

JANUARY 2026		
ORDER OF SHEETS		
Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 52



38



DESIGN DESIGNATION

A.A.D.T. 2025 = 470
 A.A.D.T. 2045 = 700
 D.H.V. =
 D.D. = 50/50
 T. = 5.0%
 DESIGN SPEED = 35 MPH
 ESALS =

CONVENTIONAL SYMBOLS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T THREE LAKES, TOWN ROAD X

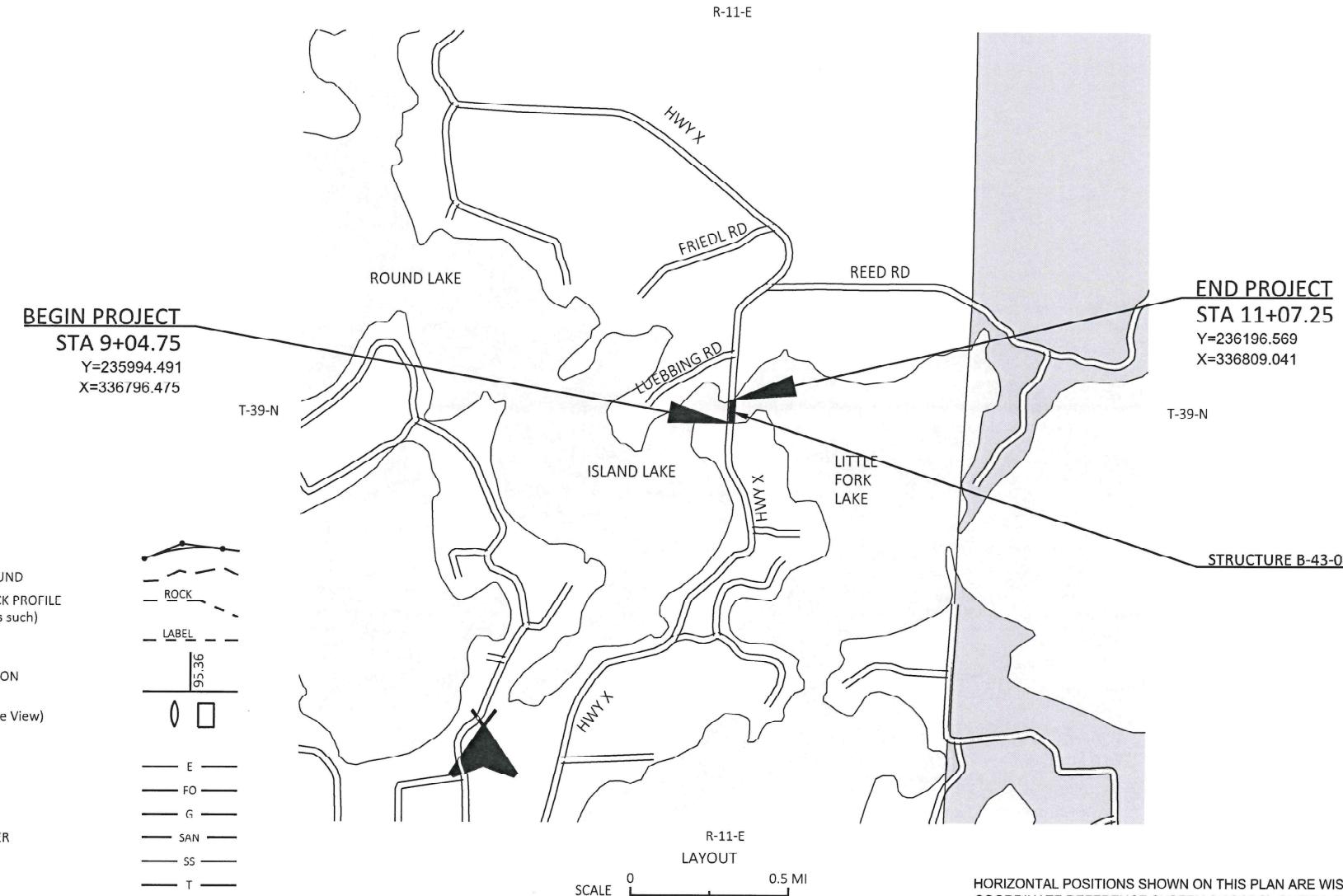
EAGLE RIVER BRIDGE B-43-0046

LOCAL STREET
ONEIDA COUNTY

STATE PROJECT NUMBER

9883-00-70

R-11-E



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

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

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9883-00-70		

ACCEPTED FOR
TOWN OF THREE LAKES

Josh Paetow
(Signature and Title of Official)
Josh Paetow (Jul 23, 2025 10:27:12 CDT)

ORIGINAL PLANS PREPARED BY

QUEST

Civil Engineers, LLC



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	QUEST CIVIL ENGINEERS
Designer	QUEST CIVIL ENGINEERS
Project Manager	NATHANIEL WAITE
Regional Examiner	N/A
Regional Supervisor	DAN ERVA

APPROVED FOR THE DEPARTMENT	
DATE: 7/24/2025	<i>W. D. H.</i> (Signature)

GENERAL NOTES

THE ALIGNMENT IN THIS PLAN IS BASED ON FIELD SURVEY SHOTS TAKEN ON THE CENTERLINE.

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.

UTILITY CONTACTS

FRONTIER COMMUNICATIONS OF WI LLC – COMMUNICATION LINE

CHRIS POLLACK
421 4th STREET
WAUSAU, WI 54403
TELEPHONE: 715-847-1240
christopher.pollack@ftr.com

SPECTRUM COMMUNICATIONS – COMMUNICATION LINE

JASON GOERTZ
853 MCINTOSH ST
WAUSAU, WI 54403
TELEPHONE: 715-527-0183
jason.goertz@charter.com

WISCONSIN PUBLIC SERVICE CORPORATION – ELECTRICITY

SCOTT KOLINSKI
2027 NAVAJO ST
RHINELANDER, WI 54501
TELEPHONE: 715-369-7148
scott.kolinski@wisconsinpublicservice.com

WISCONSIN PUBLIC SERVICE CORPORATION – PETROLEUM

SHANE SARKKINEN
2027 NAVAJO ST
RHINELANDER, WI 54501
OFFICE: 715-369-7133
MOBILE: 715-966-1040
shane.sarkkinen@wisconsinpublicservice.com



www.DiggersHotline.com

RUNOFF COEFFICIENT TABLE

HYDROLOGIC SOIL GROUP												
LAND USE:	A			B			C			D		
	SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)	SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)	SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)	SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)
LAND USE:	0-2	2-6	6 & OVER									
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:	.											
ASPHALT	.70-95											
CONCRETE	.80-95											
BRICK	.70-80											
DRIVES, WALKS	.75-85											
ROOFS	.75-85											
GRAVEL ROADS, SHOULDERS	.40-60											

TOTAL PROJECT AREA = 0.00 ac

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.00 ac

PROJECT NO: 9883-00-70

HWY: TOWN ROAD X

COUNTY: ONEIDA

GENERAL NOTES

SHEET:

E

WisDOT CONTACT

WisDOT

NATHANIEL WAITE – LOCAL PROGRAM PROJECT MANAGER
510 HANSON LAKE ROAD
RHINELANDER, WI 54501
TELEPHONE: 715-365-5762
nathaniel.waite@dot.wi.gov

DNR CONTACT

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
WENDY HENNIGES
DNR NORTHERN REGION HEADQUARTERS
107 SUTLIFF AVENUE
RHINELANDER, WI 54501
TELEPHONE: 715-365-8916
wendy.henniges@wisconsin.gov

MUNICIPAL CONTACT

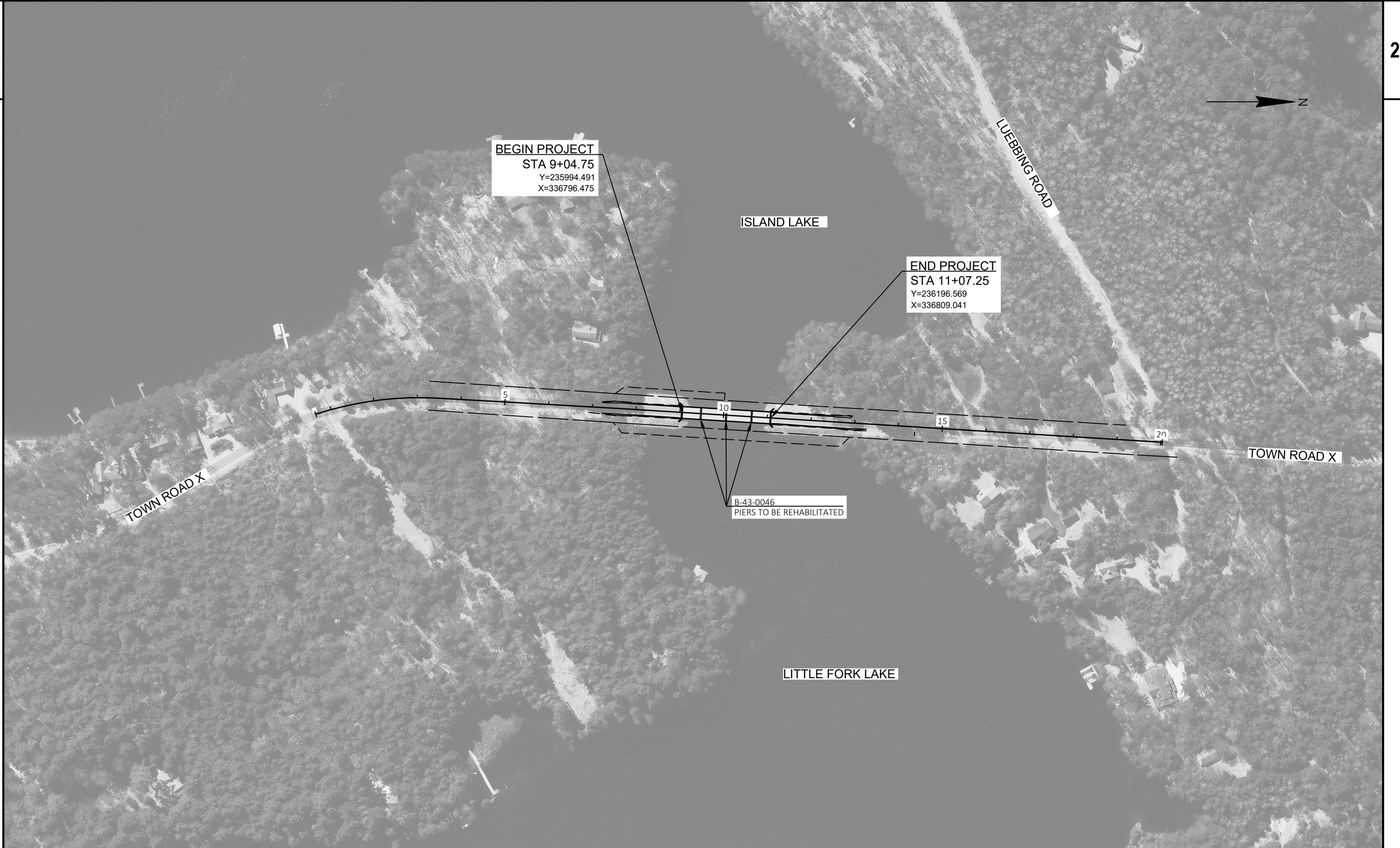
TOWN OF THREE LAKES
JOSH PAETOW – PUBLIC WORKS SUPERINTENDENT
6921 RAILROAD STREET
THREE LAKES, WI 54562
TELEPHONE: 715-546-3316
pwsuperintendent@townofthreelakeswi.gov

DESIGN CONTACT

QUEST CIVIL ENGINEERS
JIM WENDELS
320 W GRAND AVE, SUITE 302
WISCONSIN RAPIDS, WI 54495
TELEPHONE: 715-323-0321
jim.wendels@questllc.biz

2

2



PROJECT NO: 9883-00-70

HWY: TOWN ROAD X

COUNTY: ONEIDA

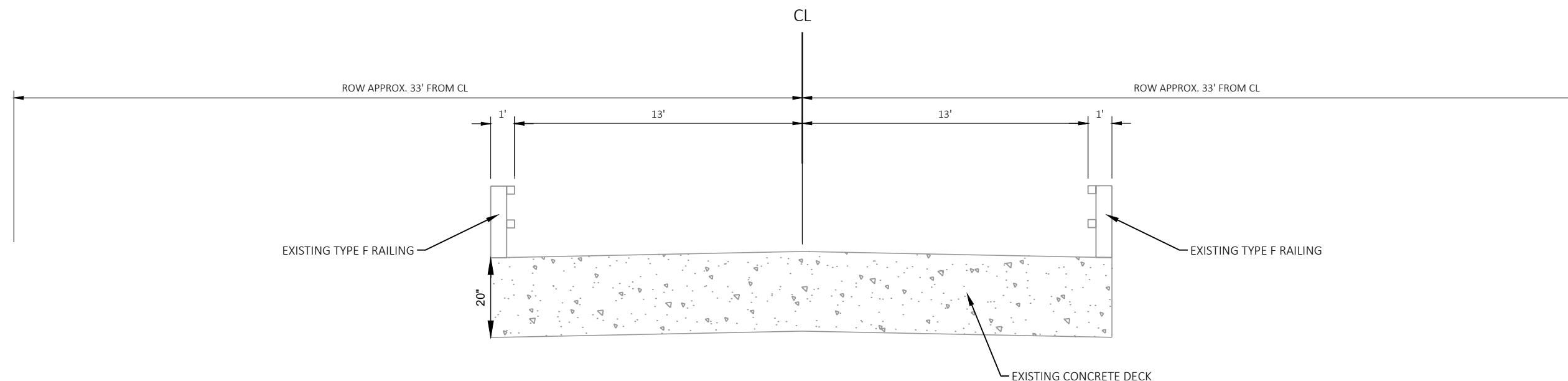
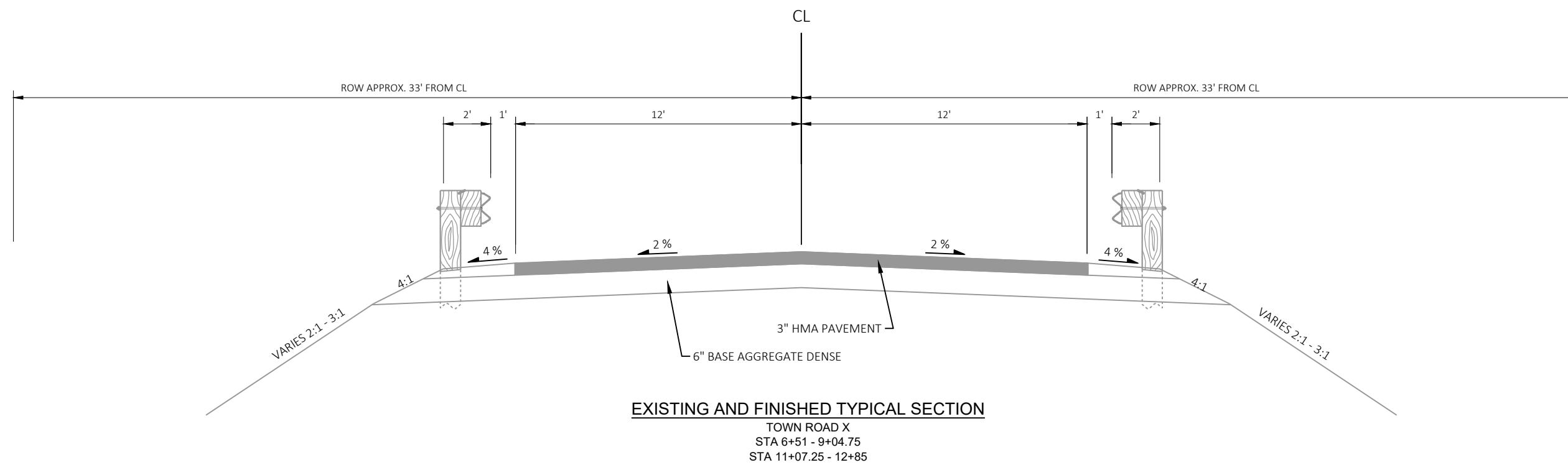
PROJECT OVERVIEW

SHEET

E

2

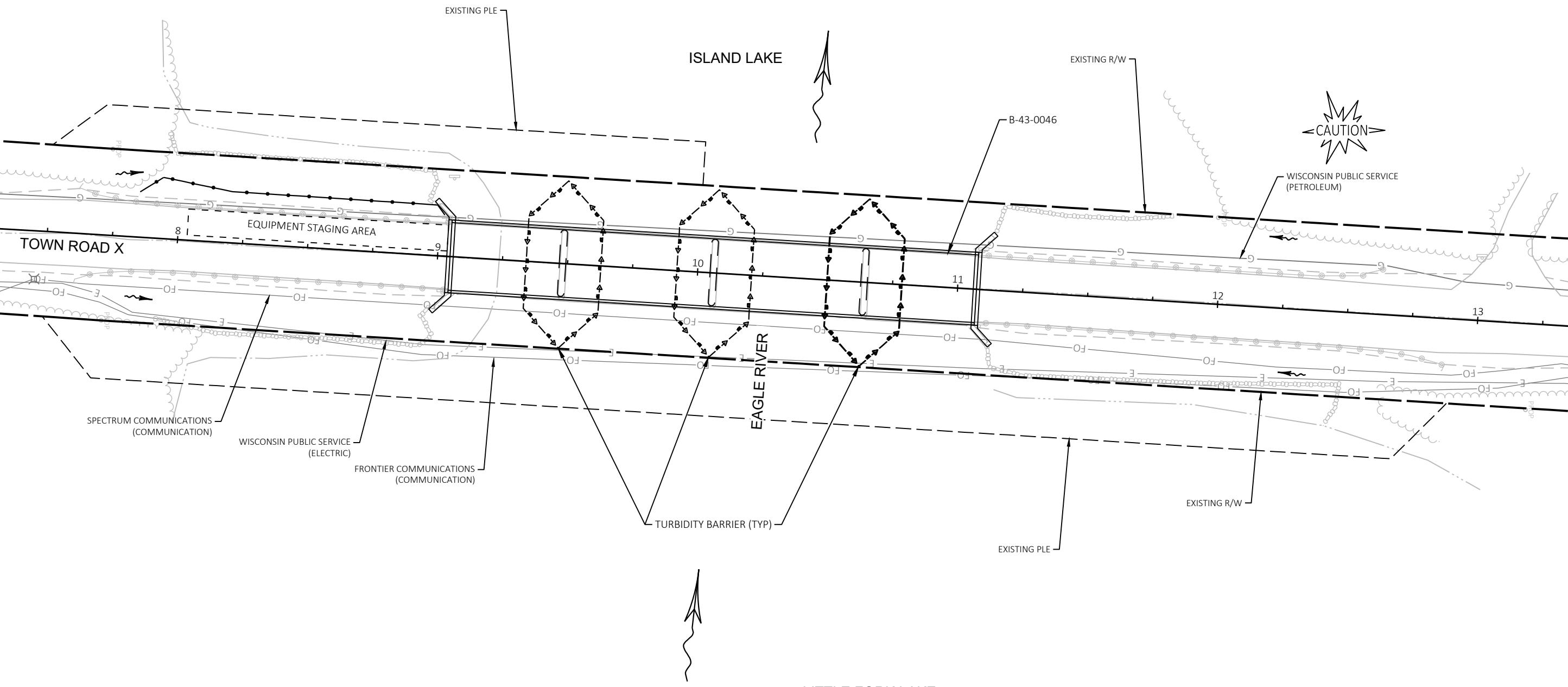
2



2

2

Z



PROJECT NO: 9883-00-70

HWY: TOWN ROAD X

COUNTY: ONEIDA

EROSION CONTROL

SHEET

E

FILE NAME: S:\DESIGN\DESIGN PROJECTS\LOCAL PROJECTS\2023 PROJECTS\9883-00-00_TOWN ROAD X\C3D\Sheets\022001_EC_X.DWG
LAYOUT NAME - Overview

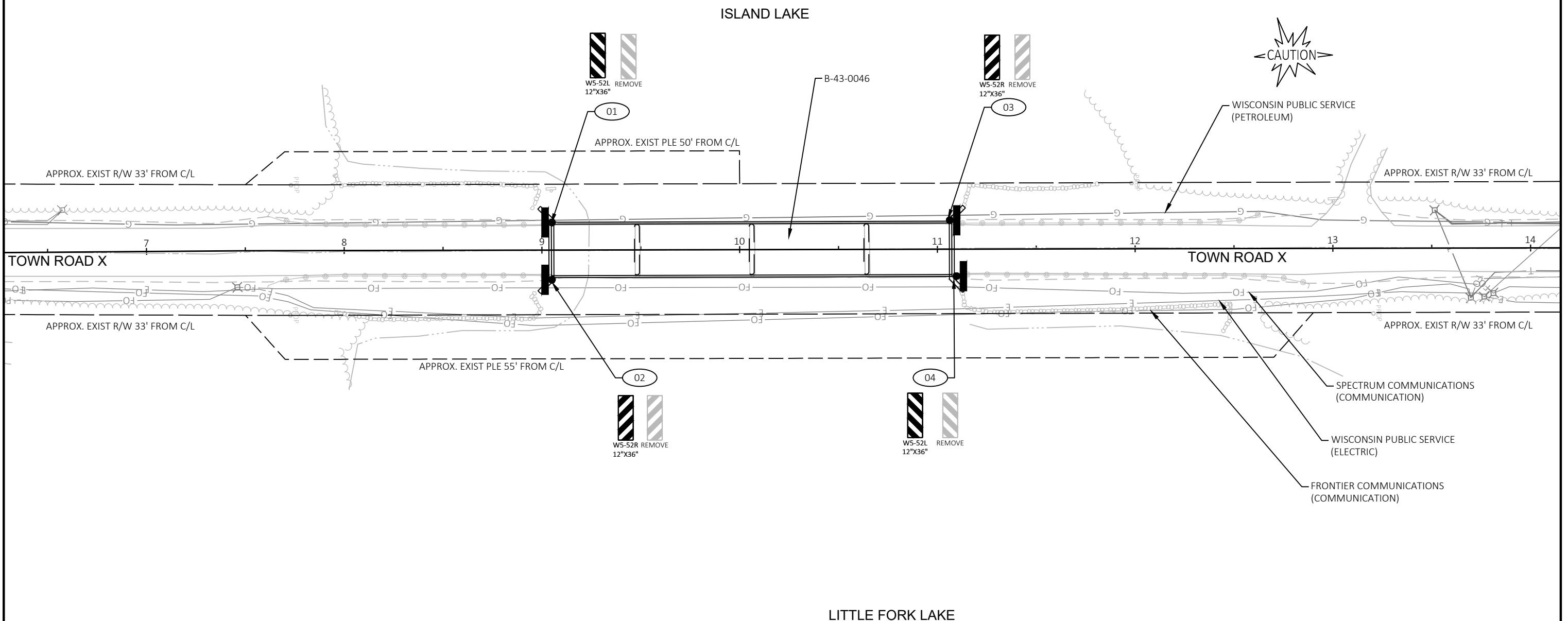
PLOT DATE: 5/6/2025 3:35 PM

PLOT BY: BRETT HIELSBERG

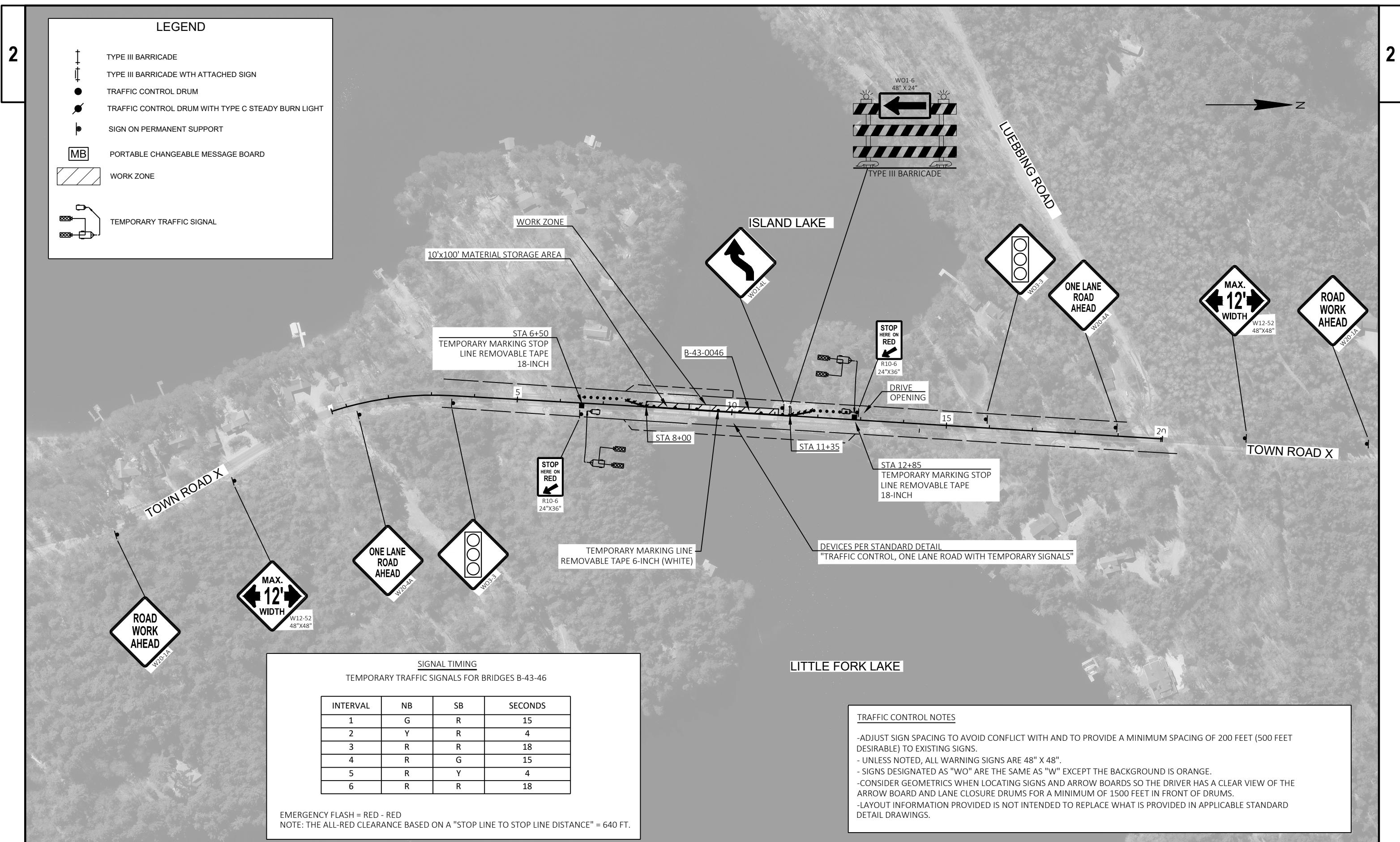
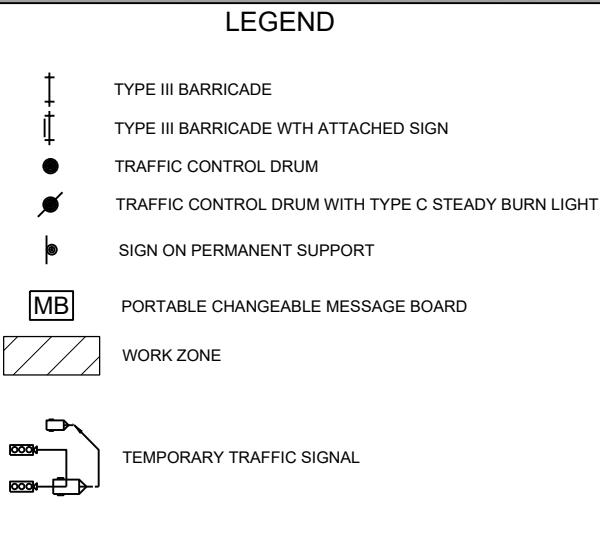
PLOT NAME:

PLOT SCALE: 1 IN:40 FT

WISDOT/CADD'S SHEET 42



LEGEND



INTERVAL	NB	SB	SECONDS
1	G	R	15
2	Y	R	4
3	R	R	18
4	R	G	15
5	R	Y	4
6	R	R	18

EMERGENCY FLASH = RED - RED
NOTE: THE ALL-RED CLEARANCE BASED ON A "STOP LINE TO STOP LINE DISTANCE" = 640 FT

LITTLE FORK LAKE

TRAFFIC CONTROL NOTE

- ADJUST SIGN SPACING TO AVOID CONFLICT WITH AND TO PROVIDE A MINIMUM SPACING OF 200 FEET (500 FEET DESIRABLE) TO EXISTING SIGNS.
- UNLESS NOTED, ALL WARNING SIGNS ARE 48" X 48".
- SIGNS DESIGNATED AS "WO" ARE THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM OF 1500 FEET IN FRONT OF DRUMS.
- LAYOUT INFORMATION PROVIDED IS NOT INTENDED TO REPLACE WHAT IS PROVIDED IN APPLICABLE STANDARD DETAIL DRAWINGS.

PROJECT NO: 9883-00-70

HWY: TOWN ROAD X

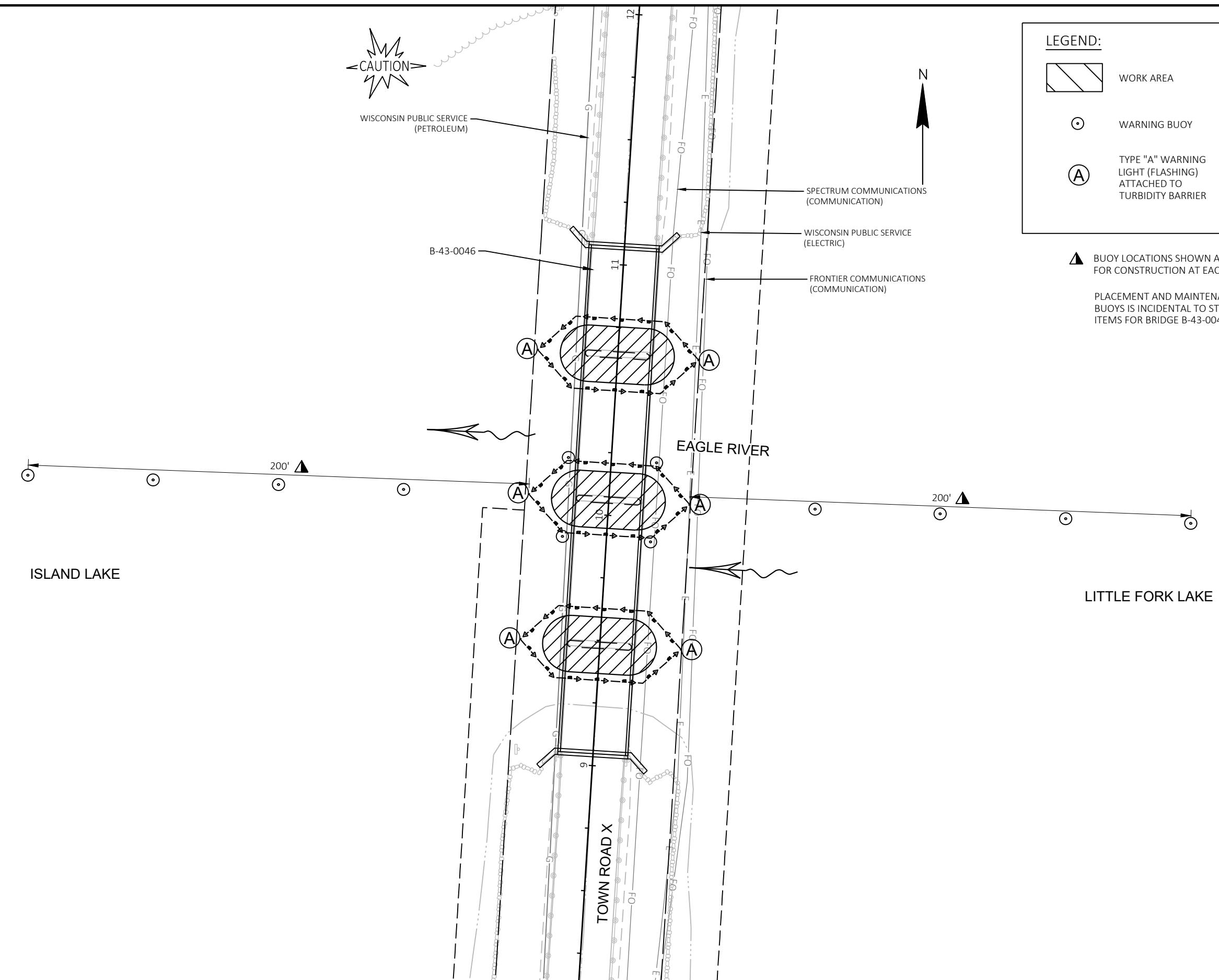
COUNTY: ONEIDA

TRAFFIC CONTROL OVERVIEW

SHEET

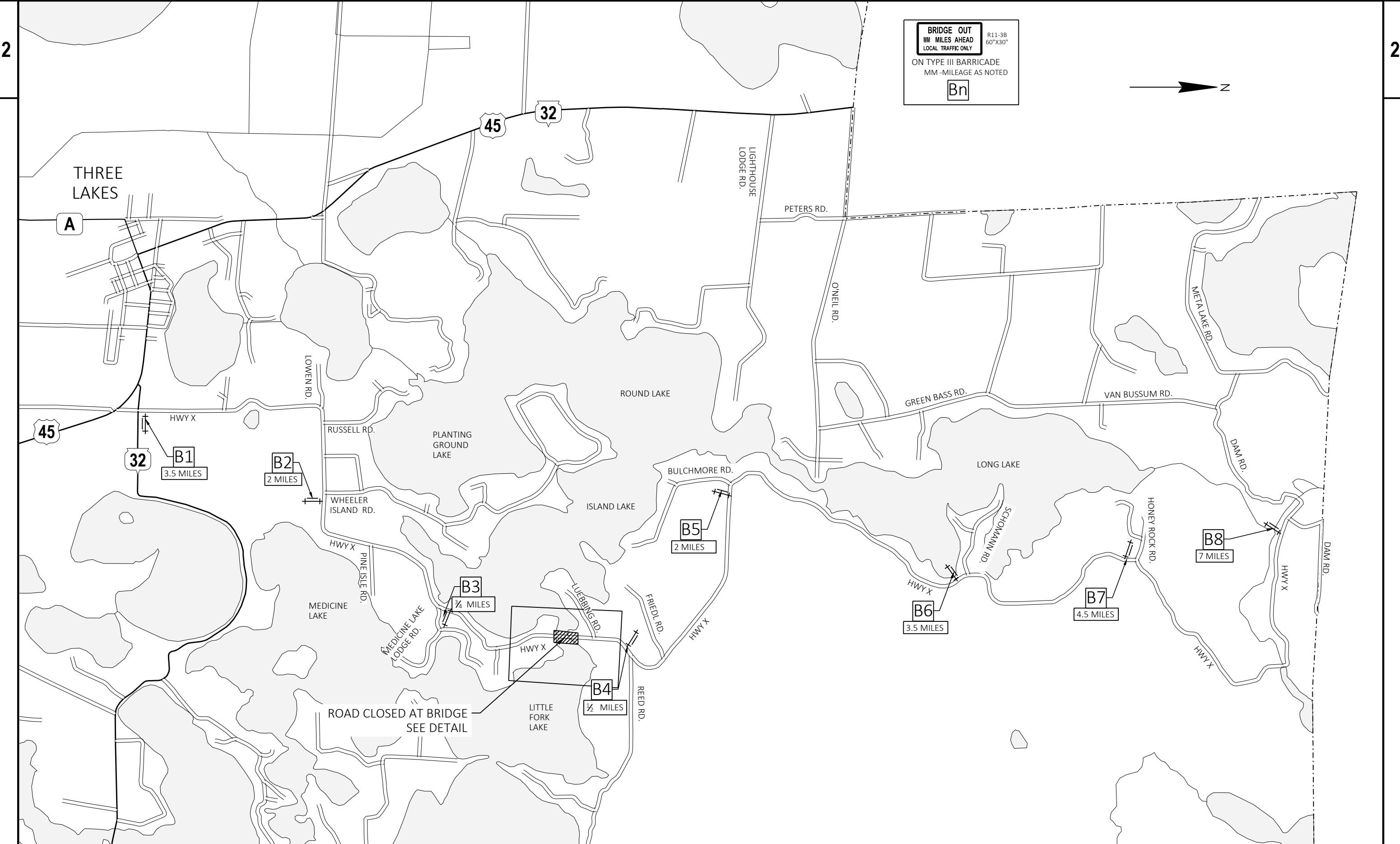
E





2

2



PROJECT NO: 9883-00-70

HWY: TOWN ROAD X

COUNTY: ONEIDA

TRAFFIC CONTROL - BRIDGE CLOSURE SIGNING

SHEET

E |

FILE NAME : S:\DESIGN\DESIGN PROJECTS\LOCAL PROJECTS\2023 PROJECTS\9883-00-00_TOWN ROAD X\C3D\Sheets\025012_TC_X_CLOSURE-WIDE.DWG
LAYOUT NAME - Plan 1 IN 2000 FT

PLOT DATE : 10/10/2024 10:05 A

PLOT BY : ADAM OSYPO

PLOT NAME

PLOT SCALE : 1 IN:0.5 MI

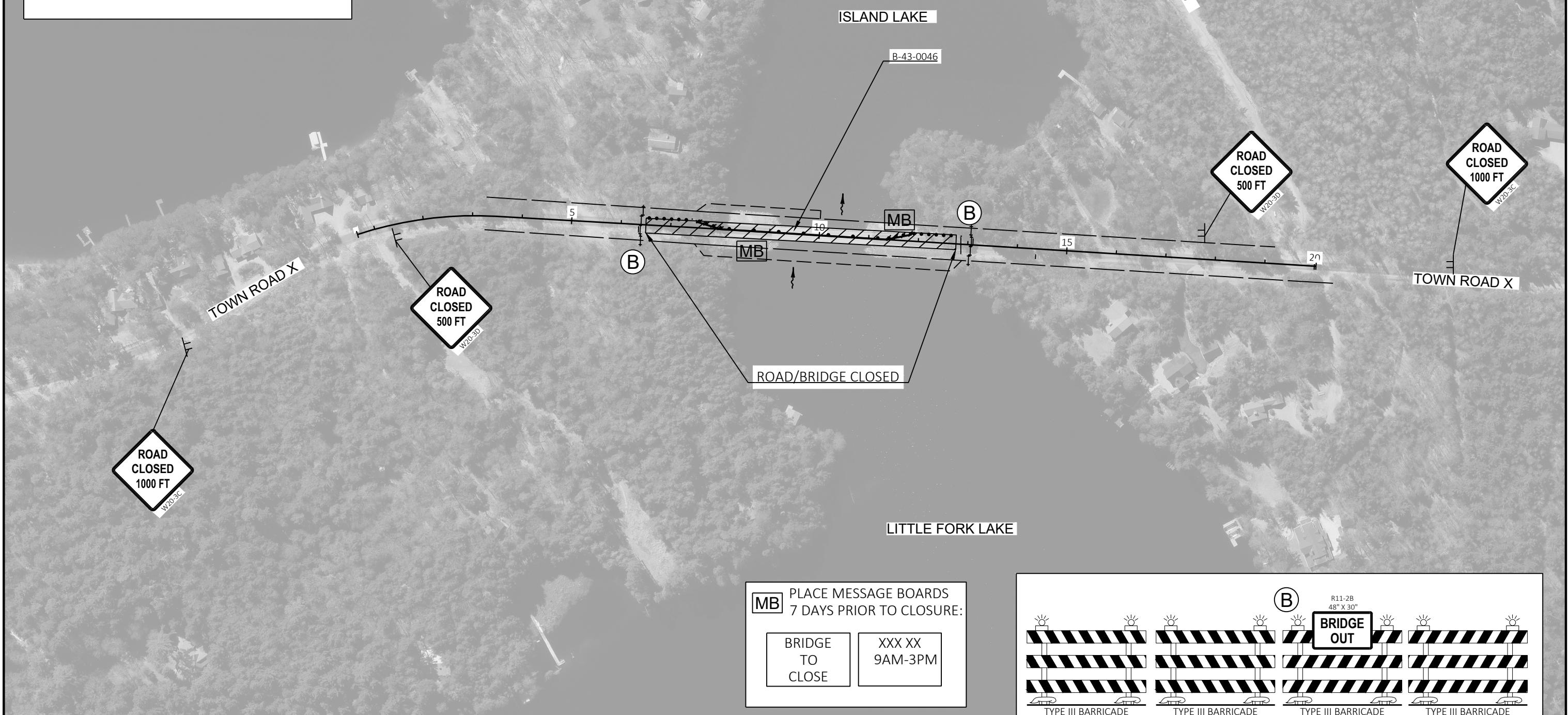
WISDOT/CADDS SHEET 43

LEGEND

2

2

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- MB
- PORTABLE CHANGEABLE MESSAGE BOARD
- WORK AREA



PROJECT NO: 9883-00-70

HWY: TOWN ROAD X

COUNTY: ONEIDA

TRAFFIC CONTROL - BRIDGE CLOSURE SIGNING

SHEET

E

Estimate Of Quantities

9883-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	213.0100	Finishing Roadway (project) 01. 9883-00-70	EACH	1.000	1.000
0004	311.0110	Breaker Run	TON	75.000	75.000
0006	502.4204	Adhesive Anchors No. 4 Bar	EACH	336.000	336.000
0008	505.0400	Bar Steel Reinforcement HS Structures	LB	620.000	620.000
0010	618.0100	Maintenance and Repair of Haul Roads (project) 01. 9883-00-70	EACH	1.000	1.000
0012	619.1000	Mobilization	EACH	1.000	1.000
0014	628.1504	Silt Fence	LF	140.000	140.000
0016	628.1520	Silt Fence Maintenance	LF	140.000	140.000
0018	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0020	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0022	628.6005	Turbidity Barriers	SY	660.000	660.000
0024	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0026	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0028	638.2602	Removing Signs Type II	EACH	4.000	4.000
0030	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0032	643.0300	Traffic Control Drums	DAY	3,510.000	3,510.000
0034	643.0420	Traffic Control Barricades Type III	DAY	138.000	138.000
0036	643.0705	Traffic Control Warning Lights Type A	DAY	816.000	816.000
0038	643.0715	Traffic Control Warning Lights Type C	DAY	1,170.000	1,170.000
0040	643.0900	Traffic Control Signs	DAY	1,482.000	1,482.000
0042	643.1050	Traffic Control Signs PCMS	DAY	42.000	42.000
0044	643.3180	Temporary Marking Line Removable Tape 6-Inch	LF	450.000	450.000
0046	643.3850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	24.000	24.000
0048	643.5000	Traffic Control	EACH	1.000	1.000
0050	661.0101	Temporary Traffic Signals for Bridges (structure) 01. B-43-046	EACH	1.000	1.000
0052	SPV.0035	Special 01. Structural Grout	CY	90.000	90.000
0054	SPV.0060	Special 01. Preparation and Anchorage for Vinyl Sheet Piling	EACH	3.000	3.000
0056	SPV.0060	Special 02. Excavation and Backfilling for Structures Special B-43-46	EACH	3.000	3.000
0058	SPV.0165	Special 01. Piling Vinyl Sheet Permanent Delivered and Installed	SF	3,680.000	3,680.000
0060	SPV.0165	Special 02. Preparation of Pier Surfaces	SF	2,650.000	2,650.000
0062	SPV.0165	Special 03. Welded Wire Fabric 6x6 D4/D4 (Grade 60)	SF	2,650.000	2,650.000

Landscaping

STA	-	STA	Location	628.1504 Silt Fence	628.1520 Silt Fence Maintenance
Project 9883-00-70 Cat 0010				LF	LF
7+65	-	9+05	LT B-43-046 SW Quadrant	140	140
Project 9883-00-70 Cat 0010 Total				140	140

Mobilization Erosion Control

Project	628.1905 Mobilization Erosion Control	628.1910 Mobilization Emergency Erosion Control
Project		
Project 9883-00-70 Cat 0010		
Town Road X	3	2
Project 9883-00-70 Cat 0010 Total	3	2

Turbidity Barriers

Location	628.6005 Turbidity Barriers
Project 9883-00-70 Cat 0010	
Pier 1	202
Pier 2	258
Pier 3	200
Project 9883-00-70 Cat 0010 Total	660

Type II Signing

Sign #	Sign Code	Message	W x H	634.0612 Posts Wood 4x6-Inch	637.2230 Signs Type II Reflective	638.2602 Removing Signs	638.3000 Removing Small Sign Supports
Project 9883-00-70 Cat 0010				12 FT EACH	Type F SF	Type II EACH	EACH
01	W5-52L	Object Marker	12" x 36"	1	3.00	1	1
02	W5-52R	Object Marker	12" x 36"	1	3.00	1	1
03	W5-52R	Object Marker	12" x 36"	1	3.00	1	1
04	W5-52L	Object Marker	12" x 36"	1	3.00	1	1
Project 9883-00-70 Cat 0010 Totals				4	12.00	4	4

3

Traffic Control

	643.0300	643.0420	643.0705	643.0715	643.0900
Project Duration	Traffic Control Drums	Traffic Control Barricades Type III	Traffic Control Warning Lights Type A	Traffic Control Warning Lights Type C	Traffic Control Signs
Location DAY	# Req'd DAY	# Req'd DAY	# Req'd DAY	# Req'd DAY	# Req'd DAY
Project 9883-00-70 Cat 0010					
Pier Construction	90	39 3,510	1 90	8 720	13 1,170
Closures	3	--- ---	16 48	32 96	--- ---
Project 9883-00-70 Cat 0010 Total		3,510	138	816	1,170
					1,482

Traffic Control PCMS

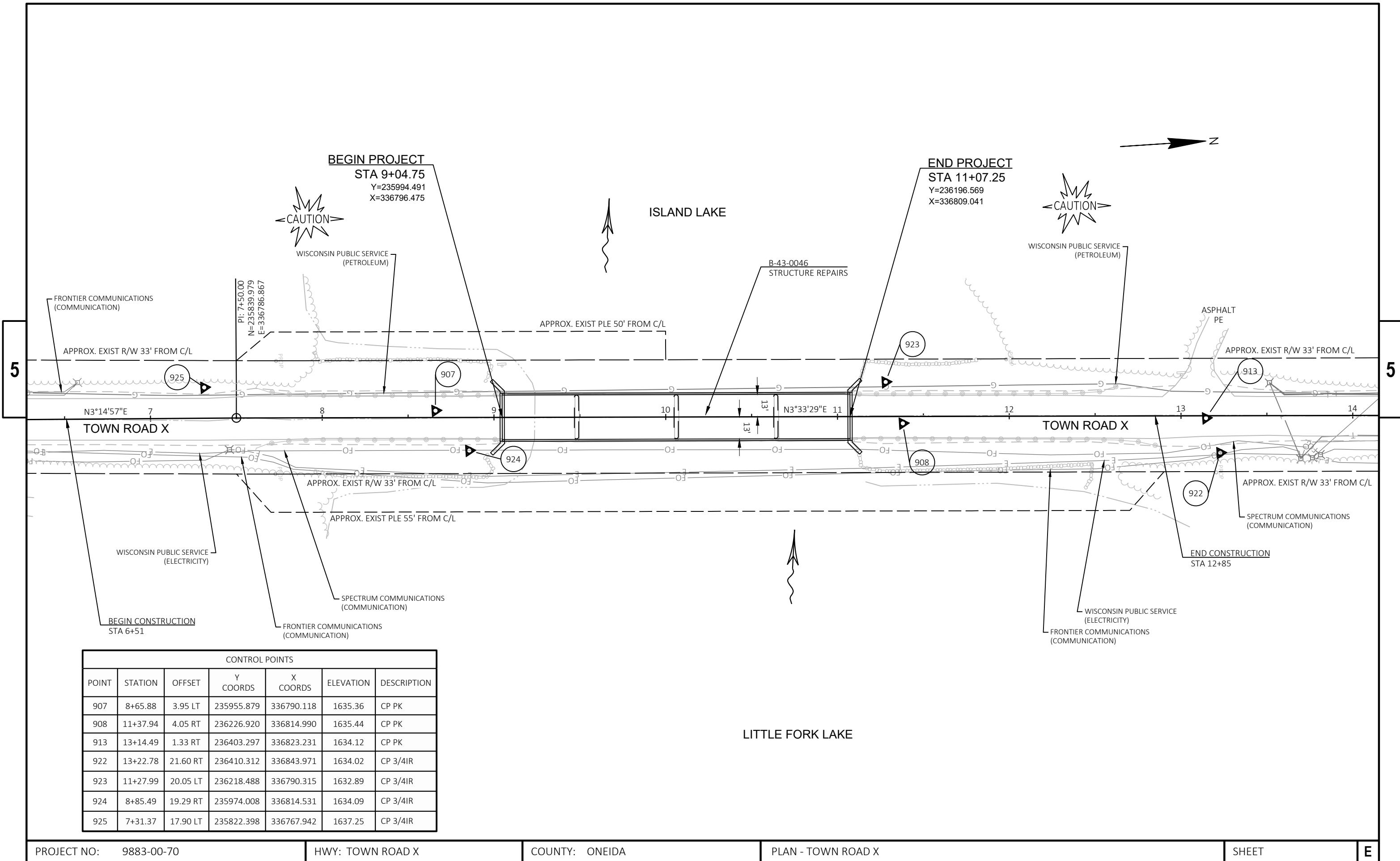
643.1050	Traffic Control Signs	PCMS DAYS
Closure	Site	
Project 9883-00-70 Cat 0010		
1	South Abutment	7
1	North Abutment	7
2	South Abutment	7
2	North Abutment	7
3	South Abutment	7
3	North Abutment	7
Project 9883-00-70 Cat 0010 Total		42

Temporary Pavement Marking

	643.3180	643.3850
Location	Temporary Marking Line	Temporary Marking Stop line
	Removable Tape	Stop line
Project 9883-00-70 Cat 0010		
Temporary Signal - South Approach	450	12
Temporary Signal - North Approach	---	12
Project 9883-00-70 Cat 0010 Total	450	24

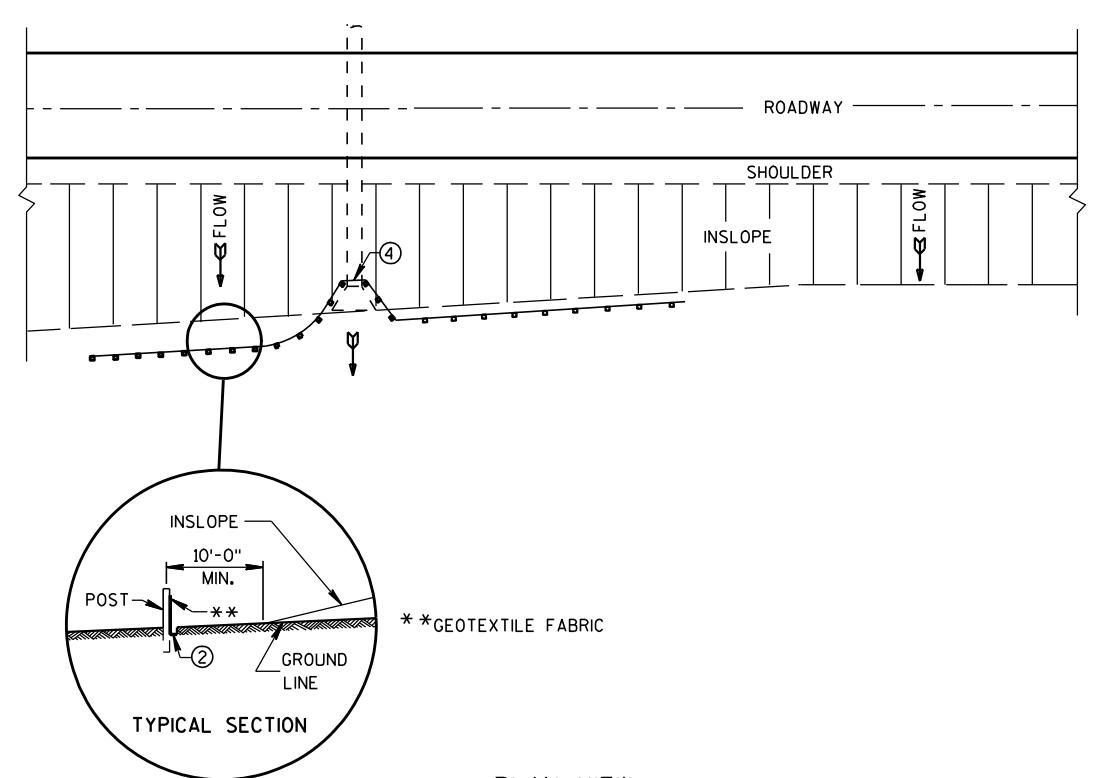
Temporary Traffic Signal

661.0101	Temporary Traffic Signal For Bridges	01. B-43-046
Location	EACH	
Project 9883-00-70 Cat 0010		
Project	1	
Project 9883-00-70 Cat 0010 Total	1	

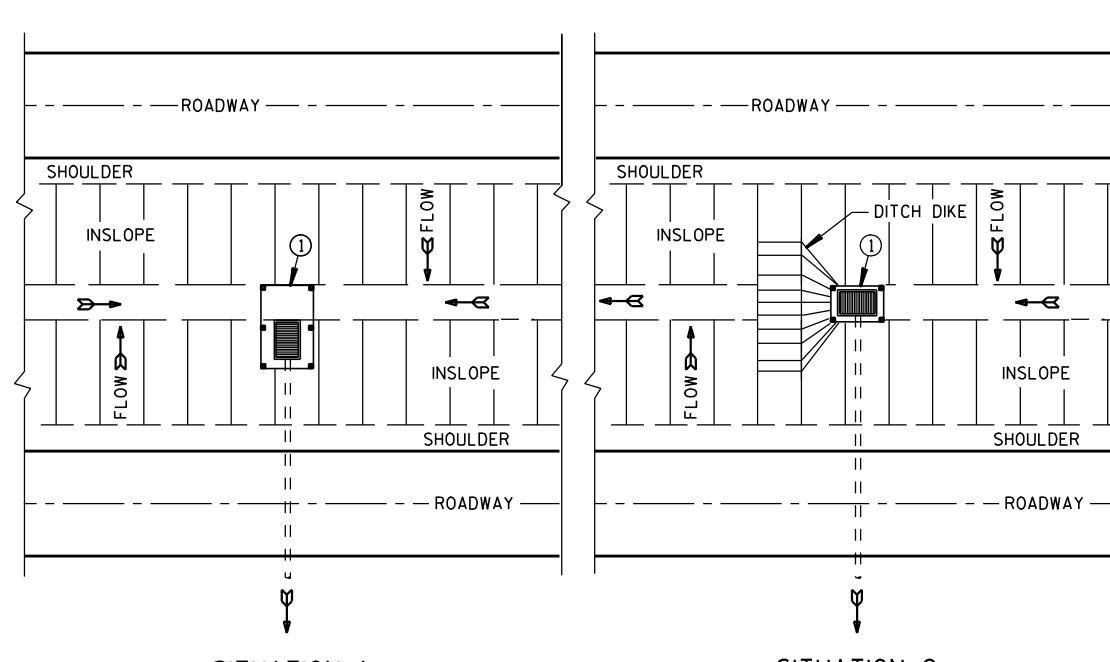


Standard Detail Drawing List

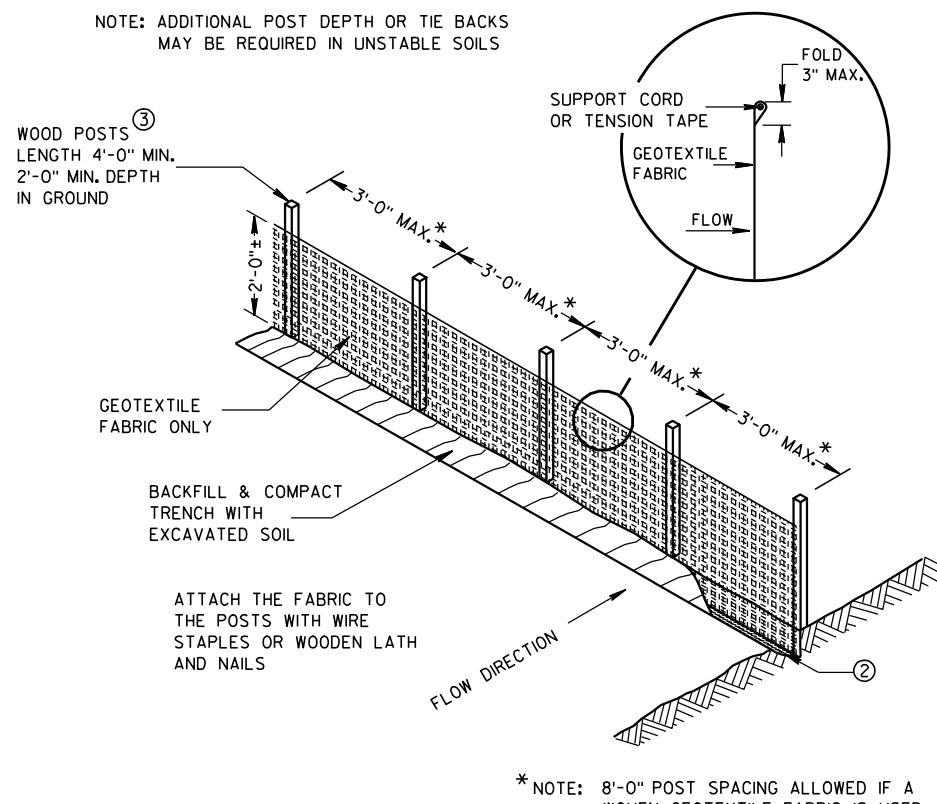
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
09G02-05A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-09F	ADVANCED WIDTH RESTRICTION SIGNING
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D33-09	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS



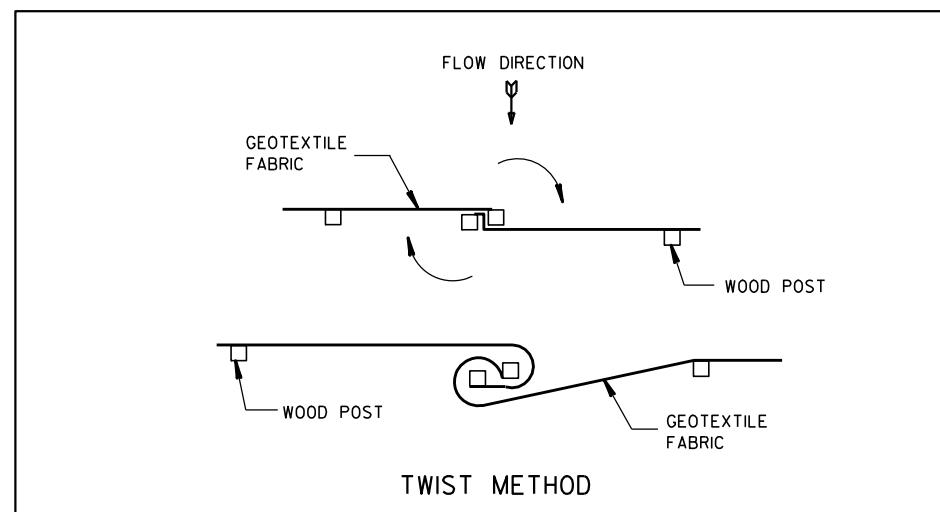
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



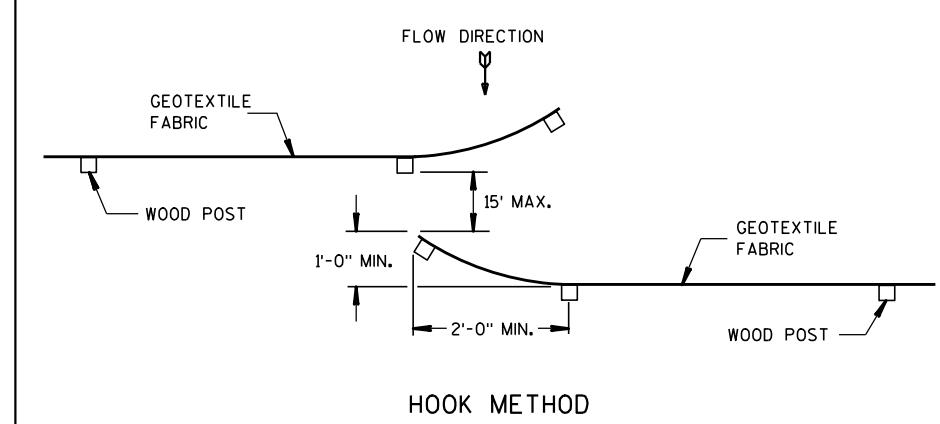
SILT FENCE AT MEDIAN SURFACE DRAINS



SILT FENCE



TWIST METHOD

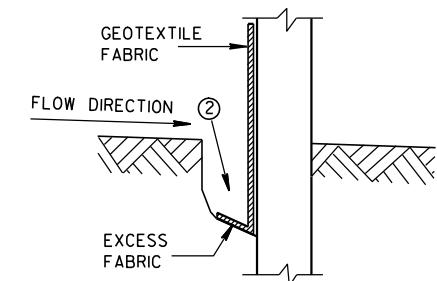


JOINING TWO LENGTHS OF SILT FENCE^⑤

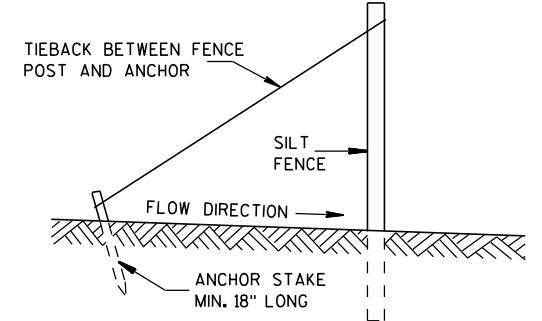
GENERAL NOTES

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 1/8" X 1/8" 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.

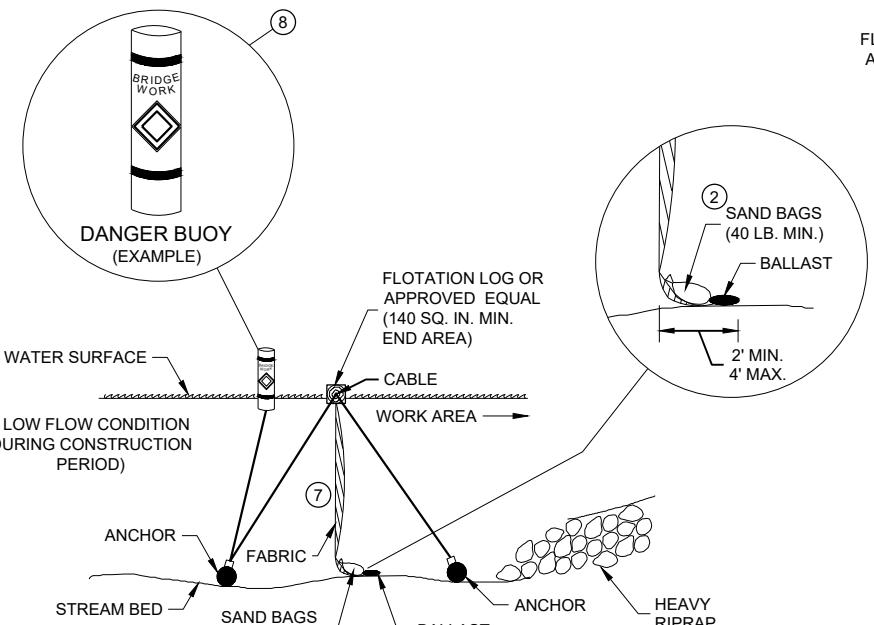


TRENCH DETAIL



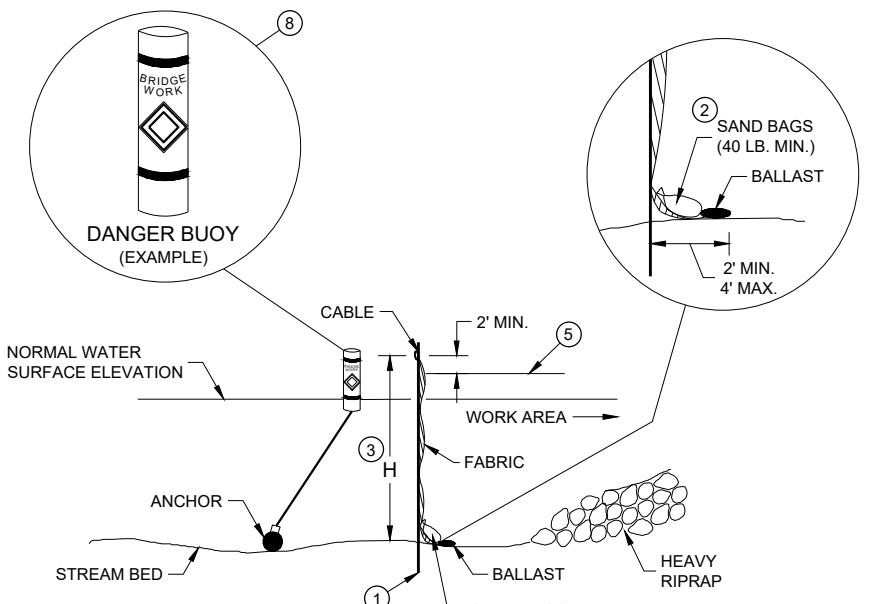
SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE FHWA	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER



SECTION B - B

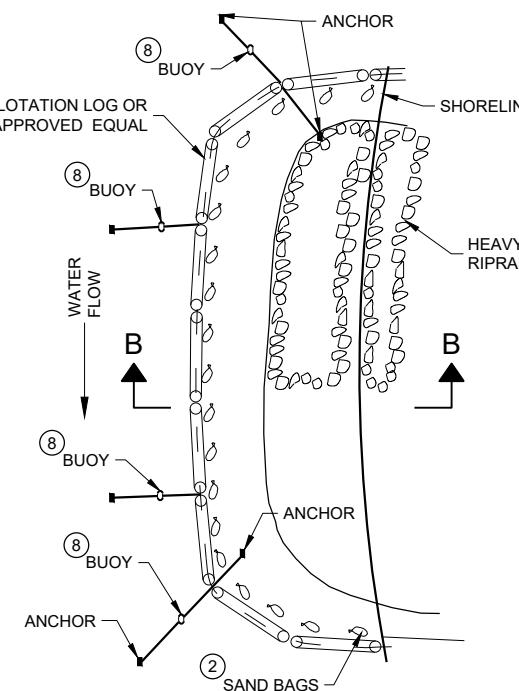
TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



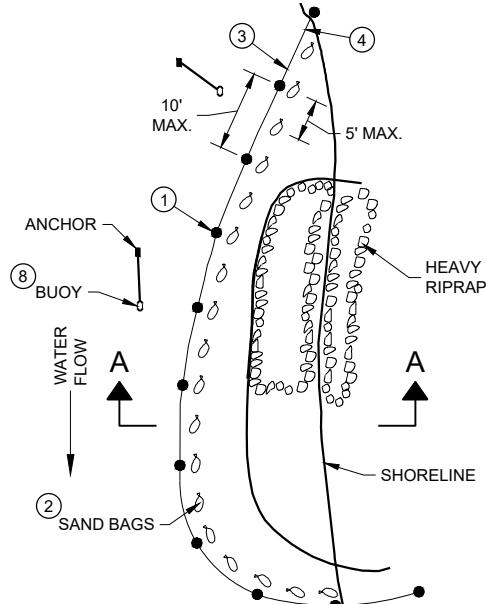
SECTION A - A

TURBIDITY BARRIER - STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS



PLAN VIEW



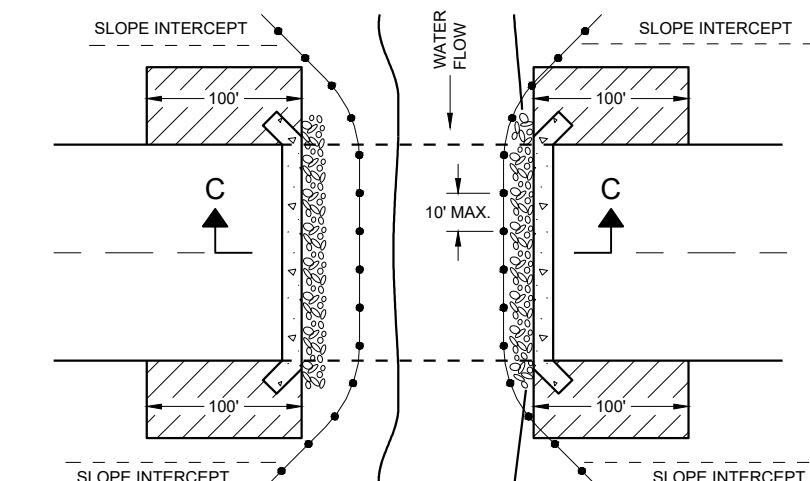
PLAN VIEW

GENERAL NOTES

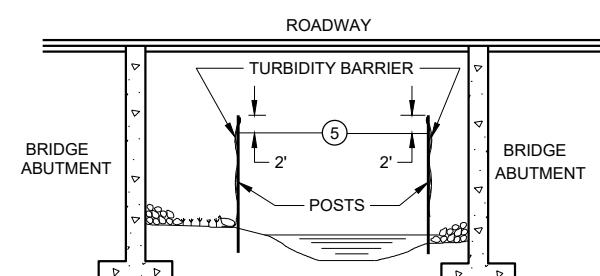
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

- ① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
- ② SAND BAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.
- ③ WHEN BARRIER HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.
- ④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.
- ⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.
- ⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.
- ⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.
- ⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



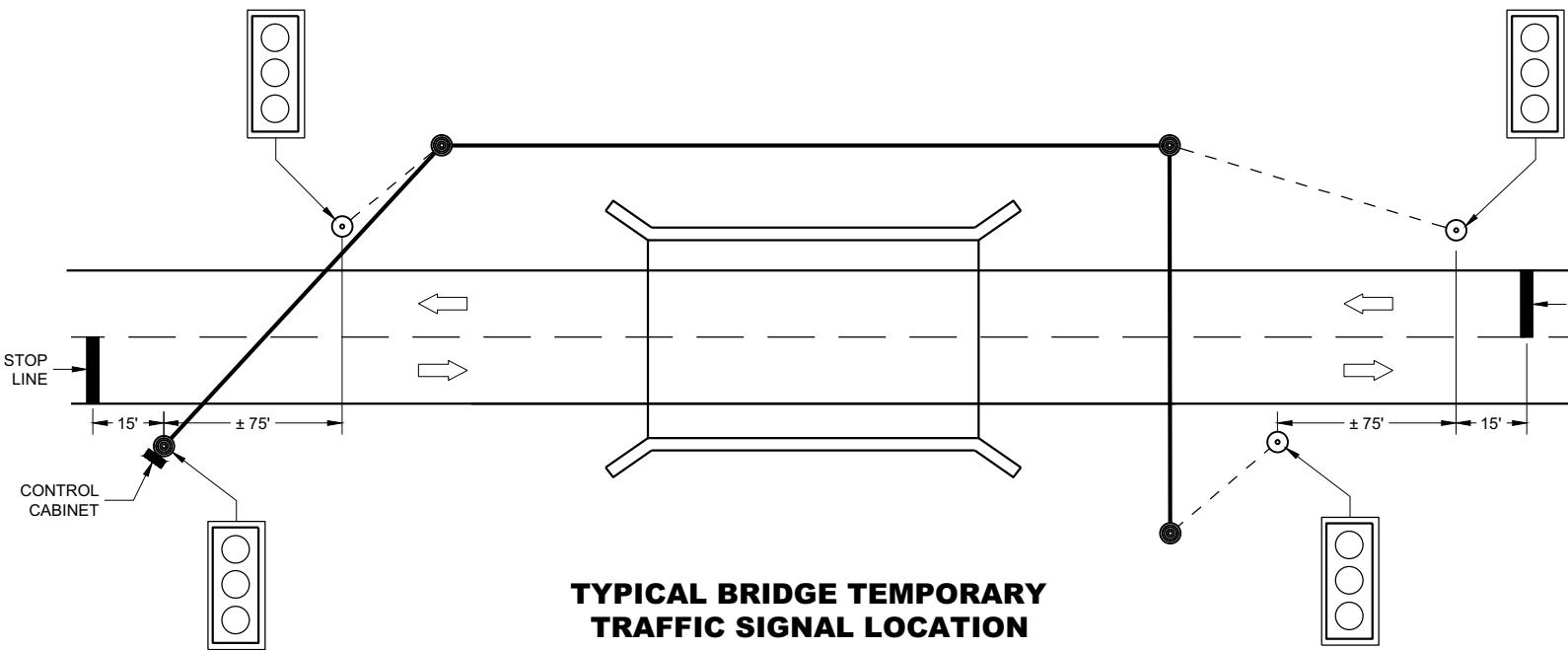
SECTION C - C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

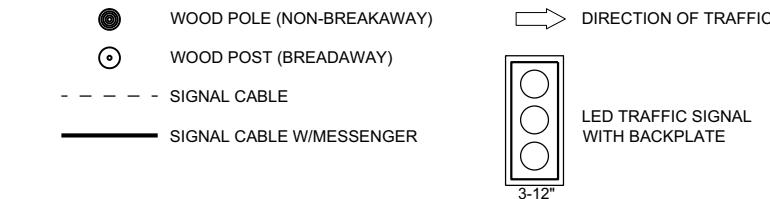
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/4/02 /S/ Beth Cannestra
DATE CHIEF ROADWAY DEVELOPMENT
FHWA ENGINEER



LEGEND

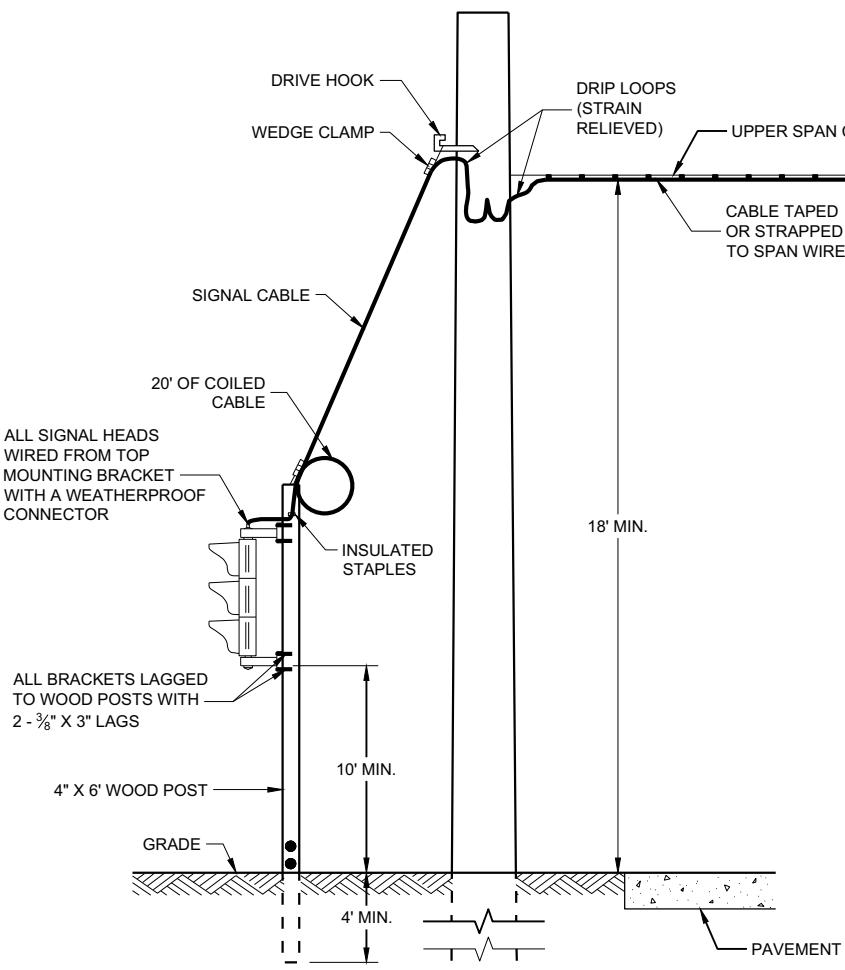


GENERAL NOTES

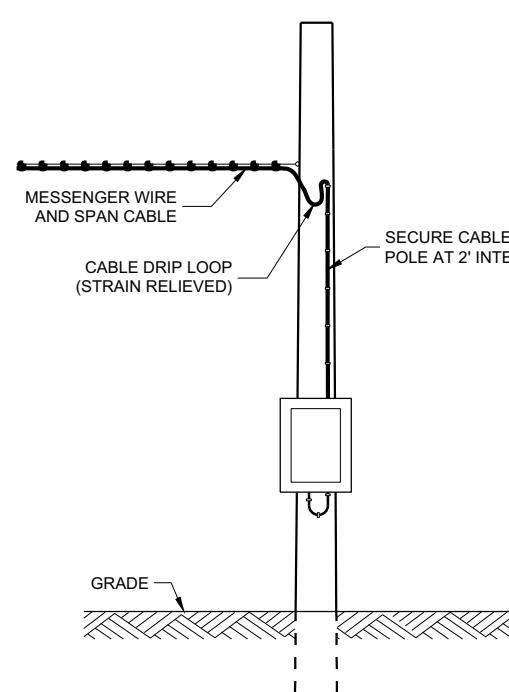
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
POLE MOUNTED TRAFFIC SIGNAL CONTROL CABINET MAY BE MOUNTED ON THE SERVICE POLE IF THE ELECTRICAL UTILITY ALLOWS THE INSTALLATION.
WHEN UTILITY POLES ARE USED TO SPAN THE TEMPORARY OVERHEAD CABLE, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF THE POLES AND GIVEN TO THE PROJECT MANAGER. ALL PERTINENT UTILITY AND CODE CLEARANCES SHALL BE MAINTAINED.
WOOD POLES (NON-BREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAM GUARD, ETC.).
WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.
VERTICAL CLEARANCE ETC. PER NEC.
TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.
EACH TRAFFIC SIGNAL SHALL HAVE A BACKPLATE.
SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15D33.

6

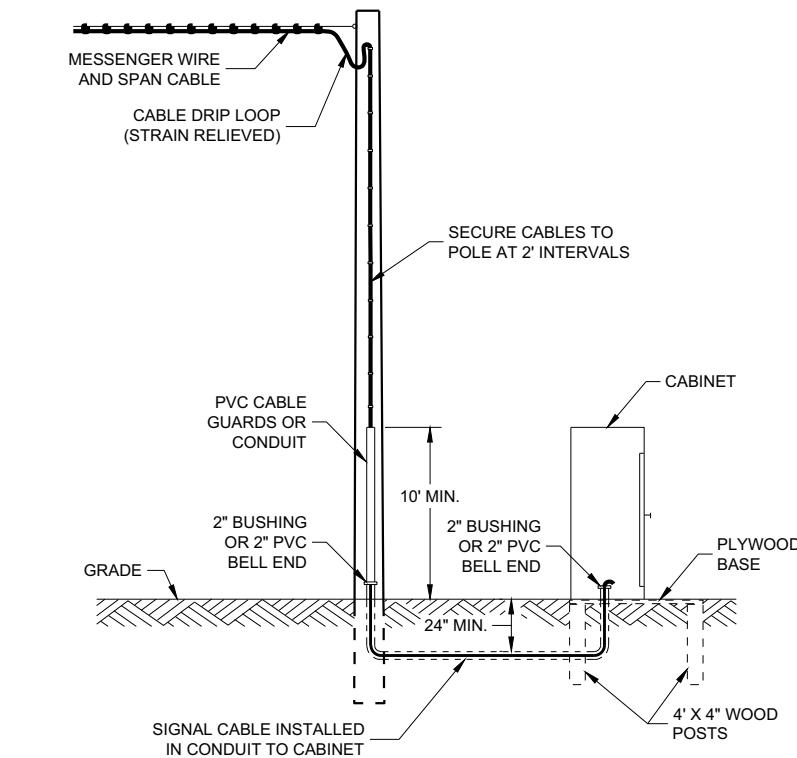
6



TYPICAL DROP TO TRAFFIC SIGNAL FACE



POLE MOUNT CABINET INSTALLATION



GROUND MOUNT CABINET INSTALLATION

MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES	
SPEED LIMIT	OFFSET DISTANCE*
GREATER THAN 45 MPH	18 FT
45 MPH OR LESS	12 FT
45 MPH OR LESS W/CURBS	2 FT

* NOTE: OFFSET MEASURED FROM OUTER EDGE OF OUTSIDE THRU LANE.

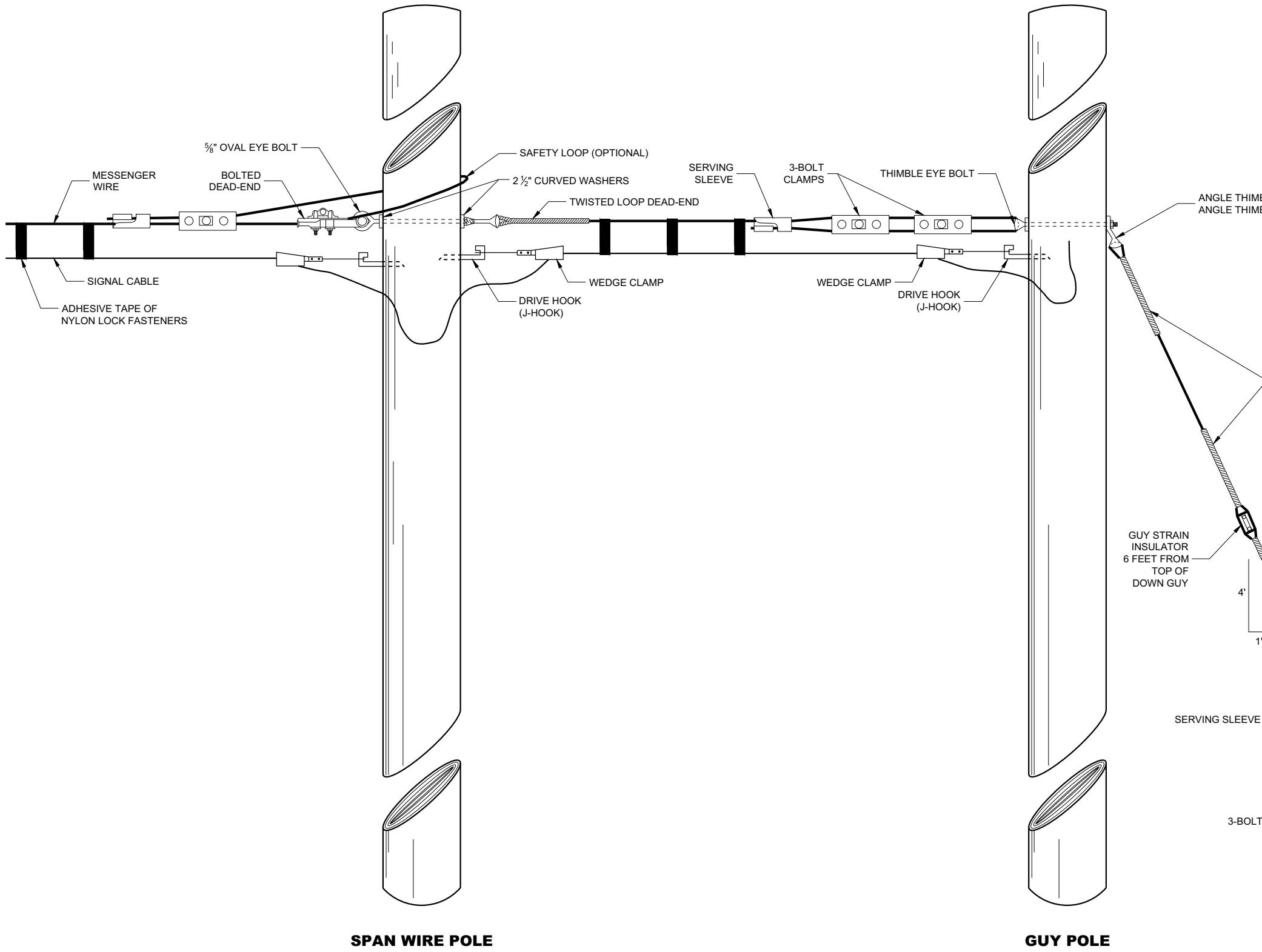
BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
/S/ Ahmet Demirbilek
DATE
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

SDD09G02 - 05a

SDD09G02 - 05a



GENERAL NOTES

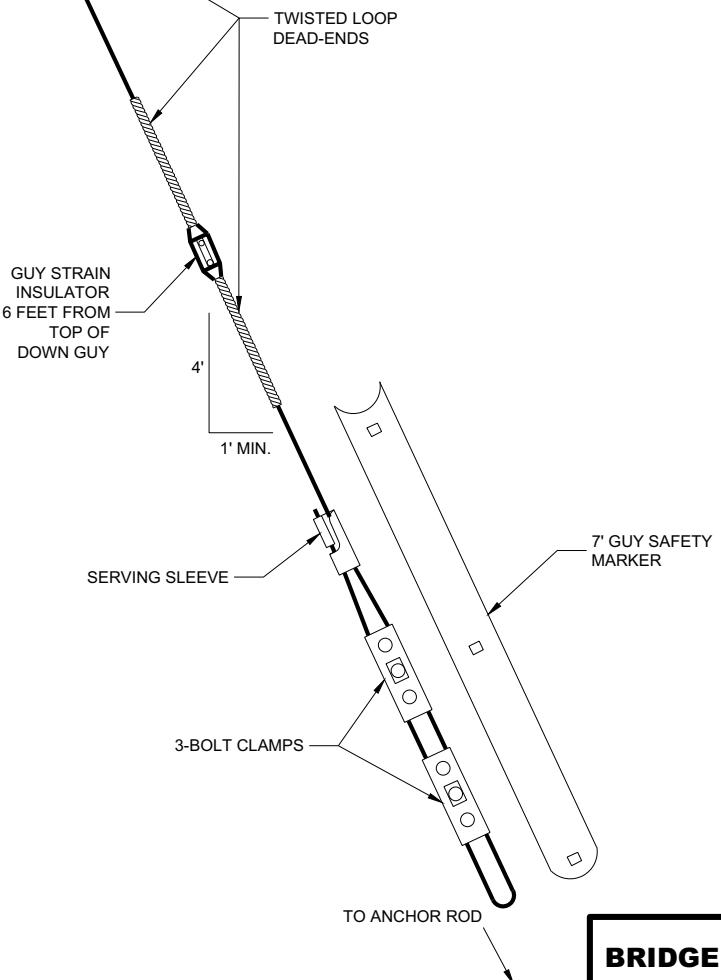
USE 3/4" DRILL IN WOOD POLE TO PROVIDE FOR 5/8" BOLTS.

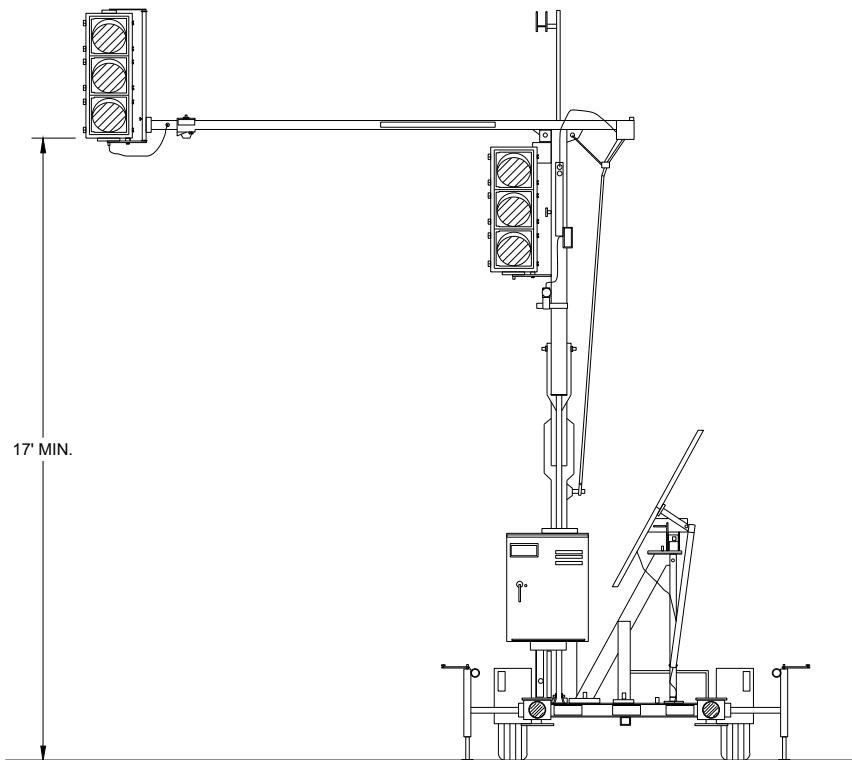
TYPICAL DEAD-ENDINGS OR GUYING

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

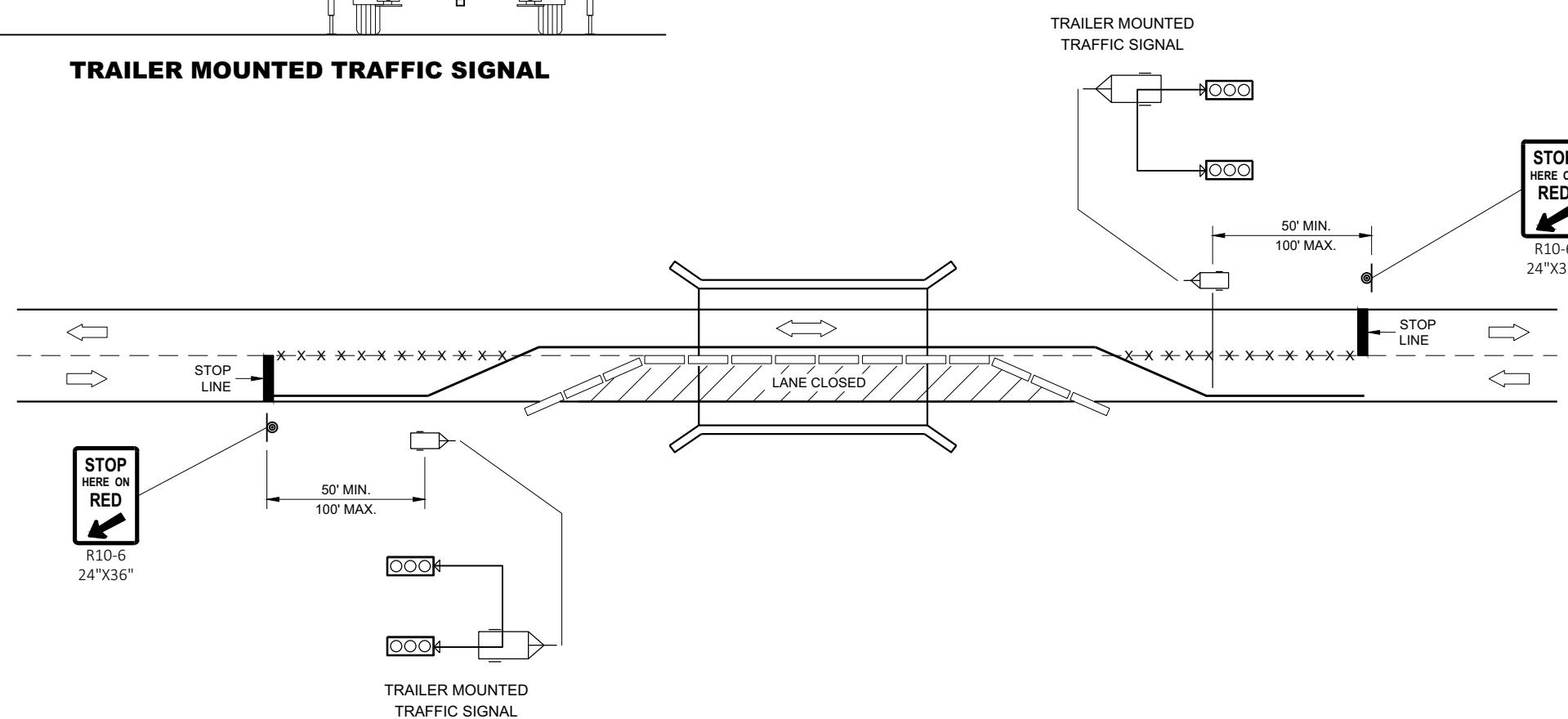
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015 /S/ Ahmet Demerbilek
DATE FHWA
ROADWAY STANDARDS DEVELOPMENT
ENGINEER





TRAILER MOUNTED TRAFFIC SIGNAL



TRAILER MOUNTED TRAFFIC SIGNAL

TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

GENERAL NOTES

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

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15D33.

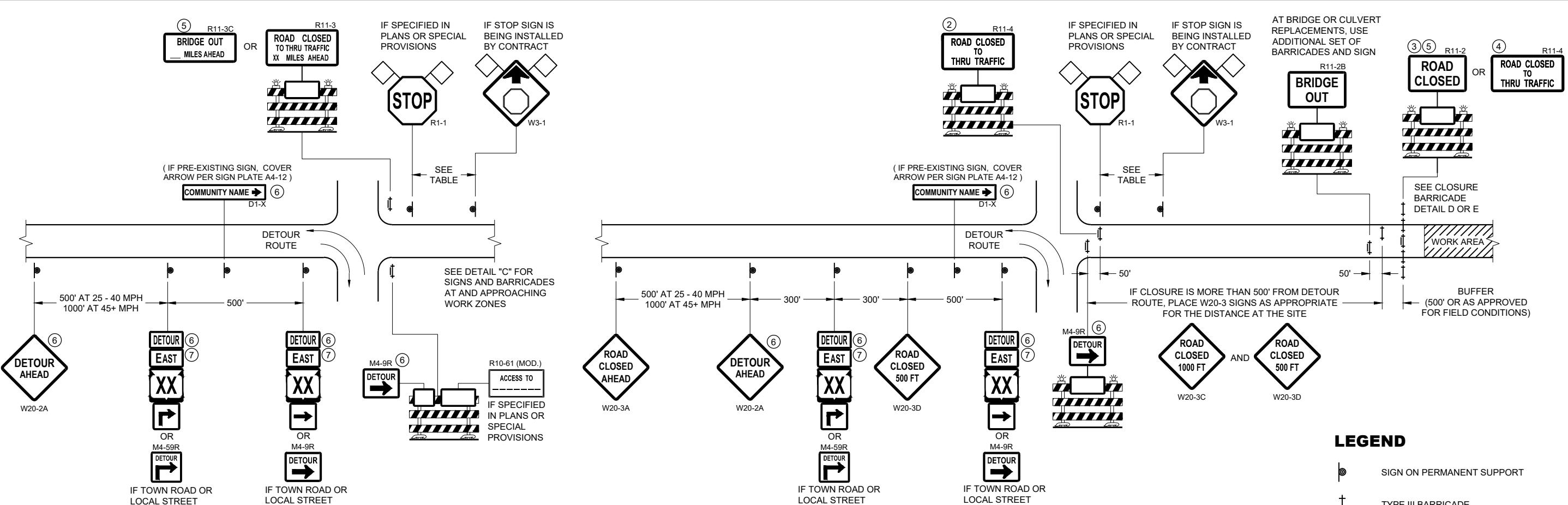
LEGEND

- POST MOUNTED SIGN
- TEMPORARY PRECAST CONCRETE BARRIER
- TRAILER MOUNTED TRAFFIC SIGNAL
- REMOVE PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015 /S/ Ahmet Demerbilek
DATE FHWA
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN $\frac{1}{2}$ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

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



WORK AREA



FLAGS, 16" X 16" MIN. (ORANGE)



AT BRIDGE OR CULVERT REPLACEMENTS, USE ADDITIONAL SET OF BARRICADES AND SIGN



OR



OR



OR



OR



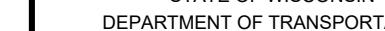
OR



OR



OR



OR



OR



OR



OR

OR

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

R11 - 2 SHALL BE 48" X 30"

R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"

M4 - 9 SHALL BE 30" X 24"

M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)

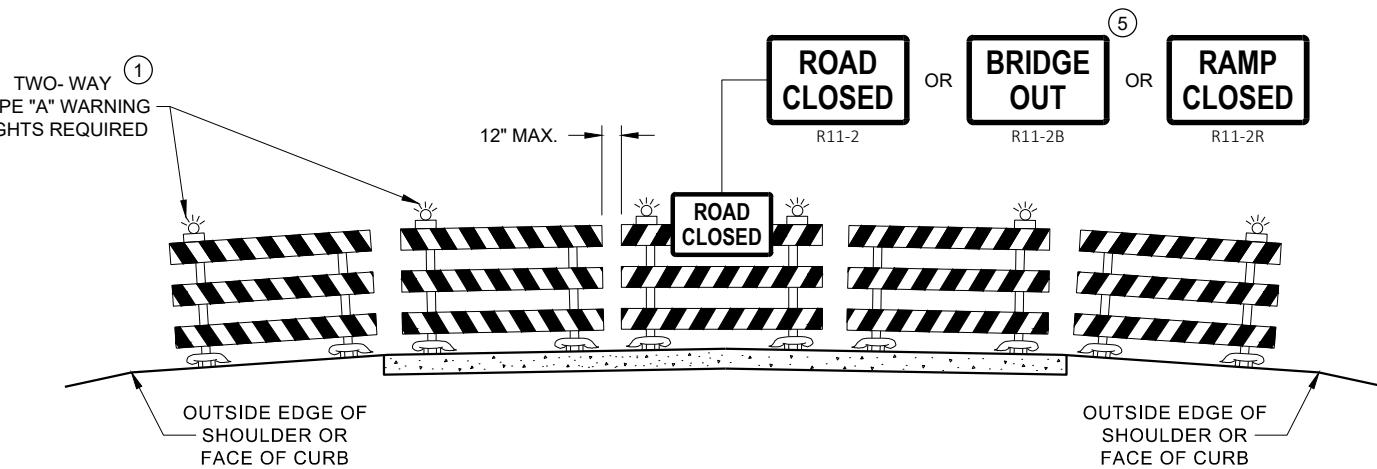
M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)

M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)

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.

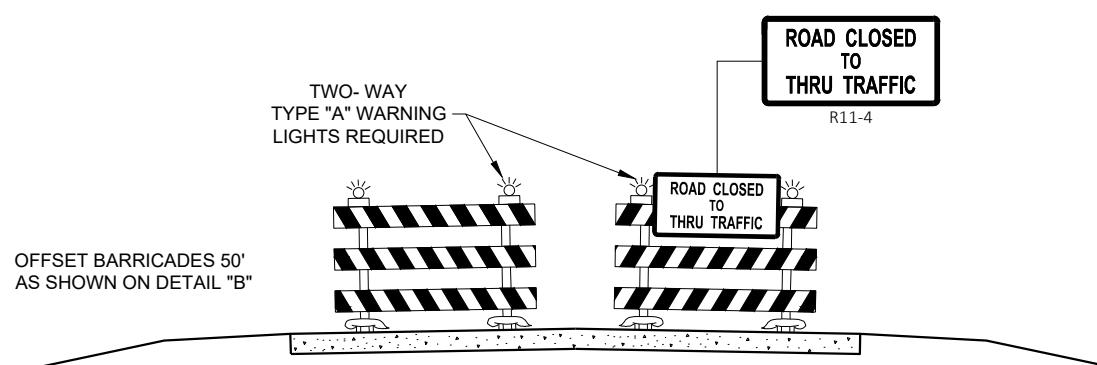
R1 - 1 SHALL BE 36" X 36"



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW

6

6



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SDD 15C02 - 09b

SEE SDD 15C2 - SHEET "a" FOR LEGEND

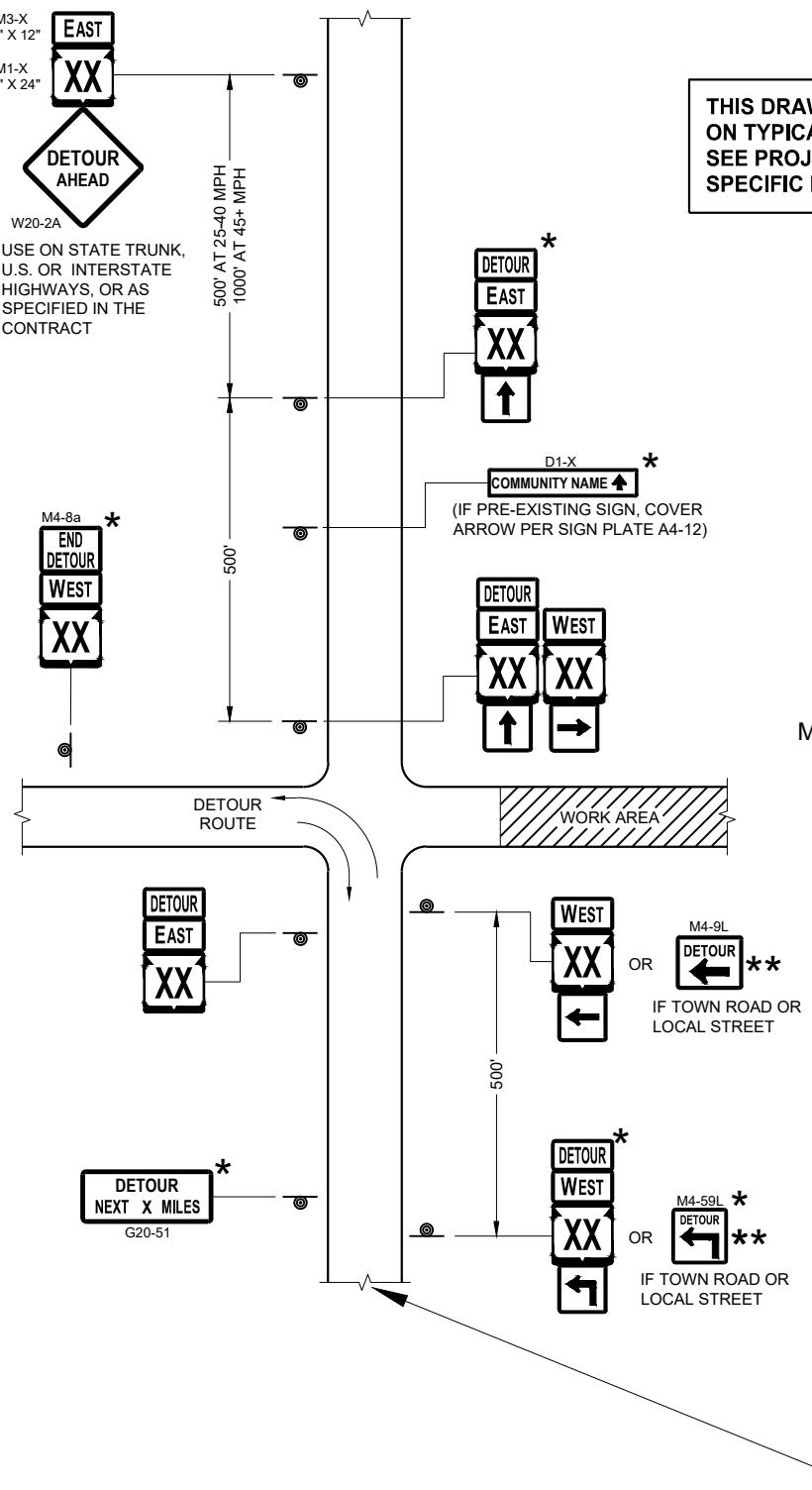
BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
FHWA

/S/ Andrew Heidtke
WORK ZONE ENGINEER

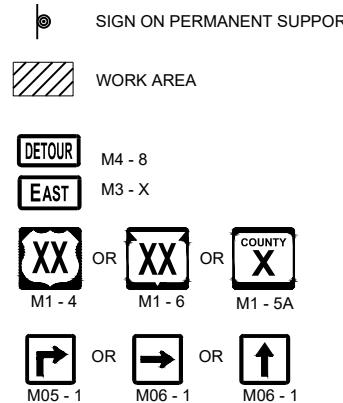
SDD 15C02 - 09b



SEE SPECIFIC PROJECT DETOUR
SIGNING DETAIL SHEETS AND
DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F DETOUR SIGNING

LEGEND



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.

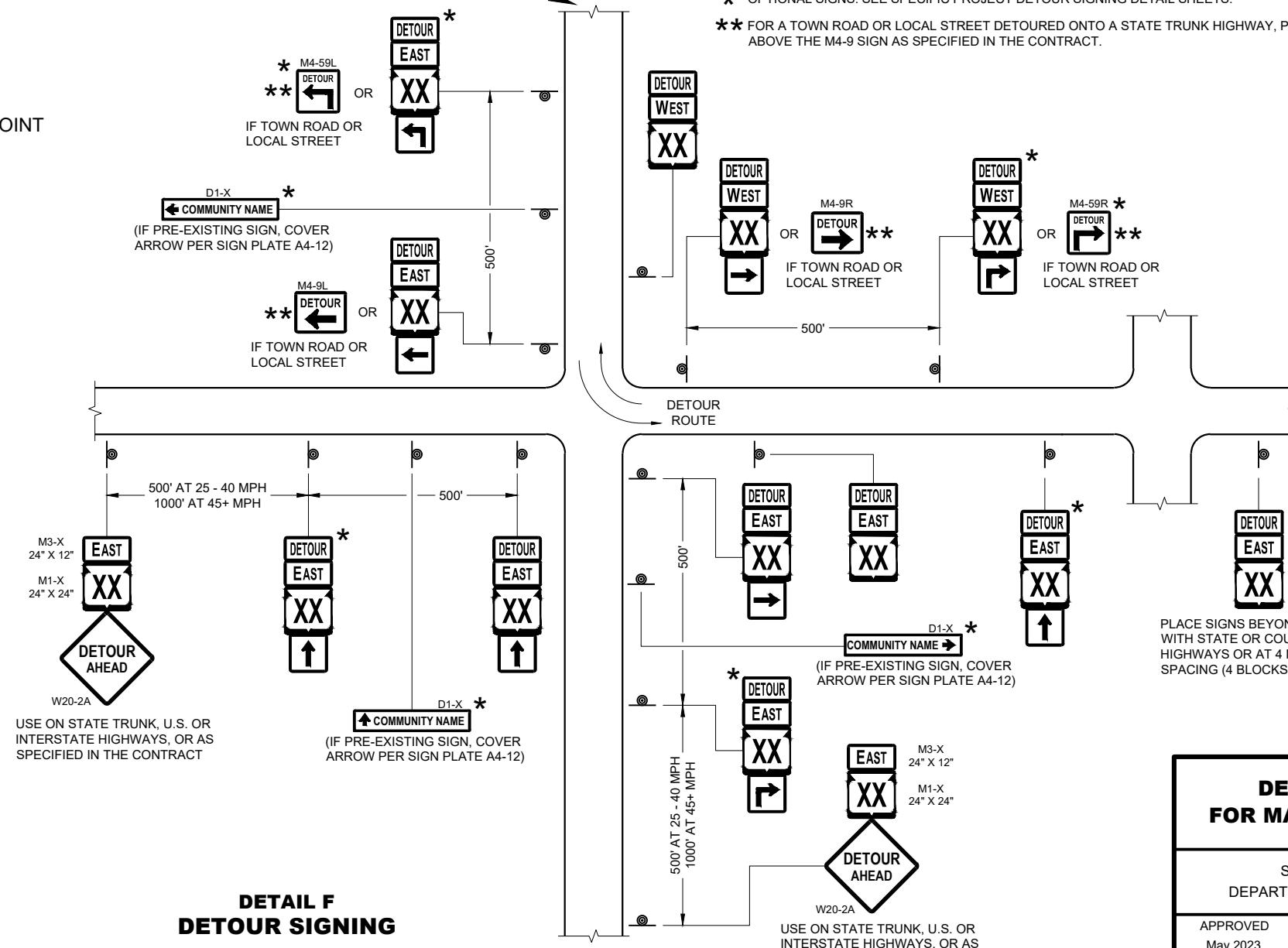
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE

SIGN SIZES SHALL BE AS FOLLOWS

M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M1-4, M1-5A AND M6-1 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
M4-9 AND M4-59 SHALL BE 30" X 24"
M4-8a SHALL BE 24" X 18"
G20-51 SHALL BE 60" X 24"
W20-2A SHALL BE 48" X 48"
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

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

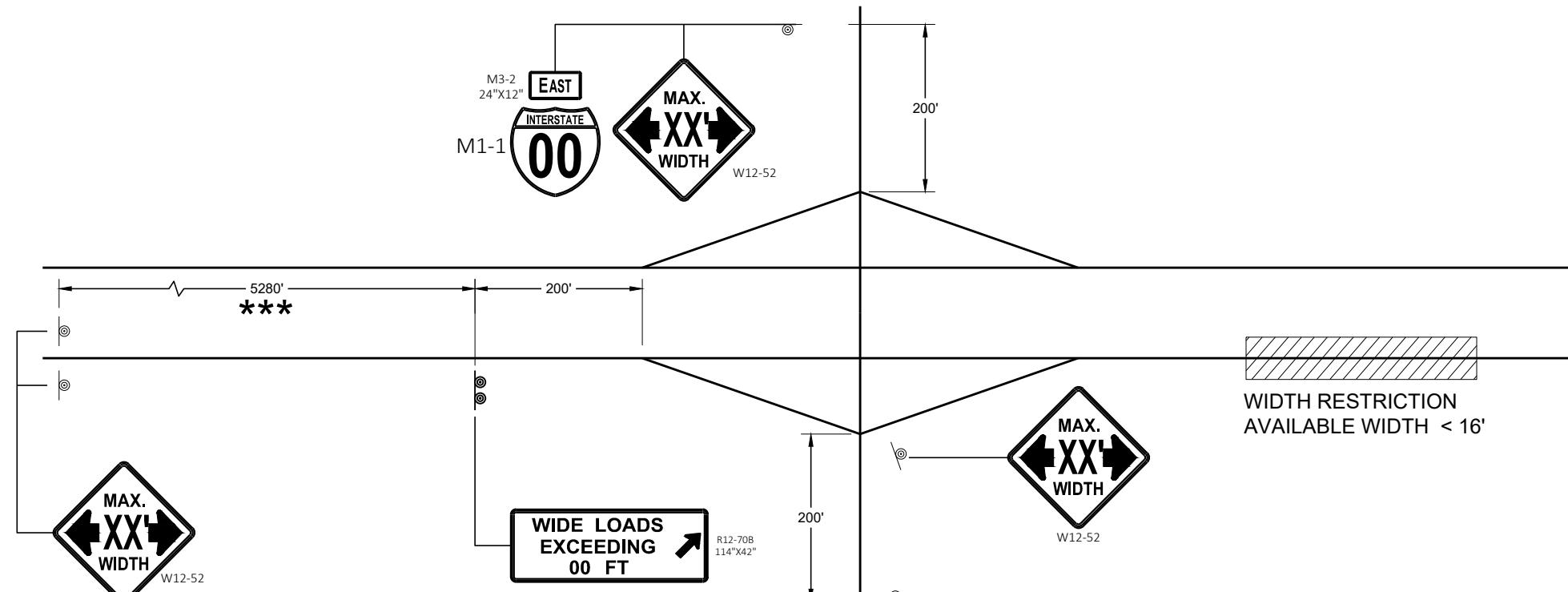
** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



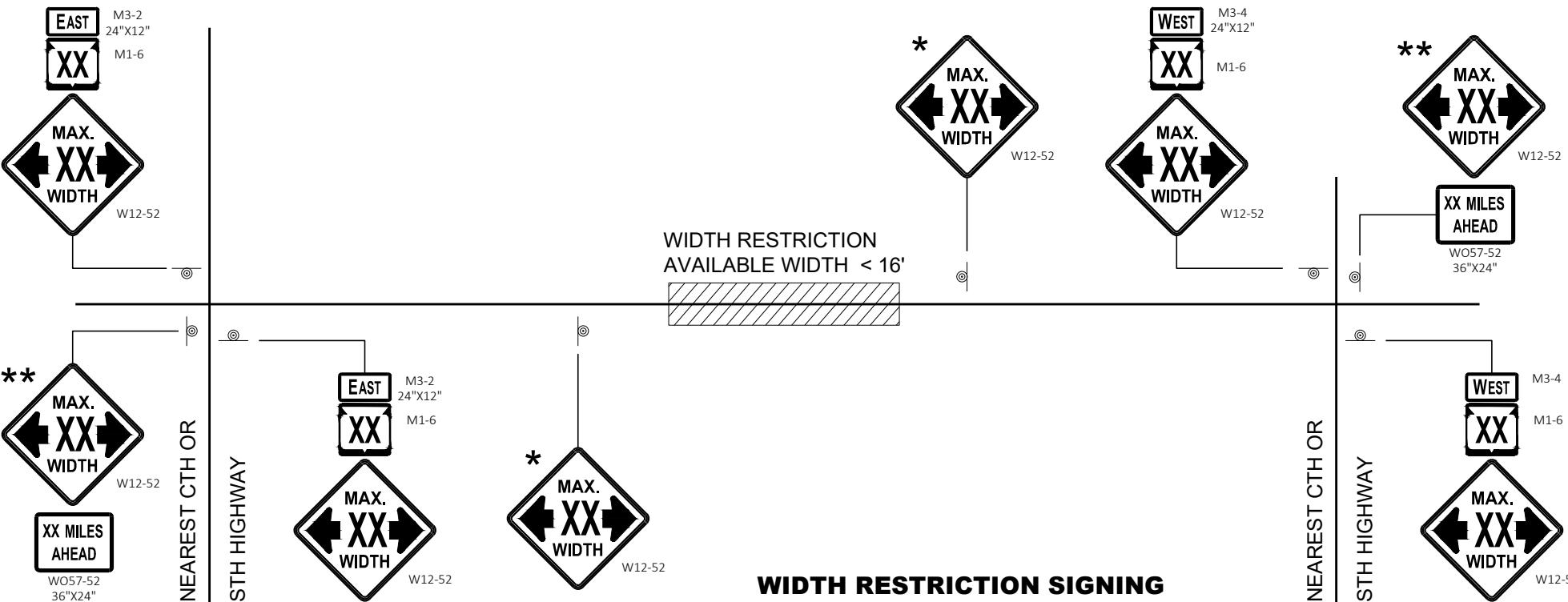
DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
/A



WIDTH RESTRICTION SIGNING



WIDTH RESTRICTION SIGNING 2 LANE HIGHWAY

LEGEND

© SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

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

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

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

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

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

**** SIGN SHALL BE VISIBLE FROM ROADWAY.**

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.

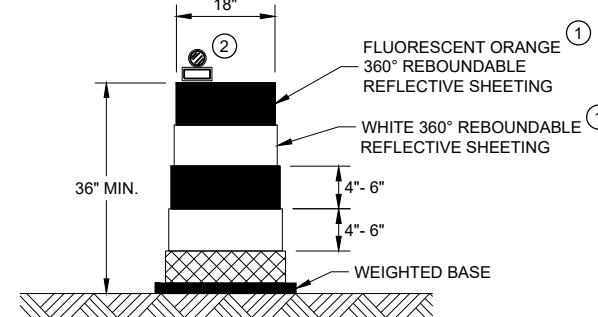


WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH

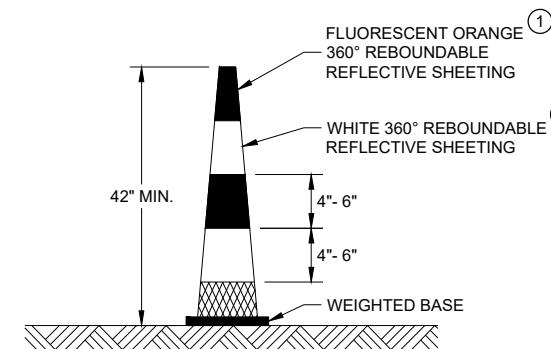
ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
WA

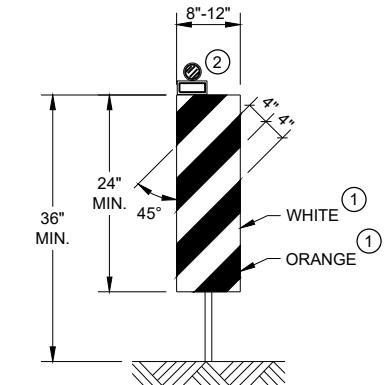
**DRUM**

BALLAST WIDTHS
RANGE FROM 24"-36"

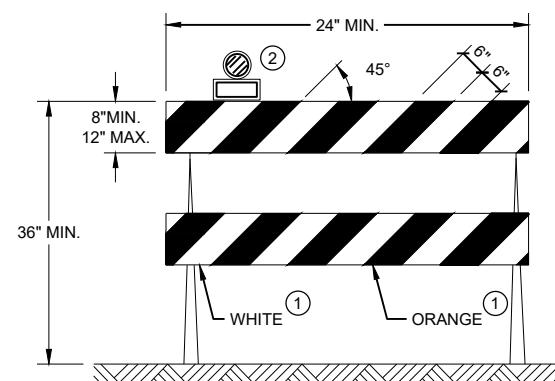
**42" CONE**

DO NOT USE IN TAPERS
 $\frac{1}{2}$ SPACING OF DRUMS

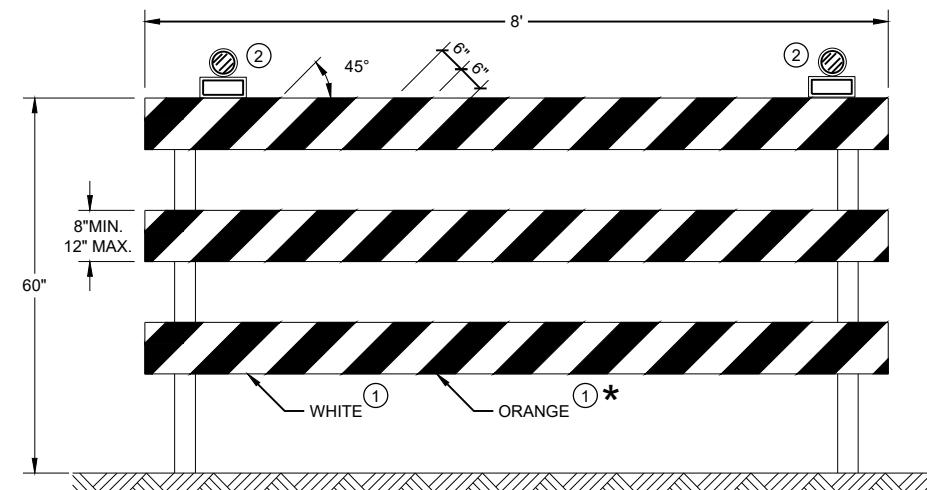
BALLAST WIDTHS
RANGE FROM 14"-20"

**VERTICAL PANEL**

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.

**TYPE II BARRICADE**

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.

**TYPE III BARRICADE**

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

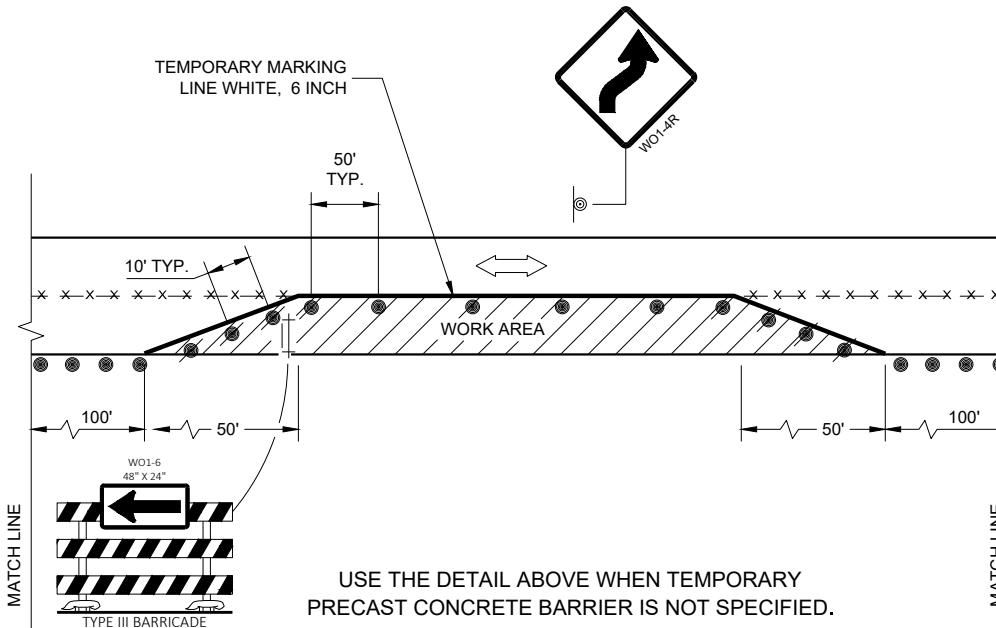
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 /S/ Andrew Heidke
DATE
FHWA

WORK ZONE ENGINEER

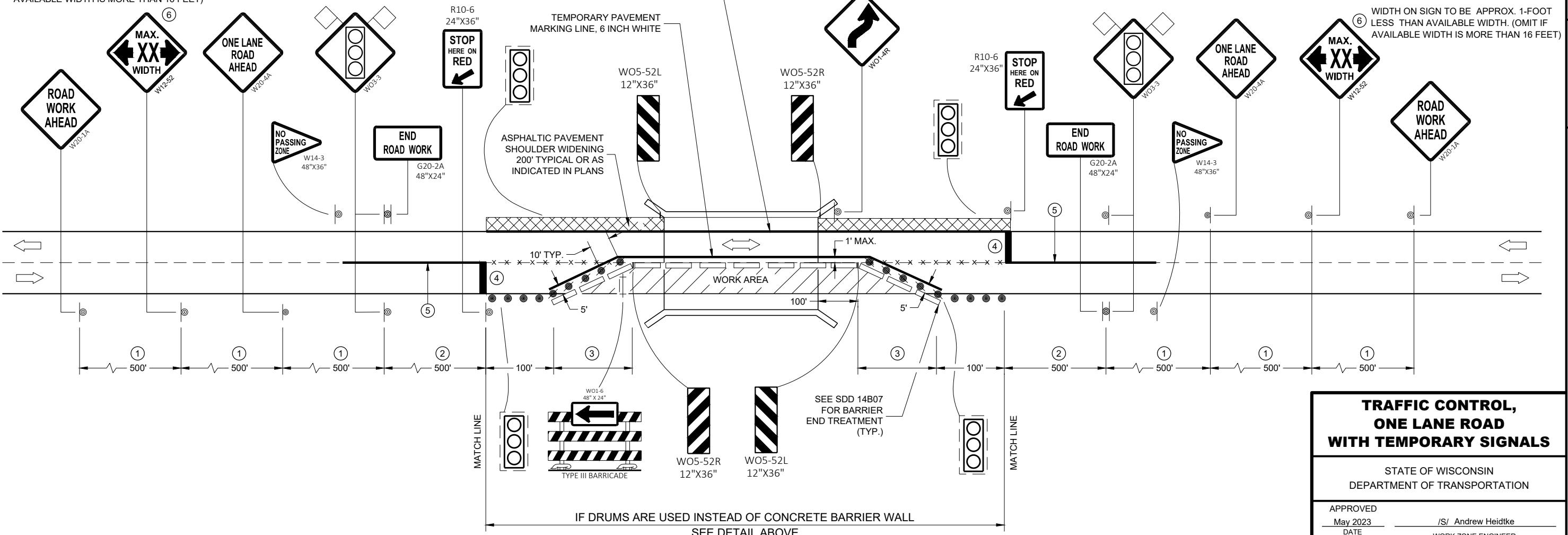
LEGEND

- ⊕ TYPE III BARRICADE WITH ATTACHED SIGN
- ◎ SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- ◇ ◇ FLAGS, 16" X 16" MIN. (ORANGE)
- ××× REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- ☒☒ ASPHALTIC PAVEMENT WIDENING
- CONCRETE BARRIER TEMPORARY PRECAST
- ██ TEMPORARY SIGNAL. SEE SDD 09G02 FOR EXACT PLACEMENT



TEMPORARY PAVEMENT MARKING LINE, 6 INCH WHITE (STOPLINE TO STOPLINE). REMOVE EXISTING EDGELINE AND OFFSET THE TEMPORARY EDGELINE IF THE DISTANCE FROM THE EDGELINE TO CONCRETE BARRIER WALL IS LESS THAN 9 FEET.

WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET)



GENERAL NOTES

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

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

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

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

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

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

REMOVE PAVEMENT MARKING AND PLACE TEMPORARY PAVEMENT MARKING LINES IF THE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

INSTALL OVERHEAD TEMPORARY SIGNAL HEADS ABOVE THE MIDDLE OF THE TRAVEL LANE THEY ARE CONTROLLING.

- ① 500 FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35 - 40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25 - 30 MPH, USE 200 FOOT TYPICAL SPACING.
- ② USE 300 FOOT SPACING IF THE PRE - CONSTRUCTION REGULATORY SPEED IS 35 MPH OR LESS.
- ③ DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.
- ④ TEMPORARY PAVEMENT MARKING LINE, 18 INCH WHITE STOP LINE.
- ⑤ 700 FOOT TEMPORARY PAVEMENT MARKING LINE, 6 INCH DOUBLE YELLOW . WHEN THE DISTANCE FOR THE PRECEDING NO - PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
- ⑥ SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.

WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET)

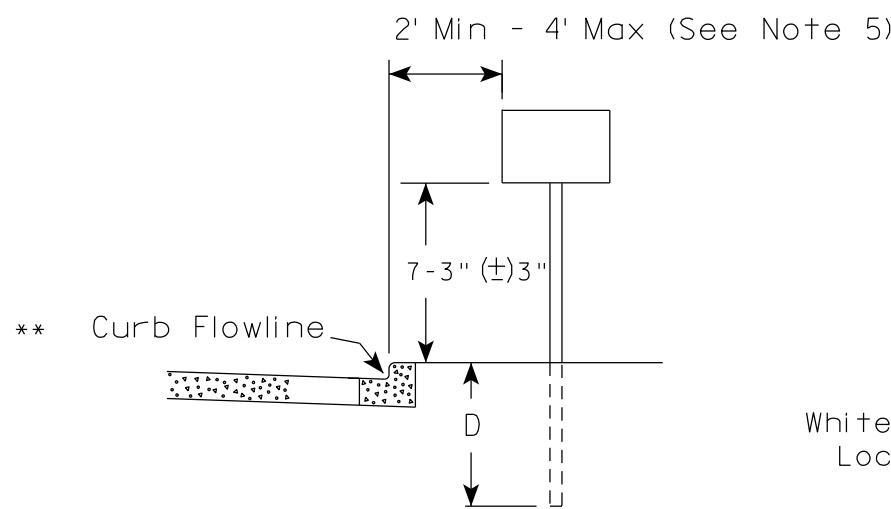
WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET)

**TRAFFIC CONTROL,
ONE LANE ROAD
WITH TEMPORARY SIGNALS**

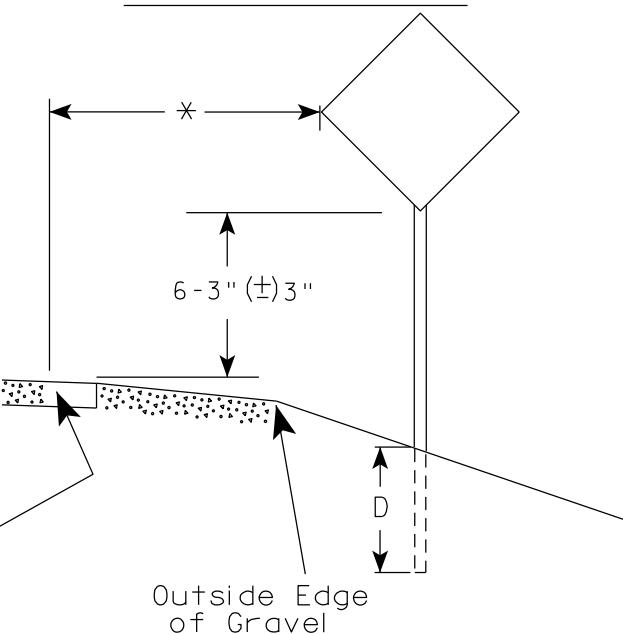
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidke
DATE
FHWA
WORK ZONE ENGINEER

URBAN AREA



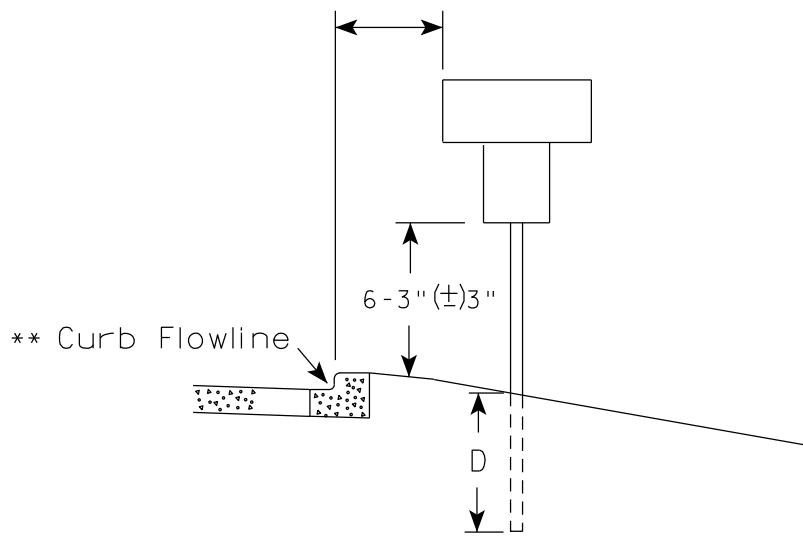
RURAL AREA (See Note 2)



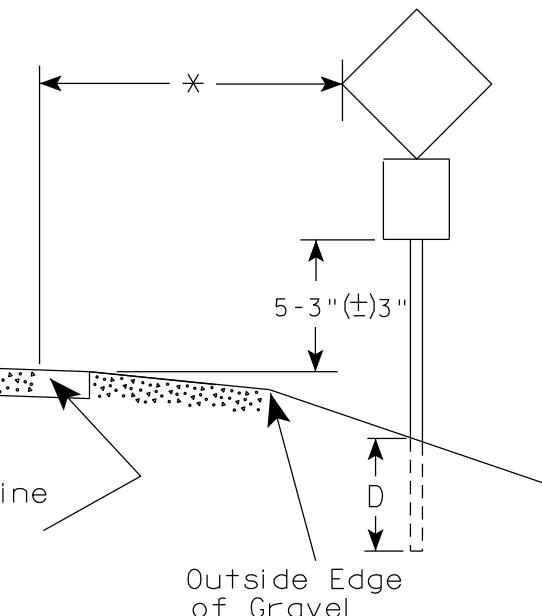
GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
3. The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (\pm) 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" (\pm) 3".
4. For expressways and freeways, mounting height is 7'-3" (\pm) 3" or 6'-3" (\pm) 3" depending upon existence of a sub-sign.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'-3" (\pm) 3".
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" (\pm) 3" or as directed by the Engineer.

2' Min - 4' Max (See Note 5)



White Edgeline Location



** 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.

POST EMBEDMENT DEPTH

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

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew P. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

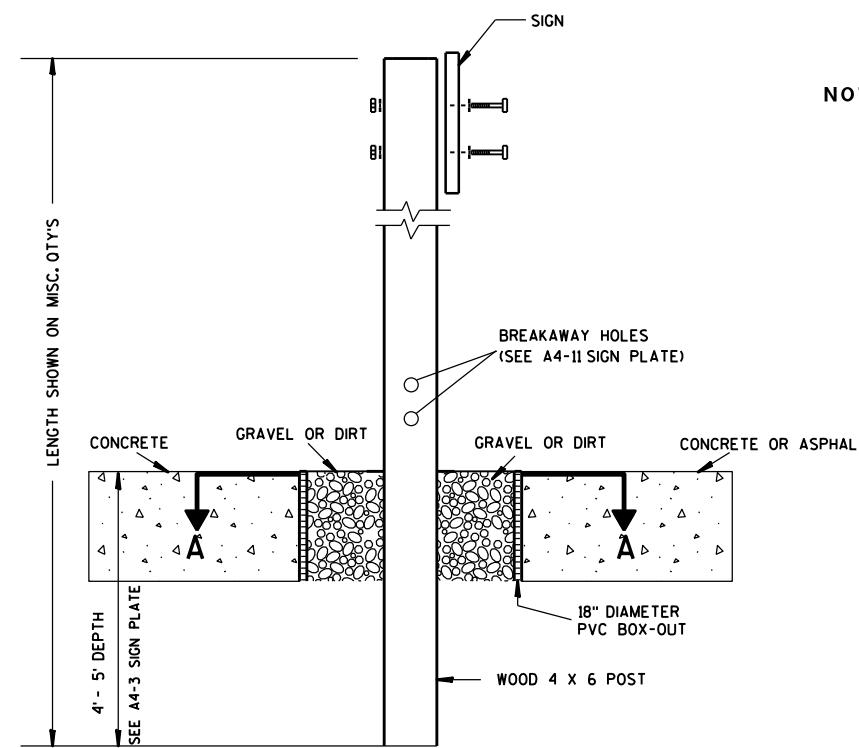
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

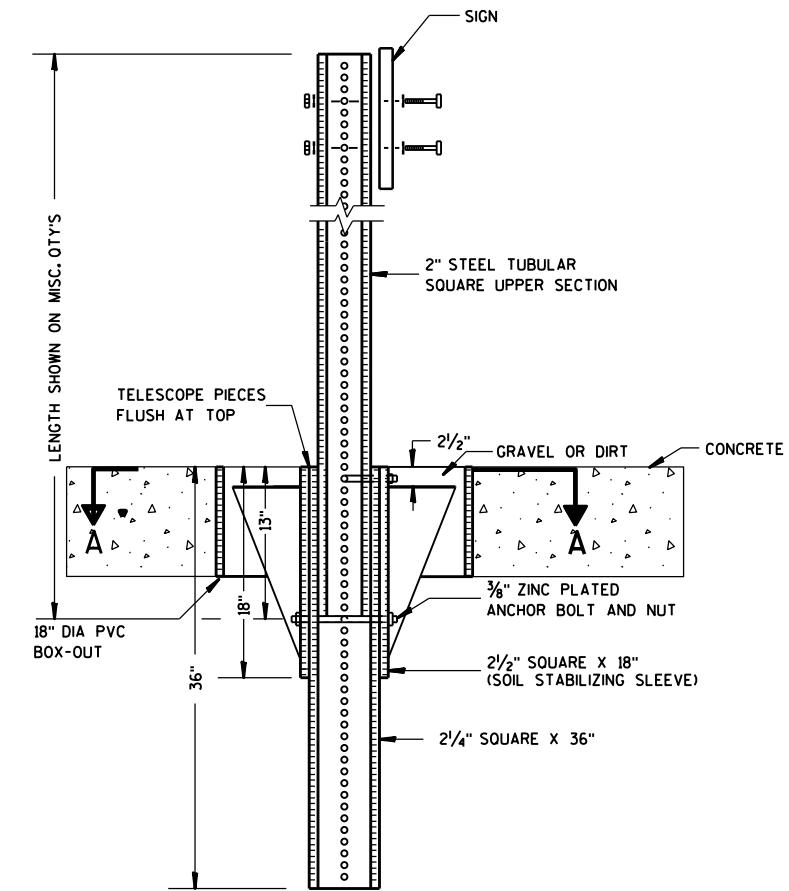


ELEVATION VIEW

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

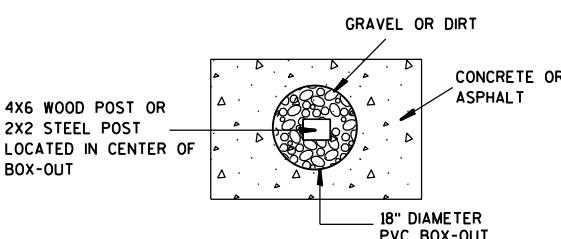
NOTES:

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

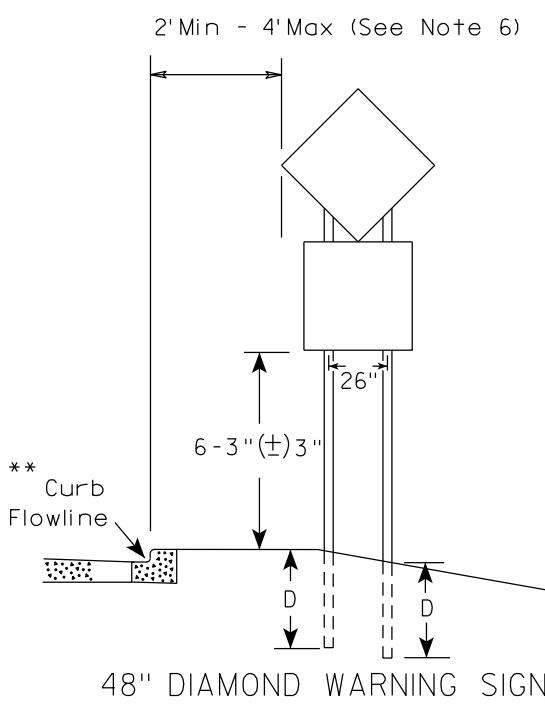
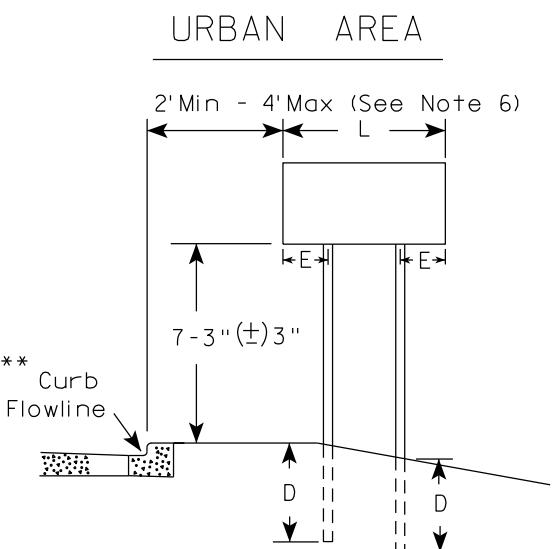
**SIGN POST
BOX-OUTS
A4-3B**

WISCONSIN DEPT OF TRANSPORTATION

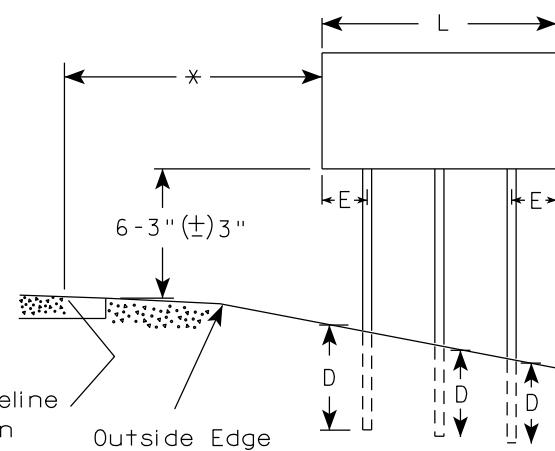
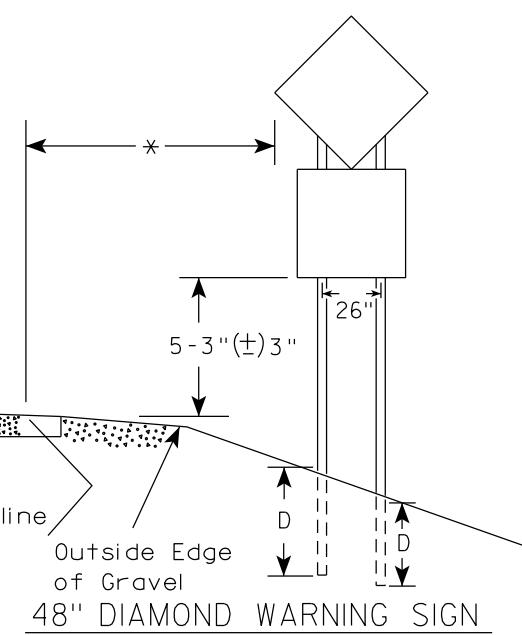
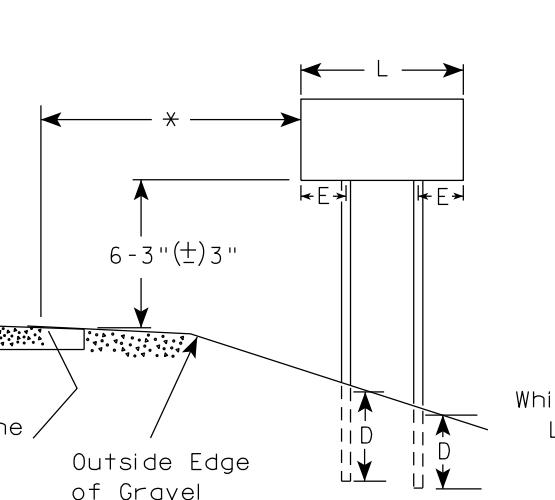
APPROVED
Matthew P Rauch
for State Traffic Engineer
DATE 1/27/14 PLATE NO. A4-3B.1

GENERAL NOTES

- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (\pm 3") or 6'-3" (\pm 3") depending upon existence of sub-sign.
- The (\pm) tolerance for mounting height is 3 inches.
- J-Assemblies are considered to be one sign for mounting height.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding signs shall be mounted at a height of 5'-3" (\pm 3") or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (\pm 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" (\pm 3").



RURAL AREA (See Note 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"	12"
Less than 60"	
60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)

L	E
Greater than 108" to 144"	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 12/6/23 PLATE NO. A4-4.16

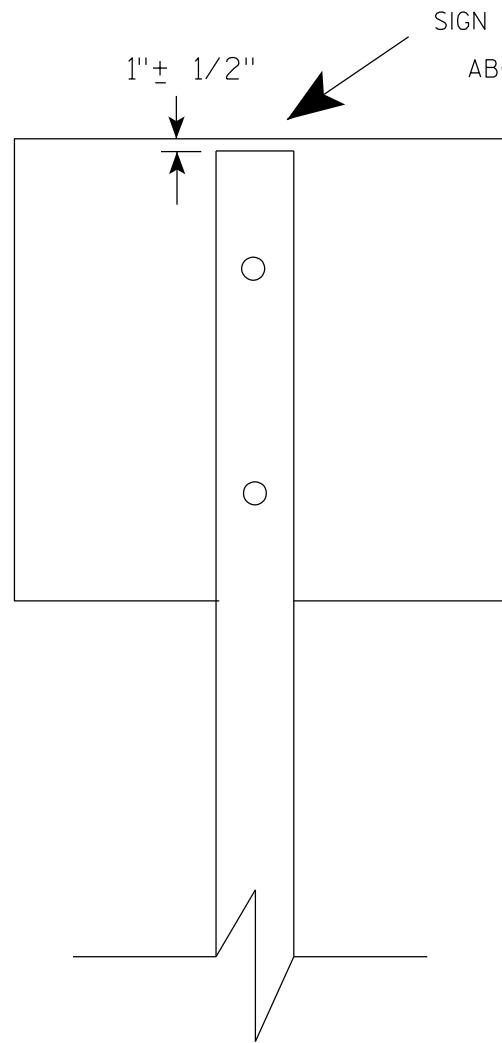
PROJECT NO:

HWY:

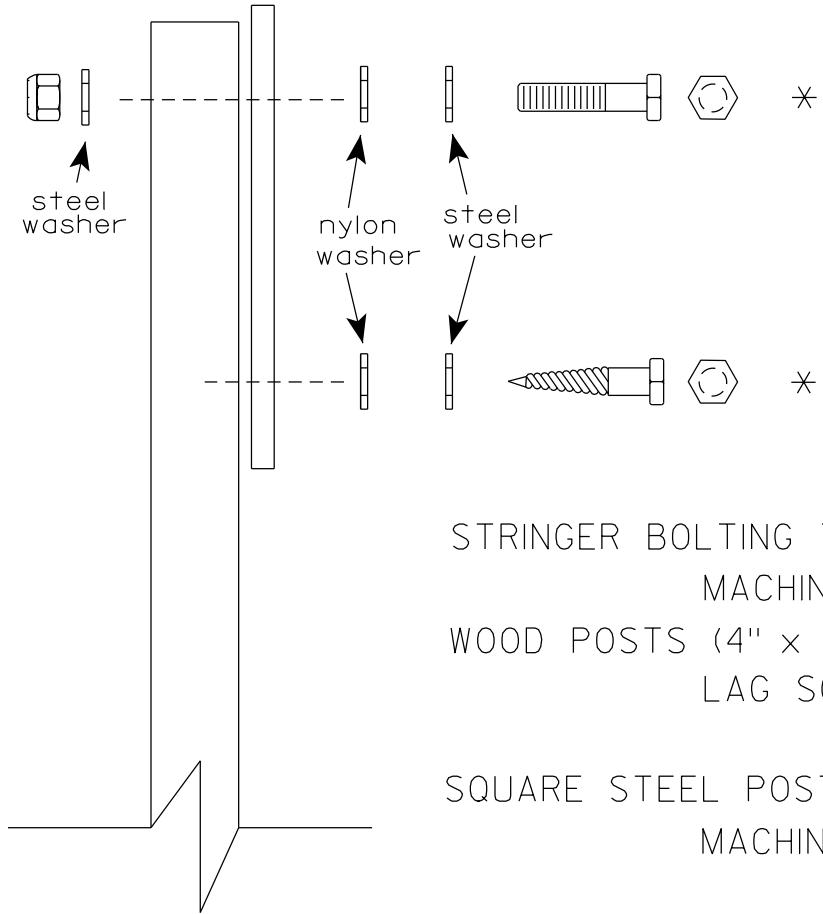
COUNTY:

SHEET NO:

E



SIGN SHALL BE MOUNTED TO PROJECT
ABOVE THE TOP OF THE POST



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

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

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL

1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

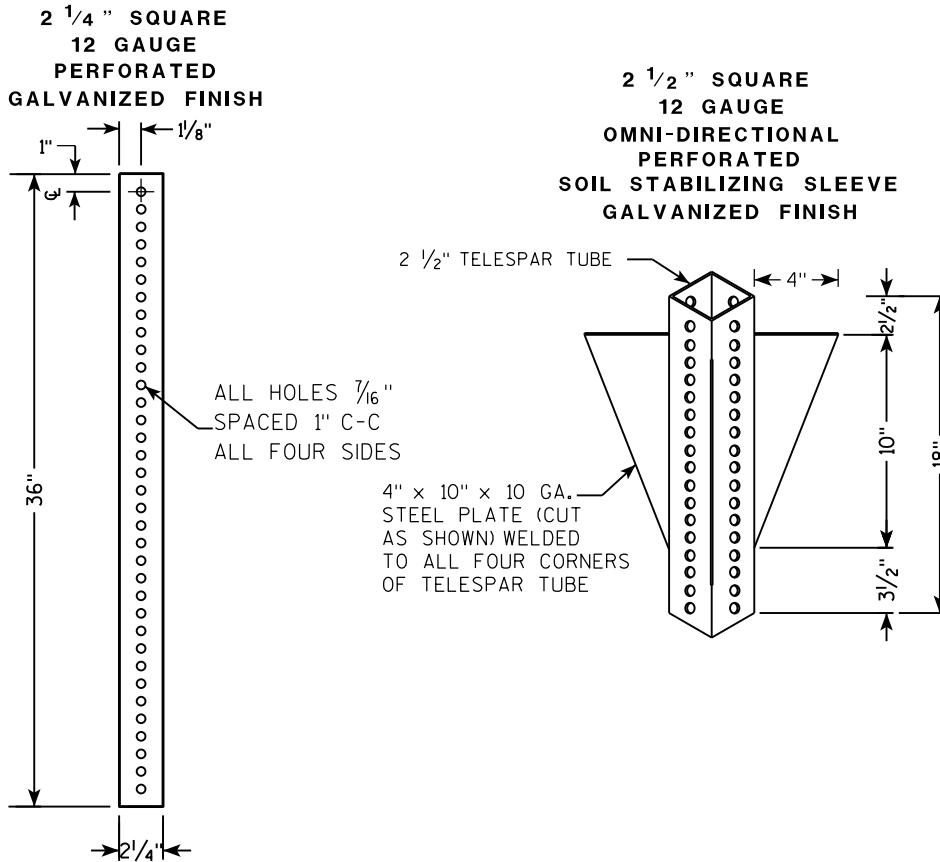
ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

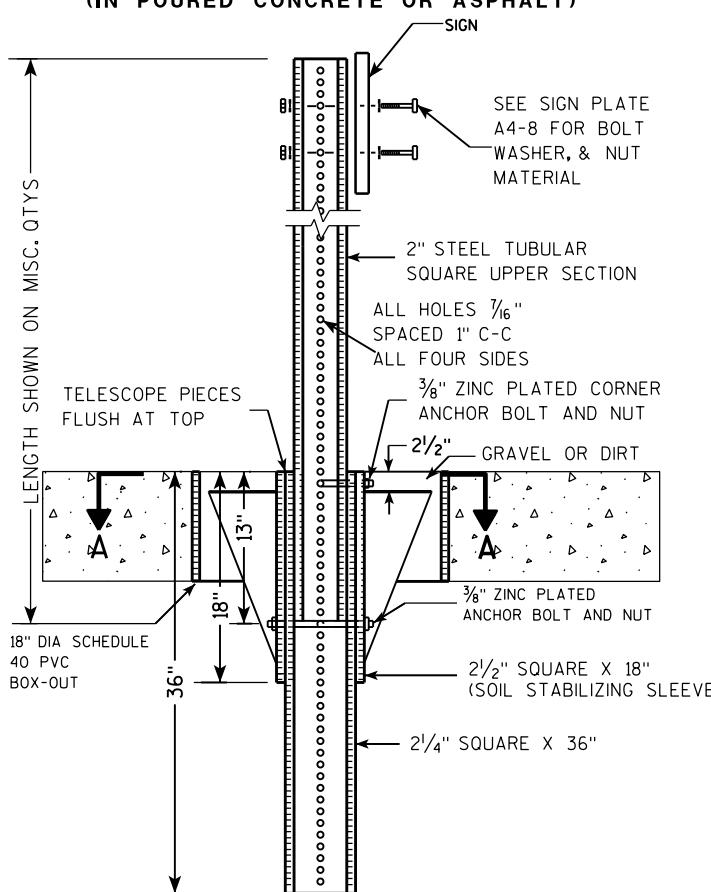
APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 4/1/2020 PLATE NO. A4-8.9

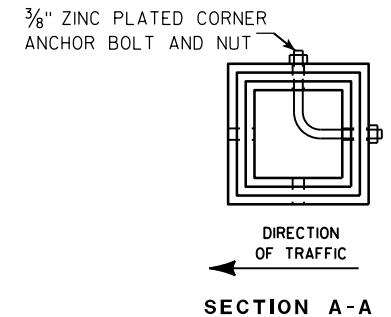
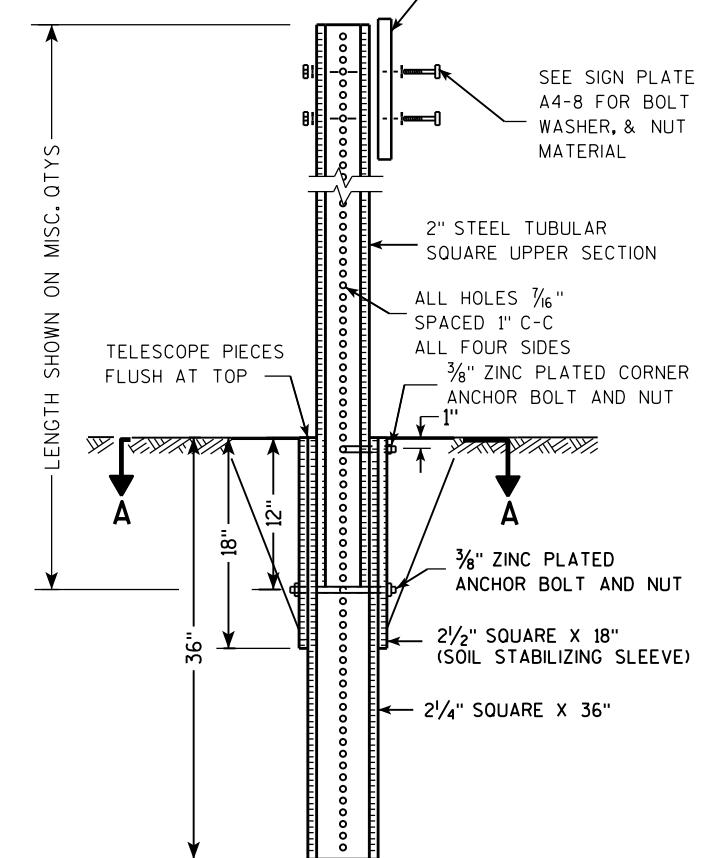
**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**



**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)**



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 P. Rauch

for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

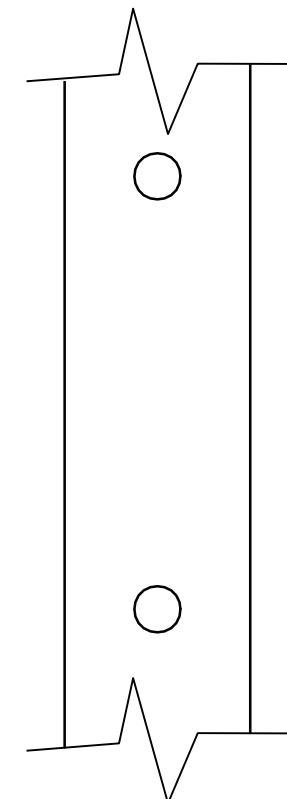
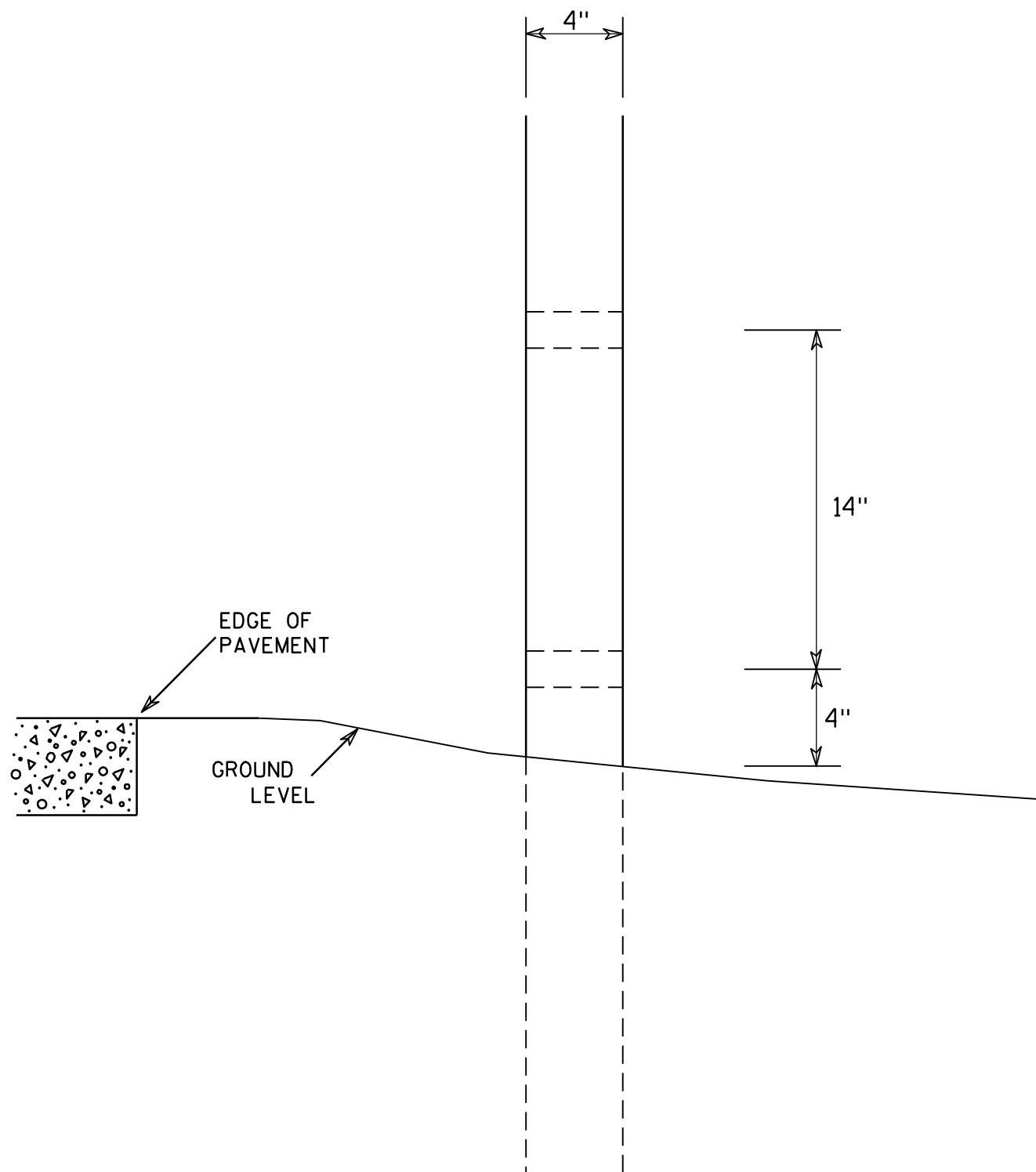
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two $1\frac{1}{2}$ " diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Cheska J. Sprey</i> for State Traffic Engineer
DATE 3/27/97	
PLATE NO. A4-11.2	

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

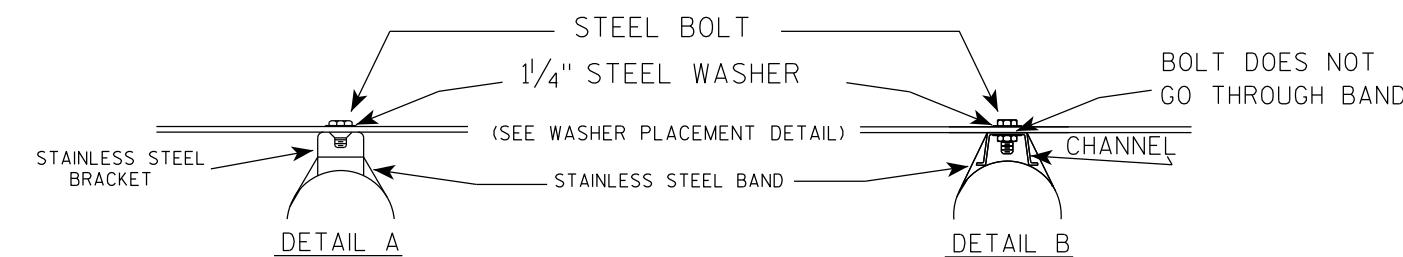
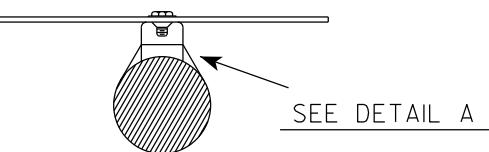
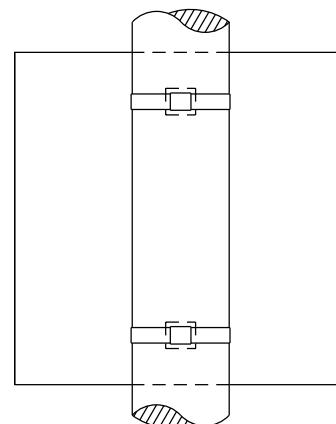
E

GENERAL NOTES

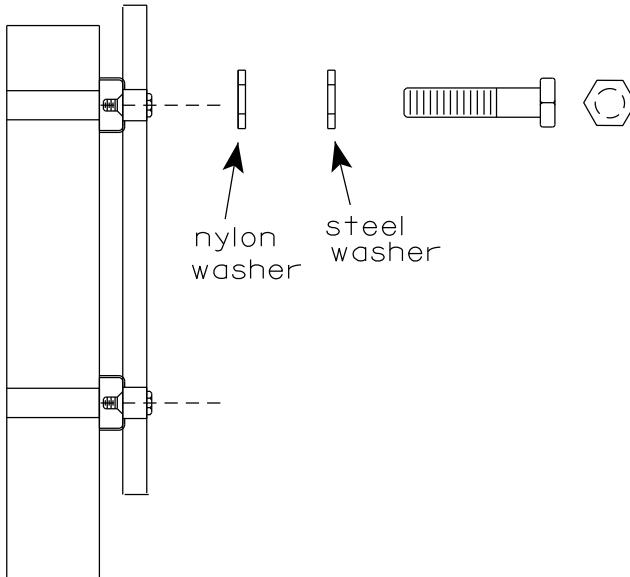
1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be $\frac{3}{4}$ " in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

BANDING

SINGLE SIGN

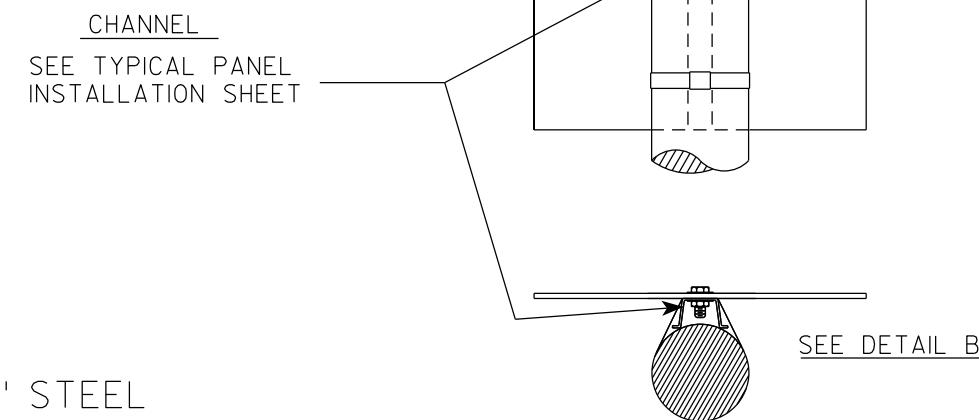


WASHER PLACEMENT



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

"J" ASSEMBLY

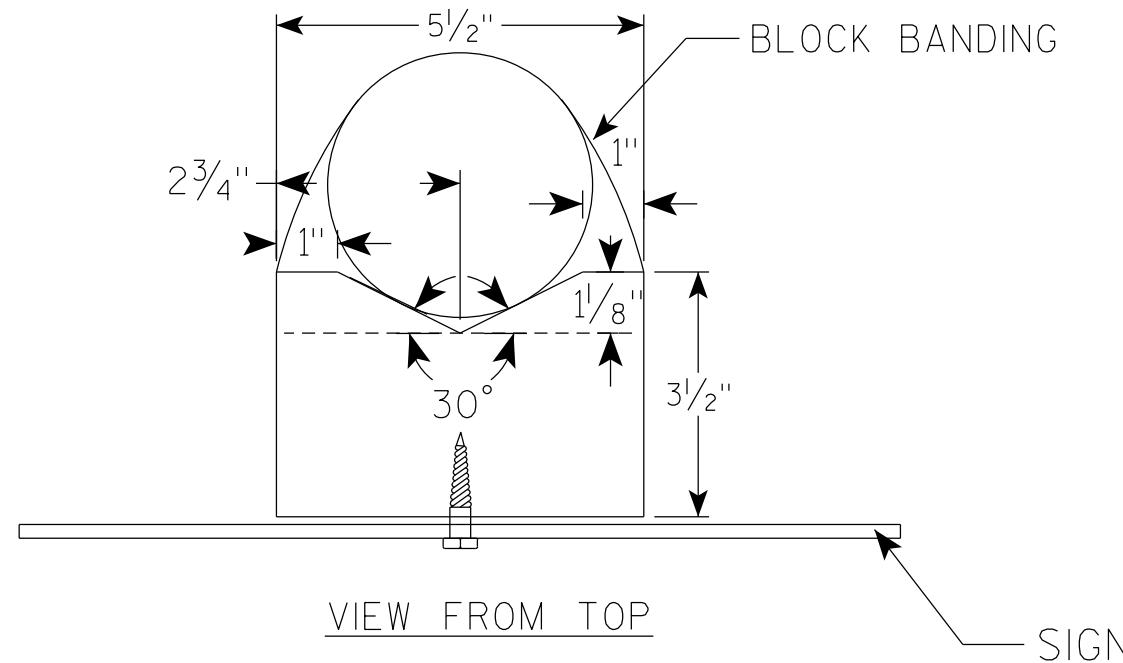
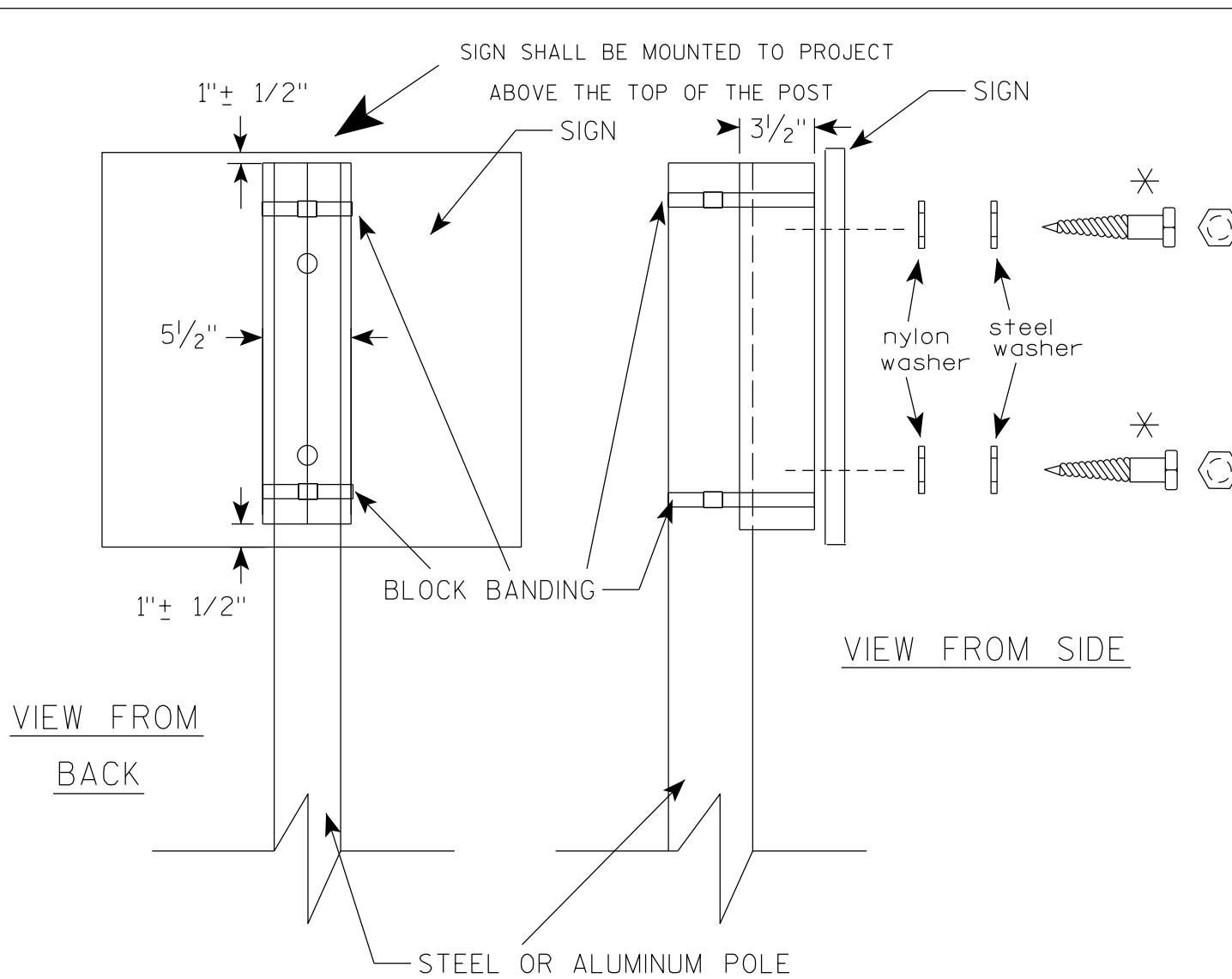


STANDARD SIGN SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

 for State Traffic Engineer
 DATE 6/10/19 PLATE NO. A5-9.4



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, $3/4$ " 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 NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE $1\frac{1}{4}$ " O.D. X $3\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $1\frac{1}{4}$ " O.D. X $3\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

＊ LAG BOLTS SHALL BE $3/8$ " X $2\frac{1}{2}$ "

7

7

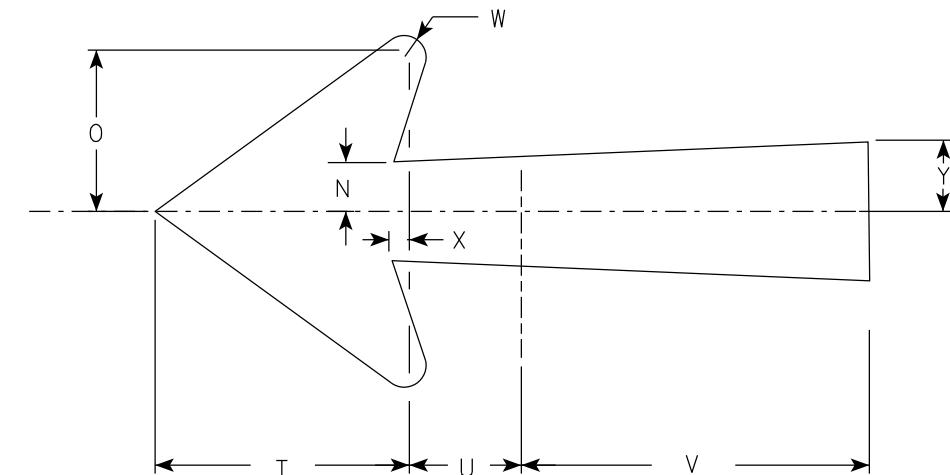
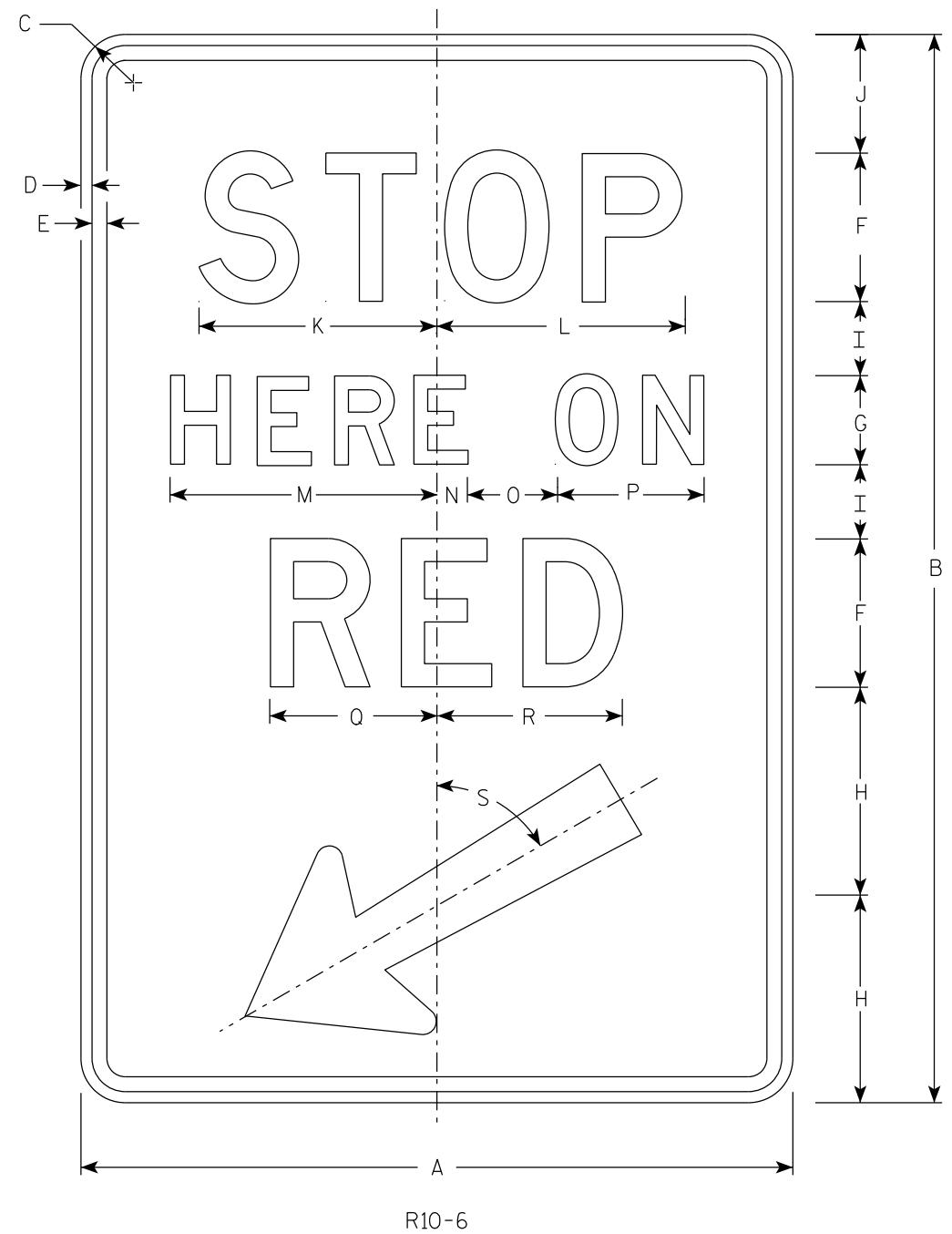
BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
for State Traffic Engineer
DATE 4/19/2022 PLATE NO. A5-10.3

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/2	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
2M	24	36	1 1/2	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
3																											
4																											
5																											

STANDARD SIGN
R10-6
WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 1/25/24 PLATE NO. R10-6.7

PROJECT NO:

HWY:

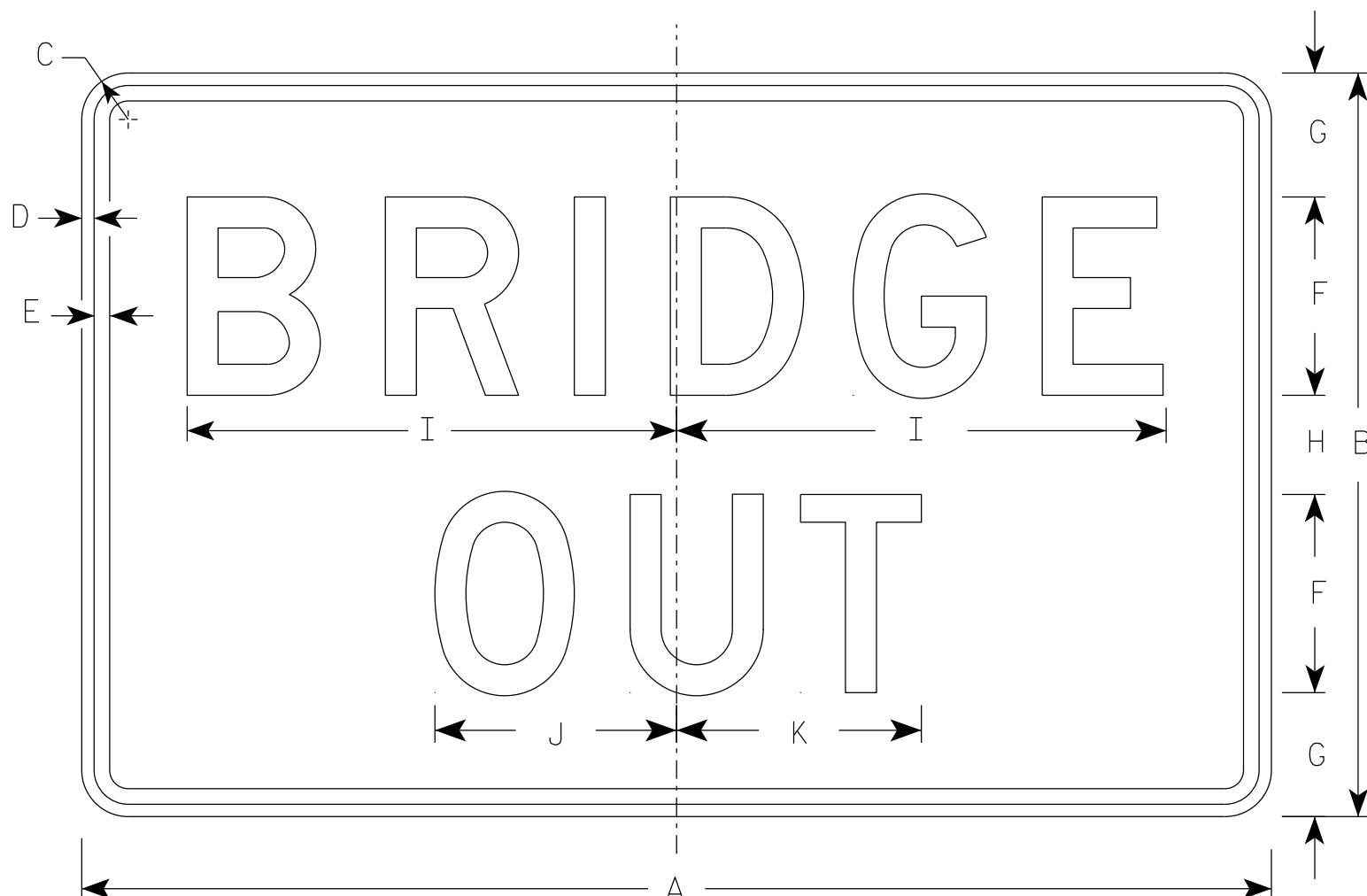
COUNTY:

SHEET NO:

E

NOTES

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



R11-2B

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8															10.0	
2M	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8															10.0	
3	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8															10.0	
4	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8															10.0	
5	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8															10.0	

PROJECT NO:

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R112B.dgn

PLOT DATE : 5-FEB 2024 2:20

PLOT BY : mscj9h

STANDARD SIGN
R11-2B
WISCONSIN DEPT OF TRANSPORTATION
APPROVED
<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 2/5/24 PLATE NO. R11-2B.3

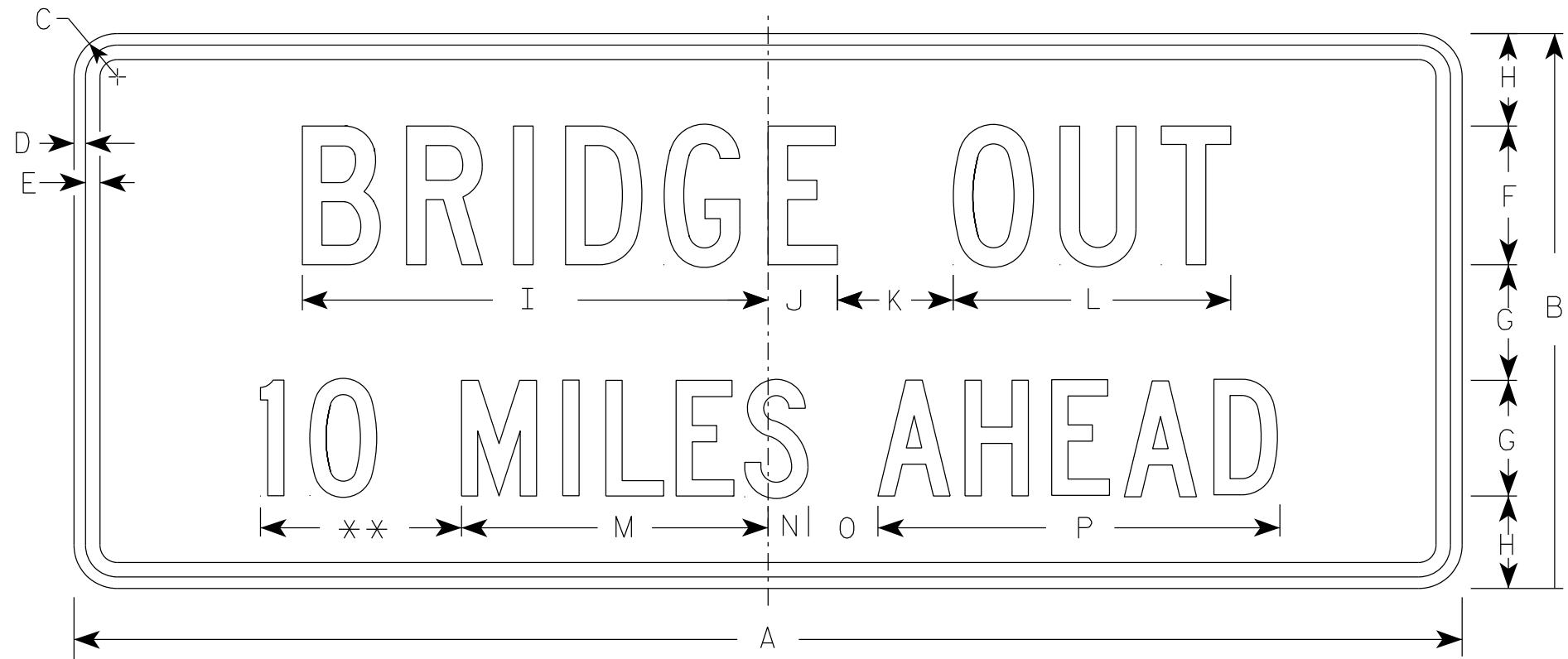
SHEET NO:

E

WISDOT/CADDS SHEET 42

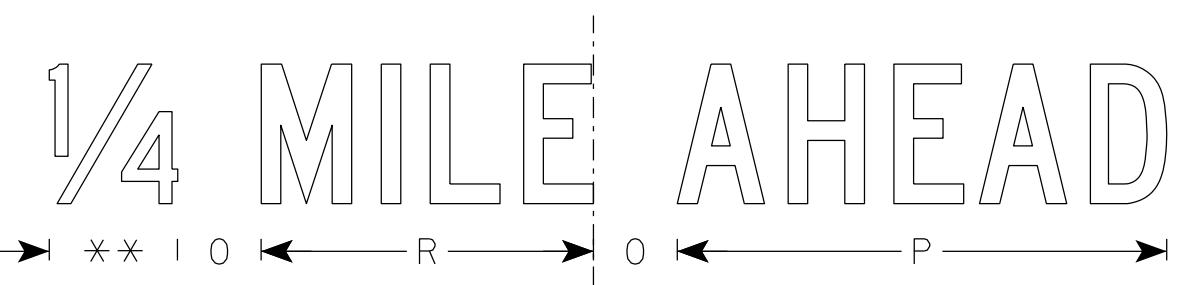
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3C

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	15	1 1/2	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4	7 1/8									3.75	
2S	60	24	1 7/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	11 7/8									10.0	
2M	60	24	1 7/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	11 7/8									10.0	
3																											
4																											
5																											

PROJECT NO:

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R113C.dgn

PLOT DATE : 5-FEB 2024 2:52

PLOT BY : mscj9h

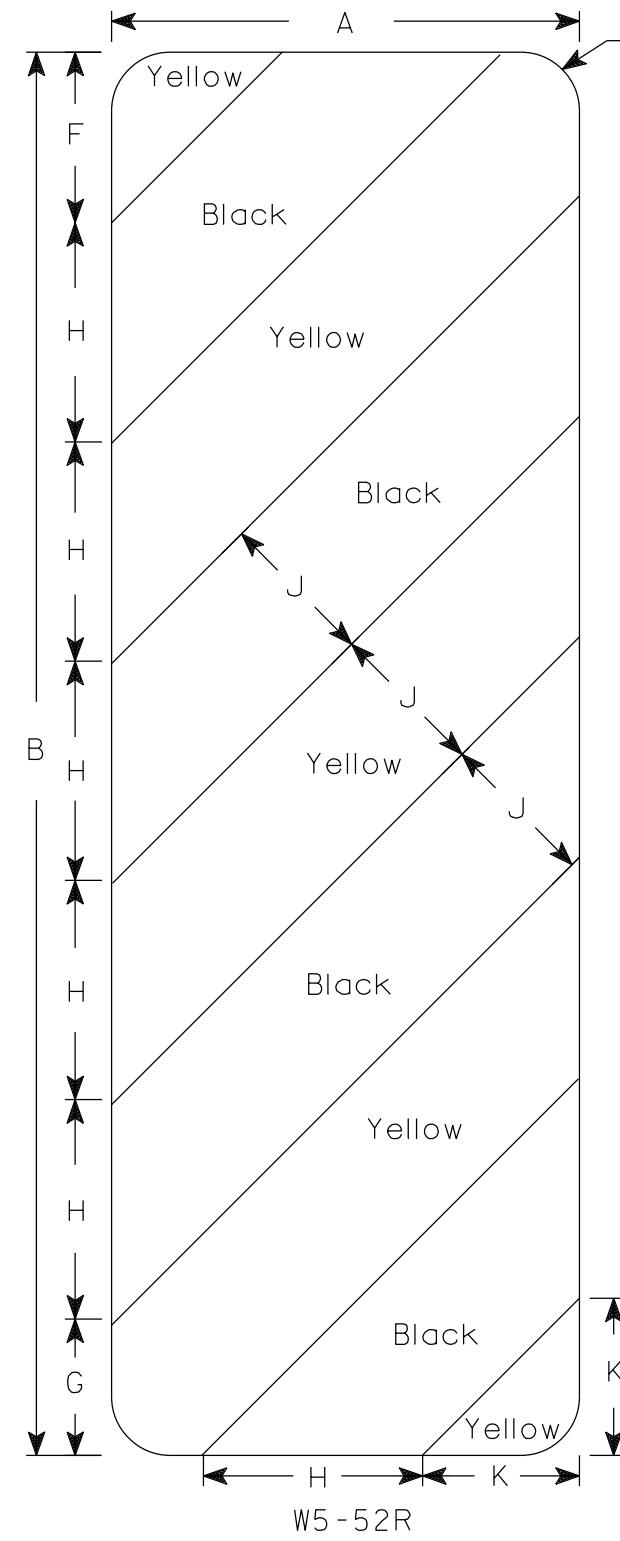
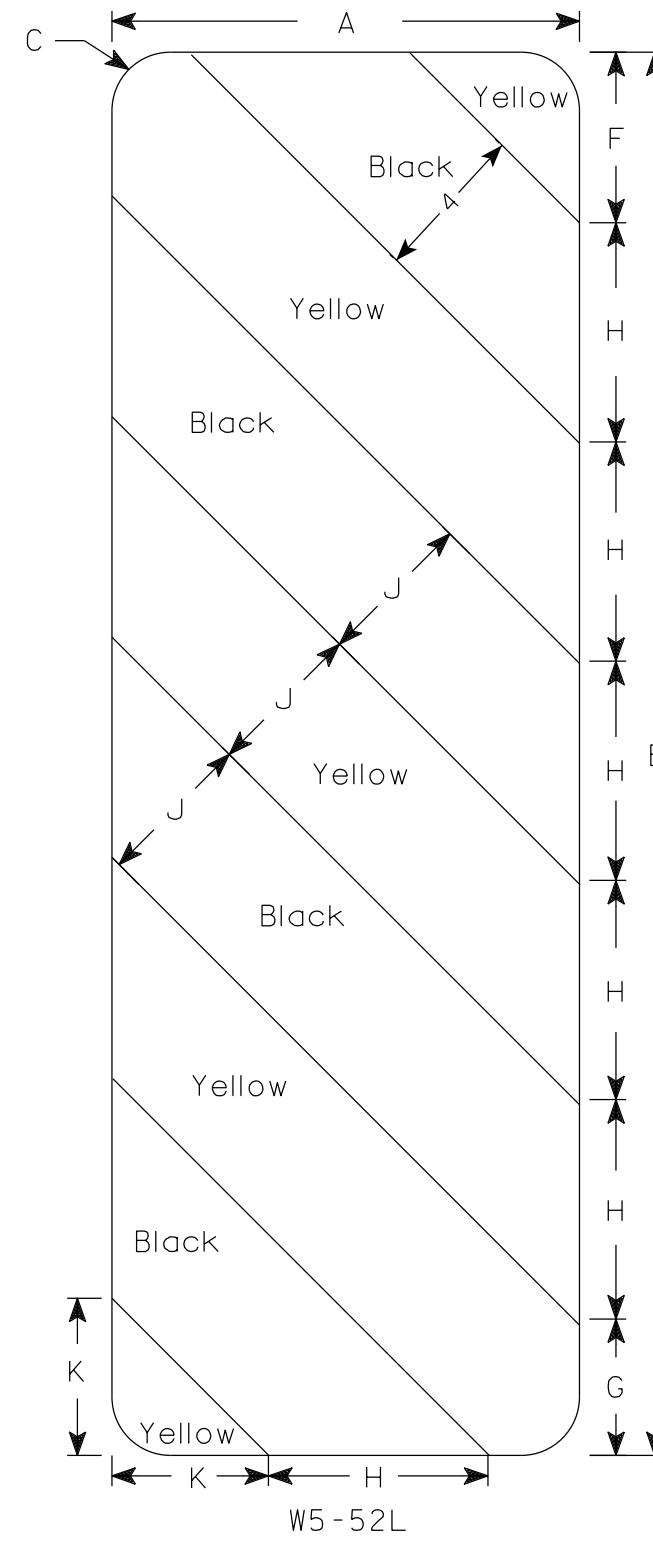
STANDARD SIGN
R11-3C
WISCONSIN DEPT OF TRANSPORTATION
APPROVED
Matthew R Rauch
for State Traffic Engineer
DATE 2/5/24 PLATE NO. R11-3C.4

SHEET NO:

E

WISDOT/CADD'S SHEET 42

7



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4															3.0	
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4															3.0	
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16															6.75	
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

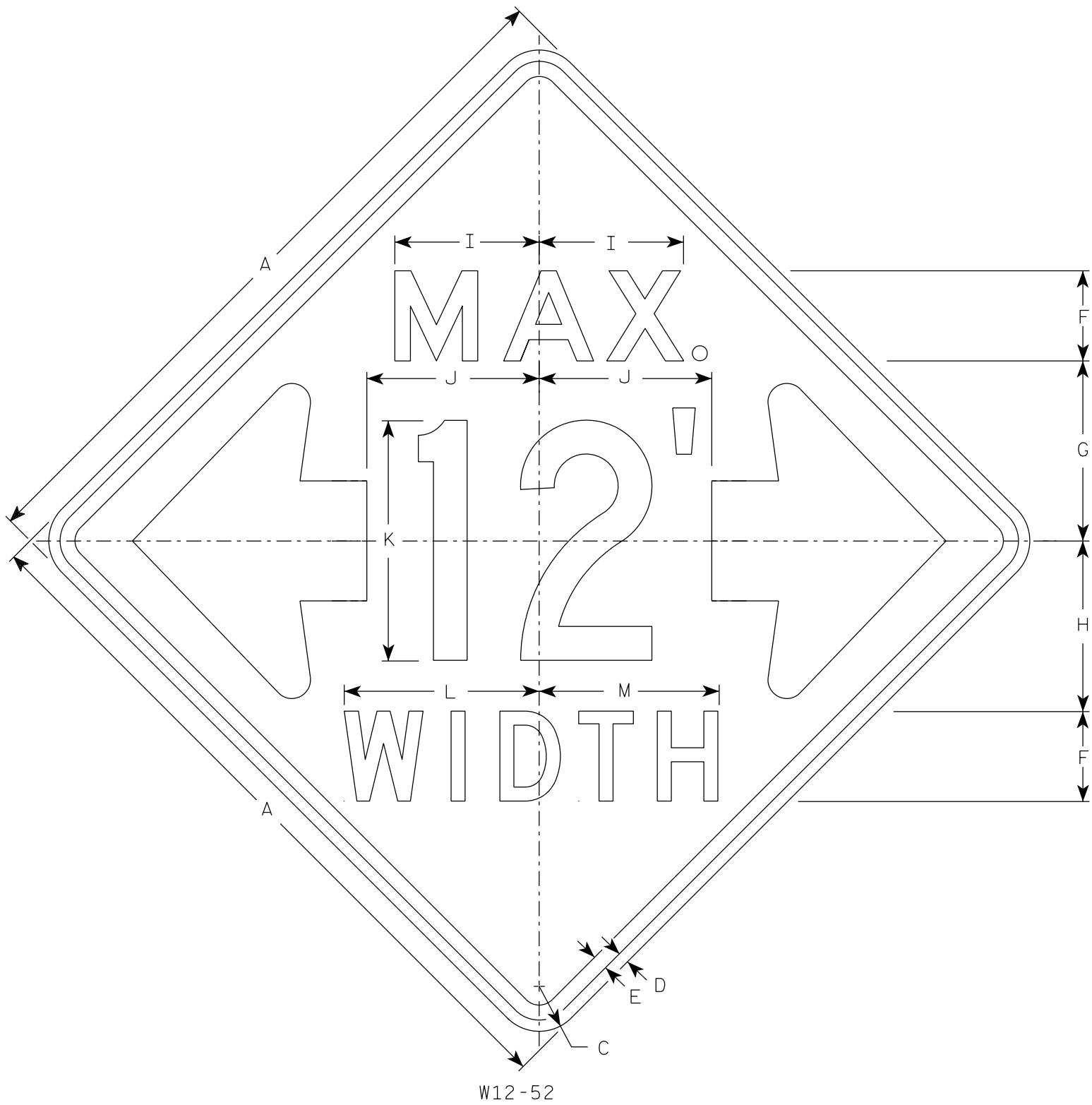
STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*

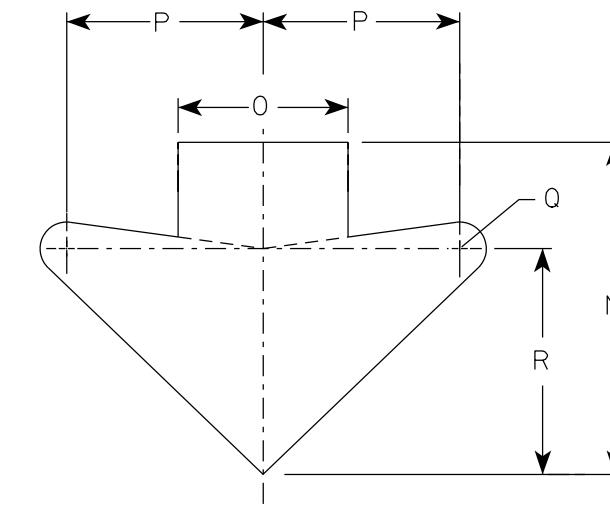
for State Traffic Engineer

DATE 3/4/2024 PLATE NO. W5-52.10



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
4. The top line is series E, the numerals are series C, and the bottom line is series D.
5. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		3	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8								16.0	
2M	48		3	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8								16.0	
3																											
4																											
5																											

STANDARD SIGN	
W12-52	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED <i>Matthew R Rauch</i> for State Traffic Engineer	
DATE 3/10/2024 PLATE NO. W12-52.8	

PROJECT NO:

HWY:

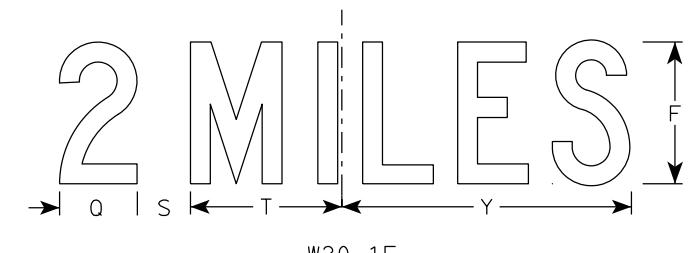
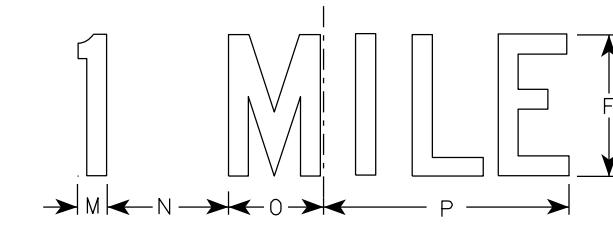
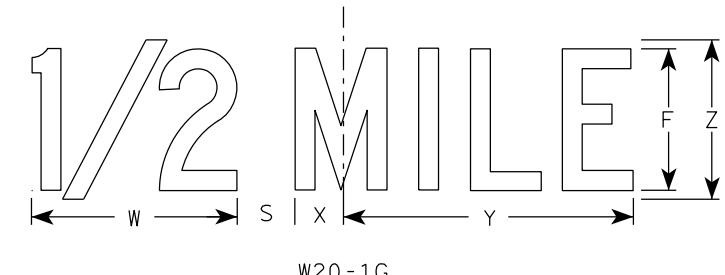
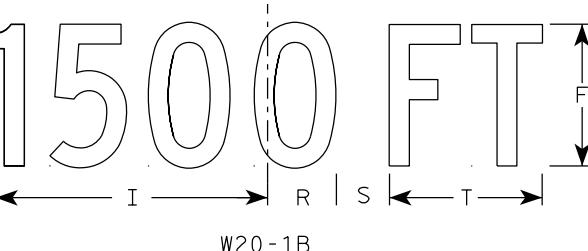
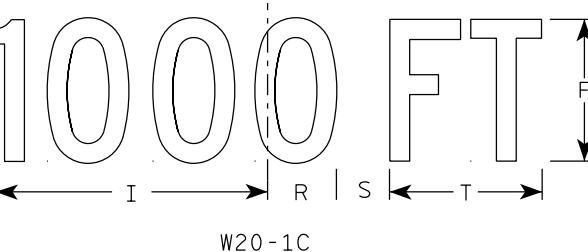
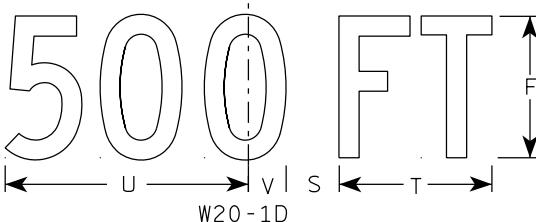
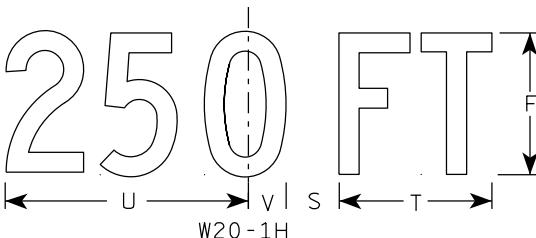
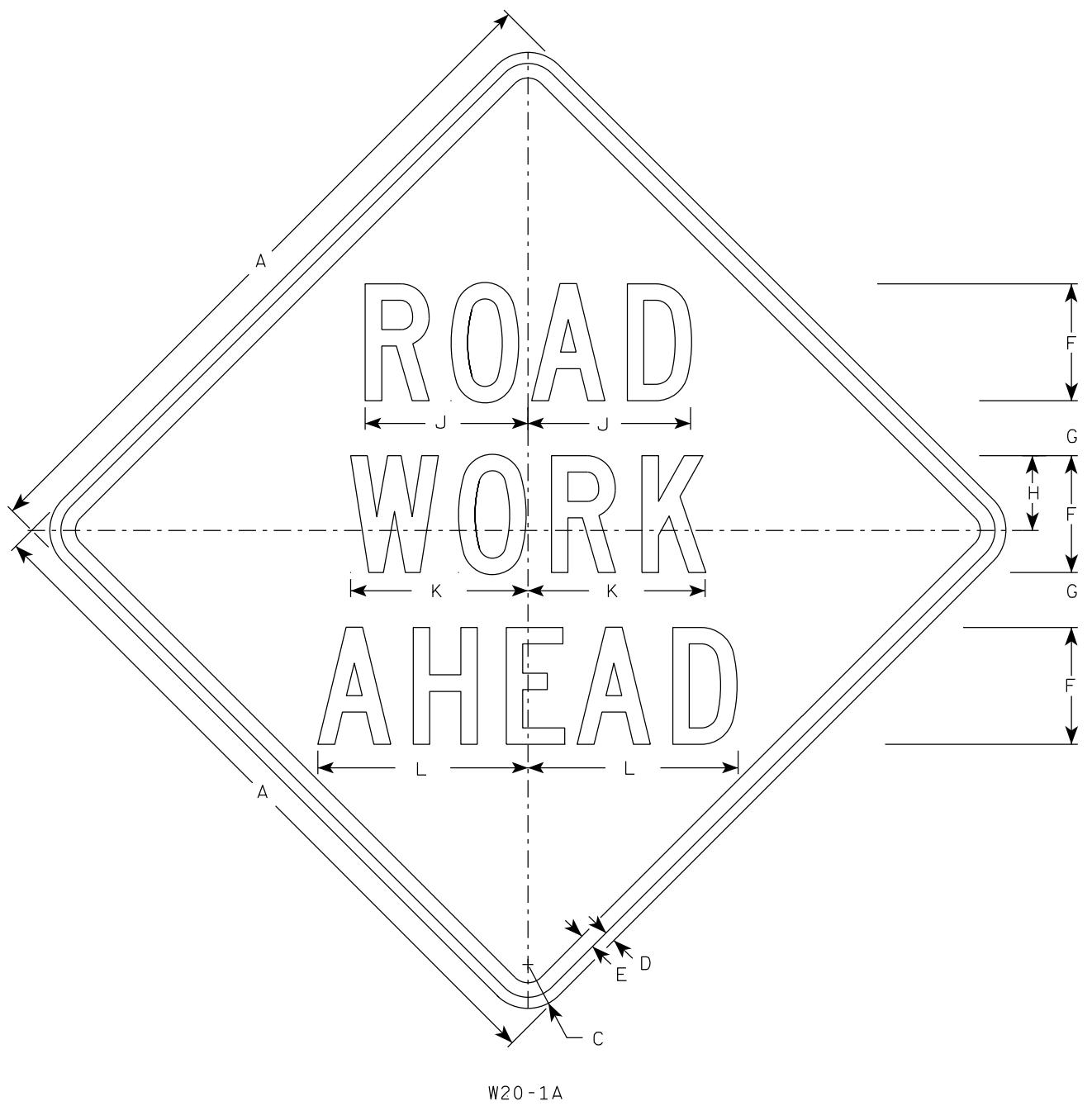
COUNTY:

SHEET NO:

E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



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		$2\frac{1}{4}$	$\frac{5}{8}$	$\frac{3}{4}$	5	$2\frac{5}{8}$	$3\frac{1}{4}$	$10\frac{1}{8}$	7	$7\frac{5}{8}$	$8\frac{7}{8}$	$1\frac{1}{8}$	$4\frac{1}{2}$	$3\frac{1}{2}$	9	$3\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{1}{4}$	$5\frac{5}{8}$	9	$1\frac{3}{8}$	8	$1\frac{3}{4}$	$10\frac{3}{4}$	6	9.0
2S	48		3	$\frac{3}{4}$	1	8	$3\frac{3}{4}$	$5\frac{1}{8}$	$15\frac{3}{8}$	$11\frac{1}{8}$	$12\frac{1}{8}$	$14\frac{3}{8}$	$1\frac{5}{8}$	$6\frac{7}{8}$	$5\frac{3}{8}$	$13\frac{7}{8}$	$4\frac{3}{8}$	$3\frac{7}{8}$	3	$8\frac{5}{8}$	$13\frac{3}{4}$	$2\frac{1}{8}$	$11\frac{7}{8}$	$2\frac{3}{4}$	$16\frac{3}{8}$	9	16.0
2M	48		3	$\frac{3}{4}$	1	8	$3\frac{3}{4}$	$5\frac{1}{8}$	$15\frac{3}{8}$	$11\frac{1}{8}$	$12\frac{1}{8}$	$14\frac{3}{8}$	$1\frac{5}{8}$	$6\frac{7}{8}$	$5\frac{3}{8}$	$13\frac{7}{8}$	$4\frac{3}{8}$	$3\frac{7}{8}$	3	$8\frac{5}{8}$	$13\frac{3}{4}$	$2\frac{1}{8}$	$11\frac{7}{8}$	$2\frac{3}{4}$	$16\frac{3}{8}$	9	16.0
3	48		3	$\frac{3}{4}$	1	8	$3\frac{3}{4}$	$5\frac{1}{8}$	$15\frac{3}{8}$	$11\frac{1}{8}$	$12\frac{1}{8}$	$14\frac{3}{8}$	$1\frac{5}{8}$	$6\frac{7}{8}$	$5\frac{3}{8}$	$13\frac{7}{8}$	$4\frac{3}{8}$	$3\frac{7}{8}$	3	$8\frac{5}{8}$	$13\frac{3}{4}$	$2\frac{1}{8}$	$11\frac{7}{8}$	$2\frac{3}{4}$	$16\frac{3}{8}$	9	16.0
4	48		3	$\frac{3}{4}$	1	8	$3\frac{3}{4}$	$5\frac{1}{8}$	$15\frac{3}{8}$	$11\frac{1}{8}$	$12\frac{1}{8}$	$14\frac{3}{8}$	$1\frac{5}{8}$	$6\frac{7}{8}$	$5\frac{3}{8}$	$13\frac{7}{8}$	$4\frac{3}{8}$	$3\frac{7}{8}$	3	$8\frac{5}{8}$	$13\frac{3}{4}$	$2\frac{1}{8}$	$11\frac{7}{8}$	$2\frac{3}{4}$	$16\frac{3}{8}$	9	16.0
5	48		3	$\frac{3}{4}$	1	8	$3\frac{3}{4}$	$5\frac{1}{8}$	$15\frac{3}{8}$	$11\frac{1}{8}$	$12\frac{1}{8}$	$14\frac{3}{8}$	$1\frac{5}{8}$	$6\frac{7}{8}$	$5\frac{3}{8}$	$13\frac{7}{8}$	$4\frac{3}{8}$	$3\frac{7}{8}$	3	$8\frac{5}{8}$	$13\frac{3}{4}$	$2\frac{1}{8}$	$11\frac{7}{8}$	$2\frac{3}{4}$	$16\frac{3}{8}$	9	16.0

PROJECT NO:

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

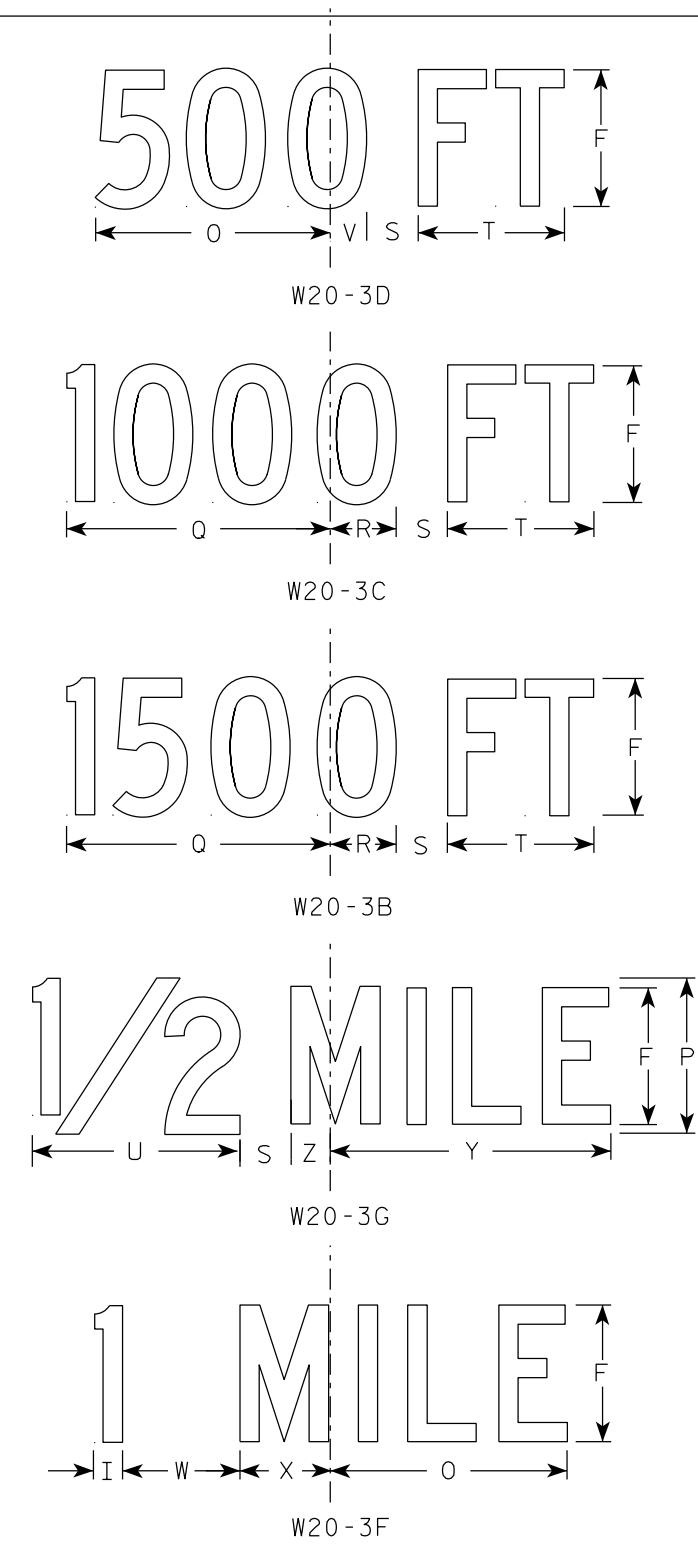
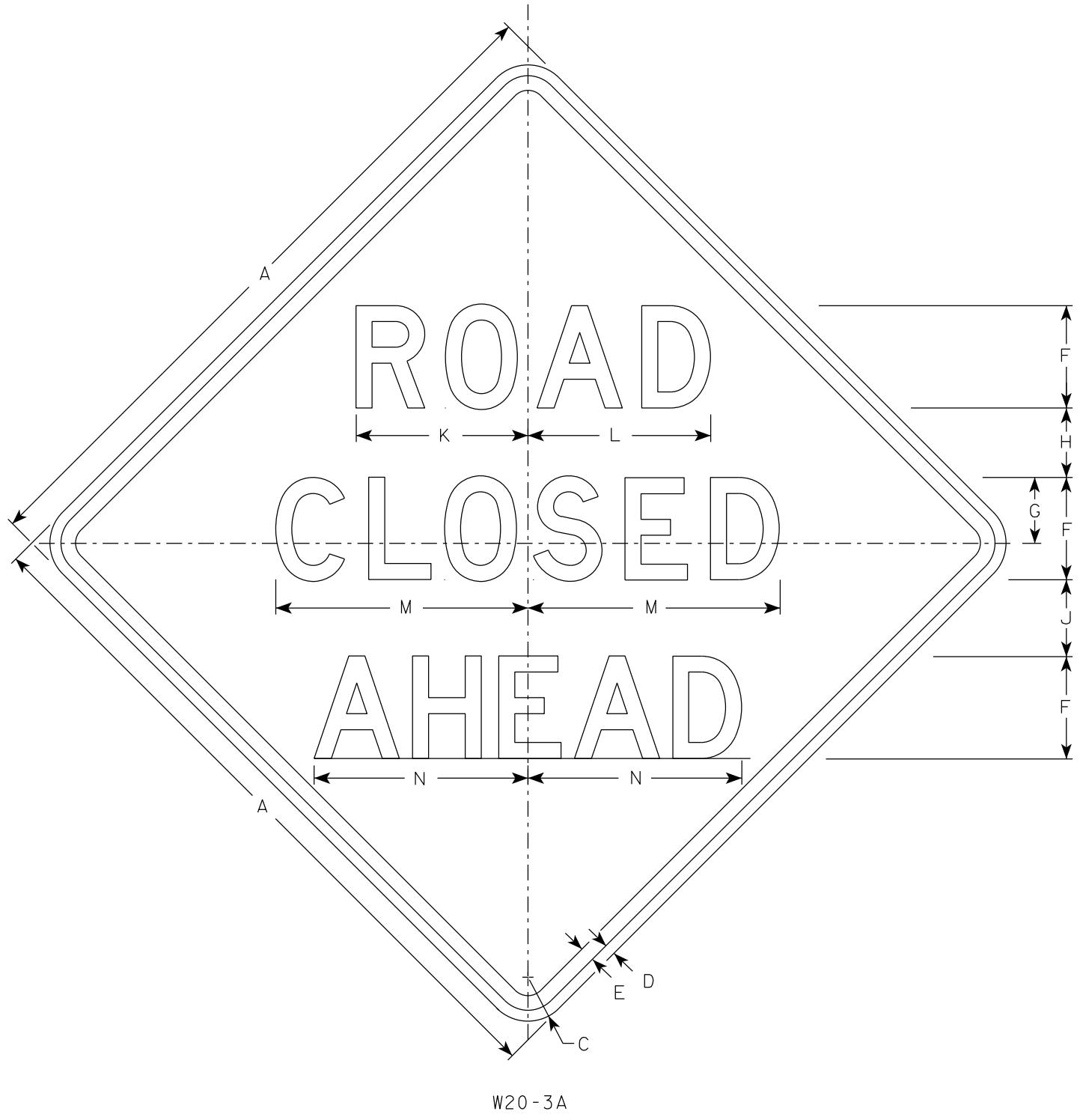
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-1.12

SHEET NO: E



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
 - Background - Orange
 - Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

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

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Ranch

For State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-3.8

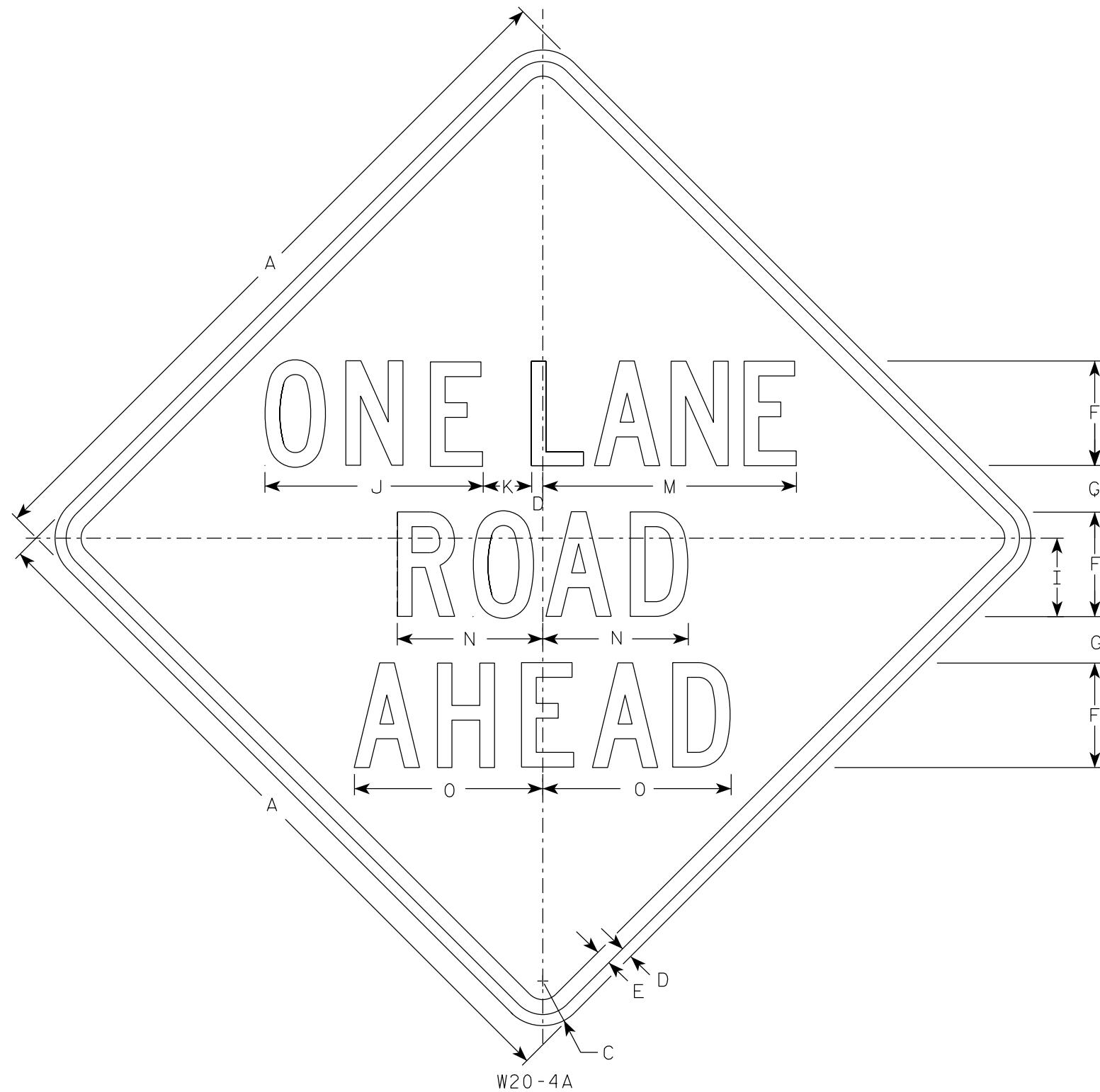
PROJECT NO:

HW

COUNTY:

SHEET NO:

111



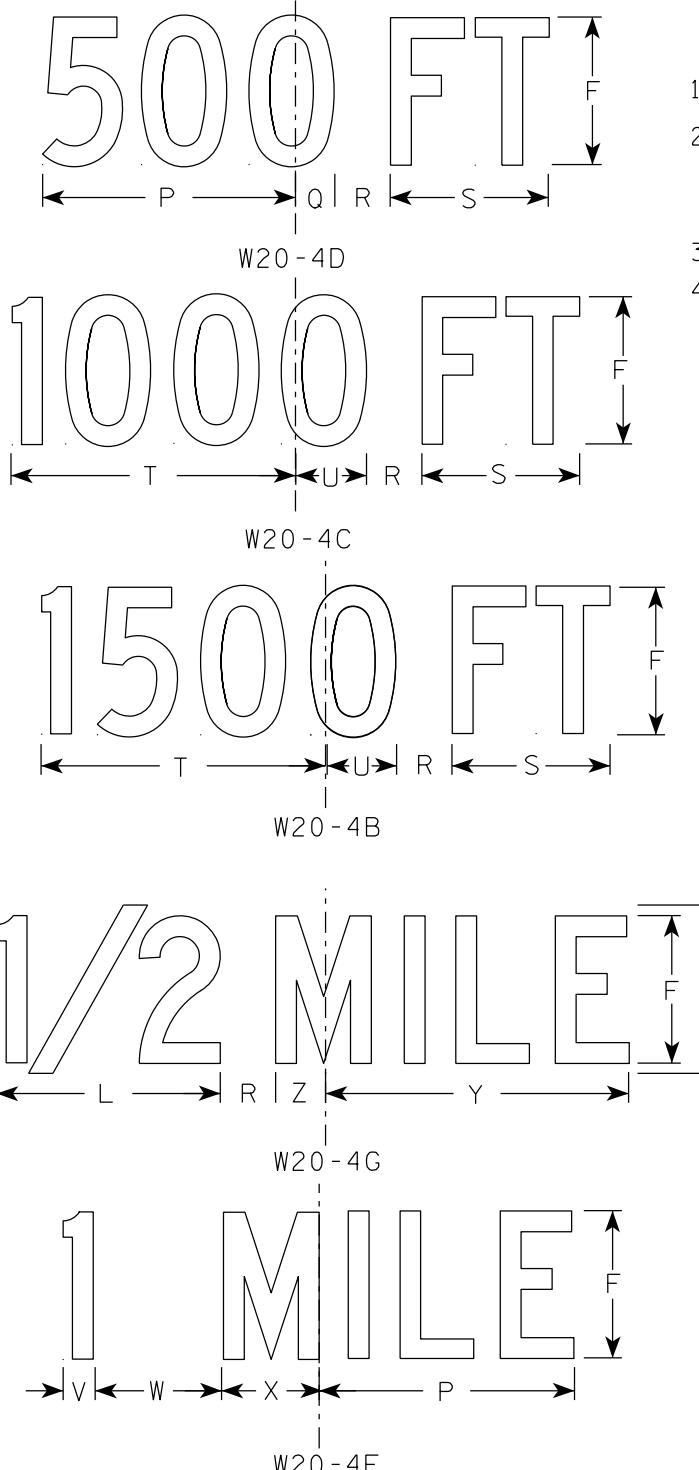
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		$2\frac{1}{4}$	$\frac{5}{8}$	$\frac{3}{4}$	5	$2\frac{3}{8}$	6	$3\frac{3}{4}$	$10\frac{3}{8}$	$2\frac{3}{8}$	8	$13\frac{1}{2}$	7	$8\frac{7}{8}$	9	$1\frac{3}{8}$	$1\frac{7}{8}$	$5\frac{5}{8}$	$10\frac{1}{8}$	$2\frac{1}{2}$	$1\frac{1}{8}$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

PROJECT NO:

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W204.DGN

PLOT DATE : 10-JAN 2024 1:44

PLOT BY : dotc4c



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

STANDARD SIGN

W20-4A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*

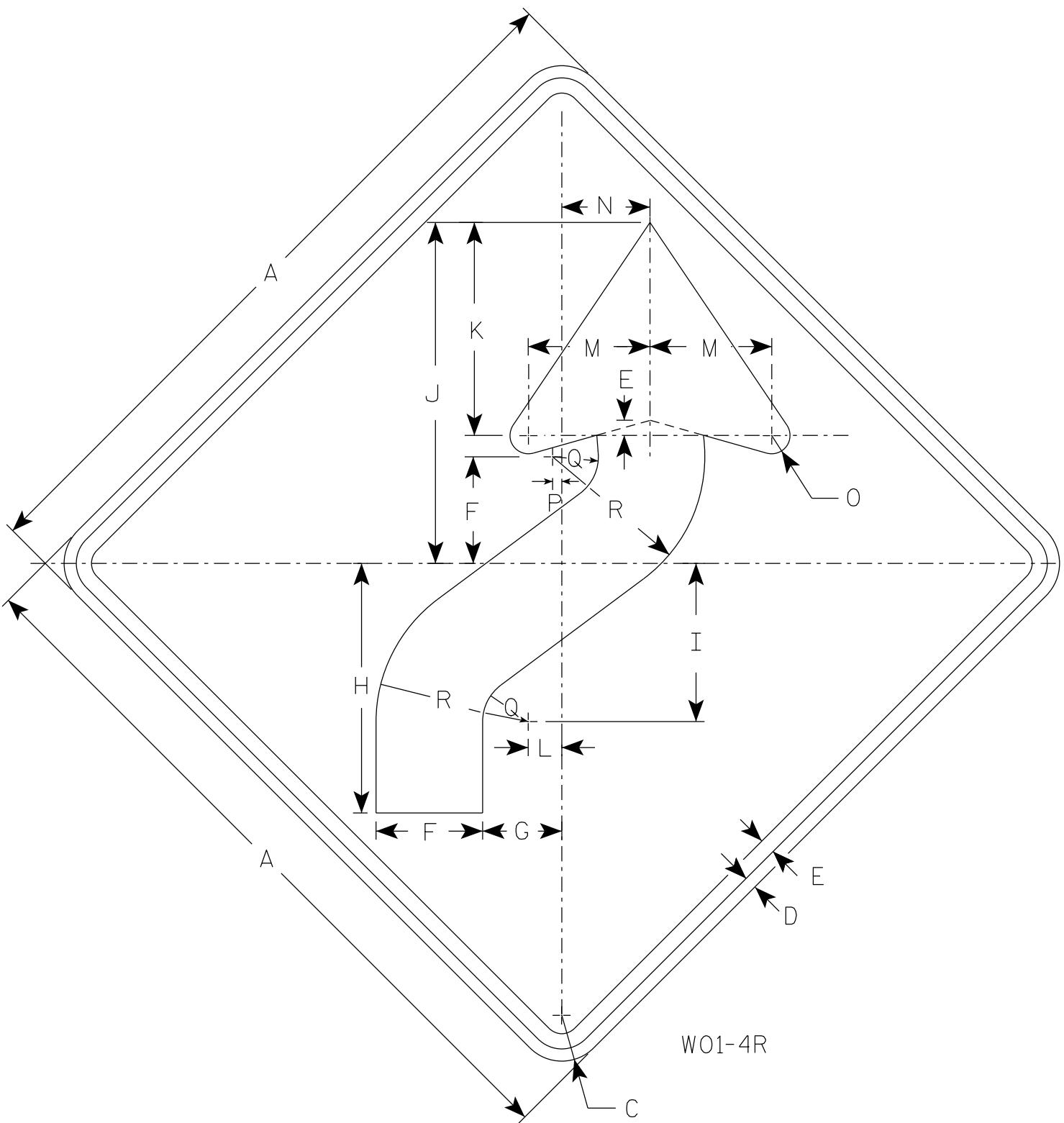
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-4.10

SHEET NO:

E

7



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		$2\frac{1}{4}$	$\frac{5}{8}$	$\frac{3}{4}$	$5\frac{1}{4}$	4	$12\frac{3}{8}$	$7\frac{7}{8}$	$16\frac{7}{8}$	$10\frac{1}{2}$	$1\frac{5}{8}$	6	$4\frac{1}{2}$	1	$\frac{1}{2}$	$2\frac{1}{4}$	$7\frac{1}{2}$								9.0	
2S	48		3	$\frac{3}{4}$	1	7	$5\frac{1}{4}$	$16\frac{1}{2}$	$10\frac{1}{2}$	$22\frac{1}{2}$	14	$2\frac{1}{4}$	8	6	$1\frac{1}{4}$	$\frac{5}{8}$	3	10							16.0		
2M	48		3	$\frac{3}{4}$	1	7	$5\frac{1}{4}$	$16\frac{1}{2}$	$10\frac{1}{2}$	$22\frac{1}{2}$	14	$2\frac{1}{4}$	8	6	$1\frac{1}{4}$	$\frac{5}{8}$	3	10							16.0		
3	48		3	$\frac{3}{4}$	1	7	$5\frac{1}{4}$	$16\frac{1}{2}$	$10\frac{1}{2}$	$22\frac{1}{2}$	14	$2\frac{1}{4}$	8	6	$1\frac{1}{4}$	$\frac{5}{8}$	3	10							16.0		
4	48		3	$\frac{3}{4}$	1	7	$5\frac{1}{4}$	$16\frac{1}{2}$	$10\frac{1}{2}$	$22\frac{1}{2}$	14	$2\frac{1}{4}$	8	6	$1\frac{1}{4}$	$\frac{5}{8}$	3	10							16.0		
5	48		3	$\frac{3}{4}$	1	7	$5\frac{1}{4}$	$16\frac{1}{2}$	$10\frac{1}{2}$	$22\frac{1}{2}$	14	$2\frac{1}{4}$	8	6	$1\frac{1}{4}$	$\frac{5}{8}$	3	10							16.0		

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

STANDARD SIGN

W01-4

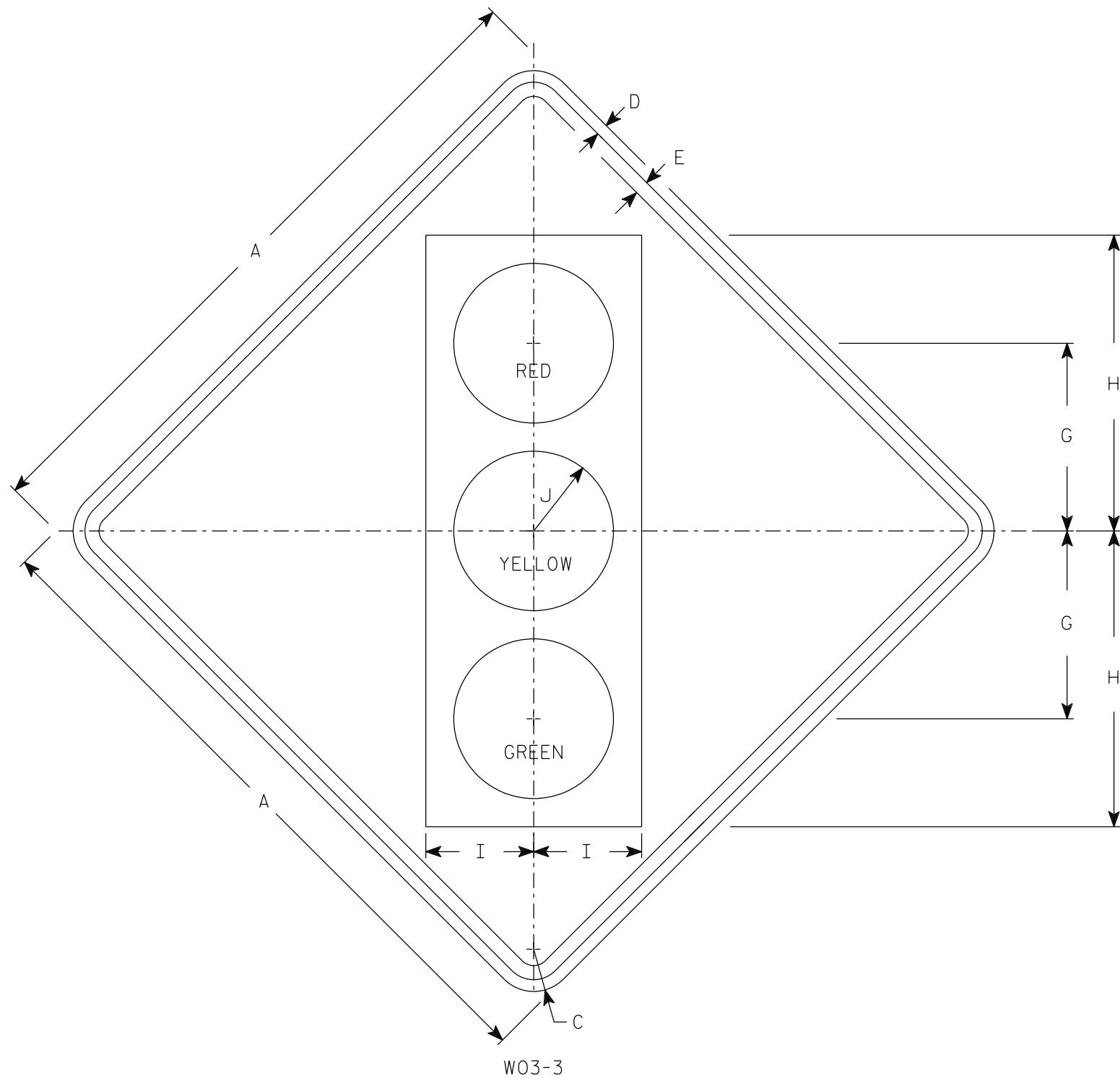
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R Rauch

for State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-4.2



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
Top circle - Type H Reflectorized Red
Center circle - Same as background
Bottom circle - Type H Reflectorized Green

7

7

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		$2\frac{1}{4}$	$\frac{5}{8}$	$\frac{3}{4}$		10	$15\frac{3}{4}$	$5\frac{3}{4}$	$4\frac{1}{4}$																9.0	
2S	48		3	$\frac{3}{4}$	1		$12\frac{1}{2}$	20	$7\frac{1}{2}$	5																16.0	
2M	48		3	$\frac{3}{4}$	1		$12\frac{1}{2}$	20	$7\frac{1}{2}$	5																16.0	
3	48		3	$\frac{3}{4}$	1		$12\frac{1}{2}$	20	$7\frac{1}{2}$	5																16.0	
4	48		3	$\frac{3}{4}$	1		$12\frac{1}{2}$	20	$7\frac{1}{2}$	5																16.0	
5	48		3	$\frac{3}{4}$	1		$12\frac{1}{2}$	20	$7\frac{1}{2}$	5																16.0	

STANDARD SIGN
W03-3
WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R Rauch*
for State Traffic Engineer
DATE 1/24/2024 PLATE NO. W03-3.2

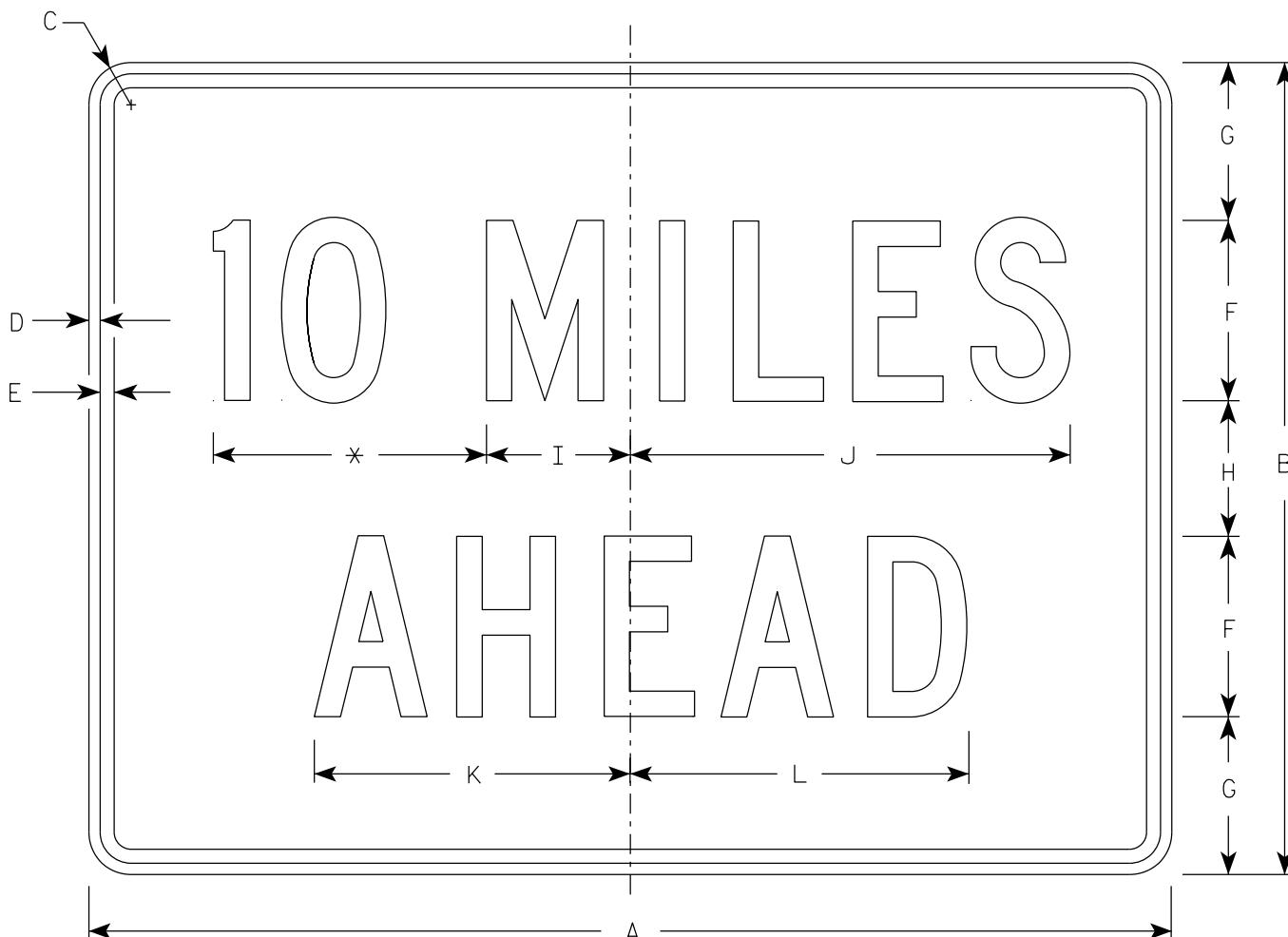
PROJECT NO:

HWY:

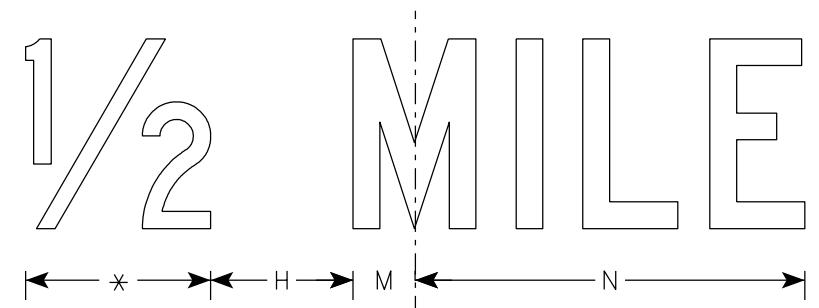
COUNTY:

SHEET NO:

E



W057-52



* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/2	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12												6.0	
2S	48	36	2 1/4	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8											12.0		
2M	48	36	2 1/4	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8											12.0		
3	48	36	2 1/4	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8											12.0		
4	48	36	2 1/4	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8											12.0		
5	48	36	2 1/4	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8											12.0		

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGN

W057-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew P. Rauch*

for State Traffic Engineer

DATE 2/1/2024 PLATE NO. W057-52.3

DESIGN DATA

MATERIAL PROPERTIES:

STRUCTURAL GROUT $f'_c = 3,500$ P.S.I.
 HIGH-STRENGTH BAR STEEL
 REINFORCEMENT, GRADE 60
 WELDED WIRE REINFORCEMENT $f_y = 60,000$ P.S.I.
 $f_y = 60,000$ P.S.I.

TRAFFIC DATA

A.D.T. (2025) 470
 A.D.T. (2045) 700
 DESIGN SPEED 35 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY
 DRAINAGE AREA 96.6 SQ. MI.
 Q₁₀₀ TOTAL 895 C.F.S.
 THROUGH STRUCTURE 895 C.F.S.
 OVERTOPPING ROADWAY N.A.
 VELOCITY - THROUGH STRUCTURE 0.5 F.P.S.
 WATERWAY AREA - THROUGH STRUCTURE 1824.7 SQ. FT.
 HIGH WATER₁₀₀ ELEVATION 1626.16
 SCOUR CRITICAL CODE 5(BASED ON HSIS)

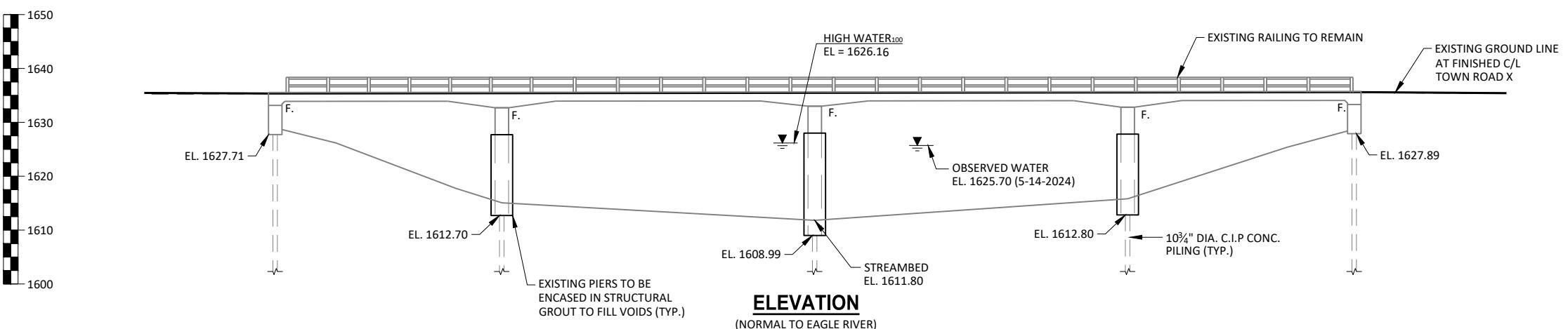
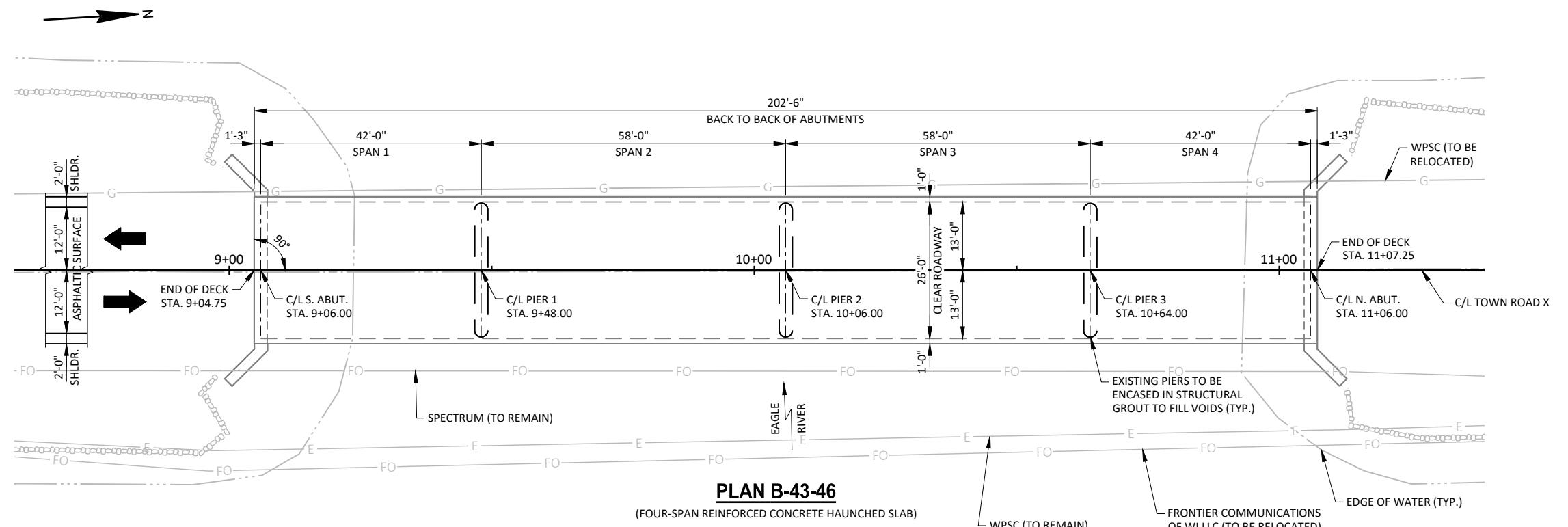
EROSION CONTROL
 OBSERVED WATER ELEVATION 1625.70

LIST OF DRAWINGS

GENERAL PLAN 1.
 EXISTING PIERS 2.
 PIER ENCLOSURE 3.
 PIER DETAILS 4.

SCOPE OF WORK

PIER REPAIR



GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL CONCRETE REMOVAL NOT PART OF THE PIER ENCASEMENT SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT.

AVOID EXISTING REINFORCEMENT WHEN DRILLING HOLES FOR THE ADHESIVE ANCHORS.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

EXISTING CONCRETE SURFACE WITHIN PIER ENCASEMENT SHALL BE CLEANED OF DEBRIS AND DELAMINATED CONCRETE PRIOR TO POURING CONCRETE. COST OF CLEANING AND ALL PREPARATION WORK SHALL BE PAID FOR UNDER THE BID ITEM "PREPARATION OF PIER SURFACES".

PIER REPAIR LIMITS SHALL EXTEND TO THE BOTTOM OF THE PIER.

CONTRACTOR MAY SELECT MOST EFFICIENT MEANS OF ACCOMPLISHING PIER REPAIR. A COFFERDAM CAN BE CONSTRUCTED AND THE REPAIR COMPLETED IN A DE-WATERED ENVIRONMENT OR THE REPAIRS CAN BE ACCOMPLISHED UNDERWATER WITH THE AID OF DIVERS. OTHER METHODS WILL BE SUBJECT TO THE APPROVAL OF THE FIELD ENGINEER.

REMOVING AND DISPOSING OF DETERIORATED CONCRETE, AS WELL AS CLEANING THE EXPOSED REINFORCING STEEL AND EXISTING EXPOSED PILES, SHALL BE PAID FOR UNDER THE BID ITEM "PREPARATION OF PIER SURFACES".

USE BREAKER RUN TO FILL Voids FOLLOWING BACKFILLING AROUND THE COMPLETED PIERS.

WORK MAY BE PERFORMED UNDERWATER



DESIGN CONSULTANT
PAULINA FALTEISEK, PE
(608) 588-7484

BRIDGE OFFICE CONTACT
AARON BONK, PE
(608) 261-0261

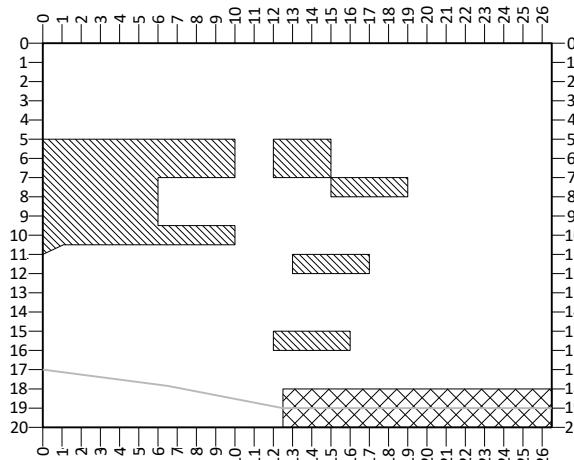
NO.	DATE	REVISION	BY
JEWELL 560 SUNRISE DRIVE SPRING GREEN, WI 53588 OFFICE: (608) 588-7484 www.JewellAssoc.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED <i>JLR</i> 08/22/25 CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-43-46 TOWN ROAD X OVER EAGLE RIVER COUNTY ONIEDA TOWN/CITY/VILLAGE THREE LAKES DESIGN SPEC. REHABILITATION N/A DESIGNED BY PMF DESIGN CK'D. PTB DRAWN BY PMF PLANS CK'D. PTB SHEET 1 OF 4			

LEGEND

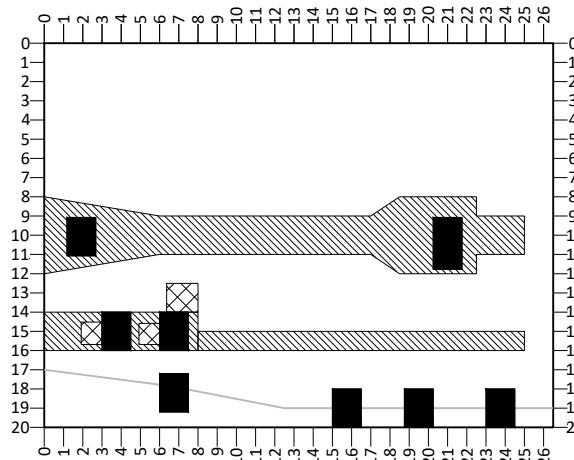
-  <1'-0" DEPTH VOID
-  FULL DEPTH VOID
-  EXPOSED PILE
-  OBSERVED STREAMBED

STATE PROJECT NUMBER

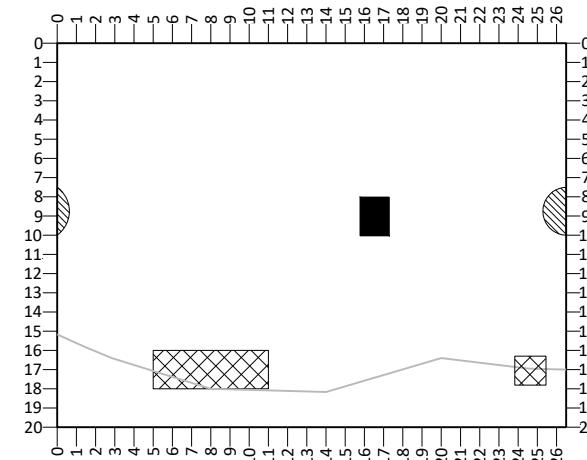
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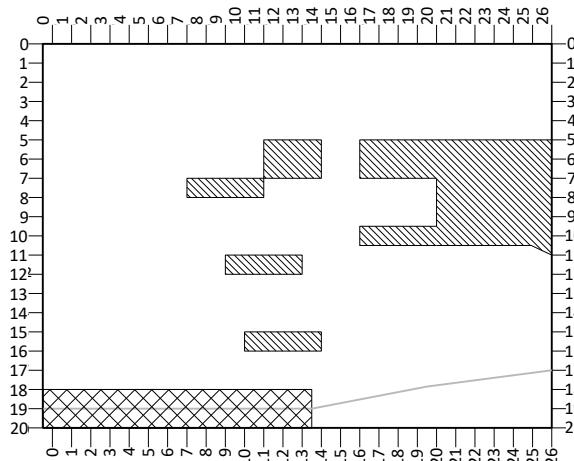
PIER 1 - NORTH FACE
(LOOKING SOUTH)



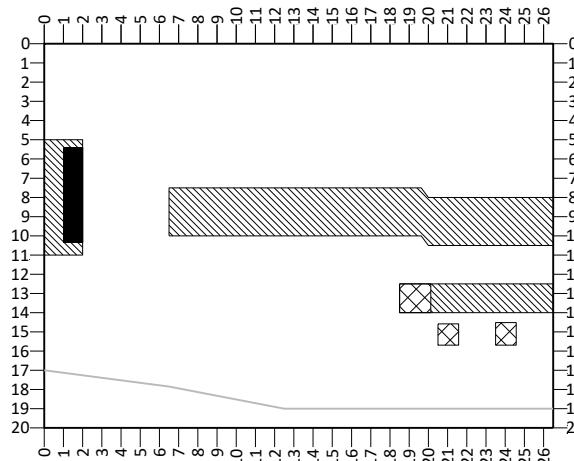
PIER 2 - NORTH FACE
(LOOKING SOUTH)



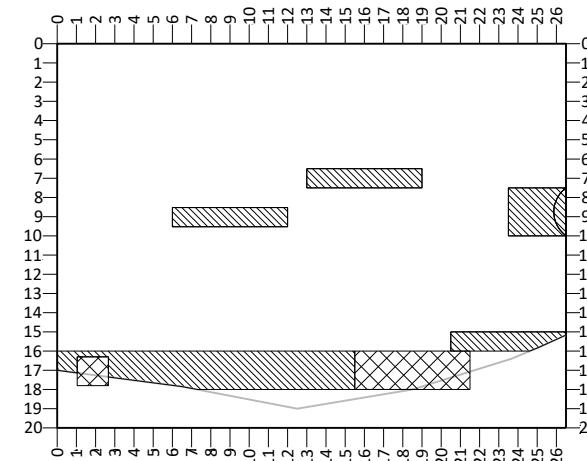
PIER 3 - NORTH FACE
(LOOKING SOUTH)



PIER 1 - SOUTH FACE
(LOOKING NORTH)



PIER 2 - SOUTH FACE
(LOOKING NORTH)



PIER 3 - SOUTH FACE
(LOOKING NORTH)

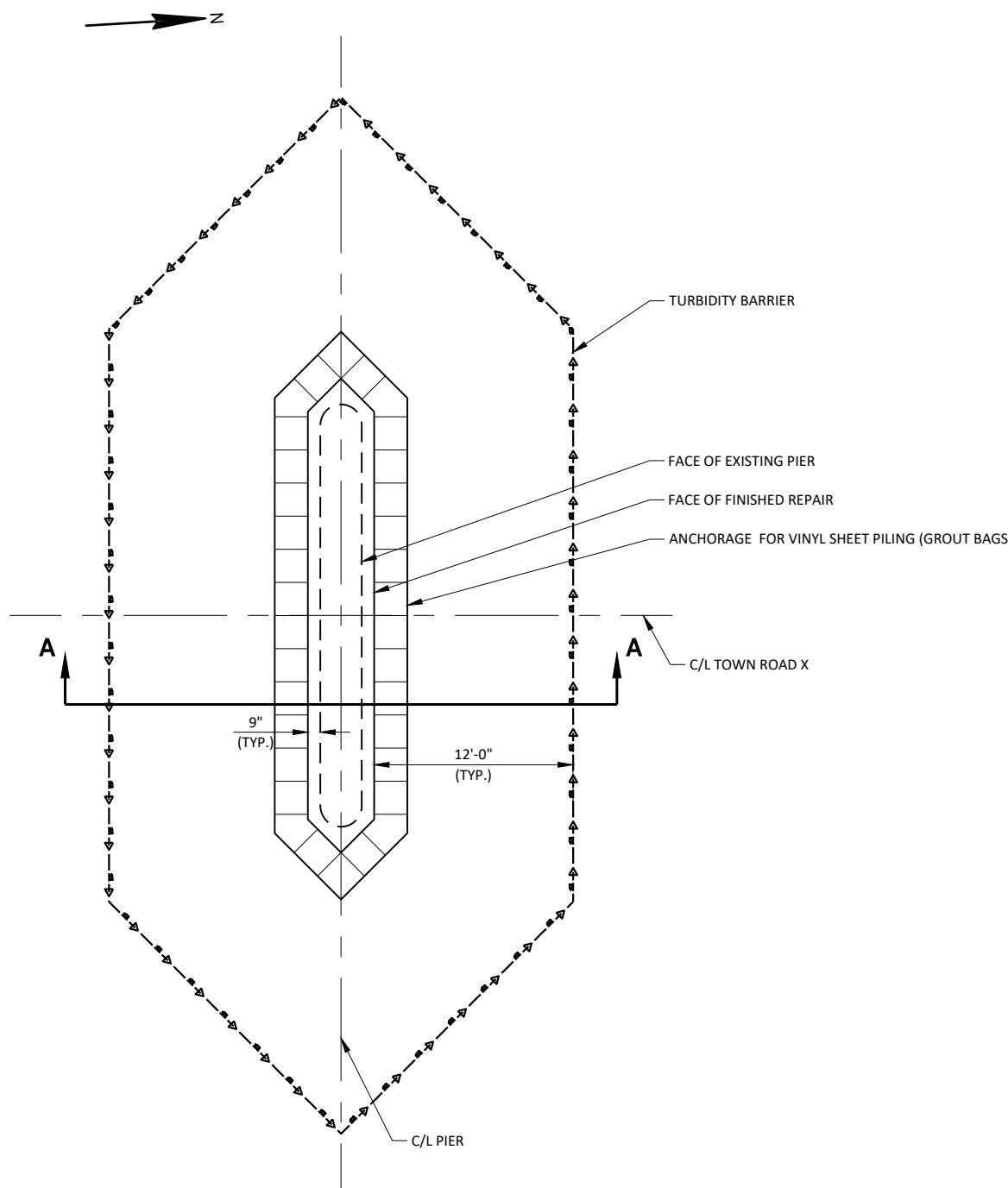
TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	PIER 1	PIER 2	PIER 3	TOTALS
311.0110	BREAKER RUN	TON	25	25	25	75
502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	96	134	106	336
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	200	230	190	620
SPV.0035.01	STRUCTURAL GROUT	CY	28	34	28	90
SPV.0060.01	PREPARATION AND ANCHORAGE FOR VINYL SHEET PILING	EACH	1	1	1	3
SPV.0060.02	EXCAVATION AND BACKFILLING FOR STRUCTURES SPECIAL B-43-46	EACH	1	1	1	3
SPV.0165.01	PILE VINYL SHEET PERMANENT DELIVERED AND INSTALLED	SF	1,125	1,425	1,125	3,680
SPV.0165.02	PREPARATION OF PIER SURFACES	SF	810	1,030	810	2,650
SPV.0165.03	WELDED WIRE FABRIC 6X6 D4/D4 (GRADE 60)	SF	810	1,030	810	2,650

NOTE:

PIER DIMENSIONS SHOWN ARE IN FEET.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-43-46			
DRAWN BY	PMF	PLANS C'D.	PTB
EXISTING PIERS		SHEET 2 OF 4	

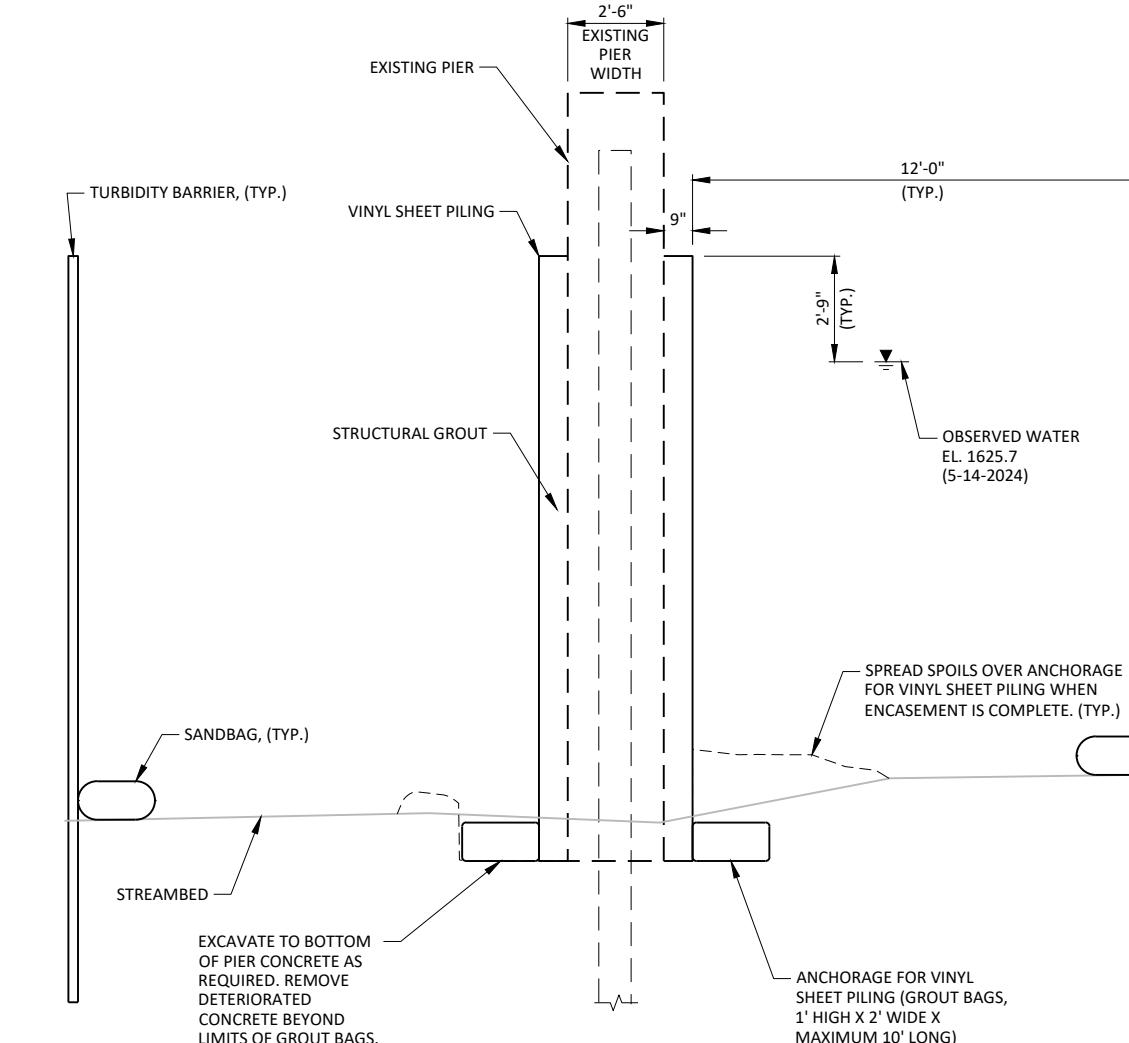


PIER ENCLOSURE LAYOUT

PIER 1 SHOWN, PIER 2 & 3 SIMILAR

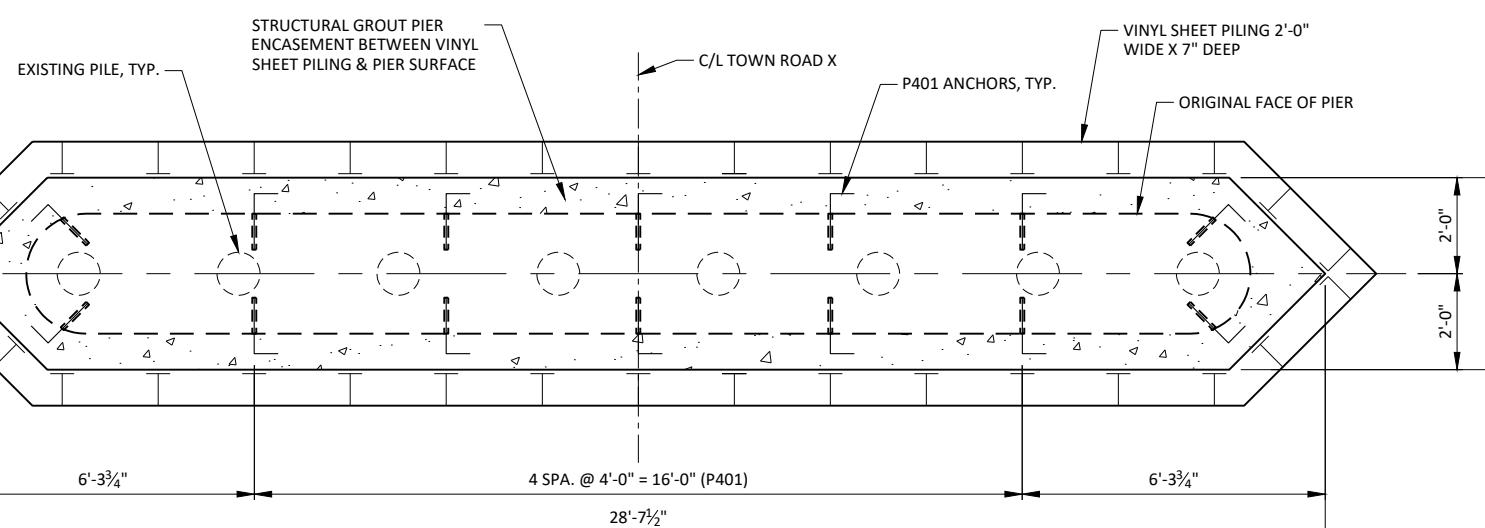
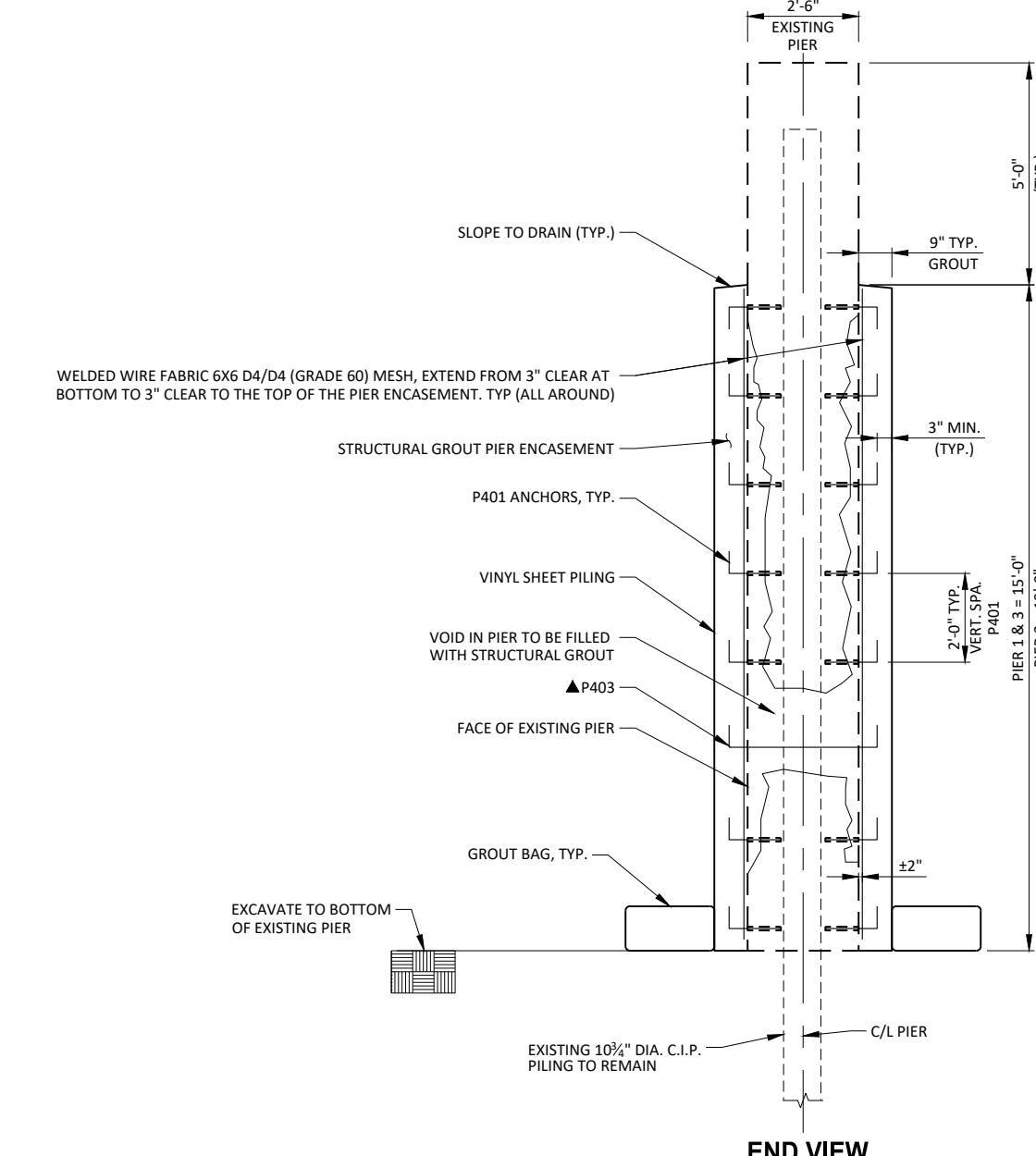
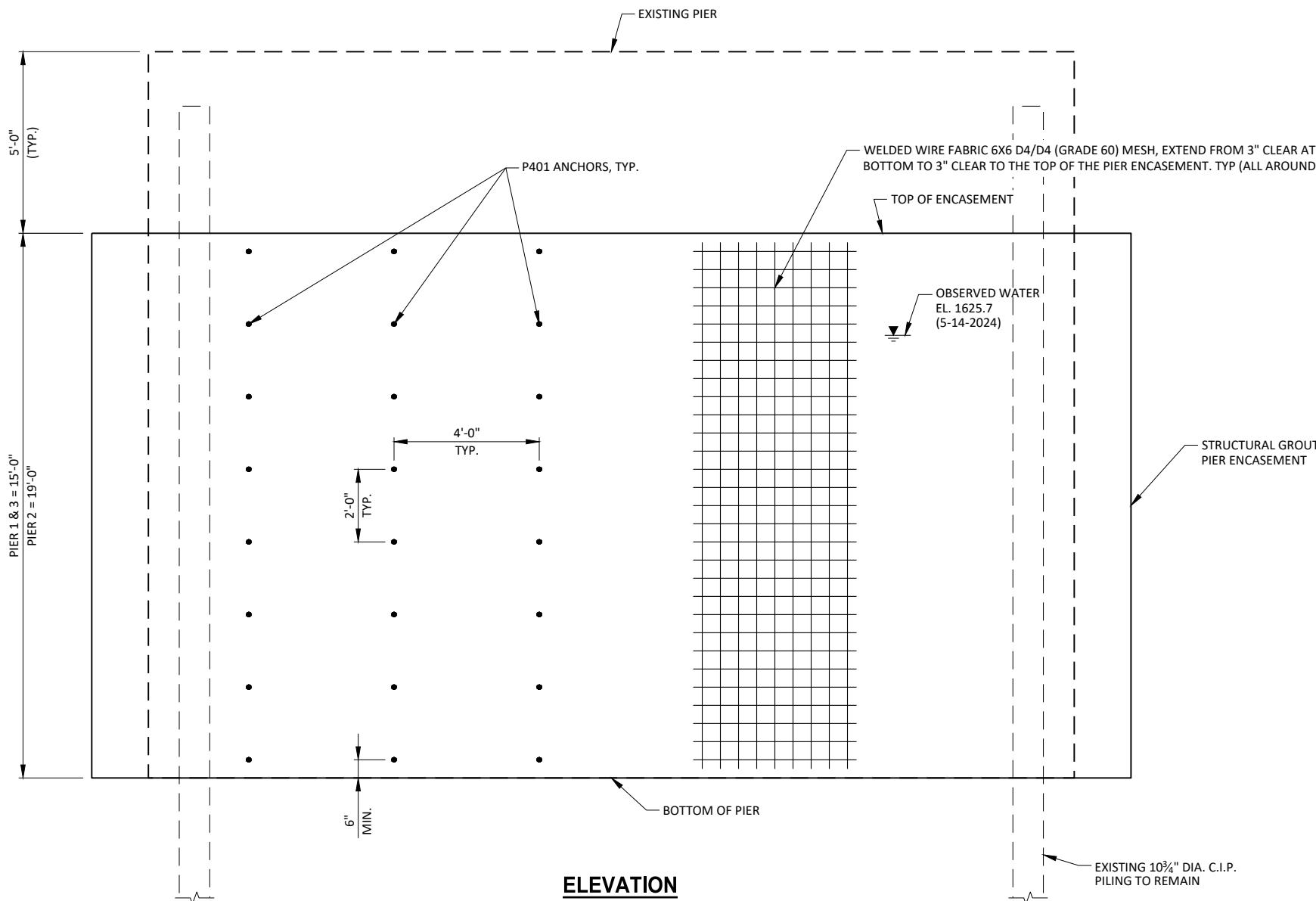
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8



SECTION A-A

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-43-46			
DRAWN BY	PMF	PLANS C'D.	PTB
PIER ENCLOSURE			
			SHEET 3 OF 4



BILL OF BARS
ALL PIERS SHOWN

620 LB (UNCOATED)

BAR MARK	PIER 1	PIER 2	PIER 3	TOTAL	LENGTH	BENT	COAT	LOCATION
P401	96	134	106	336	1-9	X		ANCHORS
P402	5	5	5	15	18-5			UNDISTRIBUTED
P403	8	3	3	13	4-6	X		TIES FOR VOIDS

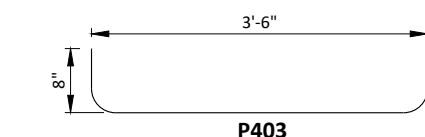
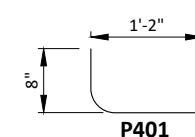
NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

* LENGTH SHOWN IS AN AVERAGE LENGTH ONLY. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

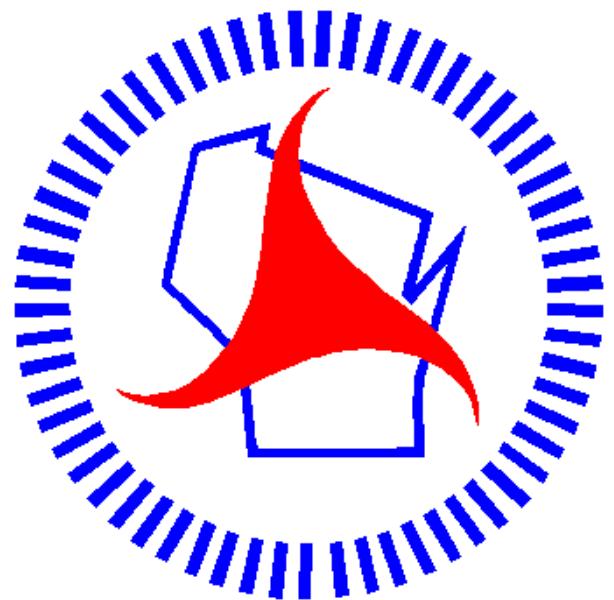
P402 BARS TO BE USED IF EXISTING STEEL IS IN POOR CONDITION, OR MISSING. LAP BARS 12" MIN. FIELD CUT AS REQUIRED.

▲ USE P403 IN PLACE OF P401 WHERE VOIDS EXIST IN THE PIER SHAFT



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-43-46			
DRAWN BY	PMF	PLANS C.K'D.	PTB
PIER DETAILS		SHEET 4 OF 4	

Notes



Wisconsin Department of Transportation

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