

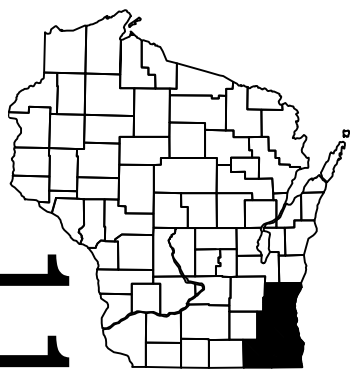
WKE  
PROJECT ID: 4890-00-70  
WITH:  
COUNTY: SOUTHEAST REGION

AUG 2014  
ORDER OF SHEETS

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

TOTAL SHEETS = 56

BEGIN CONSTRUCTION  
STH 50 (GENEVA ST.)



DESIGN DESIGNATION

A.A.D.T.	=
A.A.D.T.	=
D.H.V.	=
D.D.	=
T.	=
DESIGN SPEED	=
ESALS	=

CONVENTIONAL SYMBOLS

PLAN	
CORPORATE LIMITS	////
PROPERTY LINE	---
LOT LINE	---
LIMITED HIGHWAY EASEMENT	---
EXISTING RIGHT OF WAY	---
PROPOSED OR NEW R/W LINE	---
SLOPE INTERCEPT	---
REFERENCE LINE	---
EXISTING CULVERT	---
PROPOSED CULVERT (Box or Pipe)	---
COMBUSTIBLE FLUIDS	CAUTION
MARSH AREA	---
WOODED OR SHRUB AREA	---

PROFILE	
GRADE LINE	---
ORIGINAL GROUND	---
MARSH OR ROCK PROFILE (To be noted as such)	---
SPECIAL DITCH	---
GRADE ELEVATION	95.36
CULVERT (Profile View)	---
UTILITIES	---
ELECTRIC	---
FIBER OPTIC	---
GAS	---
SANITARY SEWER	---
STORM SEWER	---
TELEPHONE	---
WATER	---
UTILITY PEDESTAL	---
POWER POLE	---
TELEPHONE POLE	---

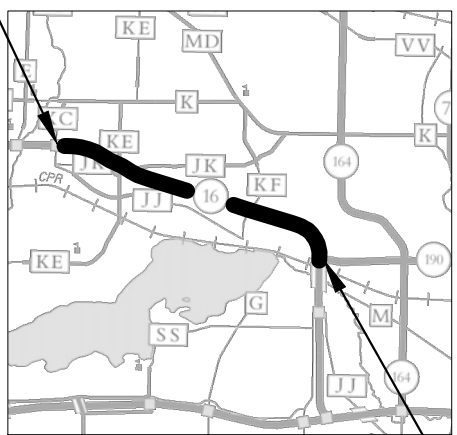
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION  
PLAN OF PROPOSED IMPROVEMENT  
CRACK SEALING-FY 2015  
VARIOUS HIGHWAYS  
SOUTHEAST REGION WIDE

STATE PROJECT NUMBER  
4890-00-70

END CONSTRUCTION  
STH 50 (FOREST ST.)

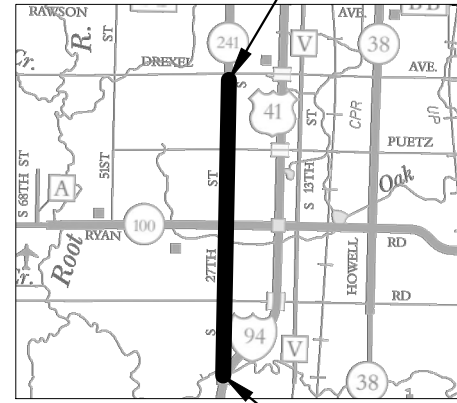
BEGIN CONSTRUCTION  
STH 16 (CTH KC)

WAUKESHA



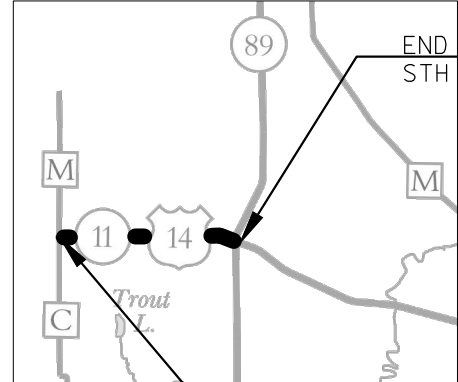
END CONSTRUCTION  
STH 16 (STH 190)

MILWAUKEE



END CONSTRUCTION  
STH 241 (DREXEL AVE.)

WALWORTH



BEGIN CONSTRUCTION  
STH 11 (ROCK CO LINE.)

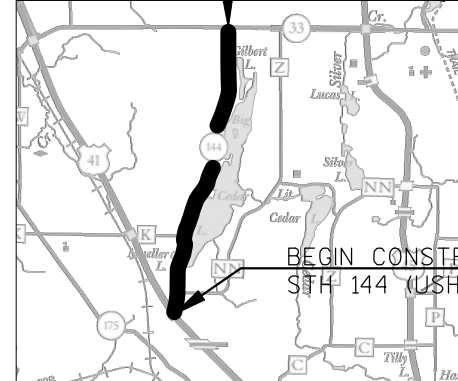
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STH 11 (STH 89)

LAYOUT  
SCALE 0

TOTAL NET LENGTH OF CENTERLINE =

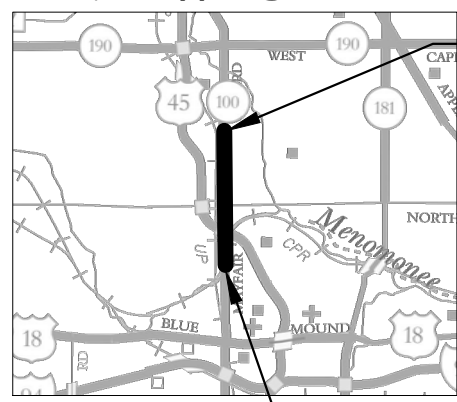
END CONSTRUCTION  
STH 144 (STH 33)

WASHINGTON



BEGIN CONSTRUCTION  
STH 144 (STH 41)

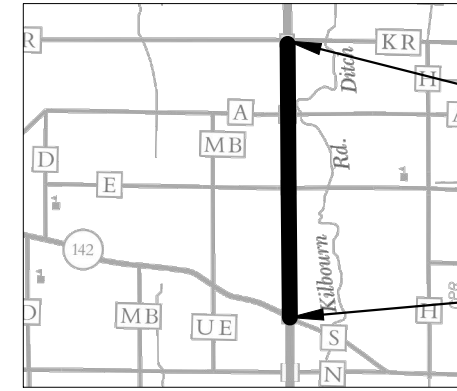
MILWAUKEE



END CONSTRUCTION  
STH 100 (BURLEIGH RD.)

BEGIN CONSTRUCTION  
STH 100 (WALNUT RD.)

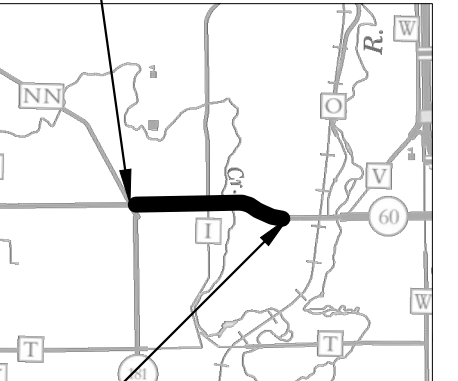
KENOSHA



END CONSTRUCTION  
IH-94 (CTH KR)

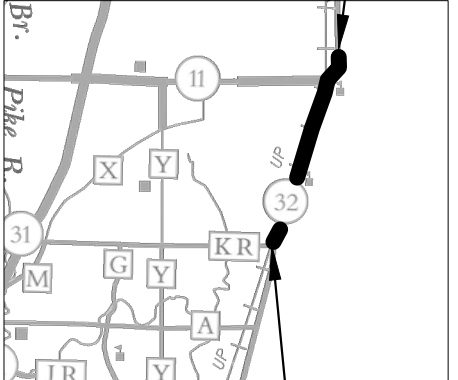
BEGIN CONSTRUCTION  
IH-94 (STH 142)

OZAUKEE



END CONSTRUCTION  
STH 60 (1st AVE. GRAFTON)

RACINE



END CONSTRUCTION  
STH 32 (21th ST.)

BEGIN CONSTRUCTION  
STH 32 (CTH KR)

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	SURVEYOR
Designer	PRIYA MITRA
Project Manager	JOHN KANZENBACH
Regional Examiner	
Regional Supervisor	BENEDICT ERUCHALU
APPROVED FOR THE DEPARTMENT	
DATE: 06/10/14	(Signature)



SE REGION STATE HIGHWAY MAINTAINENCE CONTACTS:

PAUL AMBROSE  
MAINTAINENCE PROGRAM ENGINEER  
WISDOT SE REGION  
141 NW BARSTOW STREET,  
WAUKESHA,WI 53188  
PHONE: (262)548-6730

WASHINGTON& OZAUKEE  
JIM WEIGLEIN  
AREA MAINTAINENCE COORDINATOR  
WISDOT SE REGION  
141 NW BARSTOW STREET,WAUKESHA  
WAUKESHA,WI 53188  
PHONE: (414)750-1406

WAUKESHA  
ANDREA MAXELL  
AREA MAINTAINENCE COORDINATOR  
WISDOT SE REGION  
141 NW BARSTOW STREET,WAUKESHA  
WAUKESHA,WI 53188  
PHONE: (414) 750-1411

MILWAUKEE (NORTH)  
KEVIN PEIFFER  
AREA MAINTAINENCE COORDINATOR  
WISDOT SE REGION  
141 NW BARSTOW STREET,WAUKESHA  
WAUKESHA,WI 53188  
PHONE: (414) 750-1408

MILWAUKEE (SOUTH)  
David Zeman  
Area Maintainence Coordinator  
WISDOT SE REGION  
141 NW BARSTOW STREET,WAUKESHA  
WAUKESHA,WI 53188  
PHONE: (414) 750- 1407

RACINE COUNTY  
GAIL VUKODINOVICH  
AREA MAINTAINENCE COORDINATOR  
WISDOT SE REGION  
141 NW BARSTOW STREET,WAUKESHA  
WAUKESHA,WI 53188  
PHONE: (414) 750-0994

WALWORTH & KENOSHA  
DENNIS SCHMUNCK  
AREA MAINTAINENCE COORDINATOR  
WISDOT SE REGION  
141 NW BARSTOW STREET,WAUKESHA  
WAUKESHA,WI 53188  
PHONE: (414) 750-1563

DNR CONTACTS :

MIKE THOMSON (SUPERVISOR)  
WDNR - SE REGION  
2300 N.MARTIN LUTHER KING DR.  
Milwaukee,WI-53212  
MichaelC.Thompson@wisconsin.gov  
PHONE:(414)263-8648

MILWAUKEE,RACINE,OZAUKEE & WASHINGTON  
KRISTINA BETZHOLD  
WDNR - SE REGION  
2300 N.MARTIN LUTHER KING DR.  
MILWAUKEE-53212  
Kristina.Betzold@wisconsin.gov  
PHONE: (414) 263-8517

KENOSHA,WALWORTH ,& WAUKESHA  
CRAIG WEBSTER  
141 NW BARSTOW ST.RM:180  
WAUKESHA,WI 53188  
craig.webster@wisconsin.gov  
PHONE: (262) 574-2141

OTHER CONTACTS

JOHN KANZENBACH,P.E  
WISDOT PROJECT MANAGER  
141 NW BARSTOW STREET  
WAUKESHA ,WI 53188  
PHONE:262-548-6467  
John.kanzenbach@wi.dot.gov

GENERAL NOTES

- NO UTILITY FACILITIES ARE IDENTIFIED IN THE PLAN.
- IDENTIFY ALL UTILITIES IN THE AREA BY CONTACTING DIGGERS HOTLINE.
- QUANTITY FOR CRACK SEALING IS ESTIMATED AT 3.6 LF PER 1 LB OF MATERIAL.
- EPOXY PAVEMENT MARKINGS WILL BE CONTINOUS WITH IN PROJECT LIMITS.
- CRACK SEALING LOCATIONS ARE APPROXIMATE AND WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
- CRACK SEALING AREA INCLUDE MAINLINE TRAVEL LANES,SHOULDERS,TURNLANES AUXILLARY LANES AND TAPER SECTIONS AND RAMPS
- TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

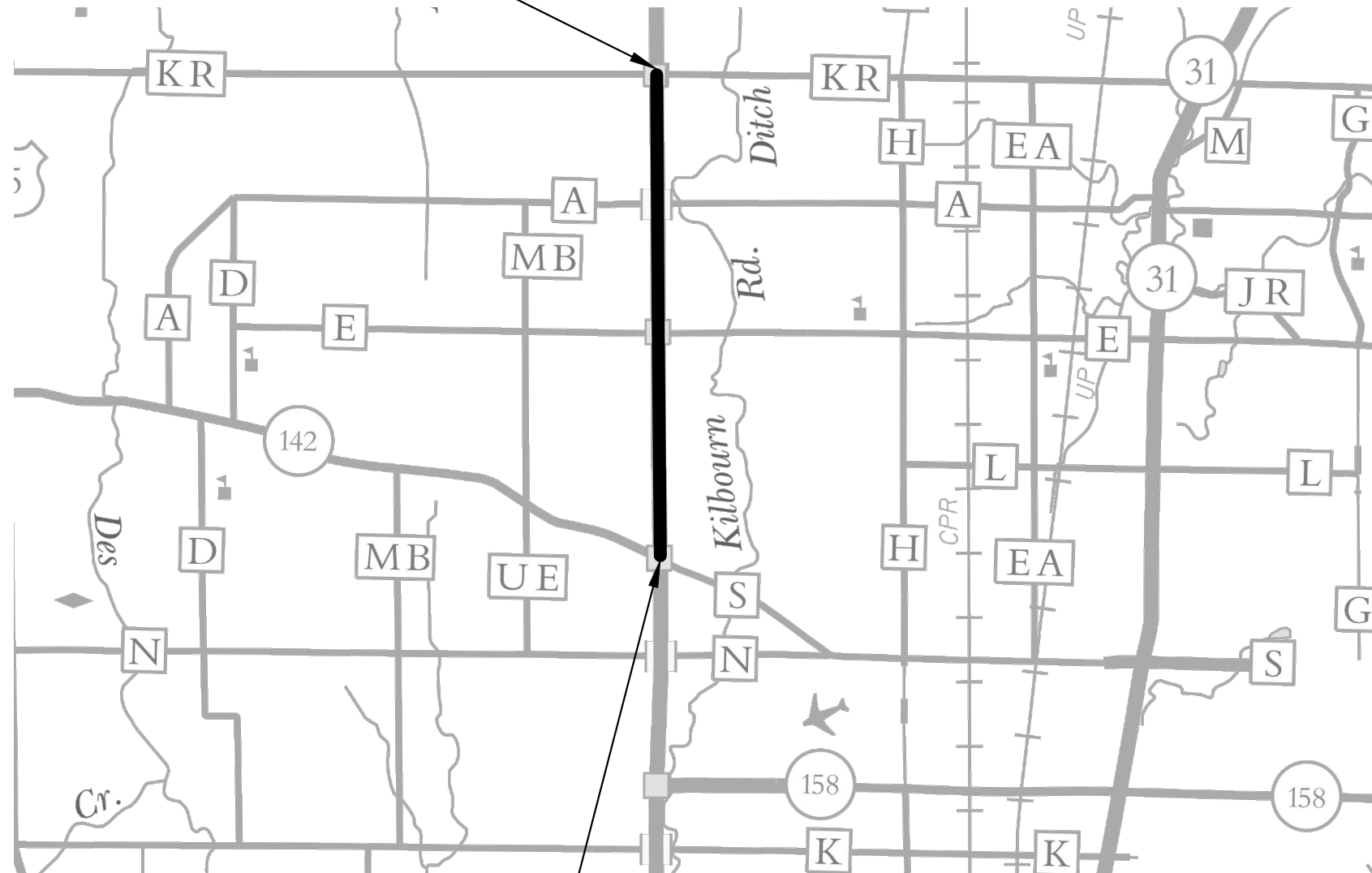




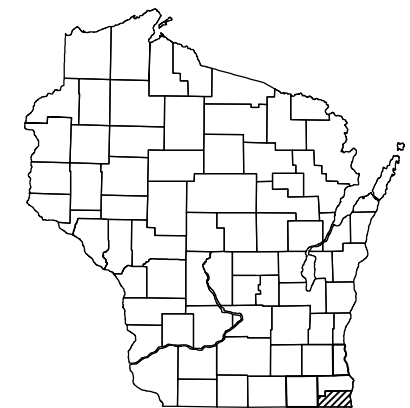


# KENOSHA COUNTY

**END CONSTRUCTION**  
IH-94 (CTH KR)

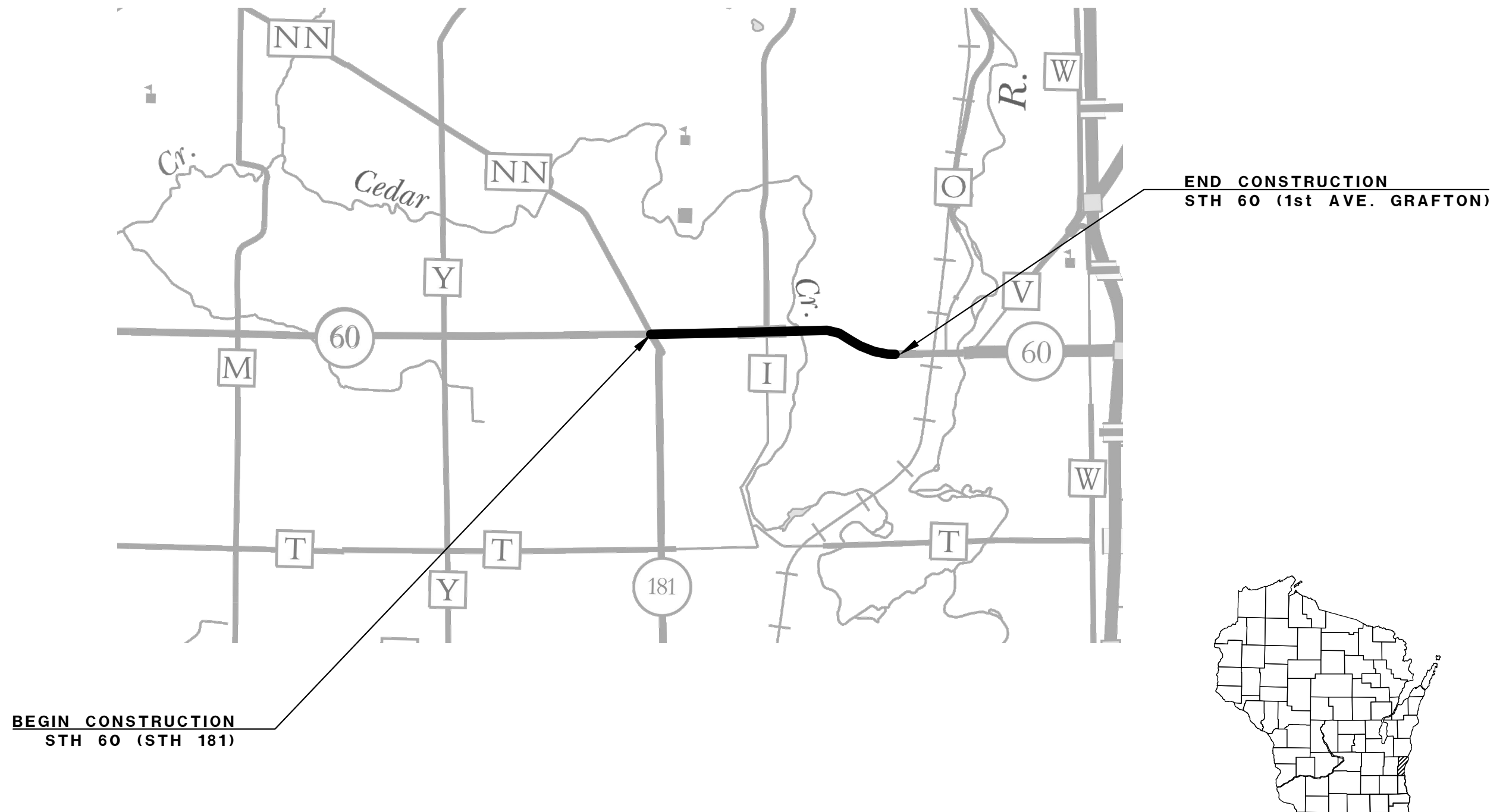


**BEGIN CONSTRUCTION**  
IH-94 (STH 142)



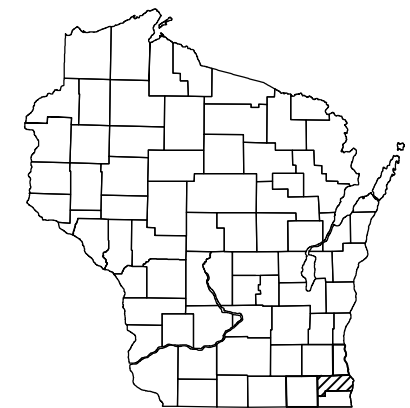


# OZAUKEE COUNTY



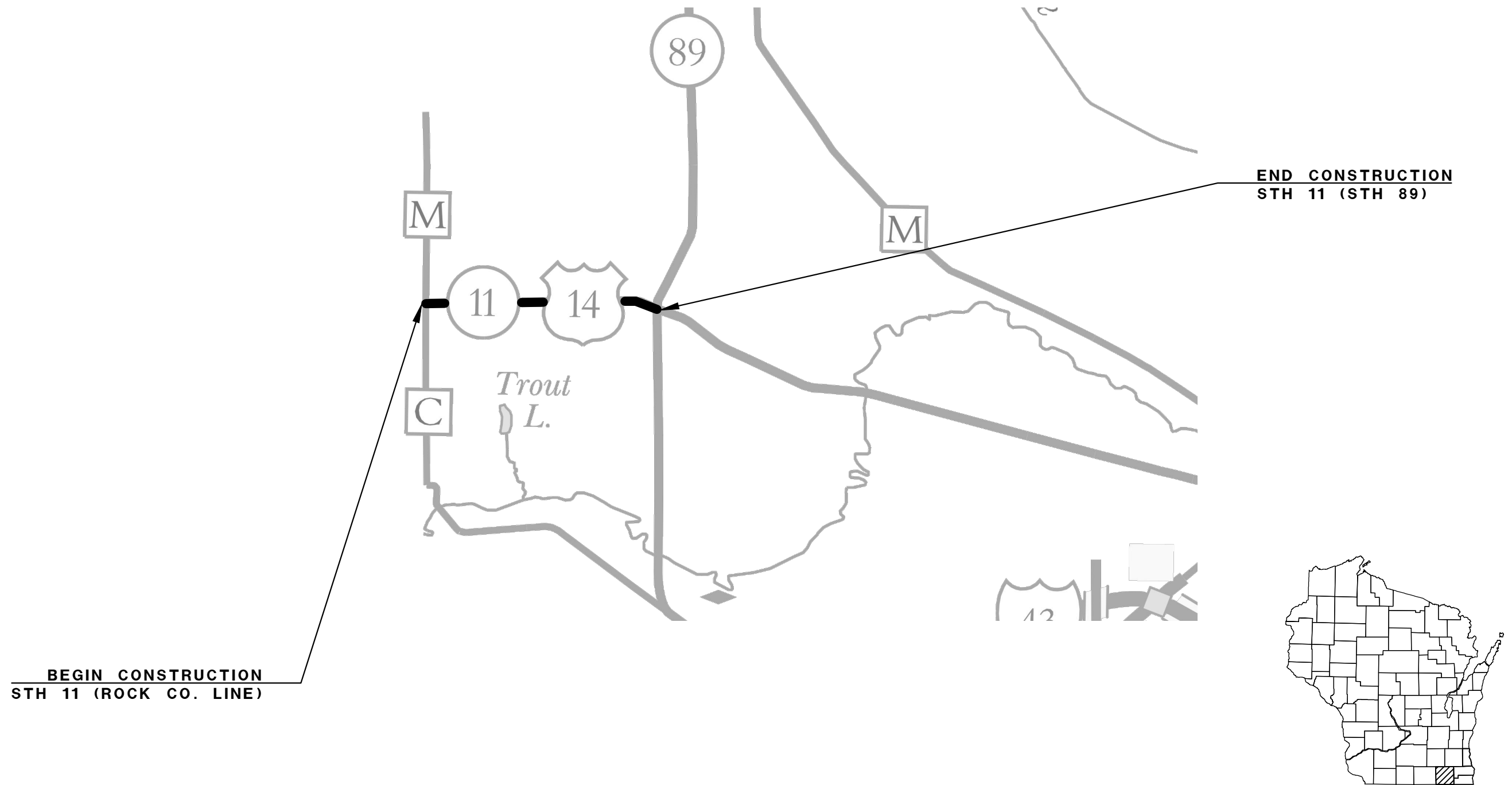


# RACINE COUNTY





# WALWORTH COUNTY



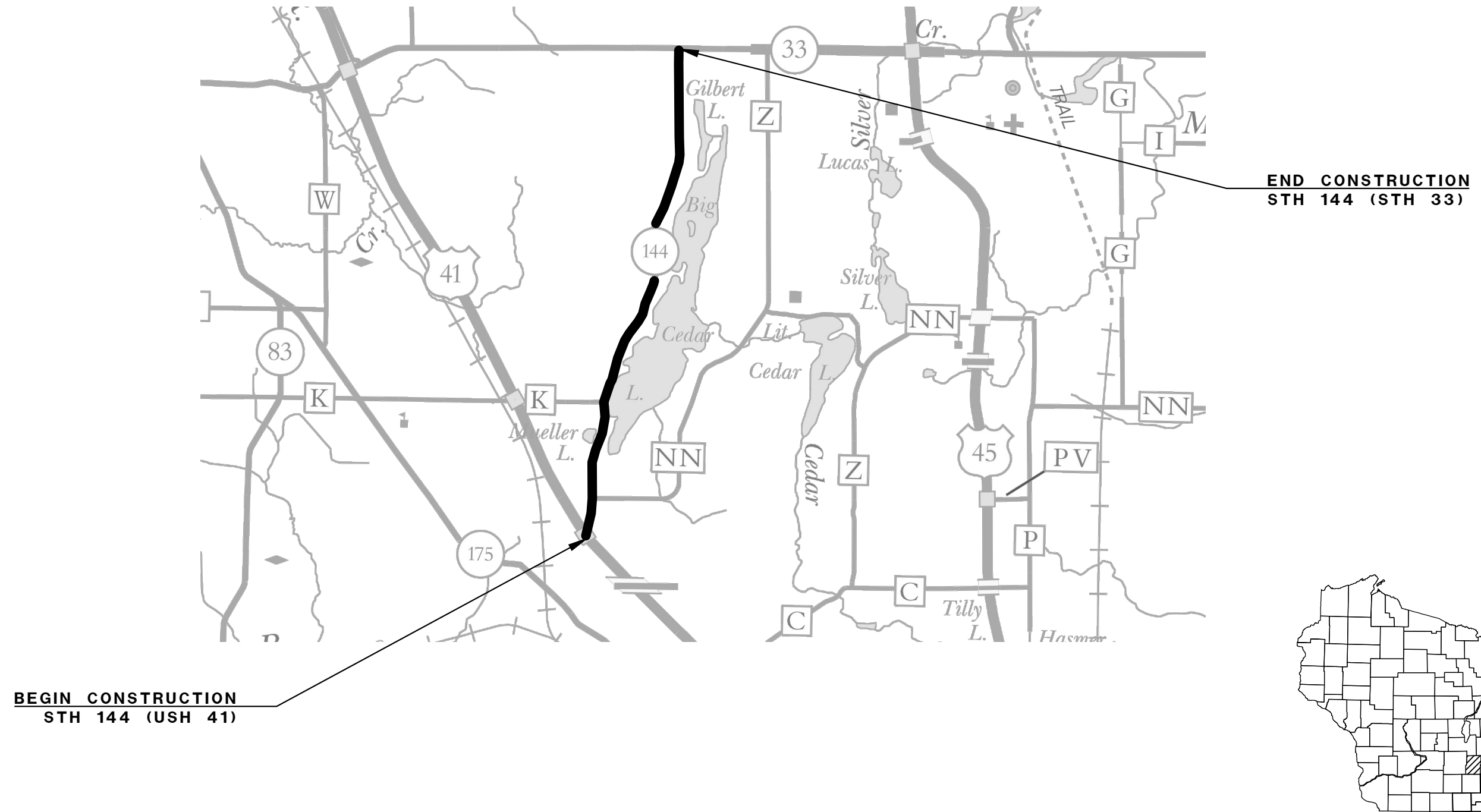


# WALWORTH COUNTY



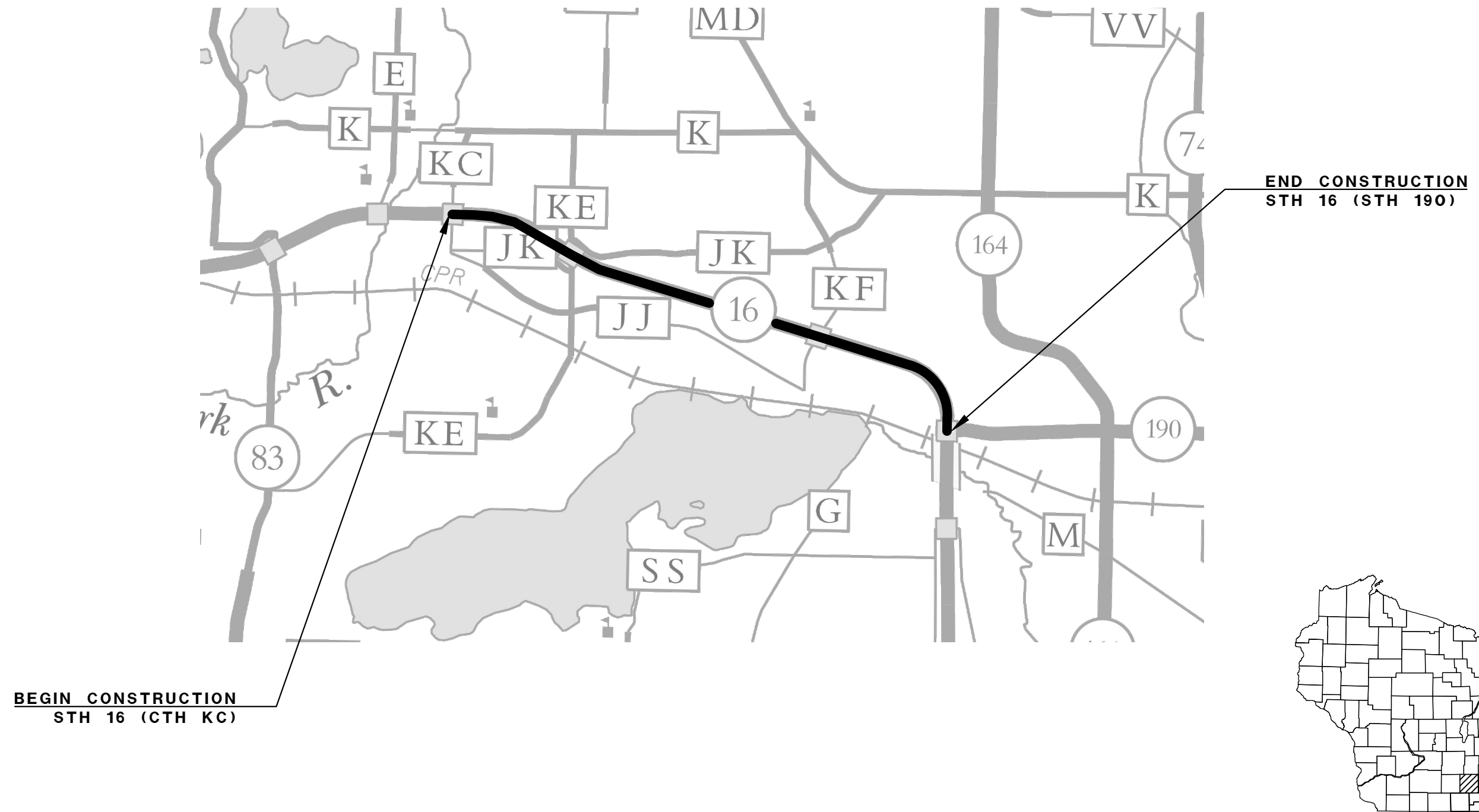


# WASHINGTON COUNTY



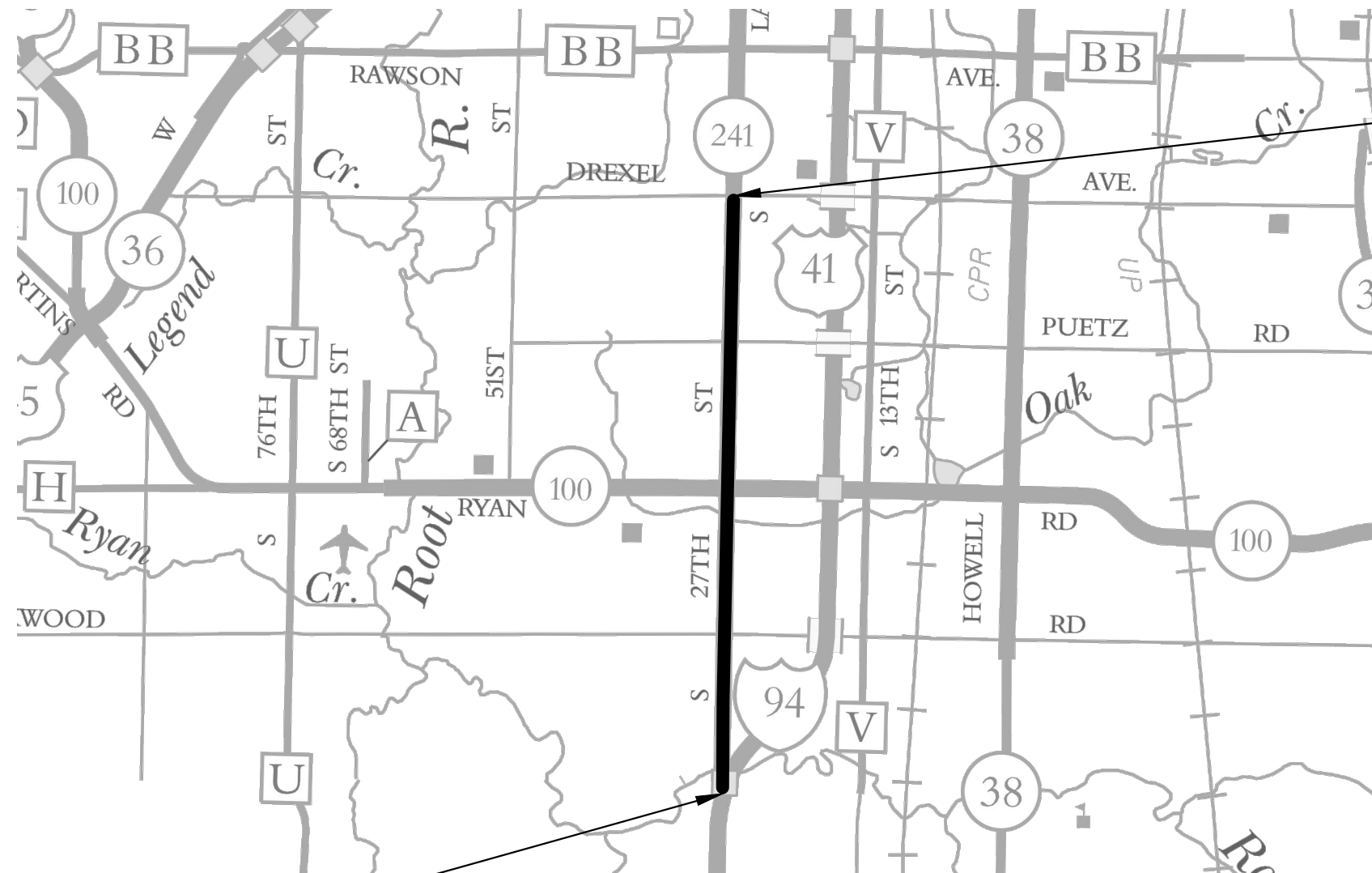


# WAUKESHA COUNTY



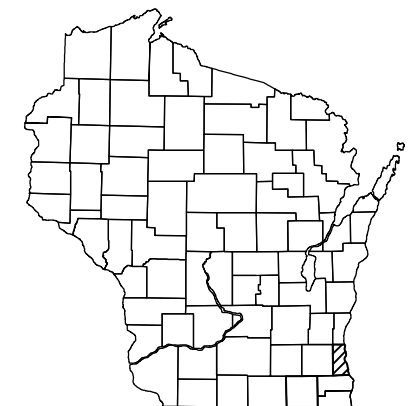


# MILWAUKEE COUNTY



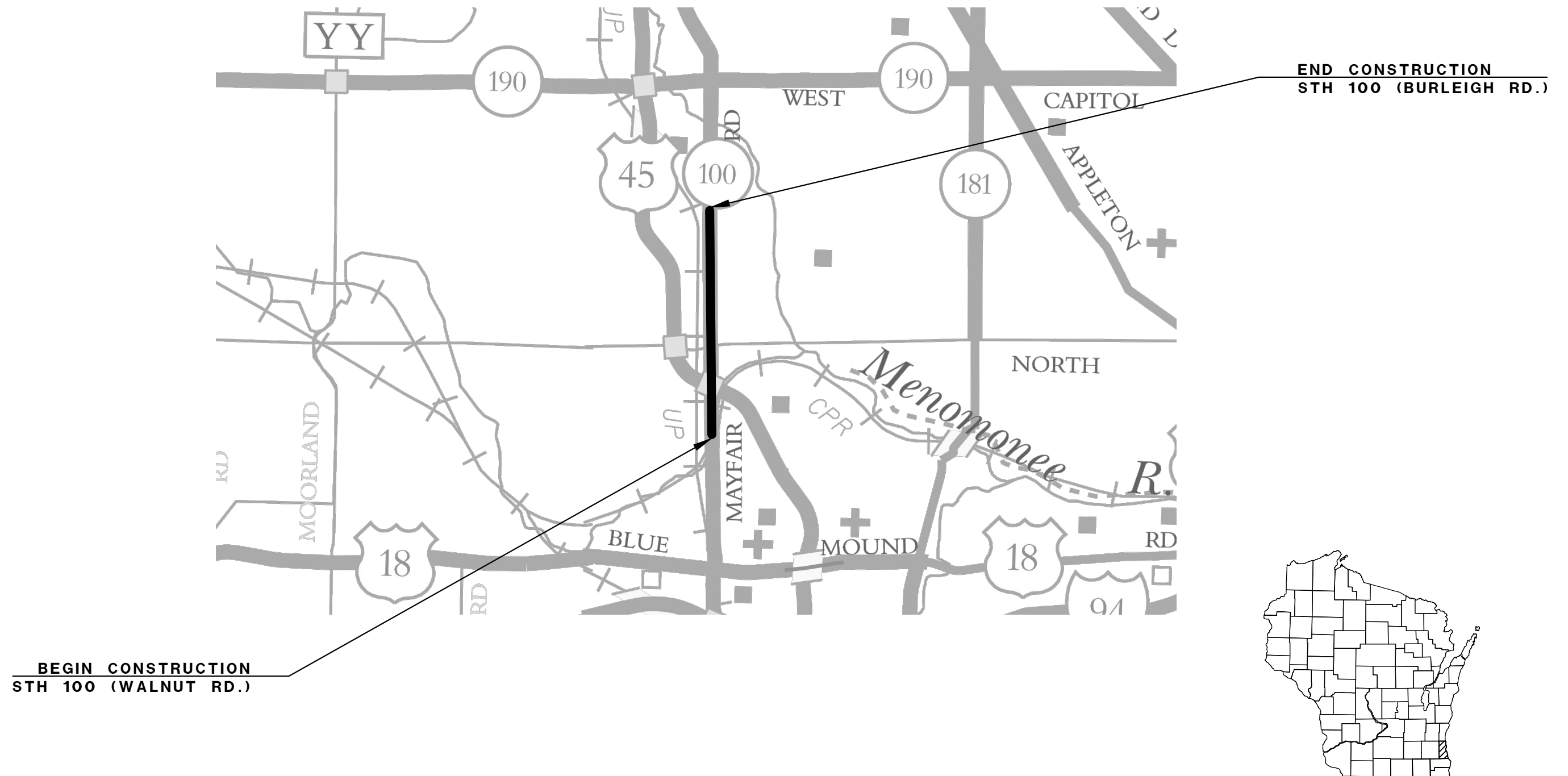
**END CONSTRUCTION**  
**STH 241 (DREXEL AVE.)**

**BEGIN CONSTRUCTION**  
**STH 241 (RACINE CL.)**

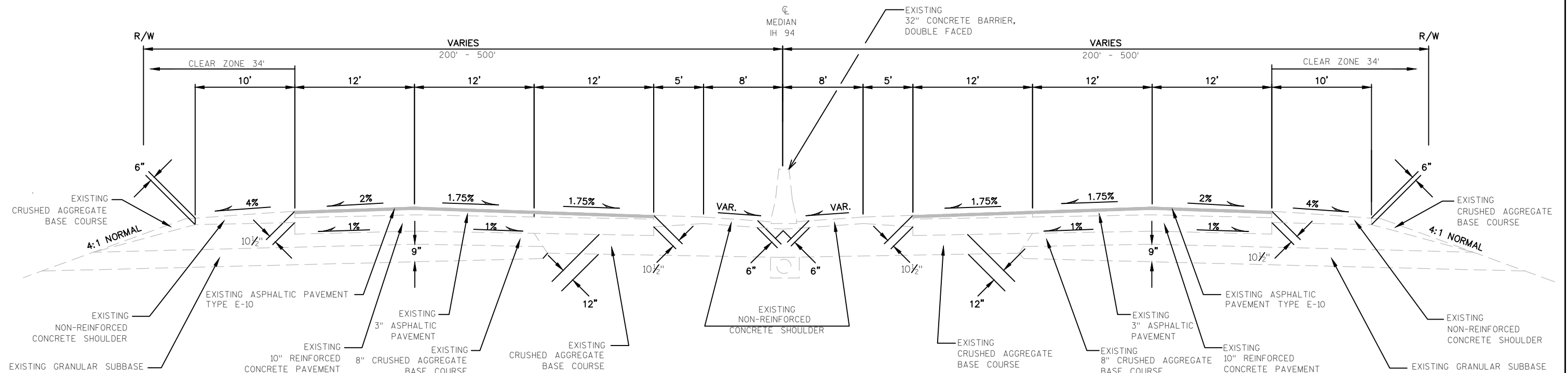




# MILWAUKEE COUNTY



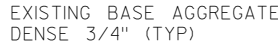






2

2

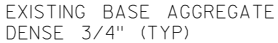


EXISTING 6 1/2" HMA PAVEMENT TYPE E-3

EXISTING 12" BASE AGGREGATE DENSE 1 1/4-INCH

WIS 60  
800' WEST OF KEUP RD. TO 400' WEST OF KEUP RD.

FOR INFORMATION ONLY



EXISTING 6 1/2" HMA PAVEMENT TYPE E-3

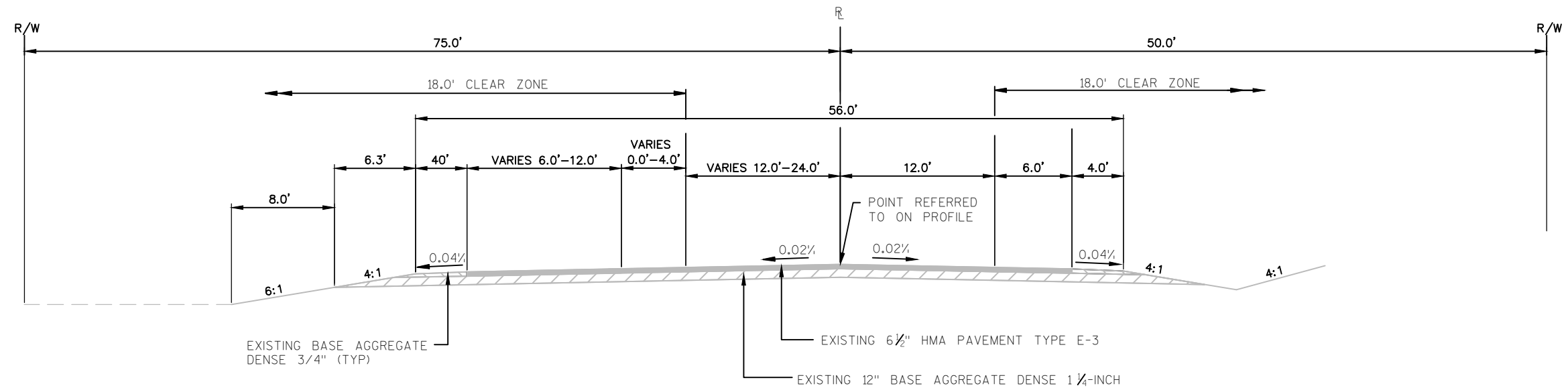
EXISTING 12" BASE AGGREGATE DENSE 1 1/4-INCH

EXISTING CONCRETE CURB AND GUTTER  
6-INCH SLOPED 30-INCH  
TYPE J

WIS 60  
400' WEST OF KEUP RD. TO KEUP RD.

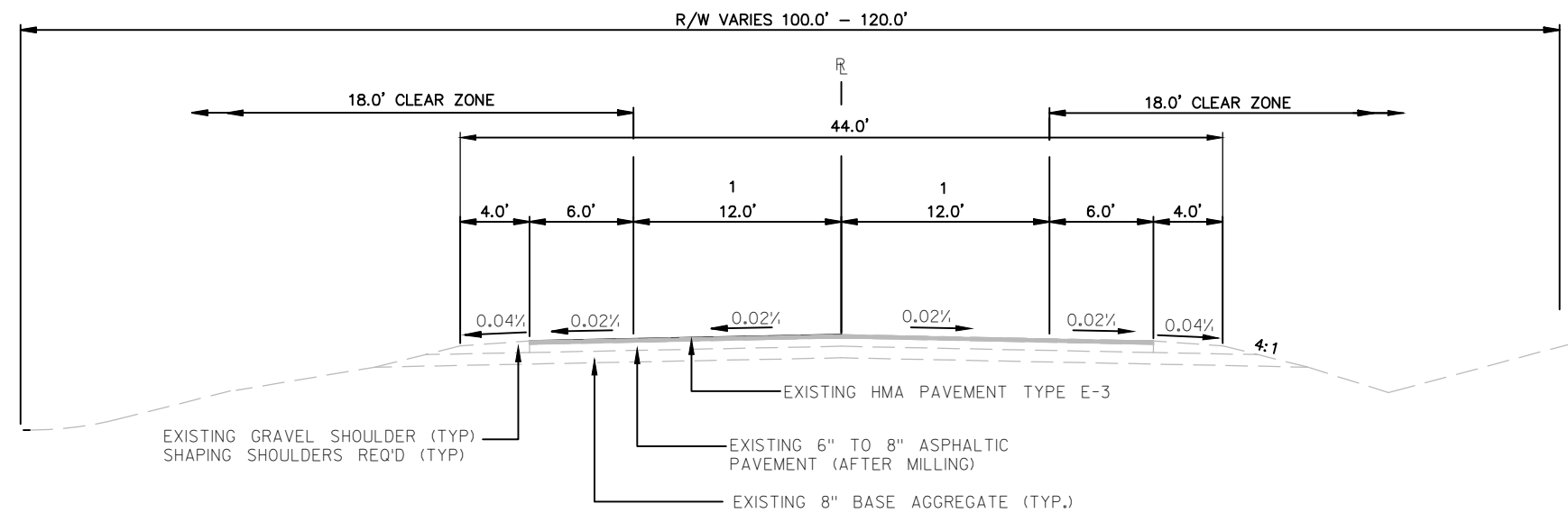
FOR INFORMATION ONLY



EXISTING TYPICAL SECTION

WIS 60 @ KEUP RD.

FOR INFORMATION ONLY

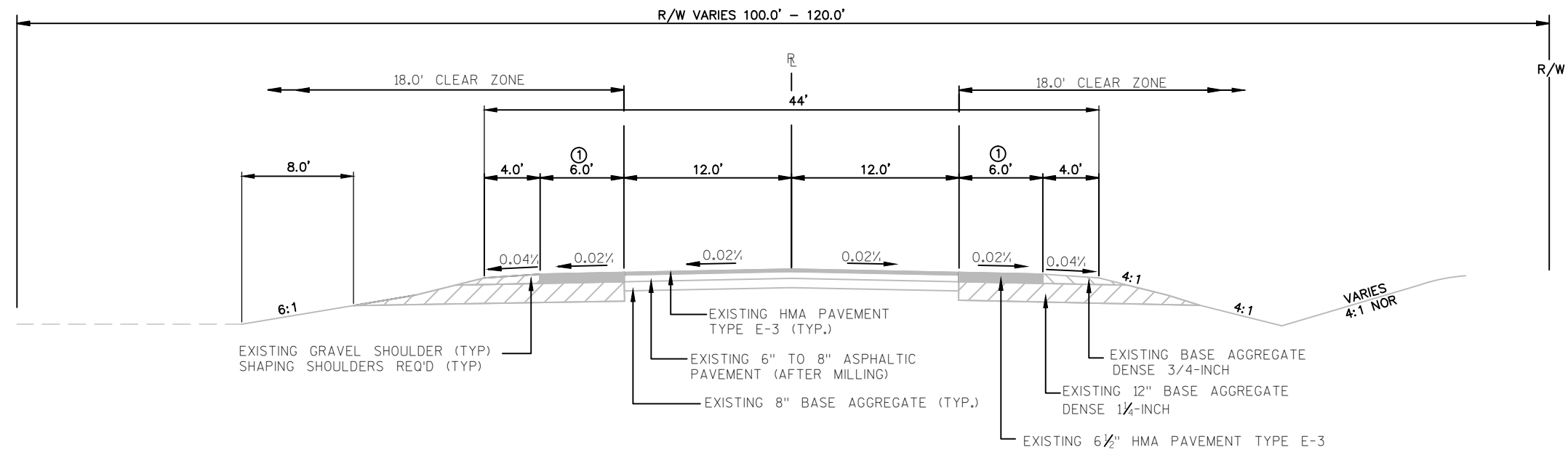
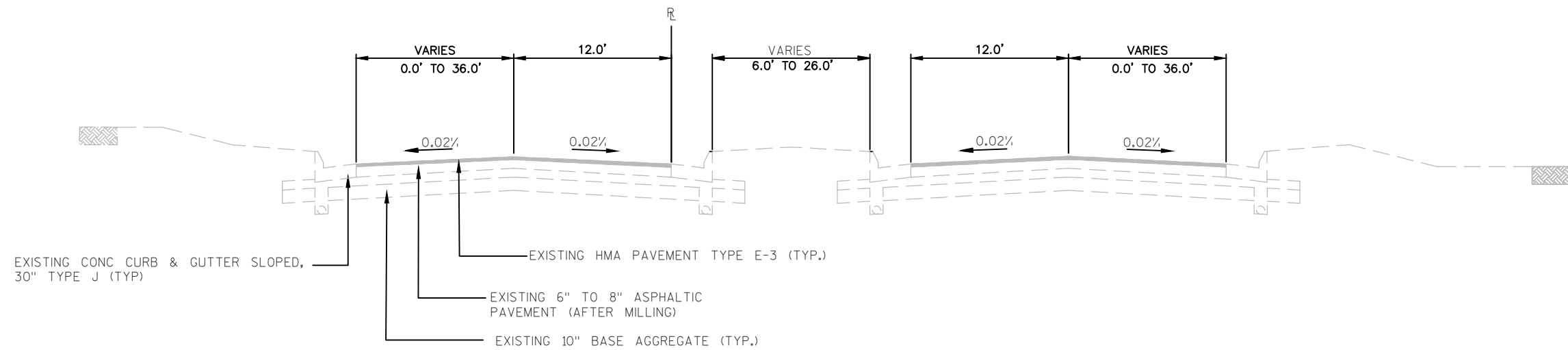
EXISTING TYPICAL SECTION

WIS 60

STH 181 TO AIRPORT FIELDS ATHLETIC COMPLEX

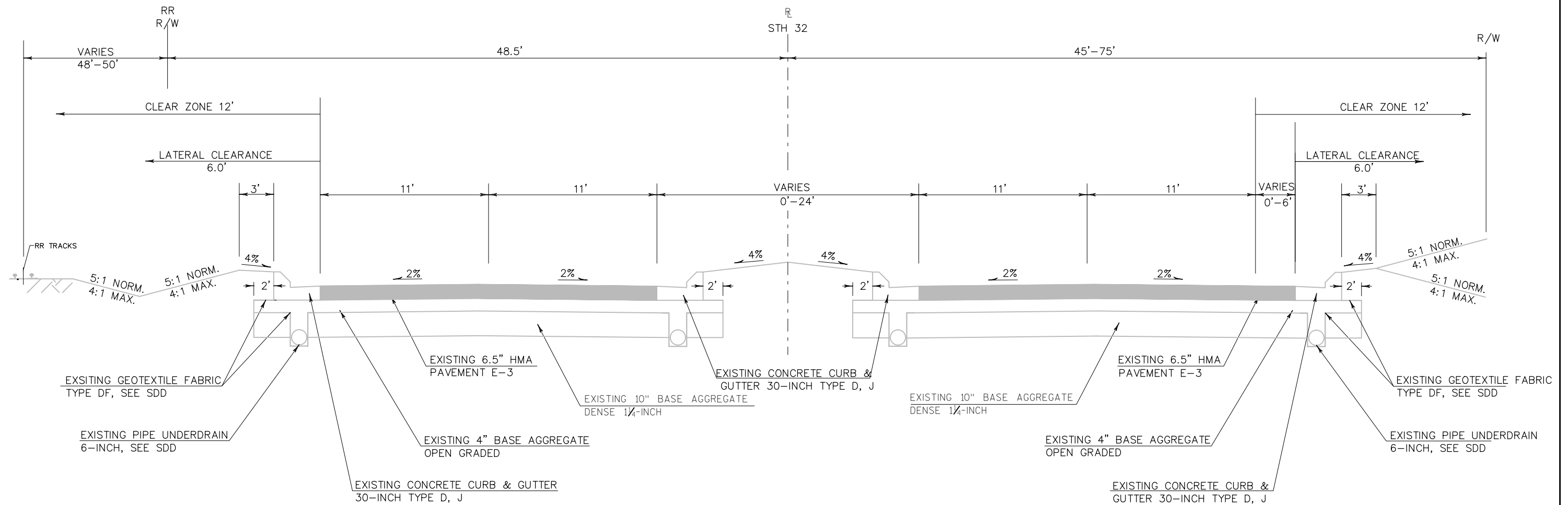
FOR INFORMATION ONLY



**NOTES:**

- ① THE RIGHT OF WAY IS 80.0' CENTERED ON THE EXISTING ROAD FROM STA 44+37 TO STA 47+17 AND IS 66.0' FROM STA 47+17 TO STA 50.00
- ② CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH AT INTERSECTION RADIUS.



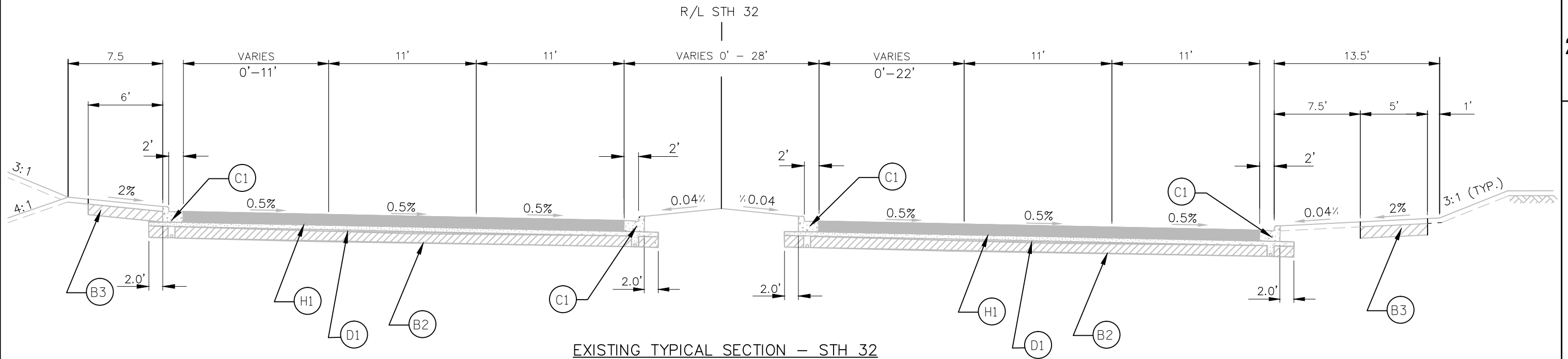


EXISTING TYPICAL SECTION

STH 32  
CTH KR TO LARSON ST.

FOR INFORMATION ONLY

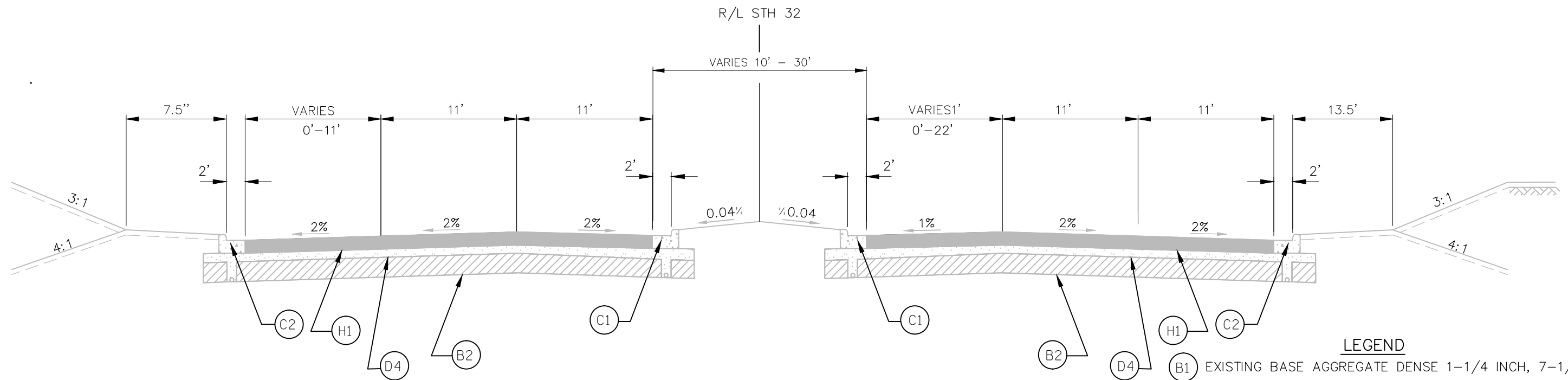




EXISTING TYPICAL SECTION - STH 32

STH 11 TO 400' SOUTH OF 25TH ST.

FOR INFORMATION ONLY



EXISTING TYPICAL SECTION - STH 32

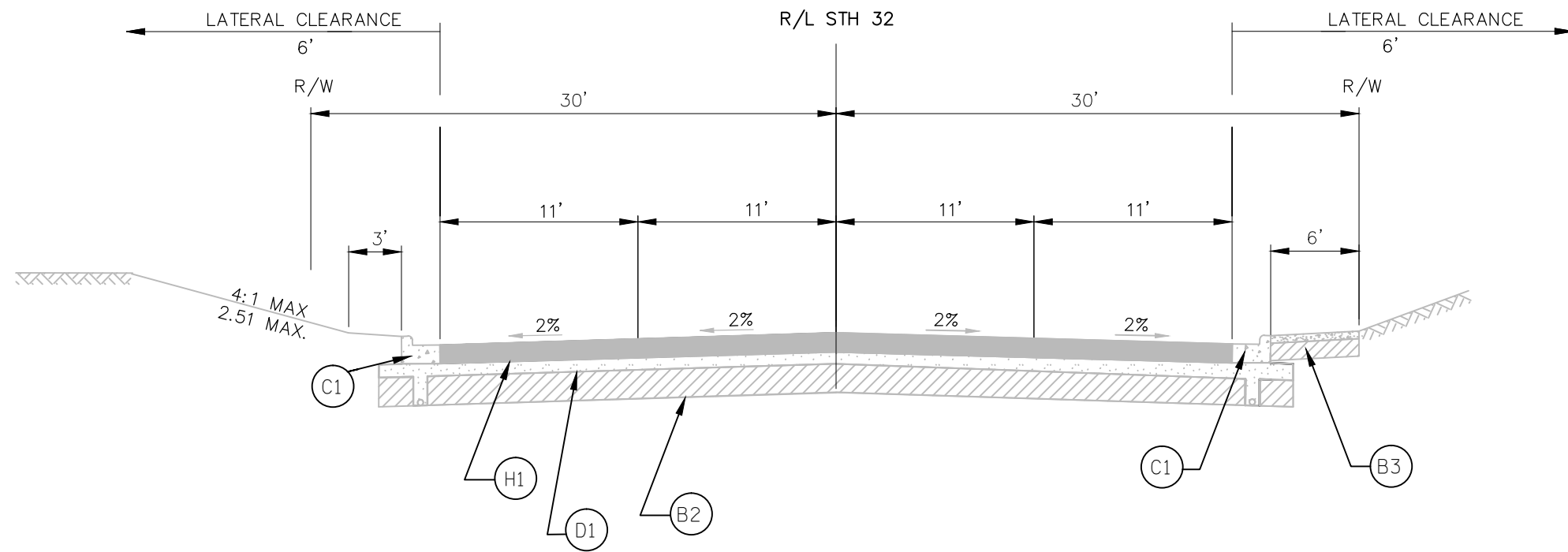
LARSON ST. - STH 11

FOR INFORMATION ONLY

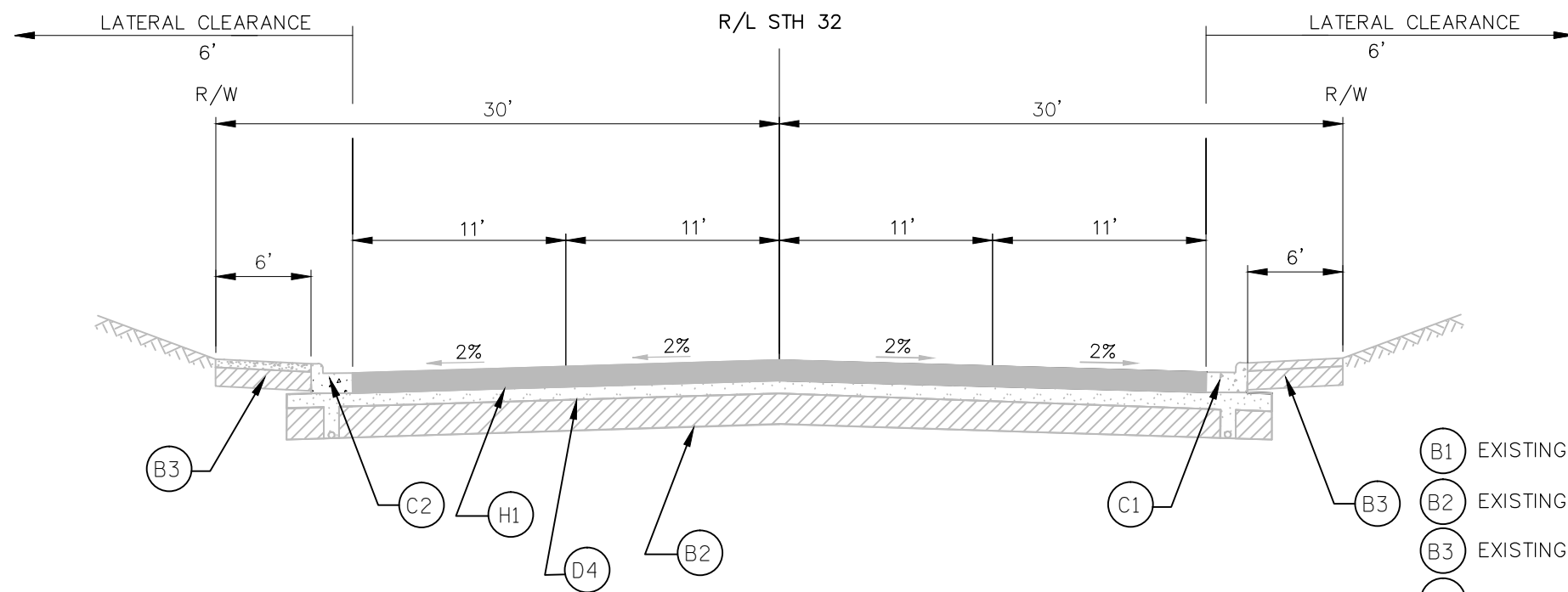
LEGEND

- (B1) EXISTING BASE AGGREGATE DENSE 1-1/4 INCH, 7-1/2-INCH
- (B2) EXISTING BASE AGGREGATE DENSE 1-1/4 INCH, 10-INCH
- (B3) EXISTING BASE AGGREGATE DENSE 1-1/4 INCH, 4-INCH
- (C1) EXISTING CONCRETE CURB & GUTTER, 30-INCH, TYPE D
- (C2) EXISTING CONCRETE CURB & GUTTER, 18-INCH, TYPE D
- (D1) EXISTING BASE AGGREGATE OPEN GRADED, 4-INCH
- (H1) EXISTING HMA PAVEMENT, TYPE E-3, 6-1/2-INCH





EXISTING TYPICAL SECTION – STH 32  
400' SOUTH OF 25TH ST. TO 100' NORTH OF 25TH  
FOR INFORMATION ONLY

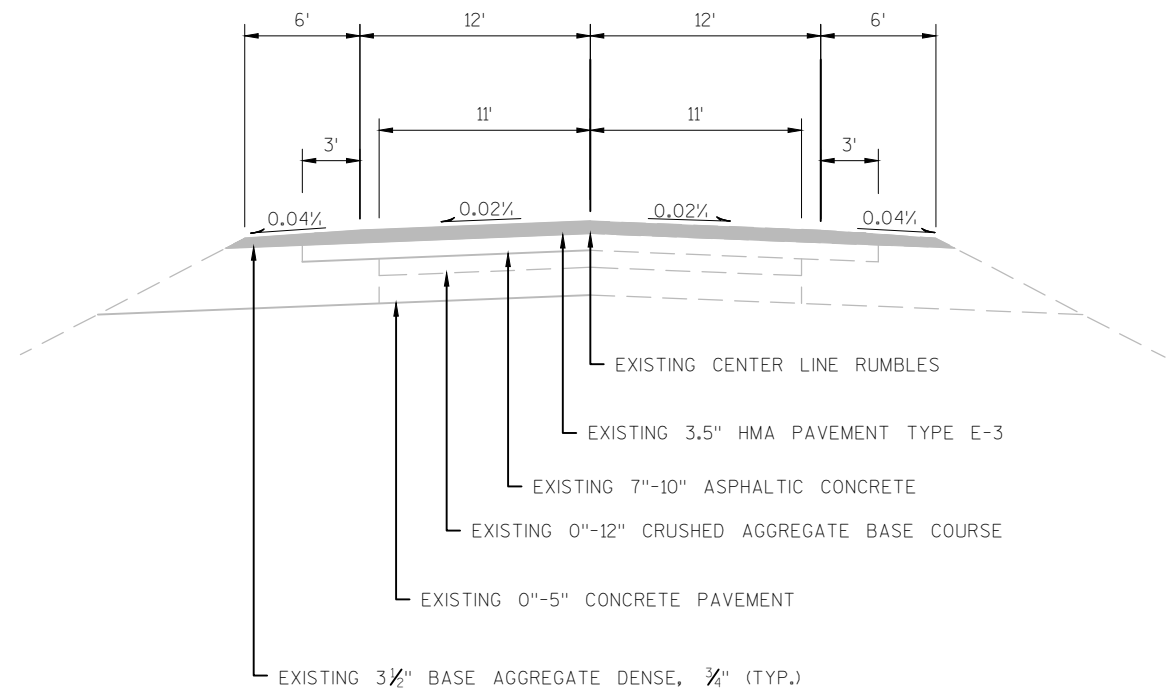


EXISTING TYPICAL SECTION – STH 32  
100' NORTH OF 25TH ST. TO 21ST ST.  
FOR INFORMATION ONLY

LEGEND

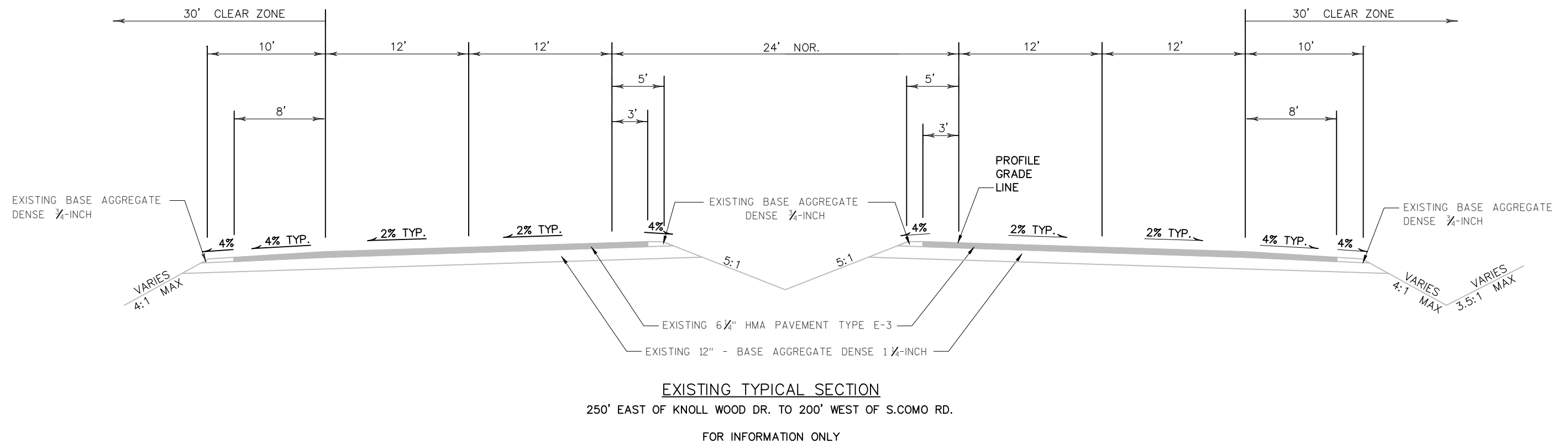
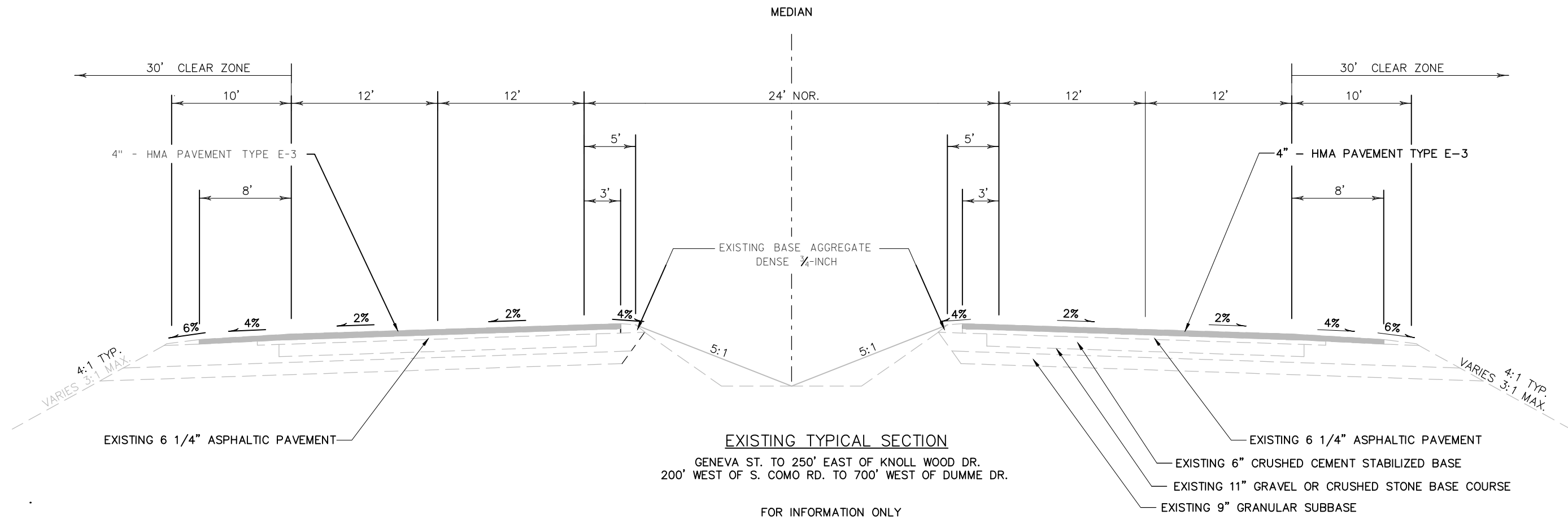
- (B1) EXISTING BASE AGGREGATE DENSE 1-1/4 INCH, 7-1/2-INCH
- (B2) EXISTING BASE AGGREGATE DENSE 1-1/4 INCH, 10-INCH
- (B3) EXISTING BASE AGGREGATE DENSE 1-1/4 INCH, 4-INCH
- (C1) EXISTING CONCRETE CURB & GUTTER, 30-INCH, TYPE D
- (C2) EXISTING CONCRETE CURB & GUTTER, 18-INCH, TYPE D
- (D1) EXISTING BASE AGGREGATE OPEN GRADED, 4-INCH
- (H1) EXISTING HMA PAVEMENT, TYPE E-3, 6-1/2-INCH





EXISTING TYPICAL SECTION  
USH 14 / STH 11  
ROCK/WALWORTH CO. LINE TO STH 89  
  
FOR INFORMATION ONLY

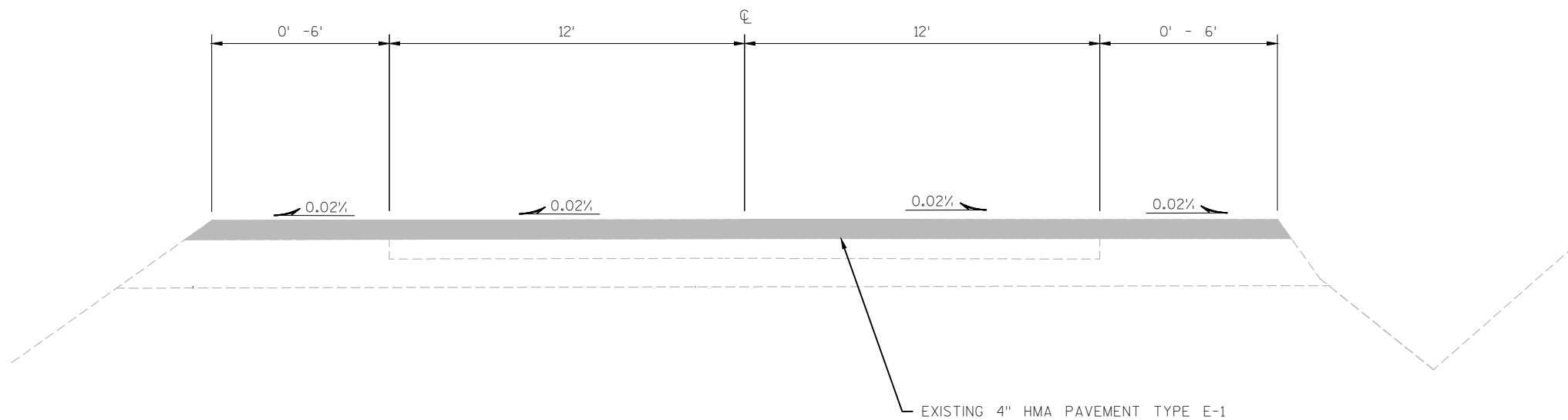










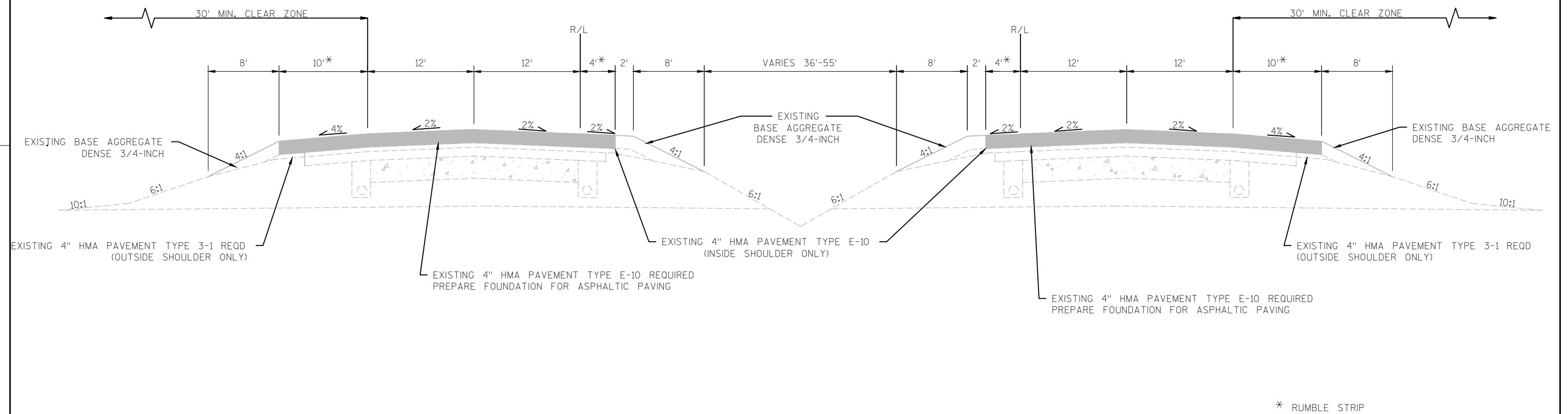


EXISTING TYPICAL SECTION – STH 144

1400' NORTH OF FONTANA DR. TO STH 33

FOR INFORMATION ONLY



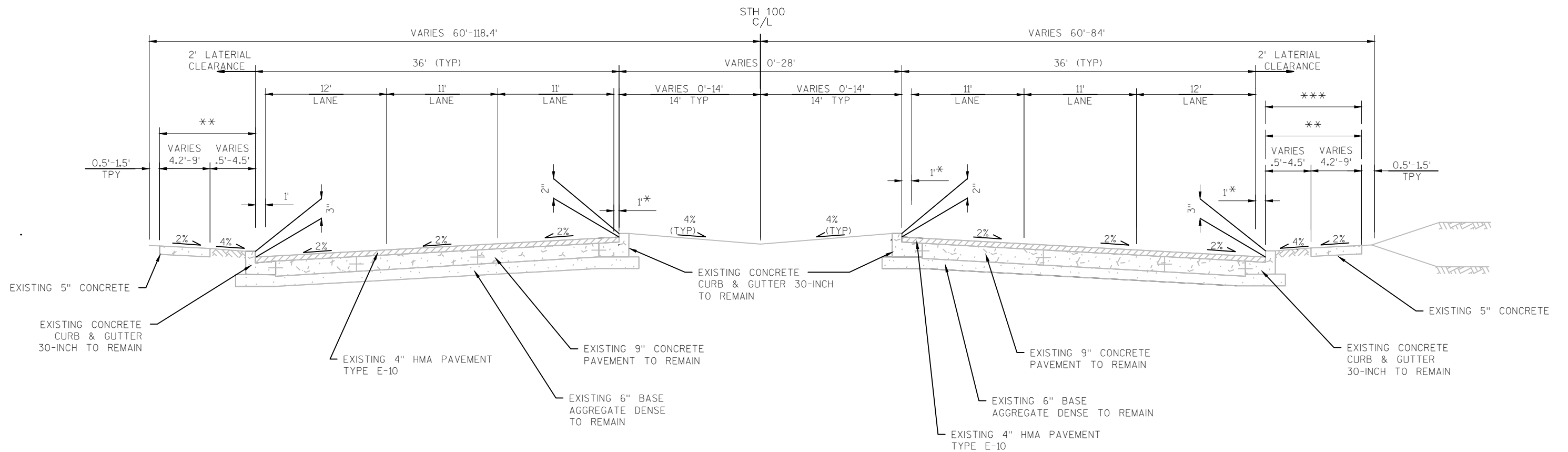


EXISTING TYPICAL SECTION  
STH 16

CTH KC TO STH 190

FOR INFORMATION ONLY





EXISTING TYPICAL SECTION  
STH 100

WALNUT RD. TO BURLEIGH ST.

FOR INFORMATION ONLY

PROJECT NO: 4890-00-70

HWY: VARIOUS HIGHWAYS

COUNTY: MILWAUKEE

PLAN: TYPICAL SECTION

SHEET \_\_\_\_\_ **E**

FILE NAME : N:\PDS\C3D\CAD\48900000\020301\_TS.DWG

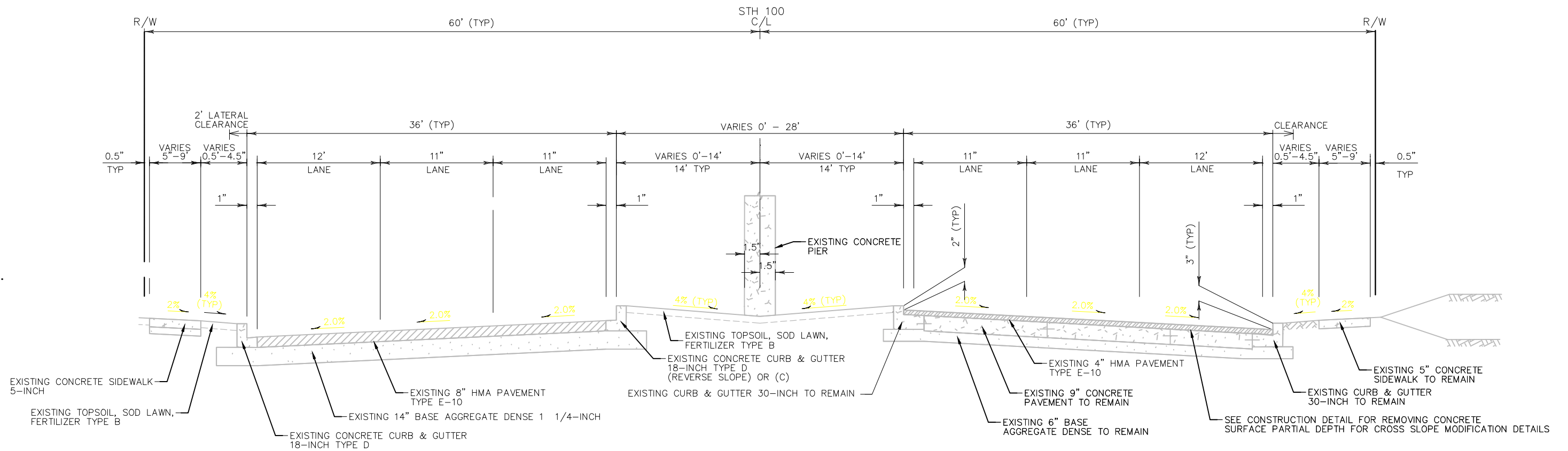
PLOT DATE : 5/1/2014 10:04 AM

PLOT BY : HAYNES, RONNIE

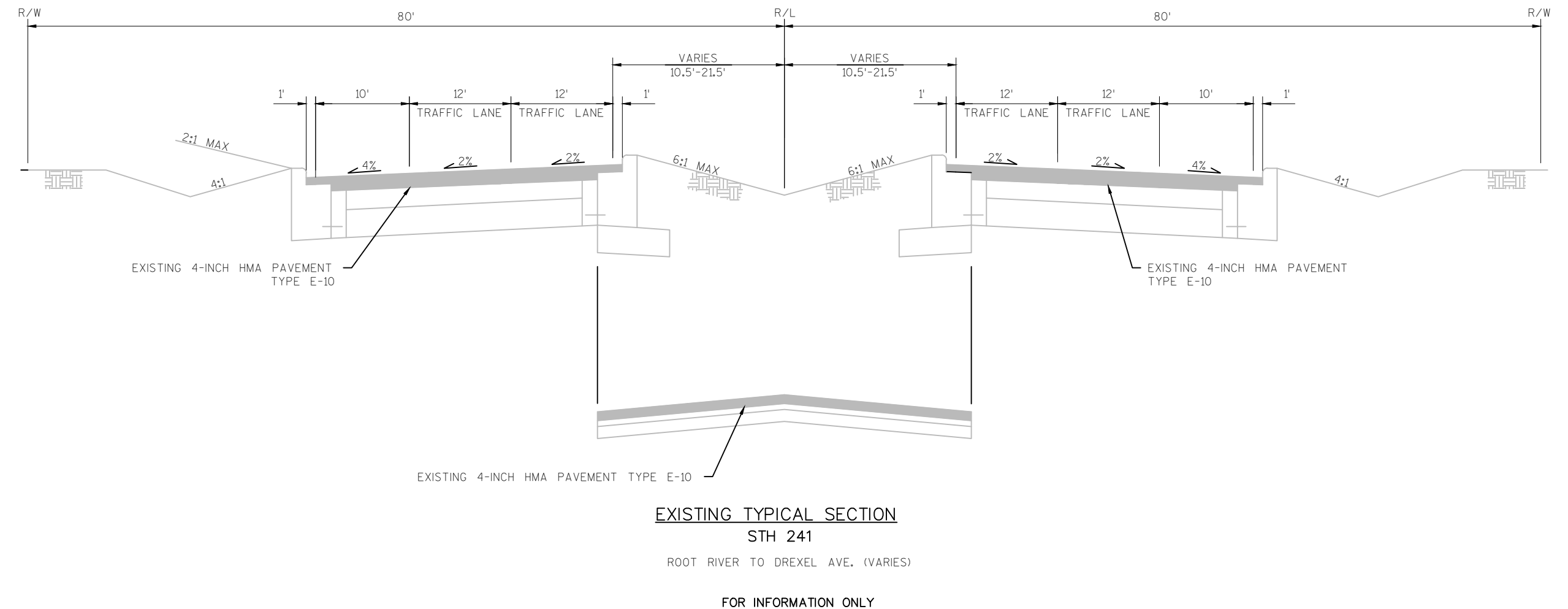
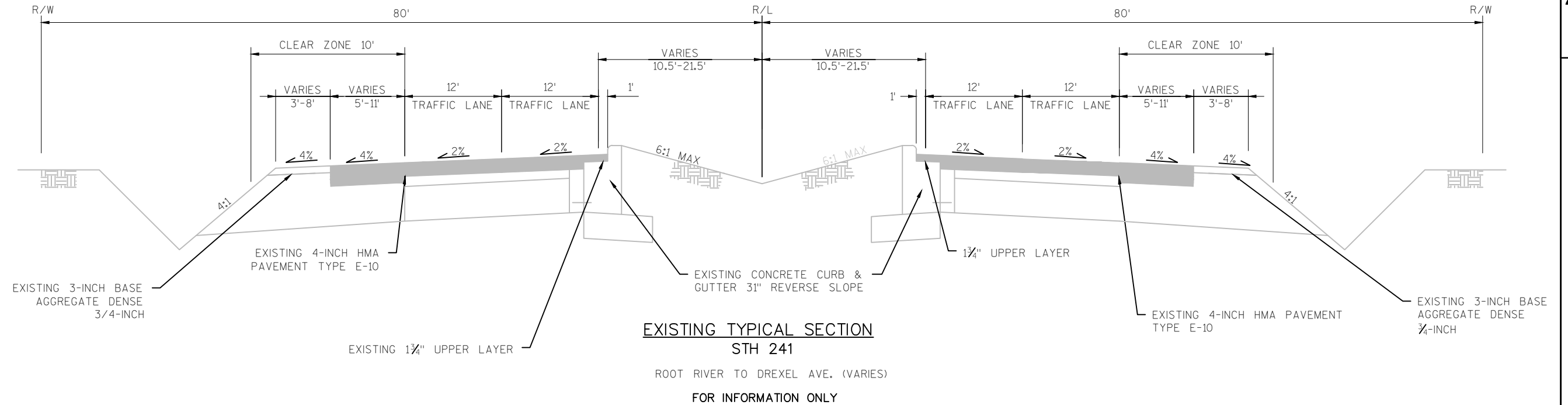
PLOT NAME : \_\_\_\_\_ PLOT SCALE : 1 IN:10 FT

WISDOT/CADDs SHEET 42





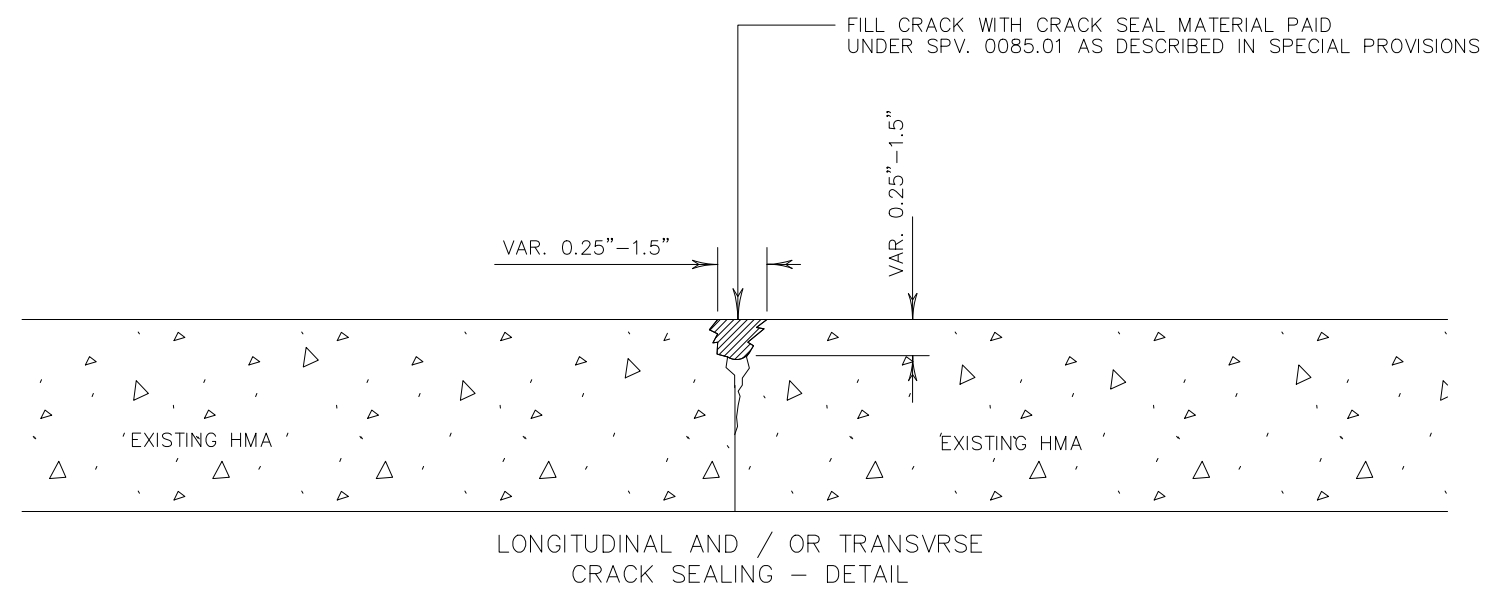




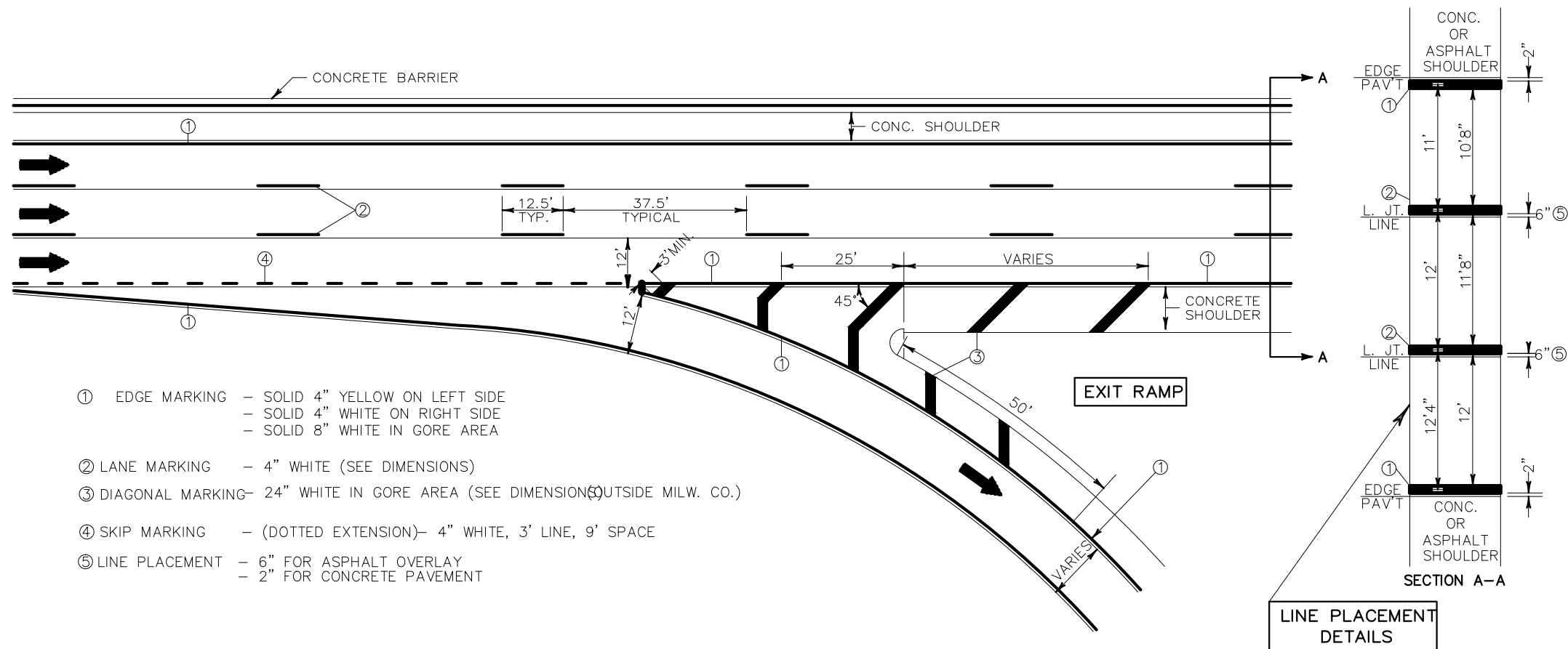


2

2



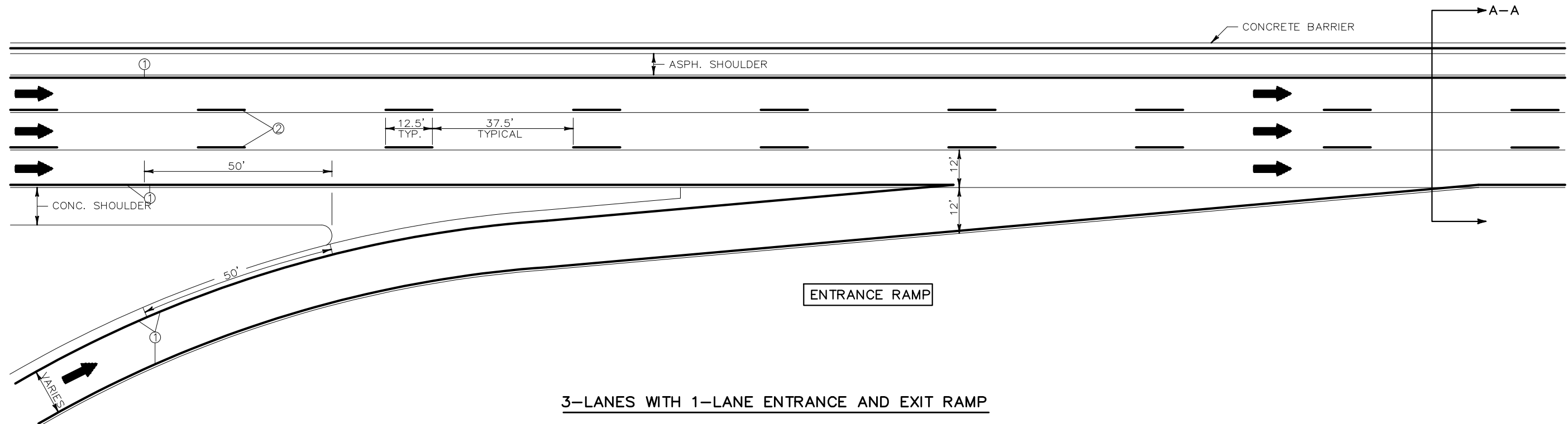




RACINE, KENOSHA, WALWORTH, WAUKESHA,  
OZAUKEE & WASHINGTON  
COUNTIES

NOTES:

1. WHERE THE DOTTED EXTENSION OF THE RIGHT EDGE LINE IS SHOWN ON THE PLAN, IT SHALL BE 4" WIDE, WITH A LINE SKIP PATTERN CONSISTING OF A 3' LONG LINE AND A 9' SKIP.
2. PAVEMENT LANE MARKINGS SHALL BE LOCATED 6" OFF THE LONGITUDINAL JOINT OF THE UNDERLYING CONC. PAVEMENT.
3. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
4. SPOTTING FOR PAVEMENT LANE MARKINGS AND EDGE LINES SHALL BE 4"x4" PIECES OF REFLECTORIZED PAV'T MARKING TAPE SPACED AT 50' INTERVALS, INCIDENTAL TO PAV'T MARKING.

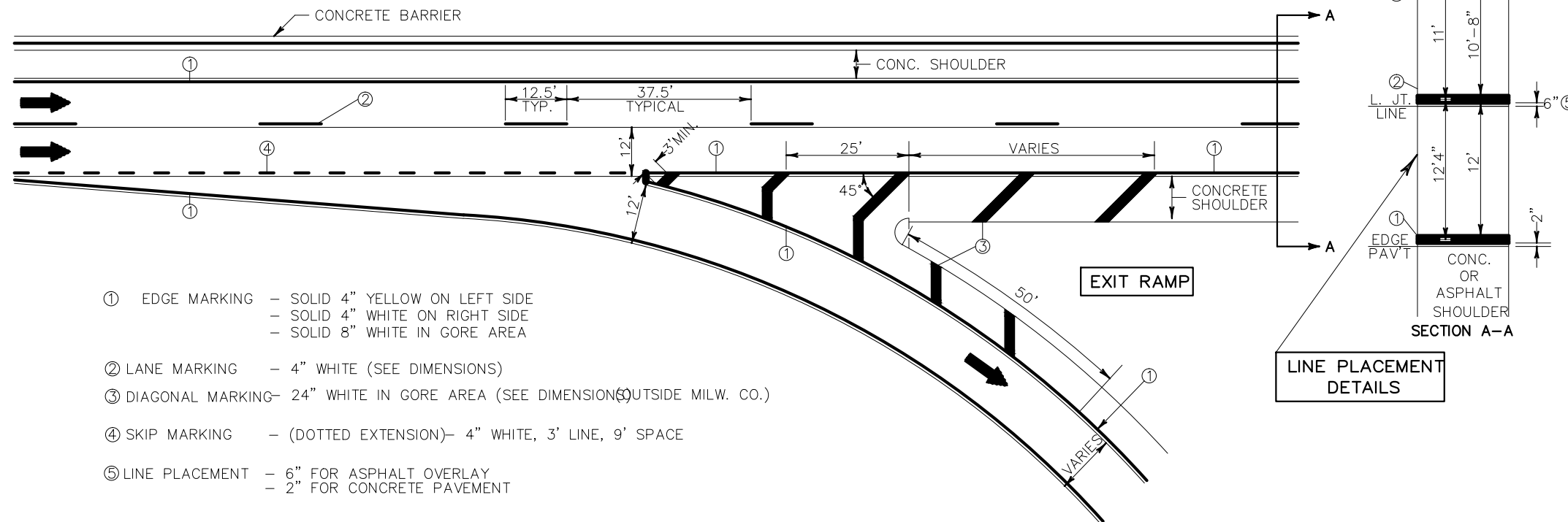


3-LANES WITH 1-LANE ENTRANCE AND EXIT RAMP

GORES, FREEWAYS, & EXPRESSWAYS

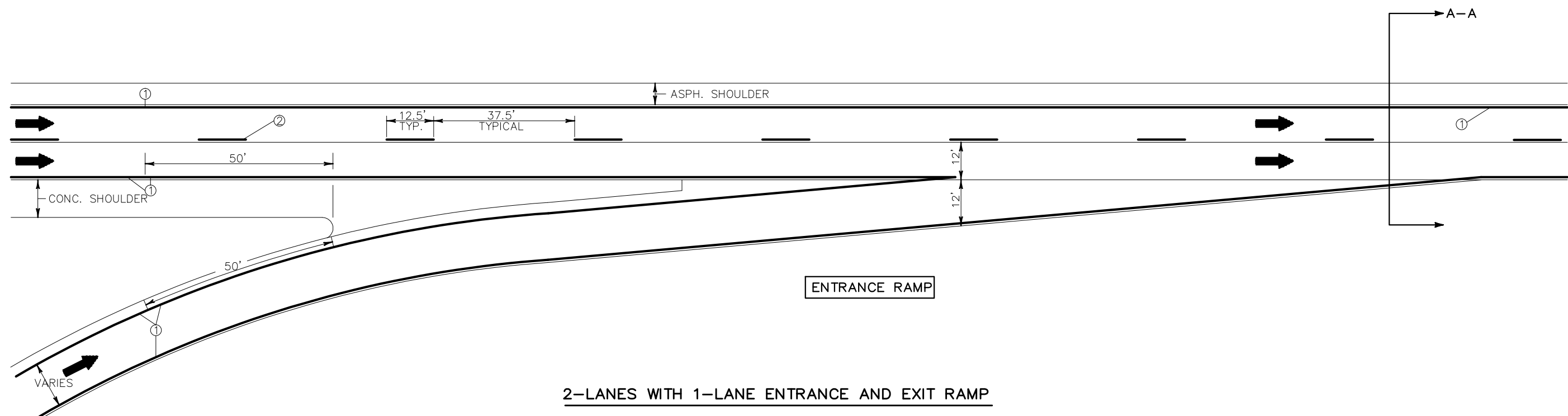


RACINE, KENOSHA, WALWORTH, WAUKESHA,  
OZAUKEE & WASHINGTON  
COUNTIES



#### NOTES:

1. WHERE THE DOTTED EXTENSION OF THE RIGHT EDGE LINE IS SHOWN ON THE PLAN, IT SHALL BE 4" WIDE, WITH A LINE SKIP PATTERN CONSISTING OF A 3' LONG LINE AND A 9' SKIP.
2. PAVEMENT LANE MARKINGS SHALL BE LOCATED 6" OFF THE LONGITUDINAL JOINT OF THE UNDERLYING CONC. PAVEMENT.
3. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
4. SPOTTING FOR PAVEMENT LANE MARKINGS AND EDGE LINES SHALL BE 4"x4" PIECES OF REFLECTORIZED PAV'T MARKING TAPE SPACED AT 50' INTERVALS, INCIDENTAL TO PAV'T MARKING.



#### GORES, FREEWAYS, & EXPRESSWAYS

PROJECT NO: 4890-00-70

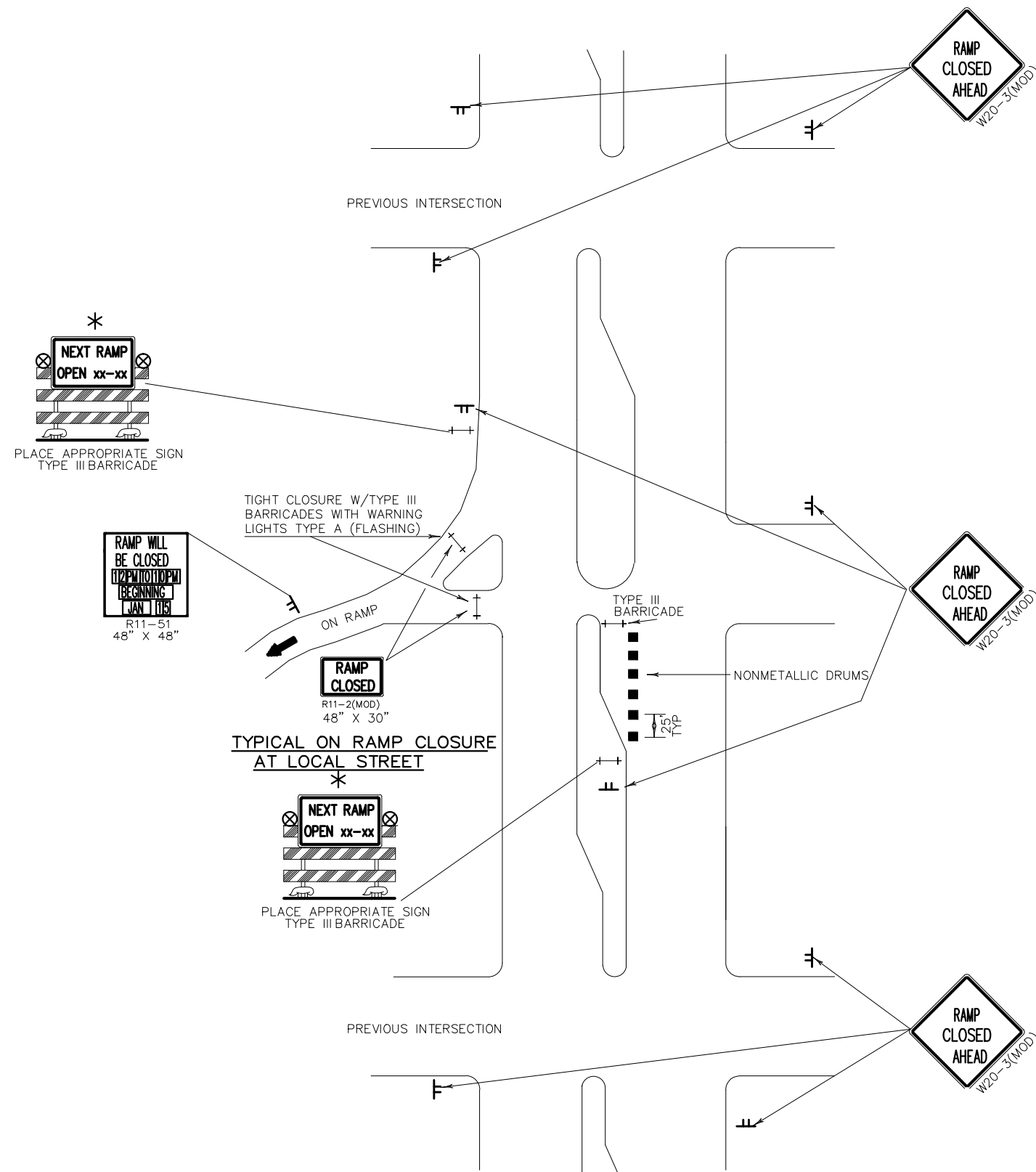
HWY: VARIOUS HIGHWAY

COUNTY: SOUTHEAST REGION WIDE

EPOXY PAVEMENT MARKING, RAMPS

SHEET \_\_\_\_\_ **E**



**TRAFFIC CONTROL NOTES**

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

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

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

**\* DESIGNER NOTE:**

CONTACT TRAFFIC OPERATIONS FOR FIXED MESSAGE SIGN REQUIREMENTS.

**LEGEND**

- DRUM WITH WARNING LIGHT, TYPE C
- DRUM
- ⌋ SIGN ON TEMPORARY SUPPORT FOR SHORT TERM 3 DAYS OR LESS
- ⌋ TYPE III BARRICADE
- ⊗ WARNING LIGHT, TYPE A (FLASHING)

**TRAFFIC CONTROL FOR ON-RAMP CLOSURE (SHORT TERM ONLY)**



DATE 16JUN14		E S T I M A T E O F Q U A N T I T I E S			
LINE					4890-00-70
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	213.0100	FINISHING ROADWAY (PROJECT) 01. 4890-00-70	EACH	1.000	1.000
0020	619.1000	MOBILIZATION	EACH	1.000	1.000
0030	643.0100	TRAFFIC CONTROL (PROJECT) 01. 4890-00-70	EACH	1.000	1.000
0040	643.0300	TRAFFIC CONTROL DRUMS	DAY	4,400.000	4,400.000
0050	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	388.000	388.000
0060	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	779.000	779.000
0070	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	332.000	332.000
0080	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	44.000	44.000
0090	643.0900	TRAFFIC CONTROL SIGNS	DAY	825.000	825.000
0100	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	8.000	8.000
0110	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	662,629.000	662,629.000
0120	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	15,308.000	15,308.000
0130	ASP.1TOA	ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	HRS	500.000	500.000
0140	ASP.1TOG	ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR	HRS	500.000	500.000
0150	SPV.0085	SPECIAL 01. CRACK SEALING	LB	268,865.000	268,865.000



PAVEMENT MARKING ITEMS

						646.0106 PAVEMENT MARKING EPOXY 4-INCH (SOLID WHITE)	646.0106 PAVEMENT MARKING EPOXY 4- INCH (DASHED WHITE)	646.0106 PAVEMENT MARKING EPOXY 4- INCH (DASHED YELLOW)	646.0106 PAVEMENT MARKING EPOXY 4-INCH (SOLID YELLOW)	646.0126 PAVEMENT MARKING EPOXY 8-INCH (SOLID WHITE)	646.0126 PAVEMENT MARKING EPOXY 8-INCH (DASHED WHITE)
LIMIT		LIMIT	HIGHWAY	NUMBER OF LANES	LF	LF	LF	LF	LF	LF	LF
STH 142	-	CTH KR	IH-94 NB	3	12,972	-	-	-	16,438	-	-
CTH KR	-	STH 142	IH-94 SB	3	12,381	-	-	-	16,437	-	-
WALNUT RD.	-	BURLEIGH RD.	STH 100 NB	3	283	-	-	-	-	-	-
BURLEIGH RD.	-	WALNUT RD.	STH 100 SB	3	-	-	-	-	-	-	-
CTH KC	-	STH 190	STH 16 EB	2	24,890	-	-	-	24,710	-	-
STH 190	-	CTH KC	STH 16 WB	2	24,600	-	-	-	24,400	-	-
STH 11	-	21ST ST.	STH 32 NB	2	4,220	-	-	-	3,646	460	-
21ST ST.	-	STH 11	STH 32 SB	2	4,201	-	-	-	3,645	450	-
CTH KR	-	STH 11	STH 32 NB	2	13,174	3,379	-	-	12,295	1,825	-
STH 11	-	CTH KR	STH 32 SB	2	13,173	3,378	-	-	12,295	1,825	-
MEMORIAL DR	-	STH 32	STH 11	2	1,173	-	-	-	1,199	850	-
GENEVA ST.	-	FOREST ST.	STH 50 EB	2	18,340	-	-	-	11,200	-	-
FOREST ST.	-	GENEVA ST.	STH 50 WB	2	19,520	-	-	-	10,600	-	-
STH 181	-	1ST AVE. GRAFTON	STH 60 EB	2	9,381	-	-	-	5,926	-	-
1ST AVE. GRAFTON	-	STH 181	STH 60 WB	2	8,554	-	-	-	5,926	-	-
RACINE CO. LINE	-	DREXEL AVE.	STH 241 NB	2	19,409	4,665	-	-	20,133	4,412	307
DREXEL AVE.	-	RACINE CO. LINE	STH 241 SB	2	19,435	4,354	-	-	17,289	4,412	307
ROCK CO.	-	STH 89	STH 11	2	108,365	75	11,430	-	38,710	210	-
			STH 140		60	-	-	-	60	-	-
CTH NN	-	STH 33	STH 144	2	52,320	-	2,538	-	41,450	250	-
SUB-TOTAL					366,451	15,851	13,968	-	266,359	14,694	614
TOTALS							662,629				15,308



TRAFFIC CONTROL

LIMIT	-	LIMIT	HIGHWAY	LANES BEING CLOSED	APPROX. DAYS CLOSED	643.0300 DRUMS	643.0420 BARRICADES TYPE III	643.0705 WARNING LIGHTS TYPE A	643.0715 WARNING LIGHTS TYPE C	643.0800 ARROW BOARDS	643.0900 SIGNS	643.1050 SIGNS PCMS
STH 142	-	CTH KR	IH - 94	2	2	494	50	100	62	6	56	2
STH 142	-	CTH KR	IH - 94	1	2	388	24	50	26	4	48	2
WALNUT RD.	-	BURLEIGH RD.	STH 100	2	2	564	76	152	62	6	154	-
CTH KC	-	STH 190	STH 16	1	4	932	60	124	52	8	108	4
STH 11	-	21ST ST.	STH 32	1			9	18	13	2	32	-
CTH KR	-	STH 11	STH 32	1	1	321	15	29	13	2	37	-
MEMORIAL DR	-	STH 32	STH 11	1			2	5	13	2	19	-
GENEVA ST.	-	FOREST ST.	STH 50	1	2	510	40	80	26	4	84	-
STH 181	-	0.2 MI EAST OF HILLTOP DR.	STH 60	1	1	-	-	-	-	-	-	-
0.2 MI EAST OF HILLTOP DR.	-	1ST AVE. GRAFTON	STH 60	1	1	83	8	17	13	2	35	-
RACINE CO. LINE	-	DREXEL AVE.	STH 241	1	4	1,108	104	204	52	8	252	-
ROCK CO.	-	STH 89	STH 11	1	1	-	-	-	-	-	-	-
CTH NN	-	STH 33	STH 144	1	1	-	-	-	-	-	-	-
TOTALS						4,400	388	779	332	44	825	8



CRACK SEALING

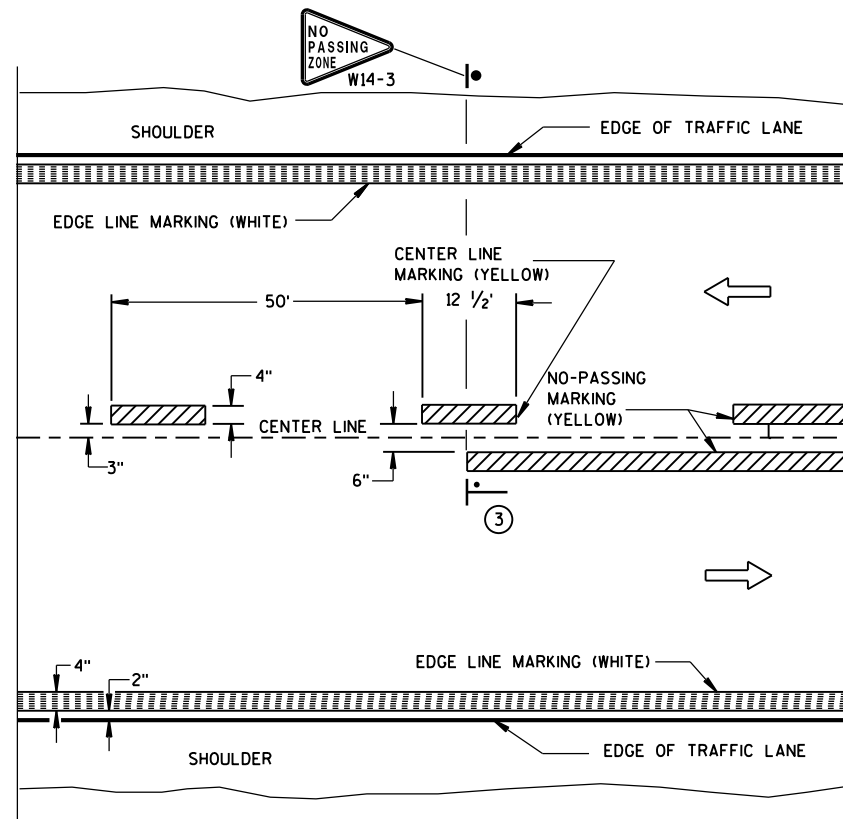
LIMIT		LIMIT	HIGHWAY	NUMBER OF LANES	LENGTH (LF)	SPV.0085.01 CRACK SEALING (LB)
STH 142	-	CTH KR	IH-94 NB	3	105,204	29,223
CTH KR	-	STH 142	IH-94 SB	3	89,767	24,935
WALNUT RD.	-	BURLEIGH RD.	STH 100 NB	3	44,460	12,350
BURLEIGH RD.	-	WALNUT RD.	STH 100 SB	3	32,062	8,906
CTH KC	-	STH 190	STH 16 EB	2	89,942	24,984
STH 190	-	CTH KC	STH 16 WB	2	86,966	24,157
CTH KR	-	STH 11	STH 32 NB	2	35,000	9,722
STH 11	-	CTH KR	STH 32 SB	2	35,034	9,732
STH 11	-	21ST ST.	STH 32	4	19,023	5,284
MEMORIAL DR.	-	STH 32	STH 11	4	1,904	529
GENEVA ST.	-	0.45 MI WEST OF FOREST ST.	STH 50 EB	2	55,080	15,300
0.45 MI WEST OF FOREST ST.	-	GENEVA ST.	STH 50 WB	2	55,080	15,300
0.45 MI WEST OF FOREST ST.	-	FOREST ST.	STH 50	4	18,998	5,277
STH 181	-	0.2 MI EAST OF HILLTOP DR.	STH 60	2	14,819	4,116
0.2 MI EAST OF HILLTOP DR.	-	0.07 MI EAST OF CANDYLAND LN.	STH 60 EB	2	14,616	4,060
0.07 MI EAST OF CANDYLAND LN.	-	0.2 MI EAST OF HILLTOP DR.	STH 60 WB	2	14,544	4,040
0.07 MI EAST OF CANDYLAND LN.	-	1ST AVE. GRAFTON	STH 60	2	15,681	4,356
RACINE CO. LINE	-	DREXEL AVE.	STH 241 NB	2	101,314	28,143
DREXEL AVE.	-	RACINE CO. LINE	STH 241 SB	2	99,777	27,716
ROCK CO.	-	STH 89	STH 11	2	8,976	2,493
CTH NN	-	STH 83	STH 144	2	29,668	8,241
TOTAL						268,865



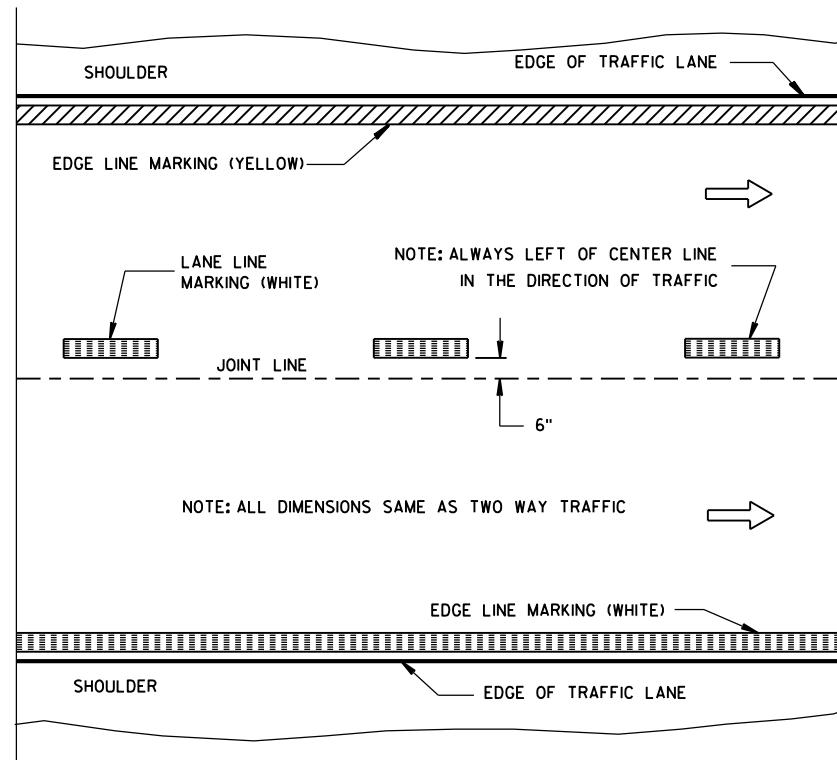
Standard Detail Drawing List

15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-02A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-02B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C19-02C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C21-05	SIGNING AND MARKING FOR TWO LANE TO FOUR LANE DIVIDED TRANSITIONS
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15C31-01B	LANE DROP PAVEMENT MARKING
15C31-01C	PAVEMENT MARKING MAJOR SPLIT FREEWAY TO FREEWAY
15C31-01D	PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
15D12-03	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M. P. H.
15D14-02	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D16-02	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-02	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-02	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D22-02	TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D23-02	TRAFFIC CONTROL, INTERSECTION WITHIN TWO LANE CLOSURE



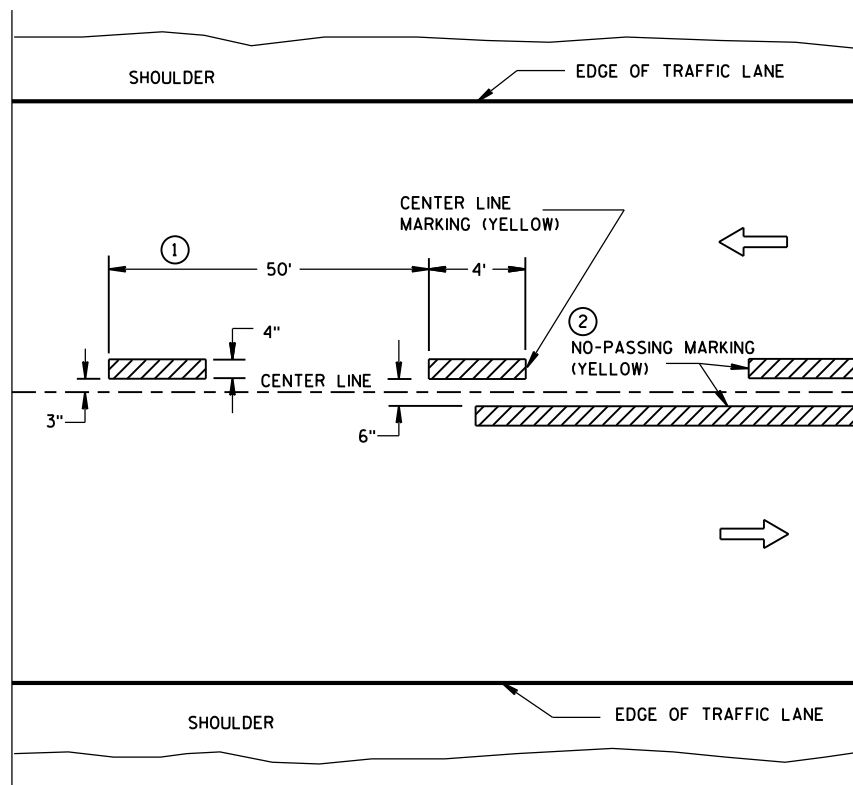


TWO WAY TRAFFIC

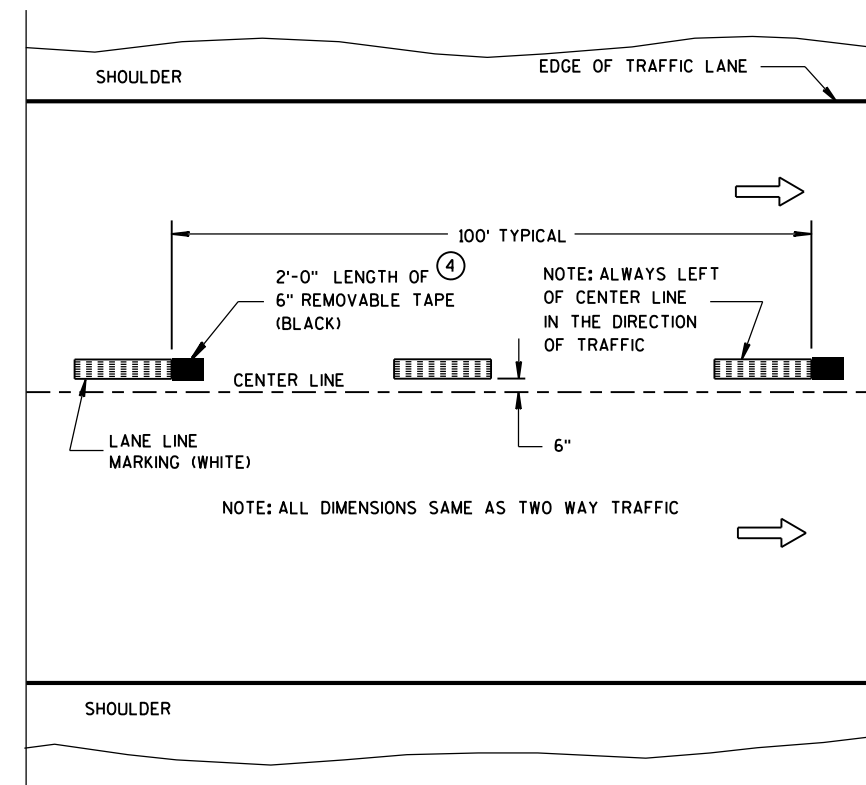


ONE WAY TRAFFIC

## PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

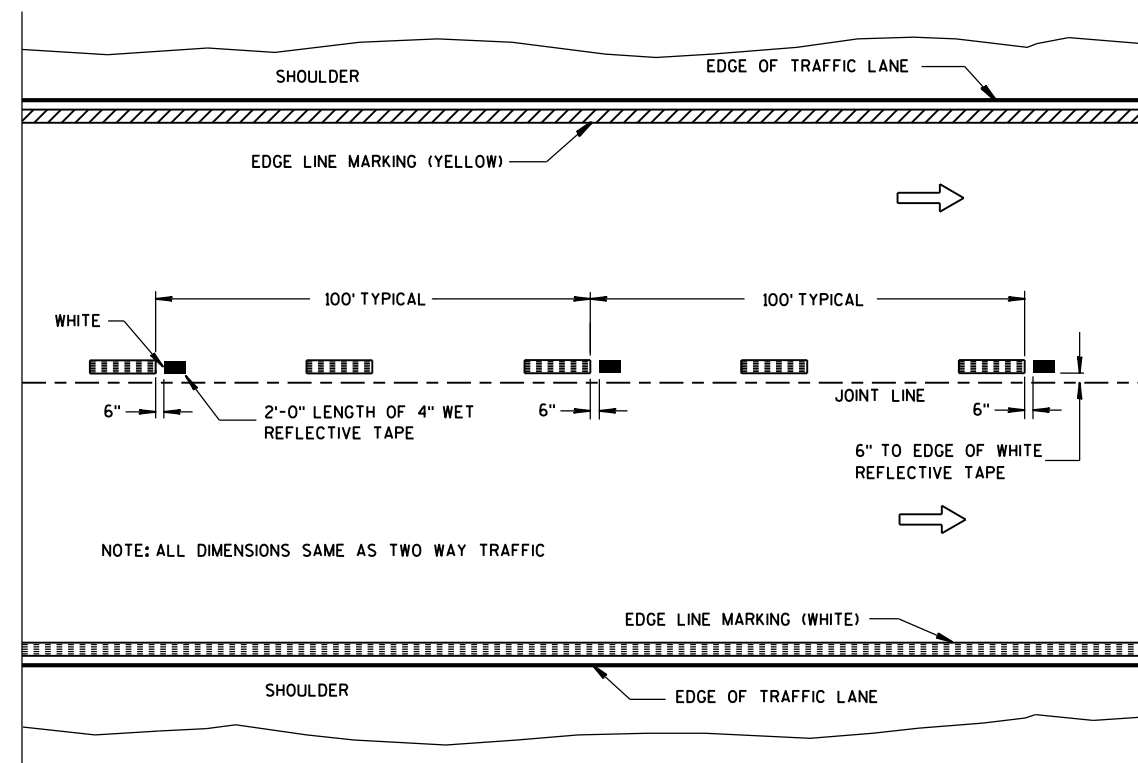
## GENERAL NOTES

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

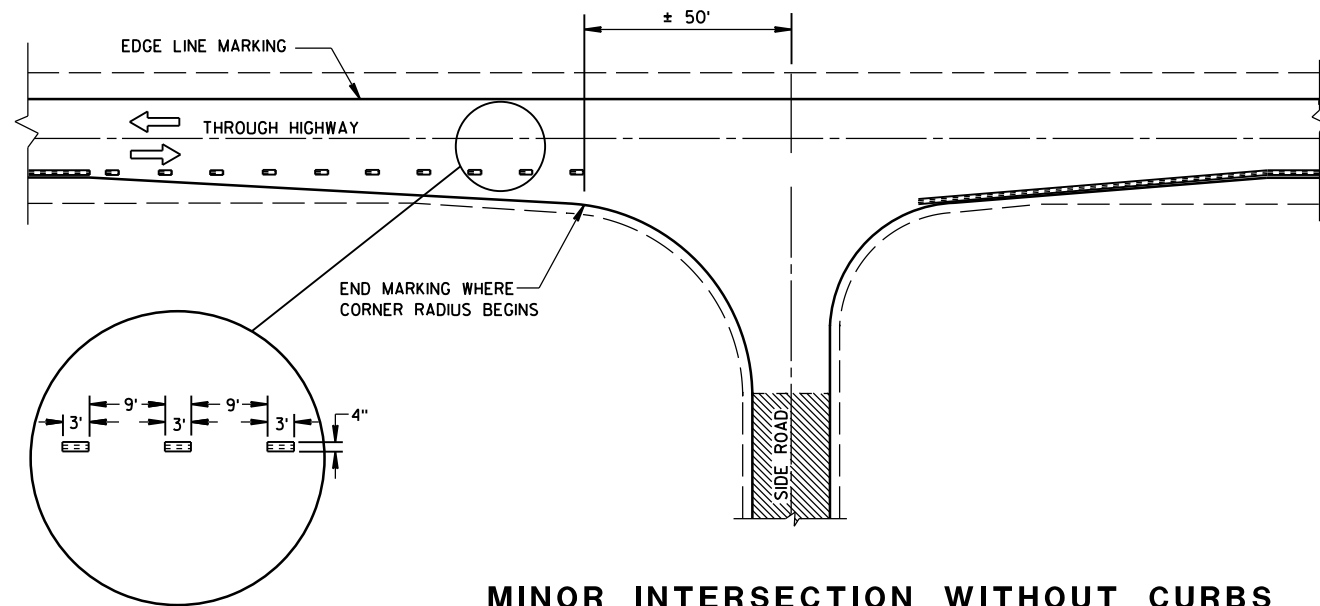
PAVEMENT MARKING  
(MAINLINE)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
5-13-2013  
DATE  
FHWA

/S/ Travis Feltes  
STATE TRAFFIC ENGINEER

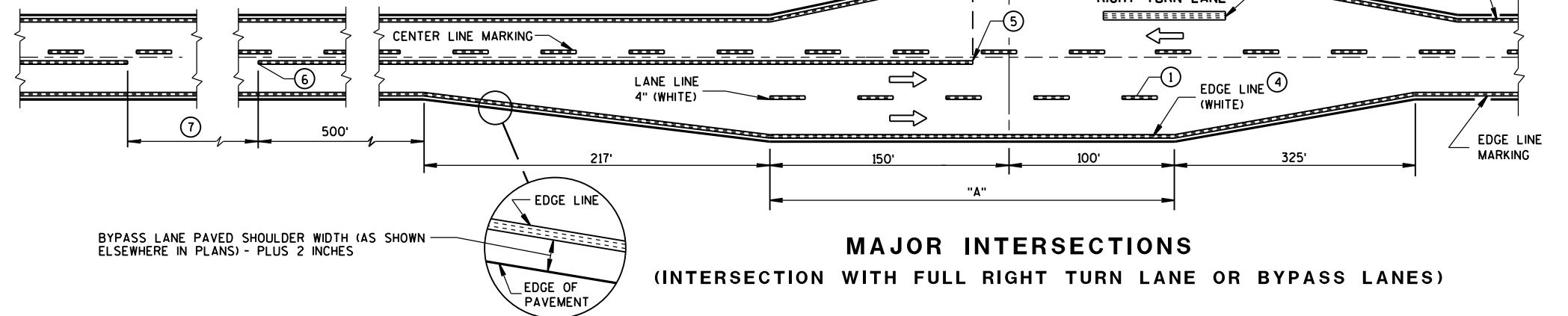




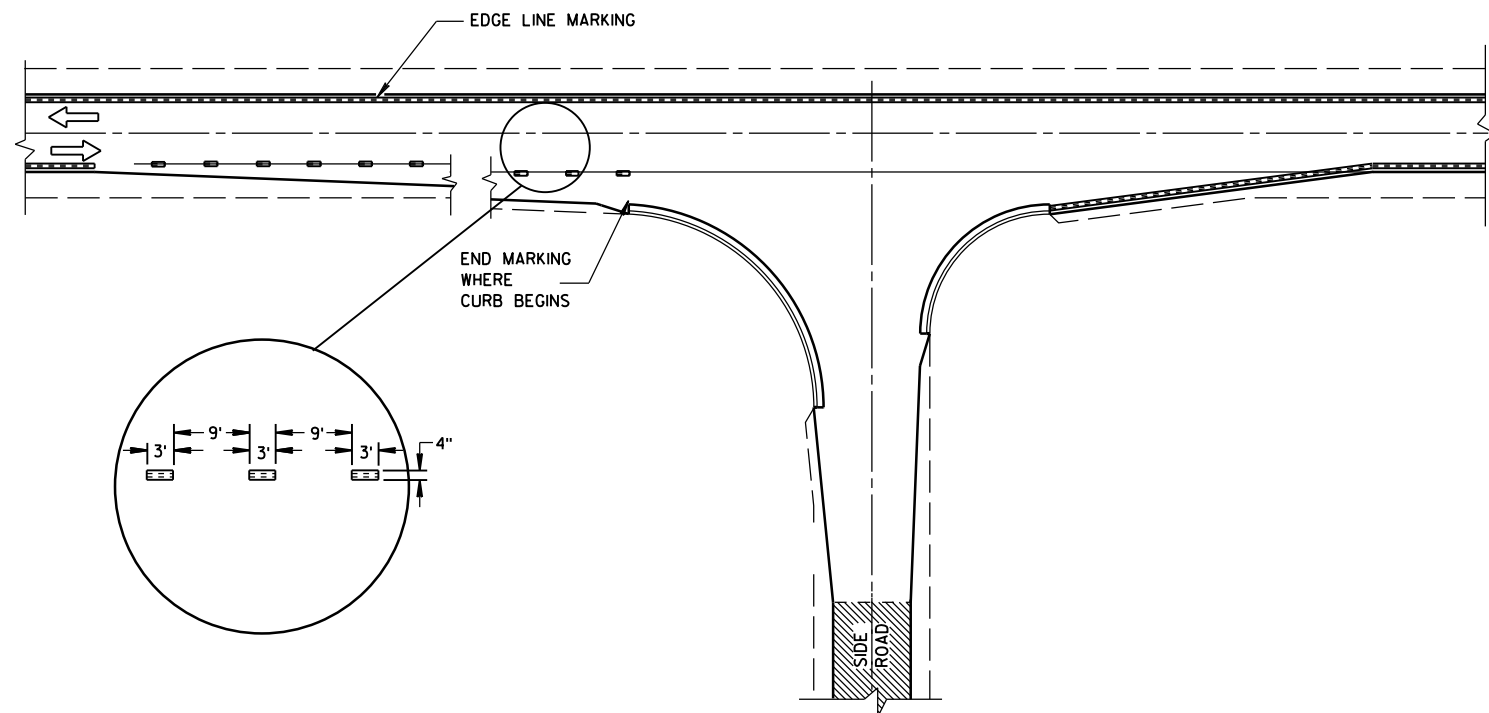
**MINOR INTERSECTION WITHOUT CURBS**

⑦

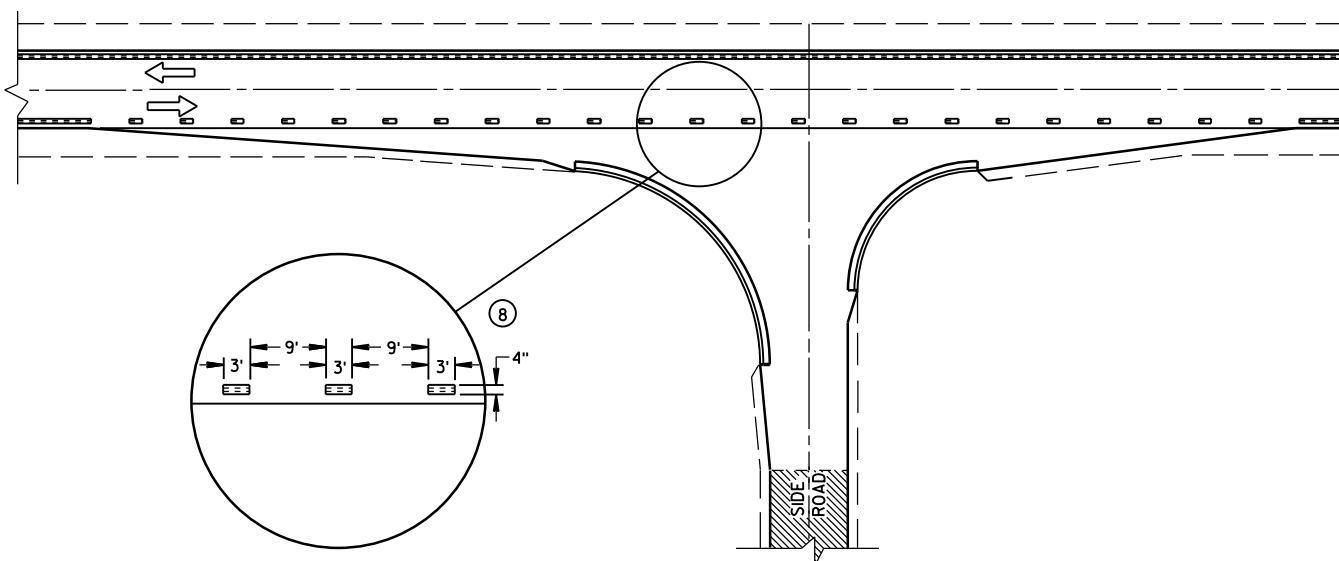
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



**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)

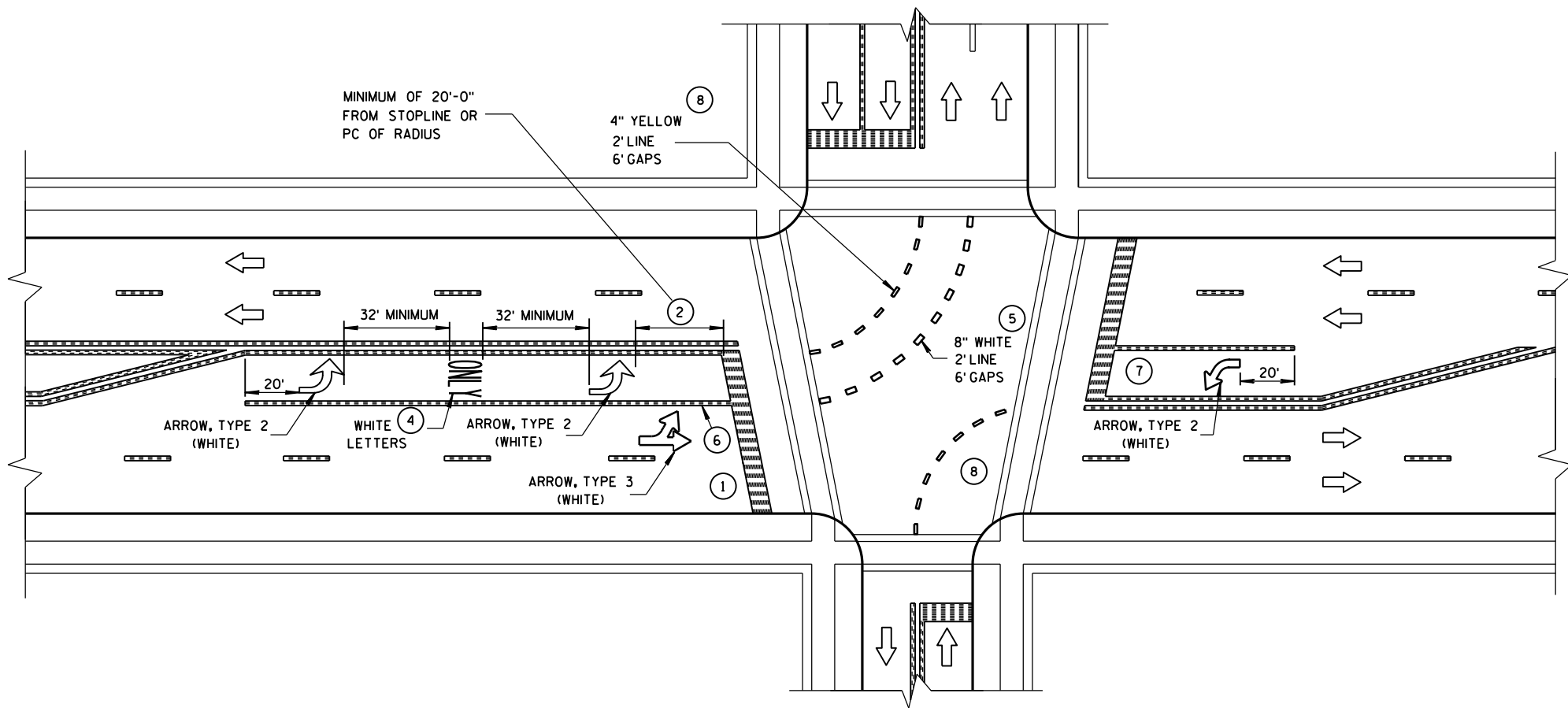
**GENERAL NOTES**

- 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

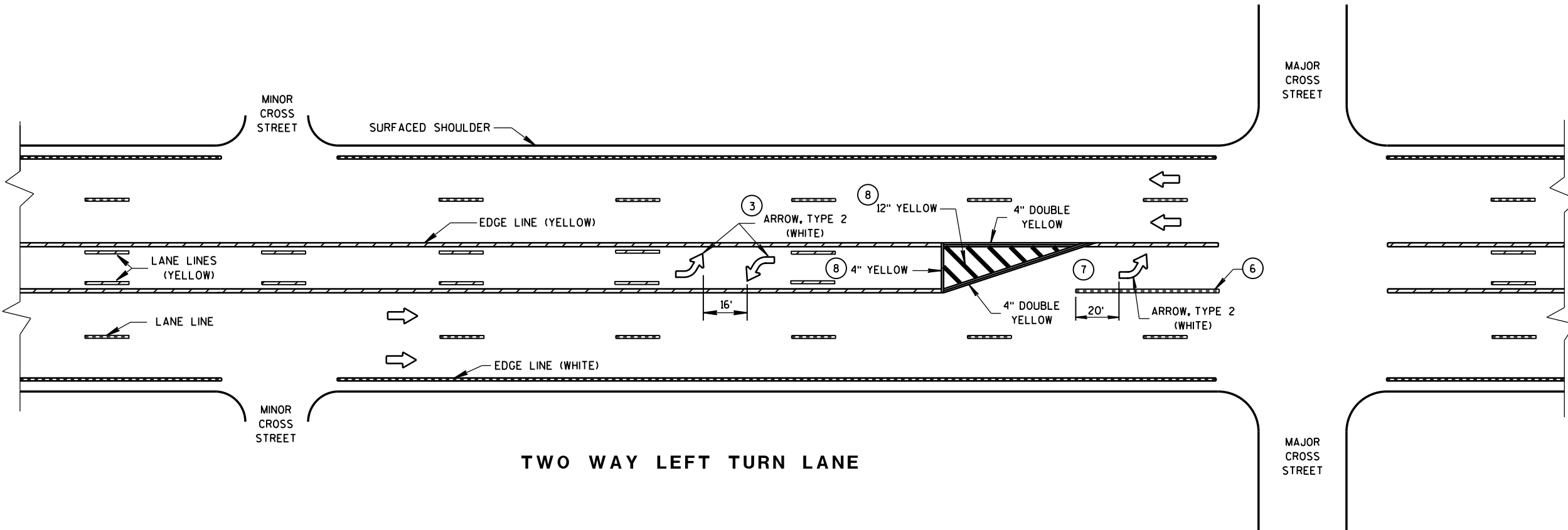




GENERAL NOTES

- 1 STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- 2 DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
- 3 A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- 4 ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
- 5 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
- 6 8" WHITE
- 7 ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
- 8 REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

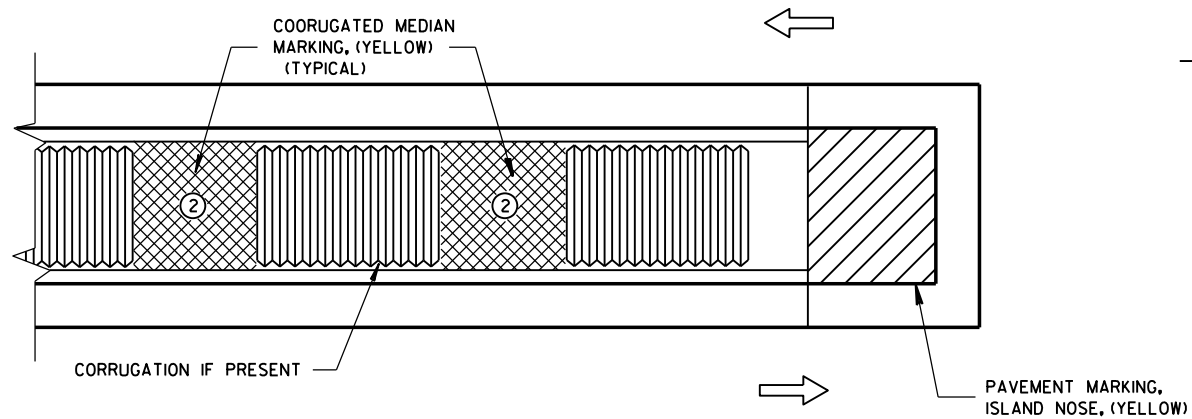
NOTE:  
ARROW SYMBOL (➡)  
SHOWS DIRECTION OF TRAVEL



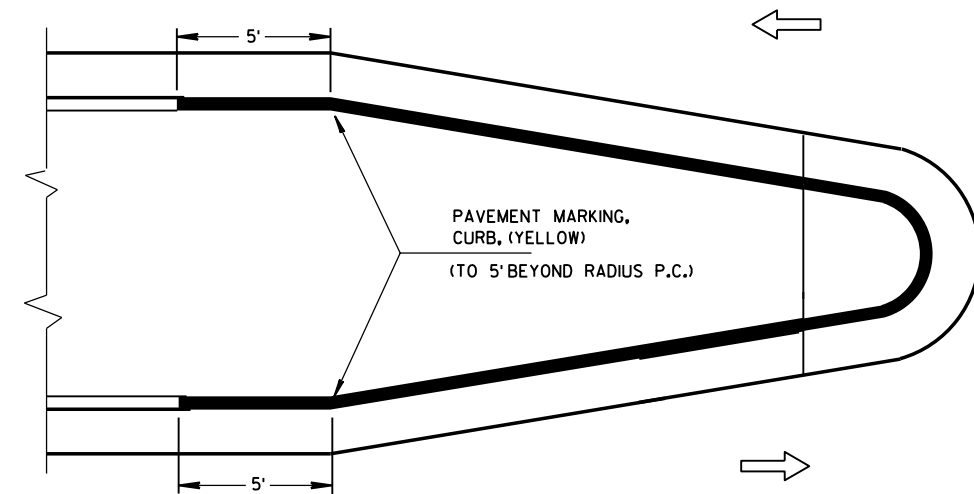
PAVEMENT MARKING  
(LEFT TURN LANE)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

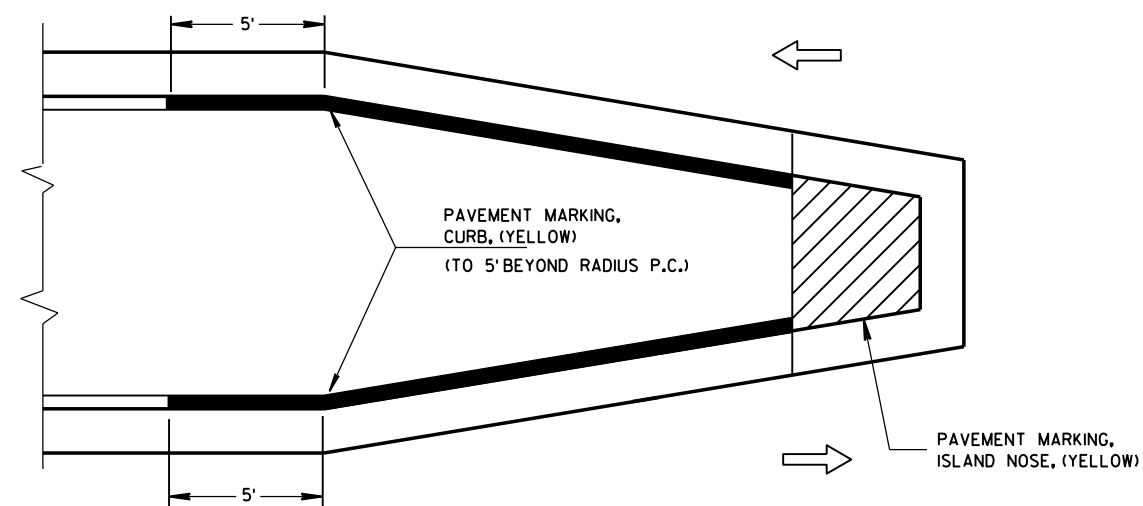




**MEDIAN ISLAND WITH SQUARE BLUNT NOSE**

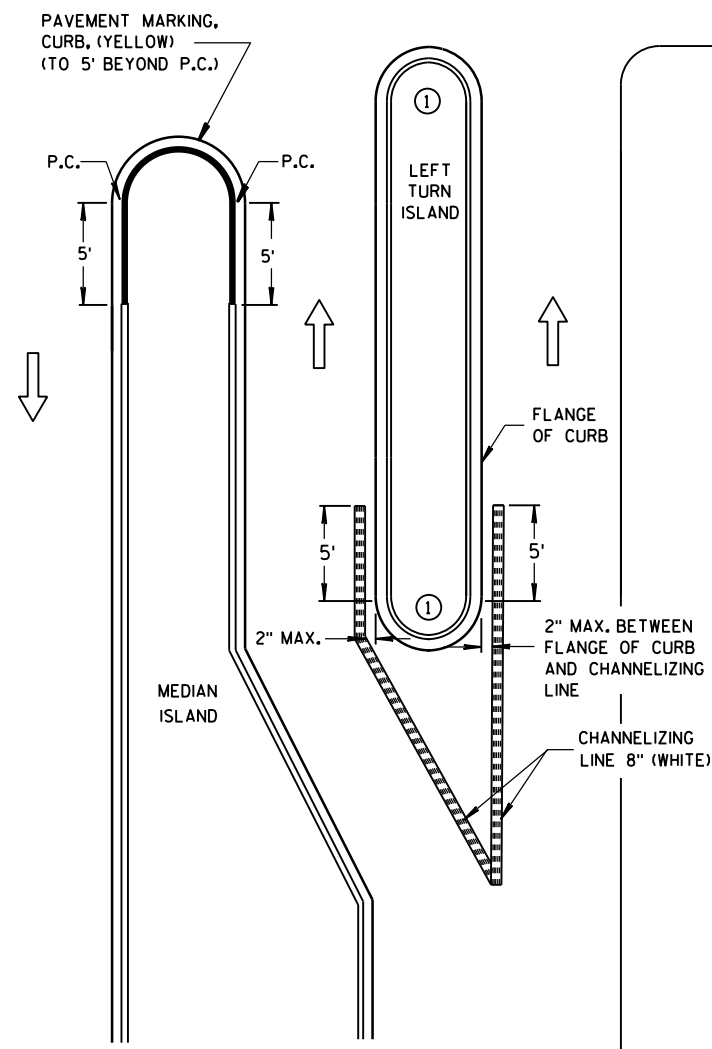


**MEDIAN ISLAND WITH ROUND BLUNT NOSE**



**MEDIAN ISLAND WITH SLOPED NOSE**

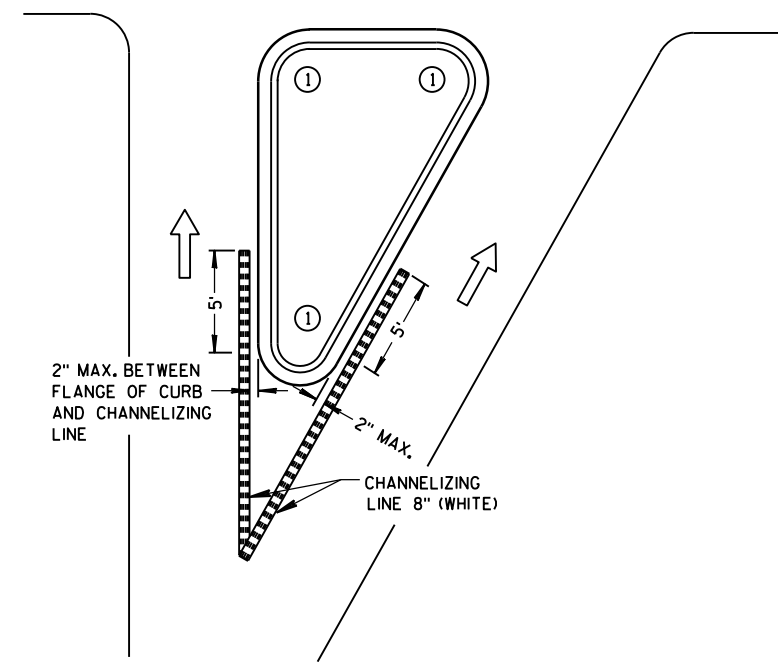
**TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS**



**LEFT TURN & MEDIAN ISLAND**

## GENERAL NOTES

- DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
- WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



**RIGHT TURN ISLAND**

## LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

**PAVEMENT MARKING (ISLANDS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



LEGEND

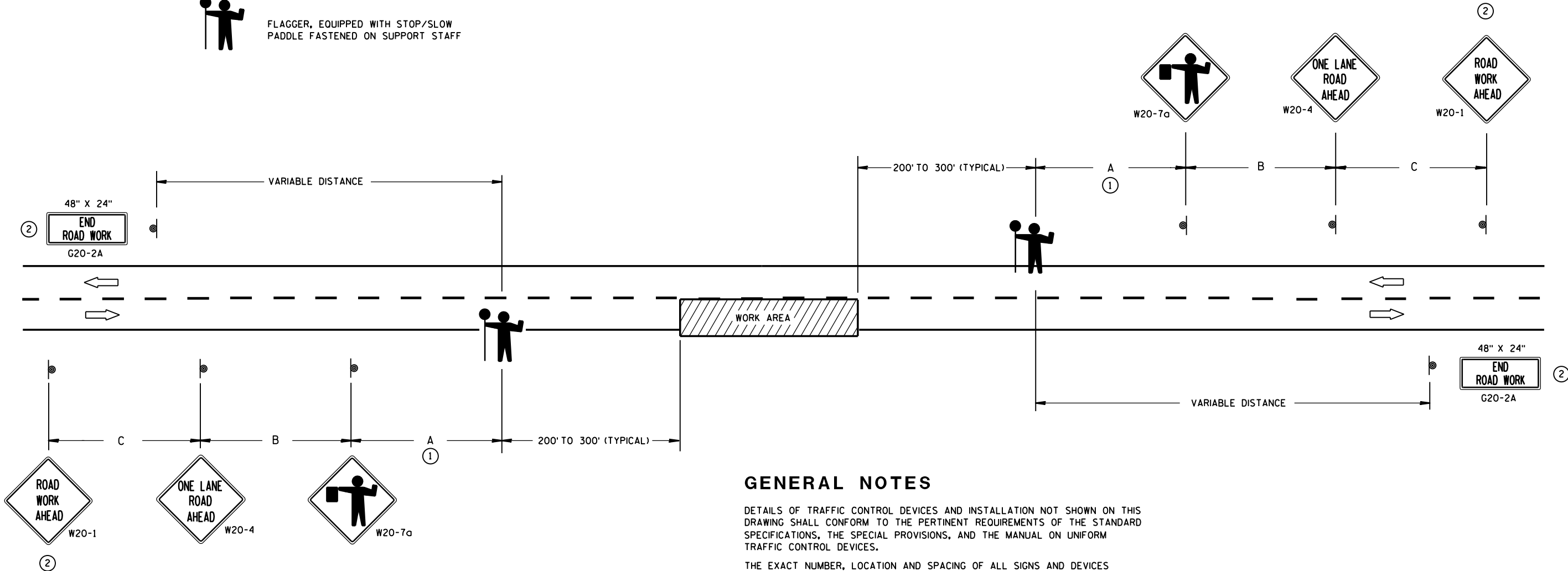
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

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.

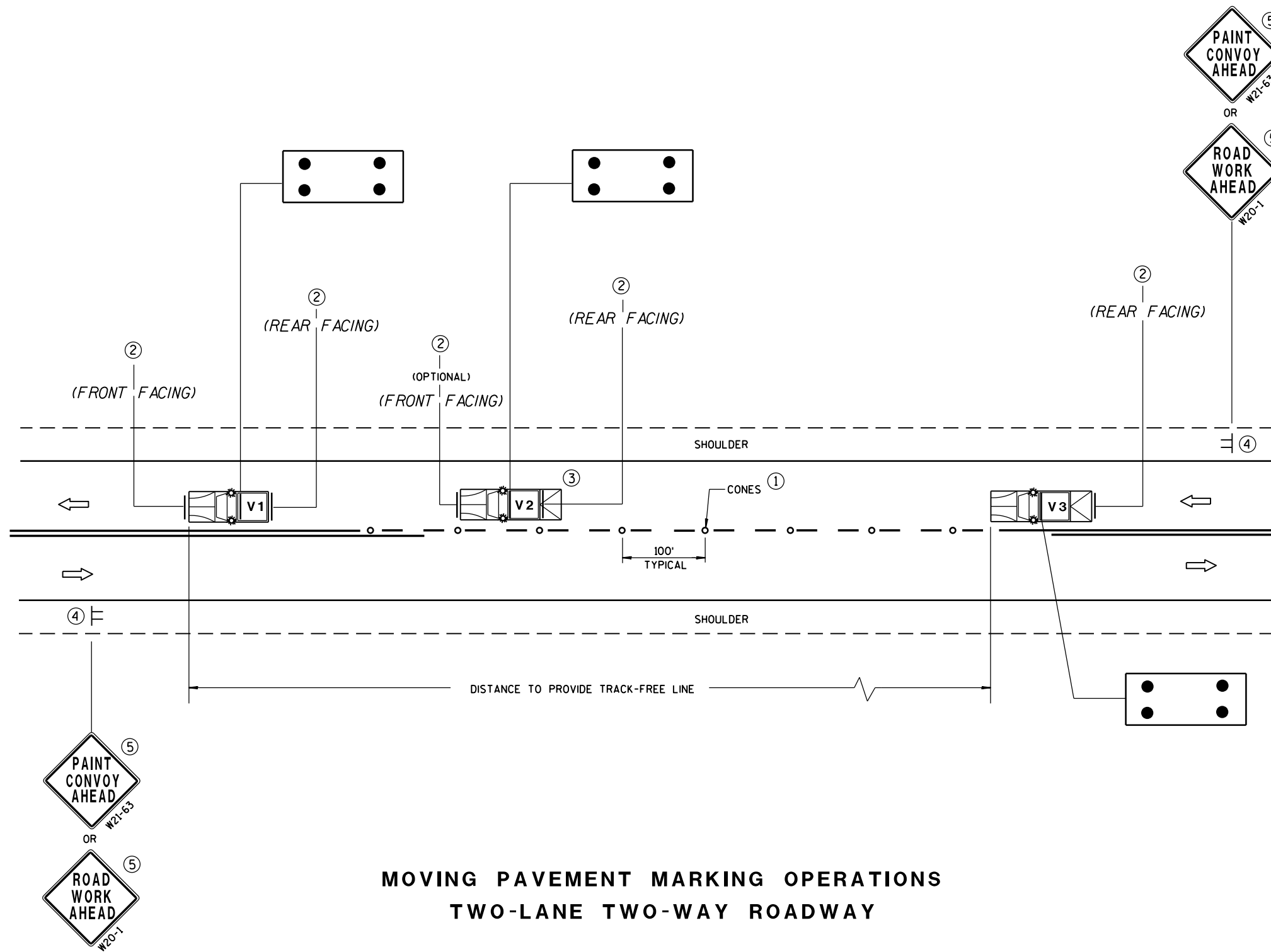
- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

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.

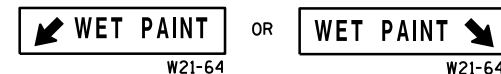
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

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

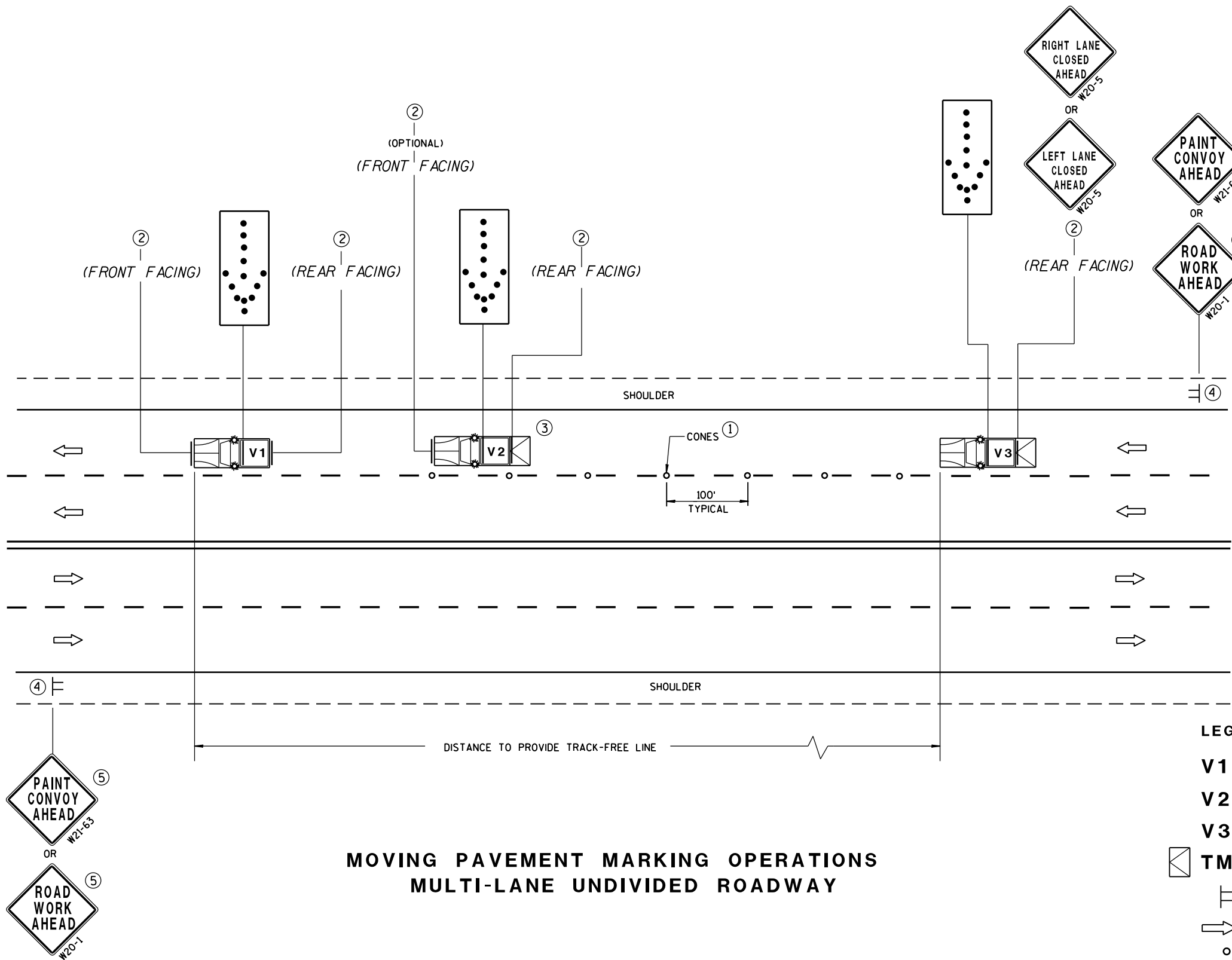
APPROVED

5/3/2013  
DATE

FHWA

/S/ Travis Feltes  
STATE TRAFFIC ENGINEER





MOVING PAVEMENT MARKING OPERATIONS  
MULTI-LANE UNDIVIDED 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.
- 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 EDGELINE 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.
- WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.
- THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE OR LANELINE MARKING FOR MULTILANE UNDIVIDED 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.

WET PAINT

OR

WET PAINT

W21-64

W21-64
- ③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.
- ④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

- V1 LEAD VEHICLE
- V2 SHADOW VEHICLE
- V3 TRAIL VEHICLE WITH TMA
- TMA TRUCK-MOUNTED ATTENUATOR
- Sign on temporary support
- DIRECTION OF TRAFFIC
- CONES
- FLASHING ARROW PANEL (MERGE)

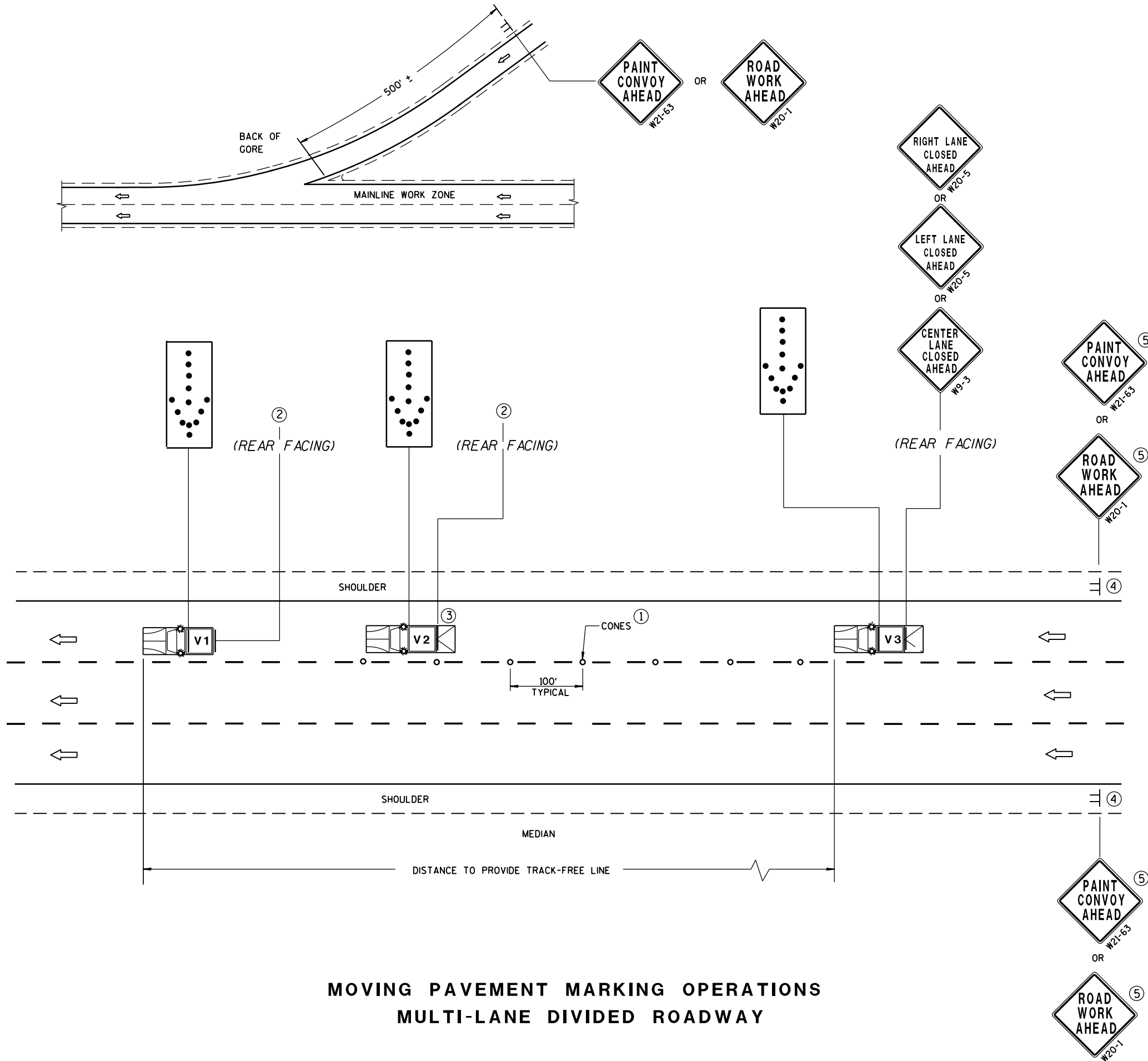
MOVING PAVEMENT MARKING  
OPERATION  
MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
5/3/2013 /S/ Travis Feltes  
DATE STATE TRAFFIC ENGINEER

FHWA





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	



GENERAL NOTES

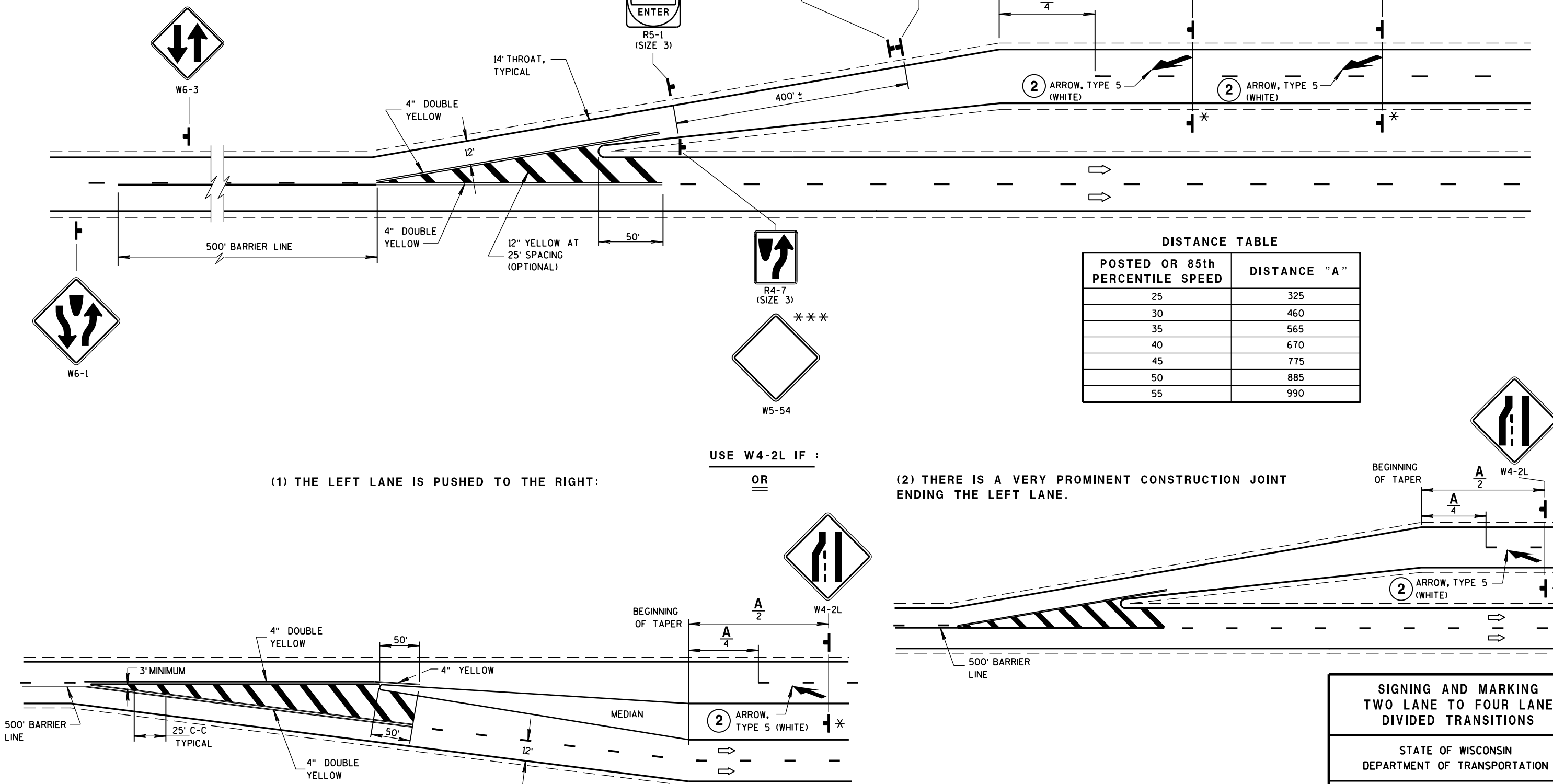
SIGNING AND MARKING IS SHOWN AS TYPICAL PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGNING AND MARKING PLACEMENT.

A DISTANCE DEPENDENT ON SPEED (SEE TABLE)

- 1 WRONG WAY PREVENTION SIGNS ARE DISCUSSED IN T G M 2-15-12
- 2 REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT

SYMBOLS

- \* OPTIONAL SIGNS
- \*\* SIGNS MAY BE OMITTED IF SPACE DOES NOT PERMIT
- \*\*\* IF POSTED SPEED 45 MPH OR GREATER, PLACE W5-54 SIGN UNDER R4-7 SIGN. MOUNT W5-54 SIGN AT 4' MOUNTING HEIGHT (TOP OF ROADWAY TO BOTTOM OF SIGN)
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW



DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	325
30	460
35	565
40	670
45	775
50	885
55	990

(1) THE LEFT LANE IS PUSHED TO THE RIGHT:

USE W4-2L IF :  
OR

(2) THERE IS A VERY PROMINENT CONSTRUCTION JOINT ENDING THE LEFT LANE.

SIGNING AND MARKING  
TWO LANE TO FOUR LANE  
DIVIDED TRANSITIONS

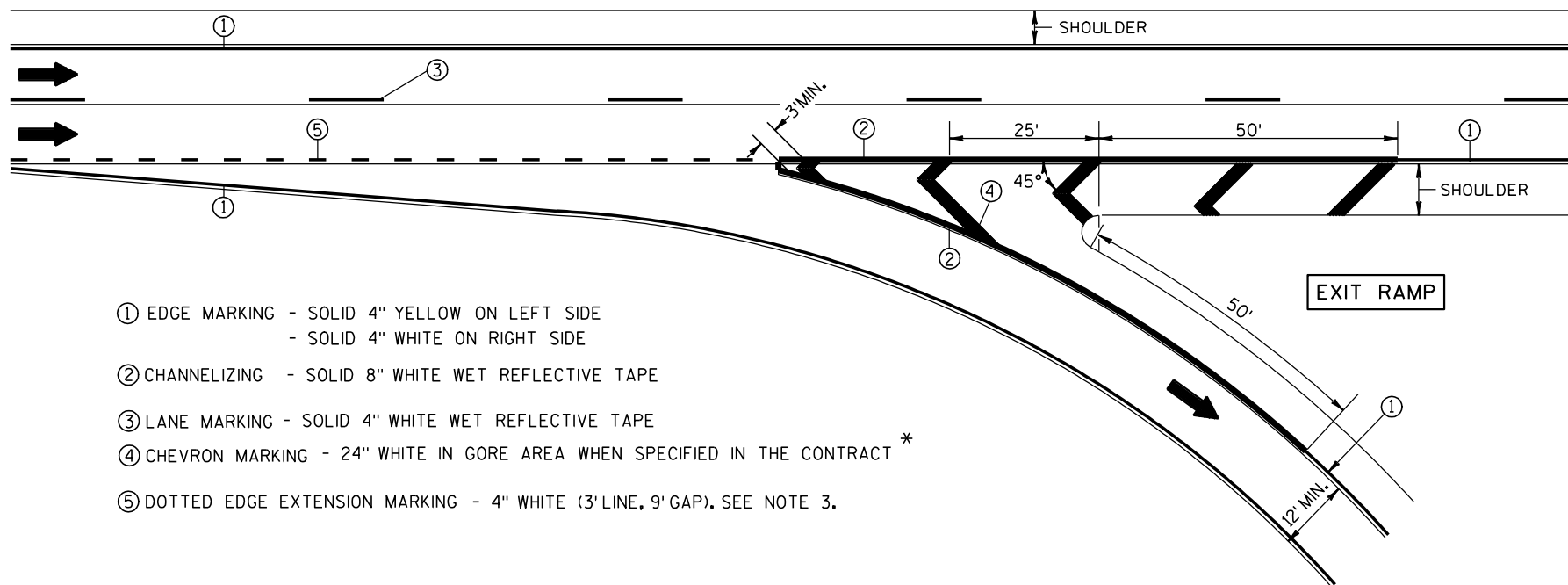
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
5/3/2013  
DATE

/S/ Travis Feltes  
STATE TRAFFIC ENGINEER

FHWA



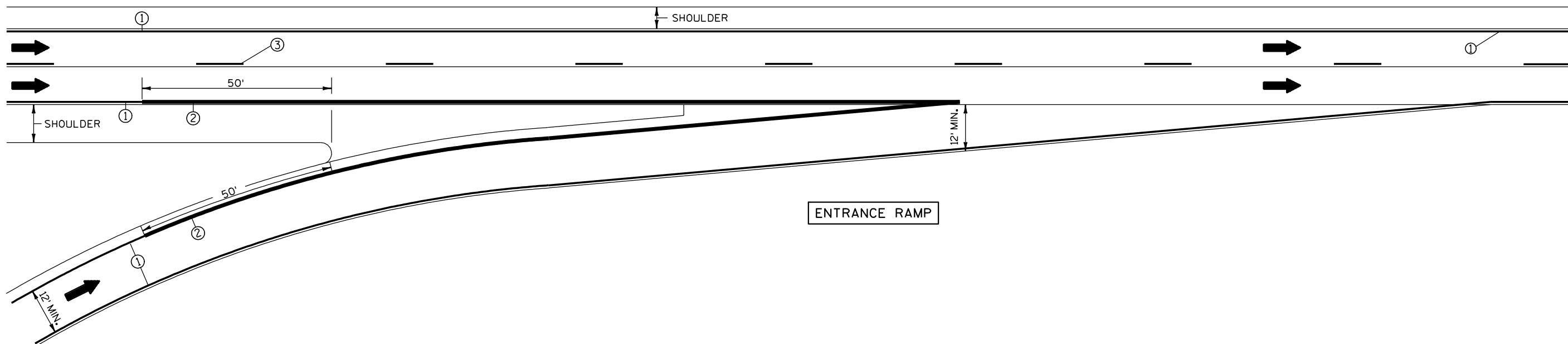


- ① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE  
- SOLID 4" WHITE ON RIGHT SIDE
- ② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE
- ③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE
- ④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT \*
- ⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

- 1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
- 2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.
- 3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- 4. RETRACE EXISTING DIAGONAL MARKINGS.

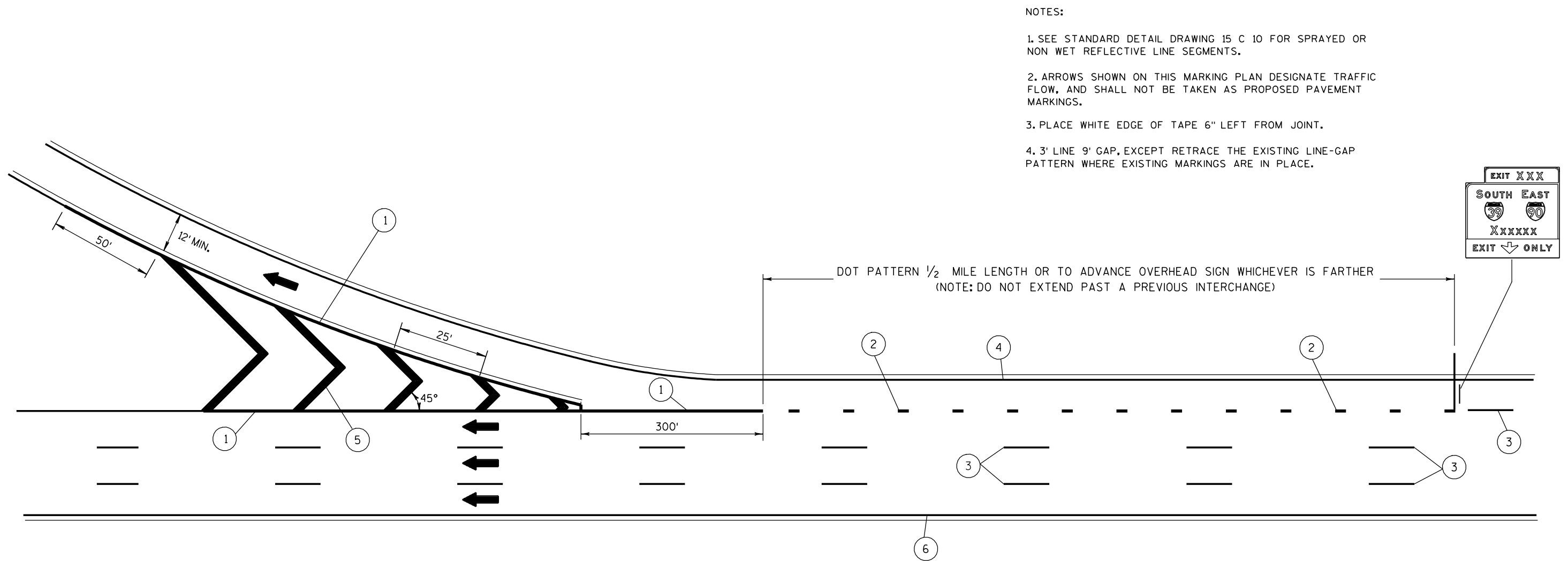
\* REFER TO DESIGN NOTES.



PAVEMENT MARKING  
(RAMPS AND GORES)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



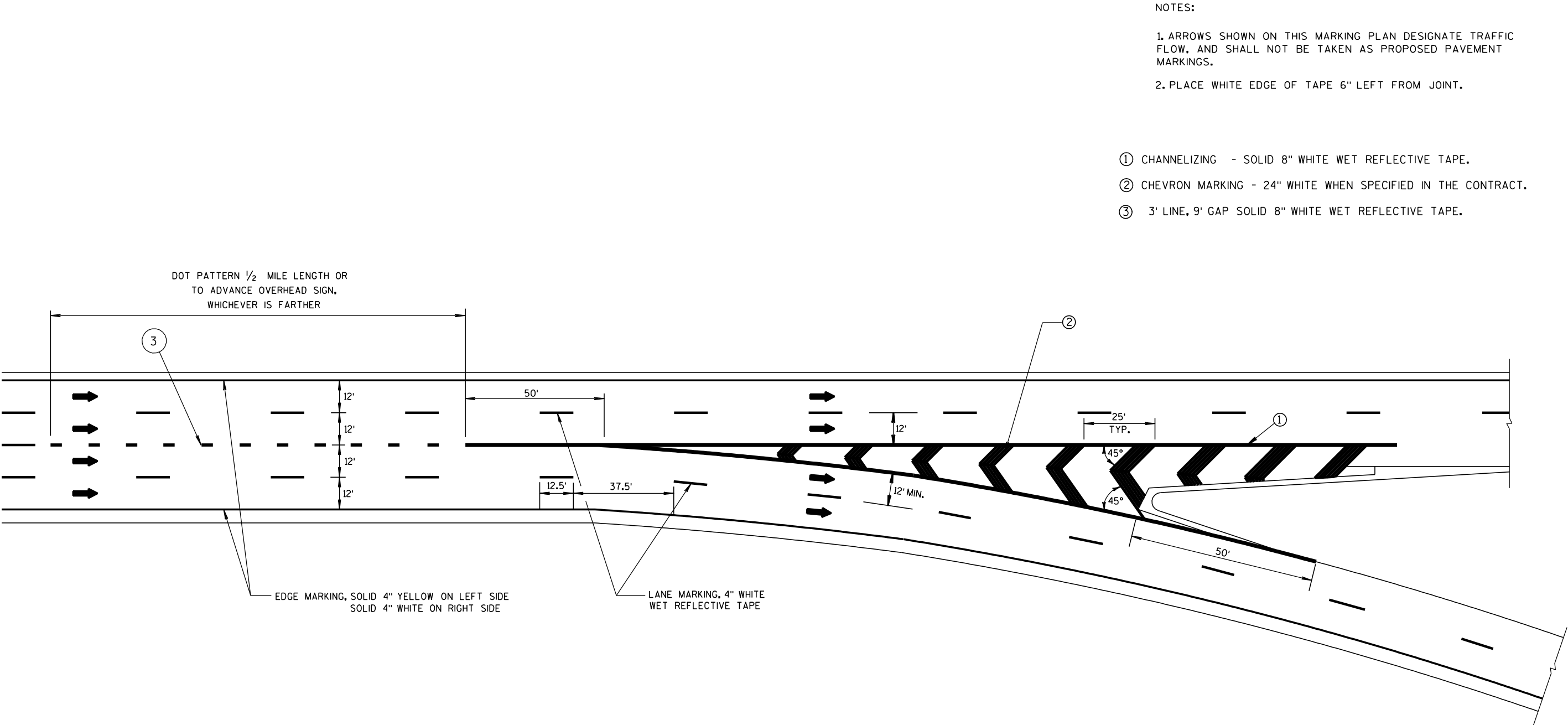


- ① CHANNELIZING - SOLID 8" WHITE WET RELECTIVE TAPE
- ② 3' LINE, 9' GAP SOLID 8" WHITE WET REFLECTIVE TAPE. SEE NOTE 4.
- ③ SOLID 4" WHITE WET REFLECTIVE TAPE
- ④ 4" WHITE EDGELINE
- ⑤ CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT
- ⑥ 4" YELLOW EDGELINE

LANE DROP  
PAVEMENT MARKING

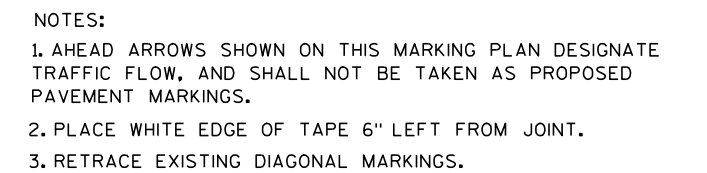
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





- NOTES:
- 1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
  - 2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.
- 
- ① CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE.
  - ② CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT.
  - ③ 3' LINE, 9' GAP SOLID 8" WHITE WET REFLECTIVE TAPE.





- ① CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE IN GORE AREA.
- ② 4" WHITE (3' LINE, 9' GAP).
- ③ CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT.
- ④ 1/2 LENGTH OF FULL WIDTH ACCELERATION LANE.

Diagram illustrating a lane drop configuration. The diagram shows a road with a lane drop. The lane drop is indicated by a dashed line and a solid line. The lane drop is labeled "TYPE 5 LANE DROP ARROW". The lane drop is shown at a 20° angle. The lane drop is divided into three equal segments, each labeled "1/3". The lane drop is labeled "ARROWS AT 1/3 POINTS WHEN SPECIFIED IN THE CONTRACT".



## PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
6/23/2011 /S/ Thomas N. Notbohm  
DATE STATE TRAFFIC ENGINEER OF DESIGN



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.

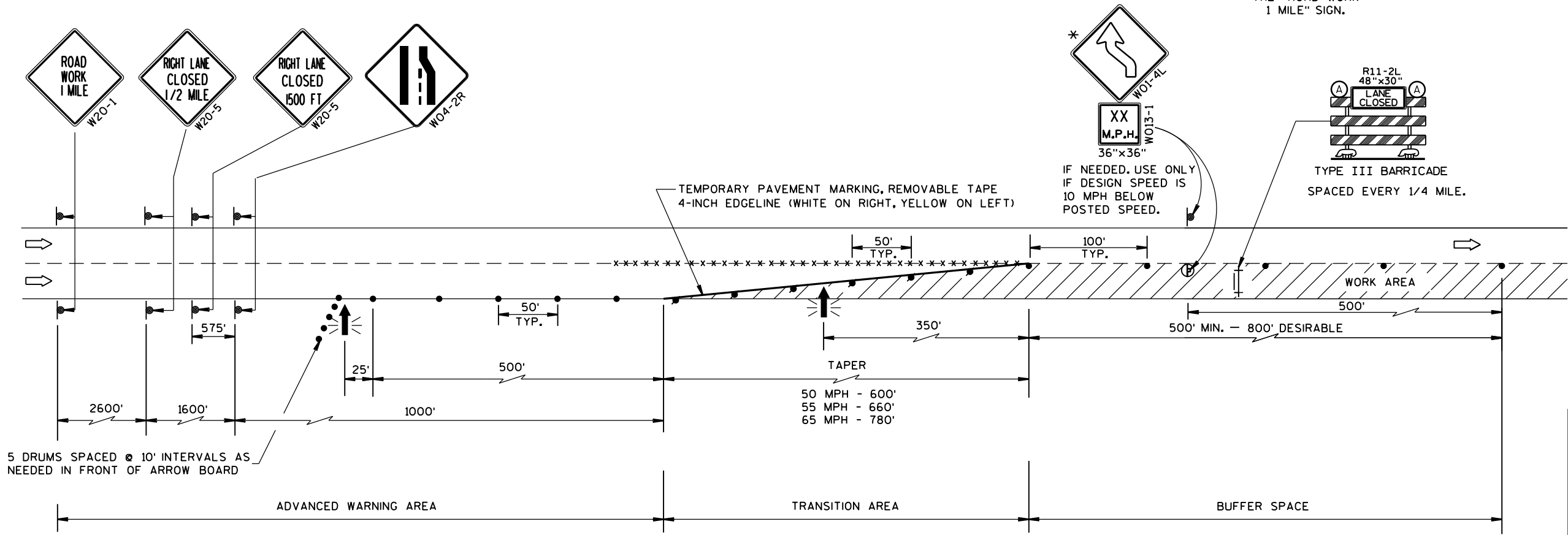
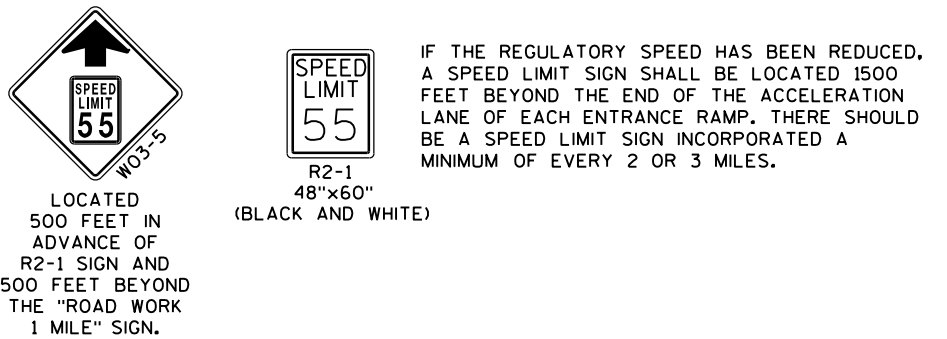
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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.

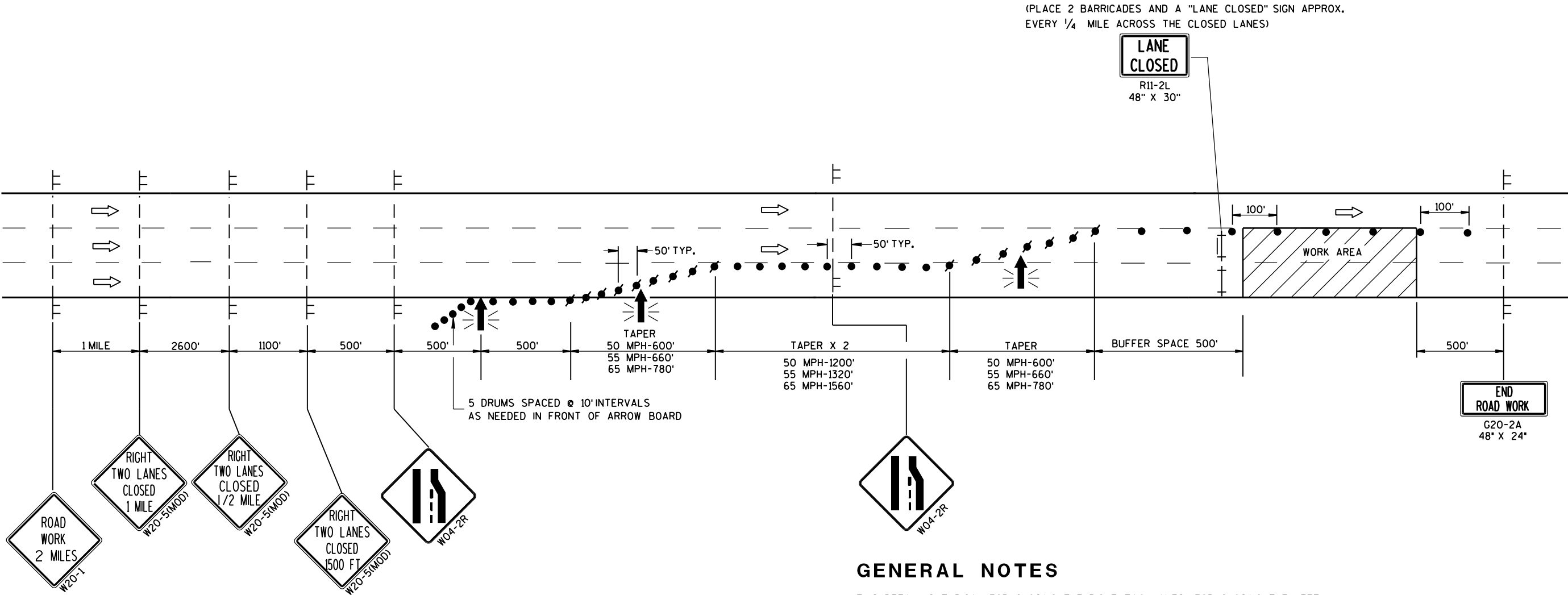
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE 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.



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





## GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

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" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS 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.

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

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

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

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.

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

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







TRAFFIC CONTROL.  
TWO LANE CLOSURE ON  
FREEWAY OR EXPRESSWAY.  
SHORT TERM (LESS THAN 24 HOURS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



## LEGEND

-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  SIGN ON PERMANENT SUPPORT
-  TYPE "A" WARNING LIGHT (FLASHING)
-  DIRECTION OF TRAFFIC

## GENERAL NOTES

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

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" X 48" UNLESS OTHERWISE NOTED.

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

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

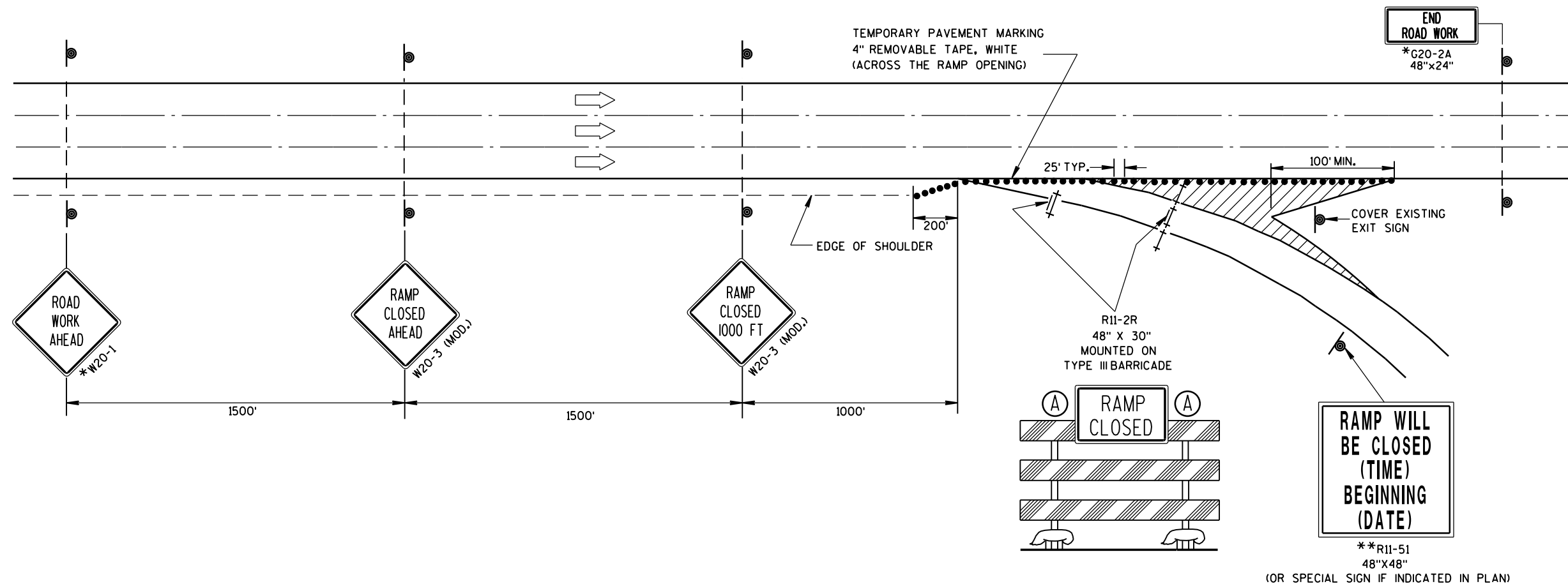
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

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

\*\* PLACE "RAMP WILL BE CLOSED" SIGN 10 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.

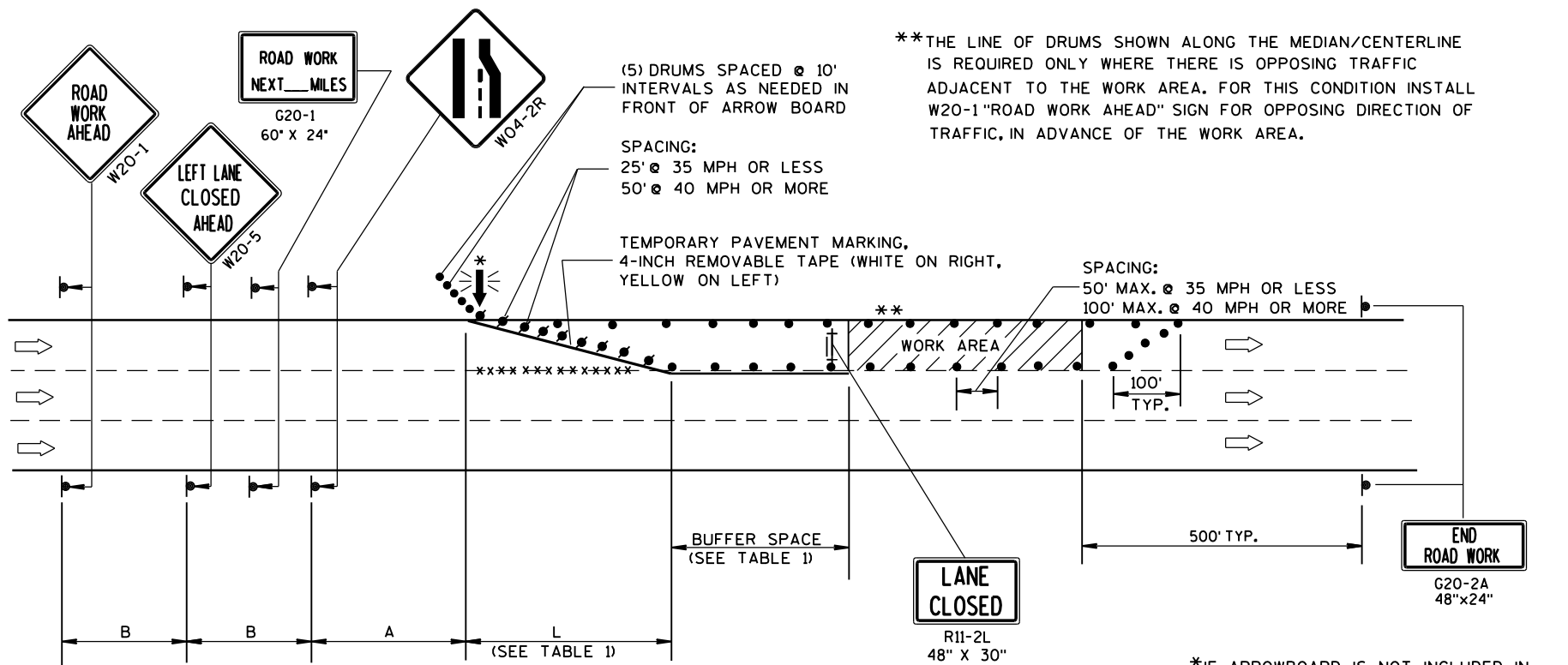


TRAFFIC CONTROL,  
EXIT RAMP CLOSURE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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





B=400' AT 25-30 MPH  
700' AT 35-40 MPH  
1000' AT 45-55 MPH

A=200' AT 25-30 MPH  
350' AT 35-40 MPH  
500' AT 45-55 MPH

TABLE 1  
TAPER AND BUFFER SPACE  
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER  
L =  $\frac{WS^2}{60}$  AT 40 MPH OR LESS  
L = TAPER LENGTH IN FEET  
S = NON-CONSTRUCTION SPEED LIMIT (MPH)  
W = WIDTH OF LANE CLOSURE

### LEGEND

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

### GENERAL NOTES

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"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.

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.

W20-1, 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.

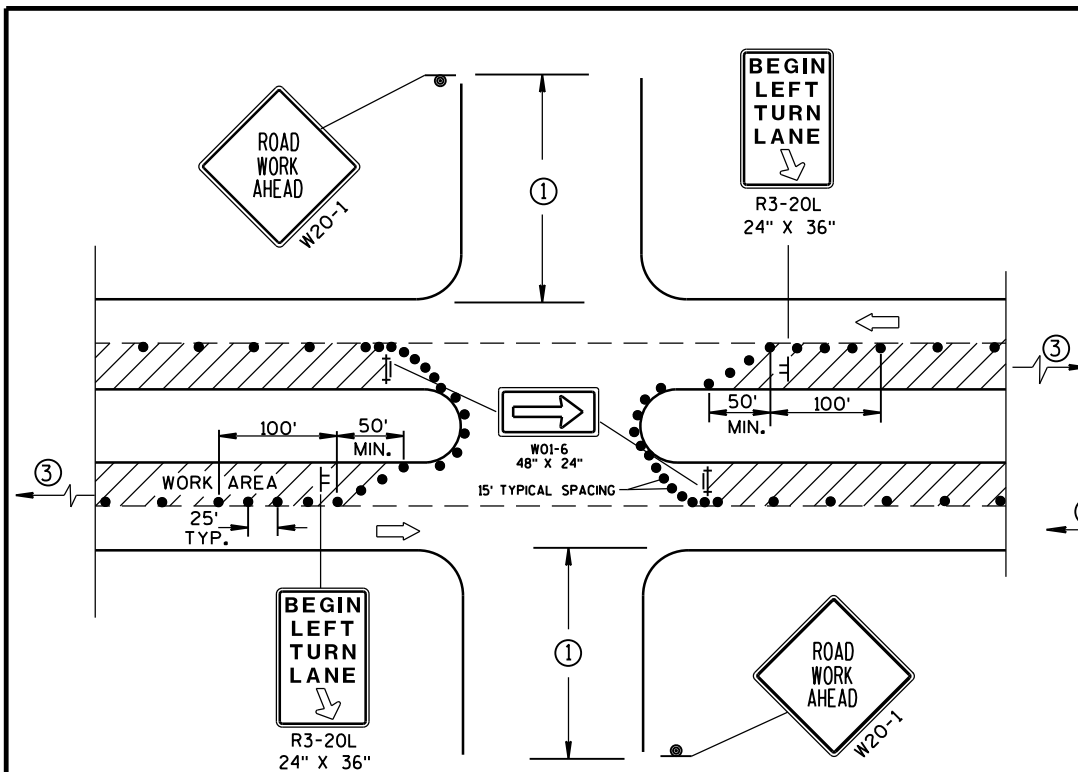
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL,  
SINGLE LANE CLOSURE,  
NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

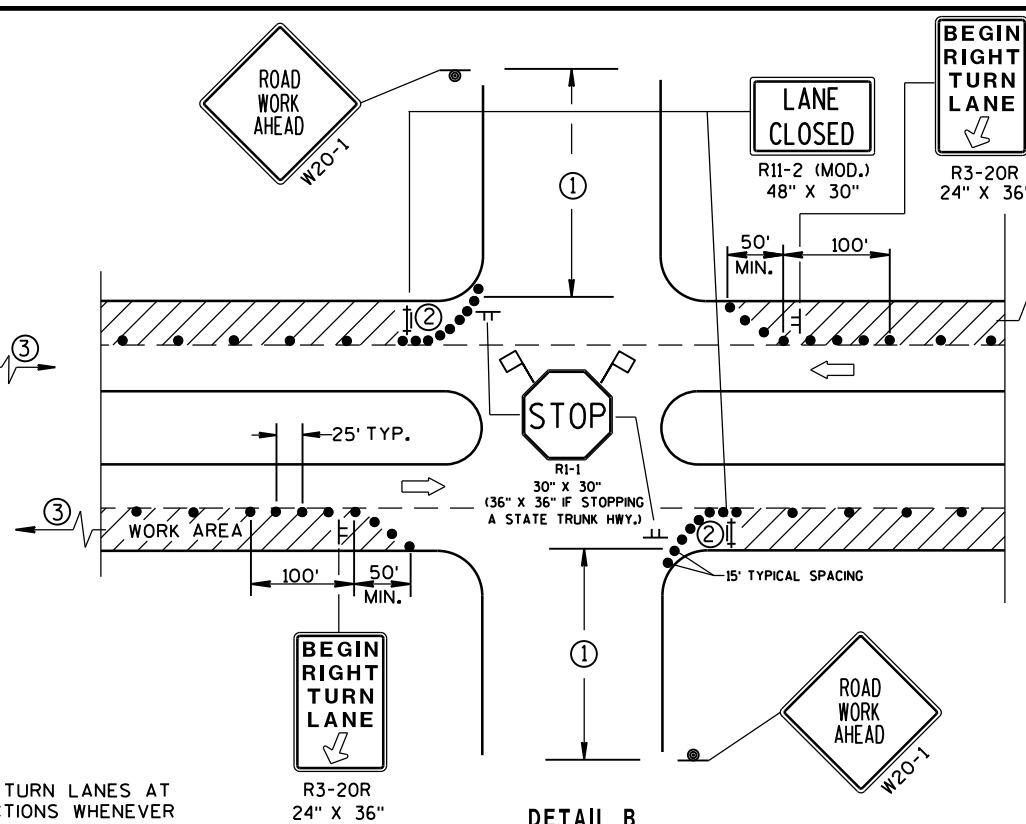
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FHWA





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

## 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.

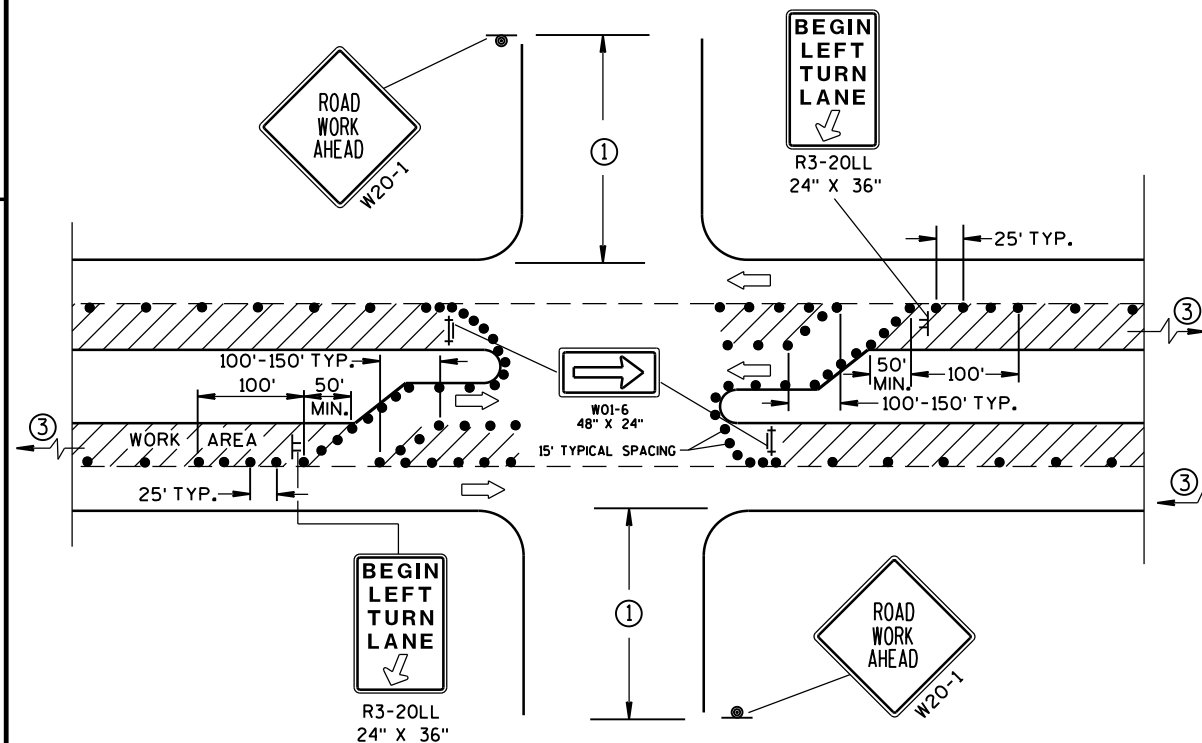
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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.

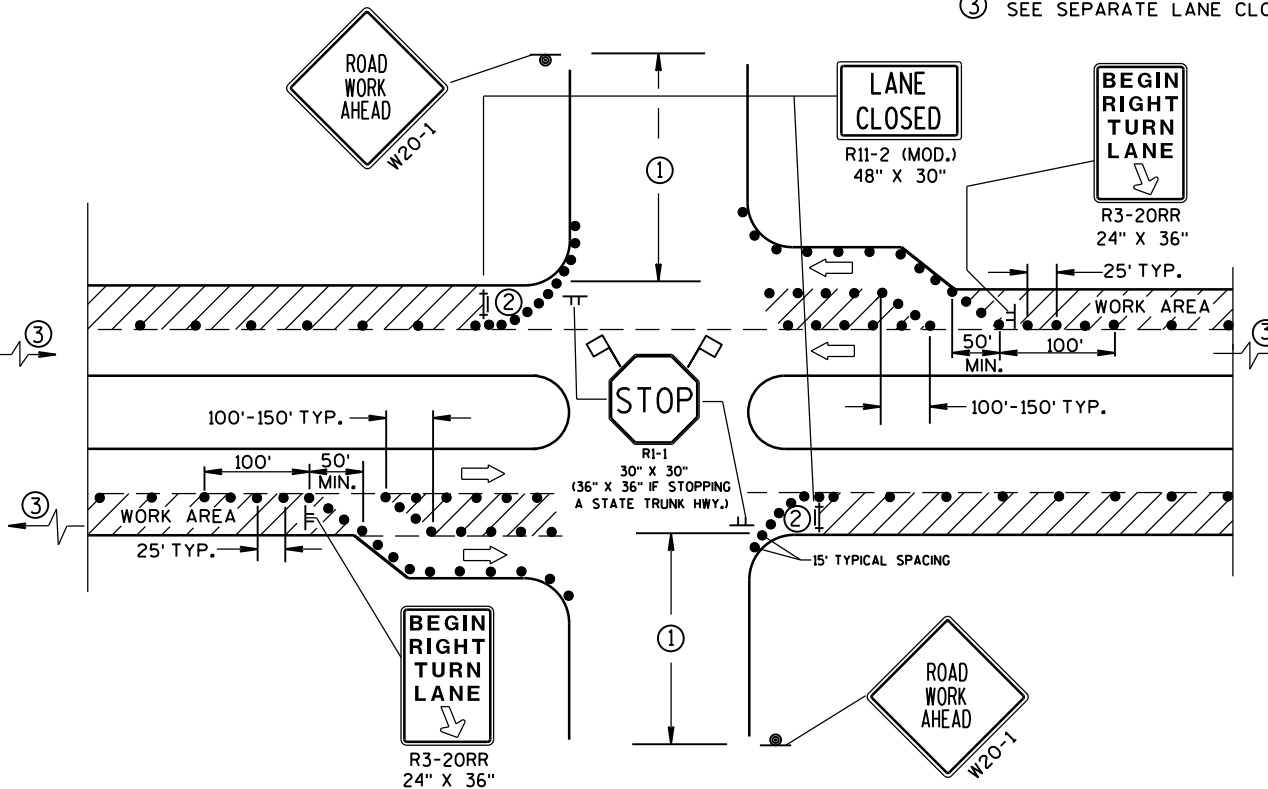
- ① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.  
350' IF 35-40 MPH.  
200' IF 25-30 MPH.
- ② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.
- ③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

## 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



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)

## TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

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TABLE 1  
TAPER AND BUFFER SPACE  
FOR 12' LANE WIDTH

s	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

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

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

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

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

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 THE 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.

W20-1, 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.

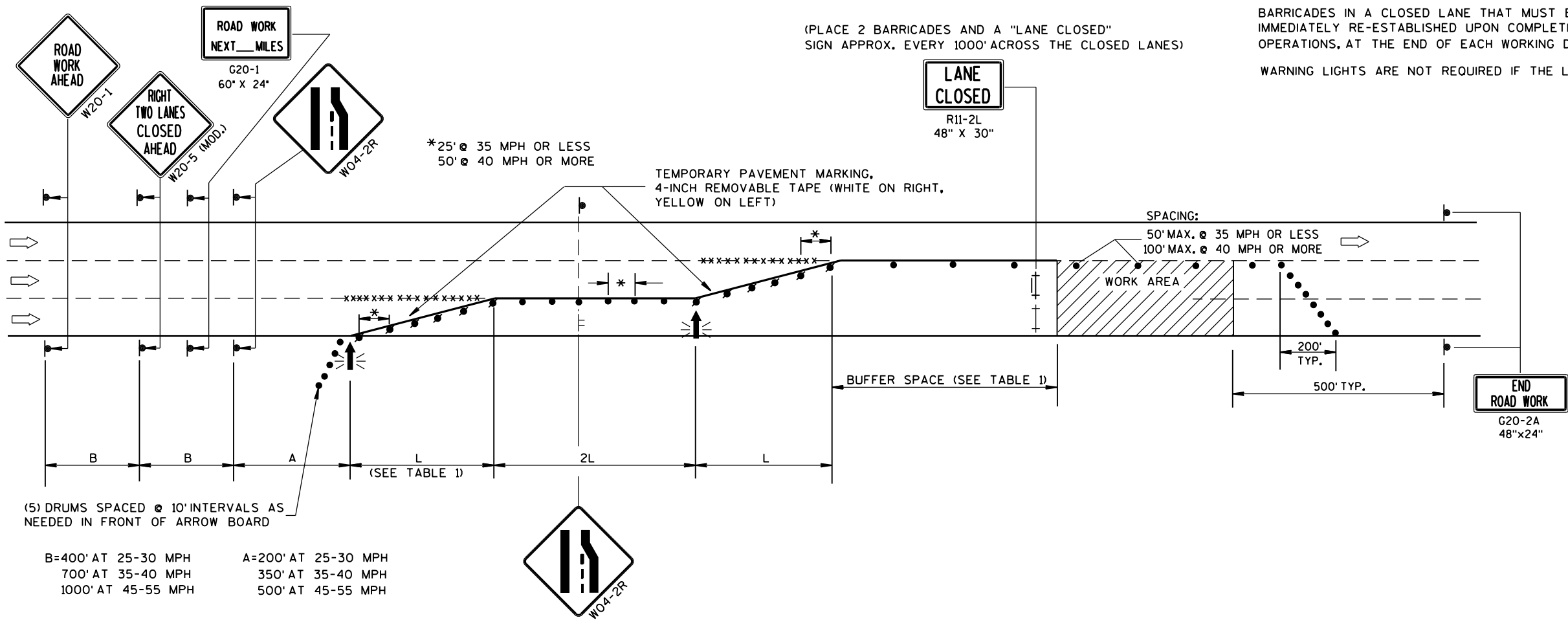
WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO LOCATE THE ARROWBOARD AS SHOWN, PLACE THE ARROWBOARD IN THE LANE CLOSURE TAPER AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE TAPER.

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.

(PLACE 2 BARRICADES AND A "LANE CLOSED" SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANES)



B=400' AT 25-30 MPH  
700' AT 35-40 MPH  
1000' AT 45-55 MPH

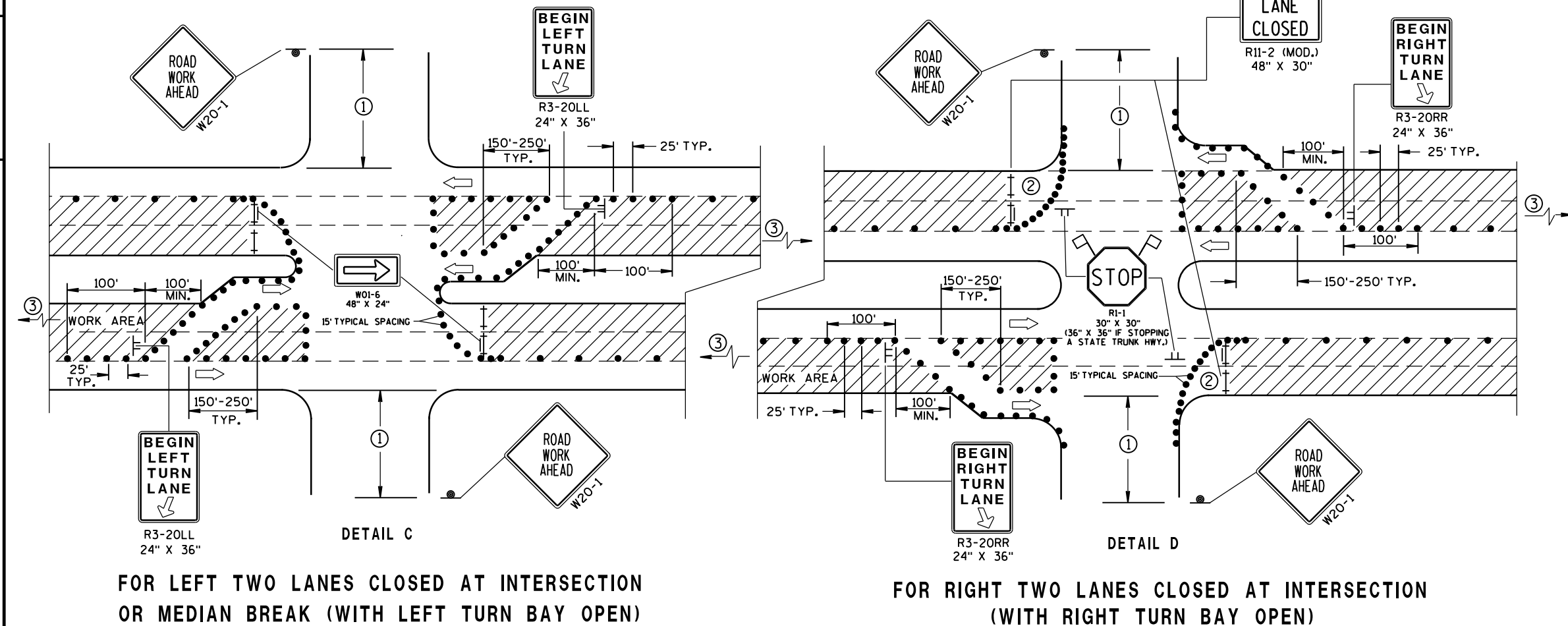
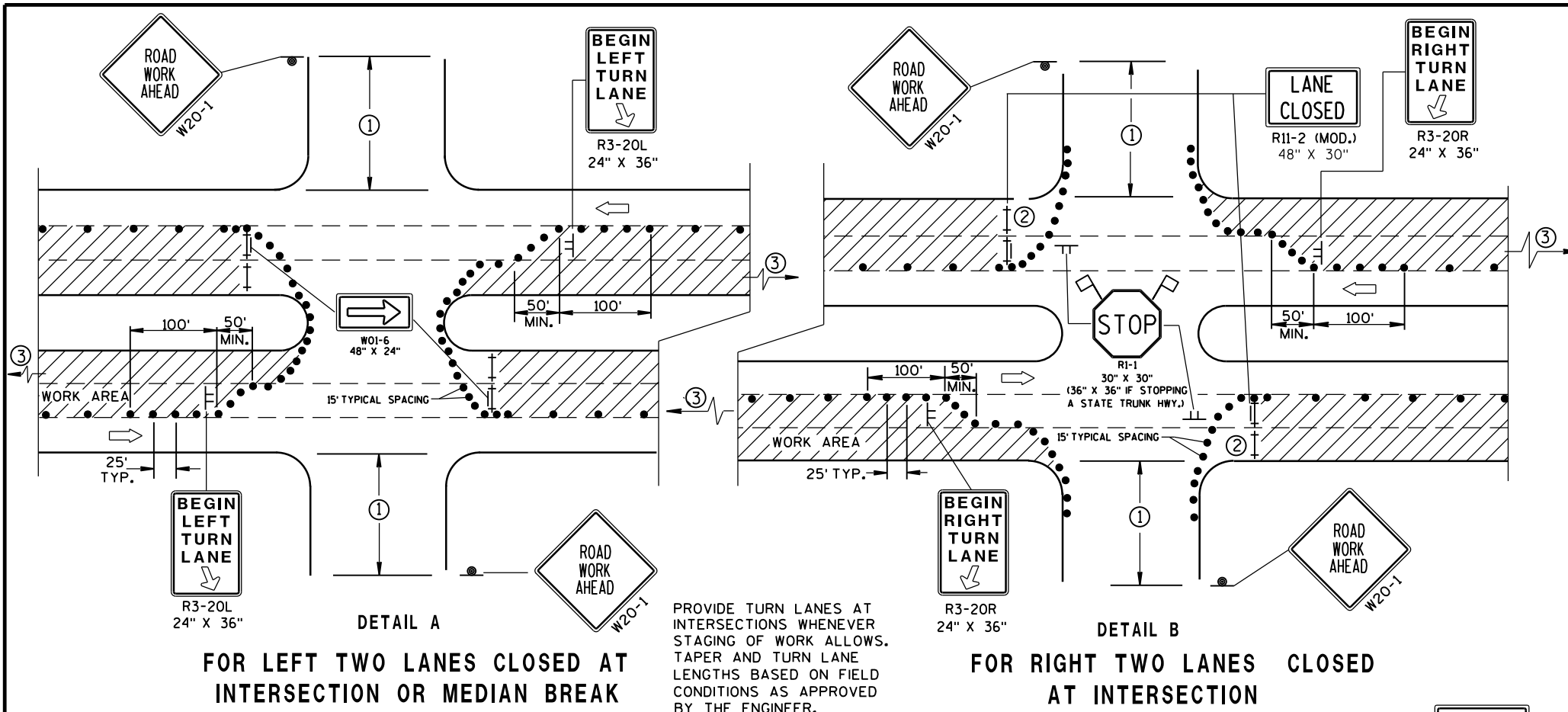
A=200' AT 25-30 MPH  
350' AT 35-40 MPH  
500' AT 45-55 MPH

TRAFFIC CONTROL,  
TWO LANE CLOSURE,  
NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN  
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TRAFFIC CONTROL, INTERSECTION WITHIN TWO LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
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## *Wisconsin Department of Transportation*

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