

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 = 64

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

PLAINFIELD - STEVENS POINT

B-49-42,43,44,47,50

IH 39

PORTAGE COUNTY

STATE PROJECT NUMBER

1166-00-62

END PROJECT

STA. 874+27.88 SB

Y = 162,135.25  
X = 179,975.42



DESIGN DESIGNATION

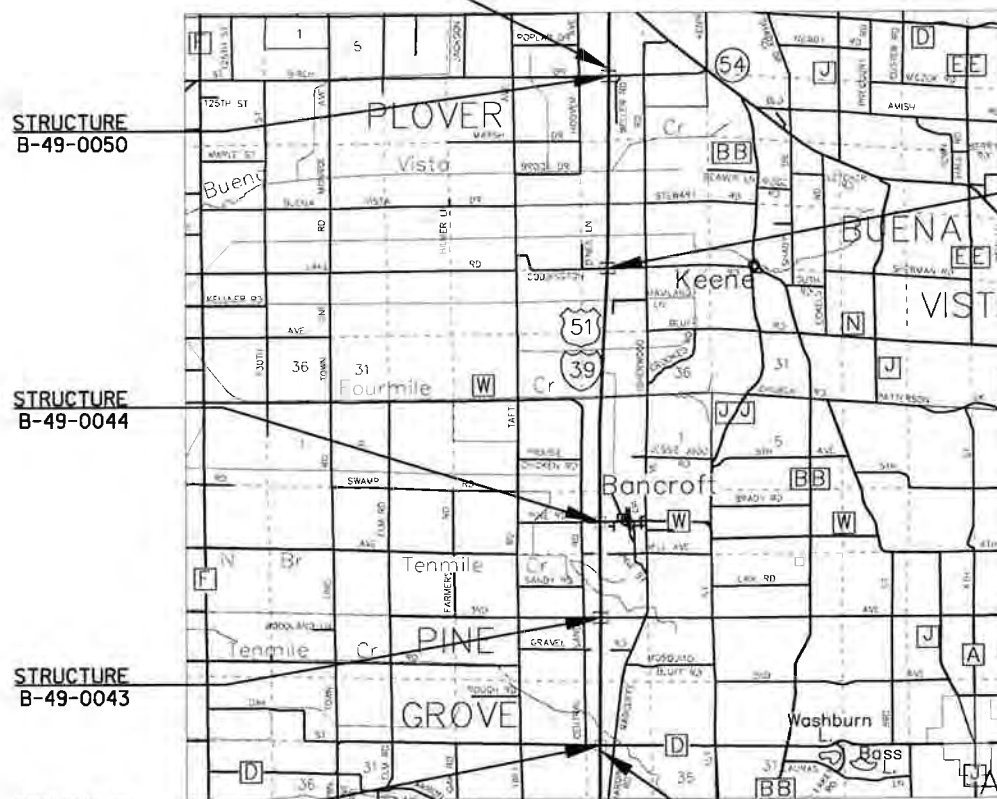
A.A.D.T.	2017	=	15900
A.A.D.T.	2037	=	20600
D.H.V.		=	8.7
D.D.		=	57.43
T.		=	13.6%
DESIGN SPEED		=	70 MPH
ESALS		=	

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)	---
SPECIAL DITCH	---
GRADE ELEVATION	---
CULVERT (Profile View)	---
UTILITIES	
ELECTRIC	---
FIBER OPTIC	---
GAS	---
SANITARY SEWER	---
STORM SEWER	---
TELEPHONE	---
WATER	---
UTILITY PEDESTAL	---
POWER POLE	---
TELEPHONE POLE	---

ROCK	---
LABEL	---
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STRUCTURE  
B-49-0047

BEGIN PROJECT

STA. 319+06.15 SB

Y = 106,546.69  
X = 178,716.93

LAYOUT  
SCALE 0 3 MI

TOTAL NET LENGTH OF CENTERLINE = 0.000

"COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), 'PORTAGE' COUNTY."

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO USGS NAVD. 88.

STATE PROJECT

1166-00-62

FEDERAL PROJECT

PROJECT

WISC 2016490

CONTRACT

1

MSA

PROFESSIONAL SERVICES

TRANSPORTATION • MUNICIPAL  
DEVELOPMENT • ENVIRONMENTAL

1230 South Boulevard Baraboo, WI 53913  
608-356-2771 1-800-362-4505 Fax: 608-356-2770  
Web Address: www.msa-ps.com  
© MSA Professional Services, Inc.



4/15/16  
Date

Signature

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	MSA Professional Services, Inc.
Designer	MSA Professional Services, Inc.
Project Manager	HOLLOWAY, DAN
Regional Examiner	SIMON, CHERYL
Regional Supervisor	KRETSCHMER, MICHAEL

APPROVED FOR THE DEPARTMENT  
DATE: \_\_\_\_\_

Digitally signed by Daniel Holloway  
DN: cn=Daniel Holloway,  
ou=WisDOT, ou=PDS,  
email=daniel.holloway@dot.wisconsin.gov,  
c=US

E



UTILITIES

COMMUNICATION:  
AT&T  
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EAU CLAIRE, WI 54701  
715-839-5565  
RICK.T.PODOLAK@ATT.COM

GAS/PETROLEUM:  
KOCH PIPELINE COMPANY L.P.  
ATTN: SEAN MANTEI  
2267 COUNTY RD HH  
JUNCTION CITY, WI 54443  
715-457-6404  
SEAN.MANTEI@KOCHPIPELINE.COM

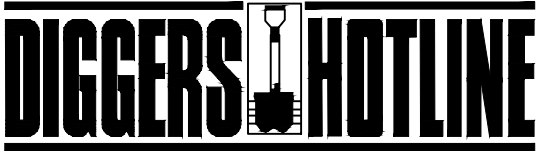
DNR LIAISON

WISCONSIN DEPARTMENT OF  
NATURAL RESOURCES  
ATTN: MARC HERSHFELD  
473 GRIFFITH DRIVE  
WISCONSIN RAPIDS, WI 54494  
715-421-7867  
MARC.HERSHFELD@WISCONSIN.GOV

COMMUNICATION:  
UNION TELEPHONE COMPANY  
ATTN: RONALD BOWDEN  
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PLAINFIELD, WI 54966-0096  
715-335-6301  
RBOWDEN@UNIONTEL.NET

GAS/PETROLEUM:  
WISCONSIN PUBLIC SERVICE CORP.  
ATTN: MATT CURTIN  
2001 PLOVER RD  
PLOVER, WI 54467  
715-345-7582  
MJCURTIN@WISCONSINPUBLICSERVICE.COM

ELECTRIC:  
WISCONSIN PUBLIC SERVICE CORP.  
ATTN: DON LUTZOW  
P.O. BOX 1166  
WAUSAU, WI 54402  
715-848-7487  
DALUTZOW@WISCONSINPUBLICSERVICE.COM



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

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 4.04 ACRES  
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 4.04 ACRES

GENERAL NOTES

PURSUANT TO CHAPTER 59 OF THE WISCONSIN STATUTES, THE CONTRACTOR SHALL CAREFULLY MAKE A SEARCH FOR EVIDENCE OF A LANDMARK IN ALL AREAS WHERE SUCH A LANDMARK MAY EXIST.

CURVE DATA SHOWN ON PLANS IS BASED ON AS-BUILTS.

STATIONING FOR THE SHOULDER MILLING/PAVING IS BASED ON IH 39 BELOW THE STRUCTURES. SEE THE STRUCTURE PLANS FOR STATIONING REFERENCE POINTS.

BENCHMARKS WERE LOCATED IN THE FIELD USING GPS TECHNOLOGY.

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

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE NOT SHOWN ON THE PLANS.

PAVING OPERATION SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING LANE.

THE 4" HMA PAVEMENT 4 LT 58-28 S SHALL CONSIST OF A 1¾" UPPER LAYER AND A 2¼" LOWER LAYER. USE 12.5 MM NOMINAL AGGREGATE.

SECTION 2 ORDER

GENERAL NOTES  
PROJECT OVERVIEW  
TYPICAL SECTIONS  
TRAFFIC CONTROL

AS-BUILT REFERENCE (YEAR)\*

PROJECT: 1160-01-74 (2000)  
PROJECT: 1166-04-76 (2007)

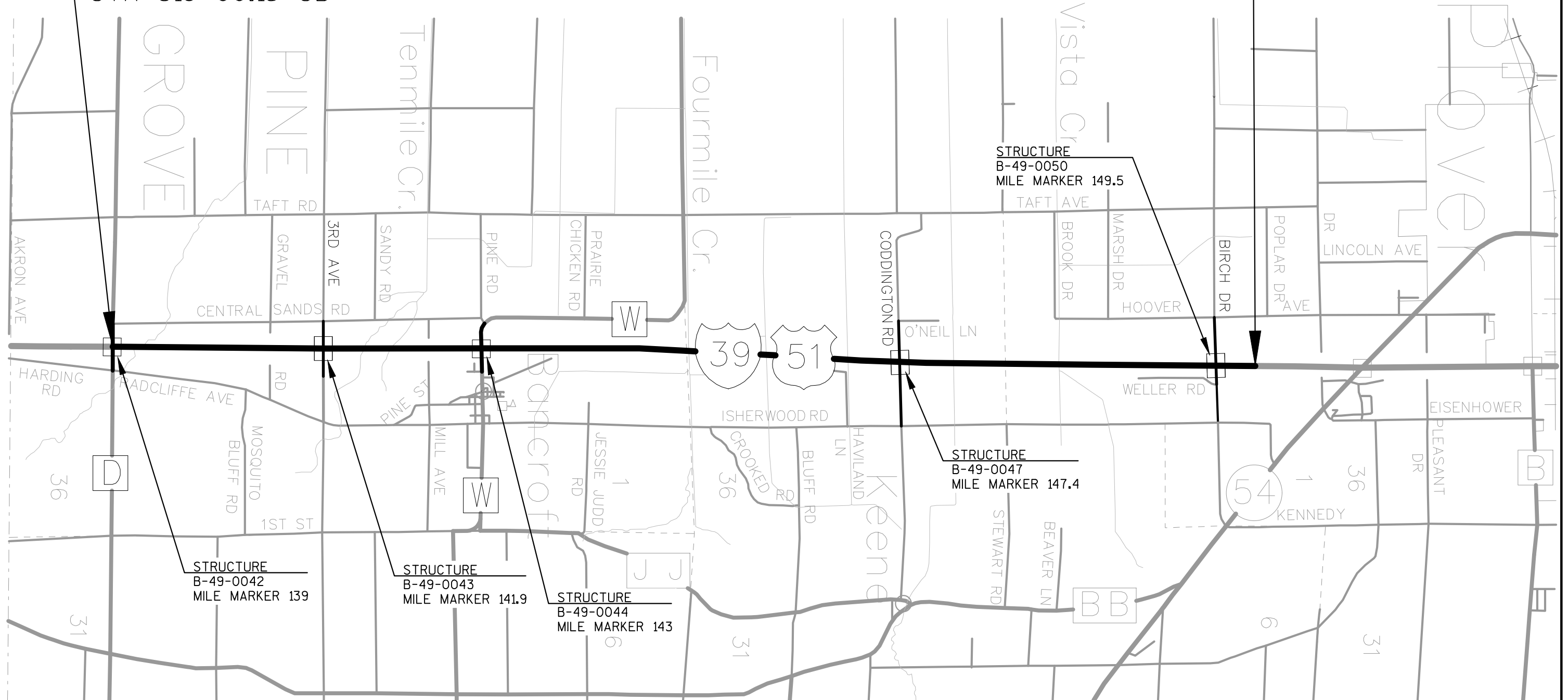
\*APPROVAL YEAR (NOT CONSTRUCTION)



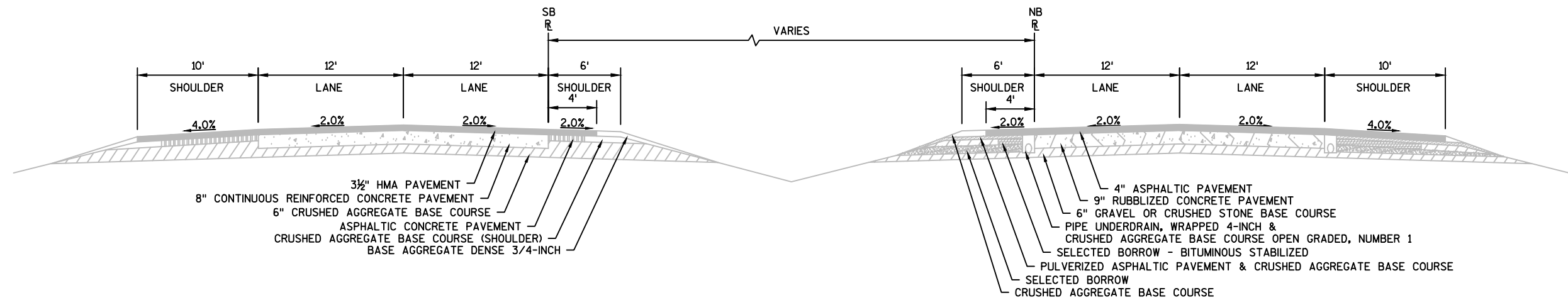


BEGIN PROJECT  
STA 319+06.15 SB

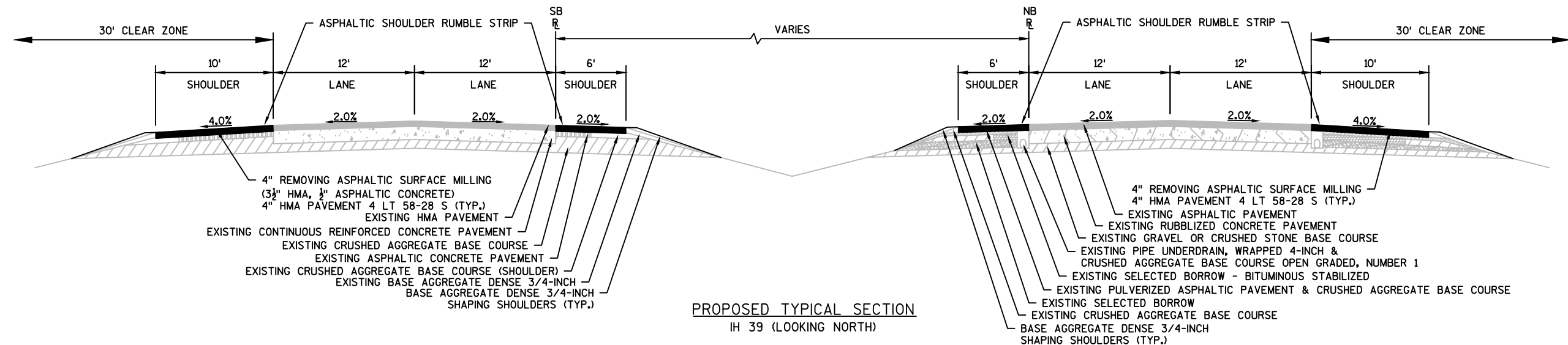
END PROJECT  
STA 874+27.88 SB







EXISTING TYPICAL SECTION  
IH 39 (LOOKING NORTH)



PROPOSED TYPICAL SECTION  
IH 39 (LOOKING NORTH)

\* SHOULDER MILLING/PAVING \*

B-49-0042	STA 316+83SB - STA 322+53SB
	STA 315+57 - STA 321+27
B-49-0043	STA 421+82SB - STA 427+42SB
	STA 420+52 - STA 426+12
B-49-0044	STA 500+99SB - STA 506+74SB
	STA 499+68 - STA 505+43
B-49-0047	STA 709+89SB - STA 715+59SB
	STA 708+69 - STA 714+39
B-49-0050	STA 868+61SB - STA 874+26SB
	STA 867+39 - STA 873+04

\* SEE THE STRUCTURE PLANS FOR STATIONING REFERENCE POINTS.



GENERAL NOTES FOR CHANGEABLE MESSAGE BOARDS

PCMS=PORTABLE CHANGEABLE MESSAGE SIGN

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING MESSAGE SIGNS. PLACE THE SIGNS SO THE DRIVER HAS A CLEAR VIEW OF THE MESSAGE FOR A MINIMUM OF 1,000 FEET.

MESSAGE SIGNS SHOULD BE PLACED AS FAR AWAY FROM LIVE TRAFFIC LANES AS POSSIBLE WITHOUT HAMPERING VISIBILITY. IN ADVANCE OF INTERSTATE CONSTRUCTION PROJECTS, THE SIGNS SHOULD BE PLACED ON THE BACKSLOPE BEYOND THE DITCH. THE LOCATION SELECTED SHOULD BE AT OR SLIGHTLY ABOVE THE ELEVATION OF THE ROADWAY.

FOR INTERMITTENT WORK SUCH AS FREEWAY LANE CLOSURE, OR WHERE SITE CONDITIONS DO NOT ALLOW OTHERWISE, THE SIGNS MAY BE PLACED ON THE SHOULDER. THE SITE SHOULD BE VISITED TO ASSURE VISIBILITY, SAFETY AND MAINTENANCE CONSIDERATIONS. A TAPER OR REFLECTORIZED DRUMS OR BARRICADES SHOULD BE PLACED AHEAD OF A PCMS THAT IS PLACED ON THE SHOULDER IF IT IS NOT SHIELDED BY A BARRIER.

SITE 1 MESSAGE SIGN IS TO BE IN PLACE AND DISPLAYING THE "PRIOR TO CONSTRUCTION" MESSAGES FOR SEVEN DAYS PRIOR TO THE EXPECTED START OF WORK ON IH 39 NB.

SITE 2 MESSAGE SIGN IS TO BE IN PLACE AND DISPLAYING THE "PRIOR TO CONSTRUCTION" MESSAGES FOR SEVEN DAYS PRIOR TO THE EXPECTED START OF WORK ON IH 39 SB.

MAINTENANCE CROSSOVER LOCATIONS (MILE MARKER)

- 140.5
- 142.8
- 144.0
- 146.6
- 148.1
- 149.6

MESSAGE OVERVIEW										
SIGN OWNER	PCMS SITE NO. (DIR.)	MILE MARKER	7 DAYS PRIOR TO CONSTRUCTION		DURING SHOULDER CLOSURE		DURING INSIDE LANE CLOSURE		DURING OUTSIDE LANE CLOSURE	
			FRAME 1 (2 SEC)	FRAME 2 (2 SEC)	FRAME 1 (2 SEC)	FRAME 2 (2 SEC)	FRAME 1 (2 SEC)	FRAME 2 (2 SEC)	FRAME 1 (2 SEC)	FRAME 2 (2 SEC)
CONTRACTOR	2 (SB)	152.5	SINGLE LANE TRAFFIC	BEGINS MON. XX	SHLDRS CLOSED	2 MILES AHEAD	LEFT LANE CLOSED	2 MILES AHEAD	RIGHT LANE CLOSED	2 MILES AHEAD
CONTRACTOR	1 (NB)	134.0	SINGLE LANE TRAFFIC	BEGINS MON. XX	SHLDRS CLOSED	3 MILES AHEAD	LEFT LANE CLOSED	3 MILES AHEAD	RIGHT LANE CLOSED	3 MILES AHEAD

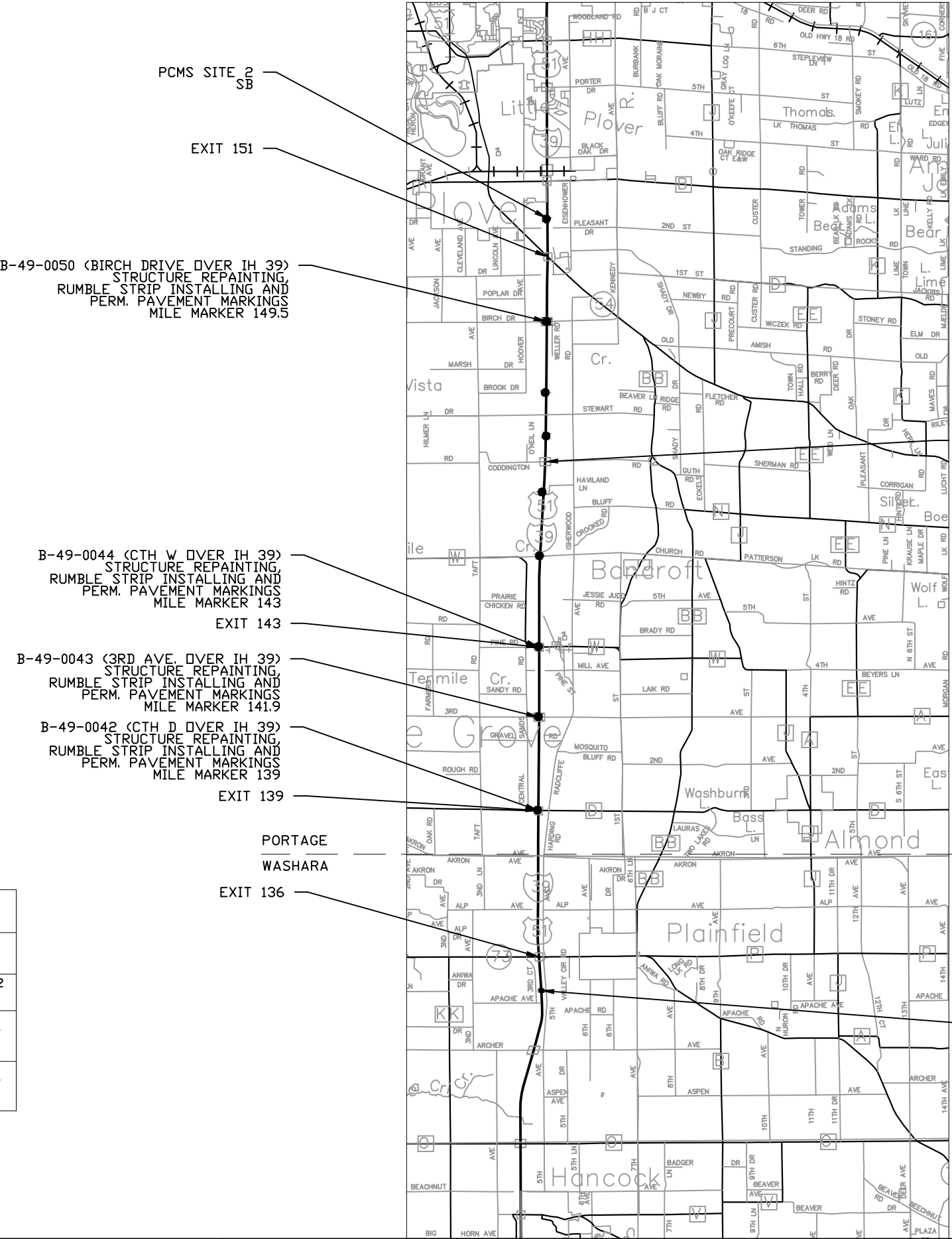
B-49-0050 (BIRCH DRIVE OVER IH 39) STRUCTURE REPAINTING, RUMBLE STRIP INSTALLING AND PERM. PAVEMENT MARKINGS MILE MARKER 149.5

B-49-0044 (CTH W OVER IH 39) STRUCTURE REPAINTING, RUMBLE STRIP INSTALLING AND PERM. PAVEMENT MARKINGS MILE MARKER 143

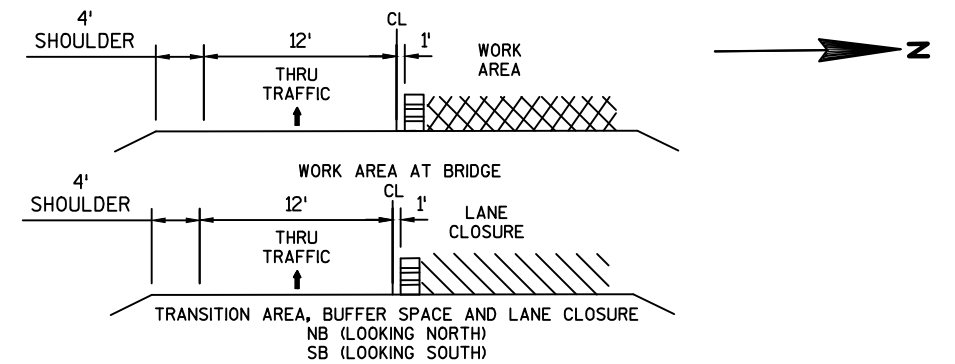
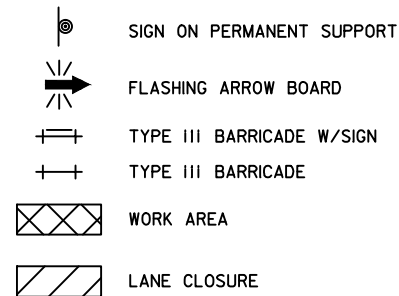
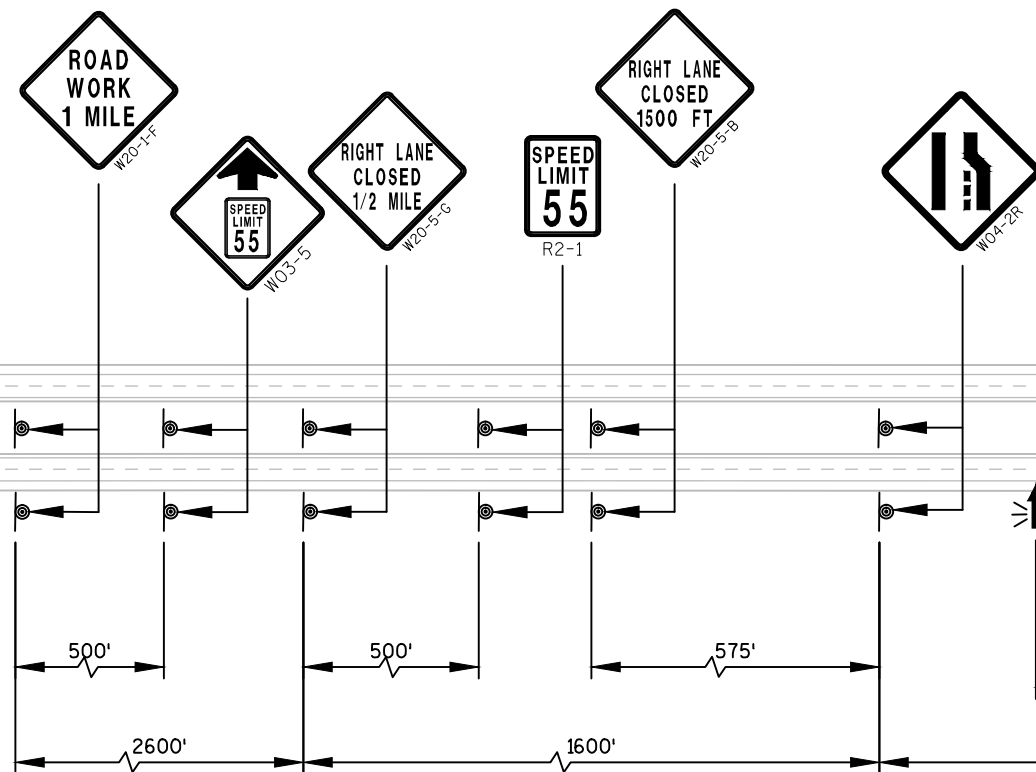
B-49-0043 (3RD AVE. OVER IH 39) STRUCTURE REPAINTING, RUMBLE STRIP INSTALLING AND PERM. PAVEMENT MARKINGS MILE MARKER 141.9

B-49-0042 (CTH D OVER IH 39) STRUCTURE REPAINTING, RUMBLE STRIP INSTALLING AND PERM. PAVEMENT MARKINGS MILE MARKER 139

B-49-0047 (CODDINGTON RD. OVER IH 39) STRUCTURE REPAINTING, RUMBLE STRIP INSTALLING AND PERM. PAVEMENT MARKINGS MILE MARKER 147.4



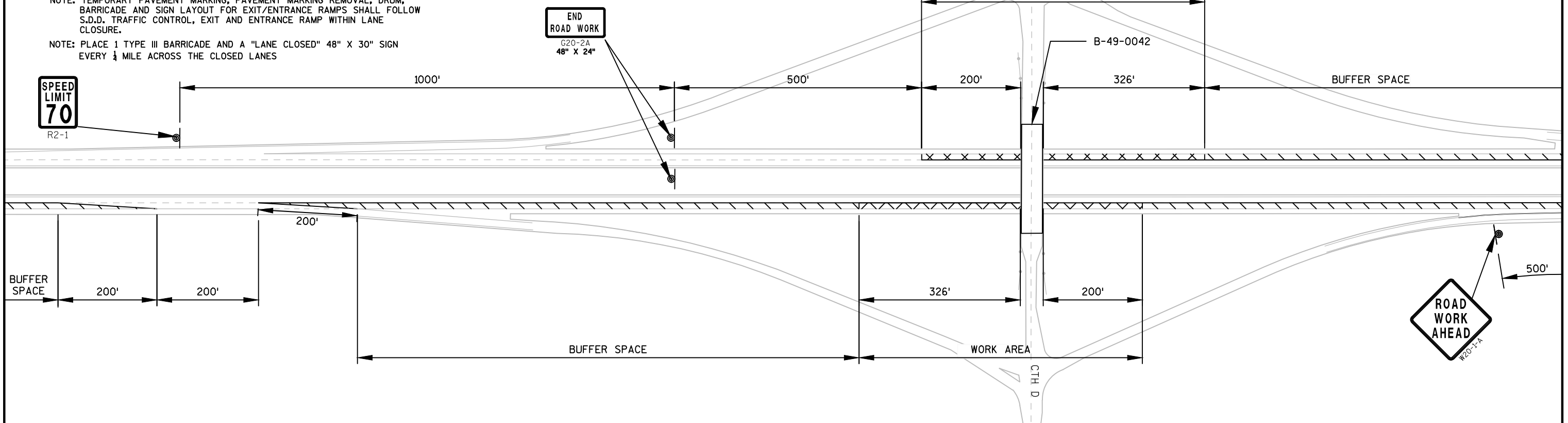




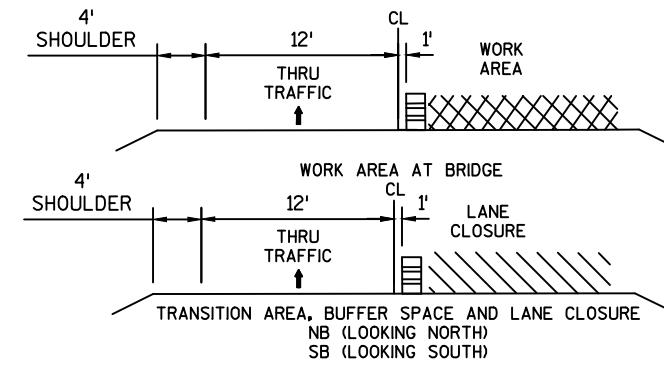
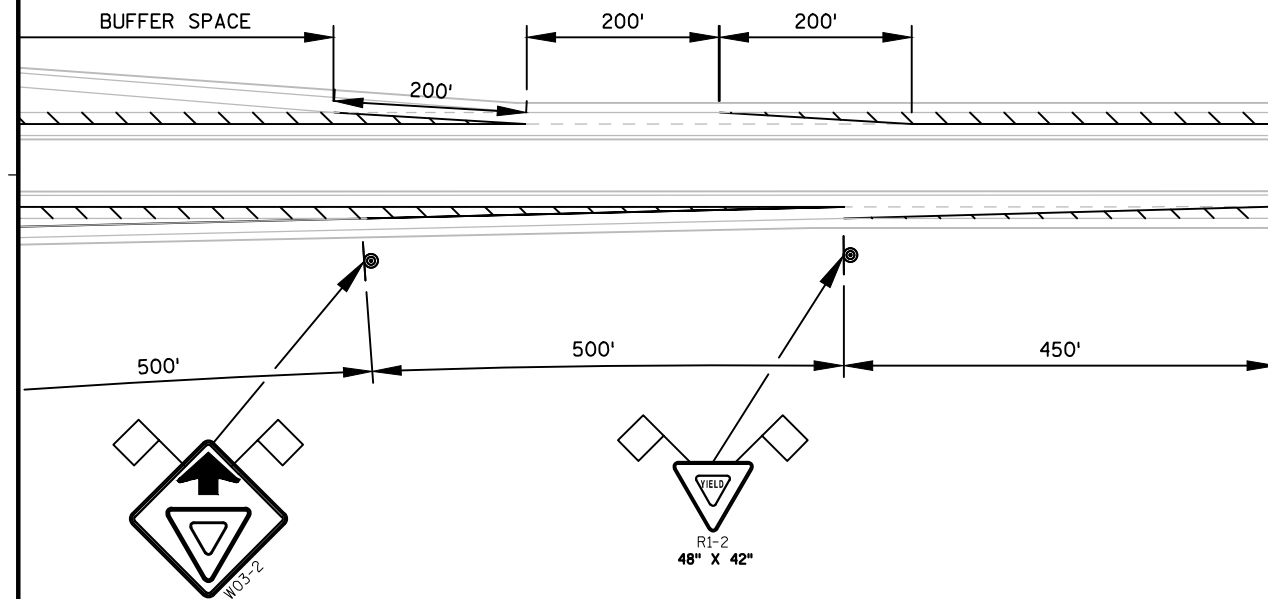
NOTE: ANY DRUMS, BARRICADES AND SIGN LAYOUT NOT SHOWN SHALL FOLLOW S.D.D. TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION.








NOTE: TEMPORARY PAVEMENT MARKING, PAVEMENT MARKING REMOVAL, DRUM, BARRICADE AND SIGN LAYOUT FOR EXIT/ENTRANCE RAMP SHALL FOLLOW S.D.D. TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.

NOTE: PLACE 1 TYPE III BARRICADE AND A "LANE CLOSED" 48" X 30" SIGN EVERY 1/4 MILE ACROSS THE CLOSED LANES





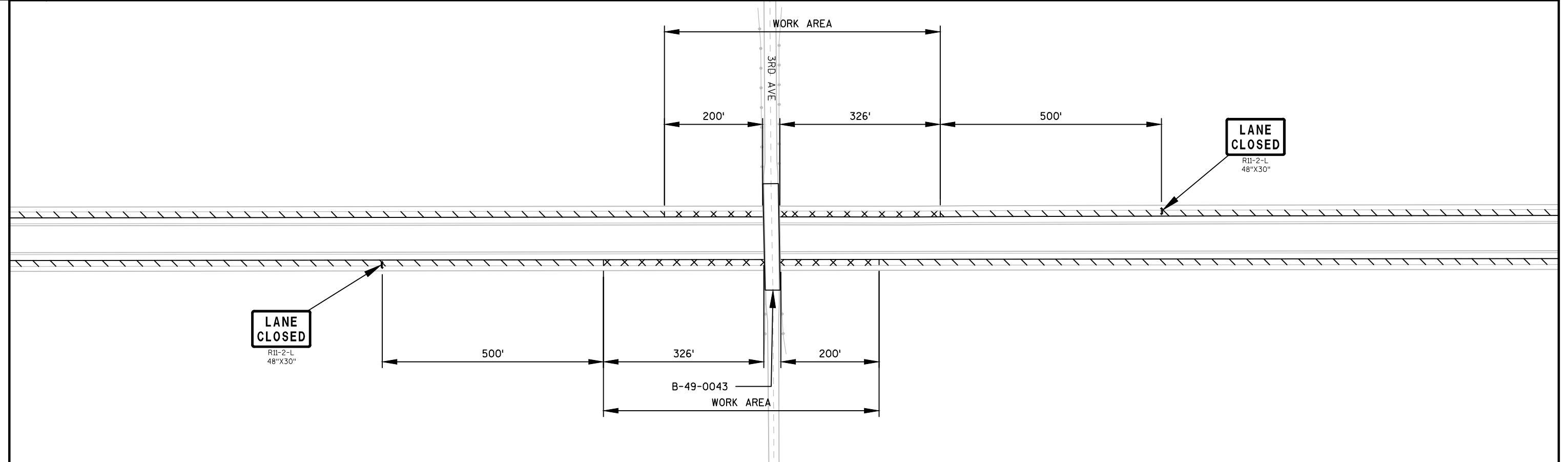


-  SIGN FLAGS, 16" X 16" MIN., (ORANGE)
-  SIGN ON PERMANENT SUPPORT
-  FLASHING ARROW BOARD
-  TYPE III BARRICADE W/SIGN
-  TYPE III BARRICADE
-  WORK AREA
-  LANE CLOSURE

NOTE: ANY DRUMS, BARRICADES AND SIGN LAYOUT NOT SHOWN SHALL FOLLOW S.D.D. TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION.

NOTE: TEMPORARY PAVEMENT MARKING, PAVEMENT MARKING REMOVAL, DRUM, BARRICADE AND SIGN LAYOUT FOR EXIT/ENTRANCE RAMP WITHIN LANE CLOSURE.

NOTE: PLACE 1 TYPE III BARRICADE AND A "LANE CLOSED" 48" X 30" SIGN EVERY  $\frac{1}{4}$  MILE ACROSS THE CLOSED LANES



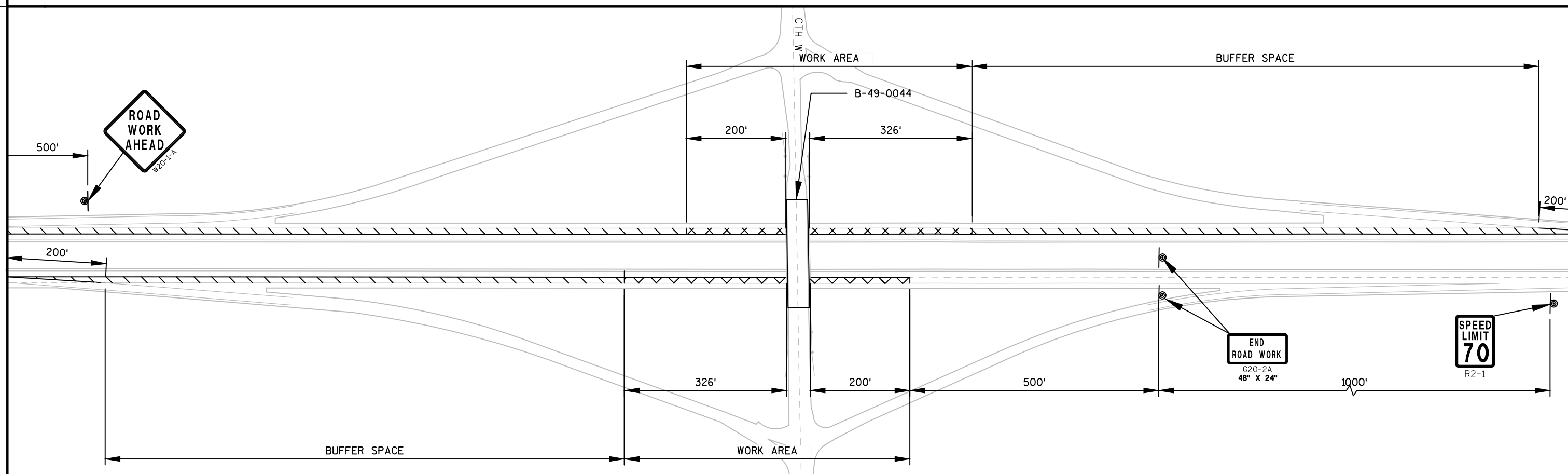
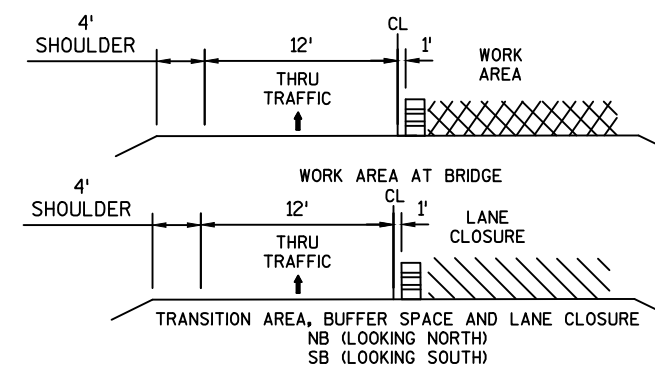


- ◇ ◇ SIGN FLAGS, 16" X 16" MIN., (ORANGE)
- SIGN ON PERMANENT SUPPORT
- ⚡ FLASHING ARROW BOARD
- ≡≡ TYPE III BARRICADE W/SIGN
- ≡≡ TYPE III BARRICADE
- ▨ WORK AREA
- ▨ LANE CLOSURE

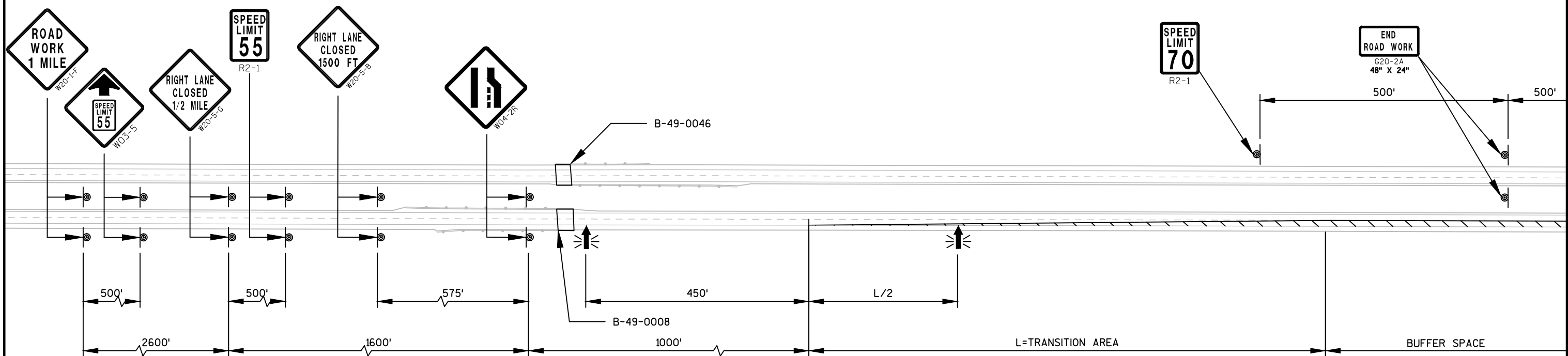
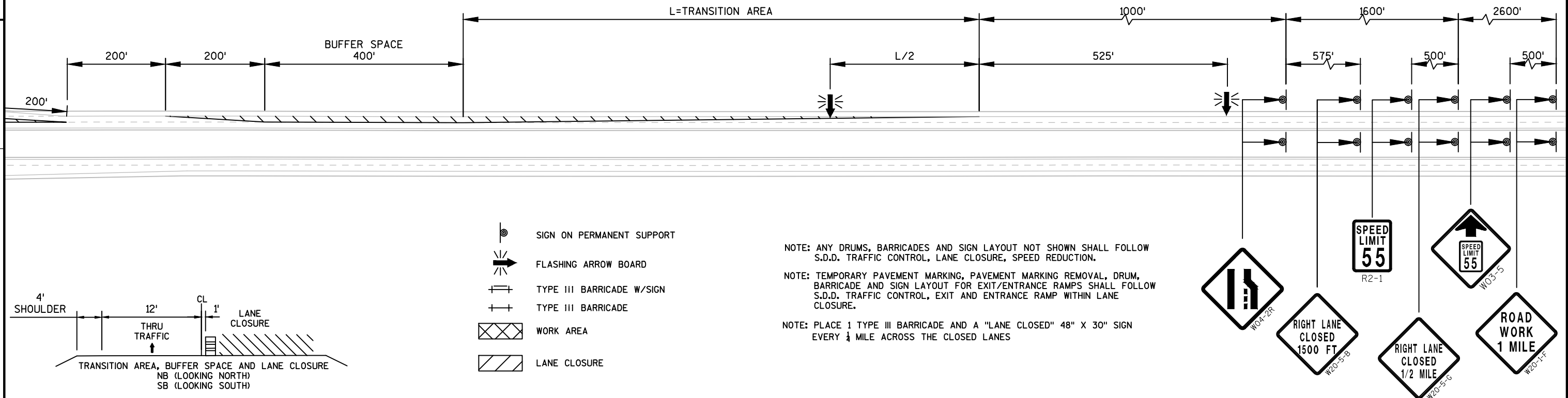
NOTE: ANY DRUMS, BARRICADES AND SIGN LAYOUT NOT SHOWN SHALL FOLLOW S.D.D. TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION.

NOTE: TEMPORARY PAVEMENT MARKING, PAVEMENT MARKING REMOVAL, DRUM, BARRICADE AND SIGN LAYOUT FOR EXIT/ENTRANCE RAMP WITHIN LANE CLOSURE.

NOTE: PLACE 1 TYPE III BARRICADE AND A "LANE CLOSED" 48" X 30" SIGN EVERY  $\frac{1}{4}$  MILE ACROSS THE CLOSED LANES



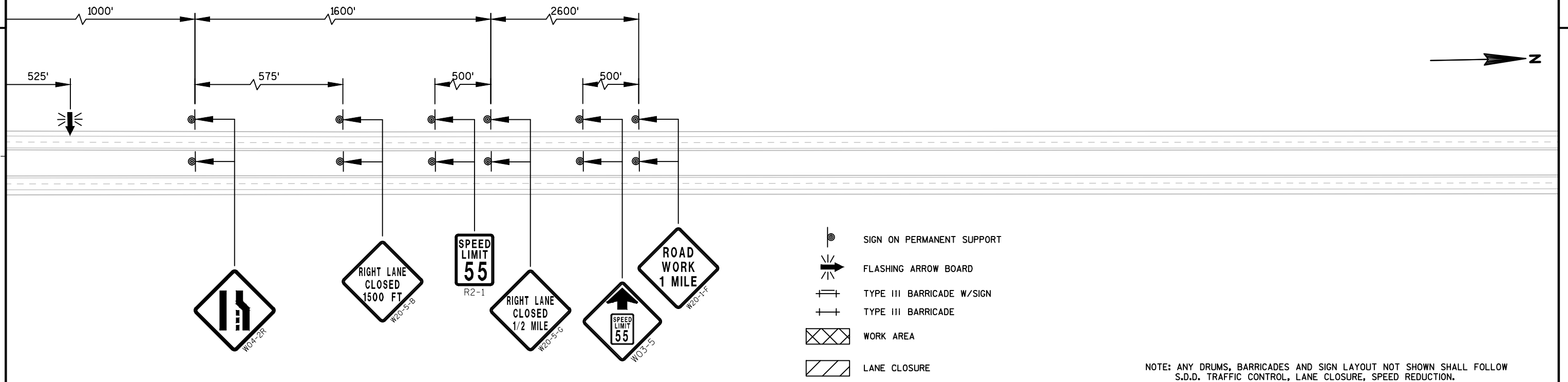
















SIGN FLAGS, 16" X 16" MIN., (ORANGE)



SIGN ON PERMANENT SUPPORT



FLASHING ARROW BOARD



TYPE III BARRICADE W/SIGN



TYPE III BARRICADE



CONCRETE BARRIER TEMPORARY PRECAST



WORK AREA

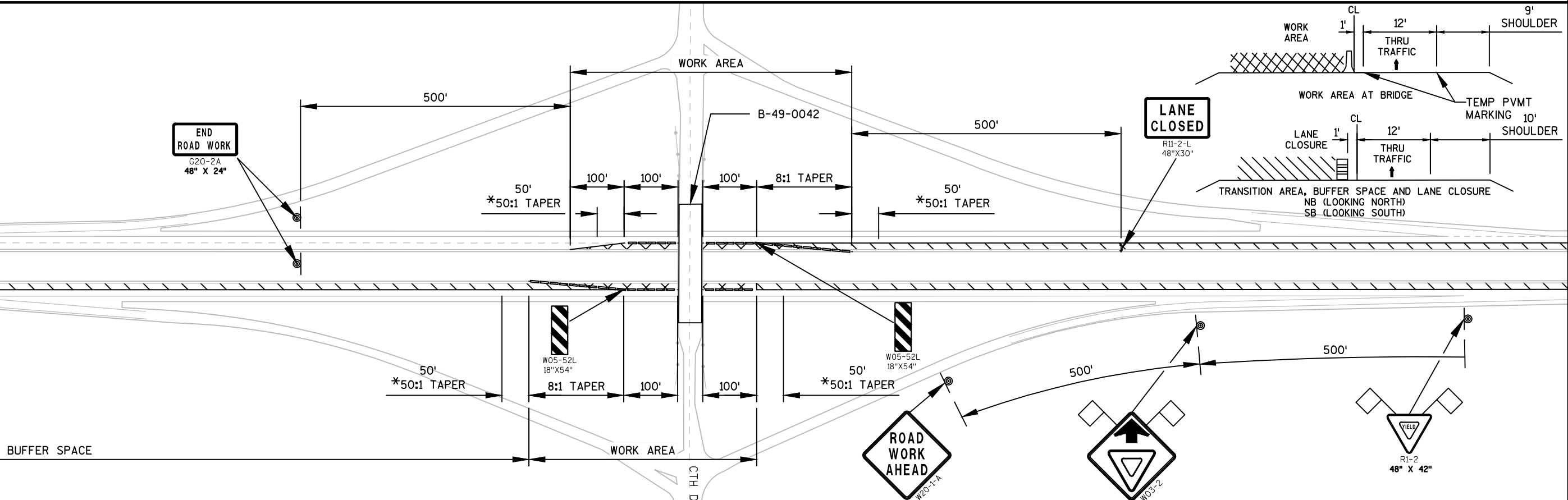
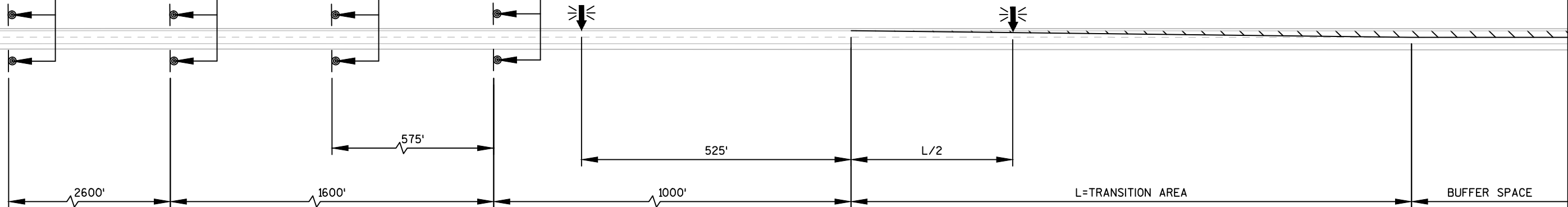


LANE CLOSURE

NOTE: ANY DRUMS, BARRICADES AND SIGN LAYOUT NOT SHOWN SHALL FOLLOW S.D.D. TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER.









NOTE: PLACE 1 TYPE III BARRICADE AND A "LANE CLOSED" 48" X 30" SIGN EVERY 1/4 MILE ACROSS THE CLOSED LANES

\* USE 50:1 TAPER TO TRANSITION BETWEEN LANE CLOSURE AND WORK AREA TEMPORARY CONCRETE BARRIER LAYOUT. REMOVE EDGELINE PAVEMENT MARKING AND INSTALL TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH CENTERLINE AND EDGELINE.

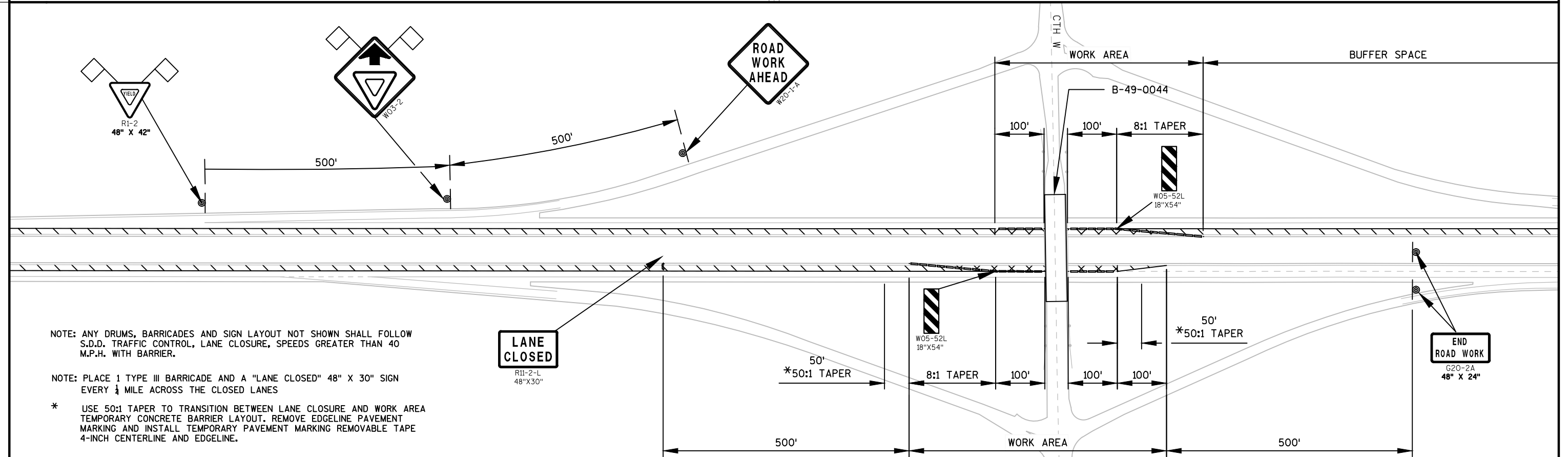
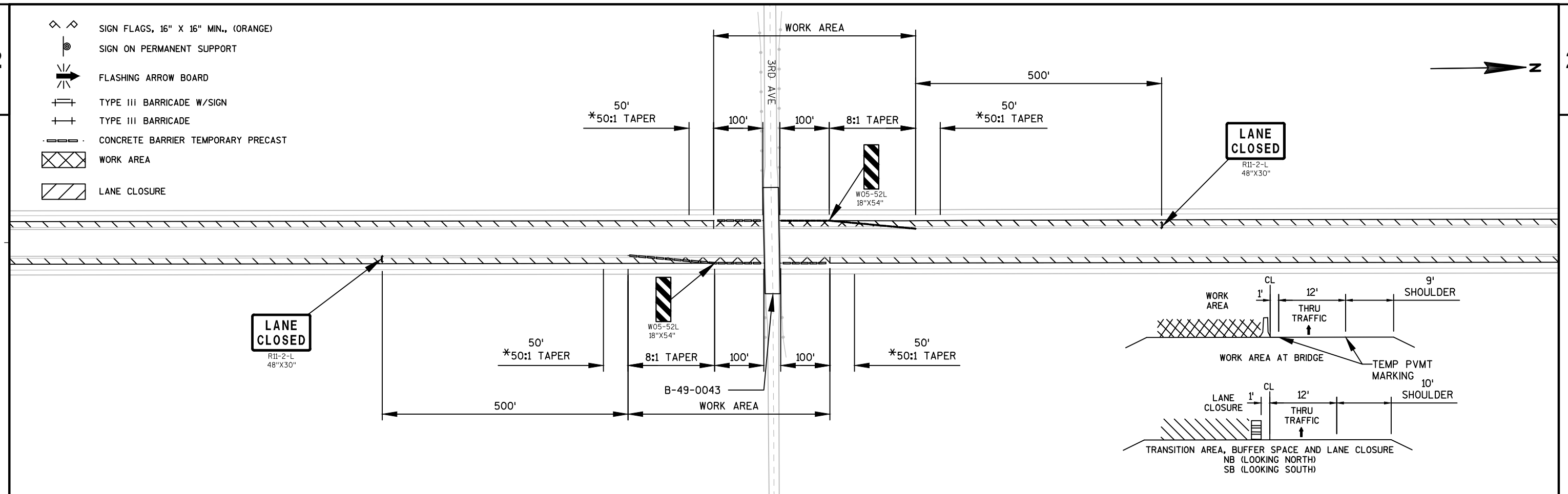




2

-  SIGN FLAGS, 16" X 16" MIN., (ORANGE)
-  SIGN ON PERMANENT SUPPORT
-  FLASHING ARROW BOARD
-  TYPE III BARRICADE W/SIGN
-  TYPE III BARRICADE
-  CONCRETE BARRIER TEMPORARY PRECAST
-  WORK AREA
-  LANE CLOSURE

2



NOTE: ANY DRUMS, BARRICADES AND SIGN LAYOUT NOT SHOWN SHALL FOLLOW S.D.D. TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER.

NOTE: PLACE 1 TYPE III BARRICADE AND A "LANE CLOSED" 48" X 30" SIGN EVERY ¼ MILE ACROSS THE CLOSED LANES

\* USE 50:1 TAPER TO TRANSITION BETWEEN LANE CLOSURE AND WORK AREA TEMPORARY CONCRETE BARRIER LAYOUT. REMOVE EDGELINE PAVEMENT MARKING AND INSTALL TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH CENTERLINE AND EDGELINE.

PROJECT NO: 1166-00-62

HWY: IH 39

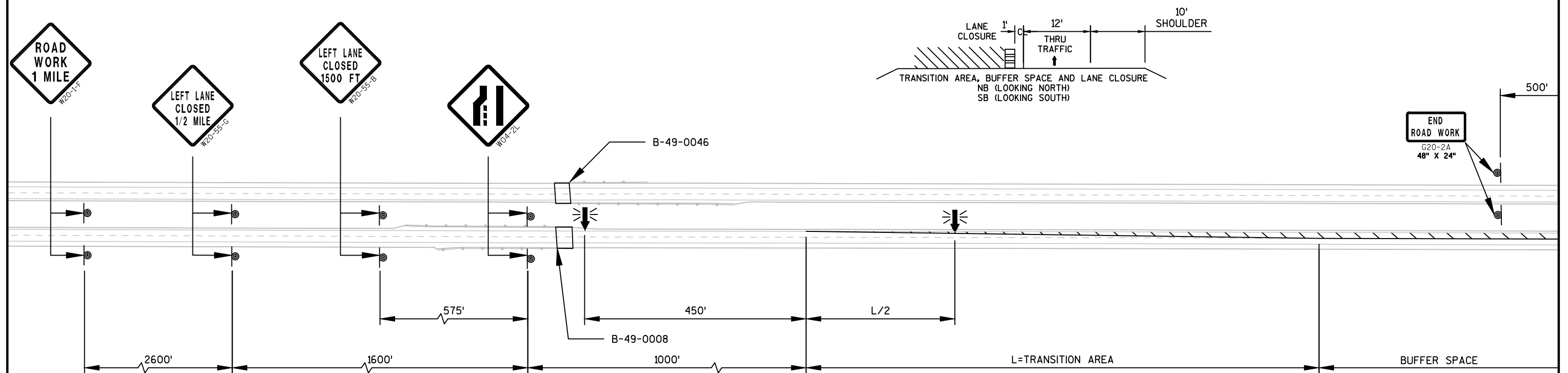
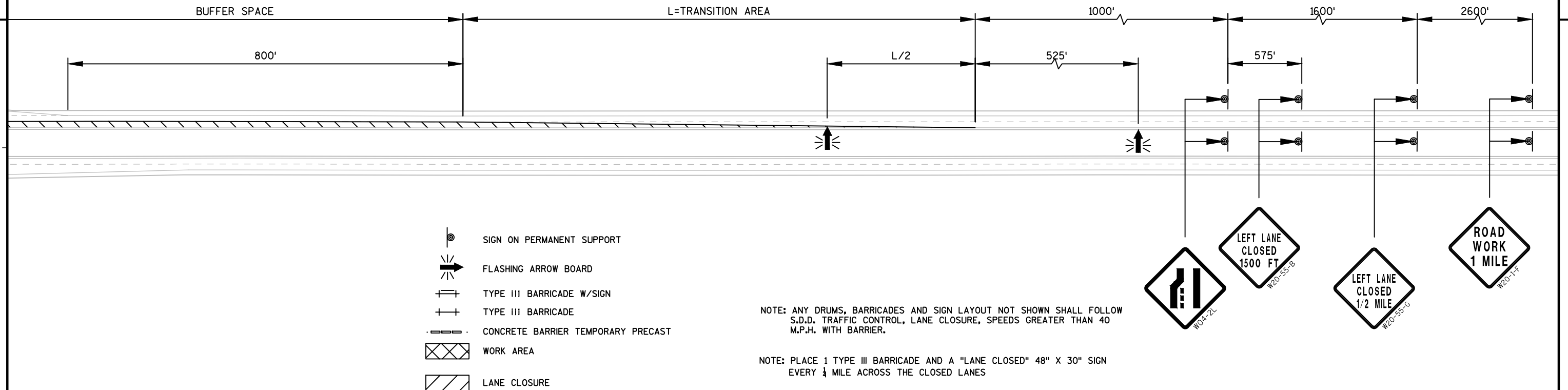
COUNTY: PORTAGE

TRAFFIC CONTROL - STAGE 2

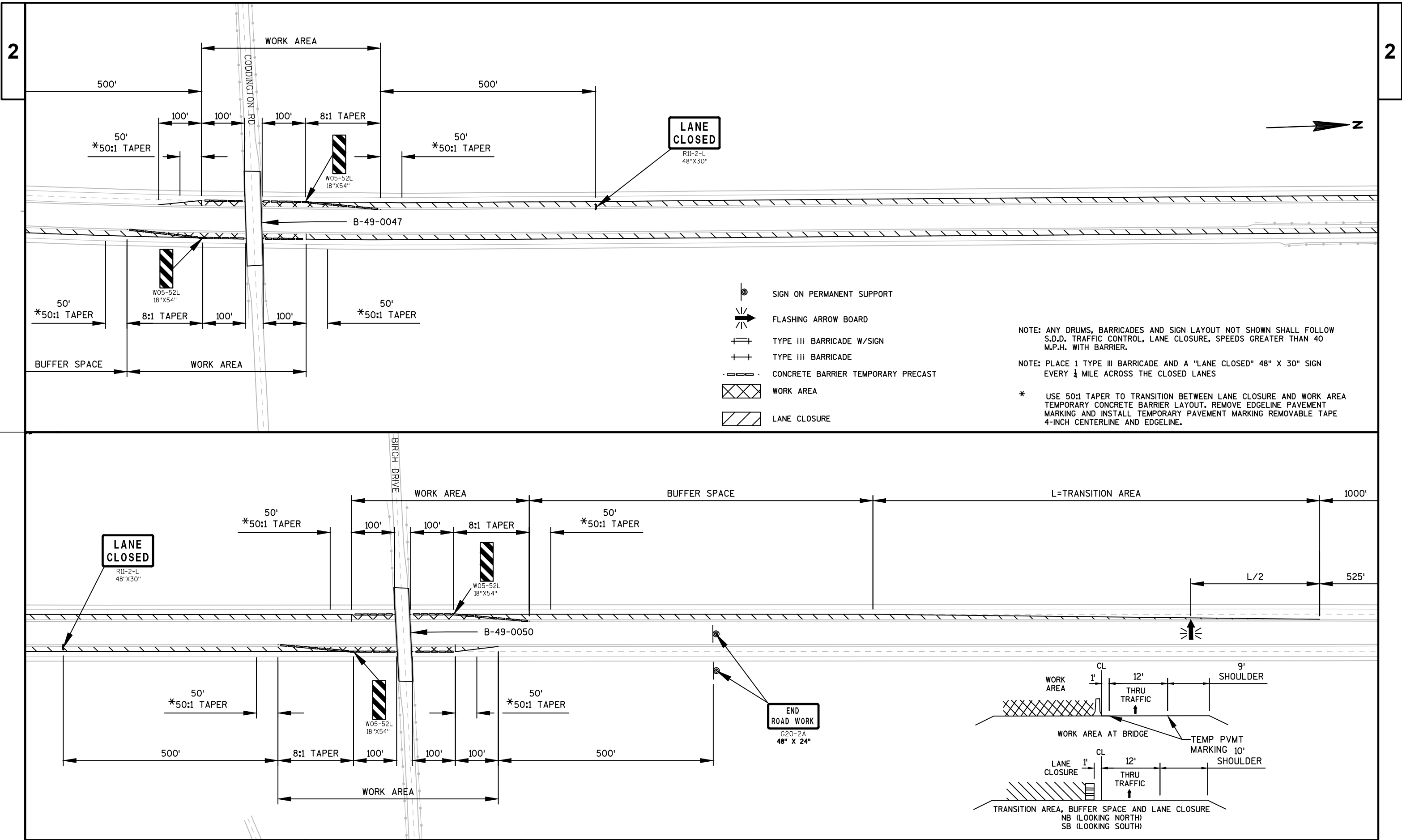
SHEET

E

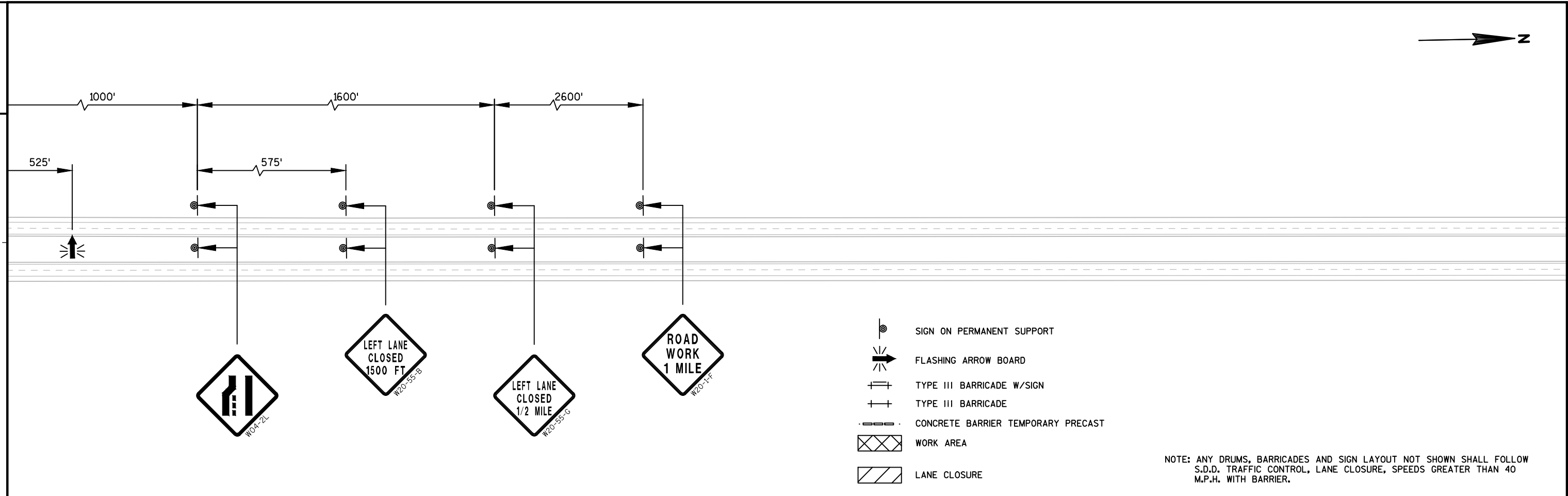












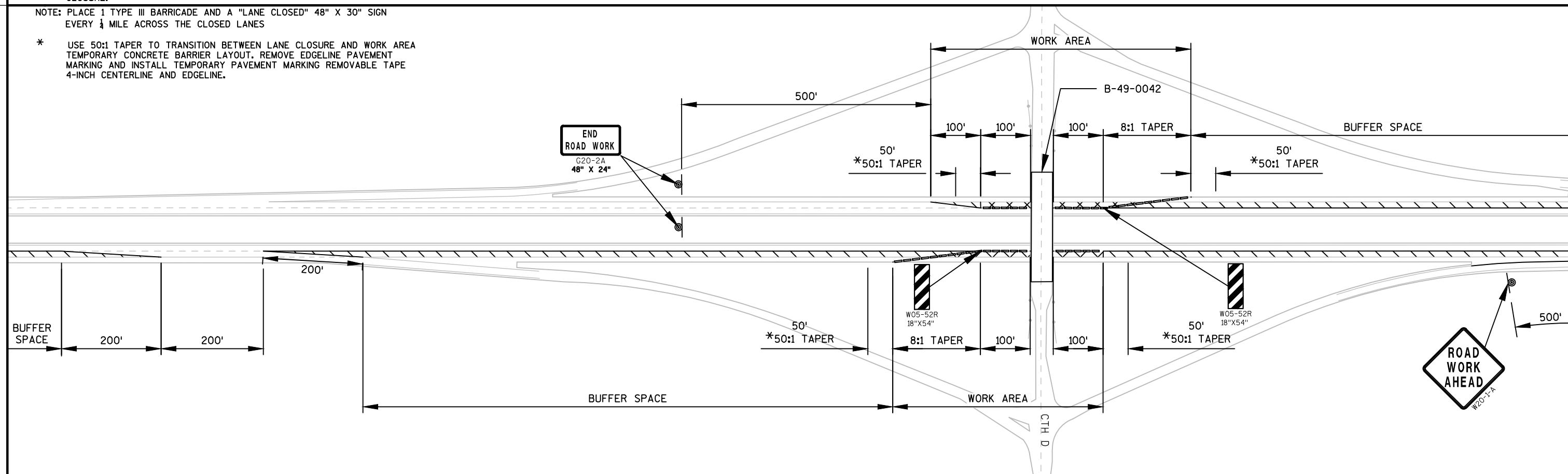


NOTE: ANY DRUMS, BARRICADES AND SIGN LAYOUT NOT SHOWN SHALL FOLLOW S.D.D. TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER.

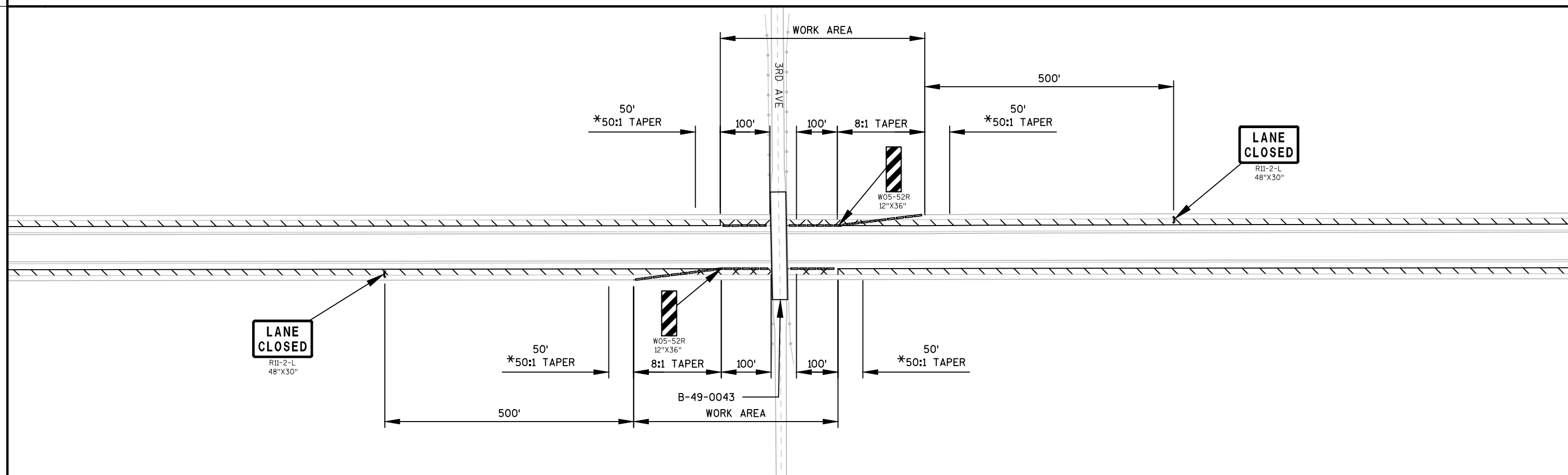
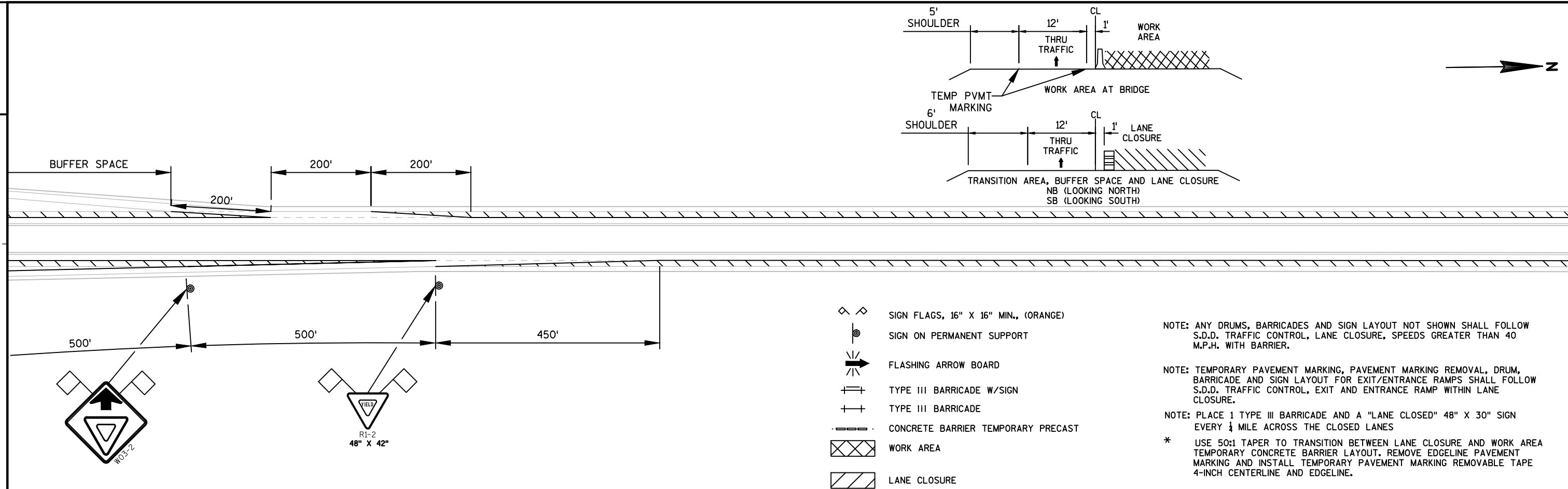
NOTE: TEMPORARY PAVEMENT MARKING, PAVEMENT MARKING REMOVAL, DRUM, BARRICADE AND SIGN LAYOUT FOR EXIT/ENTRANCE RAMP SHALL FOLLOW S.D.D. TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.

NOTE: PLACE 1 TYPE III BARRICADE AND A "LANE CLOSED" 48" X 30" SIGN EVERY 1/4 MILE ACROSS THE CLOSED LANES

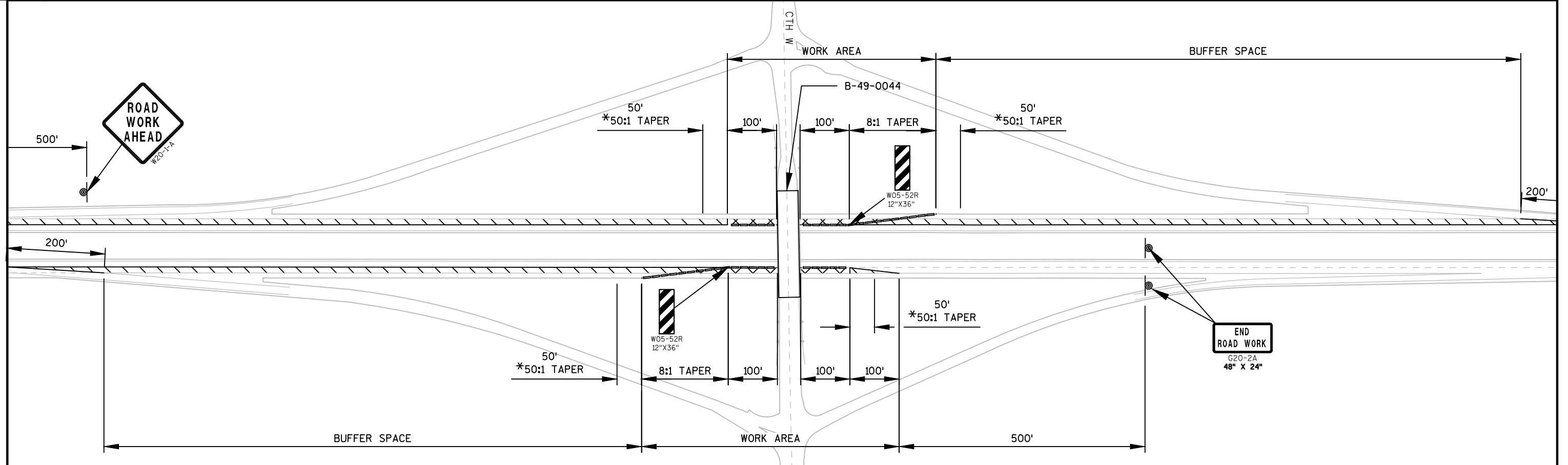
\* USE 50:1 TAPER TO TRANSITION BETWEEN LANE CLOSURE AND WORK AREA TEMPORARY CONCRETE BARRIER LAYOUT. REMOVE EDGELINE PAVEMENT MARKING AND INSTALL TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH CENTERLINE AND EDGELINE.



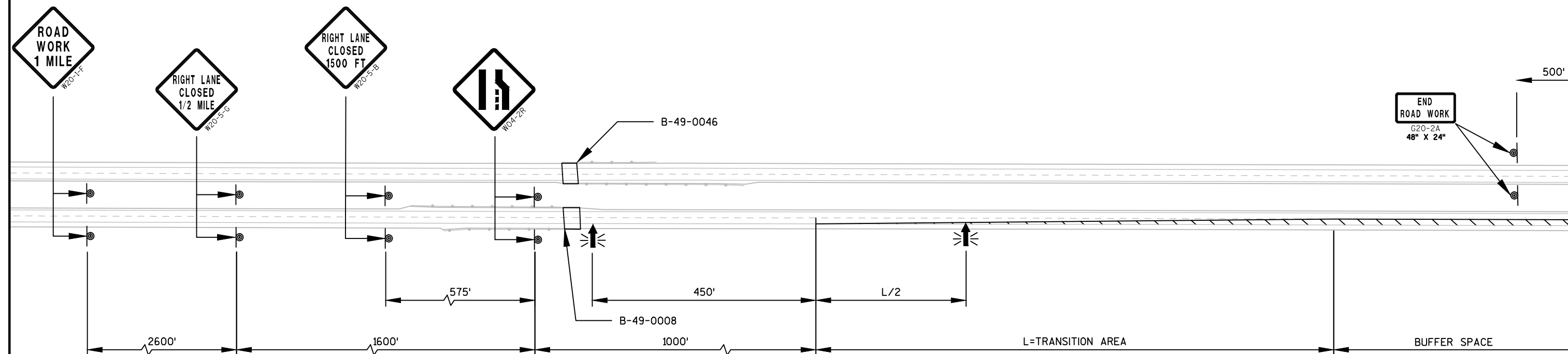




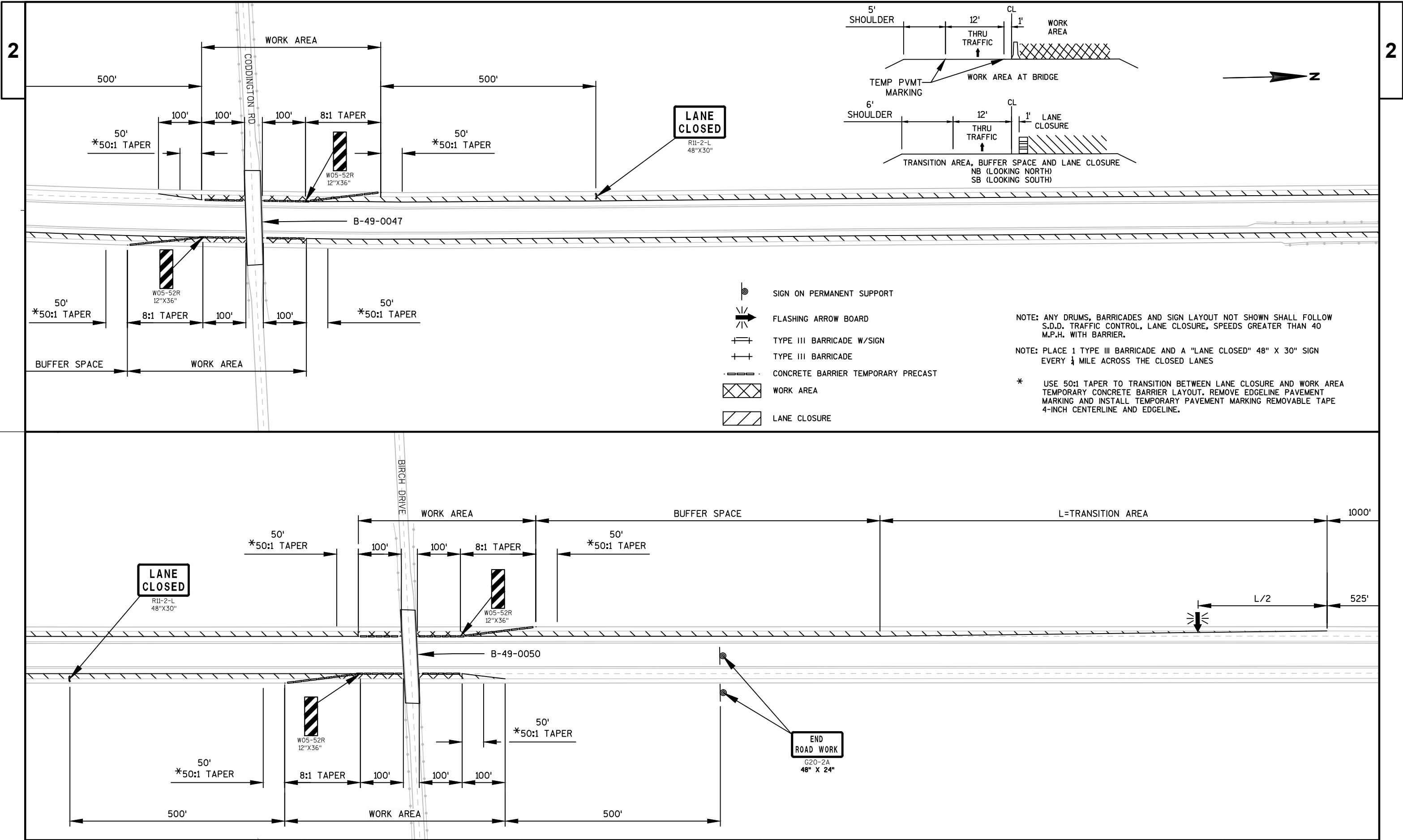




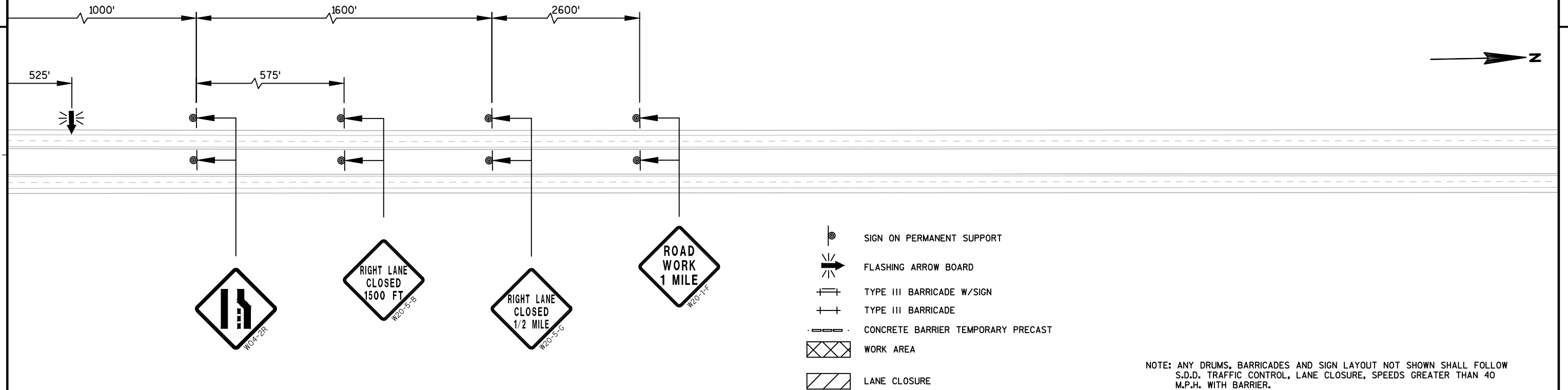




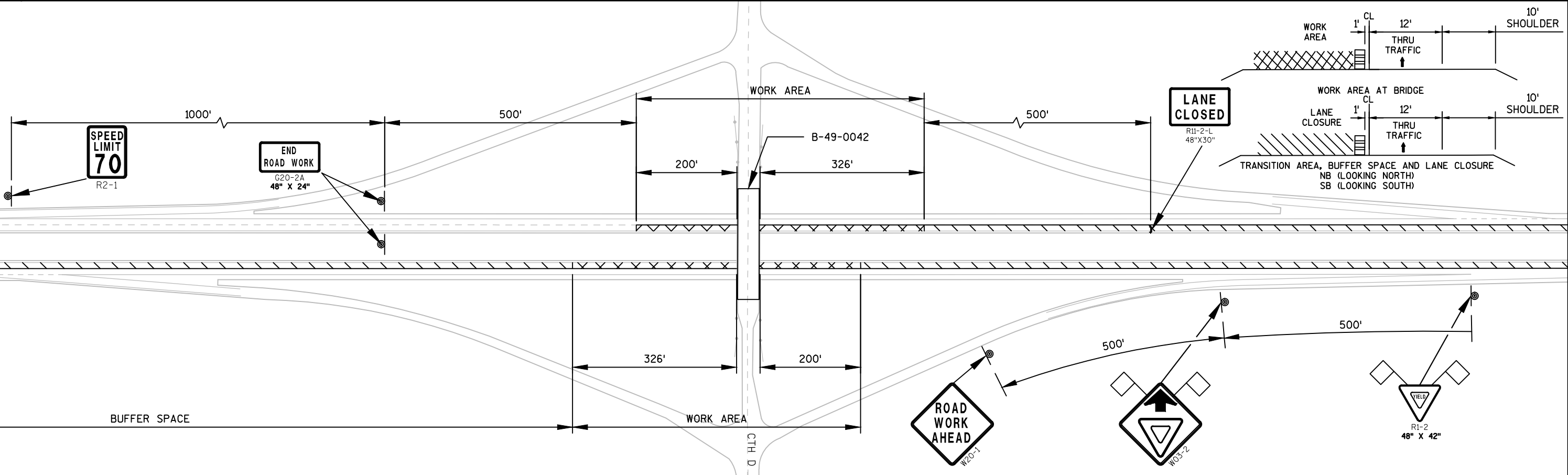





















-  SIGN FLAGS, 16" X 16" MIN., (ORANGE)
-  SIGN ON PERMANENT SUPPORT
-  FLASHING ARROW BOARD
-  TYPE III BARRICADE W/SIGN
-  TYPE III BARRICADE
-  WORK AREA
-  LANE CLOSURE

**LANE  
CLOSED**

R11-2-L  
48"X30"

WORK AREA

200'

326'

500'

**LANE  
CLOSED**

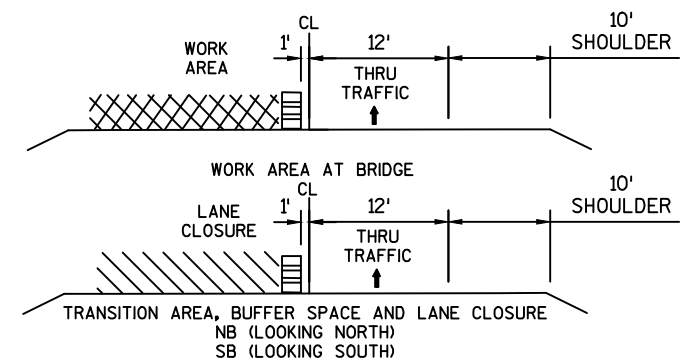
R11-2-L  
48"X30"

B-49-0043

WORK AREA

326'

200'



WORK AREA

BUFFER SPACE

200'

B-49-0044

326'

NOTE: ANY DRUMS, BARRICADES AND SIGN LAYOUT NOT SHOWN SHALL FOLLOW S.D.D. TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION.

NOTE: PLACE 1 TYPE III BARRICADE AND A "LANE CLOSED" 48" X 30" SIGN EVERY 1/4 MILE ACROSS THE CLOSED LANES

**LANE  
CLOSED**

R11-2-L  
48"X30"

500'

326'

200'

500'

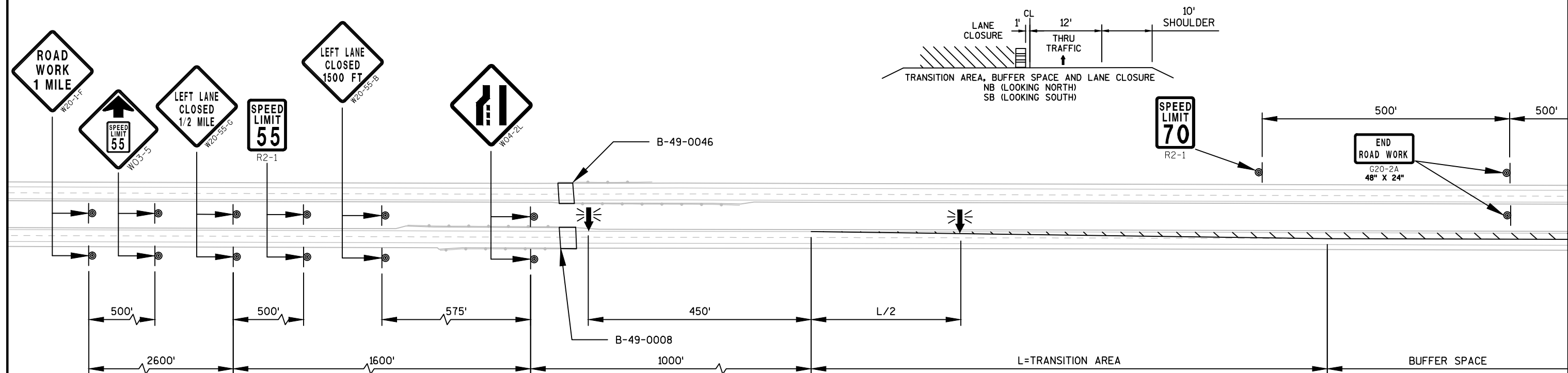
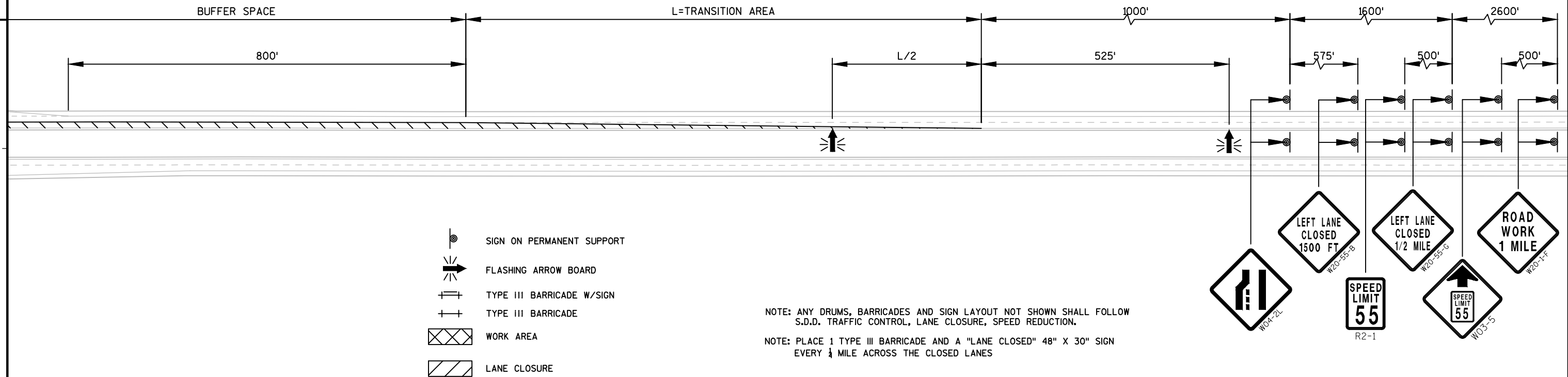
**END  
ROAD WORK**

G20-2A  
48" X 24"

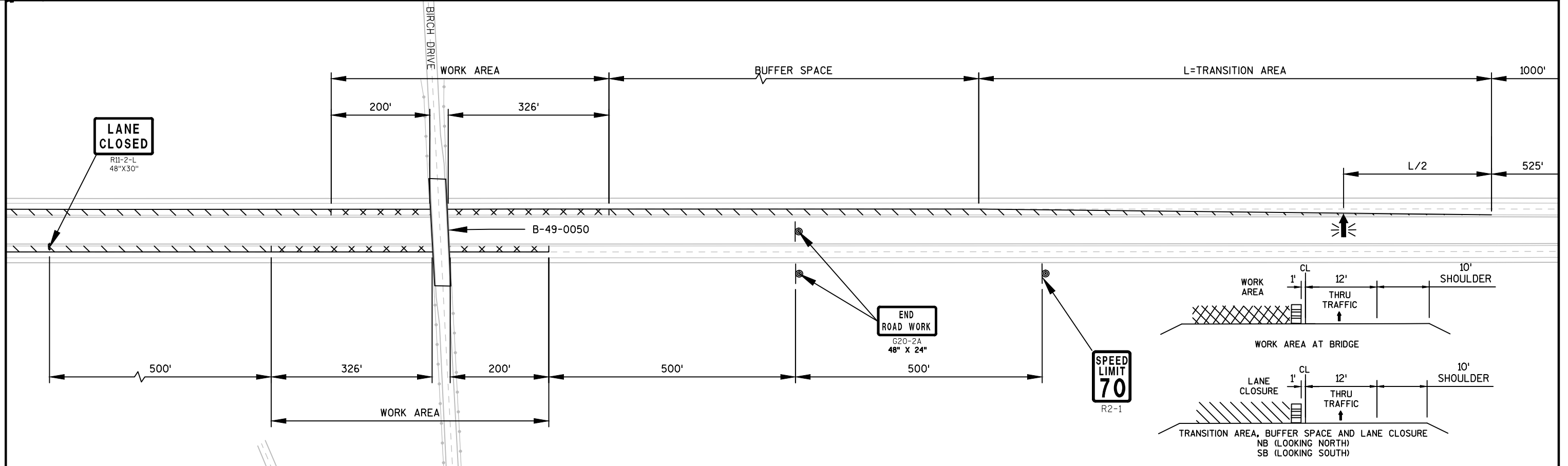
**SPEED  
LIMIT  
70**

R2-1

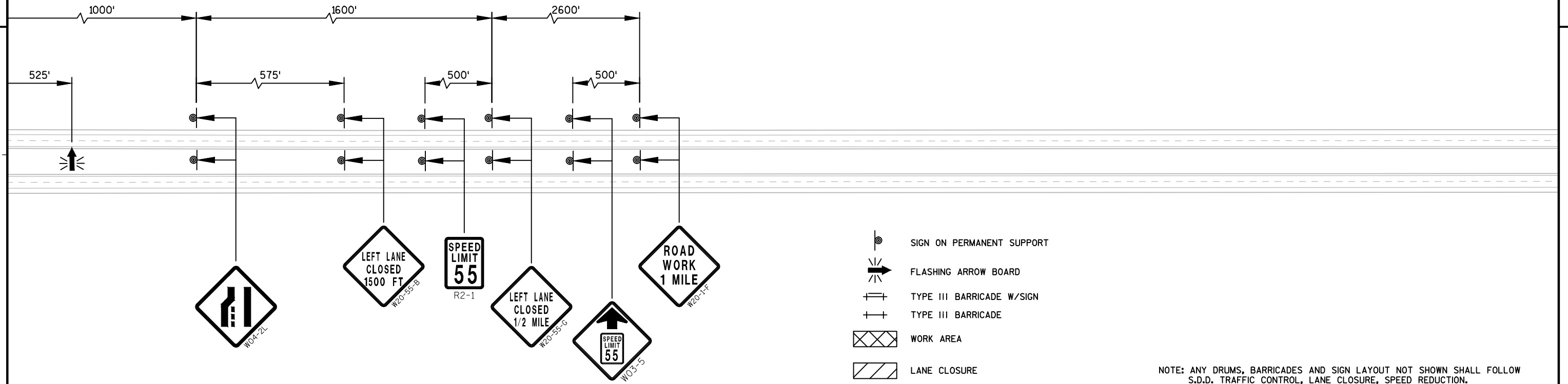














Estimate Of Quantities

1166-00-62

Line	Item	Item Description	Unit	Total	Qty
0010	204.0120	Removing Asphaltic Surface Milling	SY	8,840.000	8,840.000
0020	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	120.000	120.000
0030	213.0100	Finishing Roadway (project) 01. 1166-00-62	EACH	1.000	1.000
0040	305.0110	Base Aggregate Dense 3/4-Inch	TON	276.000	276.000
0050	305.0500	Shaping Shoulders	STA	120.000	120.000
0060	455.0605	Tack Coat	GAL	710.000	710.000
0070	460.2000	Incentive Density HMA Pavement	DOL	1,470.000	1,470.000
0080	460.5224	HMA Pavement 4 LT 58-28 S	TON	2,290.000	2,290.000
0090	465.0400	Asphaltic Shoulder Rumble Strips	LF	11,360.000	11,360.000
0100	517.1800.S	Structure Repainting Recycled Abrasive (structure) 01. B-49-42	LS	1.000	1.000
0110	517.1800.S	Structure Repainting Recycled Abrasive (structure) 02. B-49-43	LS	1.000	1.000
0120	517.1800.S	Structure Repainting Recycled Abrasive (structure) 03. B-49-44	LS	1.000	1.000
0130	517.1800.S	Structure Repainting Recycled Abrasive (structure) 04. B-49-47	LS	1.000	1.000
0140	517.1800.S	Structure Repainting Recycled Abrasive (structure) 05. B-49-50	LS	1.000	1.000
0150	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 01. B-49-42	LS	1.000	1.000
0160	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 02. B-49-43	LS	1.000	1.000
0170	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 03. B-49-44	LS	1.000	1.000
0180	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 04. B-49-47	LS	1.000	1.000
0190	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 05. B-49-50	LS	1.000	1.000
0200	517.6001.S	Portable Decontamination Facility 01. B-49-42	EACH	1.000	1.000
0210	517.6001.S	Portable Decontamination Facility 02. B-49-43	EACH	1.000	1.000
0220	517.6001.S	Portable Decontamination Facility 03. B-49-44	EACH	1.000	1.000
0230	517.6001.S	Portable Decontamination Facility 04. B-49-47	EACH	1.000	1.000
0240	517.6001.S	Portable Decontamination Facility 05. B-49-50	EACH	1.000	1.000
0250	603.8000	Concrete Barrier Temporary Precast Delivered	LF	8,000.000	8,000.000
0260	603.8125	Concrete Barrier Temporary Precast Installed	LF	8,000.000	8,000.000
0270	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1166-00-62	EACH	1.000	1.000
0280	619.1000	Mobilization	EACH	1.000	1.000
0290	624.0100	Water	MGAL	4.000	4.000
0300	643.0200.S	Traffic Control Surveillance and Maintenance (project) 01. 1166-00-62	DAY	108.000	108.000



Estimate Of Quantities

1166-00-62					
Line	Item	Item Description	Unit	Total	Qty
0310	643.0300	Traffic Control Drums	DAY	101,140.000	101,140.000
0320	643.0420	Traffic Control Barricades Type III	DAY	6,696.000	6,696.000
0330	643.0705	Traffic Control Warning Lights Type A	DAY	13,392.000	13,392.000
0340	643.0715	Traffic Control Warning Lights Type C	DAY	11,708.000	11,708.000
0350	643.0800	Traffic Control Arrow Boards	DAY	864.000	864.000
0360	643.0900	Traffic Control Signs	DAY	12,924.000	12,924.000
0370	643.0920	Traffic Control Covering Signs Type II	EACH	14.000	14.000
0380	643.1051	Traffic Control Signs PCMS with Cellular Communications	DAY	216.000	216.000
0390	646.0106	Pavement Marking Epoxy 4-Inch	LF	14,030.000	14,030.000
0400	646.0600	Removing Pavement Markings	LF	12,990.000	12,990.000
0410	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	59,110.000	59,110.000
0420	649.0801	Temporary Pavement Marking Removable Tape 8-Inch	LF	5,600.000	5,600.000
0430	690.0150	Sawing Asphalt	LF	280.000	280.000
0440	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0450	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	300.000	300.000



REMOVING PAVEMENT

			204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
CATEGORY	STATION	LOCATION	
0060	315+57 - 321+27	LT & RT SHOULDER	890
	420+52 - 426+12	LT & RT SHOULDER	870
	499+68 - 505+43	LT & RT SHOULDER	890
	708+69 - 714+39	LT & RT SHOULDER	890
	867+39 - 873+04	LT & RT SHOULDER	880
	316+83SB - 322+53SB	LT & RT SHOULDER	890
	421+82SB - 427+42SB	LT & RT SHOULDER	870
	500+99SB - 506+74SB	LT & RT SHOULDER	890
	709+89SB - 715+59SB	LT & RT SHOULDER	890
	868+61SB - 874+26SB	LT & RT SHOULDER	880
TOTAL			8840

ASPHALT PAVEMENT ITEMS

				455.0605 TACK* COAT GAL	460.5224 HMA PAVEMENT 4 LT 58-28 S TON
CATEGORY	STATION - STATION	LOCATION	THICKNESS		
0060	315+57 - 321+27	LT & RT SHOULDER	4	71	230
	420+52 - 426+12	LT & RT SHOULDER	4	70	225
	499+68 - 505+43	LT & RT SHOULDER	4	72	232
	708+69 - 714+39	LT & RT SHOULDER	4	71	230
	867+39 - 873+04	LT & RT SHOULDER	4	71	228
	316+83SB - 322+53SB	LT & RT SHOULDER	4	71	230
	421+82SB - 427+42SB	LT & RT SHOULDER	4	70	225
	500+99SB - 506+74SB	LT & RT SHOULDER	4	72	232
	709+89SB - 715+59SB	LT & RT SHOULDER	4	71	230
	868+61SB - 874+26SB	LT & RT SHOULDER	4	71	228
TOTAL				710	2290

NOTE: TACK COAT CALCULATED AT 0.07 GALLONS PER SQUARE

BASE AGGREGATE ITEMS

			211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0500 SHAPING SHOULDERS STA	624.0100 WATER MGAL
CATEGORY	STATION - STATION	LOCATION				
0060	315+57 - 321+27	LT & RT SHOULDER	12	28	12	0.4
	420+52 - 426+12	LT & RT SHOULDER	12	27	12	0.4
	499+68 - 505+43	LT & RT SHOULDER	12	28	12	0.4
	708+69 - 714+39	LT & RT SHOULDER	12	28	12	0.4
	867+39 - 873+04	LT & RT SHOULDER	12	27	12	0.4
	316+83SB - 322+53SB	LT & RT SHOULDER	12	28	12	0.4
	421+82SB - 427+42SB	LT & RT SHOULDER	12	27	12	0.4
	500+99SB - 506+74SB	LT & RT SHOULDER	12	28	12	0.4
	709+89SB - 715+59SB	LT & RT SHOULDER	12	28	12	0.4
	868+61SB - 874+26SB	LT & RT SHOULDER	12	27	12	0.4
TOTAL			120	276	120	4

NOTE: BASE AGGREGATE DENSE 3/4-INCH WAS CALCULATED USING 2.0 TONS/CY.

RUMBLE STRIPS

			465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS LF
CATEGORY	STATION - STATION	LOCATION	
0060	315+57 - 321+27	LT & RT SHOULDER	1140
	420+52 - 426+12	LT & RT SHOULDER	1120
	499+68 - 505+43	LT & RT SHOULDER	1150
	708+69 - 714+39	LT & RT SHOULDER	1140
	867+39 - 873+04	LT & RT SHOULDER	1130
	316+83SB - 322+53SB	LT & RT SHOULDER	1140
	421+82SB - 427+42SB	LT & RT SHOULDER	1120
	500+99SB - 506+74SB	LT & RT SHOULDER	1150
	709+89SB - 715+59SB	LT & RT SHOULDER	1140
	868+61SB - 874+26SB	LT & RT SHOULDER	1130
TOTAL			11360

MAINTENANCE AND REPAIR OF HAUL ROADS

		618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS EACH
CATEGORY	PROJECT	
0060	1166-00-62	1
TOTAL		1



TRAFFIC CONTROL ITEMS

			603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	643.0200 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE	TRAFFIC CONTROL DRUMS	643.0300 TRAFFIC CONTROL DRUMS	TRAFFIC CONTROL BARRICADES TYPE III	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	TRAFFIC CONTROL WARNING LIGHTS TYPE A	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	TRAFFIC CONTROL WARNING LIGHTS TYPE C	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C	TRAFFIC CONTROL ARROW BOARDS	643.0800 TRAFFIC CONTROL ARROW BOARDS	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II	TRAFFIC CONTROL SIGNS	643.0900 TRAFFIC CONTROL SIGNS	TRAFFIC CONTROL SIGNS PCMS	643.1051 TRAFFIC CONTROL SIGNS PCMS WITH CELLULAR COMMUNICATIONS
CATEGORY	LOCATION	DAYS	LF	LF	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	EACH	DAYS	EACH	DAYS
0060	NB STAGE 1	14	---	---	14	500	7000	31	434	62	868	66	924	4	56	5	64	896	1	14
	SB STAGE 1	14	---	---	---	500	7000	31	434	62	868	66	924	4	56	5	64	896	1	14
	NB STAGE 2	45	1900	1900	45	430	19350	31	1395	62	2790	40	1800	4	180	---	59	2655	1	45
	SB STAGE 2	45	1900	1900	---	430	19350	31	1395	62	2790	40	1800	4	180	---	59	2655	1	45
	NB STAGE 3	45	2100	2100	45	500	22500	31	1395	62	2790	66	2970	4	180	---	59	2655	1	45
	SB STAGE 3	45	2100	2100	---	500	22500	31	1395	62	2790	66	2970	4	180	---	59	2655	1	45
	NB STAGE 4	4	---	---	4	430	1720	31	124	62	248	40	160	4	16	2	64	256	1	4
	SB STAGE 4	4	---	---	---	430	1720	31	124	62	248	40	160	4	16	2	64	256	1	4
TOTAL			8000	8000	108		101140		6696		13392		11708		864	14		12924		216

NOTE: TRAFFIC CONTROL COVERING SIGNS TYPE II INCLUDES 5 CYCLES FOR ALL NECESSARY SIGNS DURING STAGE 1, AND 2 CYCLES FOR ALL NECESSARY SIGNS DURING STAGE 4

TRAFFIC CONTROL PAVEMENT MARKING

		649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	649.0801 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH
CATEGORY	LOCATION	LF	LF
0060	NB STAGE 1	2830	1400
	SB STAGE 1	2830	1400
	NB STAGE 2	12055	---
	SB STAGE 2	12055	---
	NB STAGE 3	12590	1400
	SB STAGE 3	12590	1400
	NB STAGE 4	2080	---
	SB STAGE 4	2080	---
TOTAL		59110	5600

PAVEMENT MARKING

		646.0600 REMOVING PAVEMENT MARKINGS	646.0106 PAVEMENT MARKING EPOXY 4-INCH WHITE	646.0106 PAVEMENT MARKING EPOXY 4-INCH YELLOW
CATEGORY	LOCATION	LF	LF	LF
0060	NB STAGE 1	835	---	---
	SB STAGE 1	835	---	---
	NB STAGE 2	2830	---	---
	SB STAGE 2	2830	---	---
	NB STAGE 3	2830	3665	---
	SB STAGE 3	2830	3665	---
	NB STAGE 4	---	520	2830
	SB STAGE 4	---	520	2830
SUB-TOTALS			8370	5660
TOTAL		12990		14030

SAWING PAVEMENT ITEMS

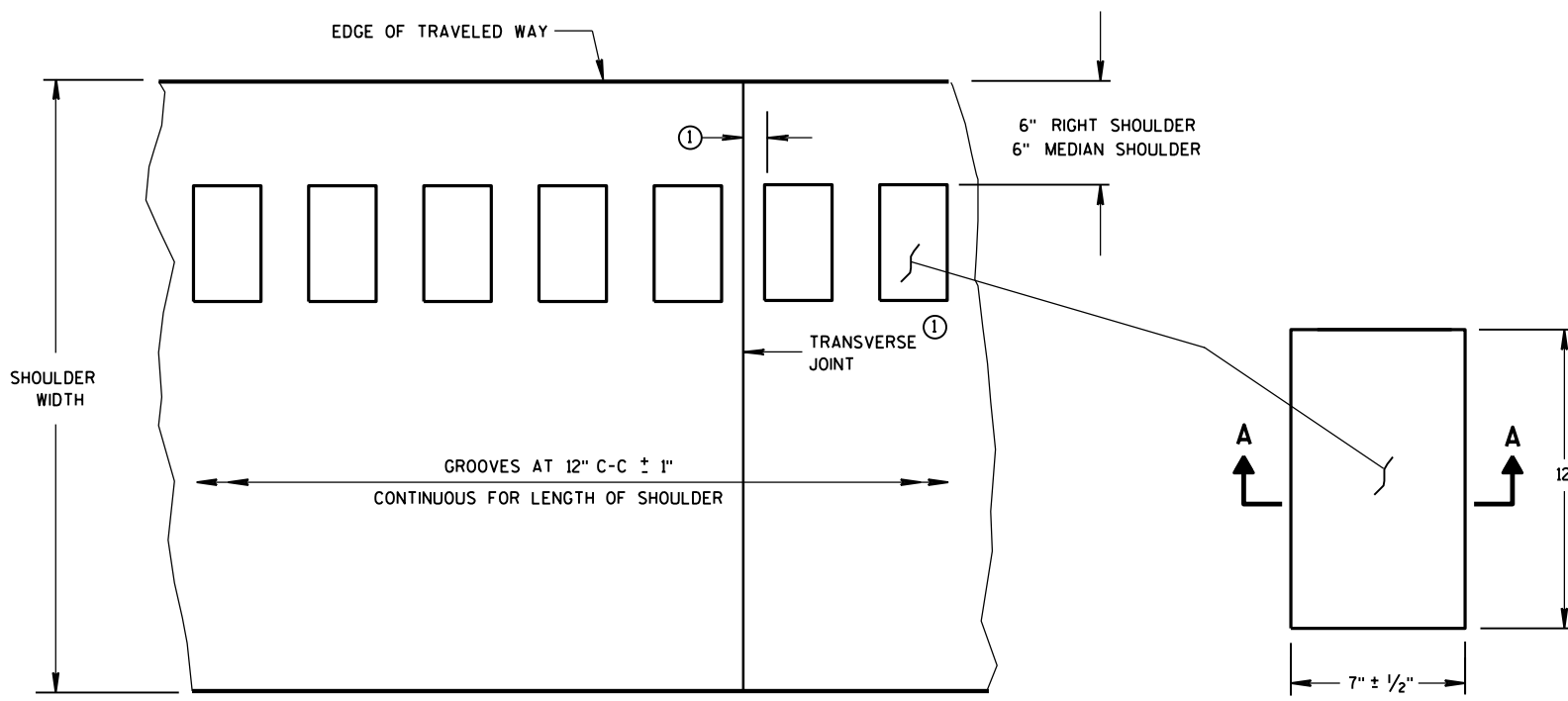
CATEGORY	STATION	LOCATION	690.0150 SAWING ASPHALT LF
0060	315+57	LT & RT SHOULDER	14
	321+27	LT & RT SHOULDER	14
	420+52	LT & RT SHOULDER	14
	426+12	LT & RT SHOULDER	14
	499+68	LT & RT SHOULDER	14
	505+43	LT & RT SHOULDER	14
	708+69	LT & RT SHOULDER	14
	714+39	LT & RT SHOULDER	14
	867+39	LT & RT SHOULDER	14
	873+04	LT & RT SHOULDER	14
	316+83SB	LT & RT SHOULDER	14
	322+53SB	LT & RT SHOULDER	14
	421+82SB	LT & RT SHOULDER	14
	427+42SB	LT & RT SHOULDER	14
	500+99SB	LT & RT SHOULDER	14
	506+74SB	LT & RT SHOULDER	14
	709+89SB	LT & RT SHOULDER	14
	715+59SB	LT & RT SHOULDER	14
	868+61SB	LT & RT SHOULDER	14
	874+26SB	LT & RT SHOULDER	14
TOTAL			280



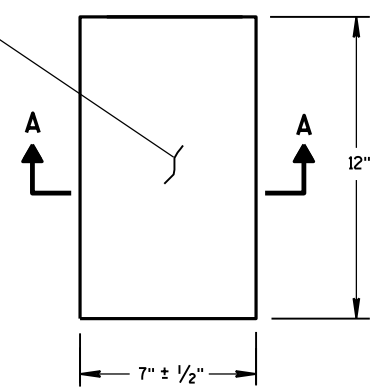
Standard Detail Drawing List

13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15D03-03	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M. P. H. WITH BARRIER
15D12-06A	TRAFFIC CONTROL, LANE CLOSURE
15D12-06B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D15-02	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE





PLAN VIEW  
SHOULDER WITH GROOVES



PLAN VIEW  
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

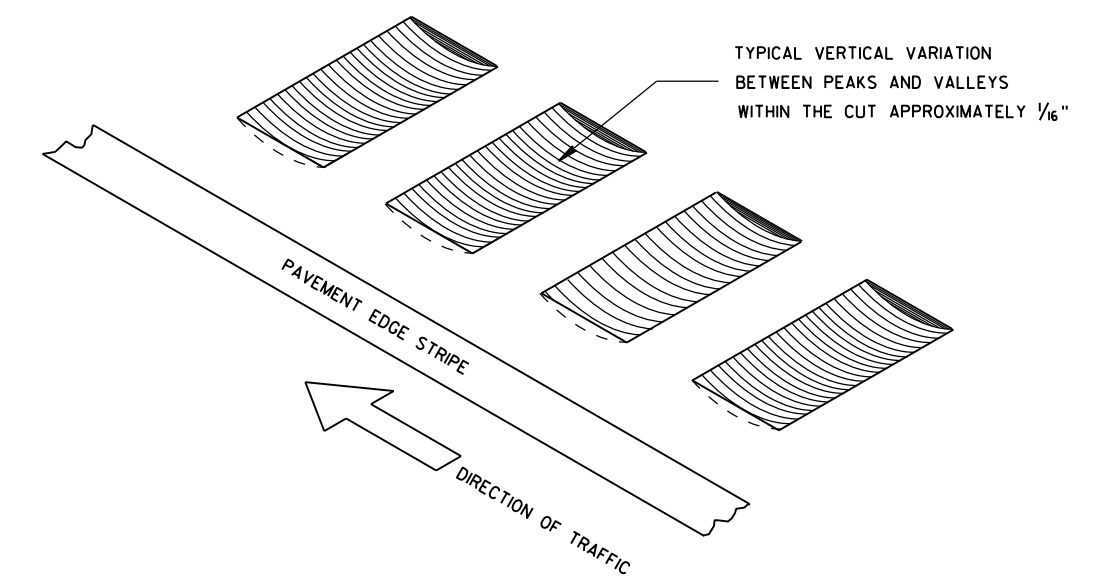
GENERAL NOTES

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

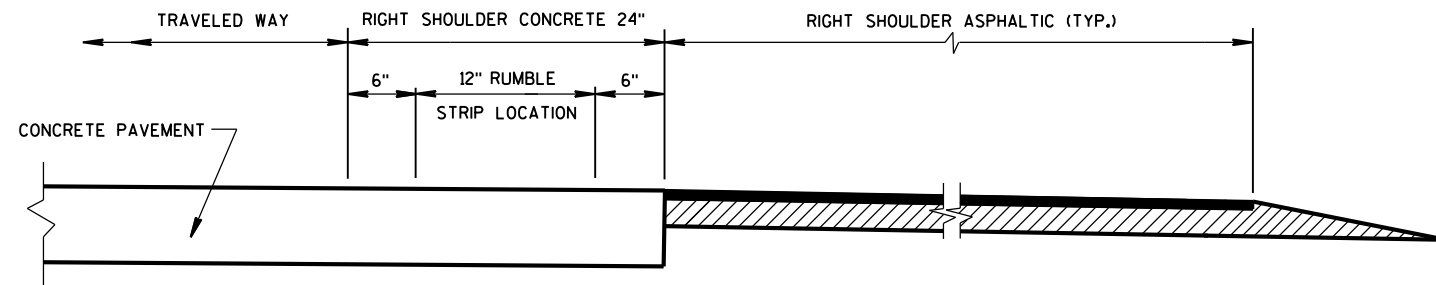
RUMBLE STRIPS ON EXPRESSWAYS

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

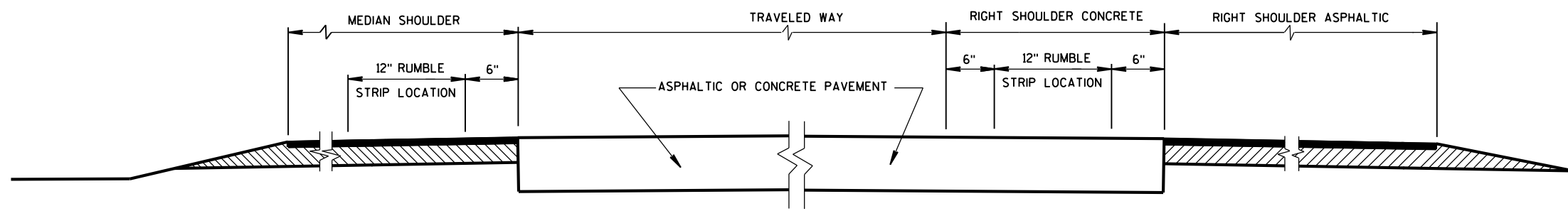
① CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



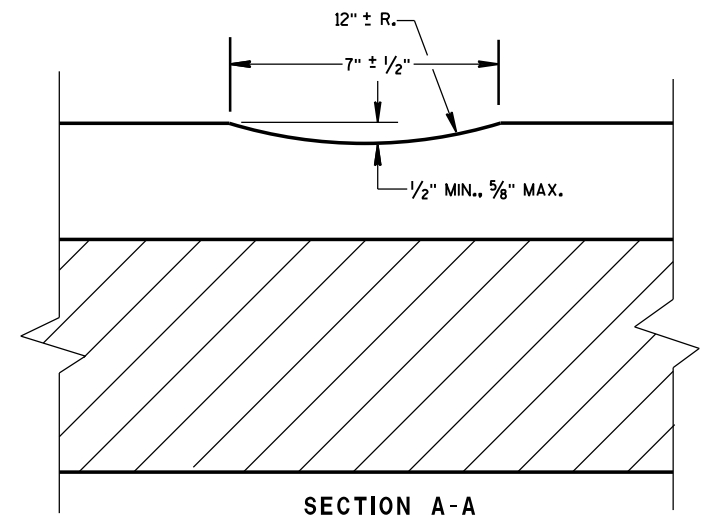
ISOMETRIC



SECTION VIEW  
(CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW  
TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS  
IN RURAL DIVIDED HIGHWAYS  
(ONE ROADWAY IS SHOWN)

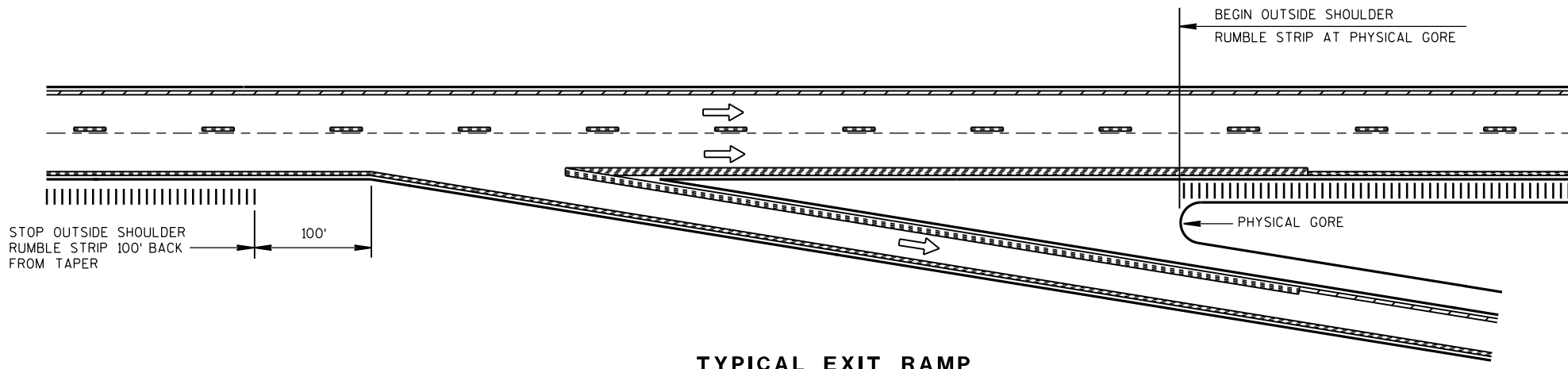


SECTION A-A

SHOULDER RUMBLE STRIP,  
MILLING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





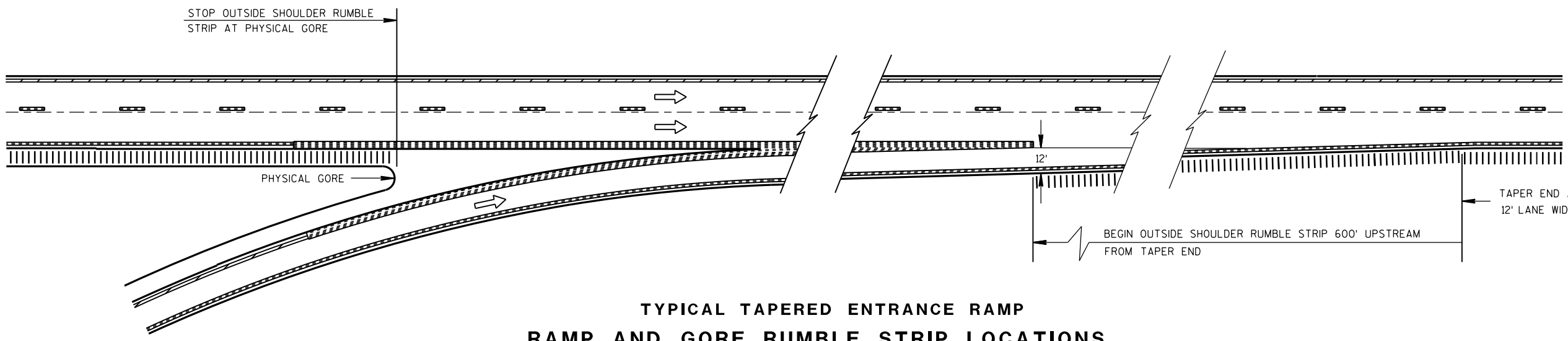
TYPICAL EXIT RAMP

NOTES:

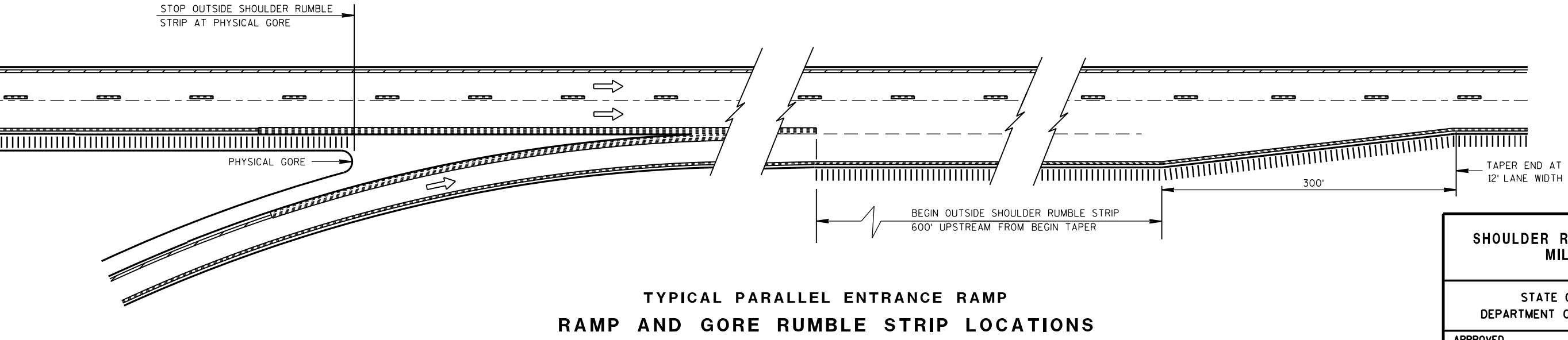
NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

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

NOTE:  
ARROW SYMBOL (→)  
SHOWS DIRECTION OF TRAVEL



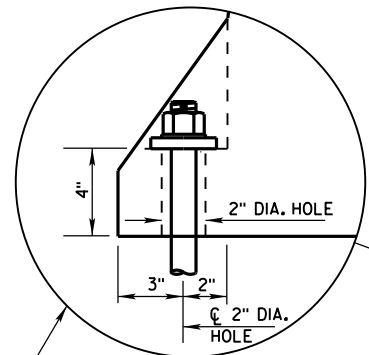
TYPICAL TAPERED ENTRANCE RAMP  
RAMP AND GORE RUMBLE STRIP LOCATIONS



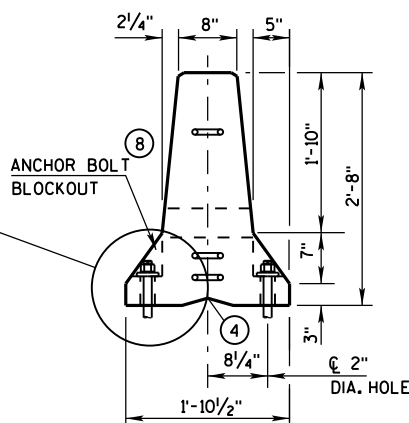
TYPICAL PARALLEL ENTRANCE RAMP  
RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 12/17/2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

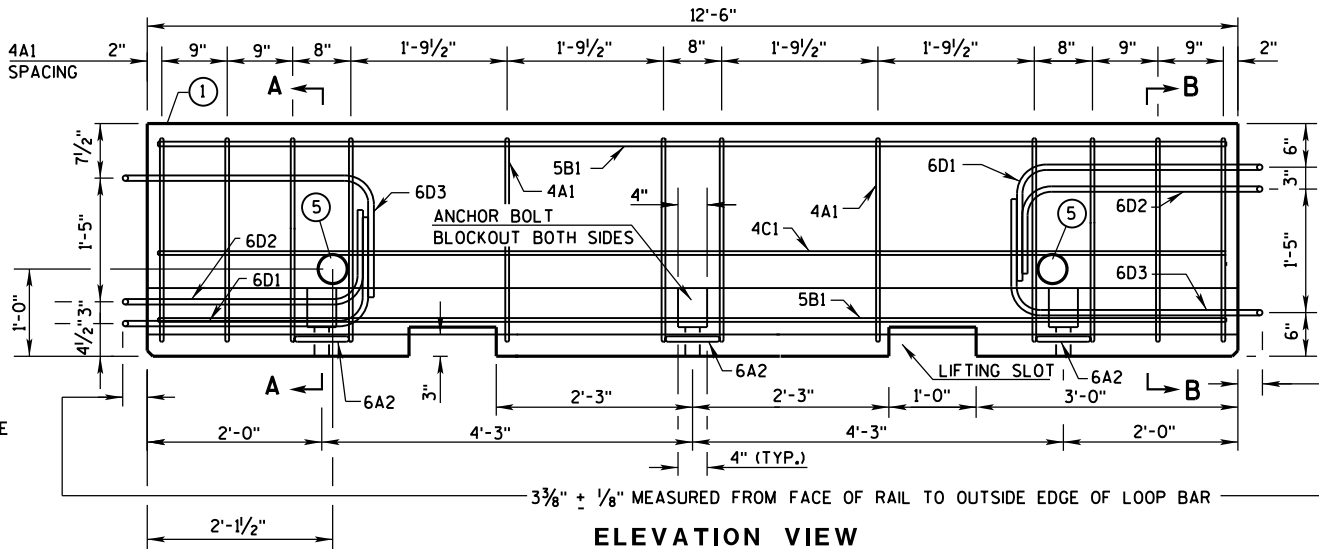




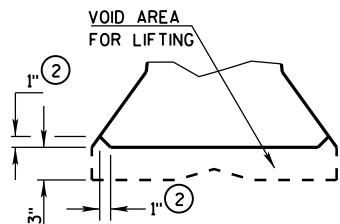
ANCHOR ON TRAFFIC SIDE  
ONLY WHEN REQUIRED  
(SEE SHEET D FOR ADDITIONAL  
ANCHOR DETAIL)



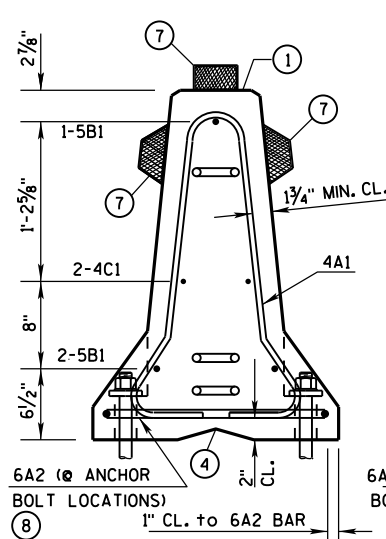
END VIEW



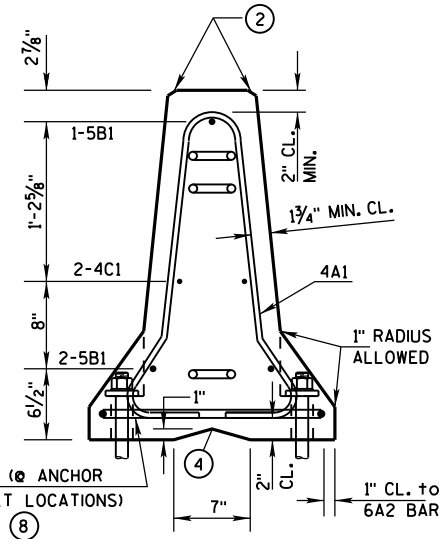
ELEVATION VIEW



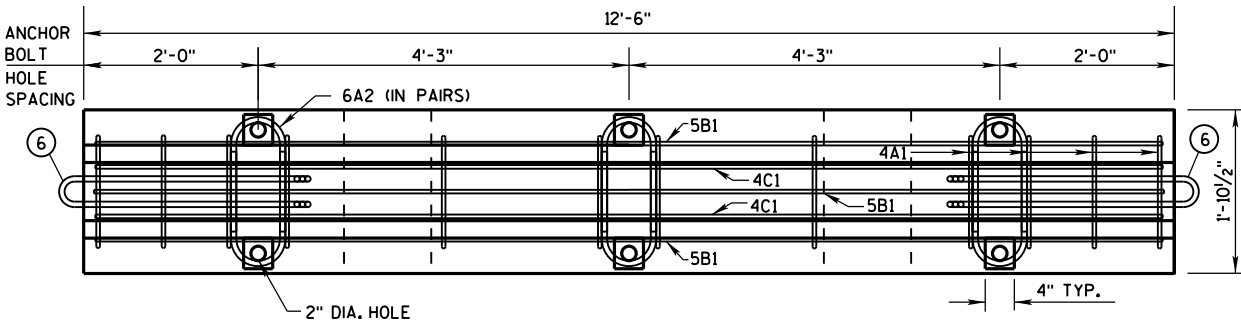
DETAIL "B"  
LIFTING SLOT DETAIL



SECTION A-A  
(STIRRUP PLACEMENT)

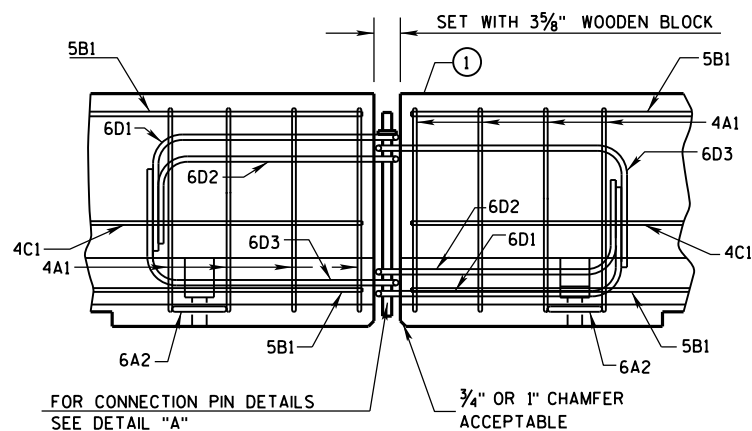


SECTION B-B  
(STIRRUP PLACEMENT)

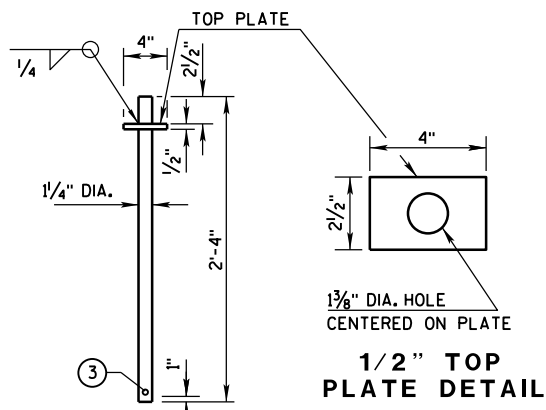


PLAN VIEW

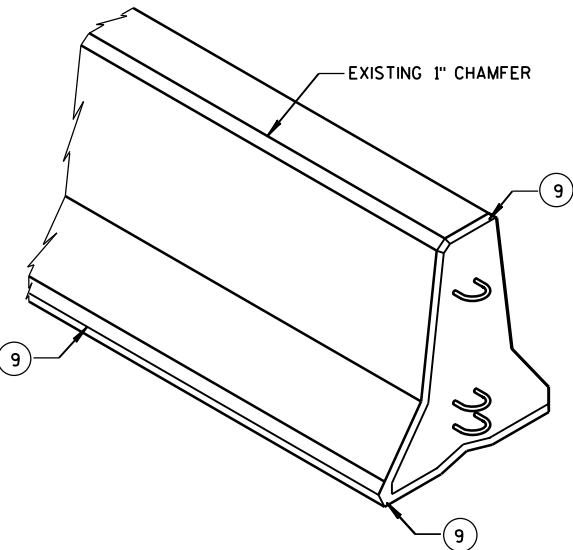
## DETAILS OF BARRIER SECTION



DETAILS OF BARRIER CONNECTION



DETAIL "A"  
CONNECTION PIN  
(A36 STEEL (10.9 LB EACH))



## GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(g) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE 3/4" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-1/2" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN 1/8" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

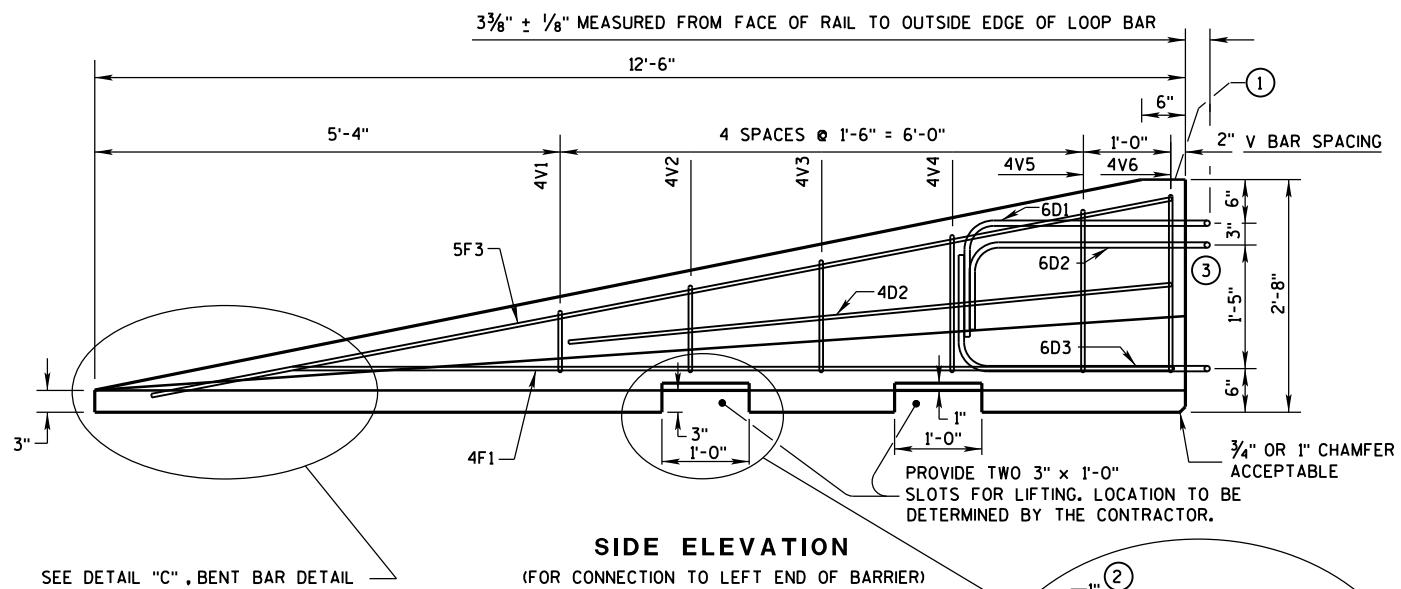
INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

- MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
  - TYPE: WICBTP
  - MANUFACTURER
  - DATE MANUFACTURED (MONTH AND YEAR)
- 1" CHAMFER TO PREVENT SPALLING.
- A 3/8" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..
- "V" NOTCH IS OPTIONAL.
- THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).
- NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.
- USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURER'S INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.
- SEE SHEET D FOR ANCHORING CRITERIA.
- 1" CHAMFER OPTIONAL.

CONCRETE BARRIER  
TEMPORARY PRCAST, 12'-6"

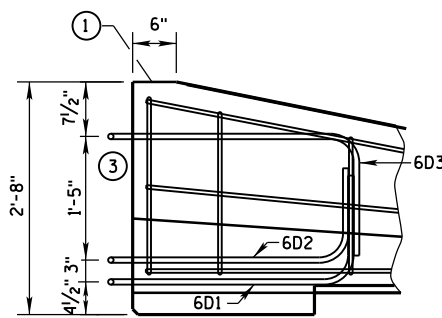
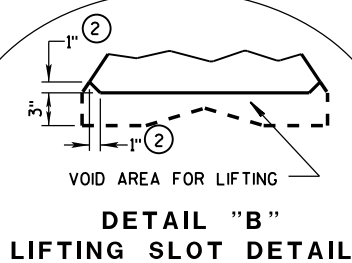
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





SIDE ELEVATION

(FOR CONNECTION TO LEFT END OF BARRIER)



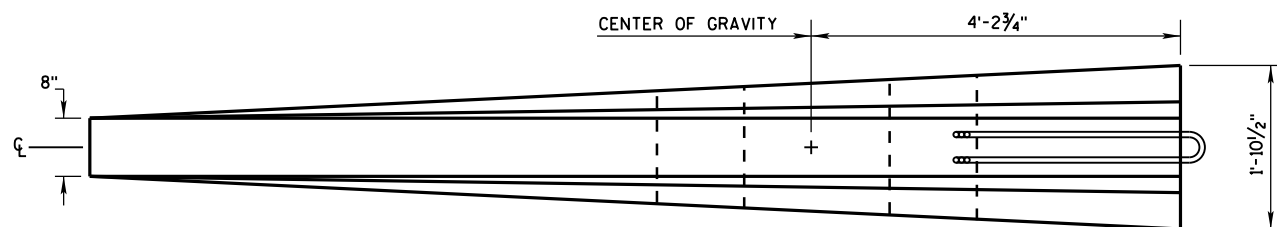
SIDE ELEVATION

LOOP BAR ASSEMBLY INVERTED  
FOR OPPOSITE END.

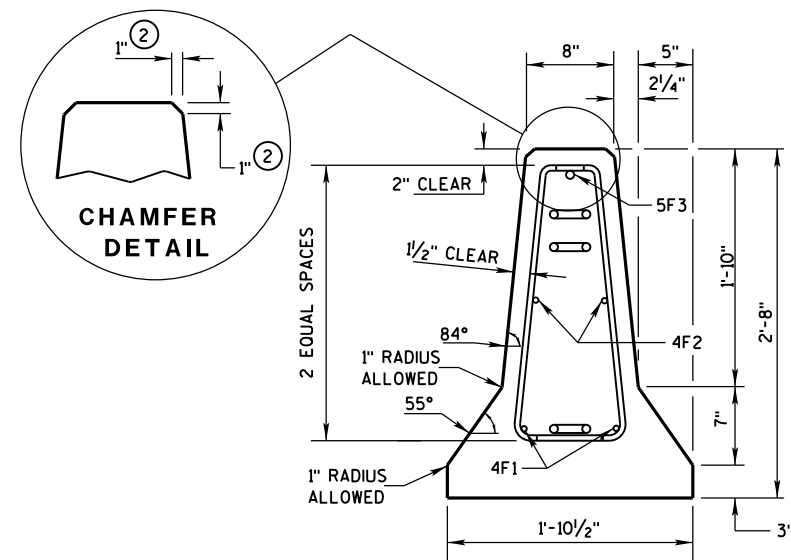
(FOR CONNECTION TO RIGHT END OF BARRIER)

## GENERAL NOTES

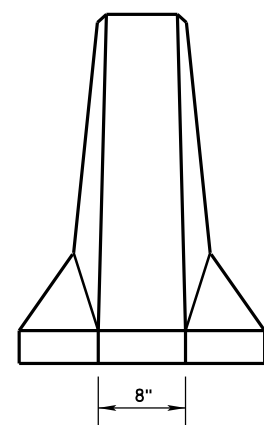
- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
  - a. TYPE WICBTP
  - b. MANUFACTURER
  - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



PLAN VIEW

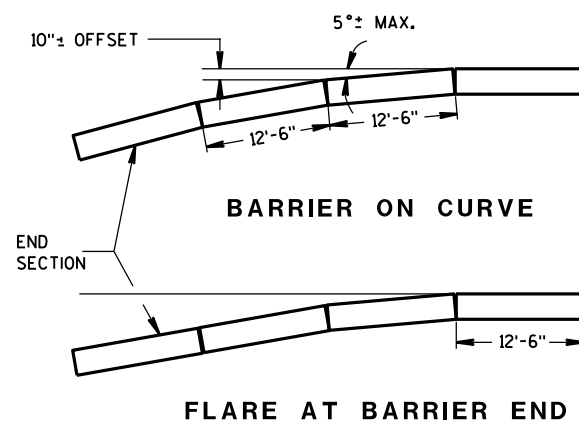


END SECTION



FRONT ELEVATION

## DETAILS OF BARRIER TAPER SECTION



POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

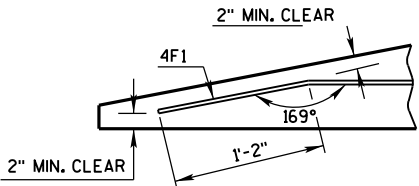
CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



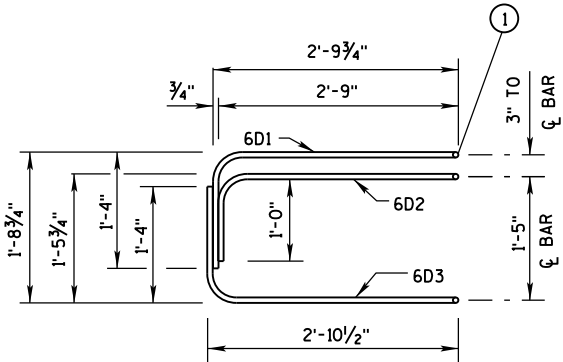
BARRIER TAPER SECTION  
BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

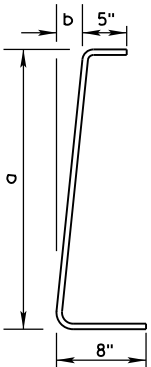
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



DETAIL "C"  
BENT BAR DETAIL



ELEVATION  
LOOP BAR ASSEMBLY



4V BARS  
2 AT EACH SIZE REQUIRED  
FOR STIRRUP ASSEMBLY

BAR	a	b
V1	10"	1"
V2	1'-1"	1 1/4"
V3	1'-5"	1 5/8"
V4	1'-8"	1 7/8"
V5	2'-0 1/2"	2 3/8"
V6	2'-3"	2 3/4"

TAPER BARRIER SECTION

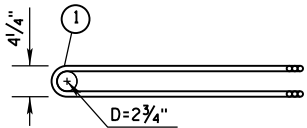
GENERAL NOTES

① NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

BARRIER SECTION  
BILL OF MATERIALS

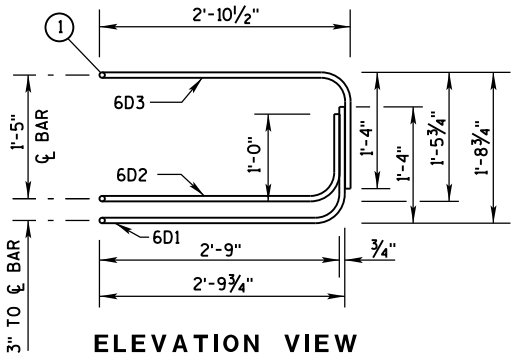
(PER 12'-6" BARRIER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"

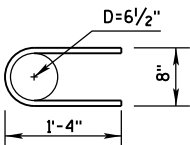


PLAN VIEW  
LOOP BAR ASSEMBLY

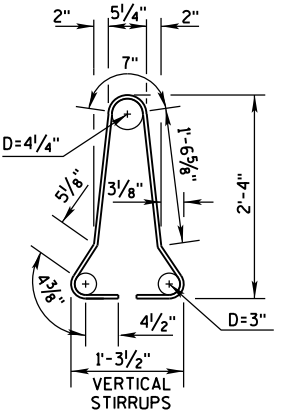
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2



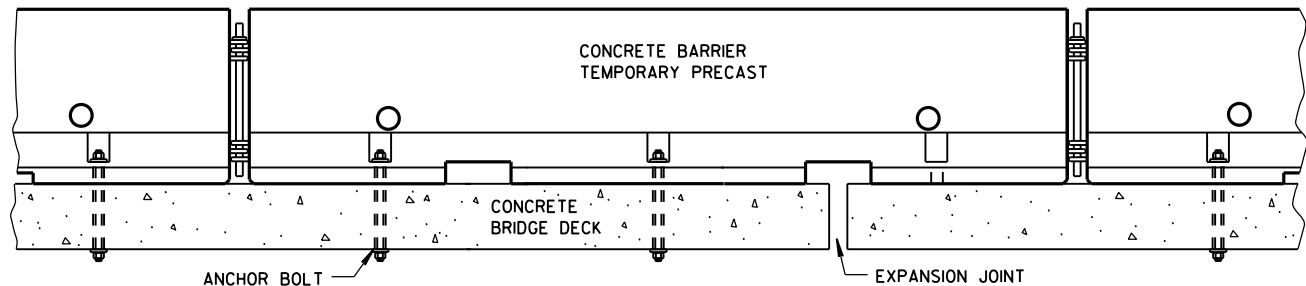
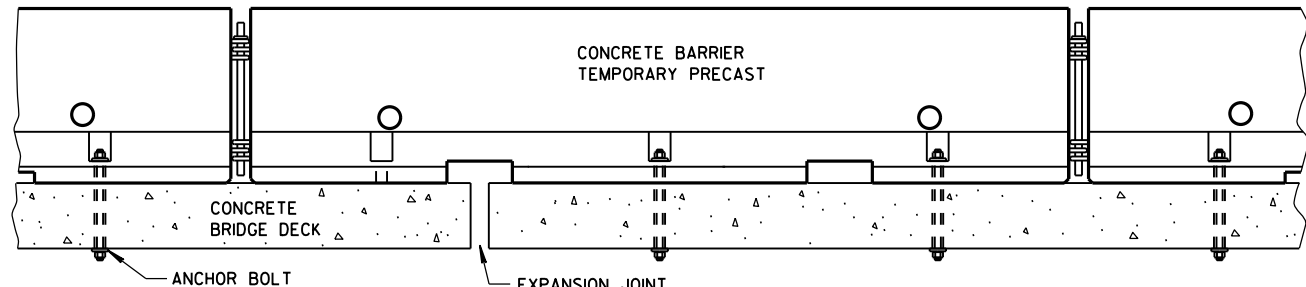
4A1

BARRIER SECTION

CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

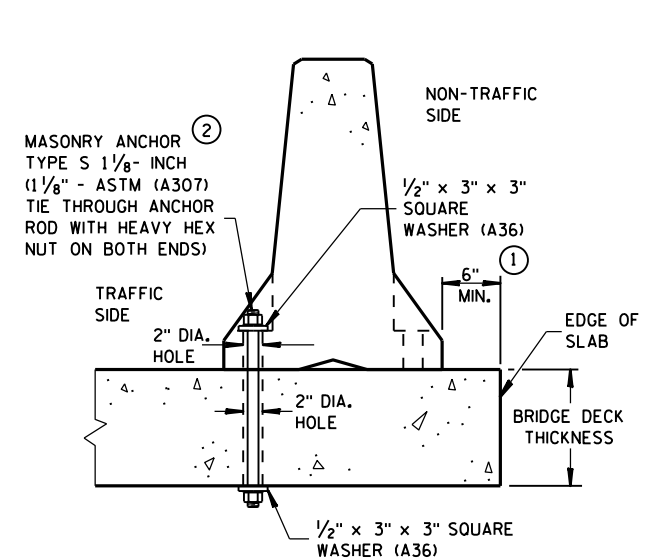
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





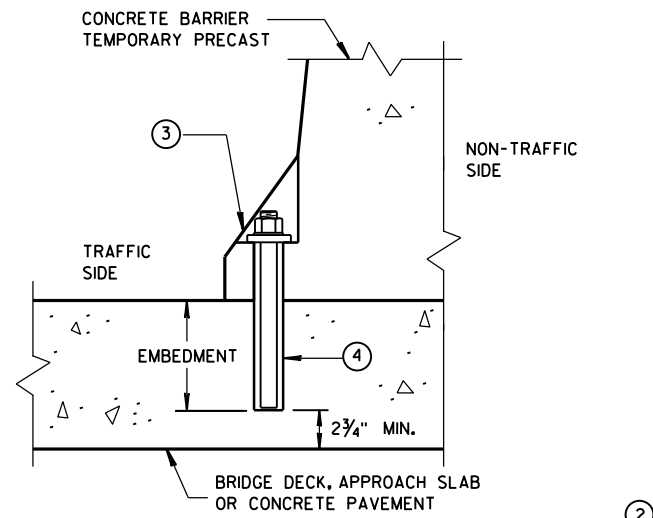
### TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



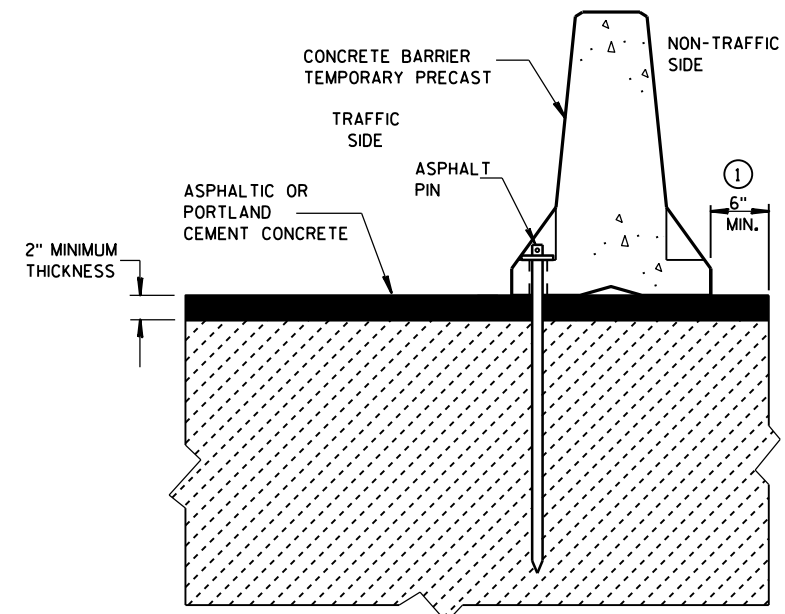
### THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



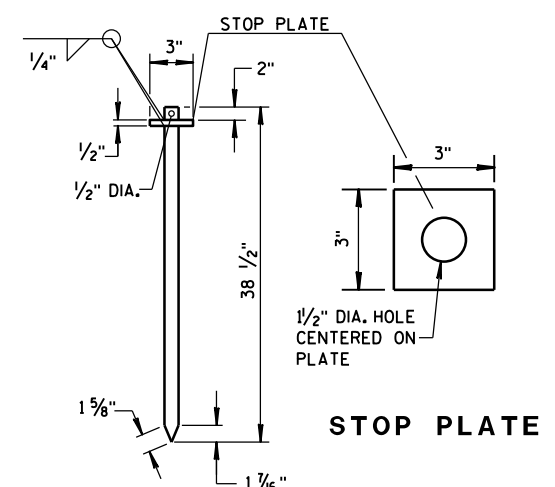
### REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

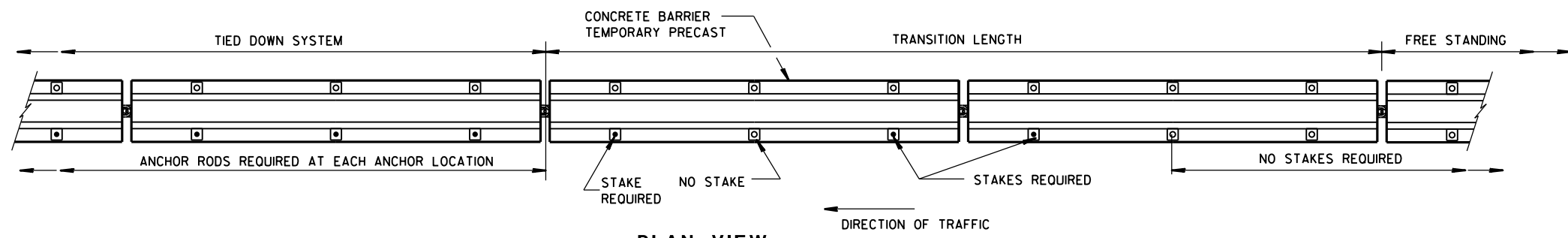


### STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



### ASPHALT PIN (ASTM A36 STEEL)



### PLAN VIEW FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

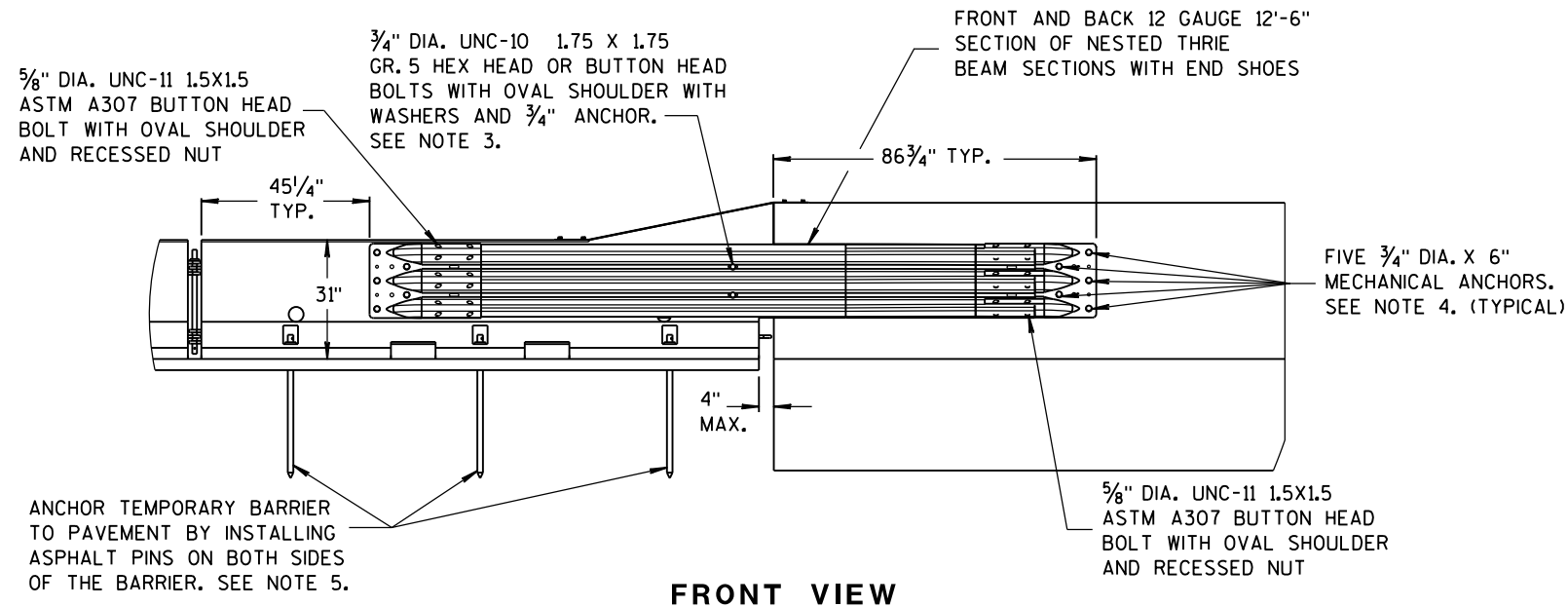
### GENERAL NOTES

- ① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:  
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V,  
FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT,  
IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF  
AND THE POSTED SPEED IS 45 MPH OR GREATER, OR  
  
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V,  
FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT,  
IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF  
AND THE POSTED SPEED IS 40 MPH OR LESS.
- ② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.  
  
WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED ANCHOR BOLT  
INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE  
BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE  
S 1 1/8"-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE  
ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.  
  
UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY  
FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CON-  
CRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERCIAL GROUT OR MATERIAL  
IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.
- ③ 1/8" DIAMETER A307 THREADED ROD, 1/2" x 3" x 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL,  
ASTM A563A HEAVY HEX NUT.
- ④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5/4" EMBEDMENT. SEE 603.2  
AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





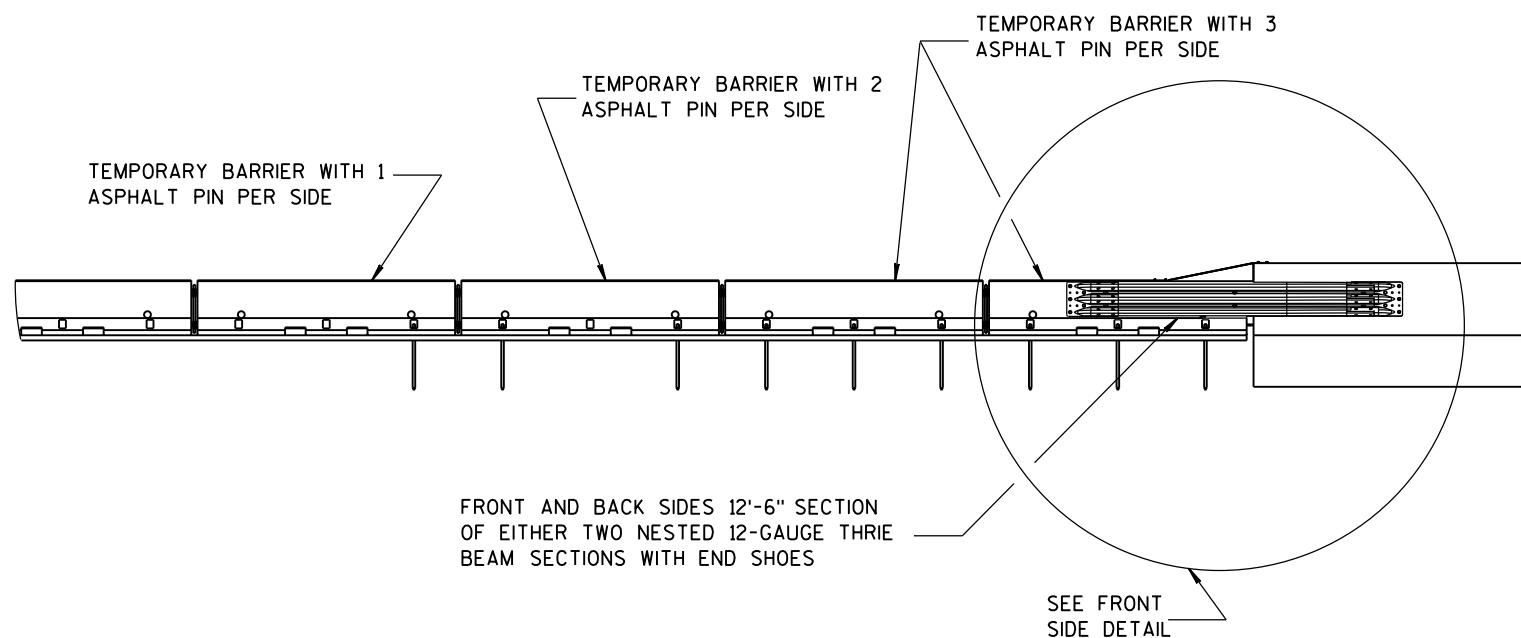
FRONT VIEW

# NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

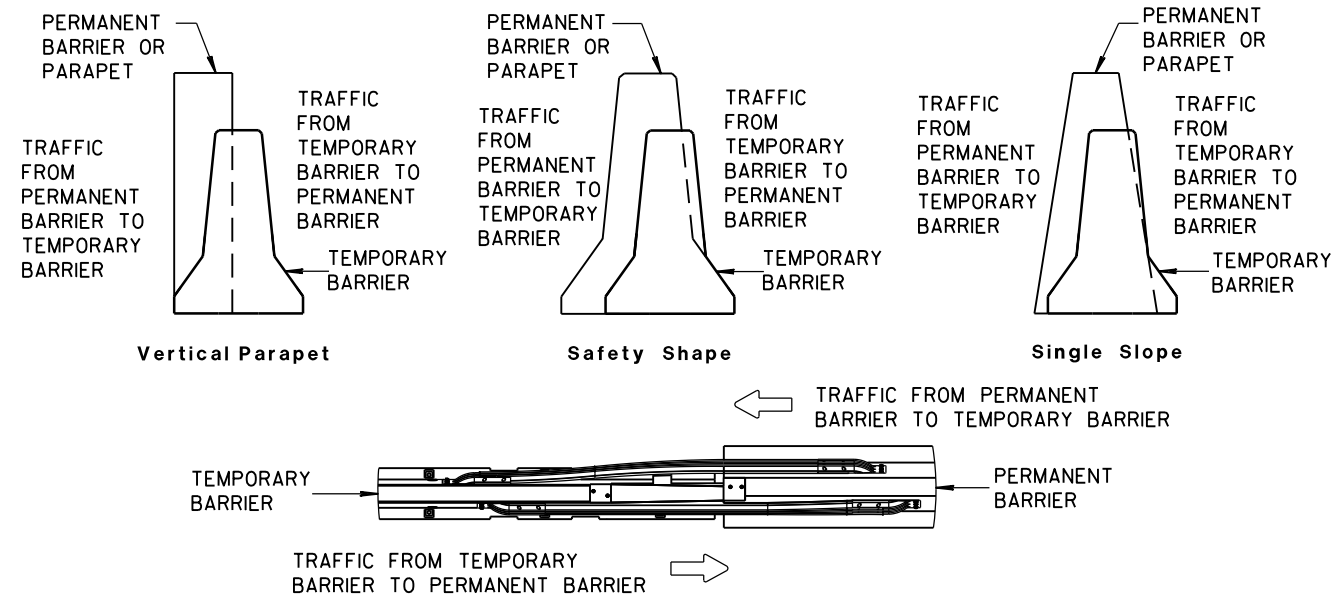
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.

4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.

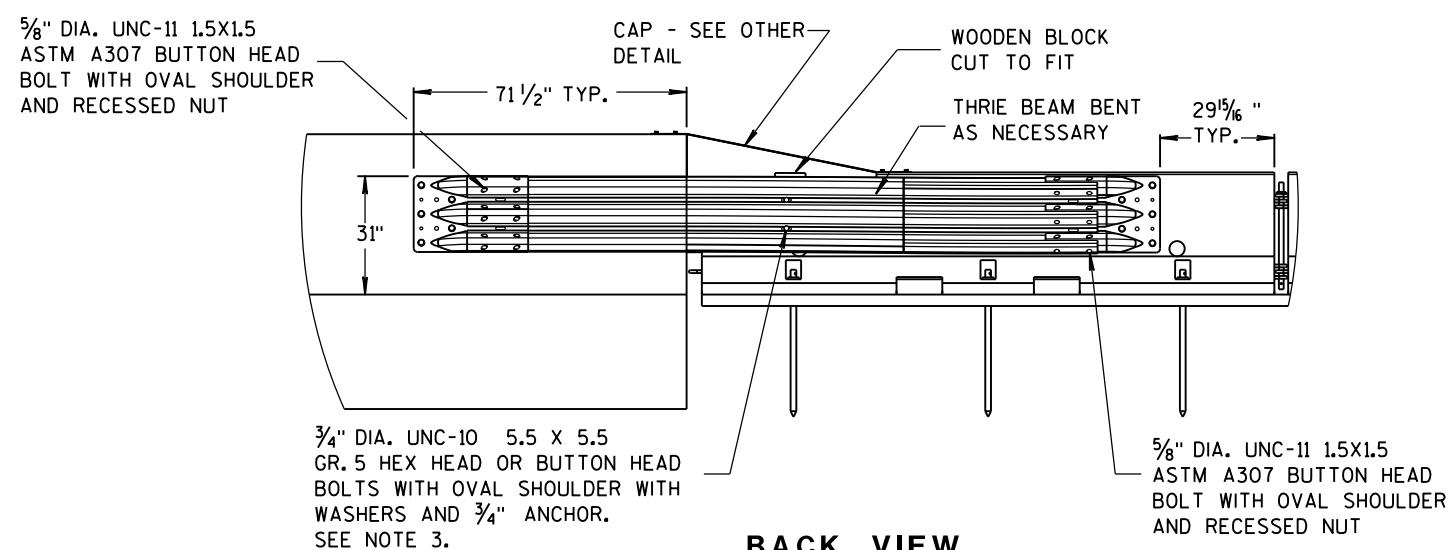


FRONT VIEW

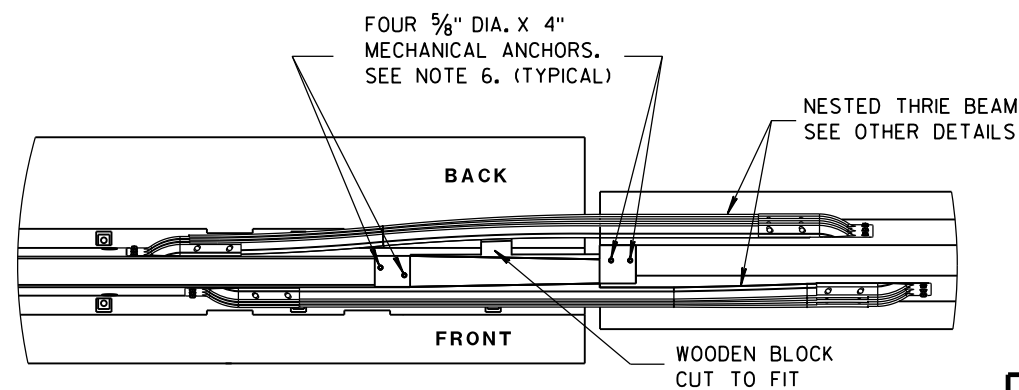
## BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



## TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



BACK VIEW

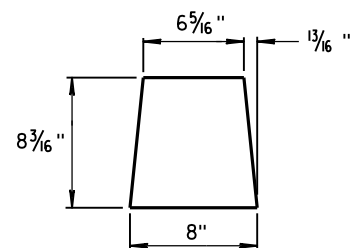


PLAN VIEW

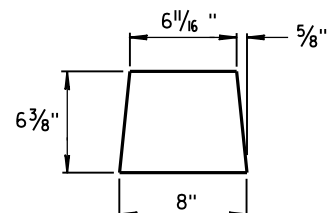
CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

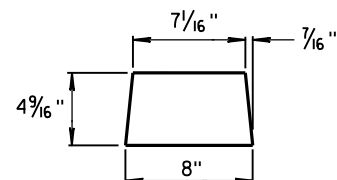




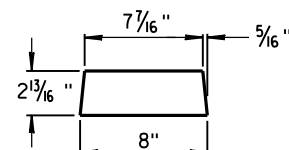
GUSSET 1



GUSSET 2

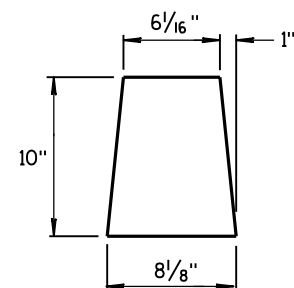


GUSSET 3

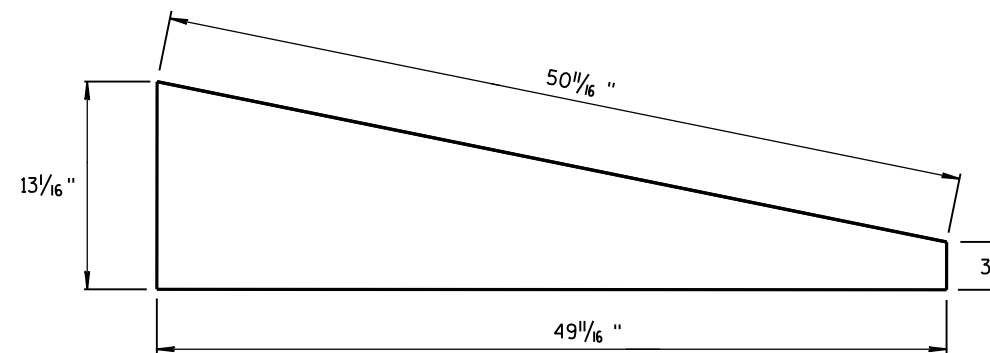


GUSSET 4

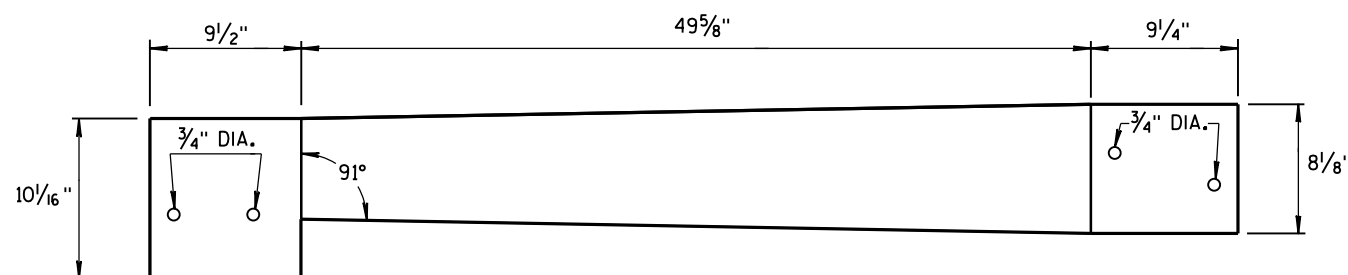
# GUSSETS



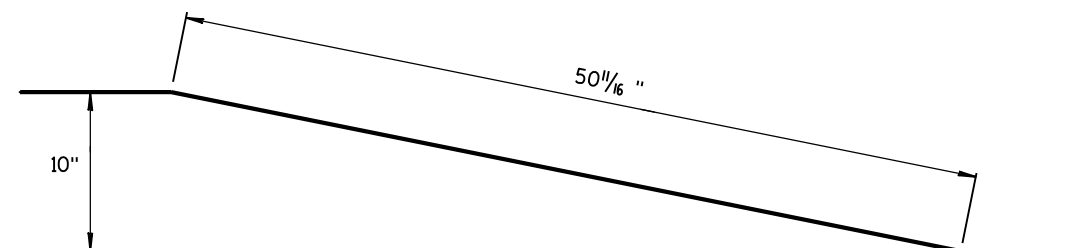
END PLATE



SIDE PLATE

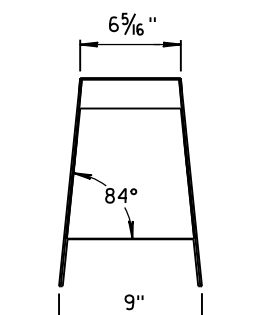
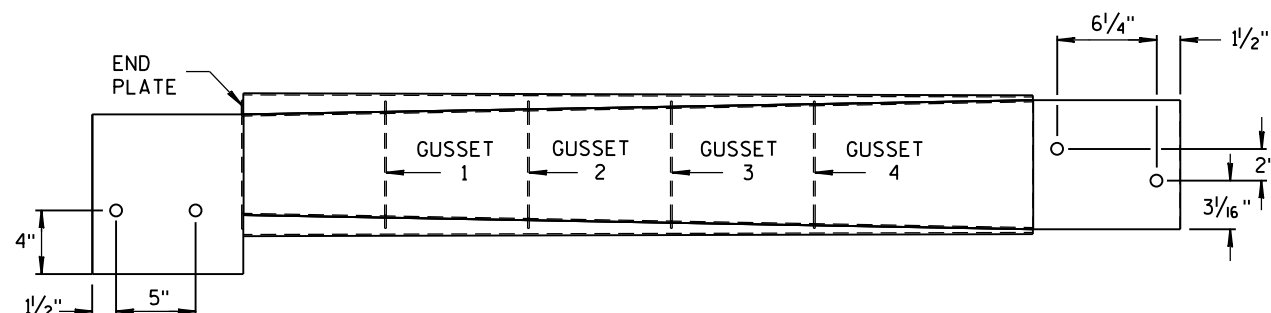


TOP PLATE



## SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.



SECTION C-C

### NOTES

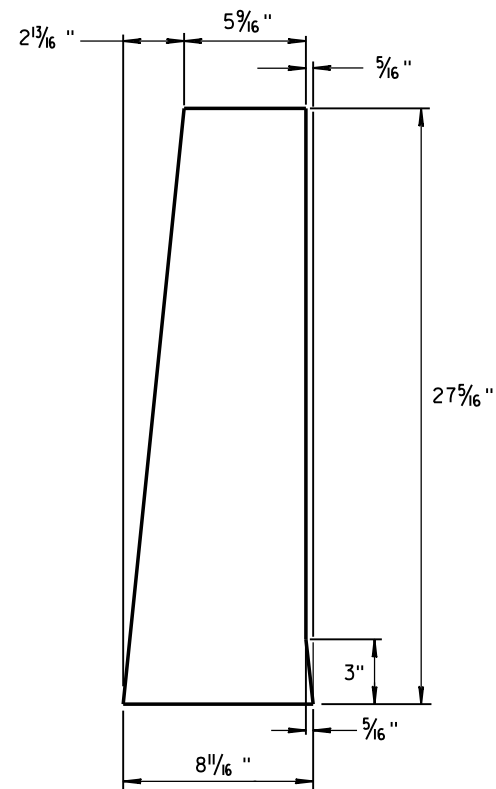
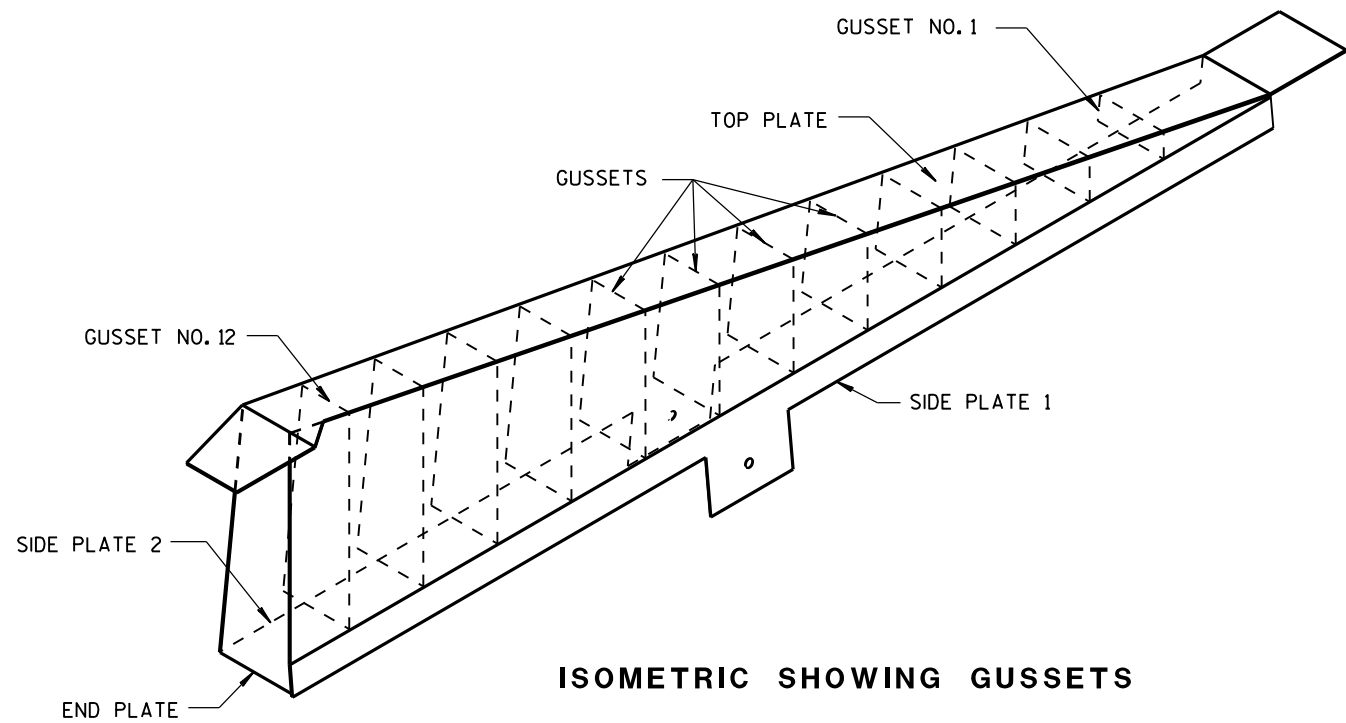
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

## CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

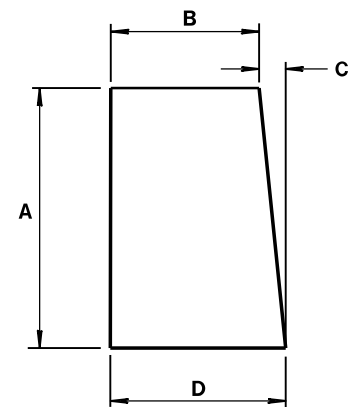
CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





END PLATE  
1/8" STEEL PLATE

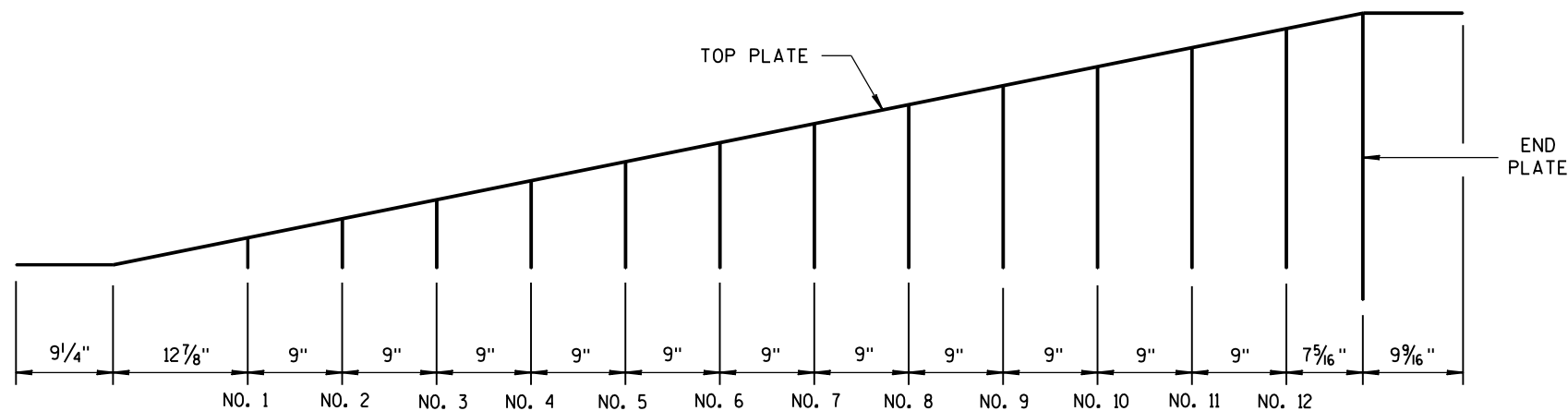


GUSSETS 1 - 12  
ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 1/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	1 1/16 "	8 1/16 "
4	8 5/16"	7 3/16"	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 5/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16"	6 1/16"	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16"	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16"	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.

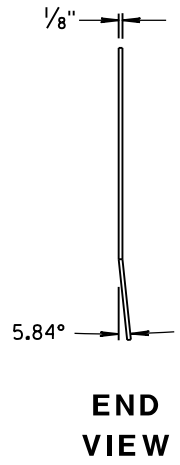
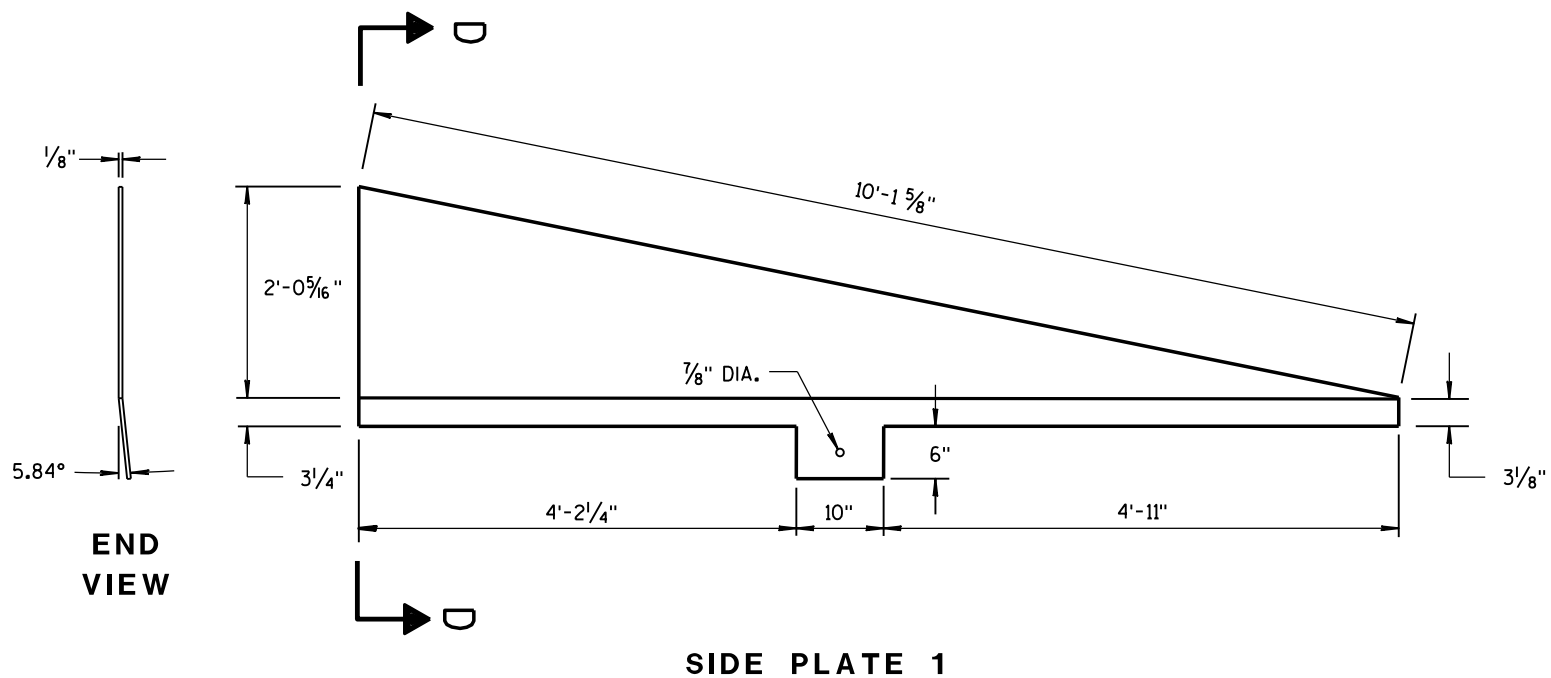
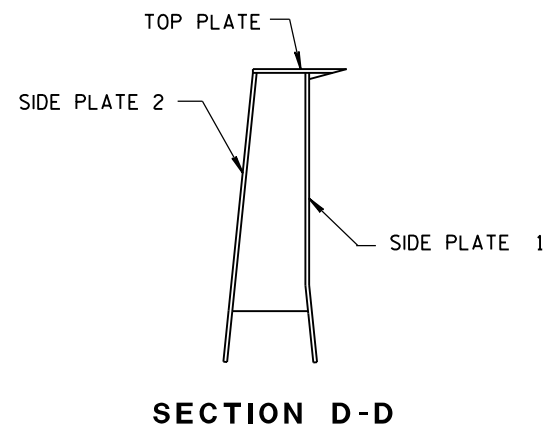
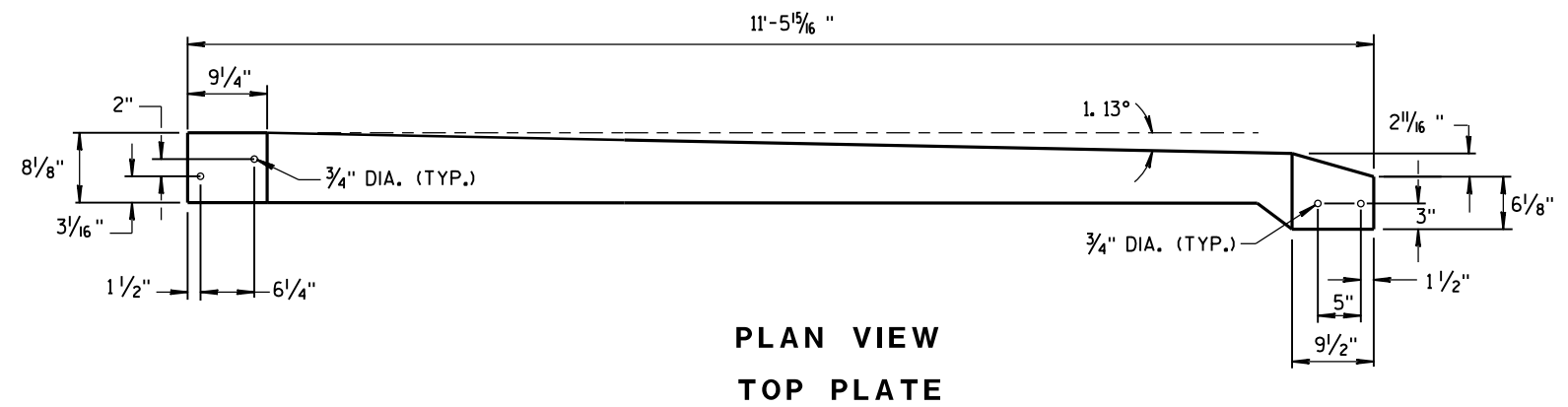
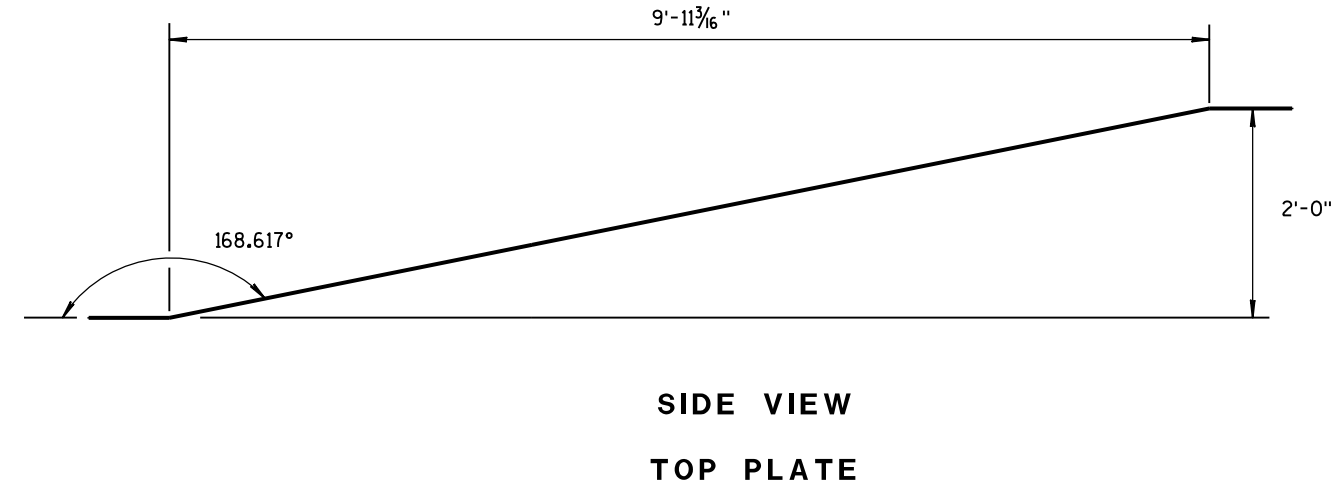
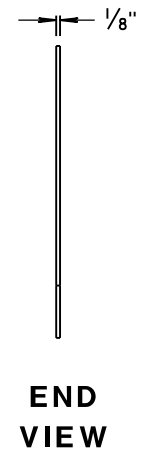
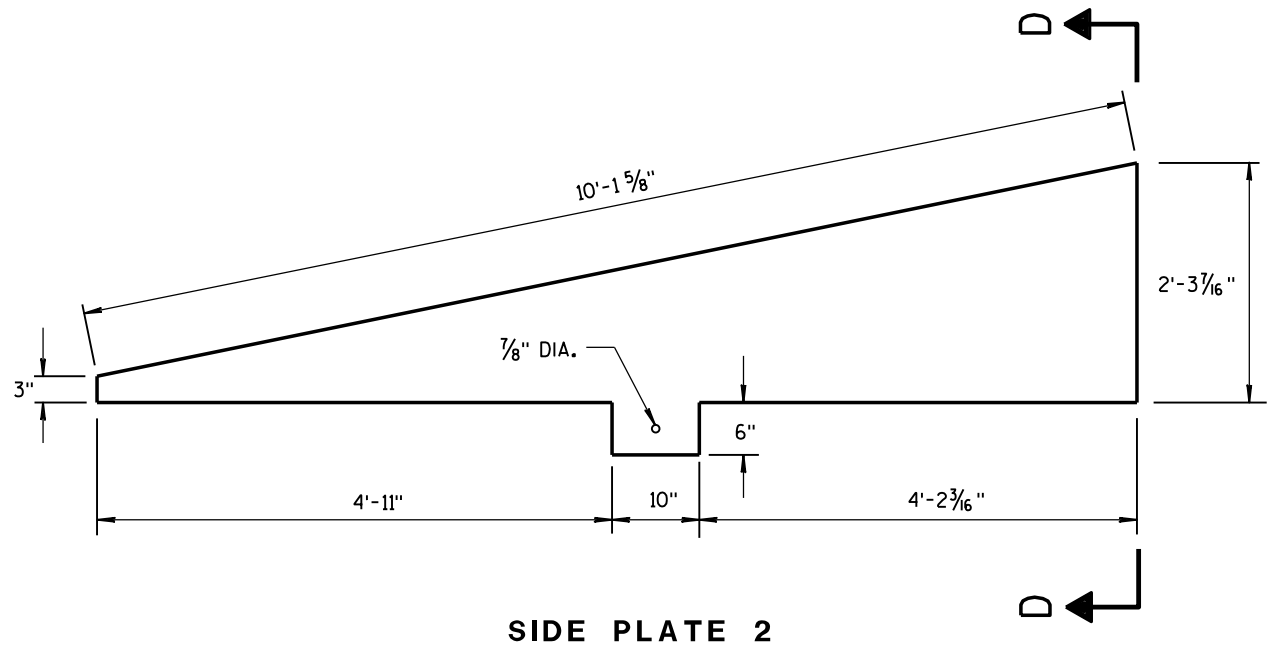


CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

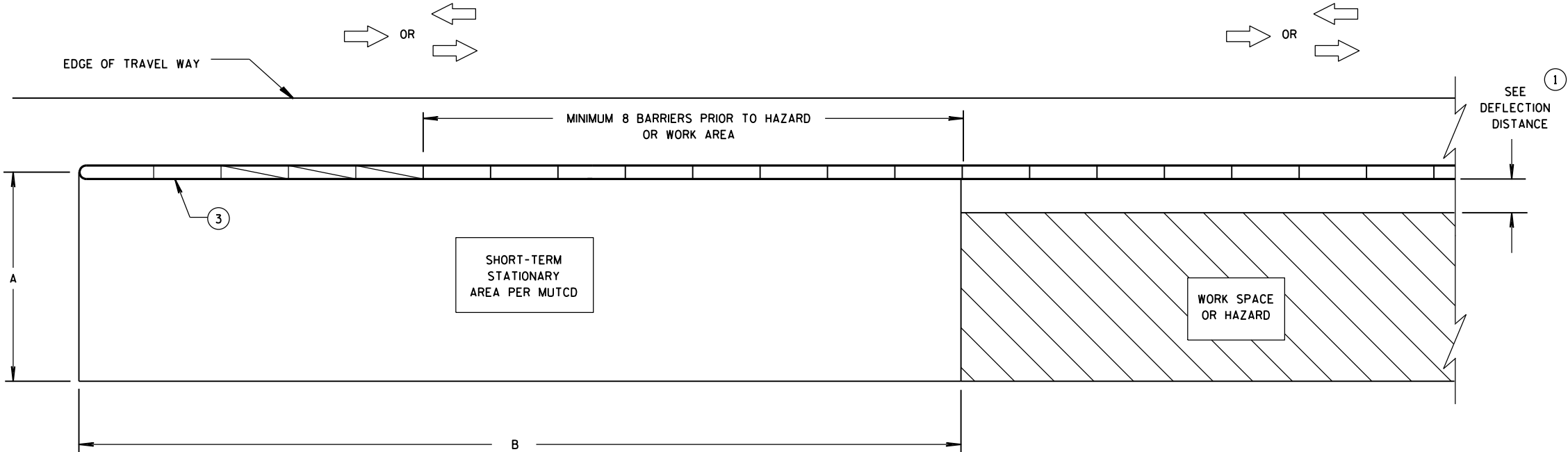




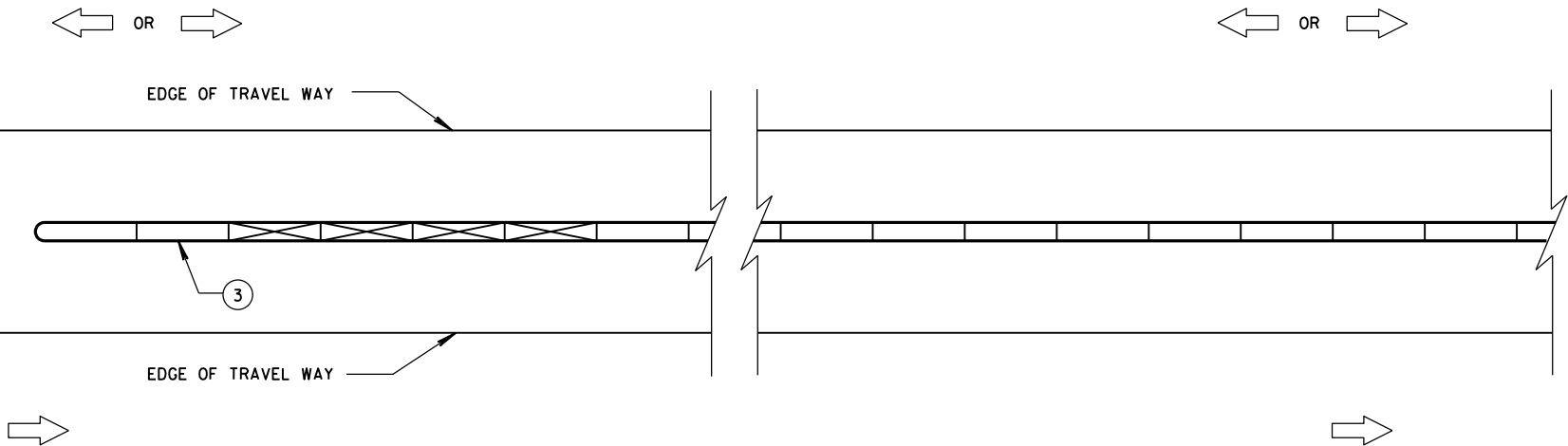
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2014 DATE	/S/ Jerry H. Zogg ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA	





CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER  
INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER  
INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

- ① FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.
- ② VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.
- ③ ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

DIMENSION A TABLE ②

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE ②

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

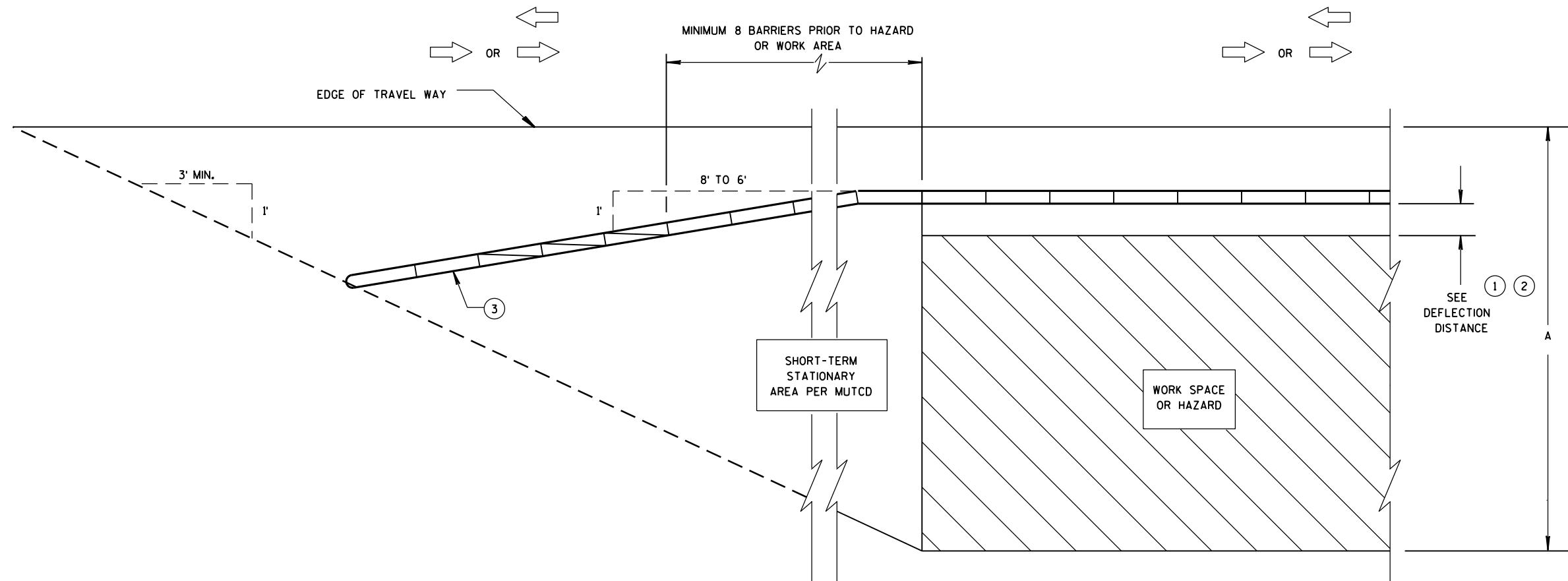
LEGEND

- DIRECTION OF TRAVEL →
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

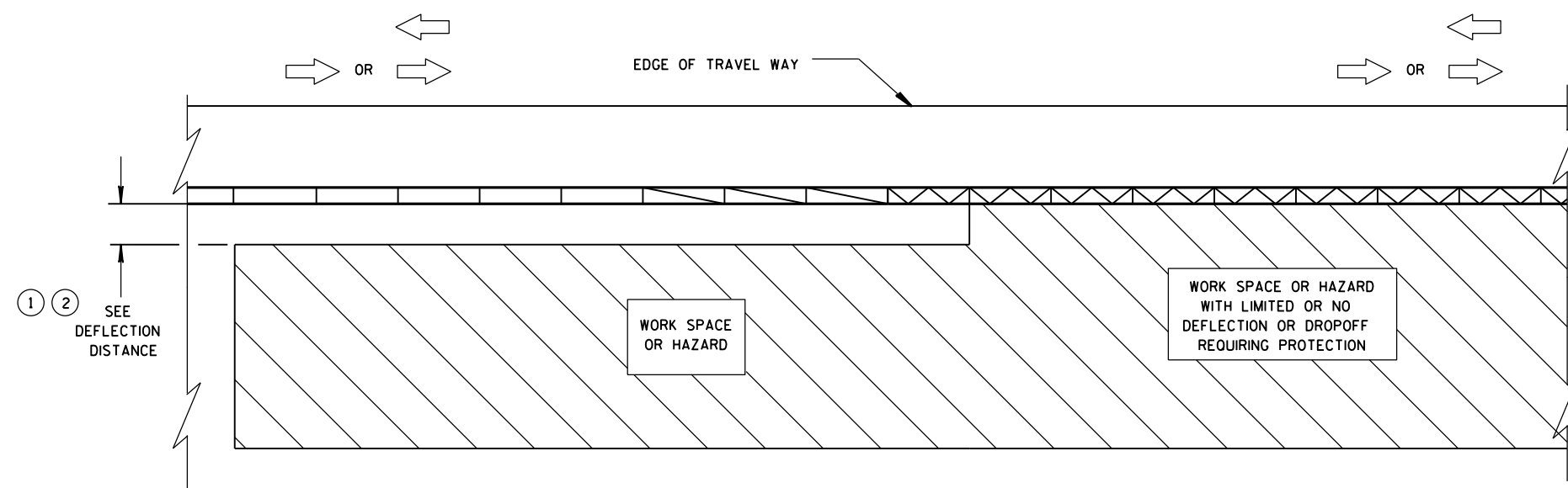
CRASH CUSHION/SAND BARREL  
ARRAY AND OTHER TEMPORARY  
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





**CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER  
INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION**



**TRANSITION FROM FREE STANDING TEMPORARY BARRIER  
TO ANCHORED BARRIER**

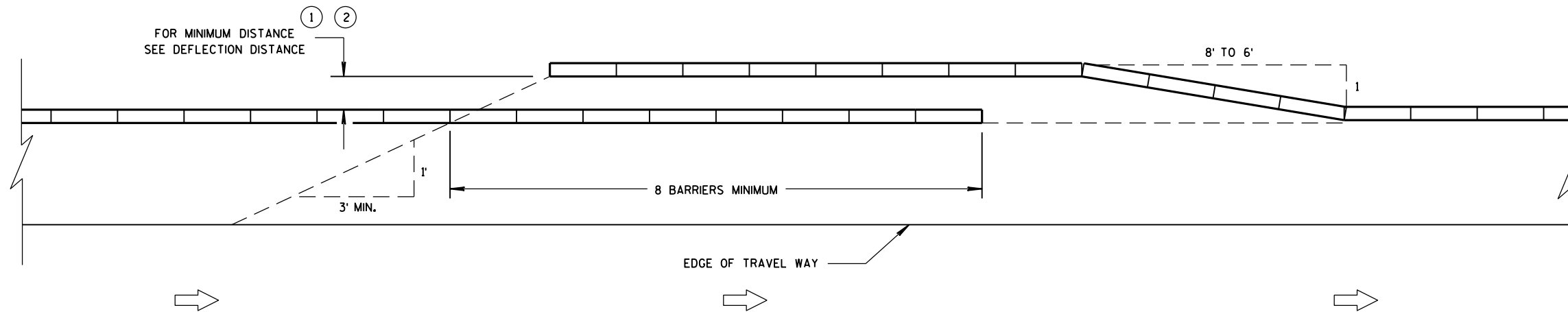
**LEGEND**

DIRECTION OF TRAVEL	
CRASH CUSHION OR SAND BARREL ARRAY	
SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS	
SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS	
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER	
PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET	
FREE STANDING TEMPORARY BARRIER	

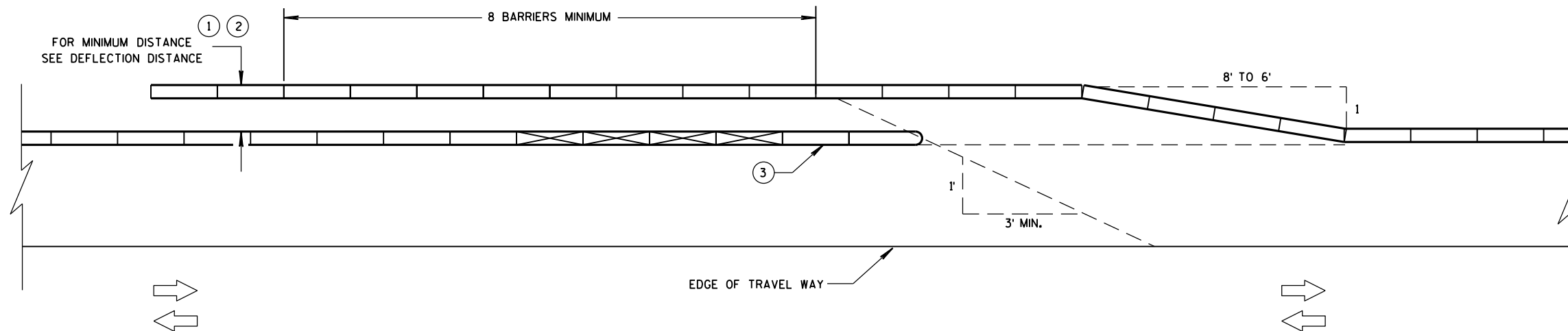
**CRASH CUSHION/SAND BARREL  
ARRAY AND OTHER TEMPORARY  
BARRIER LAYOUT DETAILS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

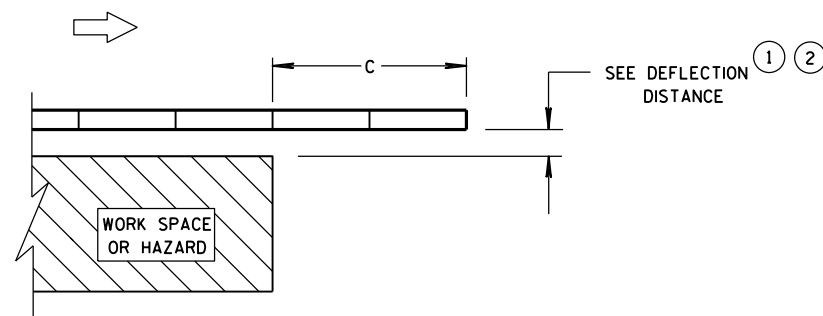




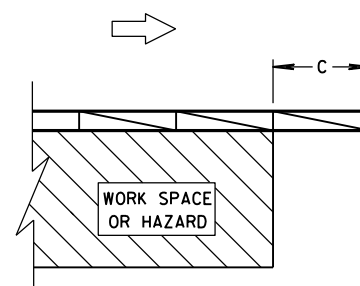
**TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC**



**TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC**



**ENDING TEMPORARY BARRIER  
DOWNSTREAM - UNANCHORED**



**ENDING TEMPORARY BARRIER  
DOWNSTREAM - ANCHORED**

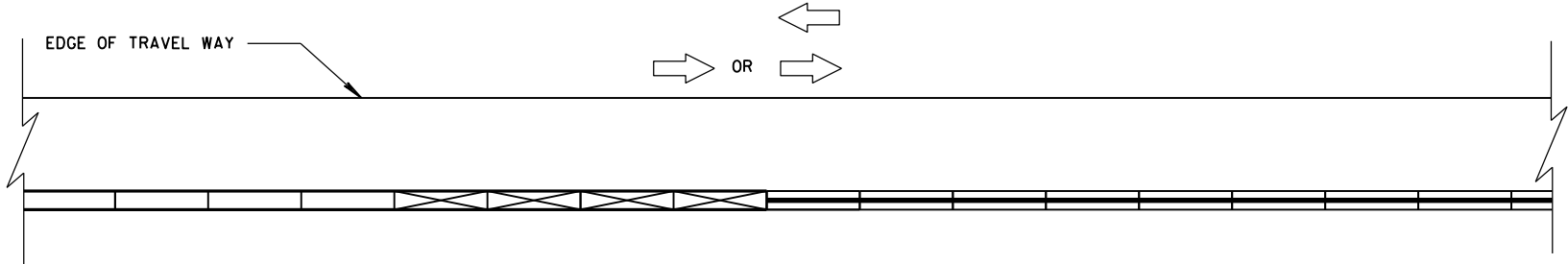
**LEGEND**

DIRECTION OF TRAVEL	
CRASH CUSHION OR SAND BARREL ARRAY	
SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS	
SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS	
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER	
PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET	
FREE STANDING TEMPORARY BARRIER	

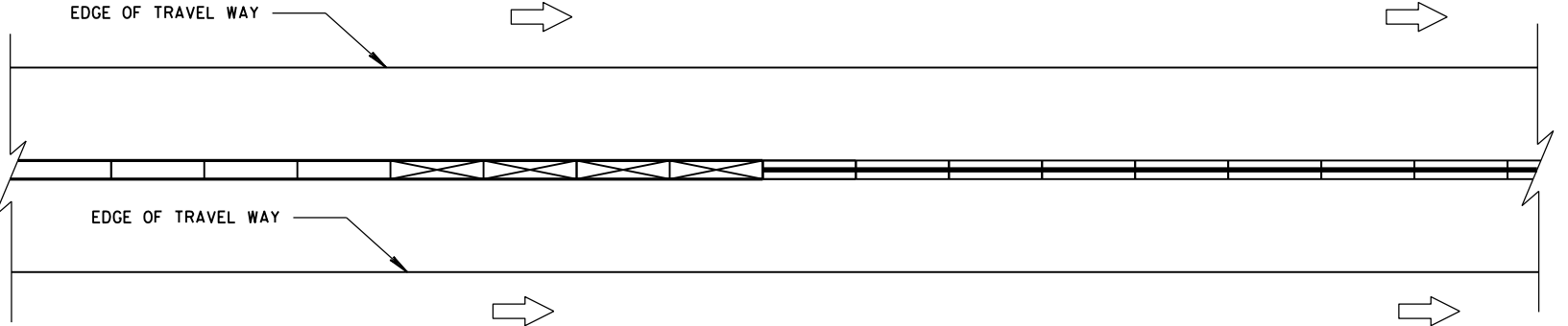
**CRASH CUSHION/SAND BARREL  
ARRAY AND OTHER TEMPORARY  
BARRIER LAYOUT DETAILS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





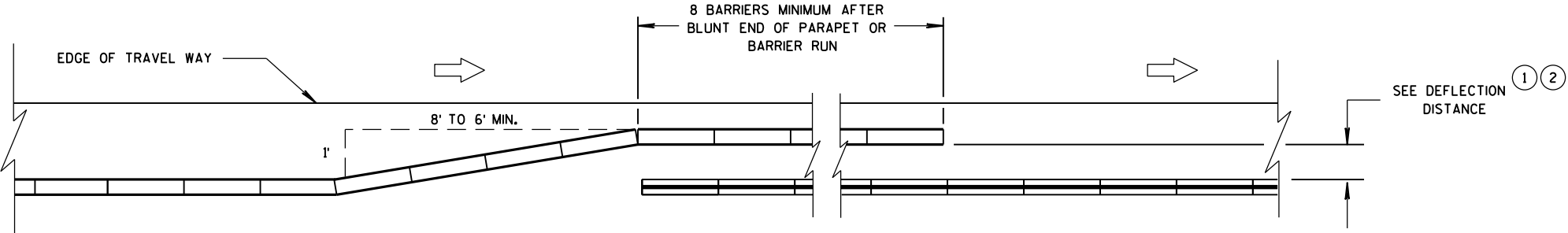
CONNECTING TEMPORARY BARRIER TO PERMANENT  
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



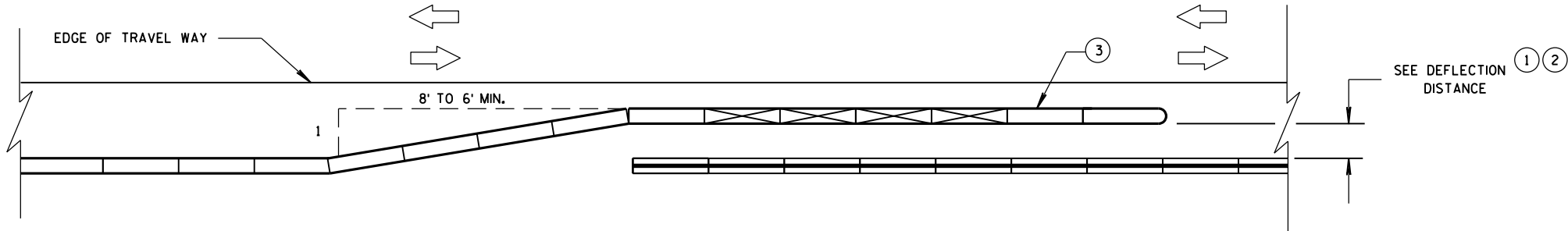
CONNECTING TEMPORARY BARRIER TO PERMANENT  
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -  
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -  
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL  
ARRAY AND OTHER TEMPORARY  
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

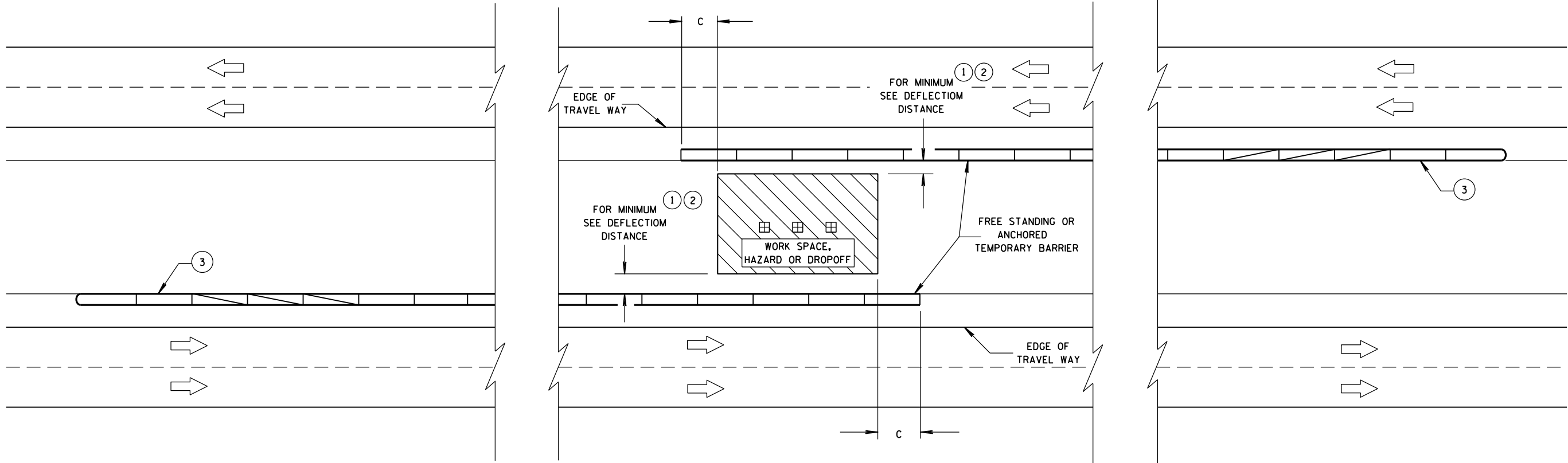


LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE 2

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL  
ARRAY AND OTHER TEMPORARY  
BARRIER LAYOUT DETAILS

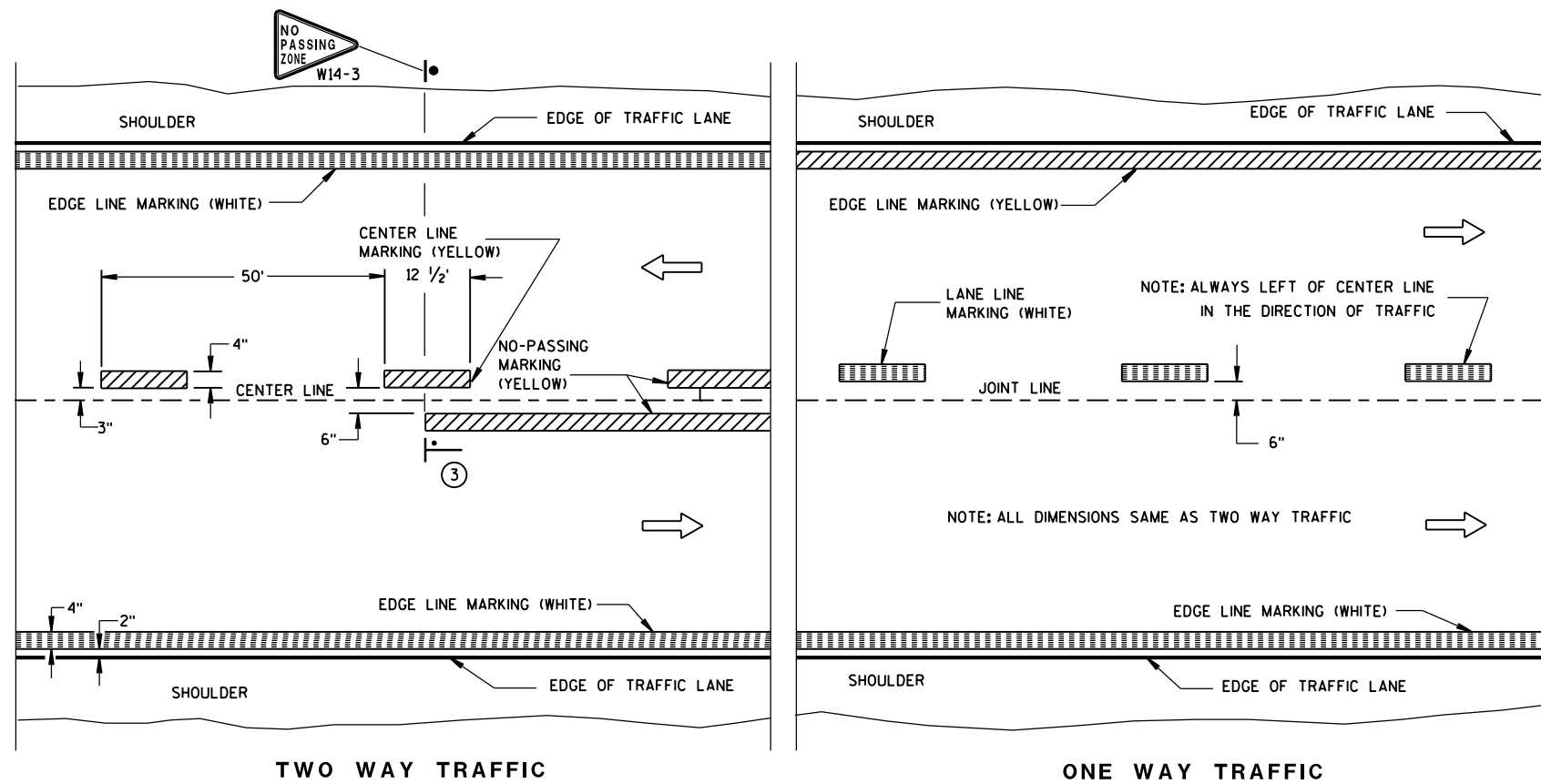
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
June, 2015  
DATE

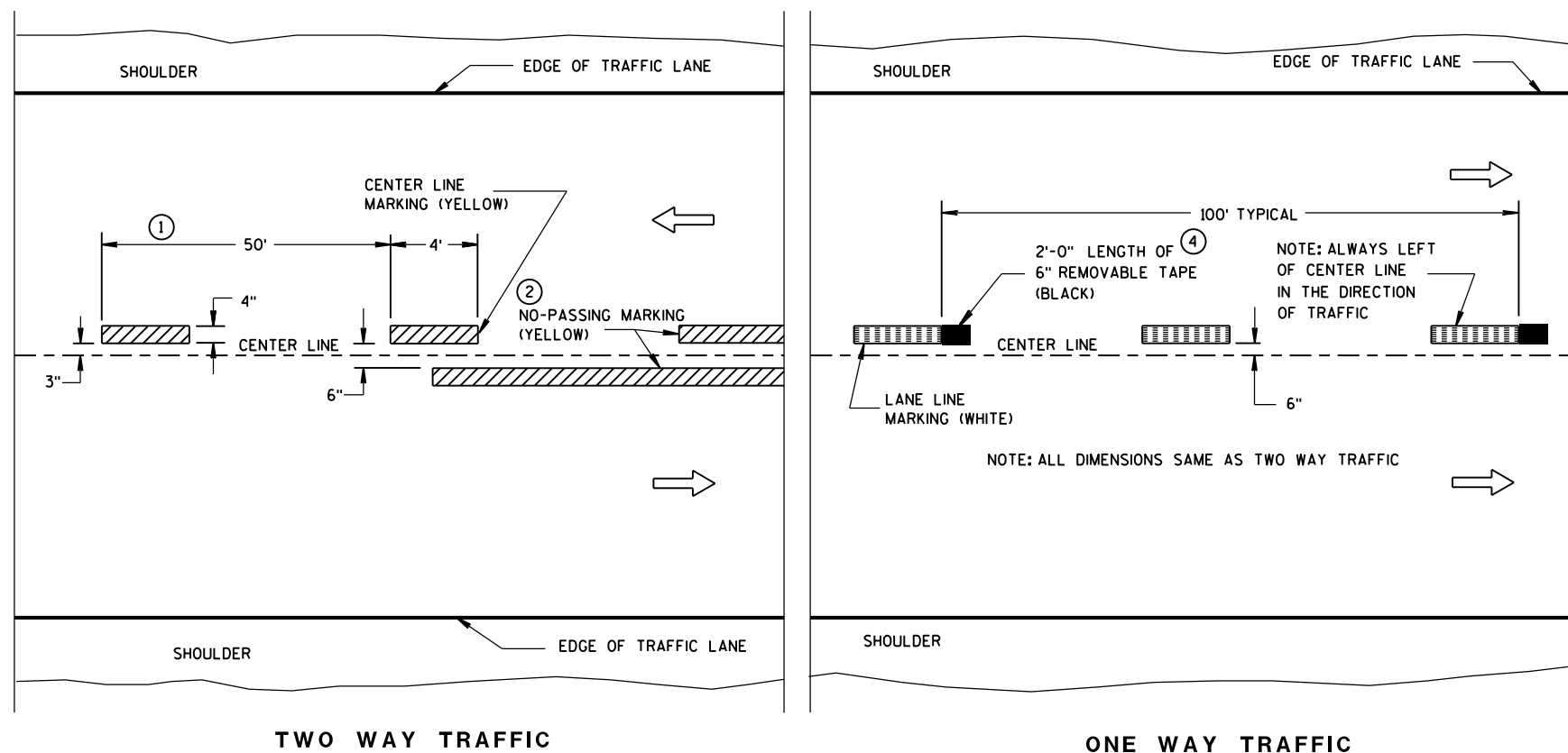
/S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

FHWA





## PERMANENT PAVEMENT MARKING




**TEMPORARY (INTERMEDIATE) PAVEMENT MARKING**  
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

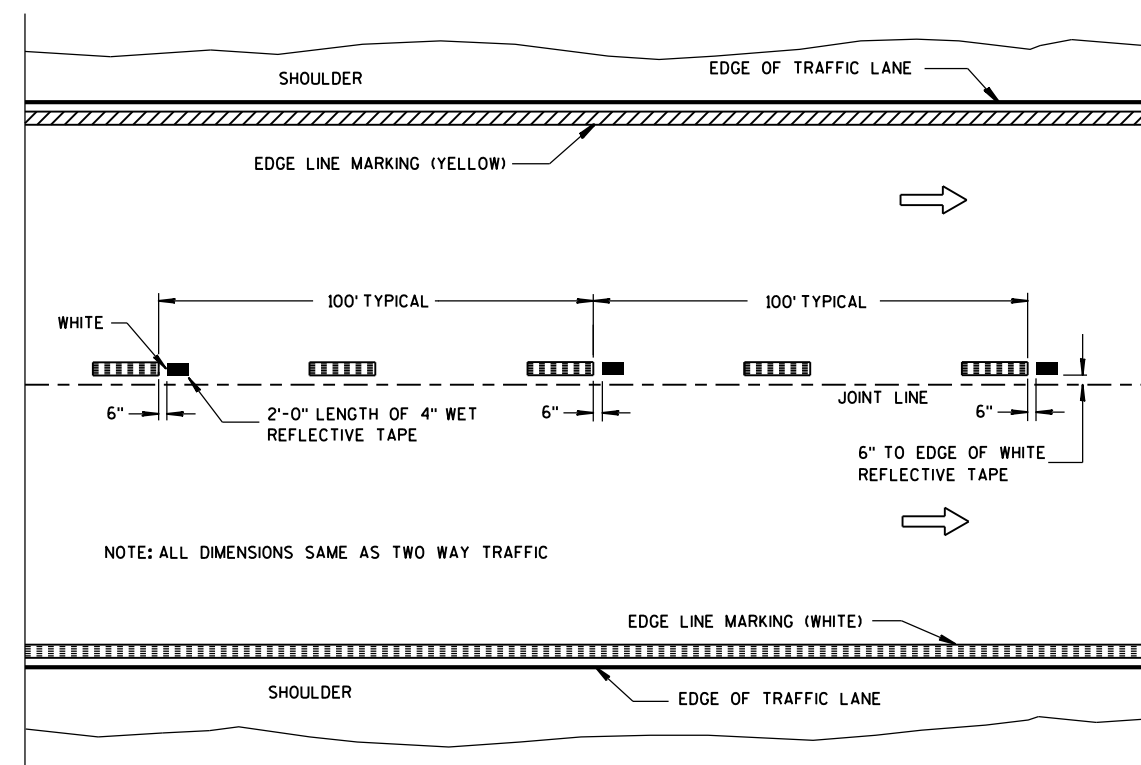
## GENERAL NOTES

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  
FHWA

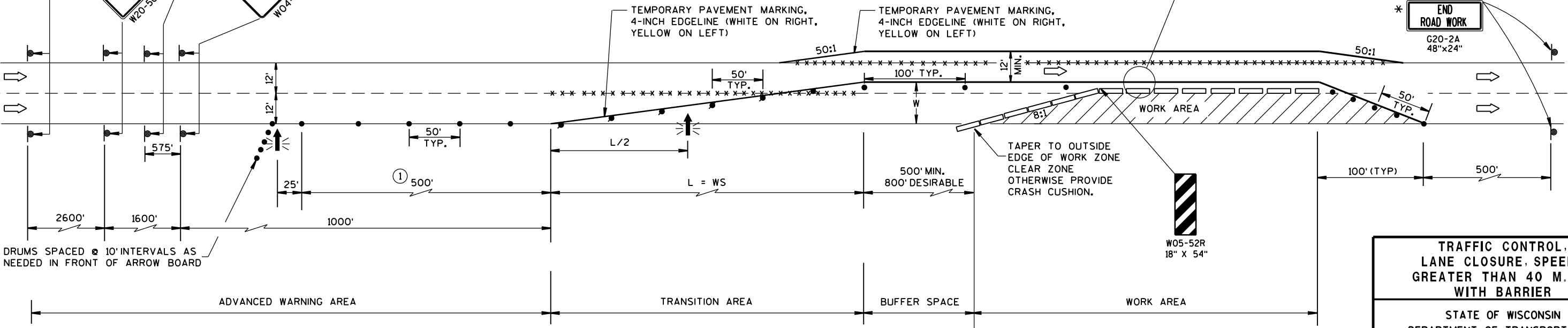
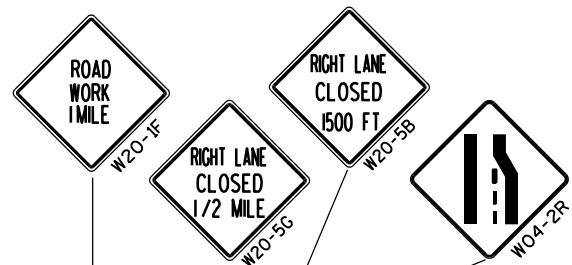
/S/ Travis Feltes  
STATE TRAFFIC ENGINEER



LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA

L. TAPER LENGTH (MPH)									
SPEED (MPH)	W. LATERAL OFFSET (FT)								
	10	11	12	13	14	15	16	17	18
45	450	495	540	585	630	675	720	765	810
50	500	550	600	650	700	750	800	850	900
55	550	605	660	715	770	825	880	935	990
60	600	660	720	780	840	900	960	1020	1080
65	650	715	780	845	910	975	1040	1105	1170
70	700	770	840	910	980	1050	1120	1190	1260



DRUMS SPACED @ 10' INTERVALS AS NEEDED IN FRONT OF ARROW BOARD

ADVANCED WARNING AREA

TRANSITION AREA

BUFFER SPACE

WORK AREA

GENERAL NOTES

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

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET ( 500 FEET DESIRABLE ) CLEARANCE TO EXISTING SIGNS.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"W0" 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.

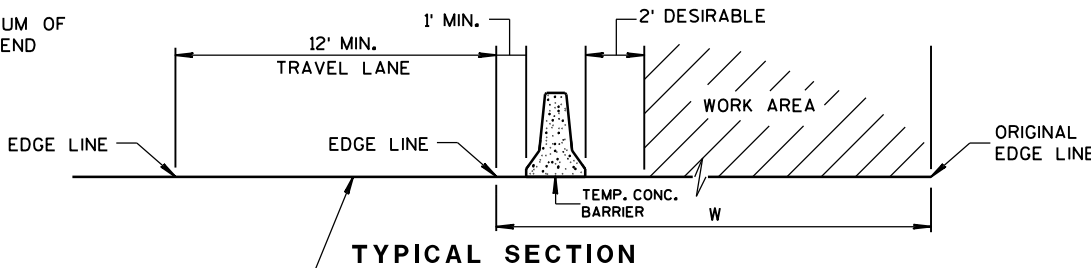
① CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUM TAPER.

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

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

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

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



TEMPORARY PAVEMENT MARKING, 4-INCH EDGE LINE (WHITE ON RIGHT, YELLOW ON LEFT)

TEMPORARY PAVEMENT MARKING, 4-INCH EDGE LINE (WHITE ON RIGHT, YELLOW ON LEFT)

\* END ROAD WORK  
G20-2A  
48"x24"

TAPER TO OUTSIDE EDGE OF WORK ZONE CLEAR ZONE OTHERWISE PROVIDE CRASH CUSHION.

W05-52R  
18" X 54"

TRAFFIC CONTROL,  
LANE CLOSURE, SPEEDS  
GREATER THAN 40 M.P.H.  
WITH BARRIER

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
March 2016 /S/ Peter Amakobe Atepe  
DATE STATEWIDE WORK ZONE TRAFFIC  
FHWA SAFETY ENGINEER



LEGEND

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

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"W0" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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

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

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

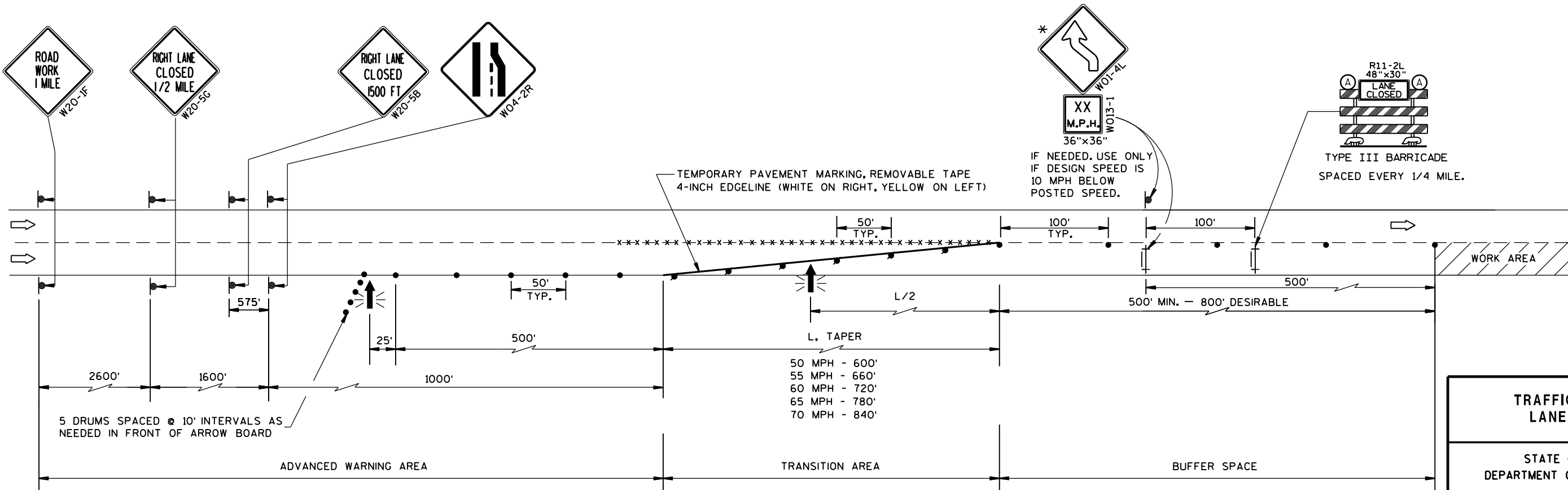
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

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

\* THE LEFT REVERSE CURVE SIGN (W01-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



TRAFFIC CONTROL, LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2016 DATE	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



LEGEND

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

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"W0" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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

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

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

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

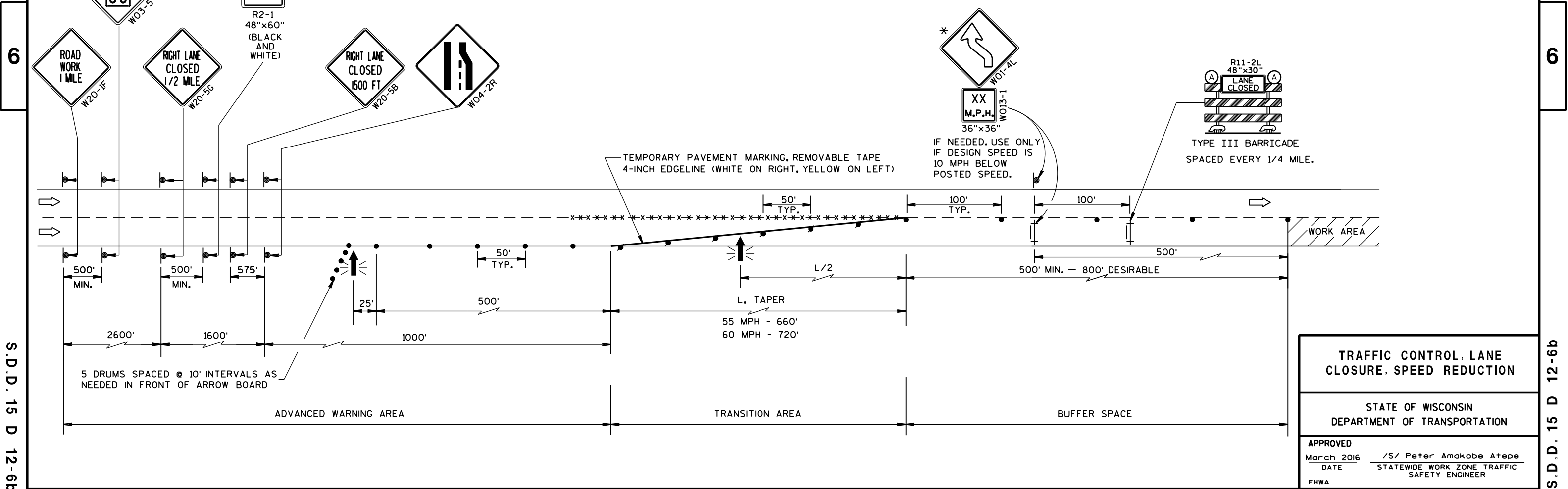
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

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

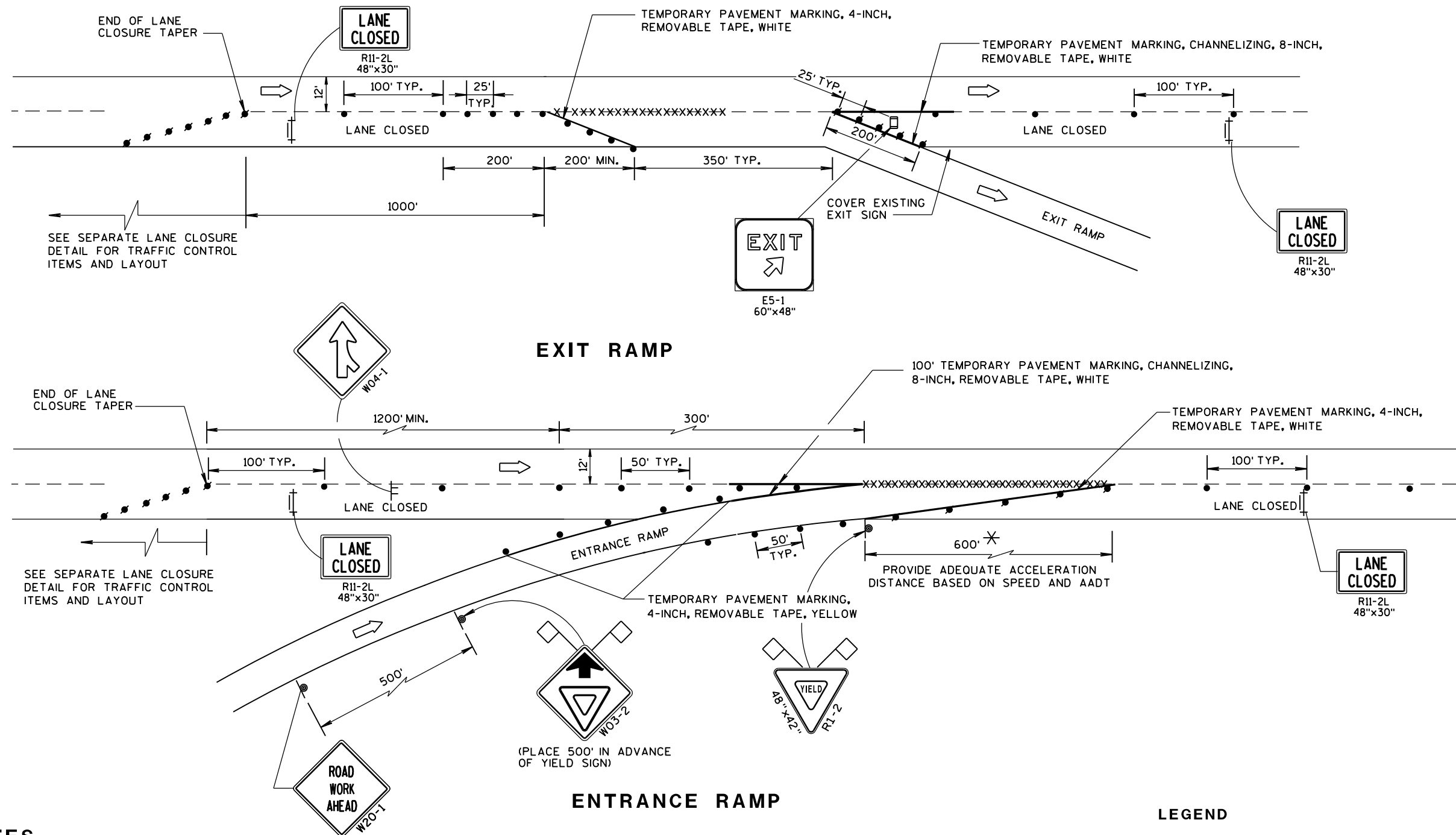
\* THE LEFT REVERSE CURVE SIGN (W01-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

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



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2016 DATE	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	





GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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

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

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

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

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

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

LEGEND	
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
	REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
	TYPE III BARRICADE WITH ATTACHED SIGN
	FLAGS, 16" x 16" MIN., (ORANGE)
	DIRECTION OF TRAFFIC

TRAFFIC CONTROL,  
EXIT AND ENTRANCE RAMP  
WITHIN LANE CLOSURE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
Sept. 2015  
DATE

/S/ Peter Amokobe Atepe  
STATEWIDE WORK ZONE TRAFFIC  
SAFETY ENGINEER

FHWA



STA.	DESCRIPTION	ELEV.
108G+26.7, 23.1 RT	DISK ON SW PARAPET OF STRUCTURE	1120.78

## DESIGN DATA

## LIVE LOAD:

DESIGN LOADING: HS-20

INVENTORY RATING : HS18

OPERATIONAL RATING : HS30

WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 190 KIPS

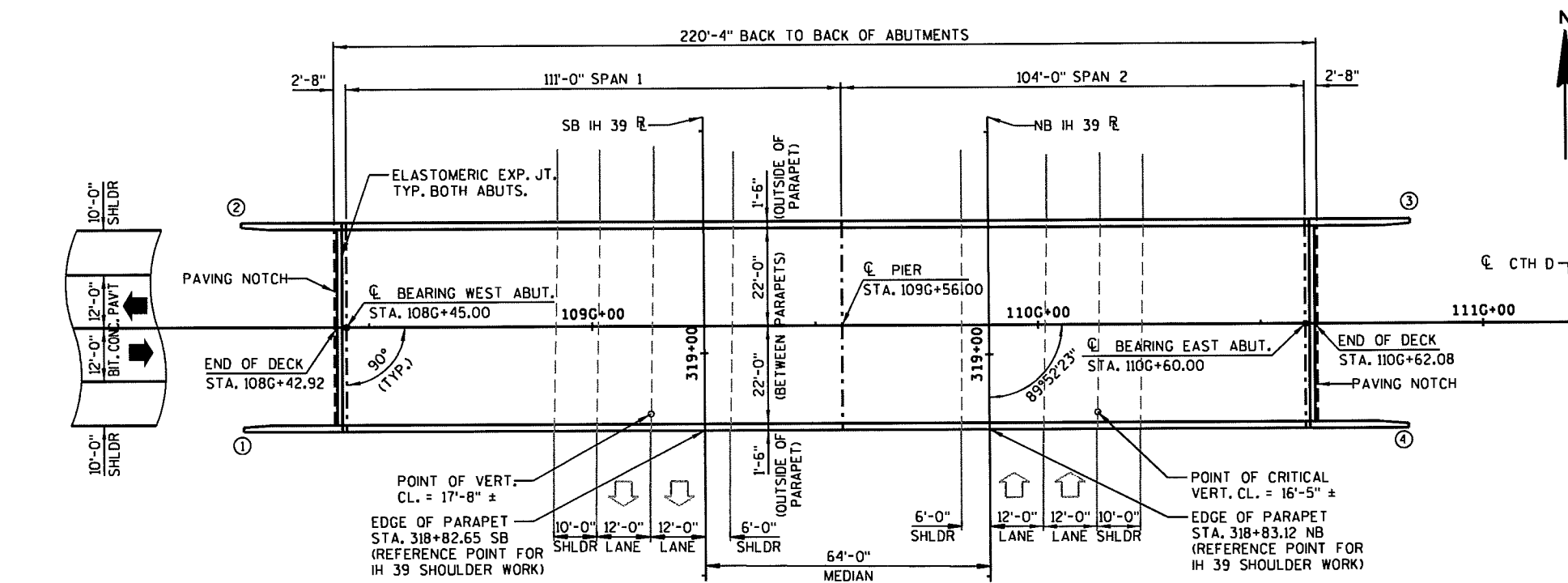
## TRAFFIC DATA: IH 39 CTH D

A.A.D.T. (2017) = 15,900 &gt; 1,000

A.A.D.T. (2037) = 19,700 (2011)

## LIST OF DRAWINGS

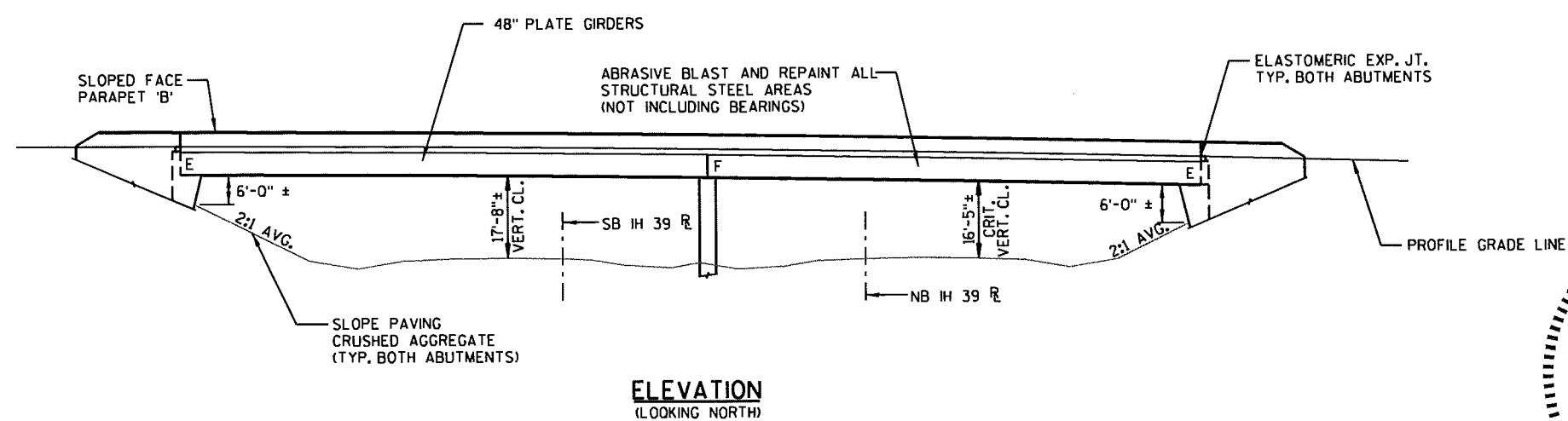
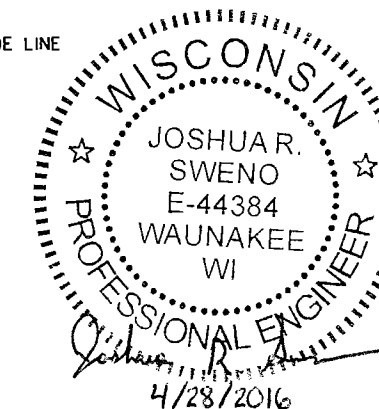
1. GENERAL PLAN
2. CROSS SECTION, QUANTITIES & NOTES



## PLAN

(REHAB - REPAINTING EXISTING TWO SPAN STEEL DECK GIRDER)

○ - INDICATES WING NUMBER

ELEVATION  
(LOOKING NORTH)

DESIGN CONTACT:  
JOSHUA SWENO  
(608) 355-8852

BRIDGE OFFICE CONTACT:  
WILLIAM DREHER  
(608) 266-8489

NO.	DATE	REVISION	BY
<div style="text-align: center;"> <p>TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL</p> <p>1230 South Boulevard • Baraboo, WI 53913</p> <p>608-356-2771 1-800-362-4505 Fax: 608-356-2770</p> </div>			
<div style="text-align: center;"> <p>STATE OF WISCONSIN</p> <p>DEPARTMENT OF TRANSPORTATION</p> <p>ACCEPTED <i>William C. Dreher</i> <sup>SR</sup> <b>05/09/16</b></p> <p>CHIEF STRUCTURES DESIGN ENGINEER DATE</p> </div>			
STRUCTURE B-49-42			
CTH D OVER IH 39			
COUNTY	PORTAGE	TOWN/CITY/VILLAGE	PINE GROVE
DESIGN SPEC. REHABILITATION - N/A			
DESIGNED BY	JRS	DESIGN CK'D.	JAS
DRAWN BY	RLR	PLANS CK'D.	JRS
GENERAL PLAN			SHEET 1 OF 2



TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	TOTAL
517.1800.S.01	STRUCTURE REPAINTING RECYCLED ABRASIVE STRUCTURE B-49-42	LS	1
517.4500.S.01	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS STRUCTURE B-49-42	LS	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

SEE ROAD PLANS FOR TRAFFIC CONTROL.

DIMENSIONS AND STATIONING SHOWN ARE BASED ON ORIGINAL PLANS.

VERTICAL CLEARANCES TAKEN FROM HSI ON 3/30/2016.

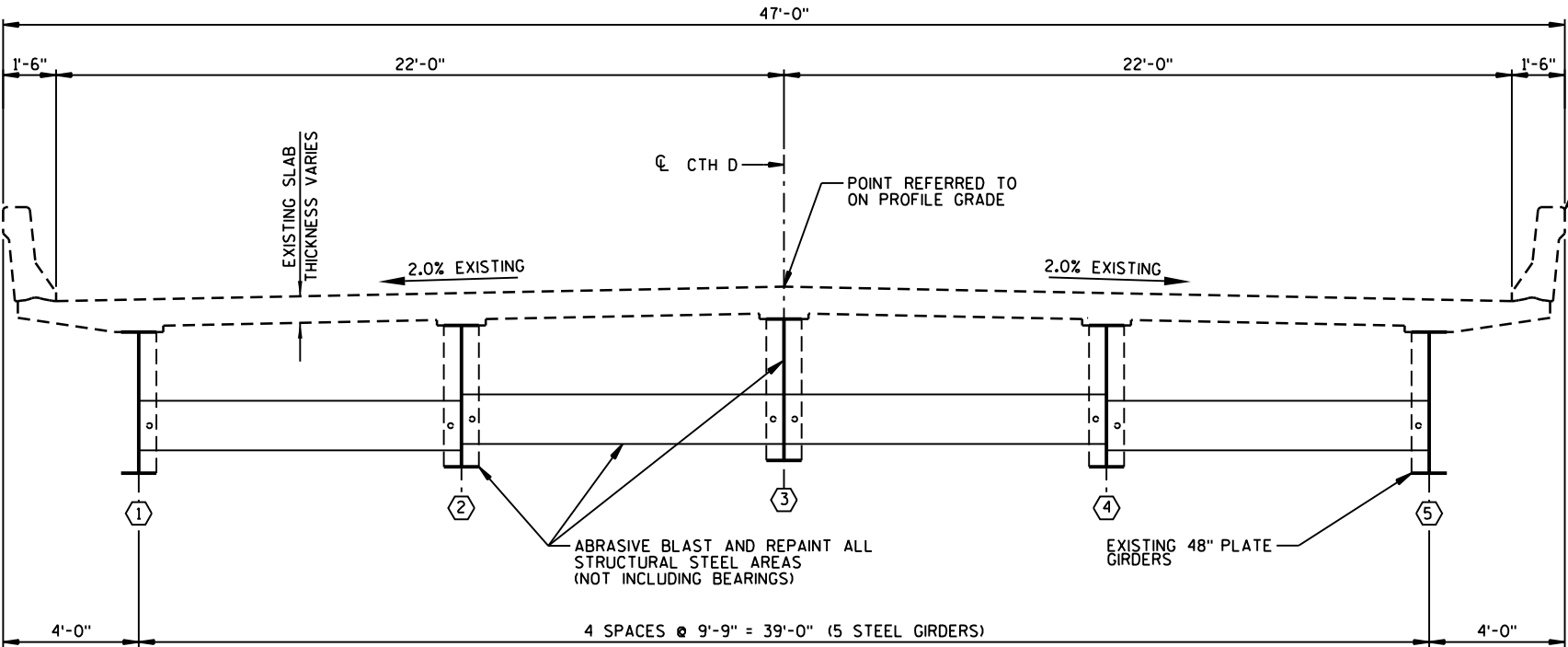
THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE NOT SHOWN.

IMPROVEMENTS INCLUDE REPAINTING ALL EXISTING STRUCTURAL STEEL AREAS (NOT INCLUDING BEARINGS).

THIS PROJECT WILL REHABILITATE THE EXISTING STRUCTURE, B-49-42, A TWO SPAN, 220.33 FOOT LONG, STEEL DECK GIRDER BRIDGE SET ON FULL RETAINING 'A4' CONCRETE ABUTMENTS AND A MULTI-COLUMN PIER.

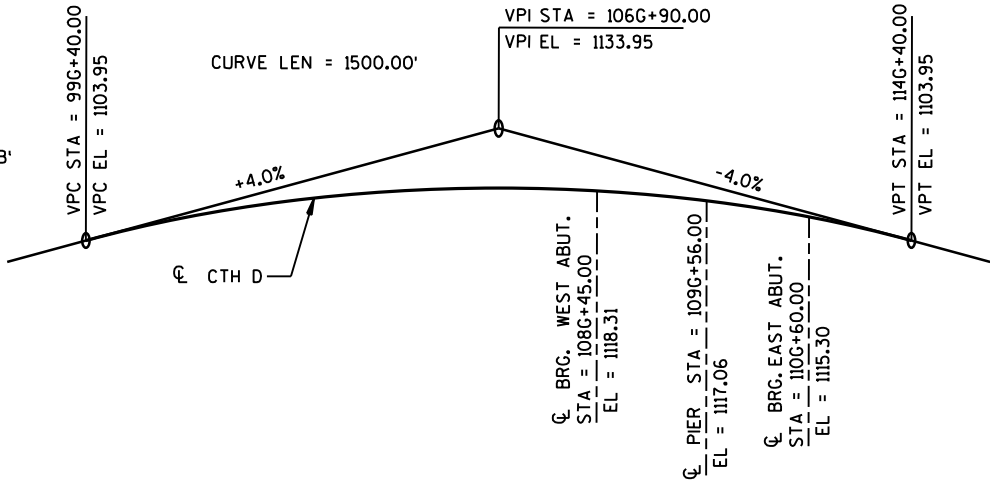
ESTIMATED STRUCTURAL STEEL SURFACE AREA = 17,000 SF.

THE COLOR OF THE FINISH EPOXY TOP COAT FOR ALL STRUCTURAL STEEL AREAS SHALL BE LIGHT GRAY (FEDERAL COLOR NO. 26293).



— INDICATES GIRDER NUMBER.

CROSS SECTION THRU ROADWAY  
(LOOKING EAST)



PROFILE GRADE - CTH D

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-49-42			
DRAWN BY RLR		PLANS CK'D. JRS	
CROSS SECTION, QUANTITIES & NOTES		SHEET 2 OF 2	



STA.	DESCRIPTION	ELEV.
108J+28, 18' RT	DISK ON SW PARAPET OF STRUCTURE	1114.63

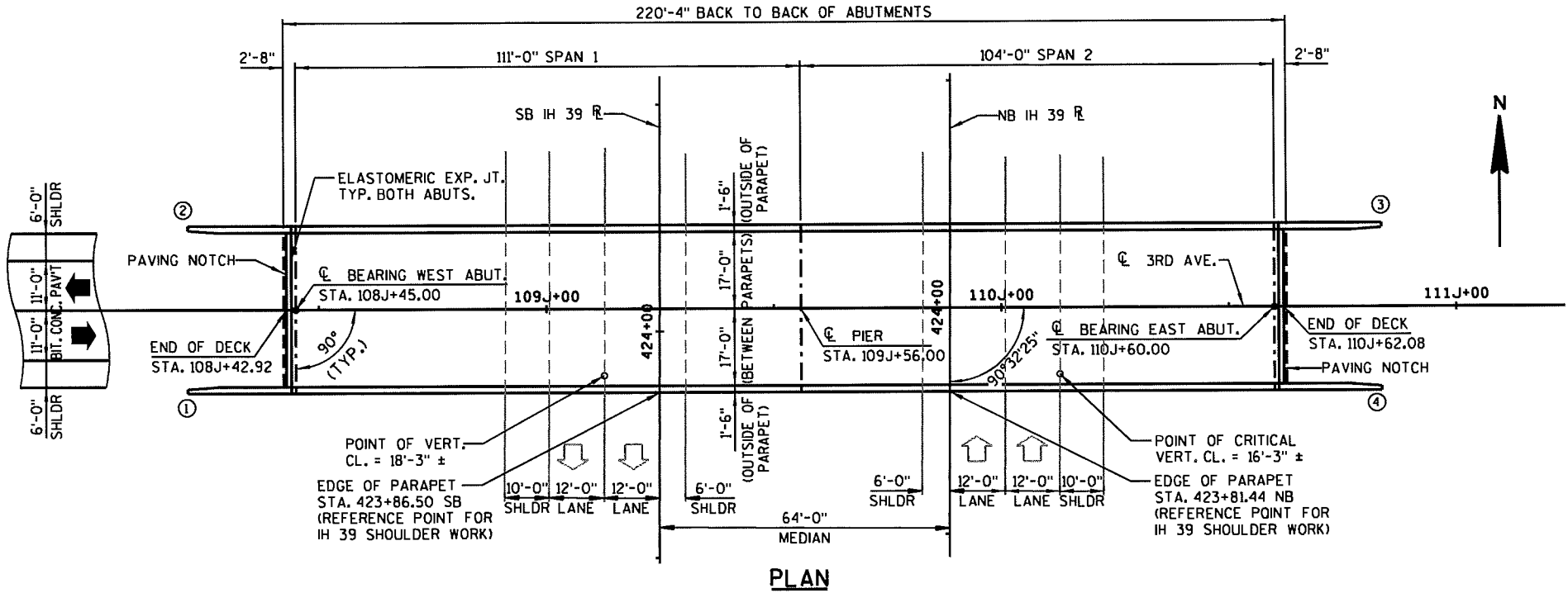
DESIGN DATA

LIVE LOAD:  
DESIGN LOADING: HS-20  
INVENTORY RATING : HS17  
OPERATIONAL RATING : HS29  
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 200 KIPS

TRAFFIC DATA: IH 39 3RD AVE.  
A.A.D.T. (2017) = 15,900 < 250  
A.A.D.T. (2037) = 19,700 (2011)

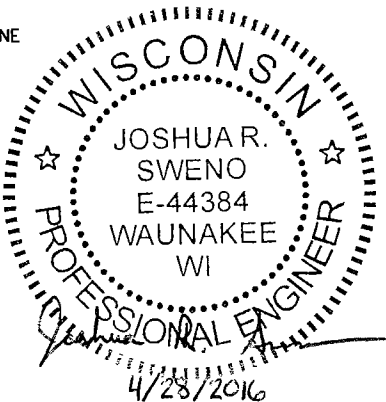
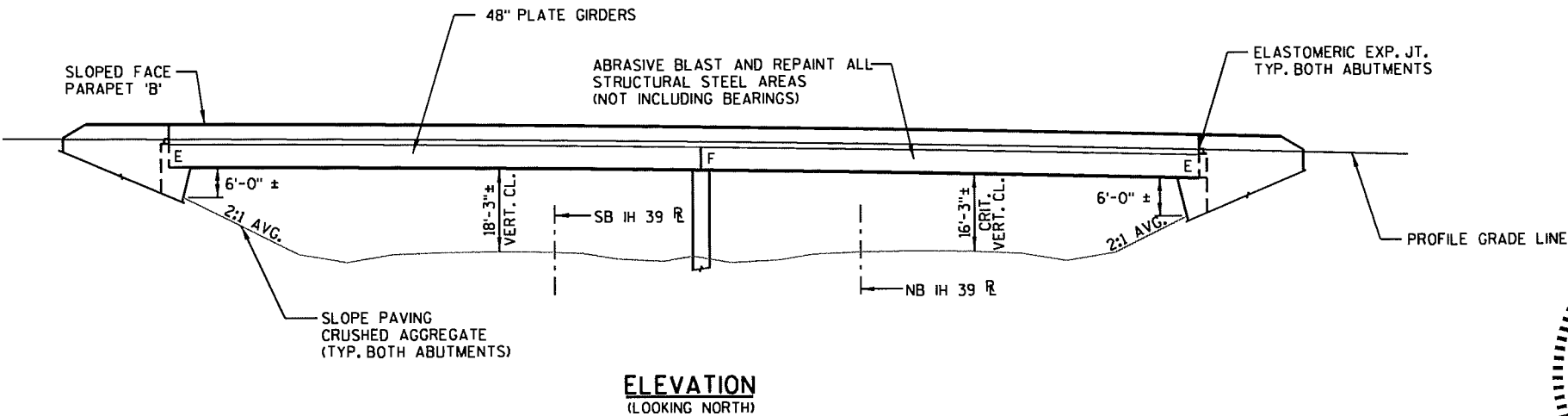
LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION, QUANTITIES & NOTES



(REHAB - REPAINTING EXISTING TWO SPAN STEEL DECK GIRDER)

○ - INDICATES WING NUMBER



DESIGN CONTACT:  
JOSHUA SWENO  
(608) 355-8852

BRIDGE OFFICE CONTACT:  
WILLIAM DREHER  
(608) 266-8489

NO.	DATE	REVISION	BY
1	05/09/16	1	William C. Dreher
STRUCTURE B-49-43			
3RD AVENUE OVER IH 39			
COUNTY	PORTAGE	TOWN/CITY/VILLAGE	PINE GROVE
DESIGN SPEC.	REHABILITATION - N/A	DESIGNED BY	JRS
DESIGNED BY	JRS	DESIGN CK'D.	JAS
DRAWN BY	RLR	PLANS CK'D.	JRS
GENERAL PLAN			SHEET 1 OF 2



TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	TOTAL
517.1800.S.02	STRUCTURE REPAINTING RECYCLED ABRASIVE STRUCTURE B-49-43	LS	1
517.4500.S.02	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS STRUCTURE B-49-43	LS	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

SEE ROAD PLANS FOR TRAFFIC CONTROL.

DIMENSIONS AND STATIONING SHOWN ARE BASED ON ORIGINAL PLANS.

VERTICAL CLEARANCES TAKEN FROM HSI ON 3/30/2016.

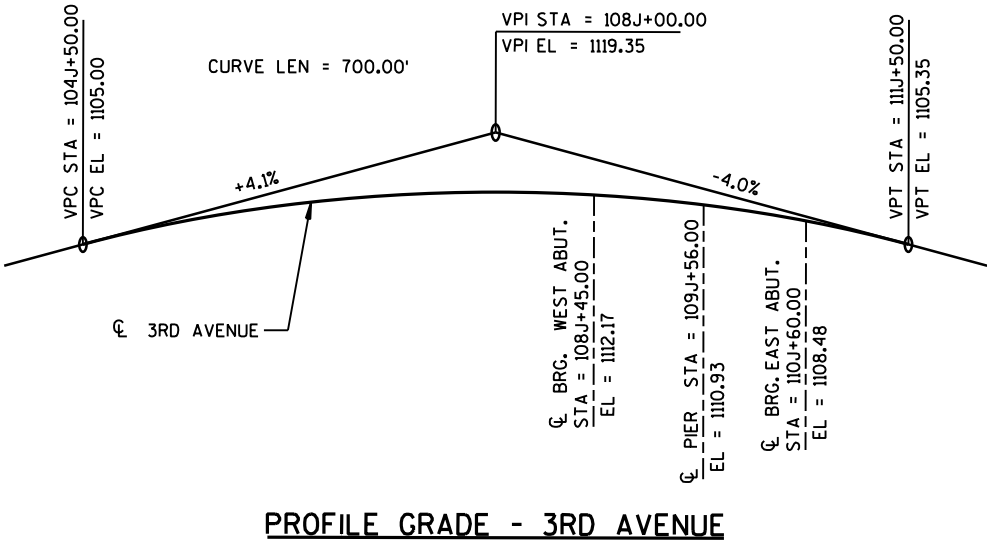
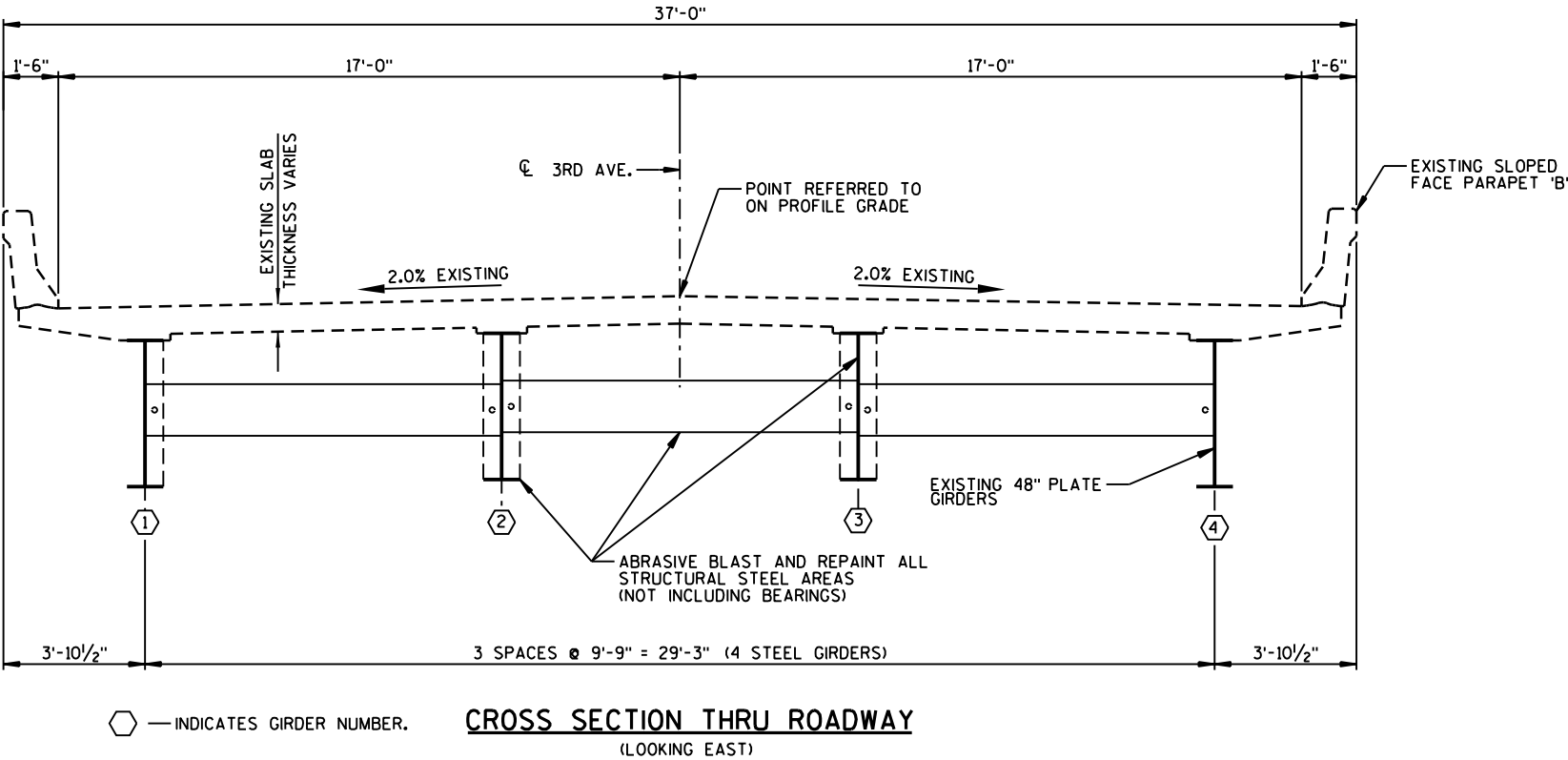
THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE NOT SHOWN.

IMPROVEMENTS INCLUDE REPAINTING ALL EXISTING STRUCTURAL STEEL AREAS (NOT INCLUDING BEARINGS).

THIS PROJECT WILL REHABILITATE THE EXISTING STRUCTURE, B-49-43, A TWO SPAN, 220.33 FOOT LONG, STEEL DECK GIRDER BRIDGE SET ON FULL RETAINING 'A4' CONCRETE ABUTMENTS AND A MULTI-COLUMN PIER.

ESTIMATED STRUCTURAL STEEL SURFACE AREA = 12,500 SF.

THE COLOR OF THE FINISH EPOXY TOP COAT FOR ALL STRUCTURAL STEEL AREAS SHALL BE LIGHT GRAY (FEDERAL COLOR NO. 26293).



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-49-43			
DRAWN BY RLR		PLANS CK'D. JRS	
CROSS SECTION, QUANTITIES & NOTES		SHEET 2 OF 2	



STA.	DESCRIPTION	ELEV.
108M+27.2, 23.1' RT	DISK ON SW PARAPET OF STRUCTURE	1111.78

**DESIGN DATA****LIVE LOAD:**

DESIGN LOADING: HS-20

INVENTORY RATING : HS18

OPERATIONAL RATING : HS30

WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 190 KIPS

**TRAFFIC DATA:**

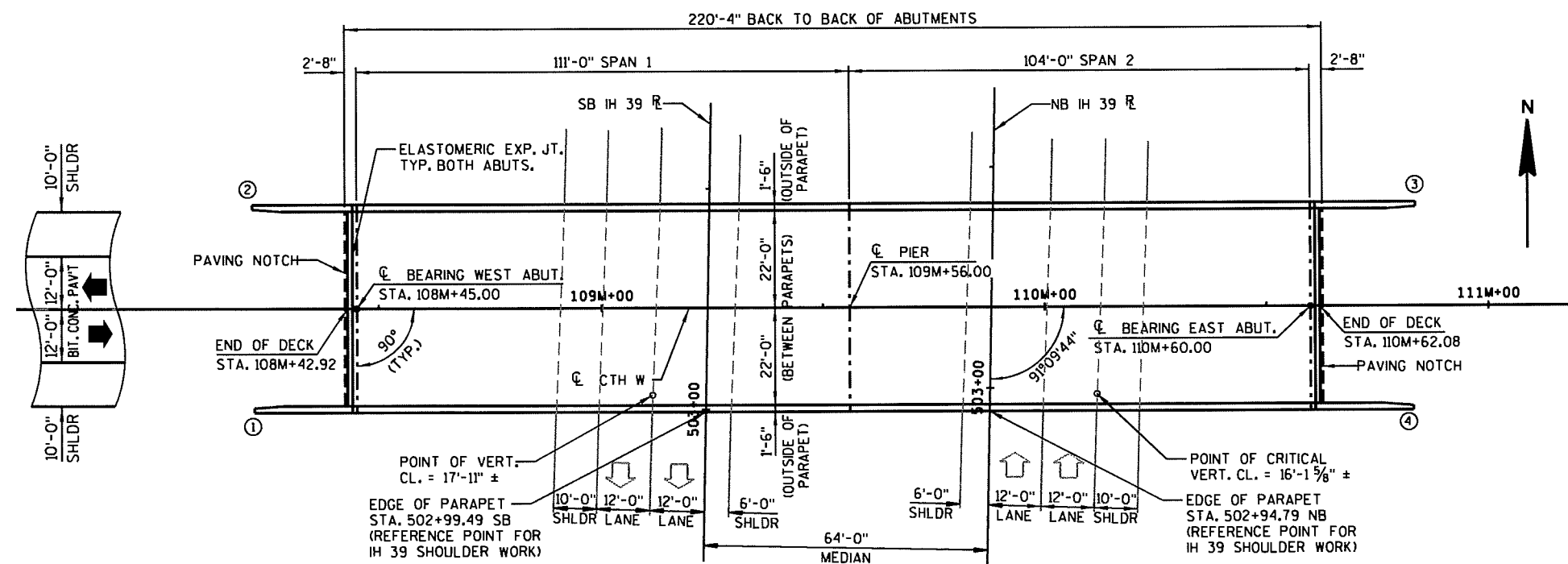
IH 39 CTH W

A.A.D.T. (2017) = 15,900 &gt; 1,800

A.A.D.T. (2037) = 20,600 (2011)

**LIST OF DRAWINGS**

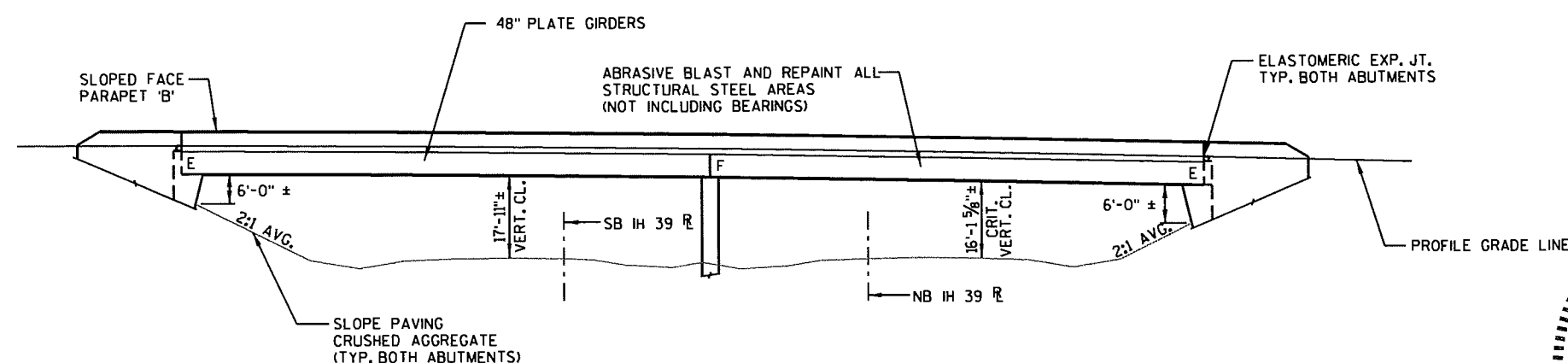
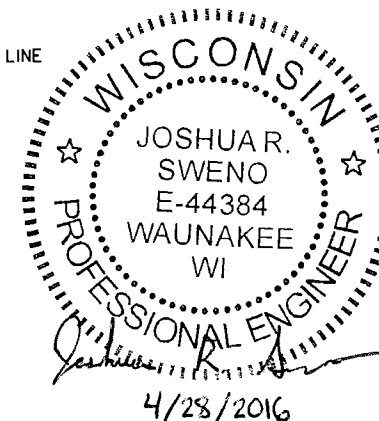
1. GENERAL PLAN
2. CROSS SECTION, QUANTITIES & NOTES



○ - INDICATES WING NUMBER

**PLAN**

(REHAB - REPAINTING EXISTING TWO SPAN STEEL DECK GIRDER)

**ELEVATION**  
(LOOKING NORTH)DESIGN CONTACT:  
JOSHUA SWENO  
(608) 355-8852BRIDGE OFFICE CONTACT:  
WILLIAM DREHER  
(608) 266-8489

NO.	DATE	REVISION	BY
<b>MSA</b> TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL 1230 South Boulevard • Daraboo, WI 53913 608-356-2771 L-800-362-4505 Fax: 608-356-2770			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED <i>William C. Dreher</i> SDR <b>05/09/16</b> CHIEF STRUCTURES DESIGN ENGINEER DATE			
<b>STRUCTURE B-49-44</b>			
CTH W OVER IH 39			
COUNTY	PORTAGE	TOWN/CITY/VILLAGE	PINE GROVE
DESIGN SPEC. REHABILITATION - N/A			
DESIGNED BY	JRS	DESIGN CK'D.	JAS
DRAWN BY	RLR	PLANS CK'D.	JRS
GENERAL PLAN			SHEET 1 OF 2

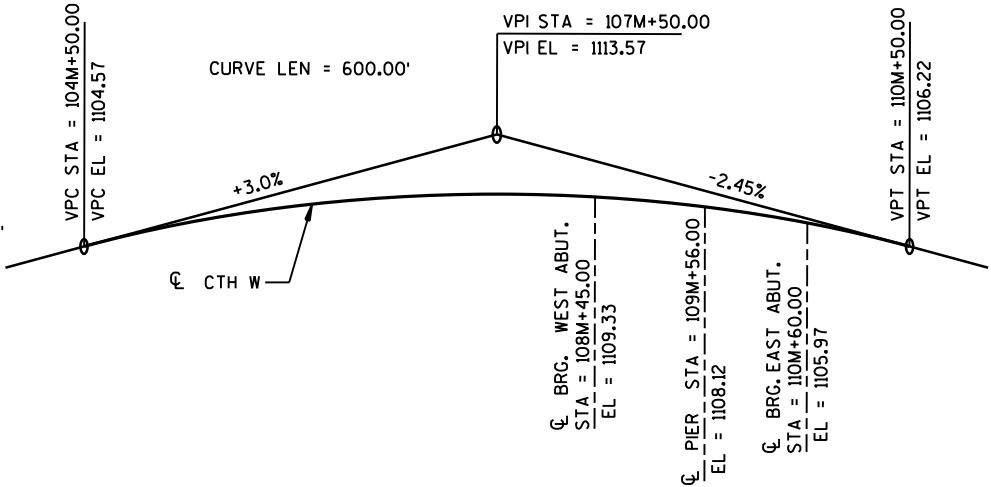
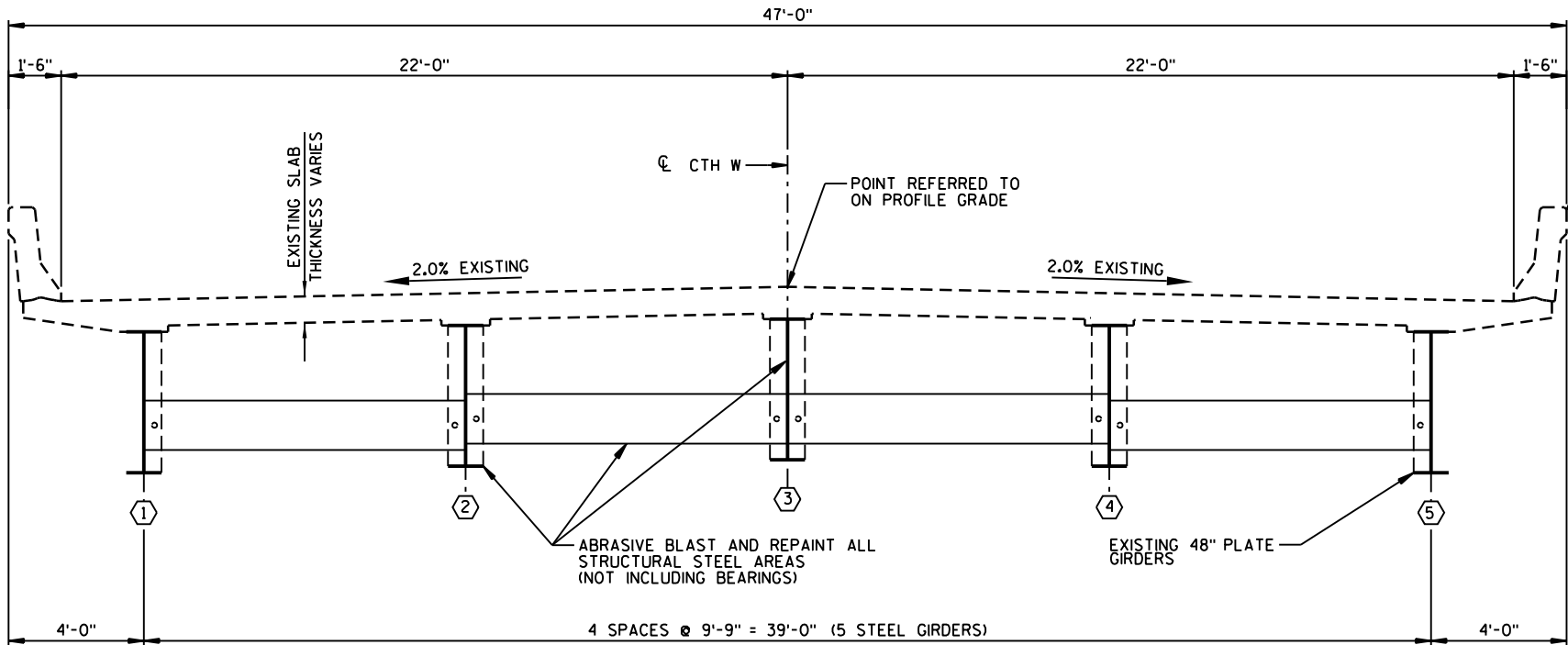


TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	TOTAL
517.1800.S.03	STRUCTURE REPAINTING RECYCLED ABRASIVE STRUCTURE B-49-44	LS	1
517.4500.S.03	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS STRUCTURE B-49-44	LS	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1

GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- SEE ROAD PLANS FOR TRAFFIC CONTROL.
- DIMENSIONS AND STATIONING SHOWN ARE BASED ON ORIGINAL PLANS.
- VERTICAL CLEARANCES TAKEN FROM HSI ON 3/30/2016.
- THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE NOT SHOWN.
- IMPROVEMENTS INCLUDE REPAINTING ALL EXISTING STRUCTURAL STEEL AREAS (NOT INCLUDING BEARINGS).
- THIS PROJECT WILL REHABILITATE THE EXISTING STRUCTURE, B-49-44, A TWO SPAN, 220.33 FOOT LONG, STEEL DECK GIRDER BRIDGE SET ON FULL RETAINING 'A4' CONCRETE ABUTMENTS AND A MULTI-COLUMN PIER.
- ESTIMATED STRUCTURAL STEEL SURFACE AREA = 17,000 SF.
- THE COLOR OF THE FINISH EPOXY TOP COAT FOR ALL STRUCTURAL STEEL AREAS SHALL BE LIGHT GRAY (FEDERAL COLOR NO. 26293).



PROFILE GRADE - CTH W

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-49-44			
DRAWN BY RLR		PLANS CK'D. JRS	
CROSS SECTION, QUANTITIES & NOTES		SHEET 2 OF 2	



BENCHMARKS		
NAVD 88		
STA.	DESCRIPTION	ELEV.
108N+20.40, 18' RT	DISK ON SW PARAPET OF STRUCTURE	1101.88

LIVE LOAD:

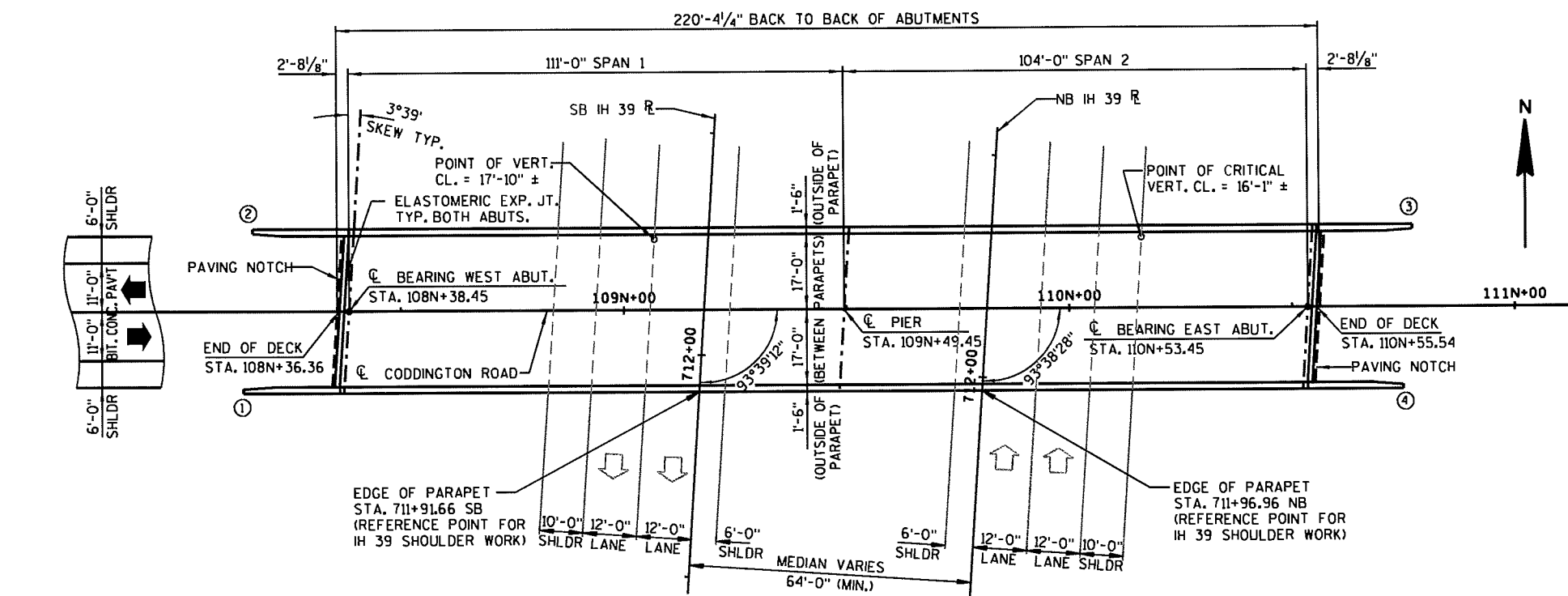
DESIGN LOADING: HS-20  
INVENTORY RATING : HS17  
OPERATIONAL RATING : HS29  
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 200 KIPS

TRAFFIC DATA:

A.A.D.T. (2017) =	15,900	< 250
A.A.D.T. (2037) =	20,600	(2011)

## LIST OF DRAWINGS

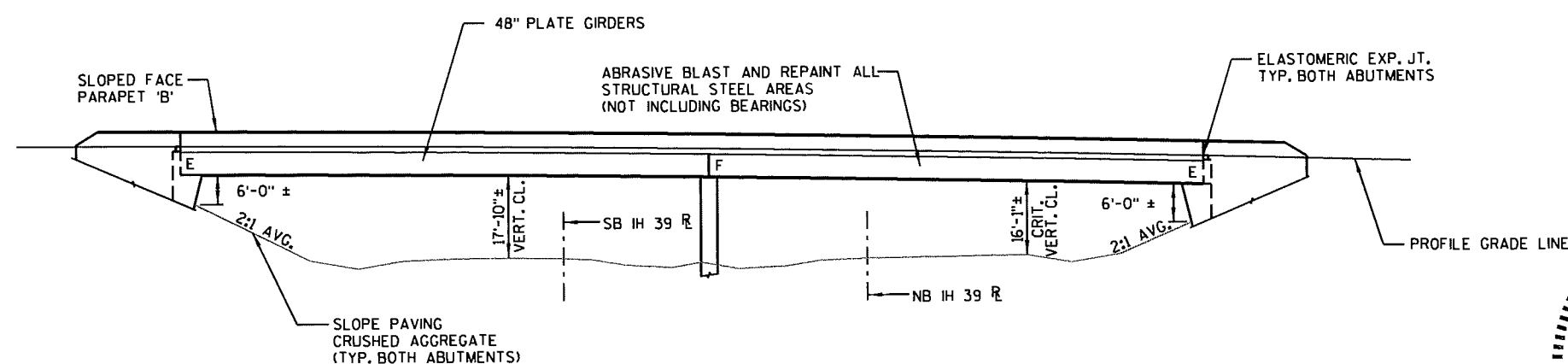
1. GENERAL PLAN  
2. CROSS SECTION, QUANTITIES & NOTES



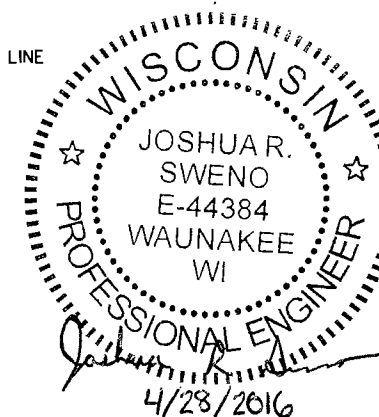
○ - INDICATES WING NUMBER

## PLAN

(REHAB - REPAINTING EXISTING TWO SPAN STEEL DECK GIRDER)




**ELEVATION**  
(LOOKING NORTH)



DESIGN CONTACT:  
JOSHUA SWENO  
(608) 355-8852

BRIDGE OFFICE CONTACT:  
WILLIAM DREHER  
(608) 266-8489

NO.		DATE		REVISION		BY	
				TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL 1239 South Highway Baraboo, WI 53913 608-356-2771 1-800-362-4505 Fax: 608-356-2772			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED <u>William C. Dreher</u> <small>SOR</small> <b>05/09/1</b> CHIEF STRUCTURES DESIGN ENGINEER DATE							
STRUCTURE B-49-47 CODDINGTON ROAD OVER IH 39 COUNTY PORTAGE TOWN/CITY/VILLAGE BUENA VISTA							
DESIGN SPEC. REHABILITATION - N/A DESIGNED BY JRS DESIGN CK'D. JAS DRAWN BY RLR PLANS CK'D. JR							
GENERAL PLAN						SHEET 1 OF	



ITEM NUMBER	BID ITEM	UNIT	TOTAL
517.1800.S.04	STRUCTURE REPAINTING RECYCLED ABRASIVE STRUCTURE B-49-47	LS	1
517.4500.S.04	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS STRUCTURE B-49-47	LS	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1

DRAWINGS SHALL NOT BE SCALED.

SEE ROAD PLANS FOR TRAFFIC CONTROL.

DIMENSIONS AND STATIONING SHOWN ARE BASED ON ORIGINAL PLANS.

VERTICAL CLEARANCES TAKEN FROM HSI ON 3/30/2016.

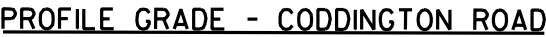
THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE NOT SHOWN.

IMPROVEMENTS INCLUDE REPAINTING ALL EXISTING STRUCTURAL STEEL AREAS (NOT INCLUDING BEARINGS).

THIS PROJECT WILL REHABILITATE THE EXISTING STRUCTURE, B-49-47, A TWO SPAN, 220.35 FOOT LONG, STEEL DECK GIRDER BRIDGE SET ON FULL RETAINING 'A4' CONCRETE ABUTMENTS AND A MULTI-COLUMN PIER.

ESTIMATED STRUCTURAL STEEL SURFACE AREA = 12,500 SF.

THE COLOR OF THE FINISH EPOXY TOP COAT FOR ALL STRUCTURAL STEEL AREAS SHALL BE LIGHT GRAY (FEDERAL COLOR NO. 26293).



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-49-47	
		DRAWN BY      RLR	PLANS CK'D.      JRS
CROSS SECTION, QUANTITIES & NOTES		SHEET 2 OF 2	



STA.	DESCRIPTION	ELEV.
98S+34.5, 18.4' RT.	DISK ON SW PARAPET OF STRUCTURE	1109.60

LIVE LOAD:

DESIGN LOADING: HS-20  
INVENTORY RATING : HS17  
OPERATIONAL RATING : HS30  
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 190 KIPS

TRAFFIC DATA:

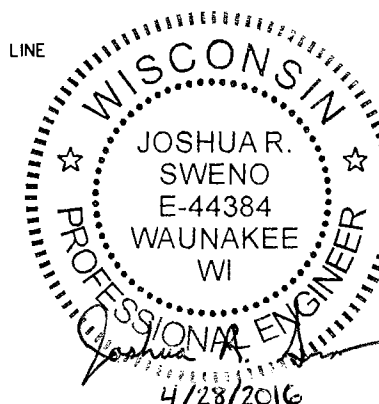
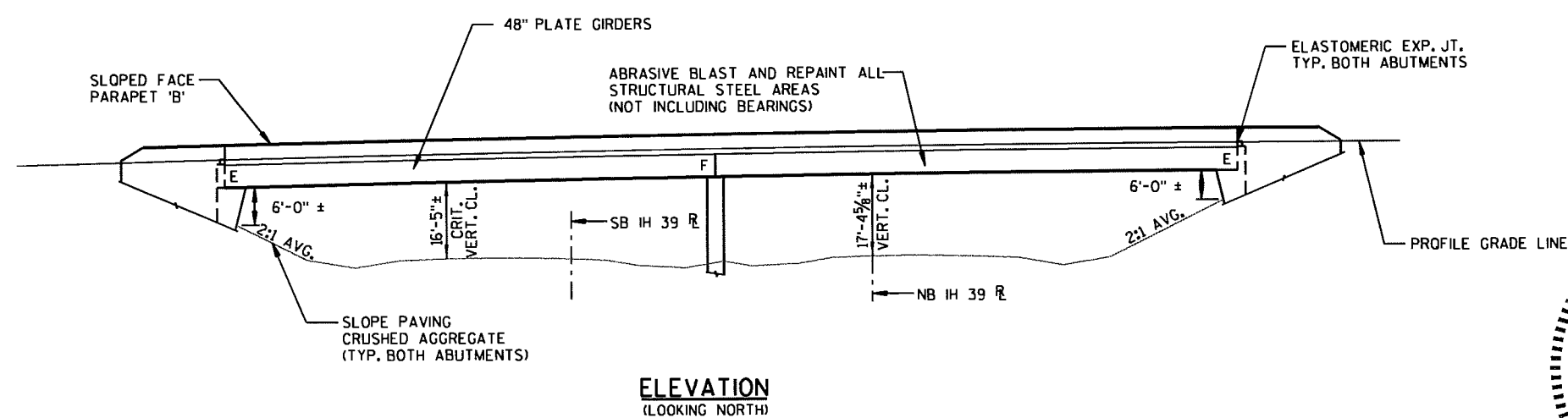
<u>TRAFFIC DATA:</u>	<u>IH 39</u>	<u>BIRCH DR.</u>
A.A.D.T. (2017) =	15,900	< 350
A.A.D.T. (2037) =	20,600	(2011)

1. GENERAL PLAN  
2. CROSS SECTION, QUANTITIES & NOTES




## PLAN

(REHAB - REPAINTING EXISTING TWO SPAN STEEL DECK GIRDER)



DESIGN CONTACT:  
JOSHUA SWENO  
(608) 355-8852

BRIDGE OFFICE CONTACT:  
WILLIAM DREHER  
(608) 266-8489

NO.	DATE	REVISION	BY
		TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL 1239 South Boulevard Baraboo, WI 53913 608-356-2771 1-800-362-1665 Fax: 608-356-2770	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED <u>William C. Dreher</u> <small>SDR</small> <b>05/09/10</b> CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-49-50			
BIRCH DRIVE OVER IH 39			
COUNTY	PORTAGE	TOWN/CITY/VILLAGE	PROV
DESIGN SPEC. REHABILITATION - N/A			
DESIGNED BY	JRS	DESIGN CK'D.	JAS
DRAWN BY	RLR	PLANS CK'D.	JRS
GENERAL PLAN			SHEET 1 OF



TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	TOTAL
517.1800.S.05	STRUCTURE REPAINTING RECYCLED ABRASIVE STRUCTURE B-49-50	LS	1
517.4500.S.05	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS STRUCTURE B-49-50	LS	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

SEE ROAD PLANS FOR TRAFFIC CONTROL.

DIMENSIONS AND STATIONING SHOWN ARE BASED ON ORIGINAL PLANS.

VERTICAL CLEARANCES TAKEN FROM HSI ON 3/30/2016.

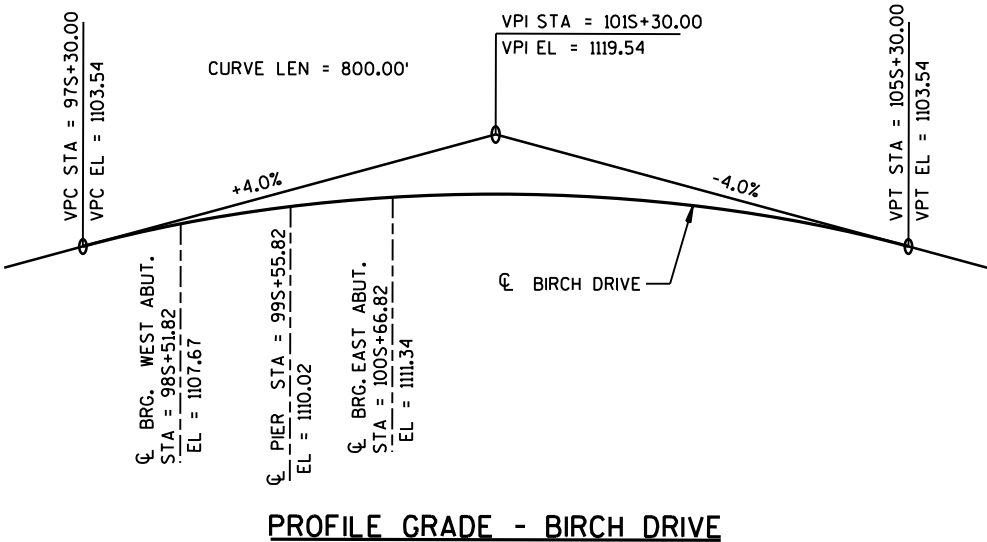
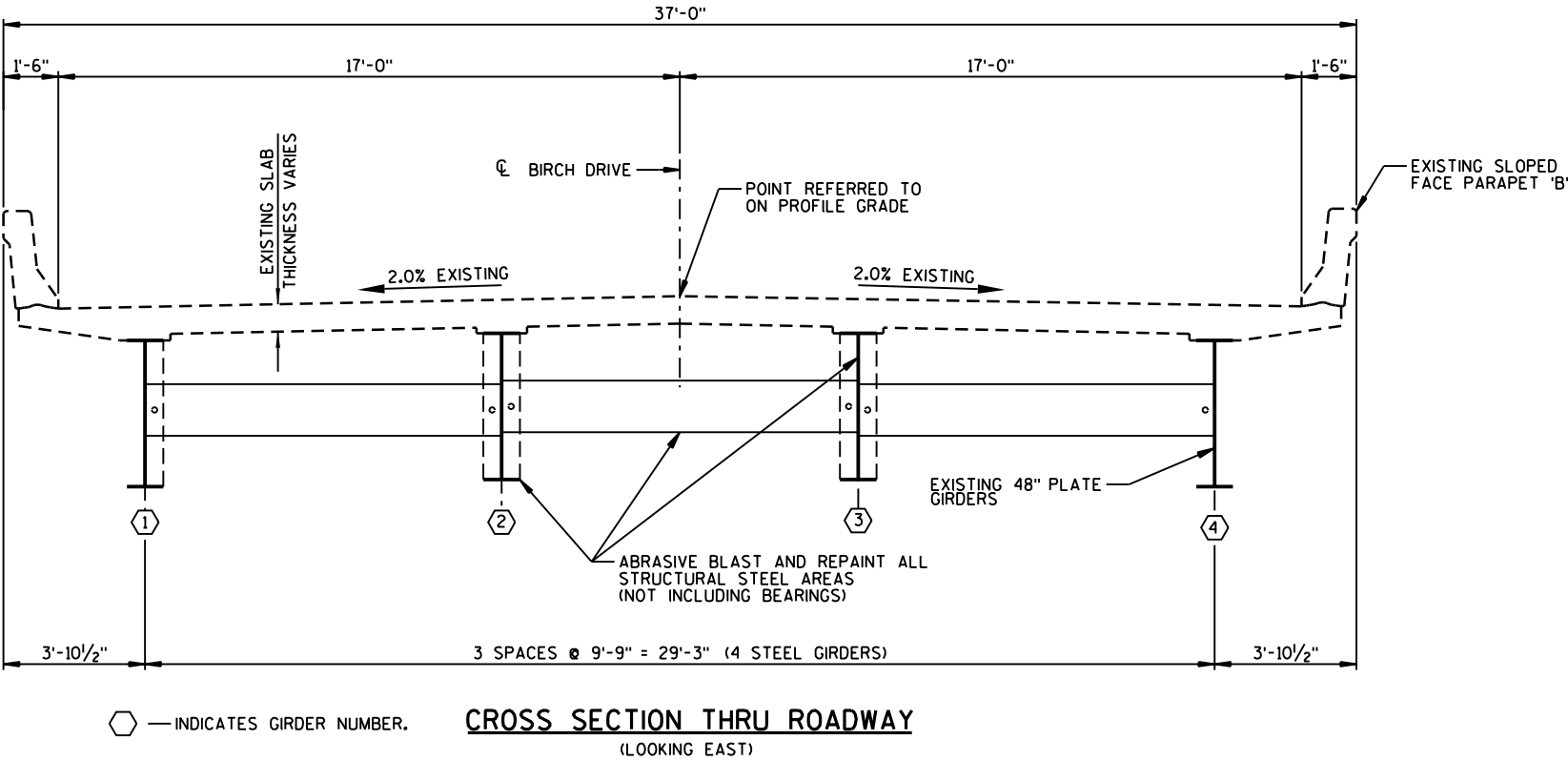
THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE NOT SHOWN.

IMPROVEMENTS INCLUDE REPAINTING ALL EXISTING STRUCTURAL STEEL AREAS (NOT INCLUDING BEARINGS).

THIS PROJECT WILL REHABILITATE THE EXISTING STRUCTURE, B-49-50, A TWO SPAN, 220.33 FOOT LONG, STEEL DECK GIRDER BRIDGE SET ON FULL RETAINING 'A4' CONCRETE ABUTMENTS AND A MULTI-COLUMN PIER.

ESTIMATED STRUCTURAL STEEL SURFACE AREA = 12,500 SF.

THE COLOR OF THE FINISH EPOXY TOP COAT FOR ALL STRUCTURAL STEEL AREAS SHALL BE LIGHT GRAY (FEDERAL COLOR NO. 26293).



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-49-50			
DRAWN BY RLR		PLANS CK'D. JRS	
CROSS SECTION, QUANTITIES & NOTES		SHEET 2 OF 2	



## Notes





## ***Wisconsin Department of Transportation***

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through innovation and exceptional service.

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