

WIS
PROJECT ID: 1166-07-61
WITH:

JULY 2015

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 = 118



DESIGN DESIGNATION

A.A.D.T.	2015	=	14700
A.A.D.T.	2035	=	18000
D.H.V.		=	
D.D.		=	67-33
T.		=	17.3
DESIGN SPEED		=	70
ESALS		=	7,840,200

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

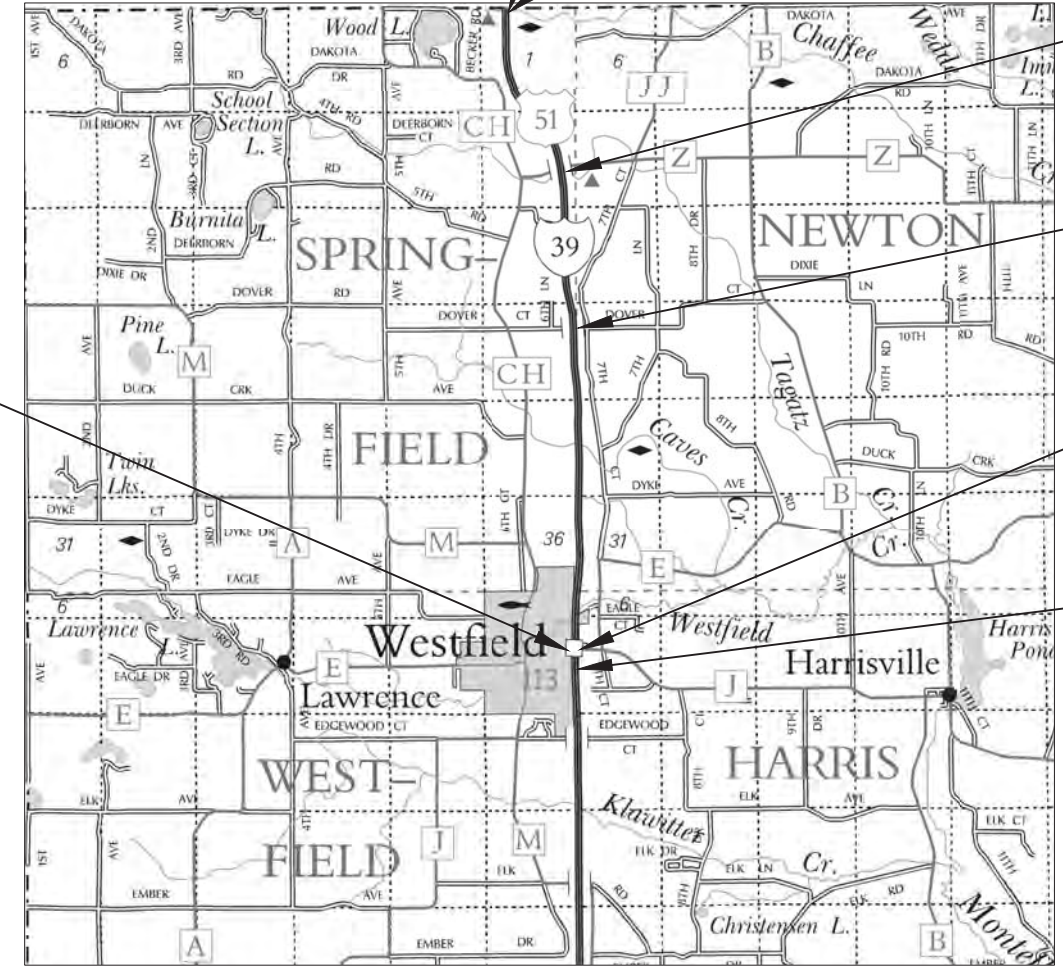
PACKWAUKEE-COLOMA

B-39-30,31,32,34,36

**IH 39
MARQUETTE**

STATE PROJECT NUMBER
1166-07-61

WAUSHARA CO. R-8-E
TOWN OF COLOMA



END PROJECT
STA 792"NB"+54
X = 428004.001
Y = 323690.491

STRUCTURE B-39-36
IH 39 (NB) OVER CHAFFEE CREEK

STRUCTURE B-39-34
IH 39 (NB) OVER CTH Z

STRUCTURE B-39-32
IH 39 (NB) OVER DOVER CT.

STRUCTURE B-39-30
IH 39 (NB) OVER EAST SECOND ST.

BEGIN PROJECT
STA 428"NB"+63
X = 431372.936
Y = 288242.980

LAYOUT
SCALE 0 2 MILES

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO AN ASSUMED COORDINATE SYSTEM.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1166-07-61	WISC 2015432	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NC REGION
Designer	ERIN CHRISTIANSON
Project Manager	TIM HANLEY
Regional Examiner	CHERYL SIMON
Regional Supervisor	MIKE KRETSCHMER

APPROVED FOR THE DEPARTMENT
DATE: 01/20/2015

(Signature)

GENERAL NOTES

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

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

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

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

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

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

AS-BUILT REFERENCE (YEAR)*

PROJECT: 1660-01-61 (1999)
 PROJECT: 1166-03-72 (1993)
 PROJECT: 1161-03-75 (1983)
 PROJECT: 1161-03-78 (1983)
 PROJECT: 1166-04-80 (2007)

DNR CONTACT

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
 BOBBI JO FISCHER
 1427 EAST TOWER DR.
 WAUTOMA, WI 54982
 PHONE: 920-787-4686

**UTILITIES**

ADAMS-COLUMBIA ELECTRIC COOPERATIVE - ELECTRIC
 JON TRZESNIAK
 PO BOX 70
 FRIENDSHIP, WI 53934-0070
 PHONE: 800-831-8629 EXT 424
 MOBILE: 608-547-9648
 E-MAIL: jtrzesniak@acecwi.com

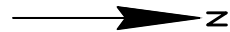
Send all Alliant Correspondence to:
 ALLIANT ENERGY - ELECTRIC
 ATTN: JASON HOGAN
 SUITE 1000
 4902 N BILTMORE LANE
 MADISON, WI 53718
 PHONE: 608-458-4871
 MOBILE: 608-395-7395
 E-MAIL: jasonhogan@alliantenergy.com

ALLIANT CONSTRUCTION FIELD CONTACT:
 ALLIANT ENERGY - ELECTRIC
 ATTN: MARK VILLARS
 880 N WISCONSIN ST
 BERLIN, WI 54923
 PHONE: 920-361-5652
 E-MAIL: markvillars@alliantenergy.com

PIONEER POWER AND LIGHT COMPANY - ELECTRIC
 DENNIS DAHLKE II
 104 NORTH MAIN ST
 WESTFIELD, WI 53964
 PHONE: 608-296-2149
 MOBILE: 608-369-2421
 E-MAIL: pioneerpowerquote@gmail.com

Send all WE Energies Correspondence to:
 WE ENERGIES - GAS
 ATTN: LATROY BRUMFIELD
 ROOM A299
 333 W EVERETT ST
 MILWAUKEE, WI 53203
 PHONE: 414-221-5617
 E-MAIL: latroy.brumfield@we-energies.com

WE ENERGIES - GAS
 RYAN MIENTKE
 1921 8TH STREET SOUTH
 WISCONSIN RAPIDS, WI 54494
 PHONE: 715-421-7249
 MOBILE: 715-421-9293



BEGIN PROJECT
STA 428"NB"+63

B-39-31
IH 39 (SB) OVER CTH E/CTH J

B-39-36
IH 39 (NB) OVER CHAFFEE CREEK BRIDGE

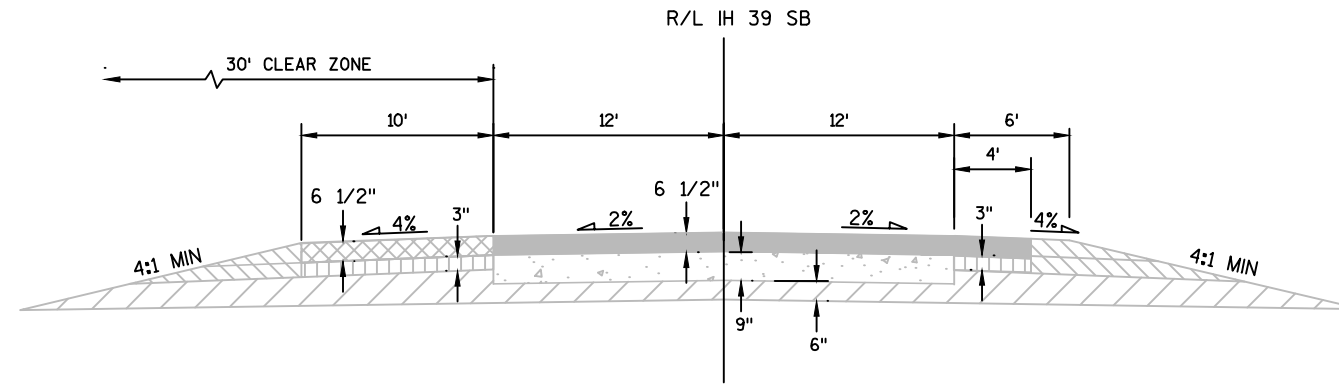


B-39-30
IH 39 (NB) OVER CTH E/CTH J

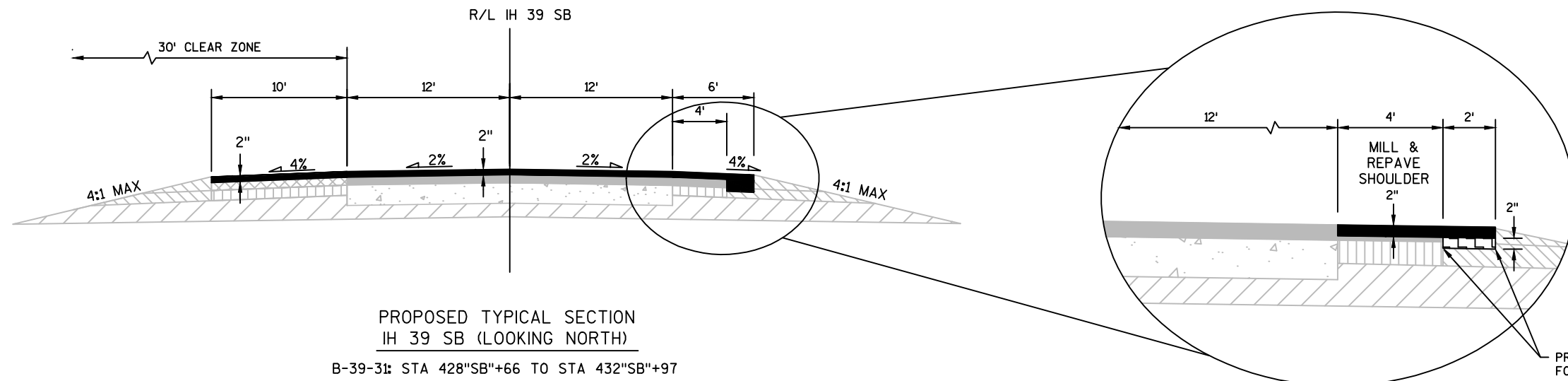
B-39-32
IH 39 (NB) OVER DOVER ROAD

B-39-34
IH 39 (NB) OVER CTH Z

END PROJECT
STA 792"NB"+54



EXISTING TYPICAL SECTION
IH 39 SB (LOOKING NORTH)
B-39-31: STA 428"SB"+66 TO STA 432"SB"+97

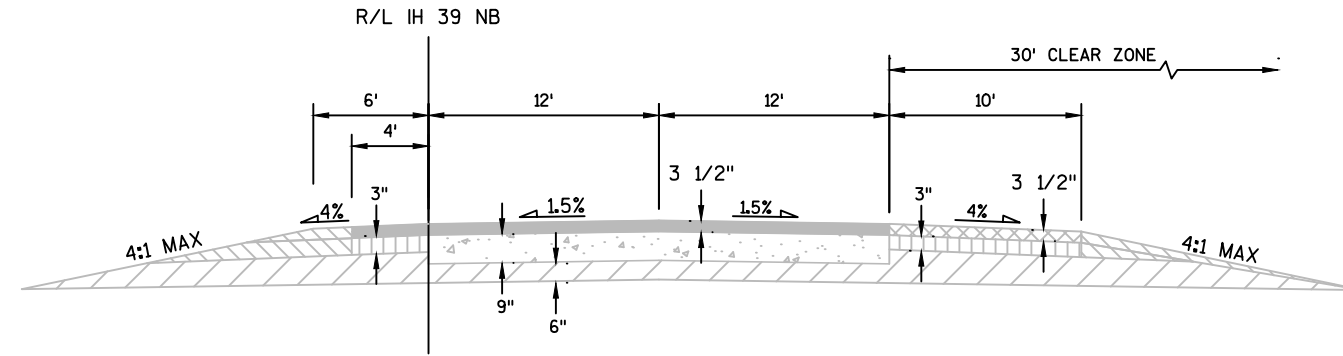


PROPOSED TYPICAL SECTION
IH 39 SB (LOOKING NORTH)
B-39-31: STA 428"SB"+66 TO STA 432"SB"+97

PROPOSED TYPICAL SECTION
IH 39 SB WIDENING (LOOKING NORTH)
SEE TRAFFIC CONTROL STAGING FOR LOCATIONS

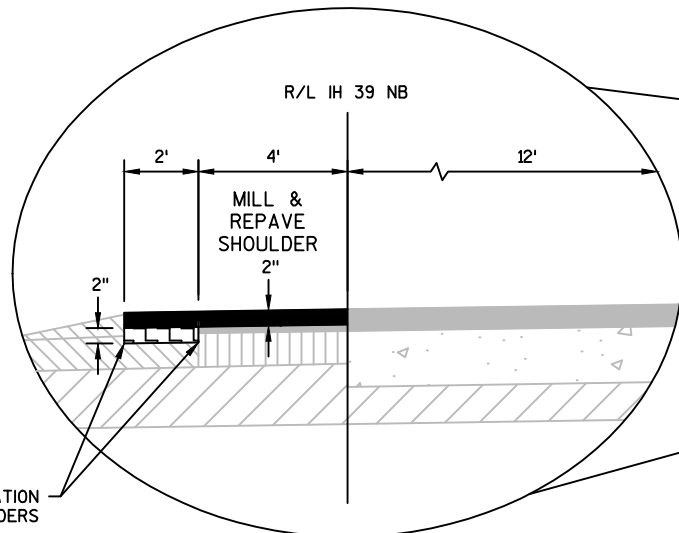
LEGEND

- EXISTING HMA PAVEMENT TYPE E-10
- EXISTING CONCRETE PAVEMENT
- EXISTING SINGLE AGGREGATE BITUMINOUS PAVEMENT
- EXISTING HMA PAVEMENT TYPE E-1
- EXISTING CRUSHED AGGREGATE BASE COURSE (SHOULDER)
- EXISTING CRUSHED AGGREGATE BASE COURSE
- HMA PAVEMENT TYPE E-10
- HMA PAVEMENT TYPE 3-10 WIDENING & PREPARE FOUNDATION FOR ASPHALTIC PAVING



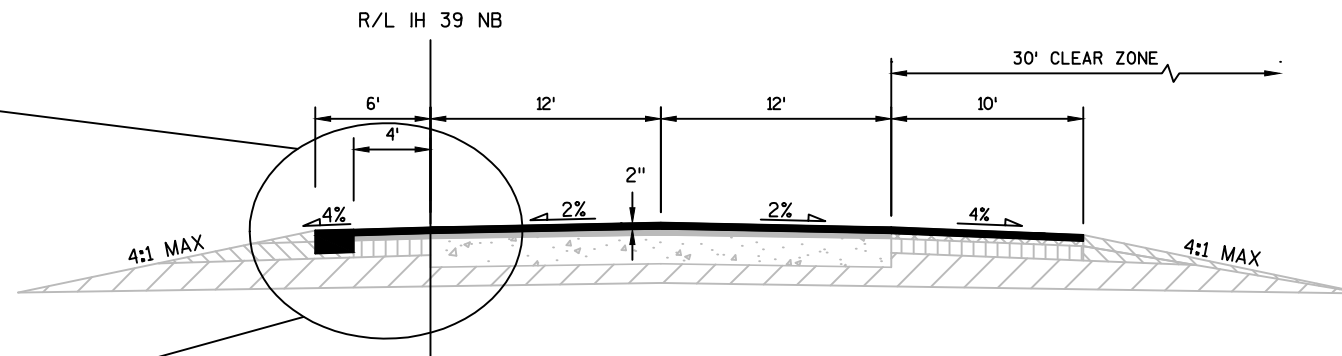
EXISTING TYPICAL SECTION
IH 39 NB (LOOKING NORTH)

B-39-30: STA 428"NB"+61 TO STA 432"NB"+92
 B-39-32: STA 606"NB"+22 TO STA 609"NB"+81
 B-39-34: STA 695"NB"+04 TO STA 698"NB"+63
 B-39-36: STA 789"NB"+47 TO STA 792"NB"+53



PROPOSED TYPICAL SECTION
IH 39 NB WIDENING (LOOKING NORTH)

SEE TRAFFIC CONTROL STAGING FOR LOCATIONS

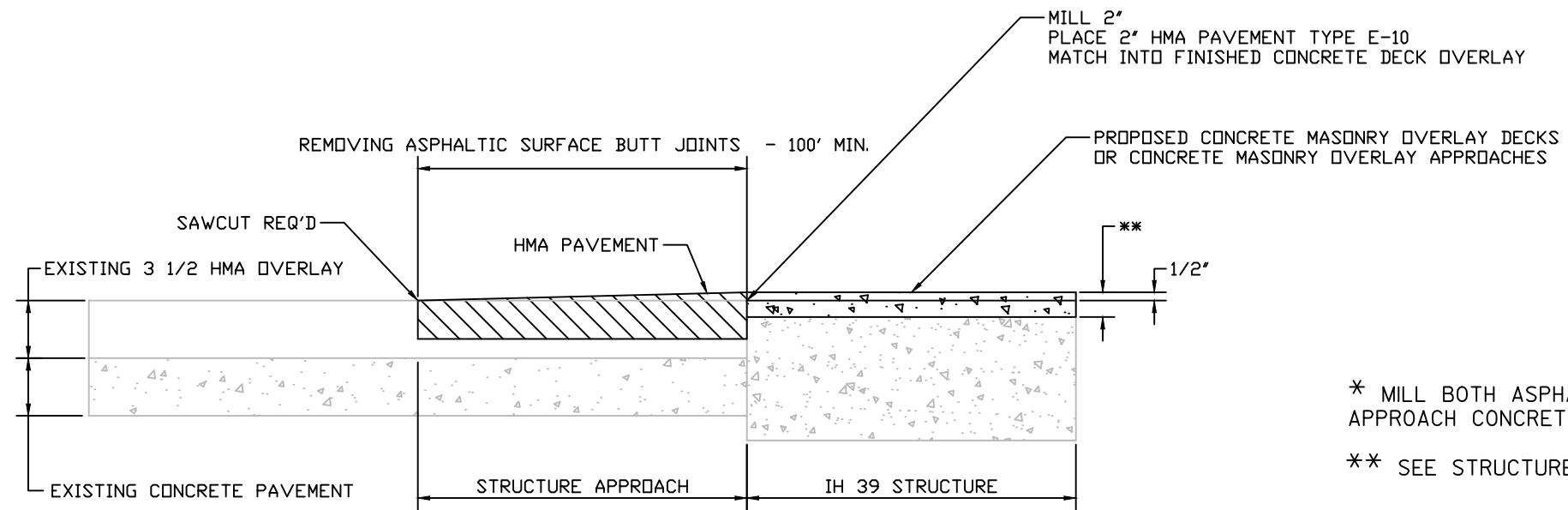


PROPOSED TYPICAL SECTION
IH 39 NB (LOOKING NORTH)

B-39-30: STA 428"NB"+61 TO STA 432"NB"+92
 B-39-32: STA 606"NB"+22 TO STA 609"NB"+81
 B-39-34: STA 695"NB"+04 TO STA 698"NB"+63
 B-39-36: STA 789"NB"+47 TO STA 792"NB"+53

LEGEND

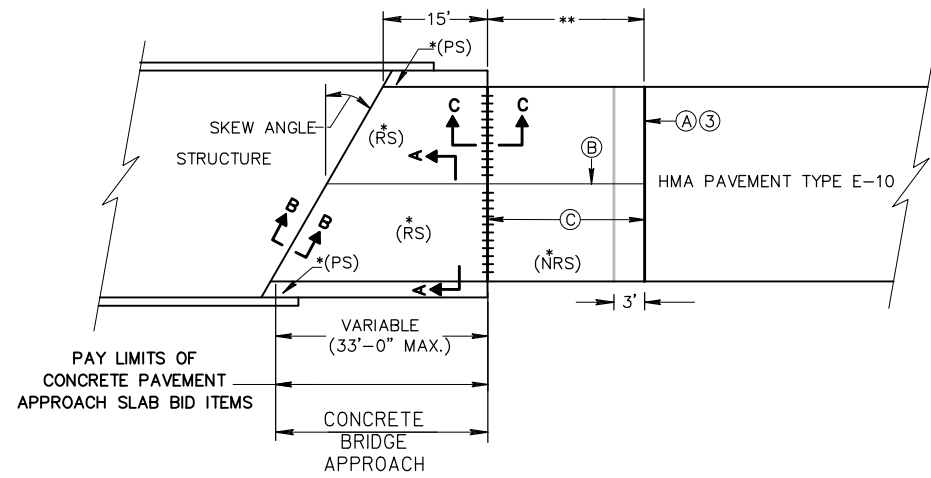
- EXISTING HMA PAVEMENT TYPE E-10
- EXISTING CONCRETE PAVEMENT
- EXISTING SINGLE AGGREGATE BITUMINOUS PAVEMENT
- EXISTING HMA PAVEMENT TYPE E-0.3
- EXISTING CRUSHED AGGREGATE BASE COURSE (SHOULDER)
- EXISTING CRUSHED AGGREGATE BASE COURSE
- HMA PAVEMENT TYPE E-10
- HMA PAVEMENT TYPE E-10 WIDENING & PREPARE FOUNDATION FOR ASPHALTIC PAVING



* MILL BOTH ASPHALT & STRUCTURE DECK AND/OR APPROACH CONCRETE AT THE SAME TIME

** SEE STRUCTURE PLANS FOR AVERAGE OVERLAY THICKNESS

DETAIL FOR BUTT JOINT - APPROACH TO STRUCTURE OR CONCRETE APPROACH OVERLAY
STRUCTURES B-39-30, 31, 32, 34, 36



- *(RS) = REINFORCED CONCRETE SLAB
- *(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN (SEE DETAILS ELSEWHERE IN THE PLAN)
- *(NRS) = NON-REINFORCED CONCRETE SLAB
- **STANDARD TRANSVERSE JOINT SPACING (SEE SDD 13C4, SDD 13C11, & SDD 13C13)
- ***STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11, & SDD 13C13)
- (A) STANDARD CONTRACTION JOINT NORMAL TO R OR L
- (B) STANDARD LONGITUDINAL JOINT AND TIE BARS.
- (C) 1 1/2" EXPANSION JOINT WITH DOWEL BARS NORMAL TO R OR L

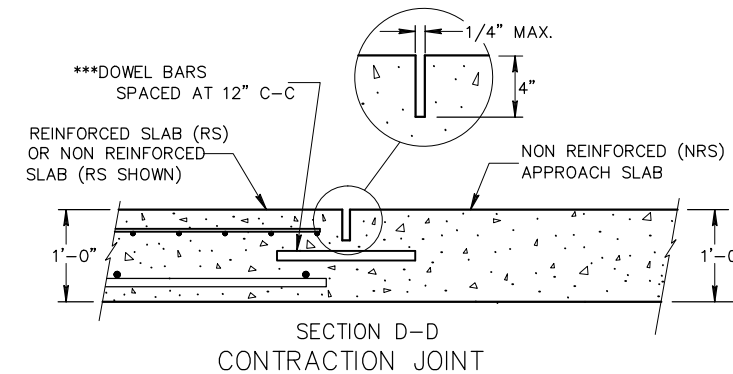
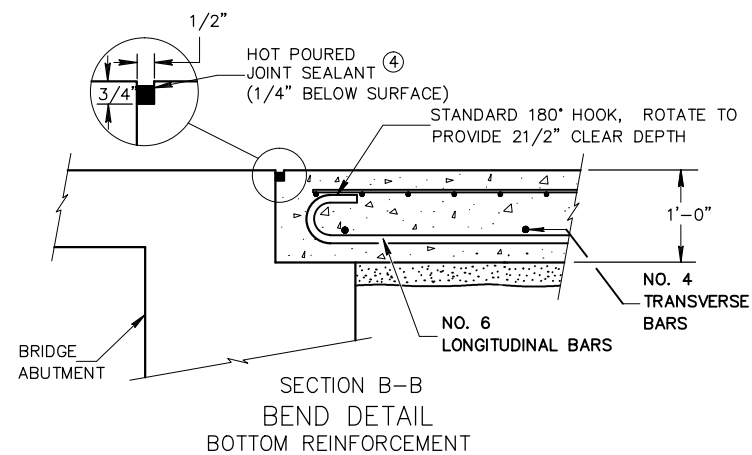
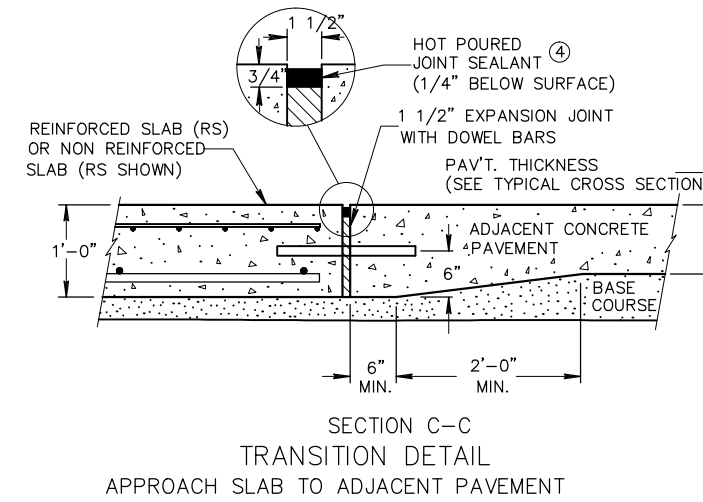
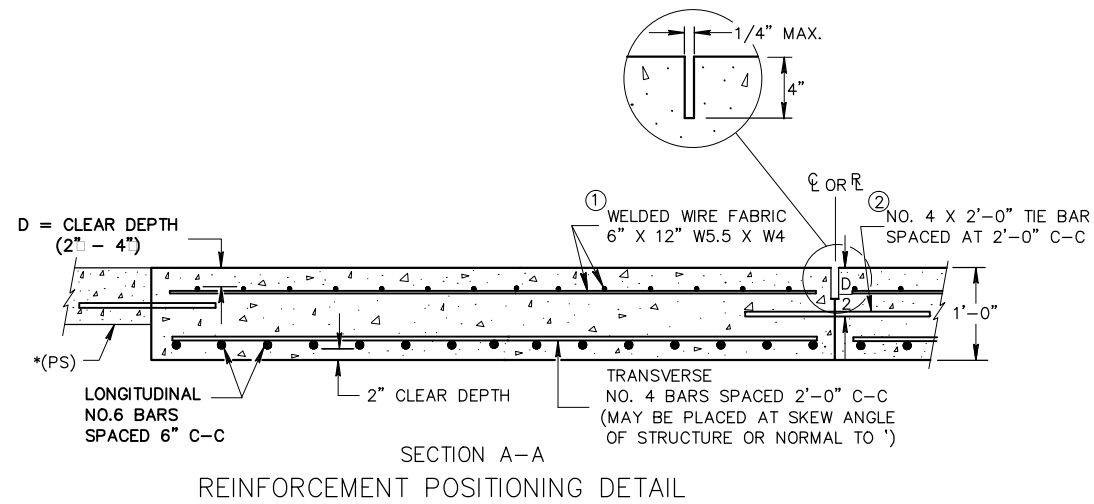
GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.










TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

- ① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
- ② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
- ③ DO NOT DOWEL A CONTRACTION JOINT THAT ABUTS AN HMA PAVEMENT.
- ④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.
- ⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

SKEWS ≤ 30°
 (PAVEMENT WIDTH ≤ 30')
 APPROACH SLAB AND ADJACENT PAVEMENT



LEGEND

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

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"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.

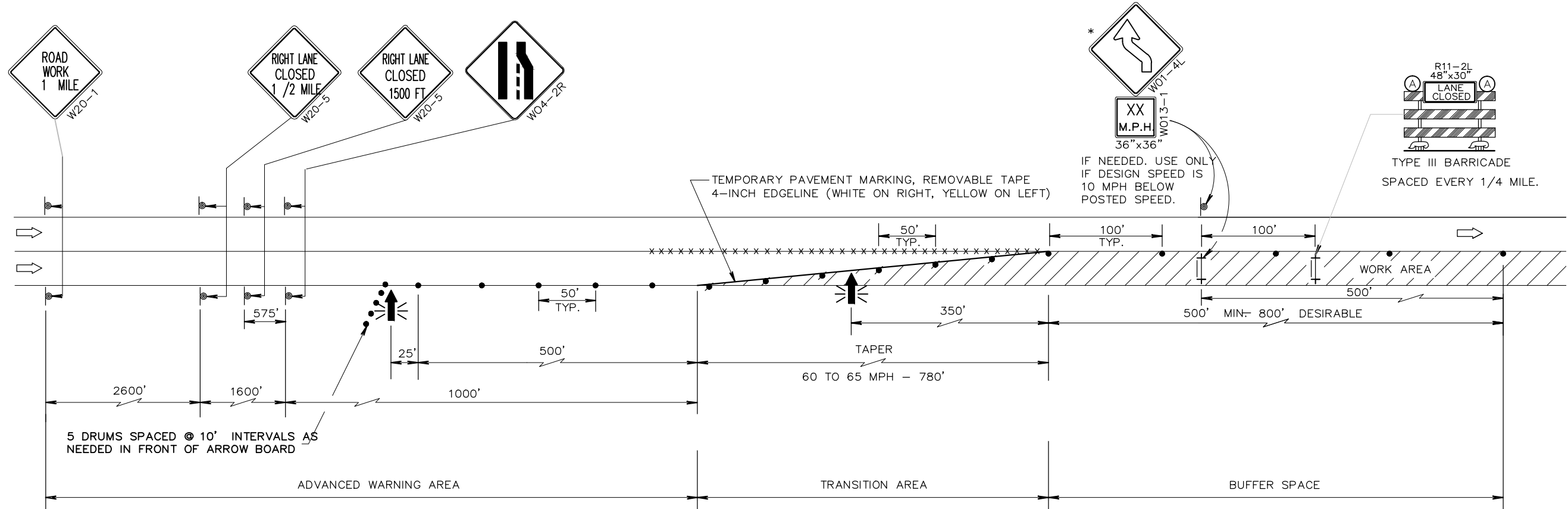
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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

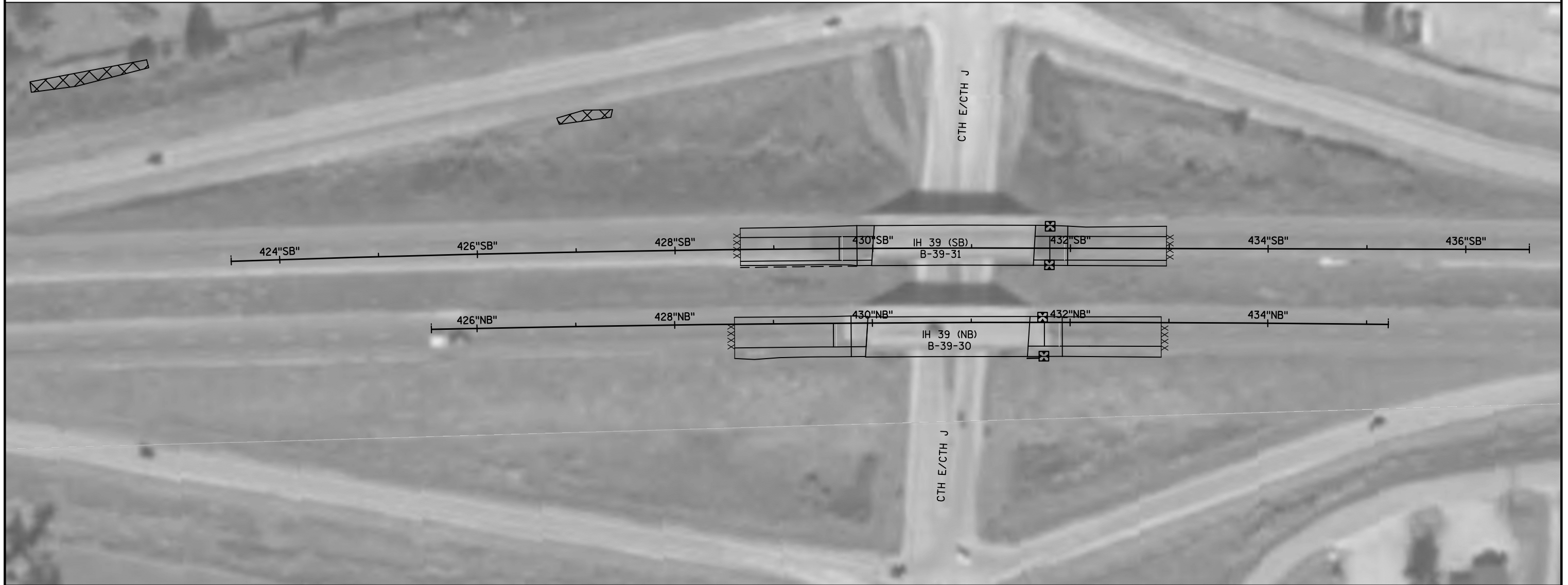
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

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 MANUEVER.

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



NOTE: NO STAGING OF EQUIPMENT OR MATERIALS SHALL BE PLACED IN THE SENSITIVE AREA LOCATIONS.



LEGEND

⊠ INLET PROTECTION

▨ SENSITIVE AREA (DO NOT DISTURB)

NOTE: NO STAGING OF EQUIPMENT OR MATERIALS SHALL BE PLACED IN THE SENSITIVE AREA LOCATIONS.



LEGEND

⊠ INLET PROTECTION

▨ SENSITIVE AREA (DO NOT DISTURB)

NOTE: NO STAGING OF EQUIPMENT OR MATERIALS SHALL BE PLACED IN THE SENSITIVE AREA LOCATIONS.

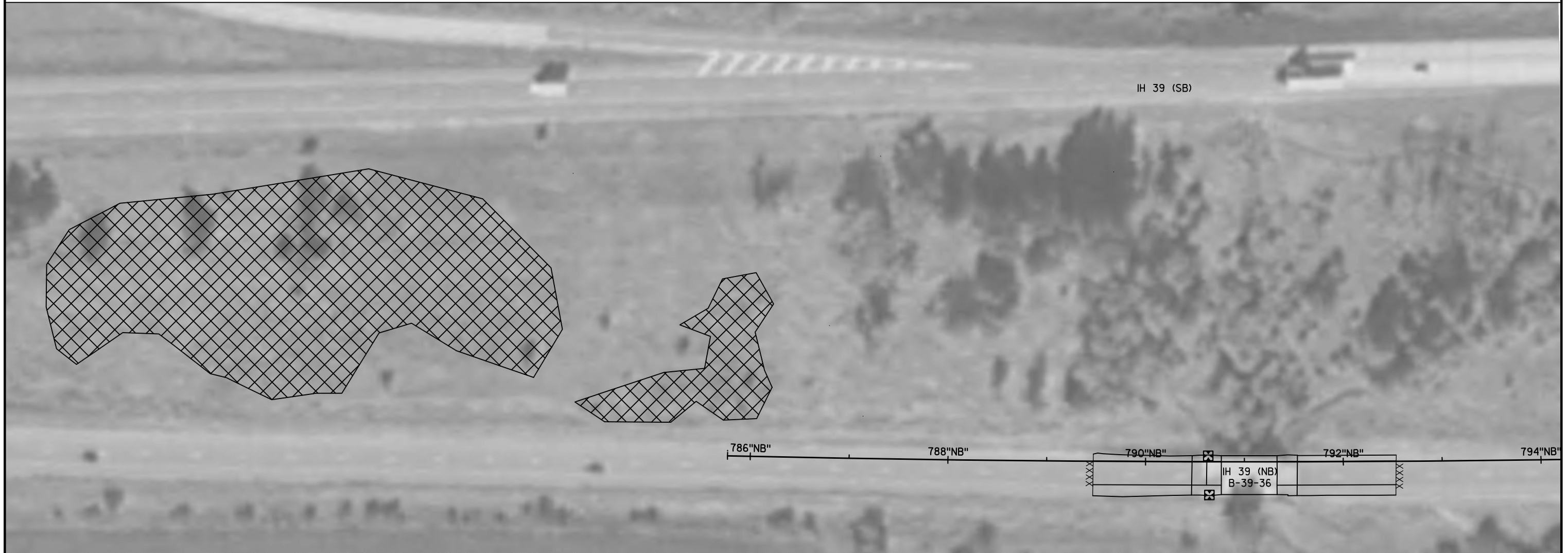


LEGEND

⊠ INLET PROTECTION

⊞ SENSITIVE AREA (DO NOT DISTURB)

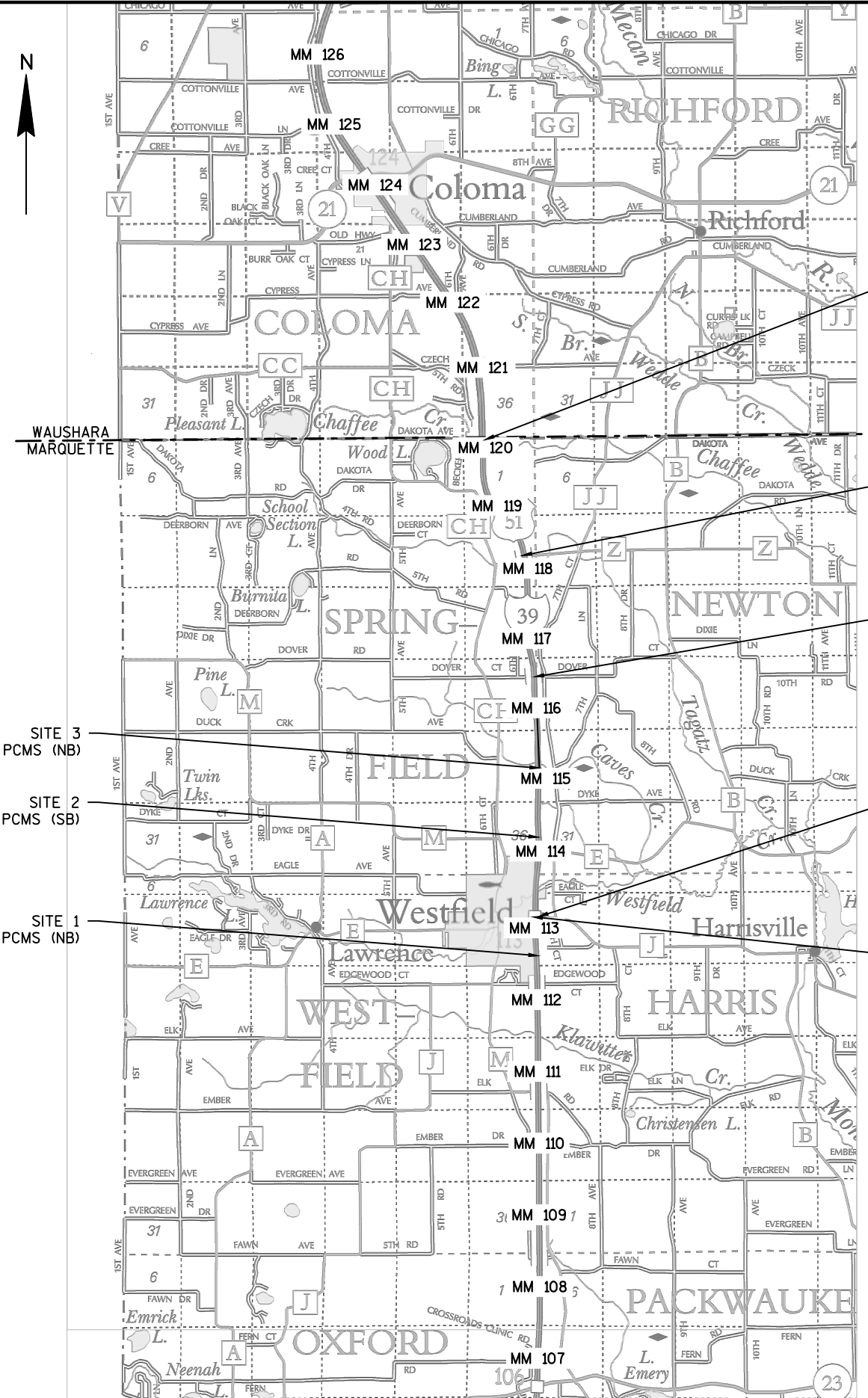
NOTE: NO STAGING OF EQUIPMENT OR MATERIALS SHALL BE PLACED IN THE SENSITIVE AREA LOCATIONS.



LEGEND

☒ INLET PROTECTION

▨ SENSITIVE AREA (DO NOT DISTURB)



B-39-36 (IH 39 NB OVER CHAFFEE CREEK)
 CONCRETE OVERLAY, PROTECTIVE
 SURFACE TREATMENT, CONCRETE
 SURFACE REPAIR.
 MILE MARKER 120.0

B-39-34 (IH 39 NB OVER CTH Z)
 CONCRETE OVERLAY, PROTECTIVE
 SURFACE TREATMENT, CONCRETE
 SURFACE REPAIR.
 MILE MARKER 118.2

B-39-32 (IH 39 NB OVER DOVER RD)
 CONCRETE OVERLAY, PROTECTIVE
 SURFACE TREATMENT, CONCRETE
 SURFACE REPAIR.
 MILE MARKER 116.5

B-39-30 (IH 39 NB OVER CTH E/CTH J)
 CONCRETE OVERLAY, PROTECTIVE
 SURFACE TREATMENT, CONCRETE
 SURFACE REPAIR.
 MILE MARKER 113.2

B-39-31 (IH 39 SB OVER CTH E/CTH J)
 CONCRETE OVERLAY, PROTECTIVE
 SURFACE TREATMENT, CONCRETE
 SURFACE REPAIR.
 MILE MARKER 113.2

GENERAL NOTES FOR CHANGEABLE MESSAGE BOARDS

PCMS = PORTABLE CHANGEABLE MESSAGE SIGN

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING MESSAGE SIGNS. PLACE THE SIGNS SO THE DRIVER HAS A CLEAR VIEW OF THE MESSAGE FOR A MINIMUM OF 1000 FEET.

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

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

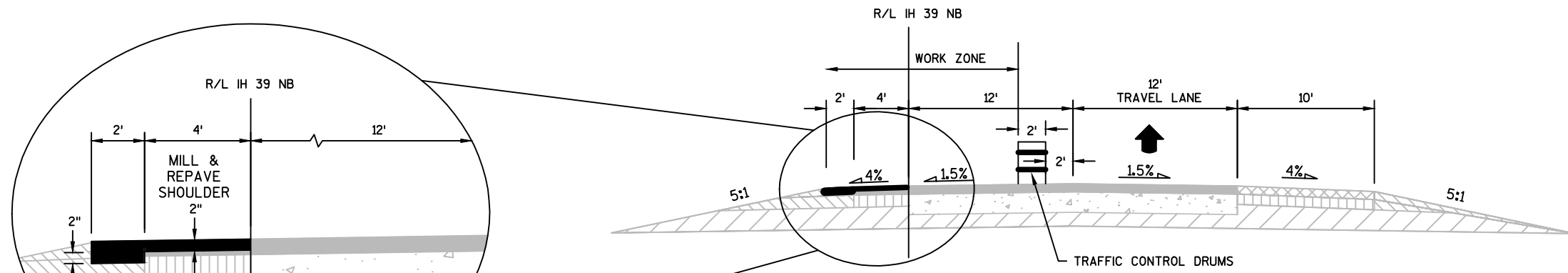
SITE 1 MESSAGE SIGN IS TO BE IN PLACE AND DISPLAYING THE "PRIOR TO CONSTRUCTION" MESSAGES FOR 7 DAYS PRIOR TO THE EXPECTED START OF WORK ON IH 39 NB.

SITE 2 MESSAGE SIGN IS TO BE IN PLACE AND DISPLAYING THE "PRIOR TO CONSTRUCTION" MESSAGES FOR 7 DAYS PRIOR TO THE EXPECTED START OF WORK ON IH 39 SB.

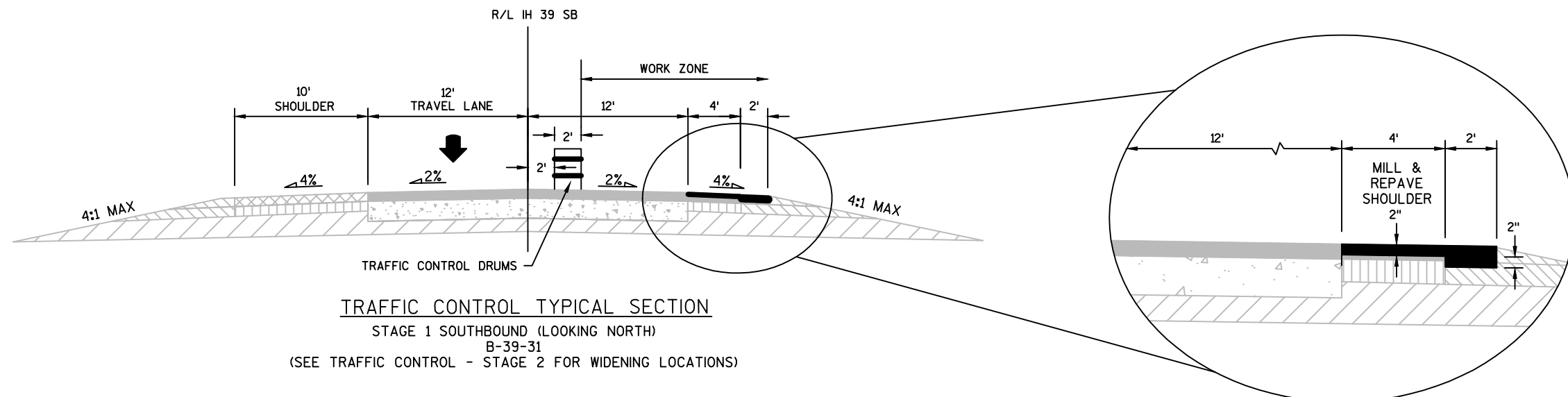
MAINTENANCE CROSSOVER
 LOCATIONS (MILE MARKER)

- 111.5
- 112.6
- 113.3
- 116.0
- 116.9
- 118.4
- 120.4

MESSAGE OVERVIEW														
SIGN OWNER	MILE MARKER	USER NAME	PASSWORD	I.P. ADDRESS	7 DAYS PRIOR TO CONSTRUCTION		STAGE 1		STAGE 2		STAGE 3		STAGE 4	
					FRAME 1 (2 SEC)	FRAME 2 (2 SEC)	FRAME 1 (2 SEC)	FRAME 2 (2 SEC)	FRAME 1 (2 SEC)	FRAME 2 (2 SEC)	FRAME 1 (2 SEC)	FRAME 2 (2 SEC)	FRAME 1 (2 SEC)	FRAME 2 (2 SEC)
CONTRACTOR	SITE 1 112.1 NB	SEE CONTRACTOR OR ENGINEER	SEE CONTRACTOR OR ENGINEER	SEE CONTRACTOR OR ENGINEER	BRIDGE WORK BEGINS	XX/XX/XX	LEFT LN CLOSED 1 MILE	MERGE RIGHT					RIGHT LN CLOSED 1 MILE	MERGE LEFT
CONTRACTOR	SITE 2 114.1 SB	SEE CONTRACTOR OR ENGINEER	SEE CONTRACTOR OR ENGINEER	SEE CONTRACTOR OR ENGINEER	BRIDGE WORK BEGINS	XX/XX/XX	LEFT LN CLOSED 1 MILE	MERGE RIGHT					RIGHT LN CLOSED 1 MILE	MERGE LEFT
CONTRACTOR	SITE 3 115.1 NB	SEE CONTRACTOR OR ENGINEER	SEE CONTRACTOR OR ENGINEER	SEE CONTRACTOR OR ENGINEER					RIGHT LN CLOSED 1 MILE	MERGE LEFT	LEFT LN CLOSED 1 MILE	MERGE RIGHT		



TRAFFIC CONTROL TYPICAL SECTION
 STAGE 1 NORTHBOUND (LOOKING NORTH)
 B-39-30,32,34,36
 (SEE TRAFFIC CONTROL - STAGE 2 FOR WIDENING LOCATIONS)

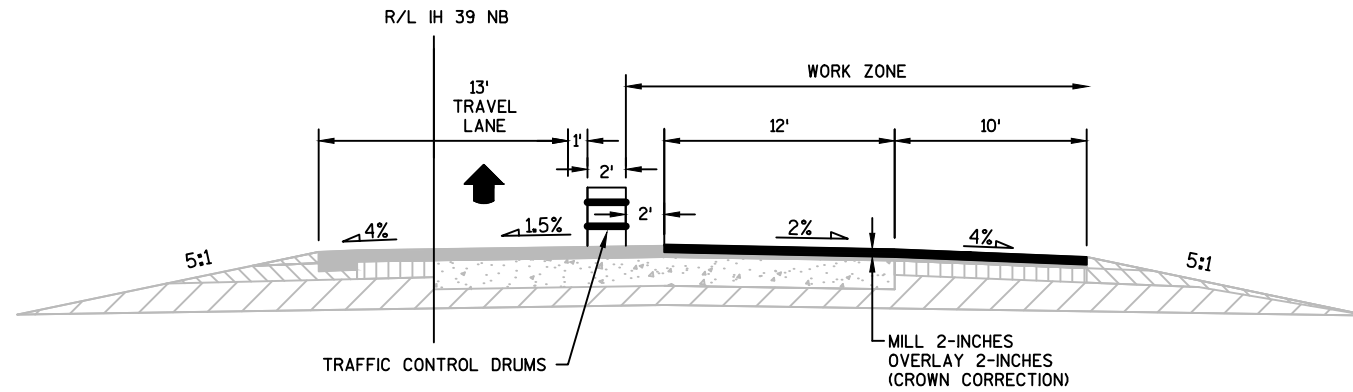


TRAFFIC CONTROL TYPICAL SECTION
 STAGE 1 SOUTHBOUND (LOOKING NORTH)
 B-39-31
 (SEE TRAFFIC CONTROL - STAGE 2 FOR WIDENING LOCATIONS)

STAGE 1 NOTES:

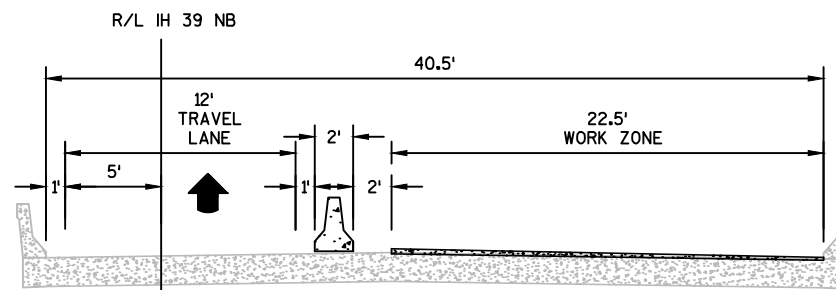
- 1. STAGE 1 (TRAFFIC IN OUTSIDE LANES)
- 1.1 NORTHBOUND (ALL FOUR STRUCTURES-DRUMS ONLY)
- 1.1.1 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS
- 1.1.2 MILL AND REPAVE INSIDE SHOULDER (SHOULDER WIDENING)
- 1.1.3 REMOVE INSIDE PAVEMENT MARKINGS AT STRUCTURES
- 1.1.4 INSTALL INSIDE TEMPORARY PAVEMENT MARKINGS

SEE CONSTRUCTION DETAIL FOR TRAFFIC LAYOUT AND FOR ADDITIONAL INFORMATION.

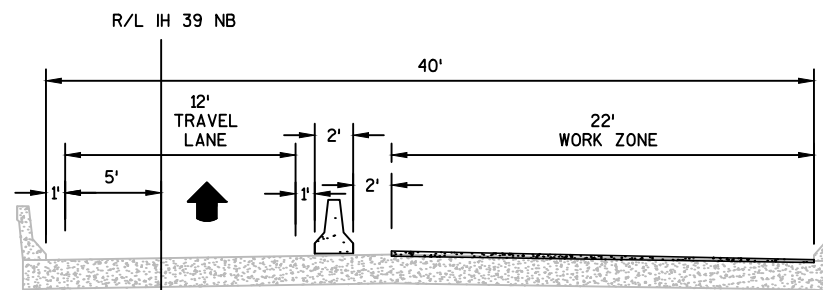


TRAFFIC CONTROL TYPICAL SECTION

STAGE 2 NORTHBOUND
(LOOKING NORTH)
B-39-30,32,34,36



STAGE 2 NORTHBOUND
(LOOKING NORTH) - AT STRUCTURES
B-39-30

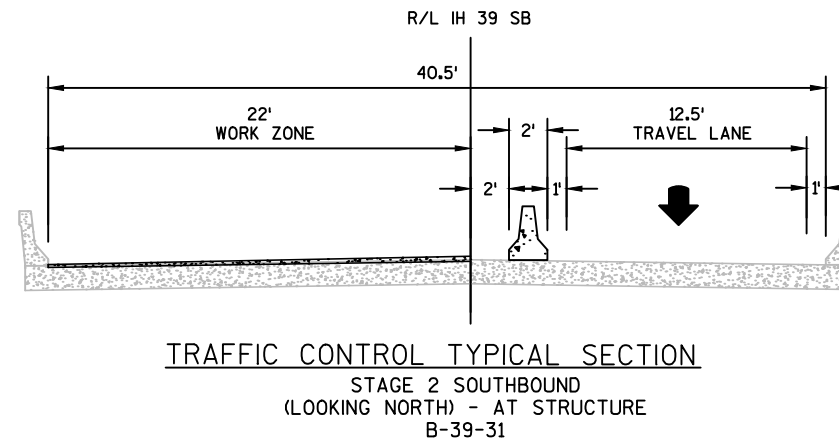
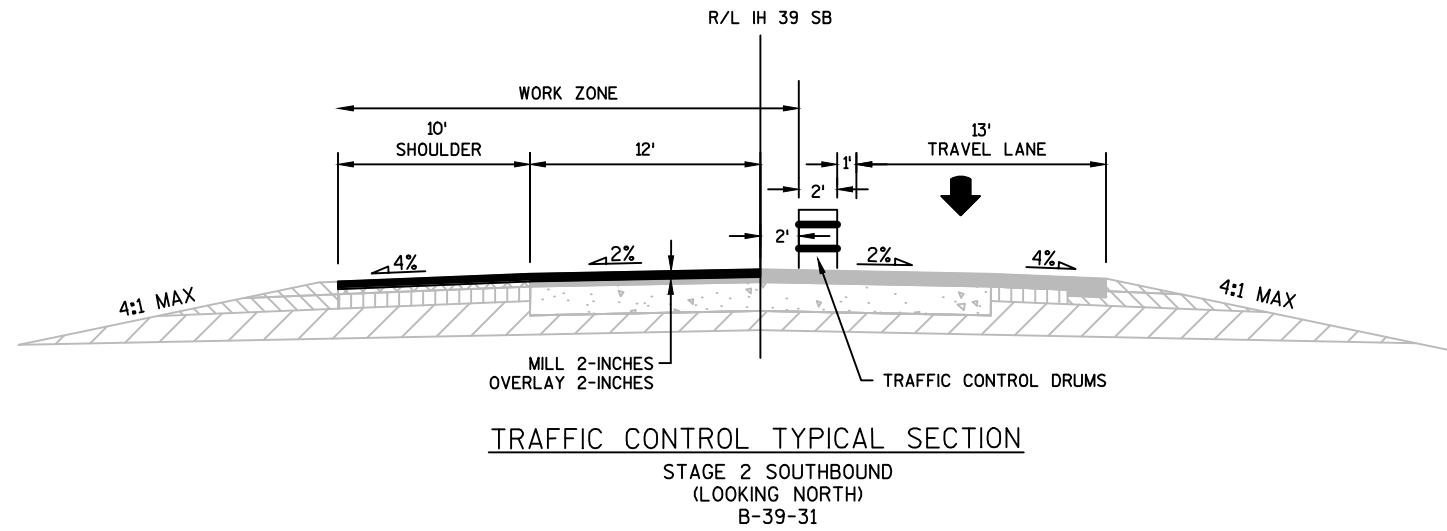


STAGE 2 NORTHBOUND
(LOOKING NORTH) - AT STRUCTURES
B-39-32,34,36

STAGE 2 NOTES:

- 2. STAGE 2 (TRAFFIC IN INSIDE LANES)
- 2.1 NORTHBOUND (ALL FOUR STRUCTURES-DRUMS AND BARRIER WALL)
- 2.1.1 OUTSIDE LANE DECK OVERLAYS
- 2.1.2 OUTSIDE LANE BRIDGE APPROACHES
- 2.1.3 REMOVE OUTSIDE PAVEMENT MARKINGS
- 2.1.4 INSTALL OUTSIDE TEMPORARY PAVEMENT MARKINGS
- 2.2 SOUTHBOUND (B-39-31)
- 2.2.1 REMOVE OUTSIDE PAVEMENT MARKINGS
- 2.2.2 INSTALL OUTSIDE TEMPORARY PAVEMENT MARKINGS

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE FOR ADDITIONAL INFORMATION.



STAGE 2 NOTES:

- 2. STAGE 2 (TRAFFIC IN INSIDE LANES)
- 2.1 NORTHBOUND (ALL FOUR STRUCTURES-DRUMS AND BARRIER WALL)
- 2.1.1 OUTSIDE LANE DECK OVERLAYS
- 2.1.2 OUTSIDE LANE BRIDGE APPROACHES
- 2.1.3 REMOVE OUTSIDE PAVEMENT MARKINGS
- 2.1.4 INSTALL OUTSIDE TEMPORARY PAVEMENT MARKINGS
- 2.2 SOUTHBOUND (B-39-31)
- 2.2.1 REMOVE OUTSIDE PAVEMENT MARKINGS
- 2.2.2 INSTALL OUTSIDE TEMPORARY PAVEMENT MARKINGS

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE FOR ADDITIONAL INFORMATION.



W12-52
48"X48"

11 MILES
AHEAD

W057-52
48"X36"

INSTALL UNDER STAGE 2:
IH 39 (SB) & STH 21 INTERCHANGE

WAUSHARA
MARQUETTE

PROJECT LIMITS
B-39-30,31,32,34,36

J1-2
48"X39"

M3-1
24"X12"

M3-3
24"X12"

M1-1
24"X24"

M1-4
24"X24"

W12-52
48"X48"

INSTALL UNDER STAGE 2:
INSTALL AT THE CLOSEST INTERSECTION
WITH A STATE OR COUNTY TRUCK HIGHWAY,
OR AS DIRECTED BY THE ENGINEER.

J1-2
48"X39"

M3-3
24"X12"

M3-3
24"X12"

M1-1
24"X24"

M1-4
24"X24"

W12-52
48"X48"

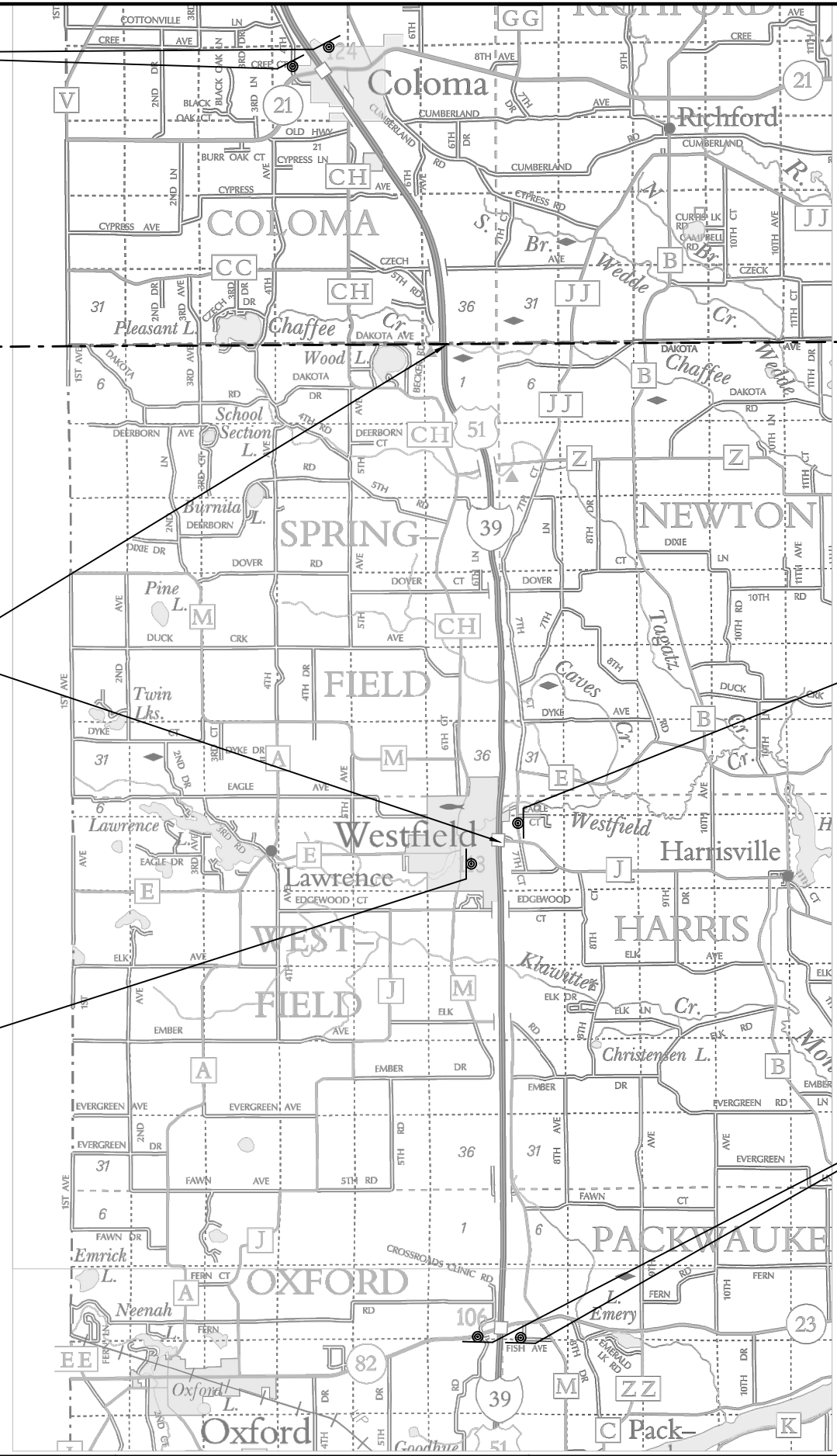
INSTALL UNDER STAGE 2:
INSTALL AFTER THE INTERSECTION OF
CTH E/CTH J AND S PIONEER PARK RD,
OR AS DIRECTED BY THE ENGINEER.

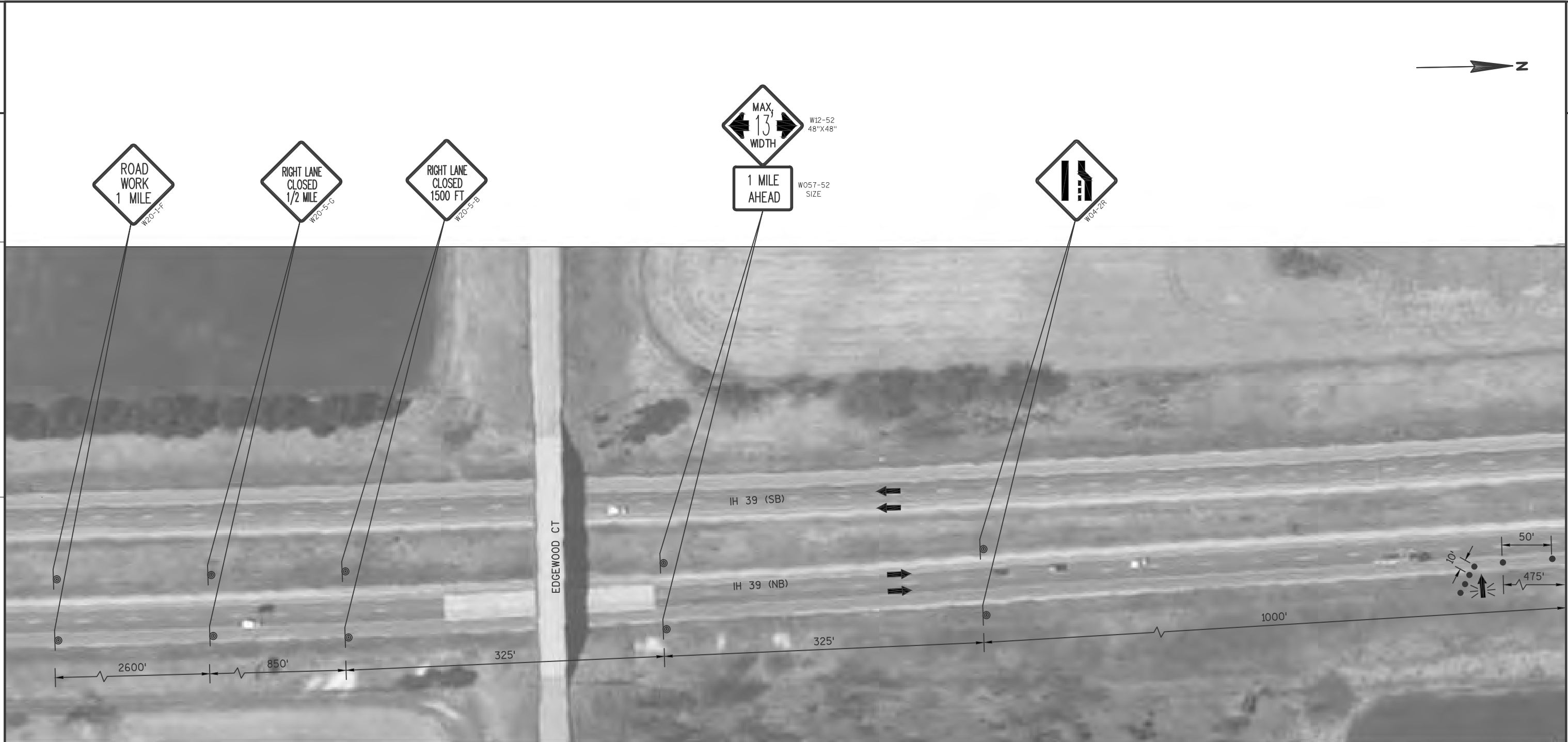
W12-52
48"X48"

W057-52
48"X36"

7 MILES
AHEAD

INSTALL UNDER STAGE 2:
IH 39 (NB) & STH 23 INTERCHANGE

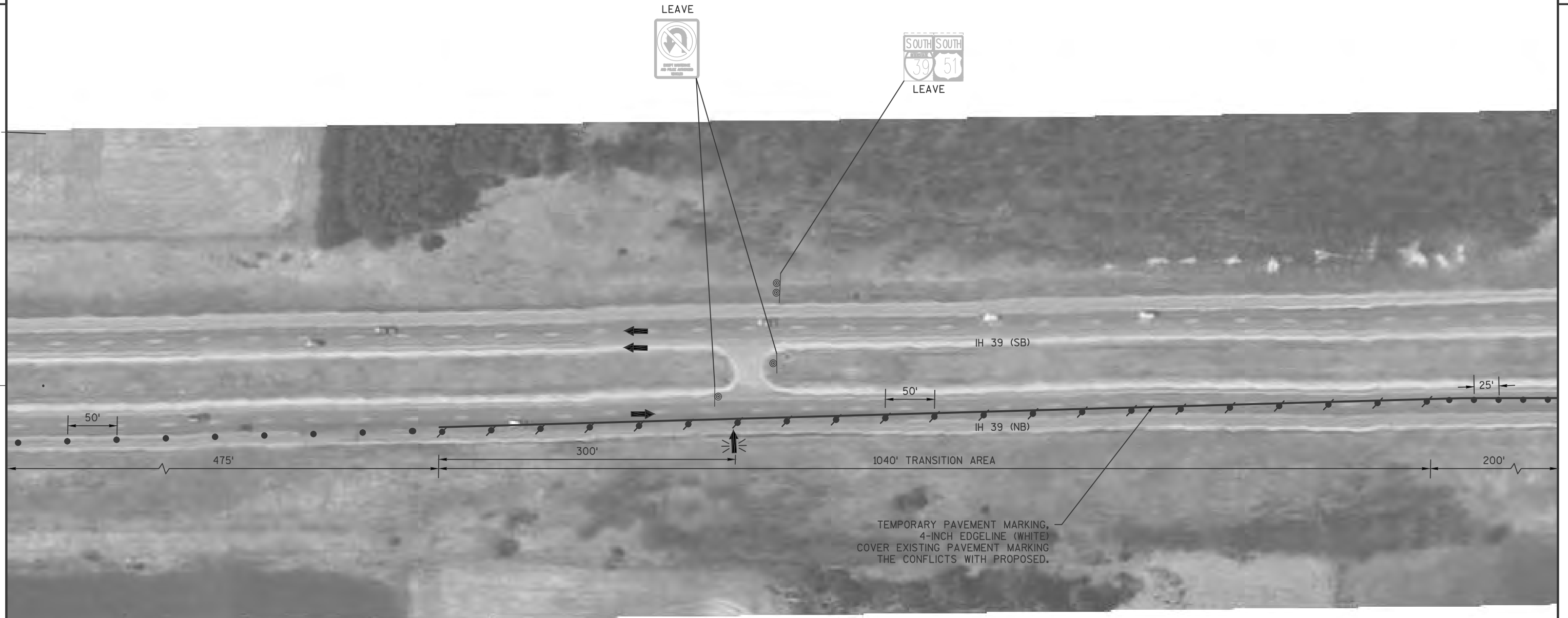




LEGEND









- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER.

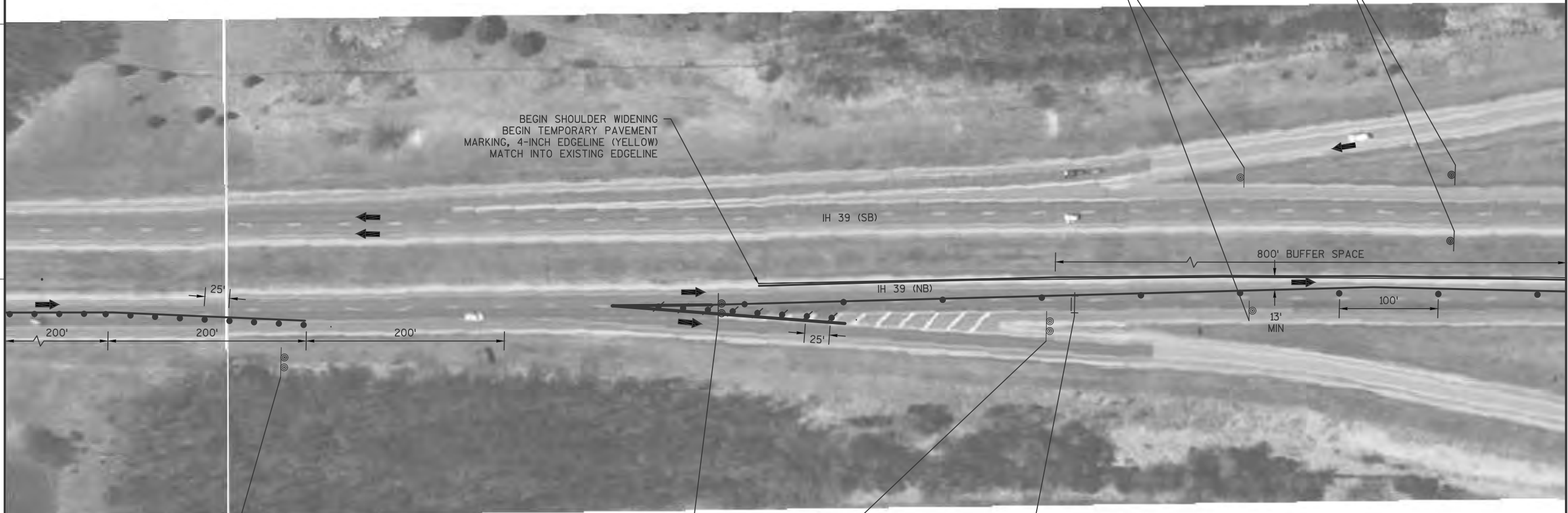


TEMPORARY PAVEMENT MARKING,
4-INCH EDGELINE (WHITE)
COVER EXISTING PAVEMENT MARKING
THE CONFLICTS WITH PROPOSED.

LEGEND

-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  FLASHING ARROW BOARD
-  SIGN ON PERMANENT SUPPORT
-  CONCRETE BARRIER TEMPORARY PRECAST
-  DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED
GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC
CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE
CLOSURE.



BEGIN SHOULDER WIDENING
BEGIN TEMPORARY PAVEMENT
MARKING, 4-INCH EDGELINE (YELLOW)
MATCH INTO EXISTING EDGELINE

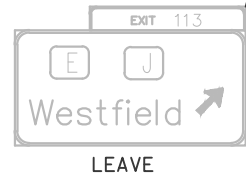
IH 39 (SB)

IH 39 (NB)

800' BUFFER SPACE

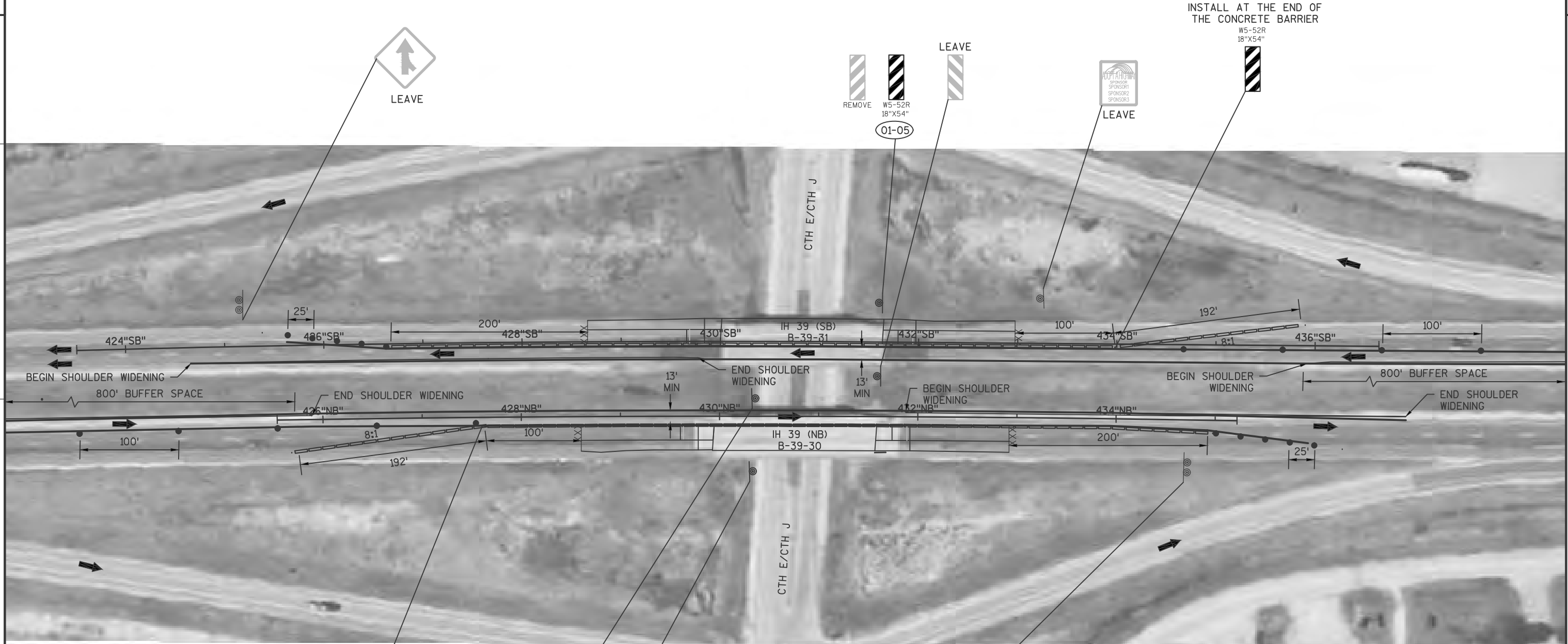
13'
MIN

100'



- LEGEND**
- TYPE III BARRICADE
 - TYPE III BARRICADE WITH ATTACHED SIGN
 - TRAFFIC CONTROL DRUM
 - TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
 - FLASHING ARROW BOARD
 - SIGN ON PERMANENT SUPPORT
 - CONCRETE BARRIER TEMPORARY PRECAST
 - DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED
GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC
CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE
CLOSURE.



W5-52R
18''X54''
INSTALL AT THE END OF
THE CONCRETE BARRIER

LEAVE
W5-52R REMOVE
18''X54''
01-01

LEAVE

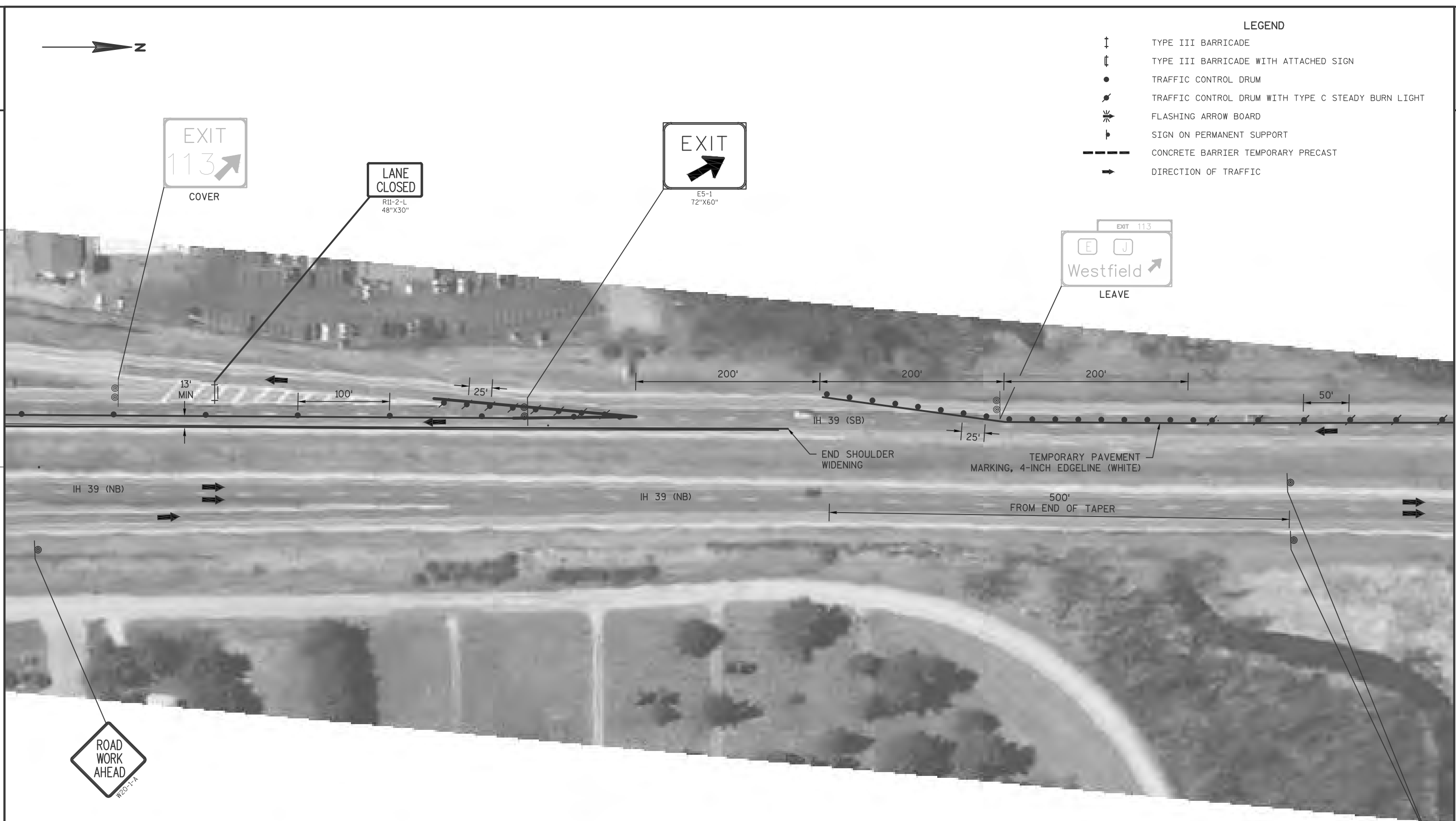
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED
GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC
CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE
CLOSURE.

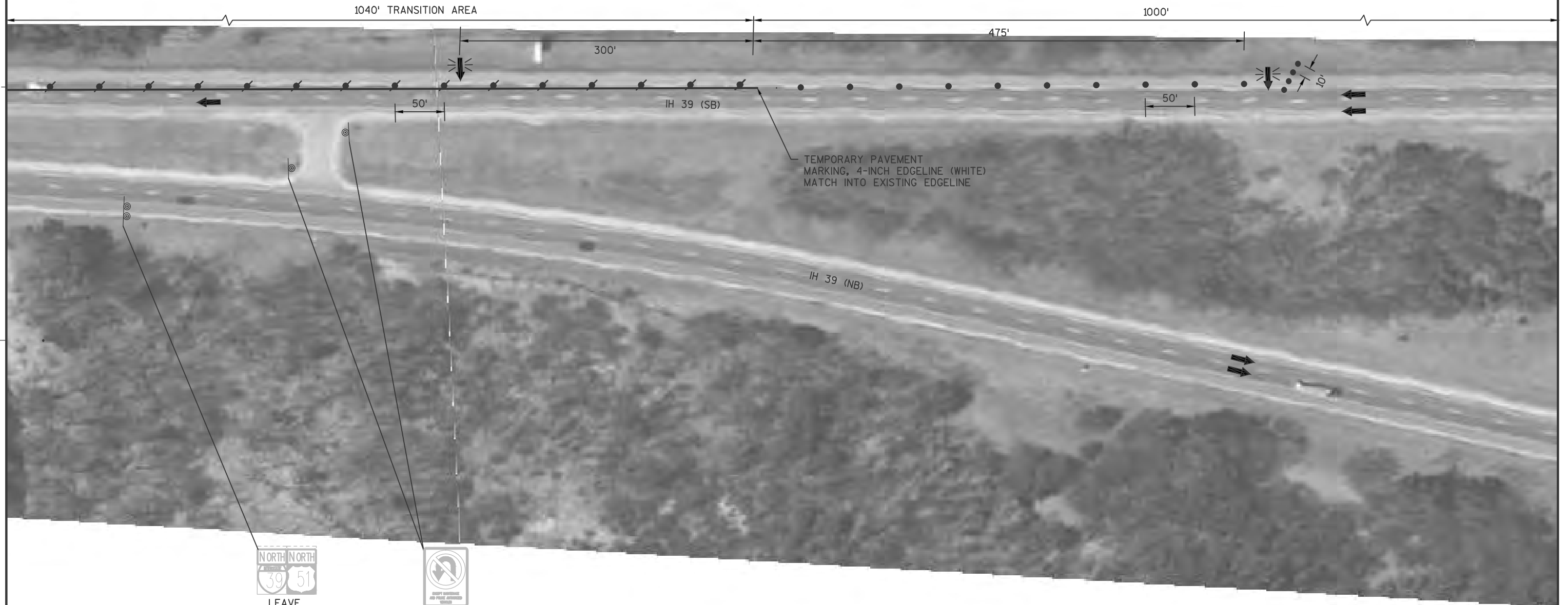
LEGEND

- ↑ TYPE III BARRICADE
- ↑ TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ⚡ FLASHING ARROW BOARD
- ▬ SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC



SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.

BRIDGE WORK NEXT 7 MILES
D SERIES
114"X36"



LEAVE



LEAVE

LEGEND

- ↑ TYPE III BARRICADE
- ↑ TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ↔ FLASHING ARROW BOARD
- ↑ SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED
 GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC
 CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE
 CLOSURE.

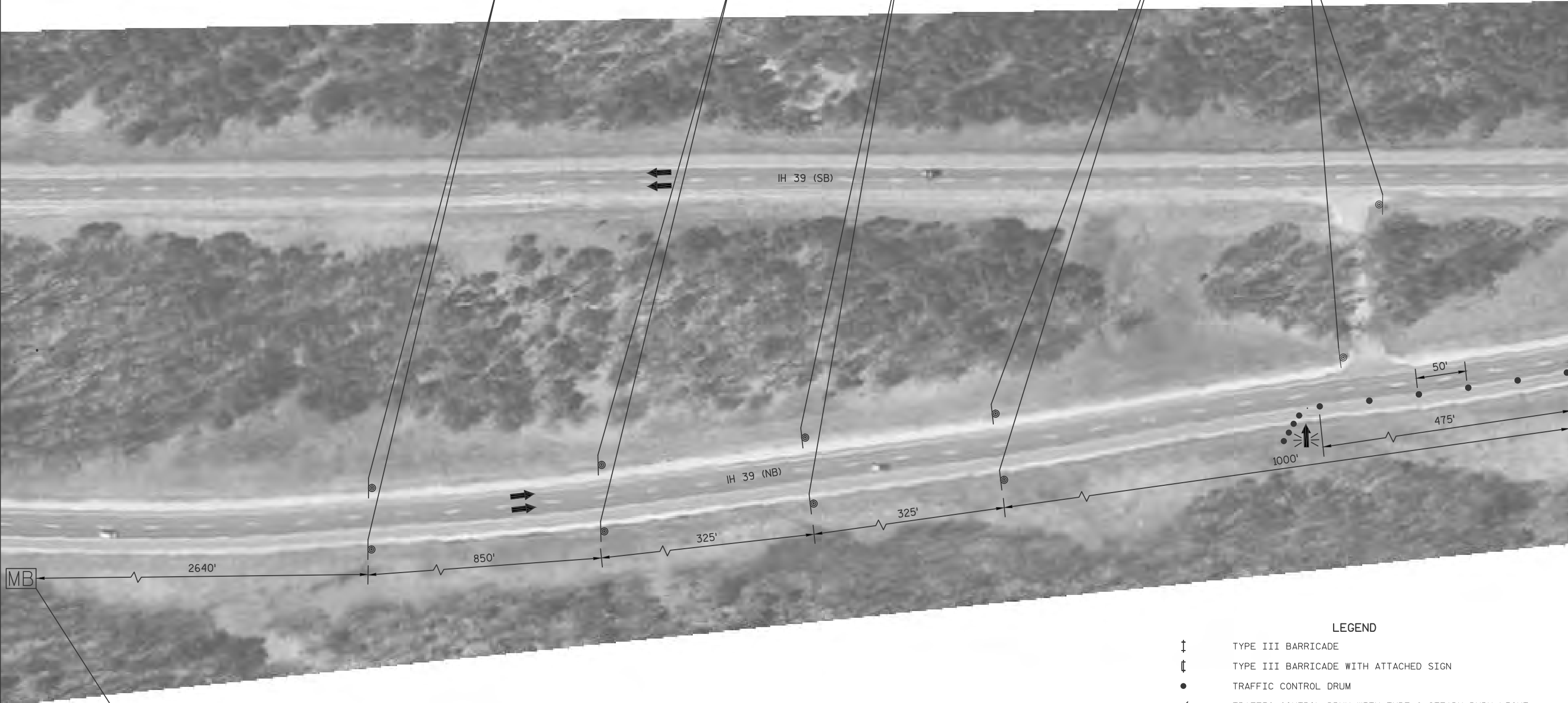


SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.

LEGEND

- ⊕ TYPE III BARRICADE
- ⊕ TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ↔ FLASHING ARROW BOARD
- ⊕ SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.



MB

RIGHT LN
CLOSED
1 MILE

PHASE 1

MERGE
LEFT









PHASE 2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC



LEGEND



-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  FLASHING ARROW BOARD
-  SIGN ON PERMANENT SUPPORT
-  CONCRETE BARRIER TEMPORARY PRECAST
-  DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.







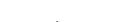



END SHOULDER WIDENING
 END TEMPORARY PAVEMENT
 MARKING 4-INCH EDGELINE (YELLOW)
 MATCH INTO EXISTING EDGELINE

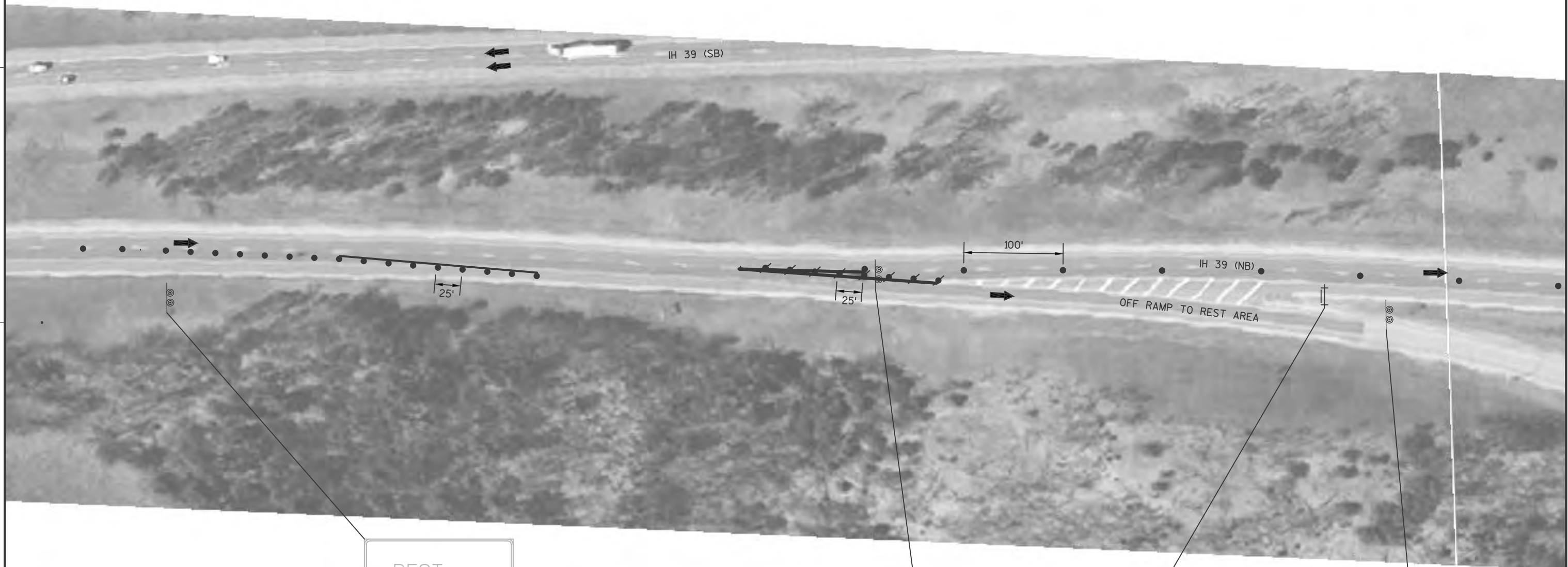

 W5-52R
 18"X54"
 INSTALL AT THE END OF
 THE CONCRETE BARRIER

 LEAVE
 W5-52R REMOVE
 18"X54"
 (01-02)









LEGEND

-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  FLASHING ARROW BOARD
-  SIGN ON PERMANENT SUPPORT
-  CONCRETE BARRIER TEMPORARY PRECAST
-  DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED
 GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC
 CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE
 CLOSURE.

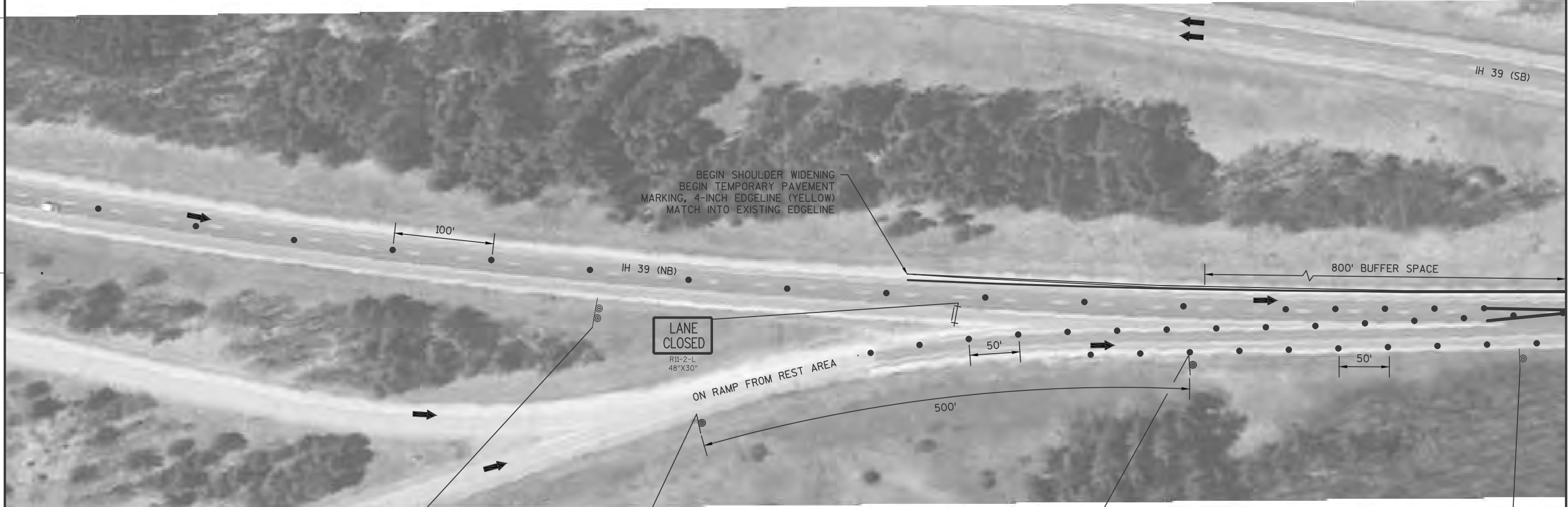


LEGEND

-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  FLASHING ARROW BOARD
-  SIGN ON PERMANENT SUPPORT
-  CONCRETE BARRIER TEMPORARY PRECAST
-  DIRECTION OF TRAFFIC



SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.



BEGIN SHOULDER WIDENING
BEGIN TEMPORARY PAVEMENT
MARKING, 4-INCH EDGELINE (YELLOW)
MATCH INTO EXISTING EDGELINE

LANE
CLOSED
R11-2-L
48"X30"

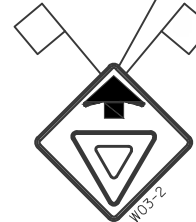
ON RAMP FROM REST AREA



LEAVE











ROAD
WORK
AHEAD
W20-1-A



W30-2

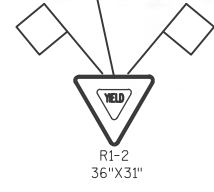
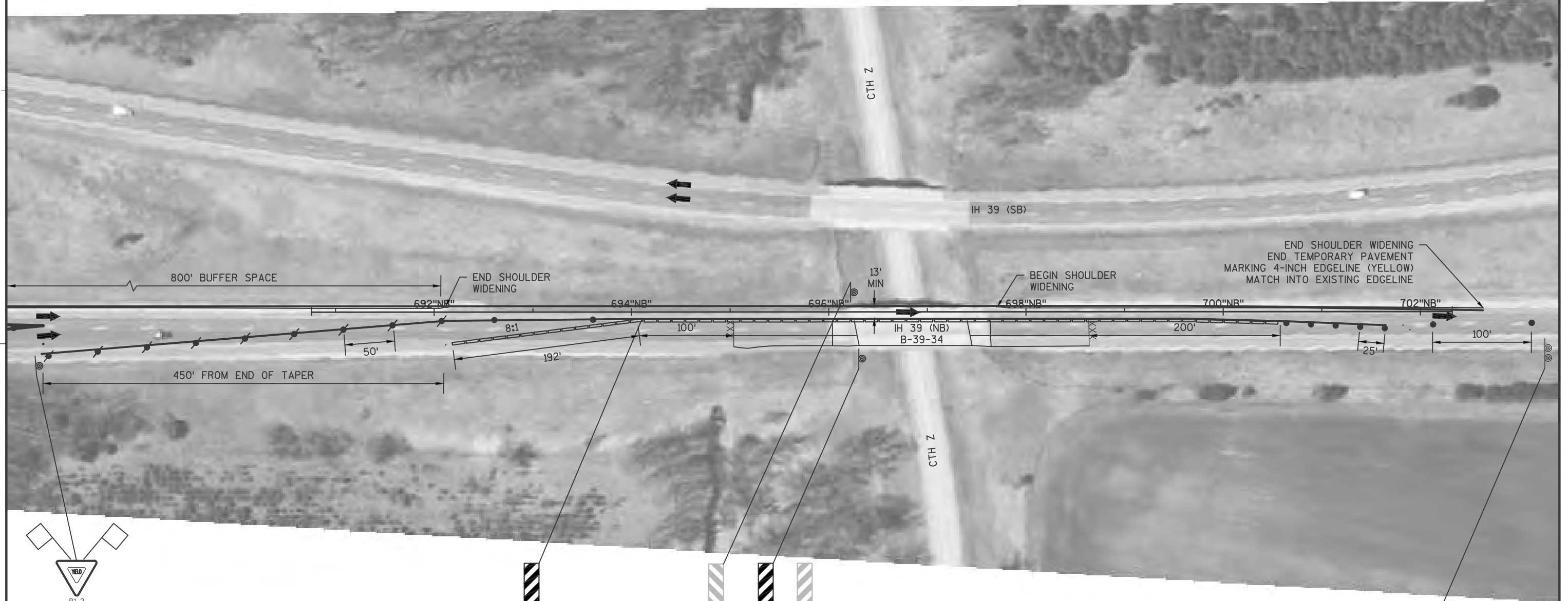
LEGEND

-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  FLASHING ARROW BOARD
-  SIGN ON PERMANENT SUPPORT
-  CONCRETE BARRIER TEMPORARY PRECAST
-  DIRECTION OF TRAFFIC

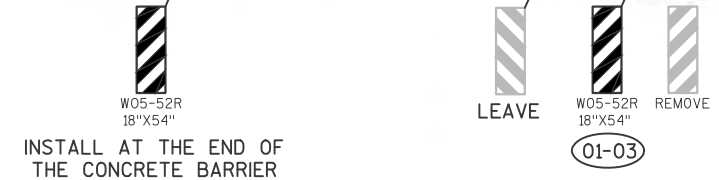
MILE
1
1
8

LEAVE

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED
GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC
CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE
CLOSURE.



- LEGEND**
- ↓ TYPE III BARRICADE
 - ↓↓ TYPE III BARRICADE WITH ATTACHED SIGN
 - TRAFFIC CONTROL DRUM
 - TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
 - ↔ FLASHING ARROW BOARD
 - ⊣ SIGN ON PERMANENT SUPPORT
 - CONCRETE BARRIER TEMPORARY PRECAST
 - DIRECTION OF TRAFFIC



SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.



LEGEND

- ⊥ TYPE III BARRICADE
- ⊥ TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ⚡ FLASHING ARROW BOARD
- ▬ SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- ➔ DIRECTION OF TRAFFIC

LANE
CLOSED
R11-2-L
48"X30"

W05-52R
18"X54"
INSTALL AT THE END OF
THE CONCRETE BARRIER

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED
GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC
CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE
CLOSURE.



AREA

IH 39 (SB)

END SHOULDER WIDENING
END TEMPORARY PAVEMENT
MARKING 4-INCH
EDGE LINE (YELLOW)
MATCH INTO
EXISTING EDGE LINE

END SHOULDER
WIDENING

BEGIN SHOULDER
WIDENING

788"NB"

790"NB"

792"NB"

794"NB"

796"NB"

13'
MIN

IH 39 (NB)
B-39-36

200'

25'

8:1

192'

Waushara Co
LEAVE

END
ROAD WORK

G20-2A
48"X24"
PLACE 500 FT FROM
END OF TEMPORARY
PAVEMENT MARKING (LT
& RT)

W05-52R
18"X54"

INSTALL AT THE END OF
THE CONCRETE BARRIER

W05-52R
18"X54"

01-04

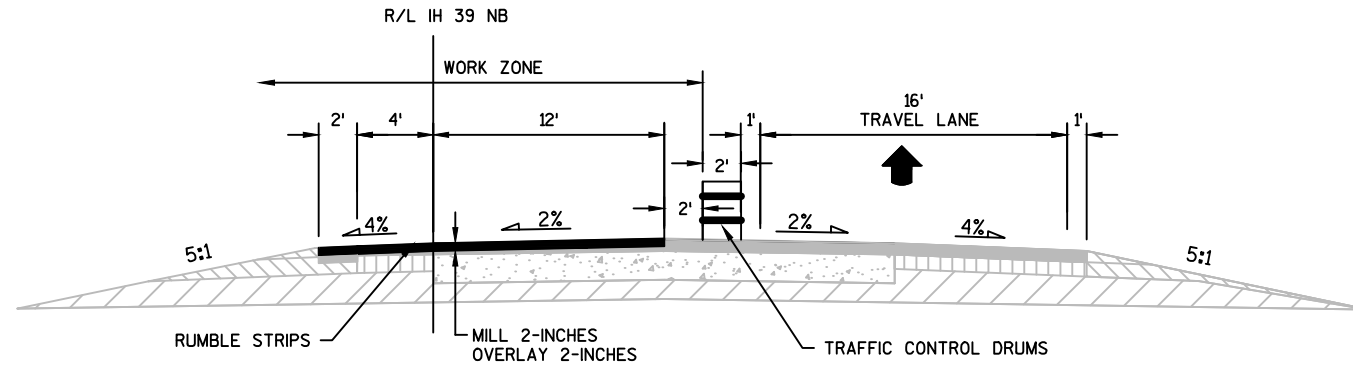
REMOVE

LEAVE

LEGEND

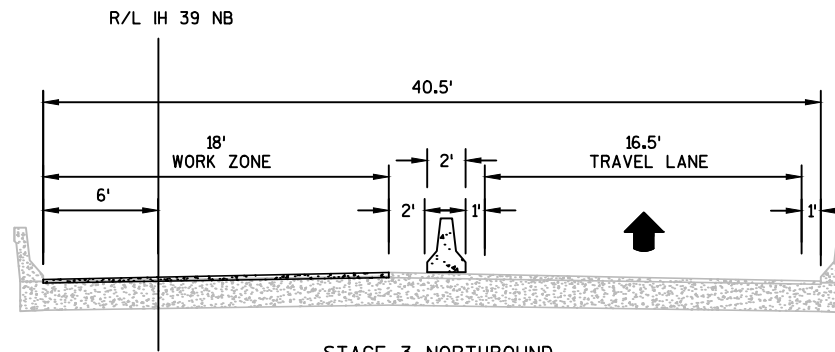
- ⊥ TYPE III BARRICADE
- ⊥ TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- ⊙ TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ⚡ FLASHING ARROW BOARD
- ▬ SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- ➔ DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED
GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC
CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE
CLOSURE.

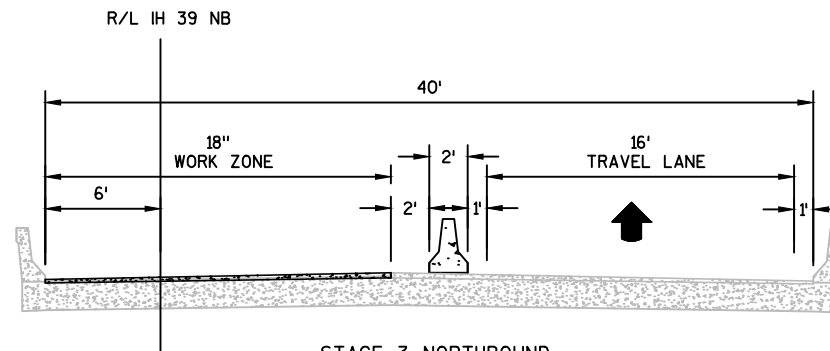


TRAFFIC CONTROL TYPICAL SECTION

STAGE 3 NORTHBOUND
(LOOKING NORTH)
B-39-30,32,34,36



STAGE 3 NORTHBOUND
(LOOKING NORTH) - AT STRUCTURE
B-39-30

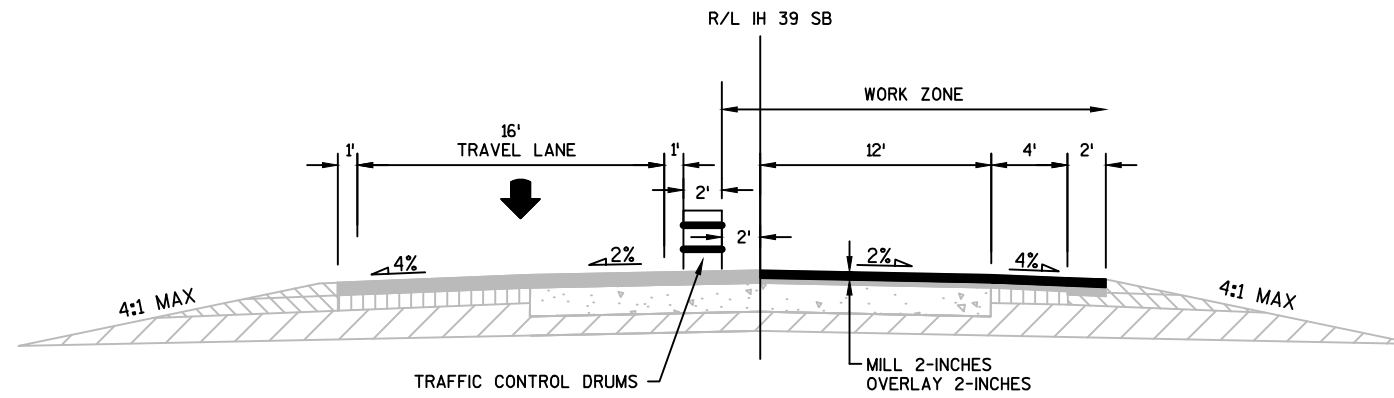


STAGE 3 NORTHBOUND
(LOOKING NORTH) - AT STRUCTURES
B-39-32,34,36

STAGE 3 NOTES:

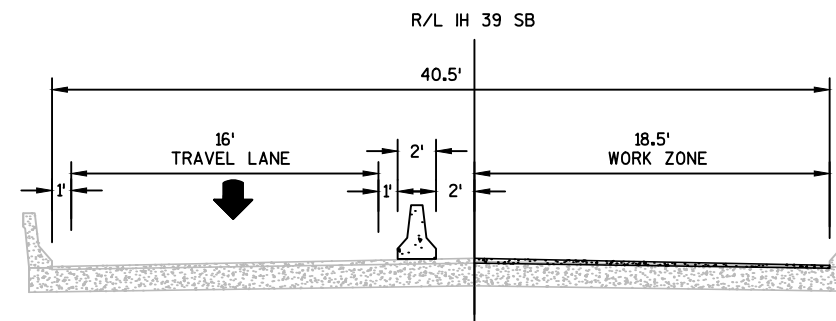
- 3. STAGE 3 (TRAFFIC IN OUTSIDE LANES)
- 3.1 NORTHBOUND (ALL FOUR STRUCTURES-DRUMS AND BARRIER WALL)
- 3.1.1 INSIDE LANE DECK OVERLAYS
- 3.1.2 INSIDE LANE BRIDGE APPROACHES
- 3.2 SOUTHBOUND (B-39-31)
- 3.2.1 REMOVE INSIDE LANE TEMPORARY WIDENING
- 3.2.2 REMOVE OUTSIDE PAVEMENT MARKINGS
- 3.2.3 INSTALL OUTSIDE TEMPORARY PAVEMENT MARKINGS

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEEDS
GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC
CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
FOR ADDITIONAL INFORMATION.



TRAFFIC CONTROL TYPICAL SECTION

STAGE 3 SOUTHBOUND
(LOOKING NORTH)
B-39-31



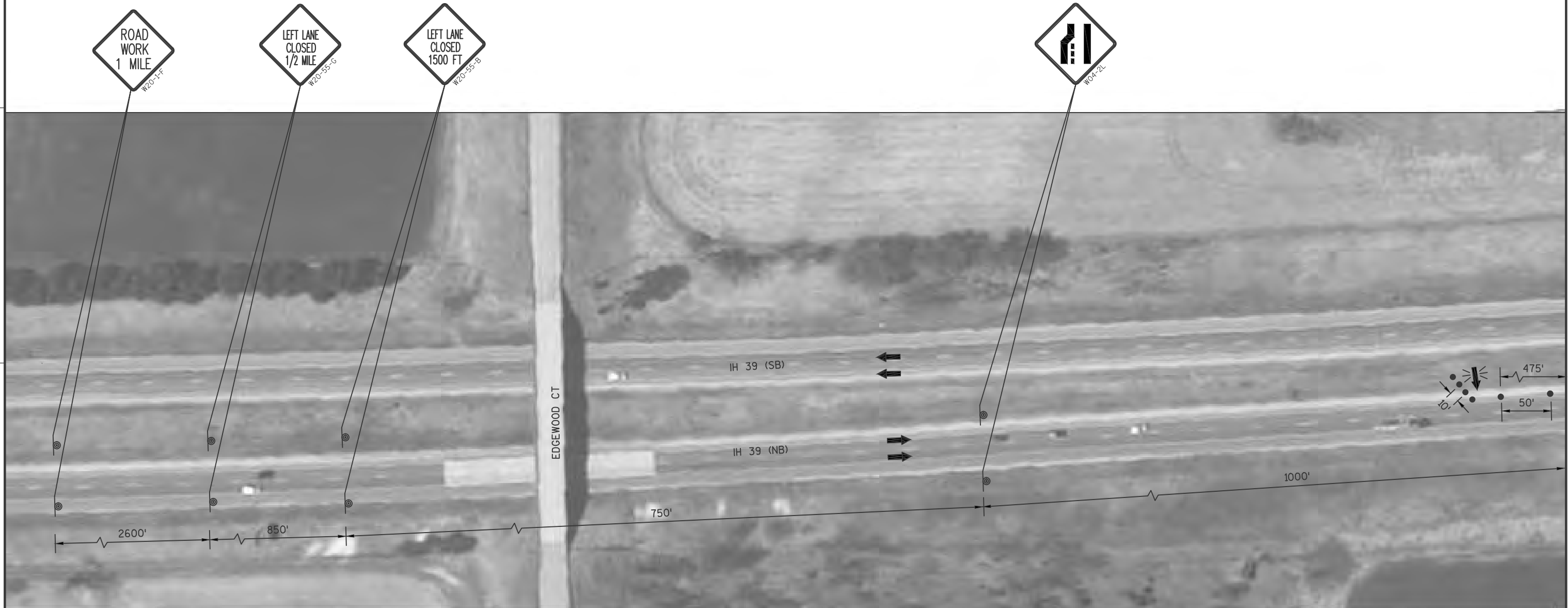
TRAFFIC CONTROL TYPICAL SECTION

STAGE 3 SOUTHBOUND
(LOOKING NORTH) - AT STRUCTURE
B-39-31

STAGE 3 NOTES:

- 3. STAGE 3 (TRAFFIC IN OUTSIDE LANES)
- 3.1 NORTHBOUND (ALL FOUR STRUCTURES-DRUMS AND BARRIER WALL)
- 3.1.1 INSIDE LANE DECK OVERLAYS
- 3.1.2 INSIDE LANE BRIDGE APPROACHES
- 3.2 SOUTHBOUND (B-39-31)
- 3.2.1 REMOVE INSIDE LANE TEMPORARY WIDENING
- 3.2.2 REMOVE OUTSIDE PAVEMENT MARKINGS
- 3.2.3 INSTALL OUTSIDE TEMPORARY PAVEMENT MARKINGS

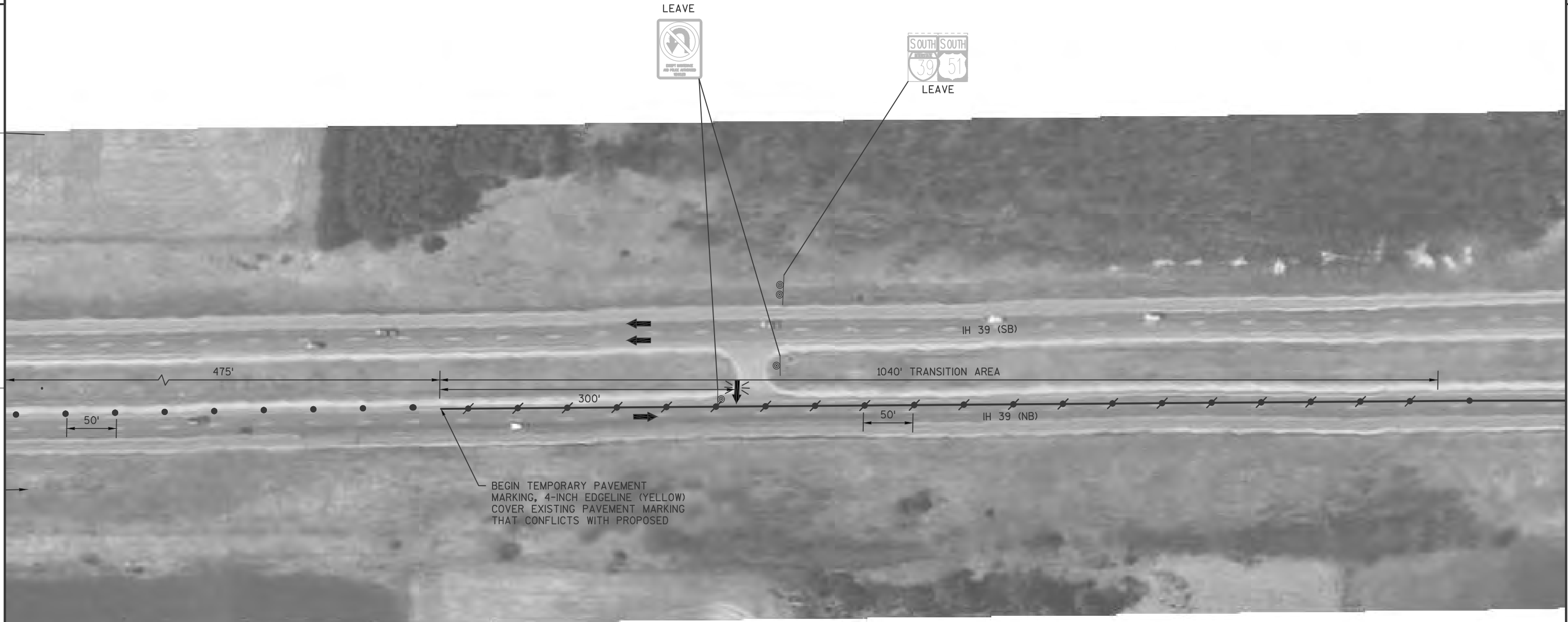
SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEEDS
GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC
CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
FOR ADDITIONAL INFORMATION.



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER.



BEGIN TEMPORARY PAVEMENT MARKING, 4-INCH EDGELINE (YELLOW) COVER EXISTING PAVEMENT MARKING THAT CONFLICTS WITH PROPOSED



LEGEND

↓	TYPE III BARRICADE
↓	TYPE III BARRICADE WITH ATTACHED SIGN
●	TRAFFIC CONTROL DRUM
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
↔	FLASHING ARROW BOARD
↓	SIGN ON PERMANENT SUPPORT
---	CONCRETE BARRIER TEMPORARY PRECAST
→	DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.



LEAVE

MLE
1
1
3

END
ROAD WORK
G20-2A
48"X24"

IH 39 (SB)

IH 39 (NB)

100'

BEGIN TEMPORARY PAVEMENT
MARKING, 4-INCH EDGELINE (WHITE)
MATCH INTO EXISTING

EXIT 113
E J
Westfield ↗
LEAVE

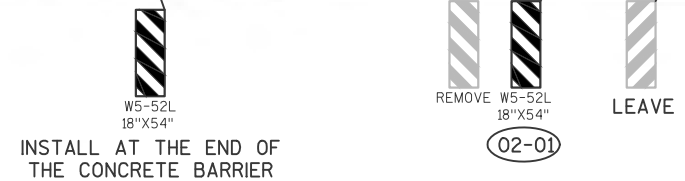
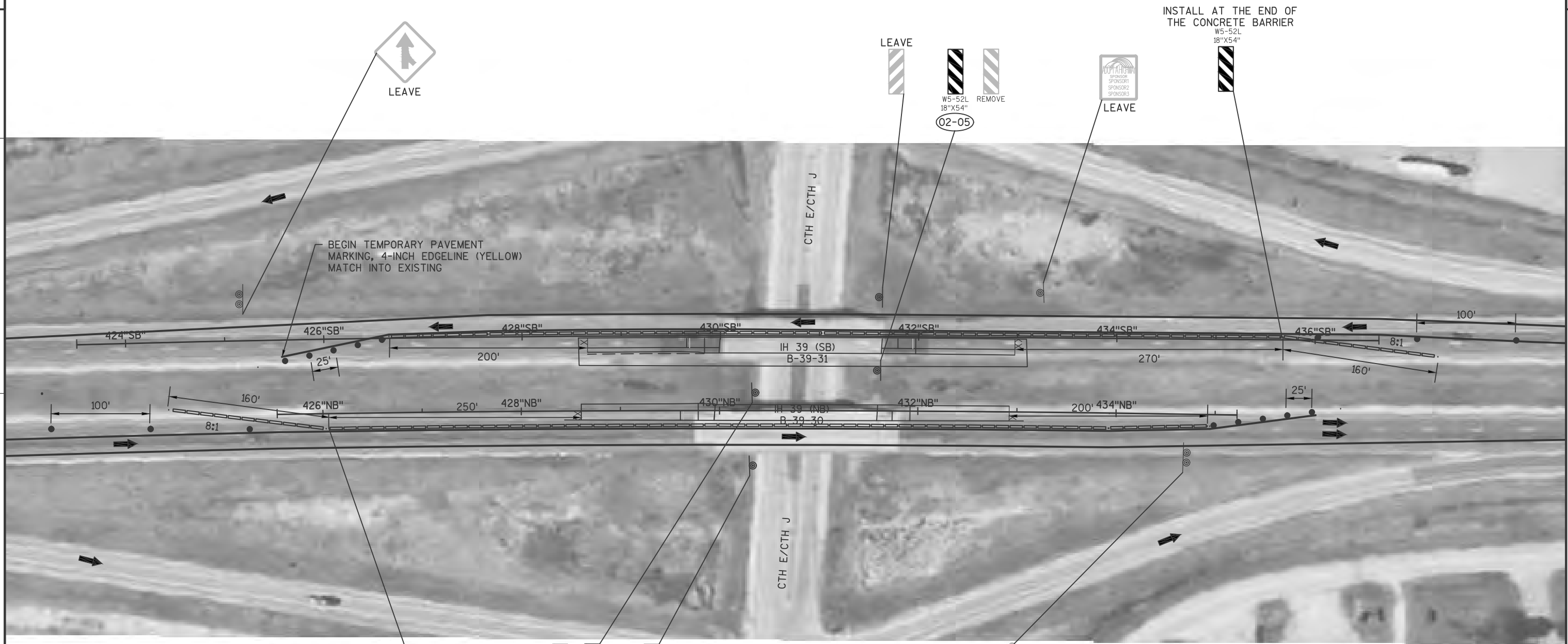
EXIT
113 ↗
UNCOVER

LANE
CLOSED
R11-2-L
48"X30"

LEGEND

- ⇄ TYPE III BARRICADE
- ⇄ TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ↔ FLASHING ARROW BOARD
- ▬ SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED
GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC
CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE
CLOSURE.

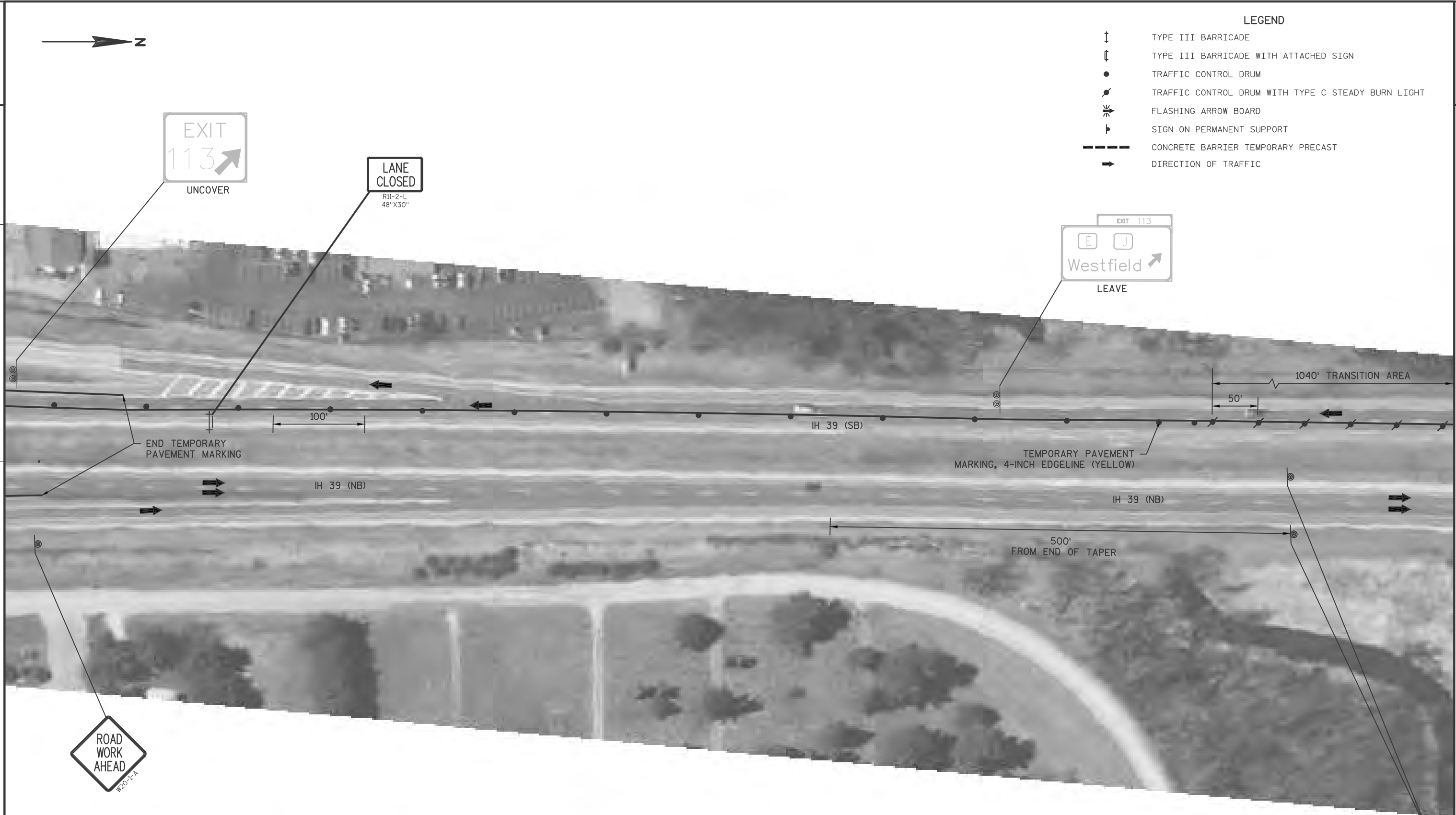


- LEGEND**
- TYPE III BARRICADE
 - TYPE III BARRICADE WITH ATTACHED SIGN
 - TRAFFIC CONTROL DRUM
 - TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
 - FLASHING ARROW BOARD
 - SIGN ON PERMANENT SUPPORT
 - CONCRETE BARRIER TEMPORARY PRECAST
 - DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.

LEGEND

- ⋮ TYPE III BARRICADE
- ⋮ TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ⚡ FLASHING ARROW BOARD
- ⚡ SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- ➔ DIRECTION OF TRAFFIC



SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.

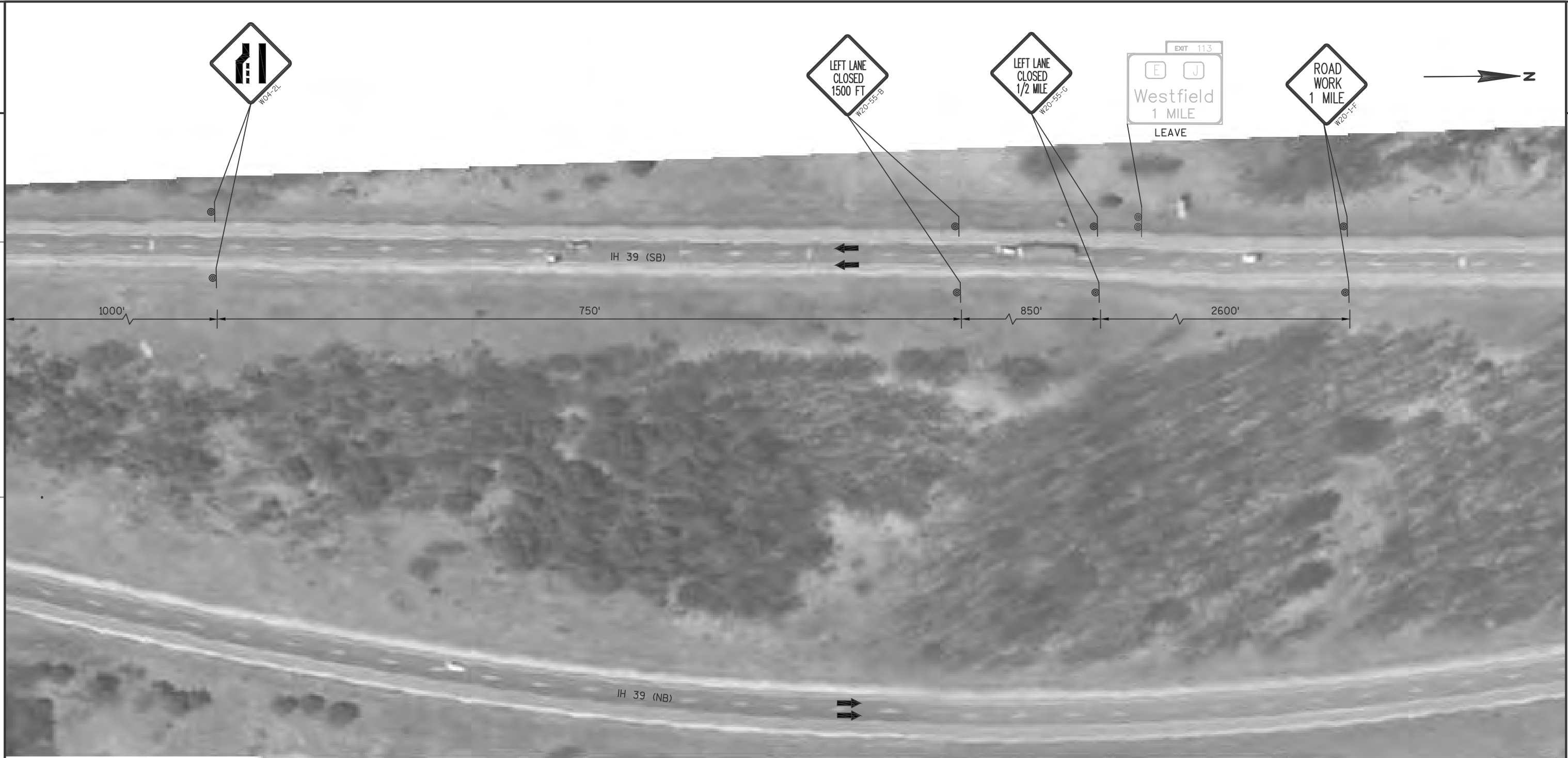
BRIDGE WORK NEXT 7 MILES
D SERIES
114"X36"



LEGEND

- ⊥ TYPE III BARRICADE
- ⊥ TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- ⊙ TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ↔ FLASHING ARROW BOARD
- ⊥ SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.



SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.

LEGEND

- ⊕ TYPE III BARRICADE
- ⊕ TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ↔ FLASHING ARROW BOARD
- ⊕ SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- ➔ DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.



LEFT LN CLOSED 1 MILE
PHASE 1

MERGE RIGHT
PHASE 2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC



BEGIN TEMPORARY PAVEMENT MARKING, 4-INCH EDGELINE (YELLOW) MATCH INTO EXISTING EDGELINE

BEGIN TEMPORARY PAVEMENT MARKING, 4-INCH EDGELINE (WHITE) MATCH INTO EXISTING EDGELINE

LEGEND

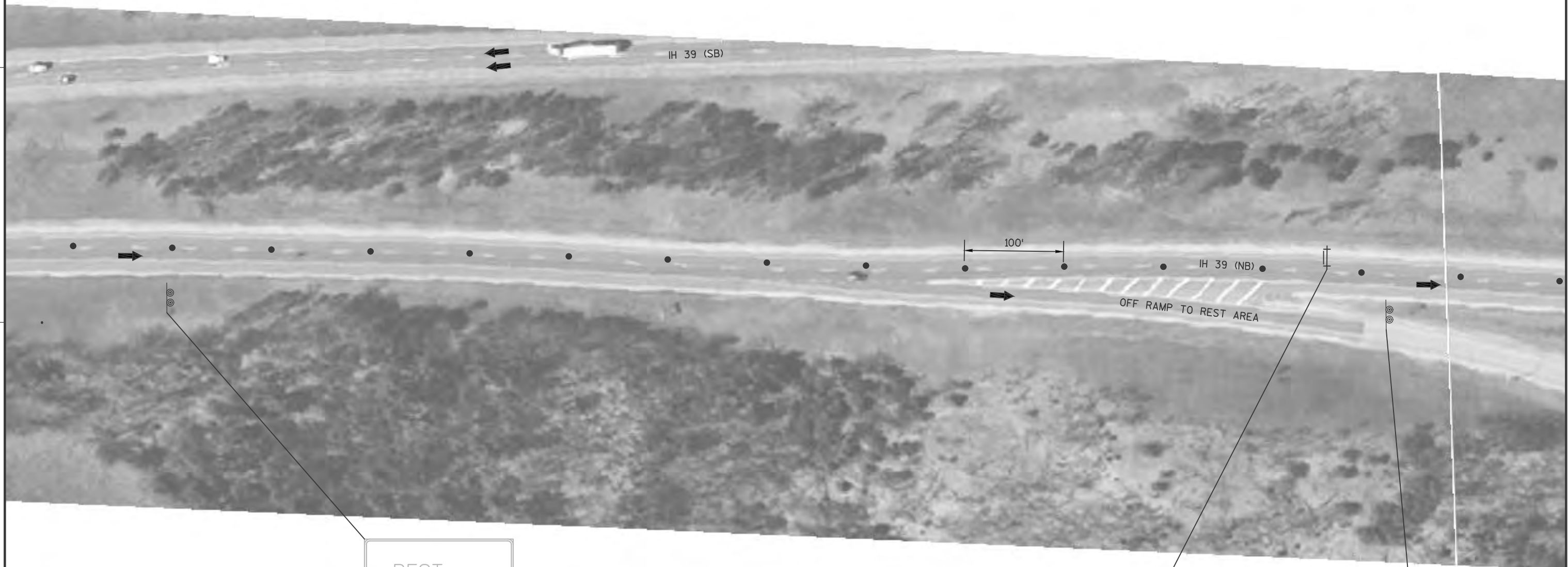
- ⊕ TYPE III BARRICADE
- ⊕ TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- ⊕ TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ⊕ FLASHING ARROW BOARD
- ⊕ SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- ➔ DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.



- LEGEND**
- ↑ TYPE III BARRICADE
 - ↑ TYPE III BARRICADE WITH ATTACHED SIGN
 - TRAFFIC CONTROL DRUM
 - TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
 - FLASHING ARROW BOARD
 - ↑ SIGN ON PERMANENT SUPPORT
 - CONCRETE BARRIER TEMPORARY PRECAST
 - DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.

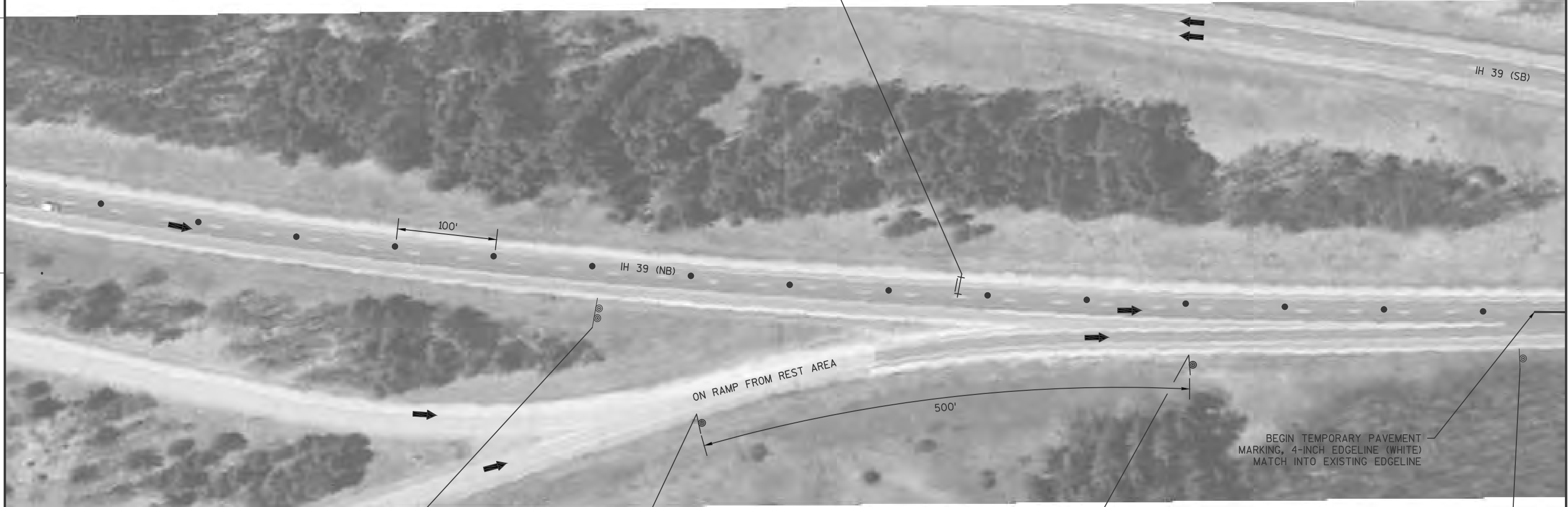


LEGEND

- ⊕ TYPE III BARRICADE
- ⊕ TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- ⊕ TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ⚡ FLASHING ARROW BOARD
- ▬ SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- ➔ DIRECTION OF TRAFFIC



SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.



LANE
CLOSED

R11-2-L
48\"/>

100'

IH 39 (NB)

IH 39 (SB)

ON RAMP FROM REST AREA

500'

BEGIN TEMPORARY PAVEMENT
MARKING, 4-INCH EDGELINE (WHITE)
MATCH INTO EXISTING EDGELINE

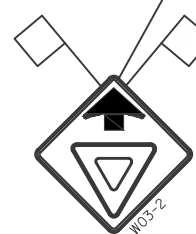


LEAVE











ROAD
WORK
AHEAD

W20-1-A



W30-2

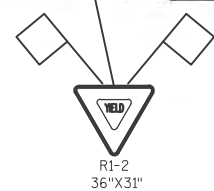
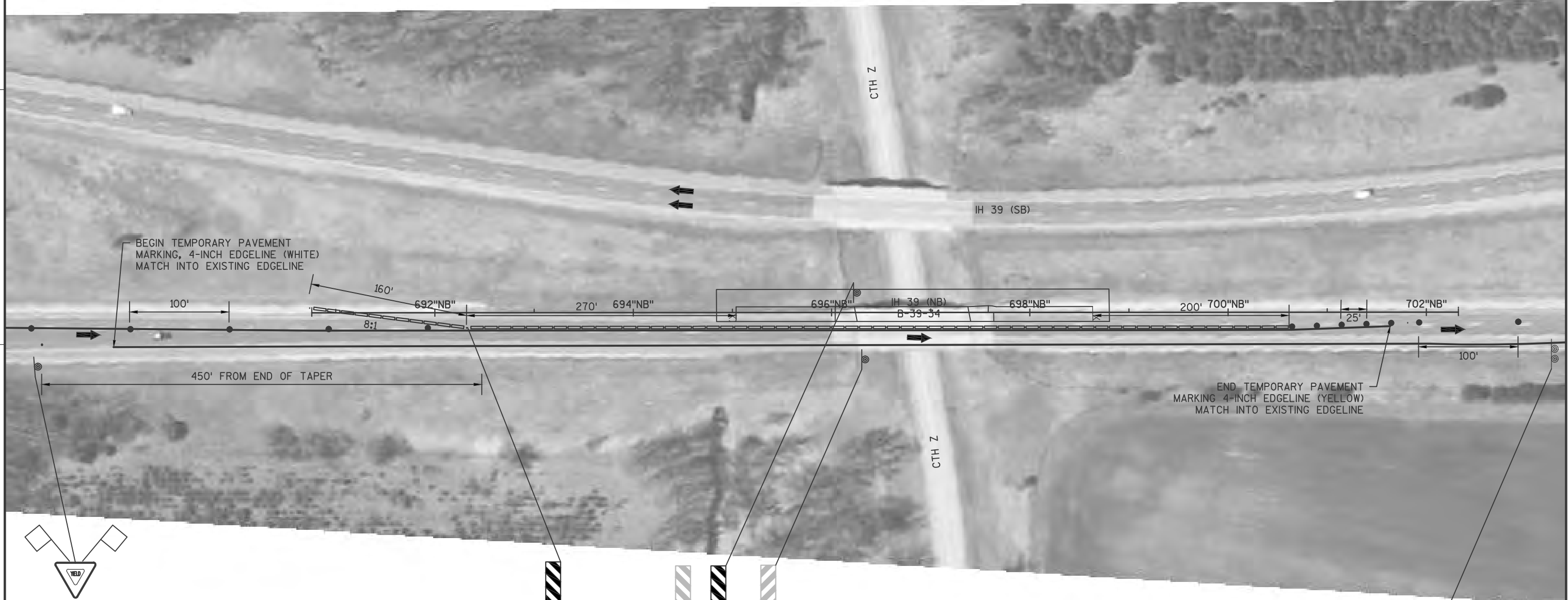
LEGEND

-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  FLASHING ARROW BOARD
-  SIGN ON PERMANENT SUPPORT
-  CONCRETE BARRIER TEMPORARY PRECAST
-  DIRECTION OF TRAFFIC

1
1
8

LEAVE

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED
GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC
CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE
CLOSURE.



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC

W05-52L 18"X54"
INSTALL AT THE END OF THE CONCRETE BARRIER

REMOVE
 W05-52L 18"X54"
 LEAVE
02-03

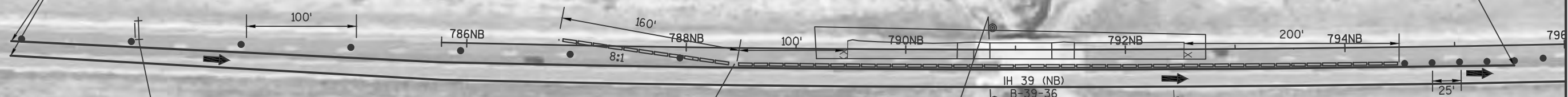


SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.



BEGIN TEMPORARY PAVEMENT MARKING 4-INCH EDGELINE MATCH INTO EXISTING EDGELINE

END TEMPORARY PAVEMENT MARKING 4-INCH EDGELINE (YELLOW) MATCH INTO EXISTING EDGELINE



LANE CLOSED
R11-2-L
48"X30"

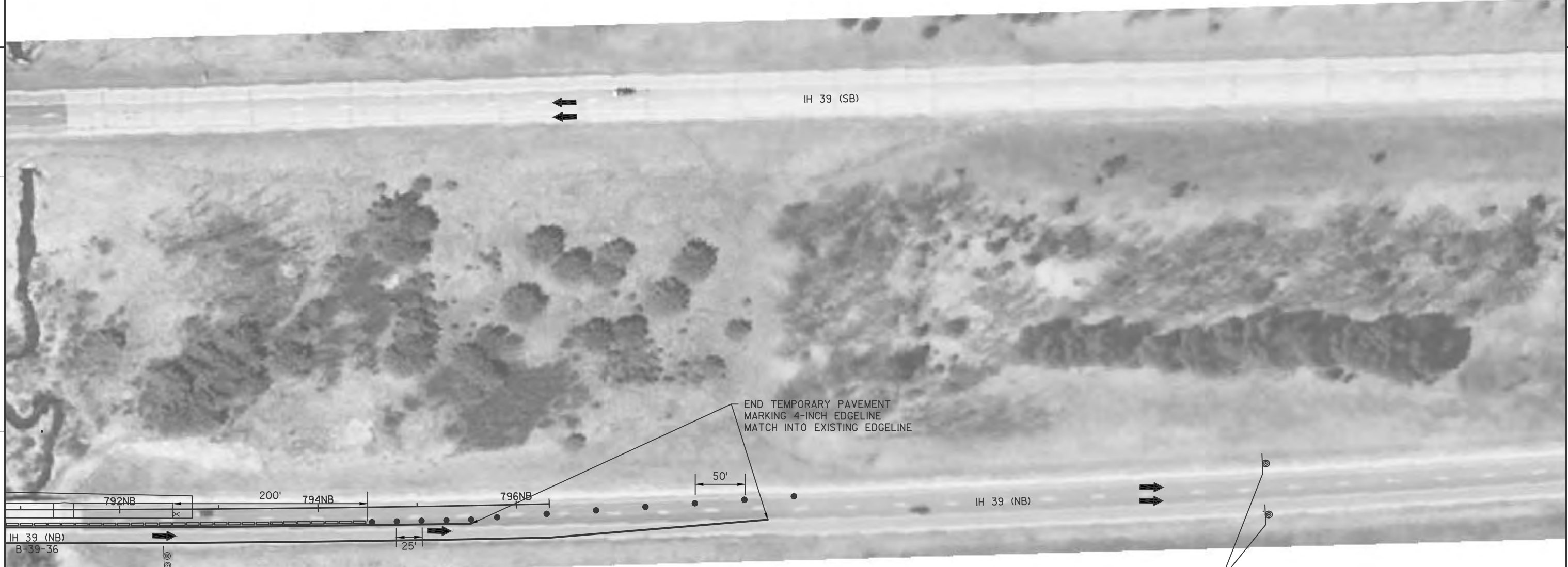
W05-52L
18"X54"
INSTALL AT THE END OF THE CONCRETE BARRIER

REMOVE W05-52L 18"X54" LEAVE
02-04

Waushara Co
LEAVE

- LEGEND**
- ↑ TYPE III BARRICADE
 - ↑ TYPE III BARRICADE WITH ATTACHED SIGN
 - TRAFFIC CONTROL DRUM
 - TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
 - ⚡ FLASHING ARROW BOARD
 - ▬ SIGN ON PERMANENT SUPPORT
 - CONCRETE BARRIER TEMPORARY PRECAST
 - ➔ DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.



END TEMPORARY PAVEMENT MARKING 4-INCH EDGELINE MATCH INTO EXISTING EDGELINE

END ROAD WORK

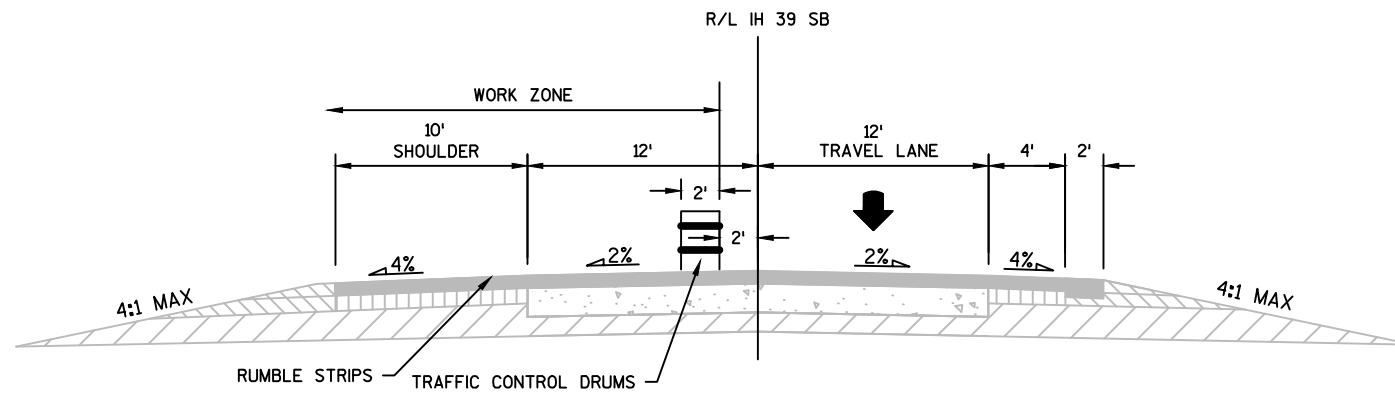
620-2A
48"X24"
PLACE 500 FT FROM END OF TEMPORARY PAVEMENT MARKING (LT & RT)

Waushara Co
LEAVE

LEGEND

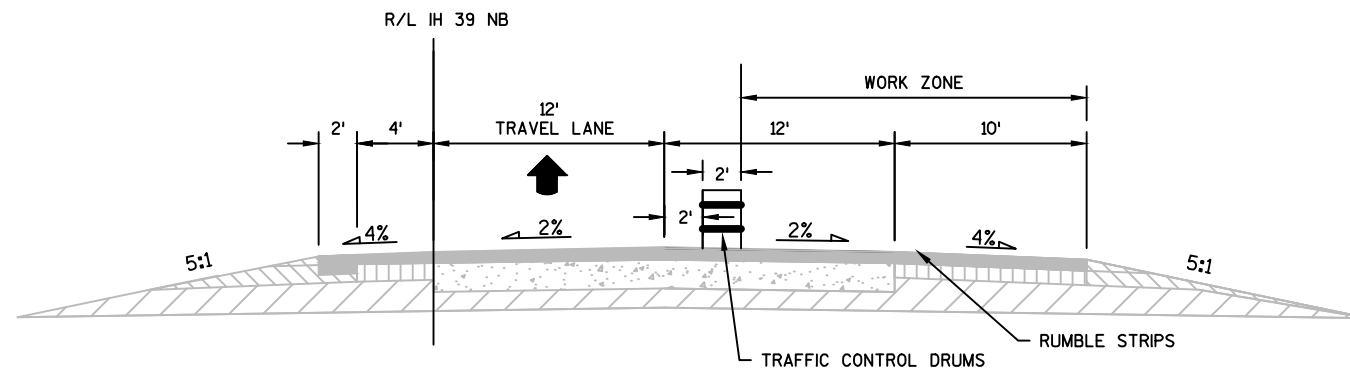
- ⊥ TYPE III BARRICADE
- ⊥ TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ⚡ FLASHING ARROW BOARD
- ▬ SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- ➔ DIRECTION OF TRAFFIC

SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED GREATER THAN 40 M.P.H. WITH BARRIER & TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE.



TRAFFIC CONTROL TYPICAL SECTION

STAGE 4 SOUTHBOUND
(LOOKING NORTH)
B-39-31



TRAFFIC CONTROL TYPICAL SECTION

STAGE 4 NORTHBOUND
(LOOKING NORTH)
B-39-30,32,34,36

STAGE 4 NOTES:

- 4. STAGE 4 (TRAFFIC IN OUTSIDE LANES)
- 4.1 NORTHBOUND (ALL FOUR STRUCTURES-DRUMS)
- 4.1.1 GRIND IN SHOULDER RUMBLE STRIPS
- 4.2 SOUTHBOUND (B-39-31)
- 4.2.1 GRIND IN SHOULDER RUMBLE STRIPS

SEE CONSTRUCTION DETAIL FOR TRAFFIC LAYOUT AND FOR ADDITIONAL INFORMATION.

DATE 21APR15

ESTIMATE OF QUANTITIES

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1166-07-61 QUANTITY
0010	203.0200	Removing Old Structure (station) 01. 430"Nb"+77.19	LS	1.000	1.000
0020	203.0225.S	Debris Containment (structure) 01. B-39-36	LS	1.000	1.000
0030	204.0100	Removing Pavement	SY	619.000	619.000
0040	204.0109.S	Removing Concrete Surface Partial Depth	SF	2,241.000	2,241.000
0050	204.0110	Removing Asphaltic Surface	SY	243.000	243.000
0060	204.0115	Removing Asphaltic Surface Butt Joints	SY	4,429.000	4,429.000
0070	204.0125	Removing Asphaltic Surface Milling	TON	349.000	349.000
0080	206.1000	Excavation for Structures Bridges (structure) 01. B-39-30	LS	1.000	1.000
0090	210.0100	Backfill Structure	CY	25.000	25.000
0100	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	71.000	71.000
0110	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	70.000	70.000
0120	305.0500	Shaping Shoulders	STA	71.000	71.000
0130	415.0410	Concrete Pavement Approach Slab	SY	437.000	437.000
0140	416.1010	Concrete Surface Drains	CY	87.000	87.000
0150	455.0105	Asphaltic Material PG58-28	TON	71.100	71.100
0160	455.0605	Tack Coat	GAL	675.100	675.100
0170	460.1110	HMA Pavement Type E-10	TON	1,292.000	1,292.000
0180	460.4000	HMA Cold Weather Paving	TON	243.000	243.000
0190	465.0400	Asphaltic Shoulder Rumble Strips	LF	11,676.000	11,676.000
0200	502.0100	Concrete Masonry Bridges	CY	5.000	5.000
0210	502.3200	Protective Surface Treatment	SY	2,840.000	2,840.000
0220	502.5005	Masonry Anchors Type L No. 5 Bars	EACH	10.000	10.000
0230	505.0605	Bar Steel Reinforcement HS Coated Bridges	LB	590.000	590.000
0240	509.0200	Preparation Approaches	SY	290.000	290.000
0250	509.0301	Preparation Decks Type 1	SY	169.000	169.000
0260	509.0302	Preparation Decks Type 2	SY	84.000	84.000
0270	509.0500	Cleaning Decks	SY	2,775.000	2,775.000
0280	509.0600	Cleaning Approaches	SY	290.000	290.000
0290	509.1500	Concrete Surface Repair	SF	30.000	30.000
0300	509.2000	Full-Depth Deck Repair	SY	3.000	3.000
0310	509.2500	Concrete Masonry Overlay Decks	CY	218.000	218.000
0320	509.2600	Concrete Masonry Overlay Approaches	CY	20.000	20.000
0330	509.5100.S	Polymer Overlay	SY	515.000	515.000
0340	509.9050.S	Cleaning Parapets	LF	1,443.000	1,443.000
0350	516.0500	Rubberized Membrane Waterproofing	SY	2.000	2.000
0360	603.8000	Concrete Barrier Temporary Precast Delivered	LF	4,750.000	4,750.000
0370	603.8125	Concrete Barrier Temporary Precast Installed	LF	9,040.000	9,040.000
0380	611.8115	Adjusting Inlet Covers	EACH	10.000	10.000
0390	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	1.000	1.000
0400	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1166-07-61	EACH	1.000	1.000
0410	619.1000	Mobilization	EACH	1.000	1.000
0420	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0430	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0440	628.7015	Inlet Protection Type C	EACH	8.000	8.000
0450	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	10.000	10.000
0460	637.2230	Signs Type II Reflective F	SF	67.500	67.500

DATE 21APR15

ESTIMATE OF QUANTITIES

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1166-07-61 QUANTITY
0470	638.2602	Removing Signs Type II	EACH	10.000	10.000
0480	638.3000	Removing Small Sign Supports	EACH	10.000	10.000
0490	642.5201	Field Office Type C	EACH	1.000	1.000
0500	643.0200	Traffic Control Surveillance and Maintenance (project) 01. 1166-07-61	DAY	78.000	78.000
0510	643.0300	Traffic Control Drums	DAY	14,712.000	14,712.000
0520	643.0420	Traffic Control Barricades Type III	DAY	406.000	406.000
0530	643.0705	Traffic Control Warning Lights Type A	DAY	406.000	406.000
0540	643.0715	Traffic Control Warning Lights Type C	DAY	2,983.000	2,983.000
0550	643.0800	Traffic Control Arrow Boards	DAY	224.000	224.000
0560	643.0900	Traffic Control Signs	DAY	1,685.000	1,685.000
0570	643.0920	Traffic Control Covering Signs Type II	EACH	2.000	2.000
0580	643.1000	Traffic Control Signs Fixed Message	SF	72.750	72.750
0590	643.1050	Traffic Control Signs PCMS	DAY	57.000	57.000
0600	646.0881.S	Pavement Marking Grooved Wet Reflective Tape 4-Inch	LF	36.000	36.000
0610	646.0900.S	Pavement Marking Late Season	LF	4,082.000	4,082.000
0620	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	70,130.000	70,130.000
0630	649.0801	Temporary Pavement Marking Removable Tape 8-Inch	LF	1,232.000	1,232.000
0640	650.6500	Construction Staking Structure Layout (structure) 01. B-39-30	LS	1.000	1.000
0650	650.6500	Construction Staking Structure Layout (structure) 02. B-39-31	LS	1.000	1.000
0660	650.6500	Construction Staking Structure Layout (structure) 03. B-39-32	LS	1.000	1.000
0670	650.6500	Construction Staking Structure Layout (structure) 04. B-39-34	LS	1.000	1.000
0680	650.6500	Construction Staking Structure Layout (structure) 05. B-39-36	LS	1.000	1.000
0690	650.8000	Construction Staking Resurfacing Reference	LF	1,888.000	1,888.000
0700	650.9910	Construction Staking Supplemental Control (project) 01. 1166-07-61	LS	1.000	1.000
0710	690.0150	Sawing Asphalt	LF	433.000	433.000
0720	690.0250	Sawing Concrete	LF	120.000	120.000
0730	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0740	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0750	SPV.0045	Special 01. Portable Changeable Message Sign (PCMS) Cellular Communications	DAY	57.000	57.000
0760	SPV.0090	Special 01. Paving Notch Repair	LF	162.000	162.000
0770	SPV.0090	Special 02. Remove And Reinstall Guardrail	LF	25.000	25.000

3

REMOVING PAVEMENT

STATION - STATION		LOCATION	204.0100 SY	REMARKS
<u>CATEGORY 0010</u>				
<u>STAGE 2</u>				
429"NB"+61 - 429"NB"+95	IH 39 (NB)		44	B-39-30 (APPROACH)
431"NB"+59 - 431"NB"+92	IH 39 (NB)		45	B-39-30 (APPROACH)
431"NB"+57 - 431"NB"+81	IH 39 (NB) RT		24	B-39-30 (SHLD)
608"NB"+61 - 608"NB"+81	IH 39 (NB) RT		23	B-39-32 (SHLD)
697"NB"+43 - 697"NB"+63	IH 39 (NB) RT		7	B-39-34 (SHLD)
790"NB"+47 - 790"NB"+77	IH 39 (NB)		39	B-39-36 (APPROACH)
790"NB"+55 - 790"NB"+77	IH 39 (NB) RT		17	B-39-36 (SHLD)
429"SB"+66 - 430"SB"+00	IH 39 (SB)		46	B-39-31 (APPROACH)
431"SB"+63 - 431"SB"+97	IH 39 (SB)		44	B-39-31 (APPROACH)
431"SB"+63 - 431"SB"+97	IH 39 (SB) LT		39	B-39-31 (SHLD)
STAGE 2 SUB TOTAL			<u>328</u>	
<u>STAGE 3</u>				
429"NB"+61 - 429"NB"+95	IH 39 (NB)		46	B-39-30 (APPROACH)
431"NB"+59 - 431"NB"+81	IH 39 (NB) LT		14	B-39-30 (SHLD)
431"NB"+59 - 431"NB"+92	IH 39 (NB)		44	B-39-30 (APPROACH)
608"NB"+42 - 608"NB"+78	IH 39 (NB) LT		14	B-39-32 (SHLD)
697"NB"+39 - 697"NB"+58	IH 39 (NB) LT		8	B-39-34 (SHLD)
790"NB"+47 - 790"NB"+77	IH 39 (NB)		40	B-39-36 (APPROACH)
790"NB"+55 - 790"NB"+77	IH 39 (NB) LT		15	B-39-36 (SHLD)
429"SB"+66 - 430"SB"+00	IH 39 (SB)		44	B-39-31 (APPROACH)
431"SB"+63 - 431"SB"+97	IH 39 (SB)		45	B-39-31 (APPROACH)
431"SB"+63 - 431"SB"+97	IH 39 (SB) RT		21	B-39-31 (SHLD)
STAGE 3 SUB TOTAL			<u>291</u>	
TOTAL			<u>619</u>	

REMOVING ASPHALTIC SURFACE

STATION - STATION		LOCATION	204.0110 SY	REMARKS
<u>CATEGORY 0010</u>				
<u>STAGE 2</u>				
429"NB"+79 - 429"NB"+95	IH 39 (NB) RT		16	B-39-30
431"NB"+81 - 431"NB"+89	IH 39 (NB) RT		13	B-39-30
607"NB"+22 - 607"NB"+42	IH 39 (NB) RT		26	B-39-32
696"NB"+04 - 696"NB"+29	IH 39 (NB) RT		30	B-39-34
697"NB"+43 - 697"NB"+63	IH 39 (NB) RT		16	B-39-34
790"NB"+47 - 790"NB"+55	IH 39 (NB) RT		17	B-39-36
791"NB"+33 - 791"NB"+53	IH 39 (NB) RT		23	B-39-36
429"SB"+84 - 430"SB"+00	IH 39 (SB) LT		21	B-39-31
STAGE 2 SUB TOTAL			<u>162</u>	
<u>STAGE 3</u>				
429"NB"+79 - 429"NB"+95	IH 39 (NB) LT		13	B-39-30
431"NB"+81 - 431"NB"+89	IH 39 (NB) LT		5	B-39-30
607"NB"+22 - 607"NB"+42	IH 39 (NB) LT		14	B-39-32
696"NB"+04 - 696"NB"+24	IH 39 (NB) LT		14	B-39-34
697"NB"+39 - 697"NB"+58	IH 39 (NB) LT		6	B-39-34
790"NB"+47 - 790"NB"+55	IH 39 (NB) LT		5	B-39-36
791"NB"+33 - 791"NB"+53	IH 39 (NB) LT		15	B-39-36
429"SB"+84 - 430"SB"+00	IH 39 (SB) RT		9	B-39-31
STAGE 3 SUB TOTAL			<u>81</u>	
TOTAL			<u>243</u>	

REMOVING ASPHALTIC SURFACE BUTT JOINT

STATION - STATION		LOCATION	204.0115 SY	REMARKS
<u>CATEGORY 0010</u>				
<u>STAGE 2</u>				
428"NB"+61 - 429"NB"+61	IH 39 (NB)		244	B-39-30
431"NB"+92 - 432"NB"+92	IH 39 (NB)		244	B-39-30
606"NB"+22 - 607"NB"+22	IH 39 (NB)		244	B-39-32
608"NB"+81 - 609"NB"+81	IH 39 (NB)		244	B-39-32
695"NB"+04 - 696"NB"+04	IH 39 (NB)		244	B-39-34
697"NB"+63 - 698"NB"+63	IH 39 (NB)		244	B-39-34
789"NB"+47 - 790"NB"+47	IH 39 (NB)		244	B-39-36
791"NB"+53 - 792"NB"+53	IH 39 (NB)		244	B-39-36
428"SB"+66 - 429"SB"+66	IH 39 (SB)		244	B-39-31
431"SB"+97 - 432"SB"+97	IH 39 (SB)		244	B-39-31
STAGE 2 SUB TOTAL			<u>2440</u>	
<u>STAGE 3</u>				
428"NB"+61 - 429"NB"+61	IH 39 (NB)		200	B-39-30
431"NB"+92 - 432"NB"+92	IH 39 (NB)		178	B-39-30
606"NB"+22 - 607"NB"+22	IH 39 (NB)		211	B-39-32
608"NB"+81 - 609"NB"+81	IH 39 (NB)		200	B-39-32
695"NB"+04 - 696"NB"+04	IH 39 (NB)		200	B-39-34
697"NB"+63 - 698"NB"+63	IH 39 (NB)		200	B-39-34
789"NB"+47 - 790"NB"+47	IH 39 (NB)		200	B-39-36
791"NB"+53 - 792"NB"+53	IH 39 (NB)		200	B-39-36
428"SB"+66 - 429"SB"+66	IH 39 (SB)		200	B-39-31
431"SB"+97 - 432"SB"+97	IH 39 (SB)		200	B-39-31
STAGE 3 SUB TOTAL			<u>1989</u>	
TOTAL			<u>4429</u>	

REMOVING ASPHALTIC SURFACE MILLING

STATION - STATION		LOCATION	204.0125 TON	REMARKS
<u>CATEGORY 0010</u>				
<u>STAGE 1</u>				
B-39-30	IH 39 (NB)		65	WIDENING
B-39-31	IH 39 (SB)		64	WIDENING
B-39-32	IH 39 (NB)		77	WIDENING
B-39-34	IH 39 (NB)		66	WIDENING
B-39-36	IH 39 (NB)		77	WIDENING
TOTAL			<u>349</u>	

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

STATION - STATION		LOCATION	211.0400 STATION	REMARKS
<u>CATEGORY 0010</u>				
<u>STAGE 1</u>				
WIDENING	IH 39 (NB)		58	B-39-30/32/34/36
WIDENING	IH 39 (SB)		13	B-39-31
TOTAL			<u>71</u>	

3

REMOVING CONCRETE SURFACE PARTIAL DEPTH

STATION - STATION	LOCATION	204.0109.S SF	REMARKS
CATEGORY 0010			
STAGE 2			
607"NB"+22 - 607"NB"+42	IH 39 (NB)	270	B-39-32
608"NB"+58 - 608"NB"+81	IH 39 (NB)	260	B-39-32
696"NB"+04 - 696"NB"+24	IH 39 (NB)	266	B-39-34
697"NB"+39 - 697"NB"+63	IH 39 (NB)	263	B-39-34
791"NB"+33 - 791"NB"+53	IH 39 (NB)	237	B-39-36
STAGE 2 SUB TOTAL		1296	
STAGE 3			
607"NB"+22 - 607"NB"+42	IH 39 (NB)	247	B-39-32
608"NB"+58 - 608"NB"+81	IH 39 (NB)	262	B-39-32
696"NB"+04 - 696"NB"+24	IH 39 (NB)	122	B-39-34
697"NB"+39 - 697"NB"+63	IH 39 (NB)	286	B-39-34
791"NB"+33 - 791"NB"+53	IH 39 (NB)	28	B-39-36
STAGE 3 SUB TOTAL		945	
TOTAL		2241	

CONCRETE PAVEMENT APPROACH SLAB

STATION - STATION	LOCATION	415.0410 SY	REMARKS
CATEGORY 0010			
STAGE 2			
429"NB"+61 - 429"NB"+95	IH 39 (NB)	44	B-39-30
431"NB"+59 - 431"NB"+92	IH 39 (NB)	45	B-39-30
790"NB"+47 - 790"NB"+77	IH 39 (NB)	39	B-39-36
429"SB"+66 - 430"SB"+00	IH 39 (SB)	46	B-39-31
431"SB"+63 - 431"SB"+97	IH 39 (SB)	44	B-39-31
STAGE 2 SUB TOTAL		218	
STAGE 3			
429"NB"+61 - 429"NB"+95	IH 39 (NB)	46	B-39-30
431"NB"+59 - 431"NB"+92	IH 39 (NB)	44	B-39-30
790"NB"+47 - 790"NB"+77	IH 39 (NB)	40	B-39-36
429"SB"+66 - 430"SB"+00	IH 39 (SB)	44	B-39-31
431"SB"+63 - 431"SB"+97	IH 39 (SB)	45	B-39-31
STAGE 3 SUB TOTAL		219	
TOTAL		437	

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0120 1 1/4-INCH TON	REMARKS
CATEGORY 0010			
STAGE 2			
429"NB"+61 - 429"NB"+95	IH 39 (NB)	6	B-39-30 *
431"NB"+59 - 431"NB"+92	IH 39 (NB)	10	B-39-30 *
607"NB"+22 - 607"NB"+42	IH 39 (NB)	3	B-39-32 *
608"NB"+61 - 608"NB"+81	IH 39 (NB)	3	B-39-32 *
696"NB"+04 - 696"NB"+29	IH 39 (NB)	3	B-39-34 *
696"NB"+43 - 697"NB"+63	IH 39 (NB)	3	B-39-34 *
790"NB"+47 - 790"NB"+77	IH 39 (NB)	4	B-39-36 *
791"NB"+33 - 791"NB"+53	IH 39 (NB)	3	B-39-36 *
429"SB"+84 - 430"SB"+00	IH 39 (SB)	2	B-39-31 *
431"SB"+63 - 431"SB"+97	IH 39 (SB)	4	B-39-31 *
STAGE 2 SUB TOTAL		41	
STAGE 3			
429"NB"+61 - 429"NB"+95	IH 39 (NB)	7	B-39-30 *
431"NB"+59 - 431"NB"+92	IH 39 (NB)	7	B-39-30 *
607"NB"+22 - 607"NB"+42	IH 39 (NB)	2	B-39-32 *
608"NB"+42 - 608"NB"+78	IH 39 (NB)	2	B-39-32 *
696"NB"+04 - 696"NB"+24	IH 39 (NB)	2	B-39-34 *
696"NB"+39 - 697"NB"+58	IH 39 (NB)	2	B-39-34 *
790"NB"+47 - 790"NB"+77	IH 39 (NB)	2	B-39-36 *
791"NB"+33 - 791"NB"+53	IH 39 (NB)	2	B-39-36 *
429"SB"+84 - 430"SB"+00	IH 39 (SB)	1	B-39-31 *
431"SB"+63 - 431"SB"+97	IH 39 (SB)	2	B-39-31 *
STAGE 3 SUB TOTAL		29	
TOTAL		70	

* REGRADING APPROACH SLAB AND/OR SURFACE DRAIN AREAS

SHAPING SHOULDERS

STATION - STATION	LOCATION	305.0500 STATION	REMARKS
CATEGORY 0010			
STAGE 1			
WIDENING	IH 39 (NB)	58	B-39-30/32/34/36
WIDENING	IH 39 (SB)	13	B-39-31
TOTAL		71	

SURFACE DRAINS

STATION - STATION	LOCATION	416.1010 CONCRETE SURFACE DRAINS CY	611.8115 ADJUSTING INLET COVERS EACH	REMARKS
CATEGORY 0010				
STAGE 2				
429"NB"+79 - 429"NB"+95	IH 39 (NB) RT	3	---	B-39-30
431"NB"+59 - 431"NB"+92	IH 39 (NB) RT	8	1	B-39-30
607"NB"+22 - 607"NB"+42	IH 39 (NB) RT	5	---	B-39-32
608"NB"+61 - 608"NB"+81	IH 39 (NB) RT	5	1	B-39-32
696"NB"+04 - 696"NB"+29	IH 39 (NB) RT	6	---	B-39-34
697"NB"+43 - 697"NB"+63	IH 39 (NB) RT	5	1	B-39-34
790"NB"+47 - 790"NB"+77	IH 39 (NB) RT	7	1	B-39-36
791"NB"+33 - 791"NB"+53	IH 39 (NB) RT	4	---	B-39-36
429"SB"+84 - 430"SB"+00	IH 39 (SB) LT	4	---	B-39-31
431"SB"+63 - 431"SB"+97	IH 39 (SB) LT	8	1	B-39-31
STAGE 2 SUB TOTALS		55	5	
STAGE 3				
429"NB"+79 - 429"NB"+95	IH 39 (NB) LT	3	---	B-39-30
431"NB"+59 - 431"NB"+92	IH 39 (NB) LT	4	1	B-39-30
607"NB"+22 - 607"NB"+42	IH 39 (NB) LT	3	---	B-39-32
608"NB"+42 - 608"NB"+78	IH 39 (NB) LT	3	1	B-39-32
696"NB"+04 - 696"NB"+24	IH 39 (NB) LT	3	---	B-39-34
697"NB"+39 - 697"NB"+58	IH 39 (NB) LT	3	1	B-39-34
790"NB"+47 - 790"NB"+77	IH 39 (NB) LT	4	1	B-39-36
791"NB"+33 - 791"NB"+53	IH 39 (NB) LT	3	---	B-39-36
429"SB"+84 - 430"SB"+00	IH 39 (SB) RT	2	---	B-39-31
431"SB"+63 - 431"SB"+97	IH 39 (SB) RT	4	1	B-39-31
STAGE 3 SUB TOTALS		32	5	
TOTALS		87	10	

3

3

HMA PAVEMENT TYPE & ASPHALTIC MATERIAL

STATION - STATION	LOCATION	455.0105	455.0605	460.1110	460.4000	REMARKS
		ASPHALTIC MATERIAL	TACK COAT	HMA PAVEMENT TYPE E-10	HMA COLD WEATHER PAVING	
		PG58-28 TON	GAL	TON	TON	
CATEGORY 0010						
STAGE 1						
B-39-30	IH 39 (NB)	7.6	61.8	138	---	WIDENING
B-39-31	IH 39 (SB)	7.4	61.5	135	---	WIDENING
B-39-32	IH 39 (NB)	8.9	73.0	162	---	WIDENING
B-39-34	IH 39 (NB)	7.8	62.9	142	---	WIDENING
B-39-36	IH 39 (NB)	9.0	73.9	164	---	WIDENING
STAGE 1 SUB TOTALS		40.8	333.1	741	0	
CATEGORY 0010						
STAGE 2						
428"NB"+61 - 429"NB"+61	IH 39 (NB)	1.8	17.1	32	---	B-39-30
431"NB"+92 - 432"NB"+92	IH 39 (NB)	1.7	17.1	31	---	B-39-30
606"NB"+22 - 607"NB"+22	IH 39 (NB)	1.7	17.1	30	---	B-39-32
608"NB"+81 - 609"NB"+81	IH 39 (NB)	1.7	17.1	31	---	B-39-32
695"NB"+04 - 696"NB"+04	IH 39 (NB)	1.7	17.1	31	---	B-39-34
697"NB"+63 - 698"NB"+63	IH 39 (NB)	1.7	17.1	31	---	B-39-34
789"NB"+47 - 790"NB"+47	IH 39 (NB)	1.7	17.1	31	---	B-39-36
791"NB"+53 - 792"NB"+53	IH 39 (NB)	1.7	17.1	30	---	B-39-36
428"SB"+66 - 429"SB"+66	IH 39 (SB)	1.7	17.1	31	---	B-39-31
431"SB"+97 - 432"SB"+97	IH 39 (SB)	1.7	17.1	30	---	B-39-31
STAGE 2 SUB TOTALS		16.9	171.0	308	0	
STAGE 3						
428"NB"+61 - 429"NB"+61	IH 39 (NB)	1.5	17.1	27	27	B-39-30
431"NB"+92 - 432"NB"+92	IH 39 (NB)	1.3	17.1	23	23	B-39-30
606"NB"+22 - 607"NB"+22	IH 39 (NB)	1.5	17.1	27	27	B-39-32
608"NB"+81 - 609"NB"+81	IH 39 (NB)	1.3	17.1	24	24	B-39-32
695"NB"+04 - 696"NB"+04	IH 39 (NB)	1.4	17.1	25	25	B-39-34
697"NB"+63 - 698"NB"+63	IH 39 (NB)	1.3	17.1	23	23	B-39-34
789"NB"+47 - 790"NB"+47	IH 39 (NB)	1.4	17.1	25	25	B-39-36
791"NB"+53 - 792"NB"+53	IH 39 (NB)	1.2	17.1	22	22	B-39-36
428"SB"+66 - 429"SB"+66	IH 39 (SB)	1.3	17.1	23	23	B-39-31
431"SB"+97 - 432"SB"+97	IH 39 (SB)	1.3	17.1	24	24	B-39-31
STAGE 3 SUB TOTALS		13.4	171.0	243	243	
TOTALS		71.1	675.1	1292	243	

ASPHALTIC SHOULDER RUMBLE STRIPS

STATION - STATION	LOCATION	465.0400		REMARKS	STATION - STATION	LOCATION	465.0400		REMARKS
		LF					LF		
CATEGORY 0010					CATEGORY 0010				
STAGE 3					STAGE 4				
428"NB"+61 - 429"NB"+79	IH 39 (NB) LT	118		B-39-30	428"NB"+61 - 429"NB"+79	IH 39 (NB) RT	118		B-39-30
431"NB"+92 - 432"NB"+92	IH 39 (NB) LT	100		B-39-30	431"NB"+92 - 432"NB"+92	IH 39 (NB) RT	100		B-39-30
606"NB"+22 - 607"NB"+22	IH 39 (NB) LT	100		B-39-32	606"NB"+22 - 607"NB"+22	IH 39 (NB) RT	100		B-39-32
608"NB"+81 - 609"NB"+81	IH 39 (NB) LT	100		B-39-32	608"NB"+81 - 609"NB"+81	IH 39 (NB) RT	100		B-39-32
695"NB"+04 - 696"NB"+04	IH 39 (NB) LT	100		B-39-34	695"NB"+04 - 696"NB"+04	IH 39 (NB) RT	100		B-39-34
697"NB"+63 - 698"NB"+63	IH 39 (NB) LT	100		B-39-34	697"NB"+63 - 698"NB"+63	IH 39 (NB) RT	100		B-39-34
789"NB"+47 - 790"NB"+47	IH 39 (NB) LT	100		B-39-36	789"NB"+47 - 790"NB"+47	IH 39 (NB) RT	100		B-39-36
791"NB"+53 - 792"NB"+53	IH 39 (NB) RT	100		B-39-36	791"NB"+53 - 792"NB"+53	IH 39 (NB) RT	100		B-39-36
428"SB"+66 - 429"SB"+66	IH 39 (SB) LT	100		B-39-31	428"SB"+66 - 429"SB"+66	IH 39 (SB) LT	100		B-39-31
431"SB"+97 - 432"SB"+97	IH 39 (SB) LT	100		B-39-31	431"SB"+97 - 432"SB"+97	IH 39 (SB) LT	100		B-39-31
WIDENING	IH 39 (NB)	1325		B-39-30	FILLED RUMBLE STRIPS	IH 39 (NB)	500		B-39-30
WIDENING	IH 39 (NB)	1565		B-39-32	FILLED RUMBLE STRIPS	IH 39 (NB)	500		B-39-32
WIDENING	IH 39 (NB)	1348		B-39-34	FILLED RUMBLE STRIPS	IH 39 (NB)	500		B-39-34
WIDENING	IH 39 (NB)	1584		B-39-36	FILLED RUMBLE STRIPS	IH 39 (NB)	500		B-39-36
WIDENING	IH 39 (SB)	1318		B-39-31	FILLED RUMBLE STRIPS	IH 39 (SB)	500		B-39-31
STAGE 3 SUB TOTALS				8158	STAGE 4 SUB TOTALS				3518
TOTAL				11676					

CONCRETE APPROACHES

STATION - STATION	LOCATION	509.2600			REMARKS
		509.0200	509.0600	CONCRETE	
		PREPARATION APPROACHES	CLEANING APPROACHES	MASONRY OVERLAY APPROACHES	
		SY	SY	CY	
CATEGORY 0010					
STAGE 2					
607"NB"+22 - 607"NB"+42	IH 39 (NB)	30	30	2	B-39-32
608"NB"+58 - 608"NB"+81	IH 39 (NB)	29	29	2	B-39-32
696"NB"+04 - 696"NB"+24	IH 39 (NB)	32	32	2	B-39-34
697"NB"+39 - 697"NB"+63	IH 39 (NB)	29	29	2	B-39-34
791"NB"+33 - 791"NB"+53	IH 39 (NB)	26	26	2	B-39-36
STAGE 2 SUB TOTALS		146	146	10	
STAGE 3					
607"NB"+22 - 607"NB"+42	IH 39 (NB)	27	27	2	B-39-32
608"NB"+58 - 608"NB"+81	IH 39 (NB)	29	29	2	B-39-32
696"NB"+04 - 696"NB"+24	IH 39 (NB)	28	28	2	B-39-34
697"NB"+39 - 697"NB"+63	IH 39 (NB)	32	32	2	B-39-34
791"NB"+33 - 791"NB"+53	IH 39 (NB)	28	28	2	B-39-36
STAGE 3 SUB TOTALS		144	144	10	
TOTALS		290	290	20	

3

CONCRETE BARRIER TEMPORARY PRECAST

603.8000
 PRECAST 603.8125
 FURNISHED & PRECAST
 DELIVERED INSTALLED

STATION - STATION	LOCATION	LF	LF	REMARKS
<u>CATEGORY 0010</u>				
<u>STAGE 2</u>				
425"NB"+67 - 434"NB"+92	IH 39 (NB)	925	925	B-39-30
603"NB"+31 - 611"NB"+81	IH 39 (NB)	850	850	B-39-32
692"NB"+14 - 700"NB"+64	IH 39 (NB)	850	850	B-39-34
786"NB"+53 - 794"NB"+53	IH 39 (NB)	800	800	B-39-36
426"SB"+67 - 435"SB"+92	IH 39 (SB)	925	925	B-39-31
STAGE 2 SUB TOTALS		4350	4350	
<u>STAGE 3</u>				
424"NB"+42 - 434"NB"+92	IH 39 (NB)	125	1050	B-39-30
603"NB"+59 - 611"NB"+79	IH 39 (NB)	---	820	B-39-32
692"NB"+44 - 700"NB"+64	IH 39 (NB)	140	990	B-39-34
786"NB"+83 - 793"NB"+53	IH 39 (NB)	---	770	B-39-36
426"SB"+66 - 437"SB"+26	IH 39 (SB)	135	1060	B-39-31
STAGE 3 SUB TOTALS		400	4690	
TOTALS		4750	9040	

SIGN LISTING

634.0614 637.2230 638.2602 638.3000
 POSTS WOOD SIGNS REMOVING REMOVING
 4" X 6" TYPE II SIGNS SMALL SIGN
 14-FT REFLECTIVE F TYPE II SUPPORTS
 EACH SF EACH EACH

SIGN NO.	SIGN CODE	MESSAGE	SIZE	EACH	SF	EACH	EACH	REMARKS
<u>CATEGORY 0010</u>								
<u>STAGE 2</u>								
01-01	W5-52R	BRIDGE HASH MARKS	18"x54"	1	6.75	1	1	B-39-30
01-02	W5-52R	BRIDGE HASH MARKS	18"x54"	1	6.75	1	1	B-39-32
01-03	W5-52R	BRIDGE HASH MARKS	18"x54"	1	6.75	1	1	B-39-34
01-04	W5-52R	BRIDGE HASH MARKS	18"x54"	1	6.75	1	1	B-39-36
01-05	W5-52R	BRIDGE HASH MARKS	18"x54"	1	6.75	1	1	B-39-31
STAGE 2 SUB TOTALS				5	33.75	5	5	
<u>STAGE 3</u>								
02-01	W5-52L	BRIDGE HASH MARKS	18"x54"	1	6.75	1	1	B-39-30
02-02	W5-52L	BRIDGE HASH MARKS	18"x54"	1	6.75	1	1	B-39-32
02-03	W5-52L	BRIDGE HASH MARKS	18"x54"	1	6.75	1	1	B-39-34
02-04	W5-52L	BRIDGE HASH MARKS	18"x54"	1	6.75	1	1	B-39-36
02-05	W5-52L	BRIDGE HASH MARKS	18"x54"	1	6.75	1	1	B-39-31
STAGE 2 SUB TOTALS				5	33.75	5	5	
TOTALS				10	67.50	10	10	

INLET PROTECTION TYPE C

628.7015

STATION	LOCATION	EACH	REMARKS
<u>CATEGORY 0010</u>			
<u>STAGE 2</u>			
431"NB"+73	IH 39 (NB) RT	1	B-39-30
608"NB"+75	IH 39 (NB) RT	1	B-39-32
697"NB"+57	IH 39 (NB) RT	1	B-39-34
790"NB"+64	IH 39 (NB) RT	1	B-39-36
STAGE 2 SUB TOTAL		4	
<u>STAGE 3</u>			
431"NB"+73	IH 39 (NB) LT	1	B-39-30
608"NB"+70	IH 39 (NB) LT	1	B-39-32
697"NB"+50	IH 39 (NB) LT	1	B-39-34
790"NB"+64	IH 39 (NB) LT	1	B-39-36
STAGE 3 SUB TOTAL		4	
TOTAL		8	

MOBILIZATIONS EROSION CONTROL

628.1910
 628.1905 MOBILIZATIONS EMERGENCY
 MOBILIZATIONS EROSION EROSION
 CONTROL CONTROL
 EACH EACH

LOCATION	EACH	EACH
<u>CATEGORY 0010</u>		
PROJECT LIMITS	2	1
TOTALS	2	1

3

3

TRAFFIC CONTROL DRUMS

LOCATION	NUMBER	DAYS	643.0300 DAY
CATEGORY 0010			
<u>STAGE 1</u>			
IH 39 (NB)			
B-39-30	62	4	248
B-39-32 THRU B-39-36	240	4	960
IH 39 (SB)			
B-39-31	59	4	236
STAGE 1 SUB TOTAL			1444
<u>STAGE 2</u>			
IH 39 (NB)			
B-39-30	79	14	1106
B-39-32 THRU B-39-36	285	14	3990
IH 39 (SB)			
B-39-31	77	14	1078
STAGE 2 SUB TOTAL			6174
<u>STAGE 3</u>			
IH 39 (NB)			
B-39-30	62	15	930
B-39-32 THRU B-39-36	240	15	3600
IH 39 (SB)			
B-39-31	59	15	885
STAGE 3 SUB TOTAL			5415
<u>STAGE 4</u>			
IH 39 (NB)			
B-39-30	79	3	237
B-39-32 THRU B-39-36	285	3	855
IH 39 (SB)			
B-39-31	77	3	231
STAGE 4 SUB TOTAL			1323
<u>STAGE 5</u>			
IH 39 (NB)			
B-39-34	89	4	356
STAGE 5 SUB TOTAL			356
TOTAL			14712

TRAFFIC CONTROL WARNING LIGHTS

STATION	LOCATION	NUMBER	DAYS	643.0705 TYPE A DAY	643.0715 TYPE C DAY	REMARKS
CATEGORY 0010						
<u>STAGE 1</u>						
IH 39 (NB)	PROJECT LIMITS	42	4	---	168	DRUMS
IH 39 (SB)	PROJECT LIMITS	21	4	---	84	DRUMS
STAGE 1 SUB TOTALS				0	252	
<u>STAGE 2</u>						
IH 39 (NB)	PROJECT LIMITS	13	14	182	---	BARRICADES
		69	14	---	966	DRUMS
IH 39 (SB)	PROJECT LIMITS	1	14	14	---	BARRICADES
		29	14	---	406	DRUMS
STAGE 2 SUB TOTALS				196	1372	
<u>STAGE 3</u>						
IH 39 (NB)	PROJECT LIMITS	13	15	195	---	BARRICADES
		42	15	---	630	DRUMS
IH 39 (SB)	PROJECT LIMITS	1	15	15	---	BARRICADES
		21	15	---	315	DRUMS
STAGE 3 SUB TOTALS				210	945	
<u>STAGE 4</u>						
IH 39 (NB)	PROJECT LIMITS	69	3	---	207	DRUMS
IH 39 (SB)	PROJECT LIMITS	29	3	---	87	DRUMS
STAGE 4 SUB TOTALS				0	294	
<u>STAGE 5</u>						
B-39-34	POLYMER OVERLAY	30	4	---	120	DRUMS
STAGE 5 SUB TOTALS				0	120	
TOTALS				406	2983	

TRAFFIC CONTROL COVERING SIGNS TYPE II

LOCATION	SIGN MESSAGE	643.0920 EACH	REMARKS
CATEGORY 0010			
<u>STAGE 2</u>			
IH 39 (NB)	EXIT 113 (ARROW)	1	
IH 39 (SB)	EXIT 113 (ARROW)	1	
STAGE 2 SUB TOTAL		2	
TOTAL		2	

TRAFFIC CONTROL ARROW BOARDS

LOCATION	NUMBER	DAYS	643.0800 DAY
CATEGORY 0010			
<u>STAGE 1</u>			
IH 39 (NB)	4	4	16
IH 39 (SB)	2	4	8
STAGE 1 SUB TOTAL			24
<u>STAGE 2</u>			
IH 39 (NB)	4	14	56
IH 39 (SB)	2	14	28
STAGE 2 SUB TOTAL			84
<u>STAGE 3</u>			
IH 39 (NB)	4	15	60
IH 39 (SB)	2	15	30
STAGE 3 SUB TOTAL			90
<u>STAGE 4</u>			
IH 39 (NB)	4	3	12
IH 39 (SB)	2	3	6
STAGE 4 SUB TOTAL			18
<u>STAGE 5</u>			
IH 39 (NB)	2	4	8
STAGE 5 SUB TOTAL			8
TOTAL			224

TRAFFIC CONTROL BARRICADES

STATION	LOCATION	NUMBER	DAYS	643.0420 TYPE III DAY
CATEGORY 0010				
<u>STAGE 2</u>				
IH 39 (NB)	PROJECT LIMITS	13	14	182
IH 39 (SB)	PROJECT LIMITS	1	14	14
STAGE 2 SUB TOTAL				196
<u>STAGE 3</u>				
IH 39 (NB)	PROJECT LIMITS	13	15	195
IH 39 (SB)	PROJECT LIMITS	1	15	15
STAGE 3 SUB TOTAL				210
TOTAL				406

TRAFFIC CONTROL SIGNS

3

LOCATION	SIGN CODE	DESCRIPTION	SIGN NUMBER	DAYS	643.0900 DAY
CATEGORY 0010					
STAGE 1					
BEGIN PROJECT IH 39 (NB)	W20-1	ROAD WORK 1 MILE	2	4	8
	W20-5	LEFT LANE CLOSED 1/2 MILE	4	4	16
	W20-5	LEFT LANE CLOSED 1500 FT	4	4	16
	WO4-2L	WORK ZONE LANE ENDS SYMBOL	4	4	16
	G20-2A	END ROAD WORK	2	4	8
ON RAMP AT CTH E/CTH J	W20-1-A	ROAD WORK AHEAD	1	4	4
BEGIN PROJECT IH 39 (SB)	W20-1	ROAD WORK 1 MILE	2	4	8
	W20-5	LEFT LANE CLOSED 1/2 MILE	2	4	8
	W20-5	LEFT LANE CLOSED 1500 FT	2	4	8
	WO4-2L	WORK ZONE LANE ENDS SYMBOL	2	4	8
	G20-2A	END ROAD WORK	2	4	8

STAGE 1 SUB TOTAL 108

LOCATION	SIGN CODE	DESCRIPTION	SIGN NUMBER	DAYS	643.0900 DAY
STAGE 2					
BEGIN PROJECT IH 39 (NB)	W20-1	ROAD WORK 1 MILE	2	14	28
	W20-5	RIGHT LANE CLOSED 1/2 MILE	4	14	56
	W20-5	RIGHT LANE CLOSED 1500 FT	4	14	56
	WO4-2R	WORK ZONE LANE ENDS SYMBOL	4	14	56
	E5-1	EXIT W/ARROW	1	14	14
	R11-2-L	LANE CLOSED	13	14	182
	W5-52R	BRIDGE HASH MARKS	4	14	56
	G20-2A	END ROAD WORK	2	14	28
ON RAMP AT CTH E/CTH J	W20-1-A	ROAD WORK AHEAD	1	14	14
ON RAMP AT REST AREA	W20-1-A	ROAD WORK AHEAD	1	14	14
	WO3-2	YIELD AHEAD SYMBOL	1	14	14
	R1-2	YIELD	1	14	14
BEGIN PROJECT IH 39 (SB)	W20-1	ROAD WORK 1 MILE	2	14	28
	W20-5	RIGHT LANE CLOSED 1/2 MILE	2	14	28
	W20-5	RIGHT LANE CLOSED 1500 FT	2	14	28
	WO4-2R	WORK ZONE LANE ENDS SYMBOL	2	14	28
	E5-1	EXIT W/ARROW	1	14	14
	R11-2-L	LANE CLOSED	1	14	14
	W5-52R	BRIDGE HASH MARKS	1	14	14
	G20-2A	END ROAD WORK	2	14	28

STAGE 2 SUB TOTAL 714

3

LOCATION	SIGN CODE	DESCRIPTION	SIGN NUMBER	DAYS	643.0900 DAY
CATEGORY 0010					
STAGE 3					
BEGIN PROJECT IH 39 (NB)	W20-1	ROAD WORK 1 MILE	2	15	30
	W20-5	LEFT LANE CLOSED 1/2 MILE	4	15	60
	W20-5	LEFT LANE CLOSED 1500 FT	4	15	60
	WO4-2L	WORK ZONE LANE ENDS SYMBOL	4	15	60
	R11-2-L	LANE CLOSED	13	15	195
	W5-52L	BRIDGE HASH MARKS	4	14	56
	G20-2A	END ROAD WORK	2	15	30
ON RAMP AT CTH E/CTH J	W20-1-A	ROAD WORK AHEAD	1	15	15
ON RAMP AT REST AREA	W20-1-A	ROAD WORK AHEAD	1	15	15
	WO3-2	YIELD AHEAD SYMBOL	1	15	15
	R1-2	YIELD	1	15	15
BEGIN PROJECT IH 39 (SB)	W20-1	ROAD WORK 1 MILE	2	15	30
	W20-5	LEFT LANE CLOSED 1/2 MILE	2	15	30
	W20-5	LEFT LANE CLOSED 1500 FT	2	15	30
	WO4-2L	WORK ZONE LANE ENDS SYMBOL	2	15	30
	R11-2-L	LANE CLOSED	1	15	15
	W5-52L	BRIDGE HASH MARKS	1	14	14
	G20-2A	END ROAD WORK	2	15	30

STAGE 3 SUB TOTAL 730

LOCATION	SIGN CODE	DESCRIPTION	SIGN NUMBER	DAYS	643.0900 DAY
STAGE 4					
BEGIN PROJECT IH 39 (NB)	W20-1	ROAD WORK 1 MILE	2	3	6
	W20-5	LEFT LANE CLOSED 1/2 MILE	4	3	12
	W20-5	LEFT LANE CLOSED 1500 FT	4	3	12
	WO4-2L	WORK ZONE LANE ENDS SYMBOL	4	3	12
	G20-2A	END ROAD WORK	2	3	6
ON RAMP AT CTH E/CTH J	W20-1-A	ROAD WORK AHEAD	1	3	3
BEGIN PROJECT IH 39 (SB)	W20-1	ROAD WORK 1 MILE	2	3	6
	W20-5	LEFT LANE CLOSED 1/2 MILE	2	3	6
	W20-5	LEFT LANE CLOSED 1500 FT	2	3	6
	WO4-2L	WORK ZONE LANE ENDS SYMBOL	2	3	6
	G20-2A	END ROAD WORK	2	3	6

STAGE 4 SUB TOTAL 81

LOCATION	SIGN CODE	DESCRIPTION	SIGN NUMBER	DAYS	643.0900 DAY
STAGE 5					
B-39-34 POLYMER OVERLAY	W20-1	ROAD WORK 1 MILE	2	4	8
	W20-5	RIGHT LANE CLOSED 1/2 MILE	2	4	8
	W20-5	RIGHT LANE CLOSED 1500 FT	2	4	8
	WO4-2R	WORK ZONE LANE ENDS SYMBOL	2	4	8
	G20-2A	END ROAD WORK	2	4	8
ON RAMP AT REST AREA	W20-1-A	ROAD WORK AHEAD	1	4	4
	WO3-2	YIELD AHEAD SYMBOL	1	4	4
	R1-2	YIELD	1	4	4

STAGE 5 SUB TOTAL 52

TOTAL 1685

TRAFFIC CONTROL SIGNS FIXED MESSAGE

LOCATION	SIGN MESSAGE	643.1000 SF	REMARKS
CATEGORY 0010			
IH 39 (NB)	BRIDGE WORK NEXT 7 MILES	57.00	INSTALL STAGE 1
IH 39 (NB)	REST AREA (ARROW)	15.75	INSTALL STAGE 2
TOTAL		72.75	

PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

LOCATION	SIGN MESSAGE	643.1050 TRAFFIC CONTROL SIGNS DAY	646.0900.S LATE SEASON 4-INCH LANE (WHITE) LF	646.0881.S GROOVED WET REFLECTIVE 4- INCH LANE (WHITE) LF	REMARKS
CATEGORY 0010					
112.1 MILE MARKER IH 39 (NB)	SEE TC SHEETS	7			
114.1 MILE MARKER IH 39 (SB)	SEE TC SHEETS	7			
SUB TOTALS		14			
STAGE 1					
112.1 MILE MARKER IH 39 (NB)	SEE TC SHEETS	4			
114.1 MILE MARKER IH 39 (SB)	SEE TC SHEETS	4			
STAGE 1 SUB TOTALS		8			
STAGE 2					
115.1 MILE MARKER IH 39 (NB)	SEE TC SHEETS	14			
STAGE 2 SUB TOTALS		14			
STAGE 3					
115.1 MILE MARKER IH 39 (NB)	SEE TC SHEETS	15			
STAGE 3 SUB TOTALS		15			
STAGE 4					
112.1 MILE MARKER IH 39 (NB)	SEE TC SHEETS	3			
114.1 MILE MARKER IH 39 (SB)	SEE TC SHEETS	3			
STAGE 4 SUB TOTALS		6			
TOTALS		57			

PAVEMENT MARKING

STATION - STATION	LOCATION	646.0900.S LATE SEASON 4-INCH LANE (WHITE) LF	4-INCH EDGE (WHITE) LF	4-INCH EDGE (YELLOW) LF	646.0881.S GROOVED WET REFLECTIVE 4- INCH LANE (WHITE) LF	REMARKS
CATEGORY 0010						
STAGE 3						
428"NB"+61 - 432"NB"+92	IH 39 (NB)	100.0	---	431	8	B-39-30
606"NB"+92 - 609"NB"+81	IH 39 (NB)	75.0	---	289	6	B-39-32
695"NB"+04 - 698"NB"+63	IH 39 (NB)	87.5	---	359	6	B-39-34
789"NB"+47 - 792"NB"+53	IH 39 (NB)	75.0	---	306	6	B-39-36
428"SB"+66 - 432"SB"+97	IH 39 (SB)	112.5	---	431	10	B-39-31
STAGE 3 SUB TOTALS		450.0	0.0	1816	36	
STAGE 4						
428"NB"+61 - 432"NB"+92	IH 39 (NB)	---	431	---	---	B-39-30
606"NB"+92 - 609"NB"+81	IH 39 (NB)	---	289	---	---	B-39-32
695"NB"+04 - 698"NB"+63	IH 39 (NB)	---	359	---	---	B-39-34
789"NB"+47 - 792"NB"+53	IH 39 (NB)	---	306	---	---	B-39-36
428"SB"+66 - 432"SB"+97	IH 39 (SB)	---	431	---	---	B-39-31
STAGE 4 SUB TOTALS		0.0	1816	0	0	
TOTALS		450.0	1816	1816	36	
GRAND TOTALS			4082.0		36	

TEMPORARY PAVEMENT MARKING TAPE

STATION	LOCATION	649.0400			649.0801
		REMOVABLE 4-INCH			REMOVABLE
		WHITE LF	YELLOW LF	BLACK LF	8-INCH WHITE LF
CATEGORY 0010					
STAGE 2					
B-39-30	IH 39 (NB)	3600	2225	3665	336
B-39-32	IH 39 (NB)	2809	2150	3190	---
REST AREA	IH 39 (NB)	200	---	850	542
B-39-34	IH 39 (NB)	1363	2150	2150	---
B-39-36	IH 39 (NB)	1210	2101	2101	---
B-39-31	IH 39 (SB)	3280	2234	3674	354
STAGE 2 SUB TOTALS		12462	10860	15630	1232
STAGE 3					
B-39-30	IH 39 (NB)	1784	4012	1784	---
B-39-32	IH 39 (NB)	2221	2803	2221	---
B-39-34	IH 39 (NB)	1588	1420	1588	---
B-39-36	IH 39 (NB)	1671	1369	1671	---
B-39-31	IH 39 (SB)	1712	3622	1712	---
STAGE 3 SUB TOTALS		8976	13226	8976	0
TOTALS		21438	24086	24606	1232
GRAND TOTALS		70130			1232

CONSTRUCTION STAKING

CATEGORY	STATION - STATION	LOCATION	650.6500	650.8000
			STRUCTURE LAYOUT	RESURFACING REFERENCE
LF	LF	LF	LF	LF
0010	428"NB"+60 - 432"NB"+92	01. B-39-30	---	432
0010	428"SB"+66 - 432"SB"+97	02. B-39-31	---	431
0010	606"NB"+22 - 609"NB"+81	03. B-39-32	---	359
0010	695"NB"+04 - 698"NB"+63	04. B-39-34	---	359
0010	789"NB"+47 - 792"NB"+54	05. B-39-36	---	307
0060	428"NB"+60 - 432"NB"+92	01. B-39-30	1	---
0020	428"SB"+66 - 432"SB"+97	02. B-39-31	1	---
0030	606"NB"+22 - 609"NB"+81	03. B-39-32	1	---
0040	695"NB"+04 - 698"NB"+63	04. B-39-34	1	---
0050	789"NB"+47 - 792"NB"+54	05. B-39-36	1	---
TOTALS			5	1888

SAWING ASPHALT

STATION	LOCATION	690.0150	
		LF	REMARKS
CATEGORY 0010			
STAGE 2			
428"NB"+60	IH 39 (NB)	23	B-39-30
432"NB"+92	IH 39 (NB)	23	B-39-30
428"SB"+66	IH 39 (SB)	22	B-39-31
432"SB"+97	IH 39 (SB)	23	B-39-31
606"NB"+22	IH 39 (NB)	25	B-39-32
609"NB"+81	IH 39 (NB)	23	B-39-32
695"NB"+04	IH 39 (NB)	23	B-39-34
698"NB"+63	IH 39 (NB)	23	B-39-34
789"NB"+47	IH 39 (NB)	23	B-39-36
790"NB"+47	IH 39 (NB)	10	B-39-36
792"NB"+54	IH 39 (NB)	22	B-39-36
STAGE 2 SUB TOTAL		240	
STAGE 3			
428"NB"+60	IH 39 (NB)	19	B-39-30
432"NB"+92	IH 39 (NB)	18	B-39-30
428"SB"+66	IH 39 (SB)	18	B-39-31
432"SB"+97	IH 39 (SB)	18	B-39-31
606"NB"+22	IH 39 (NB)	22	B-39-32
609"NB"+81	IH 39 (NB)	18	B-39-32
695"NB"+04	IH 39 (NB)	18	B-39-34
698"NB"+63	IH 39 (NB)	18	B-39-34
789"NB"+47	IH 39 (NB)	20	B-39-36
790"NB"+47	IH 39 (NB)	6	B-39-36
792"NB"+54	IH 39 (NB)	18	B-39-36
STAGE 3 SUB TOTAL		193	
TOTAL		433	

SAWING CONCRETE

STATION	LOCATION	690.0250	
		LF	REMARKS
CATEGORY 0010			
STAGE 2			
429"NB"+60	IH 39 (NB)	12	B-39-30
431"NB"+92	IH 39 (NB)	12	B-39-30
429"SB"+66	IH 39 (SB)	12	B-39-31
431"SB"+97	IH 39 (SB)	12	B-39-31
790"NB"+47	IH 39 (NB)	12	B-39-36
STAGE 2 SUB TOTAL		60	
STAGE 3			
429"NB"+60	IH 39 (NB)	12	B-39-30
431"NB"+92	IH 39 (NB)	12	B-39-30
429"SB"+66	IH 39 (SB)	12	B-39-31
431"SB"+97	IH 39 (SB)	12	B-39-31
790"NB"+47	IH 39 (NB)	12	B-39-36
STAGE 3 SUB TOTAL		60	
TOTAL		120	

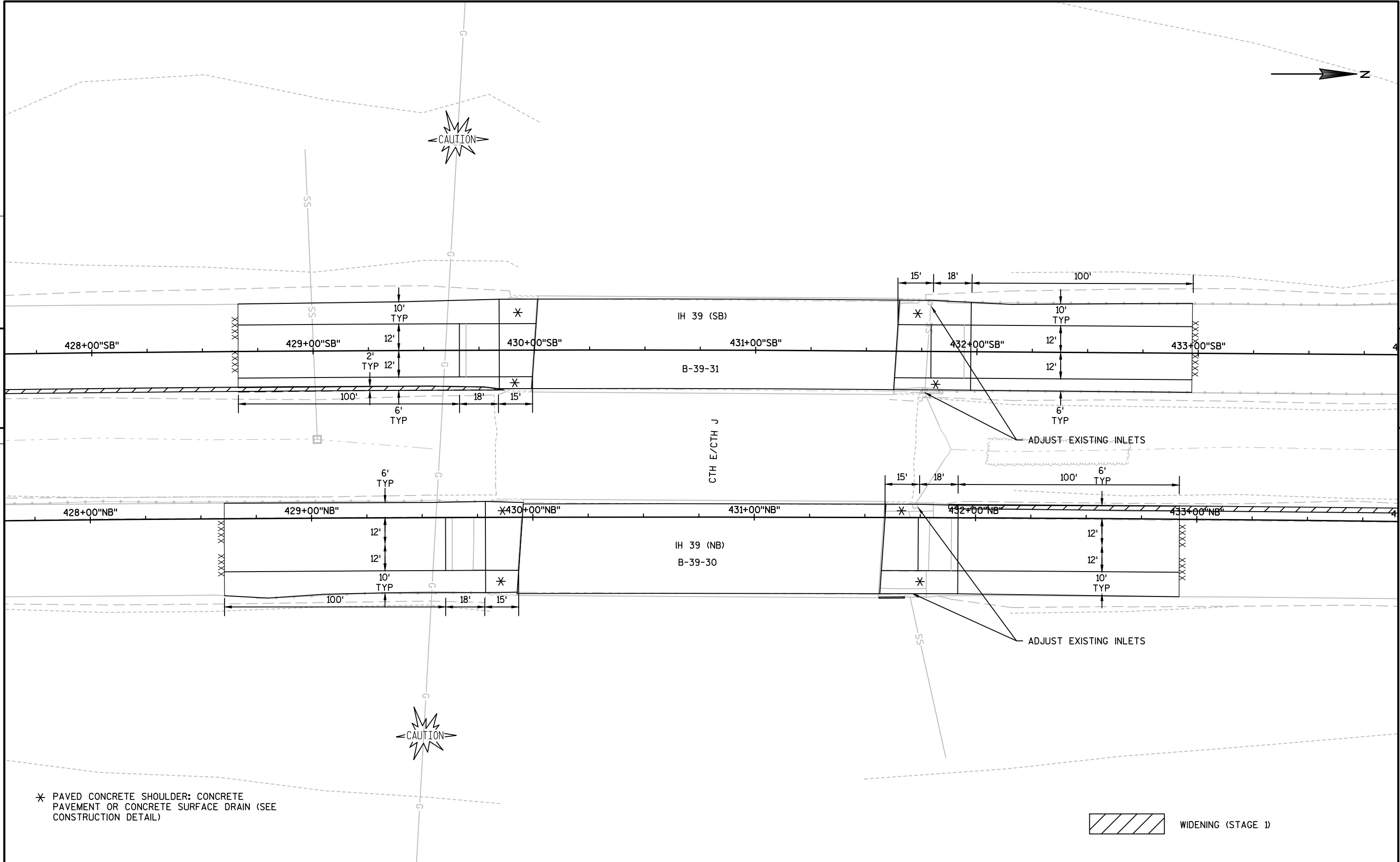
REMOVE AND REINSTALL GUARDRAIL

STATION - STATION	LOCATION	SPV.0090.02	
		LF	REMARKS
CATEGORY 0010			
STAGE 2			
431"NB"+06 - 431"NB"+31	IH 39 (NB)	25	B-39-30
TOTAL		25	



5

5



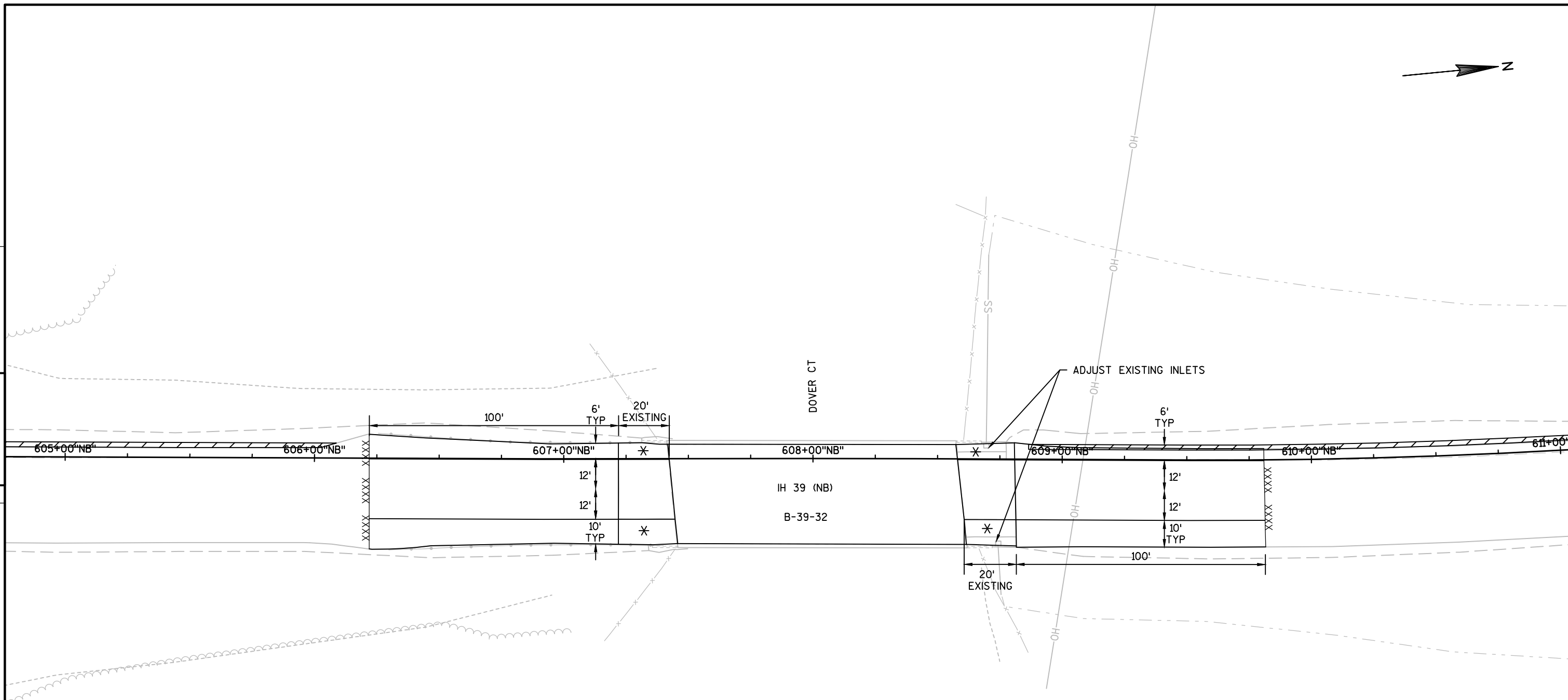
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 WIDENING (STAGE 1)



5

5



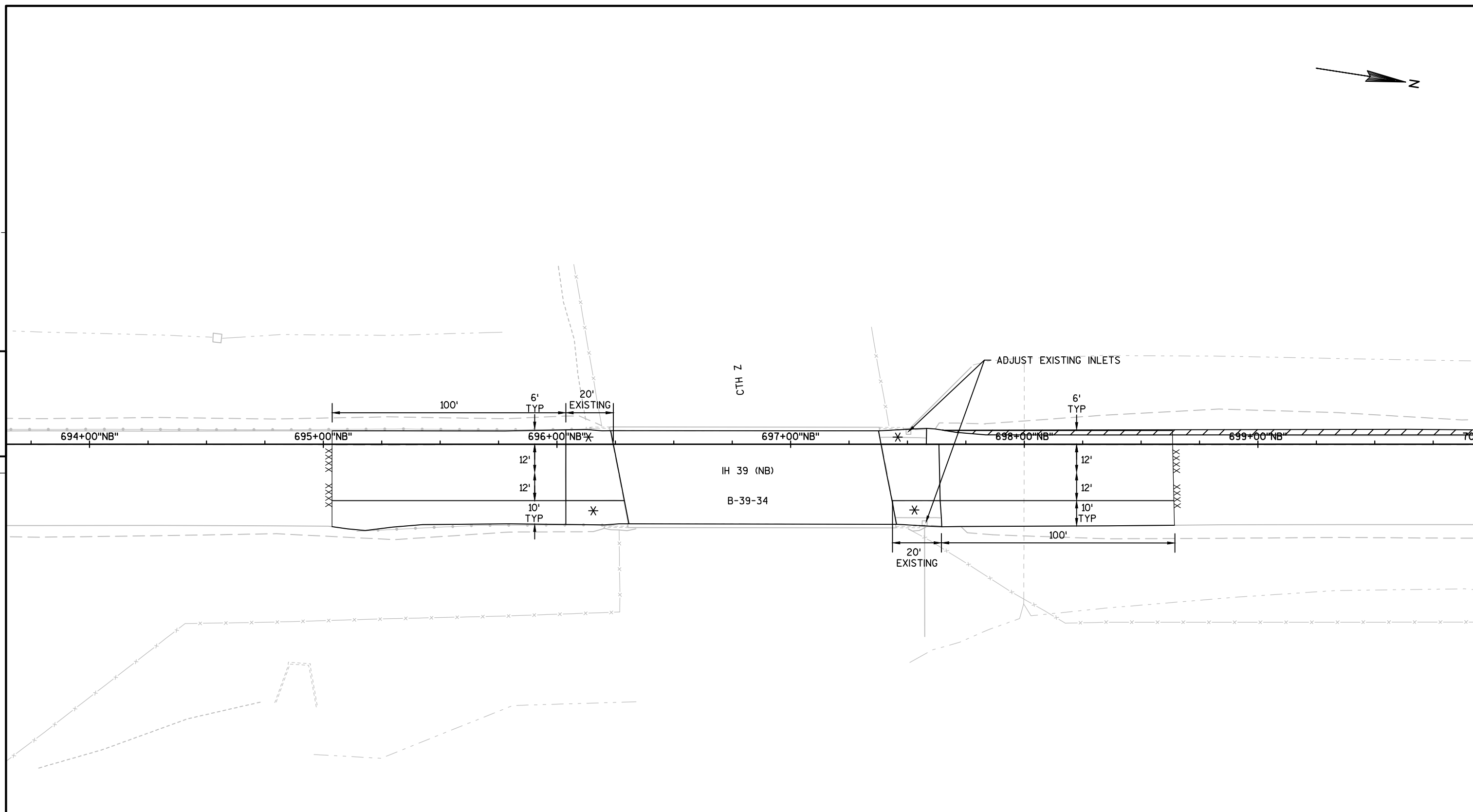
* PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT OR CONCRETE SURFACE DRAIN (SEE CONSTRUCTION DETAIL)

 WIDENING (STAGE 1)



5

5



* PAVED CONCRETE SHOULDER: CONCRETE
 PAVEMENT OR CONCRETE SURFACE DRAIN (SEE
 CONSTRUCTION DETAIL)

 WIDENING (STAGE 1)

NOTE: STAGE 5 POLYMER OVERLAY, MASK OUT EXISTING PAVEMENT
 MARKING PRIOR TO OVERLAY TO PRESERVE (ITEM INCIDENTAL TO
 POLYMER OVERLAY).

PROJECT NO: 1166-07-61

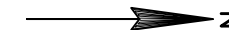
HWY: IH 39

COUNTY: MARQUETTE

PLAN SHEET (B-39-34)

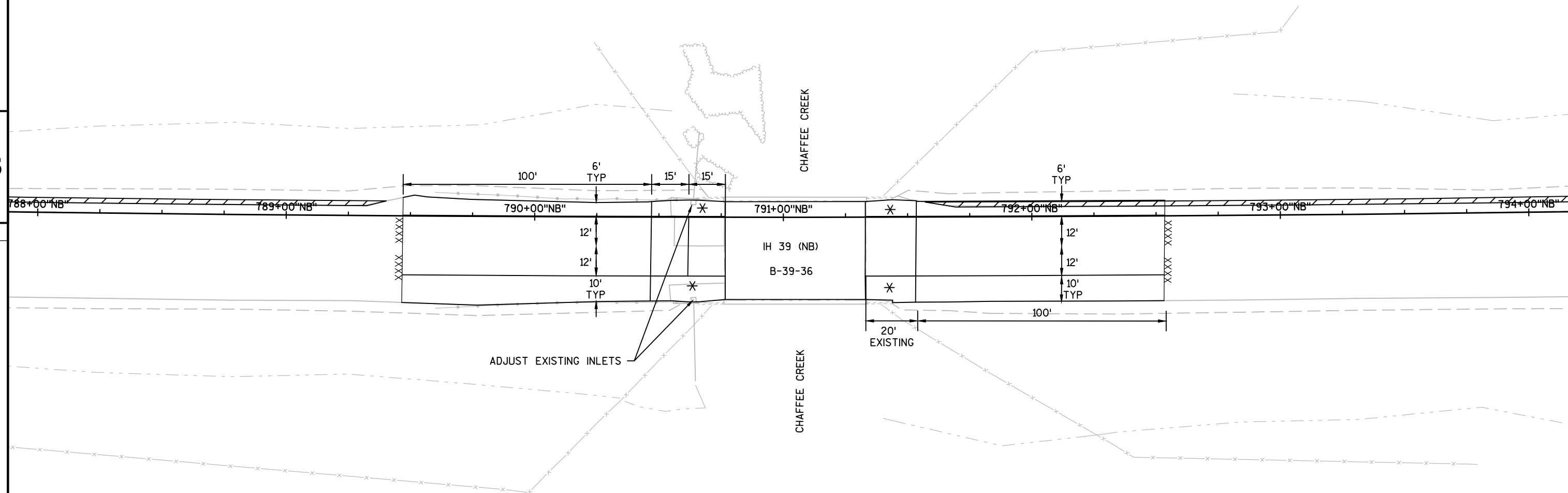
SHEET

E



5

5



* PAVED CONCRETE SHOULDER; CONCRETE PAVEMENT OR CONCRETE SURFACE DRAIN (SEE CONSTRUCTION DETAIL)

 WIDENING (STAGE 1)

PROJECT NO: 1166-07-61

HWY: IH 39

COUNTY: MARQUETTE

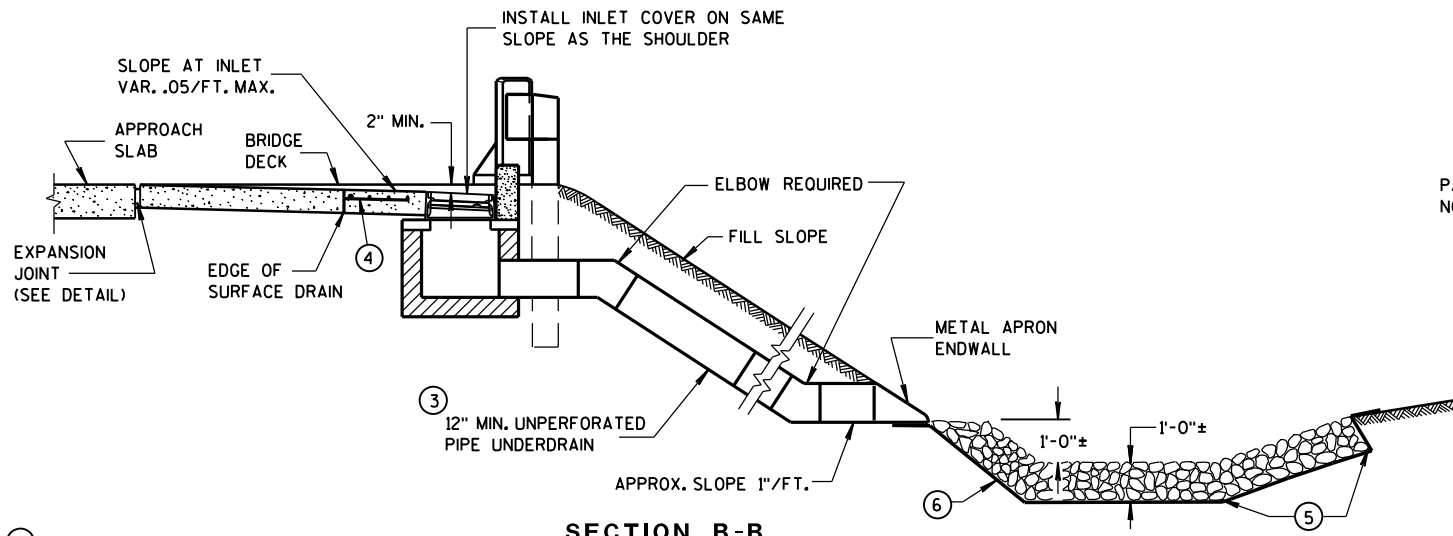
PLAN SHEET (B-39-36)

SHEET

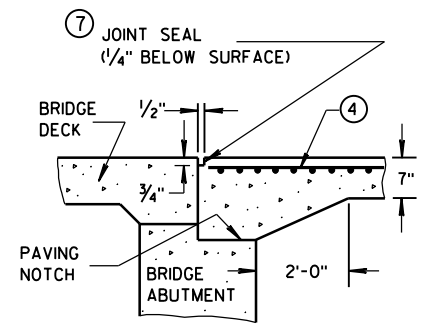
E

Standard Detail Drawing List

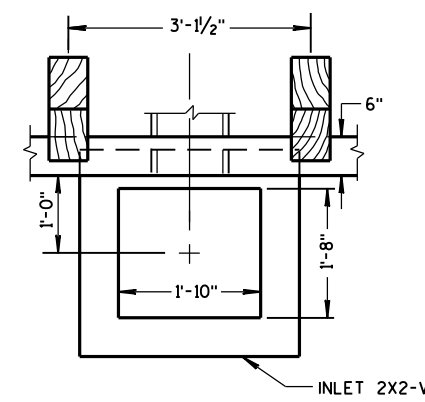
08D03-06	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08E10-02	INLET PROTECTION TYPE A, B, C AND D
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13B02-07A	CONCRETE BRIDGE APPROACH
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B15-08A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-08B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-08C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B16-04A	ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2
14B16-04B	ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDERoads/DRIVEWAYS)
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15D03-02	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M. P. H. WITH BARRIER
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE



SECTION B-B



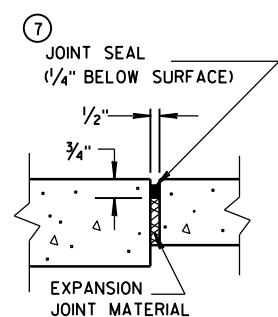
SECTION D-D



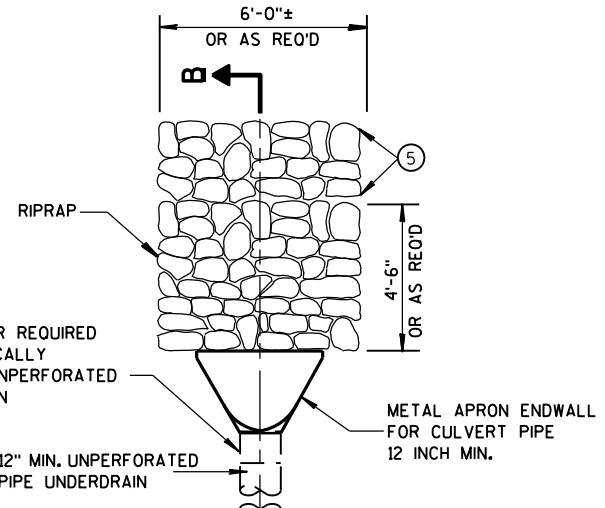
PLAN VIEW

GENERAL NOTES

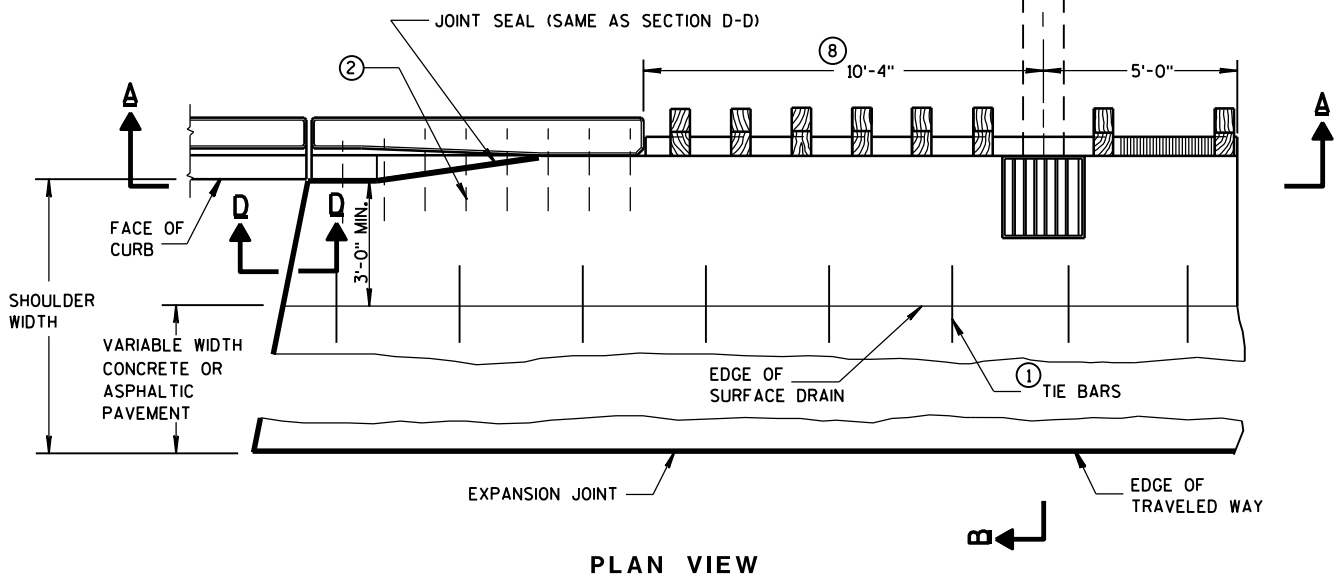
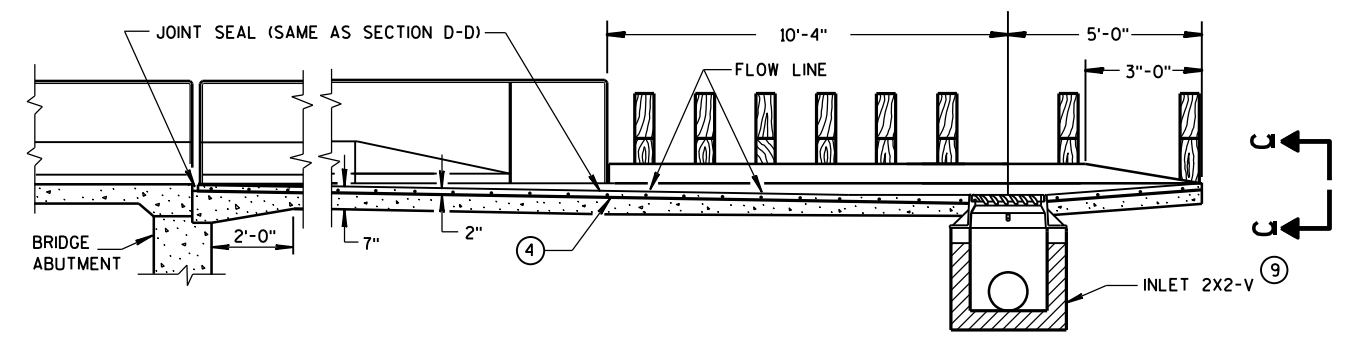
- DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- ① NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.
 - ② NO. 4 X 2'-0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
 - ③ THE PIPE UNDERDRAIN MAY BE ANY ONE OF THE SIX MATERIALS LISTED IN THE STANDARD SPECIFICATIONS SECTION 612.2 EXCEPT DRAIN TILE.
 - ④ MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.
 - ⑤ LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.
 - ⑥ GEOTEXTILE FABRIC, TYPE 'R'
 - ⑦ HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.
 - ⑧ THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1/2".
 - ⑨ SEE CURRENT STANDARD DETAIL DRAWINGS 8A5 AND 8C7 FOR DETAILS.



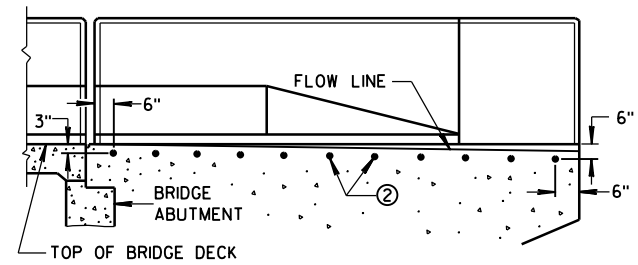
EXPANSION JOINT DETAIL



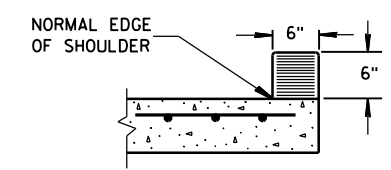
SECTION A-A



PLAN VIEW

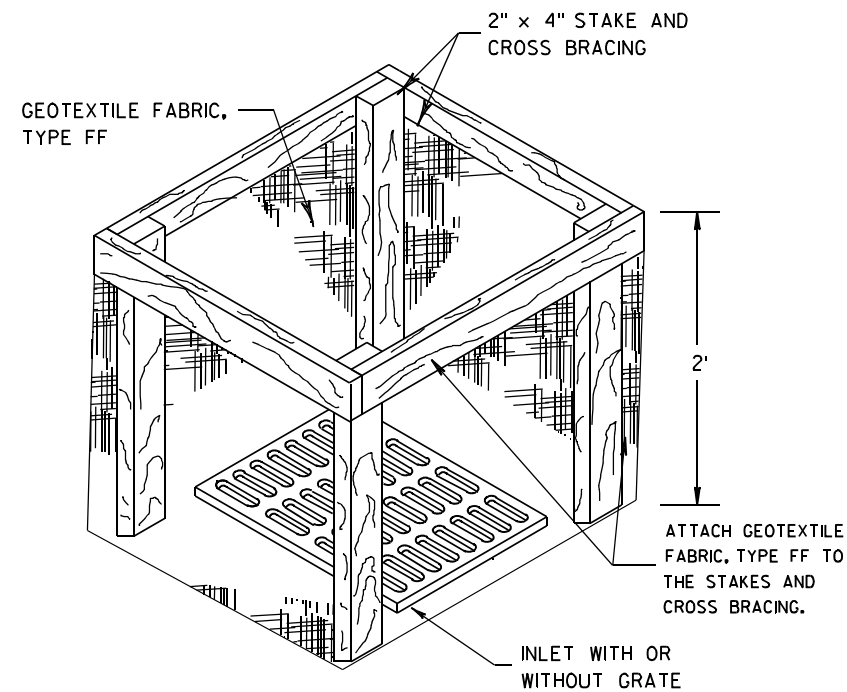
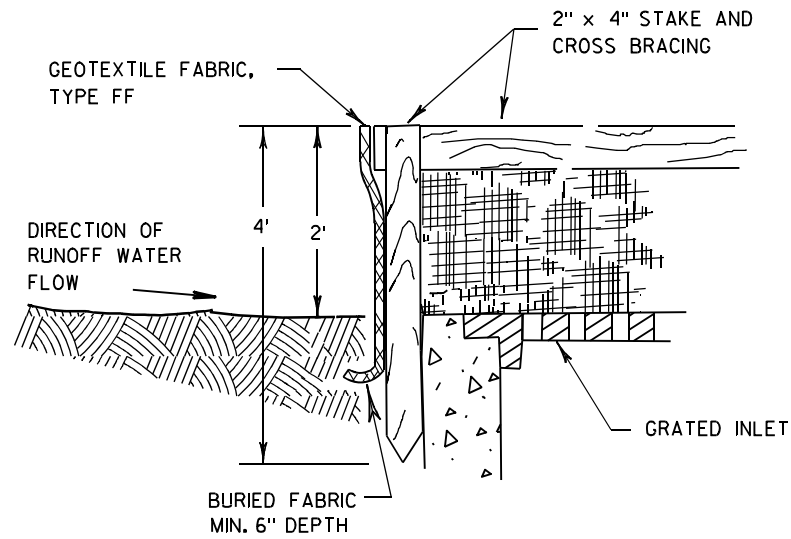


LOCATION OF TIE BARS IN WINGWALL



SECTION C-C

CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 9/4/08 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



INLET PROTECTION, TYPE A

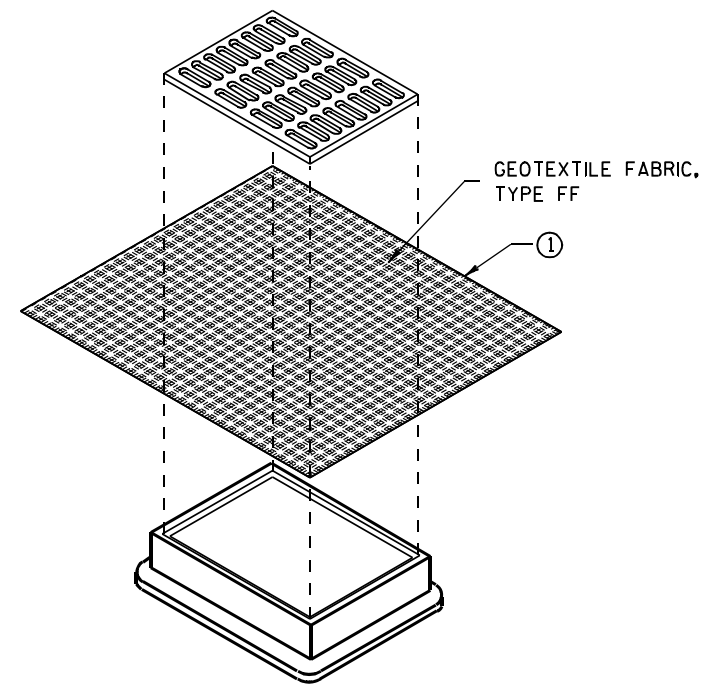
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

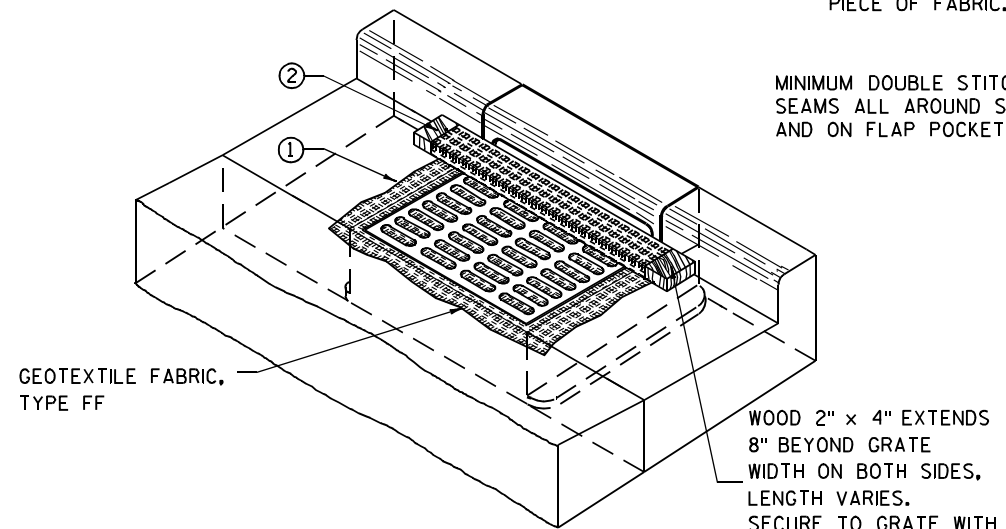
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

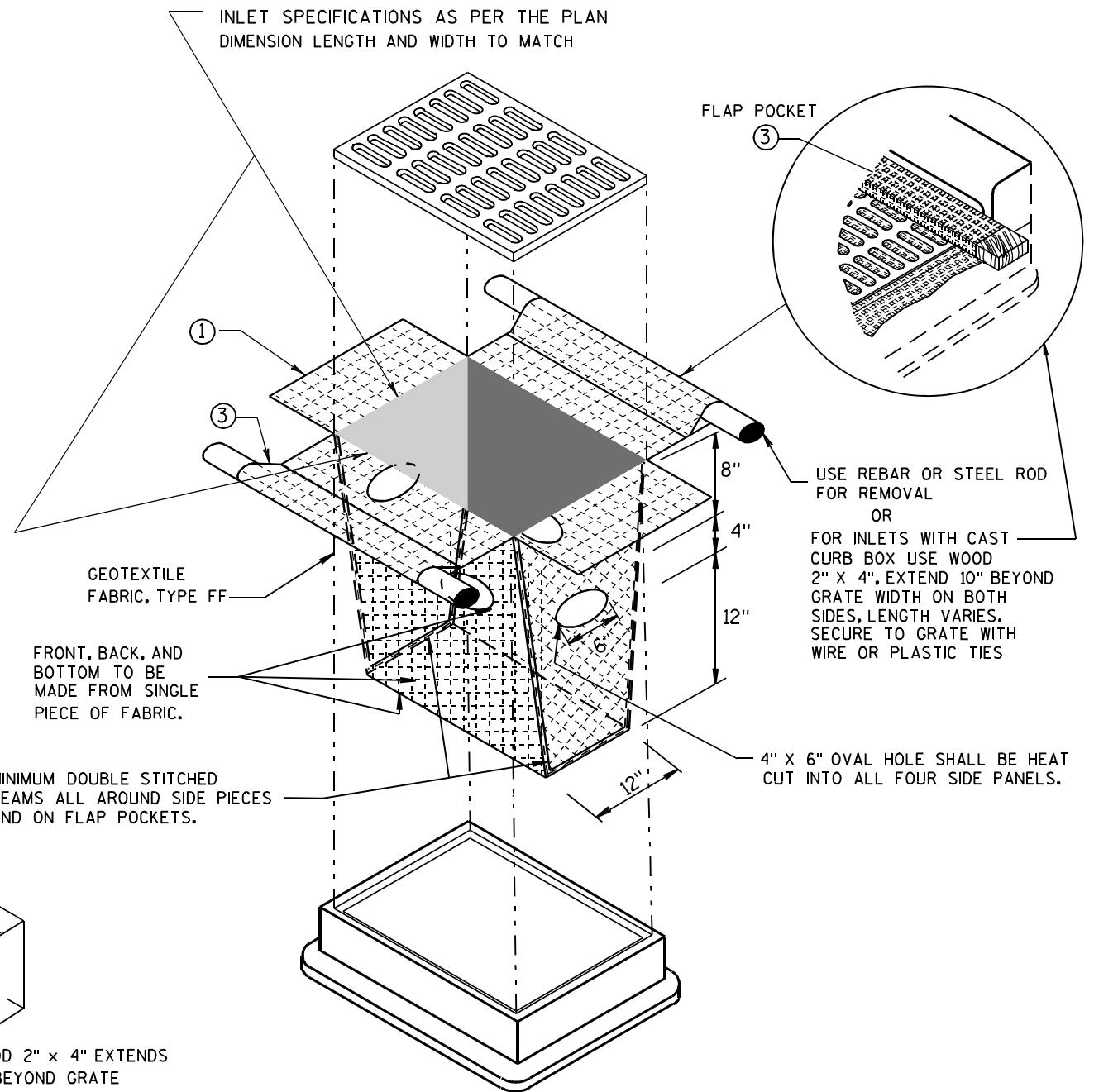
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

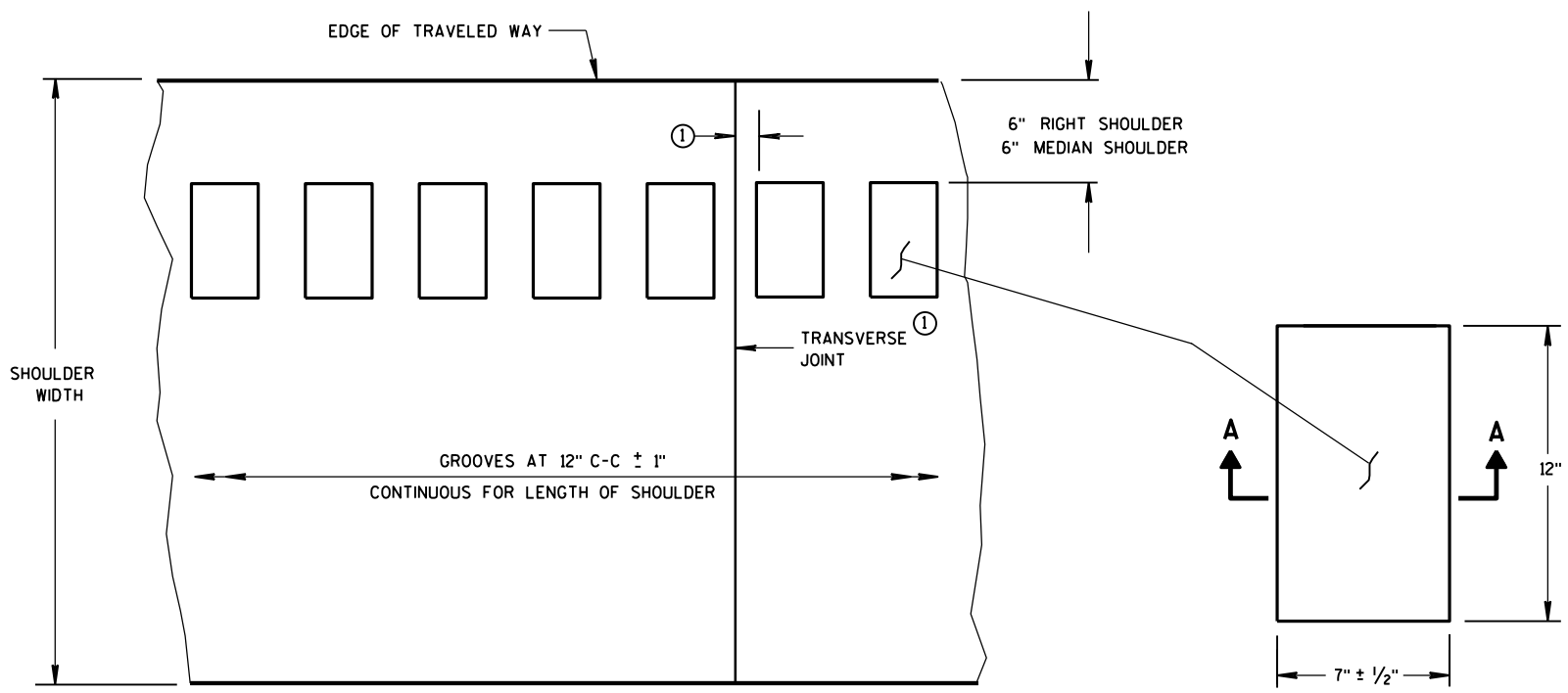
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

INLET PROTECTION TYPE A, B, C, AND D	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/16/02 DATE	/s/ Beth Connestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

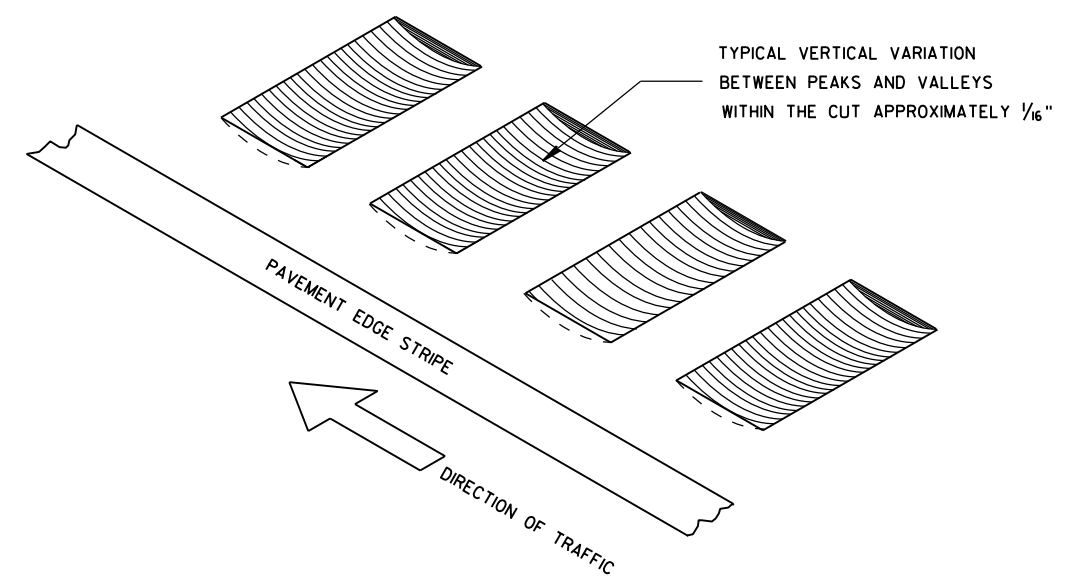
GENERAL NOTES

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

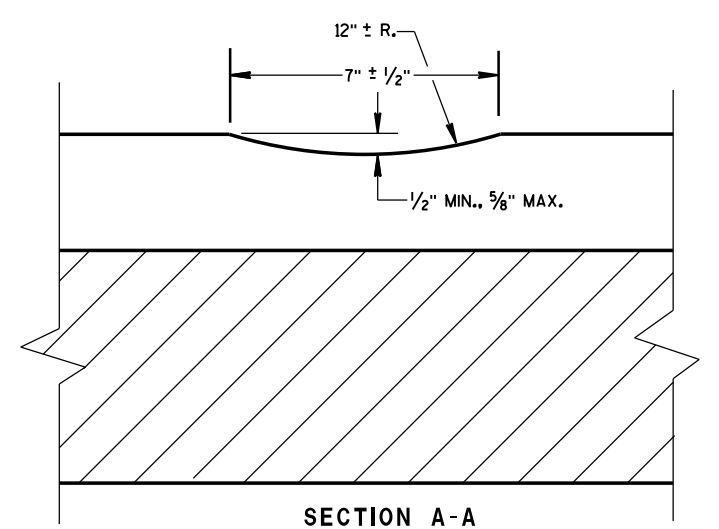
RUMBLE STRIPS ON EXPRESSWAYS

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

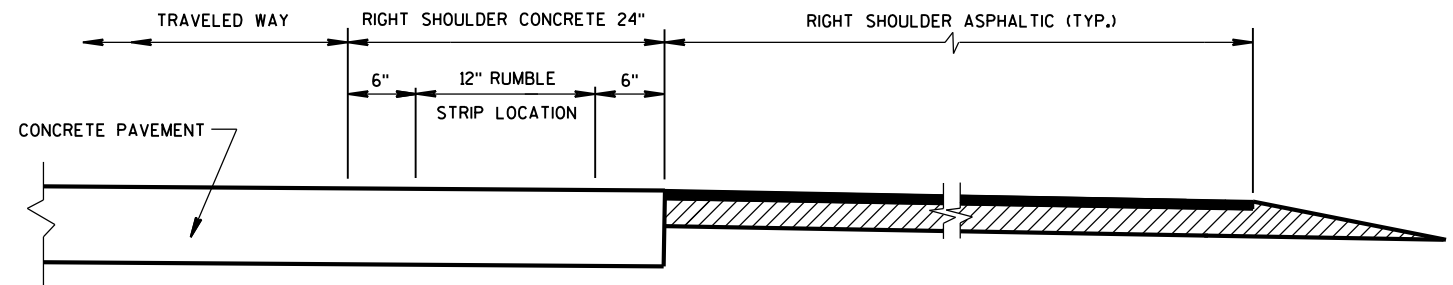
① CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



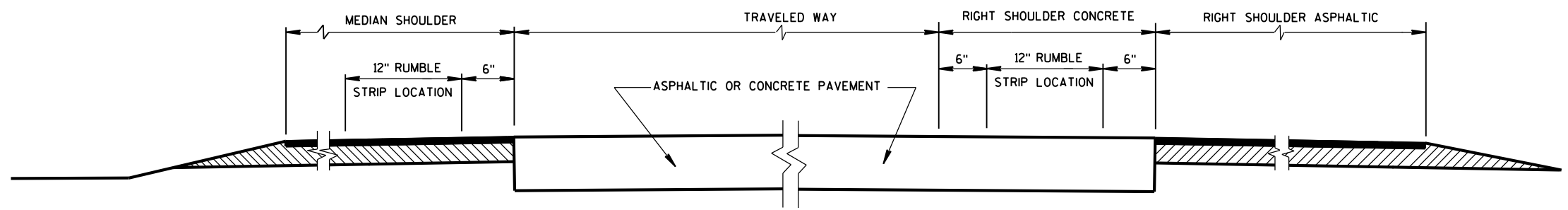
ISOMETRIC



SECTION A-A



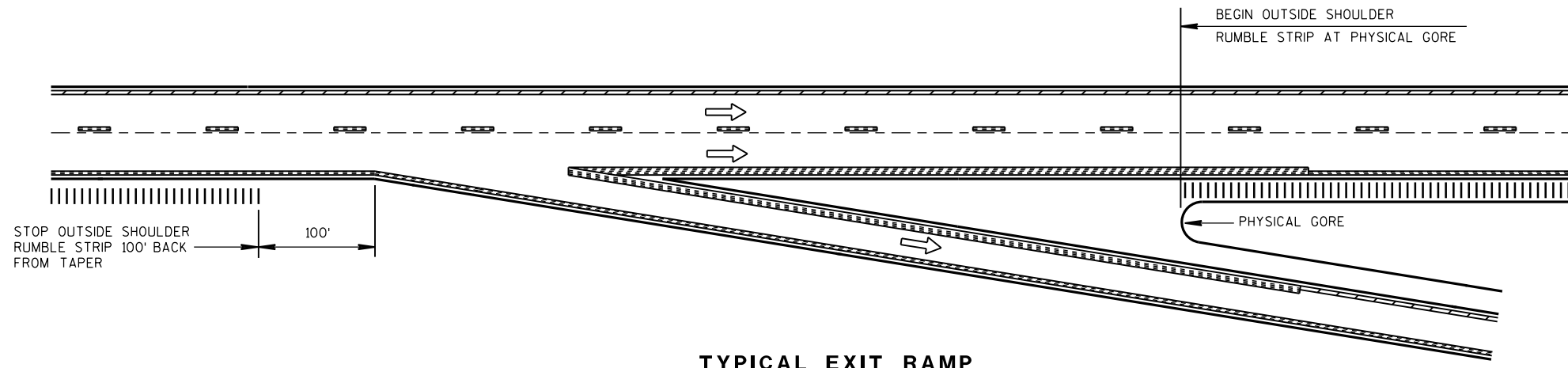
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



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

SHOULDER RUMBLE STRIP,
MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

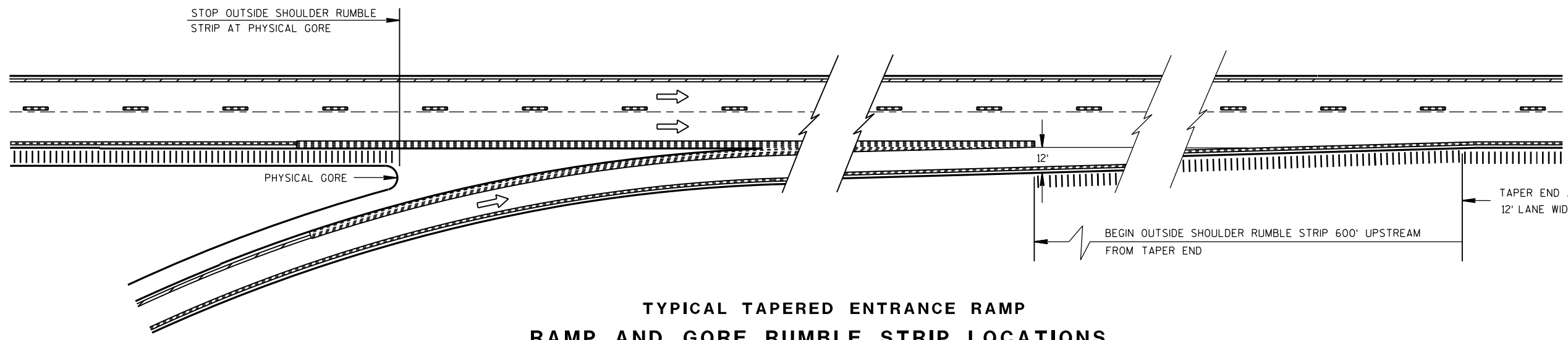


TYPICAL EXIT RAMP

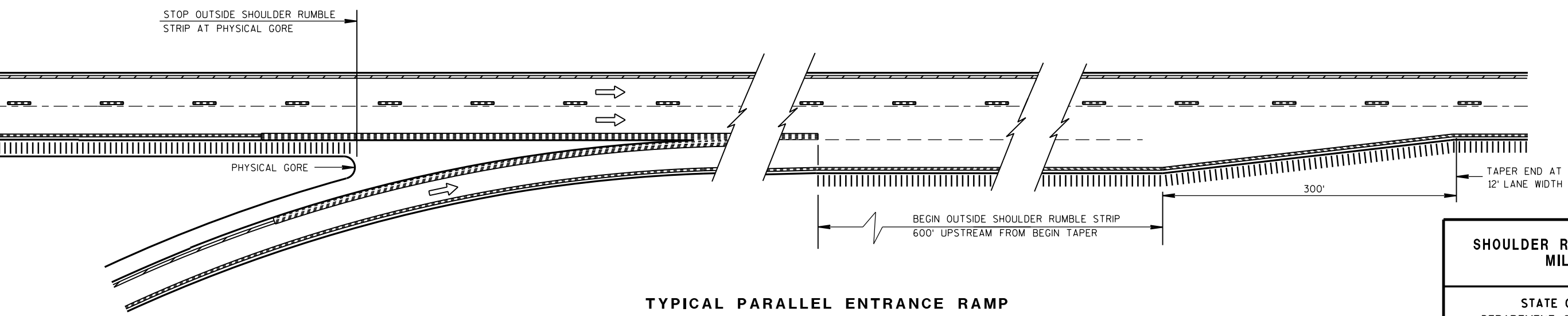
NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMP, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.
 PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
 ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP
 RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP
 RAMP AND GORE RUMBLE STRIP LOCATIONS

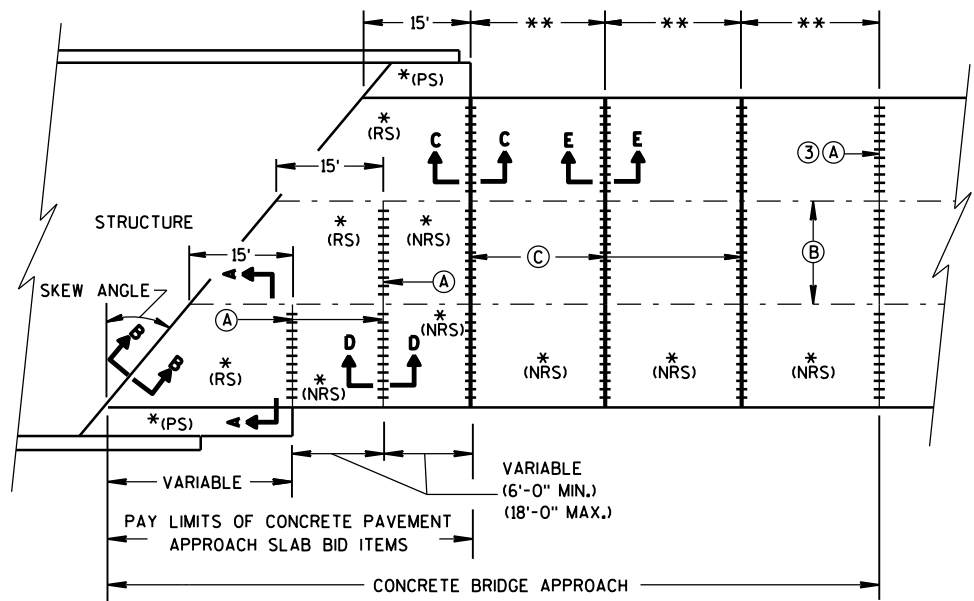
6

6

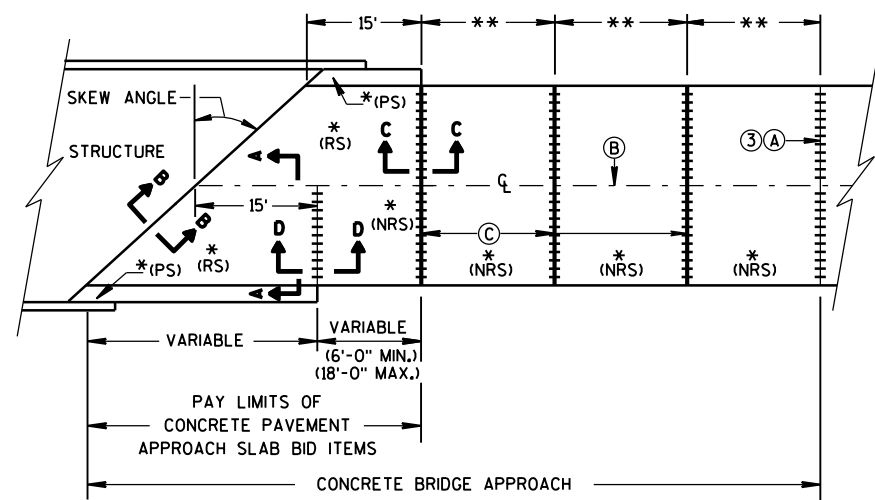
S.D.D. 13 A 5-5b

S.D.D. 13 A 5-5b

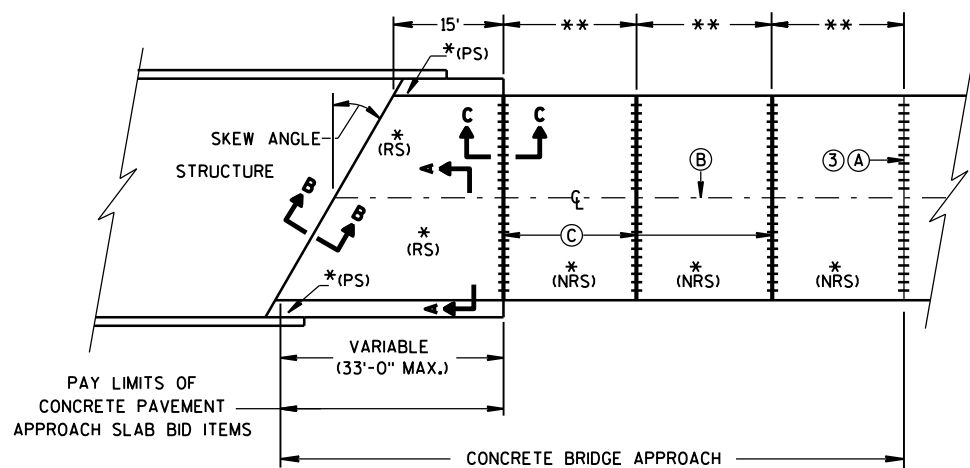
SHOULDER RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 12/17/2012	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



**SKewed APPROACH
(PAVEMENT MORE THAN 2 LANES)**



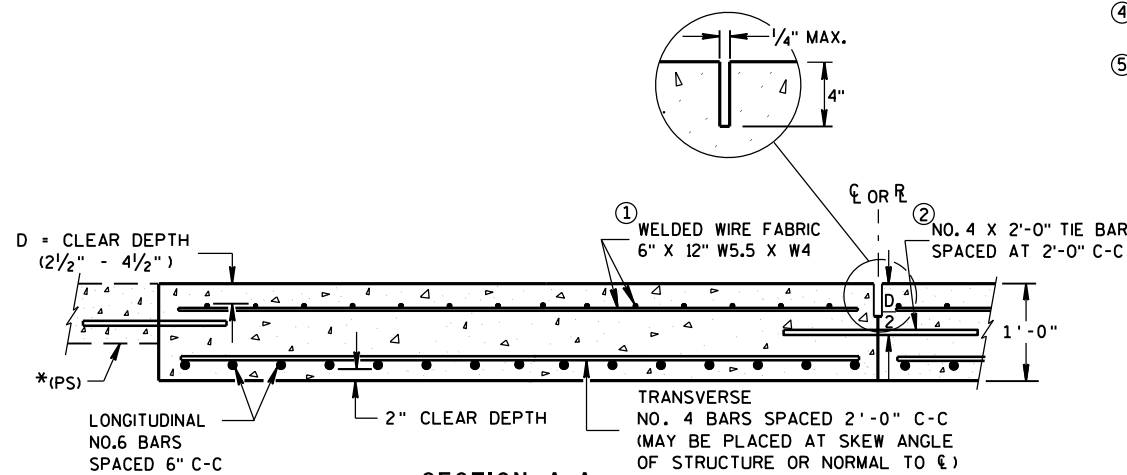
**SKews > 30°
(PAVEMENT WIDTH ≤ 30')**



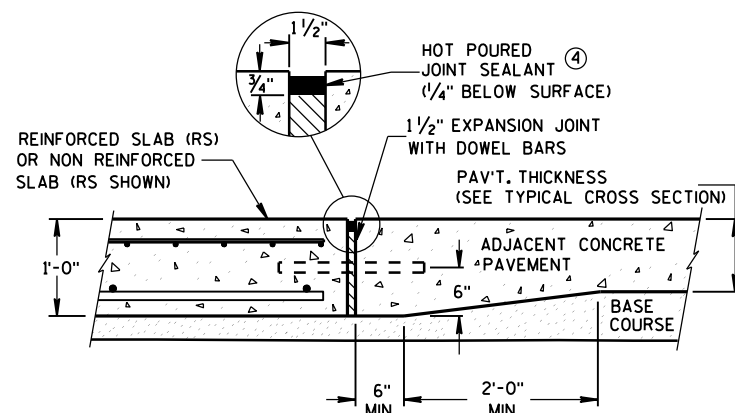
**SKews ≤ 30°
(PAVEMENT WIDTH ≤ 30')
APPROACH SLAB AND ADJACENT PAVEMENT**

- * (RS) = REINFORCED CONCRETE SLAB
- * (PS) = PAVED SHOULDER, CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN (SEE DETAILS ELSEWHERE IN THE PLAN)
- * (NRS) = NON-REINFORCED CONCRETE SLAB
- ** STANDARD TRANSVERSE JOINT SPACING (SEE SDD 13C4, SDD 13C11, & SDD 13C13)
- *** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11, & SDD 13C13)

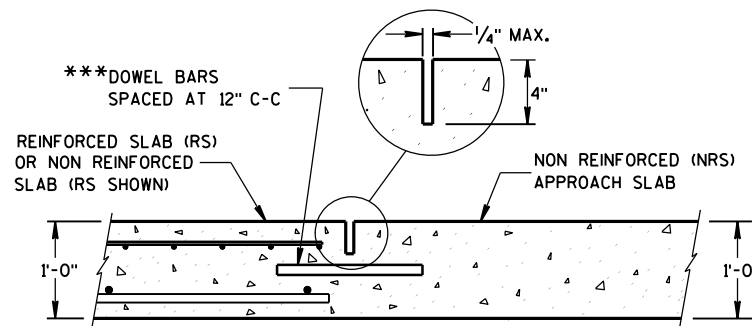
- (A) STANDARD CONTRACTION JOINT NORMAL TO R_L OR R_C
- (B) STANDARD LONGITUDINAL JOINT AND TIE BARS.
- (C) 1 1/2" EXPANSION JOINT WITH DOWEL BARS NORMAL TO R_L OR R_C



**SECTION A-A
REINFORCEMENT POSITIONING DETAIL**



**SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT**



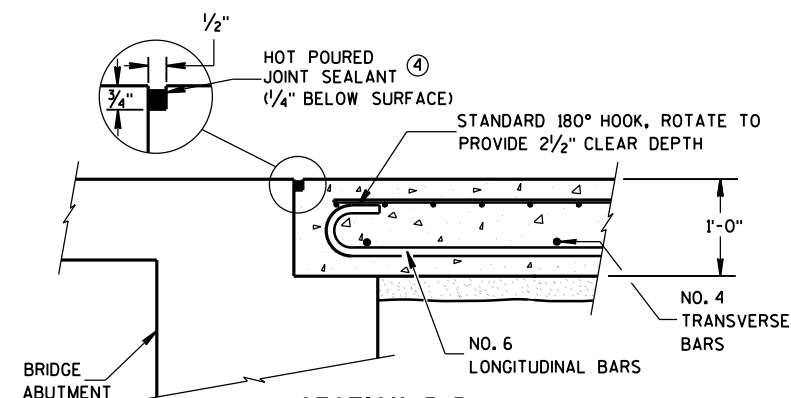
**SECTION D-D
CONTRACTION JOINT**

GENERAL NOTES

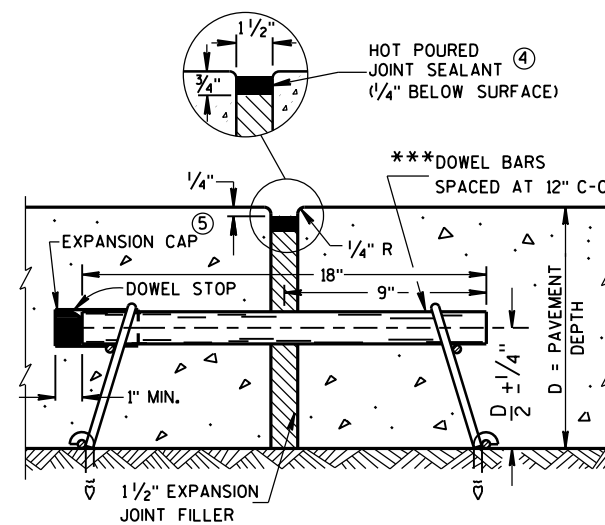
THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

- ① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
- ② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
- ③ DO NOT DOWEL A CONTRACTION JOINT THAT ABUTS AN HMA PAVEMENT.
- ④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.
- ⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



**SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT**

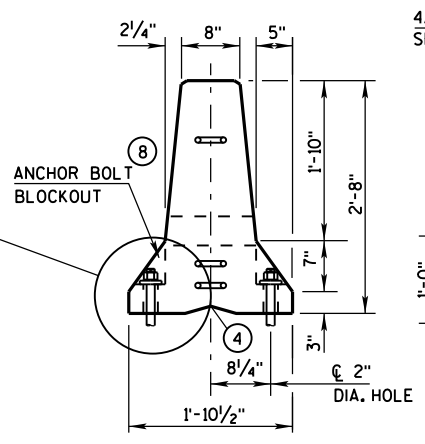
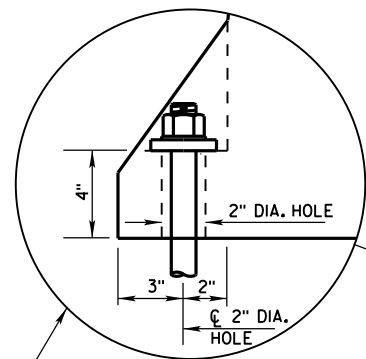


**SECTION E-E
EXPANSION JOINT**

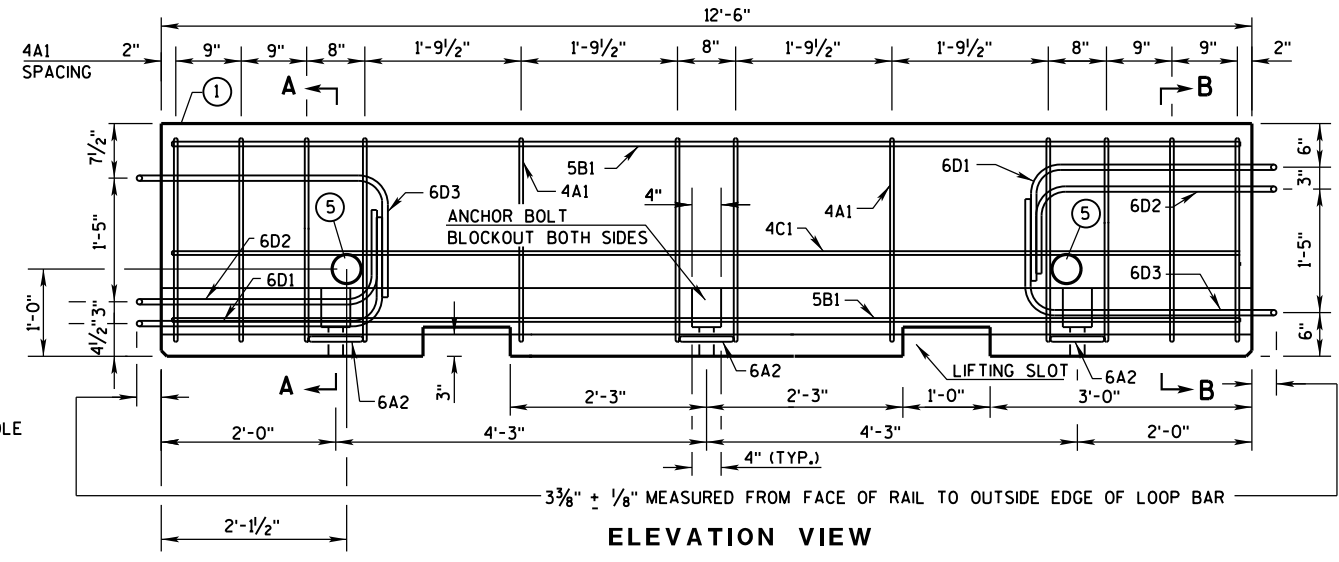
**CONCRETE BRIDGE
APPROACH**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

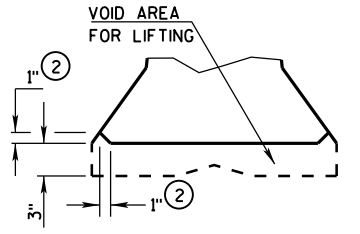
APPROVED
June, 2014 /S/ Deb Bischoff
DATE PAVEMENT POLICY & DESIGN ENGINEER
FHWA



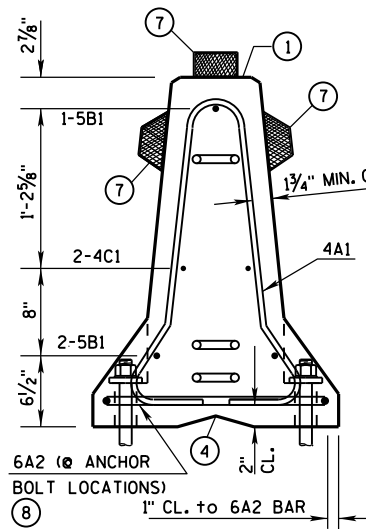
END VIEW



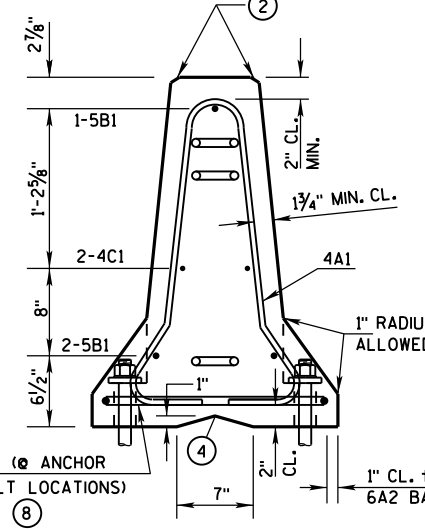
ELEVATION VIEW



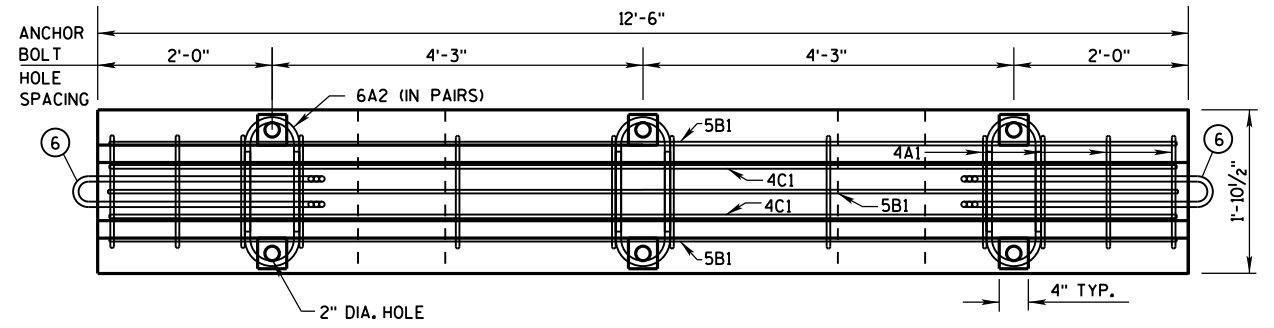
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)



PLAN VIEW

DETAILS OF BARRIER SECTION

GENERAL NOTES

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

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

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

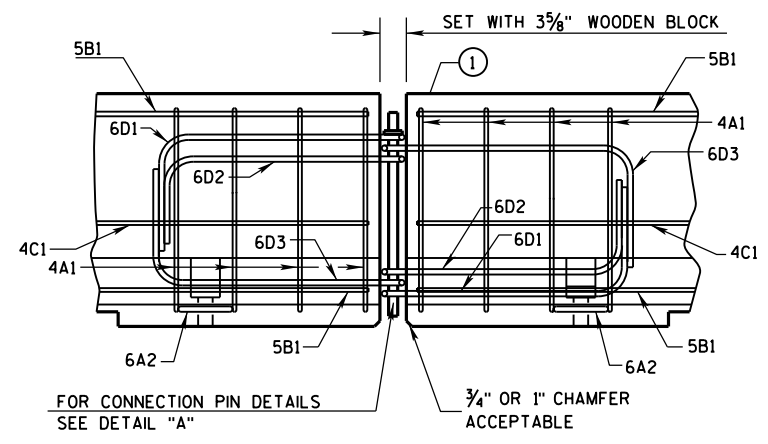
LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE 3/4" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-1/2" PIN BEND DIAMETER FOR BEND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

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

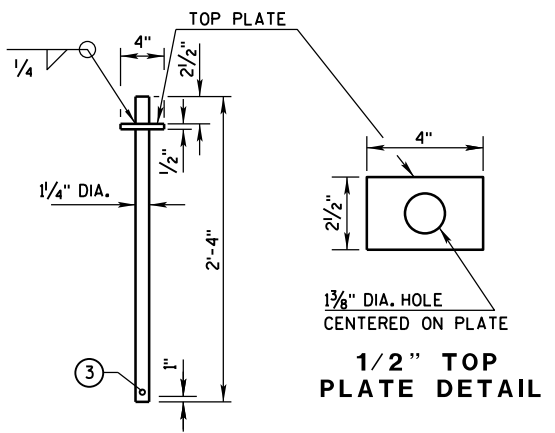
PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

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

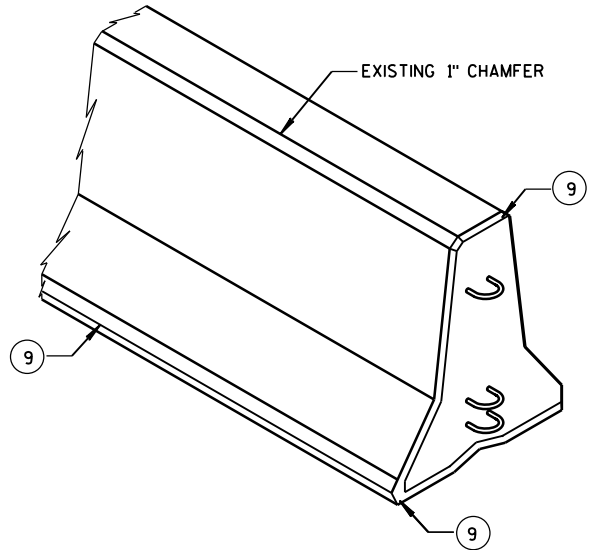
- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - a. TYPE: W/CBTP
 - b. MANUFACTURER
 - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ A 3/8" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..
- ④ "V" NOTCH IS OPTIONAL.
- ⑤ THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).
- ⑥ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.
- ⑦ USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURER'S INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.
- ⑧ SEE SHEET D FOR ANCHORING CRITERIA.
- ⑨ 1" CHAMFER OPTIONAL.



DETAILS OF BARRIER CONNECTION



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



CONCRETE BARRIER
TEMPORARY PRCAST, 12'-6"

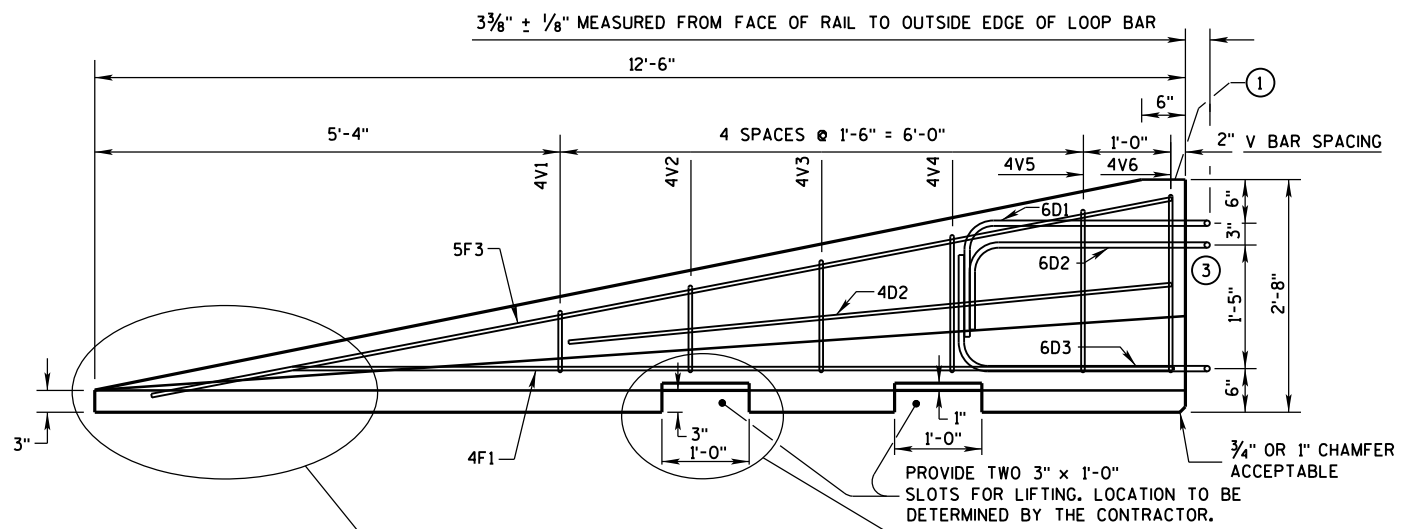
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

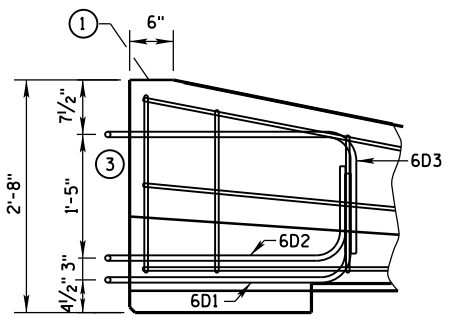
6

S.D.D. 14 B 7-14a

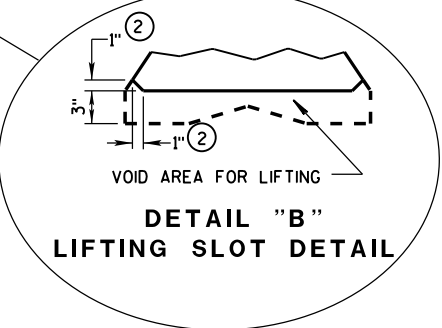
S.D.D. 14 B 7-14a



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



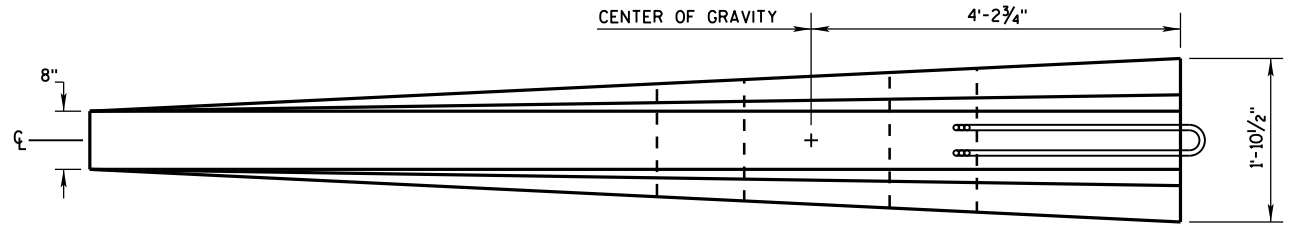
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)



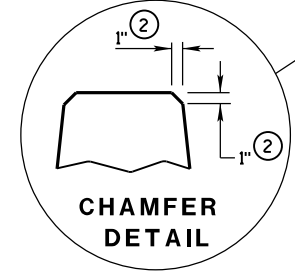
DETAIL "B"
LIFTING SLOT DETAIL

GENERAL NOTES

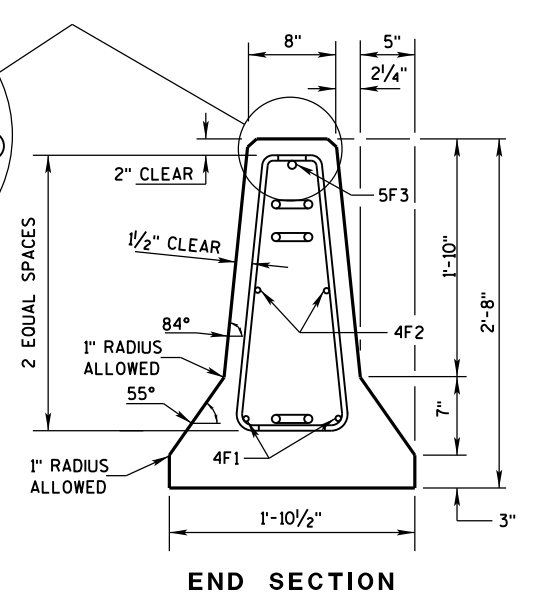
- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
a. TYPE WICBTP
b. MANUFACTURER
c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



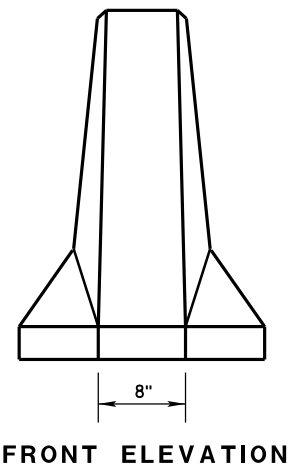
PLAN VIEW



CHAMFER DETAIL

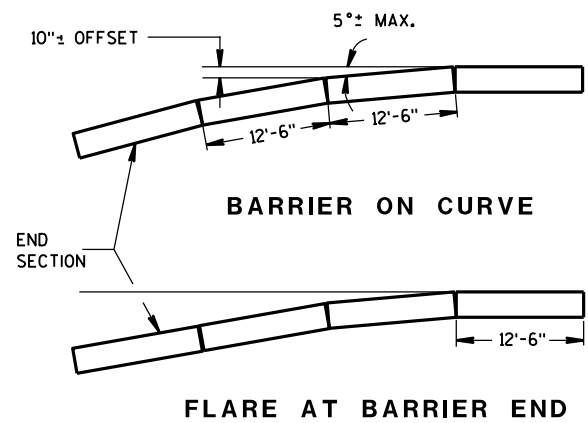


END SECTION



FRONT ELEVATION

DETAILS OF BARRIER TAPER SECTION



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

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

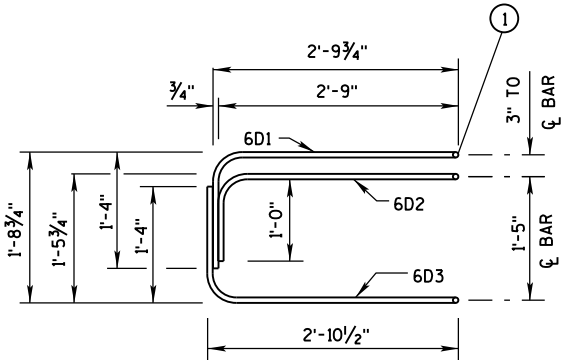
GENERAL NOTES

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

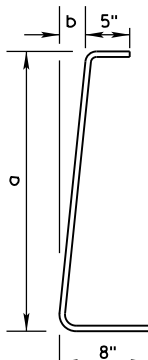
**BARRIER TAPER SECTION
BILL OF MATERIALS**
(PER 12'-6" BARRIER TAPER SECTION)

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

LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"

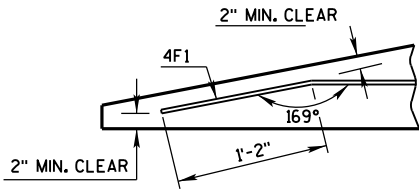


**ELEVATION
LOOP BAR ASSEMBLY**



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

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY



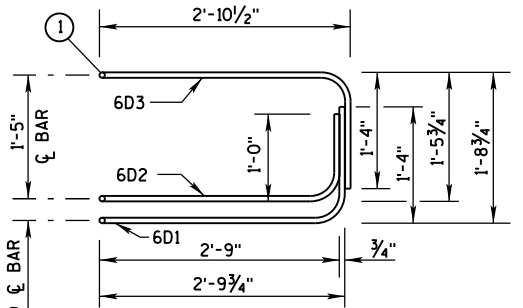
**DETAIL "C"
BENT BAR DETAIL**

TAPER BARRIER SECTION

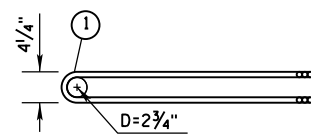
**BARRIER SECTION
BILL OF MATERIALS**
(PER 12'-6" BARRIER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"

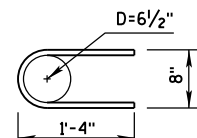
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



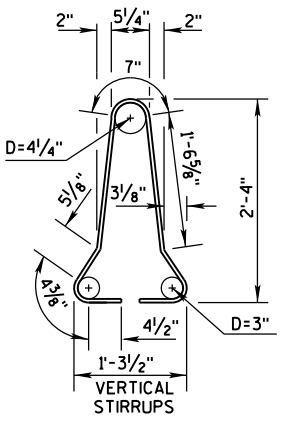
ELEVATION VIEW



**PLAN VIEW
LOOP BAR ASSEMBLY**
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2

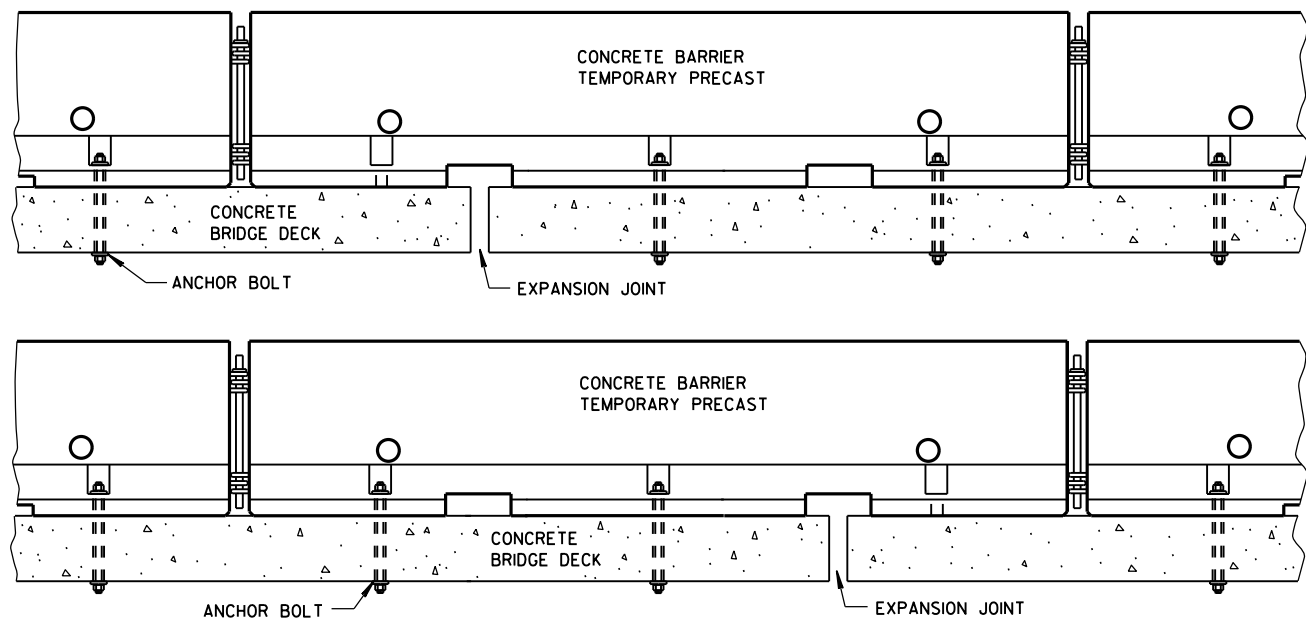


4A1

BARRIER SECTION

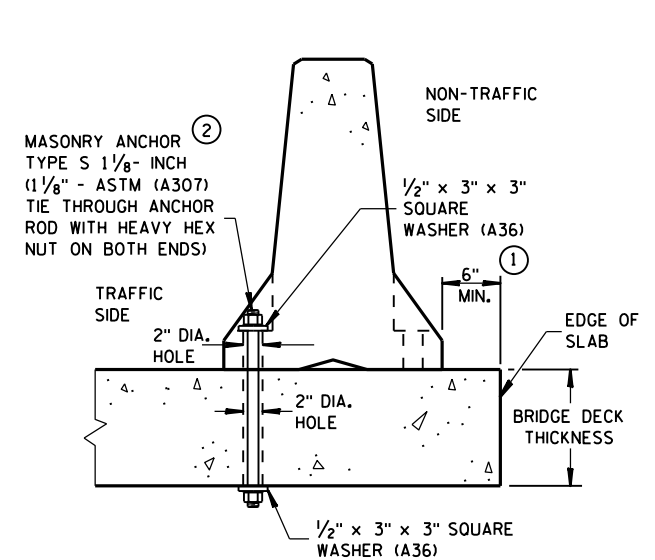
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



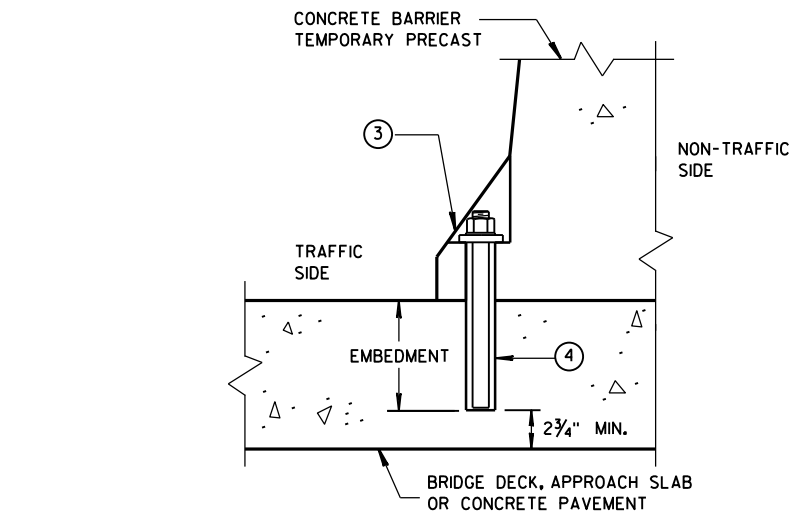
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

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



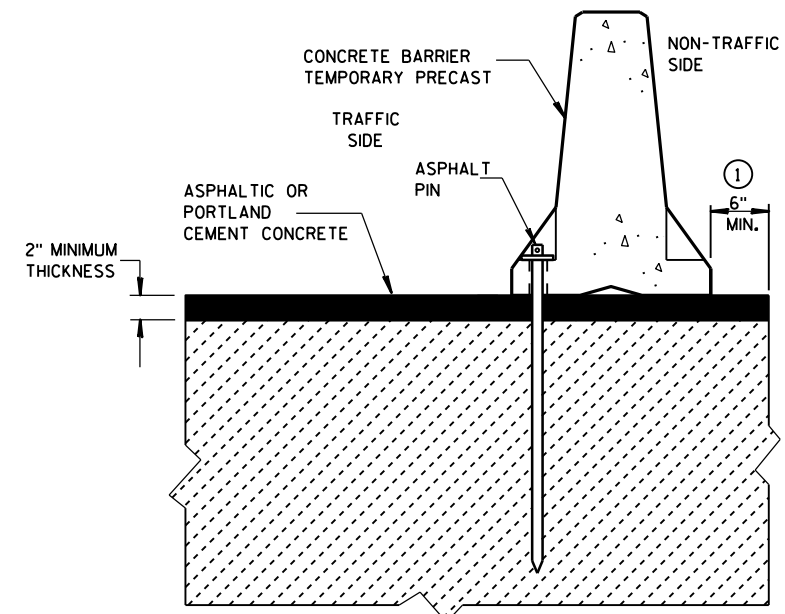
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

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



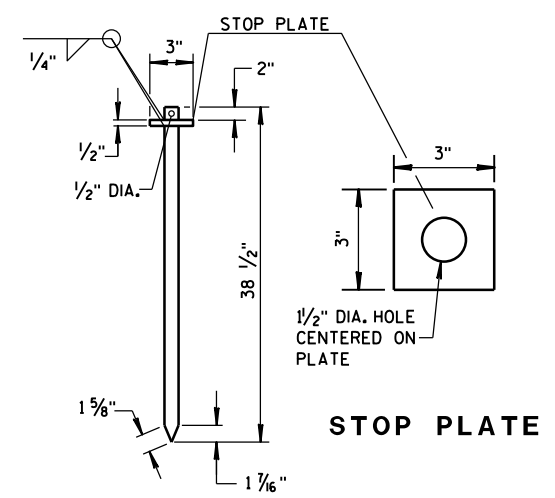
REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



ASPHALT PIN (ASTM A36 STEEL)

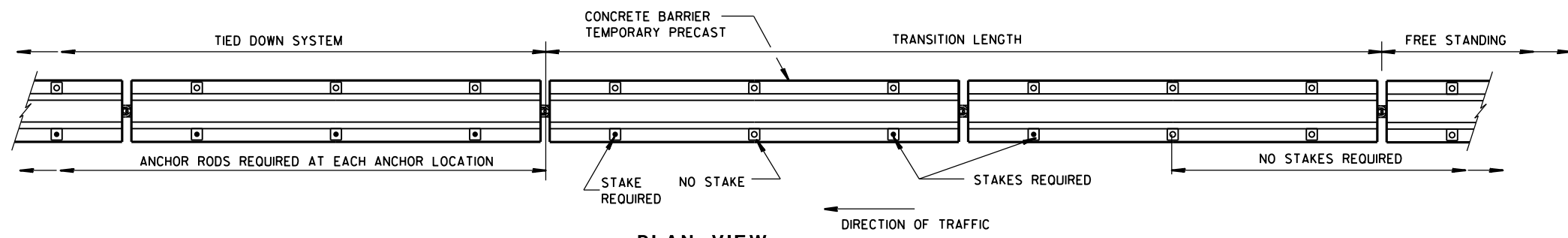
GENERAL NOTES

- ① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.
- ② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1 1/8-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERCIAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.
- ③ 1 1/8" DIAMETER A307 THREADED ROD, 1/2" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.
- ④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5/4" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

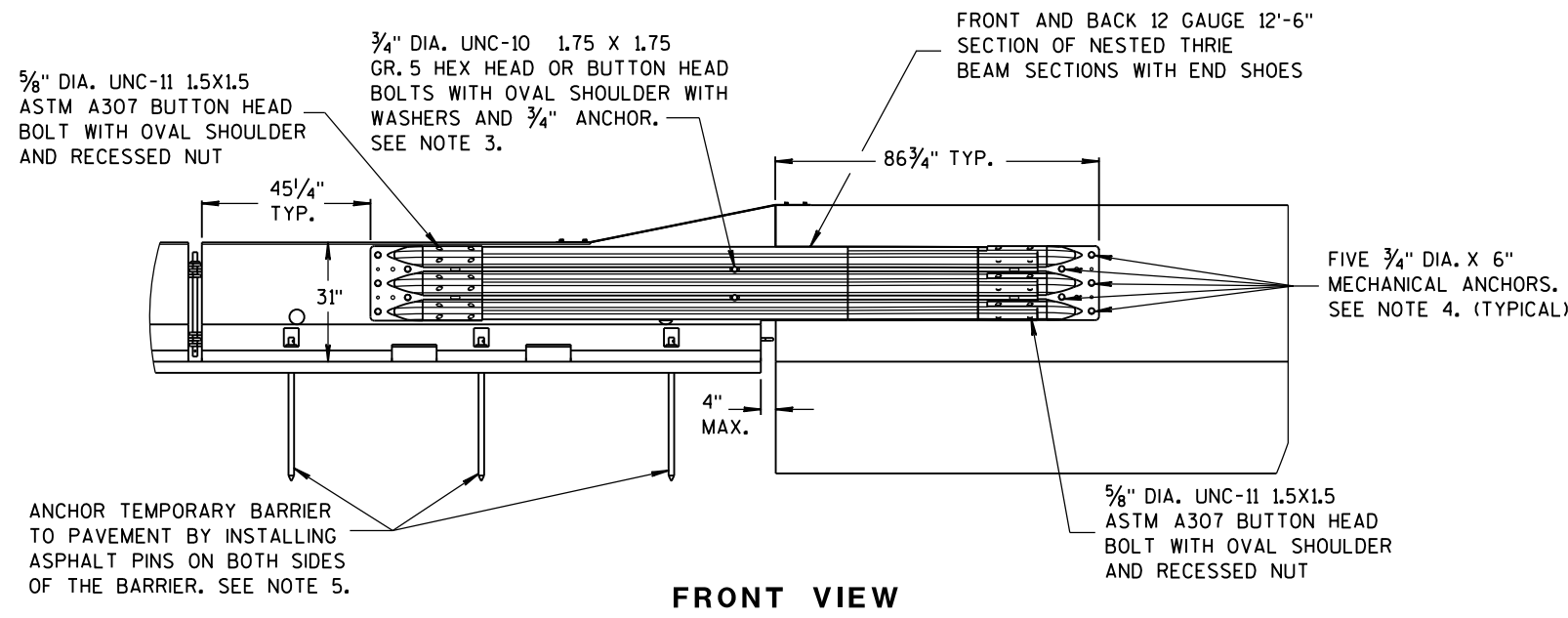


FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

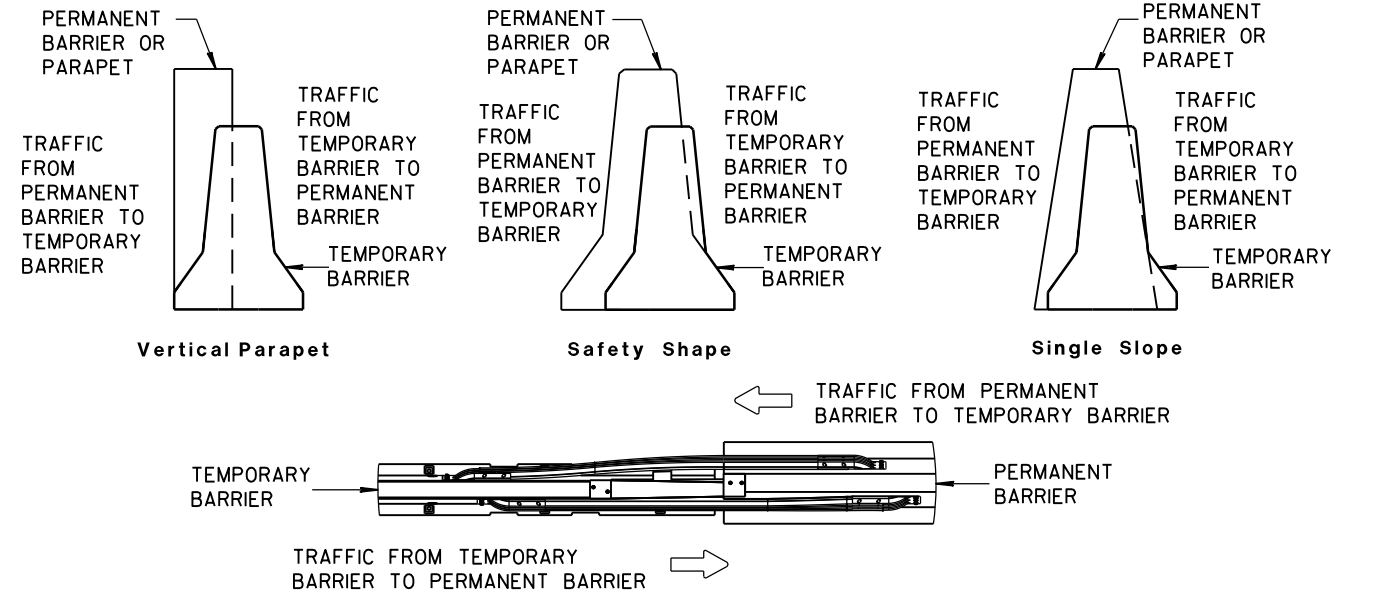
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

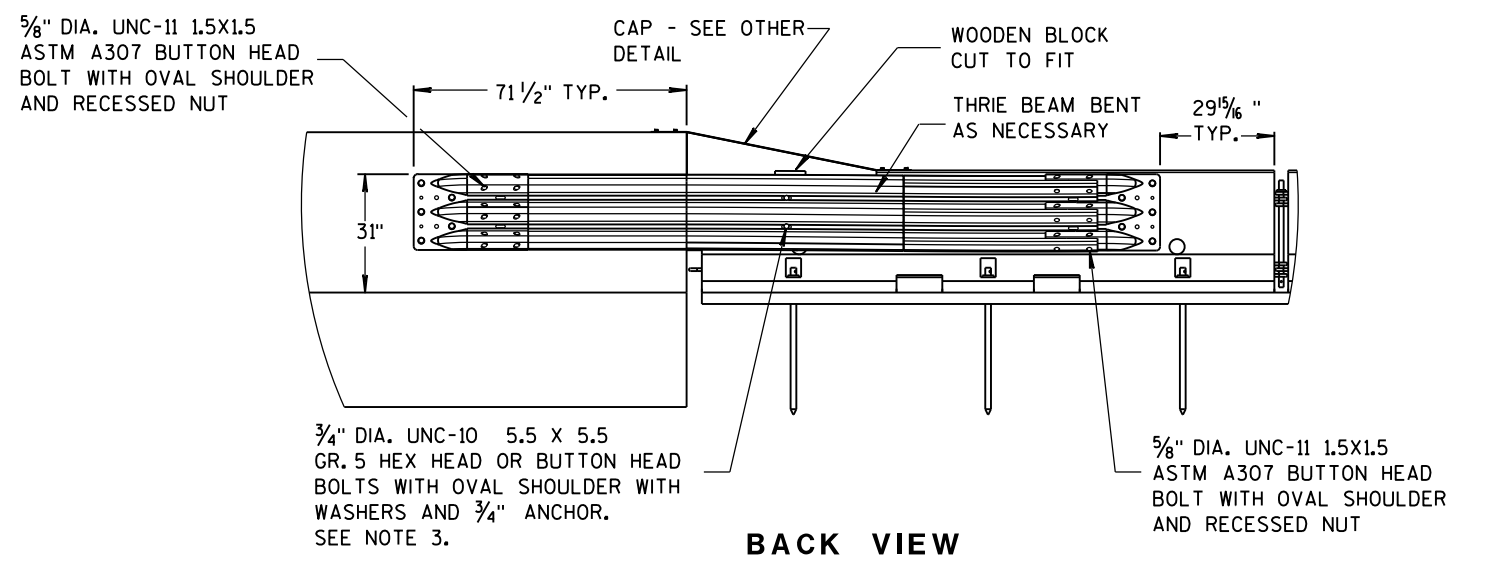


FRONT VIEW

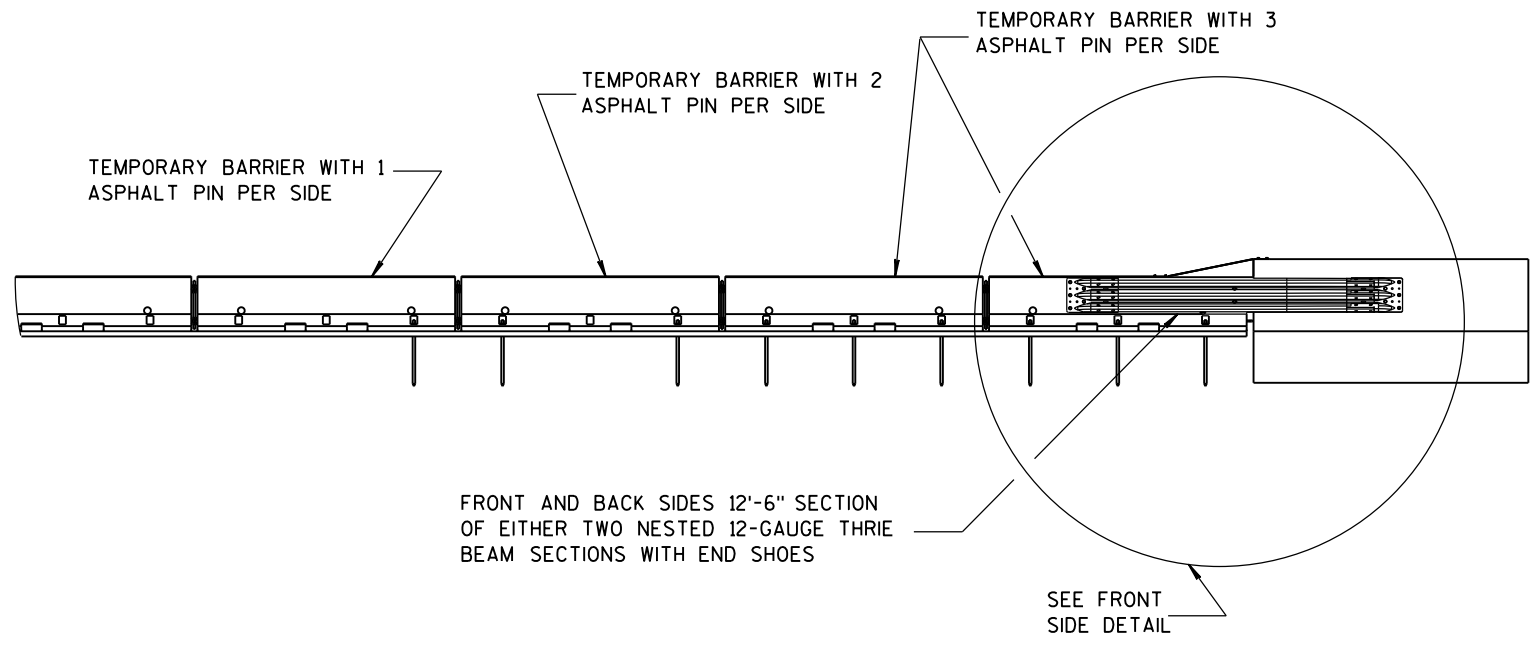


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

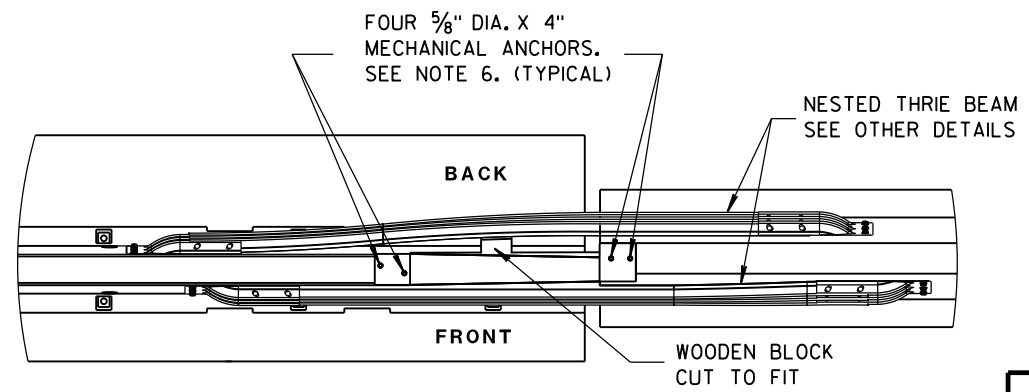
- NOTES**
- NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.
- CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
 - THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
 - MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
 - MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
 - MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
 - MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

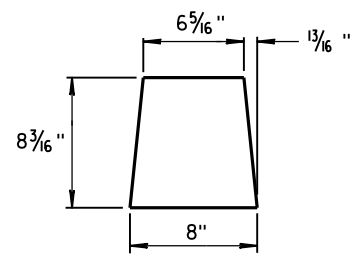
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

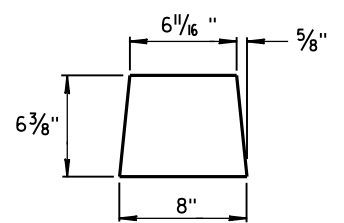
6

S.D.D. 14 B 7-14e

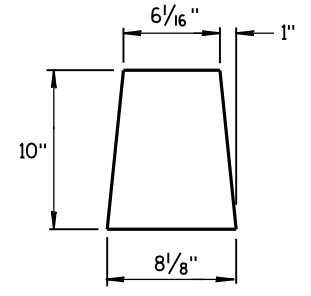
S.D.D. 14 B 7-14e



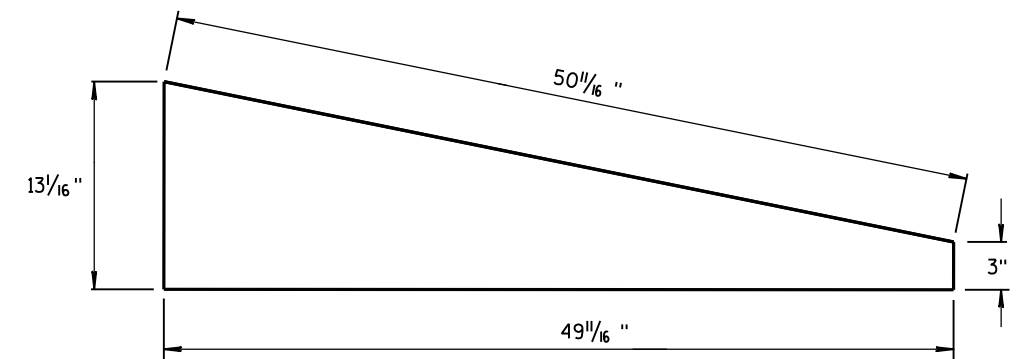
GUSSET 1



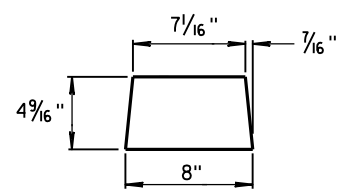
GUSSET 2



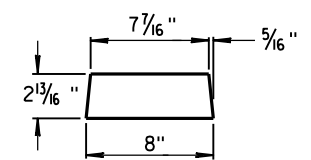
END PLATE



SIDE PLATE

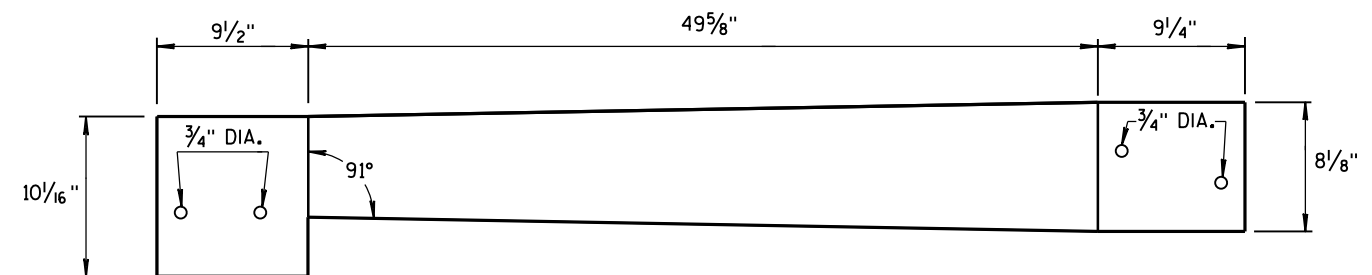


GUSSET 3

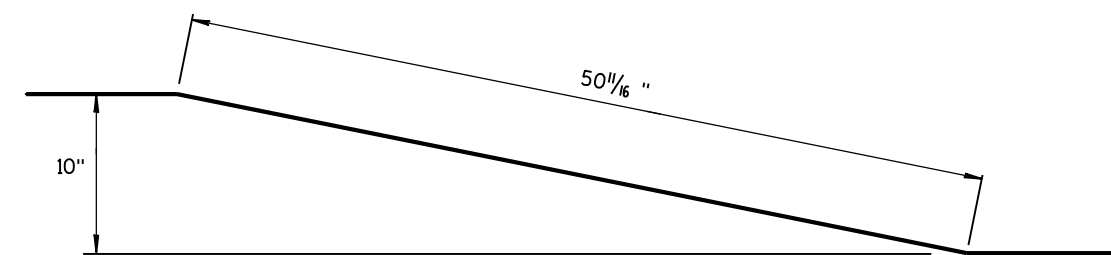


GUSSET 4

GUSSETS

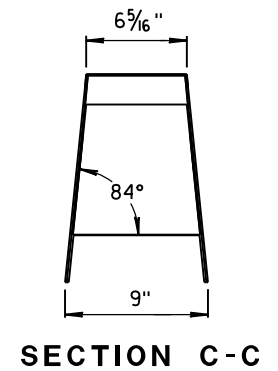
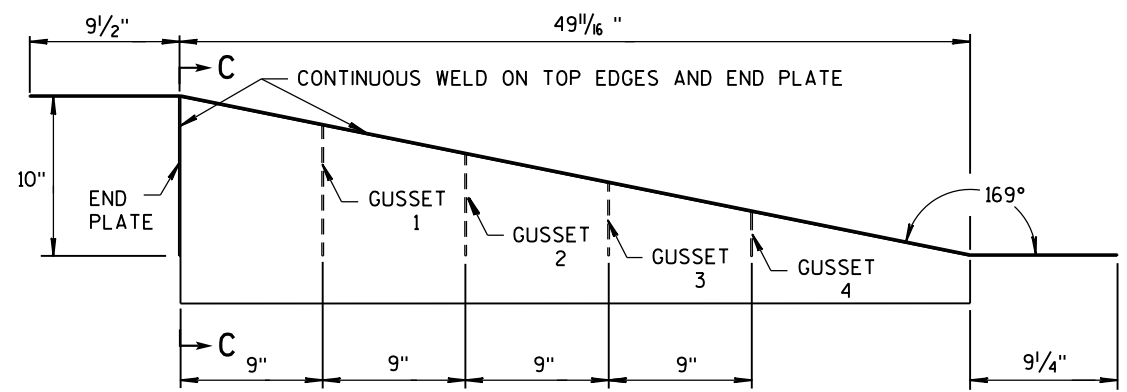
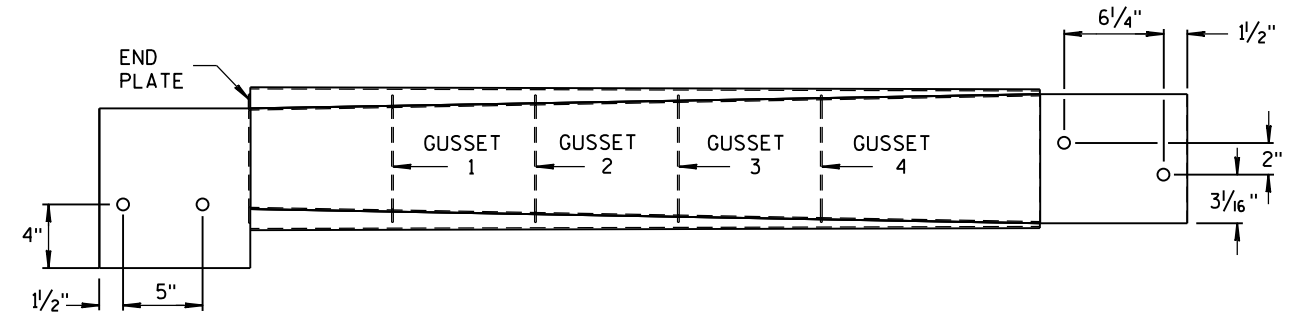


TOP PLATE



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

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



SECTION C-C

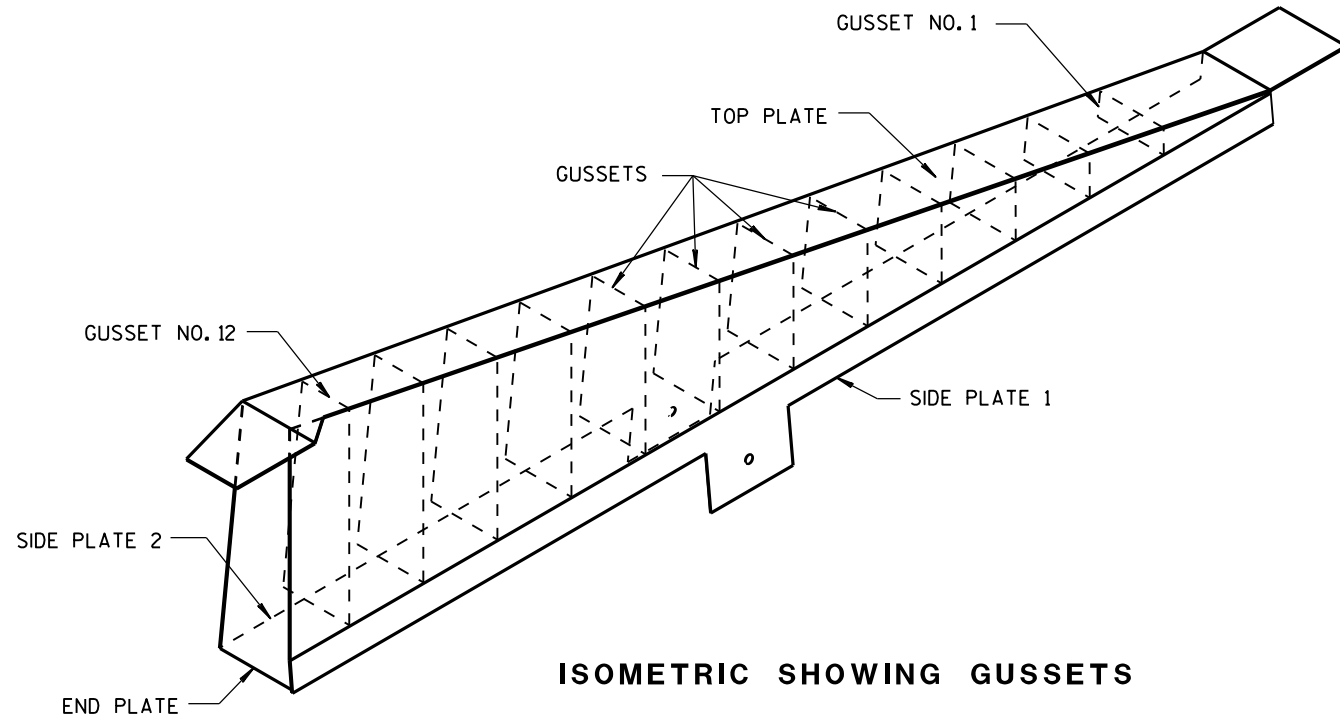
NOTES

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

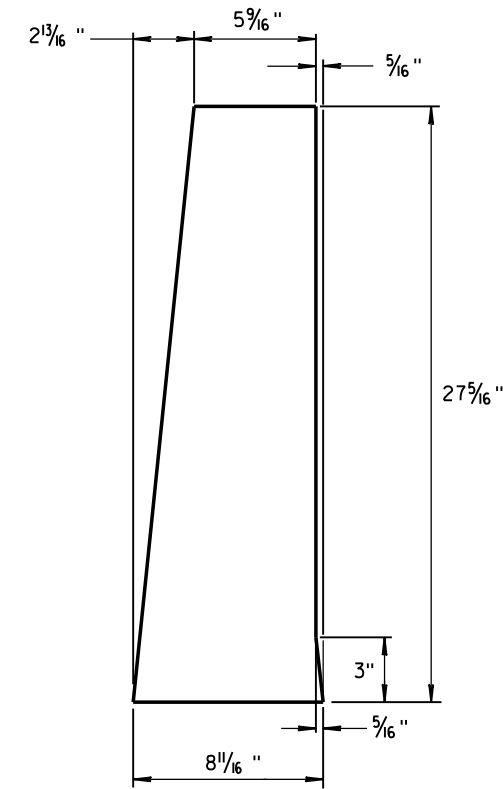
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

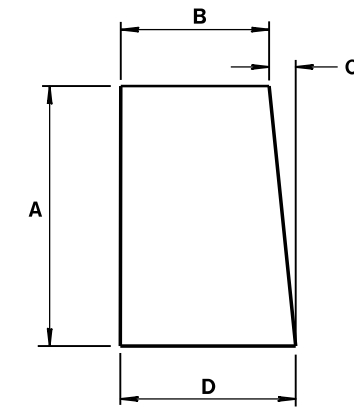


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



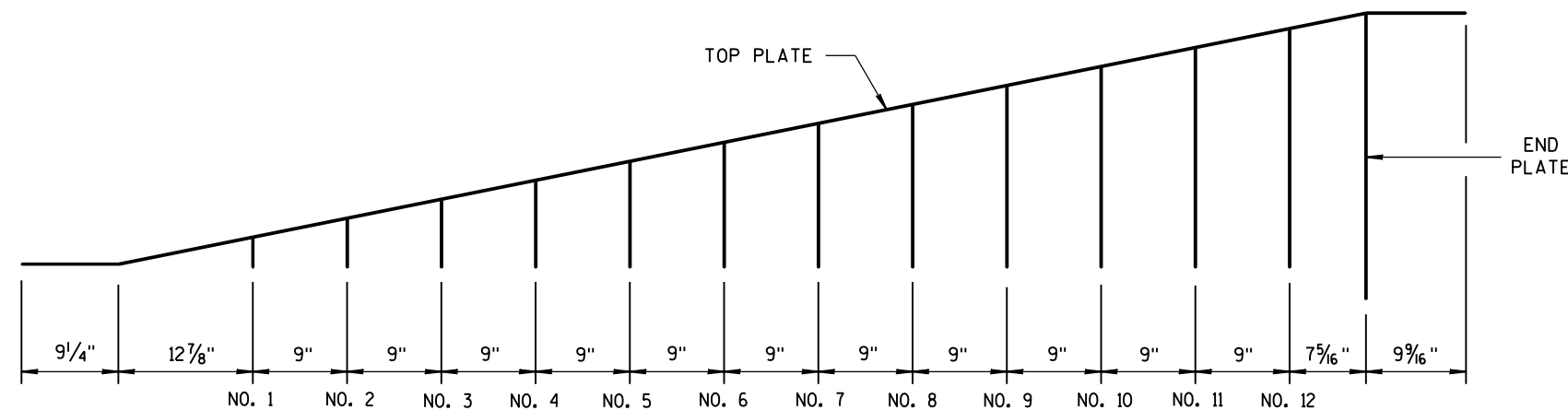
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

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

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

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

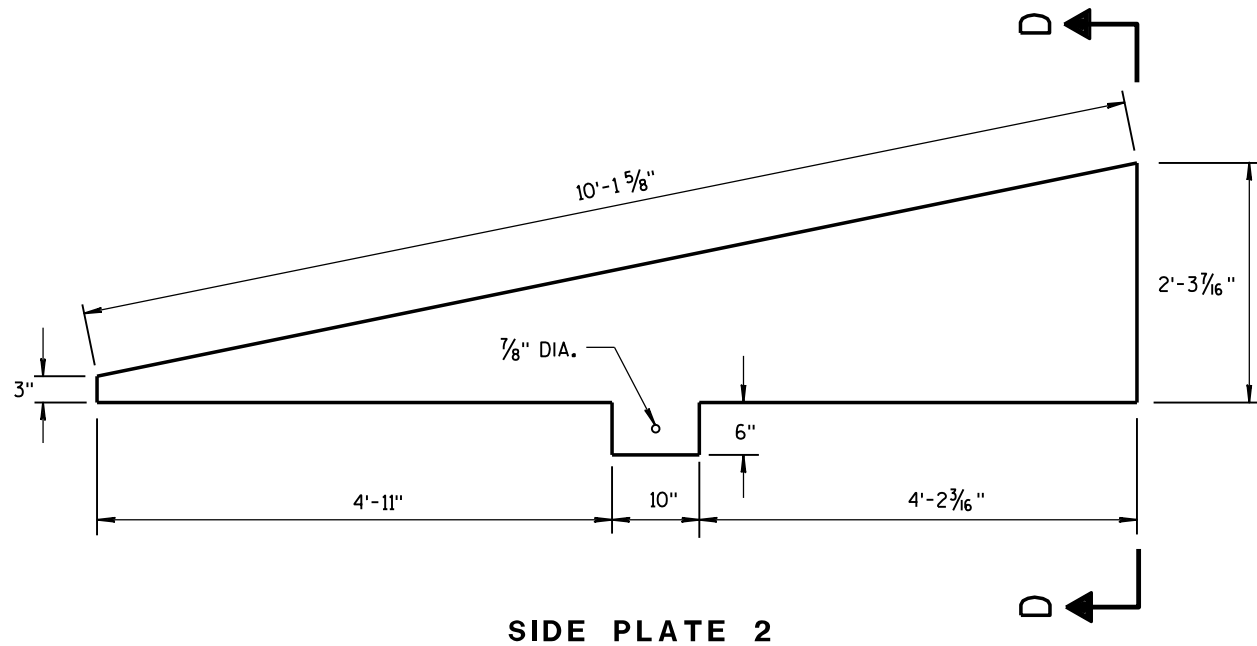


GUSSET LOCATION

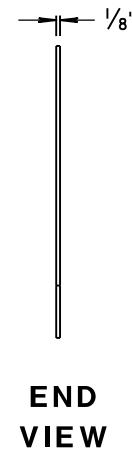
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

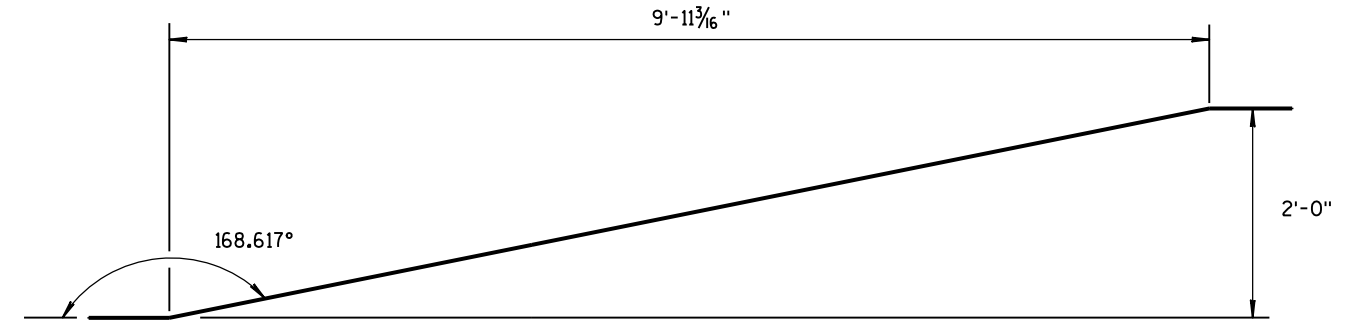
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



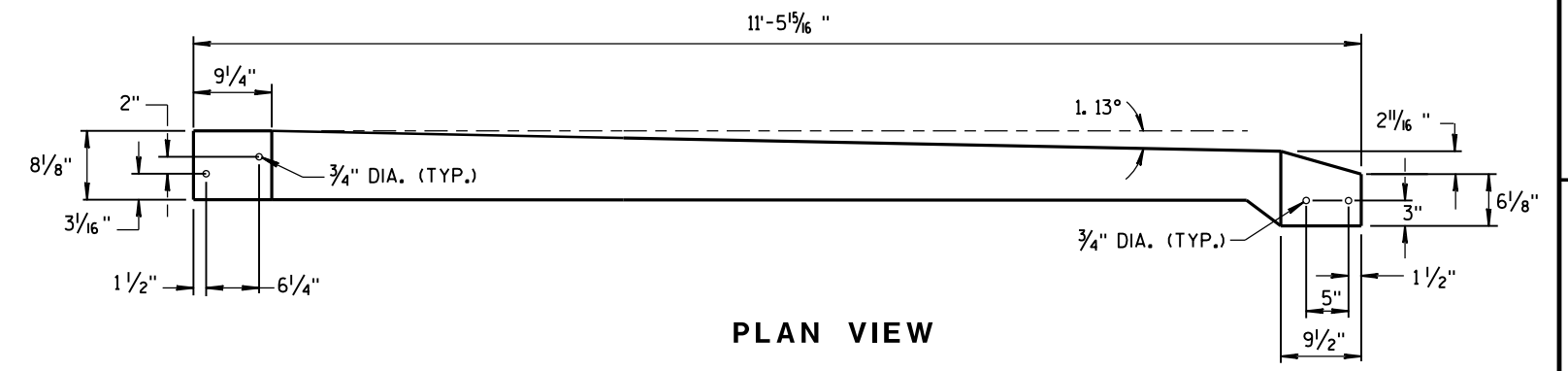
SIDE PLATE 2



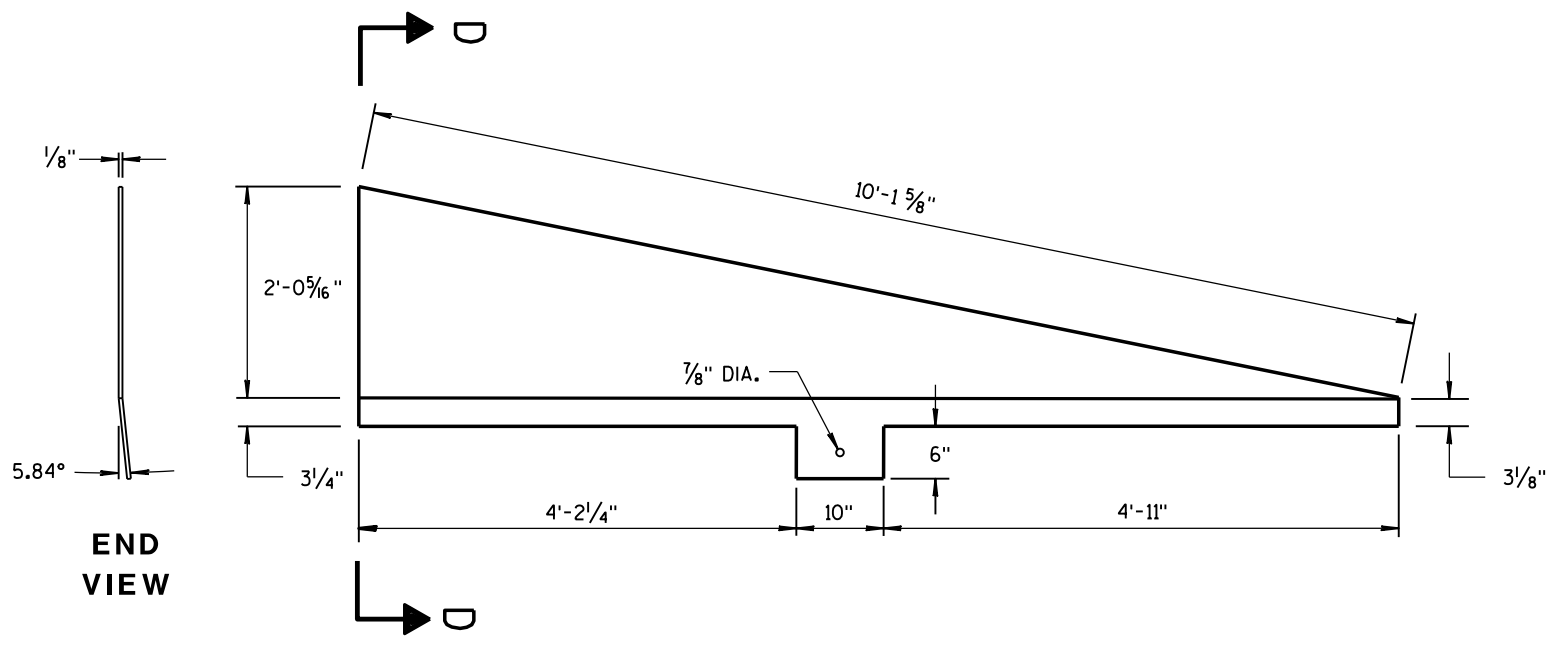
END VIEW



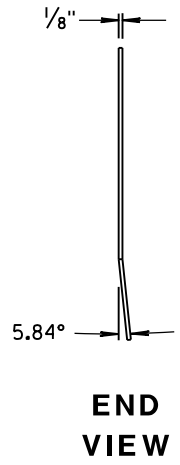
**SIDE VIEW
TOP PLATE**



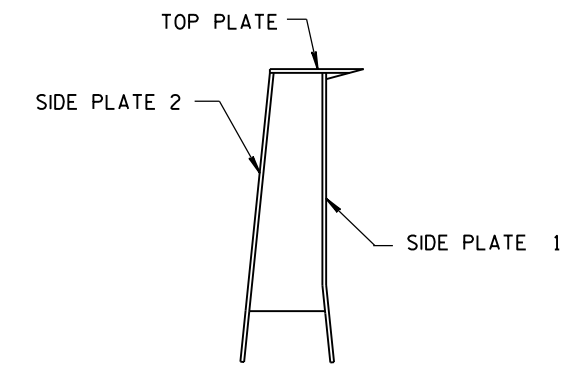
**PLAN VIEW
TOP PLATE**



SIDE PLATE 1



END VIEW



SECTION D-D

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

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

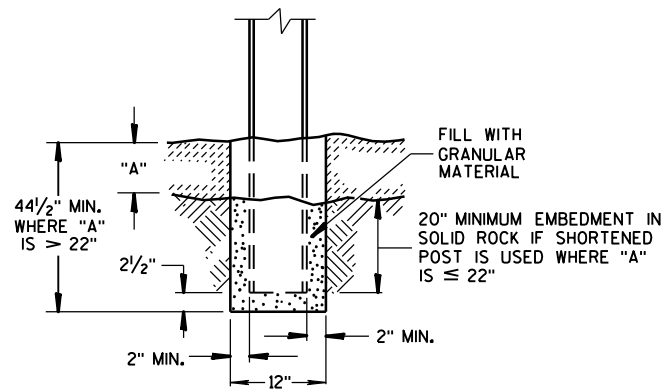
APPROVED
June 2014 DATE /S/ Jerry H. Zogg
ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA

GENERAL NOTES

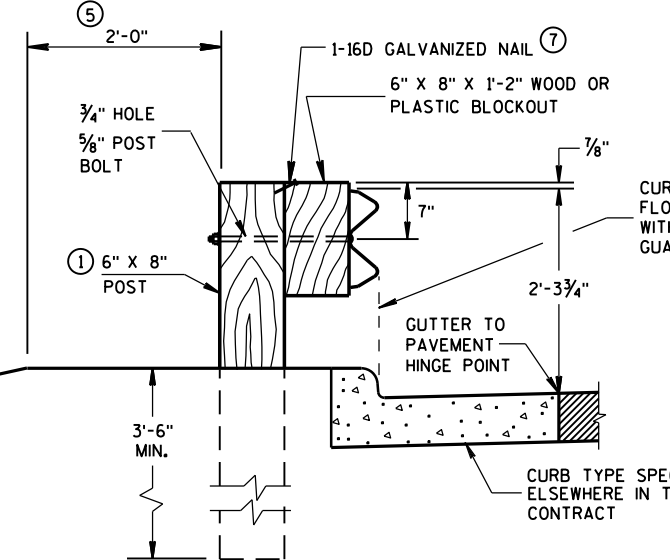
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, AND THE APPLICABLE SPECIAL PROVISIONS.

- ① W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.
DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.
- ② USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111 EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SHELTER COATING ON GALVANIZED POSTS.
- ③ INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ④ USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.
- ⑤ IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).
- ⑥ IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2 INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN THE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATELY.
- ⑦ WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

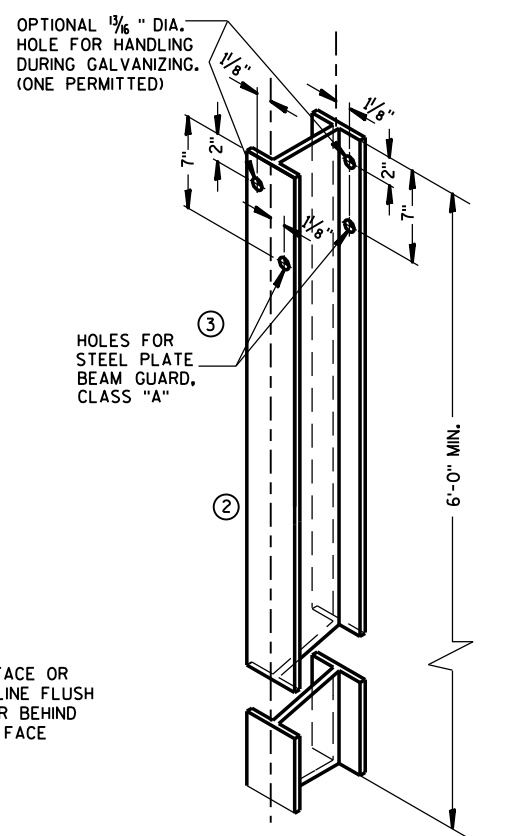
INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



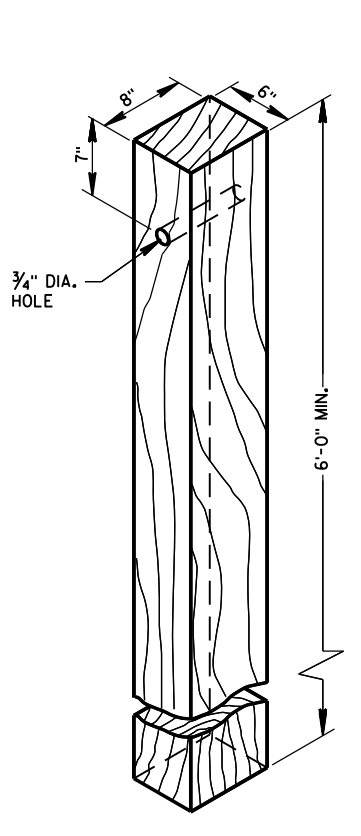
END VIEW SETTING STEEL OR WOOD POST IN ROCK ⑥



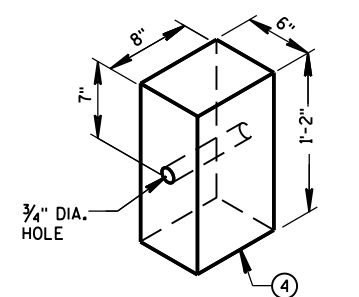
END VIEW LOCATED ALONG A CURBED ROADWAY



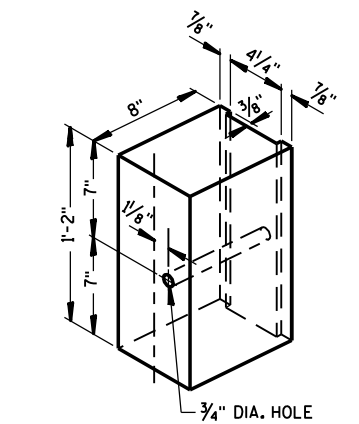
STEEL POST & HOLE PUNCHING DETAIL (W6 X 9) ①
ALL HOLES 1/8" DIAMETER EXCEPT AS NOTED



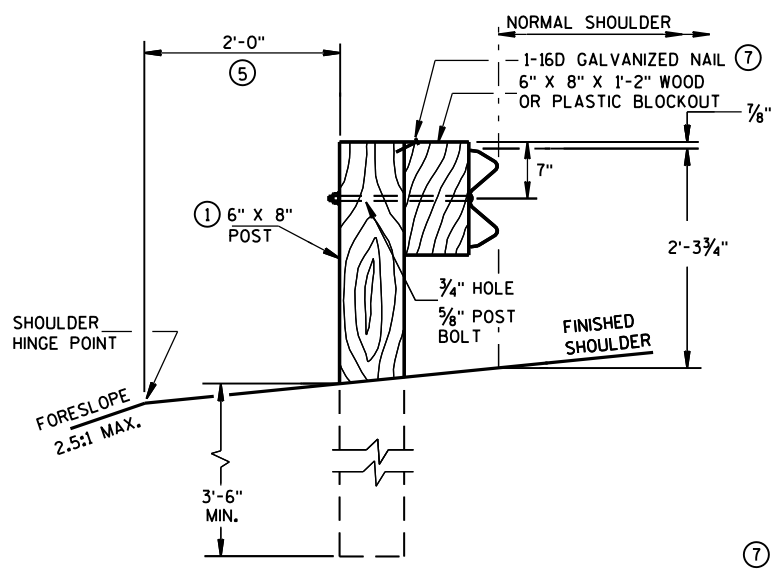
WOOD POST (6" X 8") NOMINAL



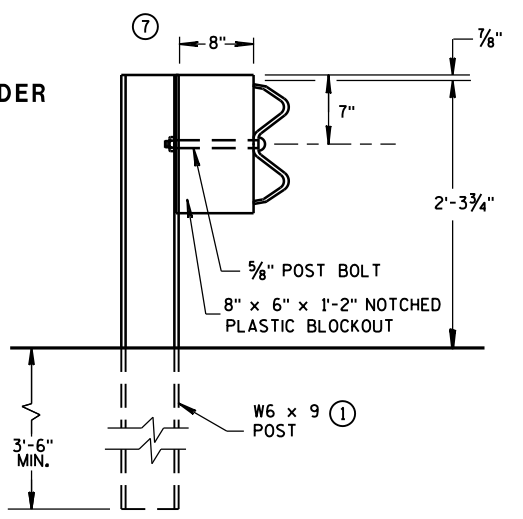
WOOD OR PLASTIC BLOCKOUT FOR WOOD POSTS



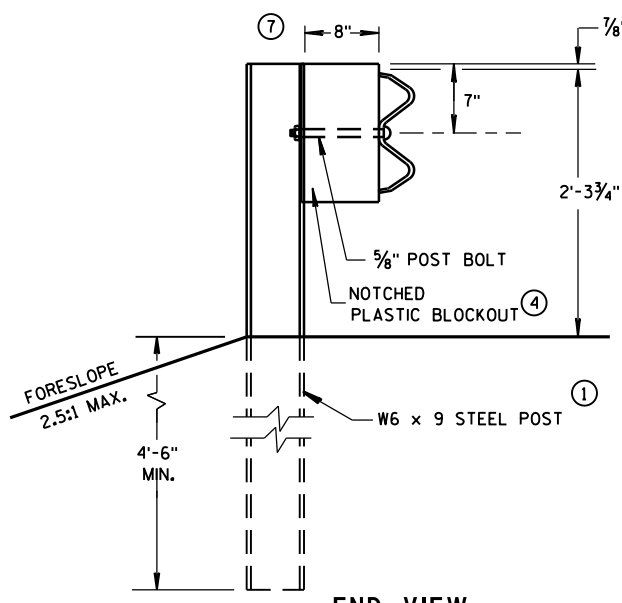
TYPICAL NOTCHED PLASTIC BLOCKOUT FOR STEEL POSTS ①



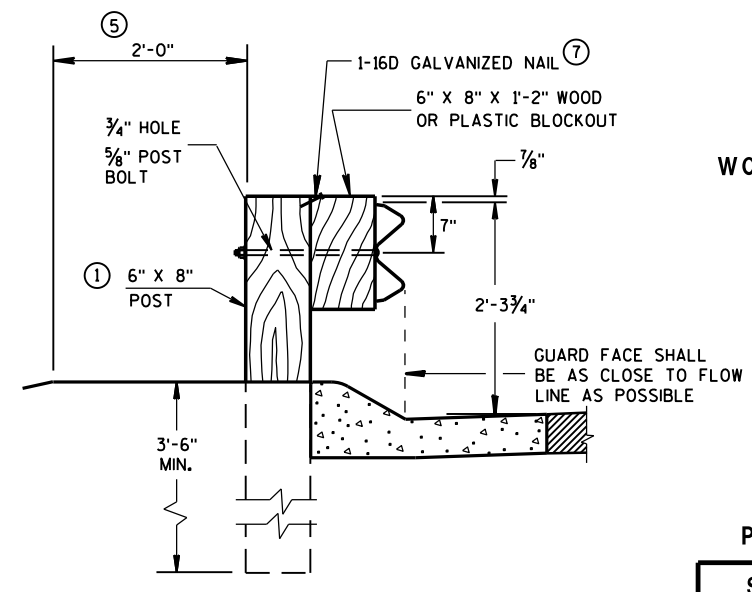
END VIEW LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



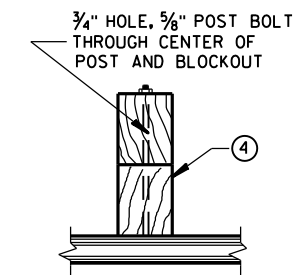
END VIEW STEEL POST & NOTCHED PLASTIC BLOCKOUT ALTERNATIVE STANDARD INSTALLATION



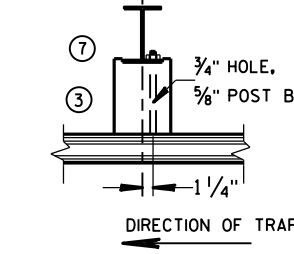
END VIEW LONGER POST AT HALF POST SPACING W BEAM (LHW)



END VIEW LOCATED ALONG A MOUNTABLE CURBED ROADWAY



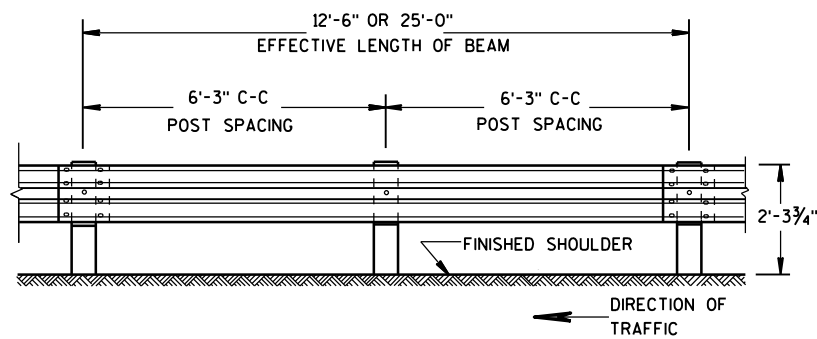
PLAN VIEW WOOD POST, BLOCKOUT & BEAM



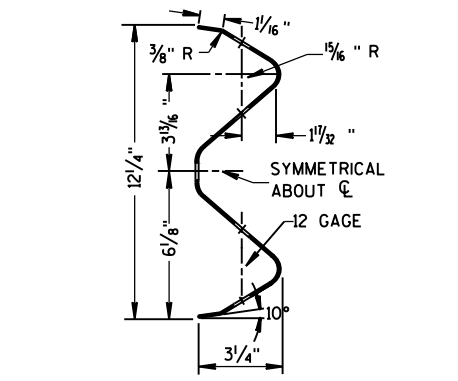
PLAN VIEW STEEL POST, NOTCHED PLASTIC BLOCKOUT & BEAM

STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS

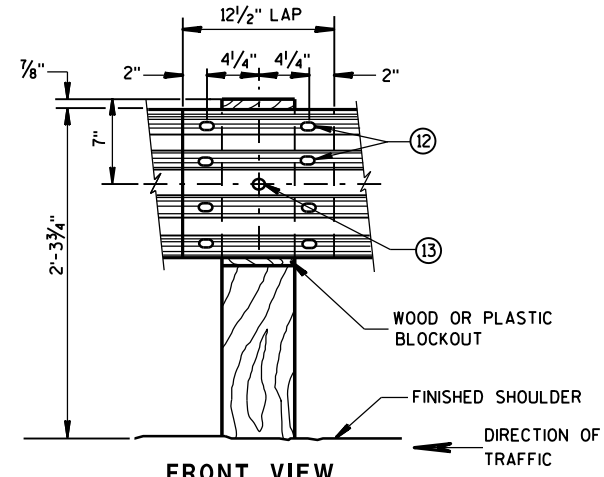
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



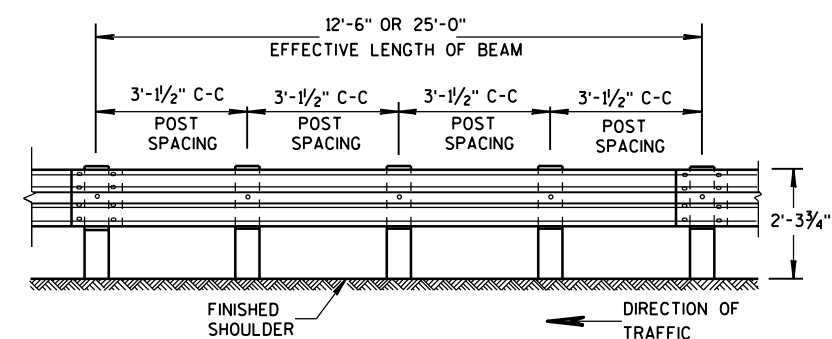
FRONT VIEW
POST SPACING STANDARD INSTALLATION



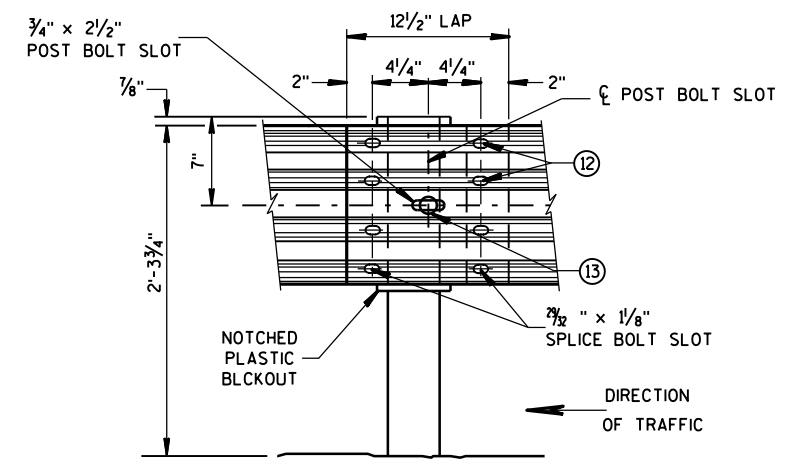
SECTION THRU W BEAM



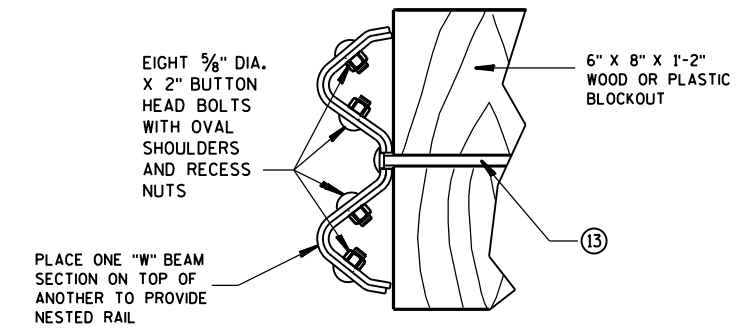
FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL



FRONT VIEW
POST SPACING FOR LONGER POST
AT HALF POST SPACING W BEAM (LHW)



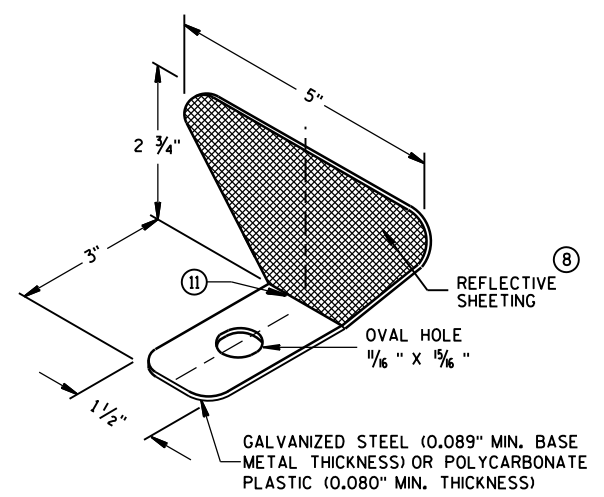
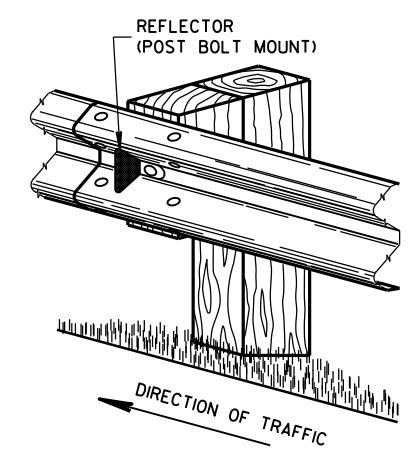
FRONT VIEW
BEAM SPLICE AT STEEL POST
TYPICAL SPLICING DETAILS
OF STEEL PLATE BEAM GUARD



NESTED W BEAM (NW)
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR
CONSTRUCTING NESTED W BEAM (NW)

REFLECTOR SPACING ^⑨

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	3
TWO WAY TRAFFIC	< 200'	25' C-C	1 ^⑩	6
	> 200'	50' C-C	1 ^⑩	6
TWO WAY TRAFFIC	< 200'	50' C-C	2 ^⑪	3
	> 200'	100' C-C	2 ^⑪	3



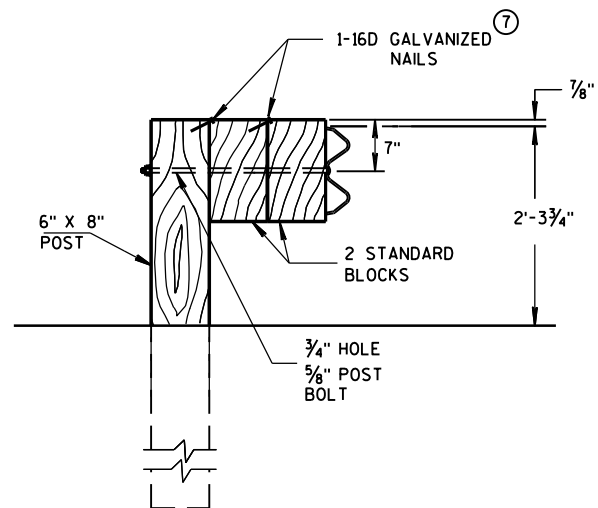
ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ^⑧

GENERAL NOTES

- ⑧ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.
- ⑨ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- ⑩ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
- ⑪ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
- ⑫ 8 - 5/8" φ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- ⑬ 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.

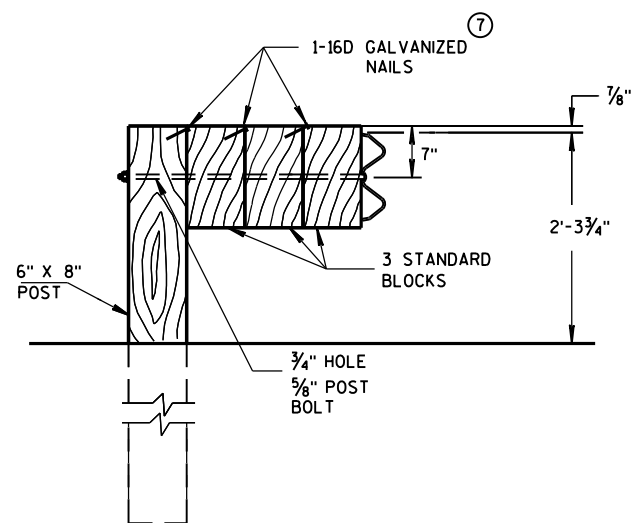
STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

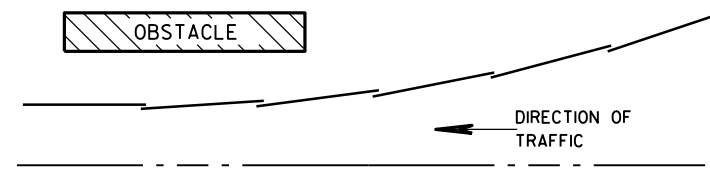


DETAIL FOR TRIPLE BLOCKS

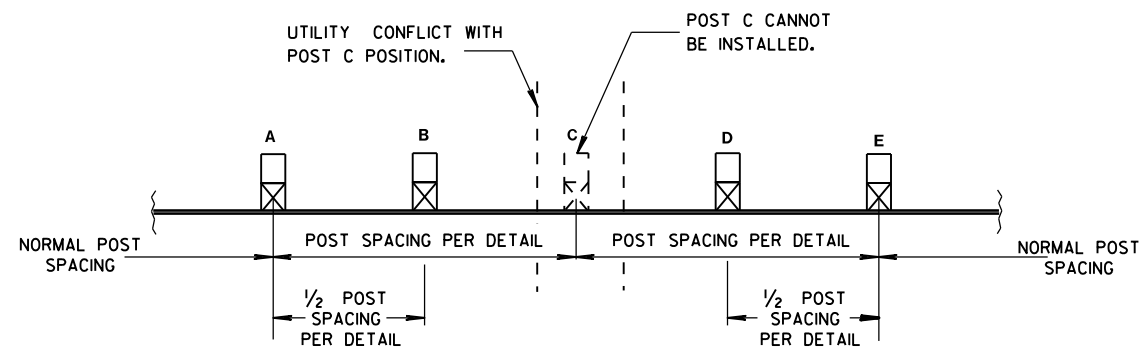
TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



**PLAN VIEW
BEAM LAPPING DETAIL**



**POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION**

6

6

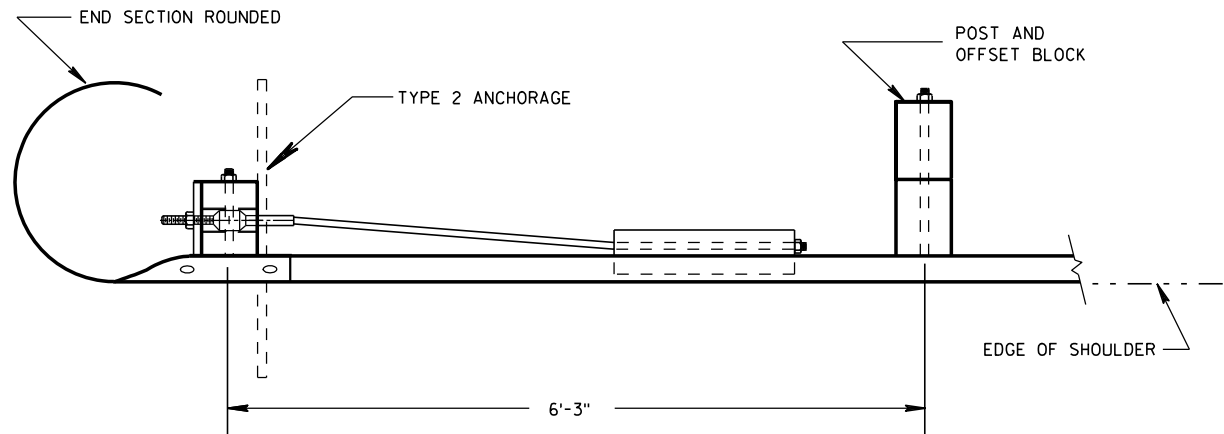
S.D.D. 14 B 15-8C

S.D.D. 14 B 15-8C

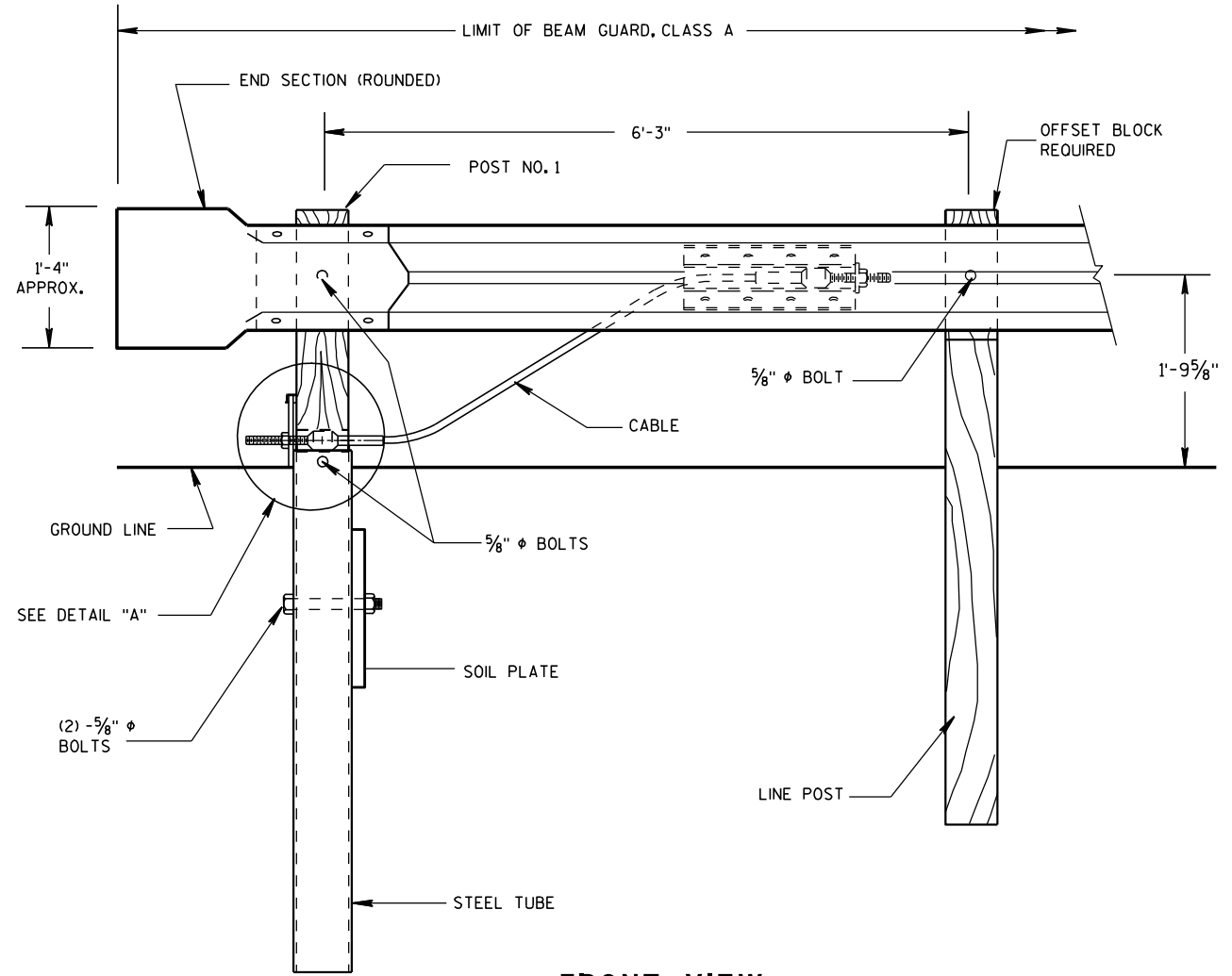
**STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA ENGINEER

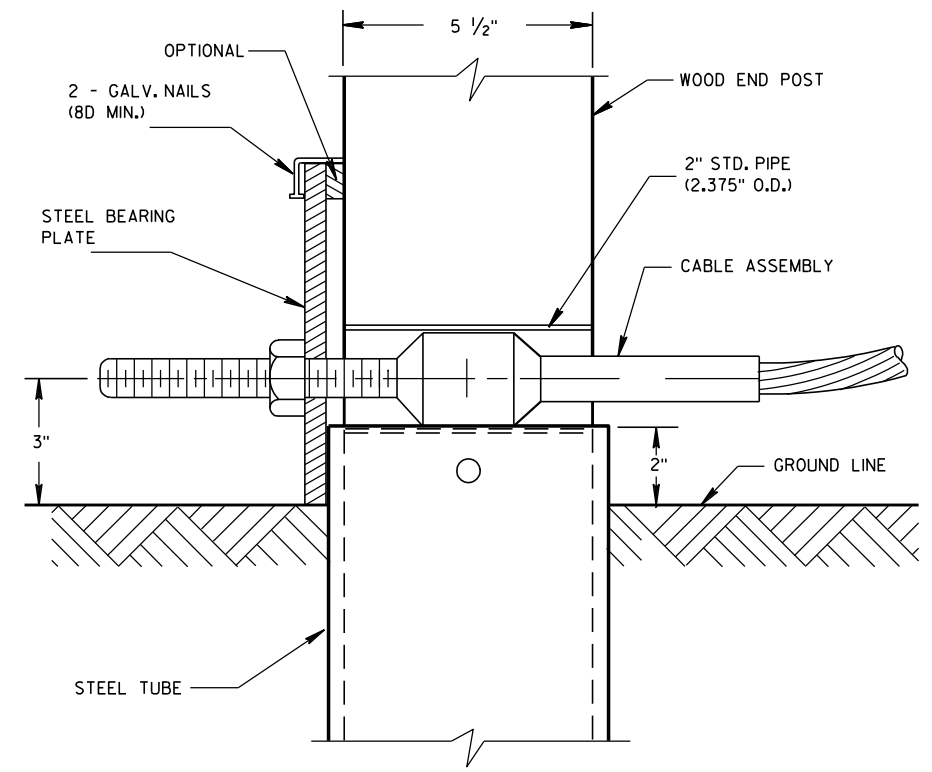


PLAN VIEW

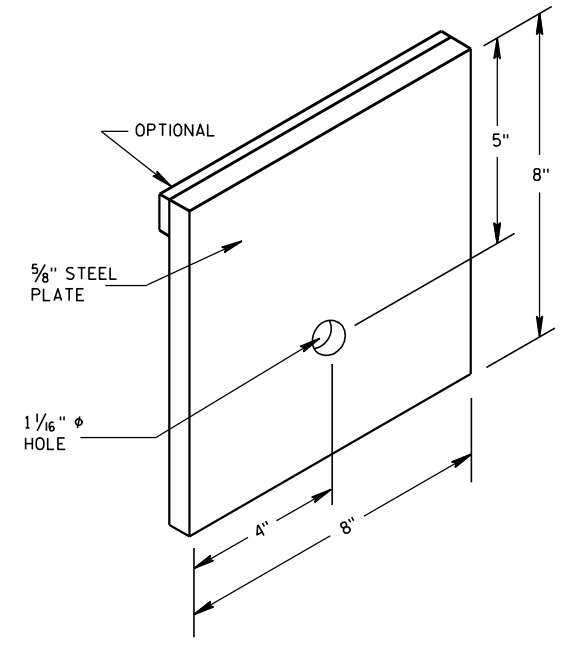


FRONT VIEW

END TREATMENT WITH TYPE 2 ANCHORAGE
(USE ON ONE-WAY ROADWAYS ONLY - DEPARTING END)



DETAIL "A"
POST NO. 1



STEEL BEARING PLATE

**ANCHORAGE FOR STEEL
PLATE BEAM GUARD
TYPE 2**

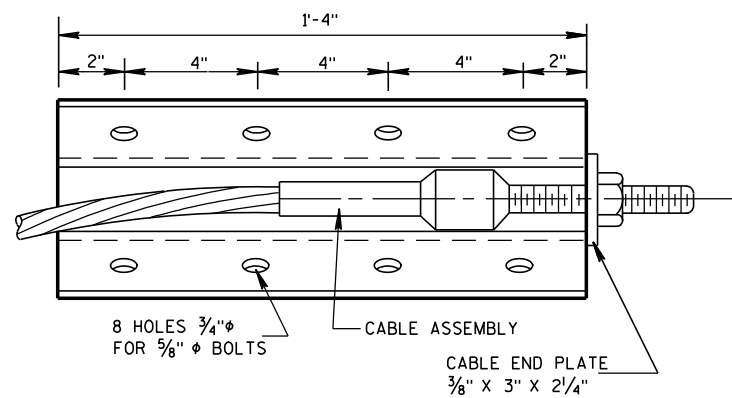
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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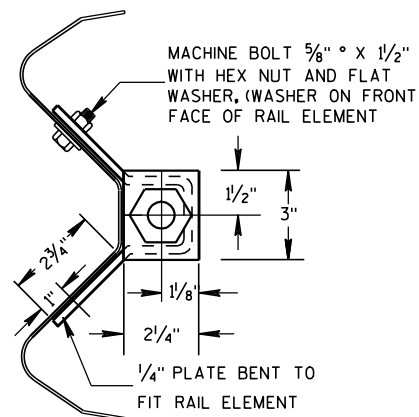
S.D.D. 14 B 16-4a

S.D.D. 14 B 16-4a

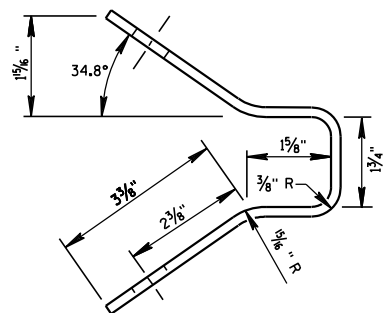


FRONT VIEW

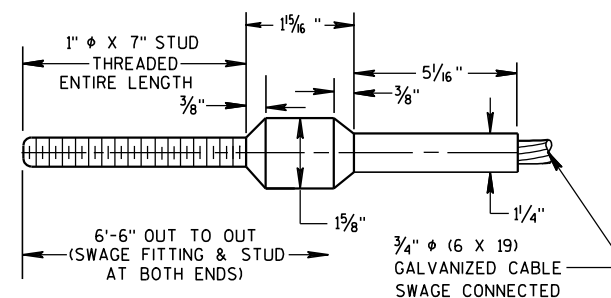
ANCHOR PLATE DETAIL



END VIEW



END VIEW OF BRACKET



CABLE ASSEMBLY

CABLE, SWAGE FITTING, STUD AND NUT SHALL DEVELOP A MINIMUM BREAKING STRENGTH OF 40,000 LB (TIGHTEN UNTIL TAUT)

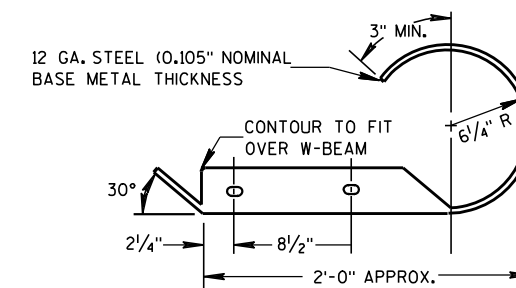
GENERAL NOTES

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

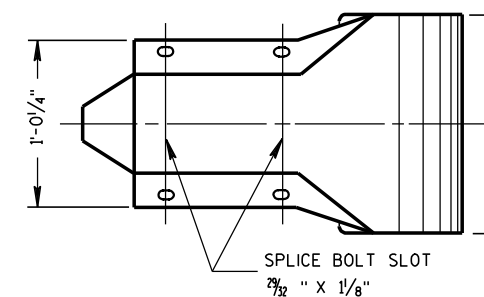
STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-500 GRADE B OR ASTM A-501.

POST NO. 1 SHALL BE WOOD BREAKAWAY POST INSERTED AND BOLTED INTO STEEL TUBE.

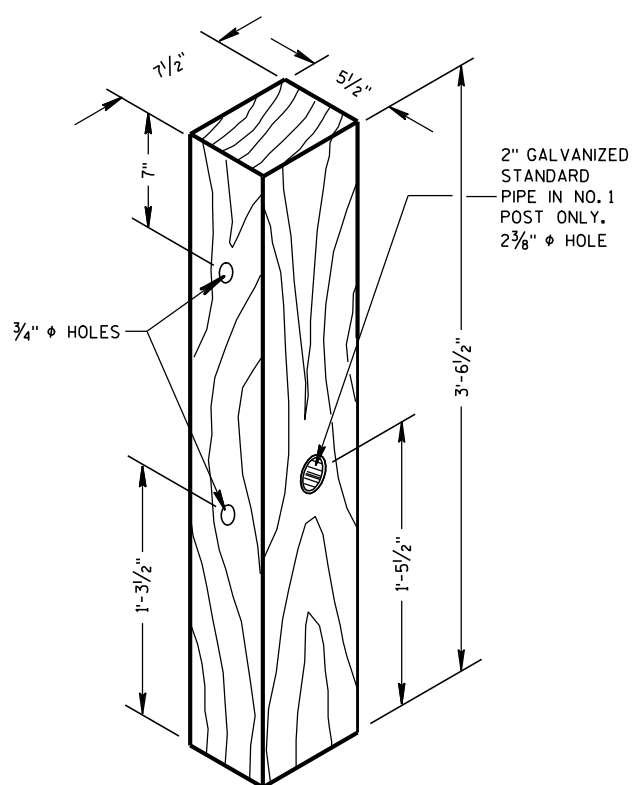
TYPE 2 ANCHORAGE SHALL CONSIST OF A STEEL TUBE, SOIL PLATE, WOOD BREAKAWAY POST, BEARING PLATE, ANCHOR PLATE, CABLE ASSEMBLY AND ALL ASSOCIATED HARDWARE. ALL STEEL PARTS SHALL BE GALVANIZED.



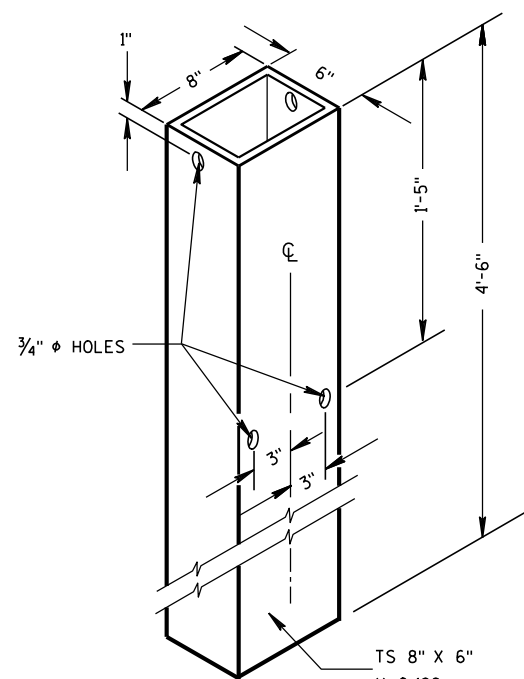
PLAN VIEW



**FRONT VIEW
W BEAM END SECTION ROUNDED**

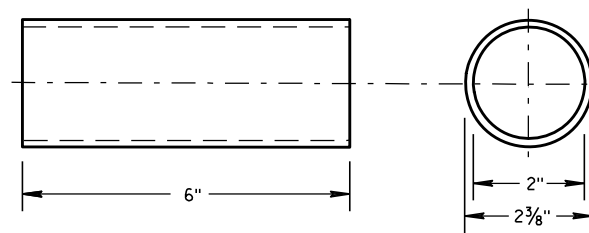


WOOD BREAKAWAY POST



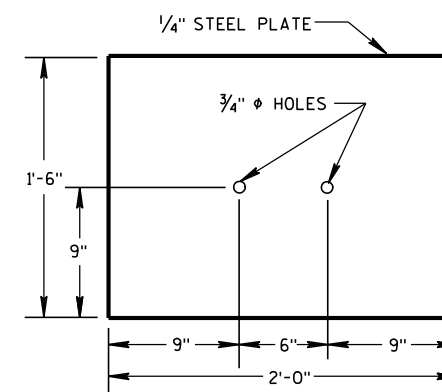
STEEL TUBE

STEEL TUBE SHALL CONFORM TO REQUIREMENTS OF ASTM A500



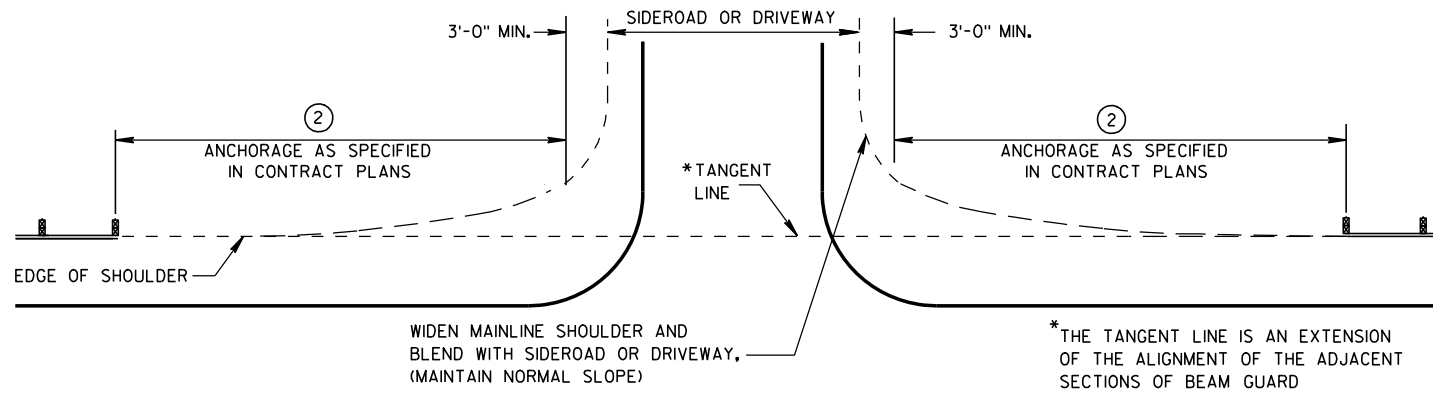
BREAKAWAY TERMINAL POST SLEEVE

GALVANIZED STANDARD STRENGTH STEEL PIPE, ASTM 53 GRADE "B"

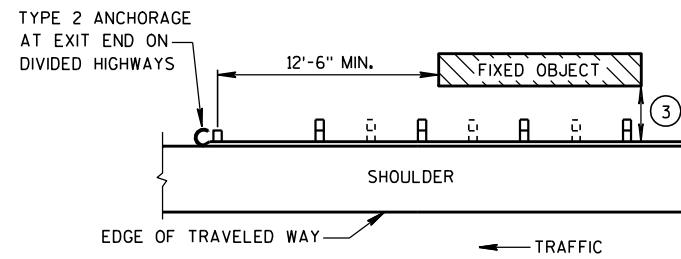


SOIL PLATE

ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/21/2007 DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



BEAM GUARD AT SIDEROADS OR DRIVEWAYS



**BEAM GUARD AT OBSTACLES
EXIT END - ONE WAY TRAFFIC**

GENERAL NOTES

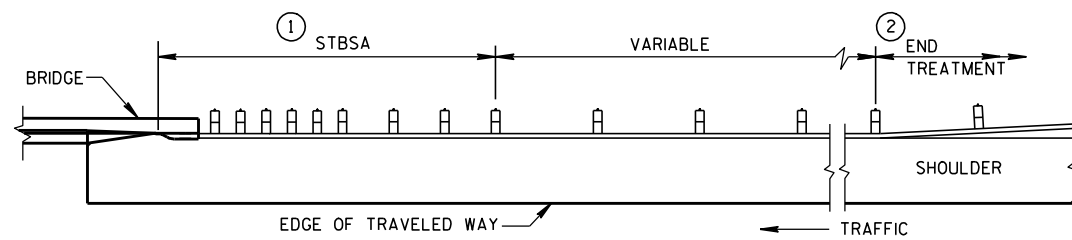
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

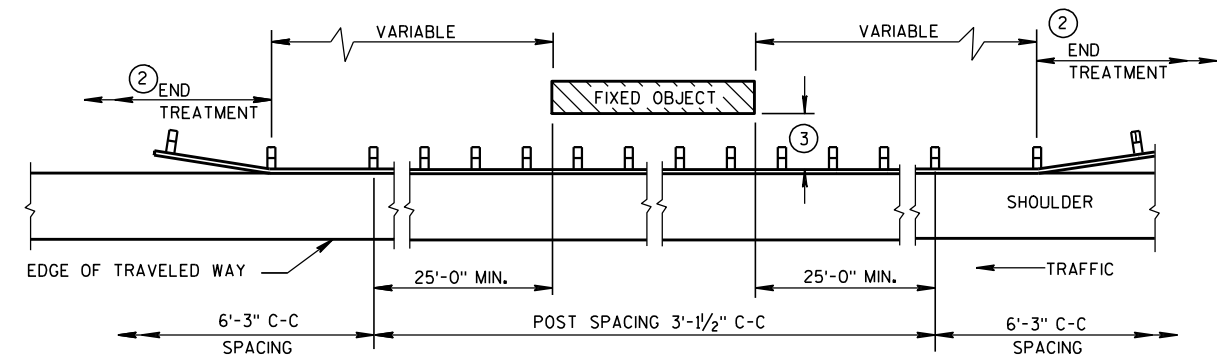
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

- ① STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.
- ② USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1 1/2"
4'-6"	6' - 3"



BEAM GUARD AT FULL WIDTH BRIDGES

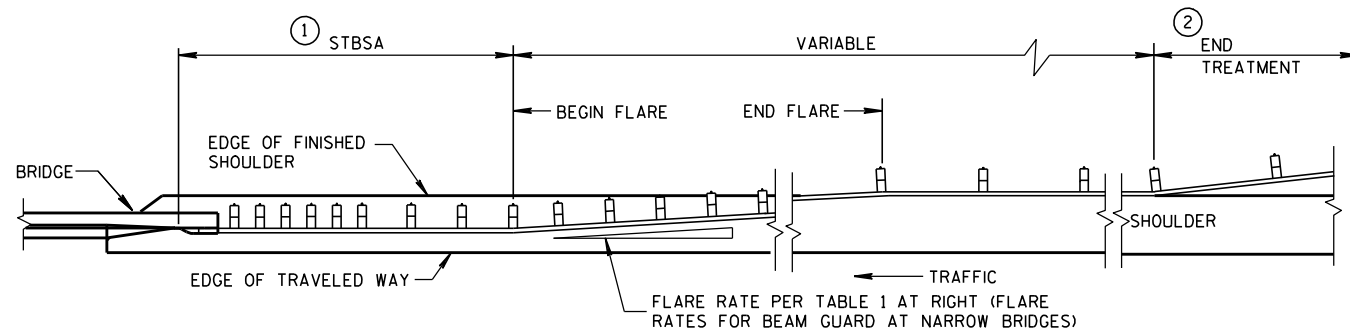


BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")

**TABLE 1
FLARE RATES FOR BEAM
GUARD AT NARROW BRIDGES**

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1

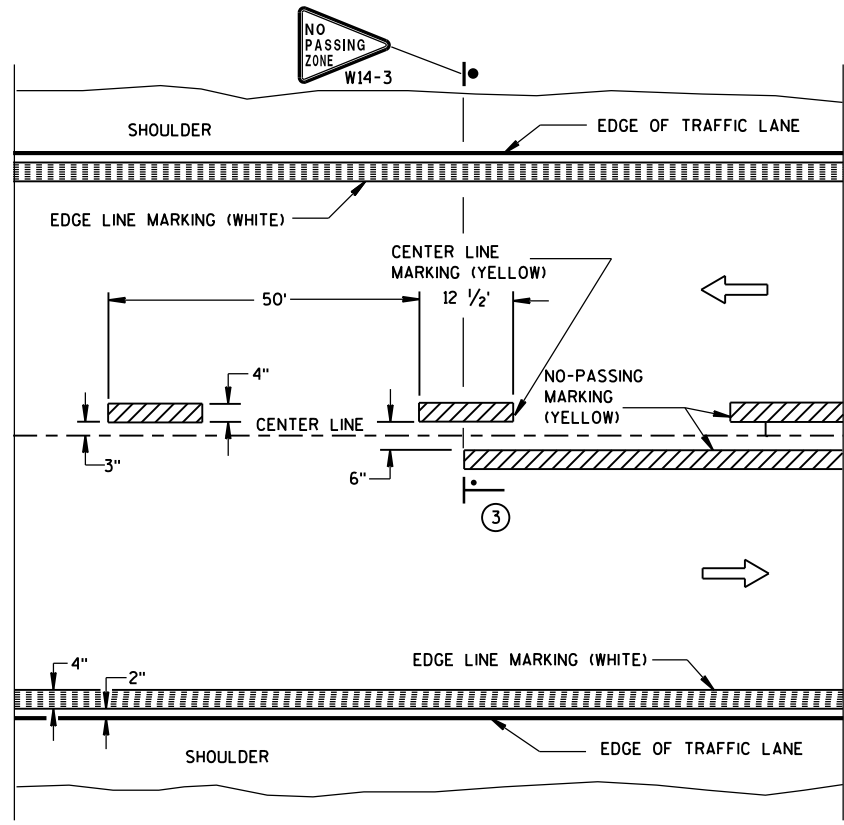


**BEAM GUARD AT NARROW BRIDGES
(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)**

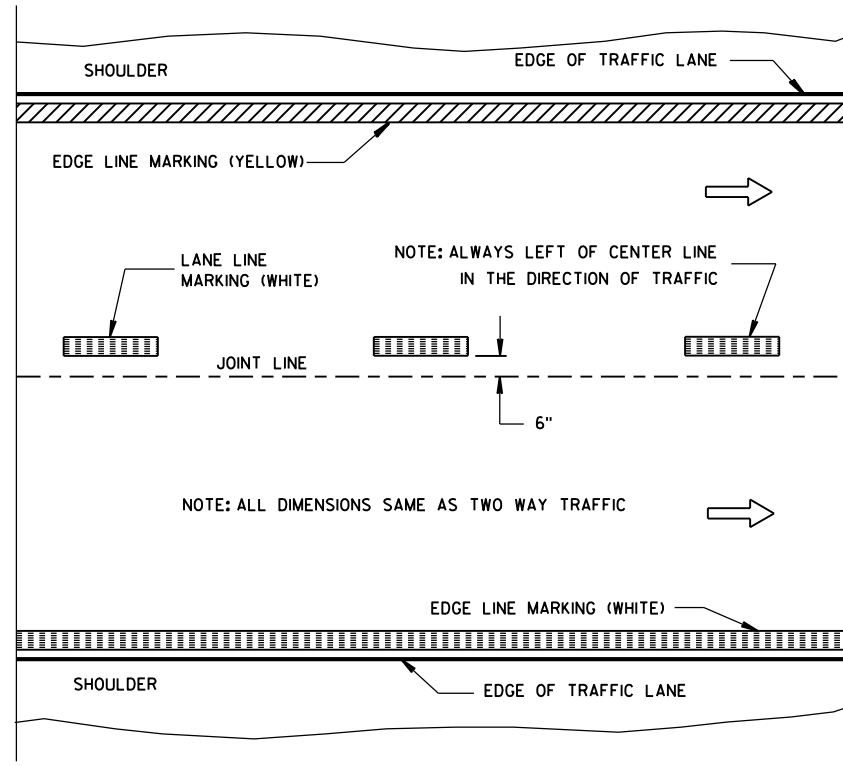
**STEEL PLATE BEAM GUARD
CLASS "A"
AT BRIDGES, OBSTACLES
AND SIDEROADS/DRIVEWAYS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-21-07 /s/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

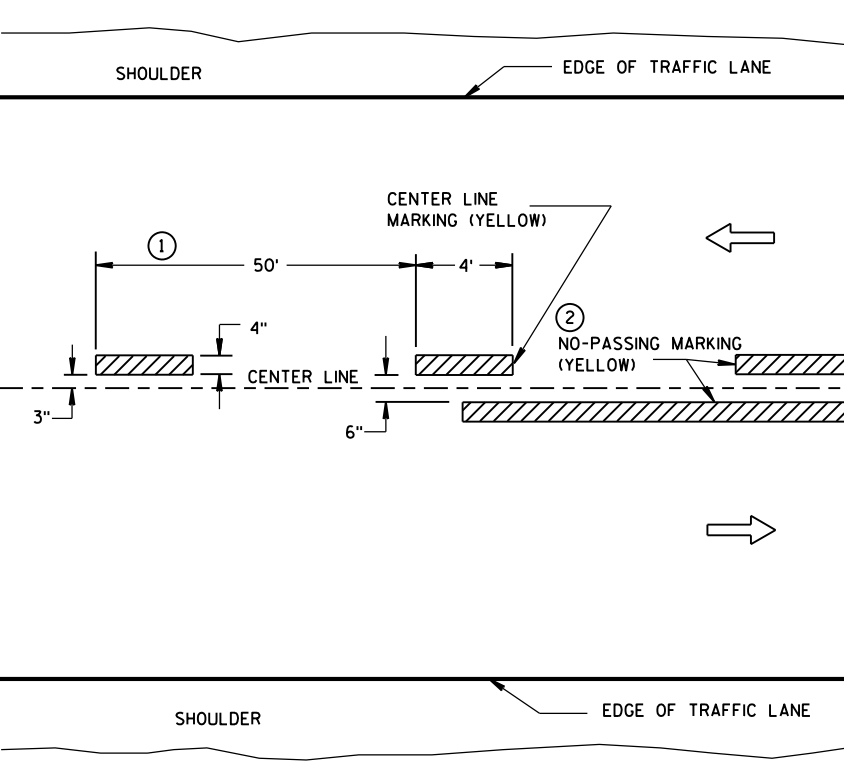


TWO WAY TRAFFIC

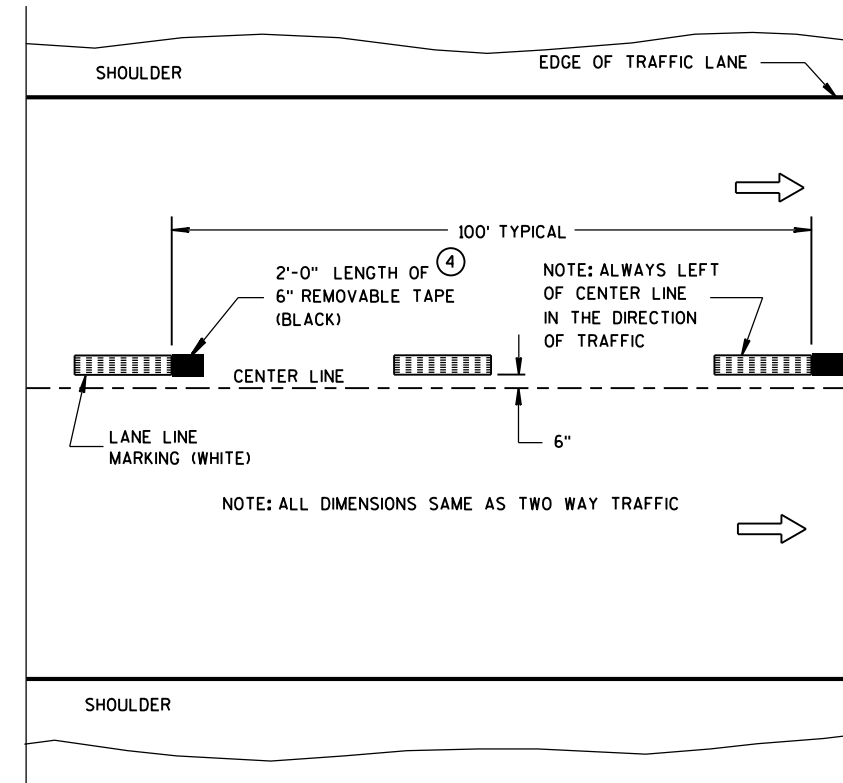


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

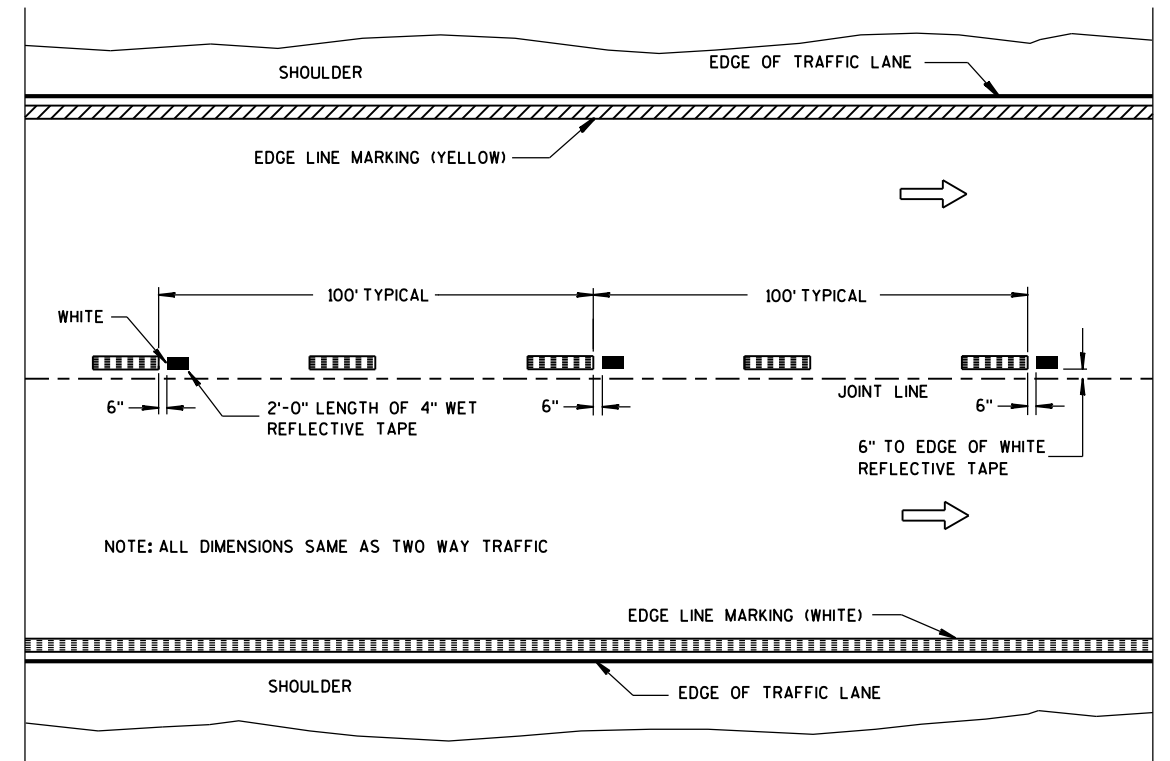
GENERAL NOTES

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**

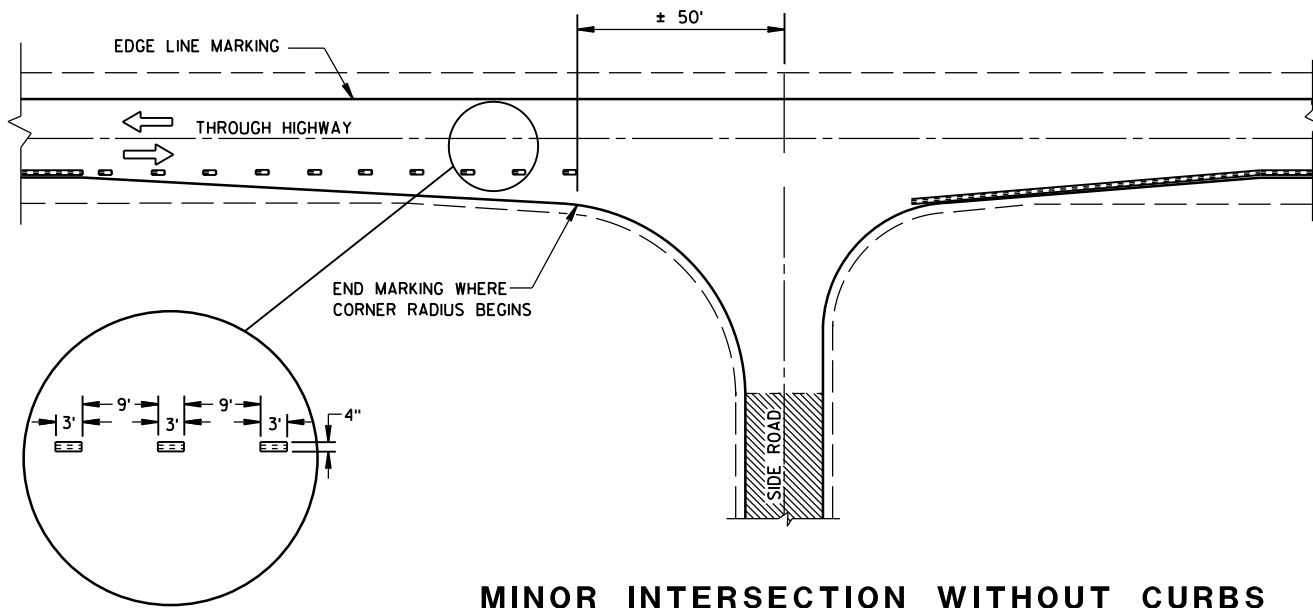
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

**PAVEMENT MARKING
(MAINLINE)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

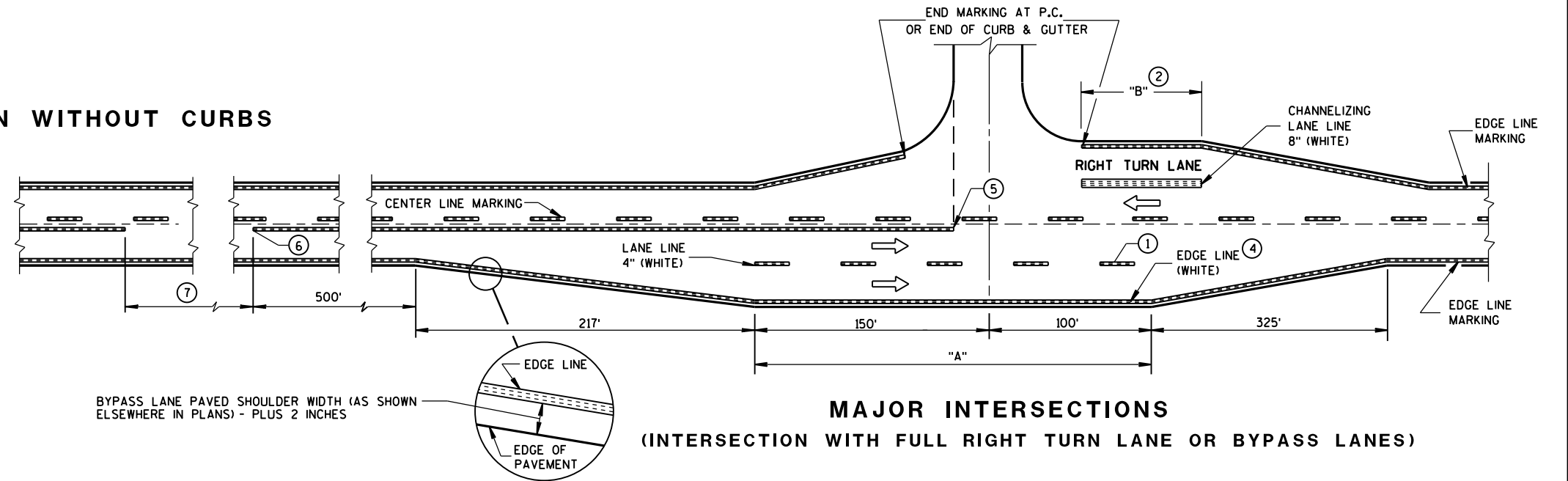
APPROVED
5-13-2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER
FHWA



MINOR INTERSECTION WITHOUT CURBS

⑦

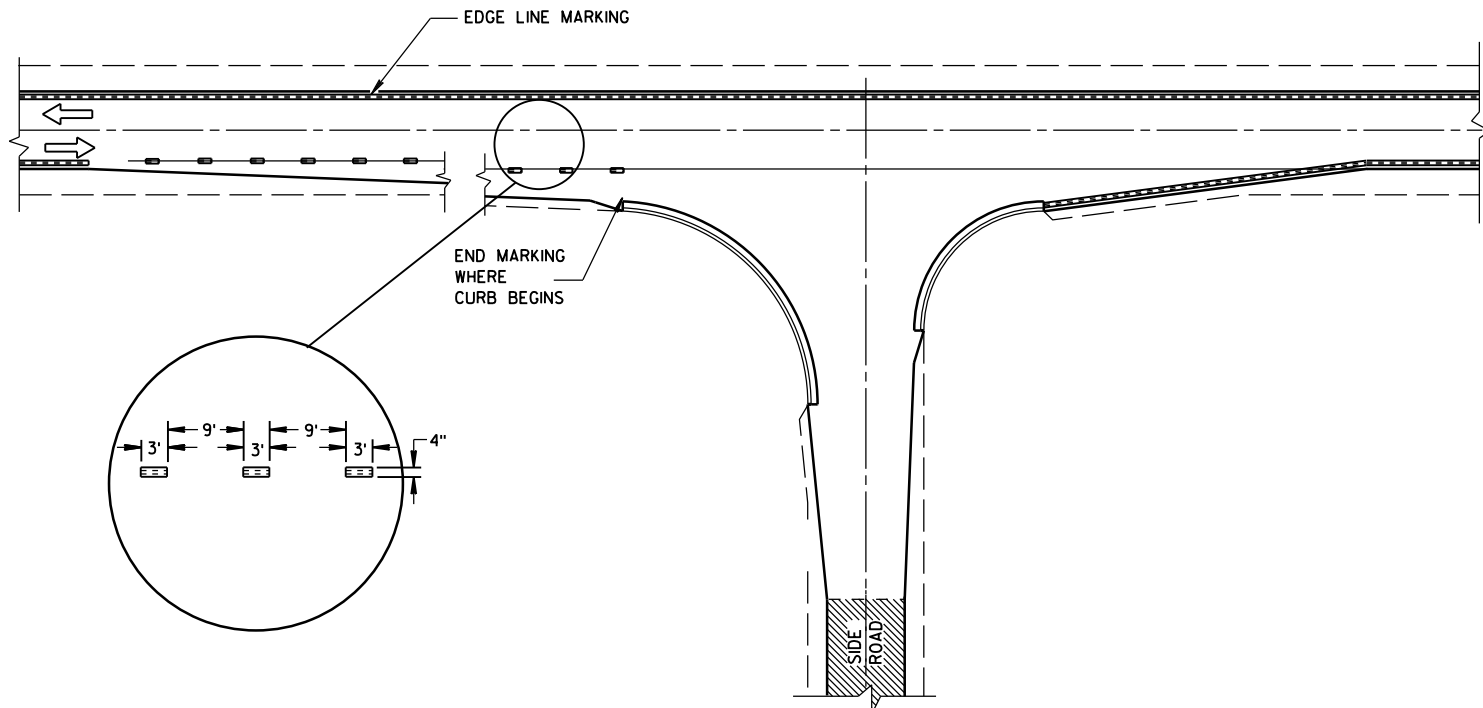
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



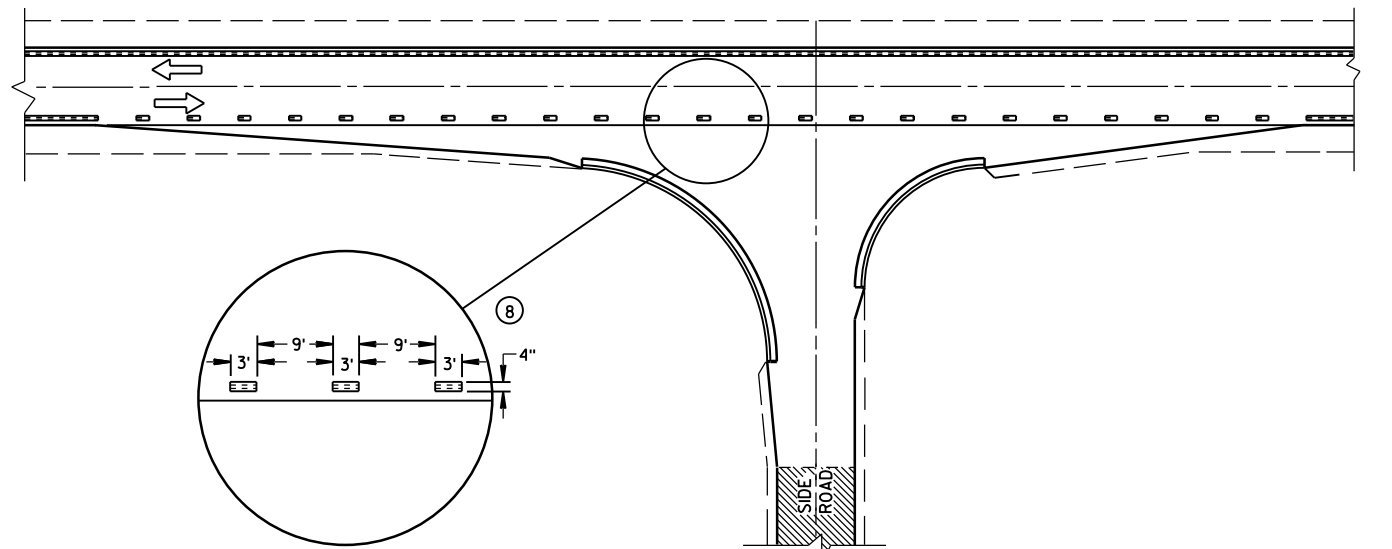
**MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)**

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



**MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)**



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

**PAVEMENT MARKING
(INTERSECTIONS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

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



W057-52
36"x24"
XX MILES AHEAD

INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1 FOOT LESS THAN AVAILABLE WIDTH (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET).



LOCATED 500 FEET IN ADVANCE OF R2-1 SIGN AND 500 FEET BEYOND THE "ROAD WORK 1 MILE" SIGN.



R2-1
48"x60"
(BLACK AND WHITE)

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES.

* INCLUDE RESUME SPEED LIMIT SIGN A MINIMUM OF 200 FEET (500 FEET DESIRABLE) AFTER END ROAD WORK SIGNS.

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

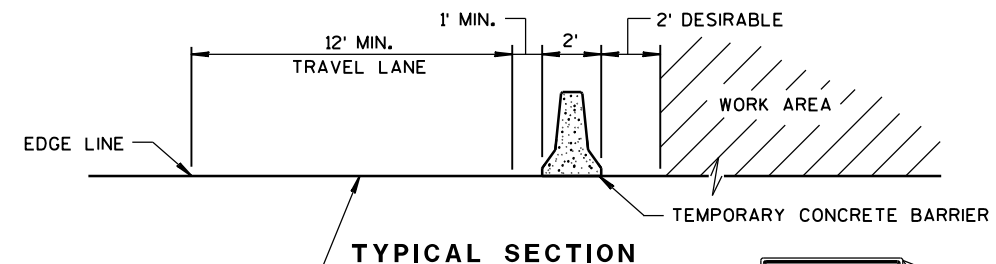
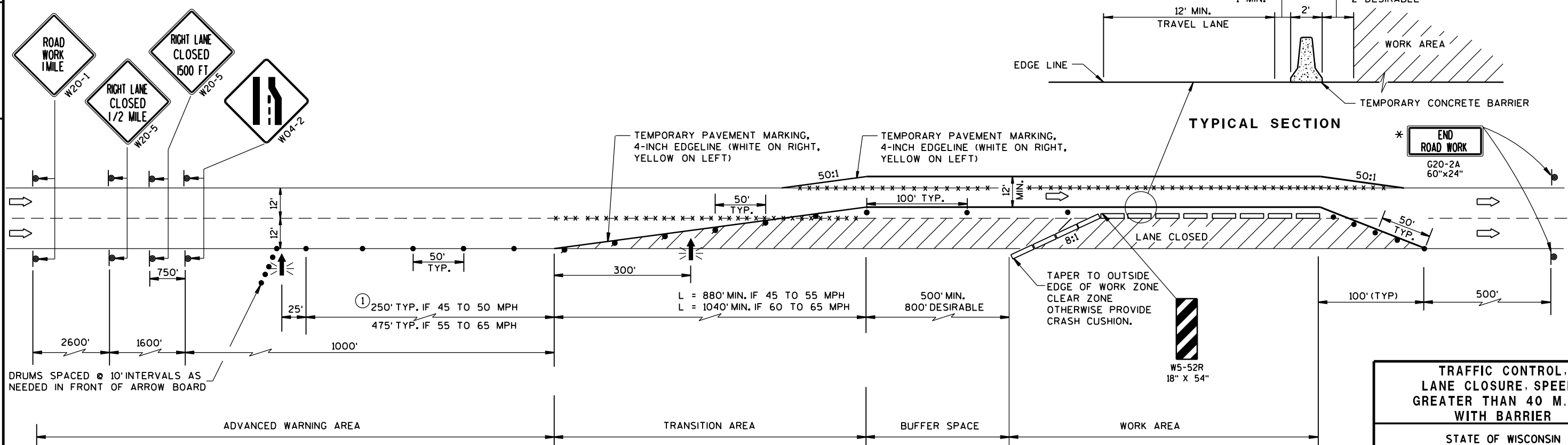
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

6

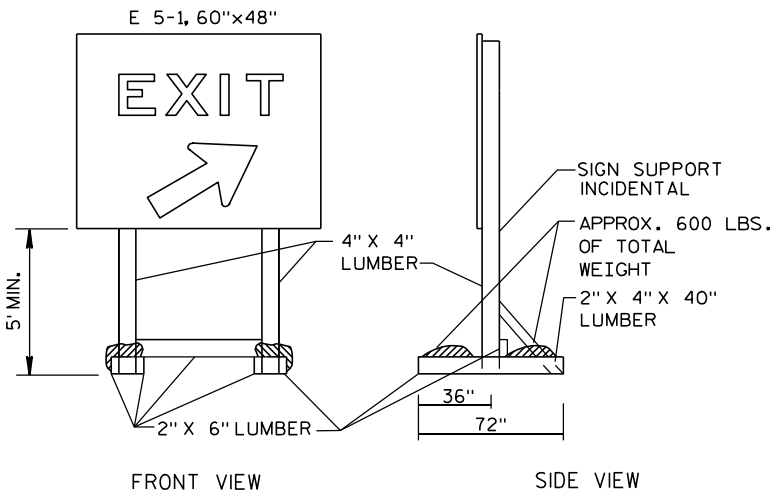
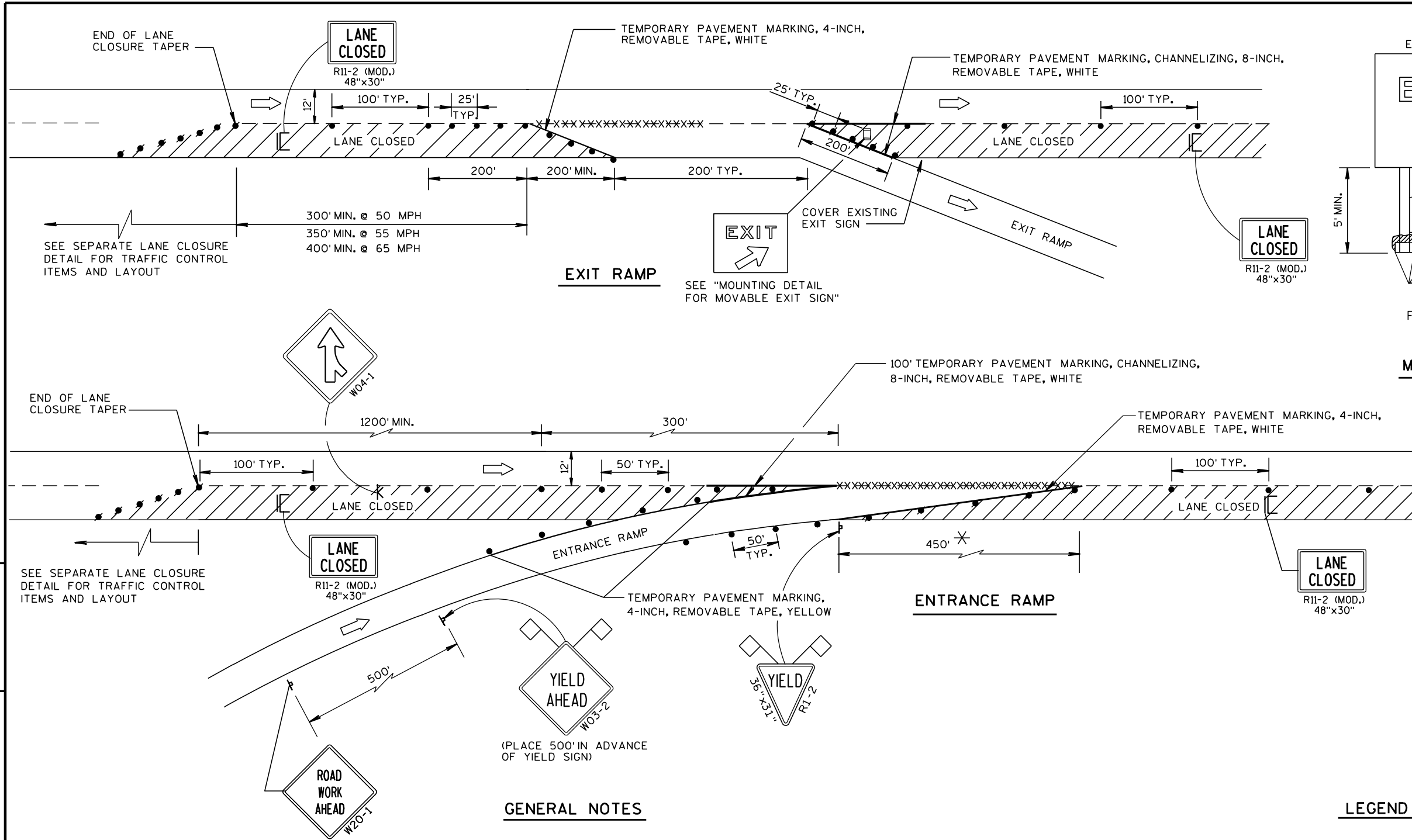


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S.D.D. 15 D 3-2

S.D.D. 15 D 3-2

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



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

SEE SEPARATE LANE CLOSURE DETAIL FOR TRAFFIC CONTROL ITEMS AND LAYOUT

6

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.

"W0" 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.

GENERAL NOTES

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)
- XXXX 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 /S/ Chester J. Spang
 DATE DATE CHIEF SIGNS AND MARKING ENGINEER

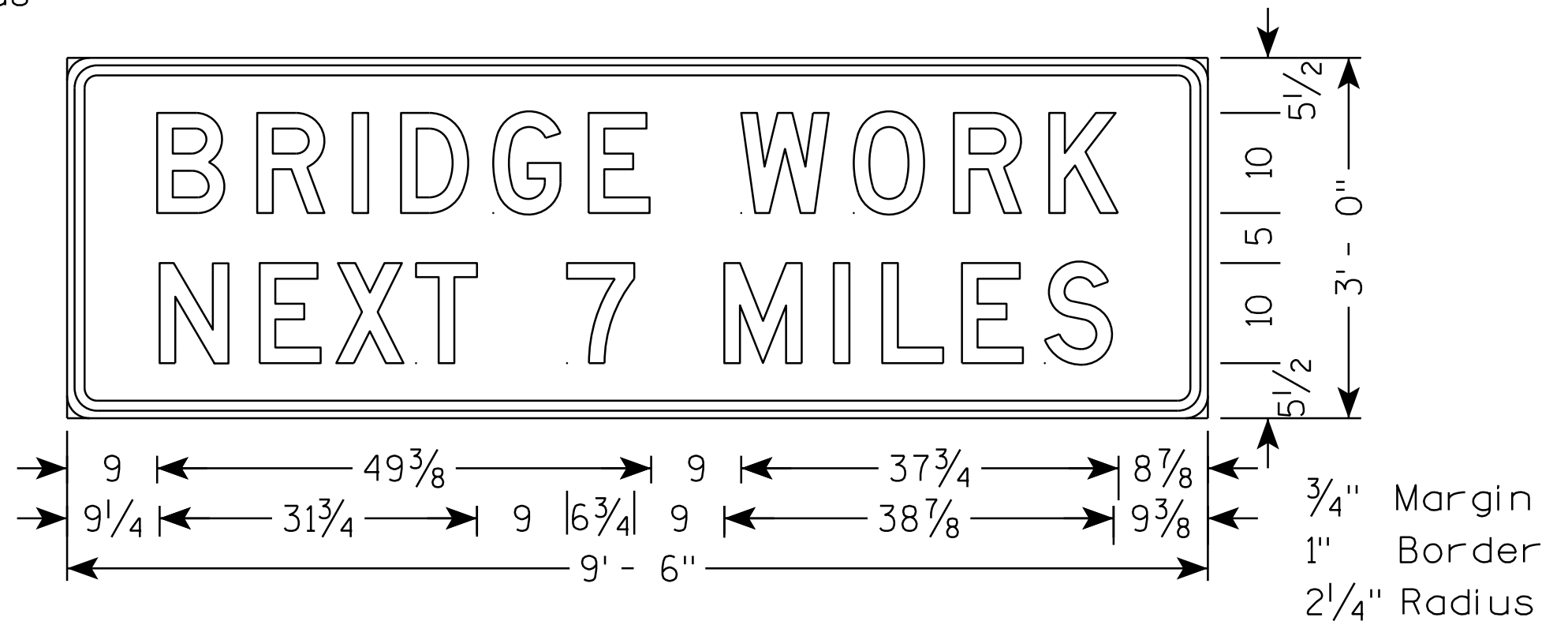
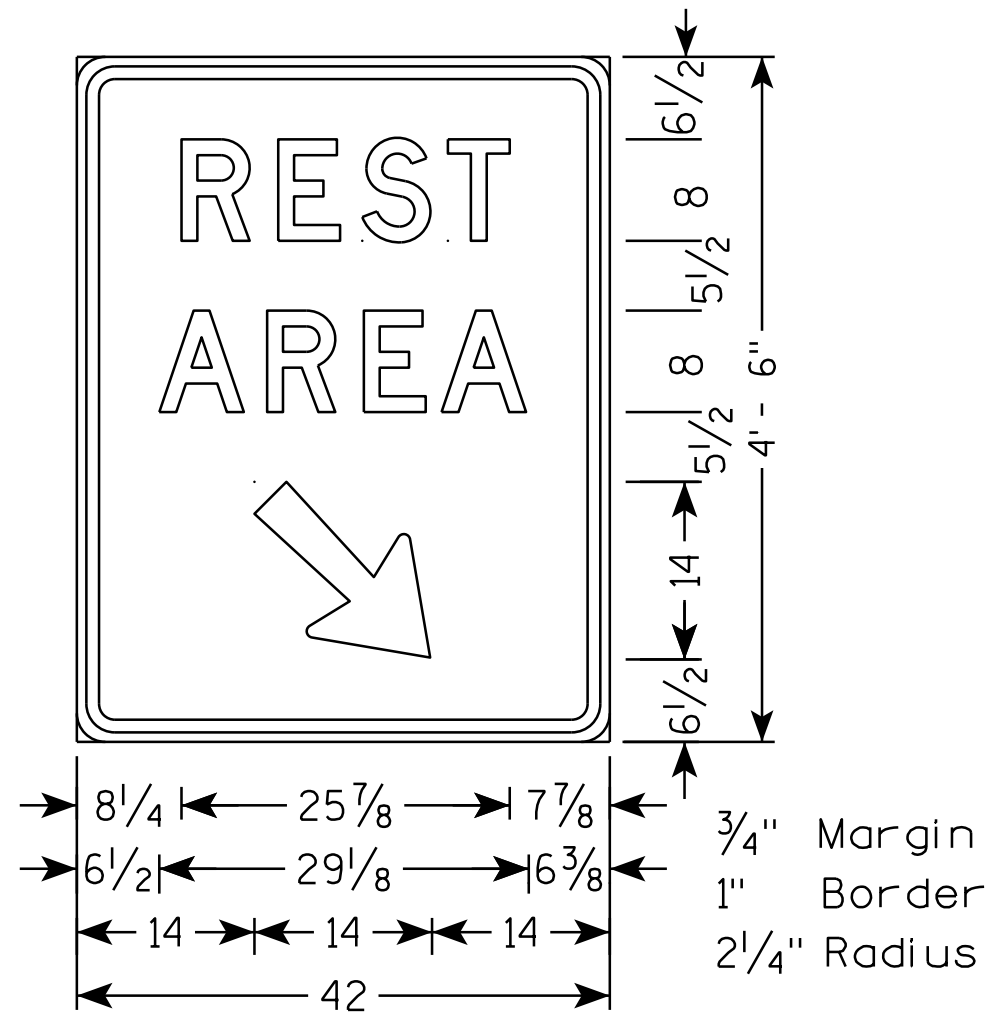
FHWA

S.D.D. 15 D 15-1

S.D.D. 15 D 15-1

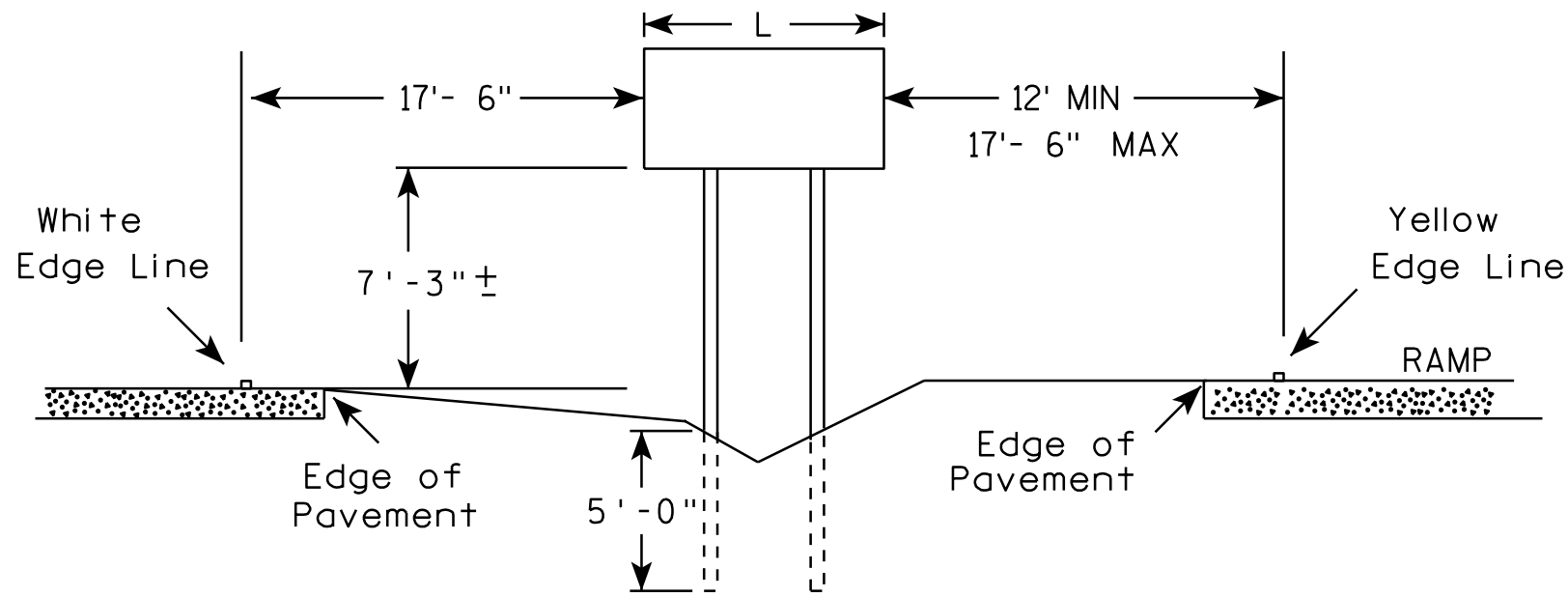
NOTES

1. All Signs are Type II - Type F Reflective
2. Color:
Background - ORANGE
Message - BLACK
3. Message Series - D



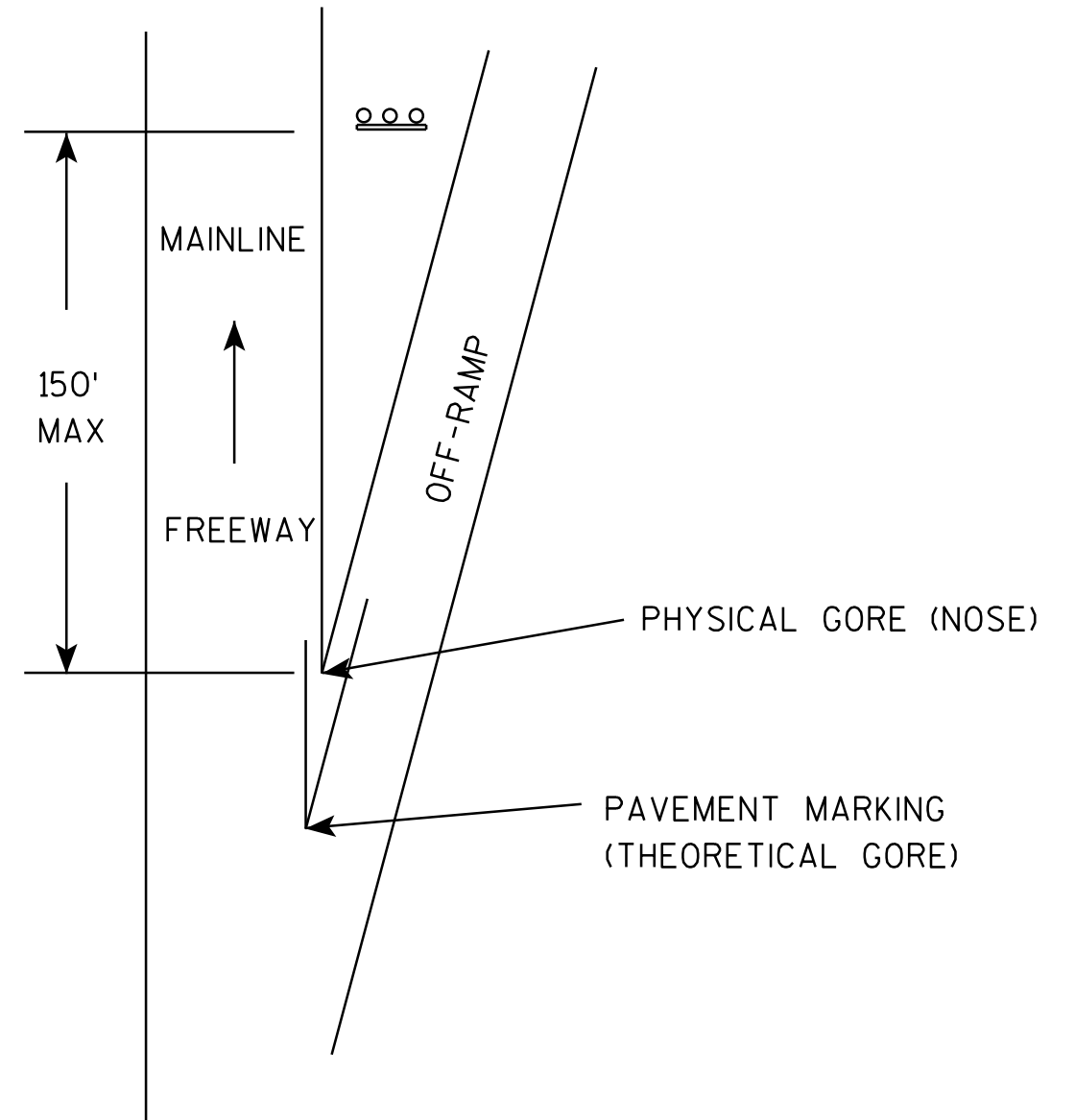
7

7



GENERAL NOTES

1. The 150 foot distance from the physical gore (where pavement ends) will normally provide the offsets as shown.
2. If roadway geometrics permit, the sign may be closer than the 150 foot distance as long as the offsets are maintained.
3. At no time shall the location be greater than 150 feet. If the normal offsets cannot be maintained, they can be reduced to 6 feet from the edge of the paved shoulder (both freeway and ramp).
4. The offset from edge of sign to the yellow edge line on the ramp is shown as a minimum of 12 feet and a maximum of 17 feet, 6 inches. Preference is adhering to the maximum rather than the minimum dimension.
5. When L is equal to or exceeds 10 feet, use 3 posts as per A4-4.
6. The ($\bar{\pm}$) tolerance for the mounting height is 3 inches.

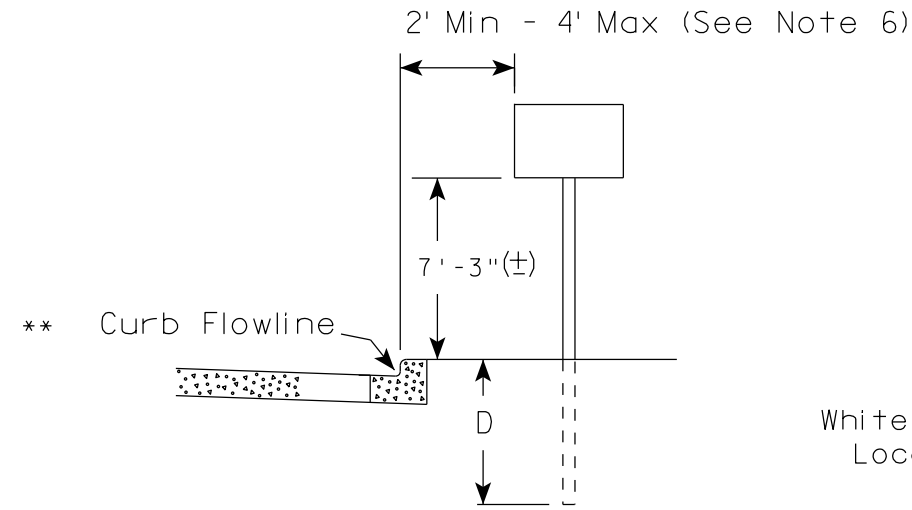


7

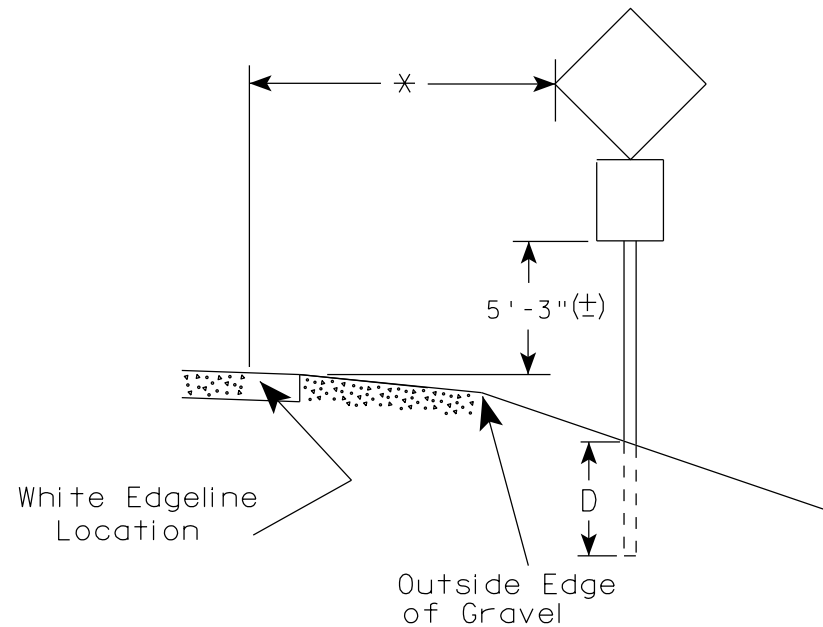
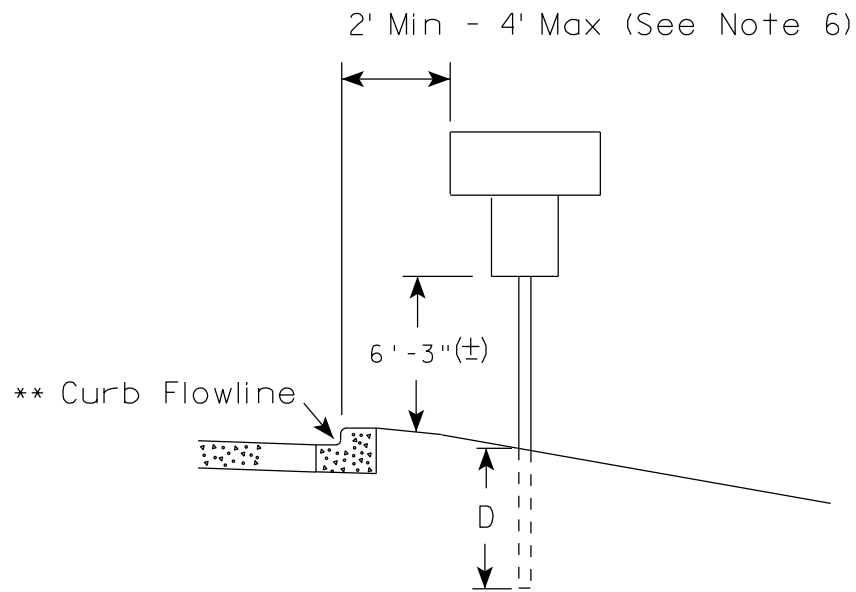
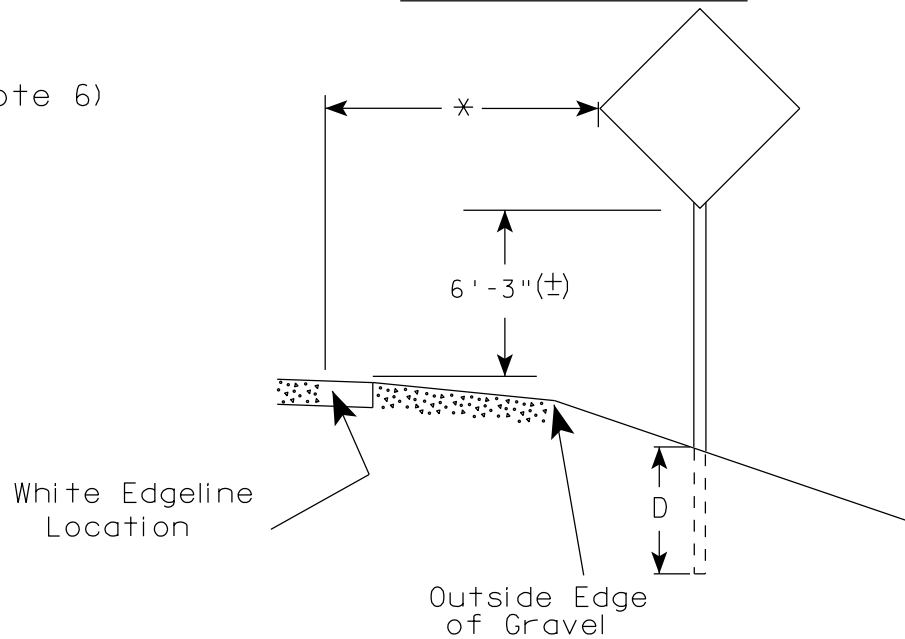
7

TYPICAL INSTALLATION OF TYPE II SIGNS ON WOOD POSTS IN GORE	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Raush</i> for State Traffic Engineer
DATE 2/06/14	PLATE NO. A4-2.3

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

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

× × The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

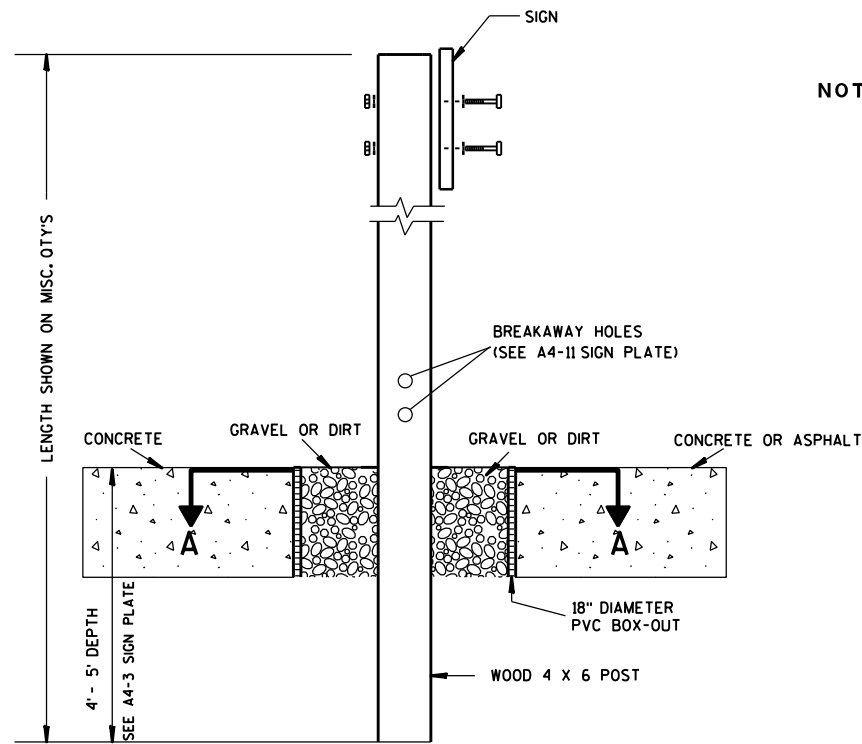
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

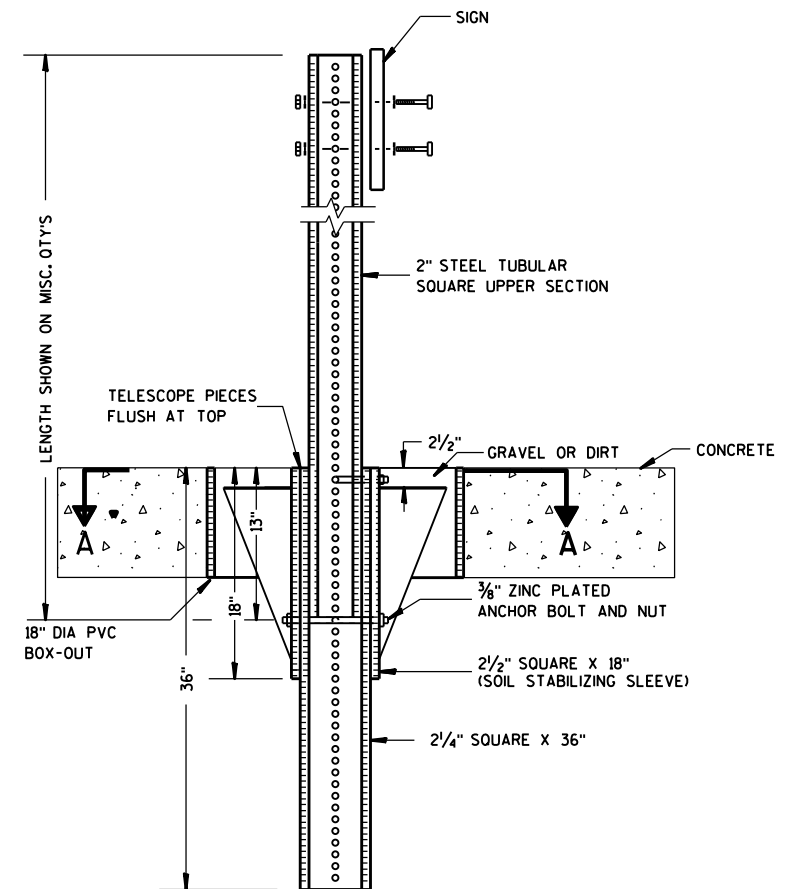
DATE 11/12/14 PLATE NO. A4-3.19



ELEVATION VIEW

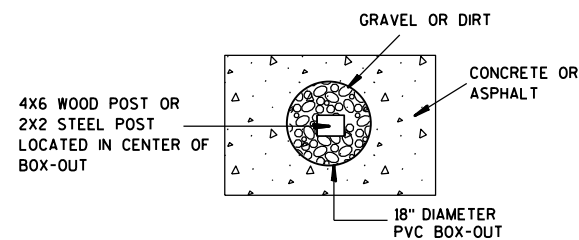
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

7

7

GENERAL NOTES

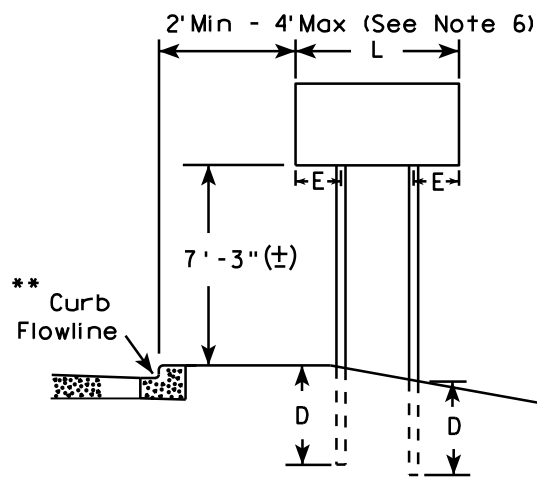
- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

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

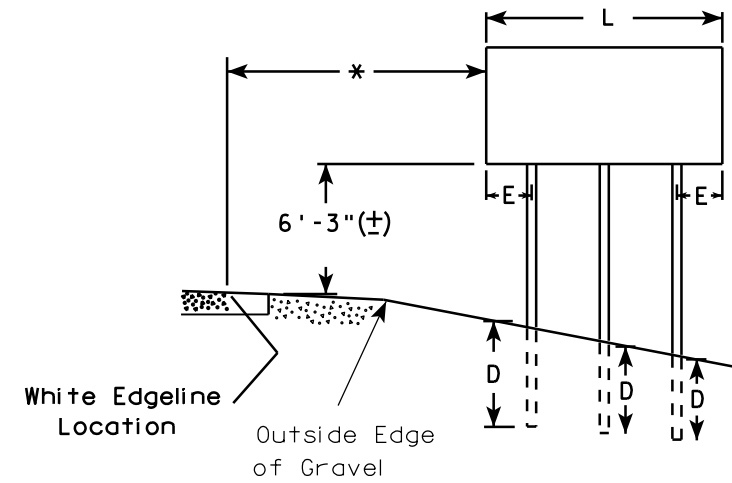
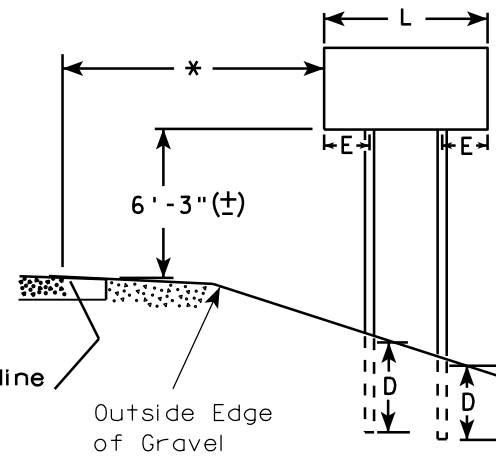
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width or less than 20 S.F. in area.

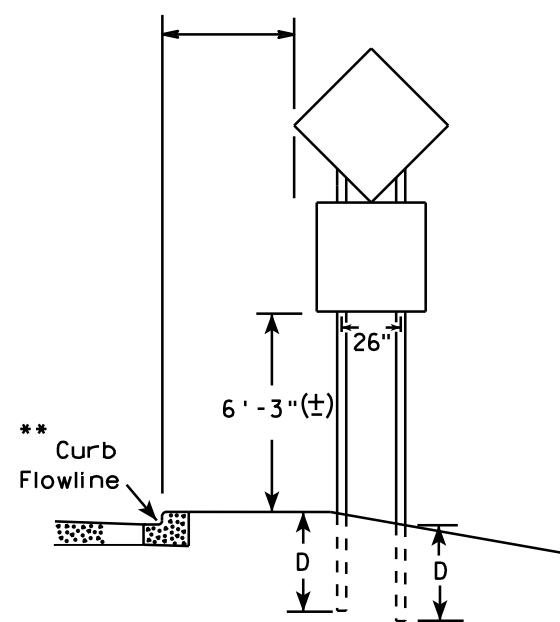
URBAN AREA



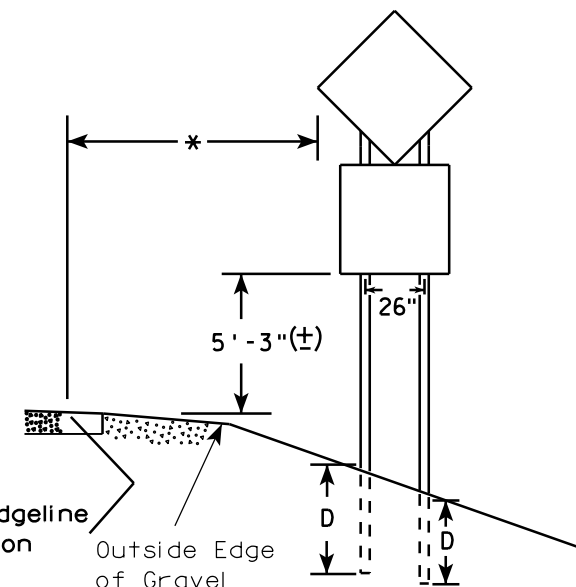
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

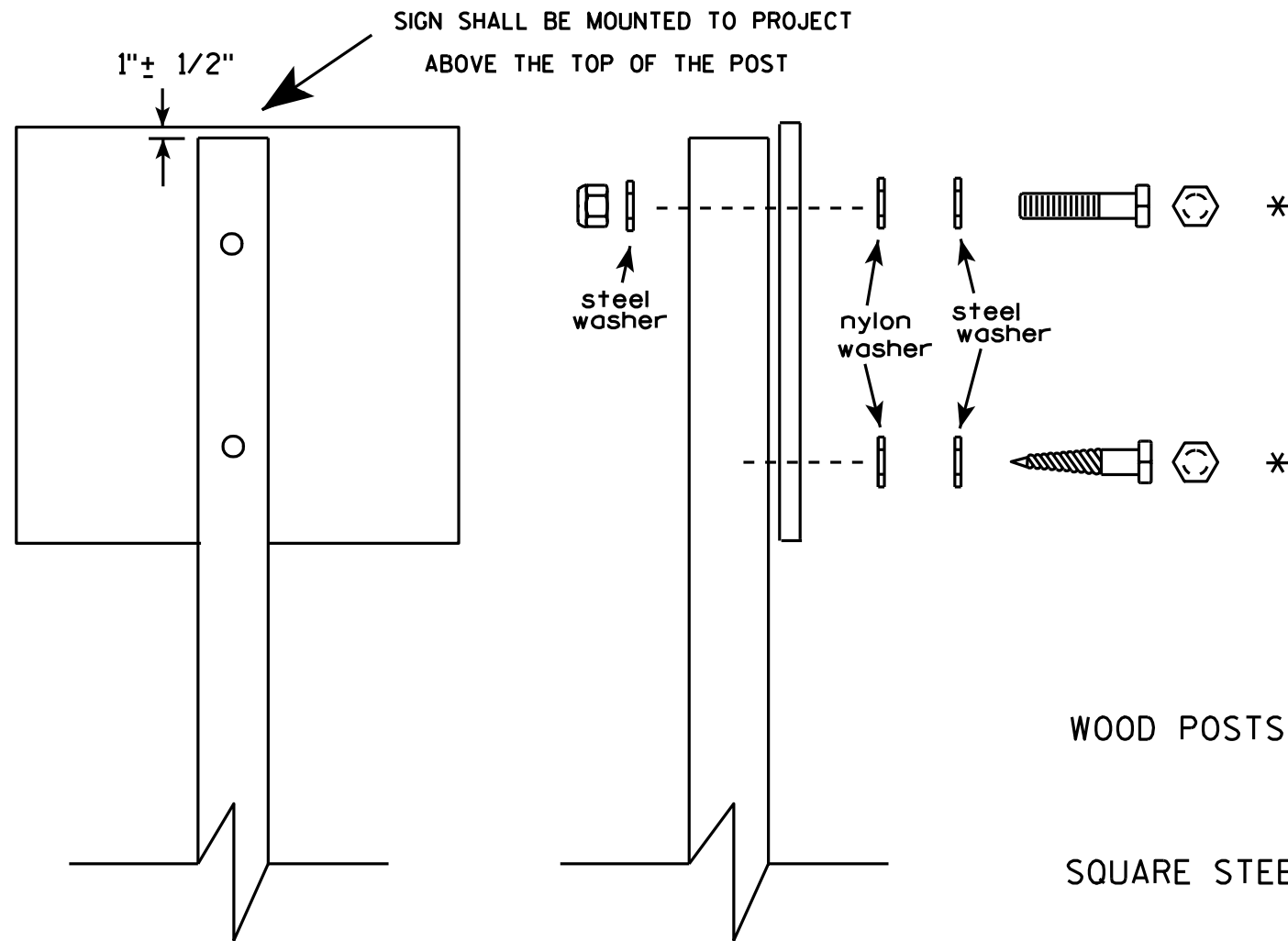
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 11/12/14 PLATE NO. A4-4.13



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

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

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

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

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts

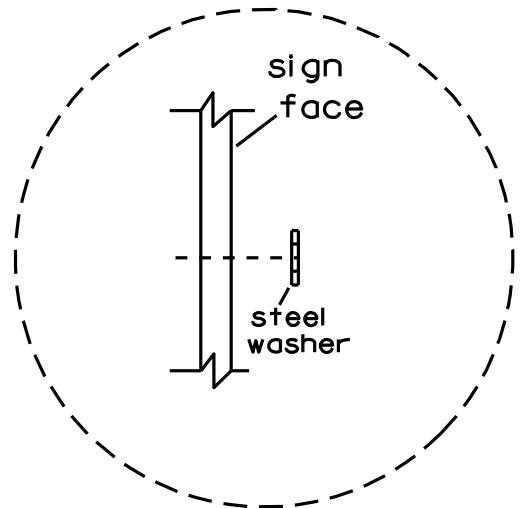
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL

O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

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

1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

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

ATTACHMENT OF SIGNS TO POSTS

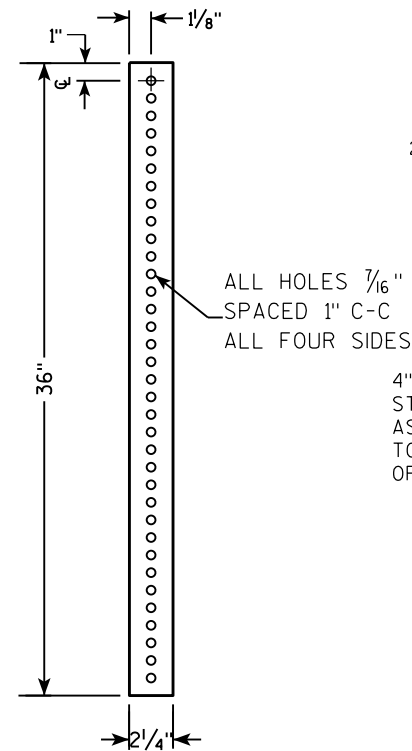
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

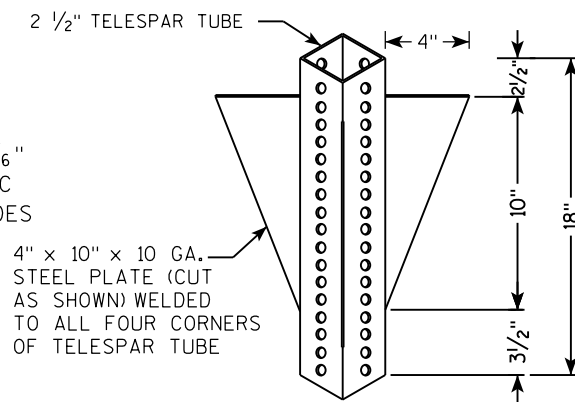
DATE 3/23/10 PLATE NO. A4-8.7

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

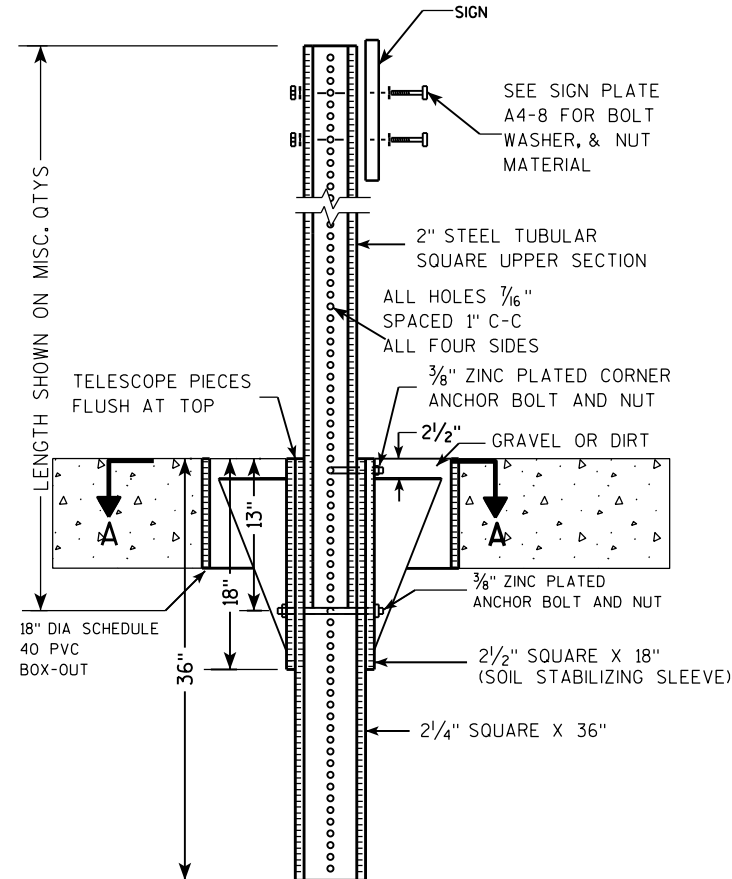
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



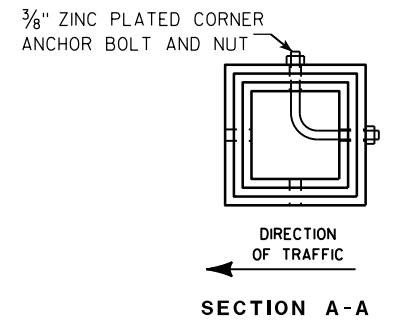
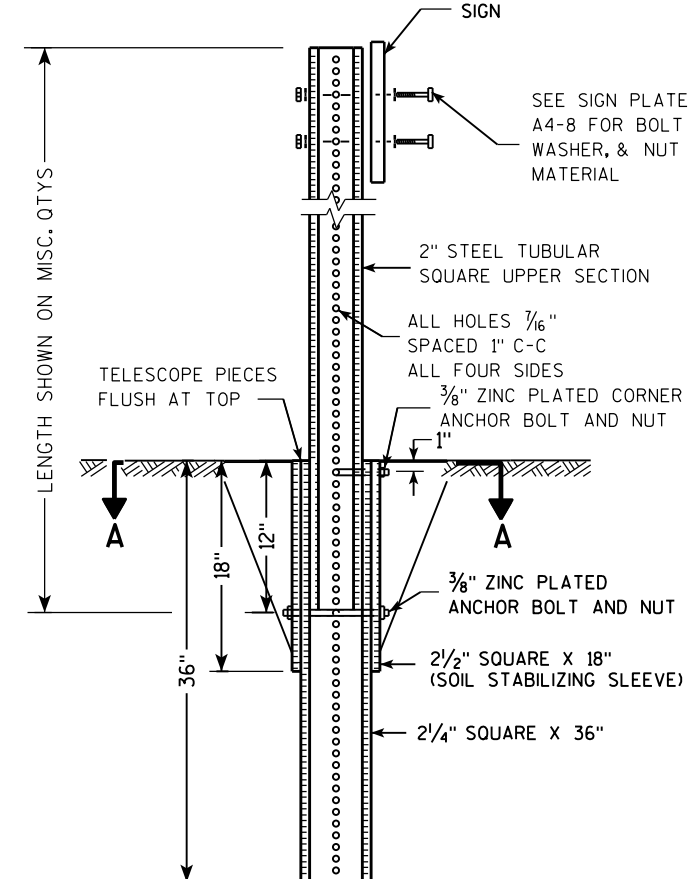
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



**DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)**



**DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)**



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**TUBULAR STEEL
SIGN POST
A4-9**

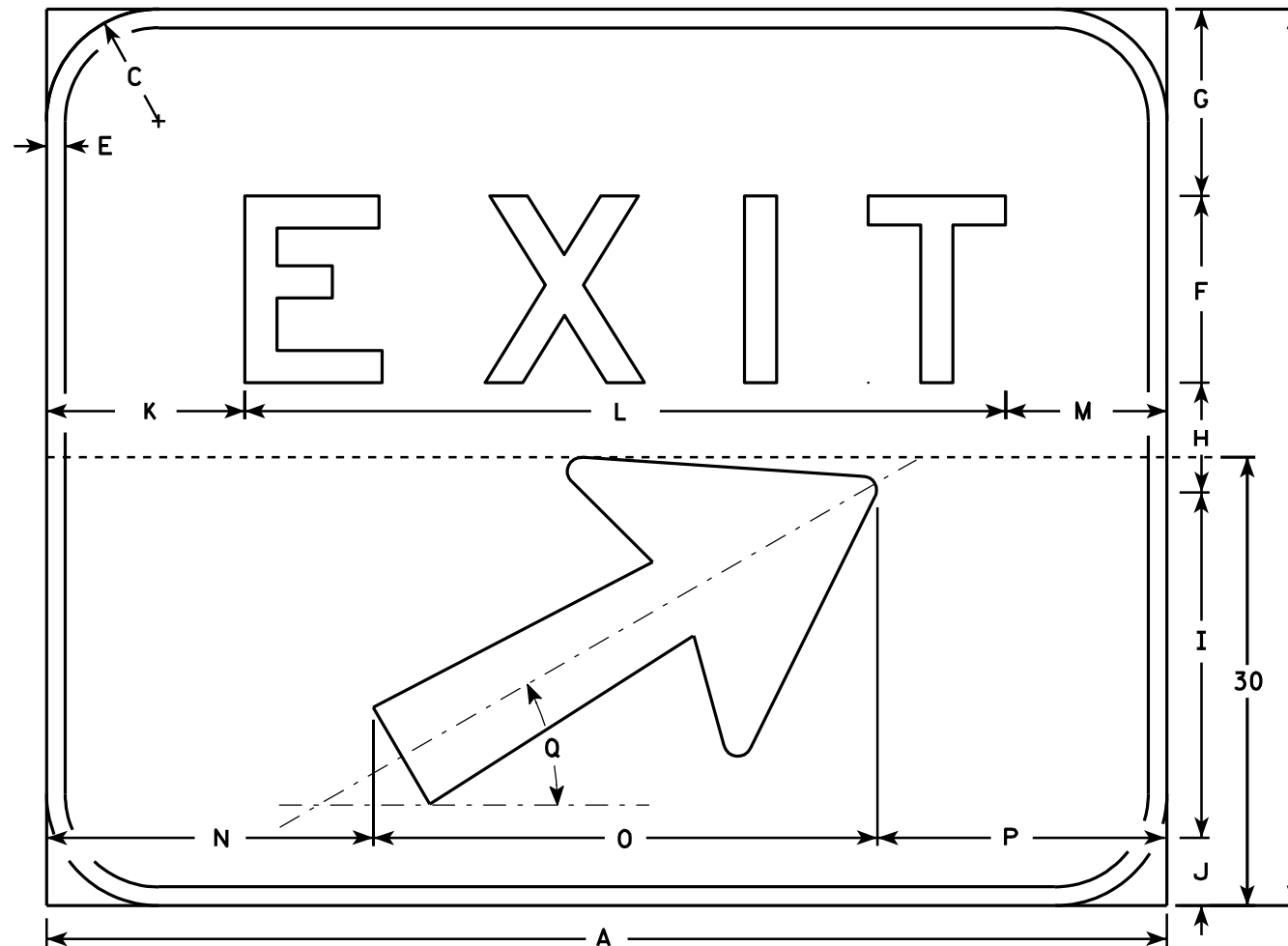
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

NOTES

1. Sign is Type II - Type H reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Green
Message - White (Type H reflective)
3. Message Series - E
4. Corners may be square or rounded but borders shall be rounded as shown.
5. Base material for this sign shall be plywood and shall be split into two separate pieces for the 72 x 60 size as shown on the detail by the dashed line (-----).
6. Arrow is Type "A" from sign plate A1-1.
7. As per the Standard Spec's, this sign shall not have a vertical joint.



E5-1

7

7

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	1500 mm X 1200 mm
5	1800 mm X 1500 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2																												
3																												
4	60	48	6		1	10	10	5 7/8	18 1/2	3 5/8	10 5/8	40 3/4	8 5/8	17 1/2	27	15 1/2	30°									20.0	1.80	
5	72	60	6		1	12	12	10	18 1/2	7 1/2	13 1/4	48 1/2	10 1/4	23 1/2	27	21 1/2	30°									30.0	2.70	

STANDARD SIGN
E5 - 1

WISCONSIN DEPT OF TRANSPORTATION

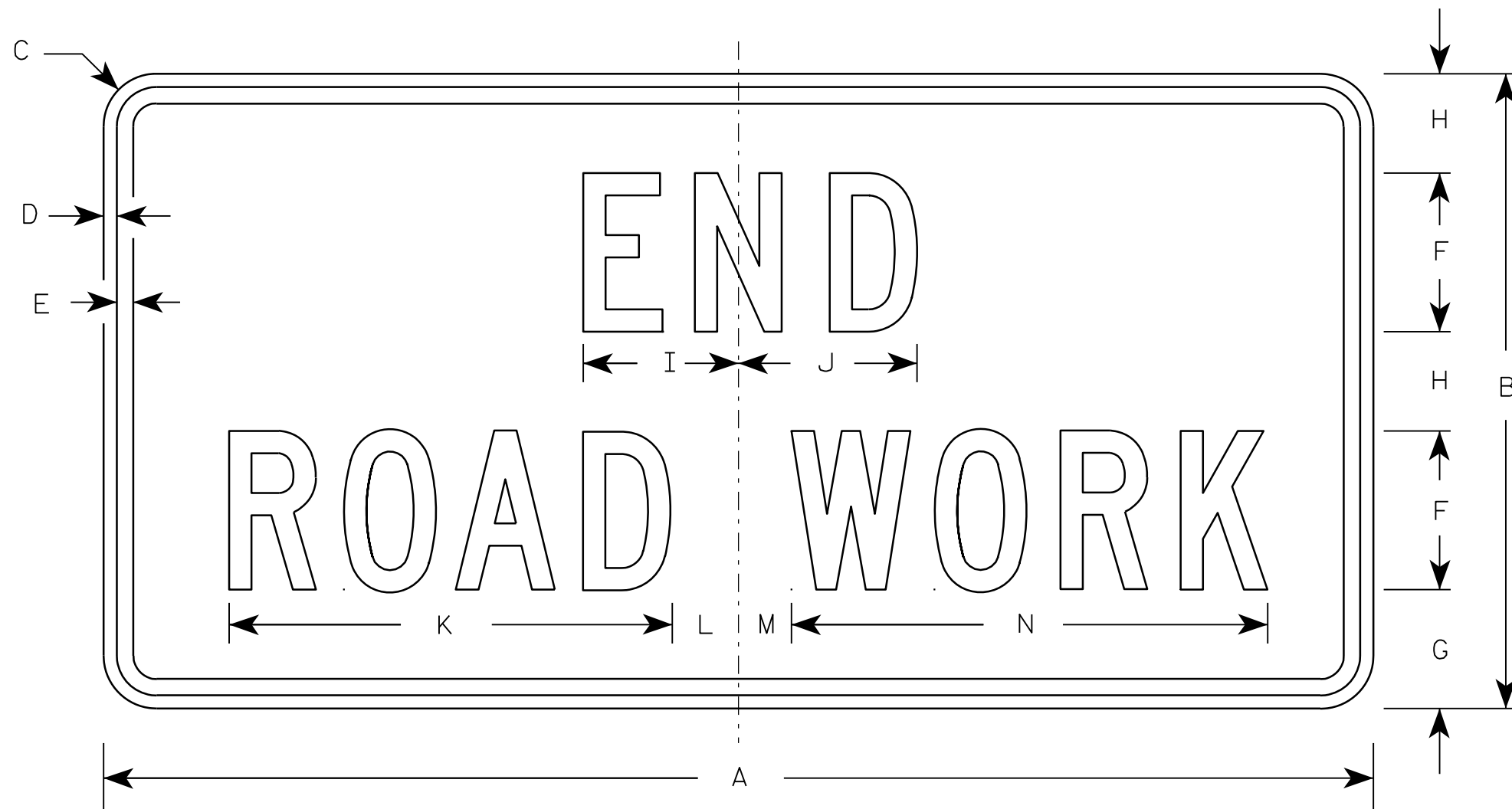
APPROVED *Chester J. Spang*
for State Traffic Engineer

DATE 6/22/00 PLATE NO. E5-1.8

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



G20-2A

7

7

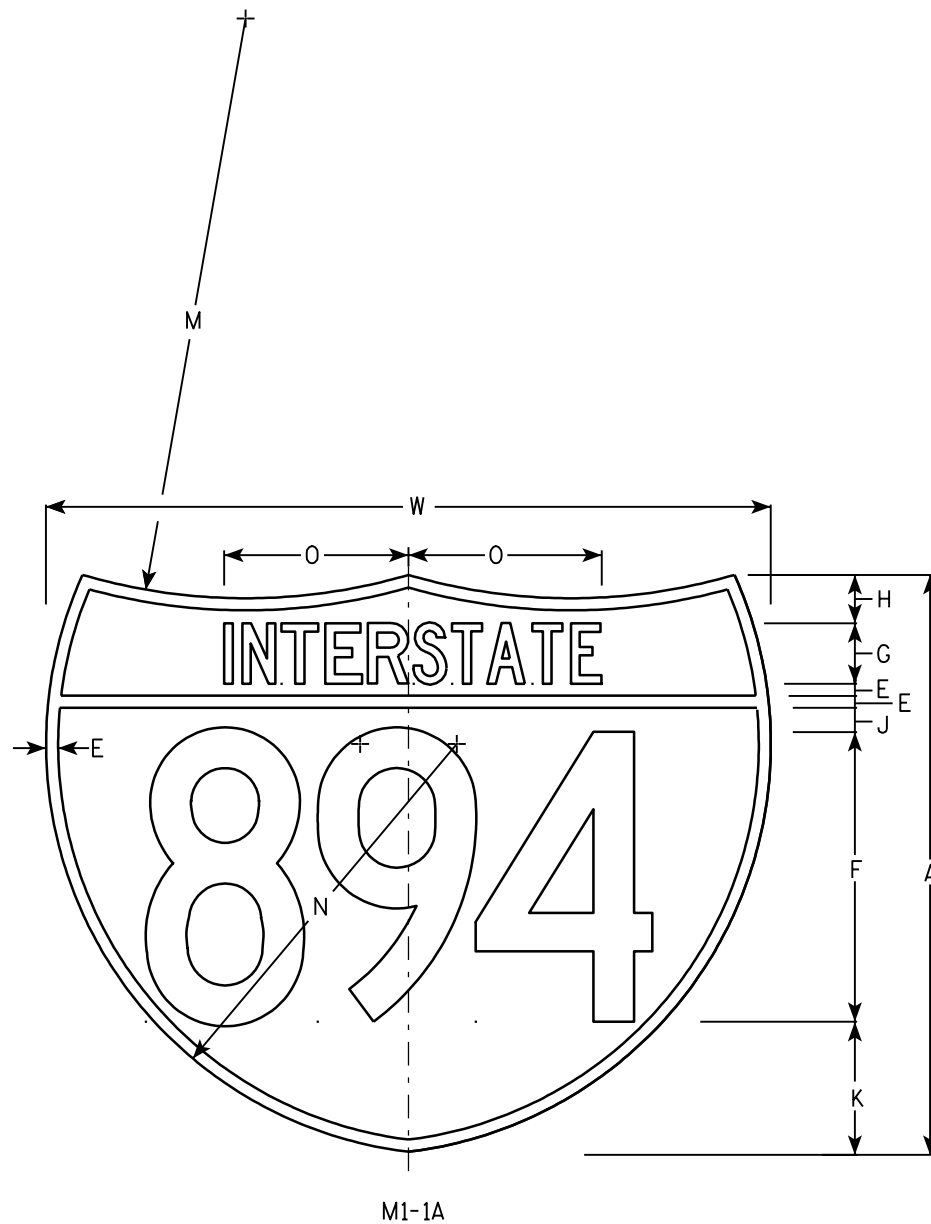
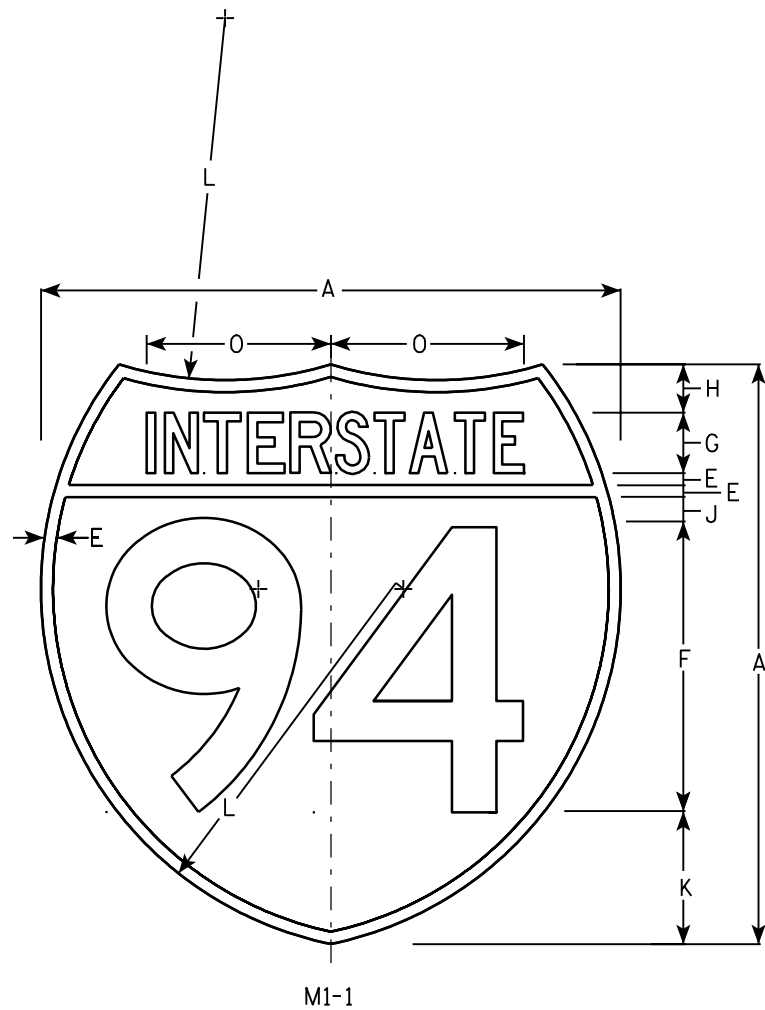
Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN G20-2A	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 9/30/09	PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	----------



NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Top Red - Bottom Blue (See Note 6)
Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & adjust spacing as per plate A10-1.
5. M1-1 - Numerals - D
Interstate - C
M1-1A - All copy - C
6. Permanent Signs
Message - Type H Reflective
Detour or other temporary signs
Background - Reflective
Message - Reflective

7

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m ²	M1-1A Area m ²
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

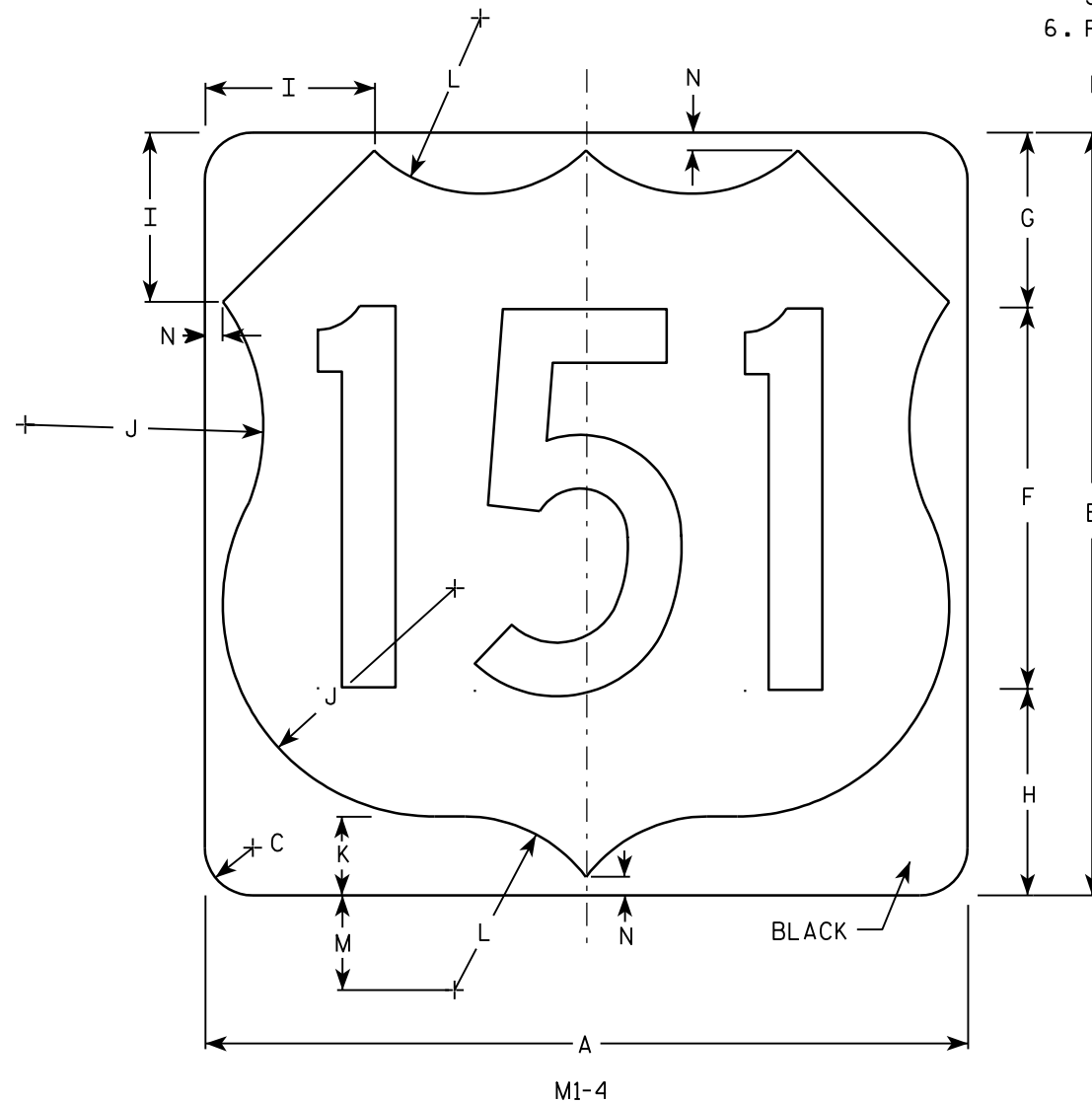
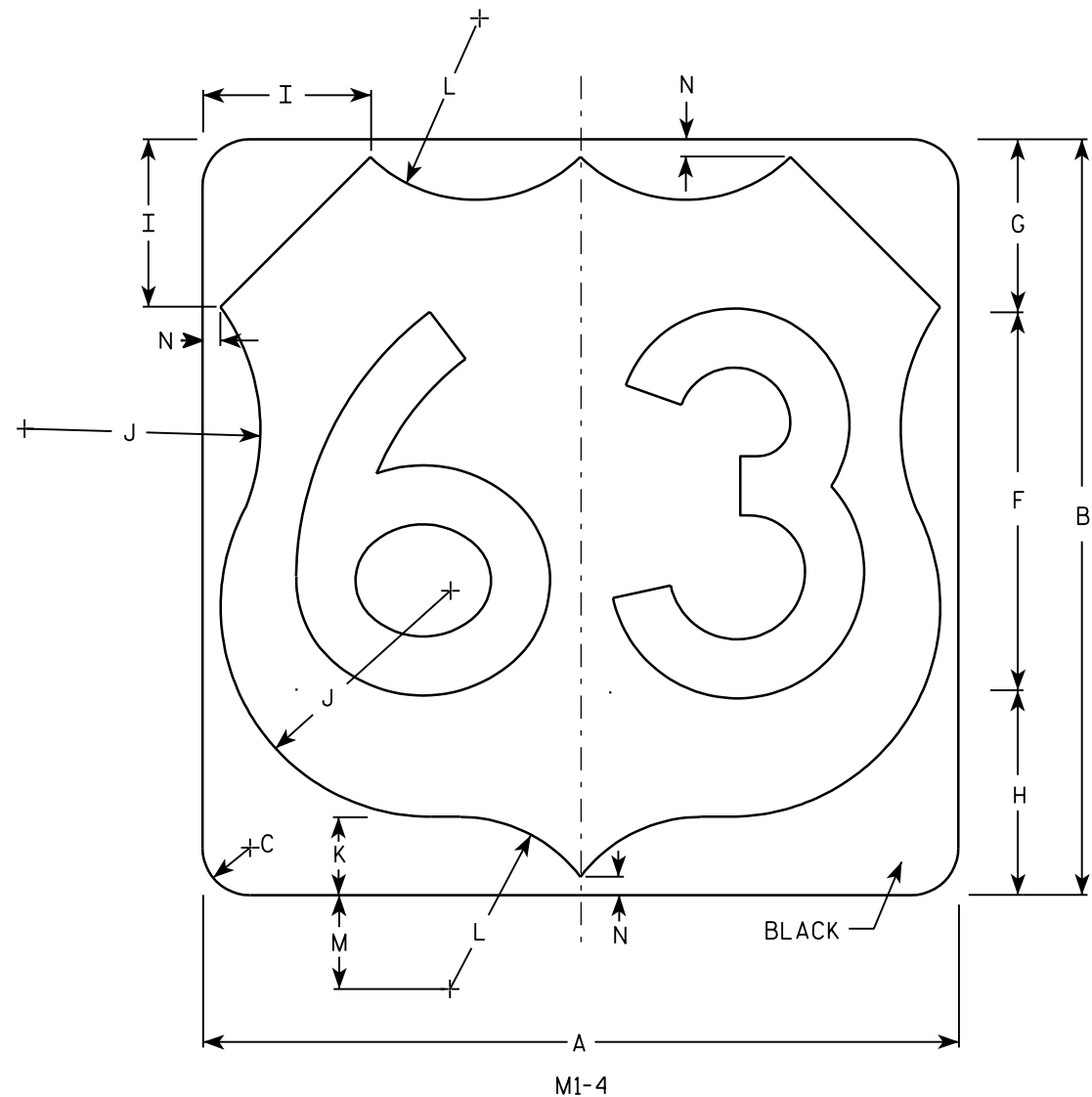
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or other temporary signs
Background - Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

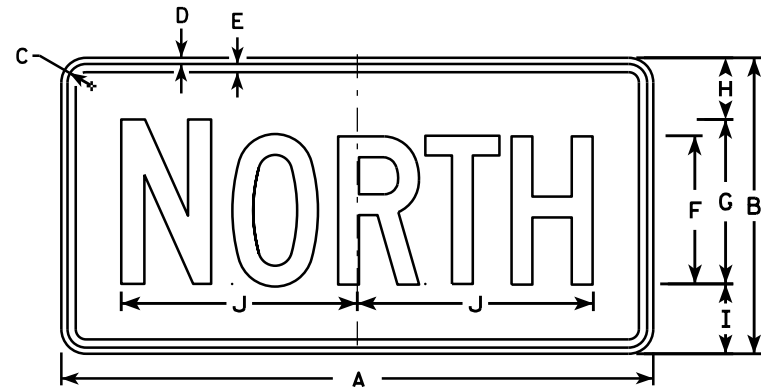
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

USH MARKER
M1-4 FOR ASSEMBLIES

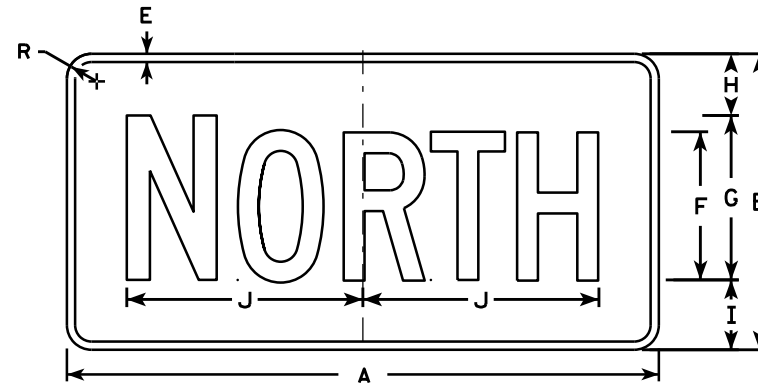
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9



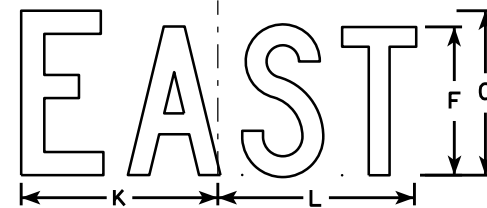
M3-1
MK3-1
MM3-1
MN3-1



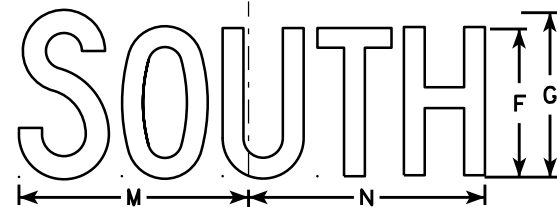
MB3-1



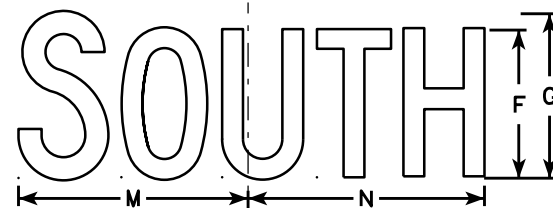
M3-2
MK3-2
MM3-2
MN3-2



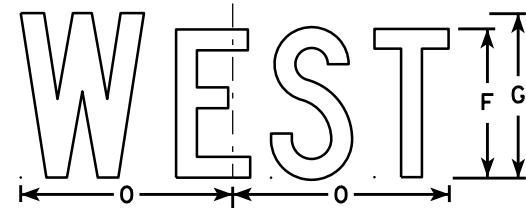
MB3-2



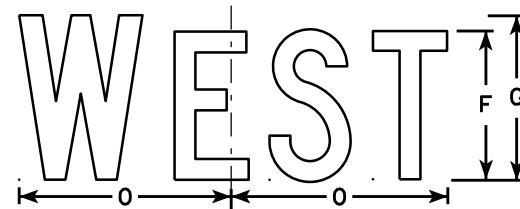
M3-3
MK3-3
MM3-3
MN3-3



MB3-3



M3-4
MK3-4
MM3-4
MN3-4



MB3-4

NOTES

- All Signs Type II - Type H
- Color:
Background - See note 5
Message - See note 5
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
- Note the first letter of each direction is larger than the remainder of the message.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

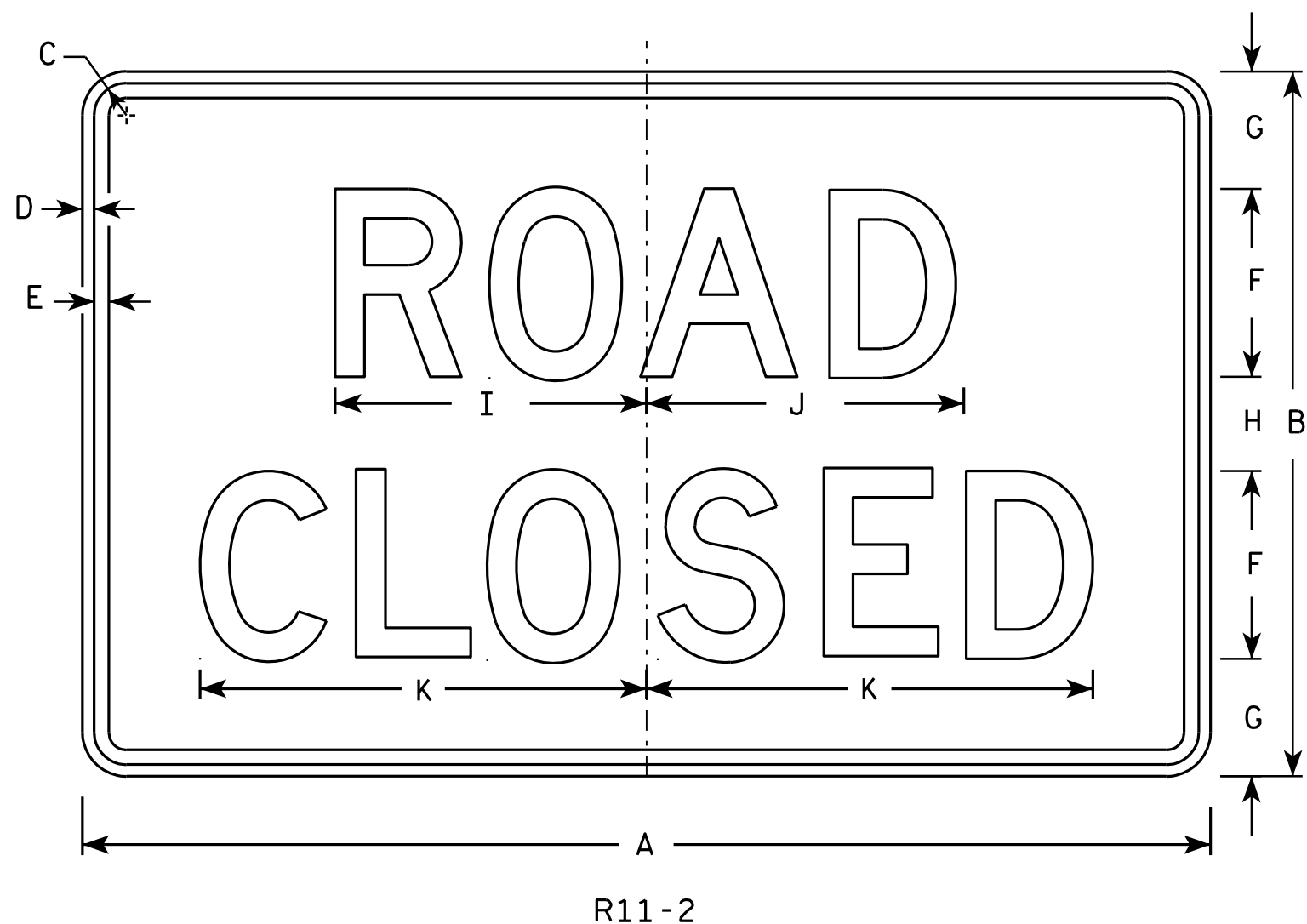
STANDARD SIGNS
M3-1 thru M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

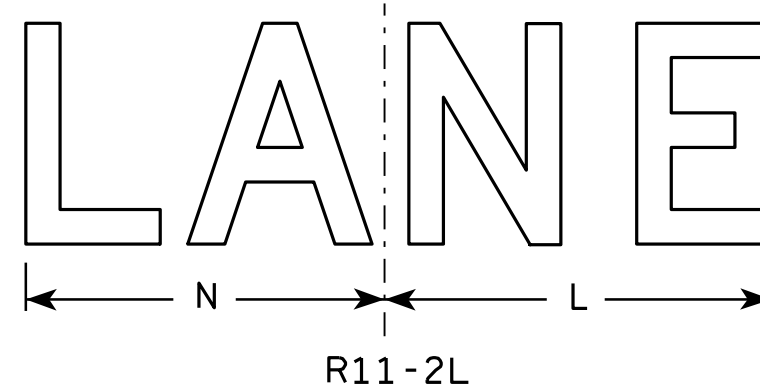
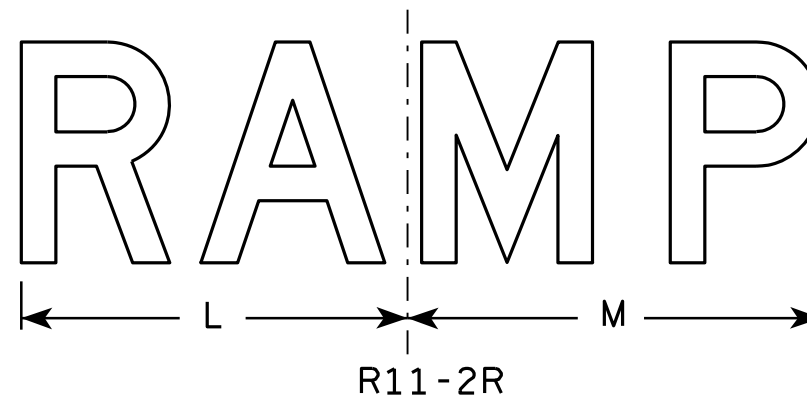
DATE 6/30/14 PLATE NO. M3-1.13

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

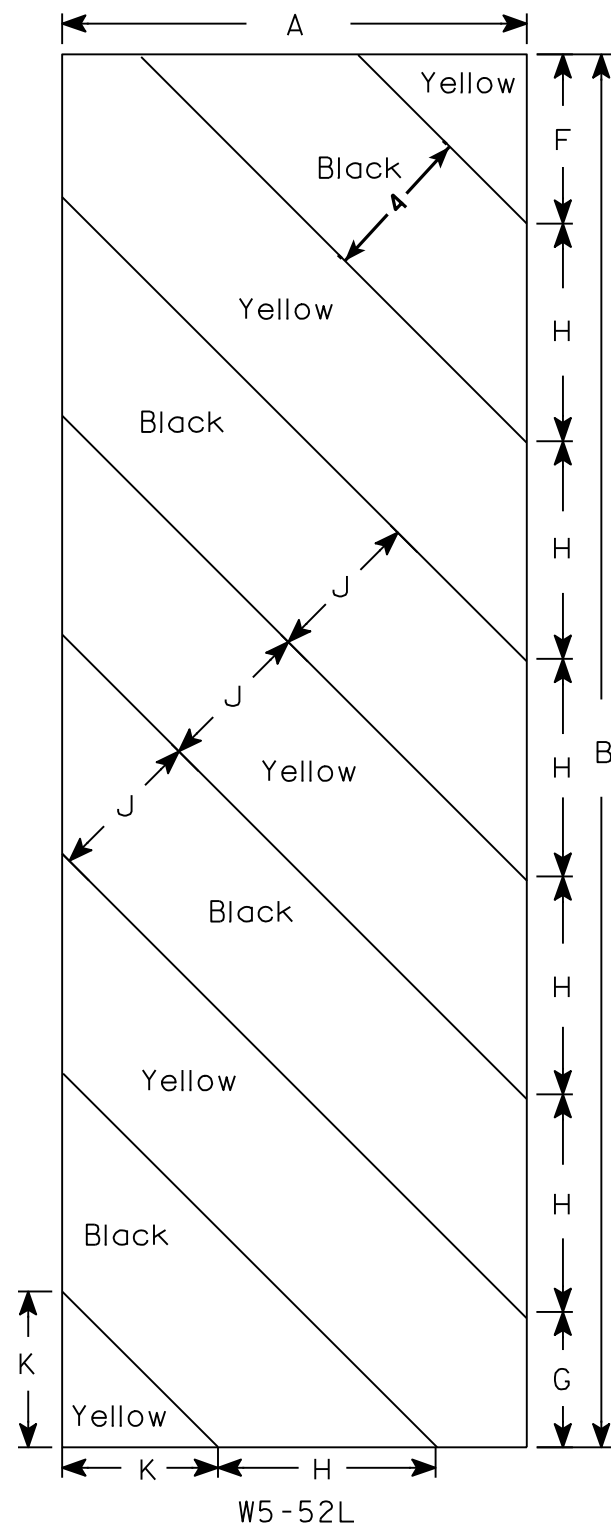
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

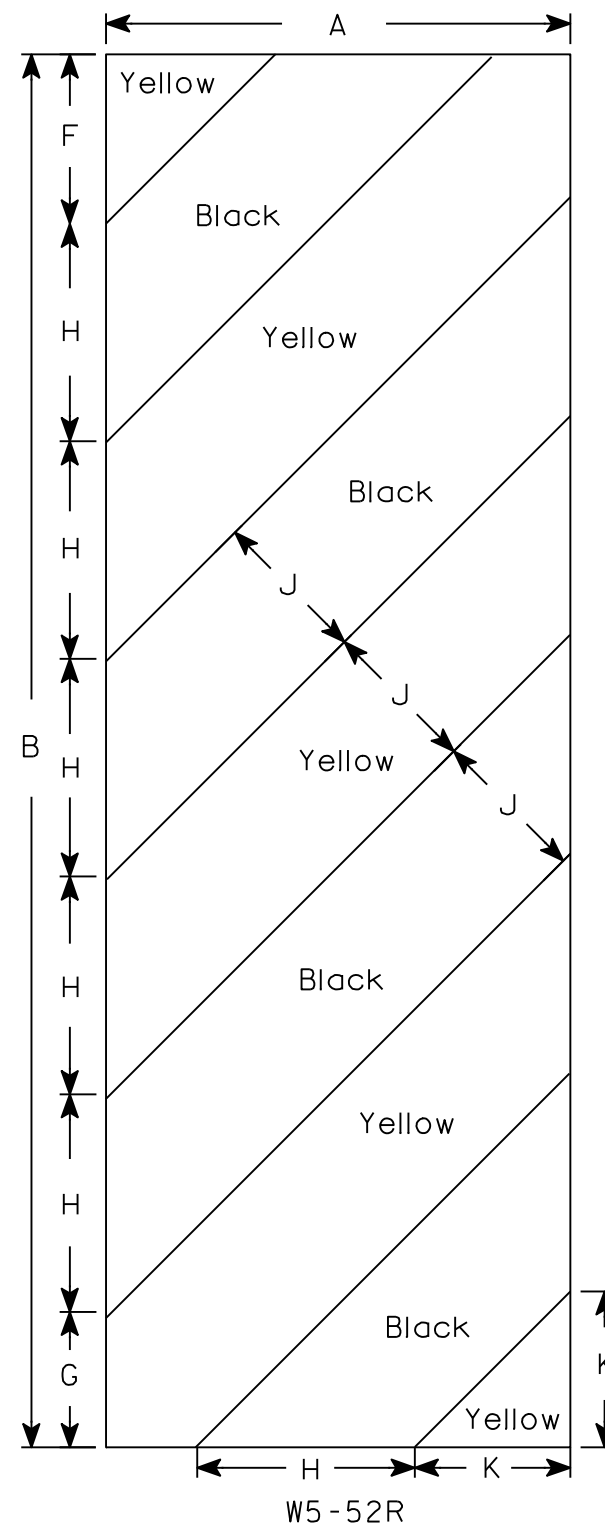
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

7

7

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

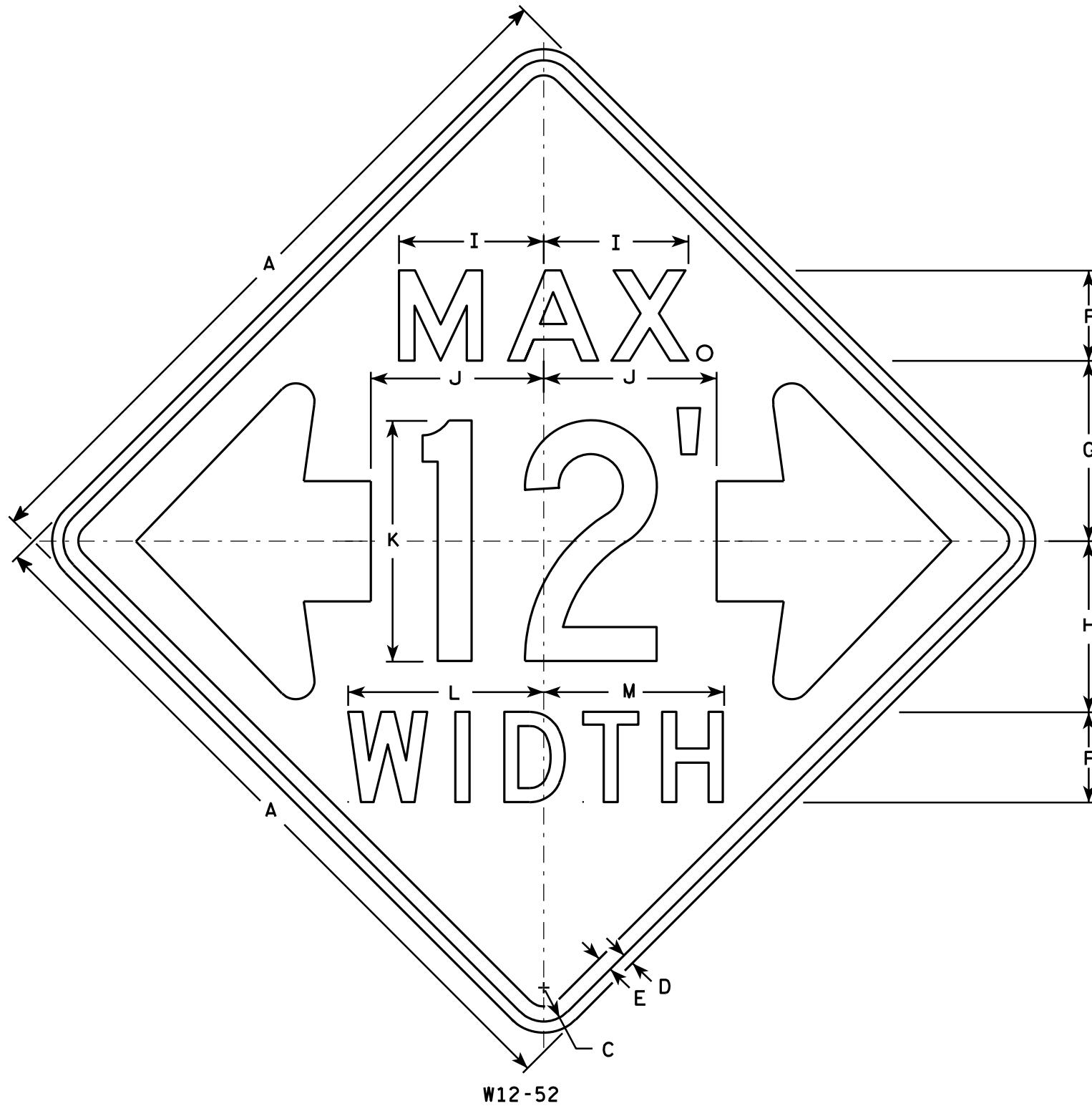
STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

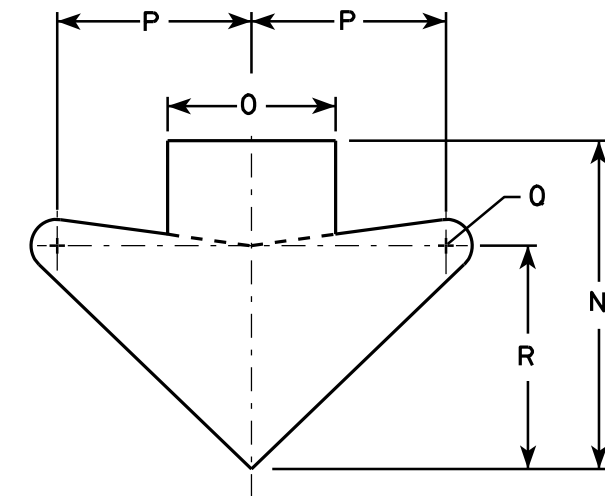
DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

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

STANDARD SIGN
W12-52

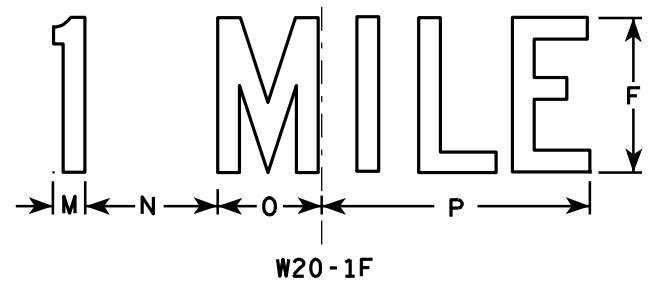
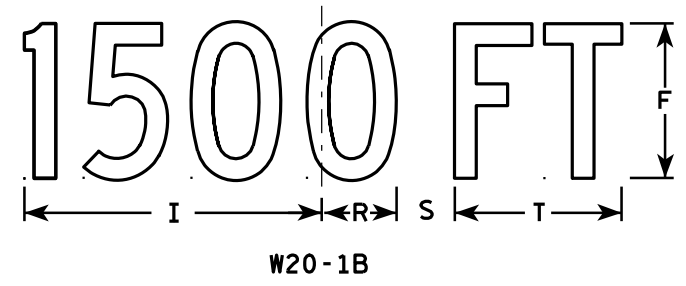
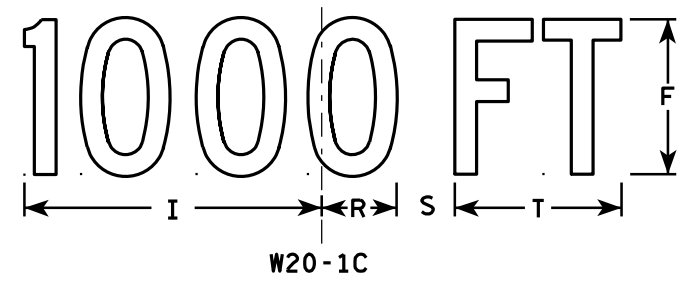
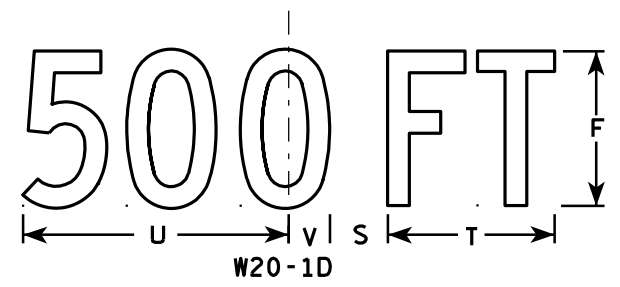
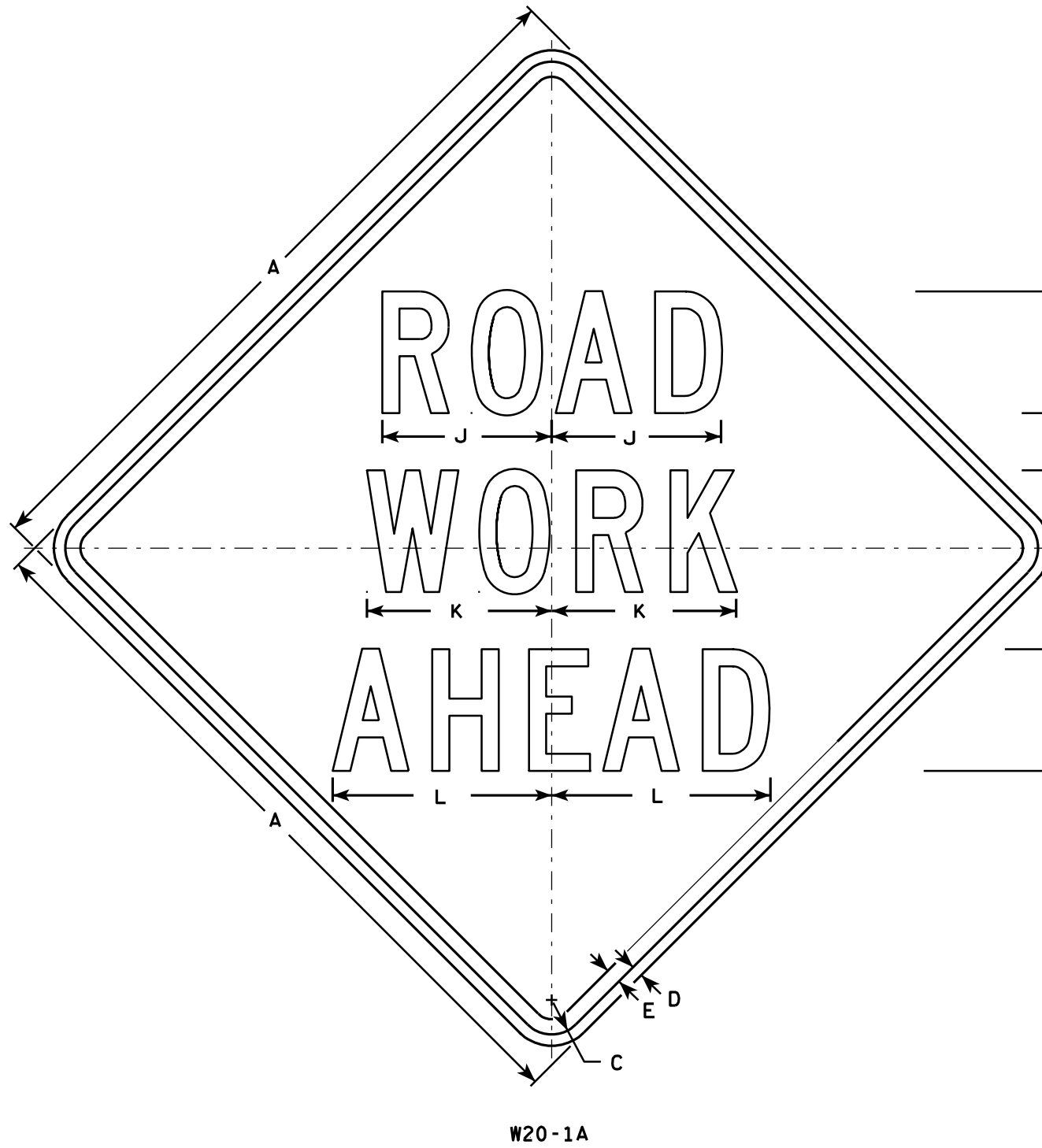
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	1 7/8	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

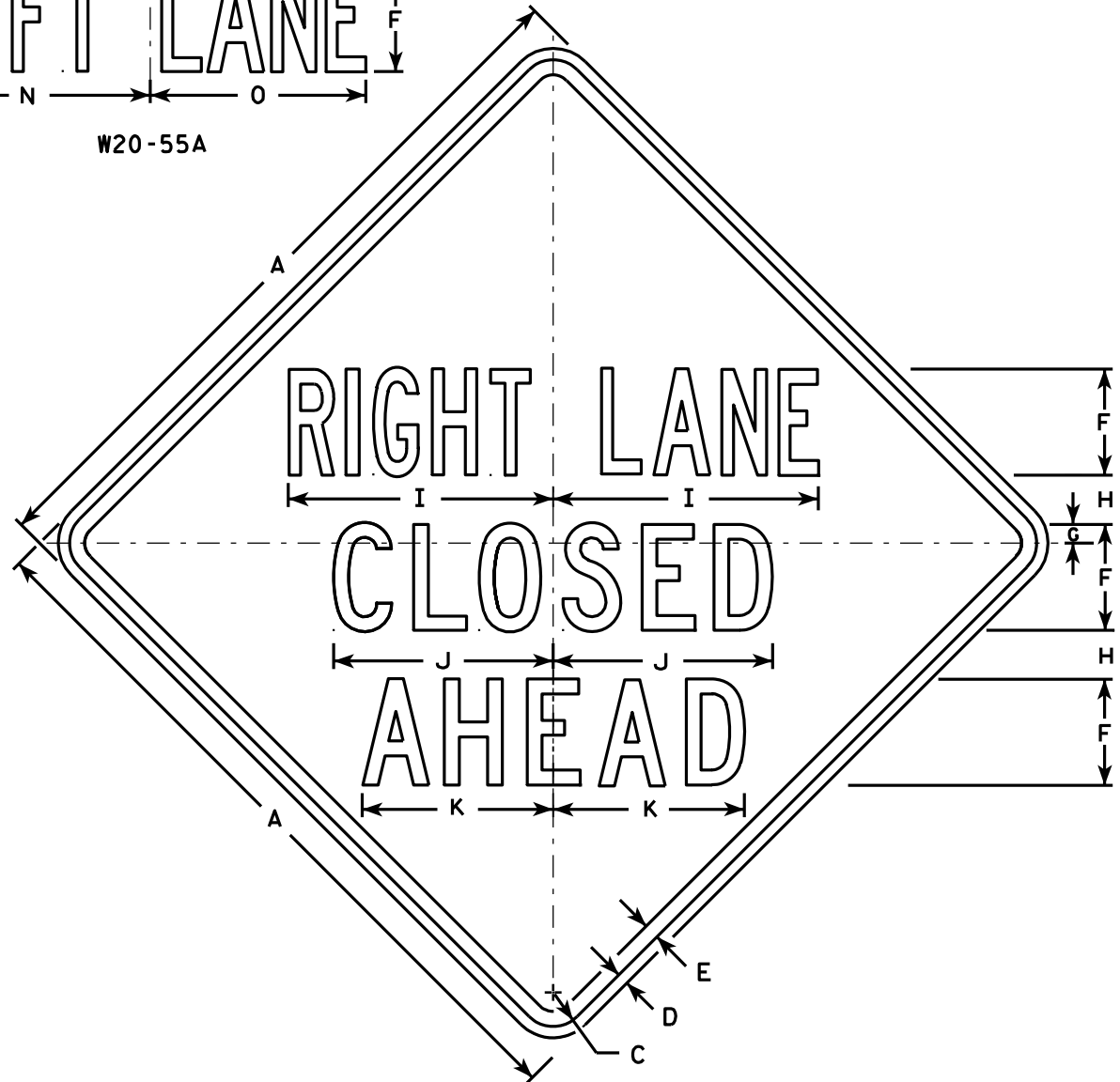
DATE 3/18/11 PLATE NO. W20-19

CENTER LANE

W20-56A

LEFT LANE

W20-55A



W20-5A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. "-----LANE" is Series B.
All other copy is Series C.

500 FT

W20-5D

1000 FT

W20-5C

1500 FT

W20-5B

1/2 MILE

W20-5G

1 MILE

W20-5F

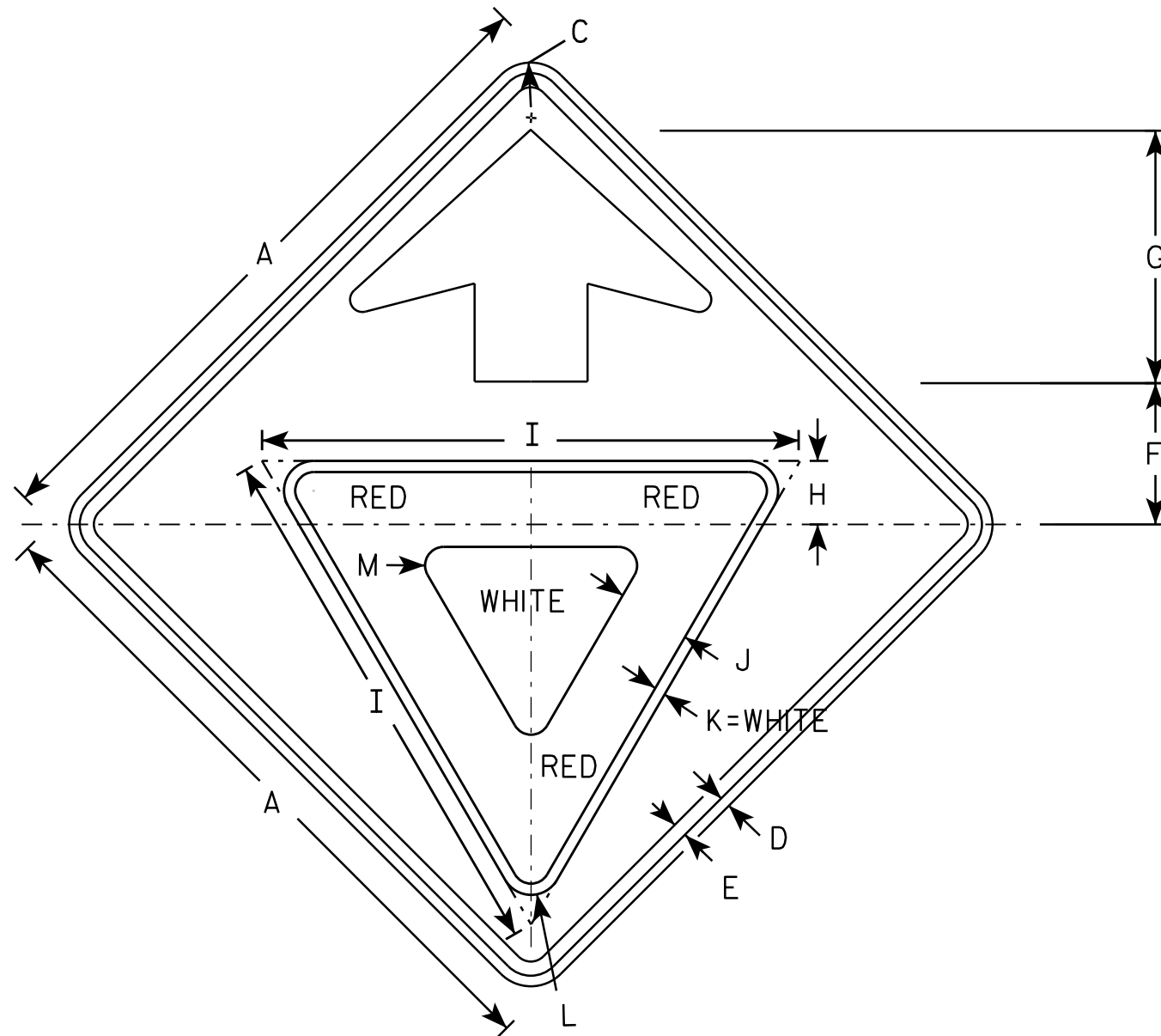
7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E

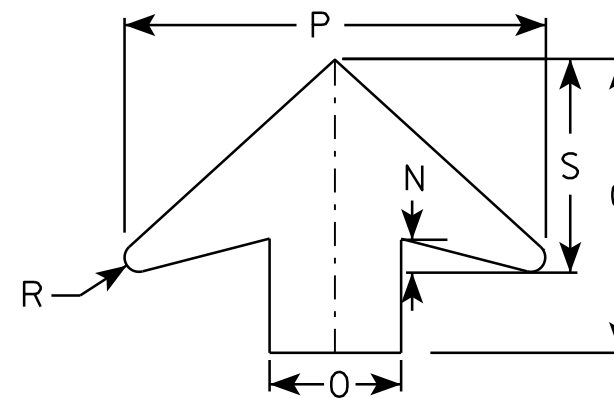
STANDARD SIGN
W20-5A, B, C, D, F & G
WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R Rauch*
For State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-5.11



W03-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
 Background - ORANGE
 Arrow & Border - BLACK
 Yield Symbol - WHITE BORDER ON RED BACKGROUND

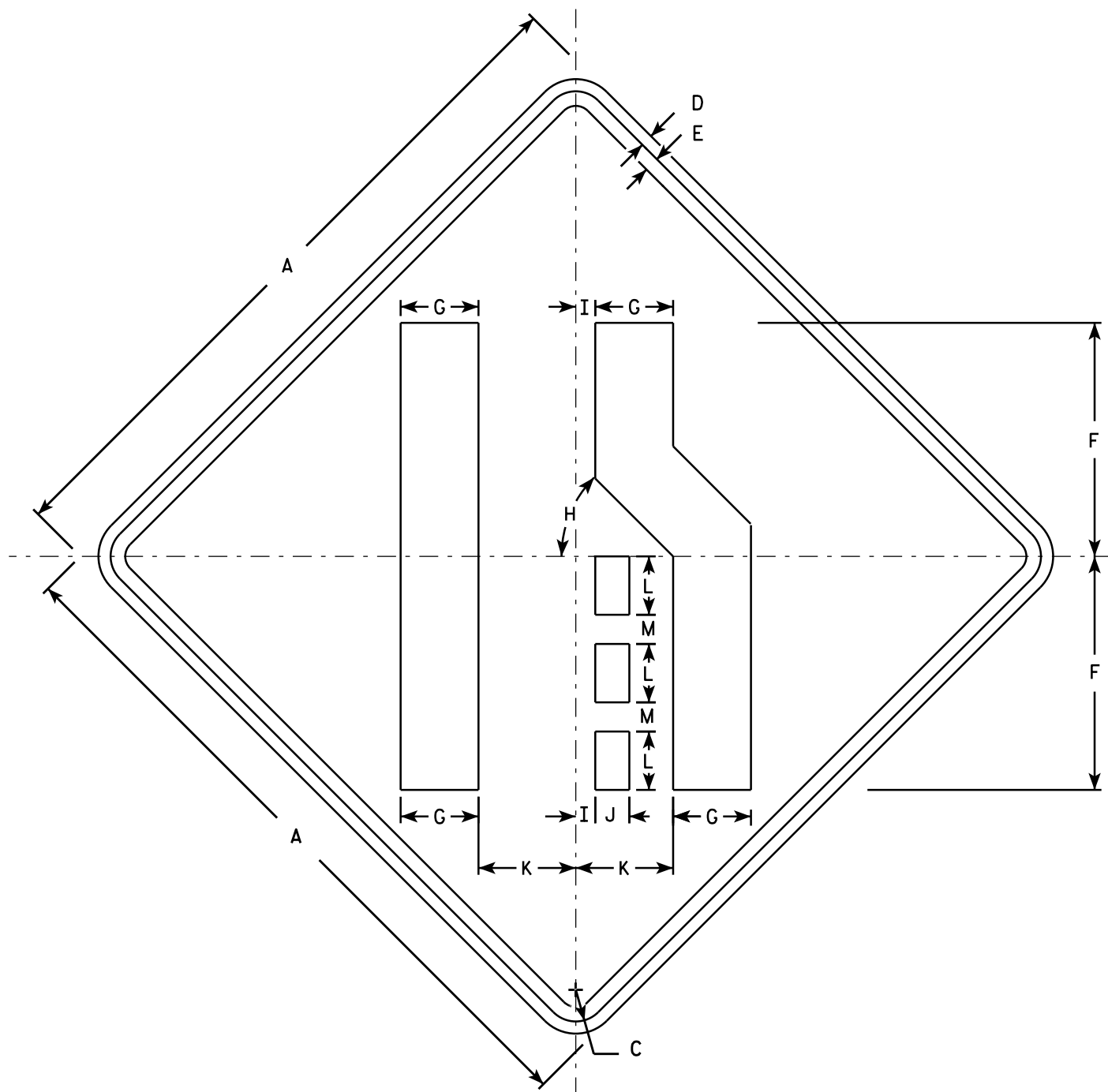


ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2S	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
2M	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
3	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W03-2

WISCONSIN DEPT OF TRANSPORTATION
 APPROVED *Matthew R. Rauch*
 for State Traffic Engineer
 DATE 11/20/13 PLATE NO. W03-2.1



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbols is reversed along the vertical centerline.

7

7

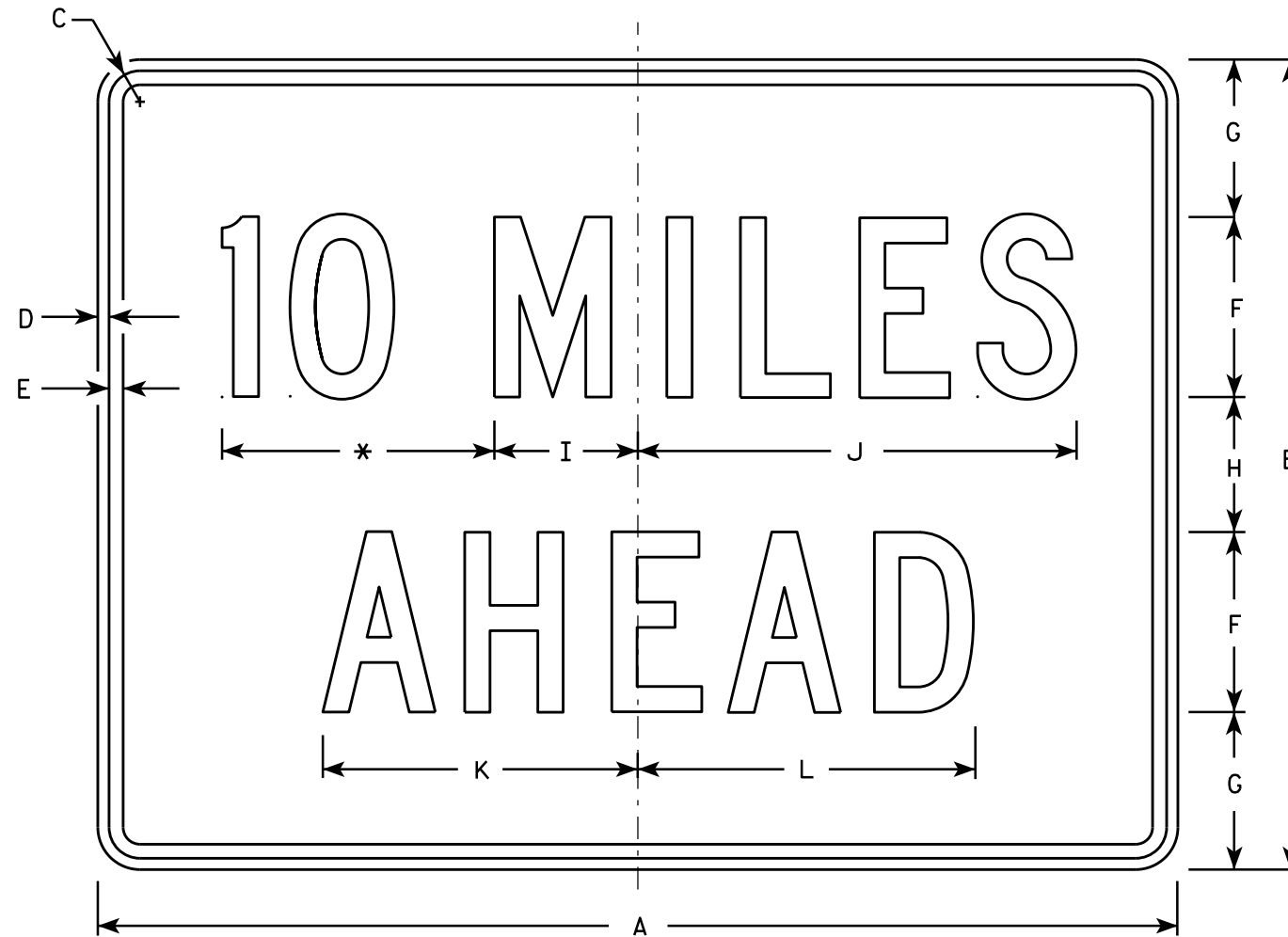
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

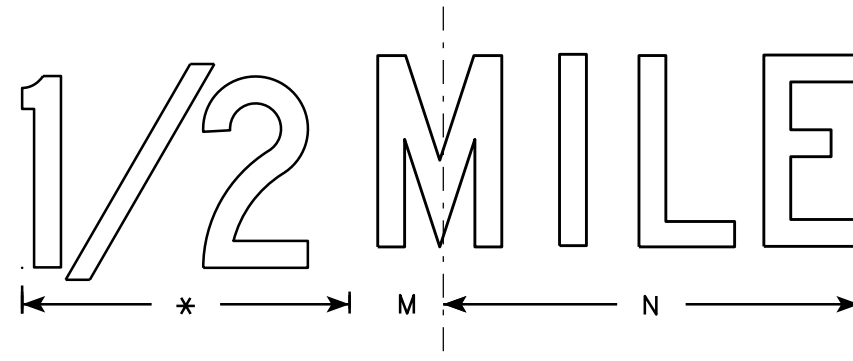
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 11/20/13 PLATE NO. W04-2.1



W057-52



* See note 5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	13													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0

STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

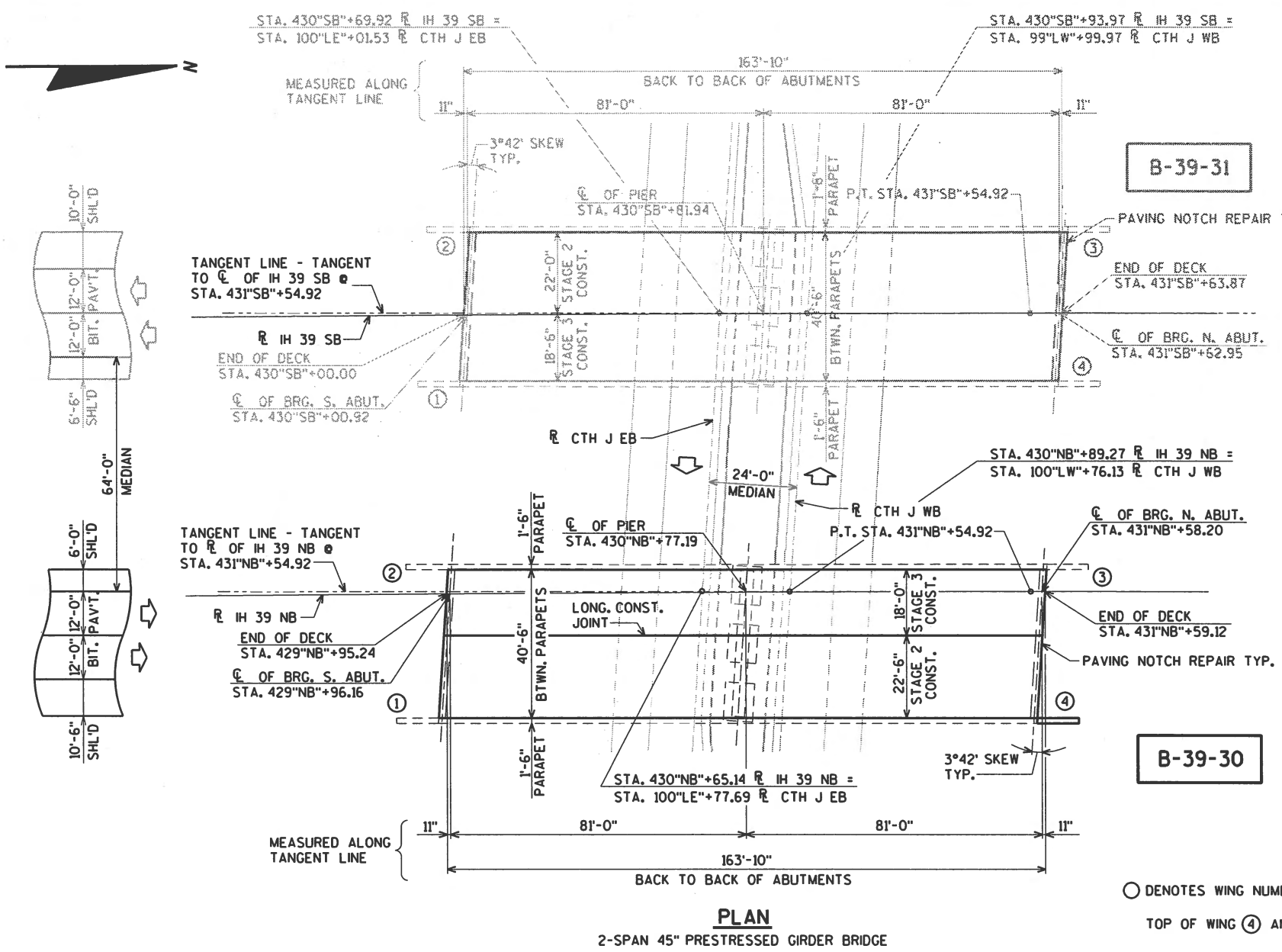
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W057-52.1

\$PRFNAMES
 U:\42-0911.00 - Marquette County, IH39 Overlays\B-39-30 IH39 NB over CTH J\BRIDGE\B-39-30 gp.dwg

CHECKED BY:
 BACK CHECKED BY:
 CORRECTED BY:

8



CURVE DATA
 IH 39 SB
 P.I. STA. 423"SB"+69.94
 Δ = 3°55'35"
 D = 0°15'00"
 R = 22,918.31'
 T = 785.59'
 L = 1,570.56'
 E = 13.46'
 S.E. = NC

CURVE DATA
 IH 39 NB
 P.I. STA. 430"NB"+72.73
 Δ = 0°24'44"
 D = 0°15'03"
 R = 22,842.31'
 T = 82.18'
 L = 164.37'
 E = 0.15'
 S.E. = NC

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
 DIMENSIONS SHOWN ARE BASED ON ORIGINAL STRUCTURE PLANS.
 ANY EXCAVATION NECESSARY TO COMPLETE THE OVERLAY IS CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".
 REMOVAL LINES NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1" DEEP SAW CUT AT THE CONCRETE SURFACES.
 BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
 THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
 PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, CONCRETE SURFACE REPAIR AND FULL DEPTH DECK REPAIR AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.
 UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.
 A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".
 PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1 1/2" PLACED ABOVE THE DECK SURFACE AFTER "CLEANING DECKS". EXPECTED AVERAGE OVERLAY THICKNESS IS 2 3/4". IF EXPECTED OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.
 THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES AT THE WING REPAIR.
 REMOVAL OF THE WING WALL AND PARAPET IS INCLUDED IN THE BID ITEM "REMOVING OLD STRUCTURE STATION 430"NB"+77.19".
 AT WING REPAIRS, ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW WING SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.
 PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE CONCRETE OVERLAY, TOP OF PARAPETS, AND INSIDE FACE OF PARAPETS. PROVIDE COLOR-MATCHED PIGMENTED SEALER ON PARAPETS.

DESIGN DATA

LIVE LOAD:
 DESIGN LOADING: HS-20
 INVENTORY RATING: HS-19
 OPERATING RATING: HS-32
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY { SUPERSTRUCTURE $f'_c = 4,000$ p.s.i.
 ALL OTHER $f'_c = 3,500$ p.s.i.

HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) $f_y = 60,000$ p.s.i.

TRAFFIC DATA:

<u>IH 39</u>	<u>CTH J</u>
A.D.T. = 10,000 (2008)	A.D.T. = 7,100 (2008)
R.D.S. = 70 M.P.H.	R.D.S. = 50 M.P.H.

○ DENOTES WING NUMBER
 TOP OF WING ④ AND PARAPET TO BE REPLACED

B-39-30

B-39-31

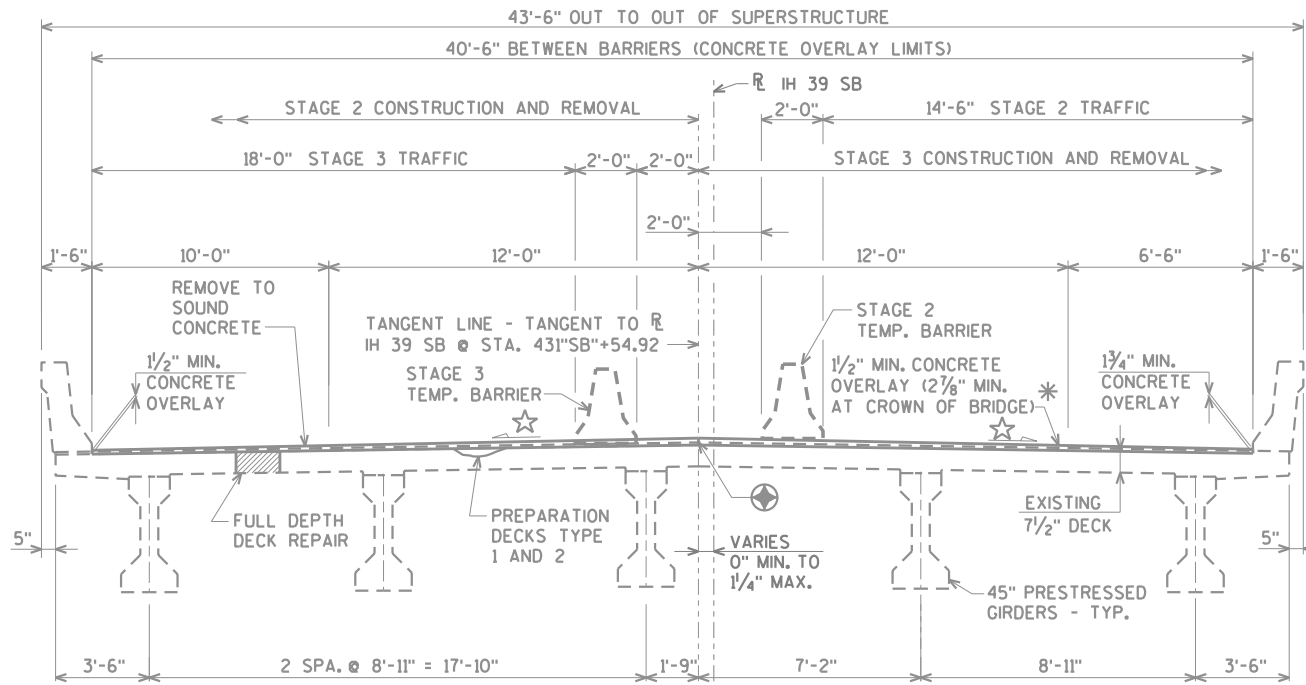
LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES & CROSS SECTION
3. WING 4 DETAILS
4. SLOPED FACE PARAPET "B"

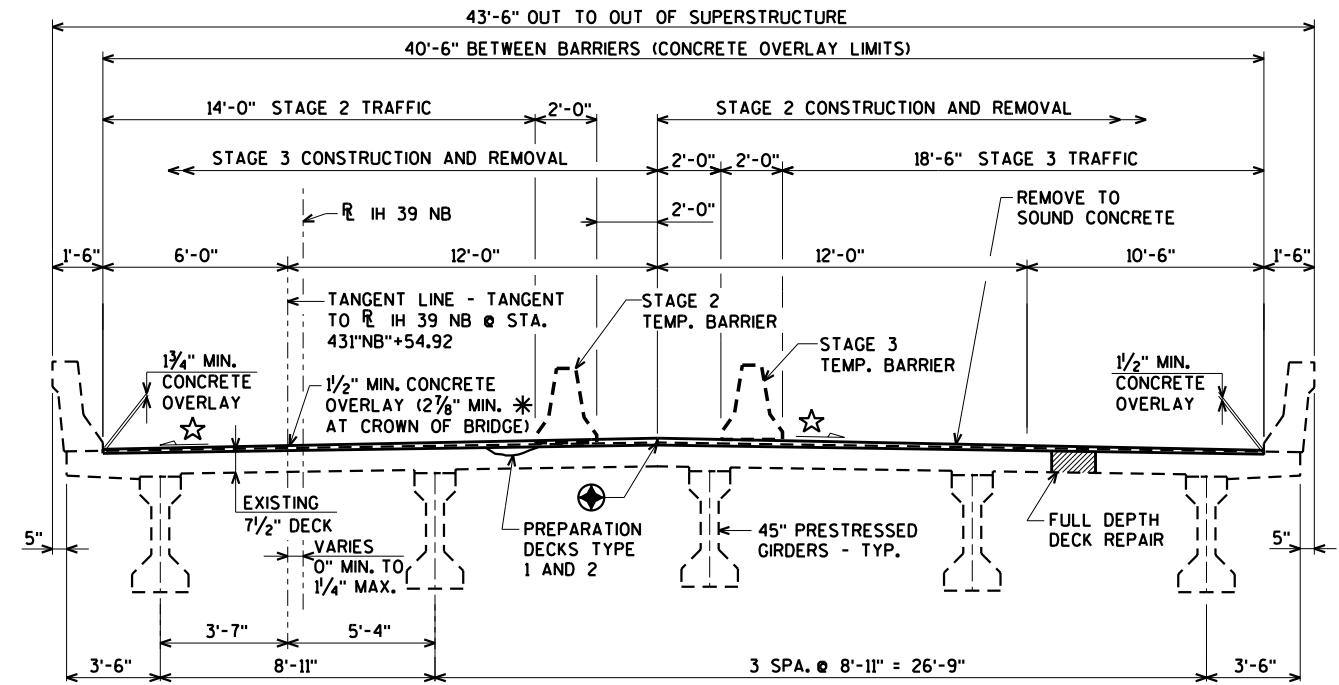


BRIDGE OFFICE CONTACT:
 WILLIAM DREHER
 (608)-266-8489
 CONSULTANT CONTACT:
 DAN SYDOW
 (715)-834-3161

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY AYRES ASSOCIATES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED <i>William C. Dreher</i> ^{SEAL} 02/05/15 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-39-30			
IH 39 NB OVER CTH J			
COUNTY	MARQUETTE	TOWN/VILLAGE	WESTFIELD
DESIGN SPEC.	REHABILITATION	N/A	
DESIGNED BY	JCK	DESIGN CK'D.	CJM
DRAWN BY	CLS	PLANS CK'D.	LWS
GENERAL PLAN			SHEET 1 OF 4



B-39-31



B-39-30

⊕ LONG. CONST. JOINT (AT CROWN POINT)
SEAL WITH CRACK SEALER
PER SECTION 502.3.13 OF STD. SPEC.

CROSS SECTION THRU BRIDGES
(LOOKING NORTH)

☆ NEW CONCRETE OVERLAY SLOPE = 0.02 %
CURRENT CONCRETE DECK SLOPE = 0.015 %

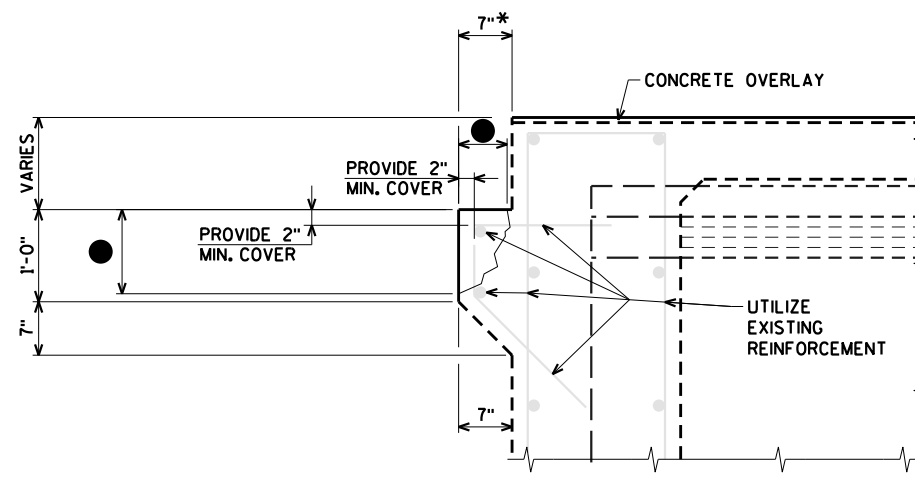
* THE PROPOSED OVERLAY THICKNESS VARIES FROM A
MINIMUM OF 1/2" AT THE EAST PARAPET TO 2 7/8" AT
THE CROWN AND 1 3/4" AT THE WEST PARAPET. THE
EXPECTED AVERAGE OVERLAY THICKNESS IS 2 3/4".

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
203.0200	REMOVING OLD STRUCTURE STATION 430"NB"+77.19	LS	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-39-30	LS	1
210.0100	BACKFILL STRUCTURE	CY	25
502.0100	CONCRETE MASONRY BRIDGES	CY	5
502.3200	PROTECTIVE SURFACE TREATMENT	SY	890
502.5005	MASONRY ANCHOR TYPE L NO. 5 BARS	EACH	10
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	590
509.0301	PREPARATION DECKS TYPE 1	SY	52
509.0302	PREPARATION DECKS TYPE 2	SY	26
509.0500	CLEANING DECKS	SY	740
509.1500	CONCRETE SURFACE REPAIR	SF	5
509.2000	FULL-DEPTH DECK REPAIR	SY	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	62
509.9050.S	CLEANING PARAPETS	LF	365
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	2
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1
SPV.0090.01	PAVING NOTCH REPAIR	LF	81
NON-BID ITEMS			
	FILLER	SIZE	1/2"

△ BID ITEM ALSO INCLUDES CONCRETE FOR:
"PREPARATION DECKS TYPE 1"
"PREPARATION DECKS TYPE 2"
"FULL-DEPTH DECK REPAIR"
"PAVING NOTCH REPAIR"

■ RE-CAULKING PARAPET JOINTS CONSIDERED INCIDENTAL
TO CLEANING PARAPETS.



PAVING NOTCH REPAIR
(CONCRETE SURFACE REPAIR)

* DIMENSION IS TAKEN NORMAL
TO SUBSTRUCTURE UNITS.

● REMOVE CONCRETE TO SOUND
CONCRETE OR AT LEAST 1"
BEHIND EXISTING REINFORCEMENT.

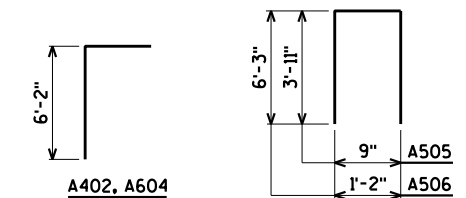
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Equi Claire, WI 54701
www.AyresAssociates.com

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-39-30			
DRAWN BY CLS		PLANS CK'D. JCK	
QUANTITIES & CROSS SECTION			SHEET 2 OF 4

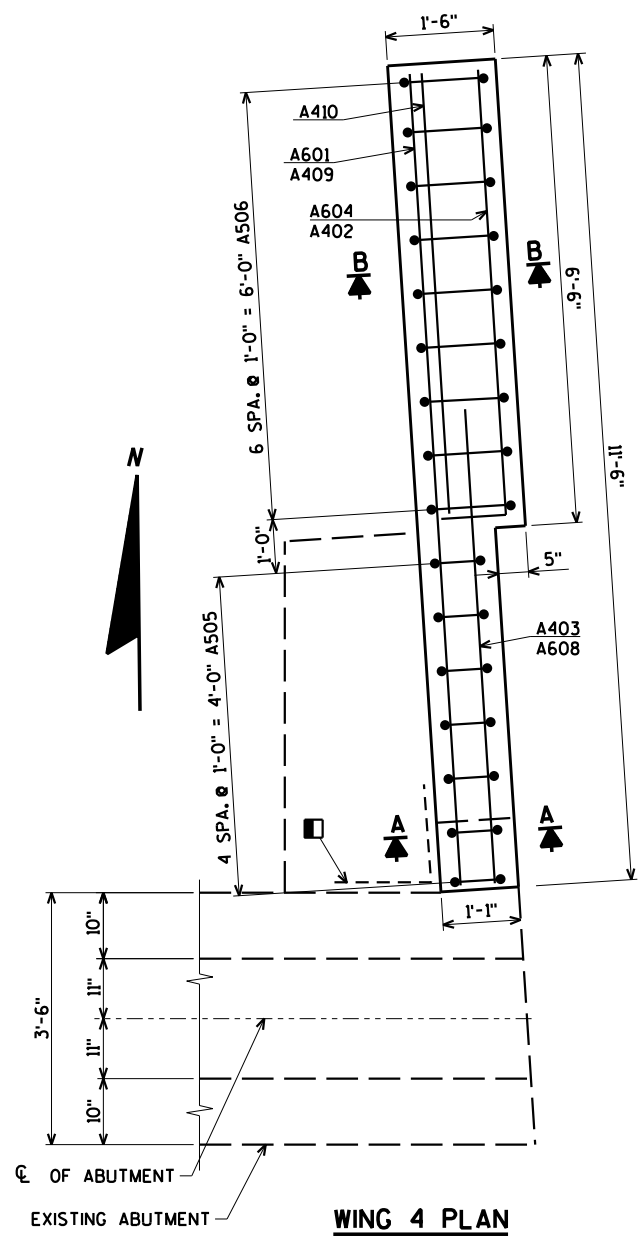
BILL OF BARS

BAR NO.	COATED BAR	NO. REO'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	590* COATED*
						LOCATION
A601	X	1	11-2			WING TOP HORIZ B.F.
A402	X	6	6-11	X		WING HORIZ. F.F.
A403	X	4	7-4			WING HORIZ. F.F.
A604	X	1	7-0	X		WING TOP HORIZ. F.F.
A505	X	5	8-4	X		WING TOP VERT.
A506	X	7	13-5	X		WING TOP VERT.
A507	X	10	4-2			WING BOT. VERT. DOWEL BARS
A608	X	1	8-6			WING TOP HORIZ. F.F.
A409	X	7	11-2			WING HORIZ. B.F.
A410	X	5	6-2			WING HORIZ. B.F.
A411	X	12	2-0			WING DOWELS

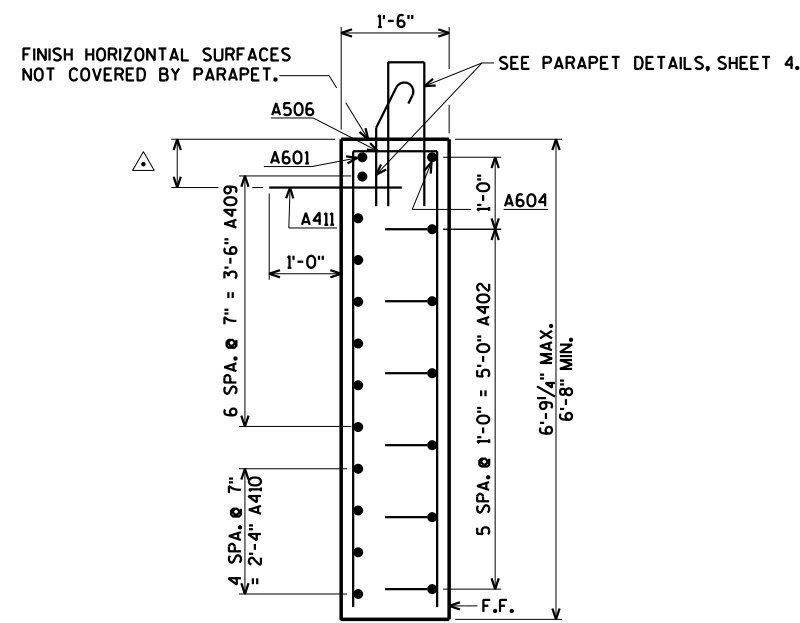
* INCLUDES WEIGHT OF PARAPET BARS. SEE SHEET 4.



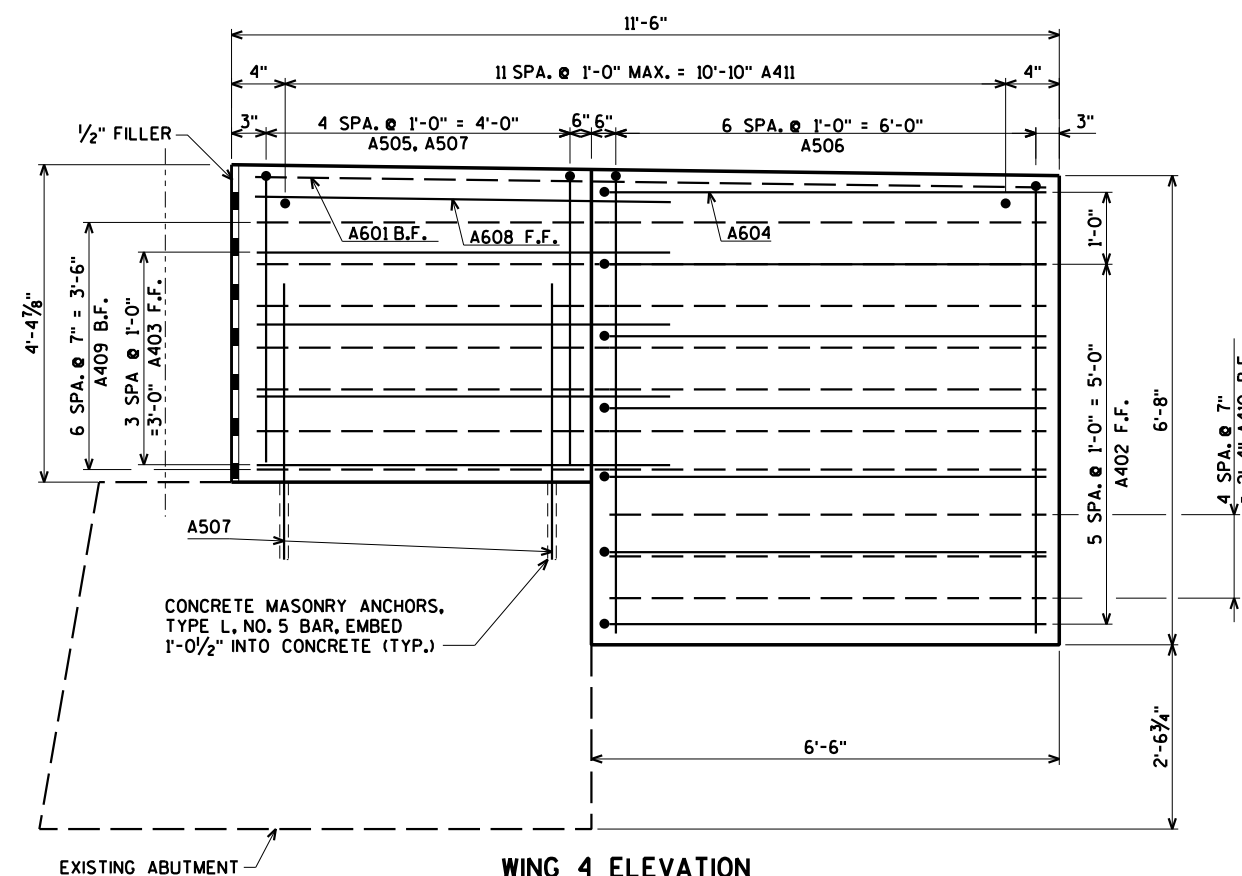
\$PRNAME\$
U:\42-0911.00 - Marquette County, IH39 Overlays\B-39-30 IH39 NB over CTH J\BRIDGE\B-39-30 WINGS.DGN



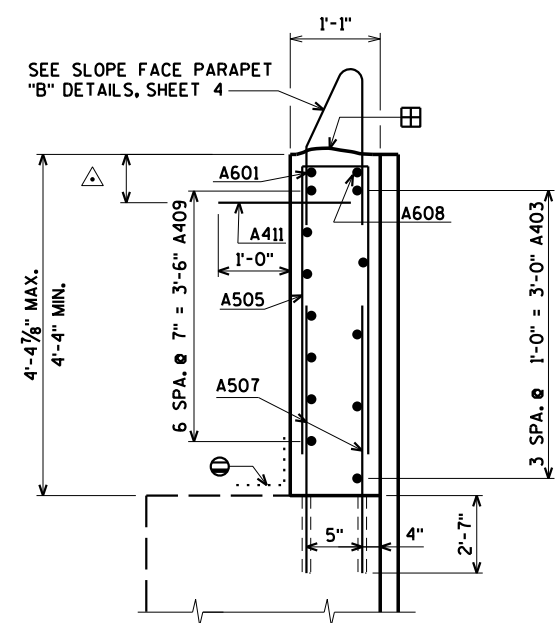
WING 4 PLAN



SECTION B



WING 4 ELEVATION



SECTION A

- △ 3" MIN. TO 6" MAX., SEE CONCRETE SURFACE DRAIN SDD.
- ⊞ STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING
- ⊖ 18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE.

B.F. DENOTES BACK FACE.
F.F. DENOTES FRONT FACE.
E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-39-30			
DRAWN BY CJM		PLANS CK'D. JCK	
WING 4 DETAILS			SHEET 3 OF 4

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

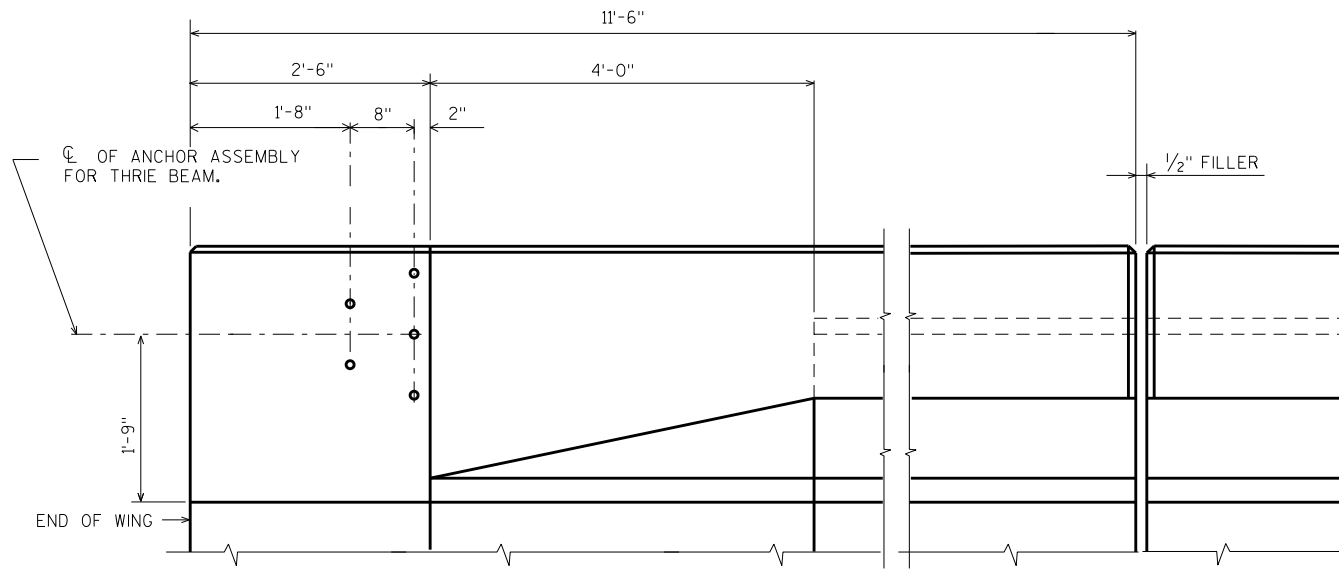
8

8

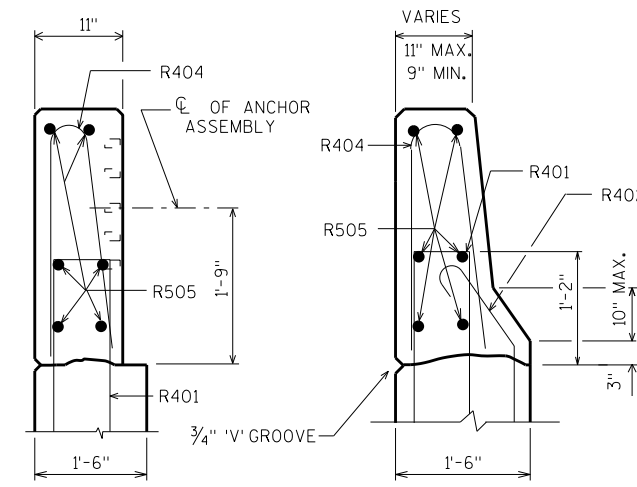
BILL OF BARS

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE. EPOXY COAT ALL PARAPET REINF.

BAR MARK	NO. REQ'D.	LENGTH	BENT	LOCATION
R401	15	4-9	X	WING 4 VERT.
R402	4	3-1	X	WING 4 VERT.
R403	7	4-9	X	WING 4 VERT.
R404	15	4-9	X	WING 4 VERT.
R505	6	6-2		WING 4 HORIZ.
R406	7	4-10	X	WING 4 VERT.
R507	4	7-7		WING 4 HORIZ.
R508	1	7-7	X	WING 4 HORIZ.

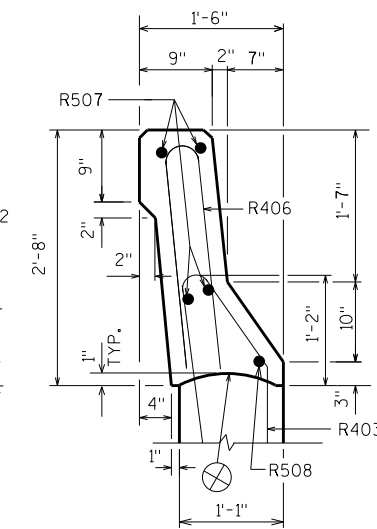


INSIDE ELEVATION

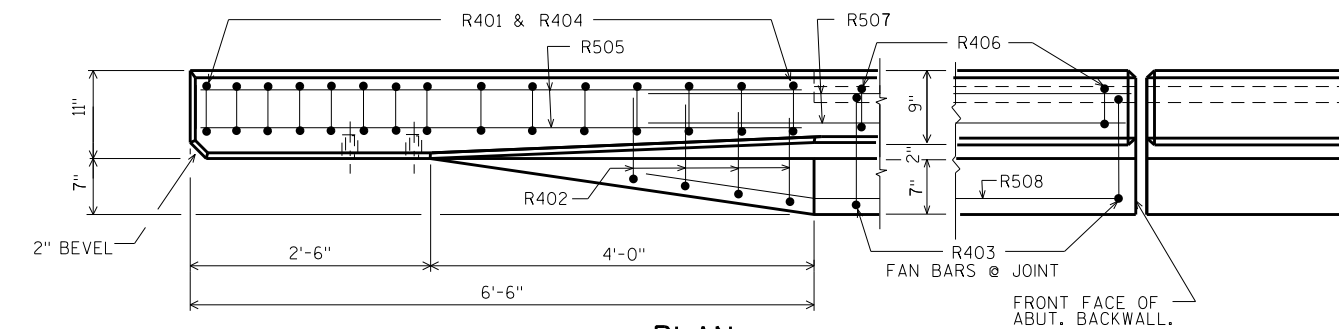
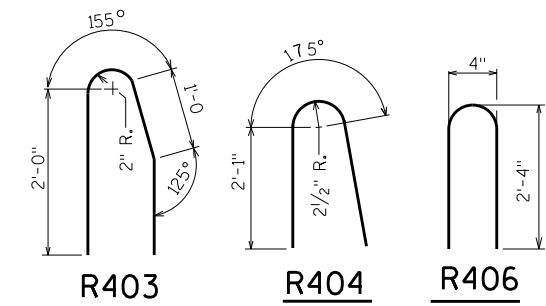


SECTION A

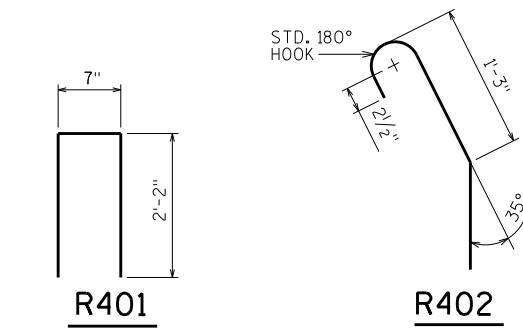
SECTION B



SECTION C

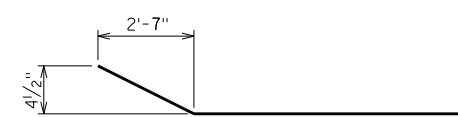


PLAN

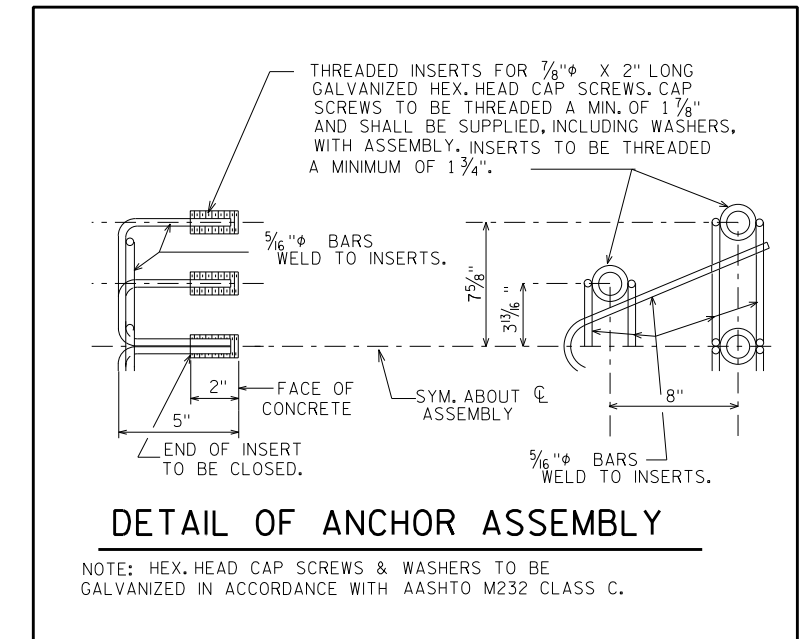


R401

R402

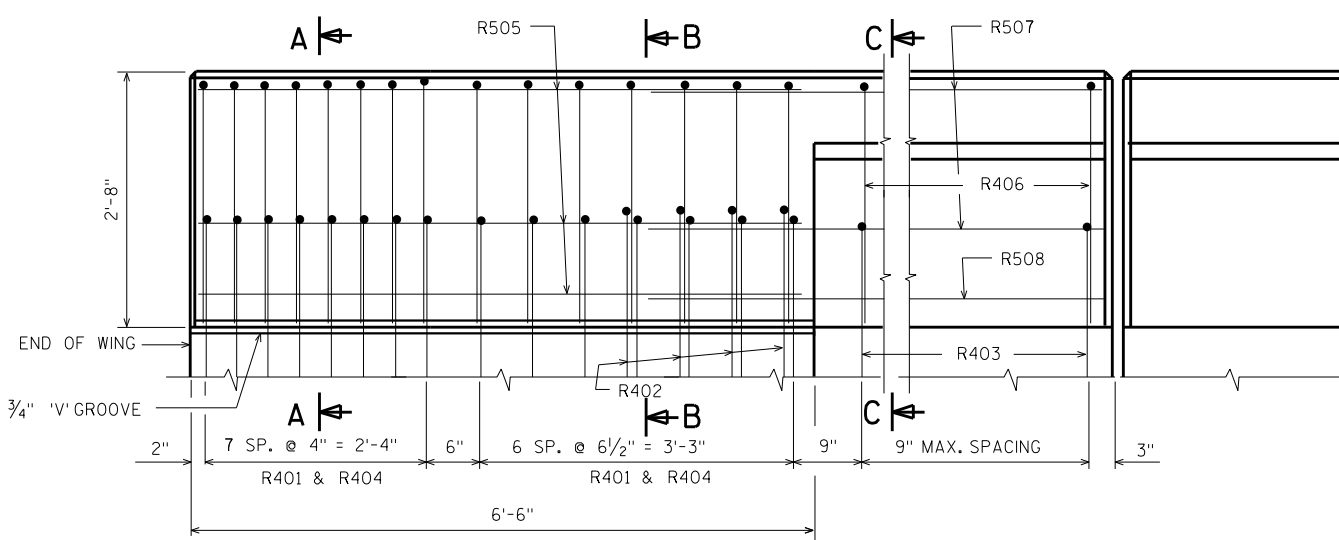


R508



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX. HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.



OUTSIDE ELEVATION

\$PRNAME\$ U:\42-0911.00 - Marquette County, IH39 Overlays\B-39-30 IH39 NB over CTH J\BRIDGE\B-39-30pptb.dgn

8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-39-30			
DRAWN BY CJM		PLANS CK'D. JCK	
SLOPED FACE PARAPET "B"			SHEET 4 OF 4

⊗ CONST. JOINT - STRIKE OFF AS SHOWN.

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

CURVE DATA

IH 39 SB
 P.I. STA. 423"SB"+69.94
 $\Delta = 3^{\circ}55'35''$
 $D = 0^{\circ}15'00''$
 $R = 22,918.31'$
 $T = 785.59'$
 $L = 1,570.56'$
 $E = 13.46'$
 $S.E. = NC$

CURVE DATA

IH 39 NB
 P.I. STA. 430"NB"+72.73
 $\Delta = 0^{\circ}24'44''$
 $D = 0^{\circ}15'03''$
 $R = 22,842.31'$
 $T = 82.18'$
 $L = 164.37'$
 $E = 0.15'$
 $S.E. = NC$

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
 DIMENSIONS SHOWN ARE BASED ON ORIGINAL STRUCTURE PLANS.
 ANY EXCAVATION NECESSARY TO COMPLETE THE OVERLAY IS CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

REMOVAL LINES NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1" DEEP SAW CUT AT THE CONCRETE SURFACES. PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, CONCRETE SURFACE REPAIR AND FULL DEPTH DECK REPAIR AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

A MINIMUM OF 1-INCH CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1/2" PLACED ABOVE THE DECK SURFACE AFTER "CLEANING DECKS". EXPECTED AVERAGE OVERLAY THICKNESS IS 2 3/4". IF EXPECTED OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE CONCRETE OVERLAY, TOP OF PARAPETS, AND INSIDE FACE OF PARAPETS. PROVIDE COLOR-MATCHED PIGMENTED SEALER ON PARAPETS.

DESIGN DATA

LIVE LOAD:

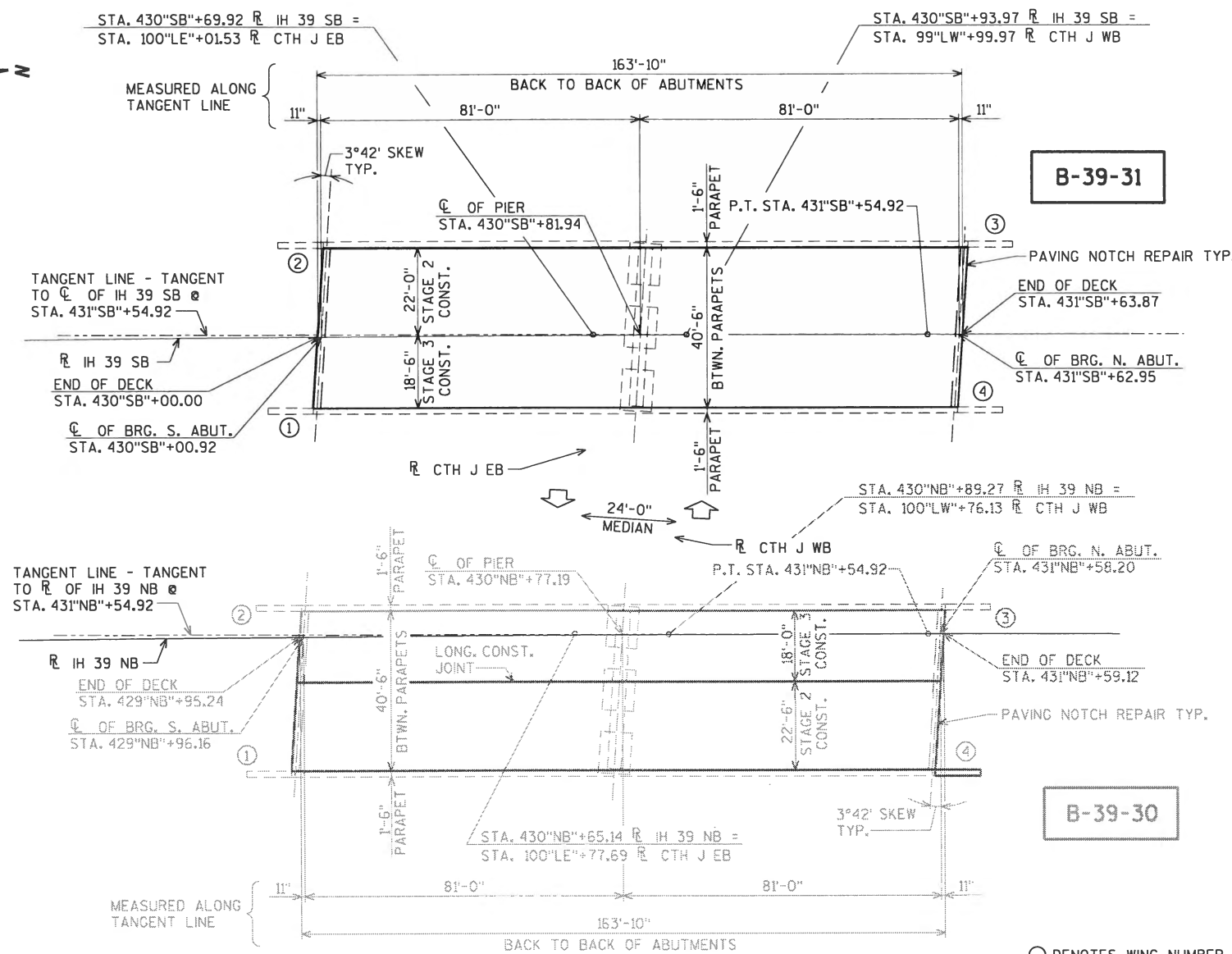
DESIGN LOADING: HS-20
 INVENTORY RATING: HS-19
 OPERATING RATING: HS-32
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY OVERLAY DECKS $f_c = 4,000$ p.s.i.

TRAFFIC DATA:

<u>IH 39</u>	<u>CTH J</u>
A.D.T. = 10,000 (2008)	A.D.T. = 7,100 (2008)
R.D.S. = 70 M.P.H.	R.D.S. = 50 M.P.H.



B-39-31

B-39-30

PLAN

2-SPAN 45" PRESTRESSED GIRDER BRIDGE

○ DENOTES WING NUMBER

LIST OF DRAWINGS

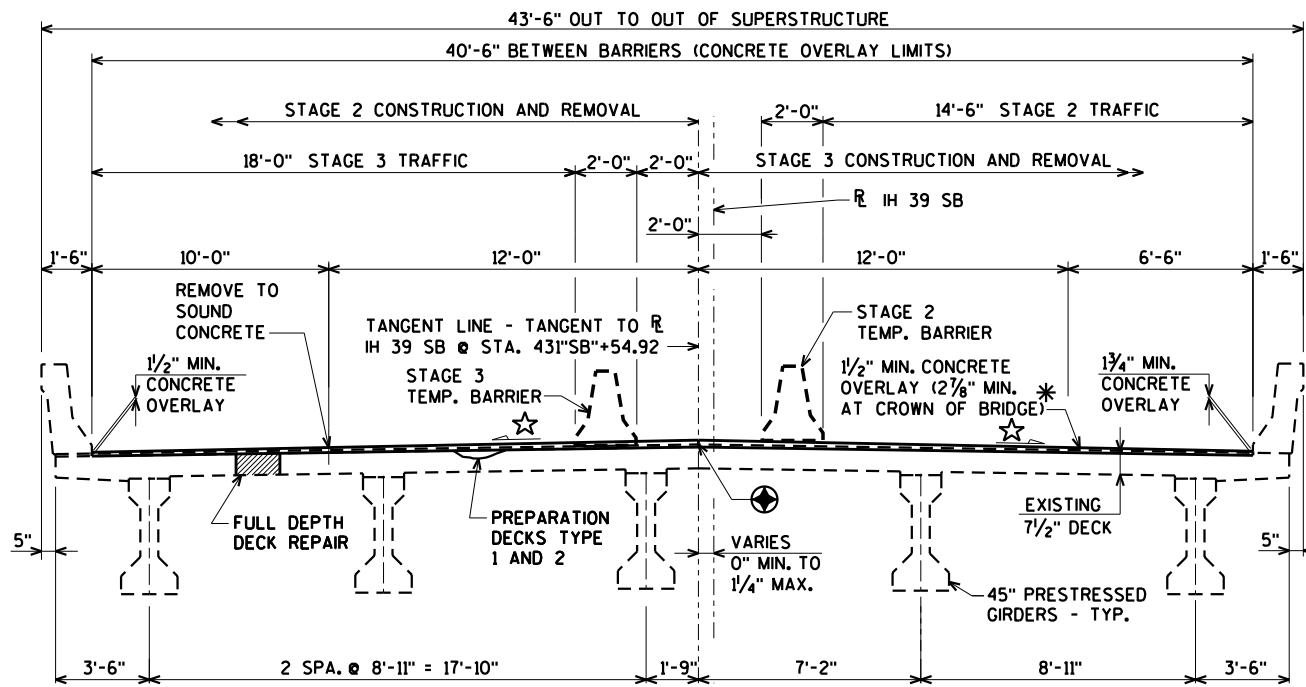
1. GENERAL PLAN
2. QUANTITIES & CROSS SECTION



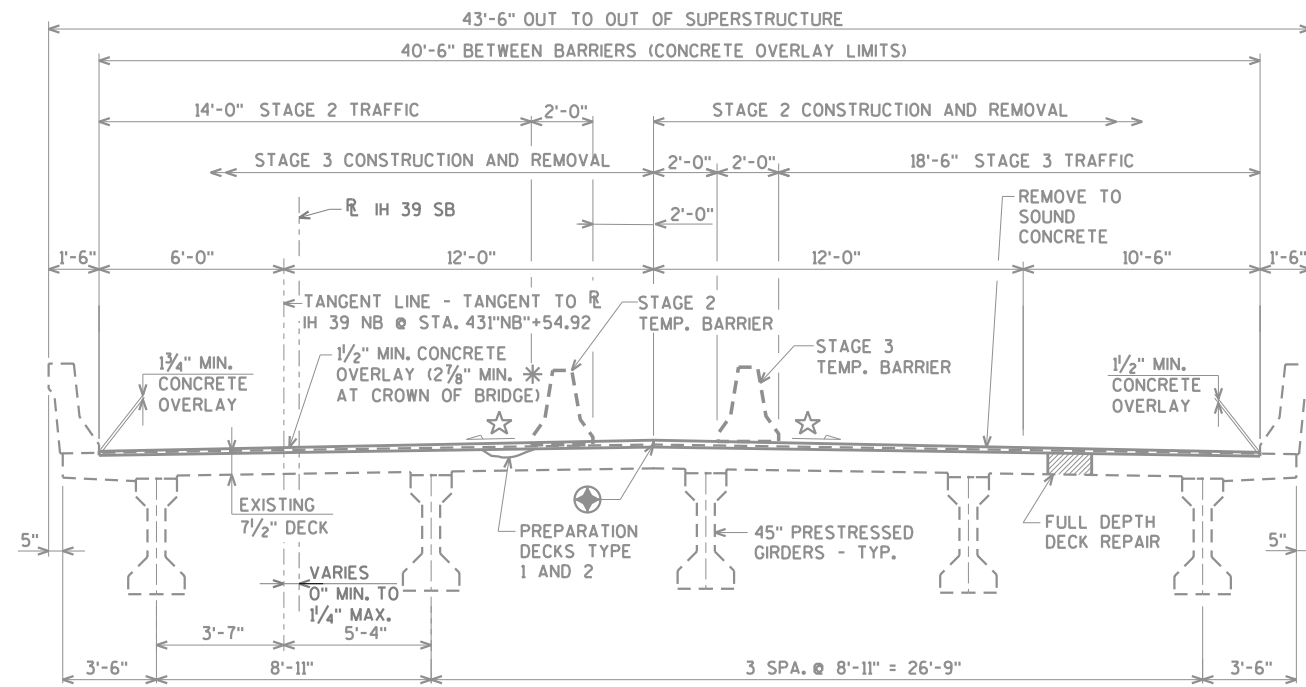
BRIDGE OFFICE CONTACT:
 WILLIAM DREHER
 (608)-266-8489
 CONSULTANT CONTACT:
 DAN SYDOW
 (715)-834-3161

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY AYRES ASSOCIATES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>William C. Dreher</i> CHIEF STRUCTURES DESIGN ENGINEER		4/9/15 DATE
STRUCTURE B-39-31			
IH 39 SB OVER CTH J			
COUNTY	MARQUETTE	TOWN/CITY/VILLAGE	WESTFIELD
DESIGN SPEC.	REHABILITATION	N/A	
DESIGNED BY	JCK	DESIGN CK'D.	CJM
DRAWN BY	CLS	PLANS CK'D.	bns
GENERAL PLAN			SHEET 1 OF 2

\$PRNAME\$ U:\42-091100 - Marquette County, IH39 Overlays\B-39-31\IH39 SB over CTH J\BRIDGE\B-39-31.gp.dgn
 CHECKED BY: DATE: DATE: DATE:
 BACK CHECKED BY: DATE: DATE: DATE:
 CORRECTED BY: DATE: DATE: DATE:



B-39-31



B-39-30

CROSS SECTION THRU BRIDGES

(LOOKING NORTH)

◆ LONG. CONST. JOINT (AT CROWN POINT)
SEAL WITH CRACK SEALER
PER SECTION 502.3.13 OF STD. SPEC.

☆ NEW CONCRETE OVERLAY SLOPE = 0.02 %
CURRENT CONCRETE DECK SLOPE = 0.015 %

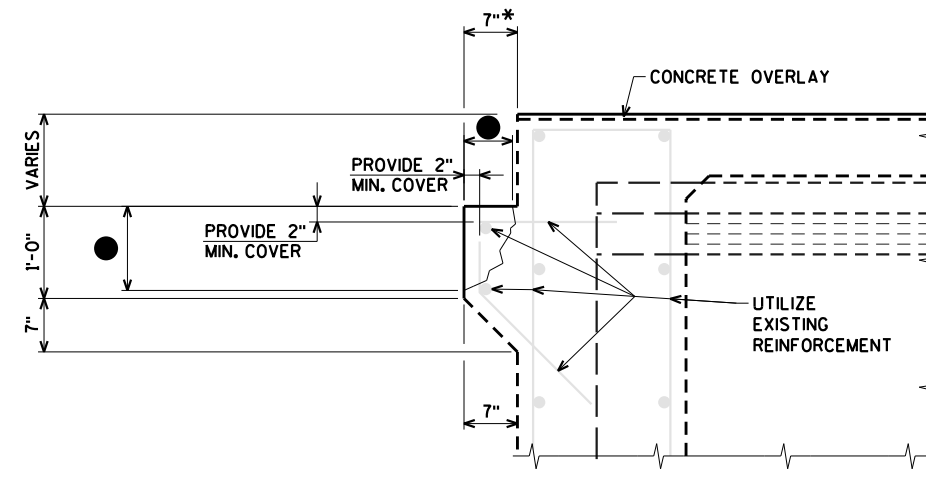
* THE PROPOSED OVERLAY THICKNESS VARIES FROM A
MINIMUM OF 1 1/2" AT THE WEST PARAPET TO 2 7/8" AT
THE CROWN AND 1 3/4" AT THE EAST PARAPET. THE
EXPECTED AVERAGE OVERLAY THICKNESS IS 2 3/4".

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	890
509.0301	PREPARATION DECKS TYPE 1	SY	52
509.0302	PREPARATION DECKS TYPE 2	SY	26
509.0500	CLEANING DECKS	SY	740
509.1500	CONCRETE SURFACE REPAIR	SF	5
509.2000	FULL-DEPTH DECK REPAIR	SY	1
△ 509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	62
509.9050.S	CLEANING PARAPETS	LF	375
SPV.0090.01	PAVING NOTCH REPAIR	LF	81
NON-BID ITEMS			
	FILLER	SIZE	1/2"

△ BID ITEM ALSO INCLUDES CONCRETE FOR:
"PREPARATION DECKS TYPE 1"
"PREPARATION DECKS TYPE 2"
"FULL-DEPTH DECK REPAIR"
"PAVING NOTCH REPAIR"

■ RE-CAULKING PARAPET JOINTS CONSIDERED INCIDENTAL
TO CLEANING PARAPETS.



PAVING NOTCH REPAIR
(CONCRETE SURFACE REPAIR)

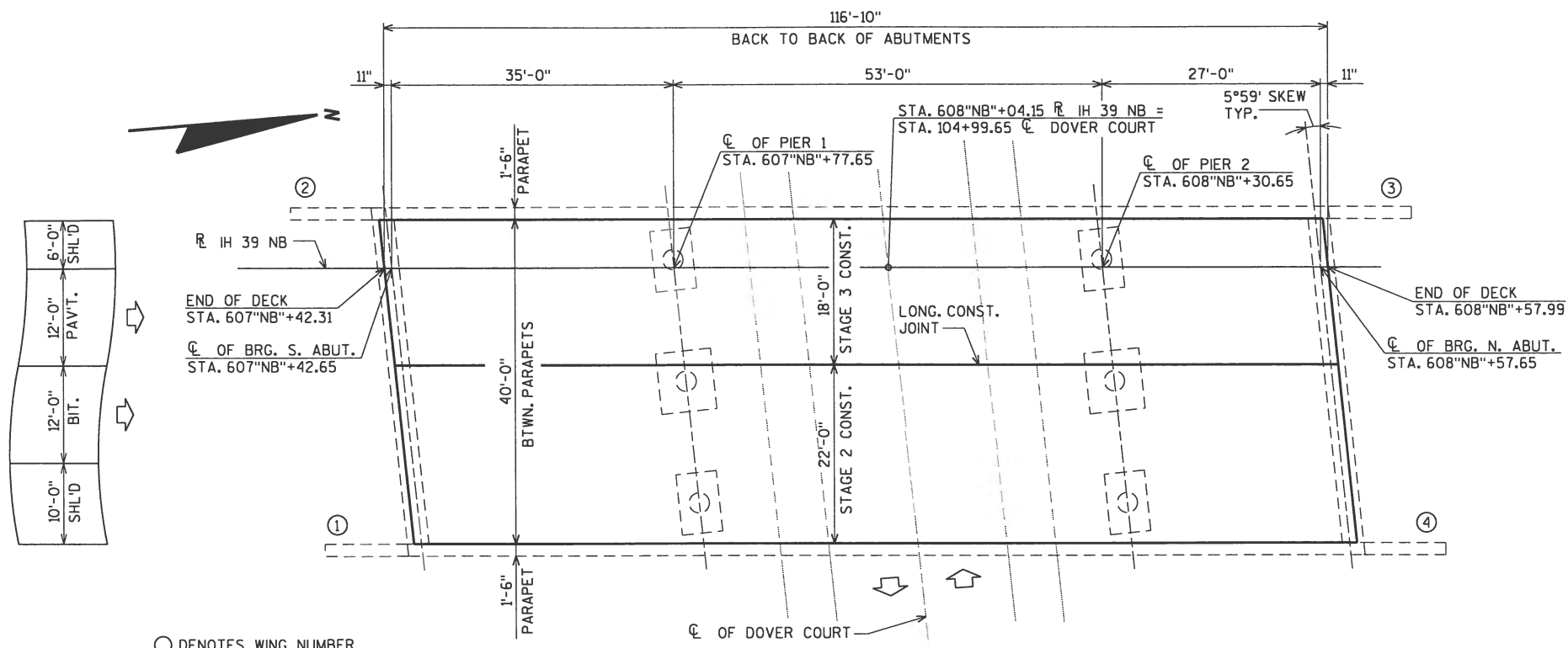
* DIMENSION IS TAKEN NORMAL
TO SUBSTRUCTURE UNITS.

● REMOVE CONCRETE TO SOUND
CONCRETE OR AT LEAST 1"
BEHIND EXISTING REINFORCEMENT.

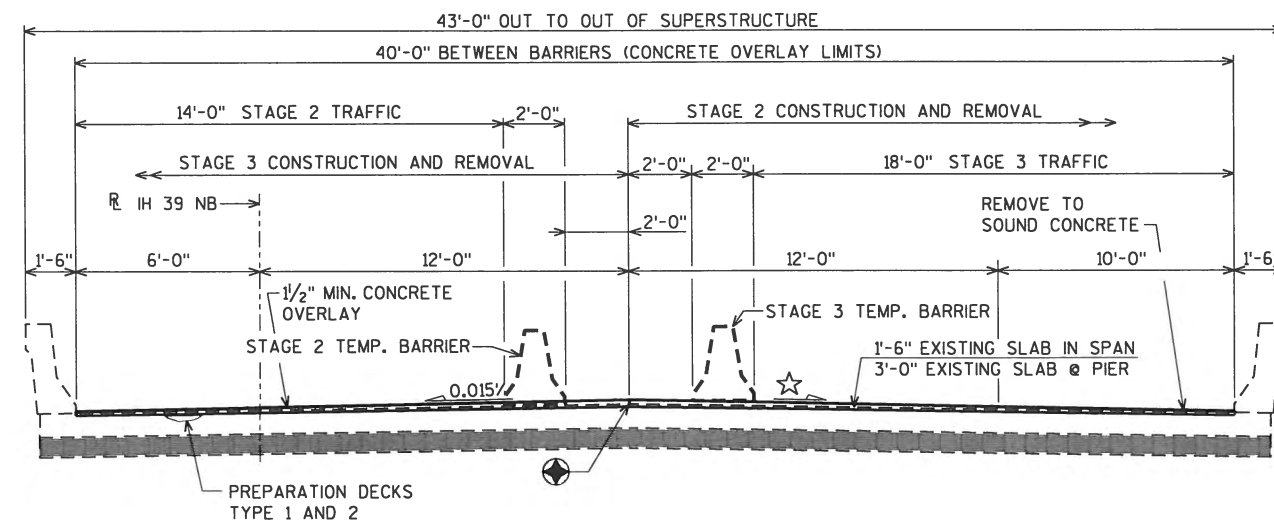
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-39-31			
DRAWN BY		CLS	PLANS CK'D. JCK
QUANTITIES & CROSS SECTION			SHEET 2 OF 2

\$PRNAME\$
U:\42-0911.00 - Marquette County, IH39 Overlays+B-39-31\IH39 SB over CTH U#BRIDGE+B-39-31.gp.dgn



PLAN
3-SPAN HAUNCHED SLAB BRIDGE



CROSS SECTION THRU BRIDGE
(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	630
509.0301	PREPARATION DECKS TYPE 1	SY	26
509.0302	PREPARATION DECKS TYPE 2	SY	13
509.0500	CLEANING DECKS	SY	520
509.1500	CONCRETE SURFACE REPAIR	SF	10
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	31
509.9050.S	CLEANING PARAPETS	LF	275

△ BID ITEM ALSO INCLUDES CONCRETE FOR:
"PREPARATION DECKS TYPE 1"
"PREPARATION DECKS TYPE 2"

■ RE-Caulking PARAPET JOINTS CONSIDERED INCIDENTAL TO CLEANING PARAPETS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON ORIGINAL STRUCTURE PLANS.
ANY EXCAVATION NECESSARY TO COMPLETE THE OVERLAY IS CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

REMOVAL LINES NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1" DEEP SAW CUT AT THE CONCRETE SURFACES.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2 AND CONCRETE SURFACE REPAIR AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1/2" PLACED ABOVE THE DECK SURFACE AFTER "CLEANING DECKS". EXPECTED AVERAGE OVERLAY THICKNESS IS 2". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE CONCRETE OVERLAY, TOP OF PARAPETS, AND INSIDE FACE OF PARAPETS. PROVIDE COLOR-MATCHED PIGMENTED SEALER ON PARAPETS.

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-22
OPERATING RATING: HS-37
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 220 KIPS

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY OVERLAY DECKS $f_c = 4,000$ p.s.i.

TRAFFIC DATA:

IH 39	DOVER COURT
A.D.T. = 10,000 (2008)	A.D.T. = 400± (2008)
R.D.S. = 70 M.P.H.	R.D.S. = 50 M.P.H.

◆ LONG. CONST. JOINT (AT CROWN POINT)
SEAL WITH CRACK SEALER
PER SECTION 502.3.13 OF STD. SPEC.

★ VARIES:
0.015% AT STA. 607'NB"+87.28
0.015% UPWARD AT STA. 608'NB"+87.28
(LINEAR TRANSITION)

\$PRJNAME\$ U:\42-0911.00 - Marquette County, IH39 Overlays\B-39-32 IH39 NB over Dover Court\BRIDGE\B-39-32
 CHECKED BY: DATE: DATE: DATE:
 BACK CHECKED BY: DATE: DATE: DATE:
 CORRECTED BY:

8



BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489
CONSULTANT CONTACT:
DAN SYDOW
(715)-834-3161

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY AYRES ASSOCIATES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED <i>William C. Dieker</i> 4/9/15 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-39-32			
IH 39 NB OVER DOVER COURT			
COUNTY	MARQUETTE	TOWN/CITY/VILLAGE	NEWTON
DESIGN SPEC.	REHABILITATION	N/A	
DESIGNED BY	JCK	DESIGN CK'D.	CJM
DRAWN BY	CLS	PLANS CK'D.	bns
GENERAL PLAN			SHEET 1 OF 1

8

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
 DIMENSIONS SHOWN ARE BASED ON ORIGINAL STRUCTURE PLANS.
 ANY EXCAVATION NECESSARY TO COMPLETE THE OVERLAY IS CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".
 REMOVAL LINES NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1" DEEP SAW CUT AT THE CONCRETE SURFACES.
 PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2 AND CONCRETE SURFACE REPAIR AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.
 A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".
 PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1/2" PLACED ABOVE THE DECK SURFACE AFTER "CLEANING DECKS". EXPECTED AVERAGE OVERLAY THICKNESS IS 2 3/4". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.
 PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE TOP OF PARAPETS AND INSIDE FACE OF PARAPETS. PROVIDE COLOR-MATCHED PIGMENTED SEALER ON PARAPETS.

DESIGN DATA

LIVE LOAD:
 DESIGN LOADING: HS-20
 INVENTORY RATING: HS-20
 OPERATING RATING: HS-34
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 230 KIPS

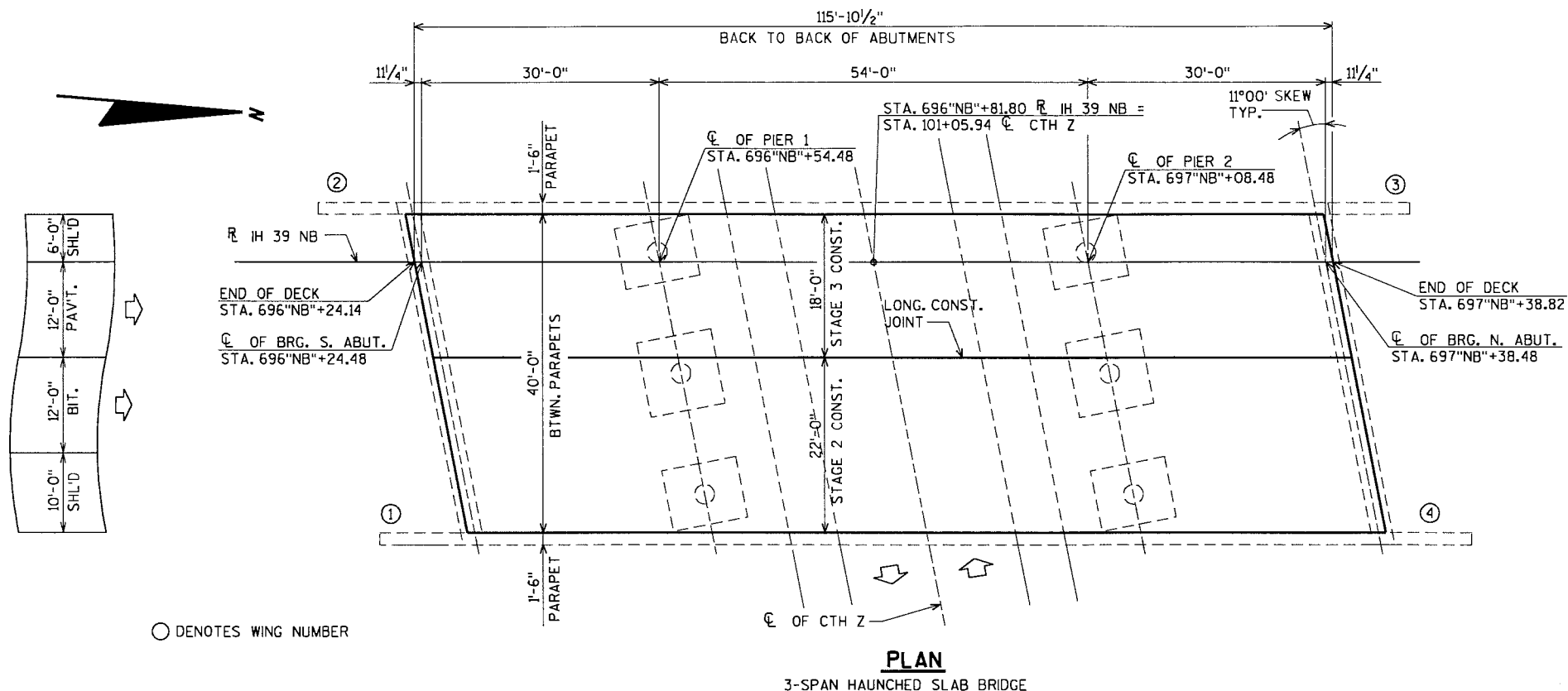
ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY OVERLAY DECKS $f_c = 4,000$ p.s.i.

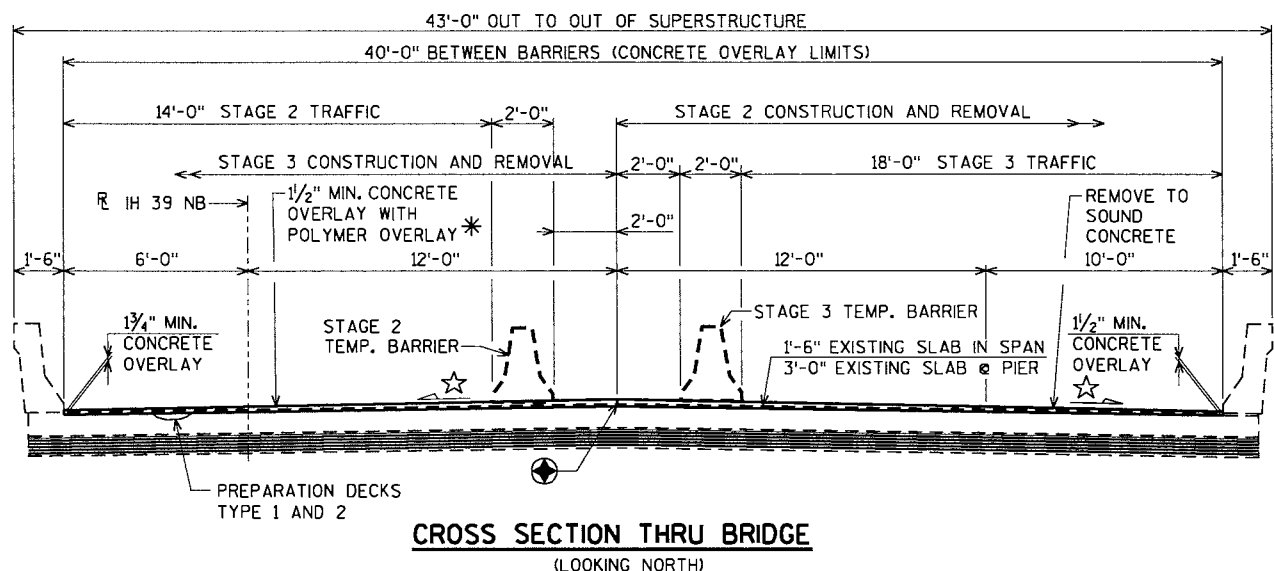
TRAFFIC DATA:

IH 39	CTH Z
A.D.T. = 10,000 (2008)	A.D.T. = 400± (2008)
R.D.S. = 70 M.P.H.	R.D.S. = 50 M.P.H.

- ⊙ LONG. CONST. JOINT (AT CROWN POINT) SEAL WITH CRACK SEALER PER SECTION 502.3.13 OF STD. SPEC.
- ☆ NEW CONCRETE OVERLAY SLOPE = 0.02 %
CURRENT CONCRETE DECK SLOPE = 0.015 %
- * THE PROPOSED CONCRETE OVERLAY THICKNESS VARIES FROM A MINIMUM OF 1/2" AT THE EAST PARAPET TO 2 3/8" AT THE CROWN AND 1 3/4" AT THE WEST ABUTMENT. THE EXPECTED AVERAGE OVERLAY THICKNESS IS 2 3/4".



PLAN
3-SPAN HAUNCHED SLAB BRIDGE

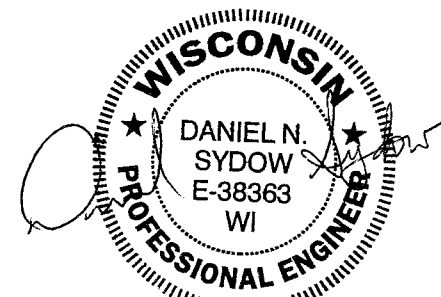


CROSS SECTION THRU BRIDGE
(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	110
509.0301	PREPARATION DECKS TYPE 1	SY	26
509.0302	PREPARATION DECKS TYPE 2	SY	13
509.0500	CLEANING DECKS	SY	515
509.1500	CONCRETE SURFACE REPAIR	SF	5
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	42
509.5100.S	POLYMER OVERLAY	SY	515
509.9050.S	CLEANING PARAPETS	LF	272

△ BID ITEM ALSO INCLUDES CONCRETE FOR:
 "PREPARATION DECKS TYPE 1"
 "PREPARATION DECKS TYPE 2"
 ■ RE-CAULKING PARAPET JOINTS CONSIDERED INCIDENTAL TO CLEANING PARAPETS.



BRIDGE OFFICE CONTACT:
 WILLIAM DREHER
 (608)-266-8489
 CONSULTANT CONTACT:
 DAN SYDOW
 (715)-834-3161

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY AYRES ASSOCIATES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>William C. Dreher</i> CHIEF STRUCTURES DESIGN ENGINEER		4/9/15 DATE
STRUCTURE B-39-34			
IH 39 NB OVER CTH Z			
COUNTY	MARQUETTE	TOWN/CITY/VILLAGE	SPRINGFIELD
DESIGN SPEC.	REHABILITATION	N/A	
DESIGNED BY	JCK	DESIGN CK'D.	CJM
DRAWN BY	CLS	PLANS CK'D.	DNS
GENERAL PLAN			SHEET 1 OF 1

\$PRFNAME\$
 U:\42-0911.00 - Marquette County, IH39 Overlay\B-39-34 IH39 NB over CTH Z\BRIDGE\B-39-34 gp.dwg
 DATE: _____
 CHECKED BY: _____
 BACK CHECKED BY: _____
 CORRECTED BY: _____

CURVE DATA

IH 39 NB
 P.I. STA. 105"NB"+18.78
 $\Delta = 6^{\circ}34'30"$
 $D = 0^{\circ}15'00"$
 $R = 22,918.31'$
 $T = 1,316.46'$
 $L = 2,630.04'$
 $E = 37.78'$
 S.E. = NC

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
 DIMENSIONS SHOWN ARE BASED ON ORIGINAL STRUCTURE PLANS.
 ANY EXCAVATION NECESSARY TO COMPLETE THE OVERLAY IS CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".
 REMOVAL LINES NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1" DEEP SAW CUT AT THE CONCRETE SURFACES.
 PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, CONCRETE SURFACE REPAIR AND FULL DEPTH DECK REPAIR AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.
 A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".
 PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1 1/2" PLACED ABOVE THE DECK SURFACE AFTER "CLEANING DECKS". EXPECTED AVERAGE OVERLAY THICKNESS IS 2 3/4". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.
 PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE CONCRETE OVERLAY, TOP OF PARAPETS, AND INSIDE FACE OF PARAPETS. PROVIDE COLOR-MATCHED PIGMENTED SEALER ON PARAPETS.

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS-20
 INVENTORY RATING: HS-15
 OPERATING RATING: HS-25
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY OVERLAY DECKS $f_c = 4,000$ p.s.i.

TRAFFIC DATA:

IH 39
 A.D.T. = 10,000 (2008)
 R.D.S. = 70 M.P.H.

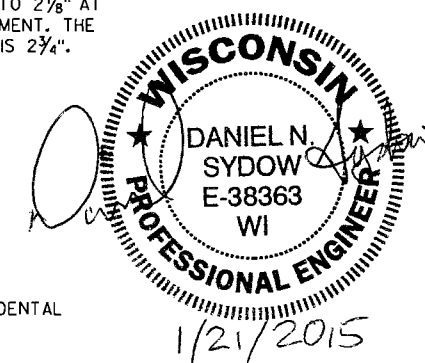
◆ LONG. CONST. JOINT (AT CROWN POINT)
 SEAL WITH CRACK SEALER
 PER SECTION 502.3.13 OF STD. SPEC.

☆ NEW CONCRETE OVERLAY SLOPE = 0.02 %
 CURRENT CONCRETE DECK SLOPE = 0.015 %

* THE PROPOSED OVERLAY THICKNESS VARIES FROM A MINIMUM OF 1 1/2" AT THE EAST PARAPET TO 2 7/8" AT THE CROWN AND 1 3/4" AT THE WEST ABUTMENT. THE EXPECTED AVERAGE OVERLAY THICKNESS IS 2 3/4".

■ RE-CAULKING PARAPET JOINTS CONSIDERED INCIDENTAL TO CLEANING PARAPETS.

△ BID ITEM ALSO INCLUDES CONCRETE FOR:
 "PREPARATION DECKS TYPE 1"
 "PREPARATION DECKS TYPE 2"
 "FULL-DEPTH DECK REPAIR"



BRIDGE OFFICE CONTACT:
 WILLIAM DREHER
 (608)-266-8489
 CONSULTANT CONTACT:
 DAN SYDOW
 (715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
 3433 Oakwood Hills Parkway
 Eau Claire, WI 54701
 www.AyresAssociates.com

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

ACCEPTED *William C. Dreher* **4/9/15**
 CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-39-36

IH 39 NB OVER CHAFFEE CREEK

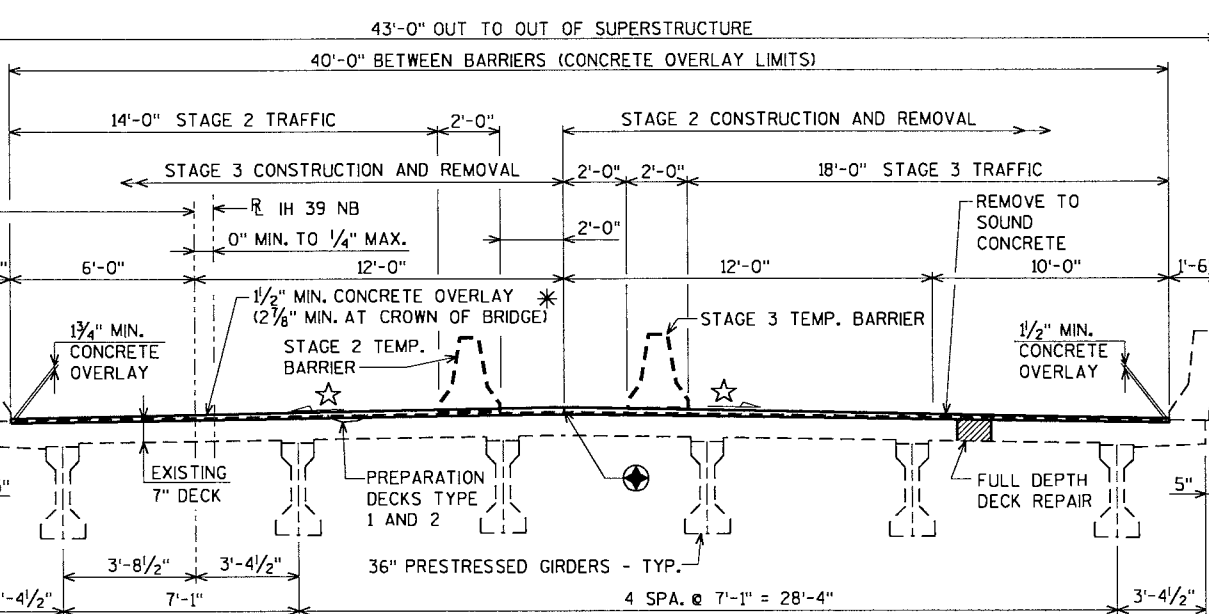
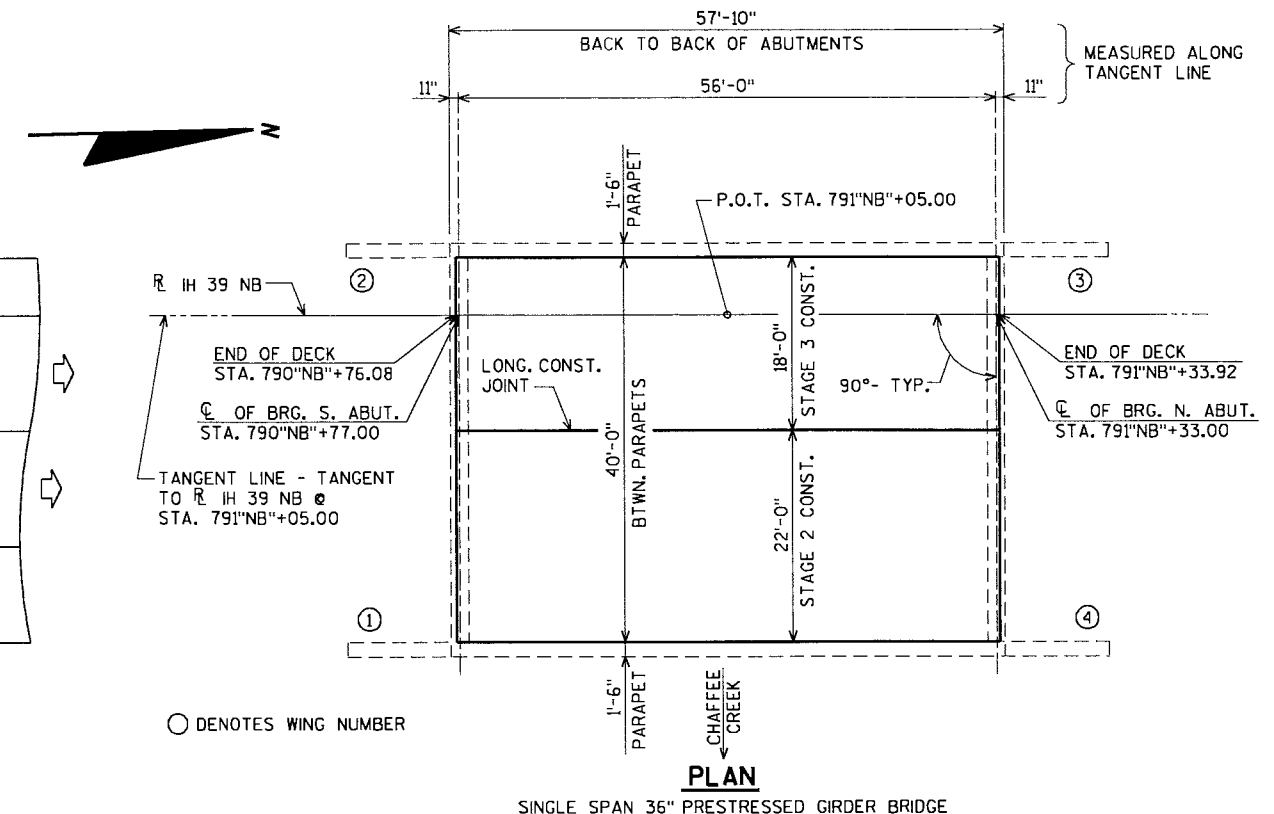
COUNTY MARQUETTE TOWN/CITY/VILLAGE SPRINGFIELD

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY JCK DESIGN CK'D. CJM DRAWN BY CLS PLANS CK'D. DNS

GENERAL PLAN

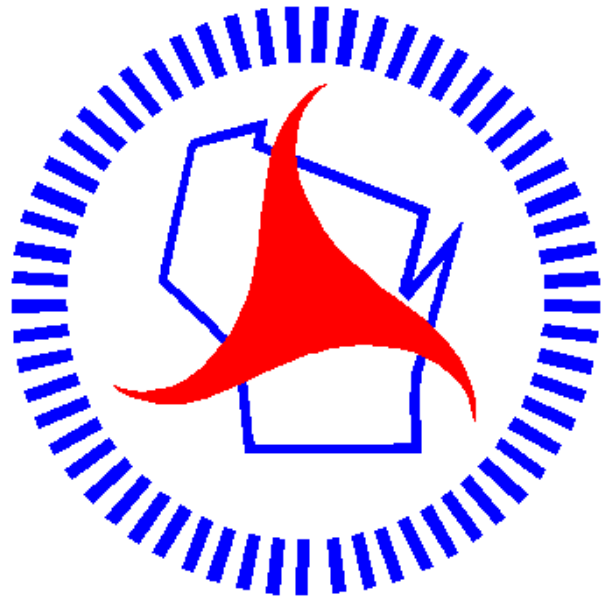
SHEET 1 OF 1



TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL
203.0225.S	DEBRIS CONTAINMENT B-39-36	LS	----	----	----	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	----	----	320	320
509.0301	PREPARATION DECKS TYPE 1	SY	----	----	13	13
509.0302	PREPARATION DECKS TYPE 2	SY	----	----	6	6
509.0500	CLEANING DECKS	SY	----	----	260	260
509.1500	CONCRETE SURFACE REPAIR	SF	5	----	----	5
509.2000	FULL-DEPTH DECK REPAIR	SY	----	----	1	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	----	----	21	21
509.9050.S	CLEANING PARAPETS	LF	----	----	156	156

\$PRFNAME\$
 U:1:42-0911.00 - Marquette County, IH39 OverlayB-39-36 IH39 NB over Chaffee Creek+BRIDGE+B-36
 CHECKED BY: DATE: DATE:
 BACK CHECKED BY: DATE: DATE:
 CORRECTED BY: DATE: DATE:



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

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