GRE

APR 2016

PROJECT ID: 6190-16-71

COUNTY: WINNEBAGO

ORDER OF SHEETS

TOTAL SHEETS = 120

33

N

DESIGN DESIGNATION

A.A.D.T.	2014	=	2225
A.A.D.T.	2034	=	2700
D.H.V.		=	285
D.D.		=	60/40
T.		=	6.1%
DESIGN SPEED		=	60 MPH
ESALS		=	1,540,300

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 (95.36)
- CULVERT (Profile View)

UTILITIES

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

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6190-16-71	WISC 2016129	1

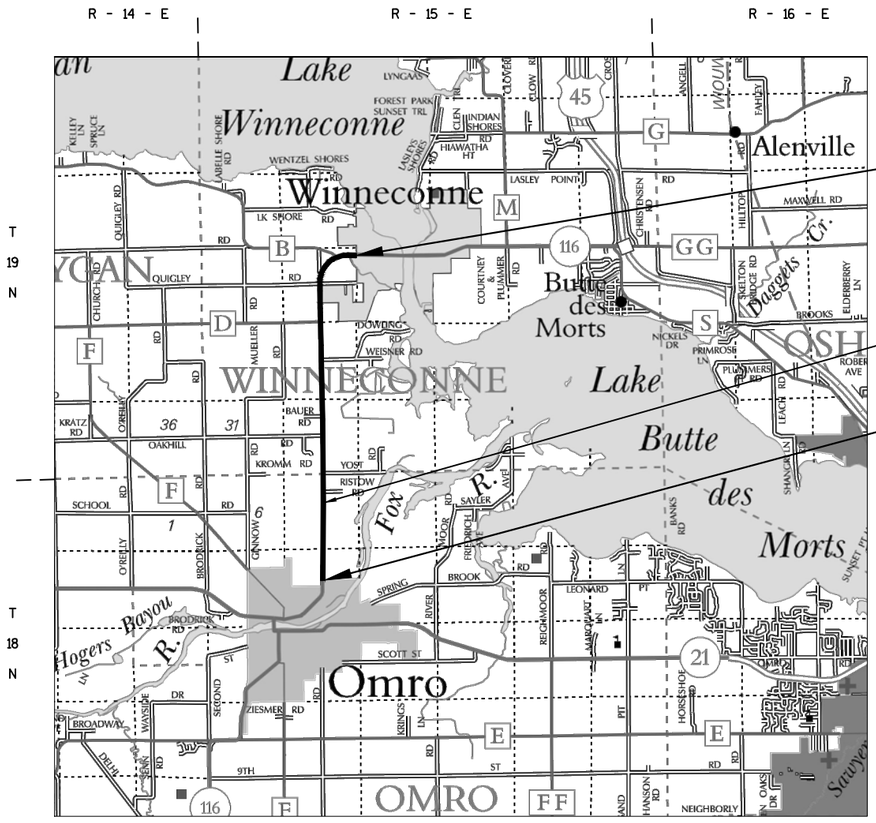
C. OMRO - V. WINNECONNE

N. VILLAGE LIMITS - S. VILLAGE LIMITS

STH 116

WINNEBAGO

STATE PROJECT NUMBER
6190-16-71



END PROJECT 6190-16-71
STA 264+48.78
X = 744228.20
Y = 507394.43

STRUCTURE B-70-0292
STA 66+63.50 - STA 66+85.50

BEGIN PROJECT 6190-16-71
STA 19+94.00
X = 741488.08
Y = 484750.64

LAYOUT SCALE 0 2.0 MI.

TOTAL NET LENGTH OF CENTERLINE = 4.649 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, WINNEBAGO COUNTY, NAD83 (1997), 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	WISDOT NE REGION
Designer	JAMES RINZEL
Project Manager	BILL BERTRAND
Regional Examiner	
Regional Supervisor	CHUCK KAROW

APPROVED FOR THE DEPARTMENT

DATE: 11/1/2015 William R. Bertrand (Signature)

E

GENERAL NOTES

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

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

ALL ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAVD 88 VERTICAL DATUM.

END WALL REMOVAL IS INCIDENTAL TO REMOVING PIPE CULVERT UNLESS OTHERWISE STATED.

THE EXACT LOCATIONS AND DIMENSIONS OF ALL EROSION CONTROL ITEMS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE EXACT LOCATION FOR BUTT JOINTS AND SAW CUTS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

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

SILT FENCE SHALL BE PLACED ABOVE THE TOE OF THE SLOPE IN DESIGNATED AREAS SHOWN ON THE PLAN. ADJUST LOCATIONS TO FIT FIELD CONDITIONS AS NEEDED.

PRIOR TO THE PLACEMENT OF STEEL PLATE BEAM GUARD, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.

ALL DISTRUBED AREAS SHALL BE TOPSOILED, FERTILIZED, SEEDED, AND MULCHED, IMMEDIATELY FOLLOWING GRADING OPERATIONS.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND ALL OTHER UTILITIES IN THE VICINITY OF PROJECT TO LOCATE THEIR UTILITIES AT LEAST 3 DAYS PRIOR TO WORK.

REFERENCE LINE WAS CONSTRUCTED FROM AS-BUILT DATA AND MAY NOT ACCURATELY REFLECT IN-FIELD CONDITIONS.

PIPE ELEVATIONS AND LOCATIONS IN THE PLAN SHEETS ARE TO THE ENDS OF THE PIPE UNLESS OTHERWISE NOTED.

PRIOR TO ORDERING DRAINAGE CULVERTS, VERIFY ALL RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.

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

UTILITIES

ALGOMA SANITART DISTRICT #1
MICHAEL HUMBERT
3477 MILLER DRIVE
OSHKOSH, WI 54904
920-426-0335
CELL 920-420-8267
mikeh@algomasd.org

ALLIANT ENERGY - GAS
ANDY SCHMIDT
880 N. WISCONSIN STREET
BERLIN, WI 54923
920-361-5668
CELL 920-948-2087
andyschmidt@alliantenergy.com

ALLIANT ENERGY - ELECTRICITY
ANDY SCHMIDT
880 N. WISCONSIN STREET
BERLIN, WI 54923
920-361-5668
CELL 920-948-2087
andyschmidt@alliantenergy.com

AT&T WISCONSIN
CHUCK BARTELT
70 E. DIVISION STREET
FOND DU LAC, WI 54986
920-929-1013
CELL 920-410-5104
cb1461@att.com

ATC MANAGEMENT, INC.
KIM HACKELBERG
801 O'KEEFE ROAD
PO BOX 6113
DE PERE, WI 54115-6113
920-338-6556
CELL 920-680-3622
khackelberg@atcllc.com

CHARTER COMMUNICATIONS
BRUCE R. HENRY
1623 BROADWAY AVENUE
SHEBOYGAN, WI 53081
CELL 920-263-0074
bruce.henry@charter.com

COUNTY SURVEYOR OR SURVEYS CONTACT PERSON

CONTACT: JERRY L BOUGIE – WINNEBAGO COUNTY
WINNEBAGO COUNTY COURT HOUSE
448 ALGOMA BLVD
OSHKOSH, WI 54903-2808
920-236-4839
jbougie@co.winnebago.wi.us

WISDOT SURVEYOR OR SURVEYS CONTACT PERSON

CONTACT: CORMAC MCINNIS
WISDOT-NE REGION
944 VANDERPERREN WAY
GREEN BAY, WI 54304
920-492-5638
cormac.mcinnis@dot.wi.gov

DNR AREA LIAISON

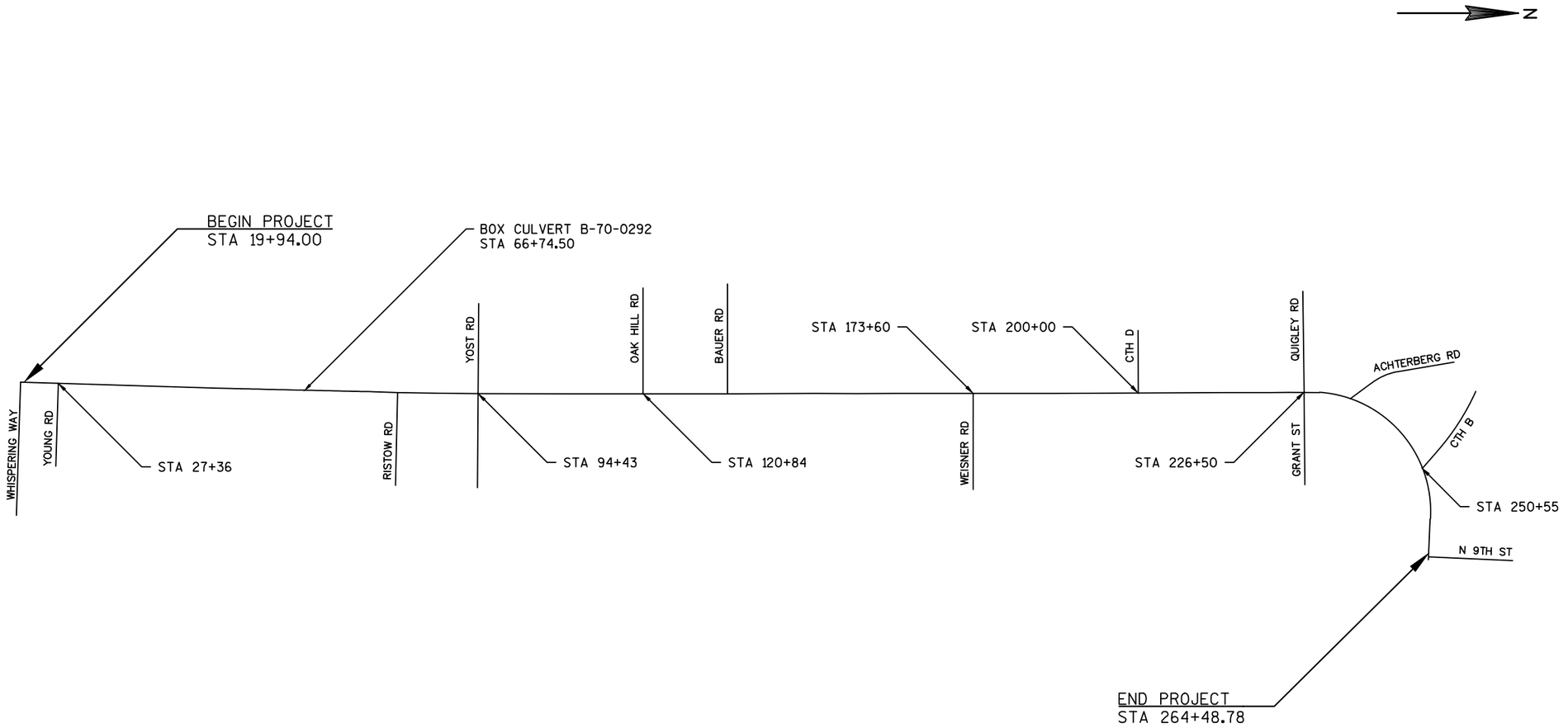
JAY SCHIEFELBEIN
DNR NORTHEAST REGIONAL HEADQUARTERS
2984 SHAWANO AVE.
GREEN BAY, WI 54313
920-662-5407
JEREMIAH.SCHIEFELBEIN@WISCONSIN.GOV

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

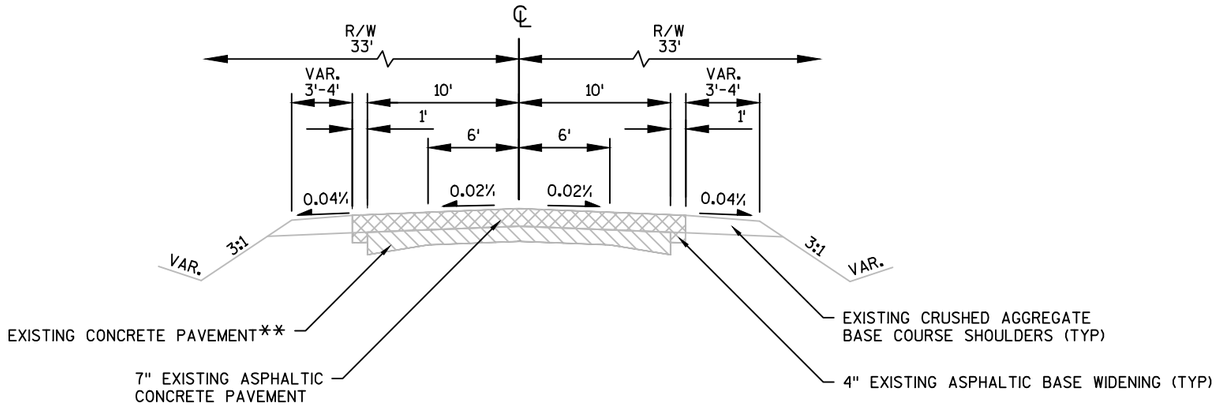
EMERGENCY CONTACT NUMBERS FOR WE ENERGIES

ELECTRIC 24 HOUR EMERGENCY SERVICE: 1-800-662-4797
GAS 24 HOUR EMERGENCY SERVICE: 1-800-261-5325

2



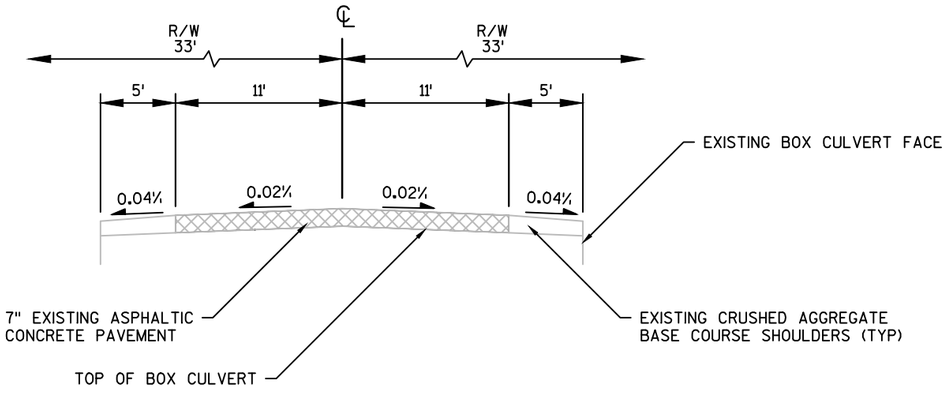
PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	PLAN OVERVIEW	SHEET 3	E



EXISTING TYPICAL SECTION STH 116

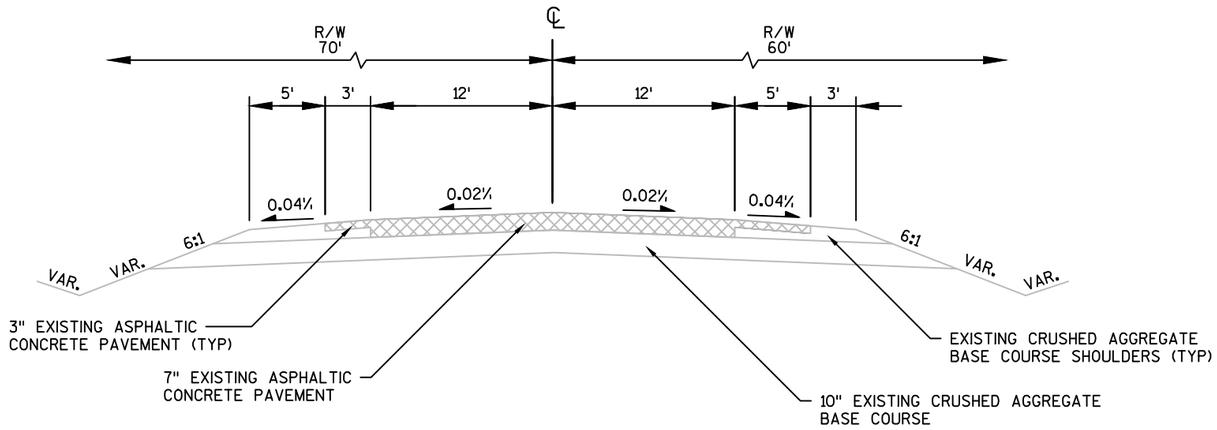
STA 19+94.00 - STA 220+00.00

**CONCRETE DEPTH 6' OFFSET ℄ : 6"
CONCRETE DEPTH 10' OFFSET ℄ : 9"



EXISTING TYPICAL SECTION STH 116

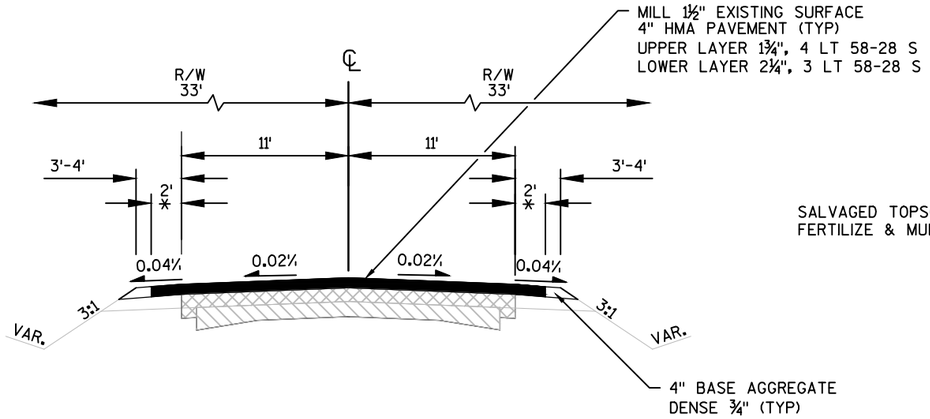
AT BOX CULVERT
STA 66+74.50



EXISTING TYPICAL SECTION STH 116

STA 220+00.00 - STA 264+49.00

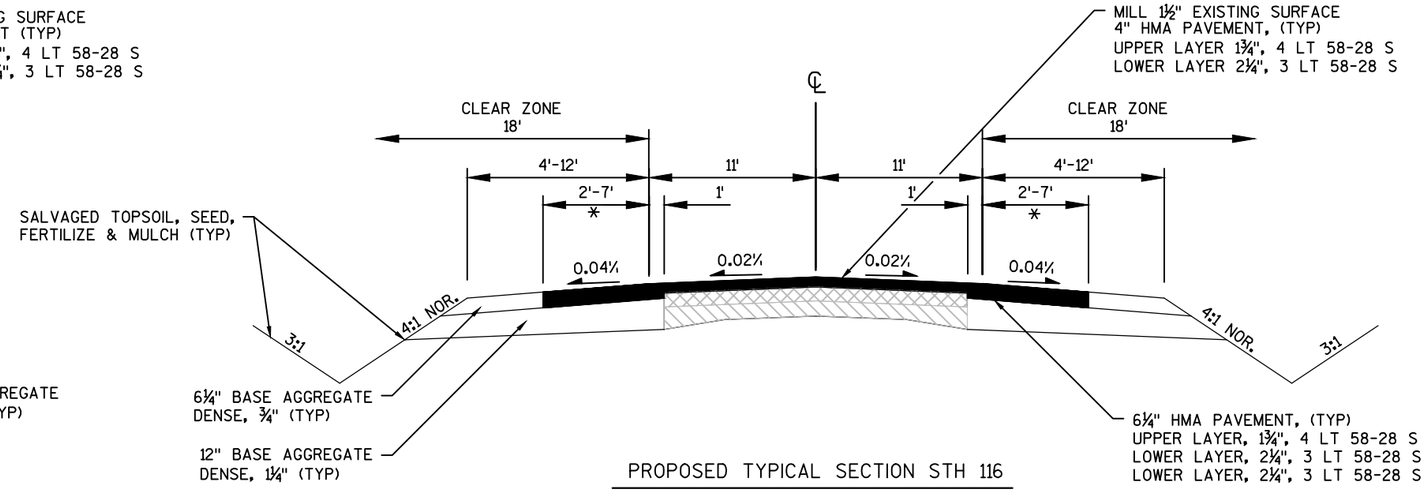
PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	TYPICAL EXISTING SECTIONS	SHEET 4	E



PROPOSED TYPICAL SECTION STH 116

STA 19+94.00 - STA 220+00.00

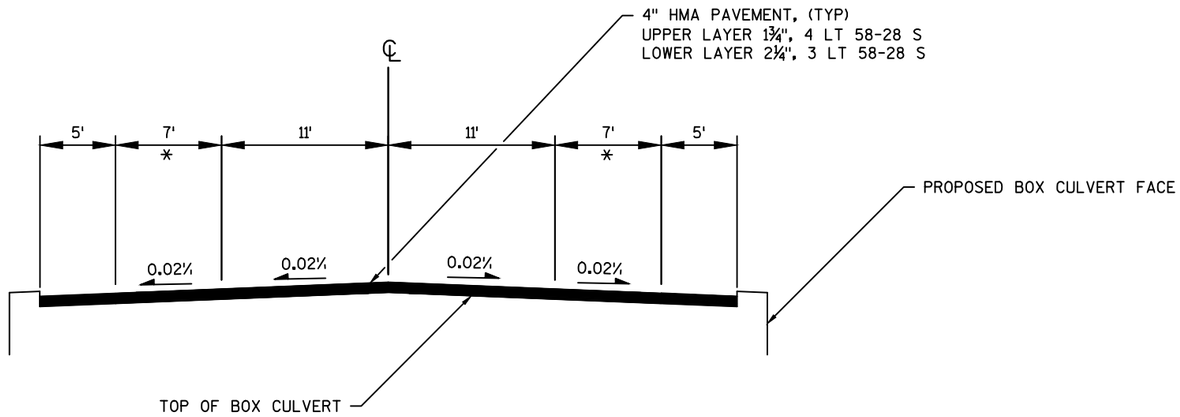
*RUMBLE STRIPS REQUIRED
STA 19+94.00 - STA 199+07.00



PROPOSED TYPICAL SECTION STH 116

STA 64+55.00 - STA 65+77.00
STA 67+66.00 - STA 68+95.00

*RUMBLE STRIPS REQUIRED

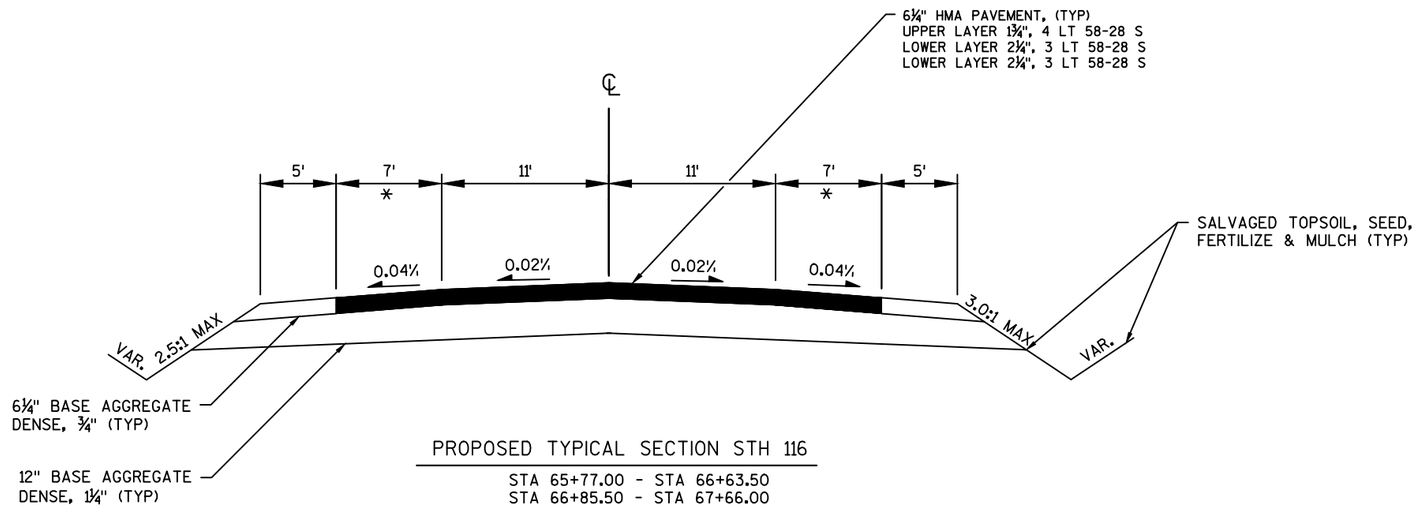


PROPOSED TYPICAL SECTION STH 116

AT BOX CULVERT
STA 66+63.50 - STA 66+85.50

*RUMBLE STRIPS REQUIRED

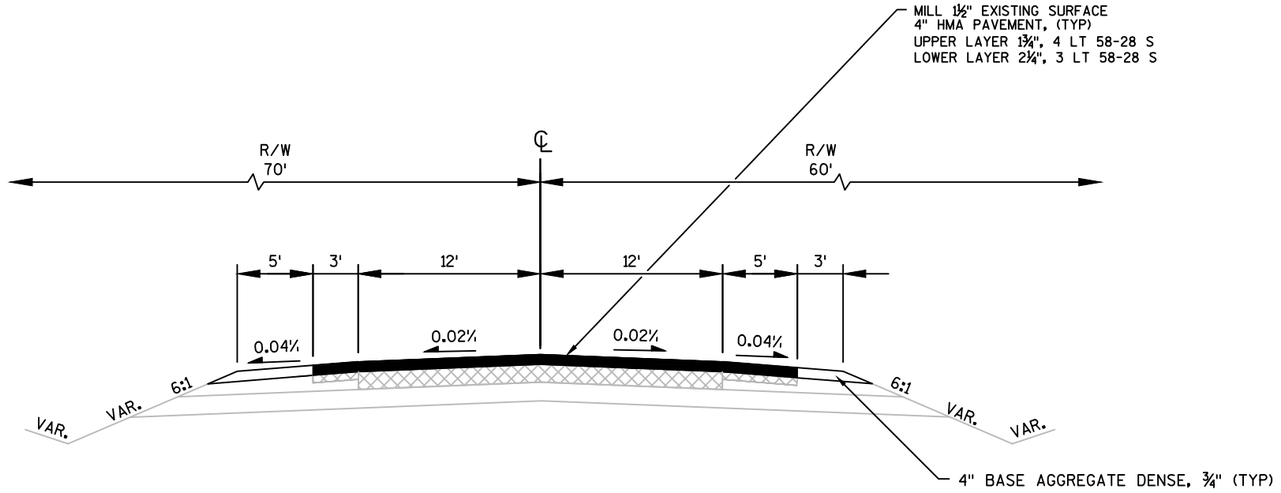
PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	TYPICAL PROPOSED SECTIONS	SHEET 5	E



PROPOSED TYPICAL SECTION STH 116

STA 65+77.00 - STA 66+63.50
STA 66+85.50 - STA 67+66.00

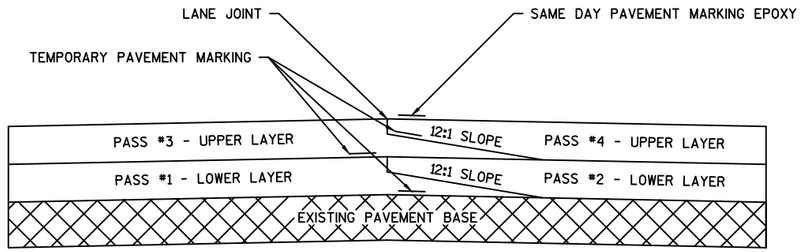
EXCAVATE FOR STRUCTURE B-70-0292 FROM STA 66+60.50 - STA 66+88.50
(SEE CONSTRUCTION DETAILS FOR MORE INFORMATION)
*RUMBLE STRIPS REQUIRED



PROPOSED TYPICAL SECTION STH 116

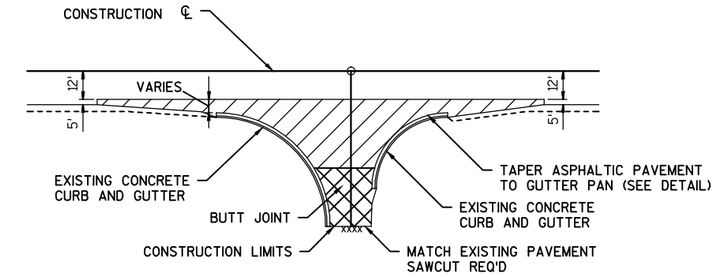
STA 220+00.00 - STA 264+49.00

PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	TYPICAL PROPOSED SECTIONS	SHEET 6	E

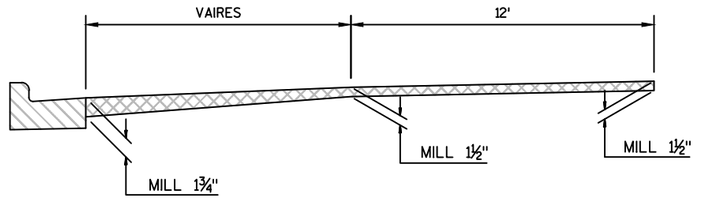


LOWER AND UPPER LAYERS

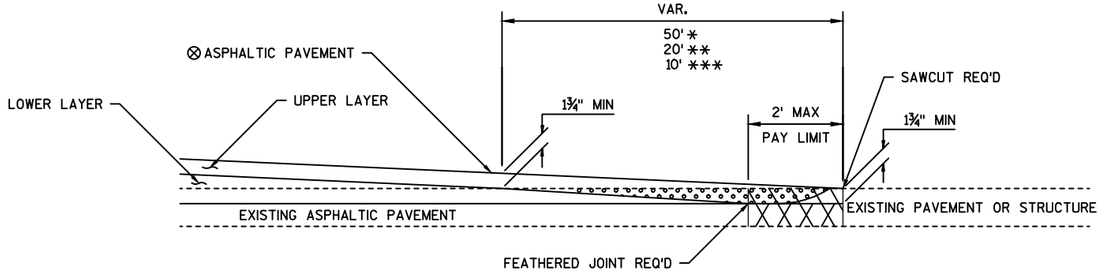
PAVEMENT MARKING DETAIL FOR TAPERED OVERLAPPING JOINTS IN ASPHALTIC PAVEMENTS



SIDE ROAD CONSTRUCTION LIMITS



MILLING DETAIL



⊗ SEE TYPICAL CROSS SECTION FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS

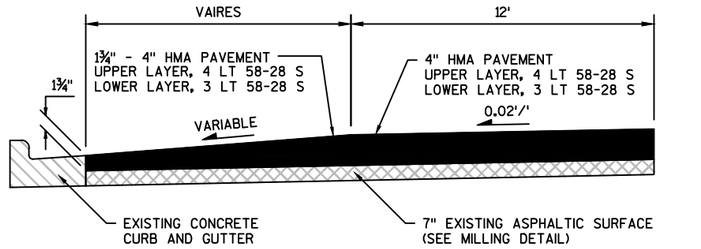
REMOVING ASPHALTIC SURFACE, MILLING

REMOVING ASPHALTIC SURFACE, BUTT JOINTS (FULL DEPTH REMOVAL OPTIONAL)

ASPHALTIC WEDGING (FULL DEPTH REMOVAL OPTION)

BUTT JOINT DETAIL FOR MILLED ASPHALTIC PAVEMENTS

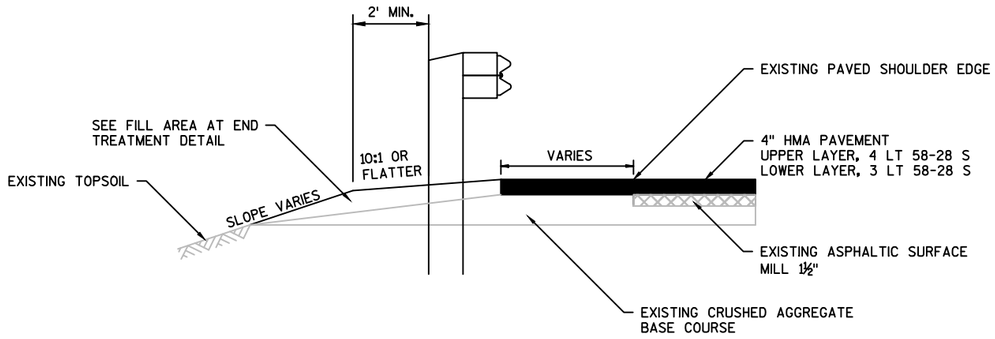
* MAINLINE
** SIDEROADS
*** PRIVATE ENTRANCES



PAVING DETAIL

TYPICAL CROSS SECTION AT INTERSECTIONS WITH CURB AND GUTTER

QUIGLEY ROAD/GRANT STREET
ACHTERBERG ROAD
CTH B
NINTH STREET

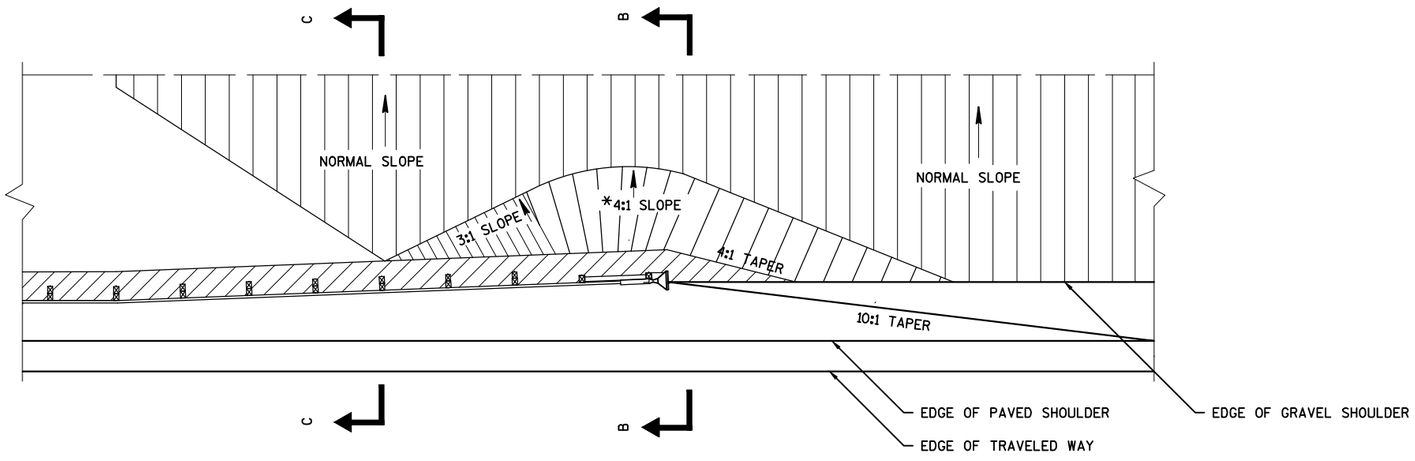


SECTION A-A

DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD

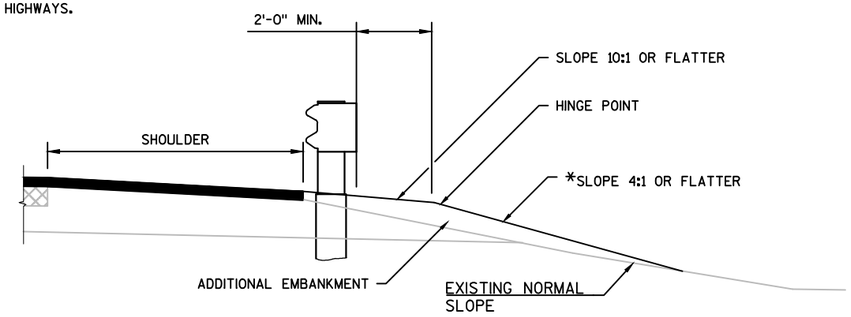
STA 258+09 - STA 262+40 LT
STA 257+60 - STA 261+52 RT

STA	STA	LT/RT	PAVED SHOULDER WIDTH AT BEAM GUARD
259+09	261+40	LT	6 FEET
258+40	260+71	RT	6 FEET

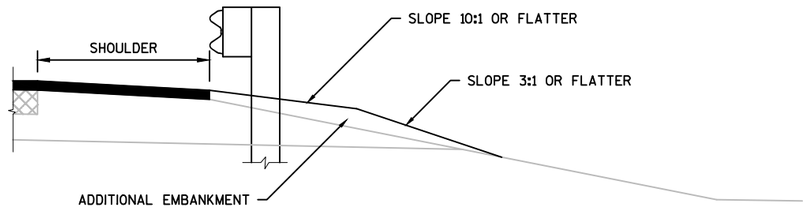


PLAN VIEW

*A 3:1 MAXIMUM SLOPE MAY BE USED FOR INSTALLATIONS ON EXISTING HIGHWAYS.



SECTION B-B

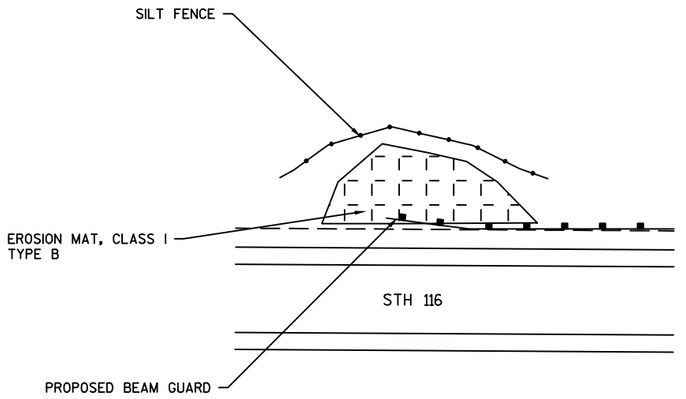


SECTION C-C

FILL AREA AT BEAM GUARD END TREATMENTS

STA 258+21 - STA 258+96 LT
STA 261+53 - STA 262+28 LT

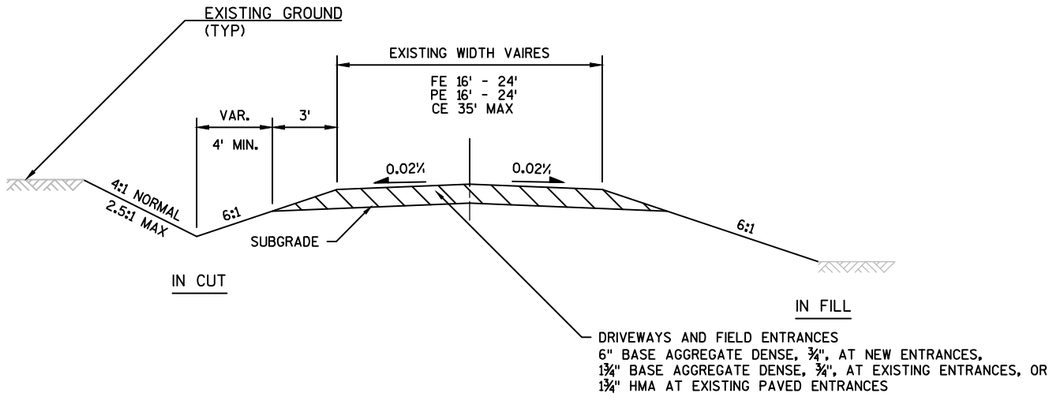
STA 257+53 - STA 258+28 RT
STA 260+84 - STA 261+59 RT



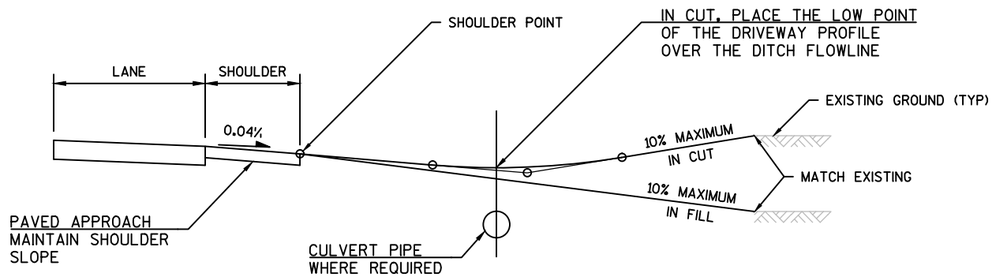
EROSION CONTROL AT ENERGY ABSORBING TERMINALS

STA 258+21 - STA 258+96 LT
STA 261+53 - STA 262+28 LT

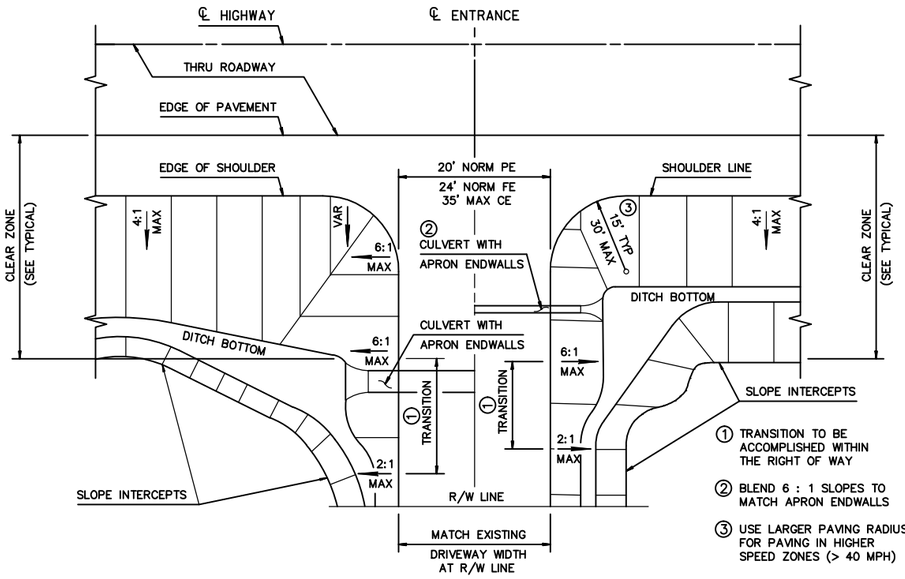
STA 257+53 - STA 258+28 RT
STA 260+84 - STA 261+59 RT



TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE



TYPICAL DRIVEWAY PROFILES



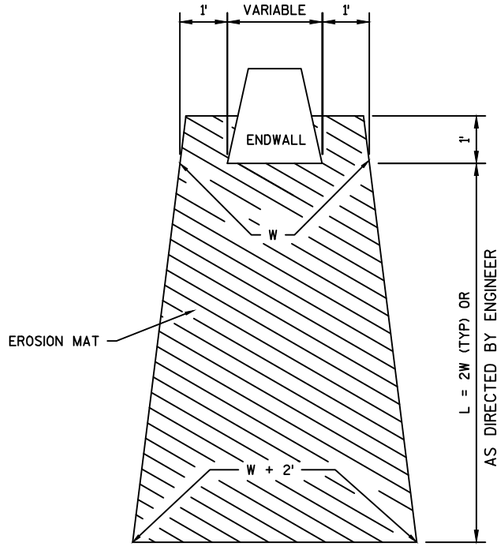
FOR CULVERTS OVER 24" DIAMETER

FOR CULVERTS 24" DIAMETER & LESS

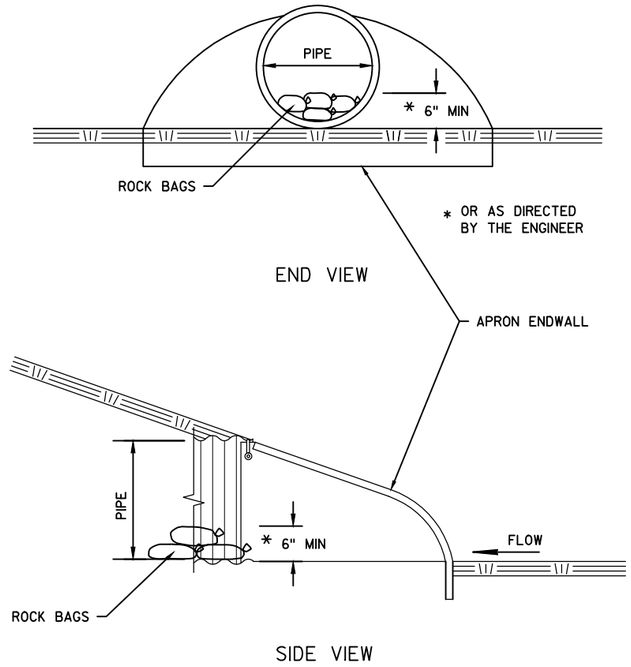
PLAN VIEW

RURAL DRIVEWAY GRADING AND/OR PAVING DETAIL

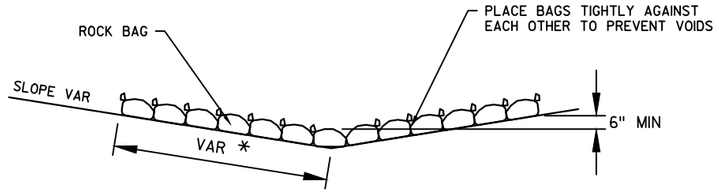
PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	CONSTRUCTION DETAILS	SHEET 10	E



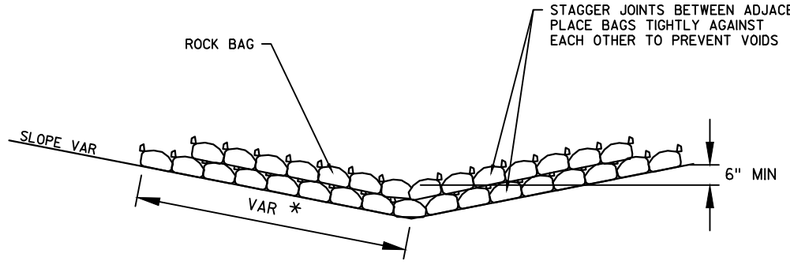
EROSION MAT TREATMENT AT CULVERTS



CULVERT PIPE CHECKS

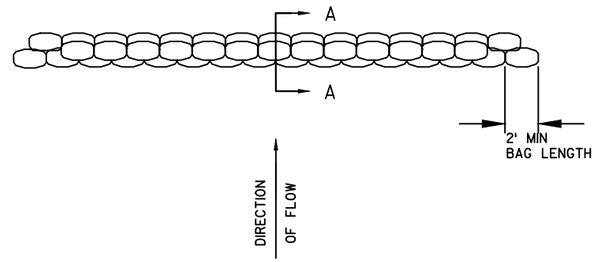


SIDE VIEW (SINGLE LAYER)

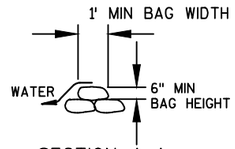


* LENGTH AND NUMBER OF BAGS MAY VARY
DEPENDING ON DESIRED DEPTH OF WATER POOL

SIDE VIEW (MULTIPLE LAYER)



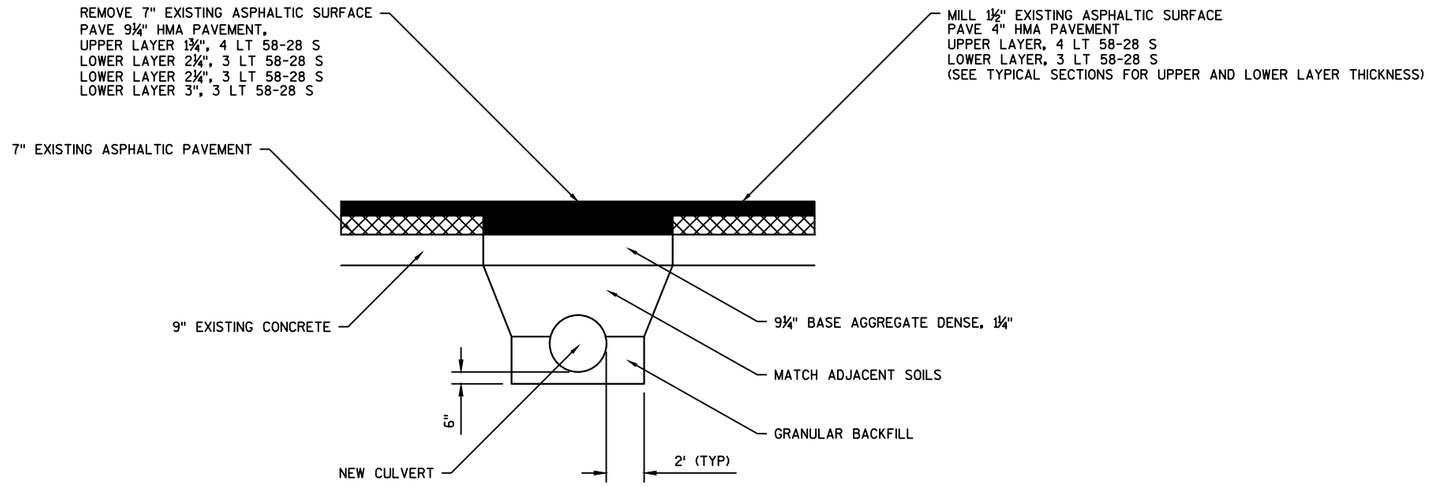
TOP VIEW (MULTIPLE LAYER)



SECTION A-A

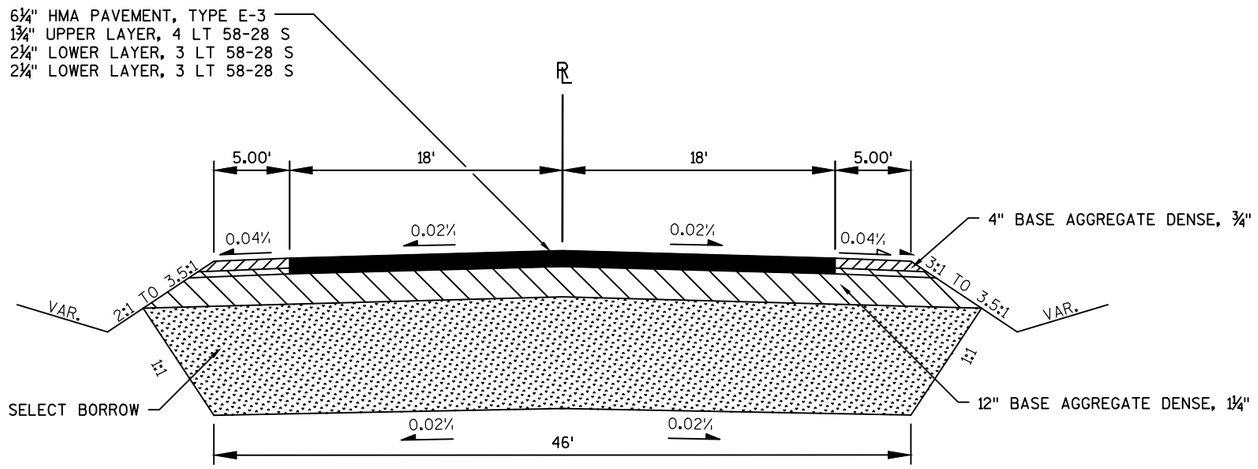
ROCK BAGS USED FOR DITCH CHECKS

2



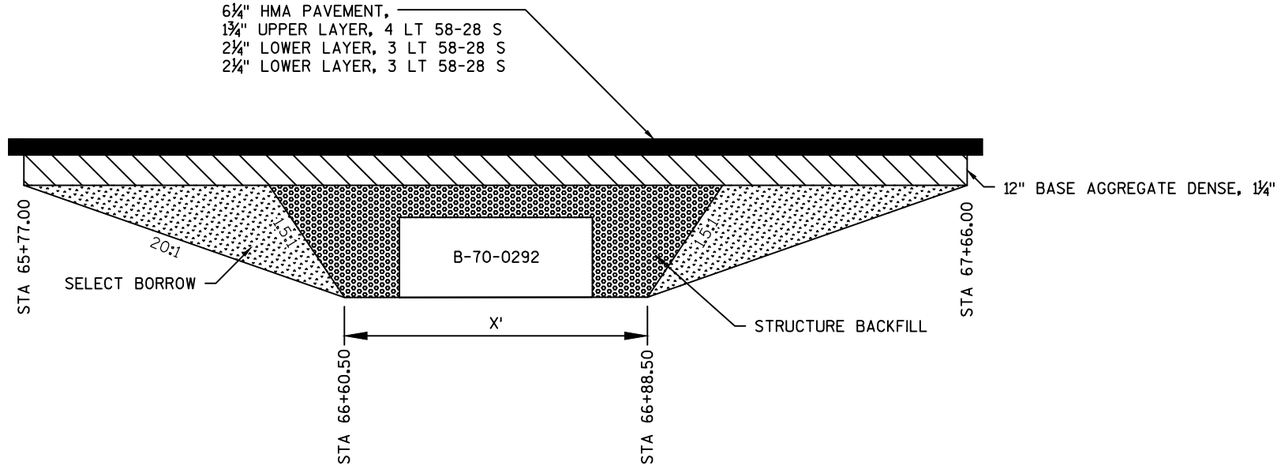
DETAIL FOR CULVERT REPLACEMENT

PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	CONSTRUCTION DETAILS	SHEET 13	E



EXCAVATED ROADWAY SECTION FOR B-70-0292

STA 66+60.50 - STA 66+88.50



LONGITUDINAL DETAIL FOR B-70-0292

**NOTE: EXCAVATE TO 5' FROM FINISHED GRADE OR TO THE FLOWLINE OF THE BRIDGE, WHICHEVER IS LESS.

ADJUST LENGTH "X" AND EXCAVATION LIMIT LOCATIONS AS NEEDED TO FIT FIELD CONDITIONS. APPROVAL BY THE FIELD ENGINEER FOR FIELD ADJUSTMENTS IS REQUIRED.

SELECT BORROW CAN BE REPLACED WITH STRUCTURAL BACKFILL, BUT WILL BE PAID AS SELECT BORROW.

2

N

STA 63+75
EXISTING 18" CULVERT PIPE
(TO REMAIN)

STA 64+90
EXISTING 18 CULVERT PIPE
(TO REMAIN)

STA 64+99
SAW CUT

STA 66+12
SAW CUT (FULL WIDTH)

STA 65+77 - STA 67+66
EXCAVATION LIMITS FOR ROADWAY RECONSTRUCTION

STA 66+74.50
REMOVE STRUCTURE C-70-0084

STA 67+35
SAW CUT (FULL WIDTH)

STA 67+88
REMOVE EXISTING 12" CULVERT PIPE

TLE

R/W LINE

SLOPE INTERCEPTS

EXISTING R/W

CAUTION

64 65 66 67 68 69

XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX

1"

**

STA 64+55
SAW CUT

STA 65+30
REMOVE EXISTING 10" CULVERT PIPE

STA 65+77 - STA 67+66
REMOVE EXISTING PAVEMENT

STA 63+75
PRIVATE ENTRANCE (GRAVEL)

STA 68+95
SAW CUT

**NOTE: STA 66+49 - STA 66+99
REMOVE EXISTING BEAM GUARD

PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	CONSTRUCTION DETAILS	SHEET 15 E

FILE NAME : N:\PDS\C3D\61901600\SHEETSPLAN\021002_CD.DWG PLOT DATE : 12/15/2015 9:50 AM PLOT BY : PORTER, STEVEN J PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

2

N

STA 65+69
MGS GUARDRAIL TERMINAL EAT

STA 66+22
MGS GUARDRAIL 3L

STA 67+34
MGS GUARDRAIL 3

STA 67+72
MGS GUARDRAIL TERMINAL EAT

STA 68+31
BASE AGGREGATE DENSE, ¾"
FOR FIELD ENTRANCE

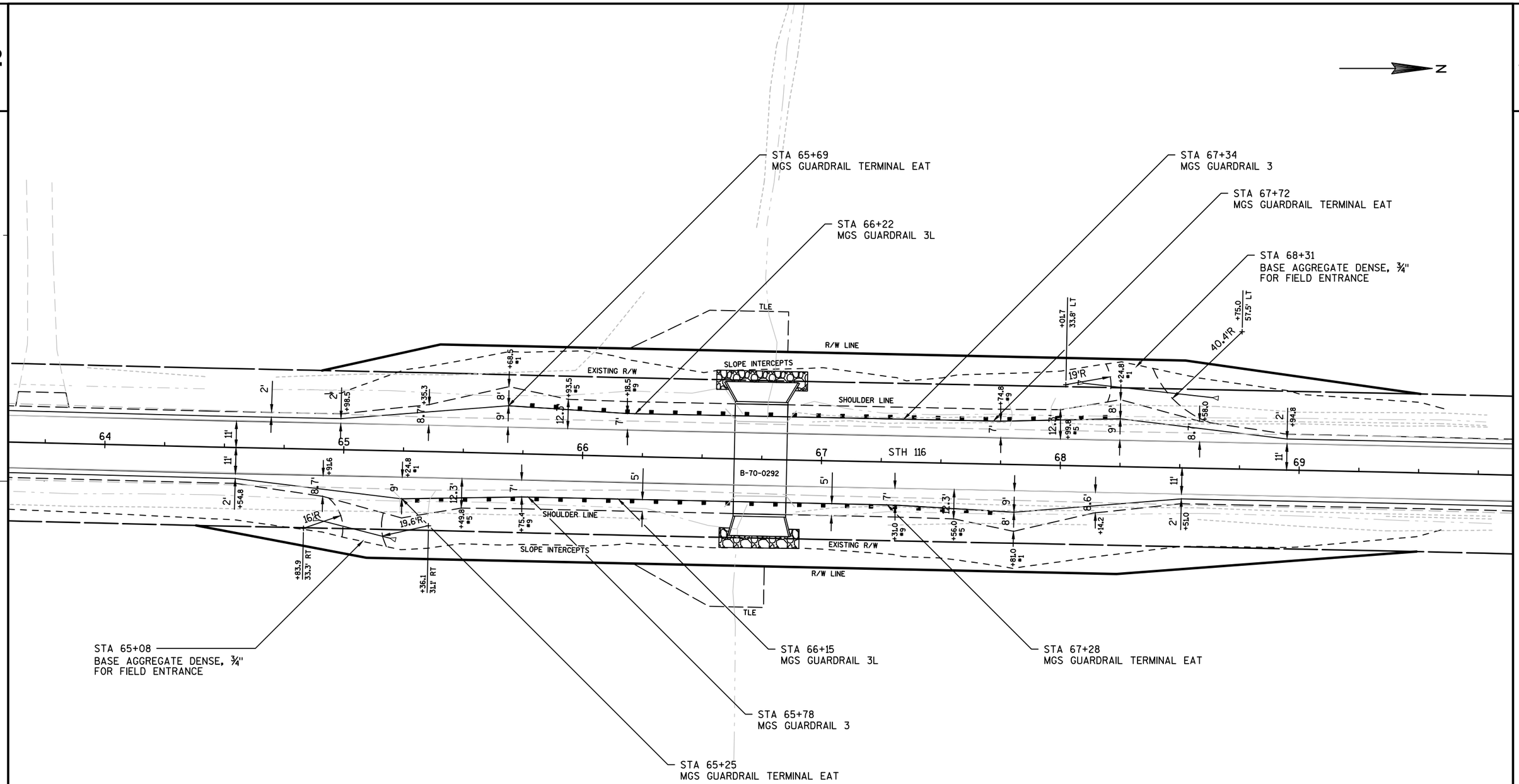
STA 65+08
BASE AGGREGATE DENSE, ¾"
FOR FIELD ENTRANCE

STA 66+15
MGS GUARDRAIL 3L

STA 67+28
MGS GUARDRAIL TERMINAL EAT

STA 65+78
MGS GUARDRAIL 3

STA 65+25
MGS GUARDRAIL TERMINAL EAT



PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	CONSTRUCTION DETAILS	SHEET 16	E

2

N

STA 259+12
MGS GUARDRAIL 3

STA 259+12 - STA 260+73
REMOVE EXISTING BEAMGUARD

STA 258+59
MGS GUARDRAIL TERMINAL EAT
GRADE, SHAPE AND FINISH FOR EAT

STA 259+37
MGS GUARDRAIL 3L

STA 260+49
MGS GUARDRAIL 3

STA 261+37
MGS GUARDRAIL TERMINAL EAT
GRADE, SHAPE AND FINISH FOR EAT

PT: 258+79.37

SHOULDER LINE

257 258 259 260 261 262 263

STH 116

STA 258+43
MGS GUARDRAIL 3

STA 259+31
MGS GUARDRAIL 3L

STA 259+10.00 - STA 260+70
REMOVE EXISTING BEAMGUARD

STA 257+90
MGS GUARDRAIL TERMINAL EAT
GRADE, SHAPE AND FINISH FOR EAT

STA 260+68
MGS GUARDRAIL TERMINAL EAT
GRADE, SHAPE AND FINISH FOR EAT

STA 260+43
MGS GUARDRAIL 3

STA 260+38.62
ADJUSTING MANHOLE COVER

PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	CONSTRUCTION DETAIL	SHEET 17	E

2

N

GARVENS/DANA M

WEYENBERG/DONALD A

DIVERSION CHANNEL BOTTOM

TLE

R/W LINE

EXISTING R/W

64 65 66 67 68 STH 116 69

XXXX XXXX XXXX XXXX XXXX XXXX XXXX

EXISTING R/W

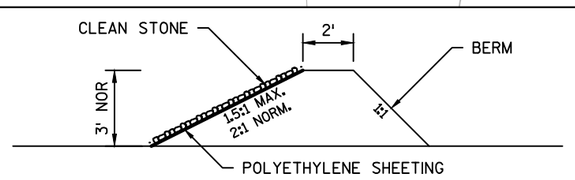
R/W LINE

TLE

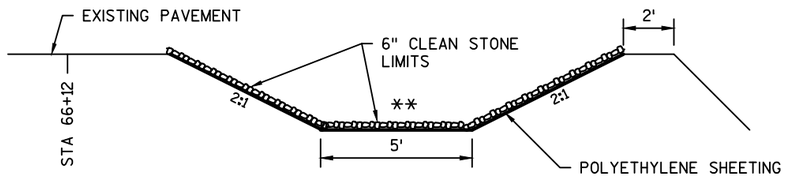
TEMPORARY CHANNEL BERM

WEYENBERG/DONALD A

WEYENBERG/DONALD A



DIVERSION CHANNEL BERM DETAIL



TYPICAL SECTION

DIVERSION CHANNEL

**NOTE: EXCAVATION OF THE EXISTING ROADWAY FOR THE DIVERSION CHANNEL WILL BE PAID FOR UNDER THE COMMON EXCAVATION BID ITEM. EXCAVATION FOR THE DIVERSION CHANNEL BED BENEATH THE EXISTING ROADWAY WILL BE PAID FOR UNDER THE DIVERSION CHANNEL BID ITEM.

PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	EROSION CONTROL DETAILS - DIVERSION CHANNEL	SHEET 18	E

2

N

FINISHED DITCHLINE

FINISHED DITCHLINE

STA 68+09, 34.6' LT
18-INCH CP

STA 68+57, 30.4' LT
18-INCH CP

TLE

EXISTING R/W

R/W LINE

SLOPE INTERCEPTS

SHOULDER LINE

64 65 66 67 STH 116 68 69

B-70-0292

SHOULDER LINE

EXISTING R/W

SLOPE INTERCEPTS

R/W LINE

TLE

STA 64+90, 29.7' RT
18-INCH CP

STA 65+20, 36.6' RT
18-INCH CP

FINISHED DITCHLINE

FINISHED DITCHLINE

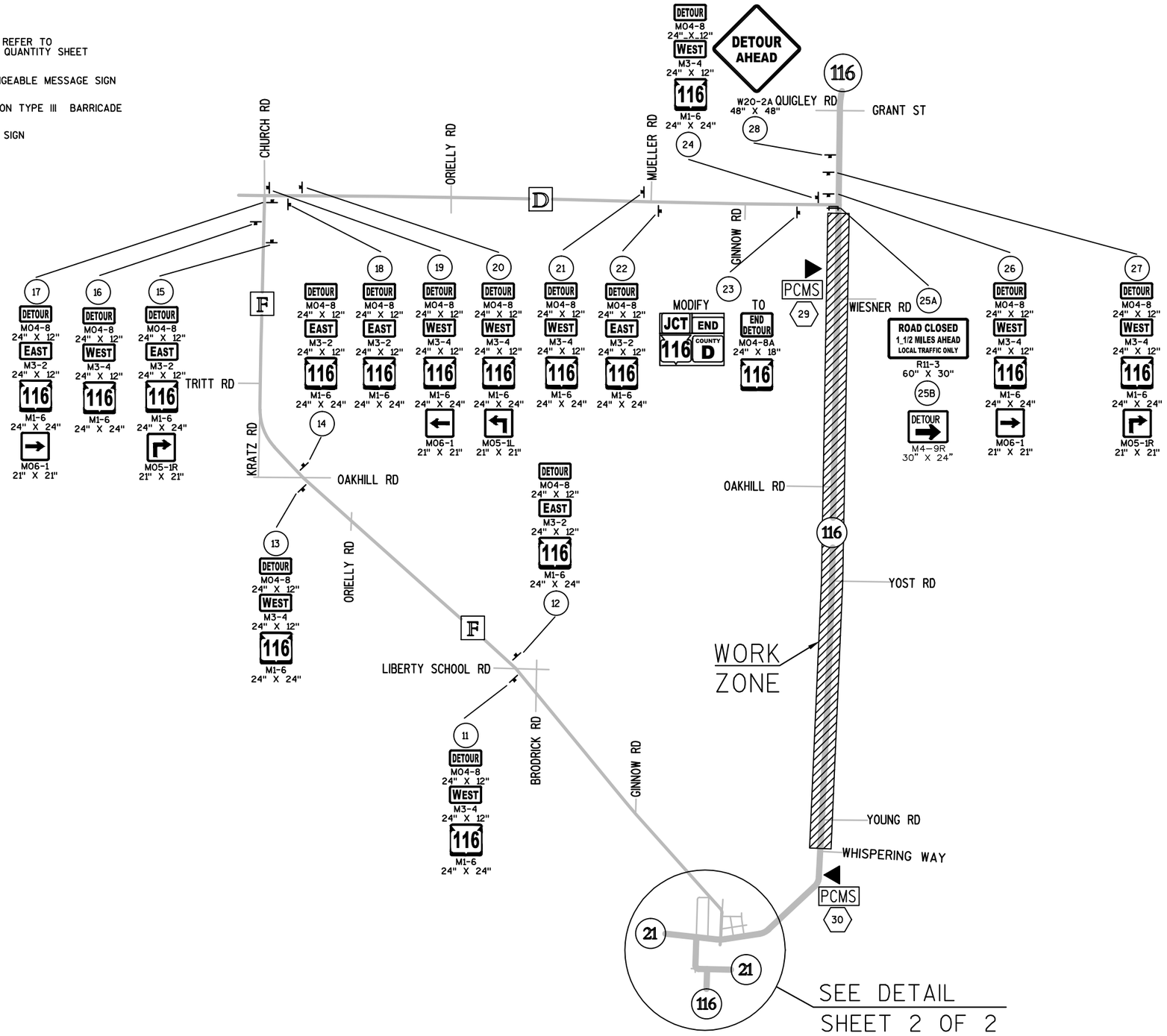
LEGEND

- EROSION MAT TYPE CL I, TYPE B
- EROSION MAT URBAN CL I, TYPE A
- HEAVY RIP RAP
- ROCK BAG DITCH CHECK
- CULVERT PIPE CHECK
- SILT FENCE
- CULVERT PIPE WITH ENDWALLS

PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	EROSION CONTROL DETAILS	SHEET 19	E

LEGEND

- (X) SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
- PCMS (X) PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN



SHEET 1 OF 2

PLAN SHEET PRODUCED BY WisDOT-NE REGION

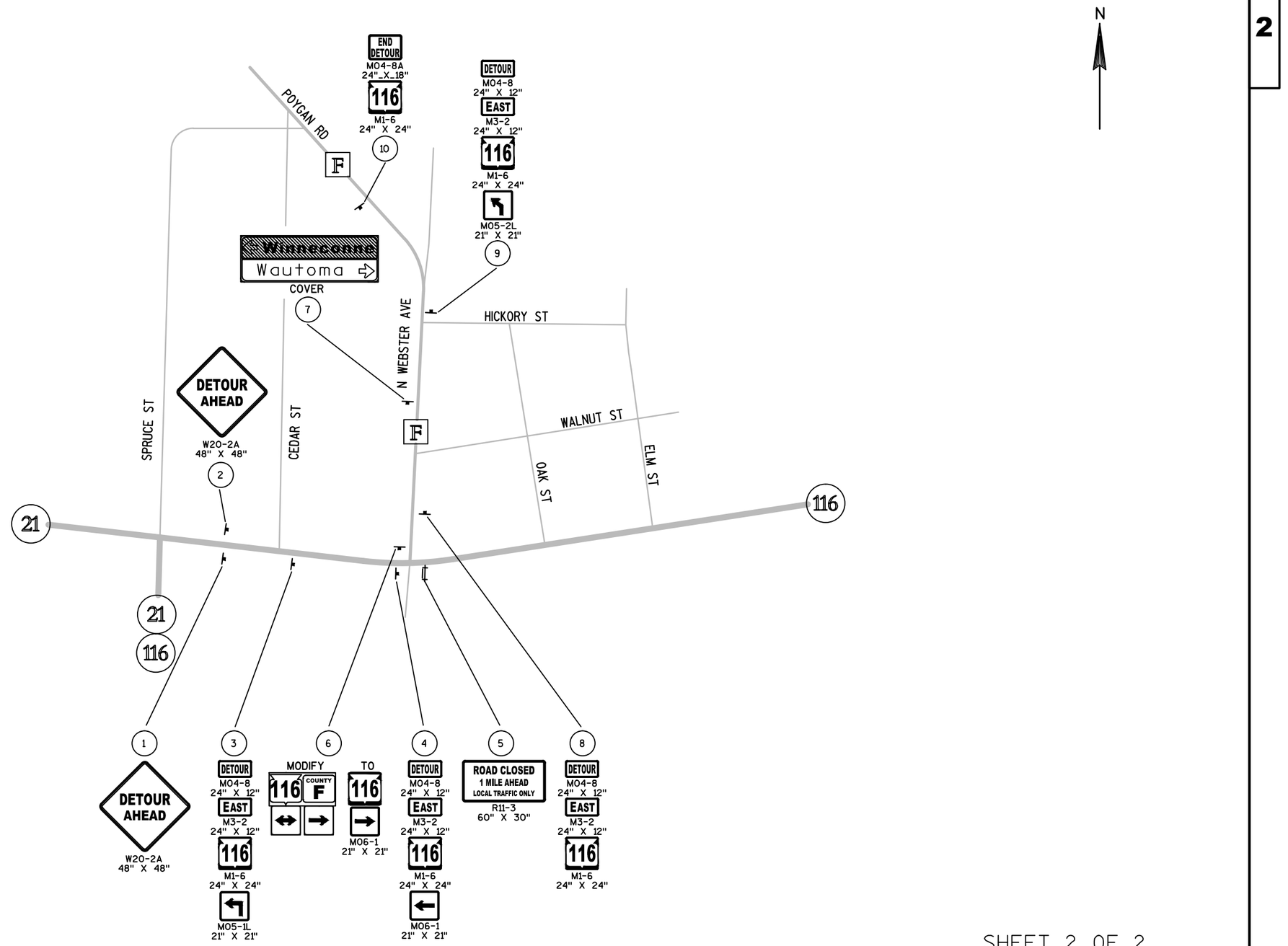
PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	DETOUR SIGNING DETAILS	SHEET E

FILE NAME : N:\PDS\C3D\61901600\SHEETSPLAN\027001_DT.DWG PLOT DATE : 9/24/2014 10:51 AM PLOT BY : RINZEL, JAMES M PLOT NAME : PLOT SCALE : 1:3172.8001

WISDOT/CADDS SHEET 42

LEGEND

- (X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET
- PCMS (X) PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN



SHEET 2 OF 2

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	DETOUR SIGNING DETAILS	SHEET 21	E

SIGNING NOTES

TYPE II SIGNS AND SUPPORTS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. SUPPORTS SHALL BE SORTED BY LENGTH AND TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS AND SUPPORTS.

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

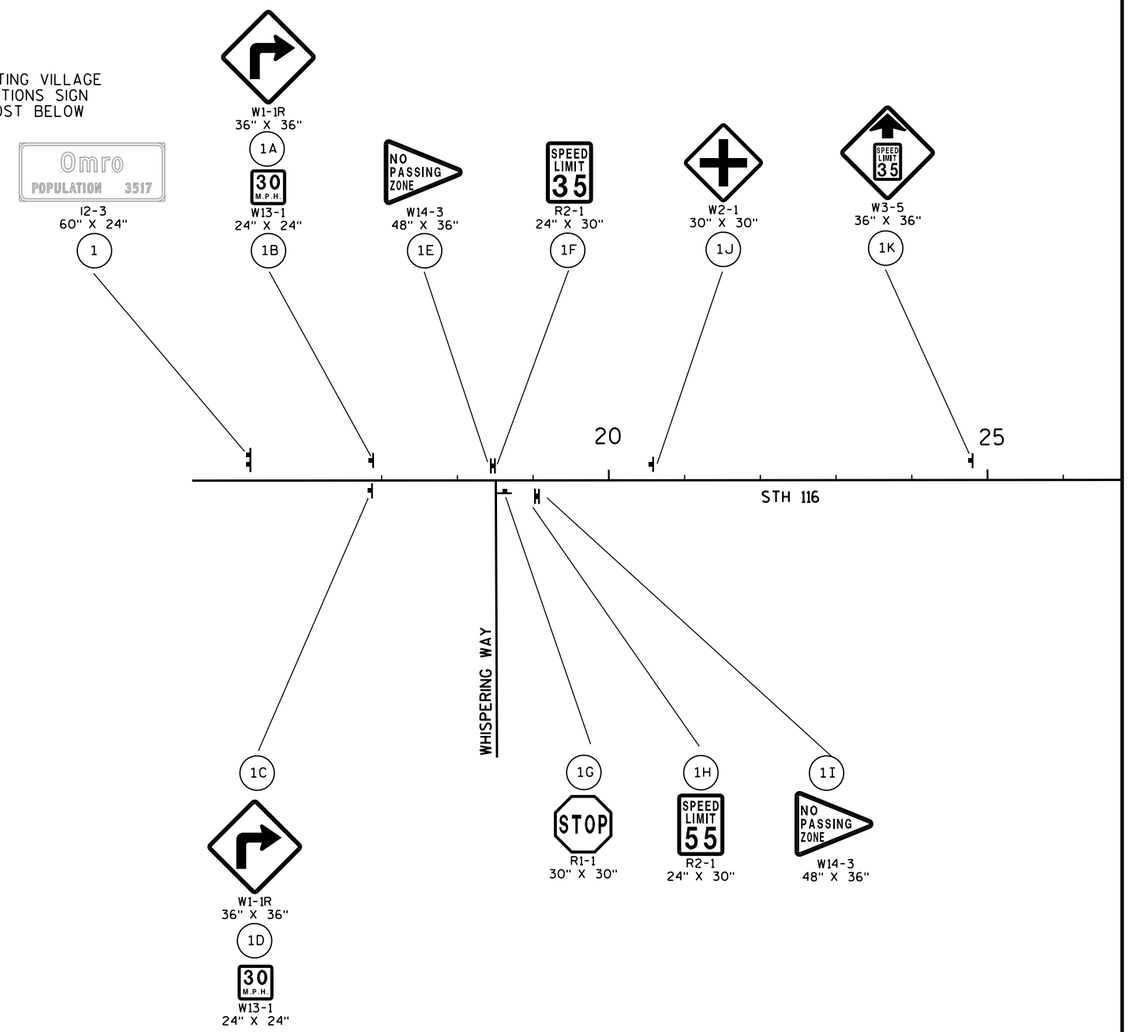
WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

NEW STOP SIGNS (R1-1) PLACED UNDER STAGE * SHALL HAVE A MINIMUM OF 6'6" OF CLEARANCE ABOVE THE ROADWAY. THIS WILL ALLOW FOR THE PLACEMENT OF FUTURE SIGNS BENEATH THE STOP SIGN.

THE NUMBER OF "NO PASSING ZONE" SIGNS (W-14-3) ARE ESTIMATED AND THE ACTUAL NUMBER WILL BE DETERMINED AFTER THE ROADWAYS HAVE BEEN SPOTTED.

N

NOTE:
RE-ATTACH EXISTING VILLAGE PARKING RESTRICTIONS SIGN TO THE LEFT POST BELOW I2-3.



SIGN-REMOVE AND REPLACE

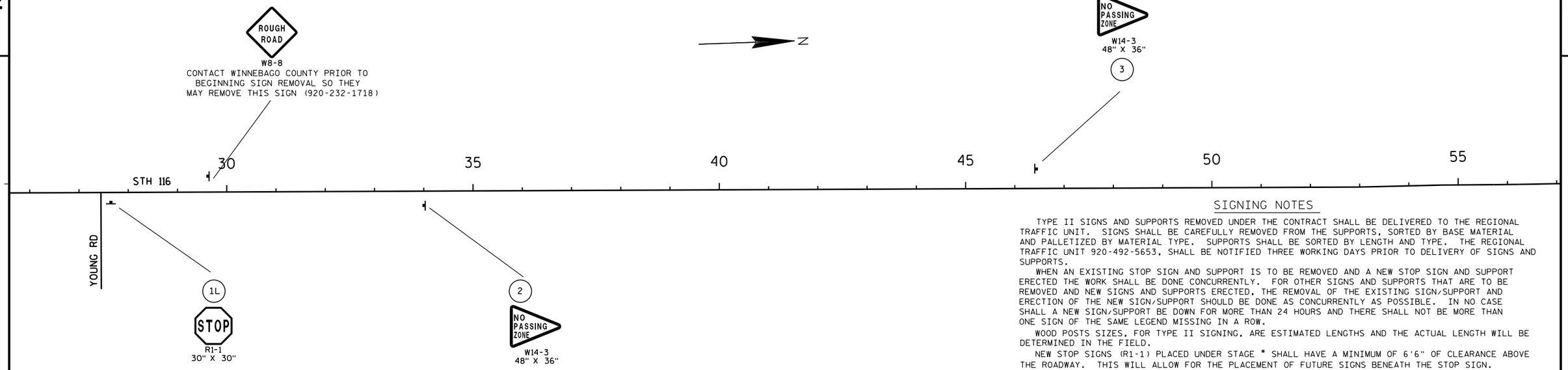
SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	PERMANENT SIGNING PLAN	SHEET 22	E

2



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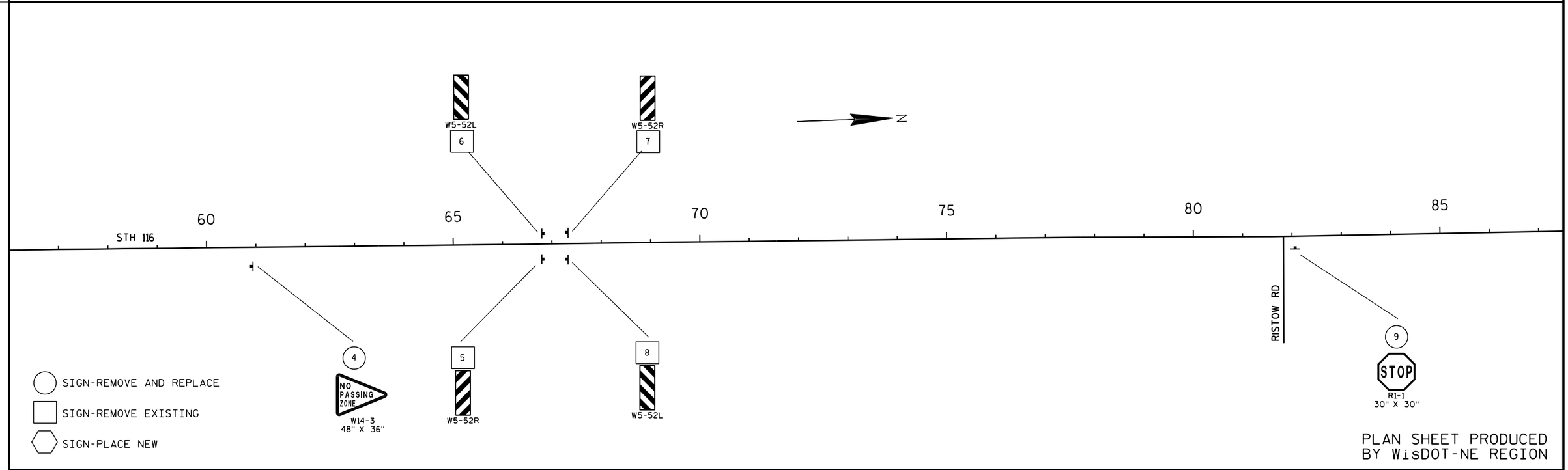
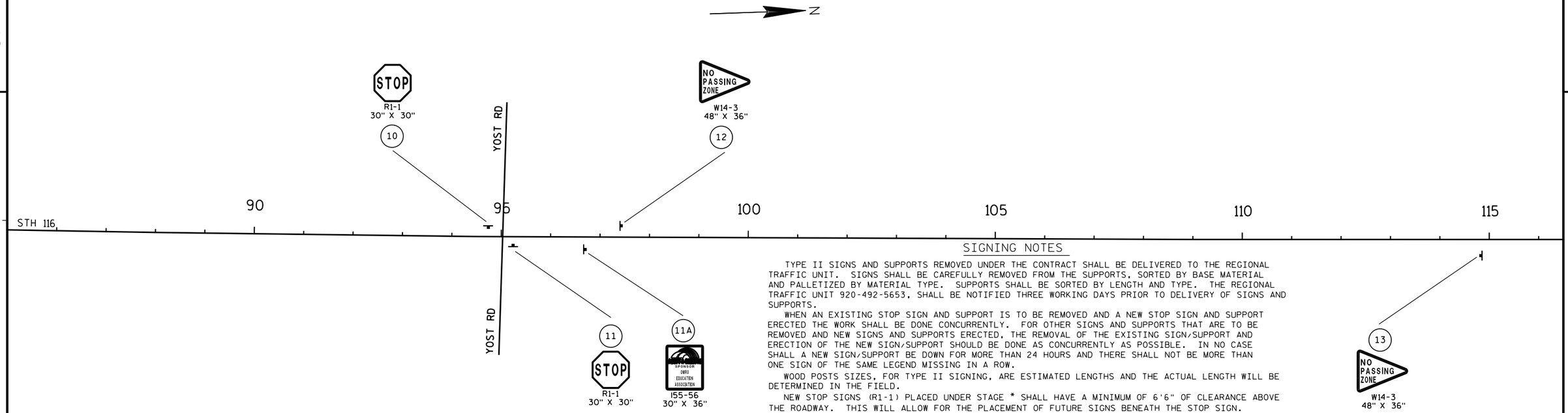


PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	PERMANENT SIGNING PLAN	SHEET 23	E

2



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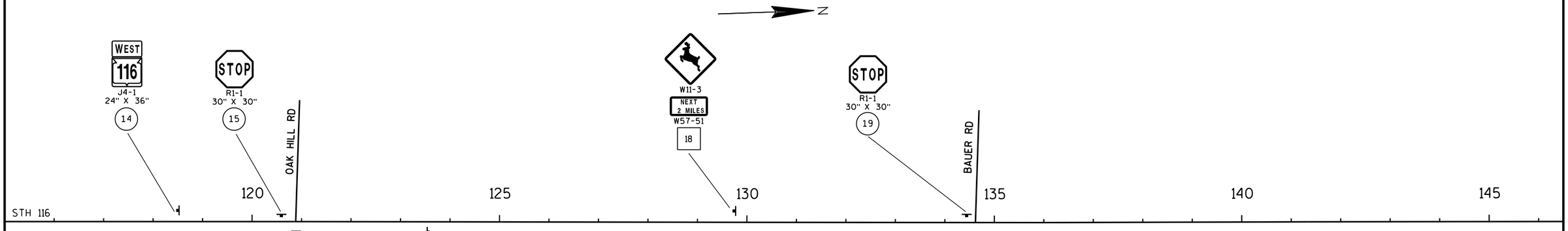
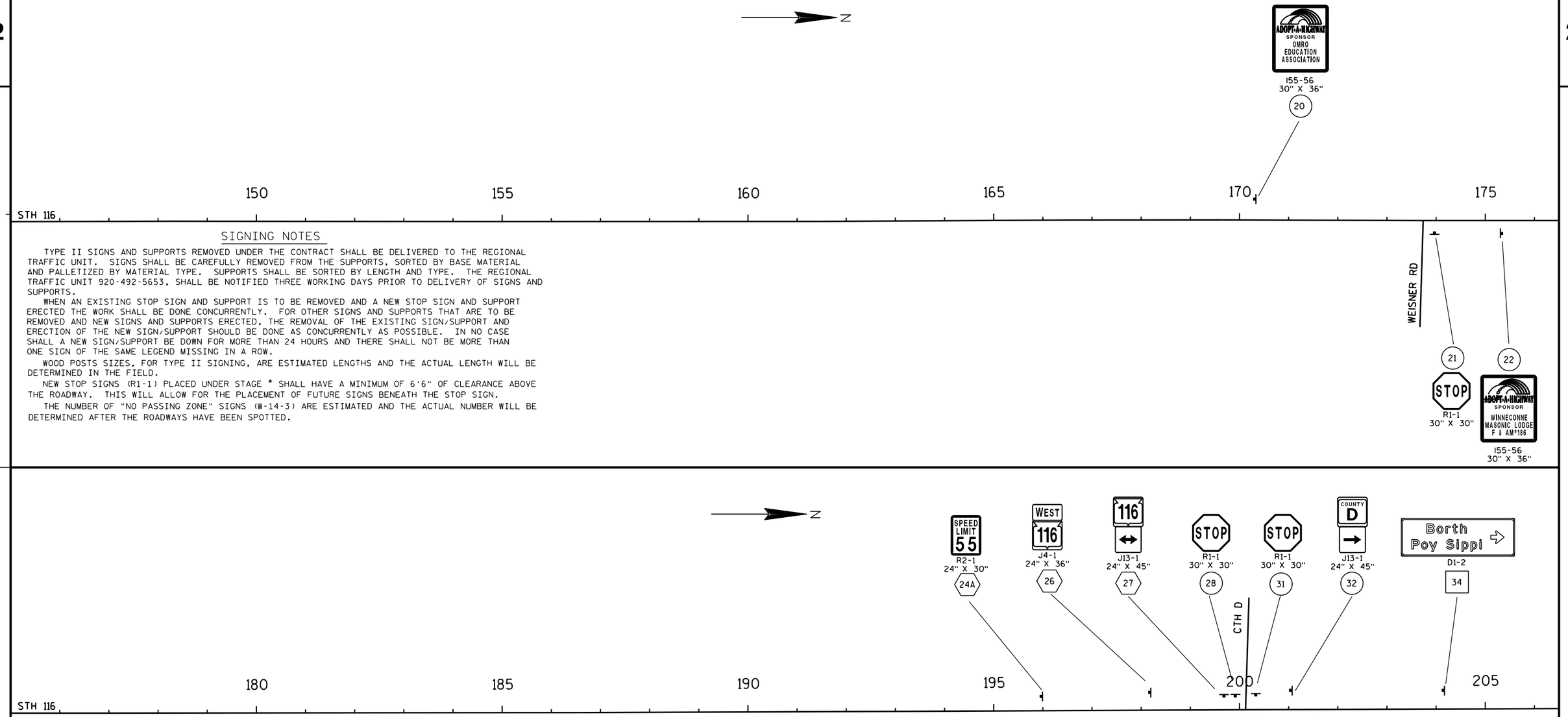


PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	PERMANENT SIGNING PLAN	SHEET 24	E



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SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

CONTACT WINNEBAGO COUNTY PRIOR TO BEGINNING SIGN REMOVAL SO THEY MAY REMOVE THIS SIGN (920-232-1718)

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	PERMANENT SIGNING PLAN	SHEET 25	E

SIGNING NOTES

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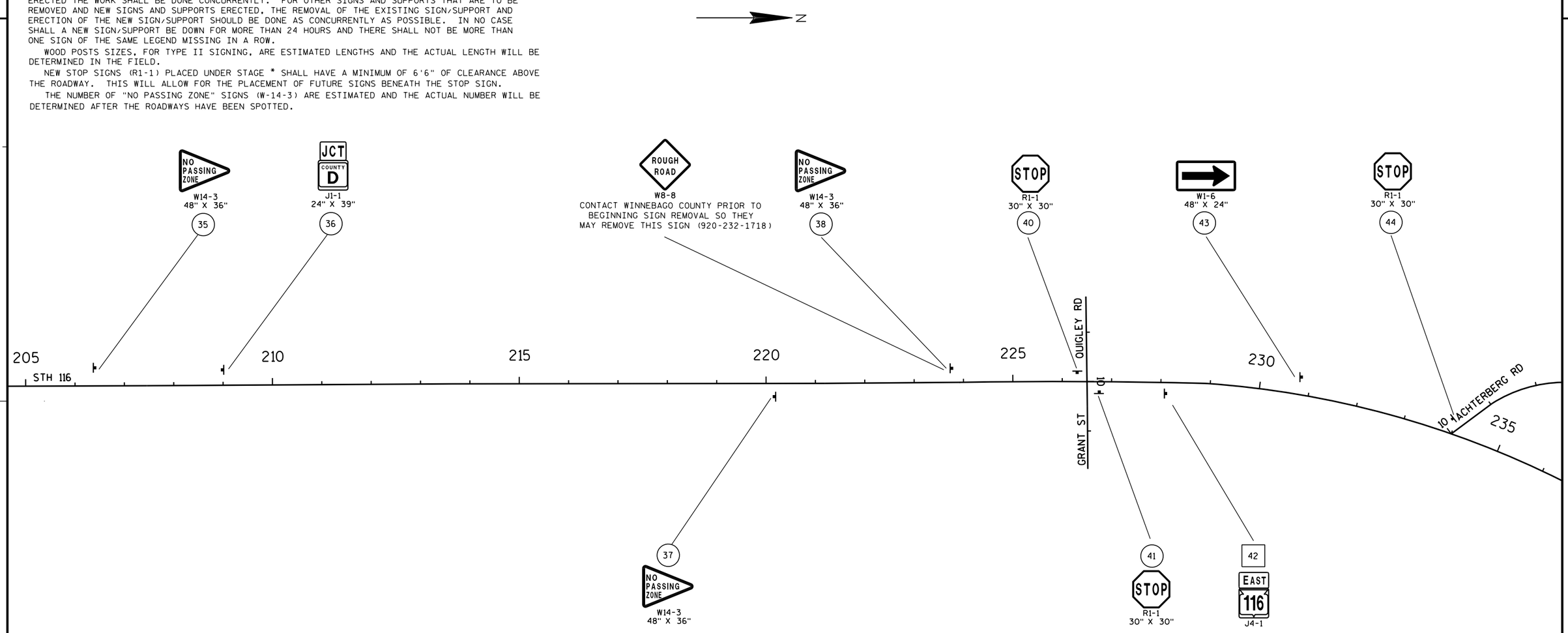

SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	PERMANENT SIGNING PLAN	SHEET 26	E

SIGNING NOTES

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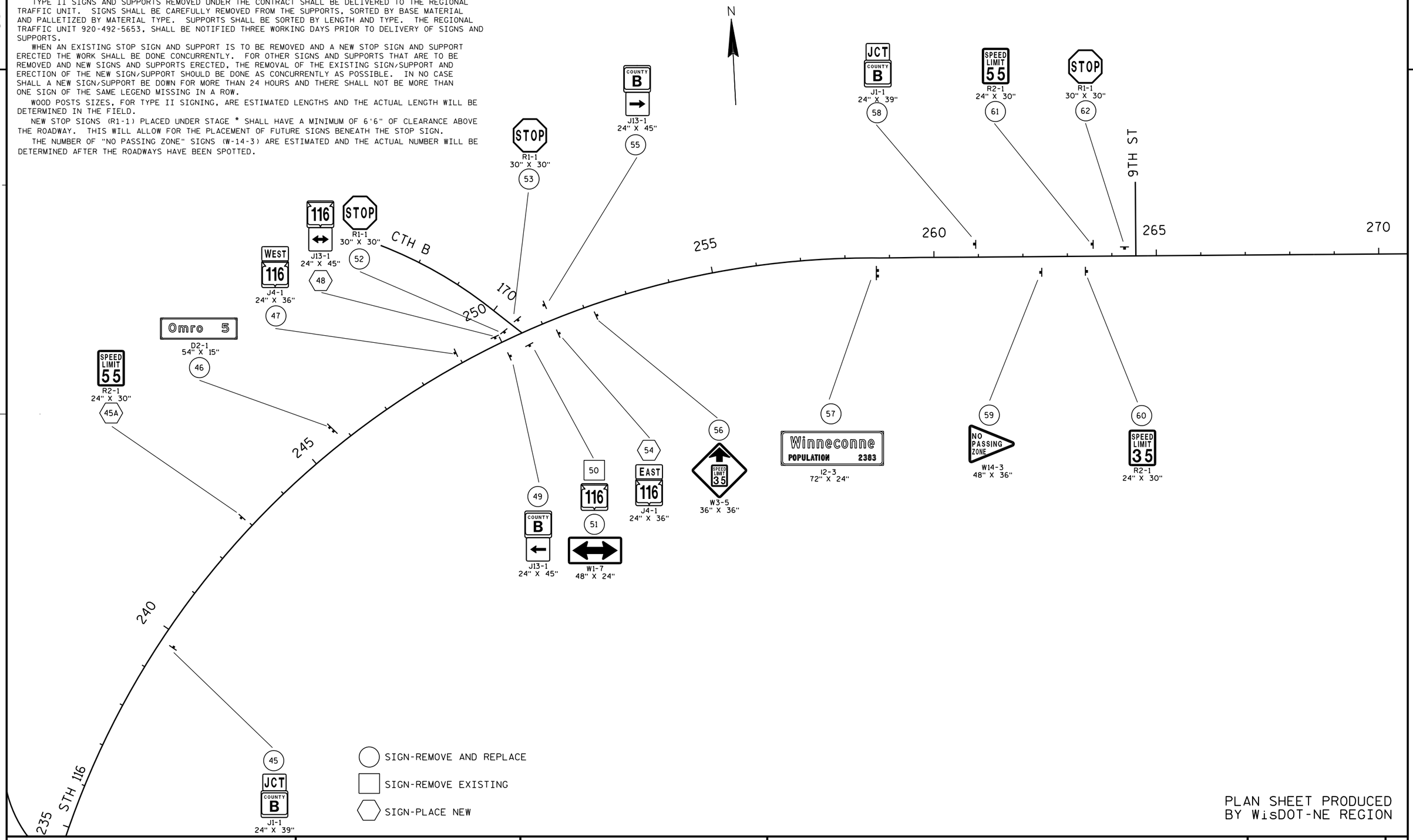

SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	PERMANENT SIGNING PLAN	SHEET 27	E

DATE 19FEB16 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	6190-16-71 QUANTITY
0010	201.0205	Grubbing	STA	10.000	10.000
0020	203.0100	Removing Small Pipe Culverts	EACH	3.000	3.000
0030	203.0200	Removing Old Structure (station) 01. Sta 66+74.50	LS	1.000	1.000
0040	204.0100	Removing Pavement	SY	391.000	391.000
0050	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,146.000	1,146.000
0060	204.0120	Removing Asphaltic Surface Milling	SY	65,144.000	65,144.000
0070	204.0165	Removing Guardrail	LF	399.000	399.000
0080	204.9060.S	Removing (item description) 01. Removing Apron Endwalls	EACH	2.000	2.000
0090	205.0100	Excavation Common	CY	1,089.000	1,089.000
0100	206.2000	Excavation for Structures Culverts (structure) 01. B-70-0292	LS	1.000	1.000
0110	208.1100	Select Borrow	CY	520.000	520.000
0120	210.0100	Backfill Structure	CY	235.000	235.000
0130	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 6190-16-71	LS	1.000	1.000
0140	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	395.000	395.000
0150	213.0100	Finishing Roadway (project) 01. 6190-16-71	EACH	1.000	1.000
0160	305.0110	Base Aggregate Dense 3/4-Inch	TON	3,260.000	3,260.000
0170	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,063.000	1,063.000
0180	305.0500	Shaping Shoulders	STA	475.000	475.000
0190	311.0115	Breaker Run	CY	70.000	70.000
0200	440.4410	Incentive IRI Ride	DOL	18,600.000	18,600.000
0210	455.0605	Tack Coat	GAL	8,659.000	8,659.000
0220	460.2000	Incentive Density HMA Pavement	DOL	11,250.000	11,250.000
0230	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	48,794.000	48,794.000
0240	460.5223	HMA Pavement 3 LT 58-28 S	TON	10,225.000	10,225.000
0250	460.5224	HMA Pavement 4 LT 58-28 S	TON	7,340.000	7,340.000
0260	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	11.000	11.000
0270	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	25,927.000	25,927.000
0280	504.0100	Concrete Masonry Culverts	CY	131.000	131.000
0290	505.0400	Bar Steel Reinforcement HS Structures	LB	6,620.000	6,620.000
0300	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	7,890.000	7,890.000
0310	516.0500	Rubberized Membrane Waterproofing	SY	15.000	15.000
0320	516.0610.S	Sheet Membrane Waterproofing for Top Slab (structure) 01. B-70-0292	SY	125.000	125.000
0330	520.3318	Culvert Pipe Class III-A 18-Inch	LF	84.000	84.000
0340	521.1518	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 6 to 1	EACH	10.000	10.000
0350	521.1524	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 24-Inch 6 to 1	EACH	2.000	2.000
0360	522.0327	Culvert Pipe Reinforced Concrete Class IV 27-Inch	LF	28.000	28.000
0370	522.1027	Apron Endwalls for Culvert Pipe Reinforced Concrete 27-Inch	EACH	2.000	2.000
0380	606.0300	Riprap Heavy	CY	30.000	30.000
0390	611.8110	Adjusting Manhole Covers	EACH	1.000	1.000
0400	614.0010	Barrier System Grading Shaping Finishing	EACH	4.000	4.000
0410	614.2300	MGS Guardrail 3	LF	200.000	200.000

3

DATE 19FEB16 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	6190-16-71 QUANTITY
0420	614.2340	MGS Guardrail 3 L	LF	450.000	450.000
0430	614.2610	MGS Guardrail Terminal EAT	EACH	8.000	8.000
0440	618.0100	Maintenance And Repair of Haul Roads (project) 01. 6190-16-71	EACH	1.000	1.000
0450	619.1000	Mobilization	EACH	1.000	1.000
0460	624.0100	Water	MGAL	60.500	60.500
0470	625.0100	Topsoil	SY	23.000	23.000
0480	625.0500	Salvaged Topsoil	SY	2,164.000	2,164.000
0490	627.0200	Mulching	SY	1,601.000	1,601.000
0500	628.1504	Silt Fence	LF	963.000	963.000
0510	628.1520	Silt Fence Maintenance	LF	963.000	963.000
0520	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0530	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0540	628.2004	Erosion Mat Class I Type B	SY	952.000	952.000
0550	628.2006	Erosion Mat Urban Class I Type A	SY	507.000	507.000
0560	628.7555	Culvert Pipe Checks	EACH	8.000	8.000
0570	628.7570	Rock Bags	EACH	30.000	30.000
0580	629.0210	Fertilizer Type B	CWT	0.500	0.500
0590	630.0110	Seeding Mixture No. 10	LB	4.000	4.000
0600	630.0130	Seeding Mixture No. 30	LB	50.000	50.000
0610	630.0200	Seeding Temporary	LB	30.000	30.000
0620	633.5200	Markers Culvert End	EACH	2.000	2.000
0630	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	50.000	50.000
0640	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	15.000	15.000
0650	637.2210	Signs Type II Reflective H	SF	273.570	273.570
0660	637.2230	Signs Type II Reflective F	SF	144.750	144.750
0670	638.2602	Removing Signs Type II	EACH	64.000	64.000
0680	638.3000	Removing Small Sign Supports	EACH	68.000	68.000
0690	642.5201	Field Office Type C	EACH	1.000	1.000
0700	643.0100	Traffic Control (project) 01. 6190-16-71	EACH	1.000	1.000
0710	643.0300	Traffic Control Drums	DAY	112.000	112.000
0720	643.0420	Traffic Control Barricades Type III	DAY	2,080.000	2,080.000
0730	643.0705	Traffic Control Warning Lights Type A	DAY	4,160.000	4,160.000
0740	643.0900	Traffic Control Signs	DAY	1,716.000	1,716.000
0750	643.0920	Traffic Control Covering Signs Type II	EACH	1.000	1.000
0760	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0770	643.2000	Traffic Control Detour (project) 01. 6190-16-71	EACH	1.000	1.000
0780	643.3000	Traffic Control Detour Signs	DAY	3,952.000	3,952.000
0790	645.0105	Geotextile Fabric Type C	SY	225.000	225.000
0800	645.0120	Geotextile Fabric Type HR	SY	65.000	65.000
0810	646.0106	Pavement Marking Epoxy 4-Inch	LF	48,699.000	48,699.000
0820	646.0406	Pavement Marking Same Day Epoxy 4-Inch	LF	17,266.000	17,266.000
0830	648.0100	Locating No-Passing Zones	MI	4.650	4.650
0840	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	5,844.000	5,844.000
0850	650.4500	Construction Staking Subgrade	LF	628.000	628.000
0860	650.5000	Construction Staking Base	LF	628.000	628.000
0870	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0880	650.6500	Construction Staking Structure Layout (structure) 01. B-70-0292	LS	1.000	1.000
0890	650.8000	Construction Staking Resurfacing Reference	LF	24,061.000	24,061.000
0900	650.9910	Construction Staking Supplemental Control (project) 01. 6190-16-71	LS	1.000	1.000

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DATE 19FEB16 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	6190-16-71 QUANTITY
0910	650.9920	Construction Staking Slope Stakes	LF	628.000	628.000
0920	690.0150	Sawing Asphalt	LF	850.000	850.000
0930	690.0250	Sawing Concrete	LF	84.000	84.000
0940	715.0502	Incentive Strength Concrete Structures	DOL	786.000	786.000
0950	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0960	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0970	SPV.0090	Special 01. Diversion Channel	LF	153.000	153.000

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CLEARING AND GRUBBING SUMMARY

CATEGORY	STATION TO STATION	LOCATION	201.0205 GRUBBING STA	REMARKS
0010	63+50 - 69+50	STH 116	6	
0010	210+00 - 211+00	STH 116	1	
0010	211+00 - 212+00	STH 116	1	
0010	216+00 - 217+00	STH 116	1	
0010	214+00 - 215+00	STH 116	1	

PROJECT TOTALS 10

REMOVING SMALL PIPE CULVERTS SUMMARY

CATEGORY	STATION	LOCATION	SIZE LENGTH FT	x	SIZE DIA. IN	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.9060.S REMOVING APRON ENDWALLS EACH	MATERIAL	REMARKS
0010	80+42	STH 116	33	x	27	1	---	CPRC	
0010	65+30	STH 116 RT	15	x	10	1	---	CLAY	
0010	67+88	STH 116 LT	19	x	12	1	---	CPCS	
0010	210+16	STH 116 RT	---	x	---	---	2	CPCS	

PROJECT TOTALS 3 2

REMOVING GUARDRAIL SUMMARY

CATEGORY	STATION TO STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF	REMARKS
0010	66+49 - 66+99	STH 116 LT	39.0	ATTACHED TO C-70-0084
0010	66+49 - 66+99	STH 116 RT	39.0	ATTACHED TO C-70-0084
0010	259+10 - 260+70	STH 116 RT	160.0	
0010	259+12 - 260+73	STH 116 LT	161.0	

PROJECT TOTALS 399

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REMOVING PAVEMENT AND ASPHALTIC SURFACE SUMMARY

CATEGORY	STATION TO STATION	LOCATION	204.0100 REMOVING PAVEMENT SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	REMARKS
0010	19+94 - 20+44	STH 116	---	122.2	---	
0010	20+44 - 65+77	STH 116	---	---	11,080.7	
0010	28+00 - 65+77	STH 116	---	37.8	---	BUTT JOINT AT YOUNG ROAD
0010	65+77 - 66+63.50	STH 116	192.2	---	---	
0010	66+85.50 - 67+66	STH 116	178.9	---	---	
0010	67+66 - 80+38	STH 116	---	---	3,109.3	
0010	80+38 - 80+46	STH 116	19.6	---	19.6	CULVERT REPLACEMENT
0010	80+46 - 220+00	STH 116	---	537.1	34,109.8	BUTT JOINTS AT DRIVEWAYS AND SIDEROADS
0010	220+00 - 221+00	STH 116	---	---	344.4	TRANSITION SECTION (11' TO 12' LANES)
0010	221+00 - 263+99	STH 116	---	---	15,285.3	
0010	263+99 - 264+49	STH 116	---	177.8	---	
	STH 116 TOTALS		**391**	**875**	**63,949**	
0010	9+15 - 9+35	QUIGLEY RD	---	53.1	---	
0010	9+35 - 9+86	QUIGLEY RD	---	---	233.2	
0010	10+17 - 10+47	GRANT ST	---	---	182.5	
0010	10+47 - 10+67	GRANT ST	---	52.3	---	
			---	---	---	
	QUIGLEY RD / GRANT ST TOTALS		**0**	**105**	**416**	
0010	10+18 - 10+54	ACHTERBERG RD	---	---	250.8	
0010	10+54 - 10+74	ACHTERBERG RD	---	106.1	---	
	ACHTERBERG RD TOTALS		**0**	**106**	**251**	
0010	169+85 - 170+05	CTH B	---	59.3	---	
0010	170+05 - 170+64	CTH B	---	---	528.6	
	CTH B TOTALS		**0**	**59**	**529**	
	PROJECT TOTALS		**391**	**1,146**	**65,144**	

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Division	From/To Station	Location	Common Excavation (1)	(item # 205.0100)	Salvaged/Unusable Pavement Material (4)	Available Material (5)	208.1100 Expanded EBS Backfill (11)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate +/- (14)	Waste	Comment:
			Cut (2)	EBS Excavation (3)			Factor 1.15		Factor 1.42			
Division 1												
STH 116	63+25/69+75	STH 116	637	452	139	498	520	216	306	191	191	
Division 1 Subtotal			637	452	139	498	520	216	306	191	191	
Grand Total			637	452	139	498	520	216	306	191	191	
Total Common Exc				1,089								

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusable Pavement Material
11) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1.15. Item number 208.1100
13) Expanded Fill. Factor = 1.42
Depending on selections: **Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh - Reduced EBS) * Fill Factor**
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced EBS) * Fill Factor
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh) * Fill Factor
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor) * Fill Factor
14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

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BASE AGGREGATE SUMMARY

CATEGORY	STATION TO STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	305.0500 SHAPING SHOULDERS STA	624.0100 WATER MGAL	REMARKS
0010	19+94 - 63+50	STH 116	430.2	---	87	6.02	
0010	63+50 - 65+77	STH 116	58.8	349.4	3	5.71	
0010	65+08	STH 116	7.1	---	---	0.10	FIELD ENTRANCE
0010	65+77 - 66+63.50	STH 116	19.1	188.6	---	2.91	
0010	66+85.50 - 67+66	STH 116	18.3	175.7	---	2.72	
0010	67+66 - 69+50	STH 116	50.3	333.6	1	5.37	
0010	68+31	STH 116	13.6	---	---	0.19	FIELD ENTRANCE
0010	69+50 - 80+38	STH 116	107.5	---	22	1.50	
0010	80+38 - 80+46	STH 116	0.8	16.0	---	0.24	CULVERT PIPE REPLACEMENT
0010	80+46 - 220+00	STH 116	1,378.2	---	279	19.29	
0010	220+00 - 221+00	STH 116	14.8	---	2	0.21	TRANSITION SECTION (11' TO 12' LANES)
0010	221+00 - 263+99	STH 116	849.2	---	80	11.89	
0010	263+99 - 264+49	STH 116	9.9	---	1	0.14	
0010	DRIVEWAYS / ENTRANCES	STH 116	283.9	---	---	3.97	
0010	SIDEROADS	STH 116	14.1	---	---	0.20	
	STH 116 TOTALS		**3,256**	**1,063**	**475**	**60.5**	
0010	9+15 - 10+67	QUIGLEY RD	1.8	---	---	0.02	
	QUIGLEY RD / GRANT ST TOTALS		**2**	**0**	**0**	**0.02**	
0010	10+50 - 10+74	ACHTERBERG RD	2.3	---	---	0.03	
	ACHTERBERG RD TOTALS		**2**	**0**	**0**	**0.03**	
	PROJECT TOTALS		**3,260**	**1,063**	**475**	**60.5**	

HMA SUMMARY

CATEGORY	STATION TO STATION	LOCATION	211.0100 PREPARE FOUNDATION FOR ASPHALT PAVING LS	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	455.0605 TACK COAT GAL	460.4110.S REHEATING HMA PAVEMENT LONGITUDINAL JOINTS LF	460.5223 HMA PAVEMENT 3 LT 58-28 S TON	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	REMARKS
0010	19+94 64+55	STH 116	---	90	1,450.0	8,922.0	1723.7	1244.0	---	
0010	64+55 - 65+77	STH 116	---	---	59.5	244.0	92.8	47.7	---	
0010	65+77 - 66+63.50	STH 116	---	---	41.5	173.0	92.6	33.3	---	
0010	66+63.50 - 66+85.50	STH 116	---	---	13.5	44.0	15.0	10.8	---	
0010	66+85.50 - 67+66	STH 116	---	---	38.6	161.0	86.1	31.0	---	
0010	67+66 - 68+95	STH 116	---	---	63.3	258.0	98.9	50.8	---	
0010	68+95 - 80+38	STH 116	---	23	408.4	2,286.0	441.6	317.8	---	
0010	80+38 - 80+46	STH 116	---	---	3.6	---	7.7	1.9	---	CULVERT PIPE REPLACEMENT
0010	80+46 - 220+00	STH 116	---	280	4,527.3	27,908.0	5391.7	3920.9	10.8	
0010	220+00 - 221+00	STH 116	---	2	35.3	200.0	43.1	31.0	---	TRANSITION SECTION (11' TO 12' LANES)
0010	221+00 - 263+99	STH 116	---	---	1,848.5	8,598.0	2071.7	1492.9	---	
0010	263+99 - 264+49	STH 116	---	---	14.7	---	---	17.1	---	
0010	19+00 - 264+49	STH 116	1	---	---	---	---	---	---	
	STH 116 TOTALS		**1**	**395**	**8,504**	**48,794**	**10,065**	**7,199**	**11**	
0010	9+15 - 9+35	QUIGLEY RD	---	---	3.7	---	---	5.1	---	
0010	9+35 - 9+86	QUIGLEY RD	---	---	28.0	---	31.2	22.4	---	
0010	10+17 - 10+47	GRANT ST	---	---	21.9	---	24.4	17.6	---	
0010	10+47 - 10+67	GRANT ST	---	---	3.7	---	---	5.0	---	
	QUIGLEY RD / GRANT ST TOTALS		**0**	**0**	**57**	**0**	**56**	**50**	**0**	
0010	10+18 - 10+54	ACHTERBERG RD	---	---	12.7	---	33.6	24.1	---	
0010	10+54 - 10+74	ACHTERBERG RD	---	---	17.6	---	---	10.2	---	
	ACHTERBERG RD TOTALS		**0**	**0**	**30**	**0**	**34**	**34**	**0**	
0010	169+85 - 170+05	CTH B	---	---	4.1	---	---	5.7	---	
0010	170+05 - 170+64	CTH B	---	---	63.4	---	70.7	50.9	---	
	CTH B TOTALS		**0**	**0**	**68**	**0**	**71**	**57**	**0**	
	PROJECT TOTALS		**1**	**395**	**8,659**	**48,794**	**10,225**	**7,340**	**11**	

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ASPHALTIC RUMBLE STRIP SUMMARY

CATEGORY	STATION TO STATION	LOCATION	465.0425 ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL LF	REMARKS
0010	19+94 - 199+07	STH 116 RT	13,224	TYPE 1
0010	19+94 - 199+07	STH 116 LT	12,703	TYPE 1

PROJECT TOTALS 25,927

CULVERT PIPE SUMMARY

CATEGORY	STATION TO STATION	LOCATION	INLET ELEV.	DISCH. ELEV.	SLOPE %	520.3318 CULVERT PIPE CLASS III-A 18-INCH (MIN WALL THICKNESS) 0.064-INCH LF	521.1518 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 18-INCH 6 TO 1 EACH	521.1524 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 24-INCH 6 TO 1 EACH	522.0327 CULVERT PIPE REINFORCED CONCRETE CLASS IV 27-INCH EACH	522.1027 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 27-INCH EACH	633.5200 MARKERS CULVERT END EACH	REMARKS
0010	63+75	STH 116	---	---	---	---	2	---	---	---	---	
0010	64+90	STH 116	---	---	---	---	2	---	---	---	---	
0010	64+90 RT - 65+20 RT	STH 116	753.88	753.55	1.1	30	2	---	---	---	---	FIELD ENTRANCE
0010	68+09 LT - 68+63 LT	STH 116	753.23	753.09	0.26	54	2	---	---	---	---	FIELD ENTRANCE
0010	80+42	STH 116	757.69	756.95	2.64	---	---	---	28	2	2	CULVERT REPLACEMENT
0010	135+85	STH 116	---	---	---	---	2	---	---	---	---	
0010	210+16	STH 116	---	---	---	---	---	2	---	---	---	

PROJECT TOTALS 84 10 2 28 2 2

ADJUSTING MANHOLE SUMMARY

CATEGORY	STATION	LOCATION	611.811 ADJUSTING MANHOLE COVERS EACH
0010	260+39	STH 116 RT	1

PROJECT TOTALS 1

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BEAM GUARD SUMMARY

CATEGORY	STATION TO STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2340 MGS GUARDRAIL 3 L LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	REMARKS
0010	65+25 - 67+81	STH 116 RT	37.5	112.5	2	
0010	65+69 - 68+25	STH 116 LT	37.5	112.5	2	
0010	257+90 - 261+21	STH 116 RT	62.5	112.5	2	
0010	258+59 - 261+90	STH 116 LT	62.5	112.5	2	
	PROJECT TOTALS		**200**	**450**	**8**	

BARRIER SYSTEM GRADING, SHAPING & FINISHING SUMMARY

CATEGORY	STATION TO STATION	LOCATION	614.0010 BARRIER SYSTEM GRADING, SHAPING & FINISHING EACH	** SALVAGED TOPSOIL SY	** FERTILIZER CWT	** SEEDING LB	** MULCHING SY	** BORROW CY	REMARKS
0010	257+53 - 258+28	STH 116 RT	1	27.4	0.02	0.7	27.4	5.3	MATCH SHOULDER SLOPE BEHIND BEAM GUARD
0010	258+21 - 258+96	STH 116 LT	1	27.4	0.02	0.7	27.4	5.3	MATCH SHOULDER SLOPE BEHIND BEAM GUARD
0010	260+84 - 261+59	STH 116 RT	1	18.2	0.01	0.5	18.2	3.5	USE 10:1 SLOPE BEHIND BEAM GUARD
0010	261+53 - 262+28	STH 116 LT	1	27.4	0.02	0.7	27.4	5.3	MATCH SHOULDER SLOPE BEHIND BEAM GUARD
	PROJECT TOTALS		**4**	**100**	**0.1**	**3**	**100**	**19**	

** NON BID ITEM: FOR INFORMATION ONLY

LANDSCAPING SUMMARY

CATEGORY	STATION TO STATION	LOCATION	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0130 SEEDING MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB	REMARKS
0010	63+40 - 69+60	STH 116 RT	---	736.6	374.0	---	1.41	17.1	9.94	
0010	65+00 - 69+60	STH 116 LT	---	627.6	403.7	---	2.88	11.2	8.47	
0010	80+42	STH 116	---	6.8	6.8	0.00	---	0.18	0.09	CULVERT REPLACEMENT
0010	135+85	STH 116 RT	15	---	15.0	0.01	---	0.41	0.20	EXPOSED CULVERT ENDS
0010	210+16	STH 116 RT	8	---	8.0	0.01	---	0.22	0.11	
0010	210+85 - 211+75	STH 116 RT	---	129.9	129.9	0.08	---	3.51	1.75	AS NEEDED IN THE TEMPORARY EASEMENT
0010	216+15 - 217+00	STH 116 RT	---	227.7	227.7	0.14	---	6.15	3.07	AS NEEDED IN THE TEMPORARY EASEMENT
0010	213+90 - 217+25	STH 116 LT	---	435.51	435.5	0.27	---	11.76	5.88	AS NEEDED IN THE TEMPORARY EASEMENT
		PROJECT TOTALS	**23**	**2,164**	**1,601**	**0.5**	**4**	**50**	**30**	

EROSION CONTROL SUMMARY

CATEGORY	STATION TO STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2004 EROSION MAT CLASS I TYPE B SY	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	SPV.0090.01 DIVERSION CHANNEL LF	REMARKS
0010	63+35 - 69+60	STH 116 RT	125	125	---	---	362.6	169.5	2	16	---	
0010	65+00 - 69+60	STH 116 LT	220	220	---	---	223.9	235.9	2	8	---	
0010	66+23 66+85	STH 116	---	---	---	---	---	---	---	---	153	
0010	80+38 - 80+46	STH 116	25	25	---	---	16.7	---	2	---	---	CULVERT REPLACEMENT
0010	257+53 - 258+28	STH 116 RT	100	100	---	---	41.7	---	---	---	---	
0010	258+21 - 258+96	STH 116 LT	100	100	---	---	41.7	---	---	---	---	
0010	260+84 - 261+59	STH 116 RT	100	100	---	---	33.3	---	---	---	---	
0010	261+53 - 262+28	STH 116 LT	100	100	---	---	41.7	---	---	---	---	
0010	UNDISTRIBUTED		193	193	6	3	190	101	2	6	---	
		PROJECT TOTALS	**963**	**963**	**6**	**3**	**952**	**507**	**8**	**30**	**153**	

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1	YOUNG RD	I2-3	60" X 24"	10.00	---	2	---	1	2	SEE SIGN DETAIL
1A	S. OF WHISPERING WAY	W1-1R	36" X 36"	---	9.00	---	1	---	1	PART OF REMOVAL FOR SIGN #1B
1B	"	W13-1	24" X 24"	---	2.25	---	---	1	---	30 MPH, MOUNT BELOW SIGN #1A
1C	S. OF WHISPERING WAY	W1-1R	36" X 36"	---	9.00	---	1	---	1	PART OF REMOVAL FOR SIGN #1D
1D	"	W13-1	24" X 24"	---	2.25	---	---	1	---	30 MPH, MOUNT BELOW SIGN #1C
1E	WHISPERING WAY	W14-3	48" X 36"	---	6.00	1	---	---	1	PART OF REMOVAL FOR SIGN #1F
1F	"	R2-1	24" X 30"	5.00	---	---	---	1	---	35 MPH, MOUNT ON BACK OF SIGN #1E
1G	"	R1-1	30" X 30"	5.18	---	1	---	1	1	
1H	N. OF WHISPERING PINES	R2-1	24" X 30"	5.00	---	1	---	---	1	55 MPH, PART OF REMOVAL FOR SIGN #1I
1I	"	W14-3	48" X 36"	---	6.00	---	---	1	---	MOUNT ON BACK OF SIGN #1H
1J	"	W2-1	30" X 30"	---	6.25	1	---	1	1	
1K	"	W3-5	36" X 36"	---	9.00	1	---	1	1	REMOVE W13-1 ALSO, PART OF INITIAL REMOVAL OF W11-3 SIGN
1L	YOUNG RD	R1-1	30" X 30"	5.18	---	1	---	1	1	
2	N. OF YOUNG RD	W14-3	48" X 36"	---	6.00	---	1	1	1	
3	"	W14-3	48" X 36"	---	6.00	1	---	1	1	
4	S. OF RISTOW RD	W14-3	48" X 36"	---	6.00	---	1	1	1	
5	"	W5-52R	---	---	---	---	---	1	1	
6	"	W5-52L	---	---	---	---	---	1	1	
7	"	W5-52R	---	---	---	---	---	1	1	
8	"	W5-52L	---	---	---	---	---	1	1	
9	RISTOW RD	R1-1	30" X 30"	5.18	---	1	---	1	1	
10	YOST RD	R1-1	30" X 30"	5.18	---	1	---	1	1	
11	"	R1-1	30" X 30"	5.18	---	1	---	1	1	
11A	N. OF YOST RD.	I55-56	30" X 36"	7.50	---	1	---	1	1	OMRO EDUCATION ASSOCIATION, SEE PLAN SHEET
12	"	W14-3	48" X 36"	---	6.00	1	---	1	1	
13	S. OF OAK HILL RD	W14-3	48" X 36"	---	6.00	---	1	1	1	
14	"	J4-1	24" X 36"	6.00	---	1	---	1	1	STH 116, SEE PLAN SHEET
15	OAK HILL RD	R1-1	30" X 30"	5.18	---	1	---	1	1	
16	"	W1-7	48" X 24"	---	8.00	1	---	1	1	
17	N. OF OAK HILL RD	J4-1	---	---	---	---	---	1	1	
18	S. OF BAUER	W11-3	---	---	---	---	---	1	1	REMOVE W57-51 ALSO, PART OF INITIAL REMOVAL OF W11-3 SIGN
19	BAUER RD	R1-1	30" X 30"	5.18	---	1	---	1	1	
20	S. OF WEISNER RD	I55-56	30" X 36"	7.50	---	1	---	1	1	OMRO EDUCATION ASSOCIATION, SEE PLAN SHEET
21	WEISNER RD	R1-1	30" X 30"	5.18	---	1	---	1	1	
22	N. OF WEISNER RD	I55-56	30" X 36"	7.50	---	1	---	1	1	WINNECONNE MASONIC LODGE F & AM #186, SEE PLAN SHEET
23	S. OF CTH D	J1-1	24" X 39"	6.50	---	1	---	1	1	CTH D, SEE PLAN SHEET
24	"	D1-2	---	---	---	---	---	1	2	
24A	"	R2-1	24" X 30"	5.00	---	1	---	---	---	55 MPH
25	"	J13-1	24" X 45"	7.50	---	---	1	1	1	CTH D, SEE PLAN SHEET
26	"	J4-1	24" X 36"	6.00	---	1	---	---	---	STH 116, SEE PLAN SHEET
	PAGE SUBTOTALS			114.94	87.75	24	6	34	36	

PLAN SHEET PRODUCED BY WisDOT - NE REGION

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
27	CTH D	J13-1	24" X 45"	7.50	---	---	1	---	---	STH 116, SEE PLAN SHEET
28	"	R1-1	30" X 30"	7.46	---	---	1	1	1	
29	"	M1-6	---	---	---	---	---	1	1	
30	"	W1-7	48" X 24"	---	8.00	1	---	---	---	PART OF REMOVAL FOR SIGN #29
31	"	R1-1	30" X 30"	5.18	---	1	---	1	1	
32	N. OF CTH D	J13-1	24" X 45"	7.50	---	---	1	1	1	CTH D, SEE PLAN SHEET
33	"	J4-1	24" X 36"	6.00	---	1	---	---	---	STH 116, SEE PLAN SHEET
33A	"	R2-1	24" X 30"	5.00	---	1	---	---	---	55 MPH
34	"	D1-2	---	---	---	---	---	1	1	
35	"	W14-3	48" X 36"	---	6.00	1	---	1	1	
36	N. OF CTH D	J1-1	24" X 39"	6.50	---	1	---	1	1	CTH D, SEE PLAN SHEET
37	S. OF GRANT ST/QUIGLEY RD	W14-3	48" X 36"	---	6.00	1	---	1	1	
38	"	W14-3	48" X 36"	---	6.00	1	---	1	1	
40	GRANT ST/QUIGLEY RD	R1-1	30" X 30"	5.18	---	1	---	1	1	
41	"	R1-1	30" X 30"	5.18	---	1	---	1	1	
42	N. OF GRANT ST/QUIGLEY RD	J4-1	---	---	---	---	---	1	1	
43	S. OF ACHTERBERG RD	W1-6	48" X 24"	---	8.00	1	---	1	1	
44	ACHTERBERG RD	R1-1	30" X 30"	5.18	---	1	---	1	1	
45	N. OF ACHTERBERG RD	J1-1	24" X 39"	6.50	---	1	---	1	1	CTH B, SEE PLAN SHEET
45A	S. OF CTH B	R2-1	24" X 30"	5.00	---	1	---	---	---	55 MPH
46	"	D2-1	54" X 15"	5.63	---	1	1	1	2	SEE SIGN DETAIL
47	"	J4-1	24" X 36"	6.00	---	1		1	1	STH 116, SEE PLAN SHEET
48	CTH B	J13-1	24" X 45"	7.50	---	---	1	1	1	STH 116, SEE PLAN SHEET
49	S. OF CTH B	J13-1	24" X 45"	7.50	---	---	1	1	1	CTH B, SEE PLAN SHEET
50	CTH B	M1-6	---	---	---	---	---	1	1	
51	"	W1-7	48" X 24"	---	8.00	1	---	---	---	PART OF REMOVAL FOR SIGN #50
52	"	R1-1	30" X 30"	7.46	---	1	---	1	1	
53	"	R1-1	30" X 30"	5.18	---	1	---	1	1	
54	E. OF CTH B	J4-1	24" X 36"	6.00	---	1	---	---	---	STH 116, SEE PLAN SHEET
55	"	J13-1	24" X 45"	7.50	---	---	1	1	1	CTH B, SEE PLAN SHEET
56	"	W3-5	36" X 36"	---	9.00	1	---	1	1	35 MPH
57	W. OF 9TH ST	I2-3	72" X 24"	12.00	---	1	1	1	2	SEE SIGN DETAIL
58	"	J1-1	24" X 39"	6.50	---	---	1	1	1	CTH B, SEE PLAN SHEET
59	"	W14-3	48" X 36"	---	6.00	1	---	1	1	
60	"	R2-1	24" X 30"	5.00	---	1	---	1	1	35 MPH
61	"	R2-1	24" X 30"	5.00	---	1	---	1	1	55 MPH
62	9TH ST	R1-1	30" X 30"	5.18	---	1	---	1	1	
	PAGE SUBTOTALS			158.63	57.00	26	9	30	32	
	PROJECT TOTALS			**273.57**	**144.75**	**50**	**15**	**64**	**68**	

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

3

TRAFFIC CONTROL SUMMARY

CATEGORY	STATION TO STATION	LOCATION	APPROX. SERVICE PERIOD DAYS	643.0300 DRUMS NO. IN SERVICE	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III NO. IN SERVICE	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A NO. IN SERVICE	643.0705 WARNING LIGHTS TYPE A DAY	643.0900 SIGNS NO. IN SERVICE	643.0900 SIGNS DAY	REMARKS
0010	19+94 - 199+07	STH 116	52	0	0	38	1,976	76	3952	21	1092	UNDER DETOUR
0010	19+94 - 199+07	SIDEROADS	52	0	0	0	0	0	0	8	416	UNDER DETOUR
	STAGE 1				**0**		**1,976**		**3,952**		**1,508**	
0010	199+07 - 264+49	STH 116	12	0	0	0	0	0	0	8	96	MOVING OPERATIONS, MILLING AND PAVING
0010	199+07 - 264+49	SIDEROADS	12	0	0	0	0	0	0	6	72	MOVING OPERATIONS,w20-1 SIGNS ON SIDEROADS
0010	253+50 - 263+50	STH 116 RT	1	14	14	0	0	0	0	5	5	BEAM GUARD REMOVAL
0010	256+25 - 264+50	STH 116 LT	1	14	14	0	0	0	0	5	5	BEAM GUARD REMOVAL
0010	253+50 - 263+50	STH 116 RT	3	14	42	0	0	0	0	5	15	BEAM GUARD INSTALLATION
0010	256+25 - 264+50	STH 116 LT	3	14	42	0	0	0	0	5	15	BEAM GUARD INSTALLATION
	STAGE 2				**112**		**0**		**0**		**208**	
0010	19+94 - 199+07	STH 116	52	0	0	2	104	4	208	0	0	SEE TRAFFIC CONTROL DETOUR SIGN MISC. QTYS. FOR LOCATIONS
	DETOUR				**0**		**104**		**208**		**0**	
	PROJECT TOTALS				**112**		**2,080**		**4,160**		**1,716**	

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 52 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420** BARRICADES TYPE III DAYS	643.0705** WARNING LIGHTS TYPE A DAYS	643.0920 COVERING SIGNS TYPE II EACH	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	REMARKS
1	50'W OF J4-1 (E-116)	W 20-2-A	48"x48"	1	52	52	---	---	---	---	
2	ACROSS FROM SIGN # 1 (FACING WEST)	W 20-2-A	48"x48"	1	52	52	---	---	---	---	
3	50' E OF W 11-2 (PED CROSSING) SIGN	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-2	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
	"	MO 5-1-L	21"x21"	1	52	52	---	---	---	---	
4	LT OF J2-1 (F-LT) SIGN	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-2	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
	"	MO 6-1	21"x21"	1	52	52	---	---	---	---	LEFT
5	SE QUAD OF STH 116 & CTH F INTERSECTION	R 11-3	60"x30"	1	52	52	52	104	---	---	1 MILE
6	MODIFY J13-2 (116-DBL ARROW; F-RT)	M 1-6	EXISTING		---	---	---	---	---	---	
	"	MO 6-1	21"x21"	1	52	52	---	---	---	---	RIGHT
7	D1-2 (LT WINNECONNE; WAUTOMA-RT)				---	---	---	---	1	---	LT-WINNECONNE
8	100' N OF STH 116 INTERSECTION ON CTH F	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-2	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
9	50' S OF STOP SIGN (RT SIDE) @ STH 116 & WEBSTER ST	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-2	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
	"	MO 5-2-L	21"x21"	1	52	52	---	---	---	---	
10	200' N OF SIGN # 7	MO 4-8-A	24"x18"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
11	200' S OF LIBERTY SCHOOL RD INTERSECTION ON CTH F	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-4	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
12	200' N OF LIBERTY SCHOOL RD INTERSECTION ON CTH F	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-2	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
13	200' S OF OAK HILL RD INTERSECTION ON CTH F	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-4	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
14	200' N OF OAK HILL RD INTERSECTION ON CTH F	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-2	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
15	300' N OF J1-1 (JCT D) SIGN	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-2	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
	"	MO 5-1-R	21"x21"	1	52	52	---	---	---	---	
16	ABOVE J13-1 (F) SIGN	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-4	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
**ITEMS QUANTIFIED IN THE TRAFFIC CONTROL SUMMARY MISCELLANEOUS QUANTITES SHEET				PAGE SUBTOTAL		2,080	52	104	1	0	

TRAFFIC CONTROL DETOUR SIGN SUMMARY CONT.

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 50 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420** BARRICADES TYPE III DAYS	643.0705** WARNING LIGHTS TYPE A DAYS	643.0920 COVERING SIGNS TYPE II EACH	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	REMARKS
17	200' S OF CTH D INTERSECTION ON CTH F	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-2	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
	"	MO 6-1	21"x21"	1	52	52	---	---	---	---	RIGHT
18	ABOVE J13-1 (D) SIGN	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-2	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
19	ABOVE J13-2 (F-LT; D-AH) SIGN	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-4	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
	"	MO 6-1	21"x21"	1	52	52	---	---	---	---	LEFT
20	RT OF J1-1 (JCT F)	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-4	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
	"	MO 5-1-L	21"x21"	1	52	52	---	---	---	---	
21	200' W OF MUELLER RD INTERSECTION ON CTH D	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-4	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
22	200' E OF MUELLER RD INTERSECTION ON CTH D	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-2	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
23	MODIFY J1-2 (JCT 116; END D)	MO 4-8-A	24"x18"	1	52	52	---	---	---	---	
	"	M 1-6	EXISTING		---	---	---	---	---	---	
24	200' W OF STH 116 INTERSECTION ON CTH D	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-4	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
25A	SW QUAD OF STH 116 & CTH D INTERSECTION	R 11-3	60"x30"	1	52	52	52	104	---	---	1 1/2 MILES
25B	"	M 4-9R	30"x24"	1	52	52	---	---	---	---	
26	LT OF J13-1 (D-RT)	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-4	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
	"	MO 6-1	21"x21"	1	52	52	---	---	---	---	RIGHT
27	LT OF J1-1 (JCT D)	MO 4-8	24"x12"	1	52	52	---	---	---	---	
	"	M 3-4	24"x12"	1	52	52	---	---	---	---	
	"	M 1-6	24"x24"	1	52	52	---	---	---	---	116
	"	MO 5-1-R	21"x21"	1	52	52	---	---	---	---	
28	500' N OF SIGN # 27	W 20-2-A	48"x48"	1	52	52	---	---	---	---	
29	FOR SB TRAFFIC	PCMS		1	---	---	---	---	---	7	ADVANCED WARNING
30	FOR NB TRAFFIC	PCMS		1	---	---	---	---	---	7	ADVANCED WARNING
**ITEMS QUANTIFIED IN THE TRAFFIC CONTROL SUMMARY MISCELLANEOUS QUANTITES SHEET					PAGE SUBTOTAL	1,872	52	104	0	14	
					PROJECT TOTALS	**3,952**			**1**	**14**	

PAVEMENT MARKING SUMMARY

CATEGORY	STATION TO STATION	LOCATION	STN MILE	STN MILE	DISTANCE	646.0106 PAVEMENT MARKING EPOXY 4-INCH EDGELINE (WHITE) SOLID LF	646.0406 PAVEMENT MARKING SAME DAY EPOXY 4-INCH CENTERLINE (DOUBLE YELLOW) SOLID LF	646.0406 PAVEMENT MARKING SAME DAY EPOXY 4-INCH CENTERLINE (YELLOW) DASHED LF	646.0406 PAVEMENT MARKING SAME DAY EPOXY 4-INCH CENTERLINE (YELLOW) SOLID LF	648.0100 LOCATING NO-PASSING ZONES MI	649.0402 TEMPORARY PAVEMENT MARKING PAINT 4-INCH (YELLOW) CENTERLINE DASHED (4' DASH, 46' SKIP) LF	REMARKS
0010	19+94 - 264+49	STH 116	5.9	10.52	24349.6	48,699.2	4,857.6	5,491.2	6,916.8	4.65	5,843.9	
	PROJECT TOTALS					**48,699**		**17,266**		**4.65**	**5,844**	

CONSTRUCTION STAKING SUMMARY

CATEGORY	STATION TO STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT B-70-0292 LS	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	19+94 - 63+25	STH 116	---	---	---	---	4331.0	---
0010	63+25 - 65+77	STH 116	252.0	252.0	---	---	---	252.0
0010	65+77 - 66+63.50	STH 116	86.5	86.5	---	---	---	86.5
0010	66+63.50 - 66+85.50	STH 116	---	---	---	1	---	---
0010	66+85.50 - 67+66	STH 116	80.5	80.5	---	---	---	80.5
0010	67+66 - 69+75	STH 116	209.0	209.0	---	---	---	209.0
0010	69+75 - 264+49	STH 116	---	---	---	---	19,474.0	---
0010	80+42	STH 116	---	---	1	---	---	---
		STH 116 TOTALS	**628**	**628**	**1**	**1**	**23,805**	**628**
0010	9+15 - 9+86	QUIGLEY RD	---	---	---	---	71.0	---
0010	10+17 - 10+67	GRANT ST	---	---	---	---	50.0	---
		QUIGLEY RD / GRANT ST TOTALS	**0**	**0**	**0**	**0**	**121**	**0**
0010	10+18 - 10+74	ACHTERBERG RD	---	---	---	---	56.0	---
		ACHTERBERG RD TOTALS	**0**	**0**	**0**	**0**	**56**	**0**
0010	169+85 - 170+64	CTH B	---	---	---	---	79.0	---
		CTH B TOTALS	**0**	**0**	**0**	**0**	**79**	**0**
		PROJECT TOTALS	**628**	**628**	**1**	**1**	**24,061**	**628**

3

SAWING SUMMARY

CATEGORY	STATION TO STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	REMARKS
0010	19+94	STH 116	22.0	---	BEGIN PROJECT
0010	64+55 - 65+77	STH 116 RT	123.0	---	
0010	64+99 - 65+77	STH 116 LT	79.0	---	
0010	65+77	STH 116	---	22.0	
0010	67+66	STH 116	---	22.0	
0010	67+66 - 68+95	STH 116	260.0	---	
0010	80+38	STH 116	2.0	20.0	CULVERT PIPE REPLACEMENT
0010	80+46	STH 116	2.0	20.0	CULVERT PIPE REPLACEMENT
0010	94+35 - 94+55	STH 116 RT	20.0	---	YOST RD INTERSECTION
0010	120+63 - 121+02	STH 116 LT	39.0	---	OAK HILL RD INTERSECTION
0010	173+42 - 173+65	STH 116 RT	23.0	---	WEISNER RD INTERSECTION
0010	199+88 - 200+26	STH 116 LT	38.0	---	CTH D INTERSECTION
0010	264+49	STH 116	47.5	---	END PROJECT
0010	DRIVEWAYS	STH 116	92.0	---	STA 134+17 - STA 160+26 AND BAUER RD
	STH 116 TOTALS		747.5	84.0	
0010	9+15	QUIGLEY RD	22.0	---	
0010	10+87	GRANT ST	22.0	---	
	QUIGLEY RD / GRANT ST TOTALS		44.0	0.0	
0010	10+74	ACHTERBERG RD	34.0	---	
	ACHTERBERG RD TOTALS		34.0	0.0	
0010	66+12	CTH B	24.0	---	
	CTH B TOTALS		24.0	0.0	

PROJECT TOTALS **850** **84**

TRANSPORTATION PROJECT PLAT NO: 6190-16-21-4.01

THAT PART OF THE SE 1/4 OF THE NW 1/4, THE NE 1/4 OF THE SW 1/4, THE NW 1/4 OF THE SE 1/4 AND THE SW 1/4 OF THE NE 1/4 OF SECTION 5, T18N-R15E, TOWN OF OMRO, WINNEBAGO COUNTY, WISCONSIN.

RELOCATION ORDER STH 116, WINNEBAGO COUNTY
OMRO - WINNECONNE

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	*OWNER	INTEREST REQUIRED	R/W ACRES REQUIRED			P.L.E. ACRES	T.L.E. ACRES
			NEW	EXISTING	TOTAL		
1	DANA GARVENS	FEE,TLE	0.088	0.196	0.284		0.019
2	DONALD & PENELOPE WEYENBERG	FEE,TLE	0.131	0.549	0.680		0.015

*OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

ACRES	AC	CORPORATE LIMITS
CHORD BEARING	CH BRG	EXISTING R/W
CHORD DISTANCE	CH DIS	SECTION LINE
DEED	(D)	QUARTER LINE
DOCUMENT	DOC	SIXTEENTH LINE
EAST BOUND	EB	PROPOSED OR NEW R/W LINE
GAS VALVE	GV	PROPOSED EASEMENT LINE
INLET	▫IL	PROPERTY LINE
MANHOLE	●MH	COMMUNICATION LINE — C —
MONUMENT	MON	BURIED GAS LINE — G —
NORTH BOUND	NB	OVERHEAD ELECTRIC LINE — OH —
PAGE	PG	BURIED ELECTRIC LINE — E —
PRIVATE DRIVEWAY	PD	LOT, TIE AND OTHER
PROPERTY LINE	PL	MINOR DASHED LINES
RADIUS	RAD	
REFERENCE LINE	℄	ACCESS RESTRICTED (By Acquisition)
REMAINING	REM	
RIGHT OF WAY	R/W	NO ACCESS (By Statutory Authority)
SECTION	SEC	
SECTION LINE	%	ACCESS RESTRICTED (By Previous Project/Control)
FOUND IRON PIPE	IP●	
STATION	STA	LIMITED EASEMENT (Temporary or Permanent)
TIE POINT	DB1	
VOLUME	VOL	
FEE ACQUISITION	VARIOUS HATCHING	PARCEL NUMBER 00
ADJOINING LANDS WITH SAME OWNER		UTILITY PARCEL NUMBER 000
BUILDING TO BE RAZED		SECTION CORNER
PROPOSED R/W BOUNDARY POINT	PRW000	SET R/W MONUMENT W/CAP (1"x 24"IRON PIPE, 1.13 LBS/FT)
TEMPORARY LIMITED EASEMENT	TLE	SET P.K. NAIL
PERMANENT LIMITED EASEMENT	PLE	

	COMPENSABLE	NON-COMPENSABLE
POWER POLE	●	○
TELEPHONE POLE	●	○
SIGN	▶	▷
TELEPHONE PEDESTAL	✖	✕

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, WINNEBAGO COUNTY, NAD83 (97) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

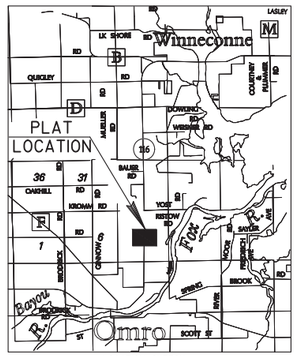
EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 116 ESTABLISHED FROM CENTERLINE OF EXISTING PAVEMENTS.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

THE REFERENCE LINE SHOWN ON THIS PLAT MAY NOT BE THE SAME AS THE REFERENCE LINE SHOWN ON THE CONSTRUCTION PLAN.

SECTION 5 T18N - R15E
TOWN OF OMRO



LOCATION SKETCH
(NOT TO SCALE)

COURSE TABLE
STH 116 RW REFERENCE LINE

POINT TO POINT	BEARING	DISTANCE (FEET)
SEC1 TO DB1	N 01°17'03" E	2277.089
DB1 TO CTRS1	N 01°17'03" E	363.682
CTRS1 TO DB2	N 01°17'18" E	114.811
DB2 TO SEC2	N 01°17'18" E	2492.929
SEC2 TO SEC1	S 01°17'11" W	5248.511

COURSE TABLE
NEW RIGHT OF WAY

POINT TO POINT	BEARING	DISTANCE (FEET)
SEC1 TO DB1	N 01°17'03" E	2277.089
DB1 TO PRW5	N 50°53'02" W	30.333
PRW5 TO PRW6	N 12°25'59" W	50.771
PRW6 TO PRW7	N 01°14'17" E	311.993
PRW7 TO PRW8	N 08°07'54" E	99.343
PRW8 TO DB2	S 88°33'58" E	24.412
DB2 TO PRW4	S 88°33'58" E	41.587
PRW4 TO PRW3	S 04°16'34" E	125.951
PRW3 TO PRW2	S 01°14'37" W	314.061
PRW2 TO PRW1	S 10°44'53" W	72.631
PRW1 TO DB1	N 50°53'02" W	53.278
DB1 TO CTRS1	N 01°17'03" E	363.682

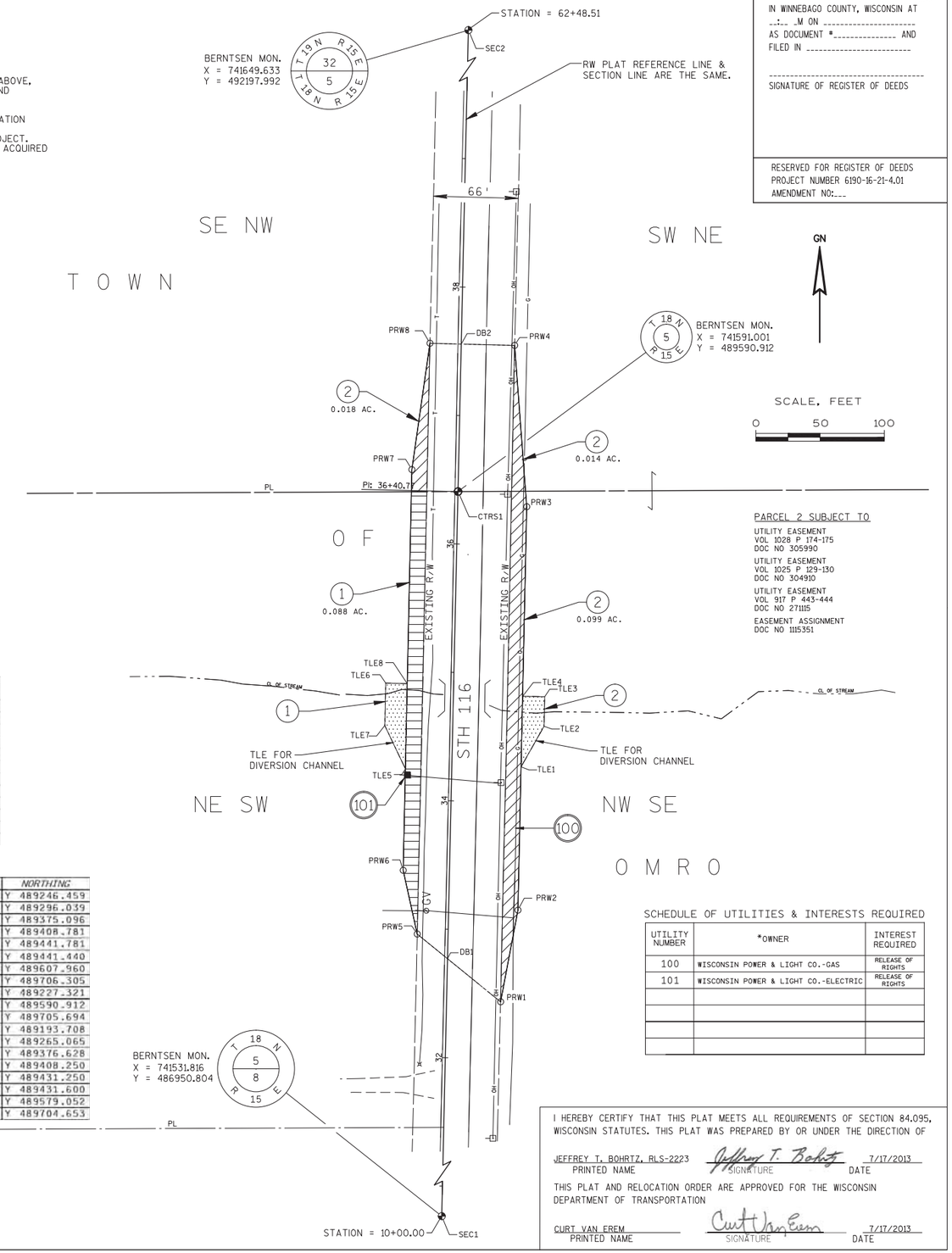
STATION AND OFFSET TABLE

POINT	STATION	OFFSET	EASTING	NORTHING
PRW5	32+95.69	-23.958'	X 741559.315	Y 489246.459
PRW6	33+45.02	-35.997'	X 741548.384	Y 489296.039
TLE5	34+24.09	-36.061'	X 741550.093	Y 489375.096
TLE7	34+57.41	-52.842'	X 741534.062	Y 489408.781
TLE6	34+90.42	-52.895'	X 741534.750	Y 489441.781
TLE8	34+90.45	-36.114'	X 741551.527	Y 489441.440
PRW7	36+57.01	-36.250'	X 741555.126	Y 489607.960
PRW8	37+55.64	-24.412'	X 741569.178	Y 489706.305
DB1	32+77.09	0.000'	X 741582.850	Y 489227.321
CTRS1	36+40.77	0.000'	X 741591.001	Y 489590.912
DB2	37+55.58	0.000'	X 741593.582	Y 489705.694
PRW1	32+44.41	42.080'	X 741624.187	Y 489193.708
PRW2	33+16.05	54.022'	X 741637.732	Y 489265.065
TLE1	34+27.64	53.943'	X 741640.154	Y 489376.628
TLE2	34+59.66	71.138'	X 741658.062	Y 489408.250
TLE3	34+82.66	71.123'	X 741658.562	Y 489431.250
TLE4	34+82.63	53.904'	X 741641.347	Y 489431.600
PRW3	36+30.11	53.800'	X 741644.548	Y 489579.052
PRW4	37+55.48	41.588'	X 741635.157	Y 489704.653

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN WINNEBAGO COUNTY, WISCONSIN AT __:__ _M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6190-16-21-4.01
AMENDMENT NO:___



PARCEL 2 SUBJECT TO

UTILITY EASEMENT
VOL 1028 P 174-175
DOC NO 305990

UTILITY EASEMENT
VOL 1025 P 129-130
DOC NO 304910

UTILITY EASEMENT
VOL 917 P 443-444
DOC NO 271115

EASEMENT ASSIGNMENT
DOC NO 1115351

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	*OWNER	INTEREST REQUIRED
100	WISCONSIN POWER & LIGHT CO.-GAS	RELEASE OF RIGHTS
101	WISCONSIN POWER & LIGHT CO.-ELECTRIC	RELEASE OF RIGHTS

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

JEFFREY T. BOHRITZ, RLS-2223 — PRINTED NAME
Jeffrey T. Bohritz — SIGNATURE
7/17/2013 — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

CURT VAN EREM — PRINTED NAME
Curt Van Erem — SIGNATURE
7/17/2013 — DATE

N:\pds\c3d\61901600\RW\040101_rw.dwg, 7/18/2013 1:59:49 PM, 1:50

TRANSPORTATION PROJECT PLAT NO: 6190-16-21-4.02

BEING PART OF LOT 1 OF CSM NO. 5201, LOCATED WITHIN THE NE 1/4 OF THE SW 1/4 AND THE SE 1/4 OF THE SW 1/4, PART OF LOT 1 OF CSM NO. 2103 AND UNPLATTED LANDS OF THE SW 1/4 OF THE SE 1/4, PART OF LOT 1 OF CSM NO. 2349, LOCATED WITHIN THE SW 1/4 OF THE SE 1/4 AND THE NW 1/4 OF THE SE 1/4, TOWN OF WINNECONNE, AND ALSO PART OF LOT 9, LOT 10 AND LOT 11, OF PARK PLACE SUBDIVISION, FILE 3 OF PLATS ON PAGE 107, DOCUMENT NO. 1144211, LOCATED WITHIN THE NW 1/4 OF THE SE 1/4, VILLAGE OF WINNECONNE, ALL LOCATED WITHIN SECTION 20, T19N-R15E, WINNEBAGO COUNTY, WISCONSIN.

RELOCATION ORDER STH 116 WINNEBAGO COUNTY
OMRO - WINNECONNE

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

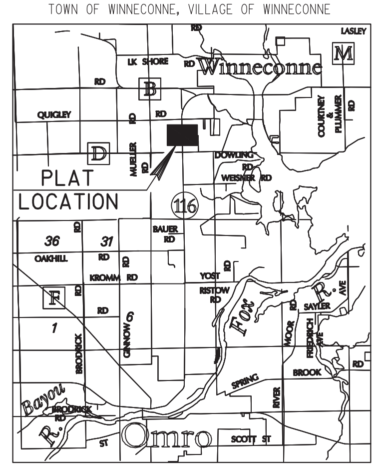
CONVENTIONAL ABBREVIATIONS AND SYMBOLS

ACRES	AC
CHORD BEARING	CH BRG
CHORD DISTANCE	CH DIS
DEED	(D)
DOCUMENT	DOC
EAST BOUND	EB
GAS VALVE	GV
INLET	oIL
MANHOLE	•MH
MONUMENT	MON
NORTH BOUND	NB
PAGE	PG
PRIVATE DRIVEWAY	PD
PROPERTY LINE	PL
RADIUS	RAD
REFERENCE LINE	℞
REMAINING	REM
RIGHT OF WAY	R/W
SECTION	SEC
SECTION LINE	℄
FOUND IRON PIPE	IP•
STATION	STA
TIE POINT	DB1
VOLUME	VOL
FEE ACQUISITION	
ADJOINING LANDS WITH SAME OWNER	
BUILDING TO BE RAZED	
PROPOSED R/W BOUNDARY POINT	PRW000
TEMPORARY LIMITED EASEMENT	TLE
PERMANENT LIMITED EASEMENT	PLE

CORPORATE LIMITS
EXISTING R/W
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
PROPOSED OR NEW R/W LINE
PROPOSED EASEMENT LINE
PROPERTY LINE
COMMUNICATION LINE
BURIED GAS LINE
OVERHEAD ELECTRIC LINE
BURIED ELECTRIC LINE
LOT, TIE AND OTHER MINOR DASHED LINES
ACCESS RESTRICTED (By Acquisition)
NO ACCESS (By Statutory Authority)
ACCESS RESTRICTED (By Previous Project/Control)
LIMITED EASEMENT (Temporary or Permanent)
PARCEL NUMBER
UTILITY PARCEL NUMBER
SECTION CORNER
SET R/W MONUMENT W/CAP (1"x 24"IRON PIPE, 1.13 LBS/FT)
SET P.K. NAIL

	COMPENSABLE	NON-COMPENSABLE
POWER POLE		
TELEPHONE POLE		
SIGN		
TELEPHONE PEDESTAL		

SECTION 20 T19N - R15E
TOWN OF WINNECONNE, VILLAGE OF WINNECONNE

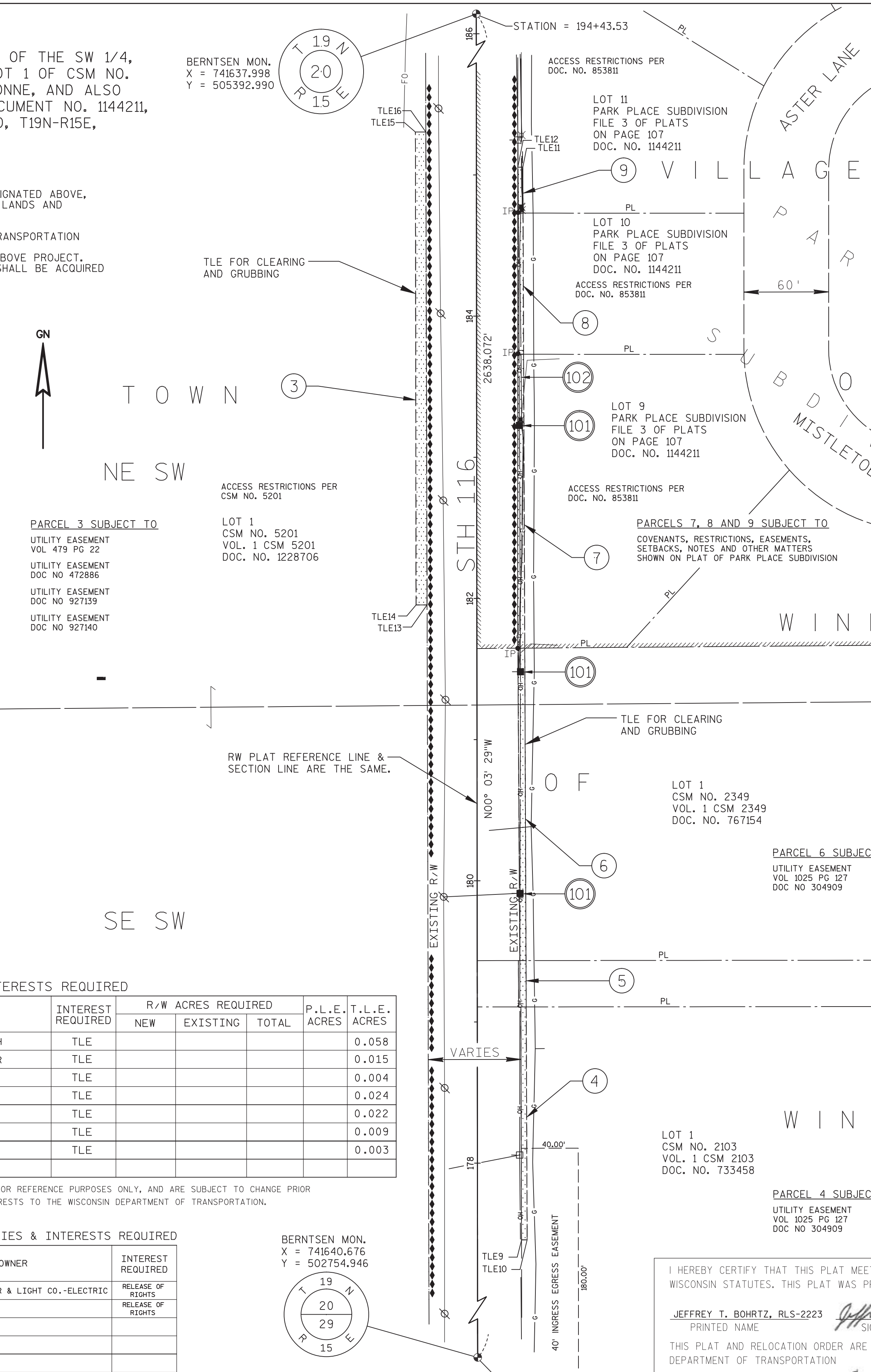


LOCATION SKETCH
(NOT TO SCALE)

STATION AND OFFSET TABLE

POINT	STATION	OFFSET	EASTING	NORTHING
TLE13	181+95.44	-35.236'	X 741604.029	Y 504144.863
TLE14	181+95.44	-43.043'	X 741596.222	Y 504144.855
TLE15	185+30.44	-43.145'	X 741595.780	Y 504479.855
TLE16	185+30.43	-35.782'	X 741603.143	Y 504479.855
TLE9	177+45.63	31.162'	X 741670.884	Y 503695.124
TLE10	177+45.65	35.135'	X 741674.857	Y 503695.148
TLE11	185+05.46	32.862'	X 741671.813	Y 504454.957
TLE12	185+05.47	29.301'	X 741668.251	Y 504454.957

SCALE, FEET
0 50 100



SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	*OWNER	INTEREST REQUIRED	R/W ACRES REQUIRED			P.L.E. ACRES	T.L.E. ACRES
			NEW	EXISTING	TOTAL		
3	GREGORY & MELISSA MEATH	TLE					0.058
4	WILLIAM & PAMELA WESNER	TLE					0.015
5	RICHARD POTRATZ	TLE					0.004
6	EUGENE SOBIECH & GAIL SCHEUERS SOBIECH	TLE					0.024
7	RICK TESCH & DAWN NEUBAUER-TESCH	TLE					0.022
8	STEVEN & JONI VOLKERT	TLE					0.009
9	APOLLO HOMES,INC	TLE					0.003

*OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	*OWNER	INTEREST REQUIRED
101	WISCONSIN POWER & LIGHT CO.-ELECTRIC	RELEASE OF RIGHTS
102	AT&T WISCONSIN	RELEASE OF RIGHTS

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, WINNEBAGO COUNTY, NAD83 (97) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 116 ESTABLISHED FROM CENTERLINE OF EXISTING PAVEMENTS, PARK PLACE SUBDIVISION, CSM'S 2349, 2103 AND 5201.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

THE REFERENCE LINE SHOWN ON THIS PLAT MAY NOT BE THE SAME AS THE REFERENCE LINE SHOWN ON THE CONSTRUCTION PLAN.

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN WINNEBAGO COUNTY, WISCONSIN AT __:__ _M ON ____________________ AS DOCUMENT #______________ AND FILED IN ______________________

____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6190-16-21-4.02
AMENDMENT NO:___

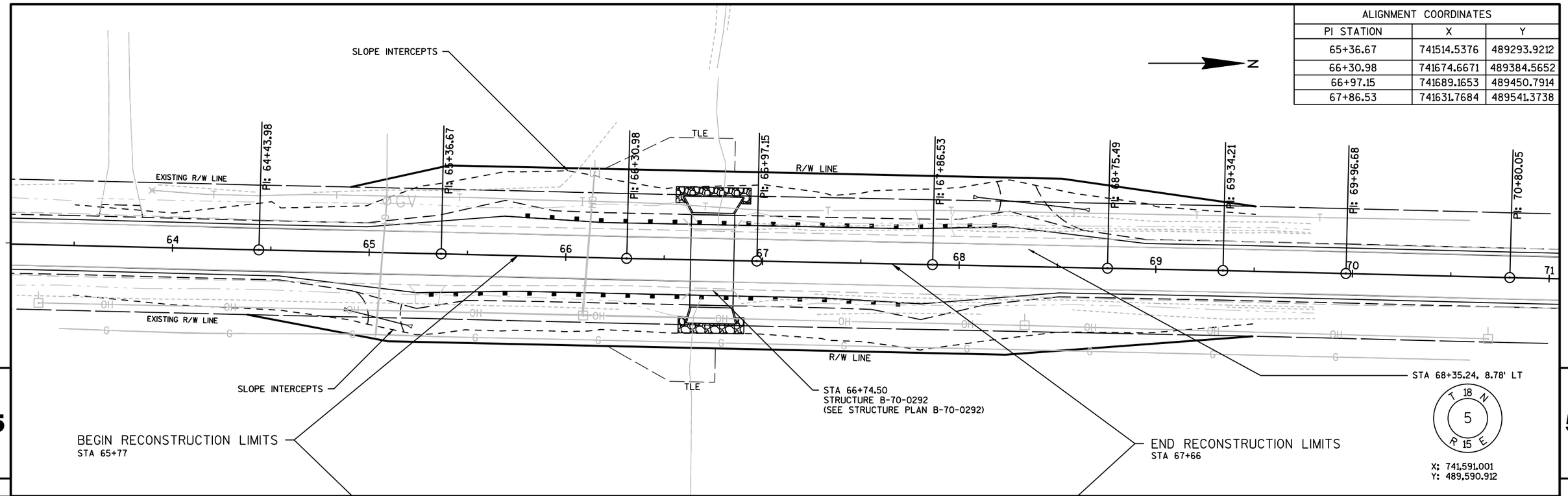
I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

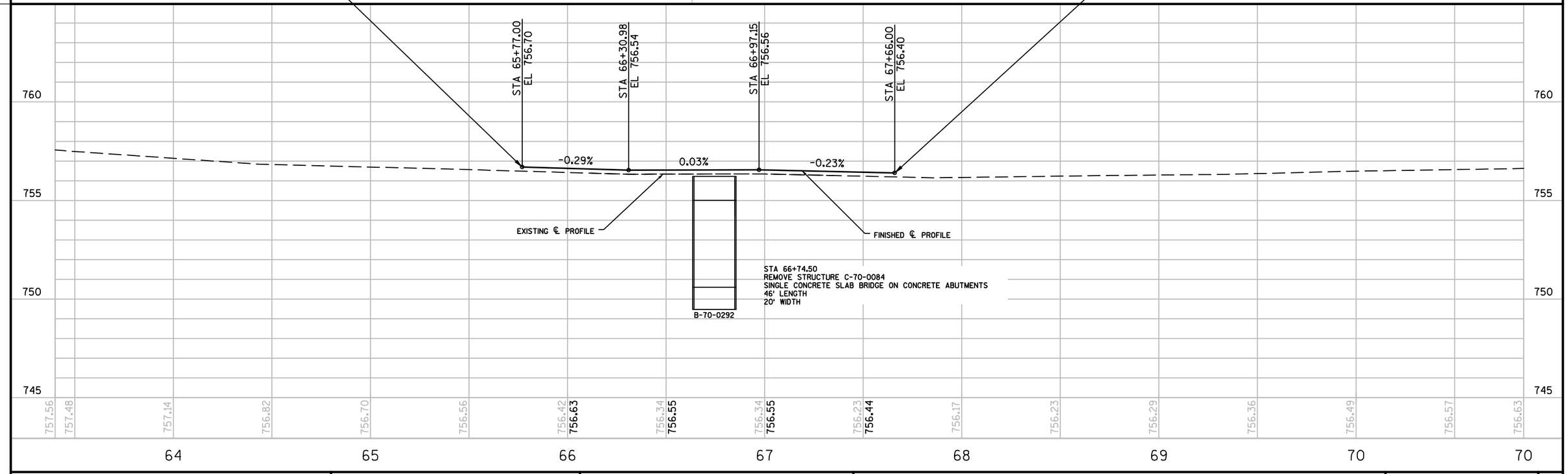
JEFFREY T. BOHRTZ, RLS-2223	Jeffrey T. Bohrtz	9/6/2013
PRINTED NAME	SIGNATURE	DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

CURT VAN EREM	Curt Van Erem	9/6/2013
PRINTED NAME	SIGNATURE	DATE

ALIGNMENT COORDINATES		
PI STATION	X	Y
65+36.67	741514.5376	489293.9212
66+30.98	741674.6671	489384.5652
66+97.15	741689.1653	489450.7914
67+86.53	741631.7684	489541.3738





PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	PLAN AND PROFILE: STH 116	SHEET 48	E

WIRCH/ANDREW A

N

T 18 N
5
8
R 15 E

X: 741,531.816
Y: 486,950.804

BP: 16+72.70

MILL 1½" EXISTING ASPHALTIC SURFACE
PAVE 4" HMA
UPPER LAYER, 4 LT 58-28 S
LOWER LAYER, 3 LT 58-28 S

STA 41+94.32, 0.64' LT

20 25 30 35 40 45

WHISPERING WAY

SAW CUT REQUIRED

YOUNG ROAD

STA 19+94.00
BEGIN PROJECT

KESTER/WILLERT A

5

5

T 18 N
5
R 15 E

X: 741,591.001
Y: 489,590.912

GARVENS/DANA M

N

WIRCH/FREDERICK A JR

WIRCH/FREDERICK A JR

WEYENBERG/DONALD A

KLEINSCHMIDT/RUSSELL R

MILL 1½" EXISTING ASPHALTIC SURFACE
PAVE 4" HMA
UPPER LAYER, 4 LT 58-28 S
LOWER LAYER, 3 LT 58-28 S

STA 68+35.24, 8.78' LT

STA 65+69 - STA 68+25
MGS GUARDRAIL

TLE

SLOPE INTERCEPTS

CHARTER CABLE-PARTNERS LLC

R/W LINE

EXISTING R/W

50 55 60 65 70 75

EXISTING R/W

R/W LINE

SLOPE INTERCEPTS

REMOVE STRUCTURE C-70-0084
REMOVE EXISTING BEAM GUARD

TLE

KESTERS WILD GAME FOOD

RISTOW/ROBERT L

STA 65+25 - STA 67+81
MGS GUARDRAIL

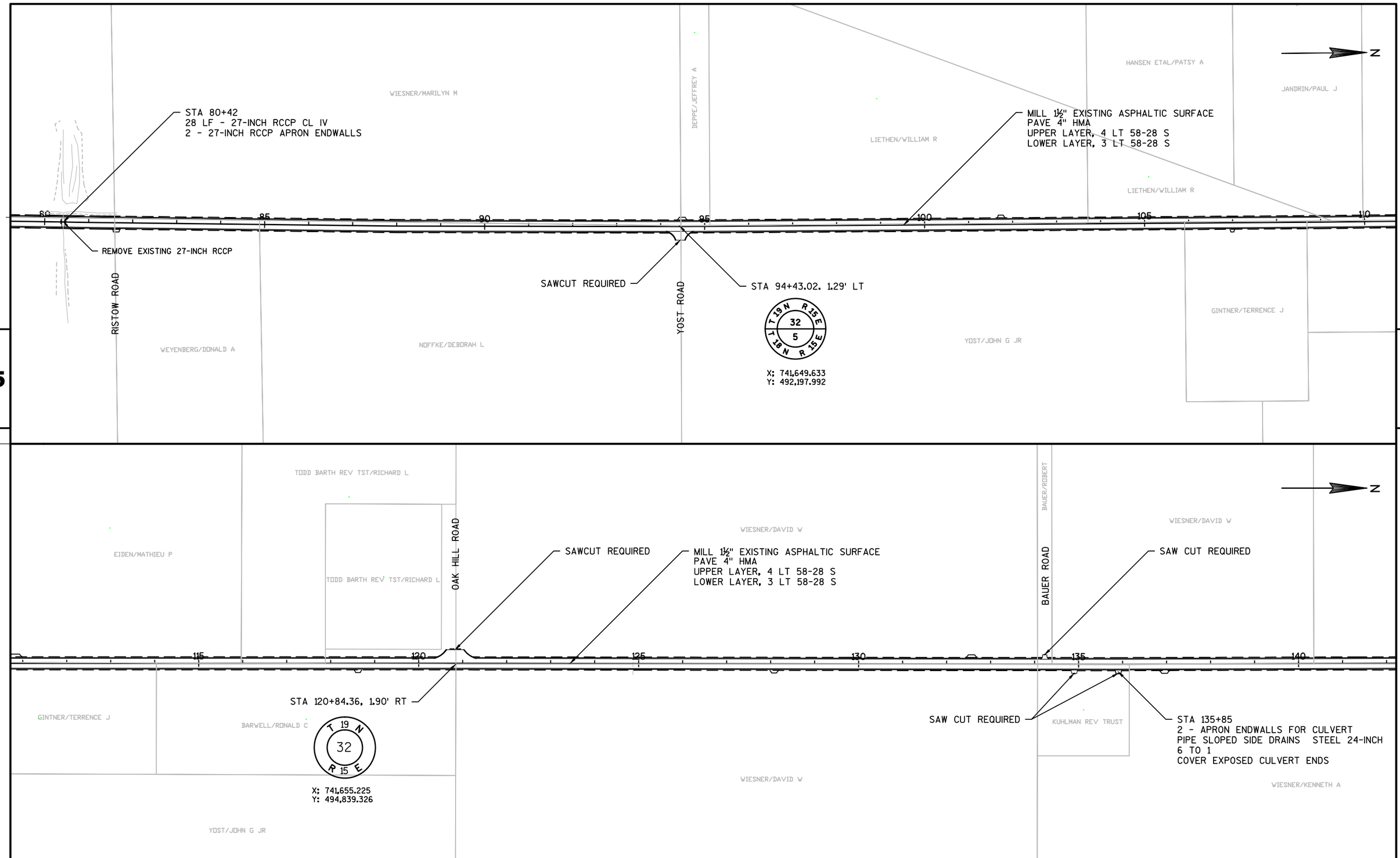
WEYENBERG/DONALD A

KESTER/DAVID A

WEYENBERG/DONALD A

STRUCTURE B-70-0292
(SEE STRUCTURE PLAN B-70-0292)

PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	PLAN	SHEET	E



PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	PLAN	SHEET	E

FILE NAME : N:\PDS\C3D\61901600\SHEETSPLAN\050201_PN.DWG PLOT DATE : 12/17/2015 2:17 PM PLOT BY : PORTER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN: 200 FT

ULRICH/JEROME D

KRESAL/GEORGE

MILL 1½" EXISTING ASPHALTIC SURFACE
PAVE 4" HMA
UPPER LAYER, 4 LT 58-28 S
LOWER LAYER, 3 LT 58-28 S

145 150 155 160 165 170

STA 147+28.06, 1.05' RT

BREAKER/THOMAS C

T 19 N
29
32
R 15 E

X; 741,650.312
Y; 497,483.007

SAW CUT REQUIRED

PETERS PRORERTIES LLC

MALLMAN ETAL/LISA V M

KRESAL/GEORGE

STA 173+59.61, 0.3' LT

T 19 N
29
R 15 E

X; 741,647.335
Y; 500,114.545

SAW CUT REQUIRED

ANDRASHKO/JOHN H

WEISNER ROAD

N

5

5

SCHMUDE/RUSSEL D

VOLP/DALE L

RACE/FREDERICK E

MILL 1½" EXISTING ASPHALTIC SURFACE
PAVE 4" HMA
UPPER LAYER, 4 LT 58-28 S
LOWER LAYER, 3 LT 58-28 S

CTH D

POTRATZ/RICHARD P

SAW CUT REQUIRED

175 180 185 190 195 200 205

STA 200+00.00

T 19 N
20
29
R 15 E

X; 741,640.676
Y; 502,754.946

YARDCH/MARY

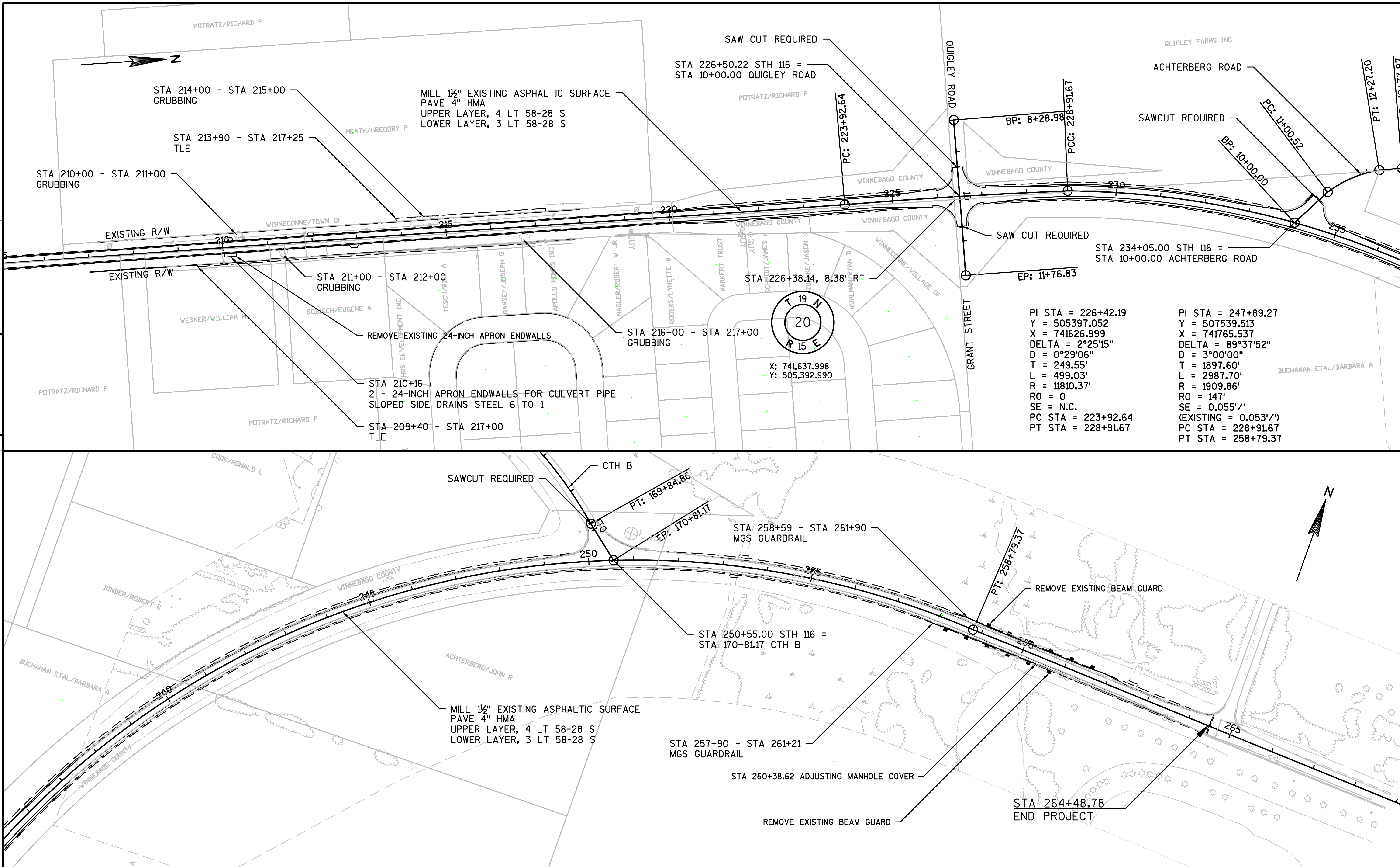
BALKE/TODD

POTRATZ/RICHARD P

N

PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	PLAN	SHEET	E

FILE NAME : N:\PDS\C3D\61901600\SHEETSPLAN\050201_PN.DWG PLOT DATE : 12/17/2015 2:17 PM PLOT BY : PORTER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN: 200 FT
WISDOT/CADDS SHEET 44



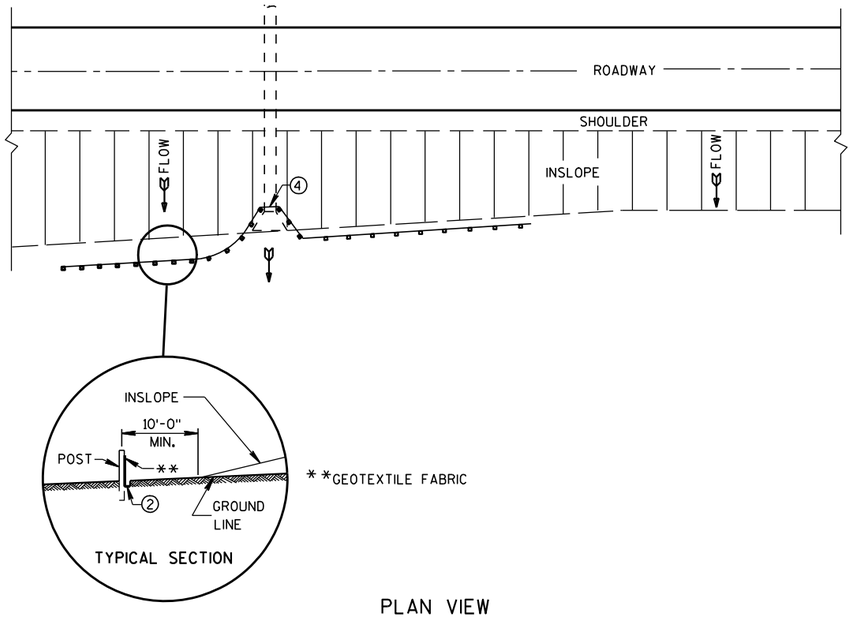
PROJECT NO:6190-16-71	HWY:STH 116	COUNTY:WINNEBAGO	PLAN	SHEET 52	E

FILE NAME : N:\PDS\C3D\61901600\SHEETSPLAN\050201_PN.DWG PLOT DATE : 12/17/2015 2:17 PM PLOT BY : PORTER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN: 200 FT

WISDOT/CADDS SHEET 44

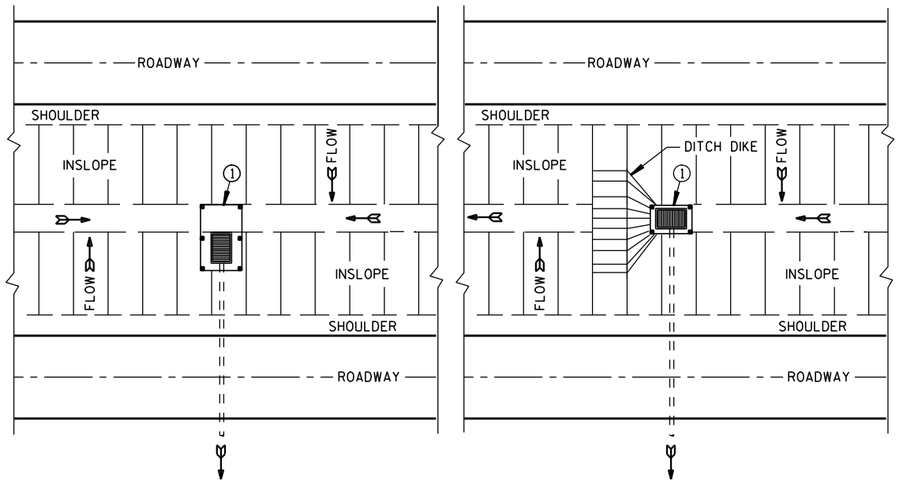
Standard Detail Drawing List

08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F07-05	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE FRAINS
12A03-10	NAME PLATE (STRUCTURES)
13A10-01A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B43-03A	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-03B	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-03C	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
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)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-03A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



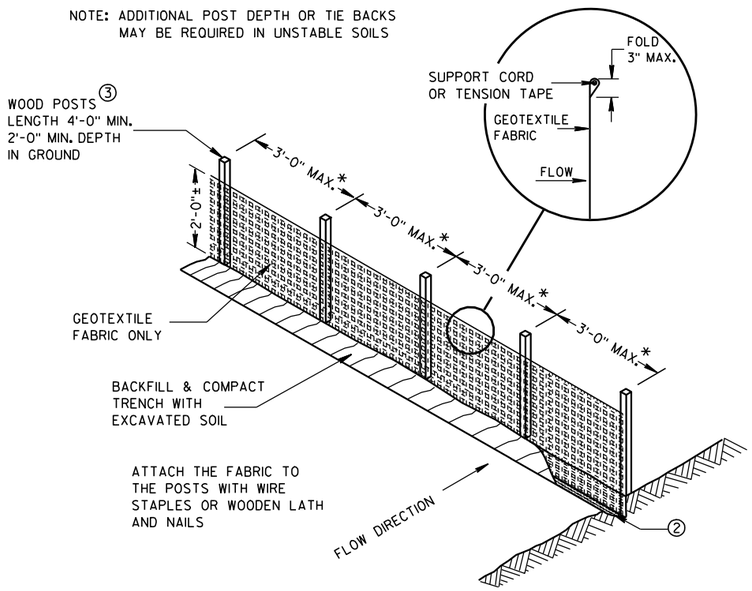
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE

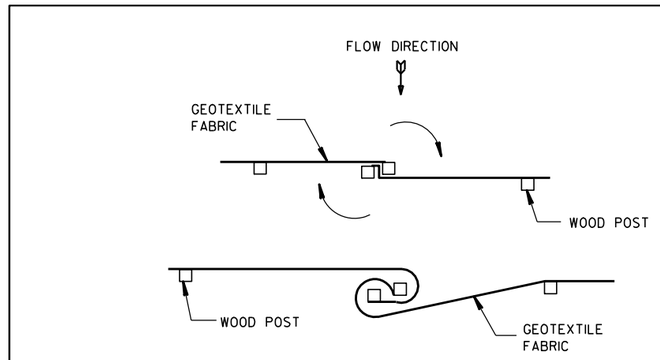


PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS



SILT FENCE

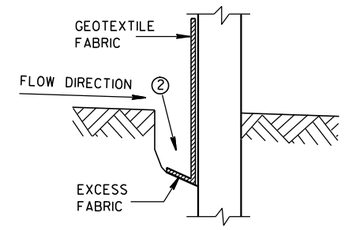


JOINING TWO LENGTHS OF SILT FENCE 5

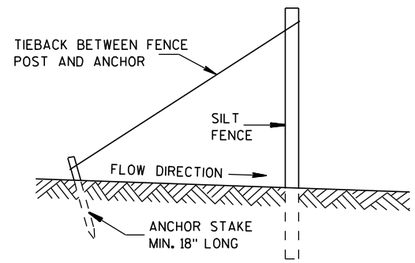
GENERAL NOTES

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

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

METAL APRON ENDWALLS

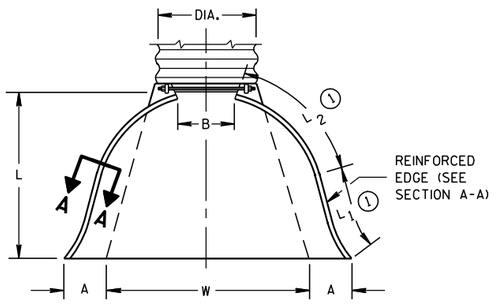
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

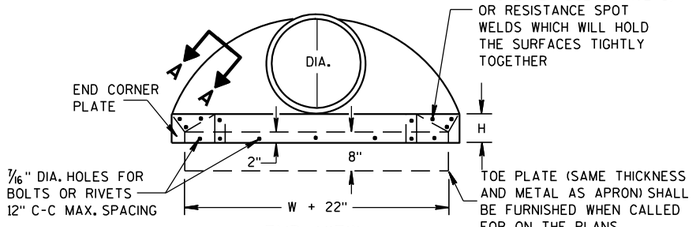
REINFORCED CONCRETE APRON ENDWALLS

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

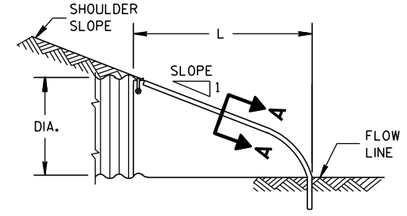
*MINIMUM
**MAXIMUM



PLAN VIEW

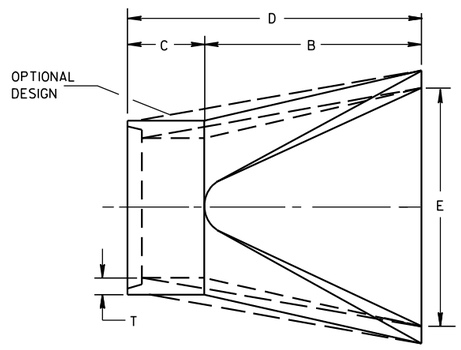


END VIEW

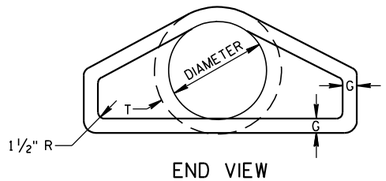


SIDE ELEVATION

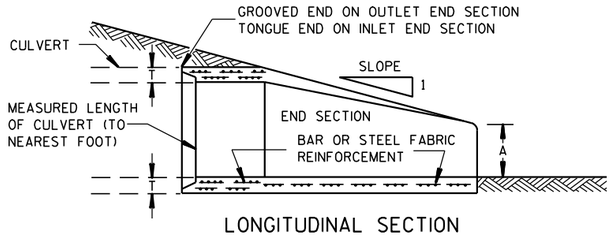
METAL ENDWALLS



PLAN

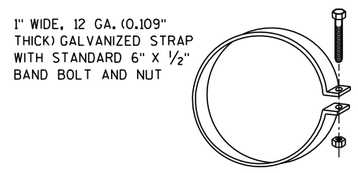


END VIEW



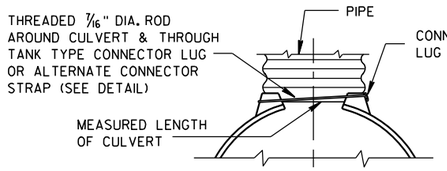
LONGITUDINAL SECTION

CONCRETE ENDWALLS

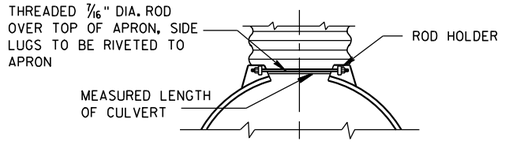


ALTERNATE FOR TYPE 1 CONNECTION

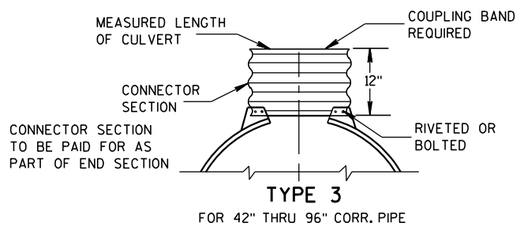
END SECTION CONNECTOR STRAP



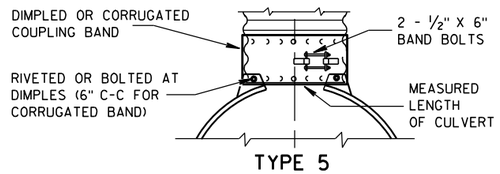
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

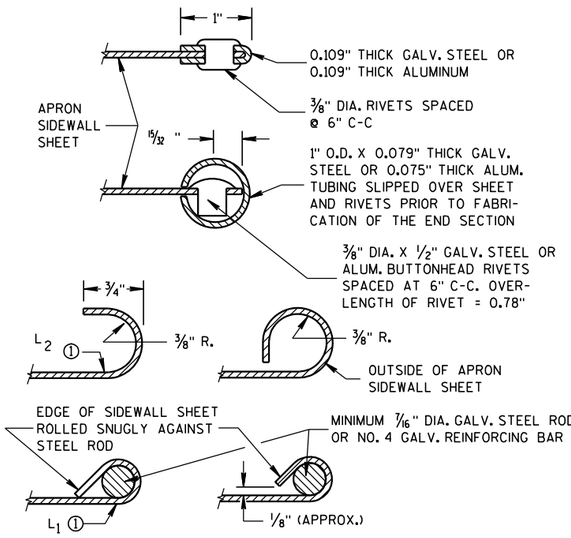
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

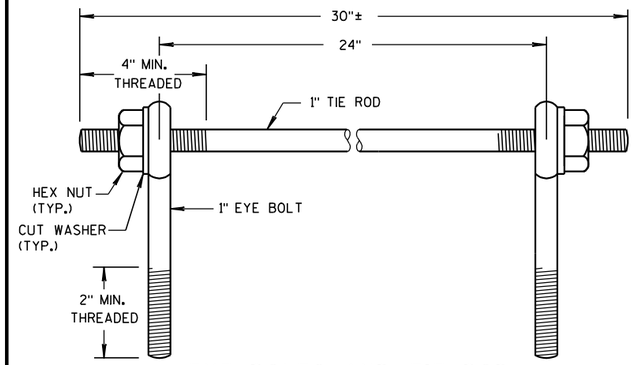
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

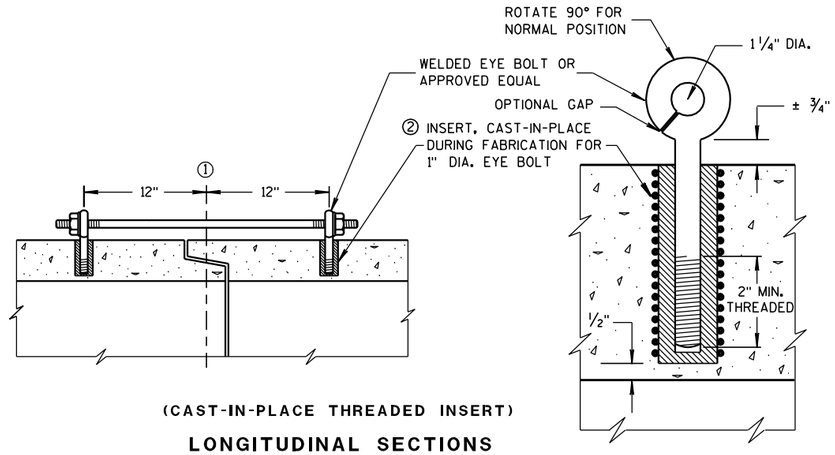
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

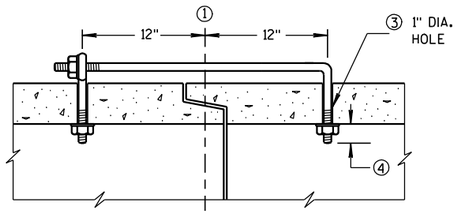
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

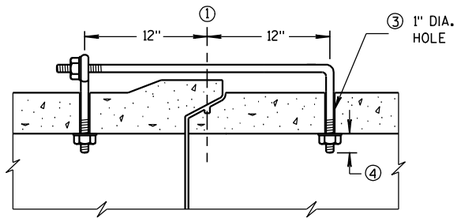
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

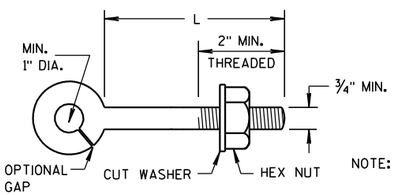


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

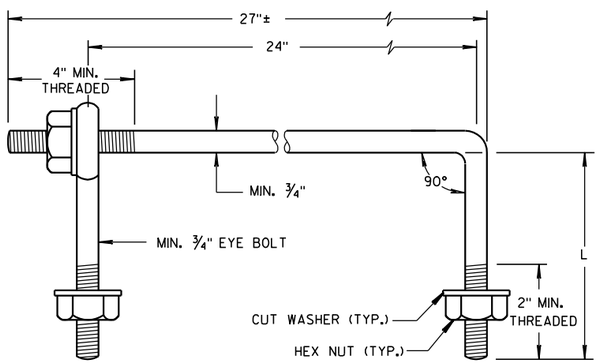
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

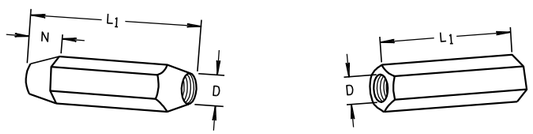
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

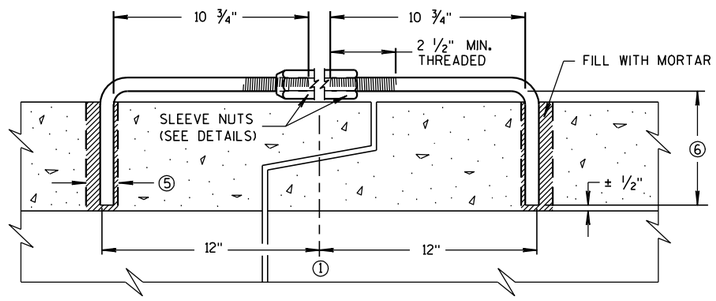
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

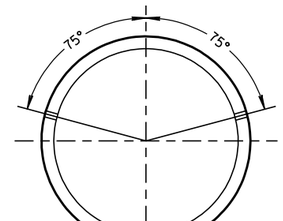
SLEEVE NUTS



LONGITUDINAL SECTION

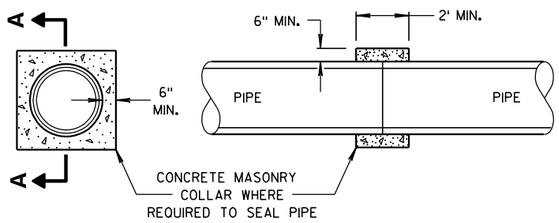
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 8 F 4-7

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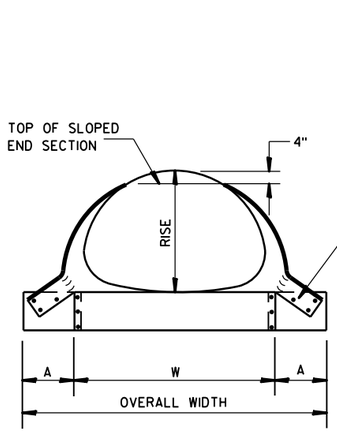
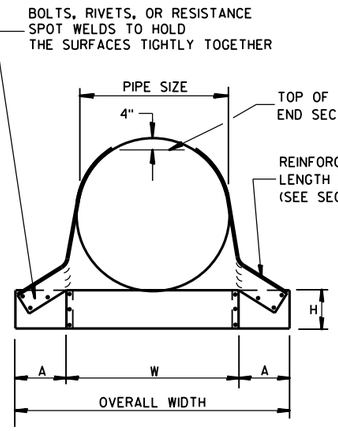
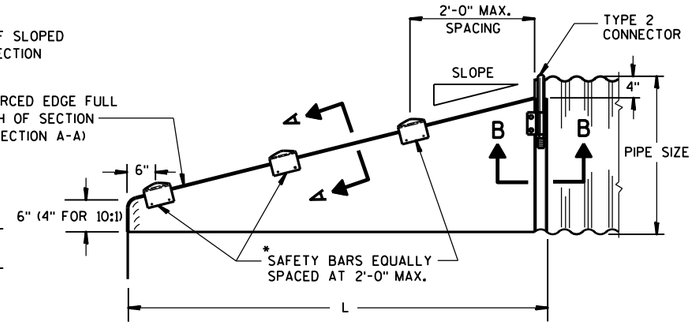
S.D.D. 8 F 4-7



FRONT VIEW



FRONT VIEW



SIDE VIEW

GENERAL NOTES

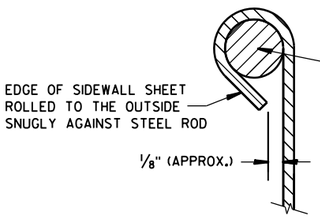
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

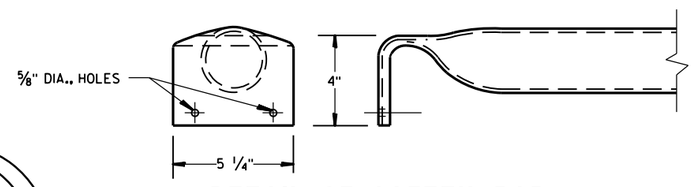
PIPE DIA. (IN.)	MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS					
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	.064	8	6	21	37	4:1	20	6:1	30	10:1	70
18	.064	8	6	24	40	4:1	32	6:1	48	10:1	100
21	.064	8	6	27	43	4:1	44	6:1	66	10:1	130
24	.064	8	6	30	46	4:1	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.

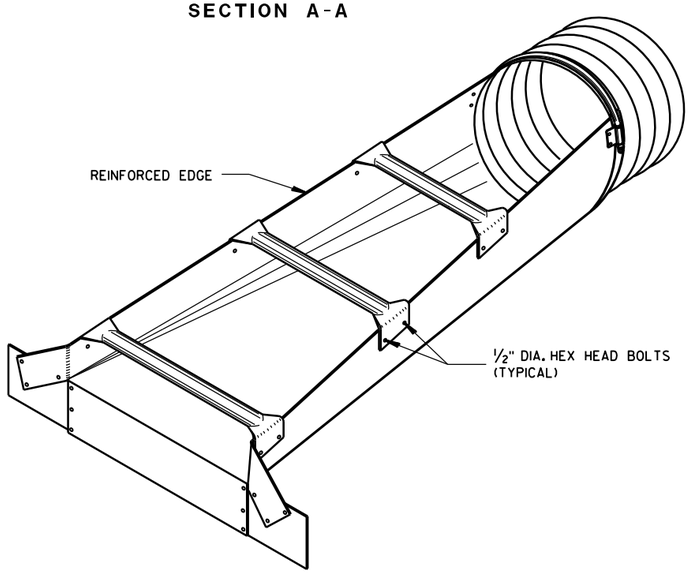


DETAIL OF SAFETY BAR

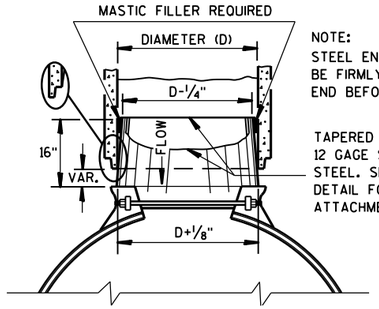
STEEL APRON ENDWALLS FOR PIPE ARCH
SLOPED SIDE DRAINS

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	——	——

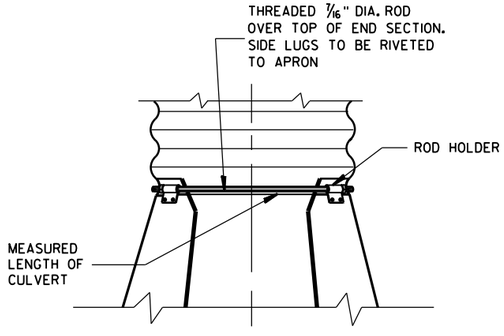
① * MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".
② ACTUAL SLOPE GREATER THAN 10:1.



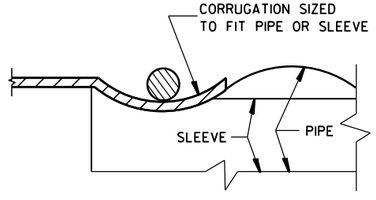
ISOMETRIC VIEW



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



TYPE 2
CONNECTION DETAIL



SECTION B-B

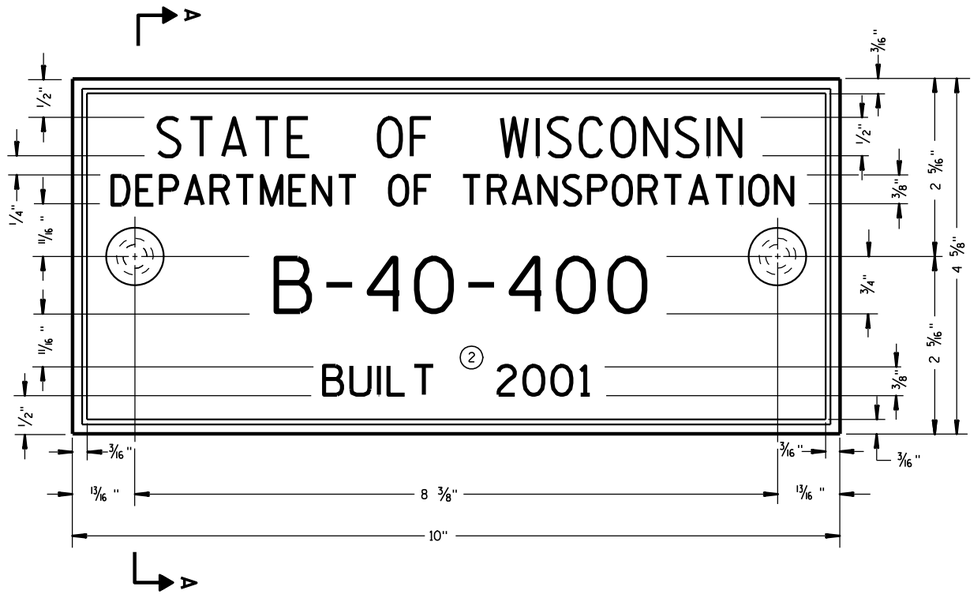
STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

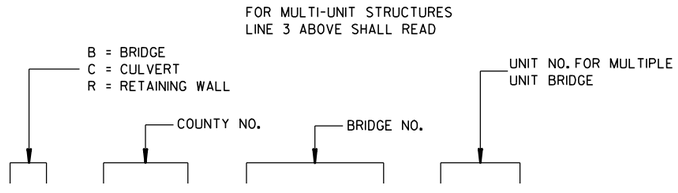
6

S.D.D. 8 F 7-5



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

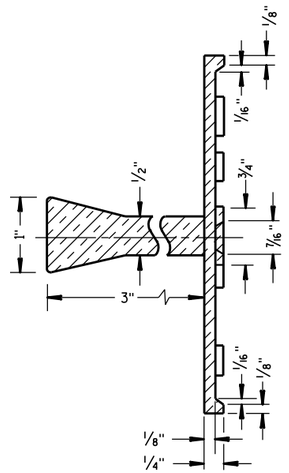
GENERAL NOTES

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

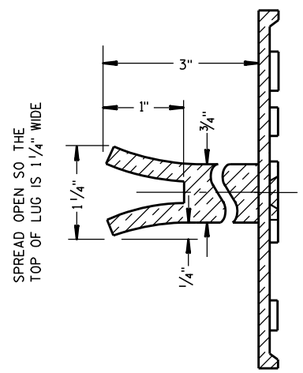
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

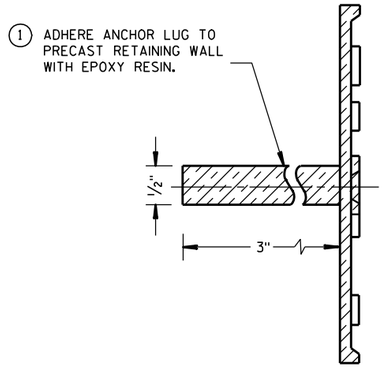
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

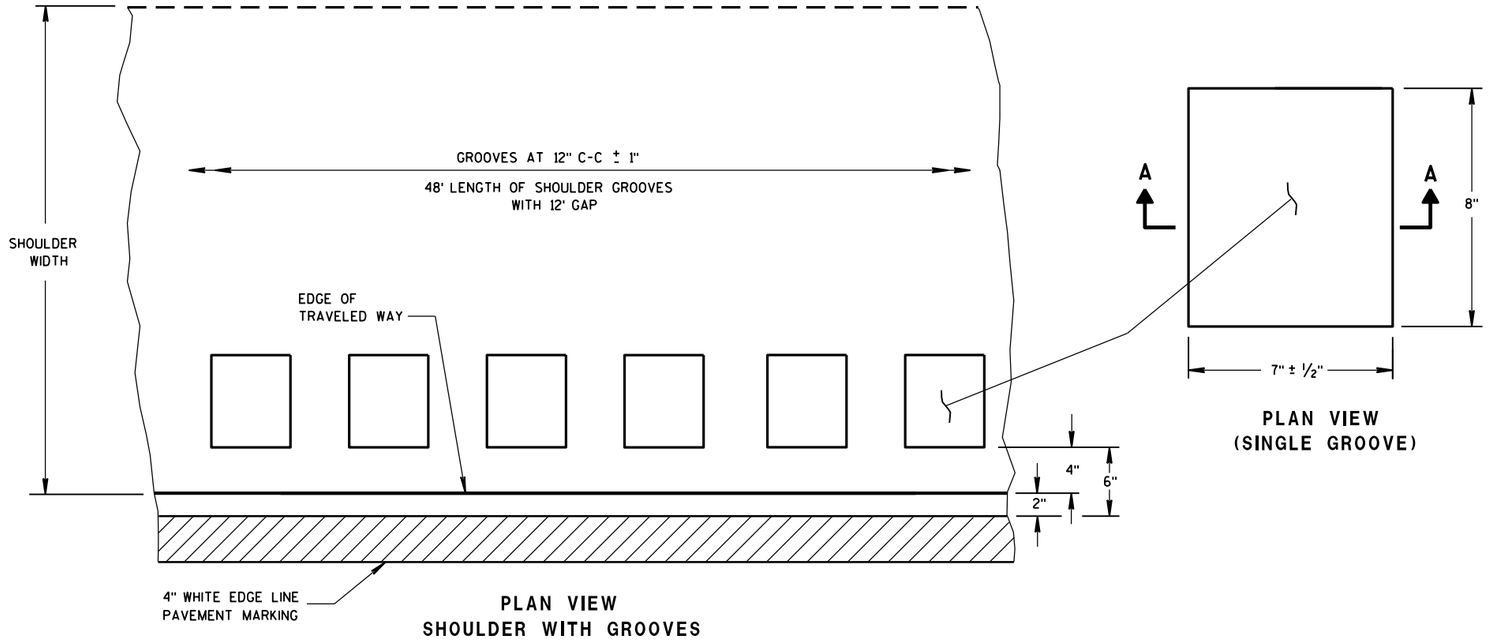
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/26/10 DATE	/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER
FHWA	

6

S.D.D. 12 A 3-10

6

S.D.D. 12 A 3-10



PLAN VIEW
SHOULDER WITH GROOVES

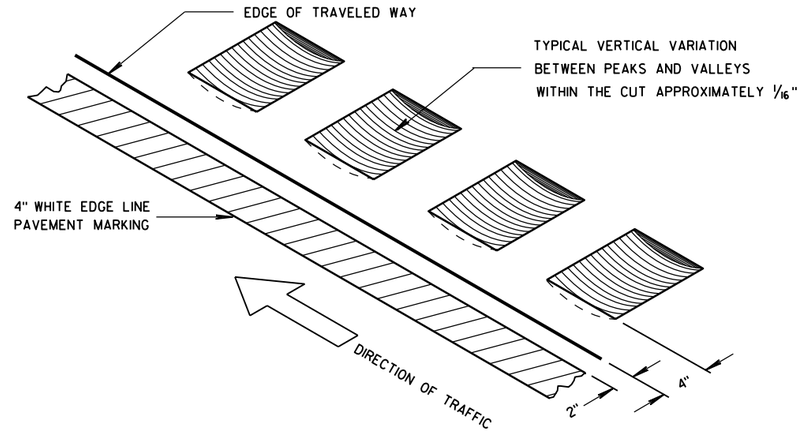
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

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

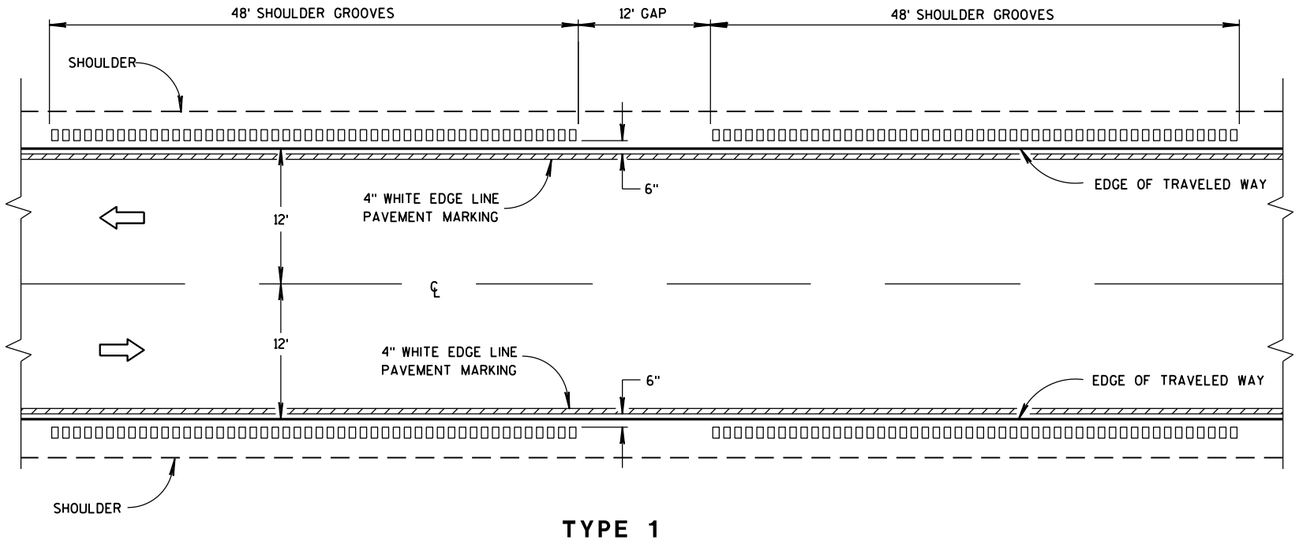
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

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

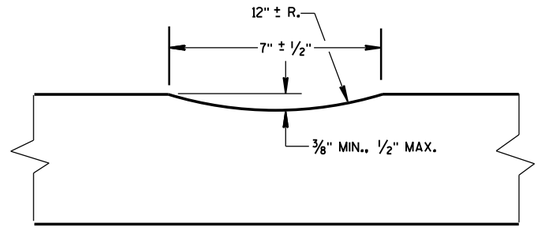


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



TYPE 1
2-LANE SHOULDER RUMBLE STRIP



SECTION A-A

6

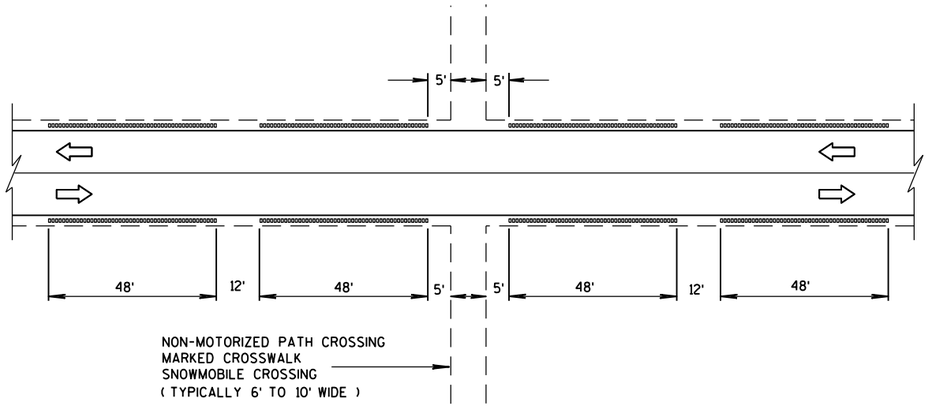
S.D.D. 13 A 10-1a

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

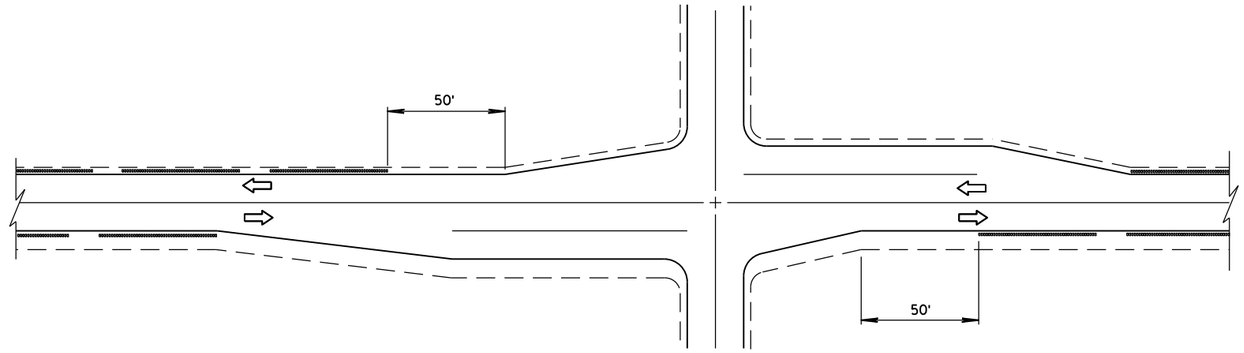
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

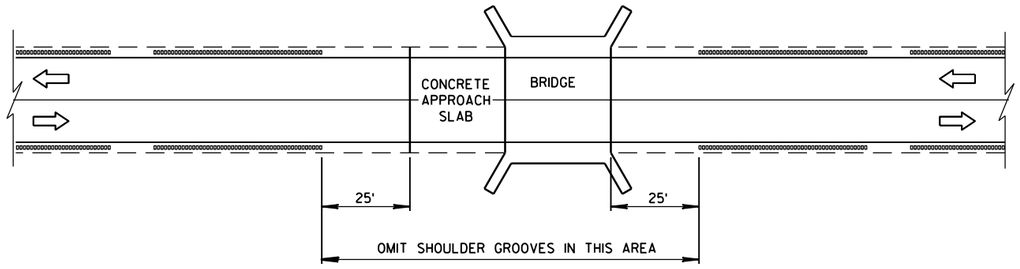
S.D.D. 13 A 10-1a



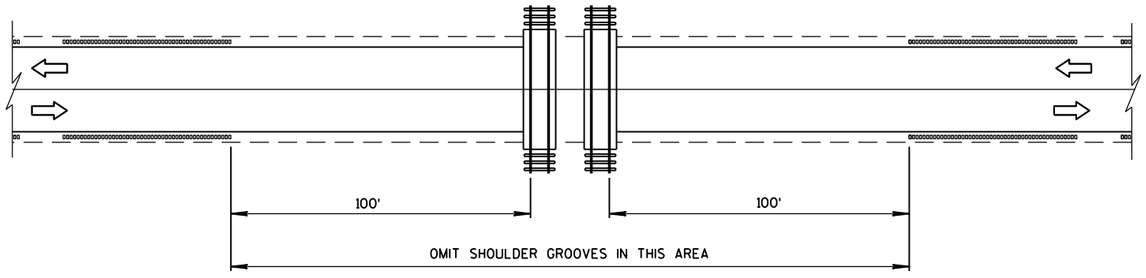
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



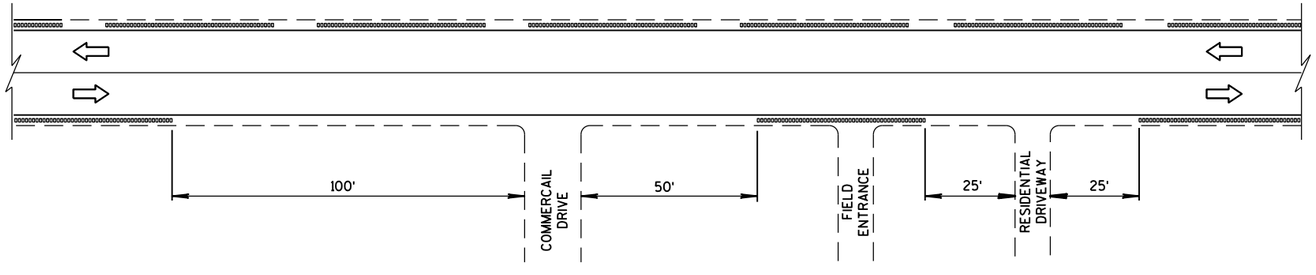
SHOULDER GROOVES AT INTERSECTIONS



SHOULDER GROOVES AT BRIDGES



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT DRIVEWAYS (1)

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

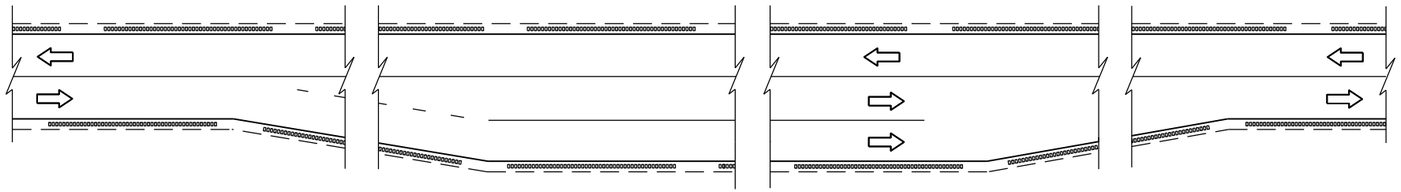
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

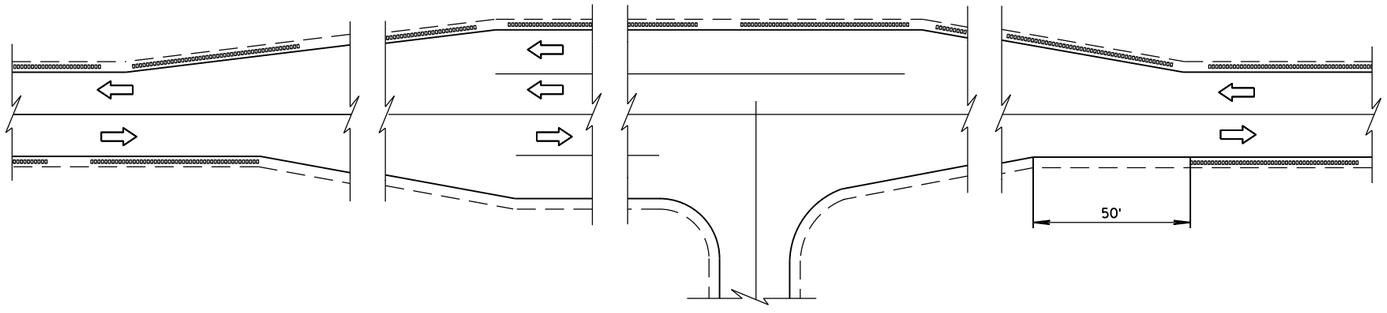
S.D.D. 13 A 10-1c

6

S.D.D. 13 A 10-1c



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

6

6

S.D.D. 13 A 10-1d

S.D.D. 13 A 10-1d

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

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.

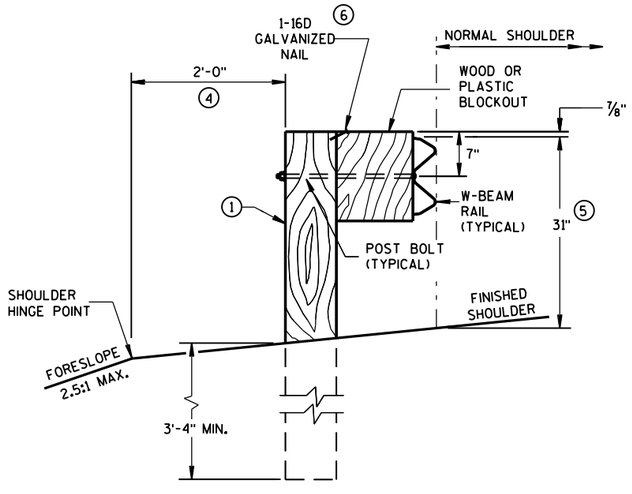
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

(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).

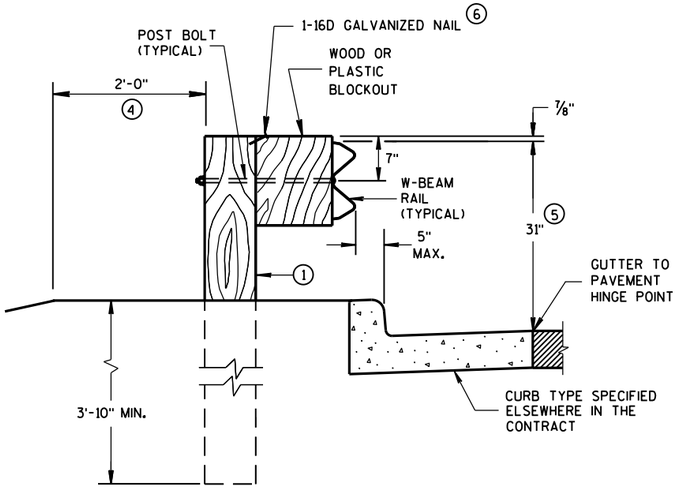
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

(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.



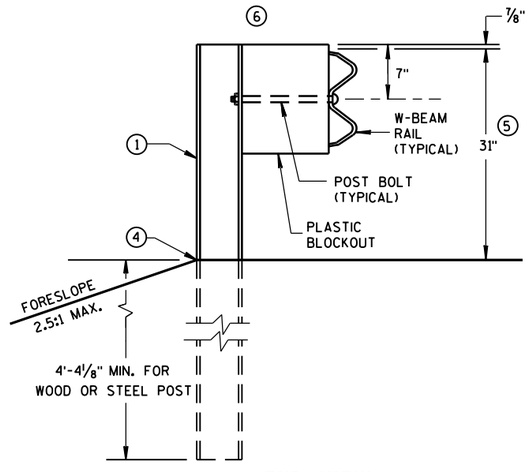
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



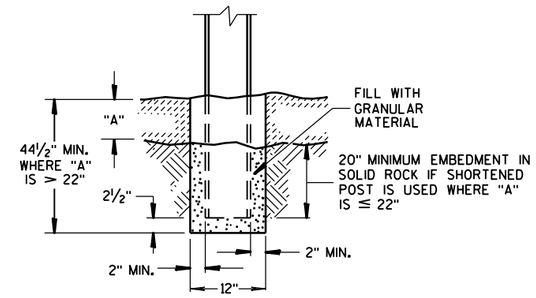
END VIEW

LOCATED ALONG A CURBED ROADWAY



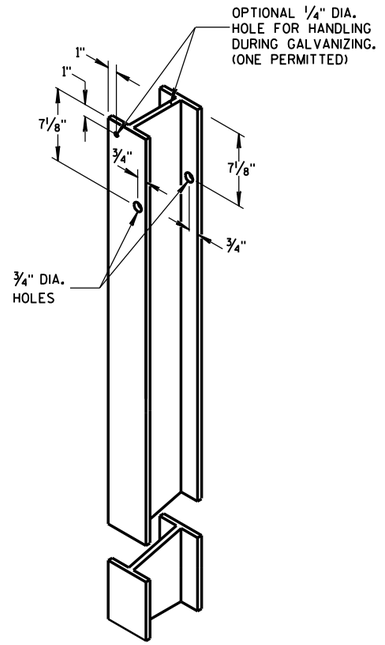
END VIEW

MGS LONGER POST AT HALFPOST SPACING W BEAM (K)

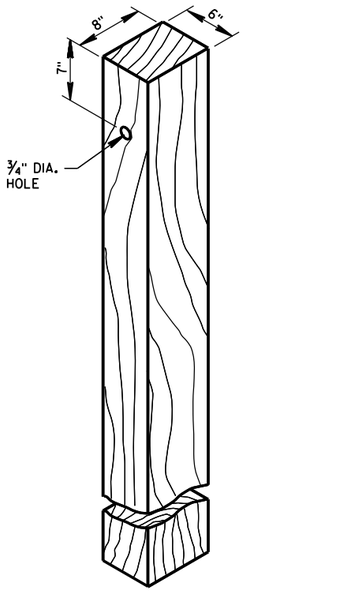


END VIEW

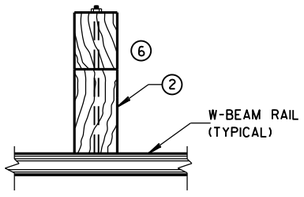
SETTING STEEL OR WOOD POST IN ROCK (3)



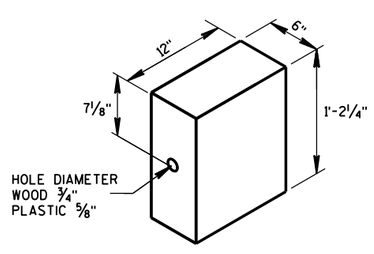
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



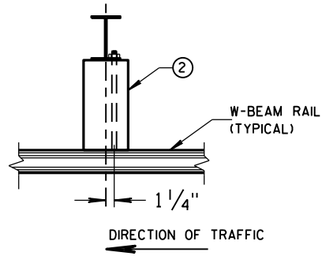
WOOD POST
(6" X 8") NOMINAL (1)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)

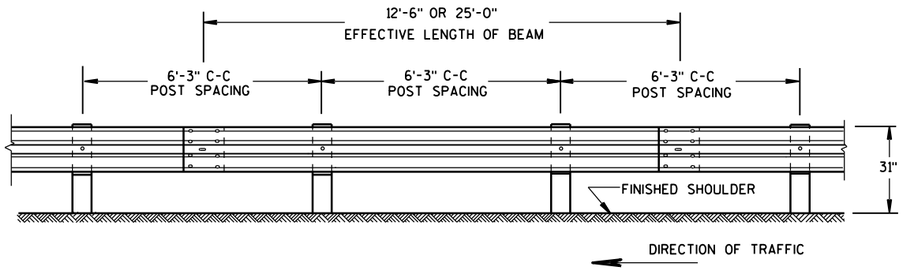


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

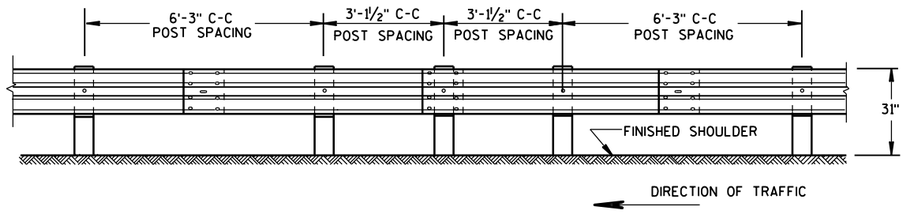
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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



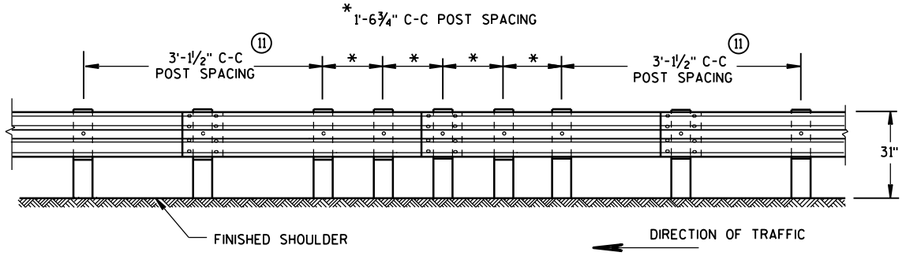
FRONT VIEW

POST SPACING STANDARD INSTALLATION



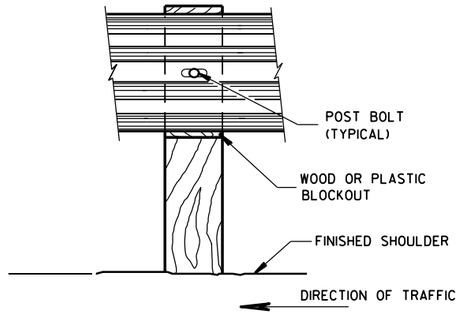
FRONT VIEW

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

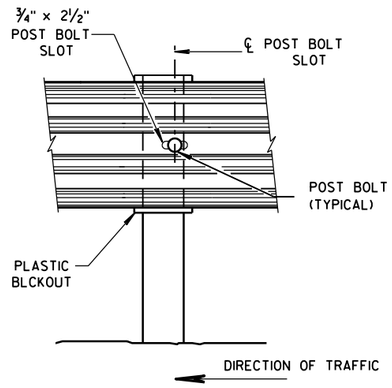


FRONT VIEW

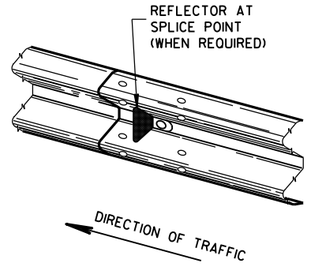
QUARTER POST SPACING (QS)

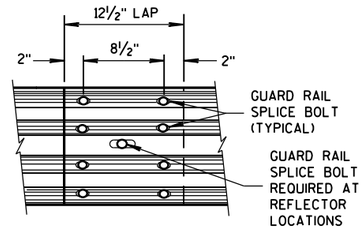


FRONT VIEW AT WOOD POST



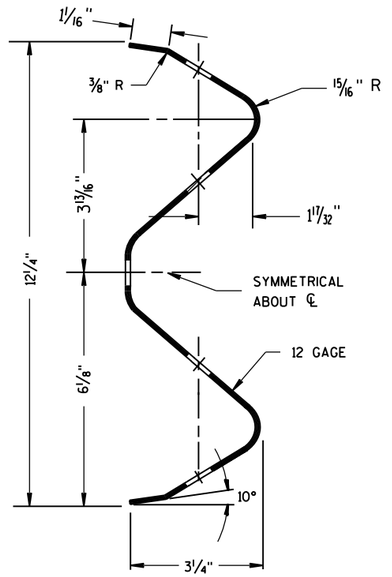
FRONT VIEW AT STEEL POST



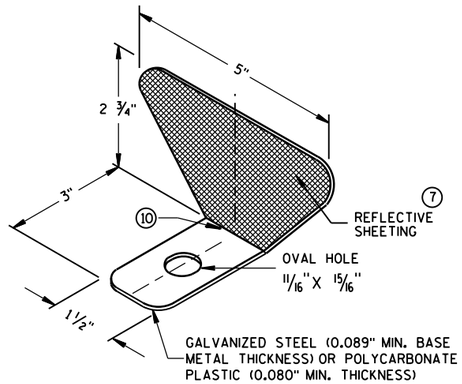


FRONT VIEW

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

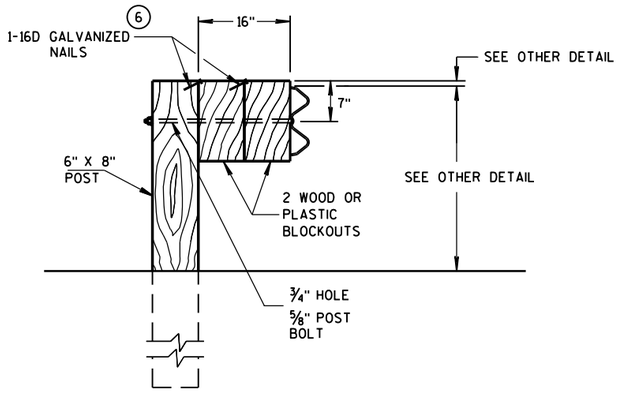
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ⑨ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 ⑩	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

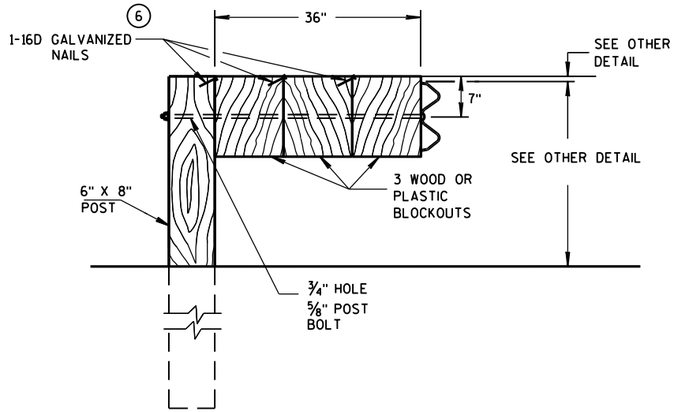
6

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.

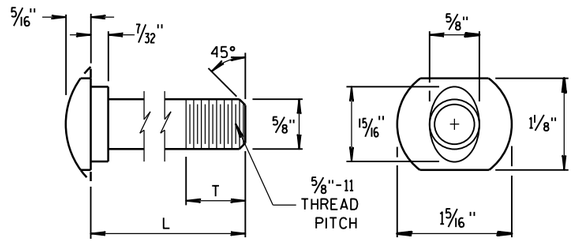


DETAIL FOR 36" BLOCKOUT DEPTH

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.

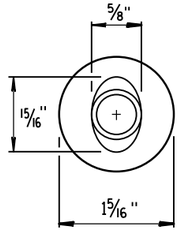
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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.

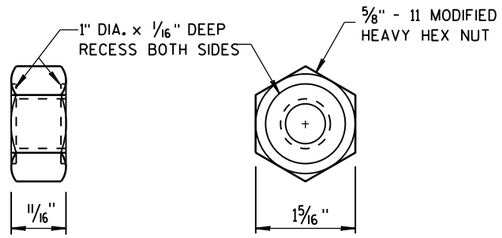


POST BOLT TABLE

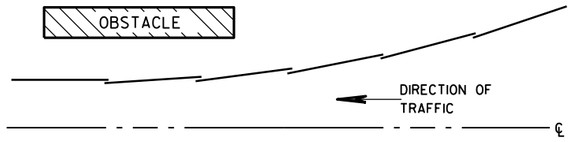
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

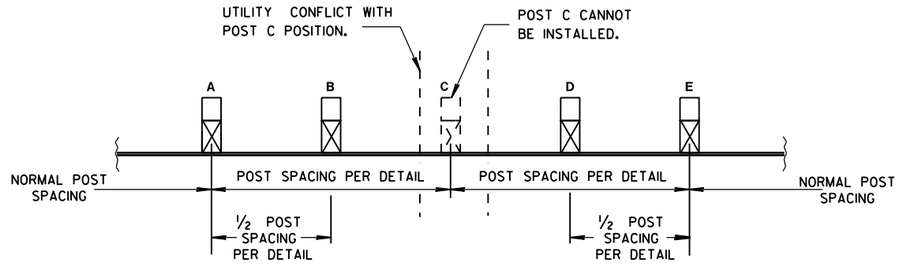


POST BOLT AND RECESS NUT

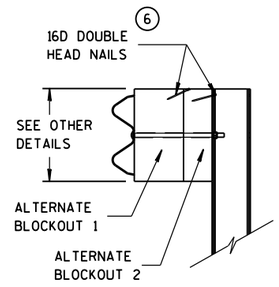


PLAN VIEW

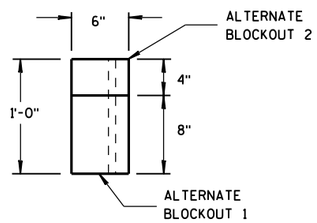
BEAM LAPPING DETAIL



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

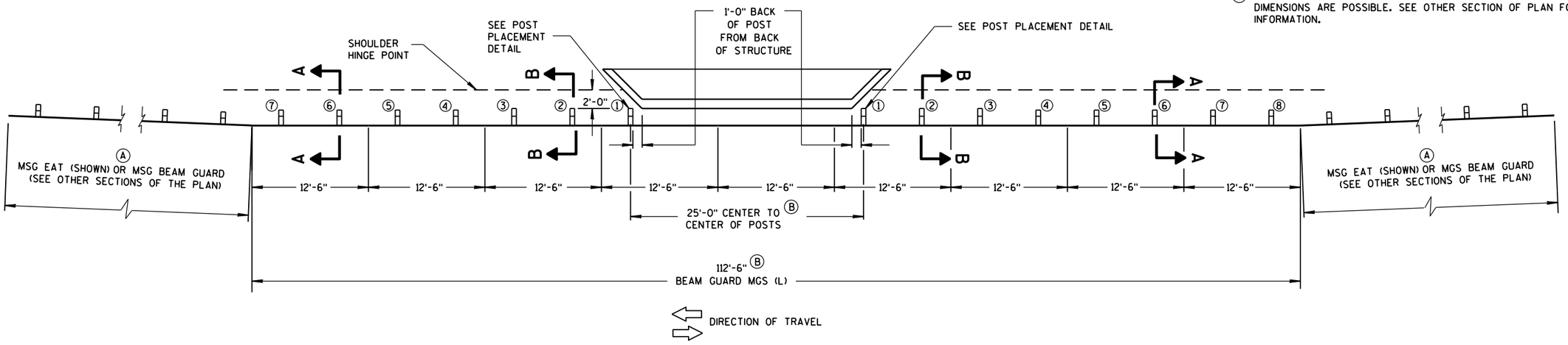
GENERAL NOTES

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

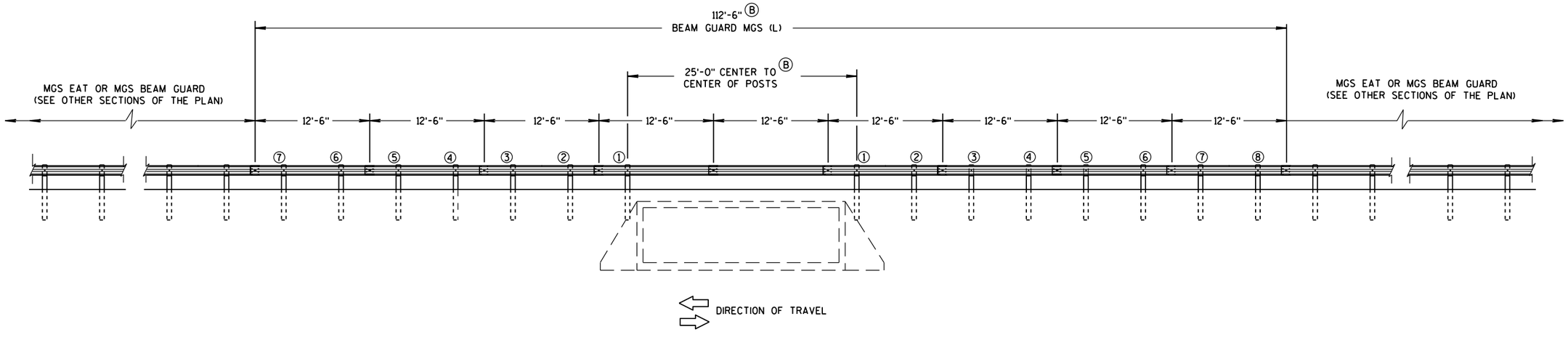
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



ELEVATION VIEW

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

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 43-3a

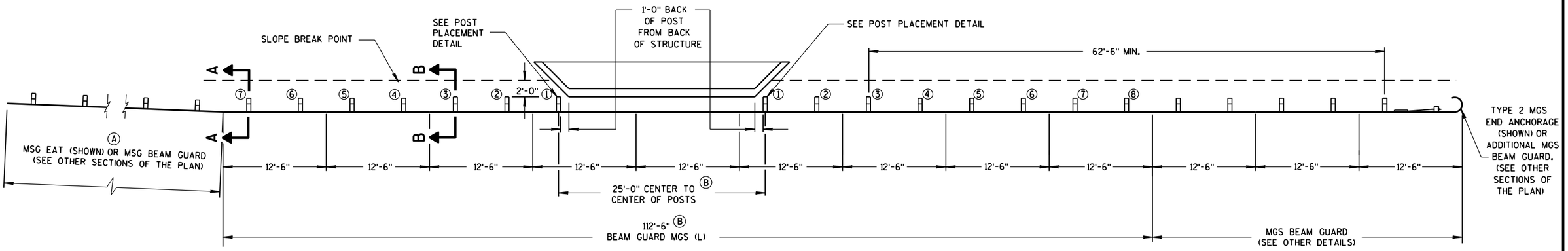
GENERAL NOTES

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

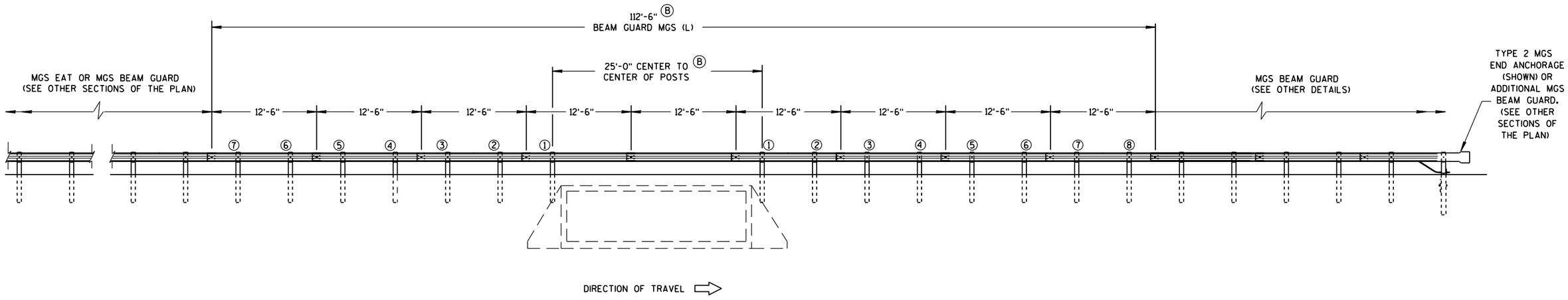
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



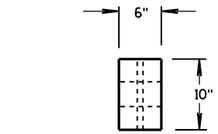
ELEVATION VIEW

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

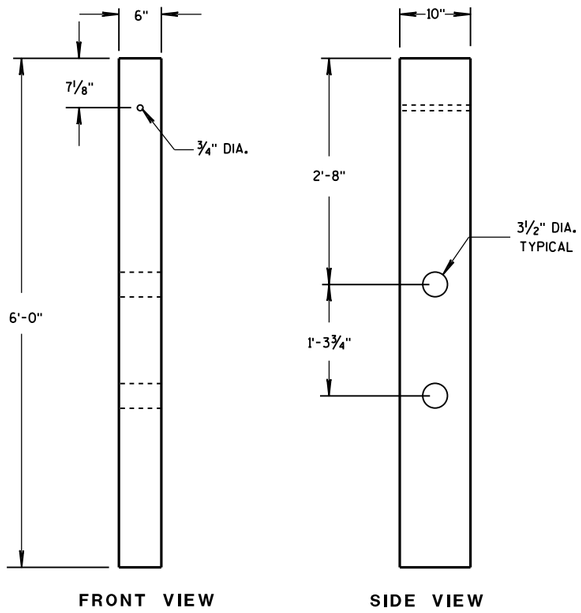
MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
STATE OF WISCONSIN DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 43-3b

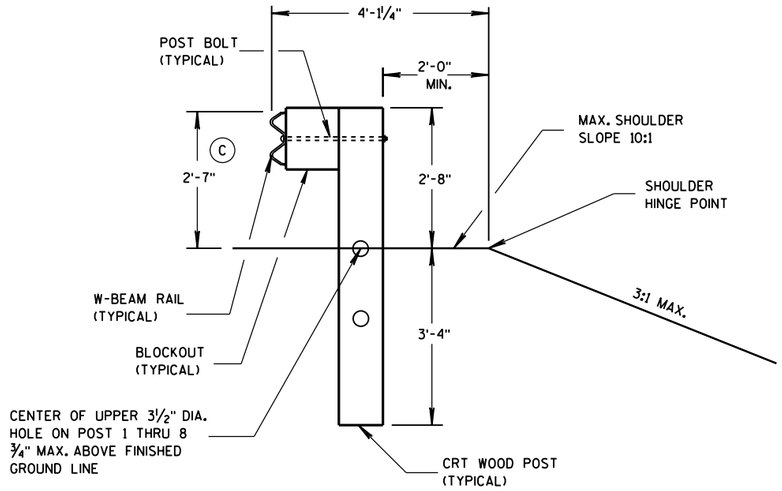


PLAN VIEW



FRONT VIEW SIDE VIEW

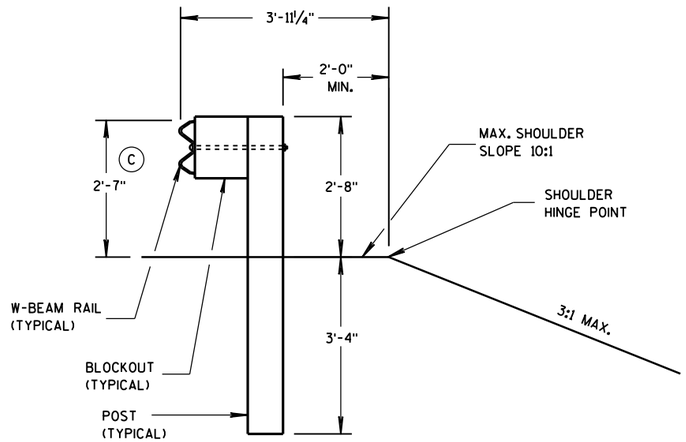
CRT WOOD POST



SECTION B-B

POSTS NO. 1-3

SEE OTHER DETAILS



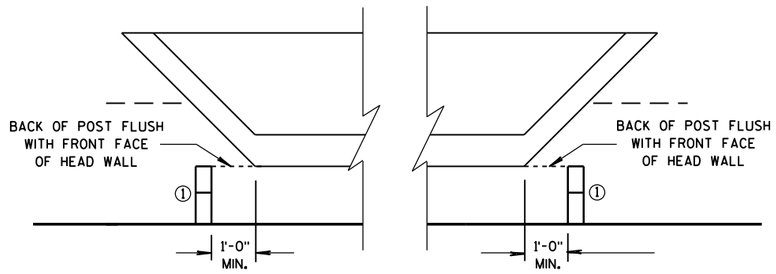
SECTION A-A

POSTS NO. 4-8

SEE OTHER DETAILS

GENERAL NOTES

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



POST PLACEMENT DETAIL

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/10/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 14 B 43-3c

6

S.D.D. 14 B 43-3c

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.

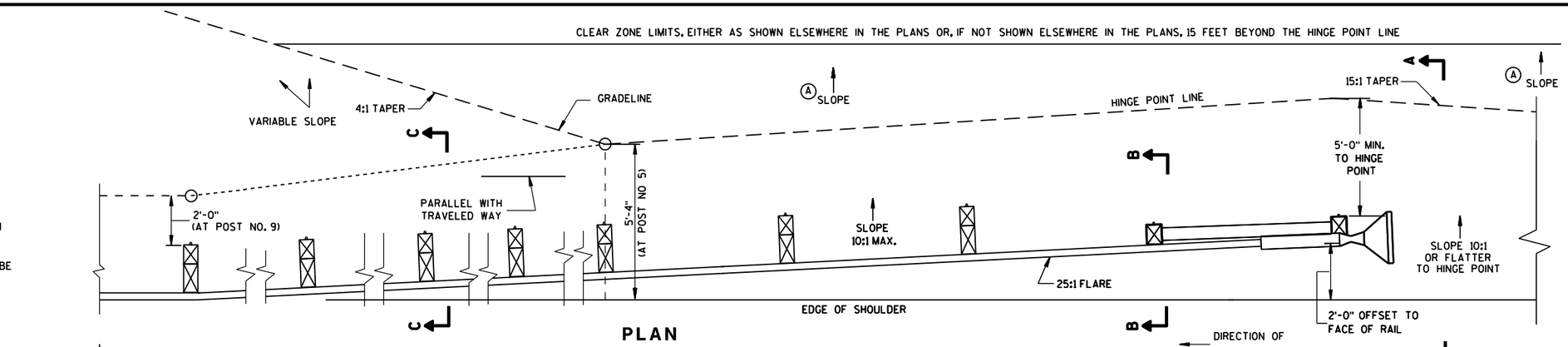
SEE SDD 14B42 FOR MORE INFORMATION.

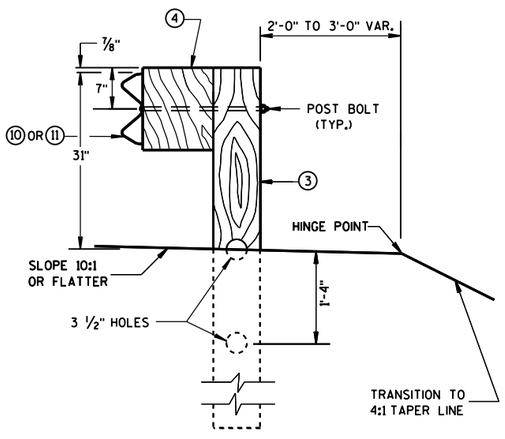
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

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

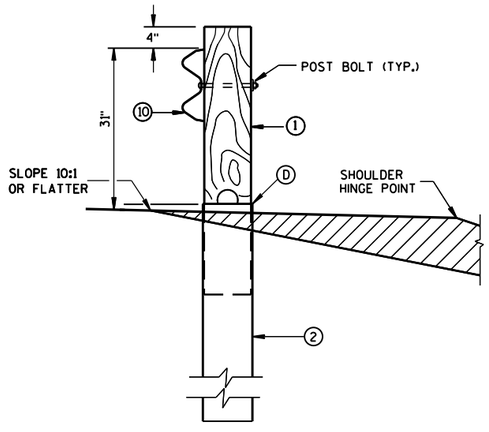
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

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.

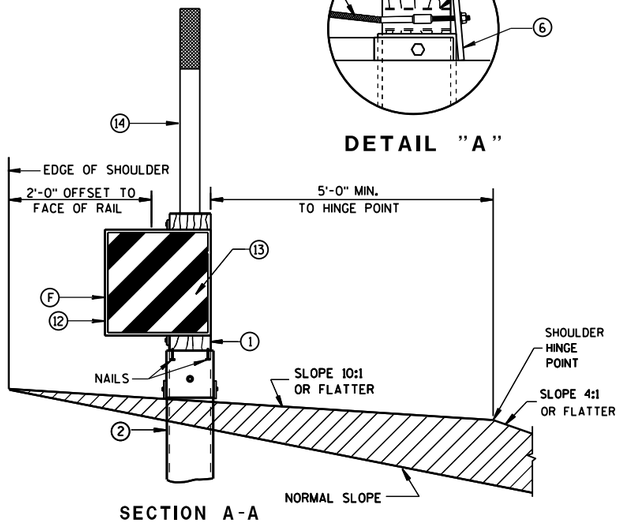




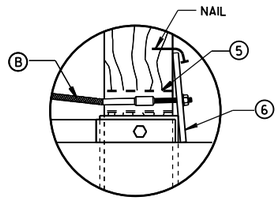
SECTION C-C
TYPICAL AT POST NOS. 3-9



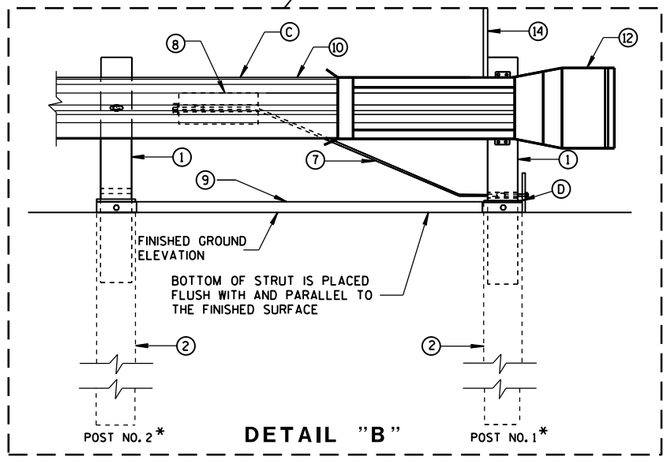
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"

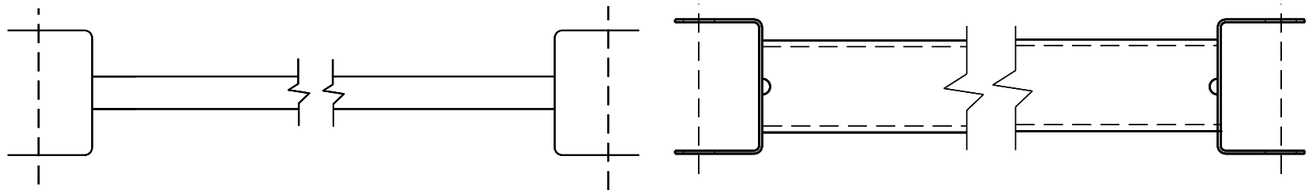


DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

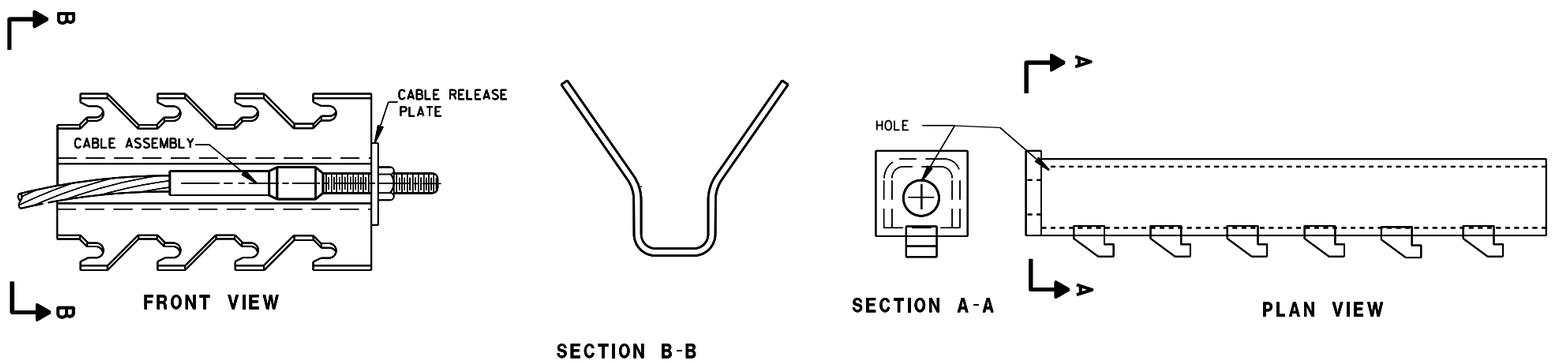
S.D.D. 14 B 44-2a



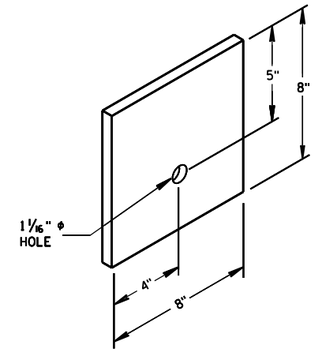
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



GENERIC ANCHOR CABLE BOX (8) (H)



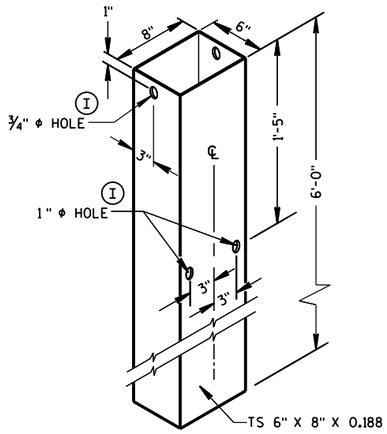
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

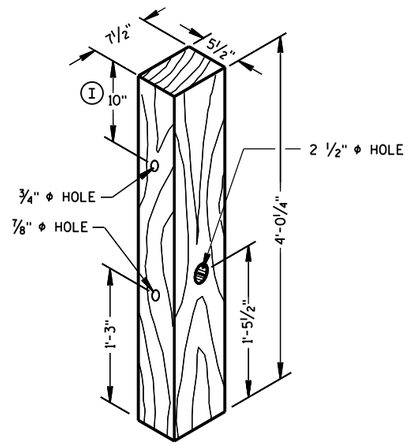
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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

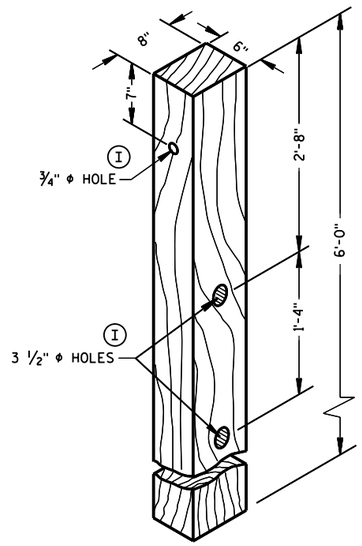


FOUNDATION TUBE (2)



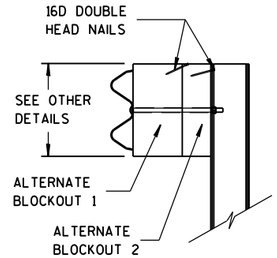
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

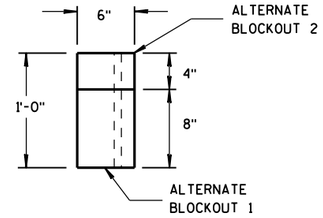


POSTS NUMBER 3-9

WOOD CRT POST (3)

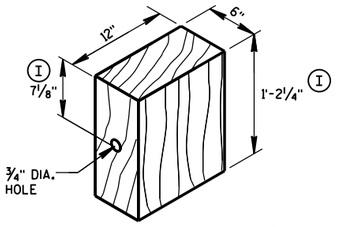


SIDE VIEW



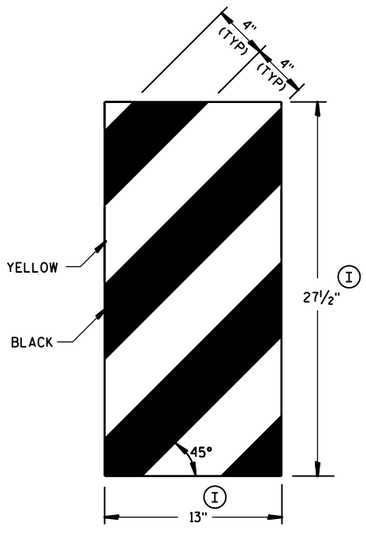
TOP VIEW

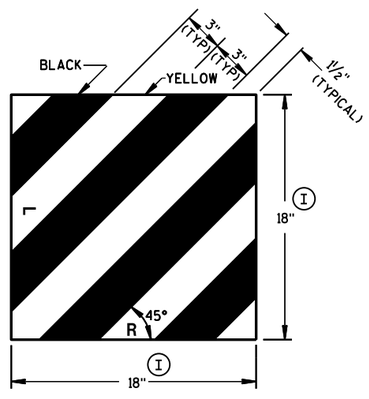
ALTERNATE WOOD BLOCKOUT DETAIL



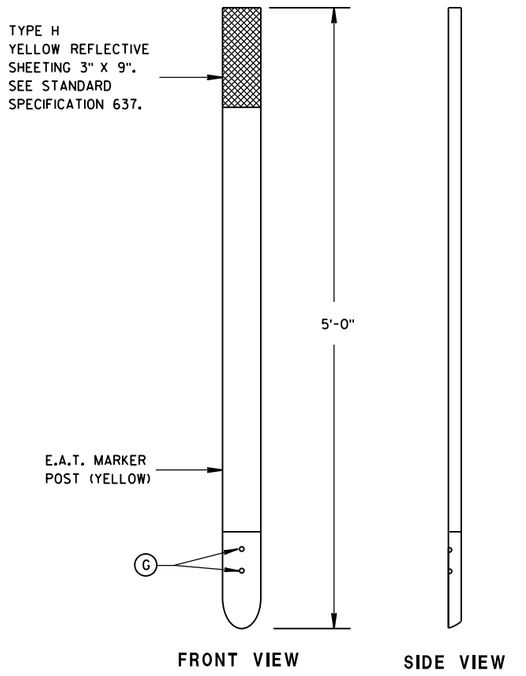
WOOD BLOCKOUT (4)

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





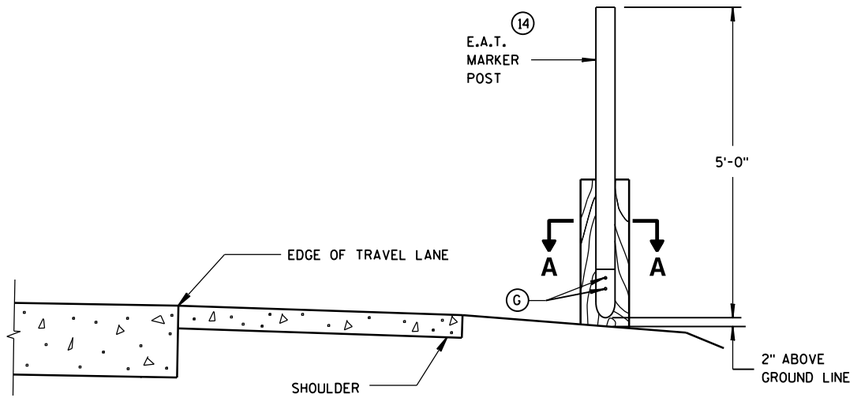
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

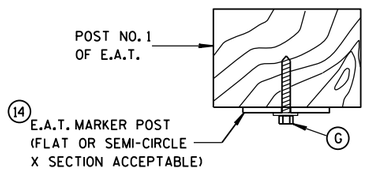
SIDE VIEW

E.A.T. MARKER POST (14)



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

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



SECTION A-A

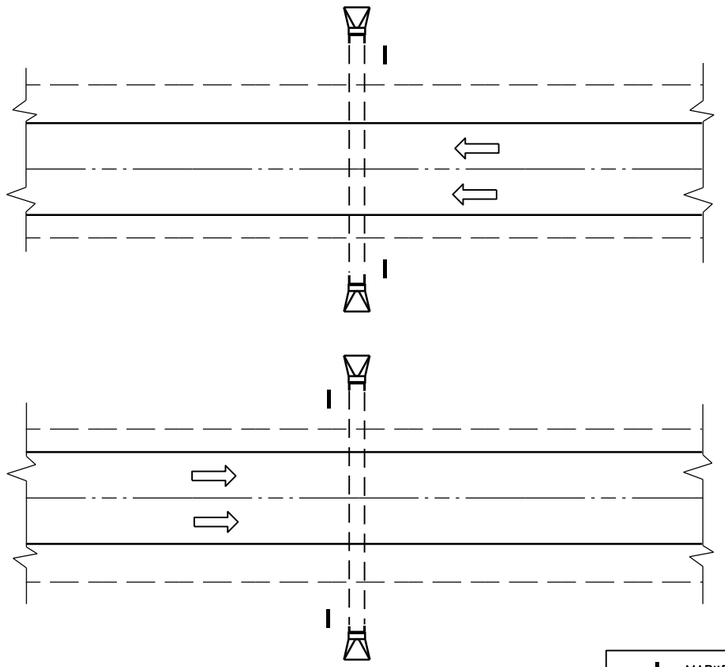
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

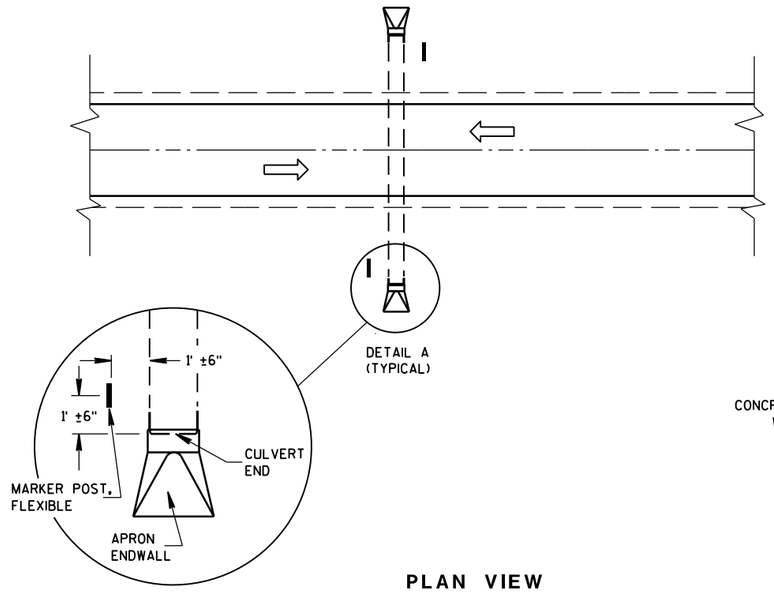
6

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



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

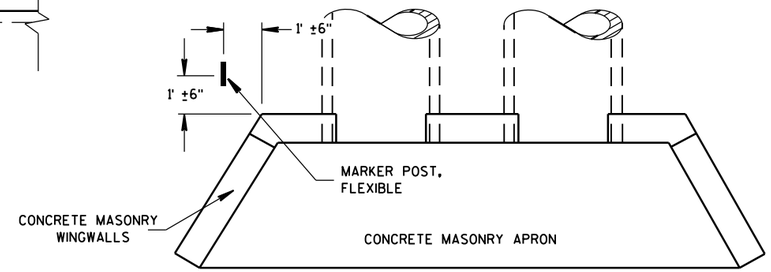
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

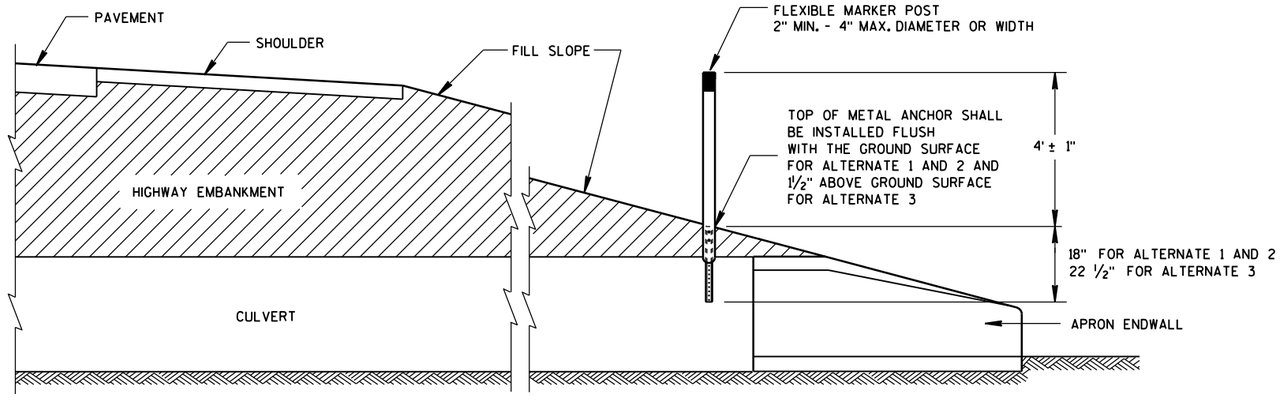
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

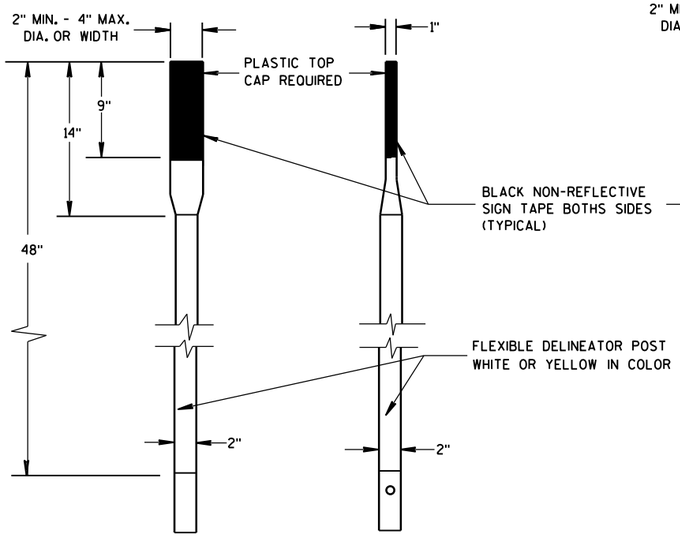
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

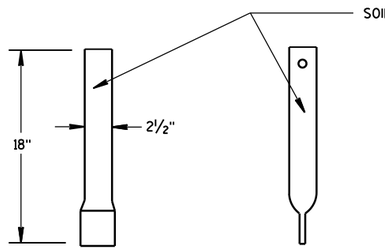
6

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

6

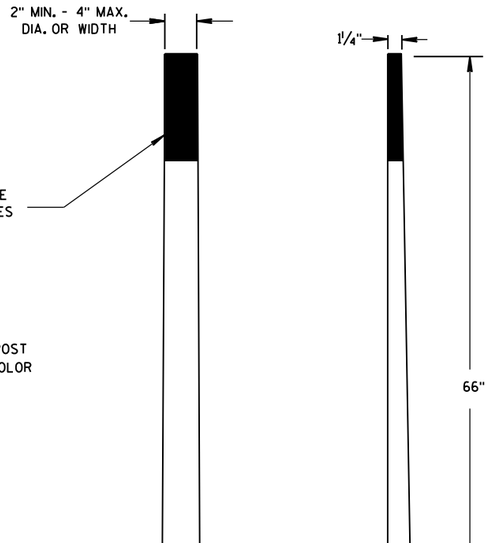
S.D.D. 15 A 3-2a





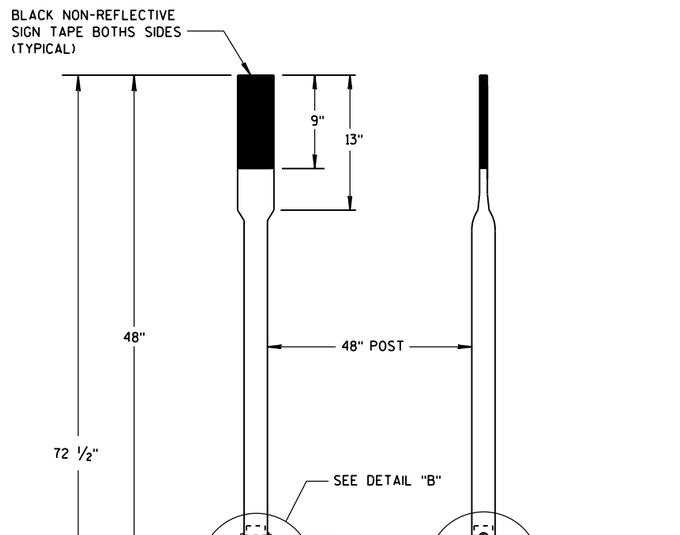
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

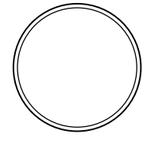
ALTERNATE 2



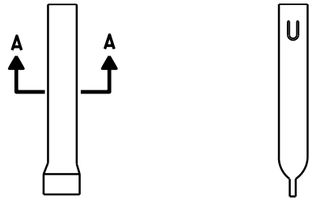
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

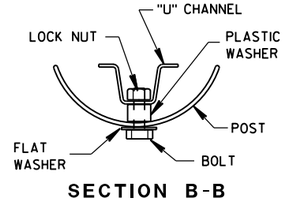


SECTION A-A

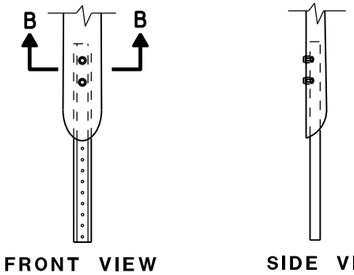


FRONT VIEW SIDE VIEW

ALTERNATE 1

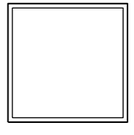


SECTION B-B

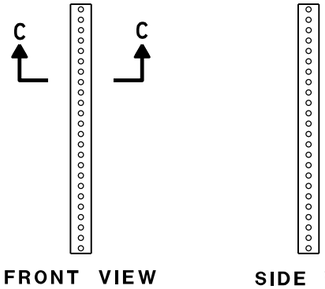


FRONT VIEW SIDE VIEW

ALTERNATE 2



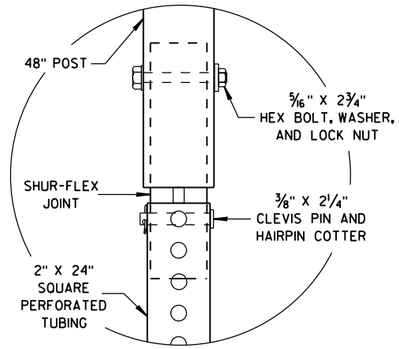
SECTION C-C



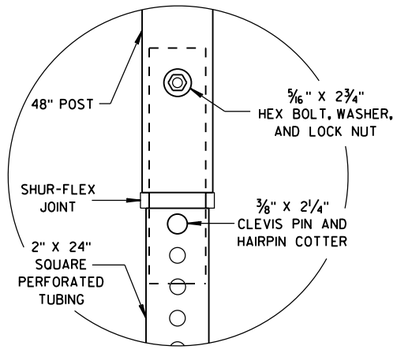
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



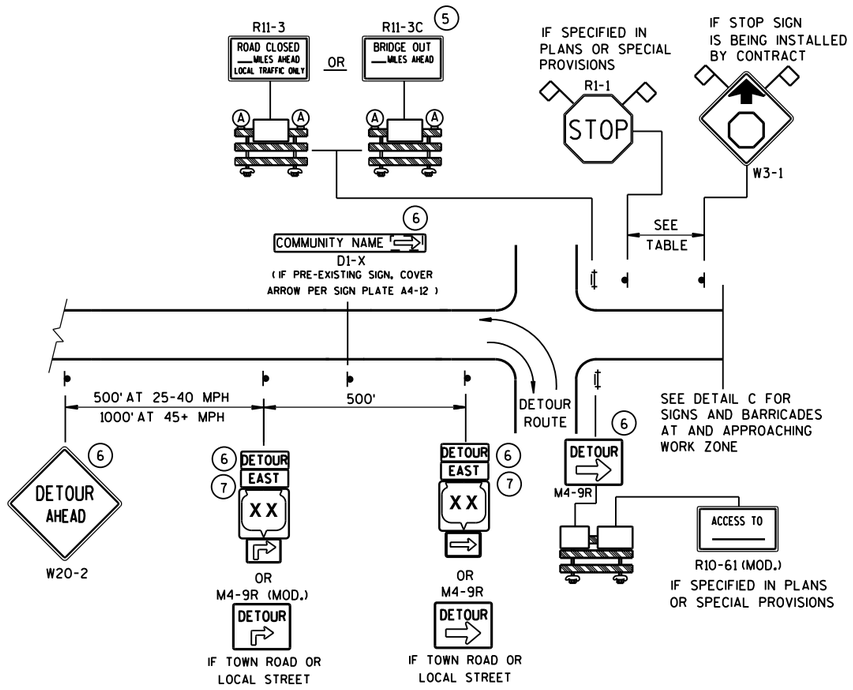
DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

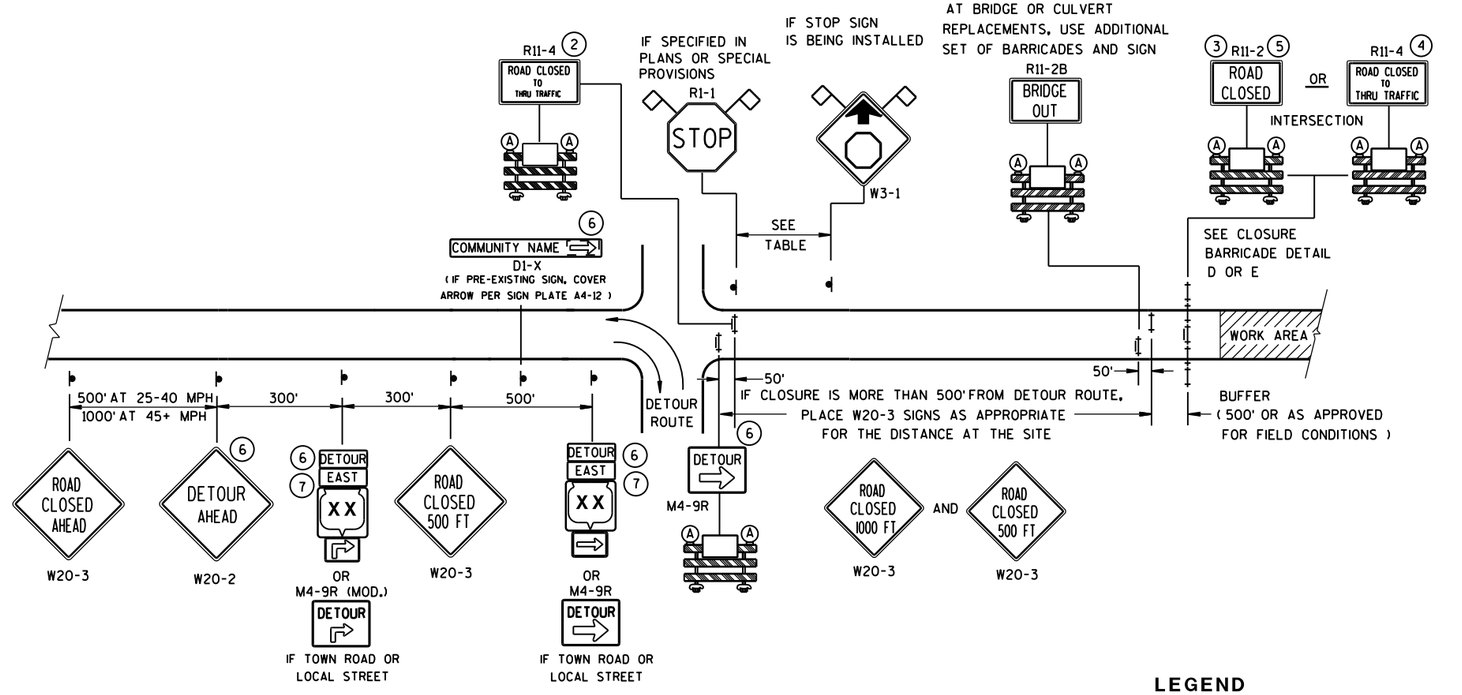
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
IGN
FHWA

6
S.D.D. 15 A 3-2b



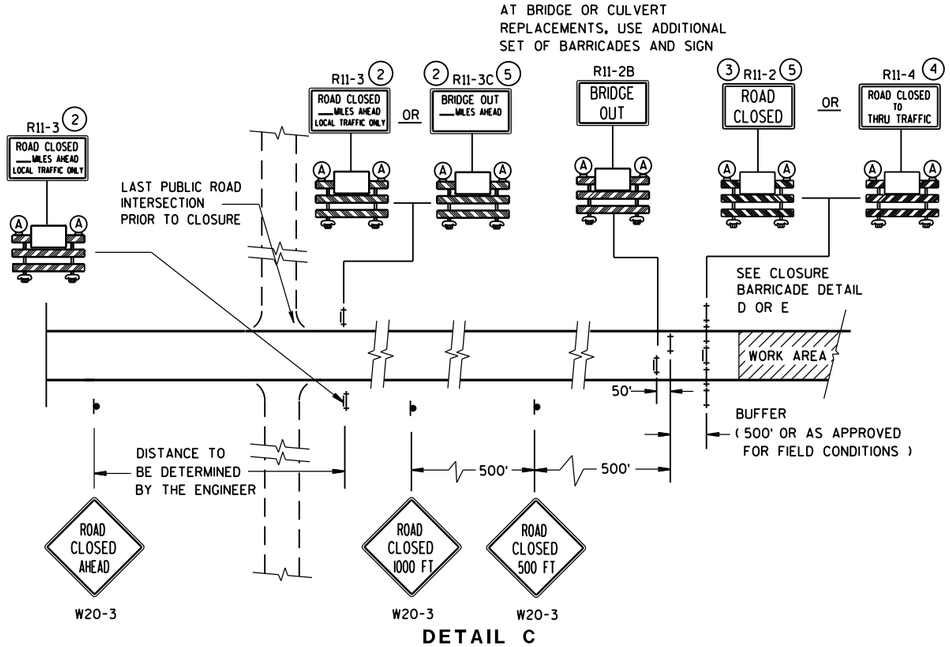
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

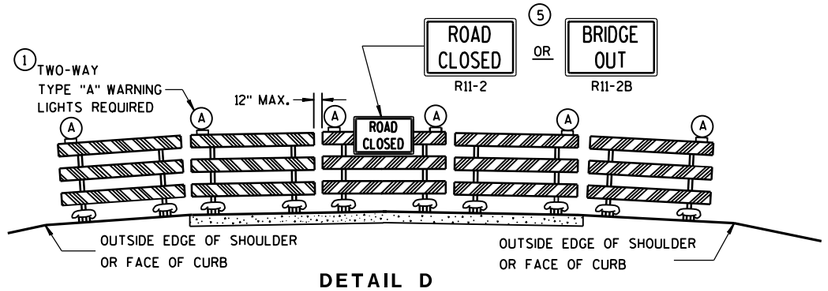
FHWA

6

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

6

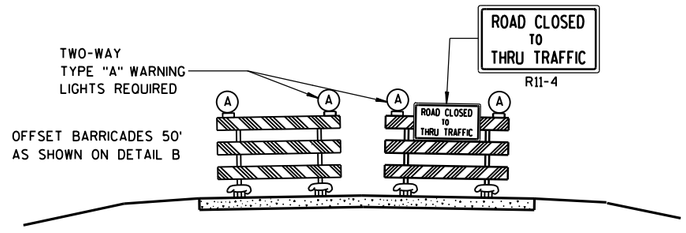
S.D.D. 15 C 2-5a



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

6

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

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

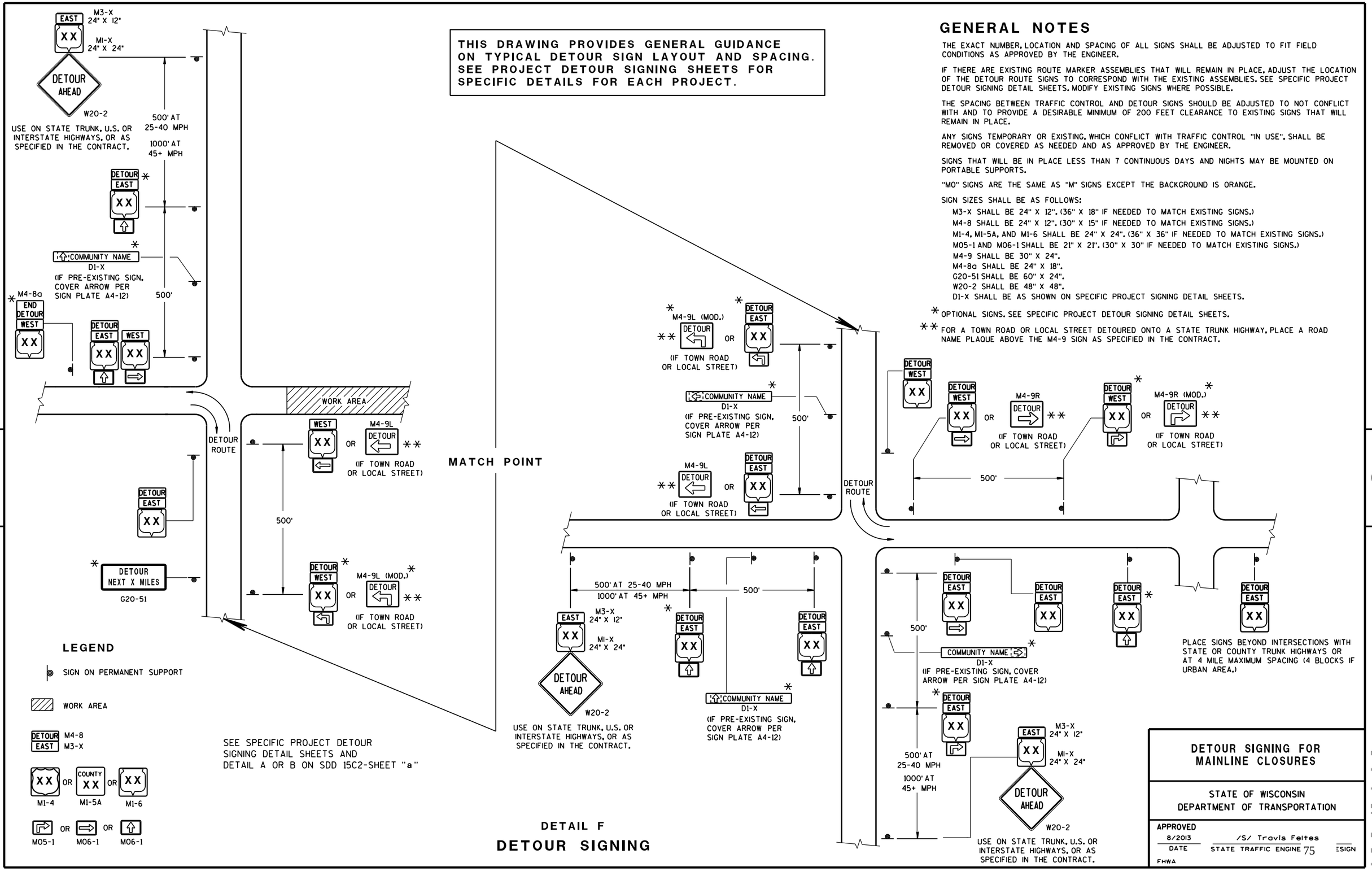
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (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.)
- MO5-1 AND MO6-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-SHEET "a"

DETAIL F

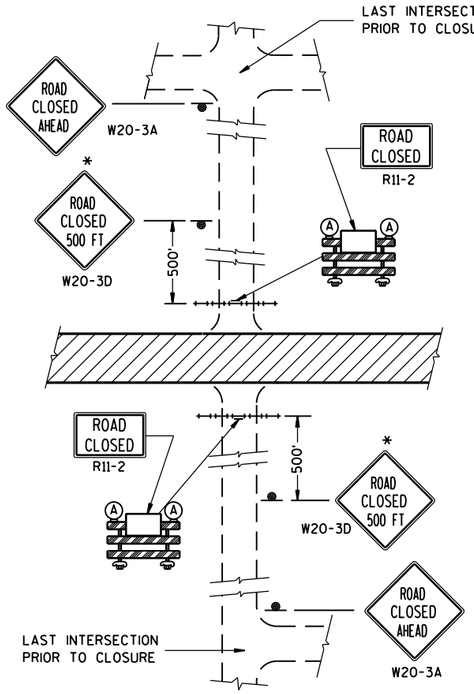
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

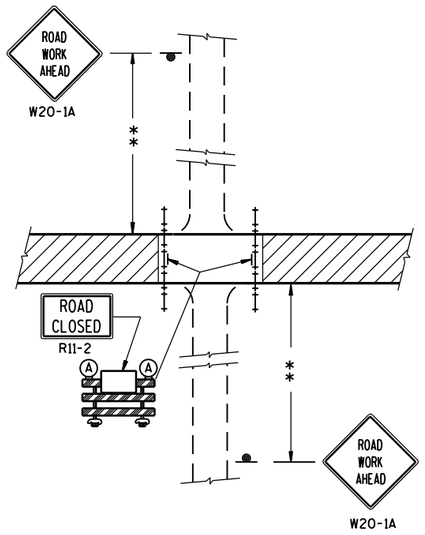
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6
S.D.D. 15 C 2-5c



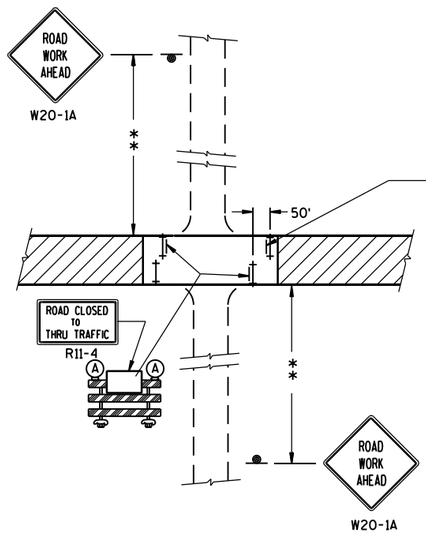
DETAIL 1

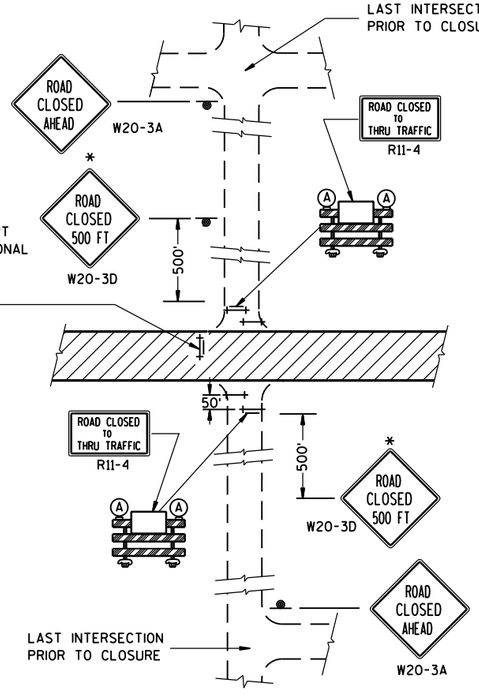
(NO ACCESS TO PROJECT)



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

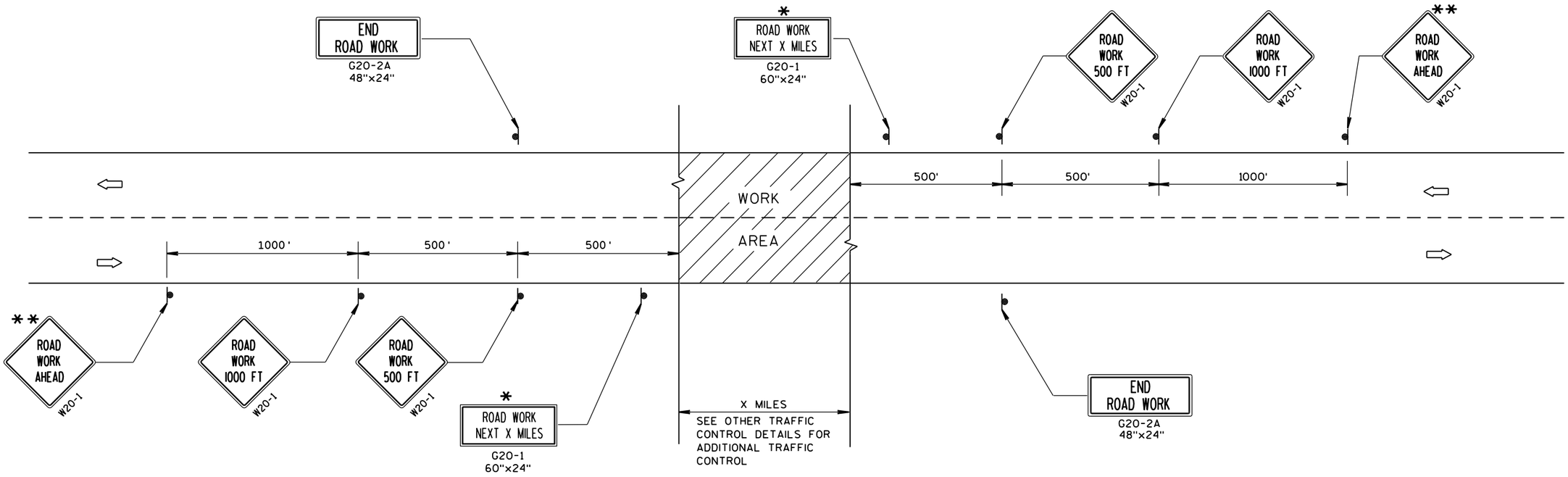
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO... SAFETY ENGI... — FHWA

6

S.D.D. 15 C 3-3

6

S.D.D. 15 C 3-3



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

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

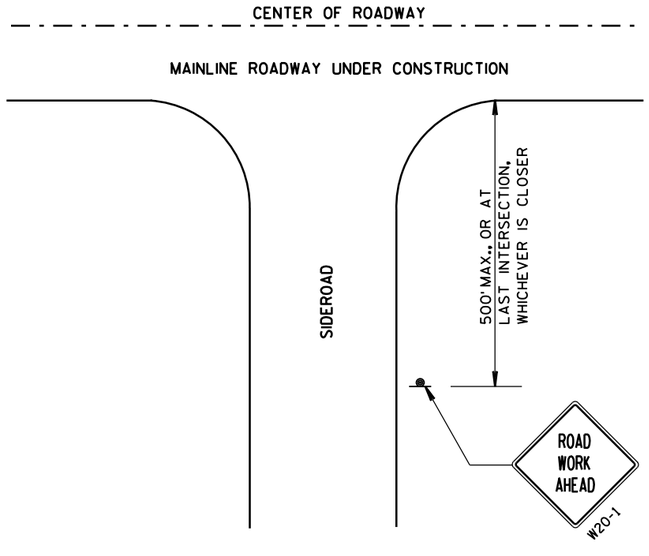
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

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

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



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

77 — SIGN

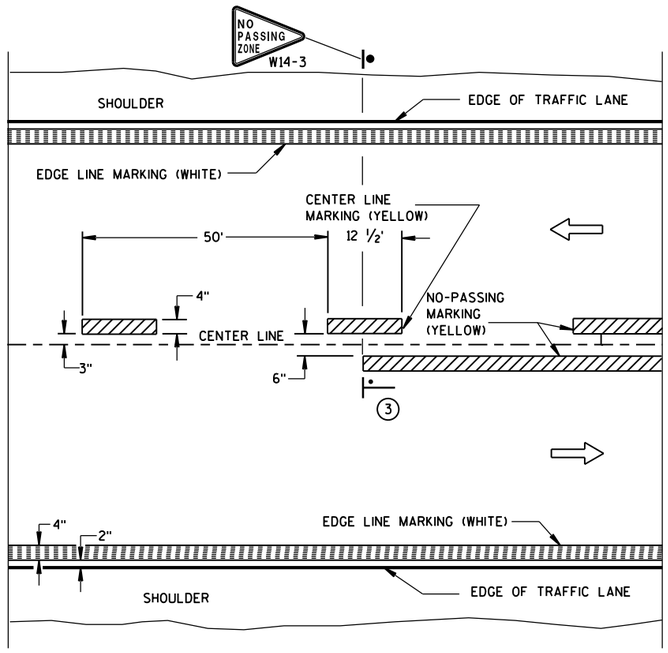
FHWA

6

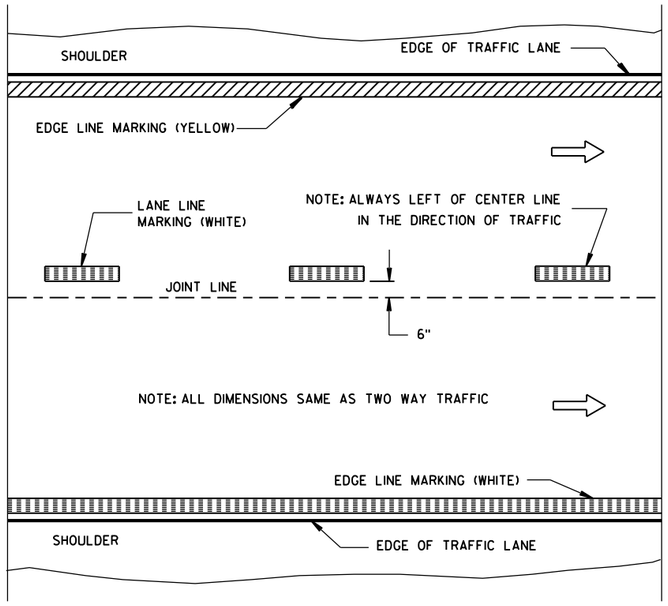
S.D.D. 15 C 4-2

6

S.D.D. 15 C 4-2

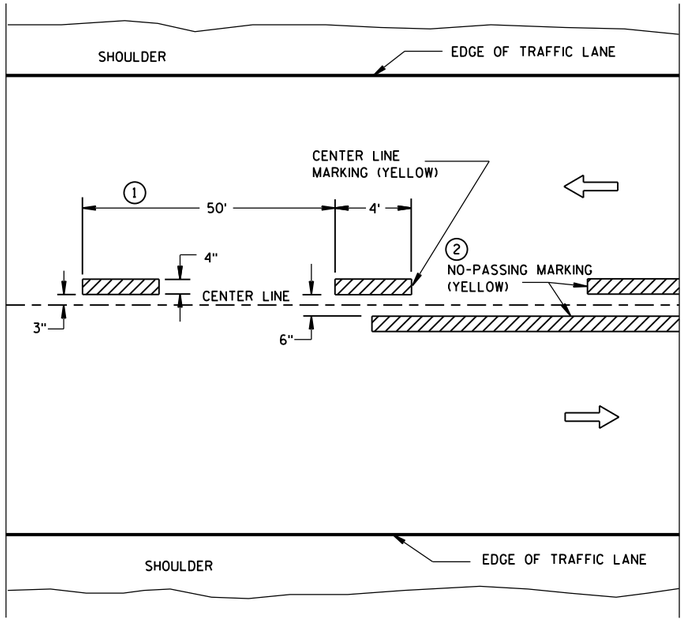


TWO WAY TRAFFIC

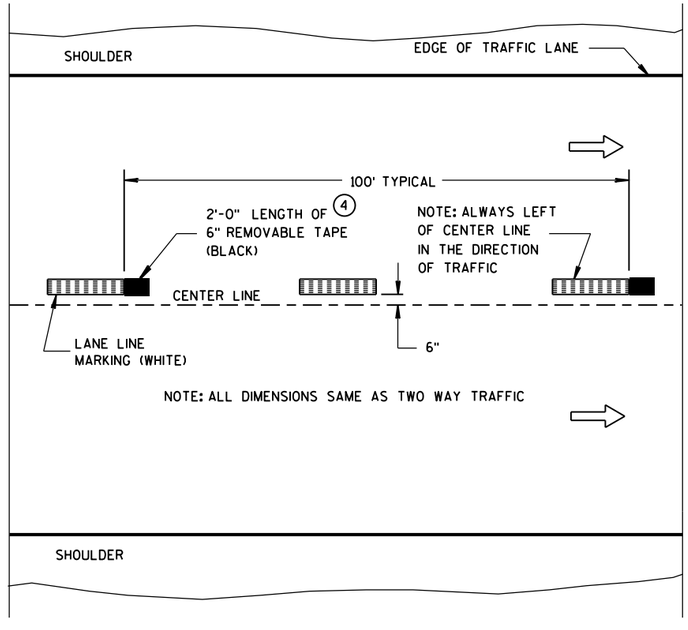


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

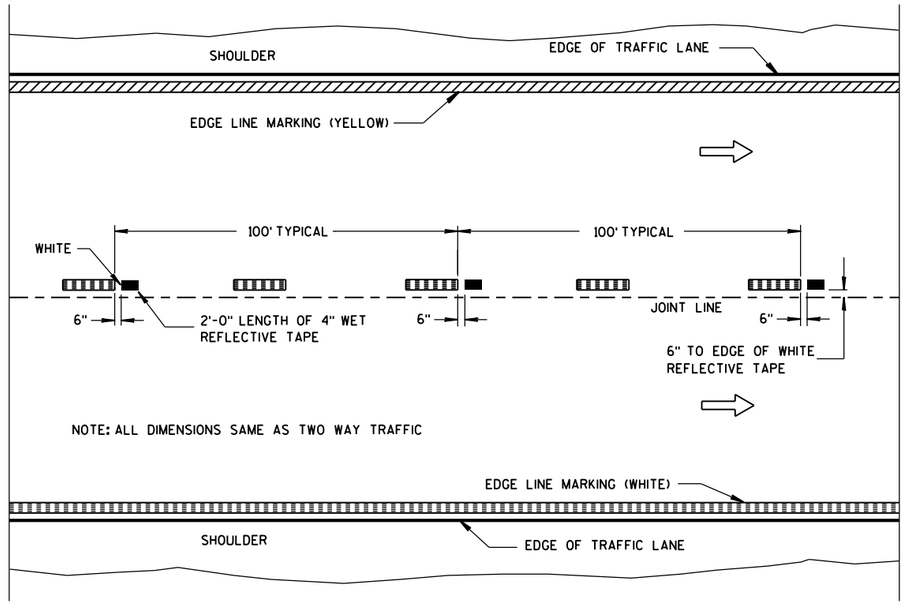
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

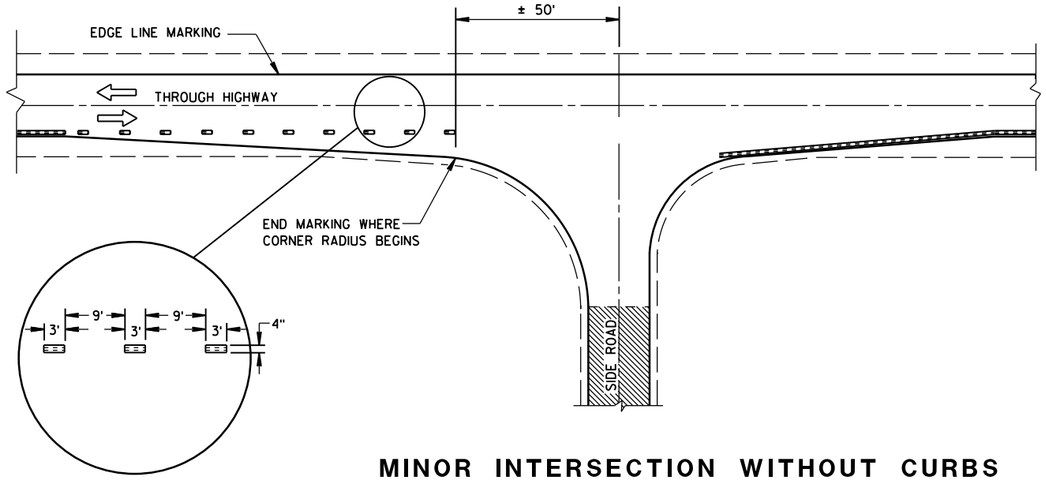
FHWA

6

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

6

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



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

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

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

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

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

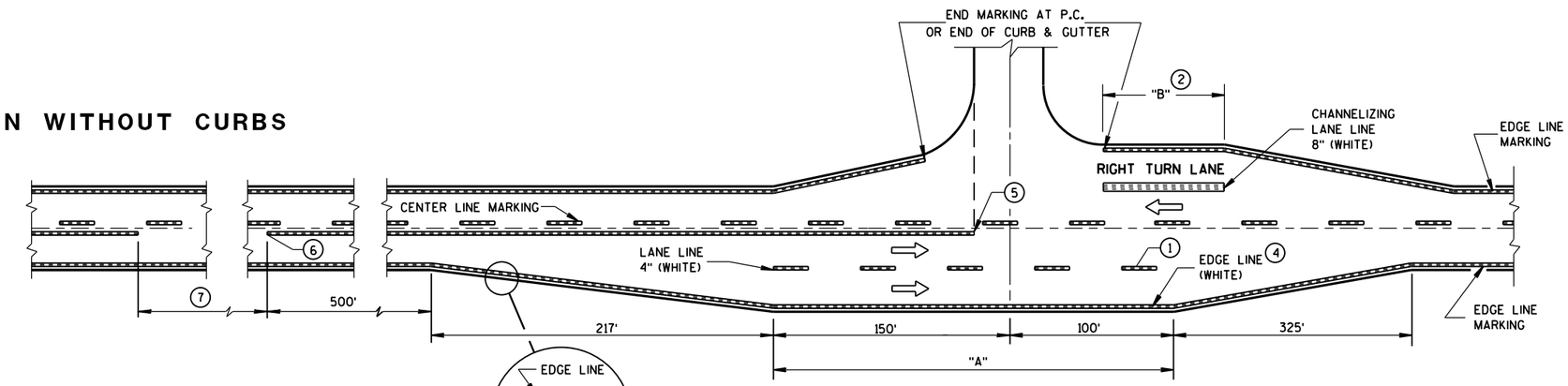
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

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

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

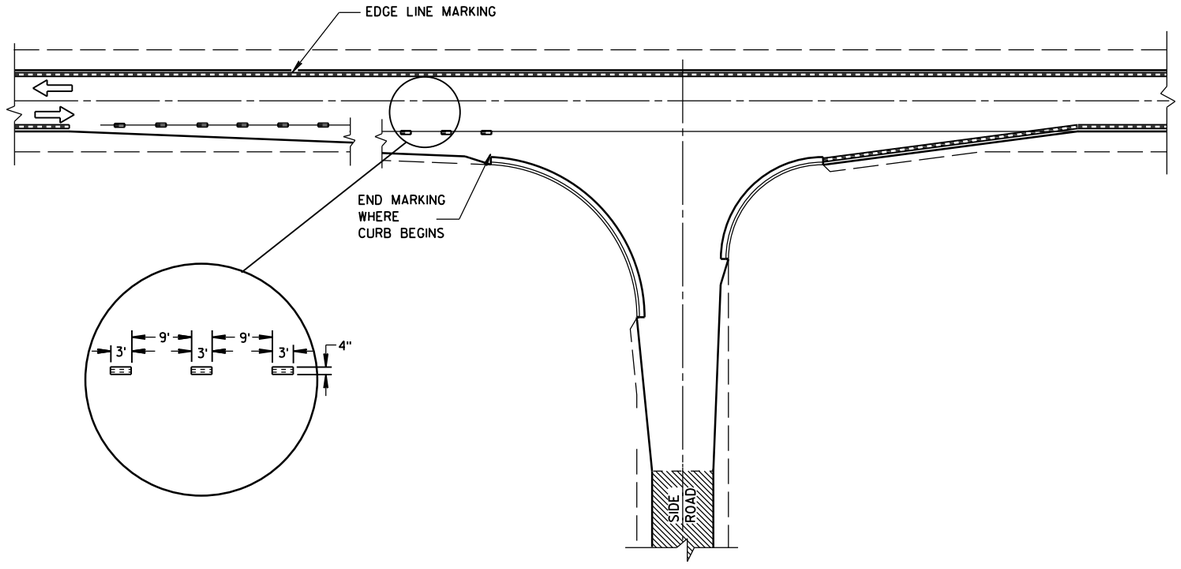
(7)

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



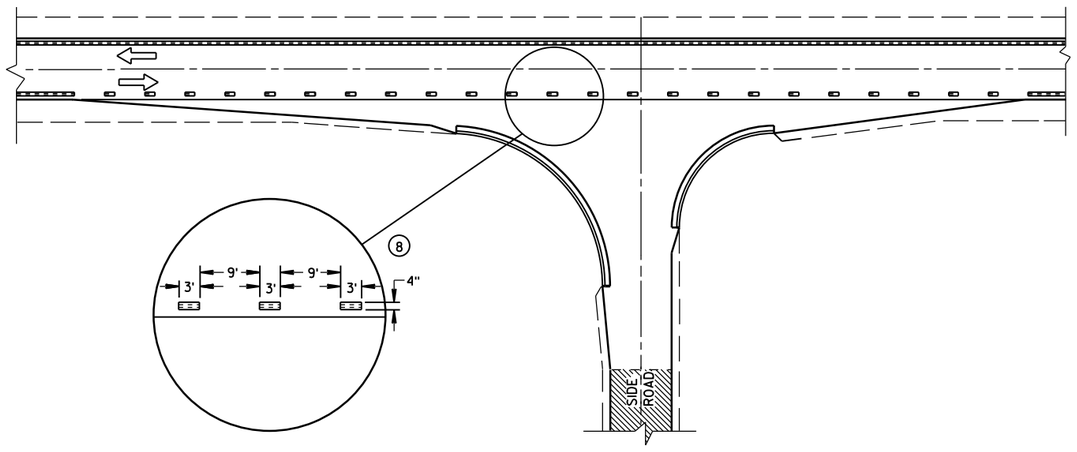
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

6

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

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

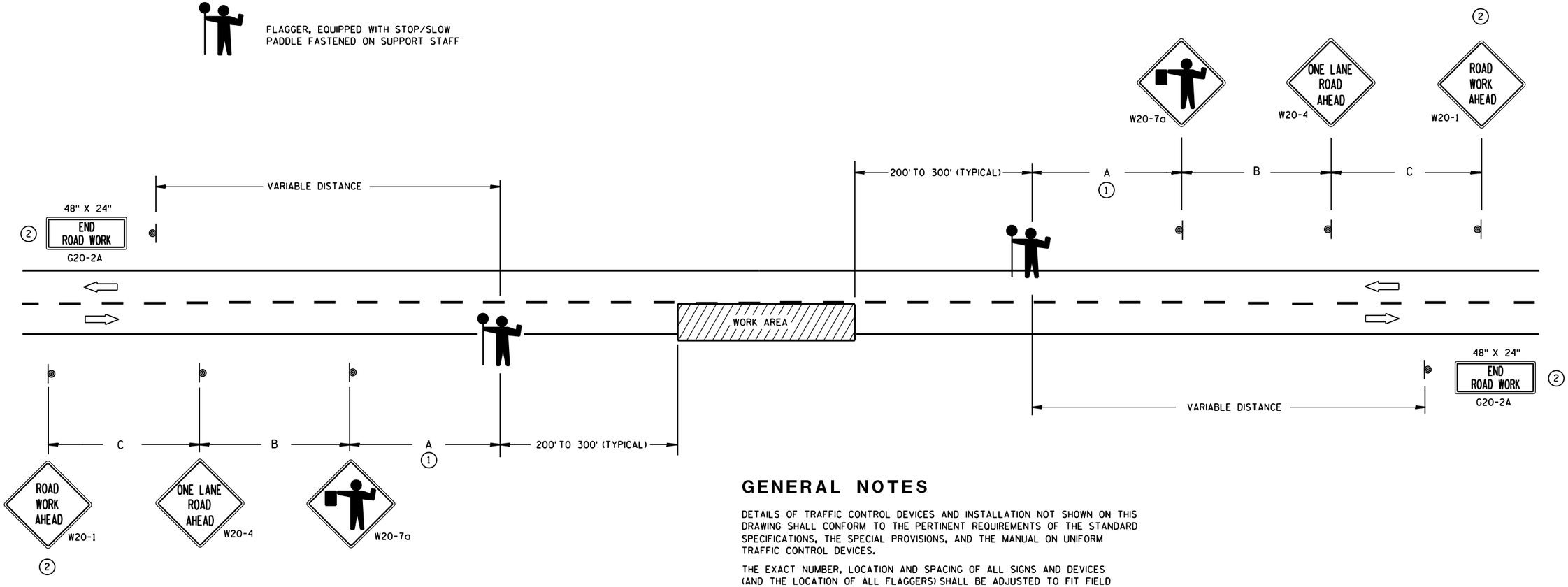
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

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

W3-4

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



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

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

GENERAL NOTES

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

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

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

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

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

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

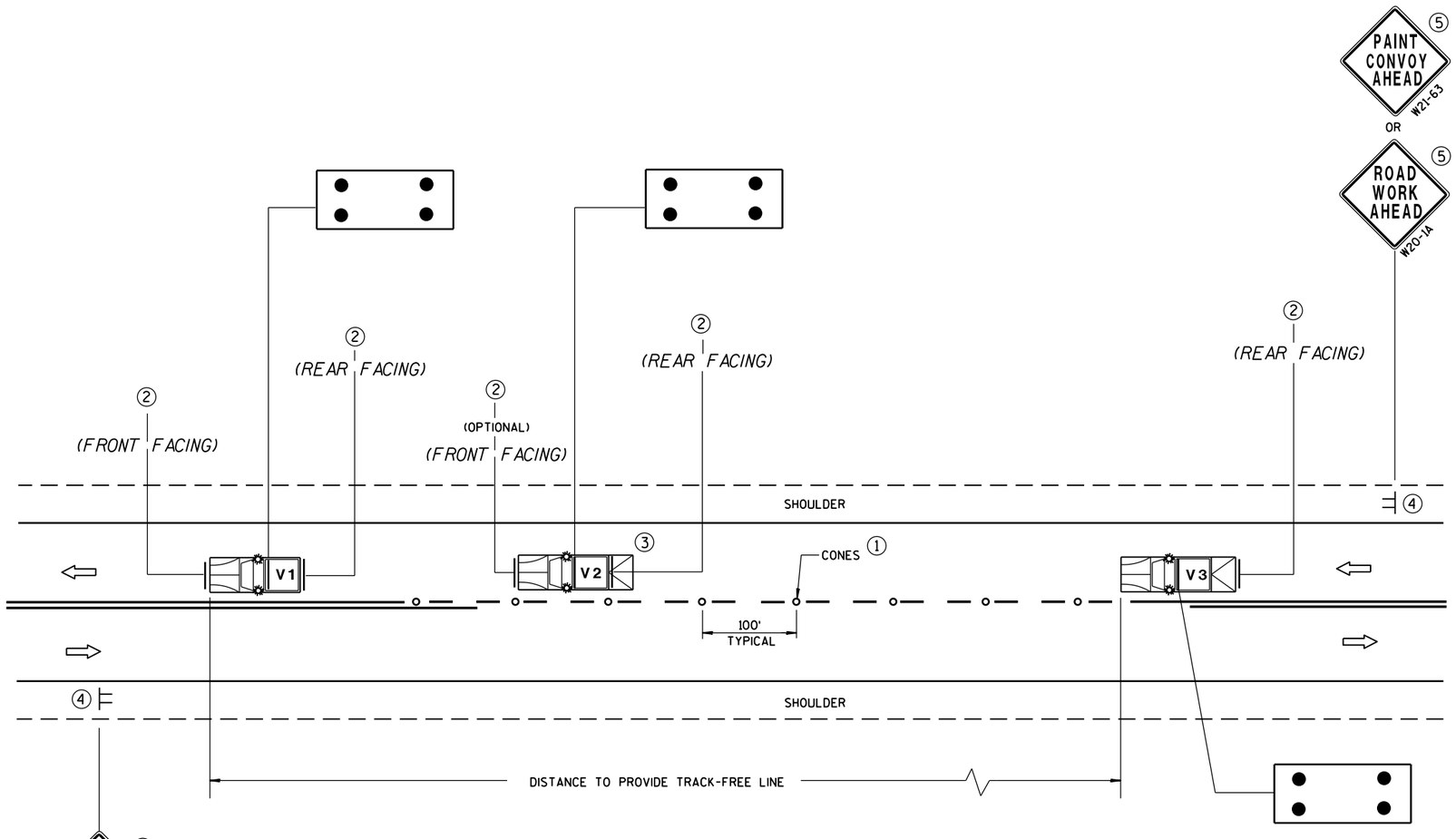
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 12-4

6

S.D.D. 15 C 12-4



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY 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.

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

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

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.

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

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

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

(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 APPROXIMATELY 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 (CAUTION)

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE FHWA	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE SAFETY ENGINEER

6

S.D.D. 15 C 19-3a

6

S.D.D. 15 C 19-3a

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.

ALL SIGNS ARE 48" X 48" 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 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.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

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

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

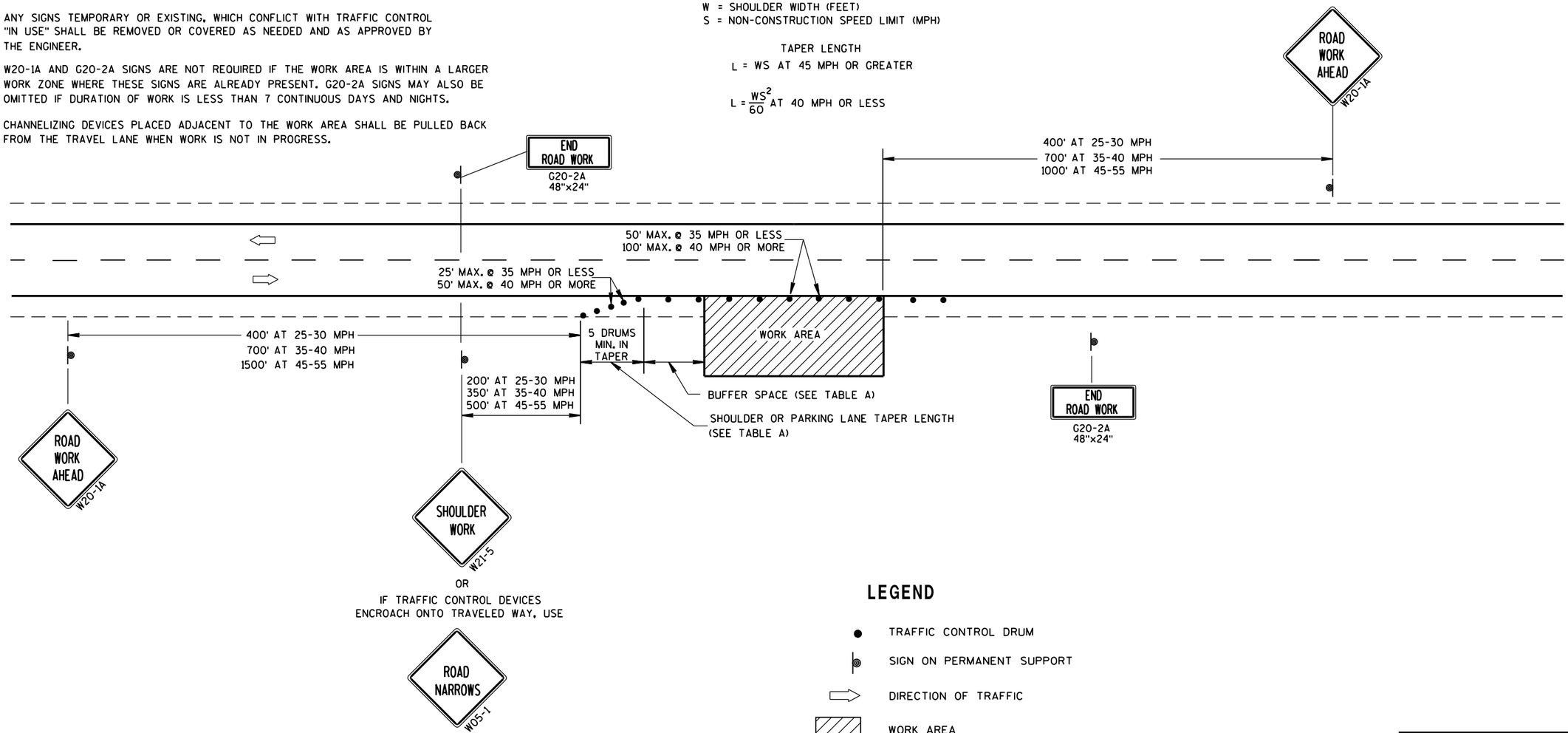
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

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

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

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

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO... SAFETY ENGI... FIC

FHWA

6

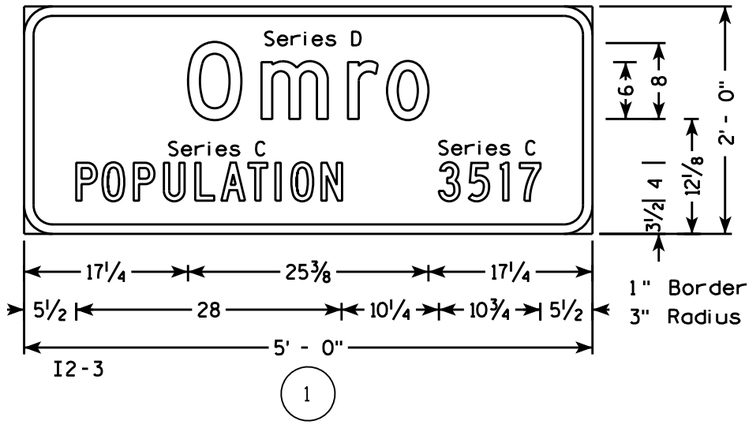
S.D.D. 15 D 28-3

6

S.D.D. 15 D 28-3

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted



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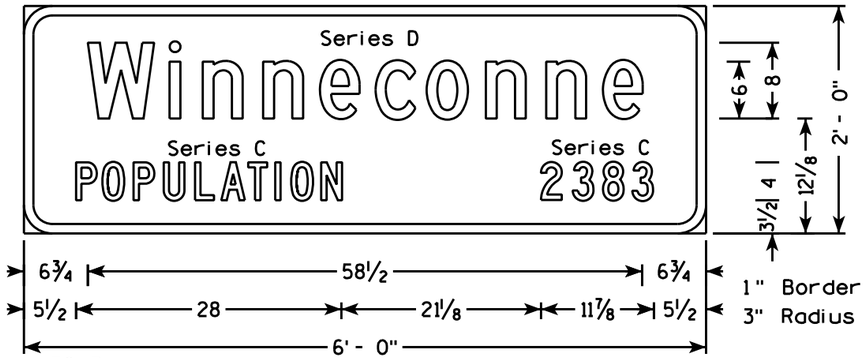

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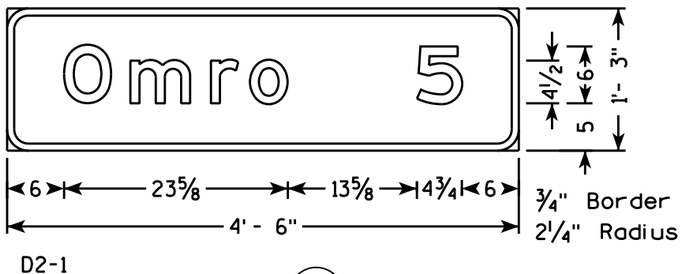


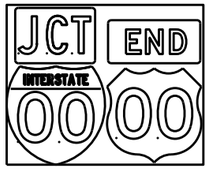
46

PLAN SHEET PRODUCED BY WisDOT-NE REGION

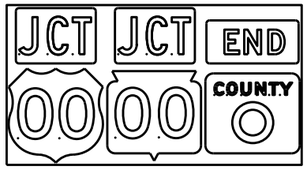
PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	SIGN DETAILS	SHEET NO: 83	E

TYPICAL ASSEMBLIES

J1-1

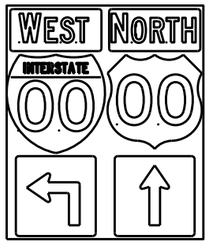


J1-2

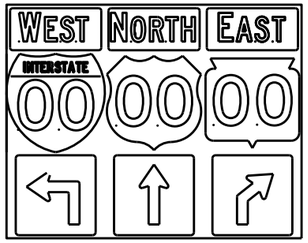


J1-3

J2-1



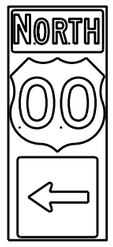
J2-2



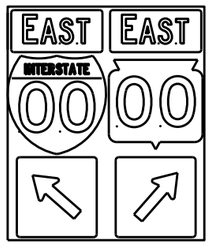
J2-3

JV

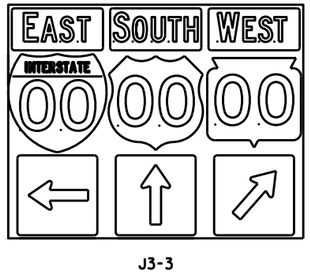
(Typical Vertical J-Assembly
See Note 10 and 11)



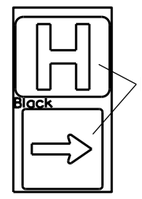
J3-1



J3-2

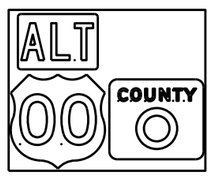


J3-3

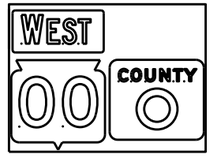


JH-1

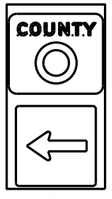
J4-1



J4-2



J4-2



J13-1

J12-1

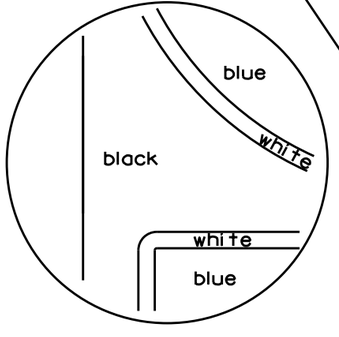
J32-1

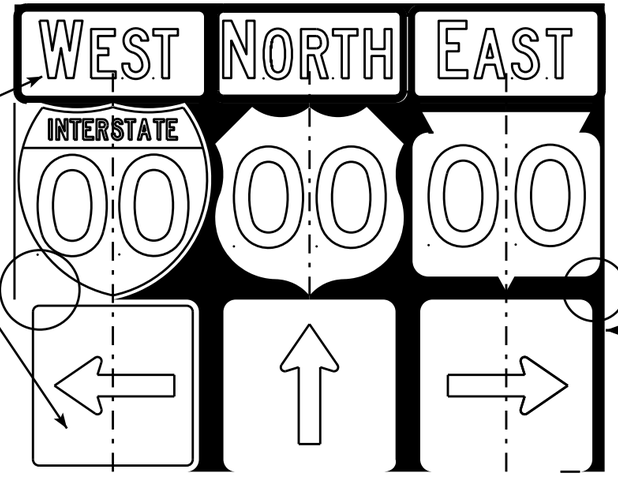
J33-1

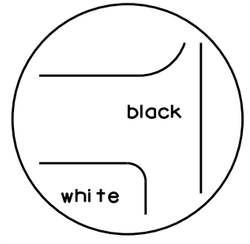
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

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

ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

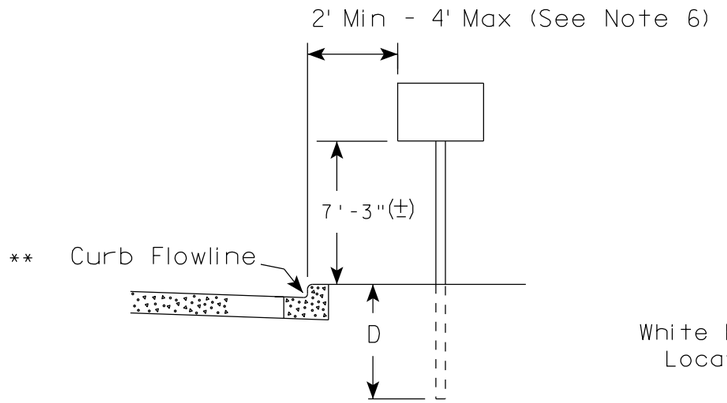
PROJECT NO:

SHEET NO: E

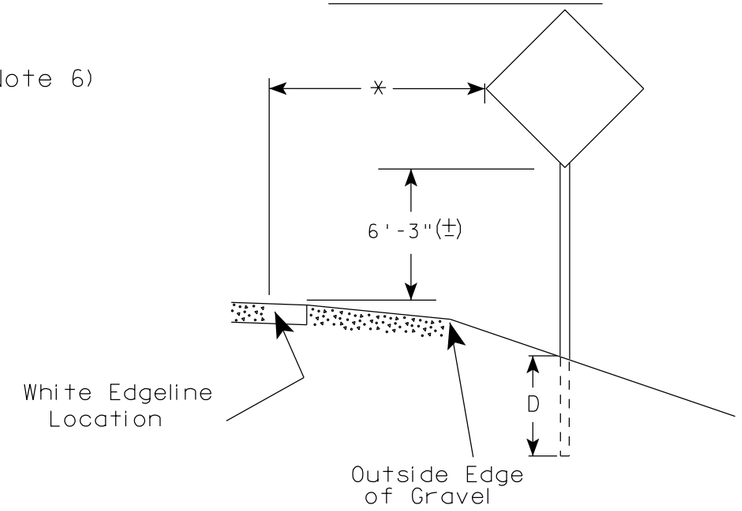
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

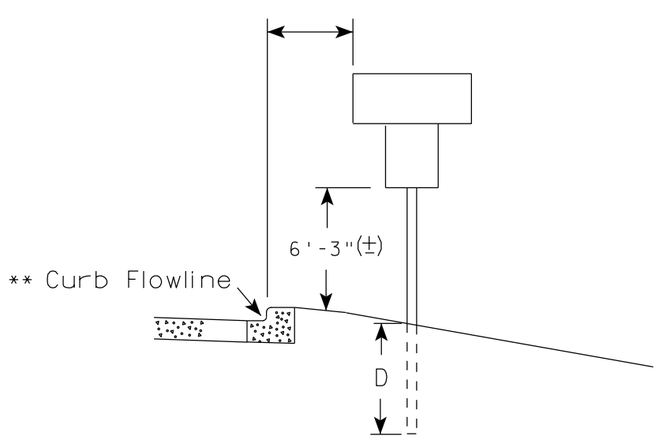
WISDOT/CADDS SHEET 42

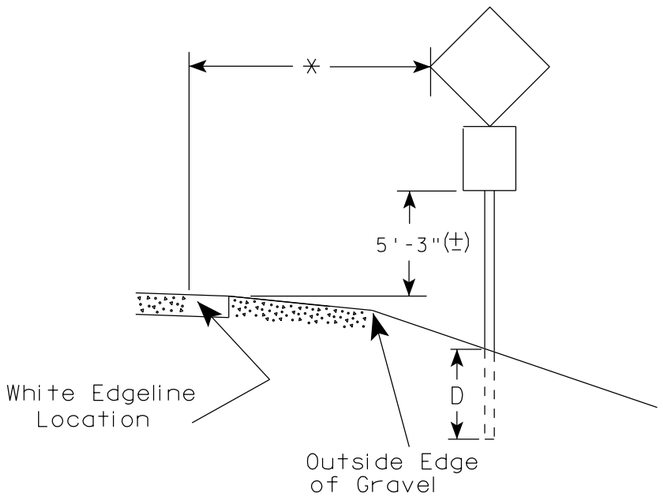
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

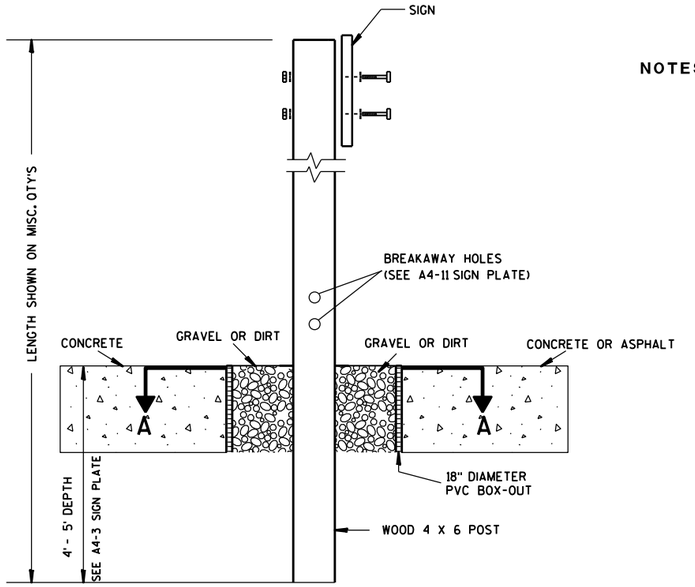
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

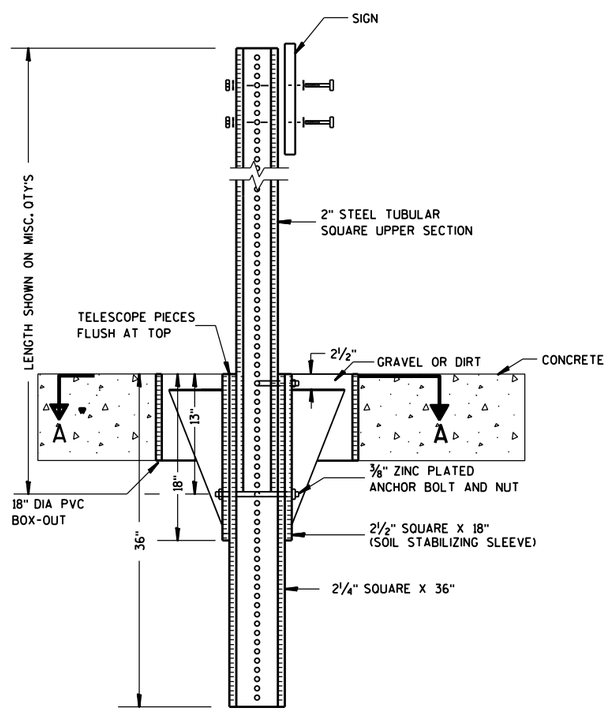
7



ELEVATION VIEW

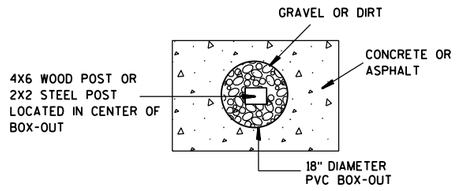
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

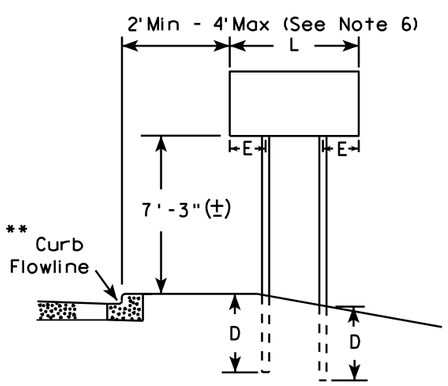
APPROVED Matthew R Rauch
for State Traffic Engineer

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

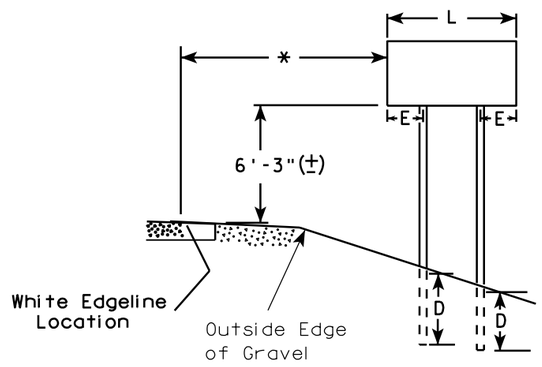
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

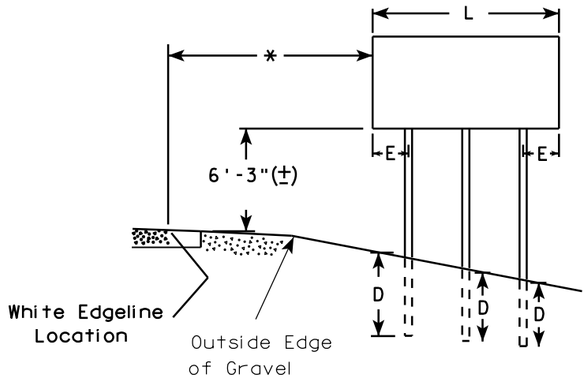
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

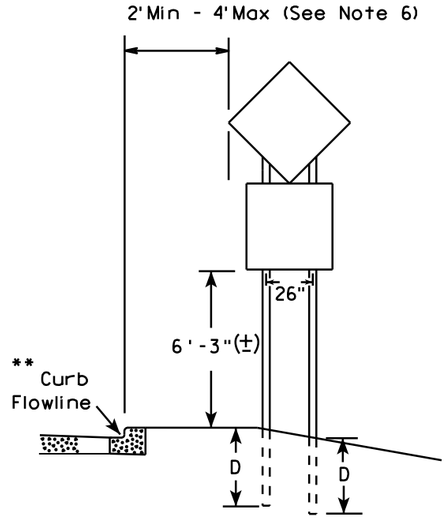
URBAN AREA



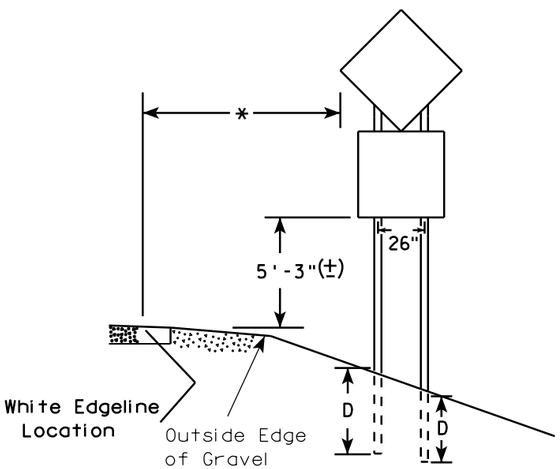
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and 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'

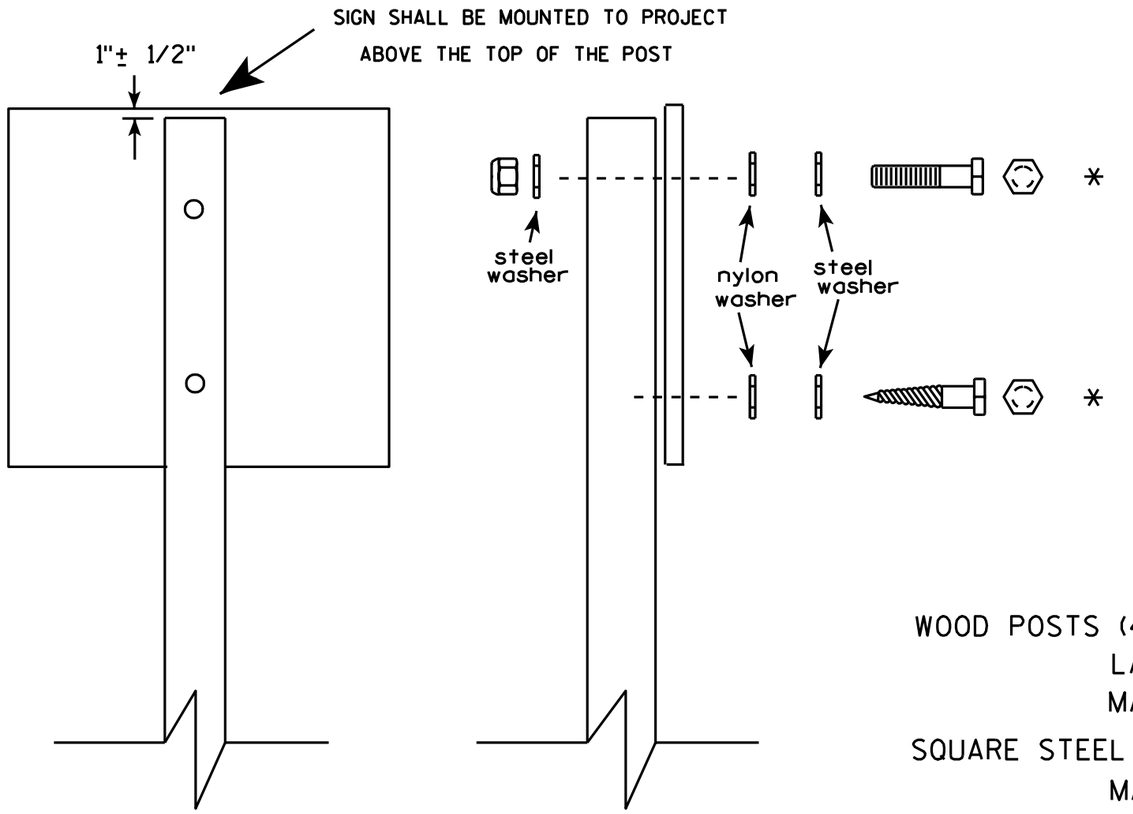
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 87 14

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	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

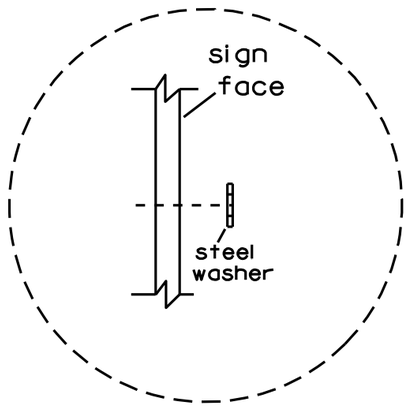
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

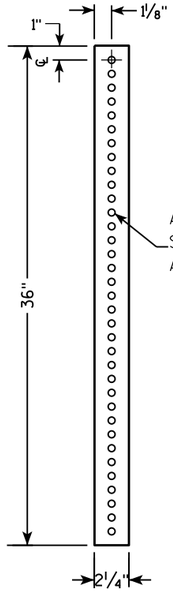
7

PROJECT NO:

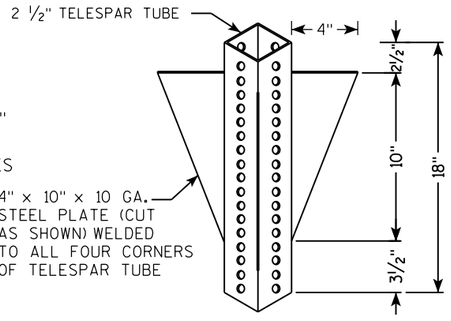
SHEET NO: 88 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

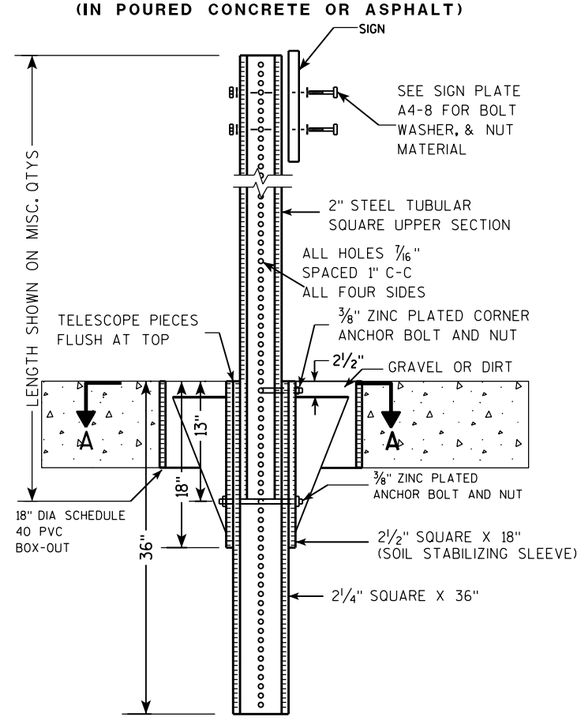
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



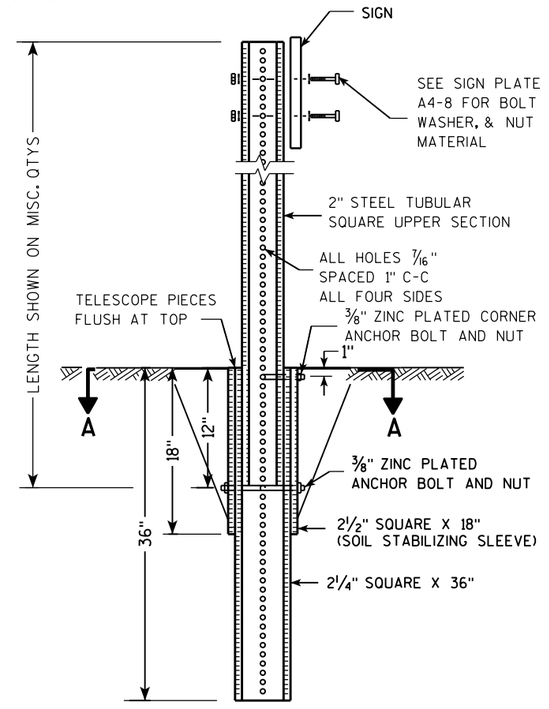
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

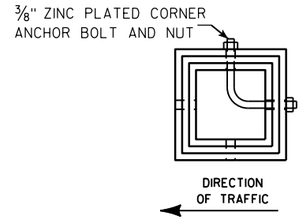


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

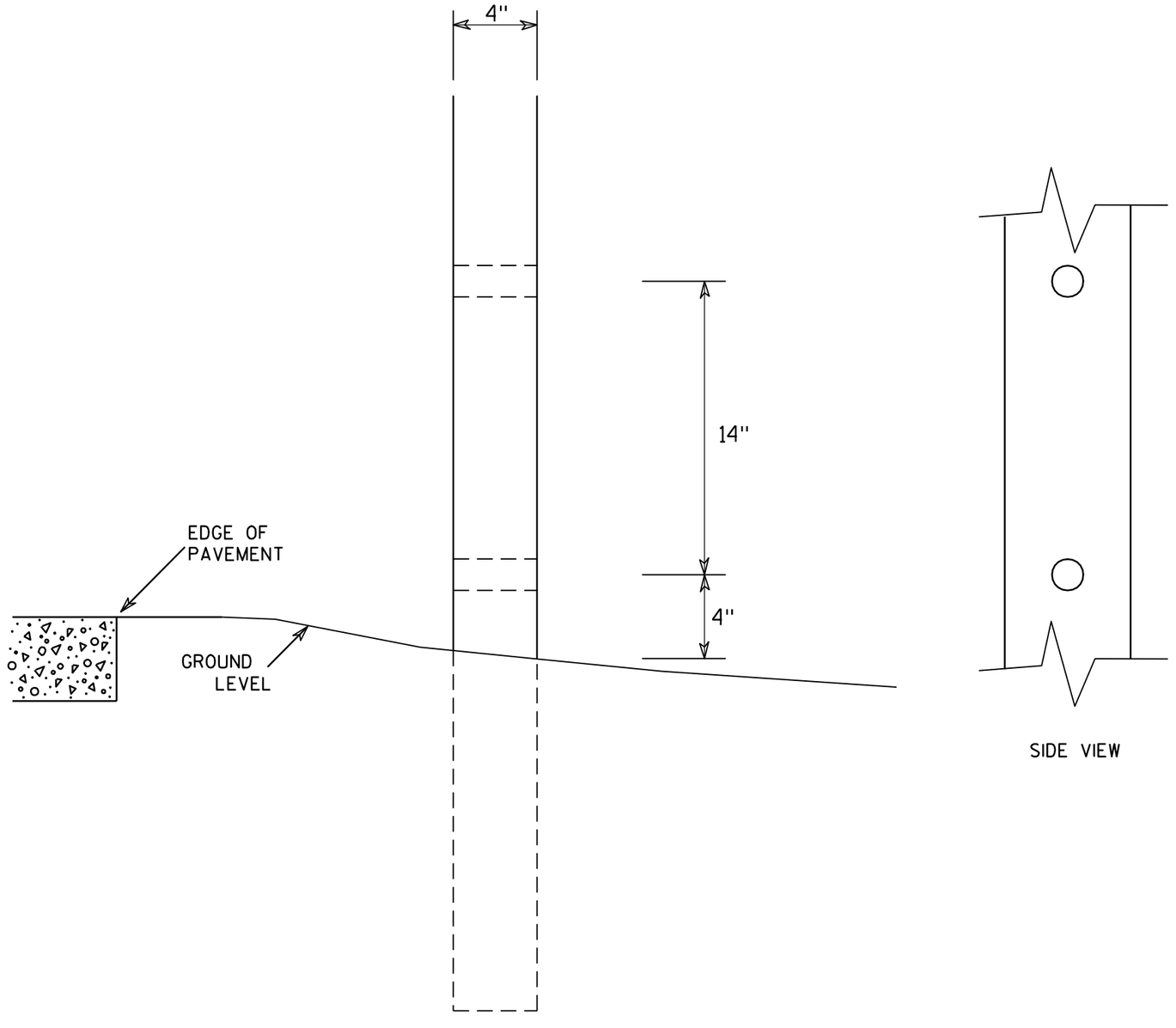
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 89 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

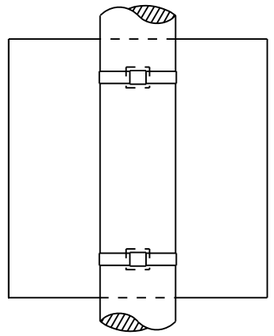
APPROVED Chester J Spang for State Traffic Engineer

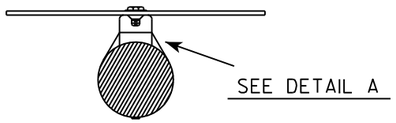
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 90	E

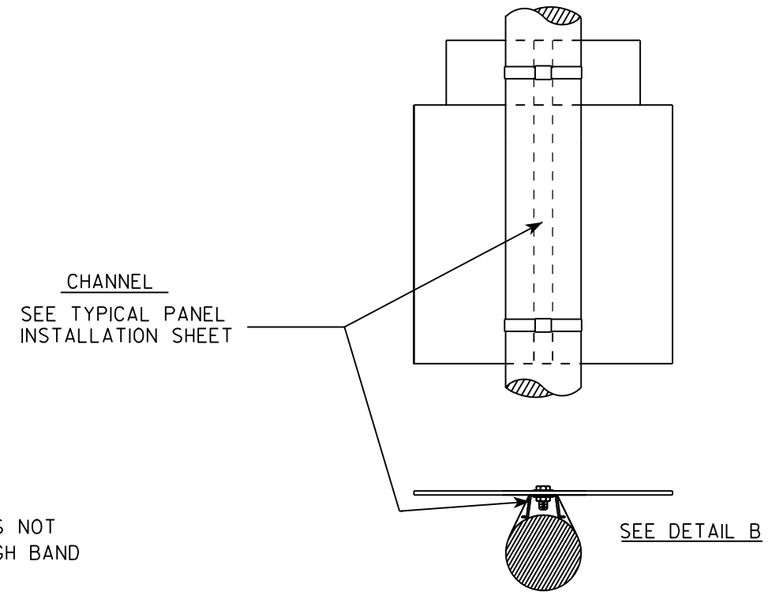
BANDING

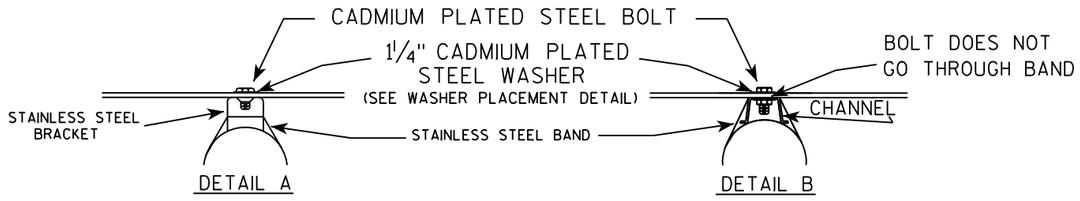
SINGLE SIGN



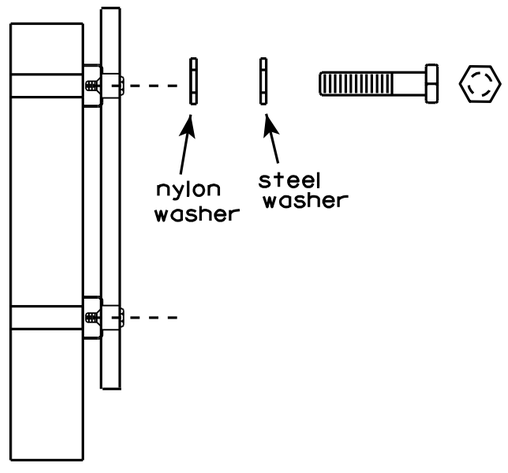


"J" ASSEMBLY





WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

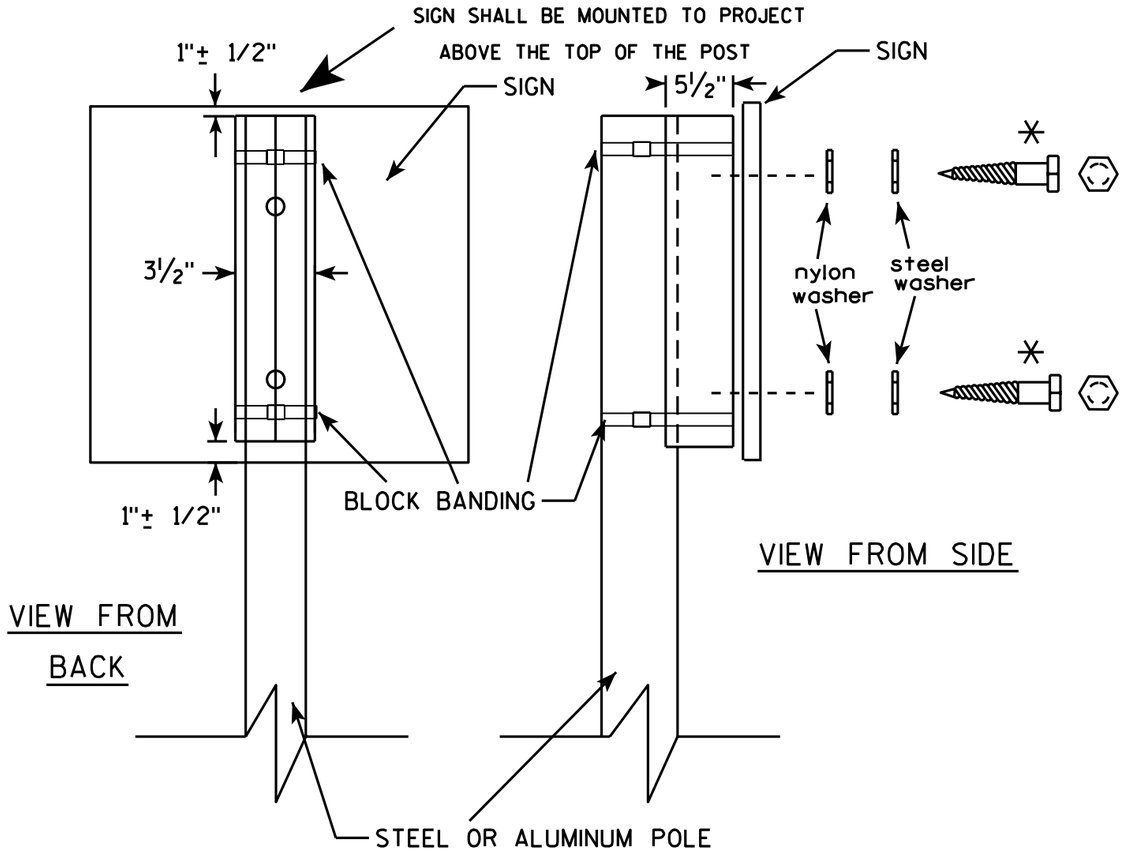
STANDARD SIGN
SIGN BANDING DETAILS

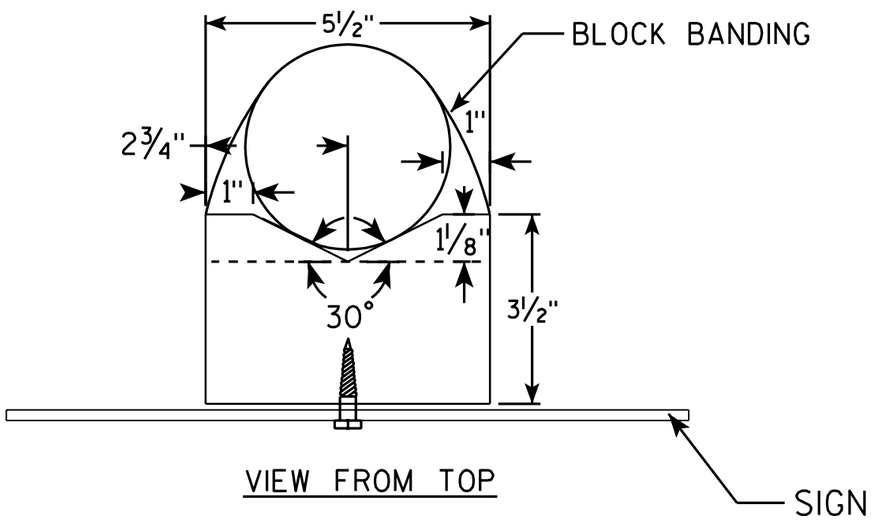
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 91	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 92 E

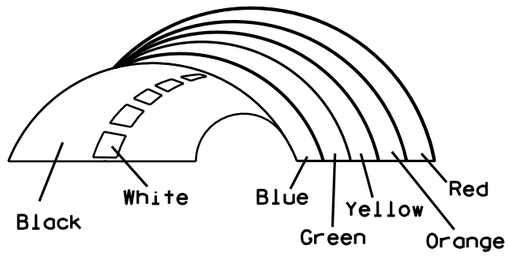
FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

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

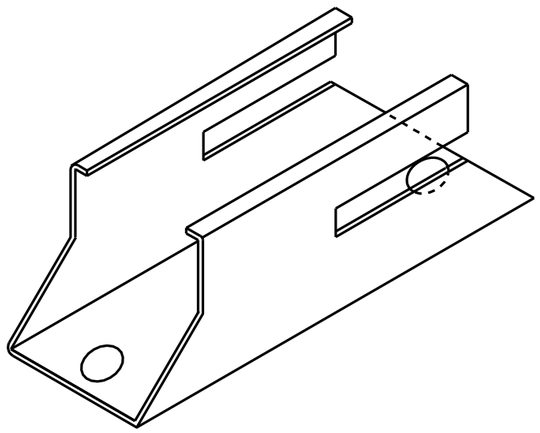
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 93

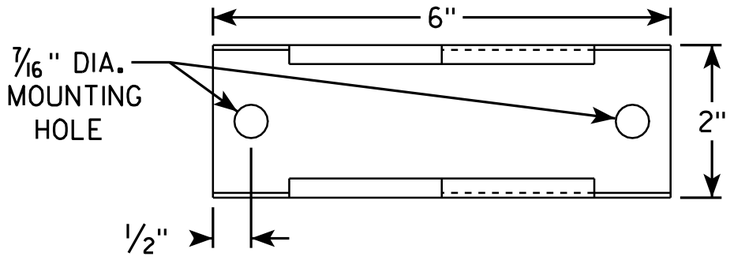
ISOMETRIC VIEW



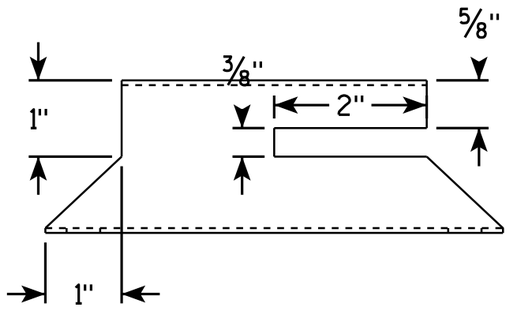
NOTES

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.

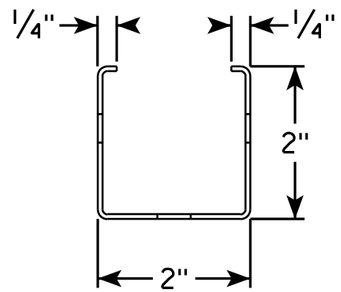
TOP VIEW



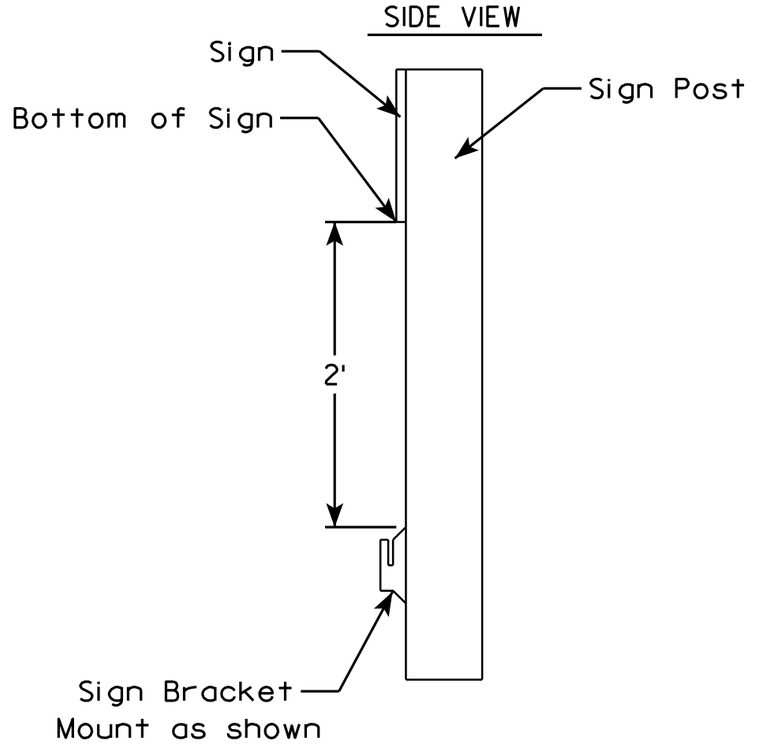
SIDE VIEW



END VIEW



SIDE VIEW



7

7

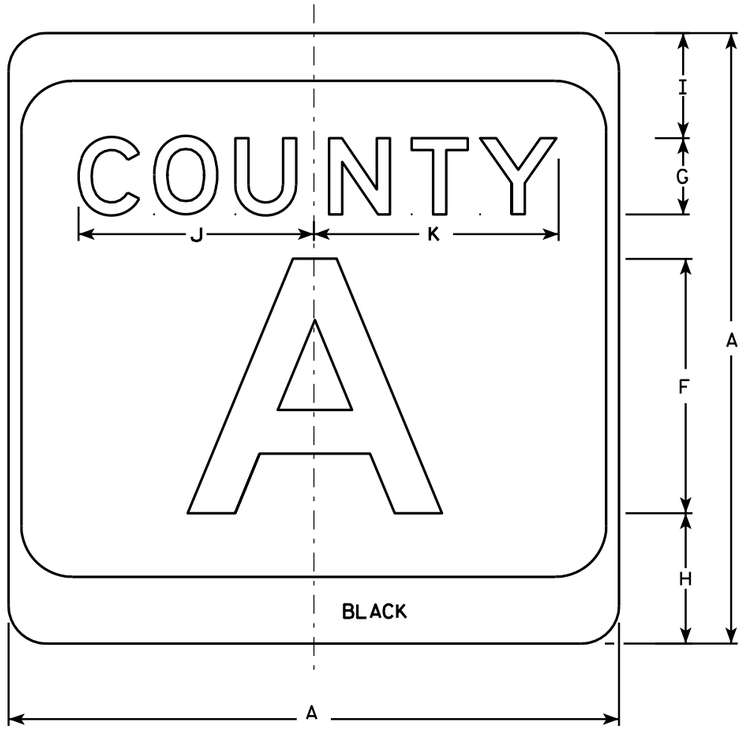
ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

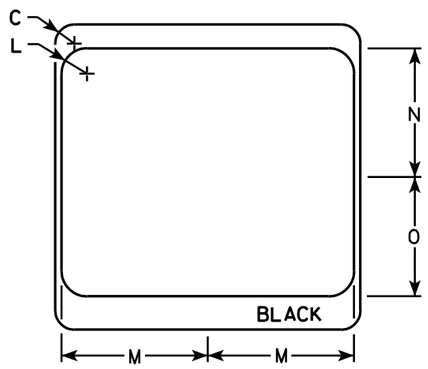
APPROVED Matthew R Rauch
for State Traffic Engineer

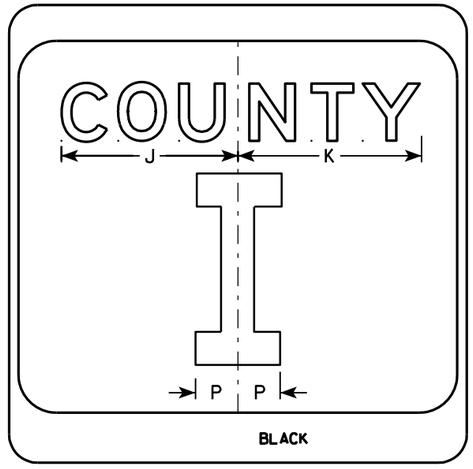
DATE 2/5/10 PLATE NO. I55-56B.1

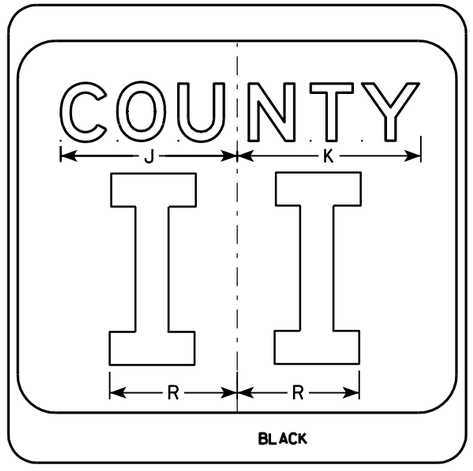
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 94	E



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

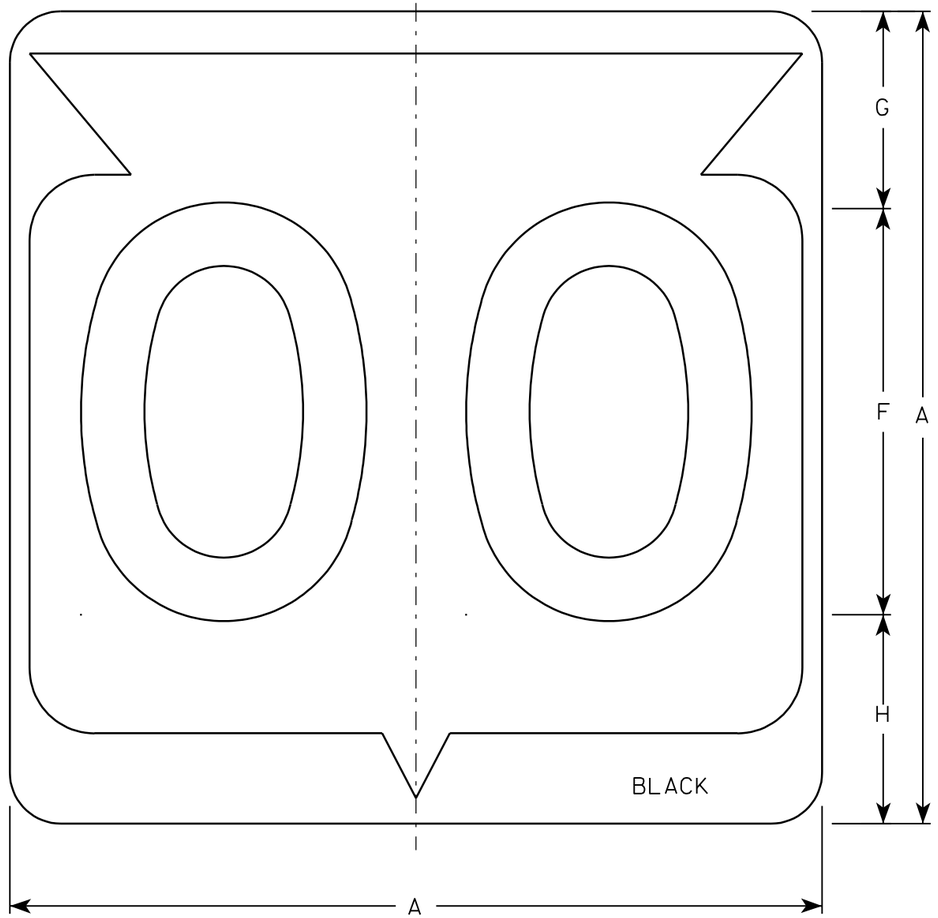
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

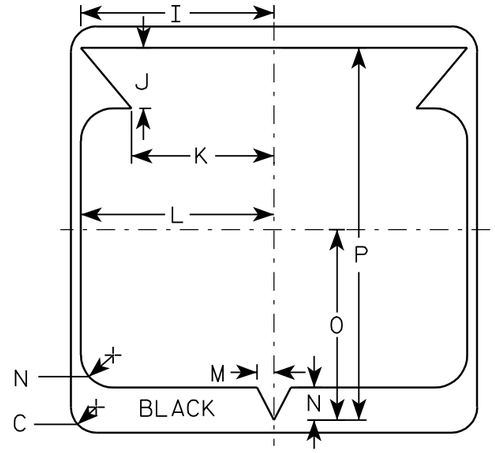
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 95	E



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

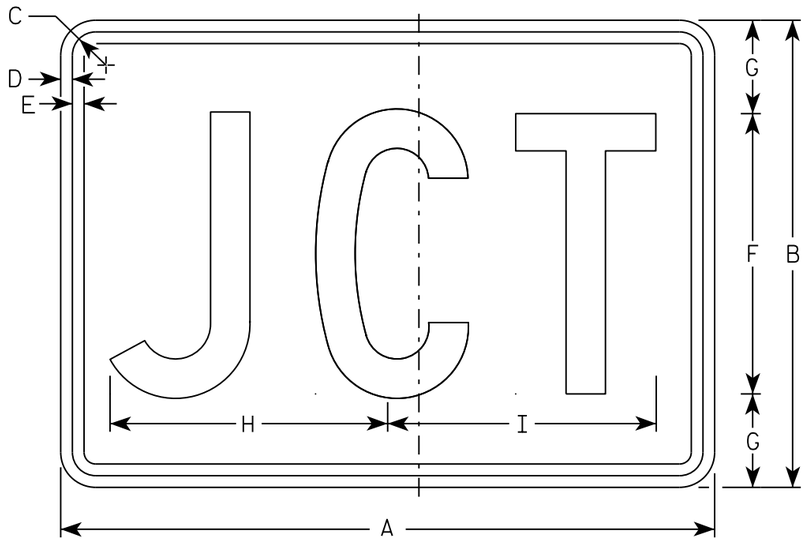
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

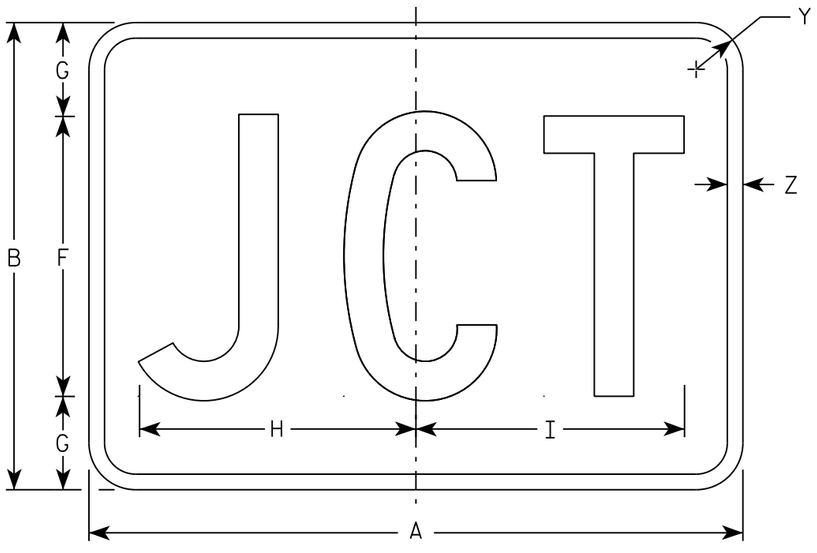
APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 96	E



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

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
   MP2-1 Background - White
   Message - Blue
   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

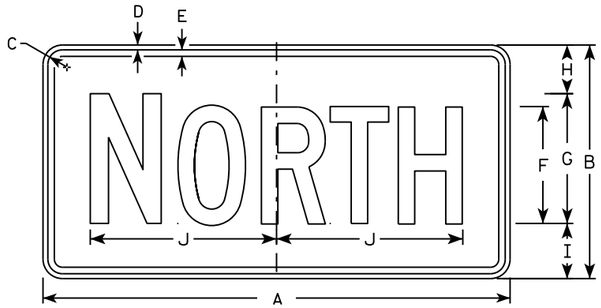
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

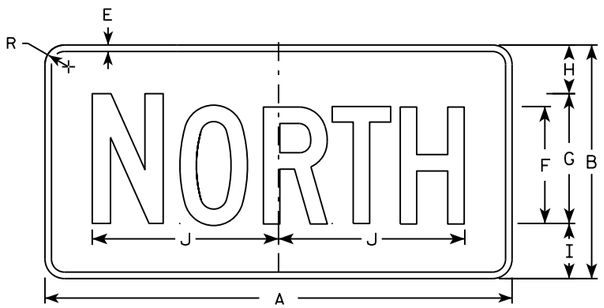
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 97 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



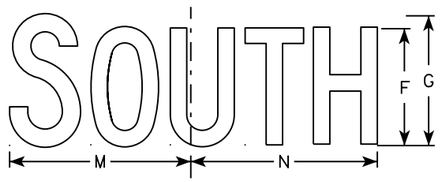
M3-1
MM3-1
MP3-1



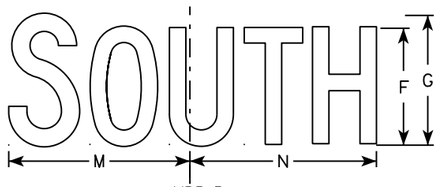
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

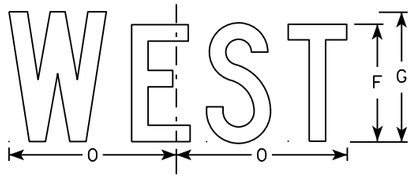
MB3-2
MK3-2
MN3-2



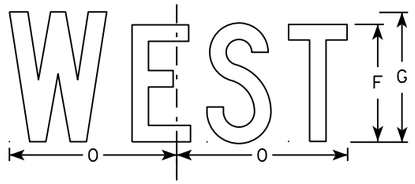
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

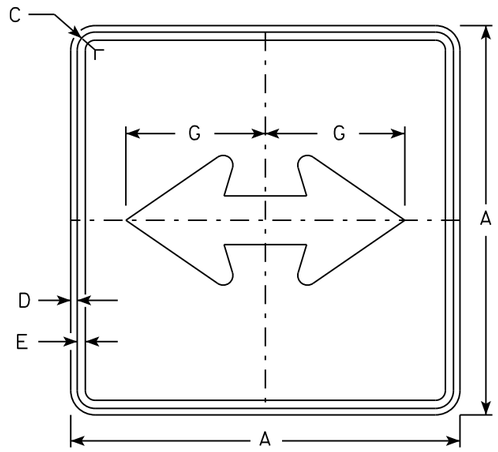
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

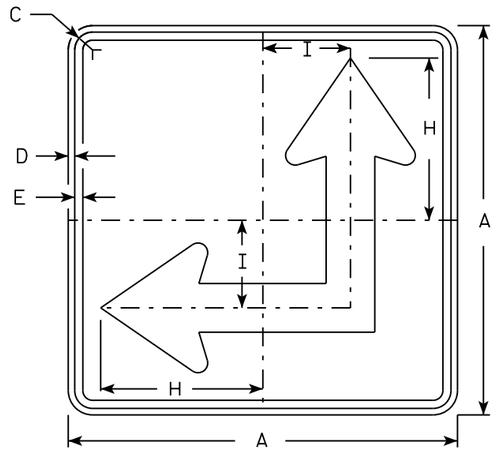
DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



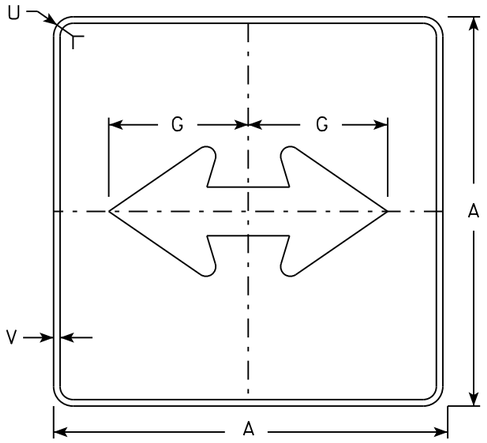
M6-4
MM6-4
MO6-4
MP6-4



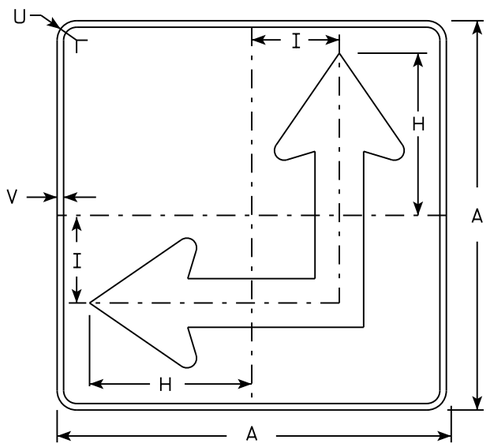
M6-6
MM6-6
MO6-6
MP6-6

NOTES

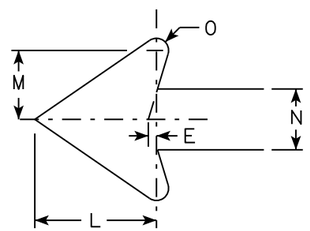
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

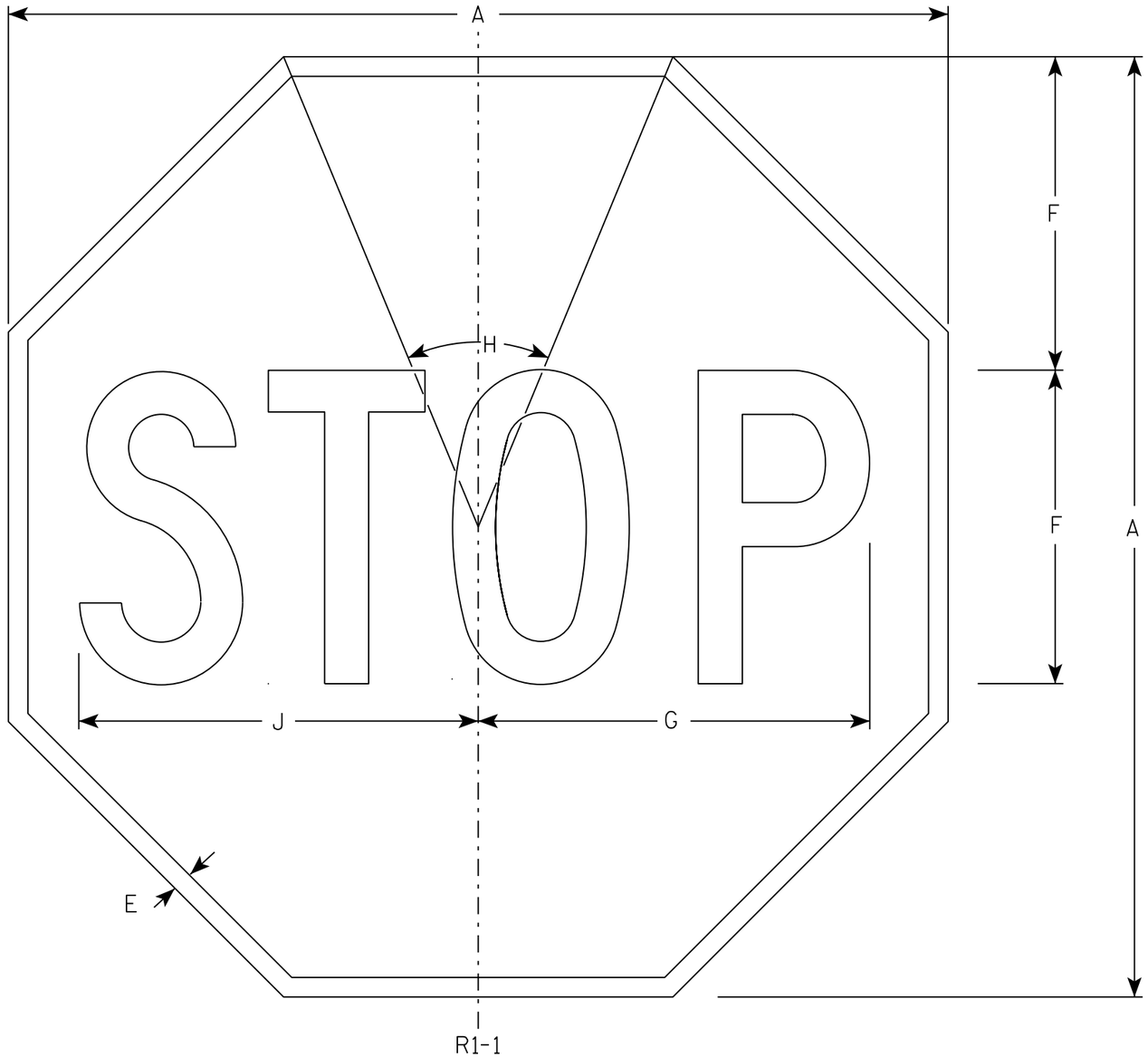
STANDARD SIGN
M6-4 & M6-6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATI 99 M6-4.10

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



R1-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

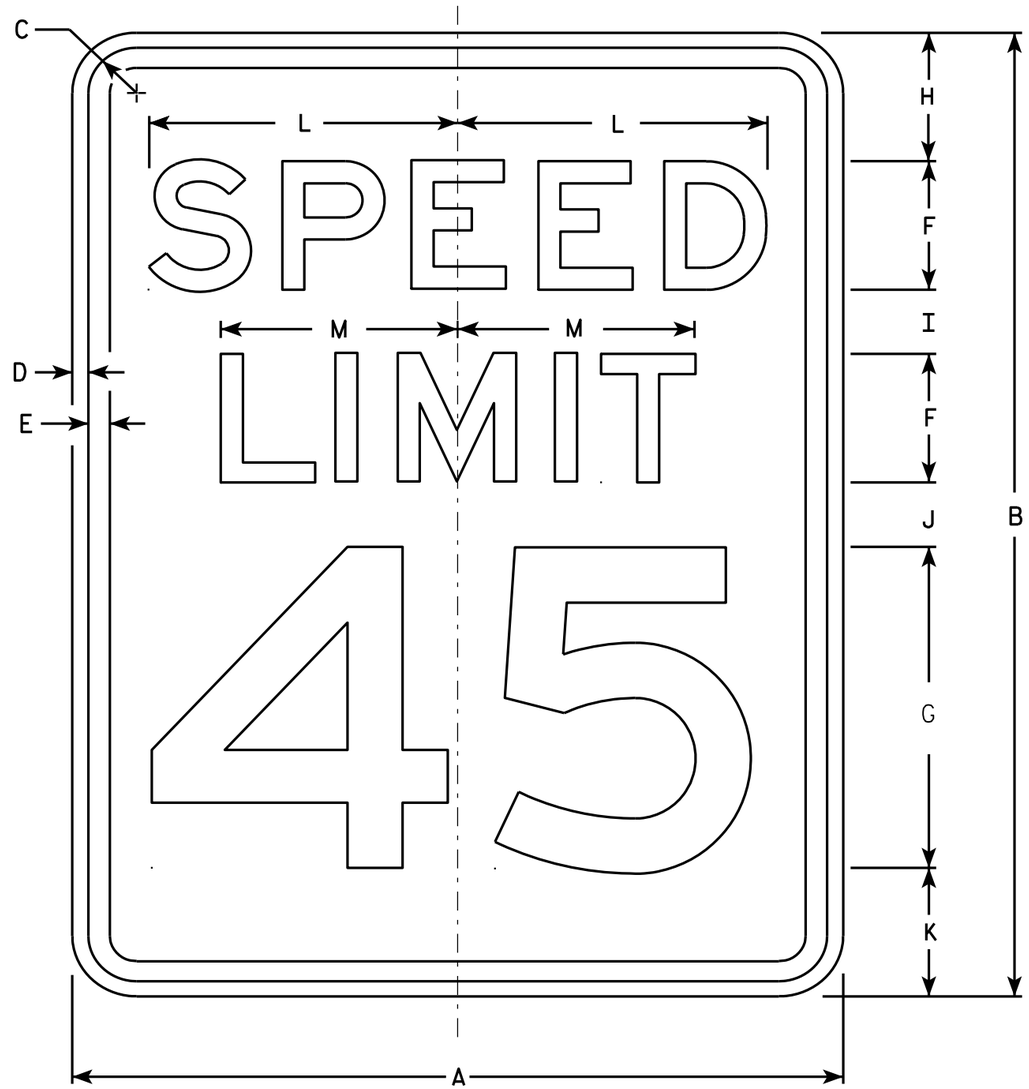
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE 100 R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R11.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.378143:1.000000



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

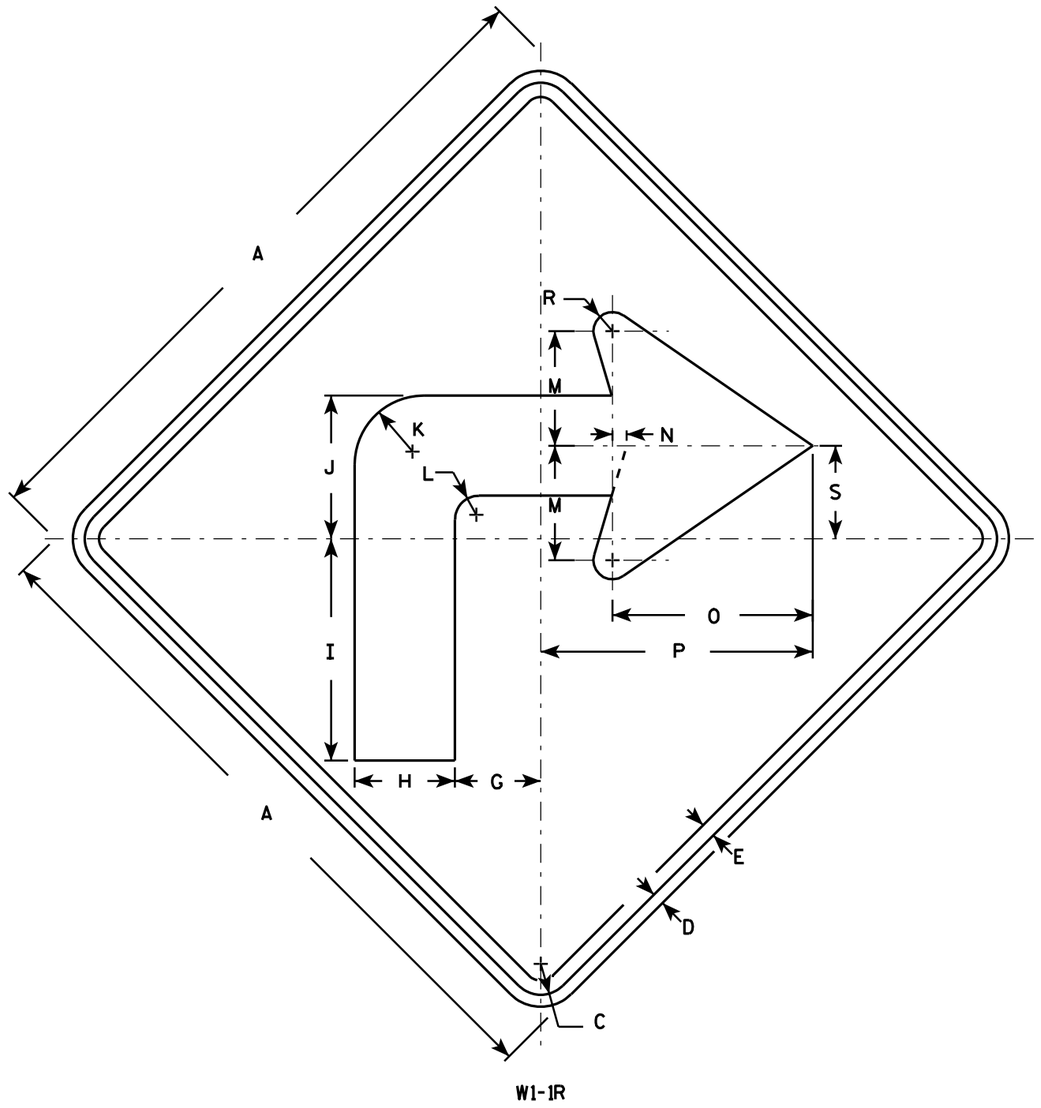
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 101	E



W1-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-1L is the same as W1-1R 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	24		1 1/8	3/8	1/2		3	3 1/2	7 3/4	5	2 1/2	7/8	4	1/2	7	9 1/2		5/8	3 1/4								4.0
2S	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
2M	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
3	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
4	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
5	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0

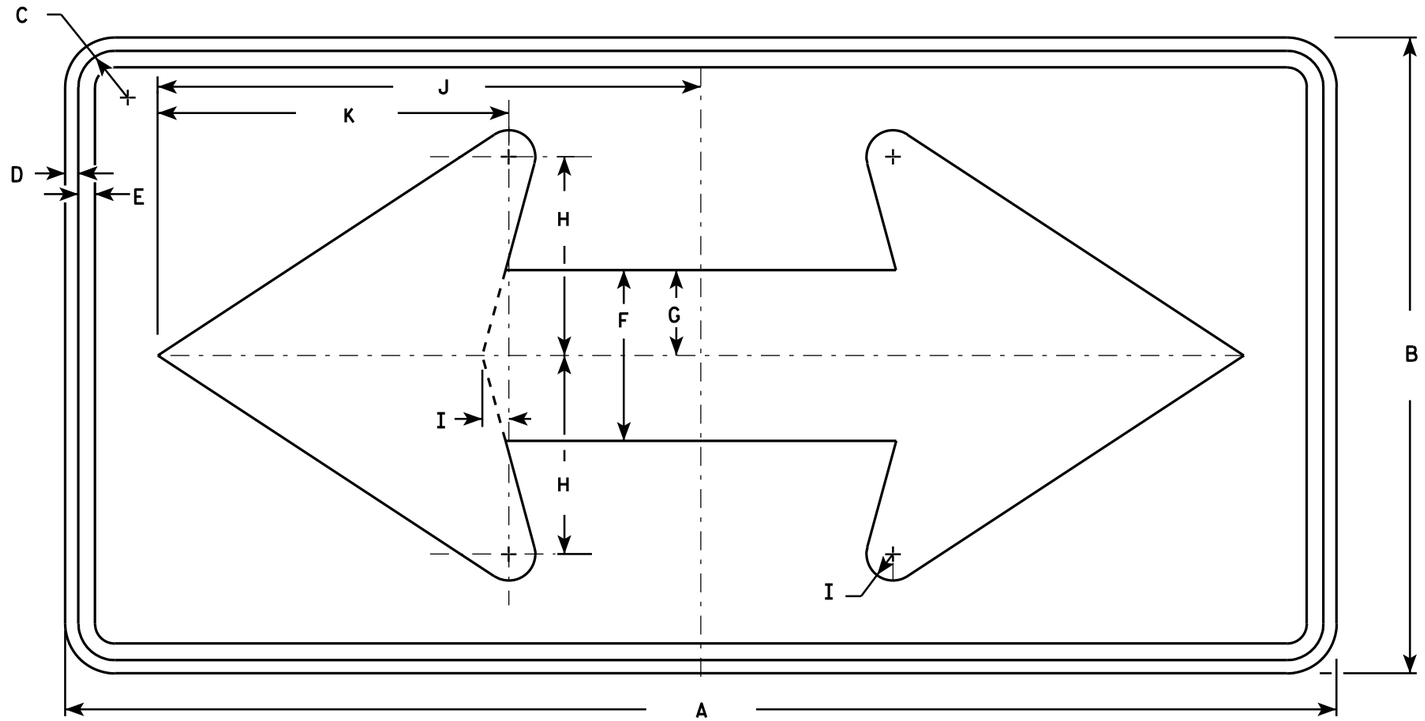
STANDARD SIGN
W1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-1.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 102 | E



W1-7

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

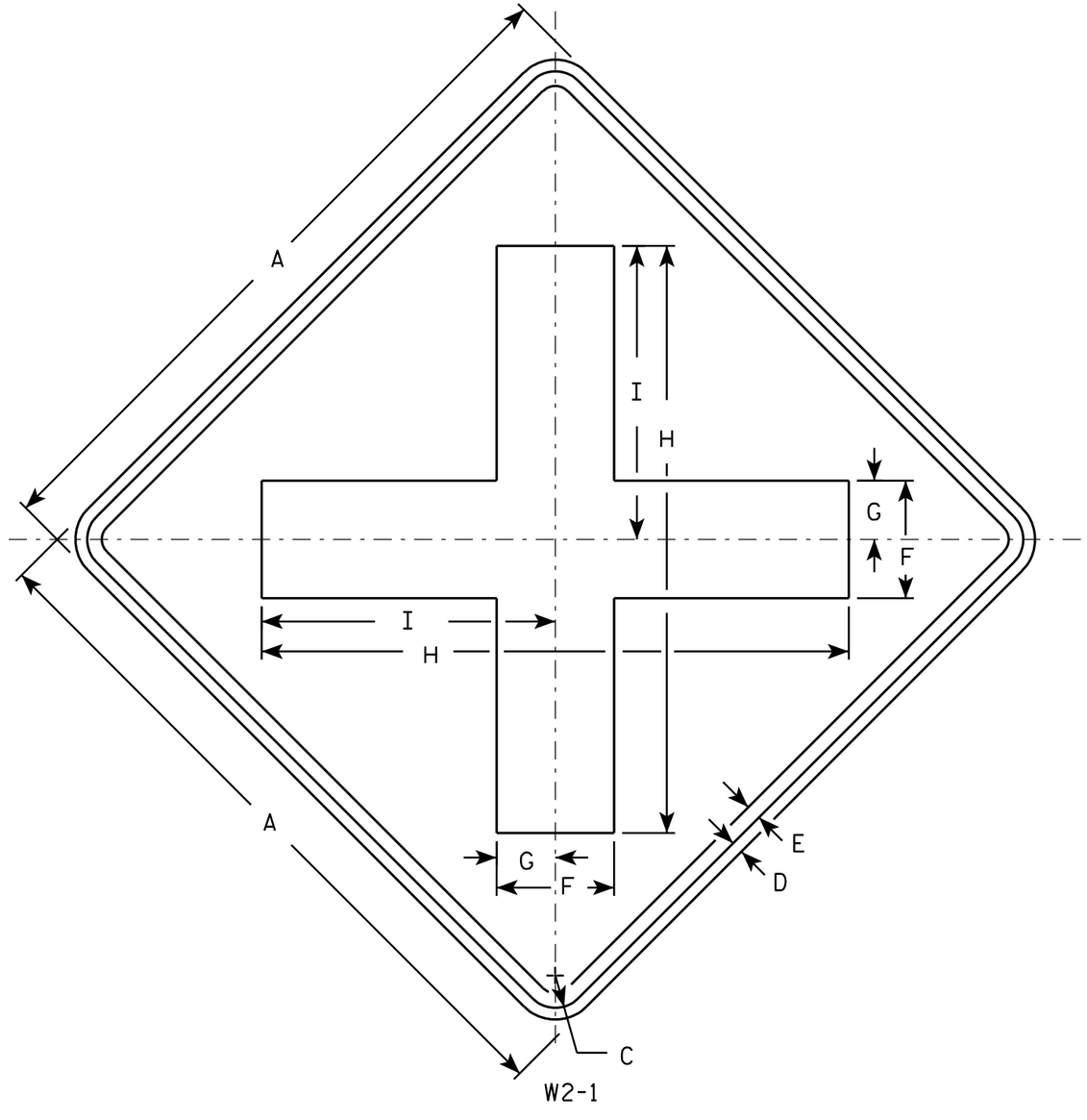
STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 103 | E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4	2	20	10																		4.0
2S	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3	30	15																		9.0
4	48		2 1/4	3/4	1	8	4	40	20																		16.0
5																											

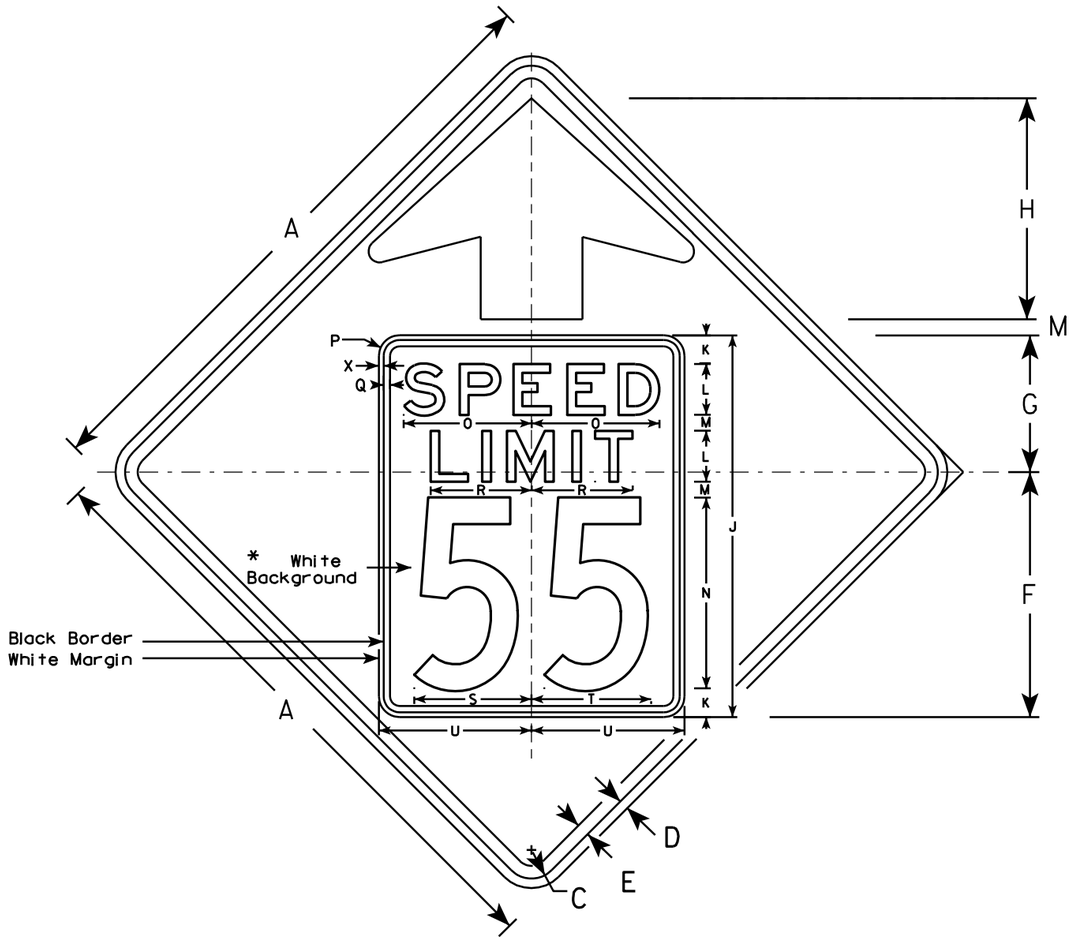
STANDARD SIGN
W2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-1.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 104	E

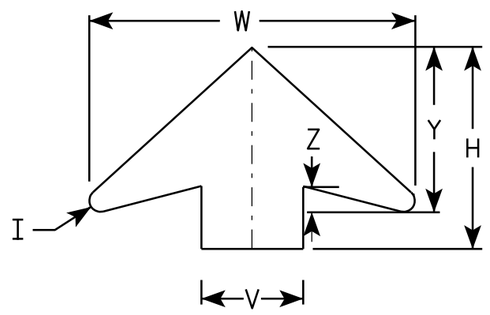


W3-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - YELLOW*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
3	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W3-5

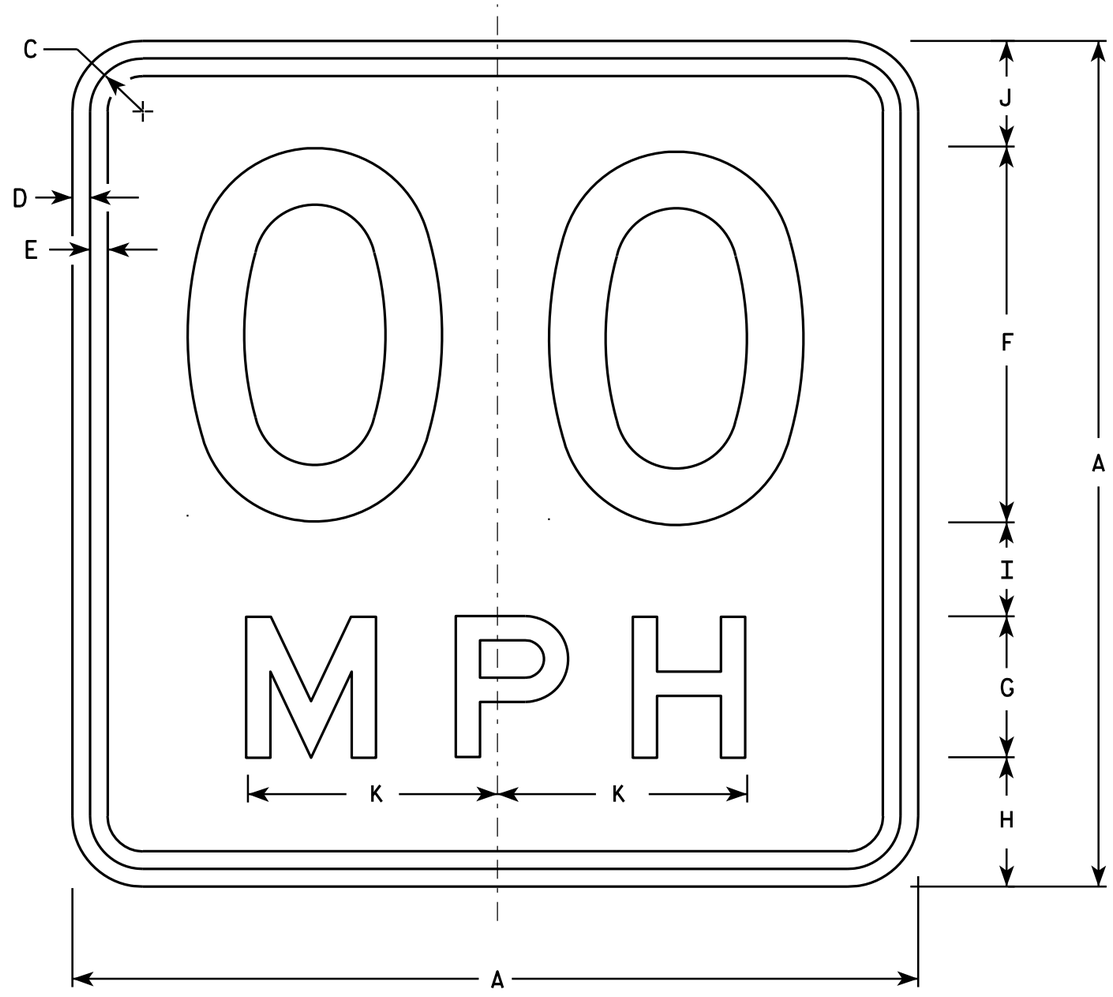
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 105 E



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
	1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

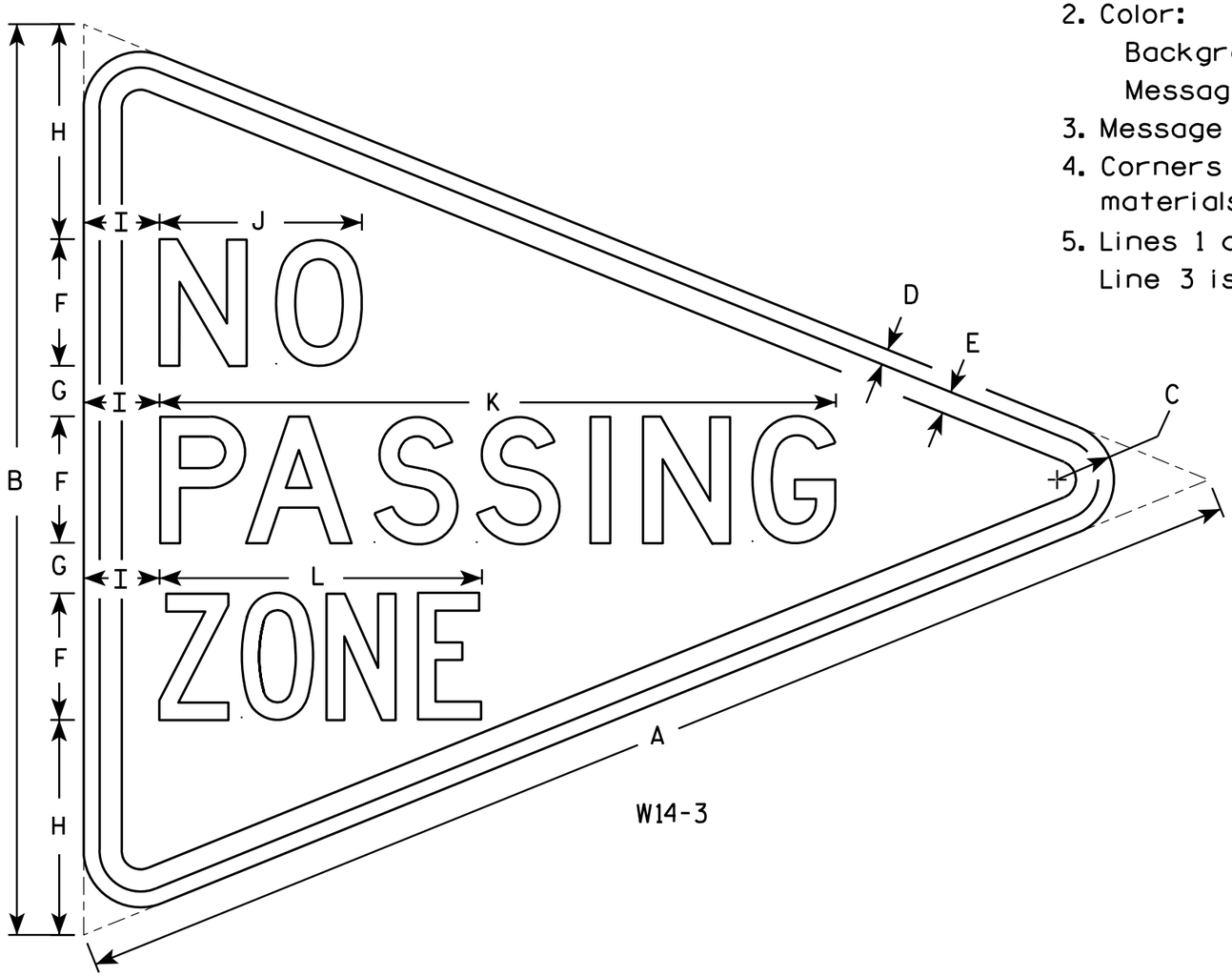
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 106 | E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See note 5
4. Corners and borders shall be rounded on all base materials for this sign.
5. Lines 1 and 2 are Series D.
   Line 3 is series C.



W14-3

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

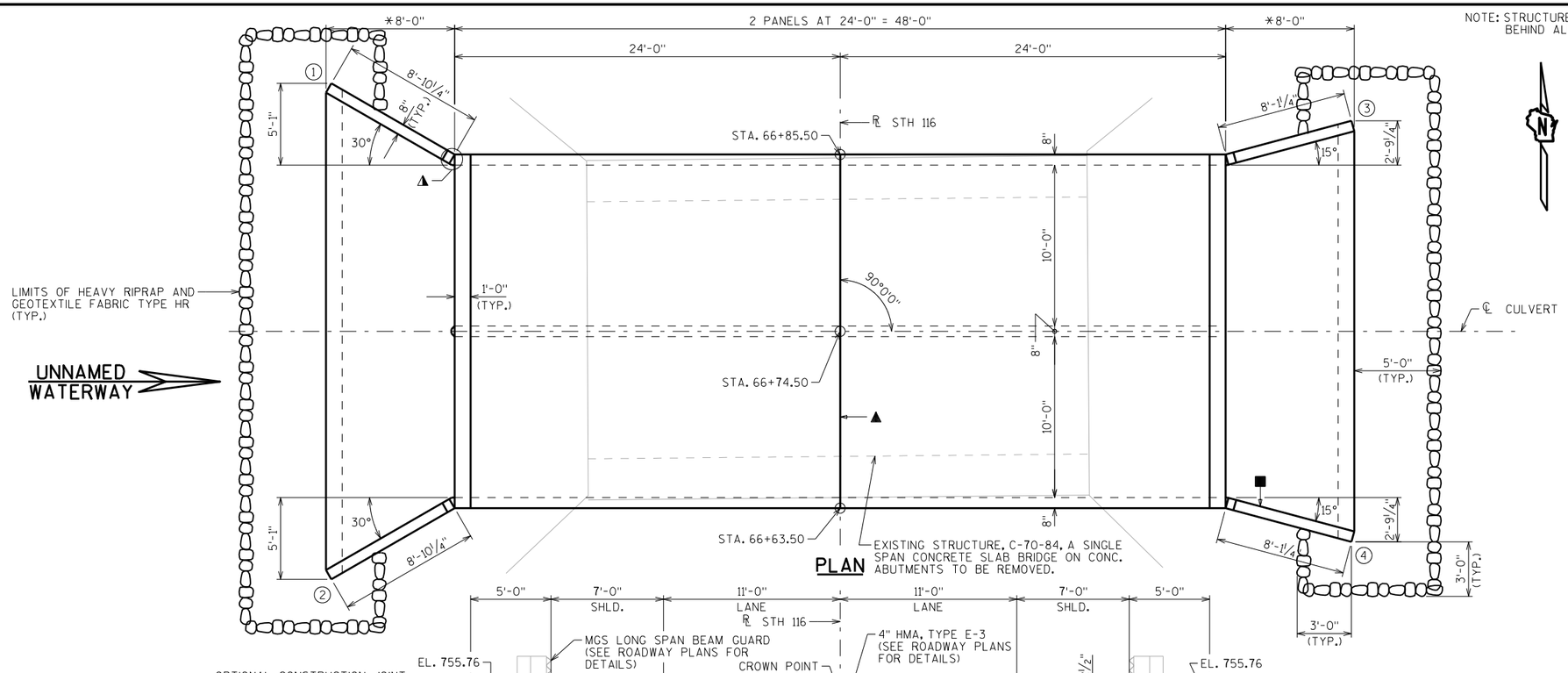
DATE 6/7/10 PLATE NO. W14-3.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 107	E

STATE PROJECT NUMBER
6190-16-71

- ◭ SEE CORNER DETAILS (SHEET 4)
- ■ NAME PLATE LOCATION (SEE SHT 4)
- ✳ BUILD APRON AND END OF BOX LEVEL
- ▲ VERT. CONST. JOINT (TYP.)
- ◯— INDICATES WING NUMBER

NOTE: STRUCTURE BACKFILL REQUIRED BEHIND ALL WING WALLS.



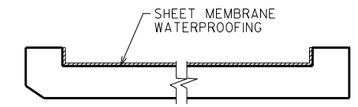
INLET

PLAN

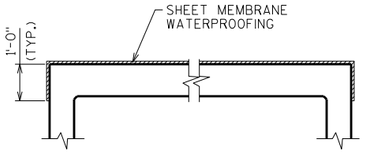
ELEVATION

OUTLET

IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY PROVIDE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING



ELEVATION THRU STRUCTURE
SHOWING SHEET MEMBRANE WATERPROOFING LIMITS



CROSS-SECTION THRU STRUCTURE
SHOWING SHEET MEMBRANE WATERPROOFING LIMITS

LIST OF DRAWINGS

1. LAYOUT
2. BOX DETAILS
3. APRON DETAILS
4. DETAILS
5. SUBSURFACE EXPLORATION

DESIGN DATA

LIVE LOAD:

DESIGN LOADING; HL-93
INVENTORY RATING FACTOR: RF=1.05
OPERATING RATING FACTOR: RF=1.35
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 255 (KIPS)

EARTHLOAD: DESIGNED FOR 0.33 FT. OF FILL.

ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY, GRADE A-FA ——— f'_c = 3500 P.S.I.
HIGH STRENGTH BAR STEEL REINFORCEMENT — f_y = 60000 P.S.I.

TRAFFIC VOLUME

STH 116
A.D.T. = 2,700 (2034)
R.D.S. = 60 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100} =620 C.F.S.
$Q_{CULVERT}$ =387 C.F.S.
$Q_{ROADWAY}$ =233 C.F.S.
VEL. = 7.4 F.P.S.
HW.= EL. 756.86
WATERWAY AREA= 80 SQ. FT.
DRAINAGE AREA= 1.64 SQ. MI.
SCOUR CRITICAL CODE = 8

ROAD OVERTOPPING FREQUENCY
FREQUENCY = 22 YEARS
Q_{22}= 420 C.F.S.
HW_{22}= 756.37

2 YEAR FREQUENCY
Q_2 =130 C.F.S.
HW_2= EL. 754.05

TOTAL ESTIMATED QUANTITIES

BID ITEMS

203.0200	REMOVING OLD STRUCTURE STA. 66+74.50	1	LS
206.2000	EXCAVATION FOR STRUCTURES CULVERTS B-70-292	1	LS
210.0100	BACKFILL STRUCTURE	235	CY
311.0115	BREAKER RUN	70	CY
504.0100	CONCRETE MASONRY CULVERTS	131	CY
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	6620	LB
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	7890	LB
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	15	SY
516.0610.S	SHEET MEMBRANE WATERPROOFING FOR TOP SLAB B-70-292	125	SY
606.0300	RIPRAP HEAVY	30	CY
645.0105	GEOTEXTILE FABRIC TYPE C	225	SY
645.0120	GEOTEXTILE FABRIC TYPE HR	65	SY

NON-BID ITEMS

FILLER	3/4"	SIZE

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES SHALL BE THE EXISTING GROUNDLINE.

ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL AS SHOWN ON SHT. 4, WITHIN THE LENGTH OF THE CULVERT.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

PLACE A 18" (MIN.) WIDE SHEET OF 'RUBBERIZED MEMBRANE WATERPROOFING' ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS ON CHAPTER 36 STANDARDS OF THE CURRENT WISC. DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER, IN LIEU OF THE BREAKER RUN, TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL.

PLACE SHEET MEMBRANE WATERPROOFING ON ENTIRE TOP SLAB BETWEEN HEADERS AND EXTEND 1'-0" DOWN ON OUTSIDE WALLS.

STRUCTURE DESIGN CONTACTS:
NICK RICE (608) 266-5092
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES
ACCEPTED William C. Dreher 12/22/15
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-70-292

STH 116 OVER UNNAMED WATERWAY

COUNTY	TOWN/~~CITY/VILLAGE~~
WINNEBAGO	OMRO

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	NAR	DESIGN CK'D.	DFD	DRAWN BY	NAR	PLANS CK'D.	DFD

LAYOUT

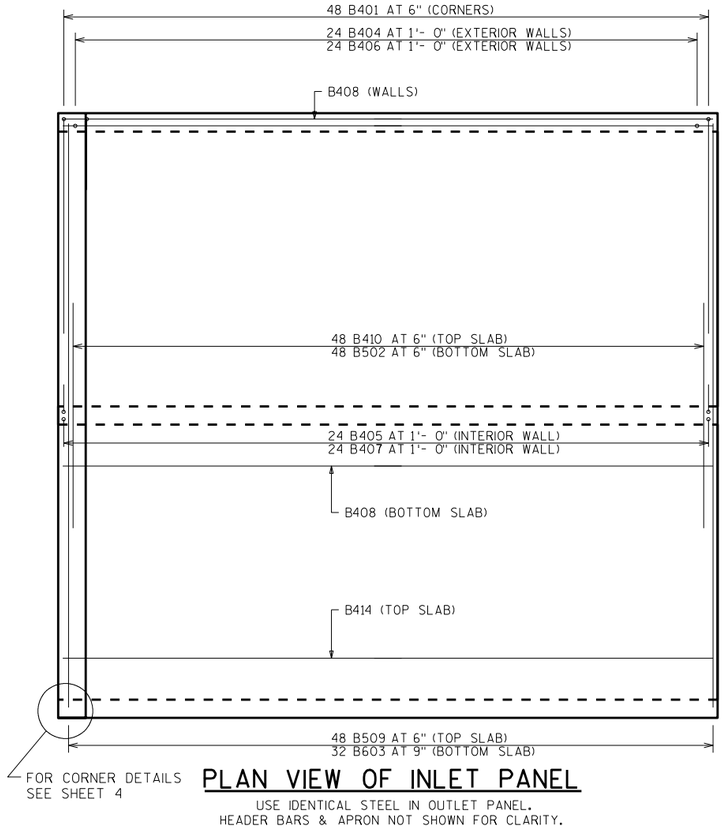
SHEET 1 OF 5

108

I.D. 6190-16-00

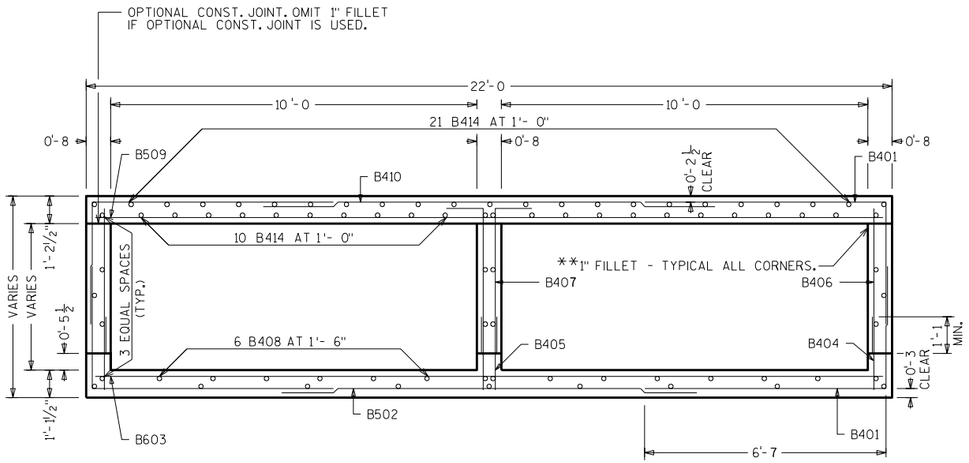
DATE: APR. 2014

SCALE = 4



PLAN VIEW OF INLET PANEL

USE IDENTICAL STEEL IN OUTLET PANEL.
HEADER BARS & APRON NOT SHOWN FOR CLARITY.



TYPICAL SECTION THRU BOX

ALL LONGITUDINAL BARS NOT IDENTIFIED IN THE BOTTOM SLAB AND WALLS ARE B408 BARS AS SHOWN
ALL LONGITUDINAL BARS NOT INDENTIFIED IN THE TOP SLAB ARE B414 BARS AS SHOWN

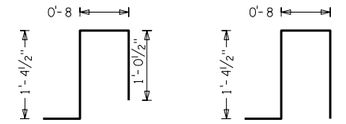
STATE PROJECT NUMBER

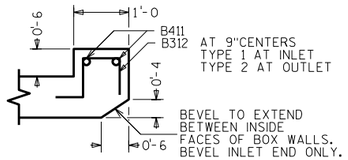
6190-16-71

BILL OF BARS

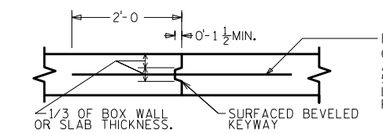
THE FIRST OR FIRST AND SECOND DIGIT OF THE MARK SIGNIFIES THE BAR SIZE. THE DIMENSION IN THE BENT COLUMN IS THE OUT TO OUT HORIZONTAL LEG OF A "L" SHAPED BAR. LONGER BARS OF THE SAME SIZE MAY BE SUBSTITUTED FOR SHORTER BARS. PAYMENT BASED ON BAR LENGTHS AS DETAILED.

MARK	COAT	NUMBER REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B401	X	384	10-6	6-7	NO	CORNERS
B502		96	11-4	NO	NO	BOTTOM SLAB TRANS.
B603		64	21-8	NO	NO	BOTTOM SLAB TRANS.
B404		96	2-5	NO	NO	WALLS-DOWELS VERT.
B405		96	2-5	NO	NO	WALLS-DOWELS VERT.
B406		96	4-5	NO	NO	WALLS VERT.
B407		96	5-4	1-0	NO	WALLS VERT.
B408		70	23-8	NO	NO	BOTTOM SLAB & WALLS
B509	X	96	21-8	NO	NO	TOP SLAB TRANS.
B410	X	96	13-2	NO	NO	TOP SLAB TRANS.
B411	X	4	21-8	NO	NO	HEADERS HORIZ.
B312	X	60	3-7	YES	NO	HEADER STIRRUPS VERT.
B513		59	4-0	NO	NO	VERT.CONST.JOINT
B414	X	94	23-8	NO	NO	TOP SLAB





SECTION THRU TOP HEADER



B513 AT 12"
CONTRACTOR MAY UTILIZE MASONRY ANCHORS TYPE S (EPOXY ANCHORED) 5/8-INCH. EMBED 6" IN CONCRETE. INCIDENTAL TO "BAR STEEL REINFORCEMENT HS STRUCTURES".

VERTICAL CONSTRUCTION JOINT

2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONST. JT. IN BOTTOM SLAB.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-292

DRAWN BY NAR | PLANS CK'D. DFD

BOX DETAILS

SHEET 2

109

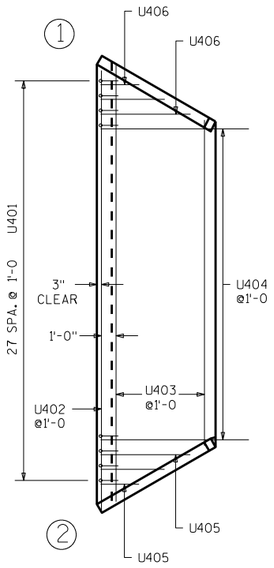
SCALE = 4

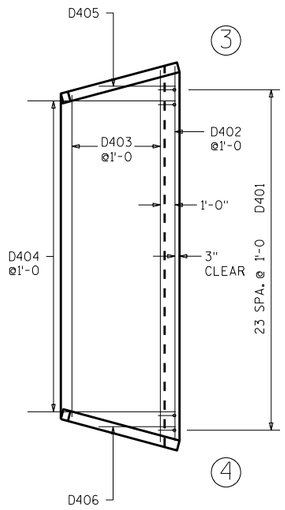
8

8

STATE PROJECT NUMBER

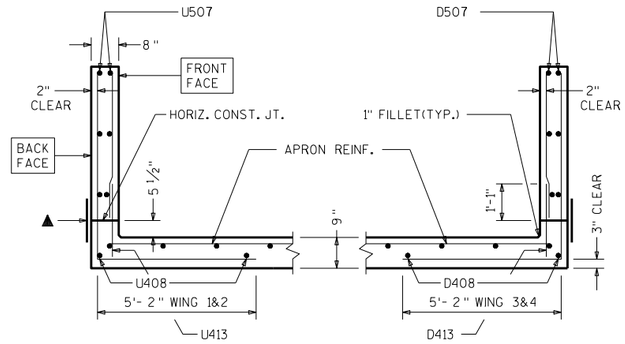
6190-16-71





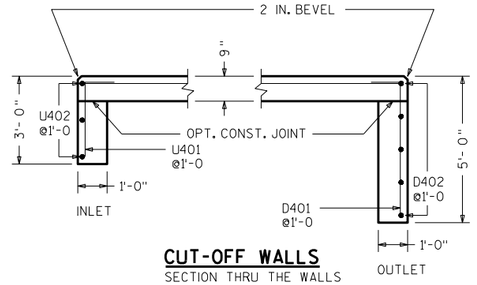
APRON REINF.

▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING. PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE WING LENGTH (TYP.).



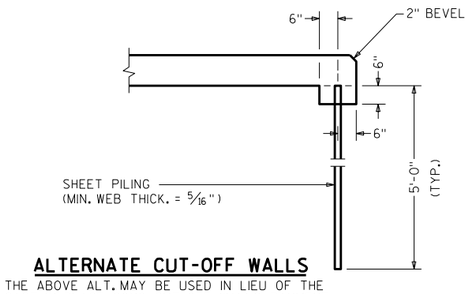
SECTION THRU WINGS

AT RIGHT ANGLES TO WING WALLS



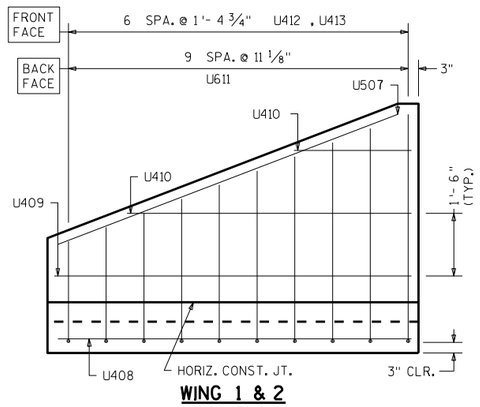
CUT-OFF WALLS

SECTION THRU THE WALLS

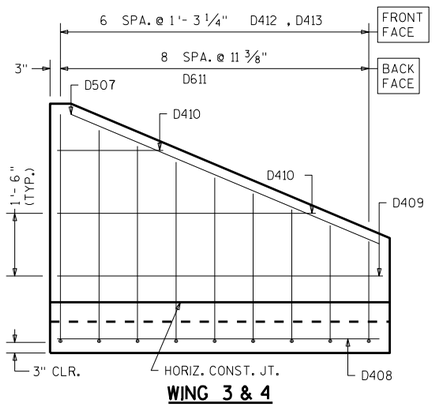


ALTERNATE CUT-OFF WALLS

THE ABOVE ALT. MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONC. CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONC. CUT-OFF WALLS.



WING 1 & 2



WING 3 & 4

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-292

DRAWN BY NAR | PLANS CK'D. DFD

APRON DETAILS

SHEET 3

110

SCALE =

STATE PROJECT NUMBER

6190-16-71

BILL OF BARS

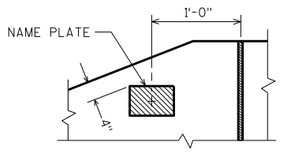
THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.
THE DIMENSION IN THE BENT COLUMN IS THE OUT TO OUT HORIZONTAL LEG OF AN L - SHAPED BAR.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
U401		28	3 - 6	1 - 0		INLET APRON AND CUTOFF WALL
U402		3	29 - 10			INLET APRON AND CUTOFF WALL
U403		7	25 - 11		*	" APRON
U404		22	10 - 0			" APRON
U405		3	4 - 10		*	" APRON
U406		3	4 - 10		*	" APRON
U507		4	8 - 9			WINGS 1 AND 2 -HORIZONTAL -BOTH FACES
U408		4	8 - 5			WING " -HORIZONTAL -APRON BOTT. SLAB
U409		4	8 - 5			WING " -HORIZONTAL - BOTH FACES
U410		8	4 - 9		*	WING " -HORIZONTAL - BOTH FACES
U611	X	20	9 - 0	5 - 2	*	WING " -VERTICAL - BACK FACE
U412		14	2 - 11		*	WING " -VERTICAL - FRONT FACE
U413	X	14	2 - 1			WINGS 1 AND 2 - DOWELS - FRONT FACE
D401		24	5 - 6	1 - 0		OUTLET APRON AND CUTOFF WALL
D402		5	25 - 5			OUTLET APRON AND CUTOFF WALL
D403		7	23 - 8		*	" APRON
D404		22	10 - 0			" APRON
D405		1	5 - 3			" APRON
D406		1	5 - 3			" APRON
D507		4	8 - 1			WINGS 3 AND 4 -HORIZONTAL -BOTH FACES
D408		4	7 - 8			WING " -HORIZONTAL -APRON BOTT. SLAB
D409		4	7 - 8			WING " -HORIZONTAL - BOTH FACES
D410		8	4 - 5		*	WING " -HORIZONTAL - BOTH FACES
D611	X	18	9 - 1	5 - 2	*	WING " -VERTICAL - BACK FACE
D412		14	3 - 0		*	WING " -VERTICAL - FRONT FACE
D413	X	14	2 - 1			WINGS 3 AND 4 - DOWELS - FRONT FACE

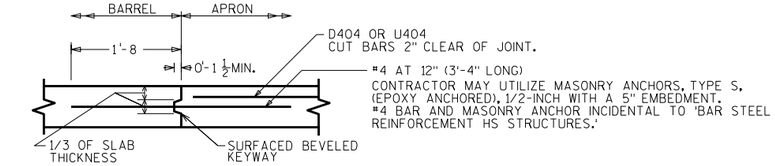
* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE --- BUNDLE AND TAG EACH SERIES SEPARATELY

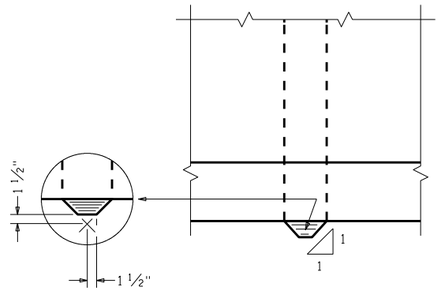
BAR MARK	NO. REQ'D.	LENGTHS FOR EACH SERIES
U403	1 SERIES OF 7	22 - 5 TO 29 - 4
U405	1 SERIES OF 3	3 - 1 TO 6 - 6
U406	1 SERIES OF 3	3 - 1 TO 6 - 6
U410	4 SERIES OF 2	2 - 9 TO 6 - 9
U611	2 SERIES OF 10	7 - 6 TO 10 - 6
U412	2 SERIES OF 7	1 - 5 TO 4 - 5
D403	1 SERIES OF 7	22 - 0 TO 25 - 3
D410	4 SERIES OF 2	2 - 8 TO 6 - 2
D611	2 SERIES OF 9	7 - 6 TO 10 - 7
D412	2 SERIES OF 7	1 - 5 TO 4 - 7



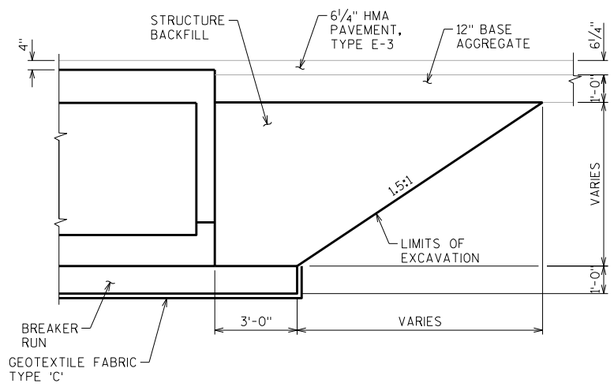
NAME PLATE LOCATION
WING 4



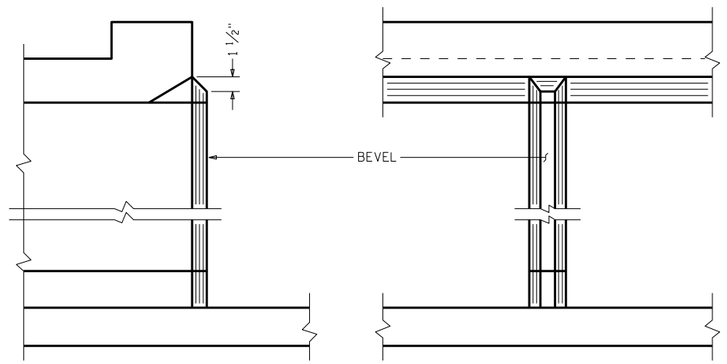
OPTIONAL CONSTRUCTION JOINT
2" DEEP SAW CUT WITHIN 12 HOURS AFTER POURING MAY BE USED IN LIEU OF CONST. JT. IN BOTTOM SLAB.



PLAN

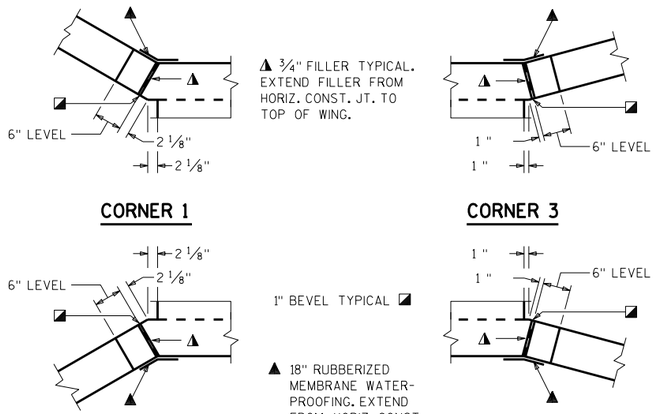


STRUCTURE BACKFILL LIMITS



SECTION ELEVATION

INLET NOSE DETAILS



CORNER 1 CORNER 3

CORNER 2 CORNER 4

CORNER DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-292

DRAWN BY NAR | PLANS CK'D. DFD

DETAILS

SHEET 4

111

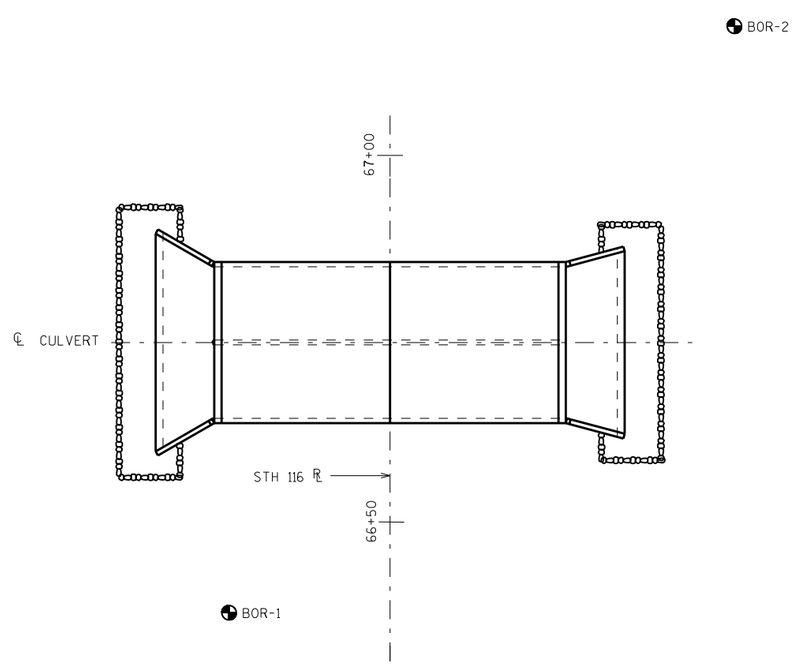
SCALE = 4

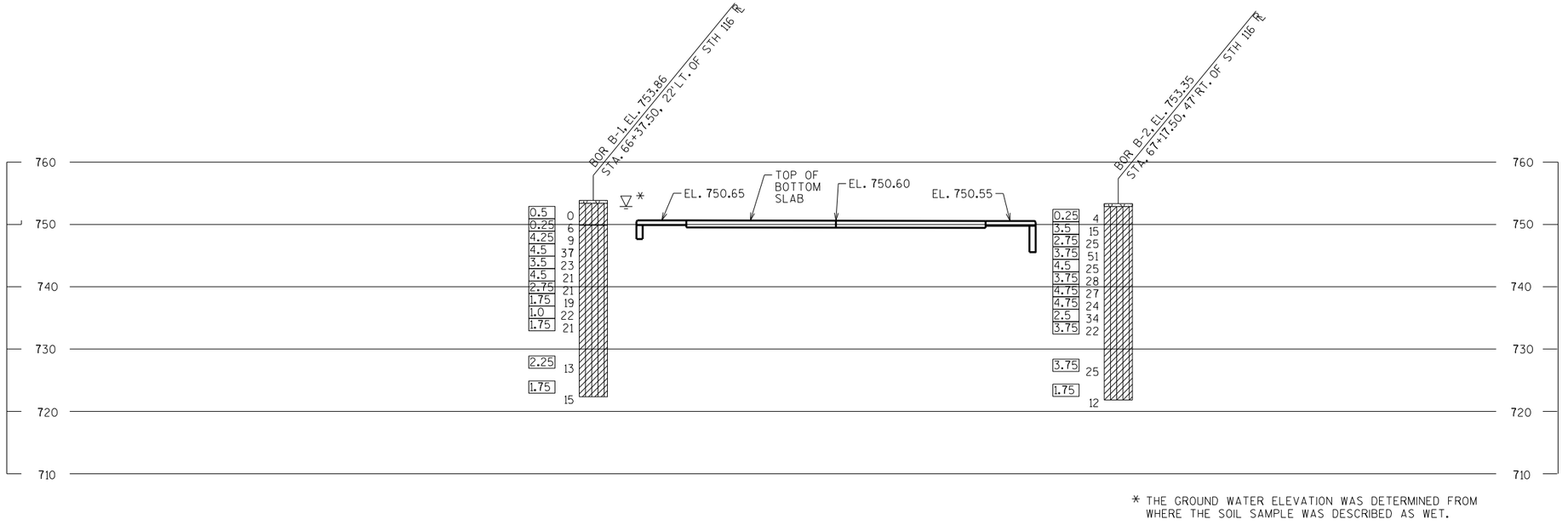
8

8

CITY OF OMRO - VILLAGE OF WINNECONNE

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	5/15/2014	489,398	741,570
2	5/16/2014	489,483	741,640
BORINGS COMPLETED BY: AMERICAN ENGINEERING TESTING			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) WINNEBAGO COUNTY			





* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

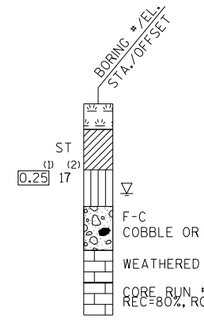
STATE PROJECT NUMBER

6190-16-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-292

DRAWN BY PR/NAR | PLANS CK'D. DFD

SUBSURFACE EXPLORATION

SHEET 5

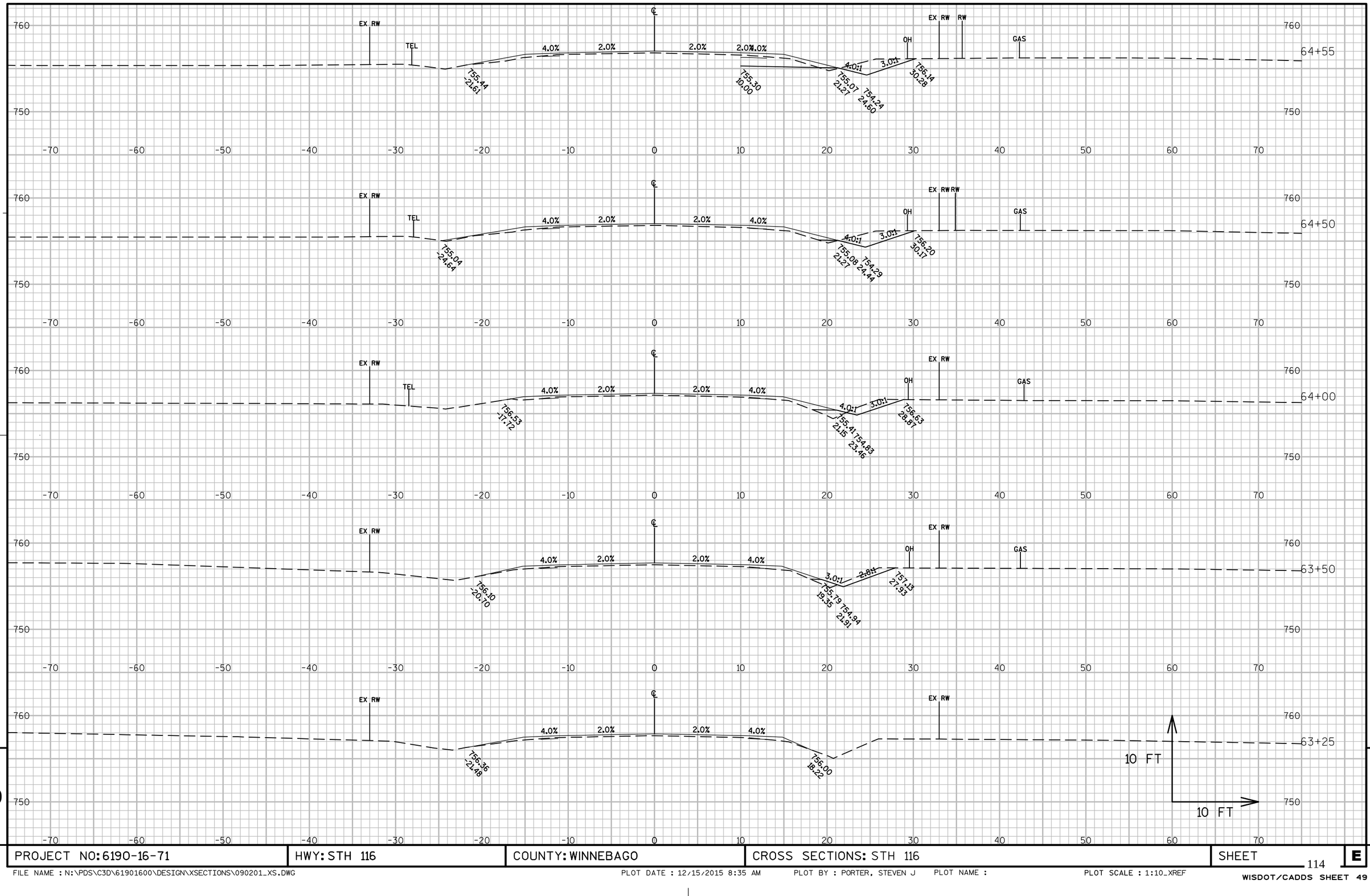
112

8

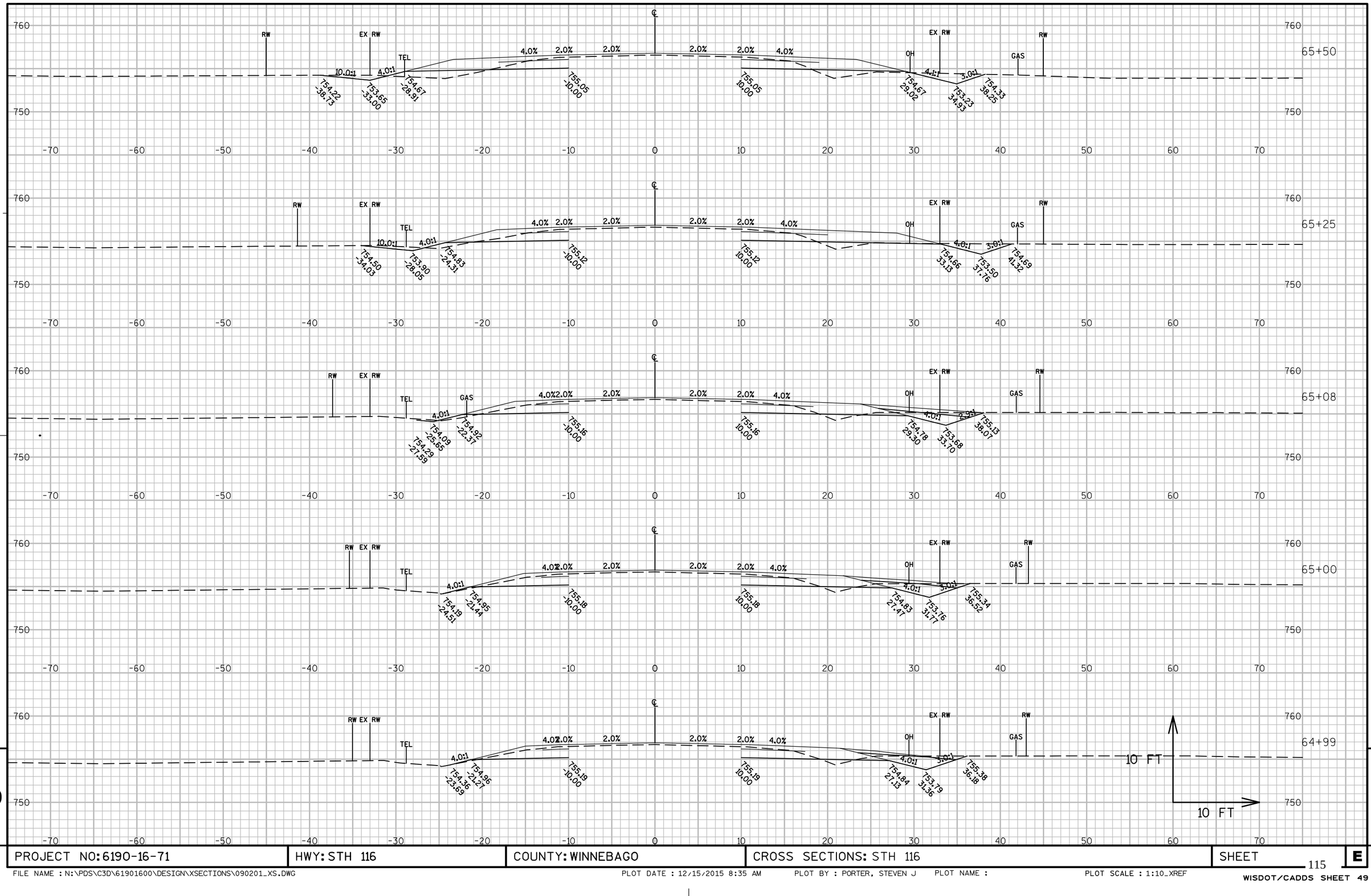
8

SCALE =

STATION	Real Station	Distance	AREA (SF)						Incremental Vol (CY) (Unadjusted)						Cumulative Vol (CY)			
			Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Expanded Fill	Expanded EBS Backfill	Mass Ordinate
									Note 1	Note 2	Note 3				1.00 Note 1	1.42	1.15 Note 5	Note 8
63+25	6325.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0
63+50	6350.10	25.10	3.28	0.00	1.20	0.00	0.00	0.00	2	0	1	0	0	0	2	1	0	1
64+00	6400.00	49.90	4.28	0.00	1.97	0.00	0.00	0.00	7	0	3	0	0	0	9	5	0	4
64+50	6450.00	50.00	7.63	0.00	0.39	0.00	0.00	0.00	11	0	2	0	0	0	20	8	0	12
64+55	6454.76	4.76	15.65	0.33	0.45	0.00	0.00	0.00	2	0	0	0	0	0	22	8	0	13
64+99	6498.51	43.75	26.39	0.33	1.45	0.00	0.00	0.00	34	1	2	0	0	0	56	10	0	45
65+00	6500.00	1.49	26.33	0.67	1.62	0.00	0.00	0.00	1	0	0	0	0	0	57	10	0	46
65+08	6508.00	8.00	25.84	0.67	2.53	0.00	0.00	0.00	8	0	1	0	0	0	65	11	0	53
65+25	6524.75	16.75	23.17	0.67	4.34	0.00	0.00	0.00	15	0	2	0	0	0	80	14	0	64
65+50	6550.00	25.25	22.33	0.67	11.16	0.00	0.00	0.00	21	1	7	0	0	0	101	25	0	75
65+69	6568.51	18.51	20.75	0.67	16.76	0.00	0.00	0.00	15	0	10	0	0	0	116	38	0	76
66+00	6600.00	31.49	20.92	0.67	25.28	0.00	0.00	0.00	24	1	25	0	0	0	140	73	0	64
66+12	6612.01	12.01	46.91	36.17	28.07	0.00	0.00	0.00	15	8	12	0	0	0	155	90	0	54
66+16	6616.34	4.33	45.98	36.17	29.21	0.00	0.00	91.41	7	6	5	0	0	7	163	96	8	49
66+50	6650.00	33.66	37.91	36.17	65.99	0.00	0.00	263.53	52	45	59	0	0	221	215	181	263	-28
66+55	6655.45	5.45	38.05	36.17	79.35	0.00	0.00	255.51	8	7	15	0	0	52	223	201	323	-48
66+94	6693.56	0.00	39.34	36.17	39.42	0.00	0.00	213.12	0	0	0	0	0	0	223	201	323	-48
67+00	6700.00	6.44	42.28	36.17	36.51	0.00	0.00	152.69	10	9	9	0	0	44	233	214	373	-60
67+31	6730.67	30.67	47.60	36.17	20.35	0.00	0.00	62.03	51	41	32	0	0	122	284	260	514	-96
67+35	6735.01	4.34	49.04	36.17	17.51	0.00	0.00	0.00	8	6	3	0	0	5	291	265	519	-98
67+50	6750.00	14.99	26.68	0.67	12.61	0.00	0.00	0.00	21	10	8	0	0	0	312	276	519	-99
67+81	6781.01	31.01	55.86	0.67	0.54	0.00	0.00	0.00	47	1	8	0	0	0	360	287	519	-63
68+00	6800.00	18.99	61.31	0.67	2.30	0.00	0.00	0.00	41	0	1	0	0	0	401	289	519	-24
68+25	6824.75	24.75	68.88	0.67	2.18	0.00	0.00	0.00	60	1	2	0	0	0	461	291	519	32
68+31	6831.00	6.25	65.73	0.67	2.12	0.00	0.00	0.00	16	0	0	0	0	0	476	292	519	47
68+50	6850.00	19.00	56.50	0.67	2.01	0.00	0.00	0.00	43	0	1	0	0	0	519	294	519	87
68+95	6894.77	44.77	42.27	0.67	1.85	0.00	0.00	0.00	82	1	3	0	0	0	601	299	519	164
69+00	6900.00	5.23	25.02	0.00	1.39	0.00	0.00	0.00	7	0	0	0	0	0	608	299	519	170
69+50	6950.00	50.00	4.07	0.00	2.65	0.00	0.00	0.00	27	0	4	0	0	0	635	305	519	191
69+75	6975.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00	2	0	1	0	0	0	637	306	519	191
									637	139	216	0	0	452				



PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	CROSS SECTIONS: STH 116	SHEET	E



PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	CROSS SECTIONS: STH 116	SHEET	E

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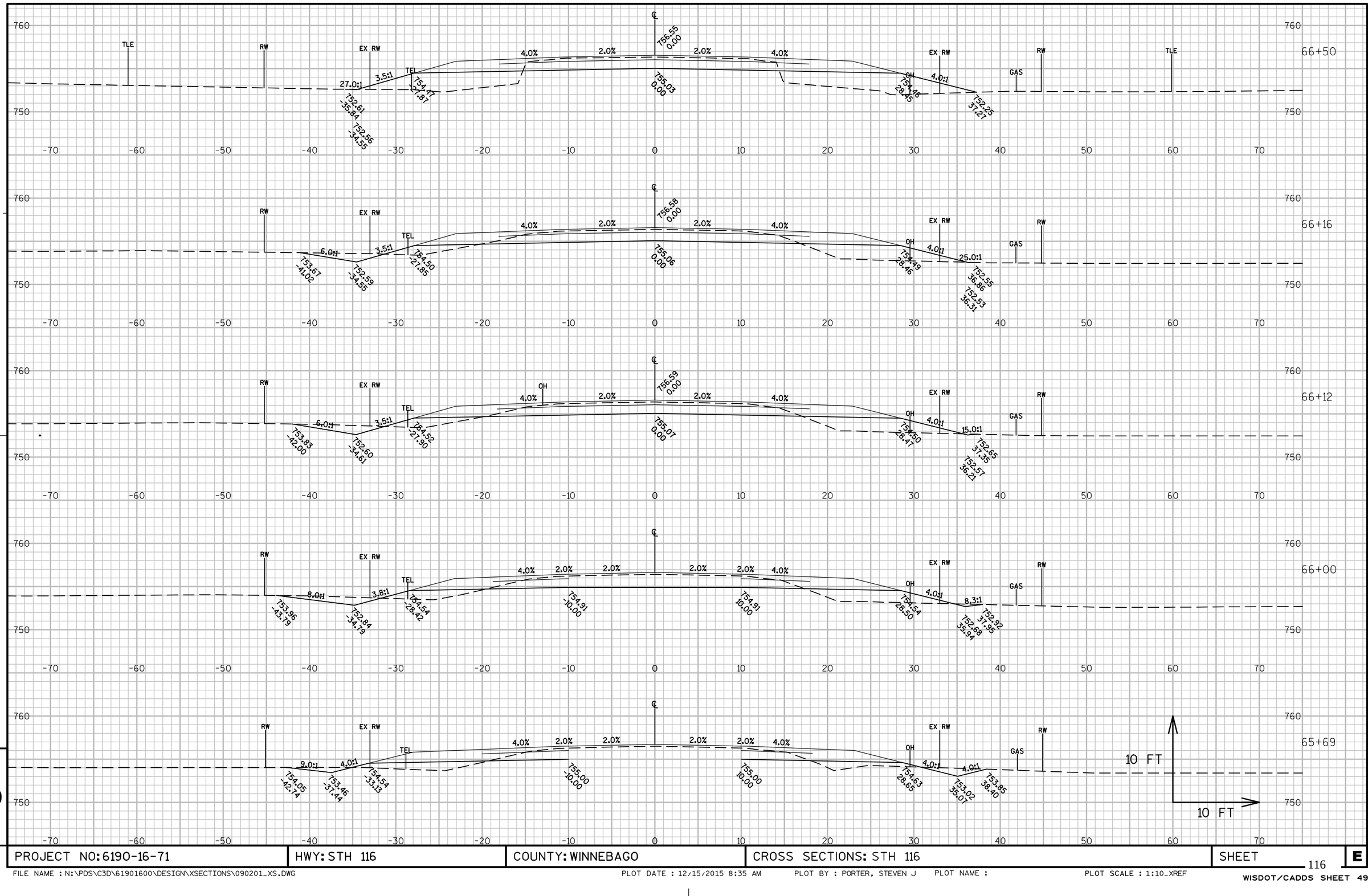
WISDOT/CADDS SHEET 49



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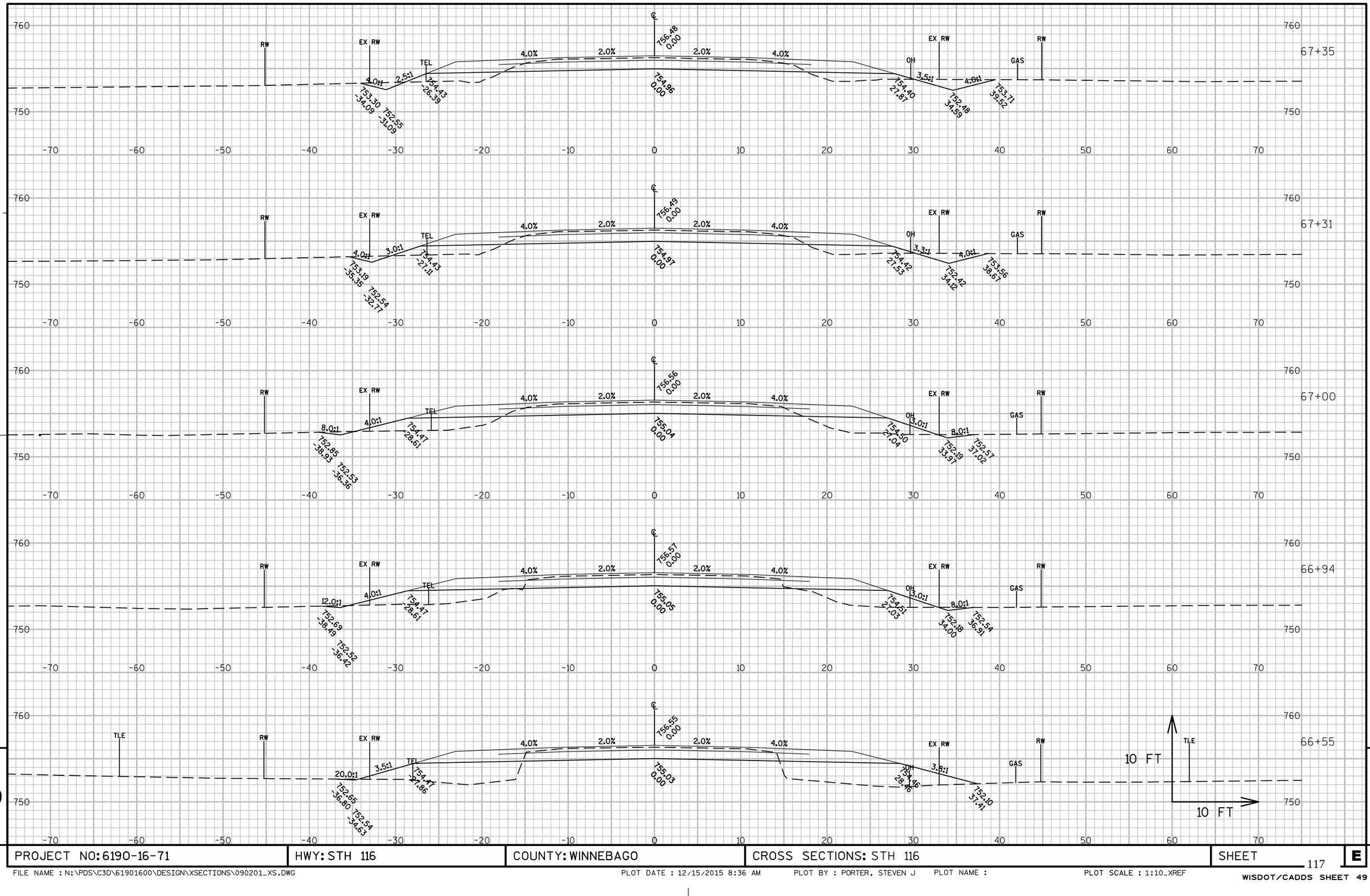
PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	CROSS SECTIONS: STH 116	SHEET	E

9

FILE NAME : N:\PDS\C3D\61901600\DESIGN\XSECTIONS\090201_XS.DWG PLOT DATE : 12/15/2015 8:35 AM PLOT BY : PORTER, STEVEN J PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



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9

PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	CROSS SECTIONS: STH 116	SHEET	E

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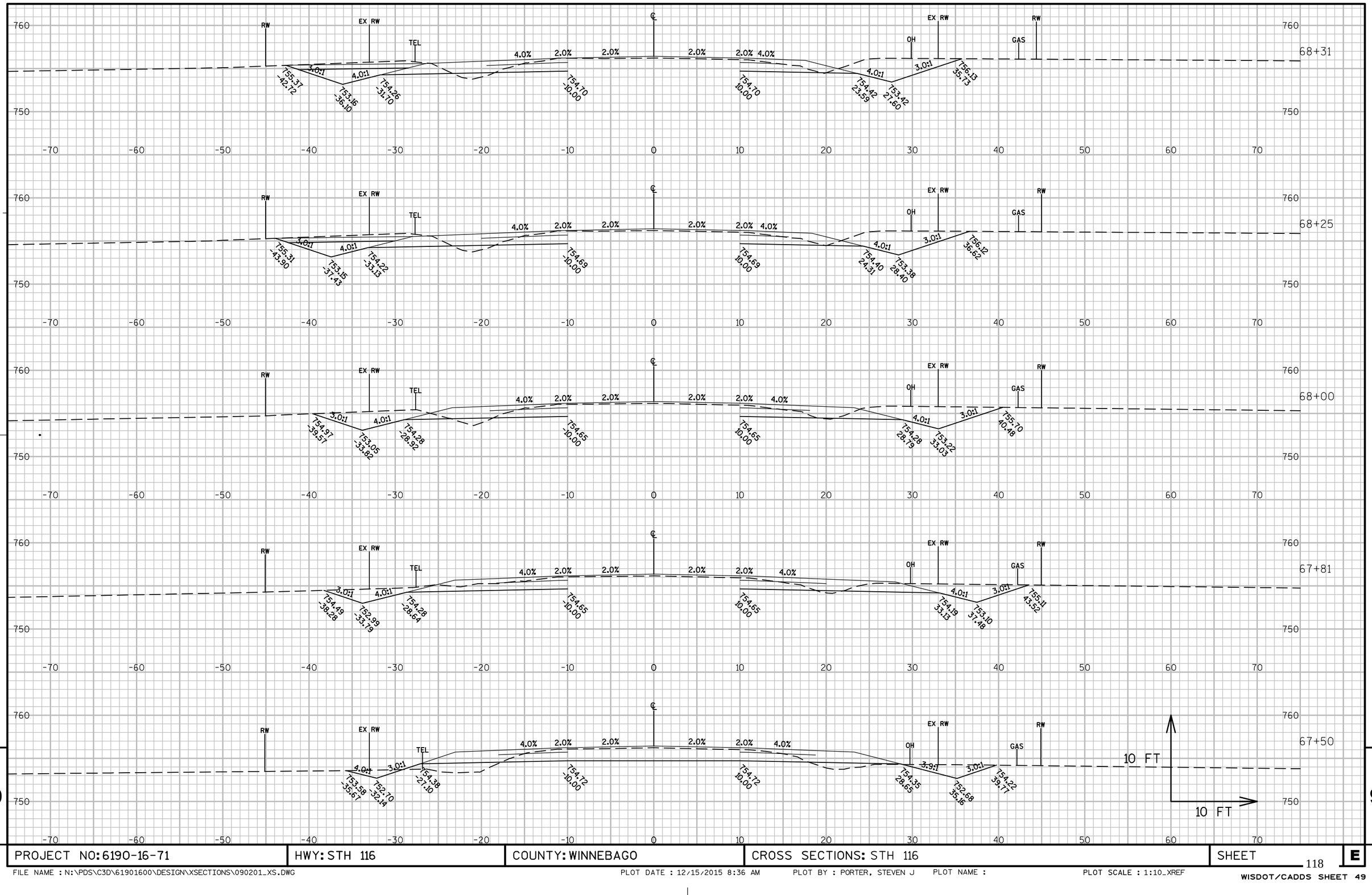
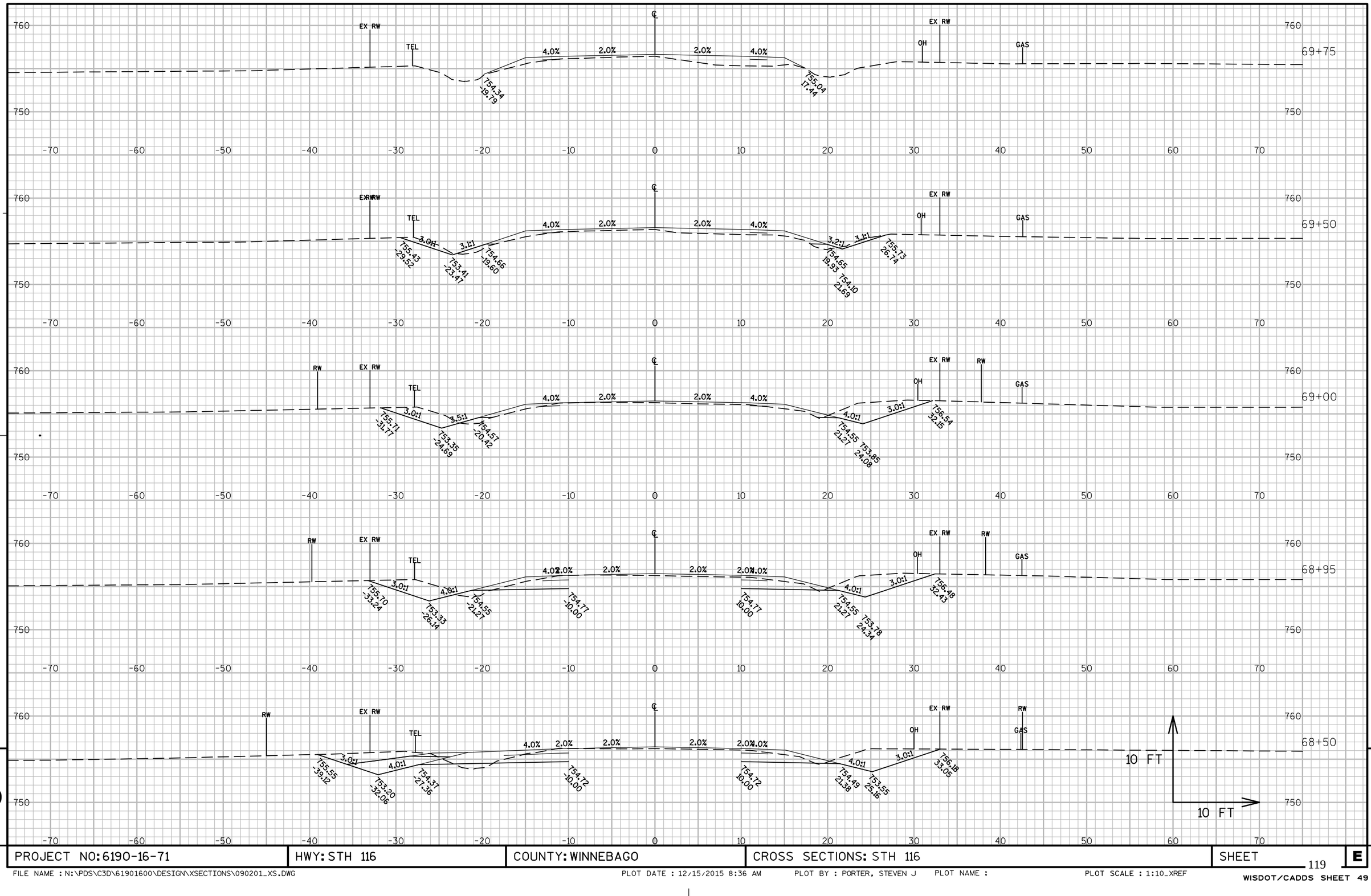
WISDOT/CADDS SHEET 49



PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	CROSS SECTIONS: STH 116	SHEET	E

FILE NAME : N:\PDS\C3D\61901600\DESIGN\XSECTIONS\090201_XS.DWG PLOT DATE : 12/15/2015 8:36 AM PLOT BY : PORTER, STEVEN J PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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PROJECT NO: 6190-16-71	HWY: STH 116	COUNTY: WINNEBAGO	CROSS SECTIONS: STH 116	SHEET	E

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