FEDERAL PROJECT MAY 2019 STATE PROJECT STATE OF WISCONSIN CONTRACT ORDER OF SHEETS WISC 2019274 1670-05-61 Section No. **DEPARTMENT OF TRANSPORTATION** Section No. Typical Sections and Details Section No. Estimate of Quantities Section No. Miscellaneous Quantities PLAN OF PROPOSED IMPROVEMENT Section No. Standard Detail Drawings **SAUK CITY - MADISON** Section No. **WISCONSIN RIVER STRUCTURE B-56-217 USH 12** TOTAL SHEETS = 90 **DANE & SAUK COUNTIES** STATE PROJECT NUMBER 1670-05-61 PROJECT LOCATION STRUCTURE B-56-217 **BEGIN PROJECT** STA 1003+51.76 DESIGN DESIGNATION 1670-05-01 X = 554409.66 Y = 731280.61 AADT (2019) = 17.800A.A.D.T. (2039)= 21,100 = 1100 D.H.V. D.D. = 59/41 = 6.3% DESIGN SPEED = 35 MPH CONVENTIONAL SYMBOLS GRADE LINE CORPORATE LIMITS **END PROJECT** ORIGINAL GROUND PROPERTY LINE MARSH OR ROCK PROFILE STA 1012+75.68 LOTTINE (To be noted as such) LIMITED HIGHWAY EASEMENT SPECIAL DITCH STATE OF WISCONSIN EXISTING RIGHT OF WAY GRADE ELEVATION PROPOSED OR NEW R/W LINE DEPARTMENT OF TRANSPORTATION SLOPE INTERCEPT CULVERT (Profile View) PREPARED BY UTILITIES SURVEYOR REFERENCE LINE Surveyor ELECTRIC Designer EXISTING CULVERT FIBER OPTIC GREG BRECKA Project Manage PROPOSED CULVERT SANITARY SEWER BRENDA SCHOENFELD COMBUSTIBLE FLUIDS STORM SEWER HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, DANE COUNTY, NAD83 (2011), IN U.S. TELEPHONE SCALE I SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCE MAY BE USED MARSH AREA UTILITY PEDESTAL TOTAL NET LENGTH OF CENTERLINE = 0.17 MI. POWER POLE ₫ ELEVATION SHOWN ON THIS PLAN ARE REFERENCE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD (2012.) Ø WOODED OR SHRUB AREA TELEPHONE POLE FILE NAME: \LAX31FP2\P3PROJECTS\STATE\U12\16700501\CAD\C3D\010101_TI.DWG 1/24/2019 3:38 PM

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN SHALL BE IN ACCORDANCE WITH THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ALL EROSION CONTROL FEATURES ARE SHOWN AT SUGGESTED LOCATIONS IN THE PLANS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS ECIP AND APPROVED BY THE ENGINEER IN CONSULTATION WITH THE DNR.

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW TYPICAL SECTIONS CONSTRUCTION DETAILS PAVEMENT MARKING TRAFFIC CONTROL

ABBREVIATIONS

ARIJT

ABUT	ABUTMENT	LT	LEFT
A.D.T.	AVERAGE DAILY TRAFFIC	ML	MATCH LINE
AP	ACCESS POINT	MAX.	MAXIMUM
B.F.	BACK FACE	MIN.	MINIMUM
B.M.	BENCH MARK	NORM.	NORMAL
B.O.P.	BEGIN OF PROJECT	O.H.	OVER HEAD POWER LINE
CL	CENTER LINE	PT	POINT
CTR.	CENTER	PC	POINT OF CURVATURE
CY	CUBIC YARD	PI	POINT OF INTERSECTION
CP	CULVERT PIPE	PT	POINT OF TANGENCY
C&G	CURB AND GUTTER	PL	PROPERTY LINE
D.H.V.	DESIGN HOURLY VOLUME	PB	PULL BOX
DIA.	DIAMETER	RAD.	RADIUS
DIM.	DIMENSION	RL	REFERENCE LINE
EL	ELEVATION	REQ'D	REQUIRED
EW	END WALL	RT	RIGHT
EBS	EXCAVATION BELOW SUBGRADE	RHF	RIGHT HAND FORWARD
E.O.P.	END OF PROJECT	R/W	RIGHT OF WAY
EXC.	EXCAVATION	STA.	STATION
EXIST	EXISTING	SSPRC	STORM SEWER PIPE
F.F.	FRONT FACE		REINFORCED CONCRETE
FL	FLOW LINE	SE	SUPERELEVATION
HT	HEIGHT	STR.	STRUCTURE
CWT	HUNDREDWEIGHT	TLE	TEMPORARY LIMITED EASEMENT
INL	INLET	TYP.	TYPICAL
INV	INVERT	V.	DESIGN SPEED



UTILITY CONTACTS

ALLIANT ENERGY - ELECTRICITY/GAS/PETROLEUM MICHAEL BROLIN 4902 N. BILTMORE LN. SUITE 1000 MADISON, WI. 53713 608 458-4871 MICHAELBROLIN@ALLIANTENERGY.COM

MG&E - GAS/PETROLEUM MS. JANE ROSSING P.O. BOX 1231 MADISON, WI. 53701 608 252-7099 GROSSING@MGE.COM

VILLAGE OF SAUK CITY PUBLIC WORKS/UTILITIES - ELECTRICITY MARV DOLPHIN 726 WATER ST. SAUK CITY, WI. 53583 MARV@SAUKCITY.NET

REGION CONTACT

DESIGN CONTACT

GREG BRECKA 2101 WRIGHT ST. MADISON, WI. 53704 608 516-6524 GREGORY.BRECKA@DOT.WI.GOV

RUTH COISMAN 2101 WRIGHT ST. MADISON, WI. 53704 608 516-5960 RUTH.COISMAN@DOT.WI.GOV

DNR CONTACT

ERIC HEGGELUND 3911 FISH HATCHERY RD. FITCHBURG, WI. 53711 608 275-3301 ERIC.HEGGELUND@WISCONSIN.GOV

HWY: USH 12 Ε PROJECT NO: 1670-05-61 COUNTY: DANE & SAUK **GENERAL NOTES** SHEET

\\LAX31FP2\P3PROJECTS\STATE\U12\16700501\CAD\C3D\020101_GN.DWG

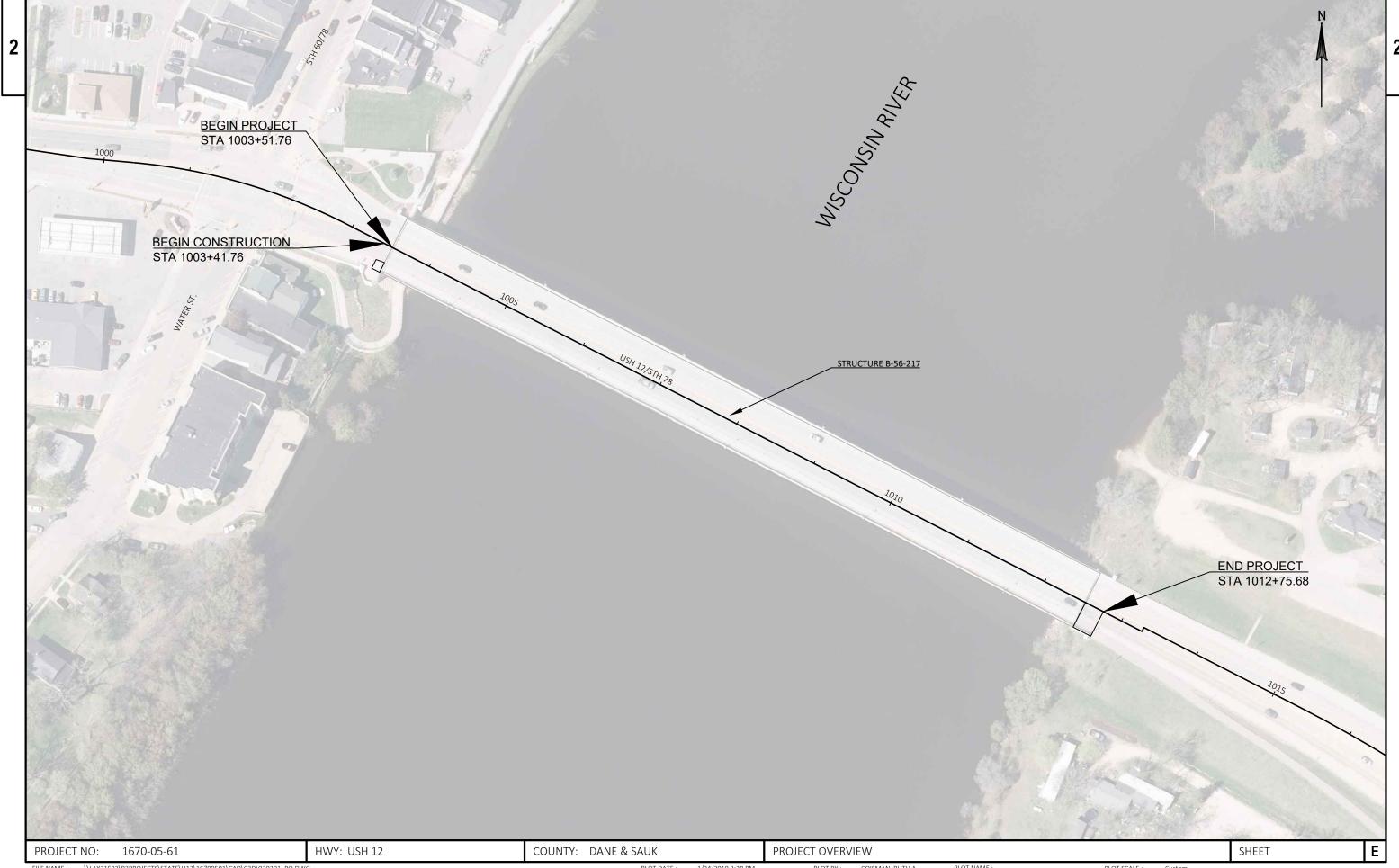
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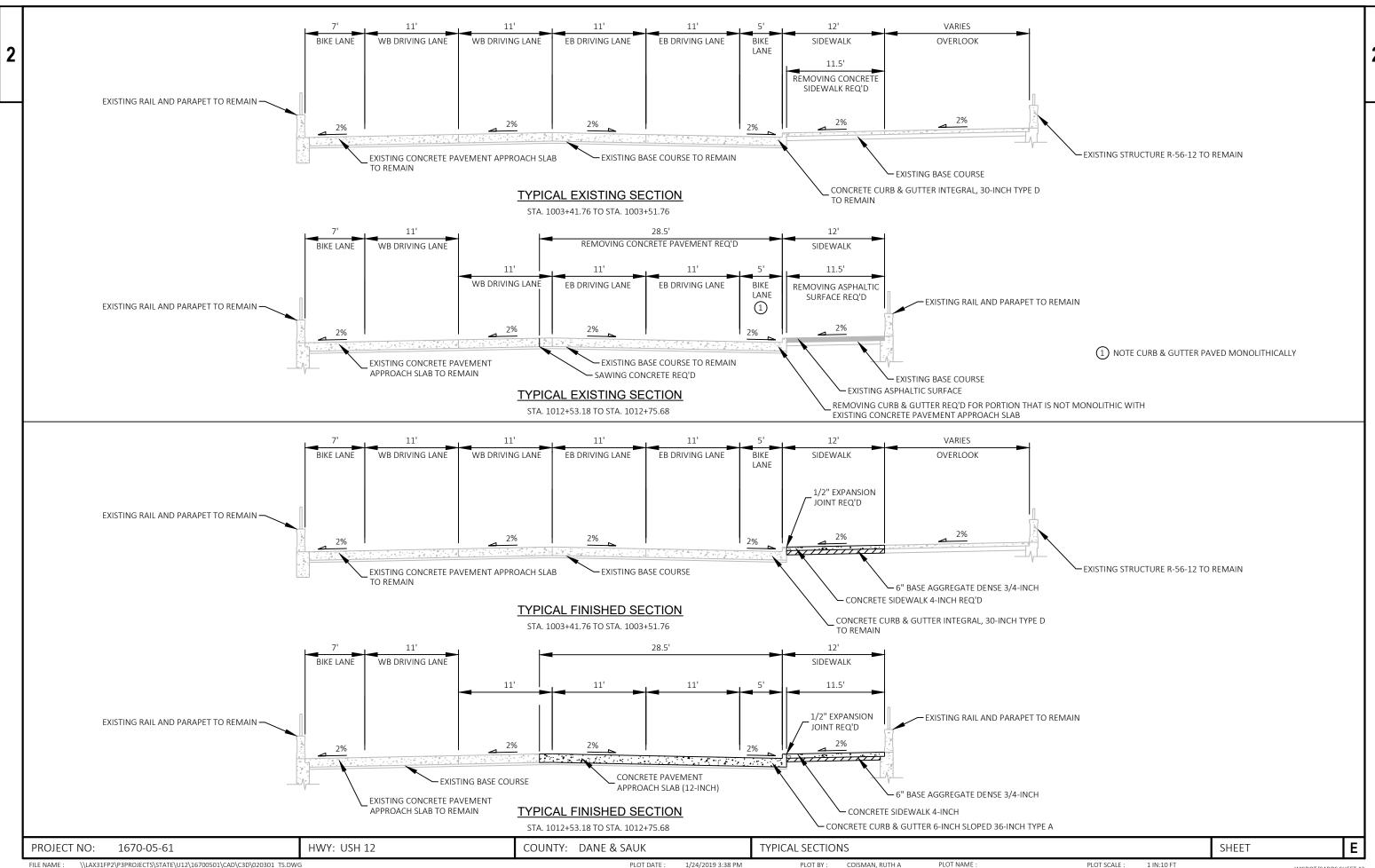
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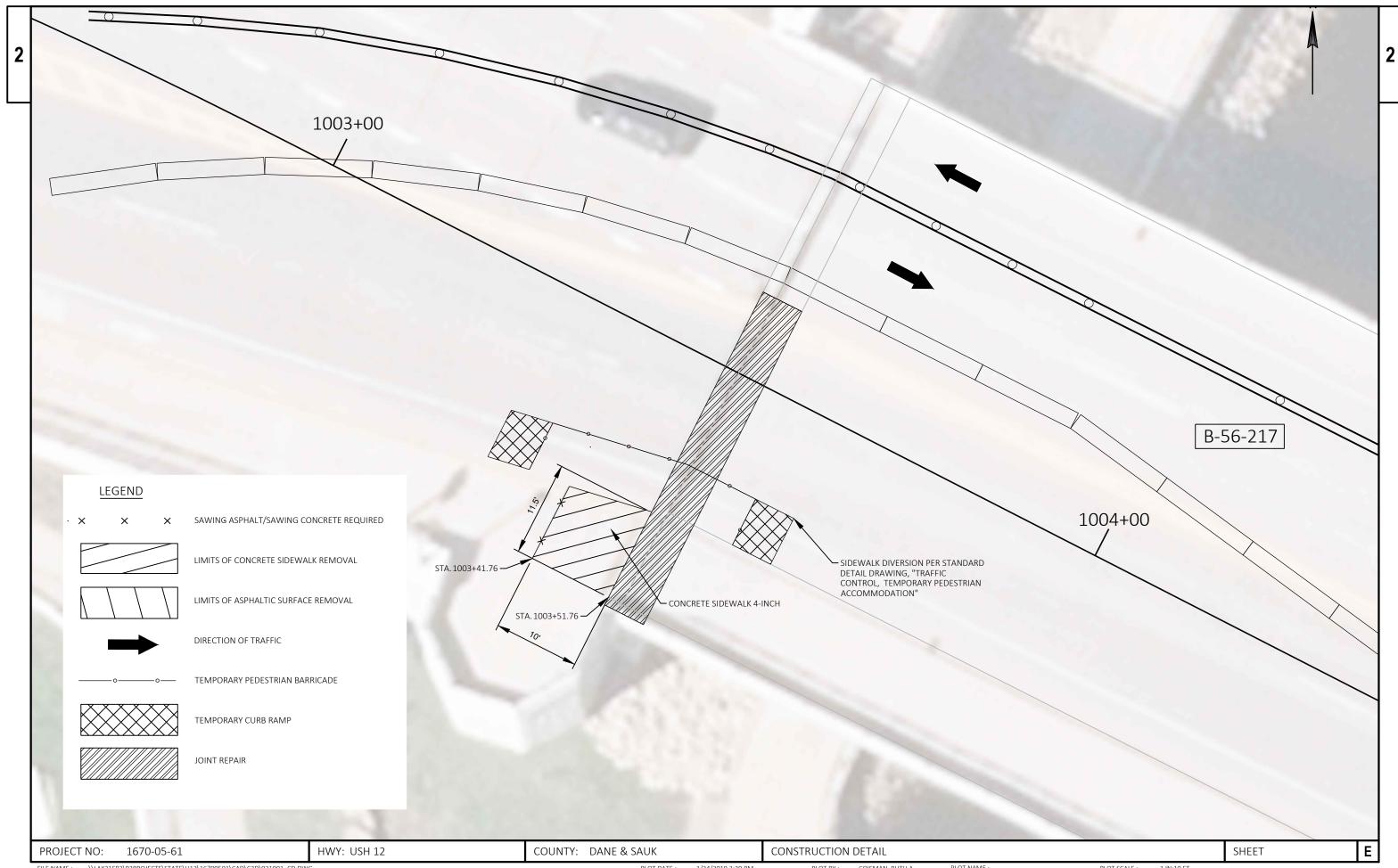
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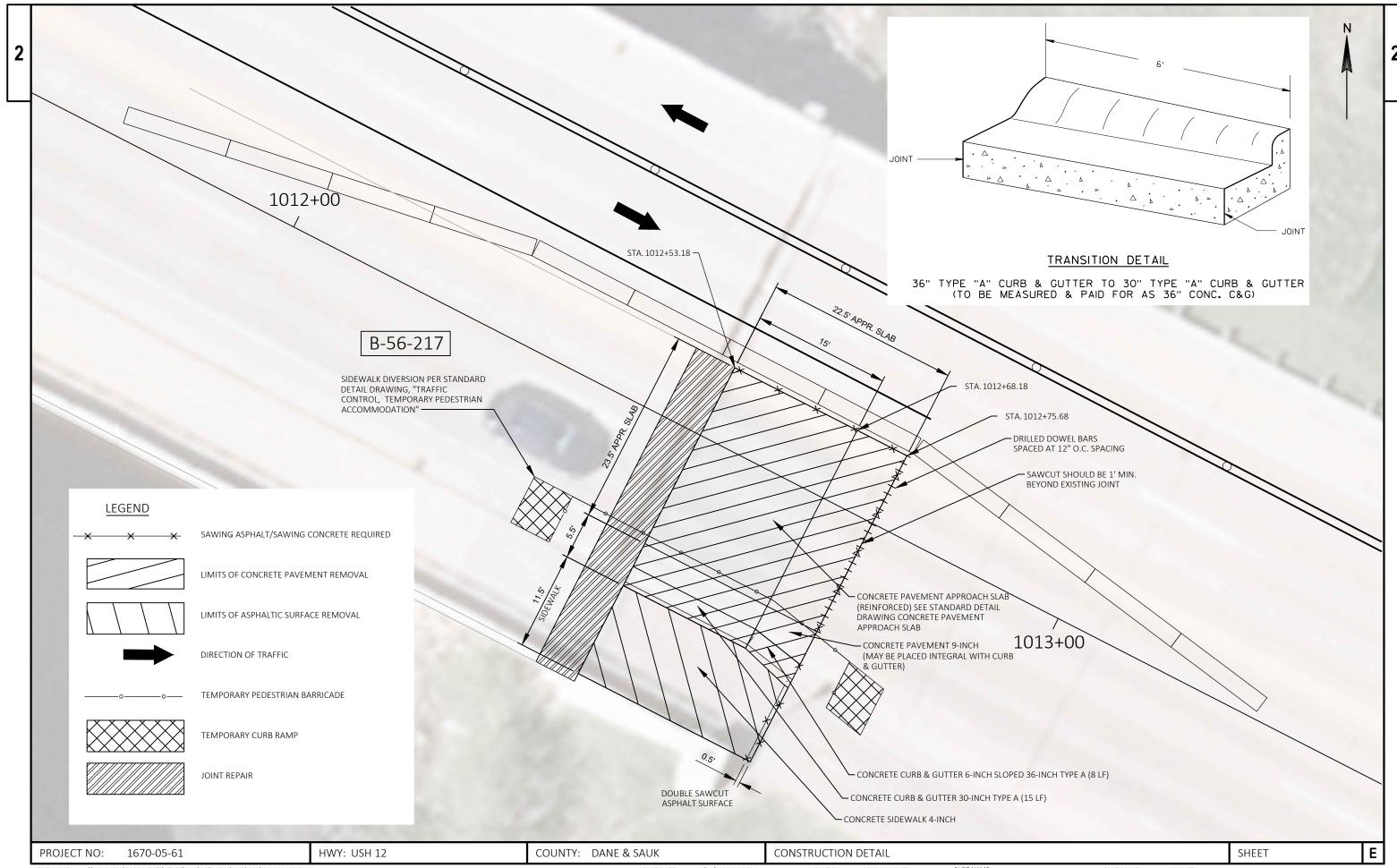


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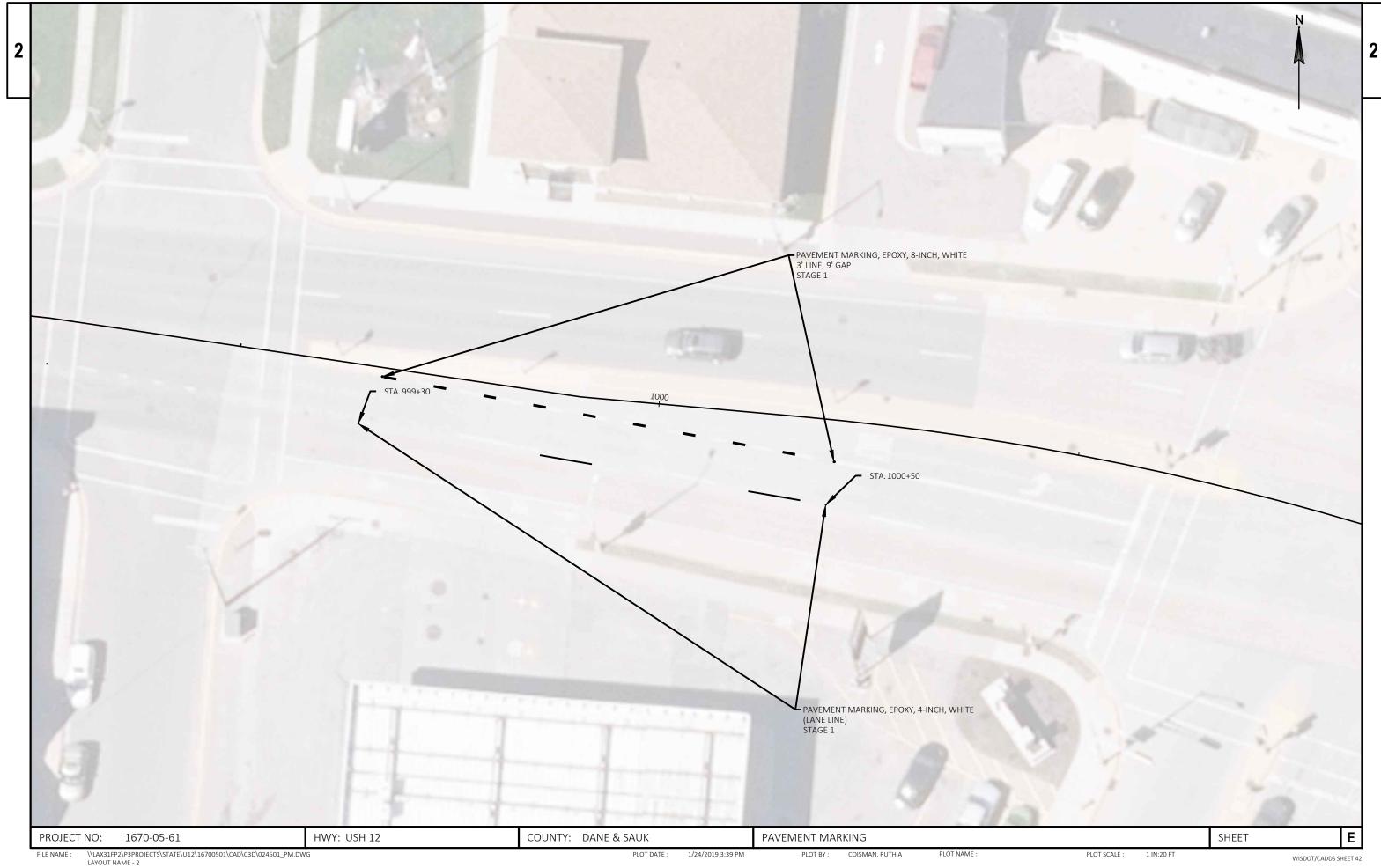
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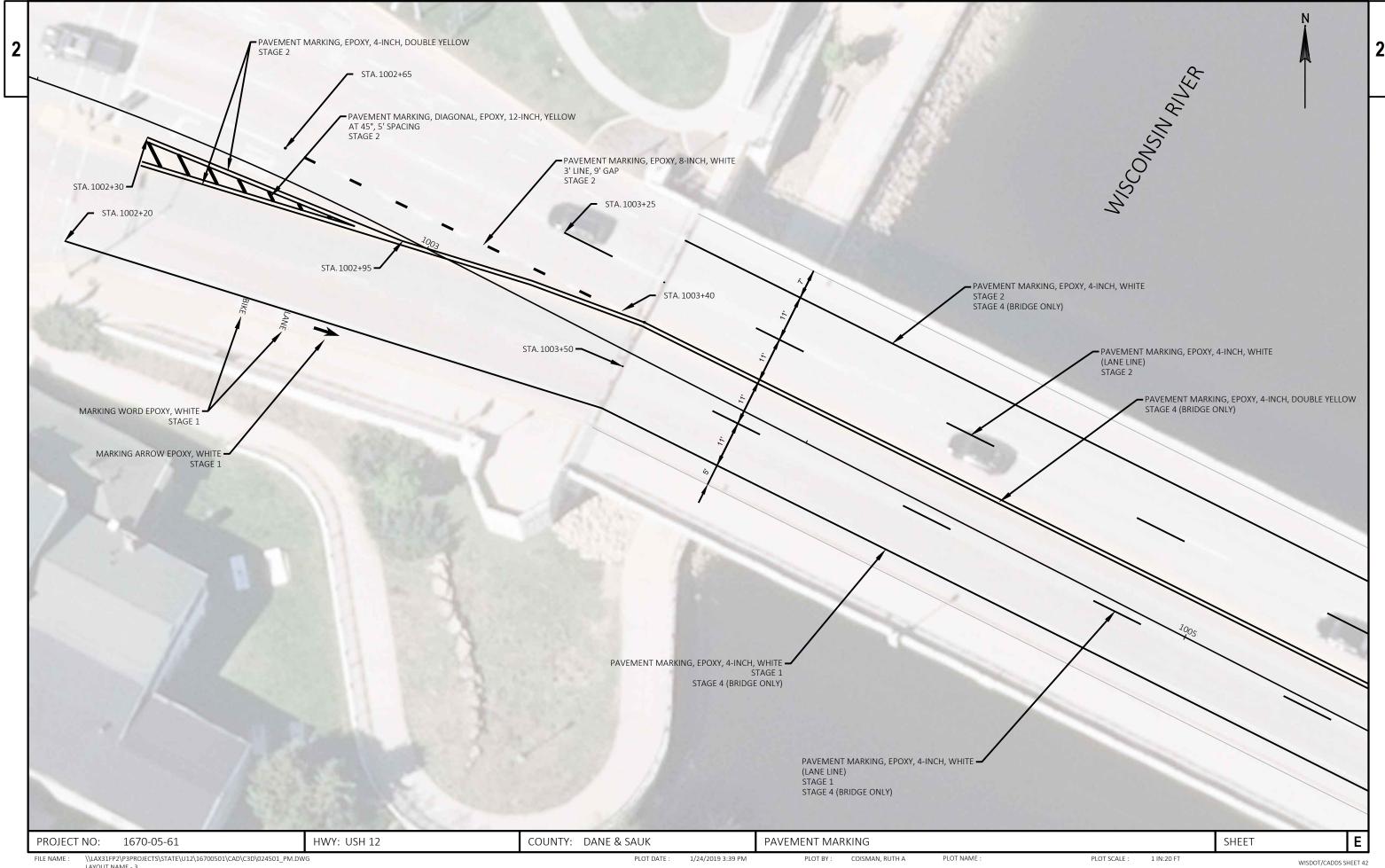


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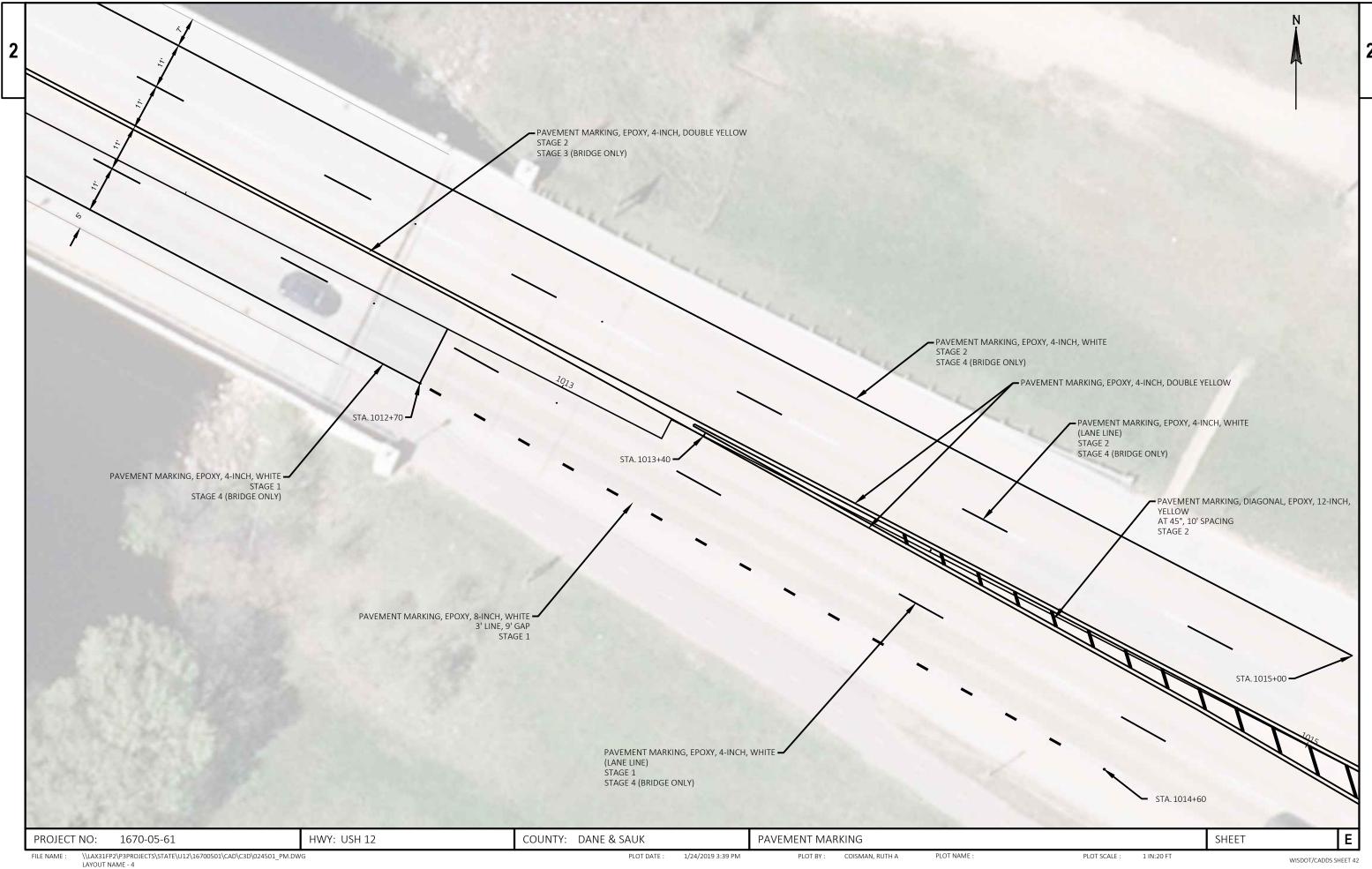


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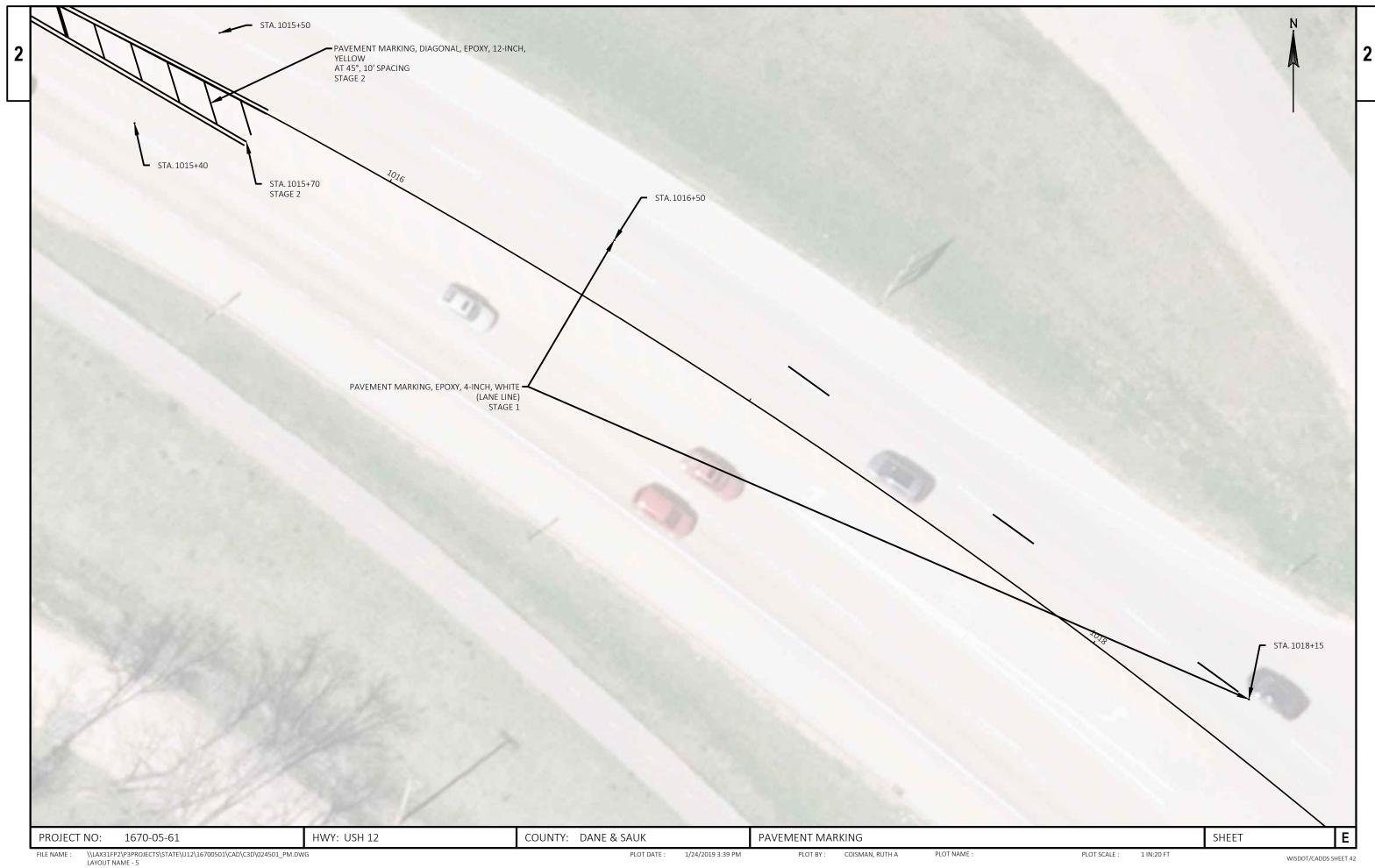




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WISDOT/CADDS SHEET 42



GENERAL NOTES FOR TRAFFIC CONTROL

MAINTAIN PEDESTRIAN ACCESS ACROSS EXISTING STRUCTURE B-56-217 THROUGHOUT CONSTRUCTION OPERATIONS.

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

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

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

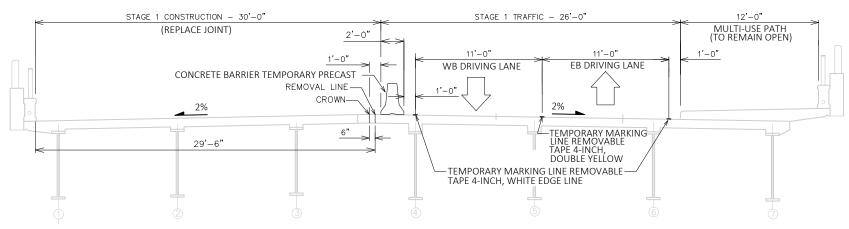
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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

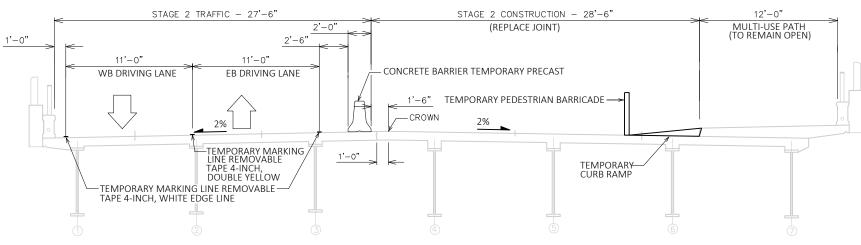
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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



TYPICAL STAGING SECTION AT BRIDGE (STAGE 1 LOOKING EAST)



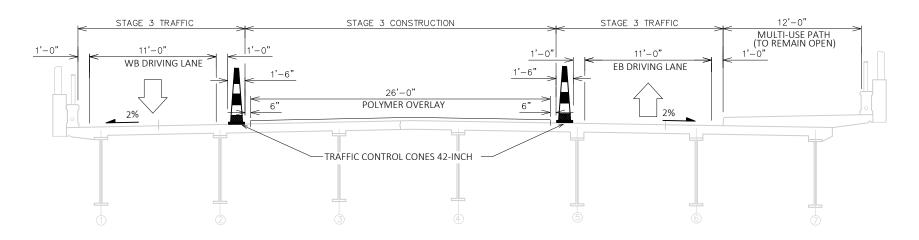
TYPICAL STAGING SECTION AT BRIDGE (STAGE 2 LOOKING EAST)

TEMPORARY PEDESTRIAN BARRICADE & TEMPORARY CURB RAMP FOR SIDEWALK DIVERSION DURING SIDEWALK REPAIR

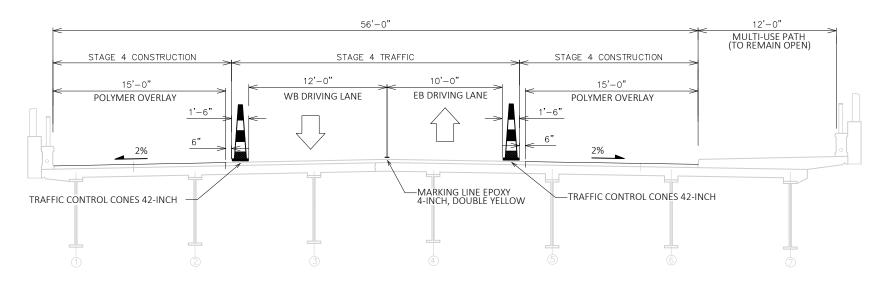
PLOT NAME

PROJECT NO: 1670-05-61 HWY: USH 12 COUNTY: DANE & SAUK TRAFFIC CONTROL - STAGING SHEET

PLOT BY:



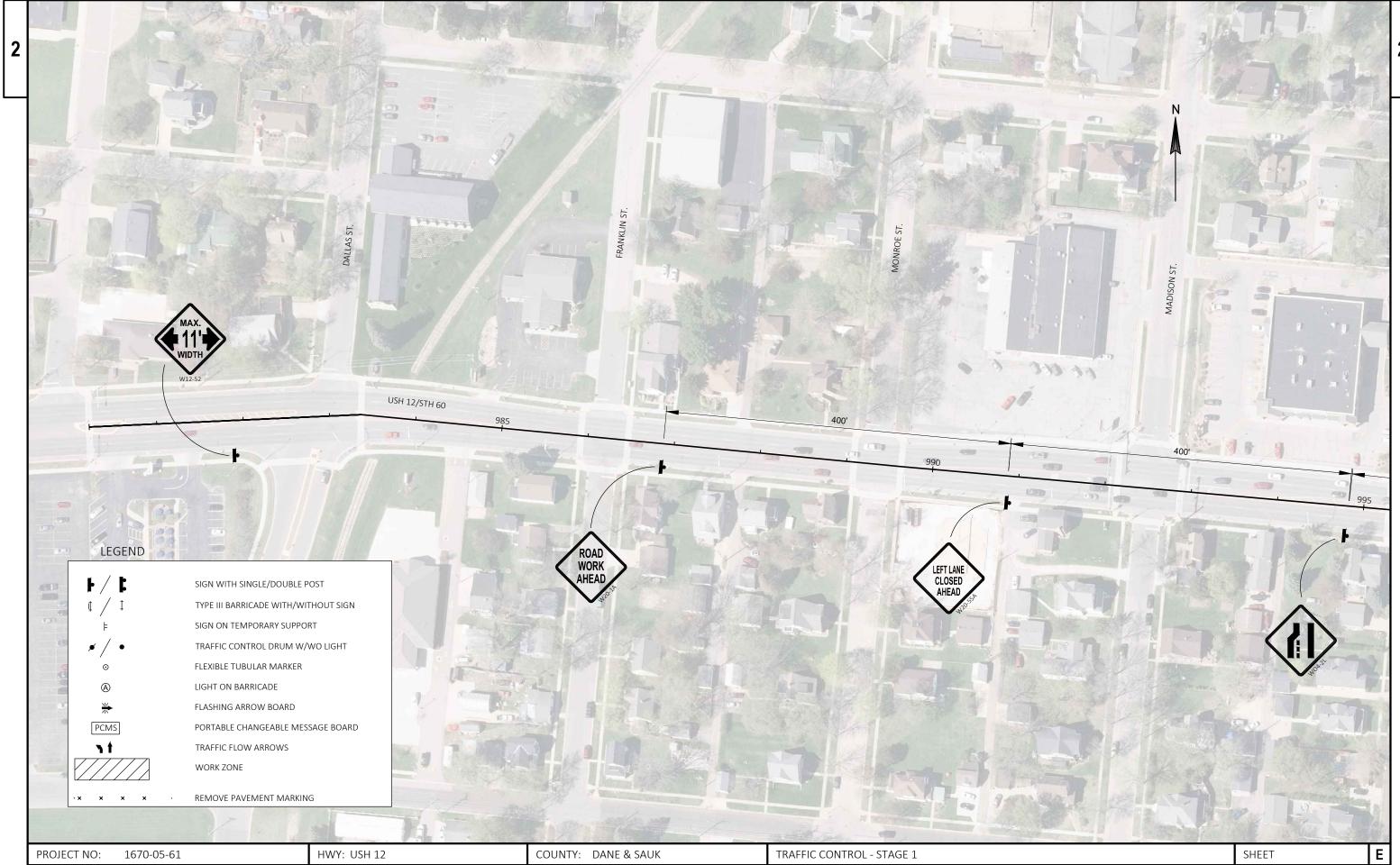
TYPICAL STAGING SECTION AT BRIDGE (STAGE 3 LOOKING EAST)

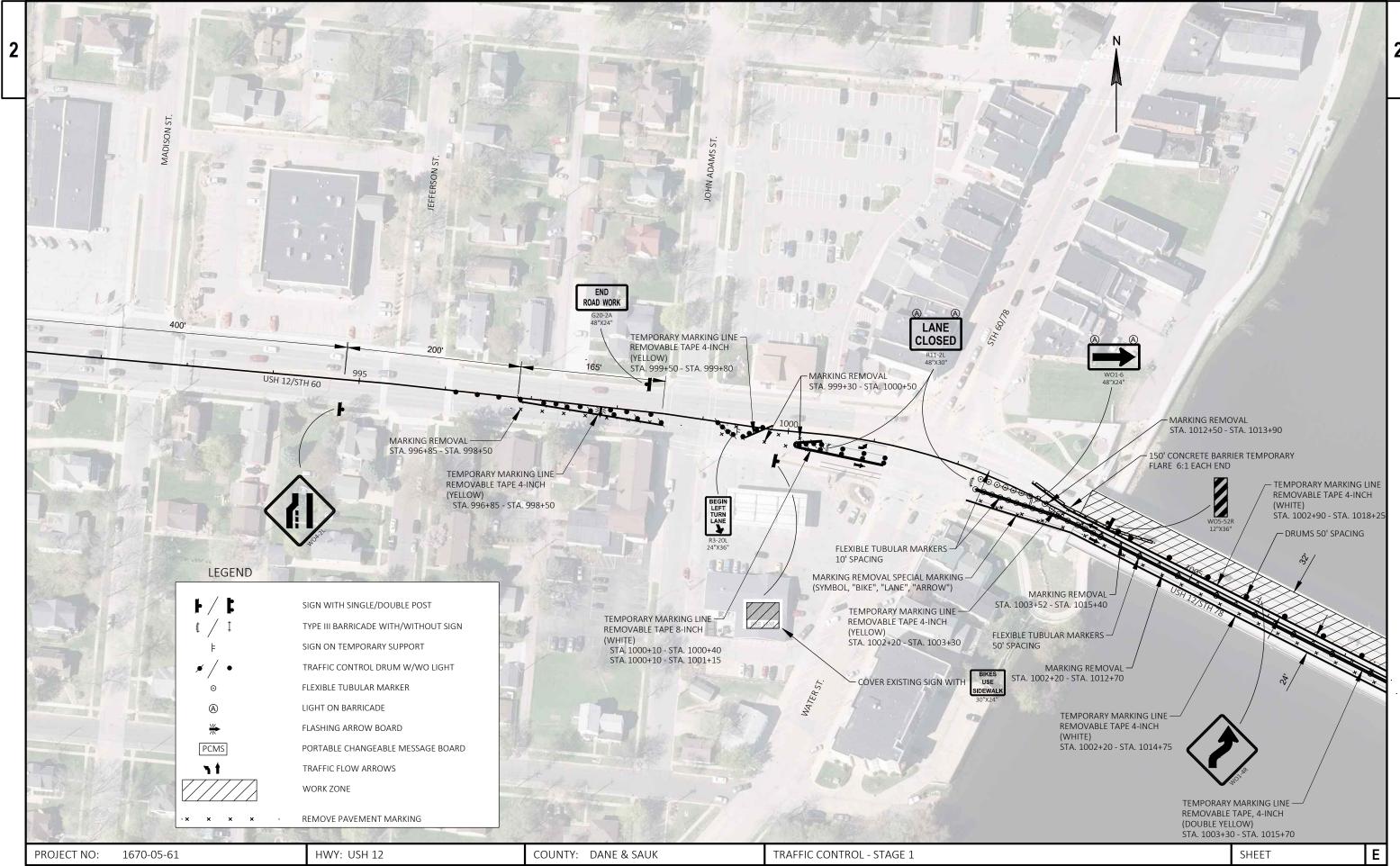


TYPICAL STAGING SECTION AT BRIDGE (STAGE 4 LOOKING EAST)

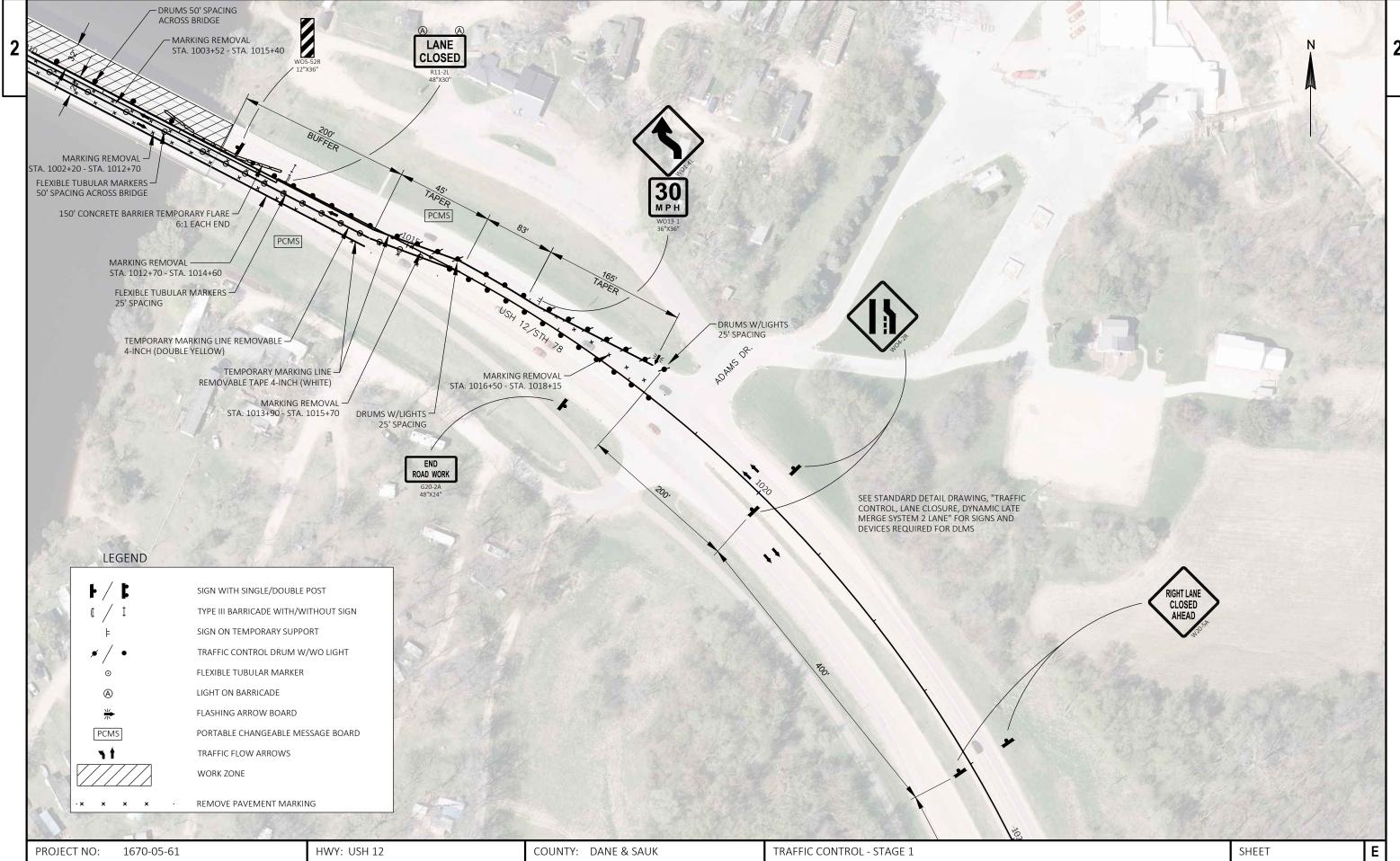
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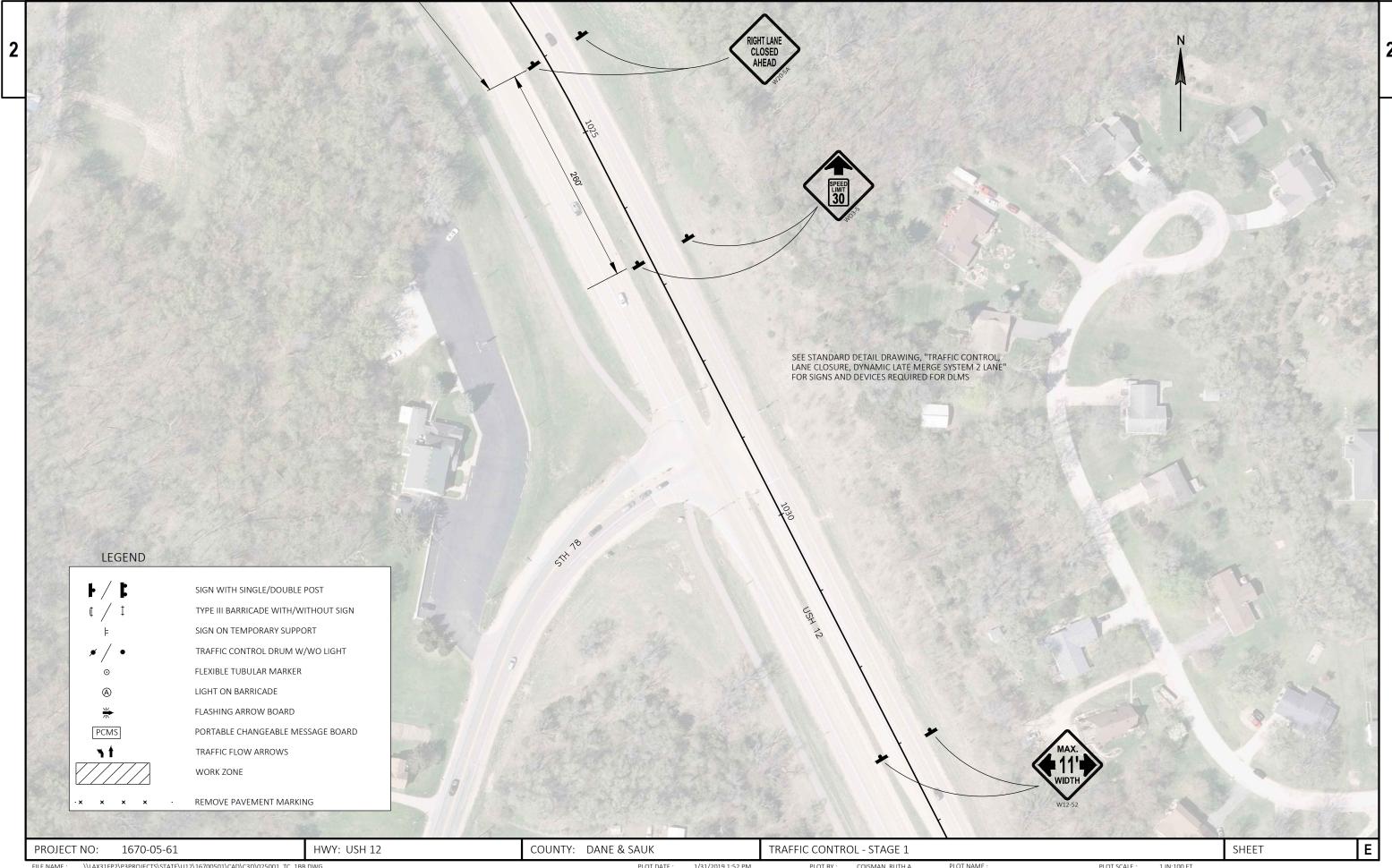
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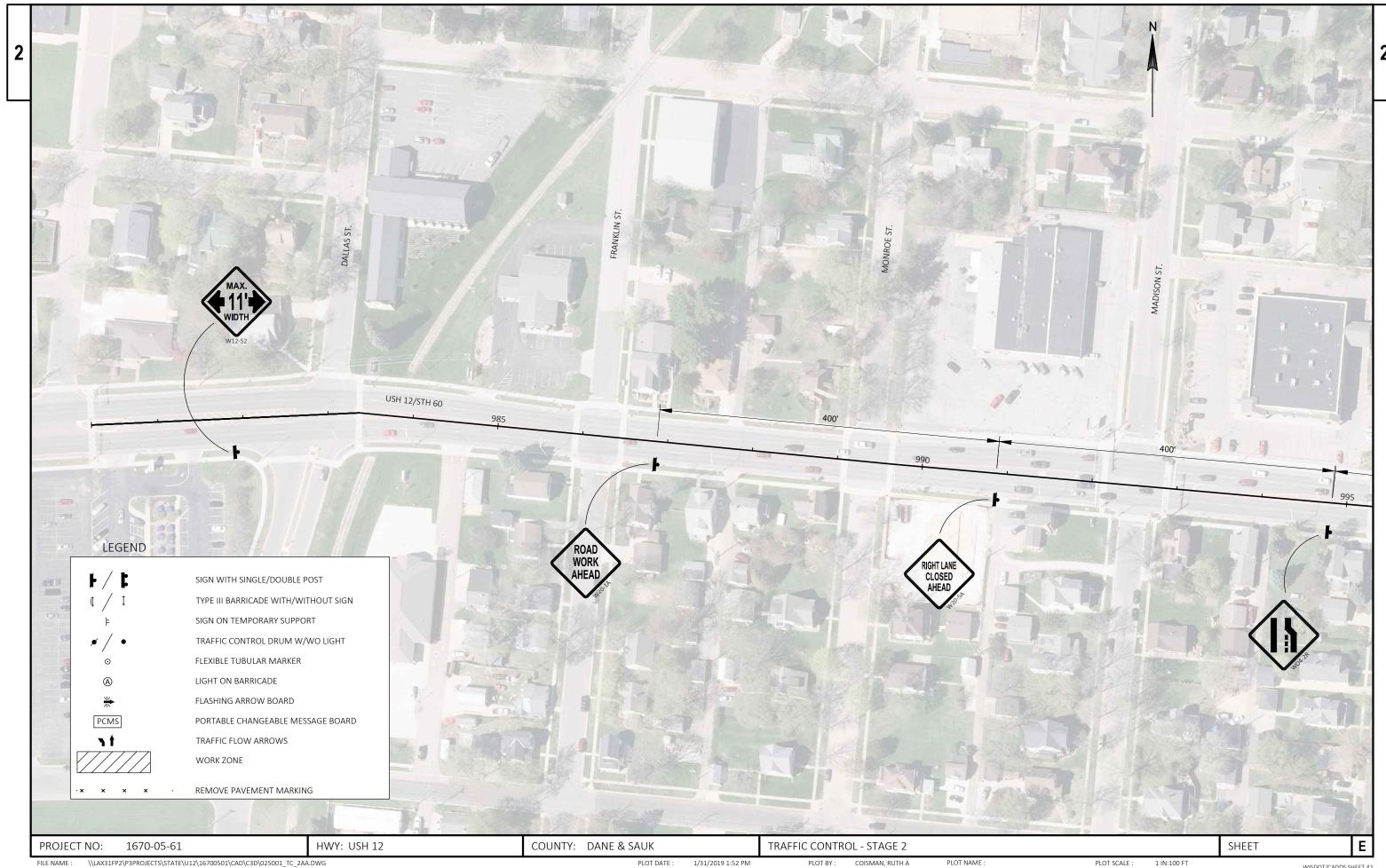


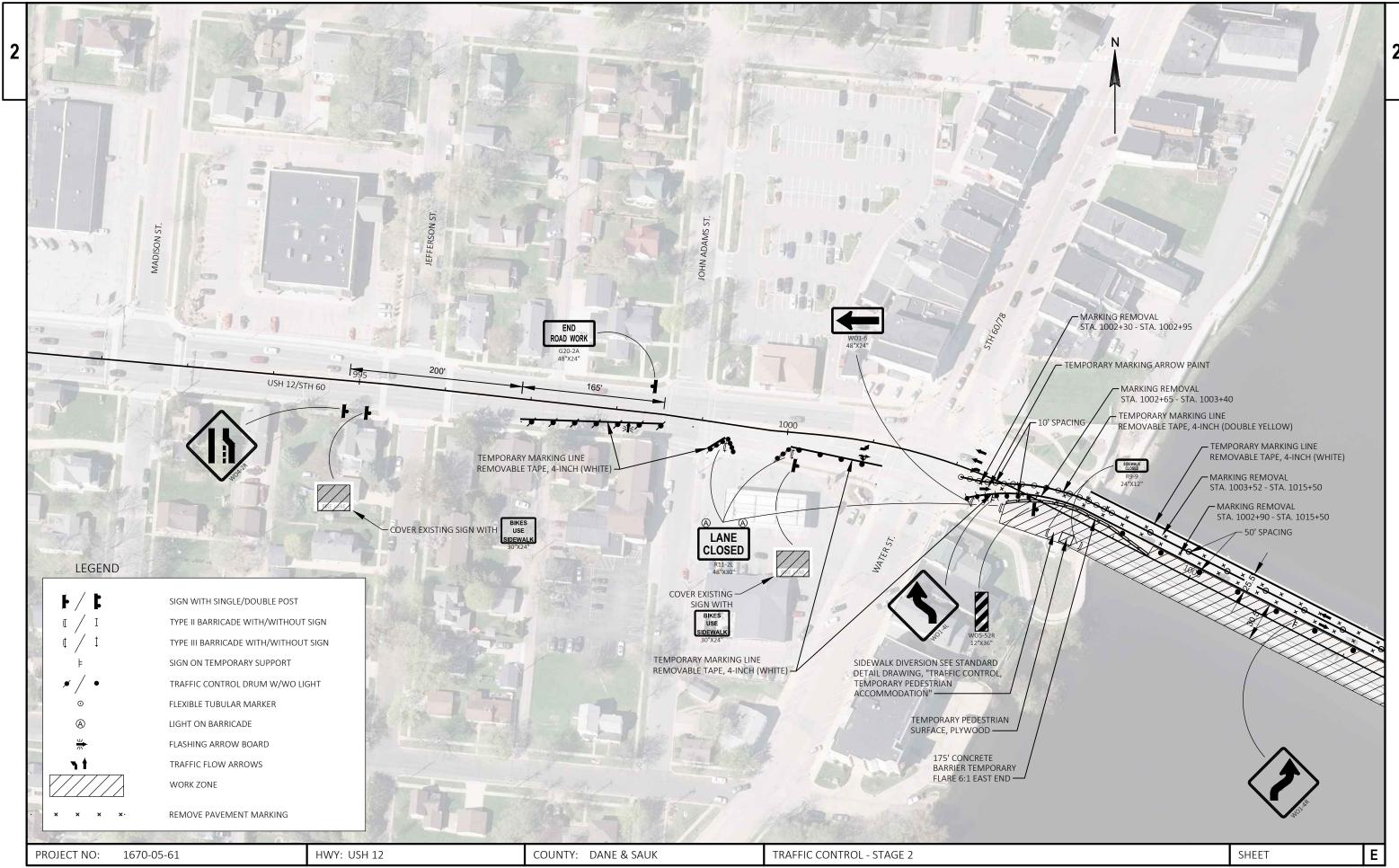


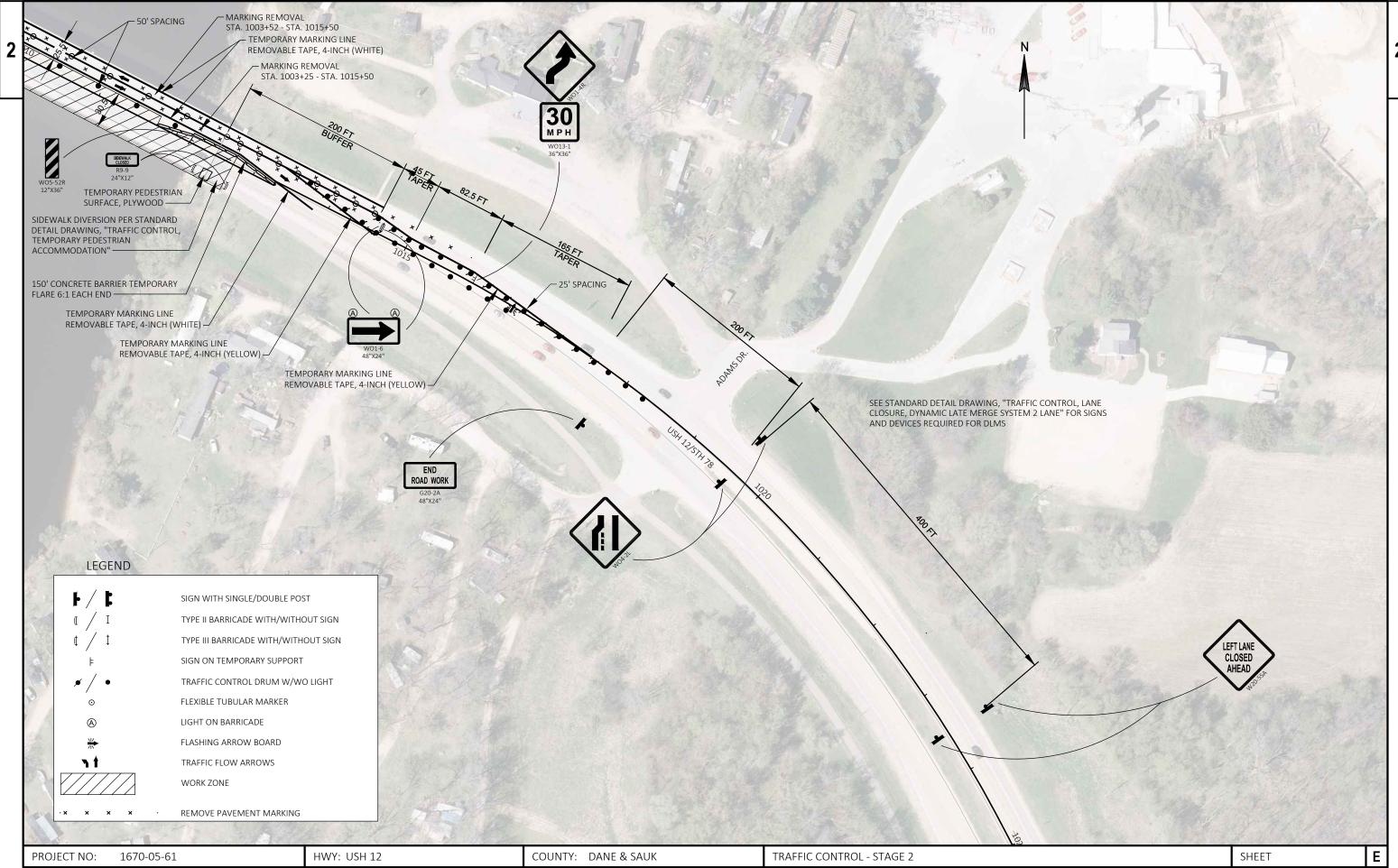
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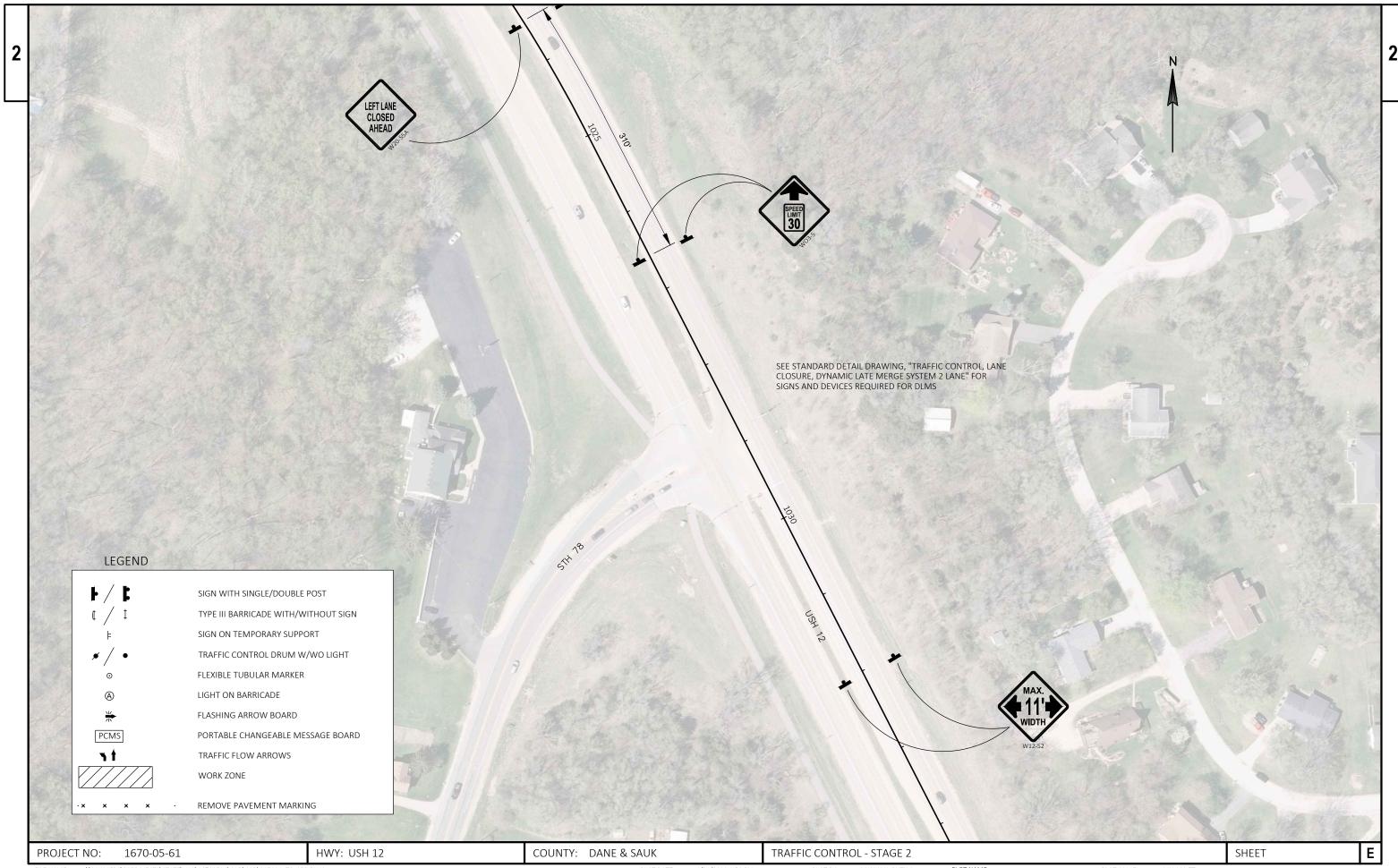


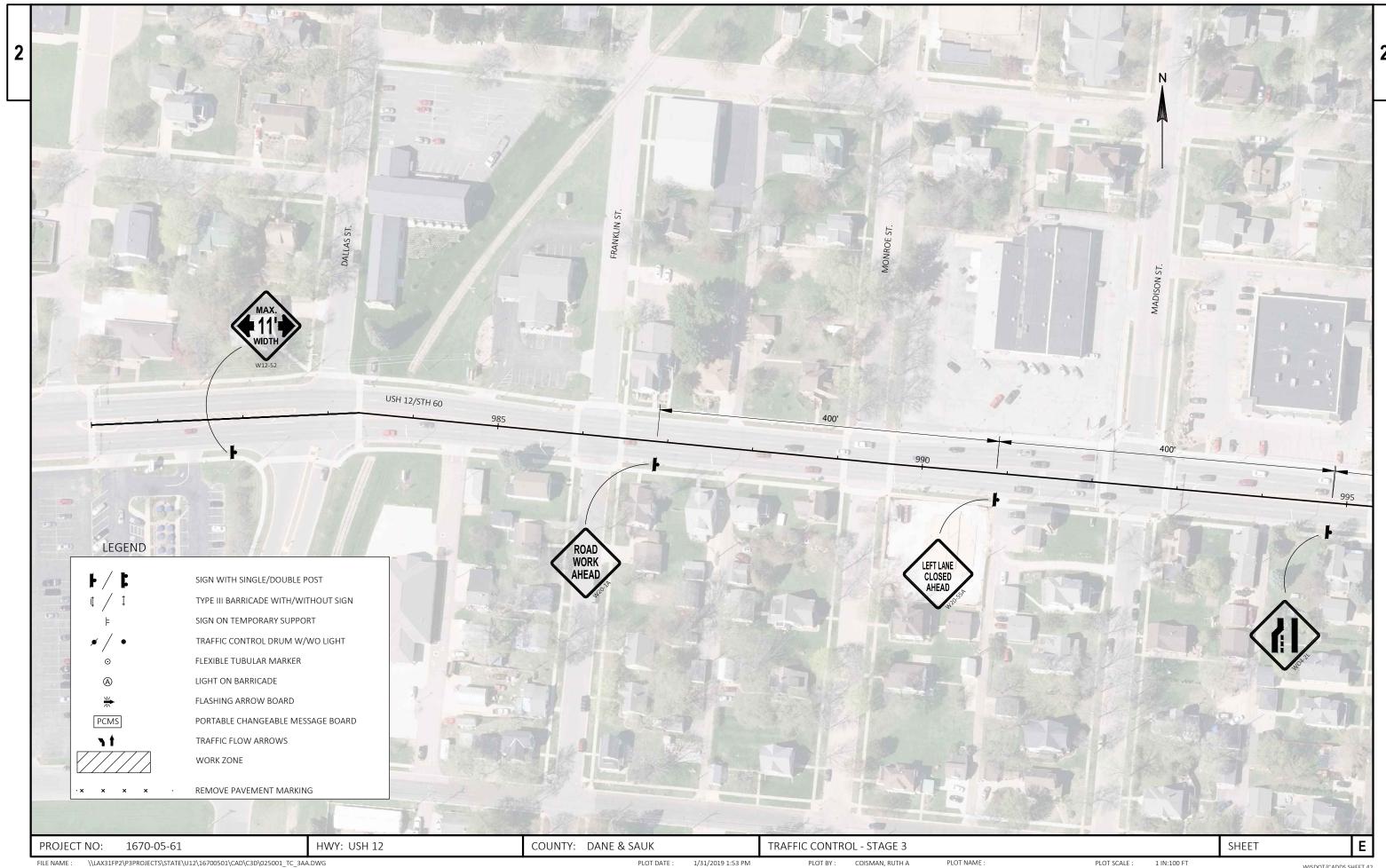


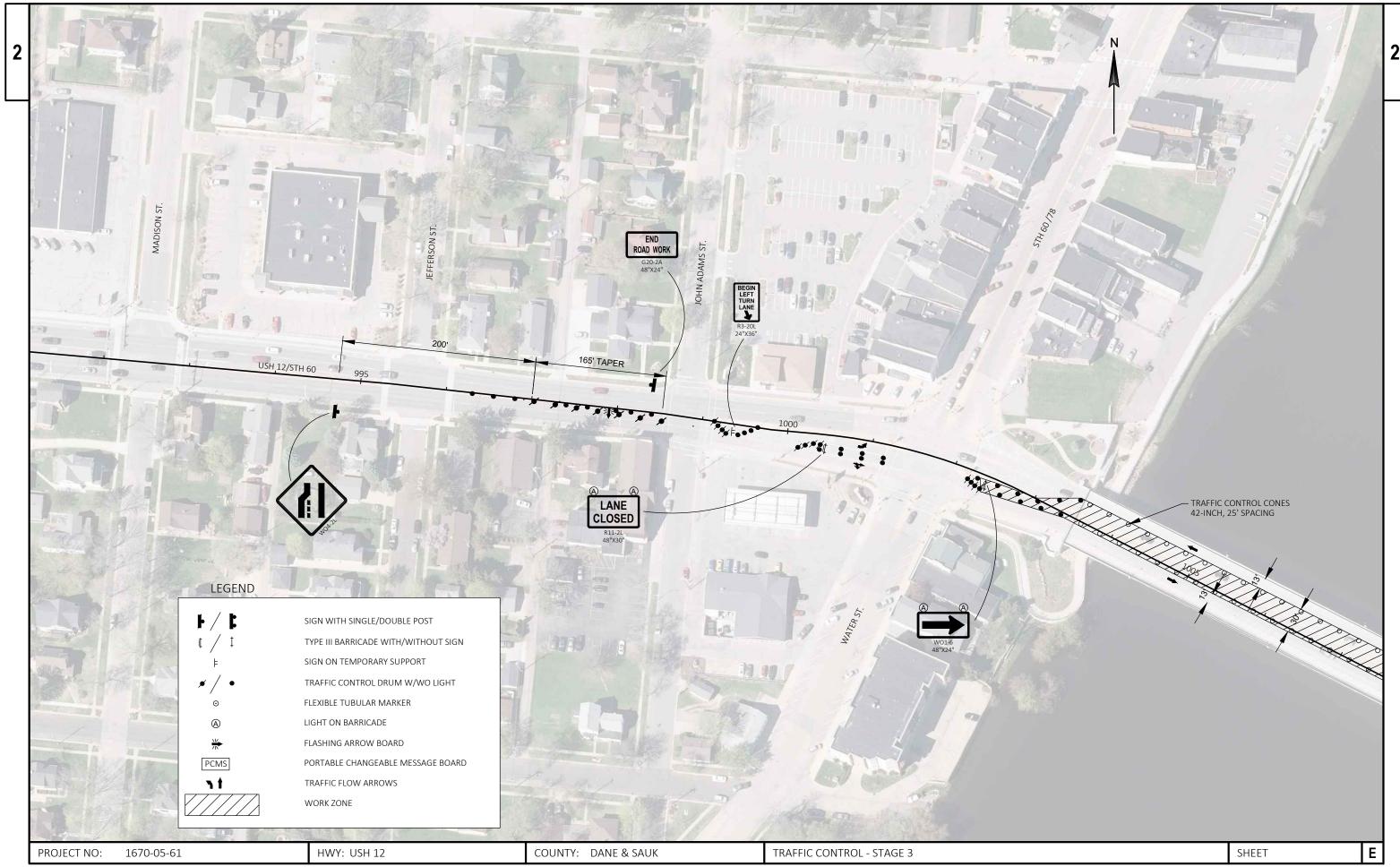


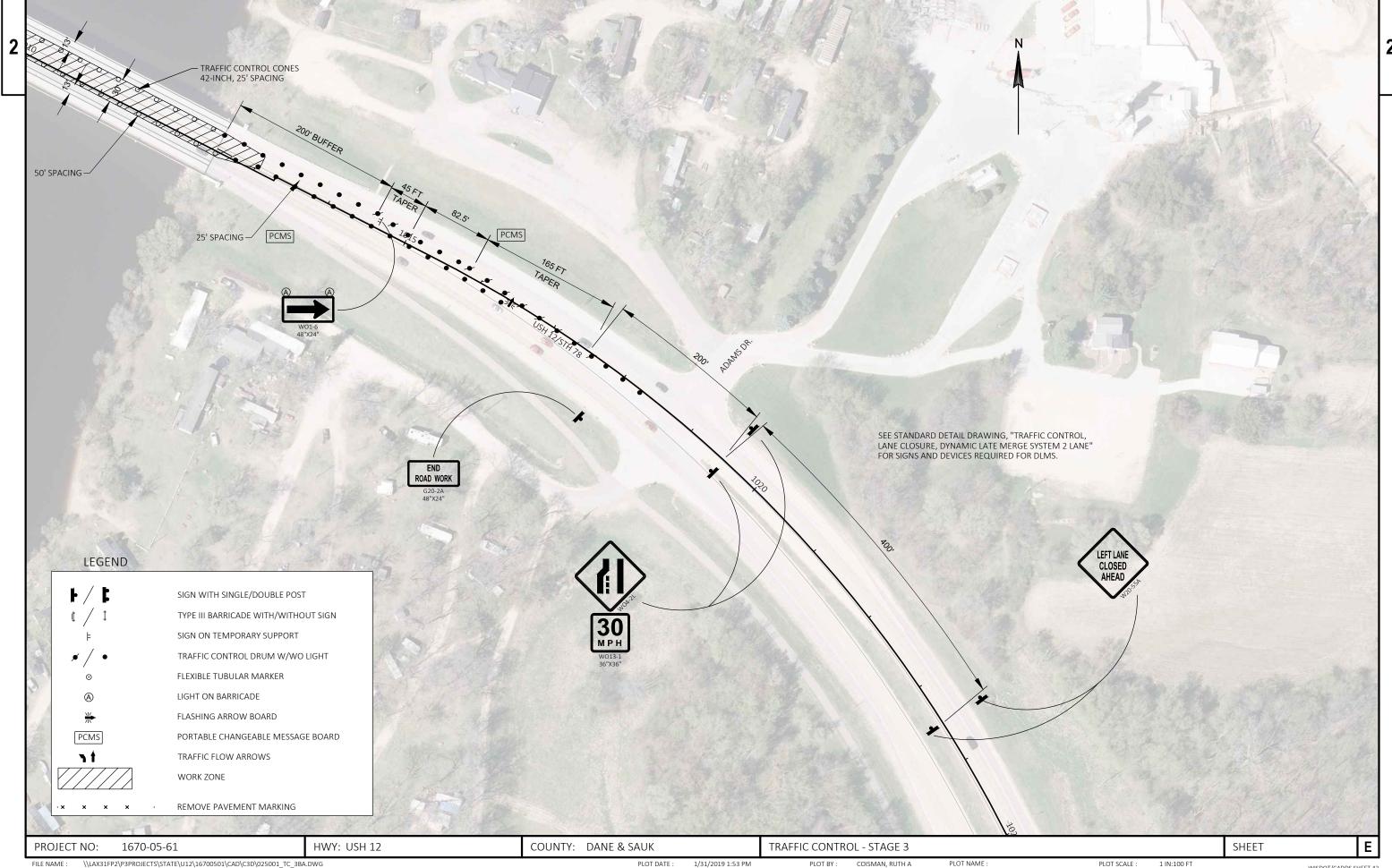


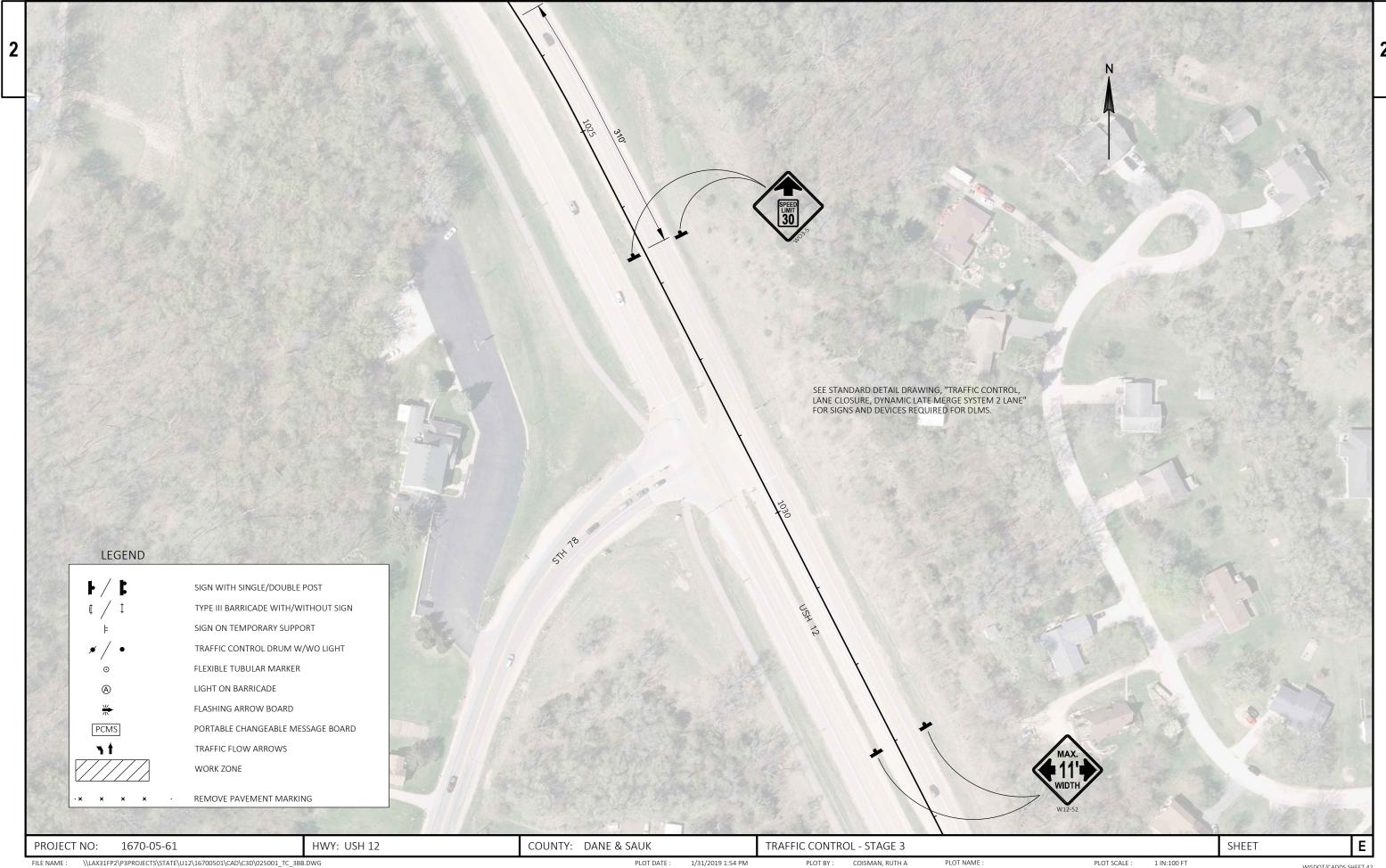
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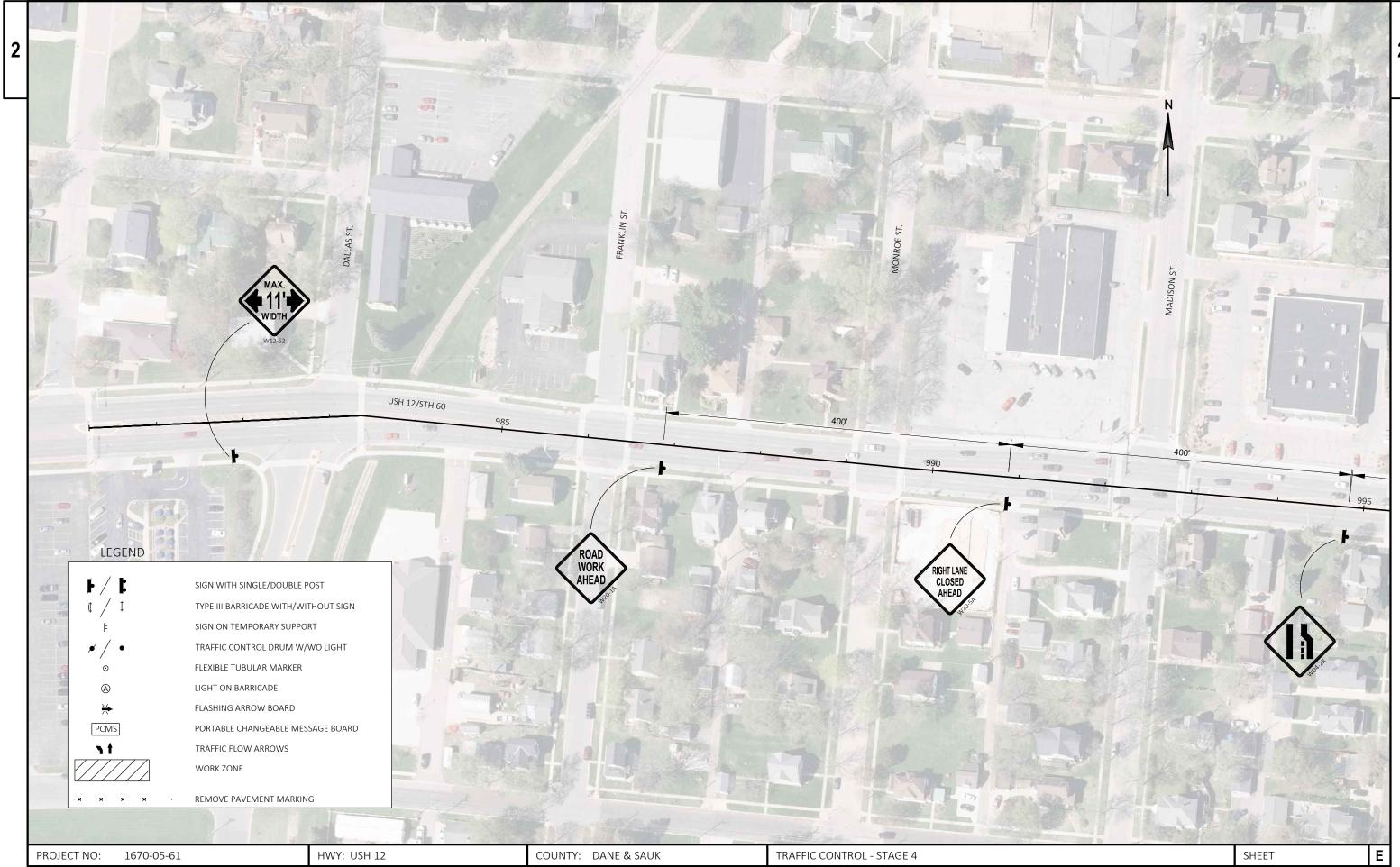


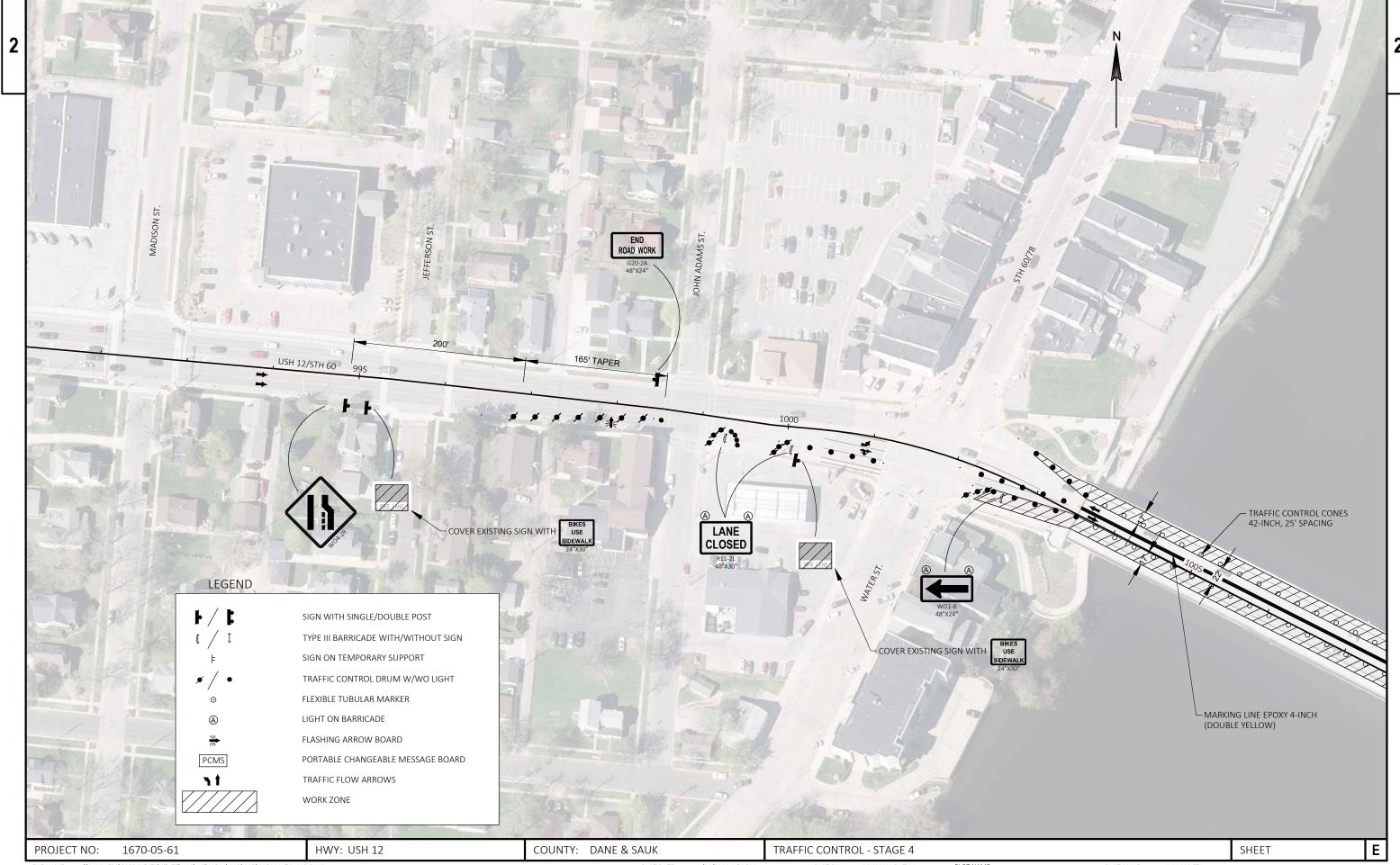




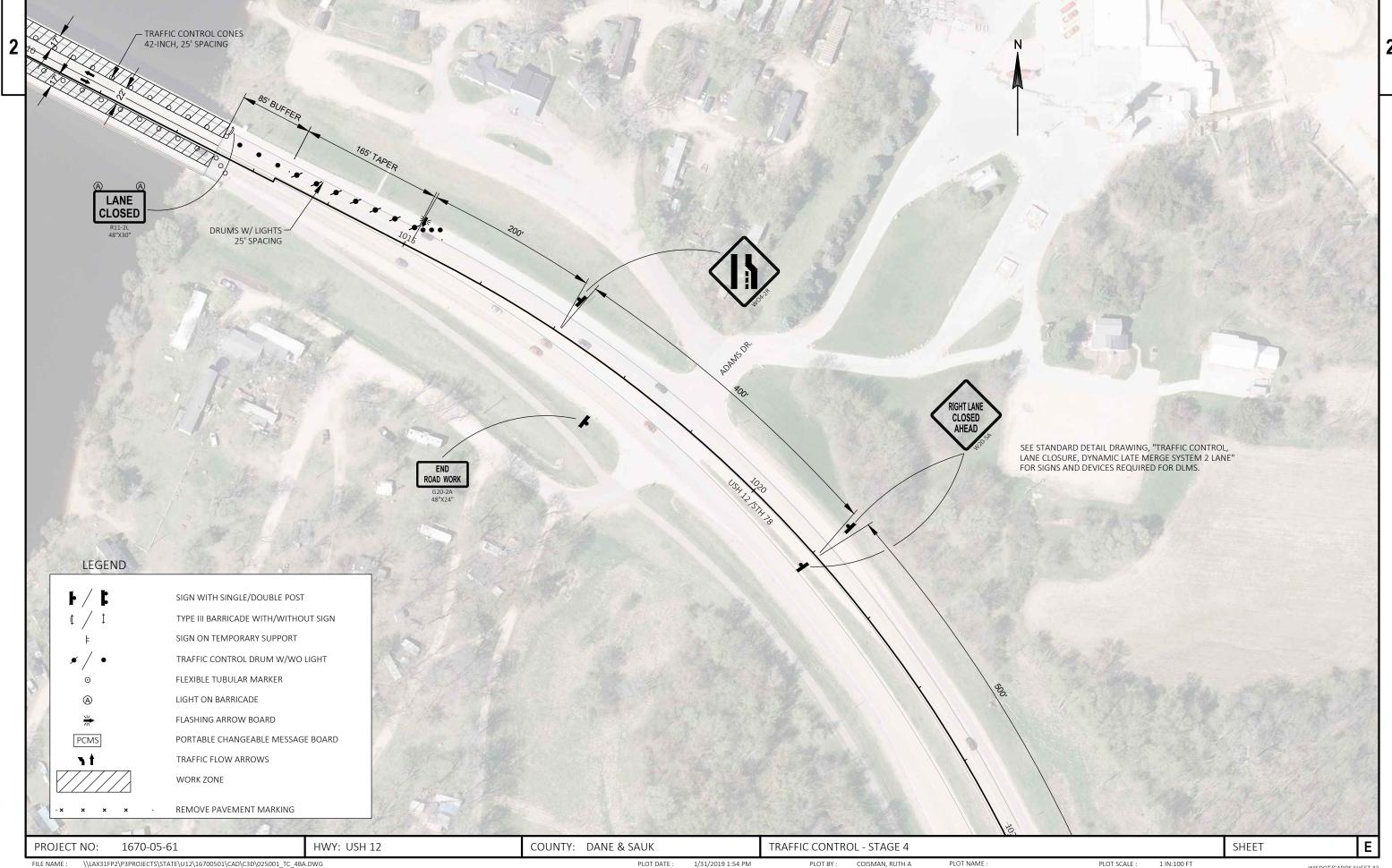




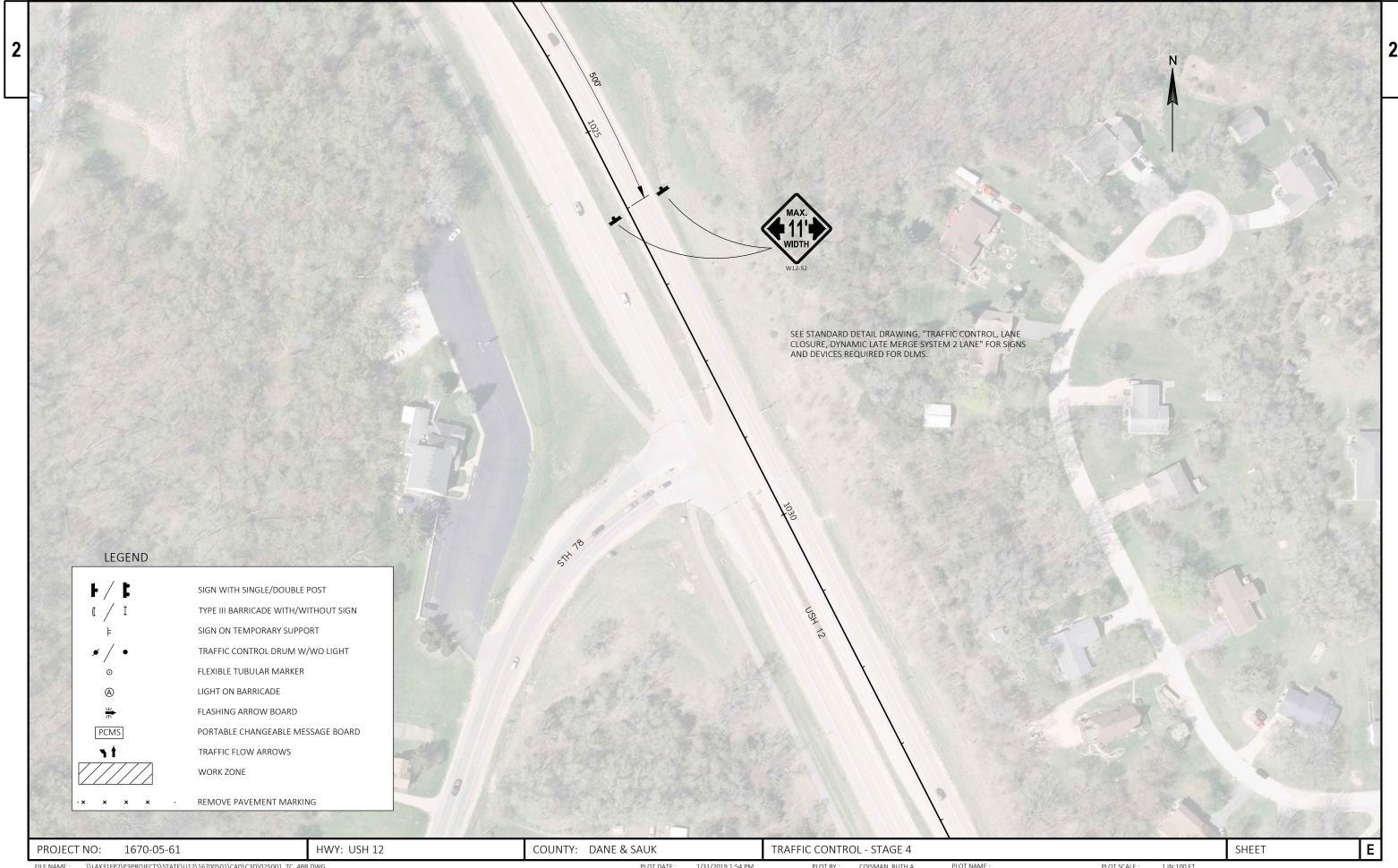


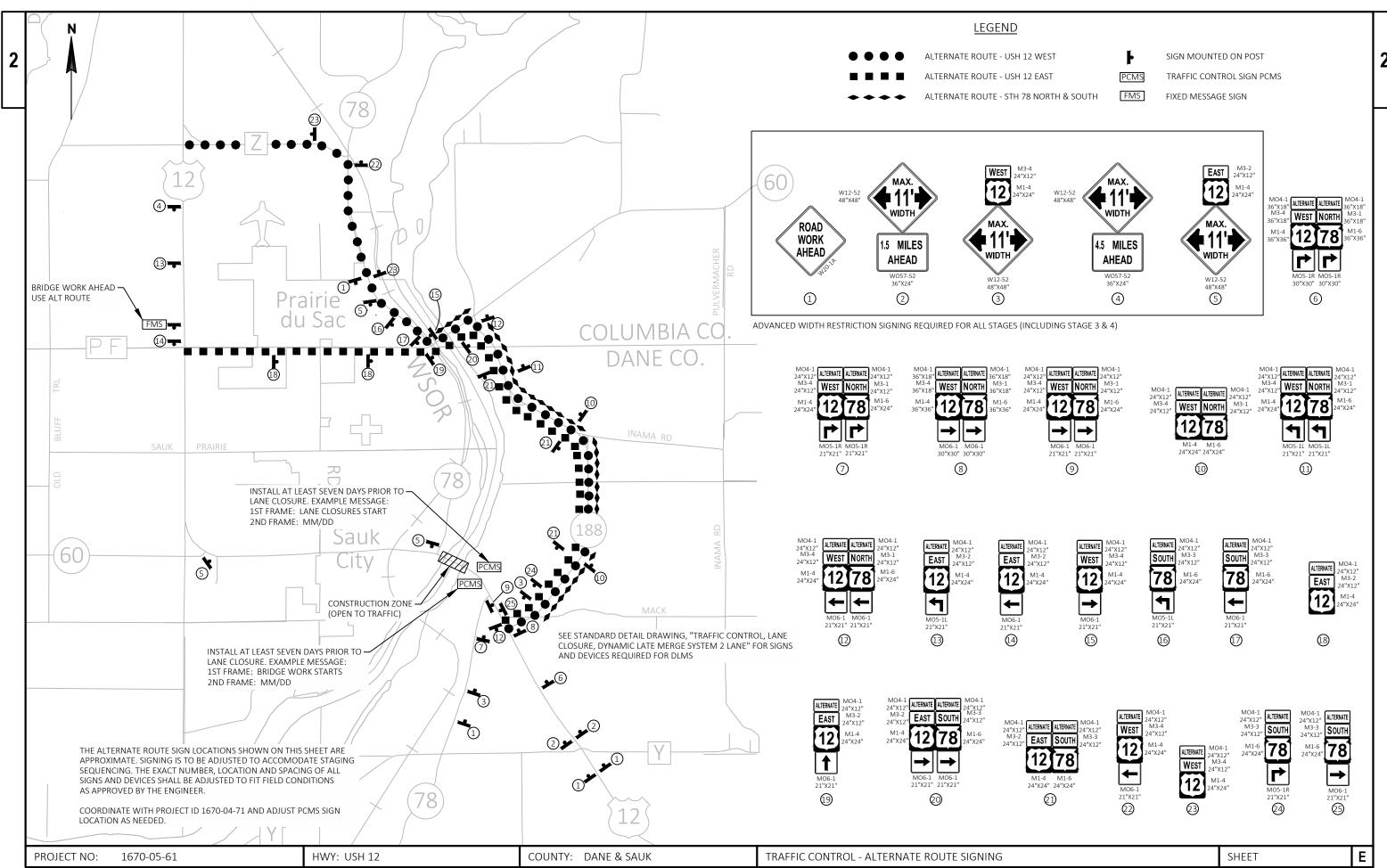


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PLOT BY:

					1670-05-61
Line	Item	Item Description	Unit	Total	Qty
0002	203.0200	Removing Old Structure (station) 01. 1003+50	LS	1.000	1.000
0004	203.0225.S	Debris Containment (structure) 01. B-56-217	LS	1.000	1.000
0006	204.0100	Removing Pavement	SY	74.000	74.000
8000	204.0110	Removing Asphaltic Surface	SY	29.000	29.000
0010	204.0155	Removing Concrete Sidewalk	SY	13.000	13.000
0012	213.0100	Finishing Roadway (project) 01. 1670-05-61	EACH	1.000	1.000
0014	305.0110	Base Aggregate Dense 3/4-Inch	TON	12.000	12.000
0016	415.0090	Concrete Pavement 9-Inch	SY	8.000	8.000
0018	415.0410	Concrete Pavement Approach Slab	SY	59.000	59.000
0020	416.0610	Drilled Tie Bars	EACH	12.000	12.000
0022	416.0620	Drilled Dowel Bars	EACH	24.000	24.000
0024	502.0100	Concrete Masonry Bridges	CY	1.000	1.000
0026	502.3110.S	Expansion Device Modular (structure) 01. B-56-217	LS	1.000	1.000
0028	502.3200	Protective Surface Treatment	SY	13.000	13.000
0030	502.3210	Pigmented Surface Sealer	SY	755.000	755.000
0032	502.4110	Adhesive Anchors 1 1/4-inch	EACH	20.000	20.000
0034	502.4205	Adhesive Anchors No. 5 Bar	EACH	284.000	284.000
0036	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	4,800.000	4,800.000
0038	505.0904	Bar Couplers No. 4	EACH	4.000	4.000
0040	505.0905	Bar Couplers No. 5	EACH	16.000	16.000
0042	505.0906	Bar Couplers No. 6	EACH	10.000	10.000
0044	506.6000	Bearing Assemblies Expansion (structure) 01. B-56-217	EACH	10.000	10.000
0046	506.7050.S	Removing Bearings (structure) 01. B-56-217	EACH	10.000	10.000
0048	509.0301	Preparation Decks Type 1	SY	2.000	2.000
0050	509.0310.S	Sawing Pavement Deck Preparation Areas	LF	20.000	20.000
0052	509.1000	Joint Repair	SY	78.000	78.000
0054		•	CY	31.000	31.000
0056		·	SY	5,610.000	5,610.000
0058		Cleaning Parapets	LF	1,838.000	1,838.000
0060		Removing and Resetting Tubular Railing (structure) 01.		1.000	1.000
0062	601.0409	B-56-217 Concrete Curb & Gutter 30-Inch Type A	LF	15.000	15.000
0064	601.0555	Concrete Curb & Gutter 50-Inch Type A Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A	LF	8.000	8.000
0064	602.0405	Concrete Sidewalk 4-Inch	SF	374.000	374.000
0068	603.8000	Concrete Sidewalk 4-Inch Concrete Barrier Temporary Precast Delivered		325.000	
		Concrete Barrier Temporary Precast Installed	LF		325.000
0070	603.8125		LF	625.000	625.000
0072	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1670-05-61	EACH	1.000	1.000
0074	619.1000	Mobilization	EACH	1.000	1.000
0074	624.0100	Water	MGAL	1.000	1.000
0010	024.0100	VVALCI	MOAL	1.000	1.000

nate of Quantities	rage	
0-05-61		
Qty		
1.000		

					1670-05-61
Line	Item	Item Description	Unit	Total	Qty
0078	642.5001	Field Office Type B	EACH	1.000	1.000
0800	643.0300	Traffic Control Drums	DAY	6,670.000	6,670.000
0082	643.0410	Traffic Control Barricades Type II	DAY	84.000	84.000
0084	643.0420	Traffic Control Barricades Type III	DAY	281.000	281.000
0086	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	200.000	200.000
0088	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	200.000	200.000
0090	643.0705	Traffic Control Warning Lights Type A	DAY	532.000	532.000
0092	643.0715	Traffic Control Warning Lights Type C	DAY	1,837.000	1,837.000
0094	643.0800	Traffic Control Arrow Boards	DAY	126.000	126.000
0096	643.0900	Traffic Control Signs	DAY	8,889.000	8,889.000
0098	643.0920	Traffic Control Covering Signs Type II	EACH	5.000	5.000
0100	643.1000	Traffic Control Signs Fixed Message	SF	53.000	53.000
0100	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
0102	643.1070	Traffic Control Cones 42-Inch	DAY	1,440.000	1,440.000
0104	643.1100.S	Dynamic Late Merge System	DAT	63.000	63.000
0108		Traffic Control	EACH	1.000	
	643.5000				1.000
0110	644.1420.S	Temporary Pedestrian Surface Plywood	SF	228.000	228.000
0112	644.1601.S	Temporary Curb Ramp	EACH	4.000	4.000
0114	644.1810.S	Temporary Pedestrian Barricade	LF	88.000	88.000
0116	646.1020	Marking Line Epoxy 4-Inch	LF	8,386.000	8,386.000
0118	646.3020	Marking Line Epoxy 8-Inch	LF	97.000	97.000
0120	646.5020	Marking Arrow Epoxy	EACH	1.000	1.000
0122	646.5120	Marking Word Epoxy	EACH	2.000	2.000
0124	646.7120	Marking Diagonal Epoxy 12-Inch	LF	165.000	165.000
0126	646.9000	Marking Removal Line 4-Inch	LF	3,889.000	3,889.000
0128	646.9100	Marking Removal Line 8-Inch	LF	48.000	48.000
0130	646.9200	Marking Removal Line Wide	LF	360.000	360.000
0132	646.9300	Marking Removal Special Marking	EACH	4.000	4.000
0134	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	10,910.000	10,910.000
0136	649.0250	Temporary Marking Line Removable Tape 8-Inch	LF	135.000	135.000
0138	649.0505	Temporary Marking Arrow Paint	EACH	1.000	1.000
0140	690.0150	Sawing Asphalt	LF	139.000	139.000
0142	690.0250	Sawing Concrete	LF	203.000	203.000
0144	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
0146	715.0502	Incentive Strength Concrete Structures	DOL	500.000	500.000
0148	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	600.000	600.000
0150	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	400.000	400.000
0152	SPV.0060	Special 01. Cleaning And Painting Bearings	EACH	4.000	4.000
0154	SPV.0180	Special 01. Abutment Seat Cleaning And Sealing	SY	40.000	40.000

					REMOVALS					
	CATEGORY STATION TO	STATION	LOCATION	204.0100 REMOVING PAVEMENT SY	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0155 REMOVING CONCRETE SIDEWALK SY	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	REMARKS	
3	0010 1003+41.76 - 1 1012+53.18 - 1 1012+53.18 - 1	L012+75.68 L012+75.68	RT RT RT TOTAL 0010	- 74 - 74	- - 29 	13 - - - 13	23	12 52 - 203	SW SIDEWALK APPROACH EXISTING E APPROACH SLAB MULTI-USE PATH	
				CON	CRETE PAVEMENT					
			415.0090 CRETE PAVEMI 9-INCH		415.0410 CRETE PAVEMENT PPROACH SLAB	DRILLED	.0610 TIE BARS	DRILLED [.0620 DOWEL BARS	
	0010 1012+53.18 - 1012+75.68 1012+53.18 - 1012+75.68 1012+53.18 - 1012+75.68 1012+75.68 - 1012+75.68	ATION RT RT RT RT RT L 0010	8 - - - 8		59 - - - 59		- - 12 -	2	EXISTING E APPROACH - EAST APPROACH SLAB - EAST APPROACH SLAB 24 EAST APPROACH SLAB	
		ER 601.0555 6-INCH SLOPED 36- NCH TYPE A LF	REMAF EXISTING E			<u>CATEGOR</u> 0010	1003+41	BAS ON TO ST .76 - 1003 .18 - 1012	+51.76 RT 2 SW BRIDGE CORNER	
	1012+68.18 - 1012+75.68 RT - TOTAL 0010 15	8	EXISTING E						TOTAL 0010 12	
	CONCRETE SIDEWALK 4-INCH								<u>WATER</u>	
	CATEGORY STATION TO STATION LOCATION S 0010 1003+41.76 - 1003+51.76 RT 17 1012+53.18 - 1012+75.68 RT 25 TOTAL 0010 37	F .5 SI	REMARKS W BRIDGE COR E BRIDGE COR				EGORY 010 SW &	LOCATION SE BRIDGE TOTAL 0010		
	PROJECT NO: 1670-05-61 HWY: USH 12		COUNTY:	DANE & SAI	JK		NEOUS QUAN		SHEET:	E

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FILE NAME : N:\PDS\...\030200_mq.pptx PLOT BY : A.R.H. PLOT NAME : PLOT NAME : PLOT SCALE : 1:1

TEMPORARY BARRIER

				603.8000	603.8125	
				CONCRETE	CONCRETE	
				BARRIER	BARRIER	
				TEMPORARY	TEMPORARY	
				PRECAST	PRECAST	
				DELIVERED	INSTALLED	
CATEGORY	STATION TO	STATION	LOCATION	LF	LF	REMARKS
0010	1002+90 -	1004+40	RT	150	150	STAGE 1 - WEST ABUTMENT
0010	1011+78 -	1013+28	RT	150	150	STAGE 1 - EAST ABUTMENT
0010	1002+64 -	1004+39	LT	25	175	STAGE 2 - WEST ABUTMENT
0010	1011+78 -	1013+28	LT	-	150	STAGE 2 - EAST ABUTMENT
			_			_
			TOTAL 0010	325	625	_

TEMPORARY MARKING LINE REMOVABLE TAPE

CATEGORY	STATION	то	STATION	LOCATION	649.0150 4-INCH LF	649.0250 8-INCH LF	REMARKS
0010	996+85	_	998+50	RT	165	-	YELLOW - STAGE 1
	999+50	-	999+80	RT	30	-	YELLOW - STAGE 1
	1000+10	-	1000+40	RT	-	30	WHITE - STAGE 1
	1000+10	-	1001+15	RT	-	105	WHITE - STAGE 1
	1002+20	-	1003+30	RT	110	-	YELLOW - STAGE 1
	1003+30	_	1015+70	DT	2490		DOUBLE VELLOW STACE 1
				RT	2480	-	DOUBLE YELLOW - STAGE 1
	1002+90	-	1018+25	RT	1535	-	WHITE - STAGE 1 - WB
	1002+20	-	1014+75	RT	1255	-	WHITE - STAGE 1 - EB
	996+85	-	998+50	RT	165	-	WHITE - STAGE 2
	999+00	_	999+25	RT	25	-	WHITE - STAGE 2
	1000 05		1001 15		110		
	1000+05	-	1001+15	RT	110	-	WHITE - STAGE 2
	1002+20	-	1013+50	RT	1130	-	WHITE - STAGE 2 - EB
	1003+50	-	1014+50	LT	1100	-	WHITE - STAGE 2 - WB
	1002+10	-	1014+50	LT	2480	-	DOUBLE YELLOW - STAGE 2
	1014+50	-	1017+75	LT	325	-	YELLOW - STAGE 2
				TOTAL 0010	10910	135	

TEMPORARY MARKING ARROW PAINT

			649.0505	
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	1002+40	EB LANE	1	STAGE 2
		TOTAL 0010	1	

PROJECT NO: 1670-05-61 HWY: USH 12 COUNTY: DANE & SAUK MISCELLANEOUS QUANTITIES SHEET: **E**

3

TRAFFIC CONTROL

			DURATION	643. DRU	0300 JMS	BARR	.0410 ICADE PE II	BARR: S T			643.0600 FLEXIBLE TUBULAR MARKER BASES		NING HTS	WAR	NING HTS	643.0 ARR BOAR	ROW	643.1050 SIGNS PCMS	C	.1070 ONES INCH	
STAGE	STATION TO STATION	LOCATION	DAYS/CYCLES	EA	DAY	EA	DAY	EA	DAY	EACH	EACH	EA	DAY	EA	DAY	EA	DAY	EA DAY	EA	DAY	REMARKS
STAGE 1	996+00 - 998+50 999+00 - 1001+50 1002+00 - 1003+52 1003+52 - 1012+53 1012+53 - 1018+00 1014+00 1015+00	BTWN JEFFERSON ST & JOHN ADAMS ST BTWN JOHN ADAMS ST & WATER ST BTWN WATER ST & W BRIDGE APPR BRIDGE E BRIDGE APPR TO ADAMS DR SOUTH SHOULDER NORTH SHOULDER DLMS	22 AL STAGE 1	19 - 19 33 - - 30	330 418 - 418 726 - - 660 2552	- - - - -	- - - - - - - 0	1 2 - 2 -	- 22 44 - 44 - - - 110	- - 23 22 11 - - - 56	- 23 22 11 - - - 56	- 2 2 - 4 - -	- 44 44 - 88 - - - 176	7 8 - - 11 - -	154 176 - - 242 - - - 572	1 1	22 - - 22 - - - 44	 1 7 1 7 	- - - - - -	- - - - - - - 0	MERGE RIGHT LEFT LANE CLOSED CROSS OVER NORTH SIDE CLOSED MERGE LEFT PREWARN PREWARN 5 EACH AT PCMS & FBS
STAGE 2	996+00 - 998+50 999+00 - 1001+50 1002+00 - 1003+52 1003+52 - 1012+53 1012+53 - 1018+00	BTWN JEFFERSON ST & JOHN ADAMS ST BTWN JOHN ADAMS ST & WATER ST BTWN WATER ST & W BRIDGE APPR BRIDGE E BRIDGE APPR TO ADAMS DR DLMS TOT	21 AL STAGE 2	14 7 19 29 30	147 294 147 399 609 630 1596	- - 4 - -	- - 84 - - 84	- 2 2 - 1 -	- 42 42 - 21 - 105	- - 13 22 9 - 44	- 13 22 9 -	- 4 2 - 4 -	- 84 42 - 84 -	7 6 7 - 16 -	147 126 147 - 336 - 756	1 - - 1 -	21 - - 21 -	 0	- - - - -	- - - - - - 0	MERGE LEFT RIGHT LANE CLOSED CROSS OVER SOUTH SIDE CLOSED MERGE RIGHT 5 EACH AT PCMS & FBS
STAGE 3	996+00 - 998+50 999+00 - 1001+50 1002+00 - 1003+52 1003+52 - 1012+53 1012+53 - 1018+00 1014+00 1015+00	BTWN JEFFERSON ST & JOHN ADAMS ST BTWN JOHN ADAMS ST & WATER ST BTWN WATER ST & W BRIDGE APPR BRIDGE E BRIDGE APPR TO ADAMS DR SOUTH SHOULDER NORTH SHOULDER DLMS TOT	7 AL STAGE 3	19 14 - 40 -	105 133 98 - 280 - - 210 826	- - - - -	- - - - - - - 0	1 1 - - -	- 7 7 - - - - 14	- - - - - - - - 0	- - - - - - - - 0	- 2 2 - 2 - -	- 14 14 - 14 - - - 42	7 8 4 - 11 - -	49 56 28 - 77 - - - 210	1 - - 1 - -	7 - - 7 - - - 14	1 7 1 7 7	- - 72 - - -	- - 504 - - - - 504	MERGE RIGHT LEFT LANE CLOSED LEFT LANE CLOSED CENTER LANES CLOSED MERGE RIGHT PREWARN PREWARN 5 EACH AT PCMS & FBS
STAGE 4	996+00 - 998+50 999+00 - 1001+50 1002+00 - 1003+52 1003+52 - 1012+53 1012+53 - 1018+00	BTWN JEFFERSON ST & JOHN ADAMS ST BTWN JOHN ADAMS ST & WATER ST BTWN WATER ST & W BRIDGE APPR BRIDGE E BRIDGE APPR TO ADAMS DR DLMS TOTAL 0010	13 AL STAGE 4	14 17 - 13 30	104 182 221 - 169 390 1066	- - - - -	- - - - - - 0	- 2 1 - 1	26 13 - 13 - 52	- - - - - - 0	- - - - - - 0	- 4 2 - 2 -	52 26 - 26 - 104	7 6 3 - 7 -	91 78 39 - 91 - 299	1 - - 1 -	13 - - 13 - 26	 0	- - 72 - -	936 - - 936 1440	=

PROJECT NO: 1670-05-61 HWY: USH 12 COUNTY: DANE & SAUK MISCELLANEOUS QUANTITIES SHEET: **E**

FILE NAME : N:\PDS\...\030200_mq.pptx PLOT BY : A.R.H. PLOT NAME : PLOT NAME : PLOT SCALE : 1:1

TRAFFIC	CONTROL	SIGNS
	612	0000

			643.0900	
CATEGORY	LOCATION	DESCRIPTION	DAY	REMARKS
0010	STH 78	STH 78 NB & USH 12 WB ①	43	w20-1A
	STH 78	STH 78 NB & USH 12 WB ③	129	M3-4, M1-4, W12-52
	STH 78	STH 78 NB & USH 12 WB 7	344	MO4-1 (2), $M3-1$, $M3-4$, $M1-6$, $M1-4$, $MO5-1R$ (2)
	STH 78	STH 78 NB & USH 12 WB ⑨	344	MO4-1 (2), $M3-1$, $M3-4$, $M1-6$, $M1-4$, $MO6-1R$ (2)
	STH 78	STH 78 SB (5)	129	M3-2, M1-4, W12-52
_	USH 12	DLMS	172	W20-1F (2), W20-5G (2)
	USH 12	USH 12 WB ①	86	w20-1A (2)
	USH 12	USH 12 WB ②	172	W12-52 (2), WO57-52 (2)
	USH 12	STH 78 NB & USH 12 WB 6	344	MO4-1 (2), $M3-1$, $M3-4$, $M1-6$, $M1-4$, $MO5-1R$ (2)
	USH 12	STH 78 NB & USH 12 WB 🛞	344	MO4-1 (2), $M3-1$, $M3-4$, $M1-6$, $M1-4$, $MO6-1$ (2)
_	USH 12	STH 78 NB & USH 12 WB 12	344	MO4-1 (2), M3-1, M3-4, M1-6, M1-4, MO6-1 (2)
_				
	STH 188	STH 78 NB & USH 12 WB 🔟	516	MO4-1 (4), $M3-1$ (2), $M3-4$ (2), $M1-6$ (2), $M1-4$ (2)
	STH 188	STH 78 NB & USH 12 WB ⑪	344	MO4-1 (2), $M3-1$, $M3-4$, $M1-6$, $M1-4$, $MO5-1L$ (2)
	STH 188	STH 78 NB & USH 12 WB 12	344	MO4-1 (2), $M3-1$, $M3-4$, $M1-6$, $M1-4$, $MO6-1$ (2)
	STH 188	STH 78 SB & USH 12 EB (21)	774	MO4-1 (6), $M3-3$ (3), $M3-2$ (3), $M1-6$ (3), $M1-4$ (3)
	STH 188	STH 78 SB (24)	172	MO4-1, $M3-3$, $M1-6$, $MO5-1R$
	STH 188	STH 78 SB ③	129	M3-4, M1-4, W12-52
	STH 188	STH 78 SB (25)	172	MO4-1, $M3-3$, $M1-6$, $MO6-1$
_				
	STH 60	USH 12 WB 15	172	MO4-1, $M3-4$, $M1-4$, $MO6-1$
	STH 60	STH 78 SB & USH 12 EB 20	344	MO4-1 (2), M3-3, M3-2, M1-6, M1-4, MO601 (2)
	STH 60	STH 60 EB (5)	129	M3-2, M1-4, W12-52
	CTH PF	USH 12 EB 🔞	258	MO4-1 (2), M3-2 (2), M1-4 (2)
_	CTH PF	USH 12 EB 19	172	MO4-1, M3-2, M1-4, MO6-1
_				
	STH 78	USH 12 WB (23)	129	MO4-1, M3-4, M1-4
	STH 78	USH 12 WB (22)	172	MO4-1, $M3-4$, $M1-4$, $MO6-1$
	STH 78	STH 78 SB ①	43	W20-1A
	STH 78	STH 78 SB (5)	129	M3-2, M1-4, W12-52
	STH 78	STH 78 SB 📵	172	MO4-1, $M3-3$, $M1-6$, $MO5-1$ L
_	STH 78	STH 78 SB ⑰	172	MO4-1, M3-3, M1-6, MO6-1
	CTH Z	USH 12 WB (23)	129	MO4-1, M3-4, M1-4
	USH 12	USH 12 EB 4	86	W12-52, WO57-52
	USH 12	USH 12 EB 📵	172	MO4-1, $M3-2$, $M1-4$, $MO5-1L$
_	USH 12	USH 12 EB 14)	172	MO4-1, M3-2, M1-4, MO6-1
	USH 12	STAGE 1	176	W12-52(3), W20-1A, W20-55A, W04-2L, R3-20L, W01-6
	USH 12	STAGE 1	198	WO5-52R (2), WO1-4R, WO-4L, R11-2L (3), G20-2A (2),
	USH 12	STAGE 1	176	WO4-2R (2), WO13-1 (2), W20-5A (2), WO3-5 (2)
	USH 12	STAGE 2	210	W12-52(3), W20-1A, W20-5A, W04-2R, R11-2L (3), W01-4R
	USH 12	STAGE 2	189	WO1-4L, WO5-52R (2), WO1-4R, WO1-6(3), G20-2A (2)
	USH 12	STAGE 2	252	R9-9(4), W04-2L (2), W013-1 (2), W20-55A (2), W03-5 (2)
	USH 12	STAGE 3	70	W12-52(3), W20-1A, W20-55A (3), W04-2L (3)
	USH 12	STAGE 3	28	R11-2L, R3-20L, G20-2A (2)
	USH 12	STAGE 3	42	w013-1 (2), w01-6 (2), w03-5 (2)
	USH 12	STAGE 4	117	W12-52(3), W20-1A, W20-5A (3), W04-2R (2)
	USH 12	STAGE 4	78	R11-2L (3), G20-2A (2), W01-6
			0000	_
		TOTAL 0010	8889	

DYNAMIC LATE MERGE SYSTEM (DLMS)

643.1100.s

		DISTANCE			
CATEGORY	LOCATION	STAGE	(MILES)	DAY	
0010	US 12 WB	1	4	22	
	US 12 WB	2	4	21	
	US 12 WB	3	4	7	
	US 12 WB	4	4	13	
			TOTAL 0010	63	

TRAFFIC CONTROL COVERING SIGNS TYPE II

			643.0920	
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	995+15	RT	2	BIKE LANE - STAGE 2 & 4
	999+90	RT	3	BIKE LANE - STAGE 1, 2 & 4
		TOTAL 0010	5	

TRAFFIC CONTROL SIGNS FIXED MESSAGE

			643.1000
CATEGORY	LOCATION	DESCRIPTION	SF
0010	999+90	BIKES USE SIDE WALK	5
	CTH PF INT.	BRIDGE WORK AHEAD USE ALT ROUTE	48
		TOTAL 0010	53

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FILE NAME : N:\PDS\...\030200_mq.pptx PLOT BY : A.R.H. PLOT NAME : PLOT NAME : PLOT SCALE : 1:1

			<u>PEDES</u>	TRIAN ACCOMMOD	<u>ATION</u>			
				644.1420.S	644.1601.s	644.1810.S		
				TEMPORARY PEDESTRIAN		TEMPORARY		
H				SURFACE PLYWOOD	TEMPORARY CURB RAMP	PEDESTRIAN BARRICADE		
	CATEGORY	STATION TO STATION	LOCATION	SF	<u>EACH</u>	LF	REMARKS	
3	0010	1003+47 - 1003+56 1012+48 - 1012+58	W. ABUT. SDWK. E. ABUT. SDWK.	108 120	2	38 50	STAGE 2 STAGE 2	
		1012+40 1012+30					STAGE 2	
			TOTAL 0010	228	4	88		
			MARKING	<u> </u>				
		646.1020 646.3	3020 646.502	0 646.5120) 646.7120	n		
			040.302		MARKING			

	646.7120 MARKING DIAGONAL	646.5120	646.5020 MARKING	646.3020 MARKING	646.1020 MARKING			
	EPOXY 12- INCH	WORD EPOXY	ARROW EPOXY	LINE EPOXY 8-INCH	LINE EPOXY 4-INCH			
REMARKS	LF	EACH	EACH	LF	<u>LF</u>	LOCATION	STATION TO STATION	TEGORY
WHITE LANE LINE - STAGE 2	_	_	_	_	38	RT	996+85 - 998+50	0010
WHITE LANE LINE - STAGE 1	_	_	_	_	30	RT	999+30 - 1000+50	
WHITE DASHED 3' LINE, 9' GAP - S	_	-	-	30		RT	999+30 - 1000+50	
"BIKE" - STAGE 1	_	1	_	_	_	RT	1002+65 - 1002+65	
"LANE" - STAGE 1	_	1	_	_	_	RT	1002+03 - 1002+03	
	_	1	1	-	_	RT	1002+73 - 1002+73	
BIKE LANE - STAGE 1		<u>-</u>	т		<u>-</u>	KI	1002+63 - 1002+63	
WHITE EDGE LINE - STAGE 1	-	-	-	-	1050	RT	1002+20 - 1012+70	
WHITE DASHED 3' LINE, 9' GAP - S	-	-	-	48	-	RT	1012+70 - 1014+60	
DOUBLE YELLOW - STAGE 2	-	-	-	-	114	RT	1002+95 - 1003+52	
WHITE LANE LINE - STAGE 1	-	-	-	-	297	RT	1003+52 - 1015+40	
WHITE LANE LINE - STAGE 1	_	_	-	-	42	LT	1016+50 - 1018+15	
DOUBLE YELLOW - STAGE 2	_	_	_	_	274	RT	1012+53 - 1013+90	
DOUBLE YELLOW - STAGE 2	_	_	_	_	720	LT & RT	1012+99 - 1015+70	
YELLOW, 45 DEG, 10 FT SPACING - 9	130	_	_	_	-	RT RT	1013+90 - 1015+70	
DOUBLE YELLOW - STAGE 2	-	-	-	-	260	RT	1002+30 - 1002+95	
YELLOW, 45 DEG, 5 FT SPACING - S	35	-	-	-	-	RT	1002+35 - 1002+75	
WHITE DASHED 3' LINE, 9' GAP - S	-	-	-	19	-	LT	1002+65 - 1003+40	
WHITE LANE LINE - STAGE 2	-	-	-	-	307	LT	1003+25 - 1015+50	
WHITE EDGE LINE - STAGE 2	_				1198	LT	1003+52 - 1015+50	
DOUBLE YELLOW - STAGE 3	_	_	_	_	1802	RT	1003+52 - 1012+53	
WHITE EDGE LINE - STAGE 4	_	_	_	_	901	RT	1003+52 - 1012+53	
WHITE LANE LINE - STAGE 4	_	_	_	-	226	RT	1003+52 - 1012+53	
WHITE LANE LINE - STAGE 4	_	_	_	-	226	LT	1003+52 - 1012+53	
WHITE EDGE LINE - STAGE 4	_	_	_	_	901	LT	1003+52 - 1012+53	

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TOTAL 0010

3

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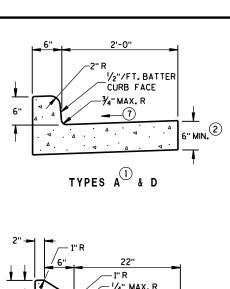
MARKING REMOVAL

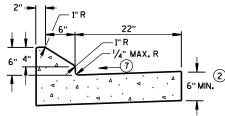
CATEGORY	STATION TO STATION	LOCATION	646.9000 MARKING REMOVAL LINE 4- INCH LF	646.9100 MARKING REMOVAL LINE 8- INCH LF	646.9200 MARKING REMOVAL LINE WIDE LF	646.9300 MARKING REMOVAL SPECIAL MARKING EACH	REMARKS
0010	996+85 - 998+50	RT	38	-	-	-	WHITE LANE LINE - STAGE 1
	999+30 - 1000+50	RT	30	-	-	-	WHITE LANE LINE - STAGE 1
	999+30 - 1000+50	RT	30	-	-	-	WHITE DASHED 3' LINE, 9' GAP - STAGE 1
	1002+40 - 1002+40	RT	_	_	_	1	"BIKE LANE" SYMBOL - STAGE 1
	1002+65 - 1002+65	RT	_	_	_	1	"BIKE" WORD - STAGE 1
	1002+75 - 1002+75	RT	_	_	_	1	"LANE" WORD - STAGE 1
	1002+85 - 1002+85	RT	_	_	_	_ 1	"BIKE LANE" ARROW - STAGE 1
	1002+20 - 1012+70	RT	1050	_	-	_	WHITE EDGE LINE - STAGE 1
	1012+70 - 1014+60	RT	_	48	_	_	WHITE DASHED 3' LINE, 9' GAP - STAGE 1
	1002+95 - 1003+52	RT	114	_	_	_	DOUBLE YELLOW - STAGE 1
	1003+52 - 1015+40	RT	297	_	_	_	WHITE LANE LINE - STAGE 1
	1016+50 - 1018+15	LT	42	-	_	_	WHITE LANE LINE - STAGE 1
	1012+53 - 1013+90	RT	274	-	-	-	DOUBLE YELLOW - STAGE 1
	1013+90 - 1015+70	LT & RT	360	-	-	-	YELLOW LINE - STAGE 1
	1013+90 - 1015+70	RT	_		230		YELLOW DIAGONAL - STAGE 1
	1003.30 1003.05	D-T	120				VELLOU LENE CEACE 3
	1002+30 - 1002+95	RT	130	-	-	-	YELLOW LINE - STAGE 2
	1002+35 - 1002+75	LT . –	-	-	130	-	YELLOW DIAGONAL - STAGE 2
	1002+65 - 1003+40	LT	19	-	-	-	WHITE DASHED 3' LINE, 9' GAP - STAGE 2
	1003+25 - 1015+50	LT	307	-	-	-	WHITE LANE LINE - STAGE 2
	1003+52 - 1015+50	LT	1198	-	-	-	WHITE EDGE LINE - STAGE 2
		TOTAL 0010	3889	48	360	4	

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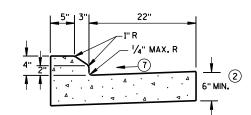
Standard Detail Drawing List

08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
L2A03-10	NAME PLATE (STRUCTURES)
L3A03-06	CONCRETE PAVEMENT SHOULDERS
L3B02-09A	CONCRETE PAVEMENT APPROACH SLAB
L3C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
L3C09-15A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
L3C09-15B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
L3C09-15C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
L4B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
L4B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
L4B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
L4B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
L5C02-07F	ADVANCED WIDTH RESTRICTION SIGNING
L5C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
L5C07-14C	PAVEMENT MARKING ARROWS
L5C07-14E	PAVEMENT MARKING FOR BIKE LANES
L5C08-19A	LONGITUDINAL MARKING (MAINLINE)
L5C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
L5C11-07в	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
L5C18-04	MEDIAN ISLAND MARKING
L5C29-06A	BICYCLE LANE MARKING
L5D12-07A	TRAFFIC CONTROL, LANE CLOSURE
L5D12-07B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
L5D12-07C	DYNAMIC LATE MERGE SYSTEM
L5D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
L5D22-03	TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
L5D30-04A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
L5D30-04B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
L5D30-04C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
L5D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
L5D38-02B	ATTACHMENT OF SIGNS TO POSTS
L5D40-01	TRAFFIC CONTROL, LANE SHIFT, MULTILANE DIVIDED OR ONE WAY ROAD

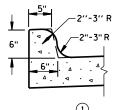




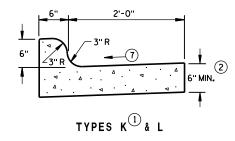
6" SLOPED CURB TYPES G 4 J



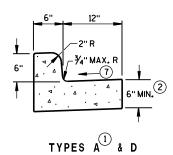
4" SLOPED CURB TYPES G 4 J



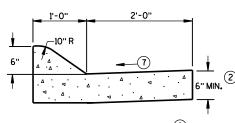
TYPES K (1) & L (OPTIONAL CURB SHAPE)



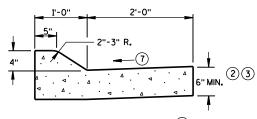
CONCRETE CURB & GUTTER 30"



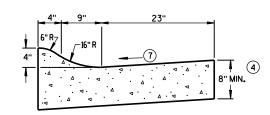
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A & D

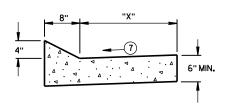


4" SLOPED CURB TYPES A D



4" SLOPED CURB TYPES R T & T

CONCRETE CURB & GUTTER 36"



TYPES TBT & TBTT

CONCRETE CURB & GUTTER

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

GENERAL NOTES

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

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

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

- (1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.
- 2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- (3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED
- (4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- (5) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- (6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- (7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- (8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH		
LESS THAN 10"	12'		
10" & ABOVE	15'		

6

20a

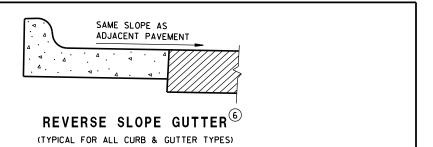
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CONCRETE PANEL WIDTH SAME PAY LIMITS TRAFFIC TRAFFIC LANE -AS CURB & GUTTER LANE PAVEMENT SLOPE PAVEMENT THICKNESS

PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



CONCRETE CURB & GUTTER

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

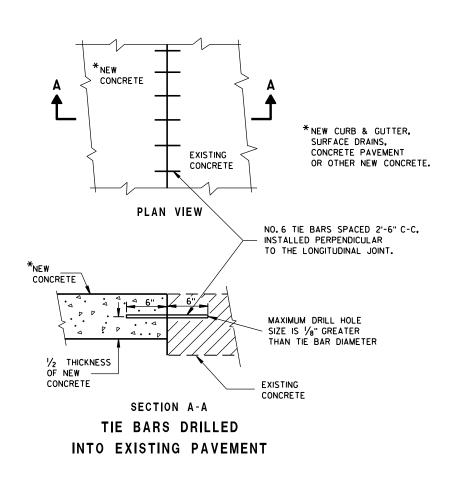
Ö D ∞ D 20a

^{*} BIKE LANE IS NOT SHOWN.

DETAIL OF CURB AND GUTTER AT INLETS (TYPE H INLET COVER SHOWN)

CONTRACTION **PAVEMENT**

END SECTION CURB & GUTTER



GENERAL NOTES

_ 1/2"/FT.BATTER,FACE OF CURB (ABOVE ADJACENT PAVEMENT)

ADJACENT

PAVEMENT

NO. 4 X 2'-0" DEF. TIE

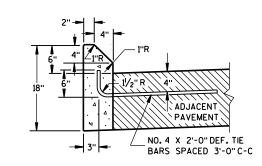
BARS SPACED 3'-0" C-C

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

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

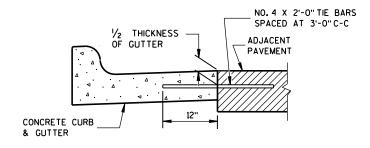
- 1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A.G.K.R AND TBTT.
- 2 THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- (9) REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



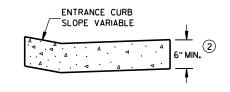
TYPES A D

TYPES G 4 J

CONCRETE CURB



TYPICAL TIE BAR LOCATION 1



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

/S/ Rodney Taylor June, 2017 DATE

ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

GENERAL NOTES

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

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

- 1 EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- (2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SPREAD OPEN SO THE TOP OF LUG IS 11/4" WIDE

SECTION A-A

ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

|--|

3/26/IO /S/ SCOT BECKET

CHIEF STRUCTURAL DEVELOPMENT ENGINEER

D.D. 12 A

3-10

* SUBSTITUTE BENT BARS DURING CONSTRUCTION W ** CONFORM TO 15" MINUMI BETWEEN TIE BARS WILL

DOWEL BARS

(SEE DOWEL BAR TABLE)

LONGITUDINAL

JOINT

12" C-C

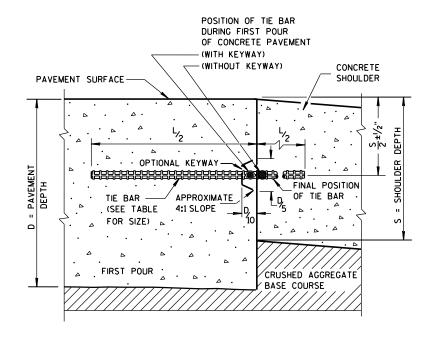
GENERAL NOTES

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

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAYEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT

PLAN VIEW CONCRETE PAVEMENT SHOULDER

TIE BAR

SPACING

TABLE)

JOINT SPACING (SEE TABLE)

DOWEL BARS

12" C-C

1'-0"

1'-0"

SHOULDER

TIE BAR TABLE

TIE BAR -

(SEE TIE BAR

TABLE FOR SIZE)

PAVEMENT DEPTH (D)	TIE BAR Size	TIE BAR LENGTH (L)	MAX. TIE BAR Spacing
< 10 1/2"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
2 10 72	NO. 4 *	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER***	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	11/2"	15'

FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE
APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY
THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FOR THE
AVERAGE THICKNESS OF THE CROSS SECTION.

CONCRETE	PAVEMENT	SHOULDERS

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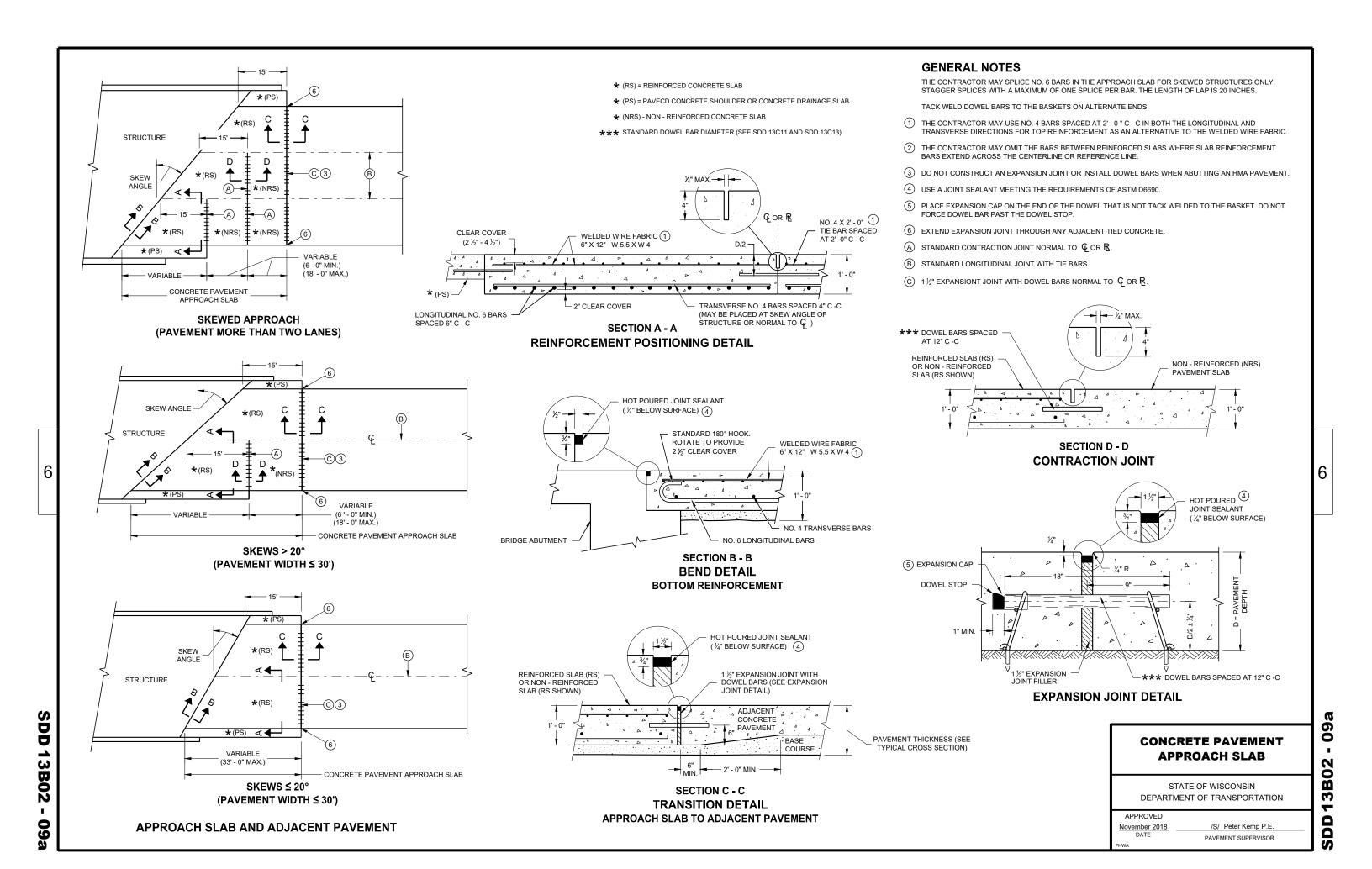
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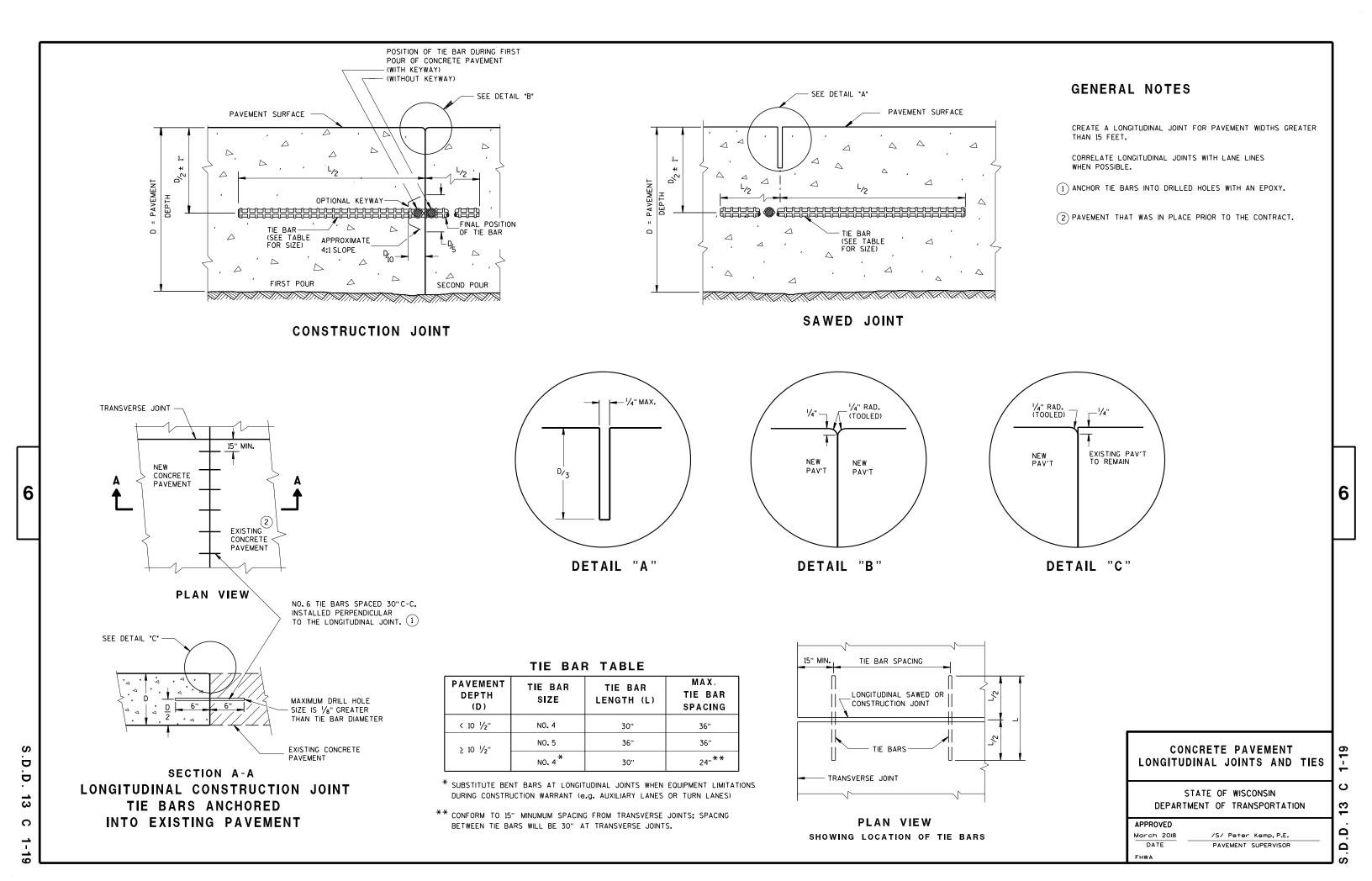
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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED	
June, 2015	/S/ Peter Kemp, P.E.
DATE	PAVEMENT SUPERVISOR





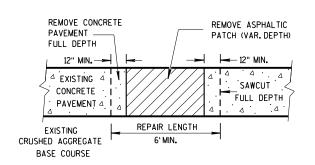
PLAN VIEW

ASPHALTIC

— PATCH —

VARIABLE SIZE

REPAIR LENGTH 6' MIN.



SECTION A-A

HMA PATCH REMOVAL

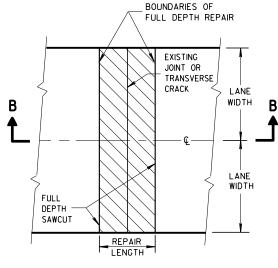
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

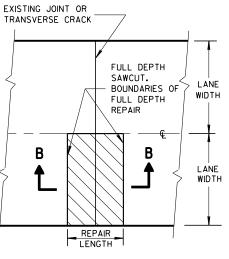
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

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

(1) DOWEL BARS MIGHT NOT EXIST.

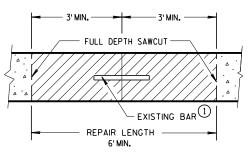


PLAN VIEW (DOUBLE LANE REPAIR)



PLAN VIEW (SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION B-B
CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR
AND REPLACEMENT

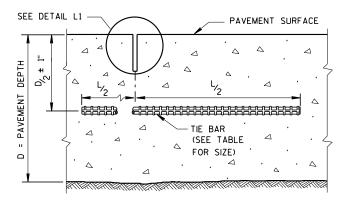
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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR Size	TIE BAR LENGTH (L)	MAX. TIE BAR Spacing					
< 10 1/2"	NO. 4	30"	36"					
≥ 10 ½"	NO. 5	36"	36"					
2 10 72	NO. 4 *	30"	24"**					

- * SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)
- ** Conform to 15" minumum spacing from transverse joints; spacing BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



SECTION C-C SAWED LONGITUDINAL JOINT

| EXISTING

L1 OR L3

C2 -

CONCRETE

GENERAL NOTES

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

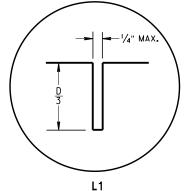
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

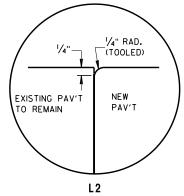
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

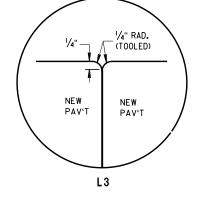
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT

18" DOWEL BARS ANCHORED

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







LONGITUDINAL JOINTS

ANCHORED

EXISTING

15" C-C

PAVEMENT,

EXISTING

CONCRETE

EXISTING | 6'MIN.

CONCRETE 15' MAX.

DOUBLE

I ANF

-REPAIR

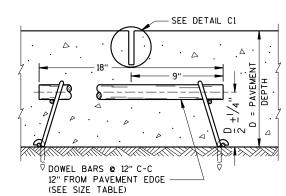
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NEW

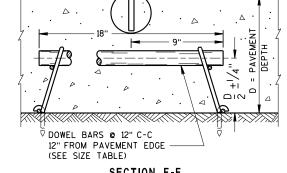
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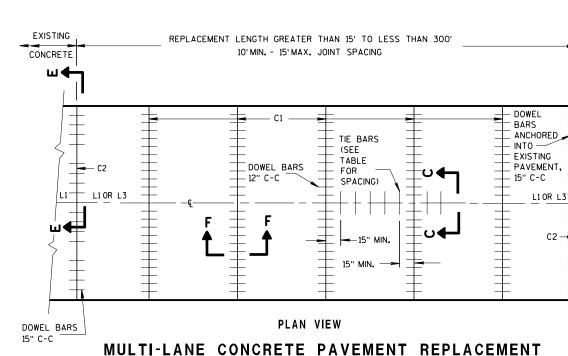
PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



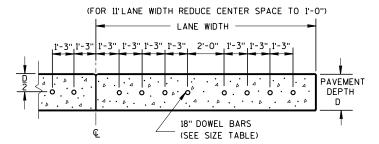
SECTION F-F **CONTRACTION JOINT**





INTO EXISTING PAVEMENT (SEE SIZE TABLE) PAVEMENT DEPTH D MAXIMUM DRILLED HOLE SIZE FREE IS 1/8" GREATER THAN --END OF BAR DOWEL BAR DIAMETER SEE NOTE (1)

SECTION D-D



SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

DEPARTMENT OF TRANSPORTATION

DOWEL

BARS ANCHORED

EXISTING PAVEMENT,

15" C-C

LANE

WIDTH

LANE

WIDTH

STATE OF WISCONSIN

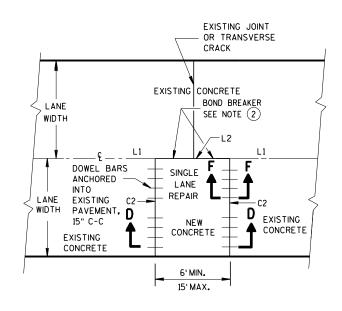
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INTO EXISTING PAVEMENT

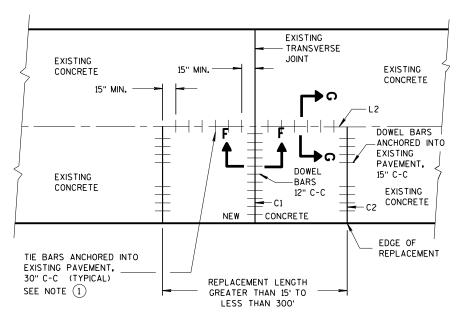
SEE DETAIL L2 -

GENERAL NOTES

- (1) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
- (2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.
- 3 ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW
SINGLE LANE
CONCRETE PAVEMENT REPAIR



PLAN VIEW
SINGLE LANE
CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2018

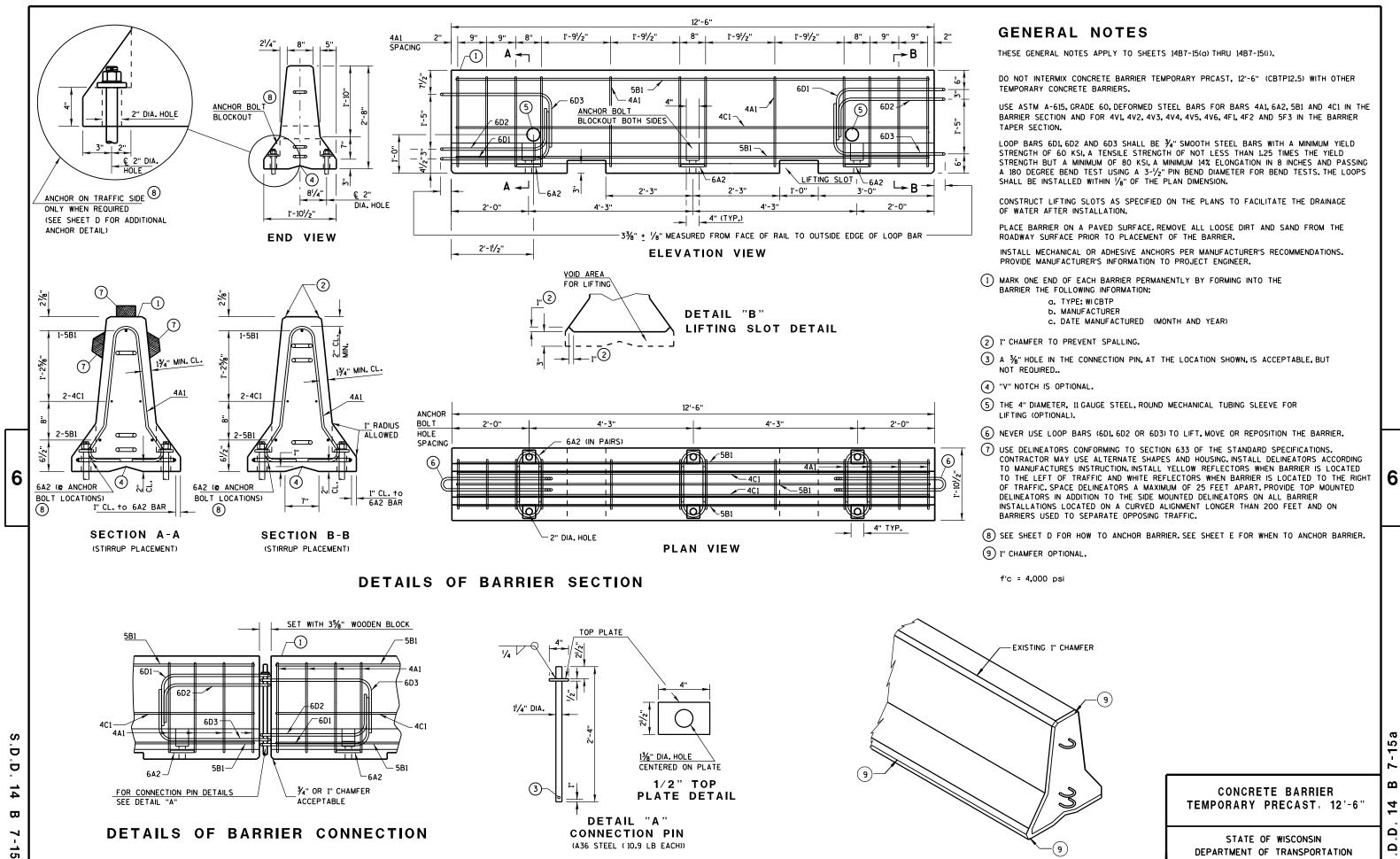
DATE

FHWΔ

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVISOR

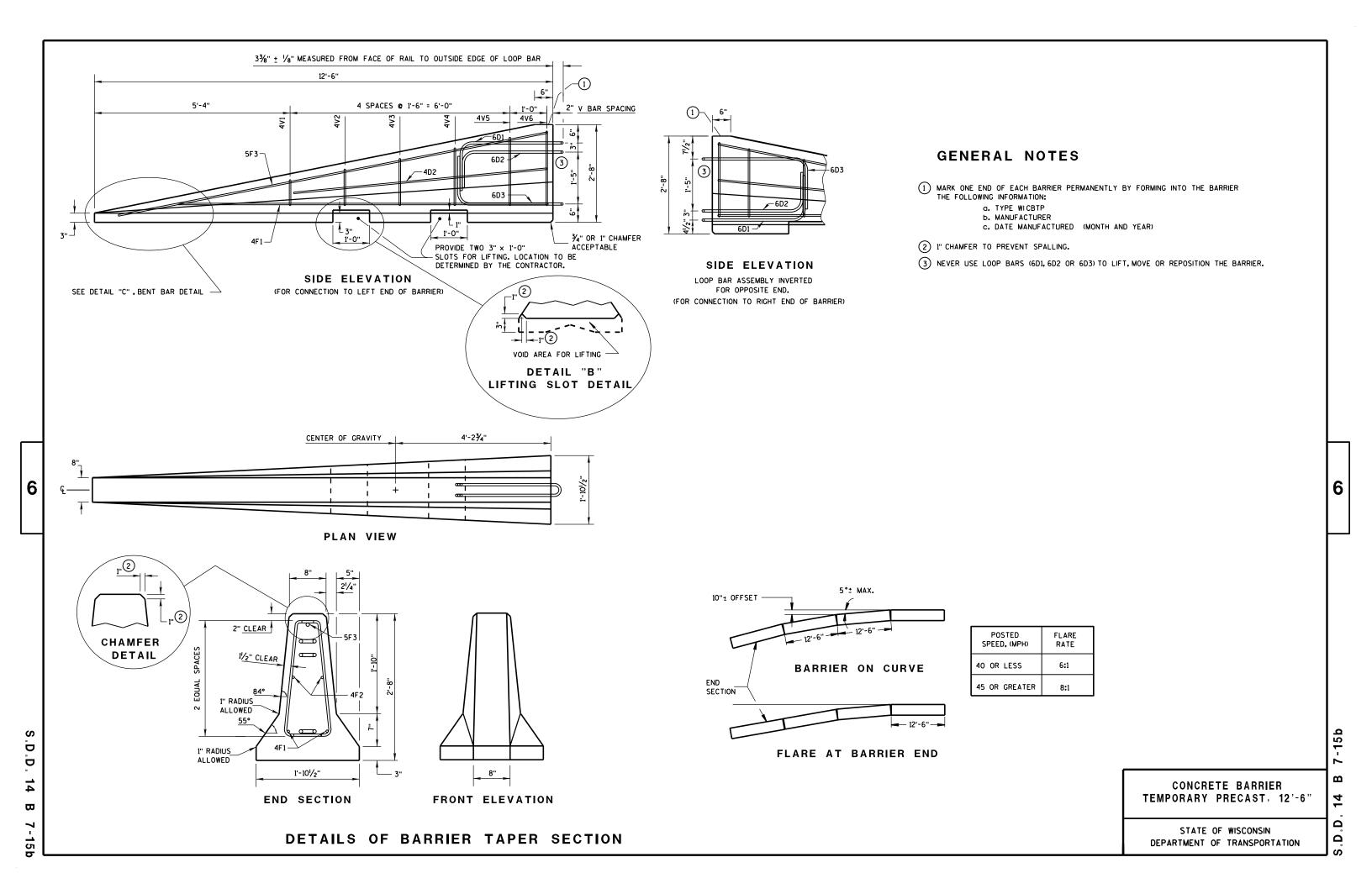
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DEPARTMENT OF TRANSPORTATION

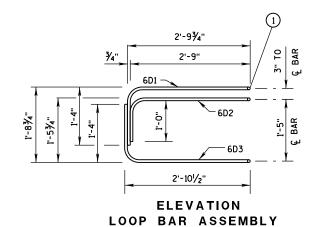


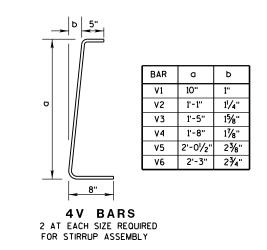
1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

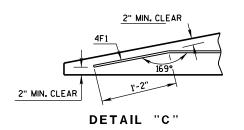
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

TEN IE O BANNEN TAI EN SECTION				
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.	
4V1	4	2	1'-11"	
4V2	4	2	2'-2"	
4٧3	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"	
		•	•	





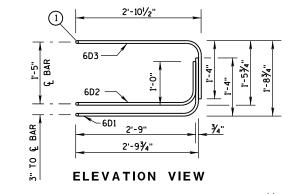


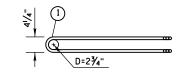
BENT BAR DETAIL

TAPER BARRIER SECTION



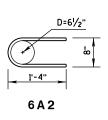
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.	
4A1	4	12	6'-0"	
6A2	6	6	2'-11"	
5B1	5	3	12'-2"	
4C1	4	2	12'-2"	
LOOP ASSEMBLY				
6D1	6	2	8'-5"	
6D2	6	2	7'-7"	
6D3	6	2	8'-6"	

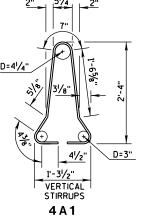




PLAN VIEW LOOP BAR ASSEMBLY

(MARKED END SHOWN, INVERT FOR OTHER END)





BARRIER SECTION

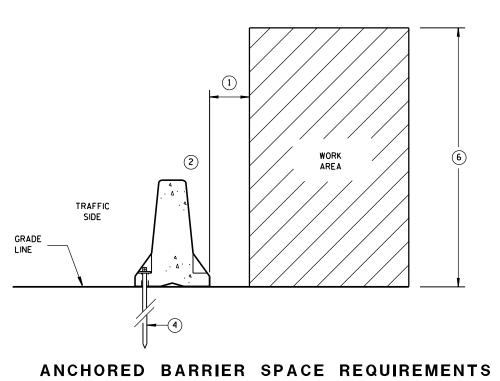
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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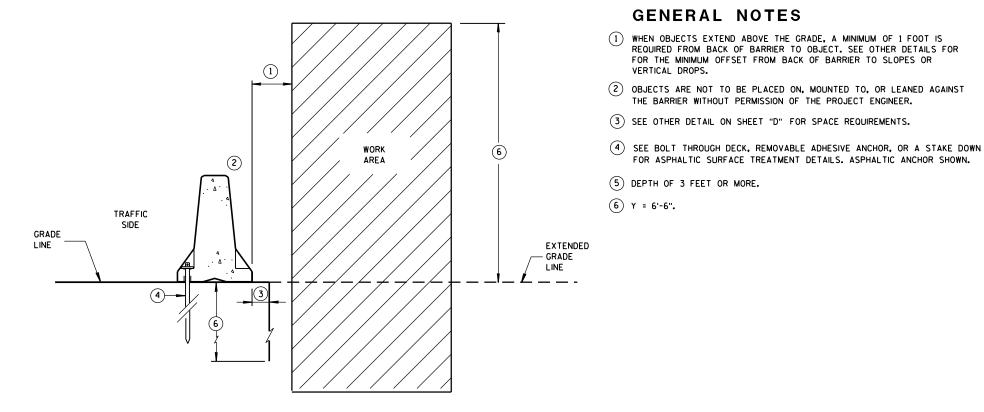
FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

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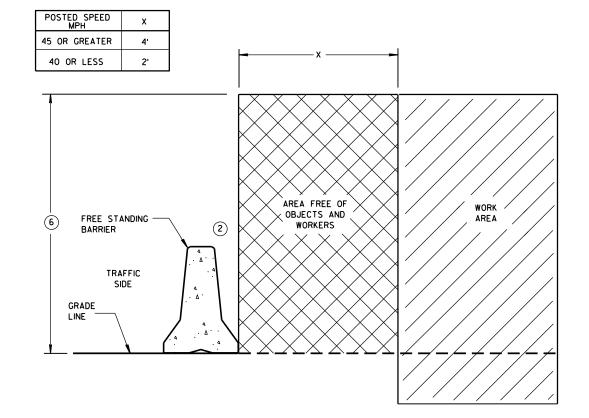
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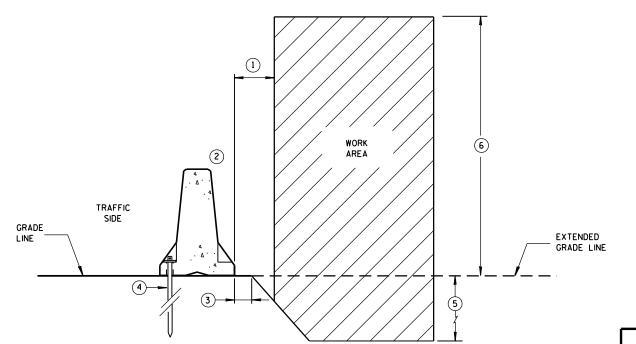
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ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS



FREE STANDING BARRIER SPACE REQUIREMENTS



ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

GENERAL NOTES

FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR

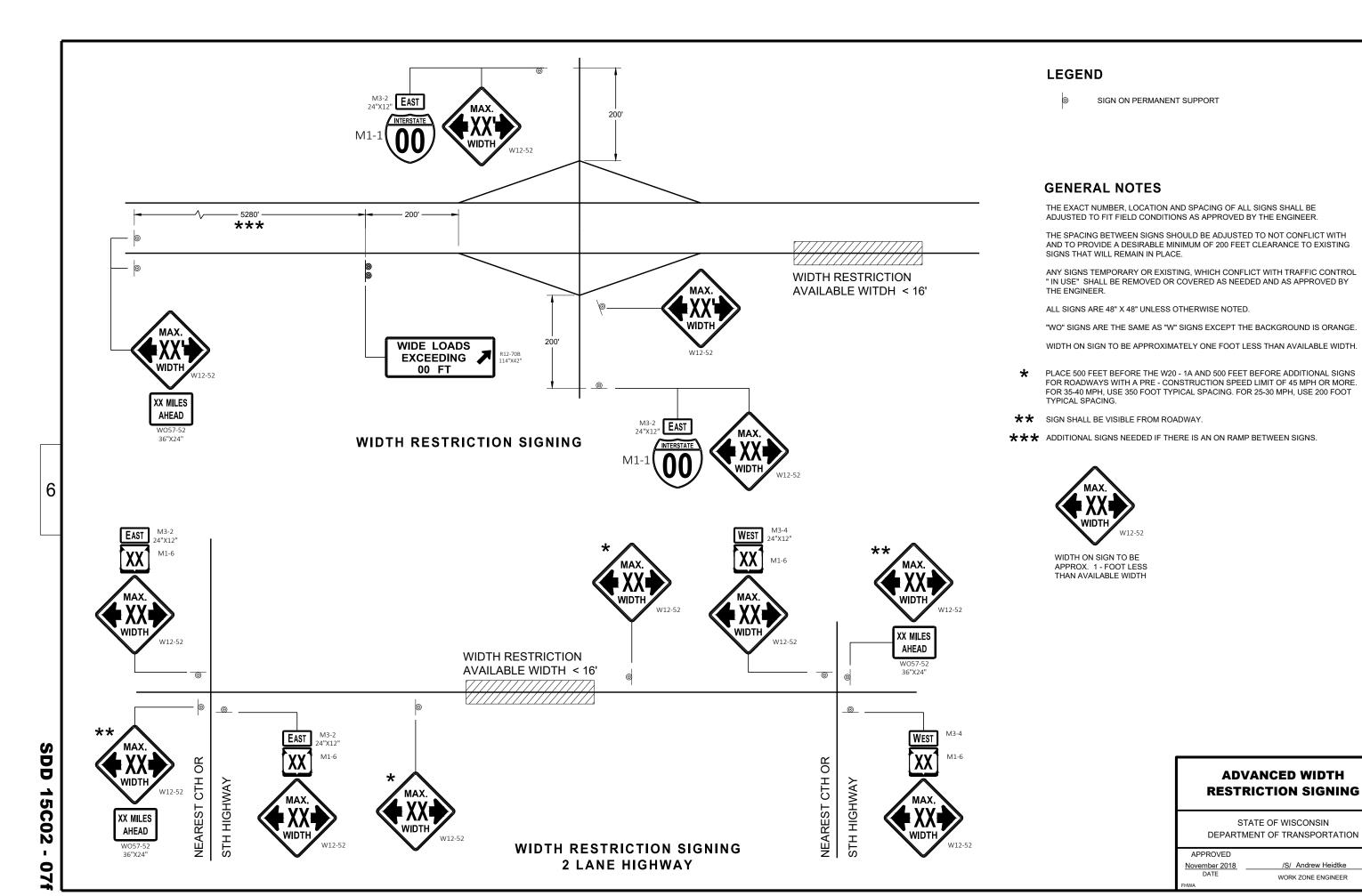
FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.

THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 6

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MAINLINE ROADWAY UNDER CONSTRUCTION

ROAD

WORK

AHEAD

CENTER OF ROADWAY

GENERAL NOTES

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

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

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48"

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

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

imes The Third W20-1Sign is required only if there is an intersection BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED 6

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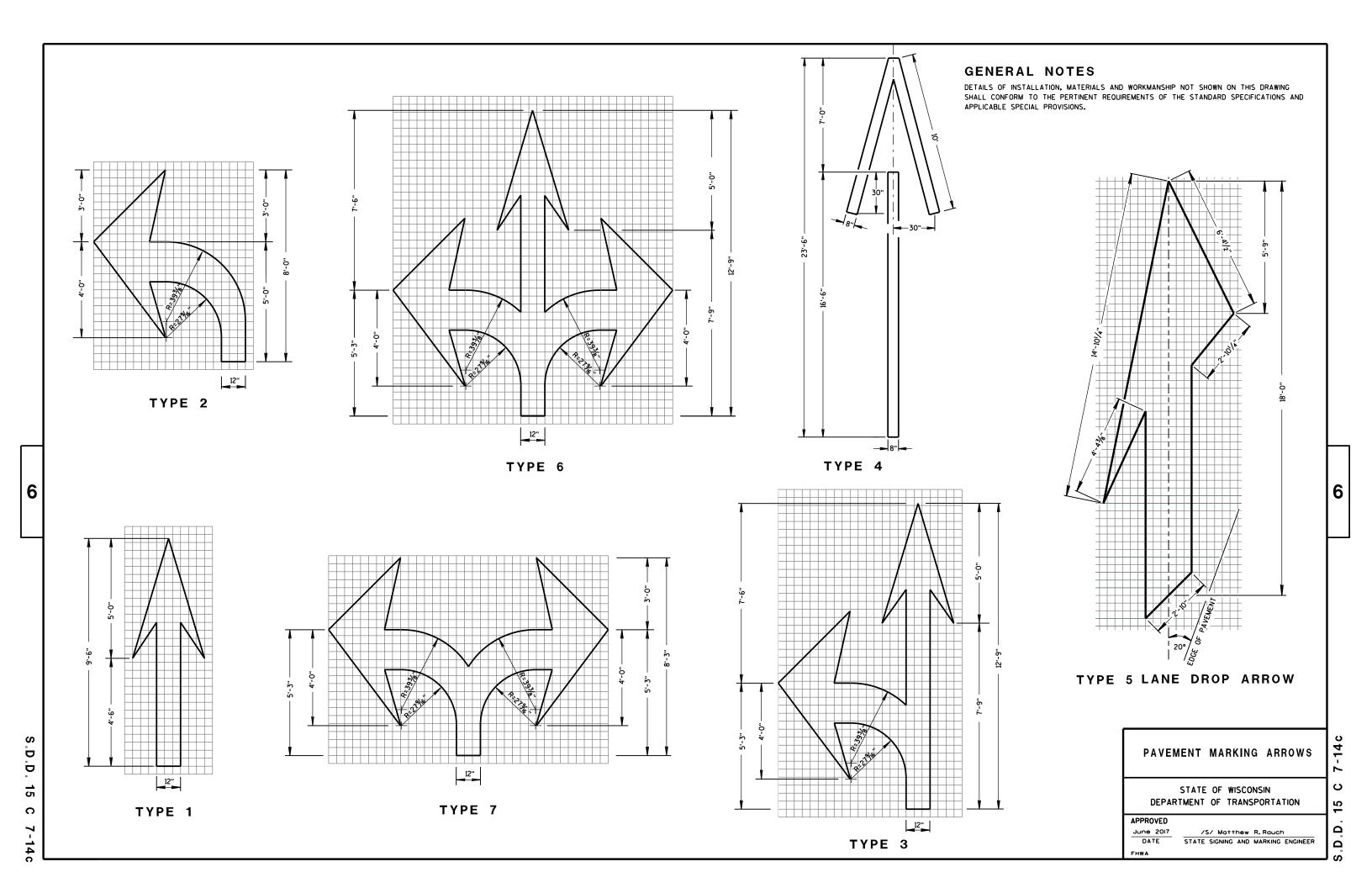
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

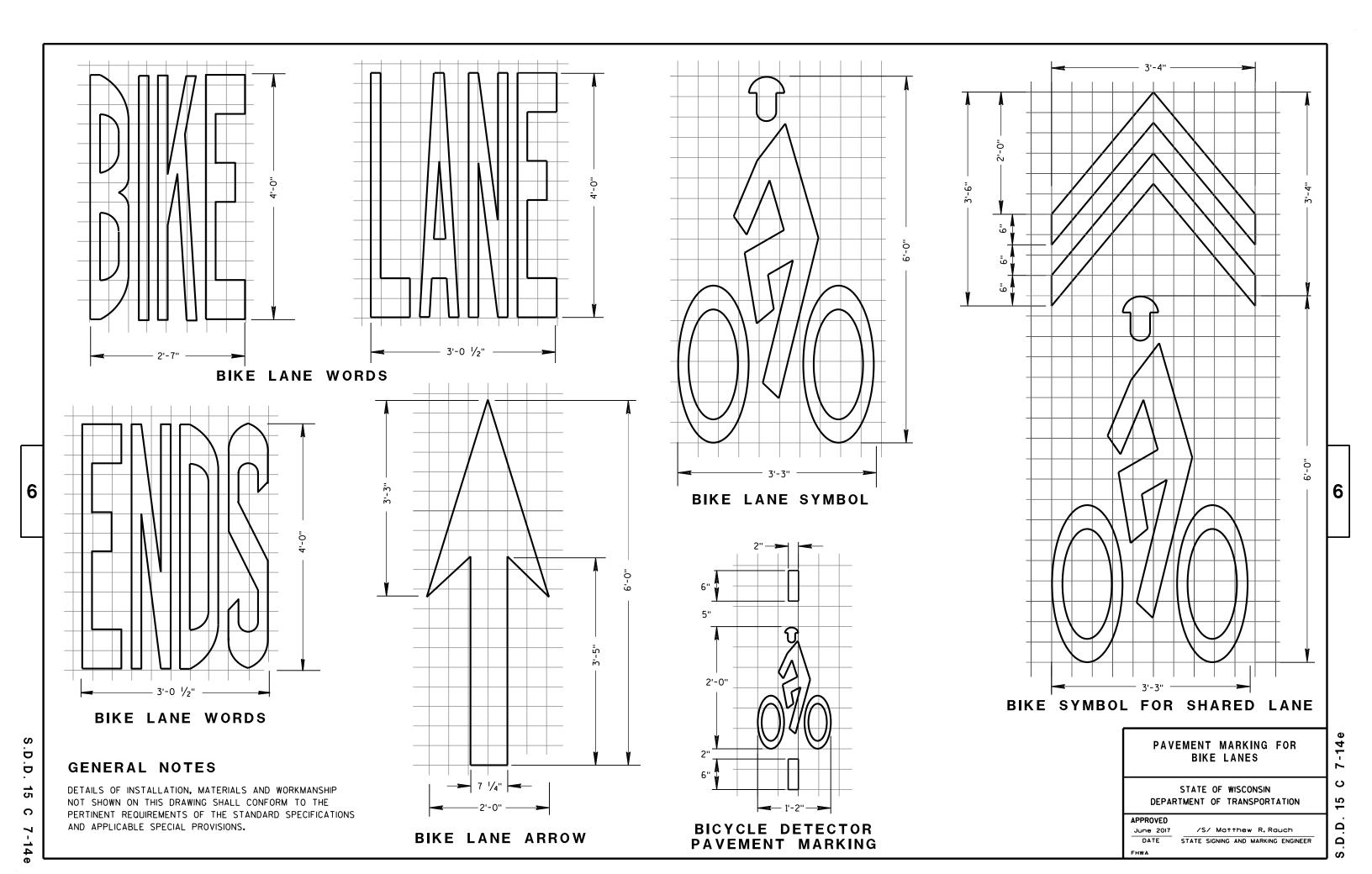
ROAD OPEN TO TRAFFIC

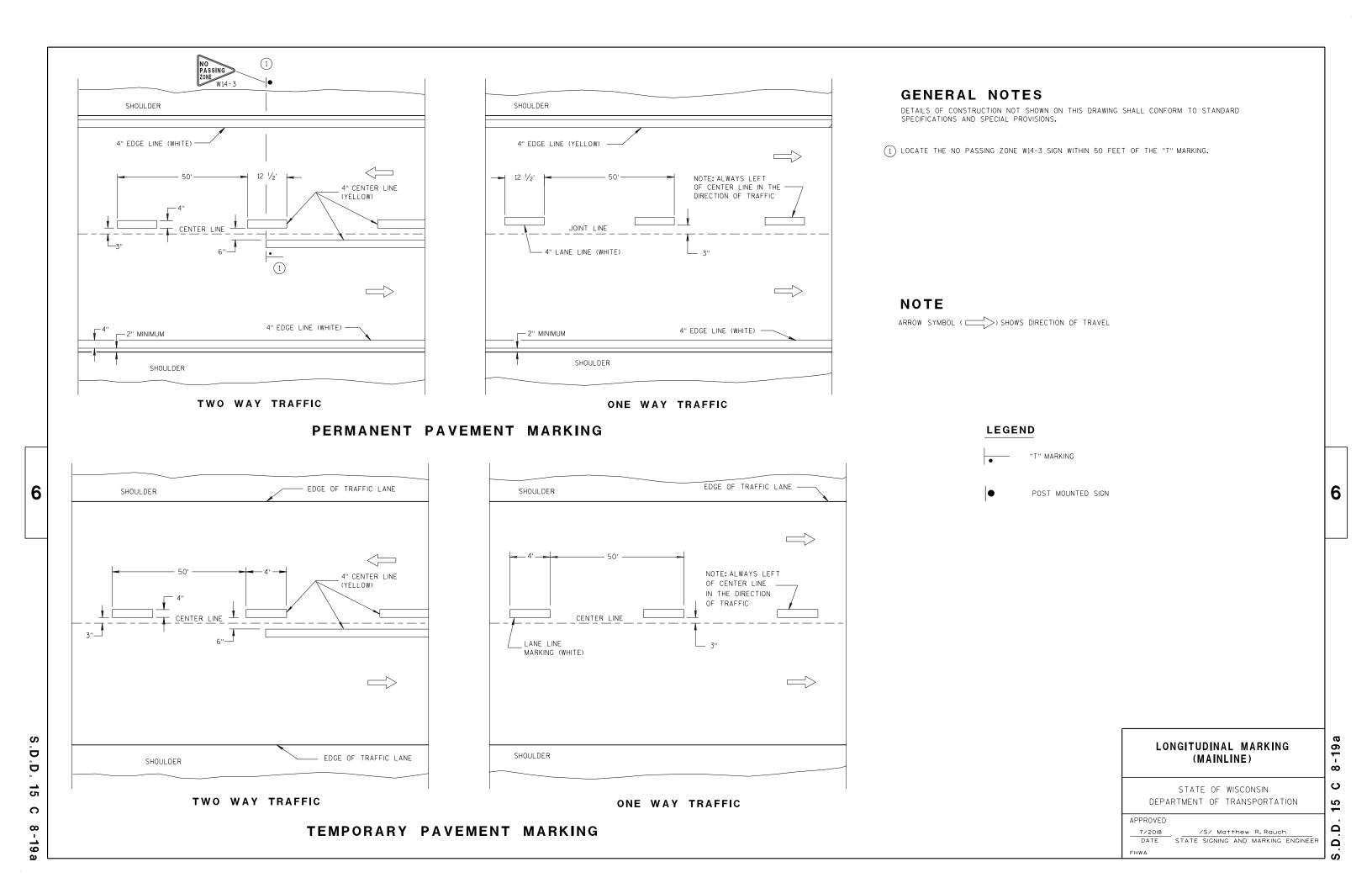
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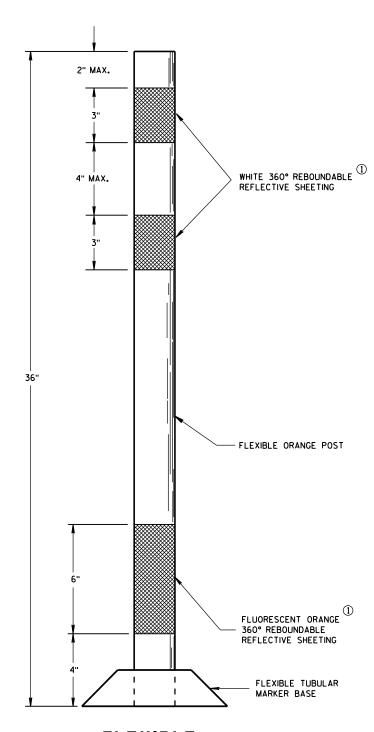
7/2018 /S/ Andrew Heidtke DATE WORK ZONE ENGINEER

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FLEXIBLE TUBULAR MARKER POST **WORK ZONE**

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

1 REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

> CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

/S/ Andrew Heidtke WORK ZONE ENGINEER FHWA

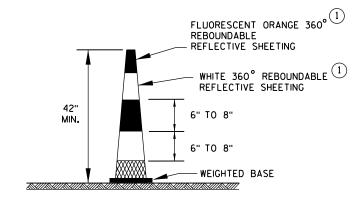
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Ω Ω **DRUM**

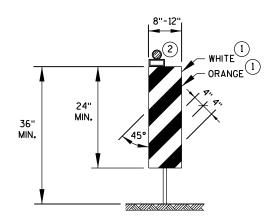
TYPE 2 BARRICADE

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



42" CONE

DO NOT USE IN TAPERS 1/2 SPACING OF DRUMS

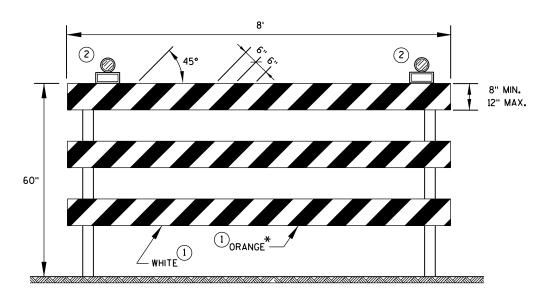


VERTICAL PANEL

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

GENERAL NOTES

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



TYPE 3 BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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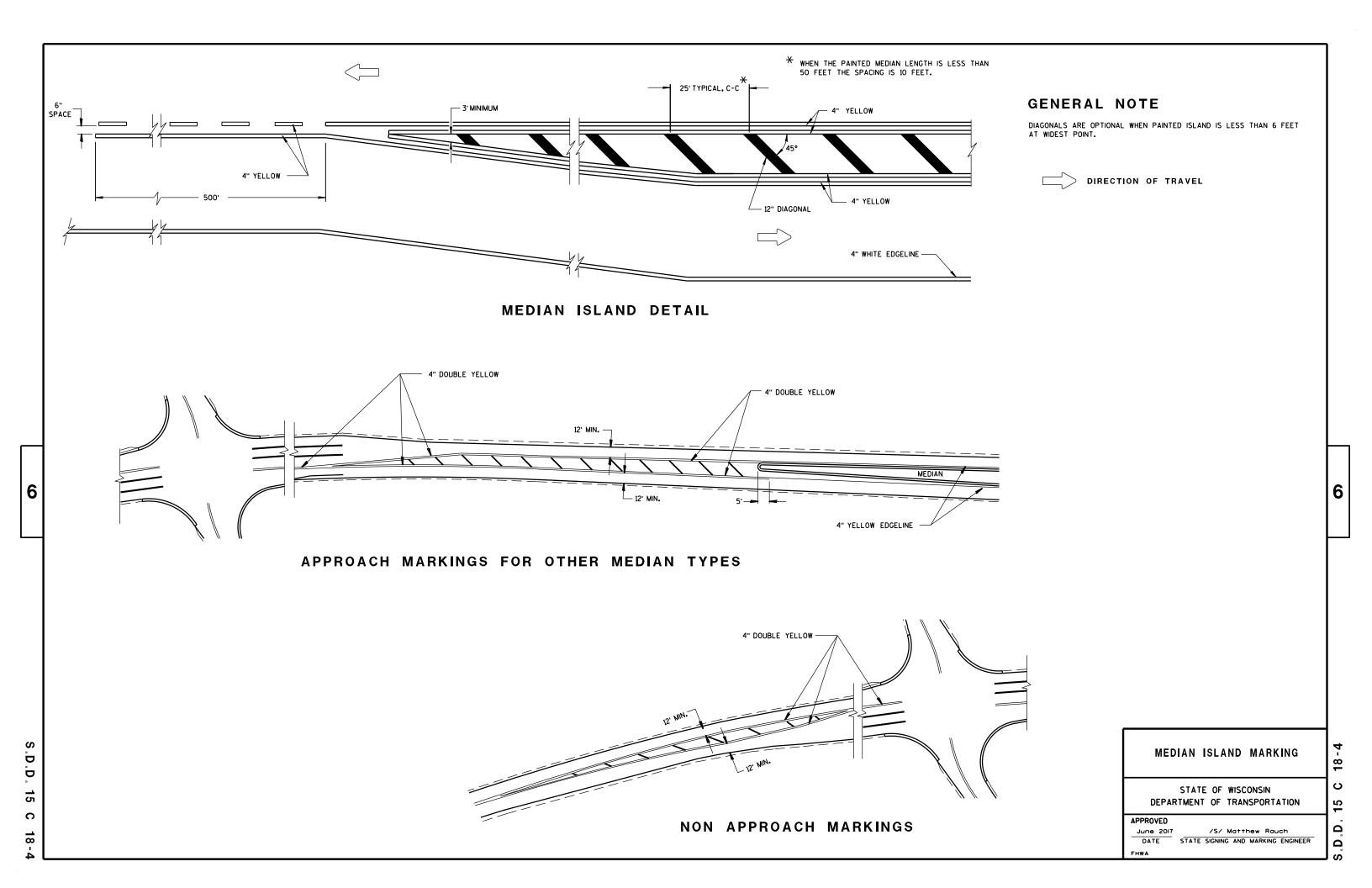
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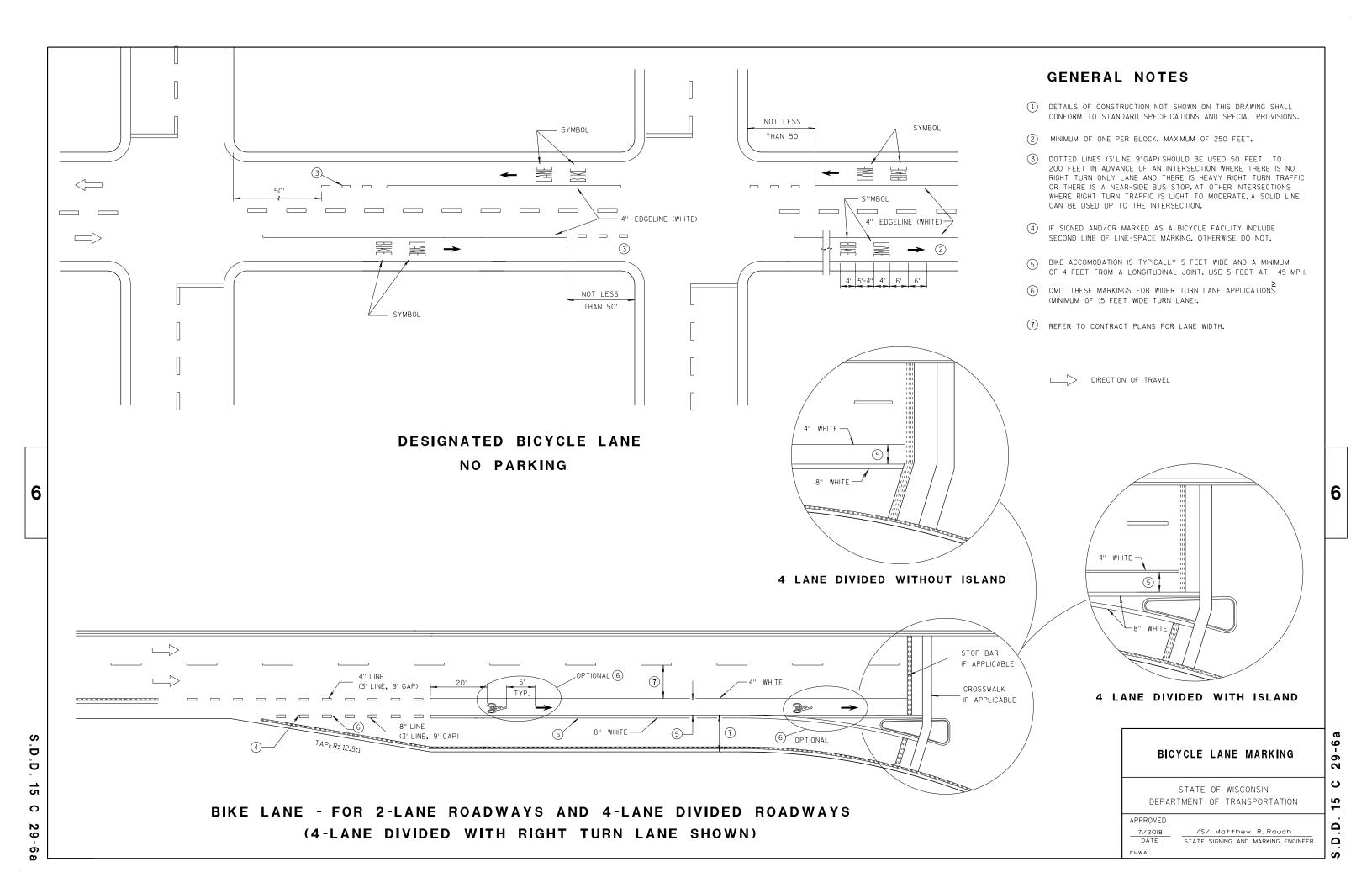
APPROVED

June 2017
DATE

WORK ZONE ENGINEER
FHWA

S.D.D. 15 C 1





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 DESIRABLE) CLEARANCE TO EXISTING SIGNS.

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

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

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

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

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 4 OR MORE CONTINUOUS DAYS

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

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

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 ONE HALF 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.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

WORK ZONE ENGINEER

TRAFFIC CONTROL DRUM

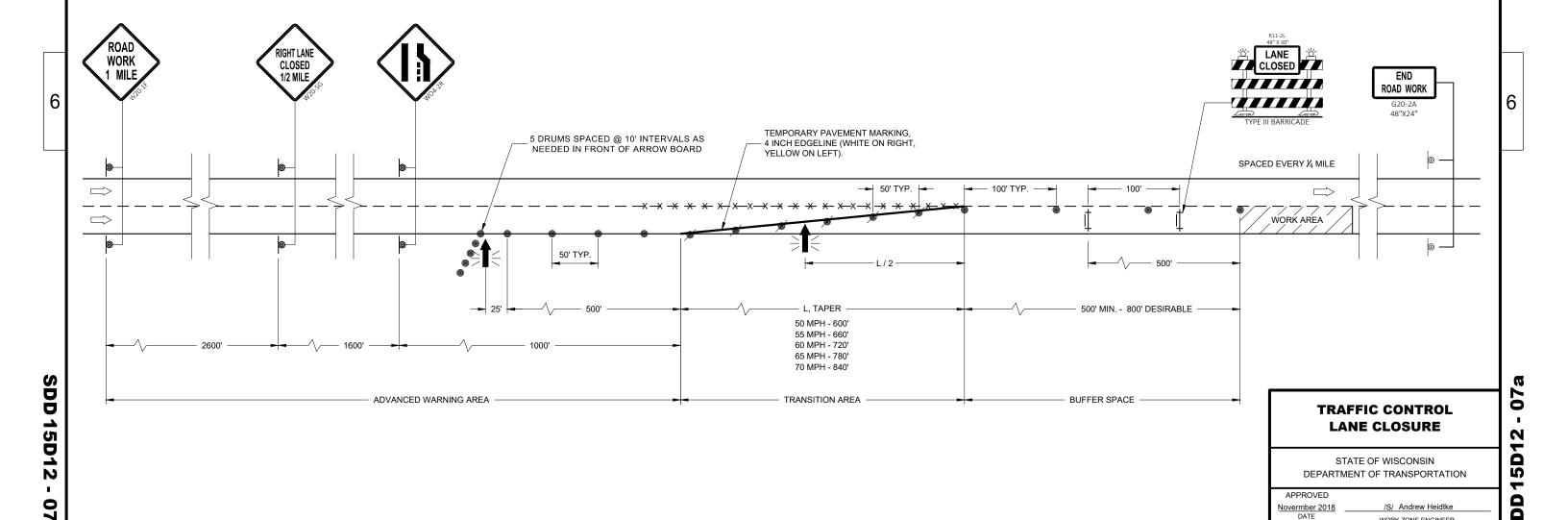
TYPE "A" WARNING LIGHT (FLASHING)

REMOVING PAVEMENT MARKING

DIRECTION OF TRAFFIC

WORK AREA

FLASHING ARROW BOARD



GENERAL NOTES LEGEND THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS. THE ADVANCED TYPE III BARRICADE WITH ATTACHED SIGN TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER. WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS. THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS SIGN ON PERMANENT SUPPORT MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS. TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE. WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION. ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED. IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET. "WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE. TRAFFIC CONTROL DRUM 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 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. TYPE "A" WARNING LIGHT (FLASHING) ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS. THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL REMOVING PAVEMENT MARKING CHANGE SUCH AS A CROSSOVER MANEUVER. * A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF DIRECTION OF TRAFFIC EACH ENTRANCE RAMP, PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES, INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN. WORK AREA FLASHING ARROW BOARD SPEED LIMIT 60 OR SPEEC LIMIT 55 CLOSED 1/2 MILE 6 TEMPORARY PAVEMENT MARKING, - 4 INCH EDGELINE (WHITE ON RIGHT, 5 DRUMS SPACED @ 10' INTERVALS AS YELLOW ON LEFT). SPACED EVER 1/4 MILE NEEDED IN FRONT OF ARROW BOARD , WORK AREA — 500' L, TAPER 500' MIN. - 800' DESIRABLE 55 MPH - 660' 60 MPH - 720'

TRANSITION AREA

TRAFFIC CONTROL, LANE CLOSURE, **SPEED REDUCTION**

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END

ROAD WORK

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

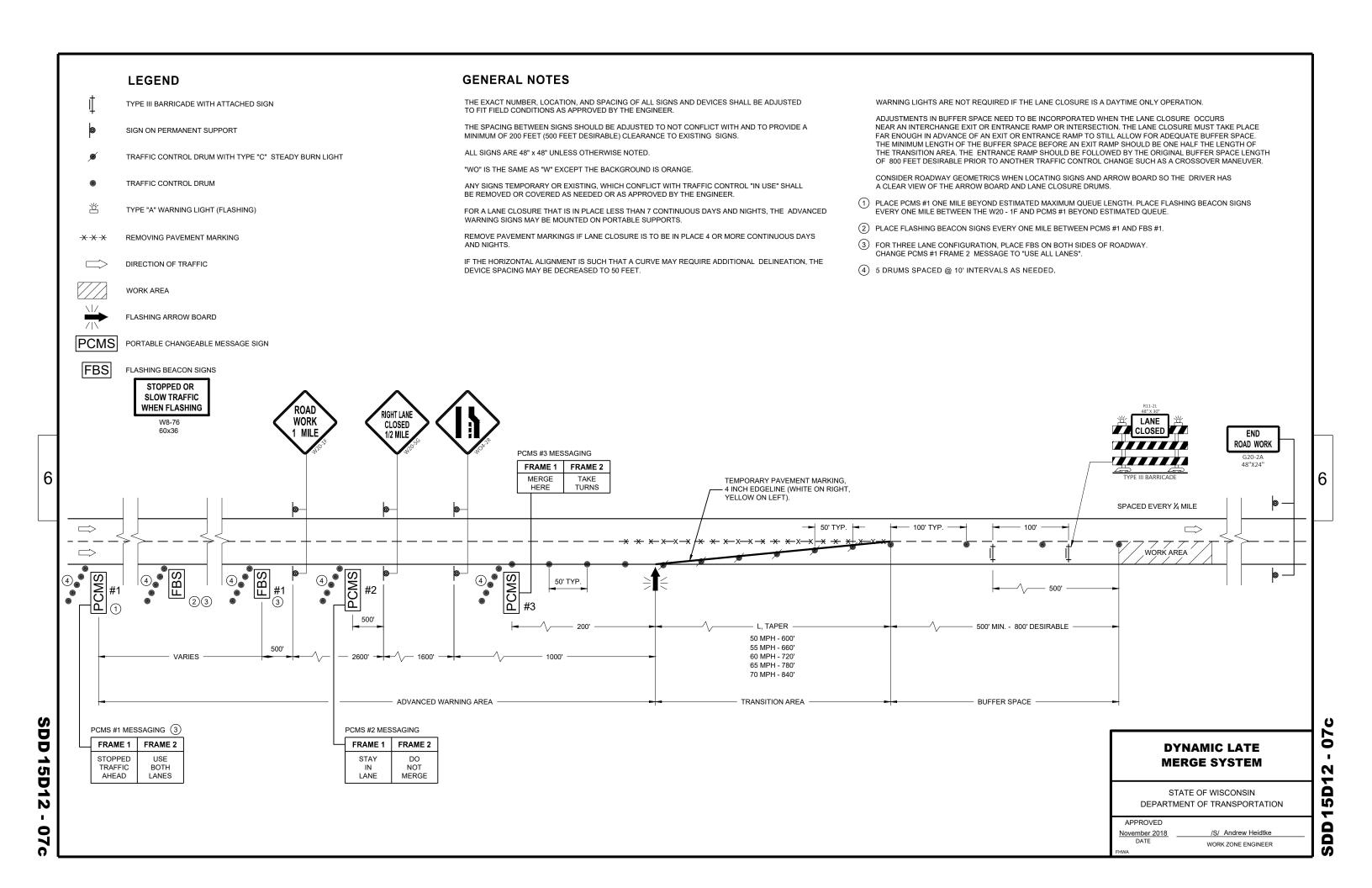
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BUFFER SPACE

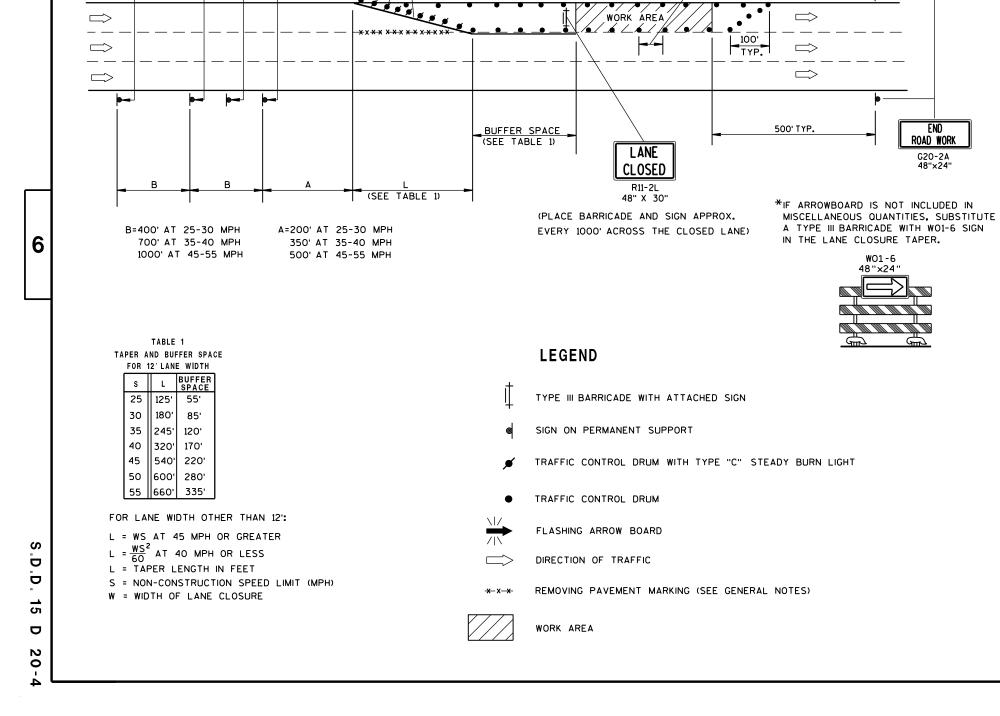
November 2018 DATE /S/ Andrew Heidtke WORK ZONE ENGINEER

SDD 15D12 0

ADVANCED WARNING AREA







(5) DRUMS SPACED @ 10'

INTERVALS AS NEEDED IN

FRONT OF ARROW BOARD

TEMPORARY PAVEMENT MARKING.

4-INCH REMOVABLE TAPE (WHITE ON RIGHT,

25'@ 35 MPH OR LESS 50'@ 40 MPH OR MORE

YELLOW ON LEFT)

SPACING:

ROAD WORK

NEXT___MILES

G20-1

60" X 24"

CLOSED

AHEAD

AHEAD

GENERAL NOTES

**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE

ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL

W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF

50' MAX. @ 35 MPH OR LESS

100' MAX. @ 40 MPH OR MORE

IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC

TRAFFIC. IN ADVANCE OF THE WORK AREA.

SPACING:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

TRAFFIC CONTROL SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED June 2016

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

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June 2016

/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER CLOSED

R9-9 24"×12'

TEMPORARY ` PEDESTRIAN

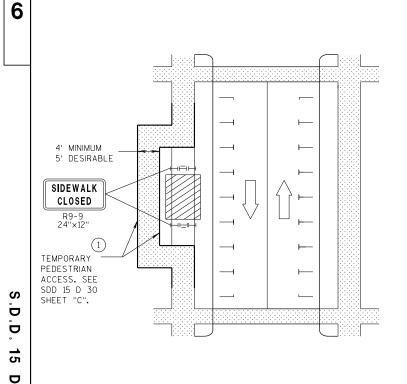
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SDD 15 D 30 SHEET "C".

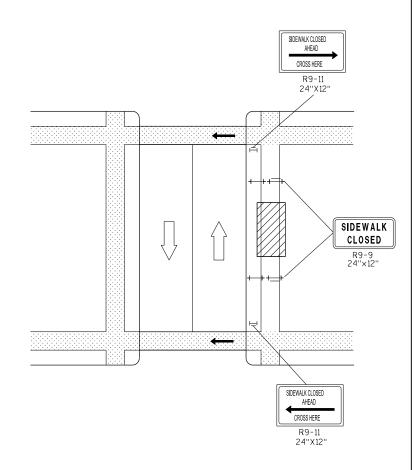
MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

NOTE: LAYOUT SAME AS ABOVE.

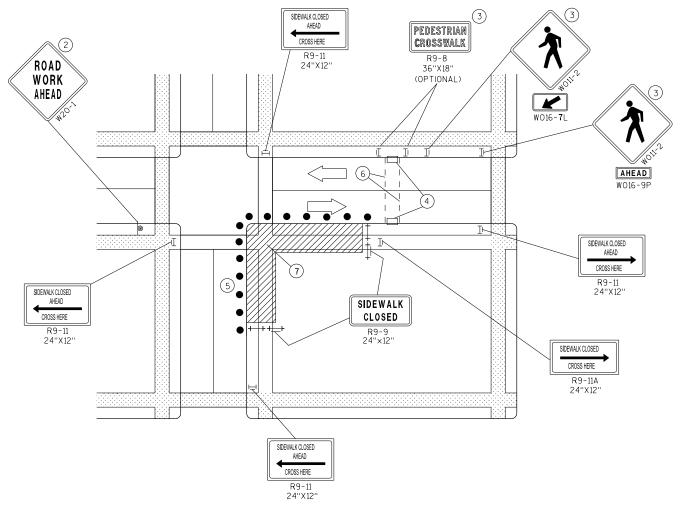
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SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

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

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

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

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

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

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

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

- (1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.
- (2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- (3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
- (4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".
- (5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- (6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- (7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

SIGN ON PERMANENT

SLIPPORT UNDER PEDESTRIAN

TRAFFIC

TRAFFIC

TRAFFIC CONTOL DRUM

DIRECTION OF

WORK AREA

PEDESTRIAN CHANNELIZATION DEVICE

TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A. LOW-INTENSITY FLASHING)

TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 4 0 က Ω Δ

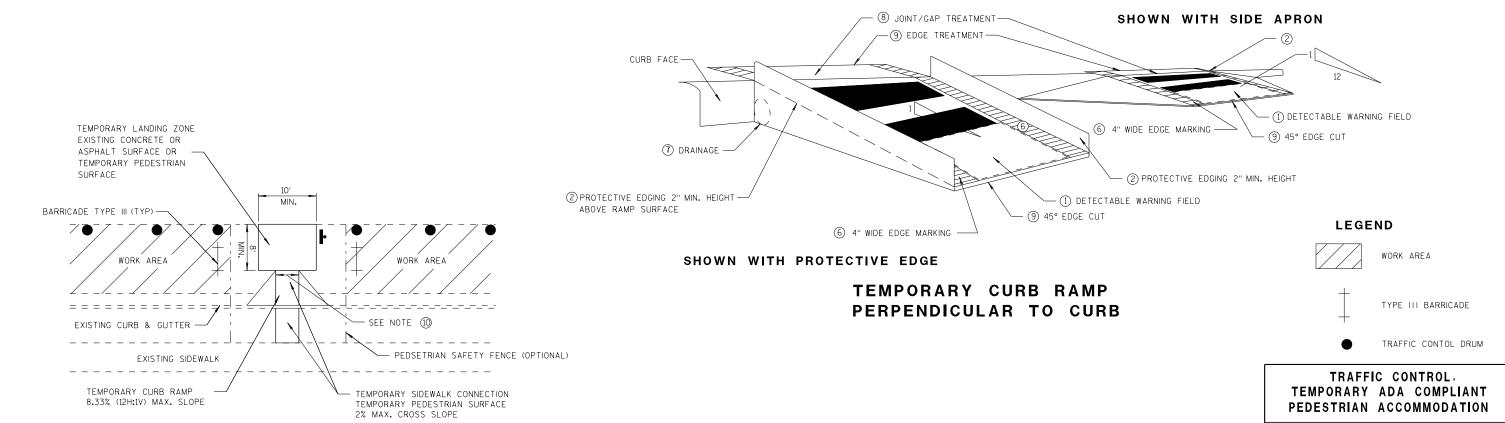
PARALLEL TO CURB

TEMPORARY BUS STOP PAD

GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION. ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

- ① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- (3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- (4) CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
- (5) CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- (6) THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
- 7) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- (8) LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- (9) CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
- 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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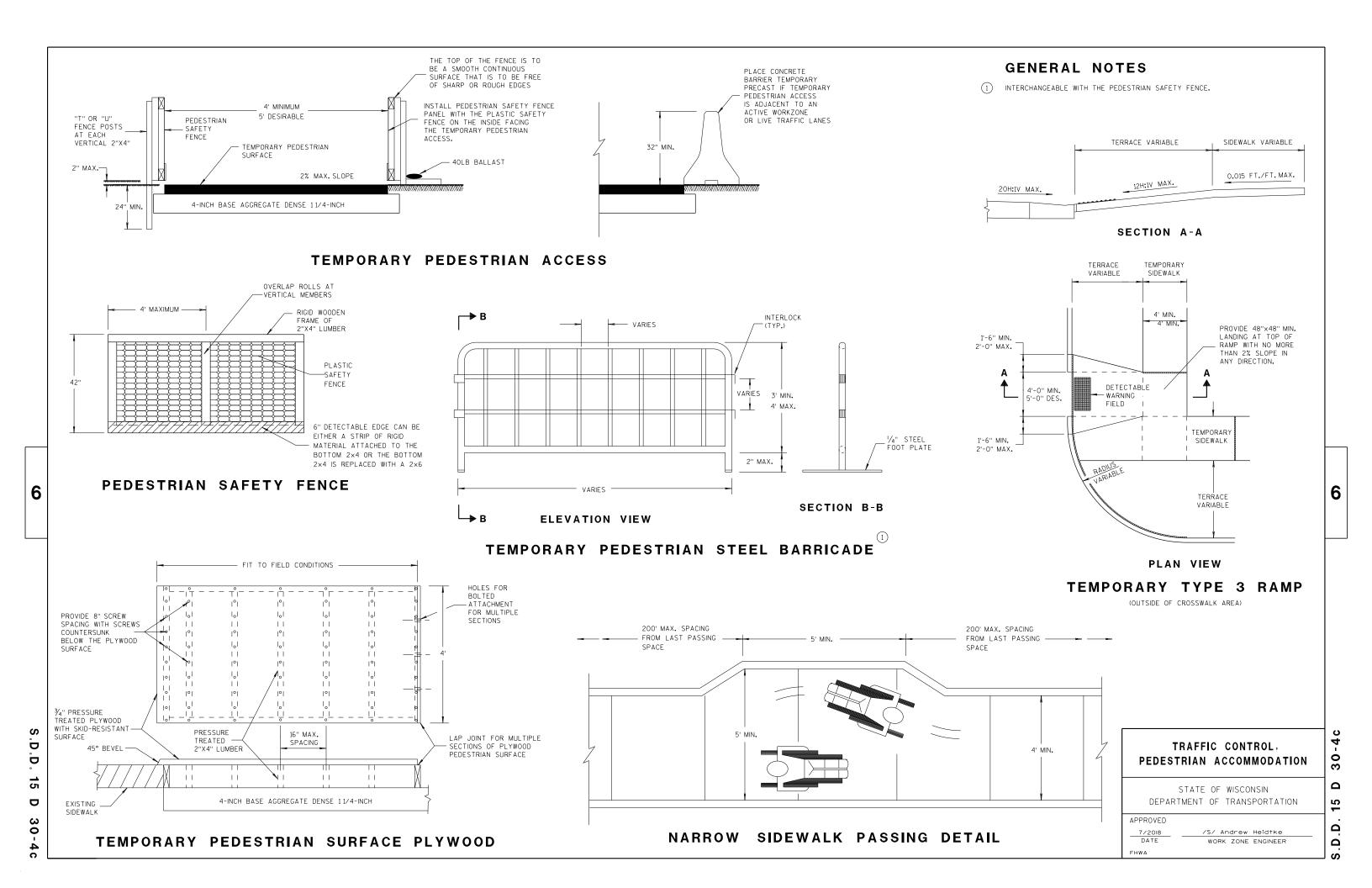
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 APPROVED

 7/2018
 /S/ Andrew Heidtke

 DATE
 WORK ZONE ENGINEER





TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SO. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SO.FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE). SIGNS LARGER THAN 27 SO.FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

URBAN AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST **EMBEDMENT DEPTH**

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF	
L	E	WOOD POSTS REQUIRED	
48" OR LESS AND LESS THAN 20 SO.FT.	-	1	
LESS THAN 60"	12"	2	٤
60" TO 120"	L/5	2	
GREATER THAN 120" LESS THAN 168"	12"	3	
168" AND GREATER	12"	4	

SEE NOTE (3)

RURAL AREA

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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- 11/2" DIAMETER HOLES

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38-2b

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D. OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 1/6" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SO. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER
FHWA

drew Heidtke
ZONE ENGINEER

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TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

✓ TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT.

(A) TYPE "A" WARNING LIGHT (FLASHING)

□ DIRECTION OF TRAFFIC

* USE ONLY IF DESIGN SPEED IS

Ö

Ö

10 MPH BELOW POSTED SPEED

WORK AREA

* * * * (SEE GENERAL NOTES)

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 SHIFTING RIGHT LANE - REVERSE FOR SHIFTING LEFT LANE.

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

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

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

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

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

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

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

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

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

TRAFFIC CONTROL,

LANE SHIFT, MULTI-LANE

DIVIDED OR ONE WAY ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

/S/ Andrew Heidtke

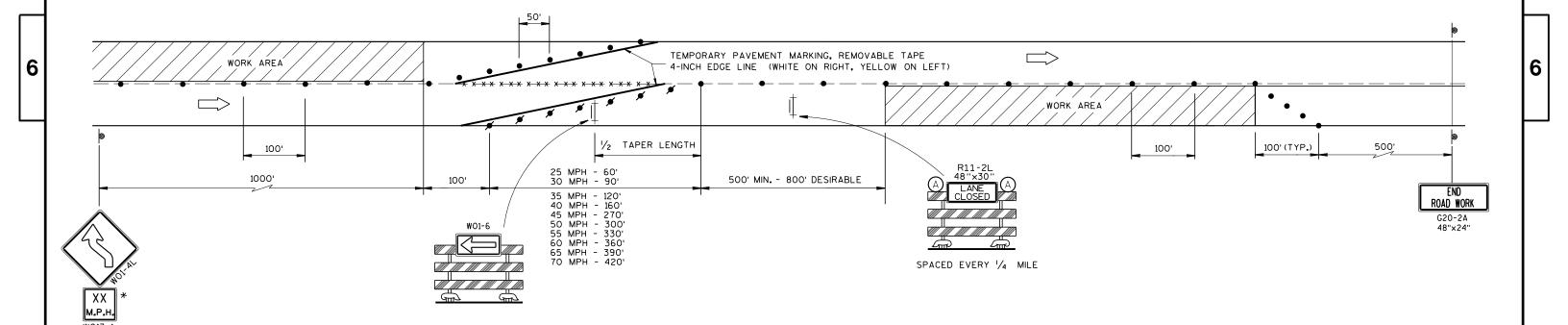
WORK ZONE ENGINEER

APPROVED
March 2018

DATE

FHWΔ

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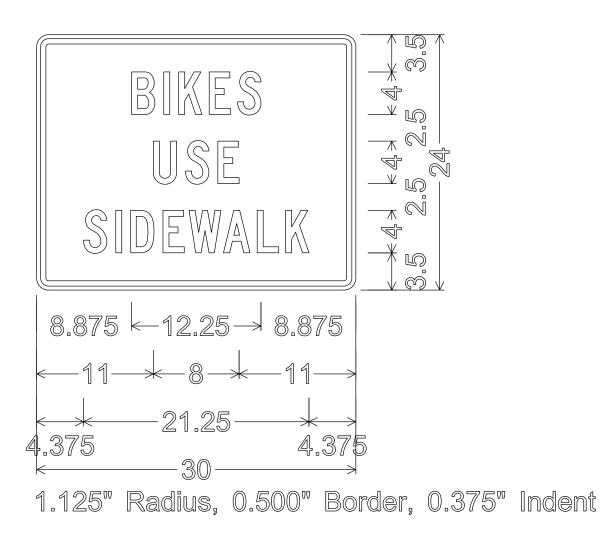
LANE SHIFT MULTI-LANE DIVIDED OR ONE WAY ROAD

NOTES

- 1. Sign is Type II Type H Reflective
- 2. Color:

Background - White Message – Black

3. Message Series - C



PROJECT NO: 1670-05-61

HWY: USH 12

COUNTY: SAUK

TEMPORARY SIGNING

SHEET NO:

Ε

PLOT DATE: 7-JAN-2019 10:51

FILE NAME : C:\CAEfiles\Projects\tr_1_USH12FMS.dgn

PLOT BY: mscj9h

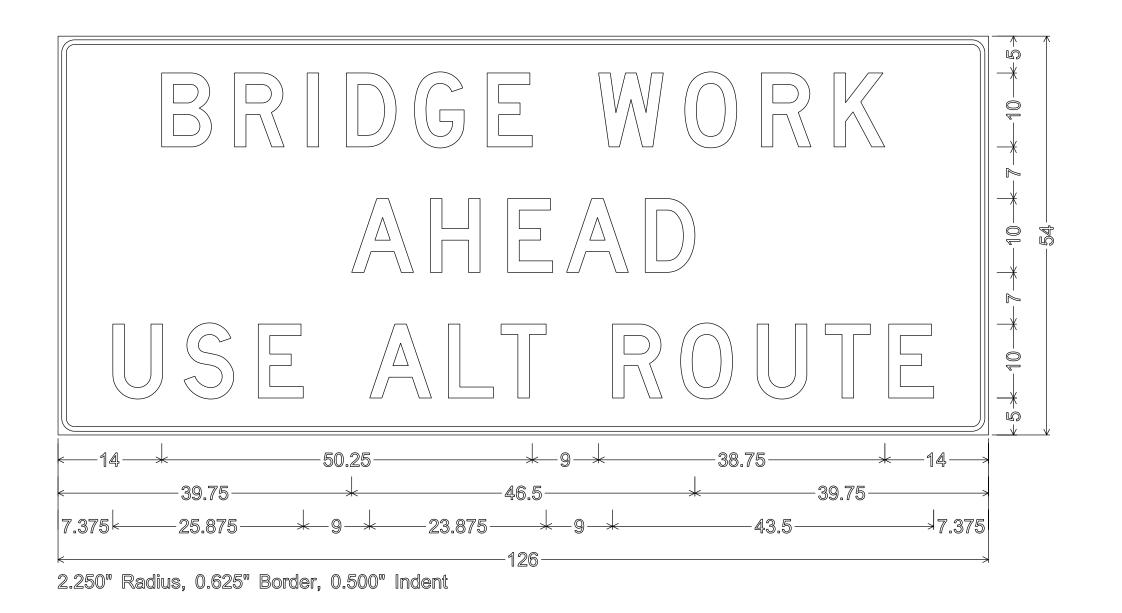
PLOT SCALE: \$\$.....plotscale.....\$\$ WISDOT/CADDS SHEET 42 PLOT NAME :

- 1. Sign is Type II Type F Reflective
- 2. Color:

Background - Orange

Message - Black

3. Message Series - D



PROJECT NO: 1670-05-61

HWY: USH 12

COUNTY: SAUK

TEMPORARY SIGNING

16

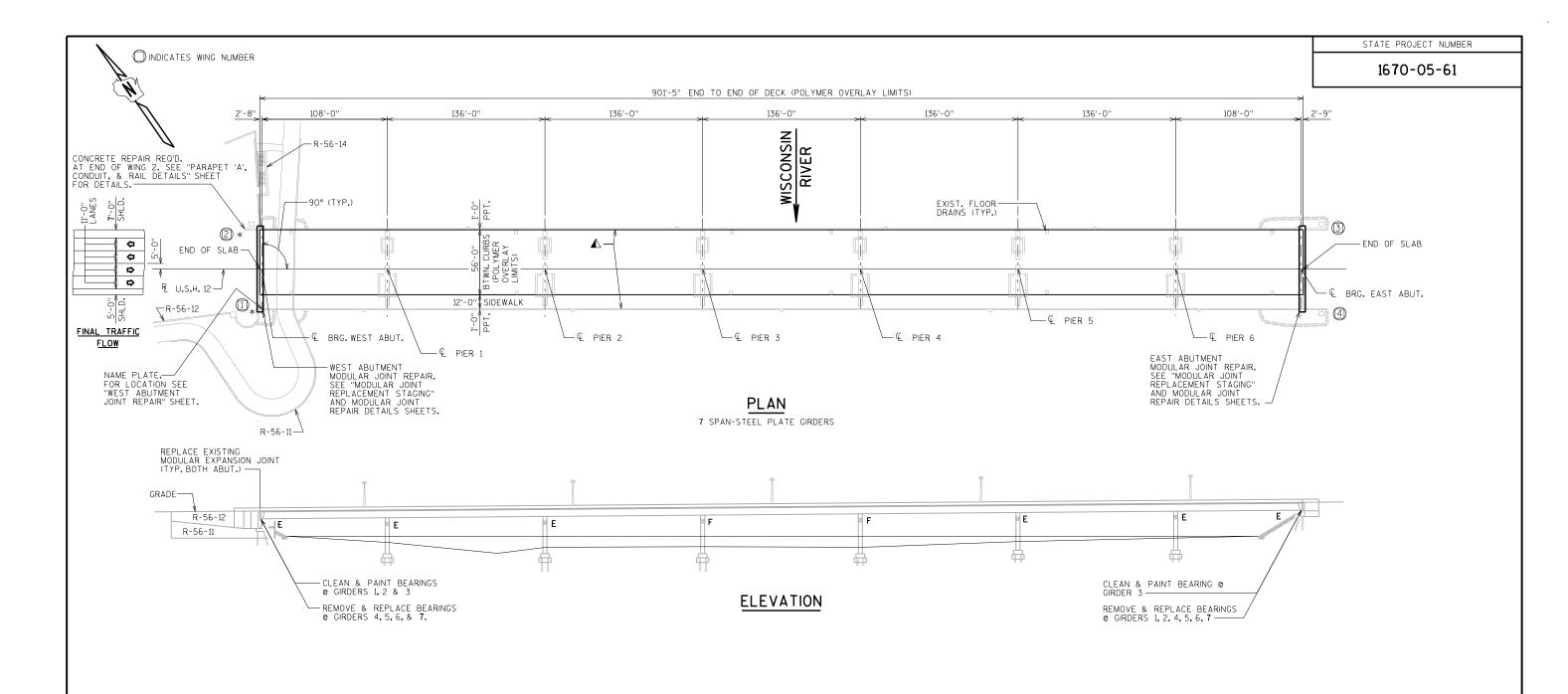
PLOT SCALE: \$\$.....plotscale.....\$\$ WISDOT/CADDS SHEET 42

FILE NAME : C:\CAEfiles\Projects\tr_d1_USH12FMS.dgn

PLOT DATE: 28-JAN-2019 3:32

PLOT BY: mscj9h

PLOT NAME :



DESIGN DATA

LIVE LOAD:

8

INVENTORY RATING; HS-20 OPERATIONAL RATING; HS-34

MAXIMUM STANDARD PERMIT VEHICLE LOAD = 250 KIPS.

MATERIAL PROPERTIES:

CONCRETE MASONRY

OVER $\frac{3}{4}$ " AND INCLUDING $\frac{1}{2}$ " THICK — fy = 46,000 P.S.I. STRUCTURAL CARBON STEEL (A.S.T.M. A709 GRADE 36) — fy = 36,000 P.S.I.

LEGEND

* REMOVE AND REPLACE THE 1/2" FILLER LOCATED BETWEEN THE DAMAGED PORTION OF WING 2 PARAPET AND ADJACENT CONCRETE BASE, AND THE 1/2" FILLER LOCATED BETWEEN WING 1 AND THE ADJACENT R-56-12 PARAPET.

⚠ PIGMENTED SURFACE SEALER TO BE APPLIED TO TOP, ENDS, AND INSIDE SURFACE OF THE PARAPET THE FULL LENGTH OF BRIDGE, INCLUDING THE PARAPETS ON ABUTMENT WINGS.

◆ ALL OF GIRDERS 1 THRU 3 (TOP FLANGE, BOTTOM FLANGE & WEB) CONSISTS OF A.S.T.M. A709 GRADE 50 STEEL.

A.S.T.M. A441 STEEL PRESENT IN TOP FLANGE, BOTTOM FLANGE & WEB OF GIRDERS 4 THRU 7 ABOVE PIERS. REMAINING LENGTHS OF THE TOP FLANGE, BOTTOM FLANGE & WEB OF GIRDERS 4 THRU 7 CONSISTS OF A.S.T.M. A709

LIST OF DRAWINGS

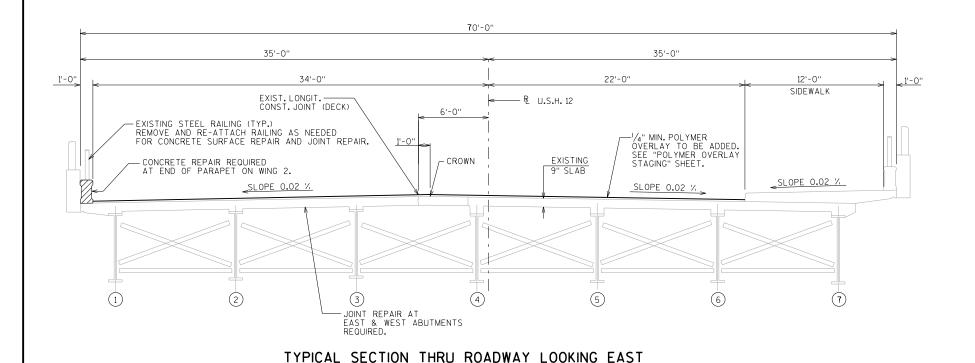
- 1. GENERAL PLAN
- 2. CROSS SECTION & QUANTITIES
- 3. MODULAR JOINT REPLACEMENT STAGING
 4. POLYMER OVERLAY STAGING
- 5. BEARING REPLACEMENT DETAILS
- 6. WEST ABUTMENT JOINT REPAIR
 7. EAST ABUTMENT JOINT REPAIR
- 8. JOINT REPAIR REPLACEMENT DETAILS
- 9. MODULAR JOINT REPAIR DETAILS 1
 10. MODULAR JOINT REPAIR DETAILS 2
- 11. MODULAR JOINT & COVER PLATE DETAILS
- 12. PARAPET 'A', CONDUIT, & RAIL REMOVAL DETAILS
- 13. PARAPET 'A', JOINT & CONC. REPAIR (WING 2)
- 14. RAILING DETAILS

STRUCTURE DESIGN CONTACTS:
ALEX CRABTREE (608) 266-3686

LAURA SHADEWALD (608) 267-9592

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NO.	DATE			RE	VISION			В	Y	
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S	TRL	JC	TURI	E B	-56-	217				
	RE	HAE	U.S.H	. 12 0\	ER WISC	ONSI	N RIVE	R		
COUN	YTY			SAUK	CITY		SA	UK (CITY	
	GN SPE HTO ST		PEC. FC	R HIGHV	AY BRIDG	ES, 17	TH EDIT	ION		
DESI BY	GNED A	RC	DESIGNE CK'D.	CAD	DRAWN BY	WWR	PLANS CK'D.	AI	RC	
						SHE	ET 1	OF	14	

GENERAL PLAN



TOTAL ESTIMATED QUANTITIES

8

BID ITEM NUMBER	BID ITEMS	UNIT	WEST ABUT.	EAST ABUT.	SUPER.	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 1003+50	LS				1
203.0225.S	DEBRIS CONTAINMENT B-56-217	LS				1
502.0100	CONCRETE MASONRY BRIDGES	CY	1			1
502.3110.S	EXPANSION DEVICE MODULAR B-56-217	LS				1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	3	3	7	13
502.3210	PIGMENTED SURFACE SEALER	SY	7	17	7 31	7 55
502.4110	ADHESIVE ANCHORS 11/4-INCH	EACH	8	12		20
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH			284	284
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB			4,800	4,800
505.0904	BAR COUPLERS NO. 4	EACH			4	4
505.0905	BAR COUPLERS NO. 5	EACH			16	16
505.0906	BAR COUPLERS NO. 6	EACH			10	10
506.6000	BEARING ASSEMBLIES EXPANSION B-56-217	EACH	4	6		10
506.7050.S	REMOVING BEARINGS B-56-217	EACH	4	6		10
509.0301	PREPARATION DECKS TYPE 1	SY			2	2
509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF			20	20
509.1000	JOINT REPAIR	SY	39	39		78
509.2100.5	CONCRETE MASONRY DECK REPAIR	CY			31	31
509.5100.S	POLYMER OVERLAY	SY			5,610	5,610
509.9050.S	CLEANING PARAPETS	LF	10	36	1 ,7 92	1,838
513 . 9005 . S	REMOVING & RESETTING TUBULAR RAILING B-56-217	LS				1
SPV.0060	CLEANING AND PAINTING BEARINGS	EACH	3	1		4
SPV.0180	ABUTMENT SEAT CLEANING & SEALING	SY	23	17		40
	NON-BID ITEMS					
	FILLER	SIZE				1/2"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL REINFORCING SHALL HAVE A MINIMUM OF 2" CLEAR COVER UNLESS SHOWN OTHERWISE.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR

DIMENSIONS SHOWN ARE BASED ON 2004 STRUCTURE PLANS.

BEVEL EDGES OF EXPOSED CONCRETE $\frac{3}{4}$ " MIN. OR MATCH EXISTING BEVELS UNLESS NOTED OTHERWISE.

CONCRETE REPAIR IS NEEDED AT WING 2 PARAPET. WORK SHALL BE DONE AS DIRECTED BY THE FIELD ENGINEER, AND AS PER DETAILS ON SHEETS 12 & 13. CONCRETE REPAIR TO BE PAID UNDER BID ITEMS 'REMOVING OLD STRUCTURE STA. 1003+50' & 'CONCRETE MASONRY BRIDGES'.

ALL REMOVAL LINES ON THE WING 2 PARAPET SHALL BE DEFINED BY A 1/2-INCH DEEP SAWCUT.

PRESERVE & INCORPORATE EXISTING WING 2 PARAPET REINFORCEMENT INTO PARAPET REPAIR.

TRAFFIC TO BE MAINTAINED DURING CONSTRUCTION. CONSTRUCTION STAGING SHOWN IN PLAN.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED VERT. AND HORIZ. SURFACES OF THE SIDEWALK, AT JOINT REPAIR AREAS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO TOP, ENDS, AND INSIDE SURFACE OF THE PARAPET THE FULL LENGTH OF BRIDGE, INCLUDING THE PARAPETS ON ABUTMENT WINGS.

ANY EXCAVATION NECESSARY TO COMPLETE JOINT REPAIR @ ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "JOINT REPAIR".

CONTRACTOR IS RESPONSIBLE FOR PULLING THE LIGHTING WIRE IN THE CONDUIT DURING JOINT REPLACEMENT.

PREPARATION DECKS TYPE 1 AREAS TO BE DETERMINED BY FIELD ENGINEER.

CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 2002.

TE REVISION BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES DESIGN SECTION

STRUCTURE B-56-217

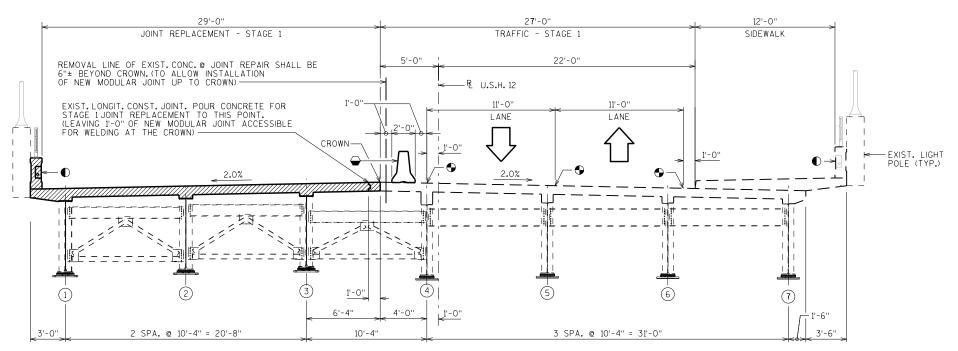
NO. DATE

DRAWN BY WWR CK'D. ARC

CROSS SECTION & QUANTITIES

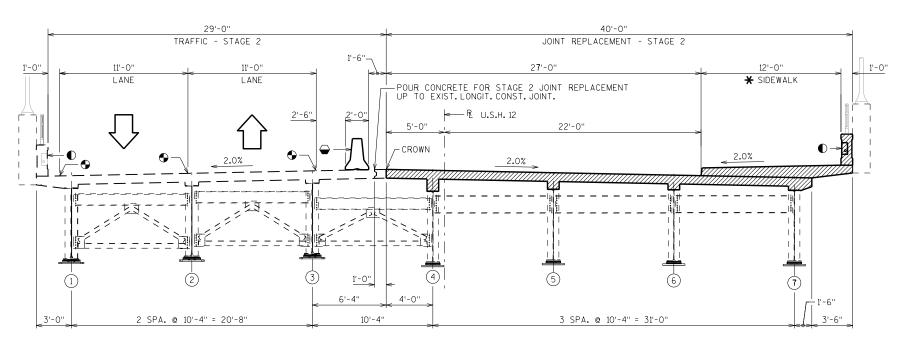
SCALE = 4.00

1670-05-61



JOINT REPLACEMENT - STAGE 1

(SECTION THRU ROADWAY @ EXPANSION JOINTS LOOKING EAST)



JOINT REPLACEMENT - STAGE 2

(SECTION THRU ROADWAY @ EXPANSION JOINTS LOOKING EAST)

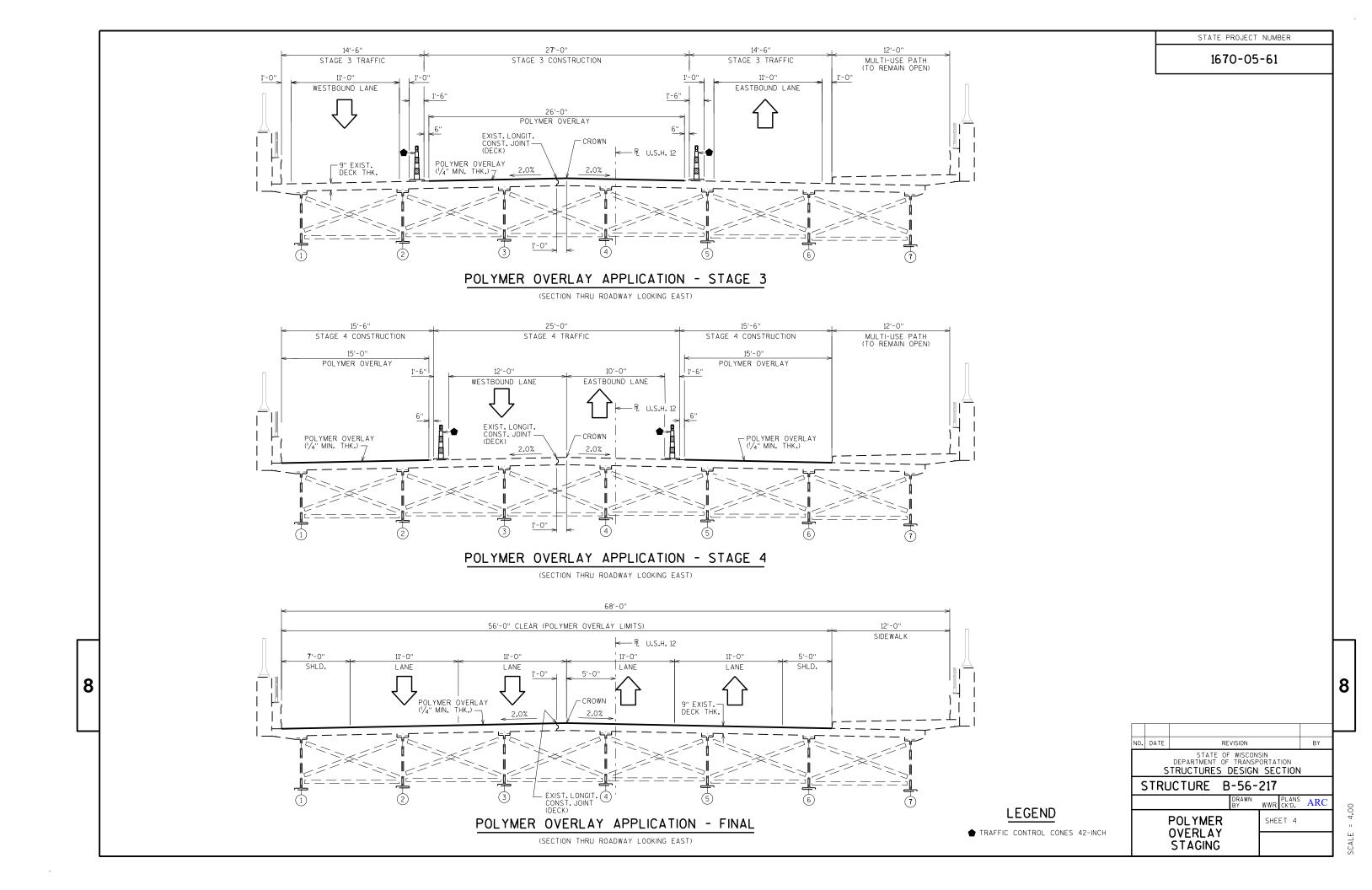
LEGEND

- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY MARKING LINE REMOVABLE TAPE
- * PEDESTRIANS TO USE SIDEWALK DURING JOINT REPLACEMENT
- (1) 2" CONDUIT FOR LIGHTING (SAUK CITY UTILITIES ELECTRICITY)

NO.		BY						
	STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION							
STRUCTURE B-56-217								
			DRAWN BY	WWR	PLANS CK'D.	ARC		
		ULAR JOI		SHE	ET 3			
	KE	PLACEMEN STAGING	11					

8

SCALF = 400



BEARING NOTES

ALL BEARINGS ARE SYMMETRICAL ABOUT & OF GIRDER.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS C.

ROCKER PLATE "C" AND MASONRY PLATE "D" SHALL BE GALVANIZED. TOP PLATE "A" AND STEEL PLATE "B" SHALL BE SHOP PAINTED. USE A WELDABLE PRIMER ON TOP PLATE "A". DO NOT PAINT STAINLESS STEEL OR TEFLON SURFACES.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES, BUT EXCLUDING STAINLESS STEEL SHEET, TEFLON SURFACE, PINTELS, ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 50W.

ALL MATERIAL IN TYPE "A-T" BEARINGS, INCLUDING SHIM PLATES AND BEARING PADS, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING ASSEMBLIES EXPANSION B-56-217", EACH.

ALL FINISHED SURFACES SHALL BE MACHINE FINISHED BY AN AUTOMATIC PROCESS.

PROVIDE $\frac{1}{8}$ " THICK BEARING PAD SAME SIZE AS PLATE "D" FOR EACH BEARING.

- PROVIDE A METHOD FOR HANDLING PLATE "C" DURING GALVANIZING.
- THAN 2".

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ANCHOR BOLTS SHALL BE FULLY THREADED. PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. PROJECT ANCHOR BOLTS, MASONRY PLATE "D" THICKNESS + 21/4", ABOVE TOP OF CONCRETE. ANCHOR BOLTS SHALL BE PAID FOR AS "ADHESIVE ANCHORS 11/4-INCH" AND BE EPOXY ANCHORED. CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

CHAMFER TOP OF PINTLES $/_8$ ". DRILL HOLES FOR ALL PINTLES IN MASONRY PLATE "D" FOR A DRIVING FIT.

STEEL PINTLES SHALL CONFORM TO ASTM A449 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 36, OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

PLACE SHIM PLATES BETWEEN BEARING PAD AND MASONRY PLATE "D". PLATES SHALL HAVE 'X' AND 'Z' DIMENSIONS THAT MATCH MASONRY PLATE "D".

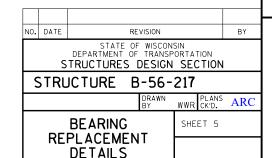
- \star FINISH THESE SURFACES ANSI 250 FINISH IF 'Y' DIM. IS GREATER
- ⚠ BOND STEEL PLATE "B" AND TEFLON WITH ADHESIVE MATERIAL MEETING THE REQUIREMENTS FOUND IN THE STANDARD

AT INSTALLATION, ENSURE STAINLESS STEEL SLIDING FACE OF THE UPPER ELEMENT AND THE TFE SLIDING FACE OF THE LOWER ELEMENT HAVE THE SURFACE FINISH SPECIFIED AND ARE CLEAN AND FREE OF ALL DUST, MOISTURE, OR ANY OTHER FOREIGN MATTER.

TABLE OF FILLET WELD SIZES

MATERIAL THICKNESS OF THICKER PART JOINED	≠ MIN. SIZE OF FILLET WELD
TO 1/2" INCLUSIVE	3/16 "
OVER 1/2" TO 3/4"	1/4"
OVER 3/4" TO 11/2"	% "
OVER 11/2" TO 2 1/4"	3/8"

EXCEPT THAT WELD SIZE SHALL NOT EXCEED THICKNESS OF THINNER PART JOINED.



♠ BRG. (TYP.) → > BRG. (TYP.) STAINLESS STEEL ASTM A240, TYPE 304,2B FINISH,16 GA.SHEET 15%" DIA. DRILLED HÖLE-5%" DEEP - ANSI 250 FINISH \oplus 1/4"X1/2" BAR-€ OF GIRDER -1" X 1" X 6" BAR ANSI 250 FINISH √ FIRST ⚠ TEFLON SURFACE, USE UNFILLED MIN. 1/6" THICK PLACE WITH SCRIVE MARKS IN DIRECTION **√**WELD -11/2" DIA. PINTLES PLATE DETAIL' DRILLED HOLES FOR ANCHOR
BOLTS (HOLE DIA. = BOLT DIA. + 3/8") OF MOVEMENT MASONRY PLATE "D"

TOP PLATE "A"

TEFLON SURFACE ON PLATE "B"

(WEST ABUT.)

ROCKER PLATE "C"

EXPANSION BEARING

BEARING TABLE

8

		PLAT	E "A"	PLAT	E "B"		PLATE "C'			ANCHOR ANCHOR BOLT BOLT		NO. OF BRG'S	LOCATION		
		'X'	'Z'	'X'	'Z'	'X'	'Y'	'Z'	'X'	'Y'	'Z'	DIA.	LENGTH	REO'D.	LOCATION
İ	z	1'-1"	1'-23/4"	7"	1'-23/4"	9"	17/16 "	1'-5"	8"	11/2"	2'-6"	11/4"	1'-5"	4	W. ABUT. @ GIRDERS 4,5,6,7
	EXPANSION BEARING														
	AN RIN	1'-1"	1'-43/4"	7"	1'-43/4"	9"	115/16"	1'-7''	8"	11/2"	2'-8"	11/4"	1'-5"	2	E. ABUT. @ GIRDERS 1&2
	EXF BE/	1'-1"	1'-23/4"	7"	1'-23/4"	9"	17/16 ''	1'-5"	8"	11/2"	2'-6"	11/4"	1'-5"	4	E. ABUT. @ GIRDERS 4,5,6,7
- 1															

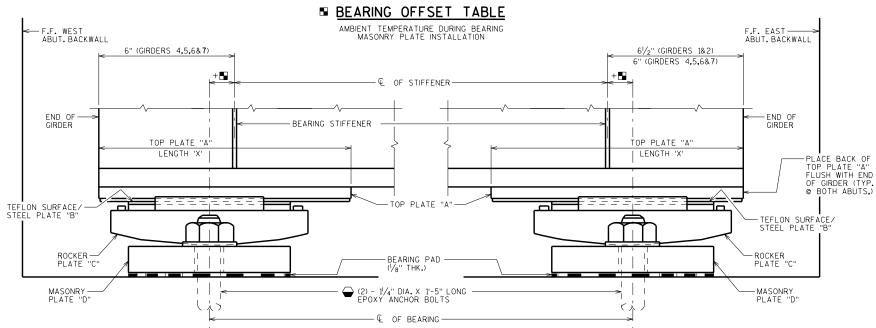
-21/16"

	W. ABUT.	E. ABUT.					
°F	GIRDERS 4,5,6&7	GIRDERS 1&2	GIRDERS 4,5,6&7				
30	0	1/2"	0				
35	-1/8"	3/8"	-l/ ₈ "				
45	-1/2"	0	-1/2"				
55	- 7/8"	-3/8"	- 1/8"				
65	-1 ³ / ₁₆ ''	-11/16 ''	-13/16 ''				
7 5	-1%6 "	-11/16"	-1%6''				
85	-17/8"	-13/8"	-17/8"				

-1%6"

-21/16"

(EAST ABUT.)



EXPANSION BEARING ASSEMBLY DETAIL AT ABUTS.

(LOOKING NORTH)

BEARING REPLACEMENT DETAILS REMOVE EXIST, EXPANSION BEARINGS AND EXISTING ANCHOR BOLTS FLUSH WITH CONCRETE BEARING SURFACE AND GRIND

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-⊕

(E. ABUT. @ GIRDERS 1&2)

♠ BRG. OCATION

BOLTS

BOLTS)

15/8" DIA. HOLE (NEW_ANCHOR

MASONRY PLATE DETAIL

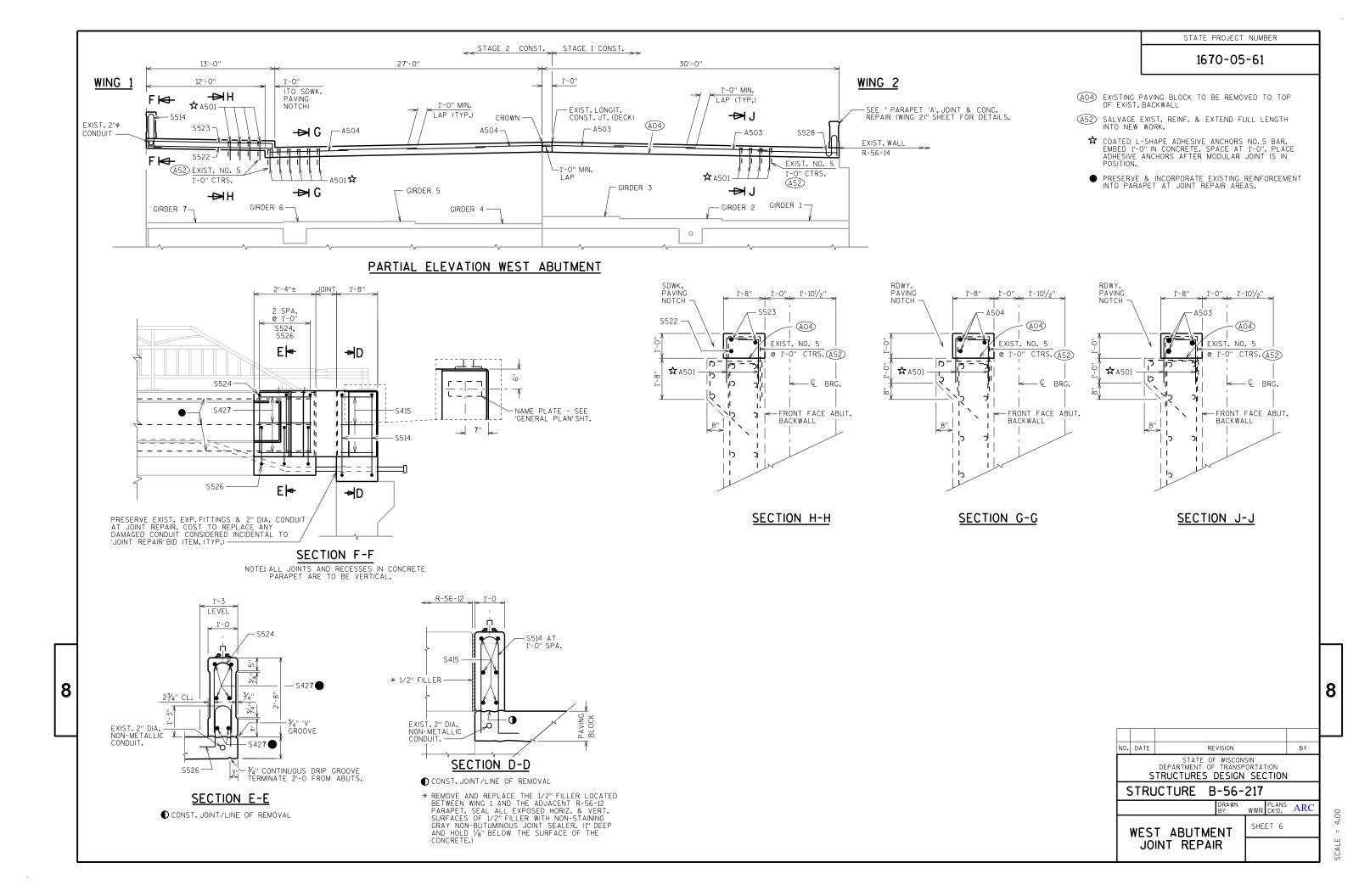
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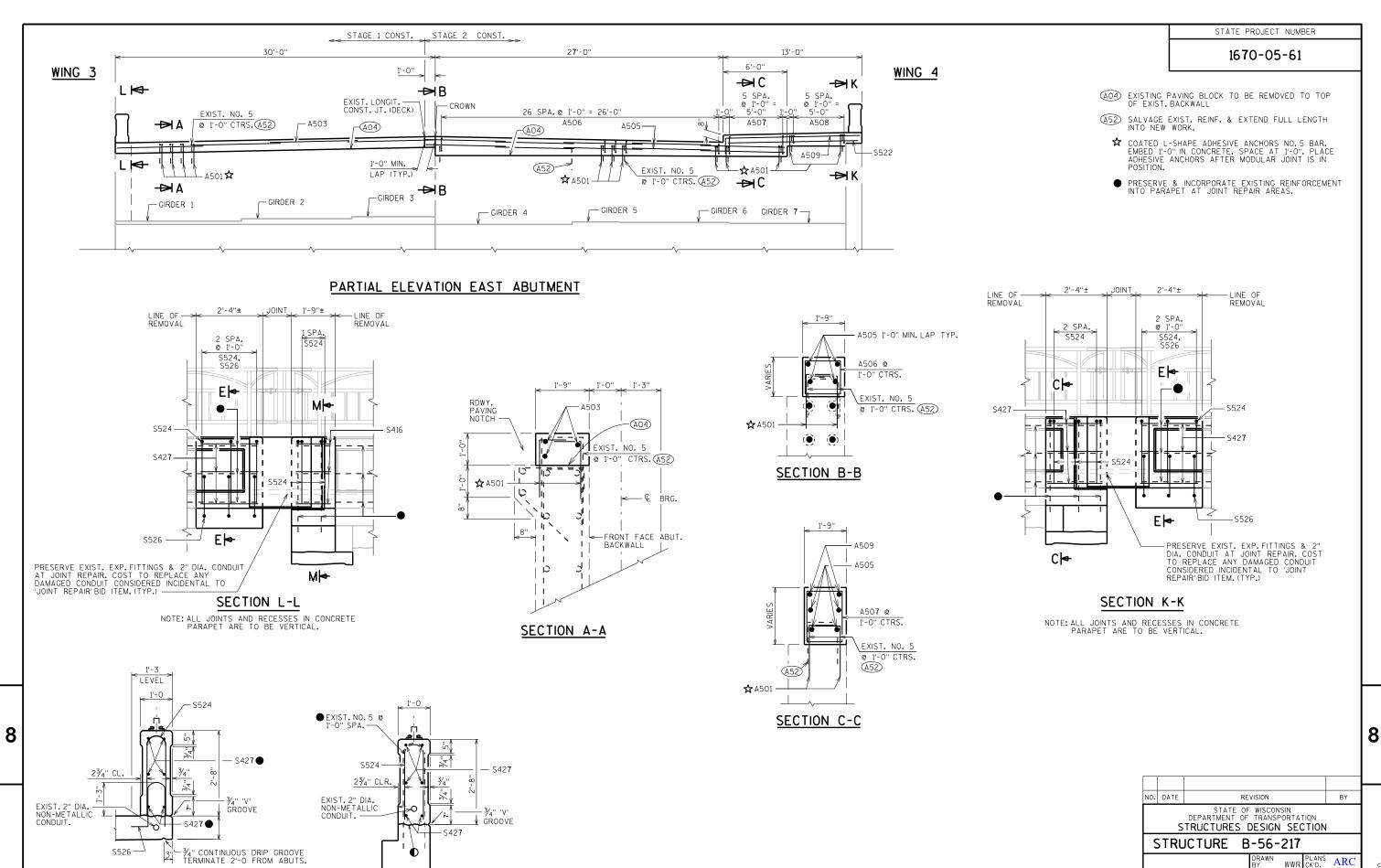
4" | 4" (BOTH ABUTS.@ GIRDERS 4,5,6&7)

REMOVE EXISTING TOP PLATE AND REPLACE WITH NEW PLATE "A" FOR EXPANSION BEARING.

EXIST. GIRDER

PAID FOR AS BID ITEM "REMOVING BEARINGS





SECTION E-E

OCONST. JOINT/LINE OF REMOVAL

SECTION M-M

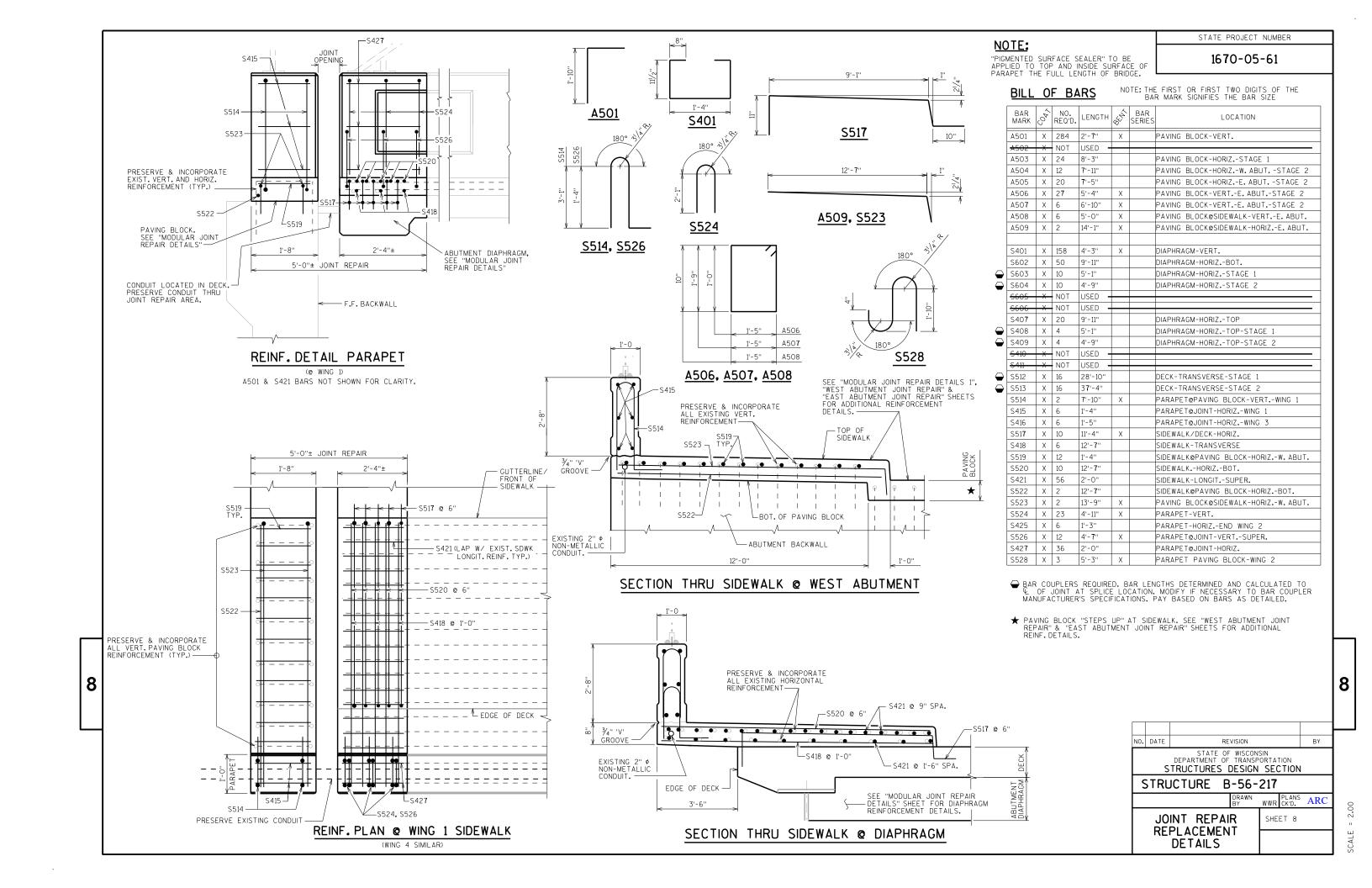
OCONST. JOINT/LINE OF REMOVAL

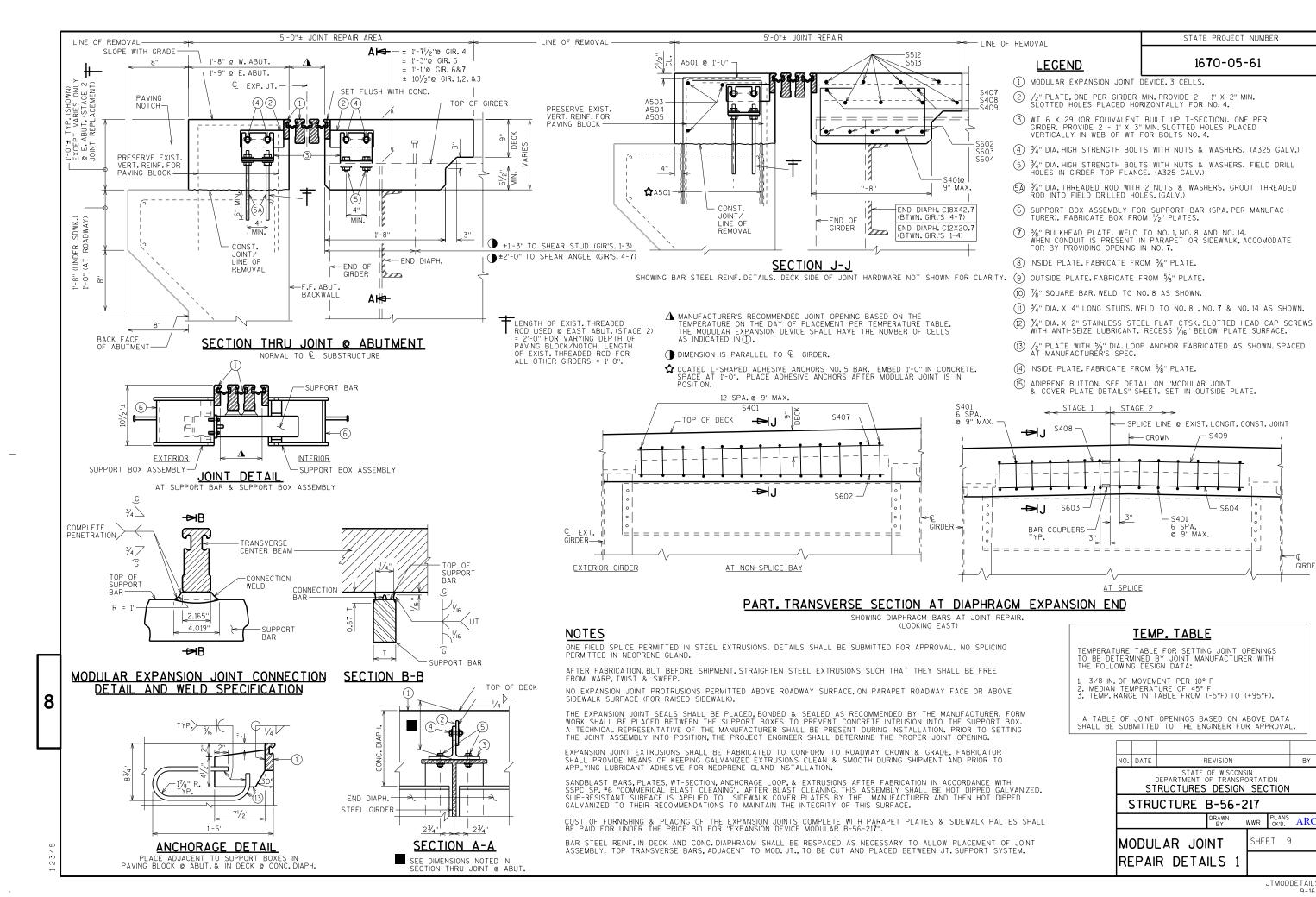
SHEET 7

EAST ABUTMENT

JOINT REPAIR

SCALE

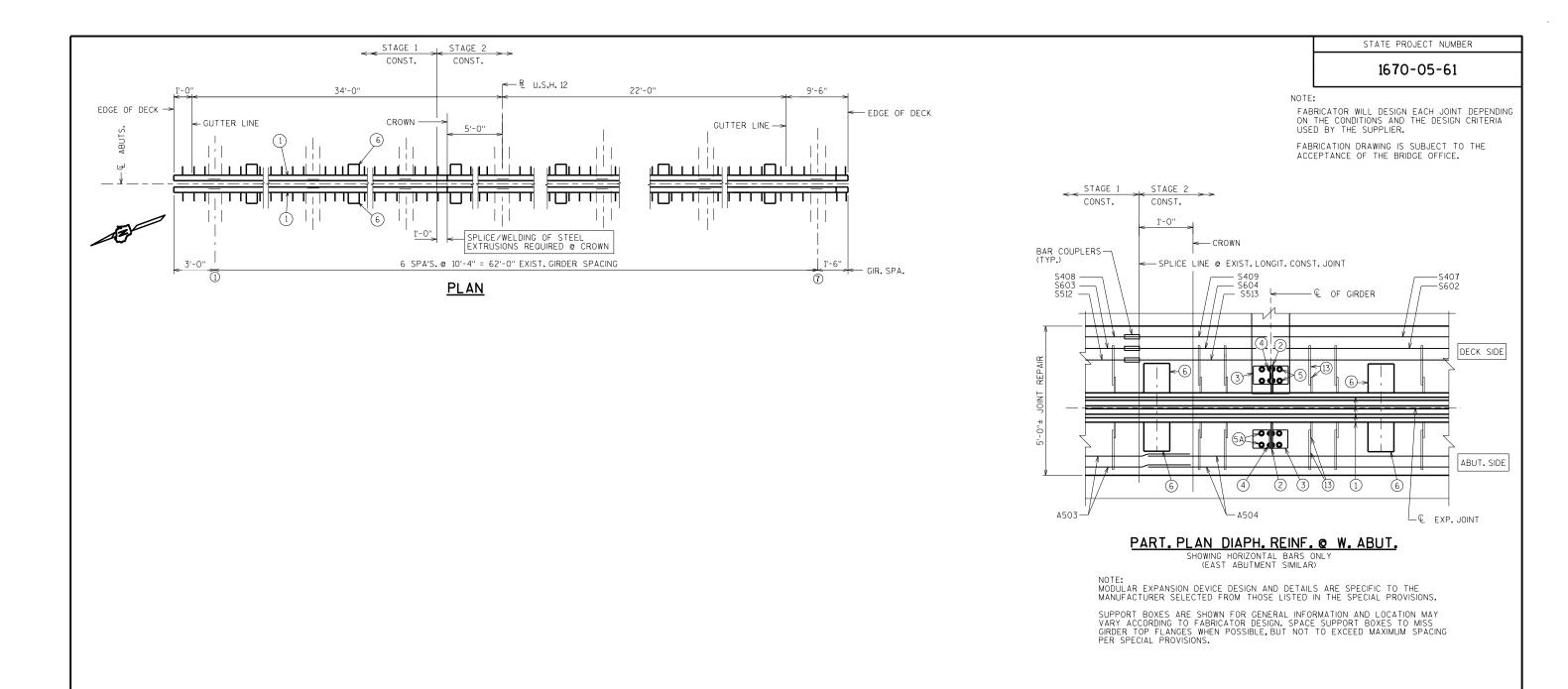




SHEET 9

BY

GIRDE



NO. DATE REVISION

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION

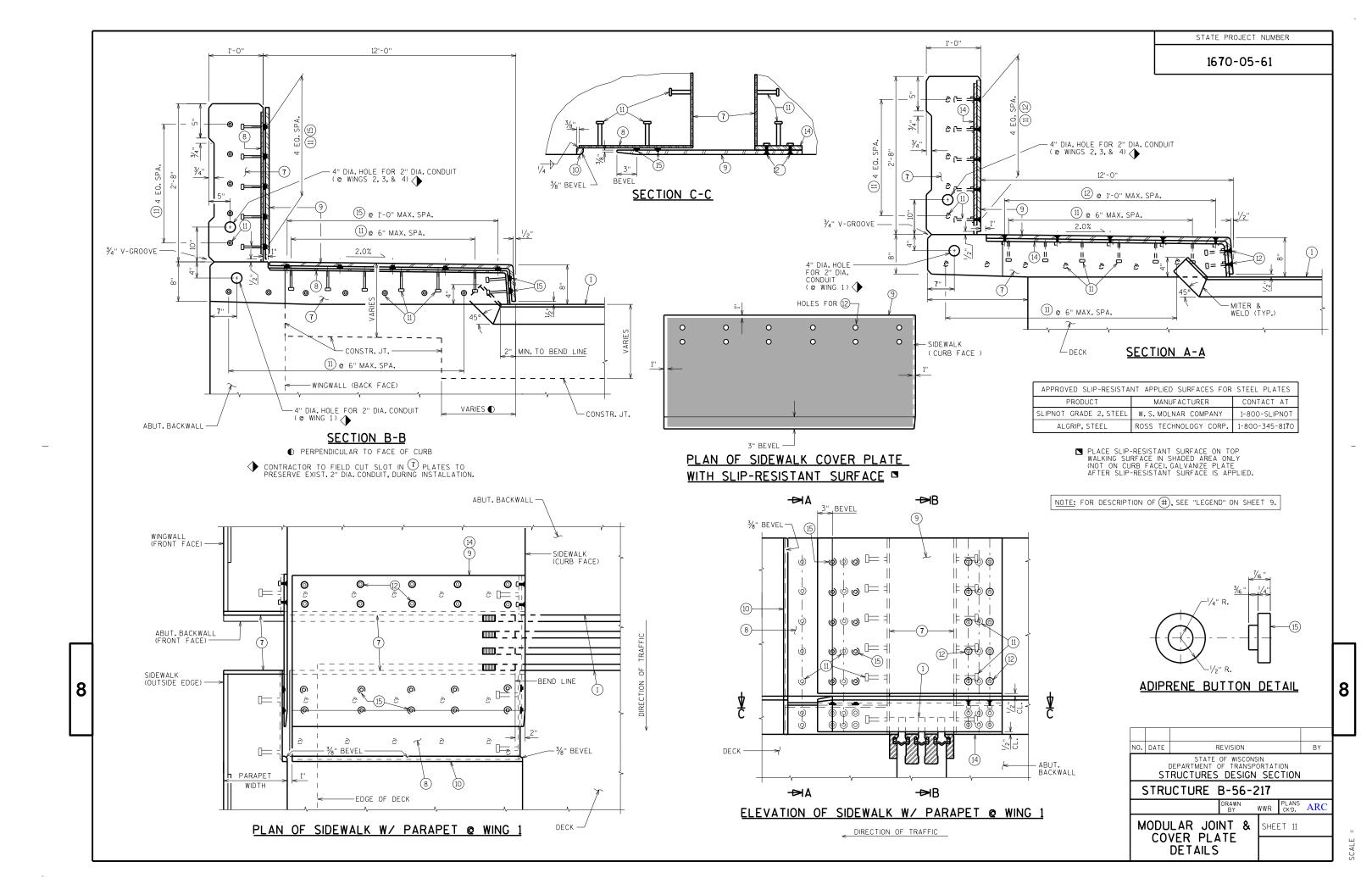
STRUCTURE B-56-217

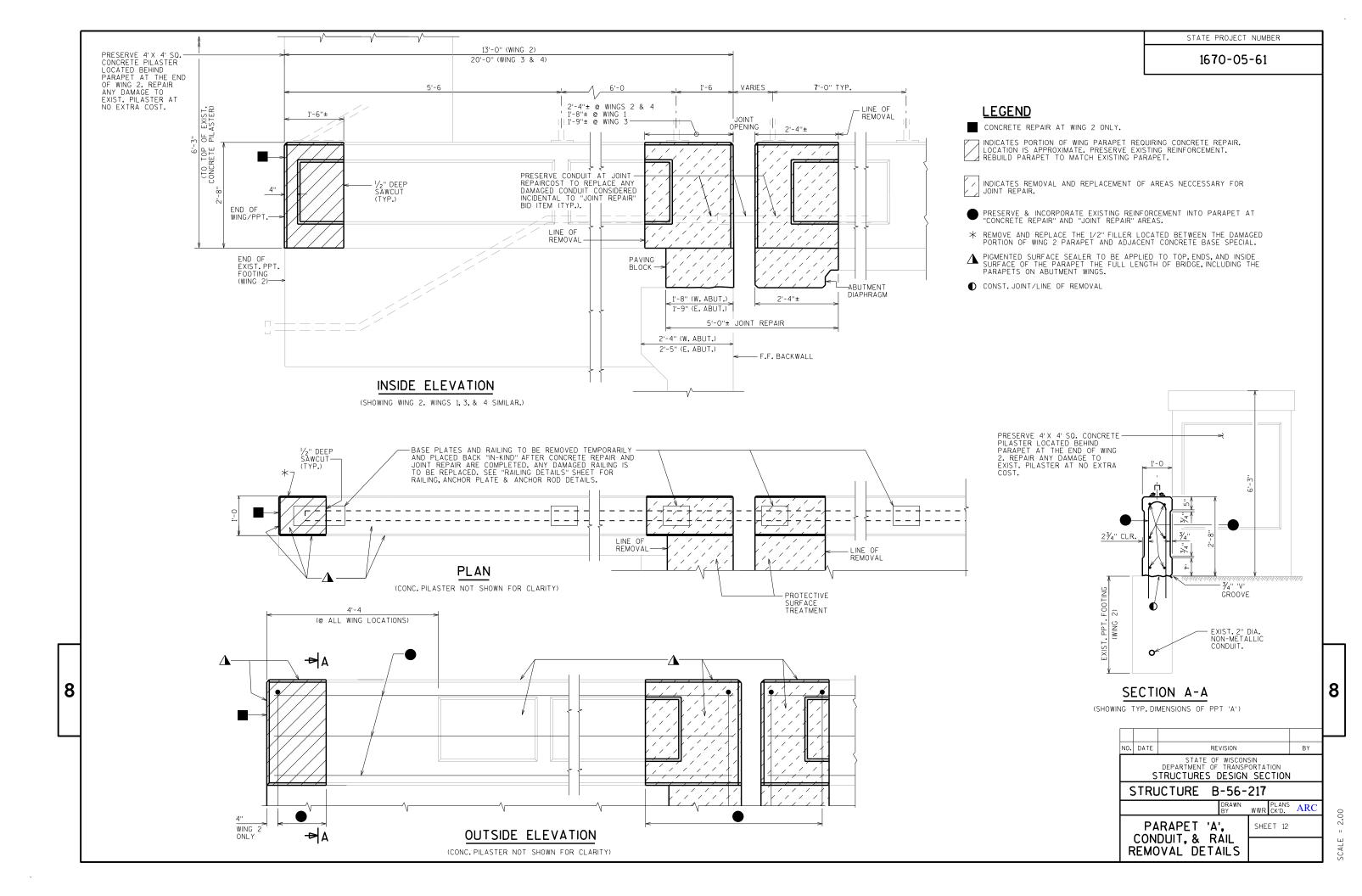
DRAWN WWR PLANS PL

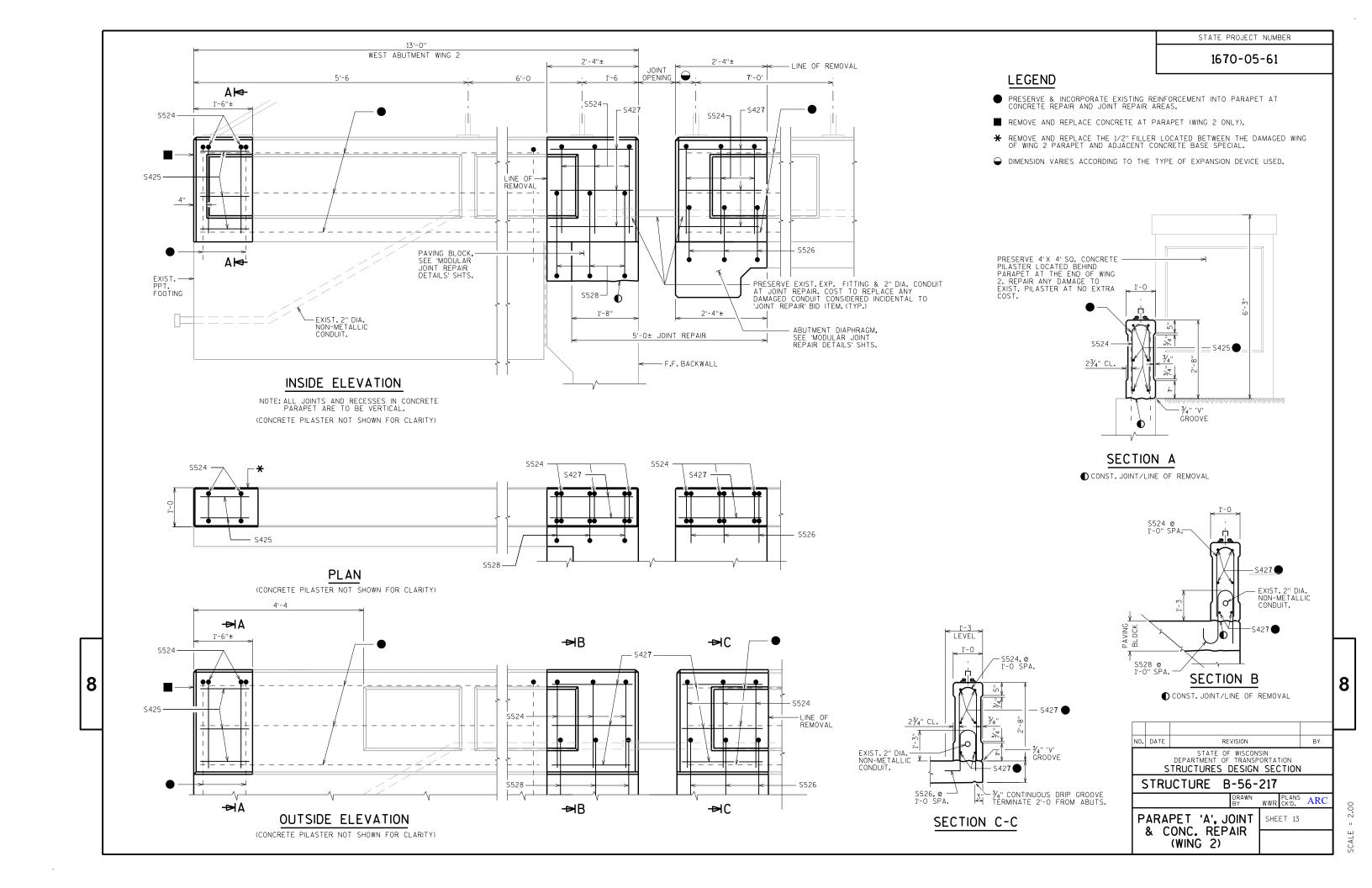
8

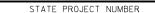
MODULAR JOINT REPAIR DETAILS 2

BY









1670-05-61

STEEL RAILING NOTES

BID ITEM 'REMOVING & RESETTING TUBULAR RAILING B-56-217' INCLUDES TEMPORARILY REMOVING & REINSTALLING BASE PLATES AND RAILING, AFTER CONCRETE REPAIR (WING 2) AND JOINT REPLACEMENTS ARE COMPLETED. TOUCH-UP PAINTING TO DAMAGED RAILING SURFACE ALSO INCLUDED.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

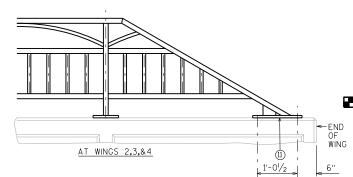
STEEL SHIMS SHALL BE PROVIDED & USED UNDER POST BASE PLATES (NO. 1, NO. 11, NO. 17), WHERE REQUIRED FOR ALIGNMENT AND SHALL BE GALVANIZED.

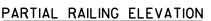
ENDITY CAULK AROUND PERIMETER OF BASE PLATES (NO. 1, NO. 11 & NO. 17), AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

TOUCH-UP PAINTING (FEDERAL COLOR NO.27038) TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

LEGEND

- ① EXISTING PLATE $\frac{3}{4}$ " X 6" X 0'-8" WITH $\frac{1}{6}$ " DIA. $\frac{15}{8}$ " SLOTTED HOLES.
- (2) 5%" DIA. X 0'-10" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. ALTERNATE ANCHORAGE: CONCRETE ADHESIVE ANCHORS 5%-INCH. EMBED 7" IN CONCRETE FOR RAIL POSTS. EMBED 5" IN CONCRETE FOR END RAILS. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIEL AT 100.5
- 3 $\frac{1}{4}$ " X 5" X 7" ANCHOR PLATE WITH $\frac{1}{16}$ " DIA. HOLES FOR THR'D. RODS NO. 2
- (1) EXIST. 1/2" DIA. STAINLESS STEEL BOLT WITH NUT AND LOCKWASHER.
- 1) EXIST. PLATE $\frac{3}{4}$ " X 6" X 1'-3 $\frac{1}{2}$ ", WITH $\frac{1}{16}$ " DIA. X 1 $\frac{5}{8}$ " SLOTTED HOLES.
- $2 \frac{1}{4}$ " X $2\frac{1}{2}$ " X 5" ANCHOR PLATE WITH $\frac{1}{6}$ " DIA. HOLES FOR THR'D. RODS NO. 2
- 1 EXIST. PLATE 34" X 6" X 0'-8 WITH 34" DIA. DRILLED HOLES.





EXP. DEVICE AT ABUTS.

<u>3'-6 AT 45</u>° F.

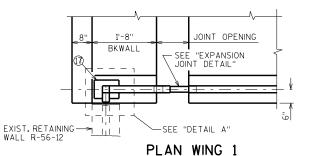
1'-6"

EXIST. SLEEVE

♠ RAILING OPENING TO BE 51/2" AT 45° F. MOVEMENT ADJUSTMENT SHALL BE MADE AT A RATE OF 3/4" PER 20° F.

EXIST. 3" X 1" X 3/6"

TUBE



SEE "EXPANSION JOINT DETAIL"

FRONT FACE OF ABUT.

BACKWALL

JOINT

CLOSURE PLATE -

DETAIL A

ANCHOR PLATE & ROD OTYS.

 Θ

ITEM #	QTY.	
2	36	
* ③	7	
* 12	4	

ANCHORAGE FOR RAIL POST

11117

2

VENT HOLE

*312

NOTE: (2) NO. 12 PLATES REQUIRED FOR BOTH CONCRETE REPAIR, @ END OF WING 2, AND EXIST. END RAIL BASE PLATE, @ WING 1.

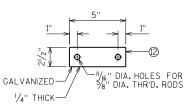
* ANCHOR PLATES (NO. 3 & NO. 12) ARE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.

SHIM AS REQ'D. TO

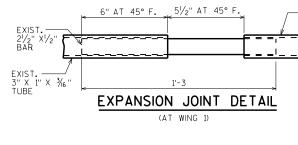
ALIGN RAILING. MIN. OF ONE PER POST.

₱ PLASTIC WASHERS

USED TO SEPARATE S.S. WASHER & GALV.



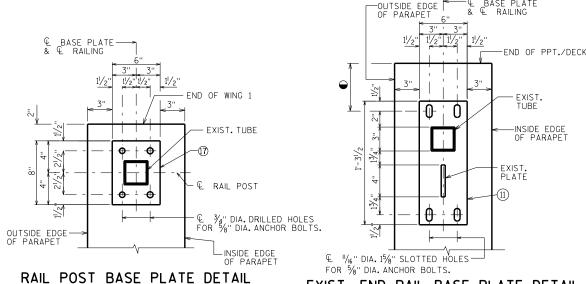
END RAIL ANCHOR PLATE



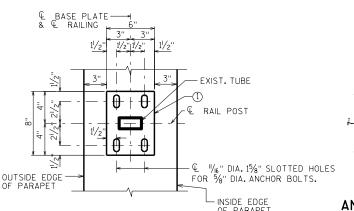
DIMENSION_VARIES ACCORDING TO THE

AT WING 1

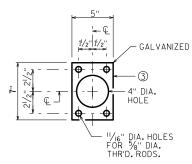
TYPE OF EXPANSION DEVICE USED.



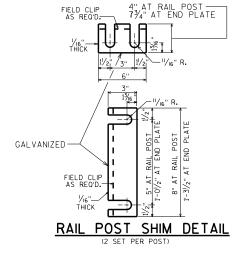
EXIST. END RAIL BASE PLATE DETAIL

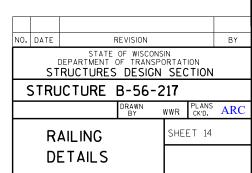


EXIST. RAIL POST BASE PLATE DETAIL



ANCHOR PLATE FOR EXIST. RAIL POST BASE PLATE





8

SCALE

Notes



Wisconsin Department of Transportation

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