EAU NOVEMBER 2015

PROJECT ID: 7028-00-60

WITH:

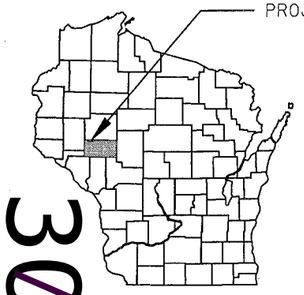
COUNTY: EAU CLAIRE

30

ORDER OF SHEETS

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

TOTAL SHEETS = 218



DESIGN DESIGNATION

A.A.D.T.	2016	=	21,000
A.A.D.T.	2036	=	29,400
D.H.V.		=	2400
D.D.		=	58/42
T.		=	9.3%
DESIGN SPEED		=	55/50
ESALS		=	5,389,100

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (1014.36)
- CULVERT (Profile View)

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7028-00-60	WISC 2015586	1

C EAU CLAIRE, NORTH CROSSING

400 FEET EAST OF USH 12 TO USH 53

STH 312

EAU CLAIRE COUNTY

STATE PROJECT NUMBER
7028-00-60

BEGIN PROJECT
STA. 177+50.00
Y = 315283.93
X = 290438.95

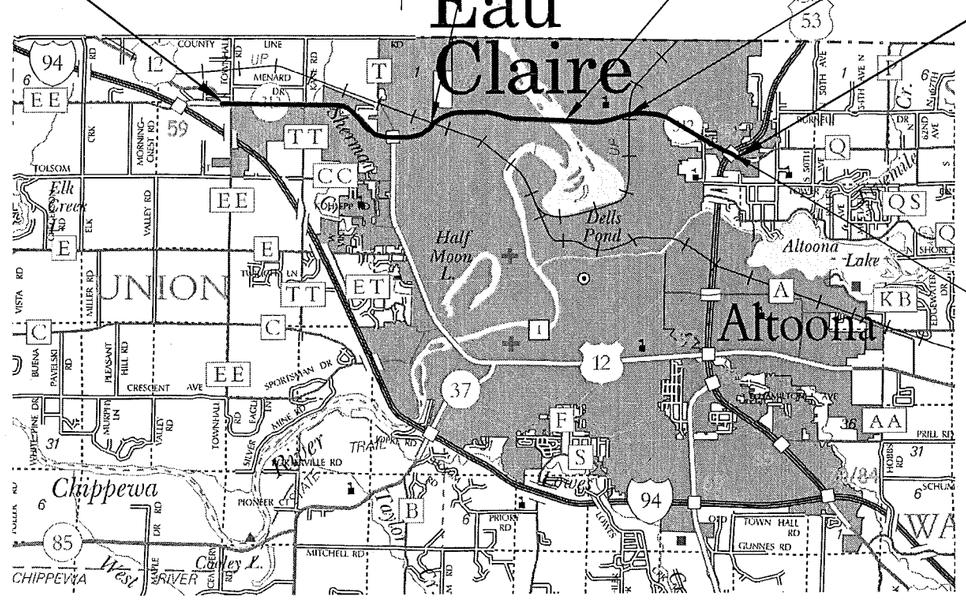
EXCEPTION TO NET CL LENGTH
STRUCTURE B-18-130
STA. 340+99 - STA. 342+70
RR CROSSING 187446A

EXCEPTION TO NET CL LENGTH
STRUCTURE B-18-132
STA. 426+16 - STA. 441+04

RR CROSSING 187447G
STA. 485+48

END PROJECT
STA. 572+60.00

EXCEPTION TO NET CL LENGTH
STRUCTURE B-18-188
STA. 566+54 - STA. 569+20



LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 7.107 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, EAU CLAIRE COUNTY, NAD83 (HARN), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NW REGION
Designer	GARY W KRUG
Project Manager	DAVID KOEPP
Regional Examiner	DANIEL OJIBWAY
Regional Supervisor	TIMOTHY MASON

APPROVED FOR THE DEPARTMENT
DATE: 3/11/15 (Signature)

E

GENERAL NOTES

CROSS SLOPES AS SHOWN ON THE TYPICAL SECTION WILL VARY AT URBAN INTERSECTIONS.

ALL RADII ARE MEASURED TO THE EDGE OF PAVEMENT (FLAG OF CURB) UNLESS OTHERWISE NOTED.

REMOVE ASPHALTIC SURFACE TO THE NEAREST JOINT OR A SAWED EDGE AS DIRECTED BY THE ENGINEER.

WHEN THE QUANTITY OF THE ITEMS OF BASE AGGREGATE OR SUBBASE ARE MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYERS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

RESHAPE AND SEED ANY PREVIOUSLY GRASSED AREAS THAT ARE DISTURBED BY OPERATIONS OUTSIDE THE NORMAL CONSTRUCTION LIMITS.

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

REMOVAL OF EXISTING LOOP DETECTOR WIRE AND CONDUIT IMBEDDED IN EXISTING CONCRETE PAVEMENT IS INCIDENTAL TO THE ITEM OF CONCRETE PAVEMENT REPLACEMENT DOWELED SPECIAL AND CONCRETE PAVEMENT REPAIR DOWELED SPECIAL.

REMOVAL OF ANY SURVEY MARKER REQUIRES APPROVAL OF THE ENGINEER.

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

EXISTING RIGHT-OF-WAY SHOWN ON PLAN SHEETS IS FROM RECORD DRAWINGS (HAS NOT BEEN SURVEYED) AND IS APPROXIMATE.

LOCATIONS OF PAVEMENT MARKINGS AND PERMANENT SIGNING IN THE FIELD ARE DETERMINED BY THE MUTCD & WISCONSIN SUPPLEMENT AND STANDARD DETAIL DRAWINGS. STATION AND OFFSETS PROVIDED IN THE MISCELLANEOUS QUANTITIES OR PLAN SHEETS ARE ONLY PROVIDED FOR APPROXIMATE LOCATING AND CONTRACT ADMINISTRATION.

MUNICIPAL CONTACTS

CITY OF EAU CLAIRE

DAVID SOLBERG
CITY ENGINEER
203 S FARWELL STREET
EAU CLAIRE WI

ENVIRONMENTAL CONTACTS

DEPT. OF NATURAL RESOURCES

WISCONSIN DNR WEST CENTRAL REGION
ENVIRONMENTAL IMPACT AND REVIEW SPECIALIST
1300 W CLAIREMONT AVE
PO BOX 4001
EAU CLAIRE WI 54702-4001
715-839-3700

24 HOUR SPILLS HOTLINE
800-943-0003

RAILROAD CONTACT

UNION PACIFIC RAILROAD
JOHN VENICE, MANAGER OF PUBLIC PROJECTS
101 NORTH WACKER DRIVE, SUITE 1920
CHICAGO IL, 60606
PHONE - 312-777-2043
E-MAIL - jvenice@up.com

RAILROAD CALL BEFORE YOU DIG
800-336-9193
REFERENCE ALTOONA WI MILE POST 8476

UTILITY CONTACTS

AT&T LEGACY
COPY ALL CORRESPONDENCE TO:
BILL KOENIG
PO BOX 244
LAKE MILLS WI 53551-0244
608-628-0575
jmc140@frontier.com

(COMMUNICATIONS LINE)
BRAD KEMPF
715-254-5238 (MOBILE)
bk9173@att.com

AT&T WISCONSIN
(COMMUNICATION LINE)
RICK PODOLAK
304 S DEWEY ST
EAU CLAIRE WI 54701
715-839-5565 (OFFICE)
715-410-0656 (MOBILE)
rp4514@att.com

CHARTER COMMUNICATIONS
(COMMUNICATIONS LINE)
SHANE YODER
1201 MCCANN DR
ALTOONA WI 54720
715-831-8940, X51113 (OFFICE)
shane.yoder@charter.com

CHIPPEWA VALLEY REGIONAL AIRPORT
(AIRPORT FACILITY)
CHARITY SPEICH
3800 STARR AVE
EAU CLAIRE WI 54703
715-839-4900

CITY OF EAU CLAIRE UTILITIES
(SEWER)
LANE BERG
1040 FOREST ST
EAU CLAIRE WI 54703
715-839-1876 (OFFICE)
715-828-6801 (MOBILE)
lane.bergeauclairewi.gov

CITY OF EAU CLAIRE UTILITIES
(WATER)
LANE BERG
1040 FOREST ST
EAU CLAIRE WI 54703
715-839-1876 (OFFICE)
715-828-6801 (MOBILE)
lane.berg@eauclairewi.gov

DAIRYLAND POWER COOPERATIVE
(ELECTRICTY - TRANSMISSION)
KURT CHILDS
3200 EAST AVE S
PO BOX 817
LA CROSSE WI 54602-0817
608-788-4000 (OFFICE)
kdc@dairynet.com

EAU CLAIRE ENERGY COOPERATIVE
(ELECTRICTY-DISTRIBUTION)
DONALD DRAEGER
8214 US HWY 12
PO BOX 368
FALL CREEK WI 54742-0368
715-836-6479 (OFFICE)
715-210-4983 (MOBILE)
ddraeger@ecec.com

LEVEL 3 COMMUNICATIONS LLC
(COMMUNICATION LINE)
BRAD MORSETH
5480 FELTL ROAD
MINNETONKA MN 55343
612-805-9479 (OFFICE)
brad.morseth@level3.com

CENTURYLINK COMMUNICATIONS
(COMMUNICATION LINE)
ROBERT SAMPSON
1310 E MARY ST
OTTUMWA IA 52501
636-887-5367
robert.sampson@centurylink.com

VIKING GAS TRANSMISSION COMPANY
(GAS/PETROLEUM)
ANTHONY RICCI
13506 CTH OO
CHIPPEWA FALLS WI 54729
715-726-2282
anthony.ricci@oneok.com

WEST WISCONSIN TELCOM COOPERATIVE
(COMMUNICATION LINE)
GARY WAYNE
E4528 CTH C
DOWNSVILLE WI 54735
715-664-8311 (OFFICE)
715-308-1915 (MOBILE)
garyw@wwt.net

XCEL ENERGY
fka NORTHERN STATES POWER
COPY ALL CORRESPONDENCE TO:
DAWN SCHULTZ
1414 W HAMILTON AVE
PO BOX 8
EAU CLAIRE WI 54702-0008
715-737-2482 (OFFICE)
dawn.schultz@xcelenergy.com

(ELECTRICITY - DISTRIBUTION)
DAN J KLEIN
1400 WESTERN AVENUE
PO BOX 0008
EAU CLAIRE WI 54702-0008
OFFICE 715-737-4203
MOBILE 715-577-7729

(GAS/PETROLEUM)
SCOTT SEAHOLM
PO BOX 8
1400 WESTERN AVE.
EAU CLAIRE WI 54702
715-737-2584 (OFFICE)
scott.j.seaholm@xcelenergy.com

(ELECTRICITY - TRANSMISSION)
CHARLES G DIENGER
8701 MONTICELLO LANE
MAPLE GROVE MN 55369
651-955-1089 (OFFICE)
715-737-1579 (MOBILE)
charles.g.dienger@xcelenergy.com

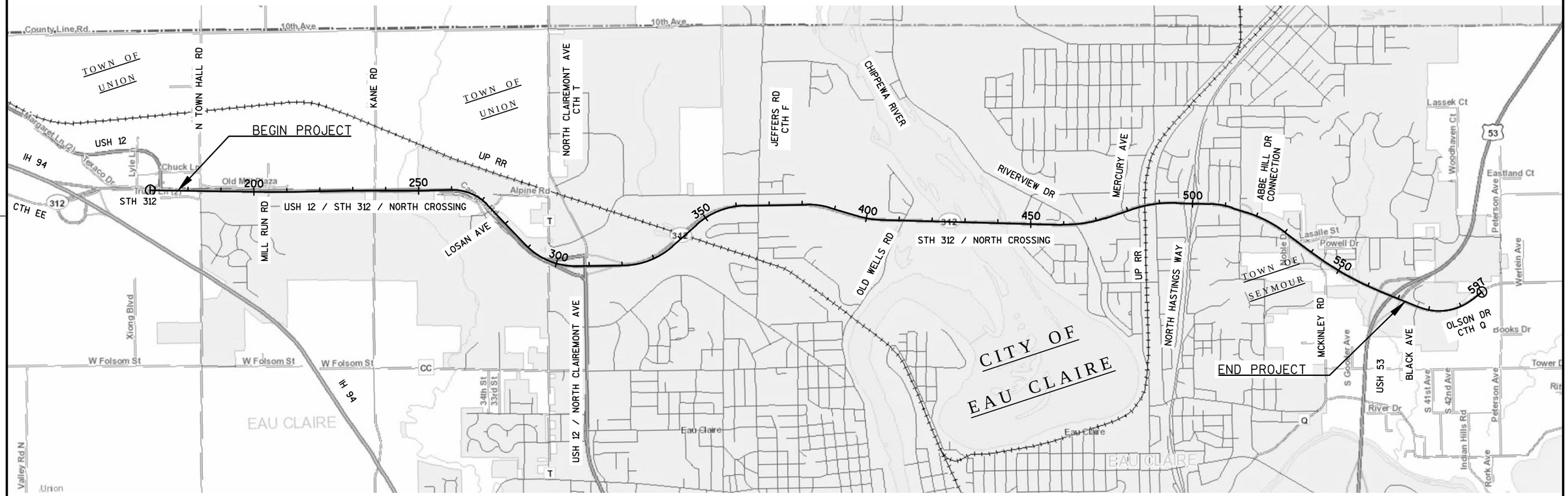
MOSAIC TELECOM
(CHIBARDUN TELEPHONE COOPERATIVE)
DENNIS RUSSETT
401 S 1ST STREET
PO BOX 664
CAMERON WI 54822-0664
715-458-5378 (OFFICE)
715-458-5518 (MOBILE)

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

LIST OF STANDARD ABBREVIATIONS

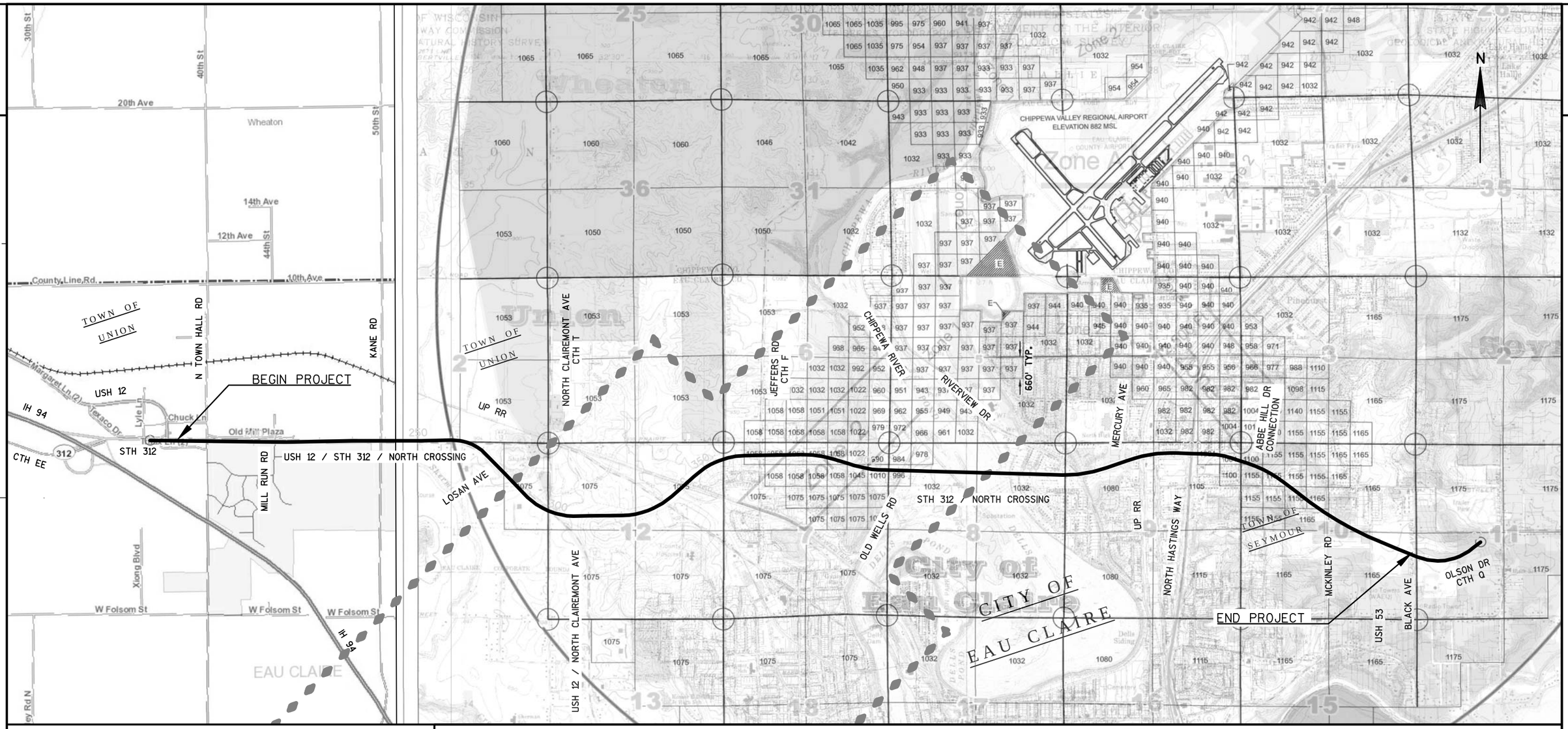
ABUT	ABUTMENT
AC	ACRE
AGG	AGGREGATE
AH	AHEAD
ASPH	ASPHALTIC
AADT	ANNUAL AVERAGE DAILY TRAFFIC
BK.	BACK
BM	BENCH MARK
BR	BRANCH
CONC	CONCRETE
CACP	CORRUGATED ALUMINUM CULVERT PIPE
CSCP	CORRUGATED STEEL CULVERT PIPE
CTH	COUNTY TRUNK HIGHWAY
CR	CREEK
CR	CRUSHED
CY or CUYD	CUBIC YARD
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DD	DIRECTIONAL DISTRIBUTION
DL	DITCH LINE / TOE OF SLOPE
EB	EASTBOUND
EL or ELEV	ELEVATION
EMB	EMBANKMENT
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
EXP	EXPANSION
FE	FIELD ENTRANCE
HES	HIGH EARLY STRENGTH
CWT	HUNDRED WEIGHT
LT	LEFT
LHF	LEFT HAND FORWARD
LF	LINEAR FOOT
LS	LUMP SUM
MH	MANHOLE
NC	NORMAL CROWN
PAVT	PAVEMENT
PLE	PERMANENT LIMITED EASEMENT
PT	POINT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
POC	POINT ON CURVE
POT	POINT ON TANGENT
PE	PRIVATE ENTRANCE
PL	PROPERTY LINE
R	RADIUS
RP	RADIUS POINT
R	RANGE
REBAR	REINFORCEMENT BAR
REQD	REQUIRED
RT	RIGHT
RHF	RIGHT-HAND-FORWARD
R/W	RIGHT-OF-WAY
R	RIVER
RD	ROAD
SALV	SALVAGED
SEC	SECTION
SF	SQUARE FEET
SI	SLOPE INTERCEPT
SY	SQUARE YARD
SS	SLOPED SECTION
STH	STATE TRUNK HIGHWAY
STA	STATION
SE	SUPERELEVATION
T	TANGENT
TEL	TELEPHONE
TEMP	TEMPORARY
TC	TOP OF CURB
T or TN	TOWN
T	TRUCKS (PERCENT OF)
TYP	TYPICAL
UG	UNDERGROUND
USH	UNITED STATES HIGHWAY
VAR	VARIABLE
V	VELOCITY or DESIGN SPEED
VERT	VERTICAL
VC	VERTICAL CURVE
VPC	VERTICAL POINT OF CURVE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
VAR	VARIABLE
WB	WESTBOUND

2



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : N:\PDS\C3D\70280030\SHEETSPLAN\020201_PO.DWG PLOT DATE : 4/23/2015 1:16 PM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:3000 FT



THIS MAP IS A COMBINATION OF WISDOT GIS DATA; CHIPPEWA VALLEY REGIONAL AIRPORT HEIGHT LIMITATION ZONING ORDINANCE MAP; AIRPORT ZONING DISTRICT MAP; AND FAA APPROACH BOUNDARY MAP GENERATED FROM OE/AAA WEBSITE.

NOTE THE HLZO MAP USGS BACKGROUND IS NOT CURRENT (APPEARS TO BE PRE-1994).

THE ADDITIONAL APPROACH PATH BOUNDARY IS SHOWN TO AID IN VERIFYING THAT THE LOCATION OF POINTS WERE ENTERED CORRECTLY INTO THE OE/AAA WEBSITE.

ALL THE MAPS WERE BEST FIT TO THE PROJECT ALIGNMENT & GIS-BASED SECTION CORNERS AND ARE +-200 FEET OF ACTUAL HORIZONTAL LOCATION.

Airport Legend

- 3 Mile Limit Line
- Section Line
- Airport Property Line
- Airport Runway
- Future Airport Runway

Map Notes:
The zone boundaries are section and subdivision lines, except where street centerlines are used for boundaries.
Height limitations shown represent elevations permissible above mean sea level in feet.
This zoning map was developed in accordance with Wisconsin State Statutes Chapter 114.136.

0 1,250 2,500 5,000 7,500 10,000 Feet

N

Official Chippewa Valley Regional Airport Height Limitation Zoning Ordinance Map

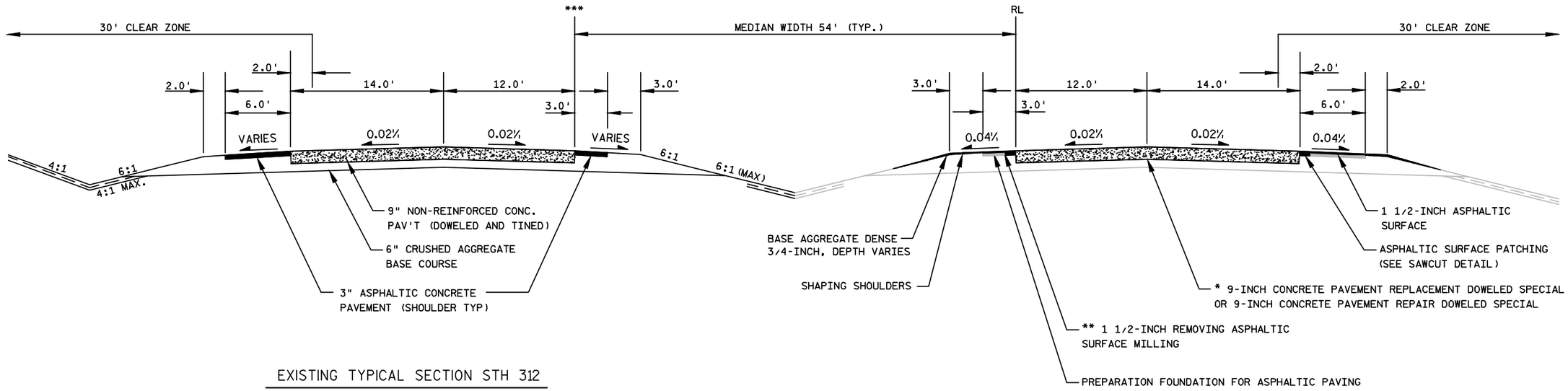
Adopted by the Eau Claire County Board of Supervisors

On the Seventeenth day of July, 2007

Signed by: Janet K Loomis

Janet Loomis County Clerk

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CHIPPEWA VALLEY REGIONAL AIRPORT HLZO MAP	SHEET 4	E

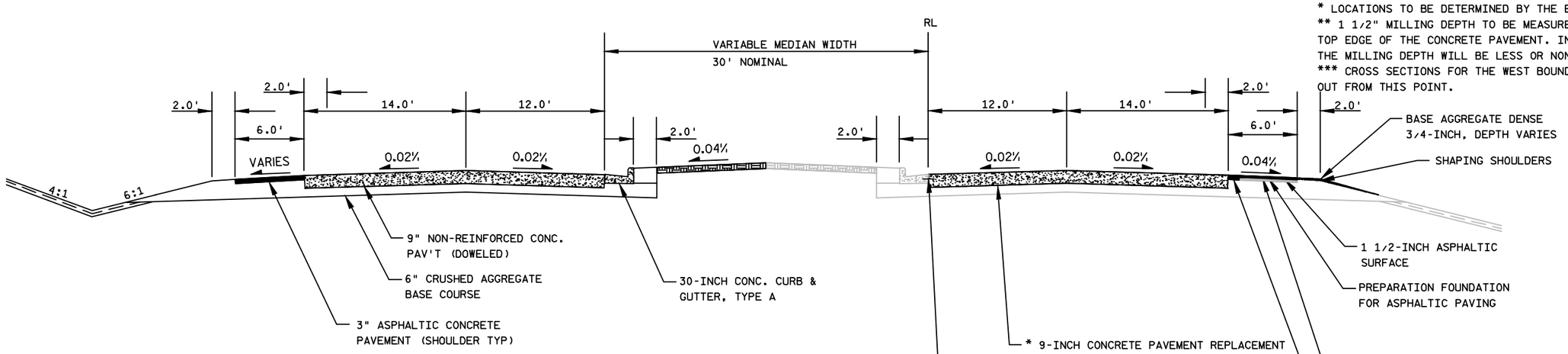


EXISTING TYPICAL SECTION STH 312

STA 177+50 TO STA 340+99
STA 342+70 TO STA 402+00

FINISHED TYPICAL SECTION STH 312

STA 177+50 TO STA 340+99
STA 342+70 TO STA 402+00



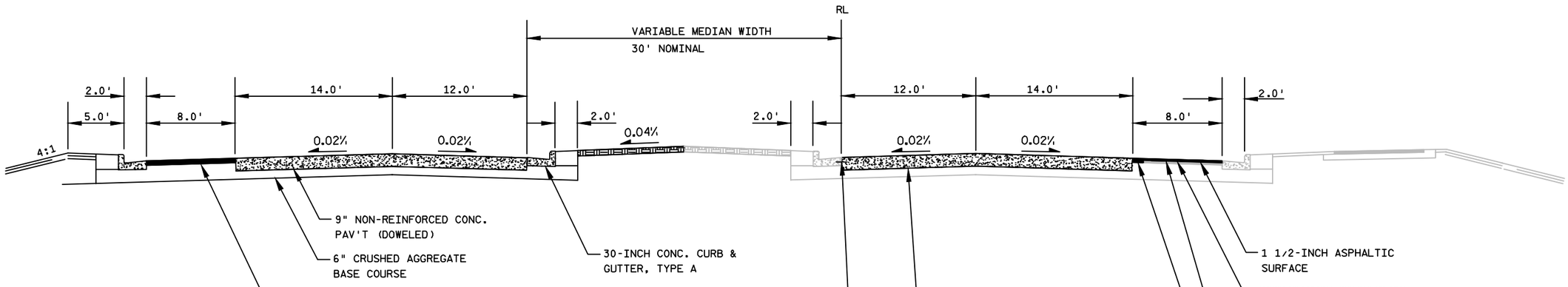
EXISTING TYPICAL SECTION STH 312

STA 402+00 TO STA 410+50

FINISHED TYPICAL SECTION STH 312

STA 402+00 TO STA 410+50

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	EXISTING/FINISHED TYPICAL SECTIONS	SHEET 5	E



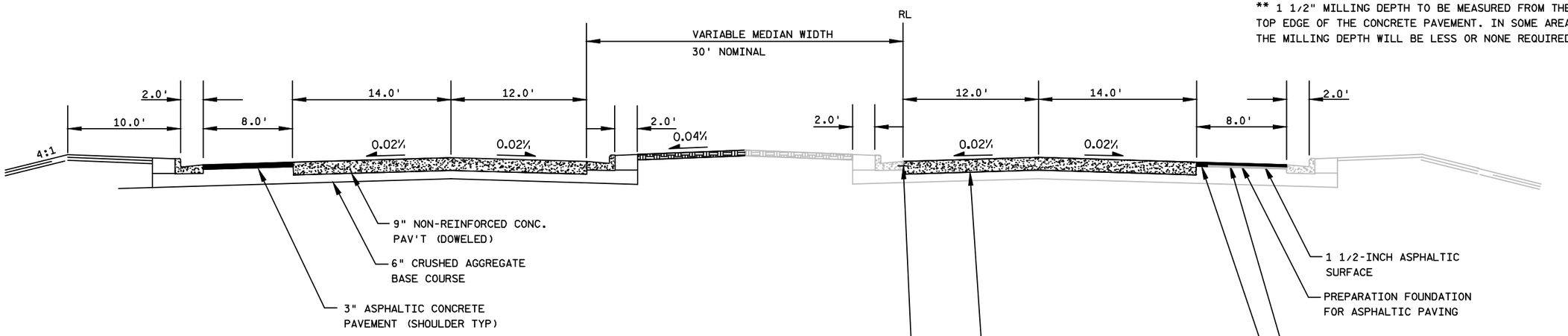
EXISTING TYPICAL SECTION STH 312

STA 410+50 TO STA 426+16

FINISHED TYPICAL SECTION STH 312

STA 410+50 TO STA 426+16

* LOCATIONS TO BE DETERMINED BY THE ENGINEER
** 1 1/2" MILLING DEPTH TO BE MEASURED FROM THE TOP EDGE OF THE CONCRETE PAVEMENT. IN SOME AREAS THE MILLING DEPTH WILL BE LESS OR NONE REQUIRED.



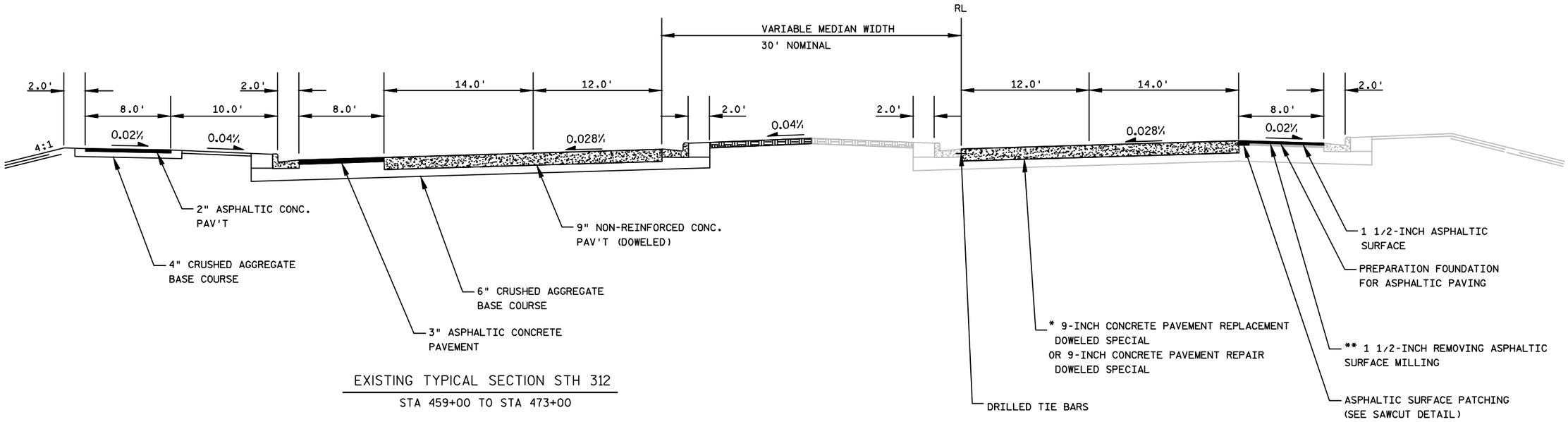
EXISTING TYPICAL SECTION STH 312

STA 441+03.5 TO STA 459+00
STA 473+00 TO STA 481+00

FINISHED TYPICAL SECTION STH 312

STA 441+03.5 TO STA 459+00
STA 473+00 TO STA 481+00

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	EXISTING/FINISHED TYPICAL SECTIONS	SHEET 6	E

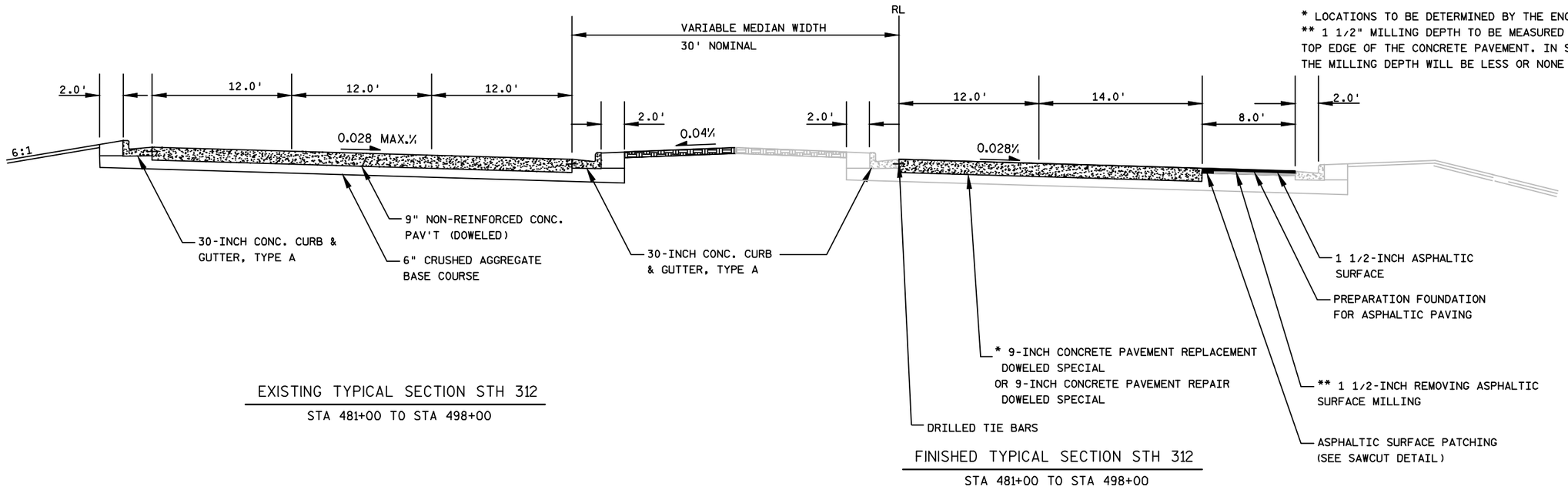


EXISTING TYPICAL SECTION STH 312

STA 459+00 TO STA 473+00

FINISHED TYPICAL SECTION STH 312

STA 459+00 TO STA 473+00



EXISTING TYPICAL SECTION STH 312

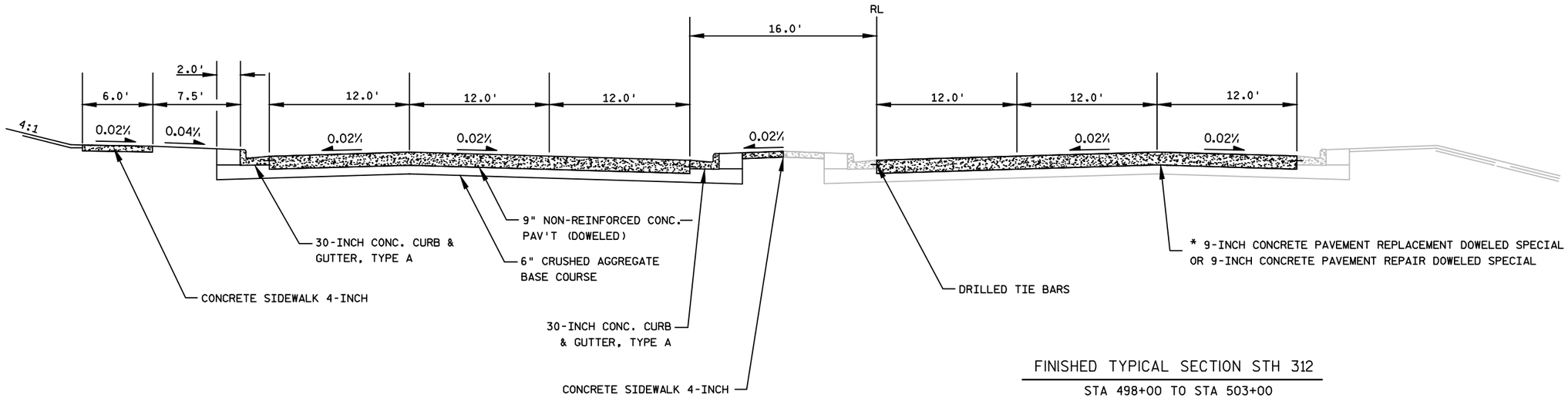
STA 481+00 TO STA 498+00

FINISHED TYPICAL SECTION STH 312

STA 481+00 TO STA 498+00

* LOCATIONS TO BE DETERMINED BY THE ENGINEER
** 1 1/2" MILLING DEPTH TO BE MEASURED FROM THE TOP EDGE OF THE CONCRETE PAVEMENT. IN SOME AREAS THE MILLING DEPTH WILL BE LESS OR NONE REQUIRED.

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	EXISTING/FINISHED TYPICAL SECTIONS	SHEET 7	E

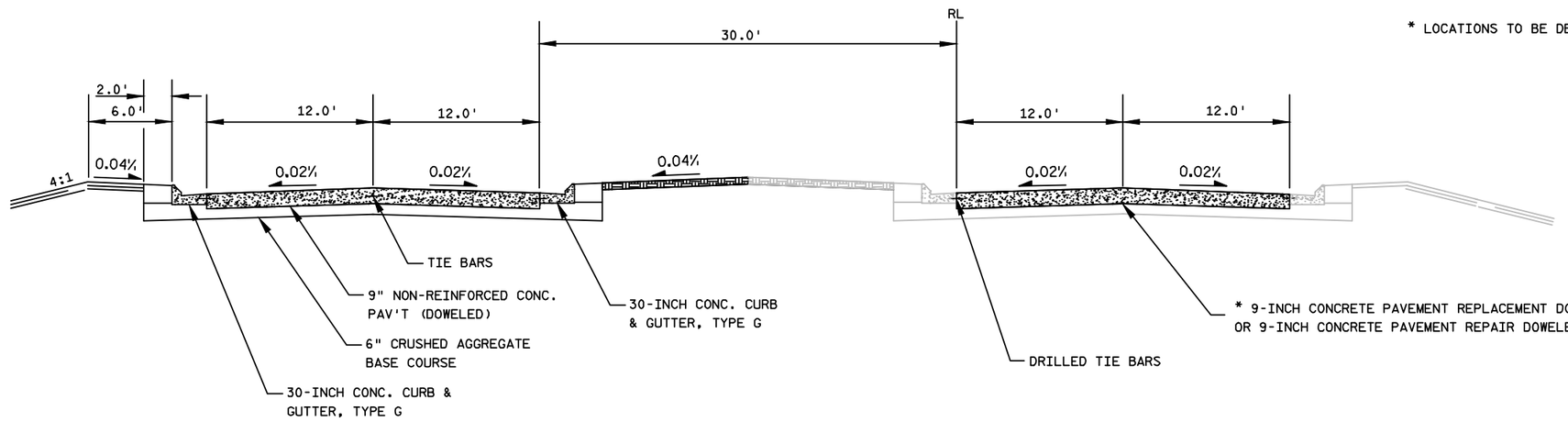


EXISTING TYPICAL SECTION STH 312

STA 498+00 TO STA 503+00

FINISHED TYPICAL SECTION STH 312

STA 498+00 TO STA 503+00



* LOCATIONS TO BE DETERMINED BY THE ENGINEER

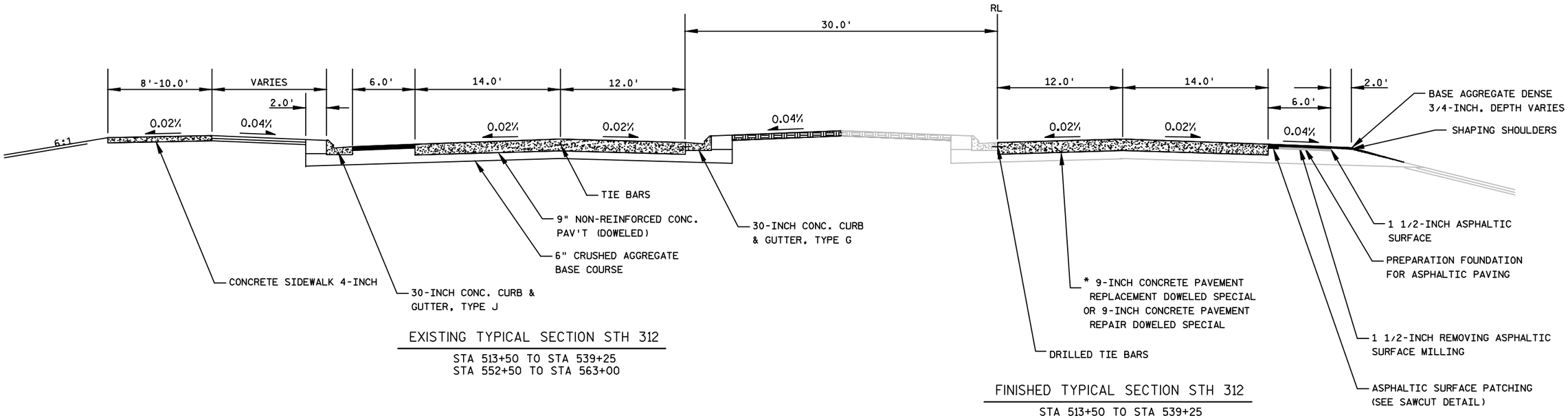
EXISTING TYPICAL SECTION STH 312

STA 503+00 TO STA 513+50

FINISHED TYPICAL SECTION STH 312

STA 503+00 TO STA 513+50

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	EXISTING/FINISHED TYPICAL SECTIONS	SHEET 8	E



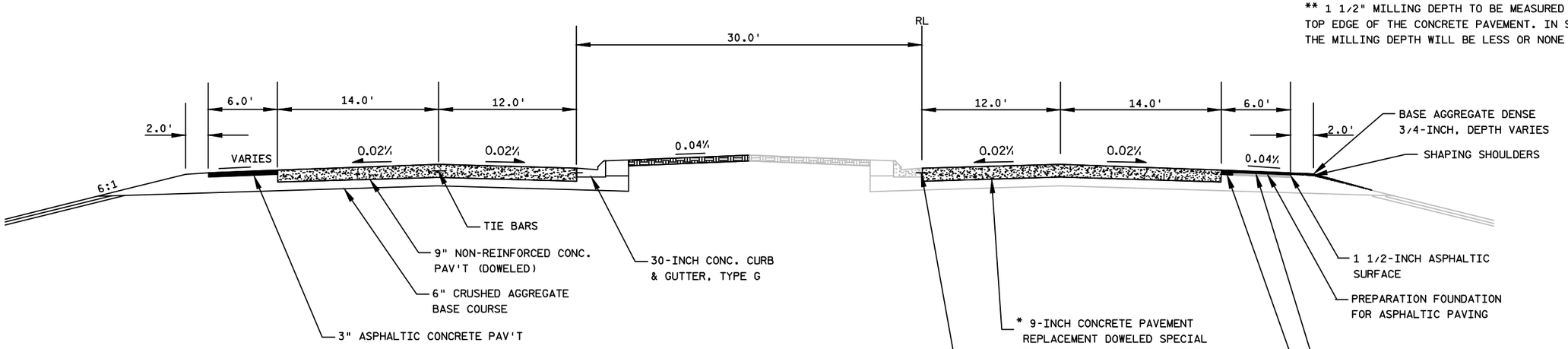
EXISTING TYPICAL SECTION STH 312

STA 513+50 TO STA 539+25
STA 552+50 TO STA 563+00

FINISHED TYPICAL SECTION STH 312

STA 513+50 TO STA 539+25
STA 552+50 TO STA 563+00

* LOCATIONS TO BE DETERMINED BY THE ENGINEER
** 1 1⁄2" MILLING DEPTH TO BE MEASURED FROM THE TOP EDGE OF THE CONCRETE PAVEMENT. IN SOME AREAS THE MILLING DEPTH WILL BE LESS OR NONE REQUIRED.



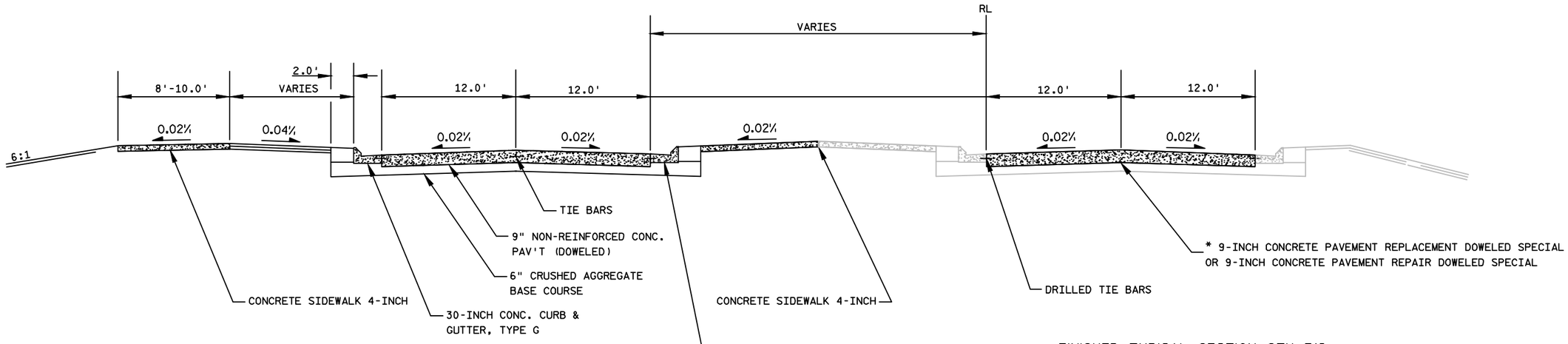
EXISTING TYPICAL SECTION STH 312

STA 546+00 TO STA 552+50

FINISHED TYPICAL SECTION STH 312

STA 546+00 TO STA 552+50

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	EXISTING/FINISHED TYPICAL SECTIONS	SHEET 9	E

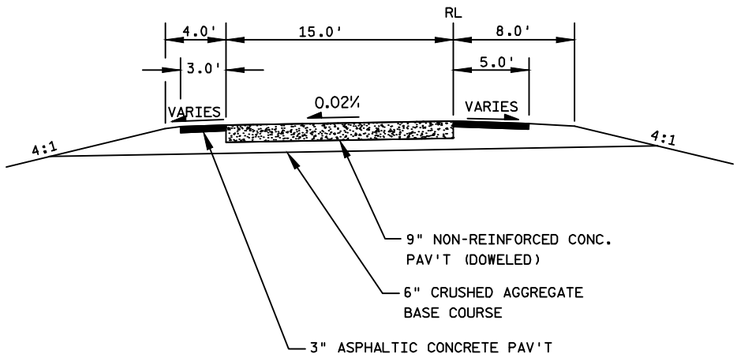


EXISTING TYPICAL SECTION STH 312

STA 563+00 TO STA 566+75
STA 569+25 TO STA 572+60

FINISHED TYPICAL SECTION STH 312

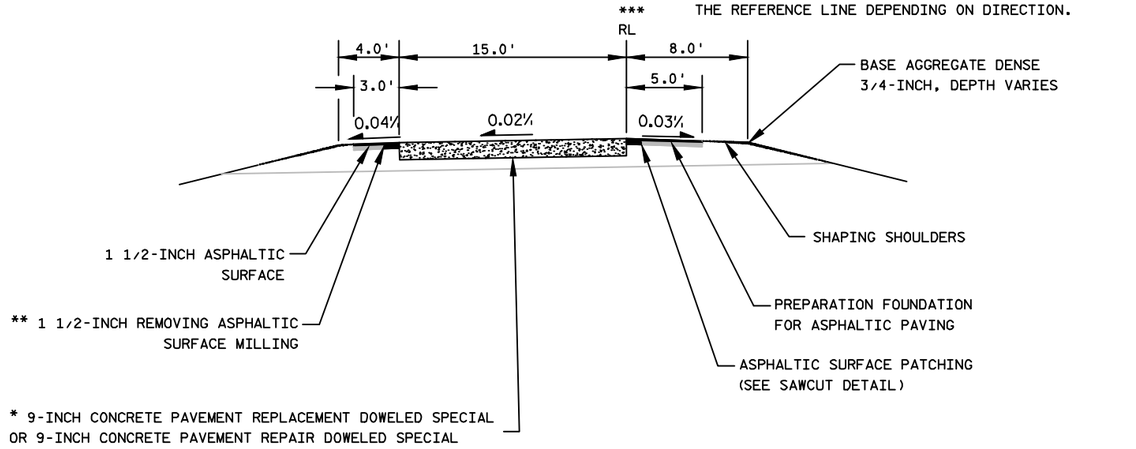
STA 563+00 TO STA 566+75
STA 569+25 TO STA 572+60



EXISTING TYPICAL SECTION

RAMPS, USH 12 & STH 312 INTERCHANGE

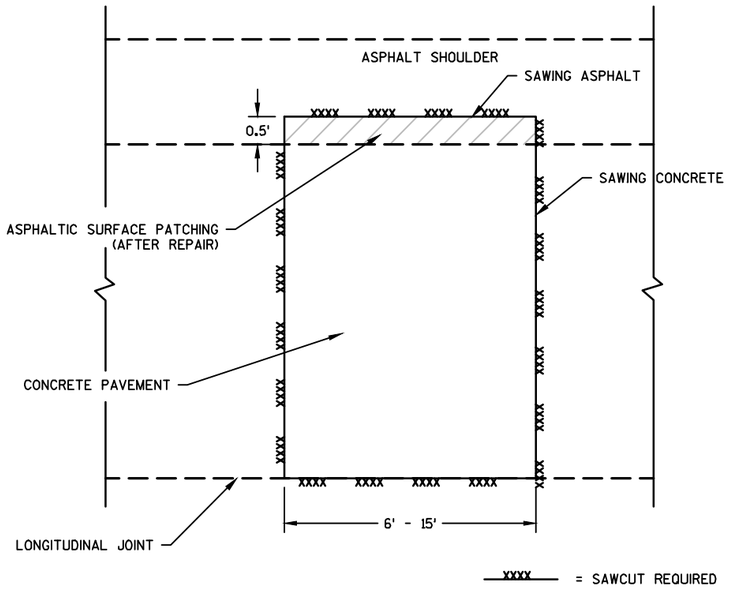
* LOCATIONS TO BE DETERMINED BY THE ENGINEER
** 1 1/2" MILLING DEPTH TO BE MEASURED FROM THE TOP EDGE OF THE CONCRETE PAVEMENT. IN SOME AREAS THE MILLING DEPTH WILL BE LESS OR NONE REQUIRED.
*** RAMP TYPICAL SECTIONS MAY BE MIRRORED ABOUT THE REFERENCE LINE DEPENDING ON DIRECTION.



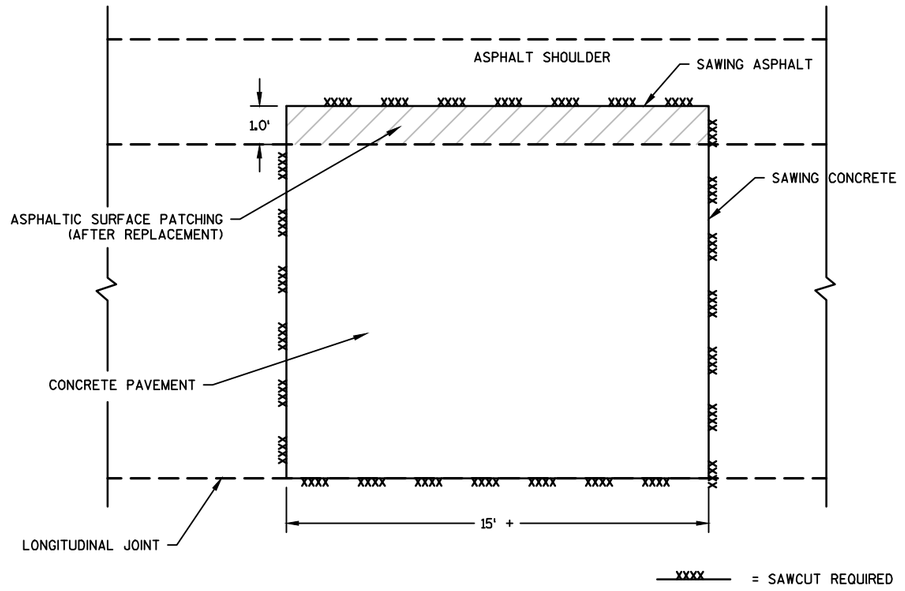
FINISHED TYPICAL SECTION

RAMPS, USH 12 & STH 312 INTERCHANGE

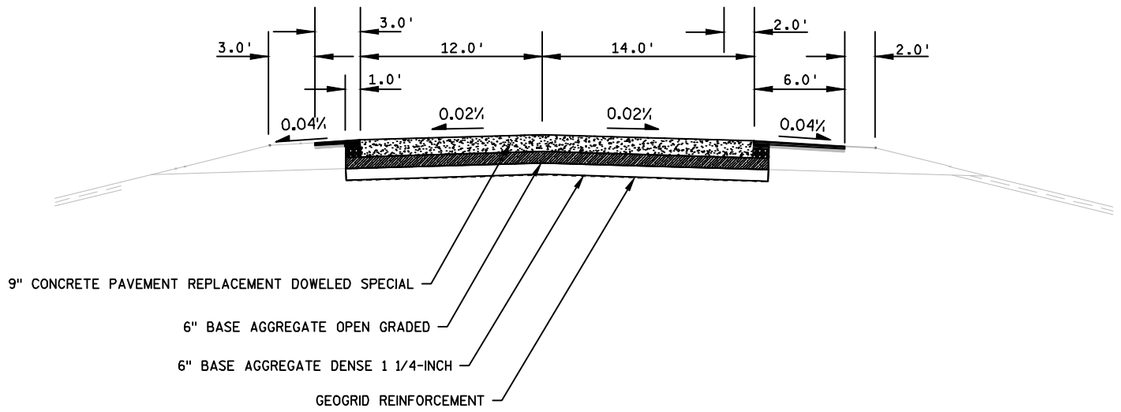
PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	EXISTING/FINISHED TYPICAL SECTIONS	SHEET 10	E



CONCRETE PAVEMENT REPAIR SAWCUT DETAIL



CONCRETE PAVEMENT REPLACEMENT SAWCUT DETAIL



FINISHED TYPICAL SECTION

DIP AND HEAVE CORRECTION

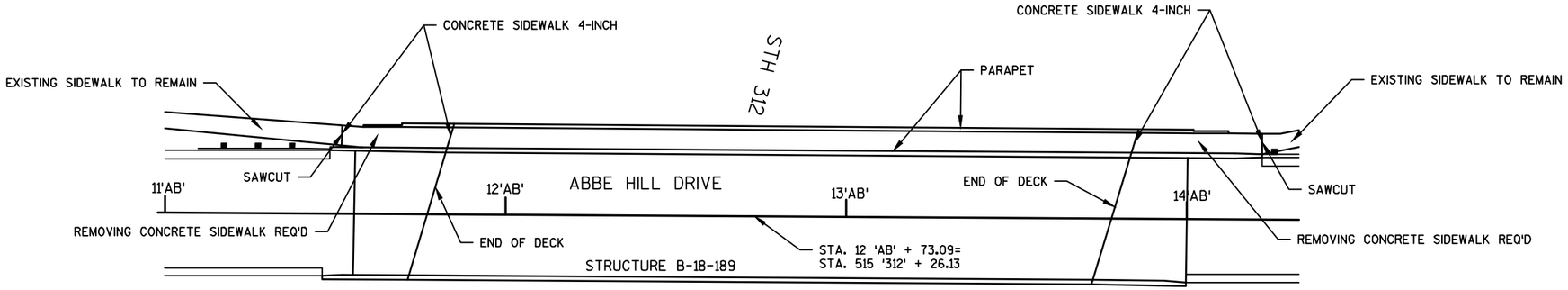
NOTES:

DIP AND HEAVE CORRECTION AREAS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

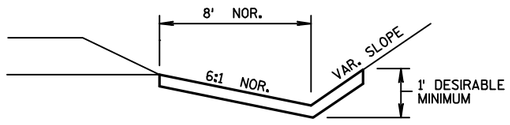
GEOGRID AND BASE AGGREGATE MUST BE PLACED THE SAME DAY THE CONCRETE PAVEMENT IS REMOVED.

FINISHED PROFILE TO BE DETERMINED BY THE ENGINEER.

THE 12" OF MATERIAL TO BE REMOVED UNDER THE EXISTING CONCRETE PAVEMENT TO BE PAID AS COMMON EXCAVATION.

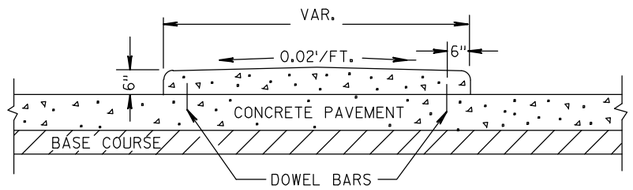


ABBE HILL DRIVE
SIDEWALK REPAIR DETAIL

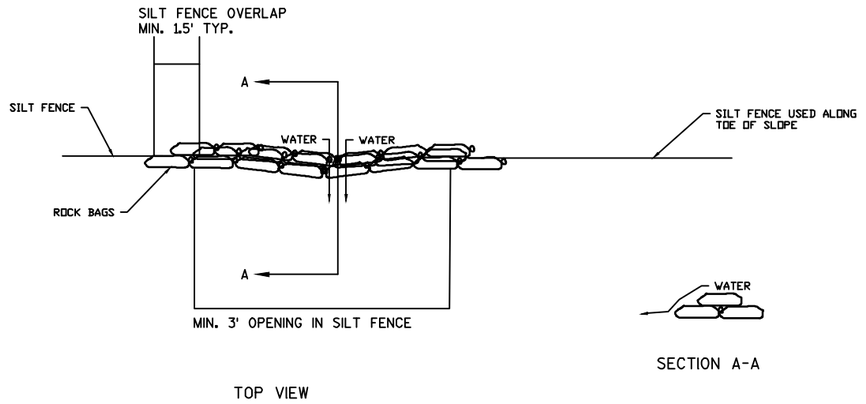


EROSION MAT DETAIL FOR DITCHES

NOTE: ISLAND DOWELLED TO CONCRETE PAVEMENT WITH NO. 5 X 10" EPOXY COATED REINF. BARS 6" INTO PAVEMENT & 4' C-C

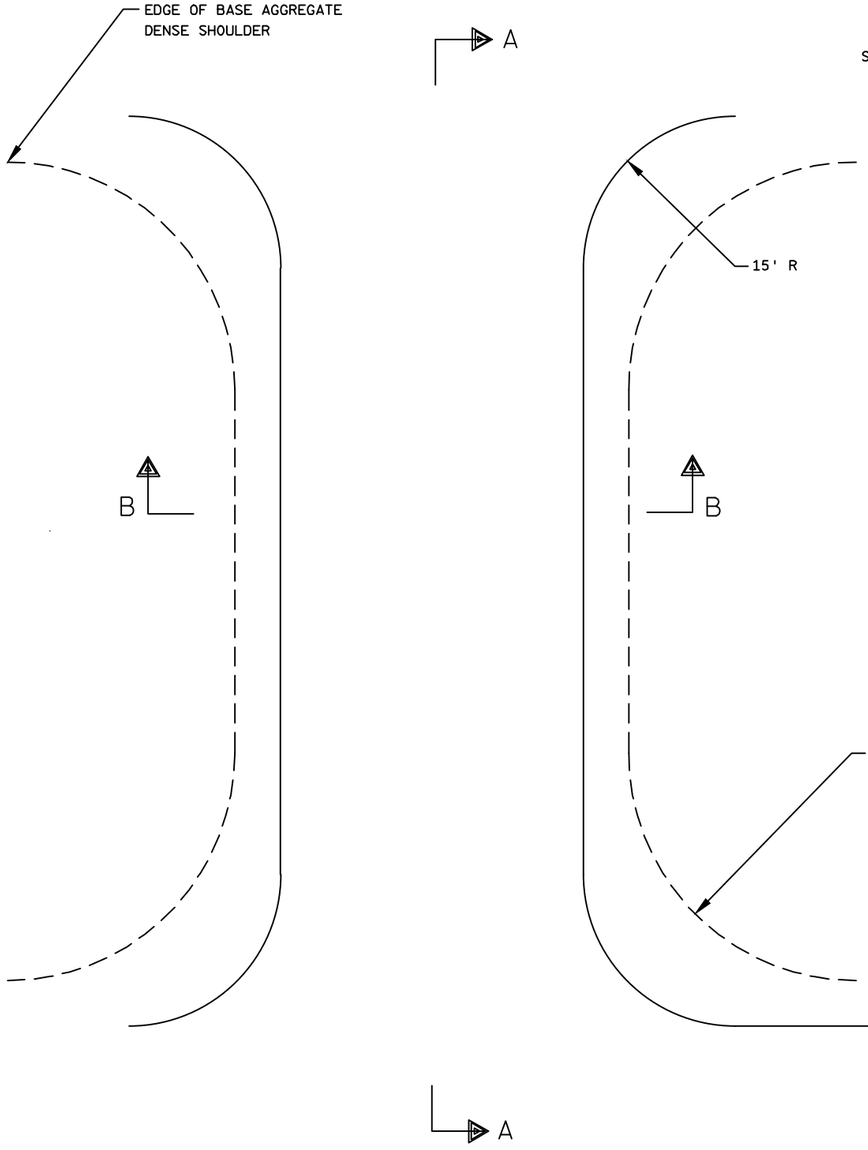


CONCRETE LOADING ZONE



SILT FENCE RELIEF DETAIL
PAID FOR AS ROCK BAGS

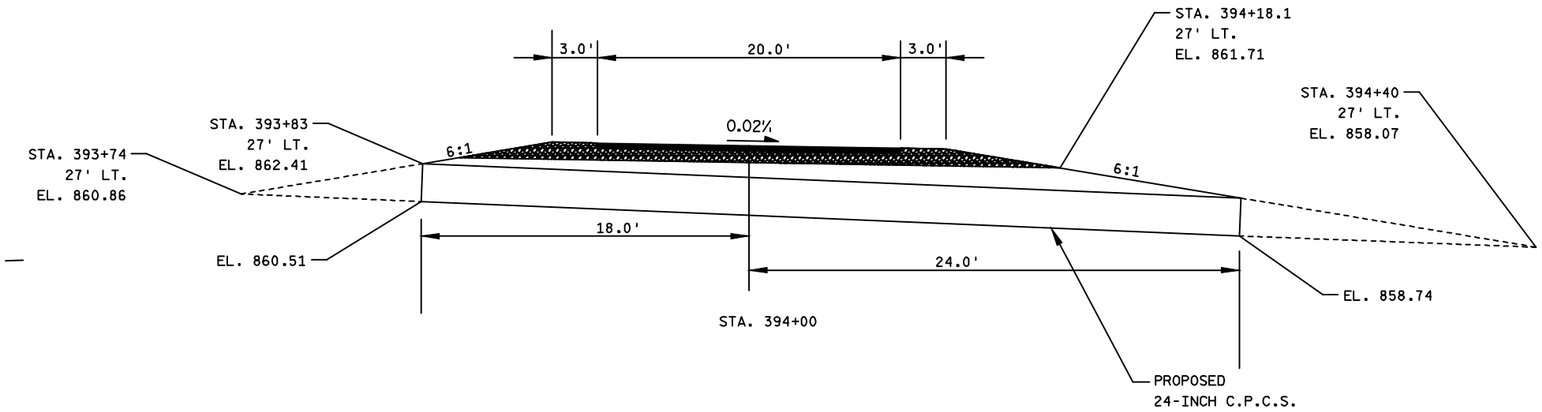
2



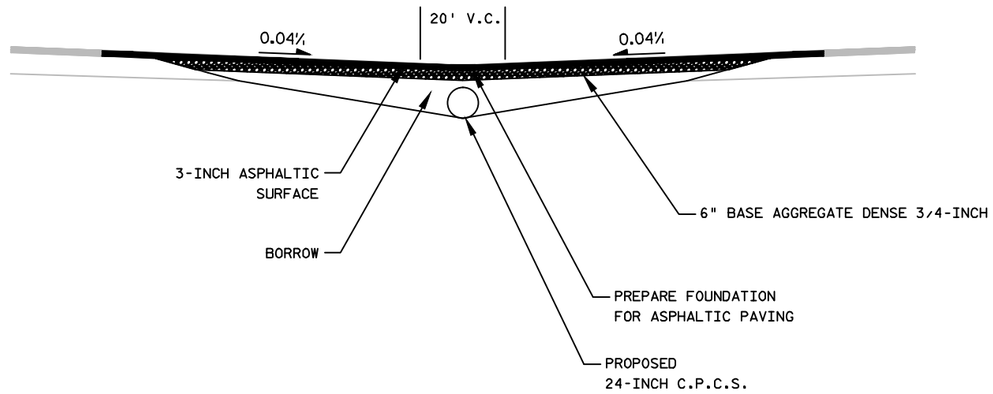
MAINTENANCE CROSSOVER

STA 394+00

SECTION B-B

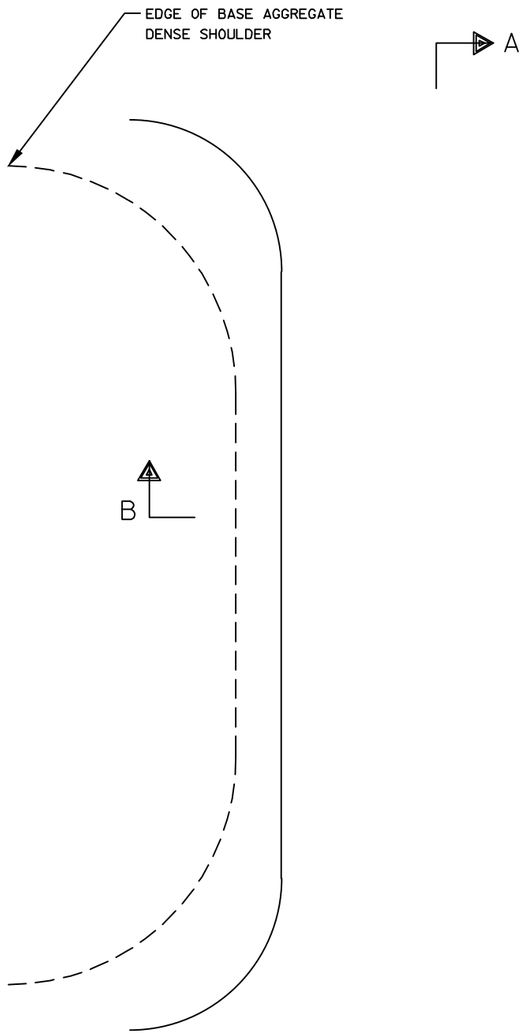


SECTION A-A



PROJECT NO:7028-00-60	HWY:STH 312	COUNTY:EAU CLAIRE	CONSTRUCTION DETAILS	SHEET 13	E

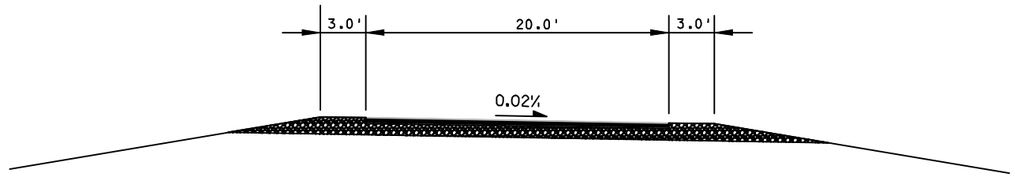
2



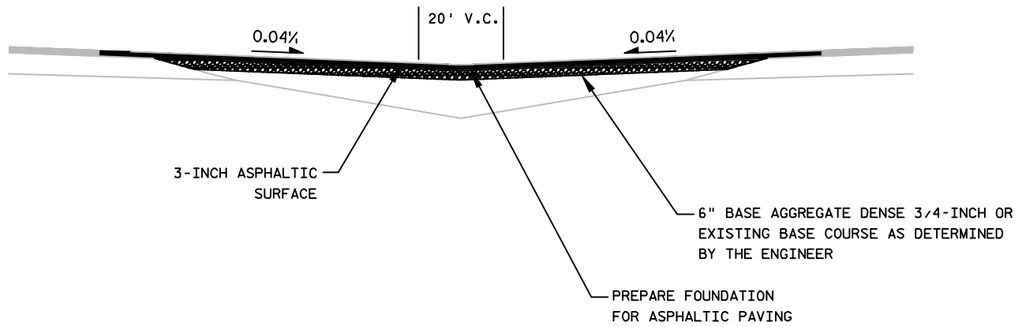
MAINTENANCE CROSSOVER

STA 287+35
STA 334+20
STA 350+00

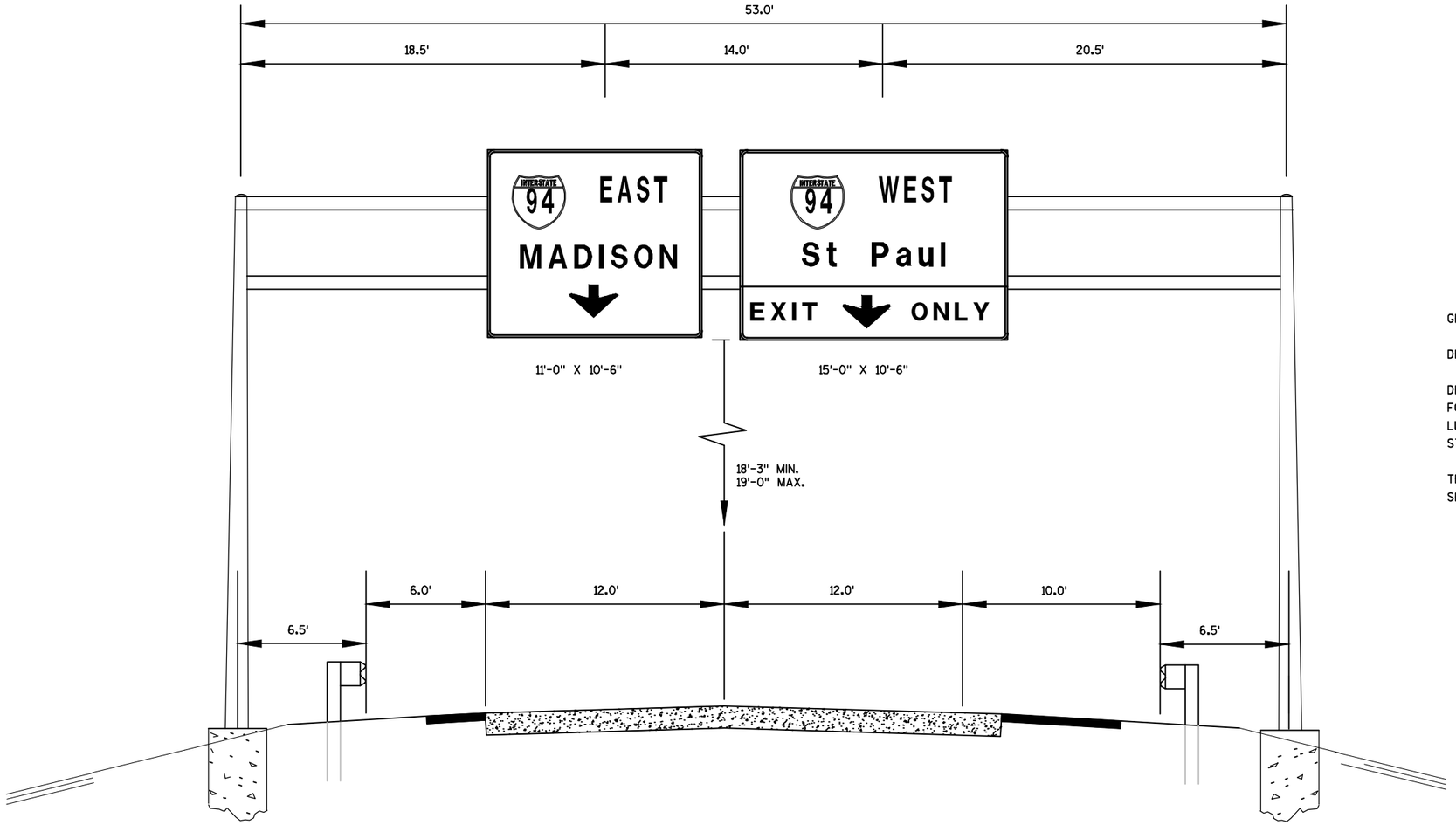
SECTION B-B



SECTION A-A



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CONSTRUCTION DETAILS	SHEET 14	E



GENERAL NOTES:

DRAWINGS NOT TO SCALE.

DESIGN ACCORDING TO AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SIGN SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS", AND "STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE DESIGN".

THE SIGN STRUCTURES SHALL BE DESIGNED TO SUPPORT THE SIGNS SHOWN.

NOTE:

FOOTING SHALL BE PER STANDARD DETAIL DRAWING, 36" DIAMETER FULL SPAN OVERHEAD SIGN SUPPORT BASE.

OVERHEAD SIGN SUPPORT DETAIL

STRUCTURE S-18-111
STA 170+44.5
WB STH 312
LOOKING WEST

EXISTING 12" X 24" PULL BOX

EXISTING 24" X 36" PULL BOX

CONCRETE CURB & GUTTER 30-INCH TYPE A

22.83' LT 867.44

21 M +58 866.71

23.09' LT 867.24

21 M +50 866.64

13.46' RT 866.19

13.64' RT 866.03

STA. 21+63.88 286.91' RT. R = 273.4'

STA. 21+50.40 75.91' RT. R = 70.8'

STA. 21+46.90 76.86' RT. R = 68.1'

STA. 21+41.11 88.83' RT. R = 75.2'

STA. 21 M +03.60 OFFSET -3.5', R = 1.5'

23.89' LT 866.66

21 M +25 866.33

14.90' RT 865.74

CONCRETE PAVEMENT REPLACEMENT DOWELED SPECIAL

STA. 21+15.98 88.25' LT. 64.1' R

STA. 21+04.50 75.58' LT. 45.3' R

26.58' LT 866.21

7' LT 866.18

21 M +00 866.07

22.25' RT 865.41

21+00M

17'

2'

ADJUSTING INLET COVERS REQ'D

25' RT 865.36

CONCRETE CURB & GUTTER 30-INCH TYPE A

44.73' LT 865.85

PC: 20+82.15M

20 M +75 865.80

20 M +63.64 76.69' LT 866.53

20 M +65.83 76.57' RT 864.83

20.90' LT 866.16

47.13' RT 864.96

EXISTING STORM SEWER

ADJUSTING INLET COVERS REQ'D

CONCRETE LOADING ZONE

8.6'

10.5'

50' LT 866.40

20 M +55 865.82

76.69' LT 866.65

SIGN BLOCK-OUT REQ'D SEE DETAIL

25' LT 866.12

25' RT 865.52

50' RT 865.22

76.57' RT 864.92

STA. 20 M +63.60 OFFSET -24.5', R = 2.5'

20 M +63.60 OFFSET -4.5', R = 2.5'

SAWCUT

EXITING UNDERGROUND WATER

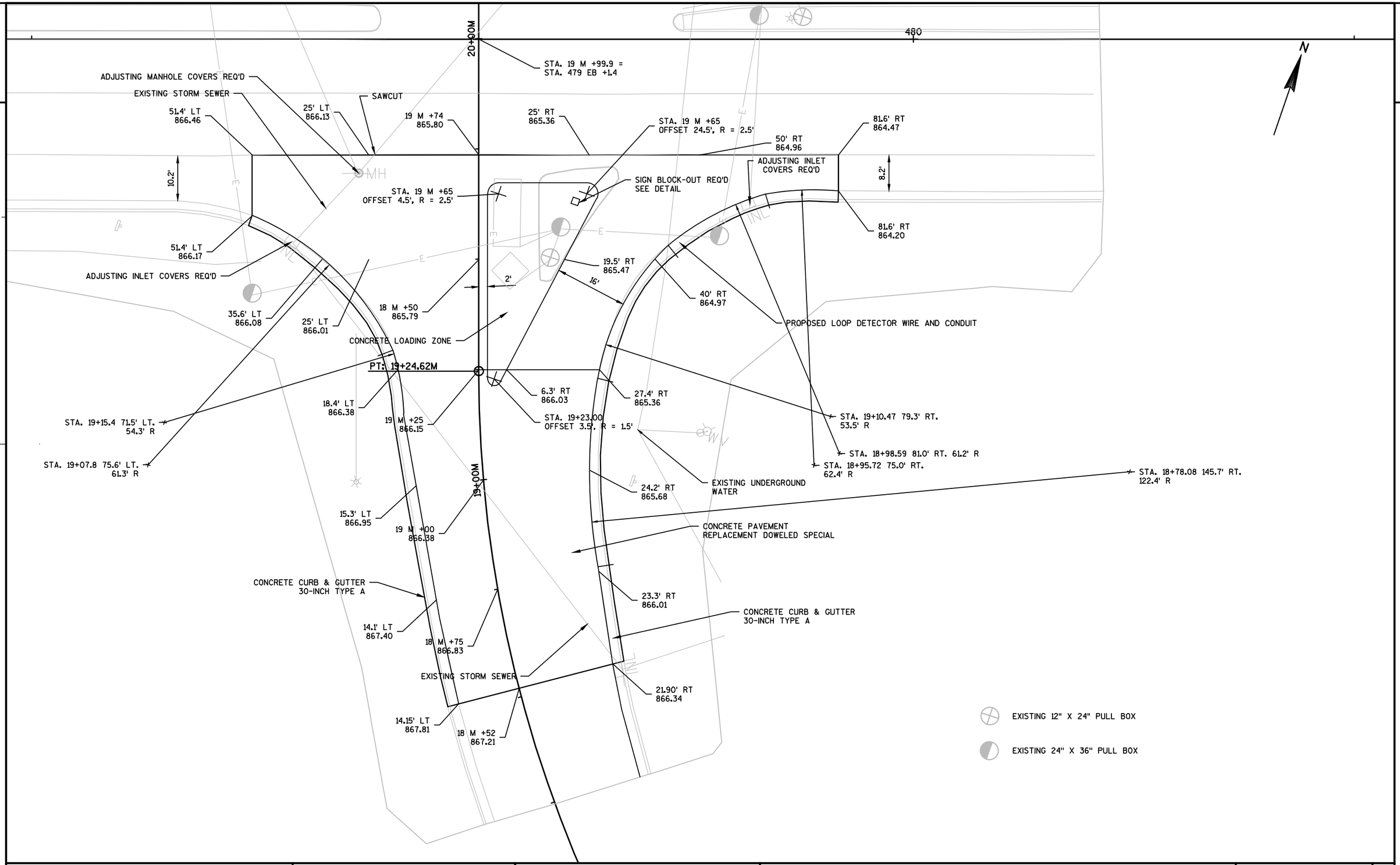
STA. 19 M +99.9 = STA. 479 EB +01.4

20+00M

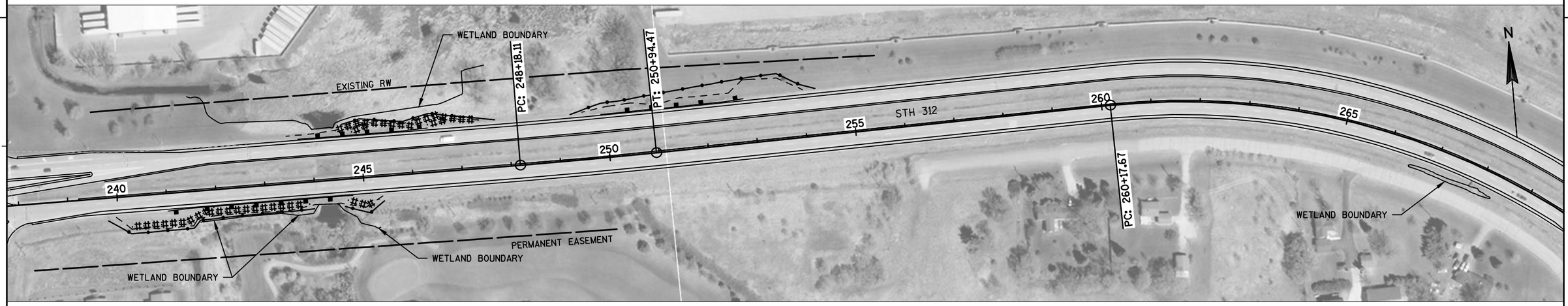
480

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	MERCURY INTERSECTION DETAIL	SHEET 16	E

FILE NAME : N:\PDS\C3D\70280030\SHEETSPLAN\MERCURY INT.DWG PLOT DATE : 4/29/2015 7:25 AM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	MERCURY INTERSECTION DETAIL	SHEET 17	E



LEGEND

EROSION MAT CLASS I TYOE B

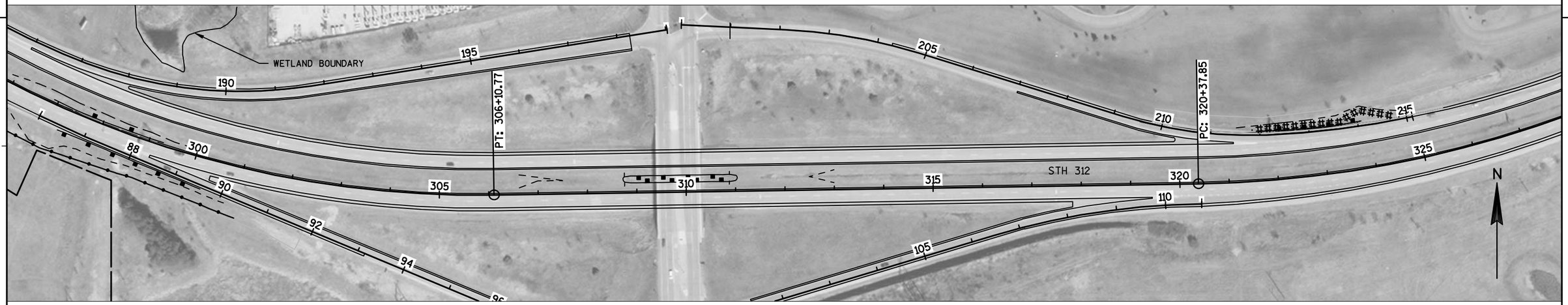
SILT FENCE

SLOPE INTERCEPT



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	EROSION CONTROL	SHEET 18	E

FILE NAME : N:\PDS\C3D\70280030\SHEETSPLAN\EROSION.DWG PLOT DATE : 7/22/2015 4:03 PM PLOT BY : KRUG, GARY W PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 42

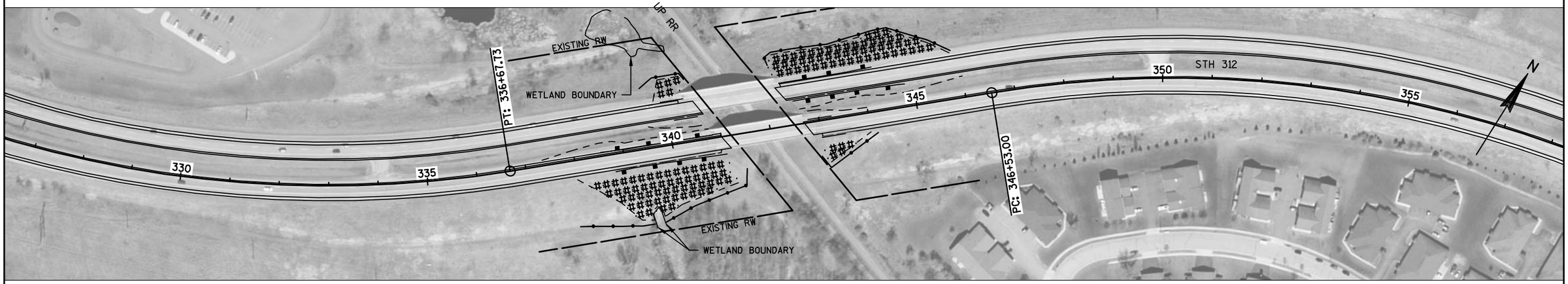


LEGEND

EROSION MAT CLASS I TYOE B

SILT FENCE

SLOPE INTERCEPT



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	EROSION CONTROL	SHEET 19	E

FILE NAME : N:\PDS\C3D\70280030\SHEETSPLAN\EROSION.DWG PLOT DATE : 7/22/2015 4:05 PM PLOT BY : KRUG, GARY W PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 42

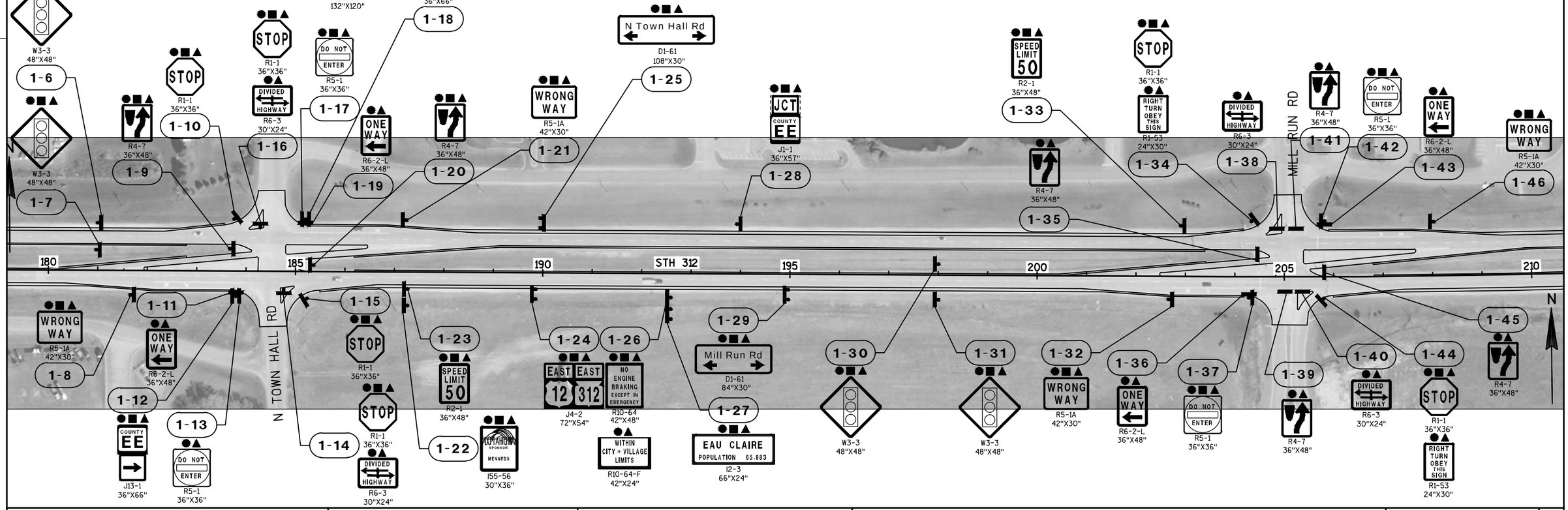
LEGEND

- REMOVING SIGNS TYPE I
- REMOVING SIGNS TYPE II
- PROPOSED SIGN(S) MOUNTED ON POST(S)
- PROPOSED SIGN NO POST
- REMOVING SMALL SIGN SUPPORTS
- SIGNS TYPE I
- SIGNS TYPE II

2

2





PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET 20	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\VIEWFRAMEGROUPS\PS-WEST HALF-200.DWG PLOT DATE : 3/5/2015 10:39 AM PLOT BY : KRUG, GARY W PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 42

LEGEND

- REMOVING SIGNS TYPE I
- REMOVING SIGNS TYPE II
- PROPOSED SIGN(S) MOUNTED ON POST(S)
- PROPOSED SIGN NO POST
- REMOVING SMALL SIGN SUPPORTS
- SIGNS TYPE I
- SIGNS TYPE II

2-1 W3-3 48"X48"
2-2 W3-3 48"X48"
2-3 SPEED LIMIT 50 R2-1 36"X48"
2-4 Mill Run Rd D1-61 84"X30"
2-5 JCT COUNTY TT J1-1 36"X57"
2-6 W3-3 48"X48"
2-7 W3-3 48"X48"
2-8 Kane Rd D1-61 66"X30"
2-9 SPEED LIMIT 50 R2-1 36"X48"
2-10 WRONG WAY R5-1A 42"X30"
2-11 WEST 12 WEST 312 J4-2 72"X54"
2-12 LEFT TURN SIGNAL R10-10-L 24"X30"
2-13 ONE WAY R6-2-L 36"X48"
2-14 COUNTY TT J13-1 36"X66"
2-15 DO NOT ENTER R5-1 36"X36"
2-16 DIVIDED HIGHWAY R6-3 30"X24"
2-17 R4-7 36"X48"
2-18 STOP R1-1 36"X36"
2-19 RIGHT TURN OBEY THIS SIGN R1-53 24"X30"
2-20 DIVIDED HIGHWAY R6-3 30"X24"
2-21 DO NOT ENTER R5-1 36"X36"
2-22 ONE WAY R6-2-L 36"X48"
2-23 LEFT TURN SIGNAL R10-10-L 24"X30"
2-24 R4-7 36"X48"
2-25 WRONG WAY R5-1A 42"X30"
2-26 EAST 12 EAST 312 J4-2 72"X54"
2-27 Kane Rd D1-61 66"X30"
2-28 COUNTY TT J13-1 36"X66"
2-29 SPEED LIMIT 50 R2-1 36"X48"
2-30 W3-3 48"X48"
2-31 W3-3 48"X48"
2-32 JCT COUNTY TT J1-1 36"X57"
2-33 Losan Ave D1-61 78"X30"
2-34 OCCUPATIONAL SPONSOR MENARDS I55-56 30"X36"
2-35 Chippewa Valley Technical College / Gateway Campus / West Campus D1-4 138"X72"

210 215 220 225 STH 312 230 235 240 245 250 255 260 265

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET 21	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\VIEWFRAMEGROUPS\PS-WEST HALF-200.DWG PLOT DATE : 3/5/2015 10:39 AM PLOT BY : KRUG, GARY W PLOT NAME : ---------- PLOT SCALE : **********

2

LEGEND

- REMOVING SIGNS TYPE I
- REMOVING SIGNS TYPE II
- PROPOSED SIGN(S) MOUNTED ON POST(S)
- PROPOSED SIGN NO POST
- REMOVING SMALL SIGN SUPPORTS
- SIGNS TYPE I
- SIGNS TYPE II
- SIGN ON STEEL SUPPORTS

3-1 SPEED LIMIT 50 R2-1 36"X48"
3-2 WRONG WAY R5-1A 42"X30"
3-3 WEST 12 WEST 312 J4-2 72"X54"
3-4 R4-7 36"X48"
3-5 DO NOT ENTER R5-1 36"X36"
3-6 STOP R1-1 36"X36"
3-7 ONE WAY R6-2-L 36"X48"
3-8 DIVIDED HIGHWAY R6-3 30"X24"
3-9 ONE WAY R6-2-L 36"X48"
3-10 STOP R1-1 36"X36"; DIVIDED HIGHWAY R6-3 30"X24"
3-11 DO NOT ENTER R5-1 36"X36"
3-12 STOP R1-1 36"X36"
3-13 R4-7 36"X48"
3-14 EAST 12 EAST 312 J4-2 72"X54"
3-15 WRONG WAY R5-1A 42"X30"
3-16 UW Eau Claire NEXT EXIT D1-65 (MOD) 102"X30"
3-17 Chippewa Valley Technical College West Campus D1-3 138"X48"
3-18 Losan Ave D1-61 78"X30"
3-19 SPEED LIMIT 50 R2-1 36"X48"
3-20 SPEED LIMIT 50 R2-1 36"X48"
3-21 R3-4-B 36"X48"
3-22 R3-4-B 36"X48"
3-23 WEST 12 WEST 312 J4-2 72"X54"
3-24 H D9-2 36"X36"; MB6-2 30"X30"
3-25 EXIT E5-1 72"X60"
3-26 W3-3 48"X48"
3-27 W4-1R 48"X48"
3-28 SPEED LIMIT 50 R2-1 36"X48"
3-29 W4-2R 48"X48"
3-30 SPEED LIMIT 50 R2-1 36"X48"
3-31 W4-1R 48"X48"
3-32 W3-3 48"X48"
3-33 EXIT E5-1 72"X60"
3-34 EAST 312 J4-1 36"X54"

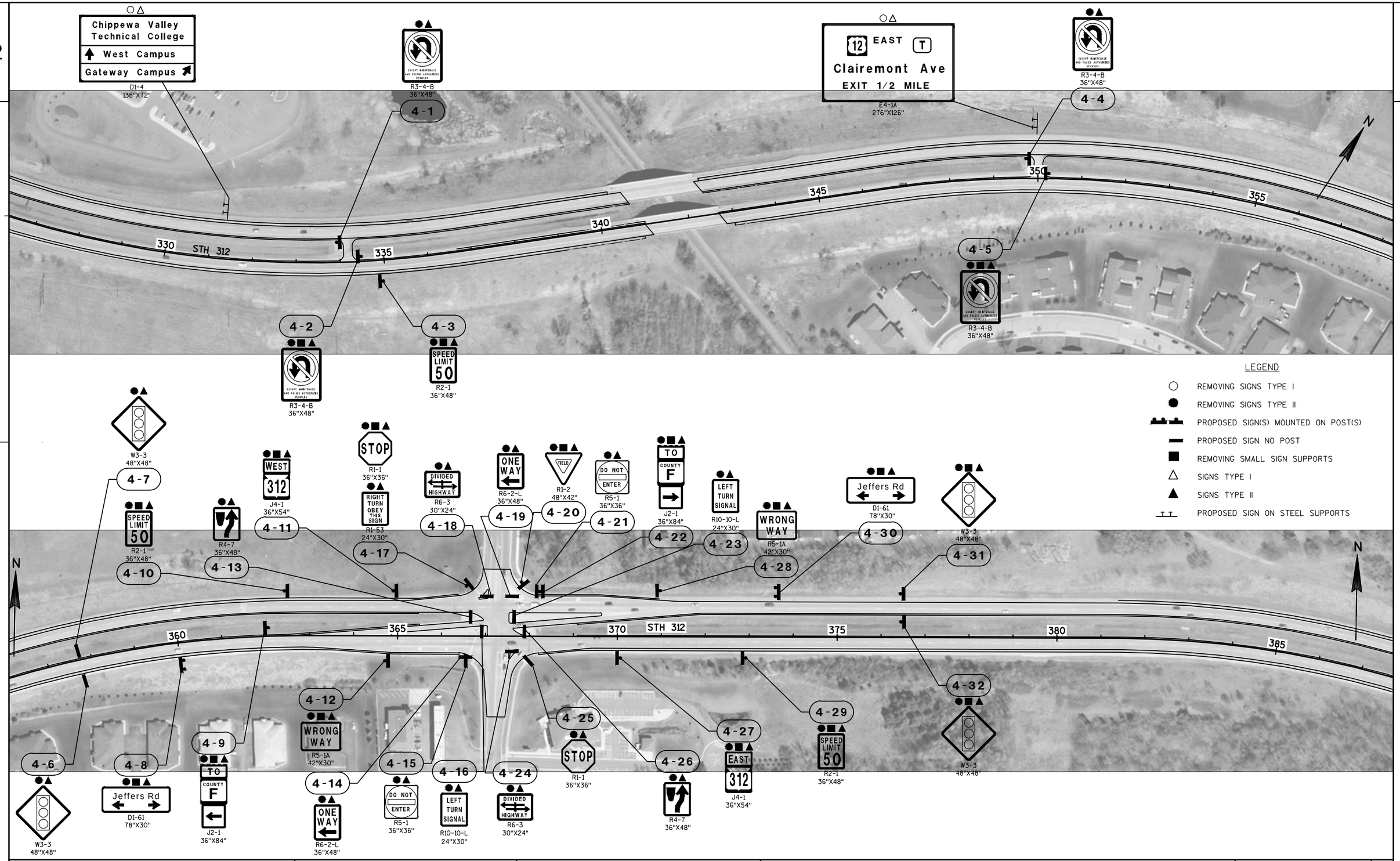
12 T Clairemont Ave EXIT 1/4 MILE E4-1A 276"X126"
Downtown Chippewa Valley Technical College Gateway Campus NEXT RIGHT D1-4 120"X72"
TO 312 53 AHEAD E3-1 132"X96"
12 T Clairemont Ave E6-1 264"X90"
12 EAST T Clairemont Ave E6-1 264"X90"
WEST TO 12 312 94 AHEAD E3-1 216"X102"

270 275 280 STH 312 285 290 295 88
190 195 8 300 90 92 94 305 310 315 320 STH 312 325 110 105 205 210 215
EXISTING SIGN BRIDGE
EXISTING SIGN BRIDGE

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET 22	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\VIEWFRAMEGROUPS\PS-WEST HALF-200.DWG PLOT DATE : 3/5/2015 10:40 AM PLOT BY : KRUG, GARY W PLOT NAME : ---------- PLOT SCALE : **********

2



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\VIEWFRAMEGROUPS\PS-WEST HALF-200.DWG PLOT DATE : 3/5/2015 10:40 AM PLOT BY : KRUG, GARY W PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 42

2

LEGEND

- REMOVING SIGNS TYPE I
- REMOVING SIGNS TYPE II
- PROPOSED SIGN(S) MOUNTED ON POST(S)
- PROPOSED SIGN NO POST
- REMOVING SMALL SIGN SUPPORTS
- SIGNS TYPE I
- SIGNS TYPE II

5-1 R3-4-B 36"X48"
5-2 R3-4-B 36"X48"
5-3 W3-3 48"X48"
5-4 W3-3 48"X48"
5-5 R2-1 36"X48" SPEED LIMIT 50
5-6 R2-1 36"X48" SPEED LIMIT 50
5-7 D1-61 90"X30" Old Wells Rd
5-8 D9-2 36"X36" H
5-8 MB6-1 30"X30"
5-9 R5-1A 42"X30" WRONG WAY
5-10 I55-56 30"X36" MESSAGE: MKTG & MGT CLUB CHIPPEWA VALLEY TECHNICAL COLLEGE
5-11 R5-1 36"X36" DO NOT ENTER
5-12 R1-2 48"X42" YIELD
5-13 R4-7 36"X48"
5-14 R1-1 36"X36" STOP
5-15 R6-3 30"X24" DIVIDED HIGHWAY
5-16 R6-2-L 36"X48" ONE WAY
5-17 R6-3 30"X24" DIVIDED HIGHWAY
5-18 R6-2-L 36"X48" ONE WAY
5-19 R4-7 36"X48"
5-20 R1-2 48"X42" YIELD
5-21 R3-4 36"X36"
5-22 R5-1 36"X36" DO NOT ENTER
5-23 R5-1A 42"X30" WRONG WAY
5-24 MB6-1 30"X30"
5-24 D9-2 36"X36" H
5-25 R2-1 36"X48" SPEED LIMIT 50
5-26 D1-61 90"X30" Old Wells Rd
5-27 J4-1 36"X54" EAST 312
5-28 W3-3 48"X48"
5-29 W3-3 48"X48"
5-30 I3-1 108"X21" Chippewa River
5-31 R2-1 36"X48" SPEED LIMIT 50
5-32 W5-52L 18"X54"
5-33 W5-52R 18"X54"
5-34 W5-52R 18"X54"
5-35 W5-52L 18"X54"
5-36 I3-1 108"X21" Chippewa River

85 390 395 400 405 410 415 415 420 425 430 435 440 445

N

N

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET 24	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\VIEWFRAMEGROUPS\PS-EAST HALF-200.DWG PLOT DATE : 3/5/2015 10:42 AM PLOT BY : KRUG, GARY W PLOT NAME : ---------- PLOT SCALE : **********

LEGEND

- REMOVING SIGNS TYPE I
- REMOVING SIGNS TYPE II
- PROPOSED SIGN(S) MOUNTED ON POST(S)
- PROPOSED SIGN NO POST
- REMOVING SMALL SIGN SUPPORTS
- SIGNS TYPE I
- SIGNS TYPE II
- PROPOSED SIGN ON STEEL SUPPORTS

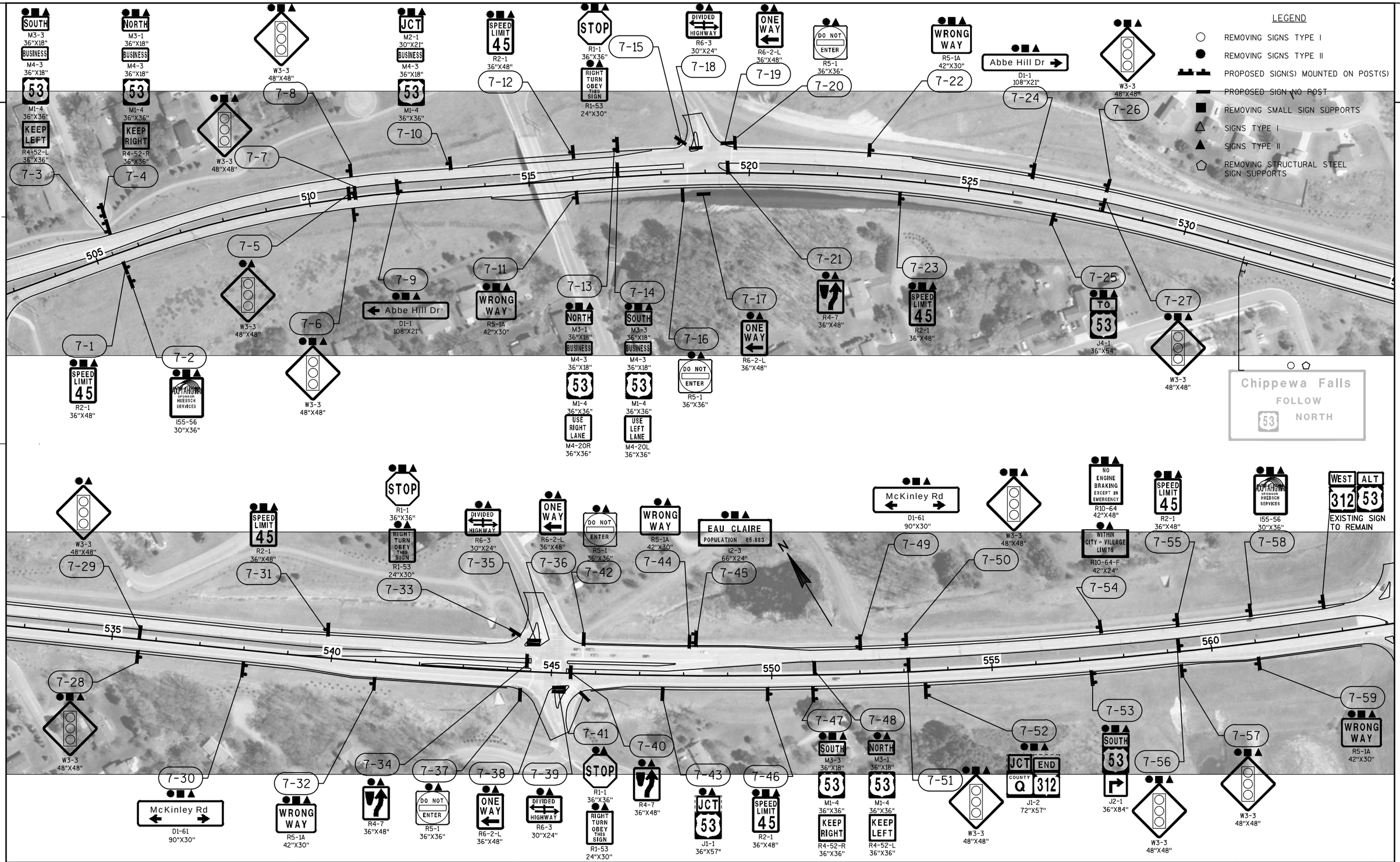
N

445 450 455 460 465 470 475 480 485 490 495 500 505

6-1 SPEED LIMIT 50 R2-1 36"X48"
6-2 SPEED LIMIT 45 R2-1 36"X48"
6-3 SPEED LIMIT 45 R2-1 36"X48"
6-4 Riverview Dr D1-61 96"X30"
6-5 WRONG WAY R5-1A 42"X30"
6-6 STOP R1-1 36"X36"
6-7 R4-7 36"X48"
6-8 STOP R1-1 36"X36" / DIVIDED HIGHWAY R6-3 30"X24"
6-9 DO NOT ENTER R5-1 36"X36"
6-10 ONE WAY R6-2-L 36"X48"
6-11 ONE WAY R6-2-L 36"X48"
6-12 DO NOT ENTER R5-1 36"X36"
6-13 STOP R1-1 36"X36" / DIVIDED HIGHWAY R6-3 30"X24"
6-14 STOP R1-1 36"X36"
6-15 R4-7 36"X48"
6-16 WRONG WAY R5-1A 42"X30"
6-17 SPEED LIMIT 45 R2-1 36"X48"
6-18 To Starr Ave / Mercury Ave D1-60 114"X48"
6-19 Mercury Ave North High REMOVE
6-20 Riverview Dr D1-61 96"X30"
6-21 SPEED LIMIT 45 R2-1 36"X48"
6-22 Chippewa Valley Regional Airport / Vehicle Registration Driver Licensing D1-4 132"X66"
6-23 WRONG WAY R5-1A 42"X30"
6-24 WEST 312 J4-1 36"X54"
6-25 DO NOT ENTER R5-1 36"X36"
6-26 R4-7 36"X48"
6-27 ONE WAY R6-2-R 36"X48"
6-28 STOP R1-1 36"X36"
6-29
6-30 STOP R1-1 36"X36"
6-31
6-32 ONE WAY R6-2-R 36"X48"
6-33 R4-7 36"X48"
6-34 DO NOT ENTER R5-1 36"X36" / WRONG WAY R5-1A 42"X30"
6-35
6-36
6-37 EAST 312 J4-1 36"X54"
North High REMOVE
To Starr Ave / Mercury Ave D1-60 114"X48"
6-38 JCT M2-1 30"X21" / BUSINESS M4-3 36"X18" / 53 M1-4 36"X36"
6-39
6-40
6-41 RIGHT LANE MUST TURN RIGHT R3-7-R 48"X48"
6-42 NORTH M3-1 36"X18" / BUSINESS M4-3 36"X18" / 53 M1-4 36"X36" / KEEP LEFT R4-52-L 36"X36"
6-43 EAST TO 312 53 J2-2 72"X84"
6-44 SOUTH M3-3 36"X18" / BUSINESS M4-3 36"X18" / 53 M1-4 36"X36" / KEEP RIGHT R4-52-R 36"X36"
6-45 SPEED LIMIT 45 R2-1 36"X48"
BUS 53 JCT 1/4 MILE E3-1 144"X96"
6-46 W3-3 48"X48"
6-47 W3-3 48"X48"
6-48 ONLY R3-5-R 42"X48"
6-49 ADOPT A HIGHWAY I55-56 30"X36"
6-50 WEST 312 J4-1 36"X54"
6-51 WRONG WAY R5-1A 42"X30"
6-52 BUS 53 NORTH Lake Hallie / BUS 53 SOUTH D1-71 SIZE 2 96"X84"
6-53 DO NOT ENTER R5-1 36"X36"
6-54 ONE WAY R6-2-L 36"X48"
6-55 R3-2 36"X36"
6-56 BUS 53 SOUTH D1-70 78"X36"
6-57
6-58
6-59 R3-1 36"X36"
6-60 R4-7 36"X48"
6-61 WRONG WAY R5-1A 42"X30"
6-62 TO 53 J22-1 36"X84"
6-63 WRONG WAY R5-1A 42"X30"
6-64 R4-7 36"X48"
6-65
6-66 DO NOT ENTER R5-1 36"X36"
6-67 R3-1 36"X36"
6-68 ONE WAY R6-2-L 36"X48"
BUS 53 NORTH Lake Hallie D1-70 SIZE 2 96"X48"
6-69
6-70
6-71 R3-2 36"X36"
6-72 EAST 312 J4-1 36"X54"
TO 53 EXISTING SIGN TO REMAIN
6-73 DO NOT ENTER R5-1 36"X36"
6-74 WRONG WAY R5-1A 42"X30"
SOUTH BUSINESS 53 / ALT SOUTH 53 EXISTING SIGN TO REMAIN
BUS 53 SOUTH
BUS 53 NORTH Lake Hallie D1-71 SIZE 2 96"X84"

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET 25	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\VIEWFRAMEGROUPS\PS-EAST HALF-200.DWG PLOT DATE : 3/5/2015 10:44 AM PLOT BY : KRUG, GARY W PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 42



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET 26	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\VIEWFRAMEGROUPS\PS-EAST HALF-200.DWG PLOT DATE : 4/23/2015 6:56 AM PLOT BY : KRUG, GARY W PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

Eau Claire North Crossing
D1-2 96"X24"
8-8

WEST 312 ALT 53
EXISTING SIGN TO REMAIN

DIVIDED HIGHWAY
R6-3 30"X24"
8-7

WRONG WAY
R5-1A 42"X30"
8-9

DO NOT ENTER
R5-1 36"X36"
8-10

R3-1 36"X36"
8-11

R4-7 36"X48"
8-12

8-17

SOUTH 53
J2-1 36"X84"
8-16

YIELD
R1-2 48"X42"
8-24

DO NOT ENTER
R5-1 36"X36"
8-25

53 SOUTH
Madison
53 NORTH
Superior
D1-71 SIZE 2 84"X78"
8-26

SOUTH
M3-3 36"X18"
53
M1-4 36"X36"
KEEP RIGHT
R4-52-R 36"X36"
8-27

NORTH
M3-1 36"X18"
53
M1-4 36"X36"
KEEP LEFT
R4-52-L 36"X36"
8-28

JCT 53
J1-1 36"X57"
8-30

555 560 565 570 575 580 585

ONE WAY
R6-2-L 36"X48"
8-1

R3-2 36"X36"
8-2

END PROJECT
STA. 572+60.00

WRONG WAY
R5-1A 42"X30"
8-29

8-15

WRONG WAY
R5-1A 42"X30"

8-18

R3-1 36"X36"

8-22

R3-18 30"X30"

8-23

ONE WAY
R6-2-L 36"X48"

8-19

DO NOT ENTER
R5-1 36"X36"

8-20

DIVIDED HIGHWAY
R6-3 30"X24"

8-21

53 NORTH
Superior
D1-70 SIZE 2 84"X42"

8-3

53 NORTH
Superior
53 SOUTH
Madison
D1-71 SIZE 2 84"X78"

8-4

DO NOT ENTER
R5-1 36"X36"

8-5

YIELD
R1-2 48"X42"

8-13

ONE WAY
R6-2-L 36"X48"

8-6

53 SOUTH
Madison
D1-70 SIZE 2 84"X42"

8-14

NORTH 53 TO 29 COUNTY Q
J2-3 108"X84"

312 EAST
WEST 12 312 TO 94
Elk Mound Menomonie
D1-71 84"X72"
8-37

LEGEND
- REMOVING SIGNS TYPE I
- REMOVING SIGNS TYPE II
- PROPOSED SIGN(S) MOUNTED ON POST(S)
- PROPOSED SIGN NO POST
- REMOVING SMALL SIGN SUPPORTS
- SIGNS TYPE I
- SIGNS TYPE II
- PROPOSED SIGN ON STEEL SUPPORTS

USH 12
CLAIREMONT AVE

STA. 309+98 STH 312 =
STA. 25+45 US 12

EB STH 312
WB STH 312

15 20 25 30

8-31

JCT JCT
312 COUNTY T
J1-2 72"X57"

8-32

WEST WEST TO EAST
12 312 94 312
J2-4 144"X84"

8-33

WEST TO
12 312 94
Elk Mound Menomonie
312 EAST
D1-71 84"X72"

8-34

EAST
312
D1-1 42"X30"

8-35

EAST
312
J2-1 36"X84"

8-36

WEST TO
12 312 94
Elk Mound Menomonie
D1-70 78"X48"

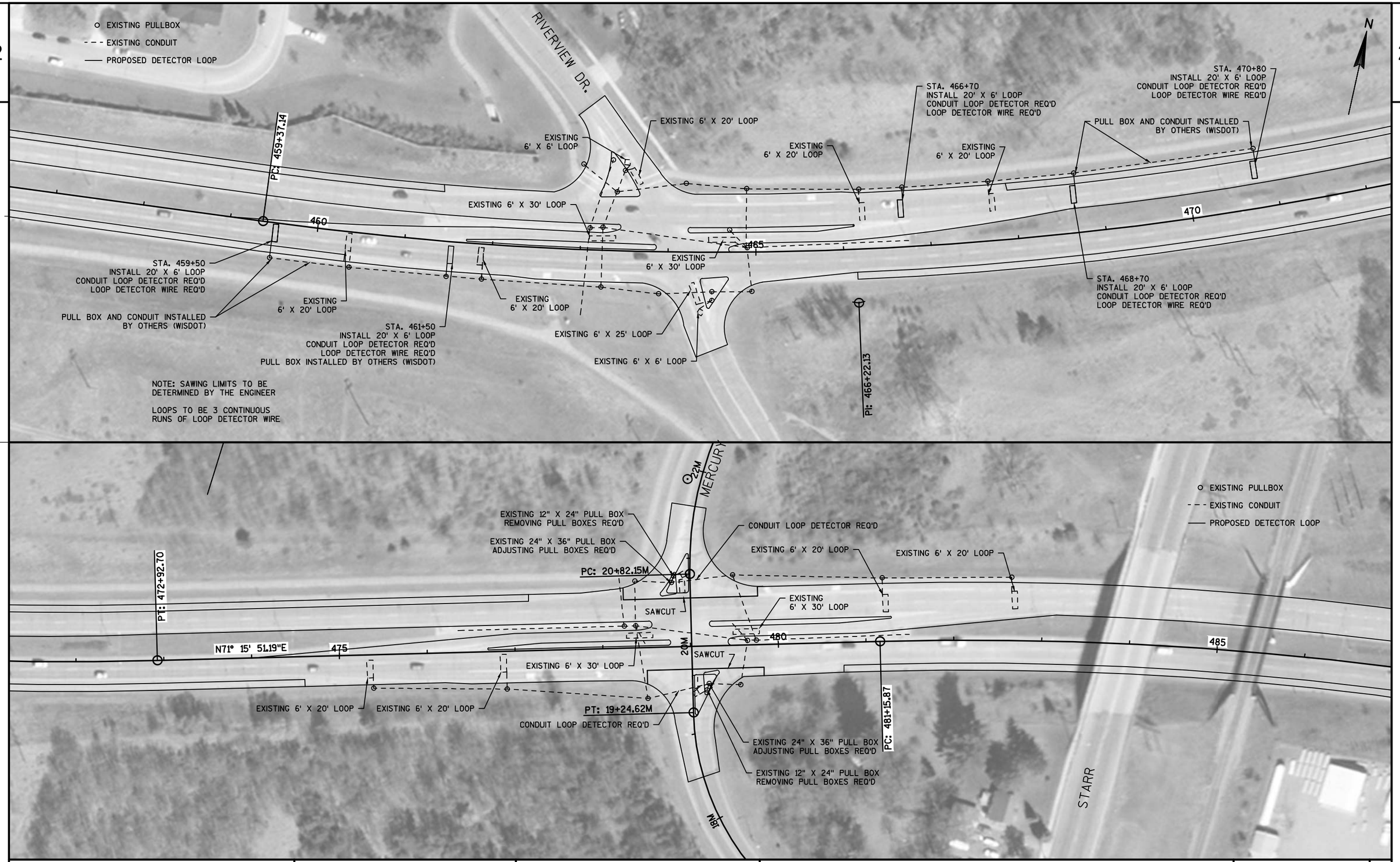
8-38

EAST WEST WEST TO
312 12 312 94
J2-4 144"X84"

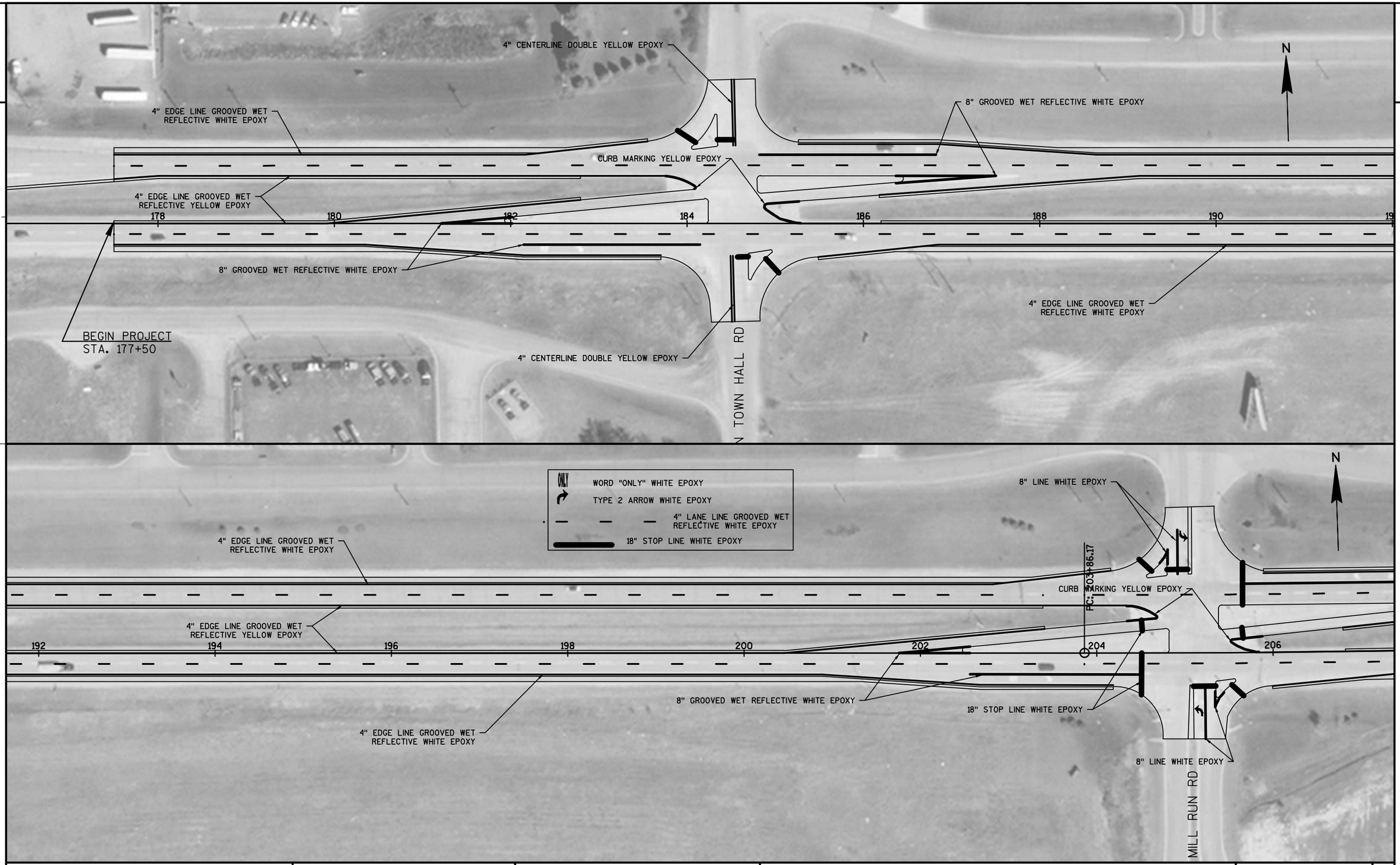
8-39

JCT
312
J1-1 36"X57"

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET 27	E



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	RIVERVIEW DR. & MERCURY AVE. TRAFFIC SIGNAL LAYOUT	SHEET 28	E



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PAVEMENT MARKING	SHEET 29	E

2

8" GROOVED WET REFLECTIVE WHITE EPOXY

4" EDGE LINE GROOVED WET REFLECTIVE WHITE EPOXY

PT: 212+12.17

4" EDGE LINE GROOVED WET REFLECTIVE YELLOW EPOXY

208 210 212 214 216 218 220 222

N

4" EDGE LINE GROOVED WET REFLECTIVE WHITE EPOXY

ONLY WORD "ONLY" WHITE EPOXY

TYPE 2 ARROW WHITE EPOXY

4" LANE LINE GROOVED WET REFLECTIVE WHITE EPOXY

18" STOP LINE WHITE EPOXY

4" CENTERLINE DOUBLE YELLOW EPOXY

8" LINE WHITE EPOXY

4" EDGE LINE GROOVED WET REFLECTIVE WHITE EPOXY

PC: 229+20.09

PT: 235+09.80

CURB MARKING YELLOW EPOXY

4" EDGE LINE GROOVED WET REFLECTIVE YELLOW EPOXY

224 226 228 230 232 234 236 238

8" GROOVED WET REFLECTIVE WHITE EPOXY

N

4" CENTERLINE DOUBLE YELLOW EPOXY

8" LINE WHITE EPOXY

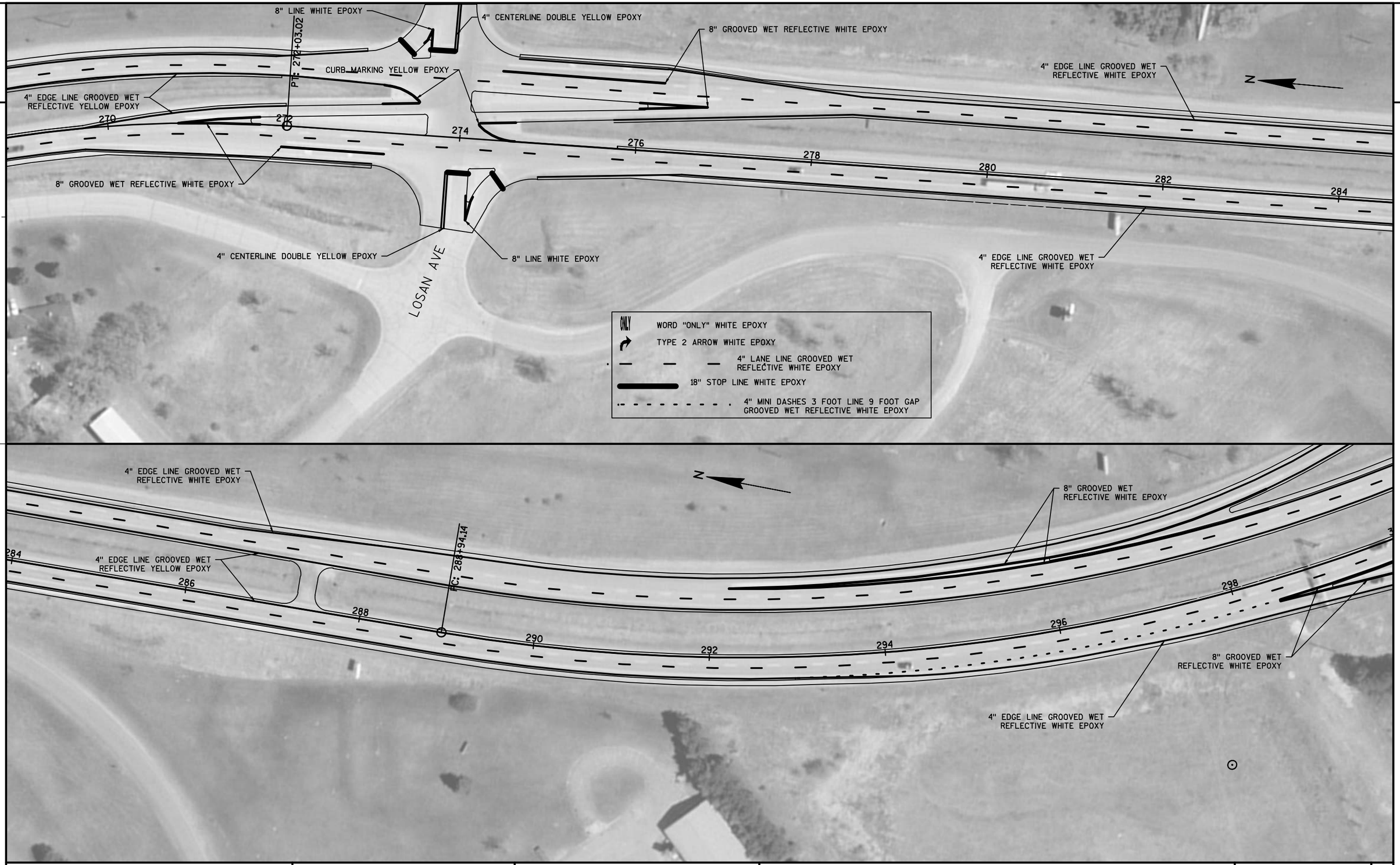
KANE RD

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PAVEMENT MARKING	SHEET 30	E

2



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PAVEMENT MARKING	SHEET 31	E



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PAVEMENT MARKING	SHEET 32	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\VIEWFRAMEGROUPS\PM-WEST HALF-100.DWG PLOT DATE : 3/24/2015 7:24 AM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

4" EDGE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

4" EDGE LINE GROOVED WET
REFLECTIVE YELLOW EPOXY

4" EDGE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

PT: 306+10.77

N CLAIREMONT AVE/CTH T

N

300

302

304

306

308

310

312

314

4" EDGE LINE GROOVED WET
REFLECTIVE YELLOW EPOXY

4" EDGE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

4" EDGE LINE GROOVED WET
REFLECTIVE YELLOW EPOXY

4" EDGE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

4" EDGE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

8" GROOVED WET REFLECTIVE WHITE EPOXY

PC: 319+37.85

4" EDGE LINE GROOVED WET
REFLECTIVE YELLOW EPOXY

4" EDGE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

314

316

318

320

322

324

326

328

4" EDGE LINE GROOVED WET
REFLECTIVE YELLOW EPOXY

8" GROOVED WET REFLECTIVE WHITE EPOXY

4" EDGE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

ONLY WORD "ONLY" WHITE EPOXY

TYPE 2 ARROW WHITE EPOXY

4" LANE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

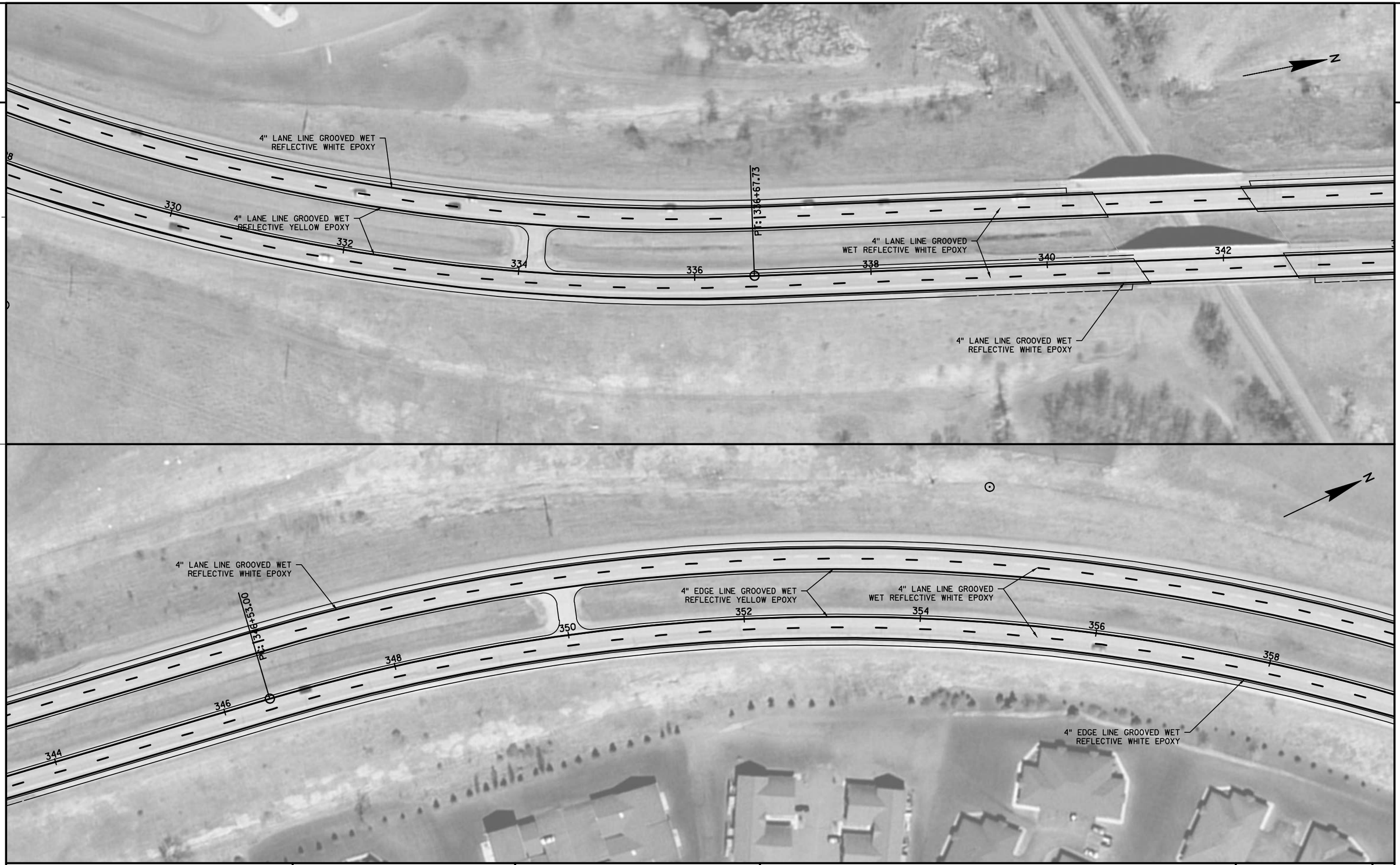
18" STOP LINE WHITE EPOXY

4" MINI DASHES 3 FOOT LINE 9 FOOT GAP
GROOVED WET REFLECTIVE WHITE EPOXY

8" MINI DASHES 3 FOOT LINE 9 FOOT GAP
GROOVED WET REFLECTIVE WHITE EPOXY

N

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PAVEMENT MARKING	SHEET 33	E



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PAVEMENT MARKING	SHEET 34	E

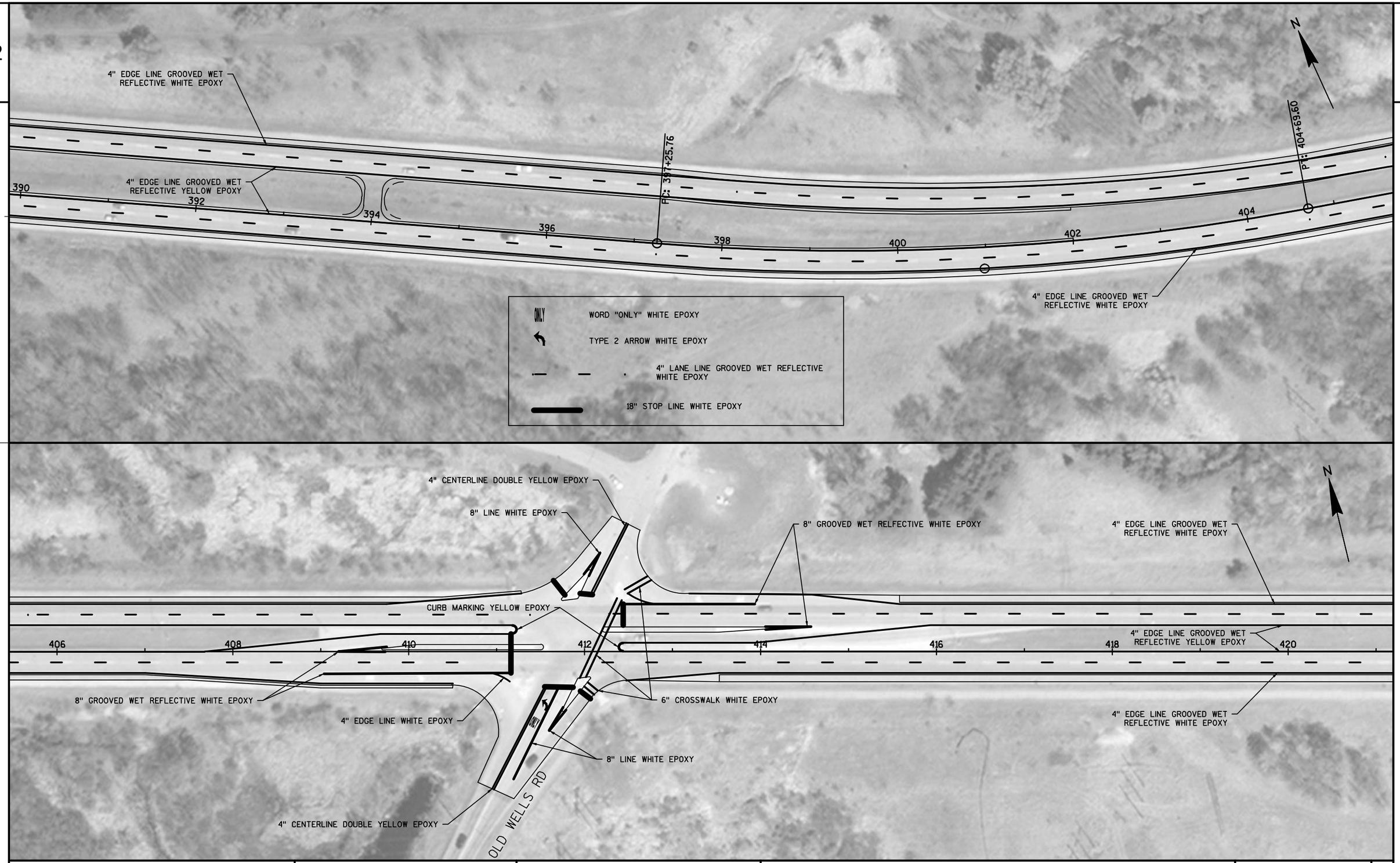


PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PAVEMENT MARKING	SHEET 35	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\VIEWFRAMEGROUPS\PM-WEST HALF-100.DWG PLOT DATE : 4/21/2015 11:28 AM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PAVEMENT MARKING	SHEET 36	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\VIEWFRAMEGROUPS\PM-EAST HALF-100.DWG PLOT DATE : 3/24/2015 7:30 AM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

4" EDGE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

422 424 426 428 430 432 434 436

4" EDGE LINE GROOVED WET
REFLECTIVE YELLOW EPOXY

4" LANE LINE GROOVED
WET REFLECTIVE WHITE EPOXY

4" EDGE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

CHIPPEWA RIVER

N

4" EDGE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

438 440 442 444 446 448 450 452

4" EDGE LINE GROOVED WET
REFLECTIVE YELLOW EPOXY

4" LANE LINE GROOVED
WET REFLECTIVE WHITE EPOXY

4" EDGE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PAVEMENT MARKING	SHEET 37	E

2

N

RIVERVIEW DR

4" CENTERLINE DOUBLE YELLOW EPOXY

8" LINE WHITE EPOXY

6" CROSSWALK WHITE EPOXY

8" GROOVED WET REFLECTIVE WHITE EPOXY

4" EDGE LINE GROOVED WET REFLECTIVE WHITE EPOXY

PC: 459+37.14

CURB MARKING YELLOW EPOXY

454 456 458 460 462 464 466

4" EDGE LINE GROOVED WET REFLECTIVE YELLOW EPOXY

4" EDGE LINE GROOVED WET REFLECTIVE WHITE EPOXY

8" GROOVED WET REFLECTIVE WHITE EPOXY

8" LINE WHITE EPOXY

4" CENTERLINE DOUBLE YELLOW EPOXY

ONLY WORD "ONLY" WHITE EPOXY

TYPE 2 ARROW WHITE EPOXY

4" LANE LINE GROOVED WET REFLECTIVE WHITE EPOXY

18" STOP LINE WHITE EPOXY

8" MINI DASHES 3 FOOT LINE 9 FOOT GAP GROOVED WET REFLECTIVE WHITE EPOXY

MERCURY AVE

4" CENTERLINE DOUBLE YELLOW EPOXY

CURB MARKING & ISLAND NOSE YELLOW EPOXY

ONLY

PC: 481+15.87

8" GROOVED WET REFLECTIVE WHITE EPOXY

4" EDGE LINE GROOVED WET REFLECTIVE WHITE EPOXY

PT: 472+92.70

CURB MARKING YELLOW EPOXY

468 470 472 474 476 478 480 482

4" EDGE LINE GROOVED WET REFLECTIVE YELLOW EPOXY

4" EDGE LINE GROOVED WET REFLECTIVE WHITE EPOXY

8" GROOVED WET REFLECTIVE WHITE EPOXY

CURB MARKING & ISLAND NOSE YELLOW EPOXY

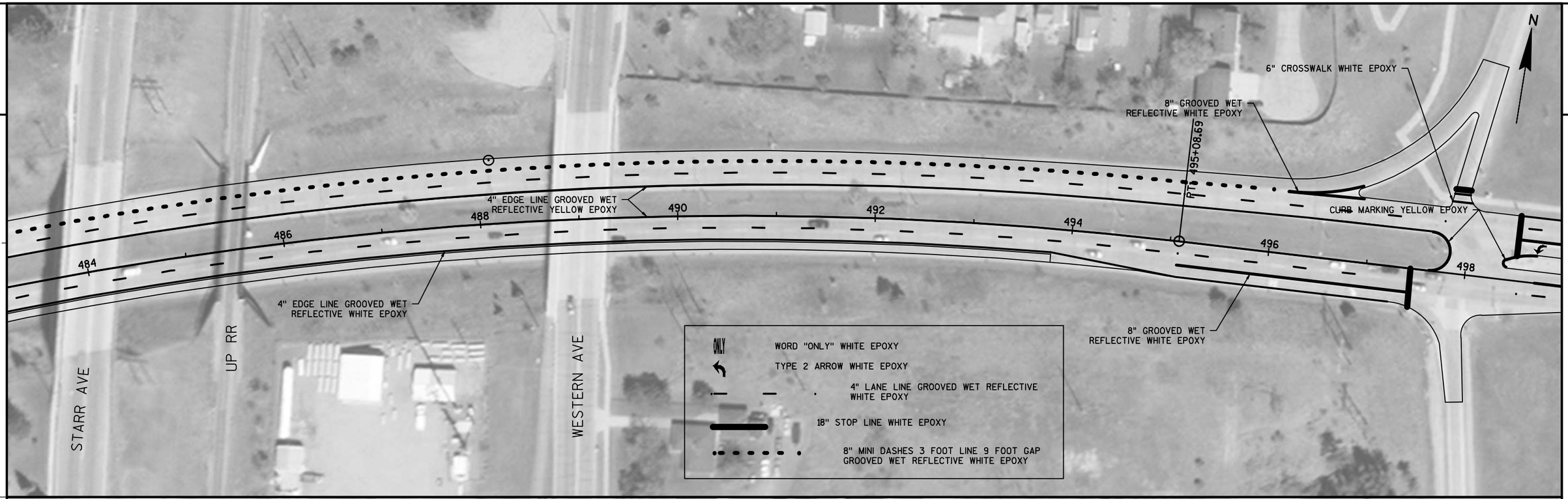
4" EDGE LINE GROOVED WET REFLECTIVE WHITE EPOXY

ONLY

4" CENTERLINE DOUBLE YELLOW EPOXY

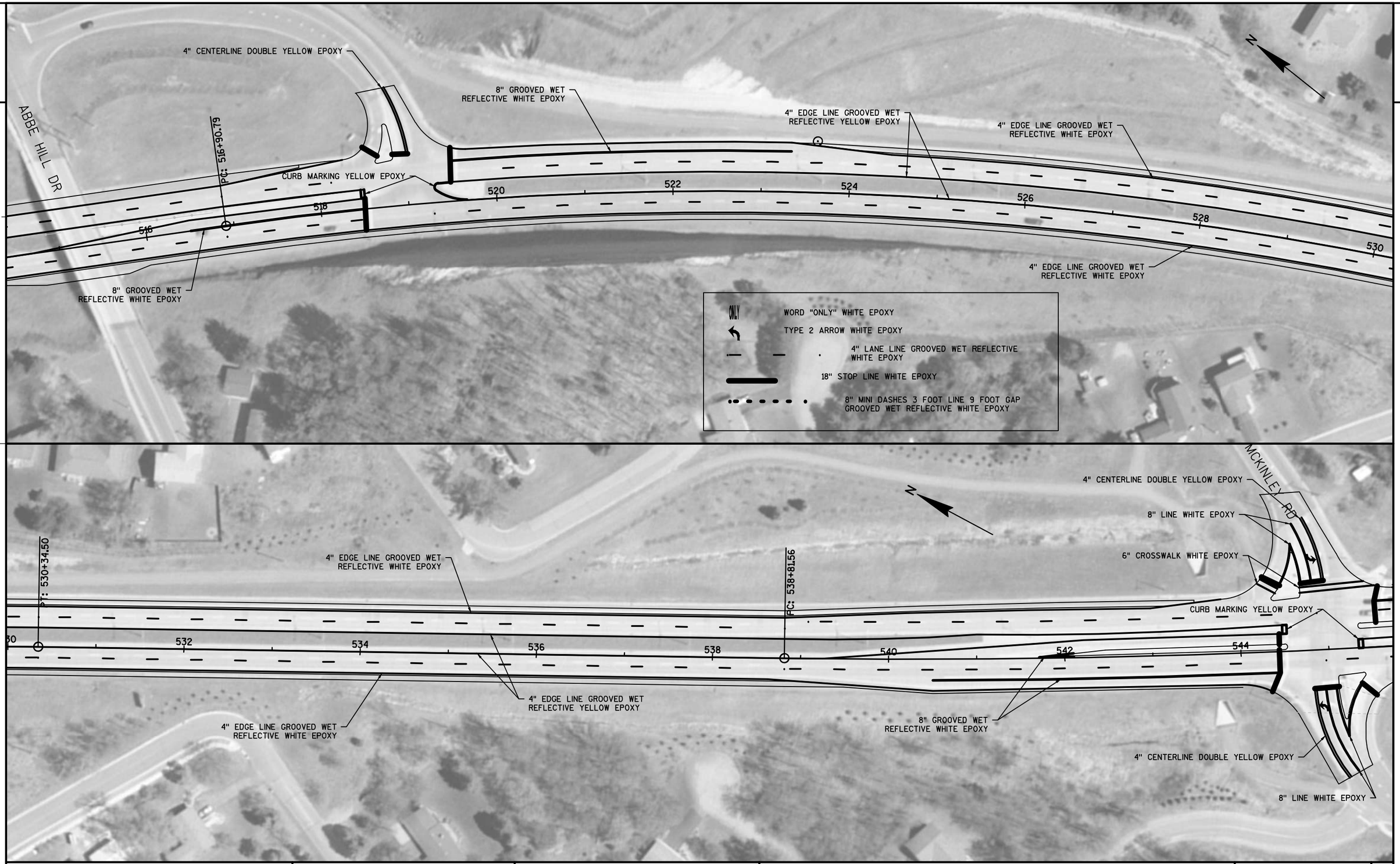
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PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PAVEMENT MARKING	SHEET 38	E



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PAVEMENT MARKING	SHEET 39	E

2



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PAVEMENT MARKING	SHEET 40	E

2

8" GROOVED WET
REFLECTIVE WHITE EPOXY

4" EDGE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

546 548 550 552 554 556 558 560

4" EDGE LINE GROOVED WET
REFLECTIVE YELLOW EPOXY

4" EDGE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

N

ONLY — WORD "ONLY" WHITE EPOXY

TYPE 3 ARROW WHITE EPOXY

TYPE 2 ARROW WHITE EPOXY

4" LANE LINE GROOVED WET REFLECTIVE
WHITE EPOXY

18" STOP LINE WHITE EPOXY

8" MINI DASHES 3 FOOT LINE 9 FOOT GAP
GROOVED WET REFLECTIVE WHITE EPOXY

N

8" LINE WHITE EPOXY

6" CROSSWALK WHITE EPOXY

4" EDGE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

4" EDGE LINE GROOVED WET
REFLECTIVE YELLOW EPOXY

PT: 564+41.18

8" GROOVED WET
REFLECTIVE WHITE EPOXY

6" CROSSWALK WHITE EPOXY

4" EDGE LINE WHITE EPOXY

8" GROOVED WET
REFLECTIVE WHITE EPOXY

CURB MARKING YELLOW EPOXY

CURB MARKING YELLOW EPOXY

560 562 564 566 568 570 572 574

8" GROOVED WET
REFLECTIVE WHITE EPOXY

4" EDGE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

4" EDGE LINE GROOVED WET
REFLECTIVE WHITE EPOXY

8" GROOVED WET
REFLECTIVE WHITE EPOXY

USH 53

ONLY ONLY

ONLY ONLY

8" LINE WHITE EPOXY

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PAVEMENT MARKING	SHEET 41	E

2

GENERAL NOTES

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

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

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

TYPE III BARRICADES OR TEMPORARY SIGN SUPPORTS MAY BE SUBSTITUTED FOR POST MOUNTED SIGNS IN SITUATIONS WHERE SIGN LOCATIONS ARE CONTINUALLY MOVING.

SEE STANDARD DETAIL DRAWING "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR MERCURY AVENUE INTERSECTION CONSTRUCTION.

SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" FOR ASPHALT SHOULDER MILLING AND PAVING CONSTRUCTION AND BEAM GUARD REMOVAL AND CONSTRUCTION.

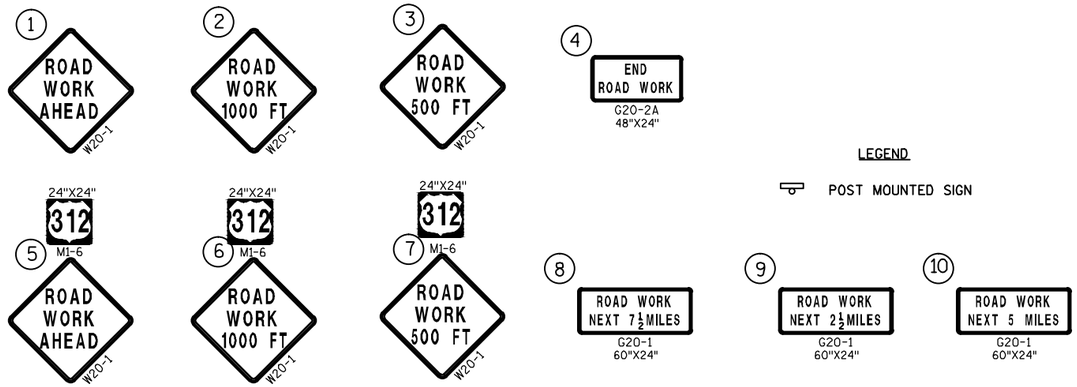
SEE STANDARD DETAIL DRAWINGS, "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY" AND "TRAFFIC CONTROL, INTERSECTION WITHIN LANE CLOSURE" AND "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE" FOR PAVEMENT REPAIR AND REPLACEMENT CONSTRUCTION.

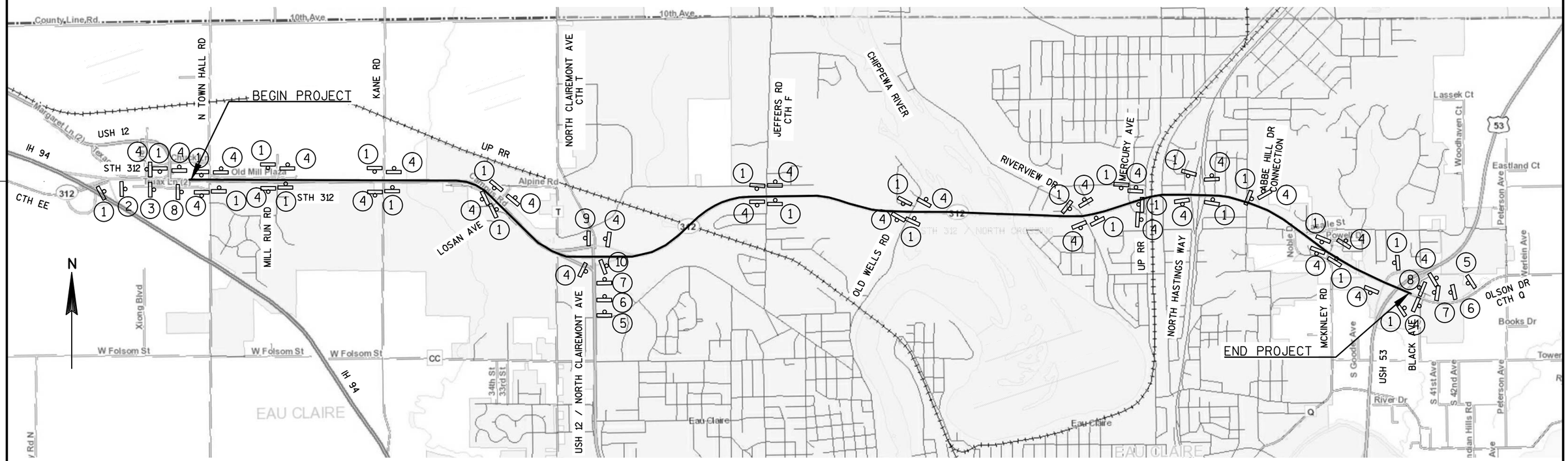
SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR ABBE HILL DRIVE SIDEWALK REMOVAL AND CONSTRUCTION.

TRAFFIC CONTROL CHANNELIZER CONES ARE TO REPLACE DRUMS IN THE BUFFER AND WORK ZONE AREAS OF THE S.D.D. DRUMS ARE TO BE USED ON TAPERS.

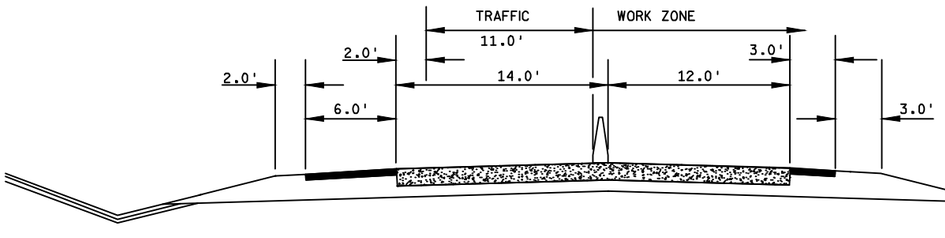
DECREASE CHANNELIZER CONE SPACING TO 50' IF IN PLACE DURING NIGHT HOURS.

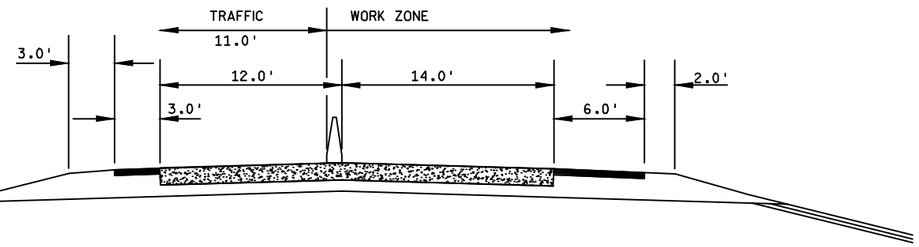
SIGNS PCMS TO BE PLACED 2 WEEKS PRIOR TO LANE CLOSURE AT LOCATIONS DETERMINED BY THE ENGINEER.

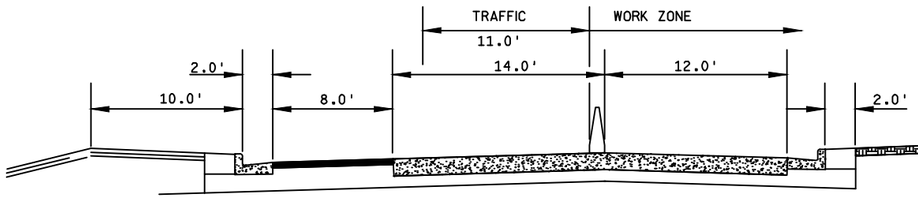


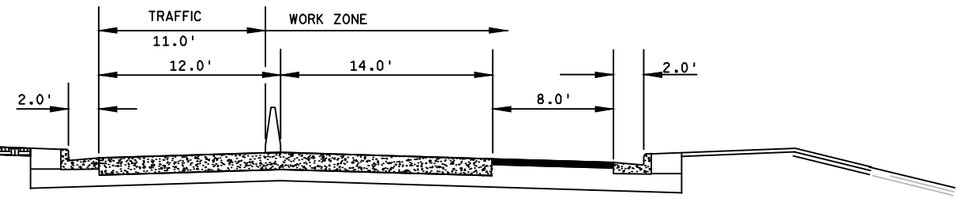


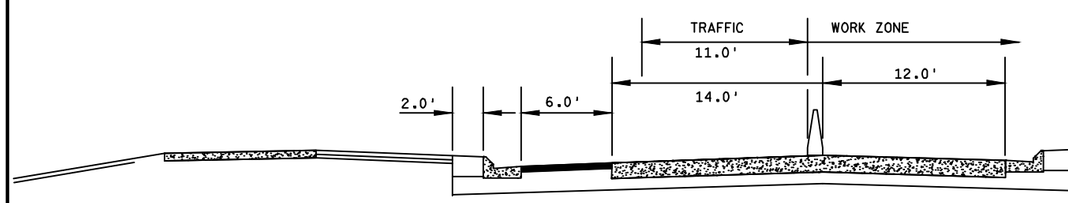
PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	TRAFFIC CONTROL	SHEET 42	E

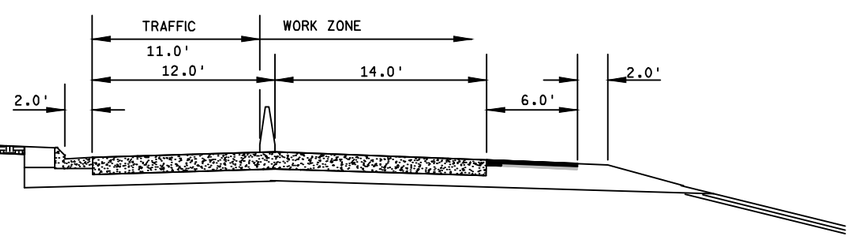












TYPICAL TRAFFIC CONTROL SECTIONS

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	TRAFFIC CONTROL	SHEET 43	E

NOTE: SEE STANDARD DETAIL DRAWINGS, " TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY" AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR ADDITIONAL DETAILS NOT SHOWN.

RIVERVIEW DR.

WB STH 312

EB STH 312

460

465

470

MERCURY AVE

24M

22M

MARQUETTE ST

STARR AVE

- TRAFFIC CONTROL DRUM OR CHANNELIZER CONE
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADES TYPE III
- TRAFFIC CONTROL BARRICADES TYPE III W/SIGN

1 ROAD CLOSED AHEAD W20-3 Mercury Ave
SIGN FIXED MESSAGE

2 R11-2 48"X30" ROAD CLOSED
TYPE III BARRICADE

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	TRAFFIC CONTROL FOR MERCURY AVENUE CONSTRUCTION	SHEET 44	E

FILE NAME : N:\PDS\C3D\70280030\SHEETSPLAN\025002_TC.DWG PLOT DATE : 8/27/2015 7:49 AM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

WB STH 312

475

480

485

EB STH 312

20M

18M

STARR AVE

UP RR

MERCURY AVE

N

- TRAFFIC CONTROL DRUM OR CHANNELIZER CONE
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADES TYPE III
- TRAFFIC CONTROL BARRICADES TYPE III W/SIGN
- TRAFFIC CONTROL ARROW BOARD

1 ROAD CLOSED AHEAD W20-3

Mercury Ave

SIGN FIXED MESSAGE

2 R11-2 48"X30" ROAD CLOSED

TYPE III BARRICADE

3 W04-2R

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH WHITE

WB STH 312

EB STH 312

490

495

500

HASTINGS WAY

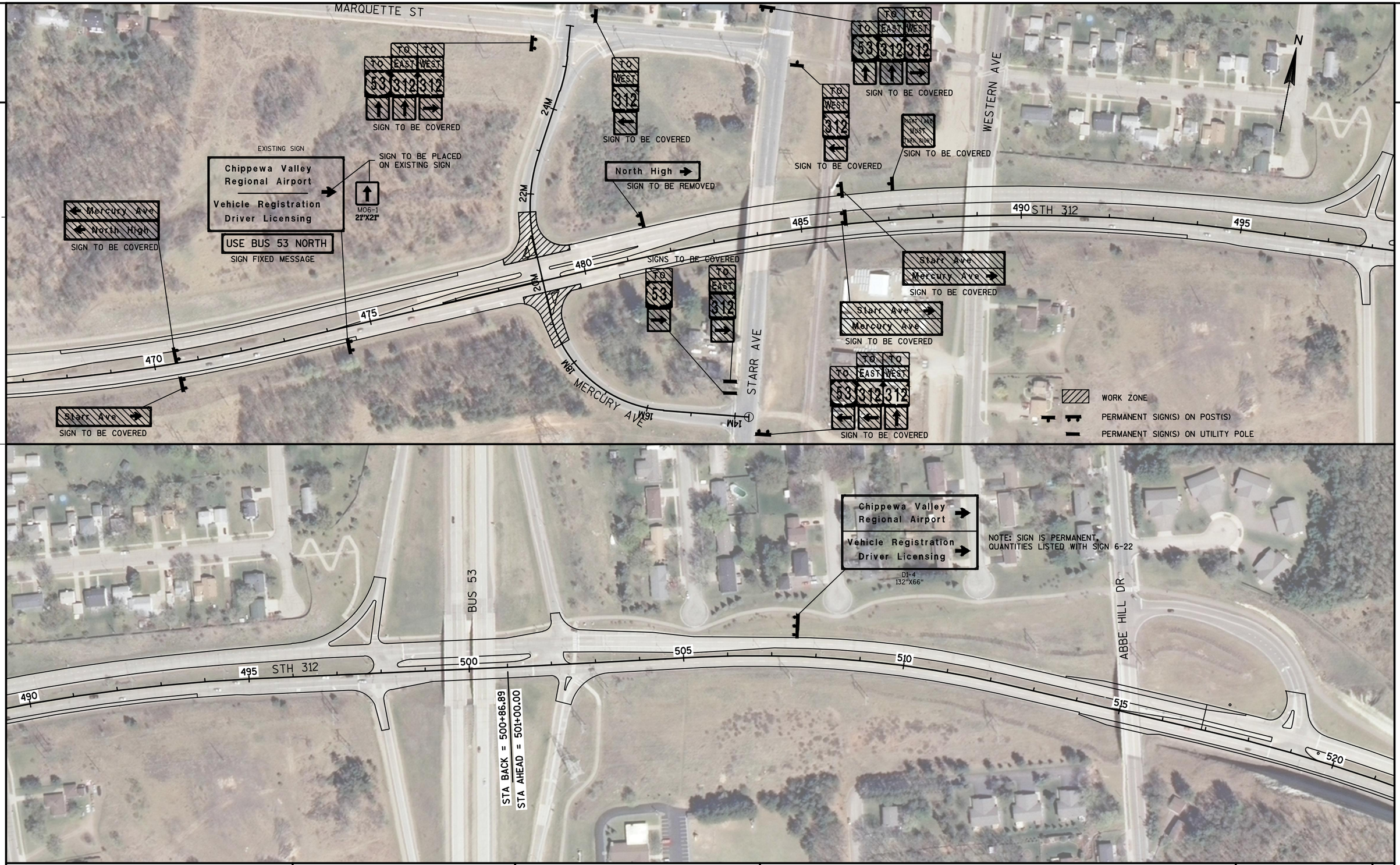
BUS 53

WESTERN

NOTE: SEE STANDARD DETAIL DRAWINGS, " TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY" AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR ADDITIONAL DETAILS NOT SHOWN.

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	TRAFFIC CONTROL FOR MERCURY AVENUE CONSTRUCTION	SHEET 45	E

FILE NAME : N:\PDS\C3D\70280030\SHEETSPLAN\025002_TC.DWG PLOT DATE : 8/31/2015 7:03 AM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	TEMPORARY SIGNING FOR MERCURY ANENUE CONSTRUCTION	SHEET 46	E

FILE NAME : N:\PDS\C3D\70280030\SHEETSPLAN\027001_DT_200.DWG PLOT DATE : 8/31/2015 9:53 AM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

DATE 11SEP15 — 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	7028-00-60 QUANTITY
0010	201.0105	Clearing	STA	2.000	2.000
0020	201.0205	Grubbing	STA	2.000	2.000
0030	204.0120	Removing Asphaltic Surface Milling	SY	58,510.000	58,510.000
0040	204.0150	Removing Curb & Gutter	LF	600.000	600.000
0050	204.0155	Removing Concrete Sidewalk	SY	45.000	45.000
0060	204.0165	Removing Guardrail	LF	3,904.000	3,904.000
0070	205.0100	Excavation Common	CY	400.000	400.000
0080	208.0100	Borrow	CY	75.000	75.000
0090	211.0100	Prepare Foundation for Asphaltic Paving (project) 01.7028-00-60	LS	1.000	1.000
0100	213.0100	Finishing Roadway (project) 01. 7028-00-60	EACH	1.000	1.000
0110	305.0110	Base Aggregate Dense 3/4-Inch	TON	3,550.000	3,550.000
0120	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	400.000	400.000
0130	305.0500	Shaping Shoulders	STA	1,033.000	1,033.000
0140	310.0110	Base Aggregate Open Graded	TON	320.000	320.000
0150	416.0610	Drilled Tie Bars	EACH	2,950.000	2,950.000
0160	416.0620	Drilled Dowel Bars	EACH	15,000.000	15,000.000
0170	455.0605	Tack Coat	GAL	4,085.000	4,085.000
0180	465.0105	Asphaltic Surface	TON	5,405.000	5,405.000
0190	465.0110	Asphaltic Surface Patching	TON	225.000	225.000
0200	465.0400	Asphaltic Shoulder Rumble Strips	LF	73,800.000	73,800.000
0210	521.0124	Culvert Pipe Corrugated Steel 24-Inch	LF	56.000	56.000
0220	521.1524	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 24-Inch 6 to 1	EACH	2.000	2.000
0230	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	600.000	600.000
0240	602.0405	Concrete Sidewalk 4-Inch	SF	410.000	410.000
0250	602.1000	Concrete Loading Zone	SF	1,290.000	1,290.000
0260	611.8110	Adjusting Manhole Covers	EACH	1.000	1.000
0270	611.8115	Adjusting Inlet Covers	EACH	4.000	4.000
0280	614.0010	Barrier System Grading Shaping Finishing	EACH	15.000	15.000
0290	614.0220	Steel Thrie Beam Bullnose Terminal	EACH	4.000	4.000
0300	614.0230	Steel Thrie Beam	LF	376.000	376.000
0310	614.2300	MGS Guardrail 3	LF	1,800.000	1,800.000
0320	614.2330	MGS Guardrail 3 K	LF	325.000	325.000
0330	614.2500	MGS Thrie Beam Transition	LF	473.000	473.000
0340	614.2610	MGS Guardrail Terminal EAT	EACH	14.000	14.000
0350	614.2620	MGS Guardrail Terminal Type 2	EACH	14.000	14.000
0360	618.0100	Maintenance And Repair of Haul Roads (project) 01.7028-00-60	EACH	1.000	1.000
0370	619.1000	Mobilization	EACH	1.000	1.000
0380	628.1504	Silt Fence	LF	3,300.000	3,300.000
0390	628.1520	Silt Fence Maintenance	LF	3,300.000	3,300.000
0400	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0410	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0420	628.2004	Erosion Mat Class I Type B	SY	6,000.000	6,000.000
0430	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	45.000	45.000
0440	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	152.000	152.000
0450	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	56.000	56.000
0460	634.0620	Posts Wood 4x6-Inch X 20-FT	EACH	51.000	51.000
0470	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	10.000	10.000
0480	637.1210	Signs Type I Reflective H	SF	1,817.000	1,817.000
0490	637.2210	Signs Type II Reflective H	SF	4,716.760	4,716.760
0500	637.2230	Signs Type II Reflective F	SF	619.000	619.000

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DATE 11SEP15 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	7028-00-60 QUANTITY
0510	638.2601	Removing Signs Type I	EACH	12.000	12.000
0520	638.2602	Removing Signs Type II	EACH	377.000	377.000
0530	638.3000	Removing Small Sign Supports	EACH	264.000	264.000
0540	638.3100	Removing Structural Steel Sign Supports	EACH	2.000	2.000
0550	641.8100	Overhead Sign Support (structure) 01. S-18-0111	LS	1.000	1.000
0560	642.5401	Field Office Type D	EACH	1.000	1.000
0570	643.0100	Traffic Control (project) 01.7028-00-60	EACH	1.000	1.000
0580	643.0300	Traffic Control Drums	DAY	5,175.000	5,175.000
0590	643.0420	Traffic Control Barricades Type III	DAY	1,545.000	1,545.000
0600	643.0705	Traffic Control Warning Lights Type A	DAY	3,090.000	3,090.000
0610	643.0715	Traffic Control Warning Lights Type C	DAY	1,965.000	1,965.000
0620	643.0800	Traffic Control Arrow Boards	DAY	315.000	315.000
0630	643.0900	Traffic Control Signs	DAY	11,715.000	11,715.000
0640	643.0920	Traffic Control Covering Signs Type II	EACH	12.000	12.000
0650	643.1000	Traffic Control Signs Fixed Message	SF	62.000	62.000
0660	643.1050	Traffic Control Signs PCMS	DAY	600.000	600.000
0670	646.0106	Pavement Marking Epoxy 4-Inch	LF	3,160.000	3,160.000
0680	646.0126	Pavement Marking Epoxy 8-Inch	LF	1,890.000	1,890.000
0690	646.0600	Removing Pavement Markings	LF	7,250.000	7,250.000
0700	646.2304.S	Pavement Marking Grooved Wet Reflective Epoxy 4-Inch	LF	176,115.000	176,115.000
0710	646.2308.S	Pavement Marking Grooved Wet Reflective Epoxy 8-Inch	LF	11,130.000	11,130.000
0720	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	28.000	28.000
0730	647.0176	Pavement Marking Arrows Epoxy Type 3	EACH	2.000	2.000
0740	647.0356	Pavement Marking Words Epoxy	EACH	14.000	14.000
0750	647.0456	Pavement Marking Curb Epoxy	LF	1,400.000	1,400.000
0760	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	1,215.000	1,215.000
0770	647.0606	Pavement Marking Island Nose Epoxy	EACH	14.000	14.000
0780	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	1,180.000	1,180.000
0790	647.0955	Removing Pavement Markings Arrows	EACH	30.000	30.000
0800	647.0965	Removing Pavement Markings Words	EACH	14.000	14.000
0810	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	7,750.000	7,750.000
0820	650.4500	Construction Staking Subgrade	LF	54.000	54.000
0830	650.5000	Construction Staking Base	LF	54.000	54.000
0840	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	600.000	600.000
0850	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0860	650.6500	Construction Staking Structure Layout (structure) 01.S-18-0111	LS	1.000	1.000
0870	650.7000	Construction Staking Concrete Pavement	LF	225.000	225.000
0880	650.8000	Construction Staking Resurfacing Reference	LF	37,500.000	37,500.000
0890	650.9910	Construction Staking Supplemental Control (project) 01.7028-00-60	LS	1.000	1.000
0900	650.9920	Construction Staking Slope Stakes	LF	54.000	54.000
0910	652.0800	Conduit Loop Detector	LF	4,630.000	4,630.000
0920	652.0900	Loop Detector Slots	LF	500.000	500.000
0930	653.0900	Adjusting Pull Boxes	EACH	2.000	2.000
0940	653.0905	Removing Pull Boxes	EACH	2.000	2.000
0950	655.0800	Loop Detector Wire	LF	11,000.000	11,000.000
0960	690.0150	Sawing Asphalt	LF	14,300.000	14,300.000
0970	690.0250	Sawing Concrete	LF	37,670.000	37,670.000

3

DATE 11SEP15 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	7028-00-60 QUANTITY
0980	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000
0990	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	630.000	630.000
1000	SPV.0045	Special 01.Traffic Control Channelizer Cones	DAY	16,650.000	16,650.000
1010	SPV.0045	Special 02. Portable Changeable Message Sign (PCMS) Cellular Communications	DAY	600.000	600.000
1020	SPV.0090	Special 01. Concrete Curb and Gutter Cure and Seal Treatment	LF	600.000	600.000
1030	SPV.0165	Special 01. Concrete Loading Zone Cure and Seal Treatment	SF	1,290.000	1,290.000
1040	SPV.0165	Special 02. Concrete Sidewalk Cure and Seal Treatment	SF	410.000	410.000
1050	SPV.0180	Special 01. Concrete Pavement Replacement Doweled Special	SY	16,500.000	16,500.000
1060	SPV.0180	Special 02. Concrete Pavement Repair Doweled Special	SY	8,970.000	8,970.000
1070	SPV.0180	Special 03. Geogrid Reinforcement	SY	1,250.000	1,250.000

3

CLEARING AND GRUBBING

CATEGORY	STATION TO	STATION	LOCATION	CLEARING 201.0105 STA	GRUBBING 201.0205 STA
0010	238+00	- 240+00	EB RT	2	2
			TOTAL 0010	2	2

BORROW

CATEGORY	STATION	LOCATION	208.0100 CY
0010	394+00	MEDIAN	75
		TOTAL 0010	75

REMOVING GUARDRAIL

CATEGORY	STATION TO	STATION	LOCATION	204.0165 LF	REMARKS
0010	242+68	- 244+58	EB RT	188	OUTSIDE SHOULDER
0010	243+92	- 245+82	WB LT	188	OUTSIDE SHOULDER
0010	249+88	- 252+38	WB LT	250	OUTSIDE SHOULDER
0010	279+25	- 280+75	EB RT	150	OUTSIDE SHOULDER
0010	297+19	- 299+19	EB LT	200	MEDIAN
0010	297+69	- 300+19	EB RT	250	RAMP
0010	308+00	- 312+00	MEDIAN	725	BRIDGE
0010	321+70	- 323+00	WB LT	130	RAMP
0010	338+84	- 340+84	EB RT	234	BRIDGE
0010	339+30	- 340+61	EB LT	165	BRIDGE
0010	339+99	- 340+63	WB RT	69	BRIDGE
0010	339+76	- 340+40	WB LT	69	BRIDGE
0010	340+90		MEDIAN	41	BRIDGE
0010	342+80		MEDIAN	41	BRIDGE
0010	342+97	- 343+61	EB RT	69	BRIDGE
0010	342+74	- 343+38	EB LT	69	BRIDGE
0010	342+77	- 344+08	WB RT	159	BRIDGE
0010	342+54	- 344+54	WB LT	234	BRIDGE
0010	425+20	- 426+01	EB RT	109	BRIDGE
0010	425+19	- 425+94	MEDIAN	165	BRIDGE
0010	425+07	- 425+71	WB LT	69	BRIDGE
0010	441+31	- 441+95	EB RT	69	BRIDGE
0010	441+08	- 441+93	MEDIAN	165	BRIDGE
0010	441+02	- 441+83	WB LT	96	BRIDGE
			TOTAL 0010	3,904	

PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) 01. 7028-00-60

CATEGORY	LOCATION	211.0100 LS	REMARKS
0010	PROJECT	1	SHOULDERS/CROSSOVERS
	TOTAL 0010	1	

EXCAVATION COMMON

CATEGORY	LOCATION	205.0100 CY
0010	UNDISTRIBUTED	400
	TOTAL 0010	400

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STATION TO	STATION	LOCATION	204.0120 SY	REMARKS
0010	177+50	- 563+40	EB	21,800	OUTSIDE SHOULDER
0010	177+50	- 402+00	EB	6,800	MEDIAN SHOULDER
0010	90+00	- 101+00	SW RAMP	1,290	
0010	101+50	- 108+50	SE RAMP	620	
0010	177+50	- 563+05	WB	19,350	OUTSIDE SHOULDER
0010	177+50	- 402+00	WB	6,800	MEDIAN SHOULDER
0010	88+50	- 99+00	NW RAMP	950	
0010	101+00	- 111+00	NE RAMP	900	
			TOTAL 0010	58,510	

BASE AGGREGATE

CATEGORY	STATION TO	STATION	LOCATION	DENSE 3/4-INCH 305.0110 TON	DENSE 1 1/4-INCH 305.0120 TON	OPEN GRADED 310.0110 TON	REMARKS
0010	177+50	- 563+40	EB	660			OUTSIDE SHOULDER
0010	177+50	- 402+00	EB	750			MEDIAN SHOULDER
0010	90+00	- 101+00	SW RAMP	110			
0010	101+50	- 108+50	SE RAMP	50			
0010	177+50	- 563+05	WB	615			OUTSIDE SHOULDER
0010	177+50	- 402+00	WB	750			MEDIAN SHOULDER
0010	88+50	- 99+00	NW RAMP	75			
0010	101+00	- 111+00	NE RAMP	75			
0010			VARIOUS	65			CROSSOVERS
0010			VARIOUS	400			E.A.T. WIDENING
0010			UNDISTRIBUTED		400	320	SEE DETAILS
			TOTAL 0010	3,550	400	320	

3

ASPHALTIC SURFACE

CATEGORY	STATION TO STATION	LOCATION	TACK COAT 455.0605 GAL	SURFACE 465.0105 TON	PATCHING 465.0110 TON	REMARKS
0010	177+50 - 563+40	EB	1,525	1,800		OUTSIDE SHOULDER
0010	177+50 - 402+00	EB	475	560		MEDIAN SHOULDER
0010	90+00 - 101+00	SW RAMP	90	105		
0010	101+50 - 108+50	SE RAMP	45	50		
0010	177+50 - 563+05	WB	1,350	1,600		OUTSIDE SHOULDER
0010	177+50 - 402+00	WB	475	560		MEDIAN SHOULDER
0010	88+50 - 99+00	NW RAMP	60	75		
0010	101+00 - 111+00	NE RAMP	65	75		
0010		VARIOUS		80		CROSSOVERS
0010		VARIOUS		500		MEDIAN SHOULDER WEDGING
0010		CONCRETE REPLACEMENT			175	SEE CONSTRUCTION DETAILS
0010		CONCRETE REPAIR			50	SEE CONSTRUCTION DETAILS
		TOTAL 0010	4,085	5,405	225	

SHAPING SHOULDERS

CATEGORY	STATION TO STATION	LOCATION	305.0500 STA
0010	177+50 - 402+00	WB LT	225
0010	177+50 - 402+00	WB RT	225
0010	177+50 - 402+00	EB LT	225
0010	177+50 - 402+00	EB RT	225
0010	402+00 - 410+50	WB LT	9
0010	402+00 - 410+50	EB RT	9
0010	513+50 - 563+40	EB RT	50
0010	546+00 - 552+50	WB LT	7
0010	89+67 - 98+10	SW RAMP LT	9
0010	90+15 - 93+15	SW RAMP RT	3
0010	188+25 - 198+25	NW RAMP LT	10
0010	188+25 - 198+25	NW RAMP RT	10
0010	204+30 - 211+52	NE RAMP LT	8
0010	207+00 - 210+30	NE RAMP RT	4
0010	101+37 - 108+14	SE RAMP LT	7
0010	101+37 - 108+14	SE RAMP RT	7
		TOTAL 0010	1,033

DRILLED BARS

CATEGORY	STATION TO STATION	LOCATION	TIE BARS 416.0610 EACH	DOWEL BARS 416.0620 EACH
0010	177+50 - 184+52		100	860
0010		TOWN HALL ROAD		80
0010		CTH EE	18	80
0010	184+52 - 205+10		265	2,160
0010		MILL RUN RD. NO.		190
0010		MILL RUN RD. SO.	17	96
0010	205+10 - 237+29		180	2,060
0010		CTH TT NO.		96
0010		CTH TT SO.		32
0010	237+29 - 273+86		360	910
0010		LOSAN RD. NO.		80
0010		LOSAN RD. SO.		64
0010	273+86 - 310+00		255	480
0010		SW RAMP		48
0010		NW RAMP		32
0010		SE RAMP		80
0010		NE RAMP	30	16
0010	310+00 - 340+99		255	660
0010	342+70 - 367+28		400	720
0010		JEFFERS RD SO.		64
0010	367+28 - 411+78		430	720
0010		OLD WELLS RD. NO.		96
0010		OLD WELLS RD. SO.		110
0010	411+78 - 426+16		140	270
0010	441+04 - 464+10		15	400
0010		RIVERVIEW DR. NO.		96
0010		RIVERVIEW DR. SO.		64
0010	464+10 - 479+00		20	670
0010		MERCURY	55	64
0010		STARR CONN. RD.	45	64
0010	479+00 - 500+00		20	2,460
0010	500+00	NE RAMP	10	130
0010	500+00 - 555+00		35	370
0010		UNDISTRIBUTED	300	678
		TOTAL 0010	2,950	15,000

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ASPHALTIC SHOULDER RUMBLE STRIP

CATEGORY	STATION TO STATION	LOCATION	465.0400 LF
0010	177+50 - 402+00	EB MEDIAN	18,850
0010	177+50 - 407+00	EB RT	18,250
0010	177+50 - 402+00	WB MEDIAN	19,000
0010	177+50 - 407+00	WB LT	17,700
		TOTAL 0010	73,800

CONCRETE SIDEWALK ITEMS

CATEGORY	STATION TO STATION	LOCATION	REMOVING 204.0155 SY	4-INCH 602.0405 SF	CURE AND SEAL TREATMENT SPV.0165.02 SF
0010	11+54 - 11+84	ABBE HILL DR.	20	180	180
0010	13+84 - 14+22	ABBE HILL DR.	25	230	230
		TOTAL 0010	45	410	410

3

CULVERT PIPE ITEMS

CATEGORY	STATION	LOCATION	CULVERT PIPE CORRUGATED STEEL 24-INCH 521.0124 LF	APRON ENDWALLS SLOPED SIDE DRAINS 24-INCH 6 TO 1 521.1524 EACH	CONSTRUCTION STAKING PIPE CULVERTS 650.6000 EACH	REMARKS
0010	394+00	MEDIAN	56	2	1	SEE DETAIL
		TOTAL 0010	56	2	1	

NOTE: MINIMUM CULVERT PIPE STEEL THICKNESS = 0.064"

CONCRETE LOADING ZONE

CATEGORY	STATION TO STATION	LOCATION	CONCRETE LOADING ZONE 602.1000 SF	CURE AND SEAL TREATMENT SPV.0165.01 SF
0010	19+21 - 19+67	MERCURY RT.	660	660
0010	20+61 - 21+05	MERCURY LT.	630	630
		TOTAL 0010	1,290	1,290

CONCRETE CURB AND GUTTER ITEMS

CATEGORY	STATION TO STATION	LOCATION	REMOVING CURB & GUTTER 204.0150 LF	CONCRETE CURB & GUTTER 30-INCH TYPE A 601.0409 LF	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER 650.5500 LF	CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT SPV.0090.01 LF	REMARKS
0010	18+52 - 19+58	LEFT	130	130	130	130	MERCURY AVE.
0010	18+52 - 19+64	RIGHT	140	140	140	140	MERCURY AVE.
0010	20+64 - 21+60	LEFT	130	130	130	130	MERCURY AVE.
0010	20+66 - 21+57	RIGHT	120	120	120	120	MERCURY AVE.
0010	UNDISTRIBUTED		80	80	80	80	
		TOTAL 0010	600	600	600	600	

ADJUSTING COVERS

CATEGORY	STATION	LOCATION	MANHOLE 611.8110 EACH	INLET 611.8115 EACH	REMARKS
0010	19+54	42' LT		1	MERCURY AVE.
0010	19+62	61' RT		1	MERCURY AVE.
0010	19+70	27' LT	1		MERCURY AVE.
0010	20+71	57' RT		1	MERCURY AVE.
0010	20+75	46' LT		1	MERCURY AVE.
		TOTAL 0010	1	4	

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MGS GUARDRAIL 3

CATEGORY	STATION TO STATION	LOCATION	614.2300 LF
0010	170+34 - 171+34	WB LT	100.0
0010	170+34 - 171+59	WB RT	125.0
0010	241+54 - 242+04	EB RT	50.0
0010	244+46 - 245+84	WB LT	137.5
0010	249+90 - 252+28	WB LT	137.5
0010	297+44 - 299+19	EB LT	175.0
0010	86+97 - 89+47	SW RAMP RT	250.0
0010	212+16 - 213+54	NE RAMP LT	137.5
0010	339+08 - 340+46	EB LT	137.5
0010	339+31 - 340+69	EB RT	137.5
0010	342+68 - 343+68	WB LT	100.0
0010	342+91 - 344+29	WB RT	137.5
0010	425+10 - 425+98	EB RT	87.5
0010	441+14 - 442+02	WB LT	87.5
		TOTAL 0010	1,800

STEEL THRIE BEAM

CATEGORY	STATION TO STATION	LOCATION	614.0230 LF
0010	309+26 - 310+51	MEDIAN	125
0010	309+26 - 310+51	MEDIAN	125
0010	425+65 - 425+90	MEDIAN	25
0010	425+65 - 426+02	MEDIAN	38
0010	441+00 - 441+38	MEDIAN	38
0010	441+14 - 441+38	MEDIAN	25
		TOTAL 0010	376

STEEL THRIE BEAM BULLNOSE TERMINAL

CATEGORY	STATION TO STATION	LOCATION	614.0220 EACH
0010	308+72 - 309+26	MEDIAN	1
0010	310+51 - 311+04	MEDIAN	1
0010	424+49 - 425+65	MEDIAN	1
0010	441+38 - 442+53	MEDIAN	1
		TOTAL 0010	4

MGS THRIE BEAM TRANSITION

CATEGORY	STATION TO STATION	LOCATION	614.2500 LF
0010	339+99 - 340+39	WB LT	39.4
0010	340+22 - 340+62	WB RT	39.4
0010	340+46 - 340+85	EB LT	39.4
0010	340+69 - 341+09	EB RT	39.4
0010	342+29 - 342+68	WB LT	39.4
0010	342+52 - 342+91	WB RT	39.4
0010	342+76 - 343+16	EB LT	39.4
0010	343+00 - 343+39	EB RT	39.4
0010	425+29 - 425+68	WB LT	39.4
0010	425+98 - 426+37	EB RT	39.4
0010	440+75 - 441+15	WB LT	39.4
0010	441+35 - 441+75	EB RT	39.4
		TOTAL 0010	473

MGS GUARDRAIL 3 K

CATEGORY	STATION TO STATION	LOCATION	614.2330 LF
0010	243+84 - 244+46	WB LT	62.5
0010	242+04 - 244+66	EB RT	262.5
		TOTAL 0010	325

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BARRIER SYSTEM GRADING SHAPING FINISHING

CATEGORY	STATION TO STATION	LOCATION	614.0010 EACH	FOR INFORMATION ONLY BORROW CY	SALVAGED TOPSOIL SY	MULCHING SY	FERTILIZER TYPE B CWT	SEEDING # 20 LB	SLOPE STAKES LF
0010	240+00 - 245+36	EB RT	1	370	900	0	0.6	24	540
0010	244+25 - 247+57	WB LT	1	60	370	110	0.2	10	330
0010	249+36 - 254+00	WB LT	1	130	730	730	0.5	20	460
0010	295+71 - 299+83	EB LT	1	20	250	250	0.2	7	410
0010	85+24 - 89+00	SW RAMP RT	1	200	600	600	0.4	16	380
0010	211+52 - 215+27	NE RAMP LT	1	60	300	0	0.2	8	375
0010	306+75 - 313+00	MEDIAN	1	270	1,150	1150	0.7	31	625
0010	339+35 - 340+36	WB LT	1	10	250	100	0.2	7	100
0010	339+58 - 340+59	WB RT	1	10	80	80	0.1	2	100
0010	337+35 - 340+83	EB LT	1	35	250	250	0.2	7	350
0010	337+96 - 341+06	EB RT	1	590	2,260	360	1.4	61	410
0010	342+31 - 345+41	WB LT	1	250	1,780	400	1.1	48	310
0010	342+54 - 346+02	WB RT	1	35	220	220	0.1	6	350
0010	342+78 - 343+80	EB LT	1	10	50	50	0.1	1	100
0010	342+50 - 344+00	EB RT	1	280	270	110	0.2	7	150
		TOTAL 0010	15	2,330	9,460	4,410	6	255	4,990

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MGS GUARDRAIL TERMINAL EAT

CATEGORY	STATION TO STATION	LOCATION	614.2610 EACH
0010	171+34 - 171+87	WB LT	1
0010	171+59 - 172+12	WB RT	1
0010	241+01 - 241+54	EB RT	1
0010	244+84 - 246+37	WB LT	1
0010	252+31 - 252+81	WB LT	1
0010	296+91 - 297+44	EB LT	1
0010	86+44 - 86+97	SW RAMP RT	1
0010	213+54 - 214+07	NE RAMP LT	1
0010	338+55 - 339+08	EB LT	1
0010	338+79 - 339+31	EB RT	1
0010	343+68 - 344+21	WB LT	1
0010	344+29 - 344+82	WB RT	1
0010	424+57 - 425+10	EB RT	1
0010	442+02 - 442+55	WB LT	1
		TOTAL 0010	14

SILT FENCE SUMMARY

CATEGORY	STATION TO STATION	LOCATION	SILT FENCE 628.1504 LF	MAINTENANCE 628.1520 LF
0010	239+95 - 245+40	RIGHT	525	525
0010	244+65 - 247+75	LEFT	330	330
0010	249+25 - 254+25	LEFT	510	510
0010	295+70 - 300+00	RIGHT	570	570
0010	337+90 - 341+40	RIGHT	390	390
0010	339+50 - 340+60	LEFT	115	115
0010	342+10 - 345+85	LEFT	410	410
0010	342+90 - 344+15	RIGHT	160	160
0010	UNDISTRIBUTED		290	290
		TOTAL 0010	3,300	3,300

MGS GUARDRAIL TERMINAL TYPE 2

CATEGORY	STATION	LOCATION	614.2620 EACH
0010	170+34	WB LT	1
0010	170+34	WB RT	1
0010	243+84	WB LT	1
0010	244+66	EB RT	1
0010	249+90	WB LT	1
0010	299+19	EB LT	1
0010	89+47	SW RAMP RT	1
0010	212+16	NE RAMP LT	1
0010	339+99	WB LT	1
0010	340+22	WB RT	1
0010	343+16	EB LT	1
0010	343+39	EB RT	1
0010	425+29	WB LT	1
0010	441+75	EB RT	1
		TOTAL 0010	14

SIGNS TYPE I

CATEGORY	STATION	LOCATION	SIGNS TYPE I REFLECTIVE H 637.1210 SF	REMOVING SIGNS TYPE I 638.2601 EACH	REMOVING STRUCTURAL STEEL SIGN SUPPORTS 638.3100 EACH	REMARKS
0010	281+50	STH 312 EB	242.00	1		CLAIREMONT EXIT 1/4 MILE
0010	288+04	STH 312 EB	60.00	1		DOWNTOWN
0010	299+00	STH 312 EB	88.00	1		312 TO 53 AHEAD
0010	299+00	STH 312 EB	165.00	1		CLAIREMONT AVE RUP ARROW
0010	322+00	STH 312 WB	165.00	1		CLAIREMONT AVE RUP ARROW
0010	326+85	STH 312 WB	153.00	1		WEST 12 AHEAD
0010	331+35	STH 312 WB	69.00	1		CHIPPEWA VALLEY TECHNICAL COLLEGE
0010	350+00	STH 312 WB	242.00	1		CLAIREMONT AVE EXIT 1/2 MILE
0010	483+80	STH 312 EB	96.00	1		BUS 53 JCT 1/4 MILE
0010	531+50	STH 312 EB		1	2	CHIPPEWA FALLS
		TOTAL 0010	1280.00	10	2	
0020		STH 312 WB	110.00	1		EAST MADISON
0020		STH 312 WB	154.00	1		WEST ST PAUL
0020	170+45	STH 312 WB	115.50			EAST MADISON
0020	170+45	STH 312 WB	157.50			WEST ST PAUL
		TOTAL 0020	537.00	2	0	
		TOTAL	1817.00	12	2	

EROSION MAT CLASS I TYPE B

CATEGORY	STATION TO STATION	LOCATION	628.2004 SY
0010	240+00 - 245+36	EB RT	900
0010	244+50 - 245+50	WB LT	260
0010	212+00 - 214+50	WB LT	260
0010	338+25 - 341+20	EB RT	1,900
0010	339+80 - 340+40	WB LT	145
0010	242+25 - 345+60	WB LT	1,375
0010	343+00 - 343+70	EB RT	160
0010	UNDISTRIBUTED		1,000
		TOTAL 0010	6,000

628-MOBILIZATIONS EROSION

CATEGORY	LOCATION	EROSION 628.1905 EACH	EMERGENCY 628.1910 EACH
0010	PROJECT	3	2
	TOTAL 0010	3	2

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CAT 0010	SIGN #	SIGN CODE	SIGN SIZE	SIGNS TYPE II REFLECTIVE H 637.2210 SF	SIGNS TYPE II REFLECTIVE F 637.2230 SF	POSTS WOOD 4X6-INCH 14-FT 634.0614 EACH	POSTS WOOD 4X6-INCH 16-FT 634.0616 EACH	POSTS WOOD 4X6-INCH 18-FT 324.0618 EACH	POSTS WOOD 4X6-INCH 20-FT 634.0620 EACH	POSTS WOOD 4X6-INCH 22-FT 634.0622 EACH	REMOVING SIGNS TYPE II 638.2602 EACH	REMOVING SMALL SIGN SUPPORTS 638.3000 EACH	REMARKS
	1-1	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	1-2	D1-3	96"X48"	32.00				2			1	2	DESTINATION/DIRECTION
	1-3	J12-1	36"X66"	16.50				1			1	1	DIRECTIONAL ASSEMBLY
	1-4	J2-1	36"X84"	21.00					2		1	1	ROUTE TURN ASSEMBLY
	1-5	D1-61	108"X30"	22.50			2				1	2	STREET SIGN
	1-6	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	1-7	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	1-8	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	1-9	R4-7	36"X48"	12.00			1				1	1	KEEP RIGHT
	1-10	R1-1	36"X36"	7.46		1					1	1	STOP
	1-11	R6-2-L	36"X48"	12.00							1		ONE WAY LEFT ARROW
	1-12	J13-1	36"X66"	16.50				2			1	1	DIRECTIONAL ASSEMBLY
	1-13	R5-1	36"X36"	9.00							1		DO NOT ENTER
	1-14	R1-1	36"X36"	7.46			1				1	1	STOP
		R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	1-15	R1-1	36"X36"	7.46		1					1	1	STOP
	1-16	R1-1	36"X36"	7.46			1				1	1	STOP
		R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	1-17	R5-1	36"X36"	9.00				2			1	1	DO NOT ENTER
	1-18	J12-1	36"X66"	16.50							1		DIRECTIONAL ASSEMBLY
	1-19	R6-2-L	36"X48"	12.00							1		ONE WAY LEFT ARROW
	1-20	R4-7	36"X48"	12.00			1				1	1	KEEP RIGHT
	1-21	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	1-22	I55-56	30"X36"	7.50		1					1	1	ADOPT-A-HIGHWAY [MENARDS]
	1-23	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	1-24	J4-2	72"X54"	27.00				2			1	1	REASSURANCE ASSEMBLY
	1-25	D1-61	108"X30"	22.50			2				1	2	STREET SIGN
	1-26	R10-64	42"X48"	14.00				1			1	1	NO ENGINE BRAKING EXCEPT IN EMERGENCY
		R10-64-F	42"X24"	7.00							1		WITHIN CITY LIMITS
	1-27	I2-3	66"X24"	11.00			2				1	2	EAU CLAIRE, POPULATION 65,883
	1-28	J1-1	36"X57"	14.25			1				1	1	JUNCTION ASSEMBLY
	1-29	D1-61	84"X30"	17.50			2				1	2	STREET SIGN
	1-30	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	1-31	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	1-32	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	1-33	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	1-34	R1-1	36"X36"	7.46				1			1	1	STOP
		R1-53	24"X30"	5.00							1		RIGHT TURN OBEY THIS SIGN
	1-35	R4-7	36"X48"	12.00							1		KEEP RIGHT
	1-36	R6-2-L	36"X48"	12.00							1		ONE WAY LEFT ARROW
	1-37	R5-1	36"X36"	9.00			1				1	1	DO NOT ENTER
	1-38	R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	1-39	R4-7	36"X48"	12.00							1		KEEP RIGHT
	1-40	R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	1-41	R4-7	36"X48"	12.00							1		KEEP RIGHT
	1-42	R5-1	36"X36"	9.00			1				1	1	DO NOT ENTER
	1-43	R6-2-L	36"X48"	12.00							1		ONE WAY LEFT ARROW
	1-44	R1-1	36"X36"	7.46				1			1	1	STOP
		R1-53	24"X30"	5.00							1		RIGHT TURN OBEY THIS SIGN
	1-45	R4-7	36"X48"	12.00							1		KEEP RIGHT
SUBTOTALS				538.76	64.00	6	22	12	2	0	50	38	

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CAT 0010	SIGN #	SIGN CODE	SIGN SIZE	SIGNS TYPE II REFLECTIVE H 637.2210 SF	SIGNS TYPE II REFLECTIVE F 637.2230 SF	POSTS WOOD 4X6-INCH 14-FT 634.0614 EACH	POSTS WOOD 4X6-INCH 16-FT 634.0616 EACH	POSTS WOOD 4X6-INCH 18-FT 324.0618 EACH	POSTS WOOD 4X6-INCH 20-FT 634.0620 EACH	POSTS WOOD 4X6-INCH 22-FT 634.0622 EACH	REMOVING SIGNS TYPE II 638.2602 EACH	REMOVING SMALL SIGN SUPPORTS 638.3000 EACH	REMARKS
	1-46	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	2-1	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	2-2	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	2-3	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	2-4	D1-61	84"X30"	17.50			2				1	2	STREET SIGN
	2-5	J1-1	36"X57"	14.25			1				1	1	JUNCTION ASSEMBLY
	2-6	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	2-7	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	2-8	D1-61	66"X30"	13.75			2				1	1	STREET SIGN
	2-9	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	2-10	R5-1A	42"X30"	8.75							1		WRONG WAY
	2-11	J4-2	72"X54"	27.00				2			1	1	REASSURANCE ASSEMBLY
	2-12	R10-10-L	24"X30"	5.00							1		LEFT TURN SIGNAL
	2-13	R6-2-L	36"X48"	12.00							1		ONE WAY LEFT ARROW
	2-14	J13-1	36"X66"	16.50							1		DIRECTIONAL ASSEMBLY
	2-15	R5-1	36"X36"	9.00							1		DO NOT ENTER
	2-16	R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	2-17	R4-7	36"X48"	12.00							1		KEEP RIGHT
	2-18	R1-1	36"X36"	7.46				1			1	1	STOP
		R1-53	24"X30"	5.00							1		RIGHT TURN OBEY THIS SIGN
	2-19	R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	2-20	R5-1	36"X36"	9.00							1		DO NOT ENTER
	2-21	R6-2-L	36"X48"	12.00							1		ONE WAY LEFT ARROW
	2-22	R10-10-L	24"X30"	5.00							1		LEFT TURN SIGNAL
	2-23	R1-1	36"X36"	7.46				1			1	1	STOP
		R1-53	24"X30"	5.00							1		RIGHT TURN OBEY THIS SIGN
	2-24	R4-7	36"X48"	12.00							1		KEEP RIGHT
	2-25	R5-1A	42"X30"	8.75							1		WRONG WAY
	2-26	J4-2	72"X54"	27.00				2			1	1	REASSURANCE ASSEMBLY
	2-27	D1-61	66"X30"	13.75			2				1	1	STREET SIGN
	2-28	J13-1	36"X66"	16.50				1			1	1	DIRECTIONAL ASSEMBLY
	2-29	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	2-30	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	2-31	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	2-32	J1-1	36"X57"	14.25			1				1	1	JUNCTION ASSEMBLY
	2-33	D1-61	78"X30"	16.25			2				1	2	STREET SIGN
	2-34	I55-56	30"X36"	7.50		1					1	1	ADOPT-A-HIGHWAY [MENARDS]
	2-35	D1-4	138"X72"	69.00					3		1	3	CHIPPEWA VALLEY
	3-1	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	3-2	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	3-3	J4-2	72"X54"	27.00				2			1	1	REASSURANCE ASSEMBLY
	3-4	R4-7	36"X48"	12.00			1				1	1	KEEP RIGHT
	3-5	R5-1	36"X36"	9.00		1					1	1	DO NOT ENTER
	3-6	R1-1	36"X36"	7.46		1					1	1	STOP
	3-7	R6-2-L	36"X48"	12.00							1		ONE WAY LEFT ARROW
	3-8	R1-1	36"X36"	7.46			1				1	1	STOP
		R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	3-9	R6-2-L	36"X48"	12.00							1		ONE WAY LEFT ARROW
	3-10	R1-1	36"X36"	7.46			1				1	1	STOP
		R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
SUBTOTALS				551.55	96.00	5	23	9	3	0	50	35	

637-PERMANENT SIGNING

CAT 0010	SIGN #	SIGN CODE	SIGN SIZE	SIGNS TYPE II REFLECTIVE H 637.2210 SF	SIGNS TYPE II REFLECTIVE F 637.2230 SF	POSTS WOOD 4X6-INCH 14-FT 634.0614 EACH	POSTS WOOD 4X6-INCH 16-FT 634.0616 EACH	POSTS WOOD 4X6-INCH 18-FT 324.0618 EACH	POSTS WOOD 4X6-INCH 20-FT 634.0620 EACH	POSTS WOOD 4X6-INCH 22-FT 634.0622 EACH	REMOVING SIGNS TYPE II 638.2602 EACH	REMOVING SMALL SIGN SUPPORTS 638.3000 EACH	REMARKS
	3-11	R5-1	36"X36"	9.00		1					1	1	DO NOT ENTER
	3-12	R1-1	36"X36"	9.00		1					1	1	STOP
	3-13	R4-7	36"X48"	12.00			1				1	1	KEEP RIGHT
	3-14	J4-2	72"X54"	27.00				2			1	1	REASSURANCE ASSEMBLY
	3-15	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	3-16	D1-65	102"X30"	21.25				2			1	2	UW EAU CLAIRE
	3-17	D1-3	138"X48"	46.00				3			1	2	CHIPPEWA VALLEY
	3-18	D1-61	78"X30"	16.25			2				1	2	STREET SIGN
	3-19	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	3-20	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	3-21	R3-4-B	36"X48"	12.00			1				1		NO U-TURN
	3-22	R3-4-B	36"X48"	12.00			1				1	1	NO U-TURN
	3-23	J4-2	72"X54"	27.00				2			1	1	REASSURANCE ASSEMBLY
	3-24	D9-2	36"X36"	9.00				1			1	1	HOSPITAL
		MB6-2	30"X30"	6.25							1		ARROW - TILT RIGHT
	3-25	E5-1	72"X60"	30.00				2			1	2	EXIT - ARROW
	3-26	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	3-27	W4-1R	48"X48"		16.00		1				1	1	MERGING TRAFFIC FROM RIGHT
	3-28	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	3-29	W4-2-R	48"X48"		16.00		1				1	1	LANE REDUCTION TRANSITION - RIGHT
	3-30	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	3-31	W4-1R	48"X48"		16.00		1				1	1	MERGING TRAFFIC FROM RIGHT
	3-32	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	3-33	E5-1	72"X60"	30.00				2			1	2	EXIT - ARROW
	3-34	J4-1	36"X54"	13.50			1				1	1	REASSURANCE ASSEMBLY
	4-1	R3-4-B	36"X48"	12.00			1				1	1	NO U-TURN
	4-2	R3-4-B	36"X48"	12.00			1				1		NO U-TURN
	4-3	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	4-4	R3-4-B	36"X48"	12.00			1				1	1	NO U-TURN
	4-5	R3-4-B	36"X48"	12.00			1				1		NO U-TURN
	4-6	W3-3	48"X48"		16.00						1		SIGNAL AHEAD
	4-7	W3-3	48"X48"		16.00						1		SIGNAL AHEAD
	4-8	D1-61	78"X30"	16.25			2				1	2	STREET SIGN
	4-9	J2-1	36"X84"	21.00					2		1	1	ROUTE TURN ASSEMBLY
	4-10	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	4-11	J4-1	36"X54"	13.50			1				1	1	REASSURANCE ASSEMBLY
	4-12	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	4-13	R4-7	36"X48"	12.00							1		KEEP RIGHT
	4-14	R6-2-L	36"X48"	12.00							1		ONE WAY LEFT ARROW
	4-15	R5-1	36"X36"	9.00							1		DO NOT ENTER
	4-16	R10-10-L	24"X30"	5.00							1		LEFT TURN SIGNAL
	4-17	R1-1	36"X36"	7.46				1			1	1	STOP
		R1-53	24"X30"	5.00							1		RIGHT TURN OBEY THIS SIGN
	4-18	R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	4-19	R6-2-L	36"X48"	12.00							1		ONE WAY LEFT ARROW
	4-20	R1-2	48"X42"	7.00			1				1	1	YIELD
	4-21	R5-1	36"X36"	9.00							1		DO NOT ENTER
	4-22	J2-1	36"X84"	21.00					2		1	1	ROUTE TURN ASSEMBLY
	4-23	R10-10-L	24"X30"	5.00							1		LEFT TURN SIGNAL
	4-24	R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
SUBTOTALS				582.96	112.00	4	25	15	4	0	50	40	

CAT 0010	SIGN #	SIGN CODE	SIGN SIZE	SIGNS TYPE II REFLECTIVE H 637.2210 SF	SIGNS TYPE II REFLECTIVE F 637.2230 SF	POSTS WOOD 4X6-INCH 14-FT 634.0614 EACH	POSTS WOOD 4X6-INCH 16-FT 634.0616 EACH	POSTS WOOD 4X6-INCH 18-FT 324.0618 EACH	POSTS WOOD 4X6-INCH 20-FT 634.0620 EACH	POSTS WOOD 4X6-INCH 22-FT 634.0622 EACH	REMOVING SIGNS TYPE II 638.2602 EACH	REMOVING SMALL SIGN SUPPORTS 638.3000 EACH	REMARKS
	4-25	R1-1	36"X36"	7.46							1		STOP
	4-26	R4-7	36"X48"	12.00							1		KEEP RIGHT
	4-27	J4-1	36"X54"	13.50			1				1	1	REASSURANCE ASSEMBLY
	4-28	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	4-29	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	4-30	D1-61	78"X30"	16.25			2				1	2	STREET SIGN
	4-31	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	4-32	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	5-1	R3-4-B	36"X48"	12.00			1						NO U-TURN
	5-2	R3-4-B	36"X48"	12.00			1						NO U-TURN
	5-3	W3-3	48"X48"		16.00						1		SIGNAL AHEAD
	5-4	W3-3	48"X48"		16.00						1		SIGNAL AHEAD
	5-5	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	5-6	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	5-7	D1-61	90"X30"	18.75			2				1	2	STREET SIGN
	5-8	D9-2	36"X36"	9.00				1			1	1	HOSPITAL
		MB6-1	30"X30"	6.25							1		ARROW - RIGHT
	5-9	R5-1A	42"X30"	8.75							1		WRONG WAY
	5-10	I55-56	30"X36"	7.50		1					1	1	MKTG & MGT CLUB C.V.T.C.
	5-11	R5-1	36"X36"	9.00		1					1	1	DO NOT ENTER
	5-12	R1-2	48"X42"	7.00			1				1	1	YIELD
	5-13	R4-7	36"X48"	12.00							1		KEEP RIGHT
	5-14	R1-1	36"X36"	7.46			1				1	1	STOP
	5-15	R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	5-16	R6-2-L	36"X48"	12.00							1		ONE WAY LEFT ARROW
	5-17	R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	5-18	R6-2-L	36"X48"	12.00							1		ONE WAY LEFT ARROW
	5-19	R4-7	36"X48"	12.00							1		KEEP RIGHT
	5-20	R1-2	48"X42"	7.00			1				1	1	YIELD
	5-21	R3-4	36"X36"	9.00							1		NO U-TURN
	5-22	R5-1	36"X36"	9.00		1					1	1	DO NOT ENTER
	5-23	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	5-24	D9-2	36"X36"	9.00							1		HOSPITAL
		MB6-1	30"X30"	6.25							1		ARROW - LEFT
	5-25	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	5-26	D1-61	90"X30"	18.75			2				1	2	STREET SIGN
	5-27	J4-1	36"X54"	13.50			1				1	1	REASSURANCE ASSEMBLY
	5-28	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	5-29	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	5-30	I3-1	108"X21"	15.75			2						CHIPPEWA RIVER
	5-31	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	5-32	W5-52L	18"X54"		6.75		1				1	1	CLEARANCE STRIPER DOWN RIGHT
	5-33	W5-52R	18"X54"		6.75		1				1	1	CLEARANCE STRIPER DOWN LEFT
	5-34	W5-52R	18"X54"		6.75		1				1	1	CLEARANCE STRIPER DOWN LEFT
	5-35	W5-52L	18"X54"		6.75		1				1	1	CLEARANCE STRIPER DOWN RIGHT
	5-36	I3-1	108"X21"	15.75			2						CHIPPEWA RIVER
	6-1	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 50 MPH
	6-2	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 45 MPH
	6-3	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 45 MPH
	6-4	D1-61	96"X30"	20.00			2				1	2	STREET SIGN
SUBTOTALS				442.42	123.00	5	35	1	0	0	46	35	

PERMANENT SIGNING

CAT 0010	SIGN #	SIGN CODE	SIGN SIZE	SIGNS TYPE II REFLECTIVE H 637.2210 SF	SIGNS TYPE II REFLECTIVE F 637.2230 SF	POSTS WOOD 4X6-INCH 14-FT 634.0614 EACH	POSTS WOOD 4X6-INCH 16-FT 634.0616 EACH	POSTS WOOD 4X6-INCH 18-FT 324.0618 EACH	POSTS WOOD 4X6-INCH 20-FT 634.0620 EACH	POSTS WOOD 4X6-INCH 22-FT 634.0622 EACH	REMOVING SIGNS TYPE II 638.2602 EACH	REMOVING SMALL SIGN SUPPORTS 638.3000 EACH	REMARKS
	6-5	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	6-6	R1-1	36"X36"	7.46			1				1	1	STOP
	6-7	R4-7	36"X48"	12.00			1				1	1	KEEP RIGHT
	6-8	R1-1	36"X36"	7.46							1		STOP
		R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	6-9	R5-1	36"X36"	9.00			1				1	1	DO NOT ENTER
	6-10	R6-2-L	36"X48"	12.00							1		ONE WAY LEFT ARROW
	6-11	R6-2-L	36"X48"	12.00							1		ONE WAY LEFT ARROW
	6-12	R5-1	36"X36"	9.00			1				1	1	DO NOT ENTER
	6-13	R1-1	36"X36"	7.46							1		STOP
		R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	6-14	R1-1	36"X36"	7.46			1				1	1	STOP
	6-15	R4-7	36"X48"	12.00			1				1	1	KEEP RIGHT
	6-16	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	6-17	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 45 MPH
	6-18	D1-60	114"X48"	38.00			2				1	2	ENTRANCE DIRECTION
	6-19	D1-60	114"X48"	38.00			2				1	2	ENTRANCE DIRECTION
	6-20	D1-61	96"X30"	20.00			2				1	2	STREET SIGN
	6-21	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 45 MPH
	6-22*	D1-4	132"X66"	121.00					6		1	2	*FOR 2 SIGNS, SEE TC SHEETS
	6-23	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	6-24	J4-1	36"X54"	13.50			1				1	1	REASSURANCE ASSEMBLY
	6-25	R5-1	36"X36"	9.00			1				1	1	DO NOT ENTER
	6-26	R4-7	36"X48"	12.00			1				1	1	KEEP RIGHT
	6-27	R6-2-R	36"X48"	12.00							1		ONE WAY RIGHT ARROW
	6-28	R1-1	36"X36"	7.46			1				1	1	STOP
	6-29	R1-1	36"X36"	7.46			1				1	1	STOP
	6-30	R1-1	36"X36"	7.46			1				1	1	STOP
	6-31	R1-1	36"X36"	7.46			1				1	1	STOP
	6-32	R6-2-R	36"X48"	12.00							1		ONE WAY RIGHT ARROW
	6-33	R4-7	36"X48"	12.00			1				1	1	KEEP RIGHT
	6-34	R5-1	36"X36"	9.00			1				1	1	DO NOT ENTER
	6-35	R5-1A	42"X30"	8.75		1					1		WRONG WAY
	6-36	J4-1	36"X54"	13.50			1				1	1	REASSURANCE ASSEMBLY
	6-37										1	2	SIGN TO BE REMOVED
	6-38	M2-1	30"X21"	4.38				1			1	1	JUNCTION MARKER
		M4-3	36"X18"	4.50							1		BUSINESS ROUTE MARKER
		M1-4	36"X36"	9.00							1		US ROUTE MARKER, 53
	6-39	D1-60	114"X48"	38.00			2				1	2	ENTRANCE DIRECTION
	6-40	D1-60	114"X48"	38.00			2				1	2	ENTRANCE DIRECTION
	6-41	R3-7-R	48"X48"	16.00			1				1	1	RIGHT LANE MUST TURN RIGHT
	6-42	M3-1	36"X18"	4.50						2	1	2	CARDINAL ROUTE MARKER, NORTH
		M4-3	36"X18"	4.50							1		BUSINESS ROUTE MARKER
		M1-4	36"X36"	9.00							1		US ROUTE MARKER, 53
		R4-52-L	36"X36"	9.00							1		KEEP LEFT
	6-43	J2-2	72"X84"	42.00					2		1	1	ROUTE TURN ASSEMBLY
	6-44	M3-3	36"X18"	4.50						2	1	2	CARDINAL ROUTE MARKER, SOUTH
		M4-3	36"X18"	4.50							1		BUSINESS ROUTE MARKER
		M1-4	36"X36"	9.00							1		US ROUTE MARKER, 53
		R4-52-R	36"X36"	9.00							1		KEEP RIGHT
SUBTOTALS				710.56	0.00	4	29	1	8	4	50	42	

CAT 0010	SIGN #	SIGN CODE	SIGN SIZE	SIGNS TYPE II REFLECTIVE H 637.2210 SF	SIGNS TYPE II REFLECTIVE F 637.2230 SF	POSTS WOOD 4X6-INCH 14-FT 634.0614 EACH	POSTS WOOD 4X6-INCH 16-FT 634.0616 EACH	POSTS WOOD 4X6-INCH 18-FT 324.0618 EACH	POSTS WOOD 4X6-INCH 20-FT 634.0620 EACH	POSTS WOOD 4X6-INCH 22-FT 634.0622 EACH	REMOVING SIGNS TYPE II 638.2602 EACH	REMOVING SMALL SIGN SUPPORTS 638.3000 EACH	REMARKS
	6-45	R2-1	36"X48"	12.00			1				1	1	SPEED LIMIT 45 MPH
	6-46	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	6-47	W3-3	48"X48"		16.00		1				1	1	SIGNAL AHEAD
	6-48	R3-5-R	42"X48"	14.00							1		OVERHEAD SIGN
	6-49	I55-56	30"X36"	7.50		1					1	1	MKTG & MGT CLUB C.V.T.C.
	6-50	J4-1	36"X54"	13.50			1				1	1	REASSURANCE ASSEMBLY
	6-51	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	6-52	D1-71	96"X84"	56.00					2		1	2	ENTRANCE DIRECTION
	6-53	R5-1	36"X36"	9.00							1		DO NOT ENTER
	6-54	R6-2-L	36"X48"	12.00							1		ONE WAY LEFT ARROW
	6-55	R3-2	36"X36"	9.00							1		NO LEFT TURN
	6-56	D1-70	84"X42"	24.50			2				1		ENTRANCE DIRECTION
	6-57	R5-1	36"X36"	9.00							1		DO NOT ENTER
	6-58	R5-1	36"X36"	9.00							1		DO NOT ENTER
	6-59	R3-1	36"X36"	9.00							1		NO RIGHT TURN
	6-60	R4-7	36"X48"	12.00							1		KEEP RIGHT
	6-61	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	6-62	J22-1	36"X84"	21.00					2		1	1	ROUTE TURN ASSEMBLY
	6-63	R5-1A	42"X30"	8.75							1		WRONG WAY
	6-64	R4-7	36"X48"	12.00							1		KEEP RIGHT
	6-65	R5-1	36"X36"	9.00							1		DO NOT ENTER
	6-66	R5-1	36"X36"	9.00							1		DO NOT ENTER
	6-67	R3-1	36"X36"	9.00							1		NO RIGHT TURN
	6-68	R6-2-L	36"X48"	12.00							1		ONE WAY LEFT ARROW
	6-69	D1-70	96"X48"	32.00			2				1	2	ENTRANCE DIRECTION
	6-70	R5-1	36"X36"	9.00							1		DO NOT ENTER
	6-71	R3-2	36"X36"	9.00							1		NO LEFT TURN
	6-72	J4-1	36"X54"	13.50			1				1	1	REASSURANCE ASSEMBLY
	6-73	R5-1A	42"X30"	8.75							1		WRONG WAY
	6-74	D1-71	96"X84"	56.00					2		1	1	ENTRANCE DIRECTION
	7-1	R2-1	36"X48"	12.00			1				1	1	45 MPH
	7-2	I55-56	30"X36"	7.50			1				1	1	ADOPT-A-HIGHWAY [HUEBSCH SERVICES]
	7-3	M3-3	36"X18"	4.50						2			SOUTH
		M4-3	36"X18"	4.50									BUSINESS ROUTE MARKER
		M1-4	36"X36"	9.00									US ROUTE MARKER, 53
		R4-52L	36"X36"	9.00									KEEP LEFT
	7-4	M3-3	36"X18"	4.50						2			NORTH
		M4-3	36"X18"	4.50									BUSINESS ROUTE MARKER
		M1-4	36"X36"	9.00									US ROUTE MARKER, 53
		R4-52L	36"X36"	9.00									KEEP RIGHT
	7-5	W3-3	48"X48"		16.00						1		SIGNAL AHEAD
	7-6	W3-3	48"X48"		16.00			1			1	1	SIGNAL AHEAD
	7-7	W3-3	48"X48"		16.00			1			1	1	SIGNAL AHEAD
	7-8	W3-3	48"X48"		16.00			1			1	1	SIGNAL AHEAD
	7-9	D1-1	108"X21"	15.75		2					1	2	STREET SIGN
	7-10	M2-1	30"X21"	4.38				1			1	1	JUNCTION
		M4-3	36"X18"	4.50									BUSINESS ROUTE MARKER
		M1-4	36"X36"	9.00									US ROUTE MARKER, 53
	7-11	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	7-12	R2-1	36"X48"	12.00			1				1	1	45 MPH
SUBTOTALS				550.88	96.00	6	12	4	6	4	40	24	

CAT 0010	SIGN #	SIGN CODE	SIGN SIZE	SIGNS TYPE II REFLECTIVE H 637.2210 SF	SIGNS TYPE II REFLECTIVE F 637.2230 SF	POSTS WOOD 4X6-INCH 14-FT 634.0614 EACH	POSTS WOOD 4X6-INCH 16-FT 634.0616 EACH	POSTS WOOD 4X6-INCH 18-FT 324.0618 EACH	POSTS WOOD 4X6-INCH 20-FT 634.0620 EACH	POSTS WOOD 4X6-INCH 22-FT 634.0622 EACH	REMOVING SIGNS TYPE II 638.2602 EACH	REMOVING SMALL SIGN SUPPORTS 638.3000 EACH	REMARKS
	7-13	M3-1	36"X18"	4.50						2	1	2	NORTH
		M4-3	36"X18"	4.50							1		BUSINESS ROUTE MARKER
		M1-4	36"X36"	9.00							1		US ROUTE MARKER, 53
		M4-20R	36"X36"	9.00							1		
	7-14	M3-1	36"X18"	4.50							1		NORTH
		M4-3	36"X18"	4.50							1		BUSINESS ROUTE MARKER
		M1-4	36"X36"	9.00							1		US ROUTE MARKER, 53
		M4-20L	36"X36"	9.00							1		
	7-15	R1-1	36"X36"	7.46				1			1	1	STOP
		R1-53	24"X30"	5.00							1		RIGHT TURN OBEY THIS SIGN
	7-16	R5-1	36"X36"	9.00							1		DO NOT ENTER
	7-17	R6-2-L	36"X48"	12.00							1		ONE WAY
	7-18	R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	7-19	R6-2-L	36"X48"	12.00							1		ONE WAY
	7-20	R5-1	36"X36"	9.00							1		DO NOT ENTER
	7-21	R4-7	36"X36"	9.00							1		KEEP RIGHT
	7-22	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	7-23	R2-1	36"X48"	12.00			1				1	1	45 MPH
	7-24	D1-1	108"X21"	15.75		2					1	2	STREET SIGN
	7-25	J4-1	36"X54"	13.50			1				1	1	
	7-26	W3-3	48"X48"		16.00			1			1	1	SIGNAL AHEAD
	7-27	W3-3	48"X48"		16.00			1			1	1	SIGNAL AHEAD
	7-28	W3-3	48"X48"		16.00			1			1	1	SIGNAL AHEAD
	7-29	W3-3	48"X48"		16.00						1		SIGNAL AHEAD
	7-30	D1-61	90"X30"	18.75		2					1	2	STREET SIGN
	7-31	R2-1	36"X48"	12.00			1				1	1	45 MPH
	7-32	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	7-33	R1-1	36"X36"	7.46				1			1	1	STOP
		R1-53	24"X30"	5.00							1		RIGHT TURN OBEY THIS SIGN
	7-34	R4-7	36"X36"	9.00							1		KEEP RIGHT
	7-35	R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	7-36	R6-2-L	36"X48"	12.00							1		ONE WAY
	7-37	R5-1	36"X36"	9.00							1		DO NOT ENTER
	7-38	R6-2-L	36"X48"	12.00							1		ONE WAY
	7-39	R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	7-40	R4-7	36"X36"	9.00							1		KEEP RIGHT
	7-41	R1-1	36"X36"	7.46							1		STOP
		R1-53	24"X30"	5.00							1		RIGHT TURN OBEY THIS SIGN
	7-42	R5-1	36"X36"	9.00							1		DO NOT ENTER
	7-43	J1-1	36"X57"	14.25							1		JUNCTION ASSEMBLY
	7-44	R5-1A	42"X30"	8.75							1		WRONG WAY
	7-45	I2-3	66"X24"	11.00		2					1	2	POPULATION SIGN
	7-46	R2-1	36"X48"	12.00			1				1	1	45 MPH
	7-47	M3-3	36"X18"	4.50					2		1	1	SOUTH
		M1-4	36"X36"	9.00							1		US ROUTE MARKER, 53
		R4-52-R	36"X36"	9.00							1		
	7-48	M3-3	36"X18"	4.50							1		NORTH
		M1-4	36"X36"	9.00							1		US ROUTE MARKER, 53
		R4-52-L	36"X36"	9.00							1		
	7-49	D1-61	90"X30"	18.75		2					1	2	STREET SIGN
SUBTOTALS				416.63	64.00	10	4	5	2	2	50	22	

3

PERMANENT SIGNING

CAT 0010	SIGN #	SIGN CODE	SIGN SIZE	SIGNS TYPE II REFLECTIVE H 637.2210 SF	SIGNS TYPE II REFLECTIVE F 637.2230 SF	POSTS WOOD 4X6-INCH 14-FT 634.0614 EACH	POSTS WOOD 4X6-INCH 16-FT 634.0616 EACH	POSTS WOOD 4X6-INCH 18-FT 324.0618 EACH	POSTS WOOD 4X6-INCH 20-FT 634.0620 EACH	POSTS WOOD 4X6-INCH 22-FT 634.0622 EACH	REMOVING SIGNS TYPE II 638.2602 EACH	REMOVING SMALL SIGN SUPPORTS 638.3000 EACH	REMARKS
	7-50	W3-3	48"X48"		16.00			1			1	1	SIGNAL AHEAD
	7-51	W3-3	48"X48"		16.00			1			1	1	SIGNAL AHEAD
	7-52	J1-2	72"X57"	28.50				2			1	2	JUNCTION/END ASSEMBLY
	7-53	J2-1	36"X84"	21.00					2		1	1	ROUTE TURN ASSEMBLY
	7-54	R10-64	42"X48"	14.00				1			1	1	
		R10-64-F	42"X24"	8.00							1		
	7-55	R2-1	36"X48"	12.00			1				1	1	45 MPH
	7-56	W3-3	48"X48"		16.00			1			1	1	SIGNAL AHEAD
	7-57	W3-3	48"X48"		16.00			1			1	1	SIGNAL AHEAD
	7-58	I55-56	30"X36"	7.50			1				1	1	ADOPT-A-HIGHWAY [HUEBSCH SERVICES]
	7-59	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	8-1	R6-2-L	36"X48"	12.00							1		ONE WAY
	8-2	R3-2	36"X36"	9.00							1		NO LEFT TURN
	8-3	D1-71	84"X78"	45.50					2				ENTRANCE DESTINATION
	8-4	R5-1	36"X36"	9.00							1		DO NOT ENTER
	8-5	R1-2	48"X42"	7.00							1		YIELD
	8-6	D1-70	84"X42"	24.50							1		ENTRANCE DESTINATION
	8-7	R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	8-8	D1-2	96"X24"	16.00		2					1	2	ENTRANCE DESTINATION
	8-9	R5-1A	42"X30"	8.75		1					1		WRONG WAY
	8-10	R5-1	36"X36"	9.00							1		DO NOT ENTER
	8-11	R3-1	36"X36"	9.00							1		NO RIGHT TURN
	8-12	R4-7	36"X36"	9.00							1		KEEP RIGHT
	8-13	R6-2-L	36"X48"	12.00							1		ONE WAY
	8-14	J2-3	108"X84"	63.00					2		1	1	ROUTE TURN ASSEMBLY
	8-15	R5-1A	42"X30"	8.75		1					1	1	WRONG WAY
	8-16	J2-1	36"X84"	21.00					2		1	1	ROUTE TURN ASSEMBLY
	8-17	R4-7	36"X36"	9.00							1		KEEP RIGHT
	8-18	R3-1	36"X36"	9.00							1		NO RIGHT TURN
	8-19	R5-1	36"X36"	9.00							1		DO NOT ENTER
	8-20	R6-3	30"X24"	5.00							1		DIVIDED HIGHWAY
	8-21	D1-70	84"X42"	24.50							1		ENTRACE DESTINATION
	8-22	R3-18	30"X30"	6.25							1		NO LEFT/U TURN
	8-23	R6-2-L	36"X48"	12.00							1		ONE WAY
	8-24	R1-2	48"X42"	7.00									YIELD
	8-25	R5-1	36"X36"	9.00							1	1	DO NOT ENTER
	8-26	D1-71	84"X78"	45.50					2				ENTRACE DESTINATION
	8-27	M3-3	36"X18"	4.50					2				SOUTH
		M1-4	36"X36"	9.00									US ROUTE MARKER, 53
		R4-52-R	36"X36"	9.00									
	8-28	M3-3	36"X18"	4.50					2				NORTH
		M1-4	36"X36"	9.00									US ROUTE MARKER, 53
		R4-52-L	36"X36"	9.00									
	8-29	R5-1A	42"X30"	8.75							1		WRONG WAY
	8-30	J1-1	36"X57"	14.25									JUNCTION ASSEMBLY
	8-31	J1-2	72"X57"	28.50				2			1	1	JUNCTION ASSEMBLY
	8-32	J2-4	144"X84"	84.00					3		1	2	ROUTE TURN ASSEMBLY
	8-33	D1-71	84"X72"	42.00					3		1	2	ENTRANCE DIRECTION SIGN
	8-34	D1-1	42"X30"	8.75							1	1	ENTRANCE DIRECTION SIGN
	8-35	J2-1	36"X84"	21.00									ROUTE TURN ASSEMBLY
	8-36	D1-70	78"X48"	26.00									ENTRANCE DIRECTION SIGN
	8-37	D1-71	84"X72"	42.00					3		1	3	ENTRANCE DIRECTION SIGN
	8-38	J2-4	144"X84"	84.00					3		1	2	ROUTE TURN ASSEMBLY
	8-39	J1-1	36"X57"	14.25									JUNCTION ASSEMBLY
SUBTOTALS				923.00	64.00	5	2	9	26	0	41	28	
			TOTAL 0010	4716.76	619.00	45.00	152.00	56.00	51.00	10.00	377.00	264.00	

3

OVERHEAD SIGN SUPPORT

CATEGORY	STATION	LOCATION	STRUCTURE S-18-111 641.8100 LS	CONSTRUCTION STAKING STRUCTURE S-18-111 650.6500 LS
0020	177+45	WB STH 312	1	1
		TOTAL 0020	1	1

PAVEMENT MARKING WORDS

CATEGORY	LOCATION	EPOXY 647.0356 EACH	REMOVING WORDS 647.0965 EACH
0010	KANE RD	2	2
0010	OLD WELLS RD	1	1
0010	MERCURY AVE	3	3
0010	BUS 53 SB	1	1
0010	BUS 53 NB	1	1
0010	USH 53 SB	1	1
0010	USH 53 NB	5	5
		14	14

PAVEMENT MARKING CURB EPOXY

CATEGORY	LOCATION	647.0456 LF
0010	N TOWN HALL RD	80
0010	MILL RUN RD	140
0010	KANE RD	100
0010	LOSAN AVE	100
0010	JEFFERS RD	290
0010	OLD WELLS RD	50
0010	RIVERVIEW DR	50
0010	MERCURY AVE	30
0010	BUS 53 SB	100
0010	BUS 53 NB	115
0010	ABBE HILL DR	75
0010	MCKINLEY RD	20
0010	USH 53 SB	130
0010	USH 53 NB	120
	TOTAL 0010	1,400

PAVEMENT MARKING ARROWS

CATEGORY	LOCATION	ARROWS TYPE 2 647.0166 EACH	ARROWS TYPE 3 647.0176 EACH	REMOVING ARROWS 647.0955 EACH
0010	MILL RUN RD	2		2
0010	KANE RD	4		4
0010	JEFFERS RD	2		2
0010	OLD WELLS RD	1		1
0010	MERCURY AVE	5		5
0010	BUS 53 SB	2		2
0010	BUS 53 NB	2		2
0010	USH 53 SB	2		2
0010	USH 53 NB	8	2	10
	TOTAL 0010	28	2	30

PAVEMENT MARKING STOP LINE EPOXY 18-INCH

CATEGORY	LOCATION	647.0566 LF
0010	N TOWN HALL RD	80
0010	MILL RUN RD	85
0010	KANE RD	130
0010	LOSAN AVE	90
0010	JEFFERS RD	120
0010	OLD WELLS RD	70
0010	RIVERVIEW DR	70
0010	MERCURY AVE	35
0010	BUS 53 SB	95
0010	BUS 53 NB	130
0010	ABBE HILL DR	80
0010	MCKINLEY RD	110
0010	USH 53 SB	60
0010	USH 53 NB	60
	TOTAL 0010	1,215

PAVEMENT MARKING ISLAND NOSE EPOXY

CATEGORY	LOCATION	647.0606 EACH
0010	OLD WELLS RD	2
0010	MERCURY AVE	2
0010	BUS 53 SB	1
0010	BUS 53 NB	1
0010	ABBE HILL DR	2
0010	MCKINLEY RD	2
0010	USH 53 SB	2
0010	USH 53 NB	2
	TOTAL 0010	14

TRAFFIC CONTROL

CATEGORY	LOCATION	DRUMS 643.0300 DAY	BARRICADES TYPE III 643.0420 DAY	WARNING LIGHTS TYPE A 643.0705 DAY	WARNING LIGHTS TYPE C 643.0715 DAY	ARROW BOARDS 643.0800 DAY	SIGNS 643.0900 DAY	SIGNS PCMS 643.1050 DAY	CHANNELIZER CONES SPV.0045.01 DAY	REMARKS
0010	PROJECT	4,500	1,350	2,700	1,800	300	1,500	600	16,500	WORK ZONE
0010							9,900			ADVANCED WARNING
0010	MERCURY AVE	675	195	390	165	15	315		150	WORK ZONE
	TOTAL 0010	5,175	1,545	3,090	1,965	315	11,715	600	16,650	

PAVEMENT MARKING CROSSWALK EPOXY 6-INCH

CATEGORY	LOCATION	647.0766 LF
0010	OLD WELLS RD	290
0010	RIVERVIEW DR	130
0010	BUS 53 SB	35
0010	BUS 53 NB	350
0010	MCKINLEY RD	205
0010	USH 53 SB	80
0010	USH 53 NB	90
	TOTAL 0010	1180

3

PAVEMENT MARKING

CATEGORY	STATION TO STATION	LOCATION	YELLOW EPOXY 4-INCH 646.0106 LF	EPOXY 8-INCH 646.0126 LF	REMOVING PAVEMENT MARKINGS 646.0600 LF	YELLOW GROOVED WET REFLECTIVE EPOXY 4-INCH LF	WHITE GROOVED WET REFLECTIVE EPOXY 4-INCH 646.2304.S LF	GROOVED WET REFLECTIVE EPOXY 8-INCH 646.2308.S LF	TEMPORARY REMOVABLE TAPE 4-INCH 649.0400 LF	REMARKS
0010	177+50 - 572+60	EB EDGELINE					35,300		1,800	WHITE
0010	177+50 - 572+60	EB EDGELINE				36,800			1,800	YELLOW
0010	177+50 - 572+60	EB LANE LINE			1,100		9,900			WHITE SKIP
0010	177+50 - 572+60	WB EDGELINE					35,800		1,800	WHITE
0010	177+50 - 572+60	WB EDGELINE				38,800			1,800	YELLOW
0010	177+50 - 572+60	WB LANE LINE			1,100		10,700			WHITE SKIP
0010	86+00 - 99+00	SW RAMP					1,300			WHITE
0010	89+75 - 99+00	SW RAMP				925				YELLOW
0010	100+00 - 108+15	SE RAMP				815				YELLOW
0010	100+00 - 110+00	SE RAMP					1,100			WHITE
0010	185+00 - 198+25	NW RAMP					1,325			WHITE
0010	188+00 - 198+25	NW RAMP				1,025				YELLOW
0010	201+00 - 215+00	NE RAMP					1,400			WHITE
0010	201+00 - 210+25	NE RAMP				925				YELLOW
0010	485+50 - 491+00	WB EDGELINE							550	WHITE
0010		N TOWN HALL RD	300		300			700		
0010		MILL RUN RD		180	180			720		
0010		KANE RD	260	200	460			700		
0010		LOSAN AVE	240	90	330			600		
0010		STH 312 EB						920		
0010		STH 312 WB						1,700		
0010		JEFFERS RD	560	230	790			680		
0010		OLD WELLS RD	440	240	680			670		
0010		RIVERVIEW DR	350	100	450			430		
0010		MERCURY AVE	365		365			960		
0010		BUS 53 SB						460		
0010		BUS 53 NB		100	100			530		
0010		ABBE HILL DR	160		160			600		
0010		MCKINLEY RD	370	390	760			450		
0010		USH 53 SB	35	100	135			610		
0010		USH 53 NB	80	260	340			400		
			3,160	1,890	7,250	79,290	96,825	11,130	7,750	
		TOTAL 0010	3,160	1,890	7,250	176,115		11,130	7,750	

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TRAFFIC CONTROL COVERING SIGNS TYPE II

CATEGORY	LOCATION	643.0920 EACH	REMARKS
0010	MERCURY AVE CLOSURE	12	SEE TRAFFIC CONTROL DETAILS
	TOTAL 0010	12	

TRAFFIC CONTROL SIGNS FIXED MESSAGE

CATEGORY	LOCATION	643.1000 SF	REMARKS
0010	MERCURY AVE CLOSURE	62	SEE TRAFFIC CONTROL DETAILS
	TOTAL 0010	62	

PULL BOXES

CATEGORY	STATION	LOCATION	REMOVING 653.0905 EACH	ADJUSTING 653.0900 EACH	REMARKS
0010	19+50	16' RT	1		MERCURY AVE.
0010	19+57	18' RT		1	MERCURY AVE.
0010	20+73	21' LT	1		MERCURY AVE.
0010	20+80	18' LT		1	MERCURY AVE.
		TOTAL 0010	2	2	

LOOP DETECTOR ITEMS

CATEGORY	LOCATION	CONDUIT 652.0800 LF	SLOTS 652.0900 LF	WIRE 655.0800 LF
0010	MERCURY AVE.	300		
0010	RIVERVIEW DR.	330		1,000
0010	UNDISTRIBUTED	4,000	500	10,000
	TOTAL 0010	4,630	500	11,000

CONSTRUCTION STAKING

CATEGORY	STATION TO	STATION	LOCATION	SUBGRADE 650.4500 LF	BASE 650.5000 LF	CONCRETE PAVEMENT 650.7000 LF	RESURFACING REFERENCE 650.8000 LF	SUPPLEMENTAL CONTROL 650.9910 LS	SLOPE STAKES 650.9920 LF	REMARKS
0010	177+50 -	572+60	PROJECT				37,500			STH 312 EB
0010	18+52 -	19+74	MERCURY AVE.			122				
0010	20+55 -	21+58	MERCURY AVE.			103				
0010		394+00	MEDIAN	54	54				54	
0010			PROJECT					1		
			TOTAL 0010	54	54	225	37,500	1	54	

NOTE: OTHER CONSTRUCTION STAKING ITEMS LOCATED ELSEWHERE

SPECIAL (02. PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) CELLULAR COMMUNICATIONS)

CATEGORY	LOCATION	SPV.0045.02 DAY	REMARKS
0010	PROJECT	600	
	TOTAL 0010	600	

SPECIAL (03. GEOGRID REINFORCEMENT)

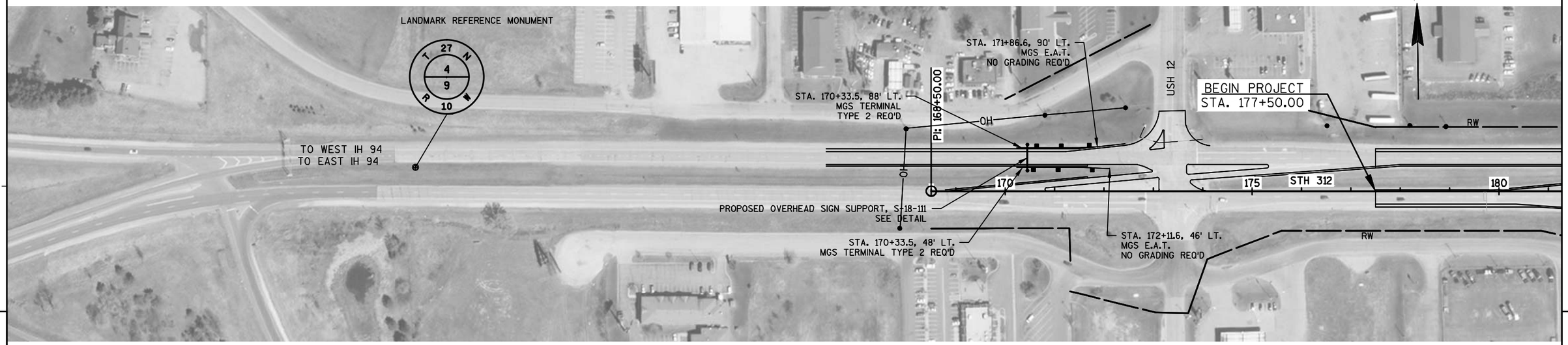
CATEGORY	LOCATION	SPV.0180.03 SY
0010	UNDISTRIBUTED	1250
	TOTAL 0010	1250

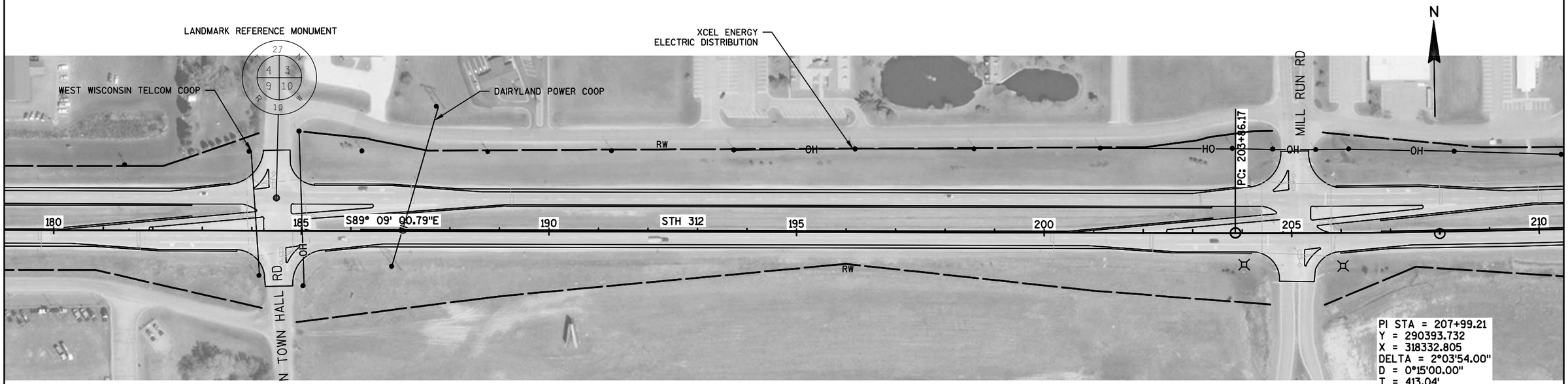
CONCRETE PAVEMENT

CATEGORY	STATION TO STATION	LOCATION	REPLACEMENT DOWELED SPECIAL SPV.0180.01 SY	REPAIR DOWELED SPECIAL SPV.0180.02 SY	ESTIMATED # REPAIRS
0010	177+50 - 184+52		470	530	51
0010		TOWN HALL ROAD		50	5
0010		CTH EE	250	40	4
0010	184+52 - 205+10		1,220	1,300	123
0010		MILL RUN RD. NO.		125	12
0010		MILL RUN RD. SO.	100	40	4
0010	205+10 - 237+29		1,100	1,250	118
0010		CTH TT NO.		60	6
0010		CTH TT SO.		20	2
0010	237+29 - 237+86		2,120	395	38
0010		LOSAN RD. NO.		50	5
0010		LOSAN RD. SO.		40	4
0010	237+86 - 310+00		1,200	210	20
0010		SW RAMP	100	17	2
0010		NW RAMP	275		
0010		SE RAMP	275	18	2
0010		NE RAMP	75		
0010	310+00 - 340+99		1,250	290	28
0010	342+70 - 367+28		1,860	375	36
0010		JEFFERS RD SO.		40	4
0010	367+28 - 411+78		2,225	310	30
0010		OLD WELLS RD. NO.		60	6
0010		OLD WELLS RD. SO.	65	50	5
0010	411+78 - 426+16		650	105	10
0010	441+04 - 464+10		70	250	24
0010		RIVERVIEW DR. NO.		60	6
0010		RIVERVIEW DR. SO.		40	4
0010	464+10 - 479+00		95	425	41
0010		MERCURY	740	0	0
0010		STARR CONN. RD.	760	0	0
0010		NE RAMP	140	200	6
0010	479+00 - 500+00		95	1,600	153
0010	500+00 - 555+00		165	220	21
0010		UNDISTRIBUTED	1,200	800	
		TOTAL 0010	16,500	8,970	

SAWING

CATEGORY	STATION TO STATION	LOCATION	ASPHALT 690.0150 LF	CONCRETE 690.0250 LF
0010	177+50 - 184+52		895	2,065
0010		TOWN HALL ROAD		160
0010		CTH EE		270
0010	184+52 - 205+10		2,050	4,725
0010		MILL RUN RD. NO.		385
0010		MILL RUN RD. SO.		155
0010	205+10 - 237+29		1,930	4,450
0010		CTH TT NO.		190
0010		CTH TT SO.		65
0010	237+29 - 237+86		1,030	2,375
0010		LOSAN RD. NO.		160
0010		LOSAN RD. SO.		130
0010	237+86 - 310+00		605	1,400
0010		SW RAMP	40	95
0010		NW RAMP	15	30
0010		SE RAMP	40	95
0010		NE RAMP	15	30
0010	310+00 - 340+99		735	1,700
0010	342+70 - 367+28		1,030	2,375
0010		JEFFERS RD SO.		130
0010	367+28 - 411+78		1,010	2,325
0010		OLD WELLS RD. NO.		190
0010		OLD WELLS RD. SO.		300
0010	411+78 - 426+16		335	770
0010	441+04 - 464+10		365	840
0010		RIVERVIEW DR. NO.		190
0010		RIVERVIEW DR. SO.		130
0010	464+10 - 479+00		605	1,400
0010		MERCURY		475
0010		STARR CONN. RD.		455
0010	479+00 - 500+00		2,170	5,000
0010	500+00	NE RAMP		305
0010	500+00 - 555+00			805
0010		UNDISTRIBUTED	1,430	3,500
		TOTAL 0010	14,300	37,670





PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PLAN: NORTH CROSSING	SHEET 67	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\EDGELINES\EDGELINES-2.DWG PLOT DATE : 4/30/2015 10:55 AM PLOT BY : KRUG, GARY W PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 44

LANDMARK REFERENCE MONUMENT

T 27 N
3
10
R 10

PI STA = 232+14.96
Y = 290444.967
X = 320748.101
DELTA = 1°28'27.38"
D = 0°15'00.00"
T = 294.87'
L = 589.71'
R = 22918.31'
PC STA = 229+20.09
PT STA = 235+09.80
SE = N.C.

CONTAMINATED SOIL BEYOND CONSTRUCTION LIMITS

DAIRYLAND POWER COOP OVERHEAD ELECTRIC

XCEL ENERGY OVERHEAD ELECTRIC

PT: 212+12.17

210 215 220 225 230 235

N88° 47' 05.21"E

STH 312

PC: 229+20.09

PT: 235+09.80

KANE RD

T 27 N
3 2
10 11
R 10

LANDMARK REFERENCE MONUMENT

9.21
.00"
96.17
2.17

5

5

N

CONTAMINATED SOIL BEYOND CONSTRUCTION LIMITS

WETLAND BOUNDARY

EXISTING RETAINING WALL

EXISTING UNDERGROUND FIBER OPTIC

BARRIER SYSTEM GRADING SHAPING FINISHING REQ'D

STA. 246+37, 90' LT. MGS E.A.T. REQ'D

STA. 249+90, 88' LT. MGS TERMINAL TYPE 2 REQ'D

STA. 252+80.5, 90' LT. MGS E.A.T. REQ'D

BARRIER SYSTEM GRADING SHAPING FINISHING REQ'D

REMOVING GUARDRAIL REQ'D

MGS GUARDRAIL 3K REQ'D

PC: 248+18.11

PT: 250+94.47

SLOPE INTERCEPT

RW

STA. 243+84, 88' LT. MGS TERMINAL TYPE 2 REQ'D

EXISTING STRUCTURE B-18-138

EXISTING UNDERGROUND GAS

240 245 250 255 260 265

S89° 44' 27.42"E

N88° 52' 38.27"E

STH 312

REMOVING GUARDRAIL REQ'D

HO

STA. 244+62, 34' RT. MGS TERMINAL TYPE 2 REQ'D

MGS GUARDRAIL 3K REQ'D

WETLAND BOUNDARY

REMOVING GUARDRAIL REQ'D

PLE

BARRIER SYSTEM GRADING SHAPING FINISHING REQ'D

ATT WI EXISTING UNDERGROUND COPPER

STA. 241+00.6, 36' RT. MGS E.A.T. REQ'D

PI STA = 249+56.30
Y = 290437.094
X = 322489.453
DELTA = 1°22'54.32"
D = 0°30'00.00"
T = 138.18'
L = 276.35'
R = 11459.16'
PC STA = 248+18.11
PT STA = 250+94.47
SE = N.C.

PC: 260+17.67

T 27 N
2
11
R 10

WETLAND BOUNDARY

LANDMARK REFERENCE MONUMENT

PI STA = 266+46.66
Y = 290470.215
X = 324179.503
DELTA = 47°24'50.92"
D = 4°00'00.00"
T = 628.99'
L = 1185.35'
R = 1432.39'
PC STA = 260+17.67
PT STA = 272+03.02
SE = 5.9%

N

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PLAN: NORTH CROSSING	SHEET 68	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\EDGELINES\EDGELINES-2.DWG PLOT DATE : 7/23/2015 11:21 AM PLOT BY : KRUG, GARY W PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 44

XCEL ENERGY
OVERHEAD ELECTRIC

HO

LOSAN AVE

RW

N

MAINTENANCE CROSSOVER
SEE DETAIL

PI STA = 185+79.70
Y = 288466.14
X = 326375.60
DELTA = 05° 07' 44.70"
D = 3° 13' 14.43"
T = 79.68'
L = 159.26'
R = 1779'
SE = 4.7%

NW RAMP ALI
PI STA 185+00.00
Y = 288503.77
X = 326305.33

REMOVING GUARDRAIL REQ'D

PC: 185+00.00

PC: 186+59.37

PI: 86+00.00

PT: 86+99.88

270

275

S43° 42' 30.81"E

280

STH 312

285

290

295

PC: 288+94.14

PT: 272+03.02

REMOVING GUARDRAIL REQ'D

RW

STA. 296+91, 8' LT.
MGS E.A.T. REQ'D

STA. 86+44, 10' RT.
MGS E.A.T. REQ'D

EXISTING RW

PI STA = 298+04.55
Y = 288134.991
X = 326411.759
DELTA = 47°12'27.00"
D = 2°45'00.00"
T = 910.41'
L = 1716.64'
R = 2083.48'
PC STA = 288+94.14
PT STA = 306+10.77
SE = 4.7%

REMOVING GUARDRAIL
REQ'D

SW RAMP ALI
PI STA = 86+00
Y = 288307.25
X = 326400.88

OH

CHARTER COMMUNICATIONS
& XCEL ENERGY OVERHEAD

WETLAND BOUNDARY

PI STA = 189+23.10
Y = 288329.20
X = 326690.62
DELTA = 32° 33' 42.02"
D = 6° 20' 42.18"
T = 263.73'
L = 513.18'
R = 903'
SE = 4.7%

N CLAIREMONT AVE
CTH T

PC: 185+00.02

PC: 186+59.37

PI: 86+00.00

PT: 86+99.88

PT: 191+72.55

PI: 199+02.6

PI: 200+00.0

NE RAMP ALI
PI STA 200+00.00
Y = 288493.68
X = 327701.35

PI STA = 203+49.58
Y = 288477.19
X = 328051.28
DELTA = 14° 29' 08.80"
D = 5° 15' 23.38"
T = 138.53'
L = 275.58'
R = 1090'
SE = 2.0%

PI STA = 210+65.5
Y = 288265.06
X = 328737.31
DELTA = 19° 25' 23.33"
D = 6° 36'58.12"
T = 148.21'
L = 293.57'
R = 866'
SE = 4.5%

PI STA = 213+62.42
Y = 288276.73
X = 329035.42
DELTA = 09° 40' 09.86"
D = 3° 13' 40.56"
T = 150.13'
L = 299.54'
R = 1775'
SE = 4.5%

SLOPE
INTERCEPT

BARRIER SYSTEM GRADING
SHAPING FINISHING REQ'D

STA. 214+07, 10' LT.
MGS E.A.T. REQ'D

EXISTING STRUCTURE
S-18-36 SIGN BRIDGE

EXISTING STRUCTURE
S-18-37 SIGN BRIDGE

PC: 209+18.71

PC: 212+12.28

PI: 215+11.84

RW

N81° 04' 13.95"E

190

195

NW RAMP

S87° 18' 11.87"E

205

NE RAMP

S72° 49' 03.07"E

210

215

178'

NO GRADING REQ'D

STA. 308+88
POST 5

PT: 306+10.77

PC: 202+11.79

PT: 204+87.37

PC: 320+37.85

STA. 299+19, 6' LT.
MGS TERMINAL TYPE 2 REQ'D

SLOPE
INTERCEPT

BARRIER SYSTEM GRADING
SHAPING FINISHING REQ'D

300

305

310

315

N89° 05' 02.19"E

320

STH 312

325

88

90

92

94

96

98

110

105

SW RAMP

S67° 20' 22.97"E

BARRIER SYSTEM GRADING
SHAPING FINISHING REQ'D

PC: 96+02.22

PT: 98+14.78

PPI: 100+00.00

PPI: 99+67.52

STA 310+88
POST 5

STEEL THRIE BEAM
BULLNOSE TERMINAL

SE RAMP

N73° 17' 48.58"E

REMOVING GUARDRAIL REQ'D

REMOVING GUARDRAIL REQ'D

N

SLOPE
INTERCEPT

STA. 89+47, 8' RT.
MGS TERMINAL TYPE 2 REQ'D

PI STA = 86+50.02
Y = 288284.98
X = 326445.67
DELTA = 02° 44' 50.59"
D = 2° 45' 02.30"
T = 49.95'
L = 99.88'
R = 2083'
SE = 4.7%

PI STA = 97+11.06
Y = 287877.63
X = 327425.41
DELTA = 23° 44' 24.51"
D = 11° 10' 07.50"
T = 107.83'
L = 212.56'
R = 513'
SE = 2.0%

N88° 55' 12.52"E

SE RAMP ALI
PI STA 100+00.00
Y = 287882.02
X = 327715.69

EXISTING STRUCTURE B-18-126

PC: 106+43.60

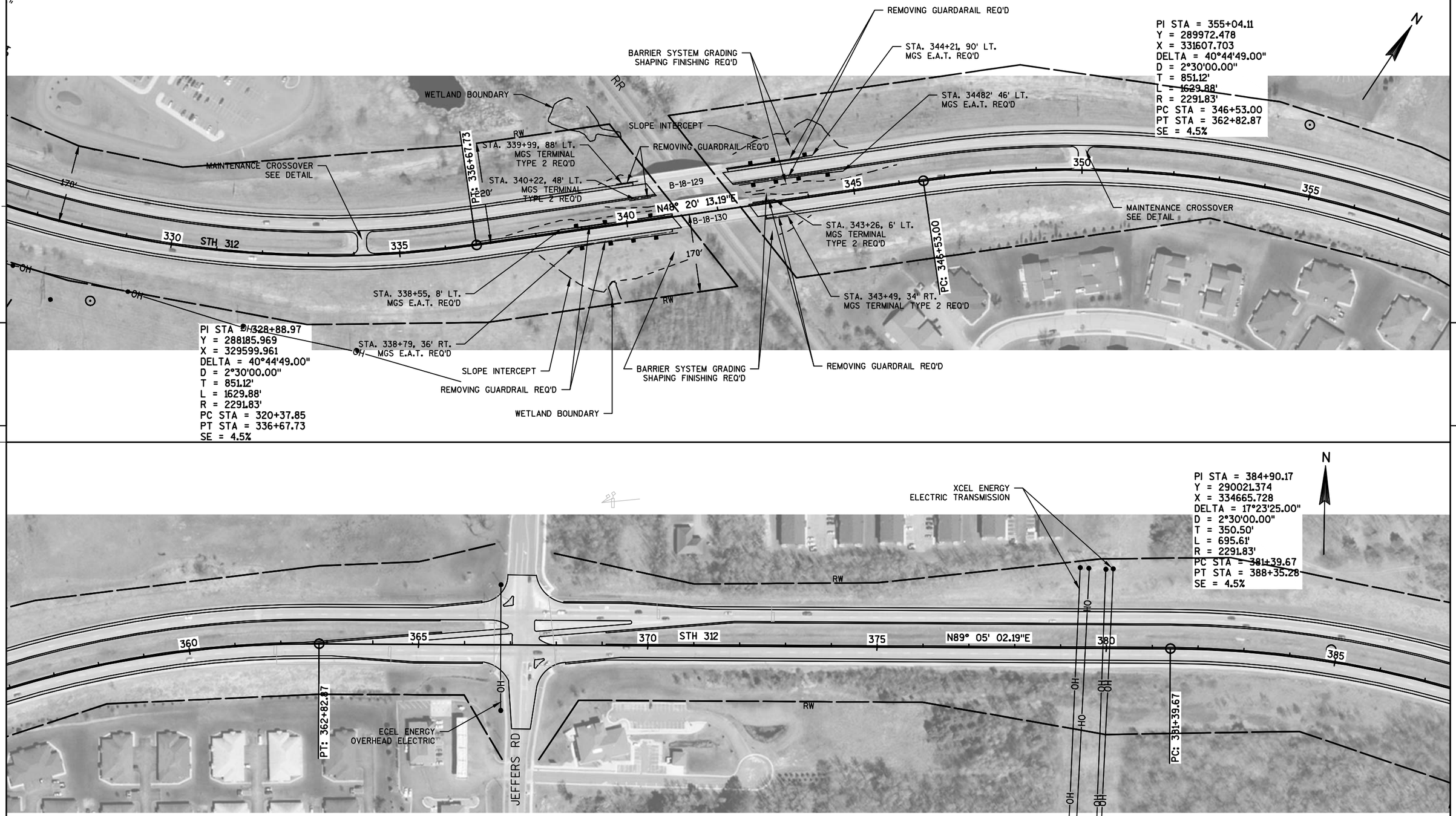
PI STA = 108+59.65
Y = 288129.10
X = 328539.07
DELTA = 16° 05' 08.29"
D = 3° 44' 50.18"
T = 216.05'
L = 429.26'
R = 1529'
SE = 2.0%

PT: 110+72.87

STA. 212+16, 8' LT.
MGS TERMINAL
TYPE 2 REQ'D

XCEL ENERGY OVERHEAD
TRANSMISSION

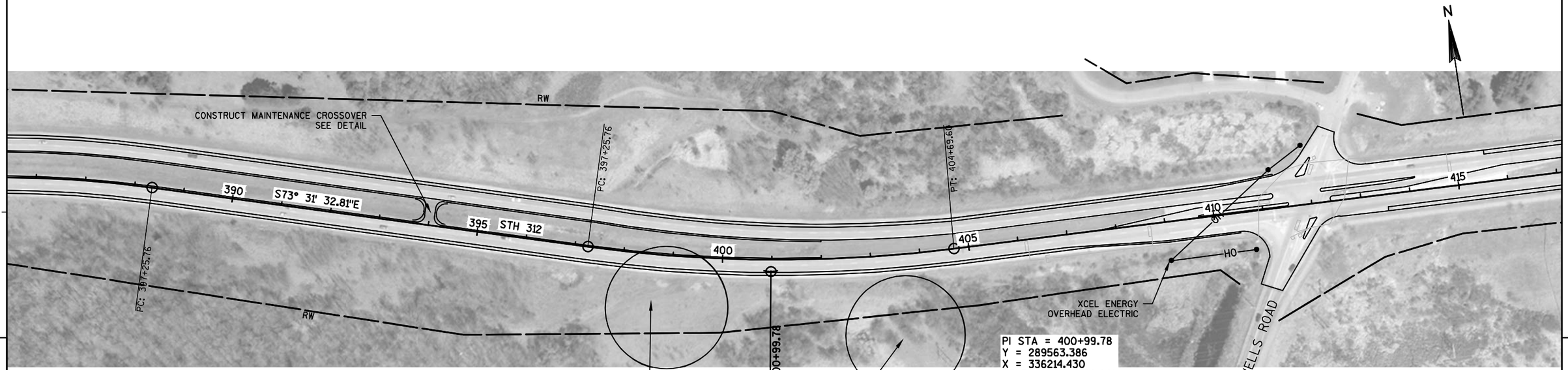
PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PLAN: NORTH CROSSING	SHEET 69	E

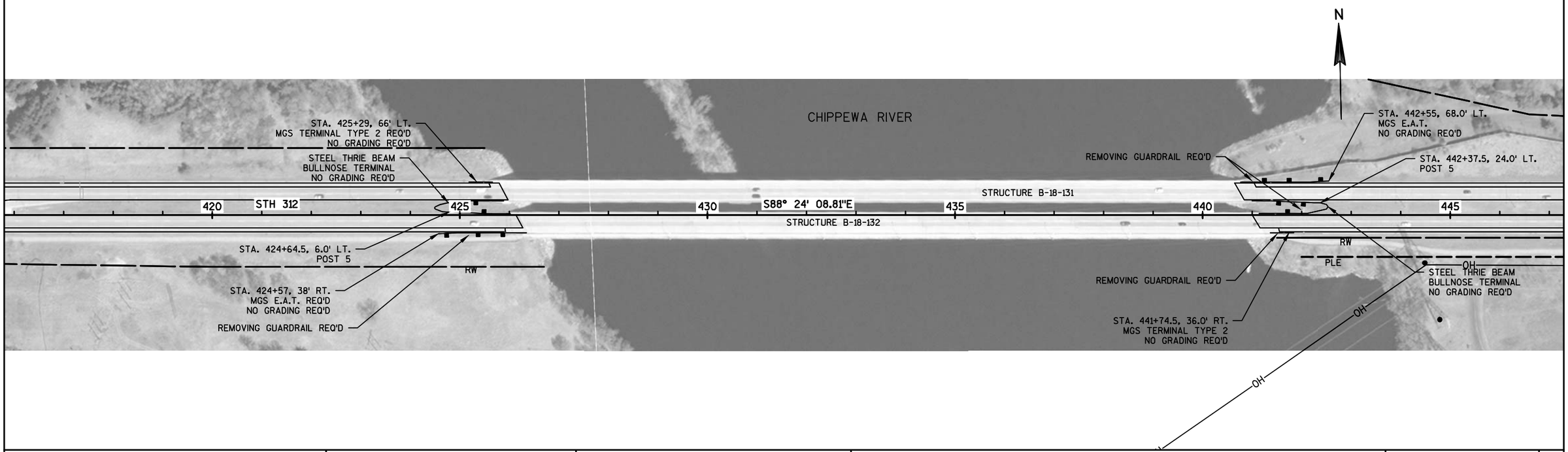


PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PLAN: NORTH CROSSING	SHEET 70	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\EDGELINES\EDGELINES-2.DWG PLOT DATE : 7/23/2015 11:15 AM PLOT BY : KRUG, GARY W PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 44





PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PLAN: NORTH CROSSING	SHEET 71	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\EDGELINES\EDGELINES-EAST HALF.DWG PLOT DATE : 4/30/2015 10:59 AM PLOT BY : KRUG, GARY W PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 44

PI STA = 21+
Y = 289977.
X = 343902.
DELTA = 31°
D = 15° 00
T = 207.60'
L = 210.25'
R = 381.97'
SE = 4.0%

N

RIVERVIEW DR

PC: 459+37.14

RW

445

450

STH 312

455

460

465

470

475

PT: 472+92.70

N71° 15' 51.19"E

STA. 479 F
STA. 19 M

OH

PLF

XCEL ENERGY
OVERHEAD ELECTRIC

PI: 466+22.13

PI STA = 466+22.13
Y = 289381.433
X = 342738.442
DELTA = 20°20'00.00"
D = 1°30'00.00"
T = 684.98'
L = 1355.56'
R = 3819.72'
PC STA = 459+37.14
PT STA = 472+92.70
SE = 2.8%

XCEL ENERGY
ELECTRIC TRANSMISSION

5

5

PI STA = 501+00.00
Y = 290043.804
X = 346115.113
BACK = S87° 50' 36.72"E
AHEAD = S88° 14' 51.25"E
DELTA = 0° 24' 14.53"

PI STA = 503+00.02
Y = 290037.687
X = 346315.035
BACK = S88° 14' 51.25"E
AHEAD = S88° 14' 48.71"E
DELTA = 0° 00' 02.54"

N

Pi: 24+42.96

PT: 22+92.39

MERCURY AVE

N12° 48' 30.58"E

24M

MERCURY AVENUE
PI STA = 21+87.27
Y = 289977.012
X = 343902.552
DELTA = 31° 32' 22.80"
D = 15° 00' 00.00"
T = 207.60'
L = 210.25'
R = 381.97'
SE = 4.0%

PI STA = 488+20.10
Y = 290092.060
X = 344833.589
DELTA = 20°53'32.10"
D = 1°30'00.00"
T = 704.23'
L = 1392.82'
R = 3819.72'
PC STA = 481+15.87
PT STA = 495+08.69
SE = 2.8%

XCEL ENERGY
OVERHEAD ELECTRIC

Pi: 488+20.10

MERCURY INTERSECTION
SEE DETAILS

PC: 20+82.15

18M

21M

480

485

490

STH 312

495

500

505

S87° 50' 36.72"E

RW

HO

OH

UP RR

STARR AVE

WESTERN AVE

HASTINGS WAY

PC: 481+14.87

PC: 15+62.36

Pi: 13+68.43
X = 344458.723
Y = 289535.245

S88° 49' 04.75"W

15M

14M

CONTAMINATED SOIL BEYOND
CONSTRUCTION LIMITS

XCEL ENERGY
ELECTRIC TRANSMISSION

PT: 495+08.69

STA. 479 EB +01.4 =
STA. 19 M +99.9

PT: 19+24.62

MERCURY INTERSECTION
SEE DETAILS

MERCURY AVENUE
PI STA = 17+43.49
Y = 289526.918
X = 344055.151
DELTA = 72° 27' 12.60"
D = 19° 59' 51.00"
T = 338.61'
L = 362.267'
R = 286.5'
SE = 4.0%

PI: 501+00.00

PI: 503+00.02

STA BACK = 500+86.89
STA AHEAD = 501+00.00

S88° 14' 51.25"E

S88° 14' 48.71"E

XCEL ENERGY
OVERHEAD ELECTRIC

PC: 505+38.46

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PLAN: NORTH CROSSING	SHEET	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\EDGELINES\EDGELINES-EAST HALF.DWG PLOT DATE : 4/30/2015 11:00 AM PLOT BY : KRUG, GARY W PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 44

PI STA = 508+83.23
Y = 290019.845
X = 346897.973
DELTA = 15°57'07.65"
D = 2°19'42.62"
T = 344.77'
L = 685.08'
R = 2460.62'
PC STA = 505+38.46
PT STA = 512+23.54
SE = 4.0%

PI STA = 523+69.24
Y = 289566.560
X = 348317.852
DELTA = 19°33'18.82"
D = 1°27'19.14"
T = 678.45'
L = 1343.71'
R = 3937.00'
PC STA = 516+90.79
PT STA = 530+34.50
SE = 2.8%

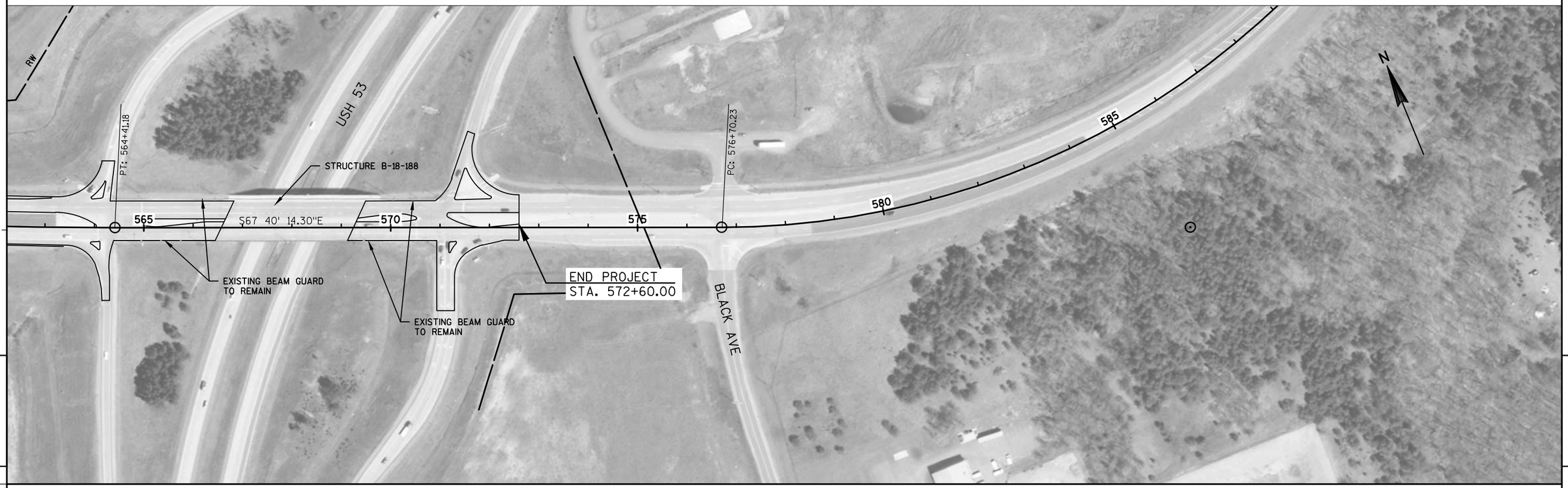
ABBE HILL DR
STH 312
RW
XCEL ENERGY OVERHEAD ELECTRIC
XCEL ENERGY ELECTRIC TRANSMISSION
ABBE HILL DR REPLACE SIDEWALK SEE DETAIL
PC: 505+38.46
PT: 512+23.54
PC: 516+90.79
PT: 530+34.50
PI: 508+83.23
PI: 523+69.24
S72° 17' 41.06"E
S52° 44' 22.24"E
14' 51.25"E
48.71"E
505
510
515
520
525
530
OH

MCKINLEY RD
PC: 538+81.56
PT: 564+41.18
AT&T WI AERIAL FIBER
540
545
550
555
560

PI: 551+68.67
PI STA = 551+68.67
Y = 287863.689
X = 350556.391
DELTA = 14°55'52.06"
D = 0°35'00.00"
T = 1287.10'
L = 2559.62'
R = 9822.13'
PC STA = 538+81.56
PT STA = 564+41.18
SE = R.C.

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PLAN: NORTH CROSSING	SHEET	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\EDGELINES\EDGELINES-EAST HALF.DWG PLOT DATE : 4/30/2015 11:00 AM PLOT BY : KRUG, GARY W PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 44



5

5

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PLAN: NORTH CROSSING	SHEET	E

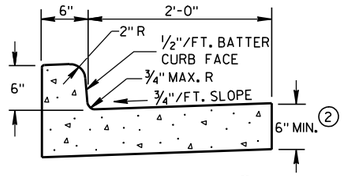
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WISDOT/CADDS SHEET 44

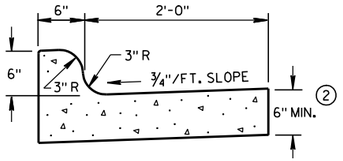
Standard Detail Drawing List

08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08E09-06	SILT FENCE
08F07-05	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE FRAINS
09B02-08	CONDUIT
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13C09-11A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-11B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-11C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
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)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-02A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
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)
15C15-03	36" DIAMETER FULL SPAN OVERHEAD SIGN SUPPORT BASE
15C19-02C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D20-03	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-03	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D30-02A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-02B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-02C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

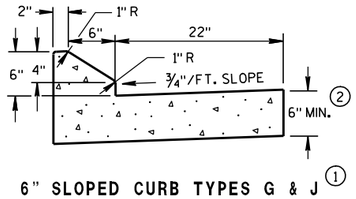
6



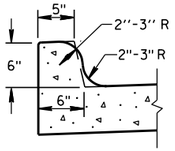
TYPES A & D (1)



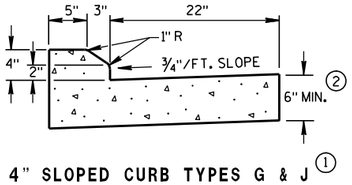
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

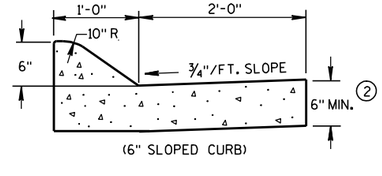


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

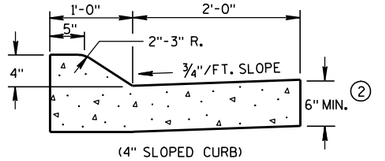


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

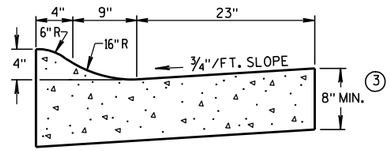


(6" SLOPED CURB)



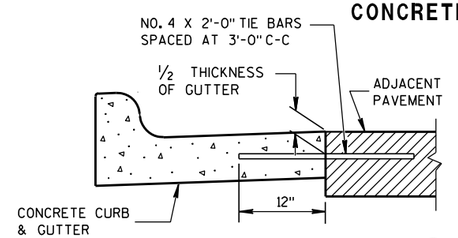
(4" SLOPED CURB)

TYPES A & D (1)

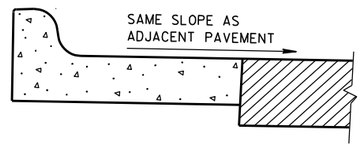


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)



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

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.

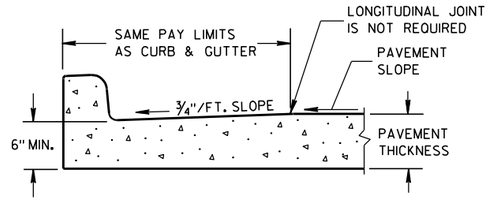
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(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.

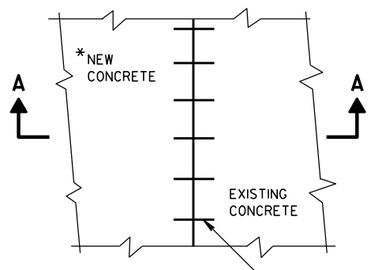
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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.

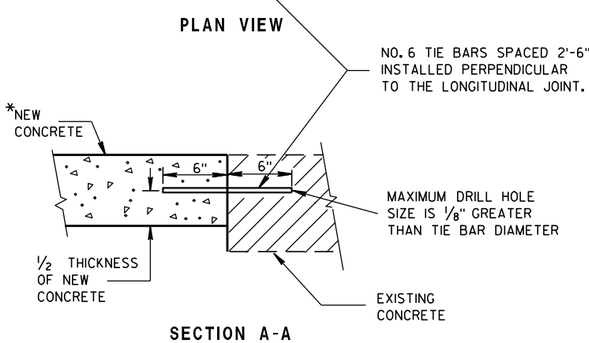


PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



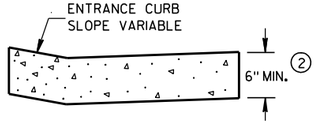
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

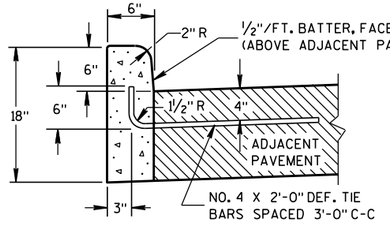


SECTION A-A

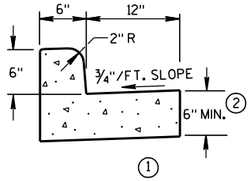
TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

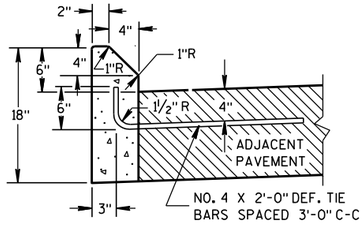


(1) TYPES A & D

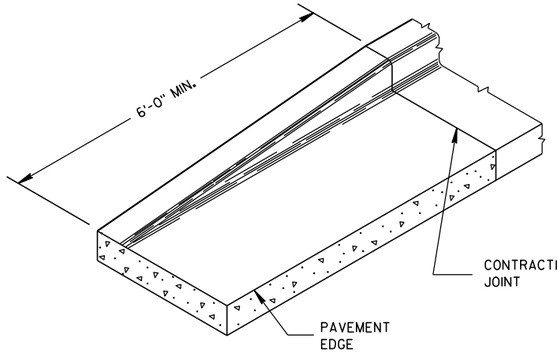


(1) TYPES A & D

CONCRETE CURB & GUTTER 18"



(1) TYPES G & J



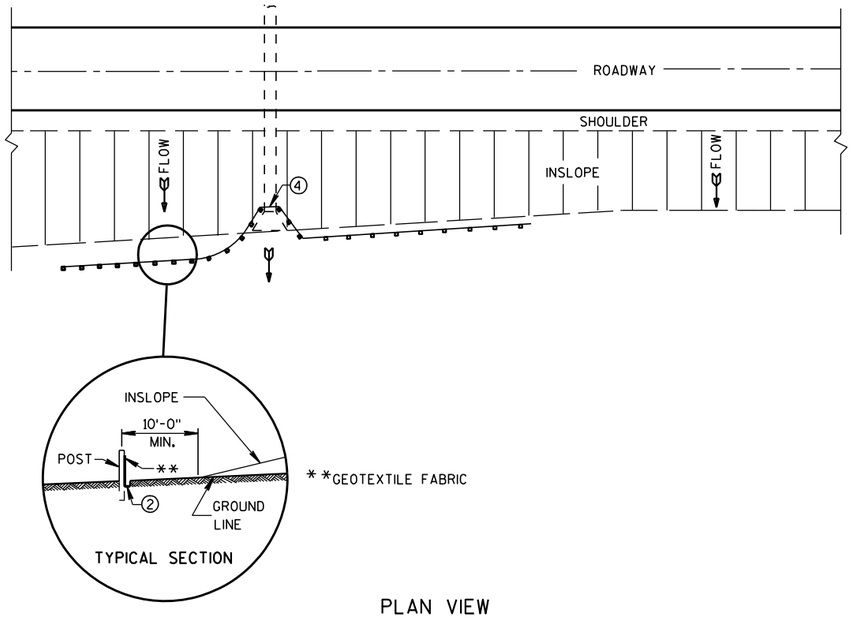
END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
9/4/08 DATE	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA	

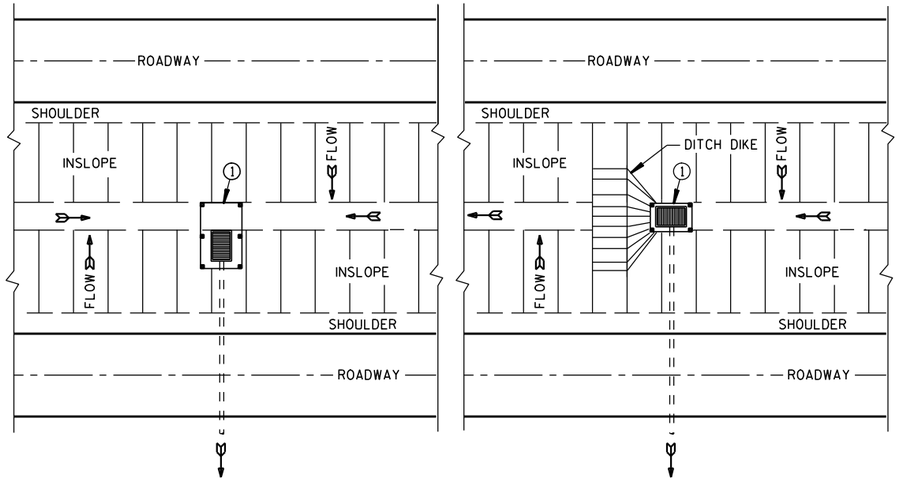
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S.D.D. 8 D 1-17



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.

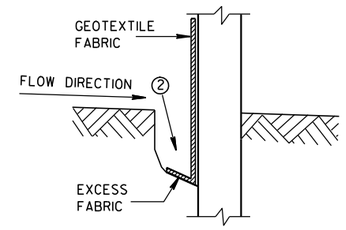
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

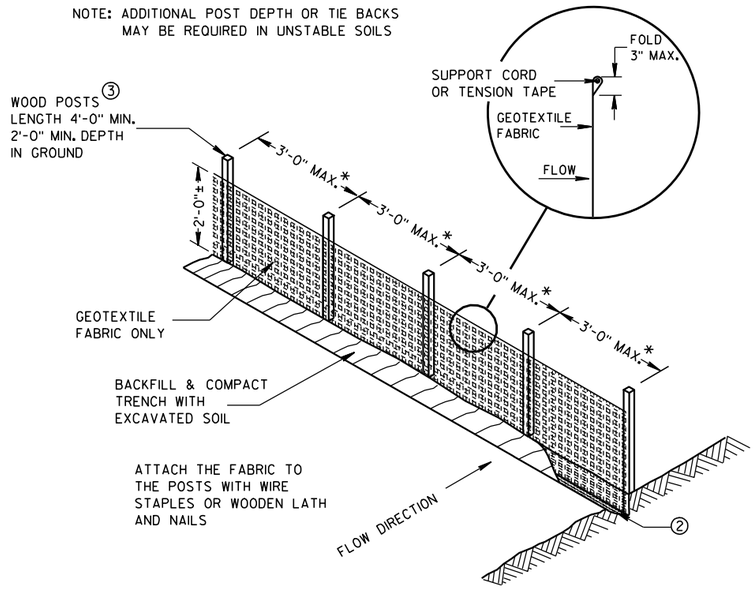
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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.

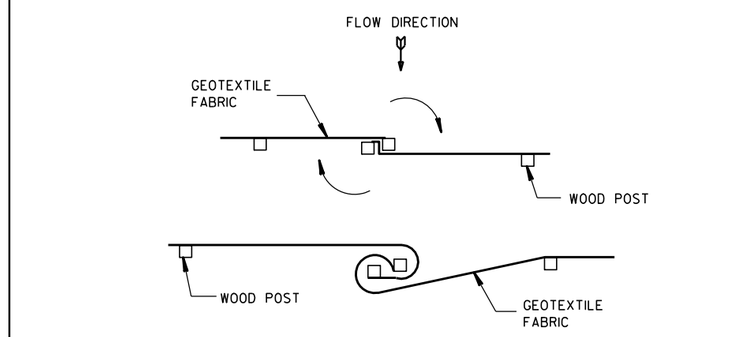


TRENCH DETAIL

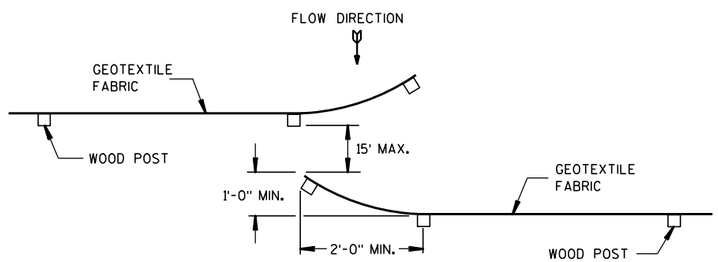


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

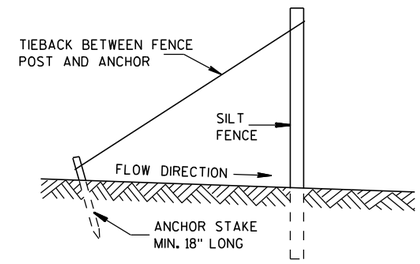


TWIST METHOD



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

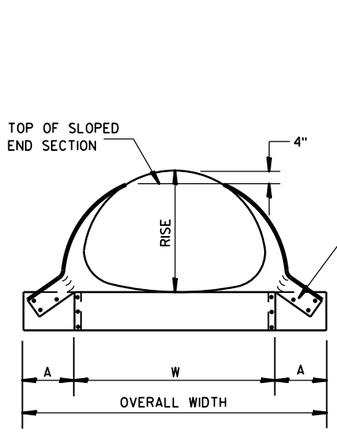
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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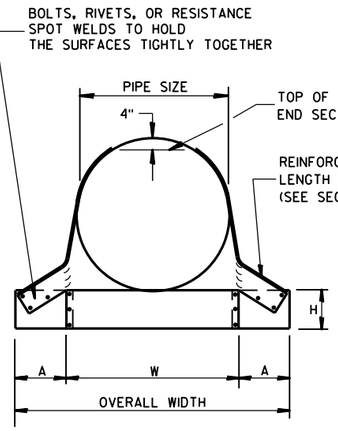
S.D.D. 8 E 9-6

6

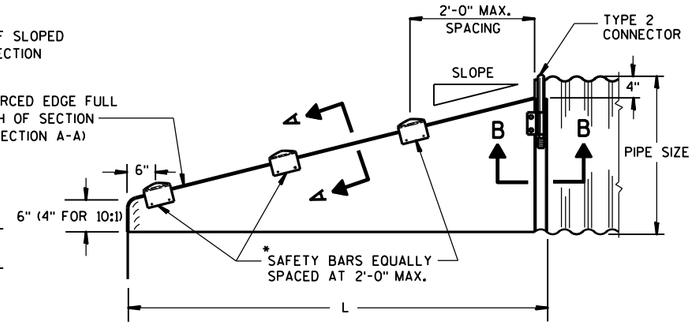
S.D.D. 8 E 9-6



FRONT VIEW



FRONT VIEW



SIDE VIEW

GENERAL NOTES

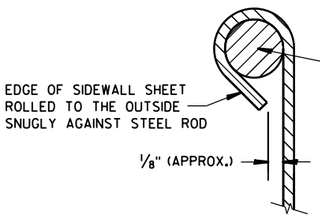
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SLOPED END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SECTION 521 FOR STEEL APRON ENDWALLS.

SAFETY BARS SHALL BE FABRICATED FROM GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL.

STEEL APRON ENDWALLS FOR CULVERT PIPE
SLOPED SIDE DRAINS

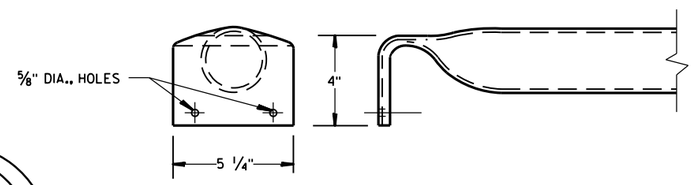
PIPE DIA. (IN.)	MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS					
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	.064	8	6	21	37	4:1	20	6:1	30	10:1	70
18	.064	8	6	24	40	4:1	32	6:1	48	10:1	100
21	.064	8	6	27	43	4:1	44	6:1	66	10:1	130
24	.064	8	6	30	46	4:1	56	6:1	84	10:1	160
30	.109	12	9	36	60	4:1	80	6:1	120	10:1	220
36	.109	12	9	42	66	4:1	104	6:1	156	10:1	280
42	.109	16	12	48	80	4:1	128	6:1	192	——	——
48	.109	16	12	54	86	4:1	152	6:1	228	——	——
54	.109	16	12	60	92	4:1	176	6:1	264	——	——
60	.109	16	12	66	98	4:1	200	6:1	300	——	——



SECTION A-A

*NOTE:
THREE SAFETY BARS ARE SHOWN. ACTUAL NUMBER OF BARS REQUIRED AT A 2'-0" C-C MAX. SPACING WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

3" GALVANIZED PIPE. FLATTEN ENDS, THEN BEND OUTSIDE 4" TO MATCH END SECTION SIDES.

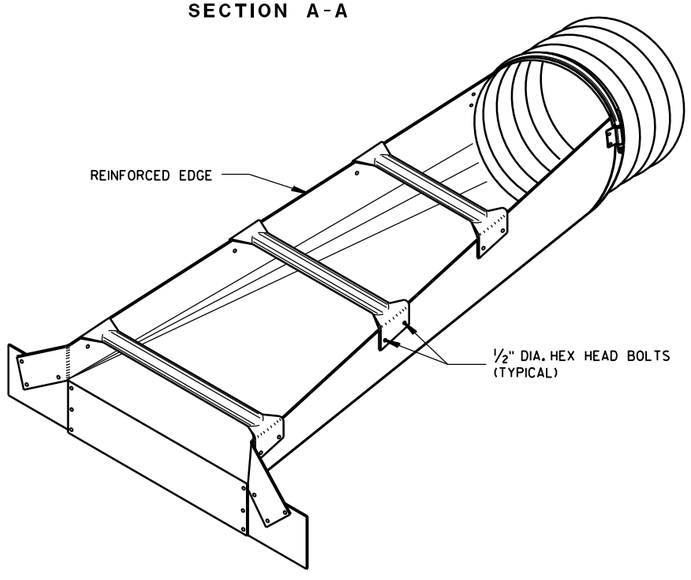


DETAIL OF SAFETY BAR

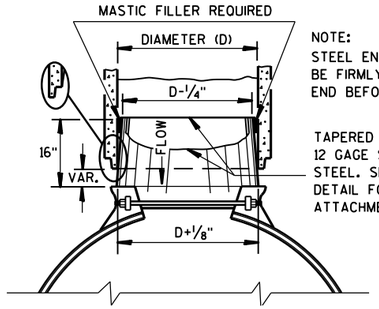
STEEL APRON ENDWALLS FOR PIPE ARCH
SLOPED SIDE DRAINS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) ①	DIMENSIONS (Inches) A	H	W	OVERALL WIDTH	L DIMENSIONS SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	17	13	.064 *	7	6	30	44	4:1	19	6:1	30	10:1 ②	70
18	21	15	.064 *	8	6	27	43	4:1	20	6:1	30	10:1	70
21	24	18	.064 *	8	6	30	46	4:1	32	6:1	48	10:1	100
24	28	20	.064 *	8	6	34	50	4:1	40	6:1	60	10:1	120
30	35	24	.079 *	12	9	41	65	4:1	56	6:1	84	10:1	160
36	42	29	.109 *	12	9	48	72	4:1	76	6:1	114	10:1	210
42	49	33	.109	16	12	55	87	4:1	92	6:1	138	——	——
48	57	38	.109	16	12	63	95	4:1	112	6:1	168	——	——
54	64	43	.109	16	12	70	102	4:1	132	6:1	198	——	——

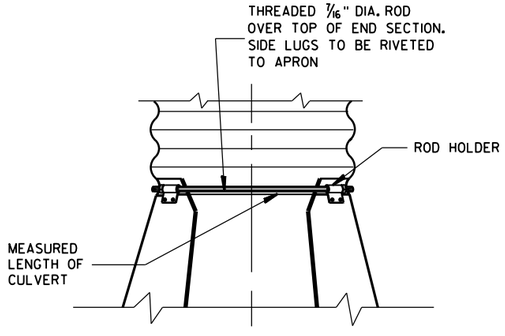
① * MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".
② ACTUAL SLOPE GREATER THAN 10:1.



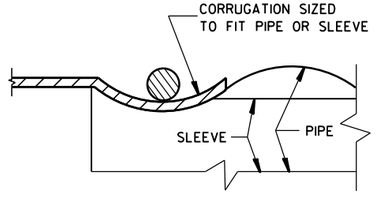
ISOMETRIC VIEW



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



TYPE 2
CONNECTION DETAIL



SECTION B-B

STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

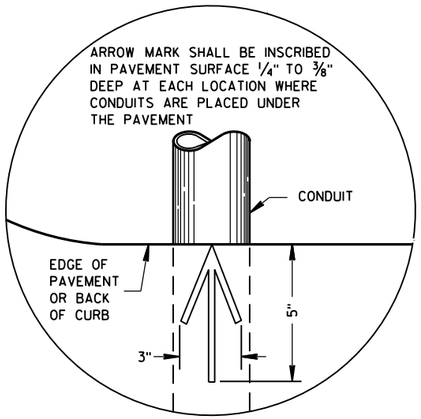
APPROVED
9/14/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 7-5

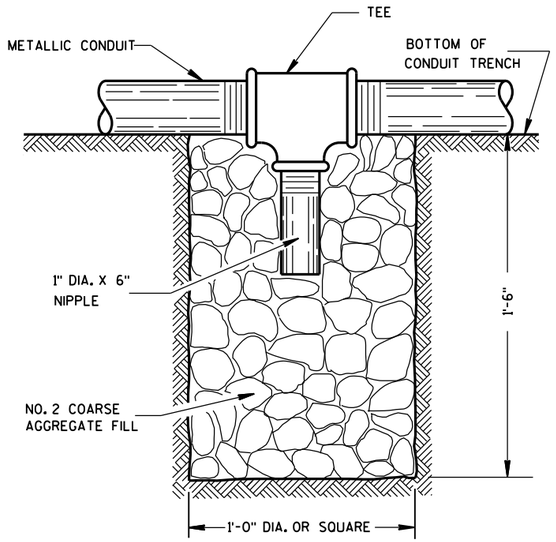
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S.D.D. 8 F 7-5



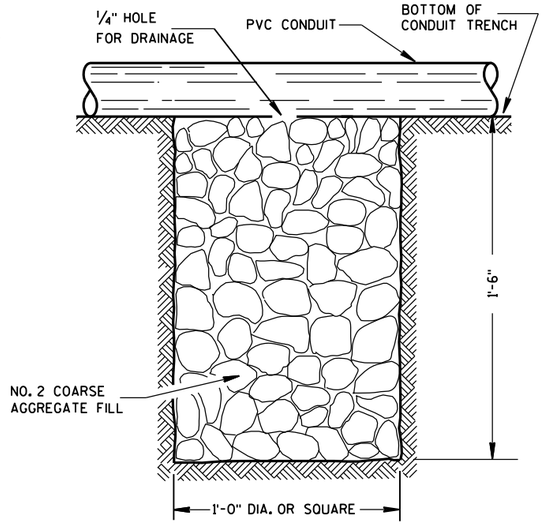
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

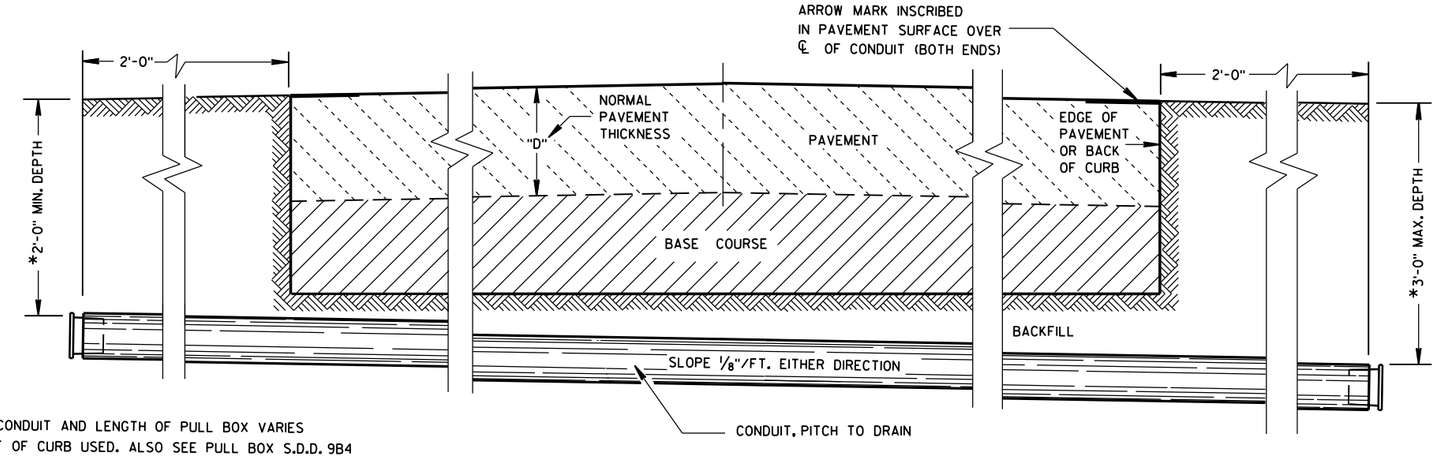
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

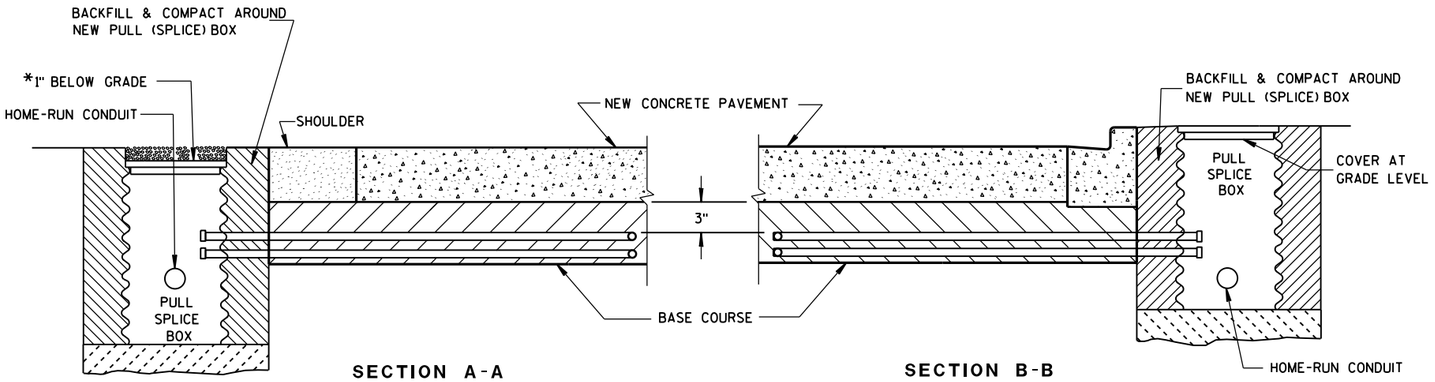
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 9 B 2-8



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.

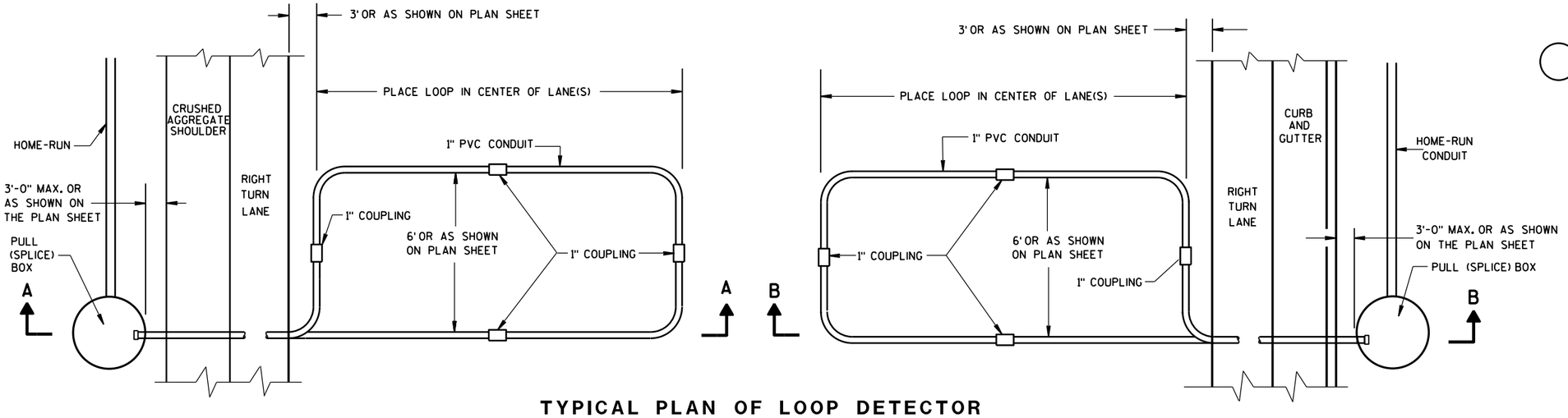
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

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

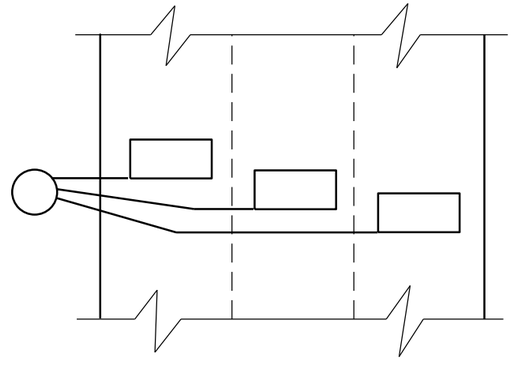
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

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

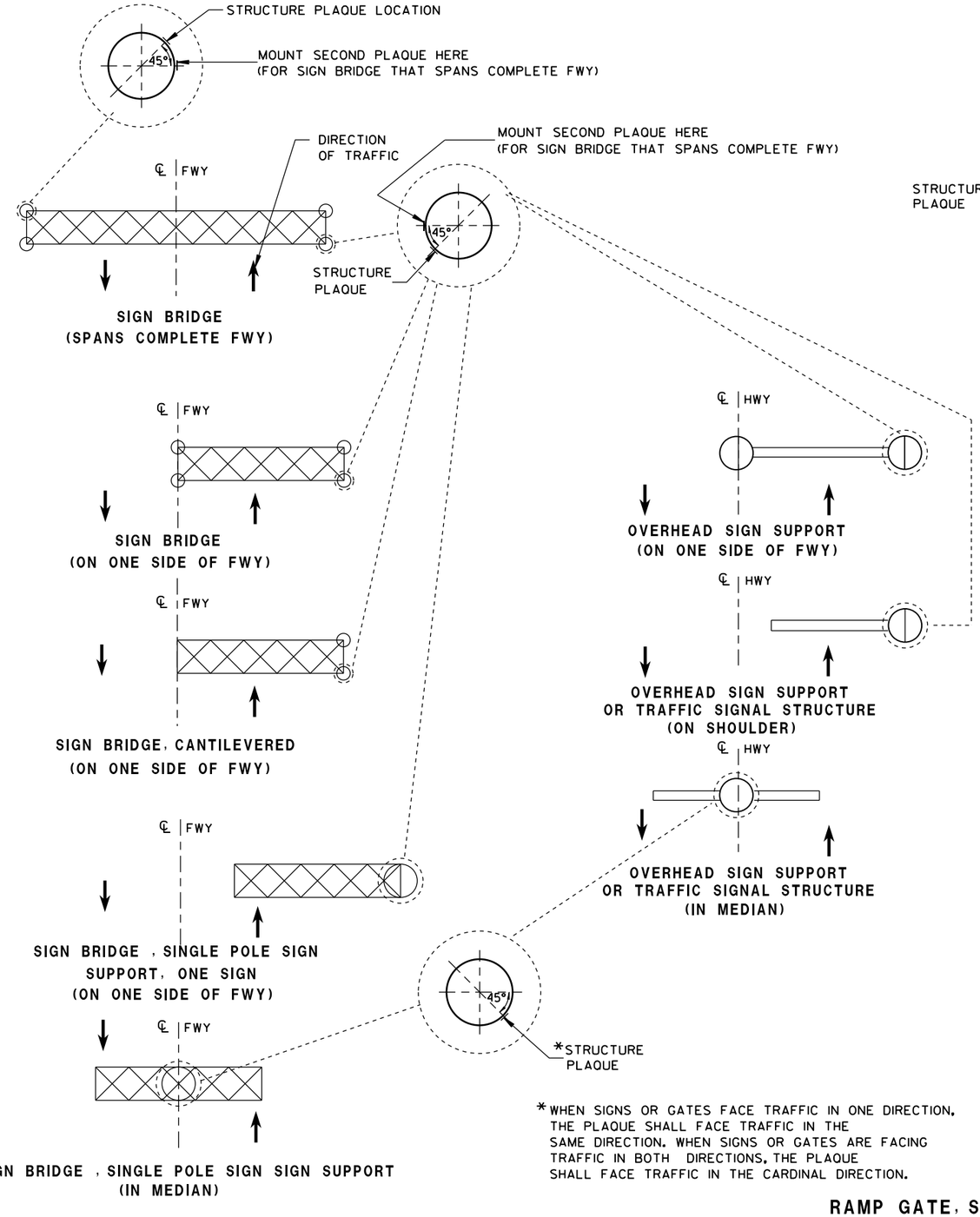
APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
FHWA

6

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

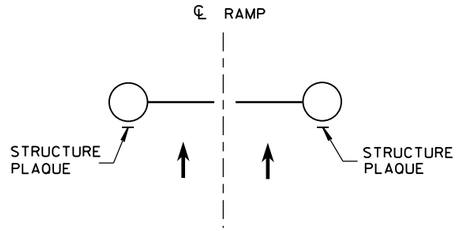
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S.D.D. 9 F 15-4b

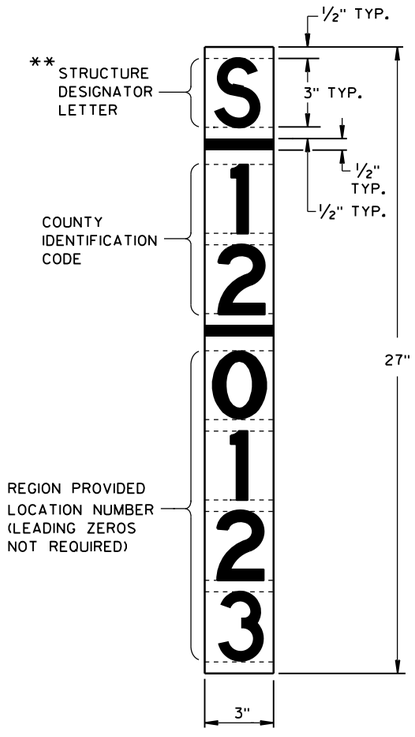


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



**RAMP GATE
(ACROSS FWY ON-RAMP)**



RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

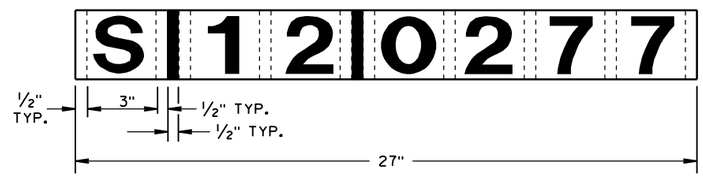
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

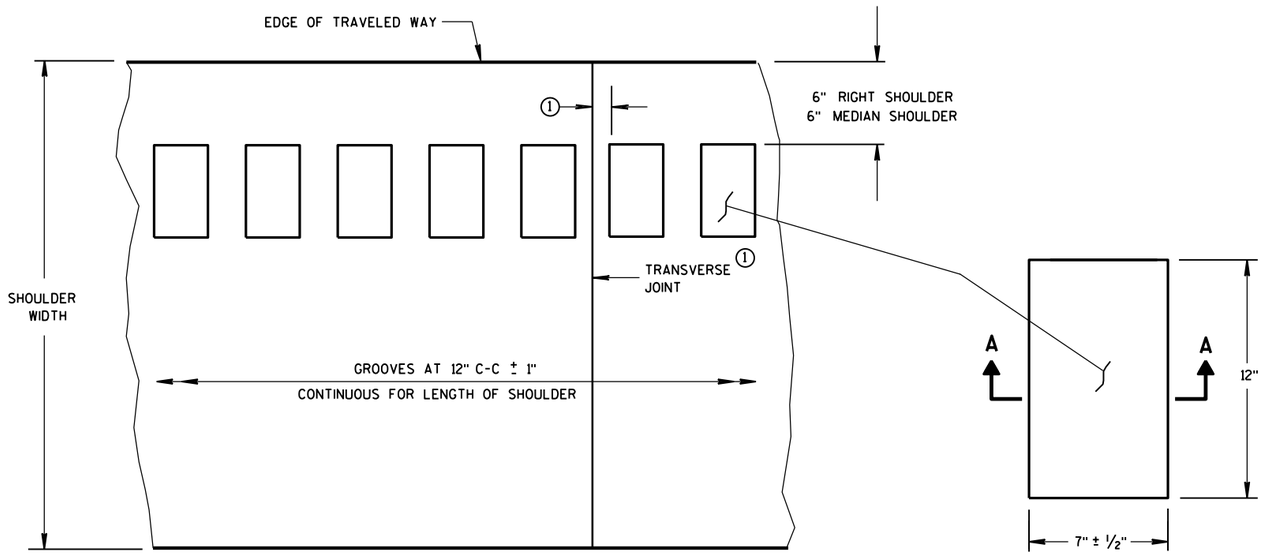
APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 12 A 4-3

6

S.D.D. 12 A 4-3



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

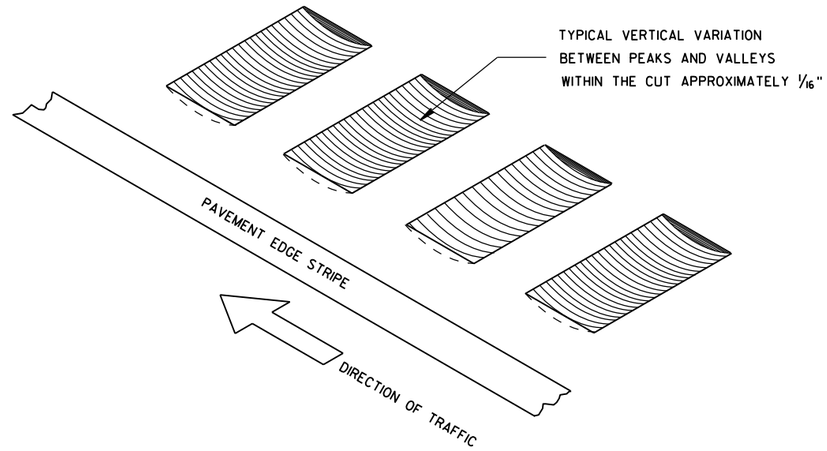
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

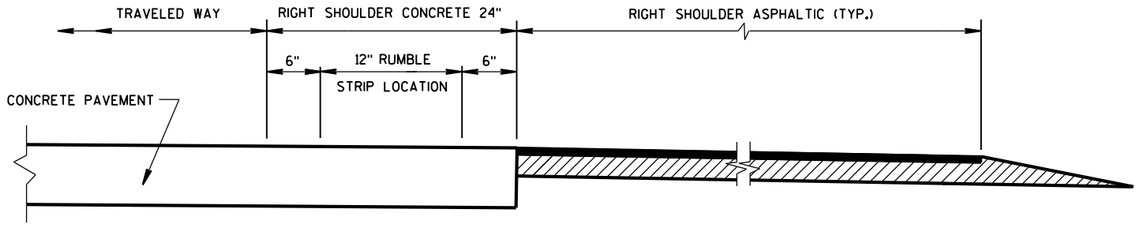
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

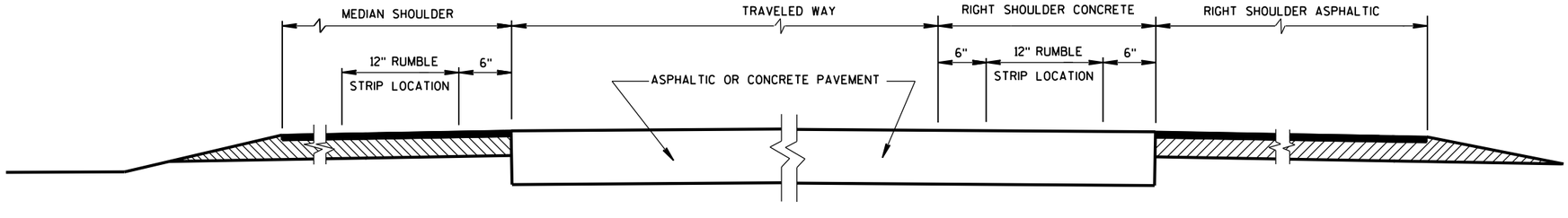
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



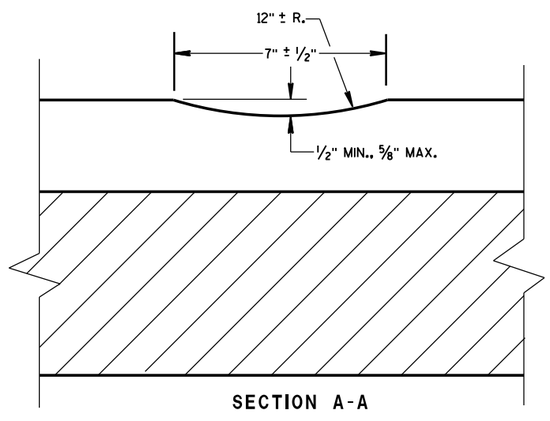
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

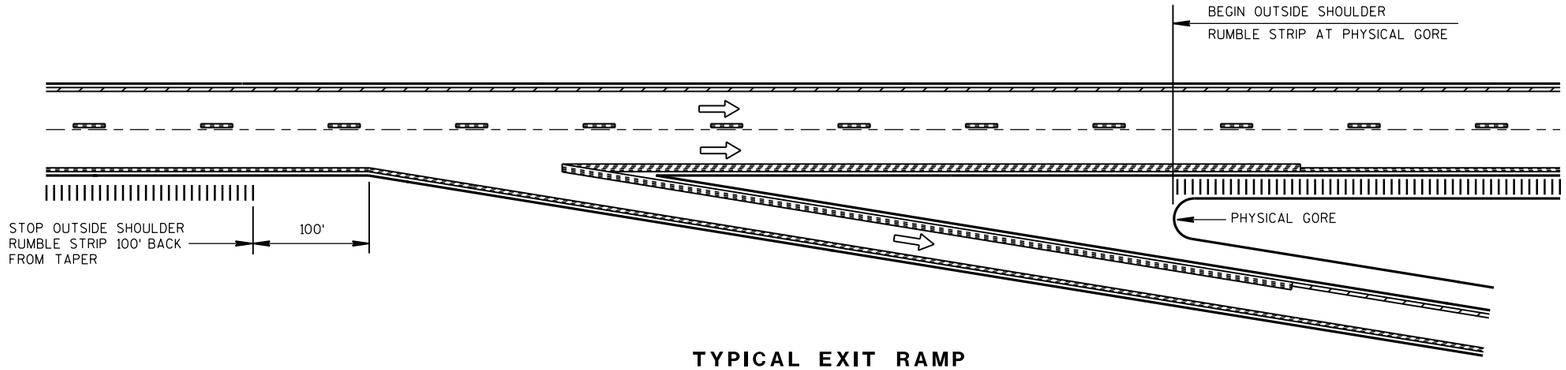
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

6

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



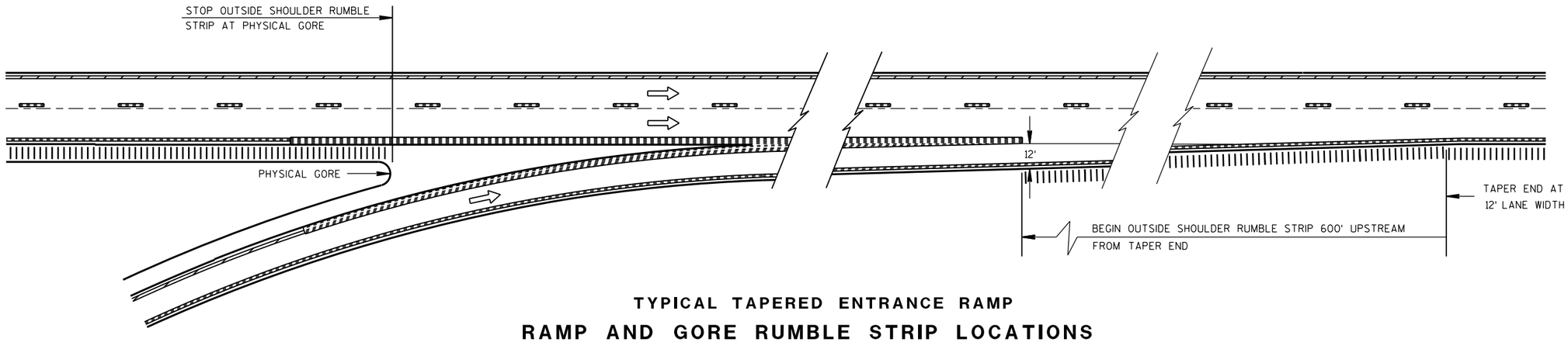
TYPICAL EXIT RAMP

NOTES:

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

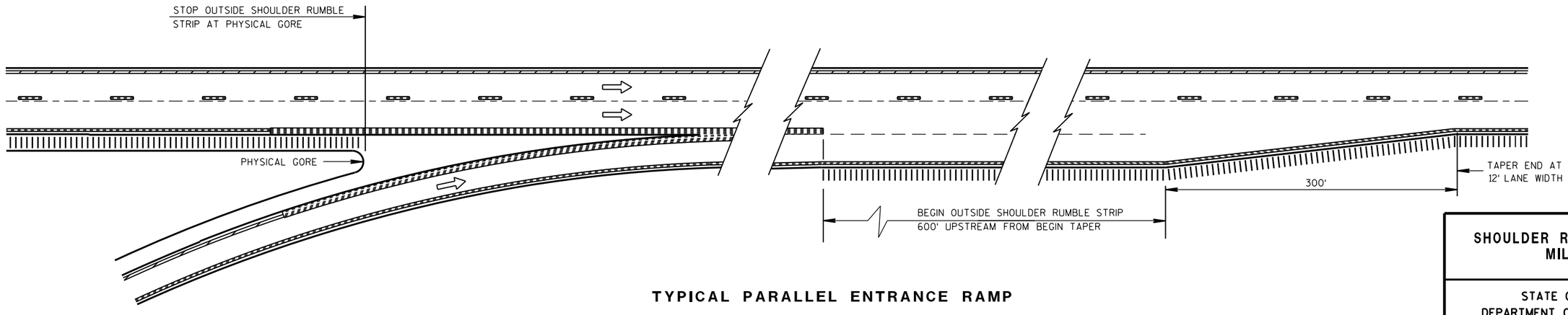
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/17/2012 — DATE
/S/ Jerry H. Zoga — ROADWAY STANDARDS ENGINEER
FHWA

6

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

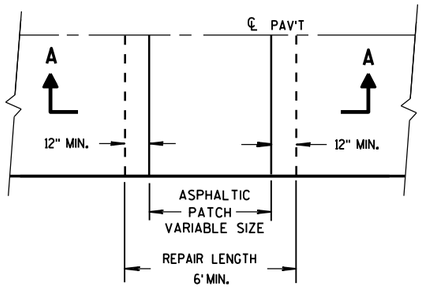
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. ADDITIONAL SAW CUTS ARE NOT PAID FOR BY THE DEPARTMENT.

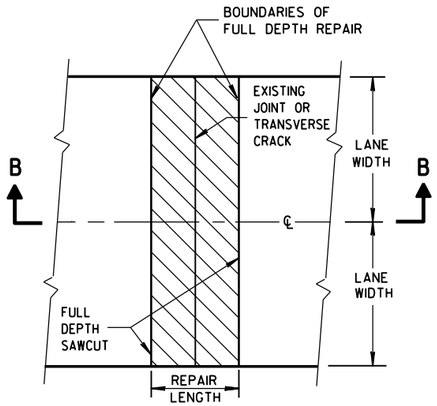
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

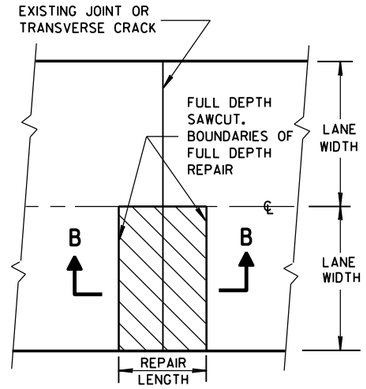
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW



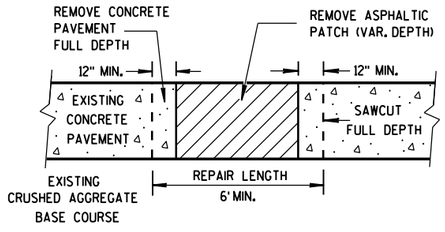
PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

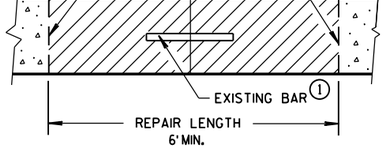
FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)



SECTION A-A

HMA PATCH REMOVAL



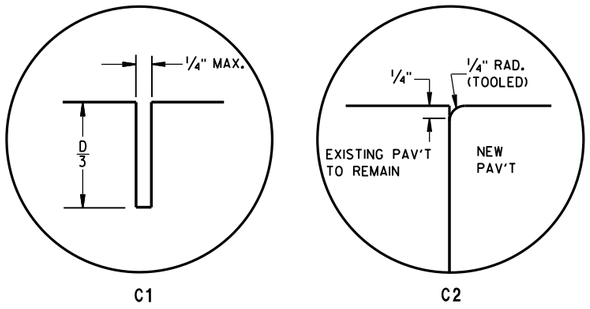
SECTION B-B

CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

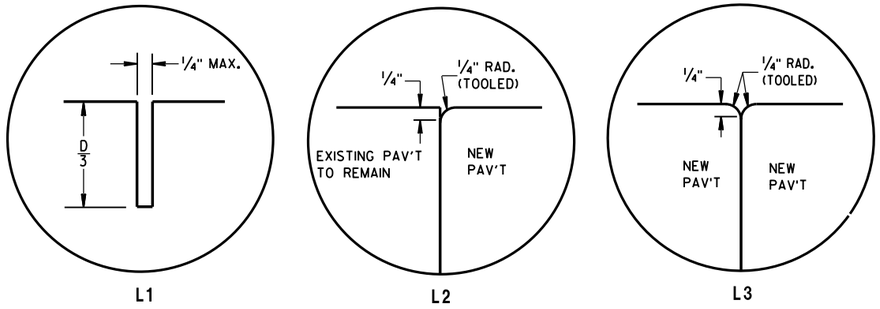
6
S.D.D. 13 C 9-11a



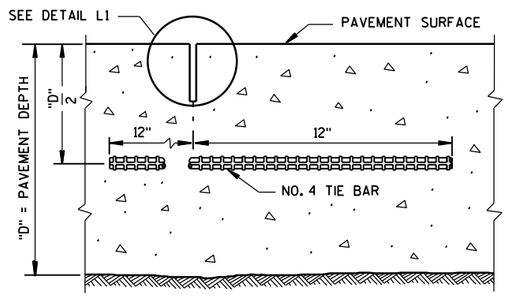
TRANSVERSE JOINTS

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 1/2"	3"±1/2"	48"	42"
7, 7 1/2"	3 1/4"±1"	45"	36"
8, 8 1/2"	3 3/4"±1"	39"	30"
9, 9 1/2"	4 1/4"±1"	33"	27"
10, 10 1/2"	4 3/4"±1"	30"	24"
11, 11 1/2"	5 1/4"±1"	27"	21"
12"	5 3/4"±1"	24"	21"



LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

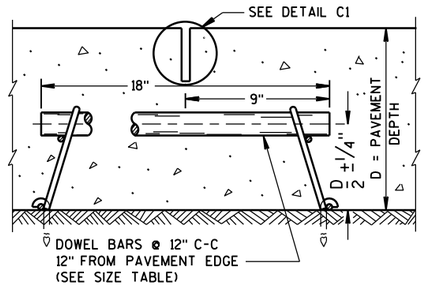
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

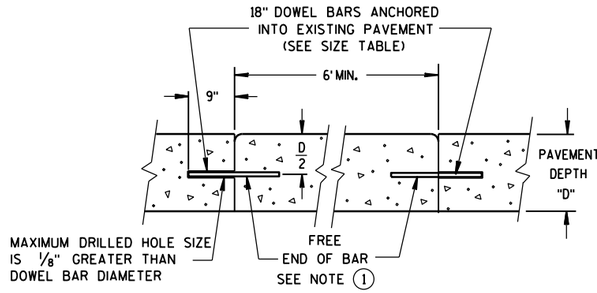
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

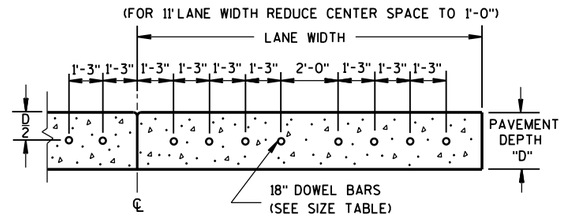


SECTION F-F

CONTRACTION JOINT

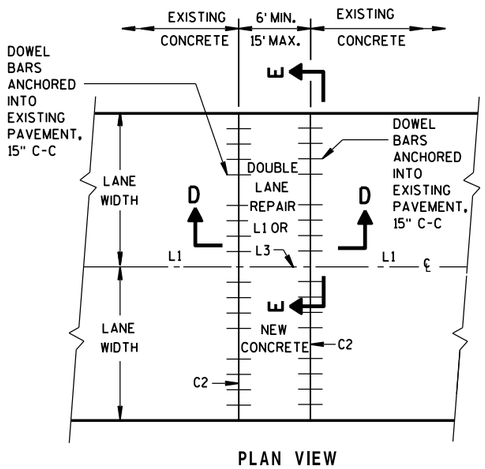


SECTION D-D



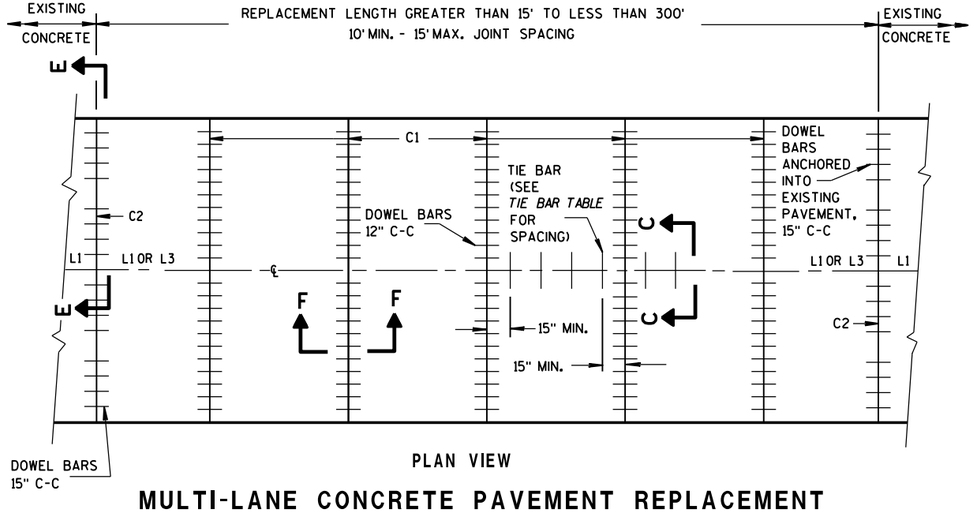
SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

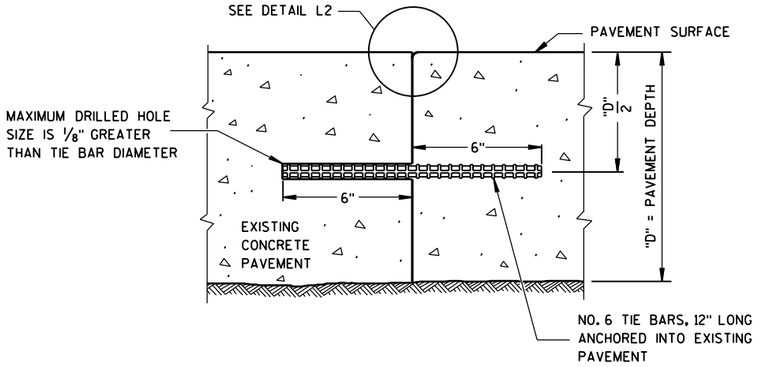
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6",6 1/2"	NONE	12'
7",7 1/2"	1"	14'
8",8 1/2"	1 1/4"	15'
9",9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

S.D.D. 13 C 9-11b



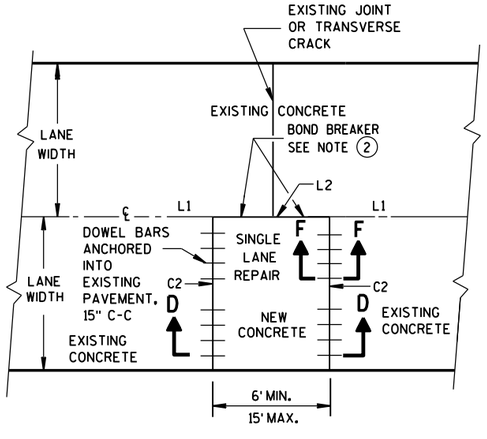
SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

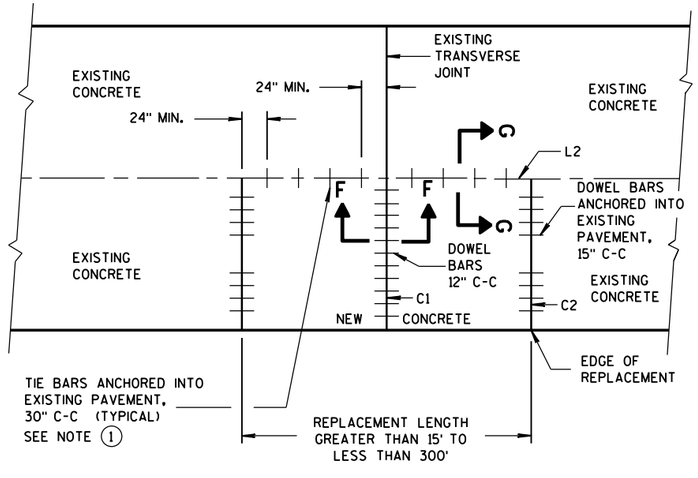
(1) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

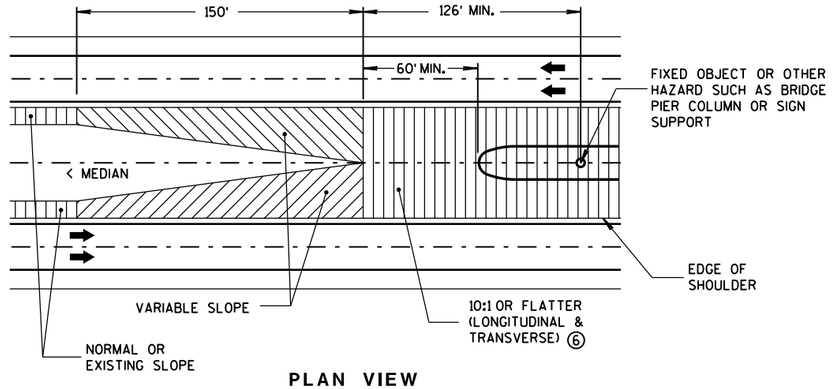
CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12-2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE
FHWA

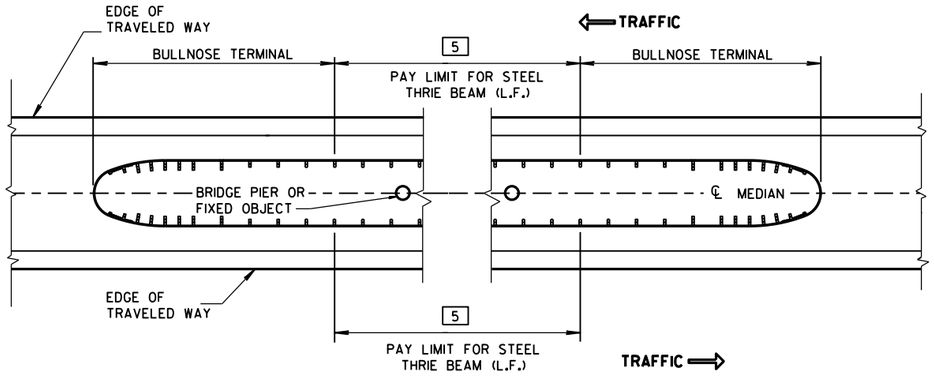
6

S.D.D. 13 C 9-11c

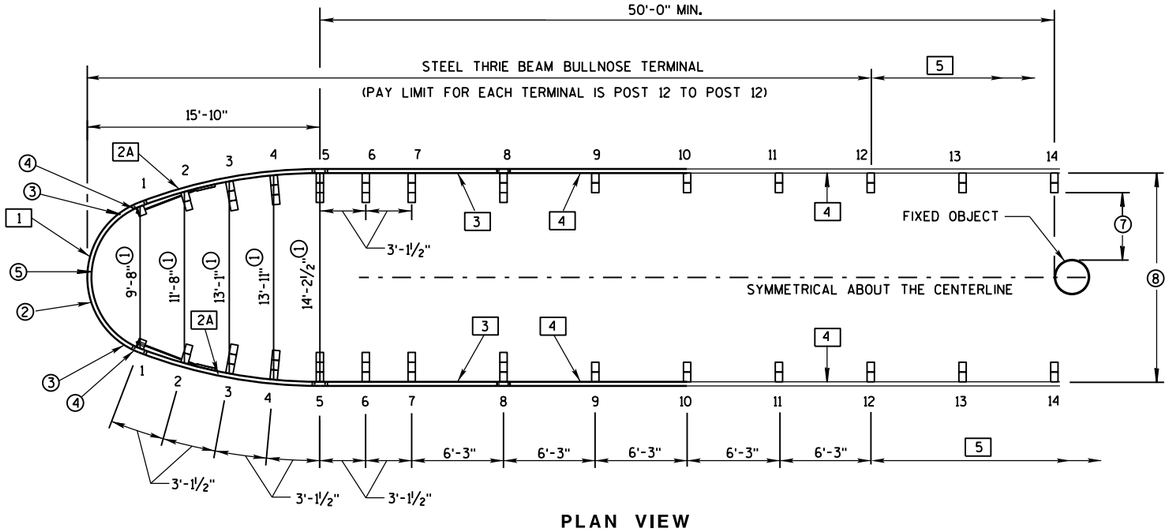


PLAN VIEW

GRADING AT BULLNOSE
(ALL INSTALLATIONS)

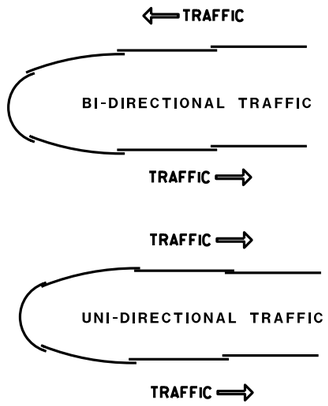


MEDIAN HAZARD PROTECTION PAY LIMITS



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.

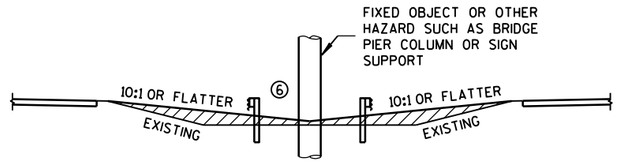
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

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.

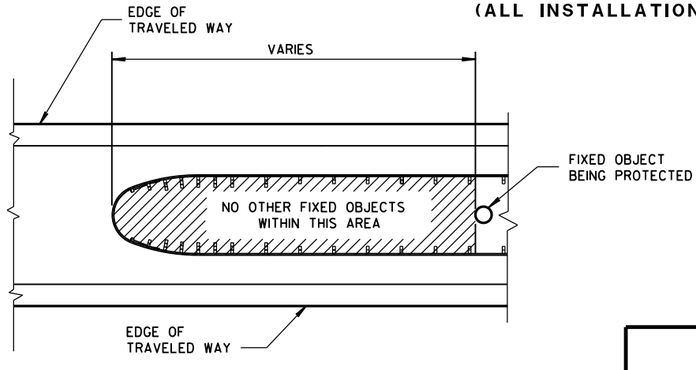
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

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)

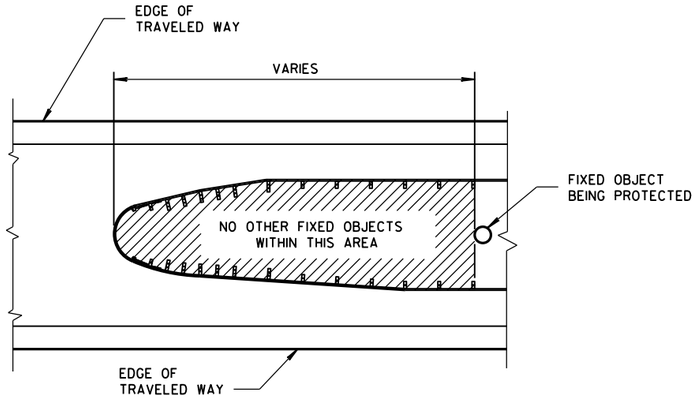


HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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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)

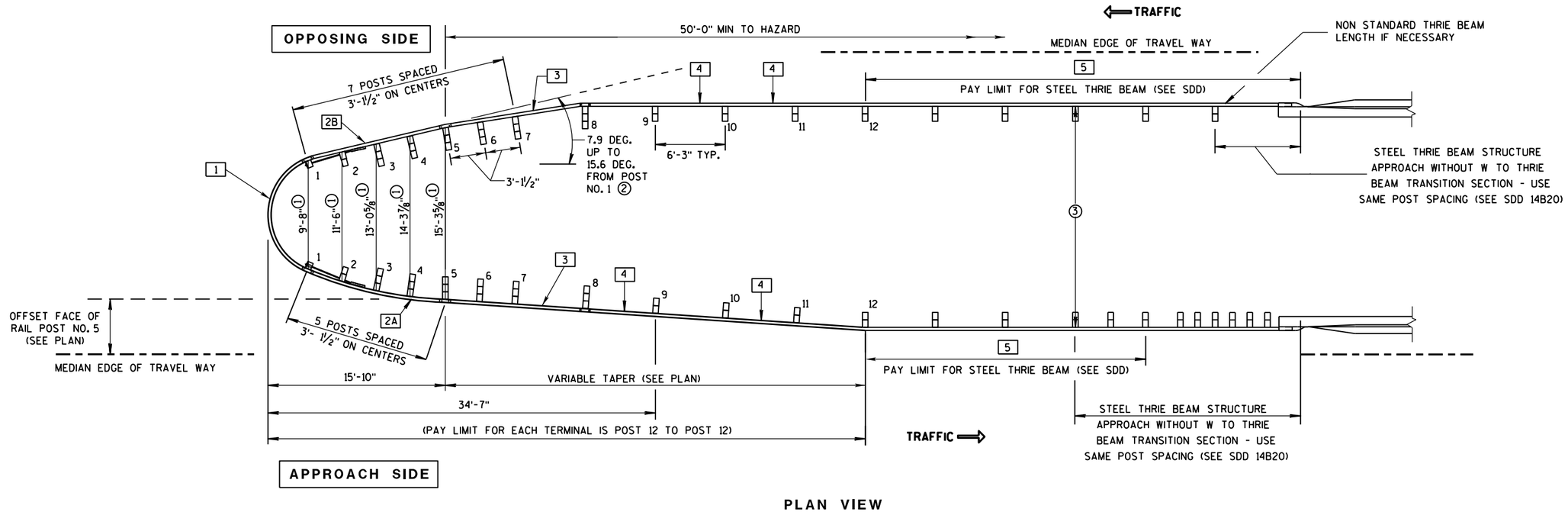
[4] UNBENT STANDARD THRIE-BEAM RAIL NO. 4, (POST 8 TO POST 10 & POST 10 TO POST 12)

[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

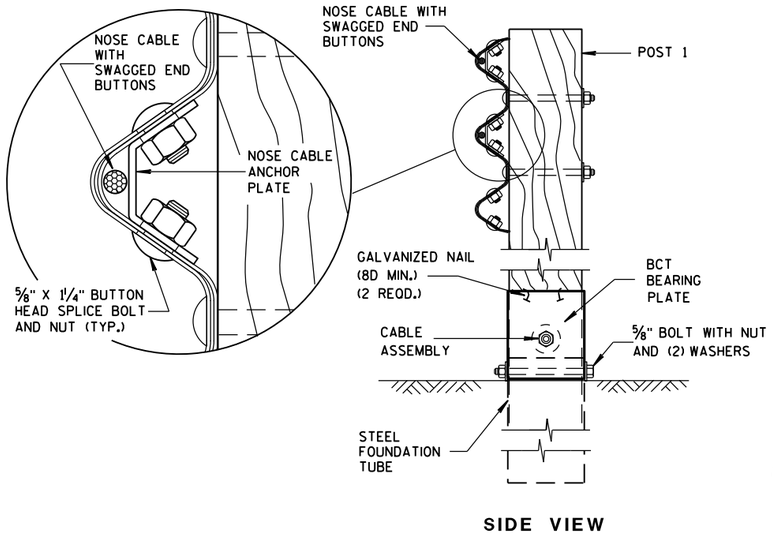
(INSTALLATION AT TWIN BRIDGES WITH BI-DIRECTIONAL TRAFFIC SHOWN)

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

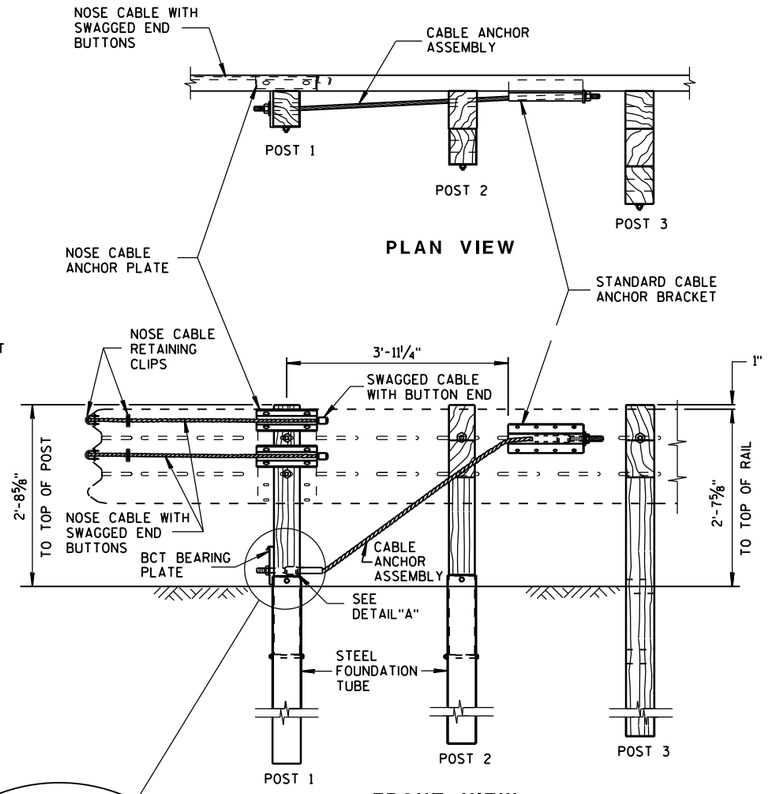
6

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



SIDE VIEW

NOSE CABLE ASSEMBLY AT POST NO. 1



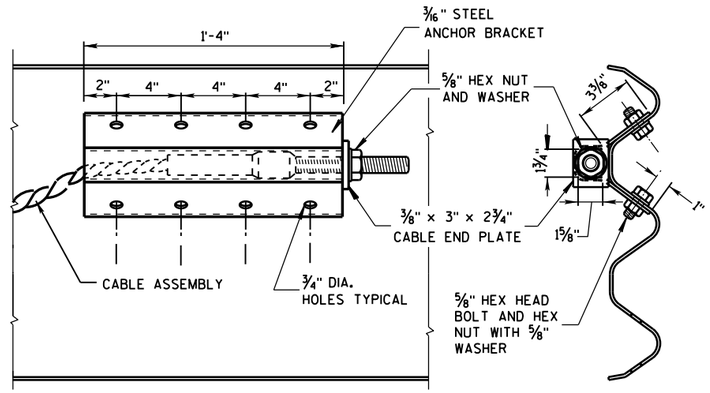
PLAN VIEW

FRONT VIEW

NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY

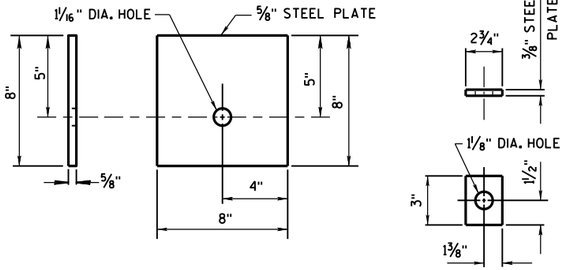
GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



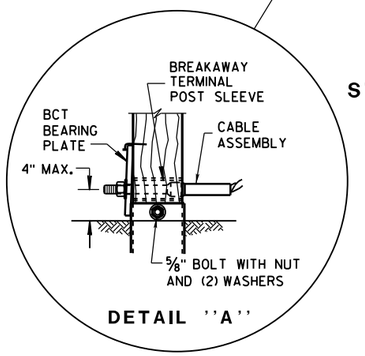
FRONT VIEW END VIEW

DETAILS OF CABLE ANCHOR BRACKET

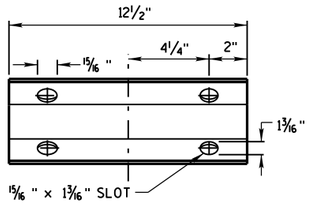


BCT BEARING PLATE

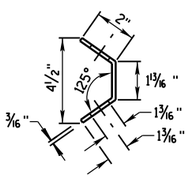
CABLE END PLATE



DETAIL ''A''



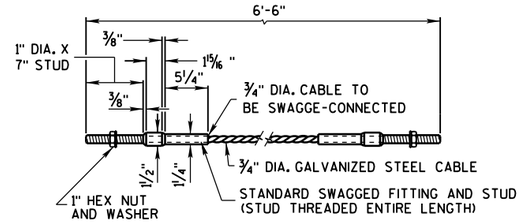
ELEVATION VIEW



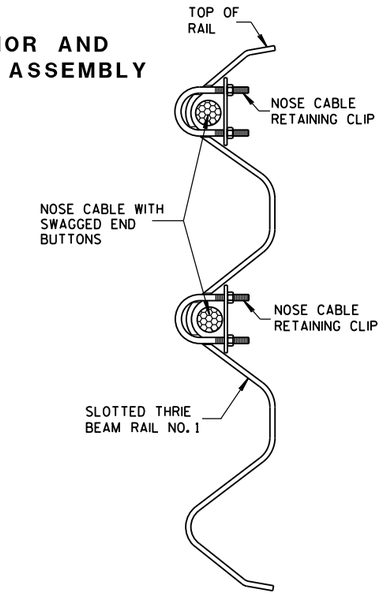
END VIEW

NOSE CABLE ANCHOR PLATE

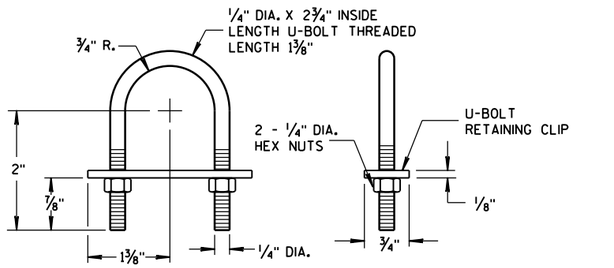
NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)



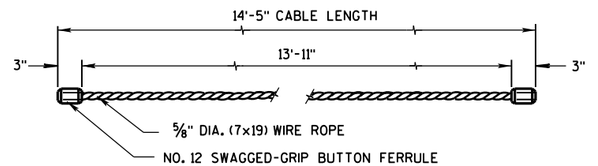
DETAILS OF CABLE ANCHOR ASSEMBLY



PLACEMENT OF NOSE CABLE RETAINING CLIP



NOSE CABLE RETAINING CLIP



NOSE CABLE WITH SWAGGED END BUTTONS

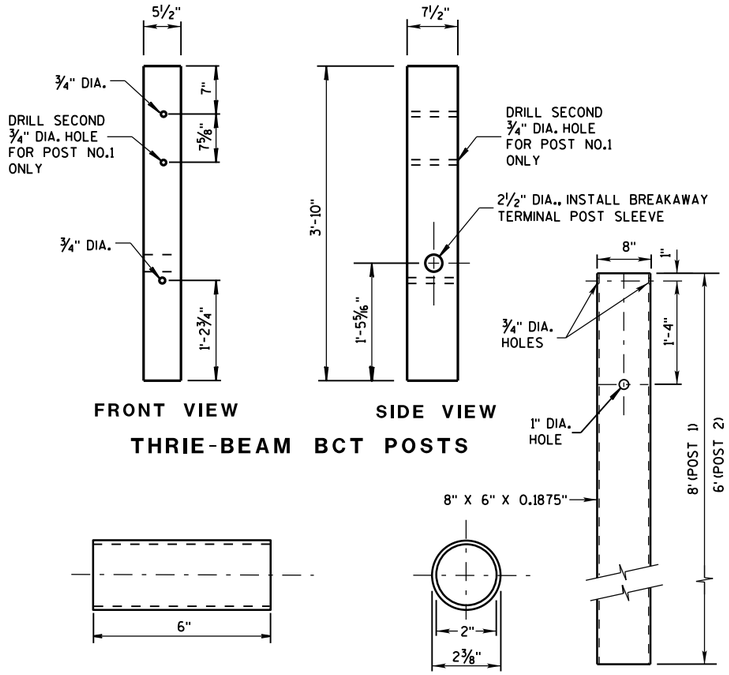
TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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

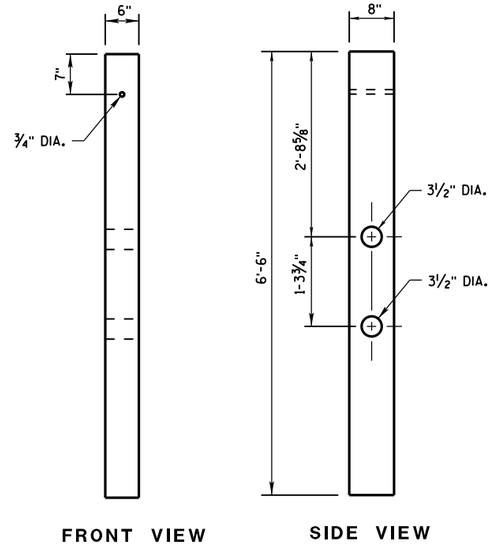


FRONT VIEW SIDE VIEW

THRIE-BEAM BCT POSTS

BREAKAWAY TERMINAL POST SLEEVE

STEEL FOUNDATION TUBE

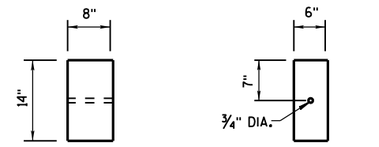


FRONT VIEW SIDE VIEW

THRIE-BEAM CRT WOOD POSTS

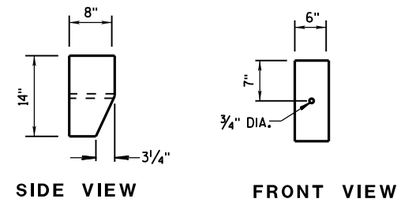
GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



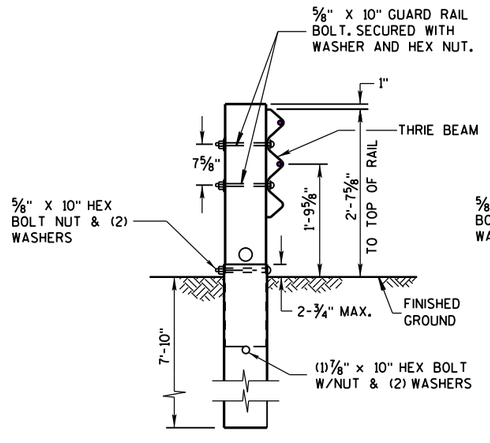
SIDE VIEW FRONT VIEW

STANDARD WOOD BLOCK



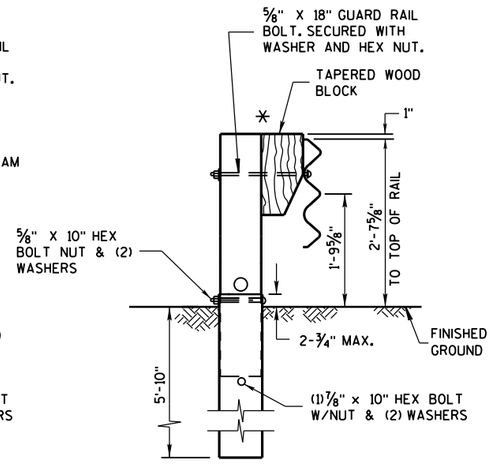
SIDE VIEW FRONT VIEW

TAPERED WOOD BLOCK



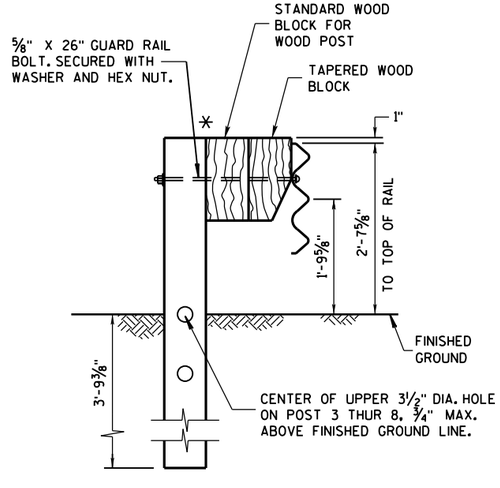
THRIE-BEAM BCT POST
(WITH 8'-0" FOUNDATION TUBE)

POST NO. 1



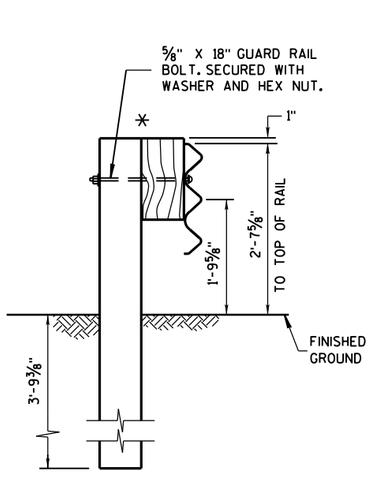
THRIE-BEAM BCT POST
(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)

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

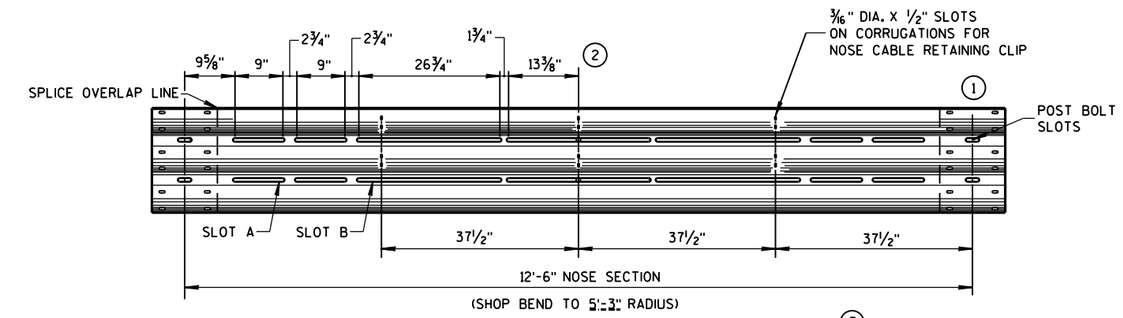
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 90

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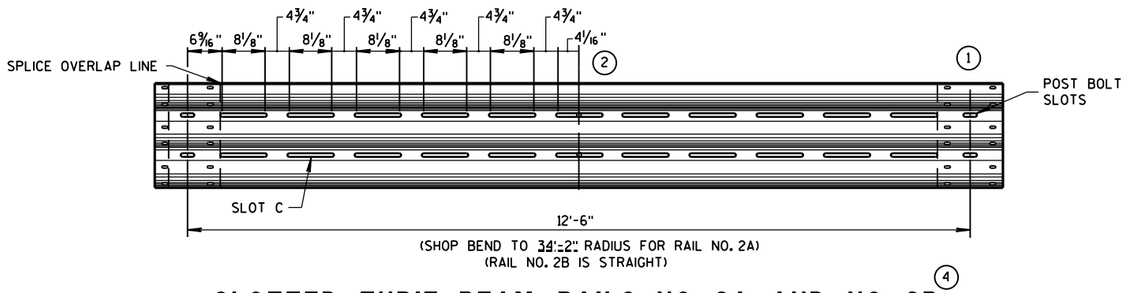
S.D.D. 14 B 26-3d

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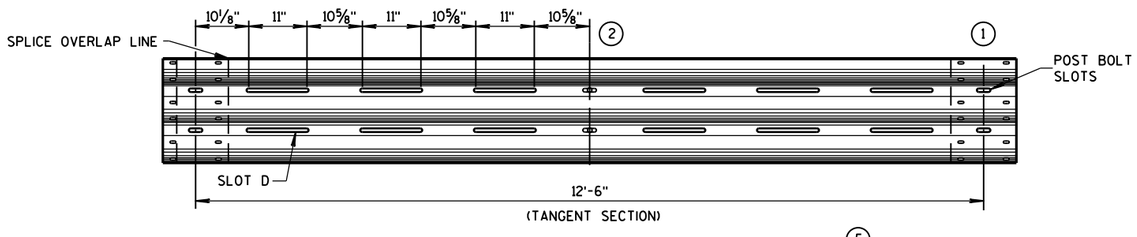
S.D.D. 14 B 26-3d



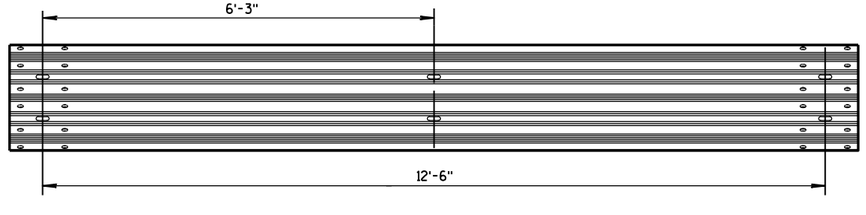
SLOTTED THRIE BEAM RAIL NO. 1 (3)



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.

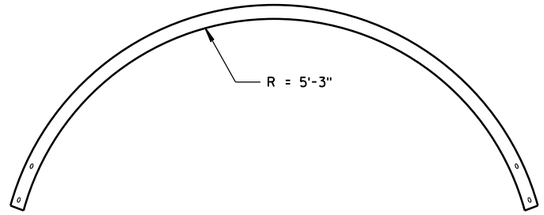
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

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

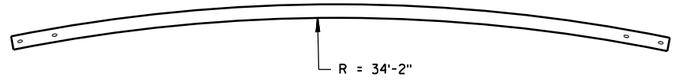
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

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



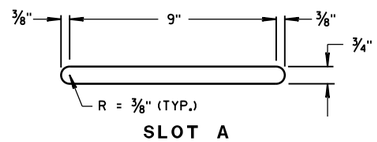
PLAN VIEW

SLOTTED THRIE BEAM RAIL NO. 1

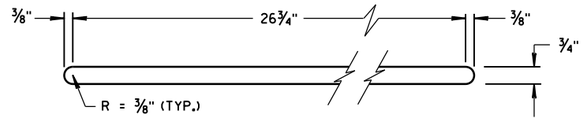


PLAN VIEW

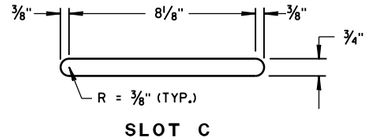
SLOTTED THRIE BEAM RAIL NO. 2A



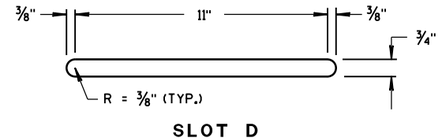
SLOT A



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

NT

FHWA

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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.

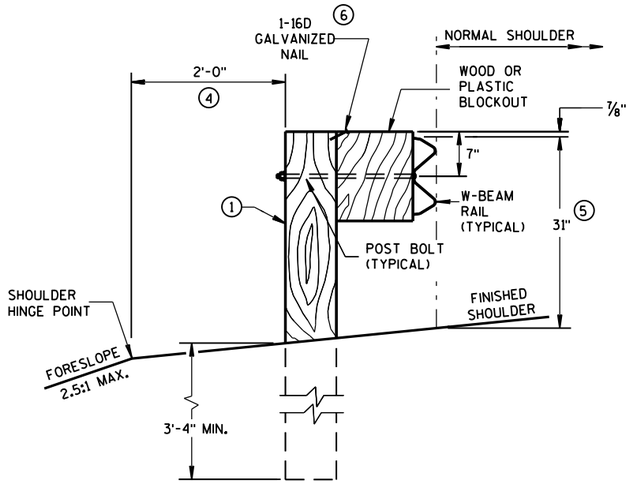
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

(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).

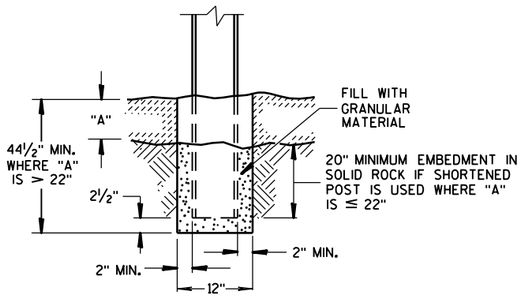
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

(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.



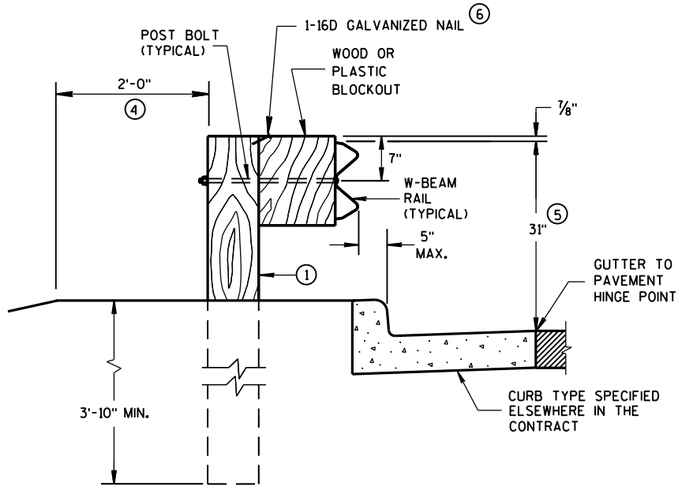
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



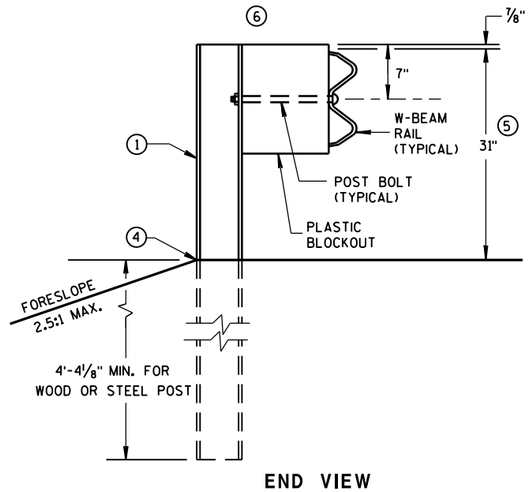
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (3)



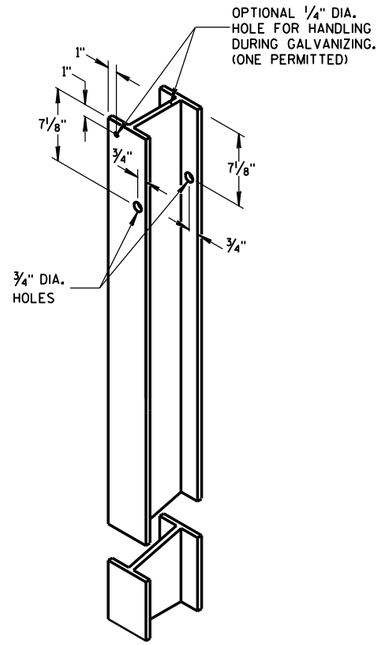
END VIEW

LOCATED ALONG A CURBED ROADWAY

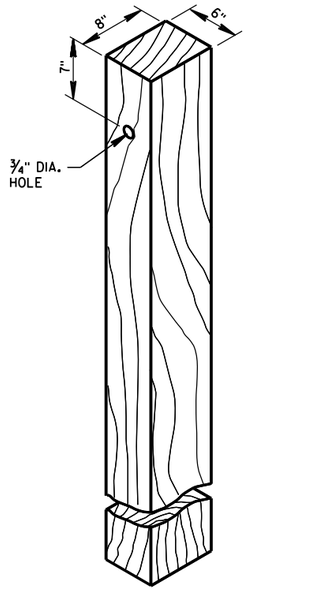


END VIEW

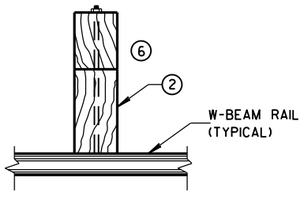
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



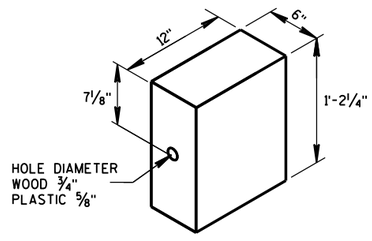
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



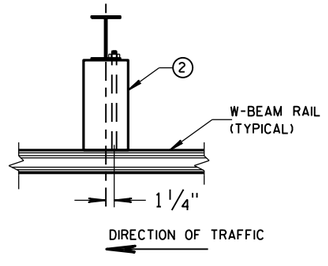
WOOD POST
(6" X 8") NOMINAL (1)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)



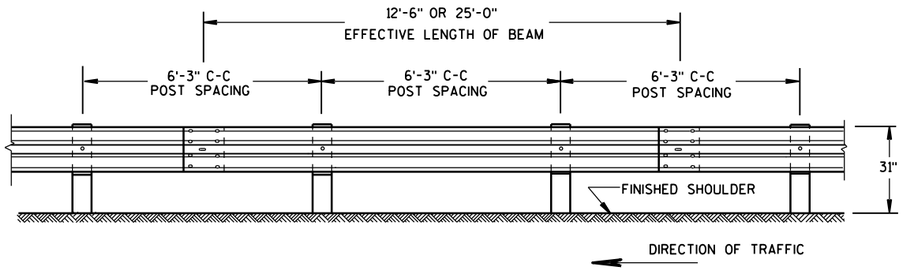
PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

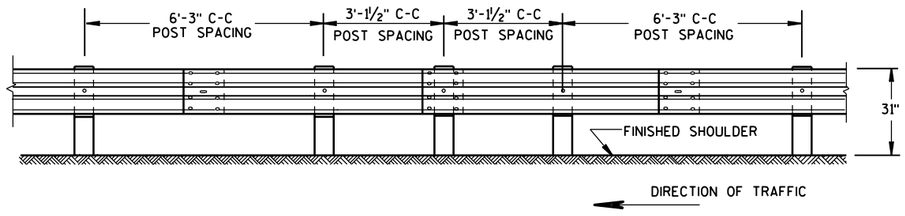
6

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



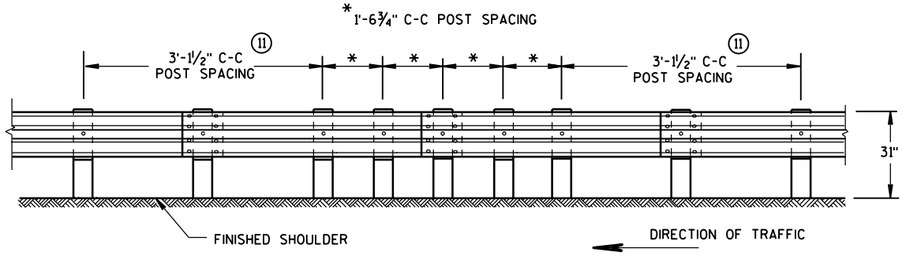
FRONT VIEW

POST SPACING STANDARD INSTALLATION



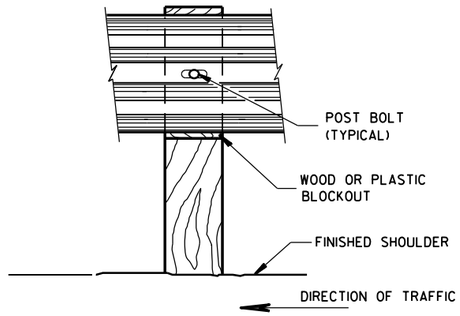
FRONT VIEW

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

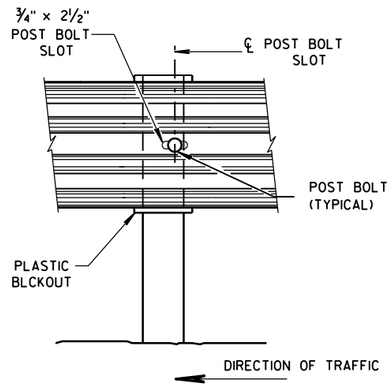


FRONT VIEW

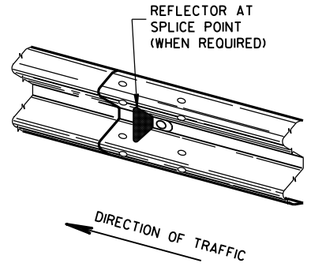
QUARTER POST SPACING (QS)

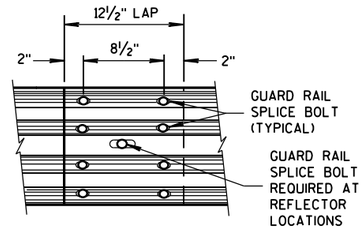


FRONT VIEW AT WOOD POST



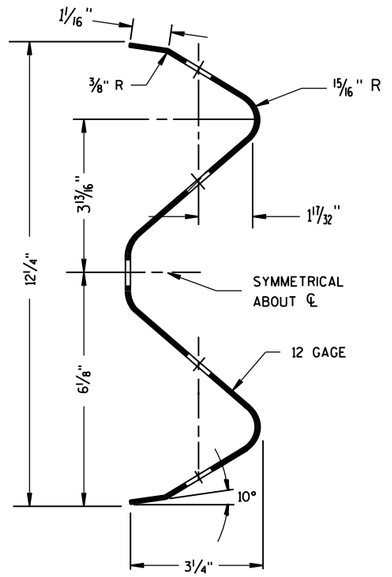
FRONT VIEW AT STEEL POST



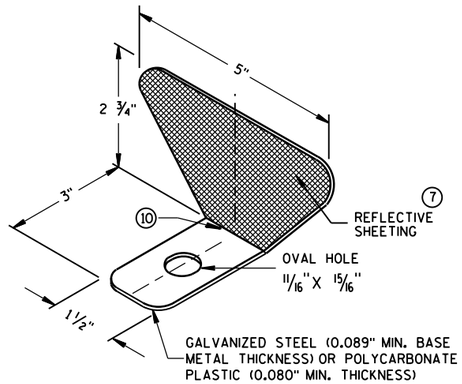


FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ⑦

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 ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

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

REFLECTOR SPACING ⑧

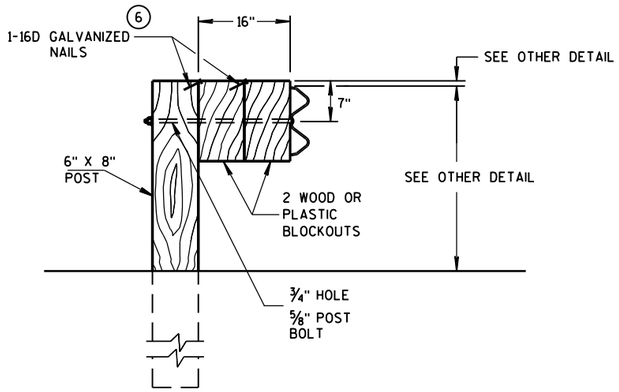
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ⑨	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 ⑩	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

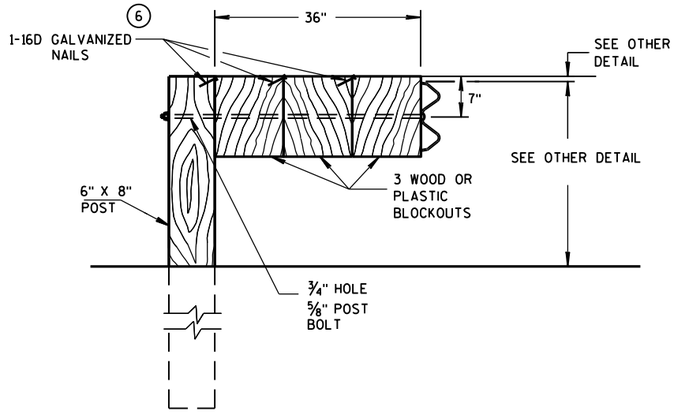
6

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.

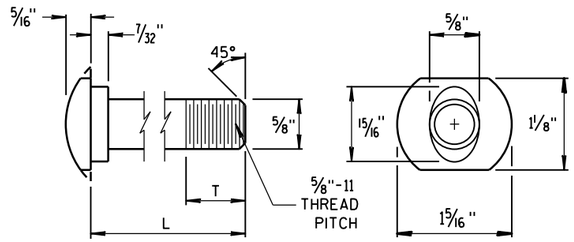


DETAIL FOR 36" BLOCKOUT DEPTH

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.

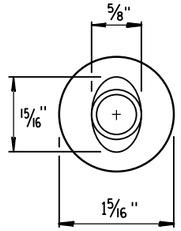
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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.

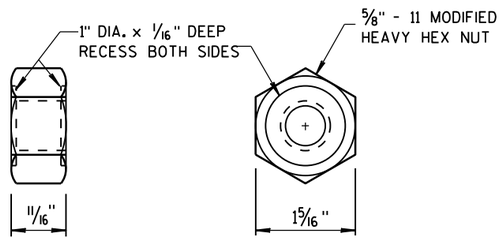


POST BOLT TABLE

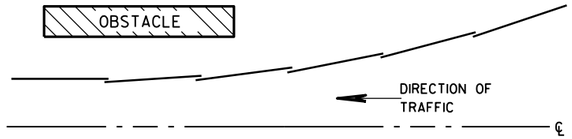
L	T (MIN.)
1¼"	1⅛"
2"	1¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

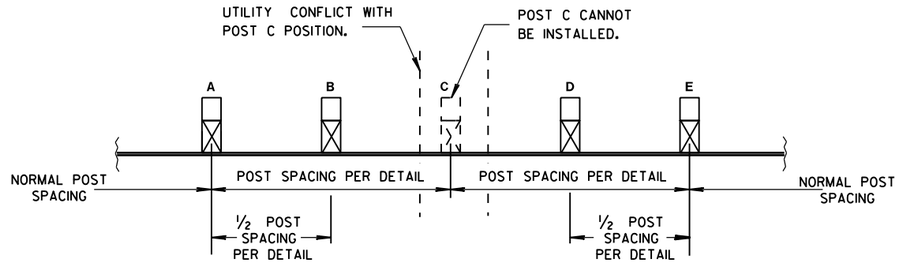


POST BOLT AND RECESS NUT

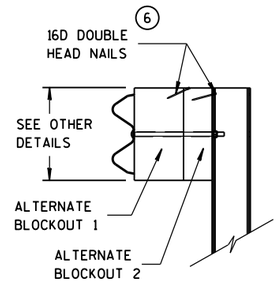


PLAN VIEW

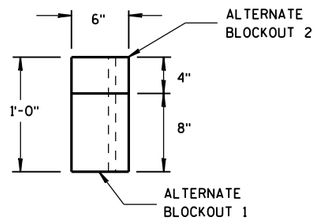
BEAM LAPPING DETAIL



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 ENGINEER
FHWA

6

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

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.

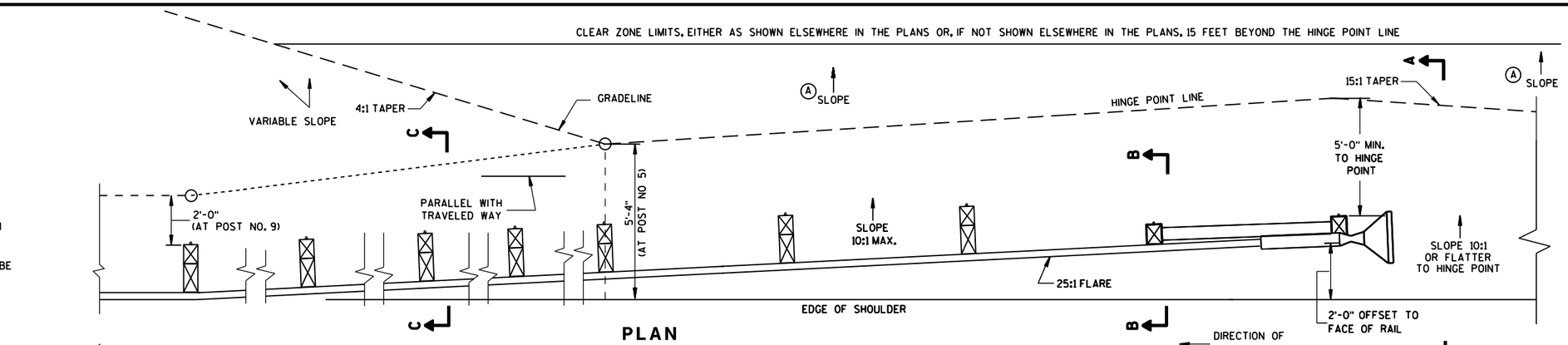
SEE SDD 14B42 FOR MORE INFORMATION.

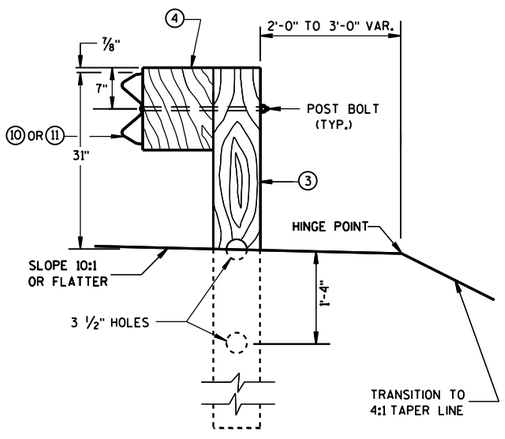
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

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

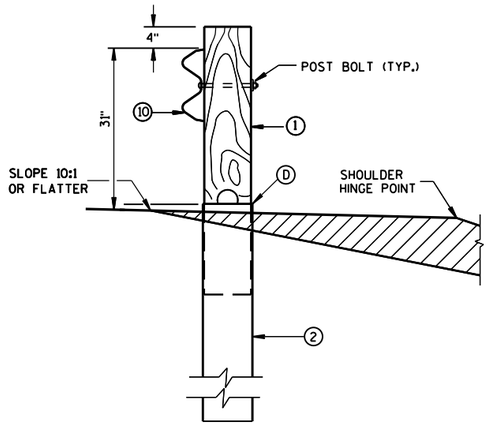
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

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.

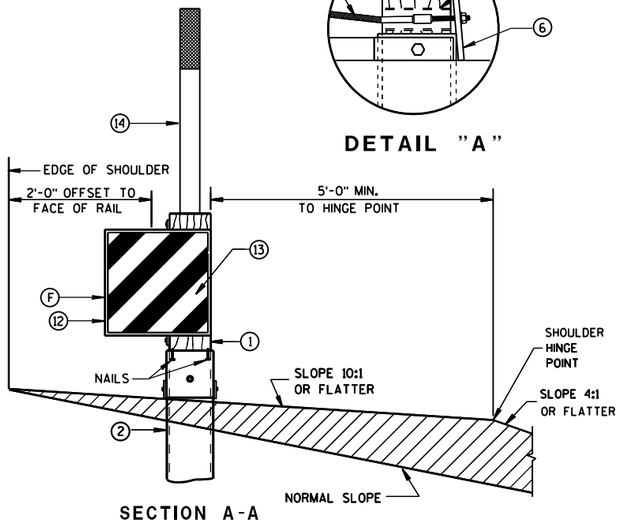




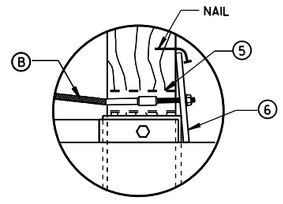
SECTION C-C
TYPICAL AT POST NOS. 3-9



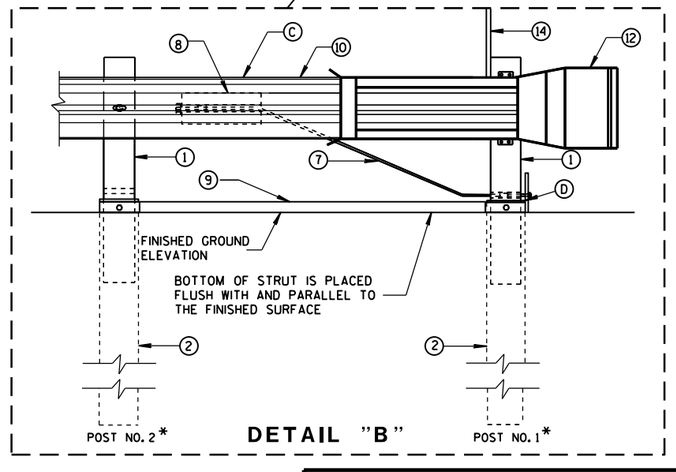
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



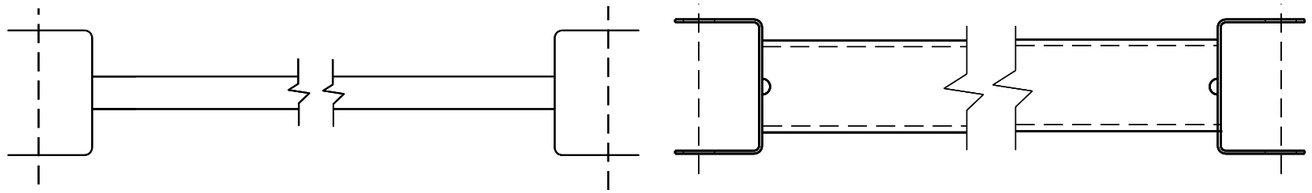
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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

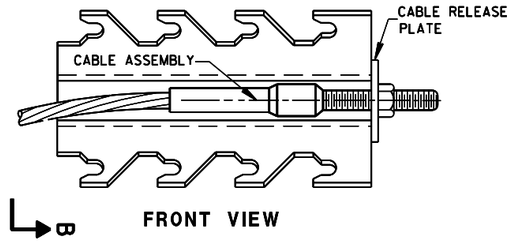
S.D.D. 14 B 44-2a



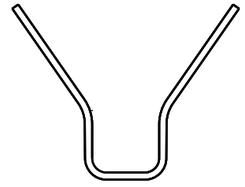
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

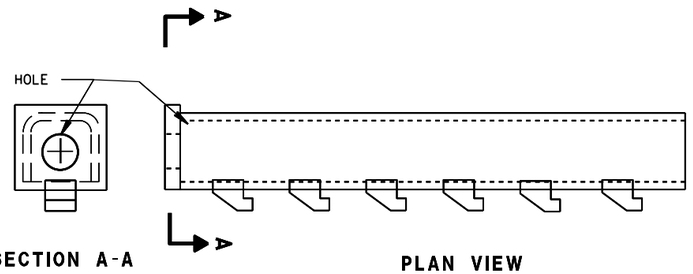
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR 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)



FRONT VIEW



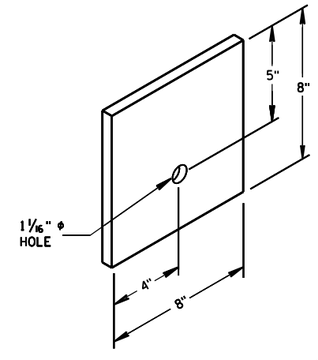
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



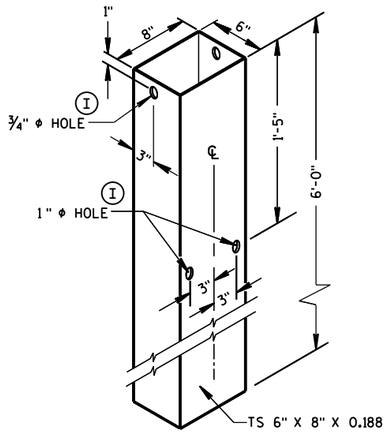
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

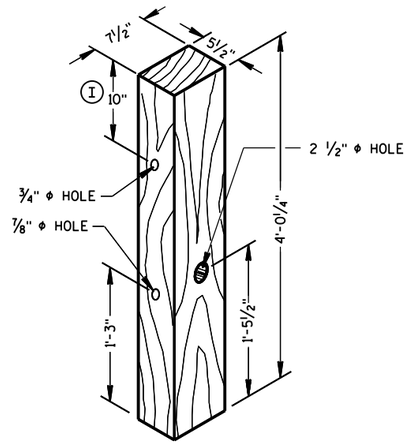
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

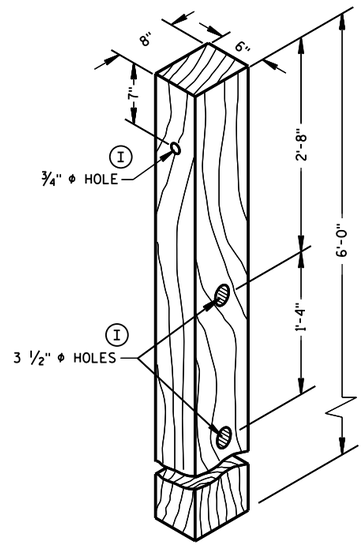


FOUNDATION TUBE (2)



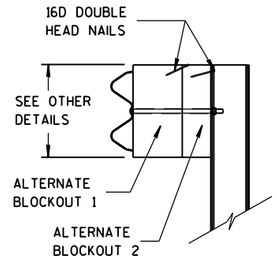
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

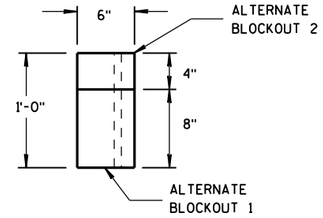


POSTS NUMBER 3-9

WOOD CRT POST (3)

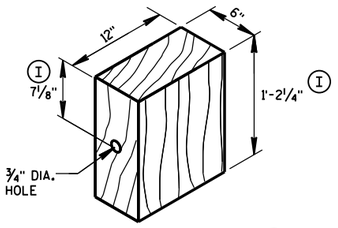


SIDE VIEW



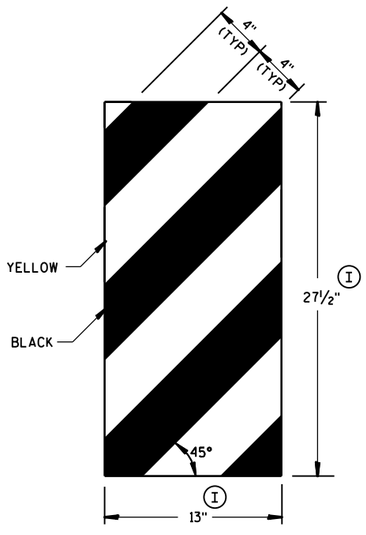
TOP VIEW

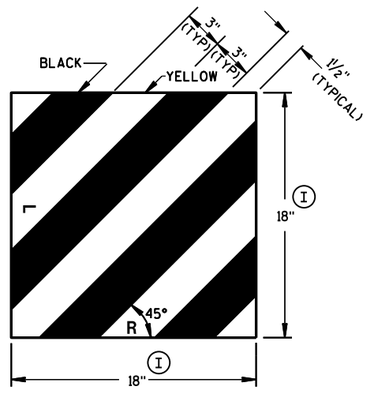
ALTERNATE WOOD BLOCKOUT DETAIL



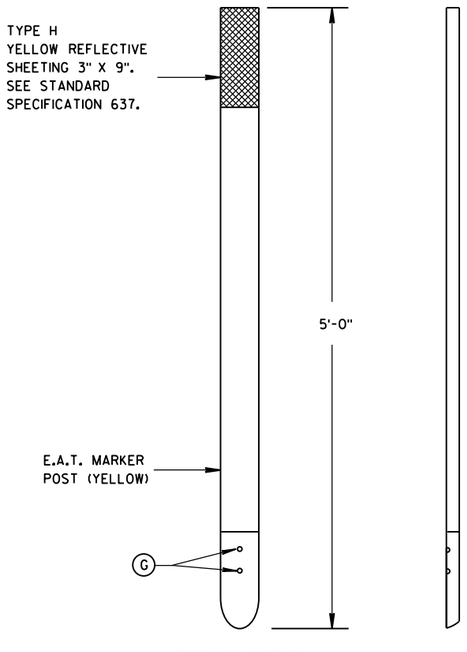
WOOD BLOCKOUT (4)

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





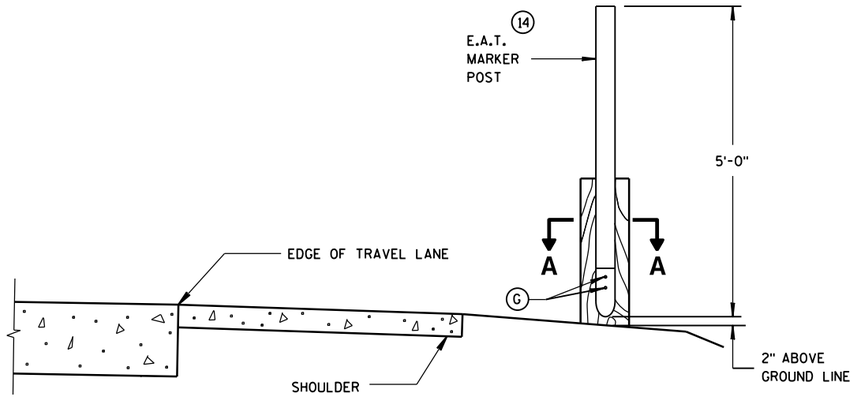
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

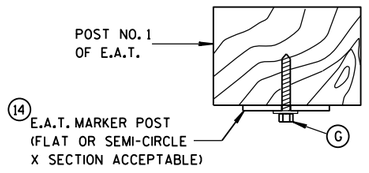
SIDE VIEW

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

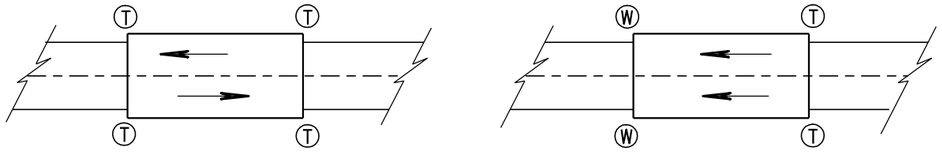
APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

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

6

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



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

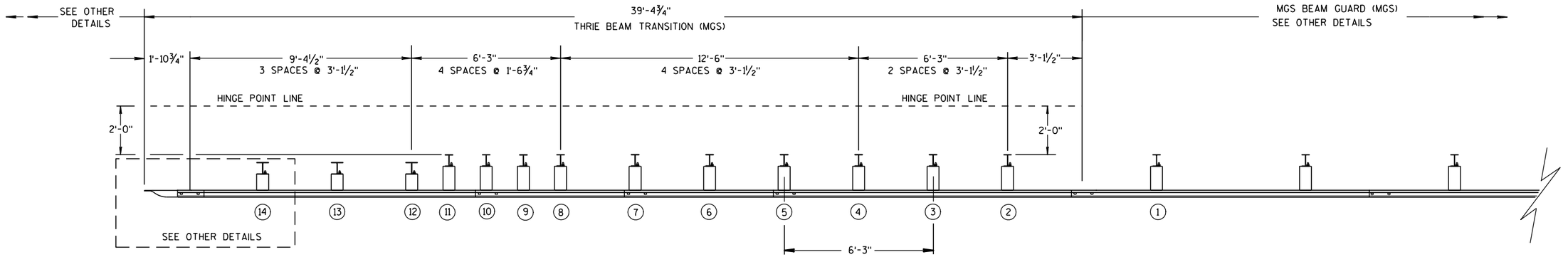
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

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

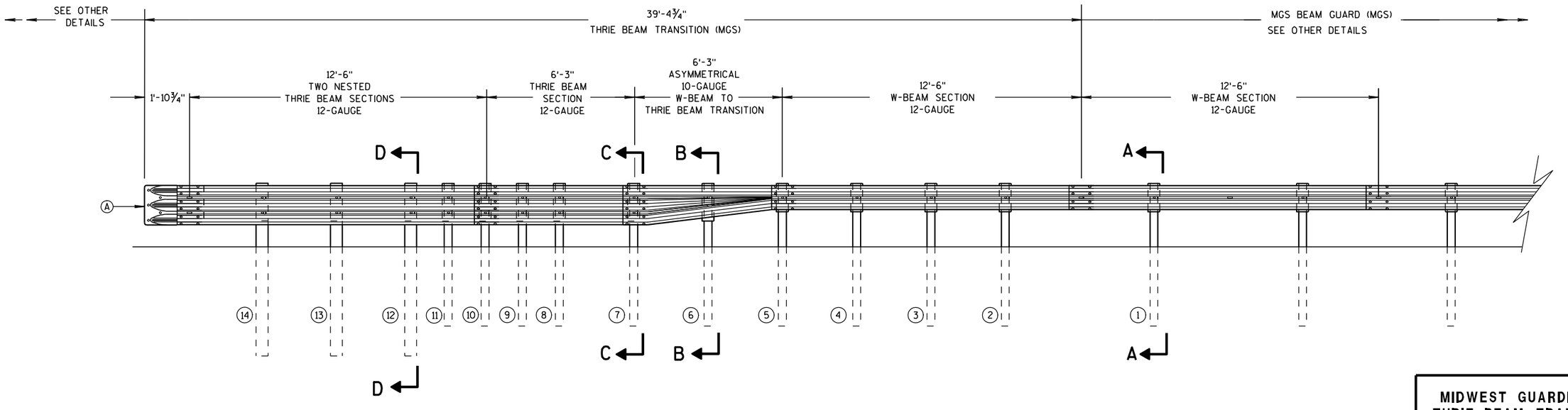
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	98

6

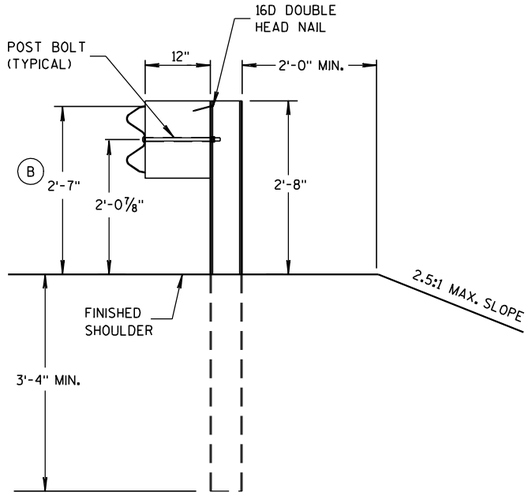
S.D.D. 14 B 45-3a

6

S.D.D. 14 B 45-3a

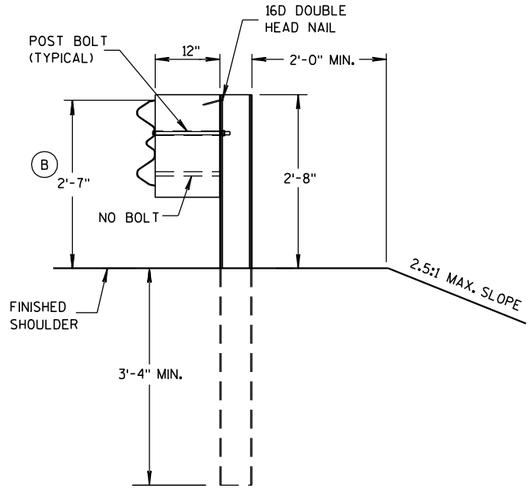
GENERAL NOTES

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



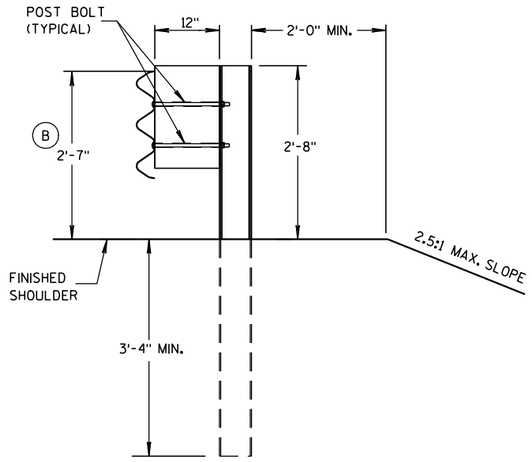
SECTION A-A

POSTS 1-5



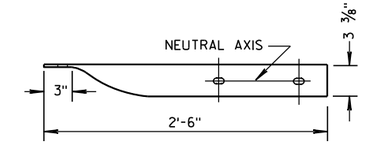
SECTION B-B

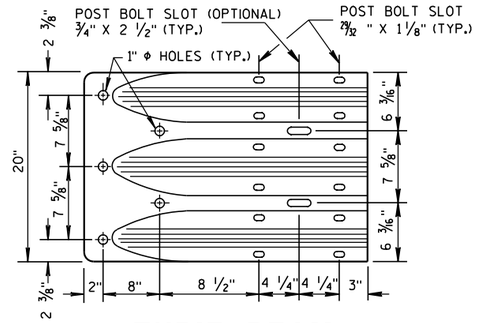
POST 6



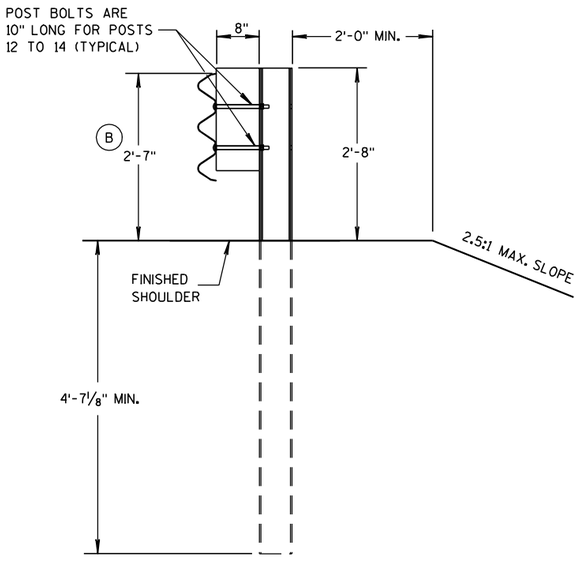
SECTION C-C

POSTS 7-11





THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14

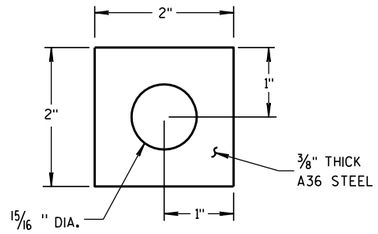
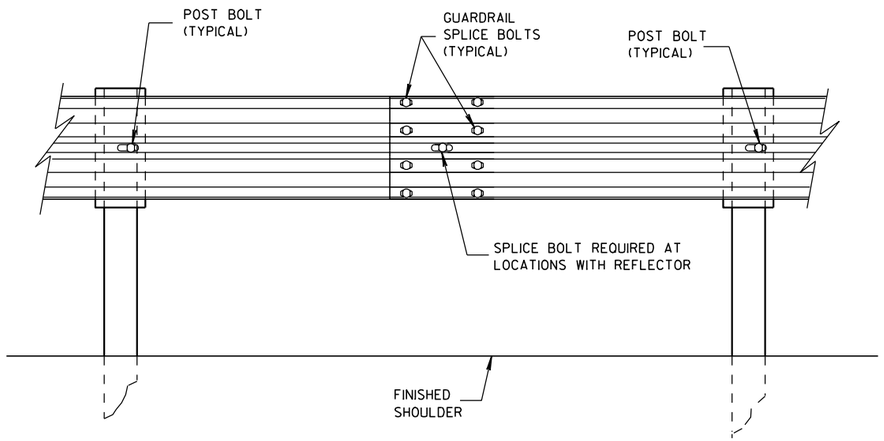
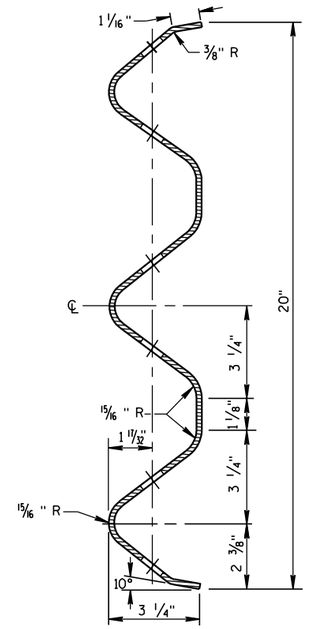


PLATE WASHER DETAIL



SPLICE DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

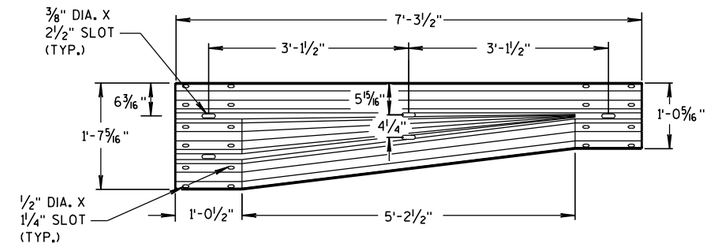
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

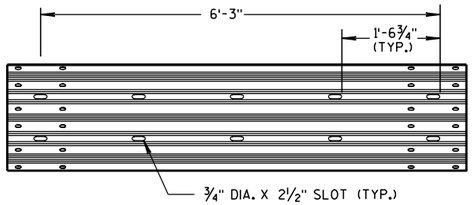
S.D.D. 14 B 45-3b

6

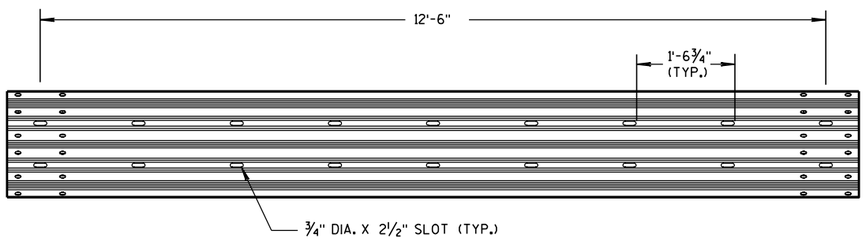
S.D.D. 14 B 45-3b



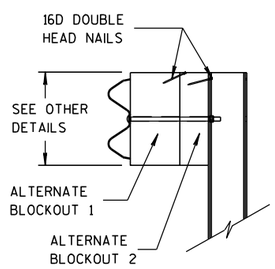
W-BEAM TO THRIE BEAM TRANSITION SECTION



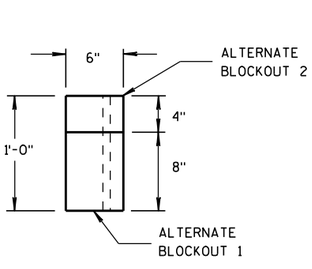
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

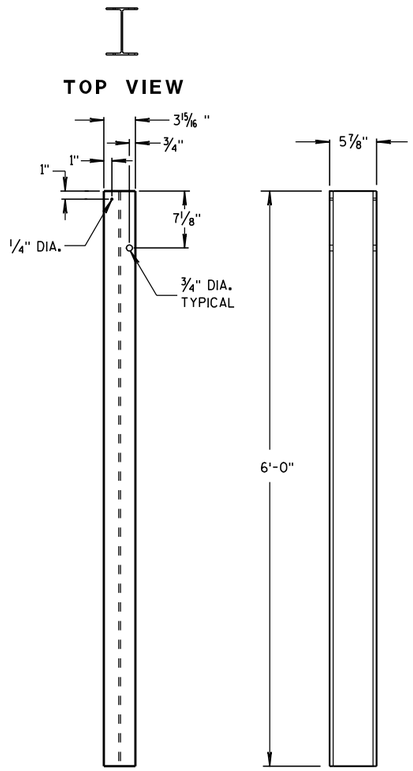


SIDE VIEW



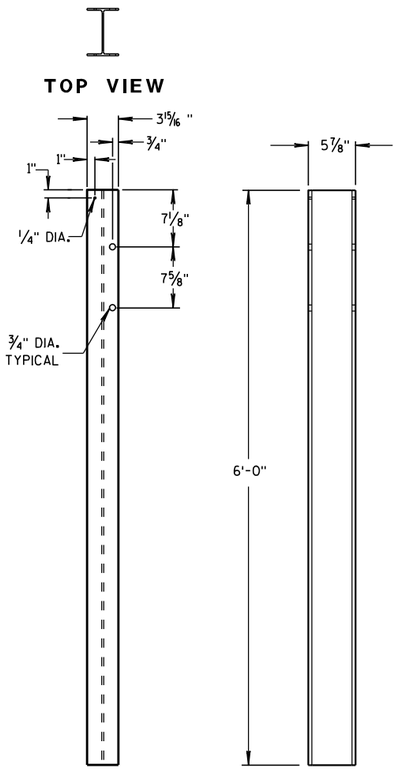
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



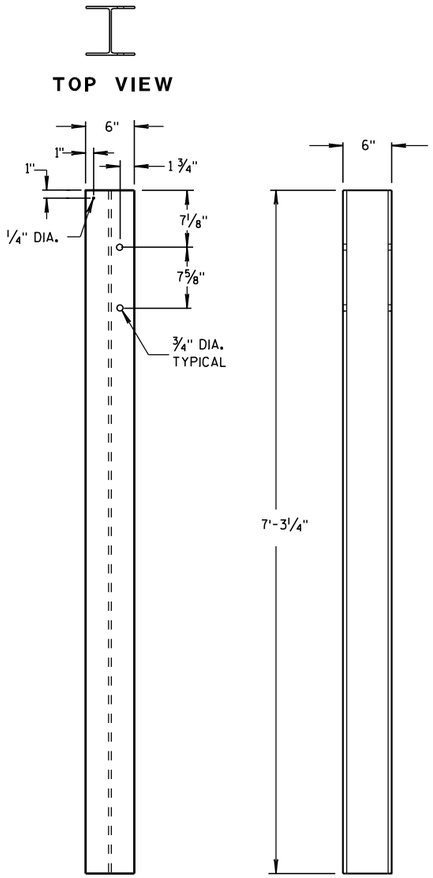
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5



FRONT VIEW SIDE VIEW

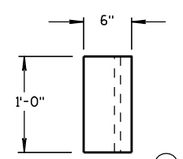
STEEL POSTS 6-11



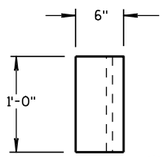
FRONT VIEW SIDE VIEW

STEEL POSTS 12-14

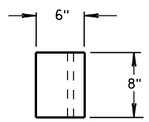
1 WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



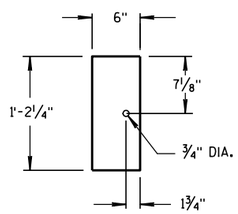
TOP VIEW (1)



TOP VIEW (1)

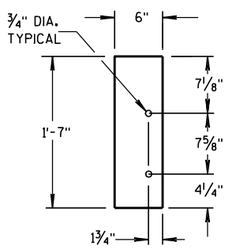


TOP VIEW



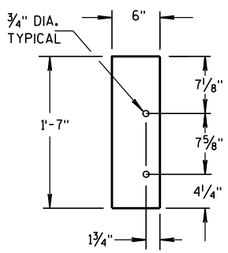
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

STEEL POST SIZES

POST NUMBER	SECTION TYPE	LENGTH
1	W6x9	72"
2	W6x9	72"
3	W6x9	72"
4	W6x9	72"
5	W6x9	72"
6	W6x9	72"
7	W6x9	72"
8	W6x9	72"
9	W6x9	72"
10	W6x9	72"
11	W6x9	72"
12	W6x15	87 1/8"
13	W6x15	87 1/8"
14	W6x15	87 1/8"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

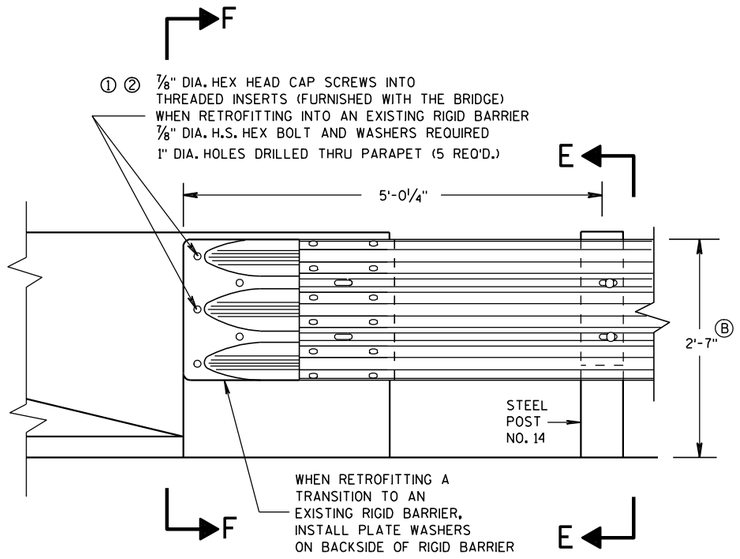
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

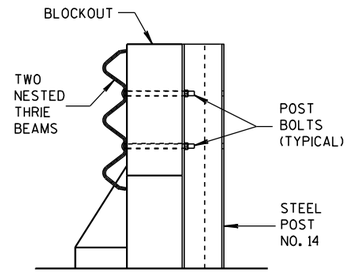
S.D.D. 14 B 45-3c

6

S.D.D. 14 B 45-3c



FRONT VIEW



SECTION E-E

GENERAL NOTES

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

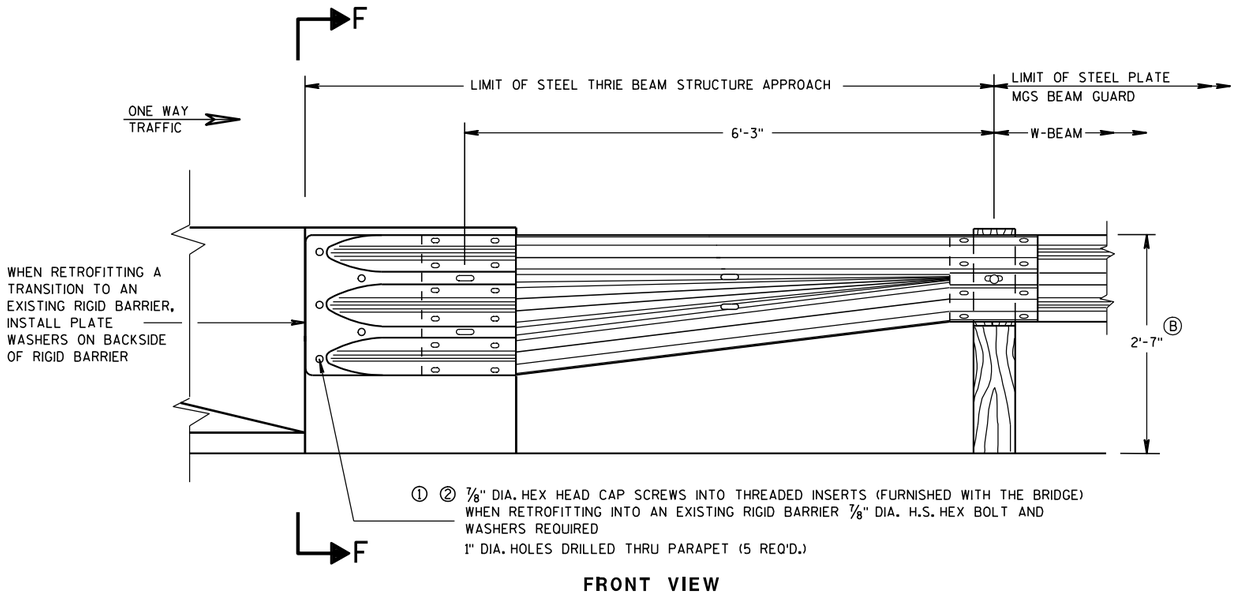
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM 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.

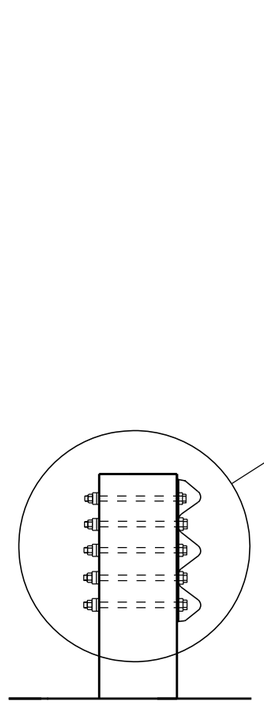
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

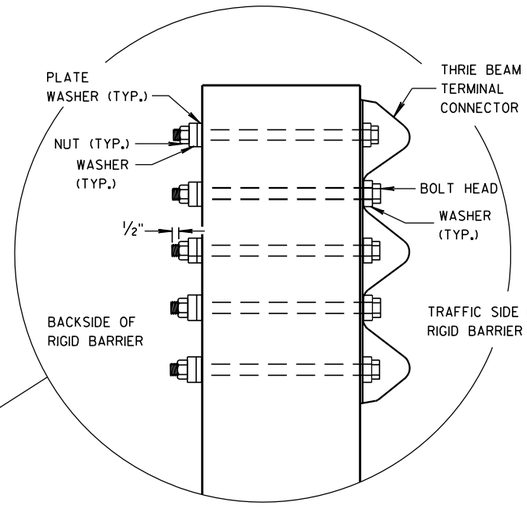
THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW



SECTION F-F



W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. [illegible] — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 14 B 45-3d

6

S.D.D. 14 B 45-3d

GENERAL NOTES

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

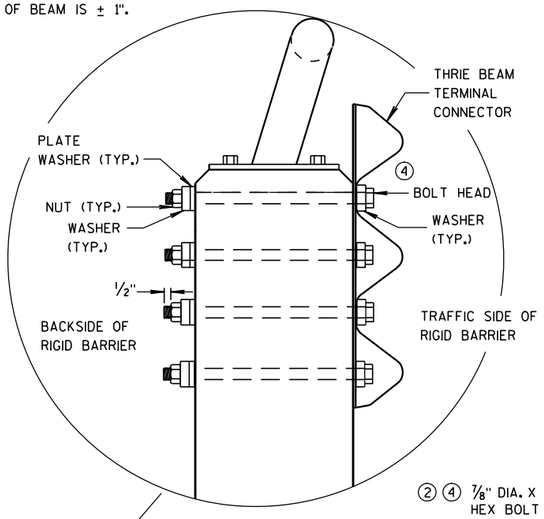
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

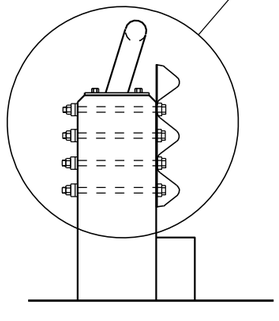
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③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2". BLOCK IS INCIDENTAL TO THE CONTRACT.

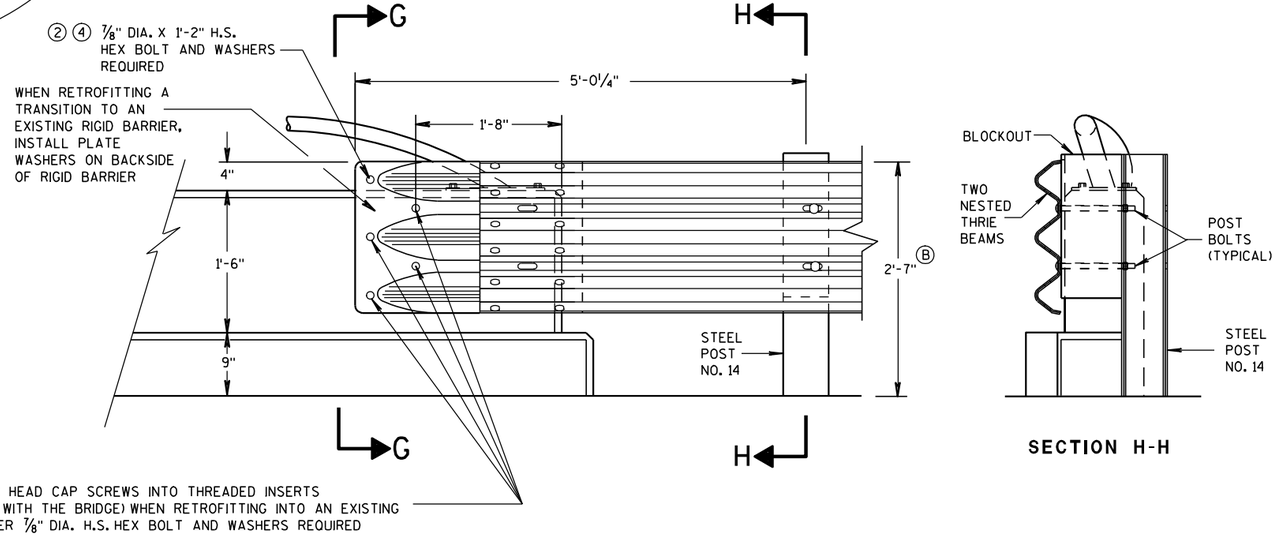
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".





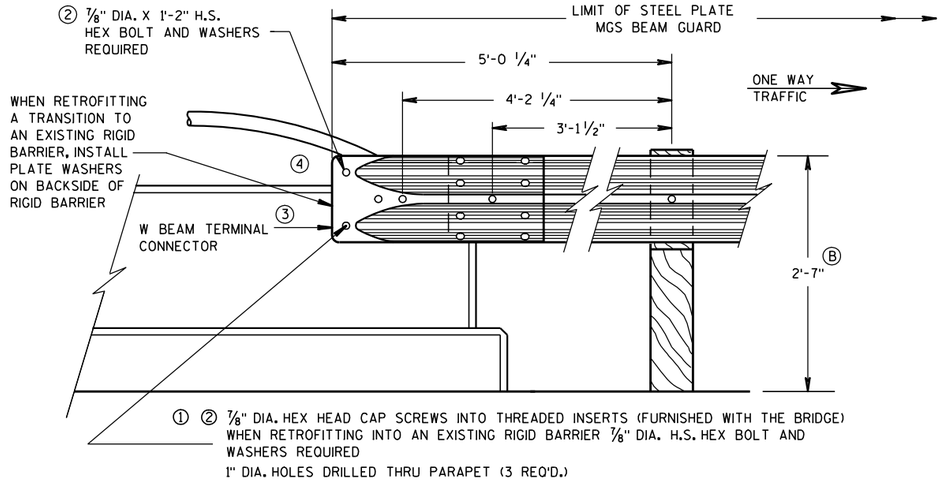
SECTION G-G



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
DEPARTMENT OF TRANSPORTATION

APPROVED

8-31-2012	/S/ Jerry H. Zogg
DATE	ROADWAY STANDARDS DEVELOPMENT ENGINEER

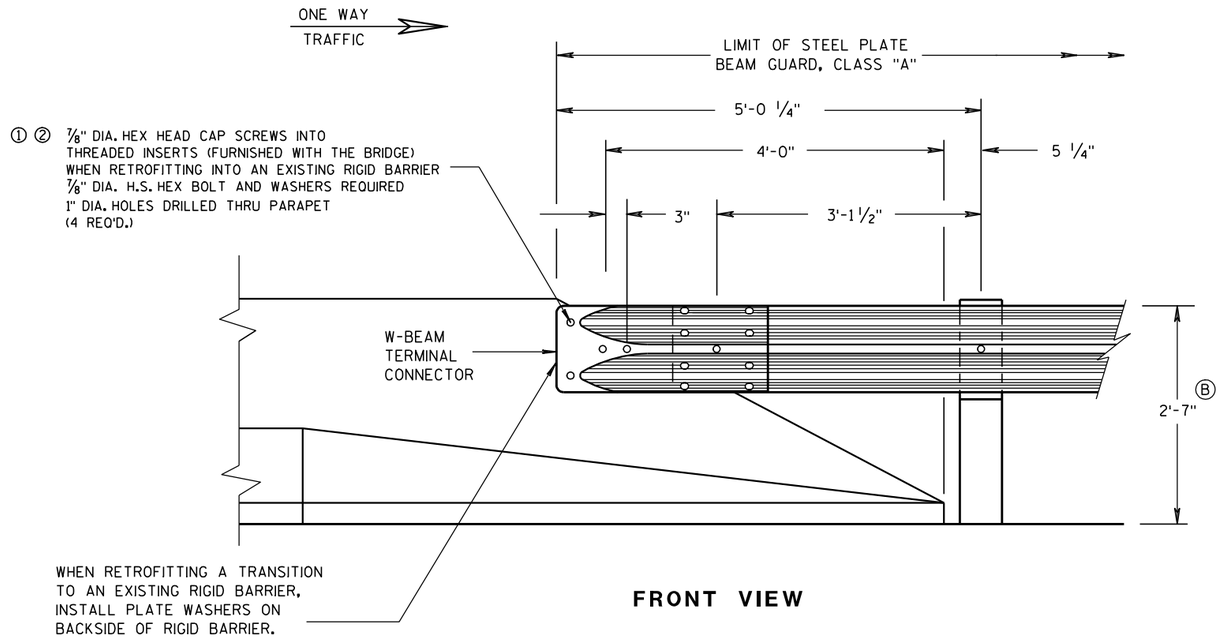
FHWA

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S.D.D. 14 B 45-3e

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S.D.D. 14 B 45-3e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

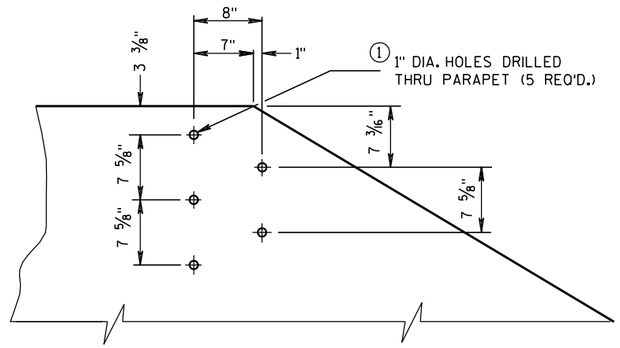
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

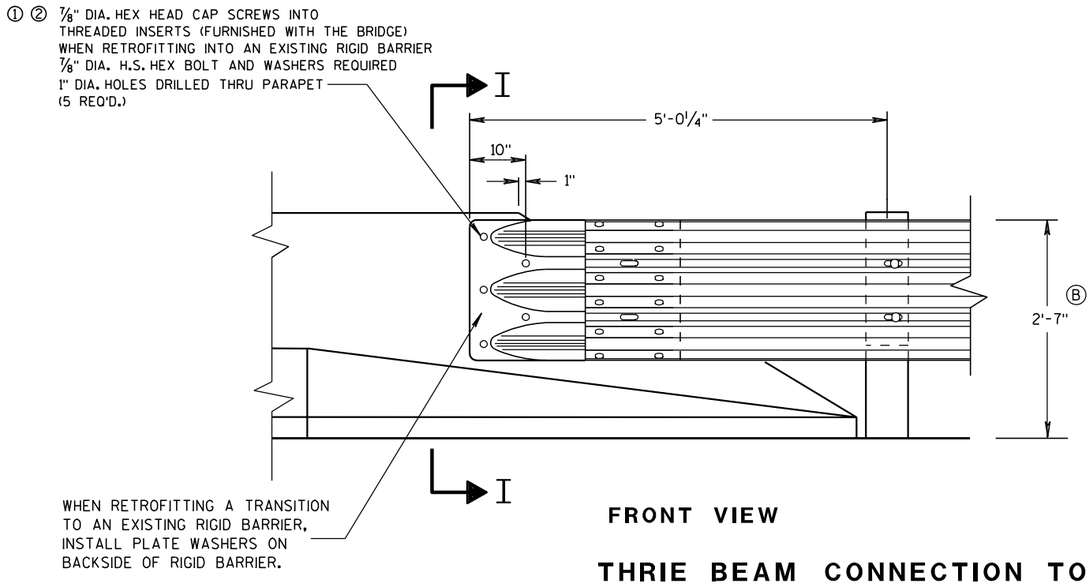
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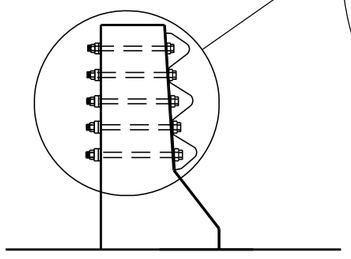
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



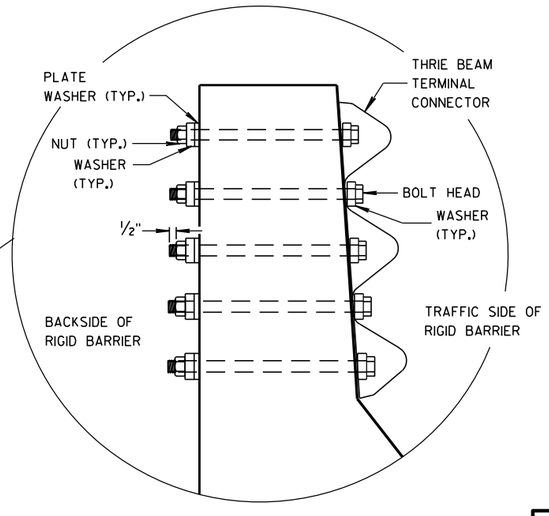
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

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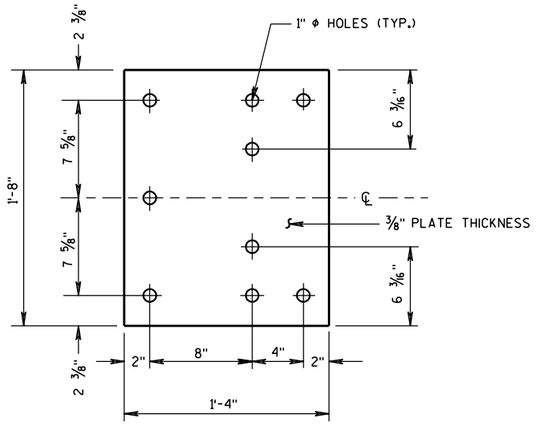
FHWA

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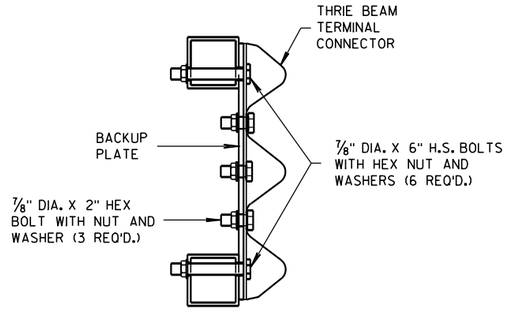
S.D.D. 14 B 45-3f

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S.D.D. 14 B 45-3f



BACK-UP PLATE DETAIL

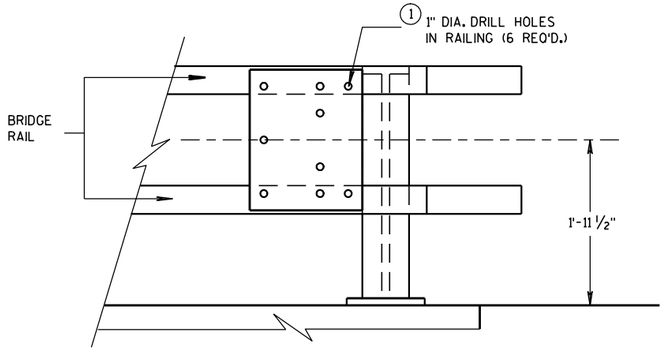


SECTION J-J

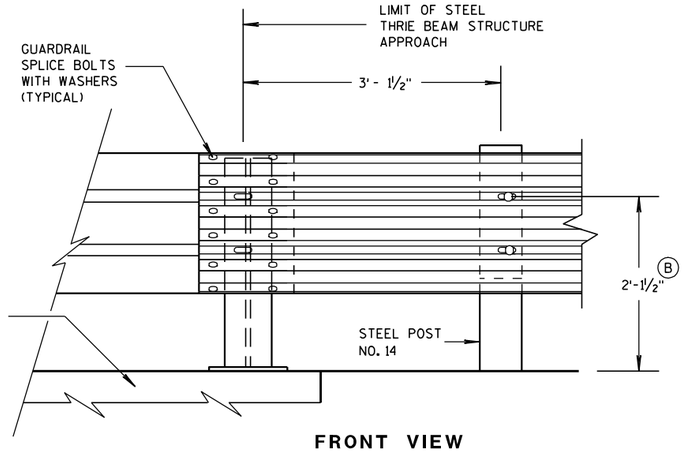
GENERAL NOTES

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

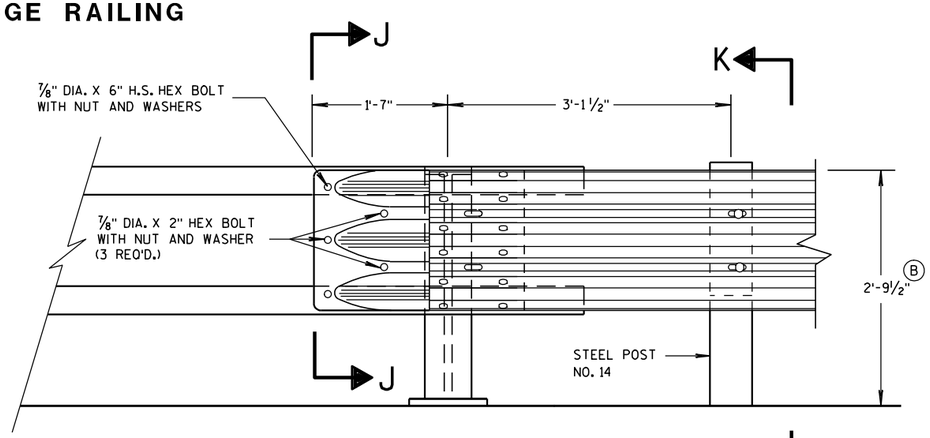


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

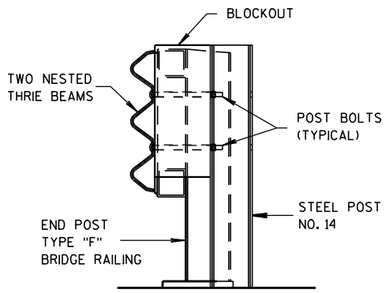


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 8/31/2012 DATE /S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER FHWA

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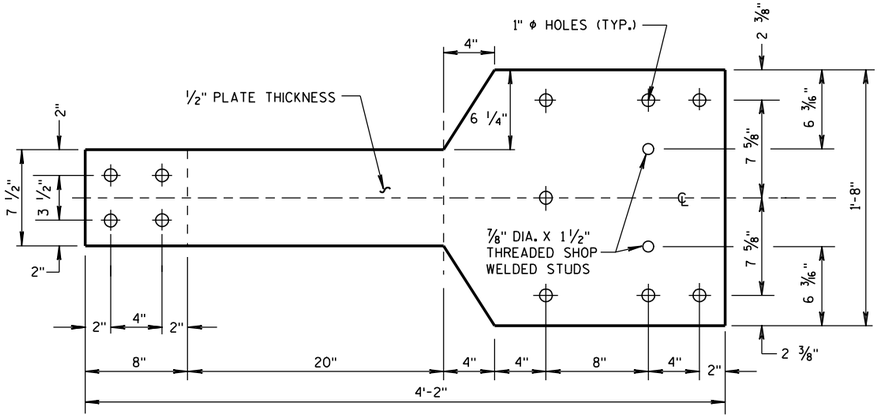
S.D.D. 14 B 45-3g

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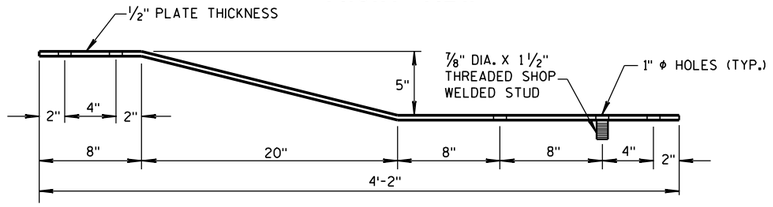
S.D.D. 14 B 45-3g

GENERAL NOTES

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

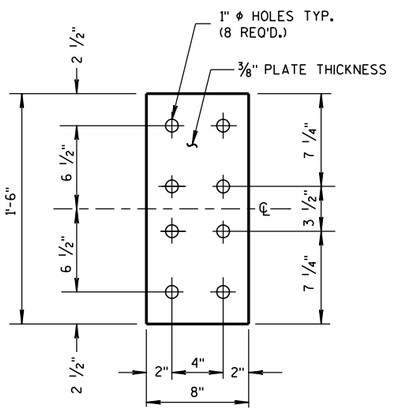


FRONT VIEW



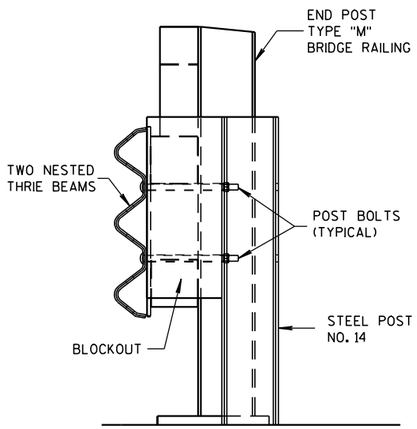
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

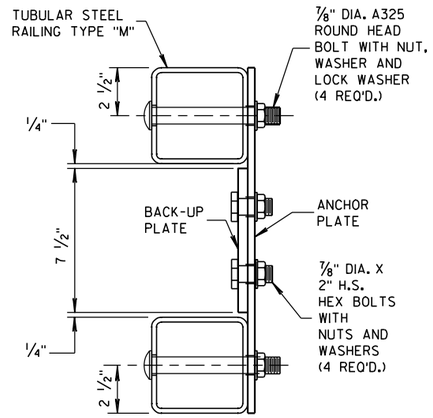


FRONT VIEW

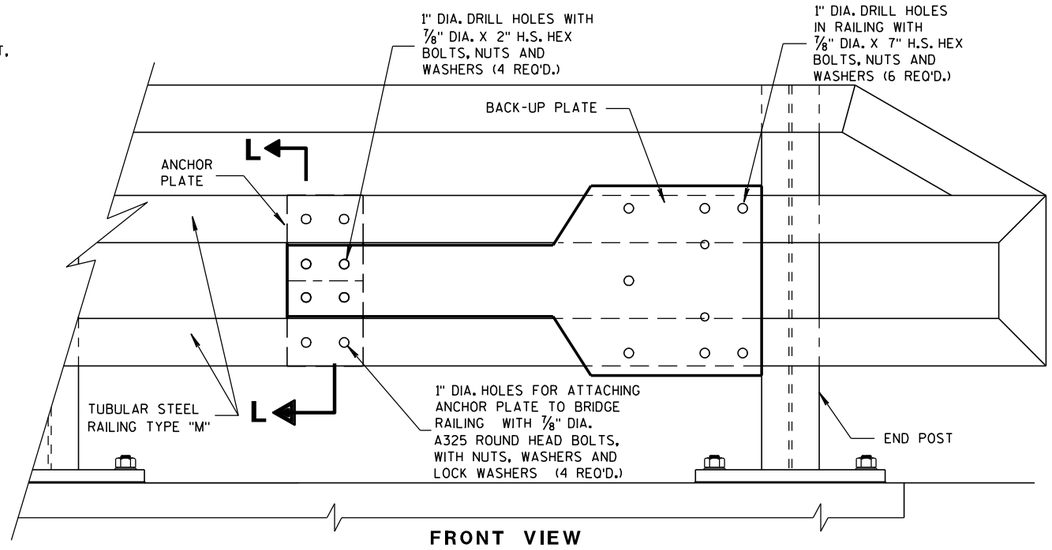
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

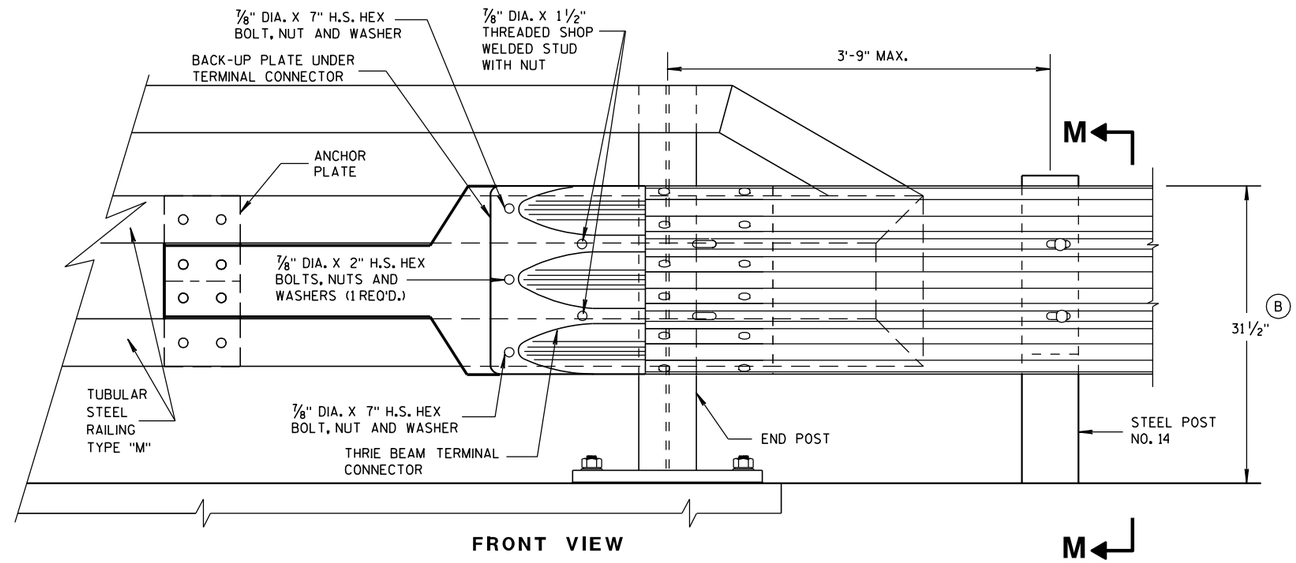


SECTION L-L

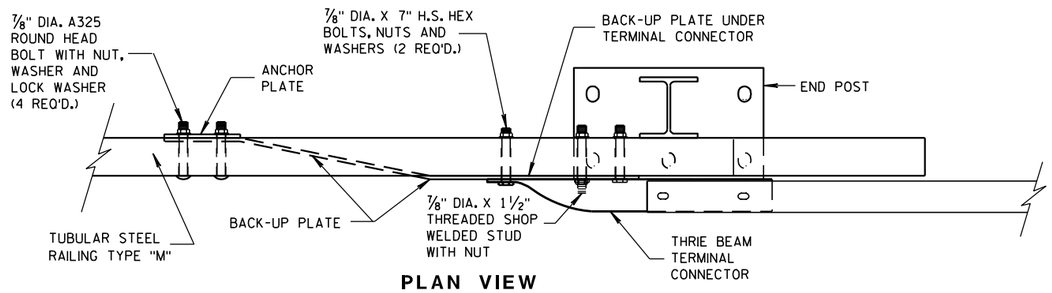


FRONT VIEW

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



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-31-2012 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

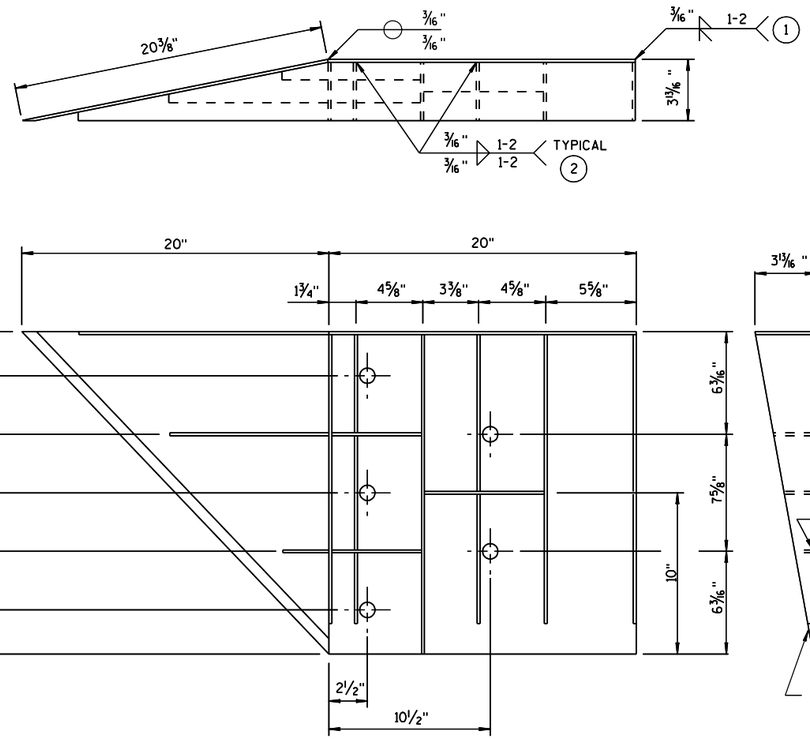
FHWA ENT

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S.D. 14 B 45-3h

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S.D. 14 B 45-3h



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.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

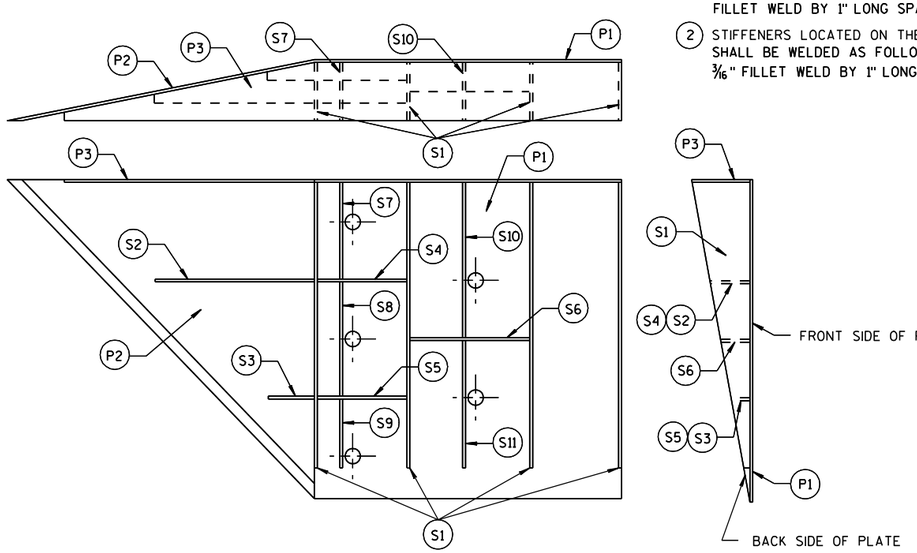


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

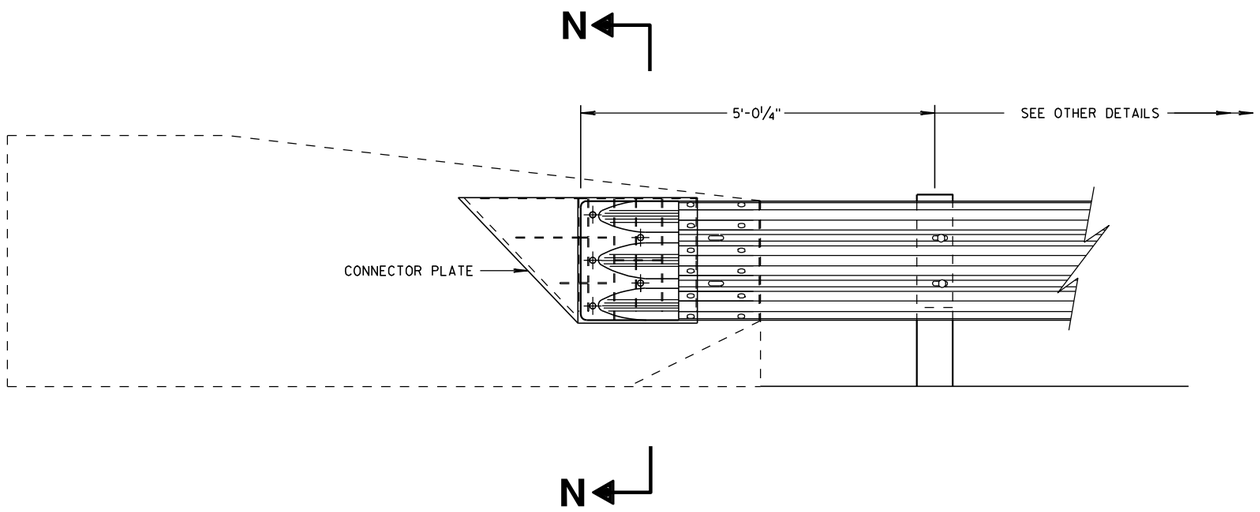
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

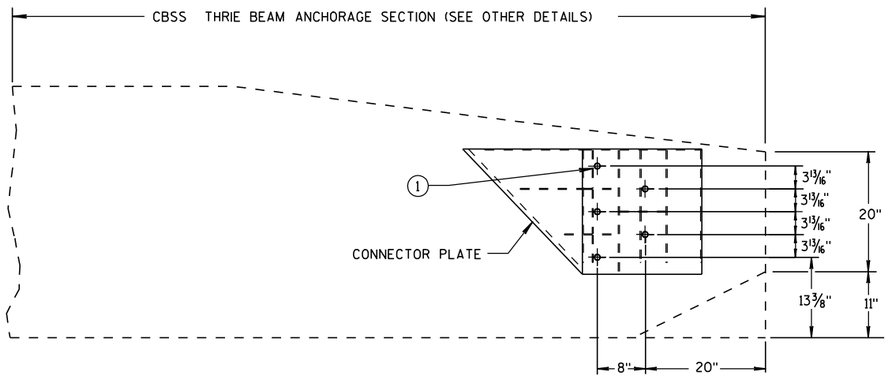
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8/31/2012
DATE
/S/ Jerry H ...
ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

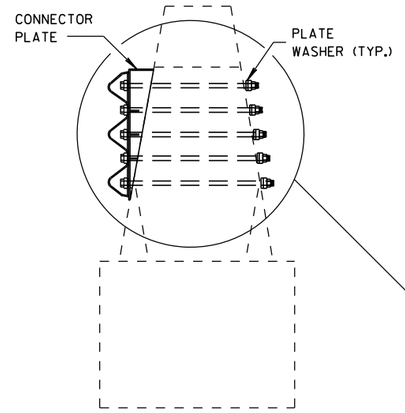


SINGLE SLOPE CONNECTION PLATE PLACEMENT

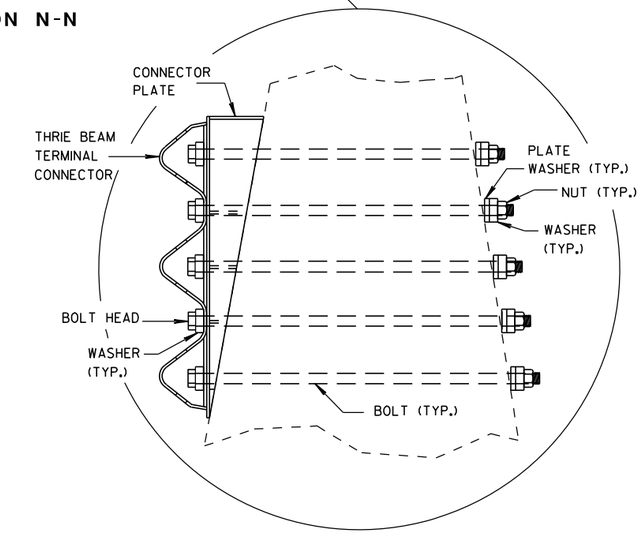
GENERAL NOTES

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SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

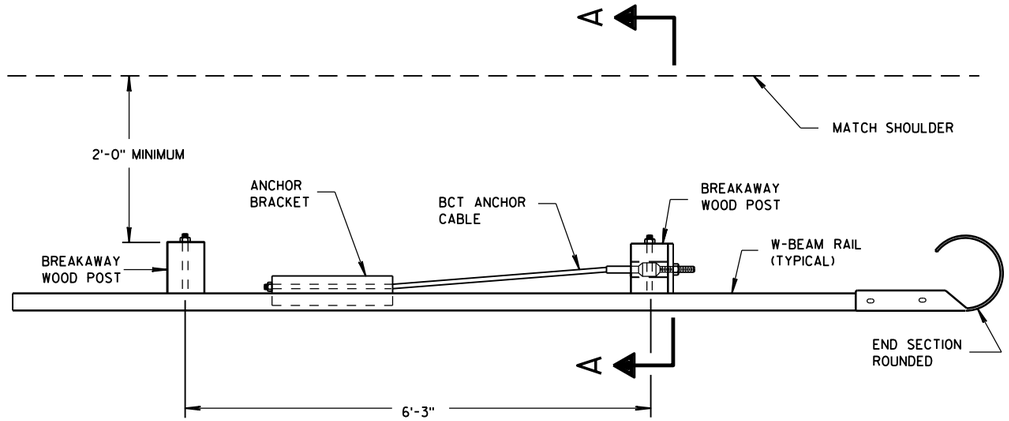
APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

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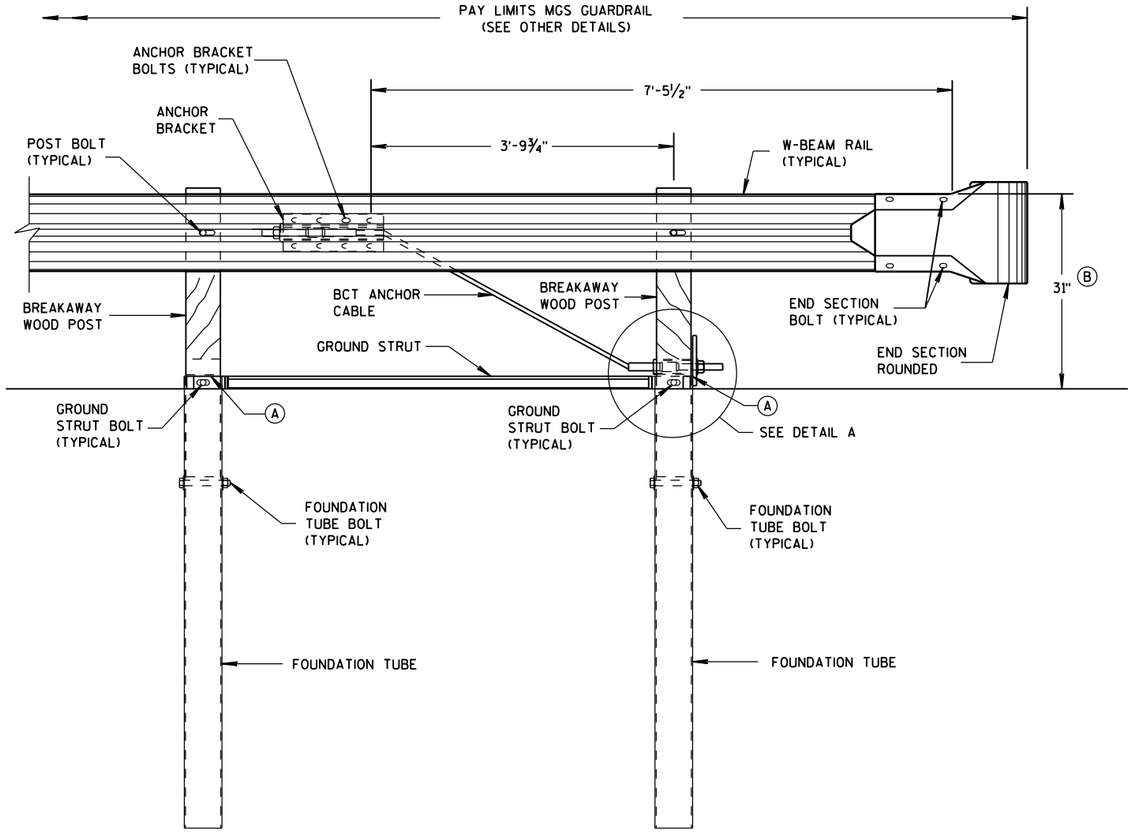
S.D.D. 14 B 45-3j

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S.D.D. 14 B 45-3j

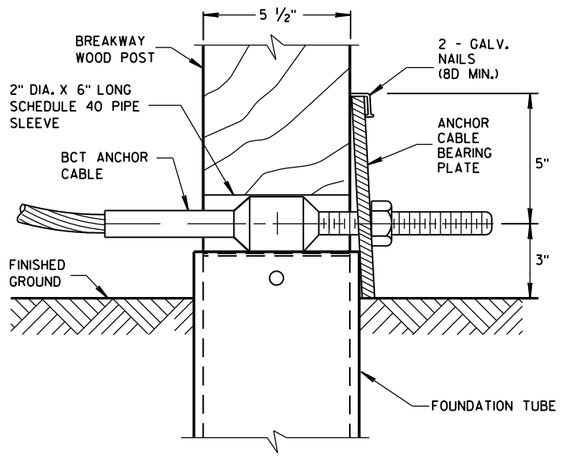


PLAN VIEW



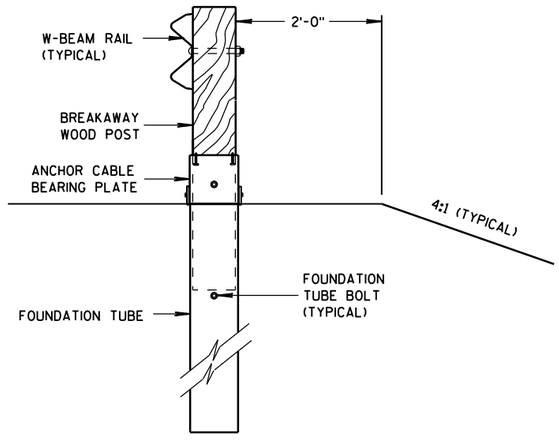
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.

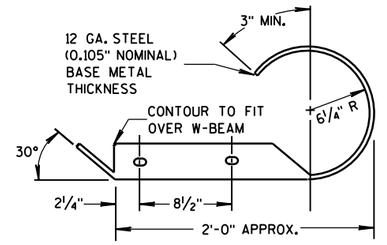
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

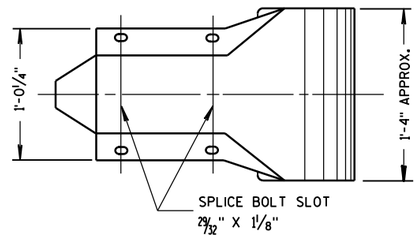
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



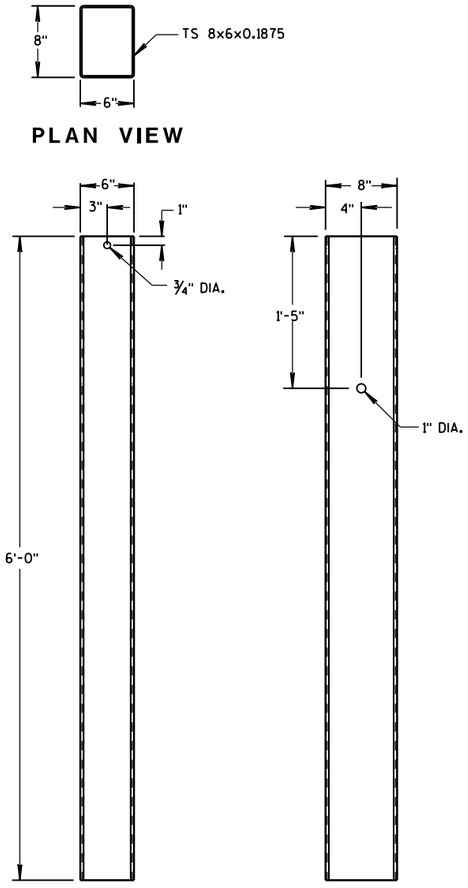
FRONT VIEW

W BEAM END SECTION ROUNDED

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

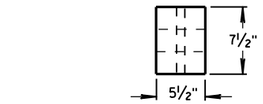
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S.D.D. 14 B 47-2a



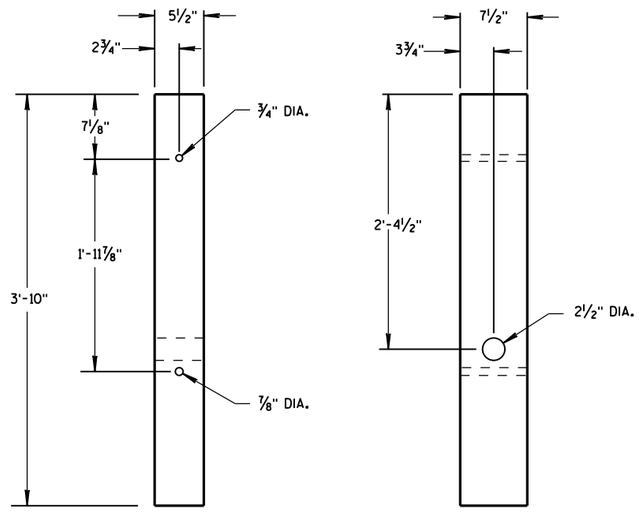
PLAN VIEW

FRONT VIEW SIDE VIEW

FOUNDATION TUBE



PLAN VIEW

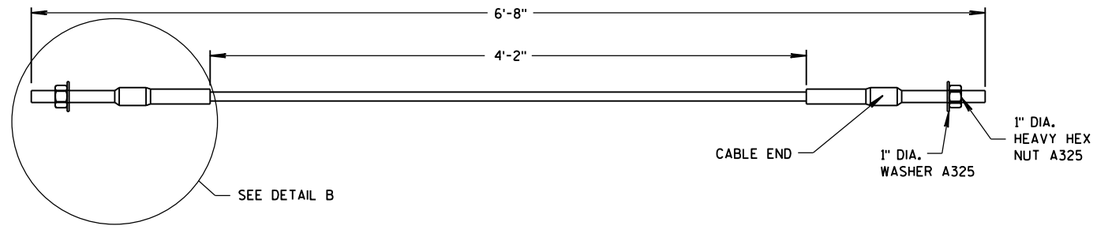


FRONT VIEW SIDE VIEW

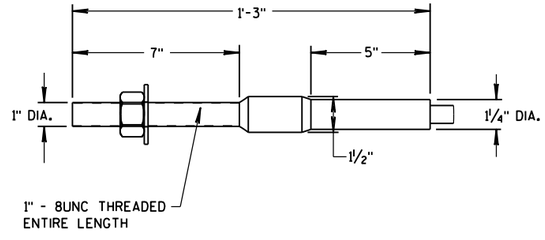
BREAKAWAY WOOD POST

GENERAL NOTES

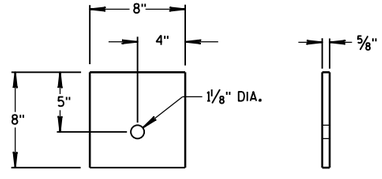
BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.



BCT ANCHOR CABLE



DETAIL B



SIDE VIEW FRONT VIEW

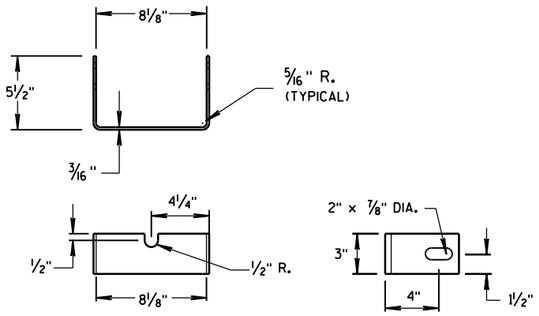
ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

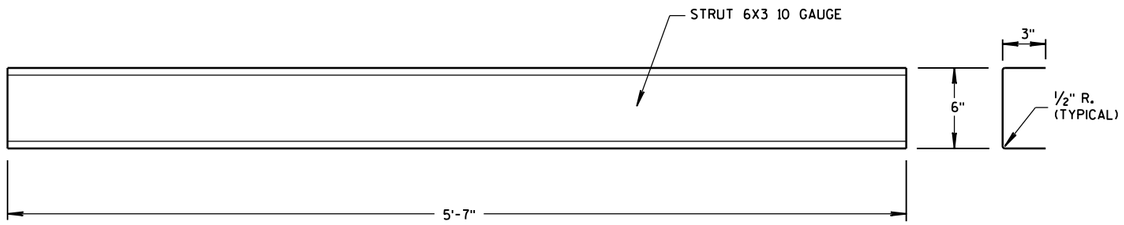
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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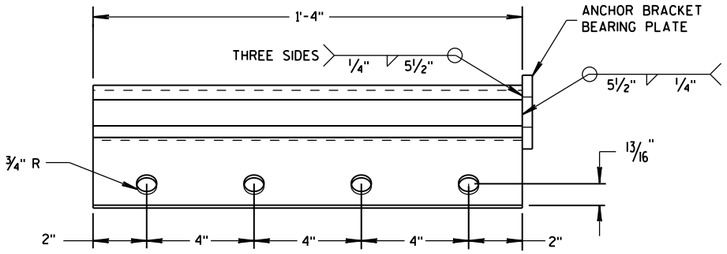
S.D.D. 14 B 47-2b

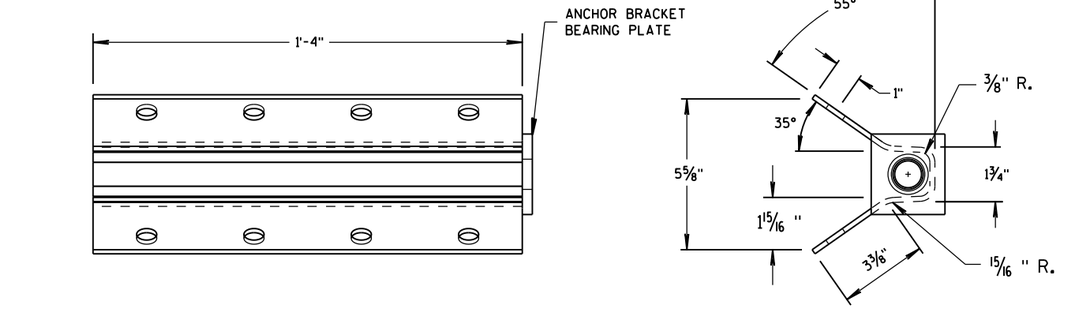


YOKE DETAIL

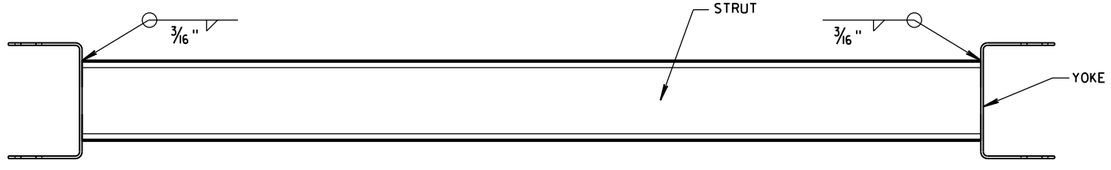


STRUT DETAIL

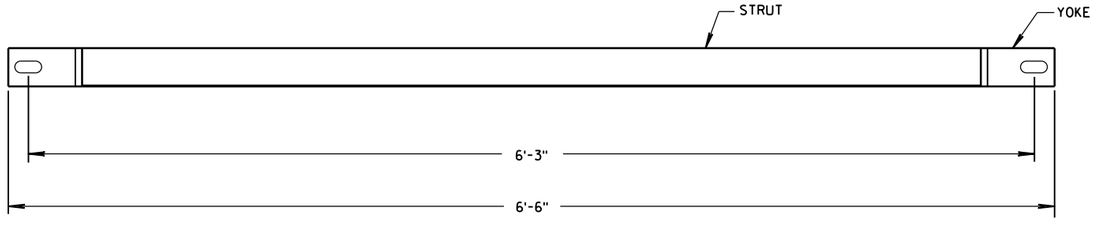




ANCHOR BRACKET

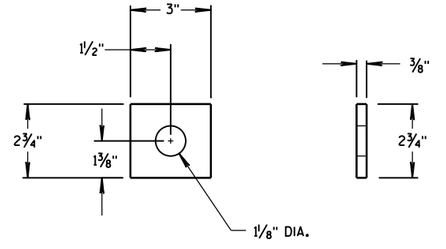


PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET BEARING PLATE

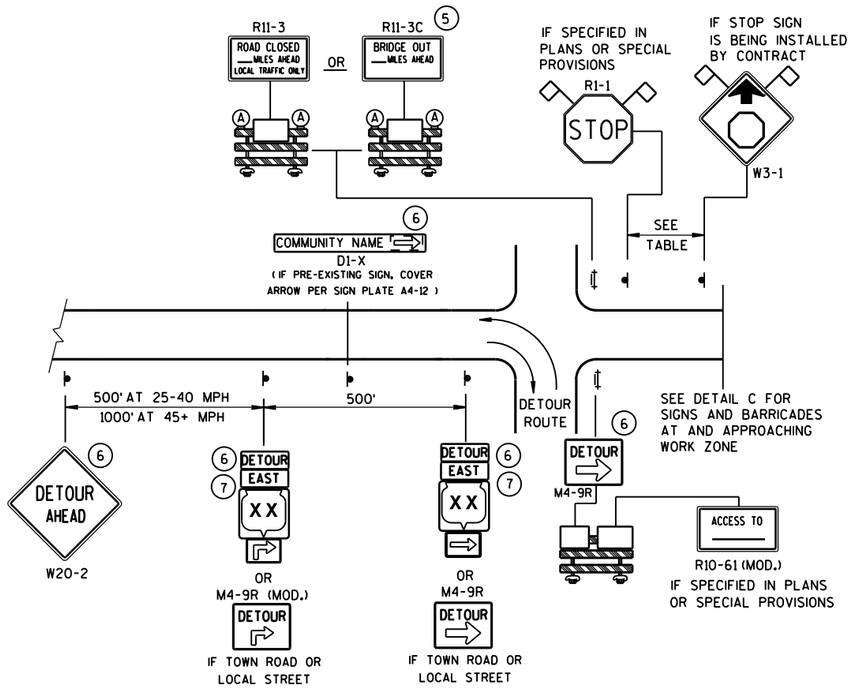
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

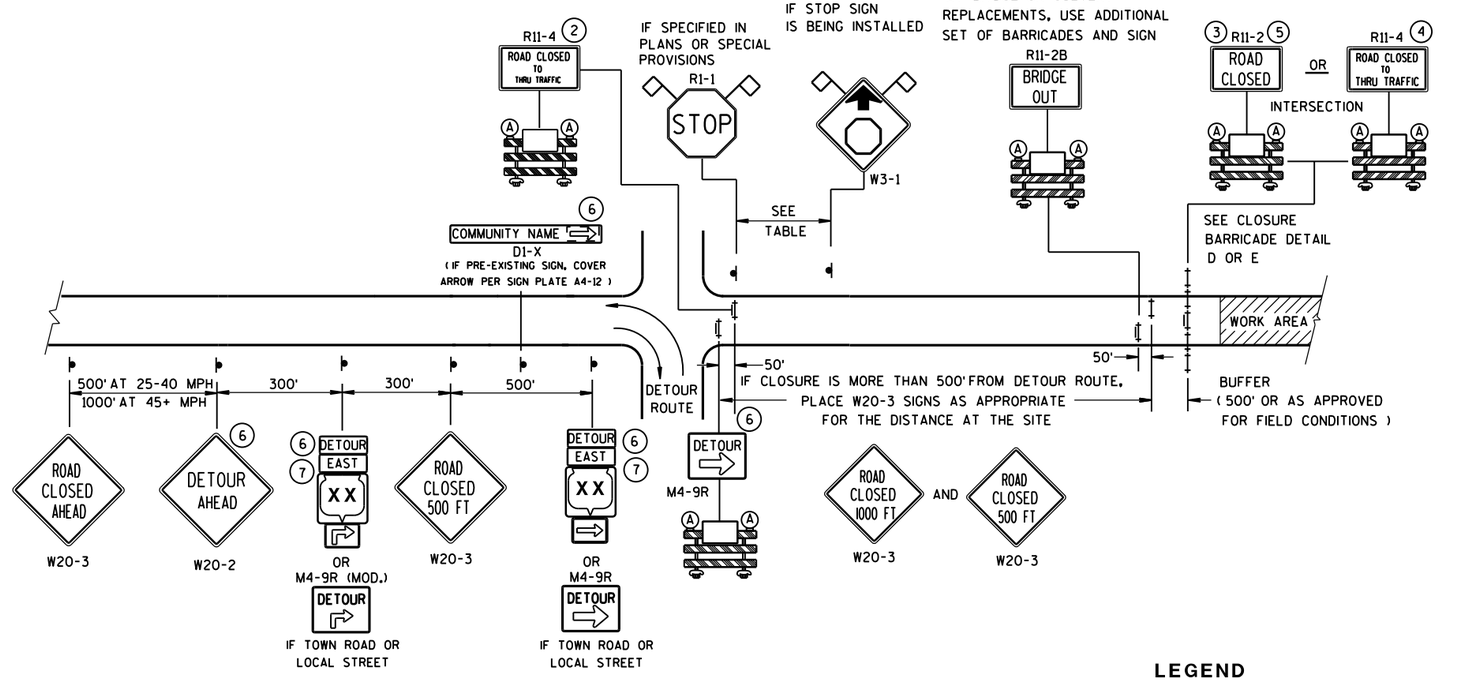
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S.D.D. 14 B 47-2c



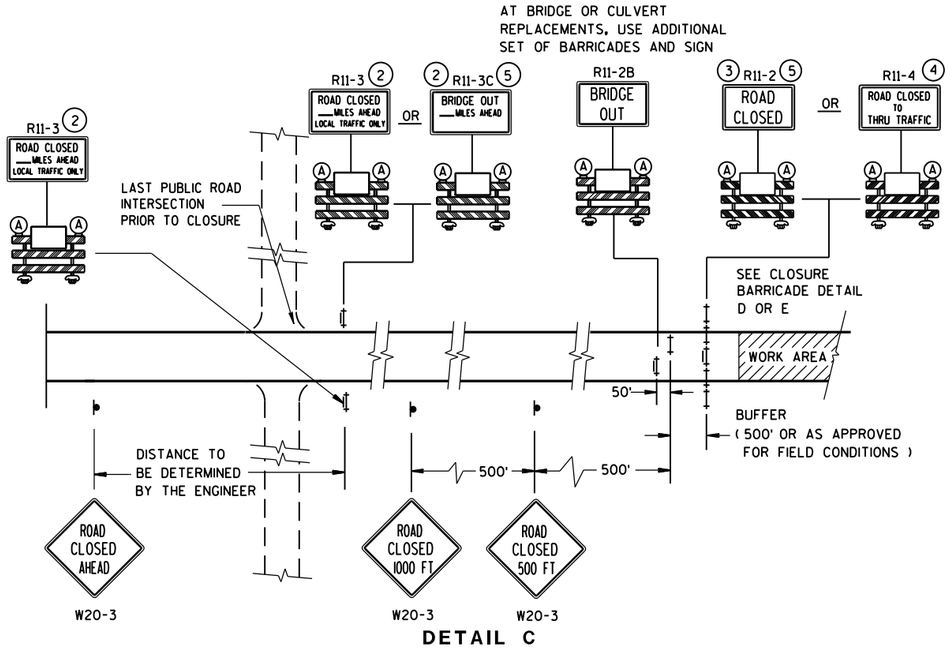
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "**b**" FOR GENERAL NOTES AND FOOTNOTES ① THROUGH ⑦

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

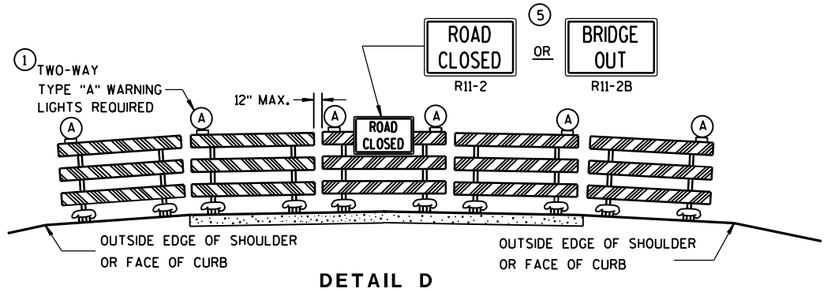
8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

6

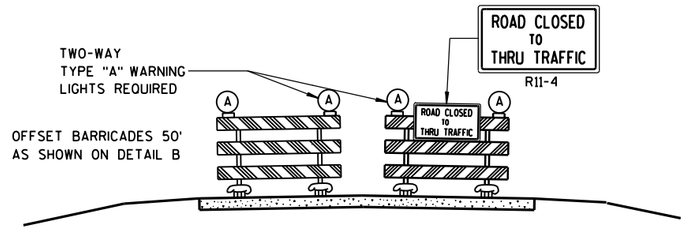
S.D.D. 15 C 2-5a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

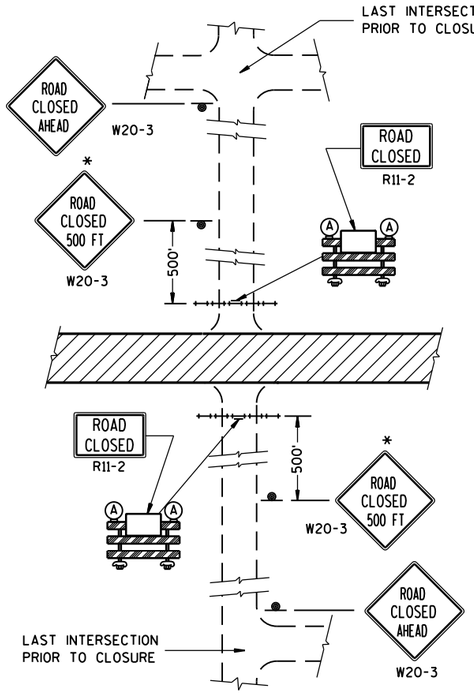
8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

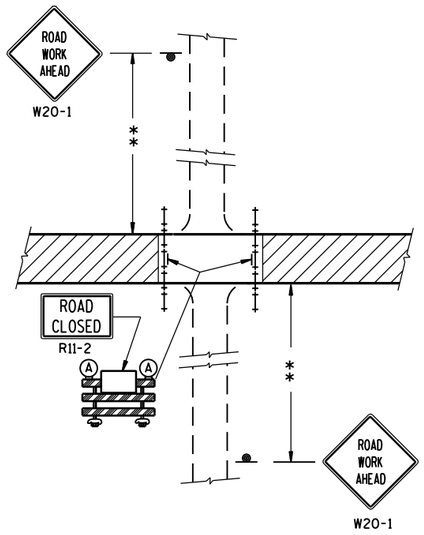
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S.D.D. 15 C 2-5b



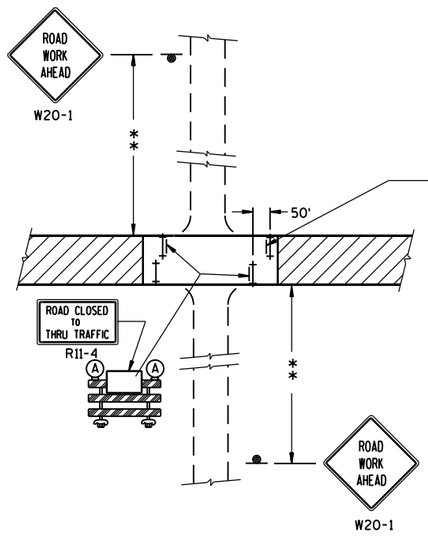
DETAIL 1

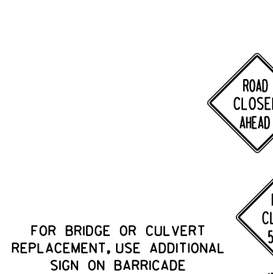
(NO ACCESS TO PROJECT)



DETAIL 2

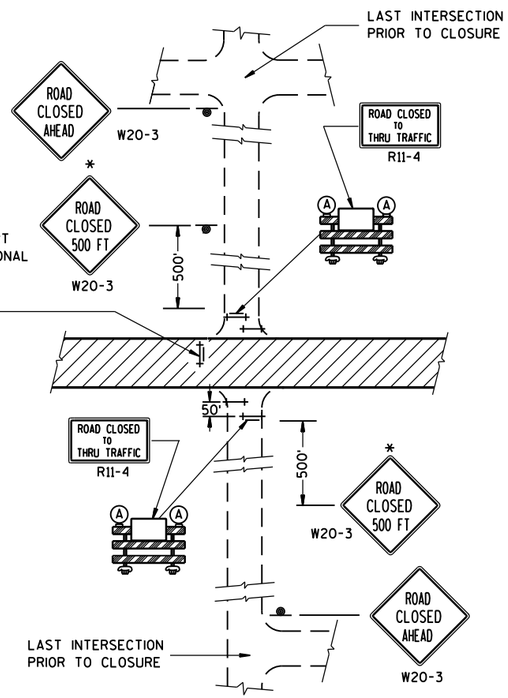
(PUBLIC CROSS-TRAFFIC MAINTAINED. NO ACCESS TO PROJECT).





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

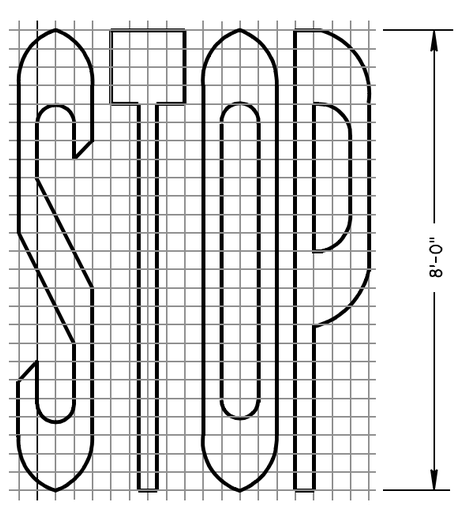
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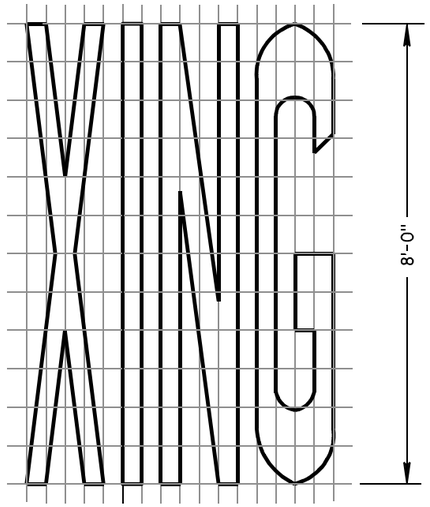
S.D.D. 15 C 3-2

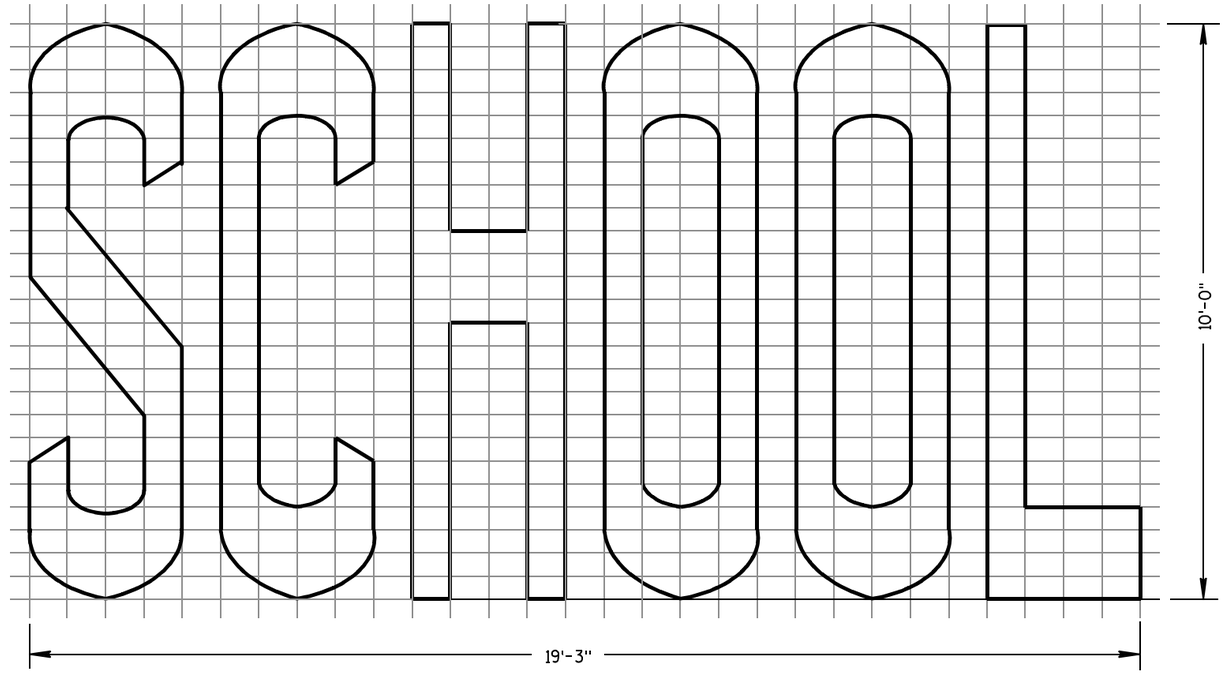
GENERAL NOTES

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.

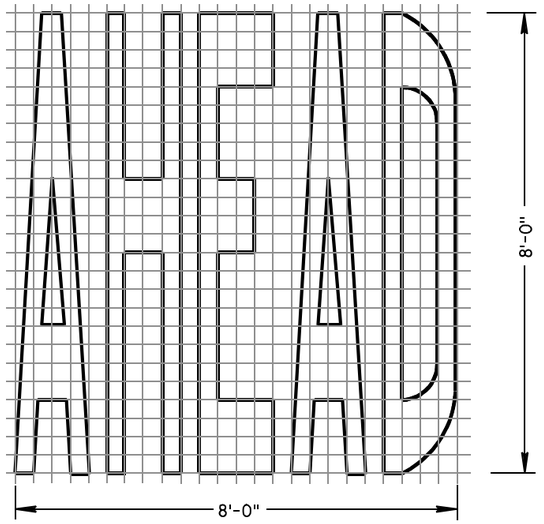
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

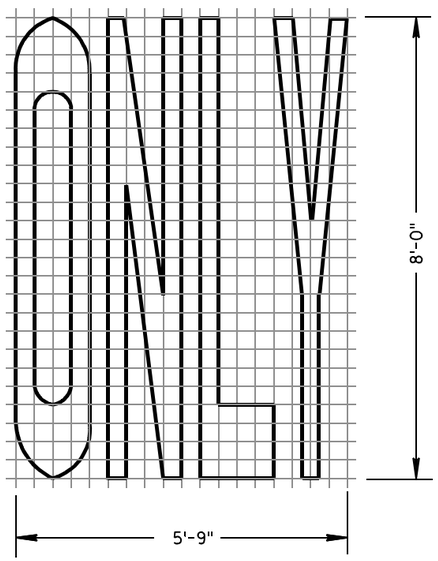


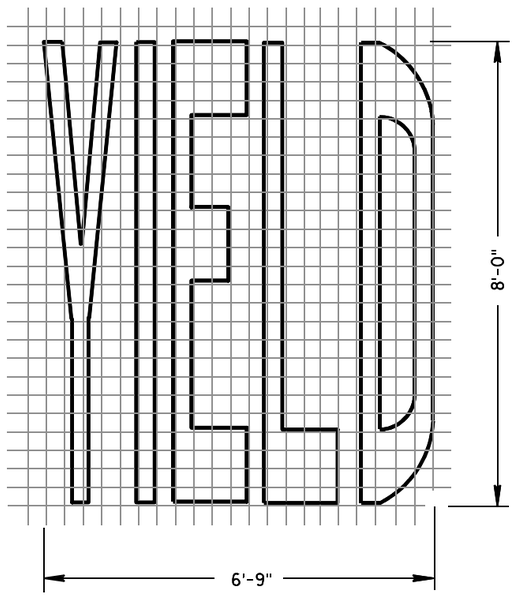


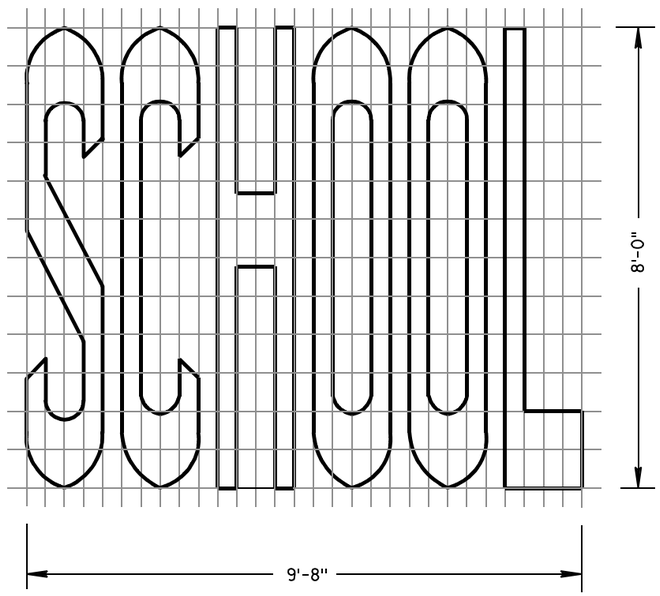


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

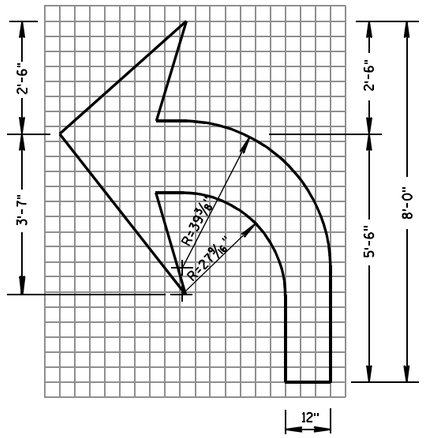
FHWA

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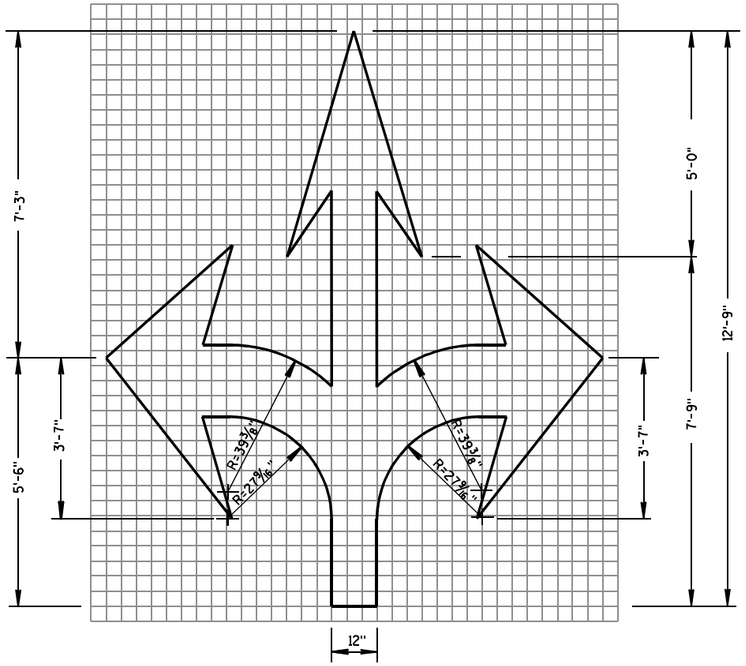
S.D.D. 15 C 7-12b

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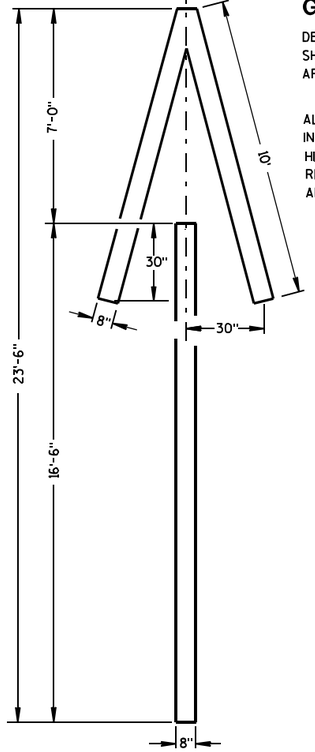
S.D.D. 15 C 7-12b



TYPE 2



TYPE 6

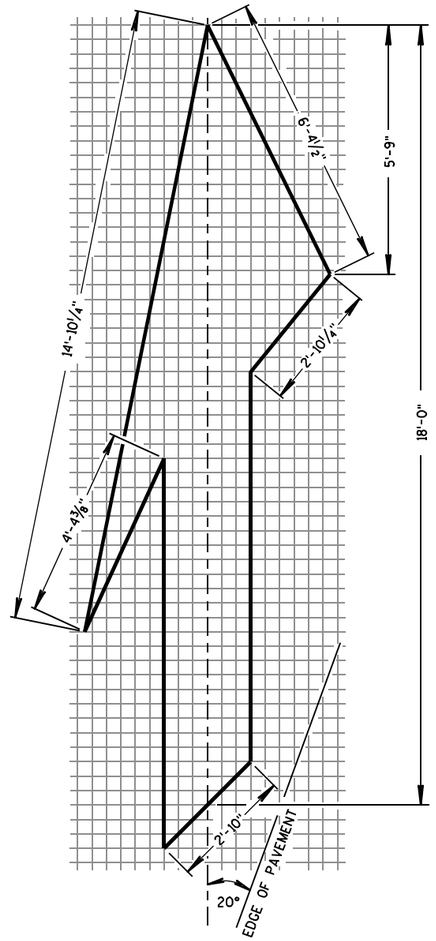


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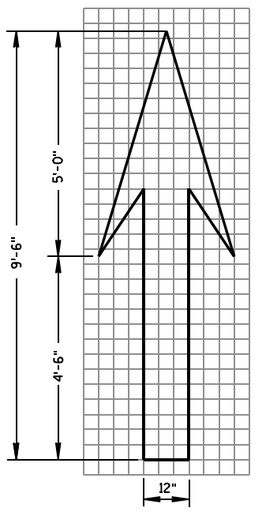
GENERAL NOTES

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.

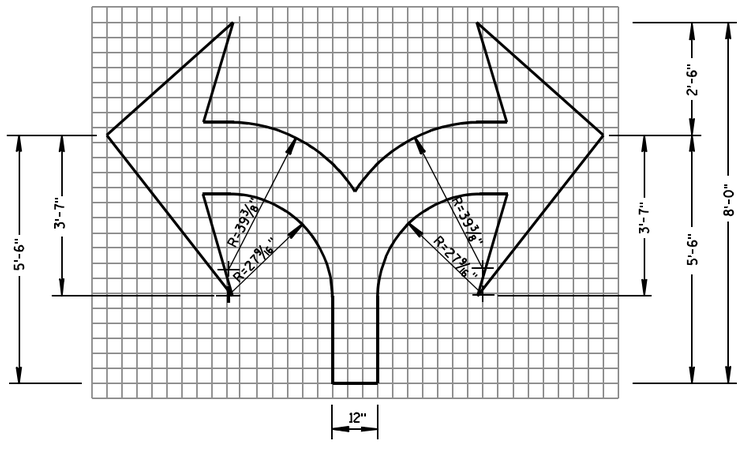
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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



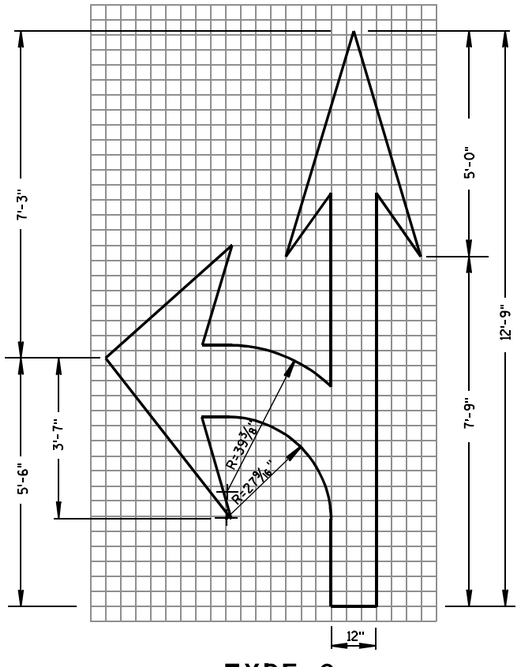
TYPE 5 LANE DROP ARROW



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

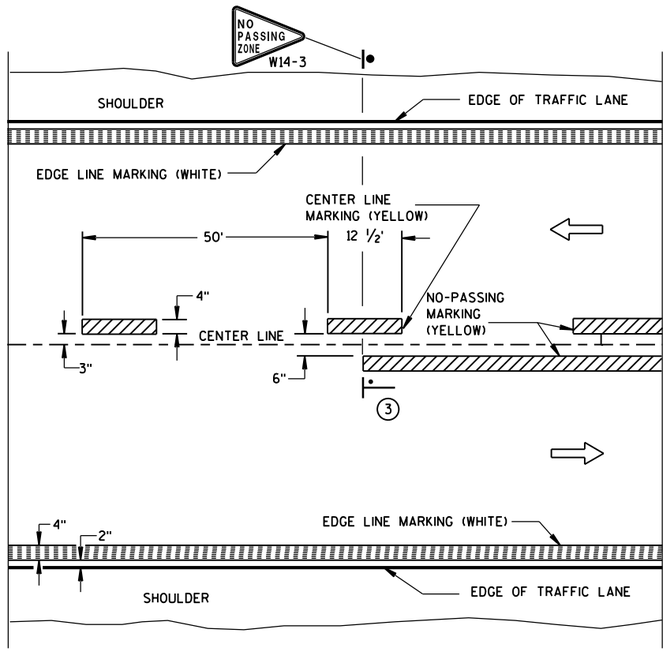
FHWA

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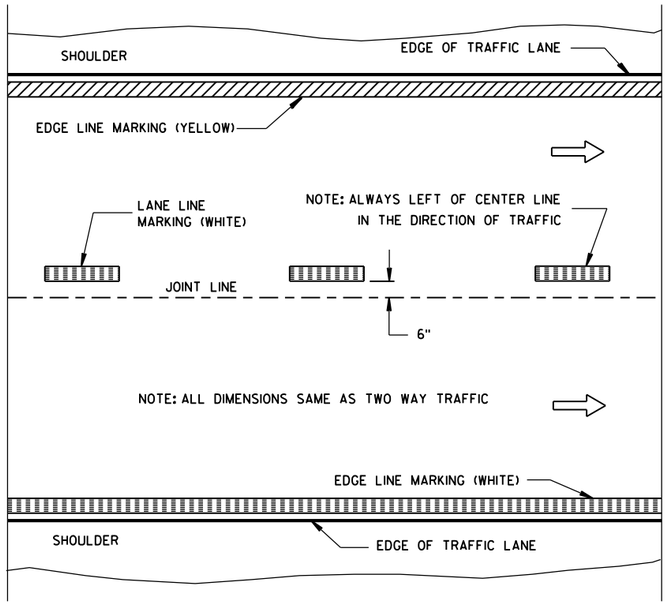
S.D.D. 15 C 7-12c

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

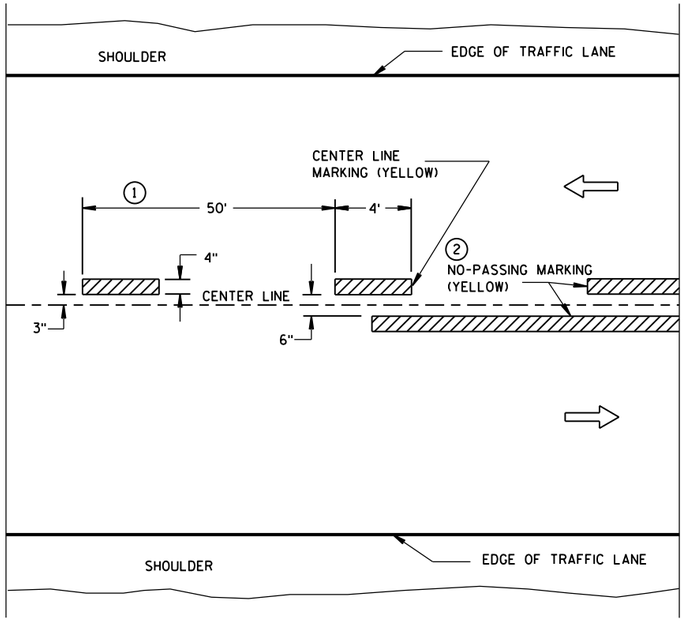


TWO WAY TRAFFIC

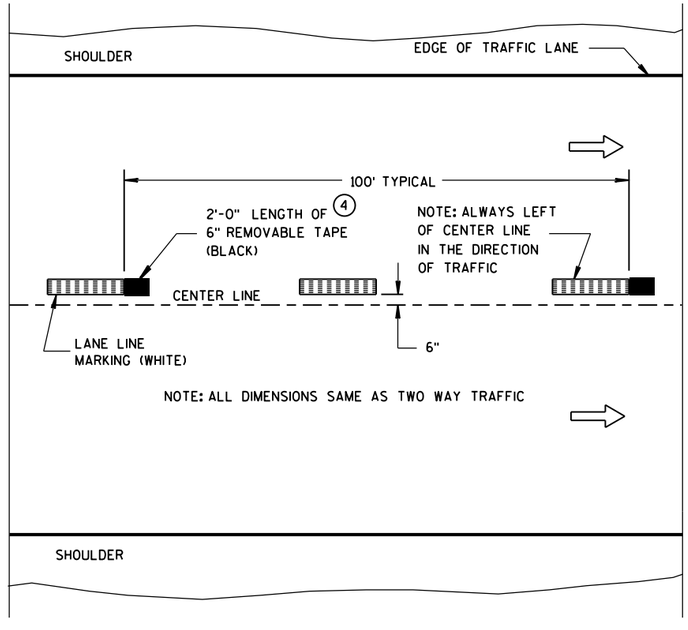


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

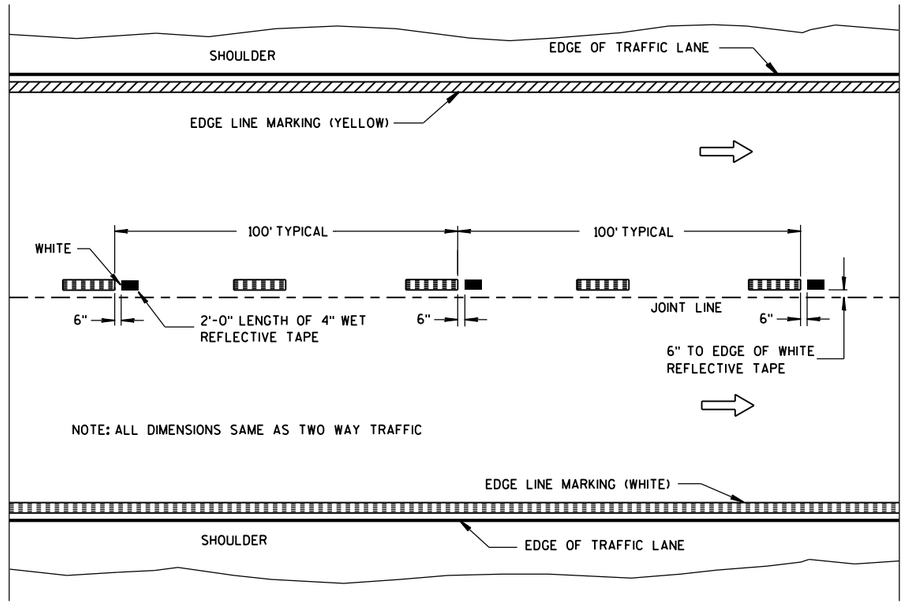
GENERAL NOTES

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

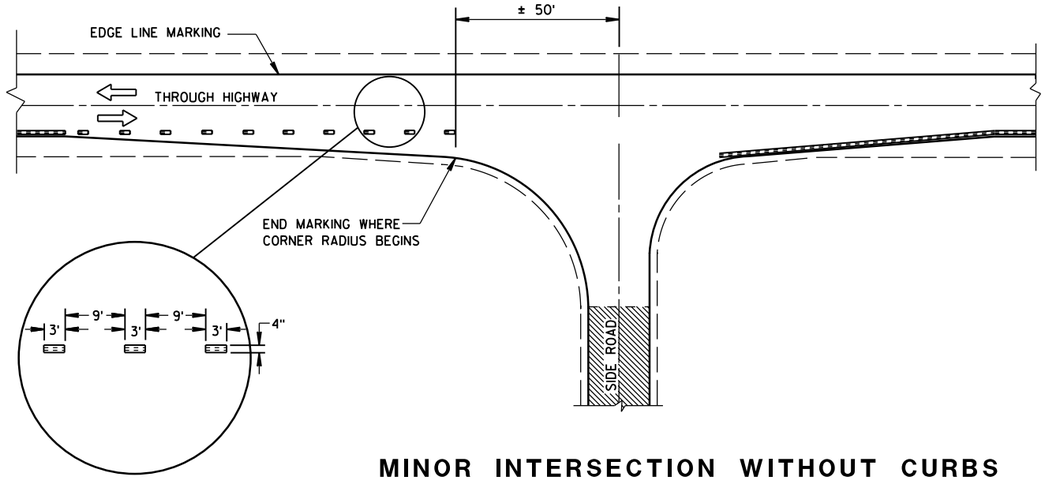
FHWA

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

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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.

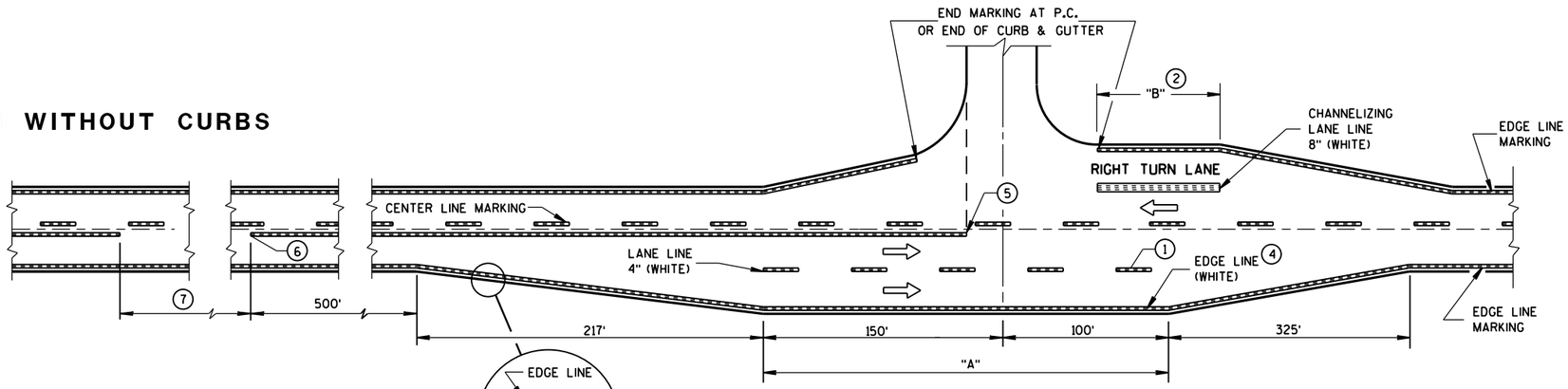
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

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

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

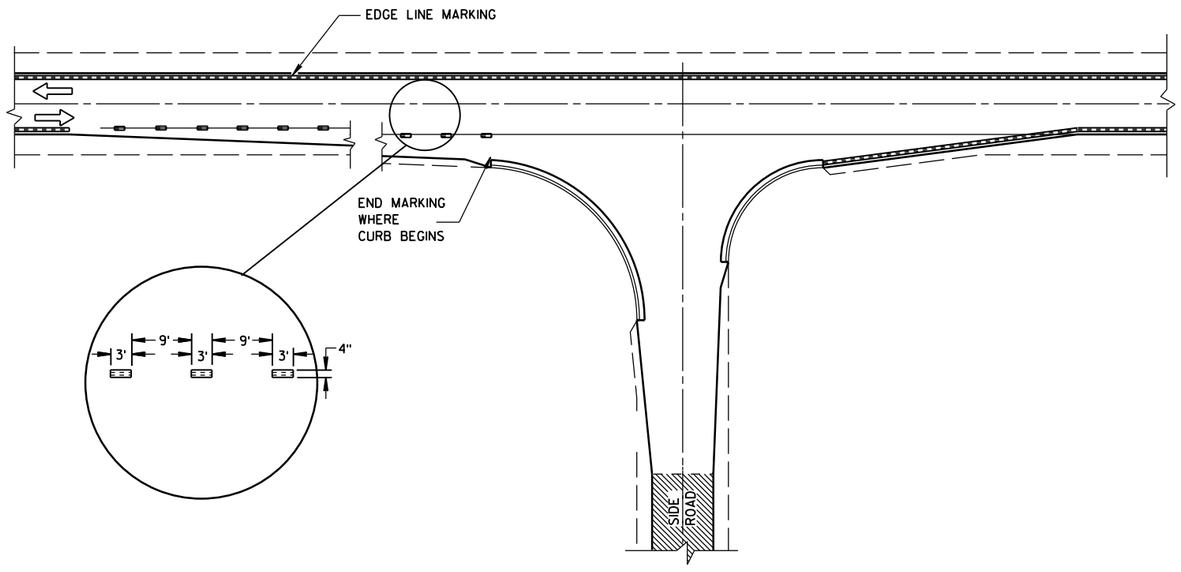
(7)

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



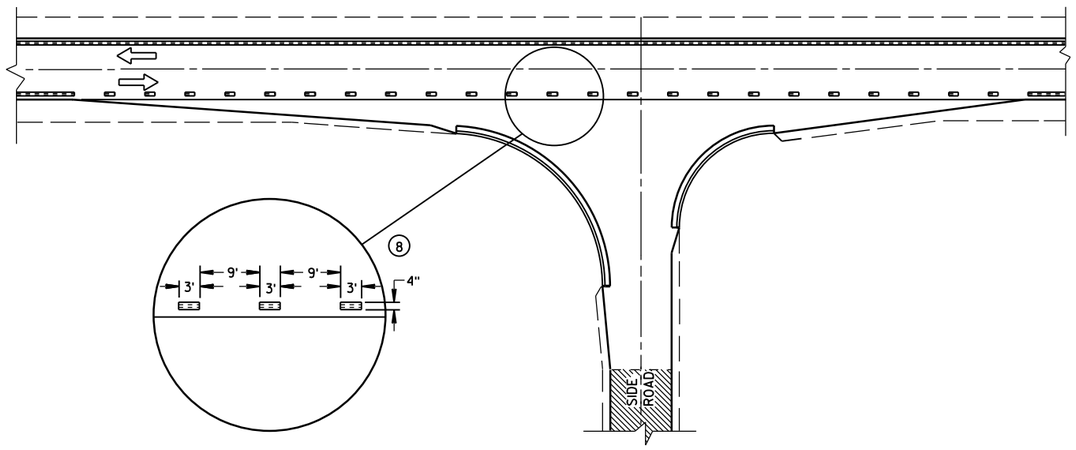
MAJOR INTERSECTIONS

(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)

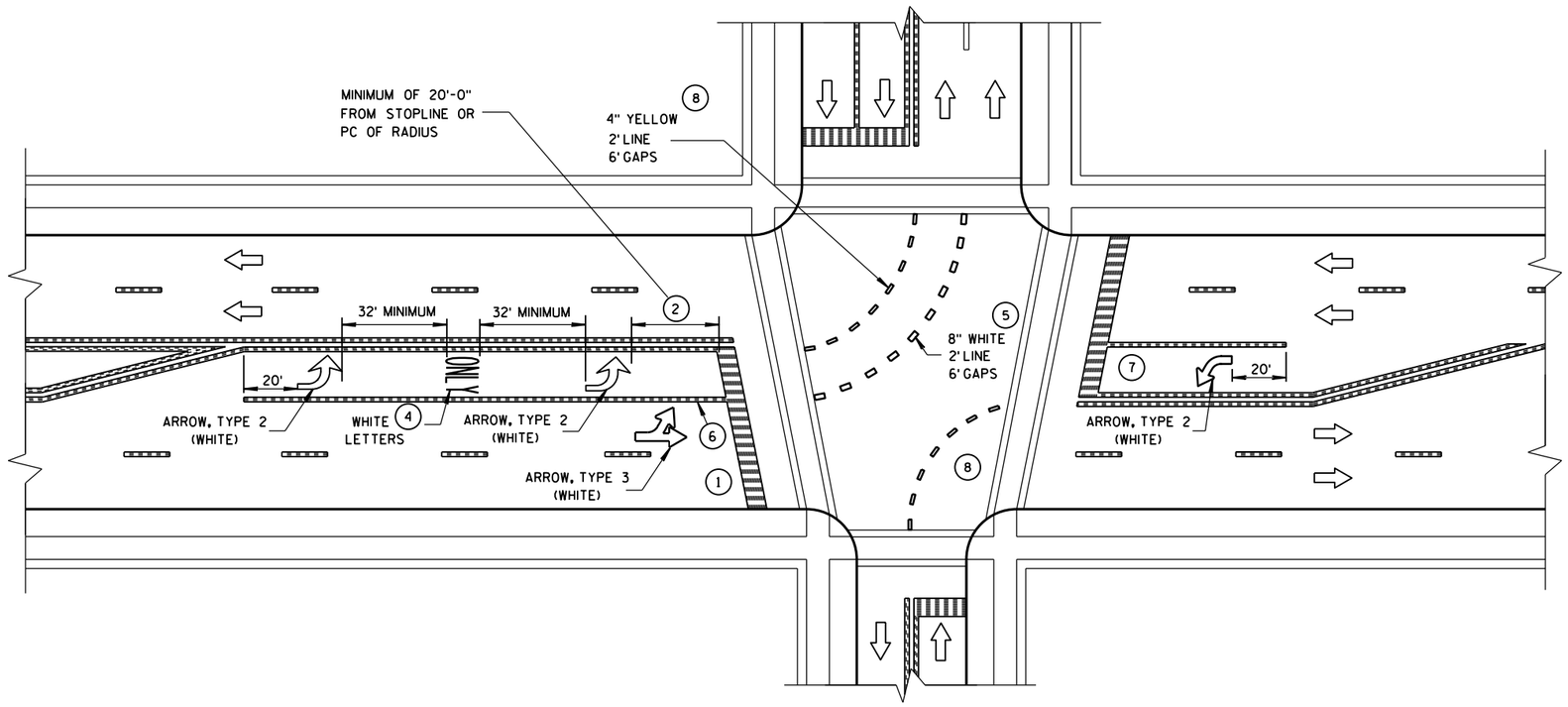
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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

6

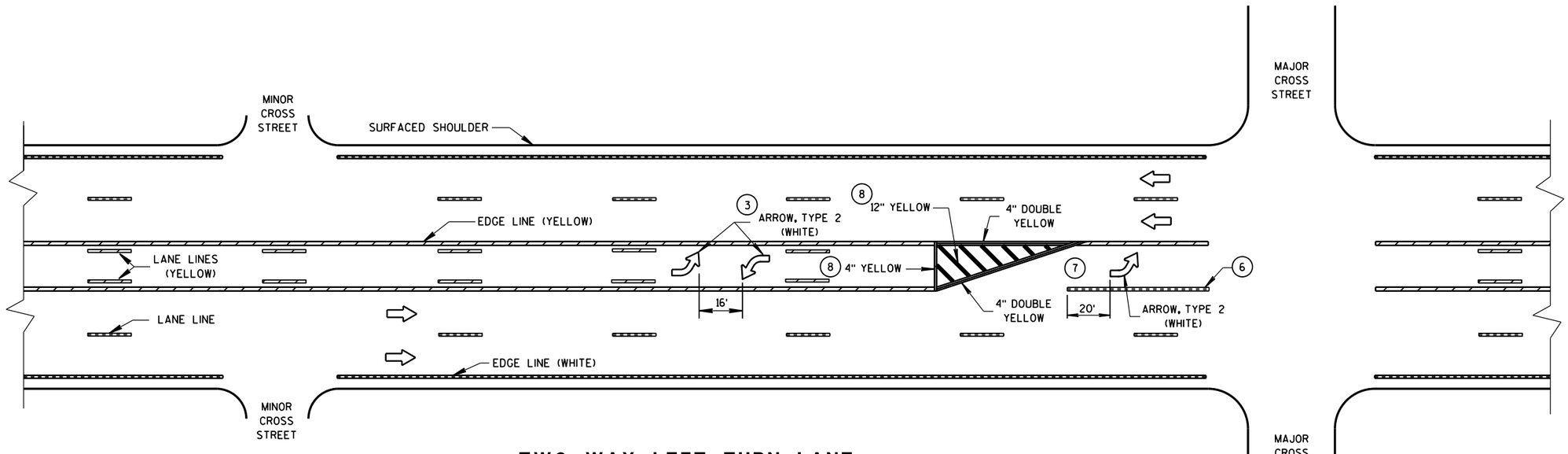
S.D.D. 15 C 8-16b



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



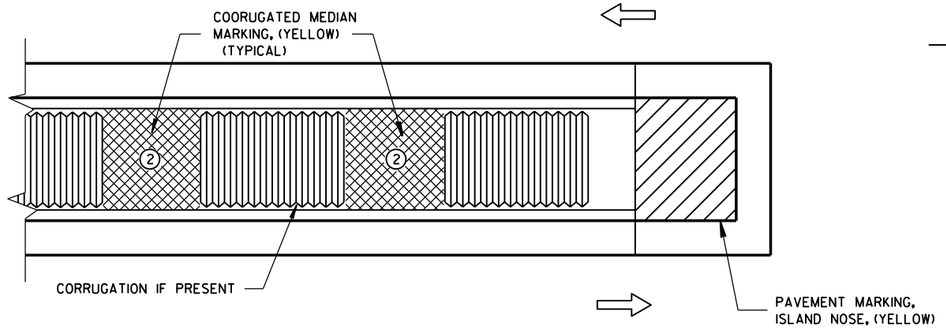
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

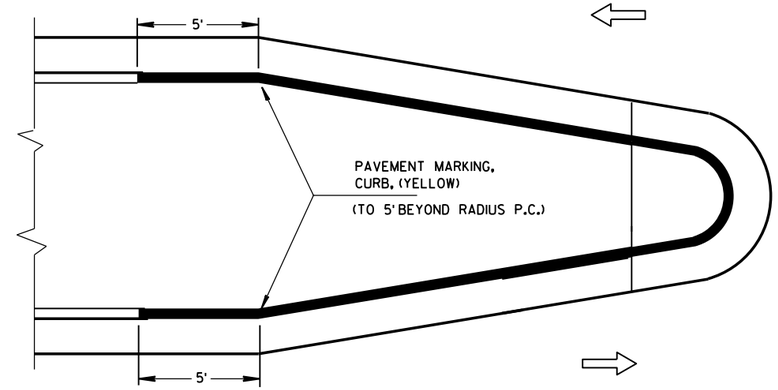
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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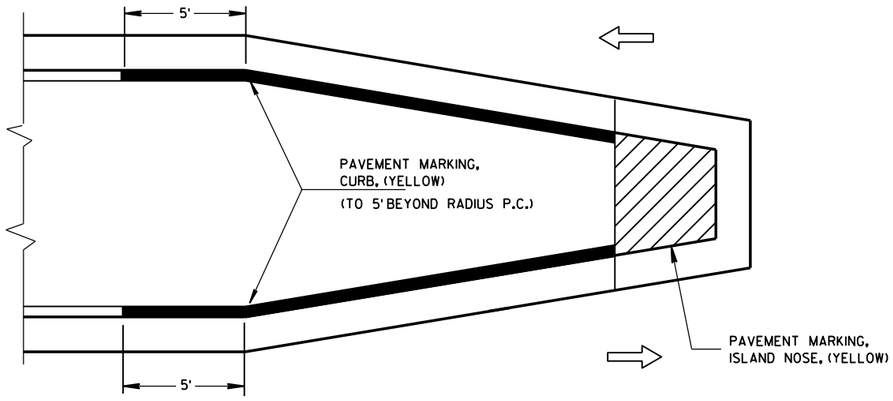
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

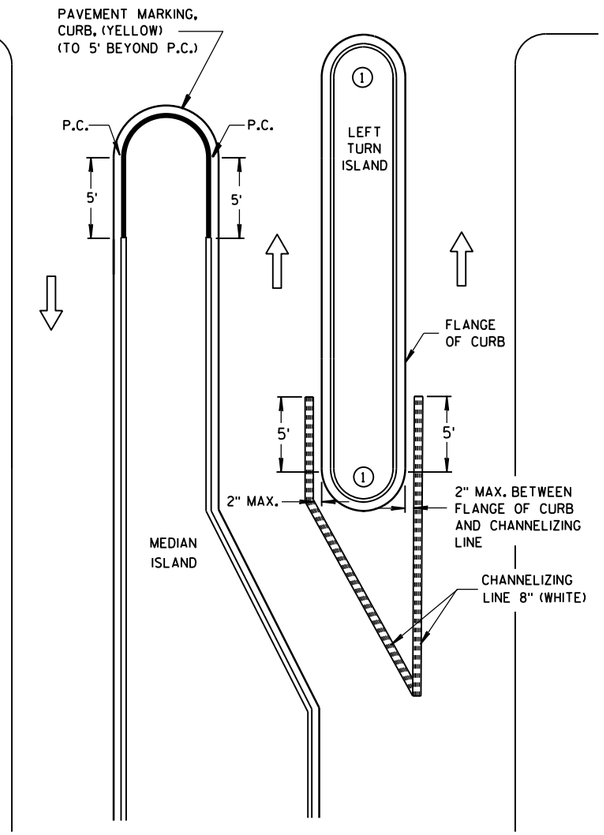


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

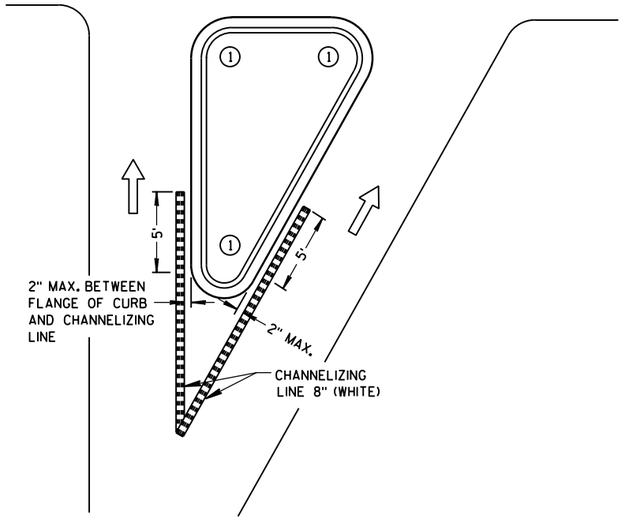


LEFT TURN & MEDIAN ISLAND

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

GENERAL NOTES

ORIENT ANCHOR BOLTS IN FOOTING AND PROVIDE ANCHOR BOLT STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER FABRICATION DRAWING.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

SIGN SUPPORTS SHALL BE LOCATED NORMAL TO ROADWAY.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR BOLTS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR CAGE TO BE ASSEMBLED USING TIE WIRES ONLY, NO WELDING.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACK FILLING AROUND THE BASE. ANY REQUIRED BACKFILL SHALL BE WELL COMPACTED IN LAYERS OF 1 FOOT OR LESS. COMPACTION SHALL BE BY MECHANICAL MEANS. CARE SHALL BE TAKEN SO NO DAMAGE OCCURS TO THE CONCRETE BASE DURING COMPACTION.

EXCAVATION OF MATERIALS NOT OCCUPIED BY CONCRETE SHALL BE MINIMIZED TO REDUCE DISTURBANCE OF THE SURROUNDING SOILS.

THE BOTTOM OF THE DRILLED HOLE SHALL BE FIRM AND THOROUGHLY CLEANED SO NO LOOSE OR COMPRESSIBLE MATERIALS ARE PRESENT AT THE TIME OF THE CONCRETE PLACEMENT.

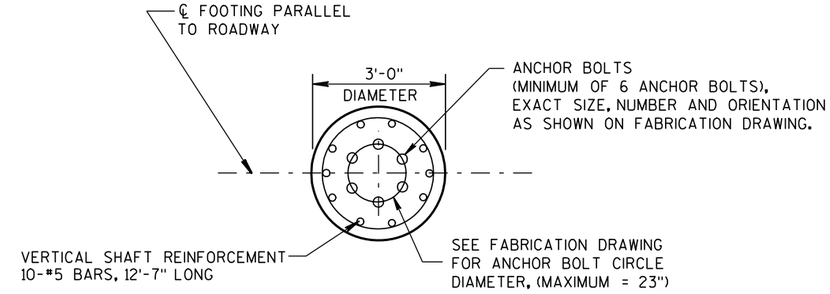
IF THE DRILLED HOLE CONTAINS STANDING WATER, THE CONCRETE SHALL BE PLACED USING A TREMIE TO DISPLACE THE WATER.

THE REINFORCEMENT AND ANCHOR BOLTS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

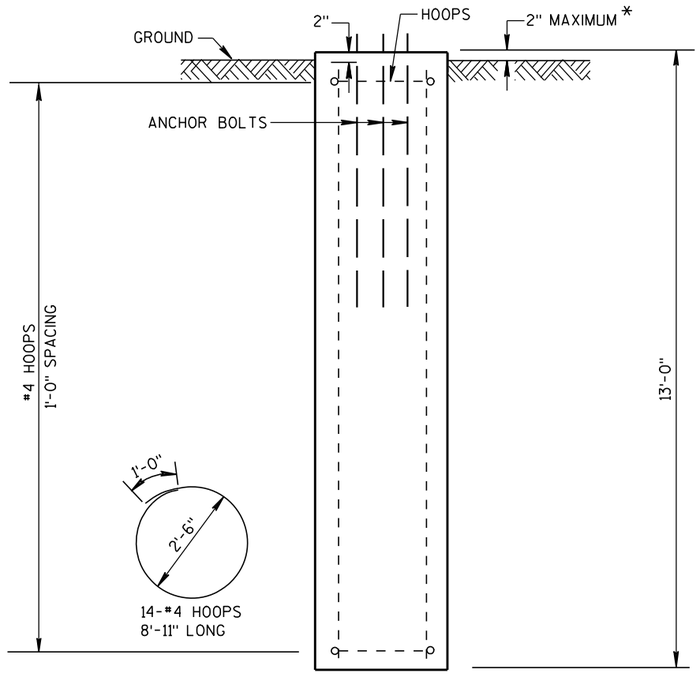
ANY DAMAGE TO THE CONCRETE BASE DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR BOLTS	AASHTO M314 GRADE 55

THIS FOOTING HAS BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 20 DEGREES (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 350 PSF (COHESIVE SOILS).



PLAN VIEW



ELEVATION VIEW

* FOR OVERHEAD SIGN SUPPORTS THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE BASE SHALL BE POURED FLUSH WITH THE GROUND.

CONCRETE - 3.4 C.Y. PER FOOTING
H.S. REINFORCEMENT - 215 LBS. PER FOOTING

36" DIAMETER FULL SPAN OVERHEAD SIGN SUPPORT BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/17/09 — DATE

/S/ Thomas N. Nothdurm — STATE TRAFFIC ENGINEER

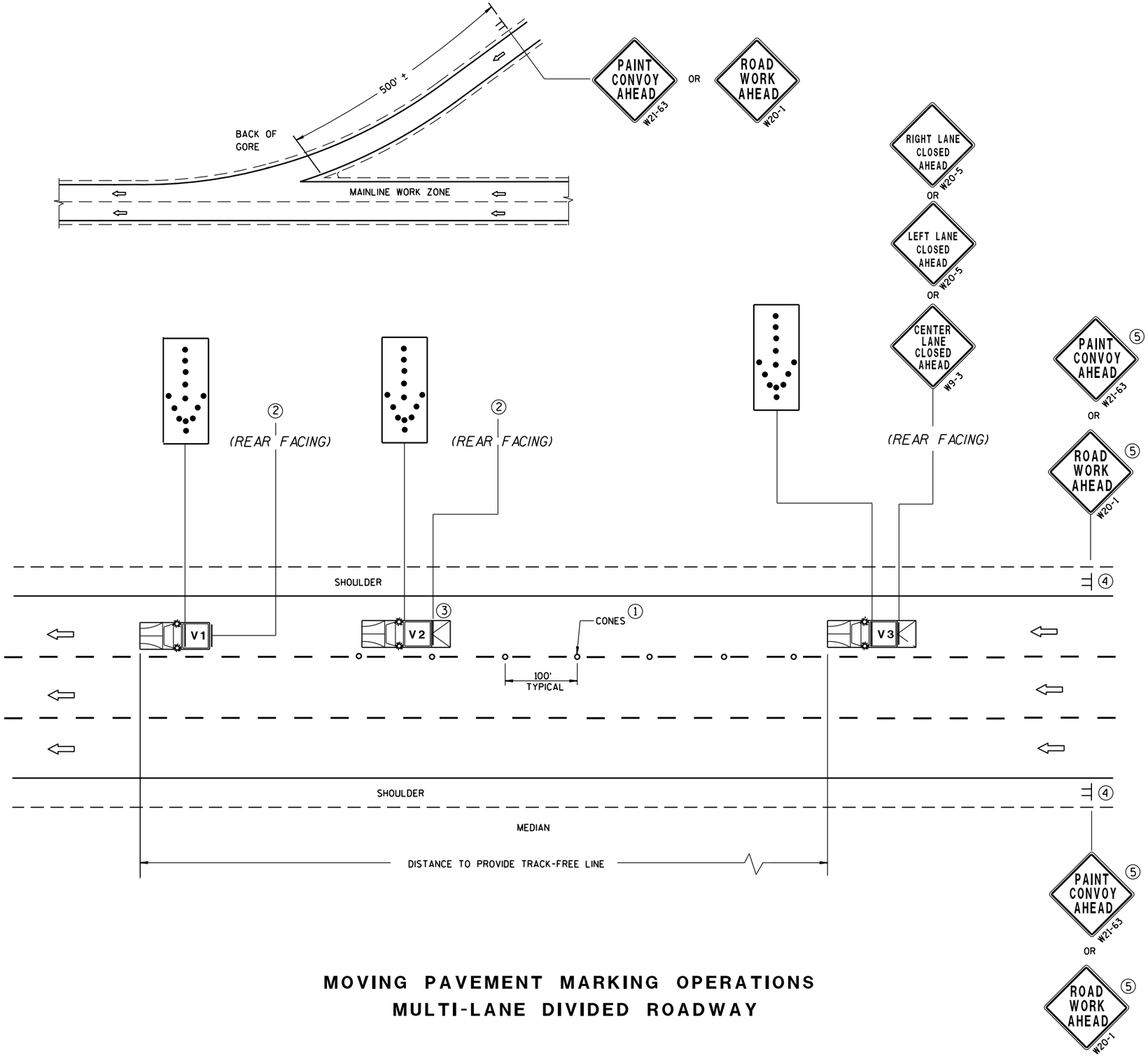
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S.D.D. 15 C 15-3

S.D.D. 15 C 15-3

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MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

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

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

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

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

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

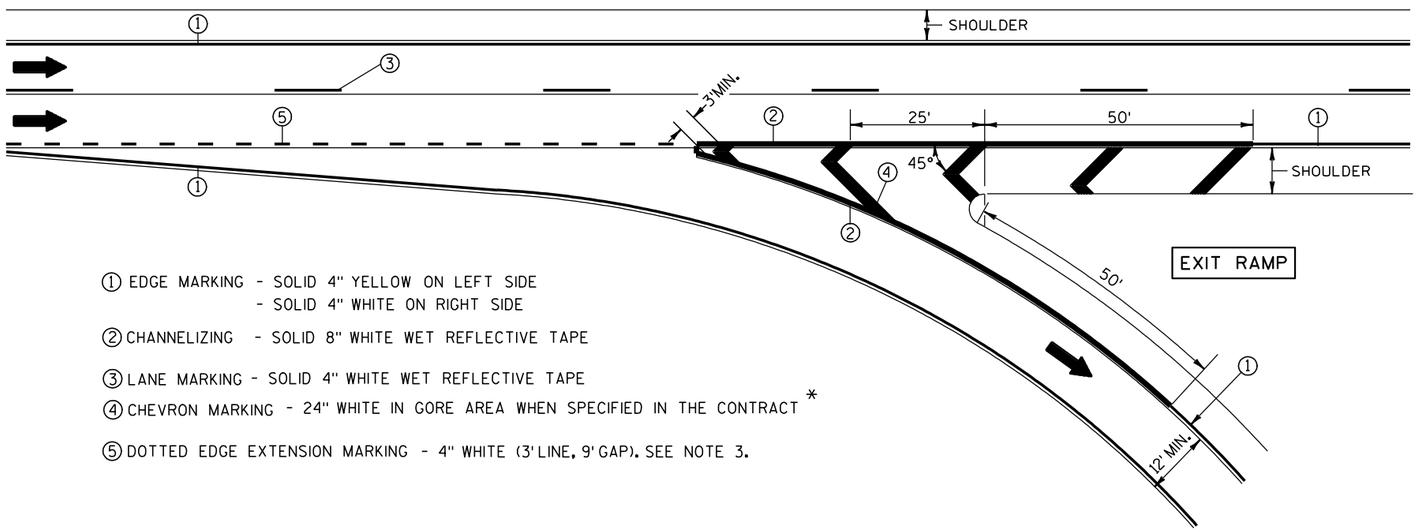
5/3/2013 DATE

/S/ Travis Feltes STATE TRAFFIC EN

FHWA

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S.D.D. 15 C 19-2c



① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE

② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE

③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE

④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *

⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

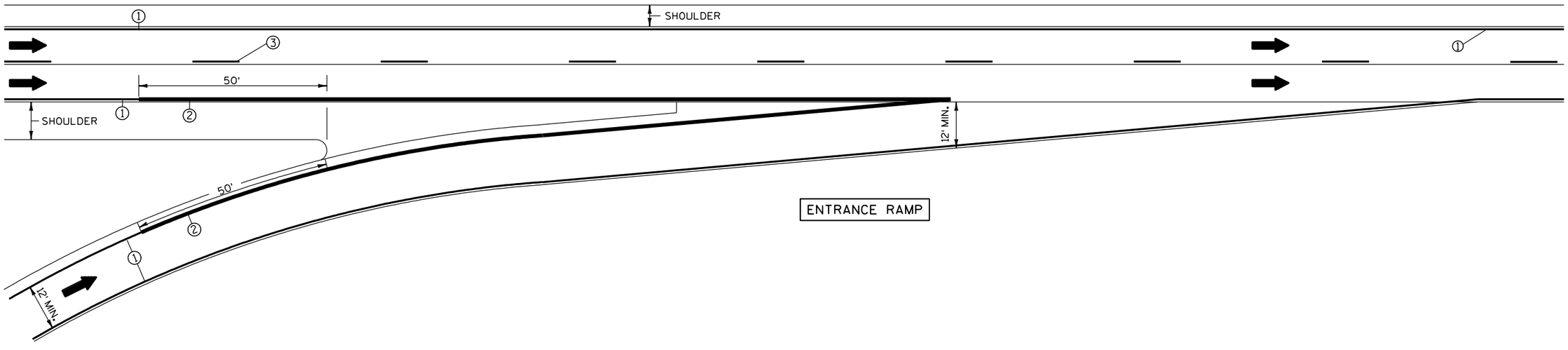
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

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

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

4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



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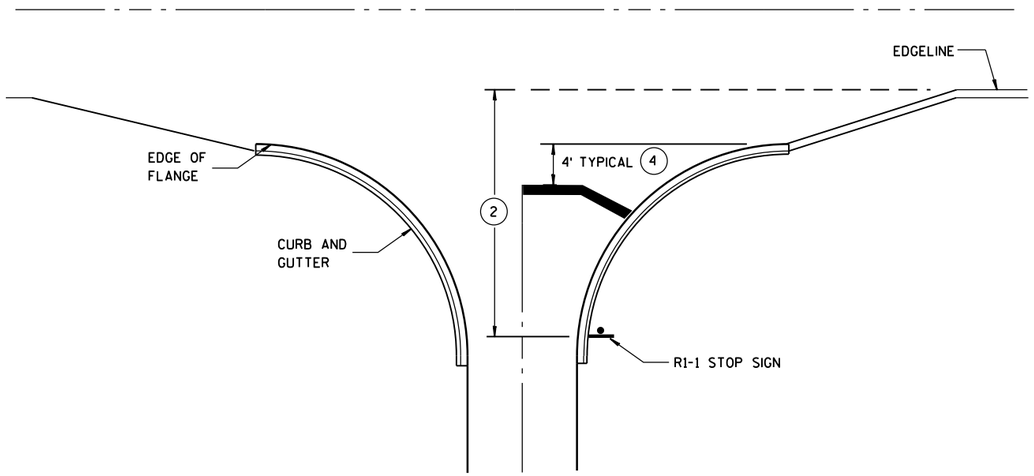
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S.D.D. 15 C 31-1a

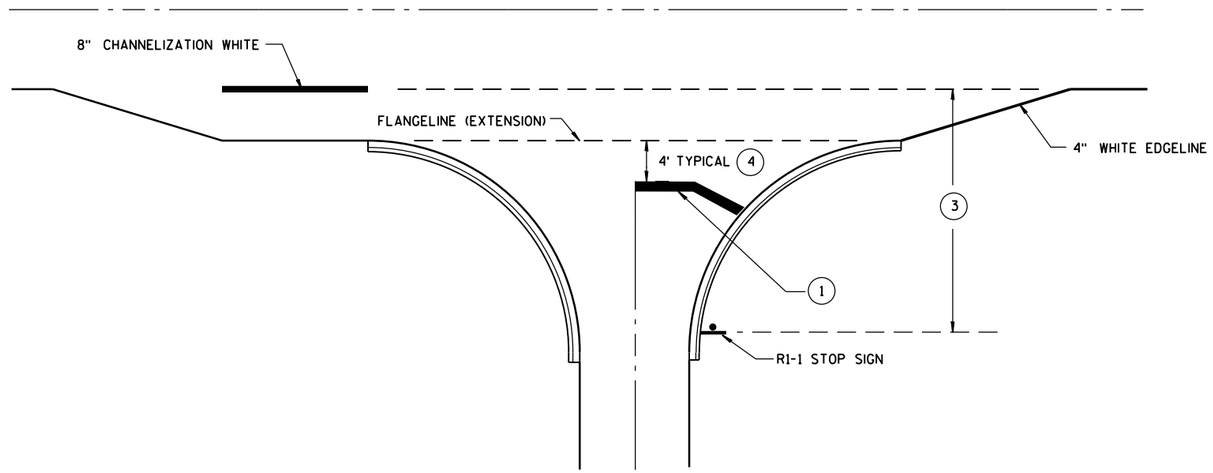
S.D.D. 15 C 31-1a

PAVEMENT MARKING
(RAMPS AND GORES)

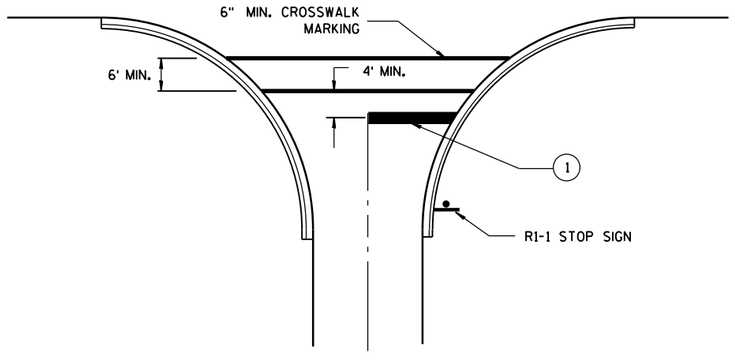
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



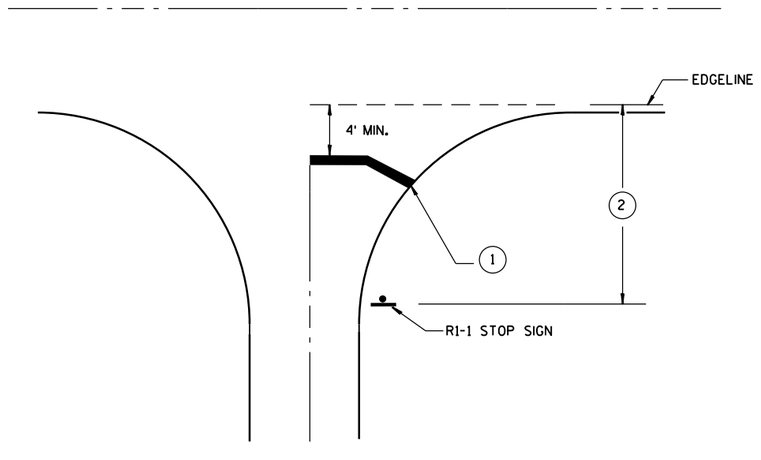
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



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

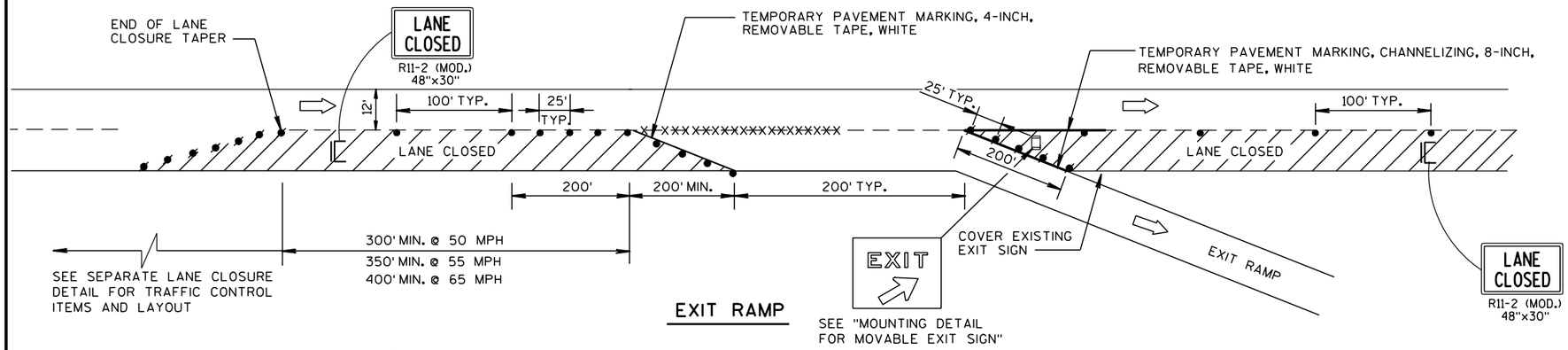
APPROVED
4/30/2013 DATE
/S/ Travis Feltes
STATE TRAFFIC E
FHWA

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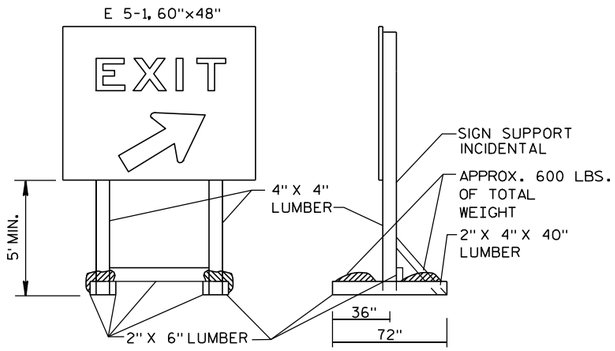
S.D.D. 15 C 33-1

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S.D.D. 15 C 33-1

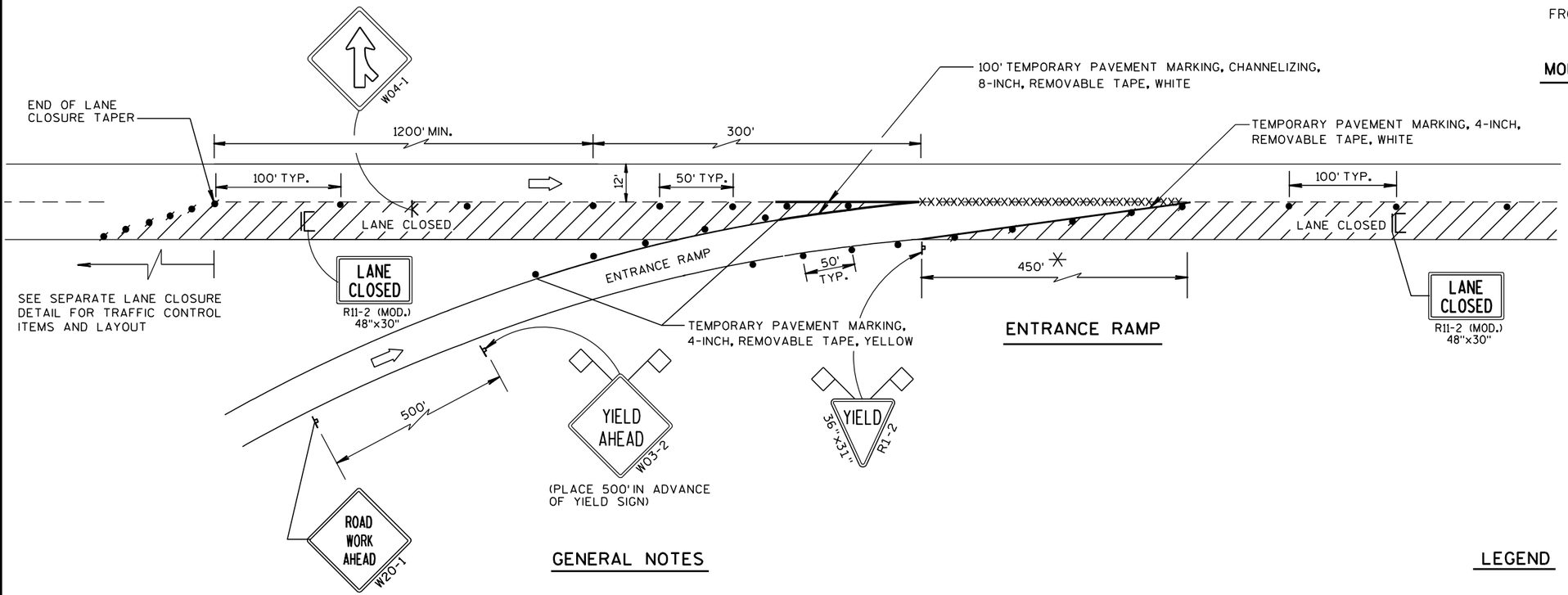


EXIT RAMP



NOTE: ALL LUMBER DIMENSIONS ARE NOMINAL

MOUNTING DETAIL FOR MOVABLE EXIT SIGN



ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2 (MOD.) "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

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

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

✳ LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT
- TRAFFIC CONTROL, DRUM
- TRAFFIC CONTROL, DRUM WITH WARNING LIGHT, TYPE C (STEADY-BURN)
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE (8' EQUIVALENT) WITH SIGN
- FLAGS, 16"x16" MIN., ORANGE
- DIRECTION OF TRAFFIC FLOW

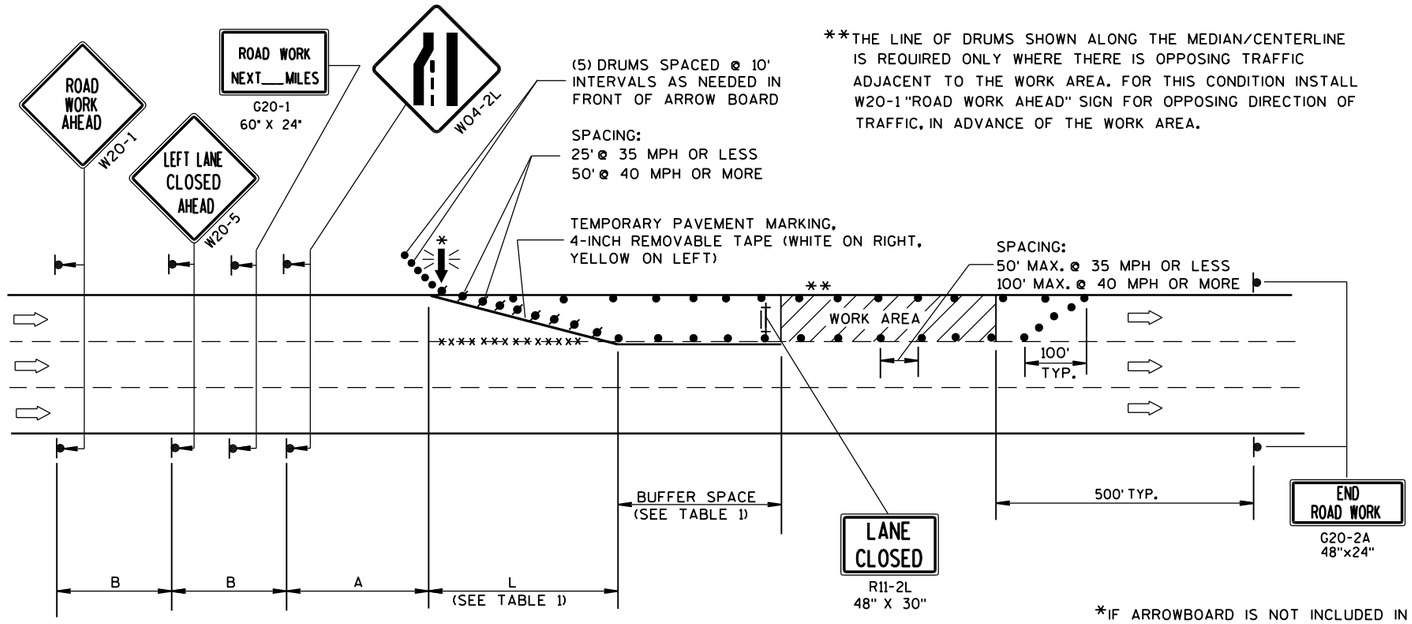
TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/24/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKING ENGINEER
FHWA

S.D.D. 15 D 15-1

S.D.D. 15 D 15-1



**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"

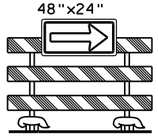


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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.

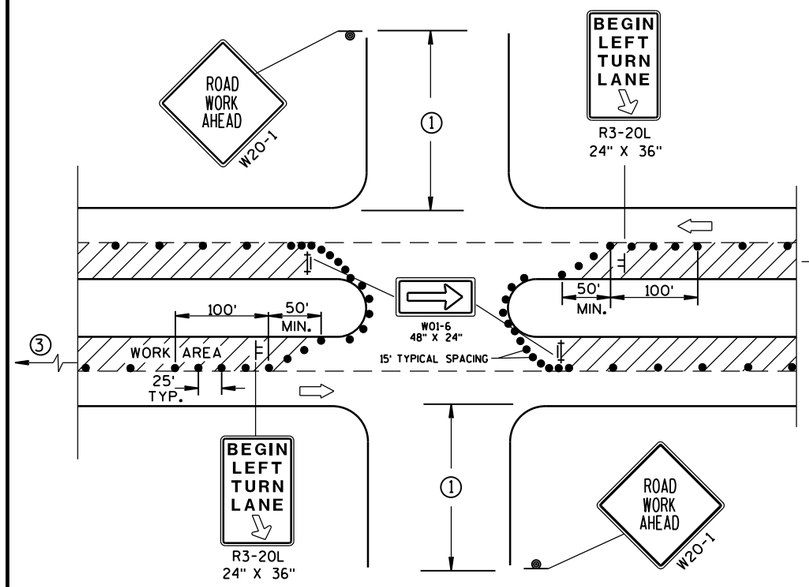
TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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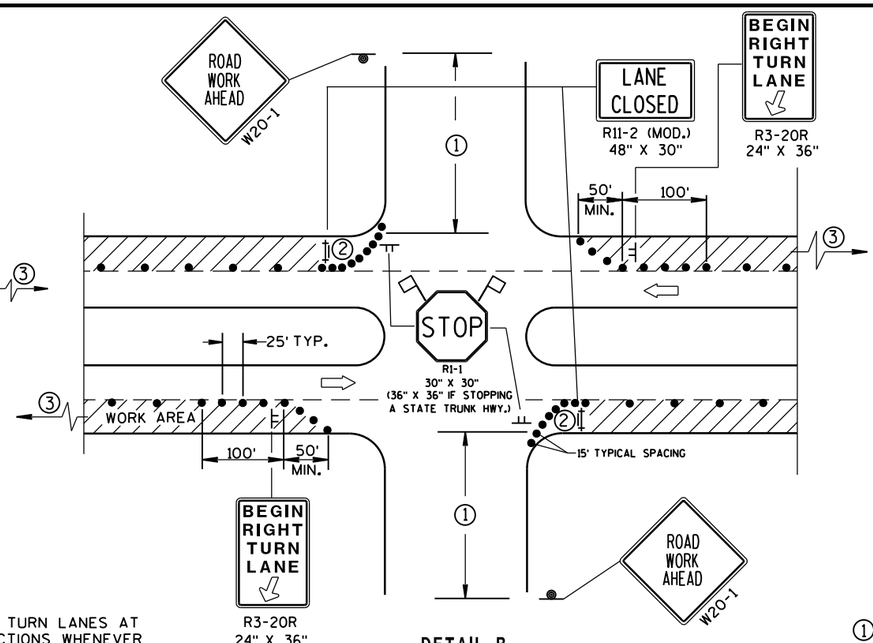
S.D.D. 15 D 20-3



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

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 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.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, 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.

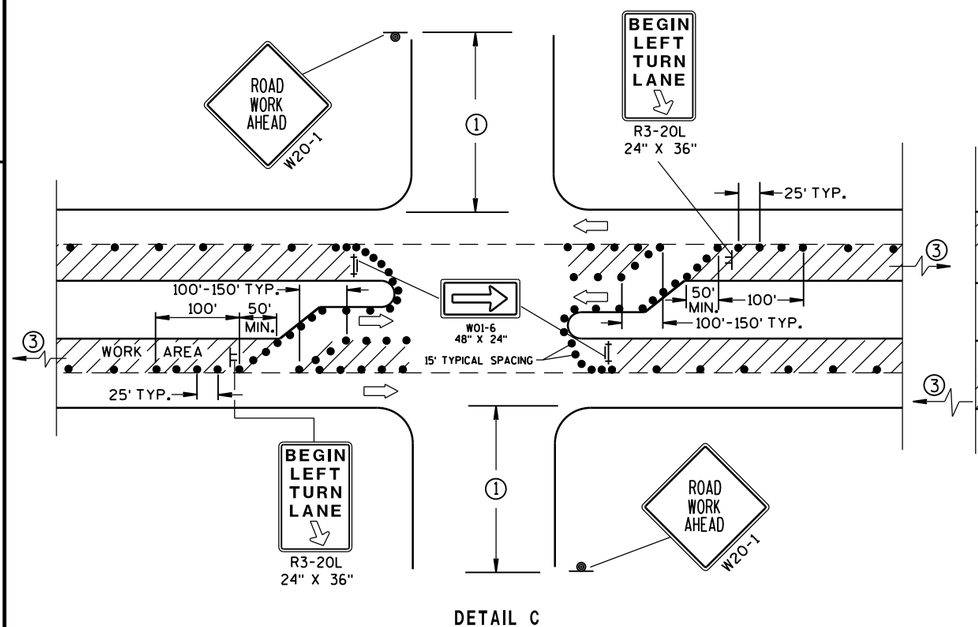
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

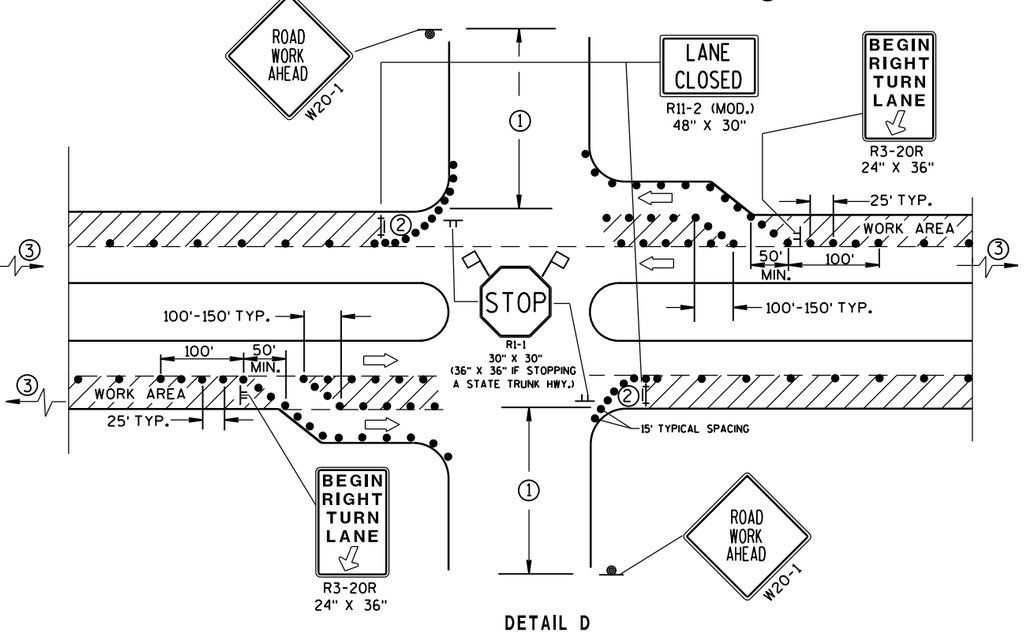
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Nov. 2014 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 D 21-3

LEGEND

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

GENERAL NOTES

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

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

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

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

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

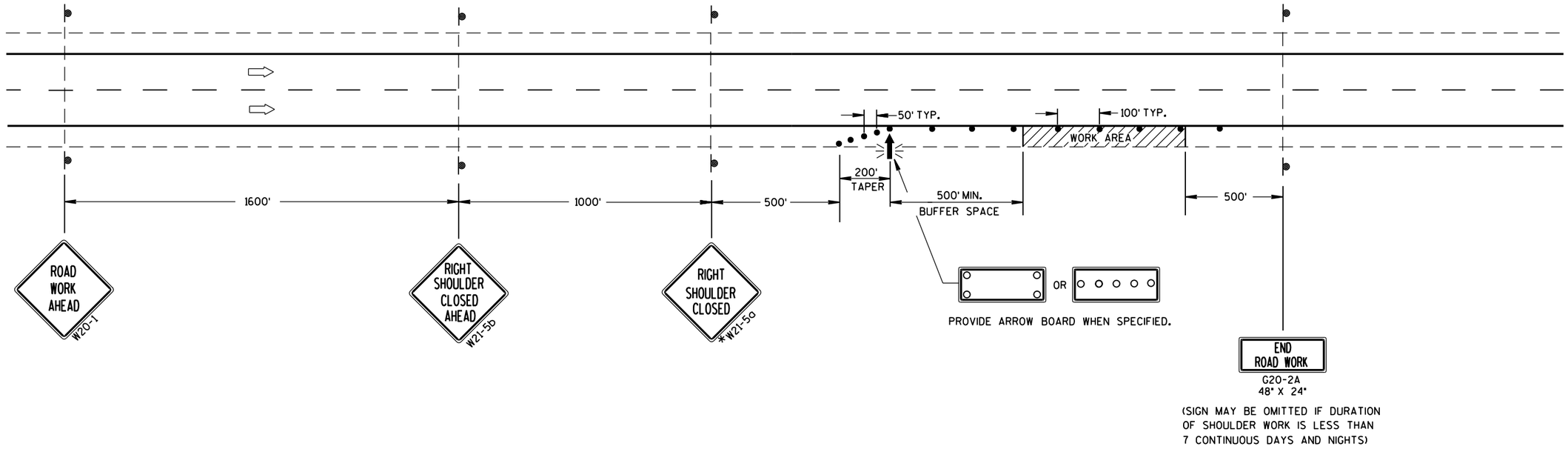
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE

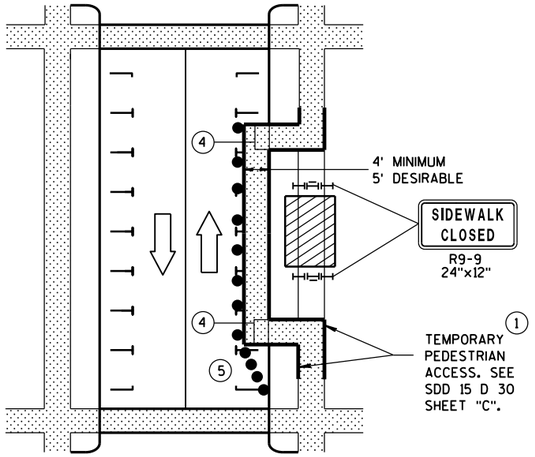
/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

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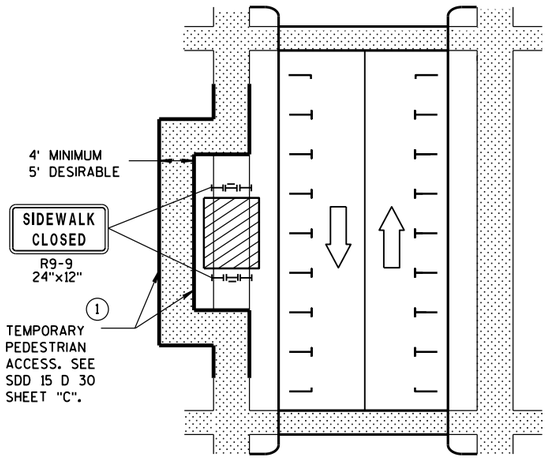
S.D.D. 15 D 27-2

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

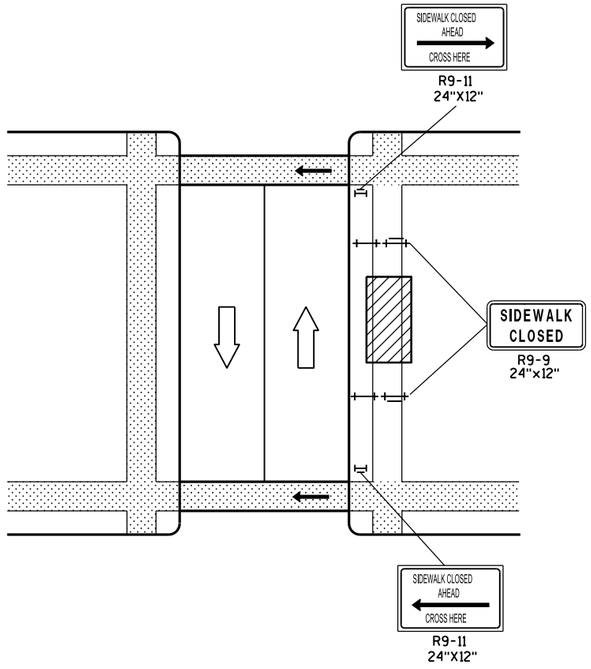


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

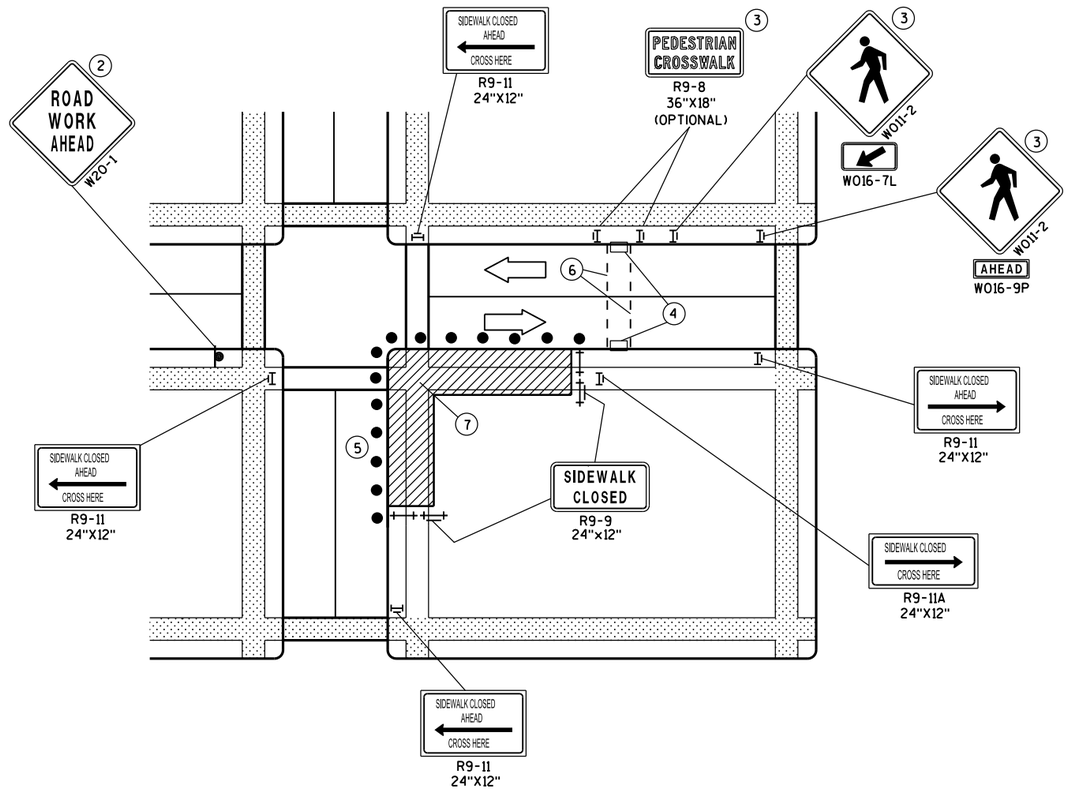
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

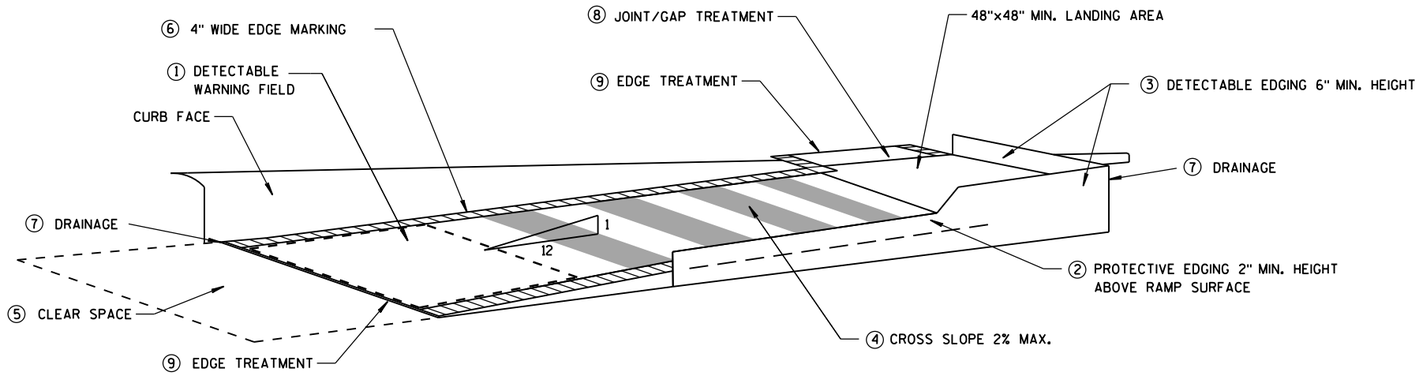
- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 30-2a



TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".

② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

④ CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

⑤ CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

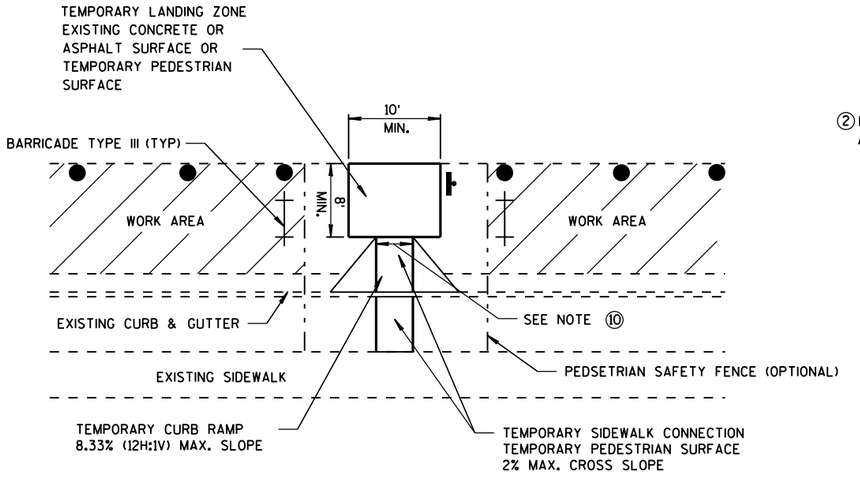
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

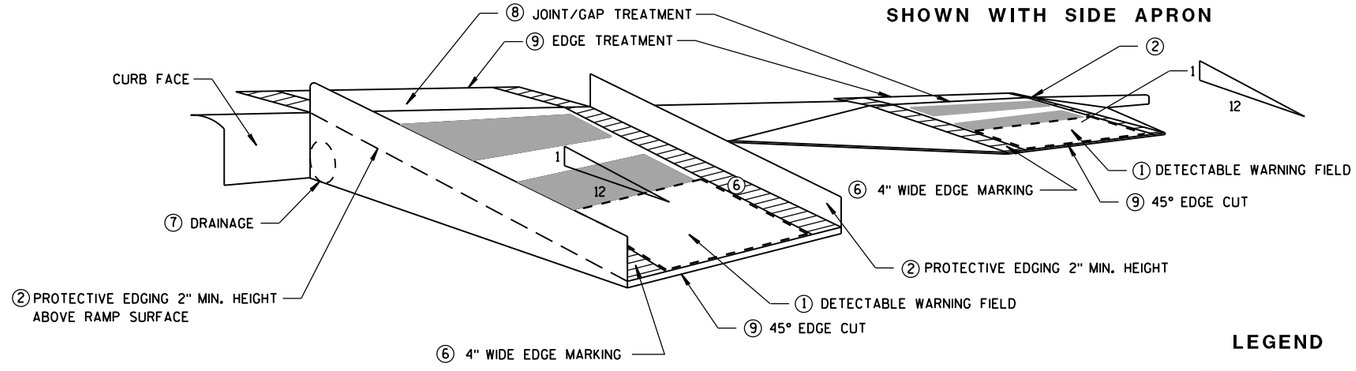
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

⑩ 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



SHOWN WITH PROTECTIVE EDGE

SHOWN WITH SIDE APRON

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2015 (DATE) /S/ Travis Feltes (STATE TRAFFIC ENGINEER) (SIGN)

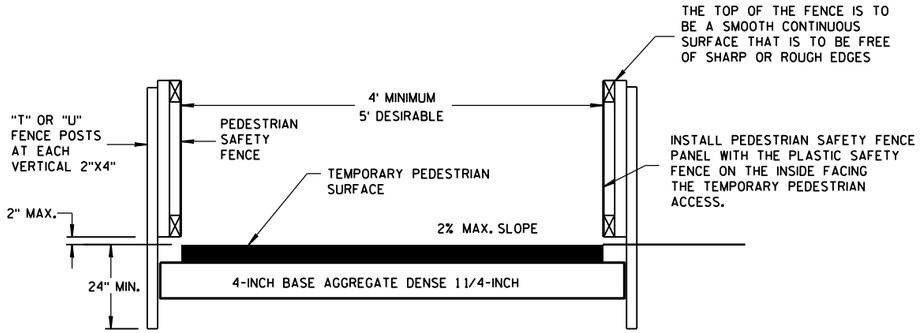
FHWA

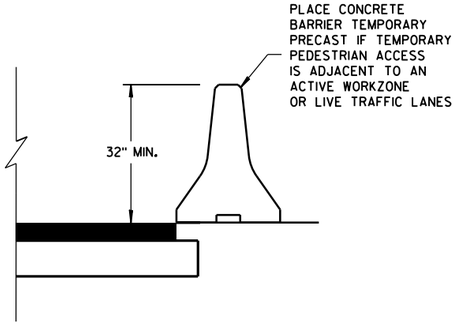
6

S.D.D. 15 D 30-2b

6

S.D.D. 15 D 30-2b

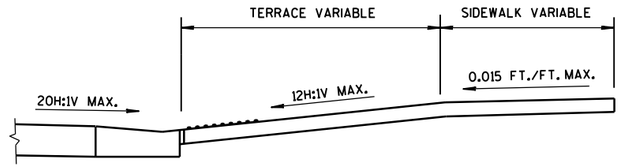




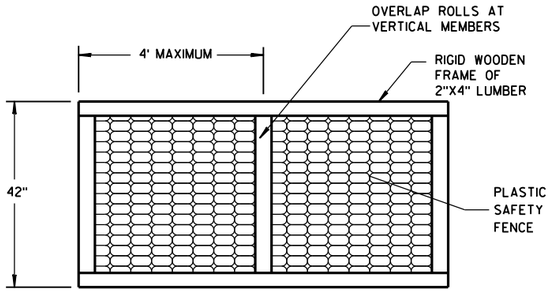
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

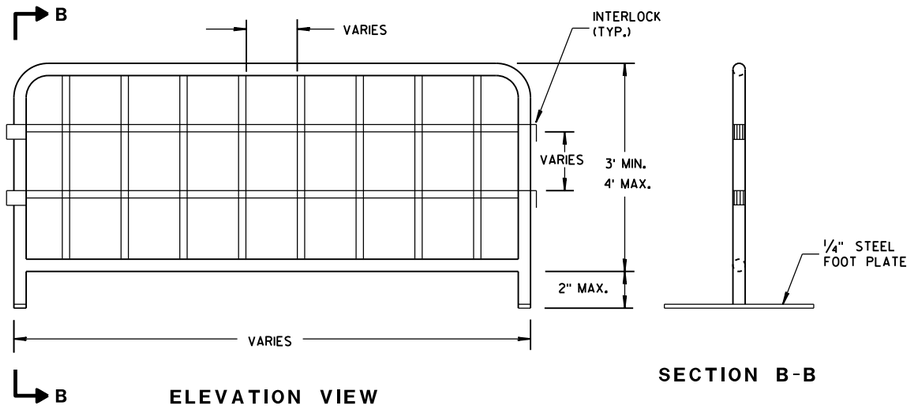
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



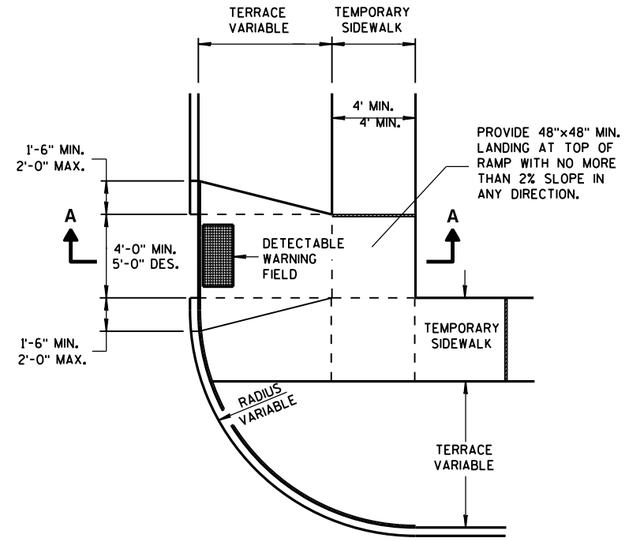
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

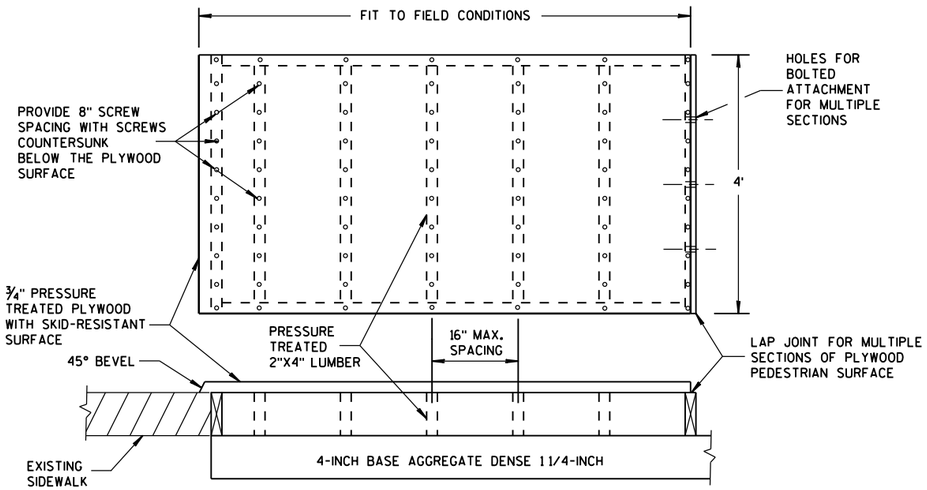
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



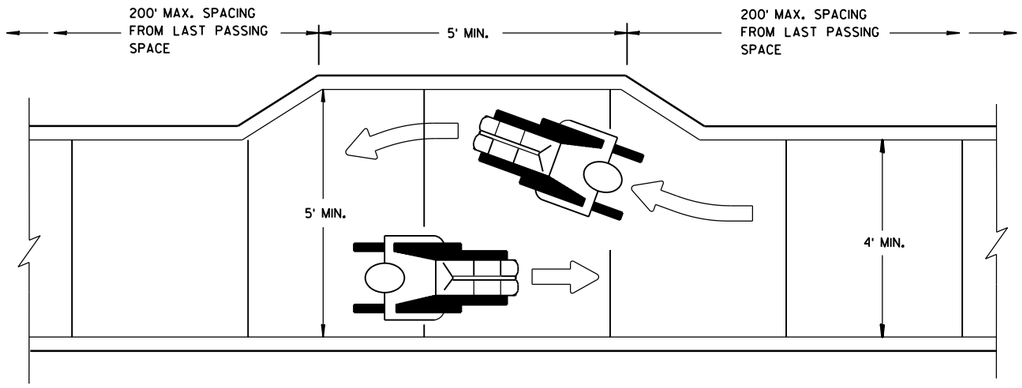
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER — SIGN
FHWA

6

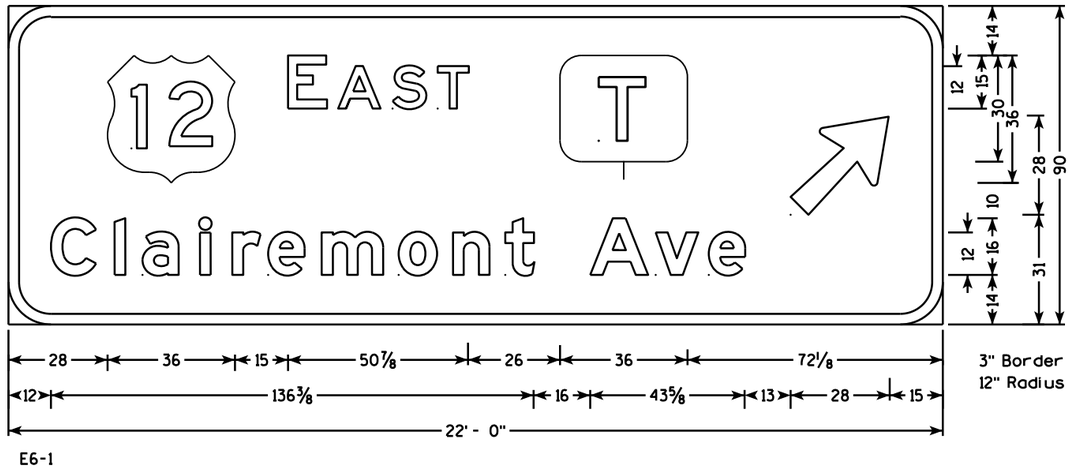
S.D.D. 15 D 30-2c

6

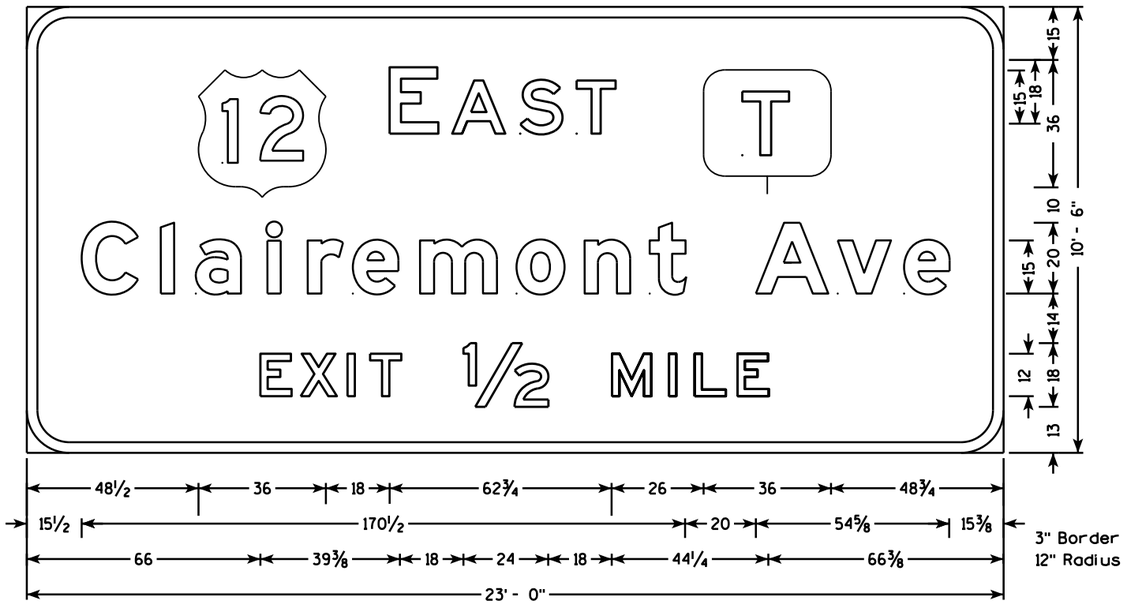
S.D.D. 15 D 30-2c

NOTES

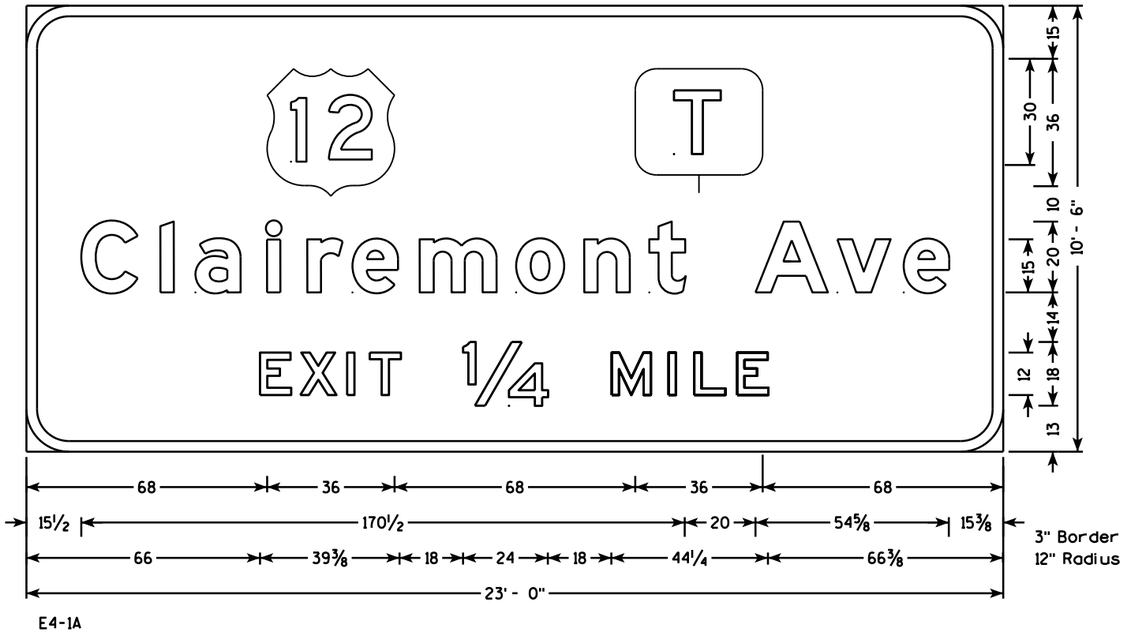
1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except all cap Words are Series E



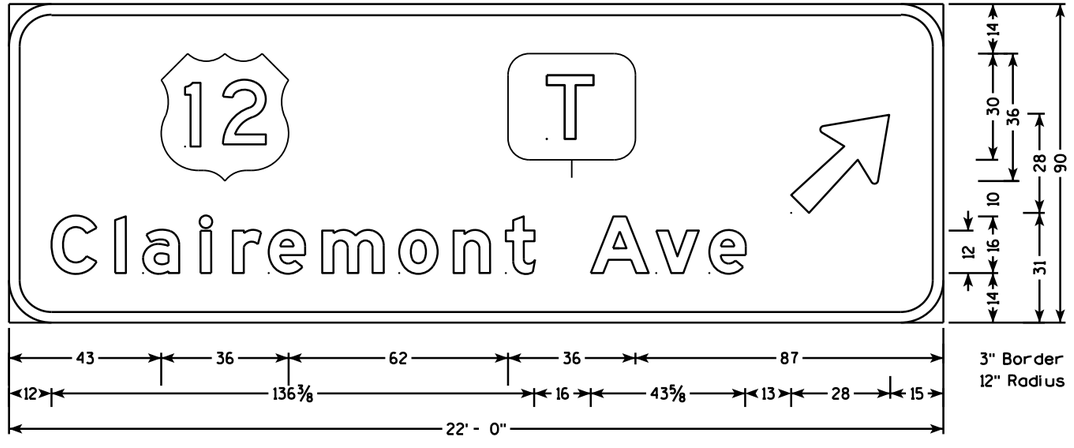
E6-1



E4-1A



E4-1A



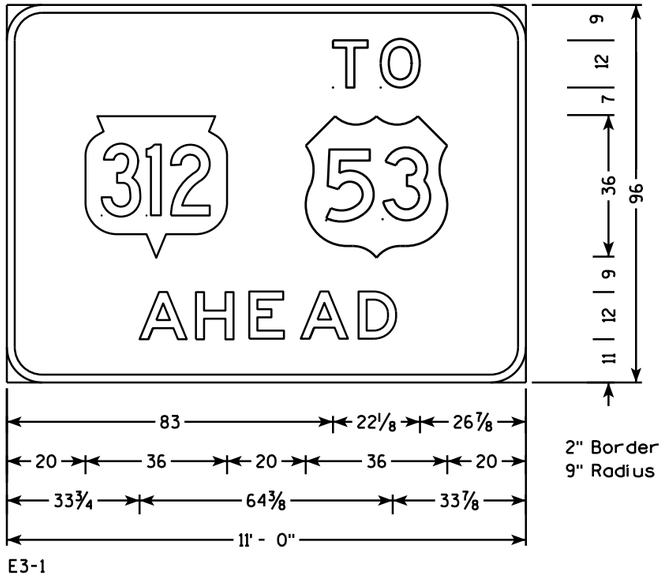
E6-1

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO:	E

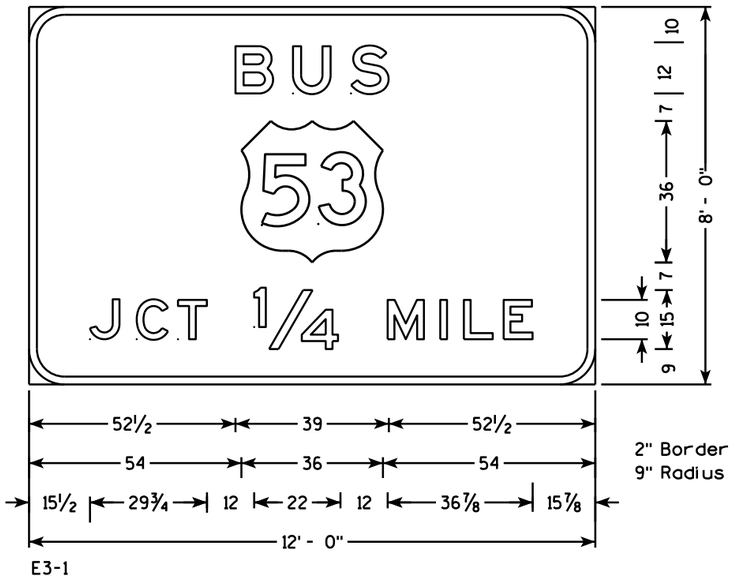
FILE NAME : C:\CAEFiles\Projects\tr_d6\6182A115.dgn PLOT DATE : 04-FEB-2015 12:22 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 42.808522:1.000000 WISDOT/CADDS SHEET 42

NOTES

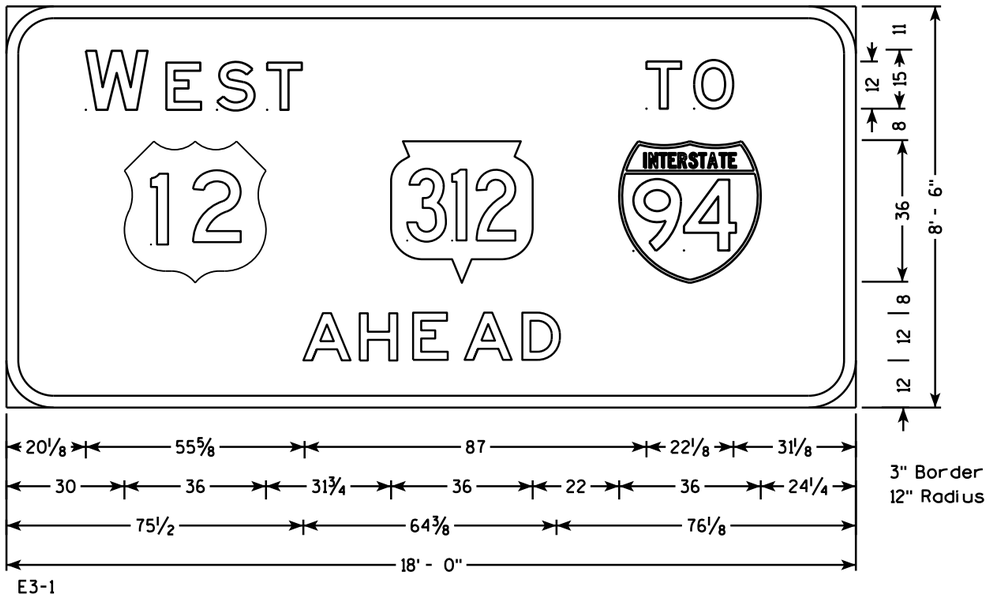
1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E



E3-1



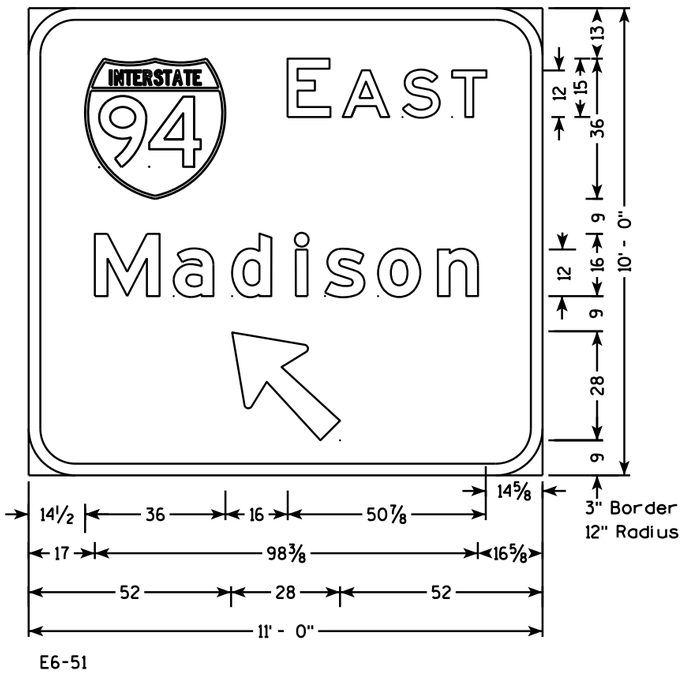
E3-1



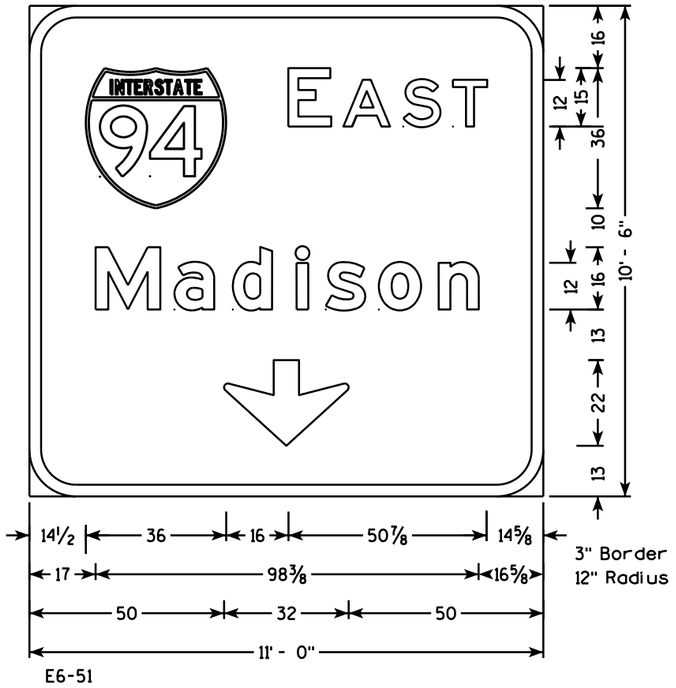
E3-1

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_d6\6182A115.dgn PLOT DATE : 04-FEB-2015 12:22 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 38.527670:1.000000 WISDOT/CADDS SHEET 42



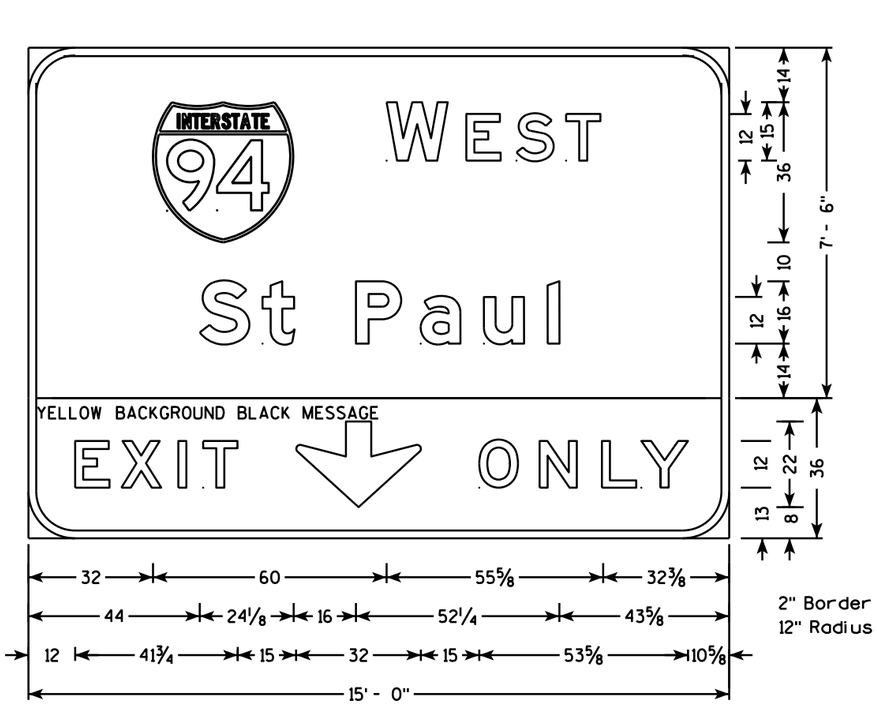
E6-1



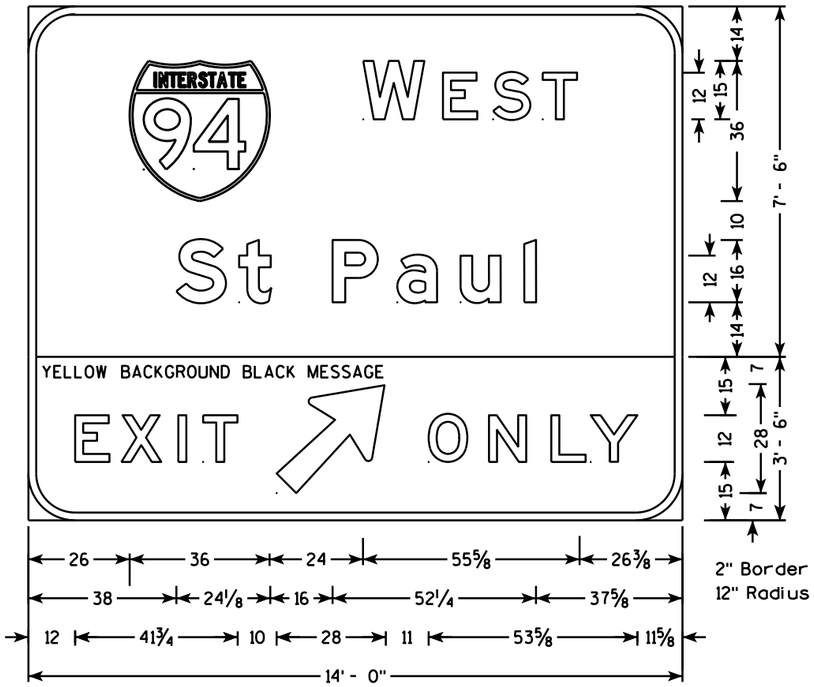
E6-1

NOTES

1. All Signs are Type I - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green except as Shown
   Message - White except as Shown
3. Message Series - E Modified except all CAP Words are Series E



E6-1

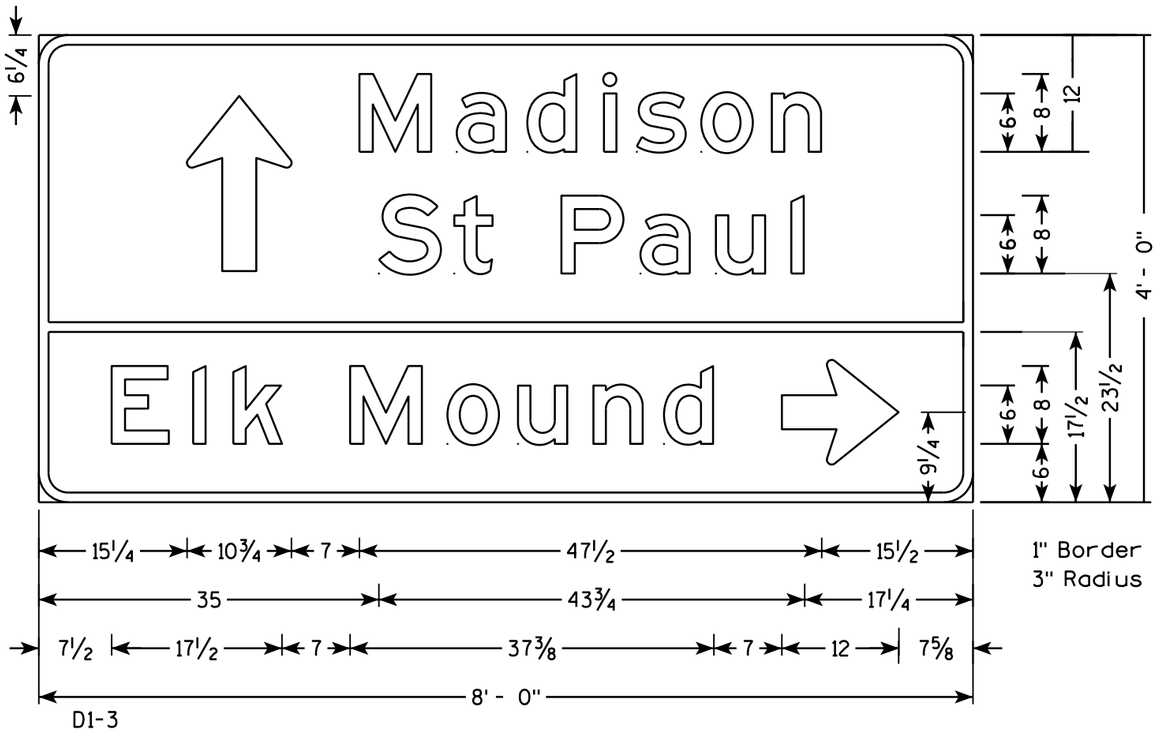


E6-1

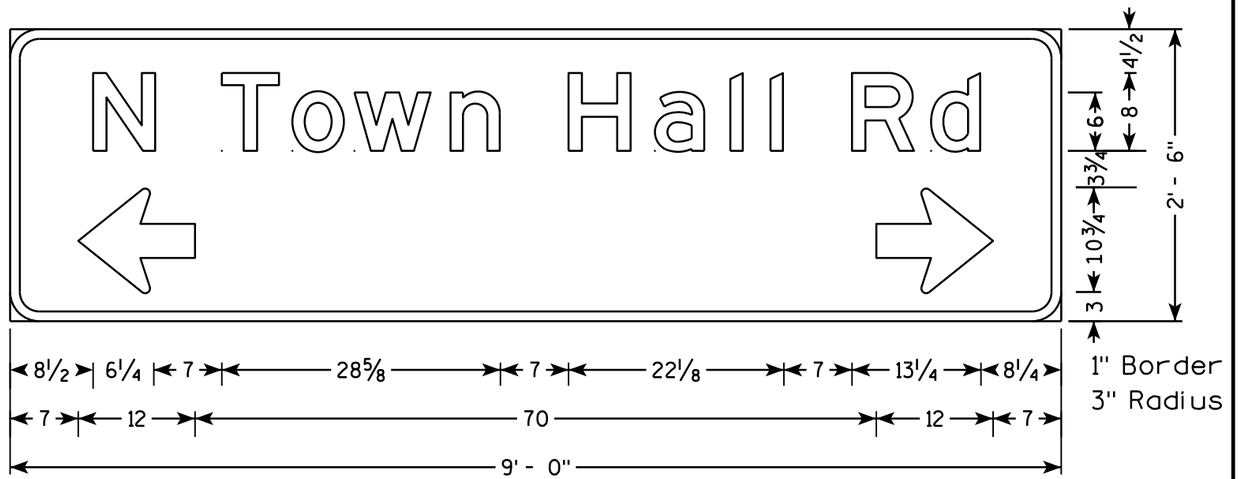
PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO: E

NOTES

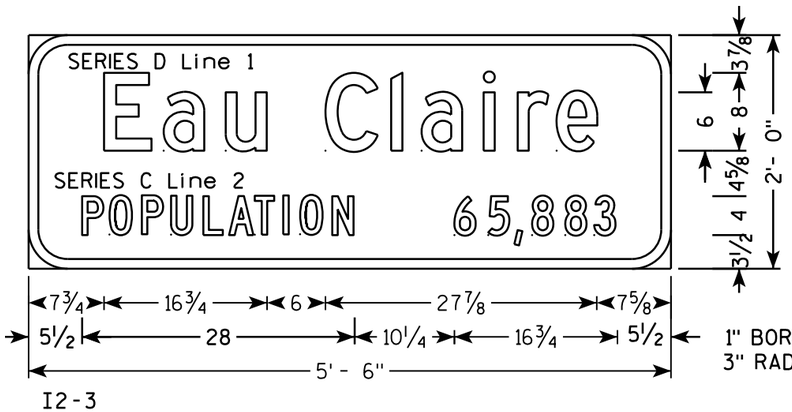
1. All Signs Type II - Type H Reflective
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - E except as Shown



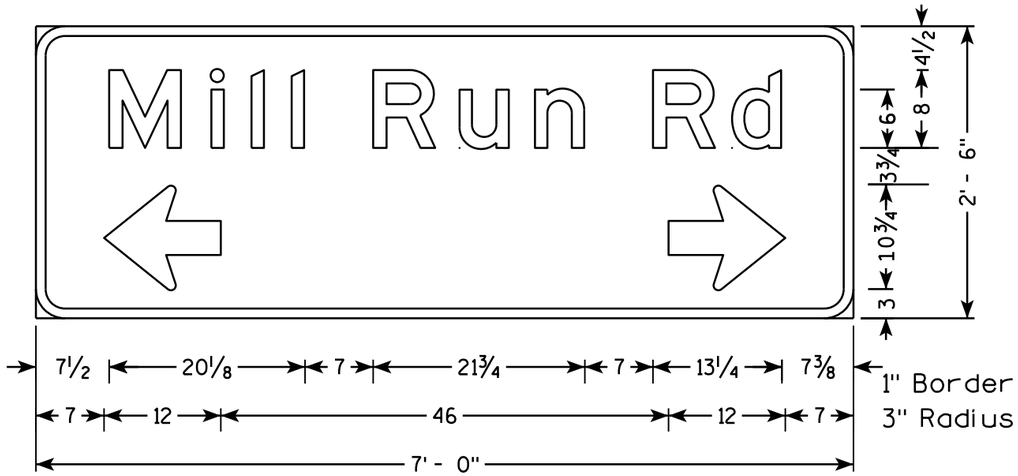
D1-3



D1-61



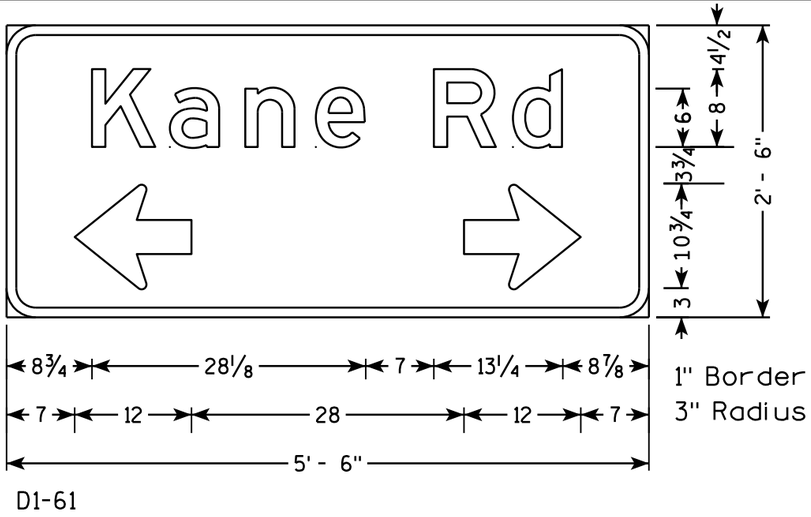
I2-3



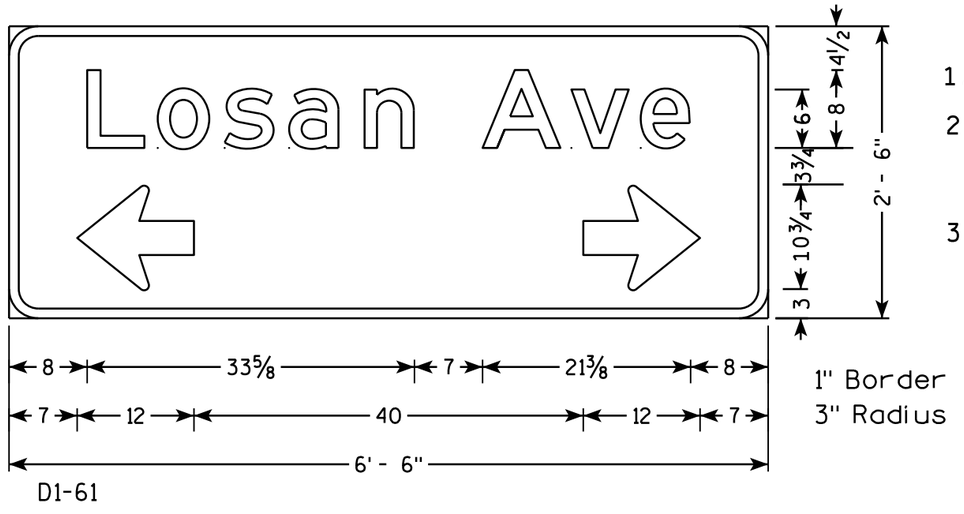
D1-61

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO: E

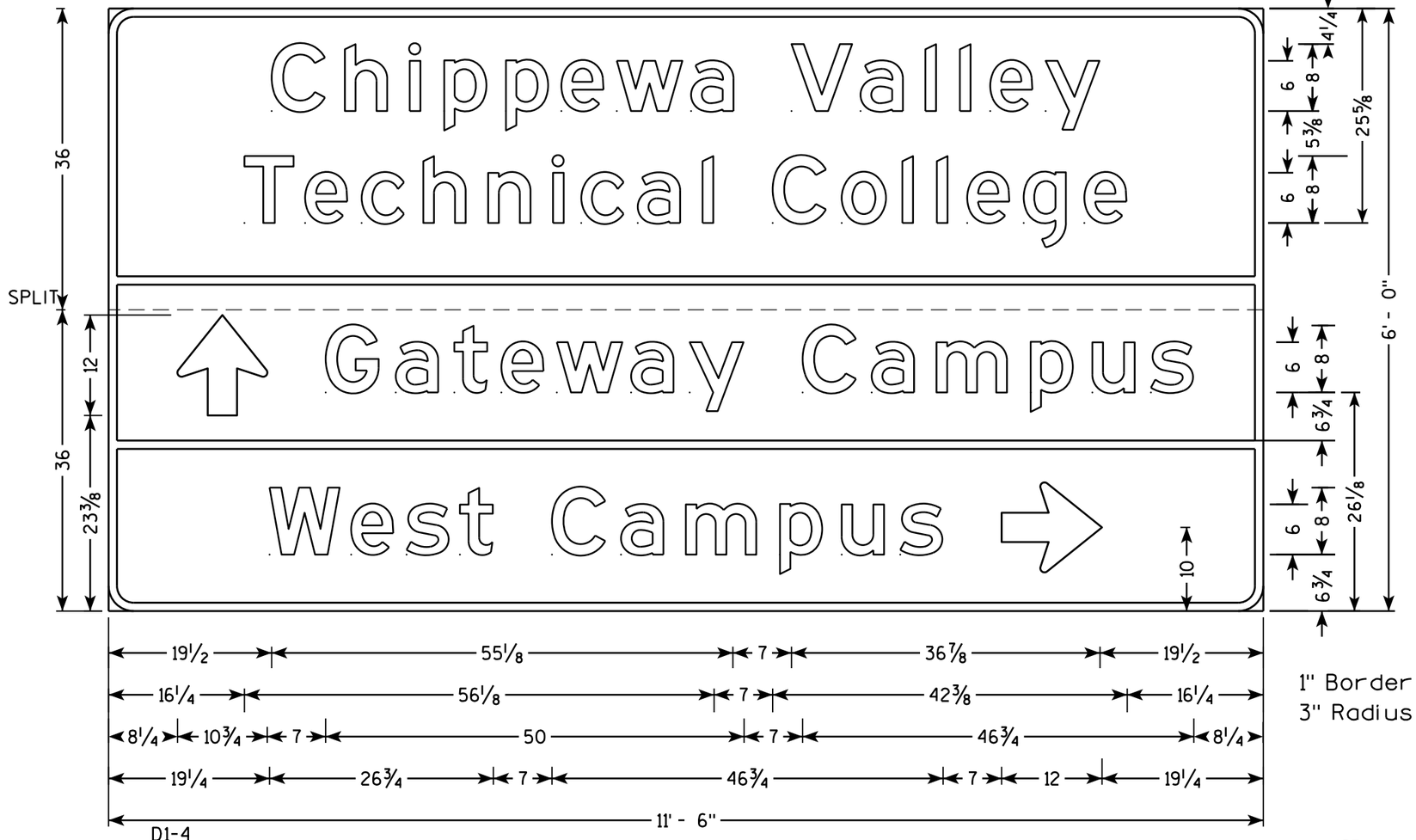
FILE NAME : C:\CAEFiles\Projects\tr_d6\6182A115.dgn PLOT DATE : 04-FEB-2015 12:23 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 15.566735:1.000000 WISDOT/CADDS SHEET 42



D1-61



D1-61



D1-4

NOTES

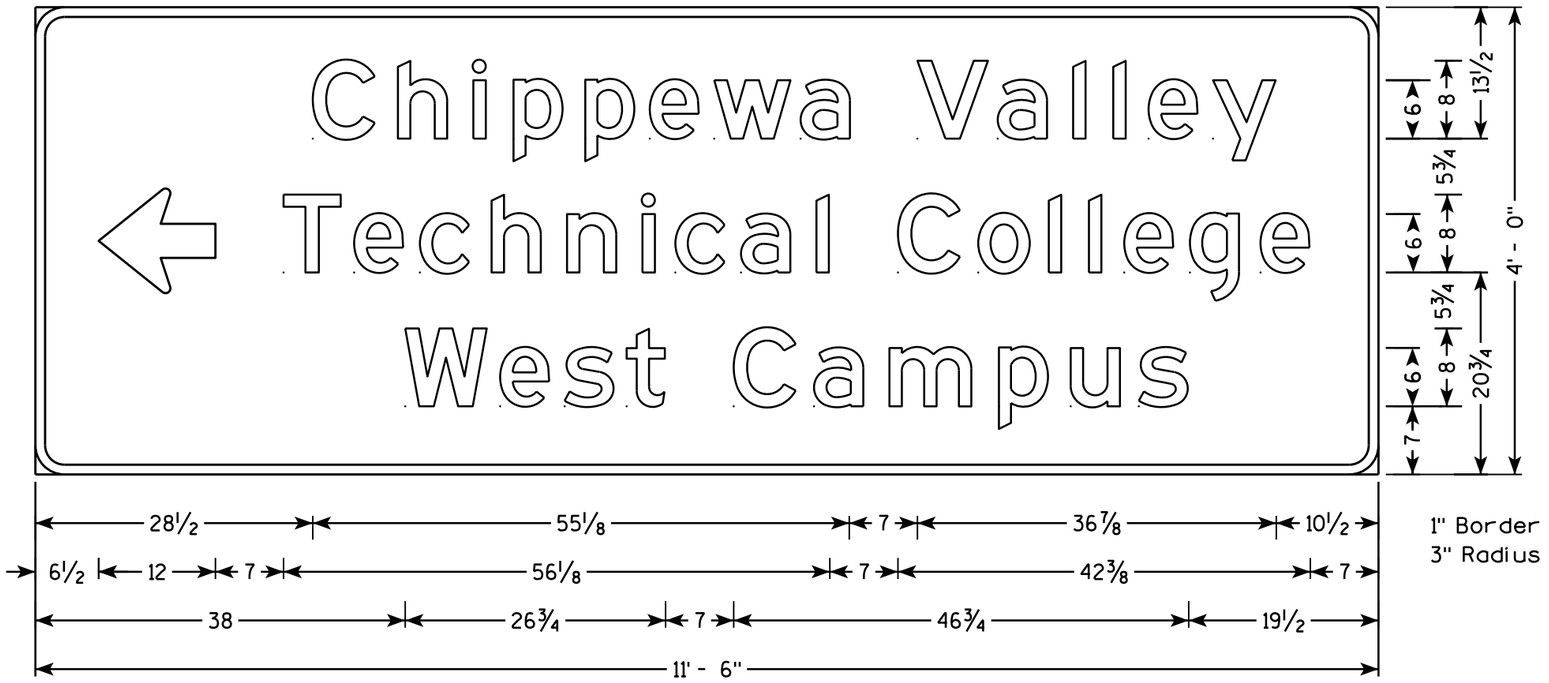
1. All Signs Type II - Type H Reflective
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - E

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO:	E

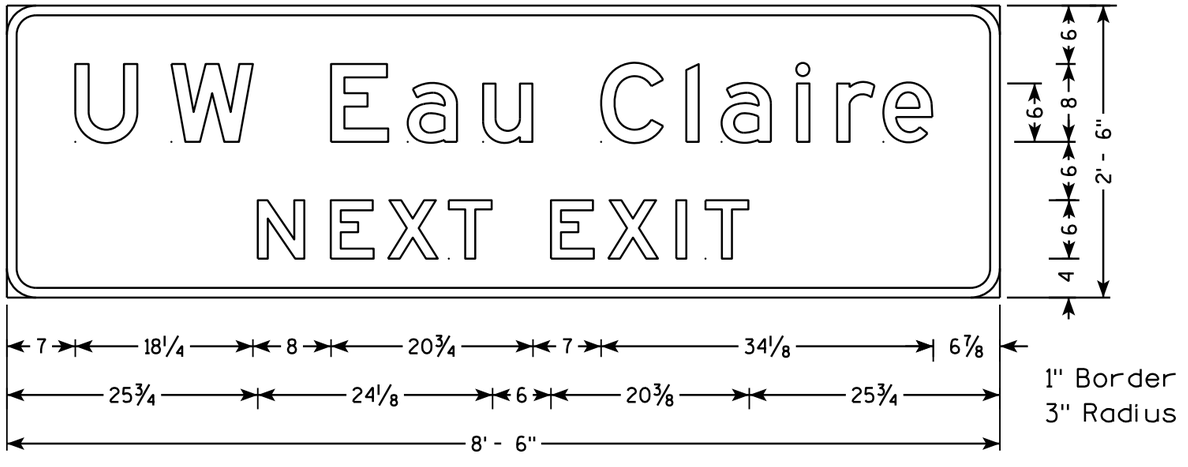
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NOTES

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



D1-3



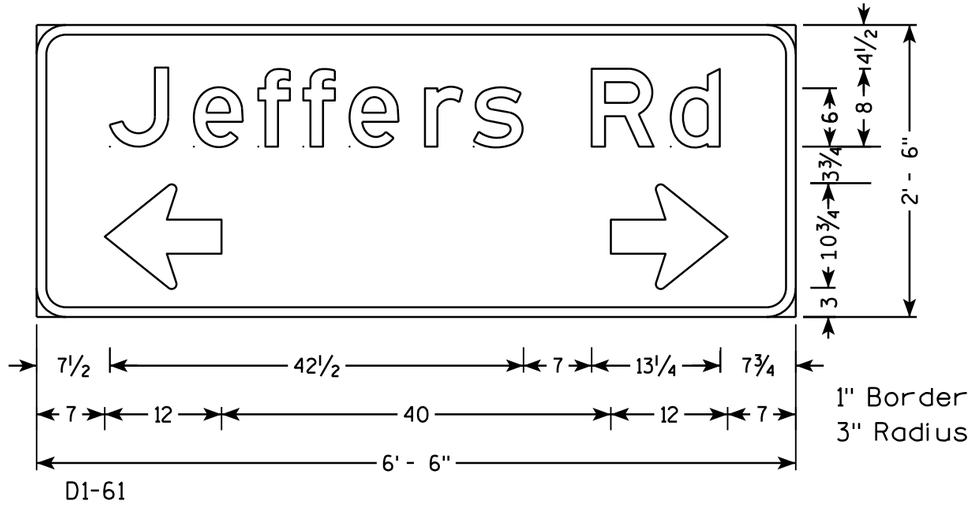
D1-65 (MOD)

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO:	E

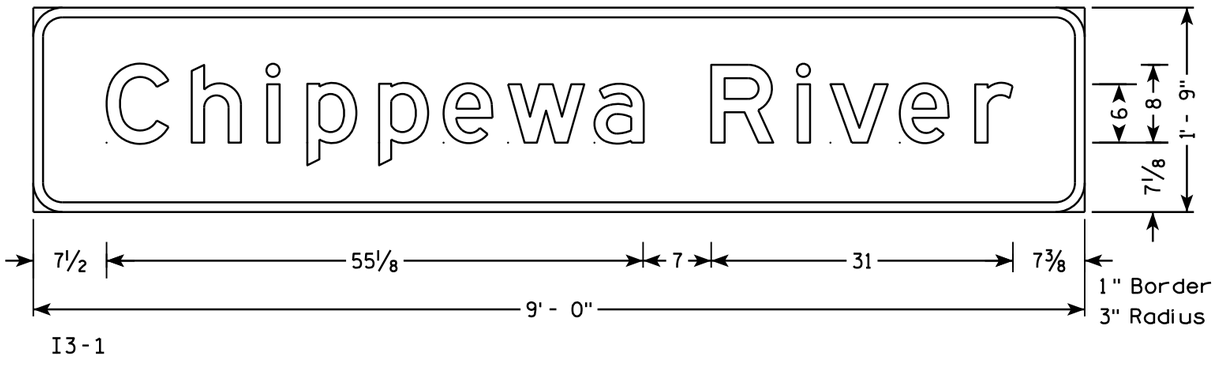
FILE NAME : C:\CAEFiles\Projects\tr_d6\6182A115.dgn PLOT DATE : 04-FEB-2015 12:24 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 15.566735:1.000000 WISDOT/CADDS SHEET 42

NOTES

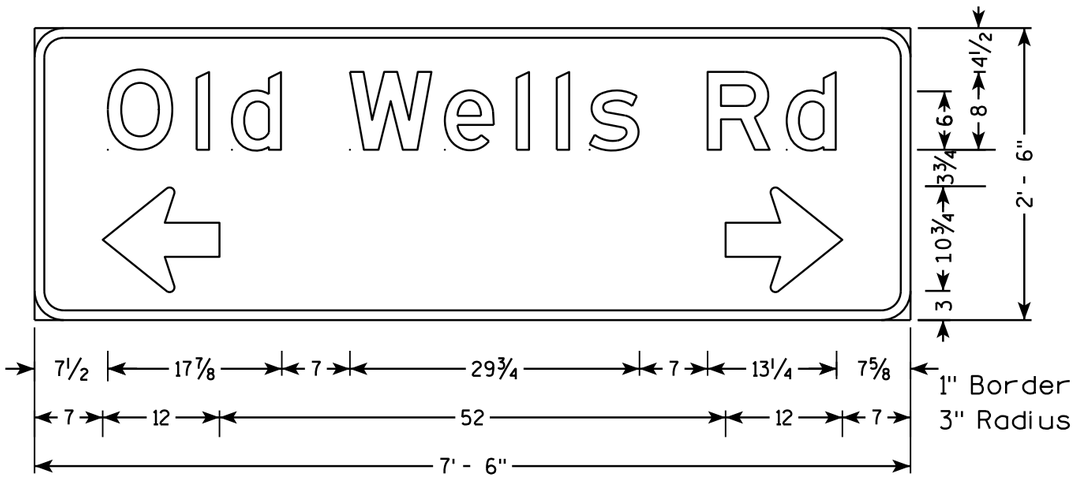
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2. Color:
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   Message - WHITE
3. Message Series - E



D1-61



I3-1



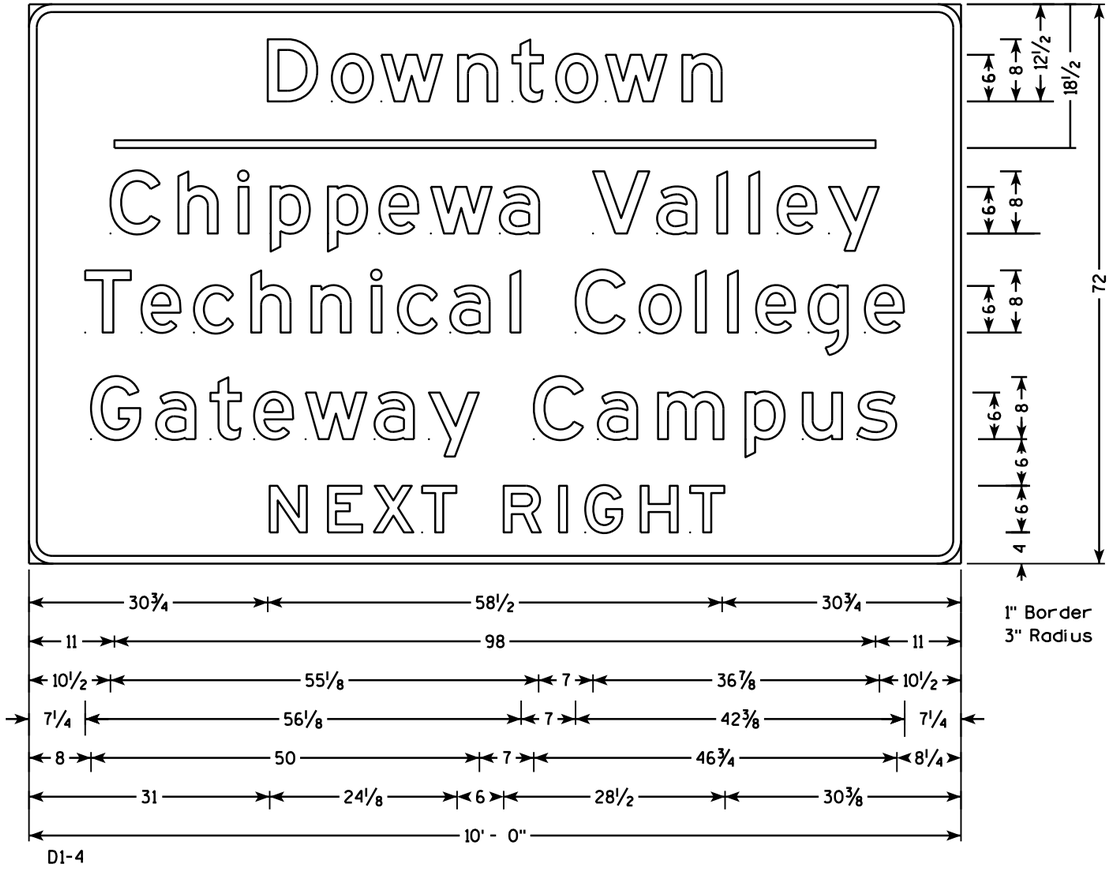
D1-61

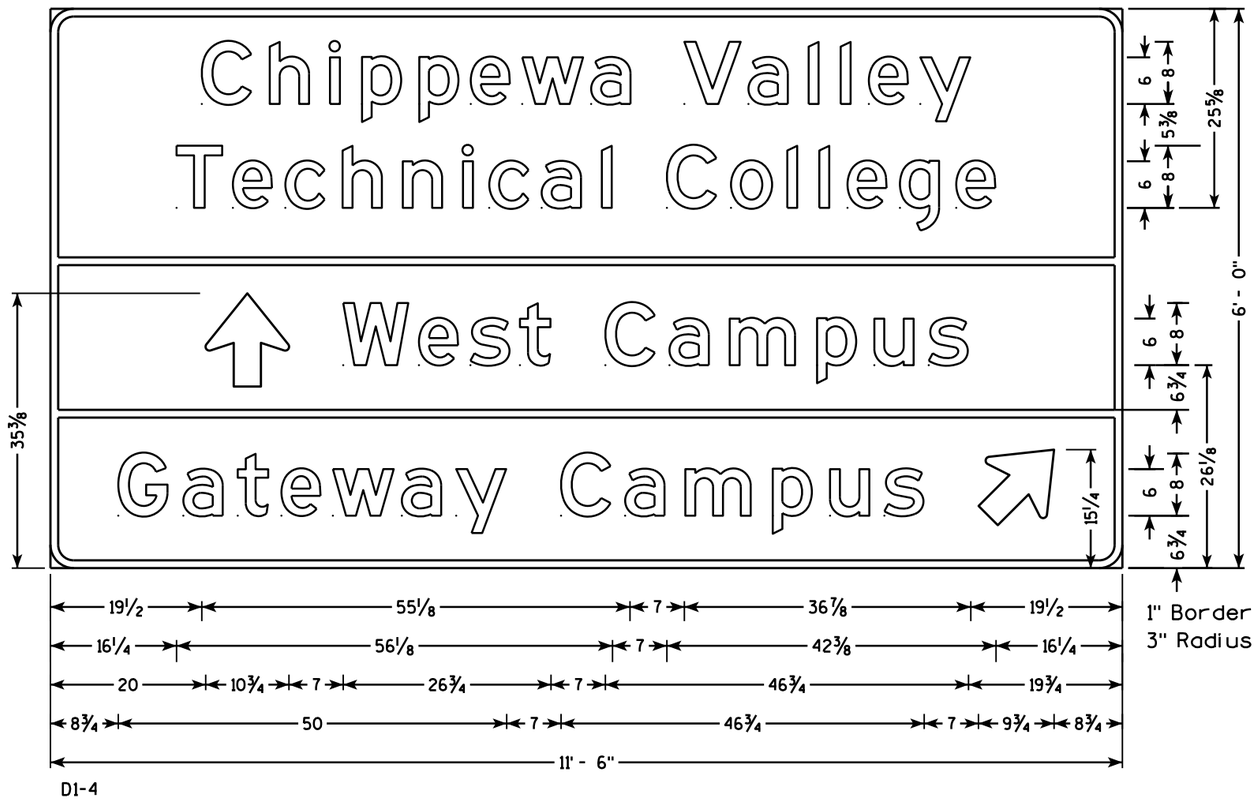
PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_d6\6182A115.DGN PLOT DATE : 11-MAR-2015 08:50 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 15.566735:1.000000 WISDOT/CADDS SHEET 42

NOTES

1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E





7

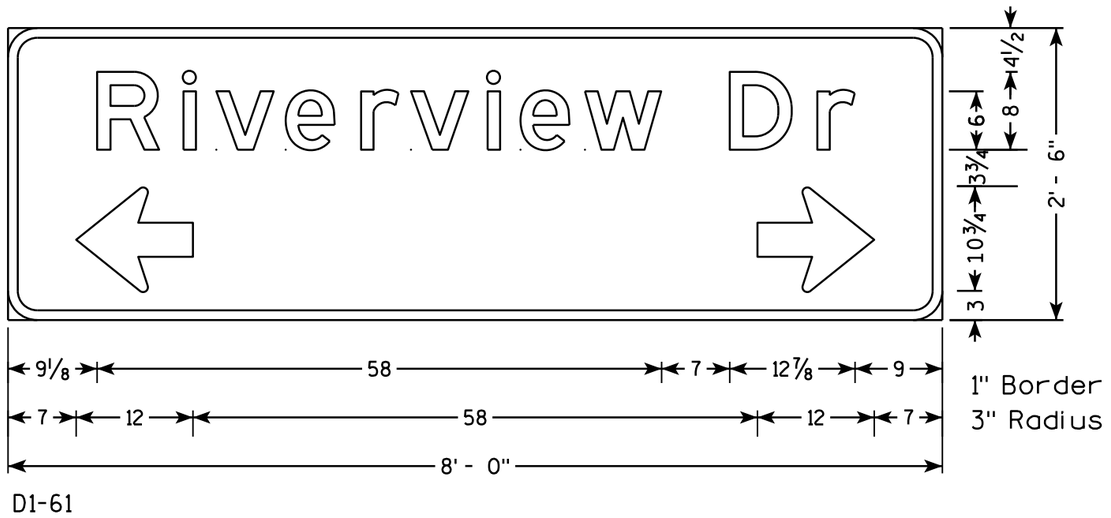
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PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO: E

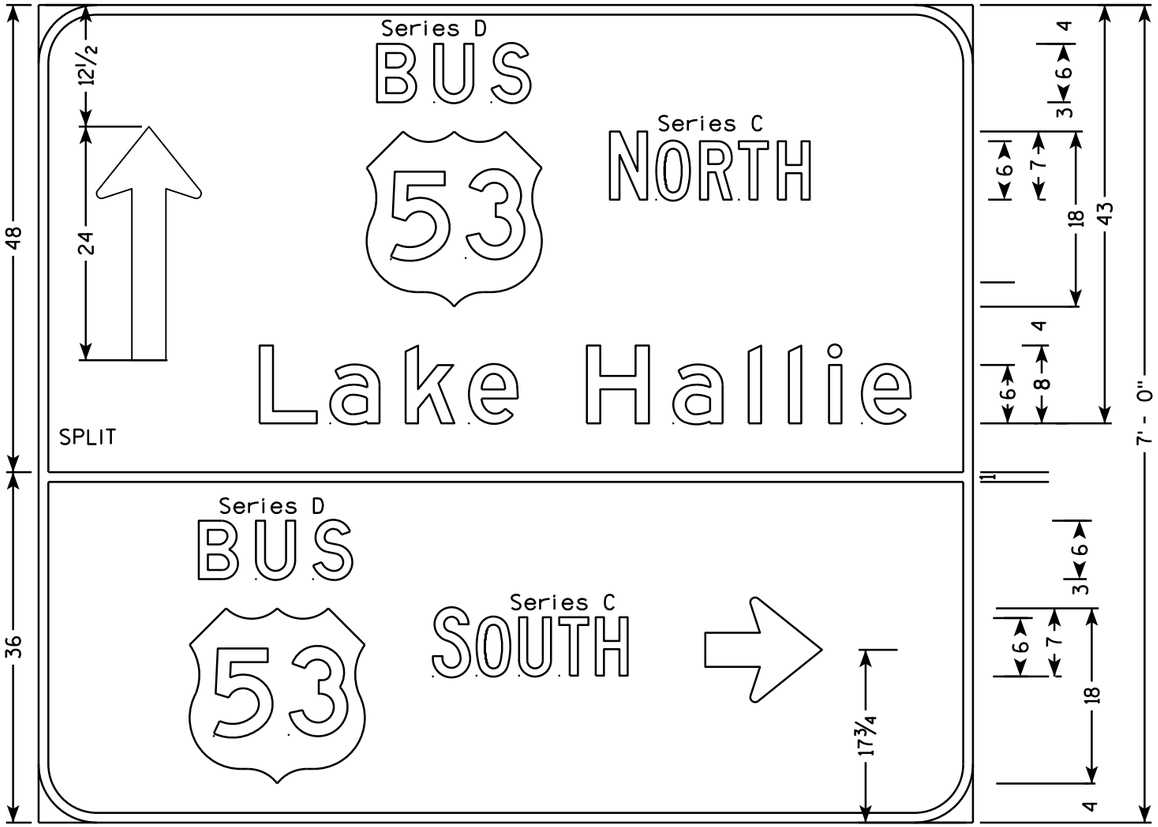
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WISDOT/CADDS SHEET 42

NOTES

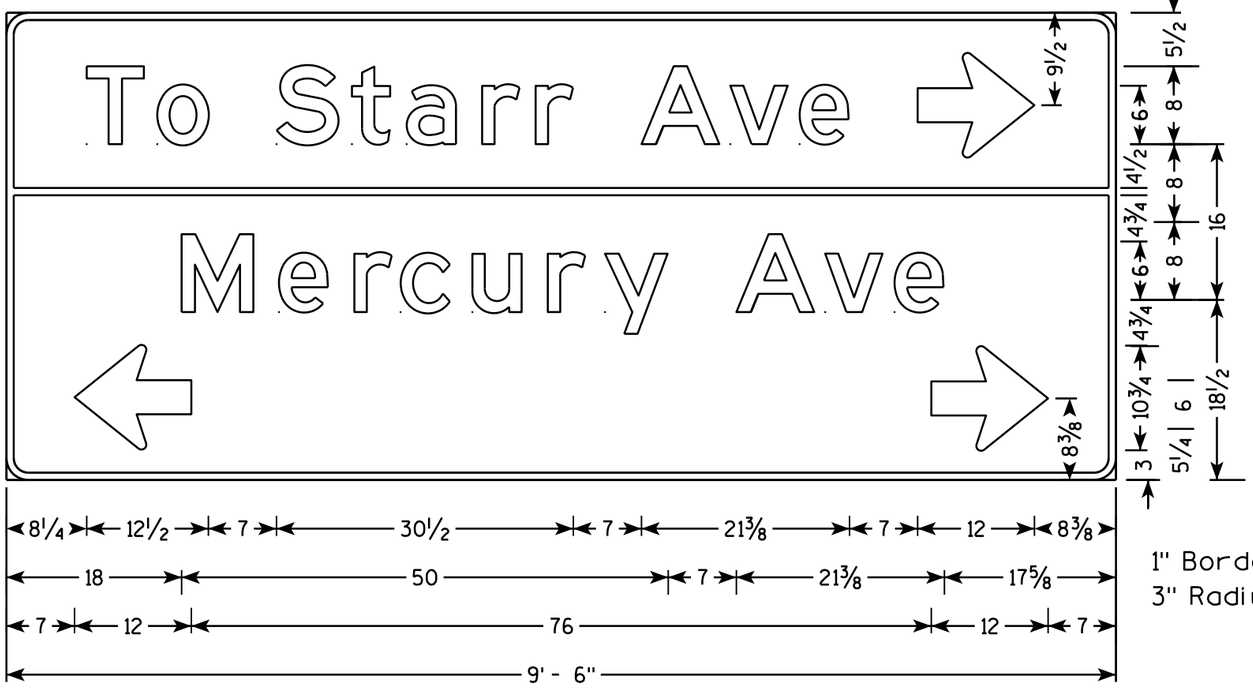
1. All Signs Type II - Type H Reflective
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - E except as Shown



D1-61



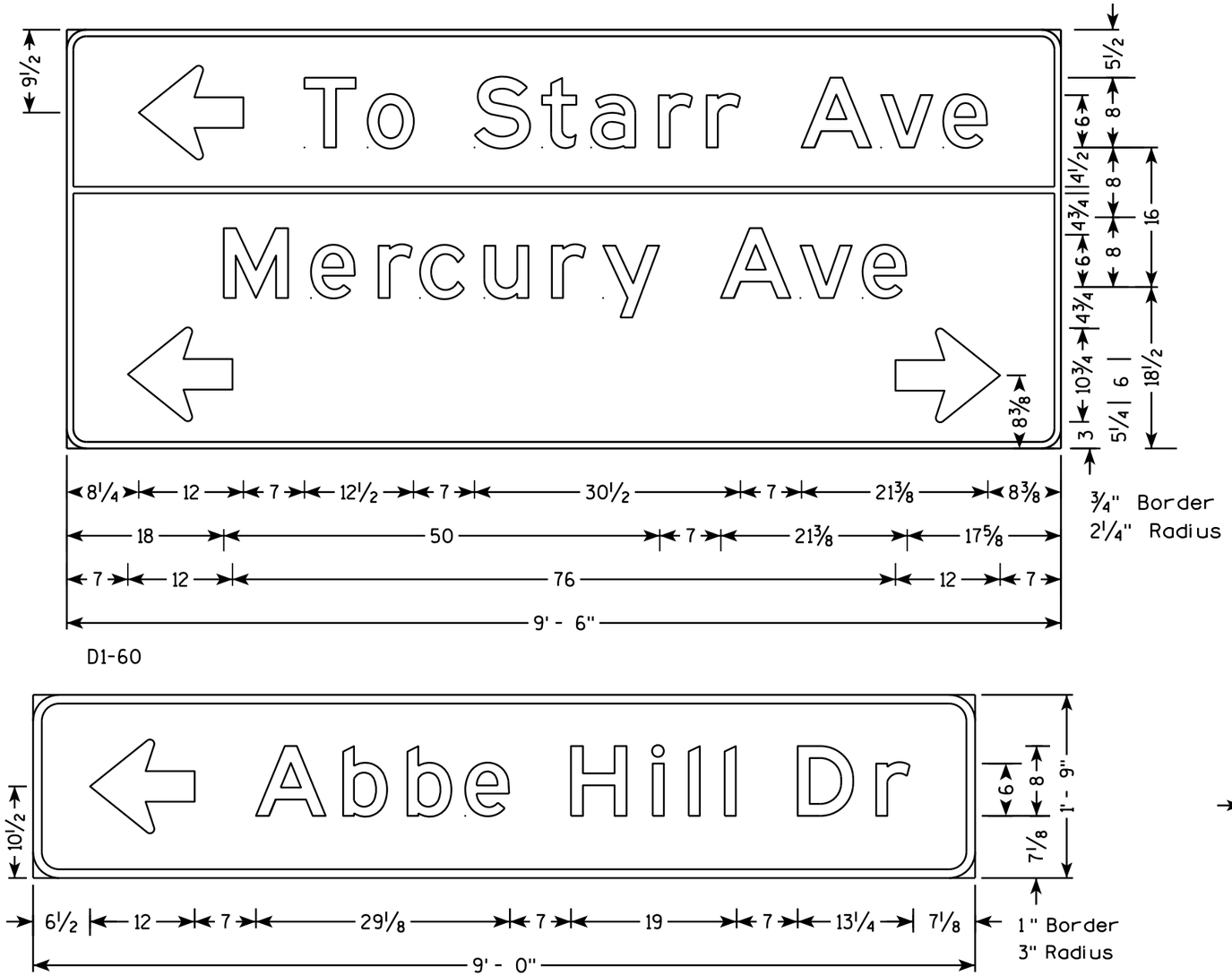
D1-71 SIZE 2



D1-60

NOTES

1. All Signs Type II - Type H Reflective
2. Color:
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   Message - WHITE
3. Message Series - E

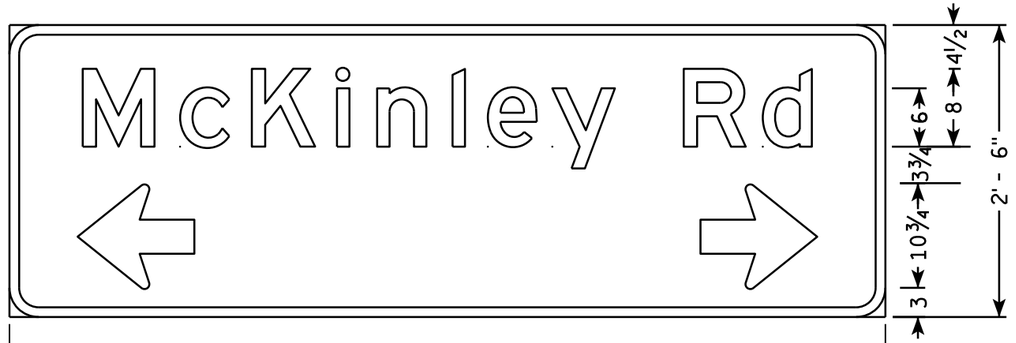


¾" Border
2¼" Radius

D1-60

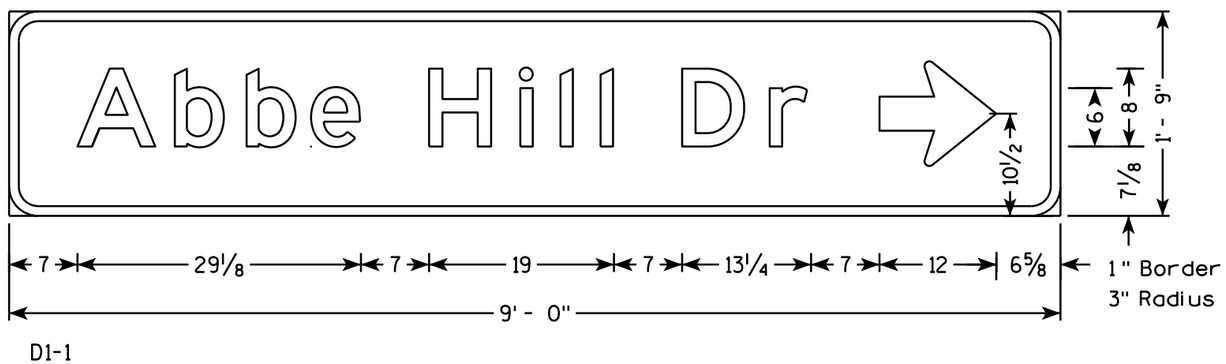
1" Border
3" Radius

D1-1



1" Border
3" Radius

D1-61



1" Border
3" Radius

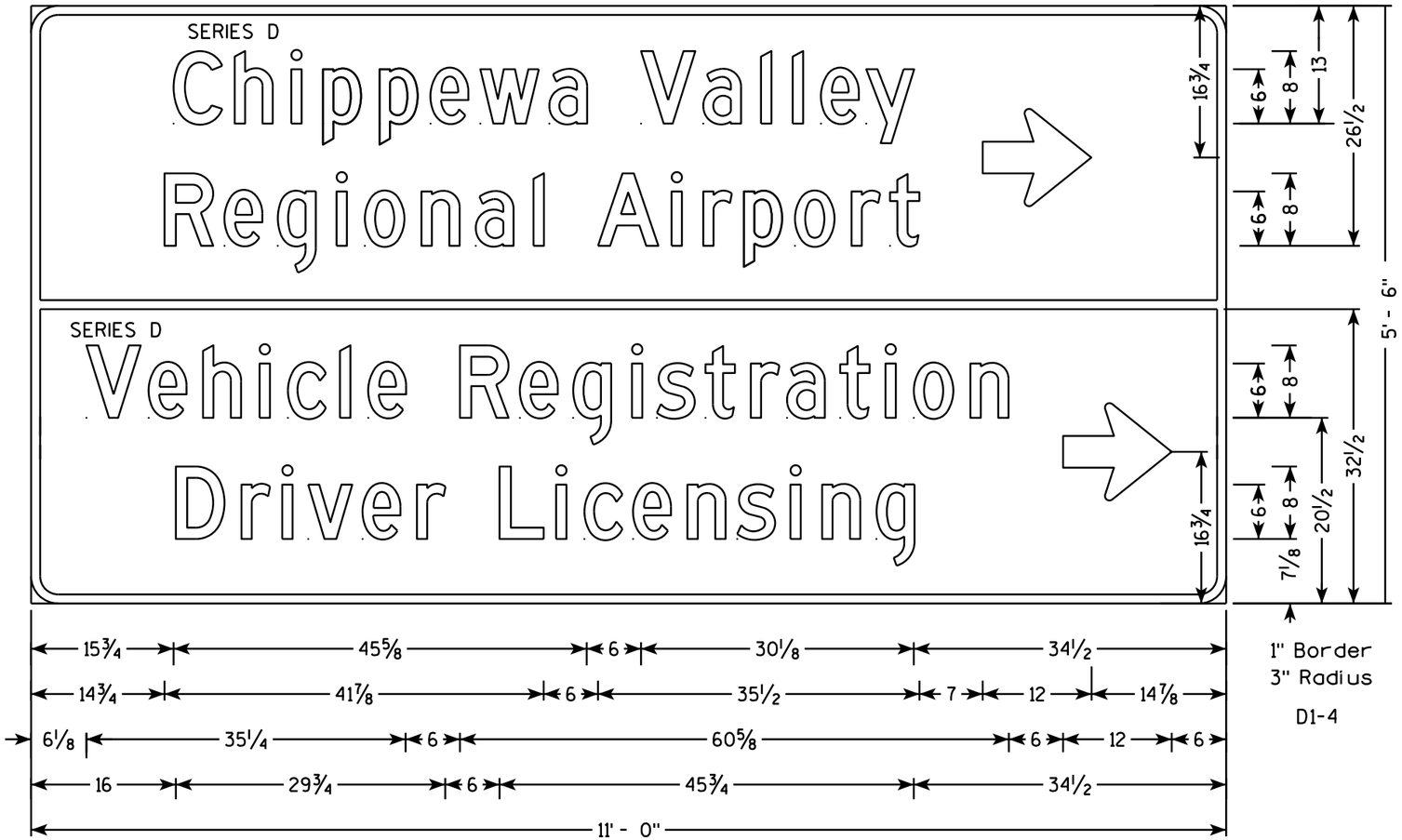
D1-1

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_d6\6182A115.dgn PLOT DATE : 04-FEB-2015 12:45 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 15.566735:1.000000

NOTES

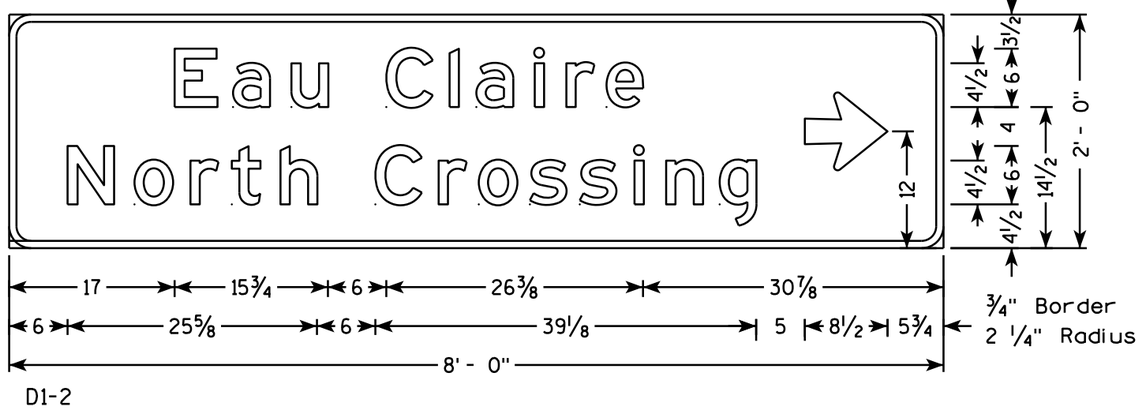
1. All Signs Type II - Type H Reflective
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - E except as Shown



1" Border
3" Radius

D1-4

D1-4



¾" Border
2 ¼" Radius

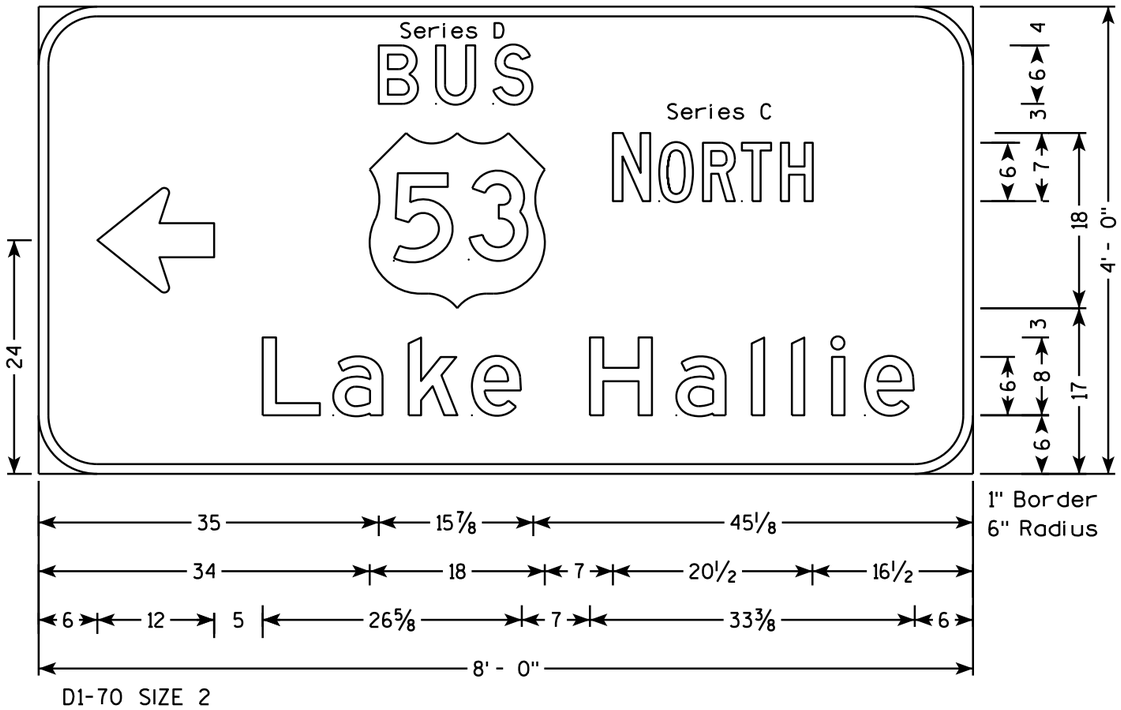
D1-2

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO:	E

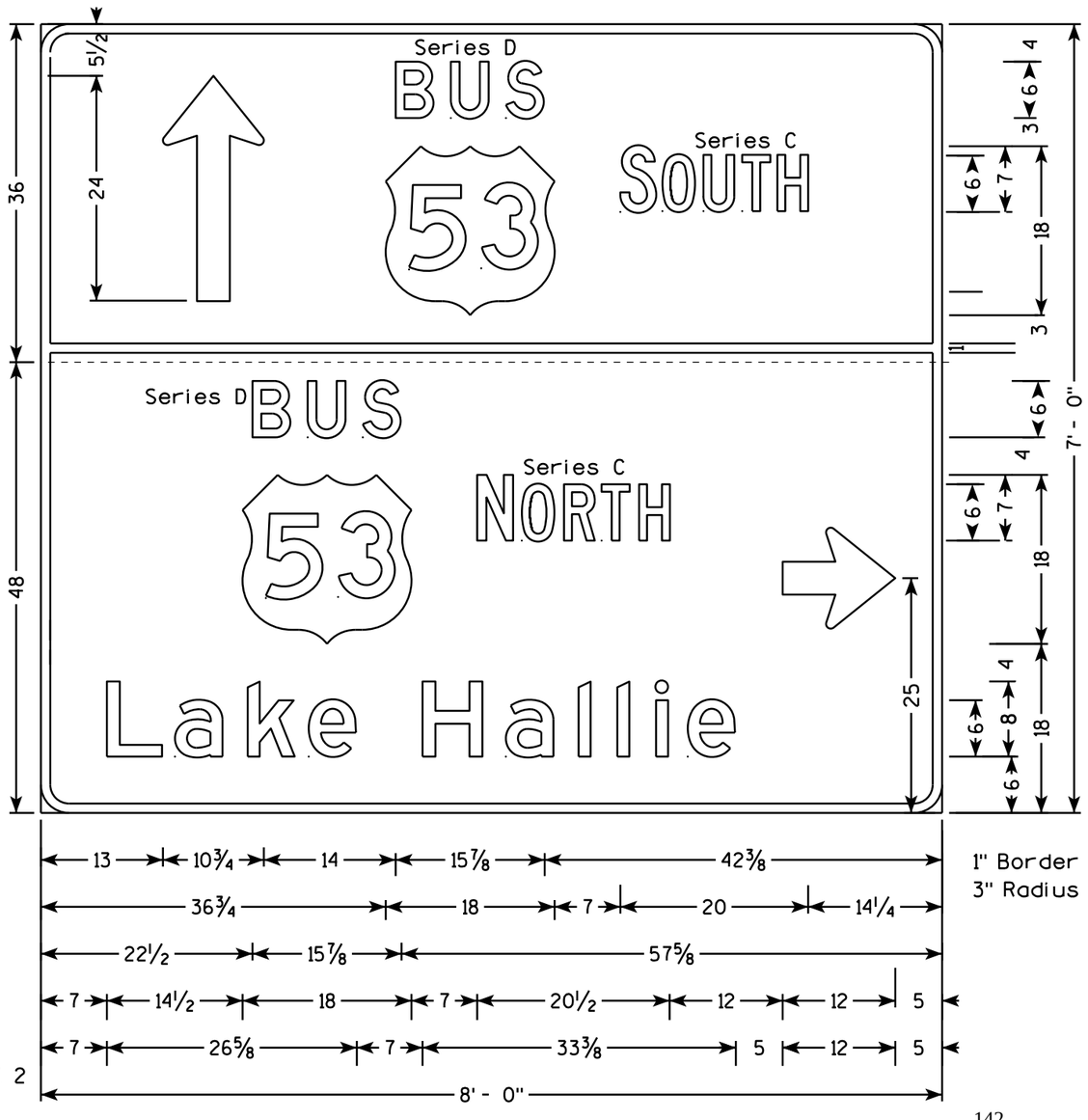
FILE NAME : C:\CAEFiles\Projects\tr_d6\6182A115.dgn PLOT DATE : 04-FEB-2015 12:47 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 15.566735:1.000000
WISDOT/CADDS SHEET 42

NOTES

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



D1-70 SIZE 2



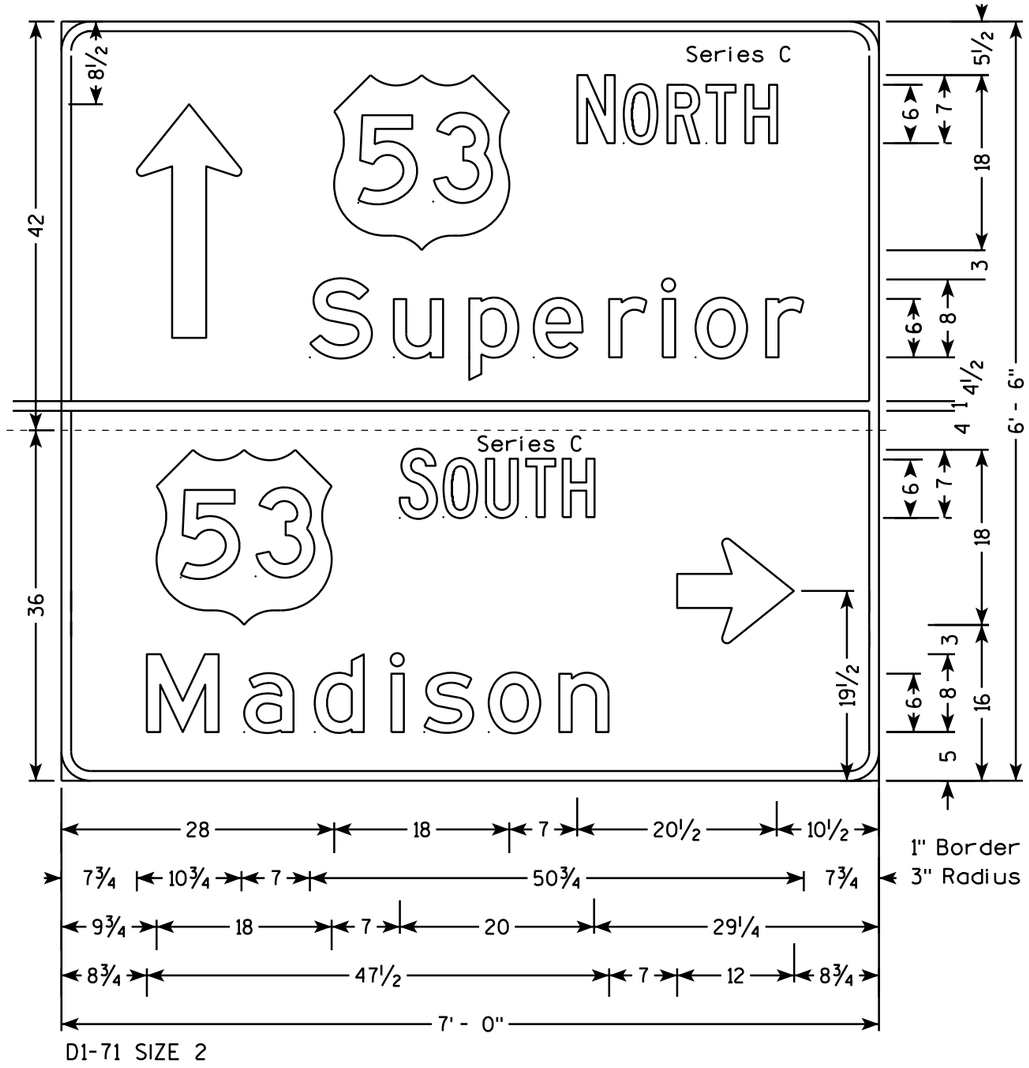
D1-71 SIZE 2

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO:	E

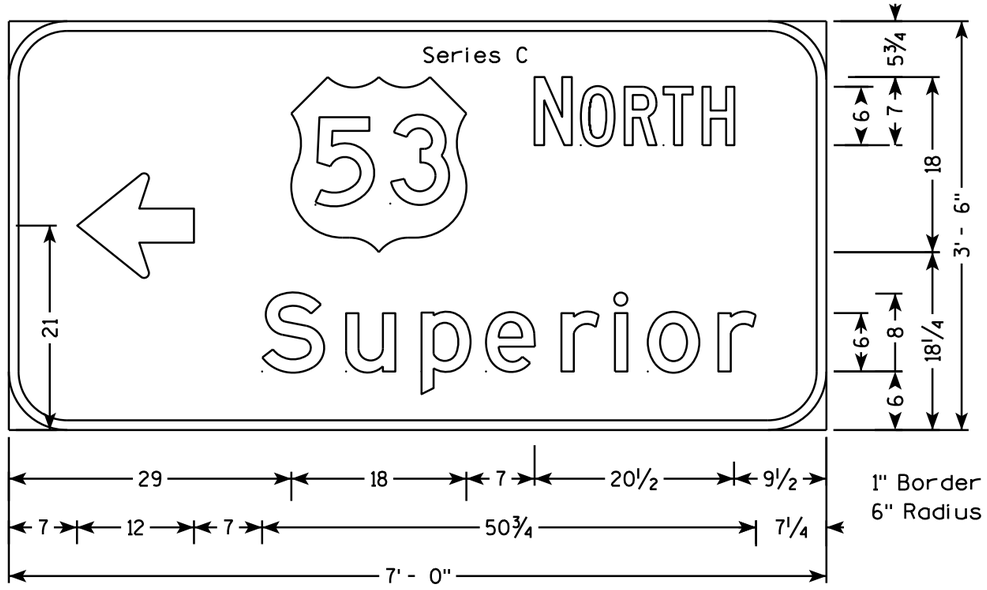
FILE NAME : C:\CAEFiles\Projects\tr_d6\6182A115.dgn PLOT DATE : 04-FEB-2015 12:49 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 15.566735:1.000000 WISDOT/CADDS SHEET 42

NOTES

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



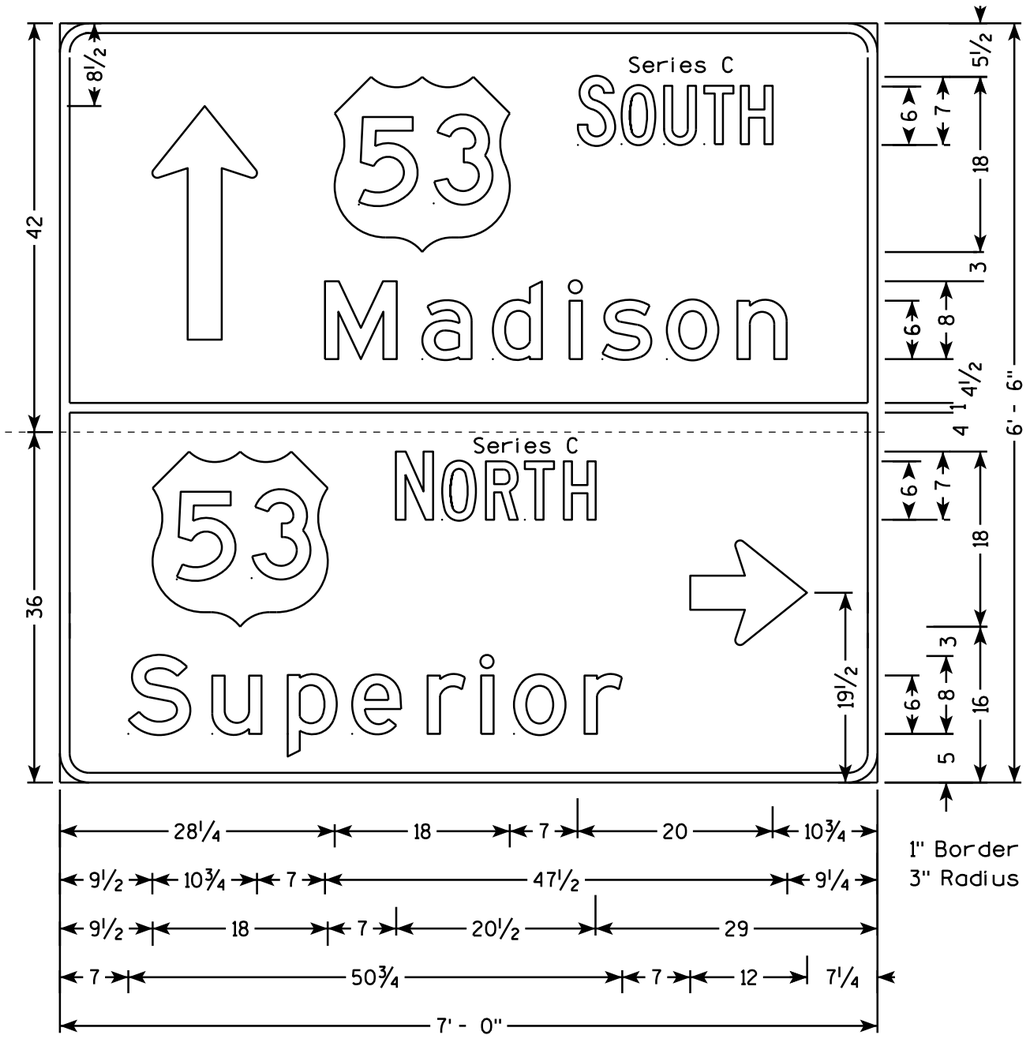
D1-71 SIZE 2



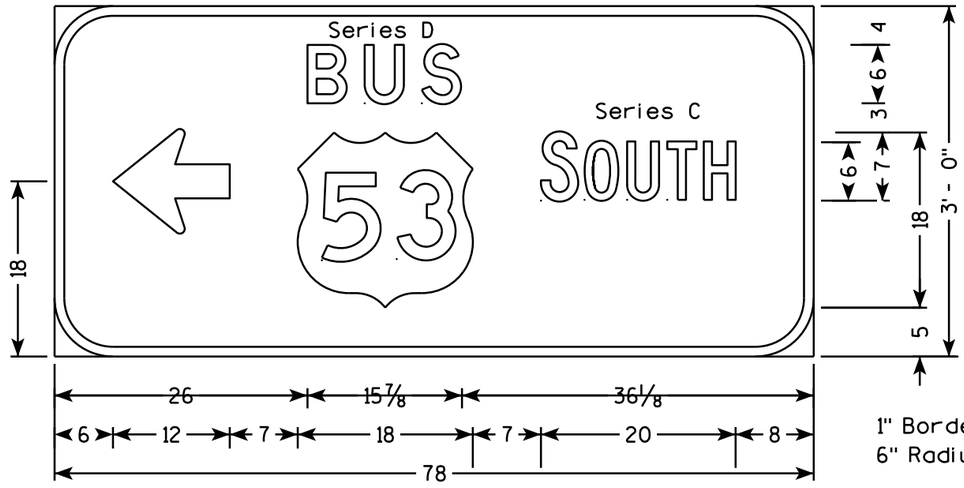
D1-70 SIZE 2

NOTES

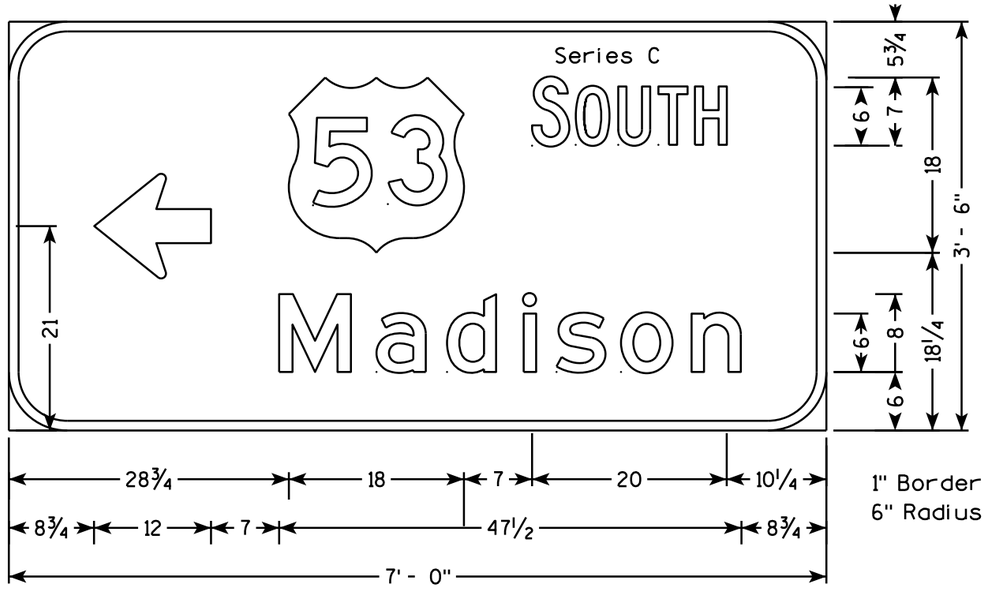
1. All Signs Type II - Type H Reflective
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - E except as Shown



D1-71 SIZE 2



D1-70 SIZE 2



D1-70 SIZE 2

7

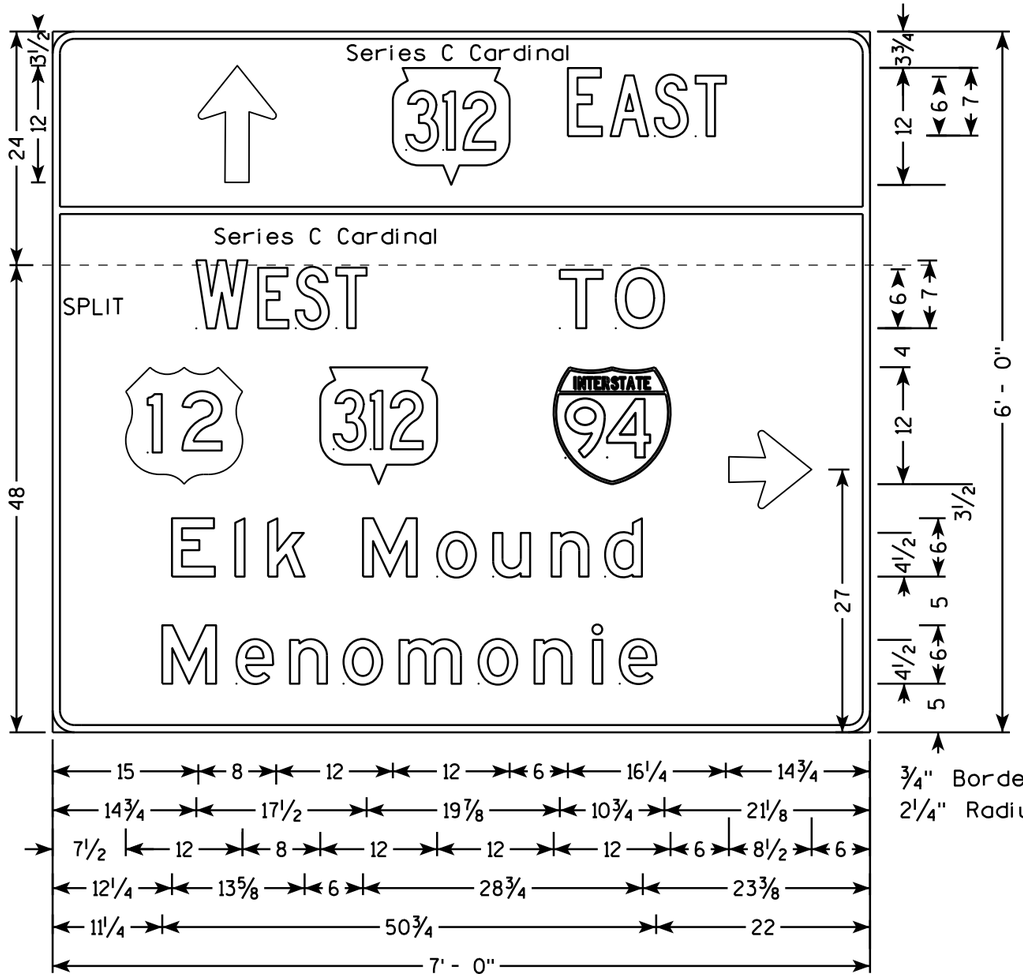
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PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO:	E

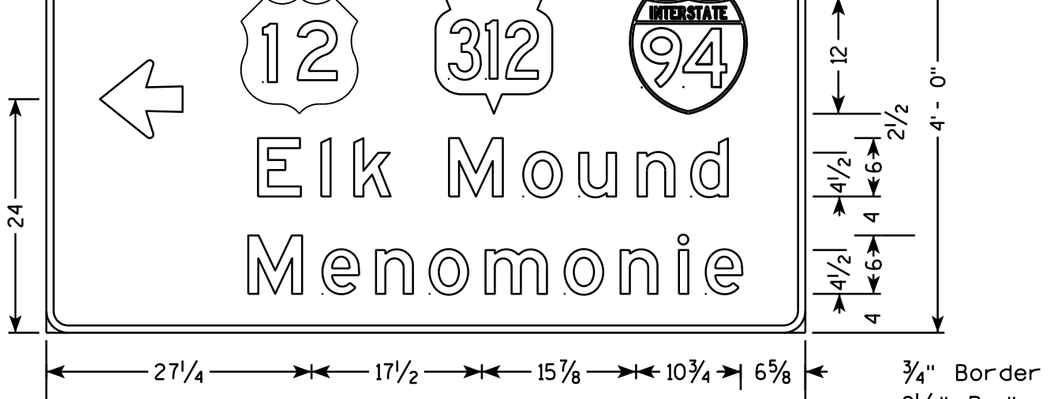
FILE NAME : C:\CAEFiles\Projects\tr_d6\6182A115.DGN PLOT DATE : 26-FEB-2015 15:26 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 15.566735:1.000000
WISDOT/CADDS SHEET 42

NOTES

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



D1-71



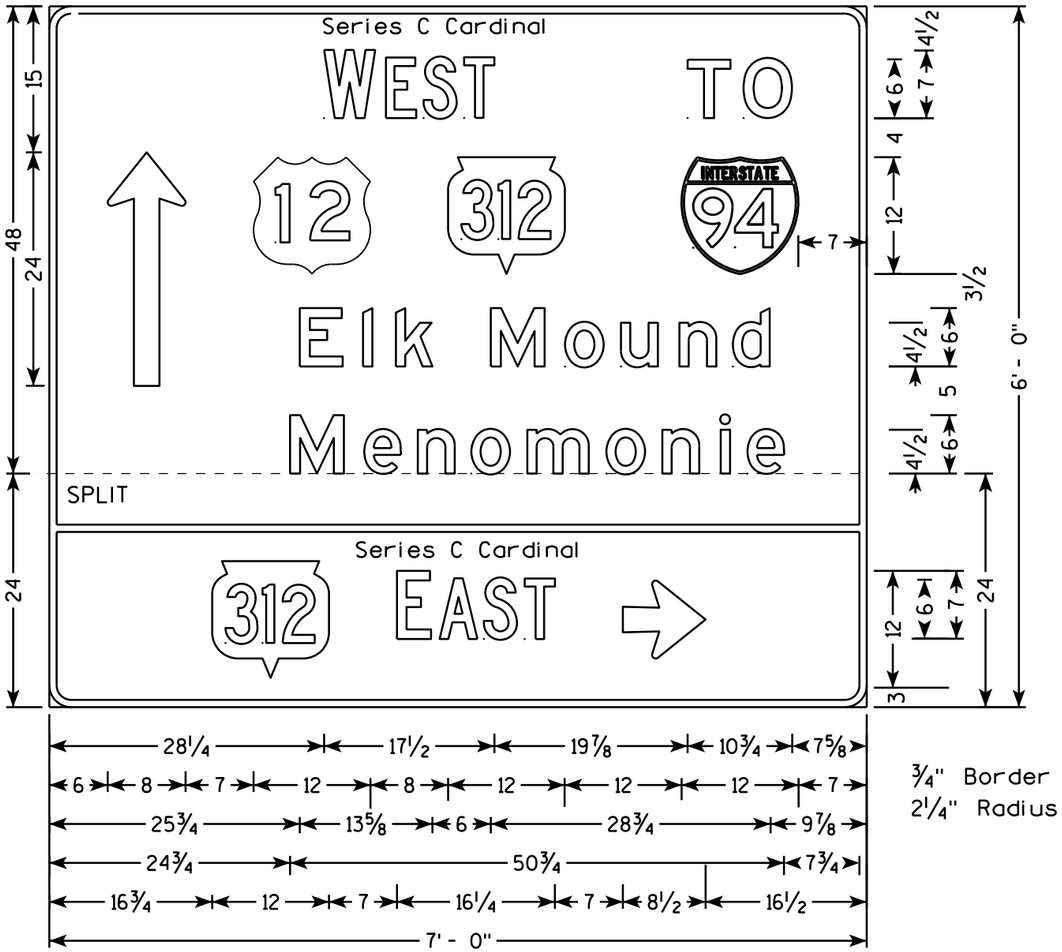
D1-70

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO: E

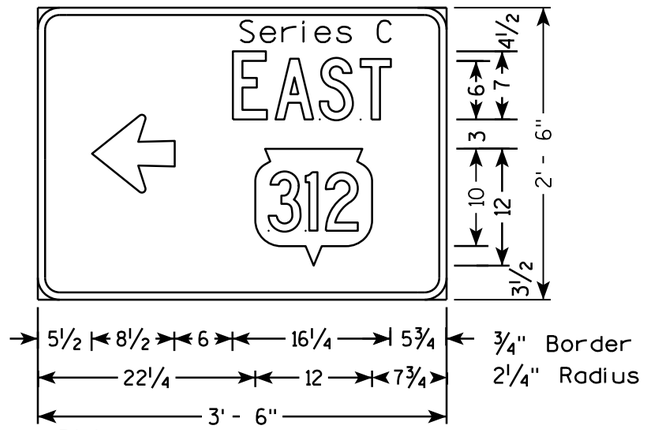
FILE NAME : C:\CAEFiles\Projects\tr_d6\6182A115.DGN PLOT DATE : 30-JUL-2015 10:54 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 15.566735:1.000000 WISDOT/CADDS SHEET 42

NOTES

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



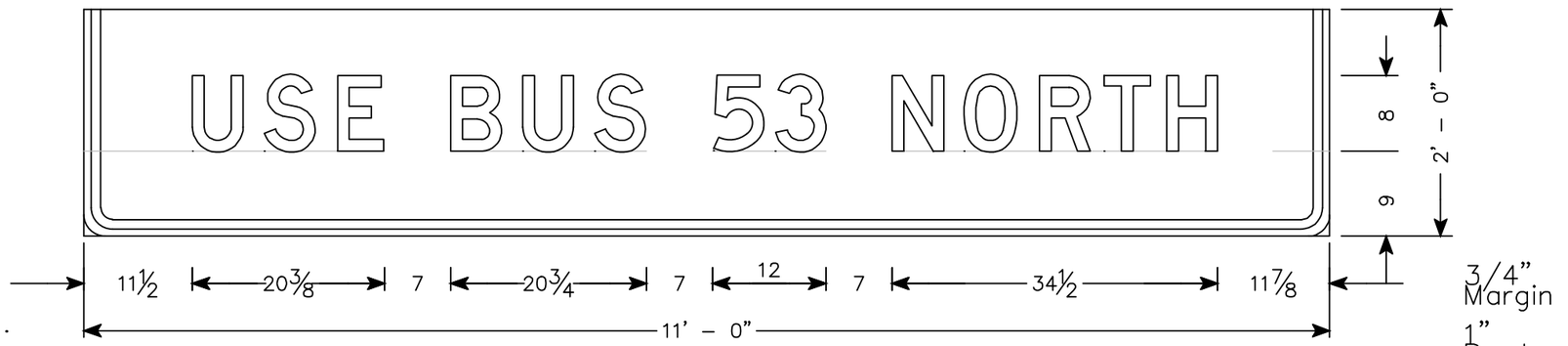
D1-71

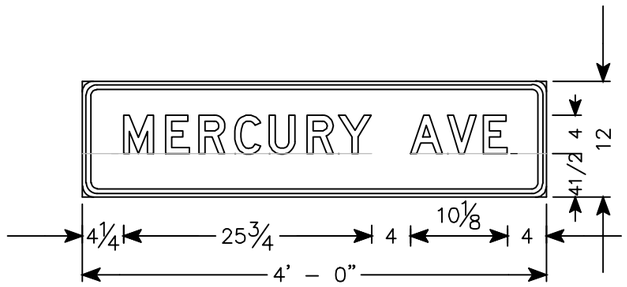


D1-1

NOTES

1. All Signs Type II – Type F Reflective
2. Color:
   Background – ORANGE
   Message – BLACK
3. Message Series – D





7

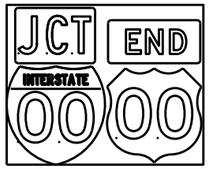
7

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	TEMPORARY SIGNING	SCALE: 0 ½" 1"	SHEET 147	E

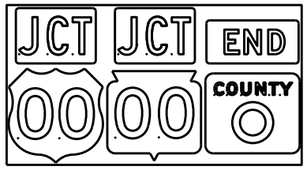
TYPICAL ASSEMBLIES



J1-1



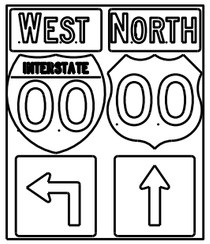
J1-2



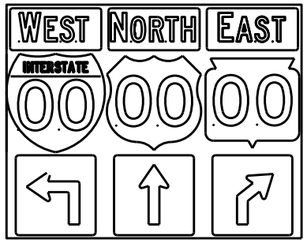
J1-3



J2-1



J2-2

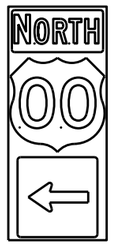


J2-3

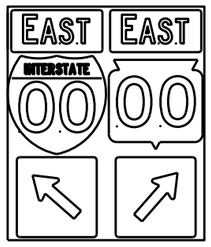


JV

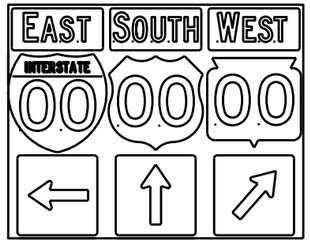
(Typical Vertical J-Assembly
See Note 10 and 11)



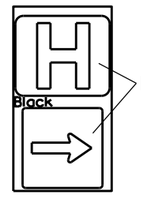
J3-1



J3-2



J3-3

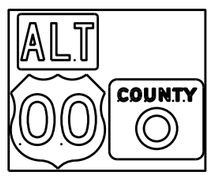


Blue Background

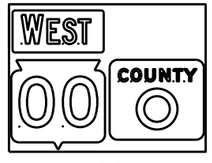
JH-1



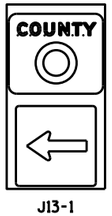
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

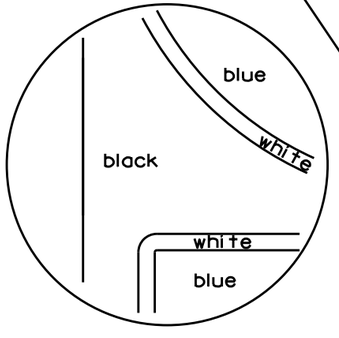


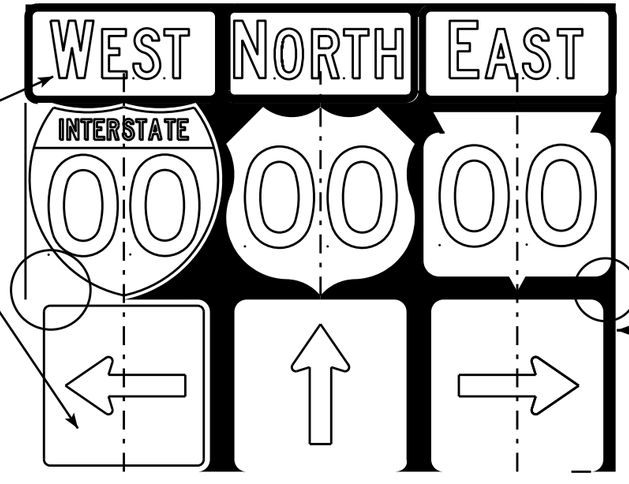
J23-1

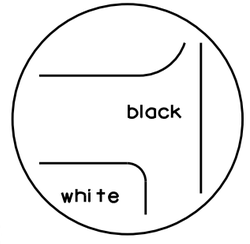


J22-1

[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

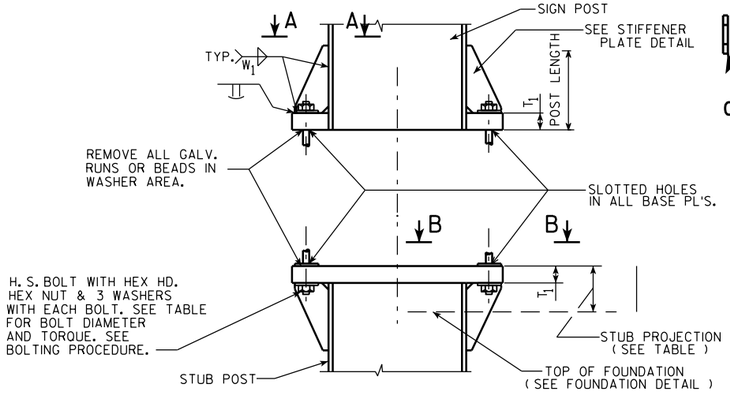
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

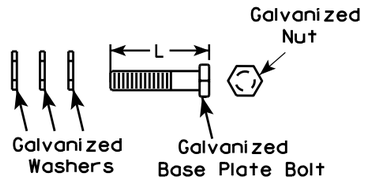
DATE 2/06/14 PL... A2-1S.8

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

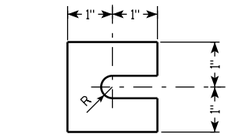


SIGN POST AND STUB POST ELEVATION



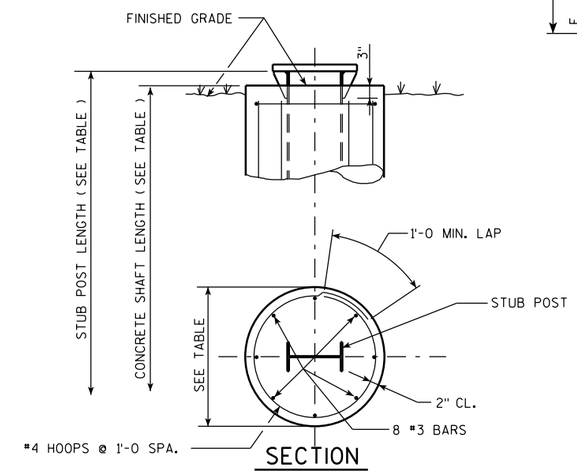
STIFFENER PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)

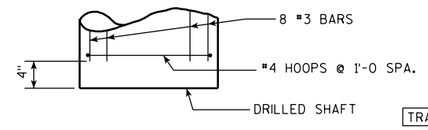


FURNISH 2 @ .012" ± THICK AND 2 @ .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M.- B36.

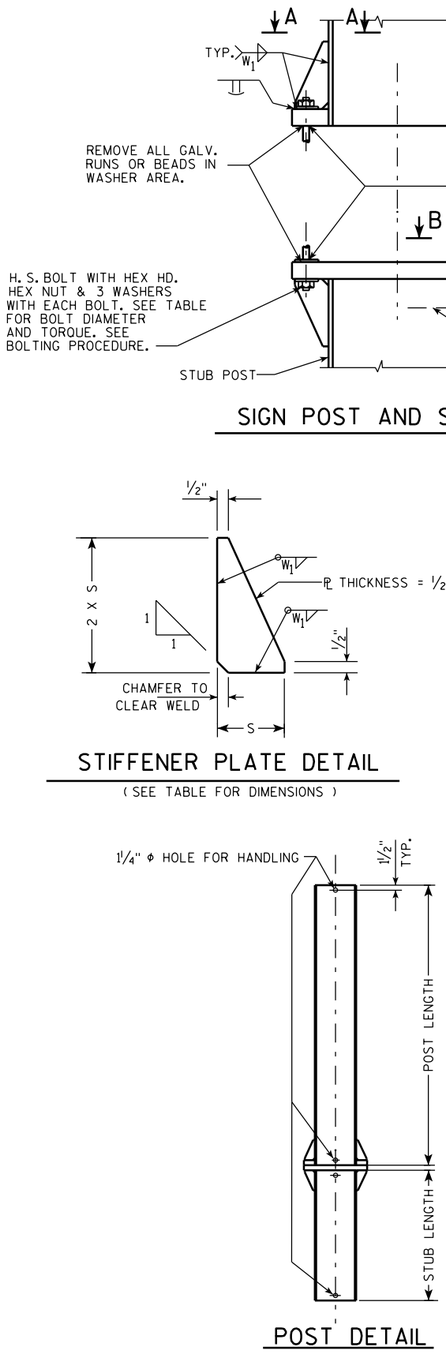
SHIM DETAIL



SECTION



FOUNDATION DETAIL



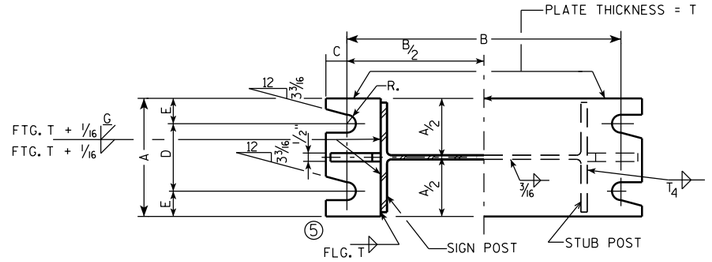
POST DETAIL

QUANTITIES FOR 1 FOOTING		
	CONC. MASONRY C.Y.	REINF. STEEL LBS.
A	0.6	34
B	0.8	49
C	0.9	50
D	0.9	56
E	1.0	62

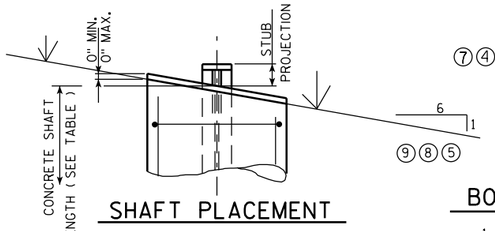
⑦

REINF.	TYPE	#3	#4
	A	8 @ 4'-5	5 @ 6'-3
	B	8 @ 6'-5	7 @ 6'-3
	C	8 @ 6'-11	7 @ 6'-3
	D	8 @ 7'-5	8 @ 6'-3
	E	8 @ 7'-11	9 @ 6'-3

⑦



SECTION A-A SECTION B-B



SHAFT PLACEMENT

DESIGN DATA

WIND PRESSURE = 75 M.P.H.
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0
ICE LOAD = 3 P.S.F.

GROUP LOADS	PERCENT OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD & WIND	140
3. DEAD, ICE & ½ WIND[4]	140 [4]25 P.S.F. MIN.

ALLOWABLE SOIL PRESSURE = 1½T / SQ. FT.
WIND LOAD WAS APPLIED TO THE AREA OF THE SIGN AND TO THE SUPPORTING MEMBERS.
ICE LOAD WAS APPLIED TO ONE FACE OF THE SIGN AND AROUND THE SURFACE OF THE SUPPORTING MEMBERS.

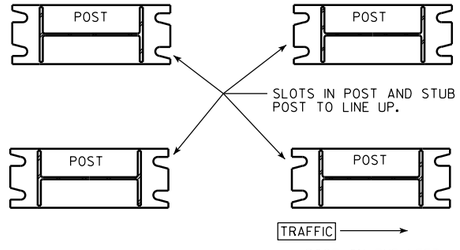
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DESIGN CONFORMS WITH A.A.S.H.T.O. SPECIFICATIONS 1985.
ALL POSTS, POST STUBS & ATTACHMENTS SHALL BE A.S.T.M. A709 GRADE 50.
⑨ THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.
H.S. BOLTS, WASHERS & NUTS SHALL BE A325 GALVANIZED WHEN POSTS, POST STUBS AND ATTACHMENTS ARE A709 GRADE 50 AND GALVANIZED.

BOLTING PROCEDURE - BASE CONNECTION

1. ASSEMBLE SIGN POST TO STUB POST WITH BOLTS AND ONE OF THE FLAT WASHERS ON EACH BOLT BETW. PLATES.
2. SHIM AS REQ'D. TO PLUMB POST.
3. PRIOR TO BOLT TIGHTENING LUBRICATE BASE CONNECTION BOLTS WITH BEESWAX OR OTHER HIGH-WAX LUBRICANT.
4. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)
5. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE:
TIGHTEN THE HIGH STRENGTH BOLTS TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.



POST SLOT ORIENTATION ⑦

L	X	TYPE	DIMENSION / POST SIZE	BASE CONNECTION DATA TABLE: BOLT SIZE & TORQUE	A	B	C	D	E	T_1	T_4	W_1	R	S	FOUNDATION DATA: STUB LENGTH	STUB PROJECTION	SHAFT DIAMETER	SHAFT LENGTH	② K
3 ¾	④	A	W10"X12.0 #/FT.	¾" Φ @ 75#-FT.	5¼"	1'-0⅜	⅞"	3½"	⅞"	1"	3/16"	5/16"	13/32"	2⅛"	3'-6	3"	2'-0 Φ	5'-0	76.0# ④
4 ¾	④	B	W12"X16.0 #/FT.	⅞" Φ @ 85#-FT.	5½"	1'-4¼	1"	3½"	1"	1¼"	¼"	5/16"	15/32"	3"	5'-6	3"	2'-0 Φ	7'-0	146.5# ④
5		C	W12"X19.0 #/FT.	⅞" Φ @ 85#-FT.	5½"	1'-4¼	1"	3½"	1"	1½"	5/16"	5/16"	15/32"	3"	6'-0	3"	2'-0 Φ	7'-6	182.1#
5		D	W12"X22.0 #/FT.	⅞" Φ @ 85#-FT.	5½"	1'-4¼	1"	3½"	1"	1½"	⅜"	5/16"	15/32"	3"	6'-6	3"	2'-0 Φ	8'-0	210.5#
5	③	E	W12"X26.0 #/FT.	1" Φ @ 90#-FT.	7"	1'-4¼	1¼"	4"	1½"	1½"	⅜"	5/16"	11/32"	3"	7'-0	3"	2'-0 Φ	8'-6	293.0# ③

① ⑥ ①

STRUCTURAL CARBON STEEL PAY WTS. (1 POST) = K+ (POST LENGTH X POST WT.)
" K " INCLUDES STUB, BASE PLATES, STIFFS., BOLTS, AND WASHERS.

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/30/14 PLATE NO. A3-1.15

⑩	1-21-14	LUBRICATION OF BASE BOLTS
⑨	4-26-11	REMOVE NON-GALVANIZED
⑧	10-30-96	NOT GALVANIZED/GALVANIZED
⑦	10-30-92	QUANT., A588 EXCEPT., ADD SLOT VIEW
⑥	8-24-87	BASE CONN. WELD
⑤	10-13-81	BASE CONN. WELD & FUSE PL WASHERS
④	10-19-79	POST A & B, A572 GR. 50, & K
②	11-28-78	"K" ③ 4-23-79 TYPE "E"
①	5-4-78	T_1 , T_2 & W_1
NO.	DATE	REVISION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

TYPE A, B, C, D, & E

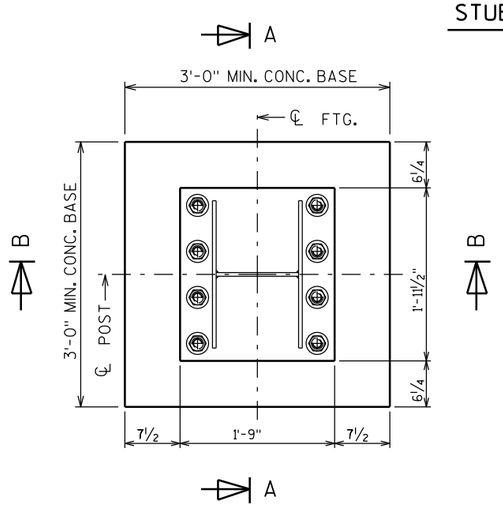
CONST. SPEC. 2011	DRAWN BY JPH	PLANS CK'D.

FTG. & SIGN SUPPORT DETAILS GROUND MOUNT BREAK-AWAY SIGNS

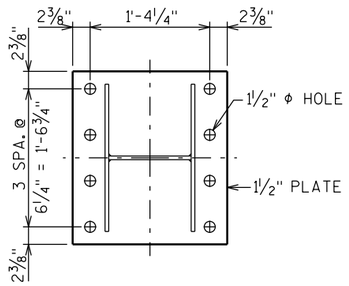
SHEET 149

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

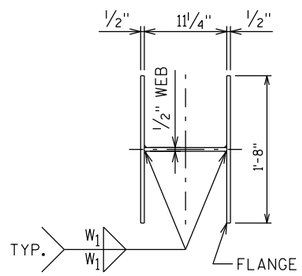
STUB AND MASONRY ANCHOR DETAILS



STUB SECTION



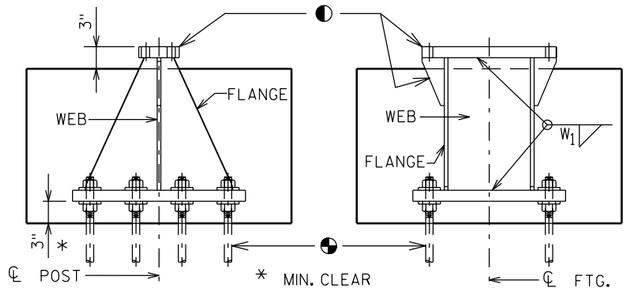
BASE PLATE



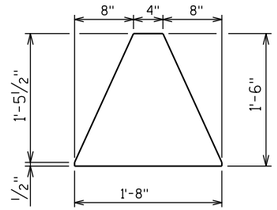
STUB

◐ SEE PLATE NO. A3-1 FOR DETAILS

◒ MASONRY ANCHORS TYPE S 1¼-INCHES (ADHESIVE). ALLOWABLE PULL OUT CAPACITY 14,995 KIPS. EMBED 1'-3" IN ROCK.



SECTION A SECTION B



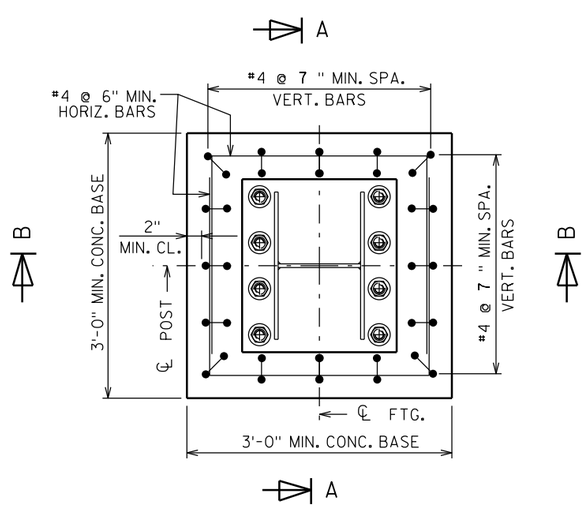
FLANGE

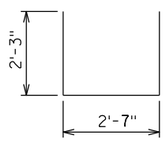
GENERAL NOTES

1. Quantities per Base:
   - REINFORCING BAR STEEL = 62 LBS
   - CONCRETE = 0.6 C.Y.
   - STEEL WEIGHT = 335 LBS
2. All materials, except anchor rod, nuts and washers, are to be A.S.T.M. A709 grade 50. All materials to be galvanized after fabrication.
3. If the contractor encounters rock before reaching the footing depth, per the A3-1 Sign Detail, determine the pull-out capacity of a test adhesive anchor installed in the rock. If the test result equals or exceeds the pull-out capacity of 14,995 KIPS, the contractor may install the breakaway stub for rock, according to this detail.

CONCRETE BASE AND REINFORCING STEEL DETAILS

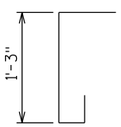
CONCRETE BASE SECTION





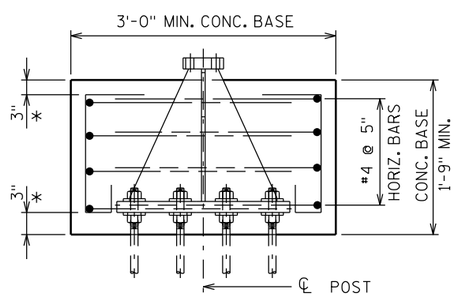
HORIZONTAL BAR

8 BARS @ 6'-11" LENGTH



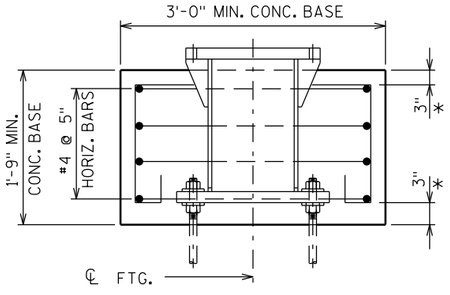
VERTICAL BARS

16 BARS @ 2'-4" LENGTH
MAY BE PLACED IN SKEW
FOR CLEARANCE NEED



SECTION A

* MIN. CLEAR



SECTION B

ALTERNATE BREAK-AWAY BASE ON ROCK
A3-1M

WISCONSIN DEPT OF TRANSPORTATION

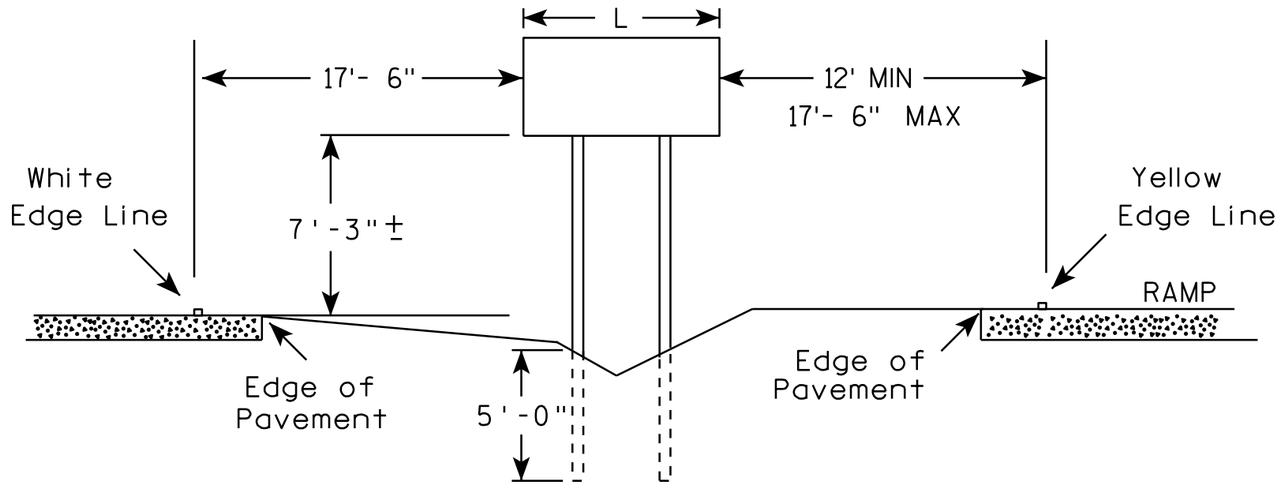
APPROVED Matthew R Rauch
for State Traffic Engineer

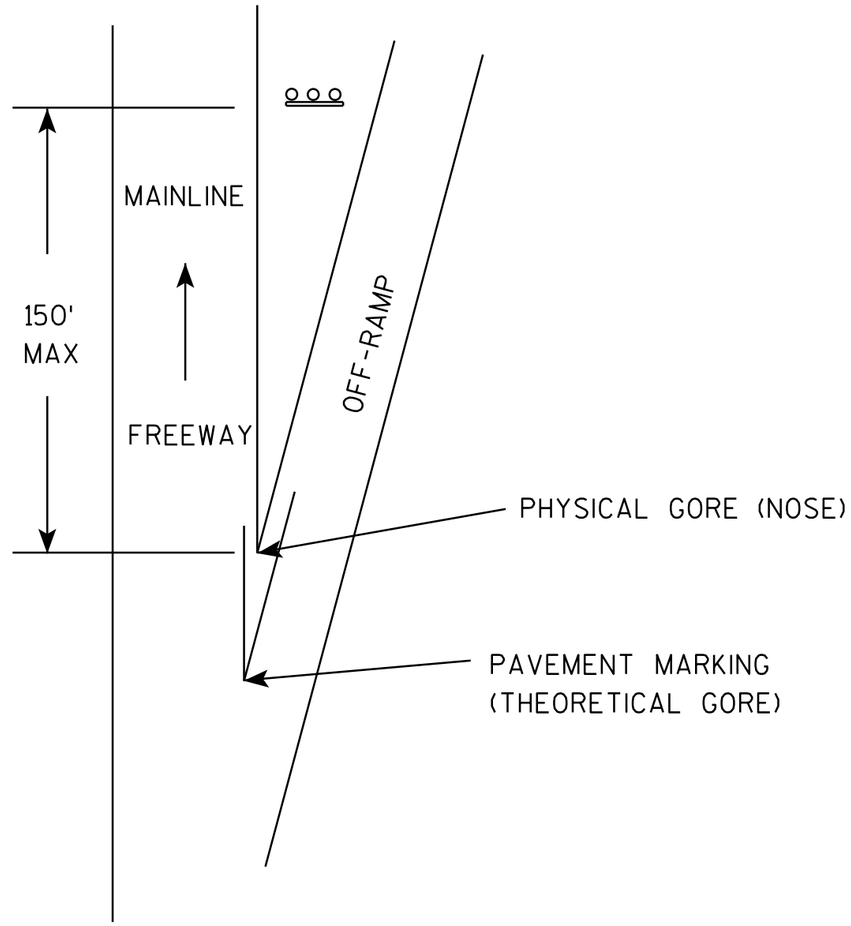
DATE 2/06/2014 PLATE A3-1M.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A31M.DGN PLOT DATE : 10-MAR-2014 15:16 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 1.556674:1.000000

WISDOT/CADDS SHEET 42





GENERAL NOTES

1. The 150 foot distance from the physical gore (where pavement ends) will normally provide the offsets as shown.
2. If roadway geometrics permit, the sign may be closer than the 150 foot distance as long as the offsets are maintained.
3. At no time shall the location be greater than 150 feet. If the normal offsets cannot be maintained, they can be reduced to 6 feet from the edge of the paved shoulder (both freeway and ramp).
4. The offset from edge of sign to the yellow edge line on the ramp is shown as a minimum of 12 feet and a maximum of 17 feet, 6 inches. Preference is adhering to the maximum rather than the minimum dimension.
5. When L is equal to or exceeds 10 feet, use 3 posts as per A4-4.
6. The (∓) tolerance for the mounting height is 3 inches.

TYPICAL INSTALLATION OF TYPE II SIGNS ON WOOD POSTS IN GORE

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

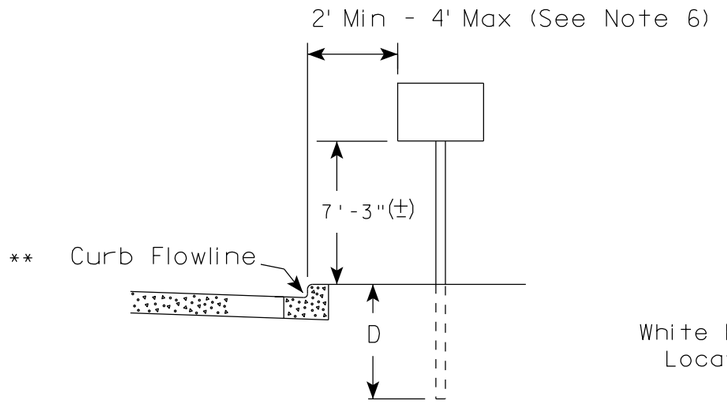
DATE 2/06/14 PLA... A4-2.3

PROJECT NO: | SHEET NO: E

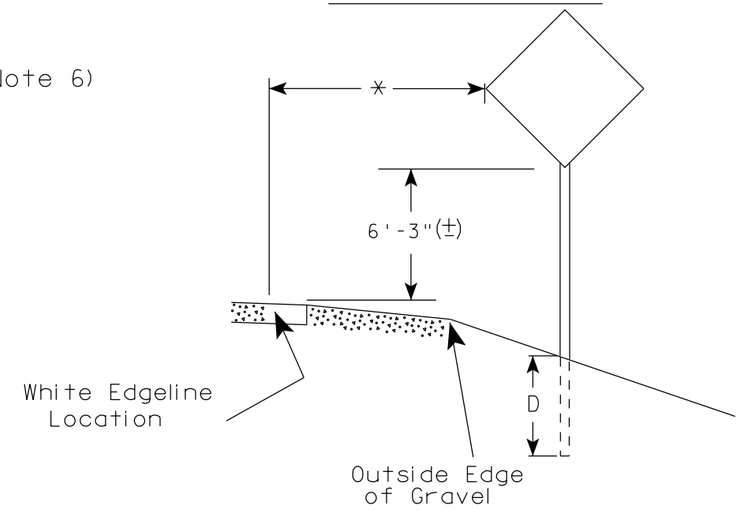
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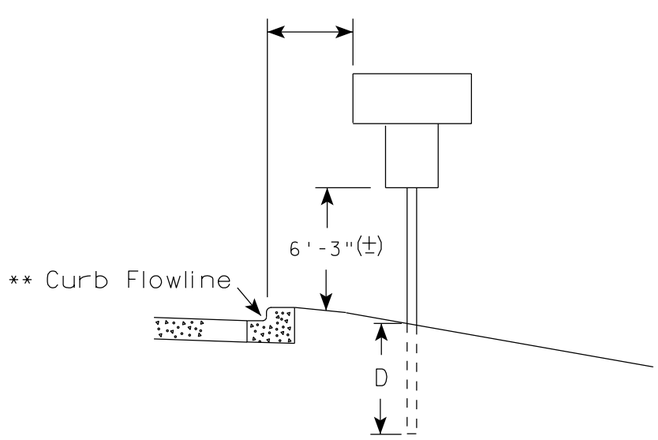
WISDOT/CADDS SHEET 42

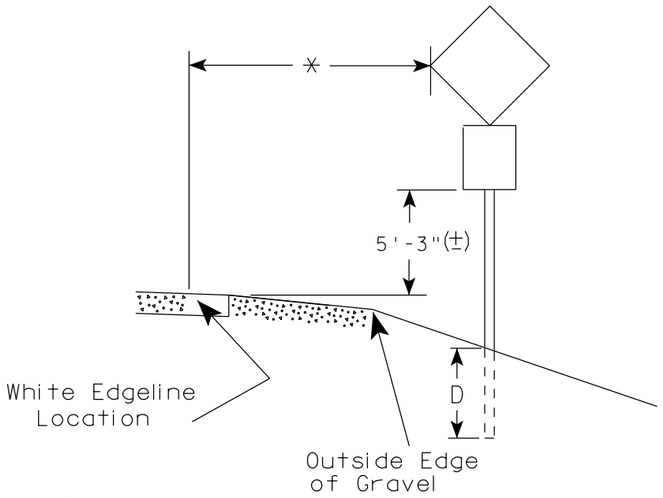
URBAN AREA



RURAL AREA (See Note 2)







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" (±).

POST EMBEDMENT DEPTH

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

** 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.

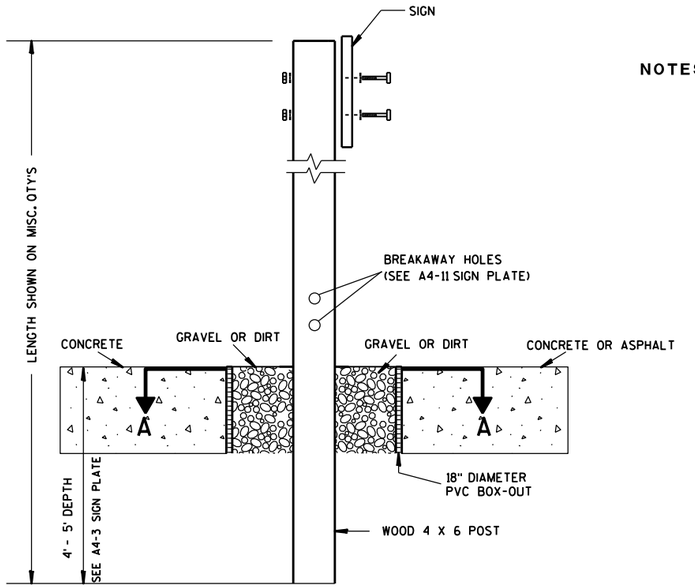
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

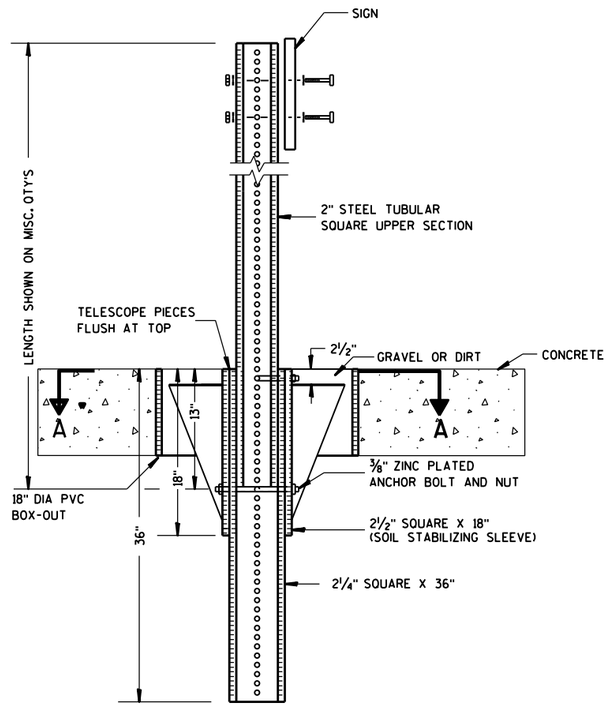
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

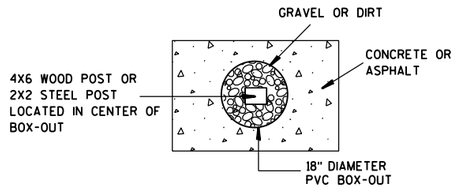
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

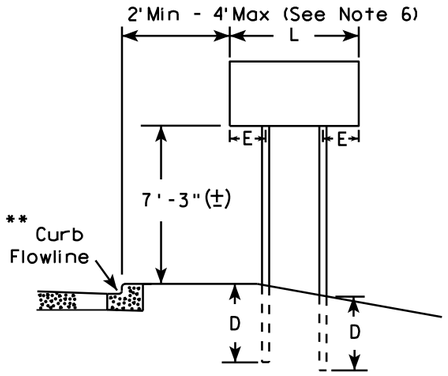
APPROVED Matthew R Rauch
for State Traffic Engineer

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

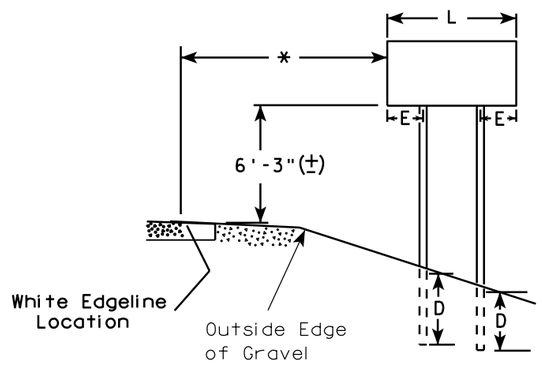
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

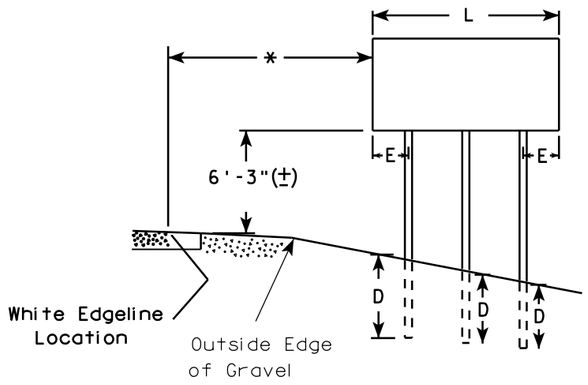
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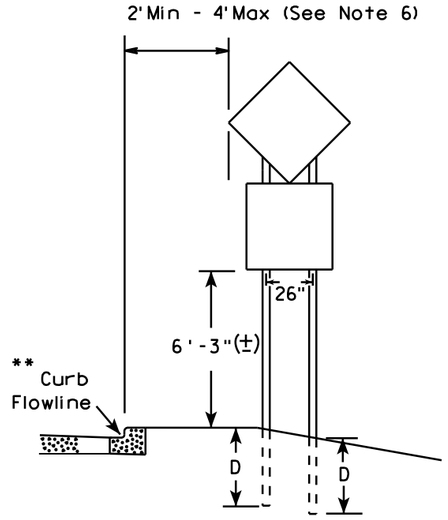
URBAN AREA



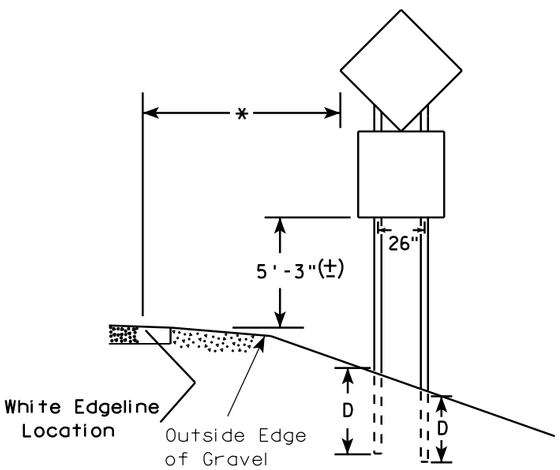
RURAL AREA (See Note 3)







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

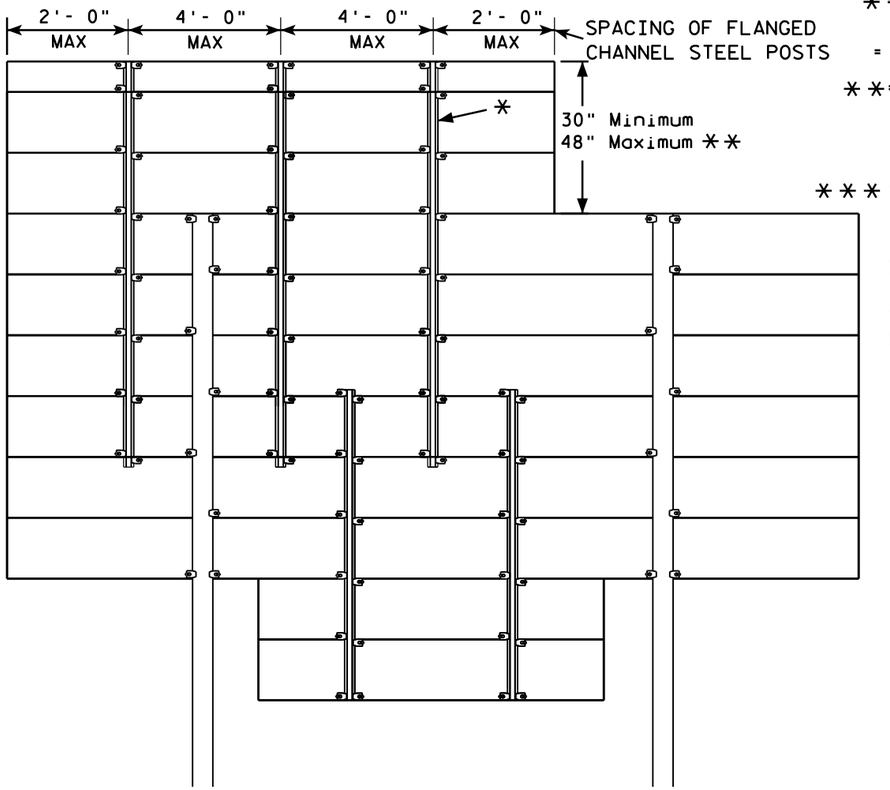
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/14 PLATE NO. AA-4-154 13

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

GROUND MOUNTED SIGN

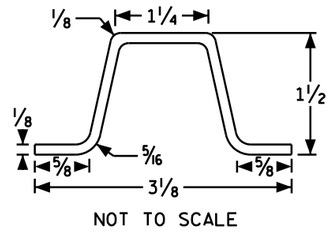


* =2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

** =FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

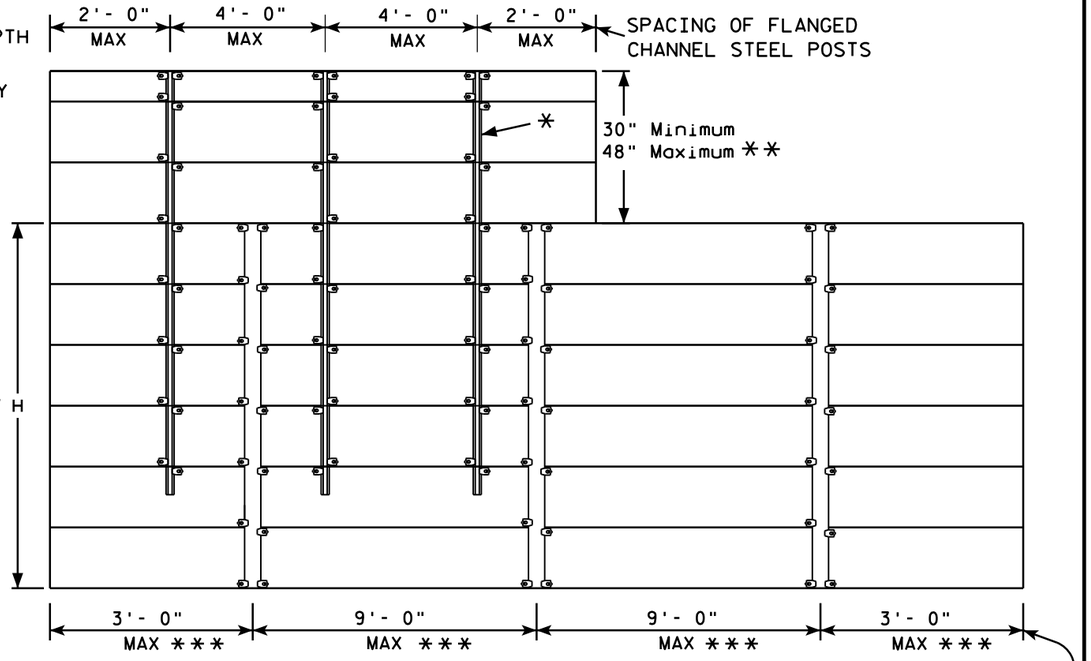
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

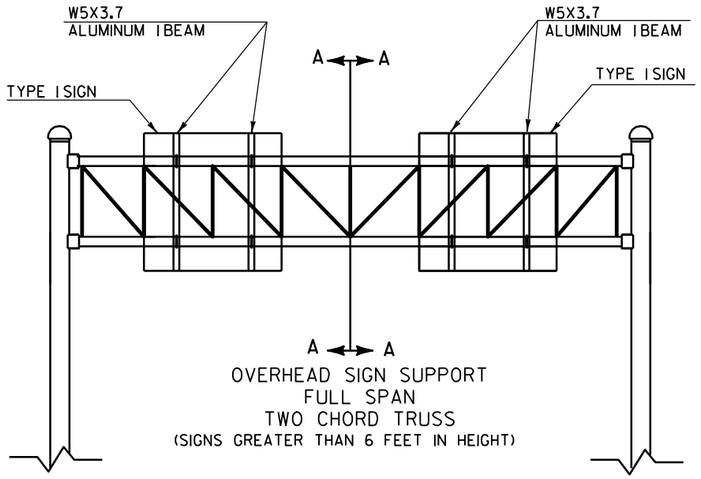
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

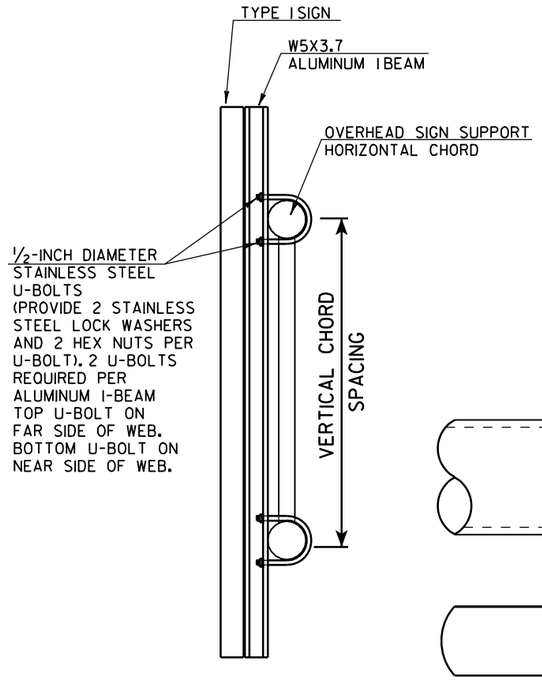
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/05/13 PLAT 155 A4-6.12

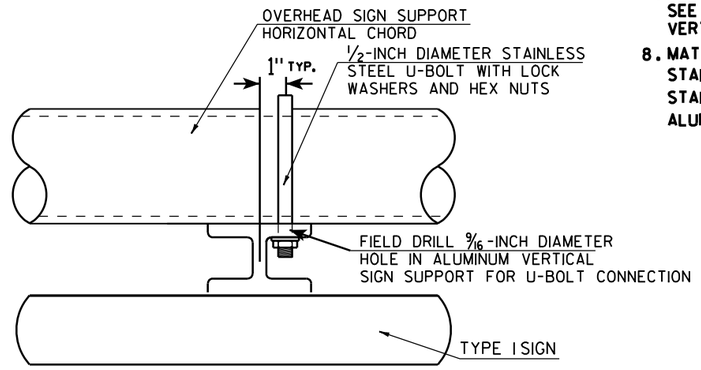
PROJECT NO: | SHEET NO: E



OVERHEAD SIGN SUPPORT
FULL SPAN
TWO CHORD TRUSS
(SIGNS GREATER THAN 6 FEET IN HEIGHT)



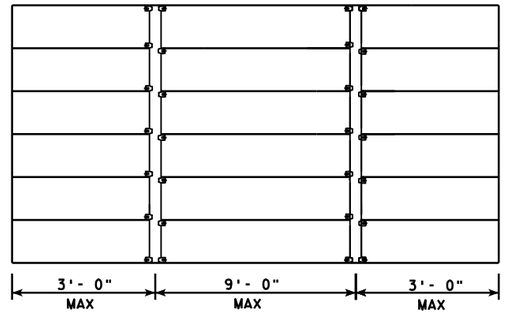
CUT SECTION A-A



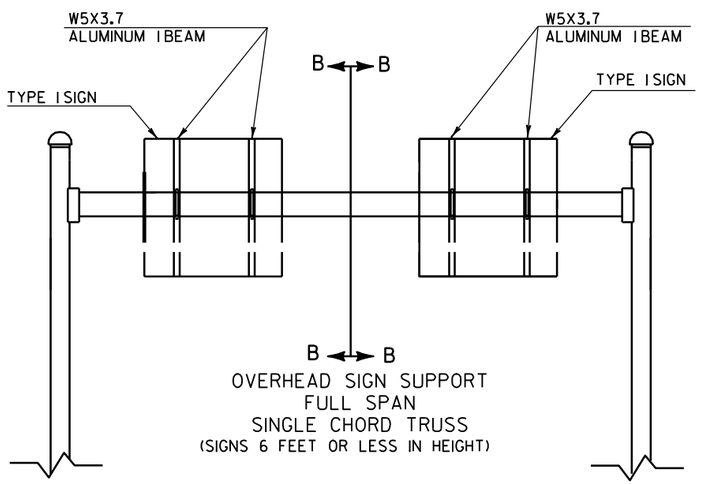
TYPICAL SIGN CONNECTION FOR
TWO CHORD TRUSS
PLAN VIEW

GENERAL NOTES

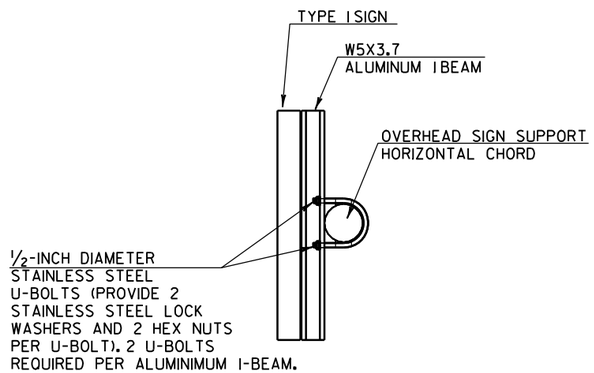
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.



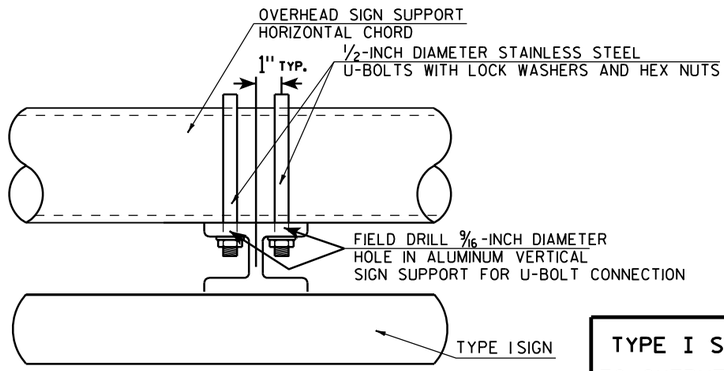
SPACING OF W5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
SINGLE CHORD TRUSS
(SIGNS 6 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
SINGLE CHORD TRUSS
PLAN VIEW

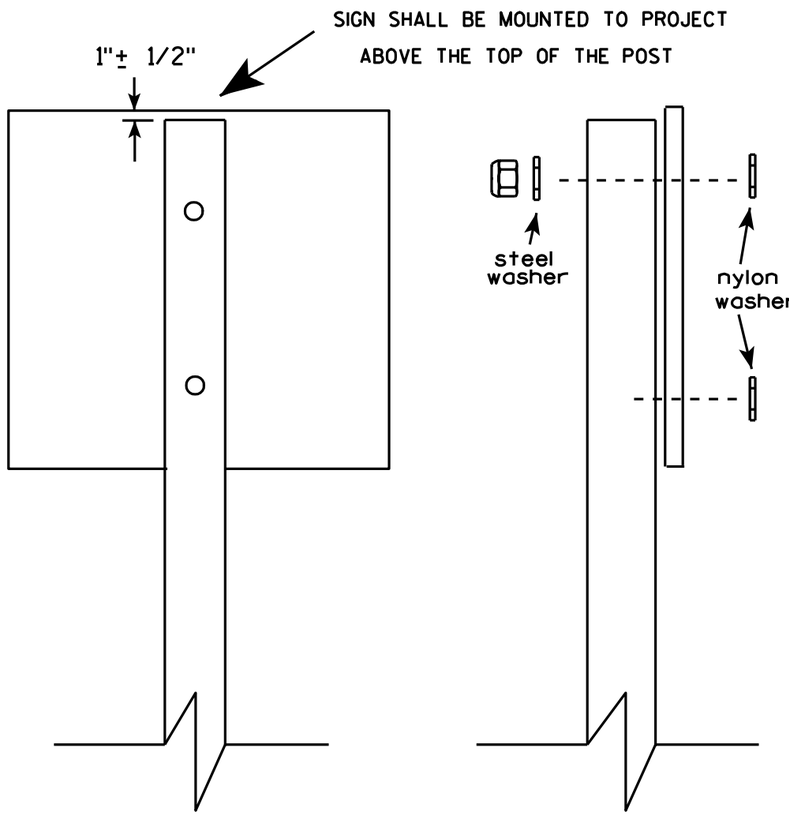
TYPE I SIGN CONNECTION TO OVERHEAD SIGN SUPPORT

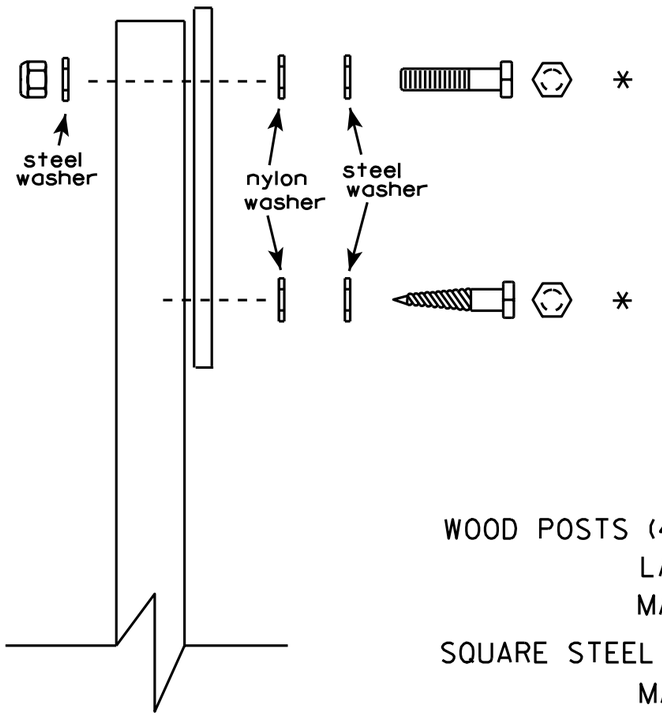
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/12/12 PLATE NO. A4-7.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 156	E





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

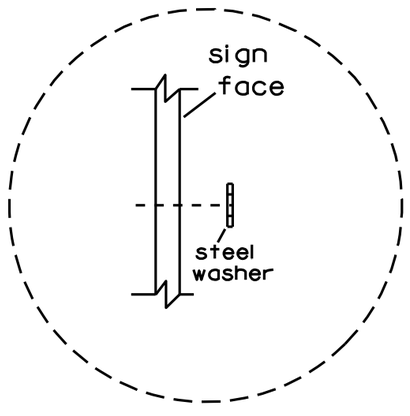
a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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

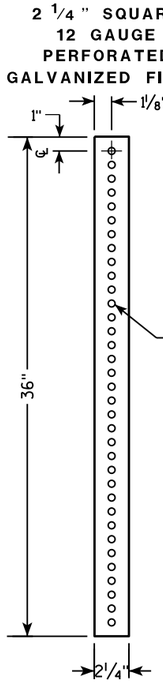
7

PROJECT NO:

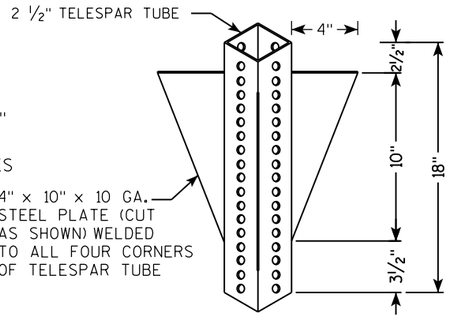
SHEET NO: 157 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

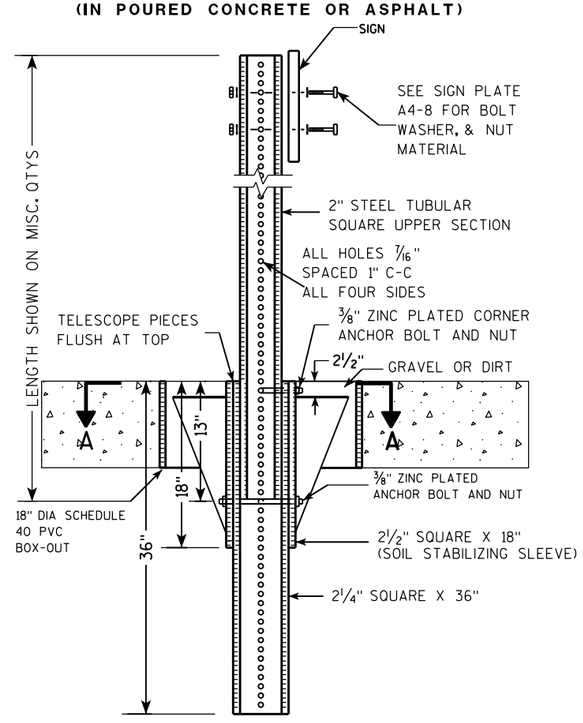
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



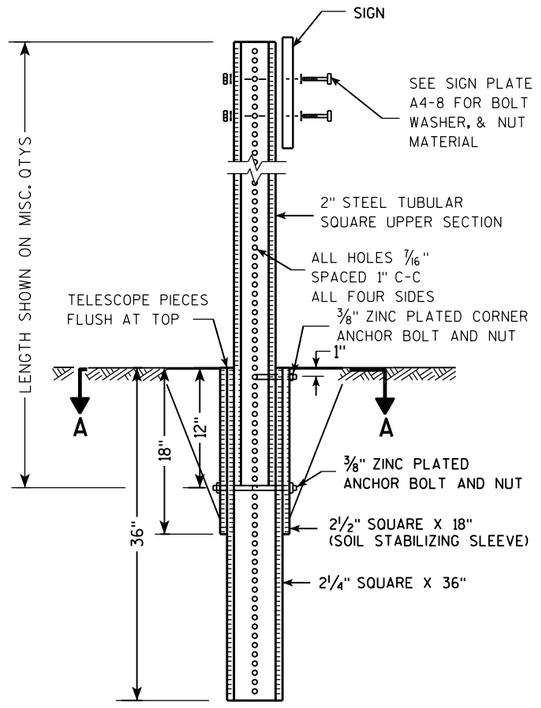
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

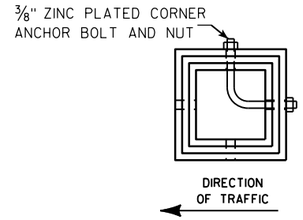


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

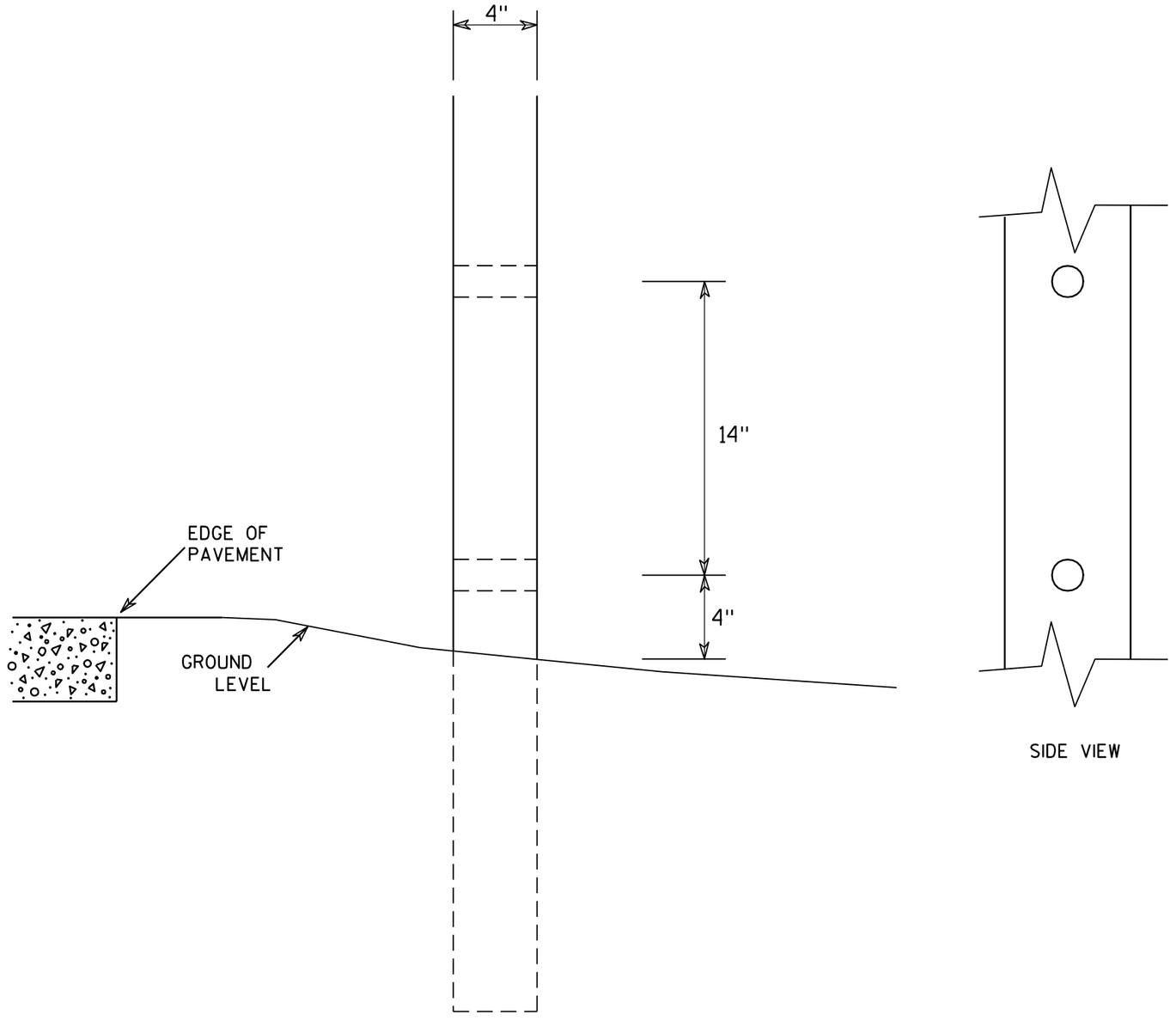
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

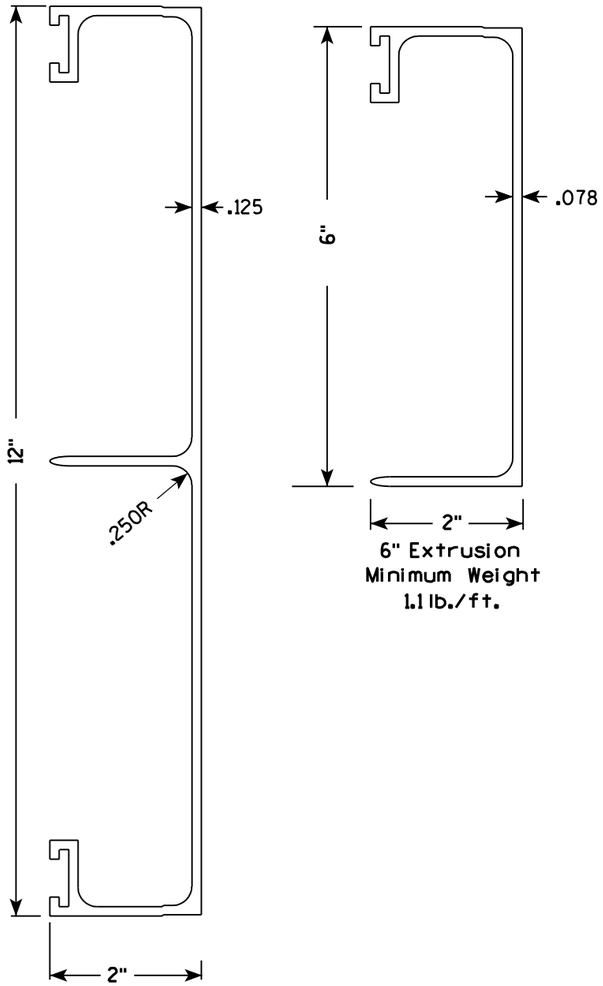
WISCONSIN DEPT OF TRANSPORTATION

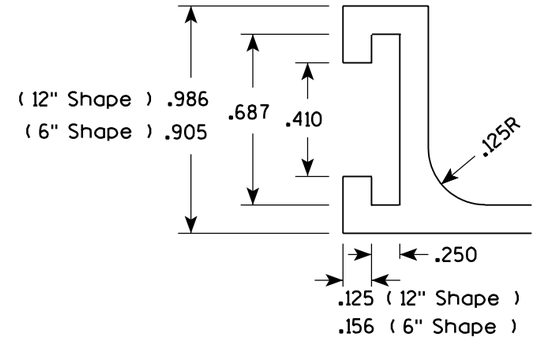
APPROVED Chester J Spang for State Traffic Engineer

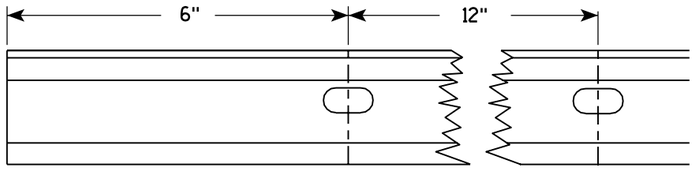
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 159	E

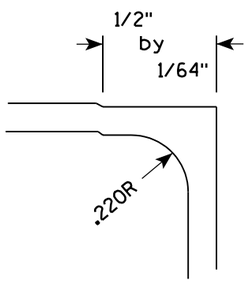
Extruded Shape







Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

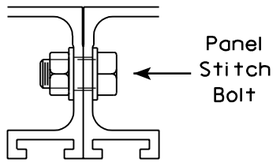


Hardware

STITCH BOLT, WASHER & NUT

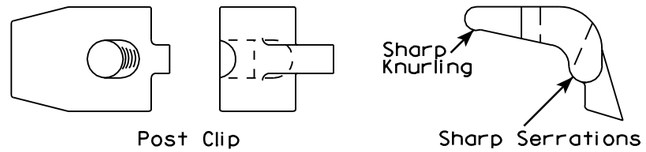
The hardware includes:

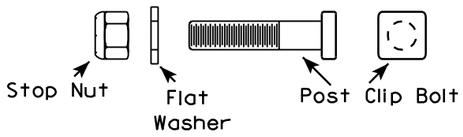
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spagg
for State Traffic Engineer

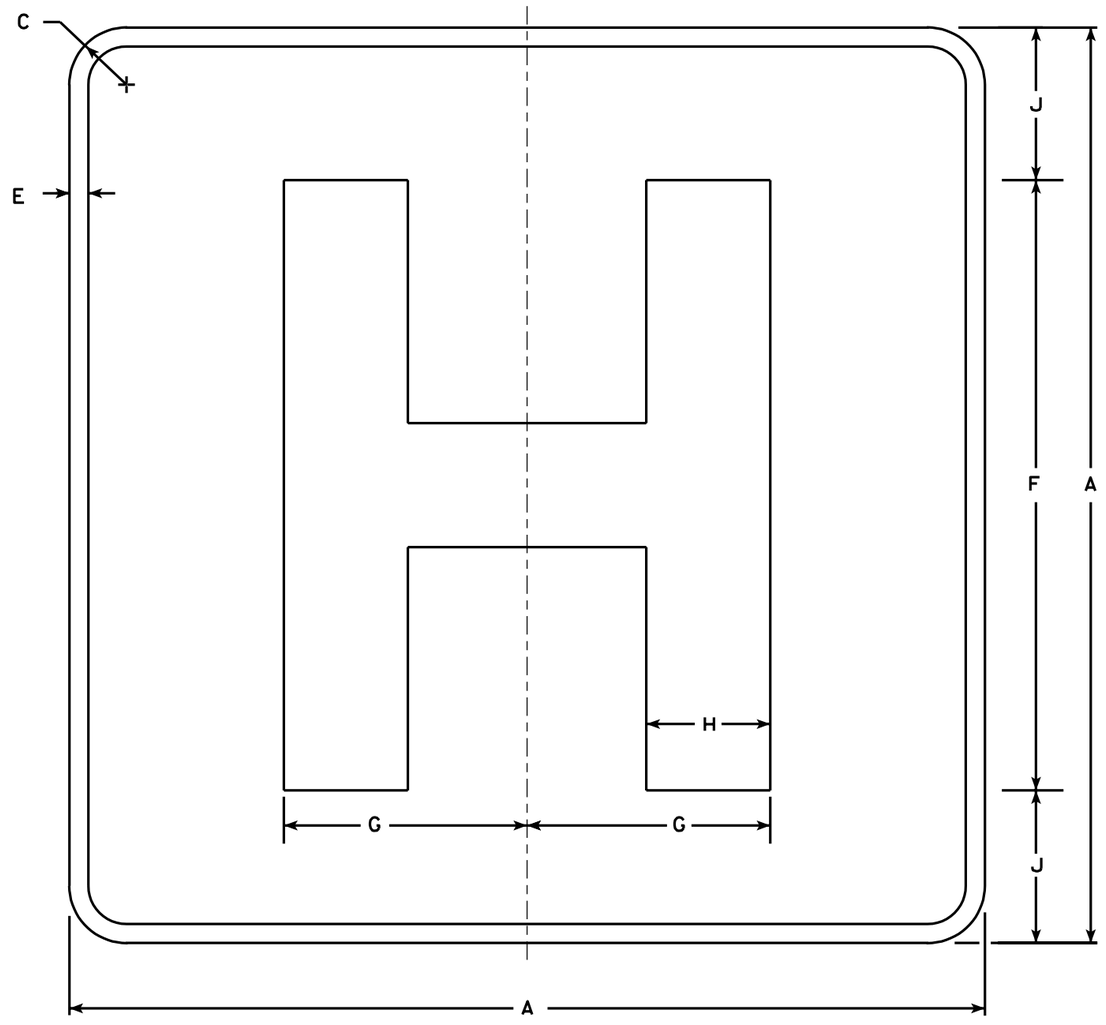
DATE 11/18/99 PLATE NO. A5-2.9

7

7

PROJECT NO:

SHEET NO: 160 E



D9-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White - Type H Reflective
3. Message Series - E Modified
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	450 mmX 450 mm
2	600 mmX 600 mm
3	900 mmX 900 mm
4	X
5	X

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8		1/2	12	4 3/4	2 3/8		3																	4.0
2	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
3	36		2 1/4		3/4	24	9 1/2	4 7/8		6																	9.0
4																											
5																											

STANDARD SIGN
D9-2

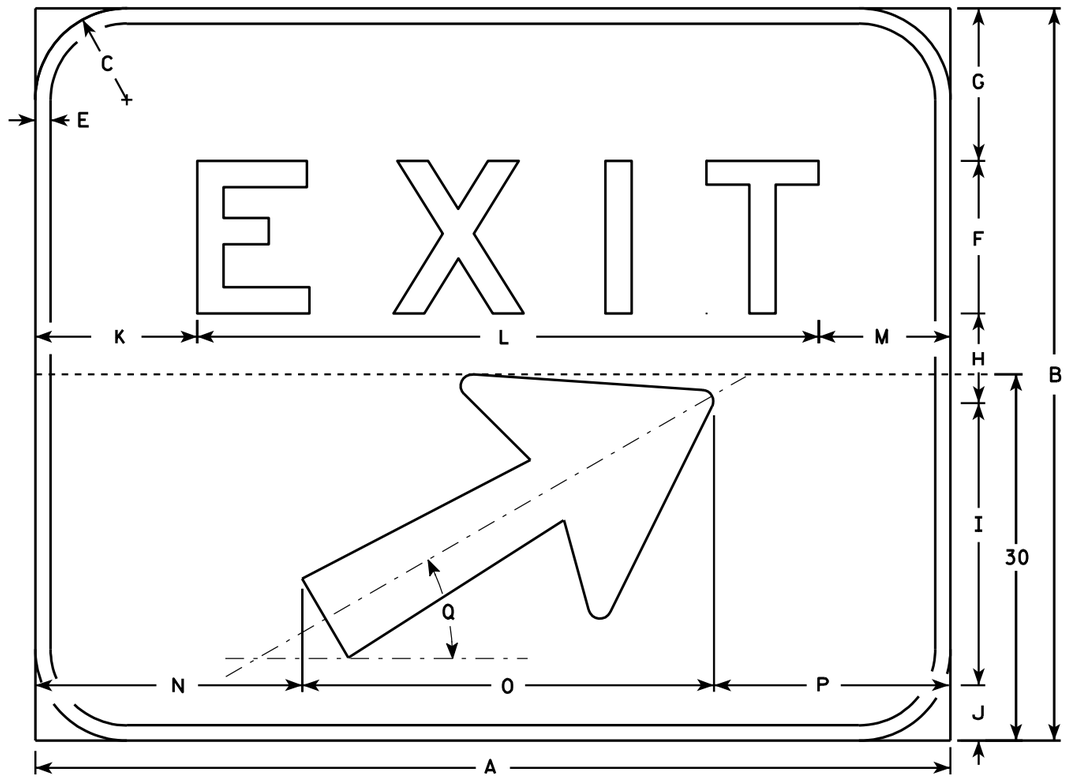
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spong
for State Traffic Engineer

DATE 1/15/02 PLATE NO. D9-2.4

PROJECT NO:

SHEET NO: 161 E



E5-1

NOTES

1. Sign is Type II - Type H reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White (Type H reflective)
3. Message Series - E
4. Corners may be square or rounded but borders shall be rounded as shown.
5. Base material for this sign shall be plywood and shall be split into two seperate pieces for the 72 x 60 size as shown on the detail by the dashed line (----------).
6. Arrow is Type "A" from sign plate A1-1.
7. As per the Standard Spec's, this sign shall not have a vertical joint.

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	1500 mm X 1200 mm
5	1800 mm X 1500 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																												
3																												
4	60	48	6		1	10	10	5 7/8	18 1/2	3 5/8	10 5/8	40 3/4	8 5/8	17 1/2	27	15 1/2	30°										20.0	1.80
5	72	60	6		1	12	12	10	18 1/2	7 1/2	13 1/4	48 1/2	10 1/4	23 1/2	27	21 1/2	30°										30.0	2.70

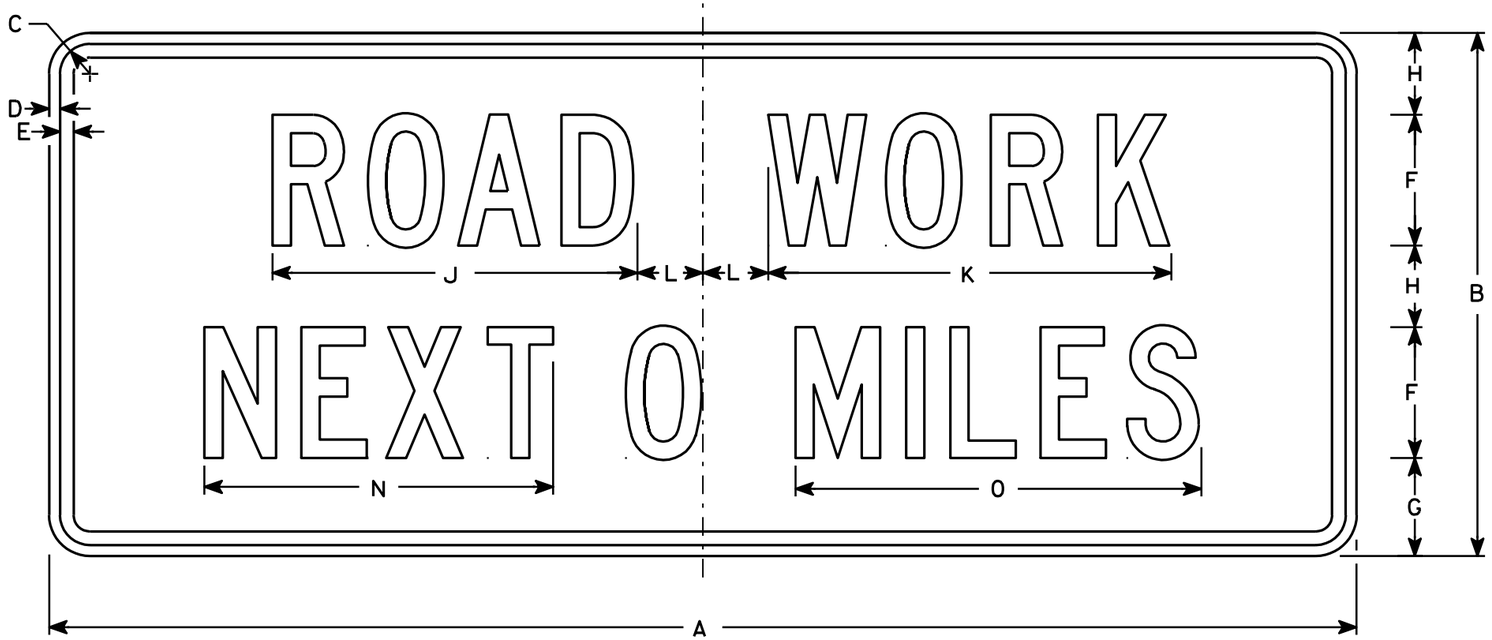
STANDARD SIGN
E5 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 6/22/00 PLATE NO. E5-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 162	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																												

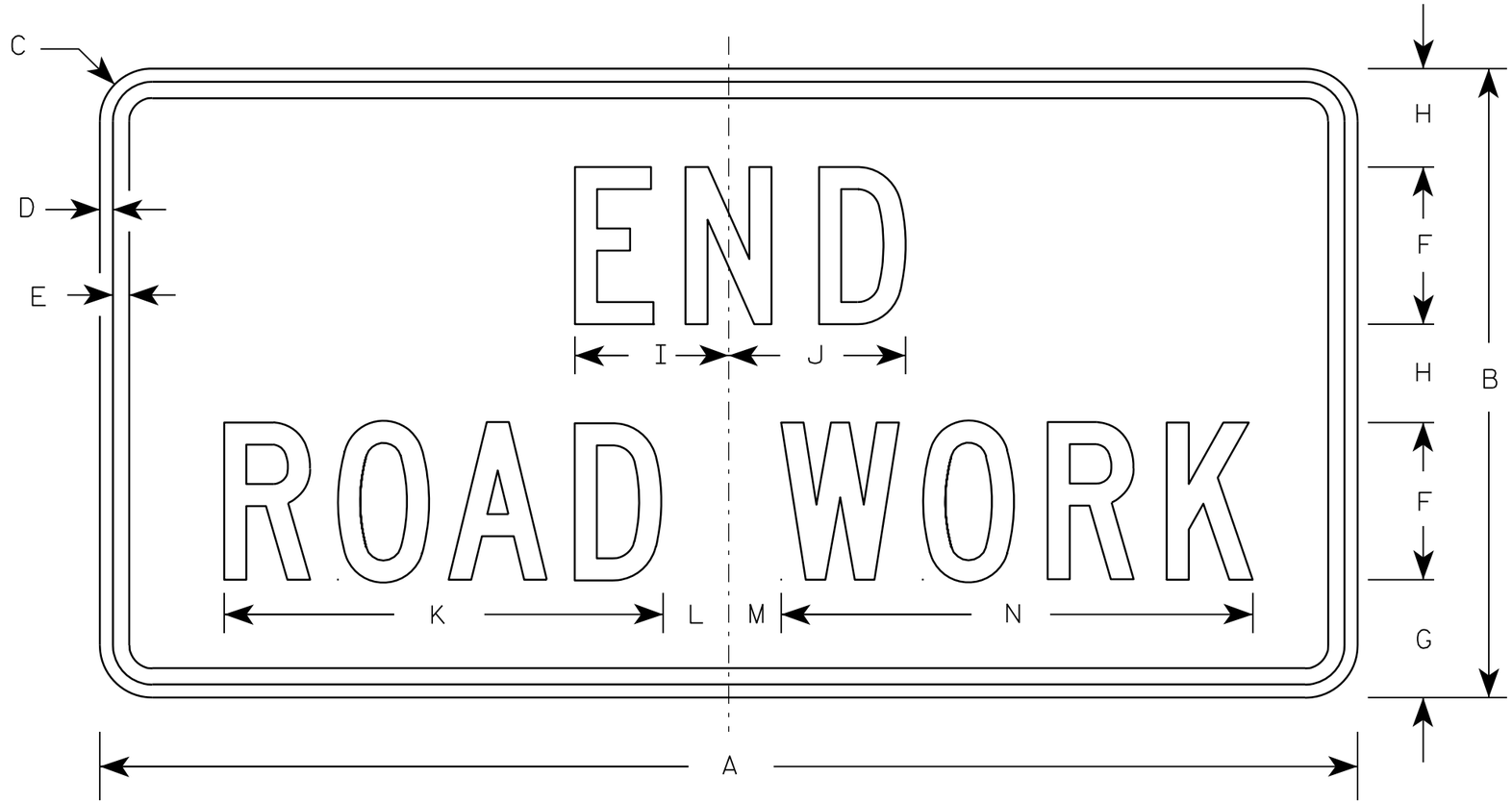
STANDARD SIGN
G20-1

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: 163	E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 164	E

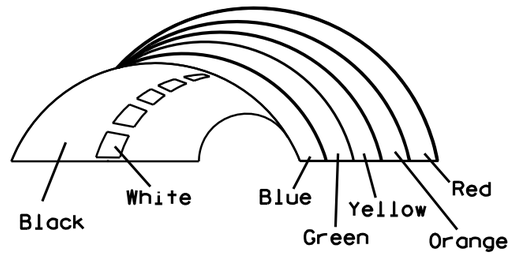


* VARIES

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - (See Note 5)
3. Message Series - (See Note 6)
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Border - Blue
   Line 1 - Red
   Line 2 - Black
   Line 3-5 - Blue
6. Line 1 - Dutch 8011L
   Line 2 - Series E
   Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

STANDARD SIGN
I55-56

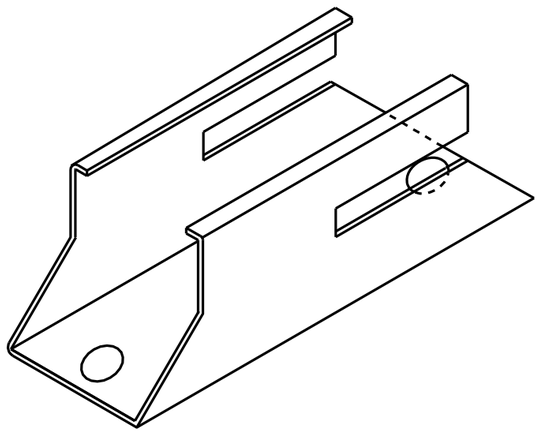
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/27/11 PLATE NO. 155-56.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 165

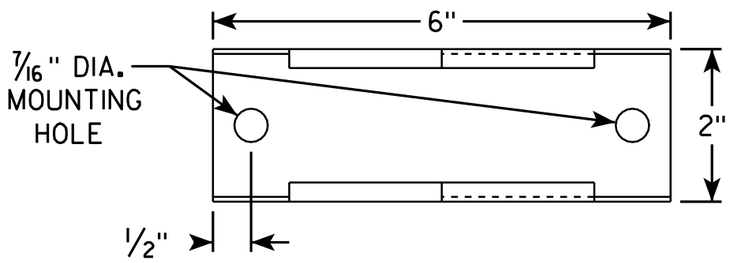
ISOMETRIC VIEW



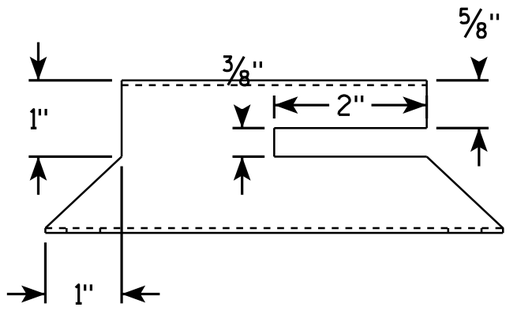
NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

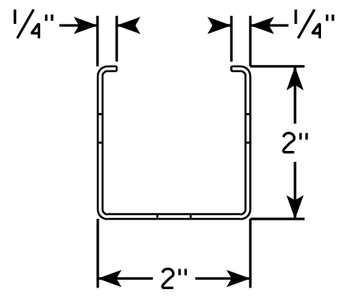
TOP VIEW



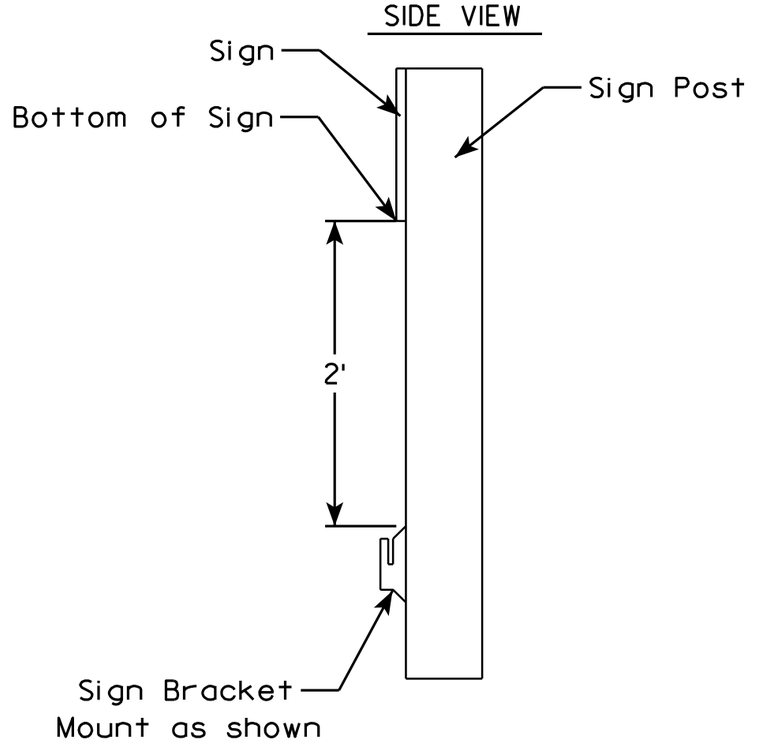
SIDE VIEW



END VIEW



SIDE VIEW



7

7

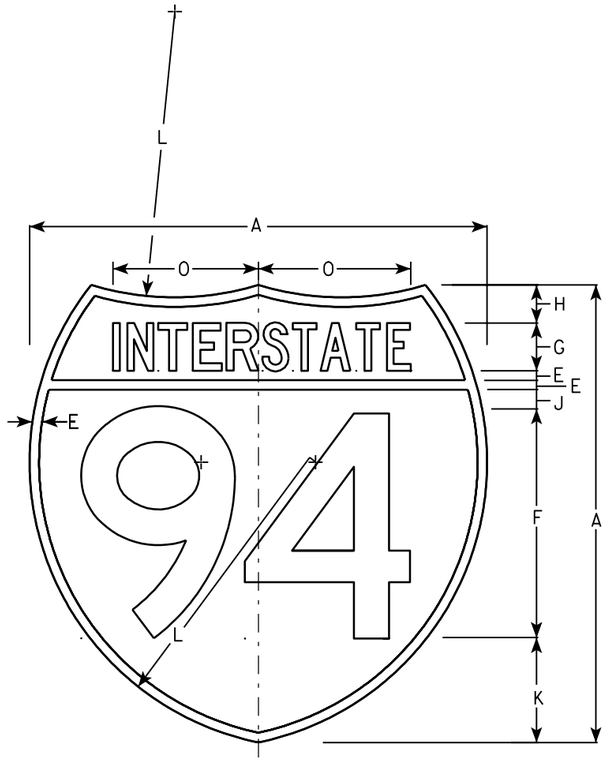
ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

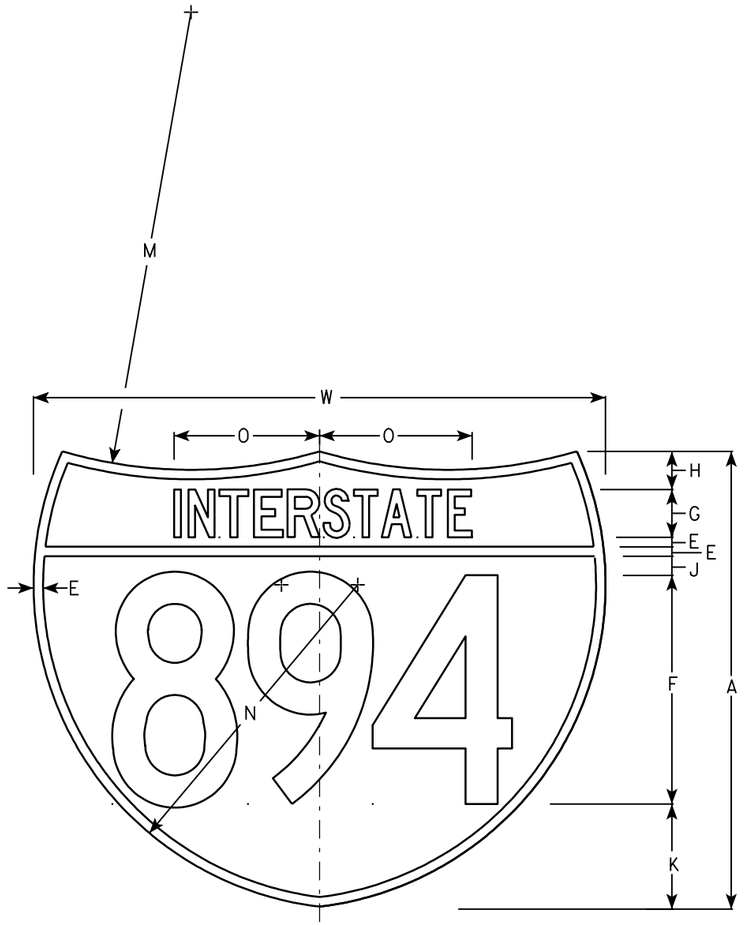
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/10 PLATE NO. I55-56B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 166	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

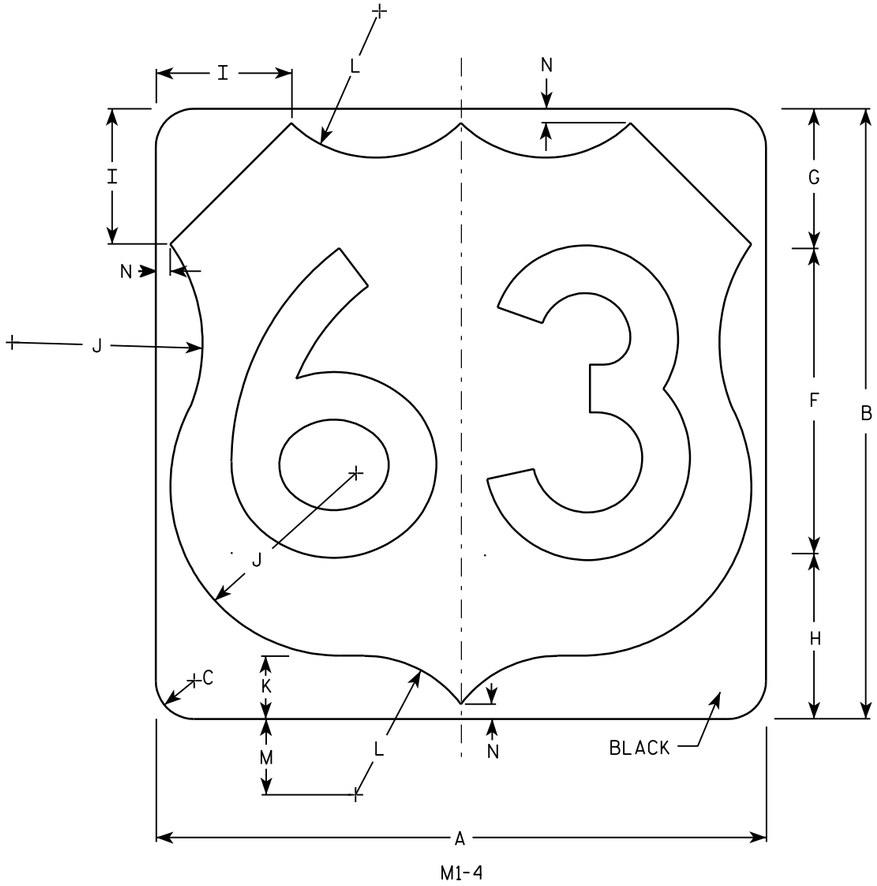
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

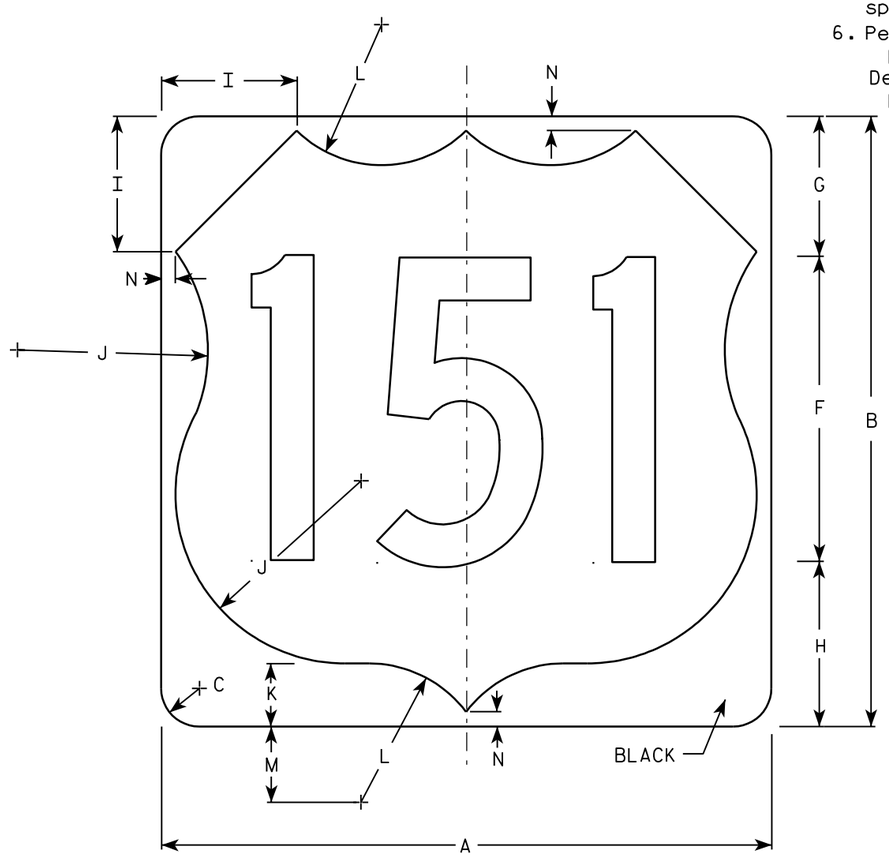
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 167	E

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

7

7

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

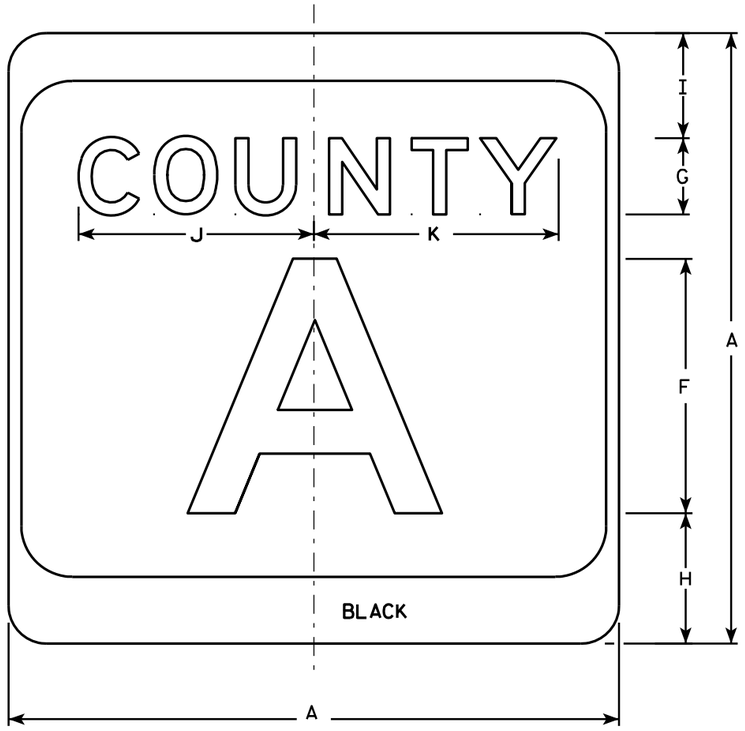
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

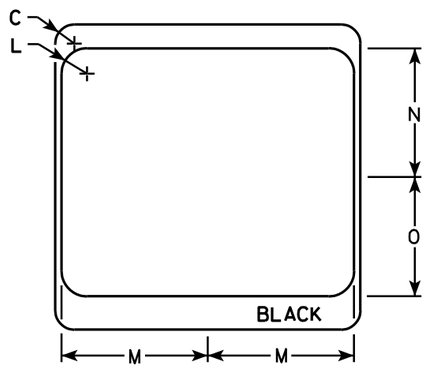
APPROVED Matthew R Rauch
for State Traffic Engineer

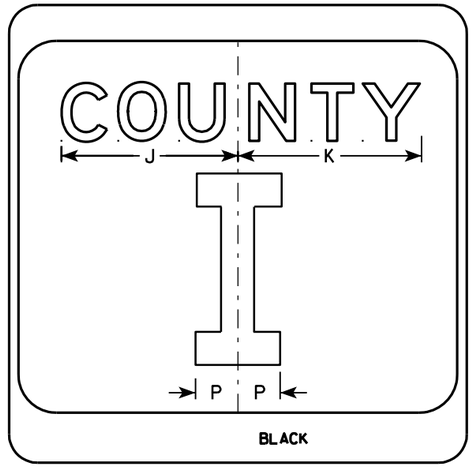
DATE 08/25/05 PLATE NO. M1-4.9

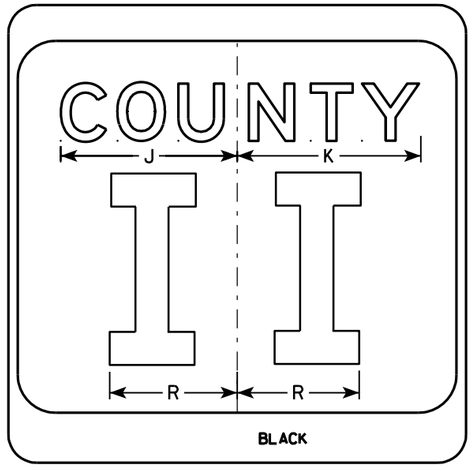
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 168	E



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

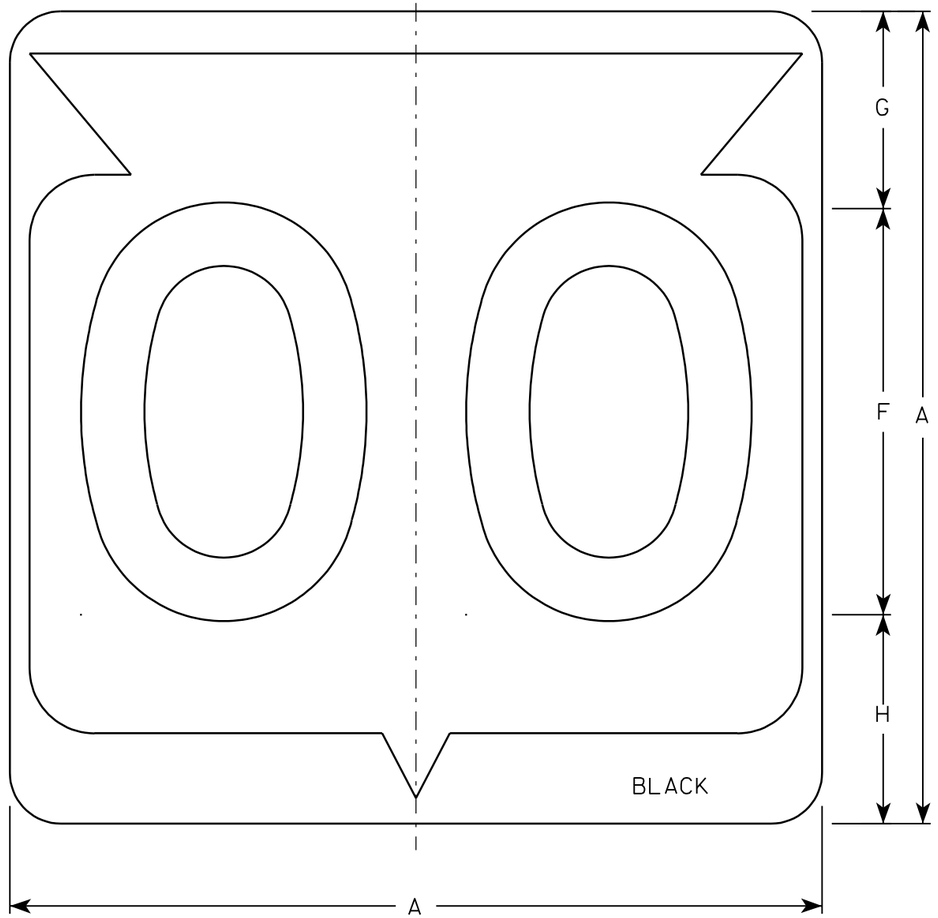
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

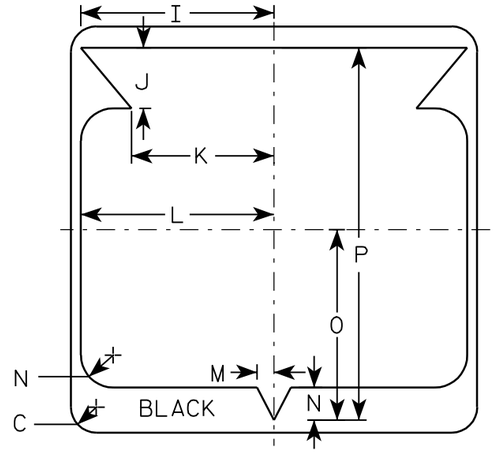
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 169 | E



M1-6

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 Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



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		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

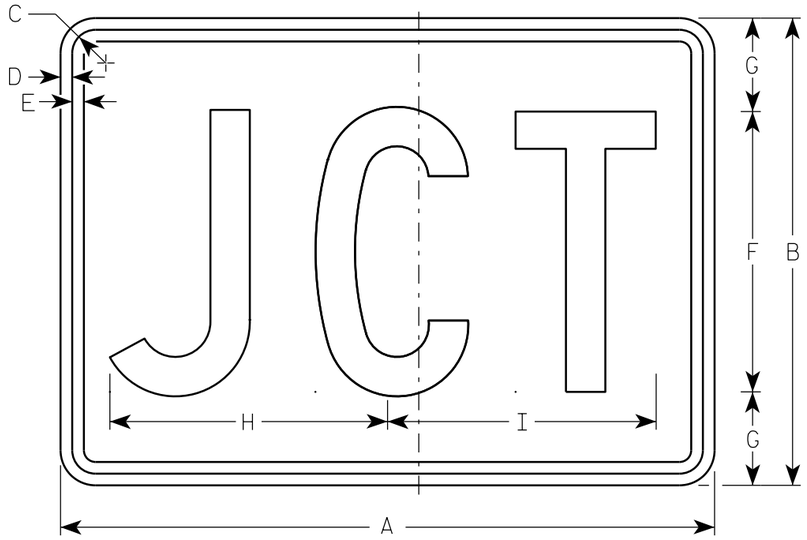
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

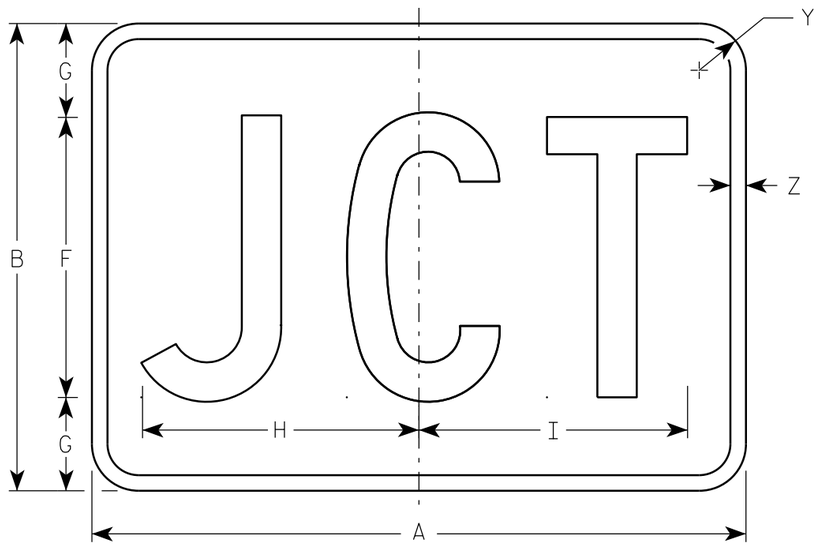
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 170	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

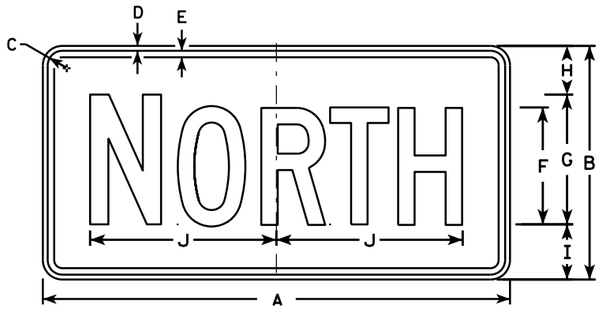
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

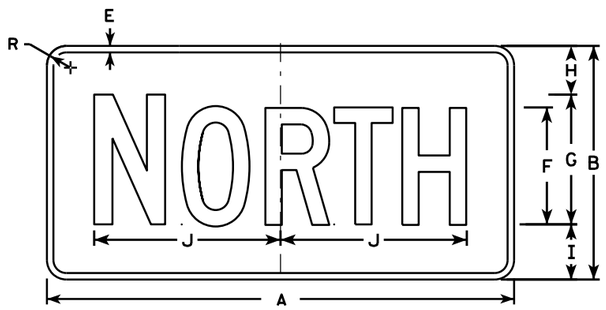
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/30/14 PLATE 171 12-1.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



M3-1
MK3-1
MM3-1
MN3-1



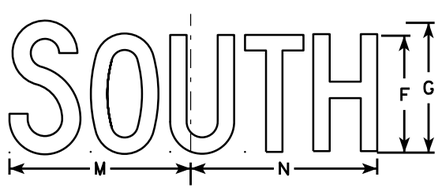
MB3-1



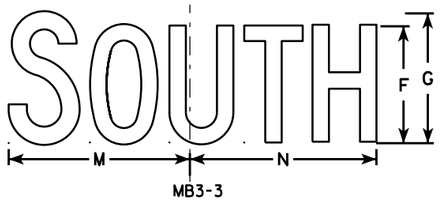
M3-2
MK3-2
MM3-2
MN3-2



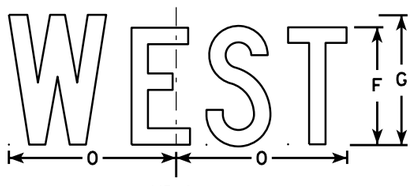
MB3-2



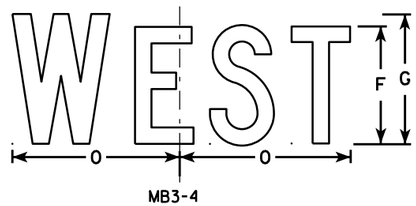
M3-3
MK3-3
MM3-3
MN3-3



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

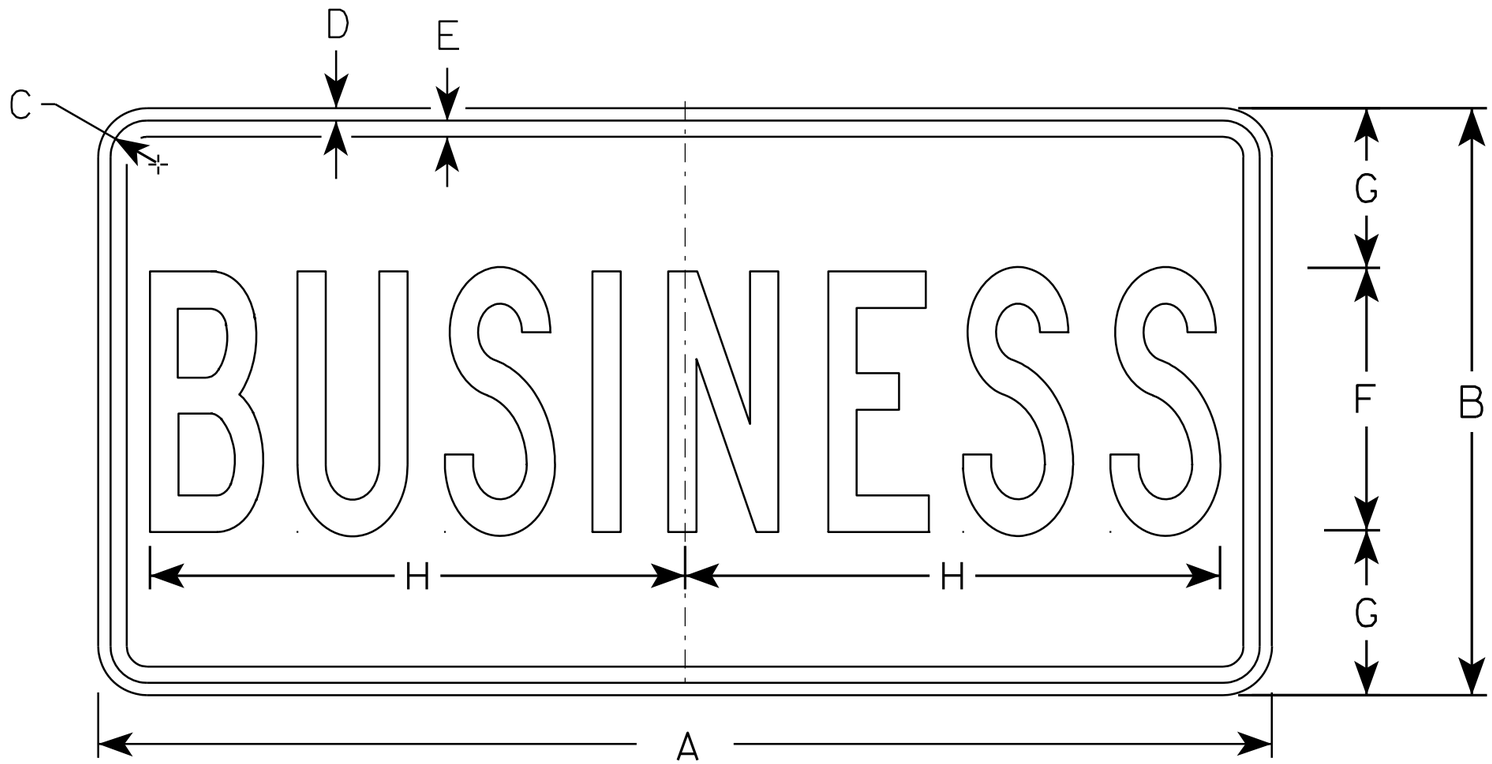
STANDARD SIGNS
M3-1 thur M3-4
SERIES

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



M4-3

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White - See Note 5
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Permanent Signs
   Background - Type H Reflective
   Detour or other 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	12	1 1/8	3/8	3/8	5	3 1/2	9 5/8																			2.0
3	36	18	1 1/8	3/8	1/2	8	5	16 3/8																			4.5
4																											
5																											

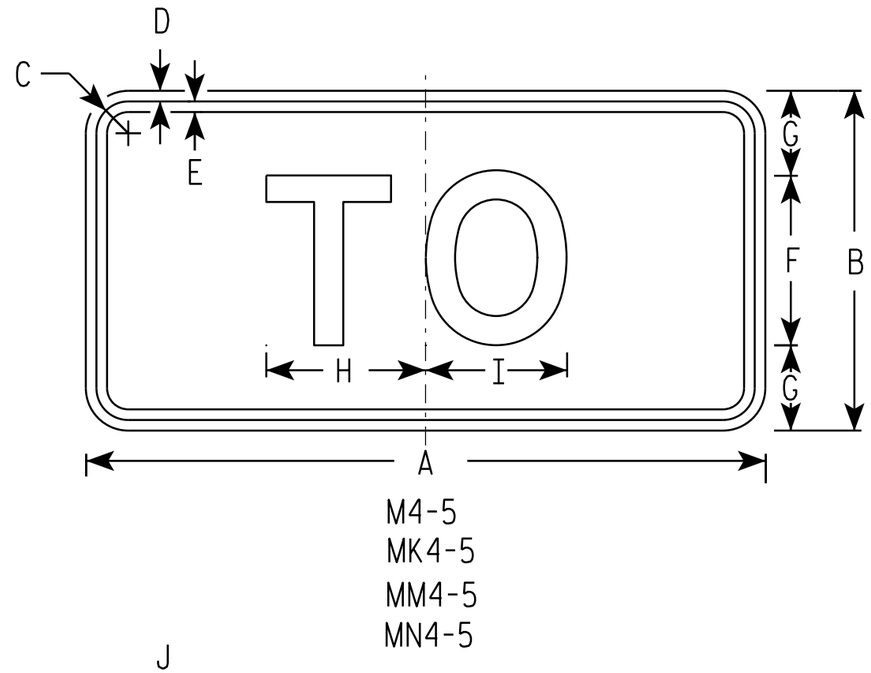
STANDARD SIGN
M4-3

WISCONSIN DEPT OF TRANSPORTATION

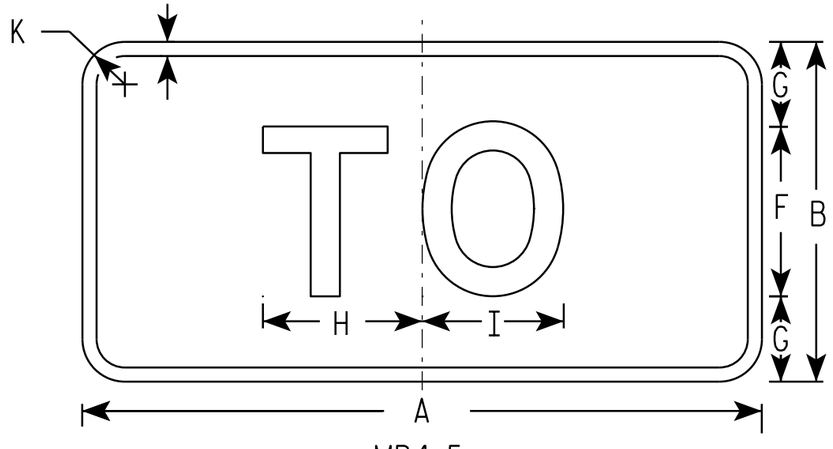
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-3.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 173 | E



M4-5
MK4-5
MM4-5
MN4-5



MB4-5

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-5

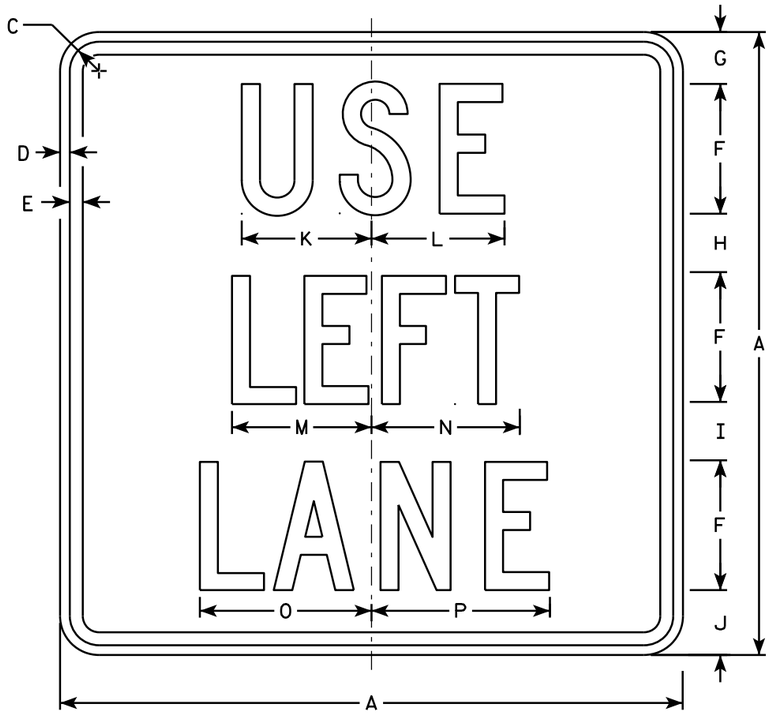
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

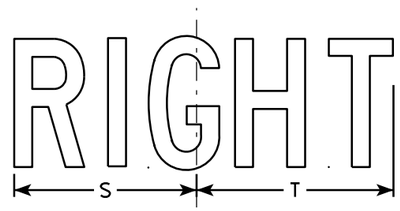
DATE 6/30/14 PLATE M4-5.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

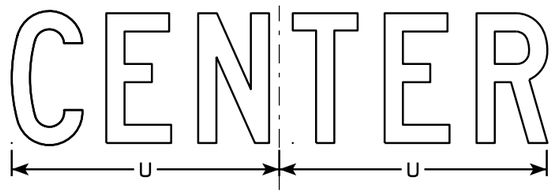
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M45.DGN PLOT DATE : 30-JUN-2014 12:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.351066:1.000000
WISDOT/CADDS SHEET 42



M4-20L
MB4-20L
MK4-20L
MM4-20L
MN4-20L
M04-20L
MP4-20L
MR4-20L



M4-20R
MB4-20R
MK4-20R
MM4-20R
MN4-20R
M04-20R
MP4-20R
MR4-20R



M4-20C
MB4-20C
MK4-20C
MM4-20C
MN4-20C
M04-20C
MP4-20C
MR4-20C

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-20 Background - White
   Message - Black
   MB4-20 Background - Blue
   Message - White
   MK4-20 Background - Green
   Message - White
   MM4-20 Background - White
   Message - Green
   MN4-20 Background - Brown
   Message - White
   M04-20 Background - Orange - Type F Reflective
   Message - Black
   MP4-20 Background - White
   Message - Blue
   MR4-20 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	5 3/8	5 3/4	6 5/8	6 7/8			7	7 5/8	10 1/4						4.0
3	36		1 5/8	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8						9.0
4																											
5																											

STANDARD SIGN
M4-20

WISCONSIN DEPT OF TRANSPORTATION

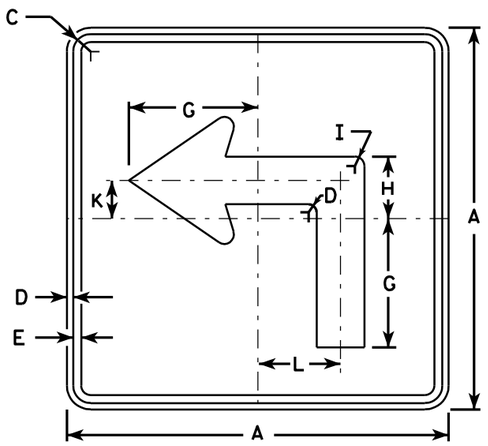
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/26/14 PLATE NO M4-20.4

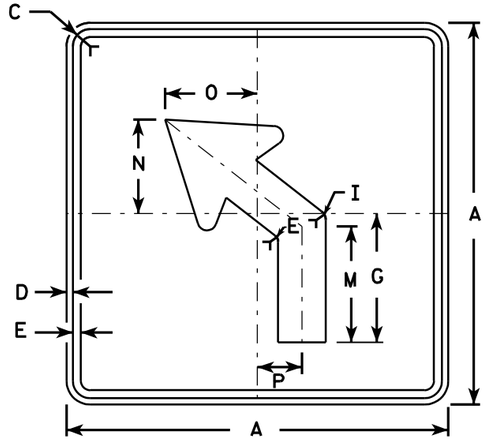
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M420.DGN PLOT DATE : 03-JUL-2014 15:15 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42

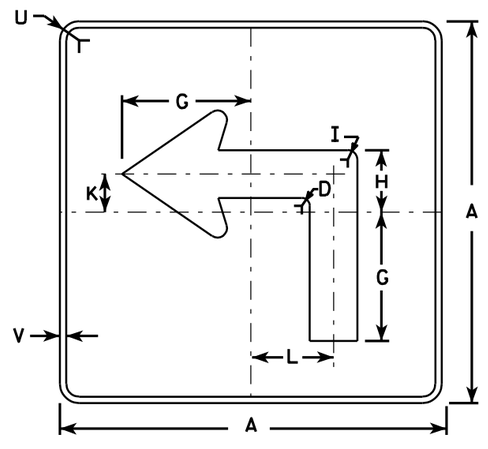
7



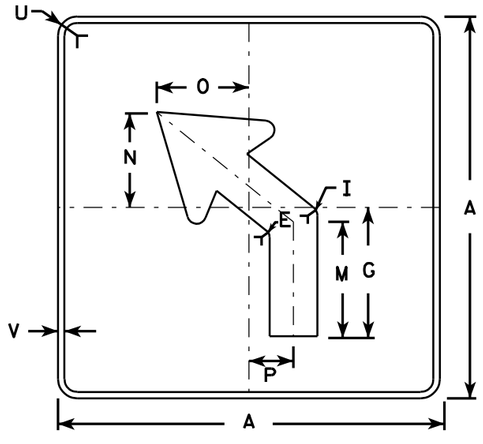
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



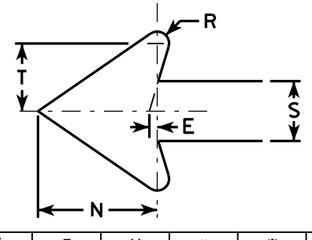
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White - Type H Reflective
   MG5-1 and MG5-2 Background - Green
   Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green
   Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

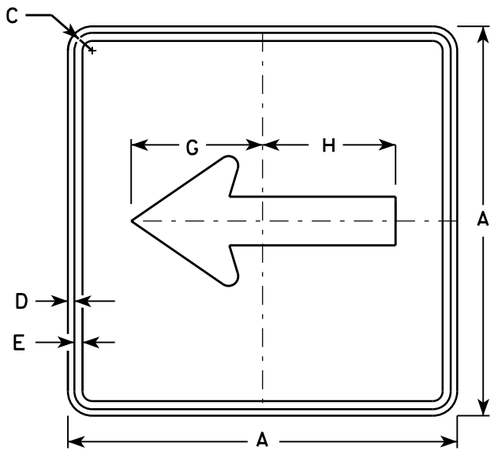
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M5-1.12

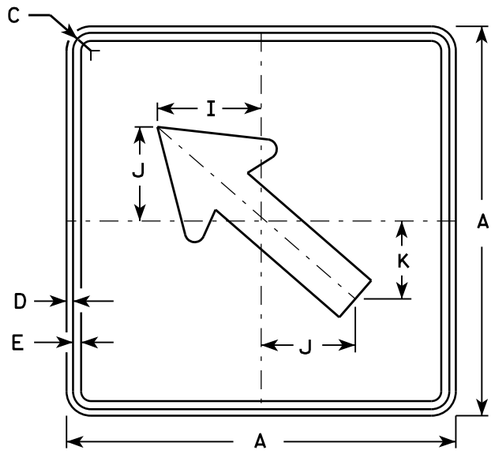
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 176 | E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 29-JUL-2013 13:34 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.908552:1.000000
WISDOT/CADDS SHEET 42



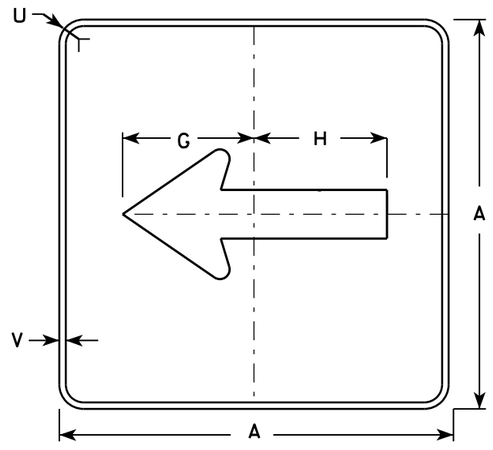
M6-1
MK6-1
MM6-1
MN6-1
MO6-1
MP6-1
MR6-1



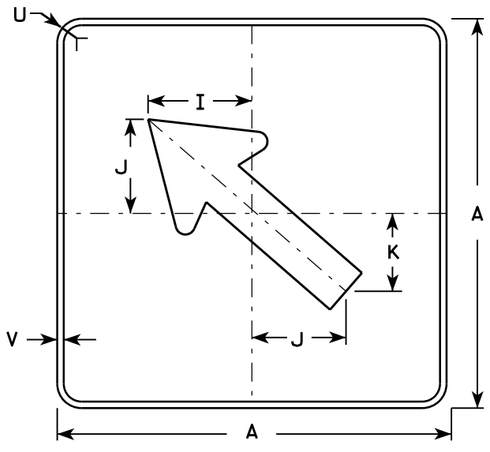
M6-2
MK6-2
MM6-2
MN6-2
MO6-2
MP6-2
MR6-2

NOTES

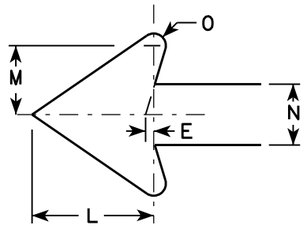
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MG6-1 and MG6-2 Background - Green
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1



MB6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

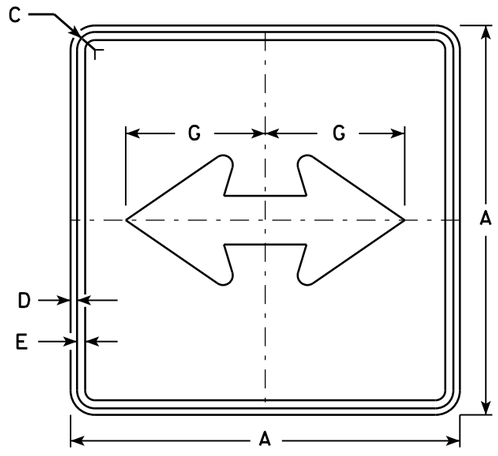
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

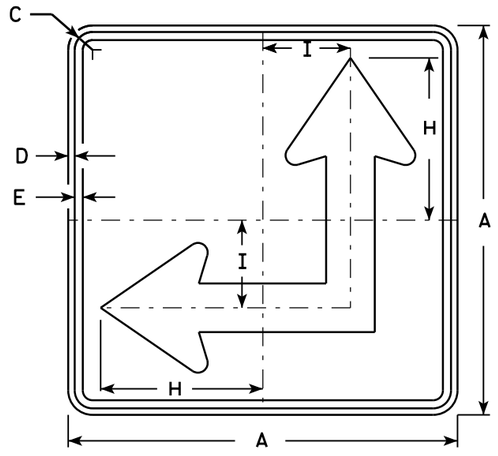
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/03/14 PLATE 177 M6-1.14

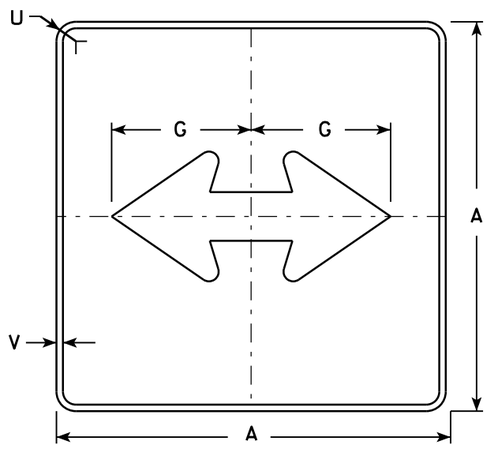
PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E



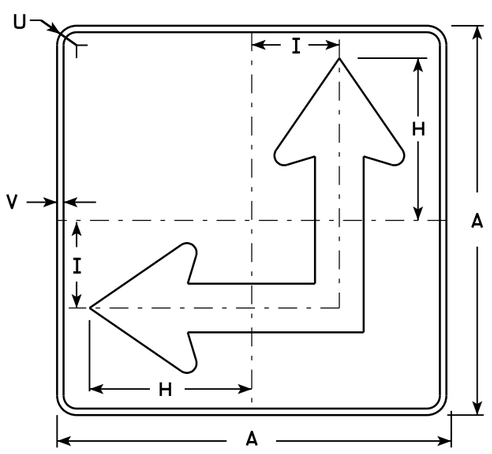
M6-4
MK6-4
MM6-4
MN6-4
MO6-4
MP6-4
MR6-4



M6-6
MK6-6
MM6-6
MN6-6
MO6-6
MP6-6
MR6-6



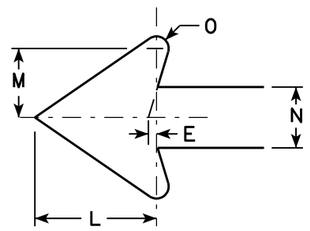
MB6-4



MB6-6

NOTES

1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN M6-4 & M6-6 SERIES

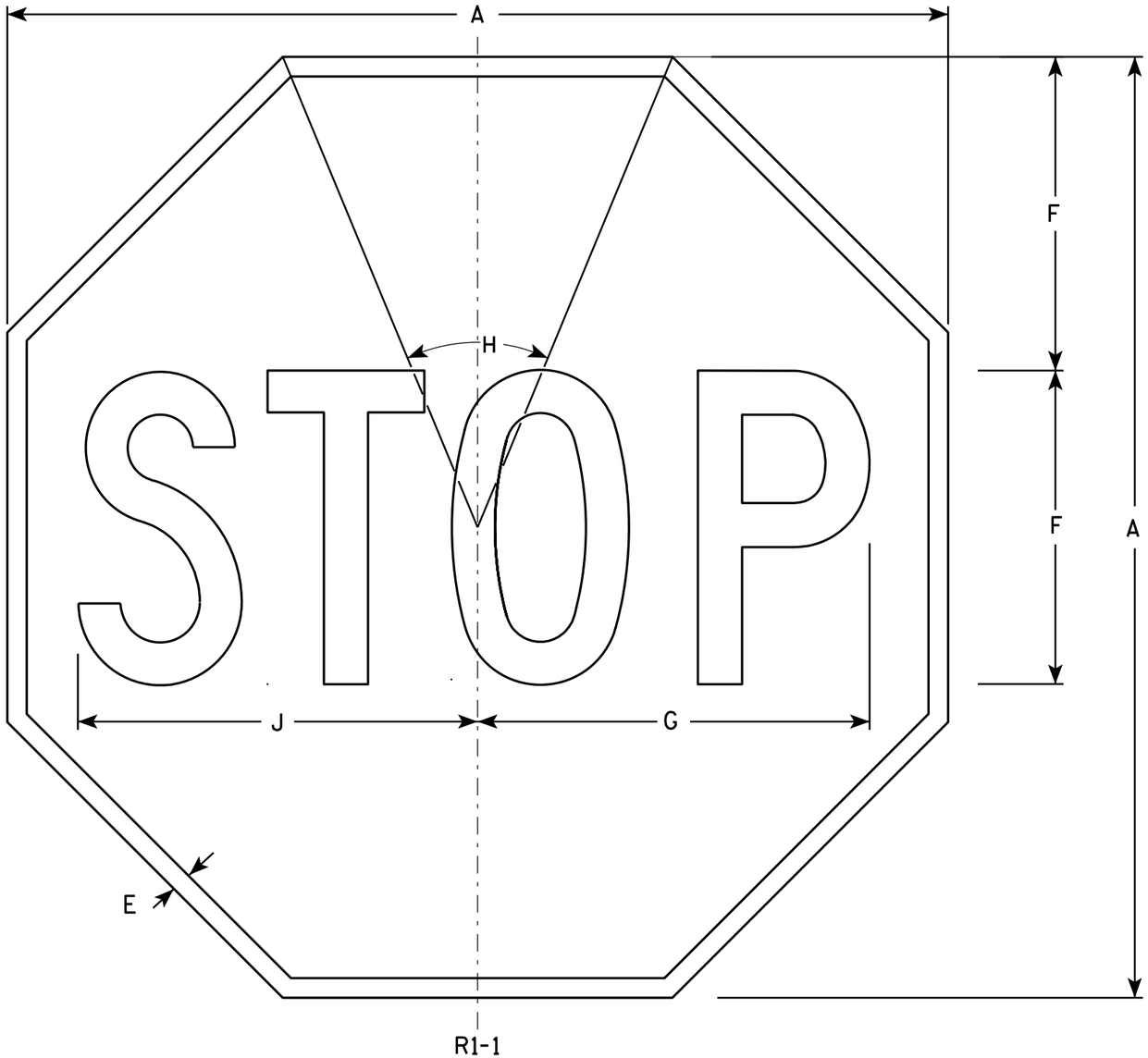
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 7/03/14 PLATE M6-4.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M64.DGN PLOT DATE : 03-JUL-2014 14:56 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	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

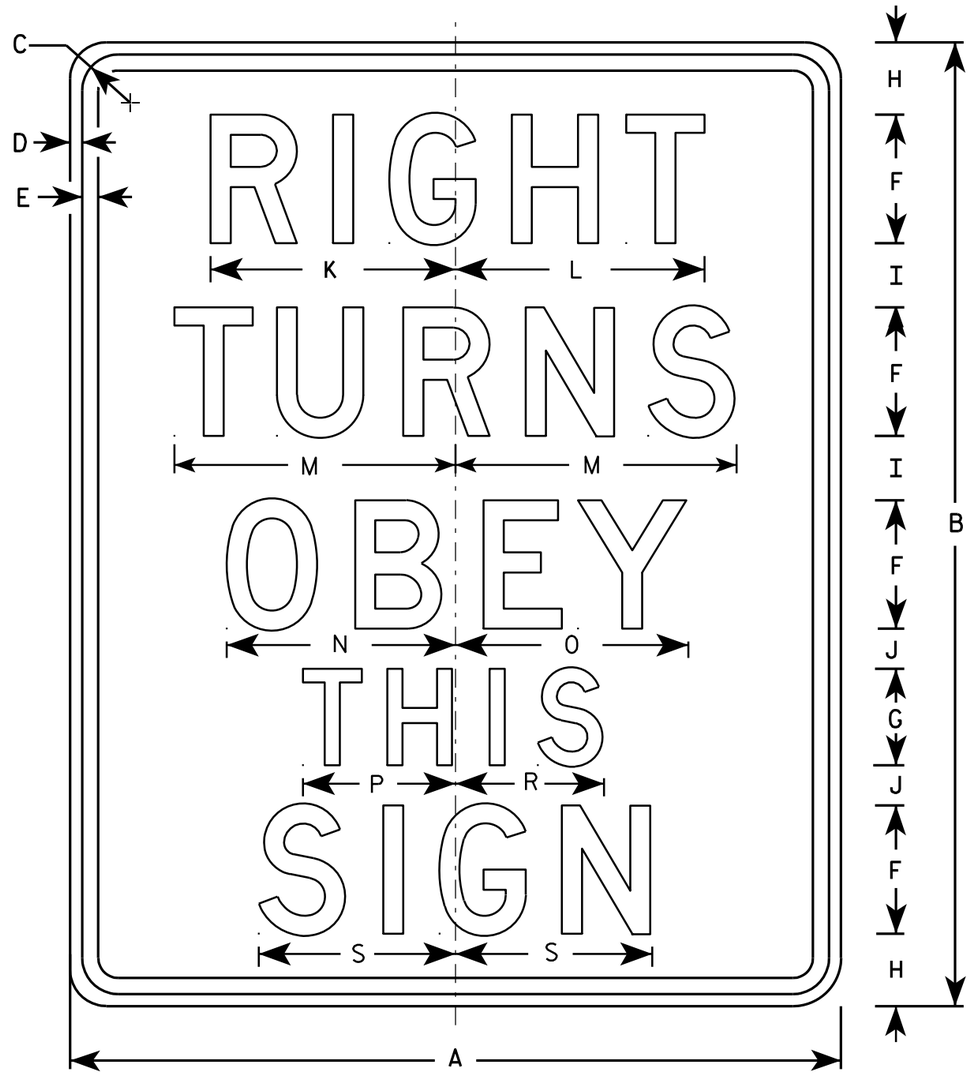
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew L Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 179	E



R1-53

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3	2 1/4	2	1 1/4	7 5/8	7 3/4	8 3/4	7 1/8	7 1/4	4 3/4		4 5/8	6 1/8								5.0
2M	24	30	1 1/8	3/8	1/2	4	3	2 1/4	2	1 1/4	7 5/8	7 3/4	8 3/4	7 1/8	7 1/4	4 3/4		4 5/8	6 1/8								5.0
3																											
4																											
5																											

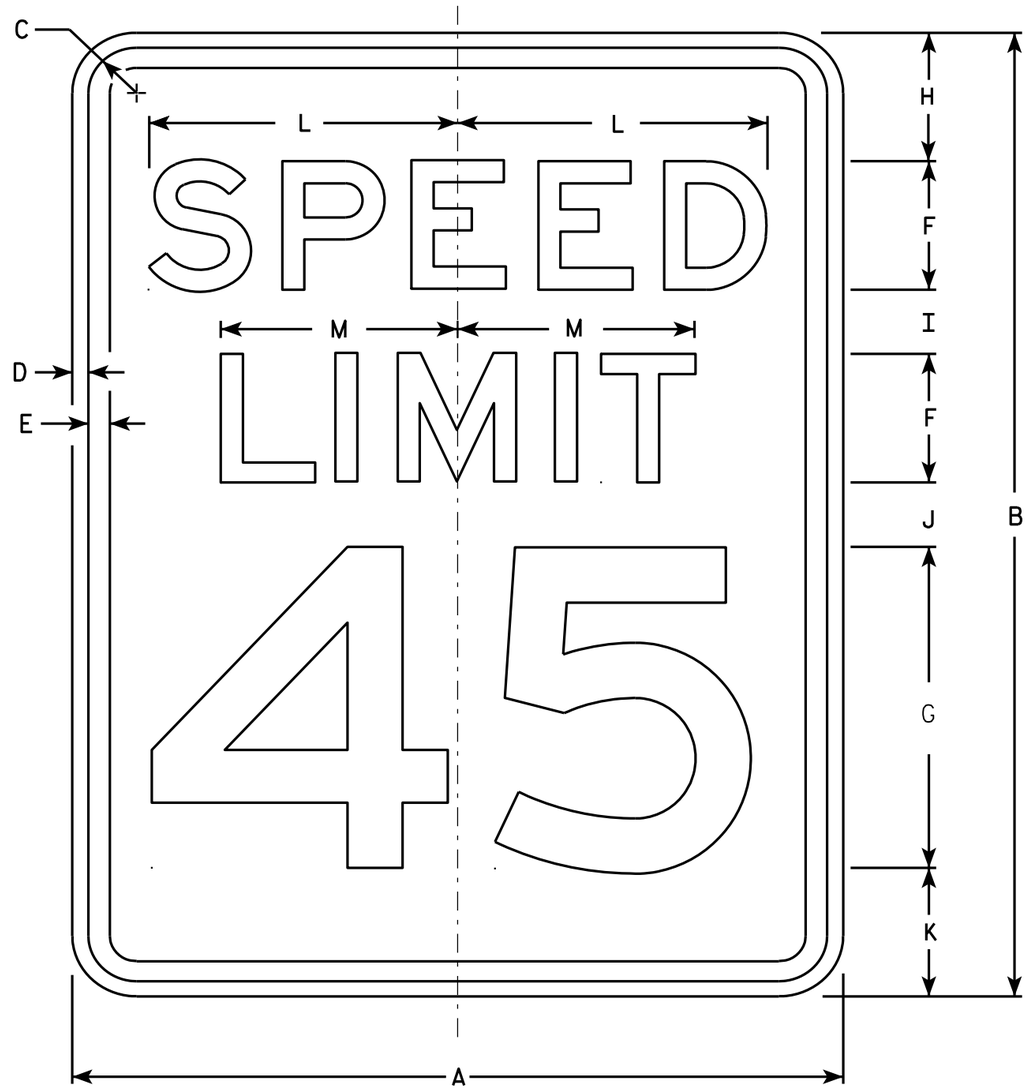
STANDARD SIGN
R1-53

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-53.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 180	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

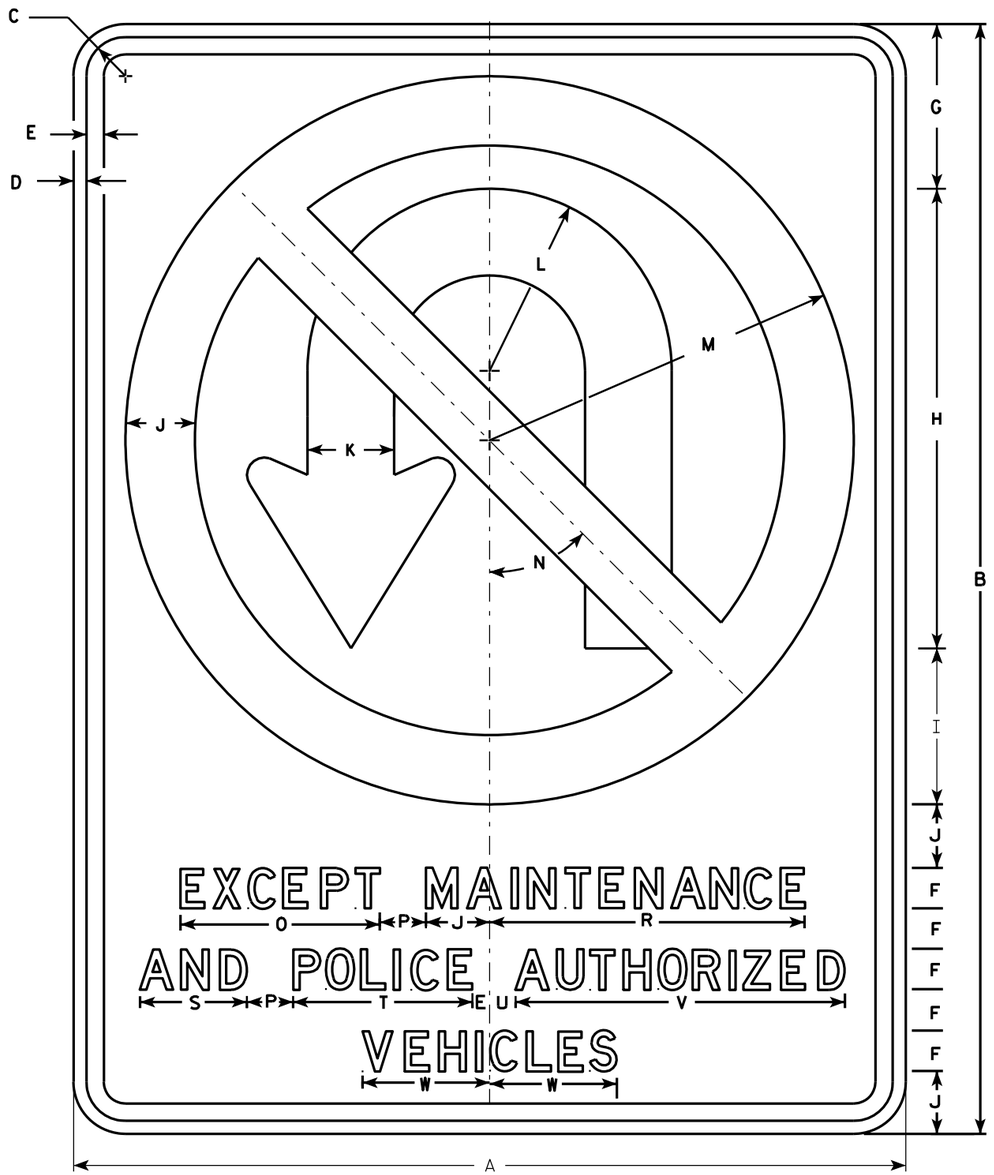
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

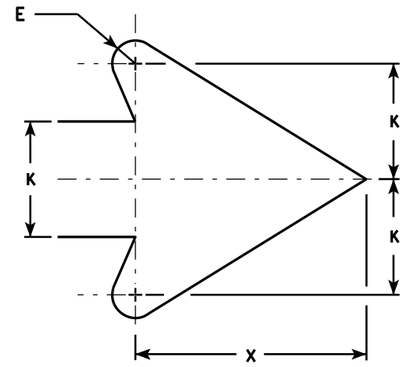
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 181 | E



R3-4B

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	36	48	1 5/8	5/8	3/4	1 3/4	7 1/8	19 7/8	6 3/4	2 3/4	3 3/4	7 7/8	15 3/4	45°	8 5/8	2		13 5/8	4 5/8	7 3/4	1 1/8	14 1/4	5 1/2	7 5/8			12.0
5	36	48	1 5/8	5/8	3/4	1 3/4	7 1/8	19 7/8	6 3/4	2 3/4	3 3/4	7 7/8	15 3/4	45°	8 5/8	2		13 5/8	4 5/8	7 3/4	1 1/8	14 1/4	5 1/2	7 5/8			12.0

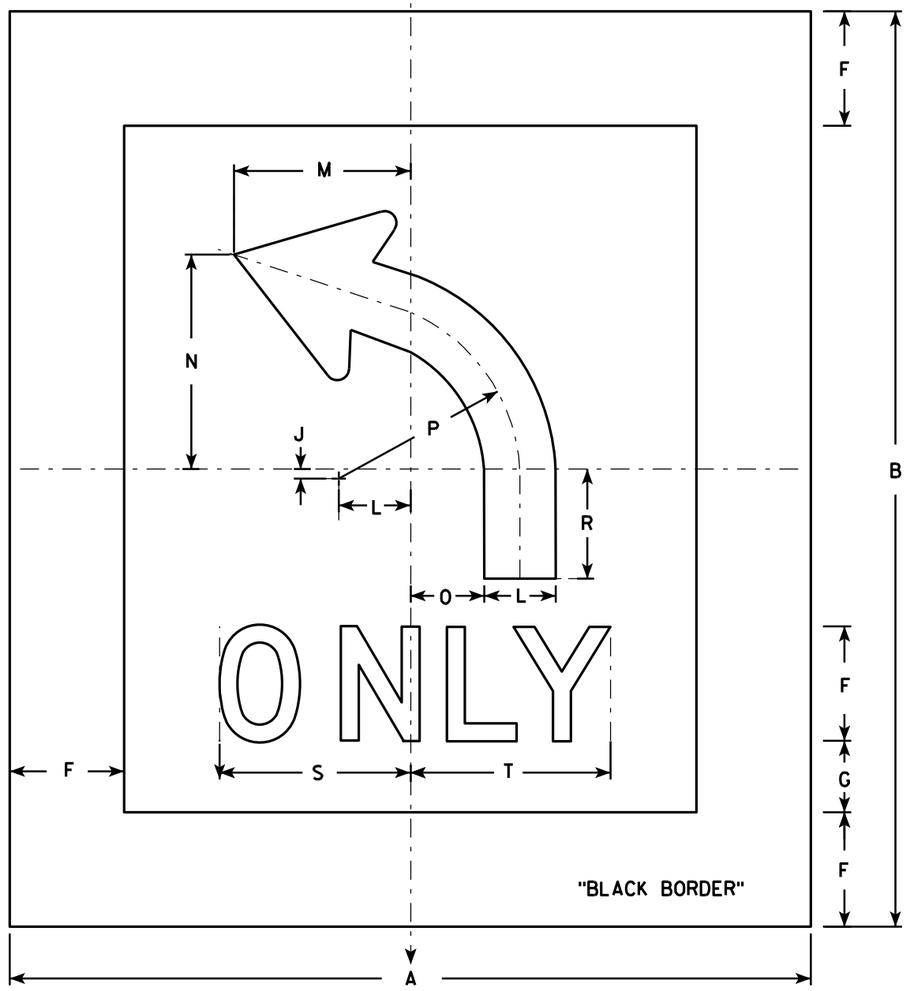
STANDARD SIGN
R3-4B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/17/2011 PLATE NO. R3-4B.2

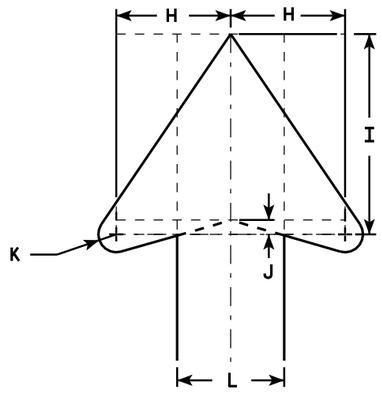
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 182	E



R3-5L

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. When base material is metal, the corners shall be rounded.
5. R3-5R is the same as R3-5L except curved portion of arrow points right.
6. The 6" border is non-reflective black.



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	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
2M	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
3																											
4																											
5																											

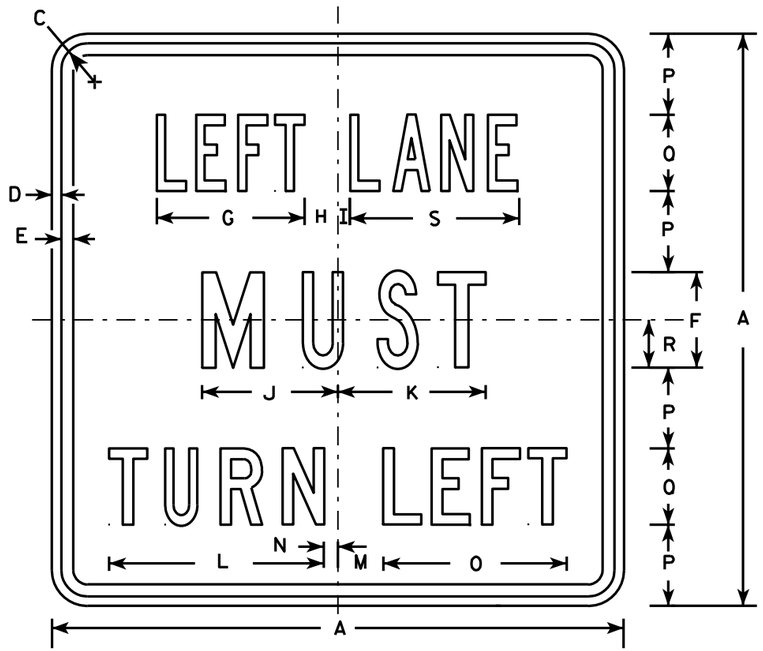
STANDARD SIGN
R3-5

WISCONSIN DEPT OF TRANSPORTATION

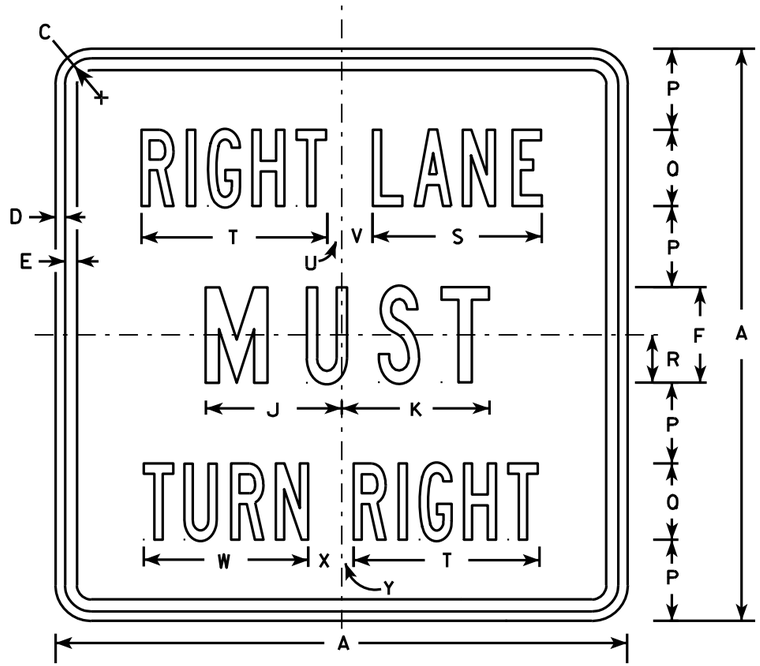
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 183 | E



R3-7L



R3-7R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

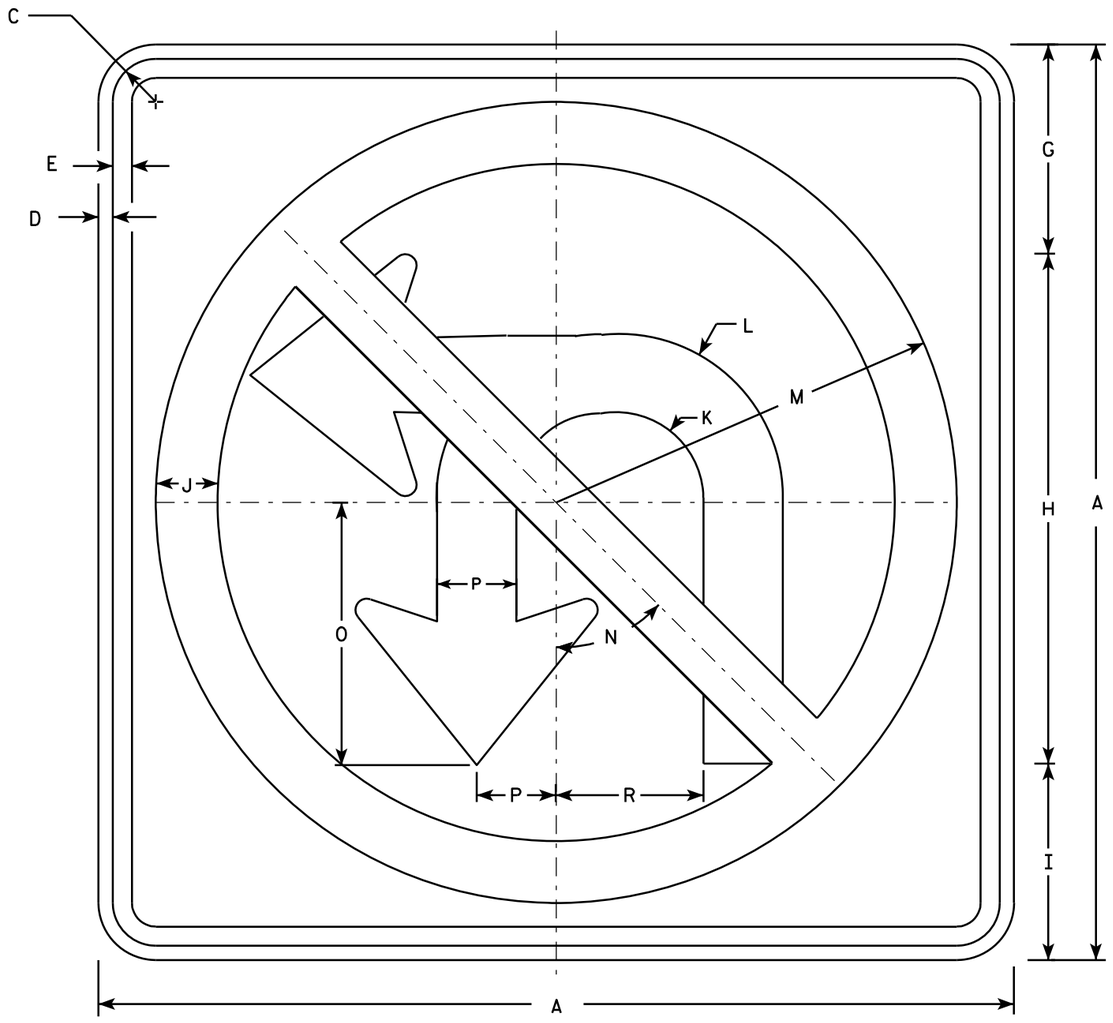
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 184 | E



R3-18

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.

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		1 1/8	3/8	1/2		5 1/2	13 3/8	5 1/8	1 5/8	2 1/4	4 1/4	10 1/2	45°	6 7/8	2 1/8		3 7/8									4.0
2M	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45°	10 3/8	3 1/8		5 3/4									9.0
3	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
4	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
5	48		2 1/4	3/4	1		11	26 3/4	10 1/4	3 1/4	4 5/8	8 5/8	21	45°	13 3/4	4 1/8		7 3/4									16.0

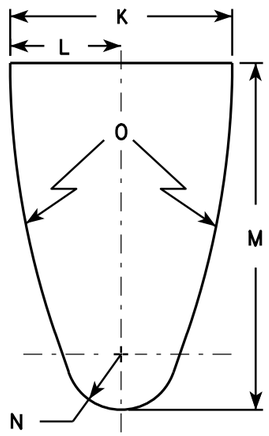
STANDARD SIGN
R3-18

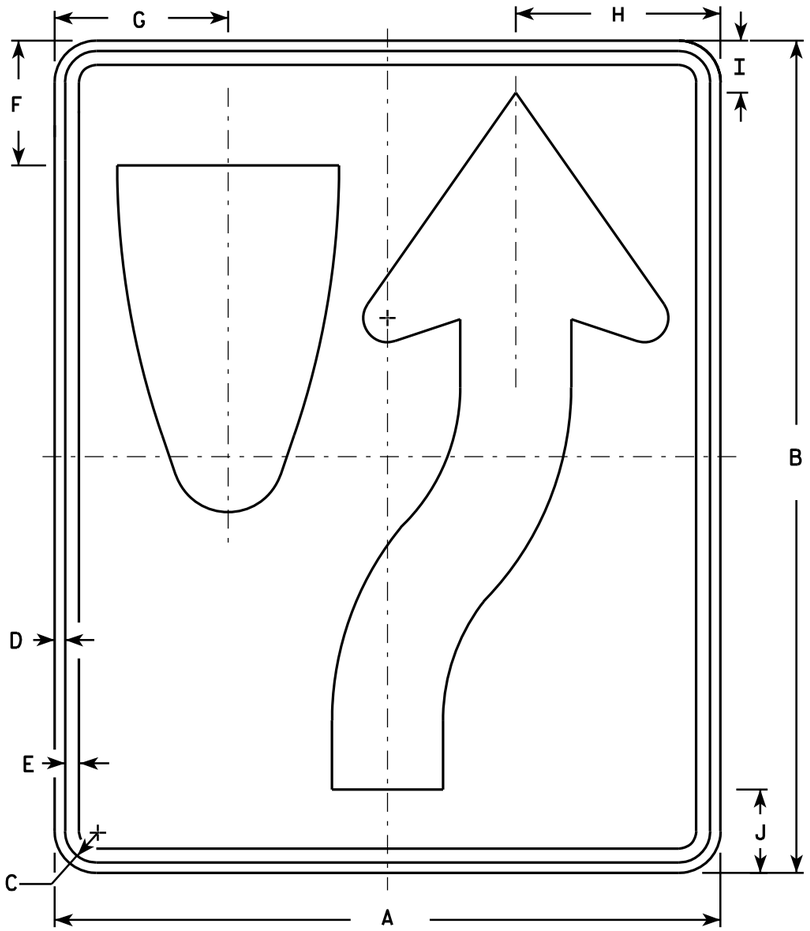
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/10 PLATE NO. R3-18.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 185	E

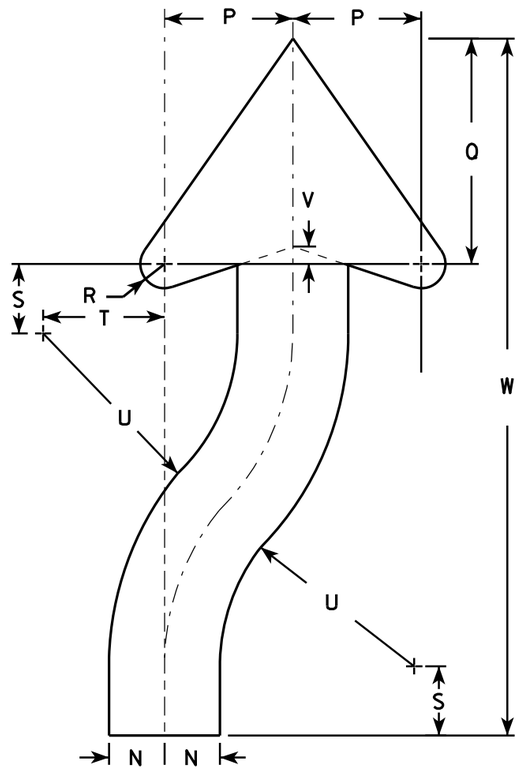




R4-7

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

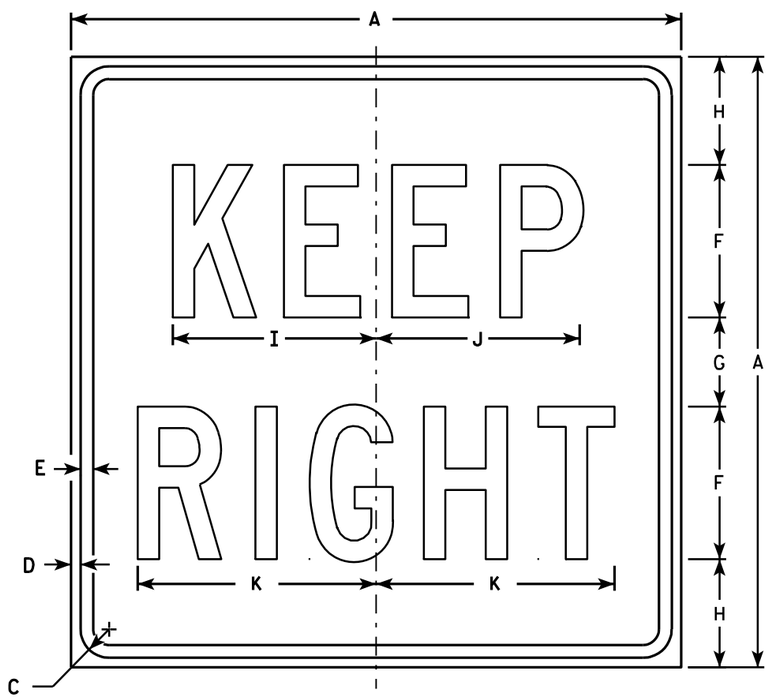
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

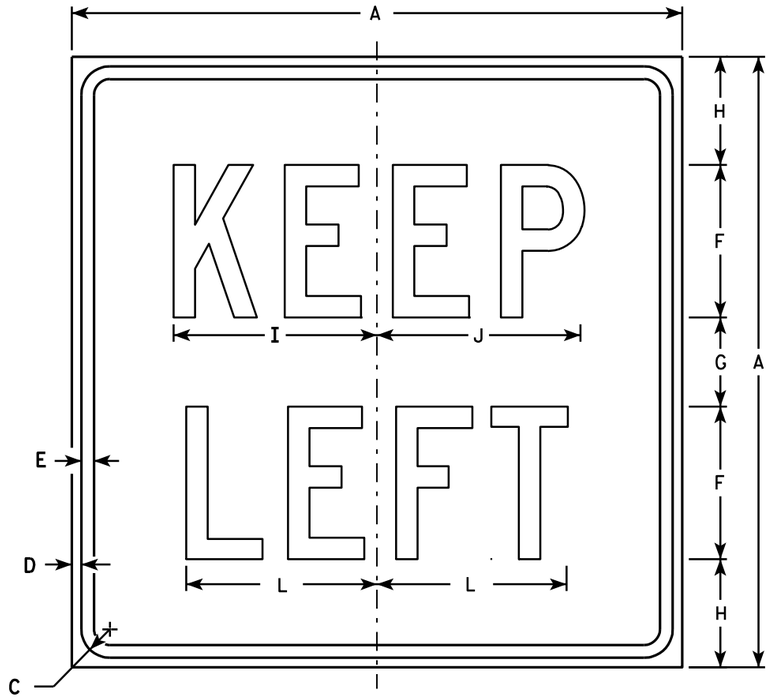
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 186	E



R4-52R



R4-52L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8	3/8	3/8	5	2	3	6 3/4	6 5/8	7 1/2	6 1/4															2.25
2S	24		1 1/8	3/8	1/2	6	3 1/2	4 1/4	8	8	9 3/8	7 1/2															4.0
2M	24		1 1/8	3/8	1/2	6	3 1/2	4 1/4	8	8	9 3/8	7 1/2															4.0
3	36		1 5/8	5/8	3/4	10	5	5 1/2	13 1/2	13 3/8	14 1/2	12 1/2															9.0
4																											
5																											

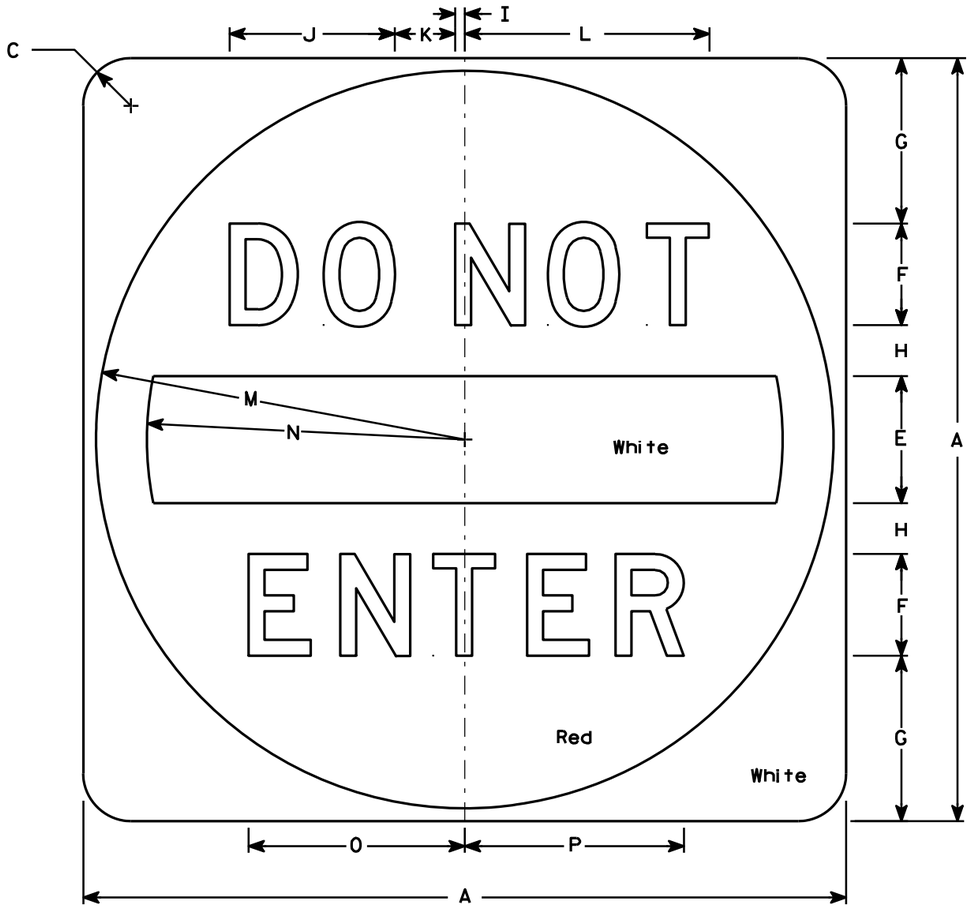
STANDARD SIGN
R4-52R & R4-52L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R4-52.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 187 | 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

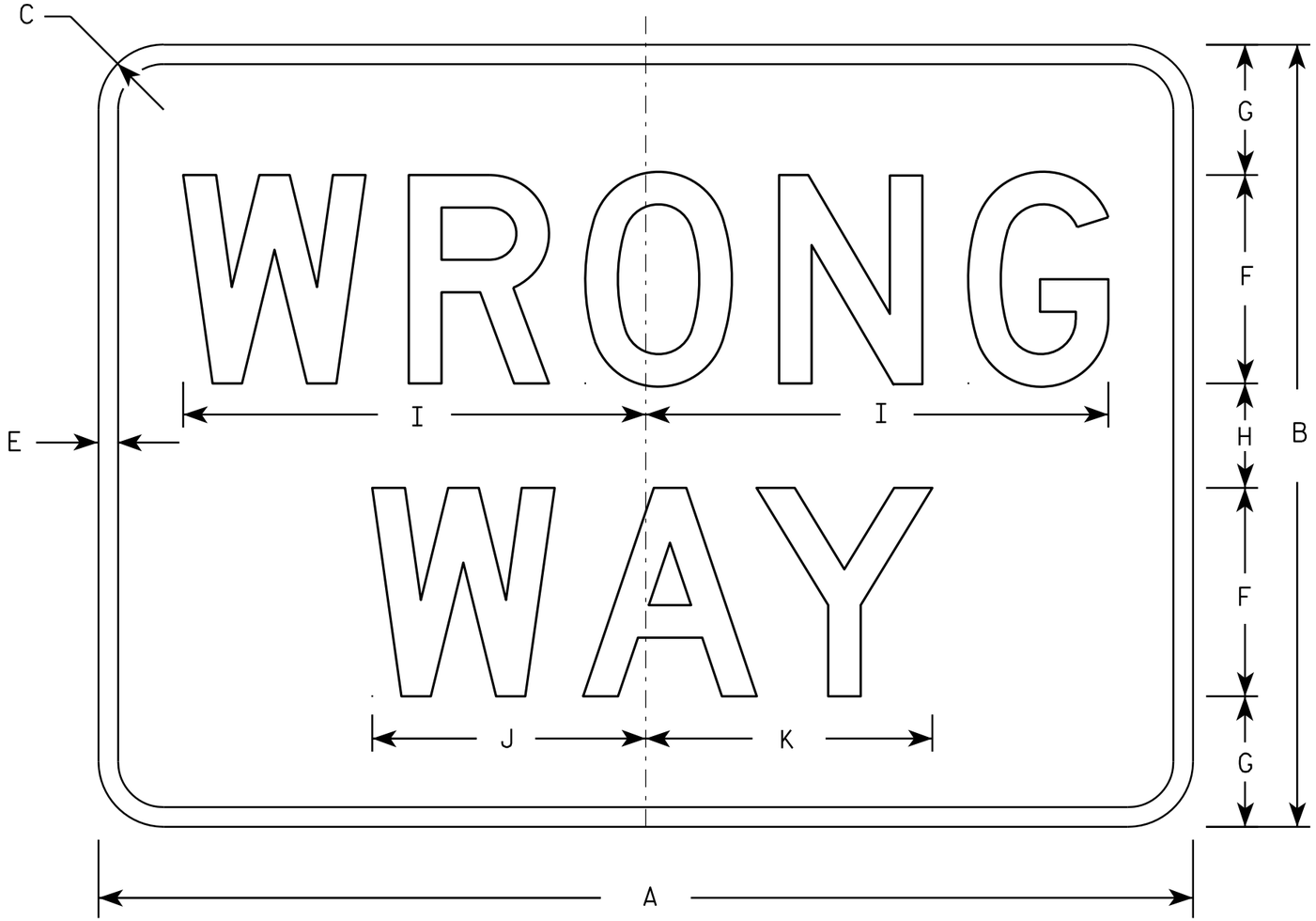
STANDARD SIGN
R5-1

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: 188 | E



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

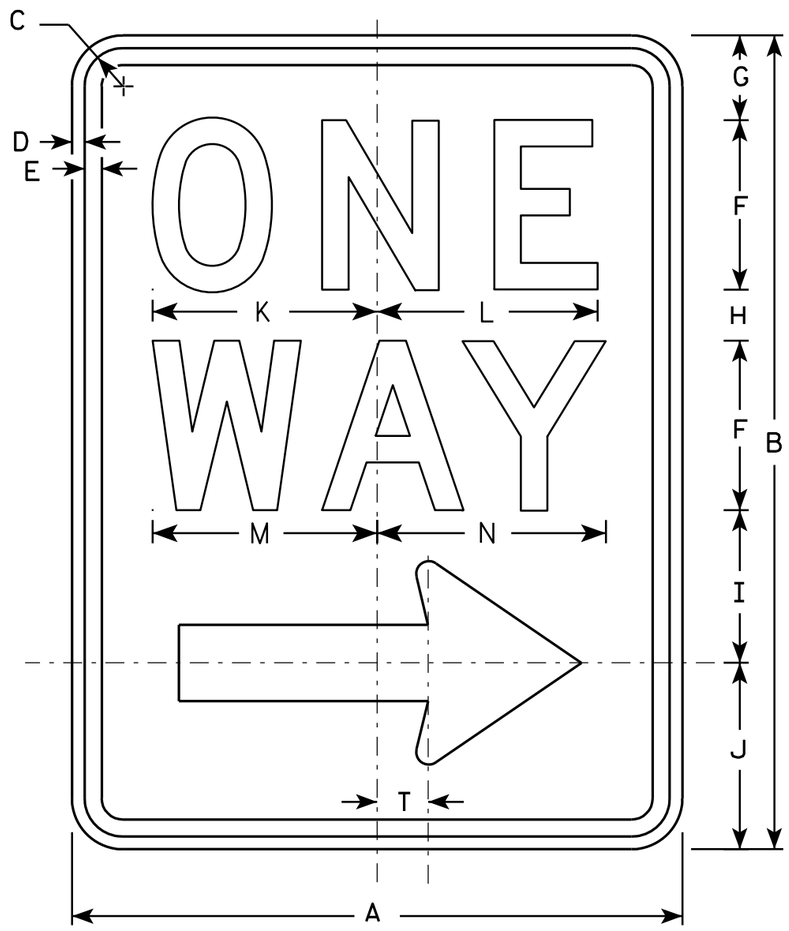
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

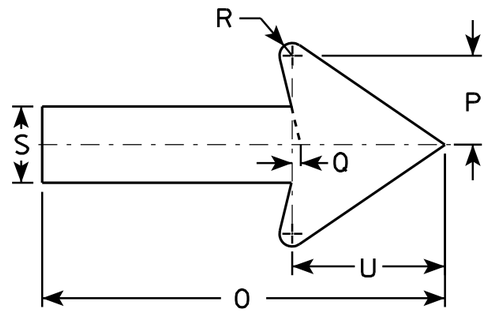
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 189	E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

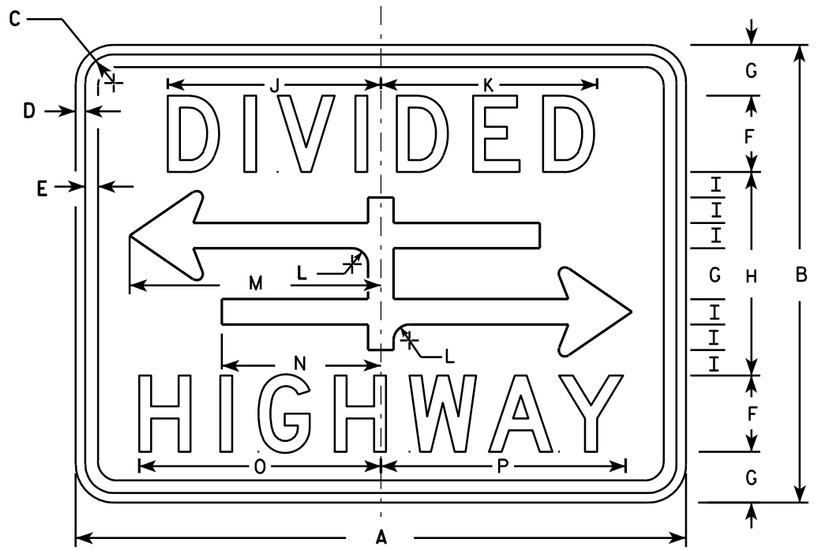
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

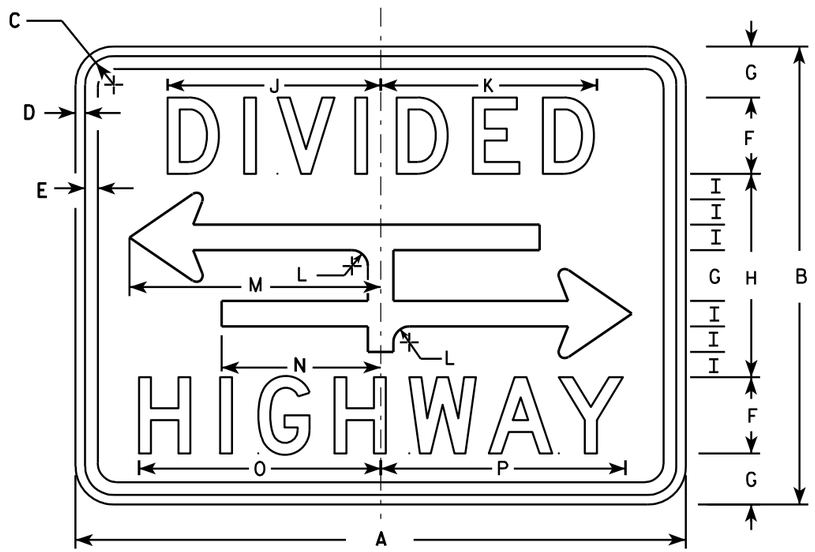
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 190	E



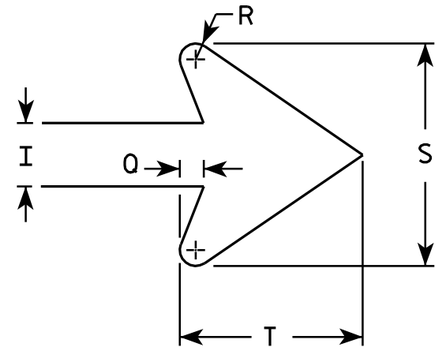
R6-3

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

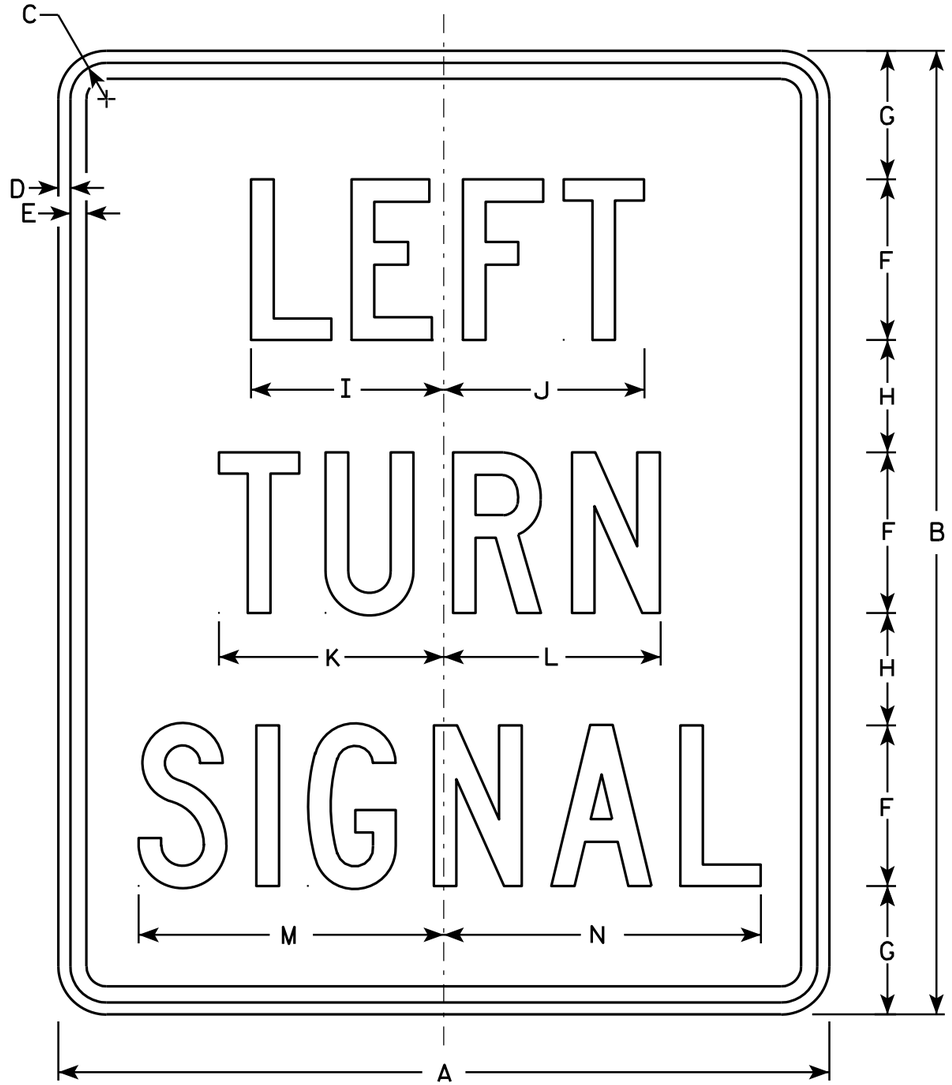
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

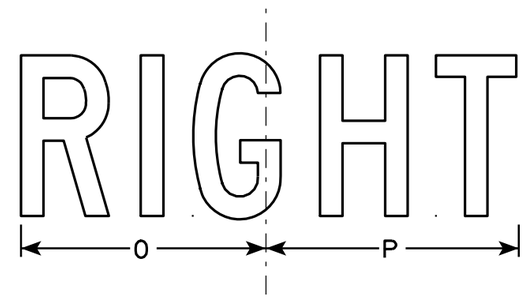
SHEET NO: 191 E



R10-10L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R10-10R is identical to R10-10L except RIGHT replaces LEFT.



R10-10R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	5	4	3 1/2	6	6 1/4	7	6 3/4	9 1/2	9 7/8	7 5/8	7 7/8											5.0
2M	24	30	1 1/8	3/8	1/2	5	4	3 1/2	6	6 1/4	7	6 3/4	9 1/2	9 7/8	7 5/8	7 7/8											5.0
3																											
4																											
5																											

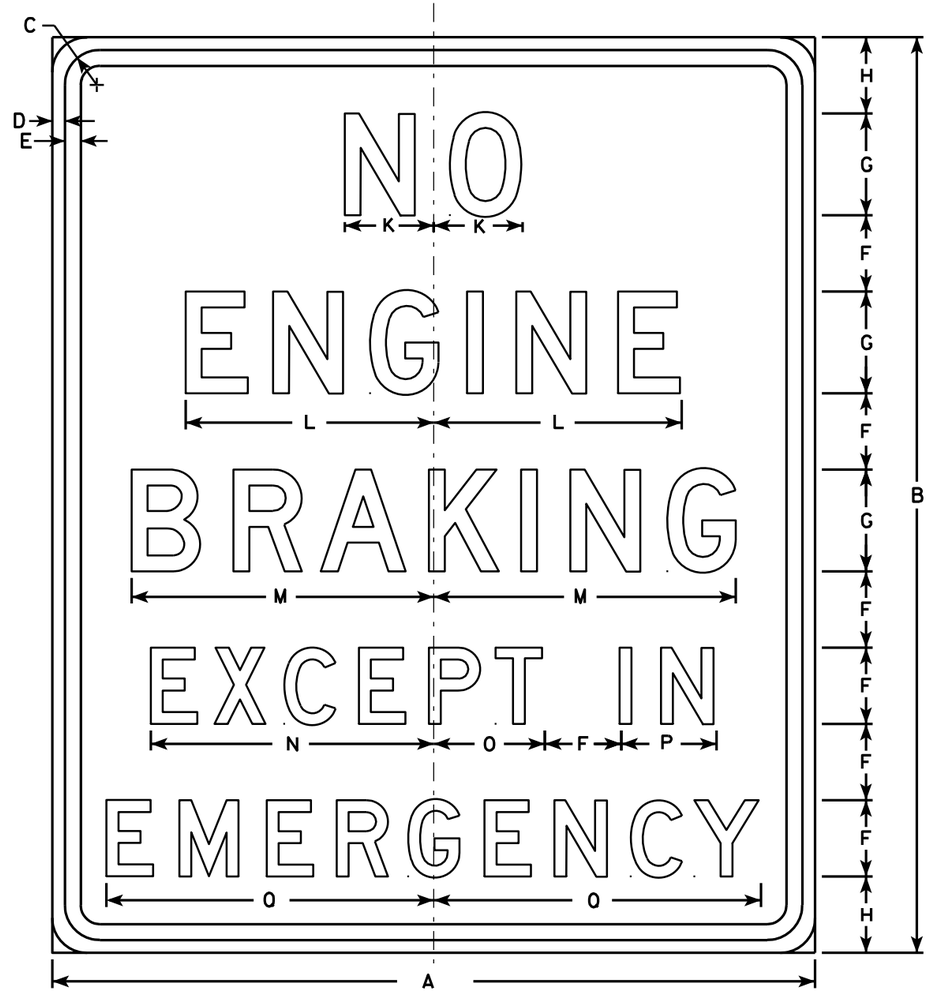
STANDARD SIGN
R10-10

WISCONSIN DEPT OF TRANSPORTATION

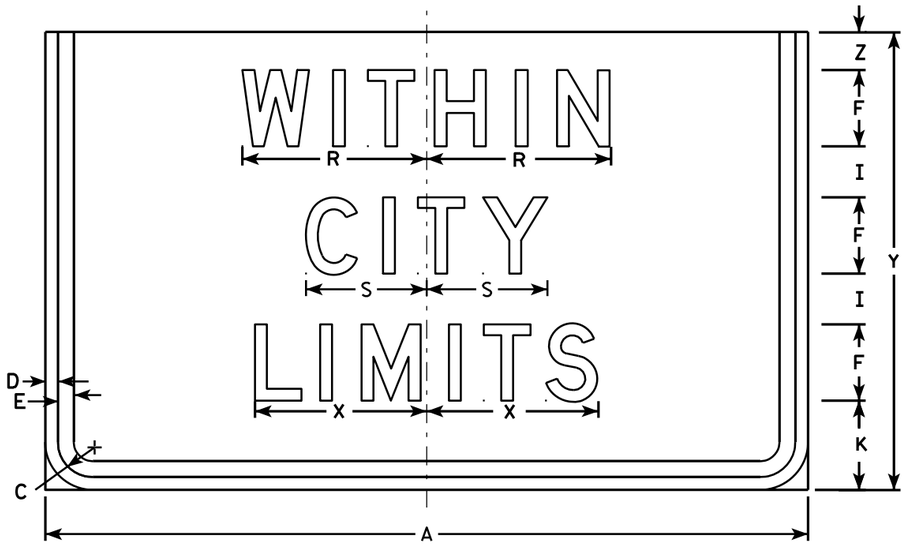
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-10.6

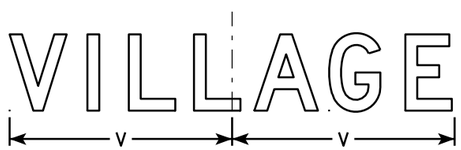
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 192	E



R10-64



R10-64F



Area sq. ft.
3.75
7.0



NOTES

1. Signs are 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 See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 2 of R10-64F is Series C for "TOWNSHIP" Only

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	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
2S	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
2M	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
3	42	48	1 3/8	1/2	5/8	4	5	4 1/2	3		4	12 1/4	14 7/8	14 1/8	5 1/4	4 3/4	16 1/4	9	6		11	11 1/4	1 1/2	8 1/2	24	2	14.0
4																											
5																											

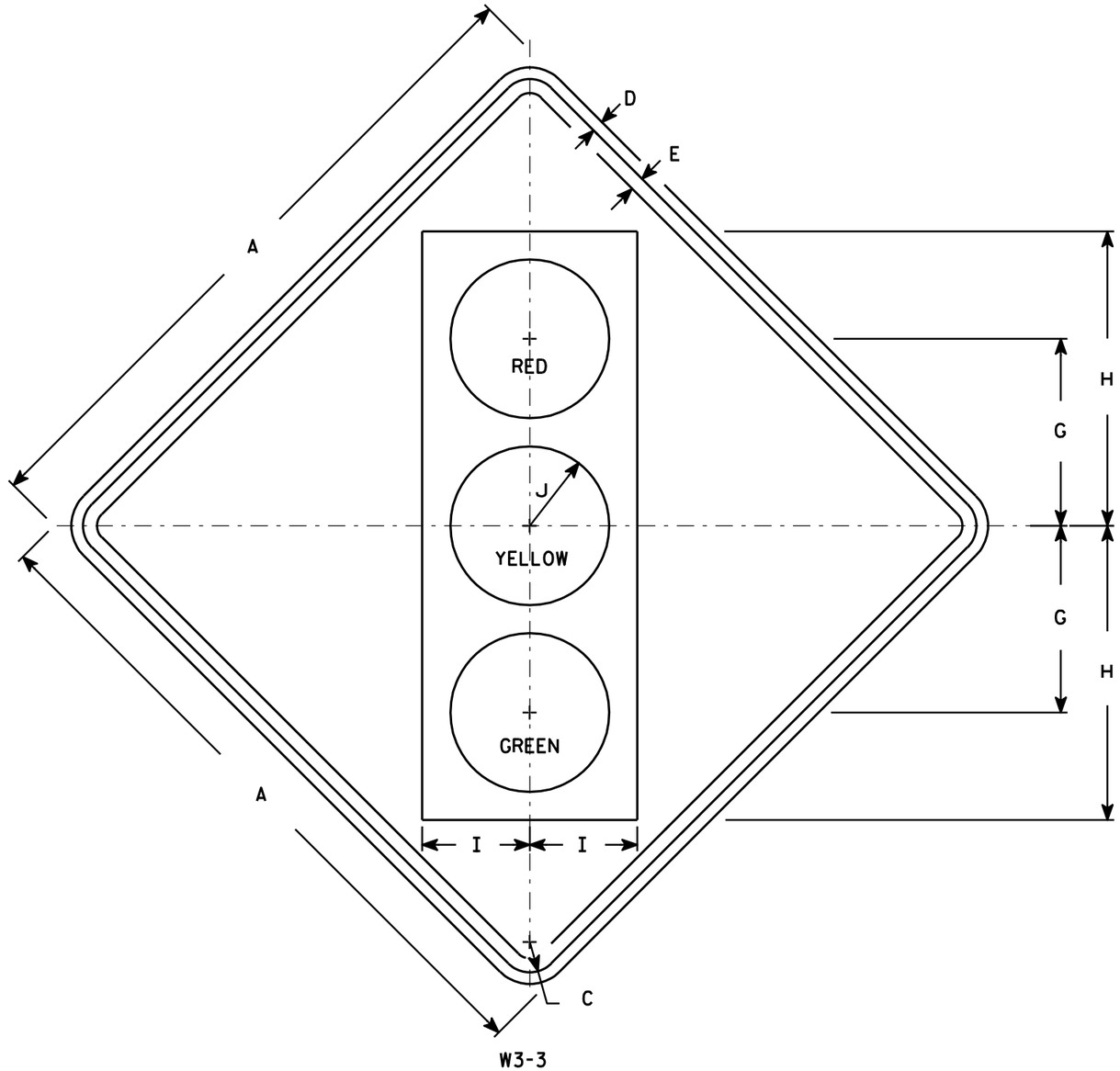
STANDARD SIGN
R10-64 & R10-64F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-64.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 193	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

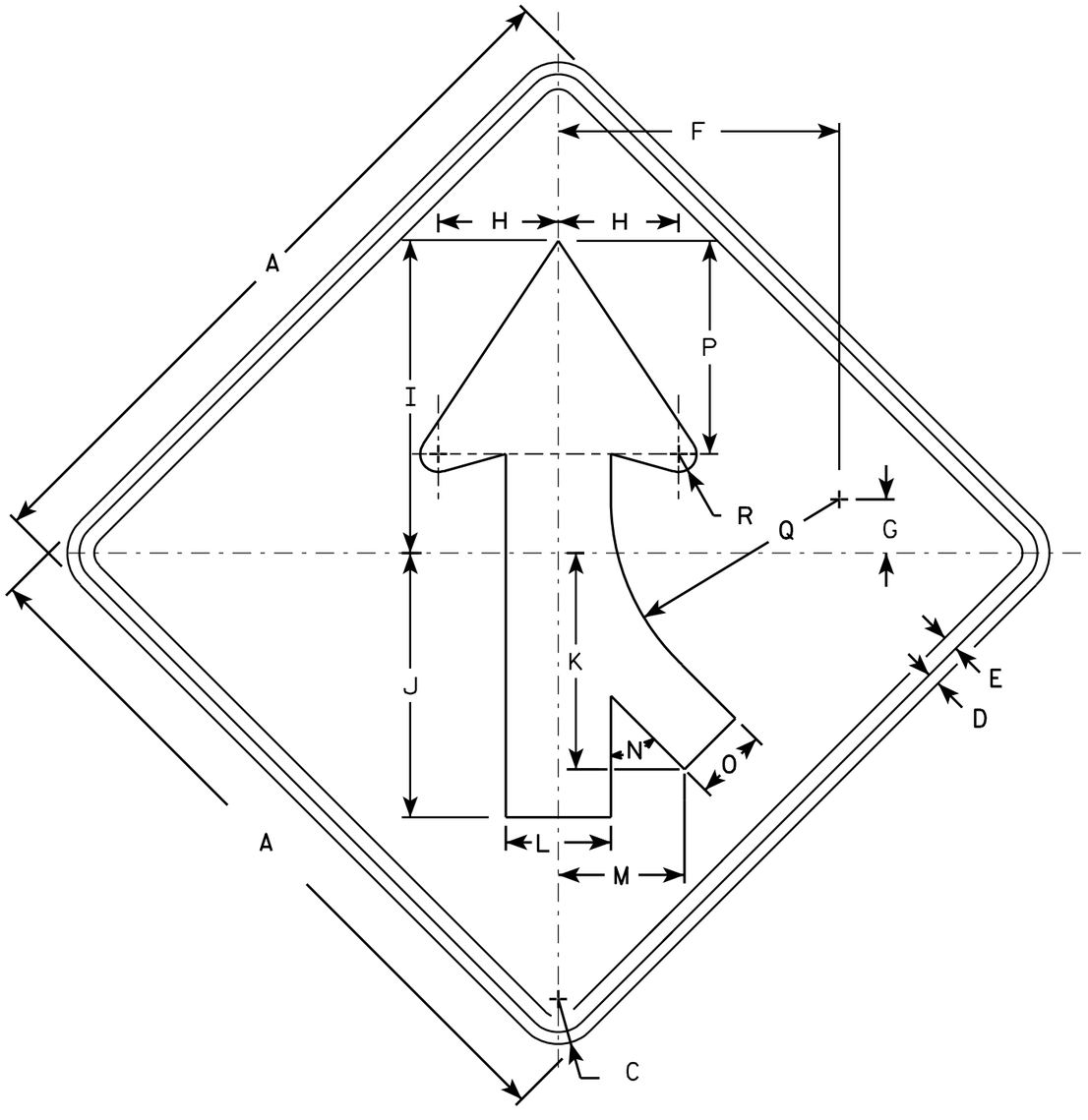
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 194 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W33.DGN PLOT DATE : 07-JUN-2010 13:07 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 7.448805:1.000000
WISDOT/CADDS SHEET 42



W4-1 R

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. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	11 5/8	2 1/2	5	13	11	9	4 3/8	5 1/4	45°	3	8 7/8	9 1/2	3/4									6.25
2S	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2M	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
3	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

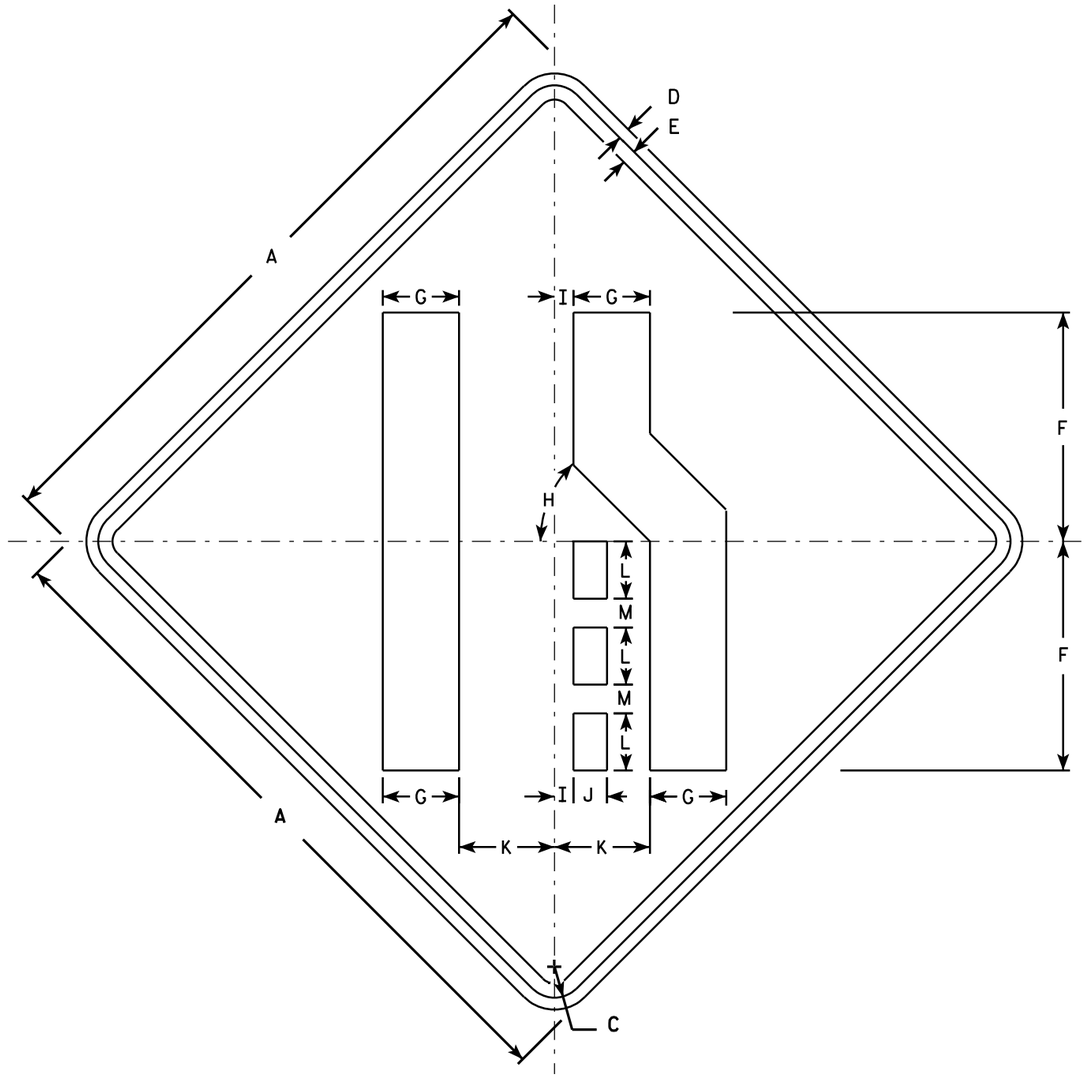
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 195	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

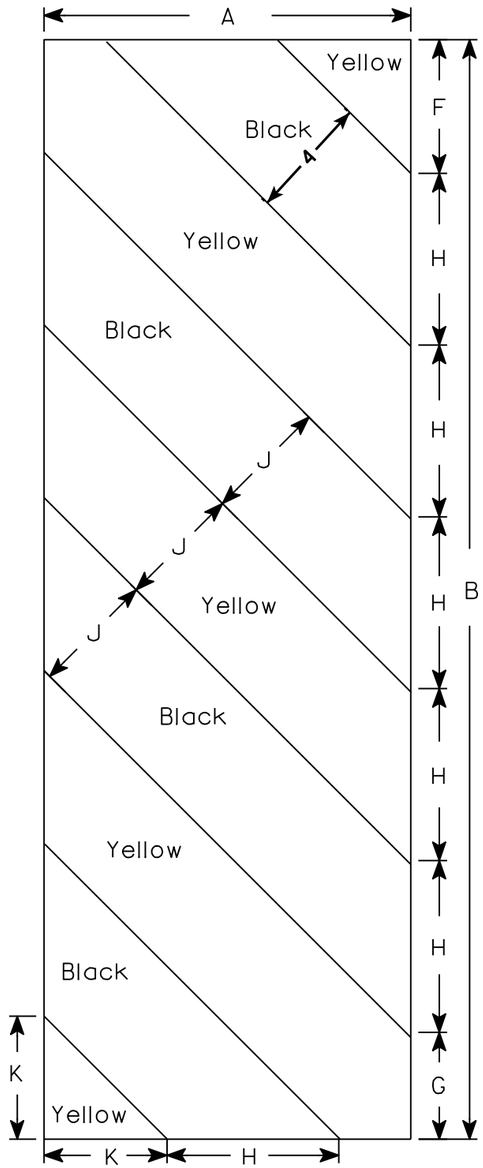
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

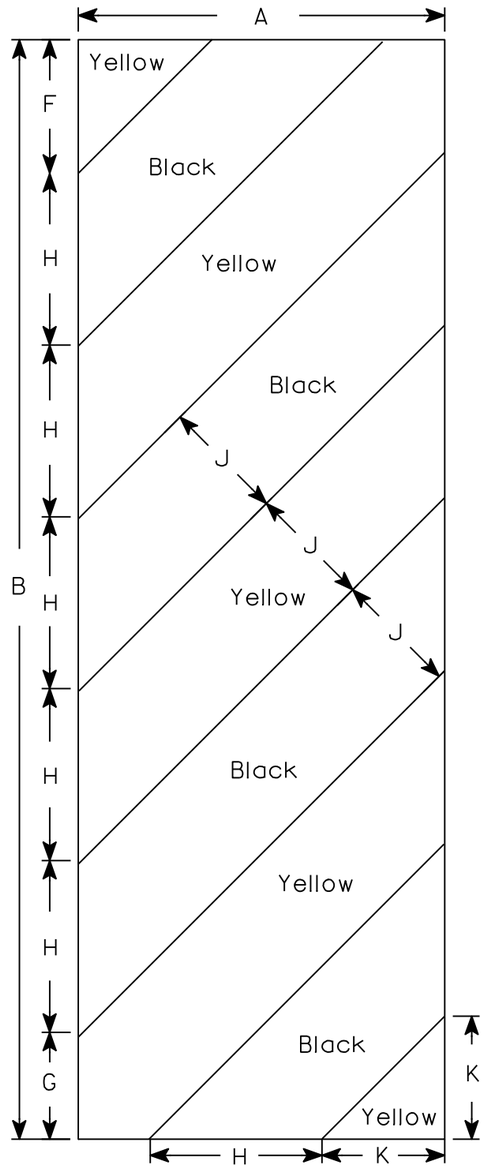
DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 196 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

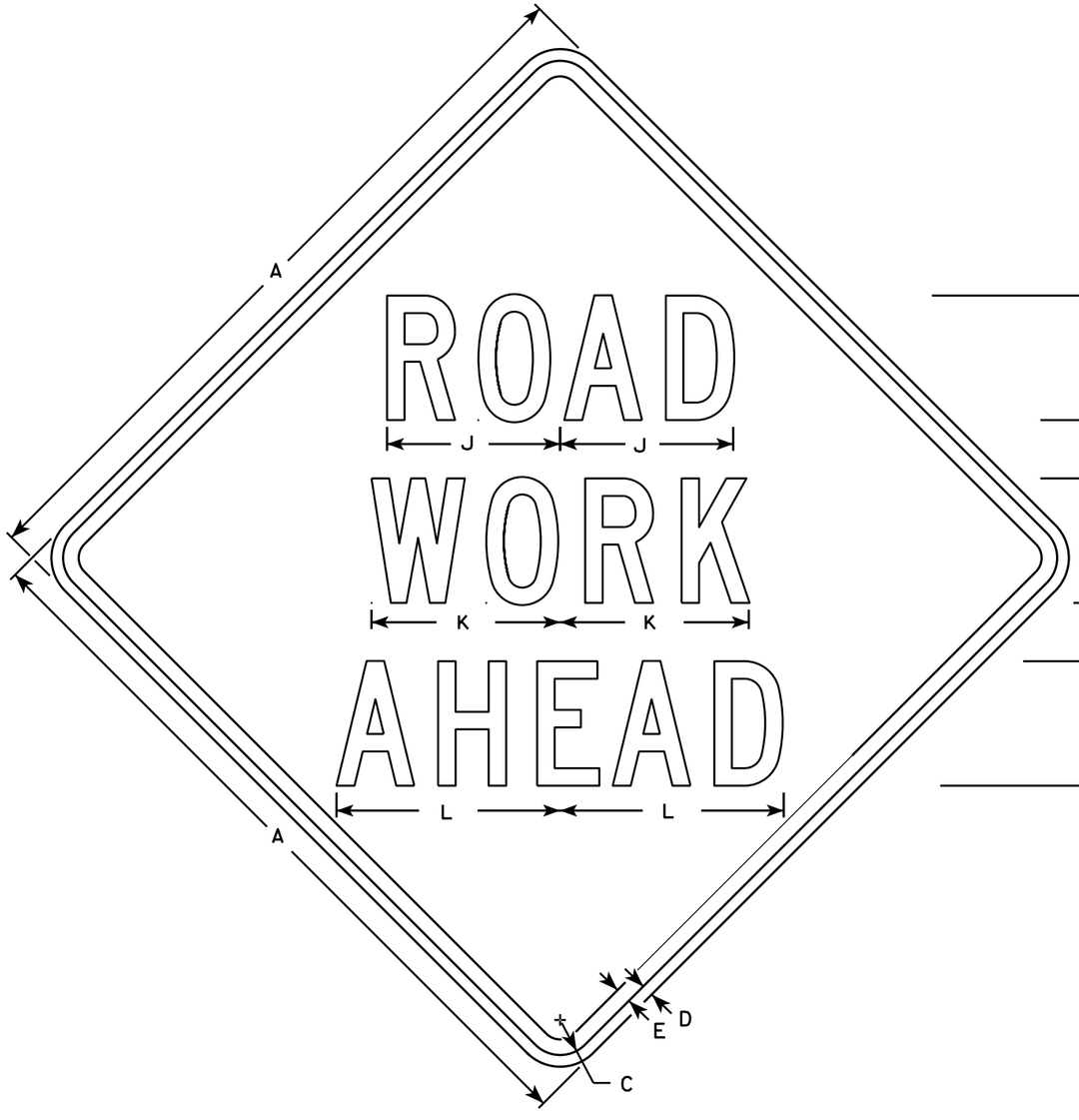
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

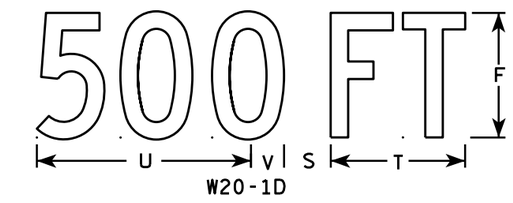
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

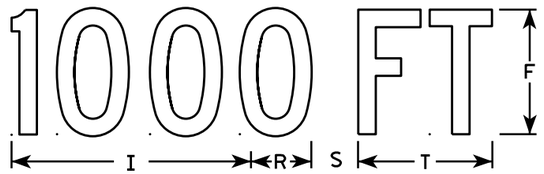
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 197	E



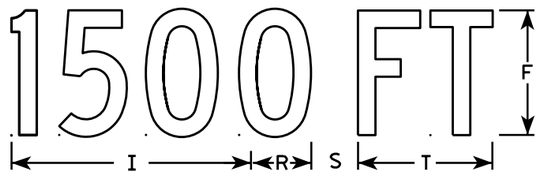
W20-1A



W20-1D



W20-1C



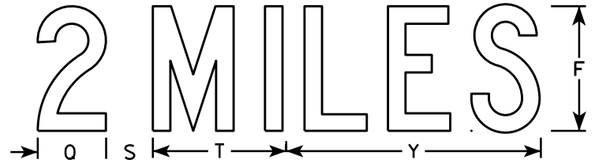
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	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	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

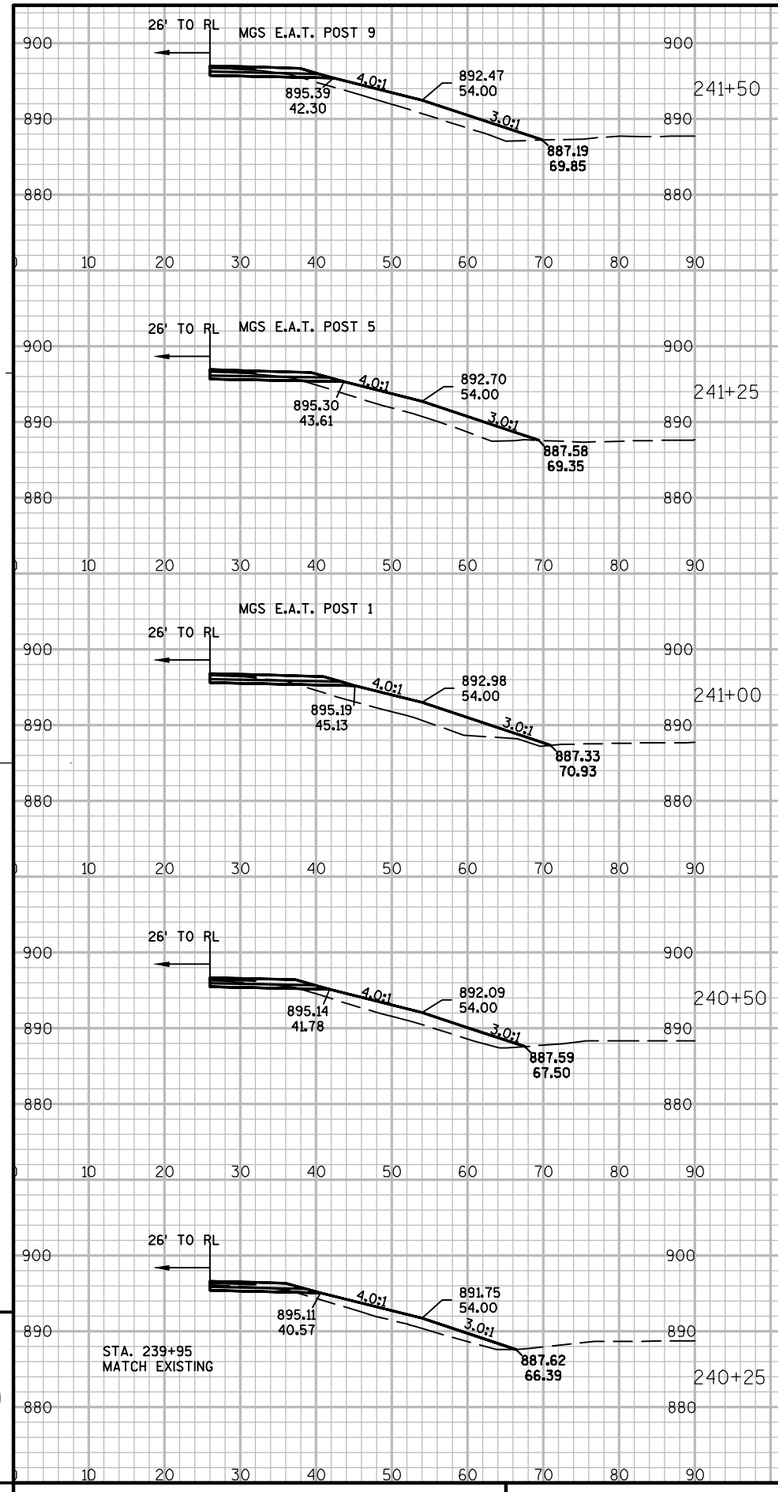
State Traffic Engineer

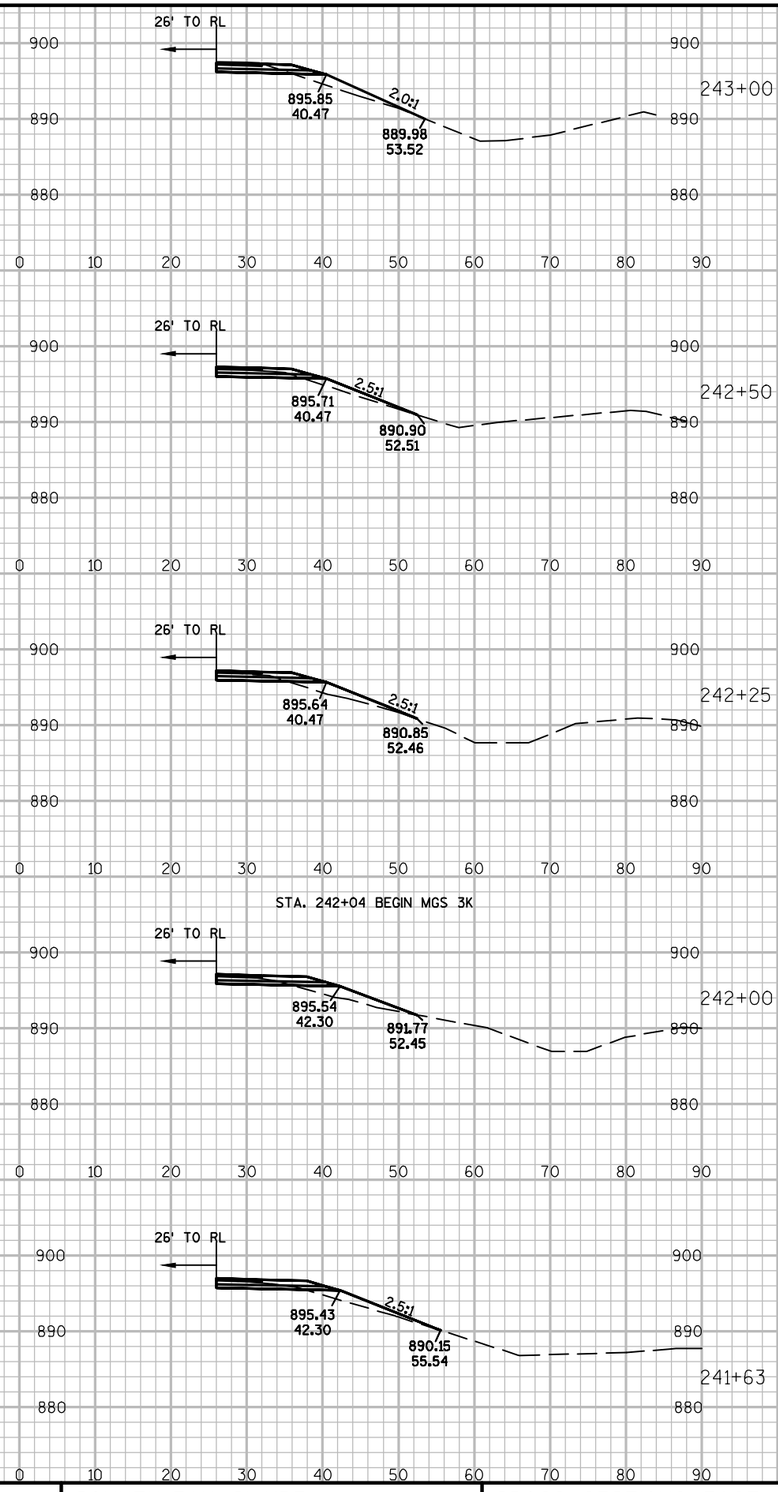
DATE 5/07/15 PLATE NO. W20-1.10

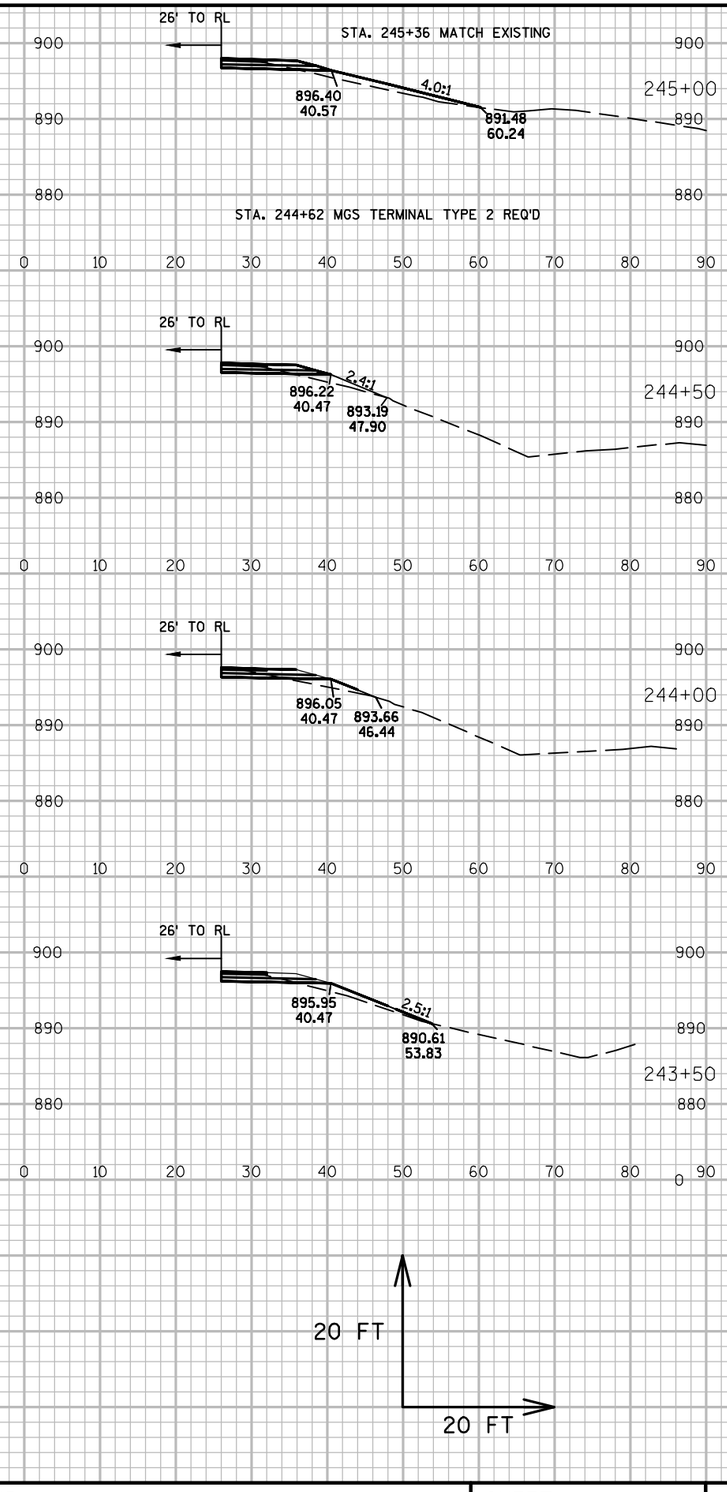
PROJECT NO: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W201.dgn PLOT DATE : 27-MAY-2015 15:58 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



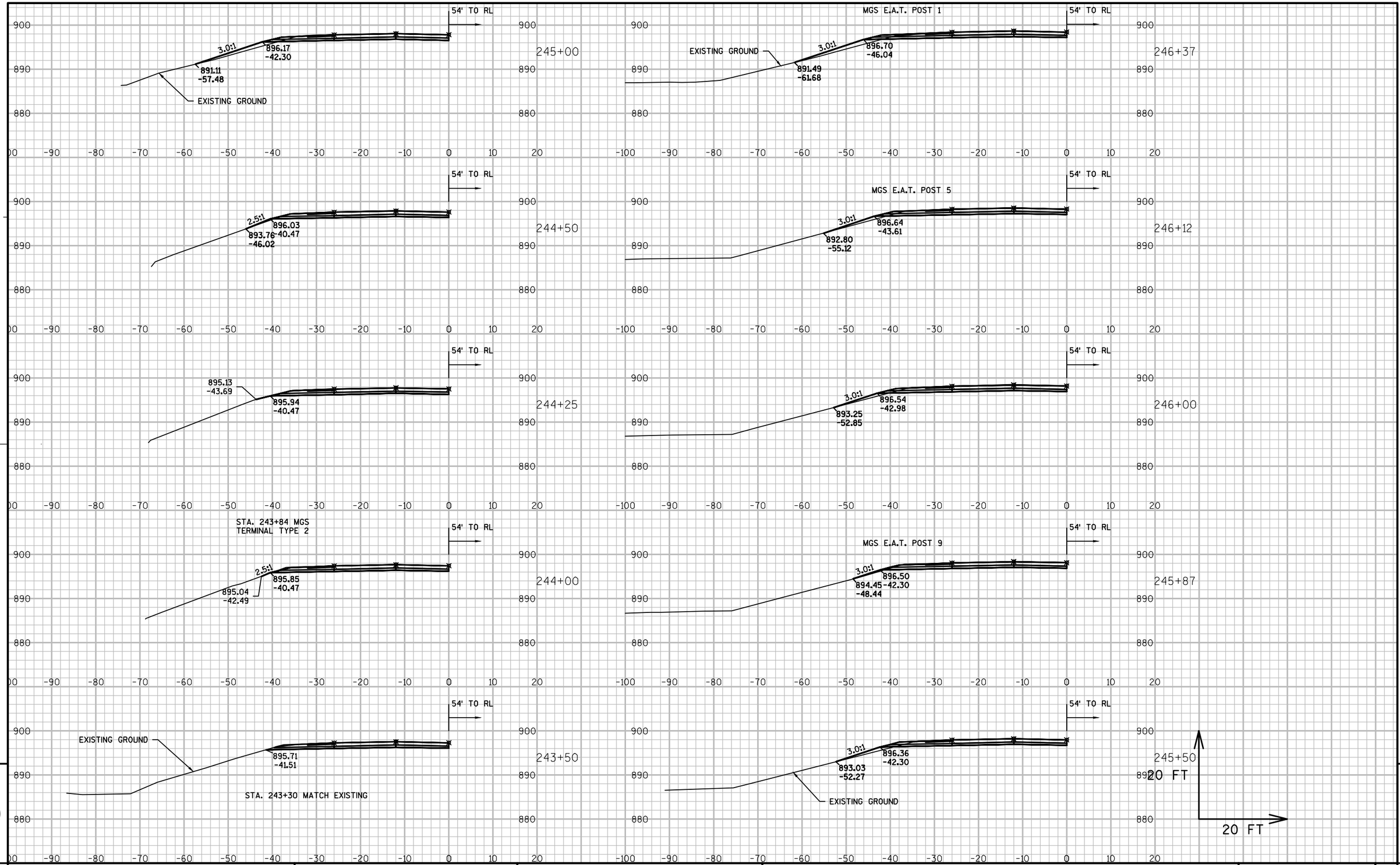




9

9

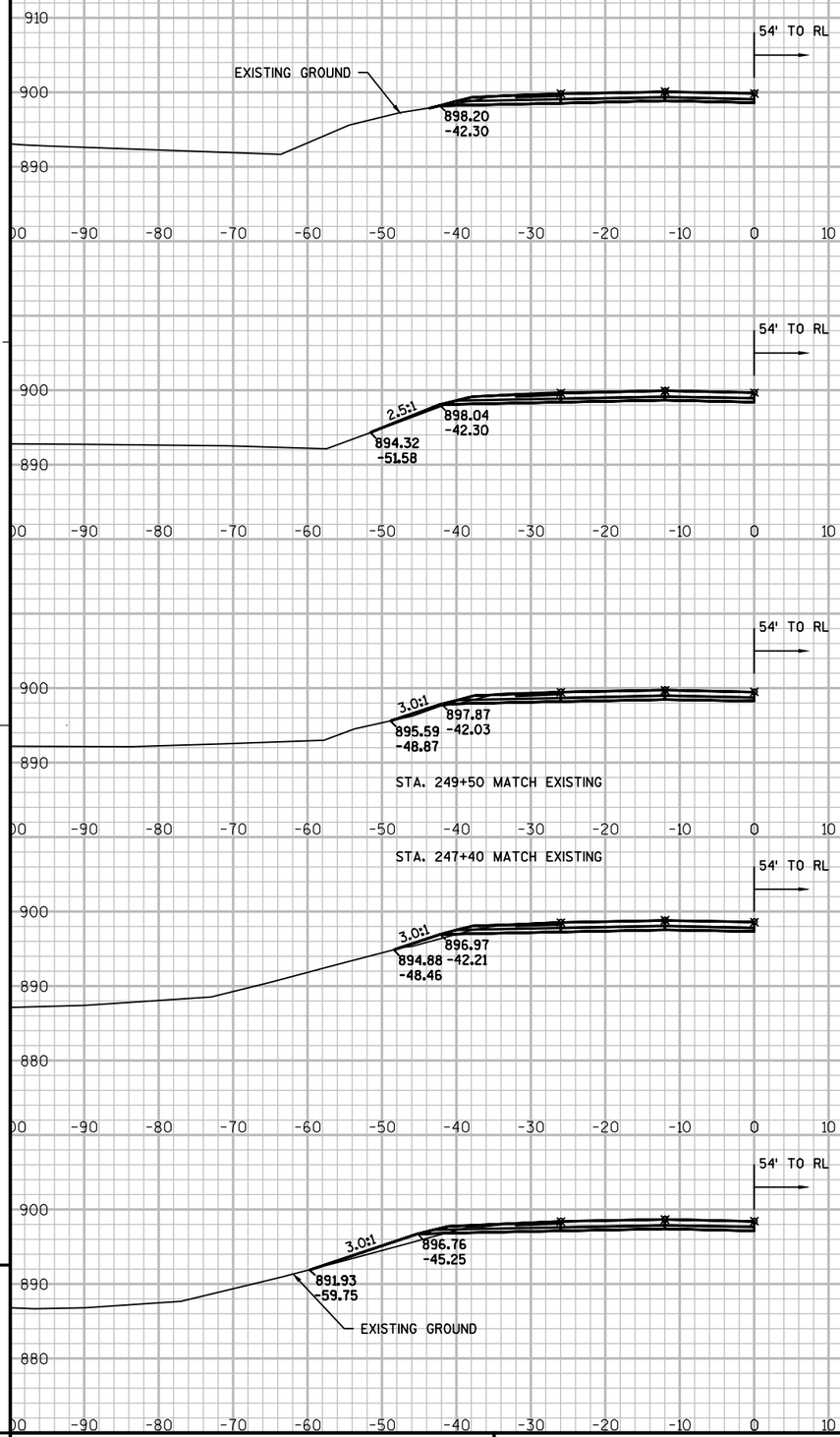
PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: EAST BOUND	SHEET 199	E

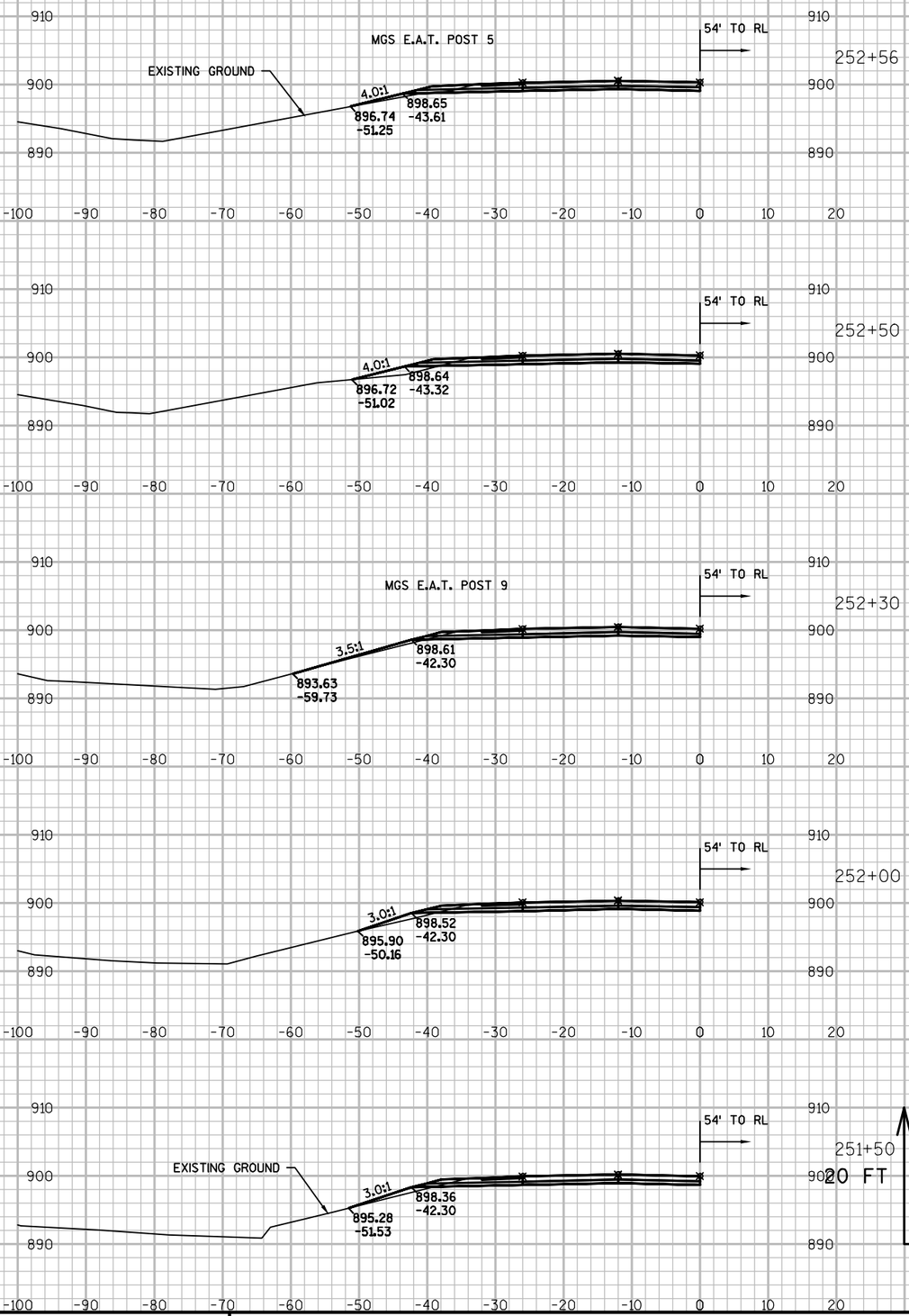


PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: WEST BOUND	SHEET 200	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\XSECTIONS\XSECTIONS-WB-24300-25400.DWG PLOT DATE : 4/27/2015 10:29 AM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



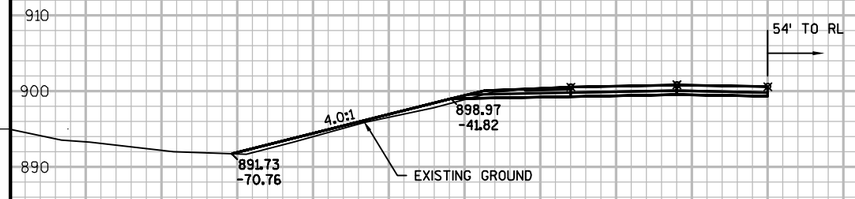


PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: WEST BOUND	SHEET 201	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\XSECTIONS\XSECTIONS-WB-24300-25400.DWG PLOT DATE : 4/27/2015 10:29 AM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

STA. 254+00 MATCH EXISTING



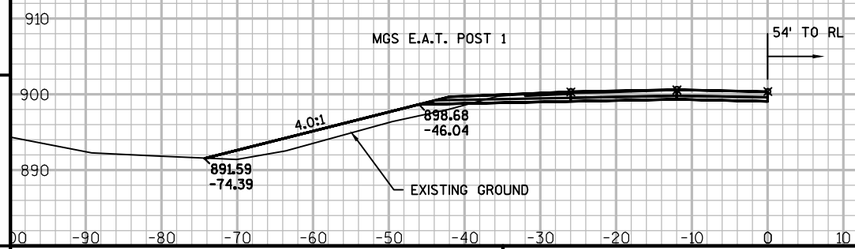
253+50

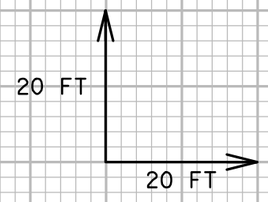
253+00



MGS E.A.T. POST 1

252+80

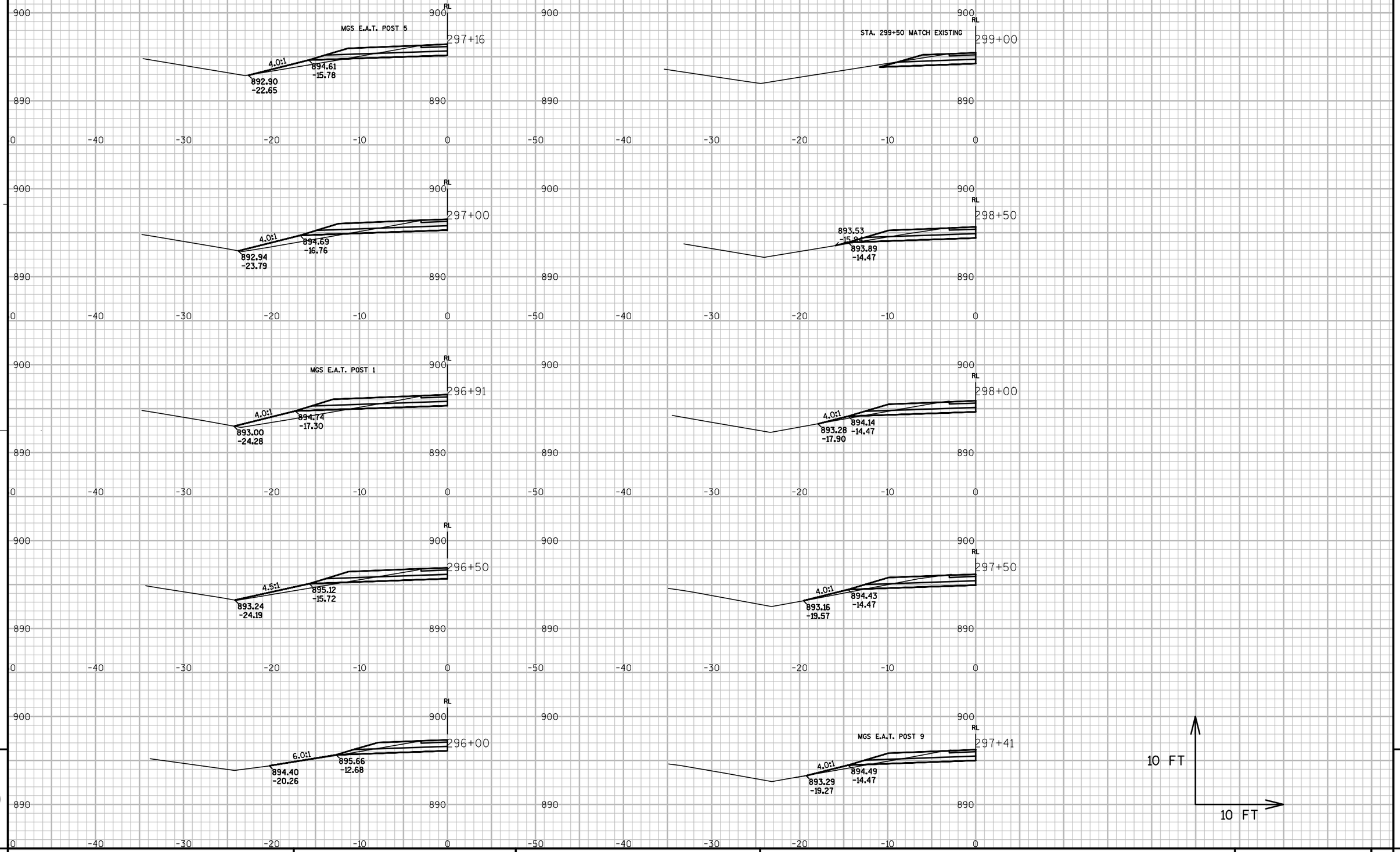




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9

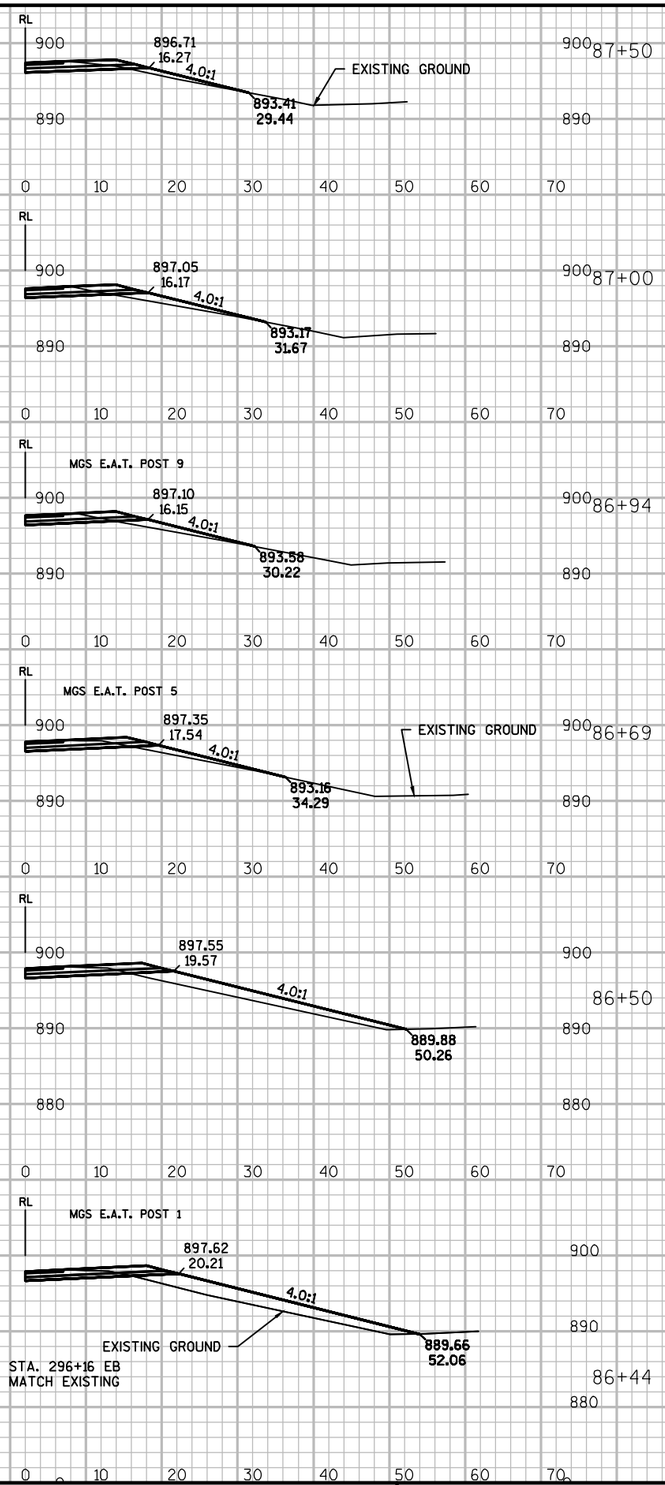
PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: WEST BOUND	SHEET 202	E



9

9

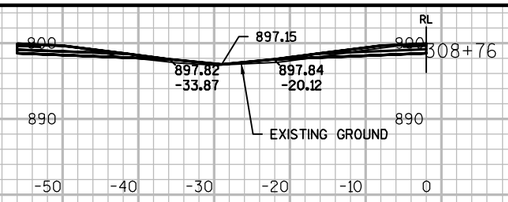
PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: EAST BOUND	SHEET 203	E

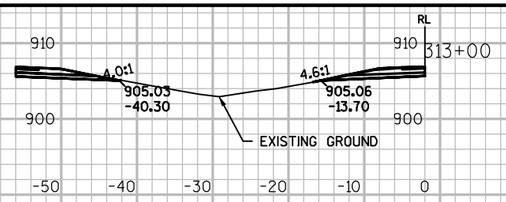


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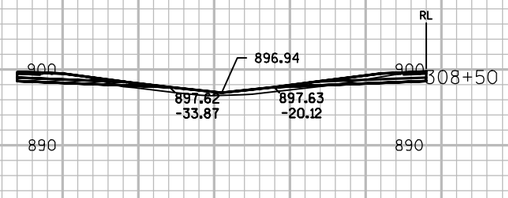
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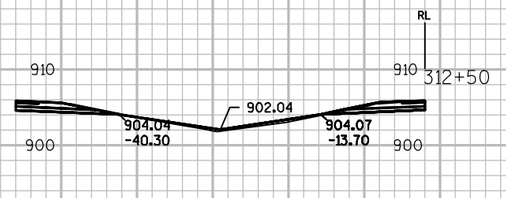
PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: SW RAMP	SHEET 204	E

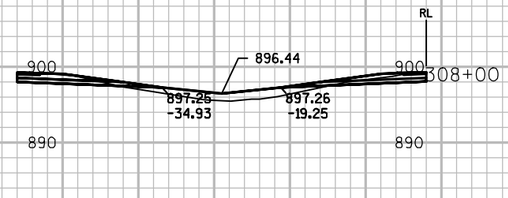


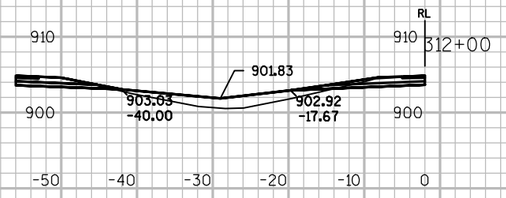


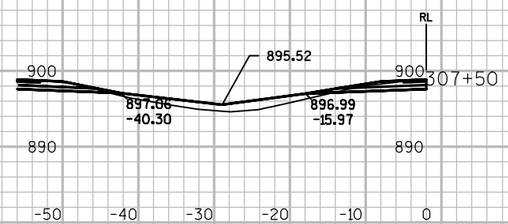
STA. 313+00
MATCH EXISTING

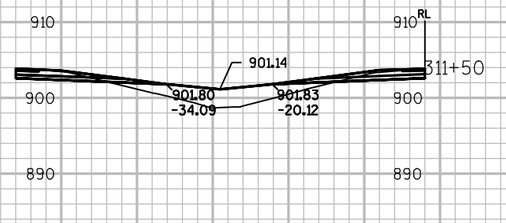




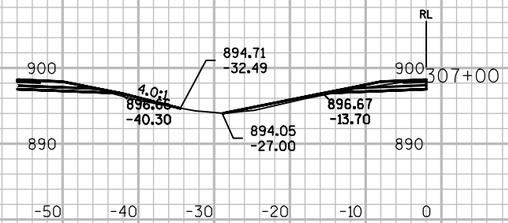


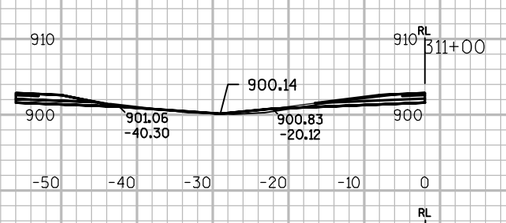


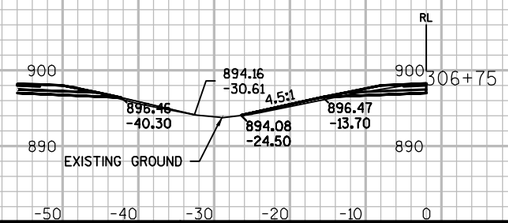




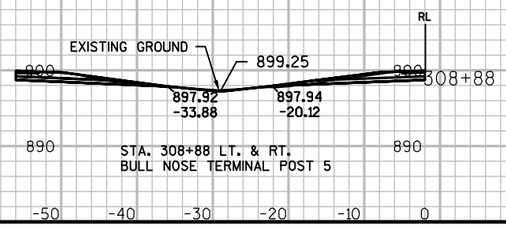
STA. 310+88 LT. & RT.
BULL NOSE TERMINAL POST 5



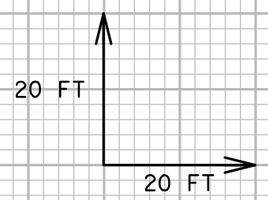




STA. 306+62
MATCH EXISTING



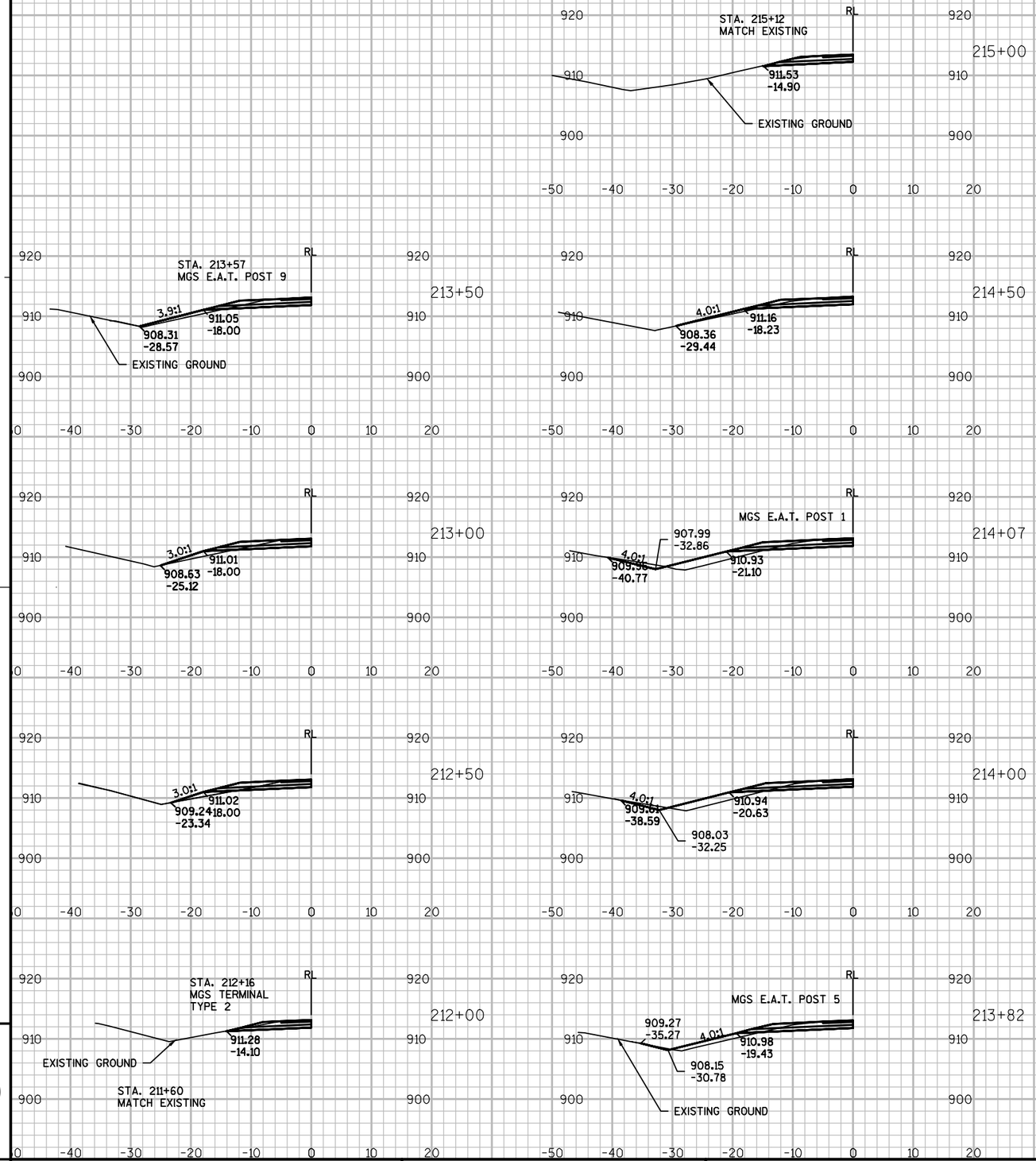
STA. 308+88 LT. & RT.
BULL NOSE TERMINAL POST 5



9

9

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: MEDIAN	SHEET 205	E



20 FT

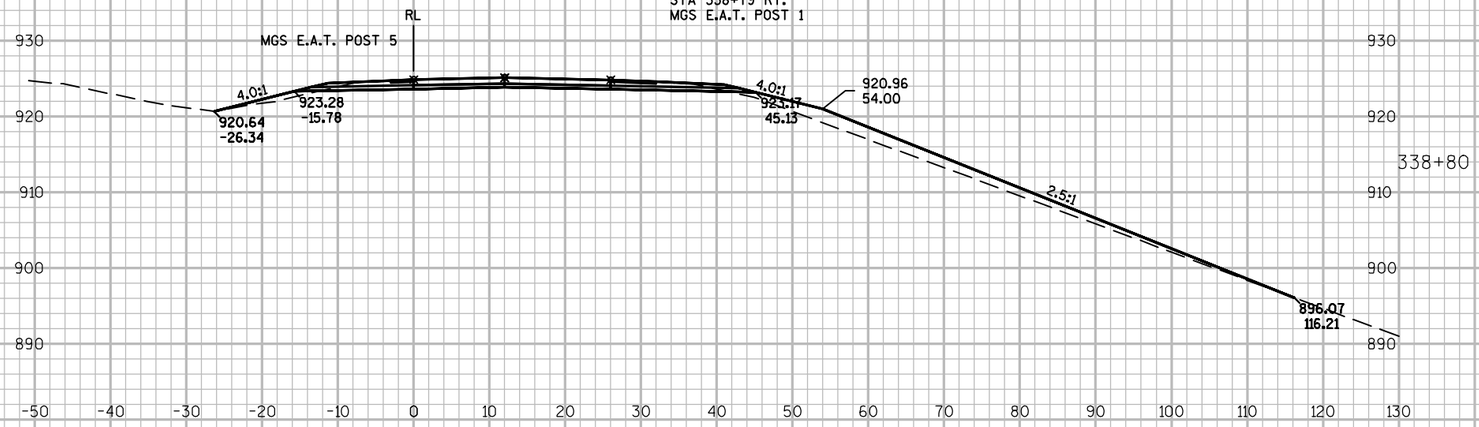
20 FT

9

9

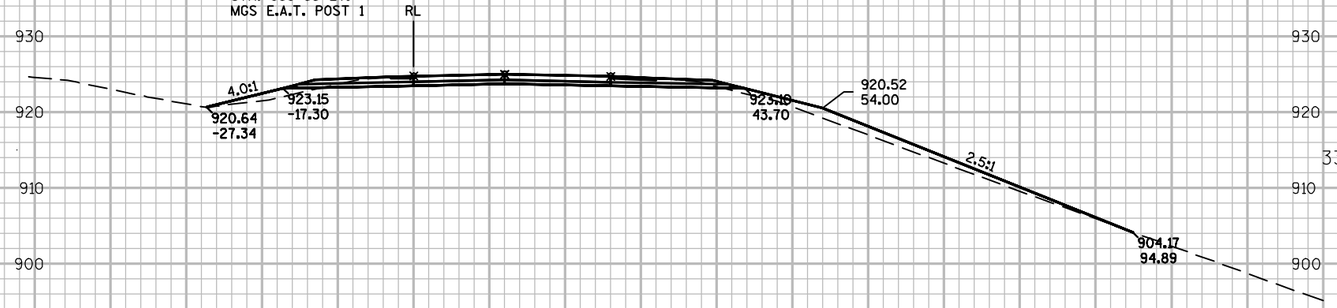
PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: NE RAMP	SHEET 206	E

STA 338+79 RT.
MGS E.A.T. POST 1

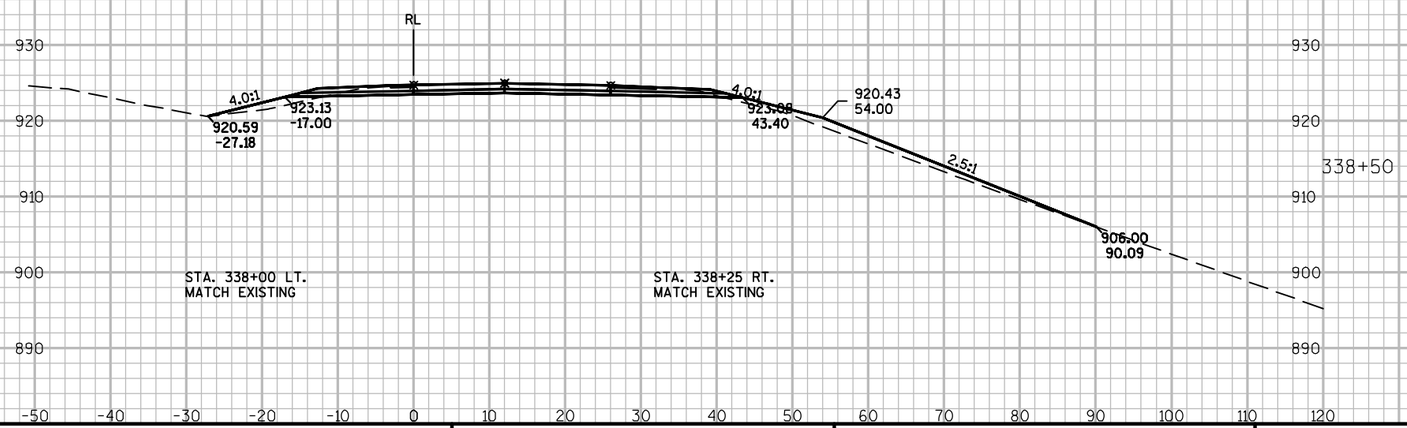


338+80

STA. 338+55 LT.
MGS E.A.T. POST 1



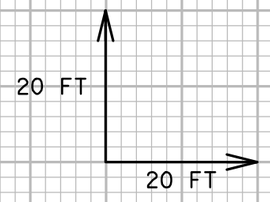
338+55



338+50

STA. 338+00 LT.
MATCH EXISTING

STA. 338+25 RT.
MATCH EXISTING

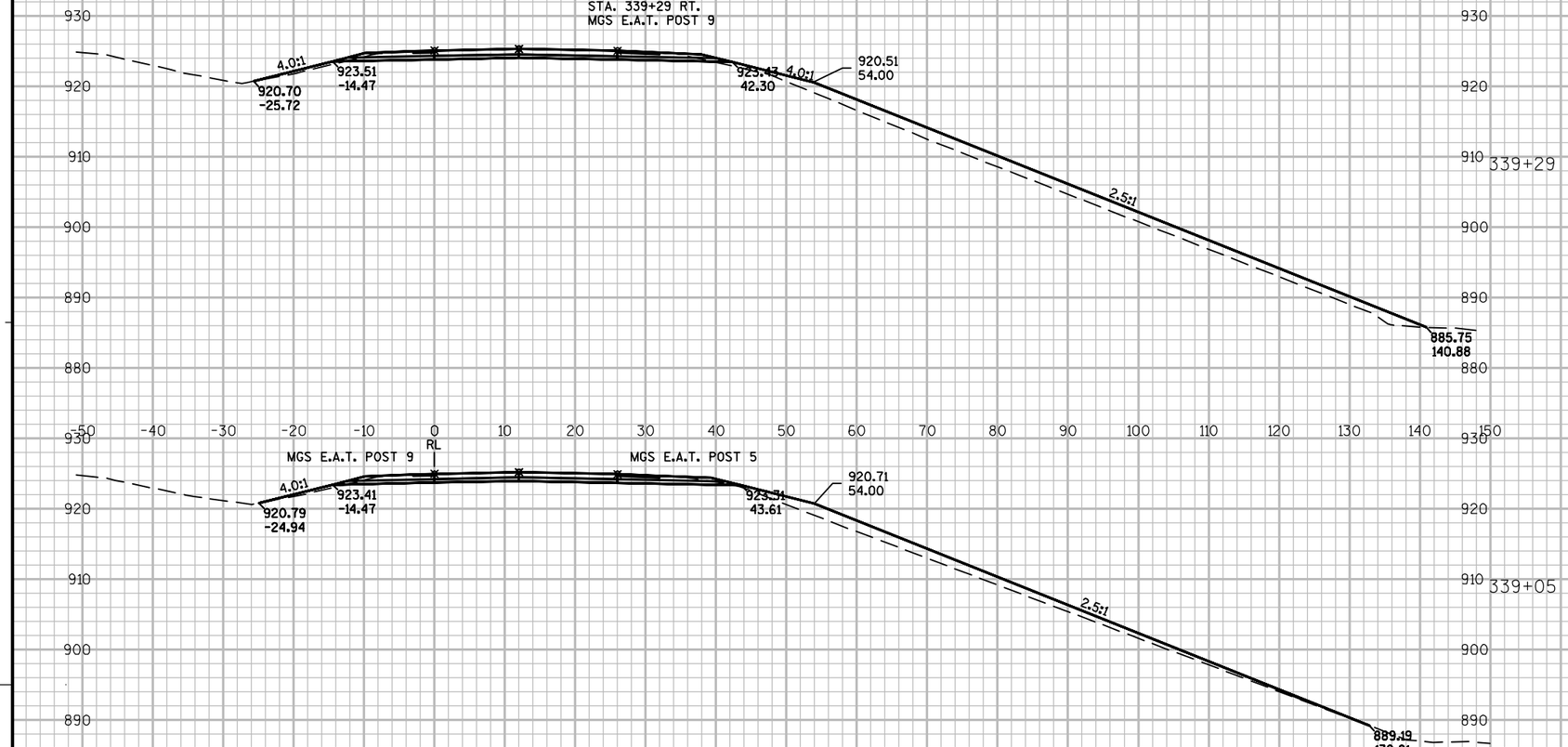


9

9

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: EAST BOUND	SHEET 207	E

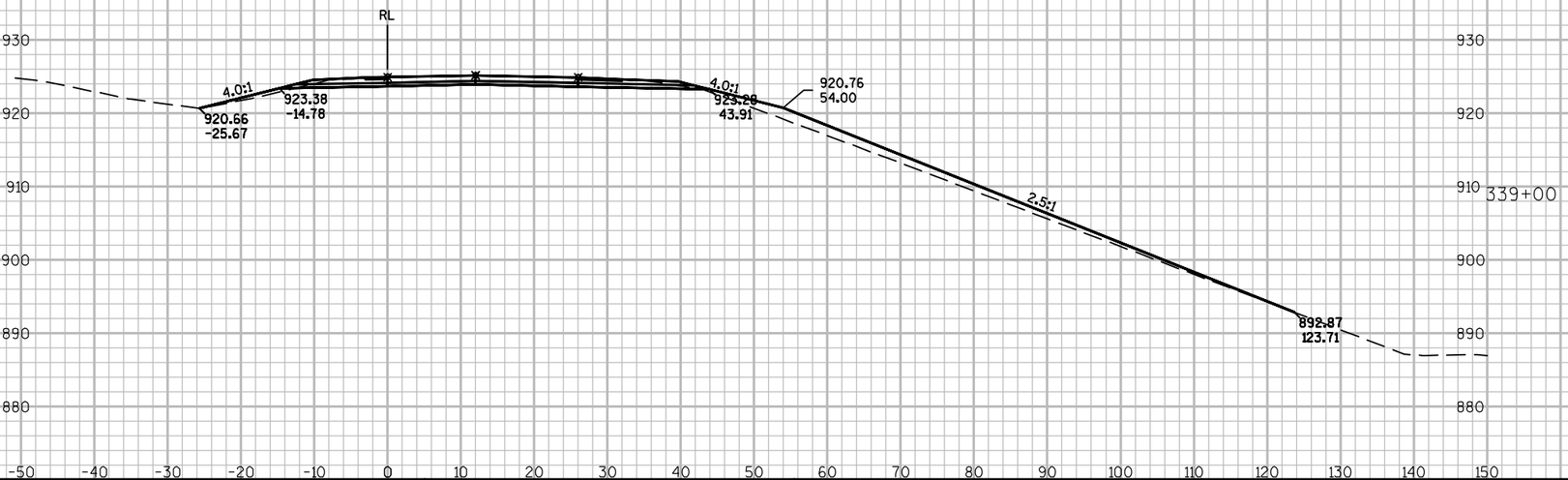
STA. 339+29 RT.
MGS E.A.T. POST 9



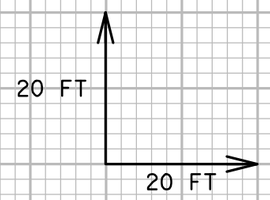
339+29

MGS E.A.T. POST 9 RL MGS E.A.T. POST 5

339+05



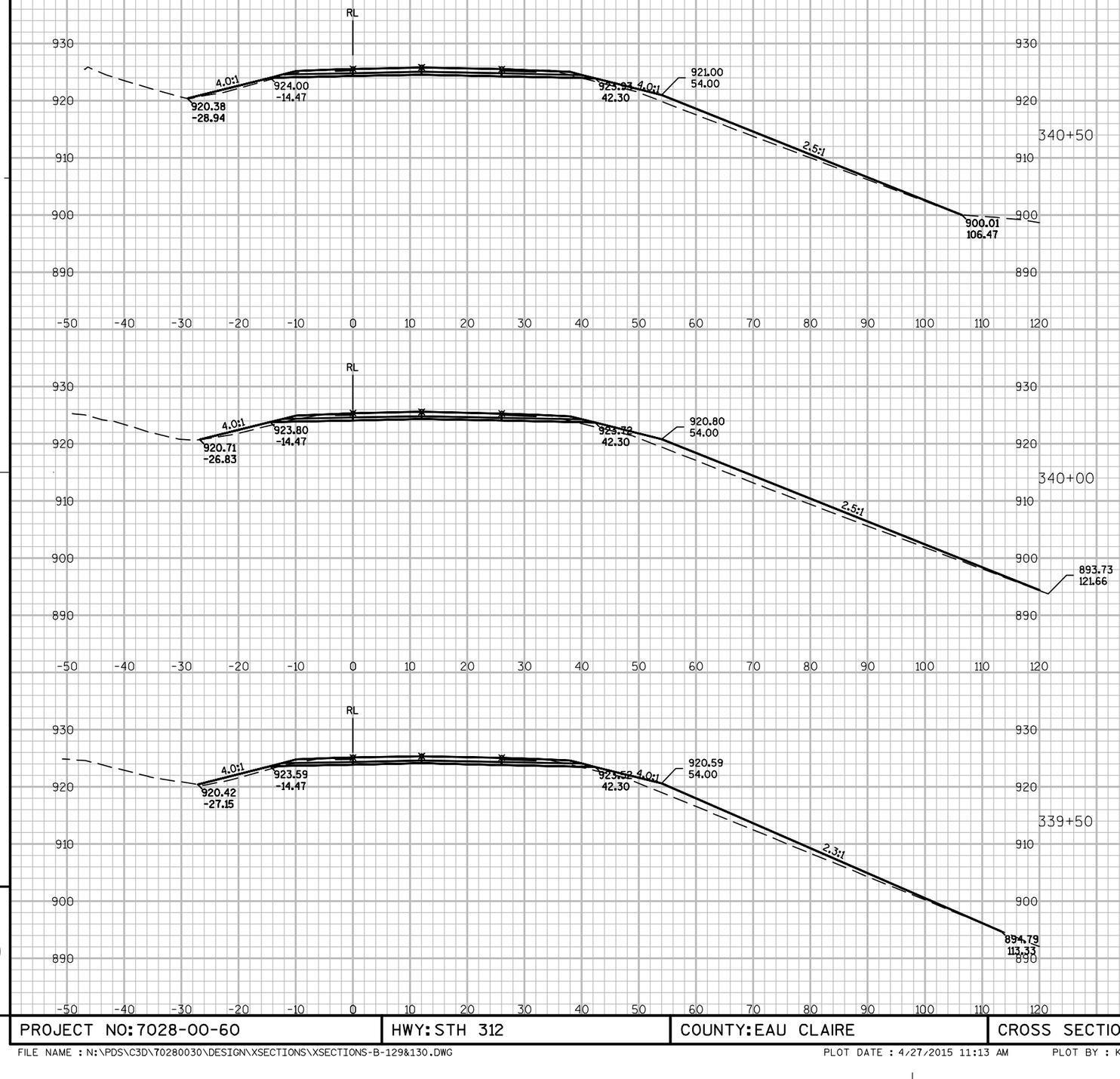
339+00

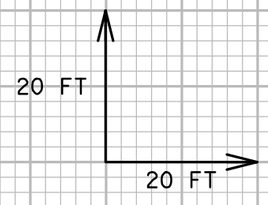


9

9

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: EAST BOUND	SHEET 208	E





9

9

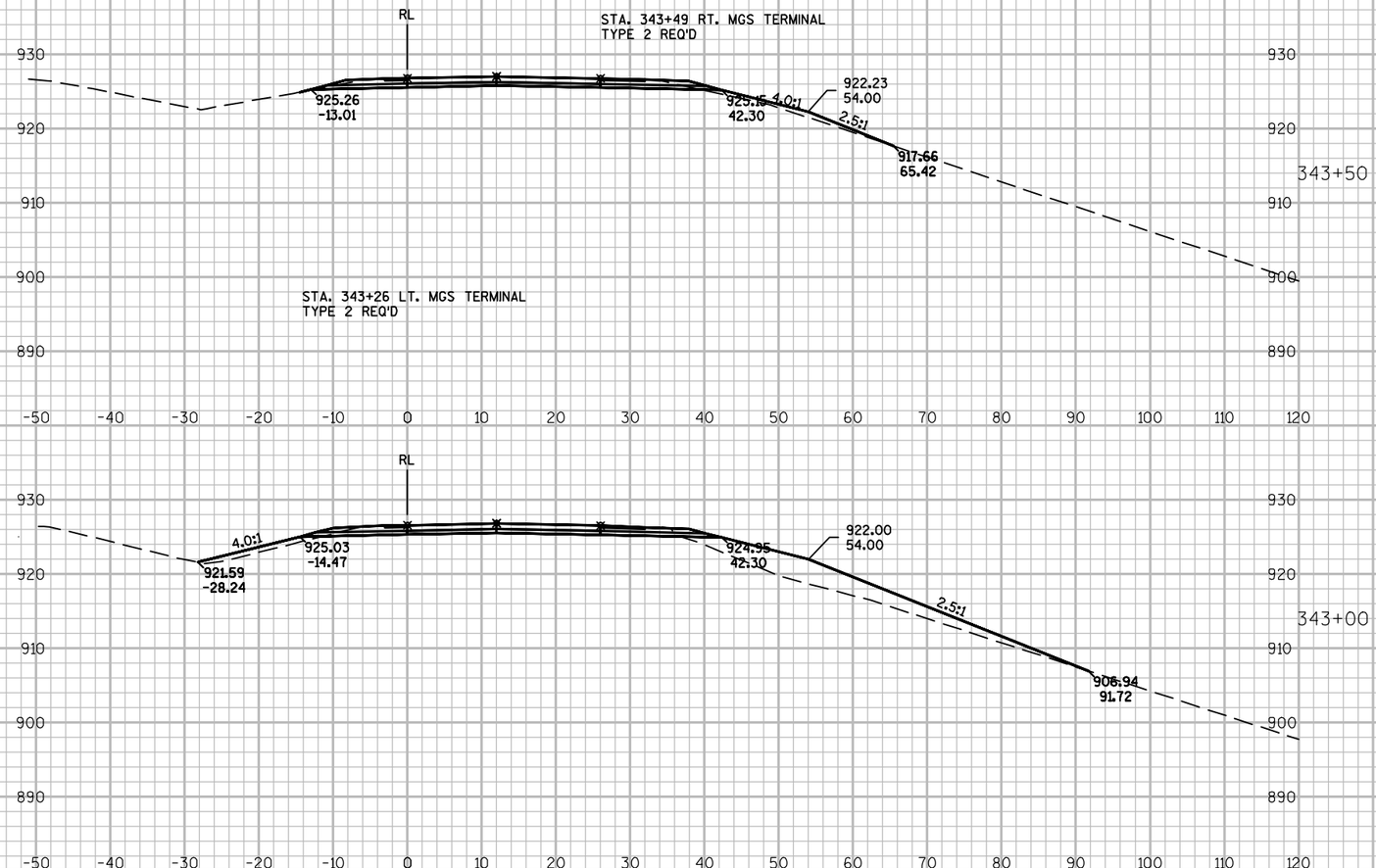
PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: EAST BOUND	SHEET	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\XSECTIONS\XSECTIONS-B-129&130.DWG PLOT DATE : 4/27/2015 11:13 AM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

STA. 344+00 RT. MATCH EXISTING

STA. 343+80 LT. MATCH EXISTING



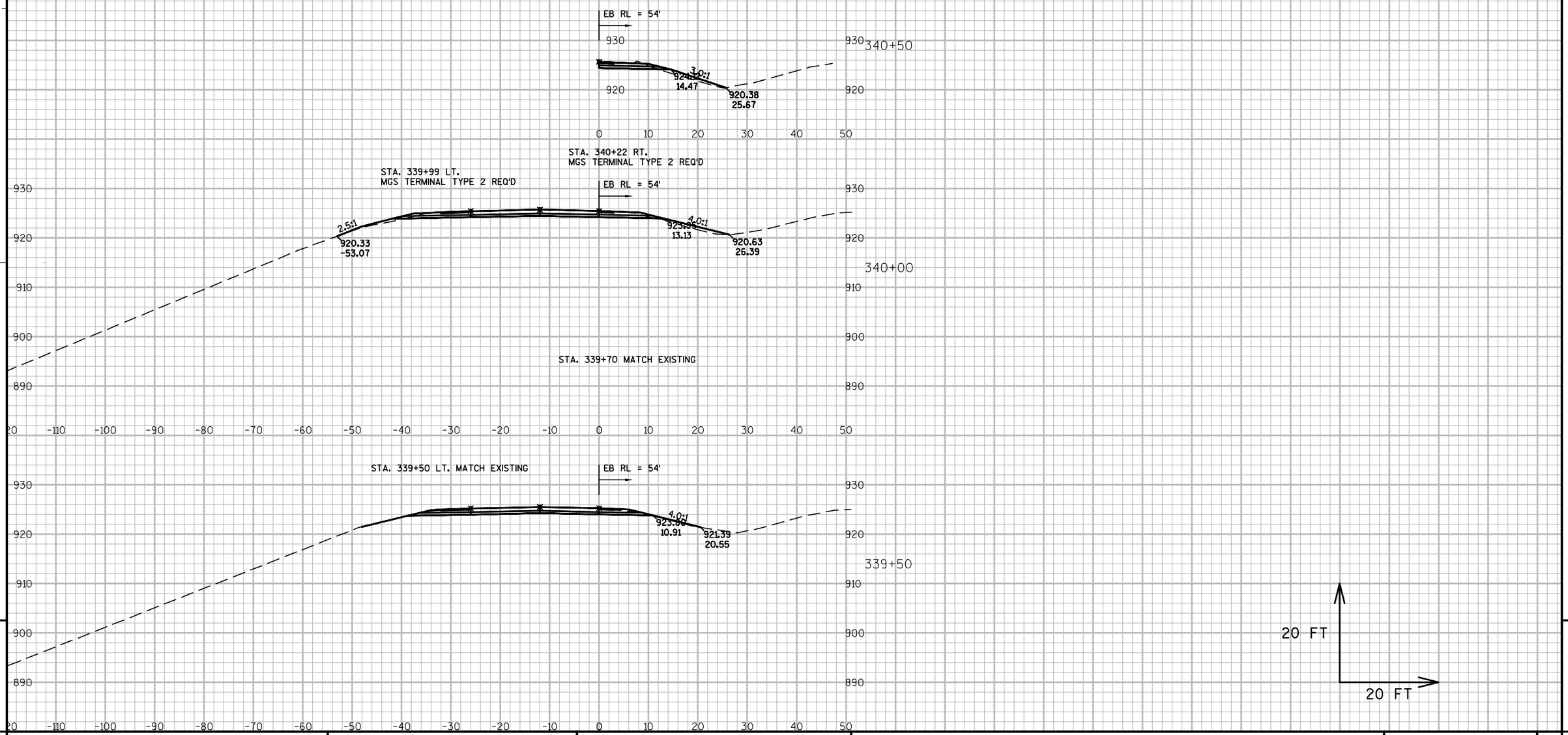
20 FT

20 FT

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: EAST BOUND	SHEET 210	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\XSECTIONS\XSECTIONS-B-129&130.DWG PLOT DATE : 4/27/2015 11:13 AM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



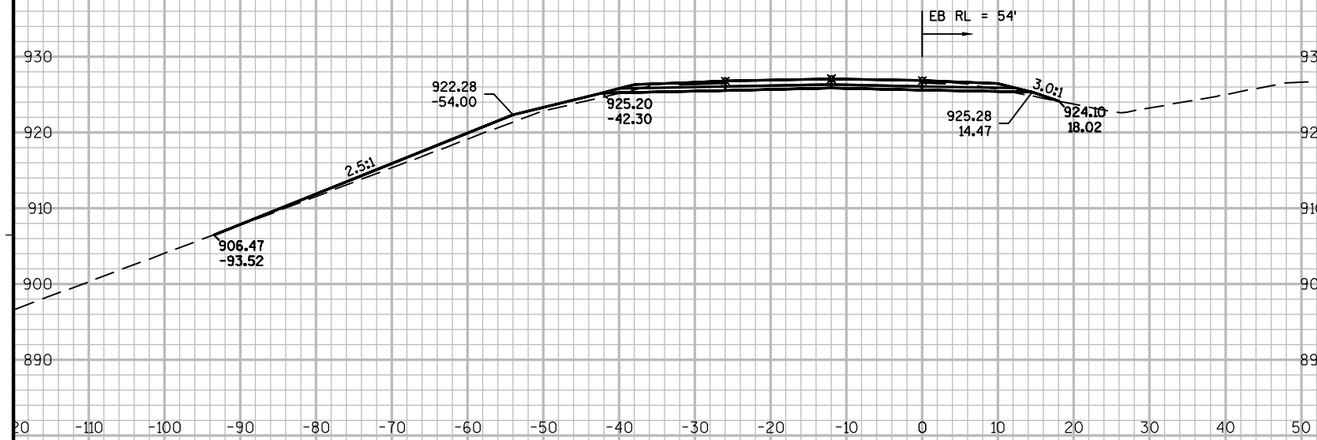
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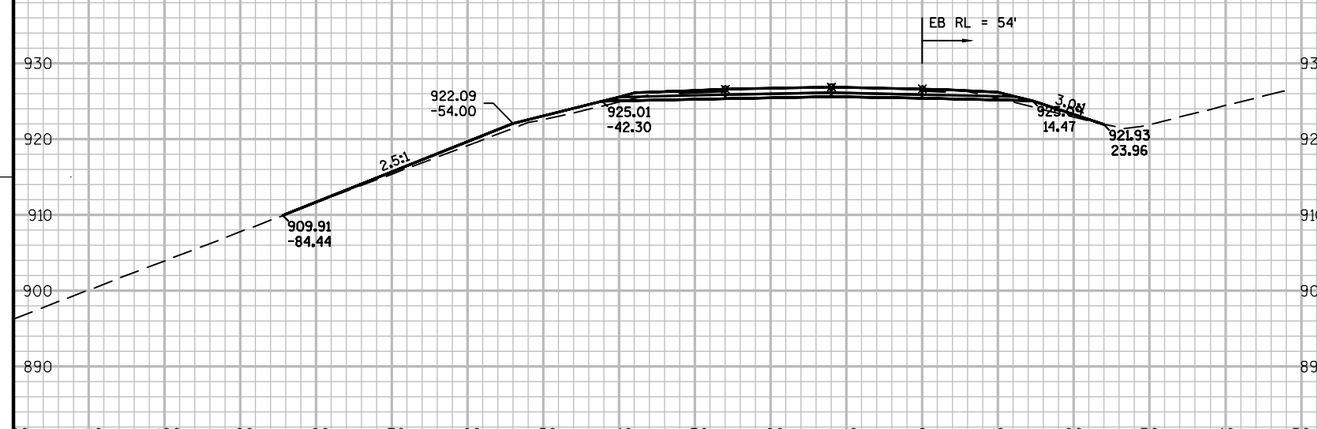
9

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: WEST BOUND	SHEET 211	E

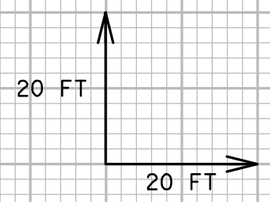
FILE NAME : N:\PDS\C3D\70280030\DESIGN\XSECTIONS\XSECTIONS-B-129&130.DWG PLOT DATE : 4/27/2015 11:14 AM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





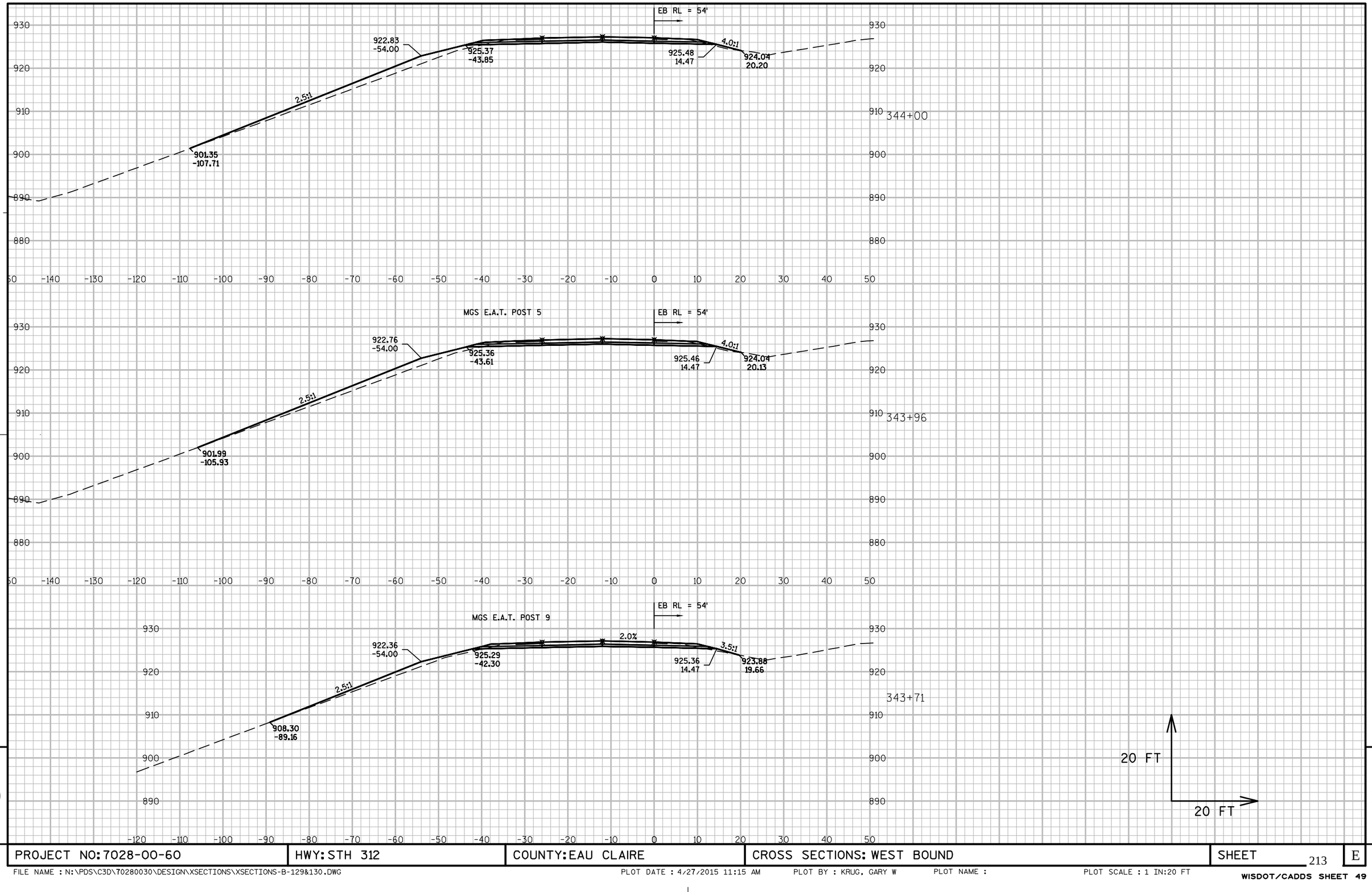




9

9

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: WEST BOUND	SHEET 212	E



9

PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: WEST BOUND	SHEET 213	E

9

MGS E.A.T. POST 9

EB RL = 54'

930
920
910
900
890
880

923.10
-54.00

925.48
-44.46

925.60
14.47

923.98
20.96

4.0:1

2.5:1

900.75
-109.86

930
920
910
900
890
880

344+32

-140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

STA. 344+21 LT.
MGS E.A.T. POST 1

EB RL = 54'

930
920
910
900
890
880

923.21
-54.00

925.42
-45.13

925.56
14.47

924.01
20.66

4.0:1

2.5:1

898.87
-114.83

930
920
910
900
890
880

344+21

-140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

20 FT

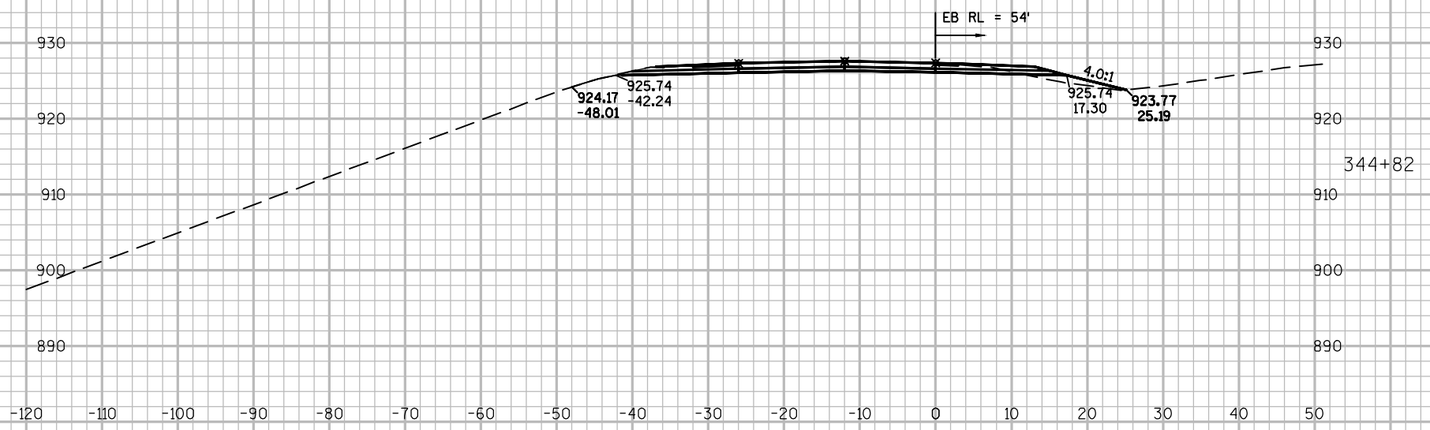
20 FT

9

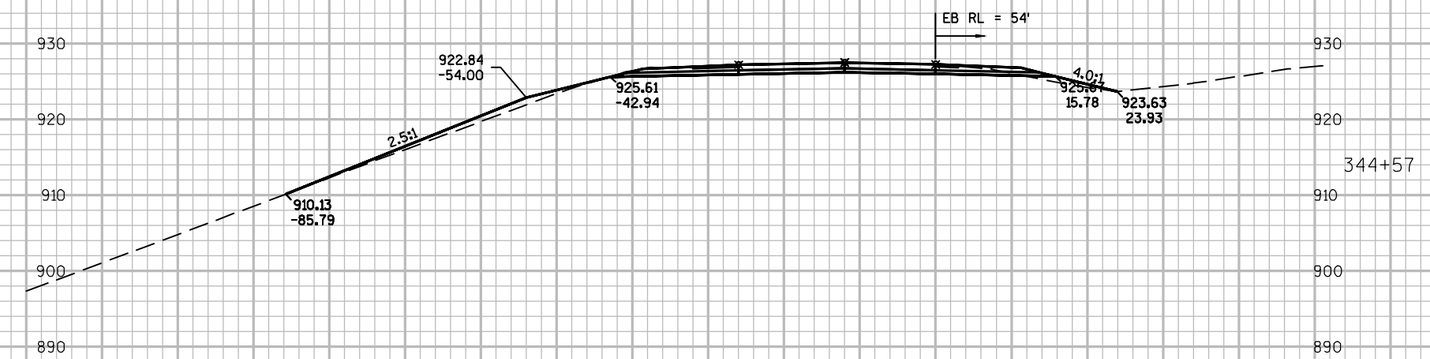
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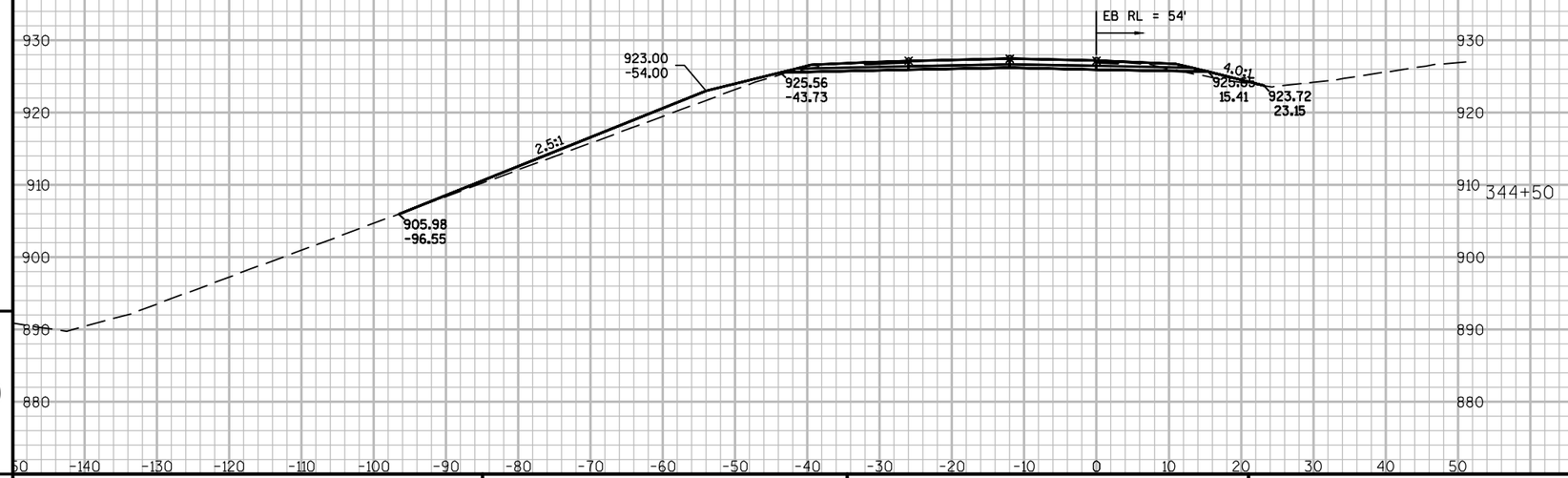
PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: WEST BOUND	SHEET 214	E

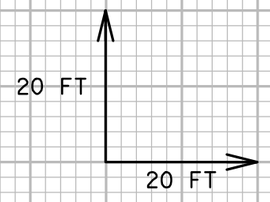
STA. 344+82 RT.
MGS E.A.T. POST 1



MGS E.A.T. POST 5





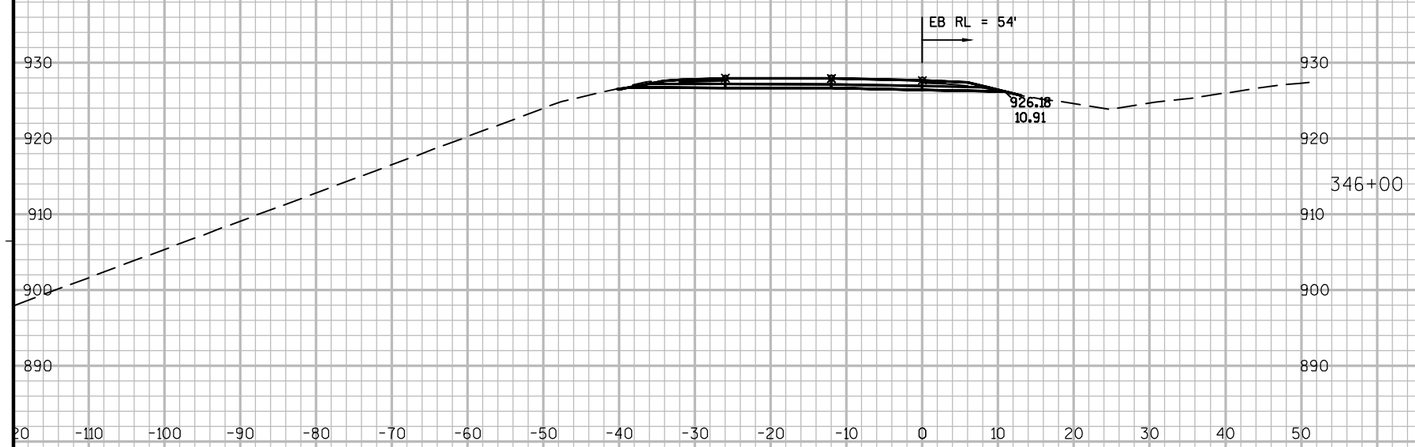


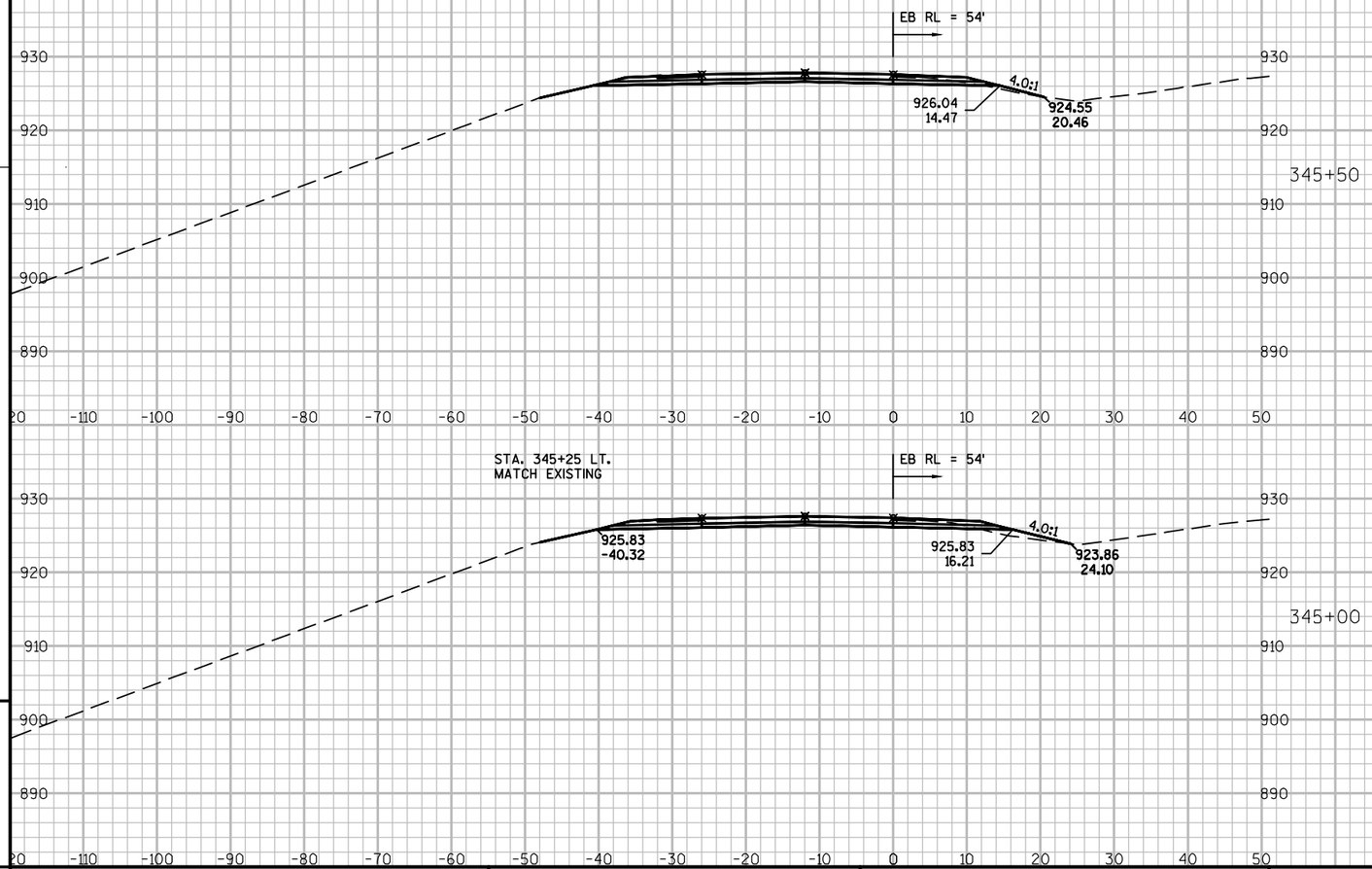
9

9

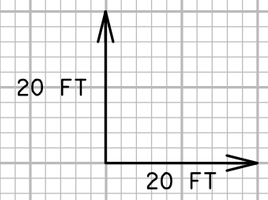
PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: WEST BOUND	SHEET 215	E

STA. 346+00 RT.
MATCH EXISTING





STA. 345+25 LT.
MATCH EXISTING



PROJECT NO: 7028-00-60	HWY: STH 312	COUNTY: EAU CLAIRE	CROSS SECTIONS: WEST BOUND	SHEET 216	E

FILE NAME : N:\PDS\C3D\70280030\DESIGN\XSECTIONS\XSECTIONS-B-129&130.DWG PLOT DATE : 4/27/2015 11:17 AM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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