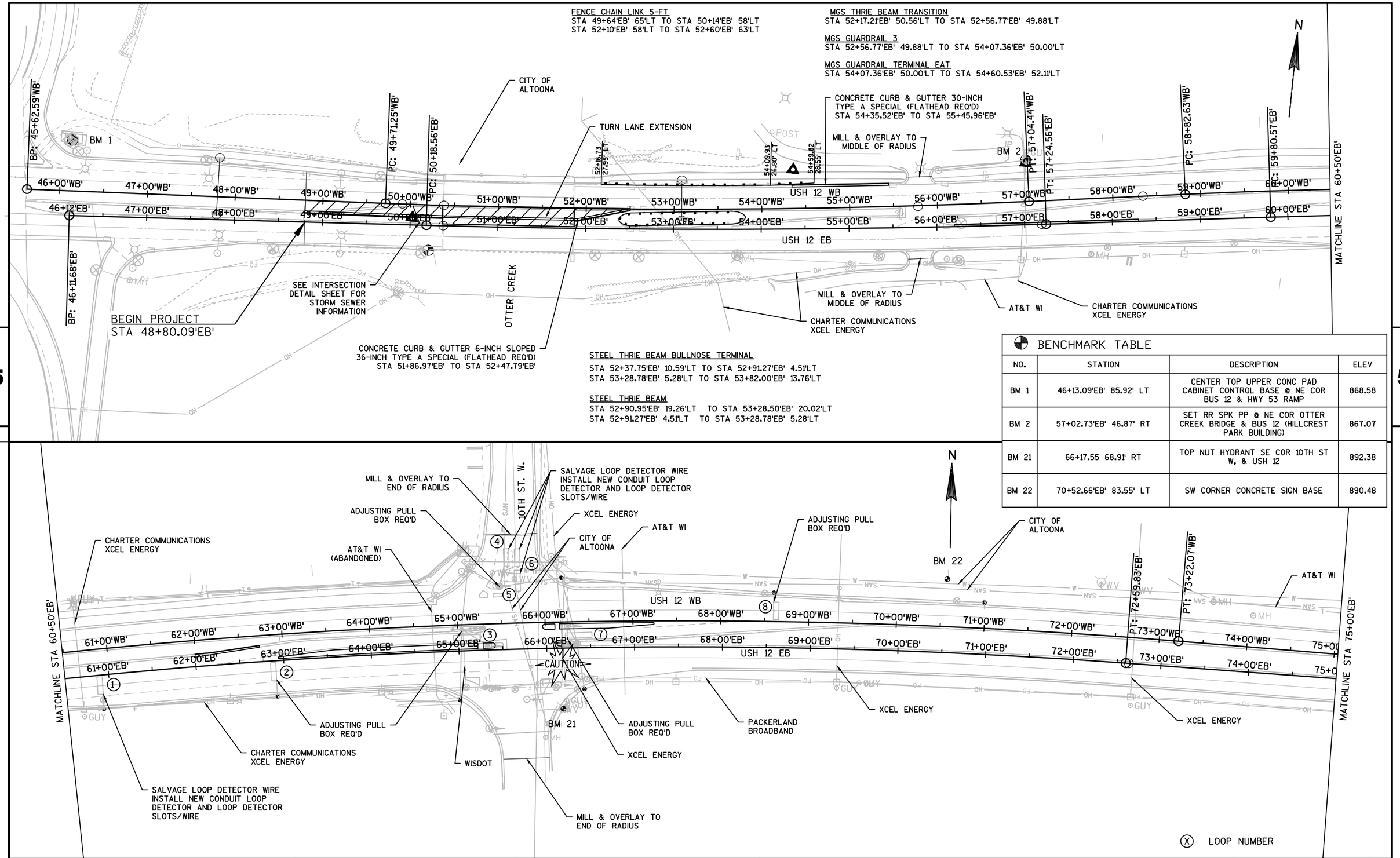
PREPARATION OF FOUNDATION FOR ASPHALTIC PAVING SPECIAL (PROJECT 7080-03-74)

STATION	LOCATION	SPV.0105.01 LS	REMARKS
USH 12	EB & WB	1	MAINLINE AND SHOULDERS
ITEM TOTALS		1	

MILLING AND REMOVING TEMPORARY JOINT

STATION	LOCATION	SPV.0105.06 LS
USH 12	EB & WB	1
ITEM TOTALS		1

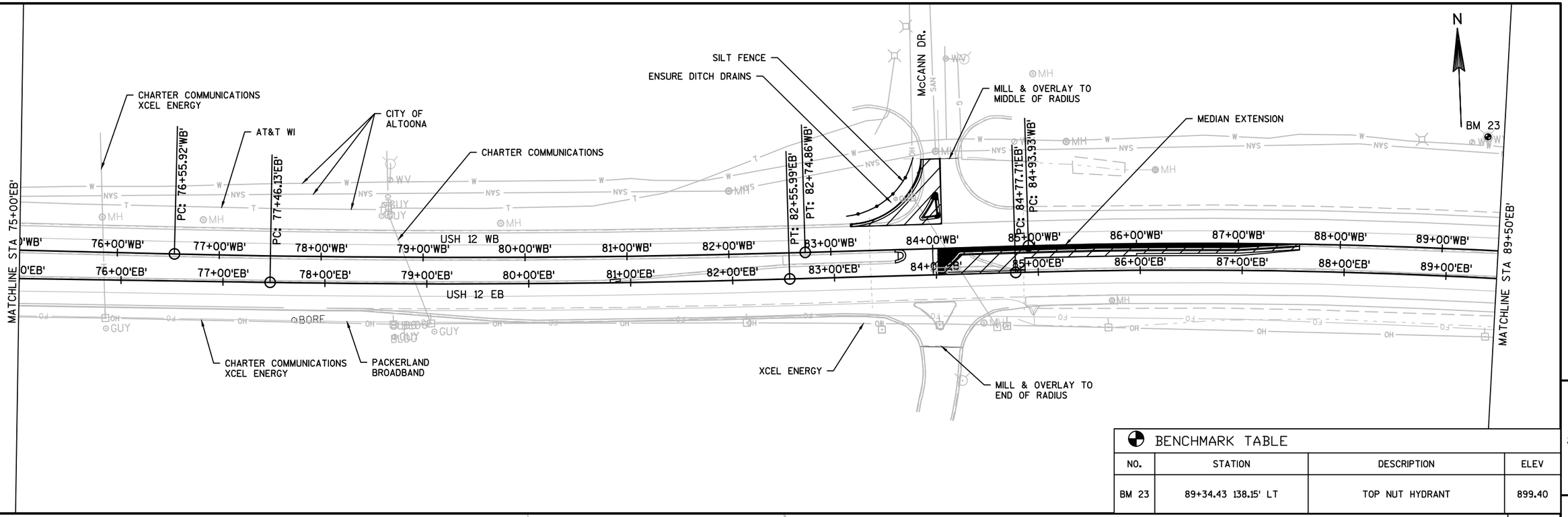
NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED



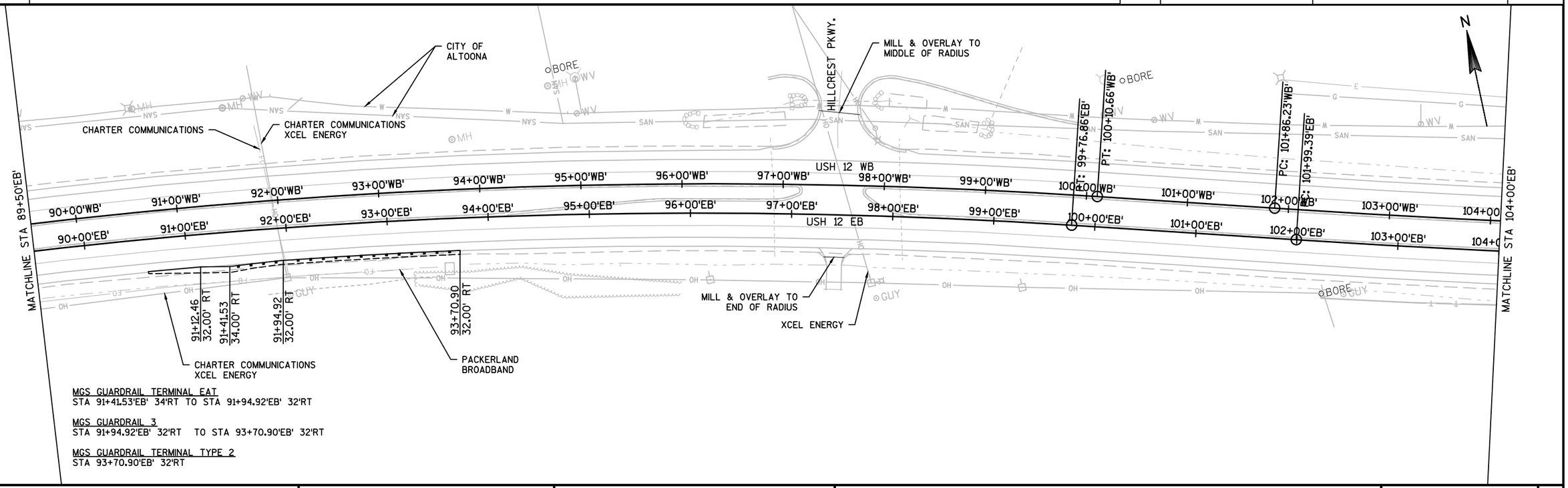
BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEV
BM 1	46+13.09'EB' 85.92' LT	CENTER TOP UPPER CONC PAD CABINET CONTROL BASE @ NE COR BUS 12 & HWY 53 RAMP	868.58
BM 2	57+02.73'EB' 46.87' RT	SET RR SPK PP @ NE COR OTTER CREEK BRIDGE & BUS 12 (HILLCREST PARK BUILDING)	867.07
BM 21	66+17.55 68.91' RT	TOP NUT HYDRANT SE COR 10TH ST W, & USH 12	892.38
BM 22	70+52.66'EB' 83.55' LT	SW CORNER CONCRETE SIGN BASE	890.48

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	PLAN SHEET	SHEET 74	E



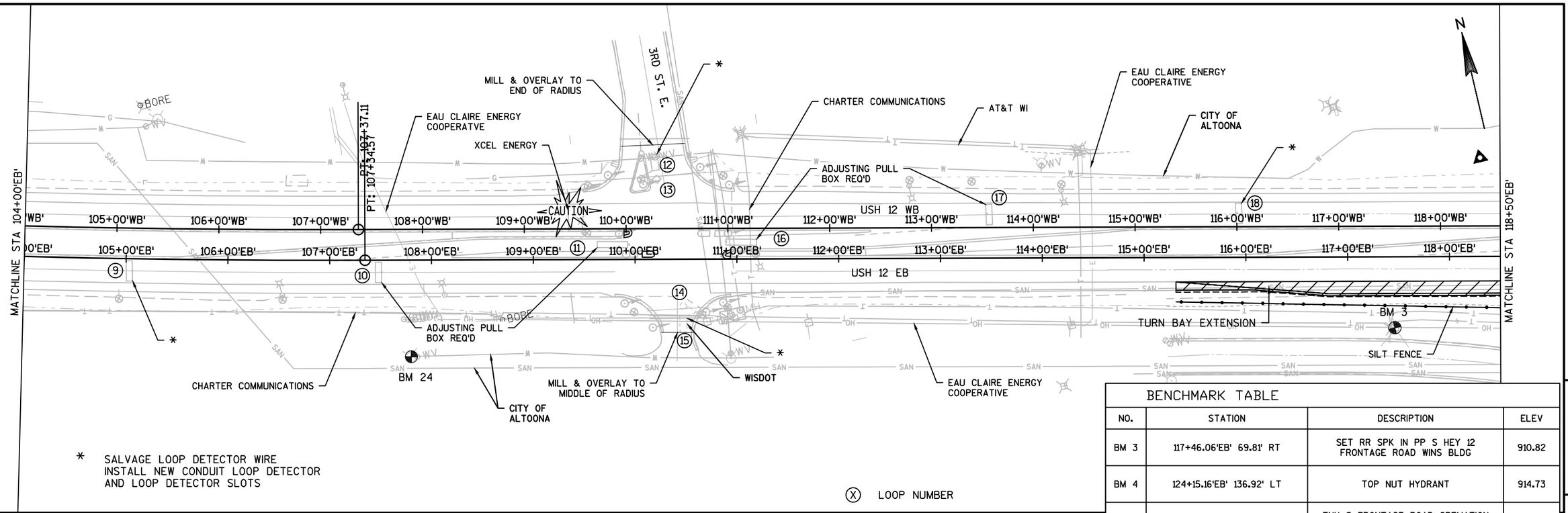
BENCHMARK TABLE			
NO.	STATION	DESCRIPTION	ELEV
BM 23	89+34.43 138.15' LT	TOP NUT HYDRANT	899.40



MGS GUARDRAIL TERMINAL EAT
STA 91+41.53'EB' 34'RT TO STA 91+94.92'EB' 32'RT

MGS GUARDRAIL 3
STA 91+94.92'EB' 32'RT TO STA 93+70.90'EB' 32'RT

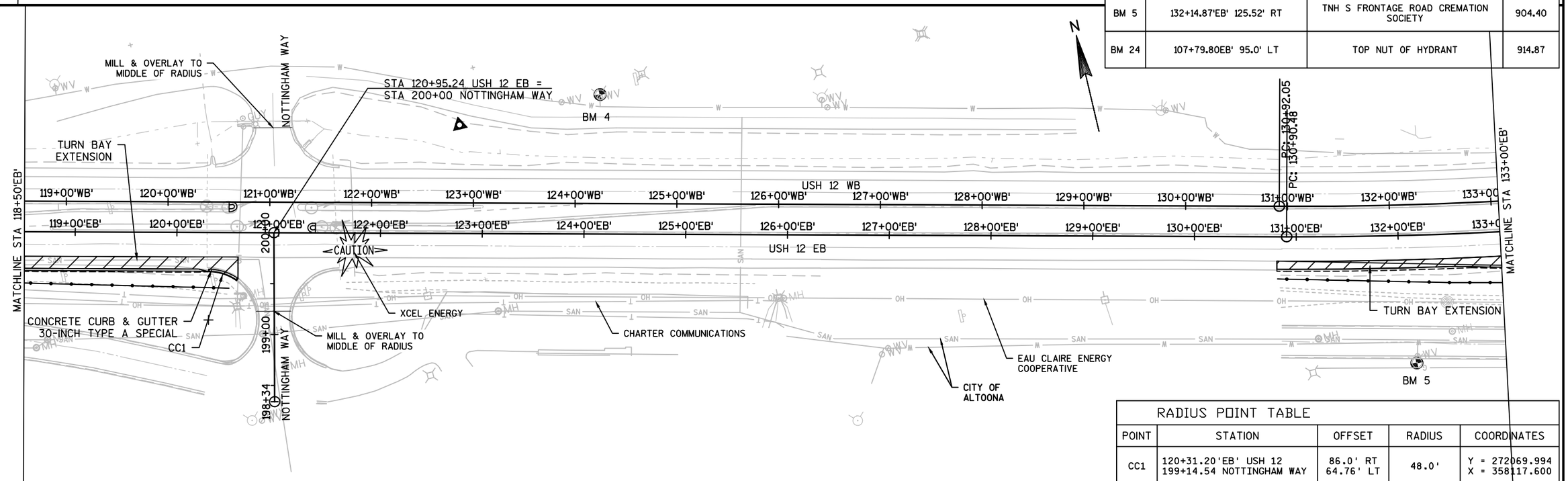
MGS GUARDRAIL TERMINAL TYPE 2
STA 93+70.90'EB' 32'RT



* SALVAGE LOOP DETECTOR WIRE
INSTALL NEW CONDUIT LOOP DETECTOR
AND LOOP DETECTOR SLOTS

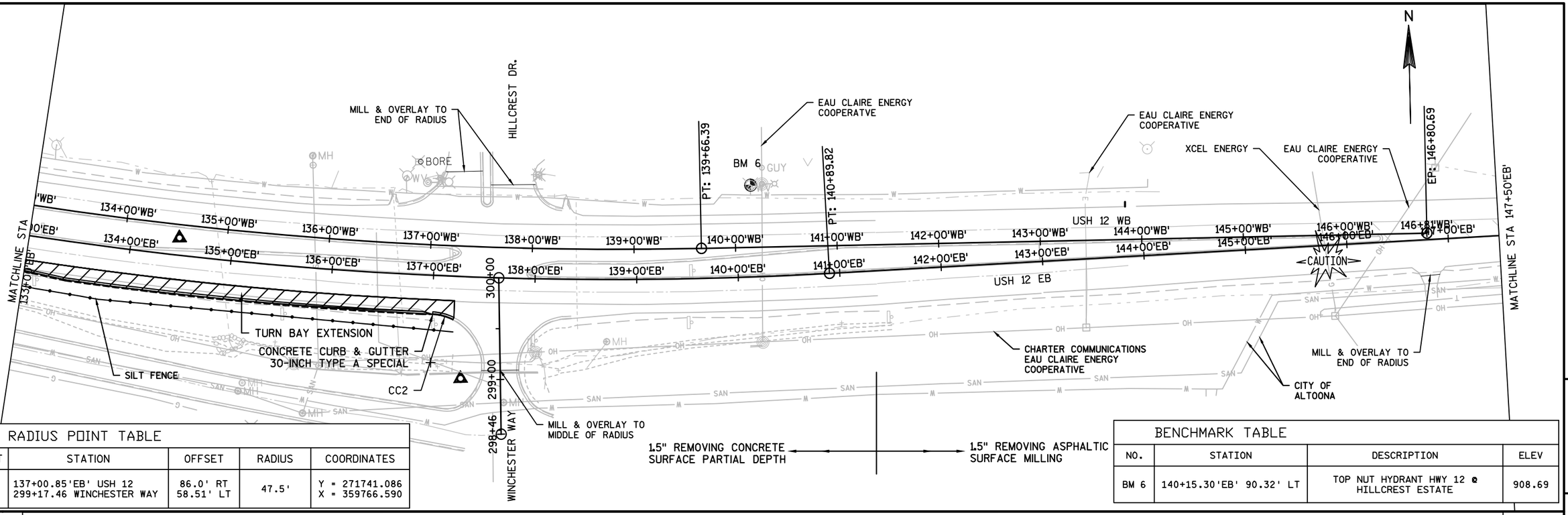
Ⓧ LOOP NUMBER

BENCHMARK TABLE			
NO.	STATION	DESCRIPTION	ELEV
BM 3	117+46.06'EB' 69.81' RT	SET RR SPK IN PP S HEY 12 FRONTAGE ROAD WINS BLDG	910.82
BM 4	124+15.16'EB' 136.92' LT	TOP NUT HYDRANT	914.73
BM 5	132+14.87'EB' 125.52' RT	TNH S FRONTAGE ROAD CREMATION SOCIETY	904.40
BM 24	107+79.80EB' 95.0' LT	TOP NUT OF HYDRANT	914.87



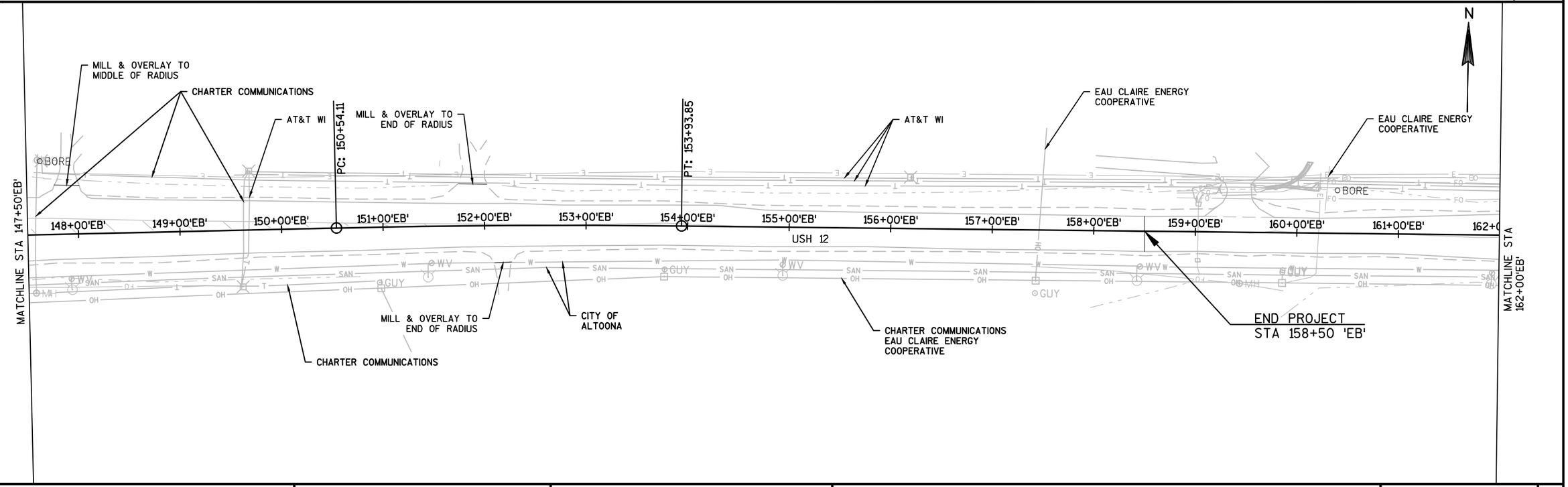
RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	120+31.20'EB' USH 12 199+14.54 NOTTINGHAM WAY	86.0' RT 64.76' LT	48.0'	Y = 272069.994 X = 358117.600

PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	PLAN SHEET	SHEET 76 E



RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC2	137+00.85'EB' USH 12 299+17.46 WINCHESTER WAY	86.0' RT 58.51' LT	47.5'	Y = 271741.086 X = 359766.590

BENCHMARK TABLE			
NO.	STATION	DESCRIPTION	ELEV
BM 6	140+15.30'EB' 90.32' LT	TOP NUT HYDRANT HWY 12 @ HILLCREST ESTATE	908.69

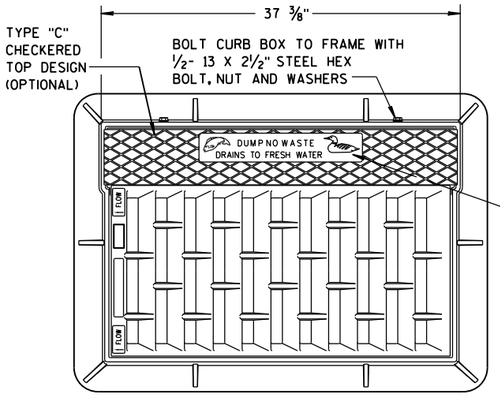


PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	PLAN SHEET	SHEET 77	E

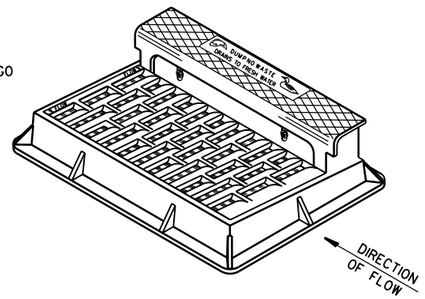
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09F11-04	LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY
09F15-04A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
11B02-02	CONCRETE MEDIAN NOSE
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
14B26-03A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C18-03	MEDIAN ISLAND MARKING
15C31-01B	LANE DROP PAVEMENT MARKING
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-05B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D20-03	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

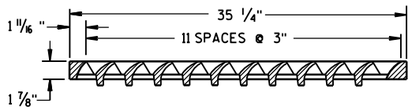
6

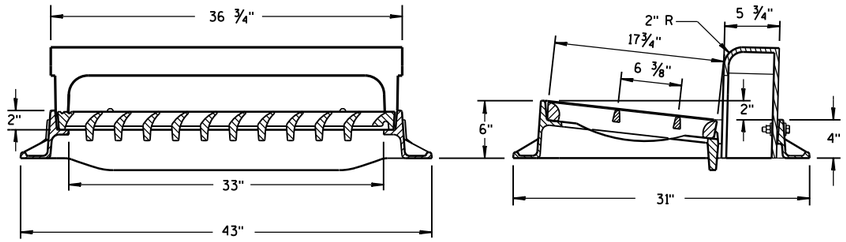


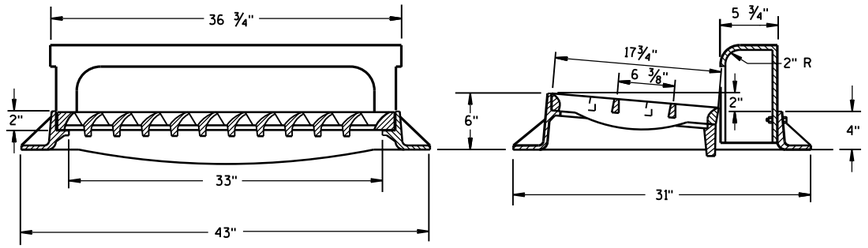
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

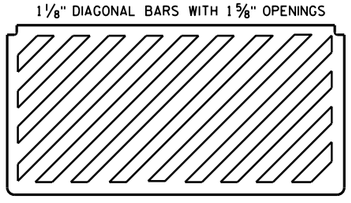






TYPE "H"

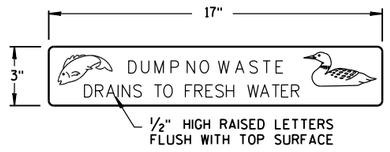
NOTE: EITHER CASTING IS ACCEPTABLE



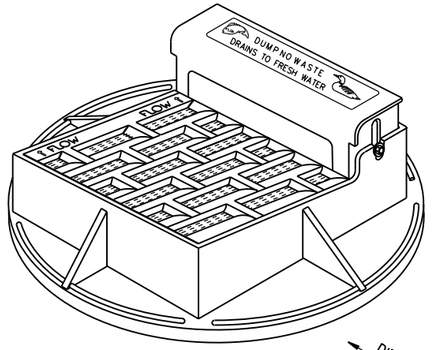
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

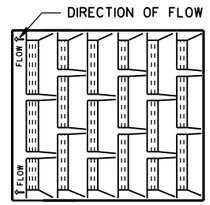
NOTE:
GRATE IS REVERSIBLE.

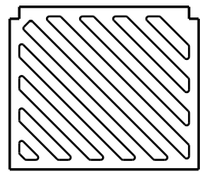
GENERAL NOTES

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

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

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

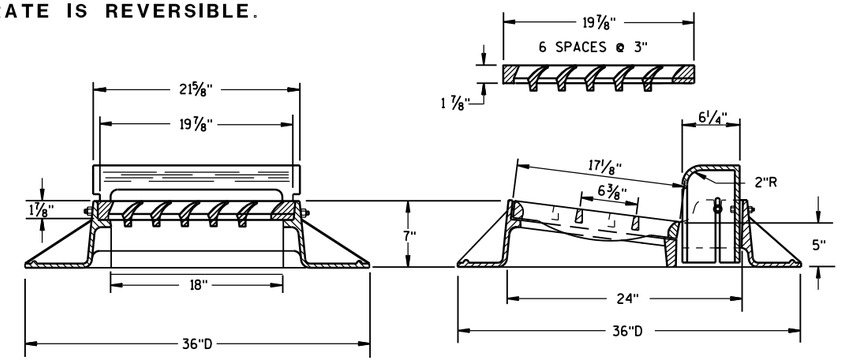




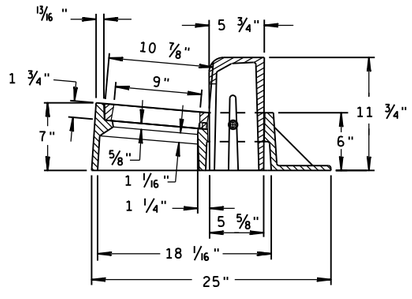
SPECIAL GRATE FOR TYPE "A" COVER

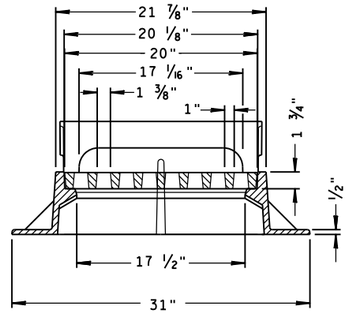
(MEASURES 19 3/4" X 17" X 1 7/8")

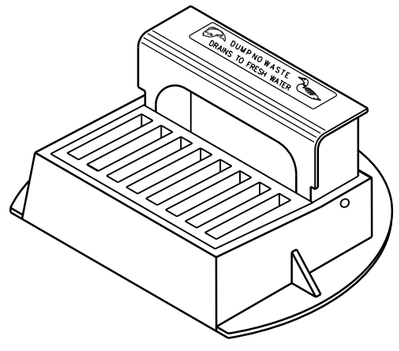
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"







TYPE "Z"

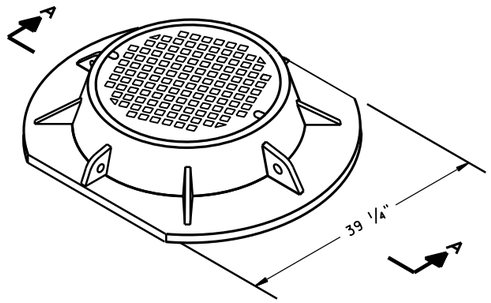
INLET COVERS
TYPE A, H, A-S, H-S & Z

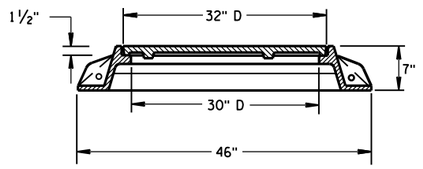
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

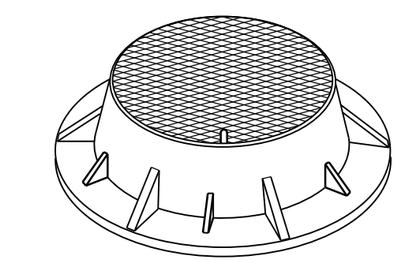
6

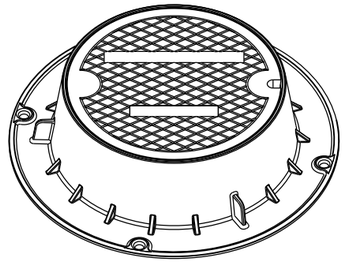
S.D.D. 8 A 5-19a

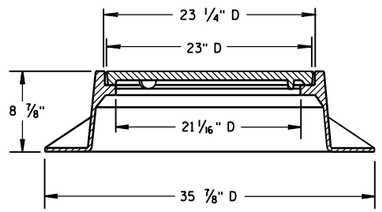


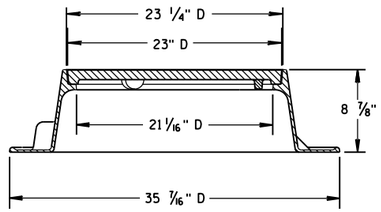


SECTION A-A
TYPE "K"









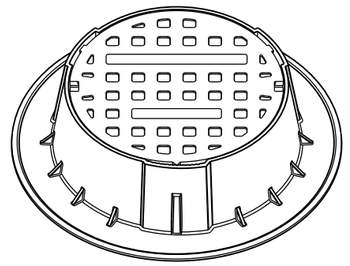
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

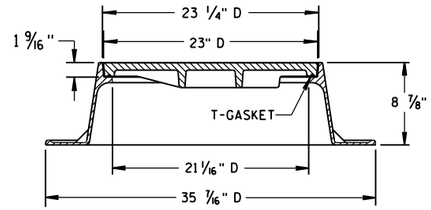
GENERAL NOTES

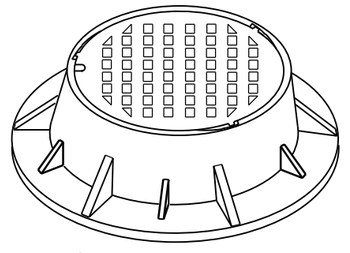
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

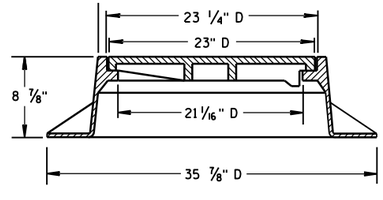
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

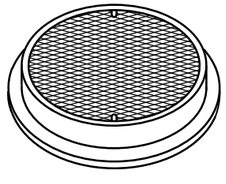


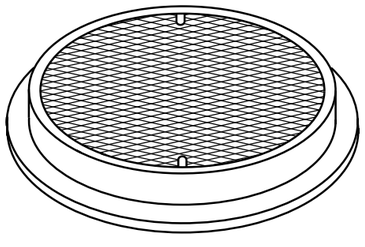


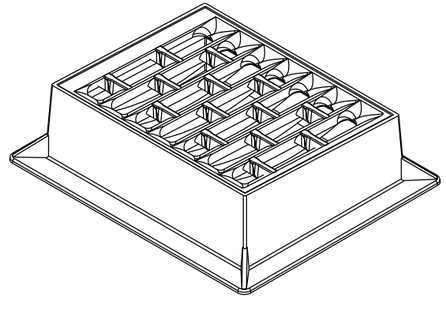


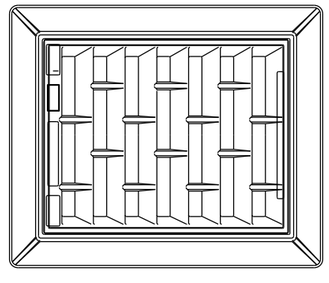


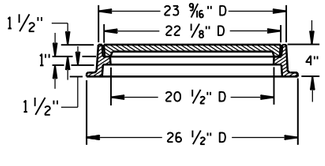
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



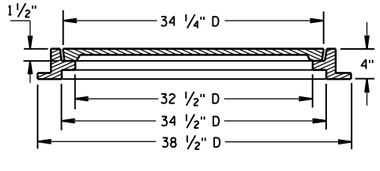








TYPE "L"



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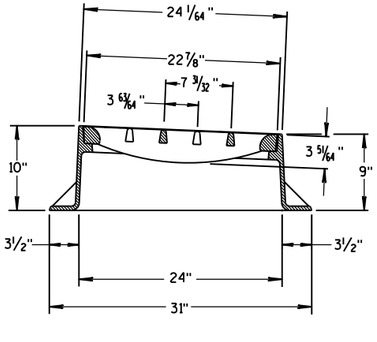

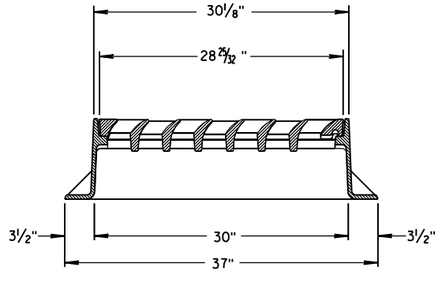

INLET COVER TYPE "BW"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

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

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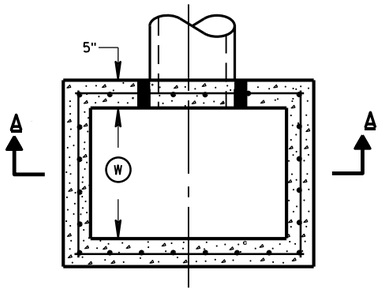
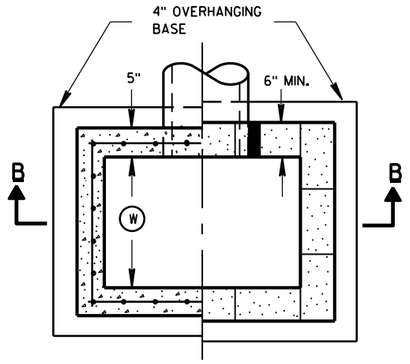
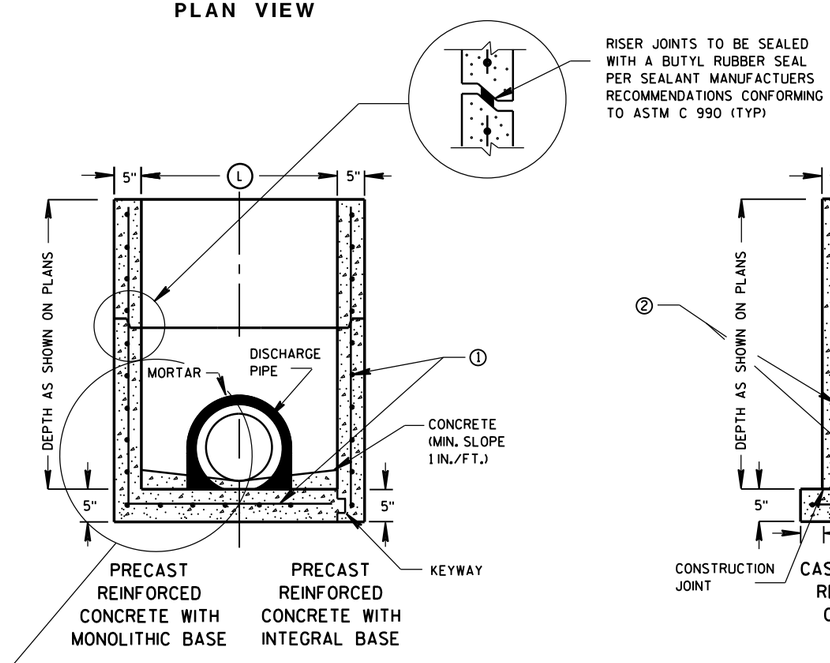
S.D.D. 8 A 5-19d



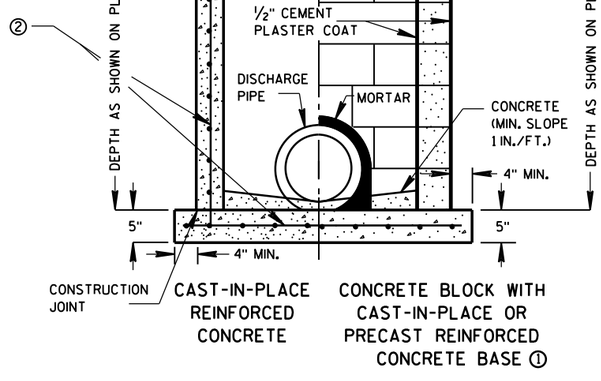
PLAN VIEW



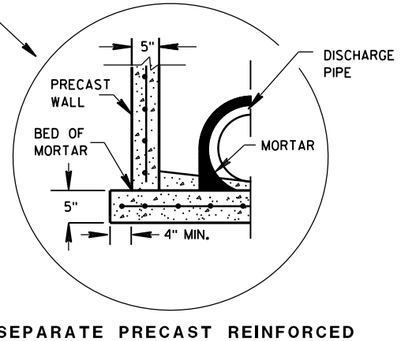
PLAN VIEW



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 GRANULAR 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.

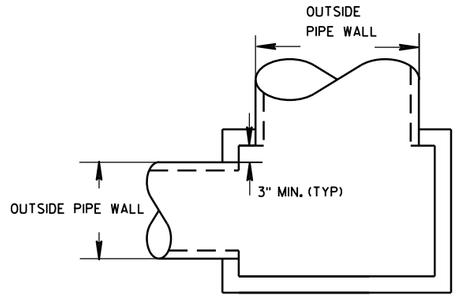
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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

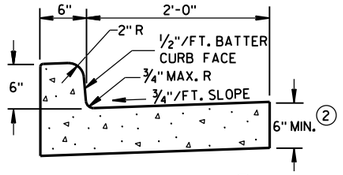
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012
DATE
FHWA

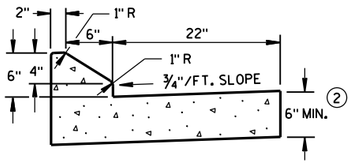
/S/ Jerry H. Zogg
ROADWAY STANDARDS DE
ENGINEER

6

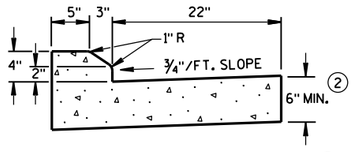
S.D.D. 8 C 7-1



TYPES A & D ①

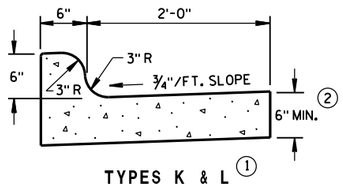


6" SLOPED CURB TYPES G & J ①

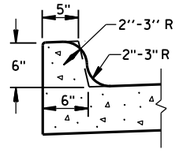


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

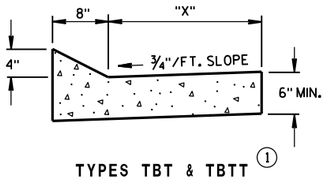


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

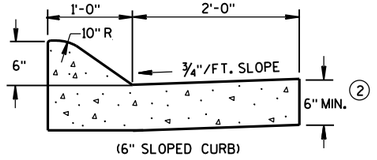
CONCRETE CURB & GUTTER 30"



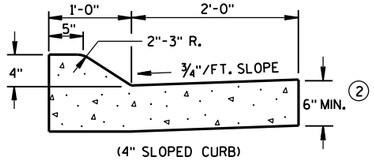
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

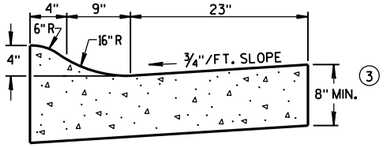


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS 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 & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

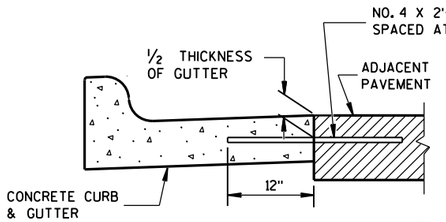
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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.

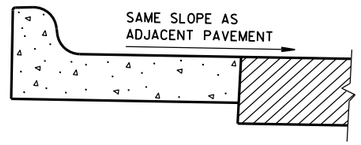
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

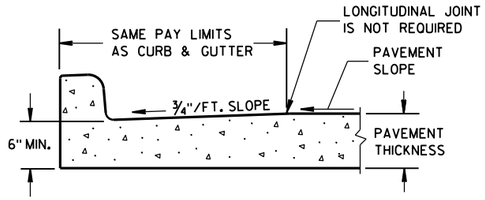
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



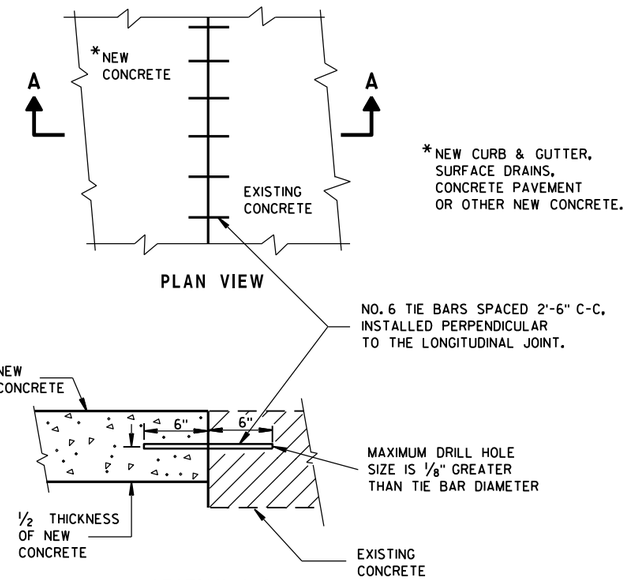
TYPICAL TIE BAR LOCATION ①



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)



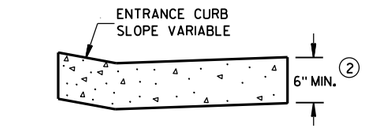
PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



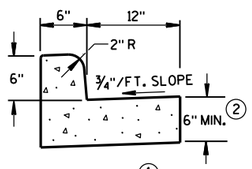
PLAN VIEW

SECTION A-A

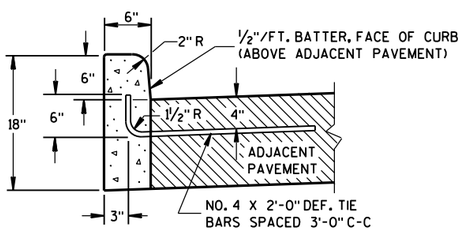
TIE BARS DRILLED
INTO EXISTING PAVEMENT



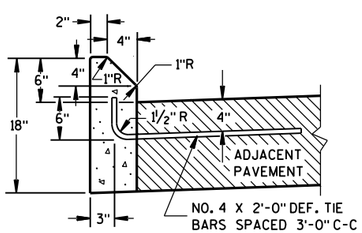
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



① TYPES A & D
CONCRETE CURB & GUTTER 18"

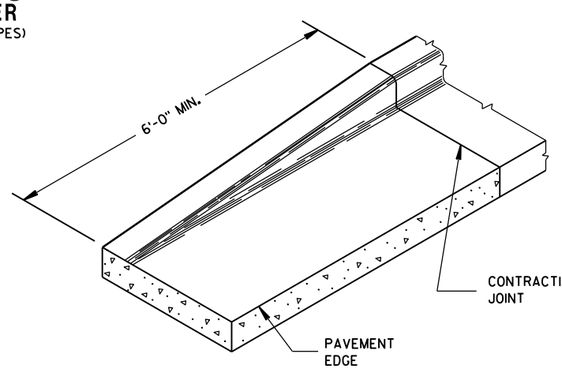


① TYPES A & D



① TYPES G & J

CONCRETE CURB



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
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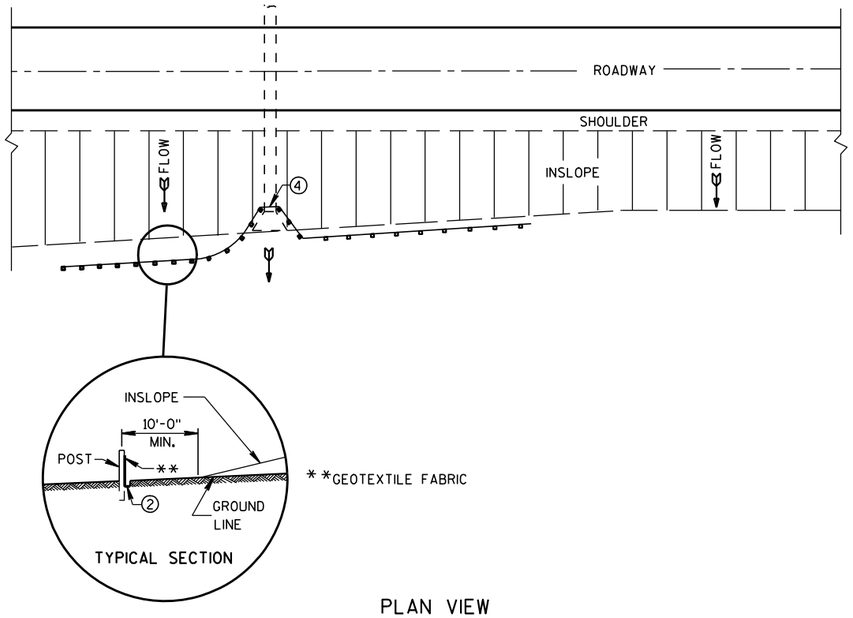
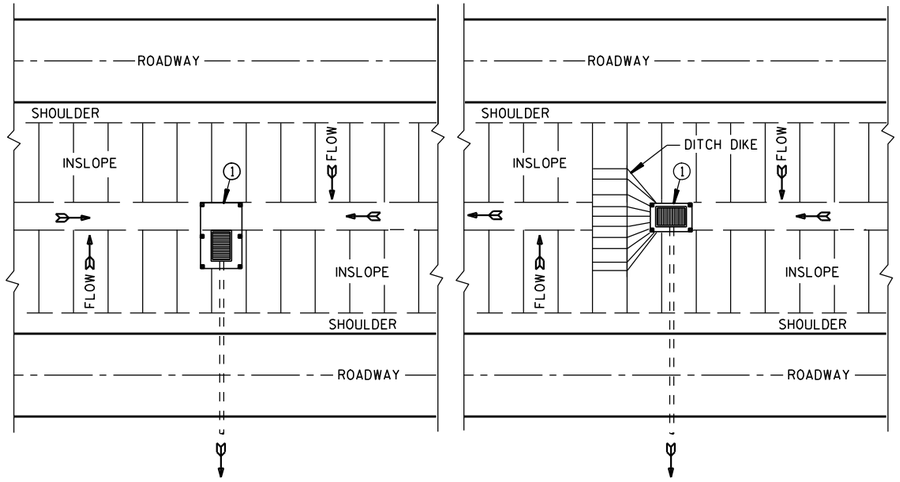
S.D.D. 8 D 1-18



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

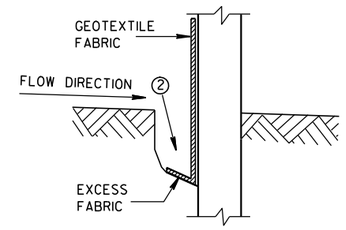
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

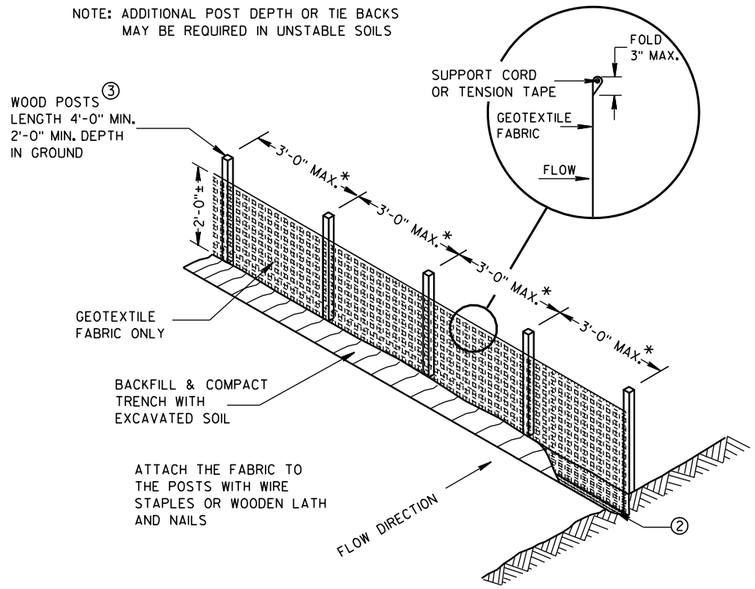
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

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

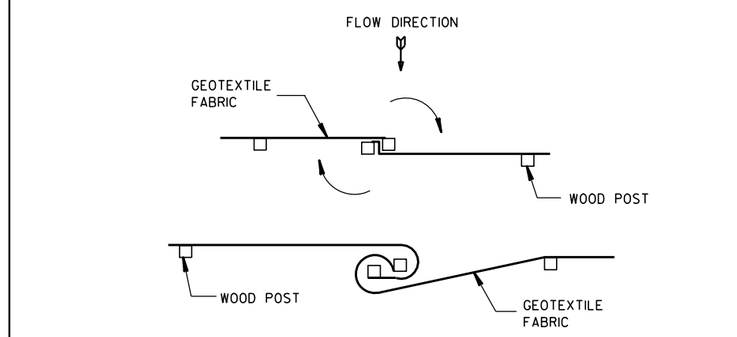


TRENCH DETAIL

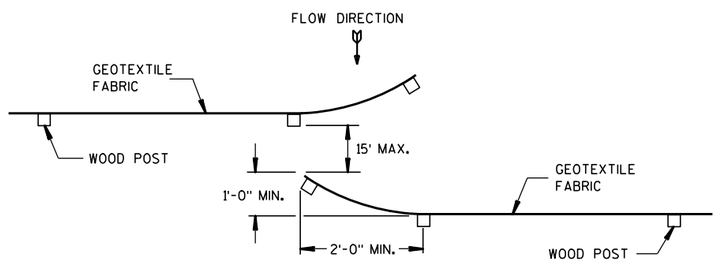


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

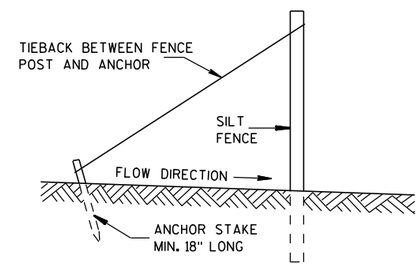


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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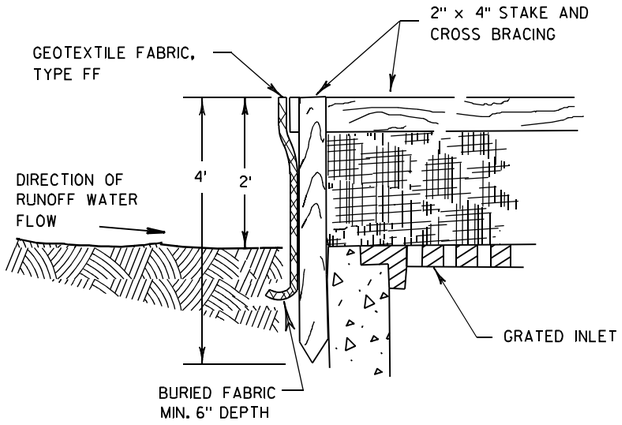
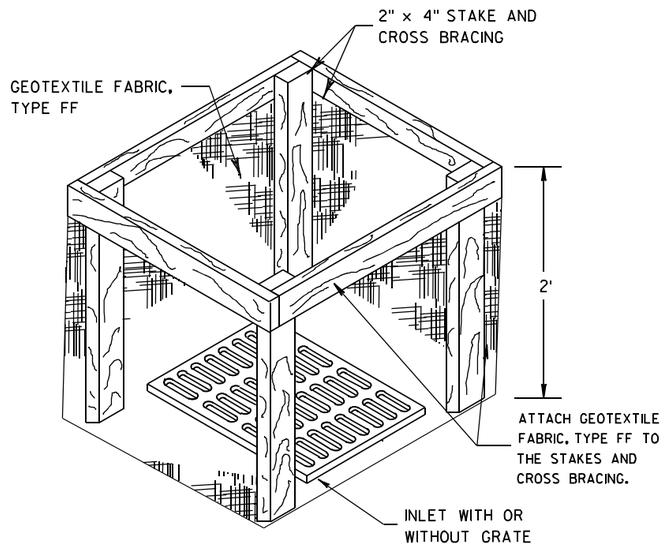
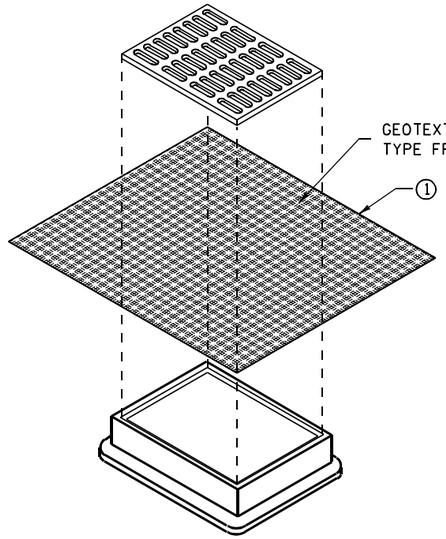


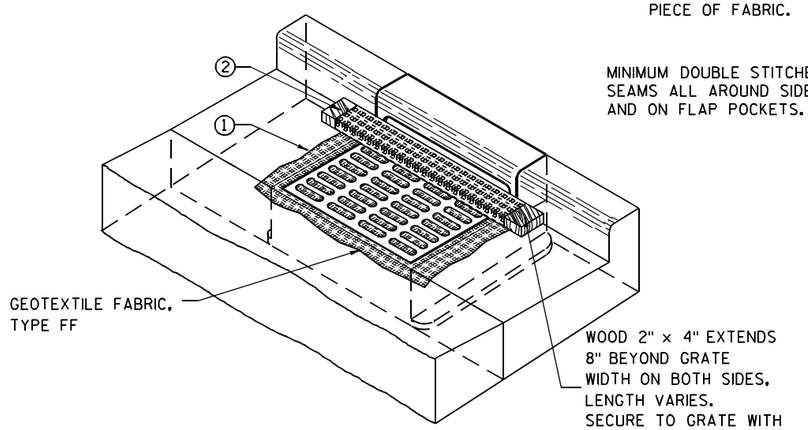


INLET PROTECTION, TYPE A

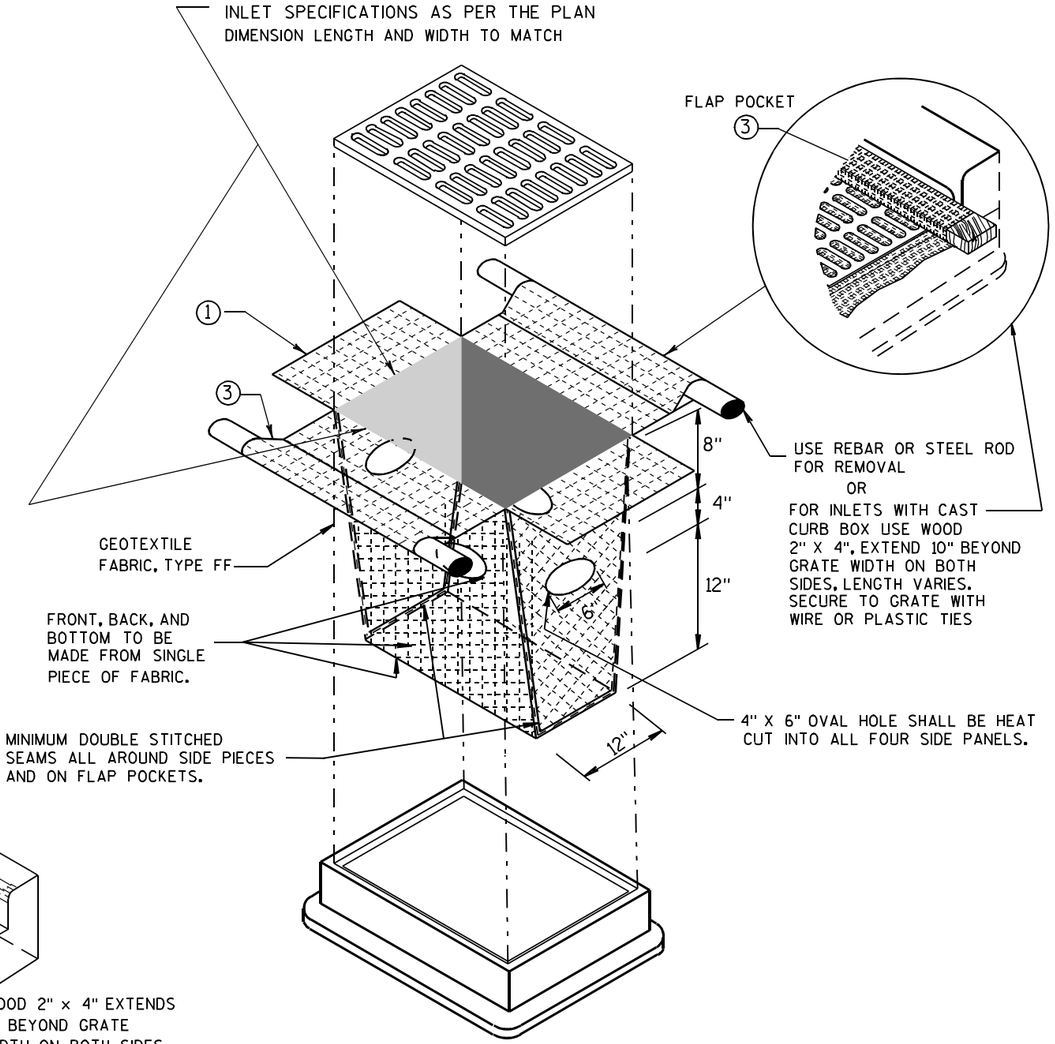


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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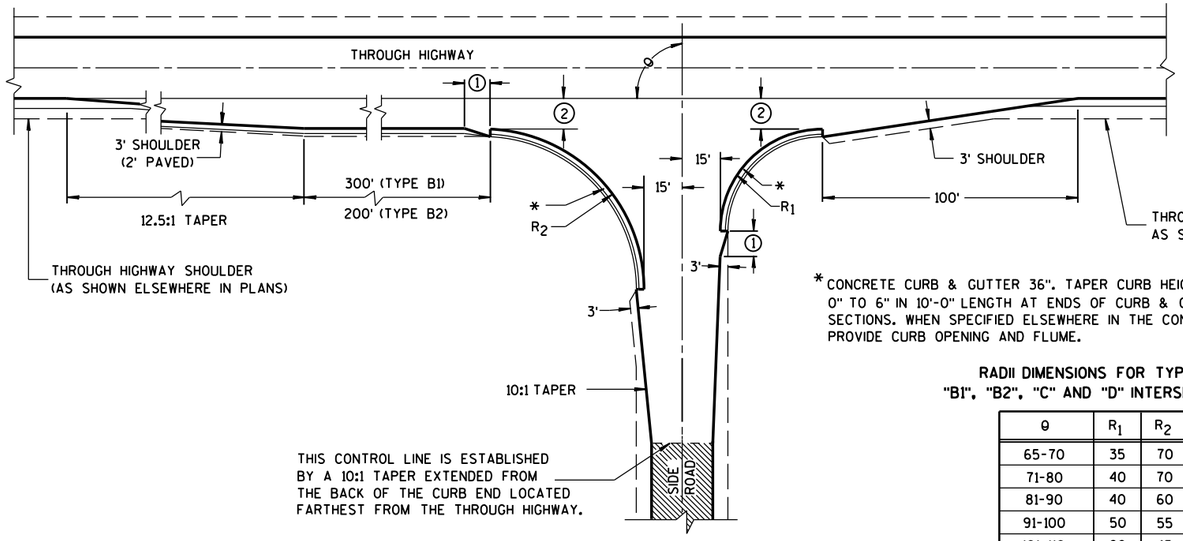
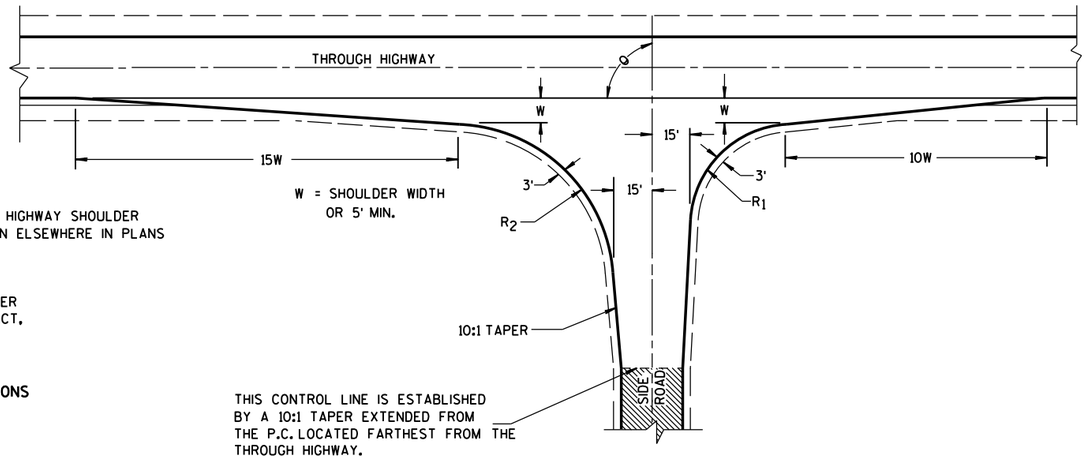


TYPE "B1" AND "B2"

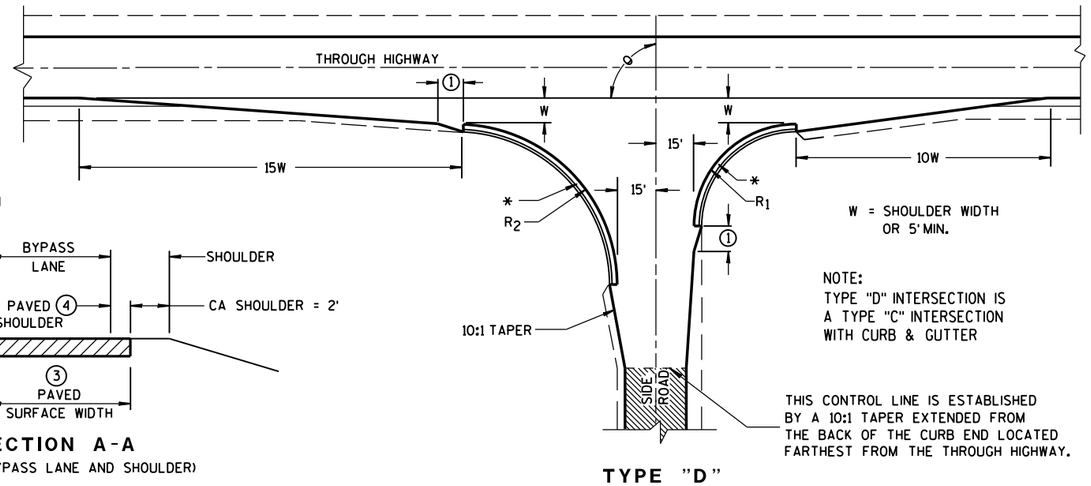
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

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.

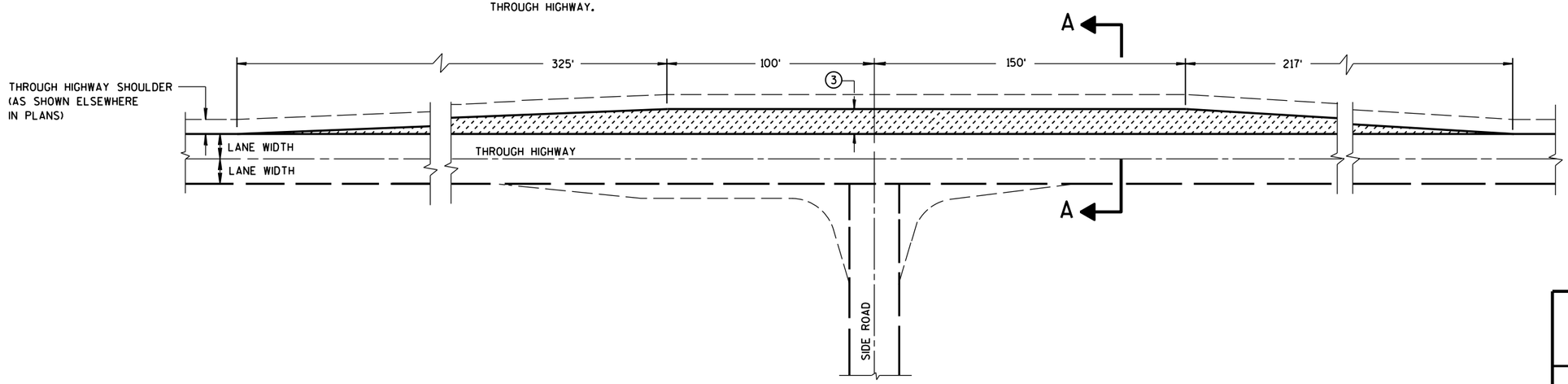
(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

**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 TRANSPO

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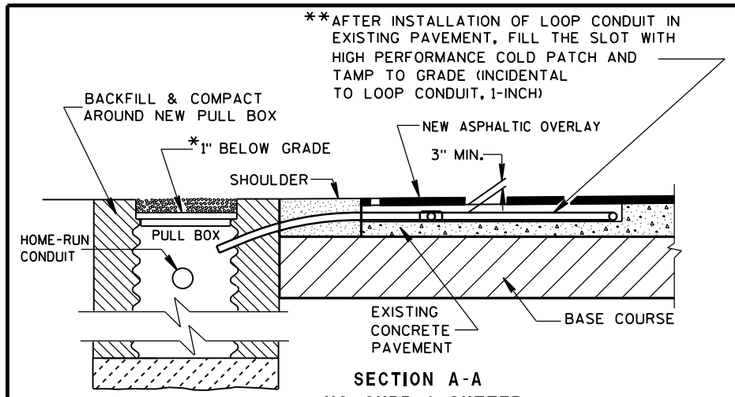
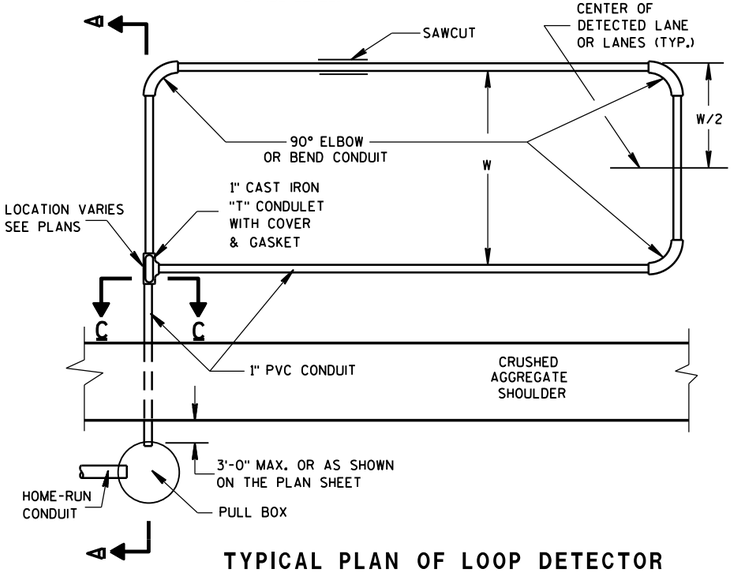


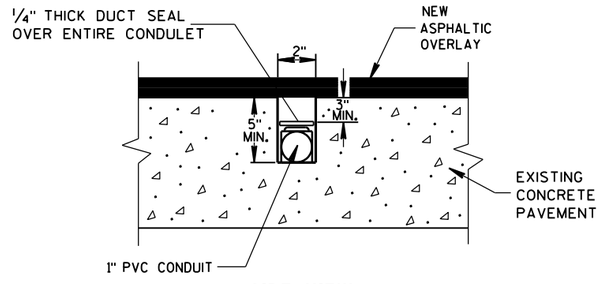
SECTION A-A
NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

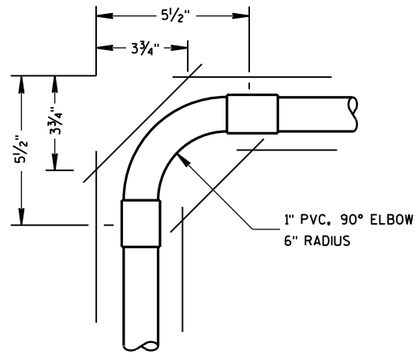


TYPICAL PLAN OF LOOP DETECTOR



SIDE VIEW
SECTION C-C

LOOP DETECTOR SLOT DETAIL



TOP VIEW

CORNER SAW SLOT DETAIL

GENERAL NOTES

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

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

IN THE EVENT EPOXY IS USED AS A LOOP SLOT FILLER, THE SLOT SHALL BE TOTALLY CLEAN AND DRY BEFORE ITS INSTALLATION.

BEFORE PLACING THE 1 INCH CONDUIT IN THE CLEANED OUT SLOT, PLACE SOME OF THE TAR OR EPOXY SEALANT IN THE SLOT TO A DEPTH OF APPROXIMATELY 1/2 INCH.

ONCE THE 2" LOOP SLOT HAS BEEN CHIPPED OUT, THE LOOP INSTALLATION SHALL BE COMPLETED PRIOR TO OPENING THE LANE(S) TO TRAFFIC.

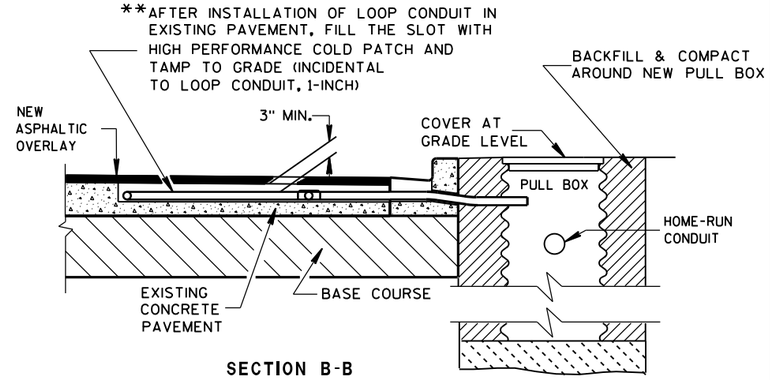
LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

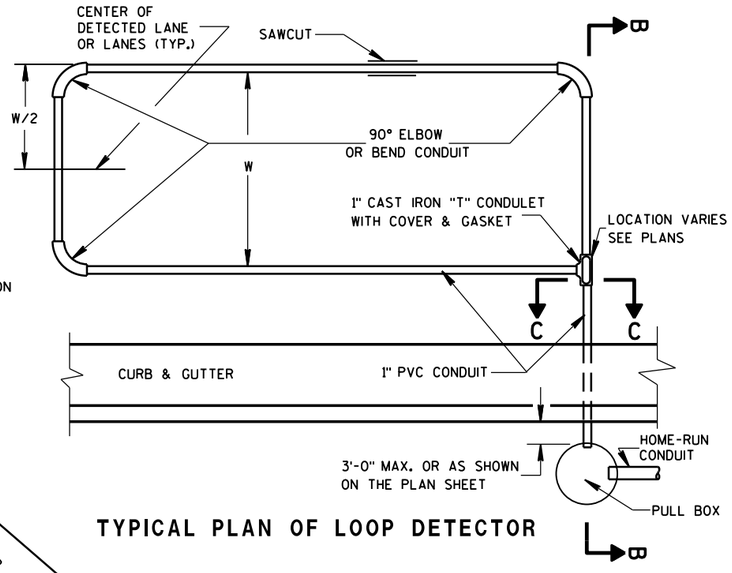
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP CONDUIT BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

** AFTER THE HIGH PERFORMANCE COLD PATCH HAS BEEN TAMPED, SEAL THE SLOT/HIGH PERFORMANCE COLD PATCH/ PAVEMENT OPENING WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".

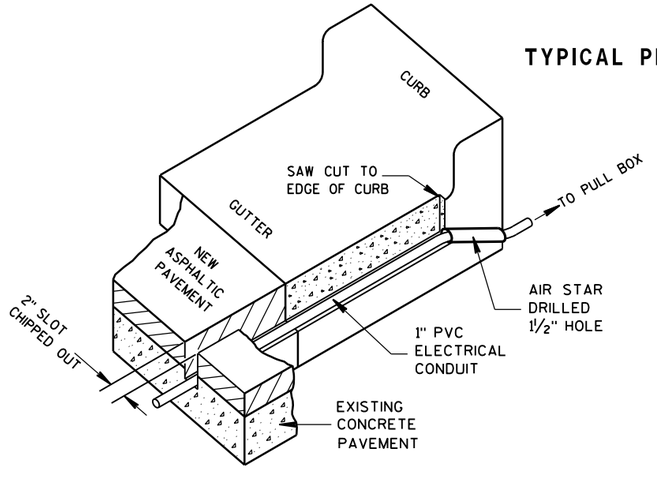


SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR



ISOMETRIC VIEW

TYPICAL SAW CUT DETAIL FOR LEAD-IN CONDUIT

LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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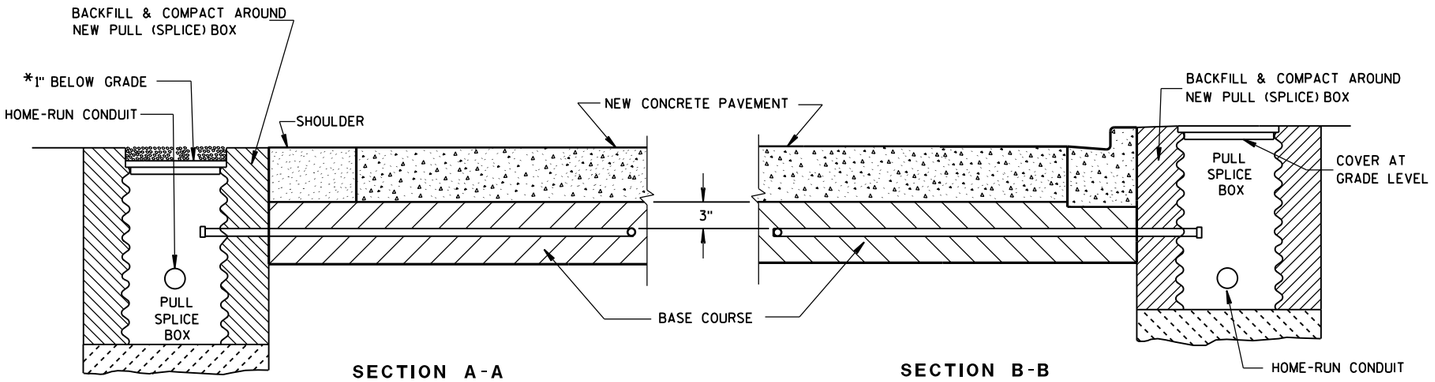


SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

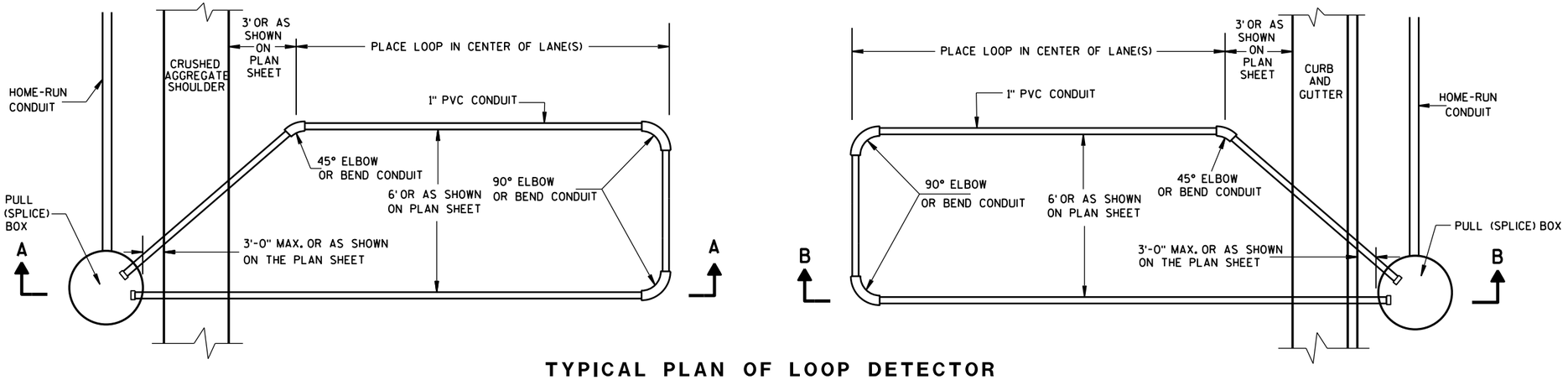
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICE CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE, SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 F 15-4a

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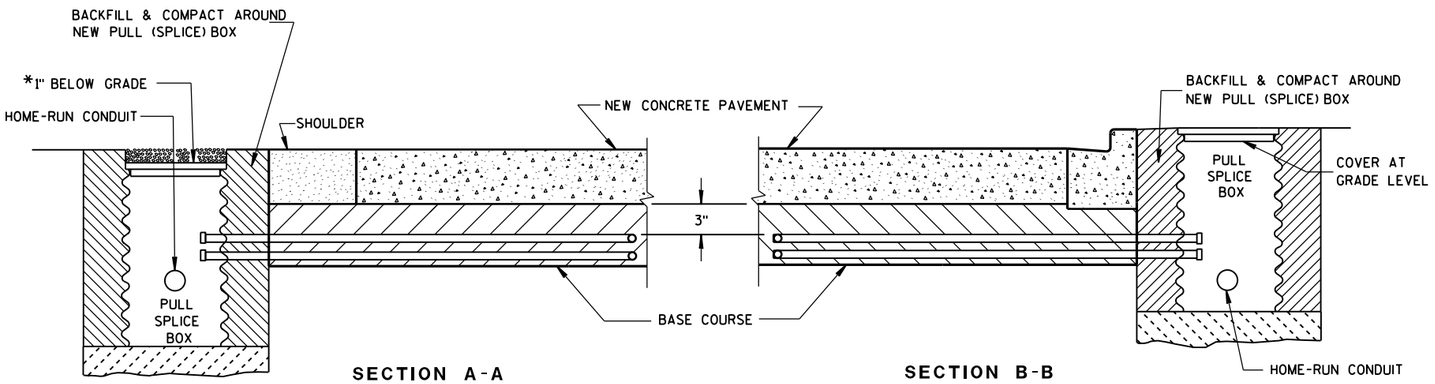


SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

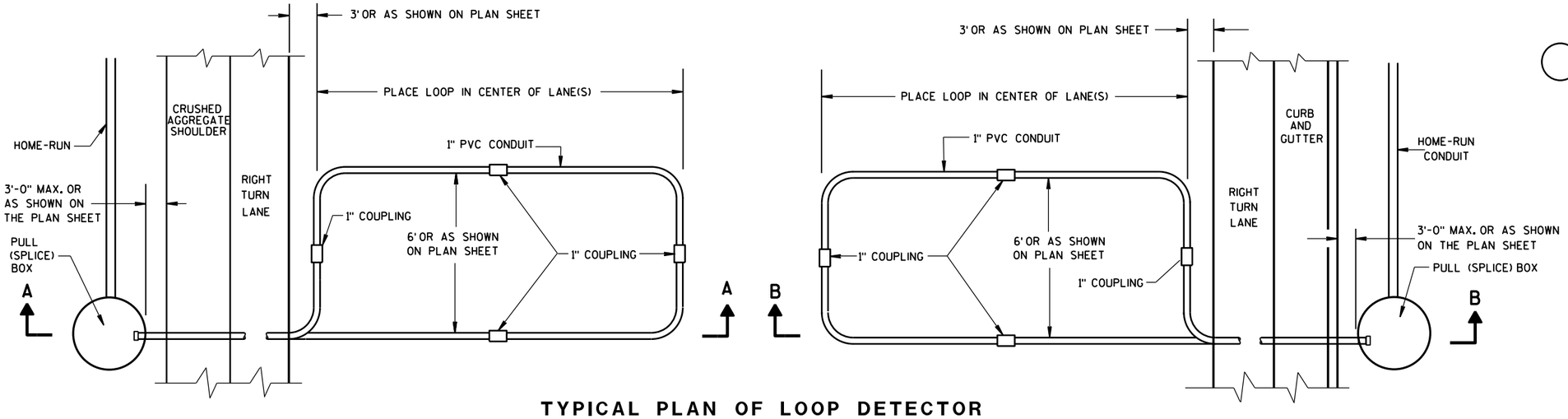
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

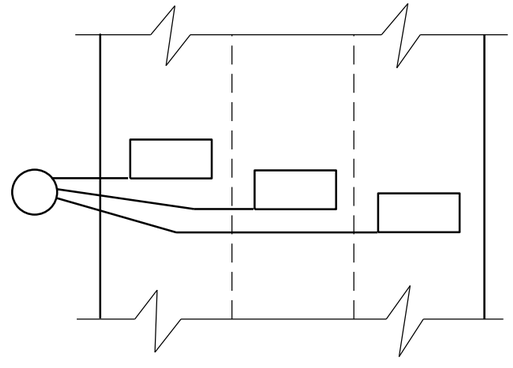
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 F 15-4b

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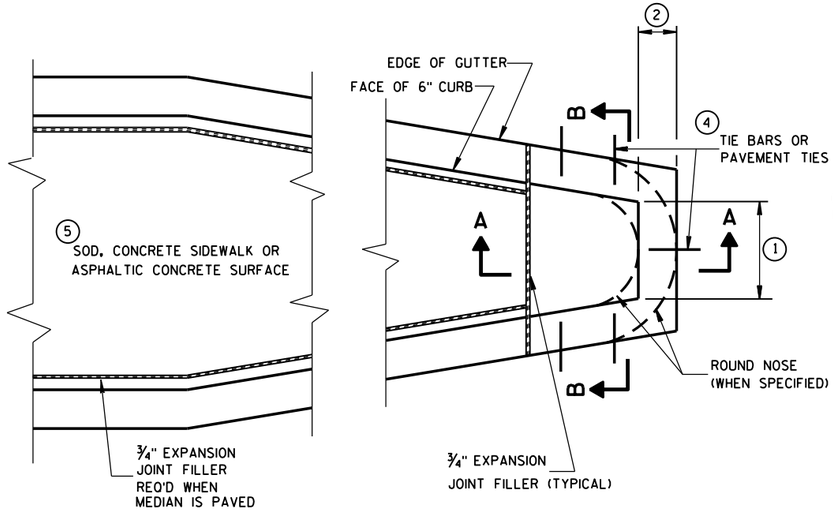
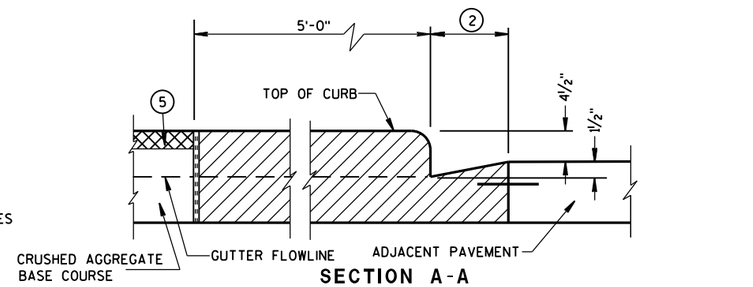
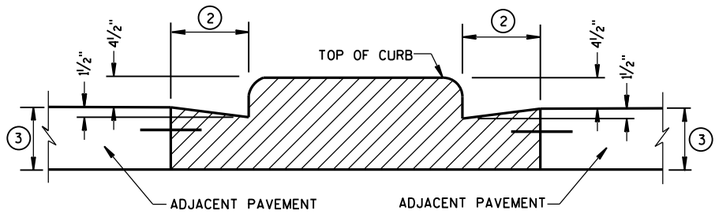
S.D.D. 9 F 15-4b







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.

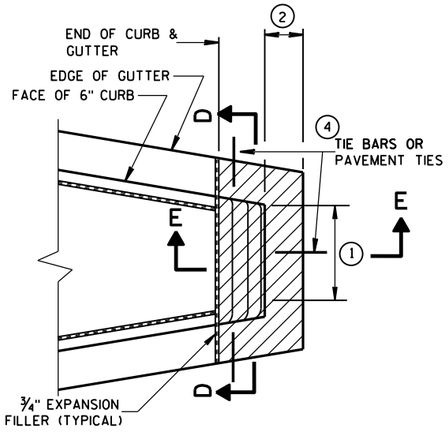
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

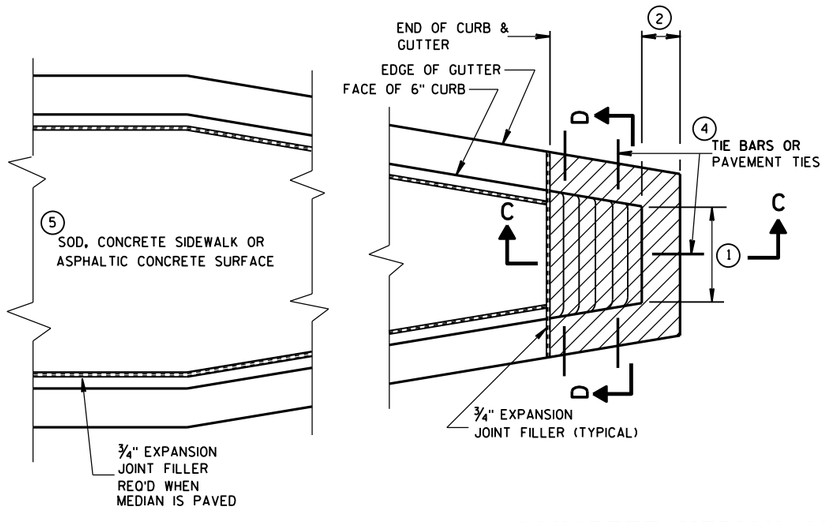
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

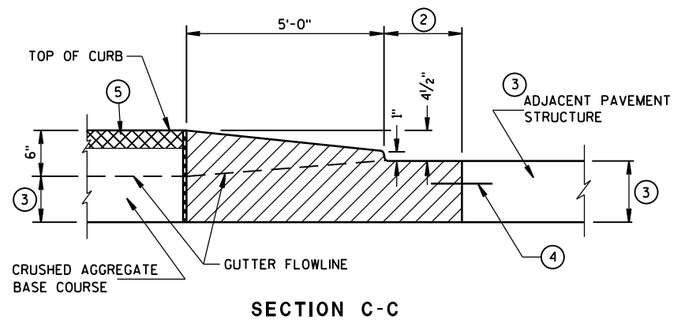
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

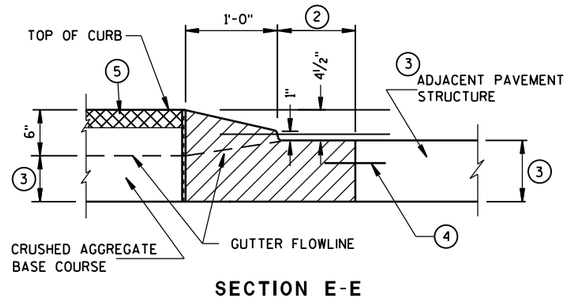
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



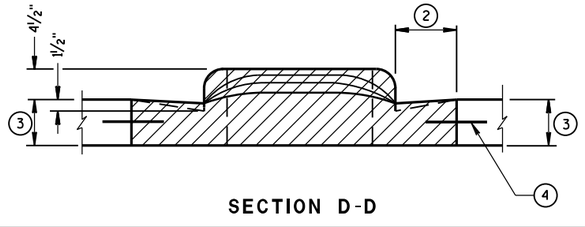






CONCRETE MEDIAN SLOPED NOSE TYPE 2

CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/8/2006
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 11 B 2-2

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S.D.D. 11 B 2-2

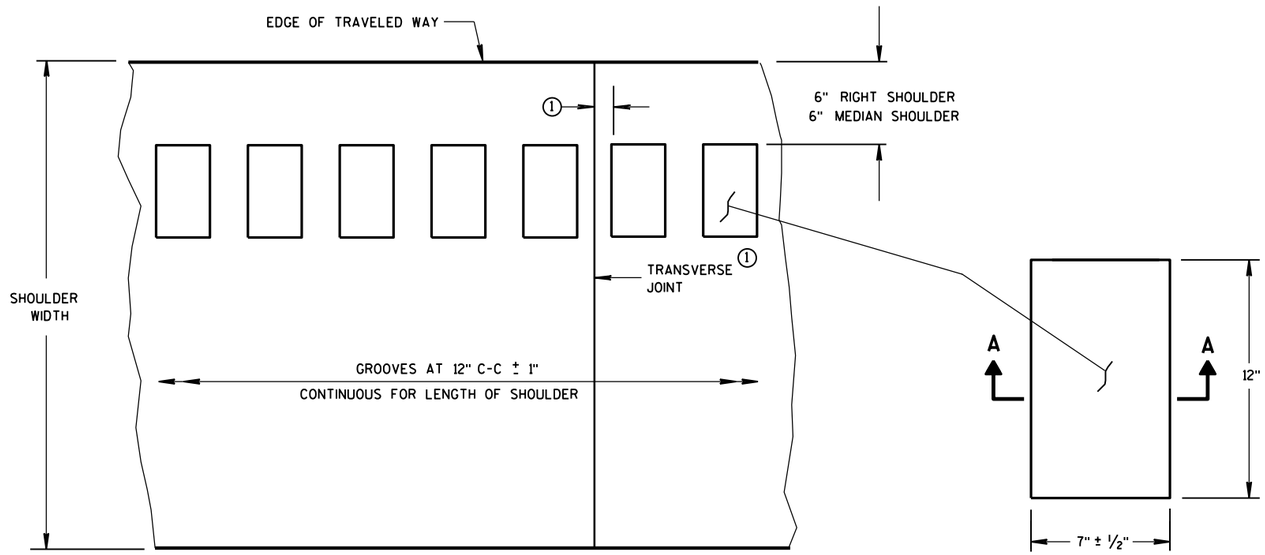
GENERAL NOTES

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.

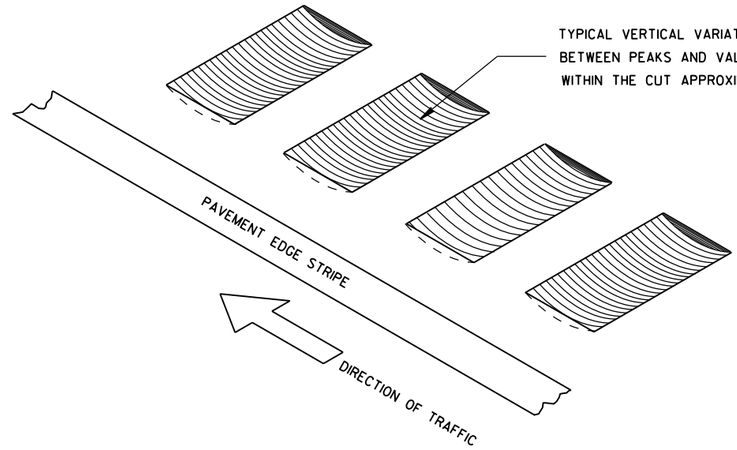
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



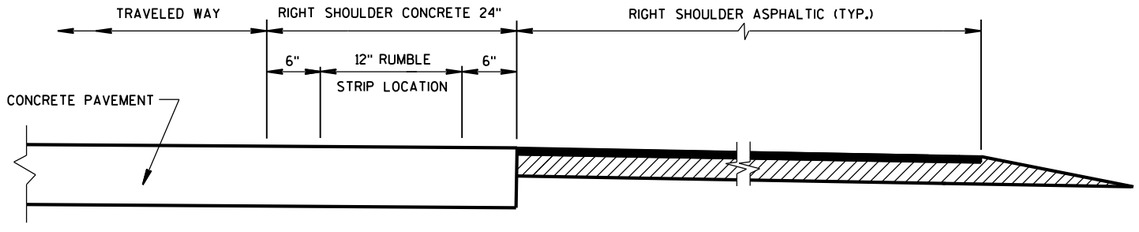
PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

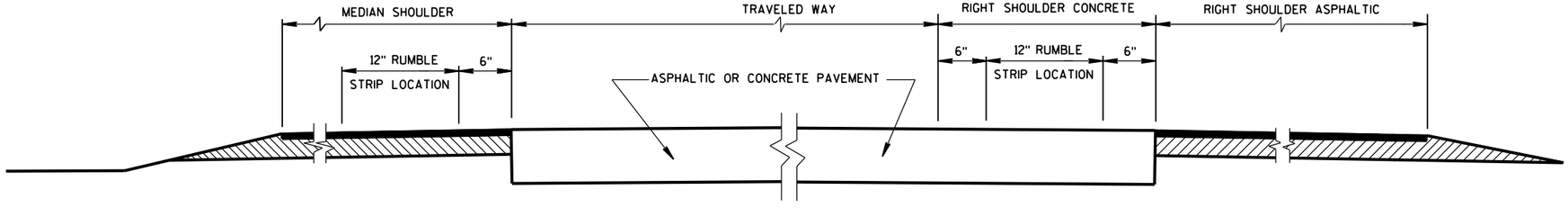
PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



ISOMETRIC

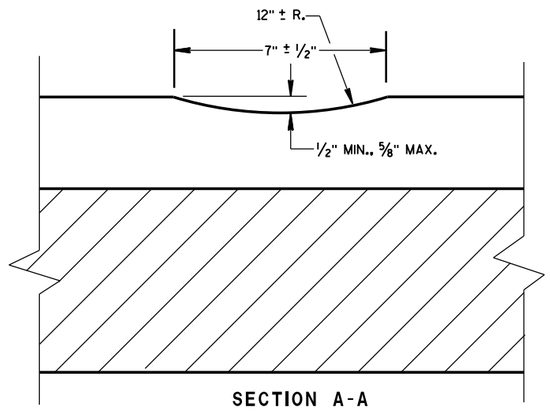


SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



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

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S.D.D. 13 A 5-5a

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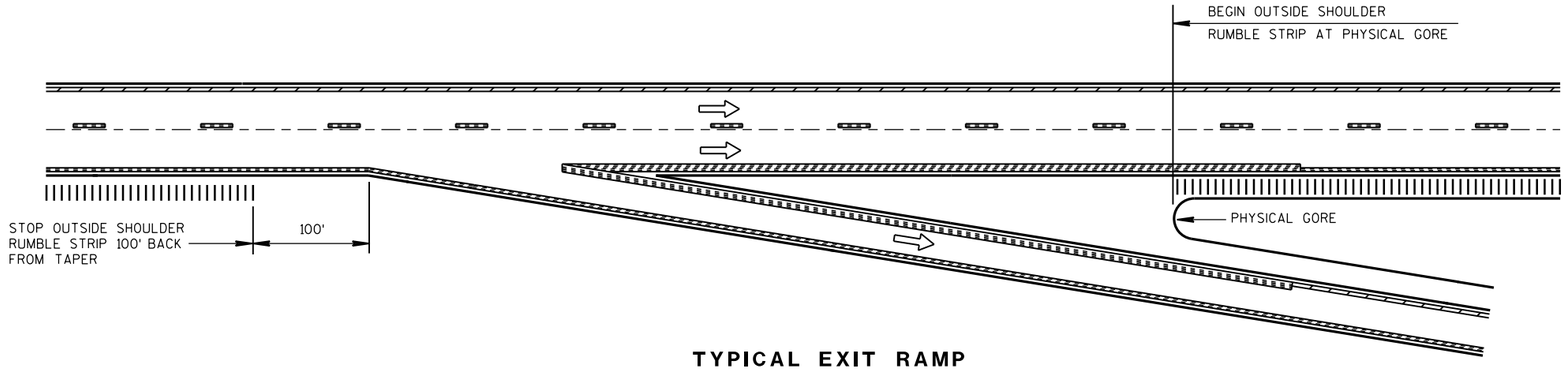
S.D.D. 13 A 5-5a



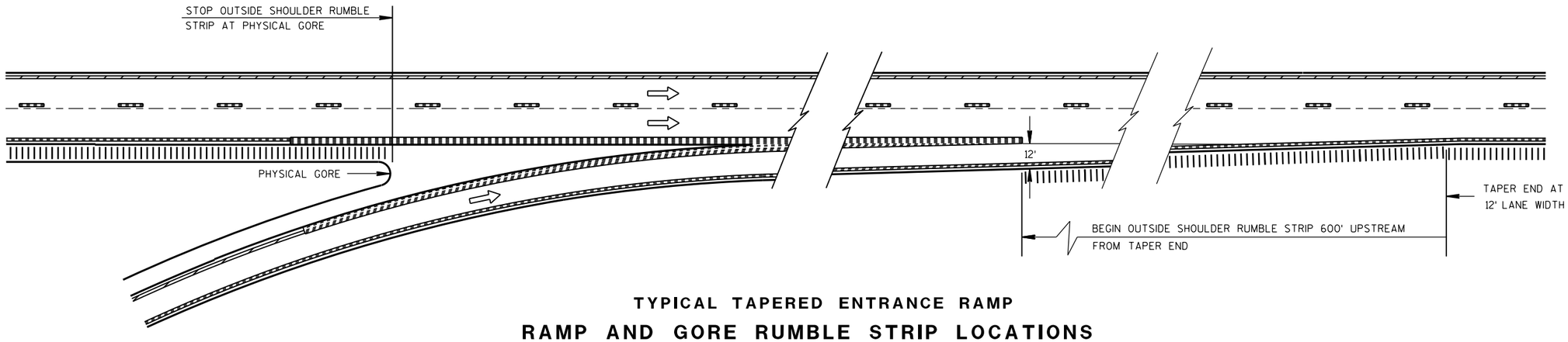
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

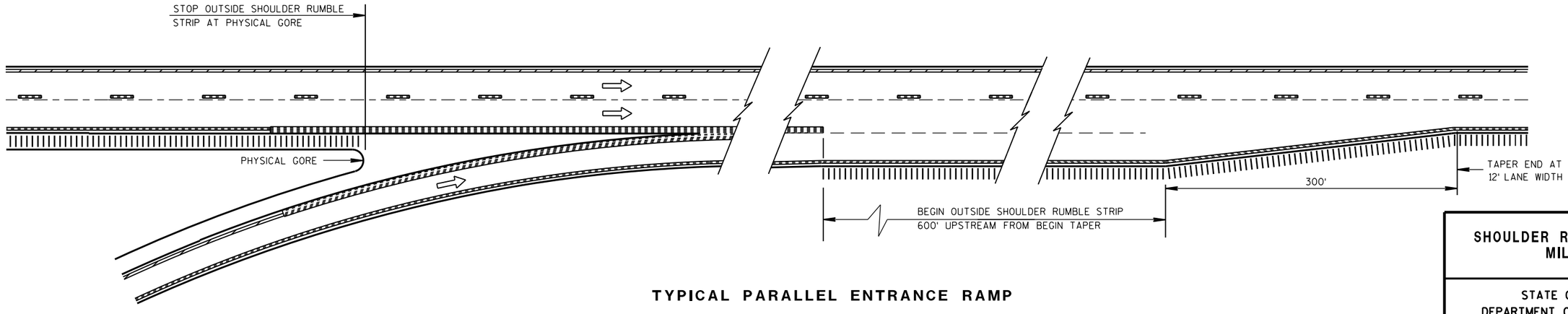
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

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

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S.D.D. 13 A 5-5b

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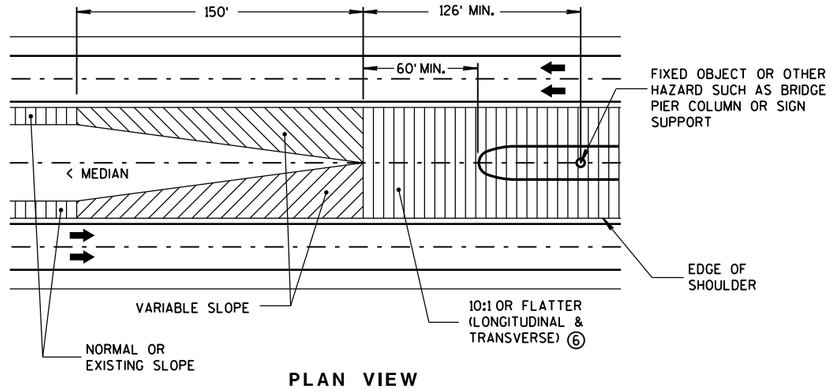
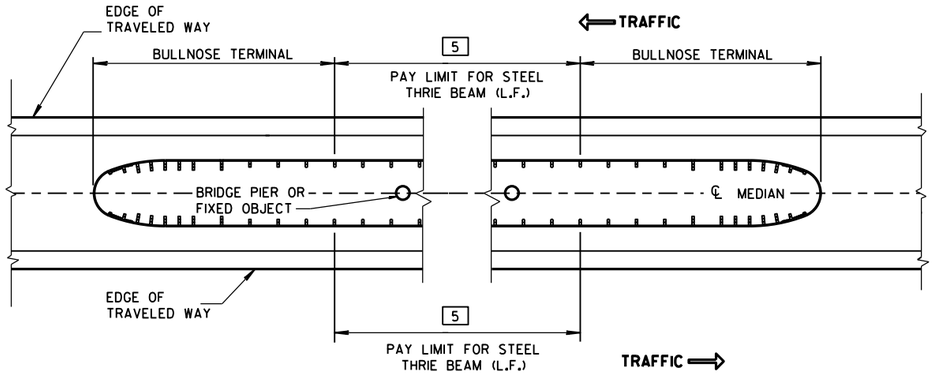
S.D.D. 13 A 5-5b

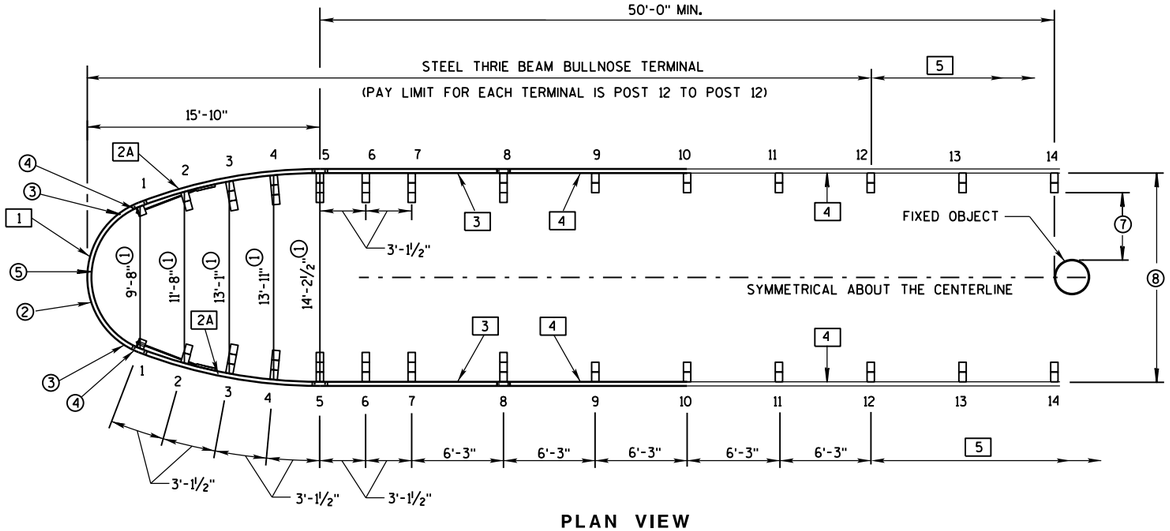


PLAN VIEW

GRADING AT BULLNOSE
(ALL INSTALLATIONS)

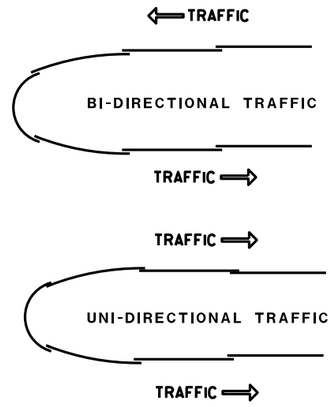


MEDIAN HAZARD PROTECTION PAY LIMITS



PLAN VIEW

TYPICAL BULLNOSE LAYOUT



LAPPING DETAIL
(ALL INSTALLATIONS)

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

PUNCHING, DRILLING, CUTTING OR WELDING IS NOT PERMITTED ON ANY GALVANIZED THRIE BEAM ACCESSORY OR TERMINAL ACCESSORY.

OTHER ANCHOR CABLE ASSEMBLIES HAVING 40,000 LBS. MIN. BREAKING STRENGTH MAY BE USED.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

THE USE OF STEEL POSTS ON THE BULLNOSE IS NOT ALLOWED.

BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

ALL THRIE BEAM SHALL BE 12-GAUGE.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½" AND 12" DIAMETER AROUND POST. SEE SDD 14B15 OR SDD 14B42 FOR MORE INFORMATION.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A. (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

[4] UNBENT STANDARD THRIE-BEAM RAIL NO.4. (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.

② U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.

③ NOSE CABLE W/SWAGGED END BUTTONS.

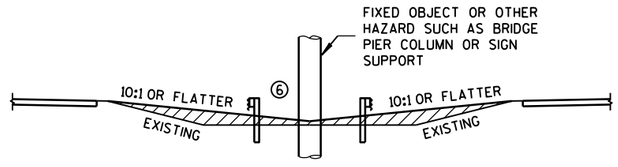
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

⑤ 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.

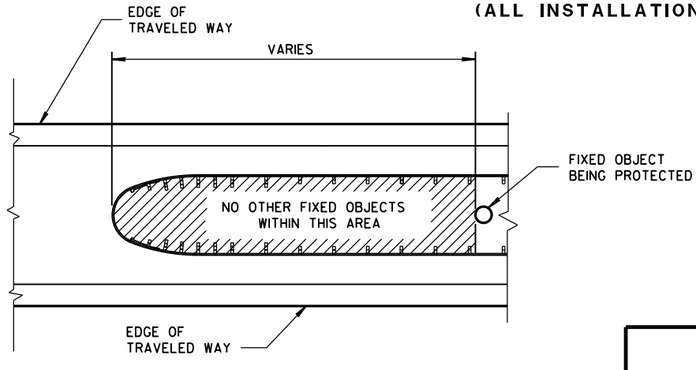
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

⑦ 2'-6" MINIMUM LATERAL DISTANCE BETWEEN BACK OF POST AND FACE OF FIXED OBJECT.

⑧ MAXIMUM WIDTH OF SYSTEM IS 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



MEDIAN GRADING SECTION
(ALL INSTALLATIONS)

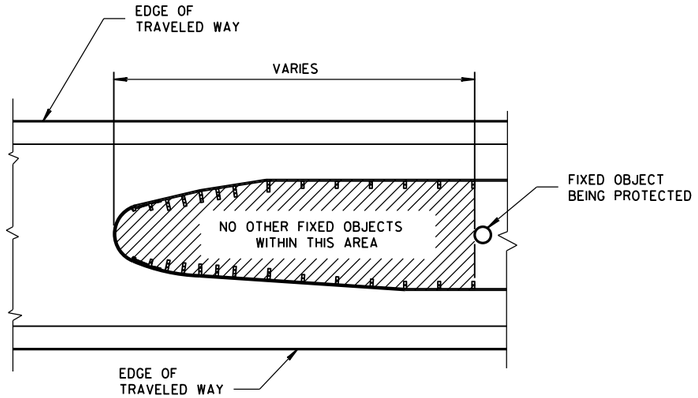


HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 14 B 26-3a



HAZARD FREE
AREA INSIDE BULLNOSE

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A, (POST 1 TO POST 5)

[2B] SLOTTED THRIE BEAM RAIL NO. 2B, (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

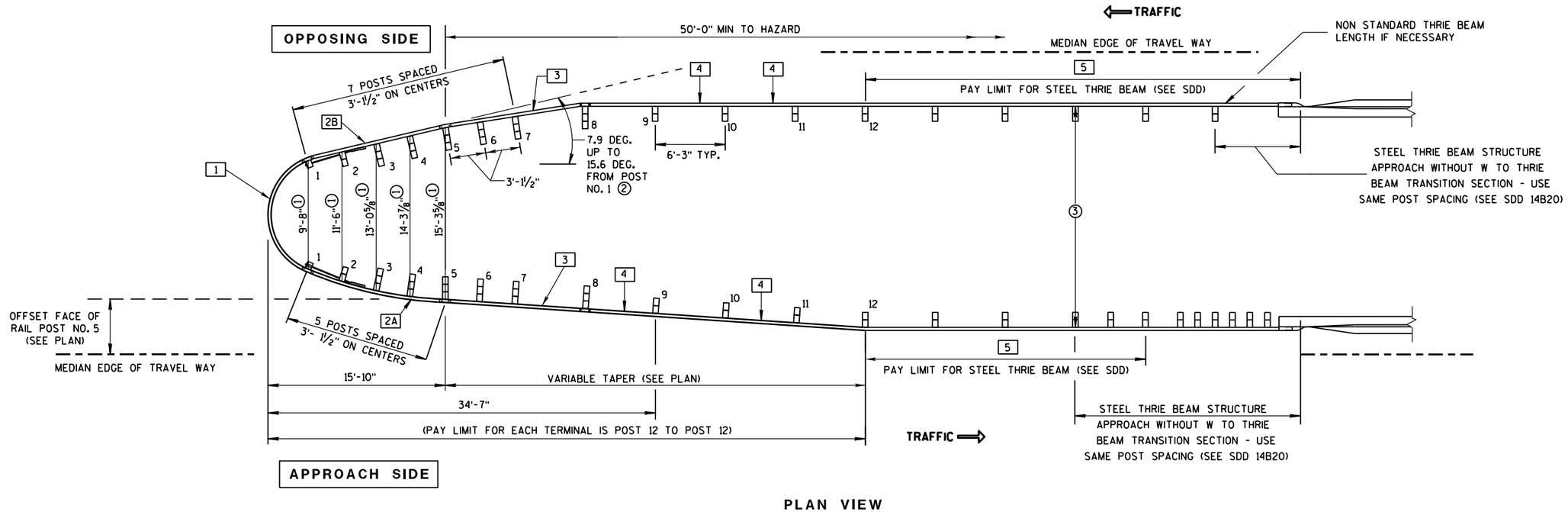
[4] UNBENT STANDARD THRIE-BEAM RAIL NO. 4, (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST.

② TAPER BEGINNING AT POST NO. 1 MUST CONTINUE TO POST NO. 5. PAST POST NO. 5 TAPER MAY END OR BE EXTENDED UP TO 15.6 DEGREES TO FIT VARIABLE MEDIAN WIDTHS. (SEE PLAN)

③ FOR MEDIANS WIDER THAN 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



PLAN VIEW

WIDENED BULLNOSE DESIGN

(INSTALLATION AT TWIN BRIDGES WITH BI-DIRECTIONAL TRAFFIC SHOWN)

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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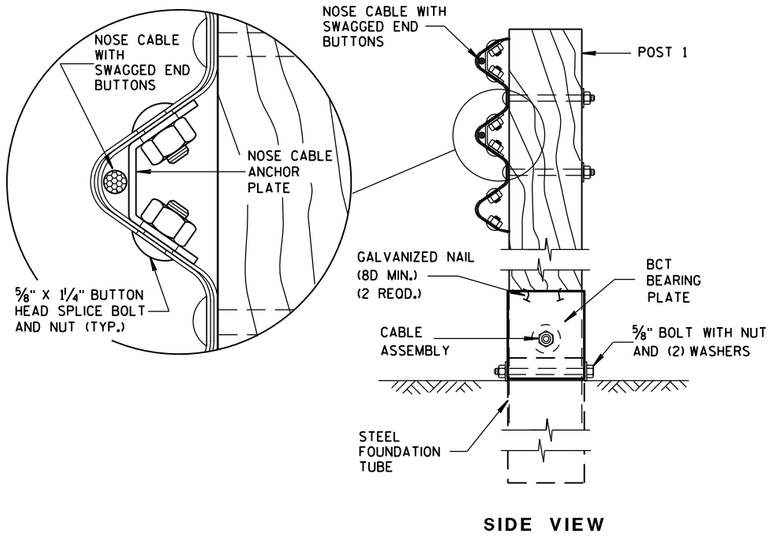
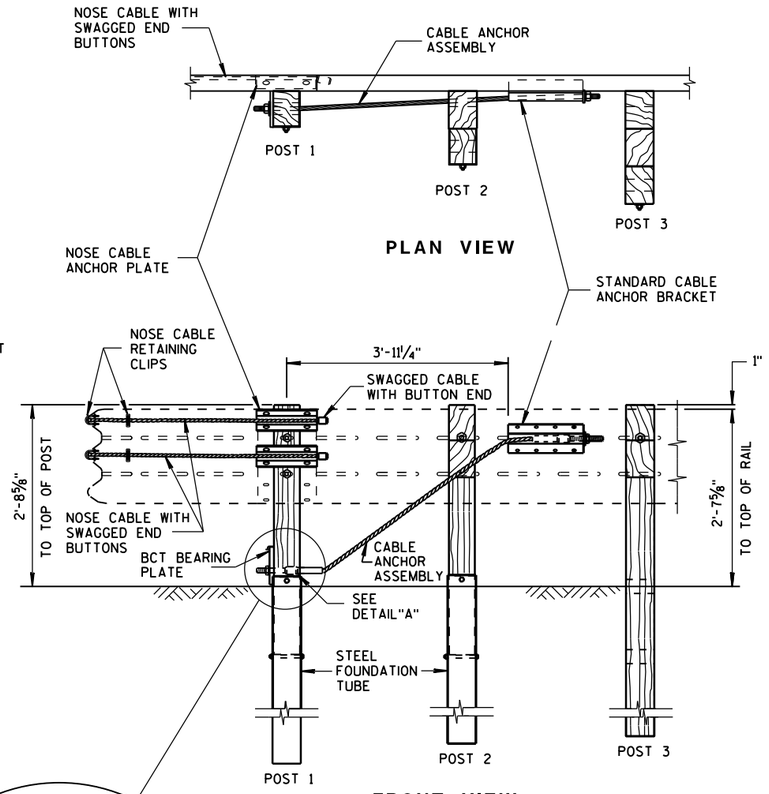
S.D.D. 14 B 26-3b



SIDE VIEW

NOSE CABLE ASSEMBLY AT POST NO. 1



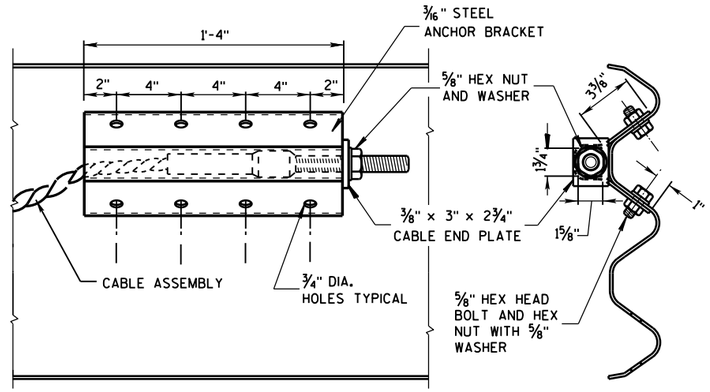
PLAN VIEW

FRONT VIEW

NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY

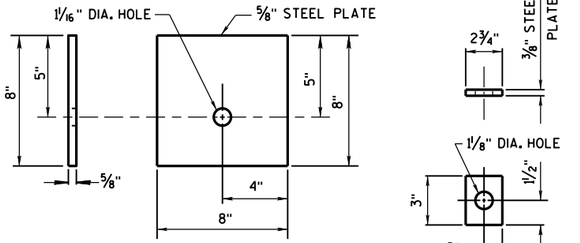
GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



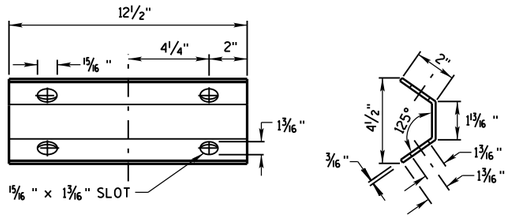
FRONT VIEW END VIEW

DETAILS OF CABLE ANCHOR BRACKET



BCT BEARING PLATE

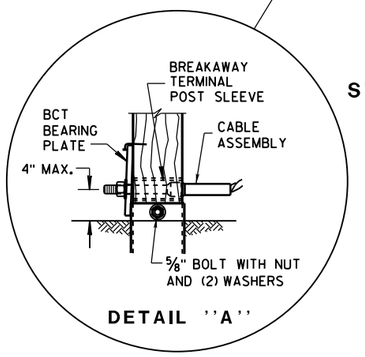
CABLE END PLATE



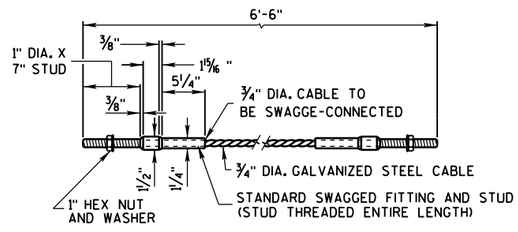
ELEVATION VIEW END VIEW

NOSE CABLE ANCHOR PLATE

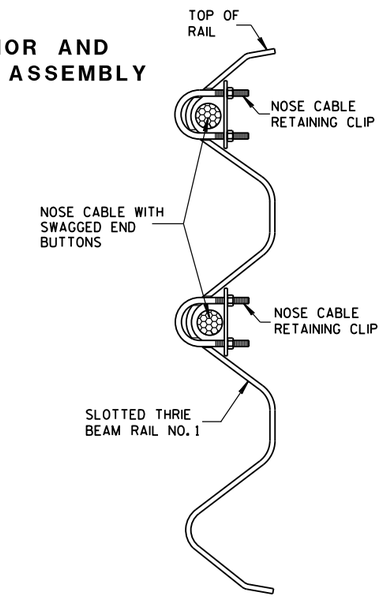
NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)



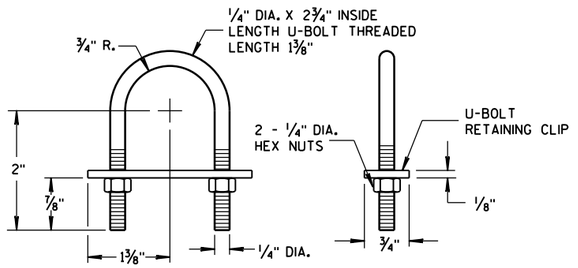
DETAIL ''A''



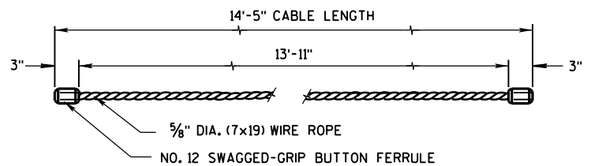
DETAILS OF CABLE ANCHOR ASSEMBLY



PLACEMENT OF NOSE CABLE RETAINING CLIP



NOSE CABLE RETAINING CLIP



NOSE CABLE WITH SWAGGED END BUTTONS

TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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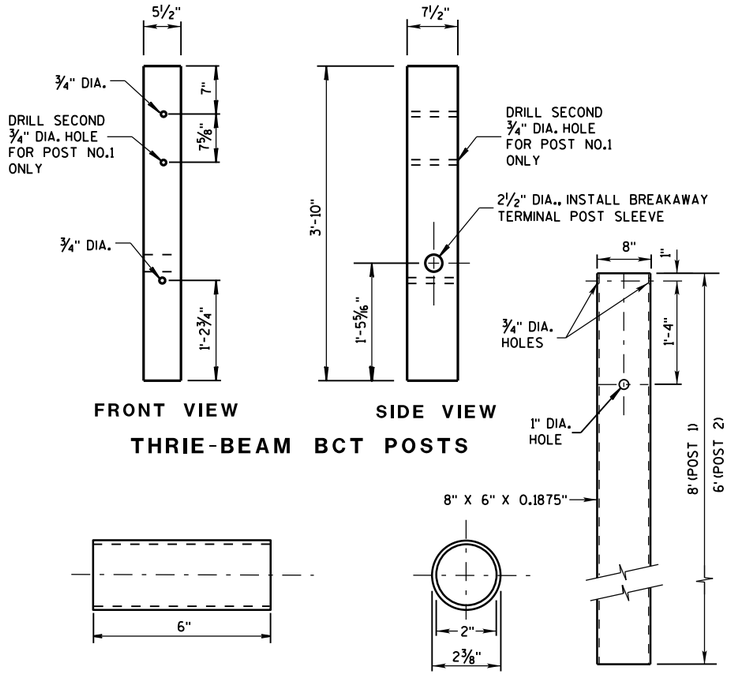
S.D.D. 14 B 26-3c

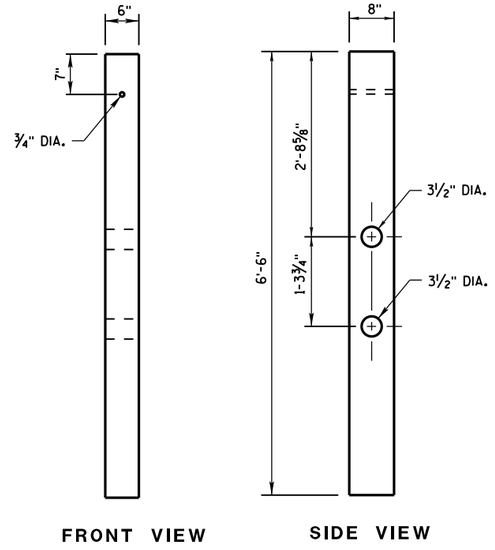


FRONT VIEW SIDE VIEW

THRIE-BEAM BCT POSTS

BREAKAWAY TERMINAL POST SLEEVE

STEEL FOUNDATION TUBE

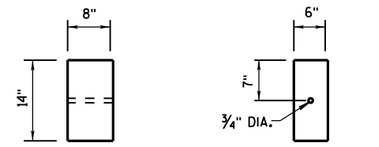


FRONT VIEW SIDE VIEW

THRIE-BEAM CRT WOOD POSTS

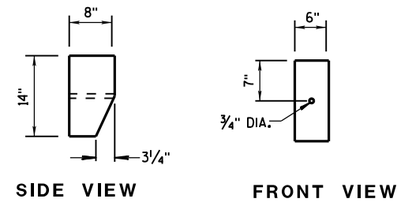
GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



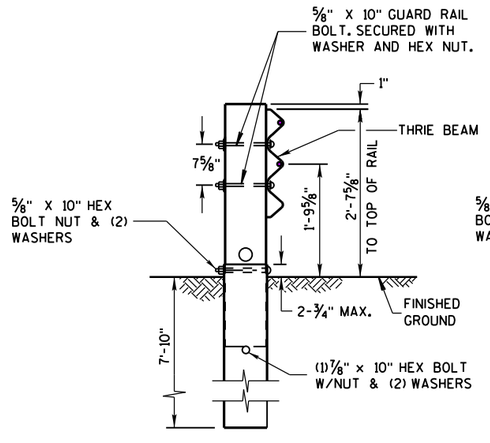
SIDE VIEW FRONT VIEW

STANDARD WOOD BLOCK



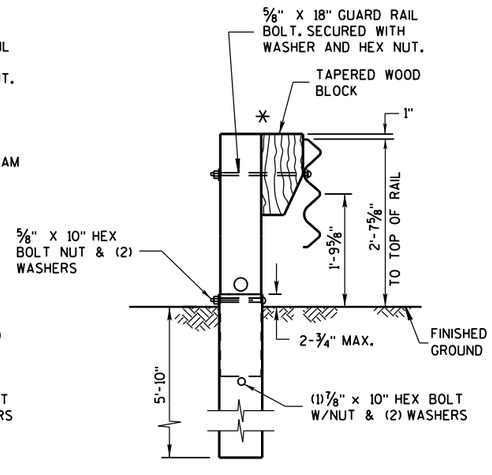
SIDE VIEW FRONT VIEW

TAPERED WOOD BLOCK



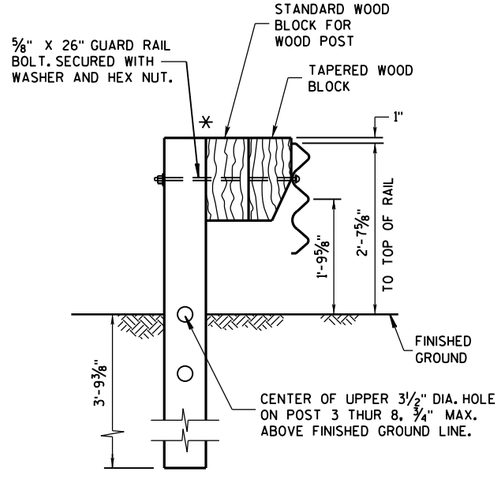
THRIE-BEAM BCT POST
(WITH 8'-0" FOUNDATION TUBE)

POST NO. 1



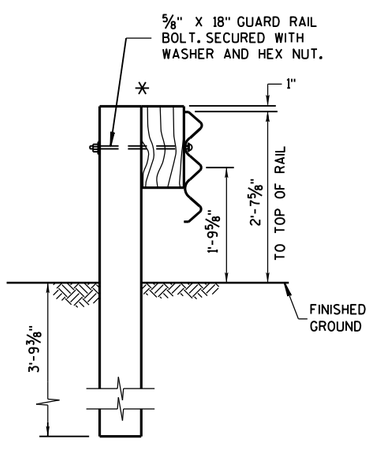
THRIE-BEAM BCT POST
(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)

POST NO. 2



THRIE-BEAM CRT POST
(6'-6" LONG POST WITH 1'-2" BLOCK AND 1'-2" TAPERED BLOCK)

POST NO. 3,4,5,6,7, & 8



THRIE-BEAM POST
(6'-6" LONG POST WITH 1'-2" BLOCK)

POST NO. 9,10,11,& 12

(ALSO USE FOR STEEL THRIE BEAM BEYOND POST 12)

* IF NEEDED DUE TO AN UNDERGROUND OBSTACLE ADD 1 ADDITIONAL STANDARD BLOCKOUT TO POST.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 95

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S.D.D. 14 B 26-3d

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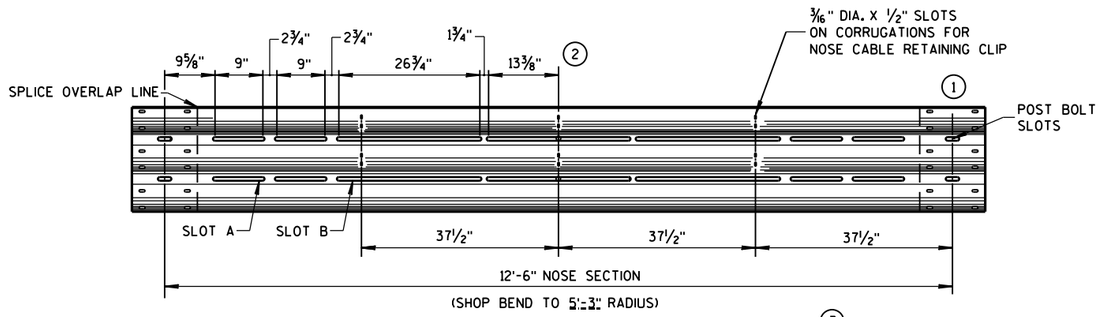
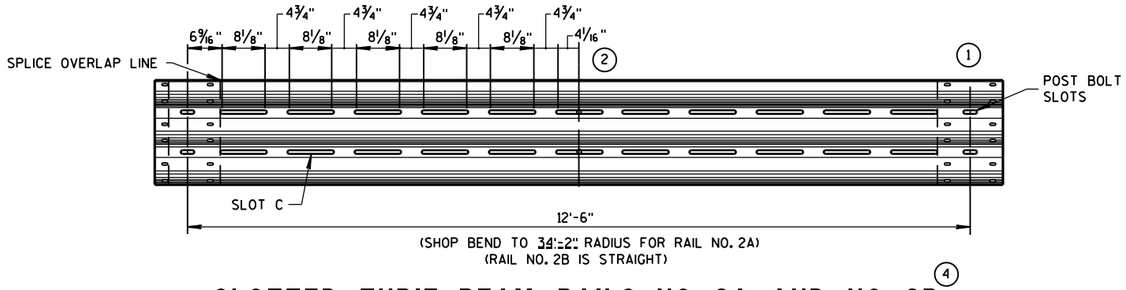
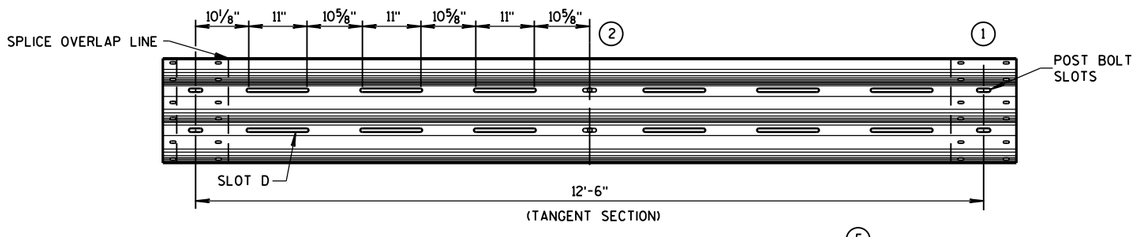


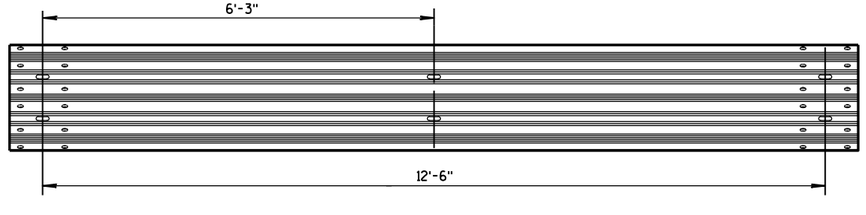
SLOTTED THRIE BEAM RAIL NO. 1 (3)



SLOTTED THRIE BEAM RAILS NO. 2A AND NO. 2B (4)



SLOTTED THRIE BEAM RAIL NO. 3 (5)



UNBENT STANDARD THRIE BEAM RAIL NO. 4 AND NO. 5

GENERAL NOTES

SEE STANADRD DETAIL DRAWINGS 14 B 26a-e.

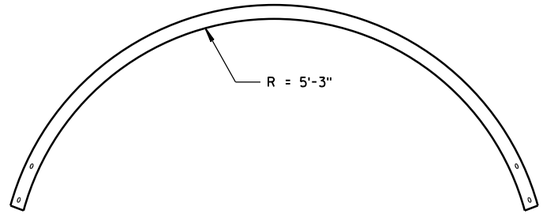
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

(3) SLOTTED THRIE BEAM RAIL NO. 1, 12'-6", SHOP BEND TO R=5'-3".

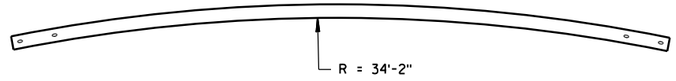
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

(5) SLOTTED THRIE BEAM RAIL NO. 3, 12'-6", TANGENT.



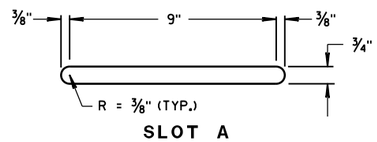
PLAN VIEW

SLOTTED THRIE BEAM RAIL NO. 1

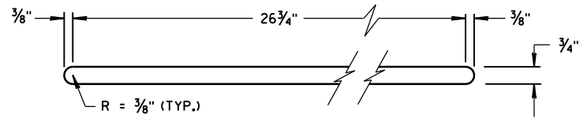


PLAN VIEW

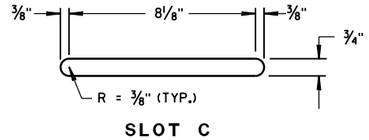
SLOTTED THRIE BEAM RAIL NO. 2A



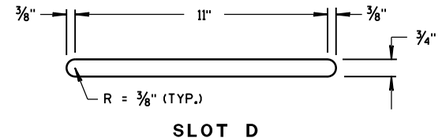
SLOT A



SLOT B



SLOT C



SLOT D

SLOT DETAILS

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 26-3e

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S.D.D. 14 B 26-3e

GENERAL NOTES

(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.

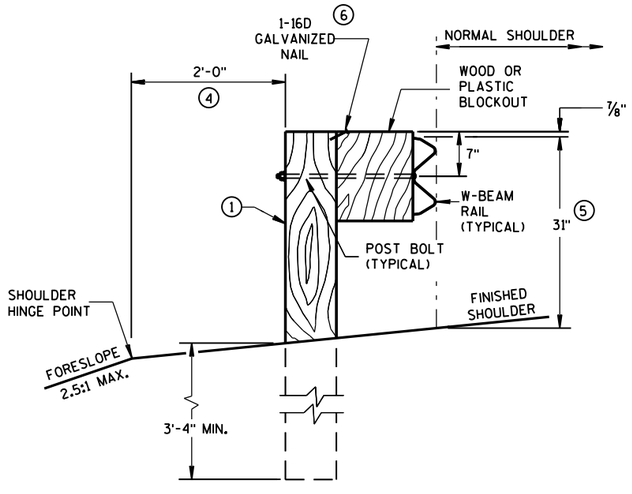
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ 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).

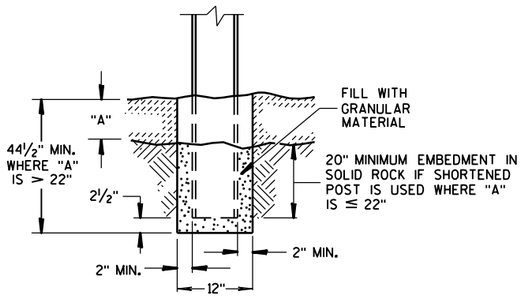
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

(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.



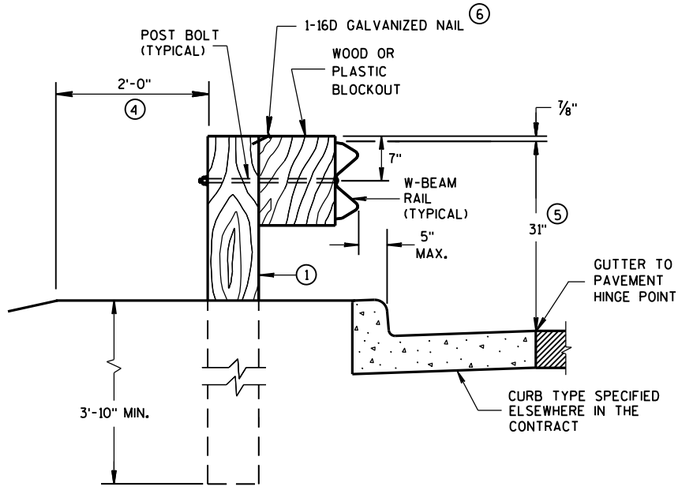
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



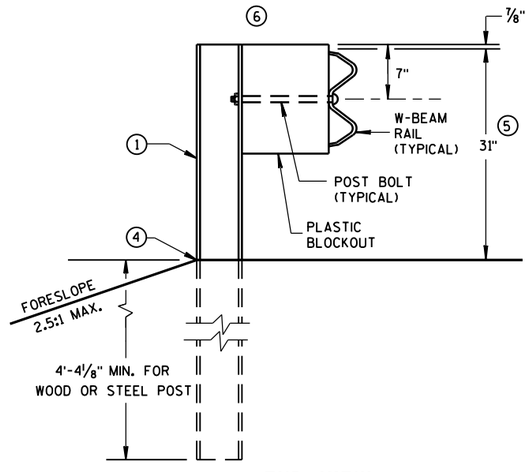
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (3)



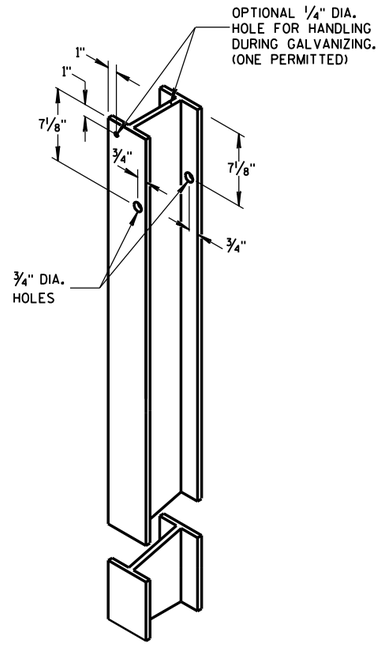
END VIEW

LOCATED ALONG A CURBED ROADWAY

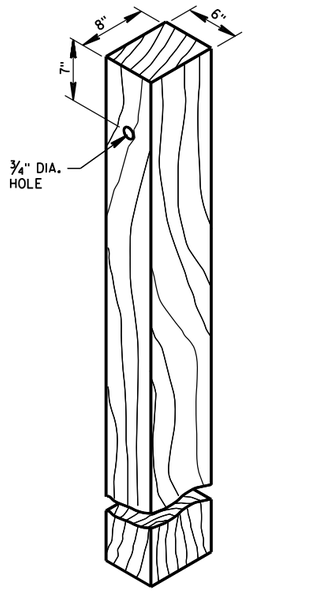


END VIEW

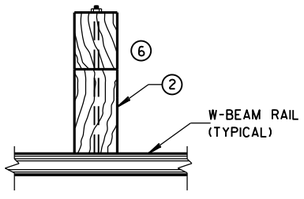
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



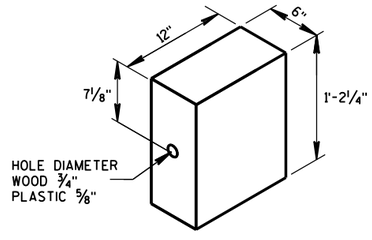
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



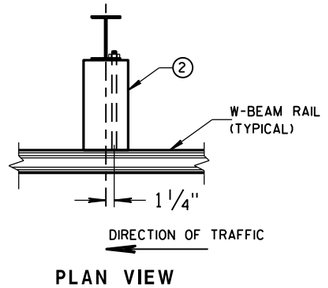
WOOD POST
(6" X 8") NOMINAL (1)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)

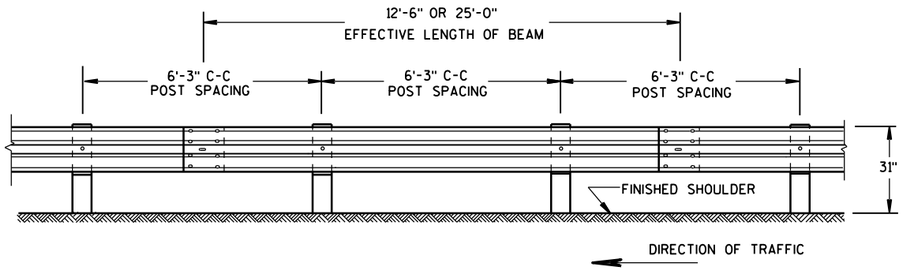


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

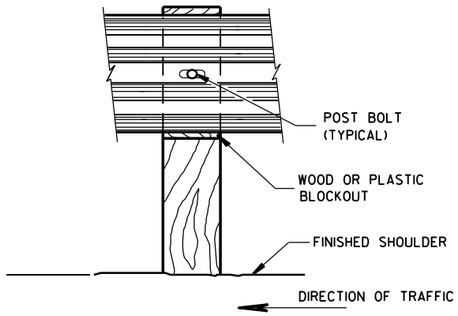
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 42-3a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



FRONT VIEW AT WOOD POST

GENERAL NOTES

(7) PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

(8) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

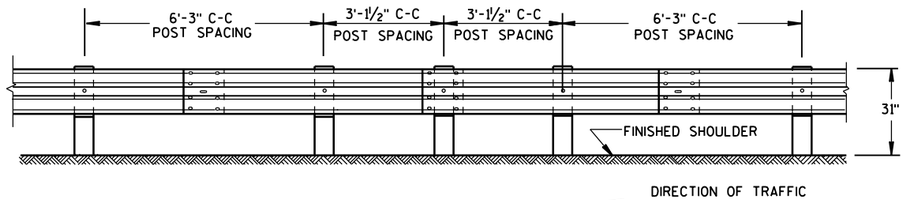
(9) REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

(10) PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

(11) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

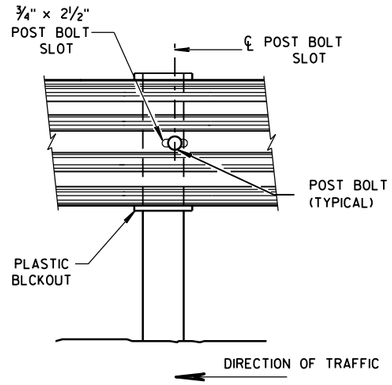
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

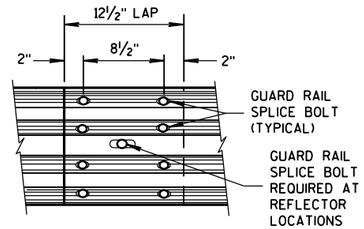


FRONT VIEW

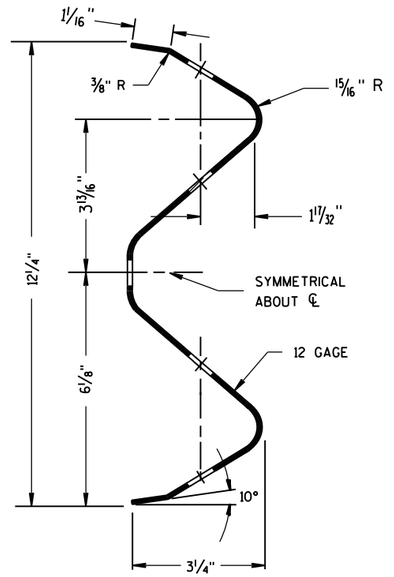
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



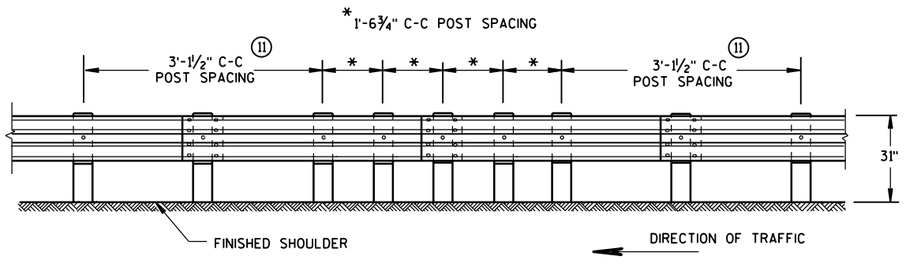
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE

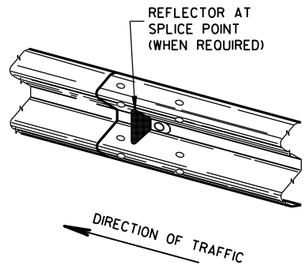


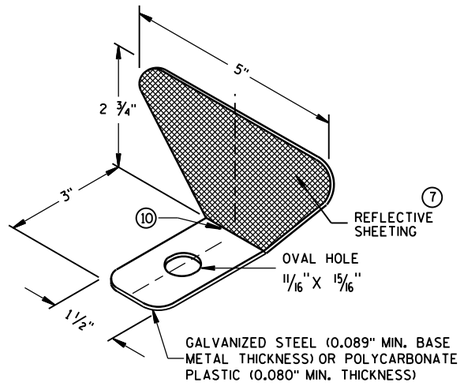
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (7)

REFLECTOR SPACING (8)

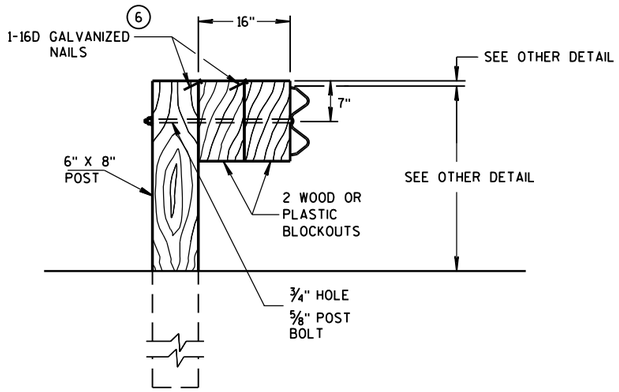
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 (9)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 (10)	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

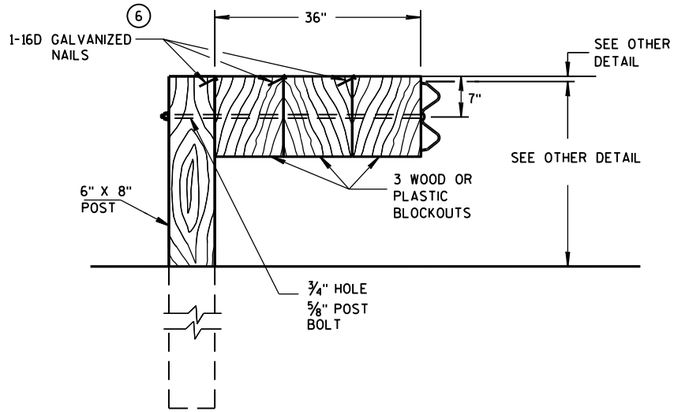
6

S.D.D. 14 B 42-3b



DETAIL FOR 16" BLOCKOUT DEPTH

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

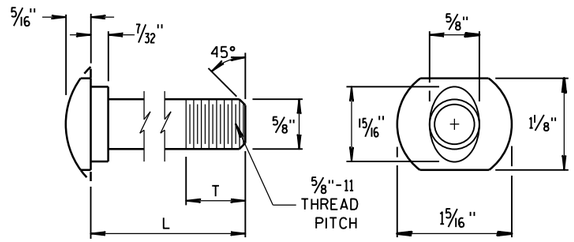


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

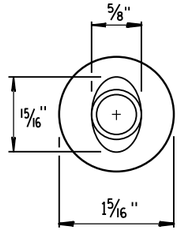
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

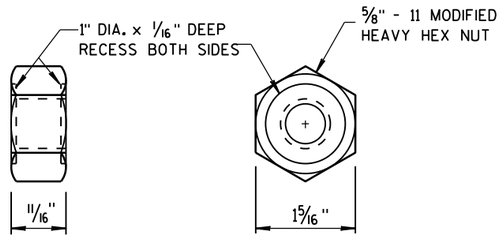


POST BOLT TABLE

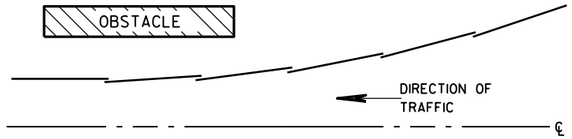
L	T (MIN.)
1¼"	1⅛"
2"	1¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

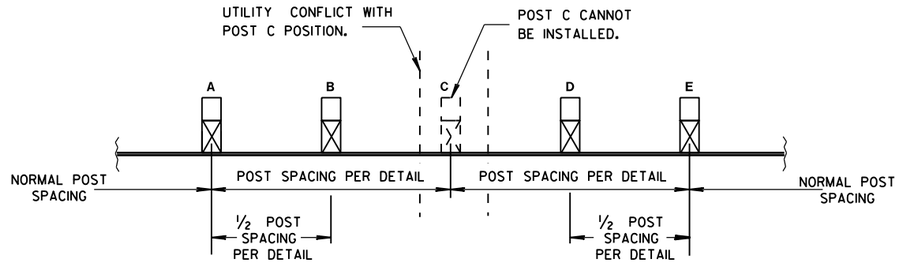


POST BOLT AND RECESS NUT

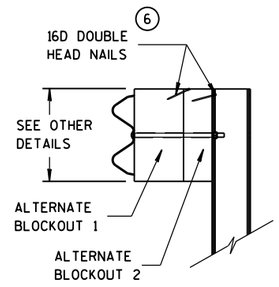


PLAN VIEW

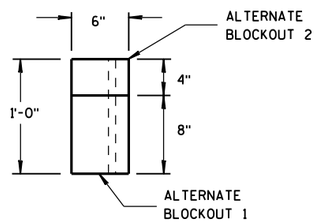
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 14 B 42-3c

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 MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

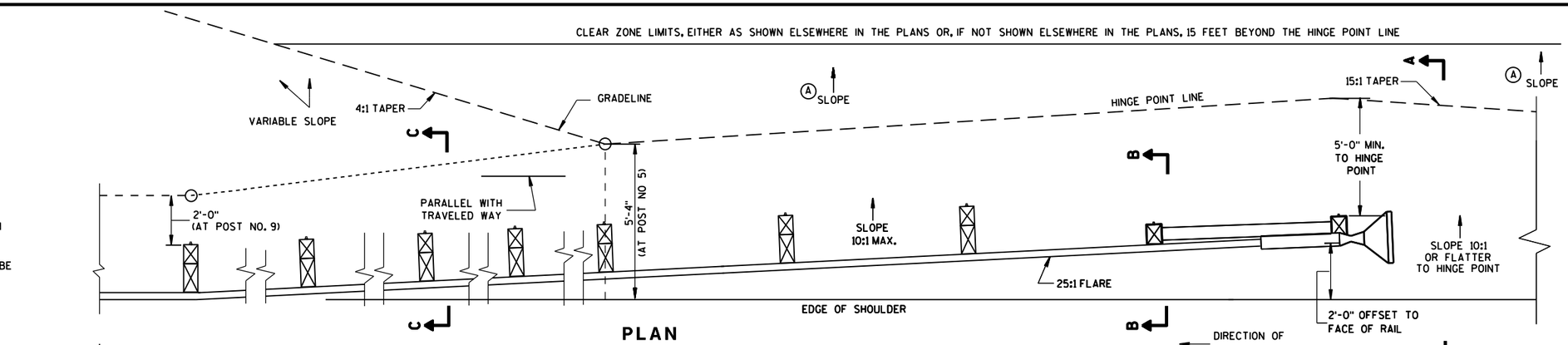
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

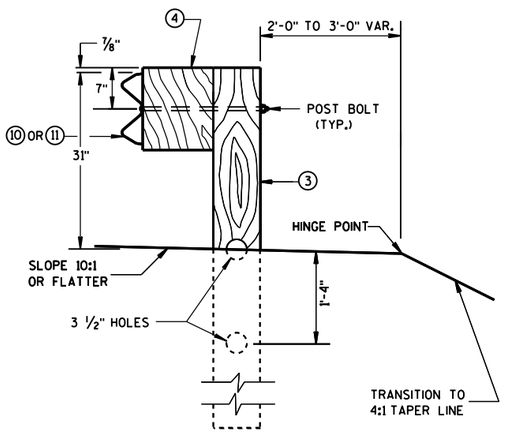
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

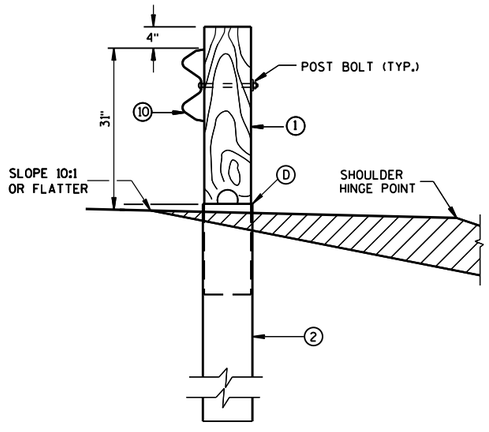
THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.



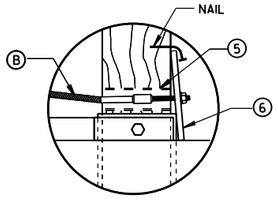
ELEVATION



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

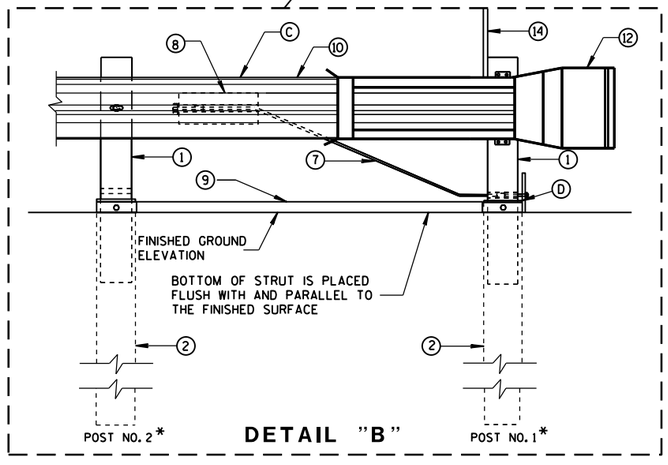


SECTION B-B
TYPICAL AT POST NO. 2*



DETAIL "A"

SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "B"

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

S.D.D. 14 B 44-2a

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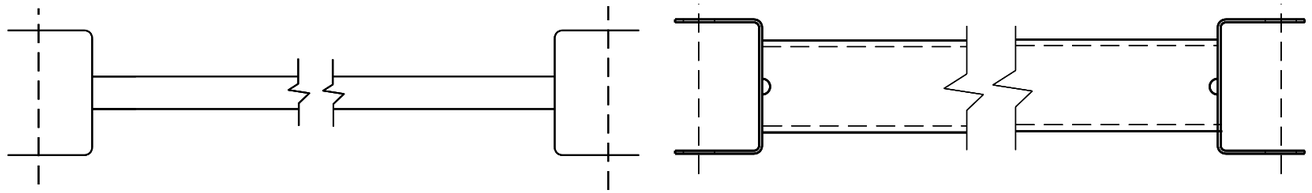
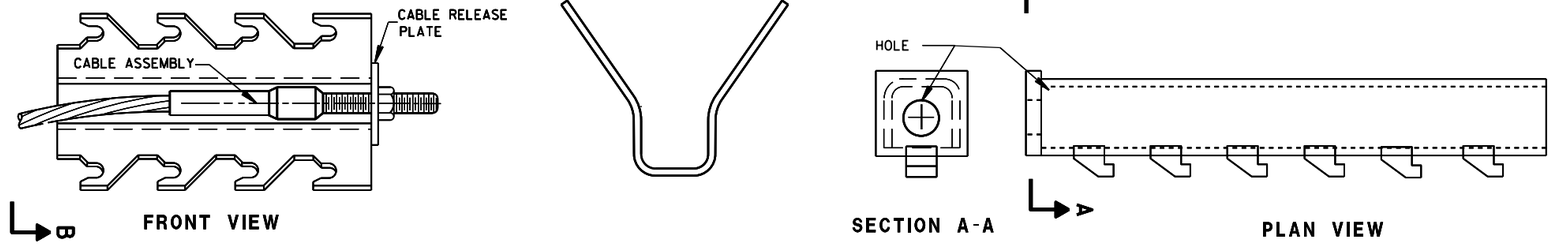


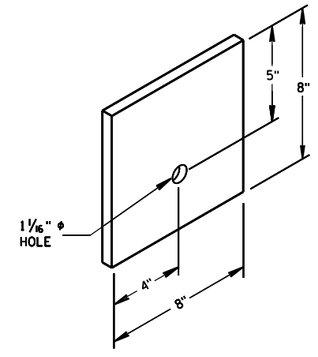
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(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)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



GENERIC ANCHOR CABLE BOX (8) (H)

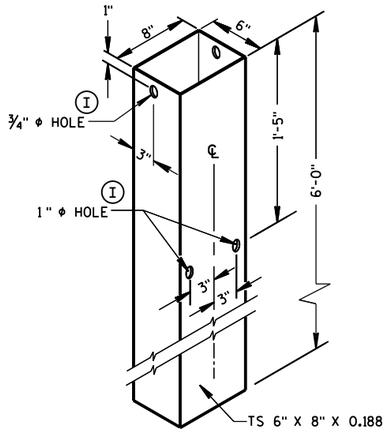


BEARING PLATE (6)

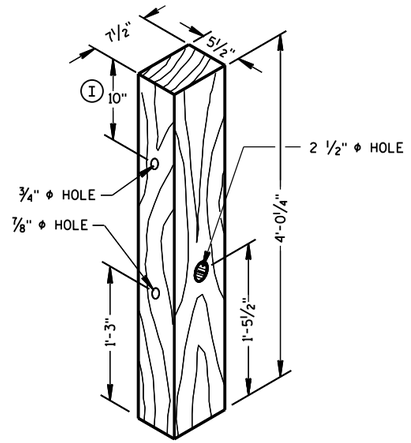
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 44-2b

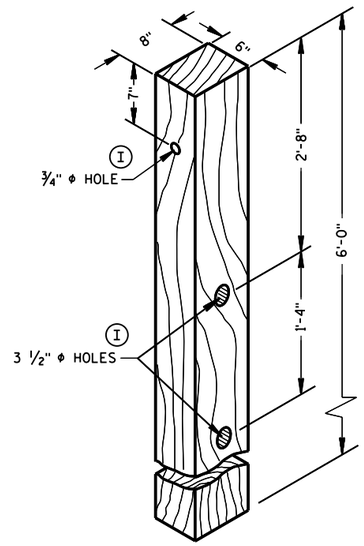


FOUNDATION TUBE (2)



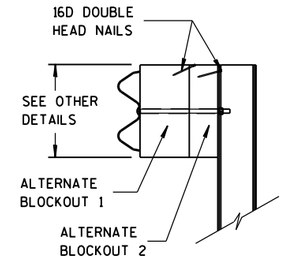
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

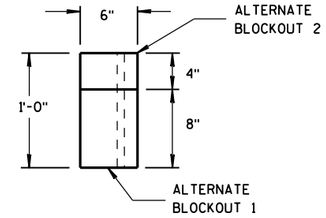


POSTS NUMBER 3-9

WOOD CRT POST (3)

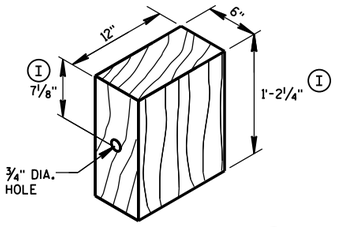


SIDE VIEW



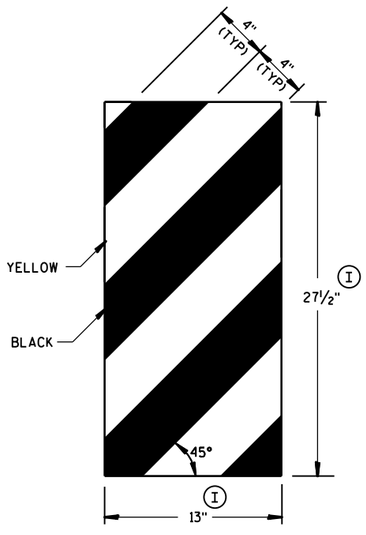
TOP VIEW

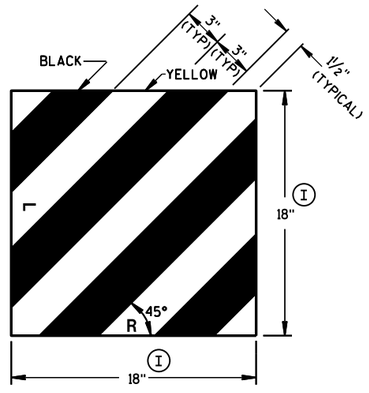
ALTERNATE WOOD BLOCKOUT DETAIL



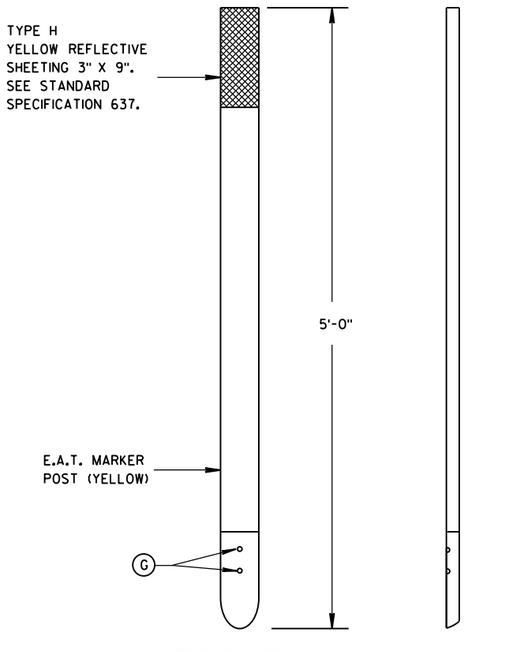
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





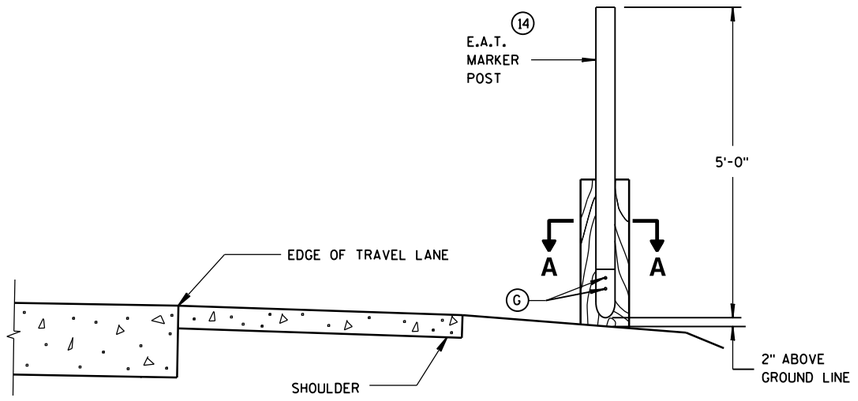
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

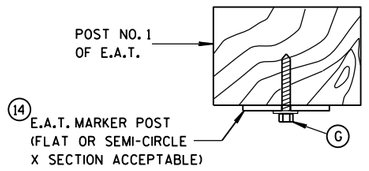
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

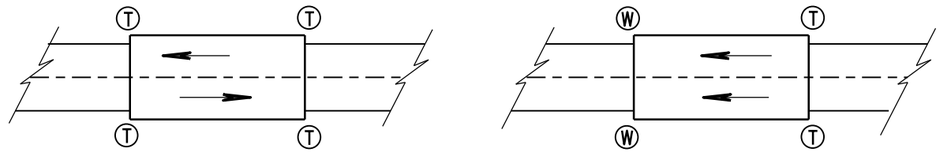
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 14 B 44-2c



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

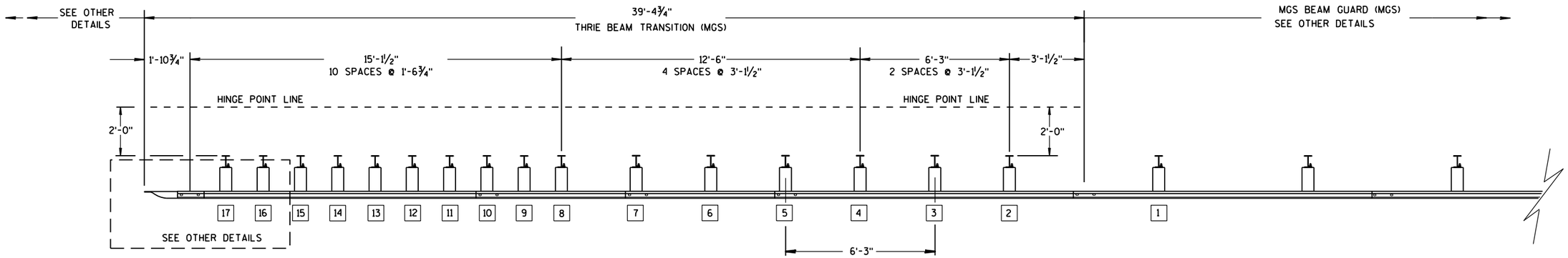
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

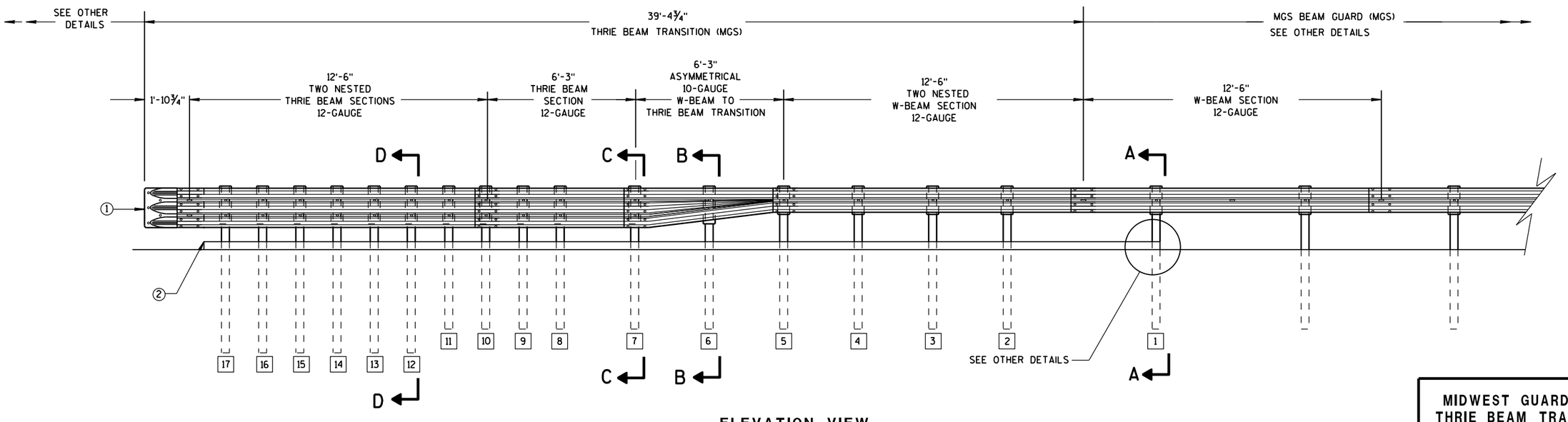
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

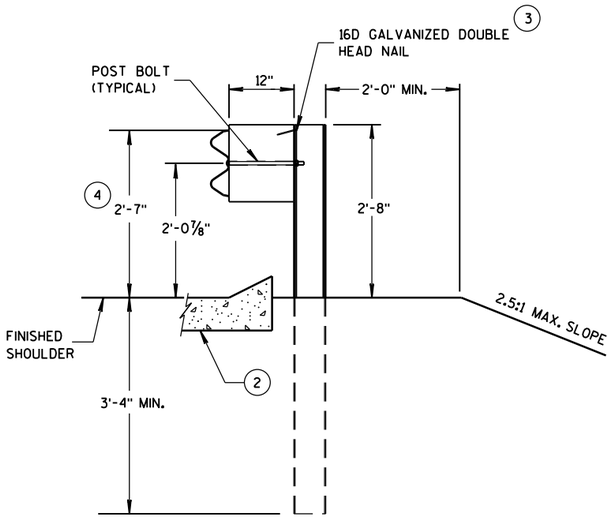
S.D.D. 14 B 45-4a

GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

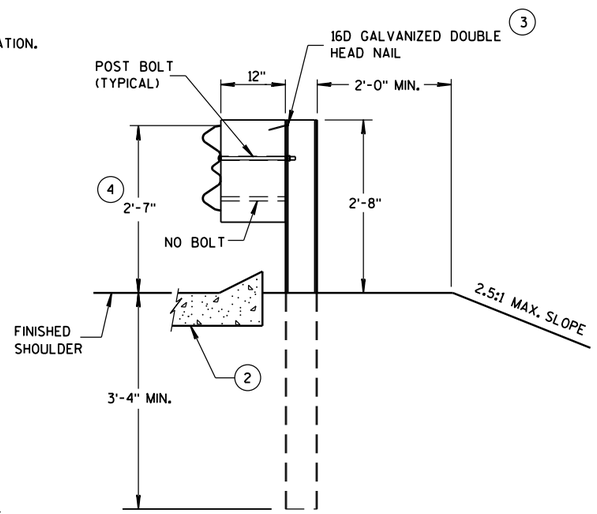
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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



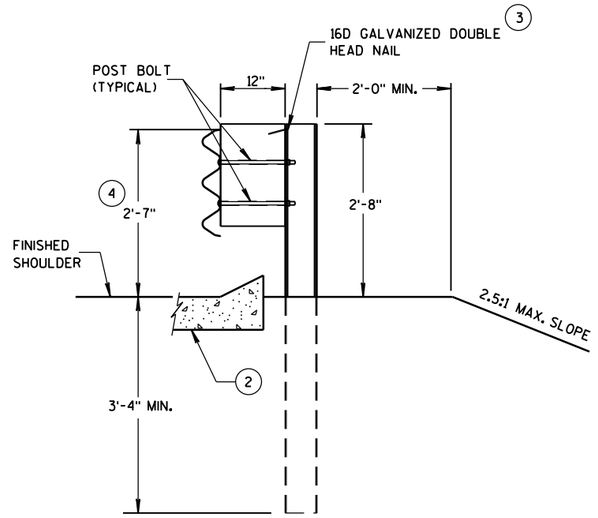
SECTION A-A

POSTS 1-5



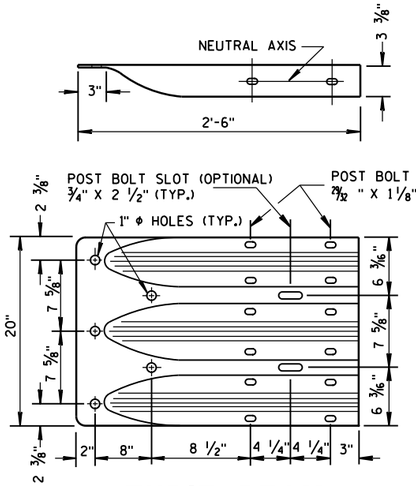
SECTION B-B

POST 6



SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

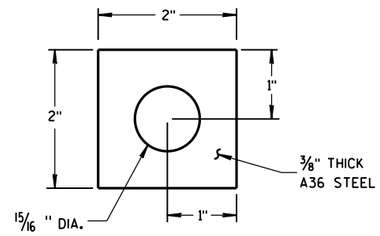
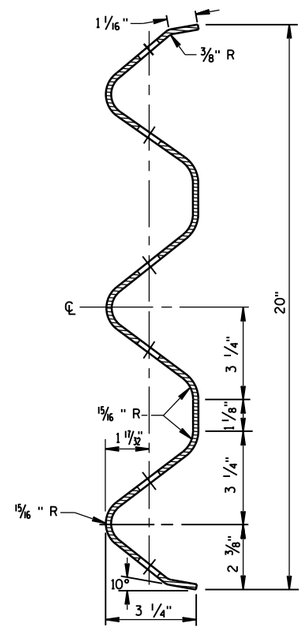
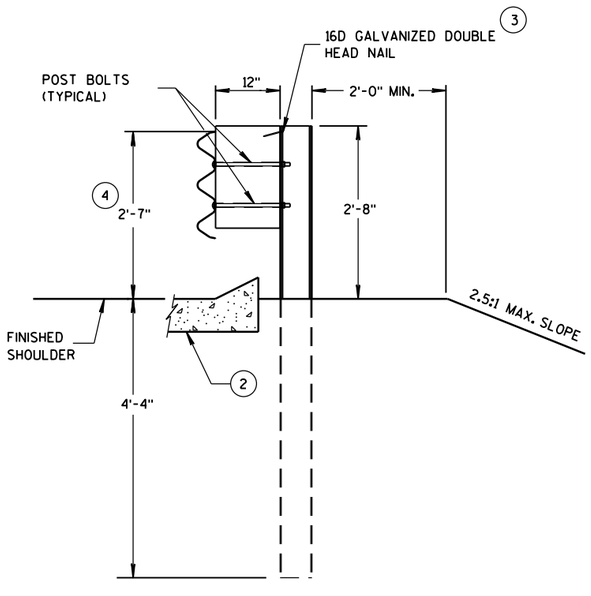


PLATE WASHER DETAIL

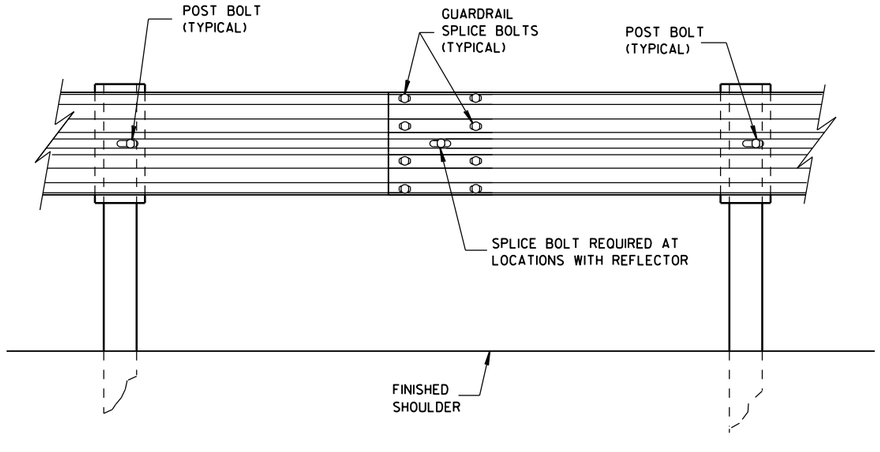


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



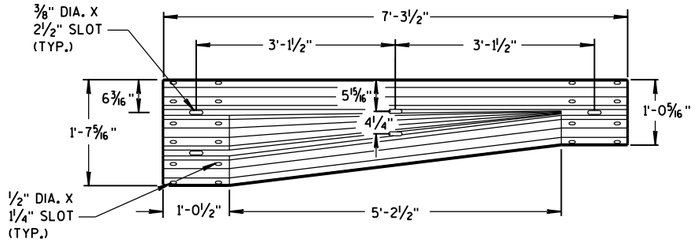
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

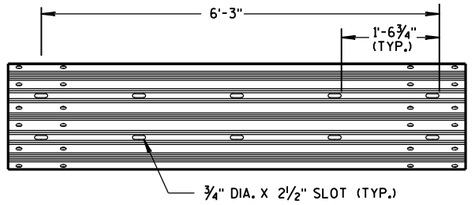
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

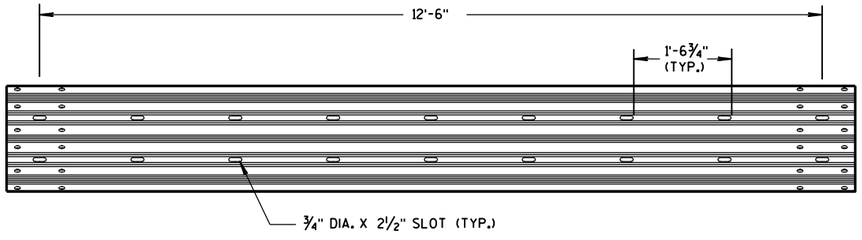
S.D.D. 14 B 45-4b



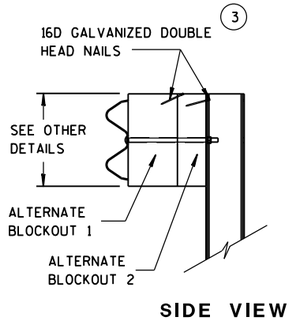
W-BEAM TO THRIE BEAM TRANSITION SECTION



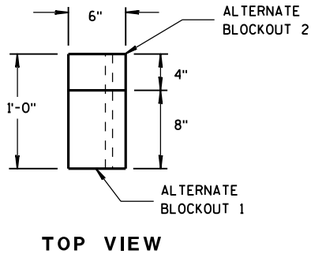
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

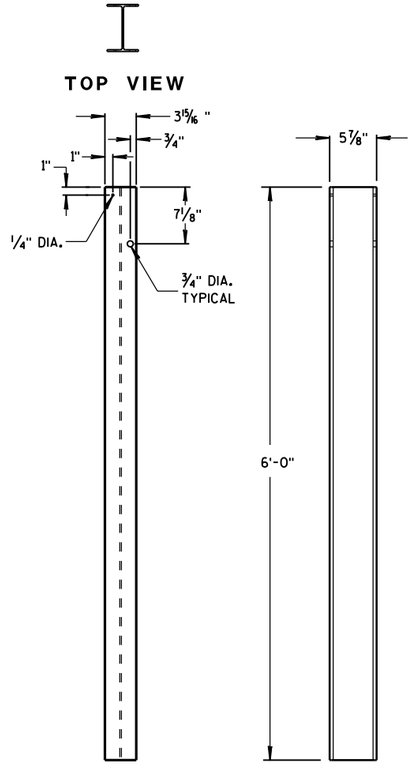


SIDE VIEW



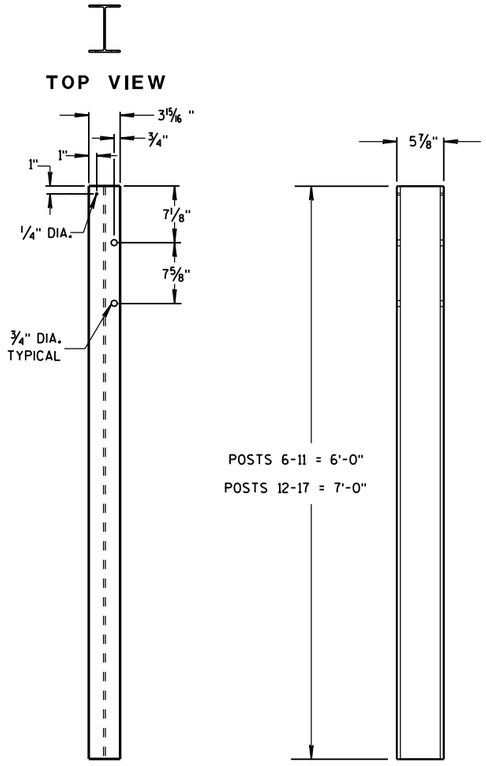
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



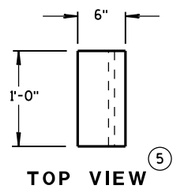
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5

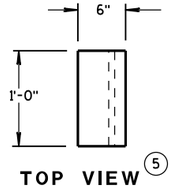


FRONT VIEW SIDE VIEW

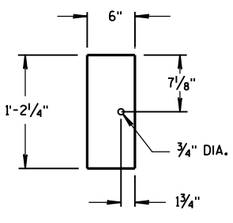
STEEL POSTS 6-17



TOP VIEW

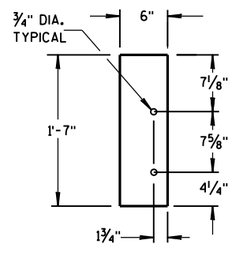


TOP VIEW



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.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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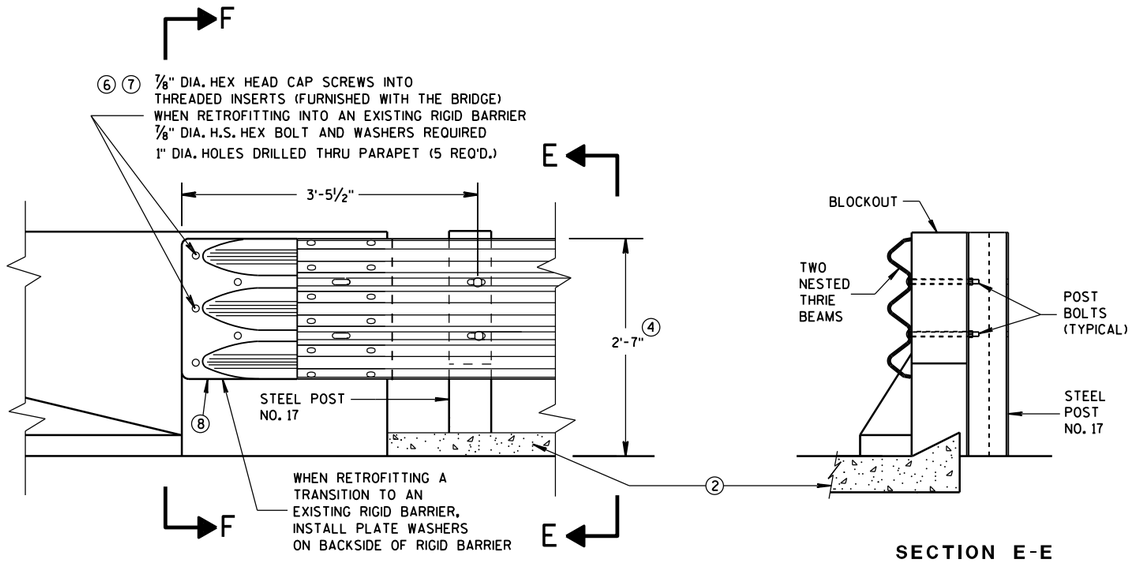


FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

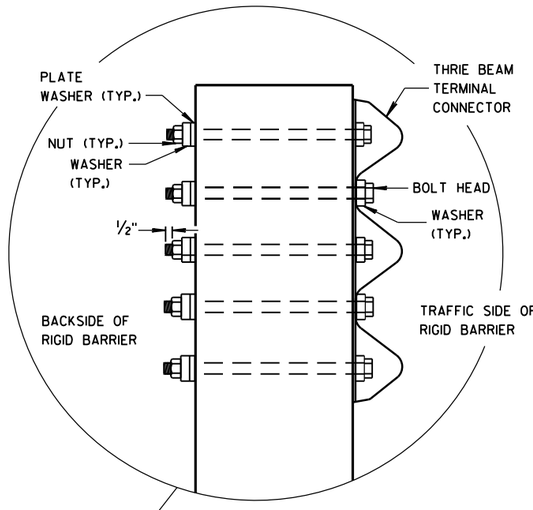
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

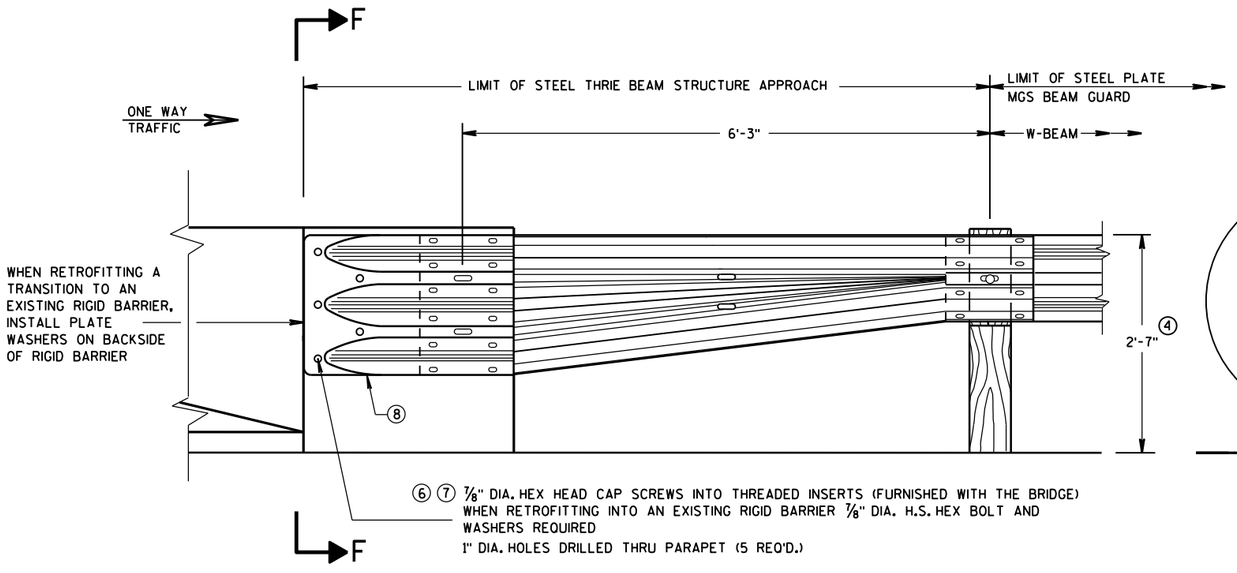
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

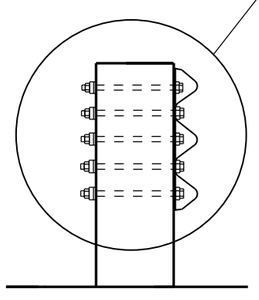
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" 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".

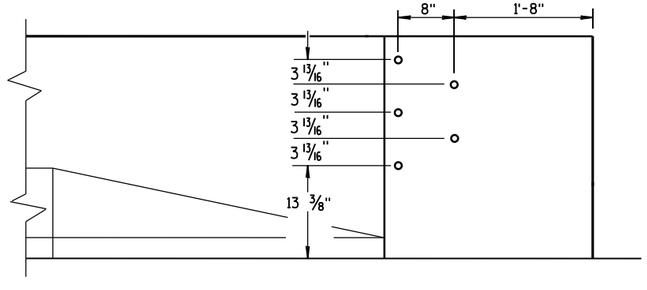




FRONT VIEW



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

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June, 2015 — DATE
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GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

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

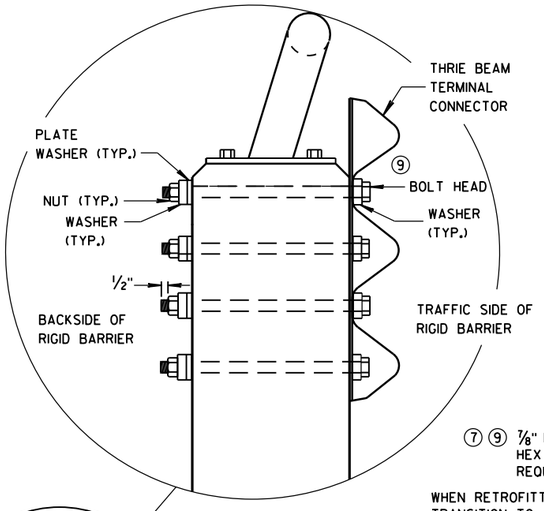
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

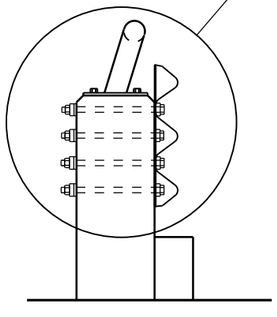
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

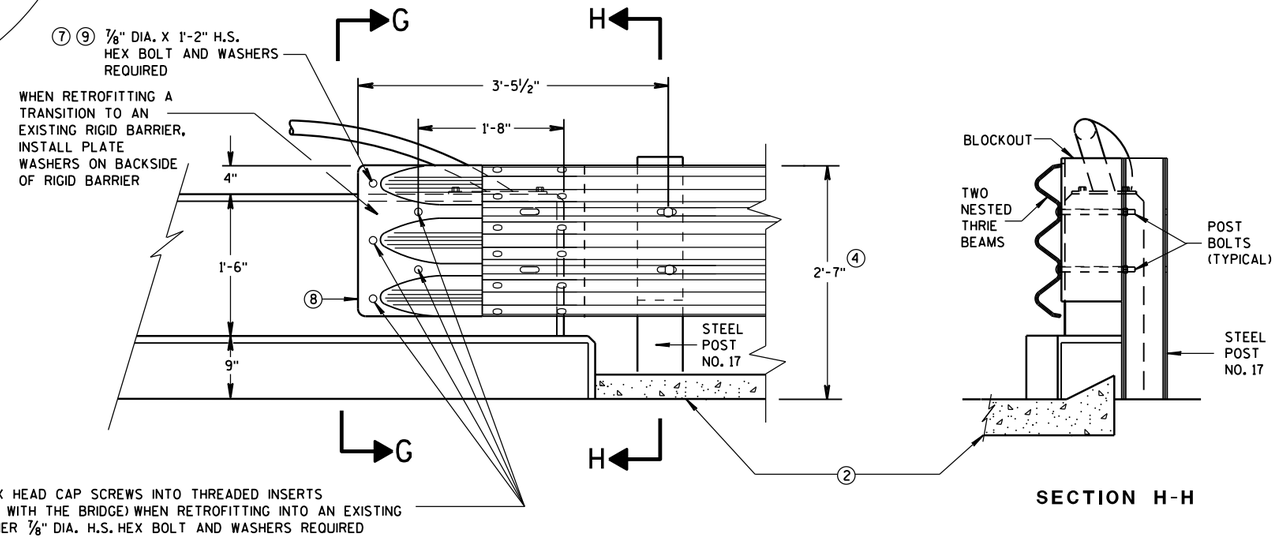
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





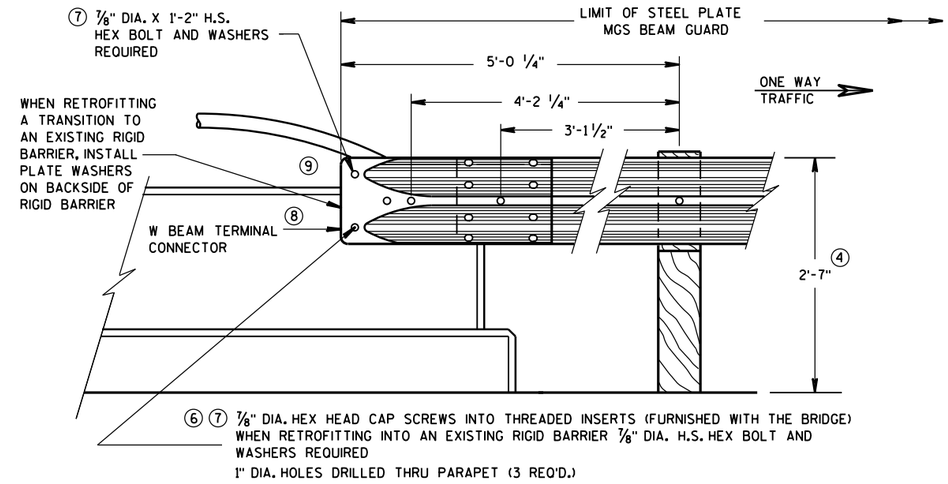
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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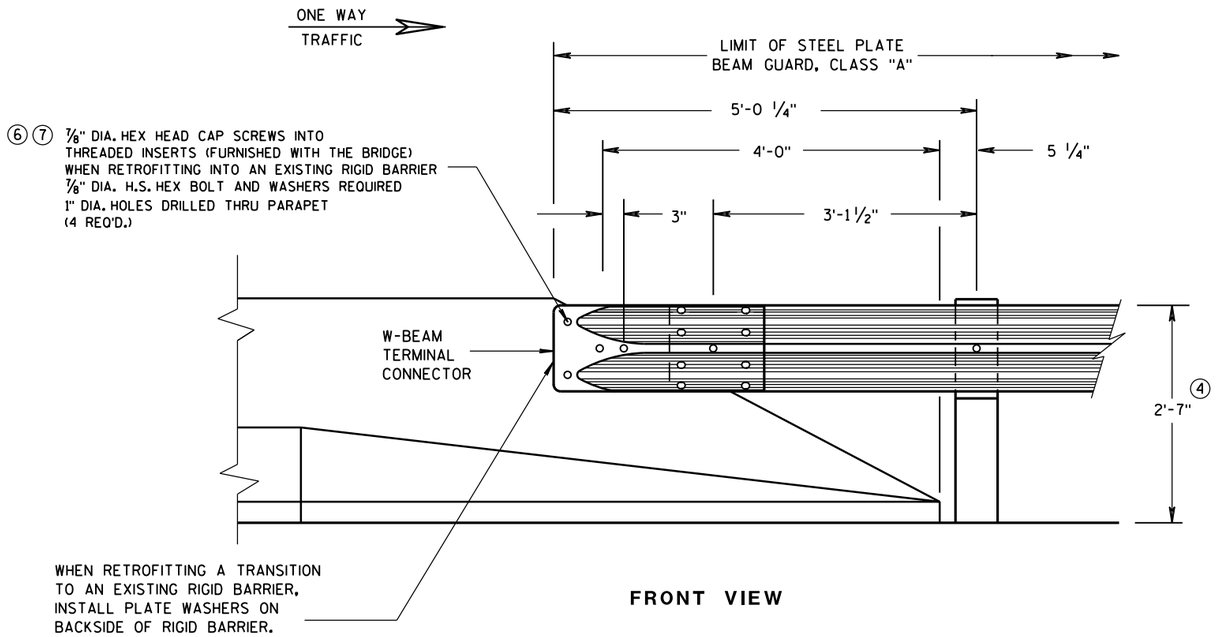

FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

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

GENERAL NOTES

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

④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

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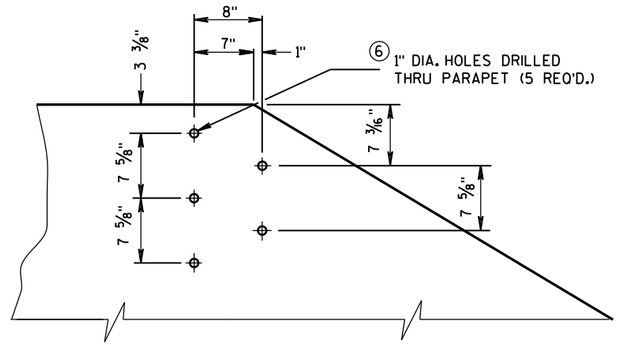
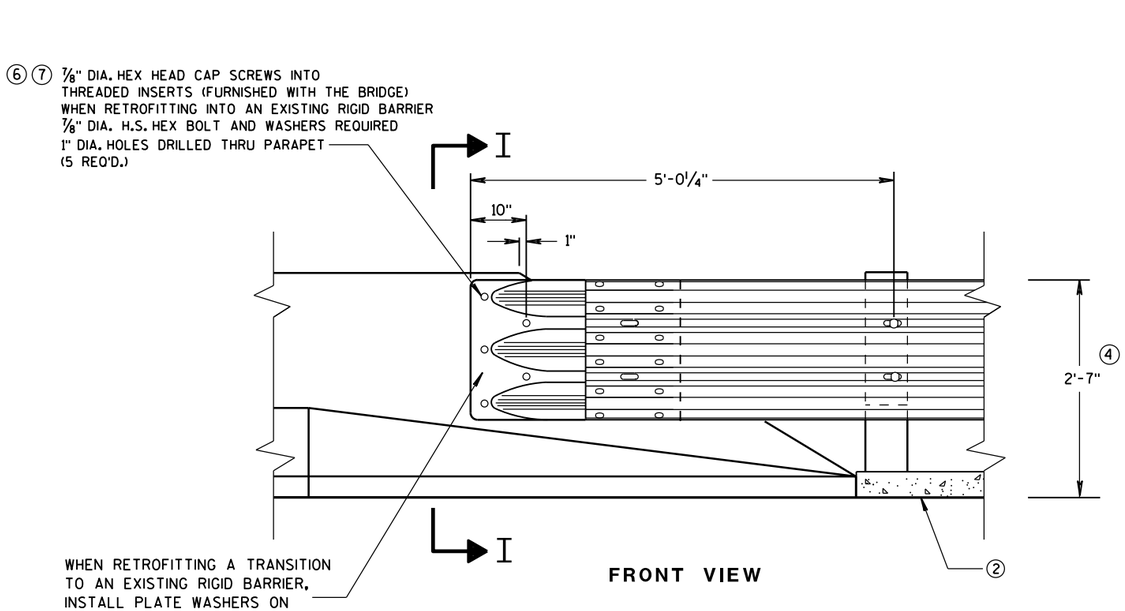
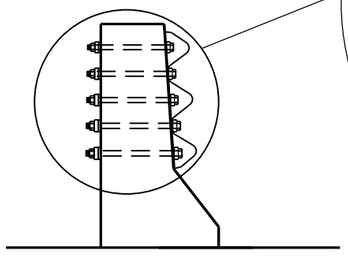


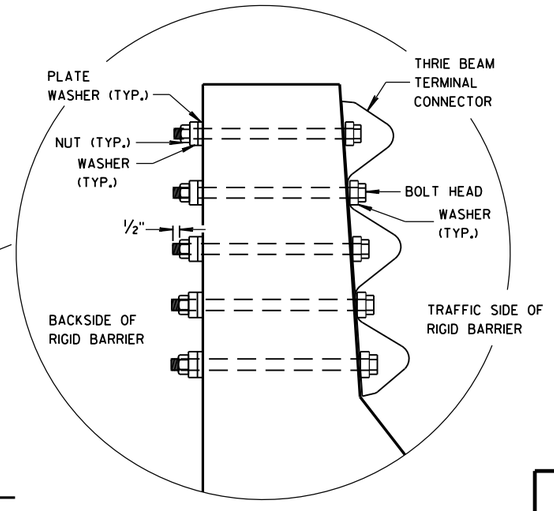
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



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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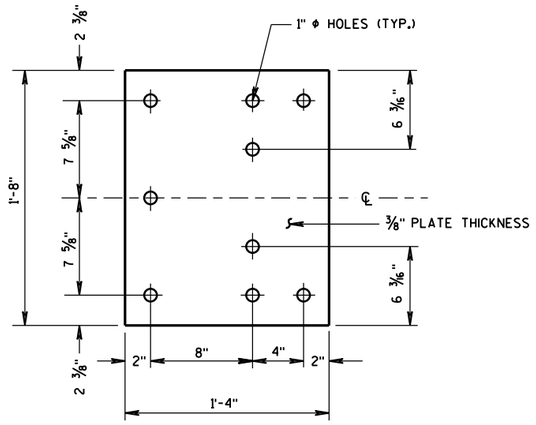
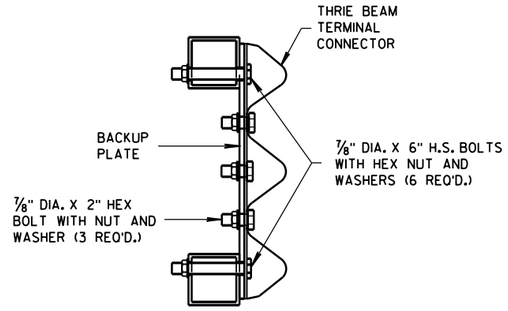
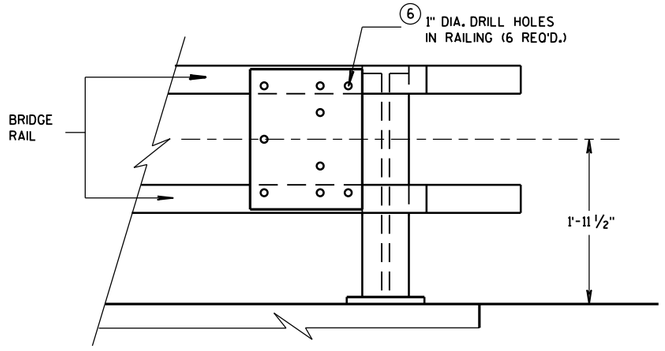


BACK-UP PLATE DETAIL



SECTION J-J

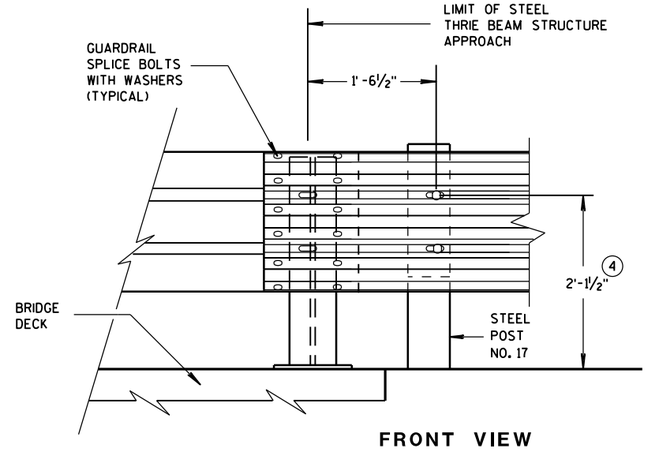


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

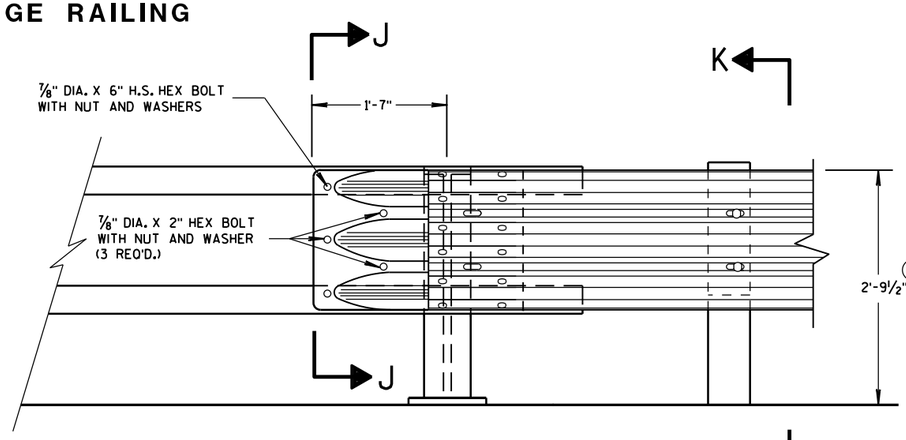
4 TOLERANCE FOR TOP OF BEAM IS ± 1".

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

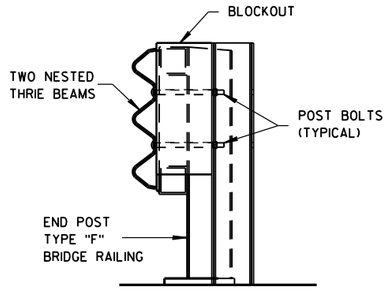


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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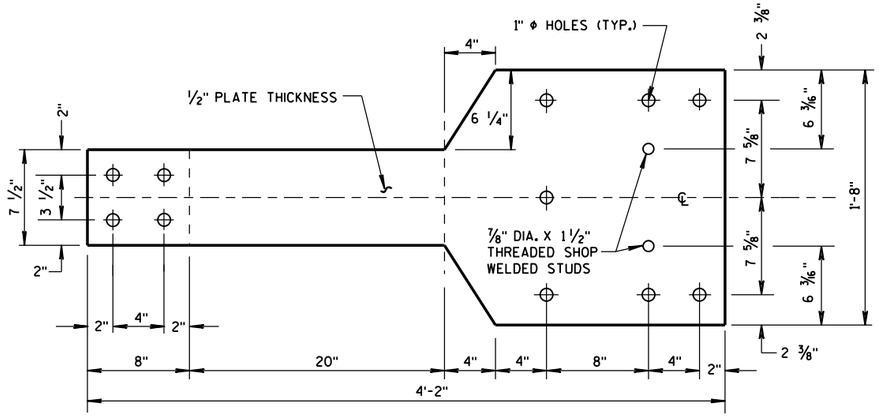
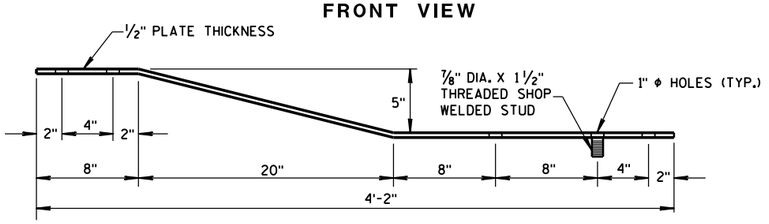
GENERAL NOTES

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

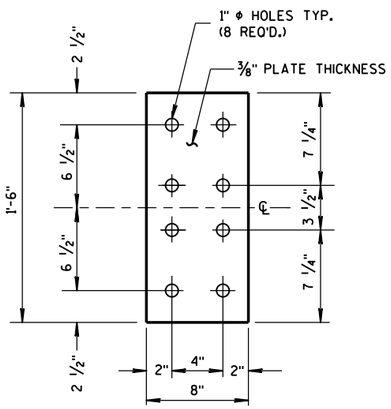


FRONT VIEW



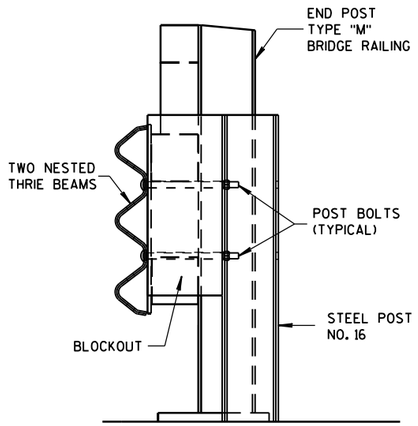
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

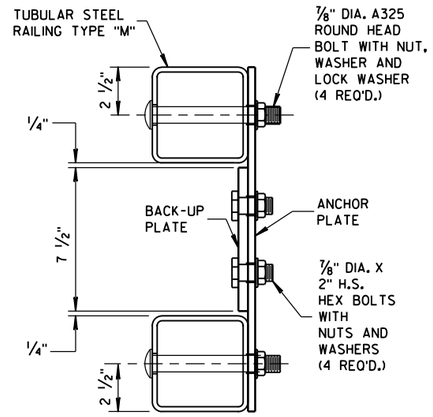


FRONT VIEW

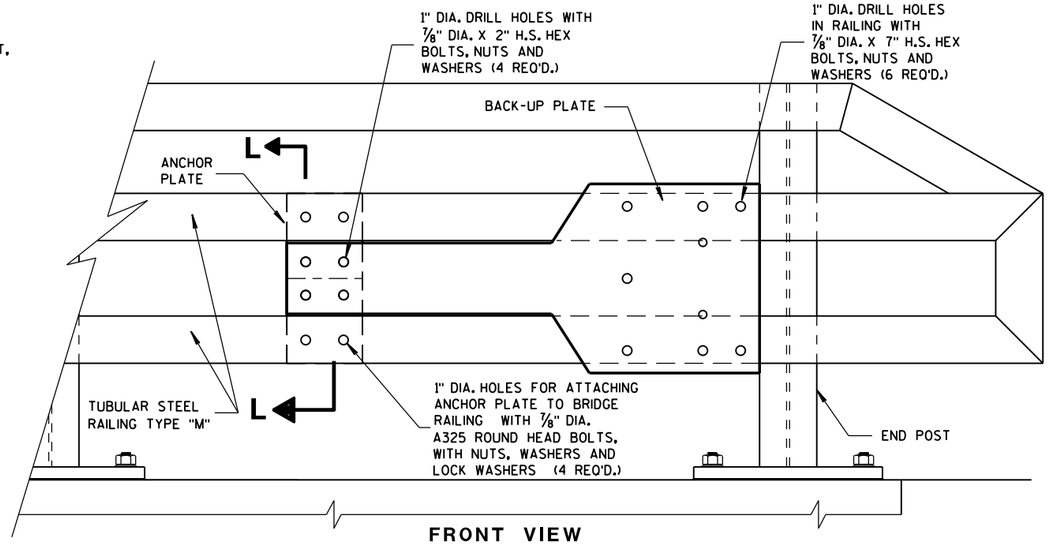
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

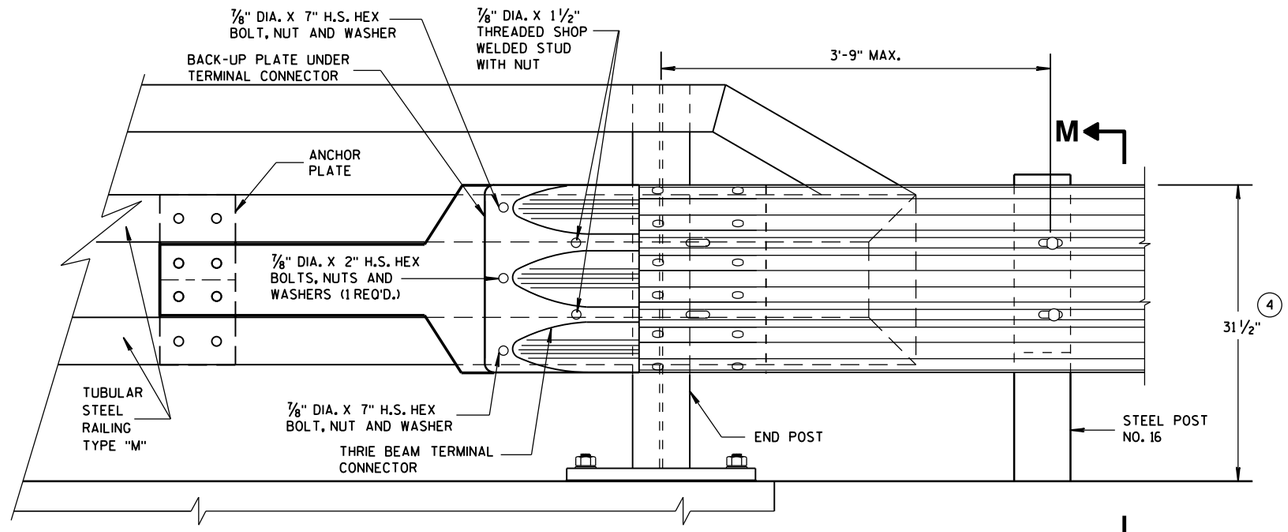


SECTION L-L

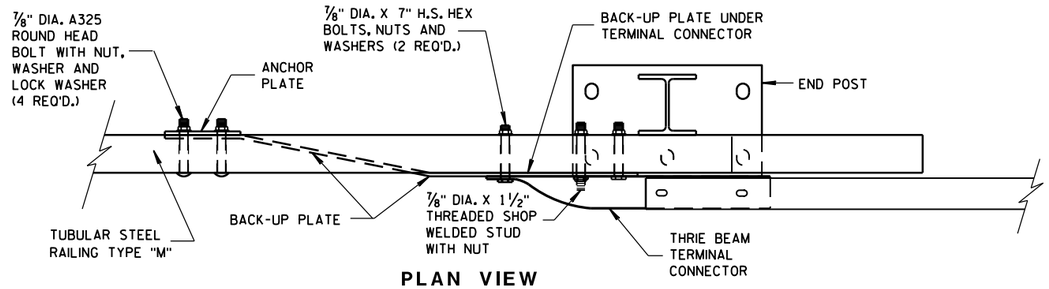


FRONT VIEW

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	
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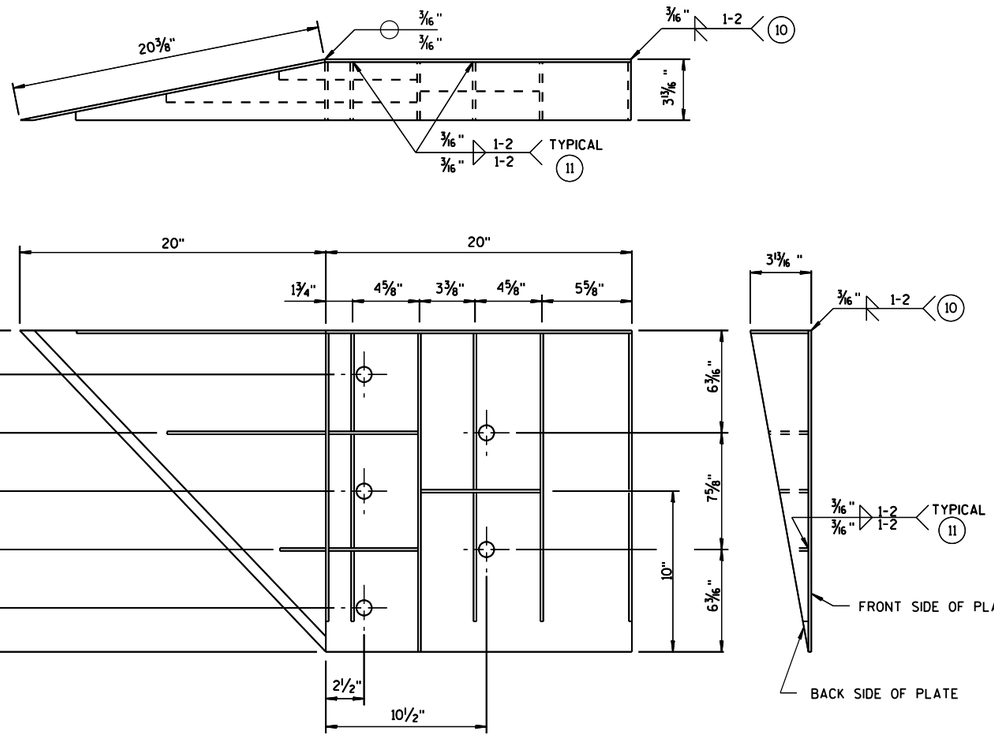

WELDING INSTRUCTION

(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".

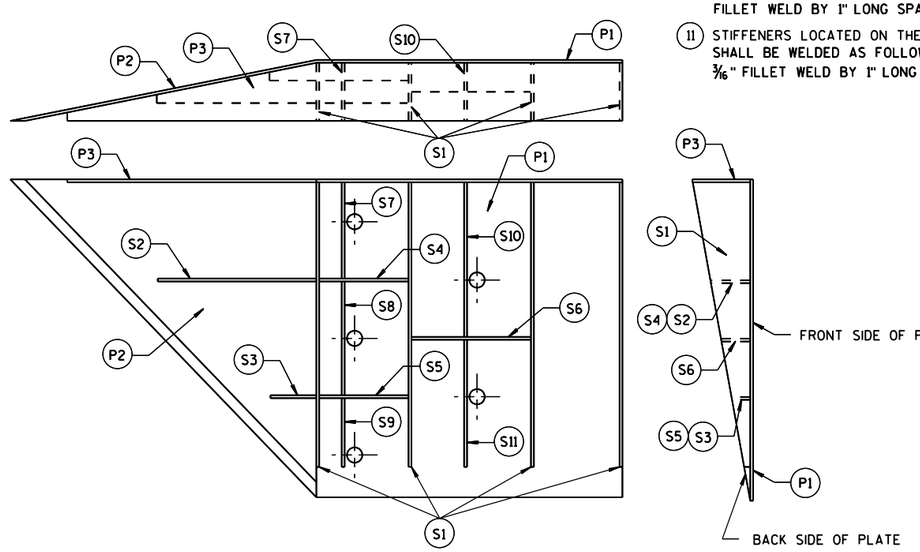

PLATE AND STIFFENER IDENTIFICATION

(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 3/8" 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 1/32"	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)

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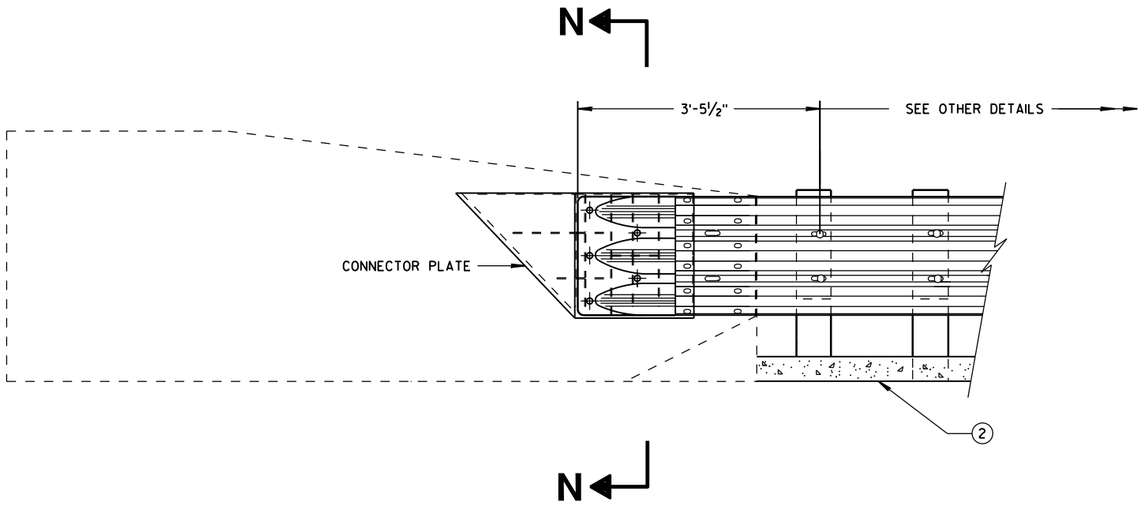
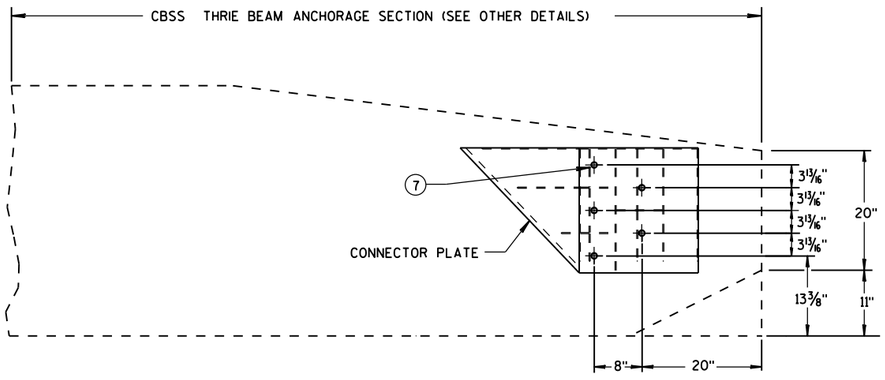


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



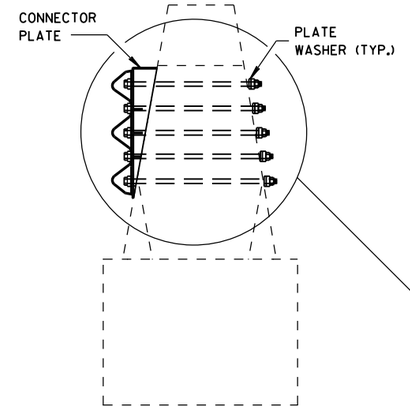
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

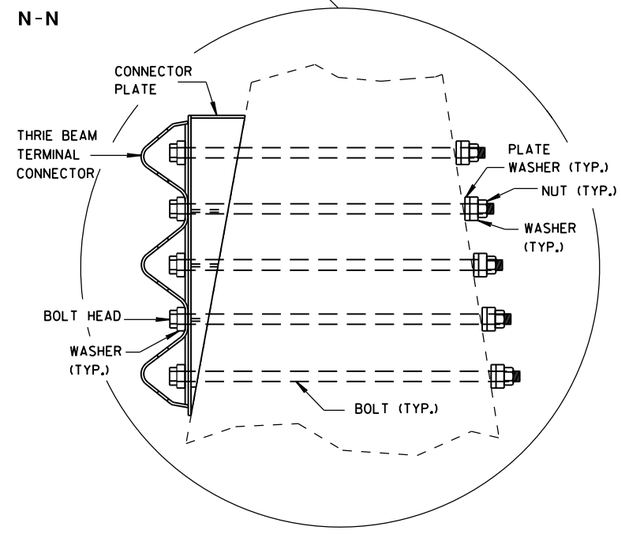
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" 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
June, 2015 — DATE
/S/ Jerry H. Zoga — ROADWAY STANDARDS DEVELOPMENT ENGINEER
NT
FHWA

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S.D.D. 14 B 45-4j

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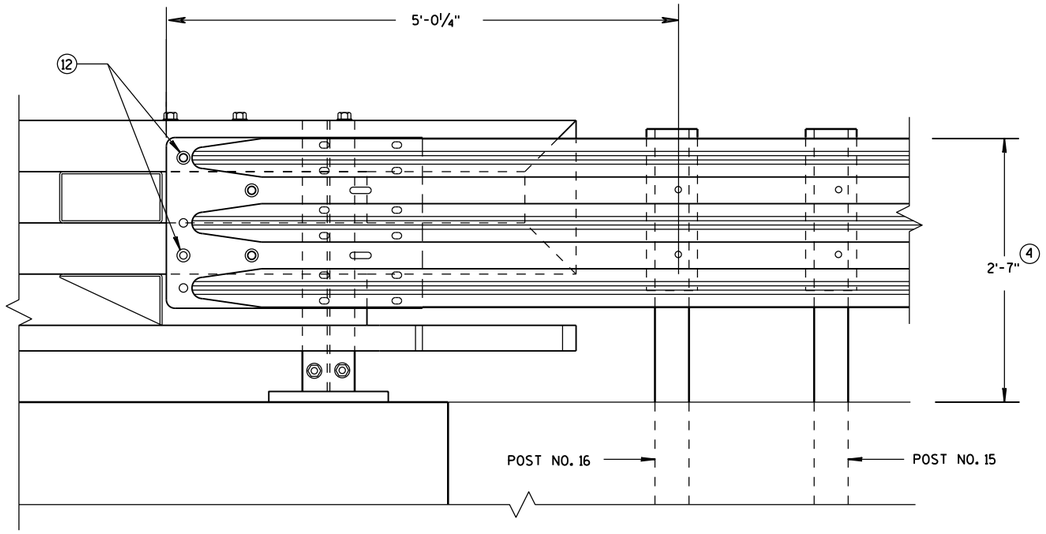
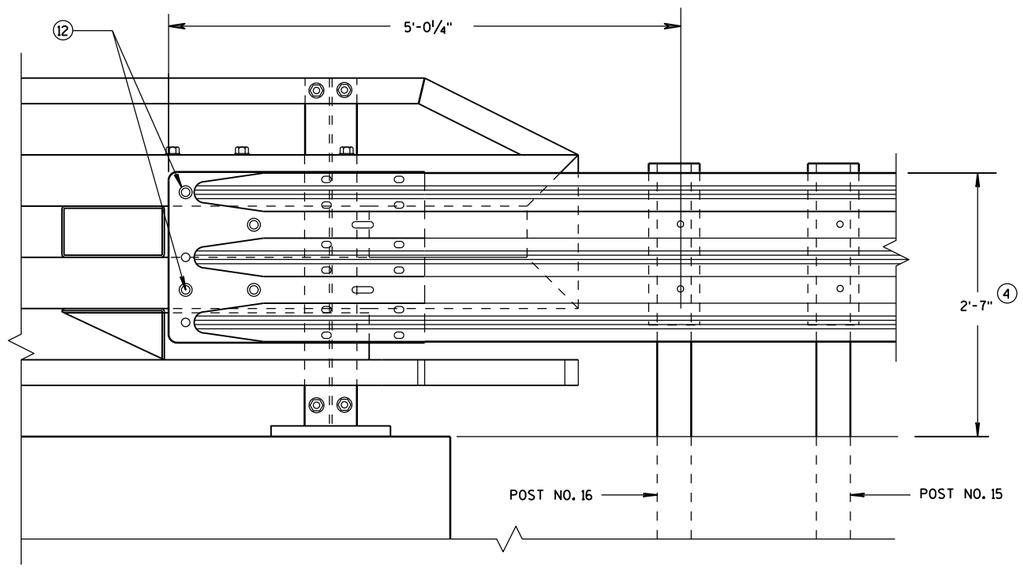
S.D.D. 14 B 45-4j



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 ½-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER

FHWA

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S.D.D. 14 B 45-4k

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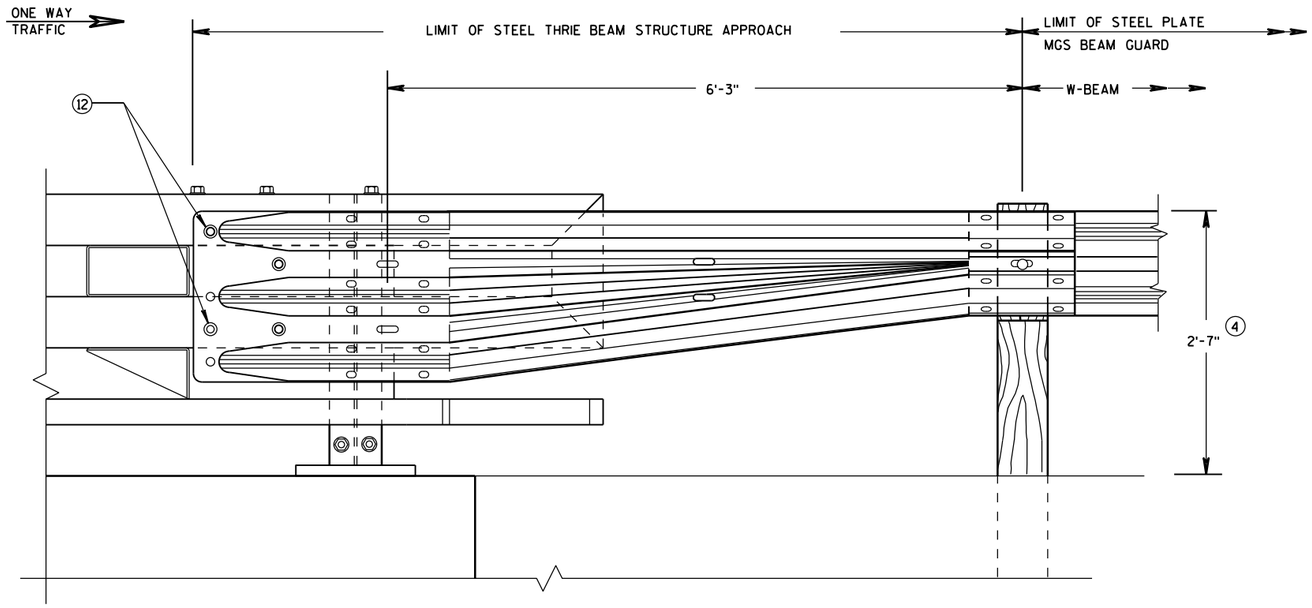
S.D.D. 14 B 45-4k



FRONT VIEW

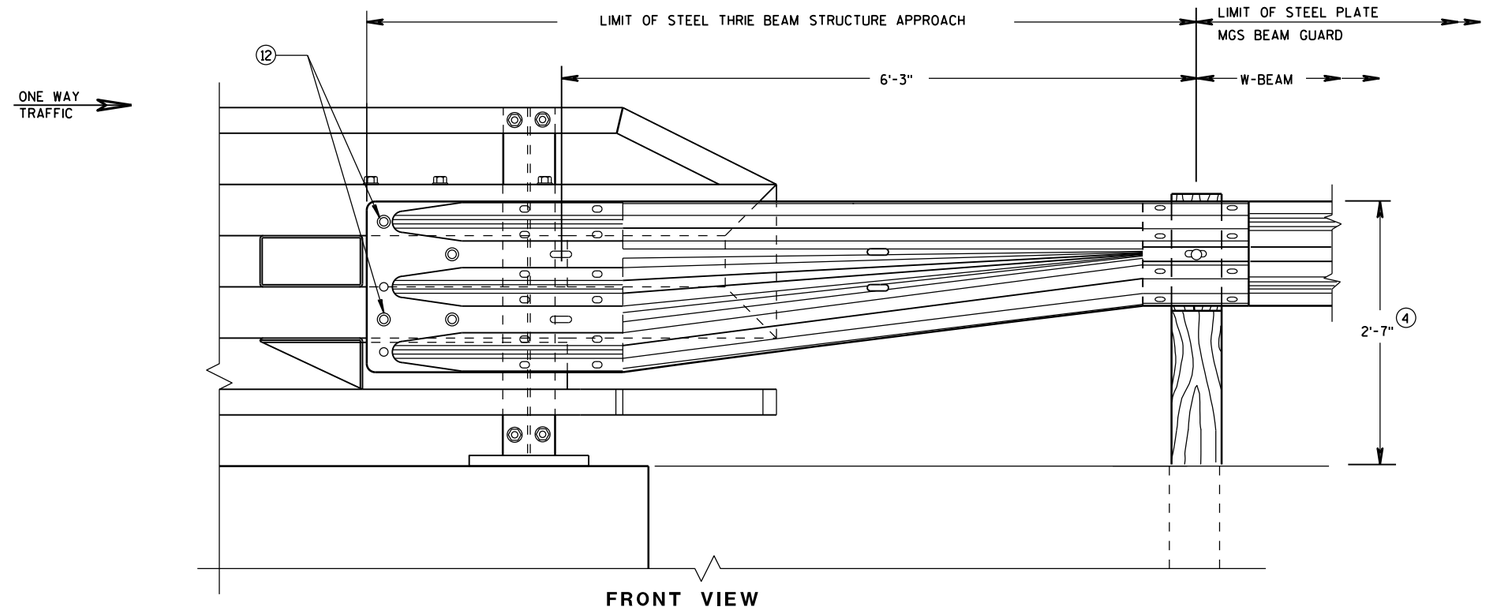
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(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 ½-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
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 45-4L

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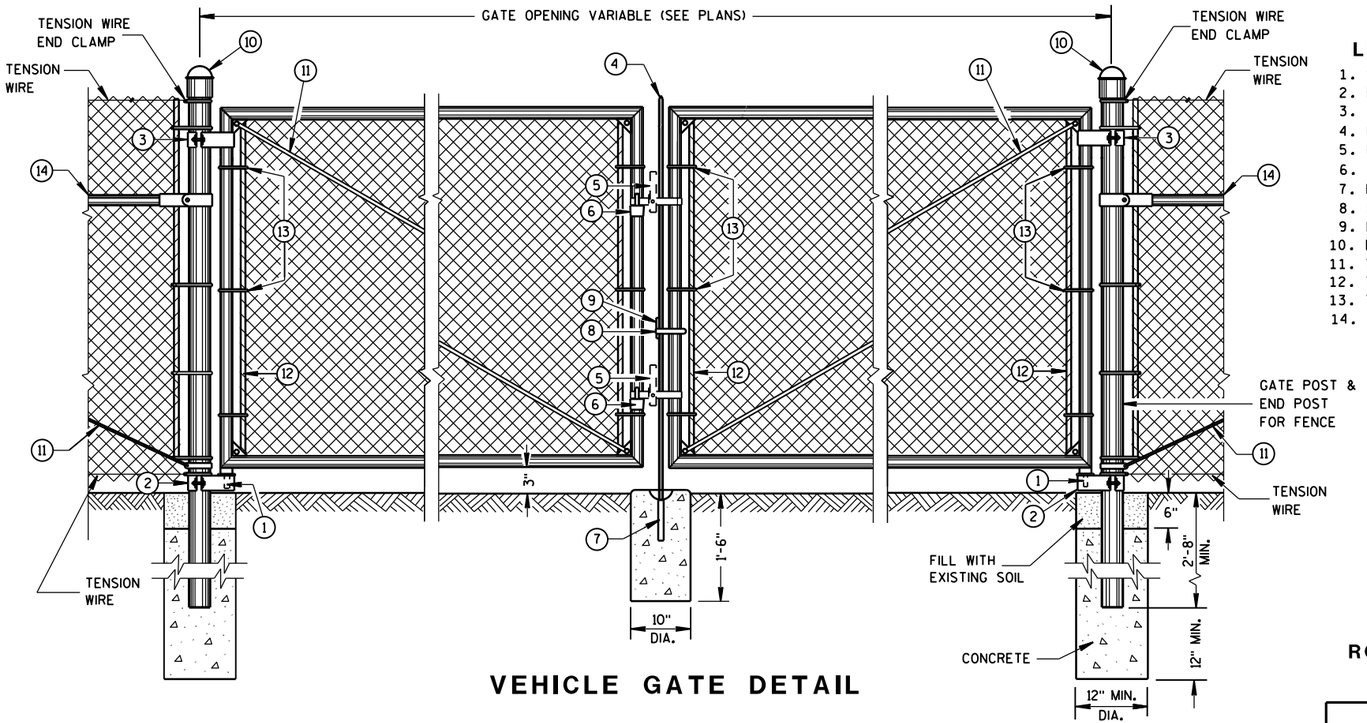
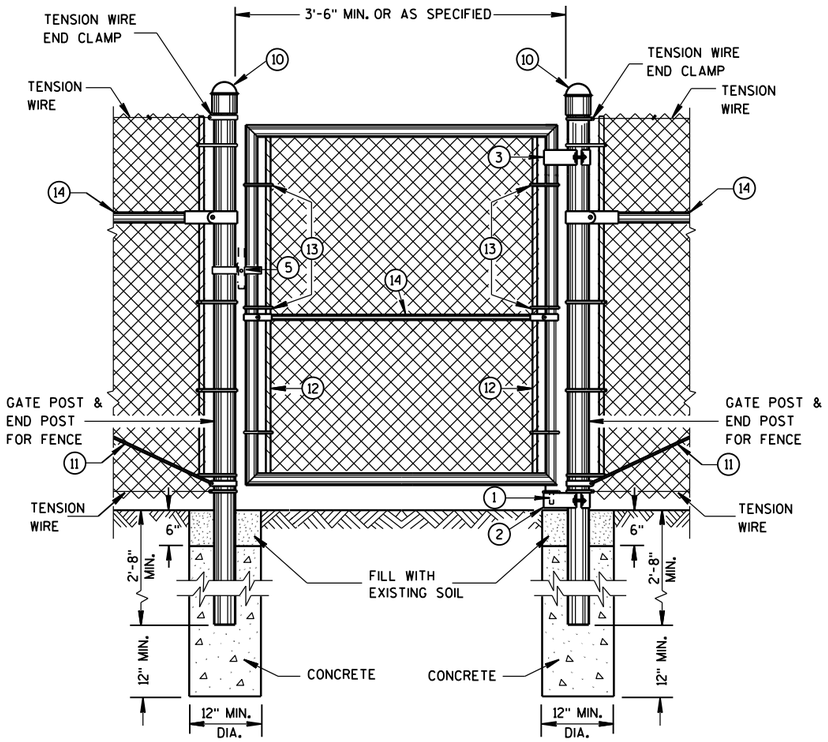
S.D.D. 14 B 45-4L



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

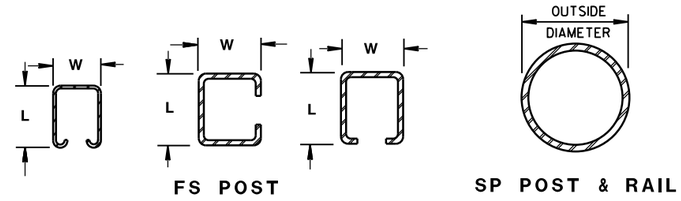
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



FS POST — SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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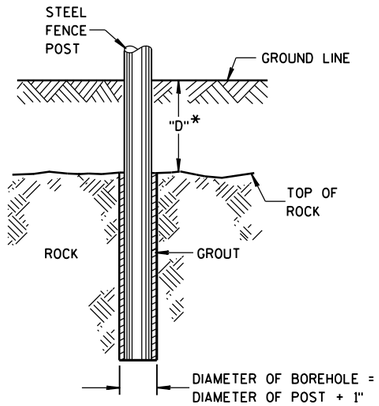
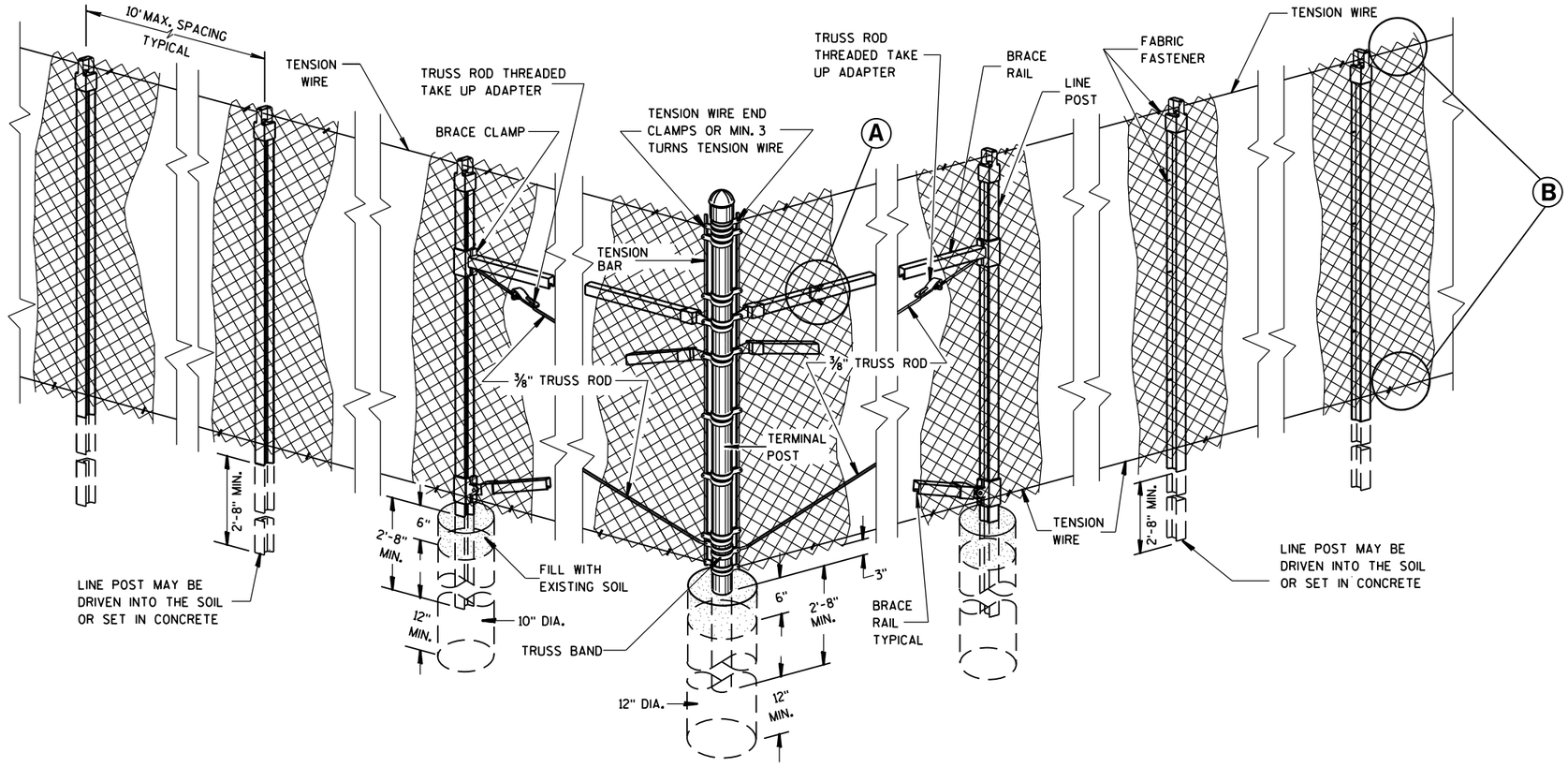
S.D.D. 15 B 3-15a

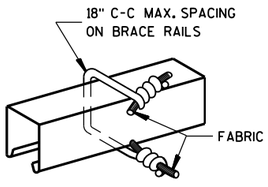


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



BRACE RAIL

FABRIC FASTENER

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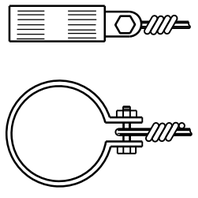
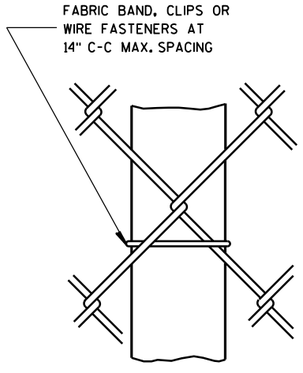


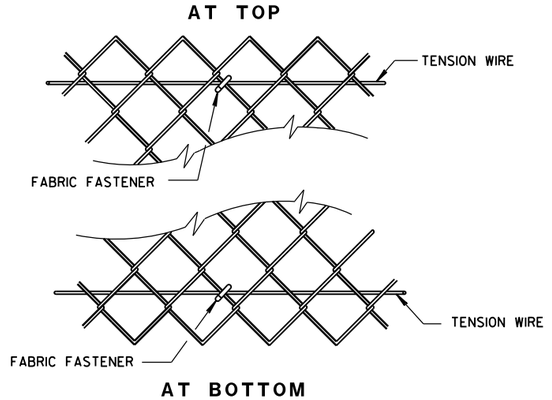
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
FEB. 2015 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER
FHWA

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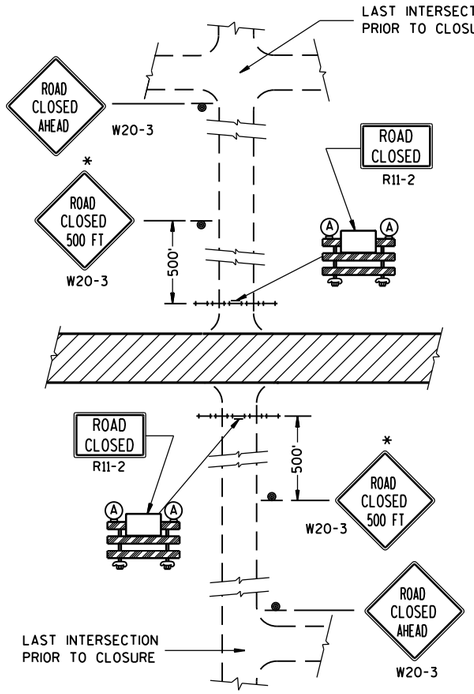
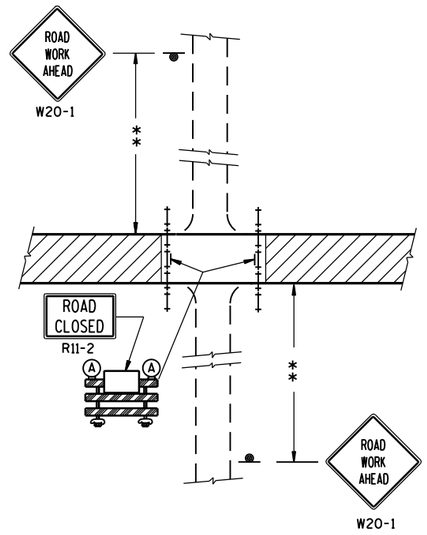
S.D.D. 15 B 3-15b



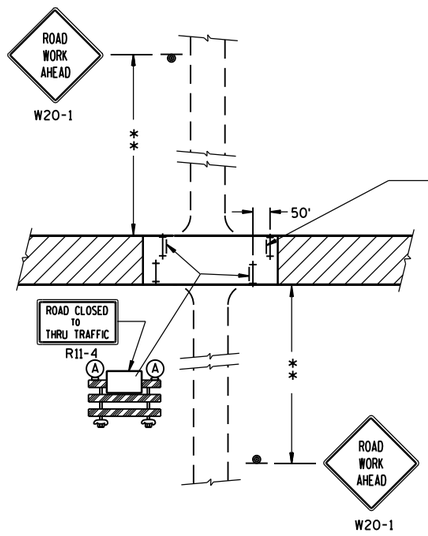
DETAIL 1

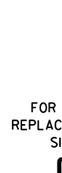
(NO ACCESS TO PROJECT)



DETAIL 2

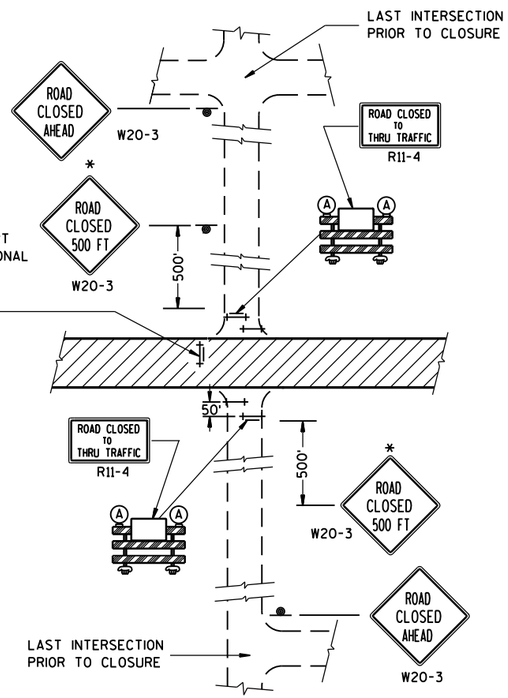
(PUBLIC CROSS-TRAFFIC MAINTAINED. NO ACCESS TO PROJECT).





DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).



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 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 RE-ESTABLISHED.

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 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 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 C 3-2

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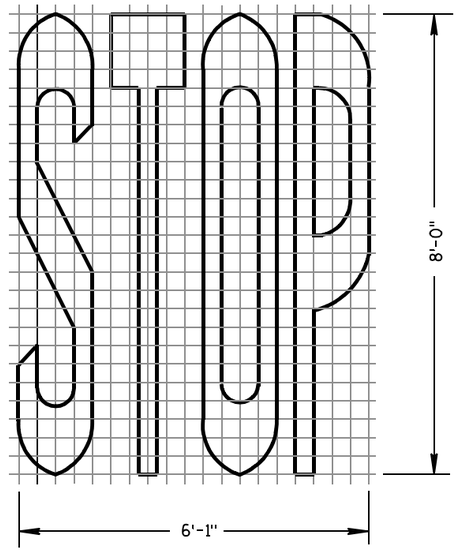
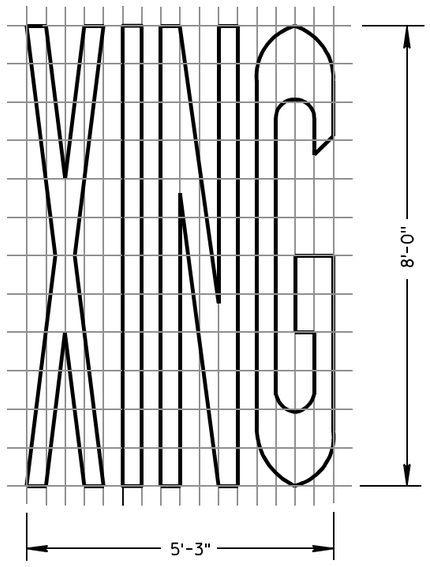
S.D.D. 15 C 3-2

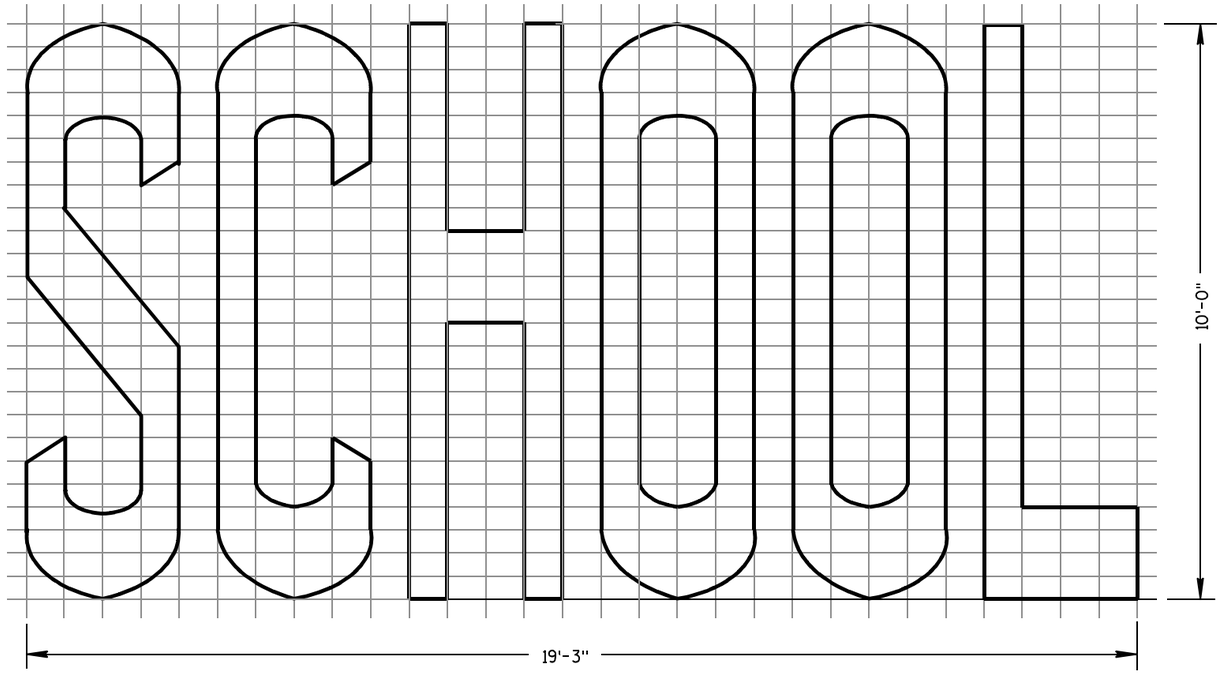
GENERAL NOTES

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

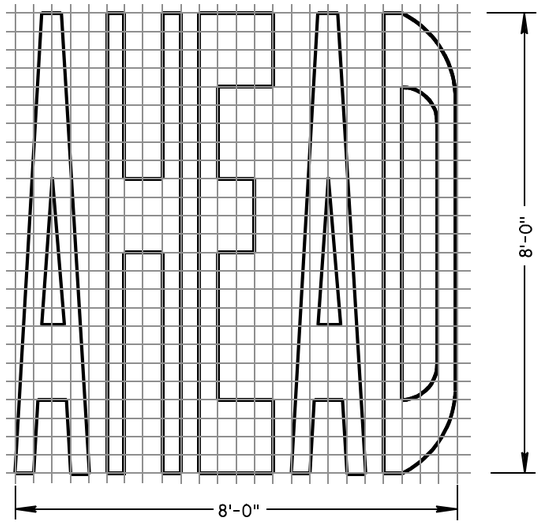
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

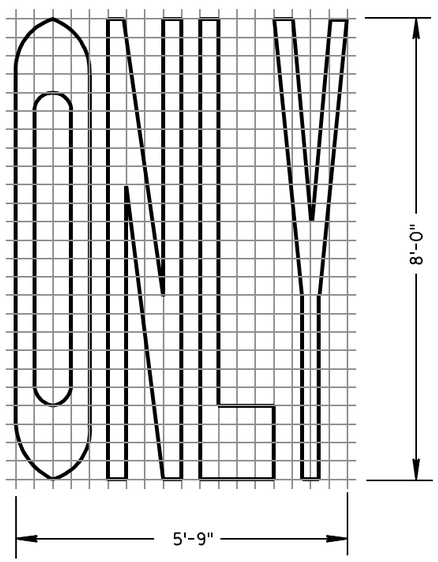


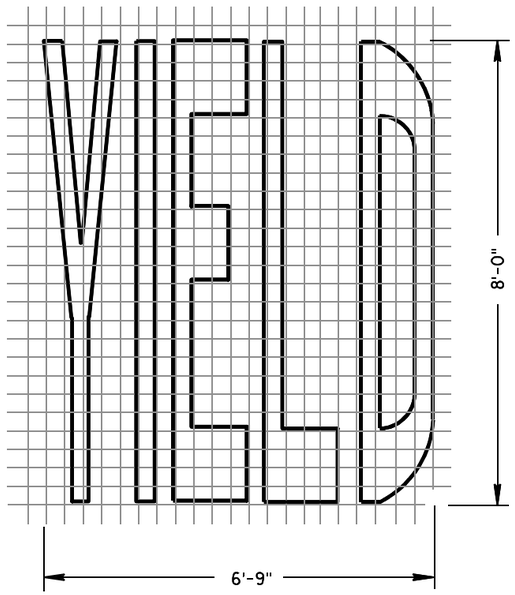


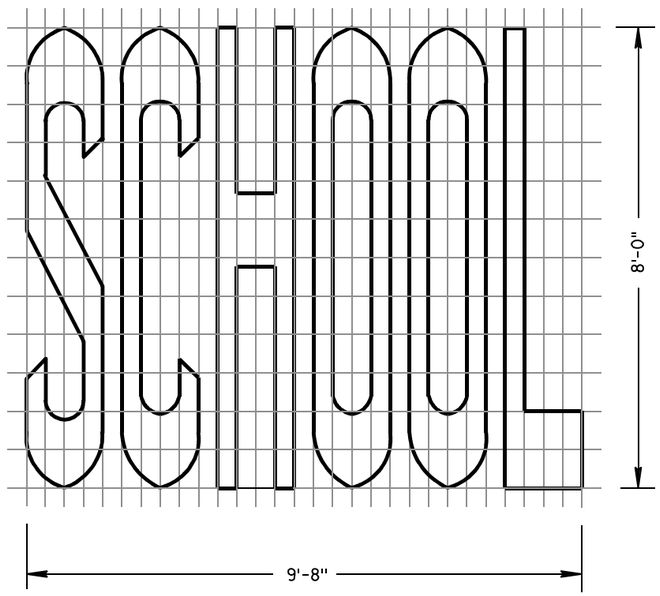


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER — IGN

FHWA

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S.D.D. 15 C 7-12b

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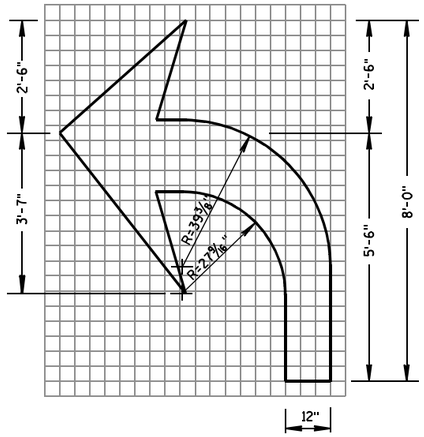
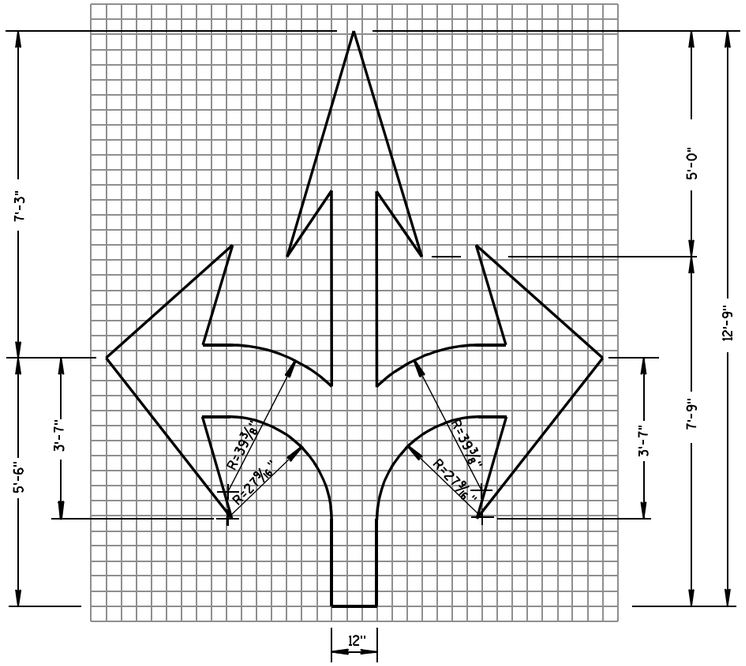
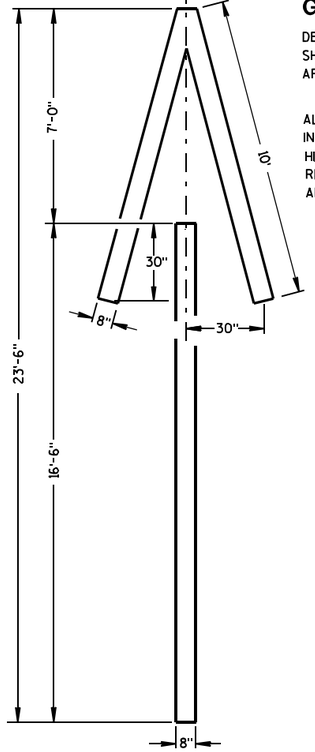
S.D.D. 15 C 7-12b



TYPE 2



TYPE 6



TYPE 4

GENERAL NOTES

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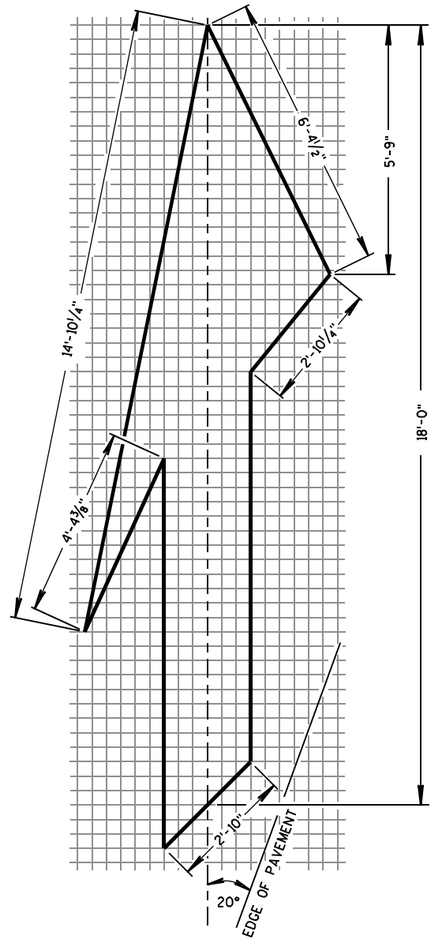
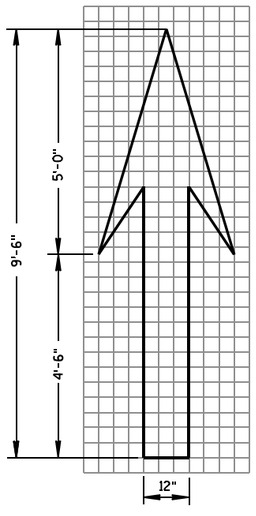
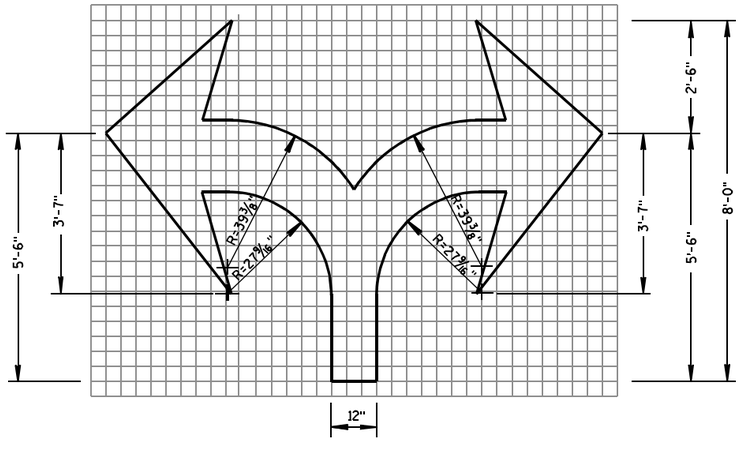


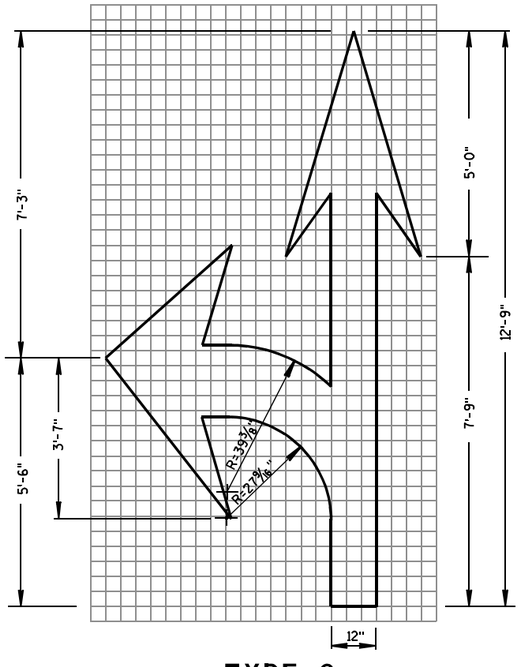
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 C 7-12c

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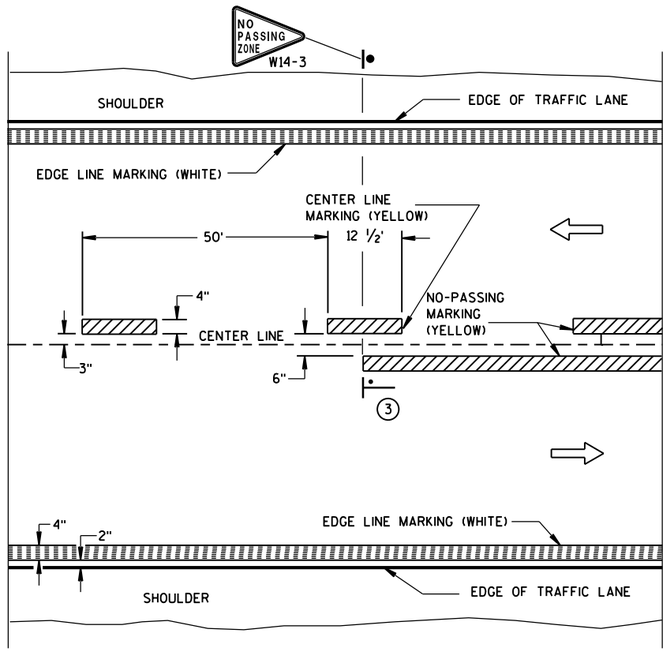
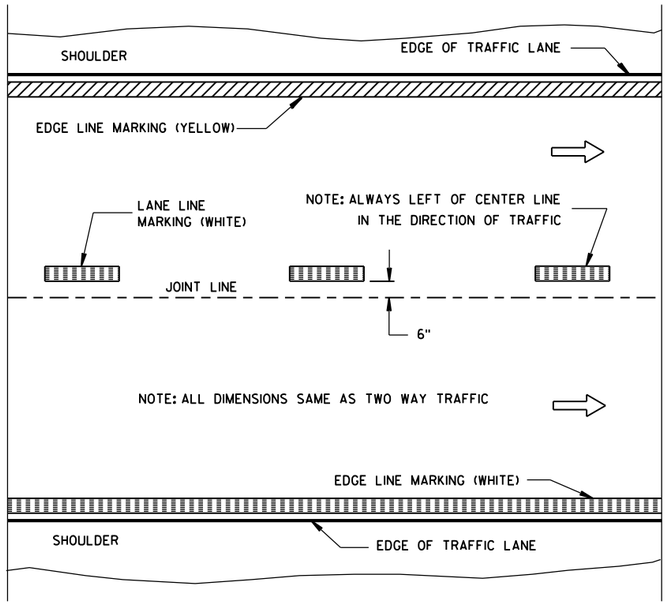
S.D.D. 15 C 7-12c

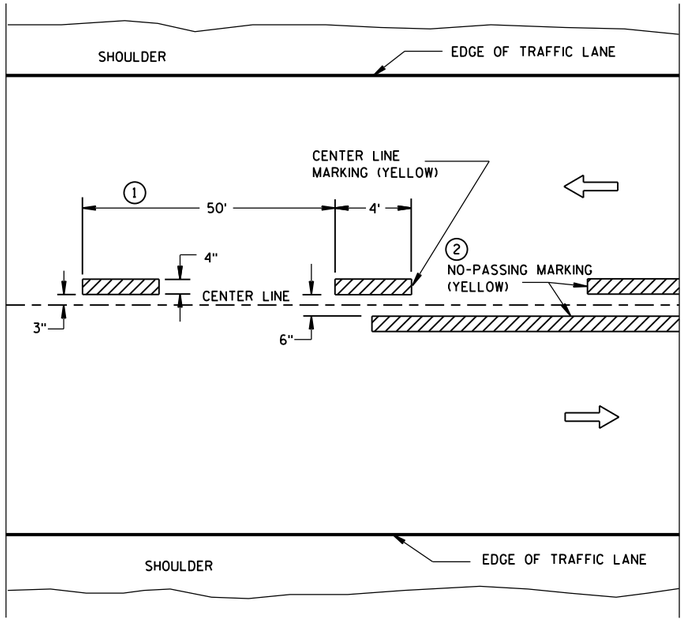


TWO WAY TRAFFIC

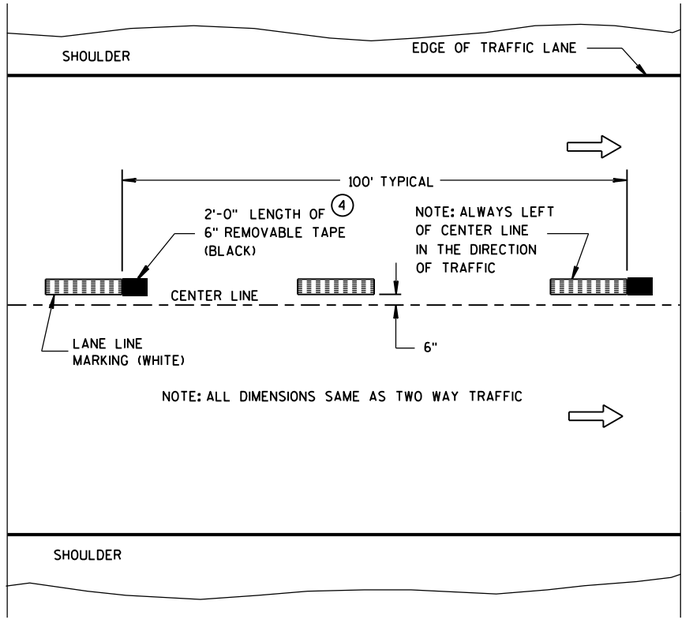


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

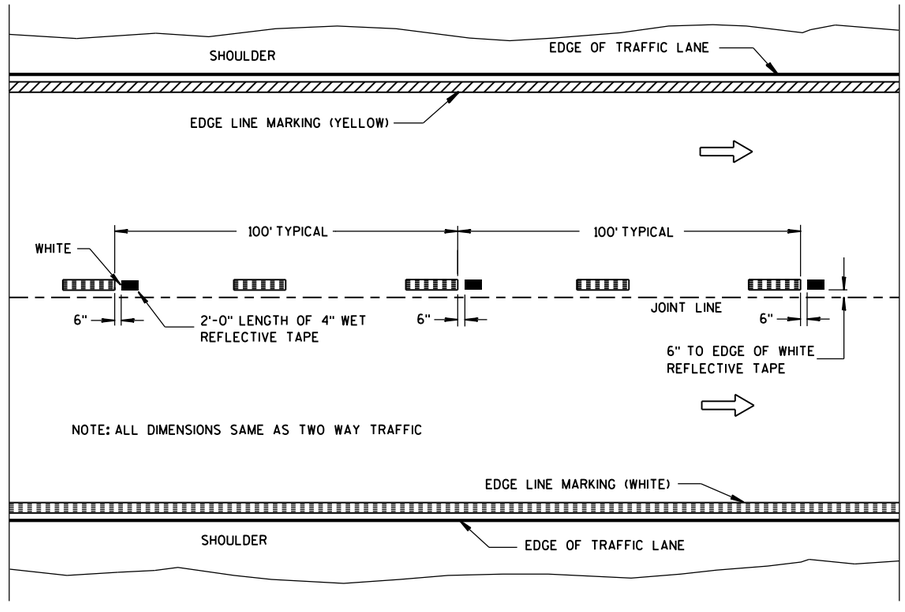
GENERAL NOTES

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

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013 DATE

/S/ Travis Feltes STATE TRAFFIC E

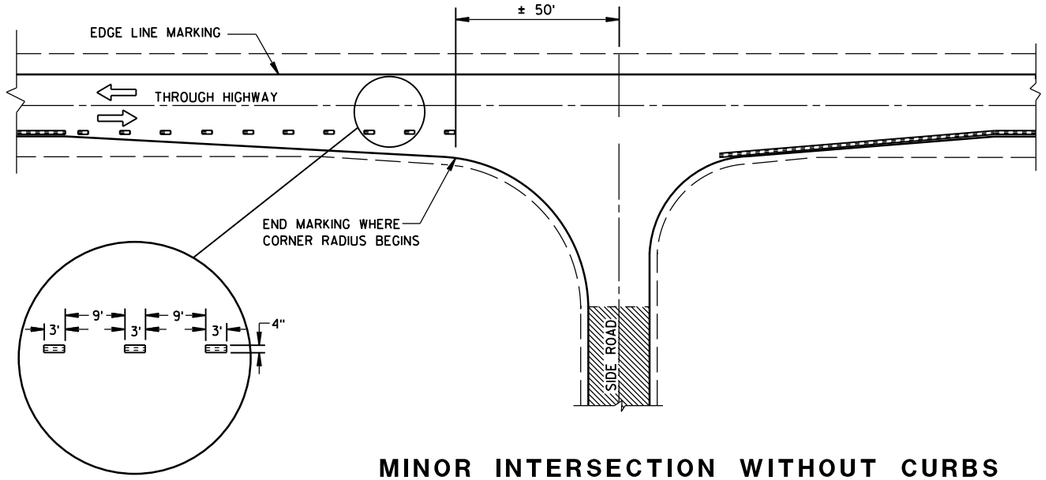
FHWA

6

S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED 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) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

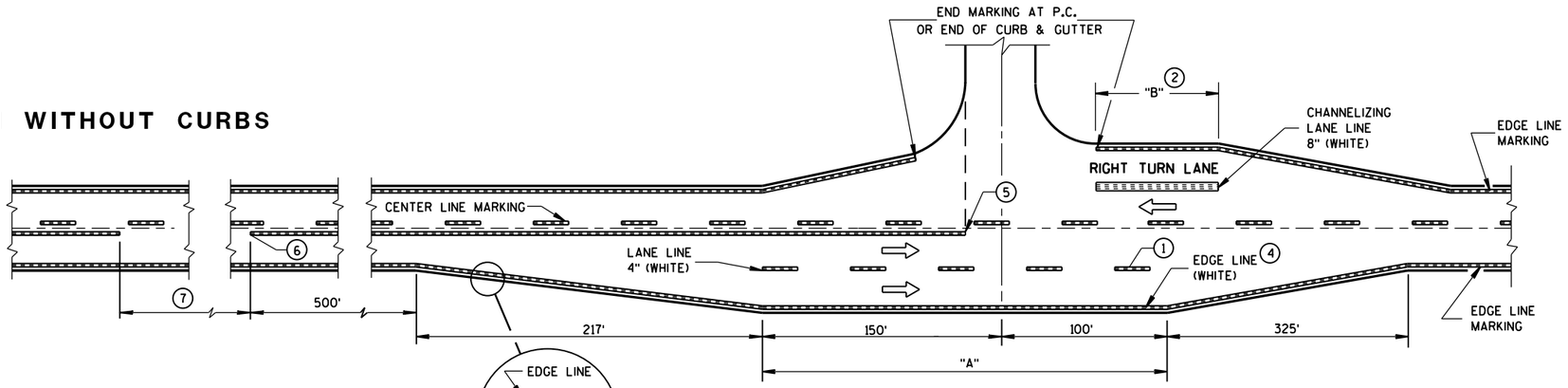
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

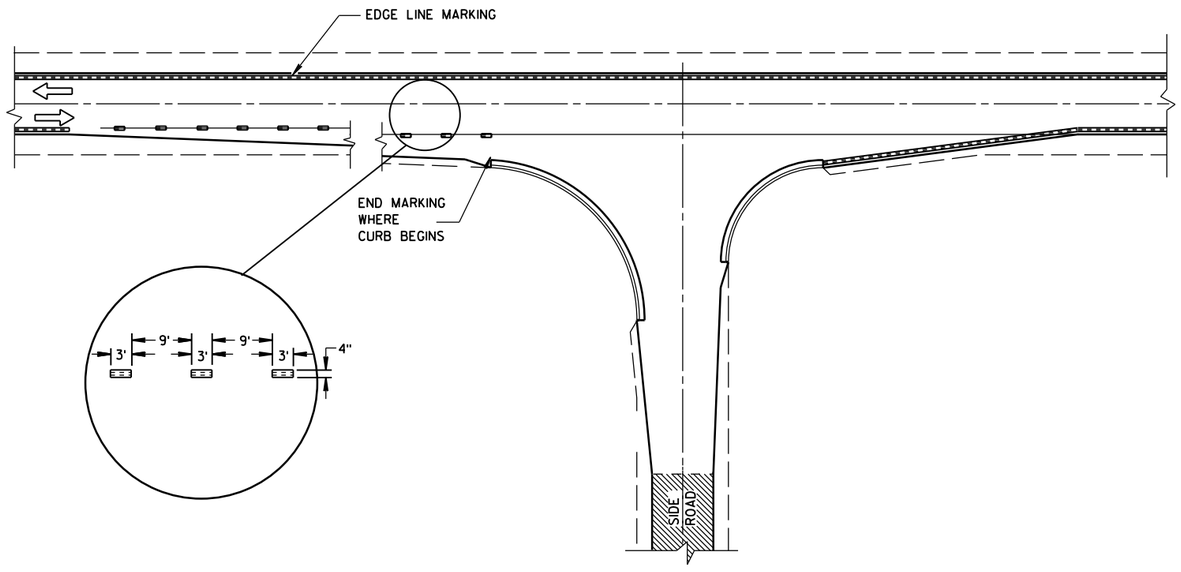
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



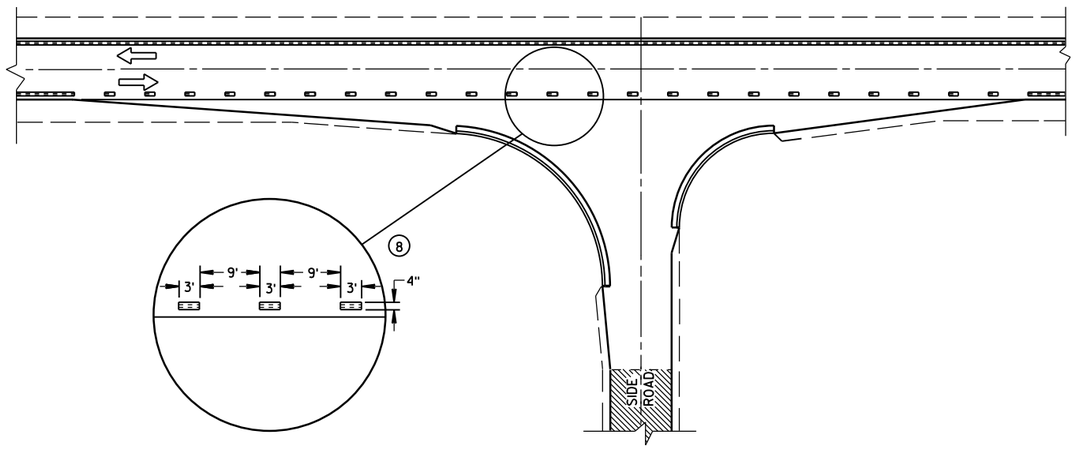
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

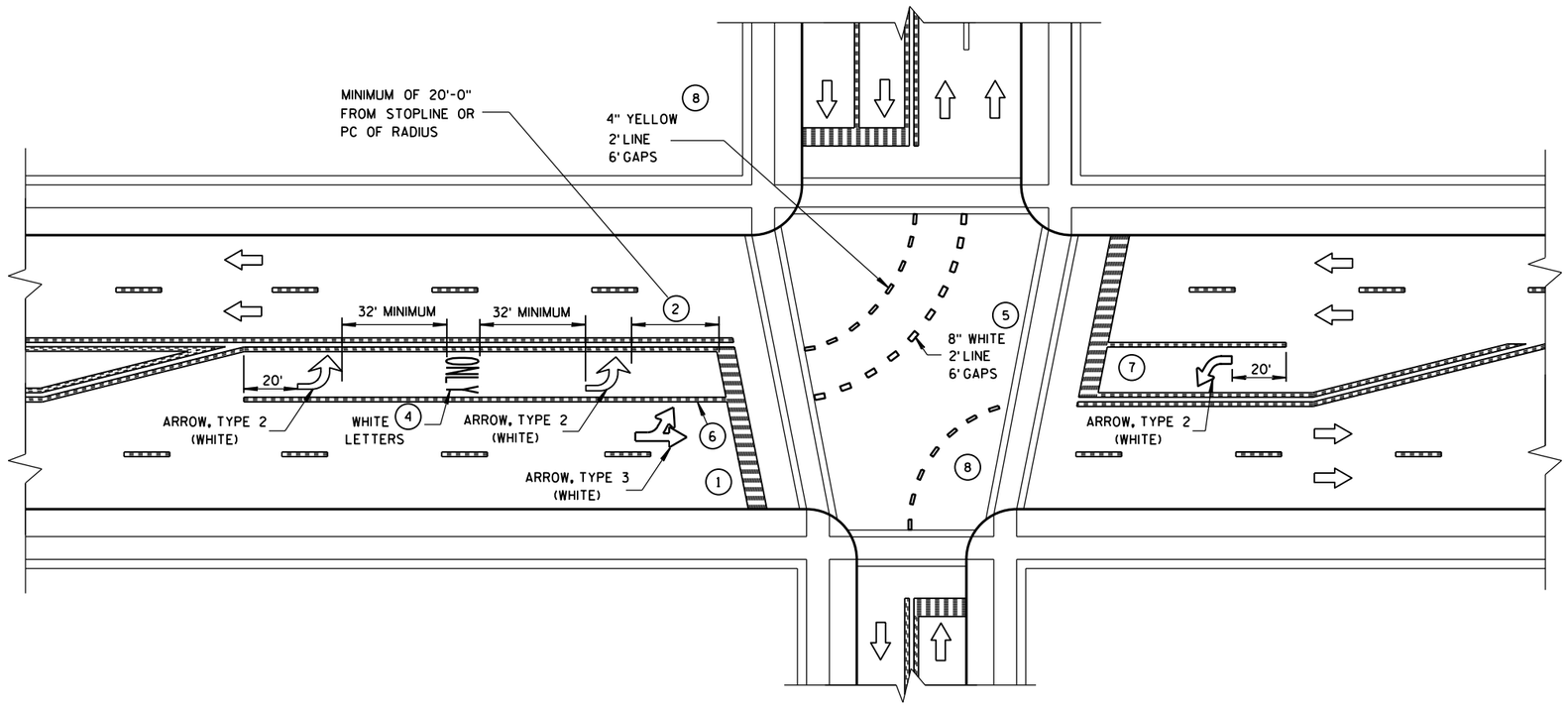
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-16b

6

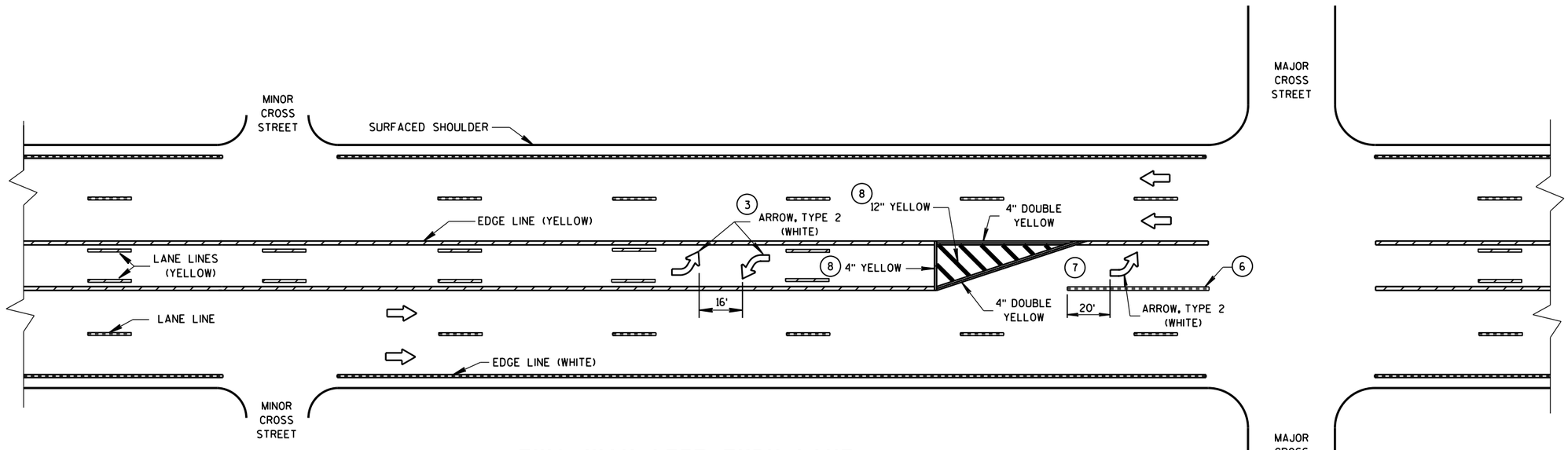
S.D.D. 15 C 8-16b



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

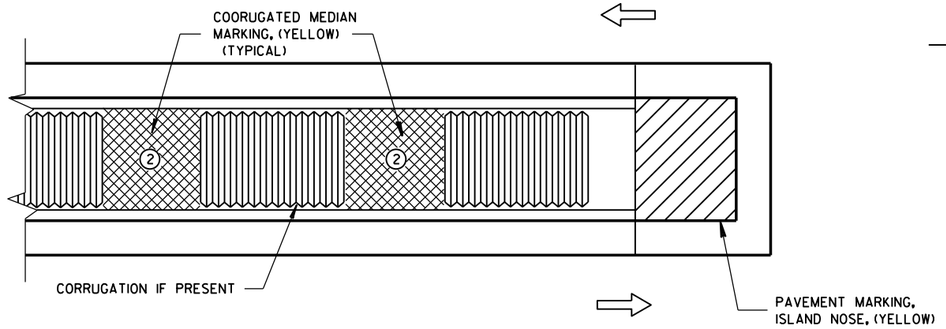
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

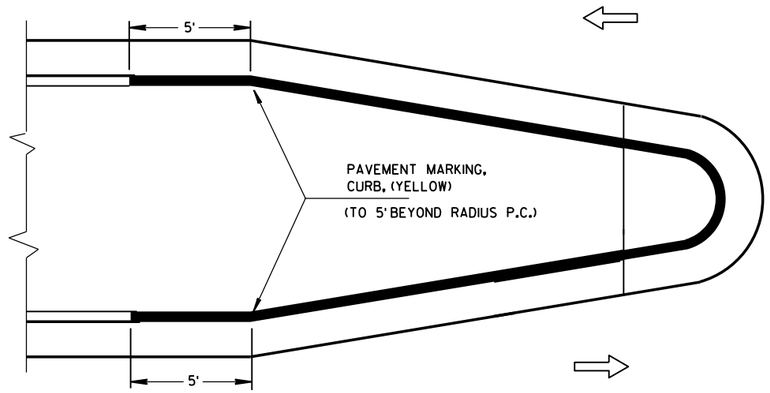
S.D.D. 15 C 8-16e

6

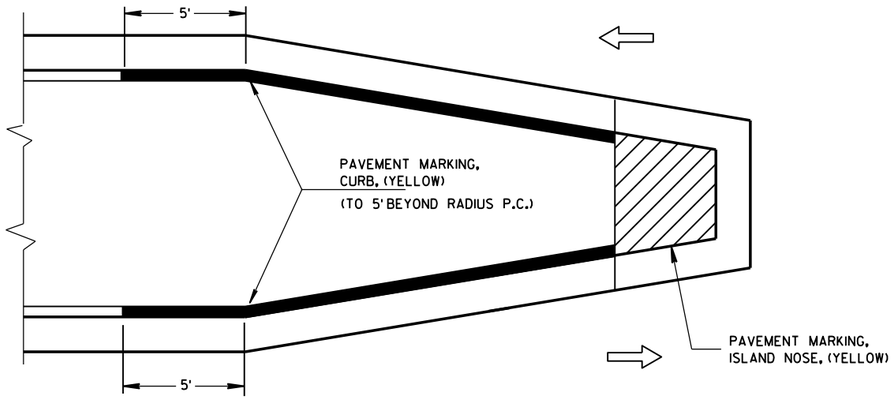
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

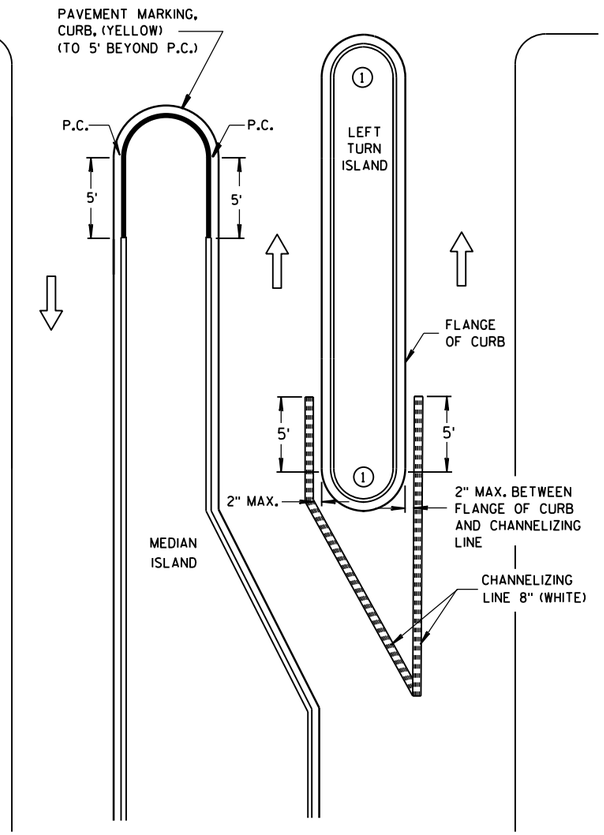


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

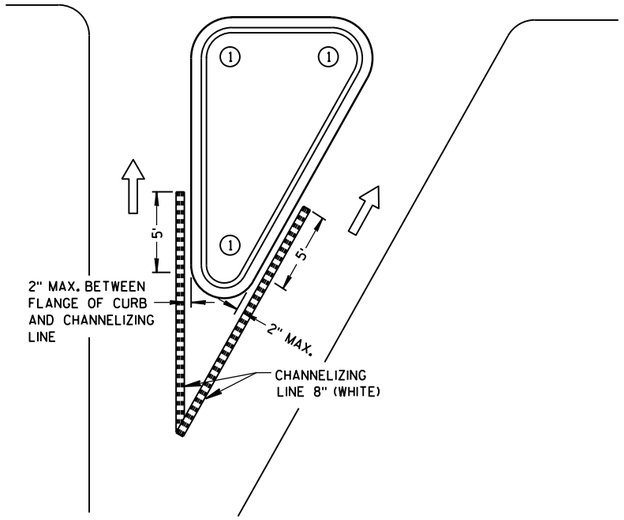


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 C 8-16f

6

S.D.D. 15 C 8-16f

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

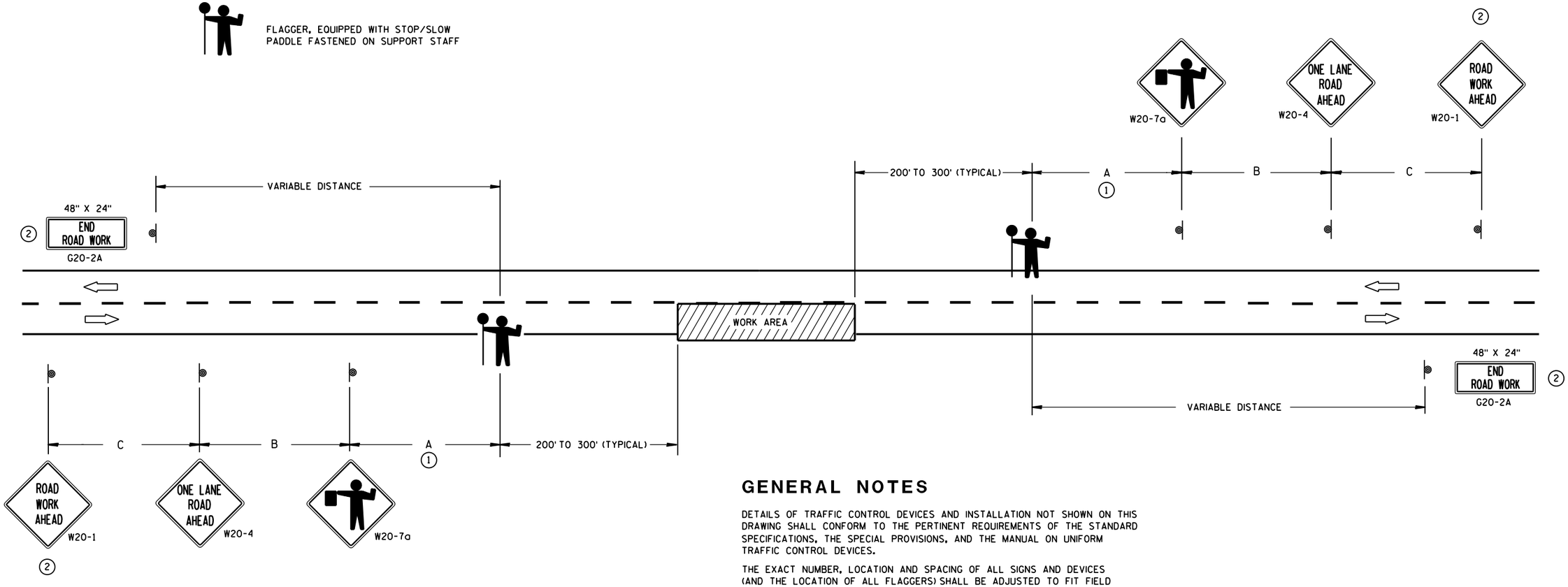
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

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

GENERAL NOTES

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

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

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

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

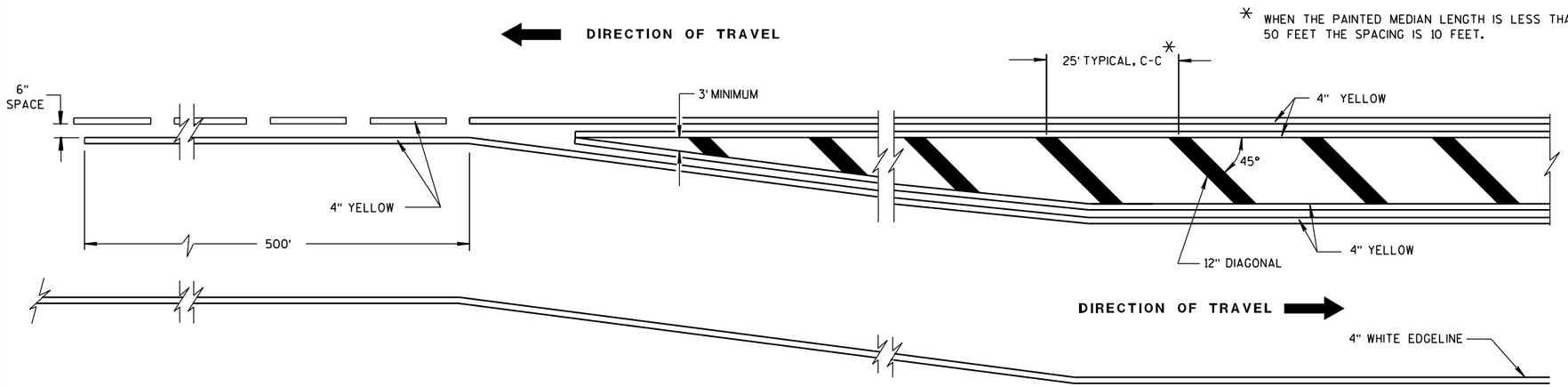
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 12-4

6

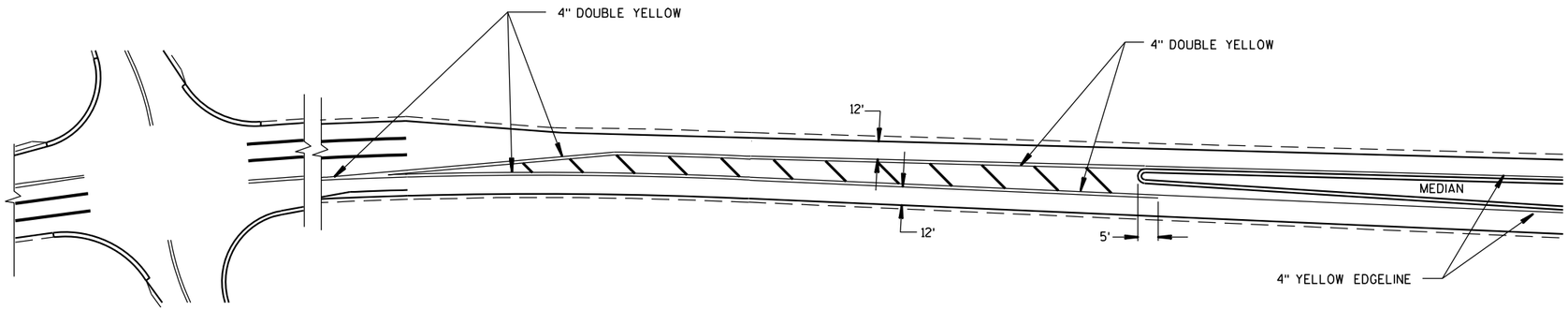
S.D.D. 15 C 12-4



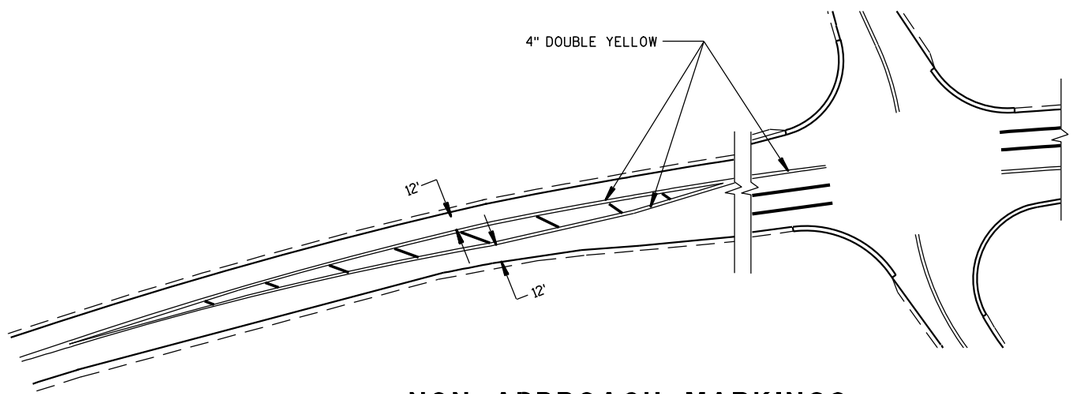
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER
FHWA	125 IGN

6

S.D.D. 15 C 18-3

6

S.D.D. 15 C 18-3

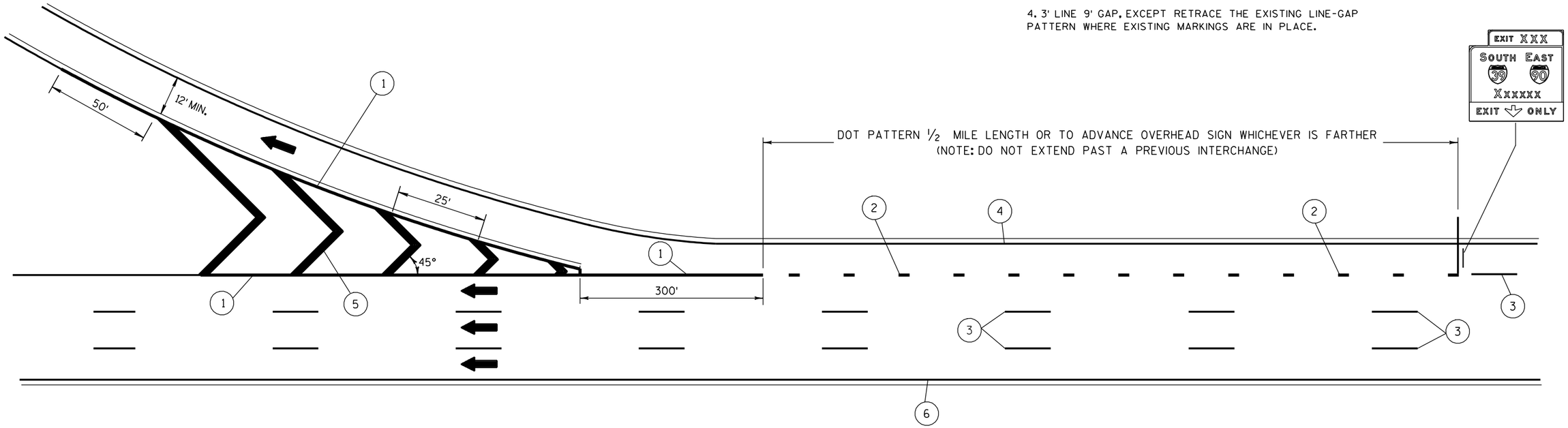
NOTES:

1. SEE STANDARD DETAIL DRAWING 15 C 10 FOR SPRAYED OR NON WET REFLECTIVE LINE SEGMENTS.

2. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

3. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

4. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.



1. CHANNELIZING - SOLID 8" WHITE WET RELECTIVE TAPE
2. 3' LINE, 9' GAP SOLID 8" WHITE WET REFLECTIVE TAPE. SEE NOTE 4.
3. SOLID 4" WHITE WET REFLECTIVE TAPE
4. 4" WHITE EDGELINE
5. CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT
6. 4" YELLOW EDGELINE

LANE DROP
PAVEMENT MARKING

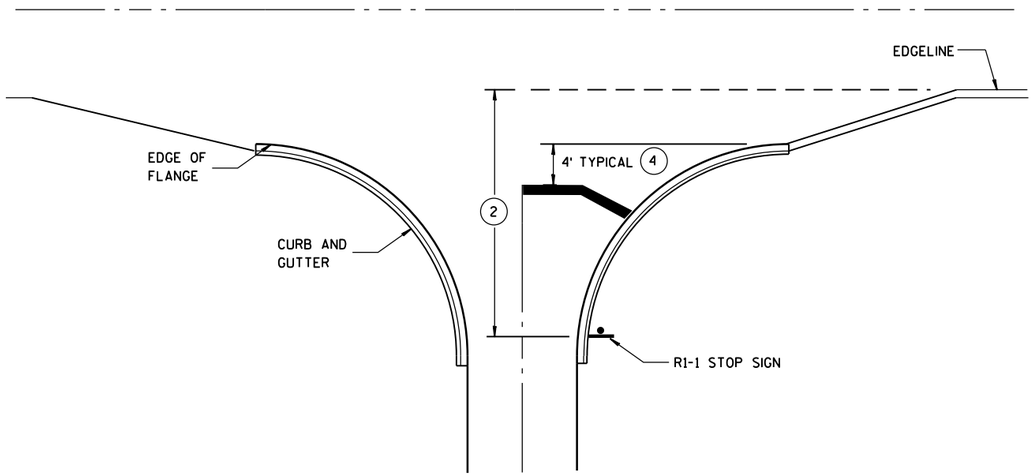
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

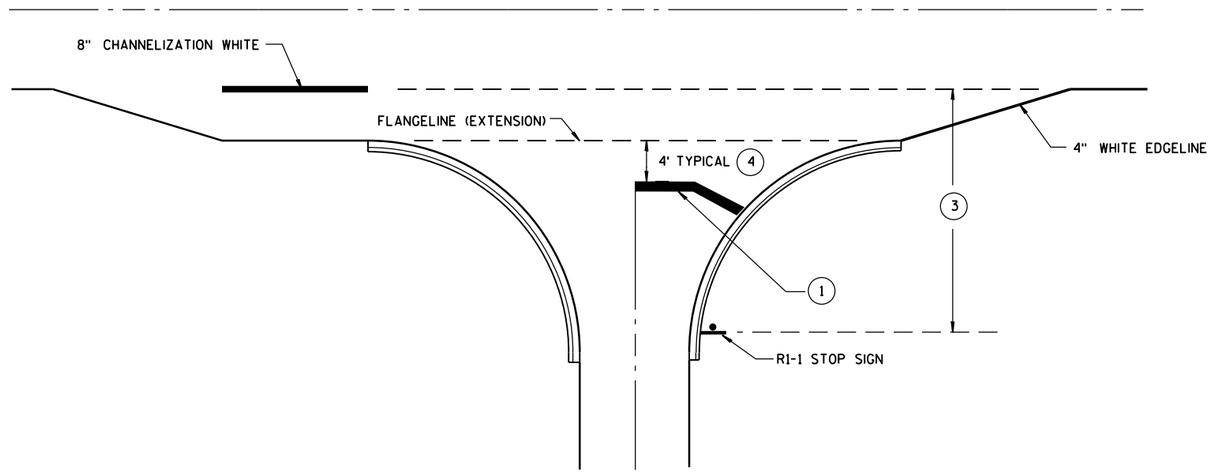
S.D.D. 15 C 31-1b

6

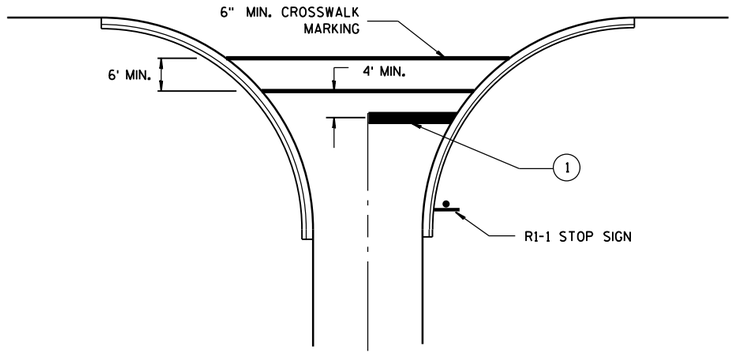
S.D.D. 15 C 31-1b



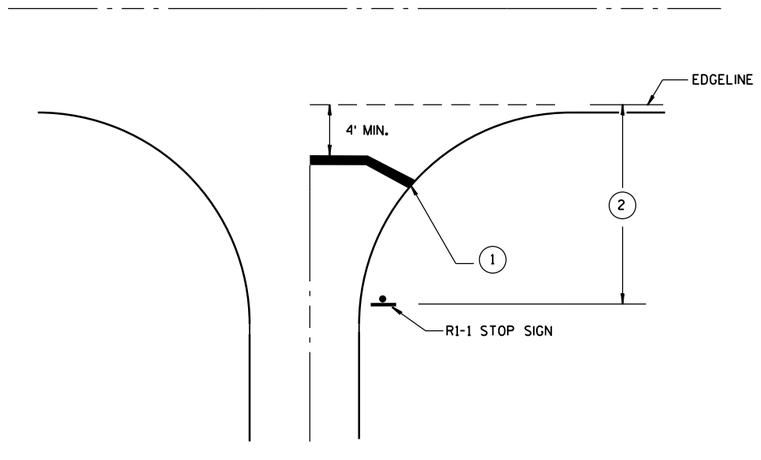
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 33-1

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

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 DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

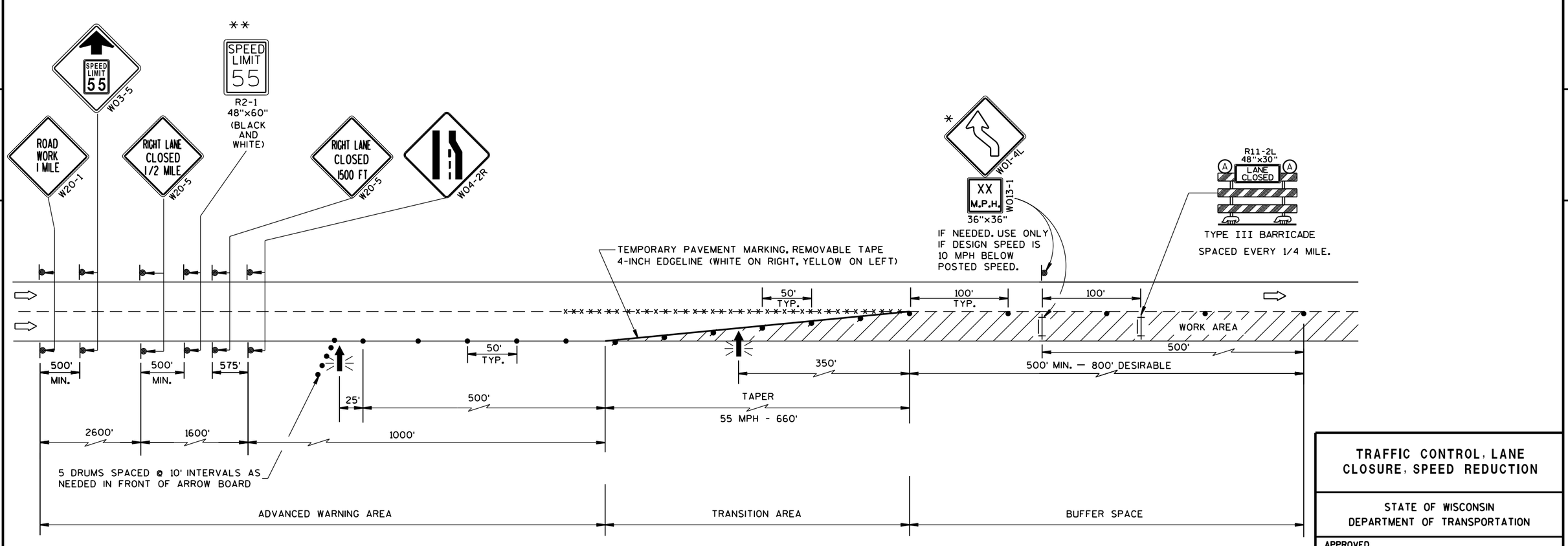
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A 65 MPH RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.



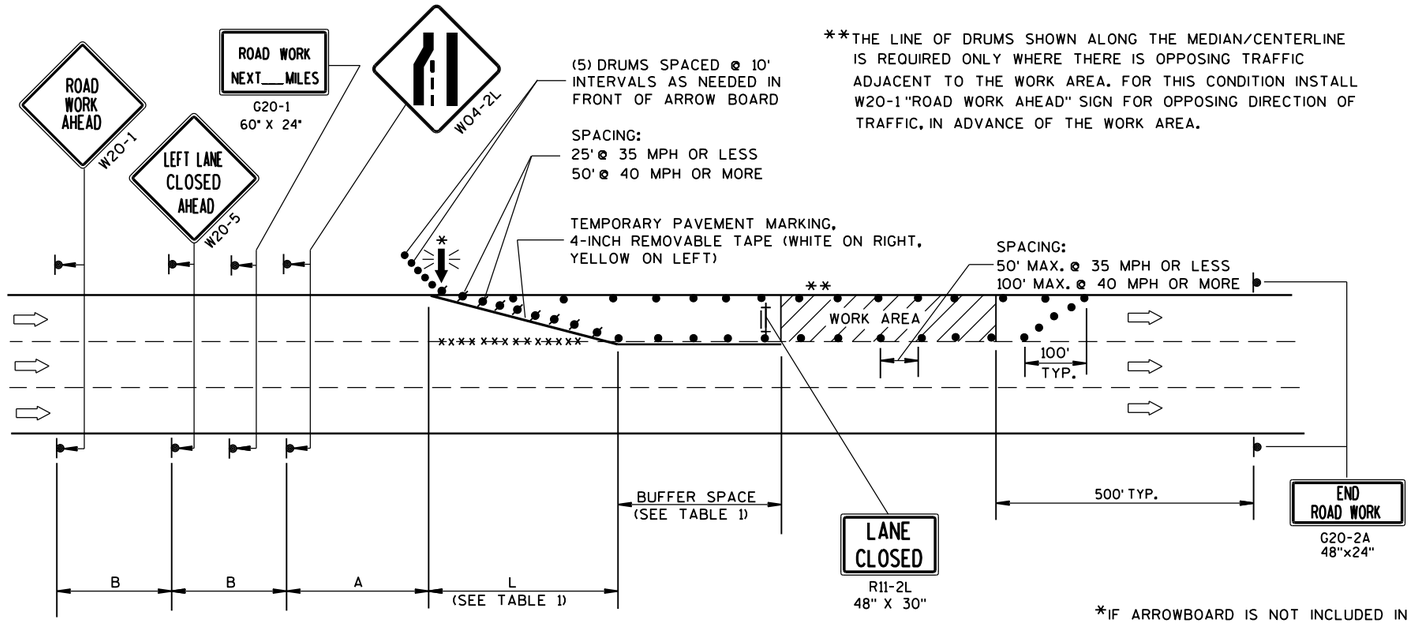
TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

S.D.D. 15 D 12-5b

S.D.D. 15 D 12-5b



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

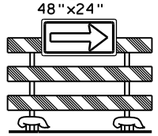


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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 DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON 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.

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.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

BARRICADES IN A CLOSED LANE 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.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

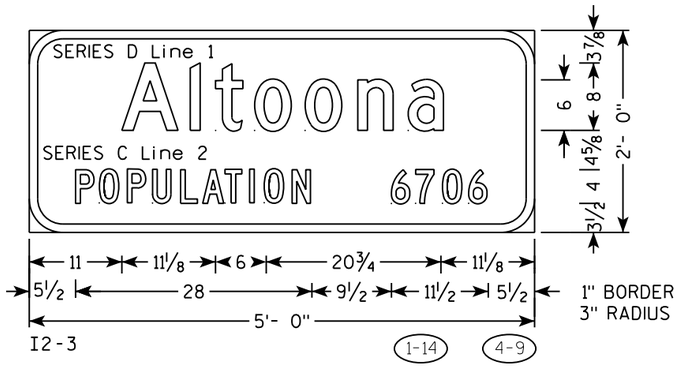
TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

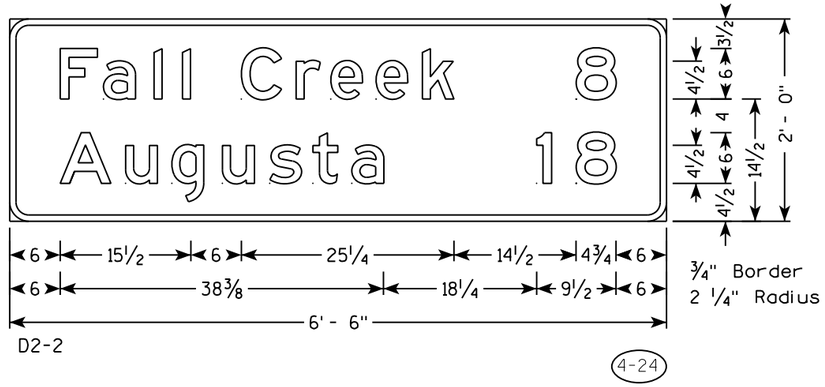
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

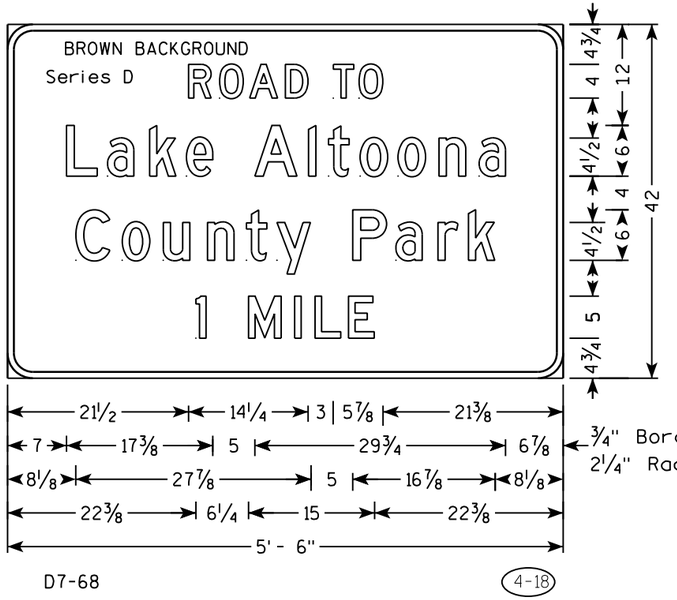
S.D.D. 15 D 20-3

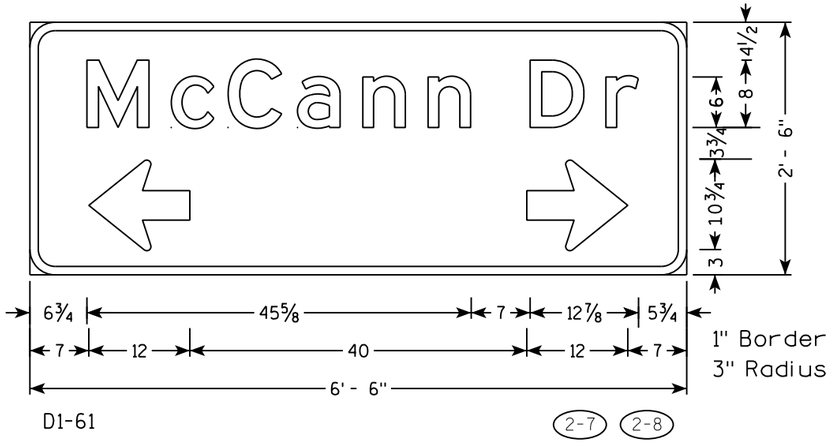


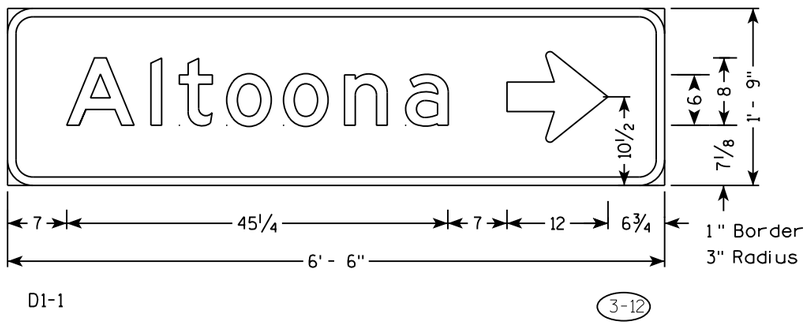


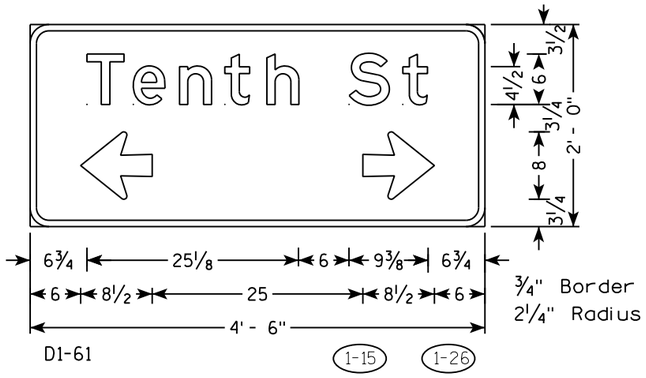
NOTES

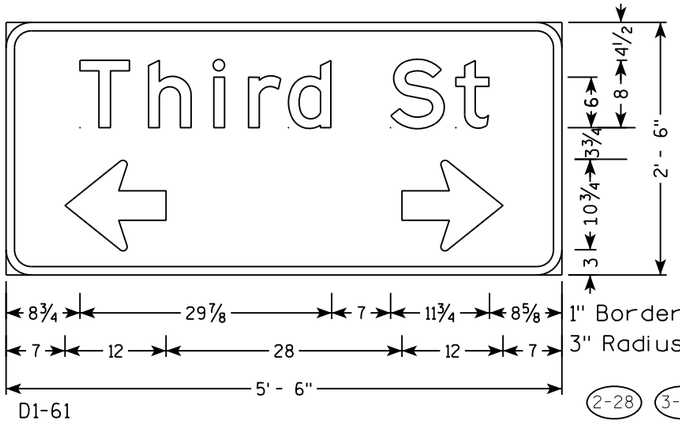
1. All Signs Type II - Type H Reflective
2. Color:
   Background - GREEN except as Shown
   Message - WHITE
3. Message Series - E except as Shown







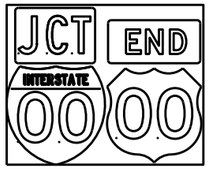




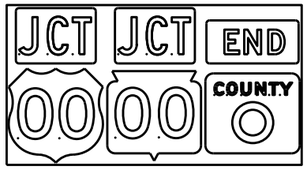
PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO: 130	E

TYPICAL ASSEMBLIES

J1-1

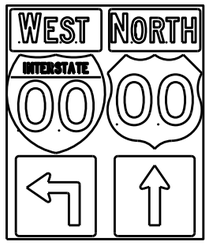


J1-2

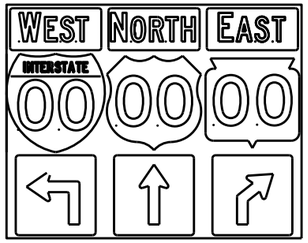


J1-3

J2-1



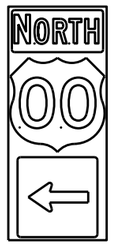
J2-2



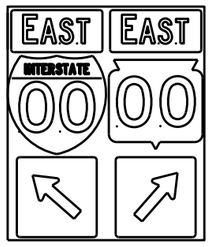
J2-3

JV

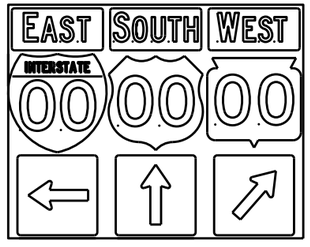
(Typical Vertical J-Assembly
See Note 10 and 11)



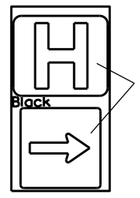
J3-1



J3-2

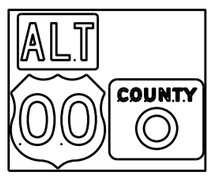


J3-3

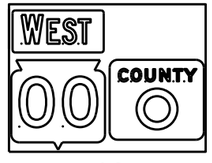


JH-1

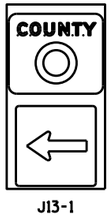
J4-1



J4-2



J4-2



J13-1

J12-1

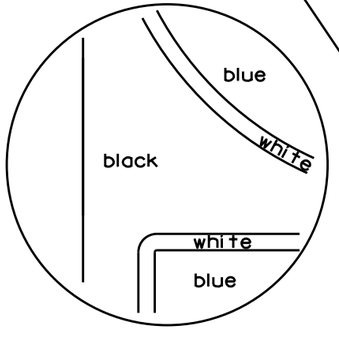
J32-1

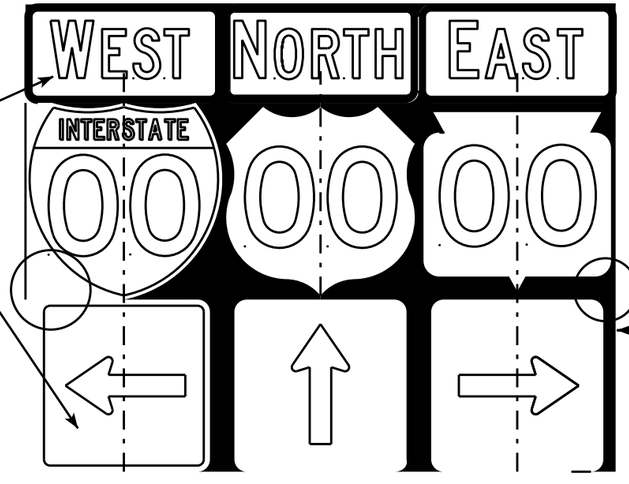
J33-1

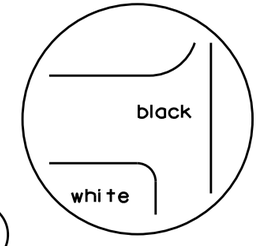
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

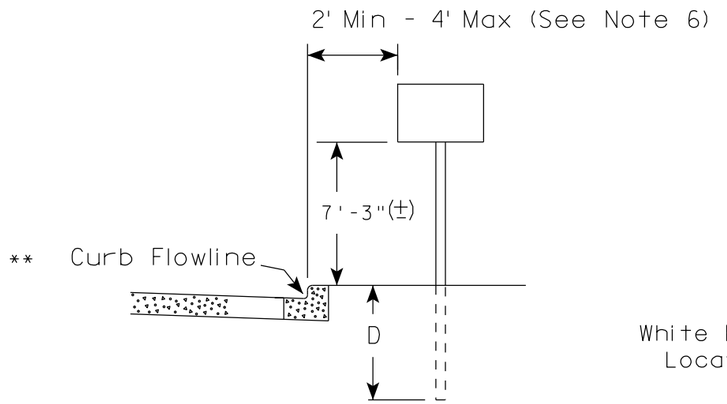
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/06/14 PL... A2-1S.8

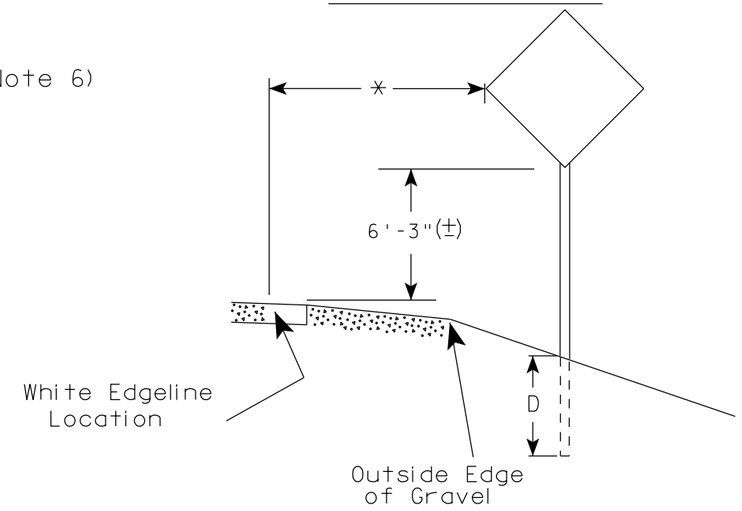
PROJECT NO: SHEET NO: E

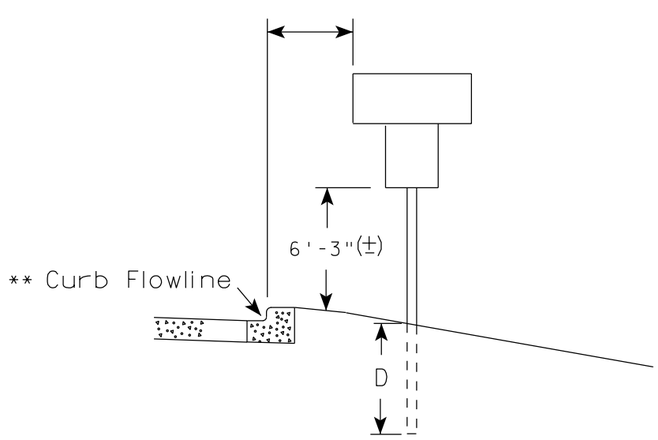
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :
WISDOT/CADDS SHEET 42

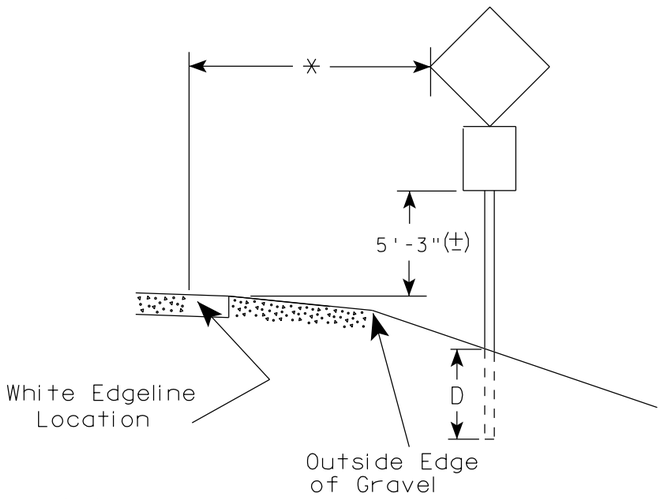
URBAN AREA



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, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
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 J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. 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), 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" (±).

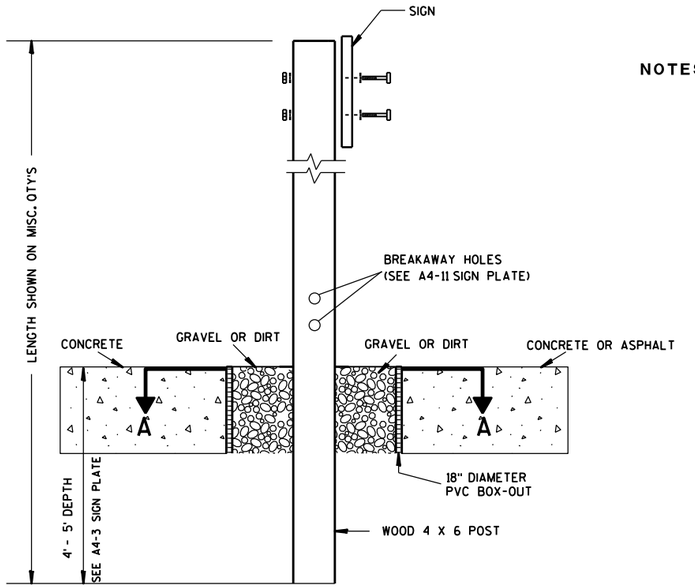
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/14 PLATE NO. A4-3.19

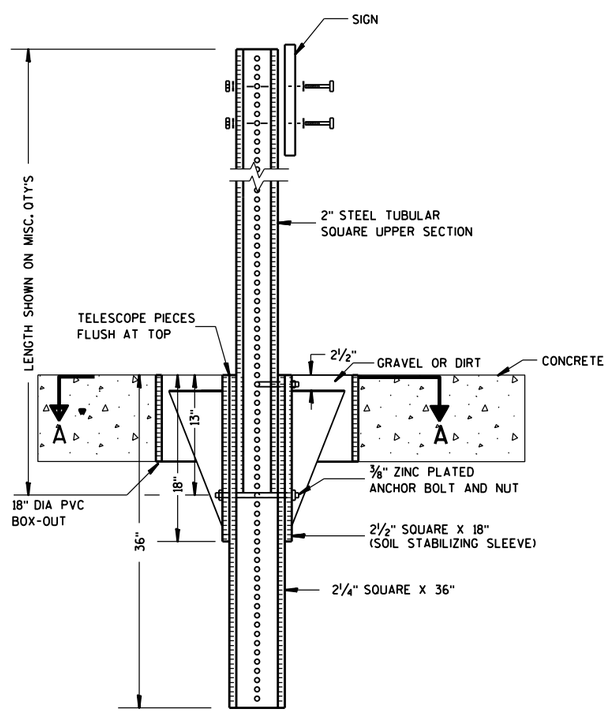
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

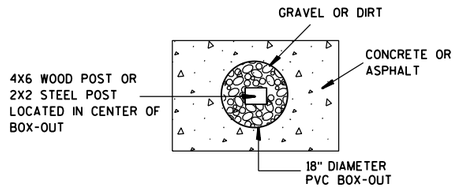
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

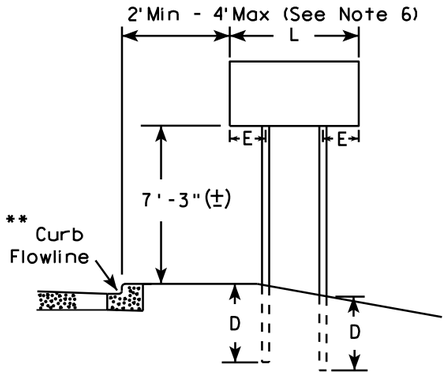
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

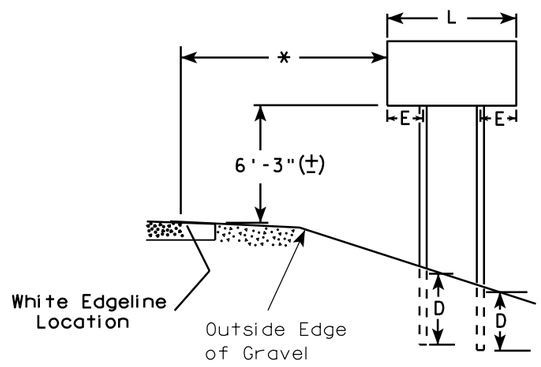
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

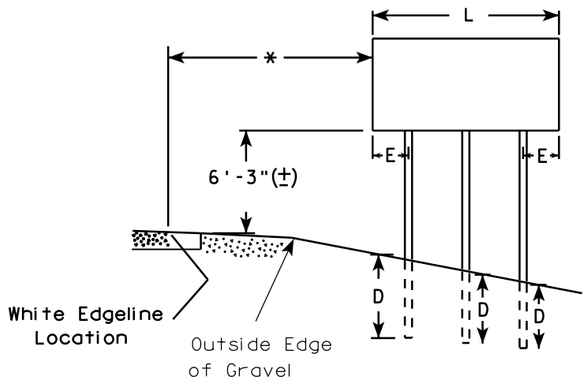
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

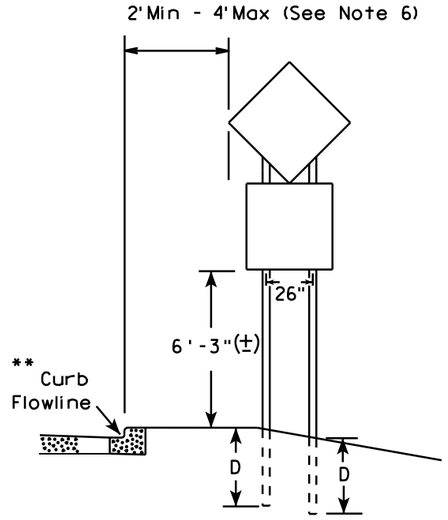
URBAN AREA



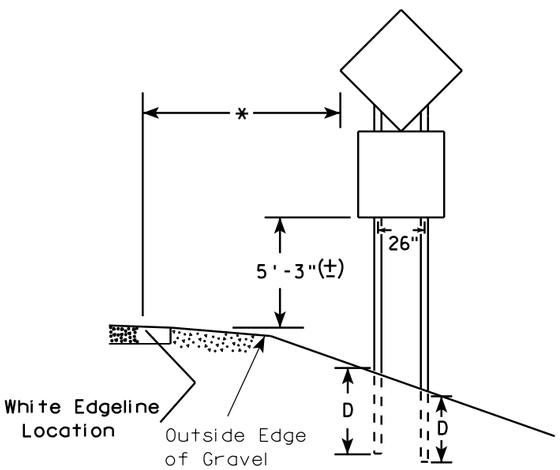
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
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 or less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

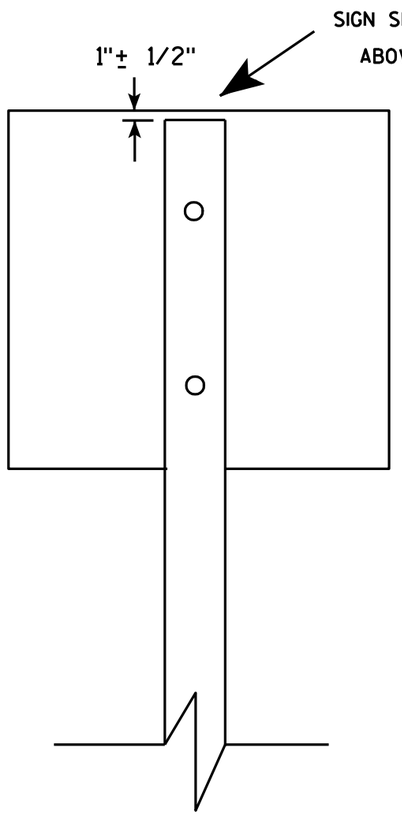
WISCONSIN DEPT OF TRANSPORTATION

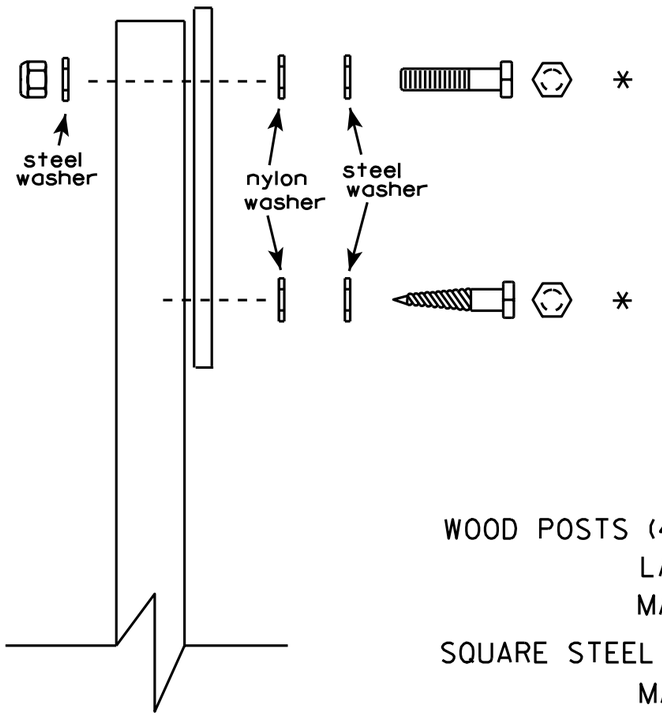
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/14 PLATE NO. A4-4 13

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 12-NOV-2014 14:01 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 107.021305:1.000000 WISDOT/CADDS SHEET 42





Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

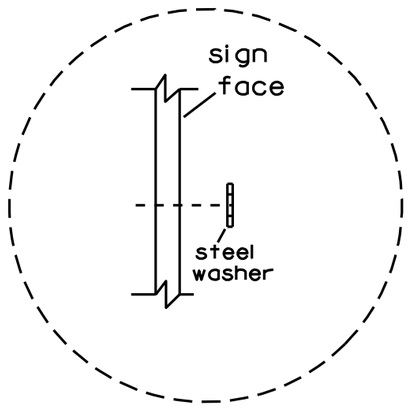
a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
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 for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* 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

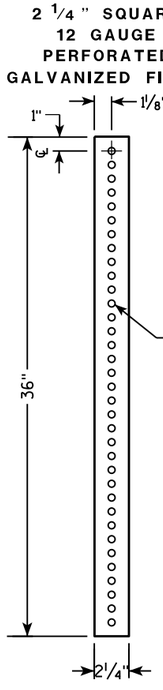
DATE 3/23/10 PLATE NO. A4-8.7

7

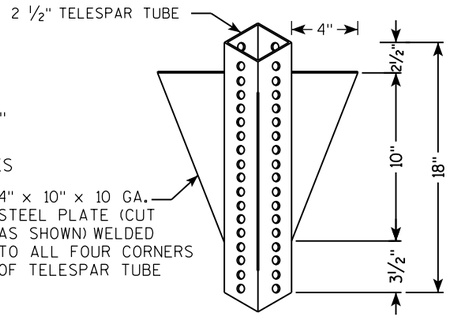
7

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

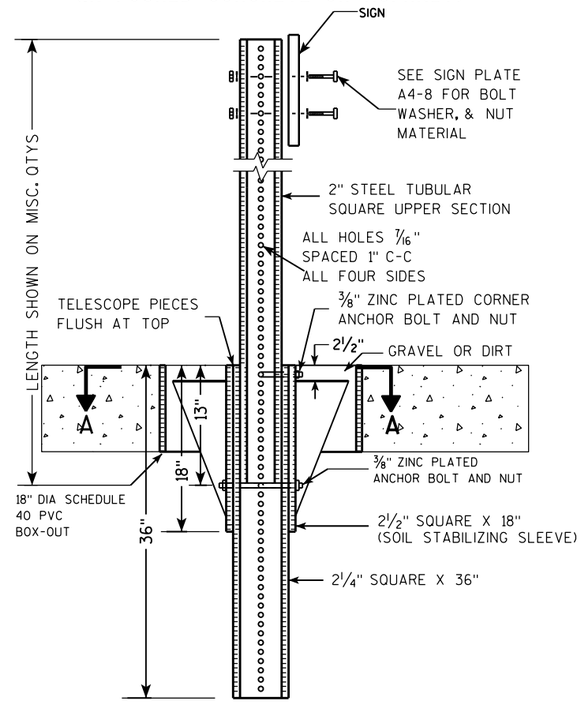
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



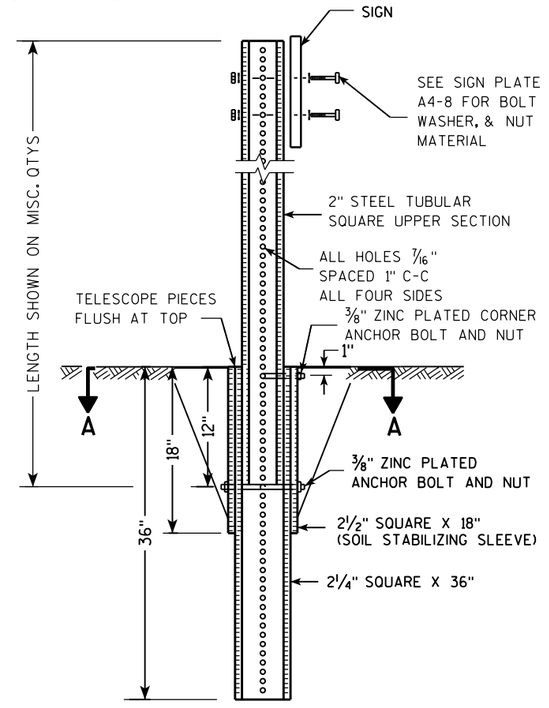
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

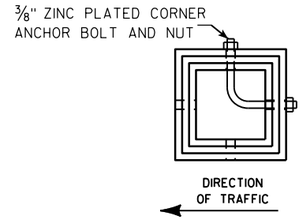


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

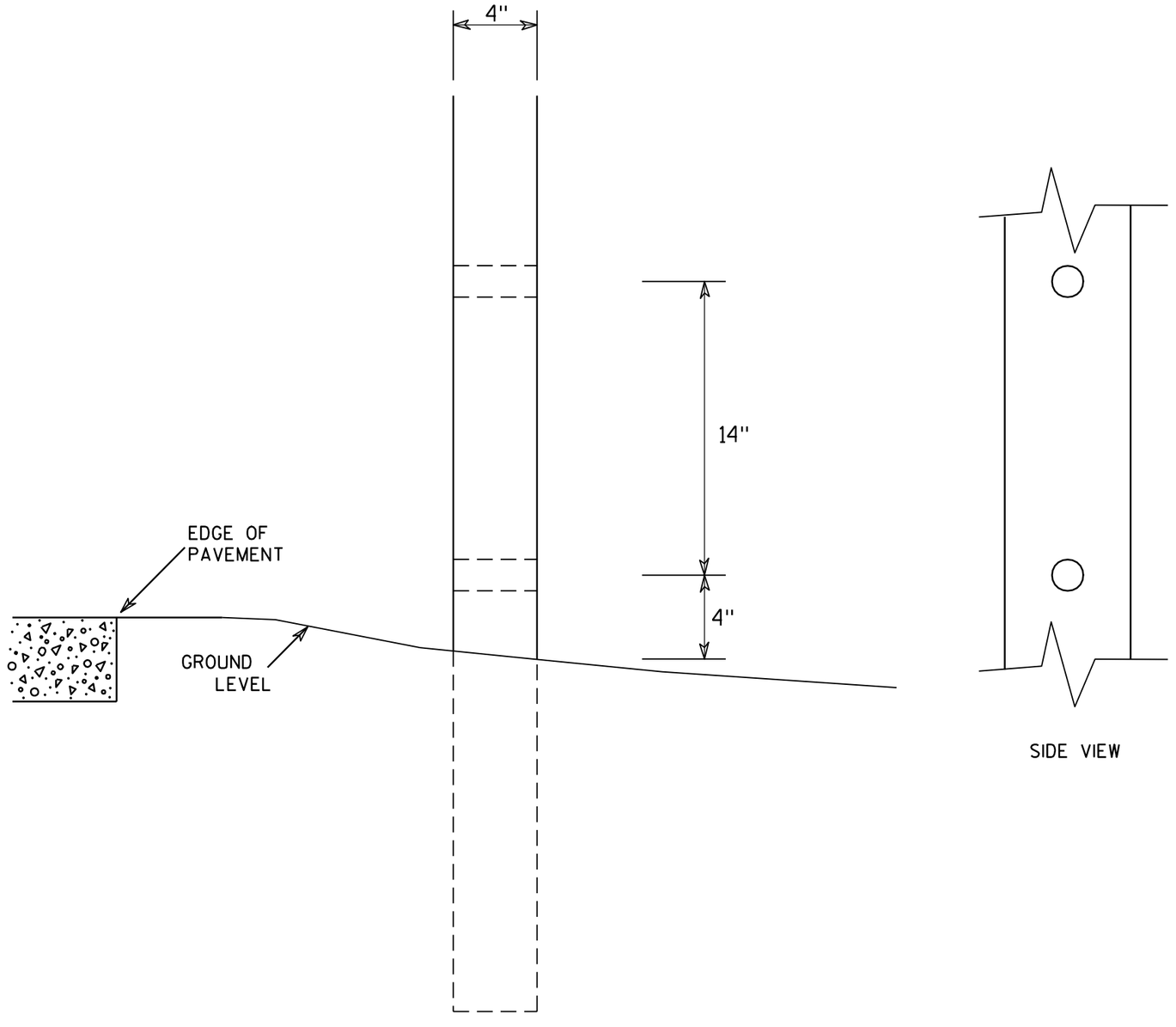
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000
WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

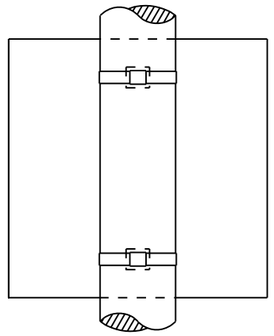
APPROVED Chester J Spang for State Traffic Engineer

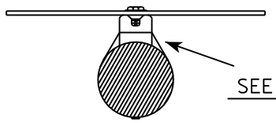
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 137	E

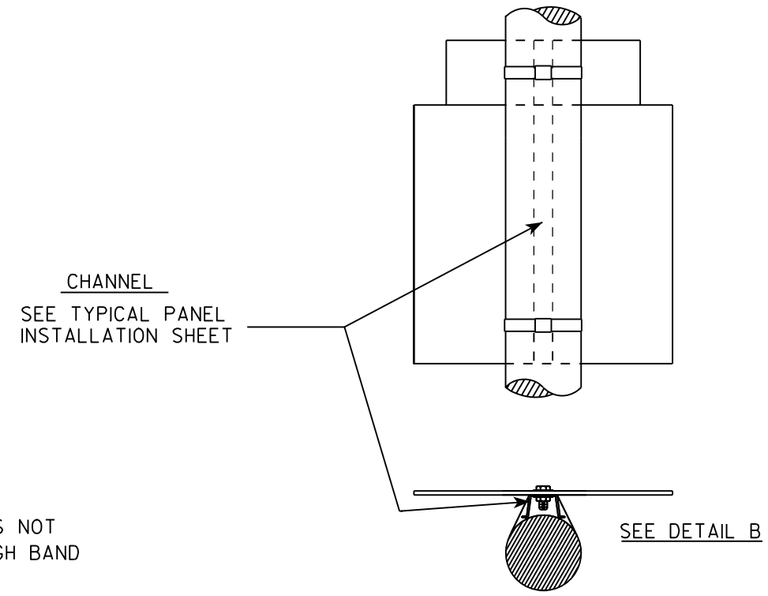
BANDING

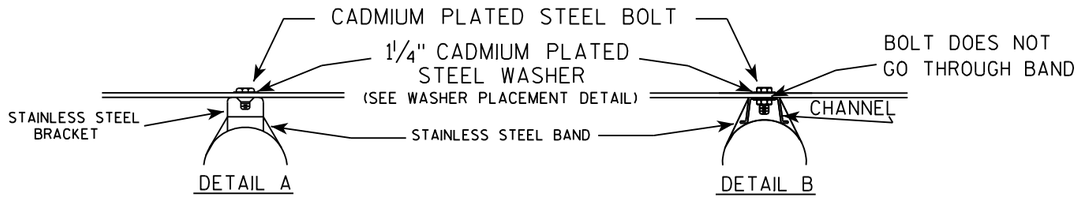
SINGLE SIGN



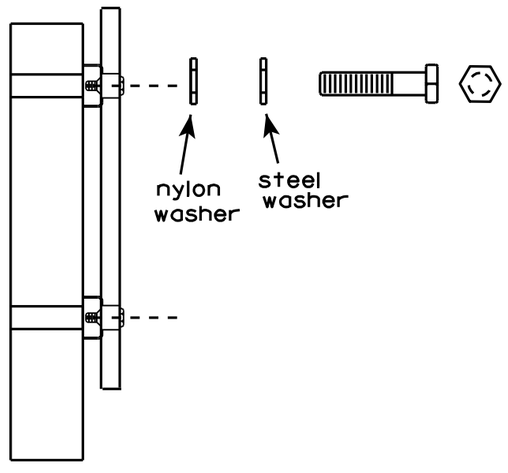


"J" ASSEMBLY





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 3/4" in width and 0.025" thickness.

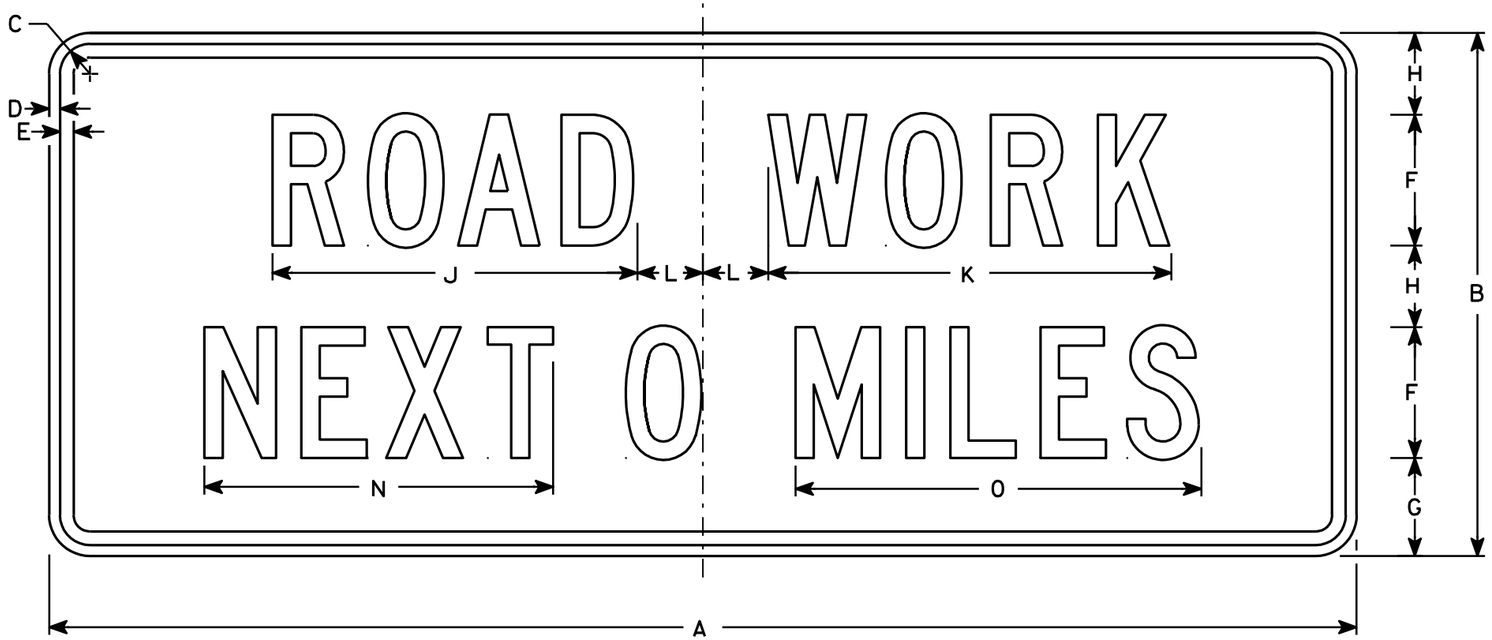
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 138	E



G20-1

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 - 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 and optically adjust spacing to achieve proper balance

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 600 mm
3	
4	1500 mm X 600 mm
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.	Area m2
1																												
2	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10	.90
3																												
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10	.90
5																												

STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

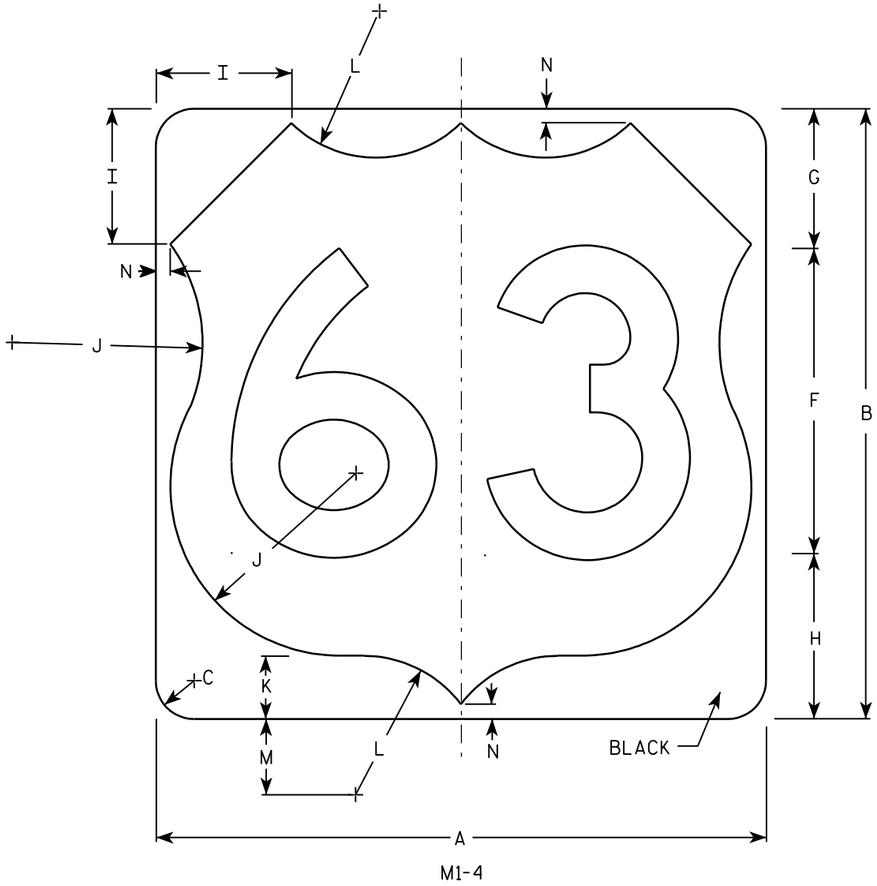
APPROVED Chester J Spray for State Traffic Engineer

DATE 4/8/97 PLATE NO. G20-1.7

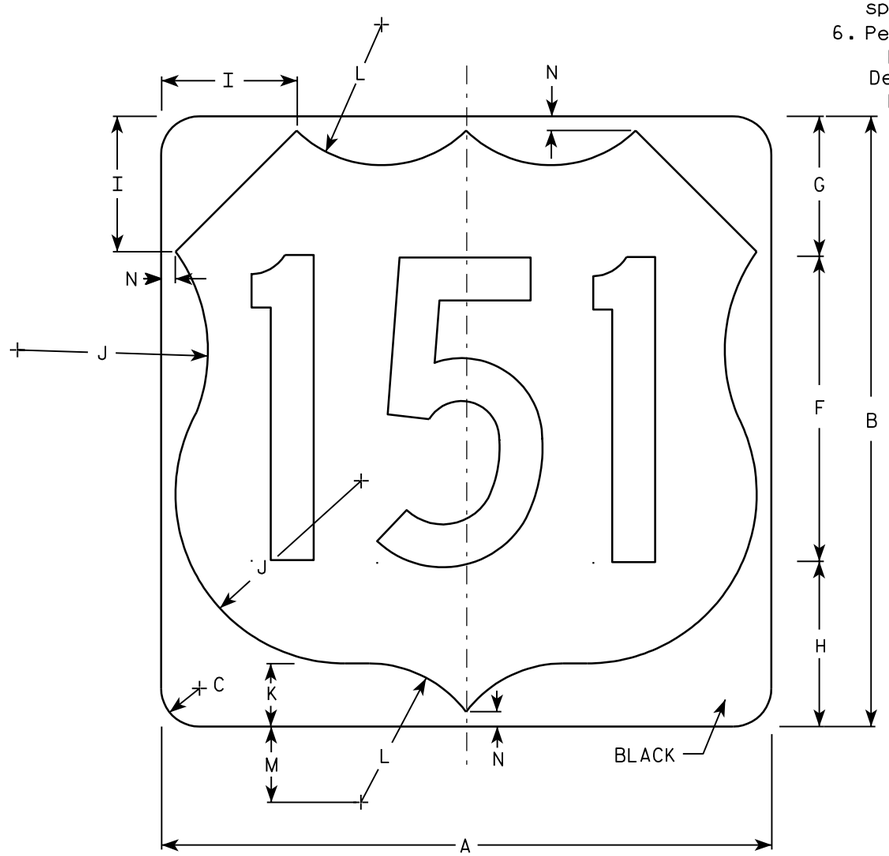
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 139	E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   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. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 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																												
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	.36
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	.81
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	.81
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	.81

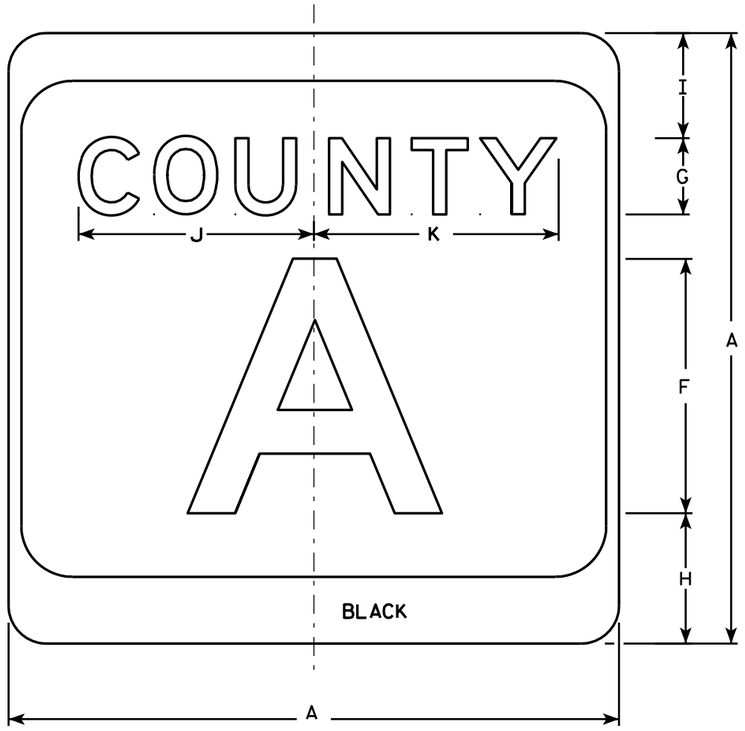
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

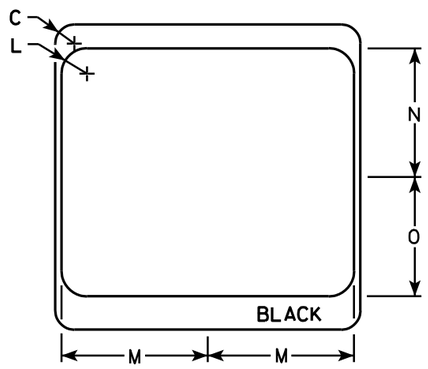
APPROVED Matthew R Rauch
for State Traffic Engineer

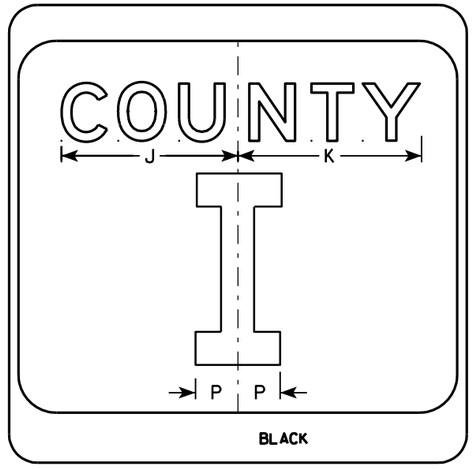
DATE 08/25/05 PLATE NO. M1-4.9

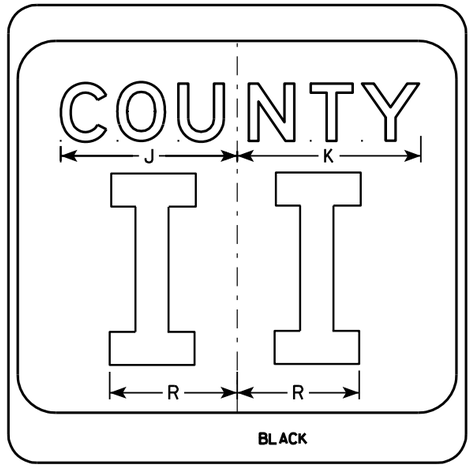
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 140 | E



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

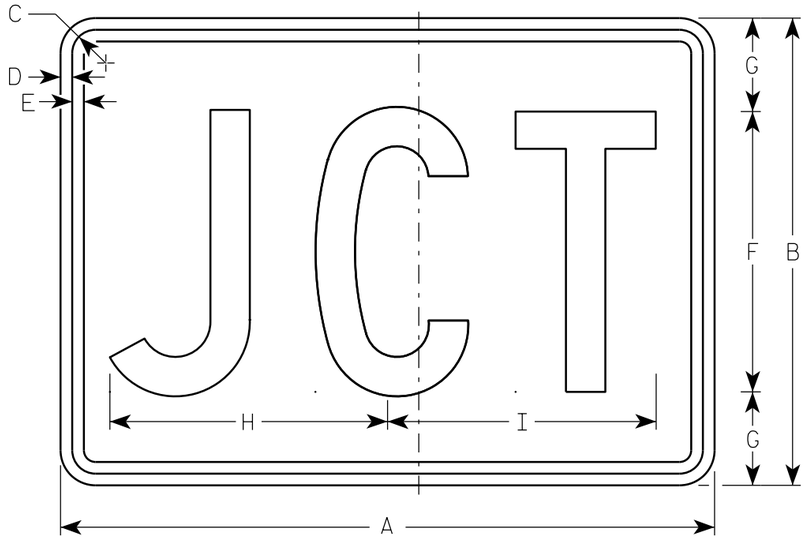
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

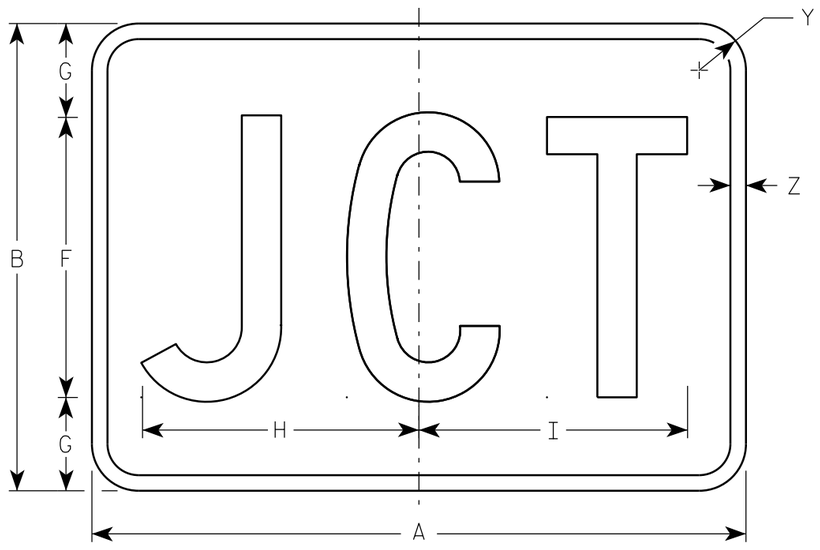
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 141	E



M2-1
MK2-1
MM2-1
MN2-1
MR2-1



MB2-1

NOTES

1. Sign is 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. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MR2-1 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

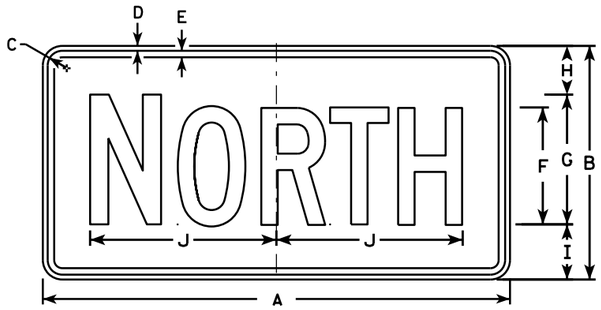
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

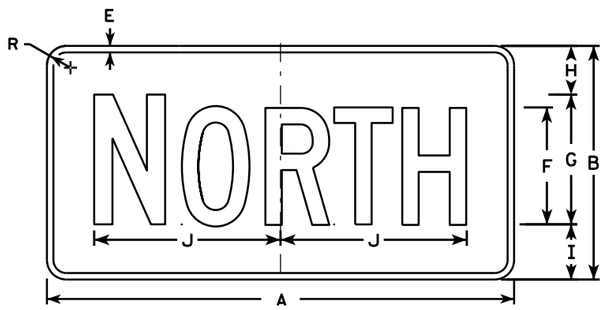
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/30/14 PLATE 142 12-1.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

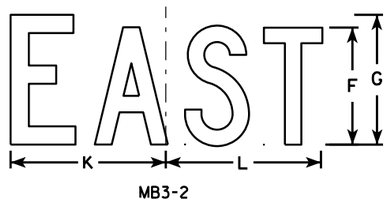


M3-1
MK3-1
MM3-1
MN3-1

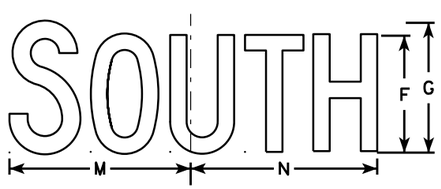


MB3-1

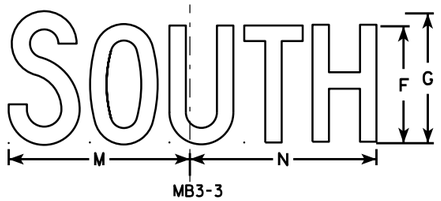
M3-2
MK3-2
MM3-2
MN3-2



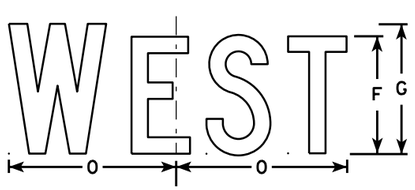
MB3-2



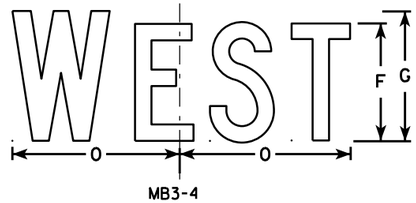
M3-3
MK3-3
MM3-3
MN3-3



MB3-3



M3-4
MK3-4
MM3-4
MN3-4



MB3-4

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
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

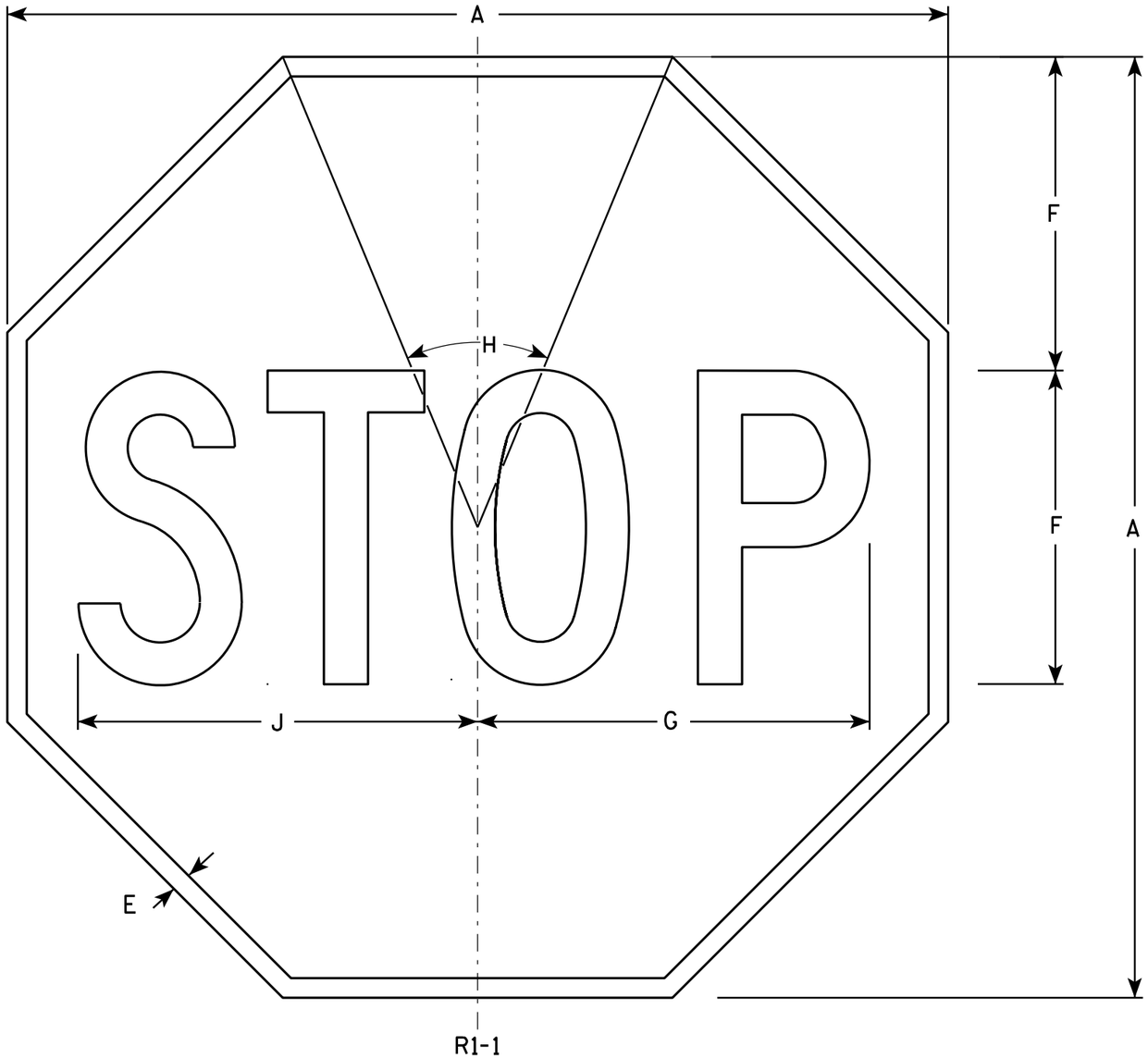
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/30/14 PLATE NO M3-1.13

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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	24				3/8	8	10	45°		10 1/4																	3.31
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

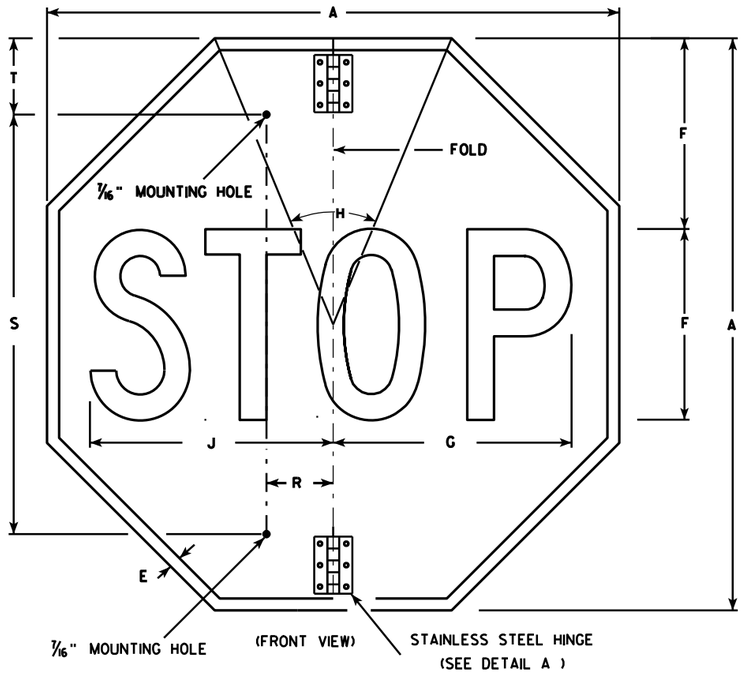
STANDARD SIGN
R1-1

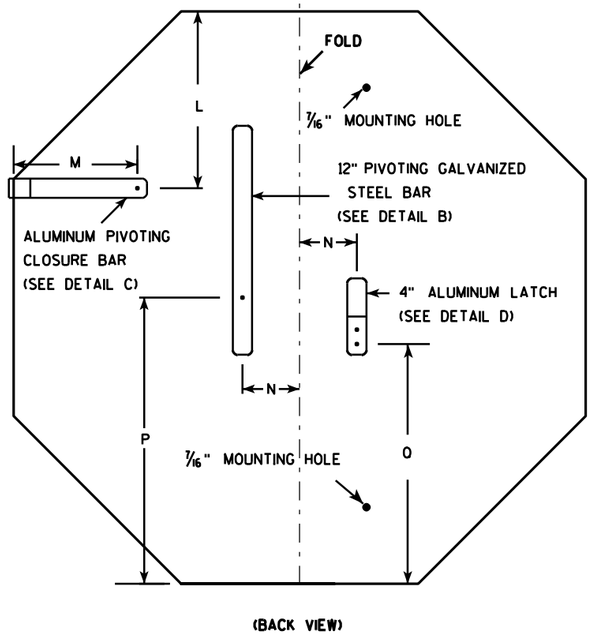
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

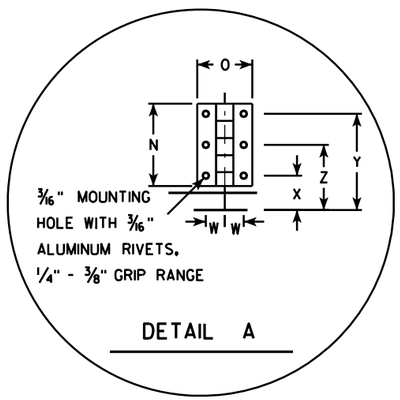
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 144	E



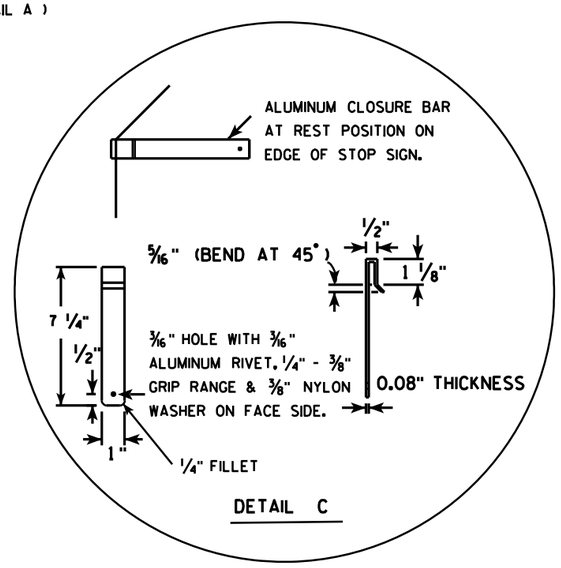


NOTES

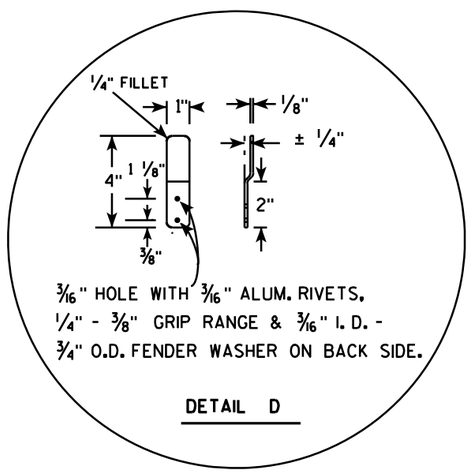
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



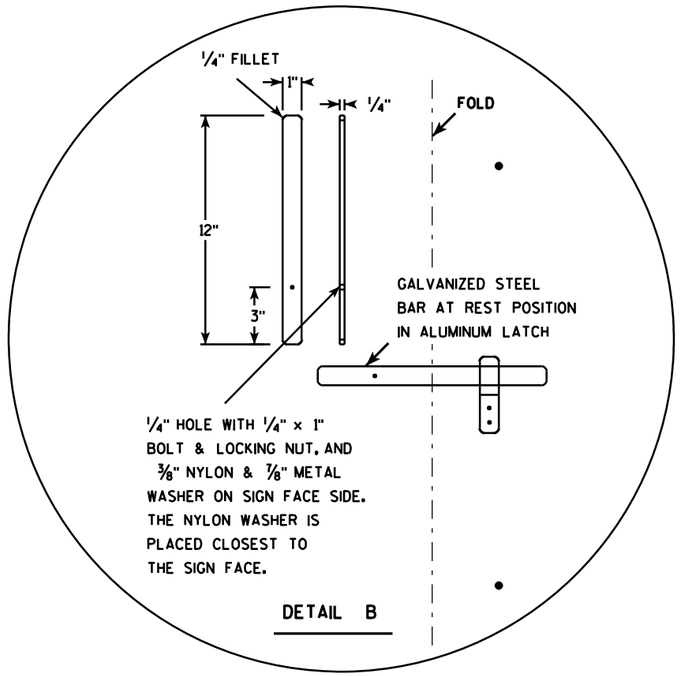
DETAIL A



DETAIL C



DETAIL D



DETAIL B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

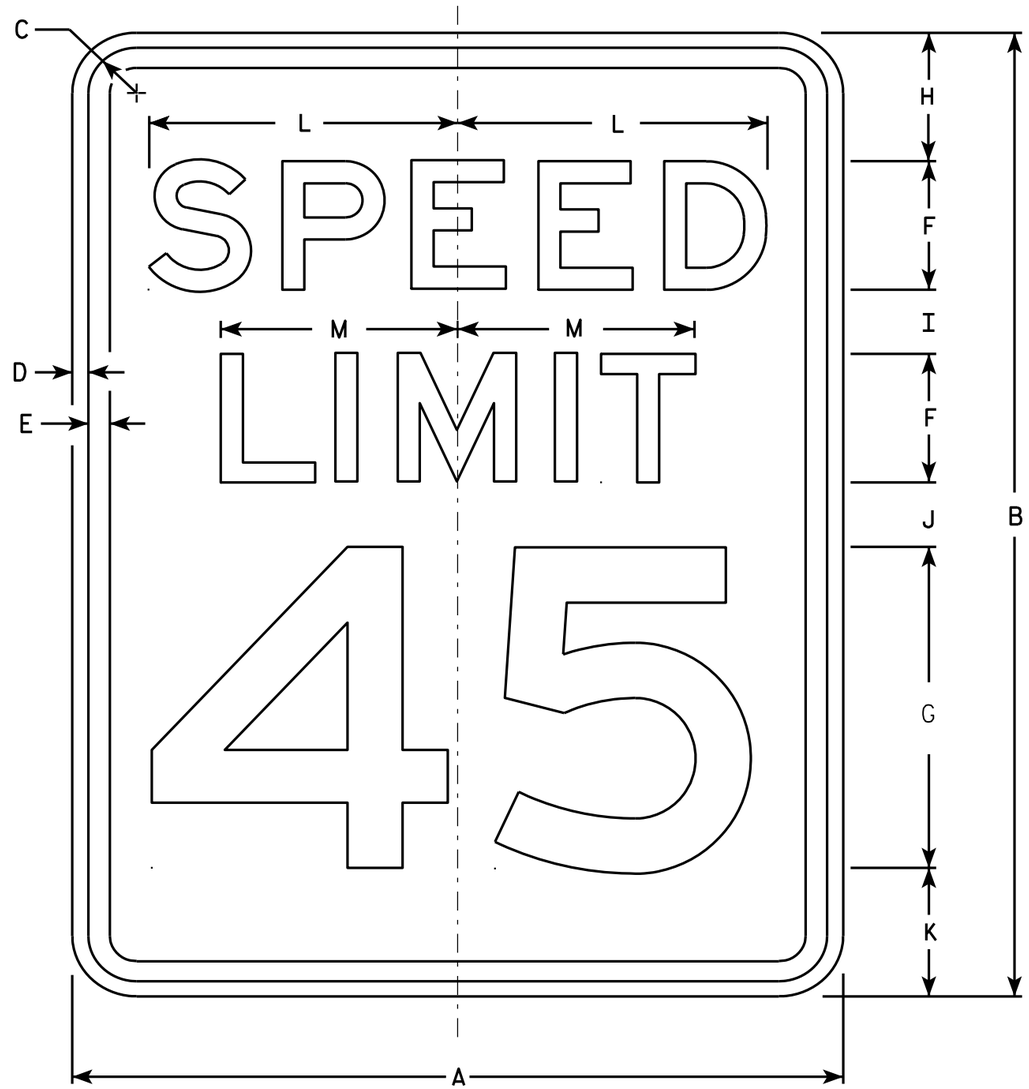
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 145 | E



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

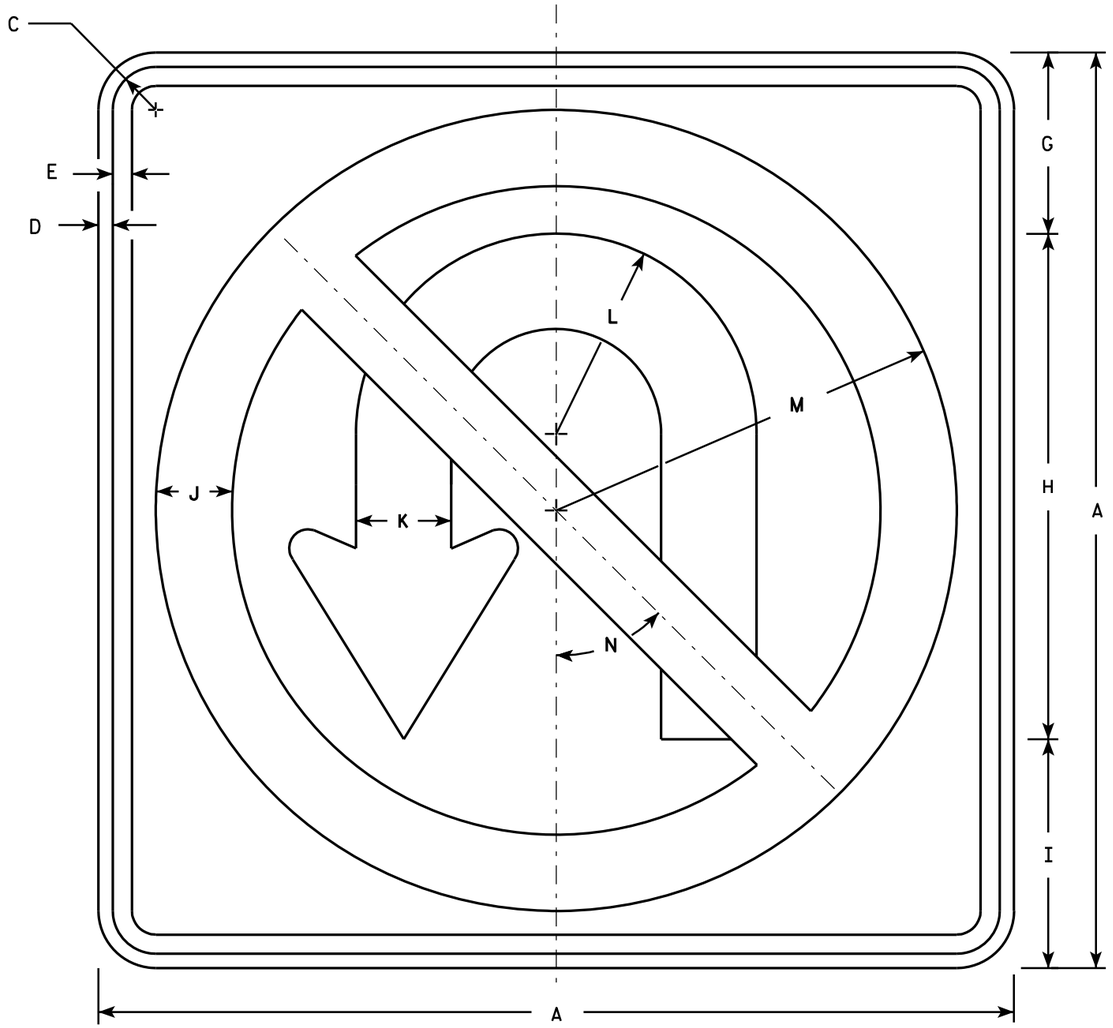
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

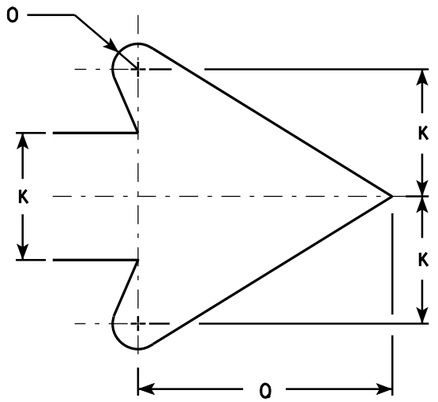
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 146 | E



R3-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

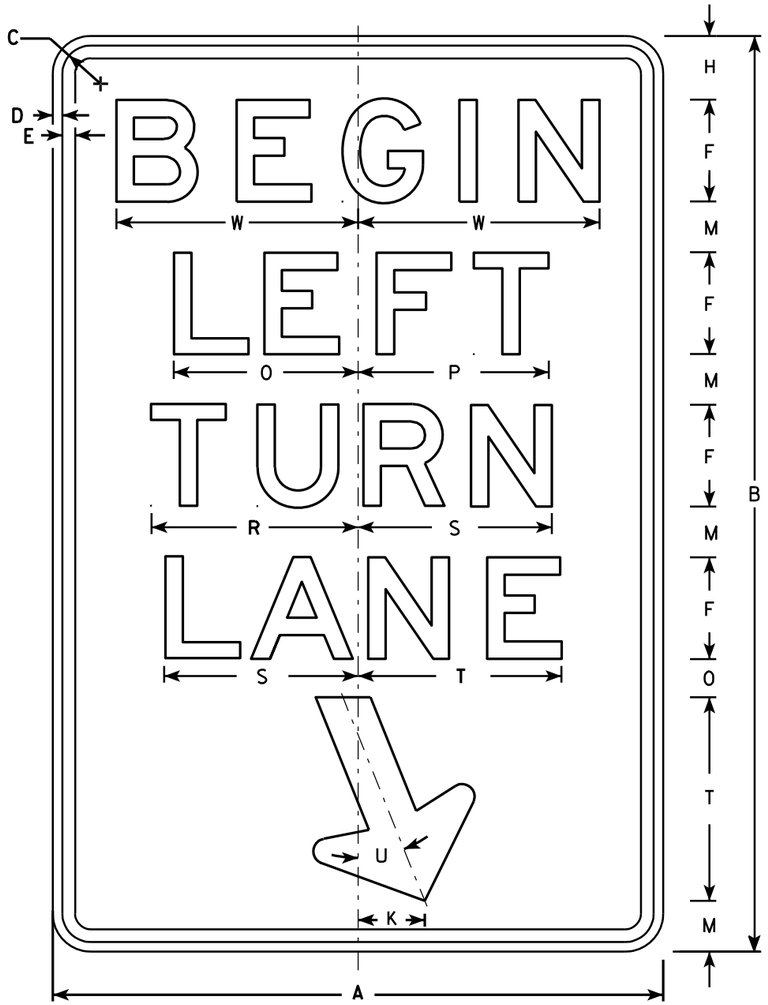
STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

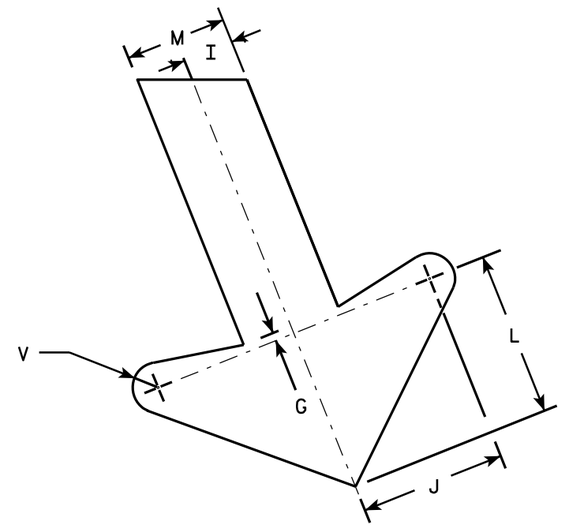
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 147	E



R3-20L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

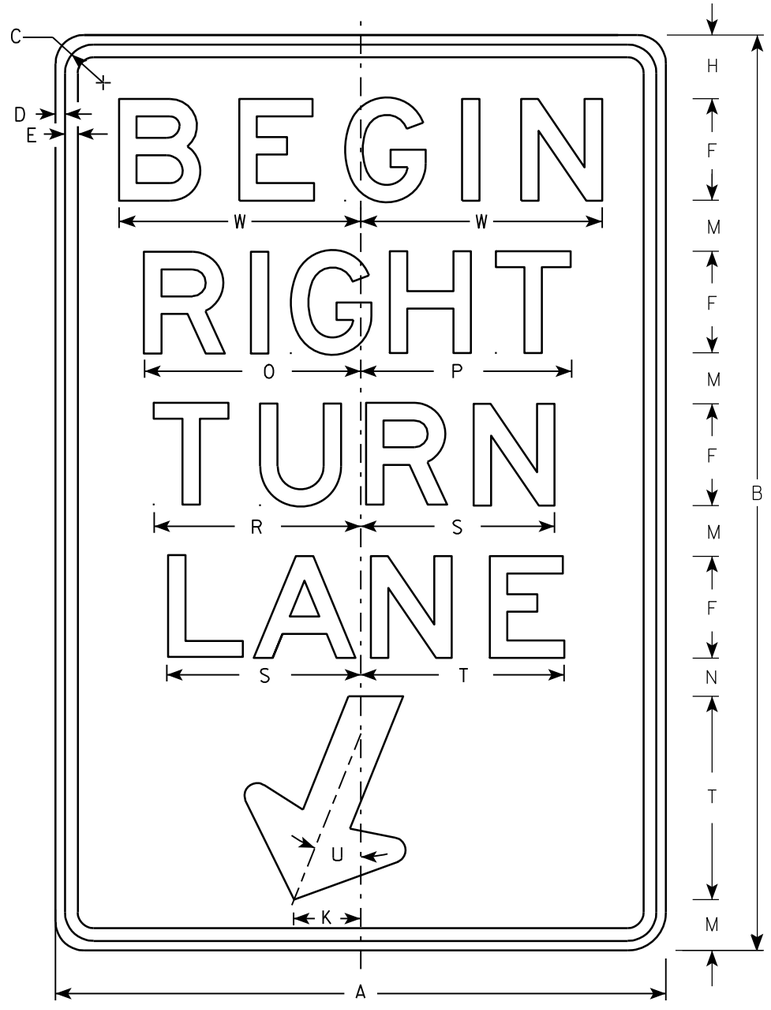
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

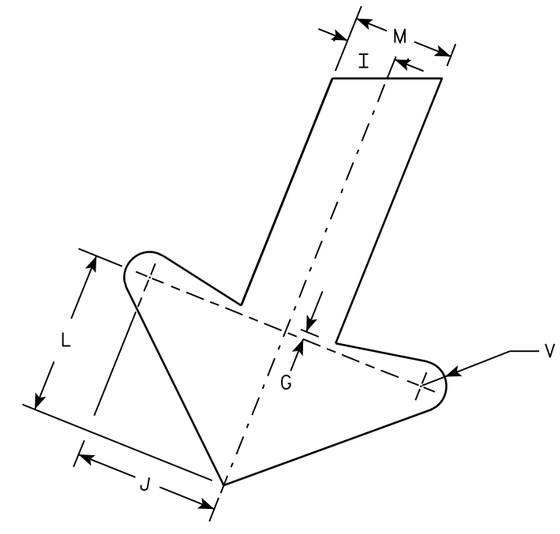
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 148 | E



R3-20R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

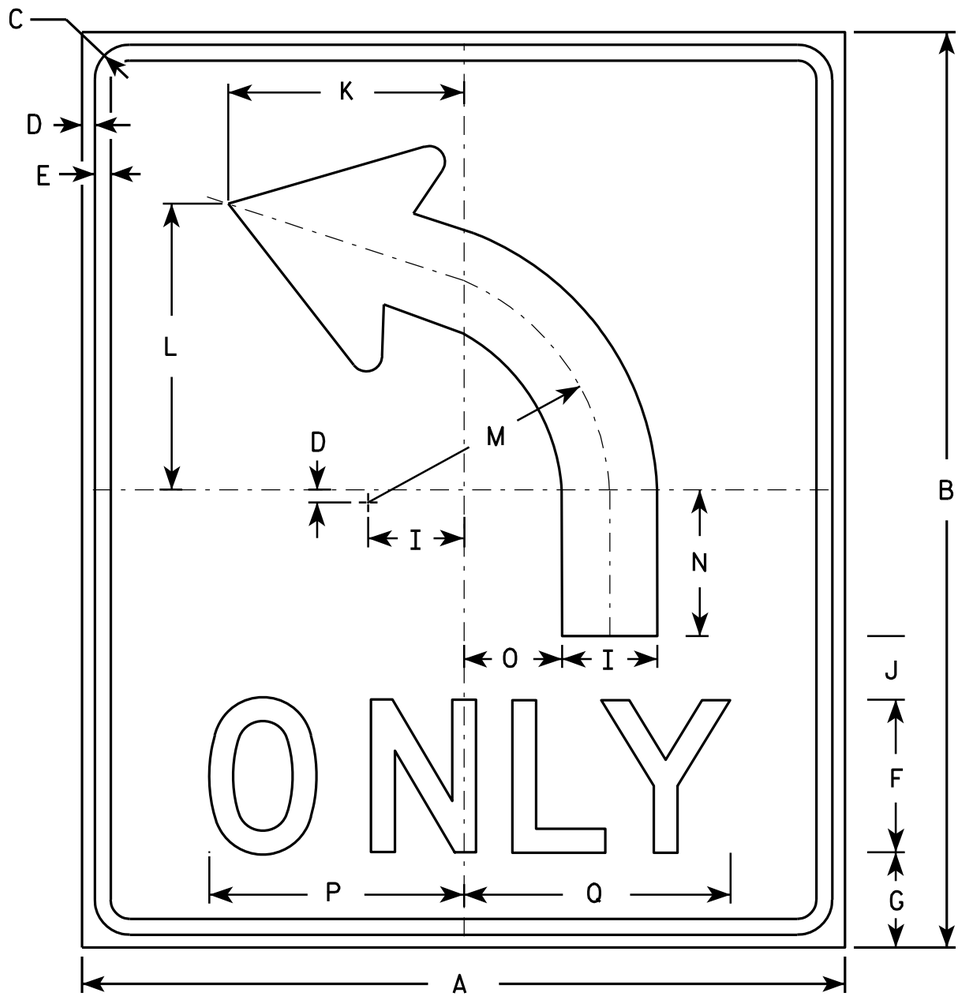
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

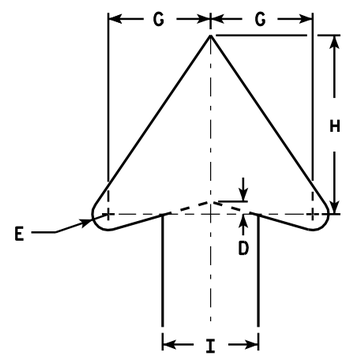
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 149 | E



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																											

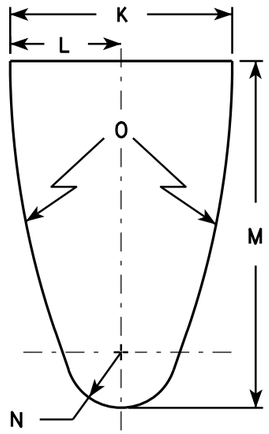
STANDARD SIGN
R3-50

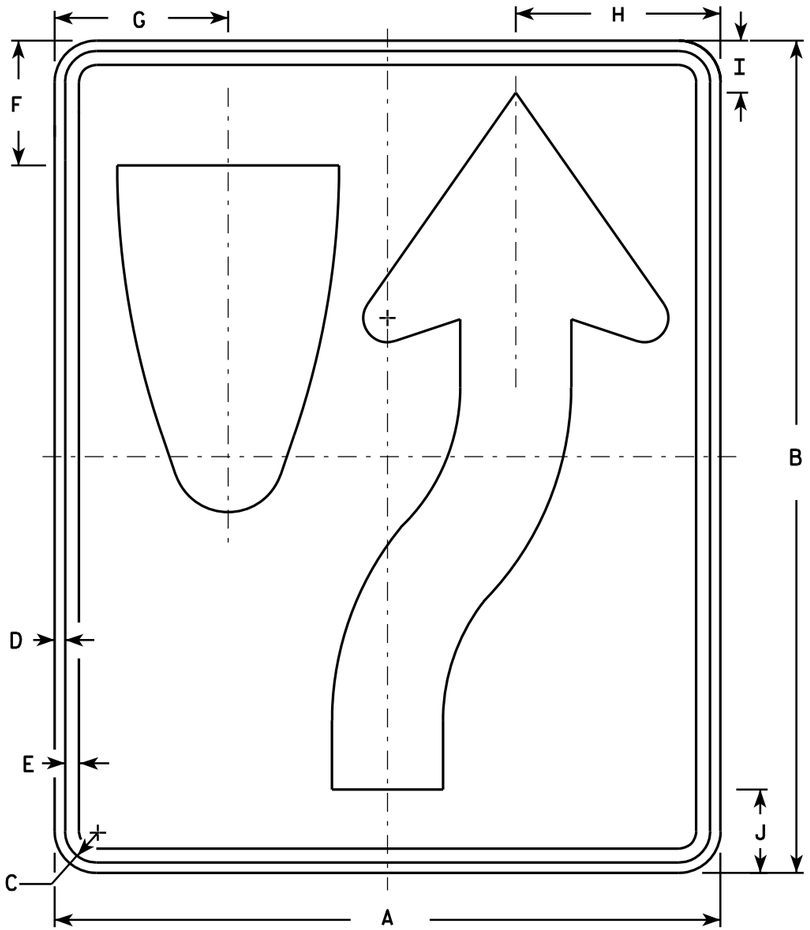
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-50.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 150 | E

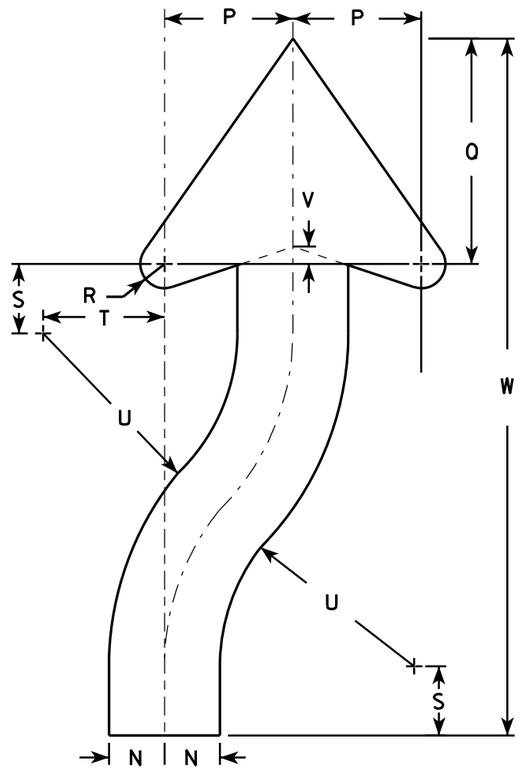




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

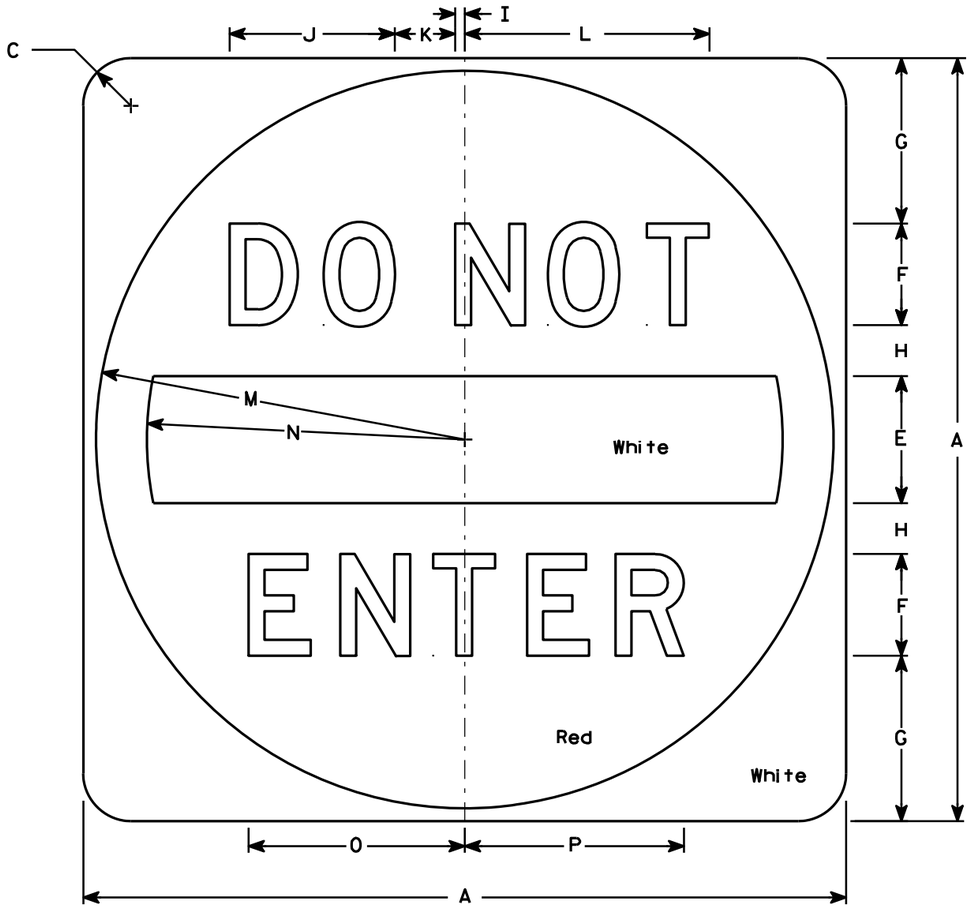
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 151	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See detail
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the cornors 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	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											6.26
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

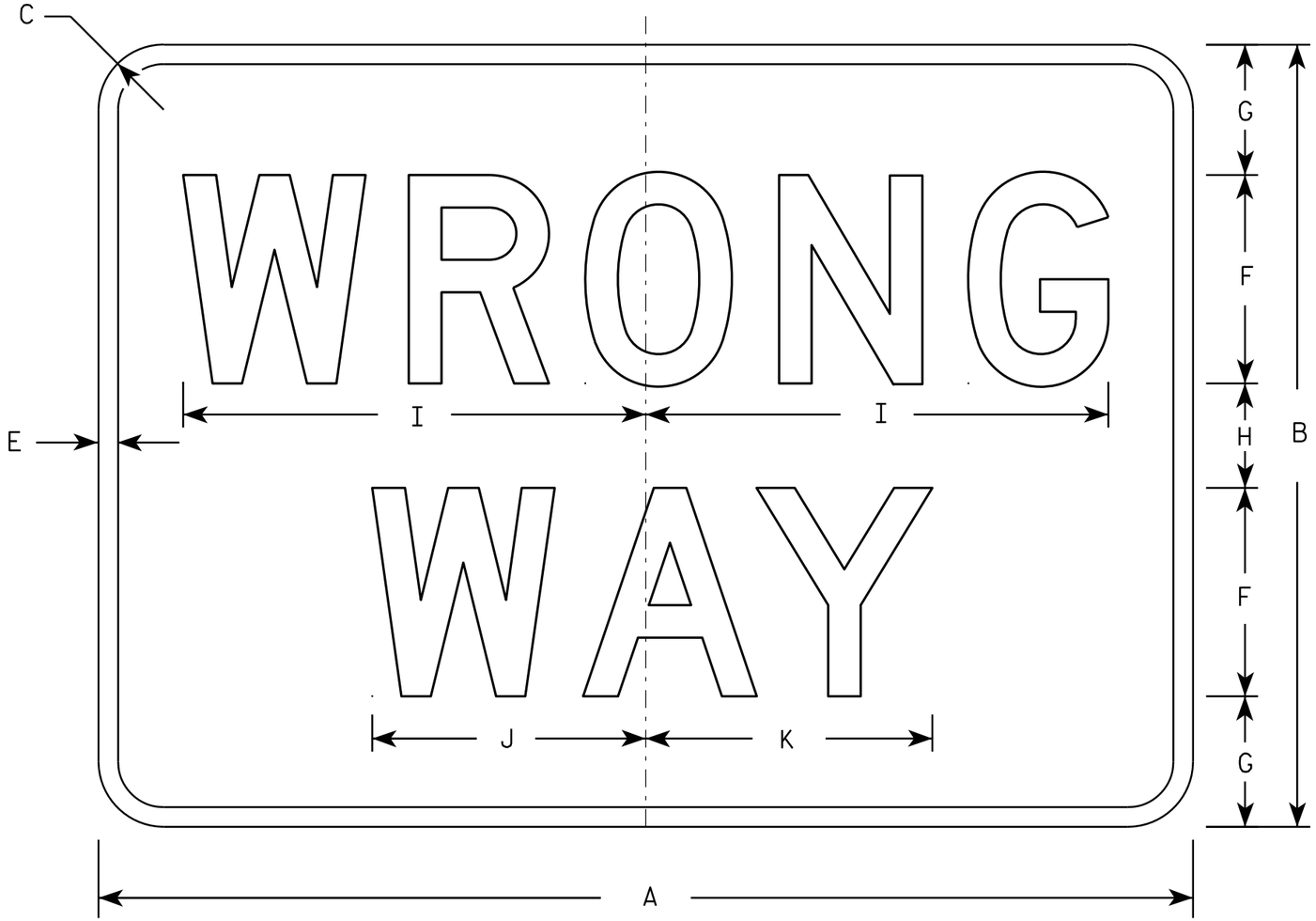
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 152 | E

7



R5-1A

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 - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

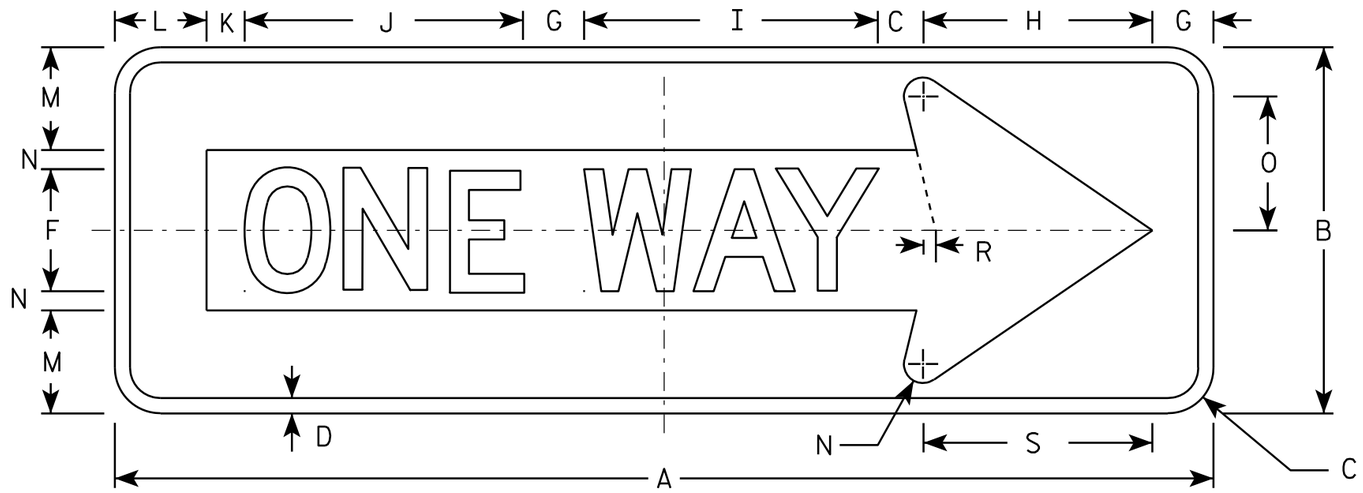
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

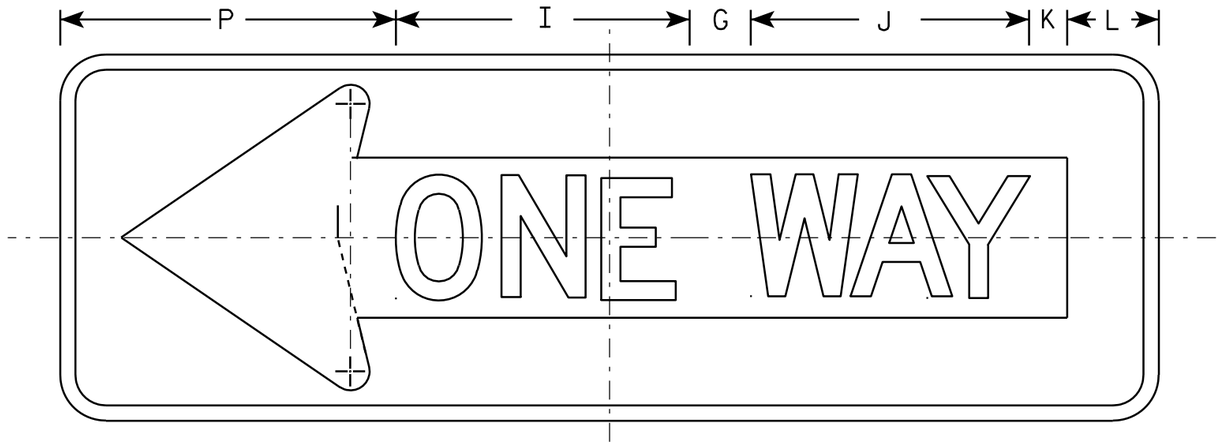
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 153	E



R6-1R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - BLACK
   Message - BLACK LEGEND & WHITE ARROW & BORDER
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.



R6-1L

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	36	12	1 ½	½		4	2	7 ½	9 ⅝	9 ⅛	1 ¼	3	3 ⅜	⅝	4 ⅜	11		⅜	7 ½								3.0
2M	54	18	2 ¼	¾		6	3	11 ¼	14 ½	13 ⅝	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
3	54	18	2 ¼	¾		6	3	11 ¼	14 ½	13 ⅝	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
4	54	18	2 ¼	¾		6	3	11 ¼	14 ½	13 ⅝	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
5																											

STANDARD SIGN
R6-1 L & R

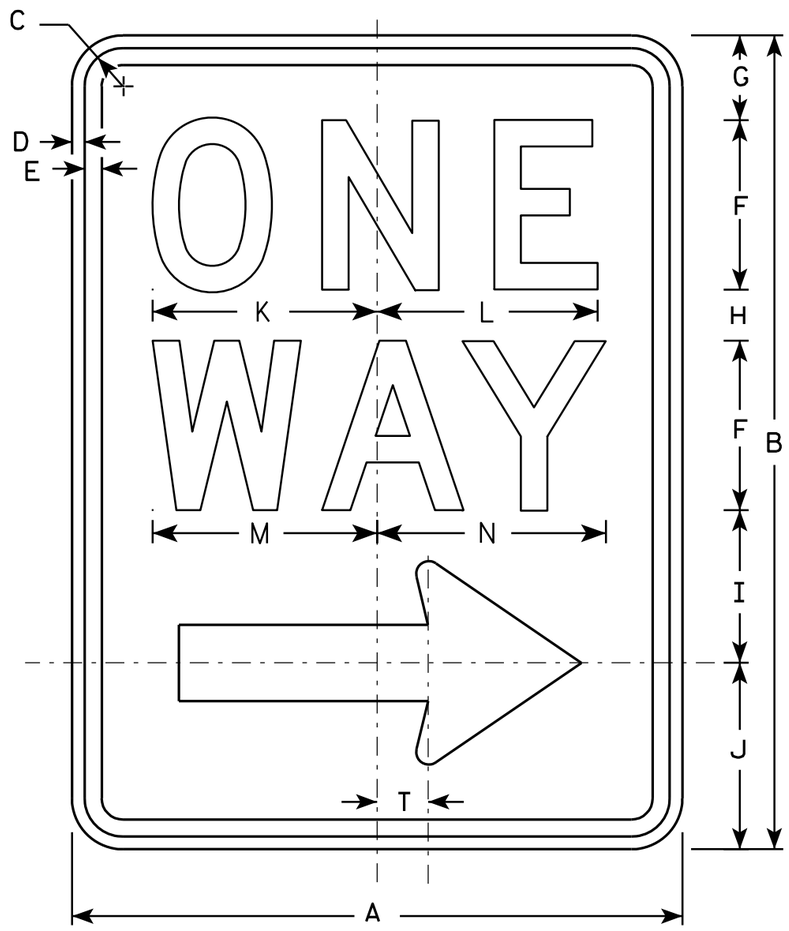
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R6-1.2

PROJECT NO:

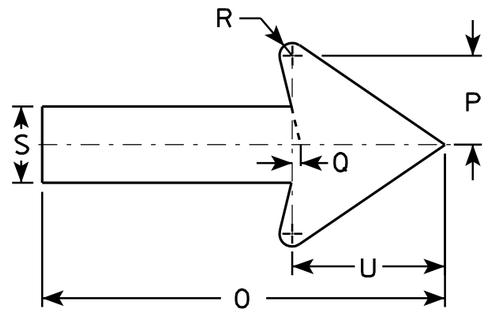
SHEET NO: 154 E



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	O	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																										

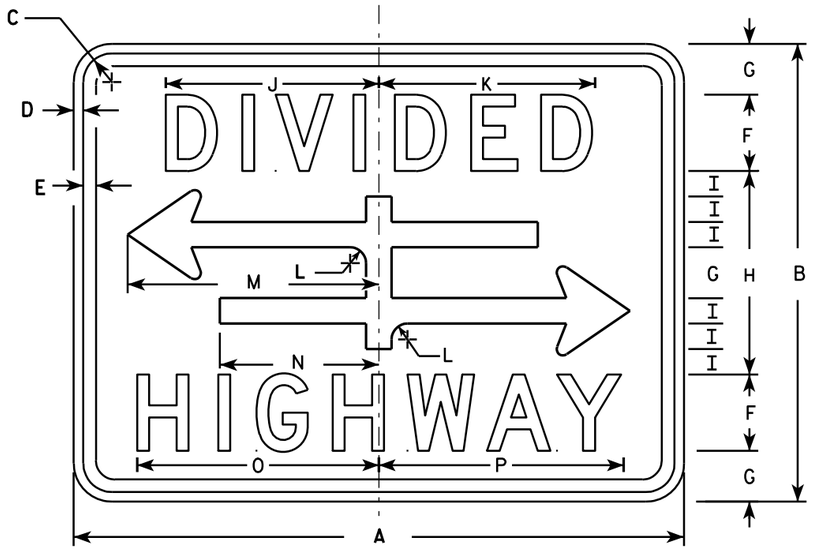
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

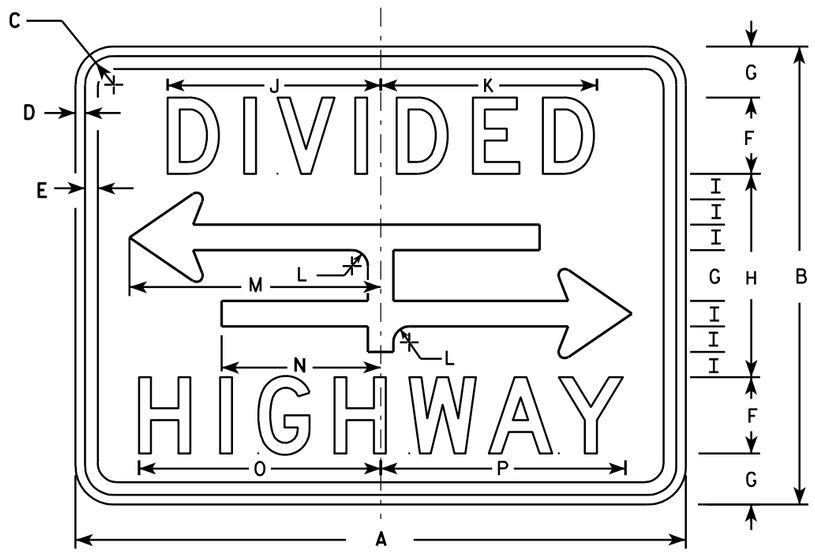
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 155	E



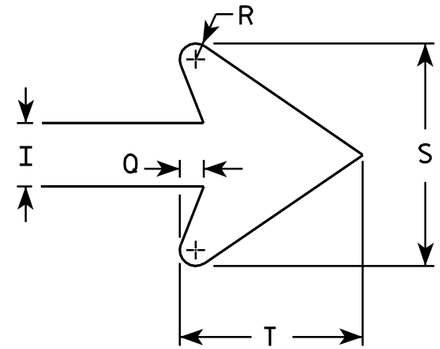
R6-3

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.



R6-3A



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	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN
R6-3 & R6-3A

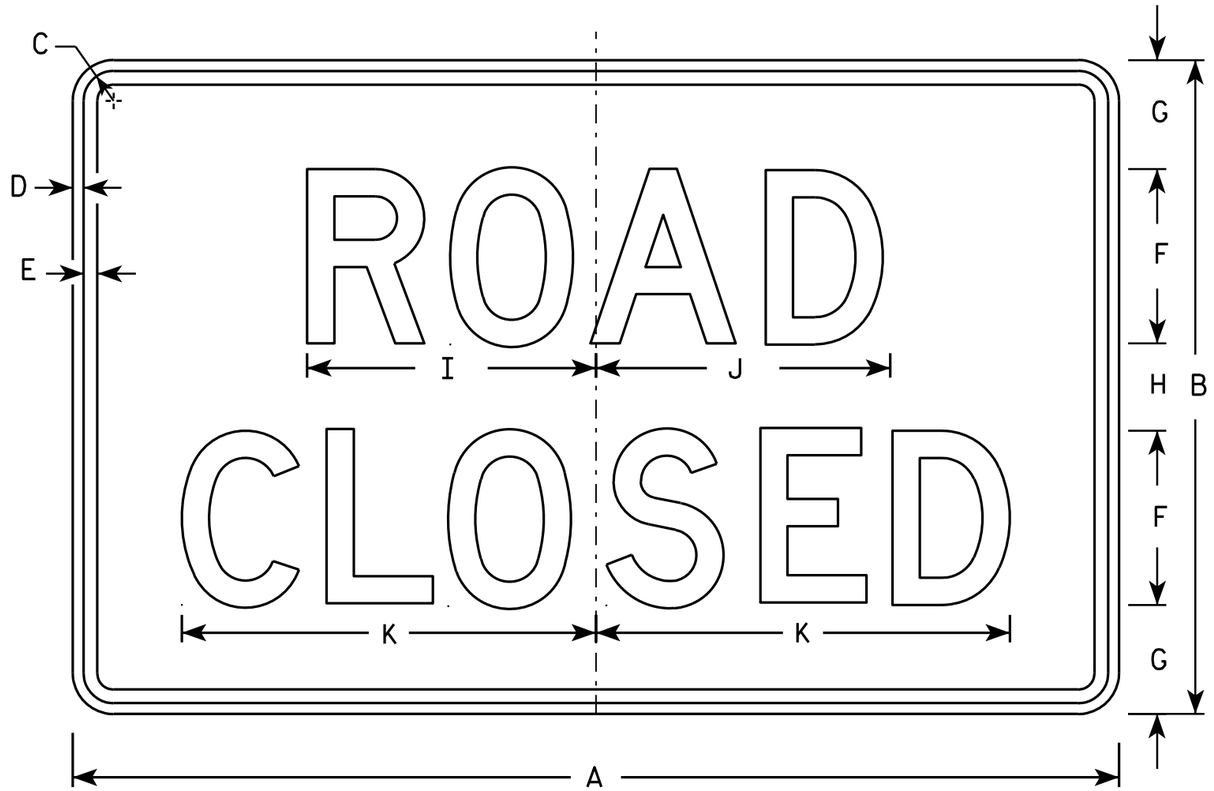
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

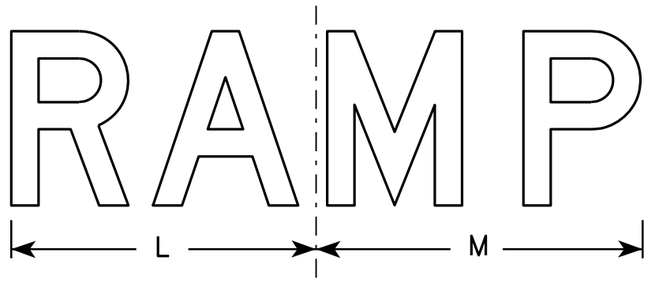
SHEET NO: 156 E



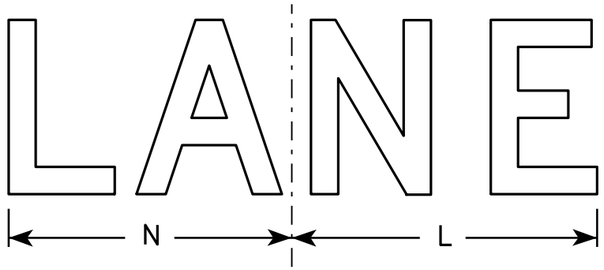
R11-2

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 - 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



R11-2L

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													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													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													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													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													10.0

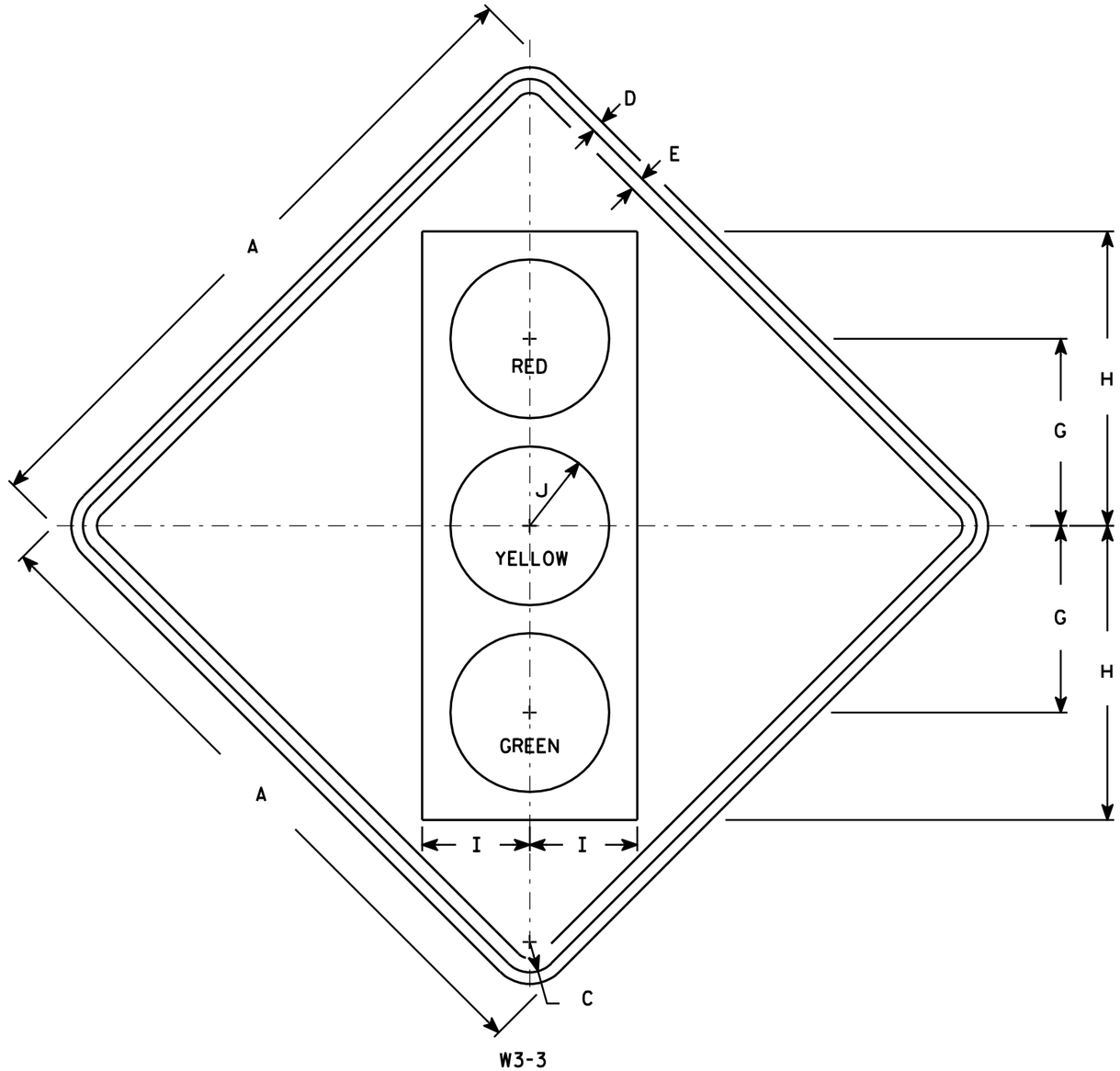
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 157	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - 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. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

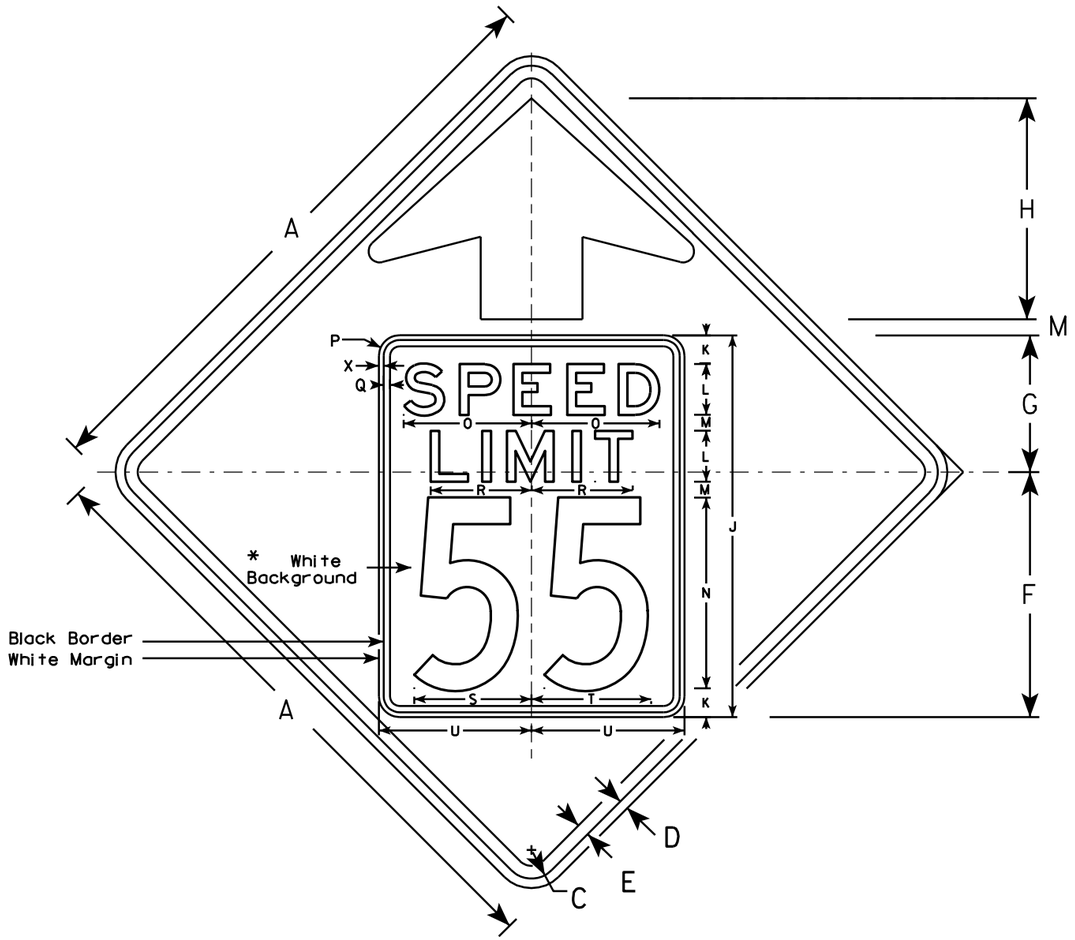
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 158 | E

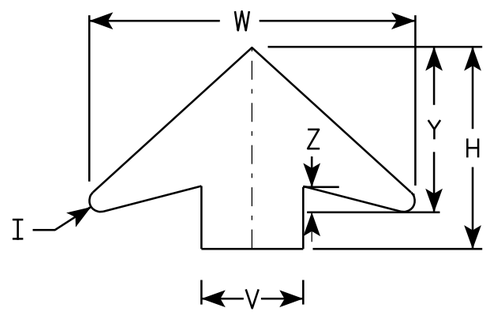


W3-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - YELLOW*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
3	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W3-5

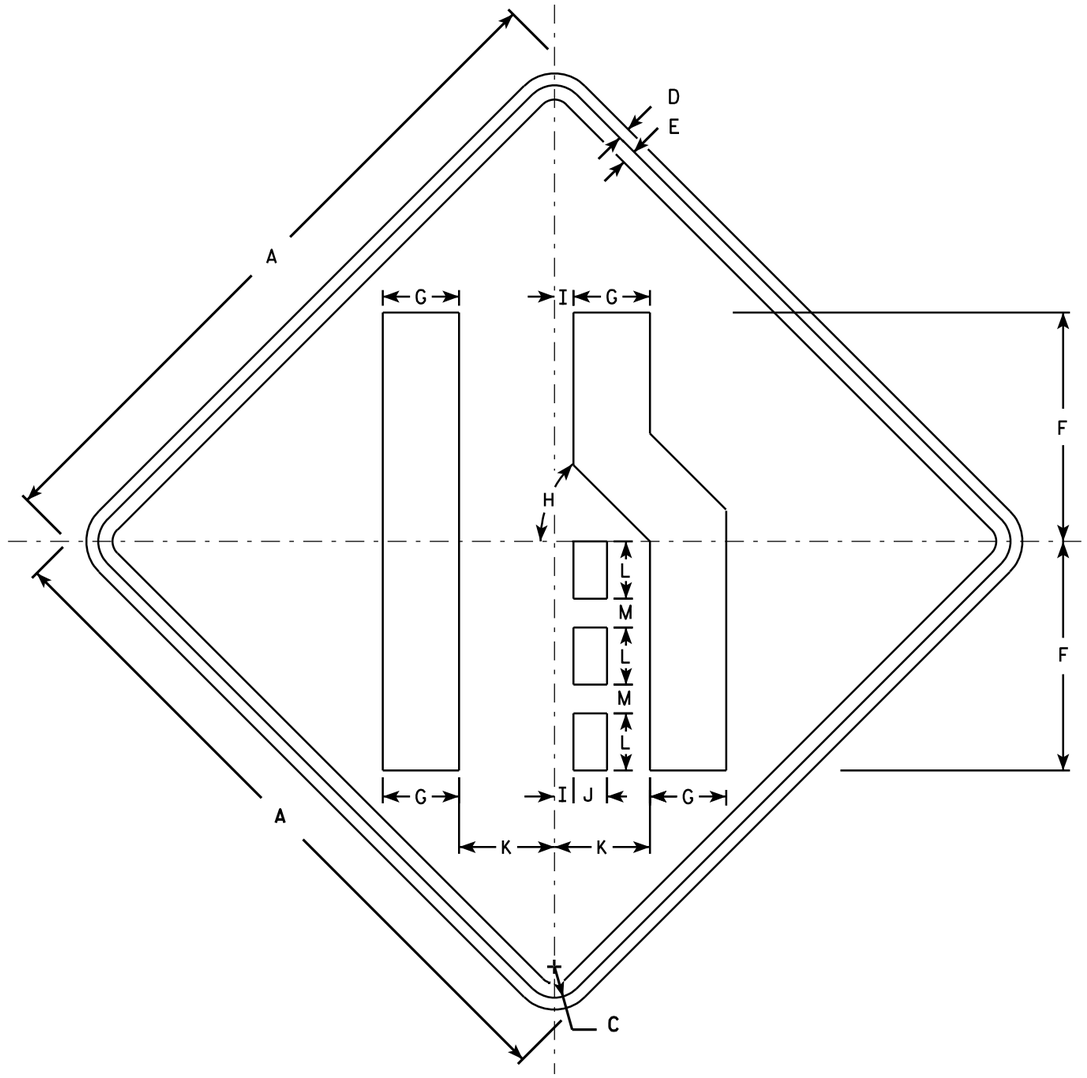
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 159 E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

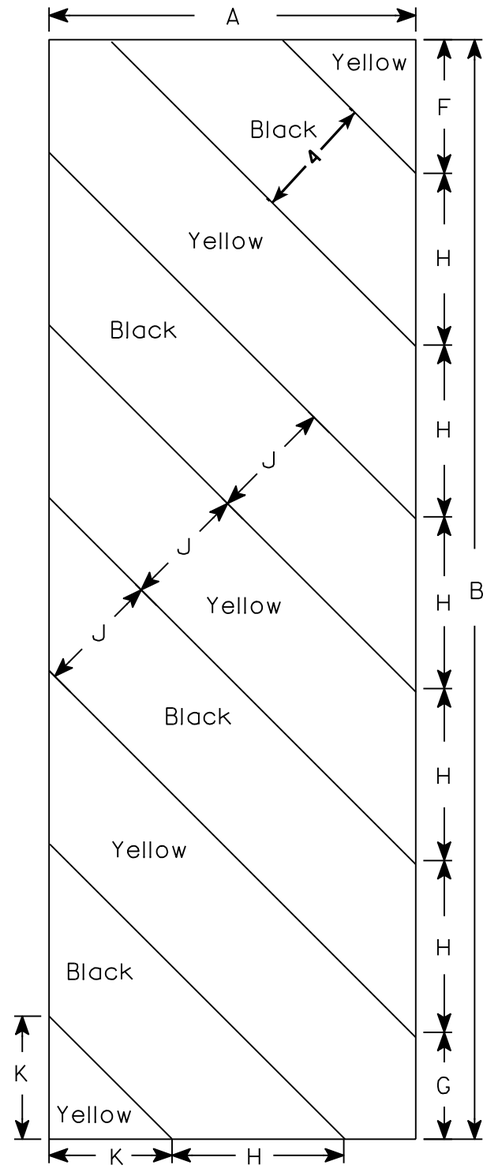
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

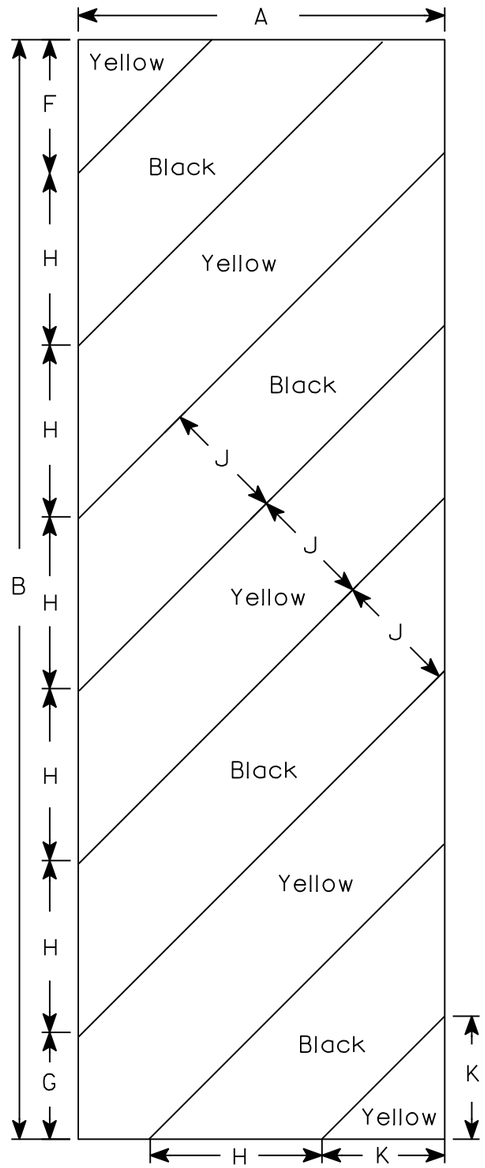
DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 160 E



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

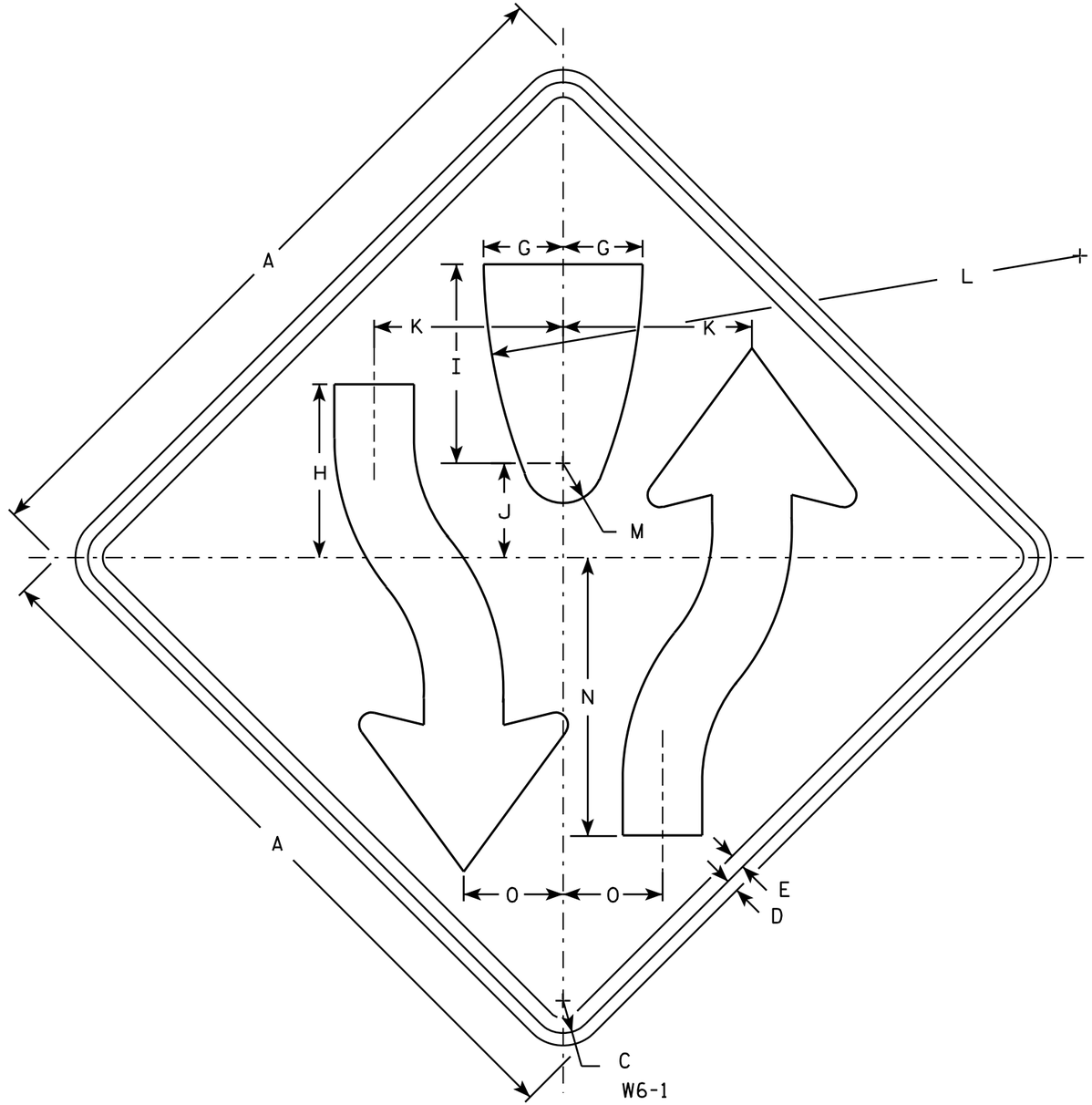
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

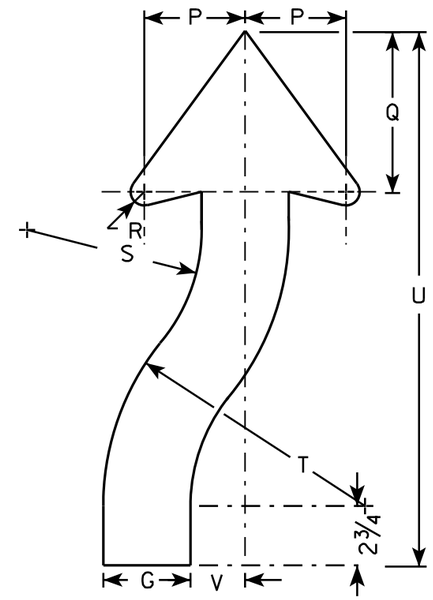
DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 161 | E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W6-2 same as W6-1 but is rotated 180° when mounted.



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	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2M	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3																											
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

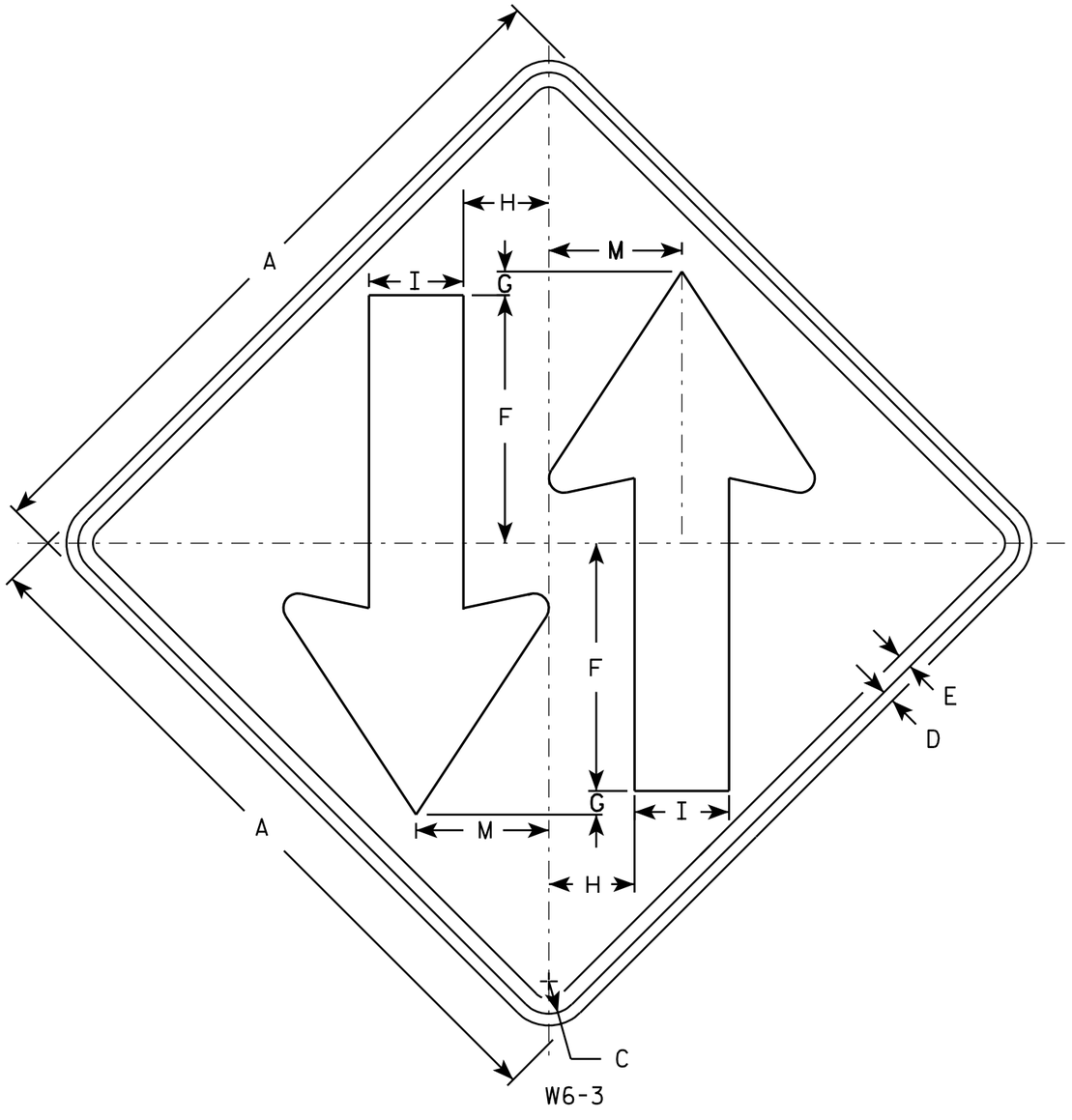
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 162 | E

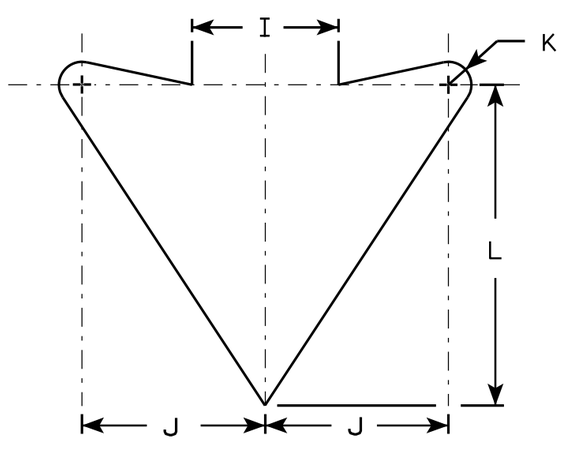
7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W61.DGN PLOT DATE : 12-MAR-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000
WISDOT/CADDS SHEET 42



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10 1/2	1	3 5/8	4	5	5/8	8 3/4	5 5/8														6.25
2S	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
2M	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
3																											
4	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
5	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0

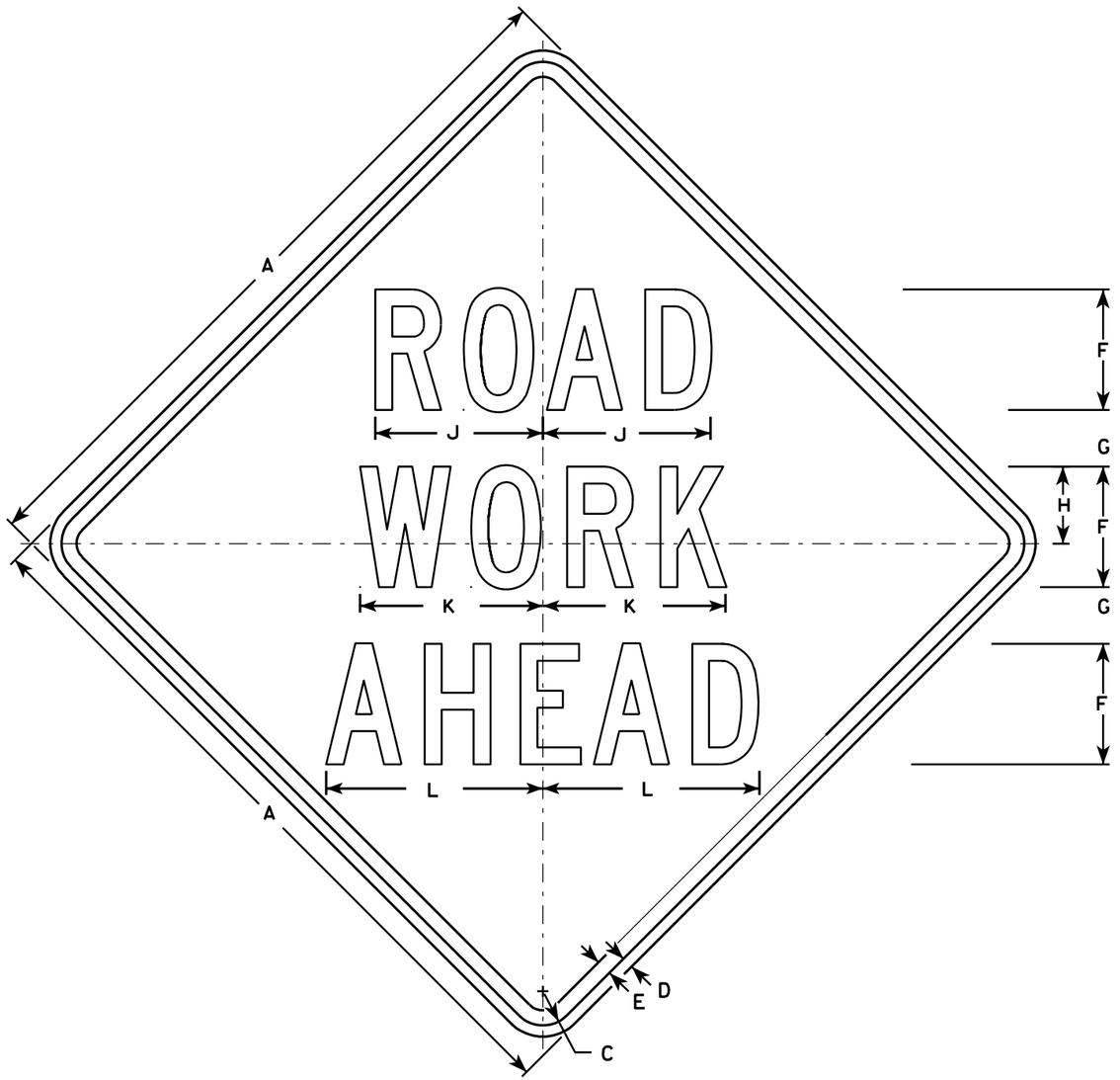
STANDARD SIGN
W6-3

WISCONSIN DEPT OF TRANSPORTATION

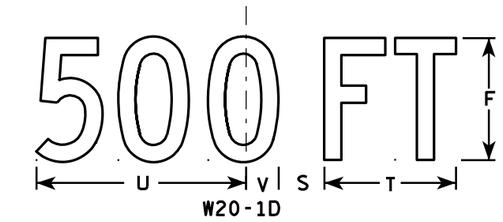
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-3.10

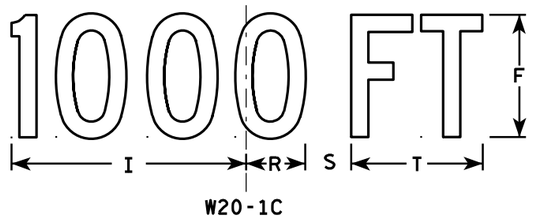
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 163	E



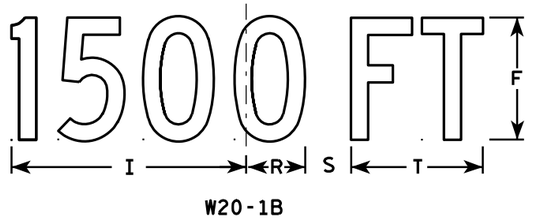
W20-1A



W20-1D

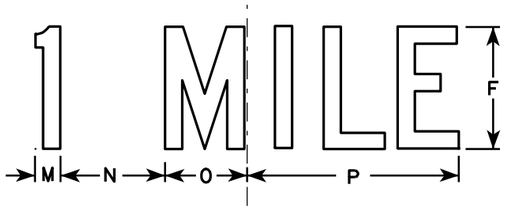


W20-1C



W20-1B

W20-1G



W20-1F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	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		2 1/2	1 7/8	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		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		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		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		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		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, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew L Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-1.9

PROJECT NO:

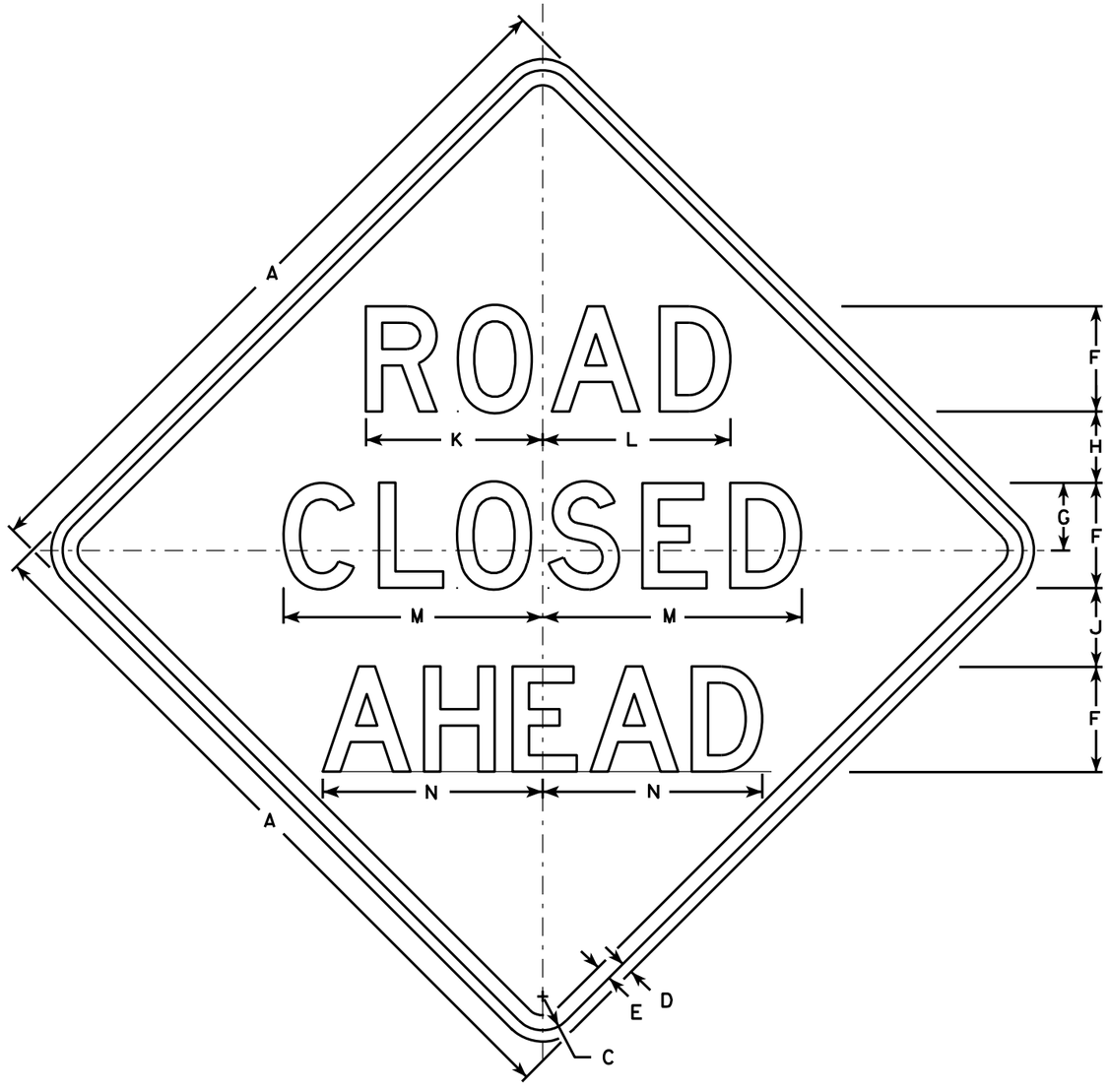
SHEET NO: 164 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W201.DGN PLOT DATE : 18-MAR-2011 09:56 PLOT BY : mscj9h

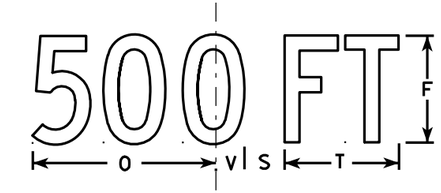
WISDOT/CADDS SHEET 42

7

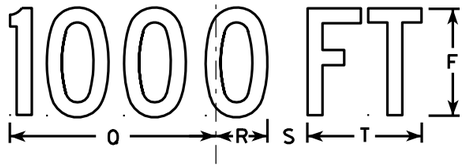
7



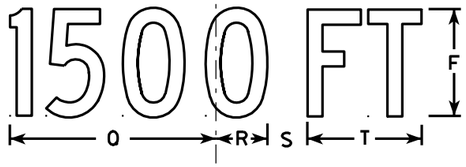
W20-3A



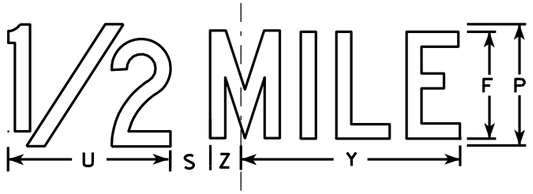
W20-3D



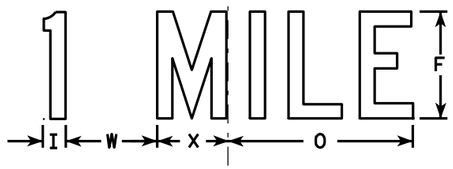
W20-3C



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

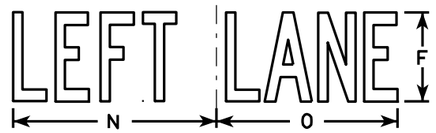
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 165 | E

7

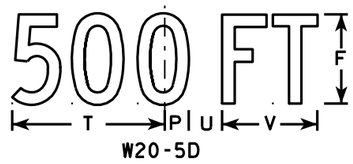
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN PLOT DATE : 18-MAR-2011 12:08 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42

W20-56A

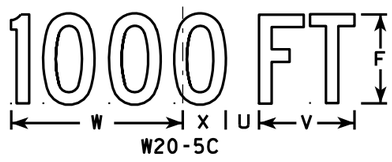


W20-55A

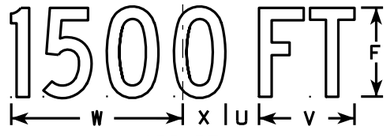
W20-5A



W20-5D



W20-5C



W20-5B

W20-5G

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

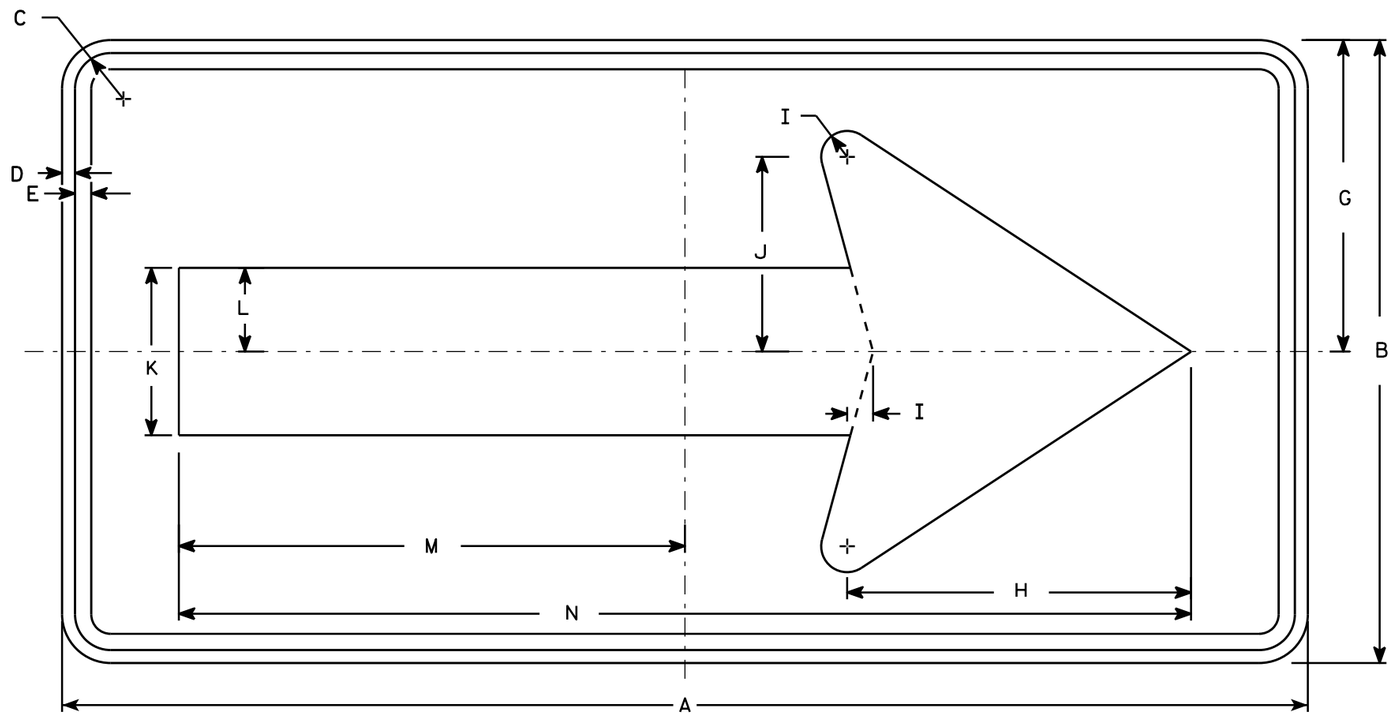
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 166	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



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

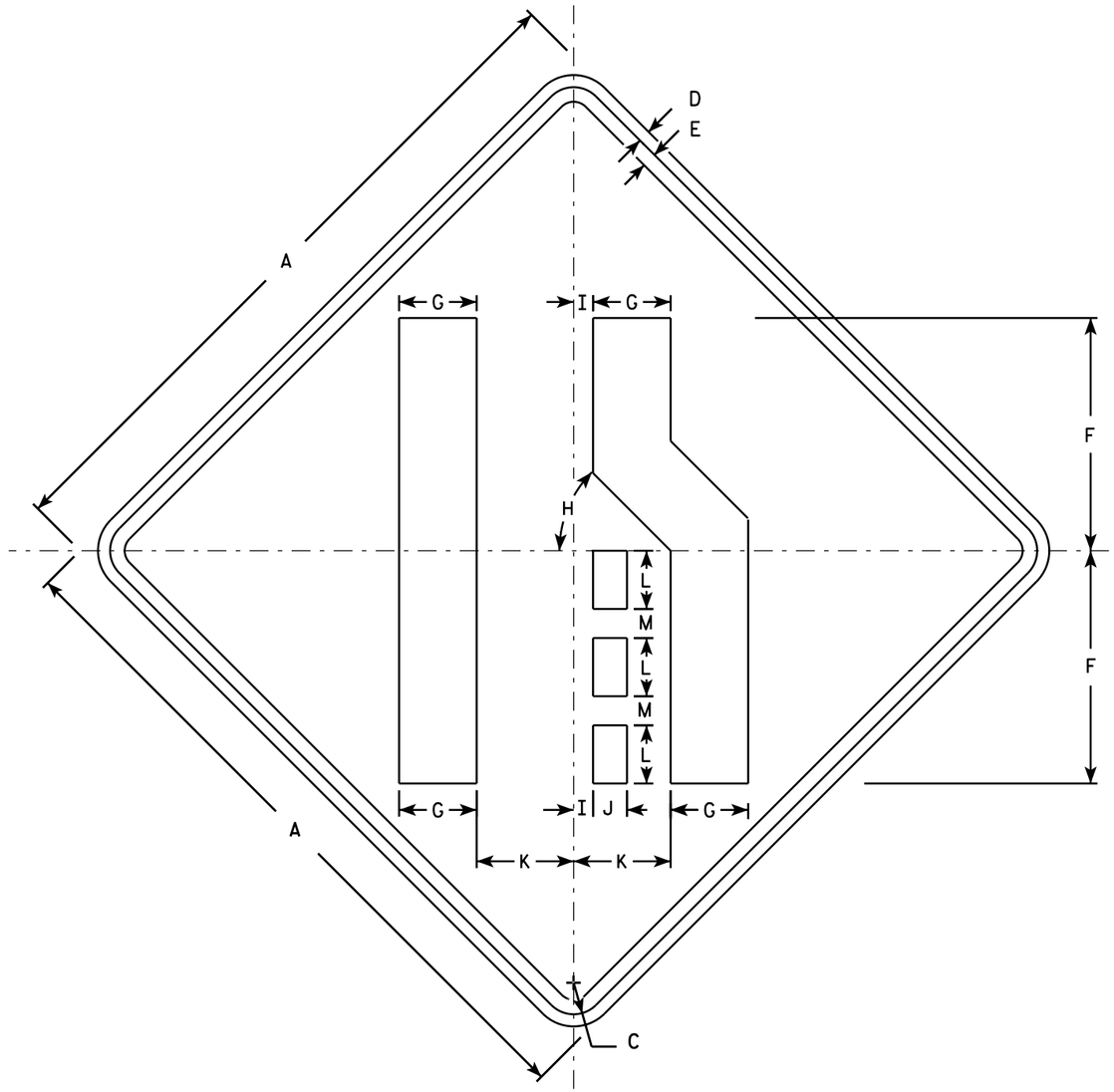
WISCONSIN DEPT OF TRANSPORTATION

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



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

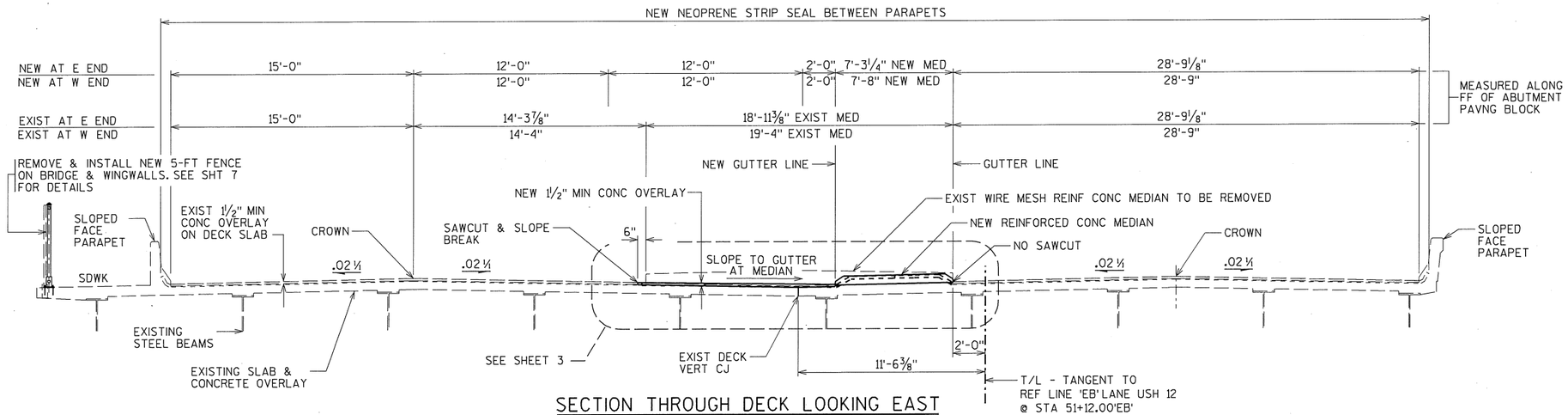
DATE 11/20/13 PLATE 168 W04-2.1

PROJECT NO:

SHEET NO: E

STATE PROJECT NUMBER

7080-03-74



SECTION THROUGH DECK LOOKING EAST

DESIGN DATA

LIVE LOAD:

DESIGN RATING = HS20
INVENTORY RATING = HS25
OPERATING RATING = HS49

WISCONSIN STANDARD PERMIT VEHICLE LOAD = 250 KIPS

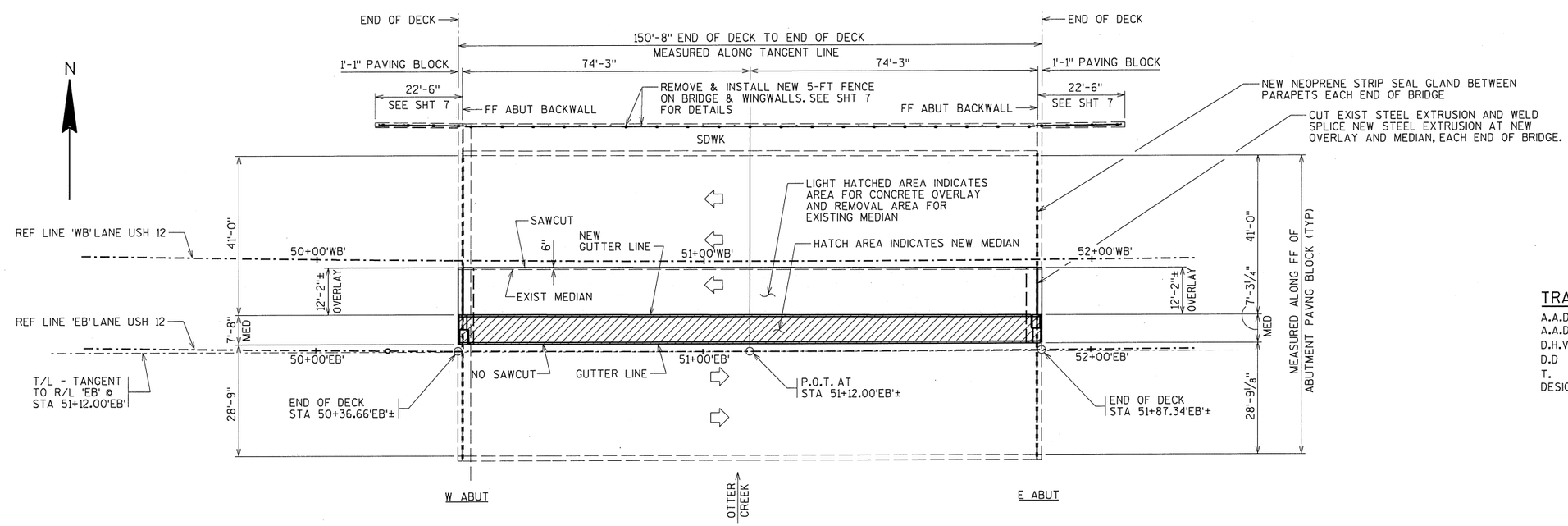
NOTE:
RATINGS ARE (TAKEN FROM HSI, 07/06/2011, STRUCTURE INVENTORY DATA). THE REPLACEMENT OF THE MEDIAN DOES NOT CHANGE THESE RATINGS.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY f'c = 4,000 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT GRADE 60 fy = 60,000 psi

NOTES:

SEE SHEET 2 FOR "GENERAL NOTES" AND "QUANTITIES".



PLAN - B-18-113

(SINGLE-SPAN - STEEL GIRDER BRIDGE)

NOTE:
STATIONING MAY VARY BASED ON EXACT LOCATION OF EXISTING BRIDGE PROPOSED ALIGNMENT.

MEDIAN GUTTER LINES ARE DIMENSIONED END TO END OF DECK ON A STRAIGHT LINE.

TRAFFIC DATA

A.A.D.T. (2016) = 18,600
A.A.D.T. (2036) = 22,800
D.H.V. = 11.3
D.D = 58 %
T. = 6.3 %
DESIGN SPEED = 45 MPH (55 POSTED)

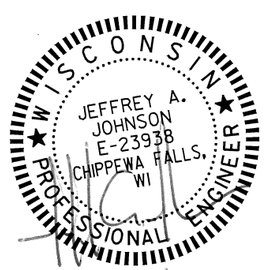
R/L 'WB' USH 12

PI STA = 52+45.85
Y = 272780.275
X = 351436.752
DELTA = 4°04'46"
D = 0°34'31"
T = 354.66'
L = 709.02'
R = 9958.00'
PC STA = 48+91.19
PT STA = 56+00.21

R/L 'EB' USH 12

PI STA = 53+71.66
Y = 272770.079
X = 351563.554
DELTA = 3°22'59"
D = 0°28'45"
T = 353.10'
L = 706.00'
R = 11956.86'
PC STA = 50+18.56
PT STA = 57+24.56

LIST OF DRAWINGS



SEH CONTACT: GREG WEYANDT, PE, 715.720.6266
WISDOT BRIDGE OFFICE CONTACT: BILL DREHER, PE, 608.266.8489

NO.	DATE	REVISION	BY

SEH
SHORT ELLIOTT HENDRICKSON INC.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 10/05/15
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-18-113

U.S.H. 12 OVER OTTER CREEK

COUNTY EAU CLAIRE
TOWN ~~CITY/VILLAGE~~ WASHINGTON

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JAJ	JAJ	DLF	JAJ

MEDIAN REPLACEMENT AND CONC OVERLAY

SHEET 1 OF 7

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PLOT TIME: 4:04:22 PM
PLOT DATE: 10/1/2015
FILE NAME : S:\UZ\WW\tfnw\125420\5-final-dsgn\5i-drawings\20-Struct\bridge\b1813gl.dgn

STATE PROJECT NUMBER
7080-03-74

GENERAL NOTES

DRAWING SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL AND THE 2003 REHABILITATION STRUCTURE PLANS.

SEE ROADWAY DRAWINGS FOR EXISTING AND PROPOSED UTILITY LOCATIONS.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1-INCH DEEP SAWCUT.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH NEW EPOXY COATED BARS AND LAP TO EXISTING STEEL WITH MINIMUM REQUIRED LAPS.

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

UNDER THE BID ITEM "MASONRY ANCHORS TYPE L NO.5 BARS", ANCHORED REINFORCING STEEL SHALL BE PAID FOR SEPARATELY AS PROVIDED IN SECTION 505 OF THE STANDARD SPECIFICATIONS FOR BAR STEEL REINFORCEMENT.

CONCRETE EXPANSION BOLTS AND INSERTS TO BE FURNISHED AND PLACED BY THE CONTRACTOR UNDER THE BID PRICE FOR CONCRETE MASONRY.

CLEAN AND FILL EXISTING LONGITUDINAL AND TRANSVERSE CRACKS WITH PENETRATING EPOXY AS DIRECTED BY THE ENGINEERS.

PROFILE GRADE LINE SHALL BE DETERMINED BASED ON A MINIMUM OVERLAY THICHNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER CLEANING. EXPECTED AVERAGE OVERLAY THICKNESS IS 2" (OR AS GIVEN BY THE ENGINEER). IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

A MINIMUM OF 1" OF CONCRETE SHALL BE REMOVED FROM THE AREA DESIGNATED IN THE PLANS TO RECEIVE CONCRETE OVERLAY UNDER THE BID ITEM " CLEANING DECKS".

TOP OF OVERLAY ELEVATION SHALL MATCH THE ELEVATION AND SLOPE OF THE ADJACENT EXISTING DECK.

FOR CROSS SLOPE SECTIONS NOT IN SUPERELEVATION TRANSITIONS, THE CROSS SLOPE SHALL MATCH EXISTING CROSS SLOPE. FINISHED TOP OF OVERLAY ELEVATIONS SHALL MATCH THE ELEVATION AND SLOPE OF THE ADJACENT EXISTING PAVMENTS. VARIATIONS TO THE NEW GRADE LINE OVER ¼-INCH MUST BE SUBMITTED FOR REVIEW BY THE BRIDGE DESIGN SECTION.

ANY EXCAVATION REQ'D TO COMPLETE THE OVERLAY OR PAVING BLOCK AT THE ABUTMENTS IS INCIDENTAL TO BID ITEM, "CONCRETE MASONRY OVERLAY DECKS". SEE ROADWAY DRAWINGS FOR ADDITIONAL NOTES, QUANTITIES AND DETAILS.

CLEAN ALL LOOSE MATERIAL ON THE DECK AT THE MEDIAN LOCATION PRIOR TO MEDIAN PLACEMENT USING HIGH PRESSURE WATER OR AIR, ENSURING ALL FREE-STANDING WATER IS REMOVED PRIOR TO MEDIAN PLACEMENT. NEAT CEMENT IS REQUIRED PER 509.3.8.2 OF THE STANDARD SPECIFICATIONS.

OPTIONAL TRANSVERSE CONST JOINTS SUBJECT TO THE APPROVAL OF THE STRUCTURES DESIGN SECTION, ENGINEER. MULTIPLE POURS AND SEQUENCE OF POURS FOR A GIVEN STAGE MUST BE APPROVED BY THE STRUCTURES DESIGN SECTION.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1-INCH DEEP SAWCUT.

PREPARATION DECKS AND FULL-DEPTH DECK REPAIR SHALL BE LAYED OUT AND DETERMINED BY THE ENGINEER IN THE FIELD AND THESE STRUCTURE OVERLAY DRAWINGS.

THE ENGINEER SHALL INSPECT THE UNDERSIDE OF THE DECK AFTER DECK PREP PRIOR TO PLACEMENT OF OVERLAY, FOR AREAS OF FULL-DEPTH DECK REPAIR IF REQUIRED.

TOTAL ESTIMATED QUANTITIES - B-18-113

	BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
(1)	203.0200	REMOVING OLD STRUCTURE STA 51+12.00'EB'	LS	1
	204.0170	REMOVE FENCE	LF	193
(2)	502.0100	CONCRETE MASONRY BRIDGES	CY	33
(3)	502.3100	EXPANSION DEVICE B-18-113	LS	1
(4)	502.3200	PROTECTIVE SURFACE TREATMENT	SY	329
	502.5005	MASONRY ANCHORS TYPE L NO.5 BARS	EACH	40
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2270
(8)	509.0301	PREPARATION DECKS TYPE 1	SY	2
(5)	509.0500	CLEANING DECKS	SY	329
	509.1000	JOINT REPAIR	SY	18
(6)(7)	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	11
	616.0205	FENCE CHAIN LINK 5-FT	LF	193
(8)	SPV.0035.01	CONCRETE MASONRY DECK PATCHING	CY	1

QUANTITY NOTES:

(1) ITEM IS FOR THE REMOVAL OF THE MEDIAN, PART OF THE EXISTING OVERLAY AND THE JOINT REPAIR AREAS. INCLUDES SAWCUTS DEFINED BY A 1-INCH DEEP SAWCUT TO A NEAT LINE.

(2) ALL JOINT REPAIR AREAS AND MEDIAN CONCRETE.

(3) EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID FOR IN THE LUMP SUM PRICE BID AS "EXPANSION DEVICE B-18-113". EXISTING STRIP SEAL GLAND & EXTRUSION TO WHICH NEW GLAND & EXTRUSION IS TO MATCH IS D.S. BROWN STRIP SEAL SS-300.

(4) INCLUDES THE TOP OF THE NEW DECK OVERLAY & THE FRONT FACE AND TOP OF NEW MEDIAN.

(5) A MINIMUM OF 1½" THICKNESS OF CONCRETE BELOW THE FINISHED GRADE OF THE NEW OVERLAY SHALL BE REMOVED AT THE EXISTING MEDIAN LOCATION, AND THE SURFACE SANDBLAST CLEANED WHERE NEW MEDIAN CONCRETE IS PLACED. INCLUDED IN THE BID ITEM "CLEANING DECKS".

(6) ALL DECK OVERLAY CONCRETE, INCLUDING ON THE PAVING BLOCK.

(7) ANY EXCAVATION TO COMPLETE THE OVERLAY OR THE PAVING BLOCK AT THE ABUTMENTS IS INCIDENTAL TO BID ITEM, "CONCRETE MASONRY OVERLAY DECKS". SEE ROADWAY DRAWINGS FOR ADDITIONAL NOTES, QUANTITIES AND DETAILS.

(8) ITEM FOR MINOR SPALL/PATCH REPAIR AT END OF DECK, CURB OR ON ABUTMENT AS DETERMINED BY ENGINEER IN THE FIELD.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-113

DRAWN BY DLF | PLANS CK'D. JAJ

GENERAL NOTES AND QUANTITIES

SHEET 2 OF 7

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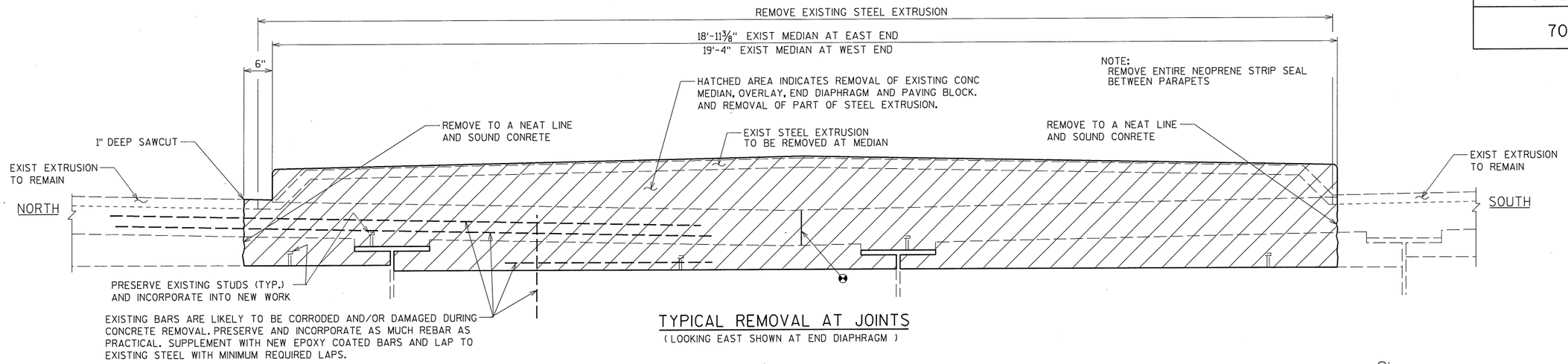
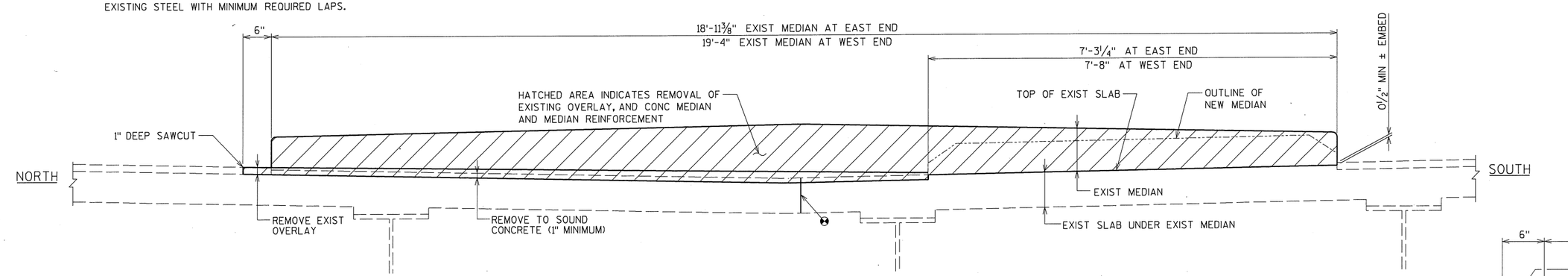


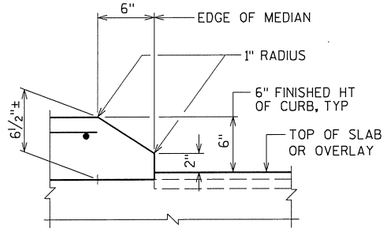
TYPICAL REMOVAL AT JOINTS

(LOOKING EAST SHOWN AT END DIAPHRAGM)

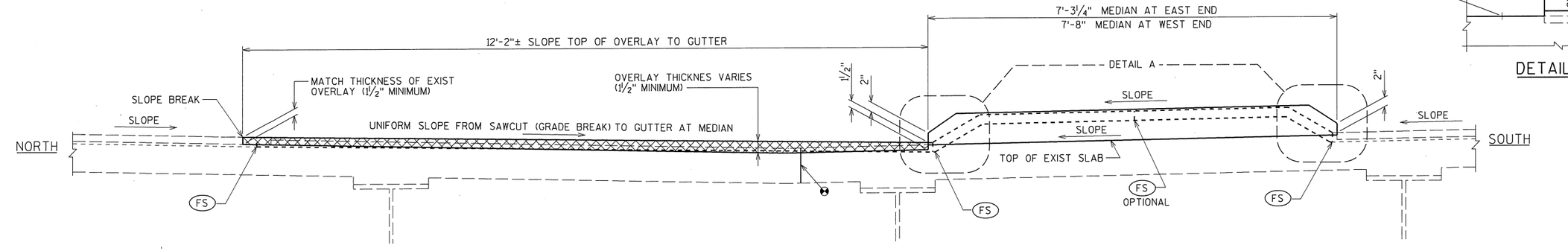


TYPICAL REMOVAL IN SPAN

(LOOKING EAST)

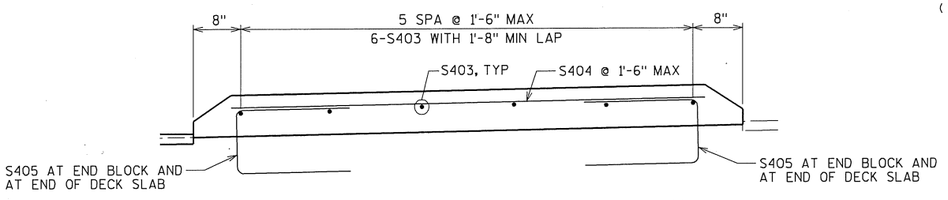


DETAIL A



TYPICAL NEW MEDIAN AND CONC OVERLAY

(LOOKING EAST)
(SHOWING STEEL EXTRUSION)



TYPICAL NEW MEDIAN REINFORCEMENT

ABUTMENT NOTES & SYMBOLS:

- LONGIT CONST JT IN EXISTING DECK & MEDIAN
- REMOVAL CONCRETE
- NEW CONCRETE OVERLAY
- (FS) STEEL EXTRUSION FIELD SPLICE PERMITTED. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-113

DRAWN BY DLF | PLANS CK'D. JAJ

DETAILS

SHEET 3 OF 7

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PLOT DATE: 10/1/2015
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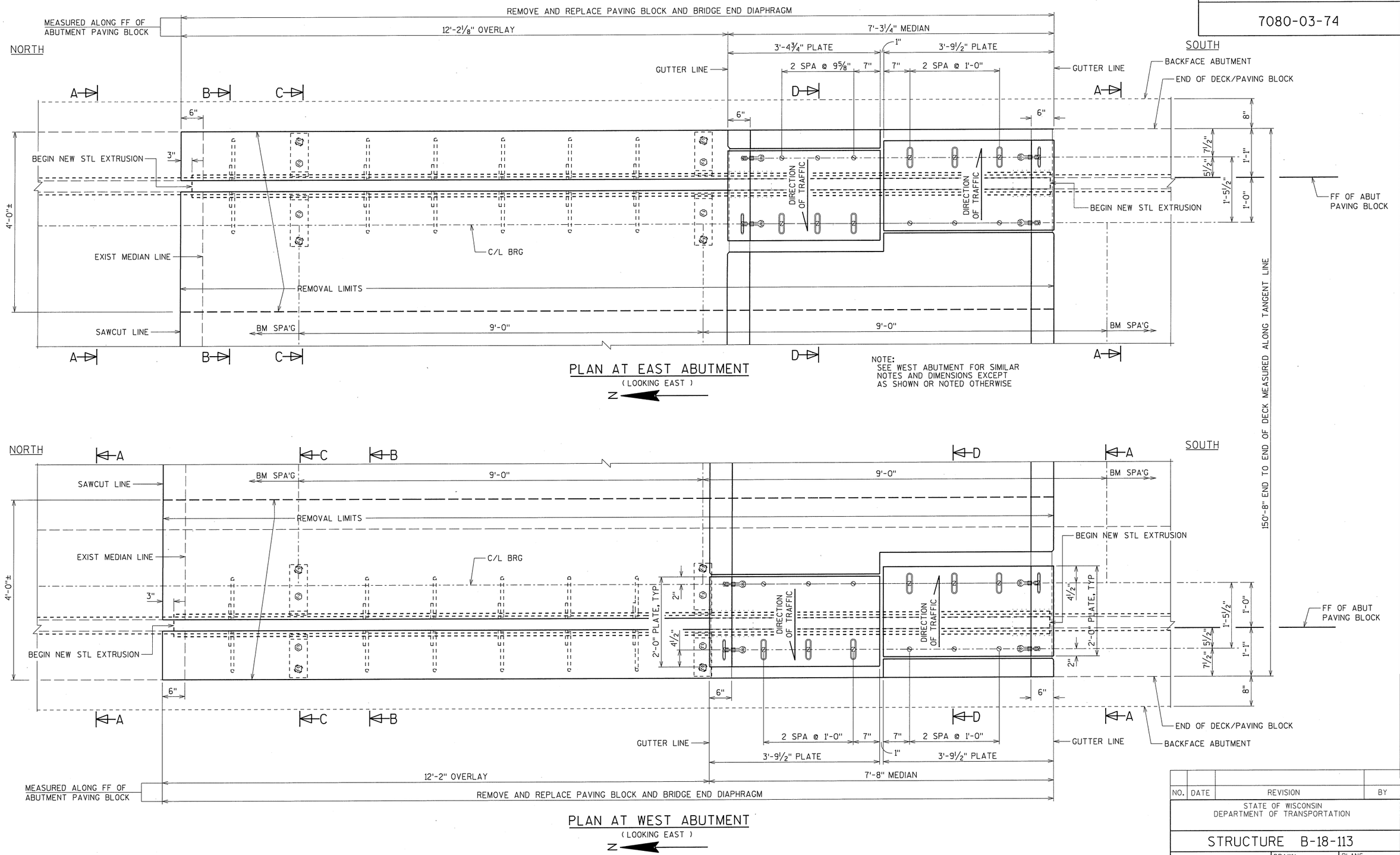
STATE PROJECT NUMBER

7080-03-74



PLAN AT EAST ABUTMENT
(LOOKING EAST)

PLAN AT WEST ABUTMENT
(LOOKING EAST)

NOTE:
SEE WEST ABUTMENT FOR SIMILAR NOTES AND DIMENSIONS EXCEPT AS SHOWN OR NOTED OTHERWISE

NOTE:
THIS SHEET TO BE USED IN CONJUNCTION WITH "EXPANSION DEVICE" AND "COVER PLATE DETAILS" SHEET.

SEE "EXPANSION DEVICE" SHEET FOR SECT. A-A, B-B, C-C & D-D.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-113

DRAWN BY DLF | PLANS CK'D. JAJ

JOINT LAYOUT

SHEET 4 OF 7

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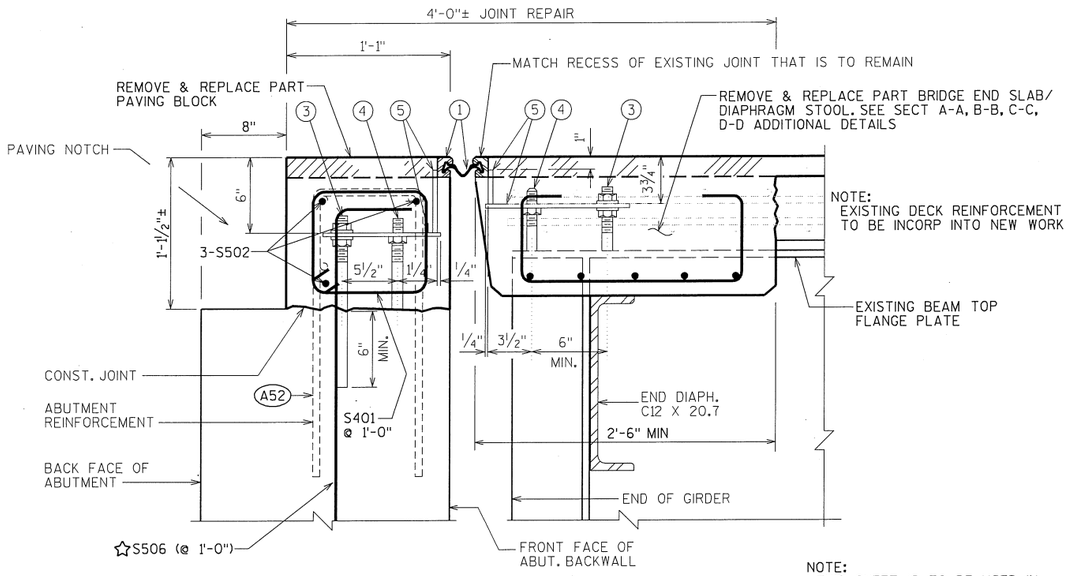


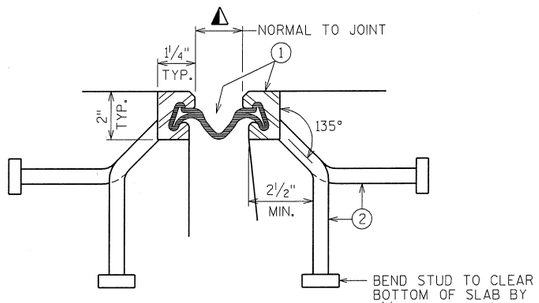
(A52) PRESERVE EXISTING REINF. EXTEND FULL LENGTH & INCORPORATE INTO NEW WORK.

SECTION THRU JOINT AT ABUTMENT

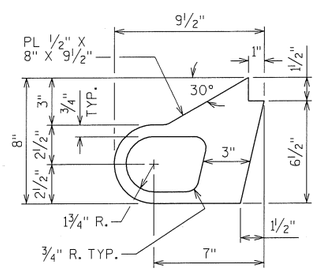
NORMAL TO ℄ SUBSTRUCTURE
MEDIAN NOT SHOWN

NOTE:
THIS SHEET IS TO BE USED IN CONJUCTION WITH "COVER PLATE DETAILS" SHEET AND "JOINT LAYOUT" SHEET.

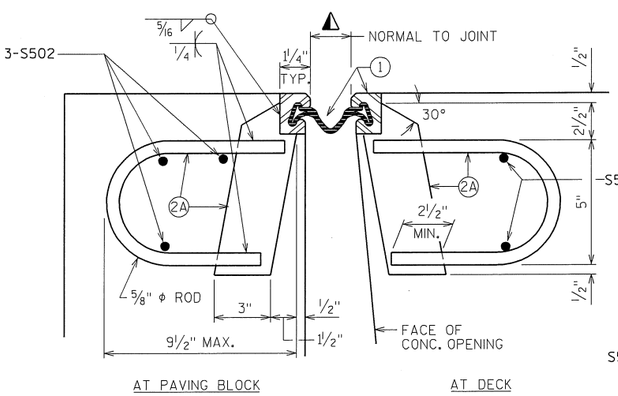
SEE "JOINT LAYOUT" SHEET FOR LOCATION OF FIELD SPLICES. (FS)



SECTION THRU JOINT

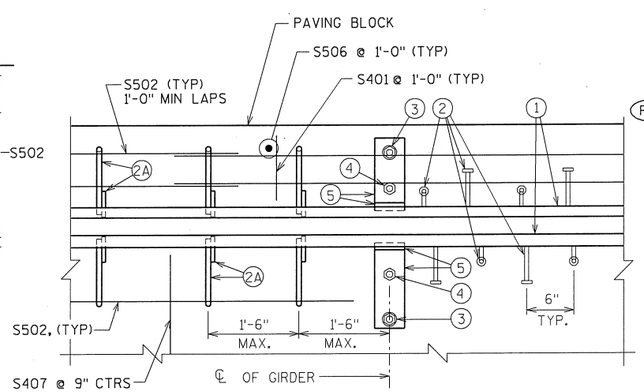


ALTERNATE STRIP SEAL ANCHOR

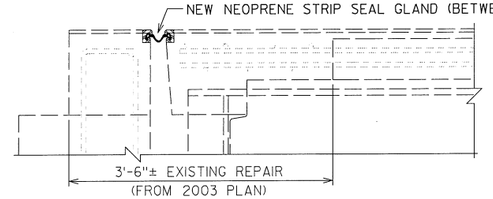


SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.

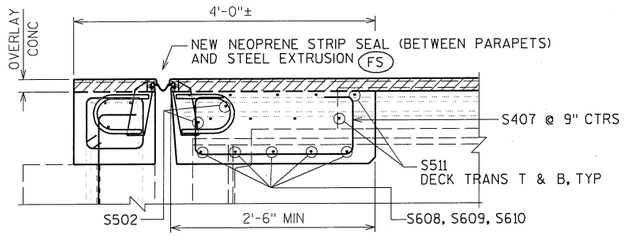


PART PLAN



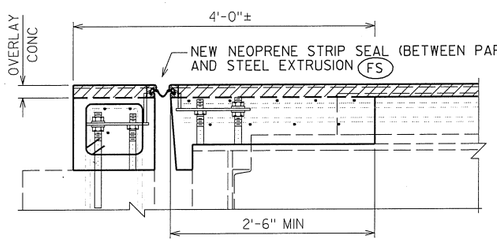
SECT A-A

EXISTING



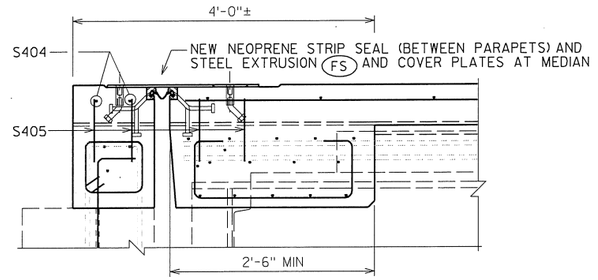
SECT B-B

BETWEEN BEAMS



SECT C-C

AT BEAMS



SECT D-D

AT MEDIAN

LEGEND

(FS) (1) NEOPRENE STRIP SEAL (4" - INCH) AND STEEL EXTRUSIONS. SET JOINT OPENING TO MATCH EXISTING OPENING OF EXTRUSIONS THAT ARE TO REMAIN.

(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. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾"ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" 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 & 1" ϕ HOLE FOR NO. 4.

(6) (VACANT)

(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.

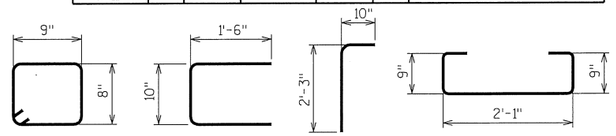
(11) MEDIAN COVER PLATE ⅜" X 2'-0" X LIMITS SHOWN. BEND DOWN FACE OF MEDIAN WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.

NOTE: THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE ENGLISH BAR DIAMETER SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

BILL OF BARS — ENTIRE BRIDGE

BAR MARK	COAT	NO. REQ'D.	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
S401	X	40	3 - 4		X	PAVING BLOCK VERT
S502	X	30	7 - 6			PAVING BLOCK HORIZ
S403	X	24	38 - 3			MEDIAN LONGIT
S404	X	104	6 - 3			MEDIAN TRANS
S405	X	16	3 - 8		X	MEDIAN DWL
☆S506	X	40	3 - 0		X	PAVING BLK DWL
S407	X	48	4 - 0		X	END BLK TIE
S608	X	10	8 - 0			END BLK HORIZ
S609	X	10	7 - 0			END BLK HORIZ
S610	X	10	2 - 6			END BLK HORIZ
S511	X	18	18 - 0			TRANS T & B



NOTES

(FS) FIELD SPLICES ARE PERMITTED IN STEEL EXTRUSIONS ONLY AT THE LOCATIONS SHOWN, UNLESS REQUIRED FOR 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. SLIP-RESISTANT SURFACE IS APPLIED TO SIDEWALK COVER PLATES BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMENDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS, COVER PLATES AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-18-113".

☆ MASONRY ANCHOR TYPE L NO.5 BARS. MINIMUM PULLOUT CAPACITY OF 19 KIPS. EMBED A MINIMUM OF 1'-6" INTO CONCRETE, SPACE AT 1'-0", TURN 10" LEG AS NECESSARY TO FIT. WEIGHT OF BAR INCLUDED IN TABLE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-113

DRAWN BY DLF | PLANS CK'D. JAJ

EXPANSION DEVICE

SHEET 5 OF 7

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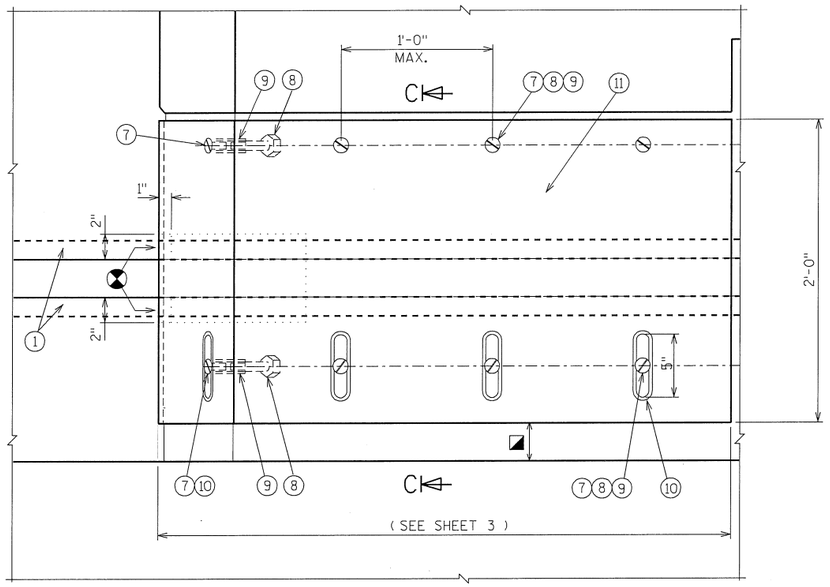
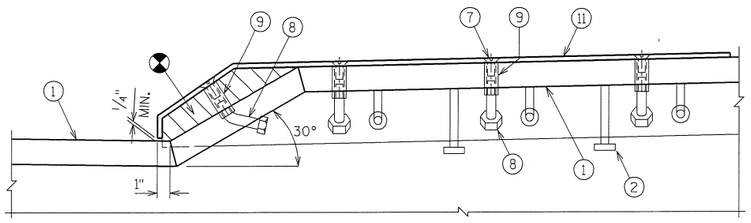
JTSS_RAISSDWK

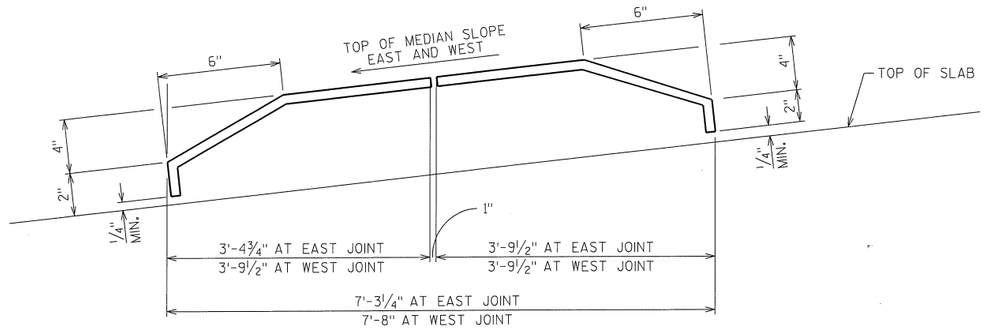
STATE PROJECT NUMBER
7080-03-74



PLAN AT HALF MEDIAN

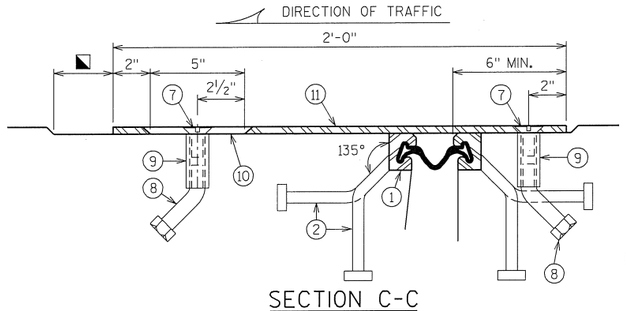


SECTION AT HALF MEDIAN



COVER PLATE BENDING CONCEPT

(LOOKING EAST)



SECTION C-C

NOTE:
SEE "EXPANSION DEVICE" SHEET FOR NOTES.

THIS SHEET IS TO BE USED IN CONJUCTION WITH "EXPANSION DEVICE" SHEET AND "JOINT LAYOUT" SHEET.

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION PLUS ½".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-113

DRAWN BY DLF | PLANS CK'D. JAJ

COVER PLATE DETAILS

SHEET 6 OF 7

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JTSS_RAISSDWK

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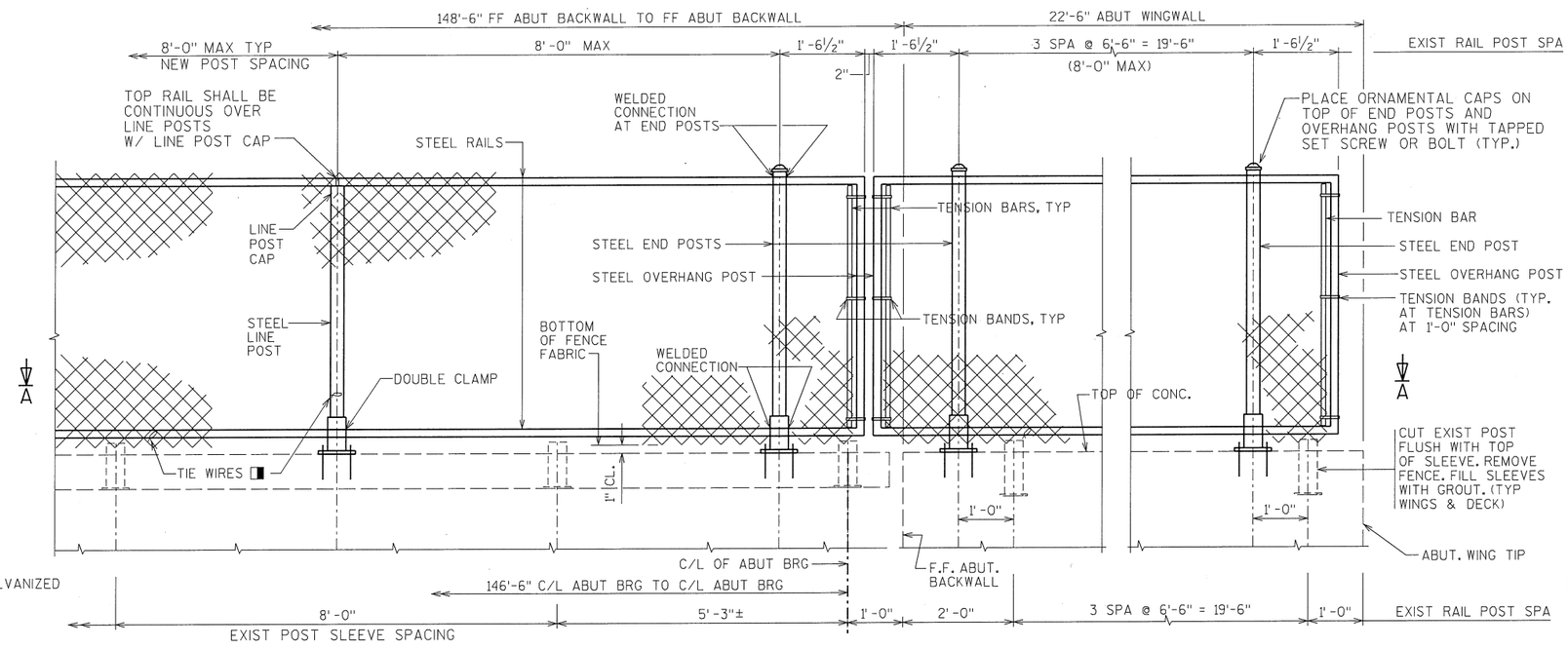
STATE PROJECT NUMBER
7080-03-74

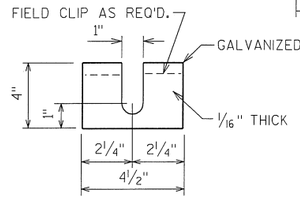
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



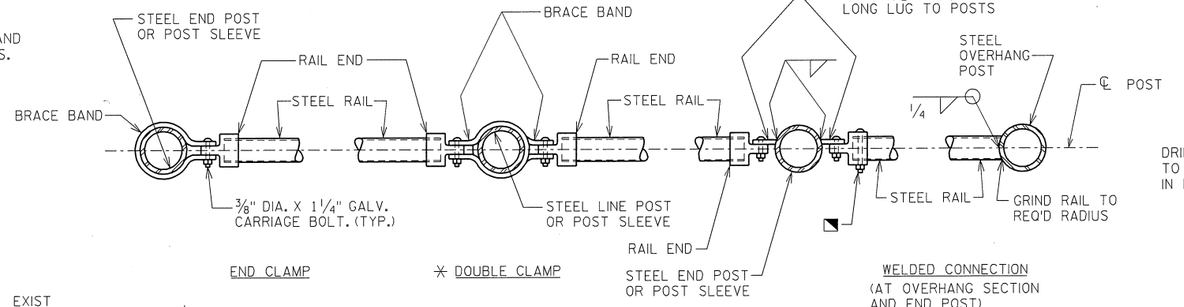
FENCE PART ELEVATION

VIEWING FABRIC SIDE



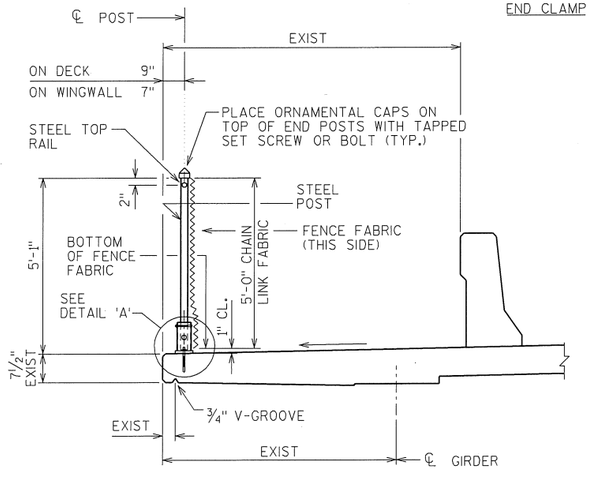
POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.

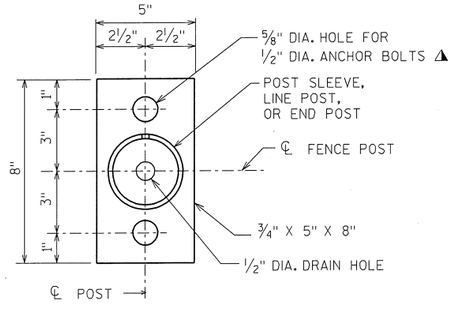


SECTION A-A

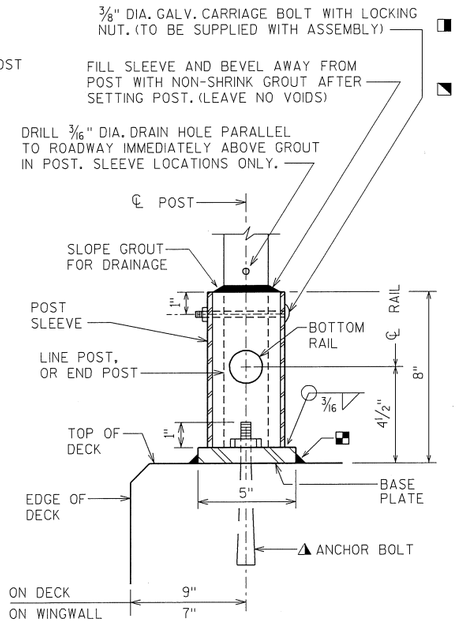
NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS



SECTION THRU FENCE



BASE PLATE



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

GENERAL NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH MAY BE ALUMINUM-COATED STEEL OR GALVANIZED STEEL.

DAMAGE CAUSED TO UNDERSIDE OF THE DECK DUE TO DRILLING OF ANCHORS SHALL BE GROUT PATCHED (INCIDENTAL).

FABRIC SHALL CONFORM TO ASTM A491 OR A392, CLASS 2. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626.

THE BID ITEM SHALL BE "FENCE CHAIN LINK 5-FT.", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

◪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

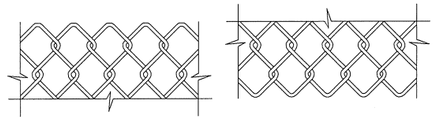
⚹ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

◭ MASONRY ANCHOR TYPE S ½-INCH. EMBED 5" IN CONCRETE. ANCHOR, WASHER, AND NUT SHALL BE GALVANIZED.

◨ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

◥ BOLT RAIL TO RAIL END TO SECURE OVERHANG SECTION. ALTERNATE IS TO WELD RAIL DIRECTLY TO END POST.

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR ¼ POINT OF POST SPACING.



TOP DETAIL BOTTOM DETAIL

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-113

DRAWN BY	DLF	PLANS CK'D.	JAJ

FENCING DETAILS

SHEET 7 OF 7

175

railchan

5.333333

8

8

PLOT TIME: 4:06:06 PM
PLOT DATE: 10/1/2015
FILE NAME : S:\UZ\W\Wtnw\125420\15-final-dsgn\51-drawings\20-Struct\bridge\b1813railchan.dgn

12 6 13 14

USH 12								
		AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
Station	Distance	Cut	Fill	Cut Note 1	Fill Note 2	Cut 1.00 Note 1	Expanded Fill 1.30 Note 3	Mass Ordinate Note 4
48+79	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0
48+80	1.00	10.7	0.0	0.2	0.0	0	0	0
49+00	20.00	11.5	0.0	8.2	0.0	8	0	8
49+50	50.00	18	0.0	27.3	0.0	36	0	36
50+00	50.00	26.8	0.0	41.5	0.0	77	0	77
50+36	36.00	27.3	0.0	36.1	0.0	113	0	113
50+37	1.00	0.0	0.0	0.5	0.0	114	0	114
51+89	152.00	0.0	0.0	0.0	0.0	114	0	114
51+90	1.00	27.3	0.0	0.5	0.0	114	0	114
52+50	60.00	4	0.0	34.8	0.0	149	0	149
52+51	1.00	0.0	0.0	0.1	0.0	149	0	149
90+50	0.00	0.0	0.0	0.0	0.0	149	0	149
91+12	62.00	3.9	0.0	4.5	0.0	154	0	154
91+42	30.00	8.5	0.0	6.9	0.0	161	0	161
91+67	25.00	8.5	0.0	7.9	0.0	168	0	168
91+92	25.00	8.5	0.0	7.9	0.0	176	0	176
93+71	179.00	3.9	0.0	41.1	0.0	217	0	217
93+72	1.00	0.0	0.0	0.1	0.0	217	0	217
114+93	0.00	0.0	0.0	0.0	0.0	217	0	217
114+94	1.00	12.6	0.0	0.2	0.0	218	0	218
115+00	6.00	13.1	0.0	2.9	0.0	221	0	221
115+50	50.00	14	0.0	25.1	0.0	246	0	246
115+69	19.00	14.4	0.0	10.0	0.0	256	0	256
115+81	12.00	17.9	0.0	7.2	0.0	263	0	263
116+00	19.00	17.4	0.0	12.4	0.0	275	0	275
116+50	50.00	14.3	0.0	29.4	0.0	305	0	305
116+81	31.00	13.2	2.7	15.8	1.6	320	2	318
117+00	19.00	15.6	0.5	10.1	1.1	330	3	327
117+50	50.00	17.2	0.0	30.4	0.5	361	4	357
118+00	50.00	13.8	6.2	28.7	5.7	390	12	378
118+50	50.00	13.5	6.2	25.3	11.5	415	26	388
119+00	50.00	12.4	7.3	24.0	12.5	439	43	396
119+50	50.00	13.3	4.7	23.8	11.1	463	57	405
120+00	50.00	15.1	0.8	26.3	5.1	489	64	425
120+21	21.00	21	0.0	14.0	0.3	503	64	439
120+22	1.00	0.0	0.0	0.4	0.0	503	64	439
130+80	0.00	0.0	0.0	0.0	0.0	503	64	439
130+81	1.00	12.6	0.2	0.2	0.0	504	64	439
131+00	19.00	14.3	0.0	9.5	0.1	513	64	449
131+50	50.00	13.8	0.0	26.0	0.0	539	64	475
132+00	50.00	14.4	0.0	26.1	0.0	565	64	501
132+50	50.00	14.2	0.0	26.5	0.0	592	64	527
132+54	4.00	14.2	0.0	2.1	0.0	594	64	529
132+71	17.00	14.2	0.0	8.9	0.0	603	64	538
133+00	29.00	14.6	0.0	15.5	0.0	618	64	554
133+41	41.00	16	15.5	23.2	11.8	641	80	562
133+50	9.00	14.6	15.5	5.1	5.2	646	86	560
134+00	50.00	18.6	5.5	30.7	19.4	677	112	566
134+50	50.00	15.7	9	31.8	13.4	709	129	580
135+00	50.00	16.7	10.7	30.0	18.2	739	153	586
135+50	50.00	11.7	10.8	26.3	19.9	765	179	587
136+00	50.00	15.6	0.7	25.3	10.6	791	192	598
136+50	50.00	17.5	0.0	30.6	0.6	821	193	628
136+91	41.00	19.2	0.0	27.9	0.0	849	193	656
136+92	1.00	0.0	0.0	0.4	0.0	849	193	656

Notes:
1) Salvaged/Unusable Pavement Material is included in Cut.
2) Does not include Unusable Pavement Excavation volume.
3) Will be backfilled with Cut or Borrow.
4) Plus quantity indicates an excess of material. Minus indicates a shortage of material.

9

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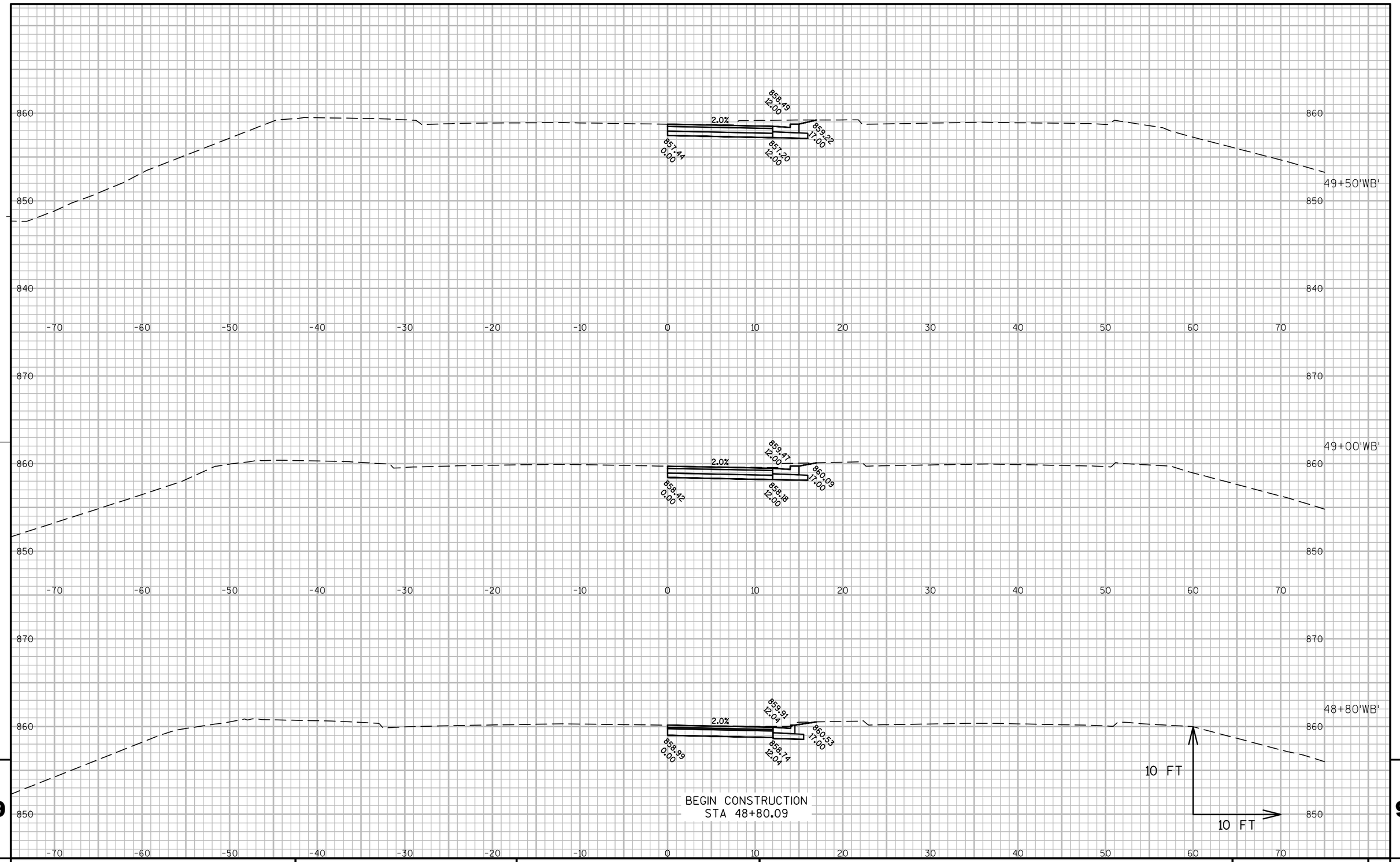
PROJECT NO: 7080-03-74/7080-00-74 | HWY: USH 12 | COUNTY: EAU CLAIRE | EARTHWORK TABULATIONS | SHEET 176 | E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\090101_EW.DWG PLOT DATE : 9/3/2008 9:39 AM PLOT BY : NICK ENGH PLOT NAME : ---------- PLOT SCALE : 1:2

WISDOT/CADDS SHEET 44



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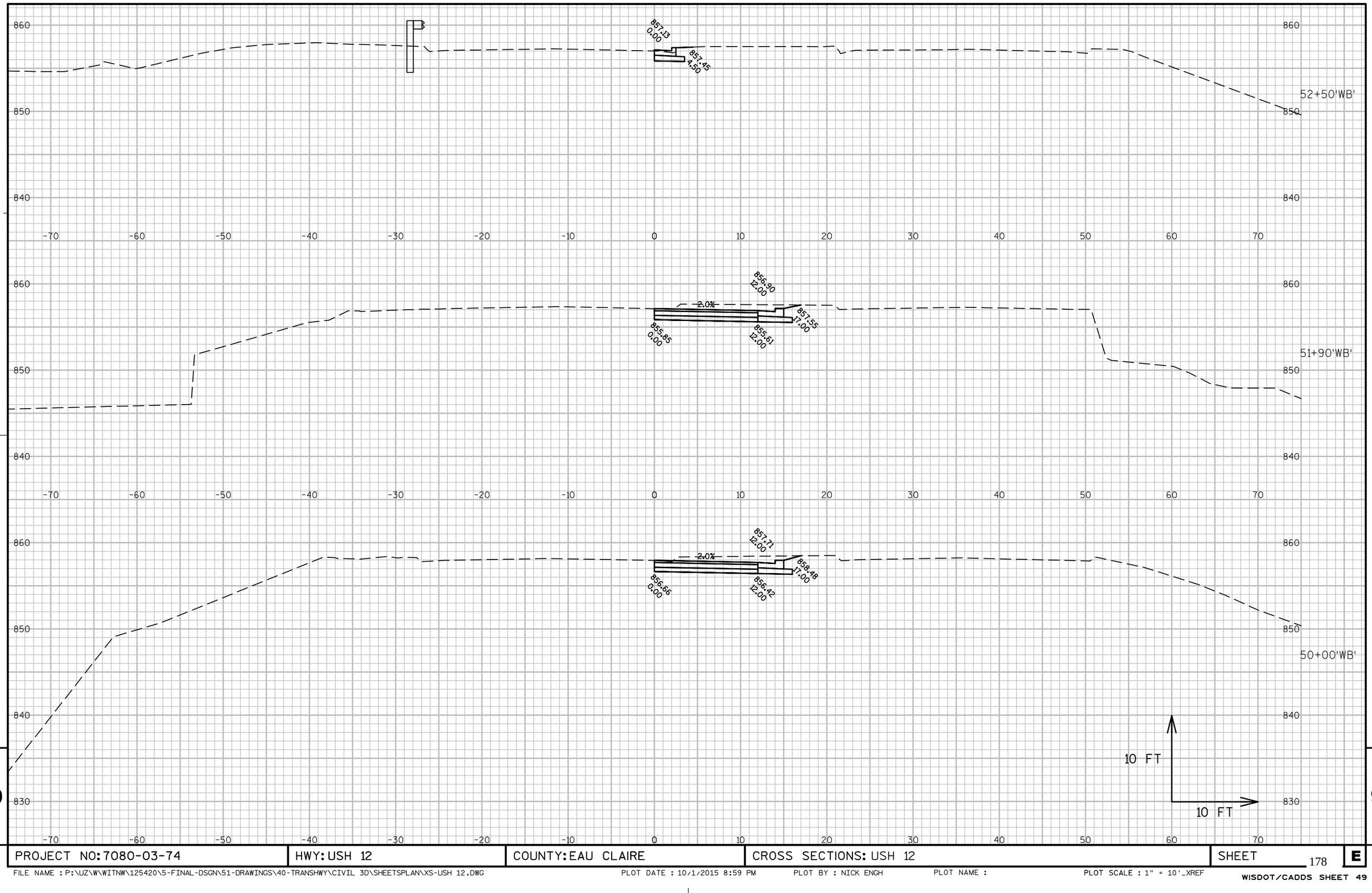
PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 12	SHEET 177	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\XS-USH 12.DWG PLOT DATE : 10/1/2015 8:59 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1" = 10'_XREF



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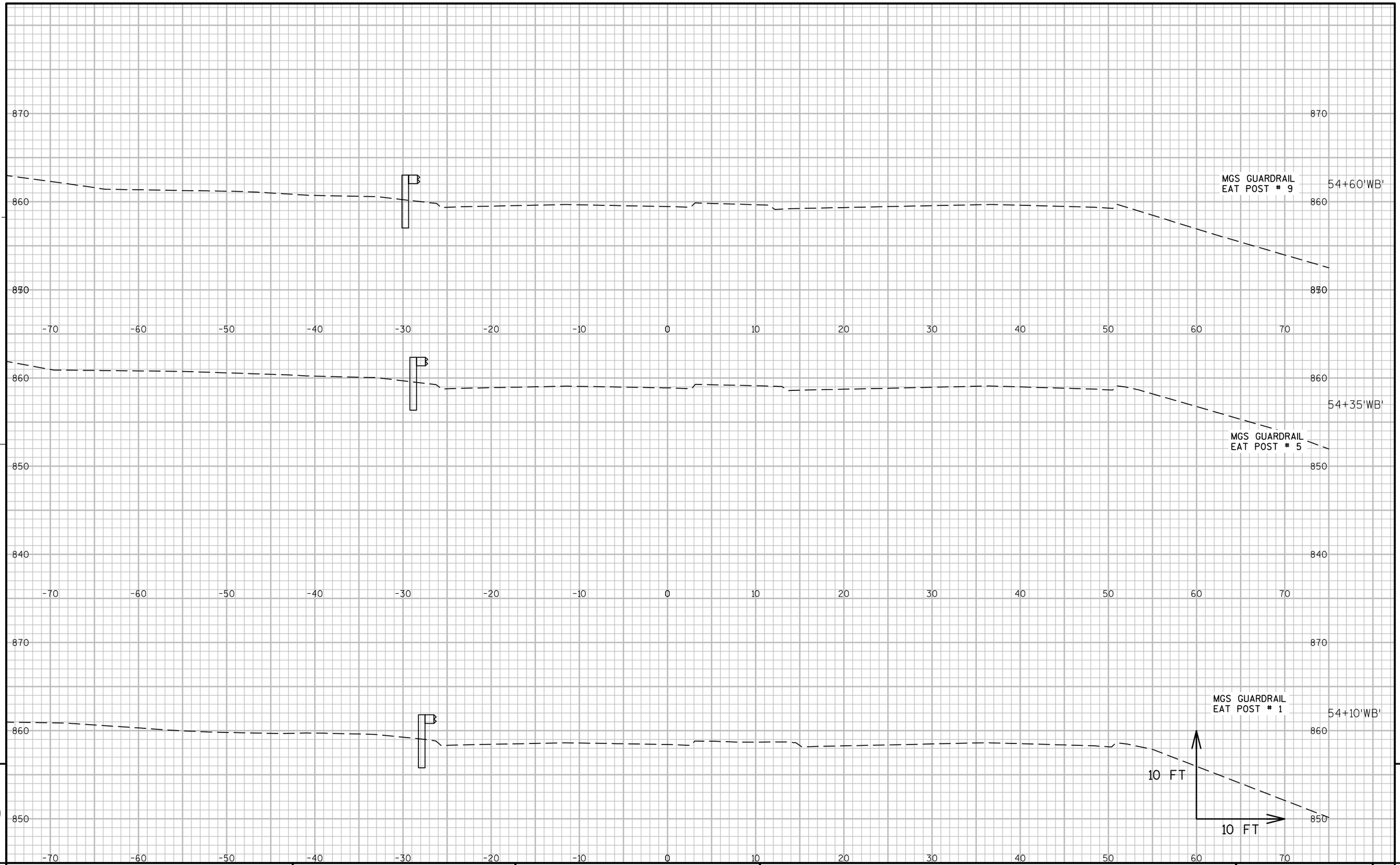
PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 12	SHEET 178	E



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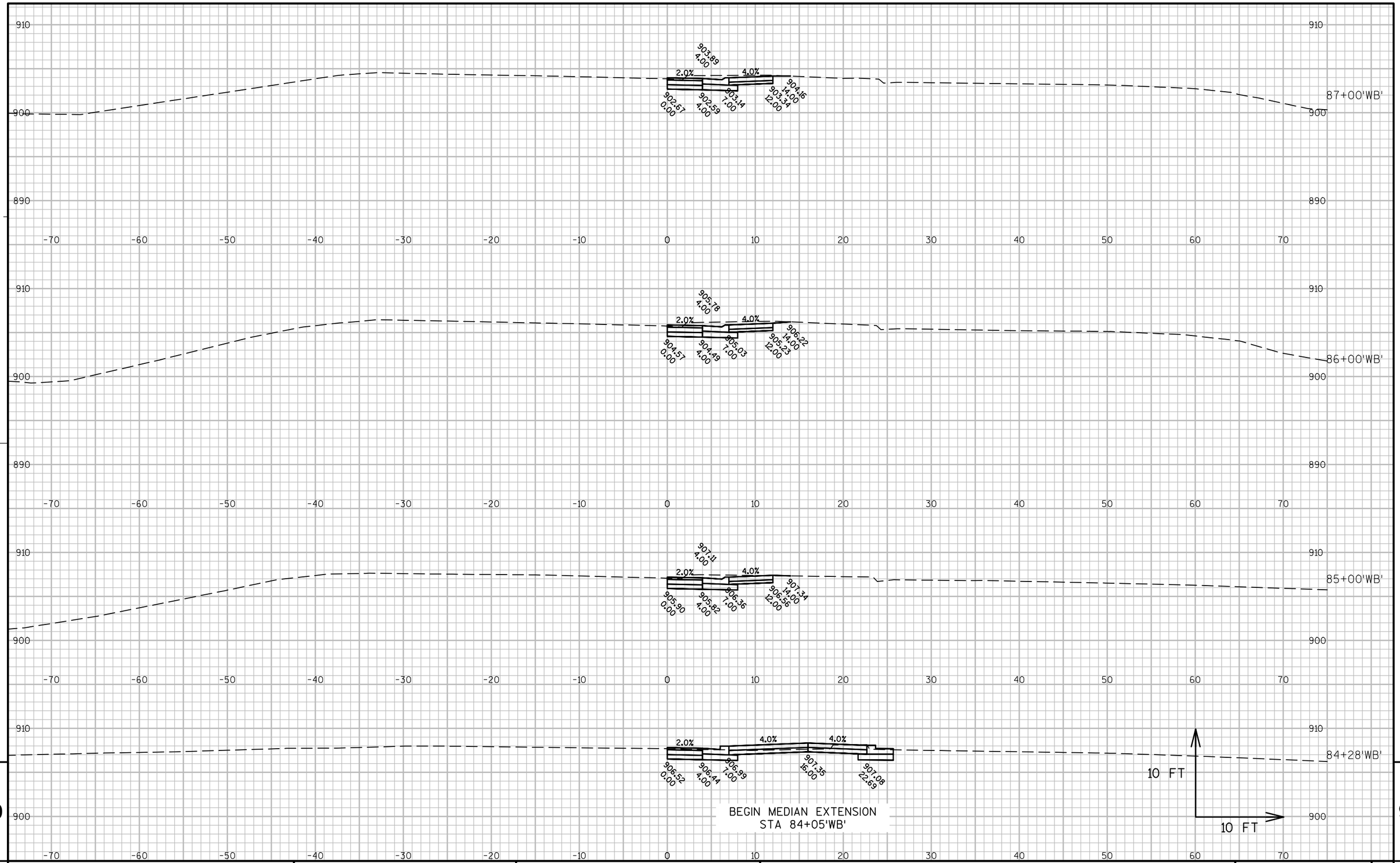
PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 12	SHEET 179	E

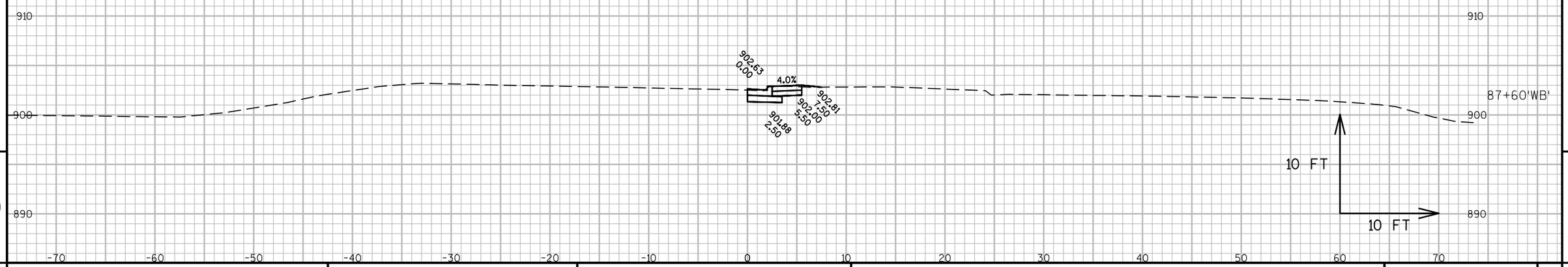


PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 12	SHEET 180	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\XS-USH 12.DWG PLOT DATE : 10/1/2015 8:59 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

END MEDIAN EXTENSION
STA 87+60'WB'



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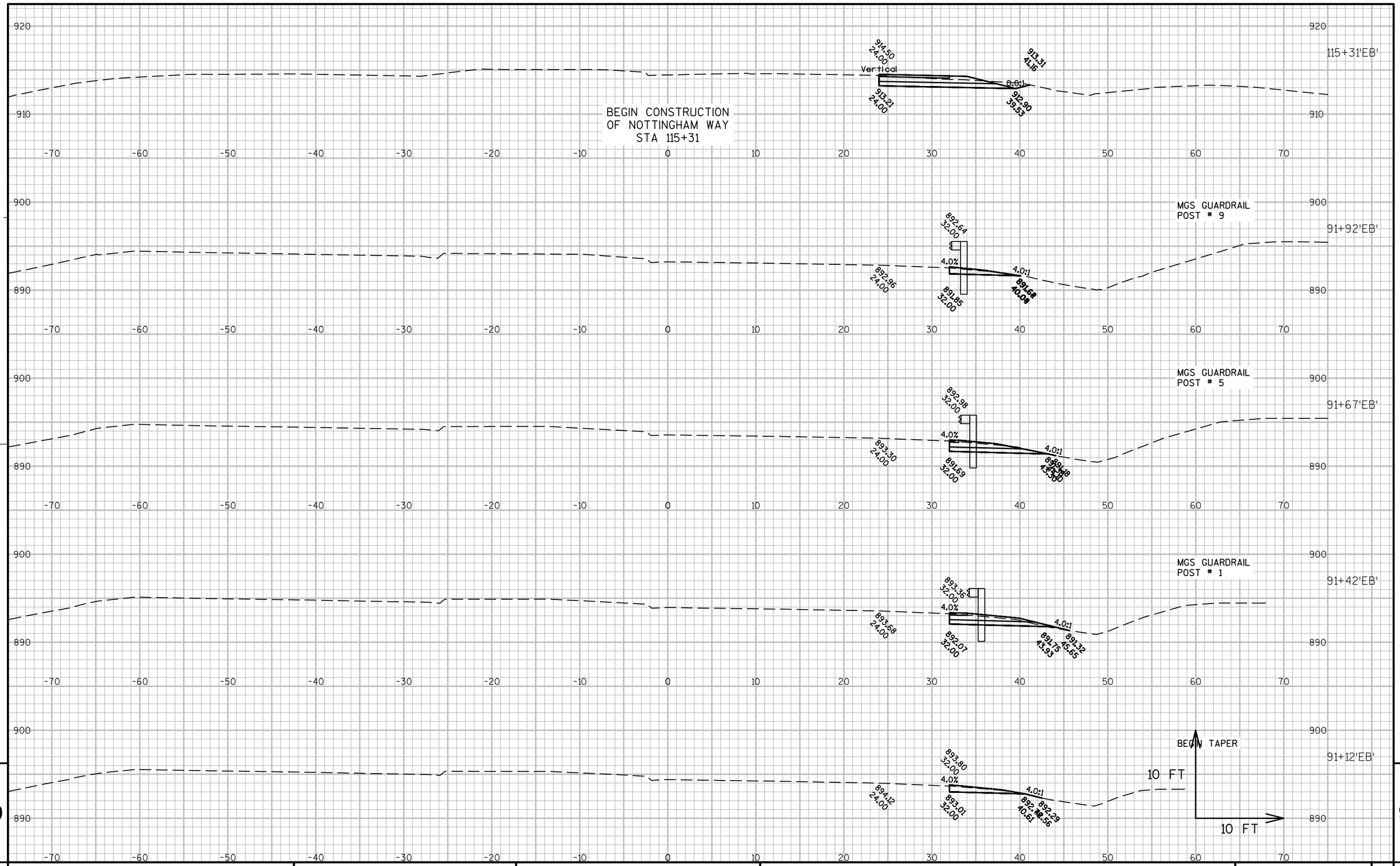
PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 12	SHEET 181	E



PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 12	SHEET 182	E

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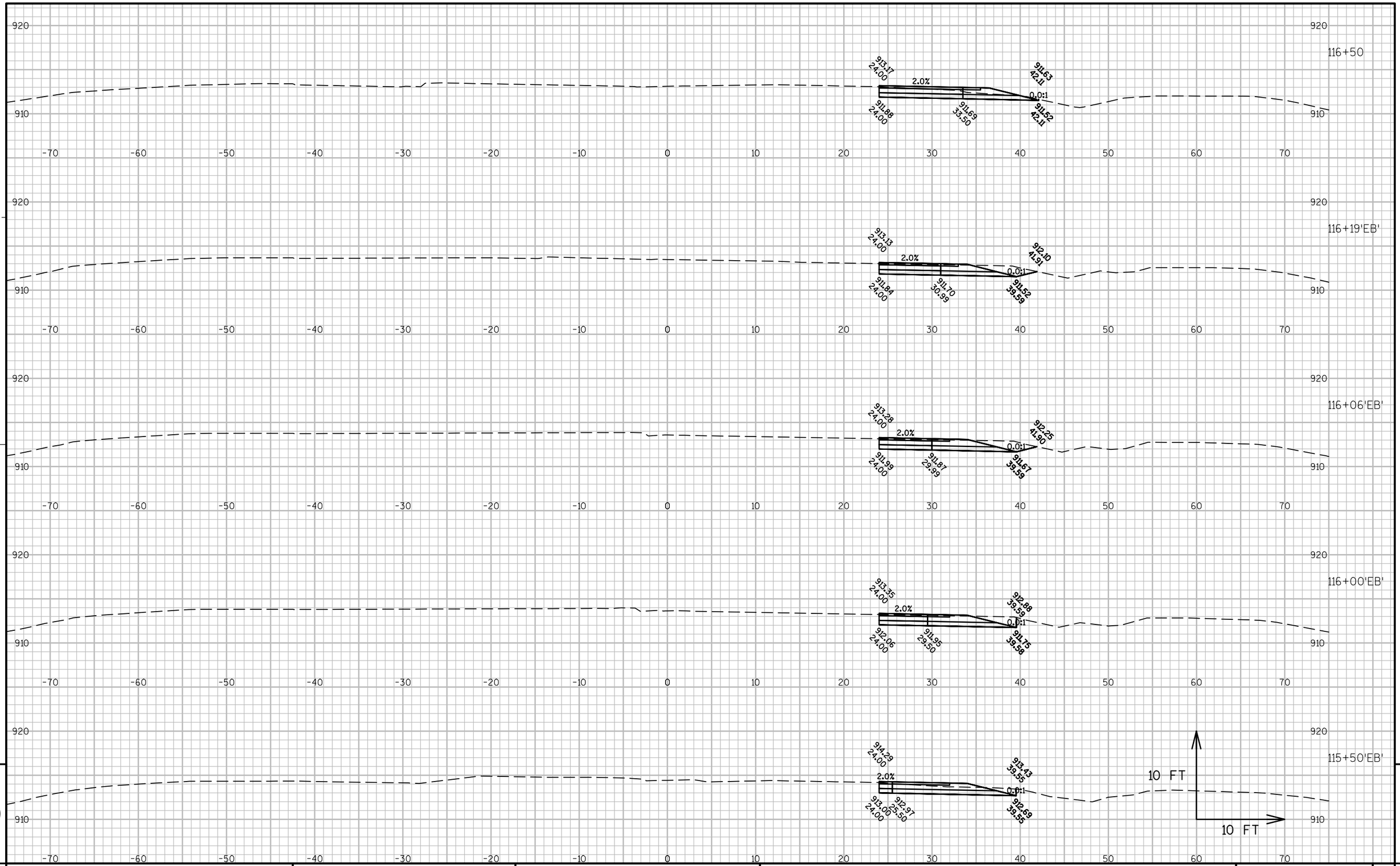
WISDOT/CADDS SHEET 49



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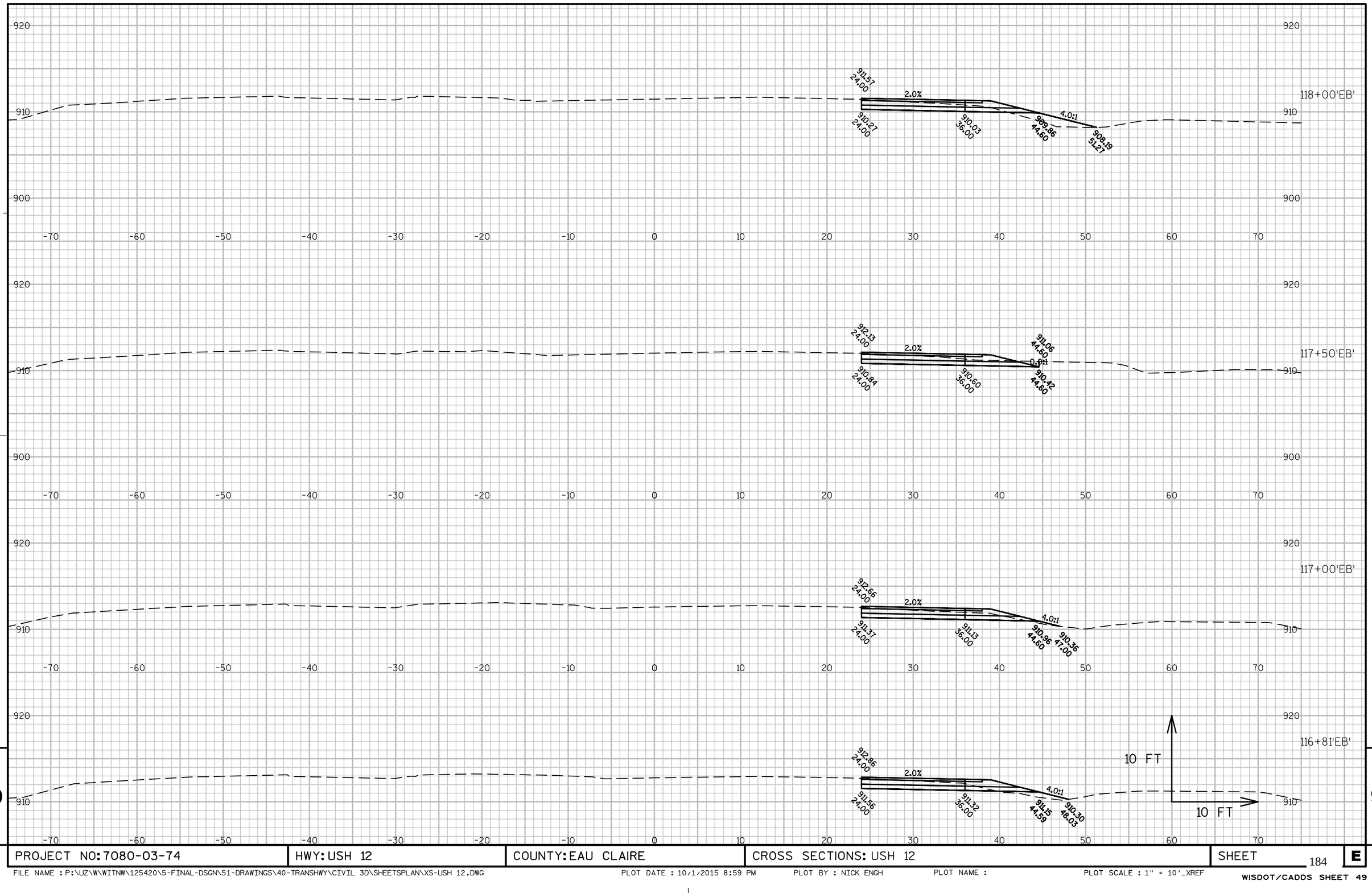
PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 12	SHEET 183	E



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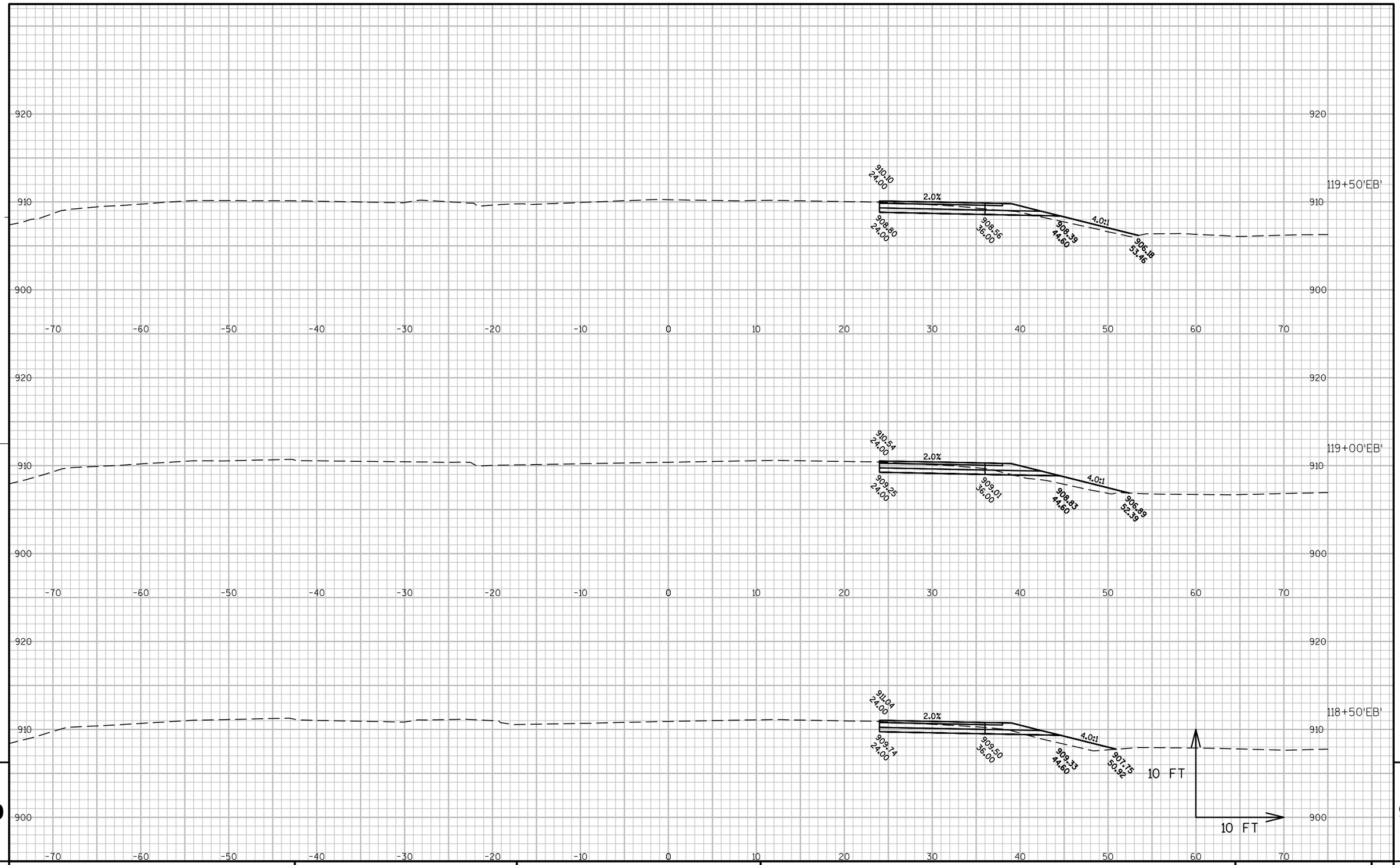
PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 12	SHEET 184	E



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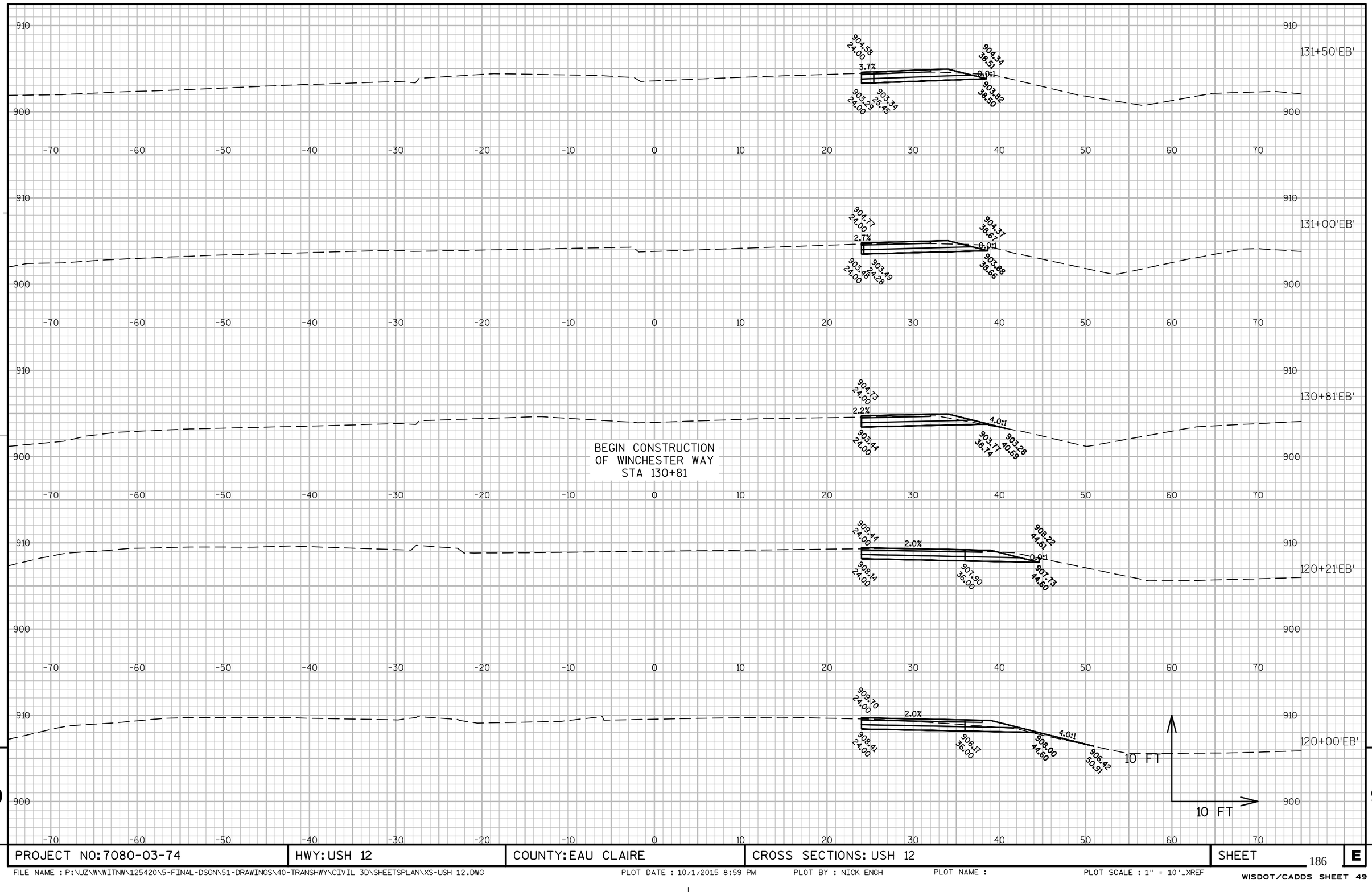
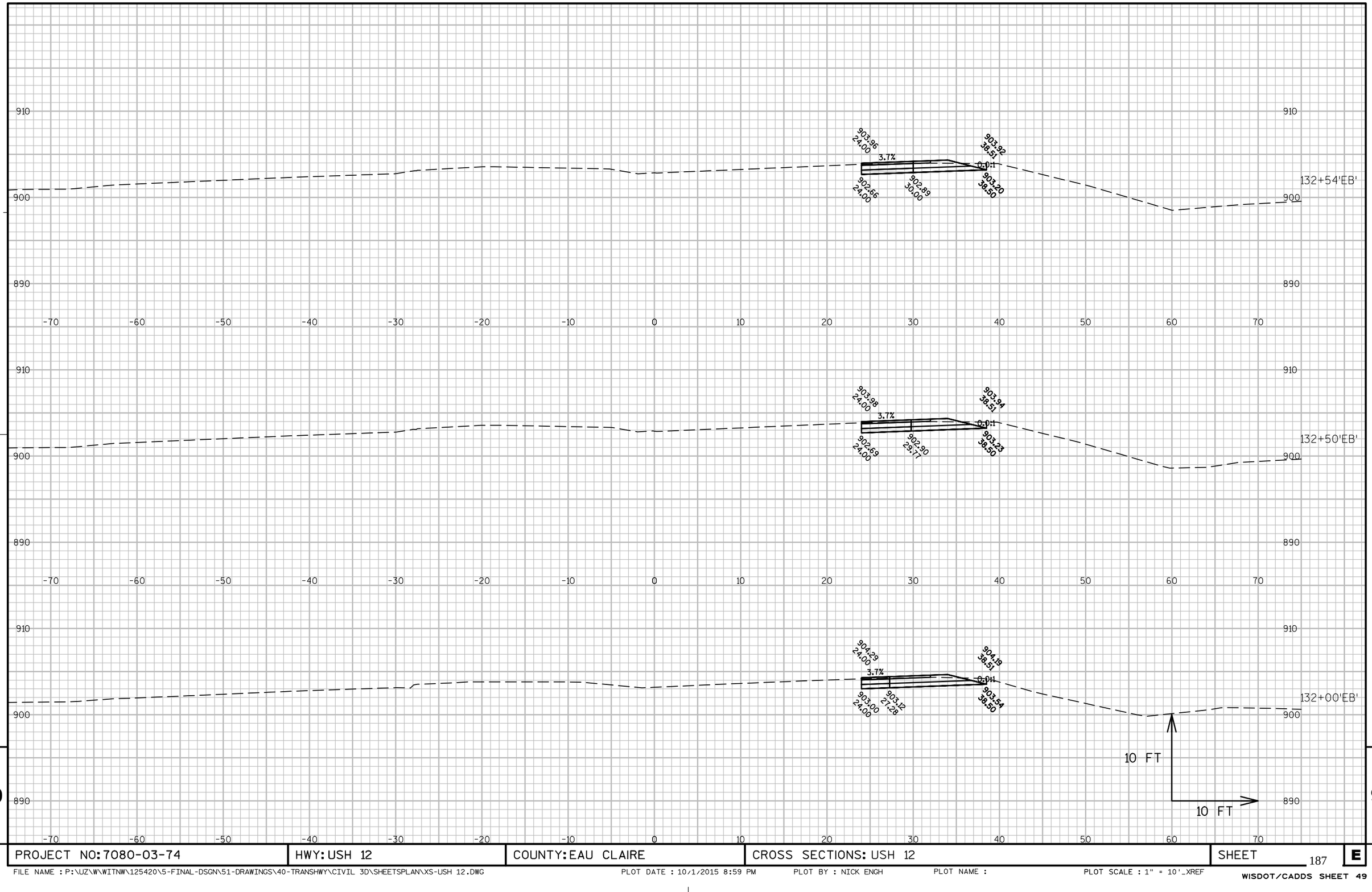
PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 12	SHEET 185	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\XS-USH 12.DWG PLOT DATE : 10/1/2015 8:59 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1" = 10'_XREF



PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 12	SHEET 186	E



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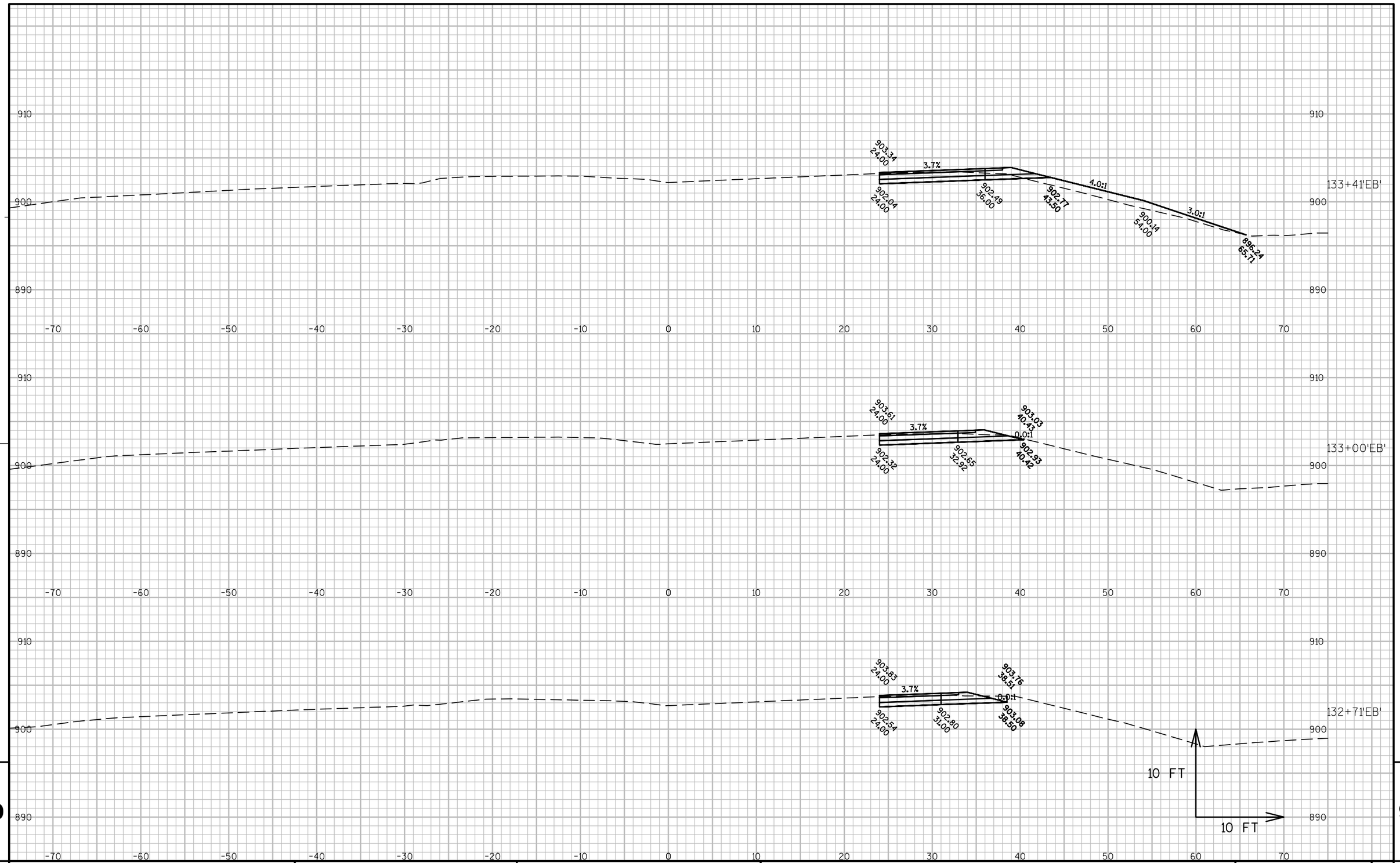
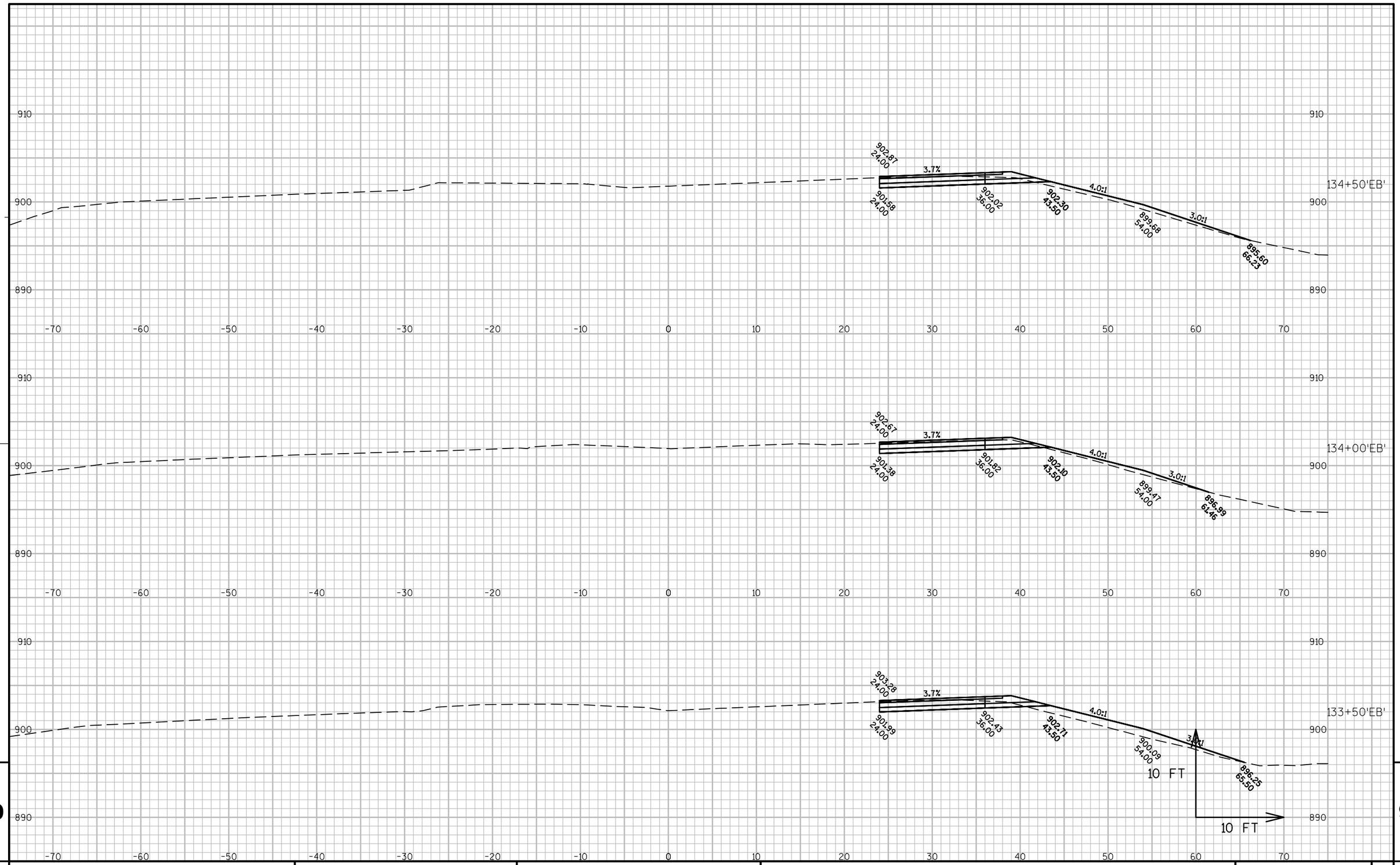
PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 12	SHEET 187	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\XS-USH 12.DWG PLOT DATE : 10/1/2015 8:59 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1" = 10'_XREF



PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 12	SHEET 188	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\XS-USH 12.DWG PLOT DATE : 10/1/2015 8:59 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1" = 10'_XREF



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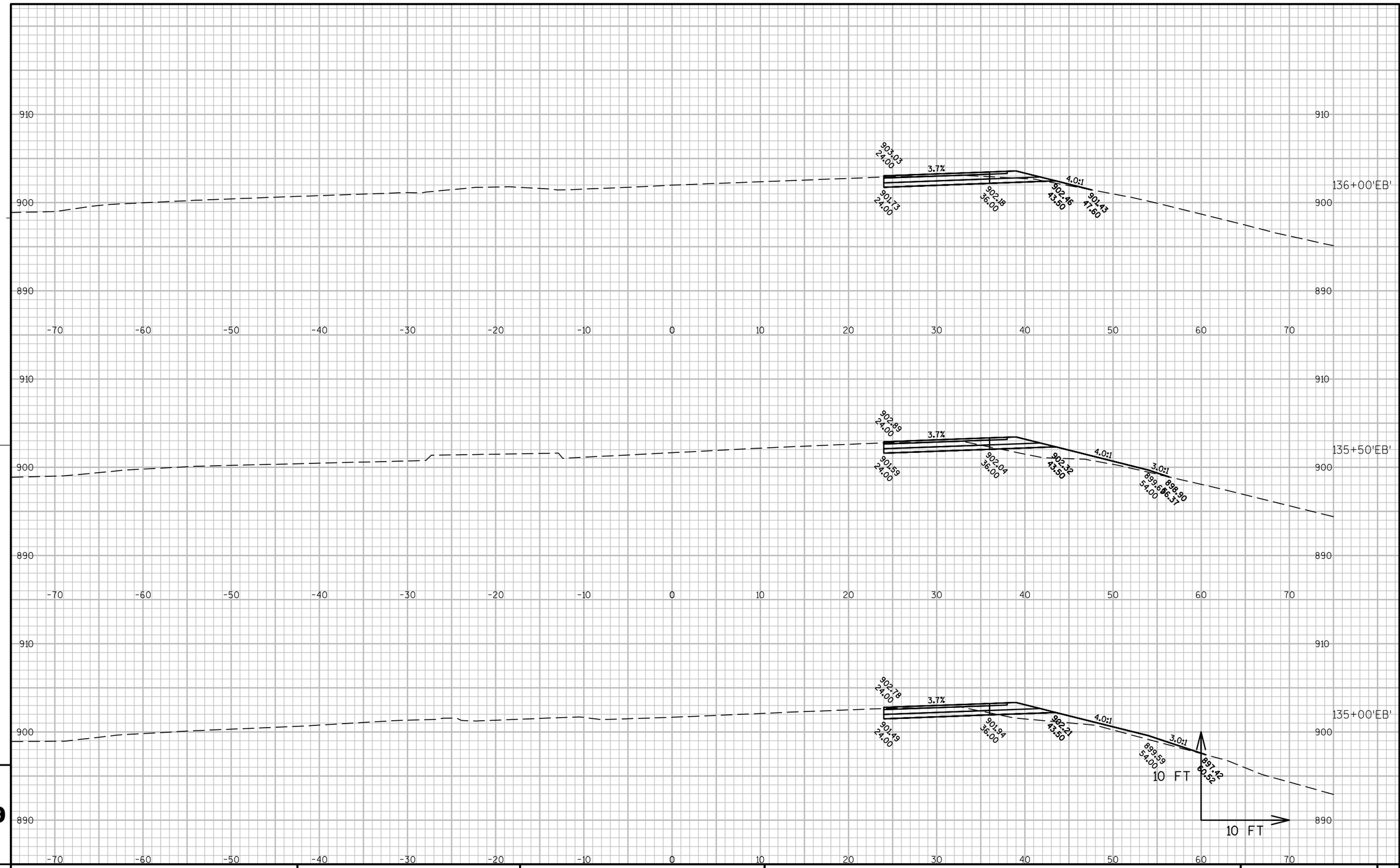
PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 12	SHEET 189	E

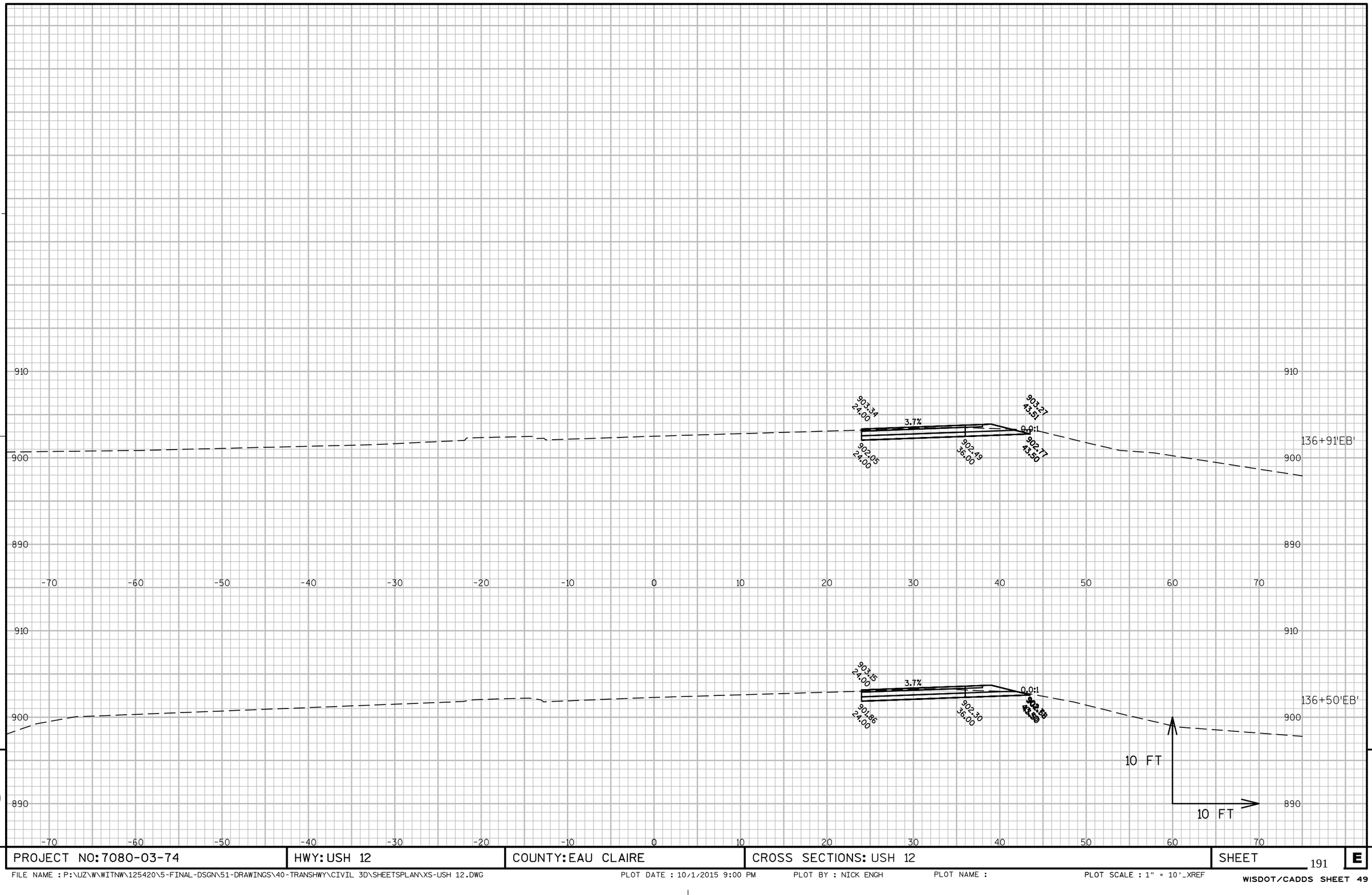
FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\XS-USH 12.DWG PLOT DATE : 10/1/2015 9:00 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1" = 10'_XREF



PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 12	SHEET 190	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\XS-USH 12.DWG PLOT DATE : 10/1/2015 9:00 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 7080-03-74	HWY: USH 12	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 12	SHEET 191	E

FILE NAME : P:\UZ\W\WITNW\125420\5-FINAL-DSGN\51-DRAWINGS\40-TRANSHWY\CIVIL 3D\SHEETSPLAN\XS-USH 12.DWG PLOT DATE : 10/1/2015 9:00 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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