

GENERAL NOTES

ALL WASTE MATERIAL RESULTING FROM THE VARIOUS OPERATIONS UNDER THIS CONTRACT SHALL BE COLLECTED TO BE PROPERLY DISPOSED OF PRIOR TO REOPENING LANES TO TRAFFIC

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.

THE LOCATION OF EXISTING UTILITY FACILITIES LOCATED WITHIN THE PROJECT ARE NOT SHOWN ON THE PLANS.

WDNR CONTACTS

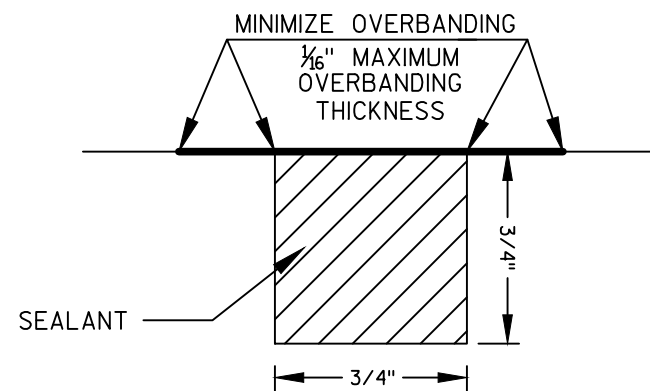
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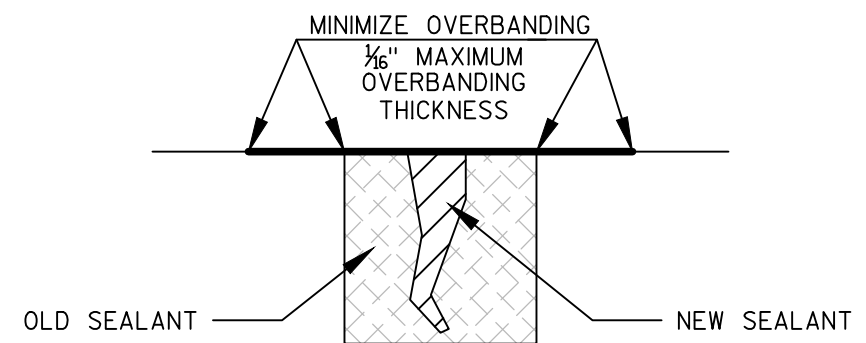
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ROUT AND SEAL DETAIL
ROUT AND SEAL ALL CENTERLINE,
LONGITUDINAL, AND TRANSVERSE CRACKS
NOT PREVIOUSLY SEALED

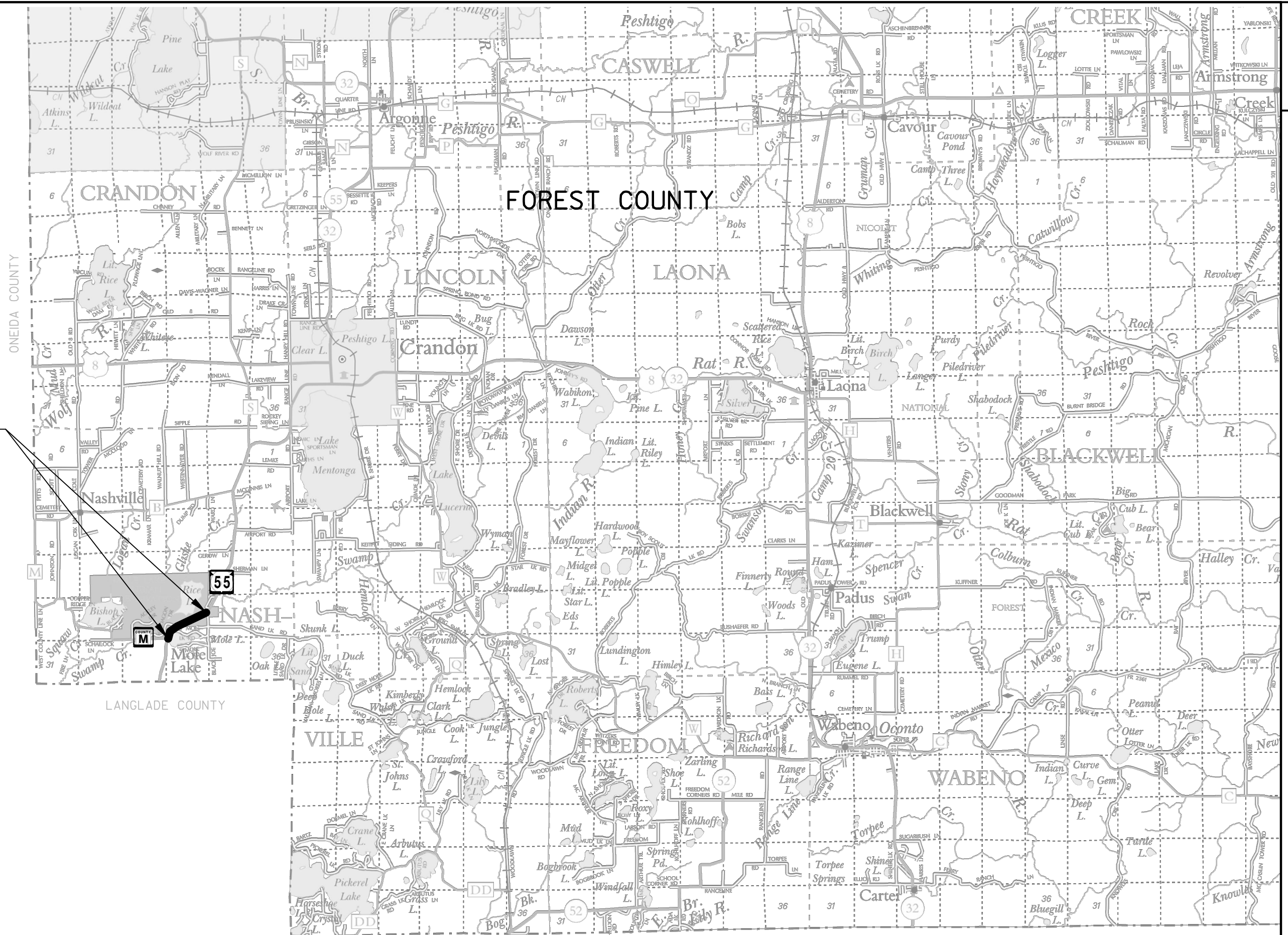


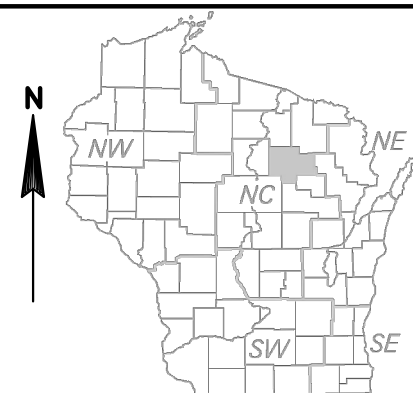
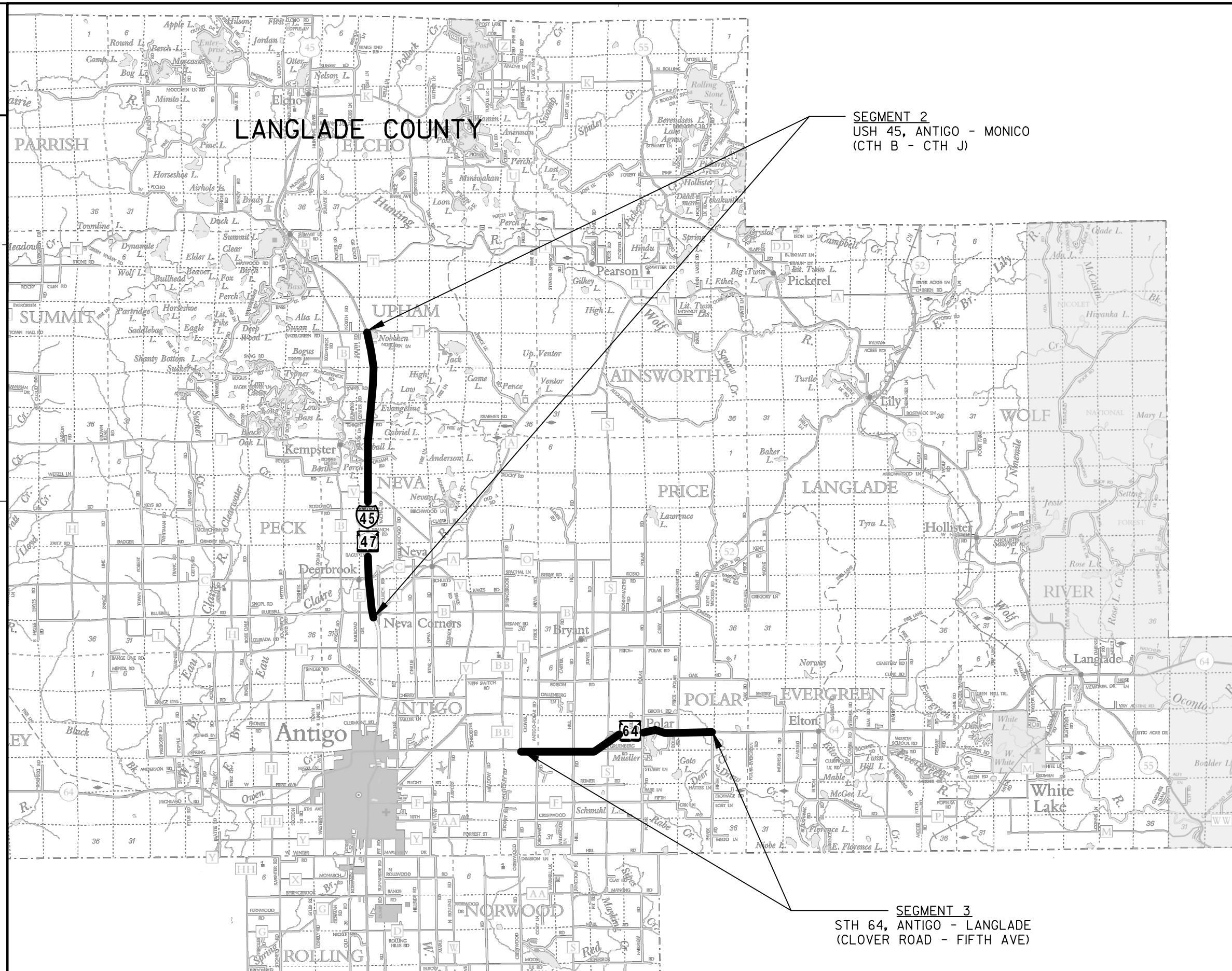
CRACK RE-SEAL DETAIL
RE-SEAL, OR ROUT AND SEAL, PREVIOUSLY SEALED
CRACKS THAT ARE FAILING AS DIRECTED BY THE ENGINEER



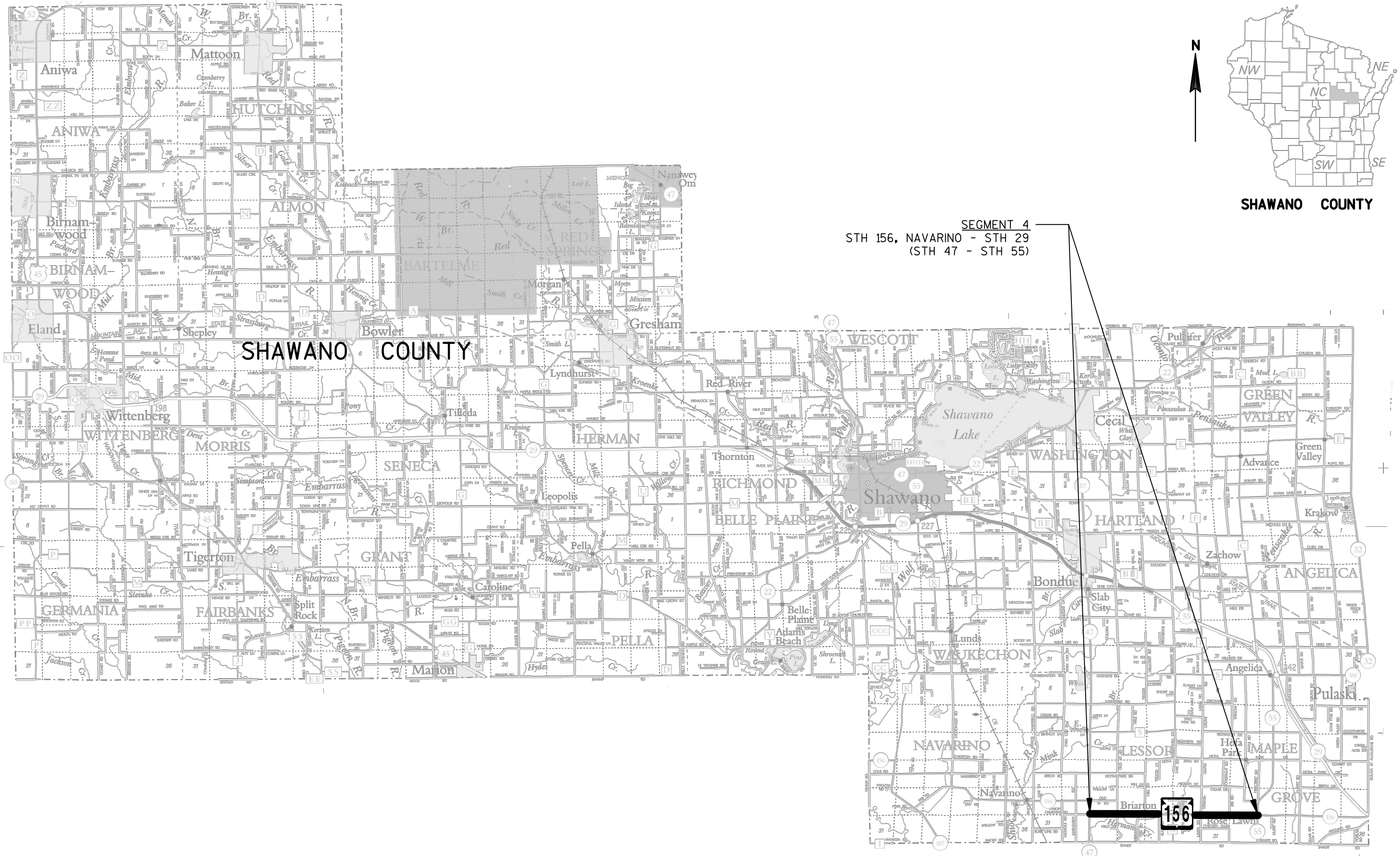
FOREST COUNTY

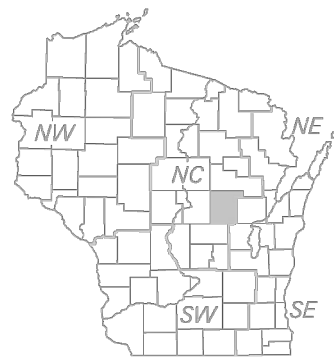
STH 55, PICKEREL - ARGONNE
(CTH M - SAND LAKE ROAD)





LANGLADE COUNTY

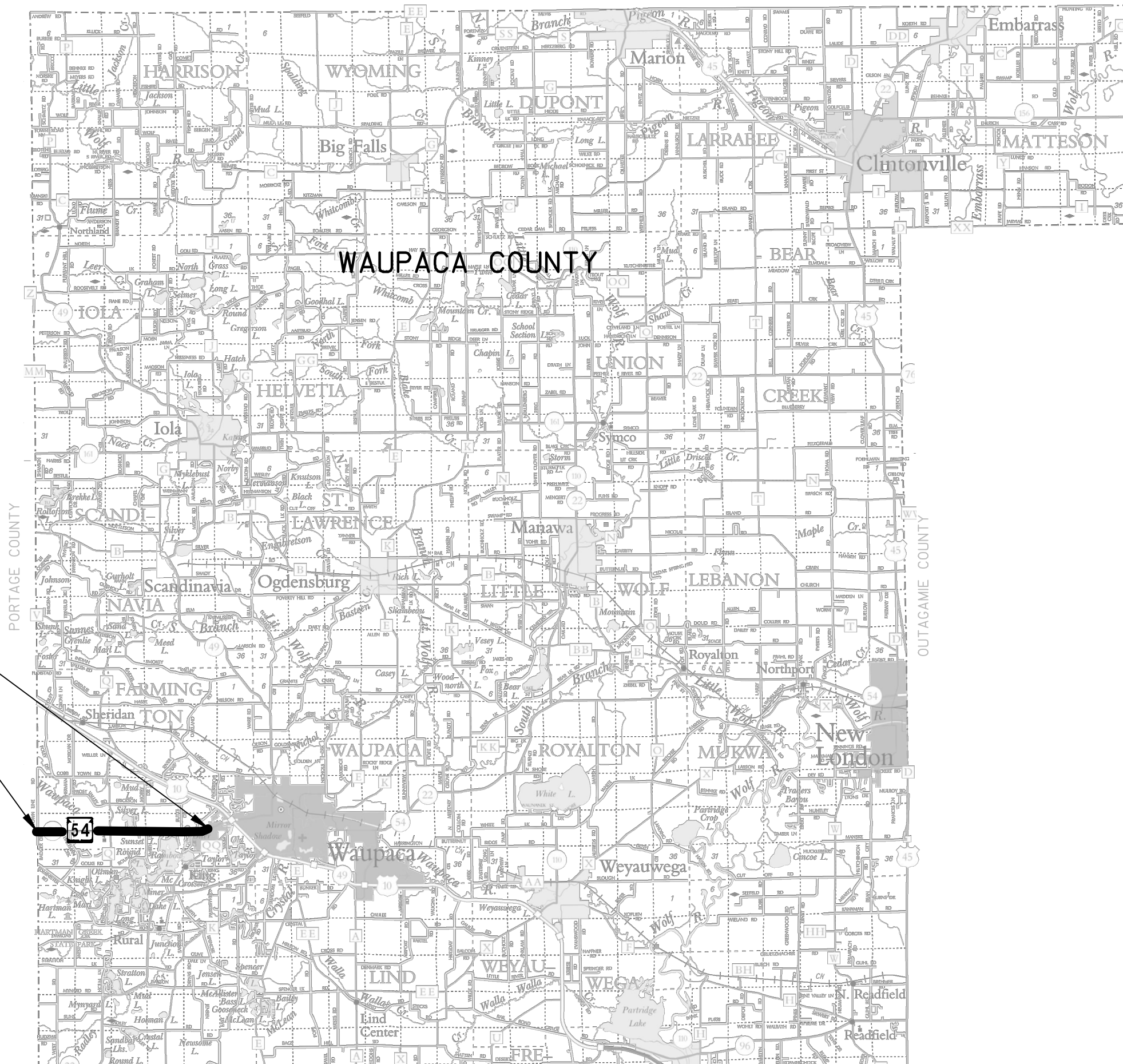




WAUPACA COUNTY



SEGMENT 5
STH 54, PLOVER - WAUPACA
(PORTAGE COUNTY LINE - FOXFIRE DRIVE)



PROJECT NO: 1009-45-67

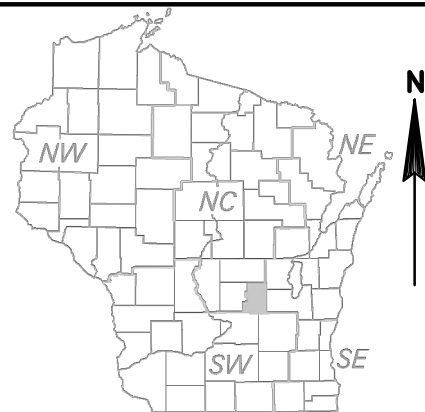
HWY: STH 54

COUNTY: WAUPACA

PLAN DETAIL

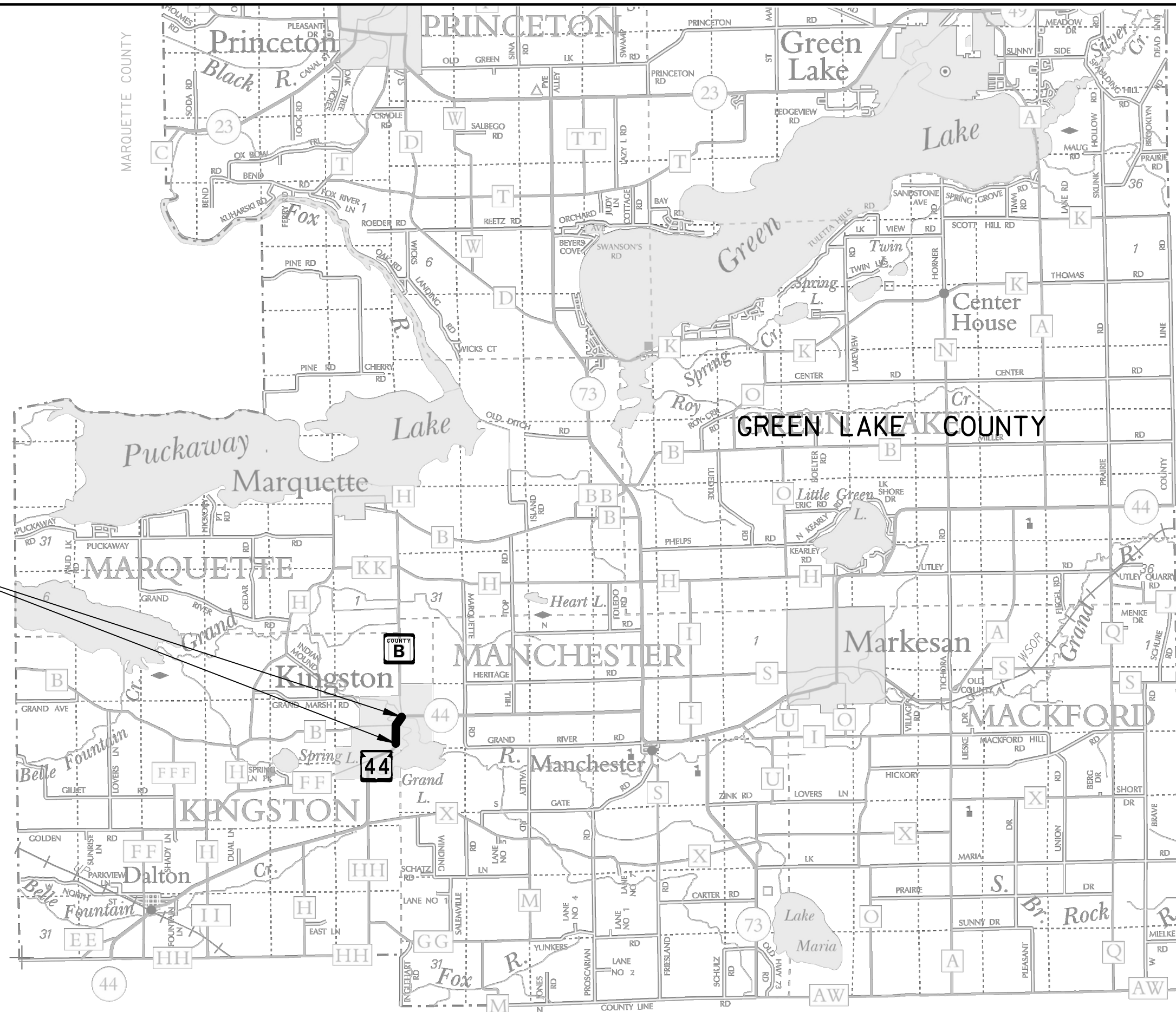
SHEET

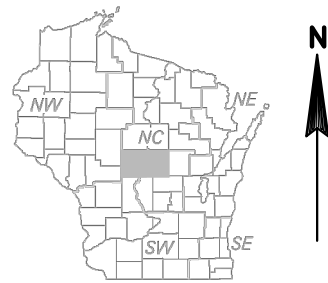
E



GREEN LAKE COUNTY

SEGMENT 6
STH 44, DALTON - KINGSTON
(VINE STREET TO CTH B)





WOOD & PORTAGE COUNTIES

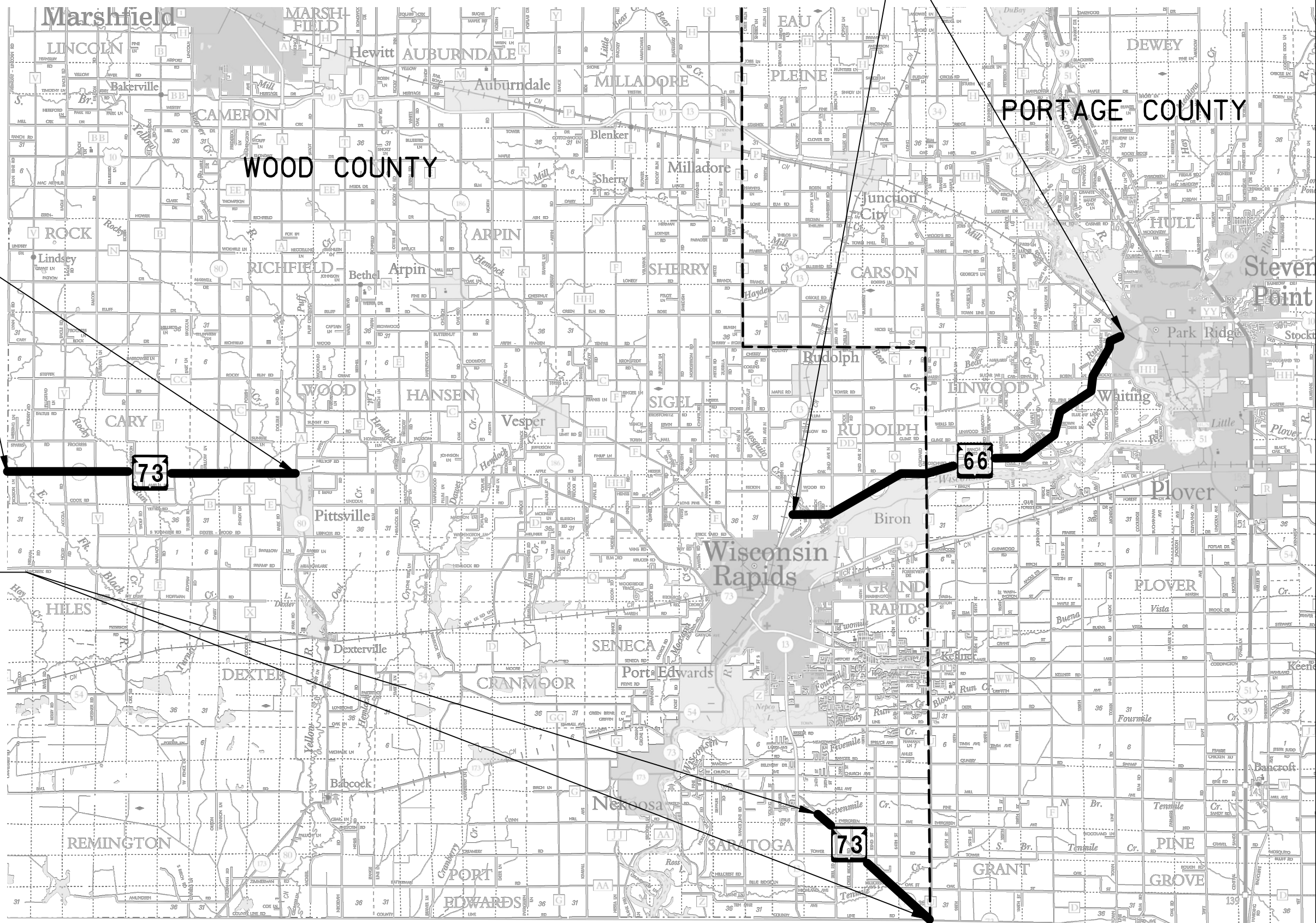
SEGMENT 8

STH 73, PITTSVILLE - NEILLSVILLE
(STH 73 - STH 80)
(STH 80 - CLARK COUNTY LINE)

SEGMENT 9

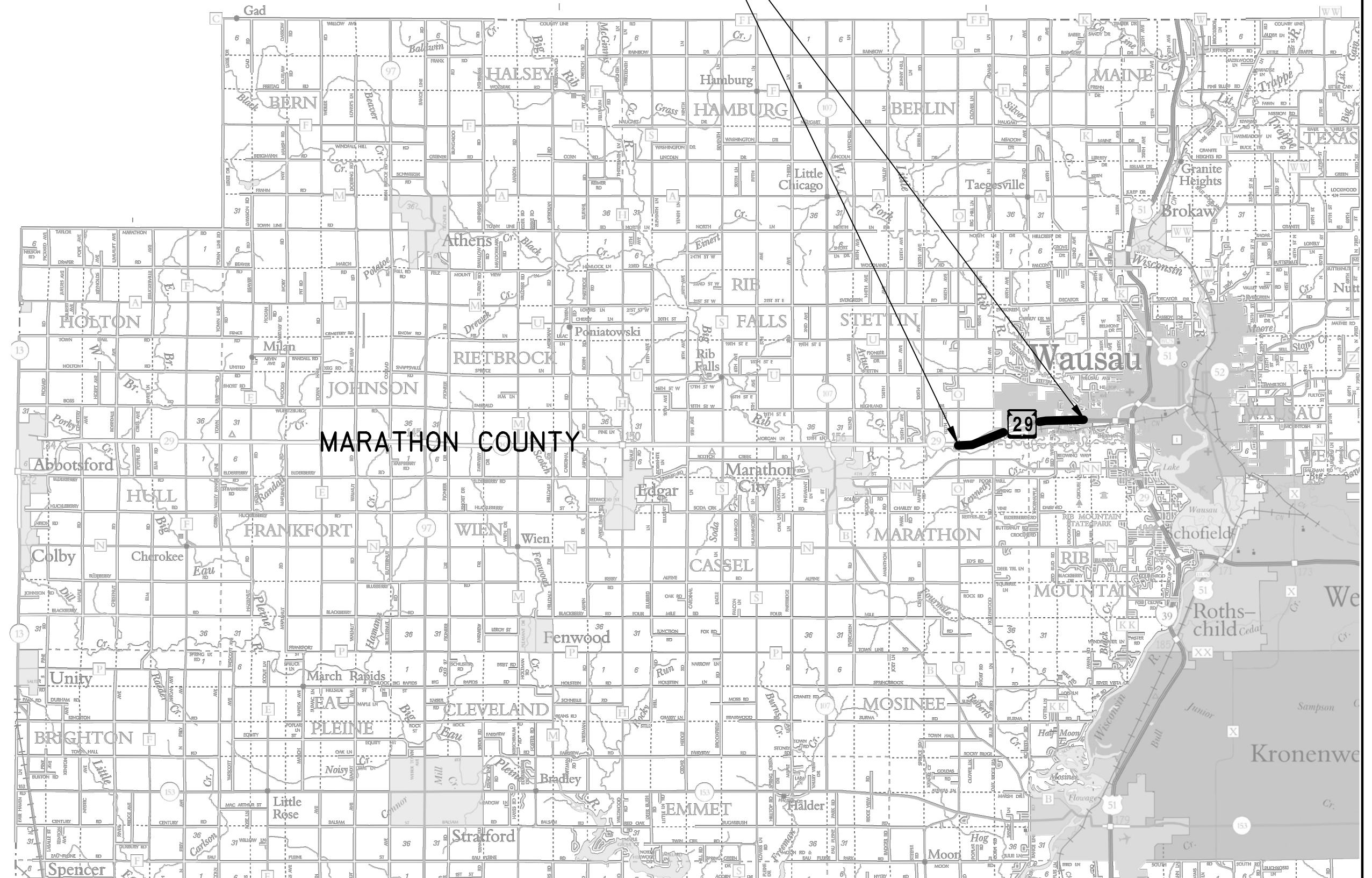
STH 73, SARATOGA - EAST COUNTY LINE
(2900 FT NORTH OF EVERGREEN AVE-CTH U)

SEGMENT 7
STH 66
WISCONSIN RAPIDS - STEVENS POINT
(STH 34 - W GATES DRIVE)





SEGMENT 10
STH 29 EB & WB
MARATHON CITY - WAUSAU
(CTH 0 - LITTLE RIB RIVER)



PROJECT NO: 1009-45-68

HWY: STH 29

COUNTY: MARATHON

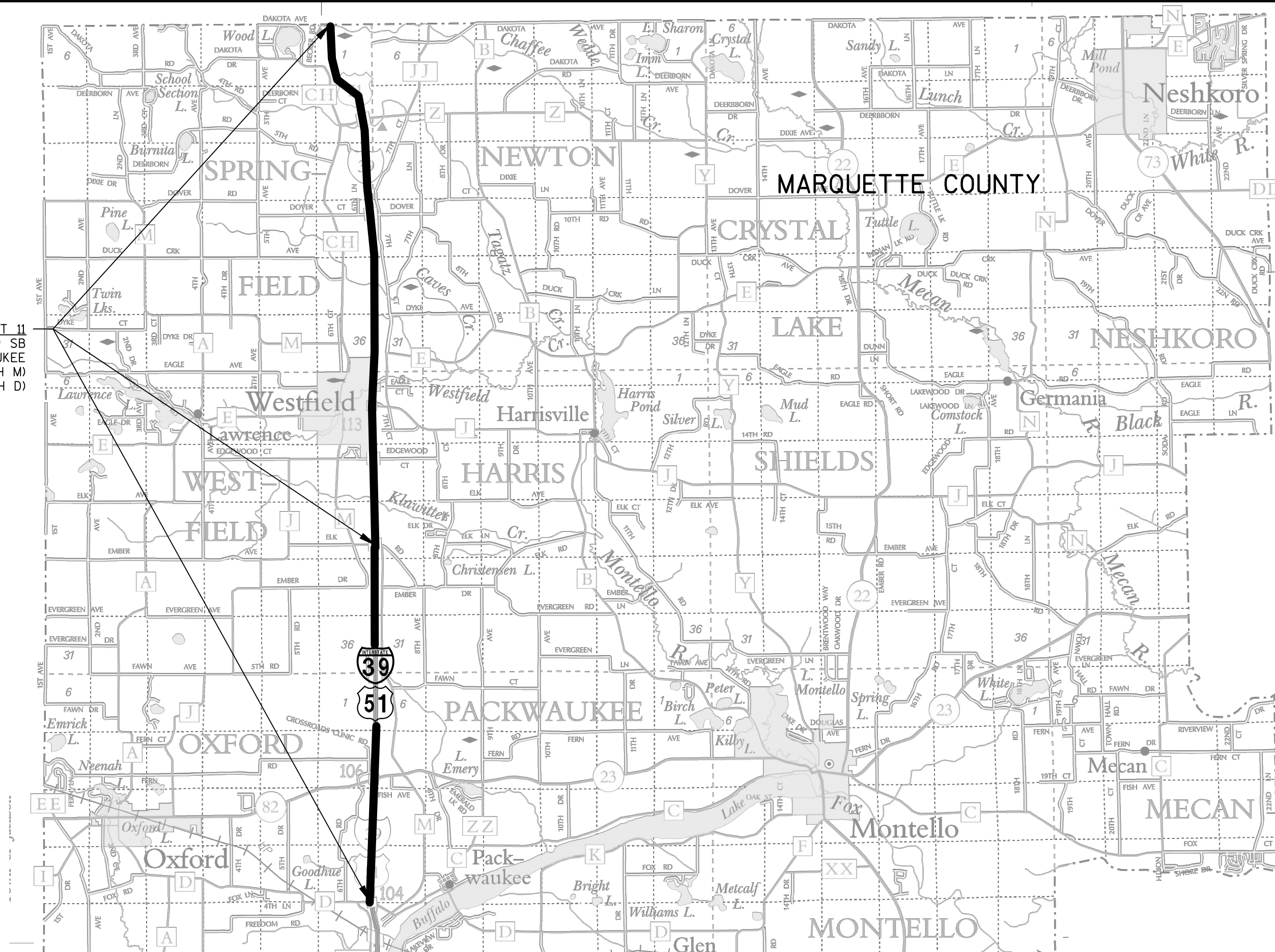
PLAN DETAIL

SHEET

E



SEGMENT 11
IH 39 SB
PACKWAUKEE
NE - CTH M)
M - CTH D)



DATE 30APR14			E S T I M A T E O F Q U A N T I T I E S					
LINE	NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1009-45-67	1009-45-68	QUANTI TY
	0010	213. 0100	FINISHING ROADWAY (PROJECT) 01. 1009-45-67	EACH	1. 000	1. 000		
	0020	213. 0100	FINISHING ROADWAY (PROJECT) 02. 1009-45-68	EACH	1. 000		1. 000	
	0030	619. 1000	MOBI LI ZATION	EACH	1. 000	0. 800	0. 200	
	0040	643. 0100	TRAFFIC CONTROL (PROJECT) 01. 1009-45-67	EACH	1. 000	1. 000		
	0050	643. 0100	TRAFFIC CONTROL (PROJECT) 02. 1009-45-68	EACH	1. 000		1. 000	
	0060	643. 0300	TRAFFIC CONTROL DRUMS	DAY	180. 000		180. 000	
	0070	643. 0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	24. 000		24. 000	
	0080	643. 0900	TRAFFIC CONTROL SIGNS	DAY	112. 000		112. 000	
	0090	646. 0103	PAVEMENT MARKING PAINT 4-INCH	LF	427, 134. 000	427, 134. 000		
	0100	646. 0106	PAVEMENT MARKING EPOXY 4-INCH	LF	560, 514. 000	560, 514. 000		
	0110	646. 0123	PAVEMENT MARKING PAINT 8-INCH	LF	600. 000	600. 000		
	0120	646. 0126	PAVEMENT MARKING EPOXY 8-INCH	LF	1, 500. 000	1, 500. 000		
	0130	SPV. 0125	SPECIAL 01. SEALING ASPH PAVT CRACKS, STH 55 PICKEREL-ARGONNE, FOREST CO	MI	1. 100	1. 100		
	0140	SPV. 0125	SPECIAL 02. SEALING ASPH PAVT CRACKS, USH 45 ANTIGO-MONI CO, LANGLADE CO	MI	8. 300	8. 300		
	0150	SPV. 0125	SPECIAL 03. SEALING ASPH PAVT CRACKS, STH 64 ANTIGO-LANGLADE, LANGLADE CO	MI	5. 400	5. 400		
	0160	SPV. 0125	SPECIAL 04. SEALING ASPH PAVT CRACKS, STH 156 NAVARINO-STH 29, SHAWANO CO	MI	6. 000	6. 000		
	0170	SPV. 0125	SPECIAL 05. SEALING ASPH PAVT CRACKS, STH 54 PLOVER-WAUPACA, WAUPACA CO	MI	4. 700	4. 700		
	0180	SPV. 0125	SPECIAL 06. SEALING ASPH PAVT CRACKS, STH 44 DALTON-KINGSTON, GREEN LAKE CO	MI	0. 700	0. 700		
	0190	SPV. 0125	SPECIAL 07. SEALING ASPH PAVT CRACKS, STH 66 WIS RAPIDS-ST POINT, WOOD & PORTAGE CO	MI	12. 800	12. 800		
	0200	SPV. 0125	SPECIAL 08. SEALING ASPH PAVT CRACKS, STH 73 PITTSVILLE-NEILLSVILLE, WOOD CO	MI	9. 400	9. 400		
	0210	SPV. 0125	SPECIAL 09. SEALING ASPH PAVT CRACKS, STH 73 SARATOGA-EAST CO LINE, WOOD CO	MI	5. 100	5. 100		
	0220	SPV. 0125	SPECIAL 10. SEALING ASPH PAVT CRACKS, STH 29 EB & WB, MAR. CITY-WAUSAU, MARATHON CO	MI	7. 100		7. 100	
	0230	SPV. 0125	SPECIAL 11. SEALING ASPH PAVT CRACKS, IH 39 SB NO COUNTY LINE - PACKWAUKE, MARQUETTE CO	MI	21. 700		21. 700	

TRAFFIC CONTROL & PAVEMENT MARKING
(1009-45-67)

PROJECT	LOCATION (SEGMENT #, HIGHWAY, COUNTY)	646.0103	646.0103	646.0106	646.0106	646.0123	646.0126
		PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT
		MARKING	MARKING	MARKING	MARKING	MARKING	MARKING
		PAINT 4-INCH (WHITE) L.F.	PAINT 4-INCH (YELLOW) L.F.	EPOXY 4-INCH (WHITE) L.F.	EPOXY 4-INCH (YELLOW) L.F.	PAINT 8-INCH (WHITE) L.F.	EPOXY 8-INCH (WHITE) L.F.
1009-45-67	SEGMENT 1, STH 55, FOREST	11,616	8,712	---	---	---	---
1009-45-67	SEGMENT 2, USH 45, LANGLADE	---	---	87,648	65,736	---	---
1009-45-67	SEGMENT 2, USH 45 SB @ CTH B	---	---	---	---	---	150
1009-45-67	SEGMENT 3, STH 64, LANGLADE	57,024	42,768	---	---	---	---
1009-45-67	SEGMENT 4, STH 156, SHAWANO	63,360	47,520	---	---	---	---
1009-45-67	SEGMENT 5, STH 54, WAUPACA	---	---	49,632	37,224	---	---
1009-45-67	SEGMENT 5, STH 54 EB @ HARTMAN CREEK AVE	---	---	---	---	---	200
1009-45-67	SEGMENT 5, STH 54 EB & WB @ TOMORROW'S LANE	---	---	---	---	---	400
1009-45-67	SEGMENT 5, STH 54 EB @ FOXFIRE DRIVE	---	---	---	---	---	150
1009-45-67	SEGMENT 6, STH 44, GREEN LAKE	7,076	5,306	---	---	---	---
1009-45-67	SEGMENT 7, STH 66, WOOD/PORTAGE	---	---	134,957	101,218	---	---
1009-45-67	SEGMENT 7, STH 66 EB @ CERA PARK	---	---	---	---	---	150
1009-45-67	SEGMENT 7, STH 66 EB @ CTH HH	---	---	---	---	---	250
1009-45-67	SEGMENT 8, STH 73 (STH 73-STH 80), WOOD	27,456	20,592	---	---	---	---
1009-45-67	SEGMENT 8, STH 73 SB @ STH 80 (RT)	---	---	---	---	250	---
1009-45-67	SEGMENT 8, STH 73 SB @ STH 80 (LT)	---	---	---	---	150	---
1009-45-67	SEGMENT 8, STH 73 NB @ CTH A (RT)	---	---	---	---	200	---
1009-45-67	SEGMENT 8, STH 73 (STH 80-CO LINE) WOOD	71,745	53,809	---	---	---	---
1009-45-67	SEGMENT 9, STH 73 (2900 FT NORTH OF EVERGREEN AVE TO EVERGREEN AVE), WOOD	---	---	48,057	36,042	---	---
1009-45-67	SEGMENT 9, STH 73 (EVERGREEN AVE TO EAST COUNTY LINE), WOOD	5,800	4,350	---	---	---	---
1009-45-67	SEGMENT 9, STH 73 NB @ OAK STREET	---	---	---	---	---	200
PROJECT 1009-45-67 SUBTOTALS:		244,077	183,057	320,294	240,220		
PROJECT 1009-45-67 TOTALS		427,134		560,514		600	1,500

TRAFFIC CONTROL & PAVEMENT MARKING
(1009-45-68)

PROJECT	LOCATION (SEGMENT #, HIGHWAY, COUNTY)	APPROX. DURATION DAYS	643.0300 DRUMS DAYS	643.0420	643.0900
				BARRICADES TYPE III DAYS	SIGNS DAYS
1009-45-68	SEGMENT 10, STH 29 EB, MARATHON	2	30	4	23
1009-45-68	SEGMENT 10, STH 29 WB, MARATHON	2	30	4	23
1009-45-68	SEGMENT 11, IH39 SB (CO LINE-CTH M), MARQUETTE	5	75	10	30
1009-45-68	SEGMENT 11, IH-39 SB (CTH M-CTH D), MARQUETTE	3	45	6	36
PROJECT 1009-45-68 TOTALS			180	24	112

(NO PAVEMENT MARKING REQUIRED FOR PROJECT 1009-45-68)

SPV.0125.## SEALING ASPHALTIC PAVEMENT CRACKS
(1009-45-67)

PROJECT	SEGMENT NO.	COUNTY	HIGHWAY	TITLE	TERMINI	SURFACE YEAR	** AVERAGE LF PER 0.1 MILE ROUT & SEAL	SPV.0125.01 SEALING ASPHALTIC PAVEMENT CRACKS, STH 55, PICKEREL - ARGONNE MILES	REMARKS
1009-45-67	1	FOREST	STH 55	PICKEREL - ARGONNE	CTH M - SAND LAKE RD	2010	448	1.1	SEE FOREST COUNTY LOCATION DETAIL
								1.1	

PROJECT	SEGMENT NO.	COUNTY	HIGHWAY	TITLE	TERMINI	SURFACE YEAR	** AVERAGE LF PER 0.1 MILE ROUT & SEAL	SPV.0125.02 SEALING ASPHALTIC PAVEMENT CRACKS, USH 45, ANTIGO-MONICO MILES	REMARKS
1009-45-67	2	LANGLADE	USH 45	ANTIGO-MONICO	CTH B TO CTH J EAST (1800 FT SOUTH OF CTH B TO CTH J)	2012	210	8.3	SEE LANGLADE COUNTY LOCATION DETAIL
								8.3	

PROJECT	SEGMENT NO.	COUNTY	HIGHWAY	TITLE	TERMINI	SURFACE YEAR	** AVERAGE LF PER 0.1 MILE ROUT & SEAL	SPV.0125.03 SEALING ASPHALTIC PAVEMENT CRACKS, STH 64, ANTIGO-LANGLADE MILES	REMARKS
1009-45-67	3	LANGLADE	STH 64	ANTIGO-LANGLADE	CLOVER RD TO FIFTH AVE	2011	496	5.4	SEE LANGLADE COUNTY LOCATION DETAIL
								5.4	

PROJECT	SEGMENT NO.	COUNTY	HIGHWAY	TITLE	TERMINI	SURFACE YEAR	** AVERAGE LF PER 0.1 MILE ROUT & SEAL	SPV.0125.04 SEALING ASPHALTIC PAVEMENT CRACKS, STH 156, NAVARINO-STH 29 MILES	REMARKS
1009-45-67	4	SHAWANO	STH 156	NAVARINO-STH 29	STH 47 TO STH 55	2001	200	6.0	SEE SHAWANO COUNTY LOCATION DETAIL
								6.0	

PROJECT		COUNTY	HIGHWAY	TITLE	TERMINI	SURFACE YEAR	** AVERAGE LF PER 0.1 MILE ROUT & SEAL	SPV.0125.05 SEALING ASPHALTIC PAVEMENT CRACKS, STH 54, PLOVER-WAUPACA MILES	REMARKS
1009-45-67	5	WAUPACA	STH 54	PLOVER-WAUPACA	PORTAGE CO LINE - FOXFIRE DRIVE	2012	250	4.7	SEE WAUPACA COUNTY LOCATION DETAIL
								4.7	

**FOR INFORMATION ONLY, BASED ON MEASUREMENTS TAKEN IN JUNE 2013

SPV.0125.## SEALING ASPHALTIC PAVEMENT CRACKS
(1009-45-67)

PROJECT	SEGMENT NO.	COUNTY	HIGHWAY	TITLE	TERMINI	SURFACE YEAR	** AVERAGE LF PER 0.1 MILE ROUT & SEAL	SPV.0125.06 SEALING ASPHALTIC PAVEMENT CRACKS, STH 44, DALTON-KINGSTON MILES	REMARKS
1009-45-67	6	GREEN LAKE	STH 44	DALTON-KINGSTON	1/2 MILE SOUTH OF VINE ST - NORTH JCT CTH B	2007	280	0.7	SEE GREEN LAKE COUNTY LOCATION DETAIL
								0.7	

PROJECT	SEGMENT NO.	COUNTY	HIGHWAY	TITLE	TERMINI	SURFACE YEAR	** AVERAGE LF PER 0.1 MILE ROUT & SEAL	SPV.0125.07 SEALING ASPHALTIC PAVEMENT CRACKS, STH 66 WISCONSIN RAPIDS - STEVENS POINT	REMARKS
1009-45-67	7	WOOD/PORTAGE	STH 66	WISCONSIN RAPIDS-STEVENS POINT	STH 34 - W GATES DRIVE	2012	210	12.8	SEE WOOD/PORTAGE COUNTY LOCATION DETAIL
								12.8	

PROJECT	SEGMENT NO.	COUNTY	HIGHWAY	TITLE	TERMINI	SURFACE YEAR	** AVERAGE LF PER 0.1 MILE ROUT & SEAL	SPV.0125.08 SEALING ASPHALTIC PAVEMENT CRACKS, STH73, PITTSVILLE-NEILLSVILLE MILES	REMARKS
1009-45-67	8	WOOD	STH 73	PITTSVILLE-NEILLSVILLE	STH 73 - STH 80	2009	250	2.6	SEE WOOD COUNTY LOCATION DETAIL
					STH 80 - CLARK COUNTY LINE	2009	150	6.8	
								9.4	

PROJECT	SEGMENT NO.	COUNTY	HIGHWAY	TITLE	TERMINI	SURFACE YEAR	** AVERAGE LF PER 0.1 MILE ROUT & SEAL	SPV.0125.09 SEALING ASPHALTIC PAVEMENT CRACKS, STH 73, SARATOGA-EAST COUNTY LINE MILES	REMARKS
1009-45-67	9	WOOD	STH 73	SARATOGA-EAST COUNTY LINE	2900 FT NORTH OF EVERGREEN AVE - CTH U	2009	420	5.1	SEE WOOD COUNTY LOCATION DETAIL
								5.1	

**FOR INFORMATION ONLY, BASED ON MEASUREMENTS TAKEN IN JUNE 2013

SPV.0125.## SEALING ASPHALTIC PAVEMENT CRACKS
(1009-45-68)

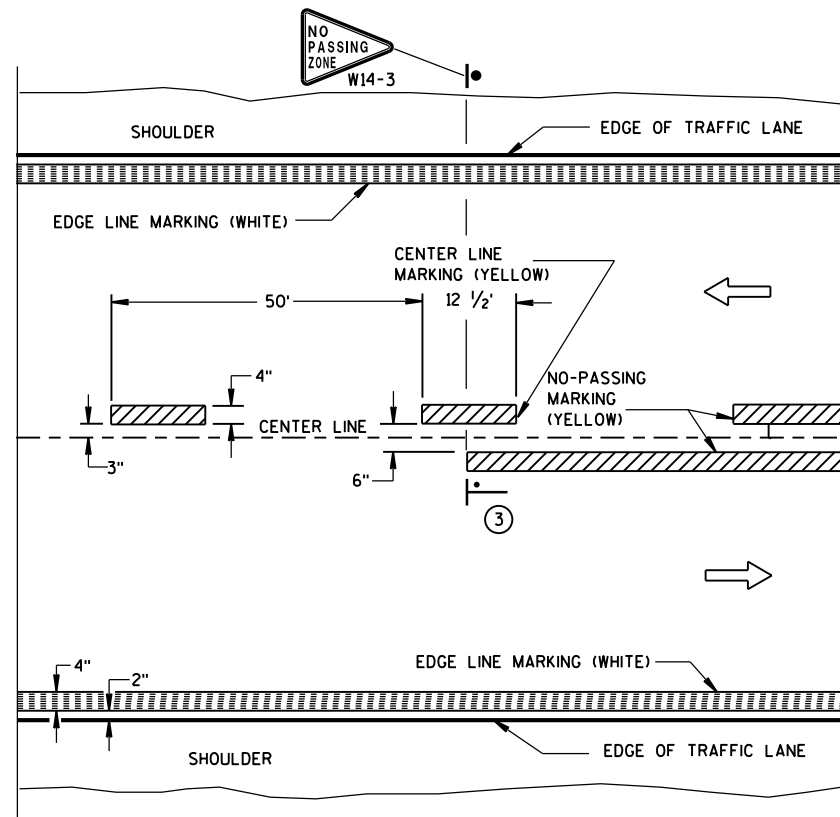
PROJECT	SEGMENT NO.	COUNTY	HIGHWAY	TITLE	TERMINI	SURFACE YEAR	** AVERAGE LF PER 0.1 MILE ROUT & SEAL	SPV.0125.10 SEALING ASPHALTIC PAVEMENT CRACKS, STH 29, MARATHON CITY-WAUSAU MILES	REMARKS
1009-45-68	10	MARATHON	STH 29 EB	MARATHON CITY-WAUSAU	CTH O TO LITTLE RIB RIVER BRIDGE EASTBOUND	2010	592	3.5	SEE MARATHON COUNTY LOCATION DETAIL
			STH 29 WB	MARATHON CITY - WAUSAU	CTH O TO LITTLE RIB RIVER BRIDGE WESTBOUND	2010	592	3.5	
								7.1	

PROJECT	SEGMENT NO.	COUNTY	HIGHWAY	TITLE	TERMINI	SURFACE YEAR	** AVERAGE LF PER 0.1 MILE ROUT & SEAL	SPV.0125.11 SEALING ASPHALTIC PAVEMENT CRACKS, IH 39 SB, NORTH CO LINE-PACKWAUKEE MILES	REMARKS
1009-45-68	11	MARQUETTE	IH 39 SB	NORTH COUNTY LINE - PACKWAUKEE	WAUSHARA COUNTY LINE-CTH M	2011	200	15.0	SEE MARQUETTE COUNTY LOCATION DETAIL
					CTH M-CTH D	2011	150	6.6	
								21.7	

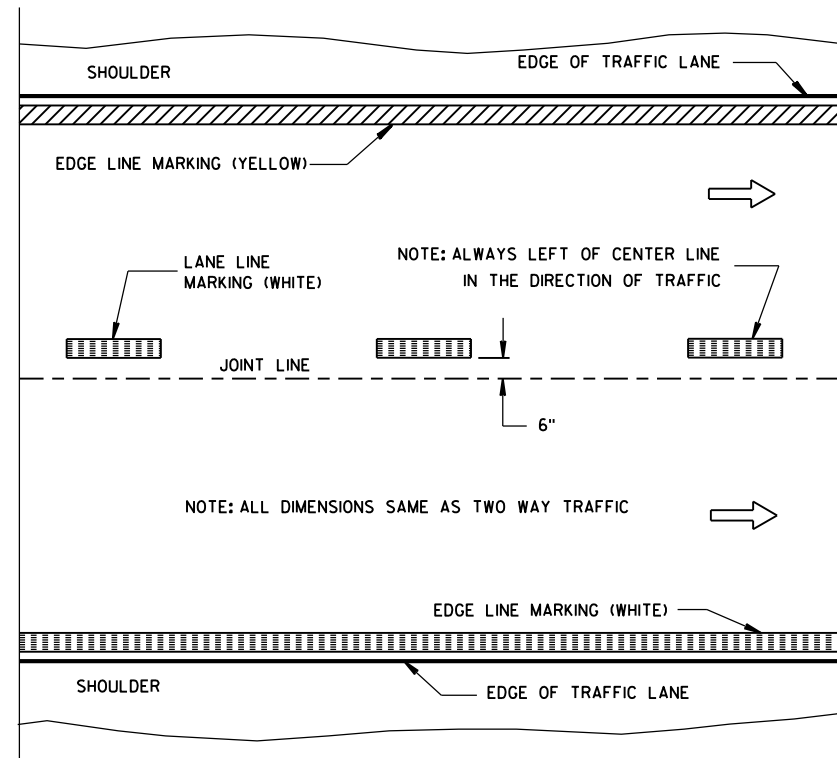
**FOR INFORMATION ONLY, BASED ON MEASUREMENTS TAKEN IN JUNE 2013

Standard Detail Drawing List

15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-02A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-02C	MOVING PAVEMENT MARKING OPERATION MULTI -LANE DIVIDED ROADWAY
15D12-03	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M. P. H.
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D21-02	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

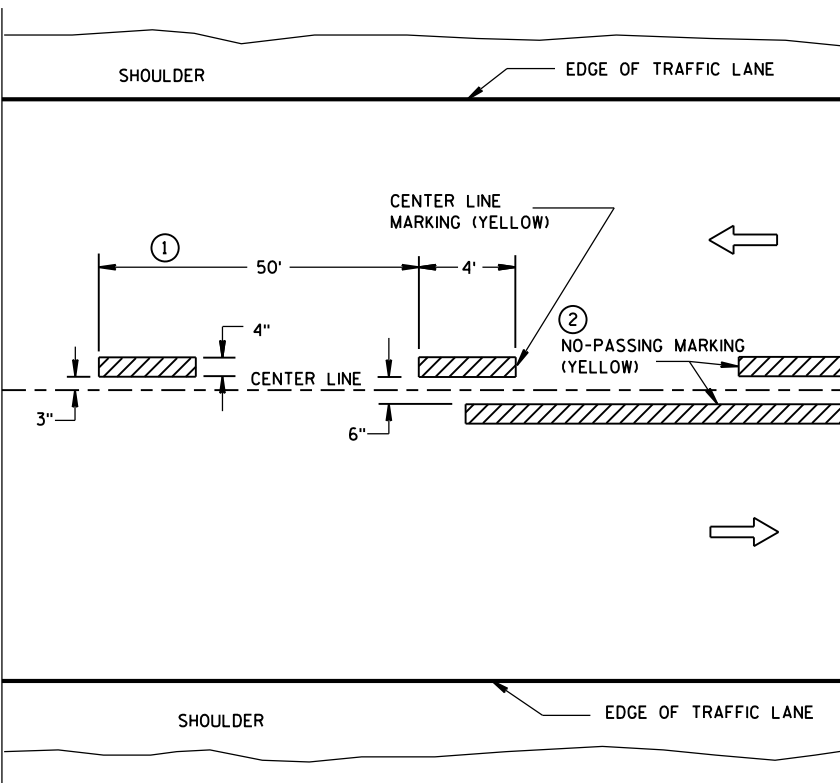


TWO WAY TRAFFIC

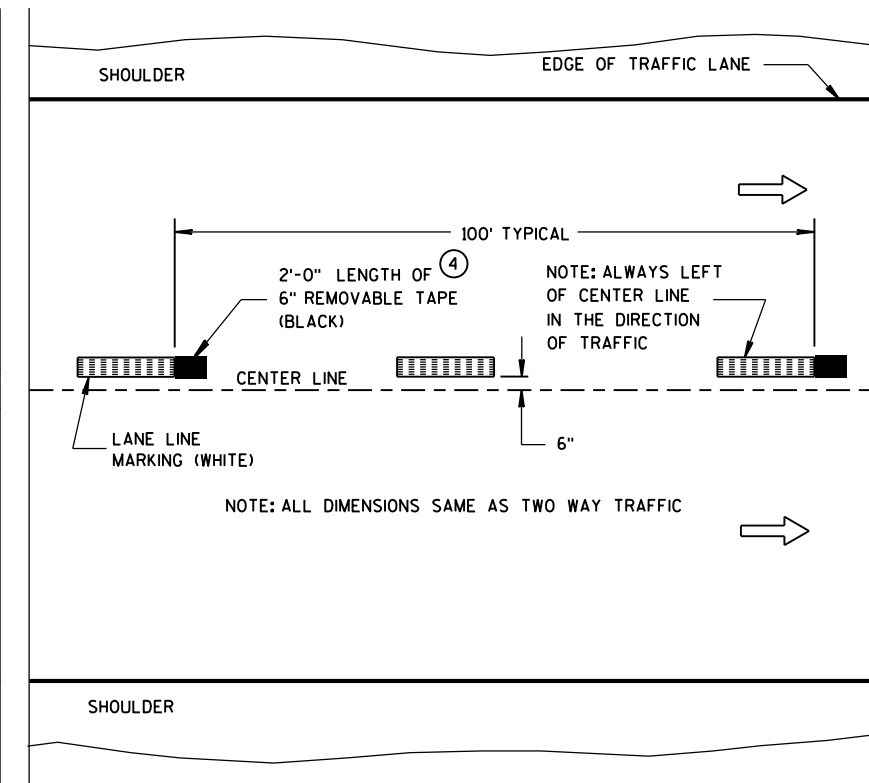


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

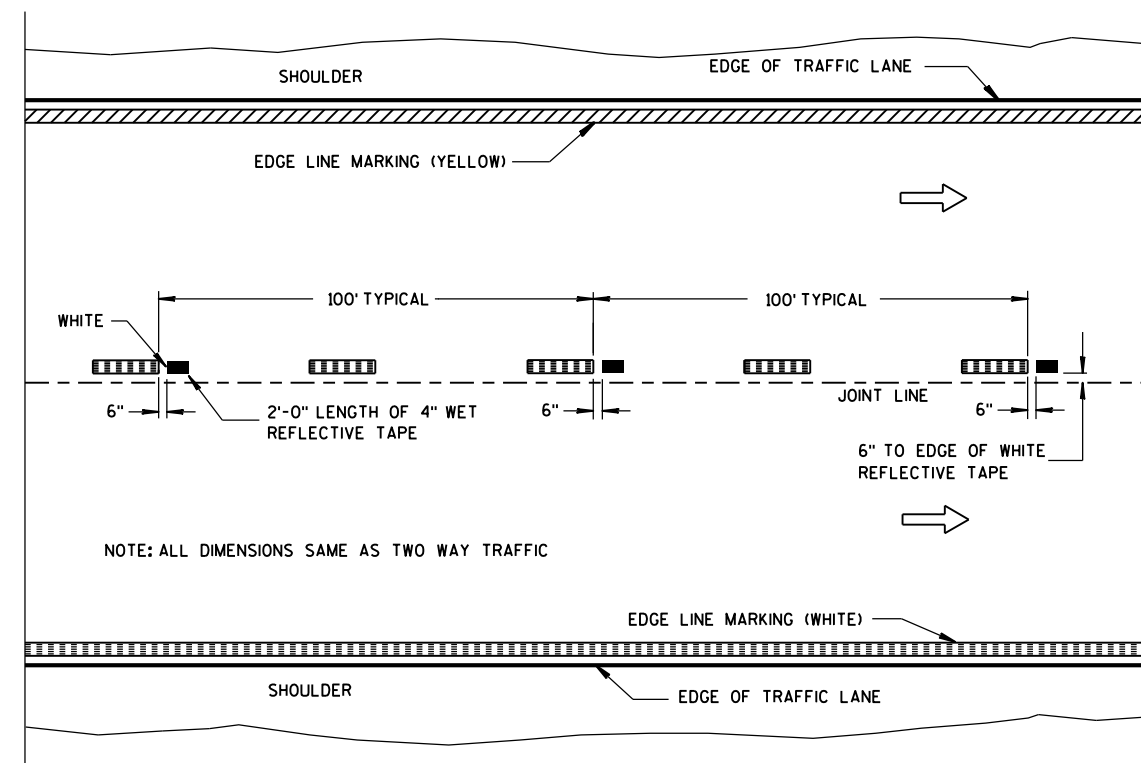
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



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

LEGEND

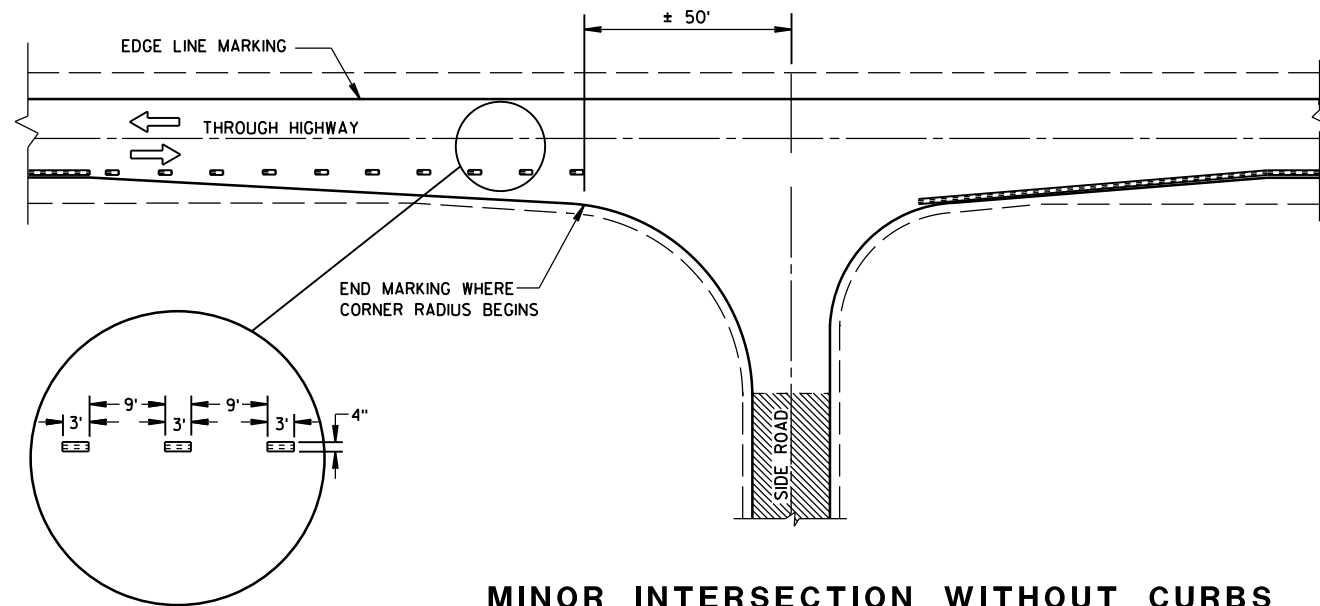
- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013
DATE
FHWA

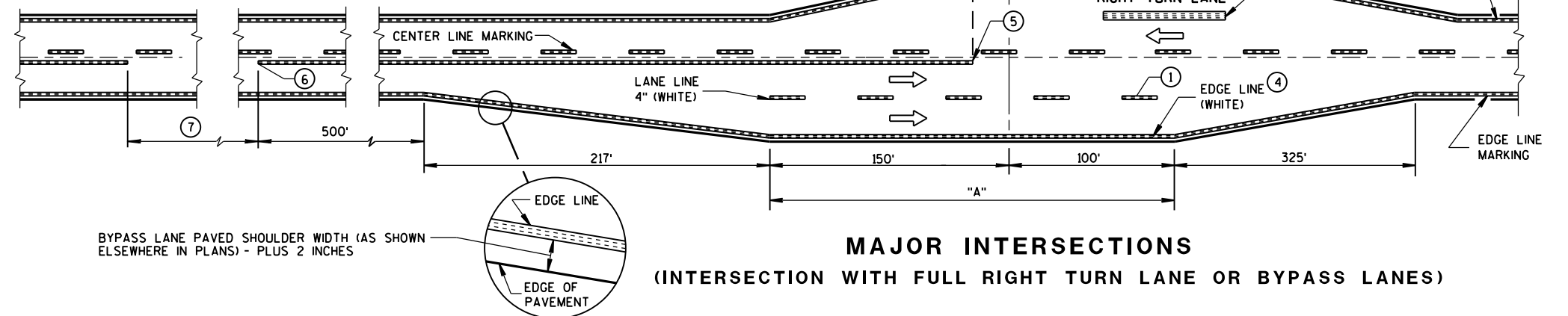
/S/ Travis Feltes
STATE TRAFFIC ENGINEER



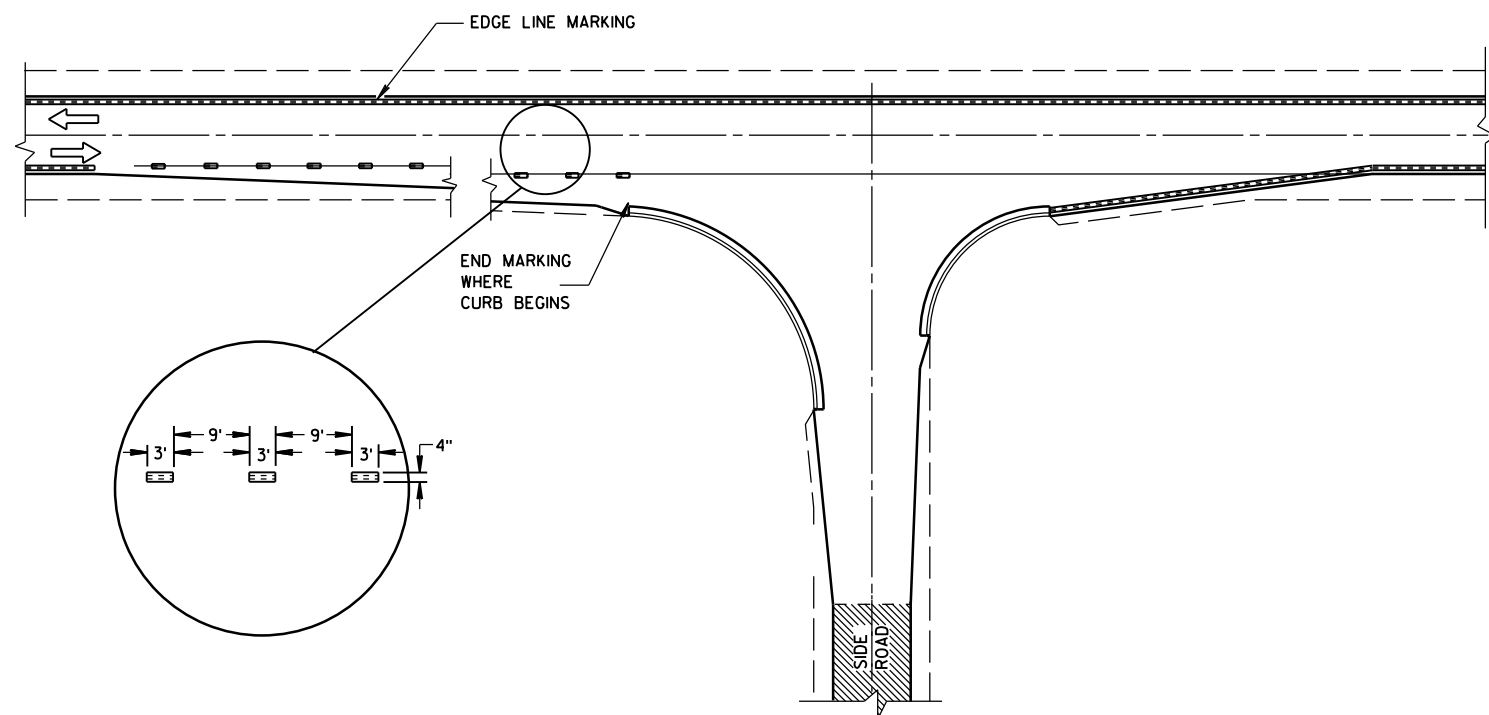
MINOR INTERSECTION WITHOUT CURBS

⑦

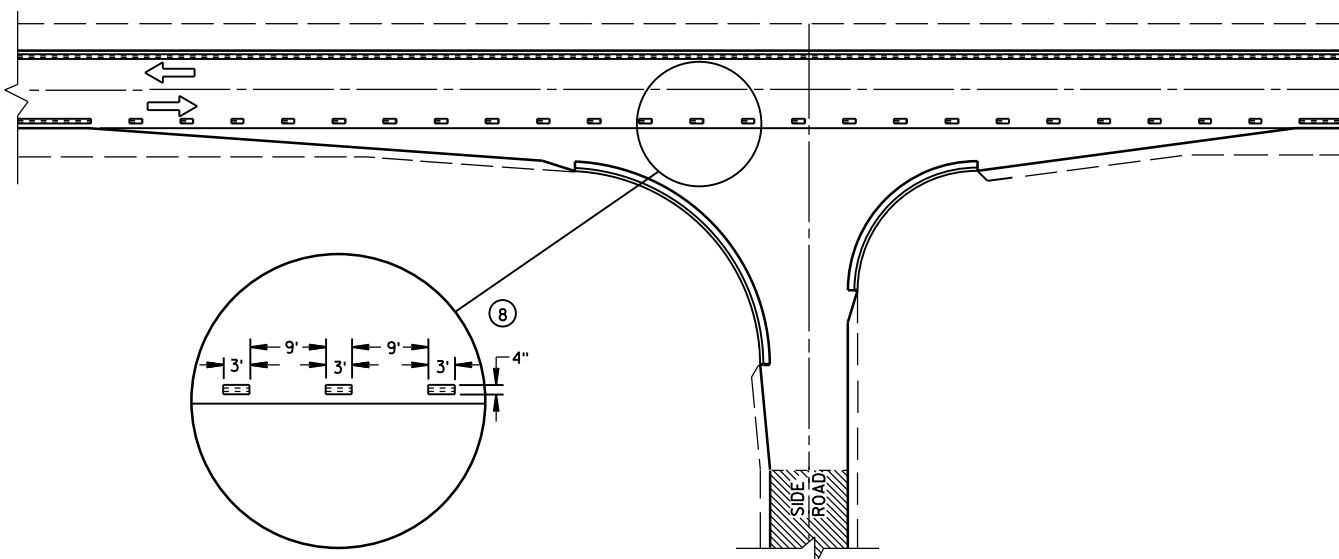
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)





GENERAL NOTES

- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
 - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
 - ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
 - ④ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.
 - ⑤ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
 - ⑥ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
 - ⑦ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
 - ⑧ 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

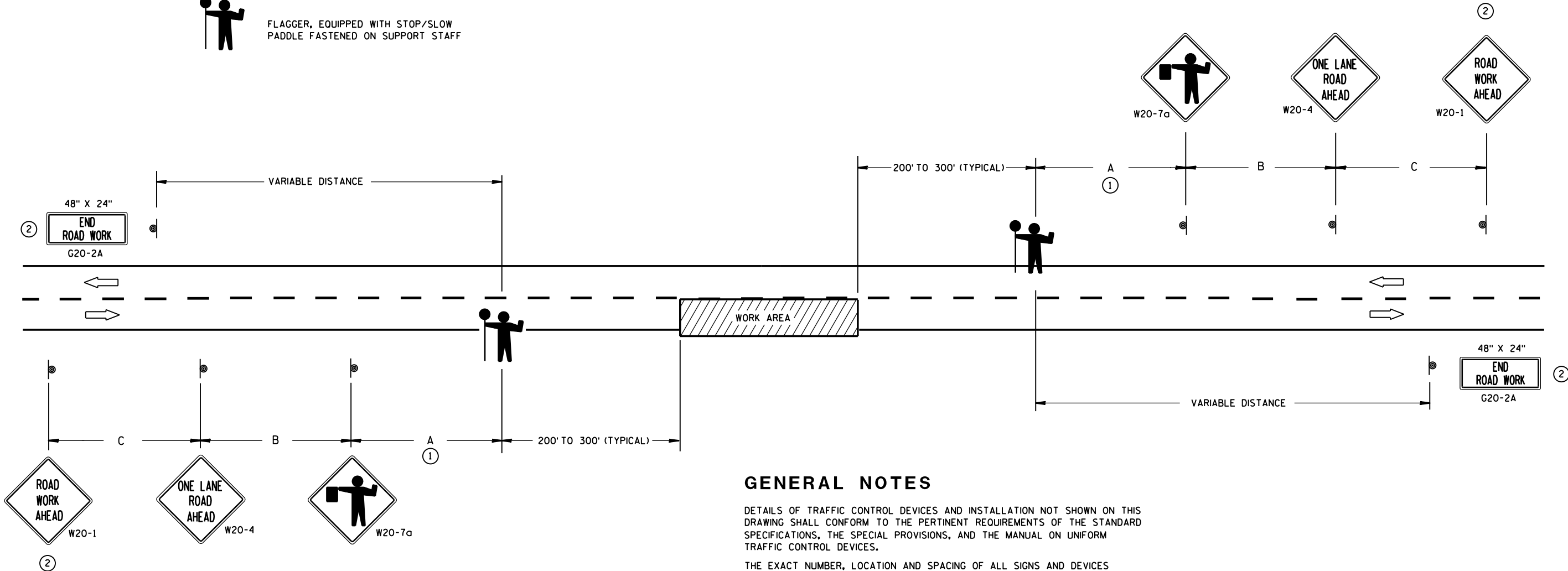
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

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



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



GENERAL NOTES

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

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

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

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

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

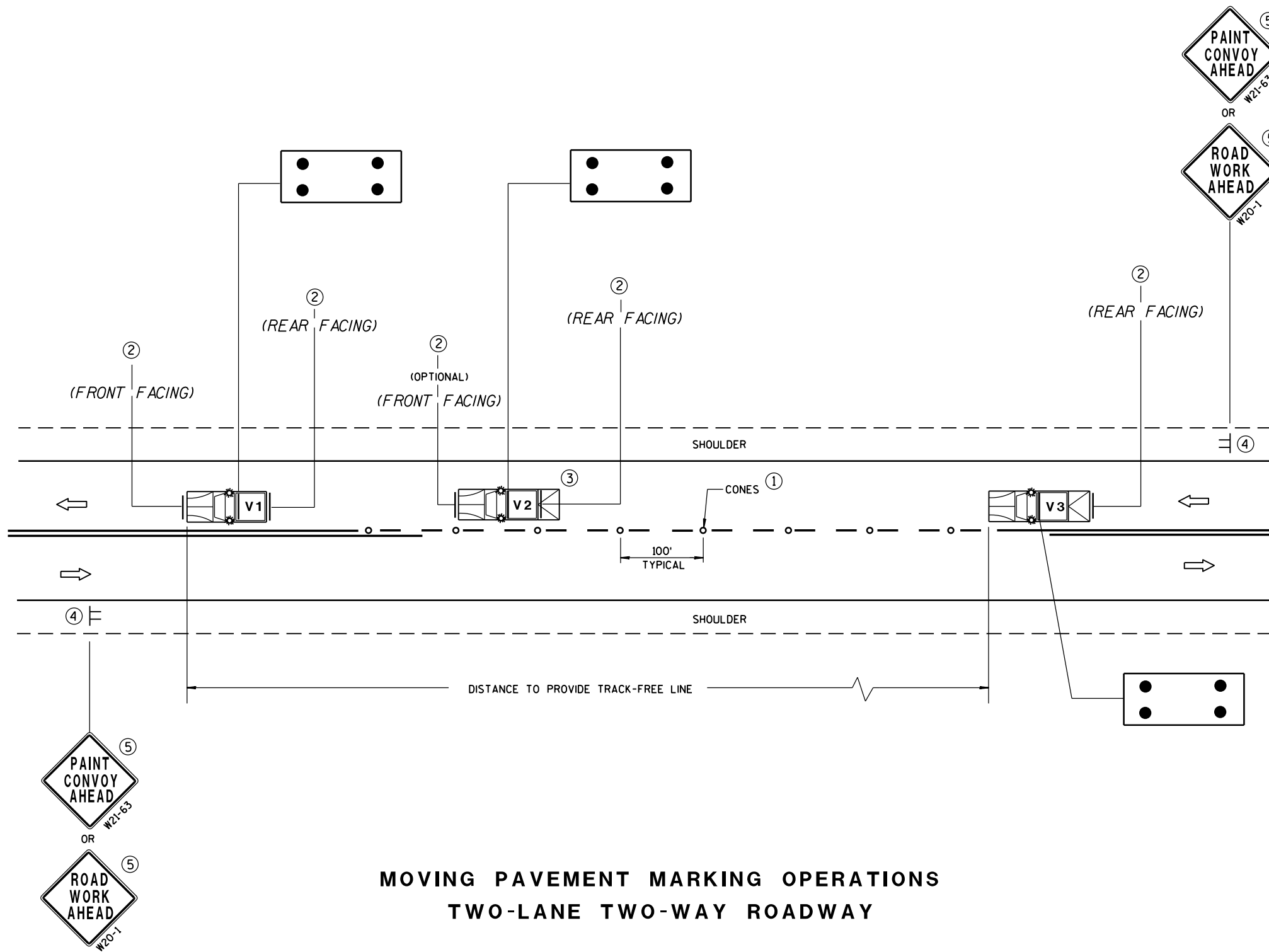
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

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

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

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

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

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

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

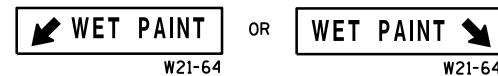
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

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

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

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.



③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

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


LEGEND

V1 LEAD VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE WITH TMA

TMA TRUCK-MOUNTED ATTENUATOR

 SIGN ON TEMPORARY SUPPORT

 DIRECTION OF TRAFFIC

 CONES

 FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

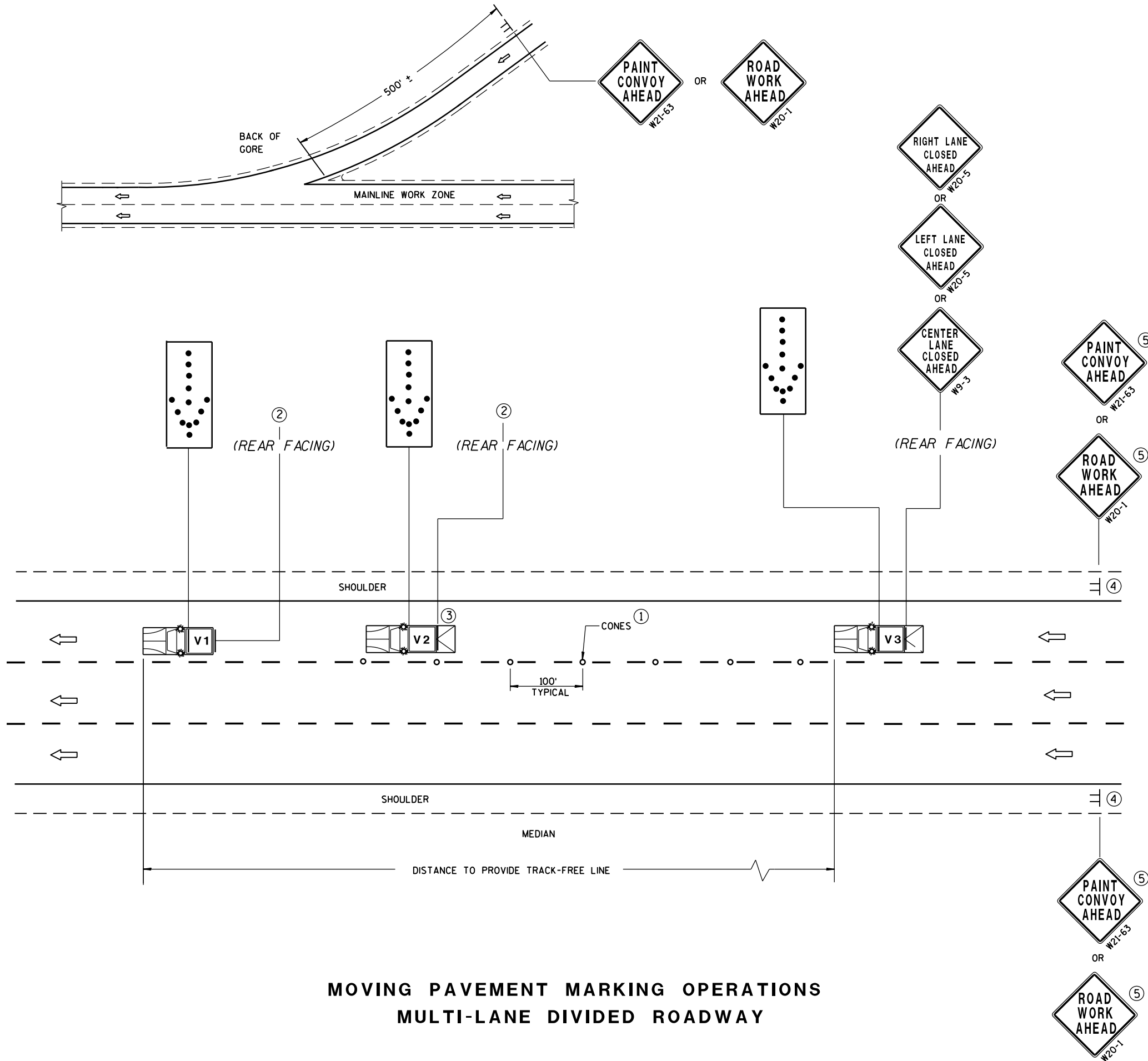
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/3/2013
DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER



GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

- ① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.
- ② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.
- ③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.
- ④ SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.
- ⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

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

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/3/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER
FHWA	

LEGEND

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

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"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.

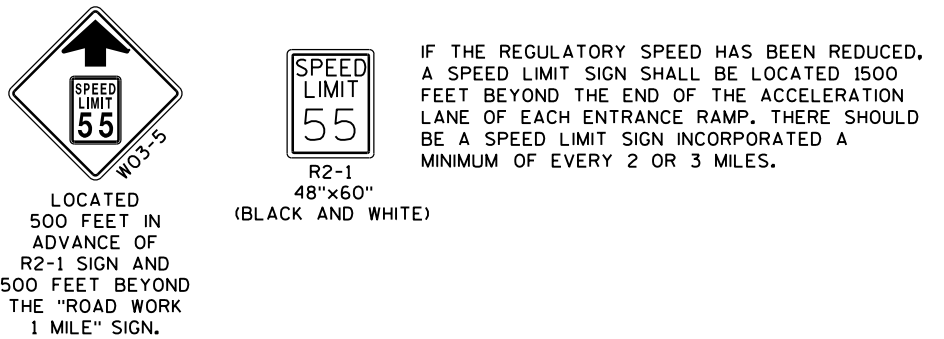
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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

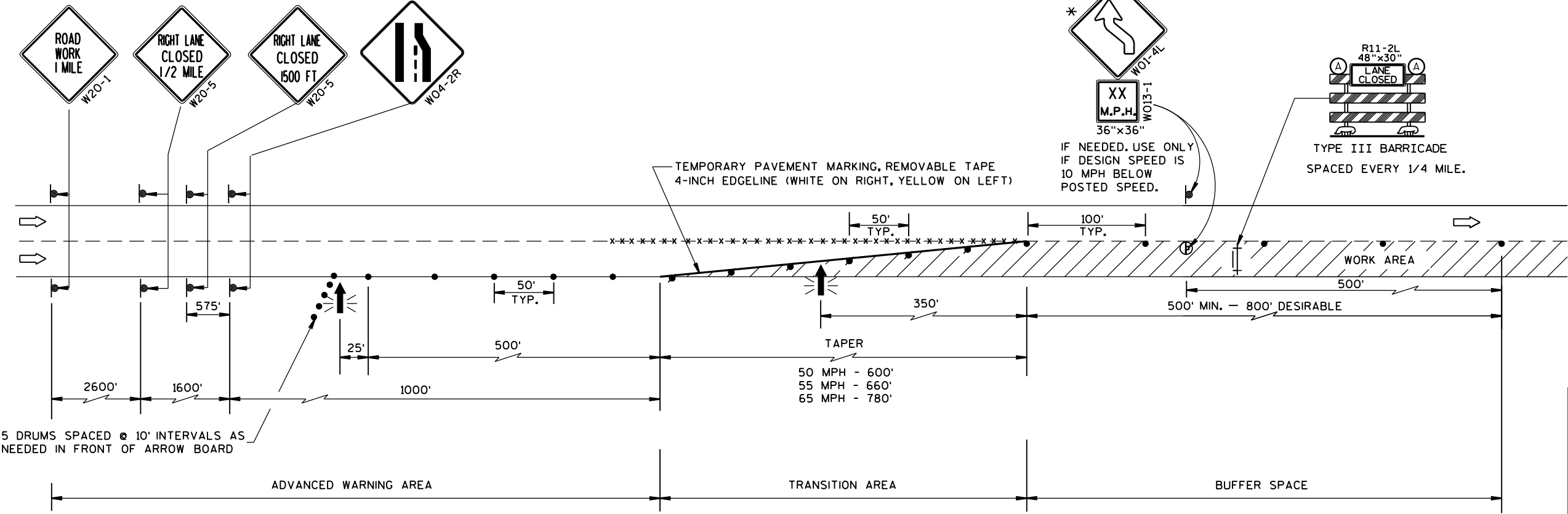
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

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

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



6

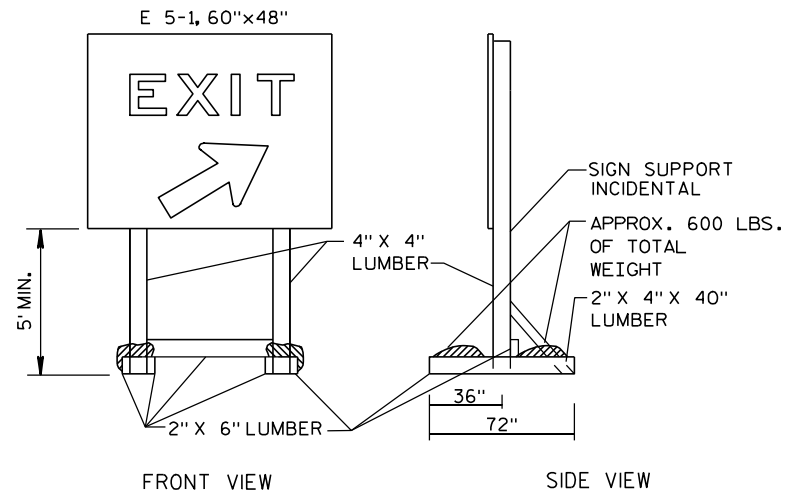
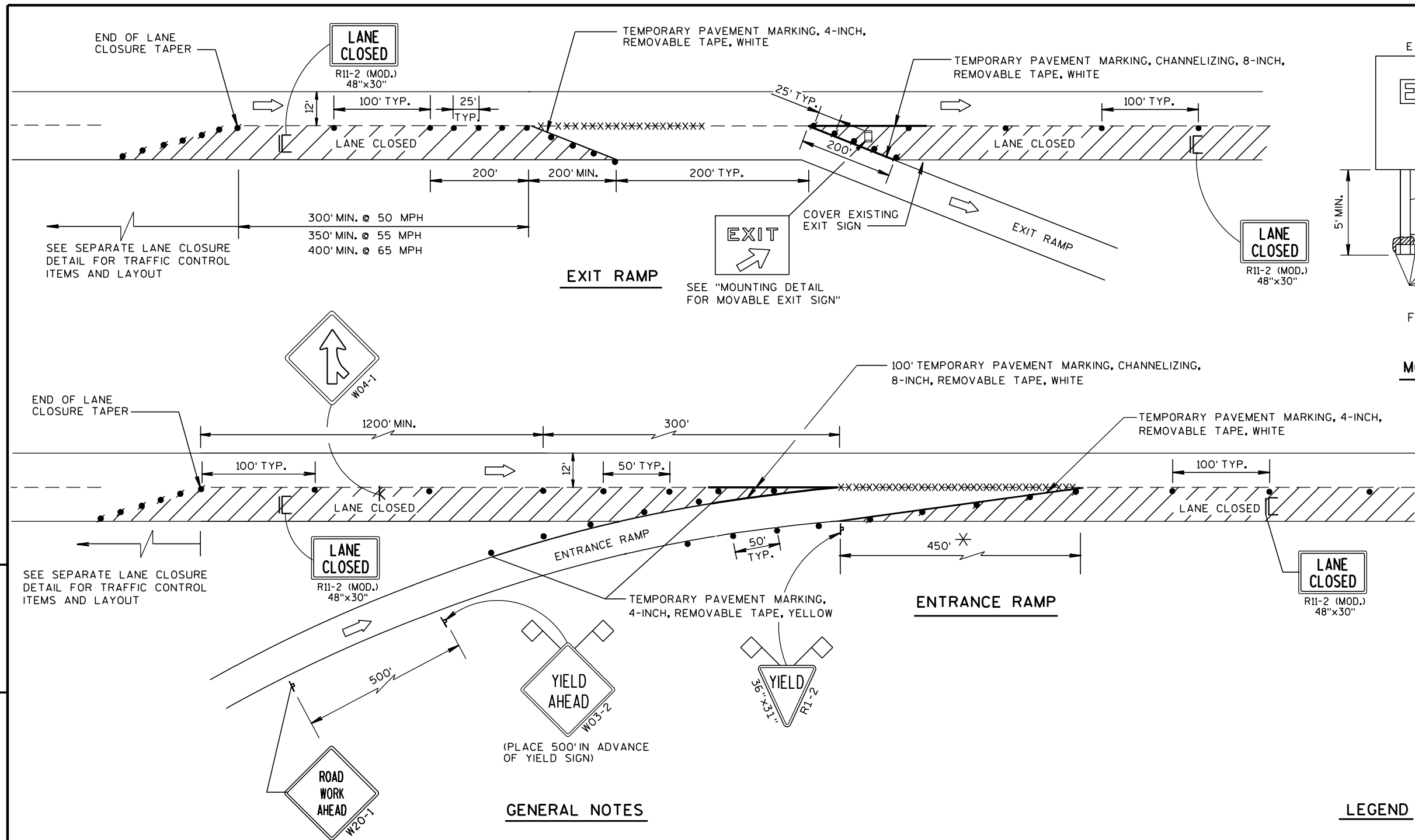


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TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

S.D.D. 15 D 12-3

S.D.D. 15 D 12-3



NOTE: ALL LUMBER DIMENSIONS ARE NOMINAL
MOUNTING DETAIL FOR MOVABLE EXIT SIGN

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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

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

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

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

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

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

LEGEND

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

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

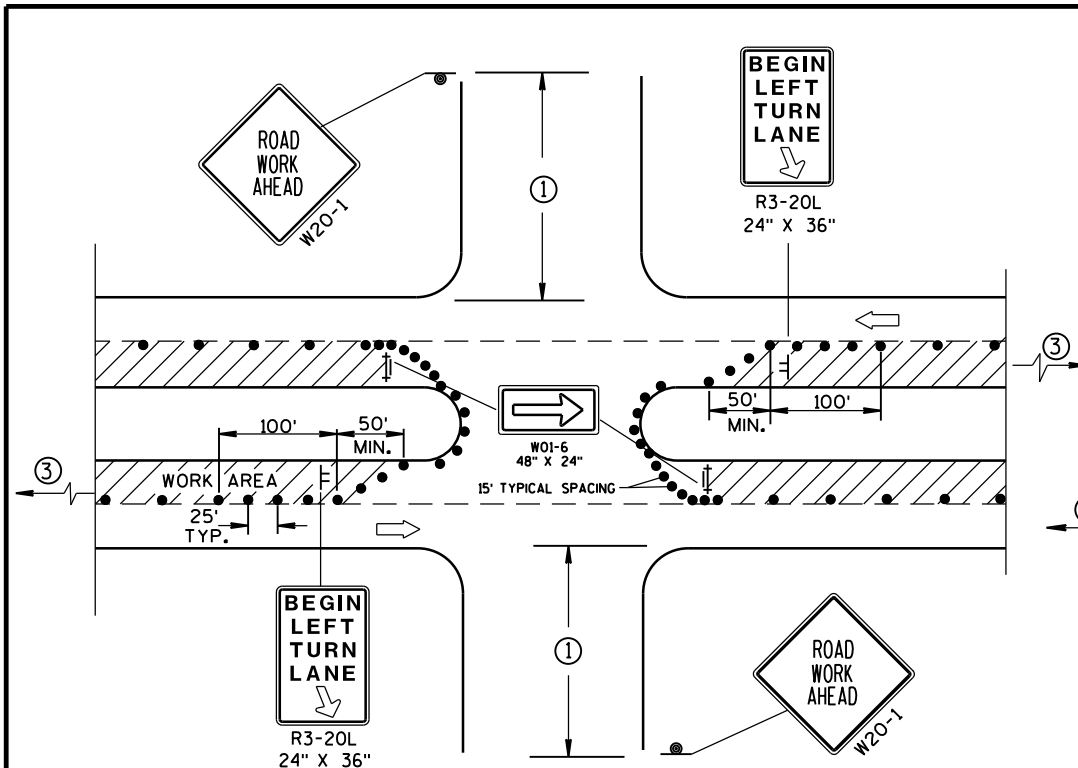
5/24/2000

DATE

FHWA

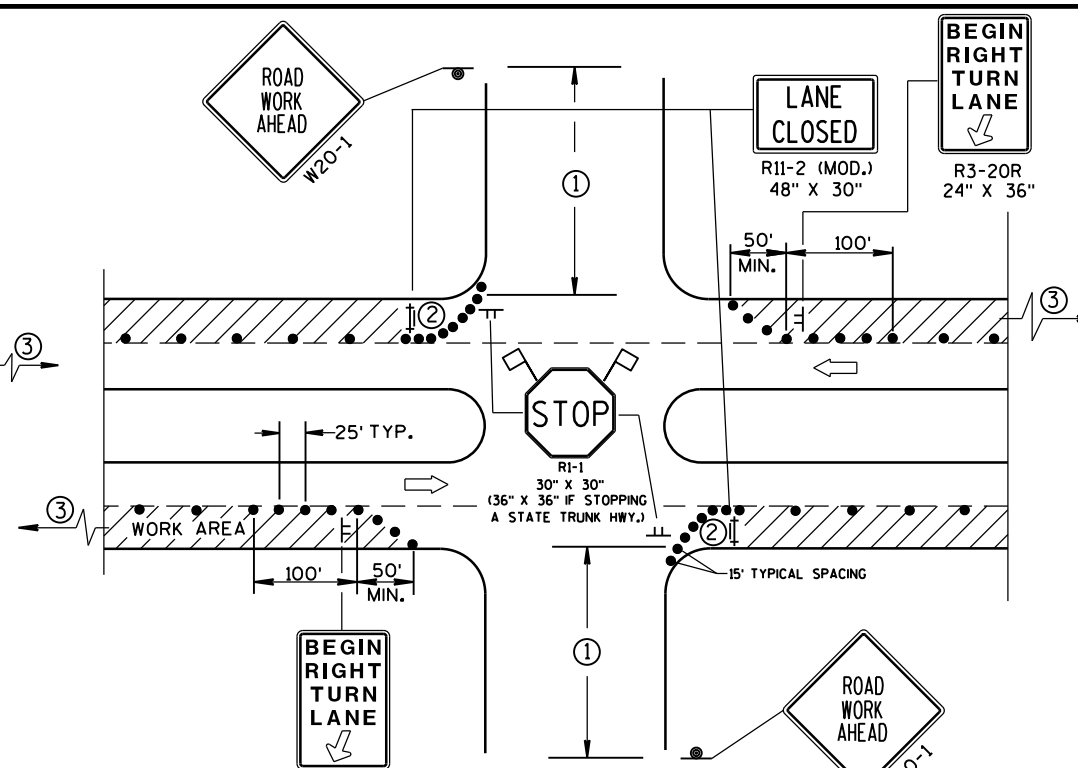
/S/ Chester J. Spang

CHIEF SIGNS AND MARKING ENGINEER

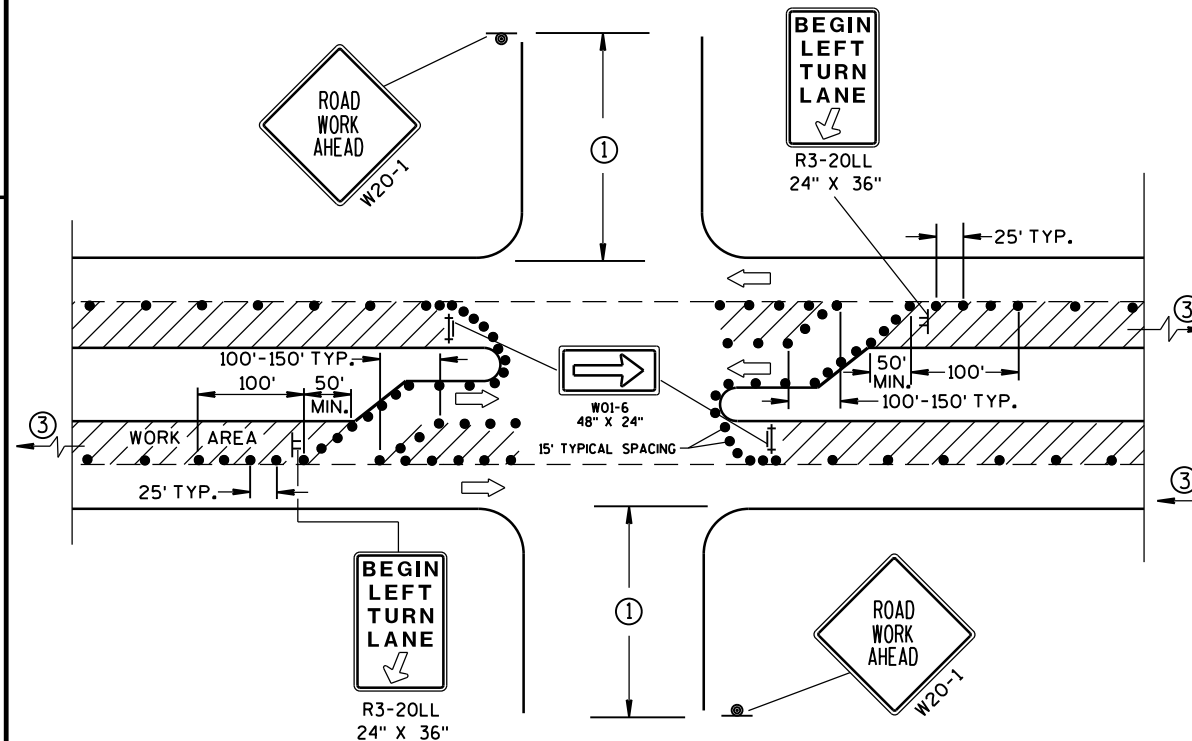


DETAIL A
FOR LEFT LANE CLOSURE AT
INTERSECTION OR MEDIAN OPENING

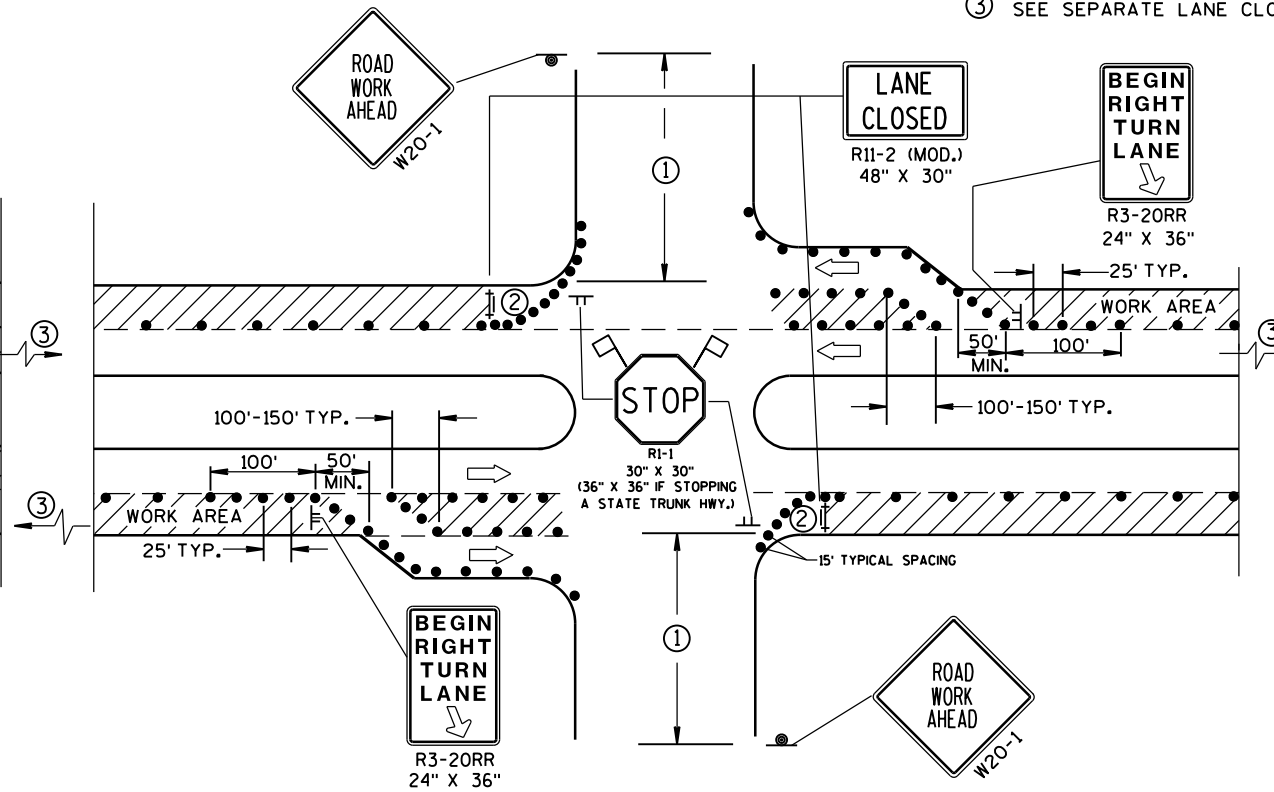
PROVIDE TURN LANES AT
INTERSECTIONS WHENEVER
STAGING OF WORK ALLOWS.
TAPER AND TURN LANE
LENGTHS BASED ON FIELD
CONDITIONS AS APPROVED
BY THE ENGINEER.



DETAIL B
FOR RIGHT LANE CLOSURE
AT INTERSECTION



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



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

GENERAL NOTES

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

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

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

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

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

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

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

- 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.
- ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.
- SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

LEGEND

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

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

<http://www.dot.wisconsin.gov>