

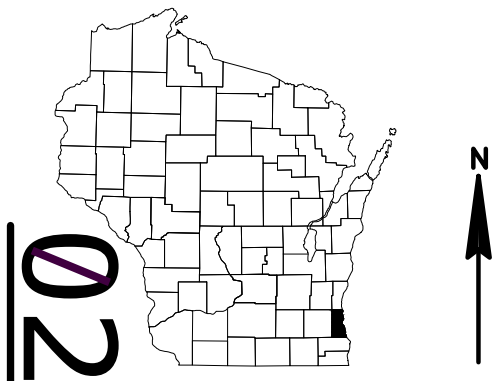
WKE
PROJECT ID: 1030-26-91, 1030-06-67
COUNTY: MILWAUKEE

AUG 2016

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 = 68



DESIGN DESIGNATION

IH 94 AT LAYTON AVENUE

A.A.D.T.	2009	=	166,480
A.A.D.T.	2035	=	190,710
D.H.V.		=	16,210
D.D.		=	58 NB/42 SB
T.		=	14%
DESIGN SPEED		=	60 MPH
ESALS		=	50,530,600 RIGID DESIGN

CONVENTIONAL SYMBOLS	
PLAN	PROFILE
CORPORATE LIMITS	GRADE LINE
PROPERTY LINE	ORIGINAL GROUND
LOT LINE	MARSH OR ROCK PROFILE (To be noted as such)
LIMITED HIGHWAY EASEMENT	SPECIAL DITCH
EXISTING RIGHT OF WAY	GRADE ELEVATION
PROPOSED OR NEW R/W LINE	CULVERT (Profile View)
SLOPE INTERCEPT	UTILITIES
REFERENCE LINE	ELECTRIC
EXISTING CULVERT	OVERHEAD UTILITY
PROPOSED CULVERT (Box or Pipe)	FIBER OPTIC
COMBUSTIBLE FLUIDS	GAS
	SANITARY SEWER
	STORM SEWER
MARSH AREA	TELEPHONE
	WATER
WOODED OR SHRUB AREA	UTILITY PEDESTAL
	POWER POLE
	TELEPHONE POLE

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

N-S FREEWAY,
FRICTION TREATMENT

IH 94 NB & SB, 6TH ST TO HOWARD AVE

IH 43/94

MILWAUKEE COUNTY

N-S FREEWAY,
CITY OF MILWAUKEE

PLAINFIELD CURVE

IH 43/94

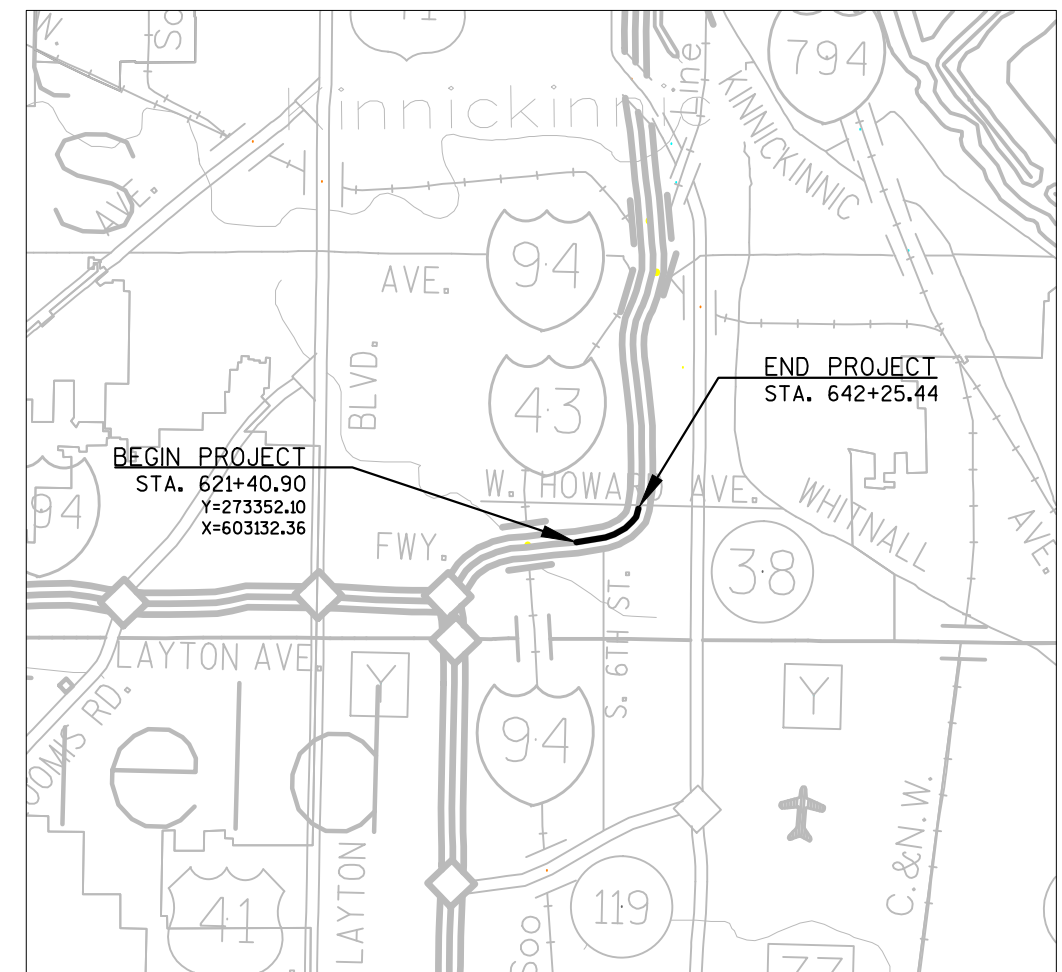
MILWAUKEE COUNTY

STATE PROJECT NUMBER
1030-26-91

STRUCTURES
B-40-830
B-40-831

STATE PROJECT NUMBER
1030-06-67

NOISE WALLS RETAINING WALLS
N-40-40 R-40-398



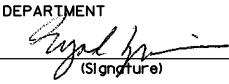
LAYOUT

SCALE 0 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.395 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD83 (97), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (91) (NAVD 88 (91)).

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	
Designer	WISDOT
Project Manager	EYAD GHANI
Regional Examiner	
Regional Supervisor	WAFA ELQAO
APPROVED FOR THE DEPARTMENT	
DATE: 06/01/16	 (Signature)

UTILITY CONTACTS

AT&T LOCAL NETWORK – COMMUNICATION LINE

MS. CRYSTAL STRAIT
6070 N. FLINT ROAD
GLENDALE, WI 53209
PHONE: (414) 459-3572
c.strait@northwindtech.com

AT&T WISCONSIN – COMMUNICATION LINE

MR. MARK EDER
2005 PEWAUKEE ROAD
WAUKESHA, WI 53188-2443
PHONE: (262) 896-7434
me1754@att.com

CITY OF MILWAUKEE – ELECTRICITY

MR. JEFFREY POLENSKE
ROOM 701
841 N. BROADWAY
MILWAUKEE, WI 53202
PHONE: (414) 286-2400
jeffrey.polenske@Milwaukee.gov

LEVEL 3 COMMUNICATIONS, LLC – COMMUNICATION LINE

NETWORK RELOCATIONS
1025 ELDORADO BOULEVARD
BROOMFIELD, CO 80021
level3.networkrelocation@Level3.com

McLEOD USA TELCOMMUNICATION SERVICES INC – COMMUNICATION LINE

MR. AARON GRODI
13935 BISHOPS DRIVE
BROOKFIELD, WI 53005
PHONE: (608) 819-5014
aaron.grodi@windstream.com

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT - SEWER

MS. DEBRA JENSEN
260 W. SEEBOTH STREET
MILWAUKEE, WI 53204-1446
PHONE: (414) 272-5100
djensen@mmsd.com

TDS METROCOM – COMMUNICATION LINE

MR. MATTHEW SCHULTE
16924 W. VICTOR ROAD
NEW BERLIN, WI 53151
PHONE: (262) 754-3063
matt.schulte@tdstelecom.com

TIME WARNER CABLE – COMMUNICATION LINE

MR. STEVE CRAMER
1320 N. MARTIN LUTHER KING JR. DRIVE
MILWAUKEE, WI 53212-4002
PHONE: (414) 277-4045
wis.engineering@twcable.com

WE ENERGIES – ELECTRICITY

MR. LaTROY BRUMFIELD
333 W. EVERETT STREET – ROOM A299
MILWAUKEE, WI 53203
PHONE: (414) 221-5617
latroy.brumfield@we-energies.com

WE ENERGIES – GAS/PETROLEUM

MR. LaTROY BRUMFIELD
333 W. EVERETT STREET – ROOM A299
MILWAUKEE, WI 53203
PHONE: (414) 221-5617
latroy.brumfield@we-energies.com

WISCONSIN DEPARTMENT OF TRANSPORTATION – COMMUNICATION LINE

MR. JEFF MADSON
SUITE 300
433 W. ST. PAUL AVENUE
MILWAUKEE, WI 53203-3007
PHONE: (414) 225-3723
jeffrey.madson@dot.wi.gov

WISCONSIN DEPARTMENT OF TRANSPORTATION – STREET LIGHTING

MR. ERIC PEREA
141 NW BARSTOW STREET
WAUKESHA, WI 53187-0798
PHONE: (262) 574-5422
eric.perea@dot.wi.gov

STATE AGENCIES

WISCONSIN DEPARTMENT OF TRANSPORTATION

MR. EYAD GHANI - PROJECT MANAGER
141 NW BARSTOW ST.
WAUKESHA, WI 53187-0798
PHONE: (262) 548-8756
eyad.ghani@dot.wi.gov

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

MS. KRISTINA BETZOLD - ENVIRONMENTAL SPECIALIST
2300 N. MARTIN LUTHER KING JR. DRIVE
MILWAUKEE, WI 53212
PHONE: (414) 263-8517
CELL: (414) 507-4946
kristina.betzold@wisconsin.gov



STANDARD ABBREVIATIONS

AEW	APRON END WALL
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L OR	CENTER OR CONSTUCTION LINE
CMCP	CULVERT PIPE CORRUGATED METAL
CONC	CONCRETE
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC-YARD
D	DEGREE OF CURVE
Δ	DELTA
DISCH	DISCHARGE
FE	FIELD ENTRANCE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASMENT
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RRSP	RAILROAD SPIKE
RT	RIGHT
SALV	SALVAGED
SAPBC	SALVAGED ASPHALTIC PAVEMENT BASE COARSE
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SF	SQUARE FOOT
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TLE	TEMPORARY LIMITED EASEMENT
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT

GENERAL NOTES

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.

CONTRACTOR SHALL PLACE TEMPORARY LANE LINE PAVEMENT MARKINGS FOLLOWING PLACEMENT OF THE HIGH FRICTION SURFACE TREATMENT.

TRAFFIC CONTROL ITEM 643.0100 INCLUDES ALL LANE CLOSURES.

ORDER OF SECTION 2 DETAIL SHEETS

- UTILITY CONTACTS
- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN DETAILS/EROSION CONTROL
- PERMANENT SIGNING PLAN
- PAVEMENT MARKING PLAN
- TRAFFIC CONTROL
- DETOUR PLAN
- ALIGNMENT LAYOUT

W HOWARD AVENUE

W HOWARD AVENUE

CITY OF MILWAUKEE

S 13TH STREET

S 6TH STREET

BEGIN PROJECT 1030-26-91
STA. 621+40.90END PROJECT 1030-26-91
STA. 642+25.44

IH 43/IH 94

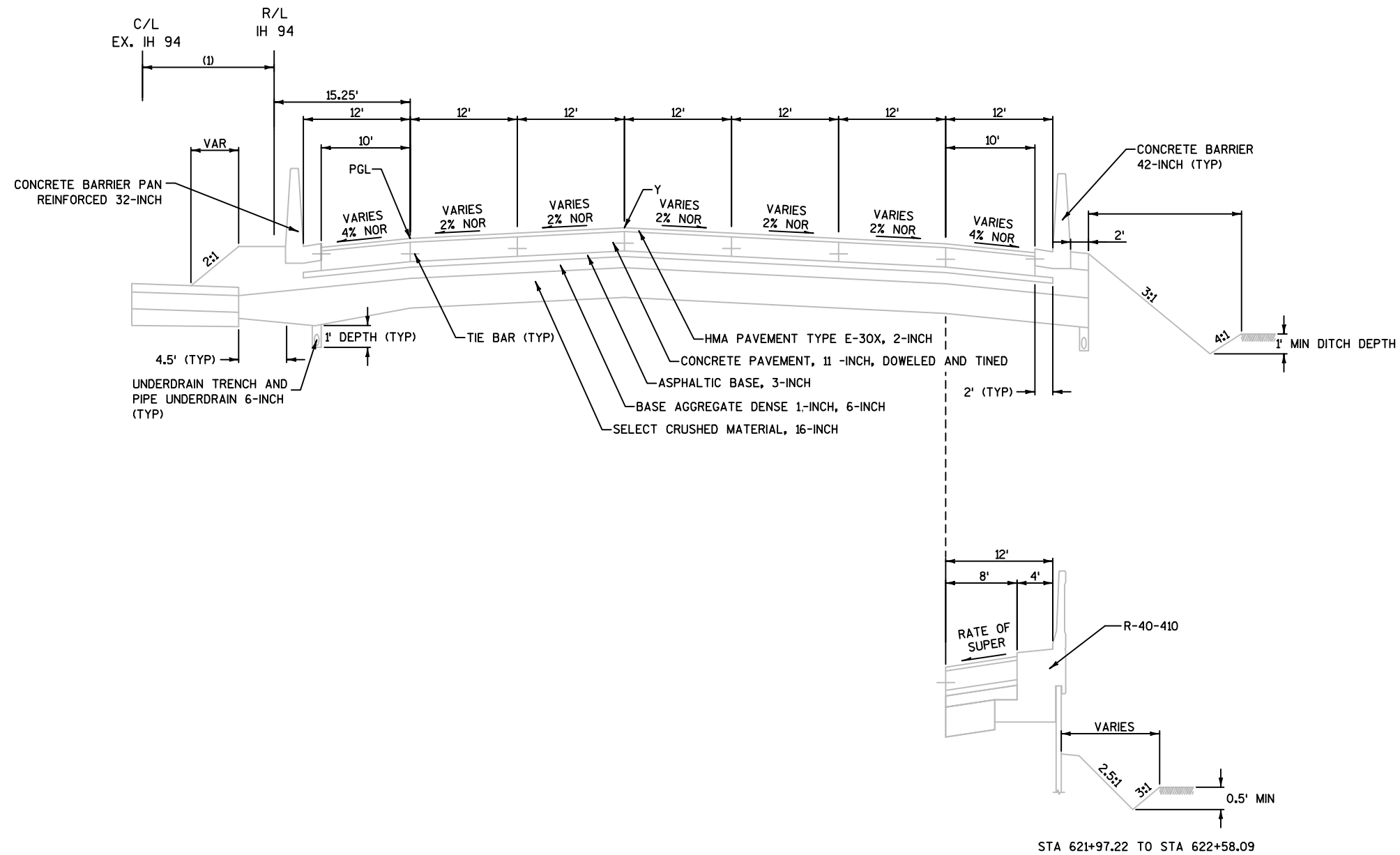
B-40-831

R-40-398

N-40-40

B-40-830

STH 38/S HOWELL AVENUE

**TYPICAL EXISTING SECTION****IH 94 NB**

STA 621+40.90 TO STA 622+76.17

NOTES

(1) OFFSET DISTANCE FROM EXISTING C/L VARIES.

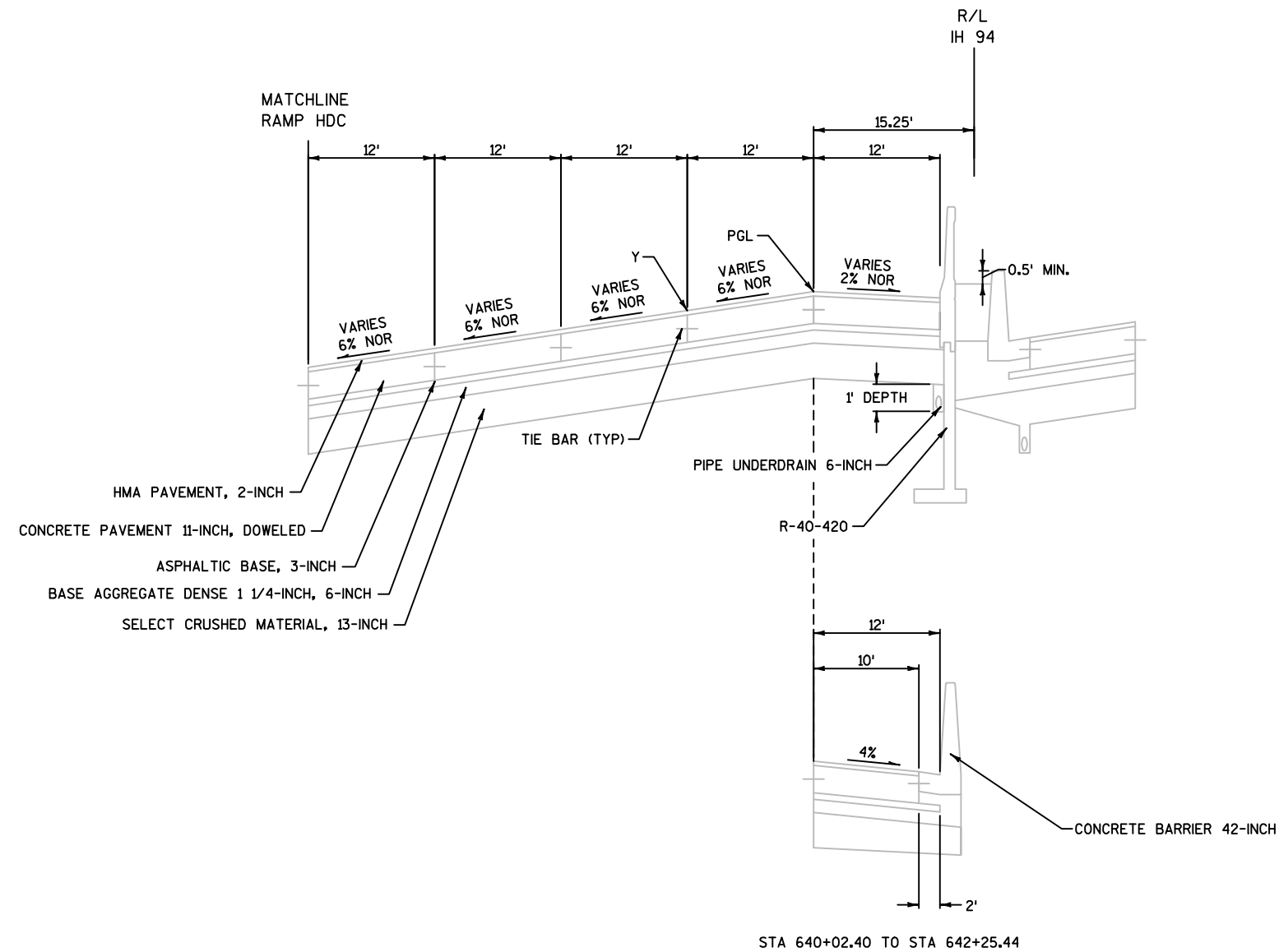
PGL = POINT REFERRED TO ON PROFILE AND
PIVOT POINT FOR SUPERELEVATION

Y = CROWN POINT





2



TYPICAL EXISTING SECTION

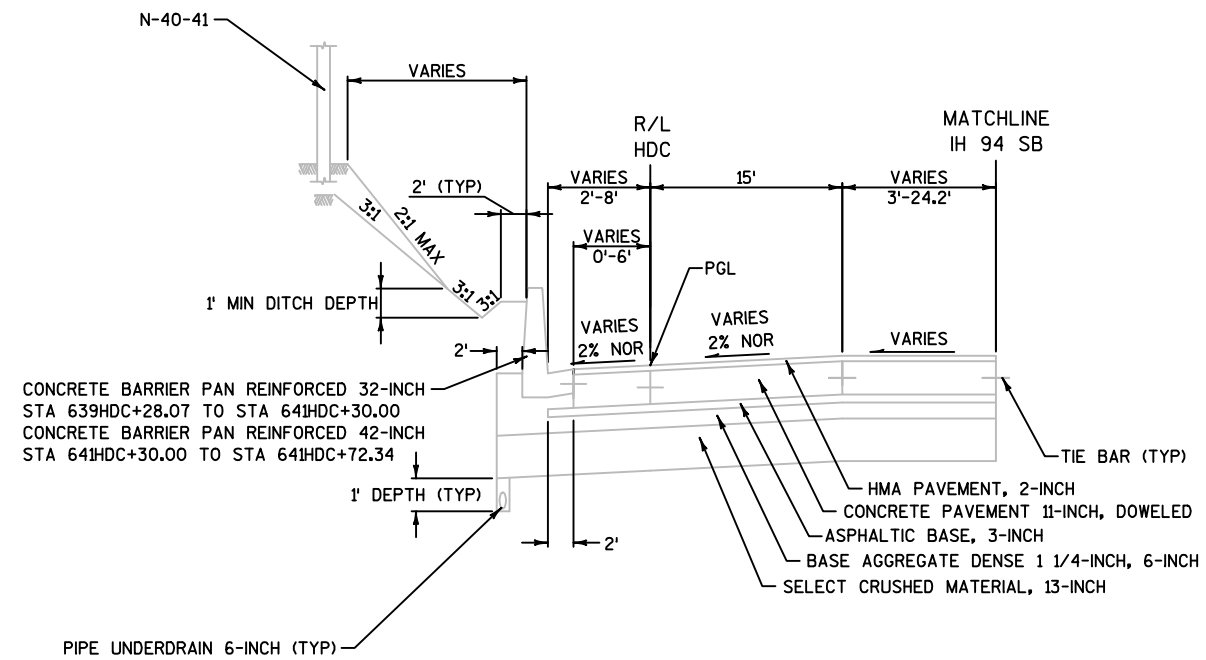
IH 94 SB

STA 639+65.69 TO STA 642+25.44

NOTES

PGL = POINT REFERRED TO ON PROFILE AND
PIVOT POINT FOR SUPERELEVATION

Y = CROWN POINT



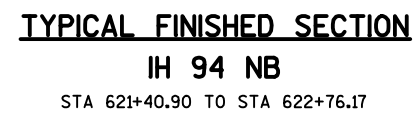
TYPICAL EXISTING SECTION

RAMP HDC

STA 639HDC+28.07 TO STA 641HDC+72.34

NOTES

PGL = POINT REFERRED TO ON PROFILE AND
PIVOT POINT FOR SUPERELEVATION



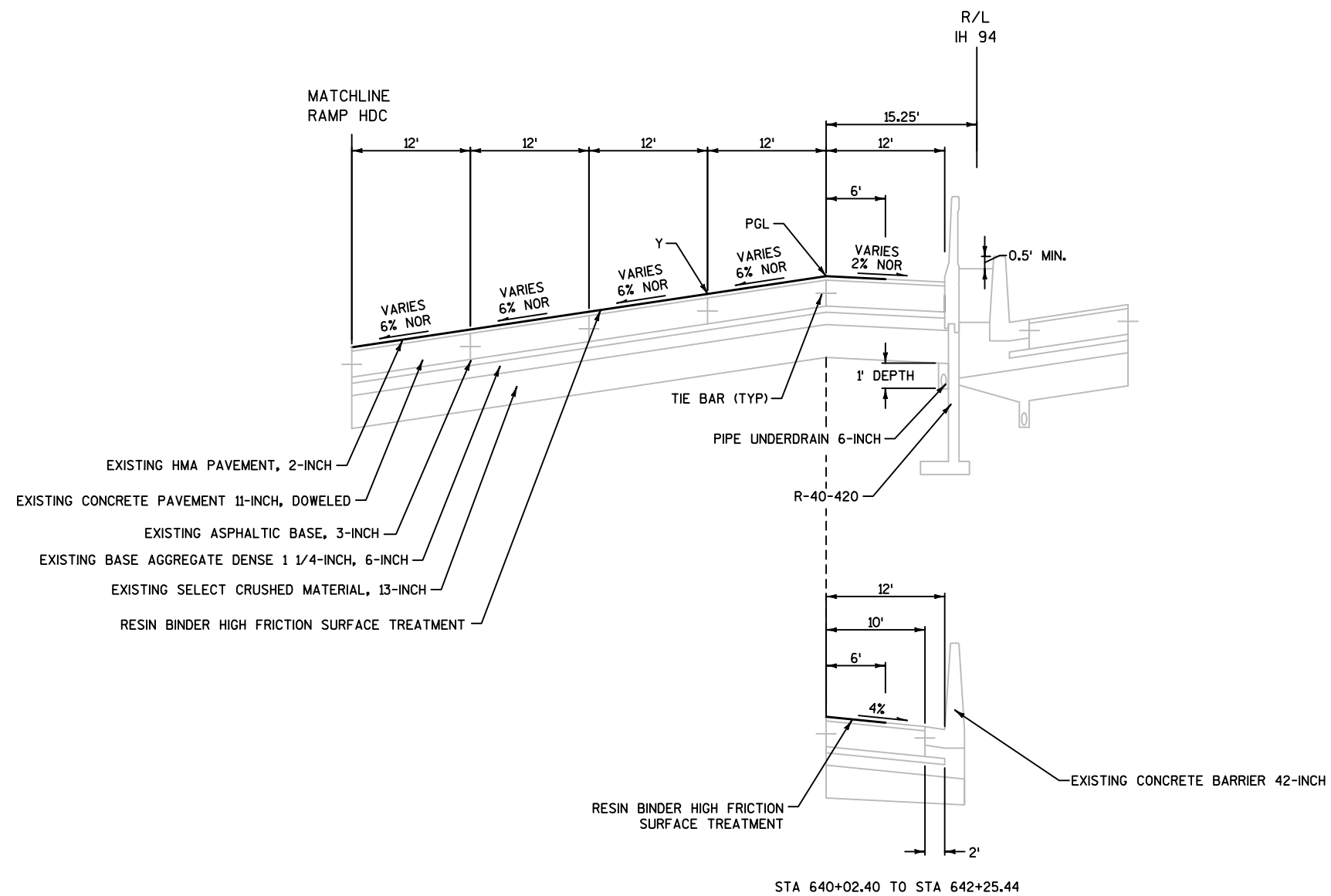
(1) OFFSET DISTANCE FROM EXISTING C/L VARIES.
PGL = POINT REFERRED TO ON PROFILE AND
PIVOT POINT FOR SUPERELEVATION
Y = CROWN POINT



(1) OFFSET DISTANCE FROM EXISTING C/L VARIES.
PGL = POINT REFERRED TO ON PROFILE AND
PIVOT POINT FOR SUPERELEVATION
Y = CROWN POINT





**TYPICAL FINISHED SECTION****IH 94 SB**

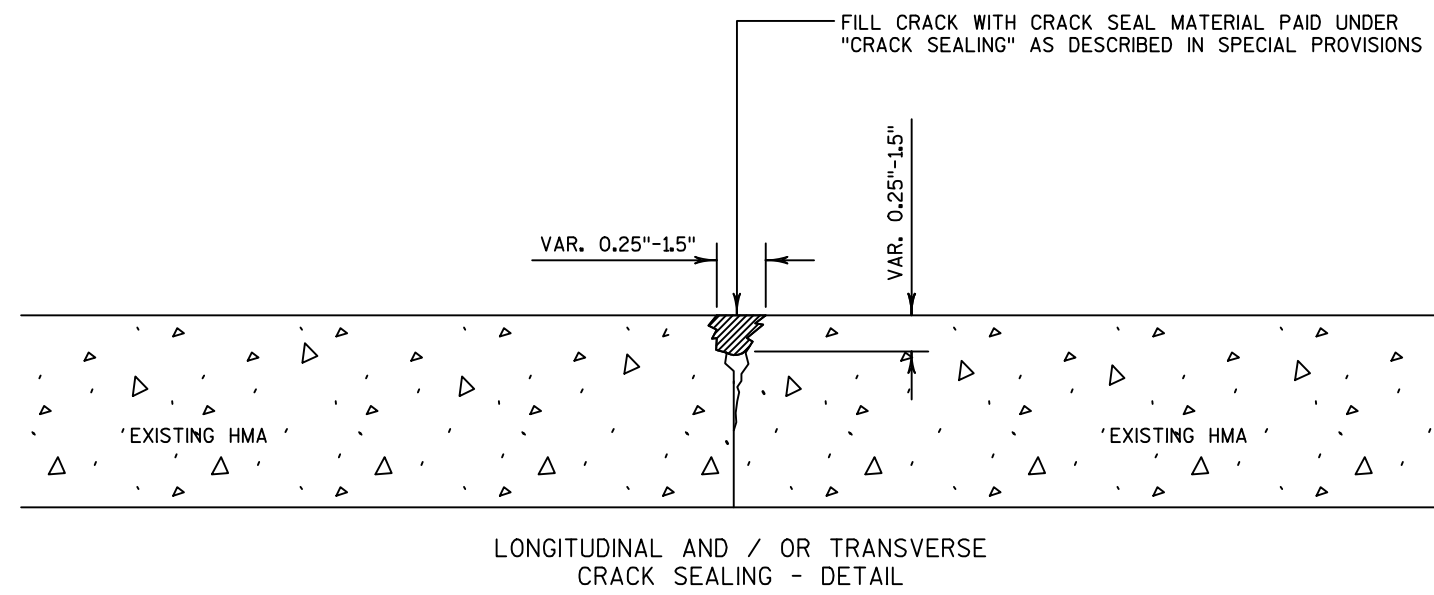
STA 639+65.69 TO STA 642+25.44

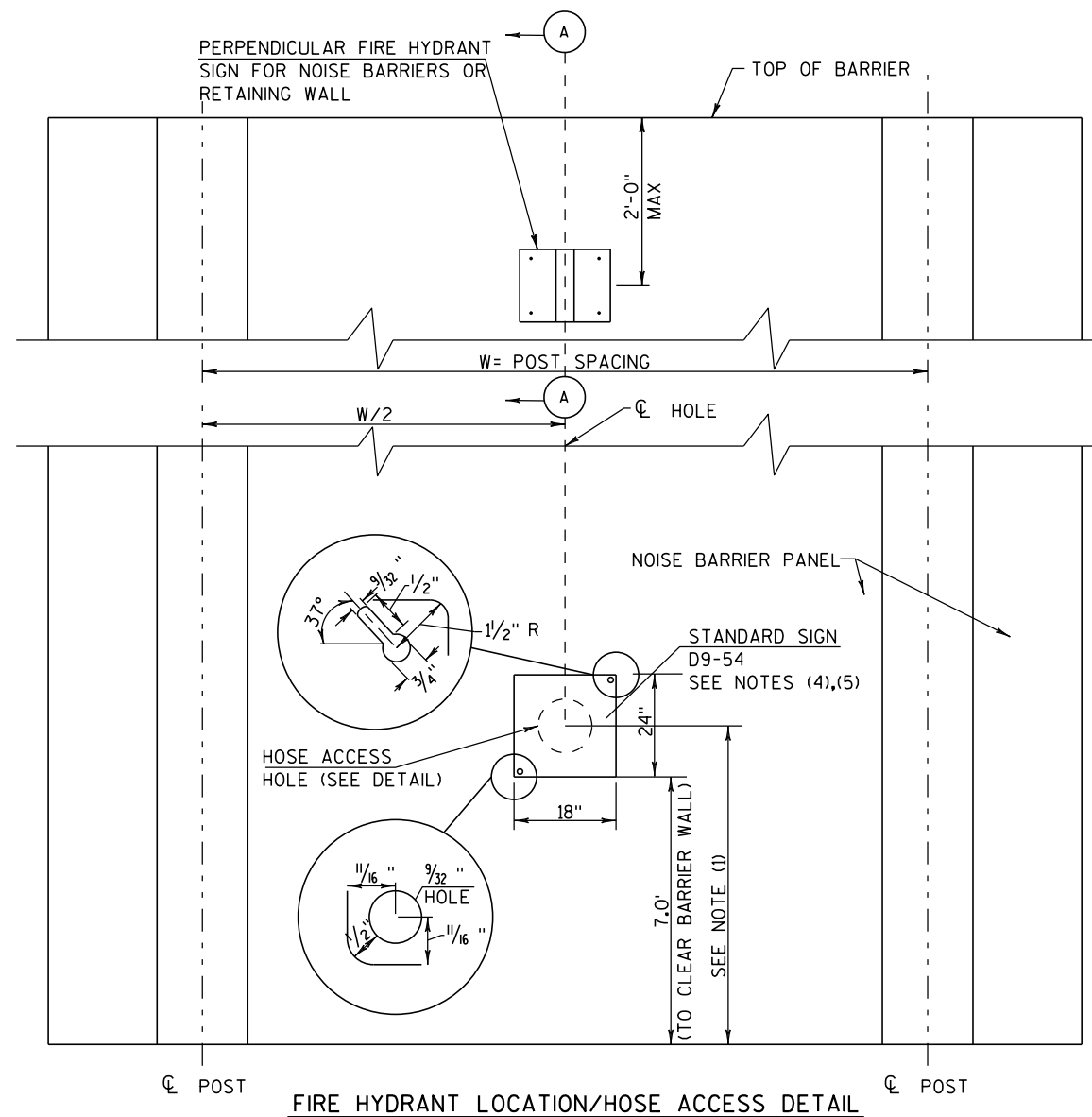
NOTESPGL = POINT REFERRED TO ON PROFILE AND
PIVOT POINT FOR SUPERELEVATION

Y = CROWN POINT



PGL = POINT REFERRED TO ON PROFILE AND
PIVOT POINT FOR SUPERELEVATION



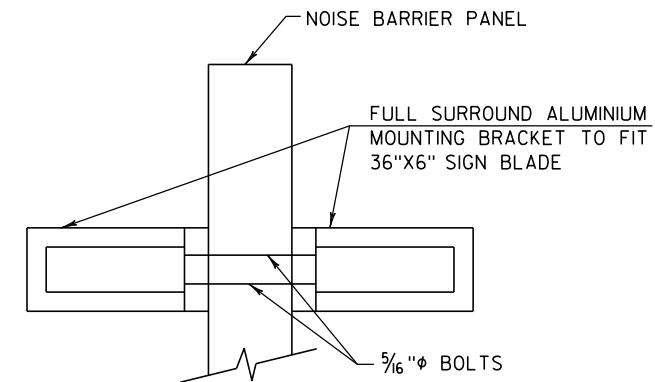


NOTES:

1. STANDARD SIGNS D9-54 WILL BE FURNISHED BY THE CONTRACTOR. SEE PLAN.
2. TWO STANDARD SIGNS D9-54 TO BE FURNISHED PER STATION. ONE SIGN SHALL BE INSTALLED ON EACH SIDE OF THE BARRIER.
3. FIRE HYDRANT SIGN BLADE SHALL BE ATTACHED TO THE NOISE BARRIER PANEL OR RETAINING WALL NEAR THE TOP OF THE BARRIER. SEE DETAIL ABOVE, PAID FOR UNDER FIRE HYDRANT SIGN MOUNTING SEE SPECIAL PROVISIONS.

NOTE:

CLIP FOR SIGN (D9-54) SIGN IS INCIDENTAL TO SIGN.

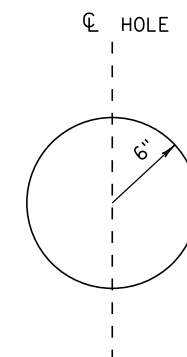


SECTION A-A

PERPENDICULAR FIRE HYDRANT SIGN FOR NOISE BARRIER OR RETAINING WALL

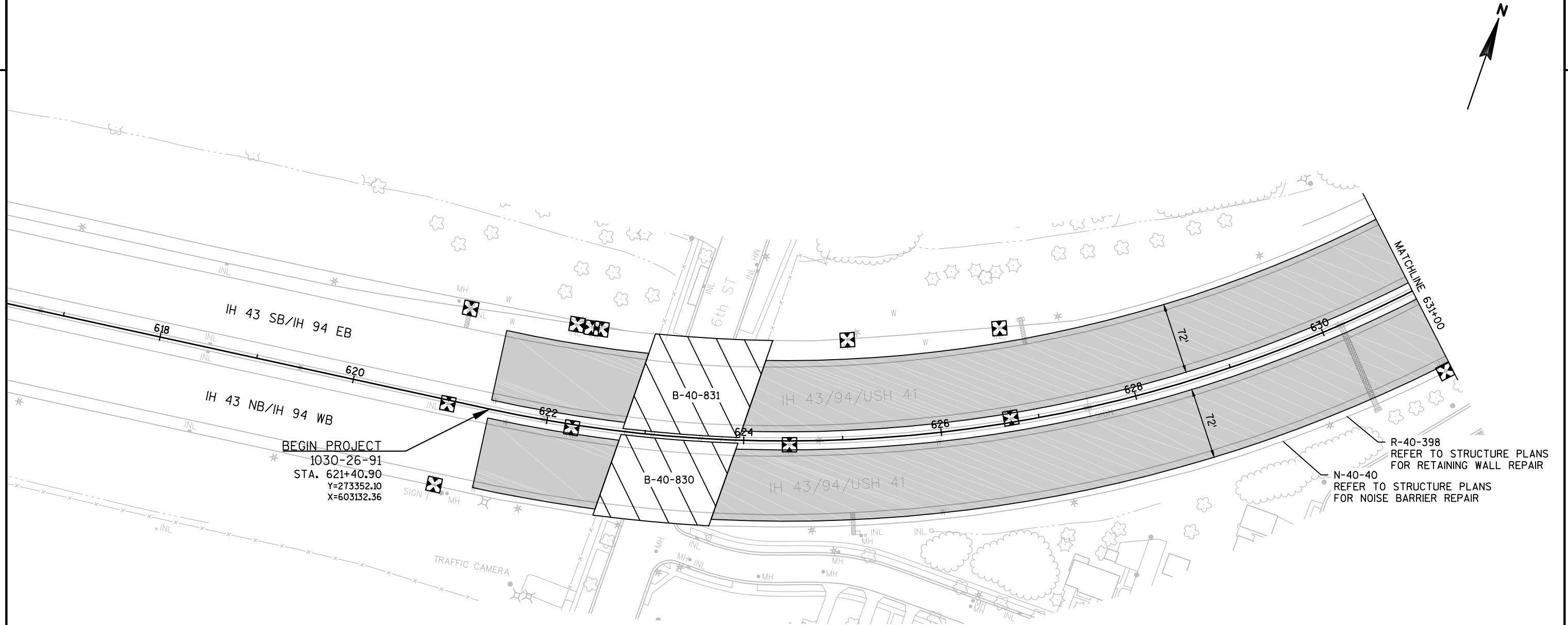
NOTE:

MOUNTING BOLTS, BRACKETS, ARE INCIDENTAL TO SIGN




HOSE ACCESS HOLE DETAIL

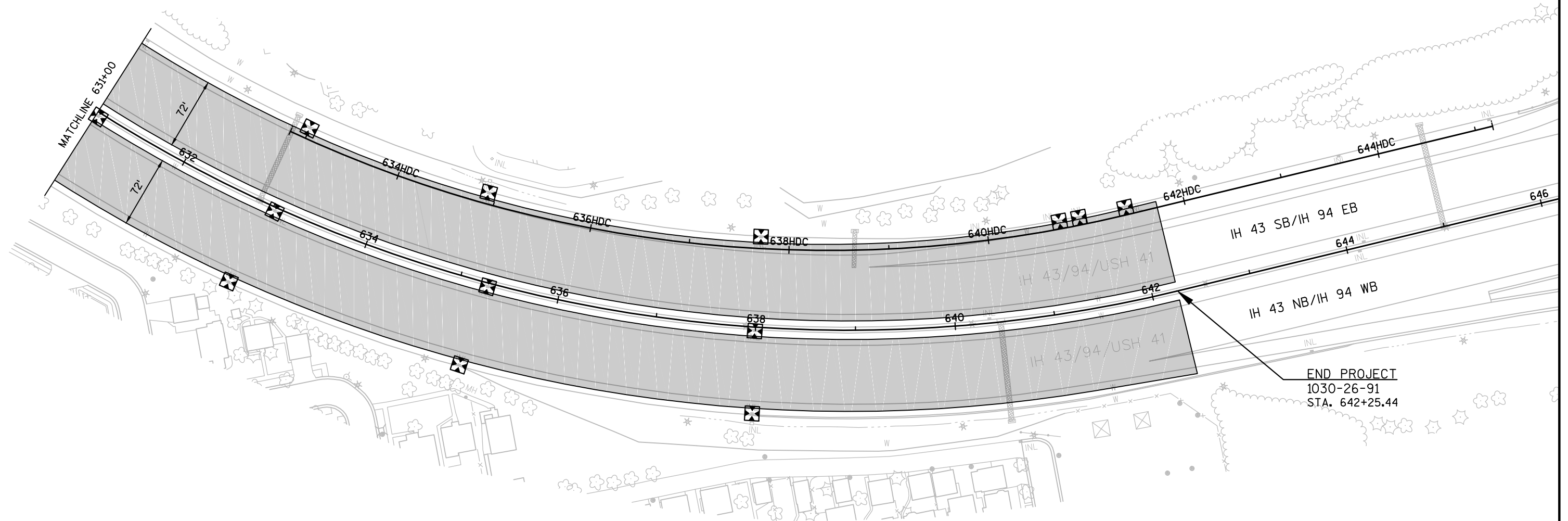
NOTE:




PLACE SIGNS ADJACENT TO OPENING WHERE SIGNING PLAN SHEETS SO INDICATE OTHERWISE, INSTALL PER THIS DETAIL.

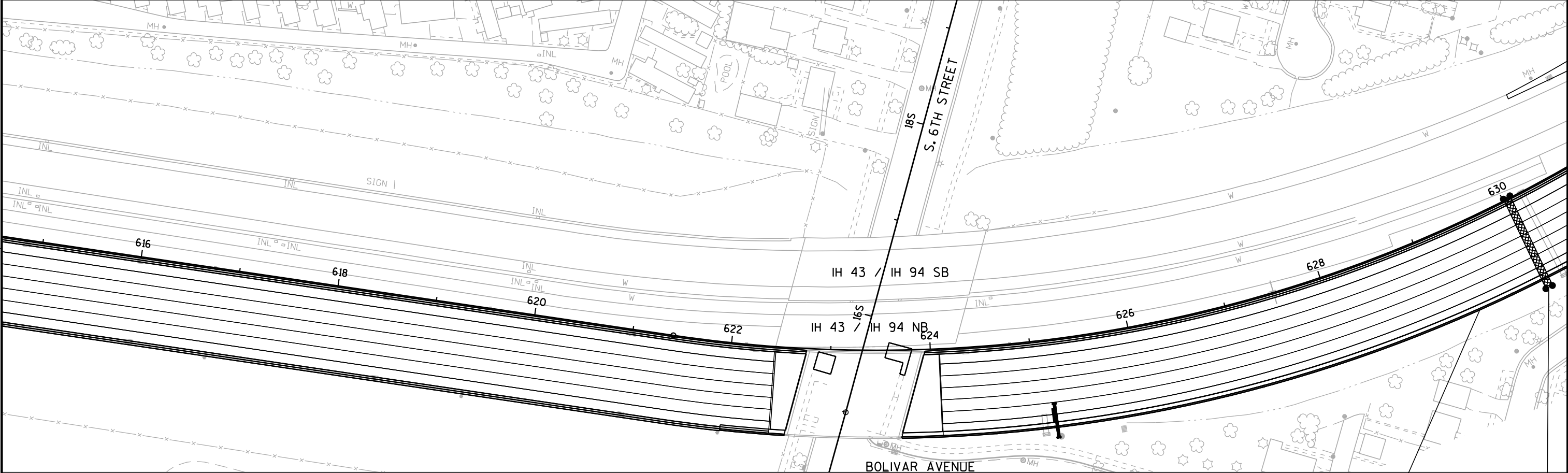


LEGEND

-  HIGH FRICTION SURFACE TREATMENT
(APPLIED TO TRAVEL LANES AND 6' OF
BOTH INSIDE AND OUTSIDE SHOULDER)
-  POLYMER OVERLAY
(APPLIED TO ENTIRE STRUCTURE)
-  INLET PROTECTION TYPE D
(TO BE REMOVED AFTER NIGHTLY OPERATION)

**LEGEND**

-  HIGH FRICTION SURFACE TREATMENT
(APPLIED TO TRAVEL LANES AND 6' OF
BOTH INSIDE AND OUTSIDE SHOULDER)
-  POLYMER OVERLAY
(APPLIED TO ENTIRE STRUCTURE)
-  INLET PROTECTION TYPE D
(TO BE REMOVED AFTER NIGHTLY OPERATION)



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- DENOTES SIGN NUMBER

BLADE IDENTIFIER

SEE DETAIL FOR MOUNTING
RESIDENTIAL SIDE
SIGN OFFSET FROM HOLE

D9-54
18" X 24"
ADDRESS:
4254 S. 5TH ST.

1
2
3
4

S-40-562

**LEGEND**

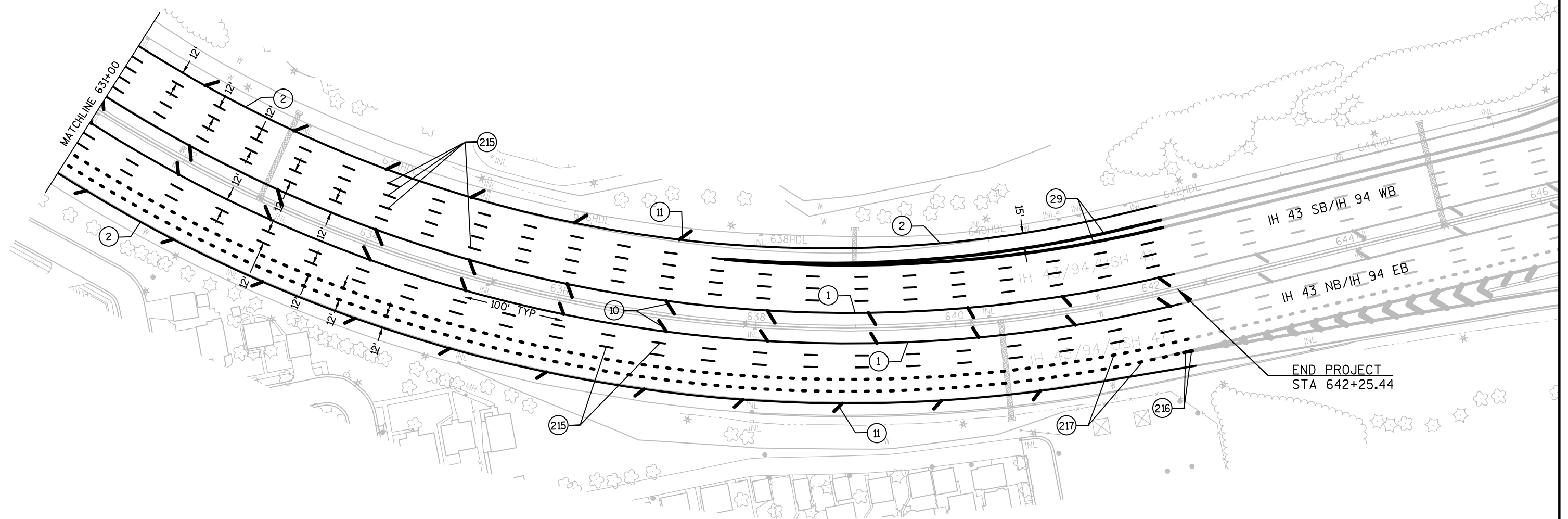
- (1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
- (2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- (10) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (11) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (29) *PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)
- (117) **PAVEMENT MARKING CONTRAST EPOXY 4-INCH (DASHED WHITE)
(12.5 FT LINE 37.5 FT SKIP)
- (118) **PAVEMENT MARKING CONTRAST EPOXY 8-INCH (DOT PATTERN WHITE)
(3 FT LINE 9 FT SKIP)
- (215) ***TEMPORARY PAVEMENT MARKING NON-REFLECTIVE BLACK TAPE 8-INCH (DASHED)
(12.5 FT LINE 37.5 FT SKIP)
- (216) ***TEMPORARY PAVEMENT MARKING NON-REFLECTIVE BLACK TAPE 12-INCH
- (217) ***TEMPORARY PAVEMENT MARKING NON-REFLECTIVE BLACK TAPE 12-INCH (DOT PATTERN)
(3 FT LINE 9 FT SKIP)

NOTES:

*CONTRACTOR TO PLACE TEMPORARY LANE LINE PAVEMENT MARKINGS FOLLOWING PLACEMENT OF THE HIGH FRICTION SURFACE TREATMENT AND/OR POLYMER OVERLAY.

**TO BE APPLIED ON STRUCTURES B-40-830 AND B-40-831

***CONTRACTOR TO PLACE OVER EXISTING MARKINGS PRIOR TO HIGH FRICTION SURFACE TREATMENT. TO BE REMOVED PRIOR TO REOPENING LANES TO TRAFFIC.

**LEGEND**

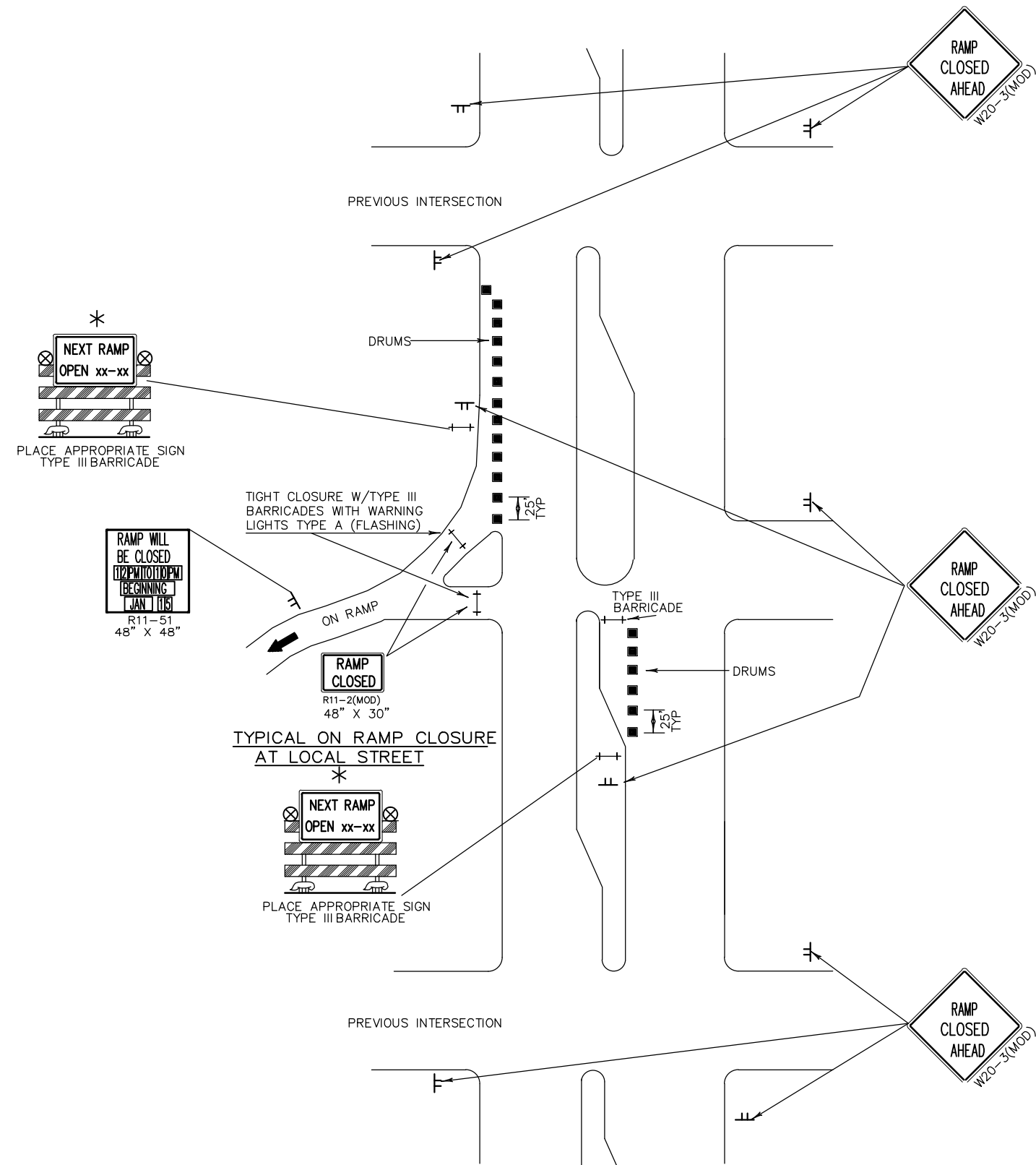
- (1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
- (2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- (10) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (11) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (29) *PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)
- (117) **PAVEMENT MARKING CONTRAST EPOXY 4-INCH (DASHED WHITE)
(12.5 FT LINE 37.5 FT SKIP)
- (118) **PAVEMENT MARKING CONTRAST EPOXY 8-INCH (DOT PATTERN WHITE)
(3 FT LINE 9 FT SKIP)
- (215) ***TEMPORARY PAVEMENT MARKING NON-REFLECTIVE BLACK TAPE 8-INCH (DASHED)
(12.5 FT LINE 37.5 FT SKIP)
- (216) ***TEMPORARY PAVEMENT MARKING NON-REFLECTIVE BLACK TAPE 12-INCH
- (217) ***TEMPORARY PAVEMENT MARKING NON-REFLECTIVE BLACK TAPE 12-INCH (DOT PATTERN)
(3 FT LINE 9 FT SKIP)

NOTES:

*CONTRACTOR TO PLACE TEMPORARY LANE LINE PAVEMENT MARKINGS FOLLOWING PLACEMENT OF THE HIGH FRICTION SURFACE TREATMENT AND/OR POLYMER OVERLAY.

**TO BE APPLIED ON STRUCTURES B-40-830 AND B-40-831

***CONTRACTOR TO PLACE OVER EXISTING MARKINGS PRIOR TO HIGH FRICTION SURFACE TREATMENT. TO BE REMOVED PRIOR TO REOPENING LANES TO TRAFFIC.



TRAFFIC CONTROL NOTES

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

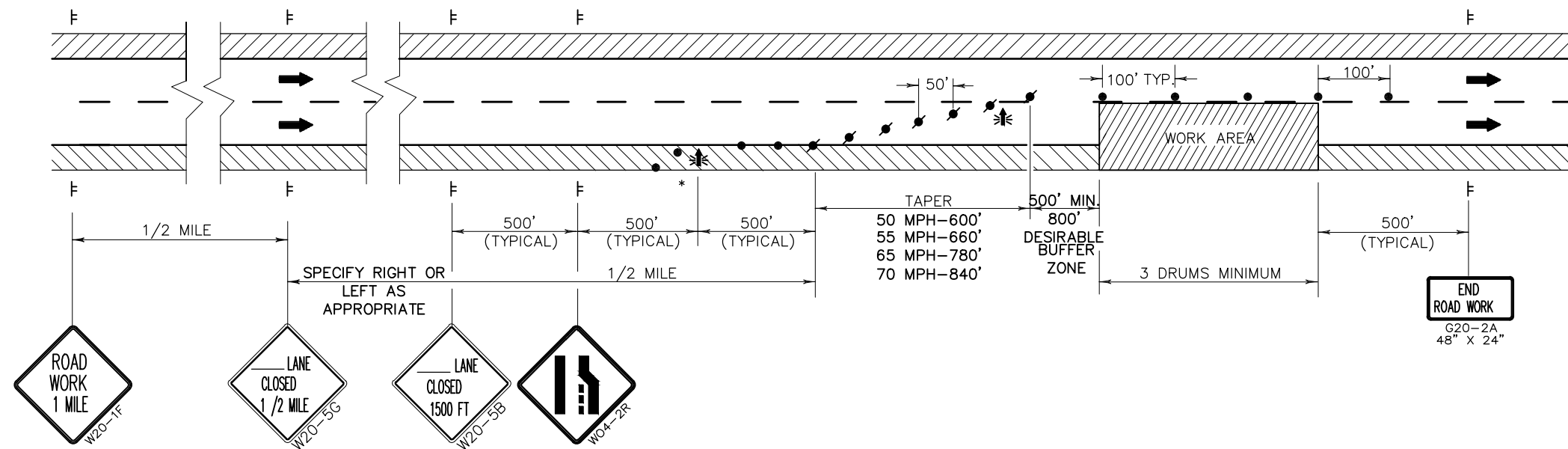
ALL SIGNS ARE 48\"

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

LEGEND

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

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



* ARROW BOARD. LOCATE APPROX.
500' IN ADVANCE OF LANE TAPER
OR POSITION FOR OPTIMUM VISIBILITY.

TYPICAL ONE-LANE CLOSURE LESS THAN 7 DAYS

LEGEND

- DRUM
- ⚡ DRUM WITH TYPE "C" STEADY BURN LIGHT
- ⌈ SIGN ON TEMPORARY SUPPORT
- ⚡ ARROW BOARD
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

SPECIAL APPLICATION NOTES

THE TAPER SHOULD EXTEND ACROSS THE SHOULDER, UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION.

ALL LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATION CONDITION.

GENERAL NOTES FOR TRAFFIC CONTROL

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

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

DURING HOURS OF DARKNESS, TYPE "C" (STEADY BURN) LIGHTS SHALL BE PROVIDED ON ALL CHANNELIZING DEVICES IN TAPERS, BARRICADES SHELTING AN ISOLATED HAZARD, SHALL BE EQUIPPED WITH TYPE "A" (LOW-INTENSITY FLASHING) LIGHTS.

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

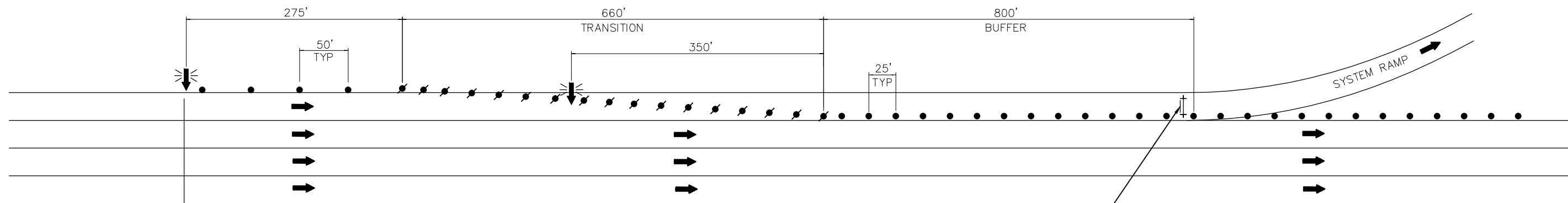
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

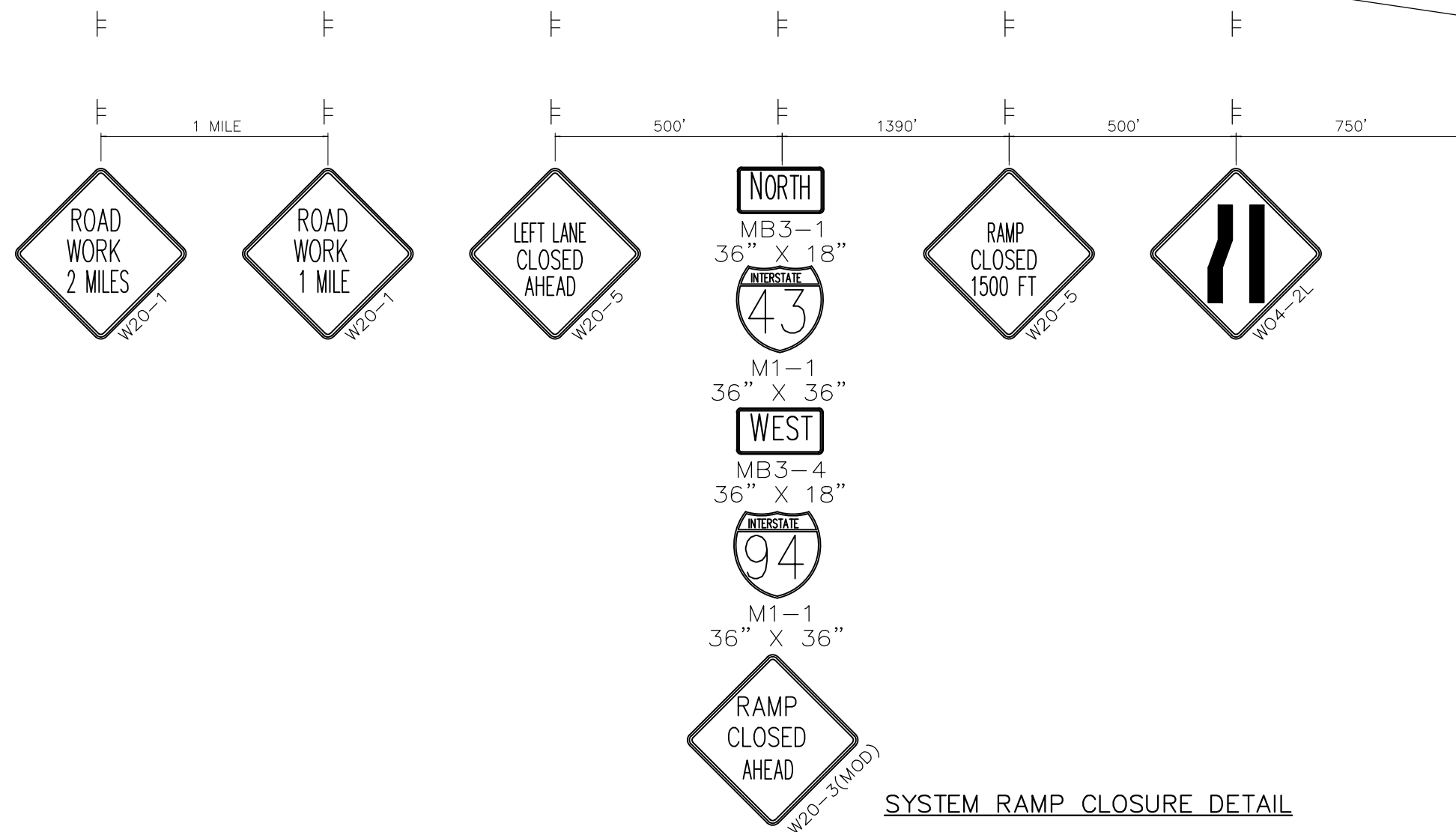
IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

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

SPEEDS 45 MPH OR GREATER



RAMP
CLOSED
R11-2(MOD)
48" X 30"



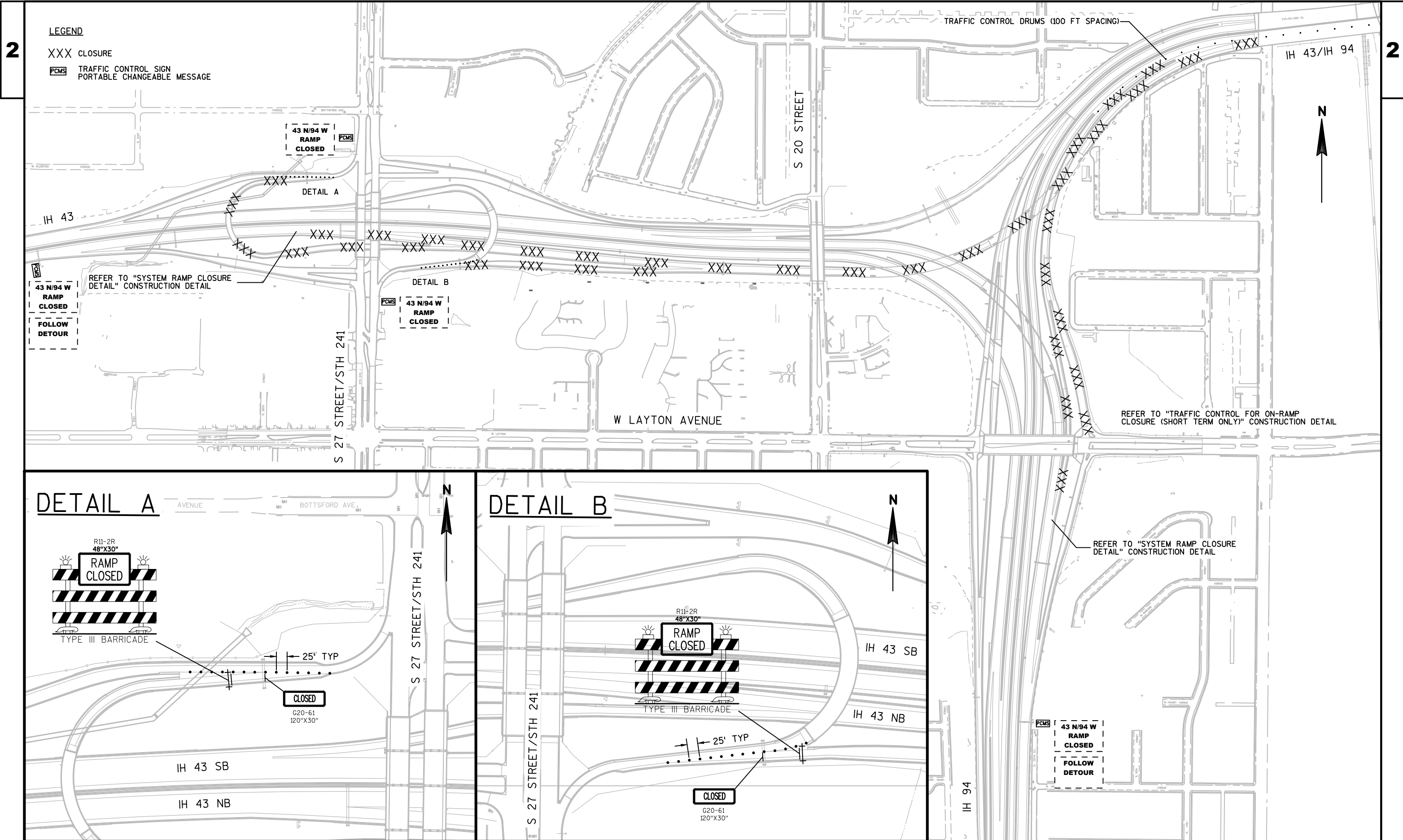
LEGEND

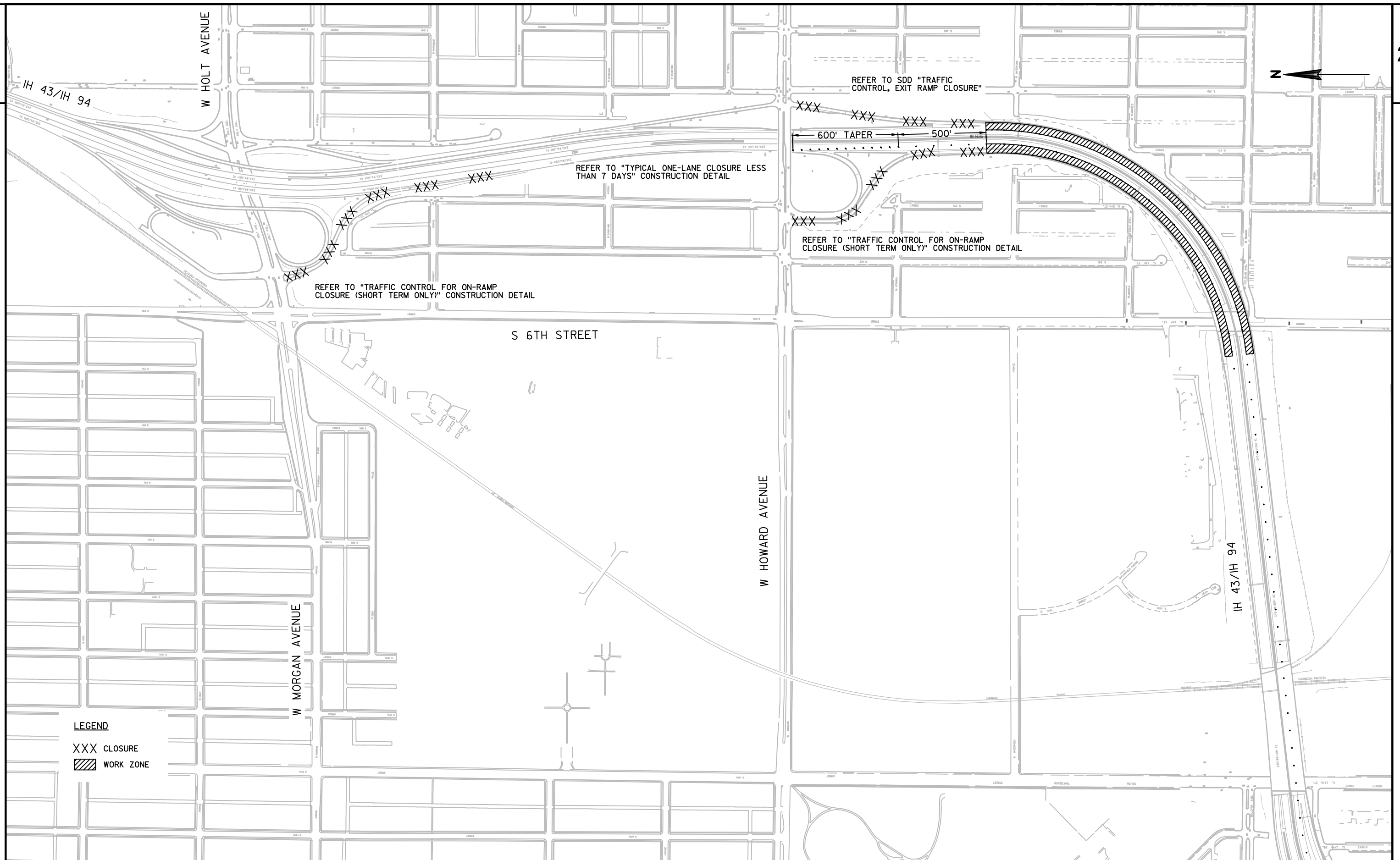
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC

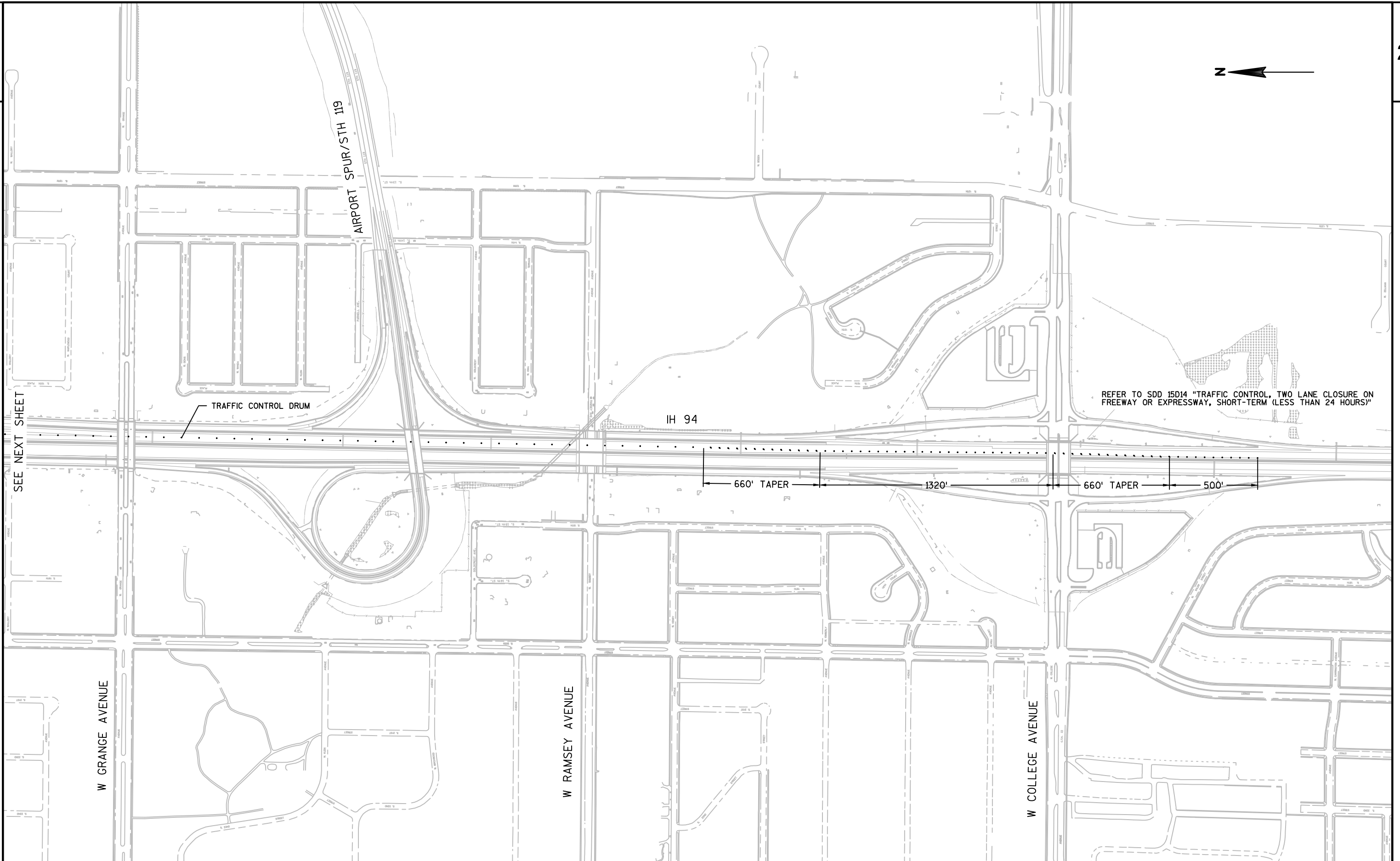
NOTES

1. THIS DETAIL SHALL APPLY FOR CLOSING IH 43 NORTH/IH 94 WEST SERVICE RAMP.
2. DETAIL TYPICAL FOR CLOSING LEFT HAND EXIT RAMP. FOR CLOSING RIGHT HAND EXIT RAMP REVERSE THE TRAFFIC CONTROL.

SYSTEM RAMP CLOSURE DETAIL







PROJECT NO:1030-26-91 & 1030-06-67	HWY:IH 43/94	COUNTY:MILWAUKEE	SYSTEM RAMP CLOSURE: CLOSE 3 LEFT LANES	SHEET	E
------------------------------------	--------------	------------------	---	-------	---

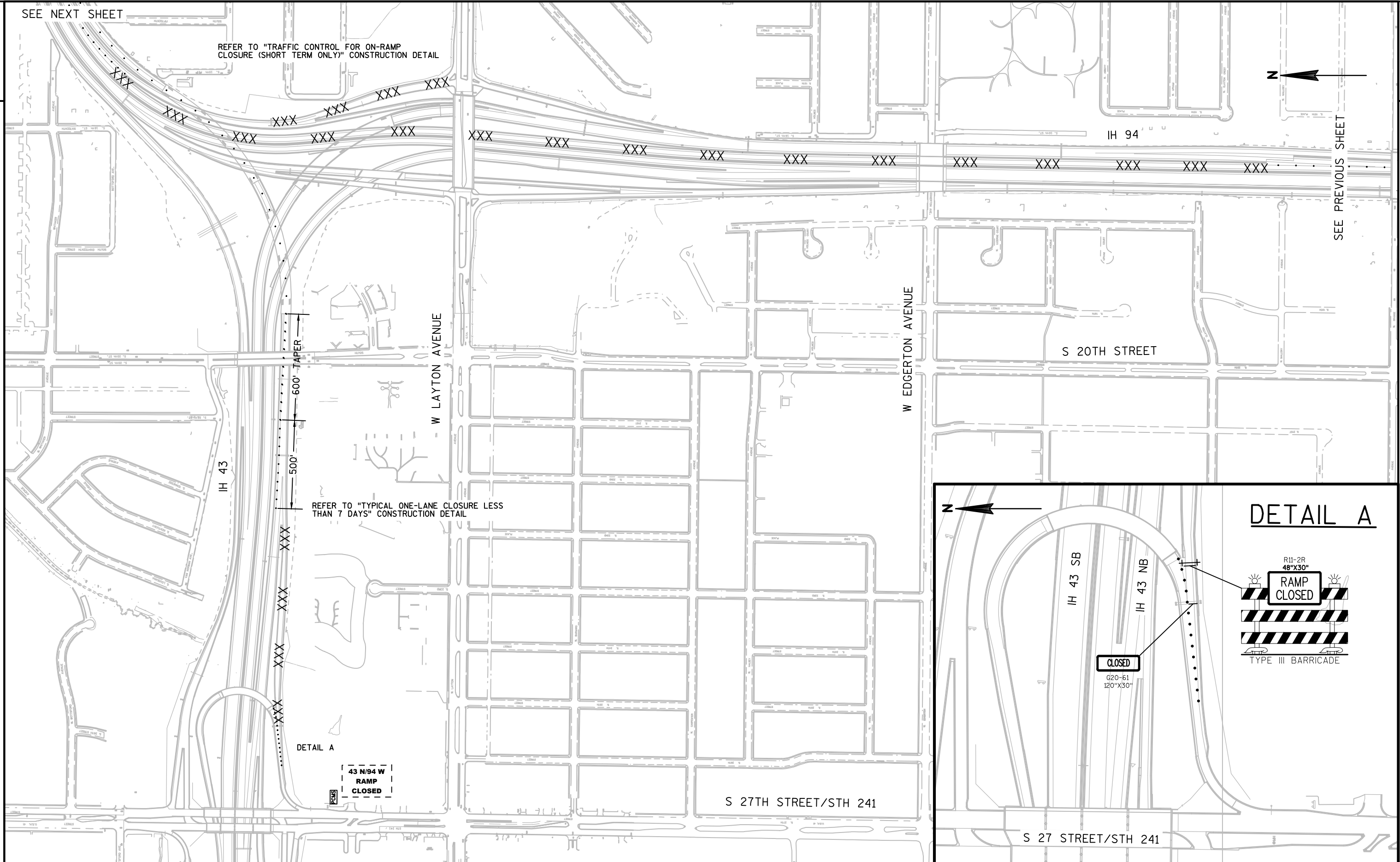
2

SEE NEXT SHEET

REFER TO "TRAFFIC CONTROL FOR ON-RAMP
CLOSURE (SHORT TERM ONLY)" CONSTRUCTION DETAIL

2

SEE PREVIOUS SHEET



PROJECT NO:1030-26-91 & 1030-06-67

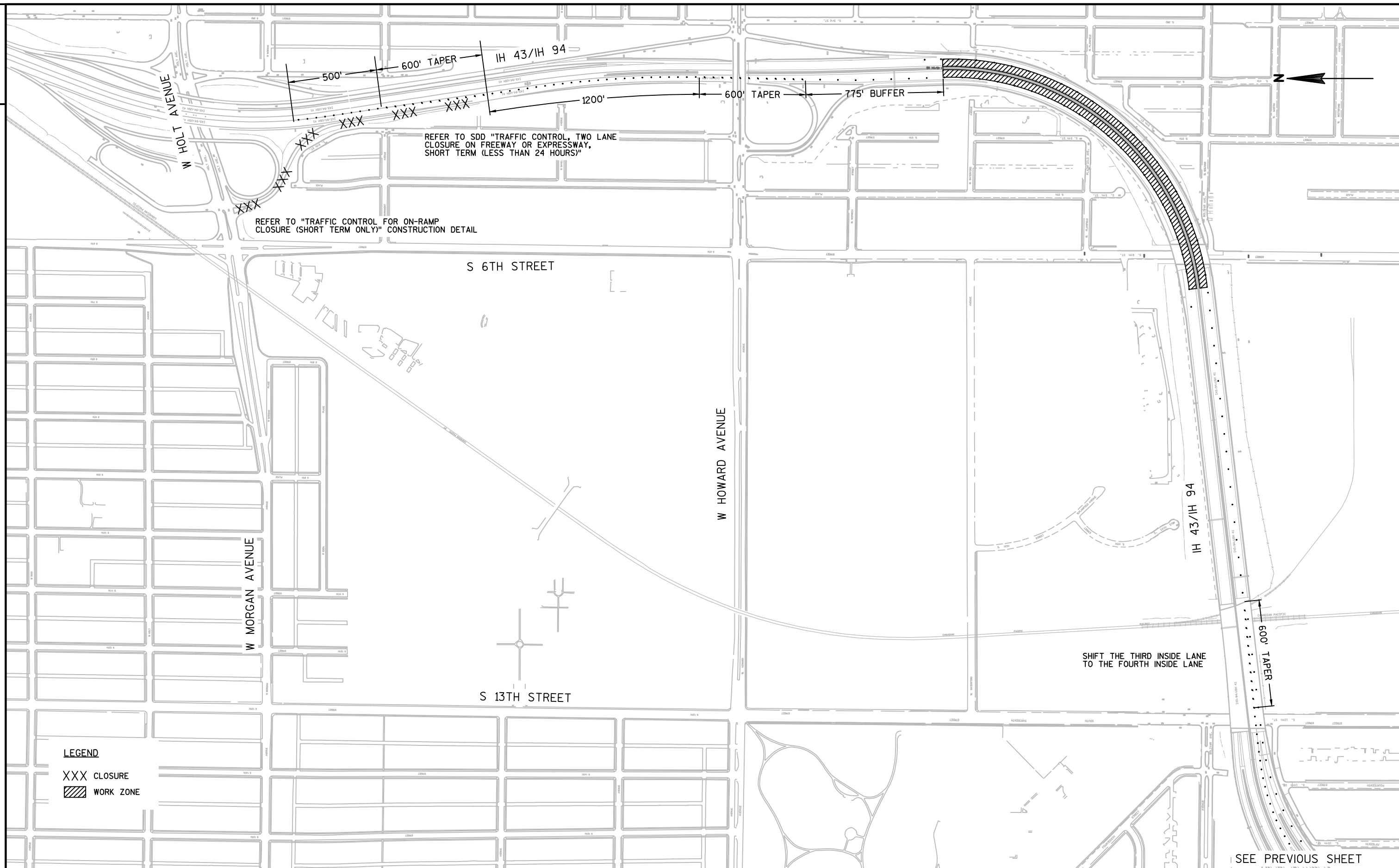
HWY: IH 43/94

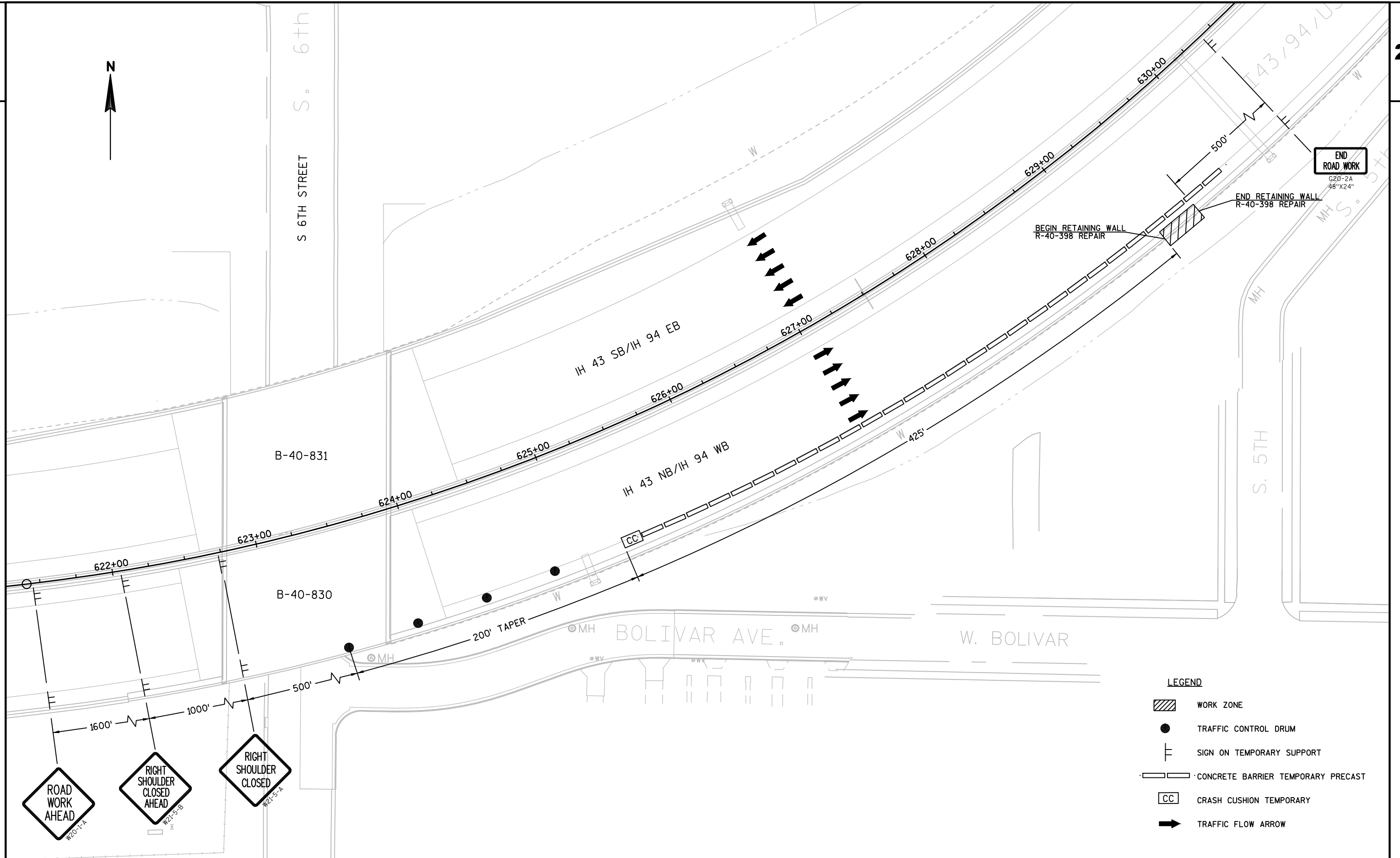
COUNTY: MILWAUKEE

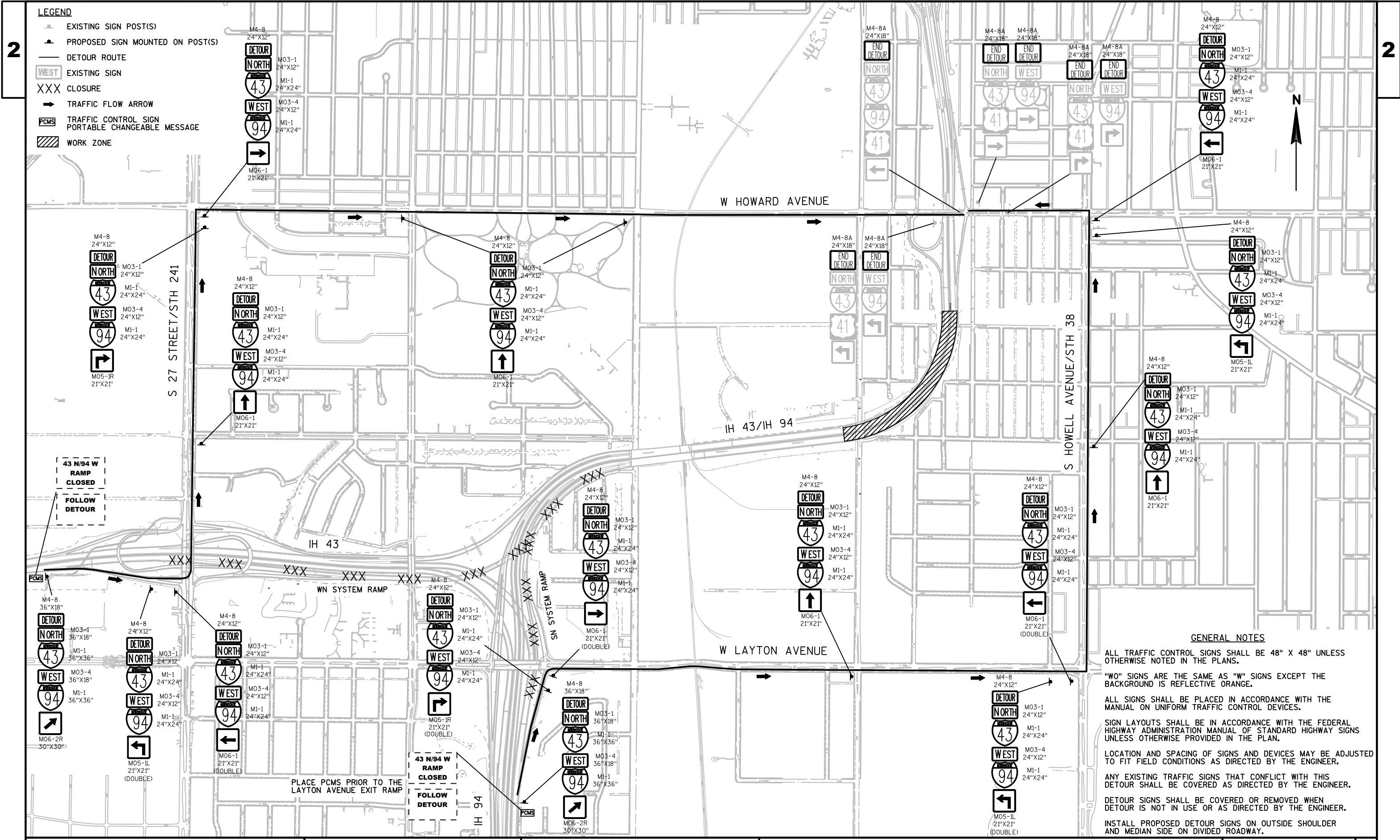
SYSTEM RAMP CLOSURE: CLOSE 3 LEFT LANES

SHEET

E







- LEGEND**
- EXISTING SIGN POST(S)
 - PROPOSED SIGN MOUNTED ON POST(S)
 - DETOUR ROUTE
 - EXISTING SIGN
 - CLOSURE
 - TRAFFIC FLOW ARROW
 - TRAFFIC CONTROL SIGN
 - PORTABLE CHANGEABLE MESSAGE
 - WORK ZONE

GENERAL NOTES

ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.

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

ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

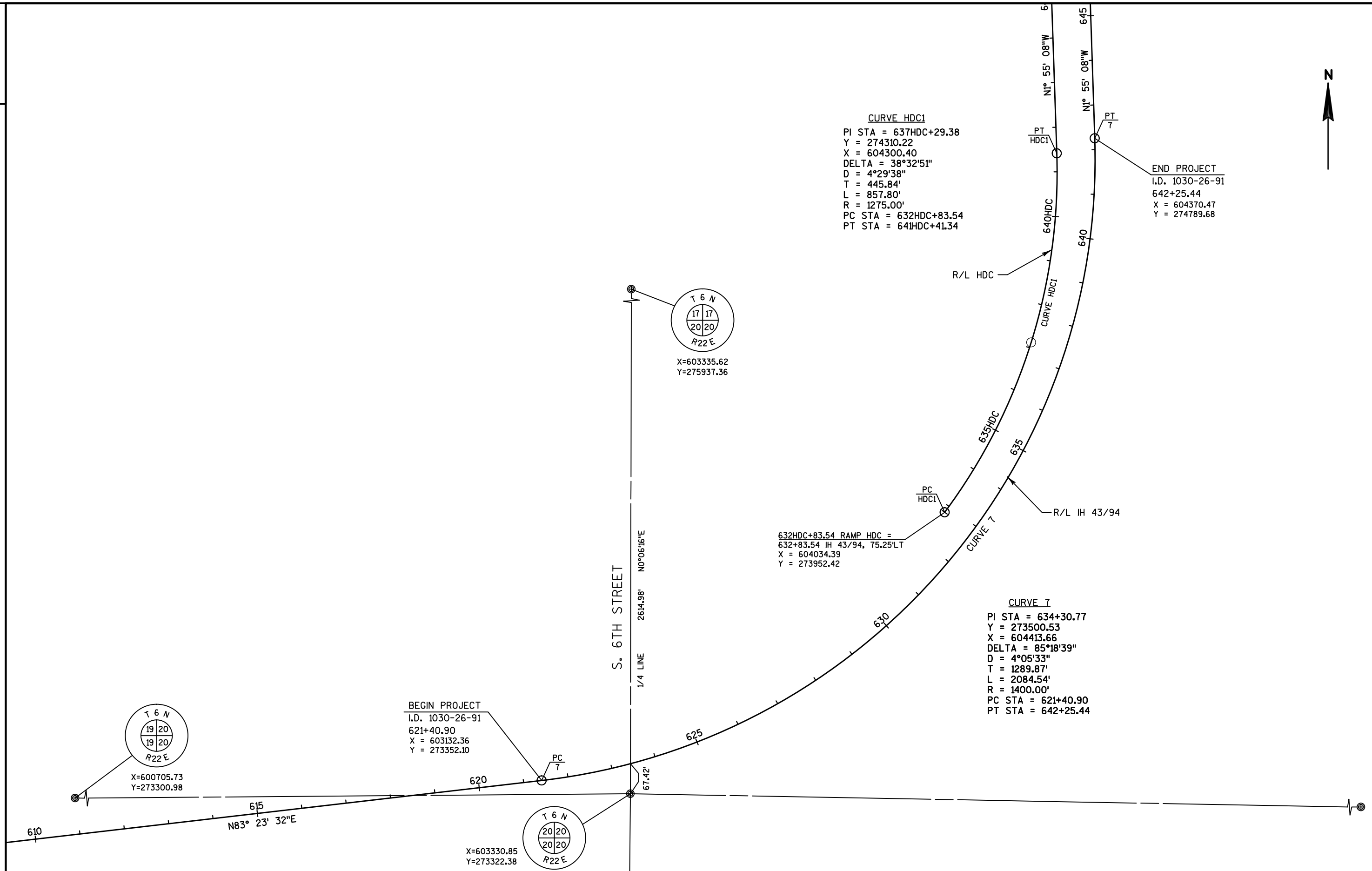
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.

LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS DETOUR SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

DETOUR SIGNS SHALL BE COVERED OR REMOVED WHEN DETOUR IS NOT IN USE OR AS DIRECTED BY THE ENGINEER.

INSTALL PROPOSED DETOUR SIGNS ON OUTSIDE SHOULDER AND MEDIAN SIDE ON DIVIDED ROADWAY.



DATE 21JUN16		E S T I M A T E O F Q U A N T I T I E S				
LINE					1030-06-67	1030-26-91
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTI TY	QUANTI TY
0010	204. 0185	Removing Masonry	CY	2. 500	2. 500	
0020	213. 0100	Finishing Roadway (project) 01. 030-06-67	EACH	1. 000	1. 000	
0030	213. 0100	Finishing Roadway (project) 02. 1030-26-91	EACH	1. 000		1. 000
0040	465. 0110	Asphaltic Surface Patching	TON	40. 000		40. 000
0050	502. 3200	Protective Surface Treatment	SY	10. 000	10. 000	
0060	504. 0500	Concrete Masonry Retaining Walls	CY	2. 500	2. 500	
0070	505. 0600	Bar Steel Reinforcement HS Coated Structures	LB	680. 000	680. 000	
0080	509. 5100. S	Polymer Overlay	SY	2, 390. 000		2, 390. 000
0090	509. 9025. S	Epoxy Injection Crack Repair	LF	3. 000	3. 000	
0100	509. 9026. S	Cored Holes 2-Inch Diameter	EACH	1. 000	1. 000	
0110	517. 1010. S	Concrete Staining (structure) 01. R-40-398	SF	70. 000	70. 000	
0120	531. 0300. S	Noise Barriers Double-Sided Sound Absorptive (structure) 01. N-40-40	SF	380. 000	380. 000	
0130	603. 8000	Concrete Barrier Temporary Precast Delivered	LF	470. 000	470. 000	
0140	603. 8125	Concrete Barrier Temporary Precast Installed	LF	470. 000	470. 000	
0150	614. 0905	Crash Cushions Temporary	EACH	1. 000	1. 000	
0160	619. 1000	Mobilization	EACH	1. 000	0. 050	0. 950
0170	628. 1905	Mobilizations Erosion Control	EACH	2. 000		2. 000
0180	628. 1910	Mobilizations Emergency Erosion Control	EACH	2. 000		2. 000
0190	628. 7020	Inlet Protection Type D	EACH	25. 000		25. 000
0200	637. 2210	Signs Type II Reflective H	SF	9. 000	9. 000	
0210	643. 0100	Traffic Control (project) 01. 030-06-67	EACH	1. 000	1. 000	
0220	643. 0100	Traffic Control (project) 02. 1030-26-91	EACH	1. 000		1. 000
0230	643. 0300	Traffic Control Drums	DAY	3, 150. 000	1, 602. 000	1, 548. 000
0240	643. 0420	Traffic Control Barricades Type III	DAY	102. 000	45. 000	57. 000
0250	643. 0705	Traffic Control Warning Lights Type A	DAY	172. 000	80. 000	92. 000
0260	643. 0715	Traffic Control Warning Lights Type C	DAY	622. 000	319. 000	303. 000
0270	643. 0800	Traffic Control Arrow Boards	DAY	53. 000	26. 000	27. 000
0280	643. 0900	Traffic Control Signs	DAY	956. 000	604. 000	352. 000
0290	643. 0910	Traffic Control Covering Signs Type I	EACH	3. 000		3. 000
0300	643. 1050	Traffic Control Signs PCMS	DAY	40. 000	20. 000	20. 000
0310	643. 2000	Traffic Control Detour (project) 02. 1030-26-91	EACH	1. 000		1. 000
0320	643. 3000	Traffic Control Detour Signs	DAY	1, 015. 000		1, 015. 000
0330	646. 0106	Pavement Marking Epoxy 4-Inch	LF	8, 334. 000		8, 334. 000
0340	646. 0600	Removing Pavement Markings	LF	1, 762. 000		1, 762. 000
0350	646. 0843. S	Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	LF	881. 000		881. 000
0360	647. 0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	1, 157. 000		1, 157. 000
0370	649. 0801	Temporary Pavement Marking Removable Tape 8-Inch	LF	881. 000		881. 000
0380	SPV. 0060	Special 40. Anchor Assemblies Noise Barrier Structures	EACH	2. 000	2. 000	
0390	SPV. 0060	Special 41. Strap Anchor	EACH	2. 000	2. 000	
0400	SPV. 0085	Special 01. Crack Sealing	LB	1, 390. 000		1, 390. 000
0410	SPV. 0090	Special 02. Pavement Marking Contrast Epoxy 4-Inch	LF	171. 000		171. 000
0420	SPV. 0090	Special 03. Pavement Marking Contrast Epoxy 8-Inch	LF	61. 000		61. 000

DATE 21JUN16		E S T I M A T E O F Q U A N T I T I E S				
LINE					1030-06-67	1030-26-91
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY	QUANTITY
0430	SPV.0090	Special 04. Temporary Pavement Marking	LF	2,855.000		2,855.000
		Non-Reflective Black Tape 8-Inch				
0440	SPV.0090	Special 05. Temporary Pavement Marking	LF	1,010.000		1,010.000
		Non-Reflective Black Tape 12-Inch				
0450	SPV.0180	Special 01. Resin Binder High Friction	SY	31,847.000		31,847.000
		Surface Treatment				

MOBILIZATIONS				
		619.1000	628.1905	628.1910
		MOBILIZATION	MOBILIZATIONS	MOBILIZATIONS EMERGENCY
		EACH	EROSION CONTROL	EROSION CONTROL
CATEGORY	PROJECT		EACH	EACH
0010	1030-26-91	0.95	2	2
	1030-06-67	0.05		
TOTAL:		1	2	2

ROADWAY ITEMS			
		213.0100	213.0100
		FINISHING ROADWAY	FINISHING ROADWAY
		(1030-26-91)	(1030-06-67)
CATEGORY	LOCATION	EACH	EACH
0010	IH 43/94	1	1

HIGH FRICTION SURFACE TREATMENT (1030-26-91)					
					SPV.0180.01
					RESIN BINDER
					HIGH FRICTION
					SURFACE TREATMENT
CATEGORY	ROADWAY	STATION	TO	STATION	SY
0010	IH 43/94 NB	621+40.90		642+25.44	16286
	IH 43/94 SB	621+40.90		642+25.44	15561
TOTAL:					31847

CRACK SEALING (1030-26-91)

						SPV.0085.01
						CRACK
						SEALING
						LB
CATEGORY	ROADWAY	STATION	TO	STATION	LENGTH	NUMBER
						OF CRACKS
0010	IH 43/94 NB	621+40.90		642+25.44	2085	2
	IH 43/94 SB	621+40.90		642+25.44	2085	3
UNDISTRIBUTED						230
TOTAL:						1390

TRAFFIC CONTROL

		643.0100	643.0100	643.2000
		TRAFFIC CONTROL	TRAFFIC CONTROL	TRAFFIC CONTROL
		(1030-26-91)	(1030-06-67)	(1030-26-91)
		EACH	EACH	DETOUR
		EACH	EACH	EACH
0010	IH 43/94	1	1	1

CONCRETE BARRIER TEMPORARY (1030-06-67)

		603.8000	603.8125	614.0905
		CONCRETE BARRIER	CONCRETE BARRIER	CRASH
		TEMPORARY PRECAST	TEMPORARY PRECAST	CUSHIONS
		DELIVERED	INSTALLED	TEMPORARY
		LF	LF	EACH
0010	IH 43/94 NB	625+50	630+00	470
				470
				1

ASPHALTIC SURFACE PATCHING (1030-26-91)

		465.0110
		ASPHALTIC
		SURFACE
		PATCHING
		TON
0010	UNDISTRIBUTED	621+40.90
		642+25.44
		40

INLET PROTECTION (1030-26-91)

CATEGORY	LOCATION	STATION	TO STATION	628.7020 TYPE D EACH
0010	IH 43/94 NB	621+40.90	642+25.44	12
	IH 43/94 SB	621+40.90	642+25.44	13
TOTAL:				25

REMOVING PAVEMENT MARKINGS (1030-26-91)

CATEGORY	LOCATION	STATION	TO STATION	646.0600 REMOVING PAVEMENT MARKINGS LF
0010	IH 43/94 NB	621+40.90	642+25.44	0
	IH 43/94 SB	621+40.90	642+25.44	1762
TOTAL:				1762

PAVEMENT MARKINGS (1030-26-91)

CATEGORY	LOCATION	STATION	TO STATION	646.0106		647.0726		646.0843.S	649.0801	SPV.0090.02	SPV.0090.03	SPV.0090.04	SPV.0090.05
				PAVEMENT MARKING		PAVEMENT MARKING		PAVEMENT MARKING	TEMPORARY	PAVEMENT MARKING		TEMPORARY	
				EPOXY 4-INCH		DIAGONAL EPOXY 12-INCH		GROOVED WET	PAVEMENT MARKING	CONTRAST EPOXY		PAVEMENT MARKING	
				YELLOW	WHITE	YELLOW	WHITE	REFLECTIVE	REMOVABLE TAPE	4-INCH WHITE	8-INCH WHITE	8-INCH	12-INCH
				LF	LF	LF	LF	CONTRAST TAPE	8-INCH WHITE	LF	LF	LF	LF
0010	IH 43/94 NB	621+40.90	642+25.44	2107	2197	290	245	0	0	75	30	1188	816
	IH 43/94 SB	621+40.90	642+25.44	2061	1969	329	293	881	881	96	31	1667	194
SUBTOTAL:				4168	4166	619	538	881	881	171	61	2855	1010
TOTAL:				8334		1157		881	881	171	61	2855	1010

DETOUR ITEMS

CATEGORY	LOCATION	643.3000	
		STAGE DURATION DAYS	TRAFFIC CONTROL DETOUR SIGNS **EACH** DAY
0010	LAYTON AVENUE TO HOWELL AVENUE/STH 38	7	82
	27TH STREET/STH 241 TO HOWARD	7	63
TOTAL:			1015

FOR INFORMATION ONLY

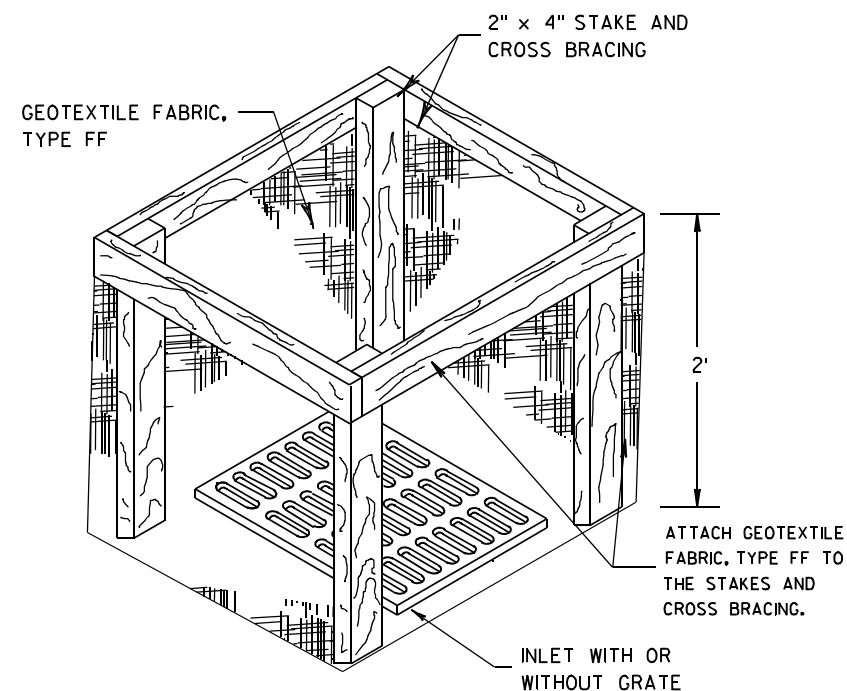
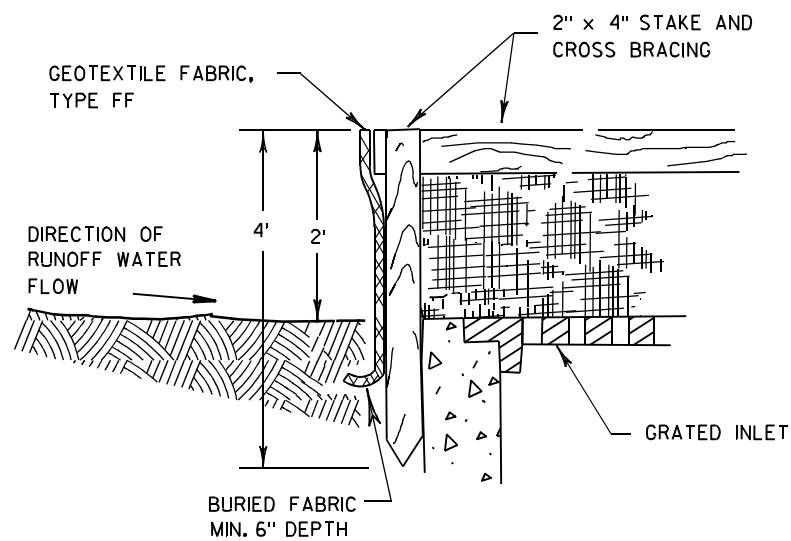
TRAFFIC CONTROL (1030-26-91)																						
CATEGORY	STAGE	LOCATION	**STAGE**	643.0300	643.0420	643.0705	643.0715	643.0800	643.0900	643.0910	643.1050	COMMENT										
			DURATION	TRAFFIC	TRAFFIC	TRAFFIC	TRAFFIC	TRAFFIC	TRAFFIC CONTROL	TRAFFIC												
			DAYS	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	COVERING SIGNS	CONTROL												
			DRUMS	BARRICADES	WARNING LIGHTS	WARNING LIGHTS	ARROW BOARDS	SIGNS	TYPE I	SIGNS	PCMS											
			TYPE III	TYPE III	TYPE A	TYPE C				NUMBER	EACH	**EACH**	DAY	OF CYCLES	EACH	**EACH**	DAY					
0010	1	IH 43/94 NB (CLOSE THREE RIGHT LANES)	1	319	319	13	13	20	20	56	56	4	4	74	74	1	3	4	4	HFST (HOWARD ON-RAMP CLOSED)		
			1	273	273	9	9	16	16	56	56	4	4	62	62	0	0	4	4	POLYMER OVERLAY (HOWARD ON-RAMP OPEN)		
	2	IH 43/94 NB (CLOSE THREE LEFT LANES)	2	260	520	0	0	0	0	52	104	5	10	28	56	0	0	0	0	HFST & POLYMER OVERLAY		
			3	IH 43/94 SB (CLOSE THREE RIGHT LANES)	2	84	168	10	20	16	32	13	26	1	2	38	76	0	0	0	0	HFST & POLYMER OVERLAY
	IH 43/94 SB (CLOSE TWO RIGHT LANES) ON-RAMP CLOSURE (HOWARD AVE) 1-LANE CLOSURE	1	24		24	5	5	8	8	0	0	0	0	14	14	0	0	0	0	PAVEMENT MARKING		
		1	28		28	0	0	0	0	13	13	1	1	10	10	0	0	0	0	PAVEMENT MARKING		
	4	IH 43/94 SB (CLOSE THREE LEFT LANES)	2	108	216	5	10	8	16	24	48	3	6	30	60	0	0	0	0	HFST & POLYMER OVERLAY		
			UNDISTRIBUTED			0		0		0		0		0				12				
	TOTAL:				1548		57		92		303		27		352		3		20			
	FOR INFORMATION ONLY																					

TRAFFIC CONTROL (1030-06-67)																		
CATEGORY	STAGE	LOCATION	**STAGE**	643.0300	643.0420	643.0705	643.0715	643.0800	643.0900	643.1050	COMMENT							
			DURATION	TRAFFIC	TRAFFIC	TRAFFIC	TRAFFIC	TRAFFIC	TRAFFIC	TRAFFIC								
			DAYS	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL								
			DRUMS	BARRICADES	WARNING LIGHTS	WARNING LIGHTS	ARROW BOARDS	SIGNS	PCMS									
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													
			TYPE III	TYPE A	TYPE C													

TYPE II PERMANENT SIGNING -			CATEGORY 0010			Project 1030-26-91	
SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE			637.2210	REMARKS / NEW SIGN LOCATION
			W	x	H		
			[IN.]	x	[IN.]	REFLECTIVE H [SF]	
1	D9-54(2S)	4254 S. 5th St	18	X	24	3.000	MOUNT ON WALL - SEE DETAIL
2	D9-54(2S)	4254 S. 5th St	18	X	24	3.000	MOUNT ON WALL - SEE DETAIL
3	NONE	BLANK - IDENTIFIER BLADE	36	X	6	1.500	BLUE BACKGROUND - MOUNT ON WALL BRACKETS INCIDENTAL
4	NONE	BLANK - IDENTIFIER BLADE	36	X	6	1.500	BLUE BACKGROUND - MOUNT ON WALL BRACKETS INCIDENTAL
TOTALS						9.000	

Standard Detail Drawing List

08E10-02	INLET PROTECTION TYPE A, B, C AND D
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15C31-01D	PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
15D14-03	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D16-03	TRAFFIC CONTROL, EXIT RAMP CLOSURE



INLET PROTECTION, TYPE A

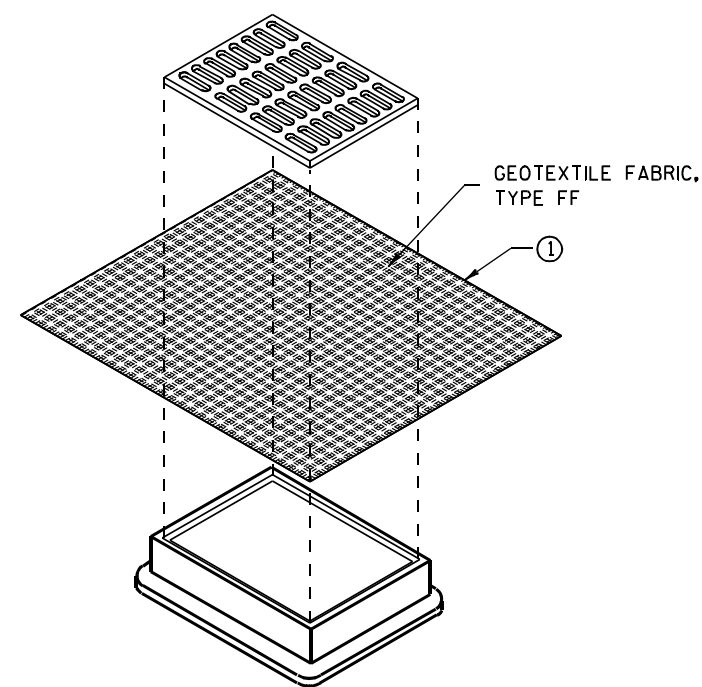
GENERAL NOTES

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.

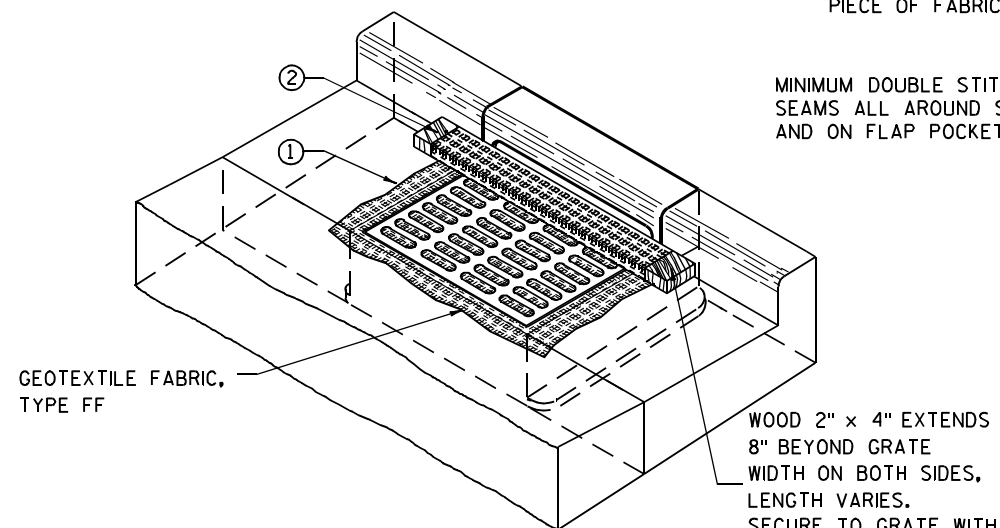
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

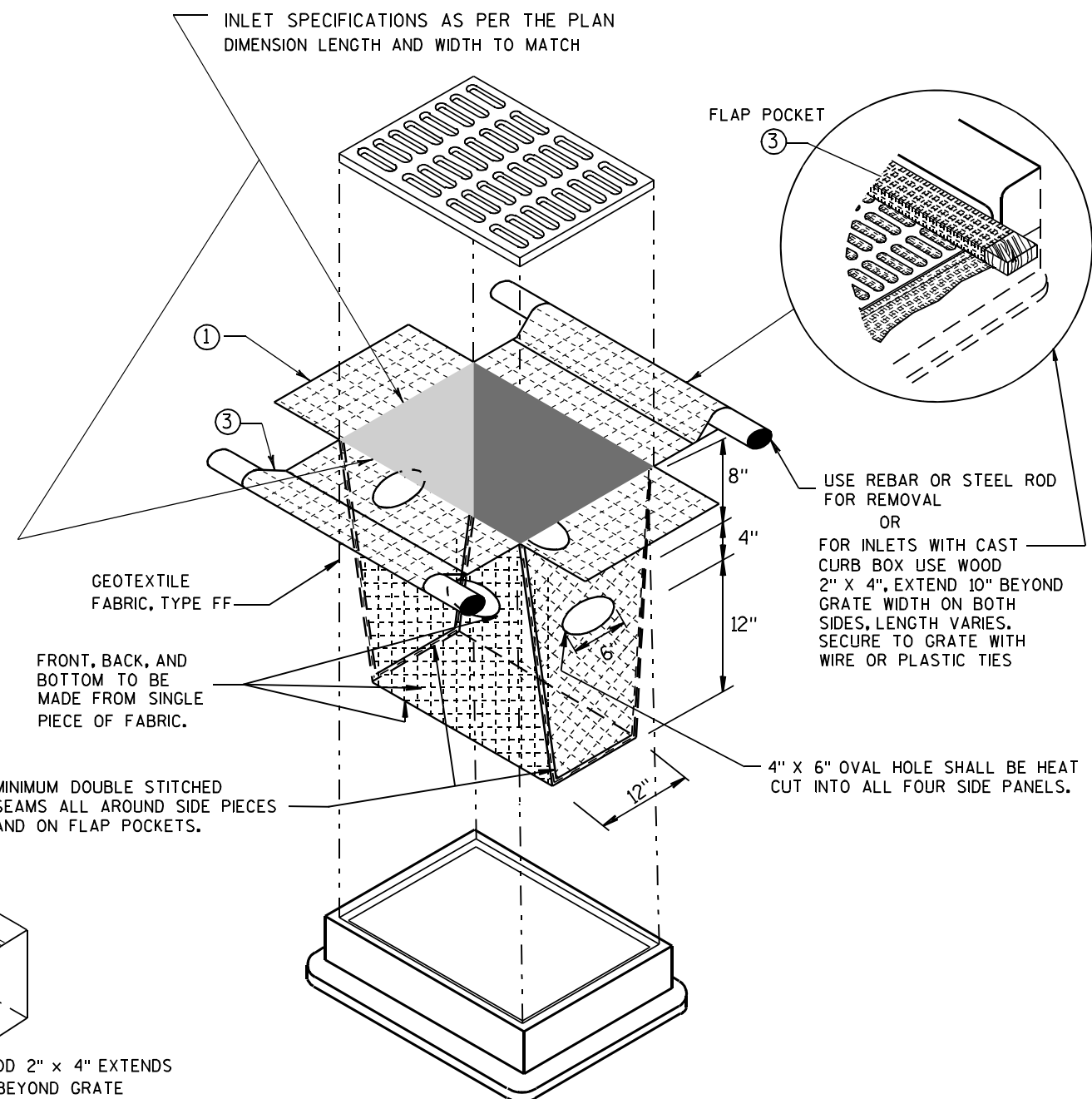
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.



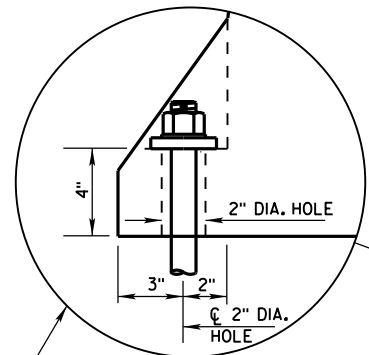
INLET PROTECTION, TYPE D

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

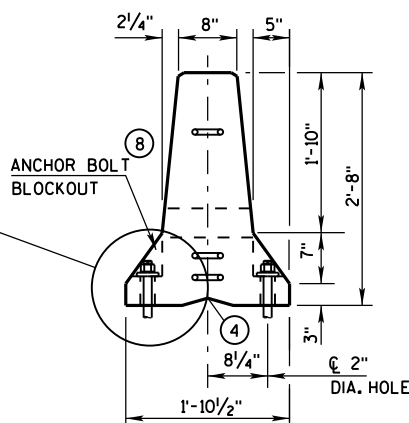
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

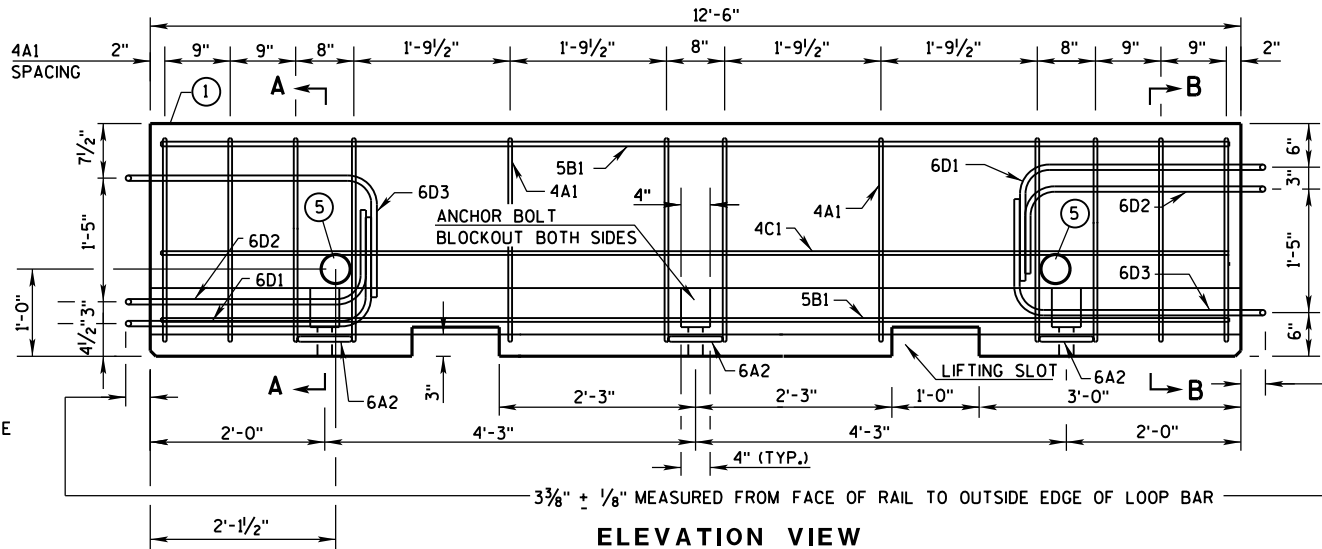
APPROVED
10/16/02 /S/ Beth Cannestra
DATE
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



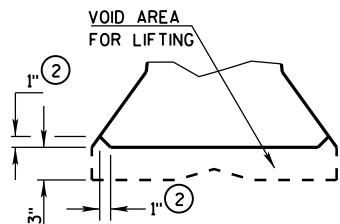
ANCHOR ON TRAFFIC SIDE
ONLY WHEN REQUIRED
(SEE SHEET D FOR ADDITIONAL
ANCHOR DETAIL)



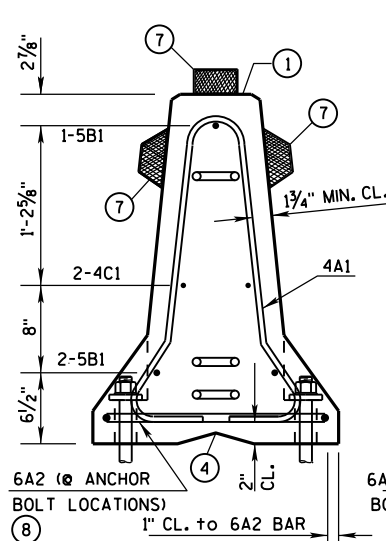
END VIEW



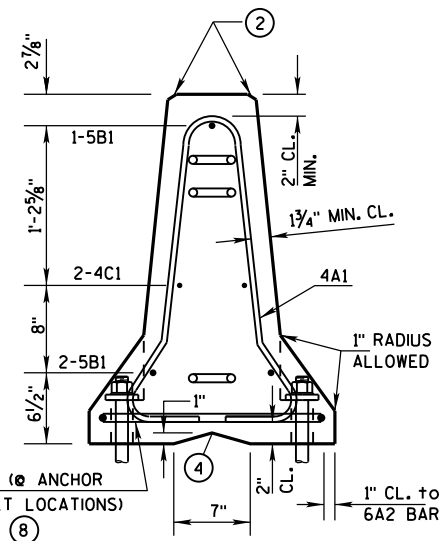
ELEVATION VIEW



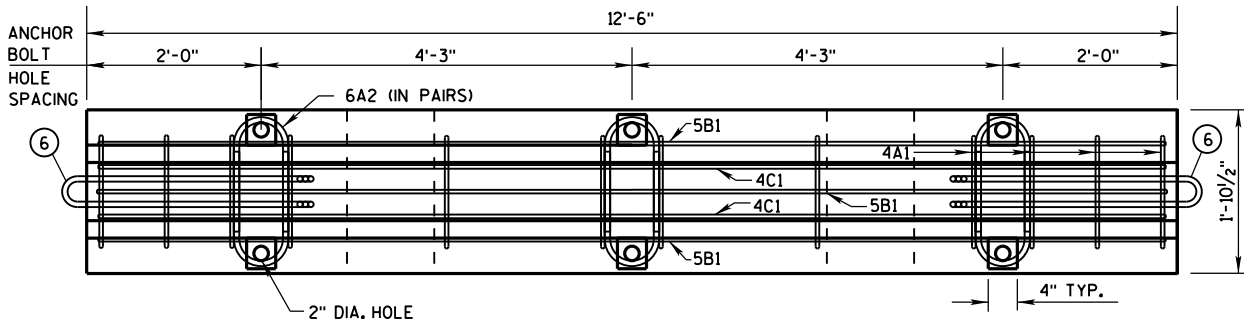
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

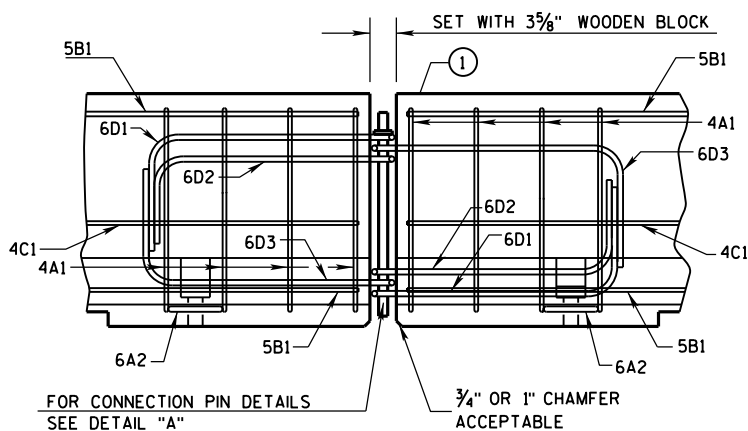


SECTION B-B
(STIRRUP PLACEMENT)

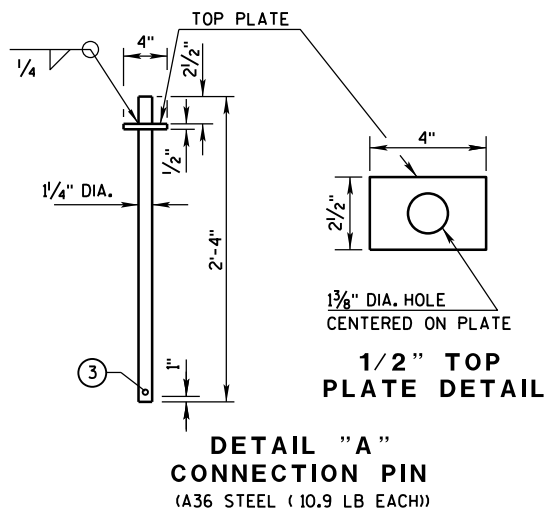


PLAN VIEW

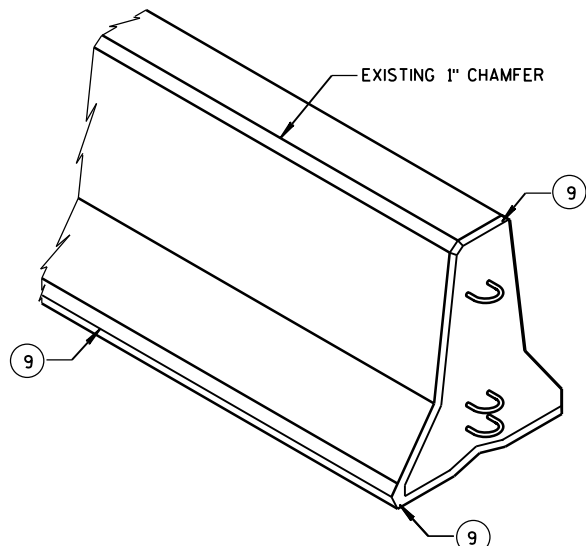
DETAILS OF BARRIER SECTION



DETAILS OF BARRIER CONNECTION



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



GENERAL NOTES

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

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

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

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

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

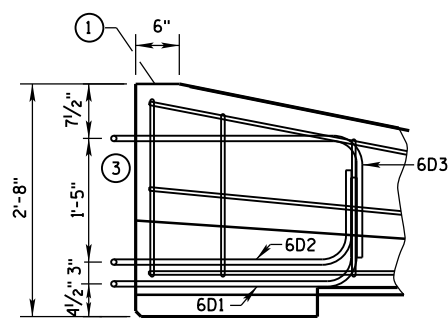
PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

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

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

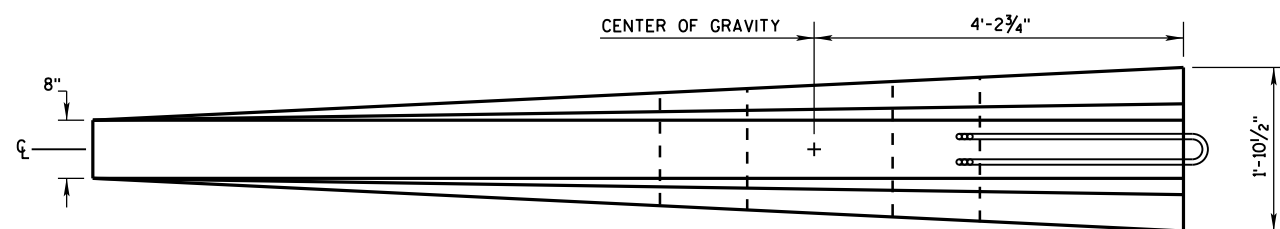
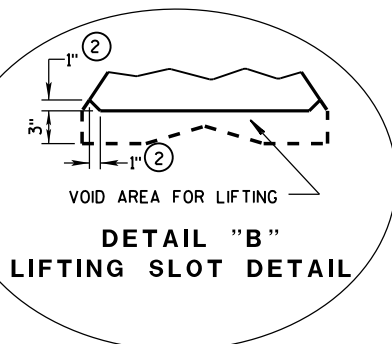
CONCRETE BARRIER
TEMPORARY PRCAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

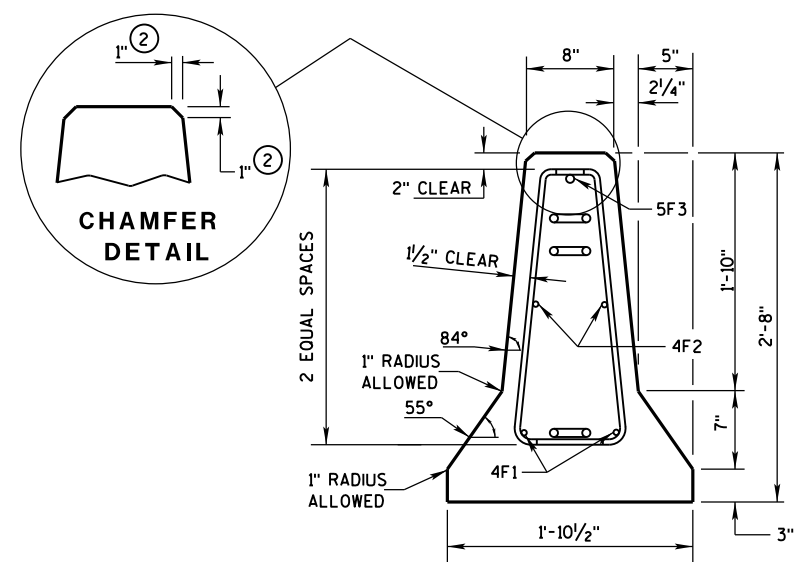


LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

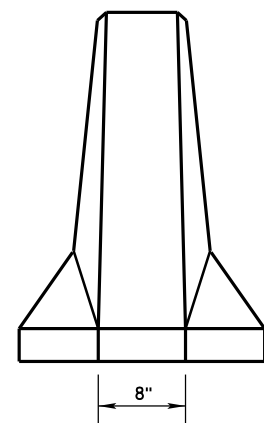
- ## GENERAL NOTES
- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - a. TYPE WICBTP
 - b. MANUFACTURER
 - c. DATE MANUFACTURED (MONTH AND YEAR)
 - ② 1" CHAMFER TO PREVENT SPALLING.
 - ③ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION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



PLAN VIEW

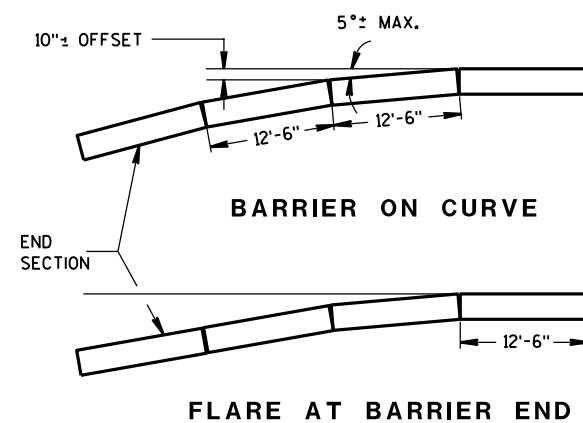


END SECTION



FRONT ELEVATION

DETAILS OF BARRIER TAPER SECTION



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

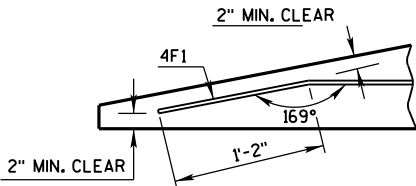
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

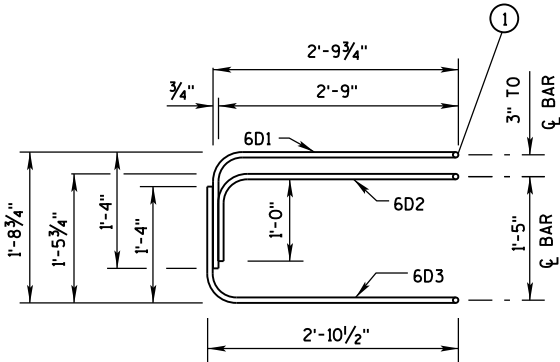
BARRIER TAPER SECTION
BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

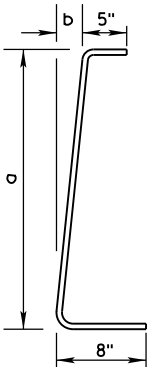
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



DETAIL "C"
BENT BAR DETAIL



ELEVATION
LOOP BAR ASSEMBLY



4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

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

TAPER BARRIER SECTION

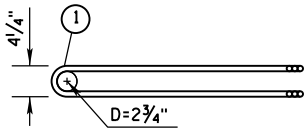
GENERAL NOTES

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

BARRIER SECTION
BILL OF MATERIALS

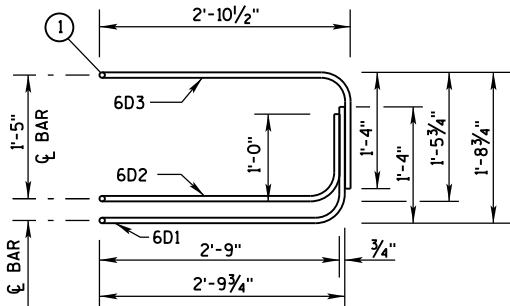
(PER 12'-6" BARRIER SECTION)

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

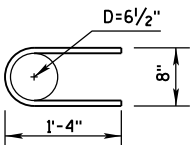


PLAN VIEW
LOOP BAR ASSEMBLY

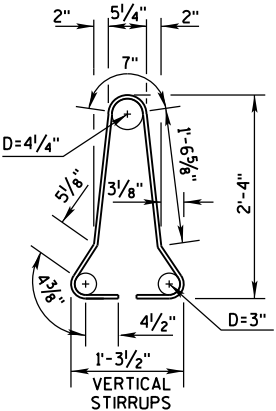
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2

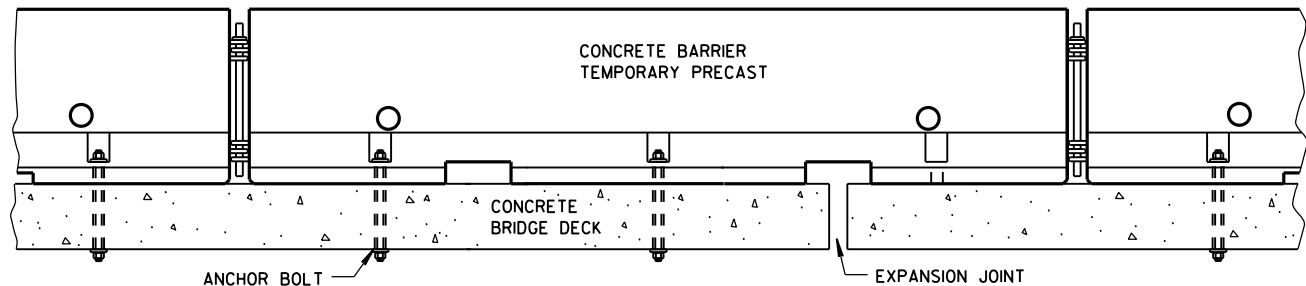
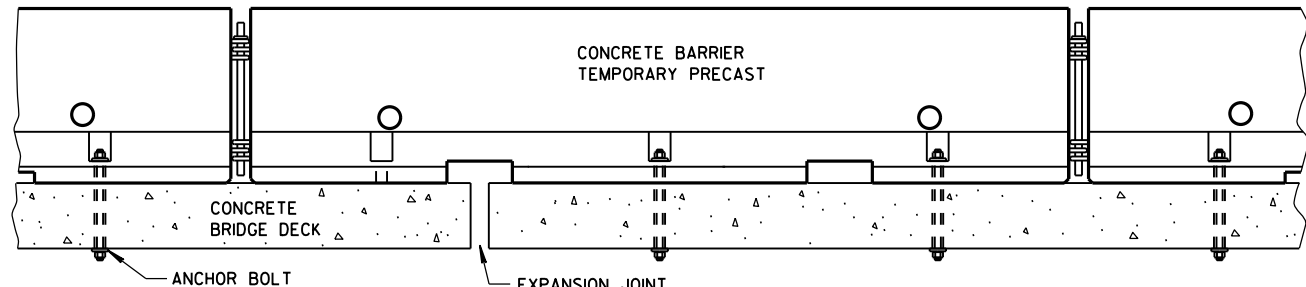


4A1

BARRIER SECTION

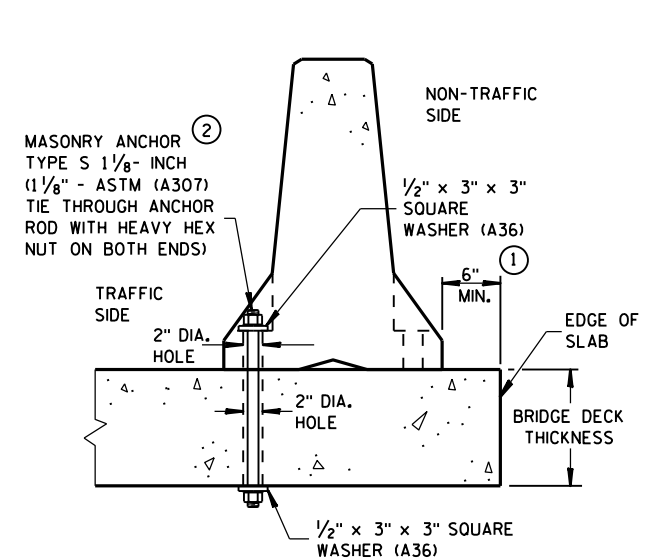
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



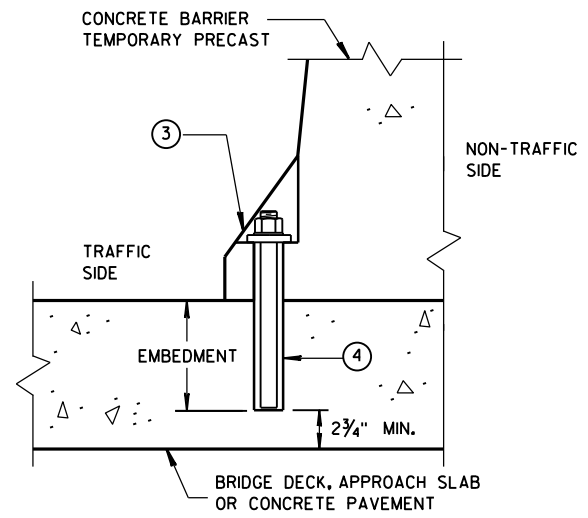
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

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



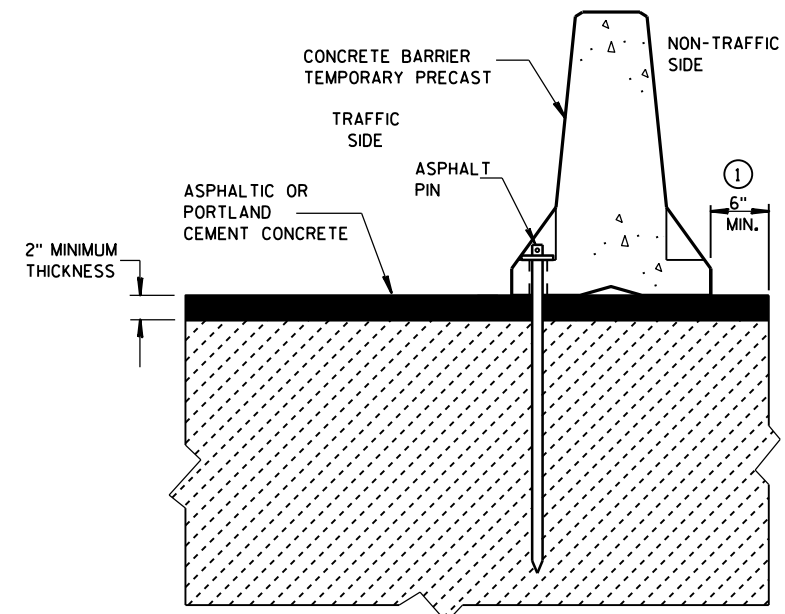
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

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



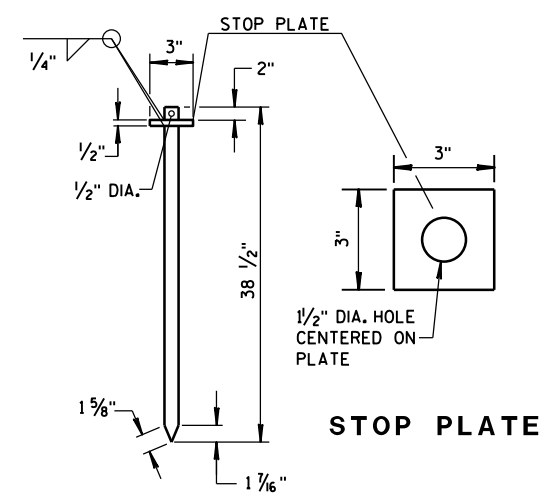
REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

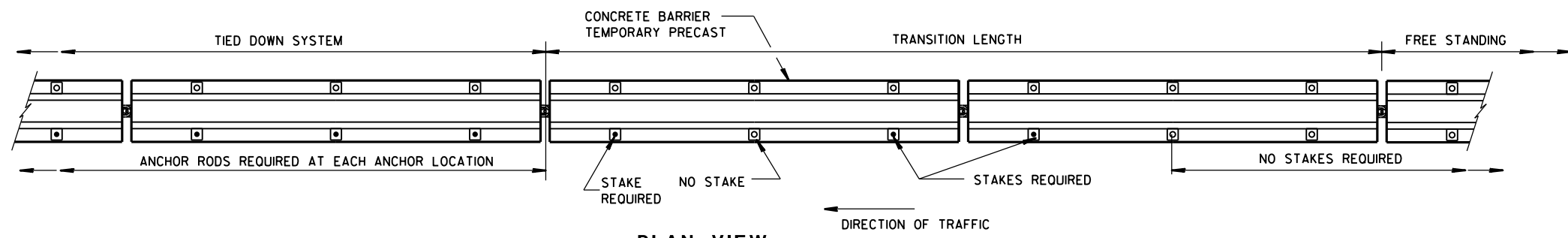


STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



ASPHALT PIN
(ASTM A36 STEEL)



PLAN VIEW FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

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

GENERAL NOTES

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

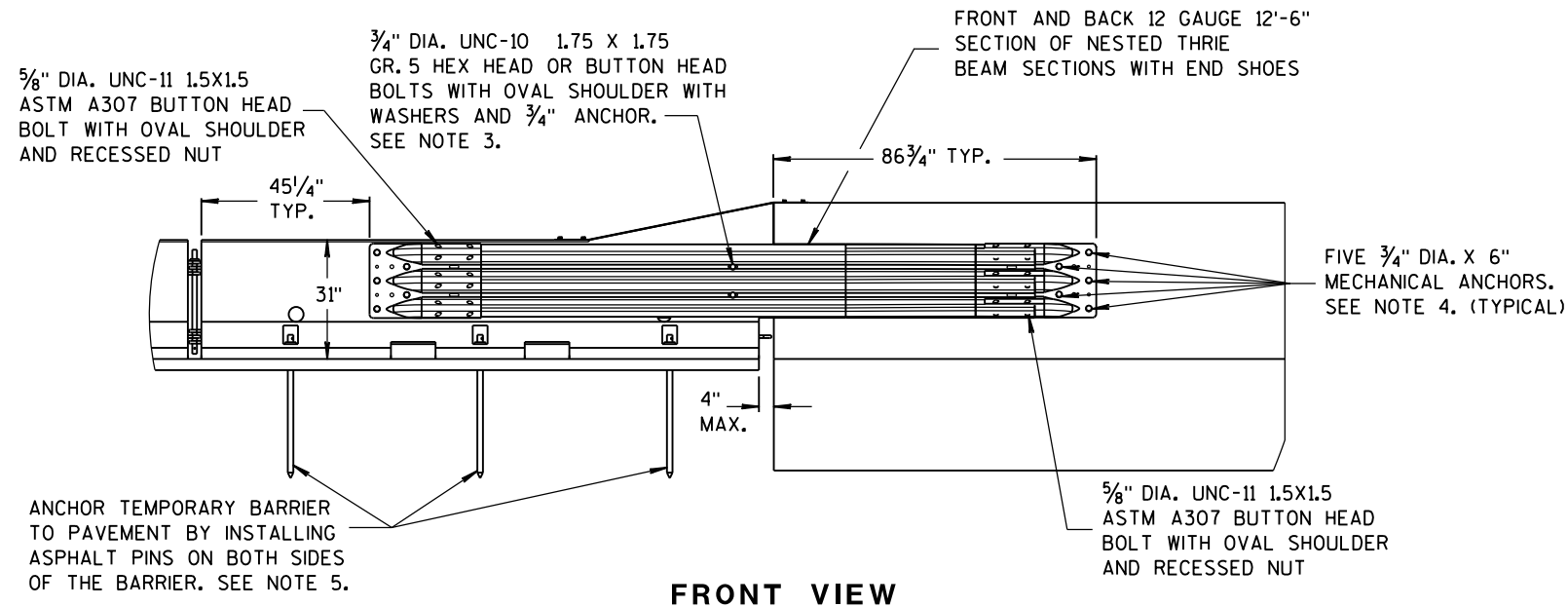
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V,
FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT,
IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF
AND THE POSTED SPEED IS 40 MPH OR LESS.
- ② ANCHORING IS INCIDENTAL TO CONCRETE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

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

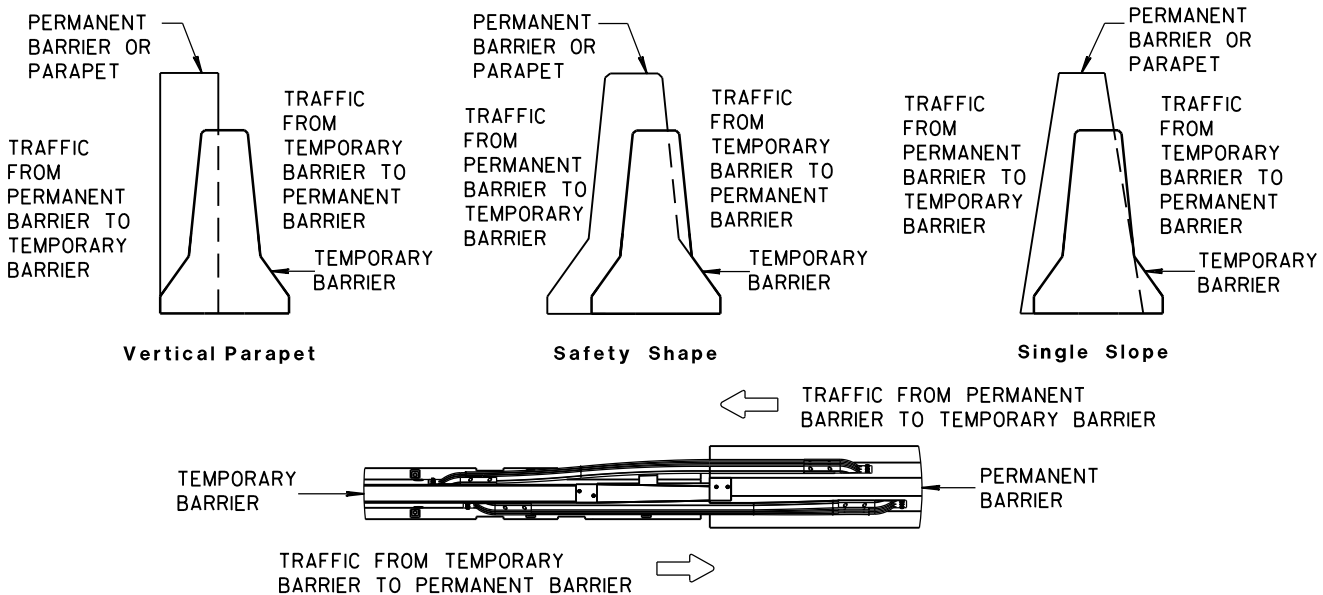
UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY
FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CON-
CRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERCIAL GROUT OR MATERIAL
IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS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

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



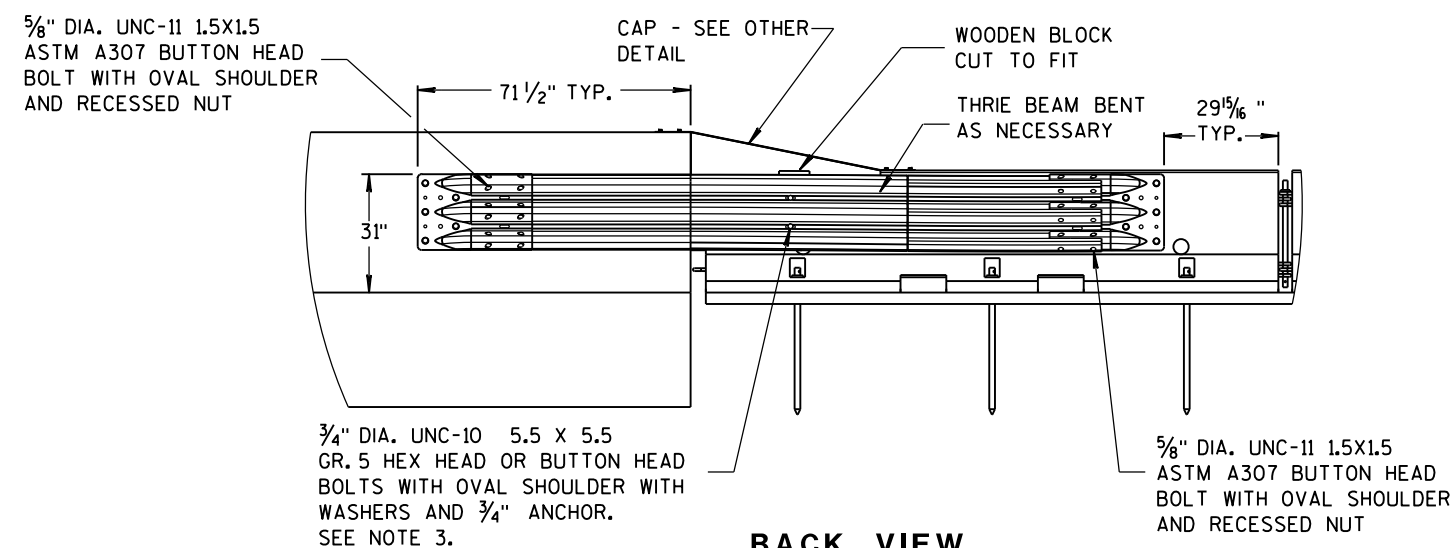
FRONT VIEW



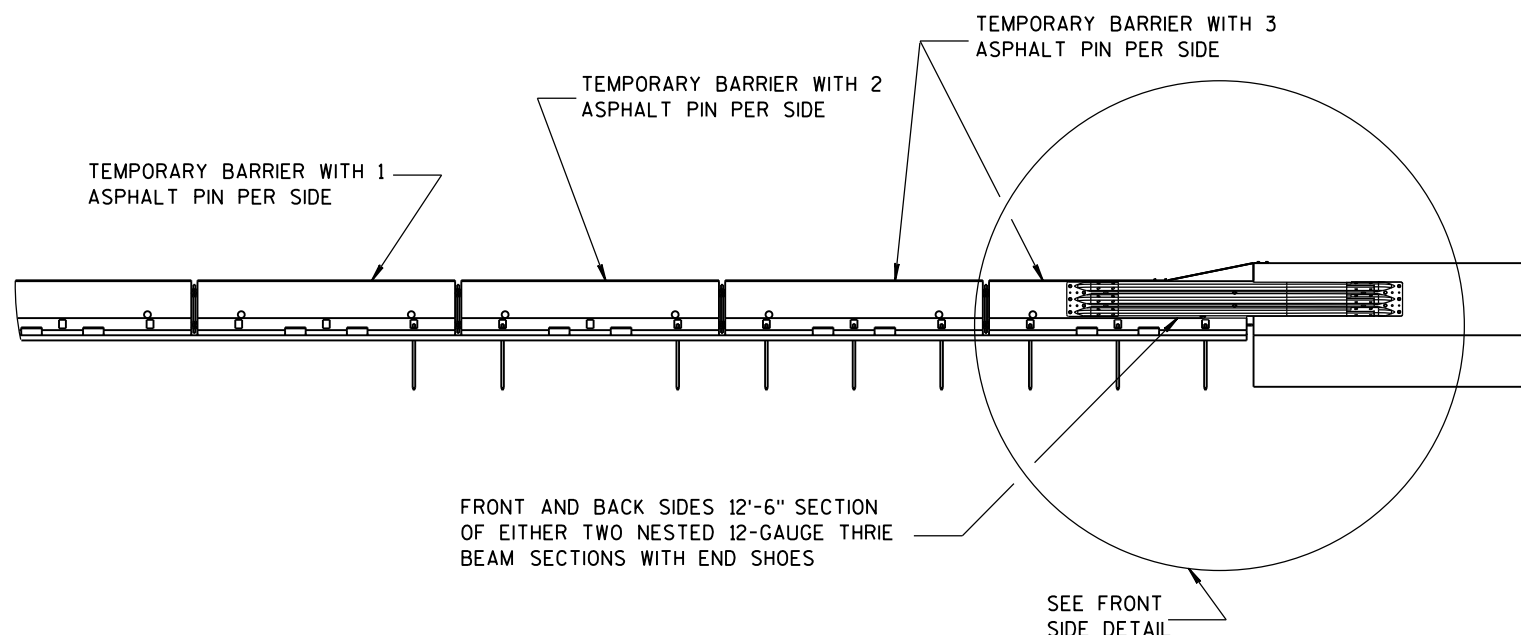
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

NOTES

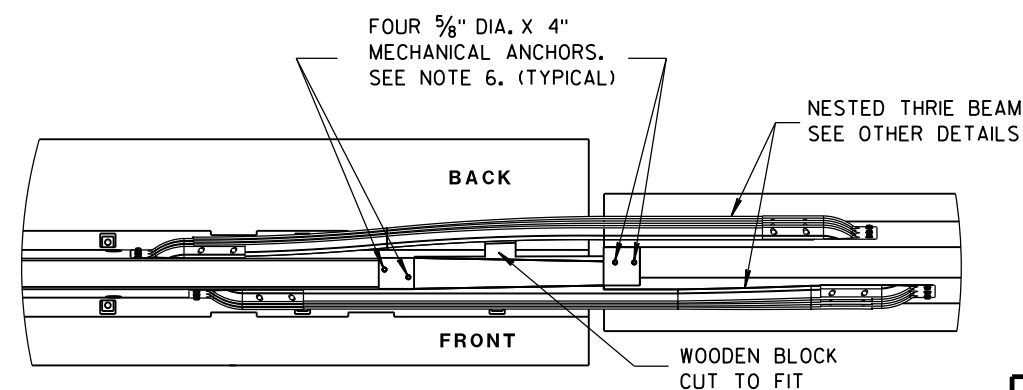
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW

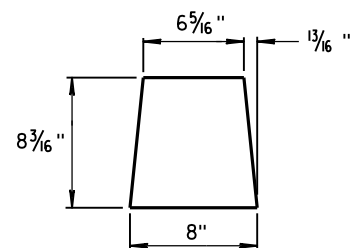


PLAN VIEW

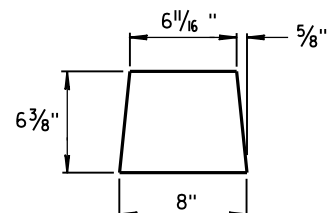
BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

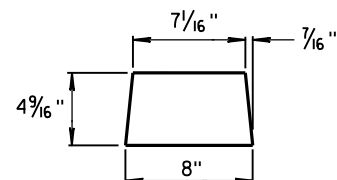
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



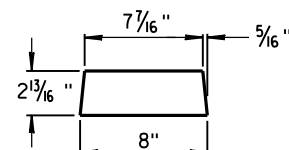
GUSSET 1



GUSSET 2

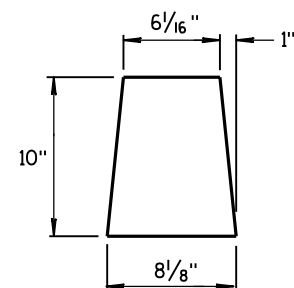


GUSSET 3

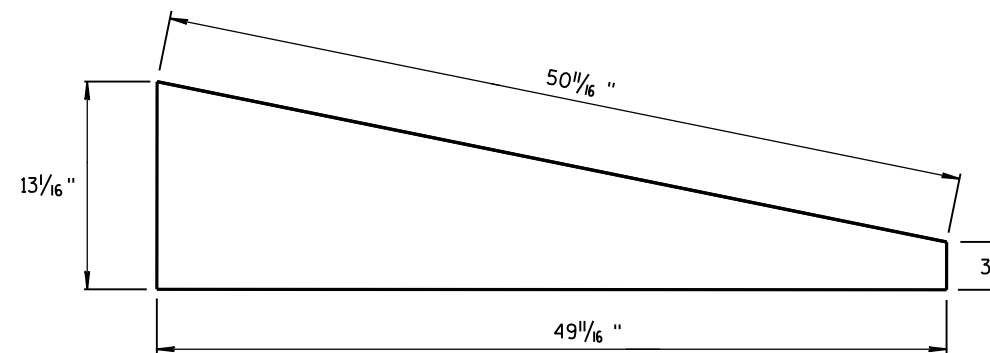


GUSSET 4

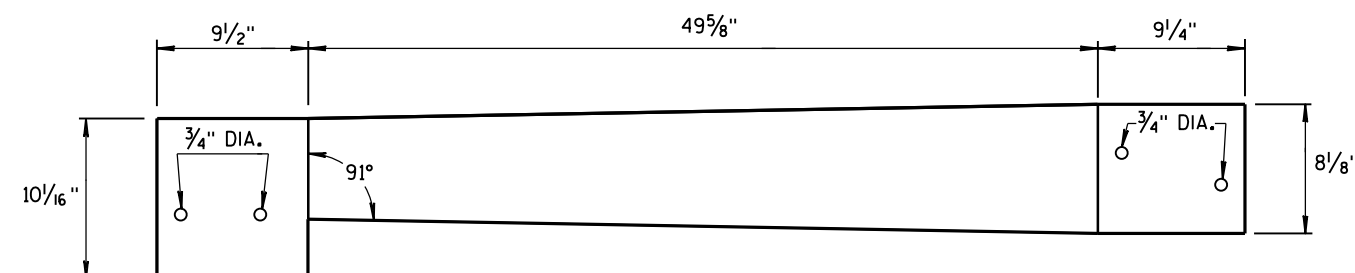
GUSSETS



END PLATE



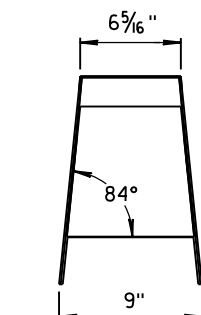
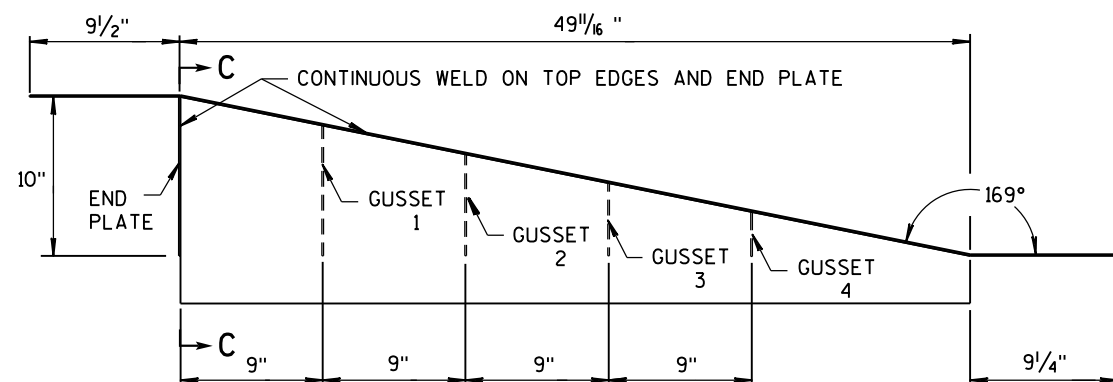
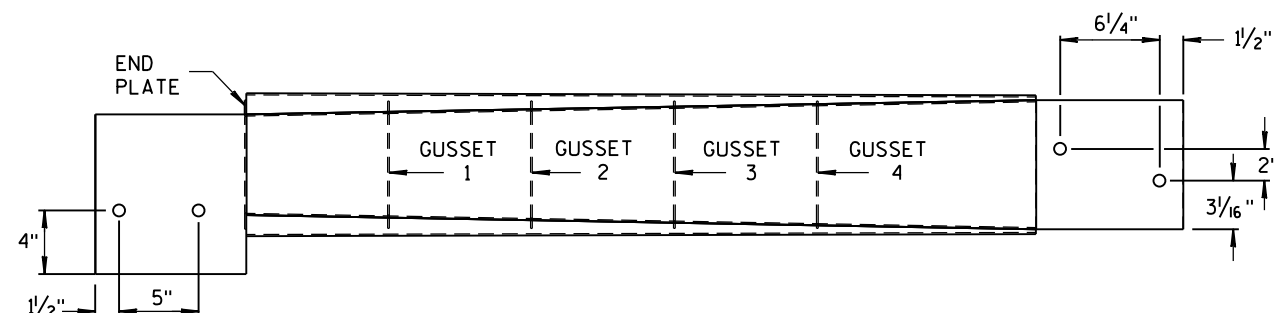
SIDE PLATE



TOP PLATE

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

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



SECTION C-C

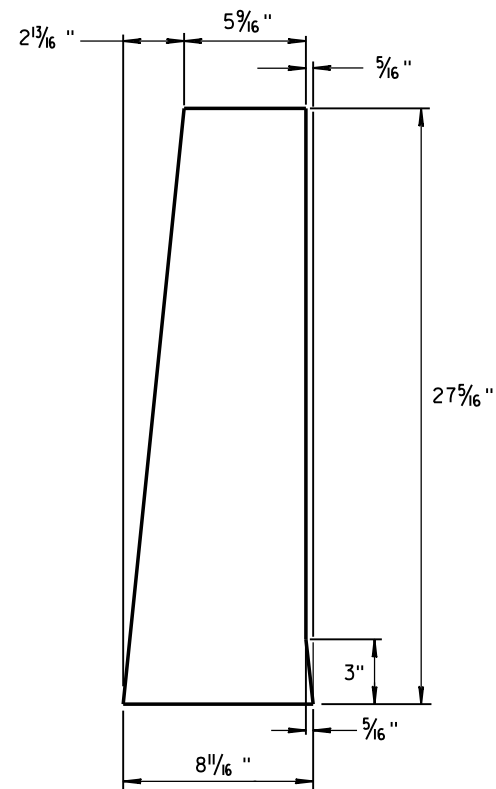
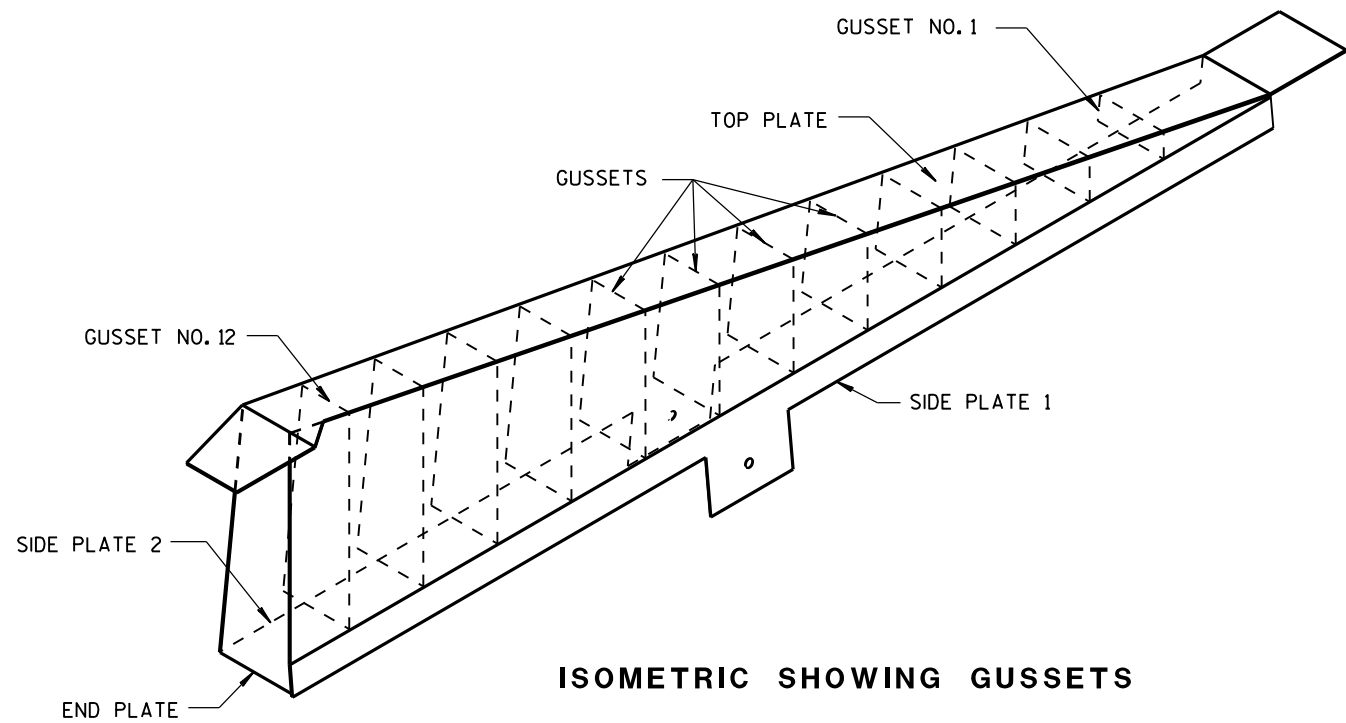
NOTES

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

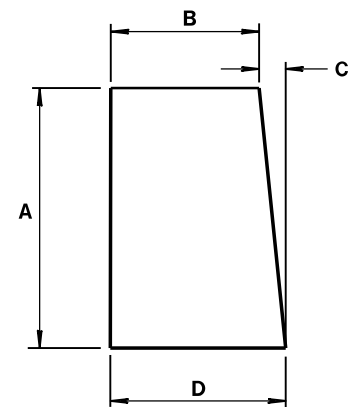
**CAP DETAILS FOR TEMPORARY CONCRETE
BARRIER TO 42" PERMANENT CONCRETE BARRIER**

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



END PLATE
1/8" STEEL PLATE

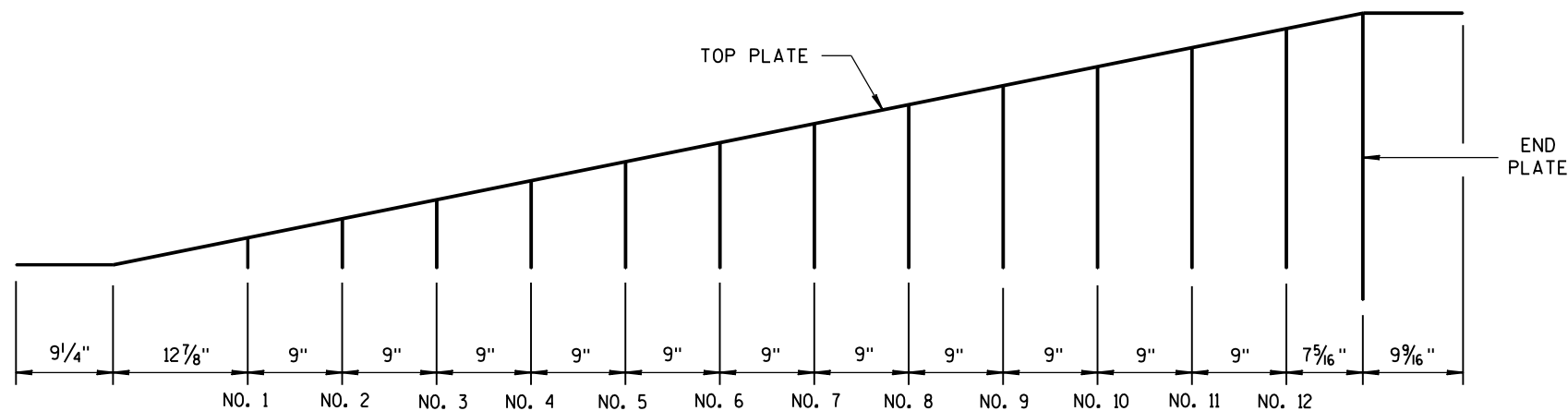


GUSSETS 1 - 12
ALL GUSSETS 1/8" STEEL PLATE

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

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

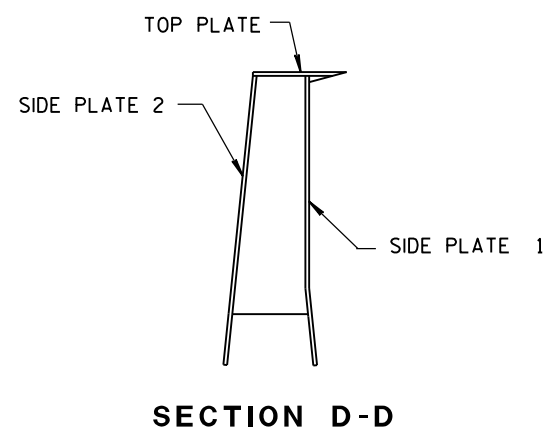
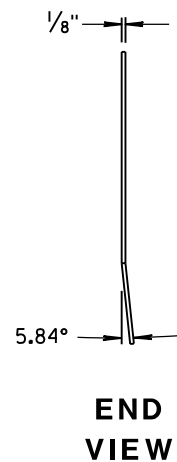
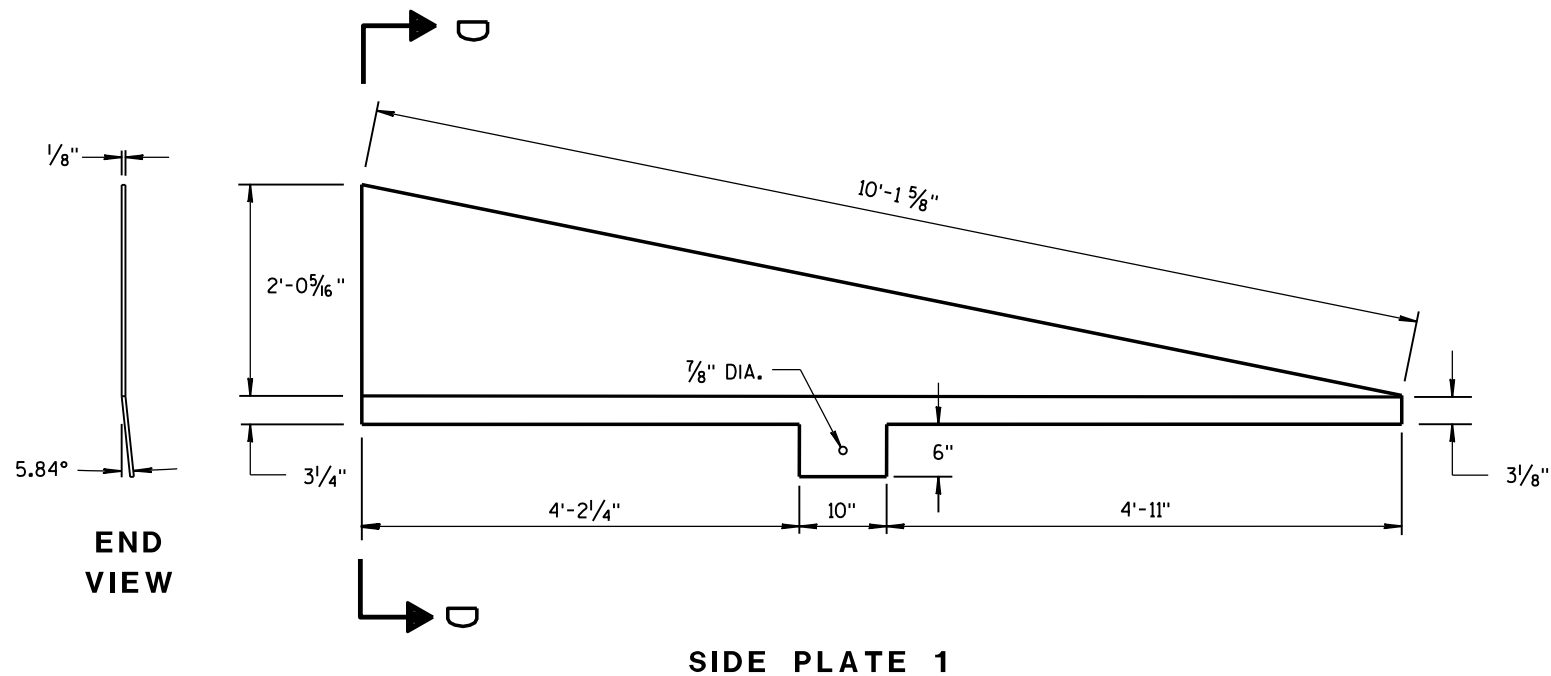
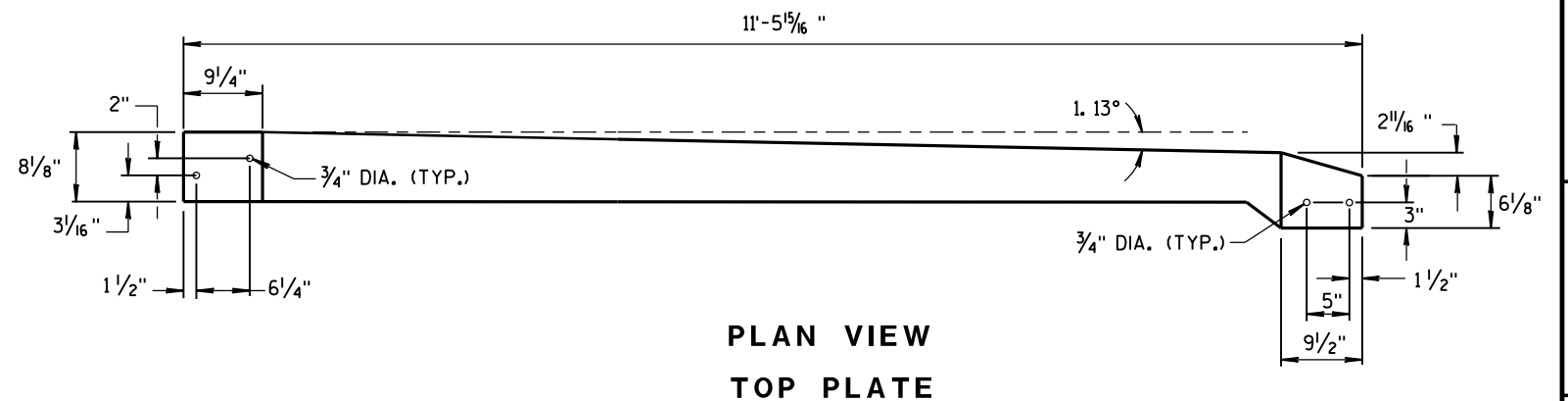
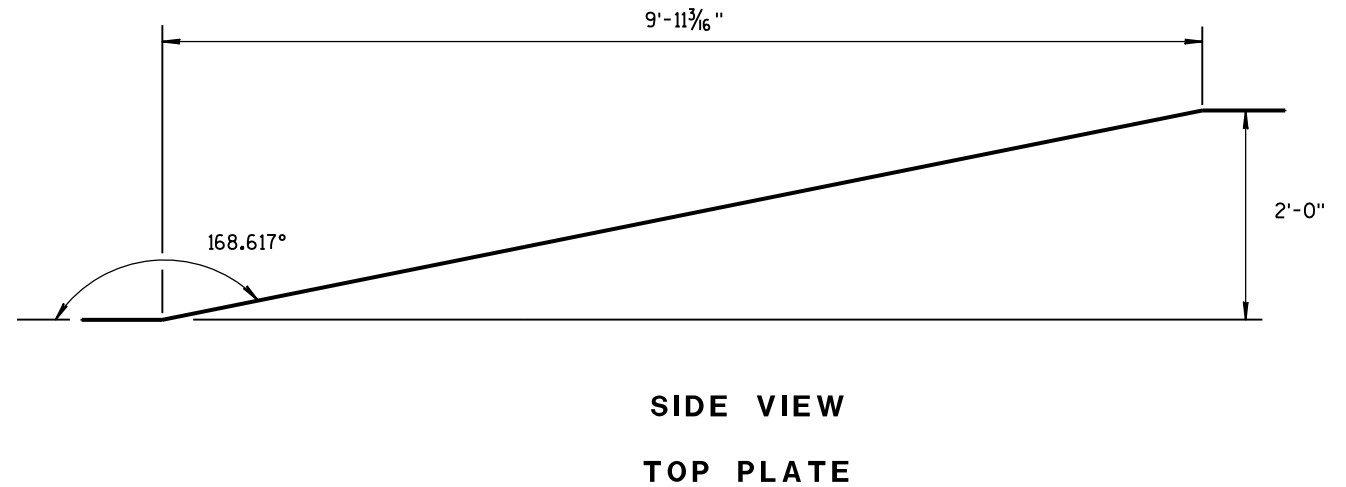
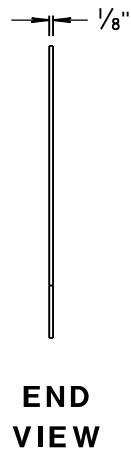
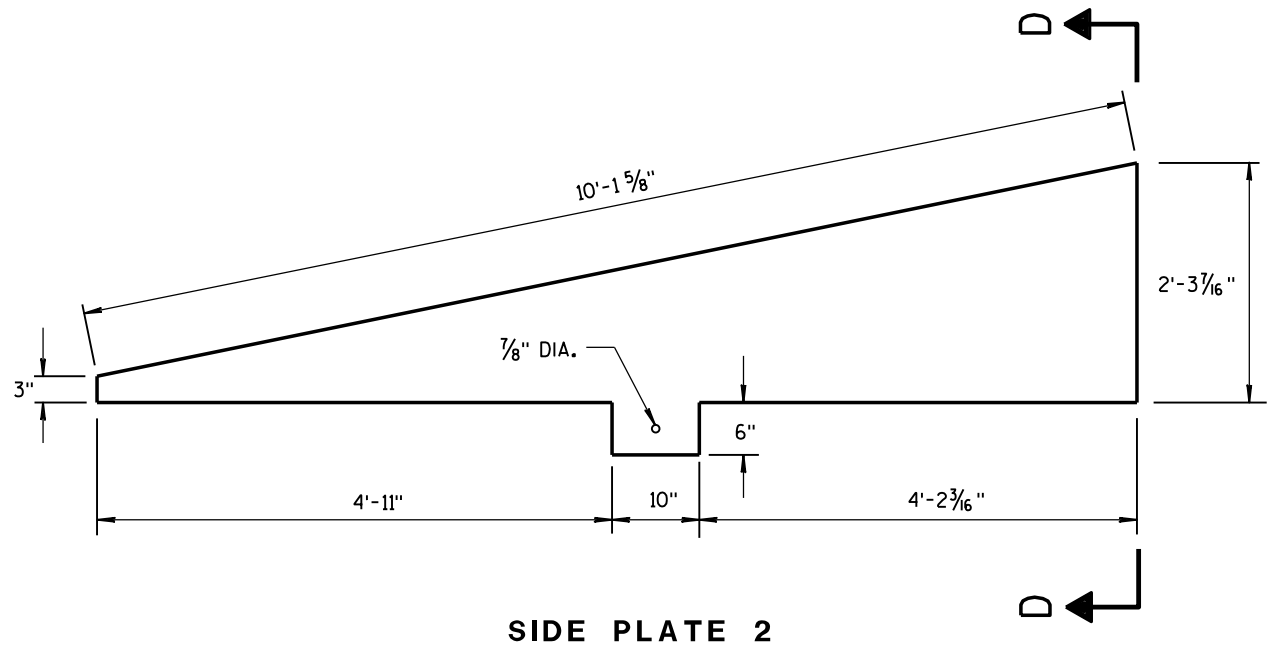
GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



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

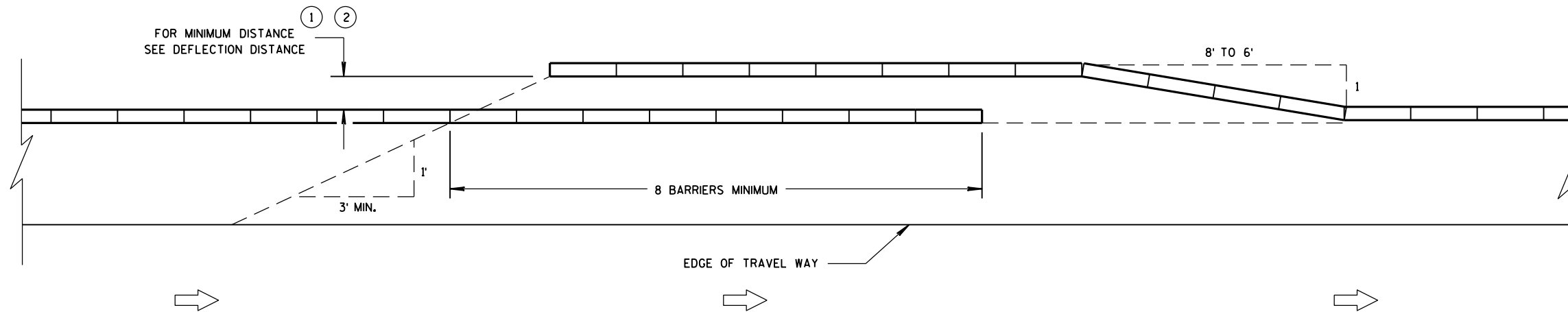
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

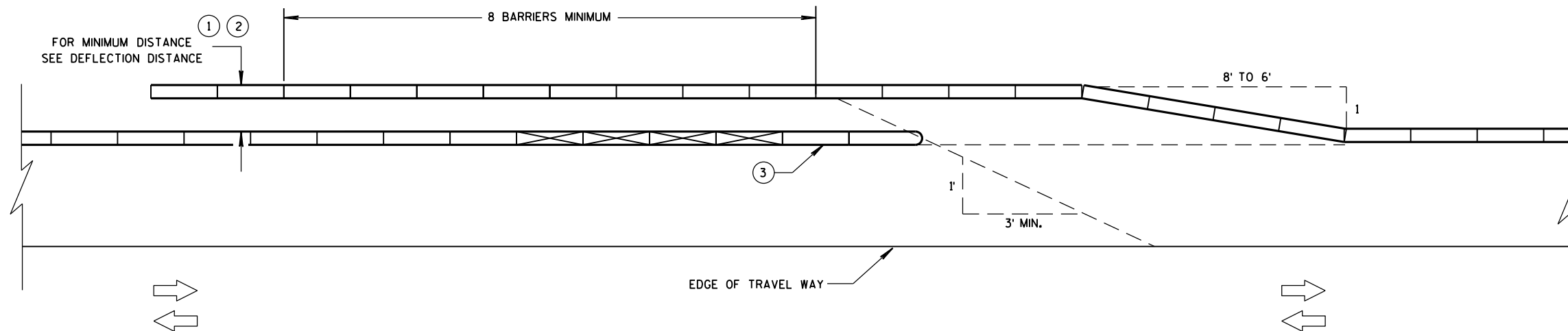


**CAP DETAILS FOR TEMPORARY CONCRETE
BARRIER TO 56" PERMANENT CONCRETE BARRIER**

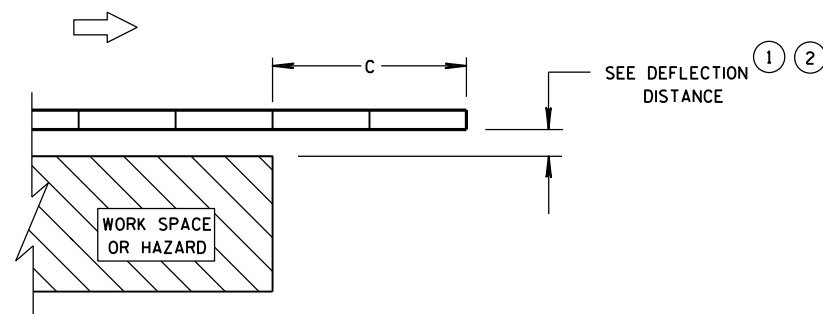
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2014 DATE	/S/ Jerry H. Zogg ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA	



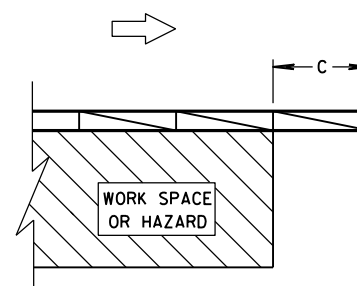
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



**ENDING TEMPORARY BARRIER
DOWNSTREAM - UNANCHORED**



**ENDING TEMPORARY BARRIER
DOWNSTREAM - ANCHORED**

LEGEND

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

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

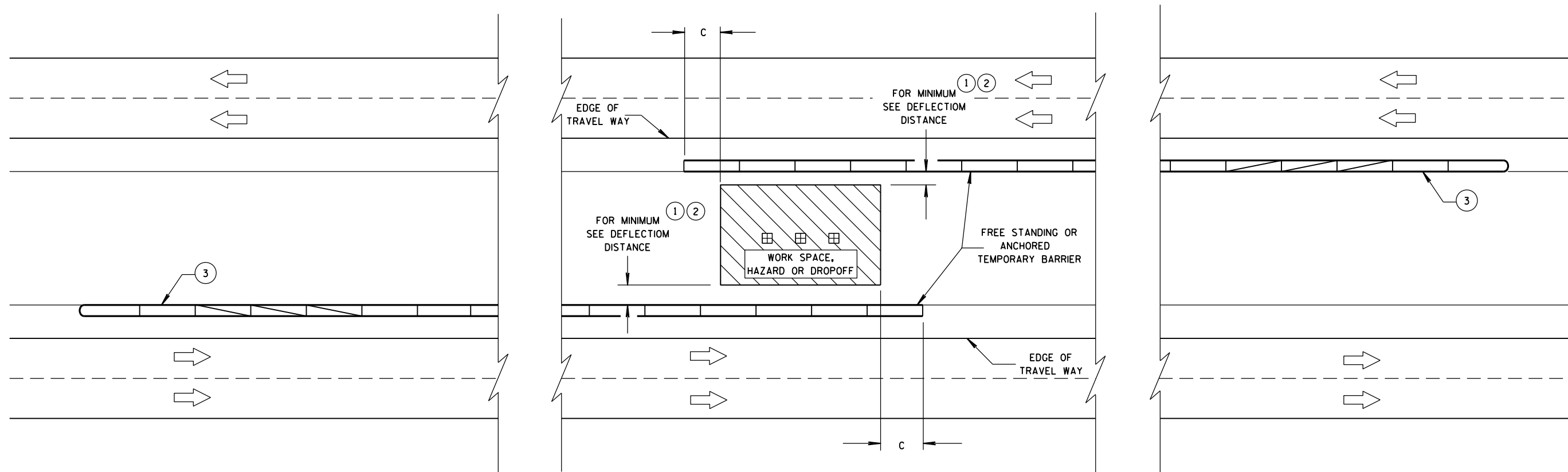
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

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

DIMENSION C TABLE ²

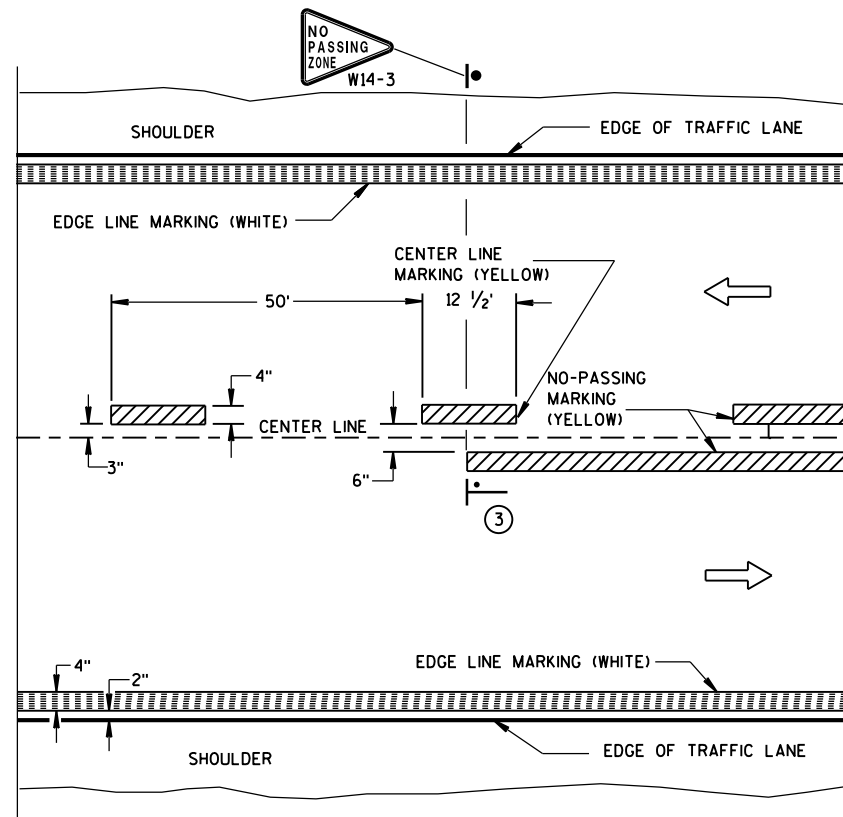
AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



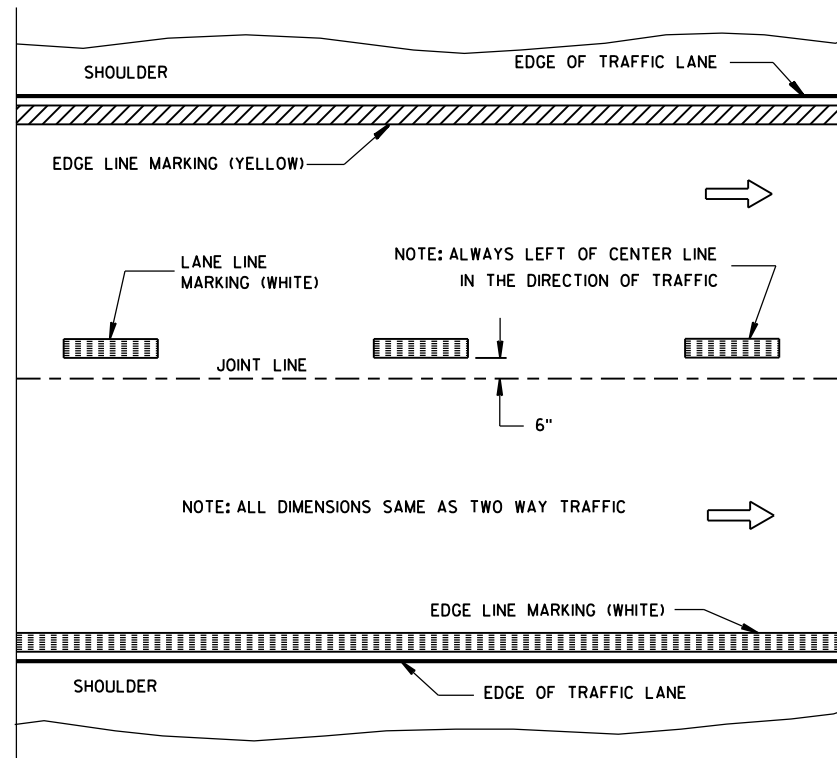
CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA ENGINEER

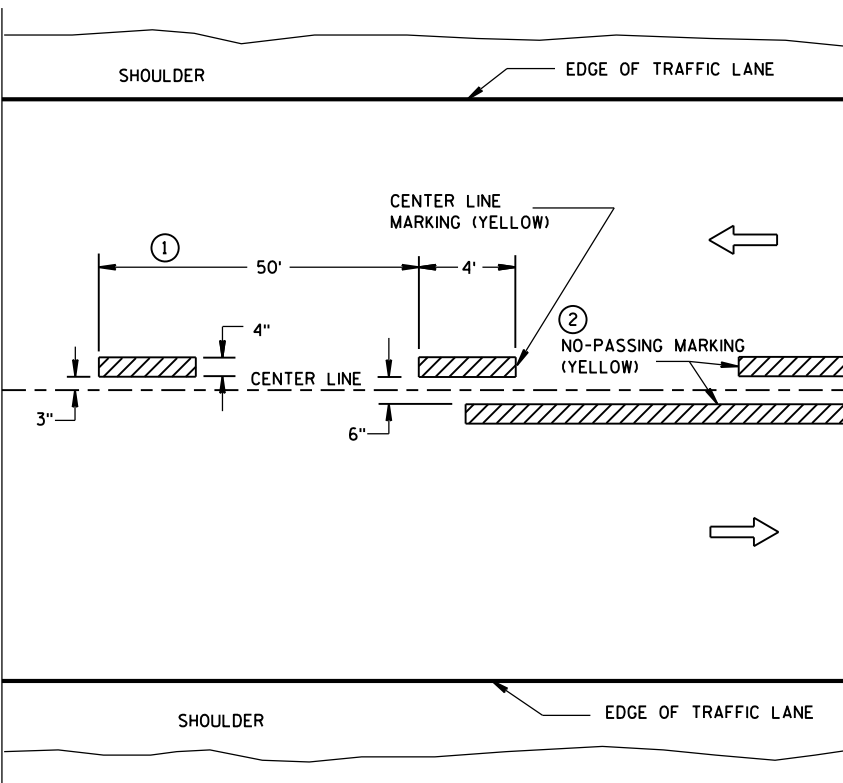


TWO WAY TRAFFIC

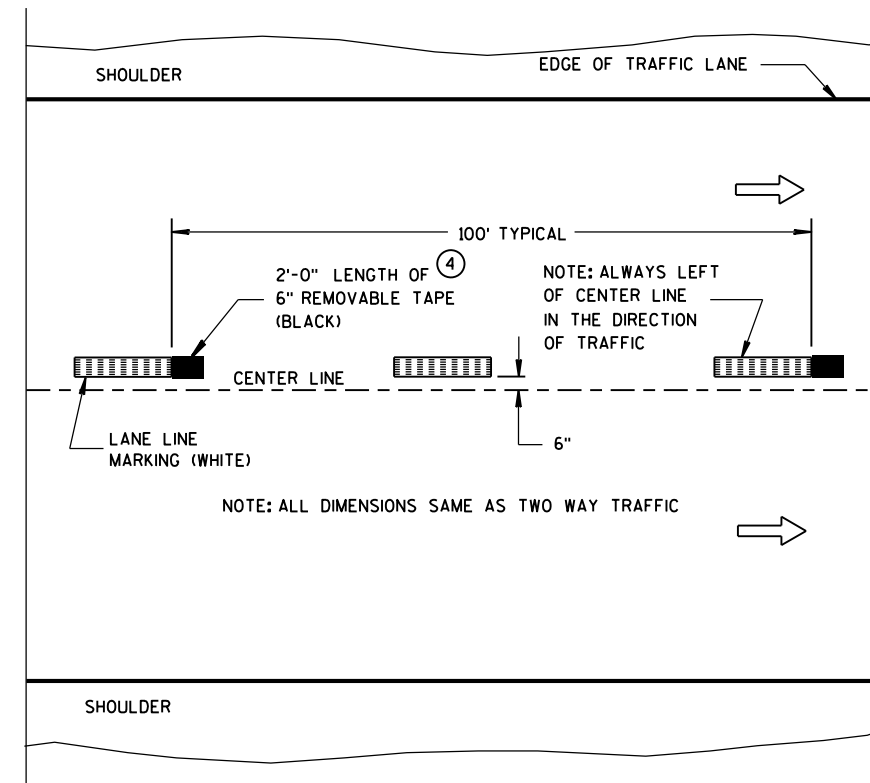


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

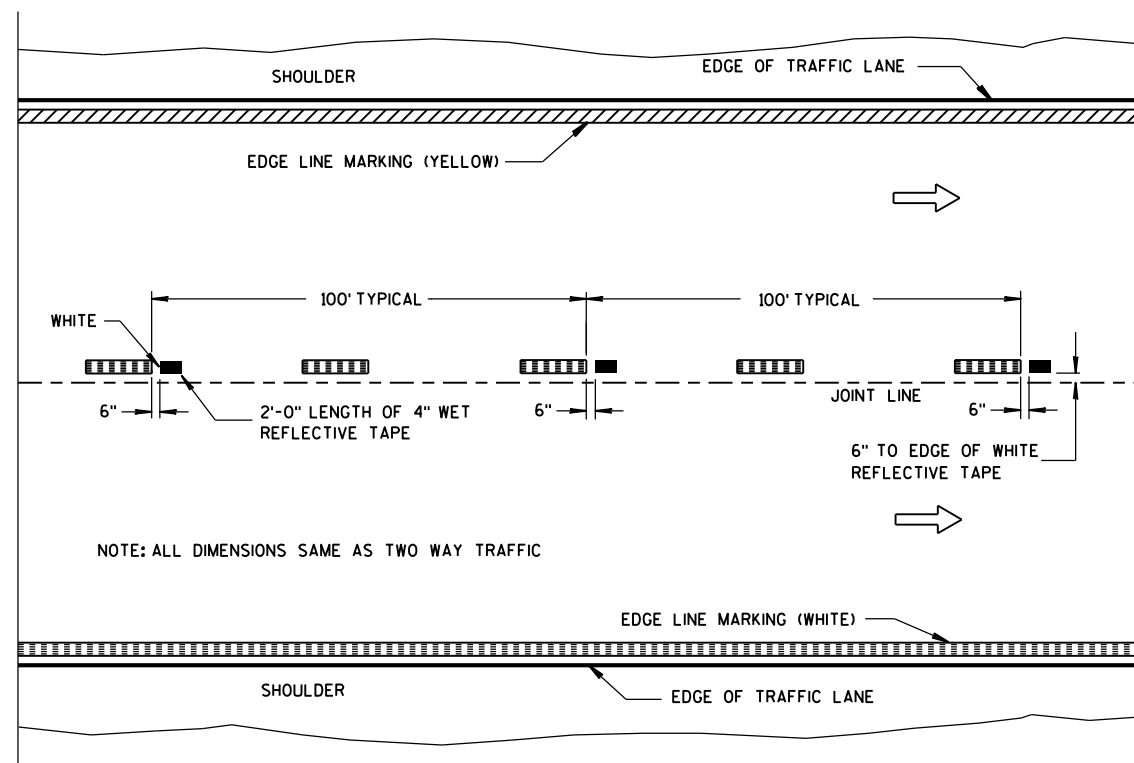
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



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

LEGEND

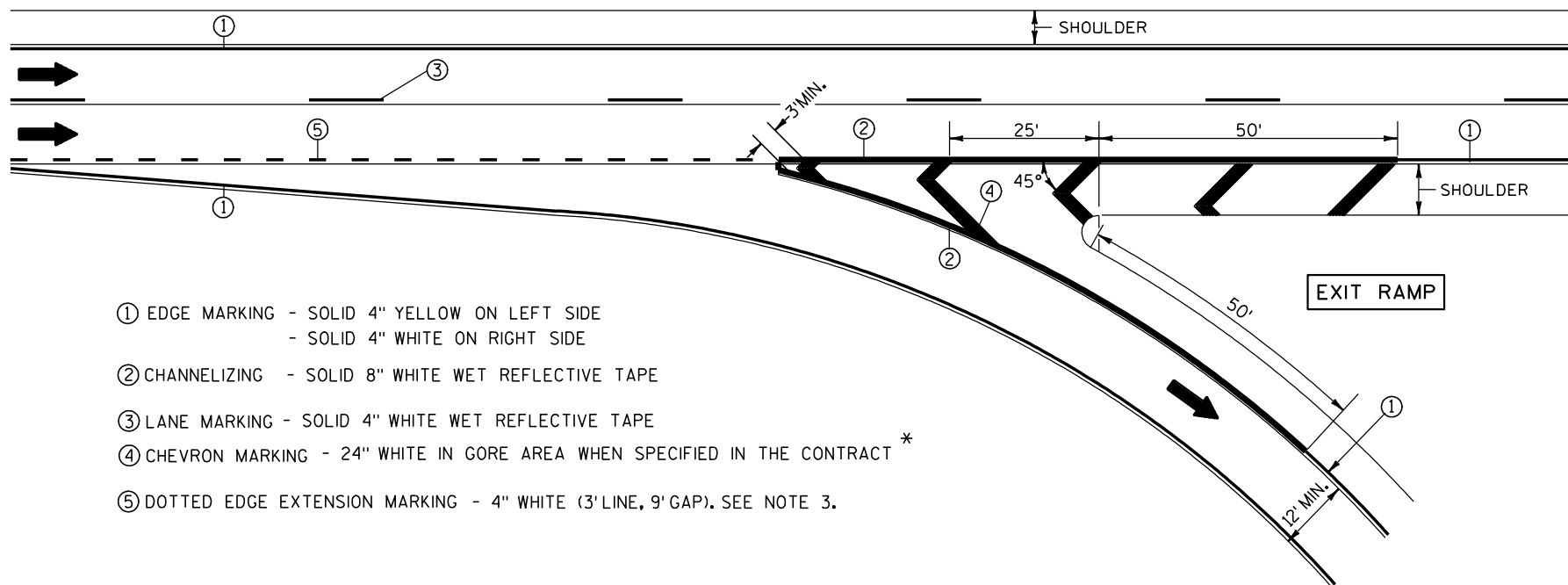
- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013
DATE
FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

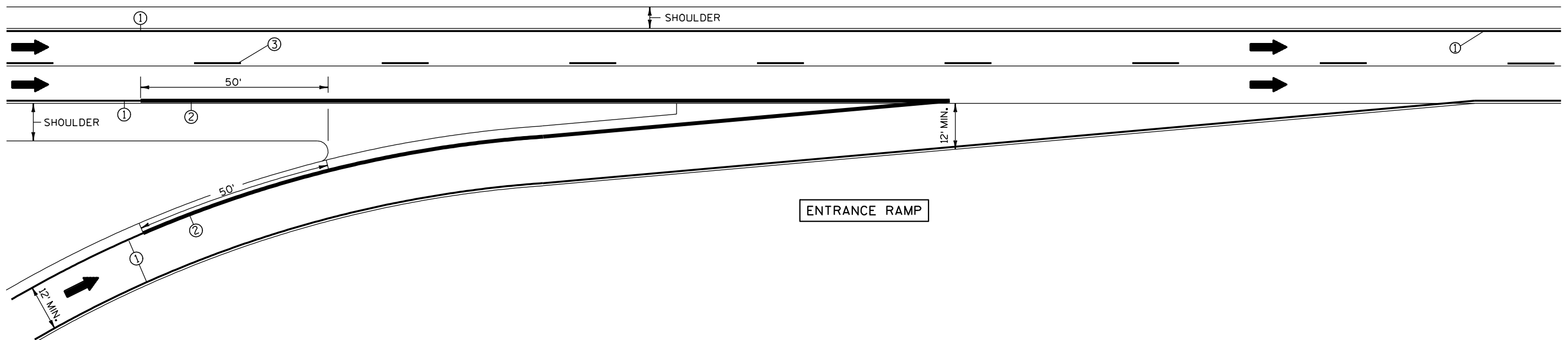


- ① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE
- ② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE
- ③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE
- ④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *
- ⑤ DOTTED EDGE EXTENSION MARKING -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

NOTES:

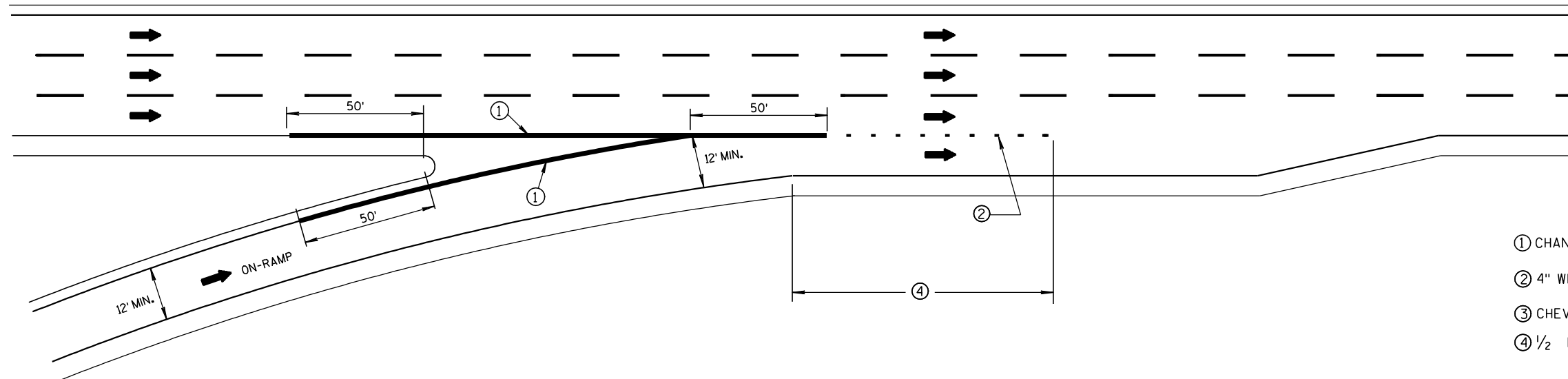
- 1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
- 2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.
- 3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- 4. RETRACE EXISTING DIAGONAL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

* REFER TO DESIGN NOTES.



PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

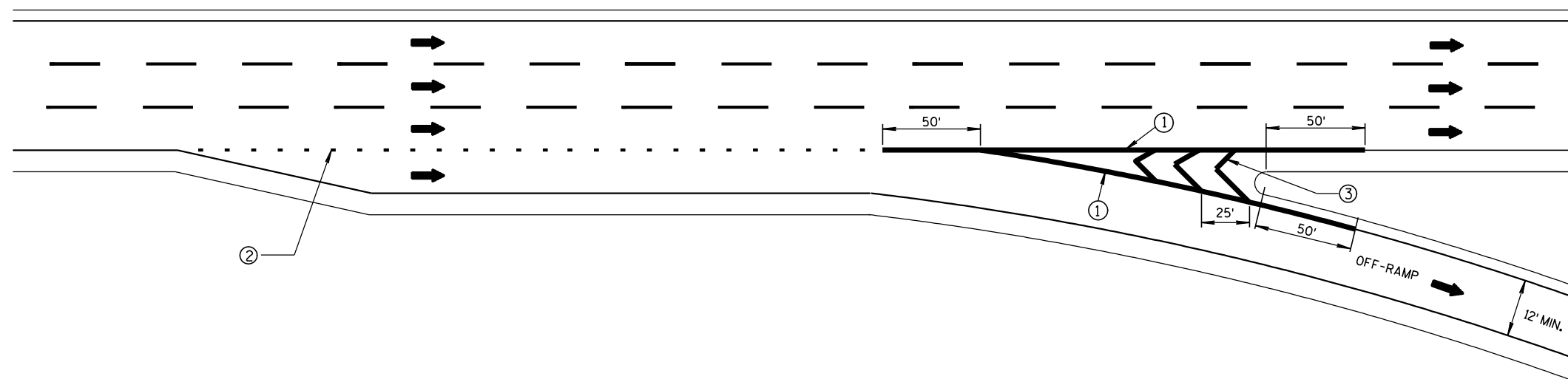
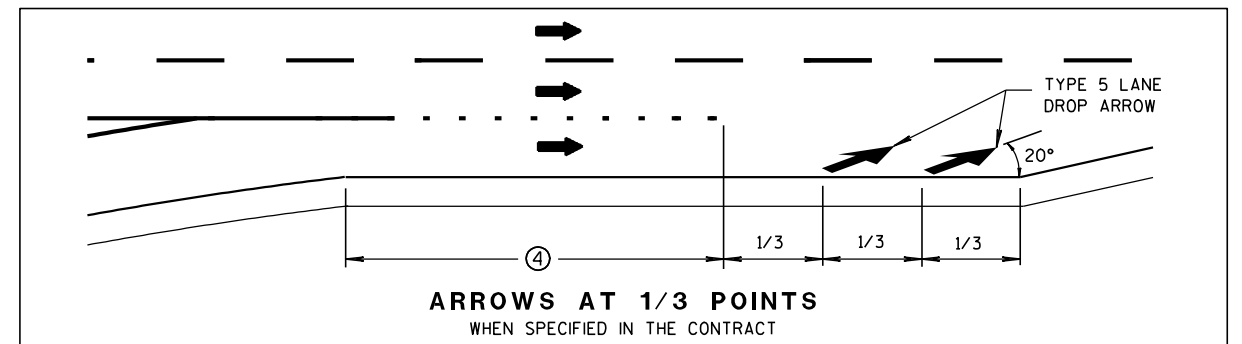


SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE-RAMP

NOTES:

1. AHEAD ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.
3. RETRACE EXISTING DIAGONAL MARKINGS.

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



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT-RAMP

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

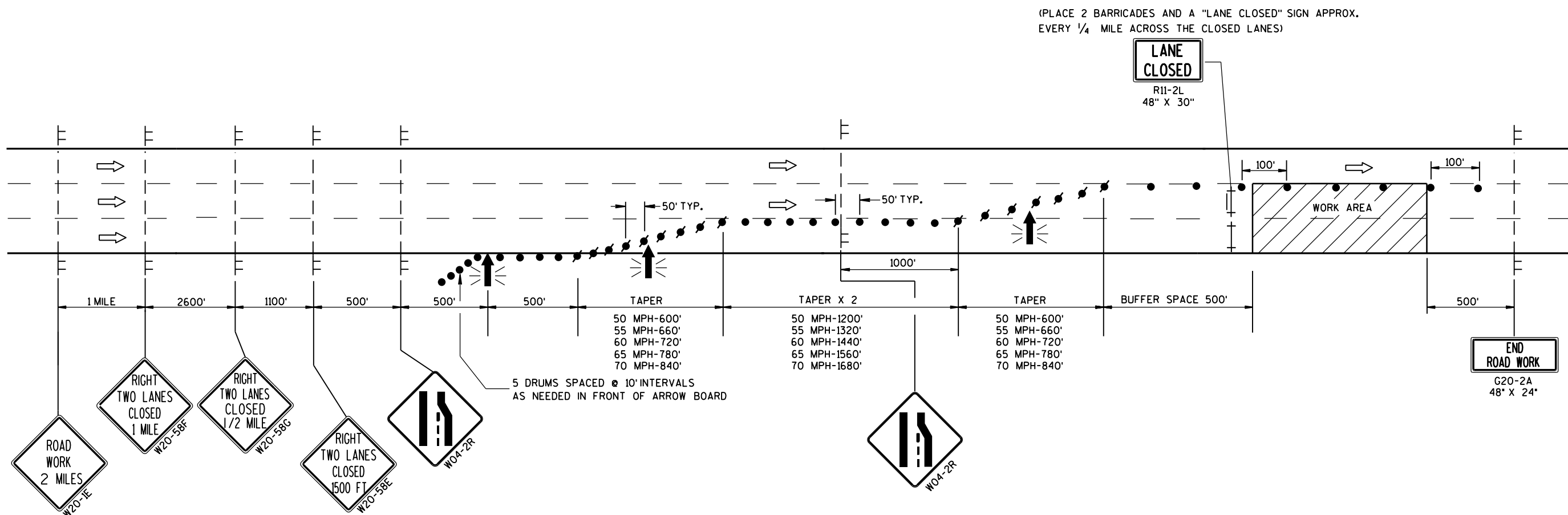
APPROVED

6/23/2011

DATE

FHWA

/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

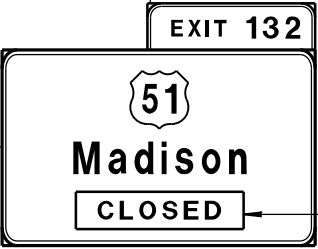
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL. TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY. SHORT TERM (LESS THAN 24 HOURS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED July 14, 2015 DATE	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



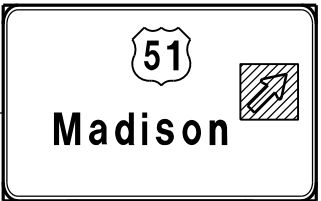
G20-60
108"x24"

OR



G20-60
108"x24"

PLACE SIGN G20-60 OVER MILEAGE
ON EXISTING E1-1A SIGN



COVER ARROW ON
EXISTING E4-1A
SIGN (COVERING
SIGNS TYPE I)

G20-61
120"x30"

GENERAL NOTES

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

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

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

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

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

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

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

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

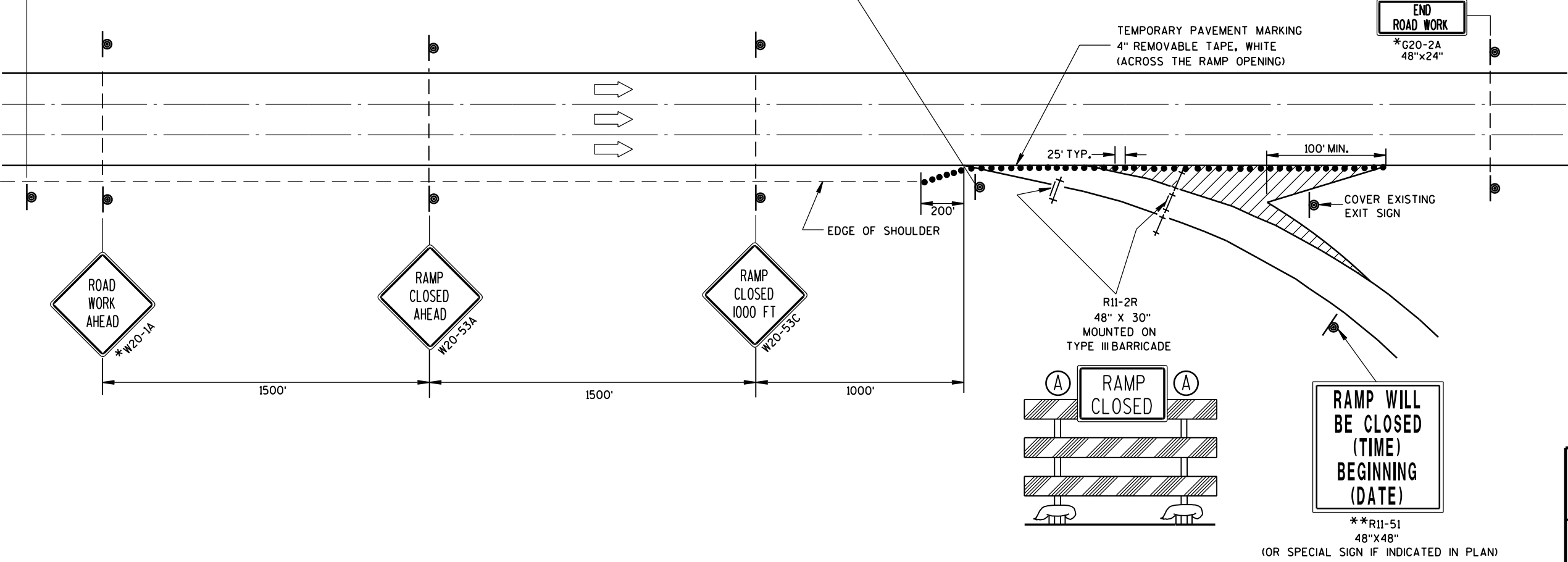
WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

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

** PLACE "RAMP WILL BE CLOSED" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.

6

6



LEGEND

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

TRAFFIC CONTROL,
EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER

S.D.D. 15 D 16-3

S.D.D. 15 D 16-3

TRAFFIC DATA

6TH STREET

A.D.T. = 11,600 (2035)
R.D.S. = 30 MPH

IH 94

A.D.T. = 156,900 (2035)
R.D.S. = 60 MPH

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION

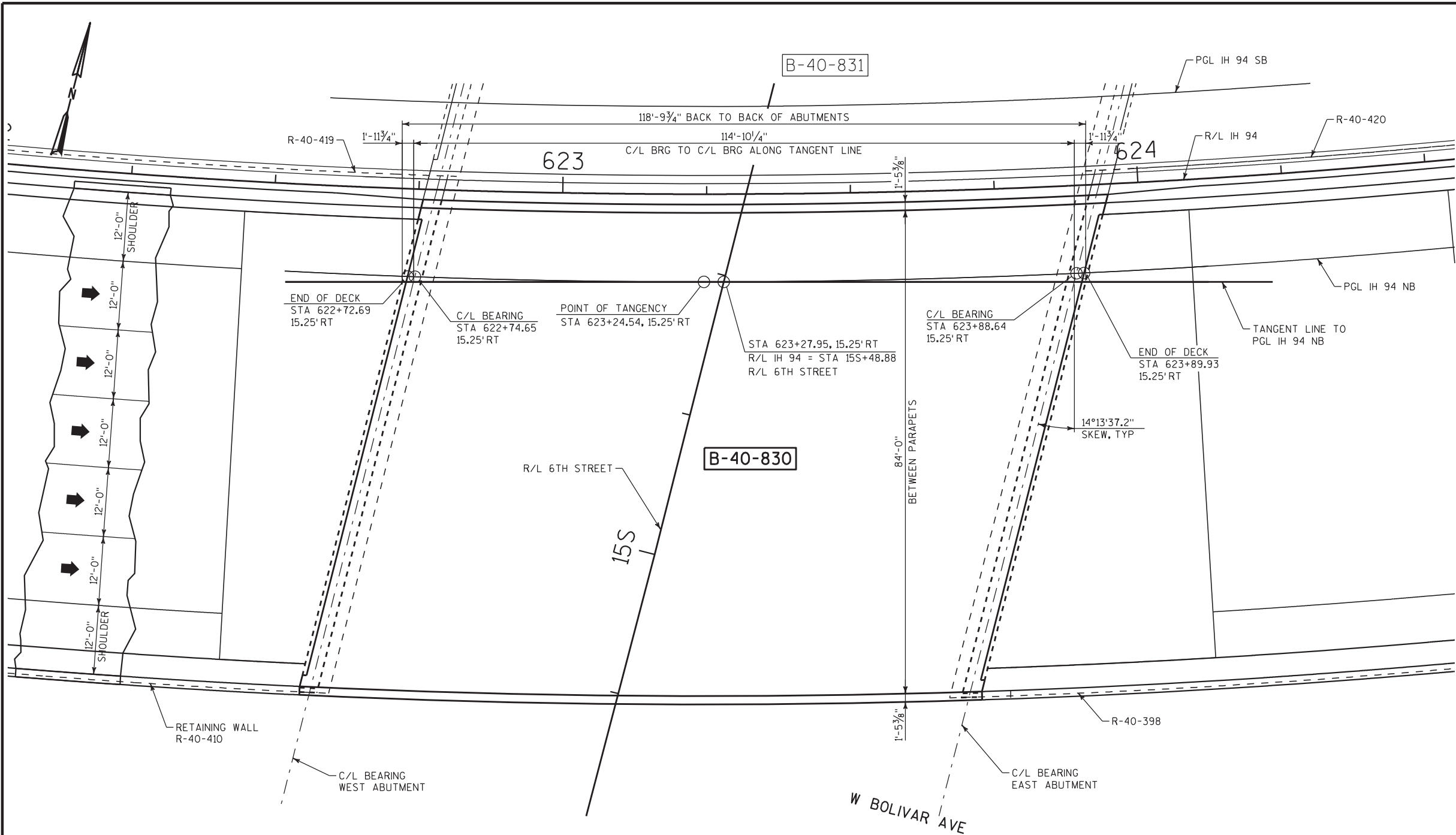
DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.00
OPERATING RATING FACTOR: RF = 1.55
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
KARL SCHMID (414) 272-2426

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
ch2m MILWAUKEE, WISCONSIN			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	William C. Dreher CHIEF STRUCTURES DESIGN ENGINEER		DATE 6/8/16
STRUCTURE B-40-830			
IH 43 NB/IH 94 WB OVER 6TH STREET			
COUNTY	MILWAUKEE	TOWN/CITY/VILLAGE	MILWAUKEE
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	SGM	DESIGN CK'D.	BKS
DRAWN BY	TEK	PLANS CK'D.	KES
GENERAL PLAN			SHEET 1 OF 2



PLAN

(SINGLE SPAN - 54W" PRESTRESSED CONCRETE GIRDER)

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNITS	TOTAL
509.5100.S	POLYMER OVERLAY	SY	1,100

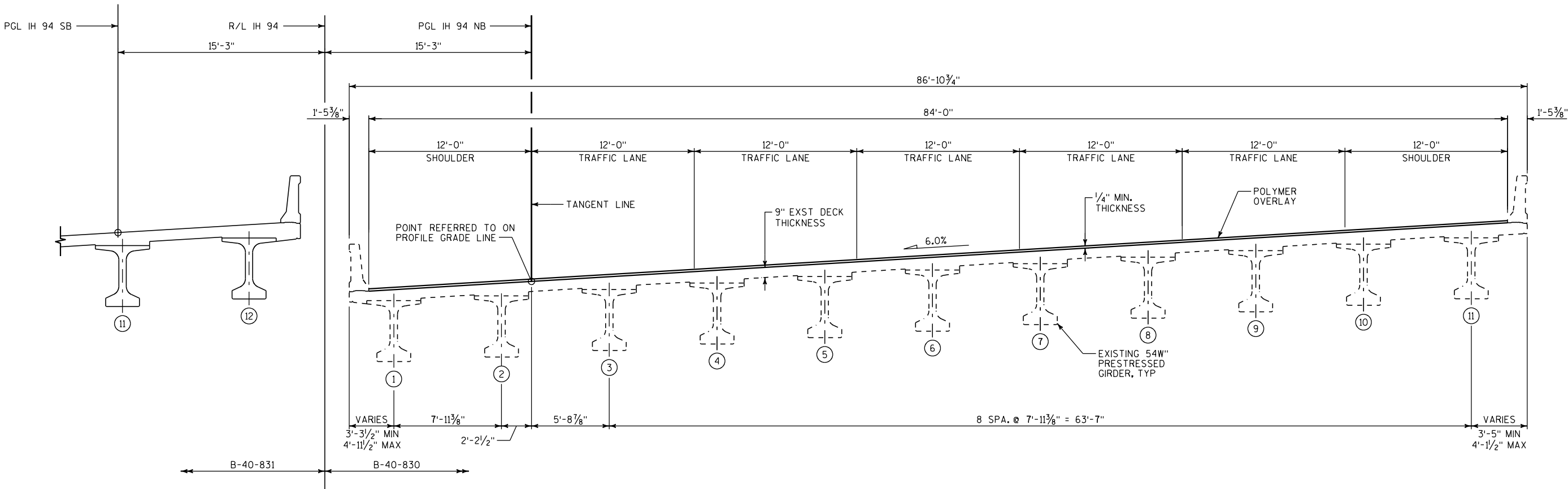
ALL ITEMS ARE CATEGORY 20

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.
ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.
ALL STATIONS AND ELEVATIONS ARE IN FEET.
DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".
FOR LANE CLOSURES FOR POLYMER OVERLAY APPLICATION, SEE ROADWAY PLANS.



6/1/2016



TYPICAL SECTION THRU IH 94 NB
(LOOKING NORTH)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-40-830			
DRAWN BY		TEK	PLANS CK'D. KES
TYPICAL SECTION		SHEET 2 OF 2	

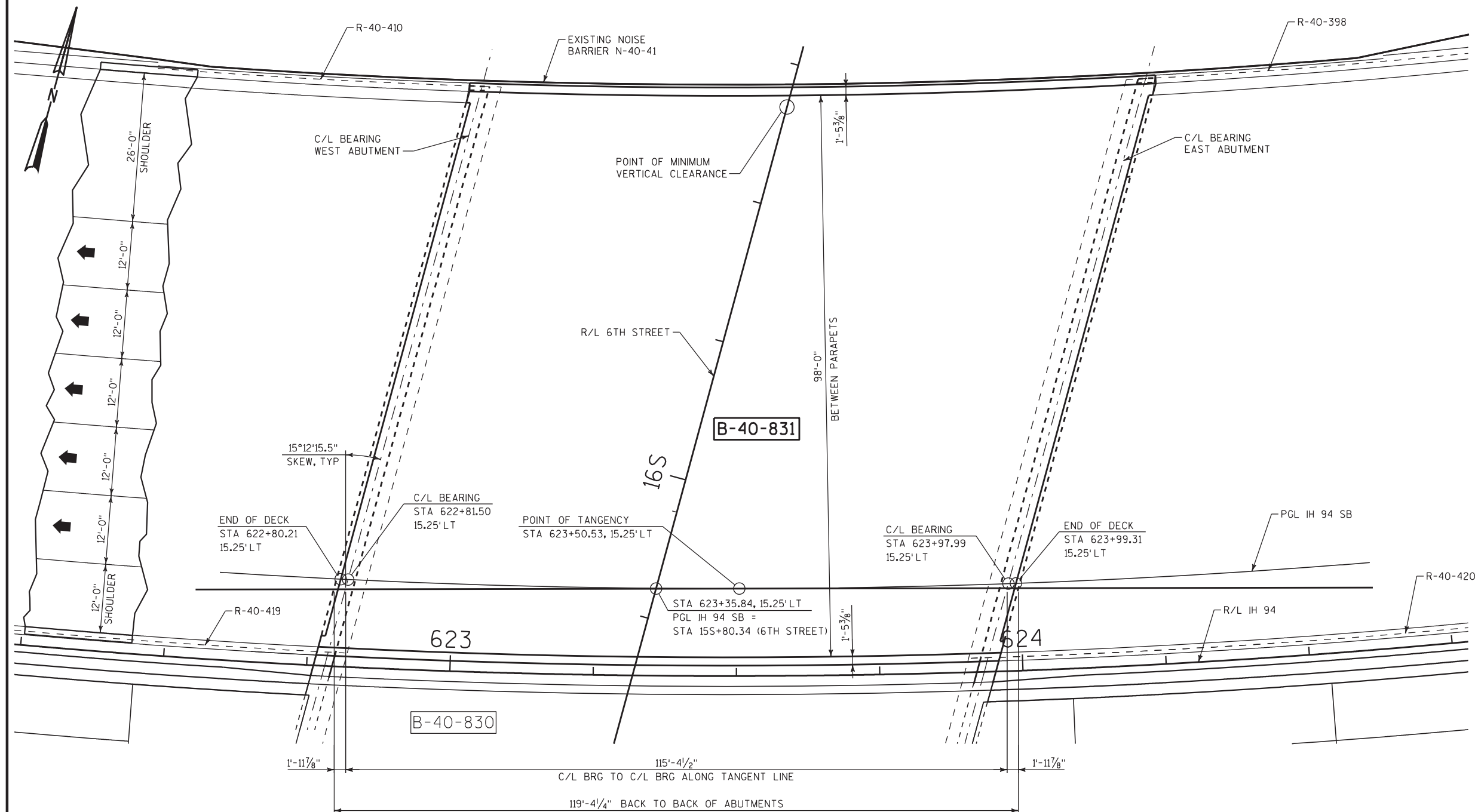
LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.02
OPERATING RATING FACTOR: RF = 1.54
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

<u>6TH STREET</u>	<u>IH 94</u>
A.D.T. = 11,600 (2035)	A.D.T. = 156,900 (2035)
R.D.S. = 30 MPH	R.D.S. = 60 MPH

1. GENERAL PLAN
2. TYPICAL SECTION

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
KARL SCHMID (414) 272-2426

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY ch2m. MILWAUKEE, WISCONSIN			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>William C. Dieker</i> ^{LLS}		6/8/16
CHIEF STRUCTURES DESIGN ENGINEER		DATE	
STRUCTURE B-40-831			
IH 43 SB/IH 94 EB OVER 6TH STREET			
COUNTY	TOWN/CITY/VILLAGE		
MILWAUKEE	MILWAUKEE		
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	SGM	DESIGN CK'D.	BKS
DRAWN BY		TEK	PLANS CK'D.
			KES
GENERAL PLAN			SHEET 1 OF 2



PLAN

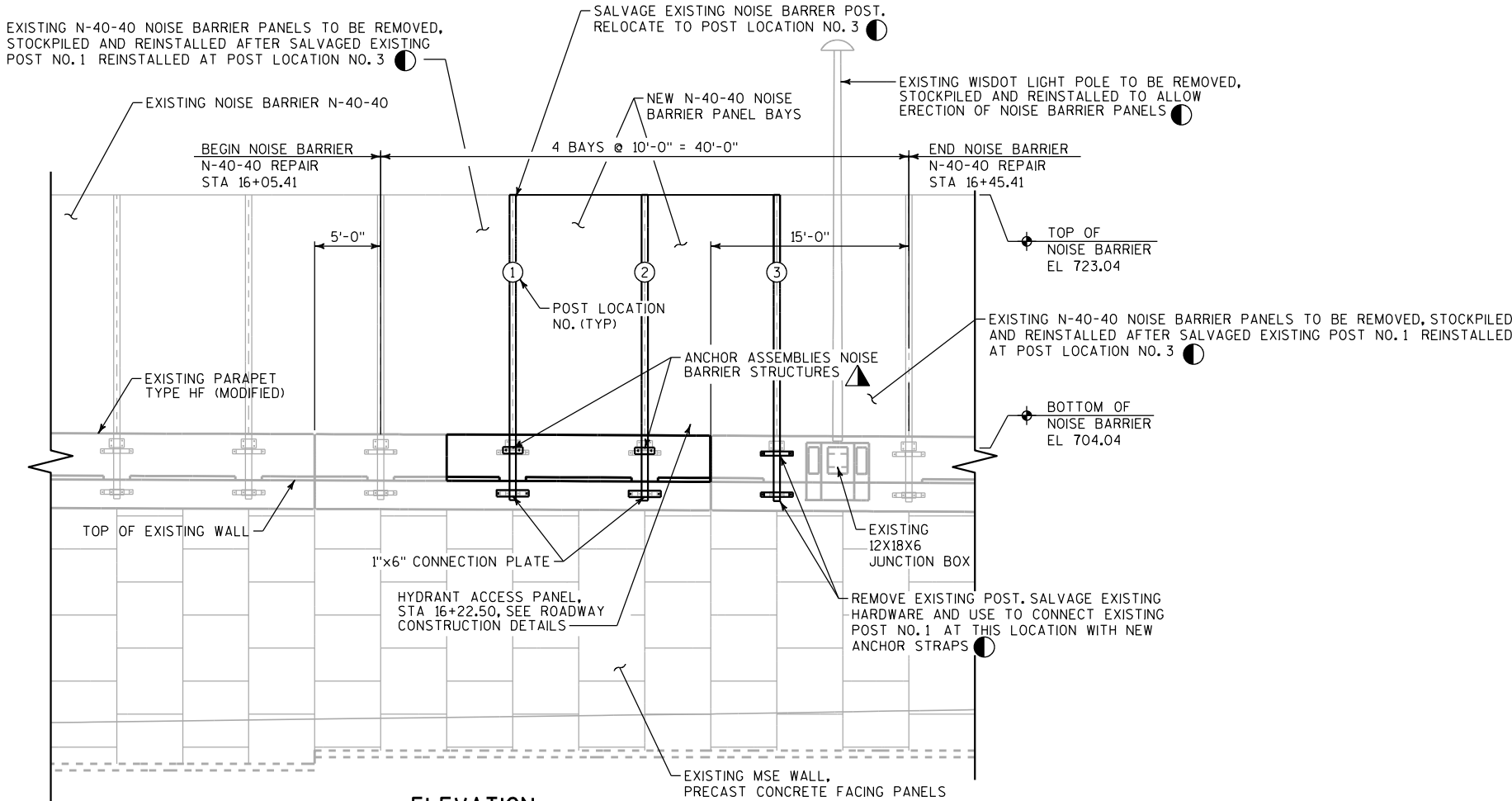
ITEM NO.	BID ITEMS	UNITS	TOTAL
509.5100.S	POLYMER OVERLAY	SY	1,290

FOR LANE CLOSURES FOR POLYMER OVERLAY APPLICATION, SEE ROADWAY PLANS.





NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-40-831			
DRAWN BY		TEK	PLANS CK'D. KES
TYPICAL SECTION		SHEET 2 OF 2	



ELEVATION

(LOOKING NORTHWEST AT OUTSIDE FACE OF NOISE BARRIER)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET, ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD).

ALL DIMENSIONS ARE ALONG THE R/L FOR N-40-40 ALONG THE FRONT FACE OF NOISE BARRIER, UNLESS OTHERWISE SHOWN.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE NOISE BARRIER IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE NOISE BARRIER MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCIDENTAL TO THE BID ITEM "NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-40."

PLANS, ELEVATIONS AND DETAILS SHOWN ARE INTENDED TO INDICATE LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE NOISE BARRIER IS TO BE DESIGNED USING THE TOP OF NOISE BARRIER AND THE BOTTOM OF NOISE BARRIER ELEVATIONS ON THE ELEVATION VIEW.

THE TOP OF NOISE BARRIER ELEVATION IS THE TOP PAY LIMIT FOR THE BID ITEM "NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-40. NOISE BARRIER PLACED ABOVE THE TOP OF NOISE BARRIER ELEVATION WILL NOT BE MEASURED FOR PAYMENT.

THE BOTTOM OF NOISE BARRIER ELEVATION IS THE BOTTOM PAY LIMIT FOR THE BID ITEM "NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-40. NOISE BARRIER PLACED BELOW THE BOTTOM OF NOISE BARRIER ELEVATION WILL NOT BE MEASURED FOR PAYMENT.

ALL NOISE BARRIERS SHALL BE DESIGNED IN ACCORDANCE WITH THE 1989 GUIDE SPECIFICATIONS FOR STRUCTURAL DESIGN OF SOUND BARRIERS, INCLUDING THE 1992 AND 2002 INTERIM'S BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS.

THE FOLLOWING DESIGN PRESSURES SHALL BE USED IN ACCORDANCE WITH THE SPECIAL PROVISIONS:
37.5 P.S.F. FOR STRUCTURE MOUNTED BARRIERS

REINFORCING STEEL IN THE CONCRETE CORE OF THE NOISE BARRIER PANELS SHALL HAVE A MINIMUM CLEARANCE OF 1 INCH. THE CONCRETE CORE SHALL BE DESIGNED TO RESIST THE LOADS WITHOUT CONSIDERING ANY COMPOSITE ACTION FROM OTHER MATERIAL IN THE PANEL.

BOTTOM NOISE BARRIER PANELS SHALL BE DESIGNED TO SUPPORT THE DEAD LOAD (WEIGHT) OF THE PANELS DIRECTLY ABOVE IT AND ITS OWN DEAD LOAD. THE DEAD LOAD SHALL BE DISTRIBUTED UNIFORMLY ASSUMING SIMPLE BEAM ACTION WITH SUPPORTS AT THE POSTS. BOTTOM PANELS SHALL HAVE A MINIMUM AMOUNT OF PERIMETER REINFORCEMENT OF A #4 BAR WHICH SHALL BE CONTINUOUS AROUND THE CORNERS.

FOR CONSTRUCTION SEQUENCE, SEE RETAINING WALL R-40-398 PLANS.

A COMPRESSIBLE BEARING PAD OF 1/4" THICK SHALL BE PROVIDED BETWEEN THE FOUNDATION AND THE BOTTOM PANELS. THE BEARING PADS SHALL BE PREFORMED EPDM RUBBER CONFORMING TO ASTM D-2000, GRADE 2, TYPE A, CLASS A WITH A MINIMUM DUROMETER HARDNESS OF 80. BEARING PADS SHALL BE INCIDENTAL TO THE BID ITEM "NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-40."

INCLUDE THE COST OF THE STONE PATTERN SURFACE TREATMENT, REVEALS, COATING OF STEEL POSTS AND CONNECTIONS, AND COLORING/STAINING THE PANELS, UNDER THE BID ITEM "NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-40."

LOCATE HYDRANT ACCESS HOLES IN NOISE BARRIERS WITH COVER SIGNS AT LOCATIONS SHOWN ON THE ELEVATION VIEW. PROVIDING HYDRANT ACCESS HOLES IS INCIDENTAL TO THE BID ITEM "NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-40."

LIST OF DRAWINGS

1. ELEVATION, GENERAL NOTES & QUANTITIES
2. NOISE BARRIER POST CONNECTION DETAILS
3. ARCHITECTURAL DETAILS

LEGEND

- INCLUDED IN RETAINING WALL R-40-398 BID ITEM "REMOVING MASONRY"
- ▲ NOT A NOISE BARRIER BID ITEM


TOTAL ESTIMATED QUANTITIES

ITEM NO	BID - ITEM	UNIT	TOTAL
531.0300.S	NOSIE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE N-40-40	SF	380

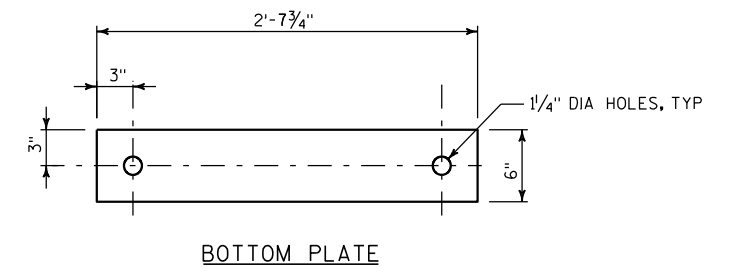
ALL ITEMS ARE CATEGORY 90

STRUCTURES DESIGN CONTACTS

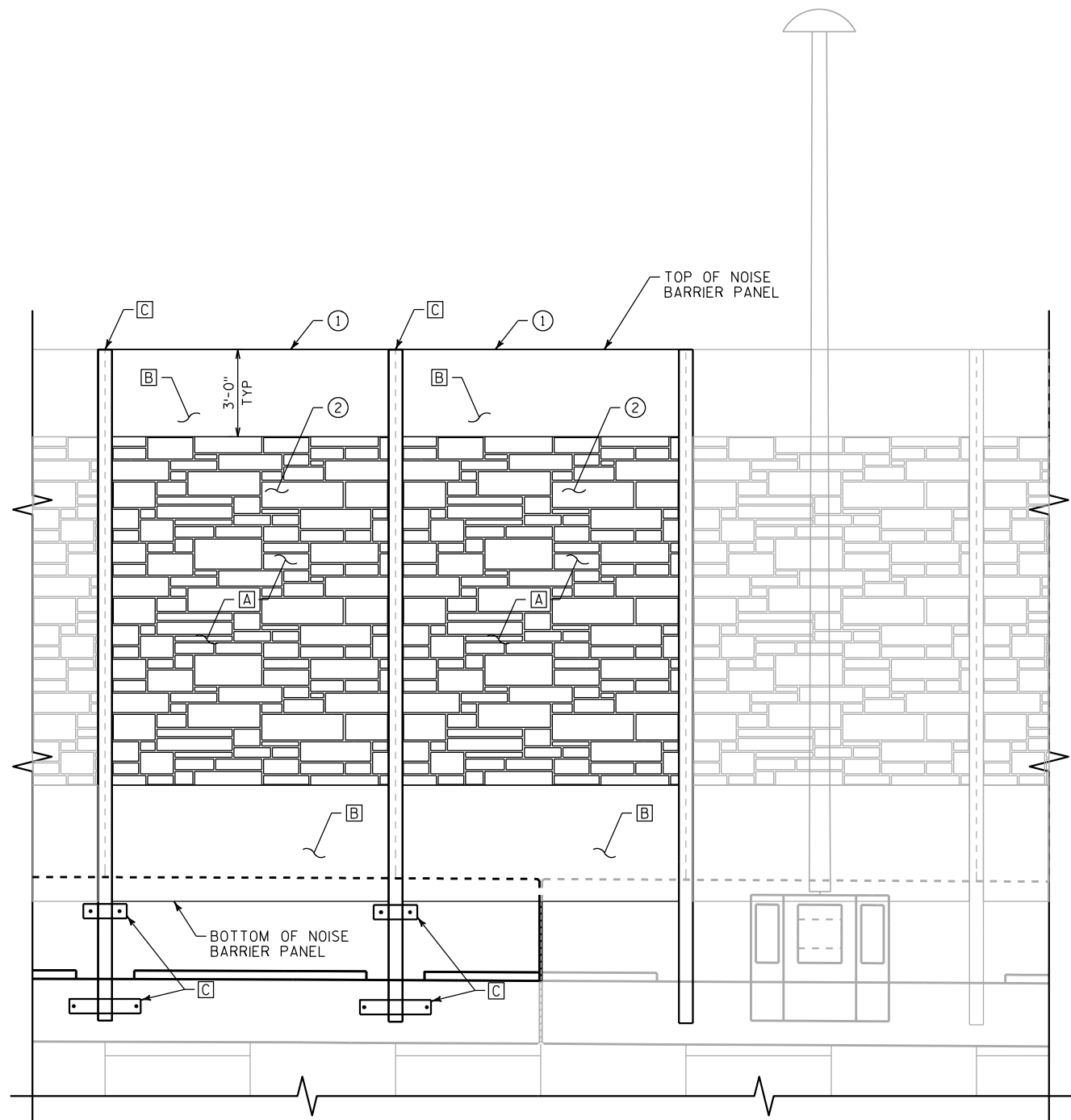
BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
KARL SCHMID (414) 272-2426

NO.	DATE	REVISION	BY
<div></div>			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>William C. Dreher</i> ^{LES} CHIEF STRUCTURES DESIGN ENGINEER		6/8/16 DATE
STRUCTURE N-40-40			
IH 94 / USH 41			
COUNTY	MILWAUKEE	TOWN/CITY/VILLAGE	MILWAUKEE
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	EKM	DESIGN CK'D. KES	DRAWN BY EKM PLANS CK'D. KES
ELEVATION, GENERAL NOTES & QUANTITIES			SHEET 1 OF 3





NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE N-40-40			
		DRAWN BY	EKM
		PLANS CK'D.	KES
NOISE BARRIER POST CONNECTION DETAILS		SHEET 2 OF 3	

**ELEVATION VIEW - RESIDENTIAL SIDE**

(OUTSIDE FACE OF PARAPET)

LEGEND

- [A] BASE COLOR
[B] ACCENT COLOR NO. 1
[C] ACCENT COLOR NO. 2

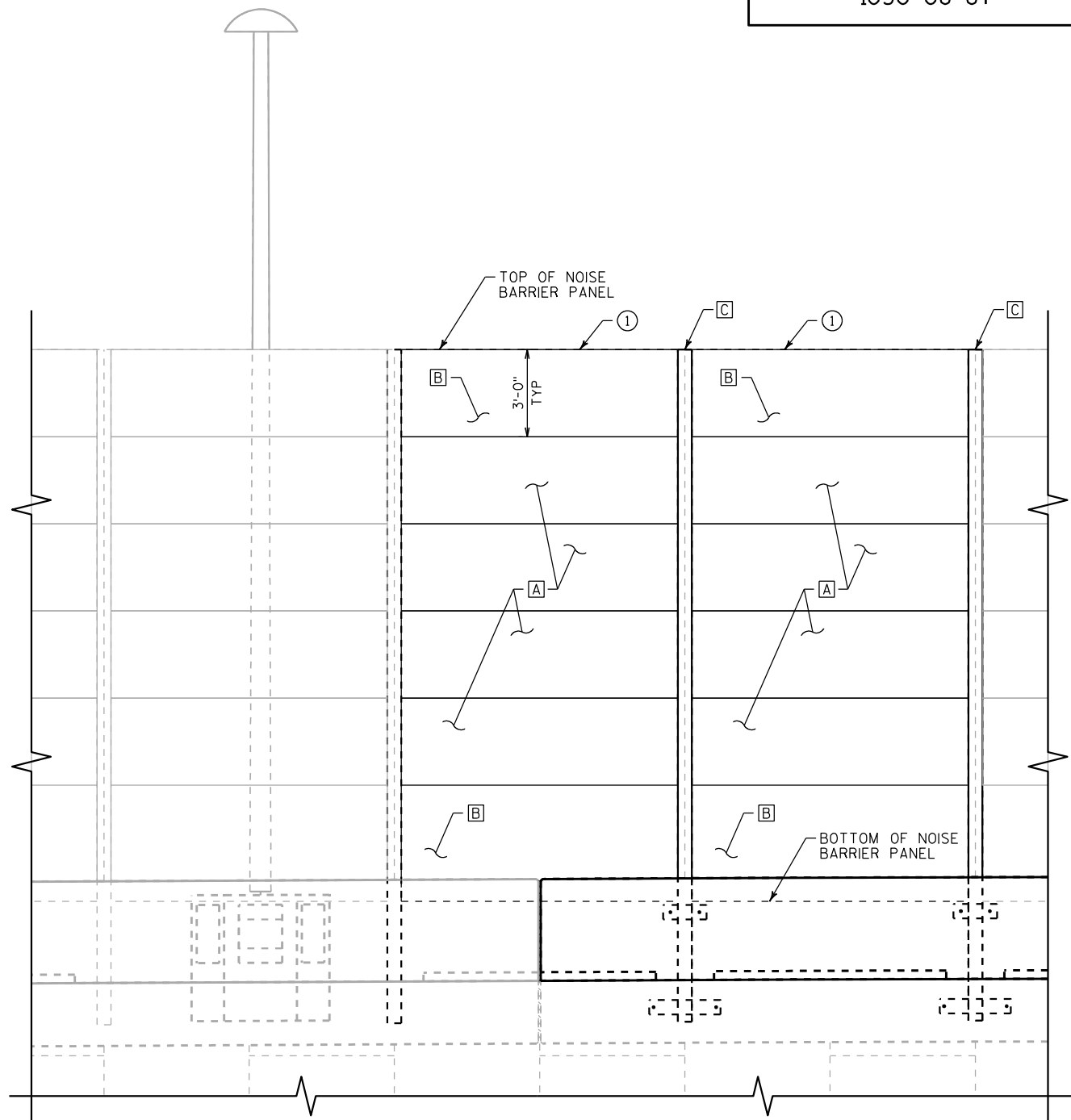
① KEEP THE TOP OF PANELS AT THE SAME ELEVATION.

② THE RESIDENTIAL SIDE WALL PATTERN SHALL BE A DRystack PATTERN, SIZES VARYING FROM APPROXIMATELY 7" TO 36" LONG AND 2" TO 12" HIGH. MATCH PATTERN SELECTED FOR EXISTING NOISE BARRIER.

STAIN COLORS

THE FINAL COLORING OF THE NOISE BARRIER FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:

BASE COLOR - 33564
ACCENT COLOR NO. 1 - 33448
ACCENT COLOR NO. 2 - 20170

**ELEVATION VIEW - FACING HIGHWAY**

(INSIDE FACE OF PARAPET)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE N-40-40			
DRAWN BY EKM		PLANS CK'D. KES	
ARCHITECTURAL DETAILS		SHEET 3 OF 3	

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL ALL EXPOSED EDGES OF CONCRETE $\frac{3}{4}$ ", UNLESS NOTED OTHERWISE.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD).

ALL DIMENSIONS ARE ALONG THE R/L FOR R-40-398 ALONG THE FRONT FACE OF WALL, UNLESS OTHERWISE SHOWN.

ALL BAR STEEL REINFORCEMENT IS TO BE EPOXY COATED.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

THE QUANTITY OF CONCRETE MASONRY FOR THE CAST-IN-PLACE PARAPET IS PAID FOR UNDER THE ITEM "CONCRETE MASONRY RETAINING WALLS".

THE CONTRACTOR MUST COORDINATE THE REPAIR OF RETAINING WALL R-40-398 WITH THE REPAIR OF NOISE BARRIER N-40-40.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP FACE AND INSIDE FACE OF THE SLOPED FACE PARAPET 'HF' MODIFIED.


APPLY CONCRETE STAIN TO OUTSIDE FACE OF PARAPET AS SHOWN IN THE AESTHETIC DETAILS.

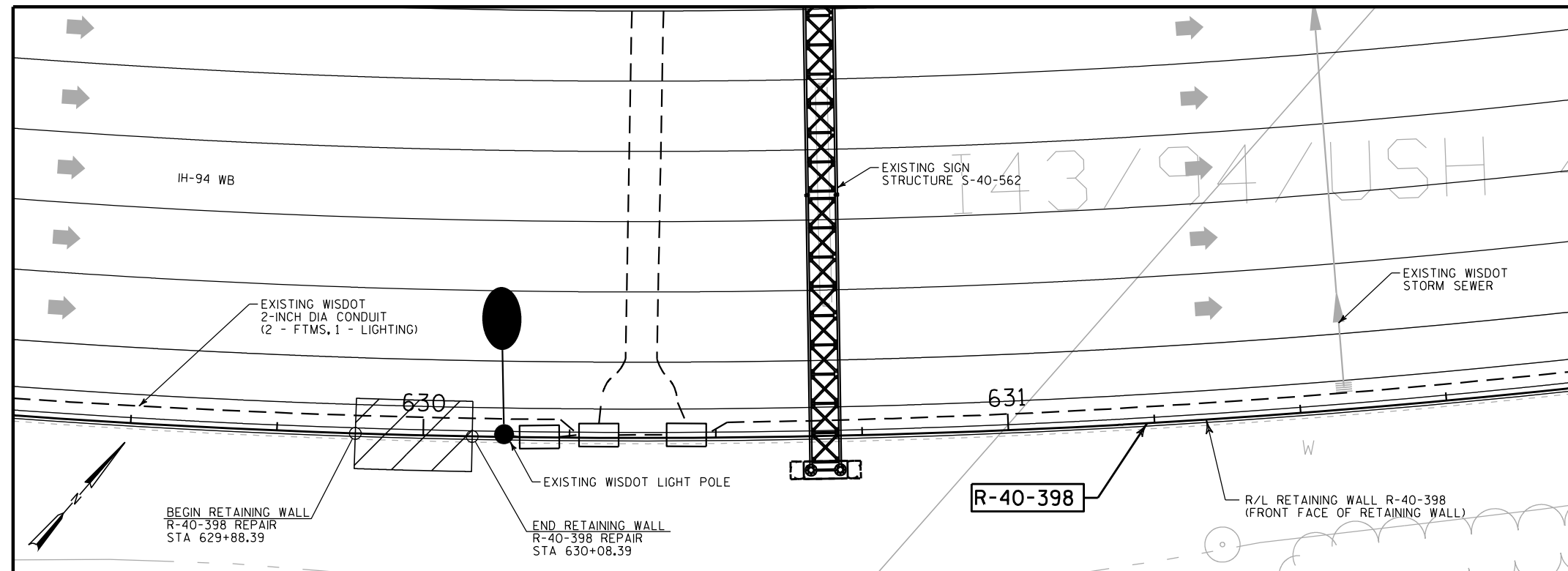
CONSTRUCTION SEQUENCE

1. REMOVE AND SALVAGE EXISTING WISDOT LIGHT POLE.
2. REMOVE AND SALVAGE EXISTING NOISE BARRIER PANELS.
3. REMOVE AND SALVAGE EXISTING NOISE BARRIER POST NO. 1. REMOVE NOISE BARRIER POST NO. 3, SALVAGE HARDWARE.
4. REMOVE MASONRY TO LIMITS SHOWN.
5. CONSTRUCT CONCRETE PARAPET. INSTALL ANCHOR ASSEMBLIES NOISE BARRIER STRUCTURES.
6. APPLY PROTECTIVE SURFACE TREATMENT.
7. ERECT NEW AND SALVAGED NOISE BARRIER POSTS.
8. INSTALL NEW AND SALVAGED NOISE BARRIER PANELS.
9. STAIN PARAPET AND NOISE BARRIER.
10. ERECT SALVAGED WISDOT LIGHT POLE.

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
KARL SCHMID (414) 272-2426

NO.	DATE	REVISION	BY
			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i>		6/8/16	DATE
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE R-40-398			
NB IH-94 FROM 6TH STREET TO 4TH STREET			
COUNTY	MILWAUKEE	TOWN/CITY/VILLAGE	MILWAUKEE
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	EKM	DESIGN CK'D.	KES
DRAWN BY	EKM	PLANS CK'D.	KES
GENERAL PLAN & ELEVATION			SHEET 1 OF 3



PLAN

DESIGN DATA

MATERIAL PROPERTIES:
CONCRETE MASONRY f'c = 4,000 PSI
BAR STEEL REINFORCEMENT fy = 60,000 PSI

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. SLOPED FACE PARAPET TYPE HF (MODIFIED) DETAILS
3. NOISE BARRIER POST CONNECTION DETAILS

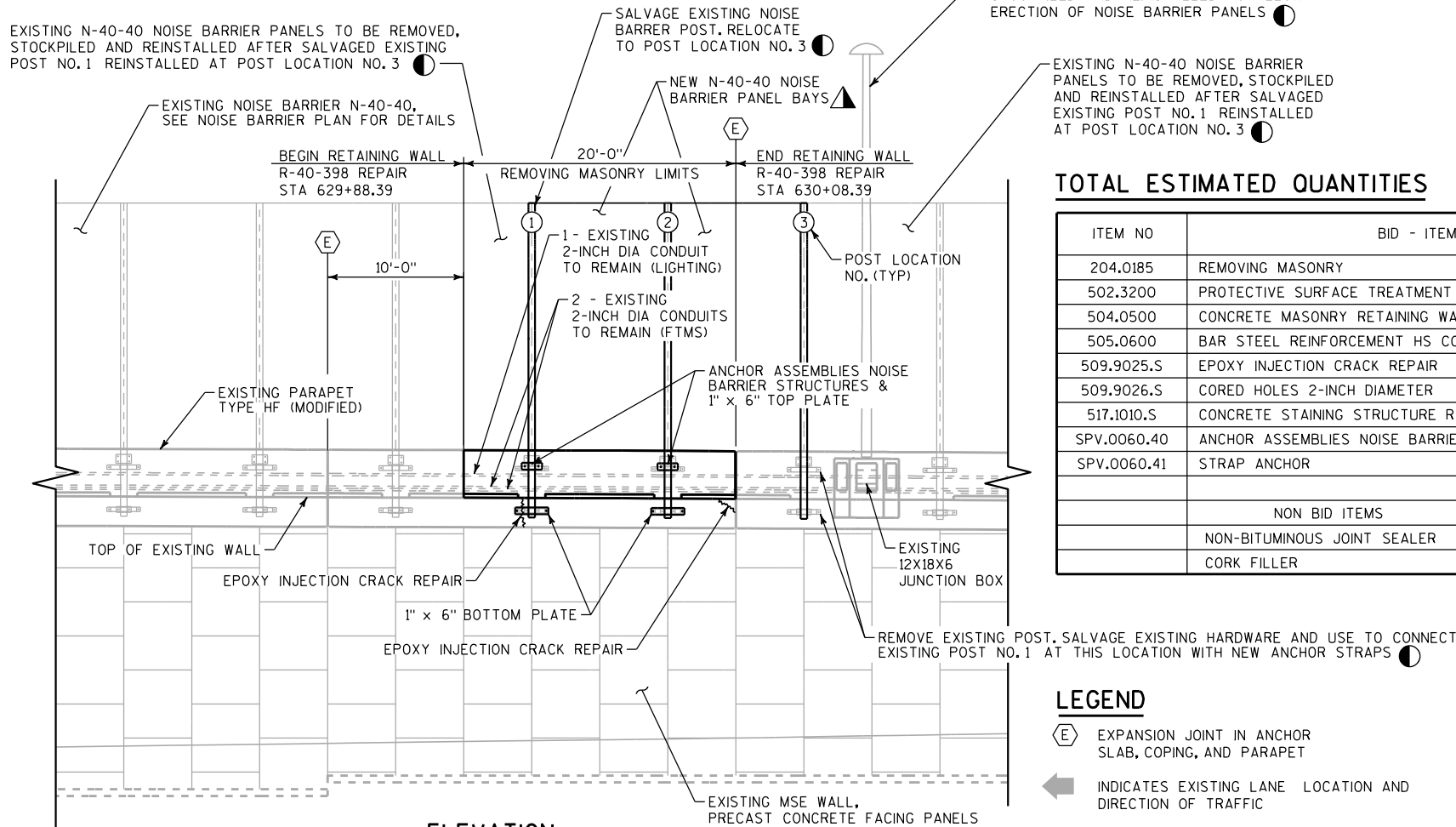
TOTAL ESTIMATED QUANTITIES

ITEM NO	BID - ITEM	UNIT	TOTAL
204.0185	REMOVING MASONRY	CY	2.5
502.3200	PROTECTIVE SURFACE TREATMENT	SY	10
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	2.5
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	680
509.9025.S	EPOXY INJECTION CRACK REPAIR	LF	3
509.9026.S	CORED HOLES 2-INCH DIAMETER	EACH	1
517.1010.S	CONCRETE STAINING STRUCTURE R-40-398	SF	70
SPV.0060.40	ANCHOR ASSEMBLIES NOISE BARRIER STRUCTURES	EACH	2
SPV.0060.41	STRAP ANCHOR	EACH	2
NON BID ITEMS			
	NON-BITUMINOUS JOINT SEALER	SIZE	1"
	CORK FILLER	SIZE	1"

ALL ITEMS ARE CATEGORY 30

LEGEND

- (E) EXPANSION JOINT IN ANCHOR SLAB, COPING, AND PARAPET
- ← INDICATES EXISTING LANE LOCATION AND DIRECTION OF TRAFFIC
- INCLUDED IN THE BID ITEM "REMOVING MASONRY"
- ▲ NOT A RETAINING WALL BID ITEM



ELEVATION

(VIEW EXAGGERATED TO SHOW DETAIL)

LEGEND

- ▲ EXISTING CONSTRUCTION JOINT - LEAVE SURFACE ROUGH.
- † NON-BITUMINOUS JOINT SEALER, COLOR TO MATCH CONCRETE STAIN. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).
- EXISTING 2-INCH CONDUIT TO BE INCORPORATED INTO PROPOSED CONCRETE MASONRY. DURING REMOVAL ACTIVITIES, USE CARE TO NOT DAMAGE EXISTING CONDUIT.

NOTES

EXPANSION JOINT TO BE LOCATED AT END OF PROPOSED PARAPET.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP FACE AND INSIDE FACE OF THE SLOPED FACE PARAPET HF (MODIFIED).

FOR NOISE BARRIER POST CONNECTION DETAILS, SEE SHEET 3.

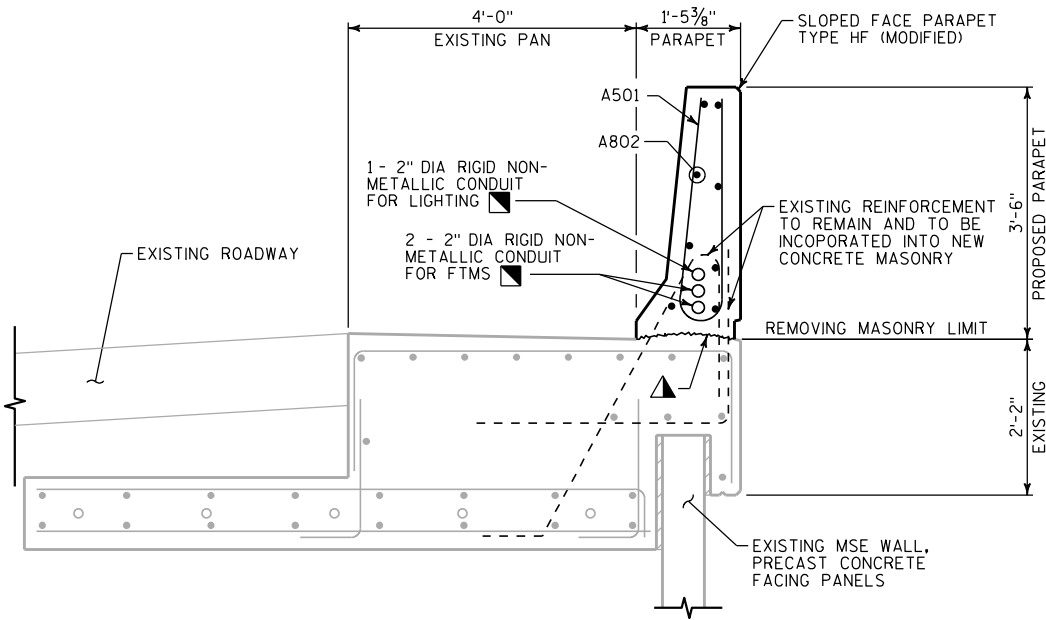
BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
A501	X	30	6'-6"	X	PARAPET - VERTICAL TIE
A802	X	8	19'-7"		PARAPET - HORIZONTAL

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

SECTION THRU PROPOSED PARAPET

(SECTION A-A)



BEGIN SLOPED FACE PARAPET
TYPE HF (MODIFIED) REPLACEMENT
STA 629+78.39

20'-0"
PROPOSED CONCRETE PARAPET REPLACEMENT

END SLOPED FACE PARAPET
TYPE HF (MODIFIED) REPLACEMENT
STA 630+08.39

PARAPET REINFORCEMENT 4" 29 SPA @ 8" = 19'-4" (TYP) 4"

A501 (MATCH EXISTING REINFORCEMENT SPACING)

TOP OF PARAPET

PARAPET EXPANSION JOINT (1" CORK FILLER)

EXISTING REINFORCEMENT TO REMAIN AND TO BE INCORPORATED INTO NEW CONCRETE MASONRY (TYP)

4-A802 BF

5'-9" MIN LAP

A501 (TYP)

APPROXIMATELY 6'-0" OF EXISTING HORIZONTAL REINFORCEMENT TO REMAIN. LAP TO NEW HORIZONTAL REINFORCEMENT (TYP)

4"

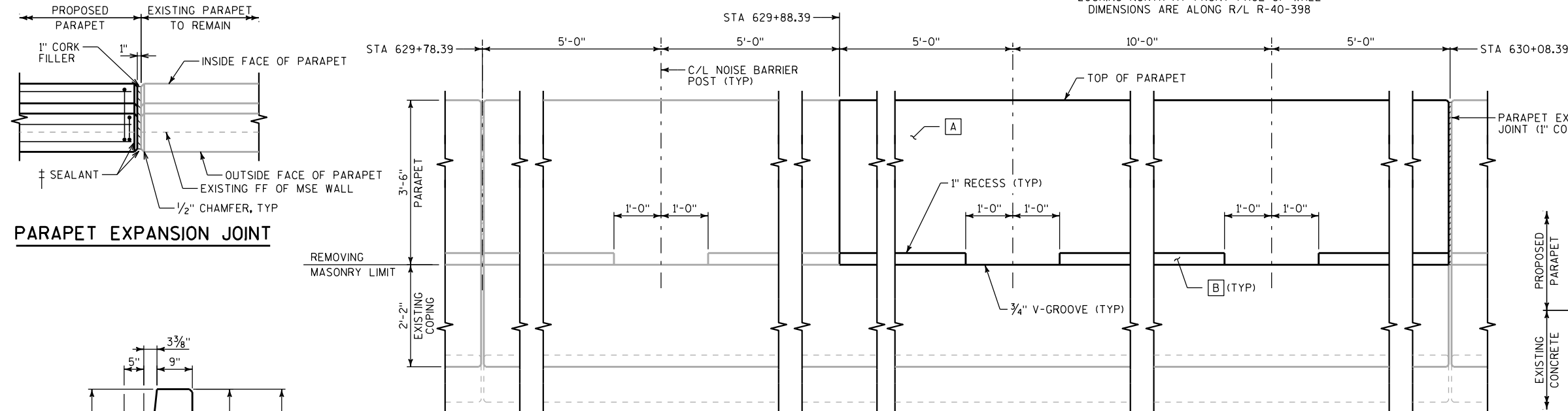
44 SPA @ 8" = 29'-4" (APPROXIMATE)

EXISTING REINFORCEMENT

EXISTING COPING/ANCHOR SLAB REINFORCEMENT

OUTSIDE ELEVATION

LOOKING NORTH AT FRONT FACE OF WALL
DIMENSIONS ARE ALONG R/L R-40-398



OUTSIDE AESTHETIC ELEVATION

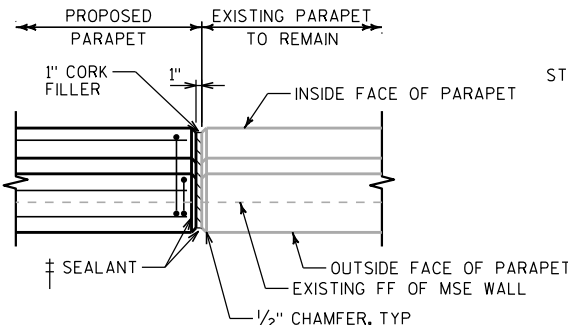
LOOKING NORTH AT FRONT FACE OF WALL
DIMENSIONS ARE ALONG R/L R-40-398

RETAINING WALL CONCRETE STAINING SCHEDULE

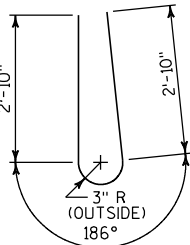
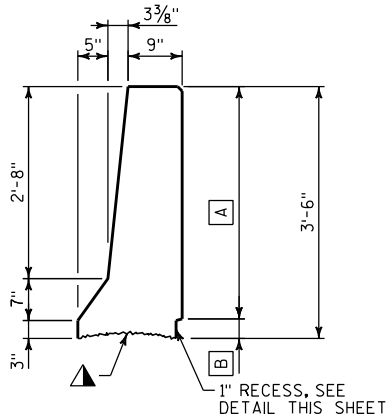
MARK	COLOR	LOCATION	NOTES
A	BASE COLOR	SLOPED FACE PARAPETS	EXTERIOR, EXCEPT AS NOTED FOR ACCENT COLORS
B	ACCENT COLOR #1	PARAPETS	RECESSED PANELS ON EXTERIOR SIDE

BASE COLOR : FEDERAL COLOR #33564
ACCENT COLOR #1: FEDERAL COLOR #33448

PARAPET EXPANSION JOINT

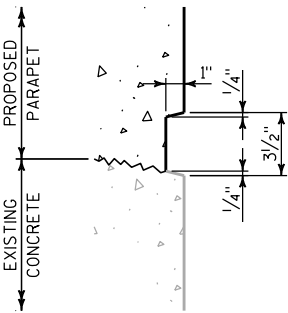


SLOPED FACE PARAPET
TYPE 'HF' (MODIFIED) DIMENSIONS

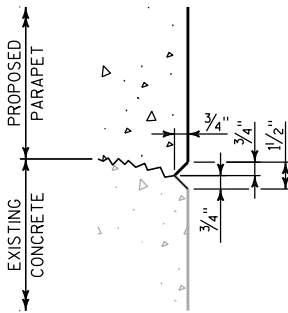


A501

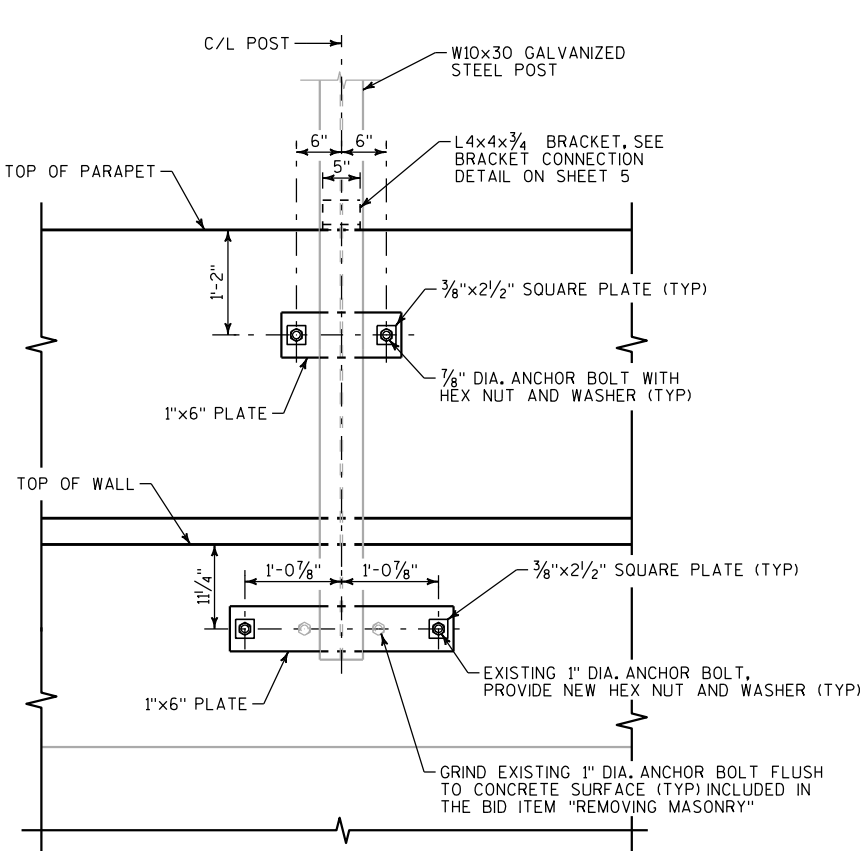
1" RECESS DETAIL



V-GROOVE DETAIL

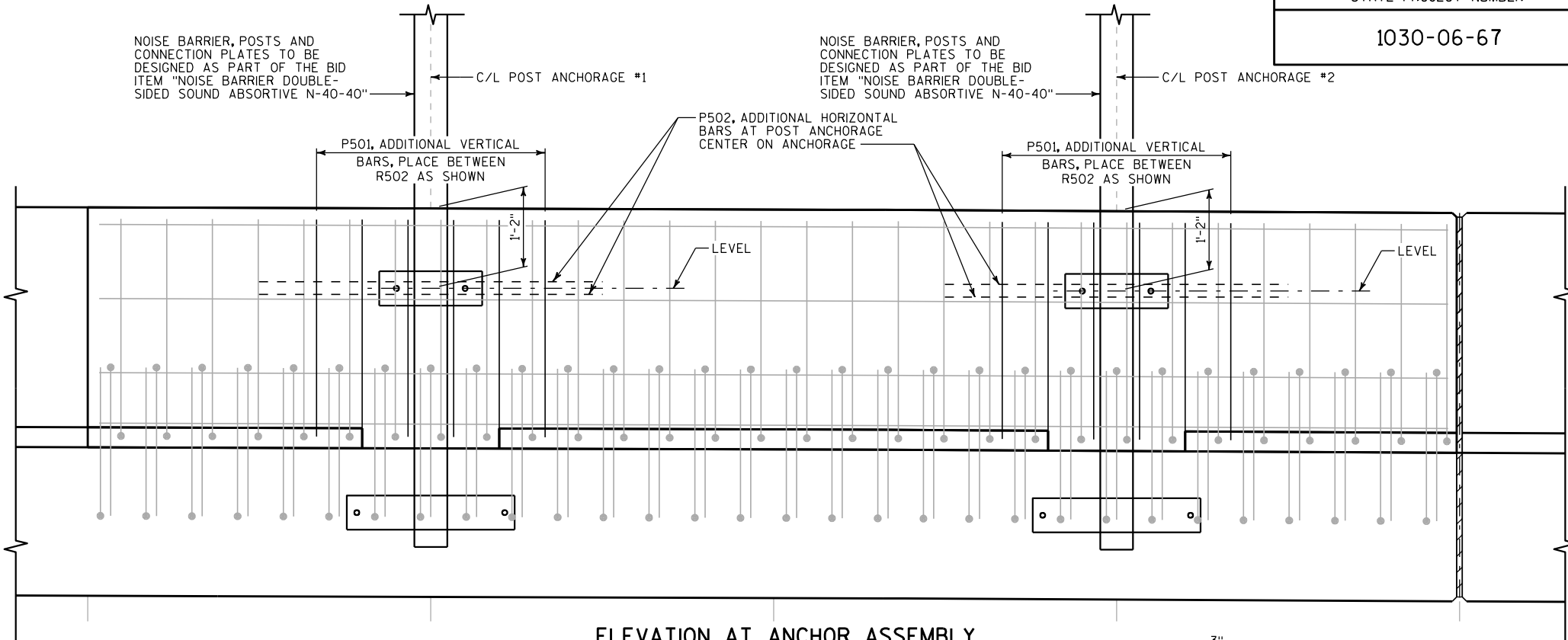


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE R-40-398			
DRAWN BY EKM		PLANS CK'D. KES	
SLOPED FACE PARAPET TYPE HF (MODIFIED) DETAILS			SHEET 2 OF 3



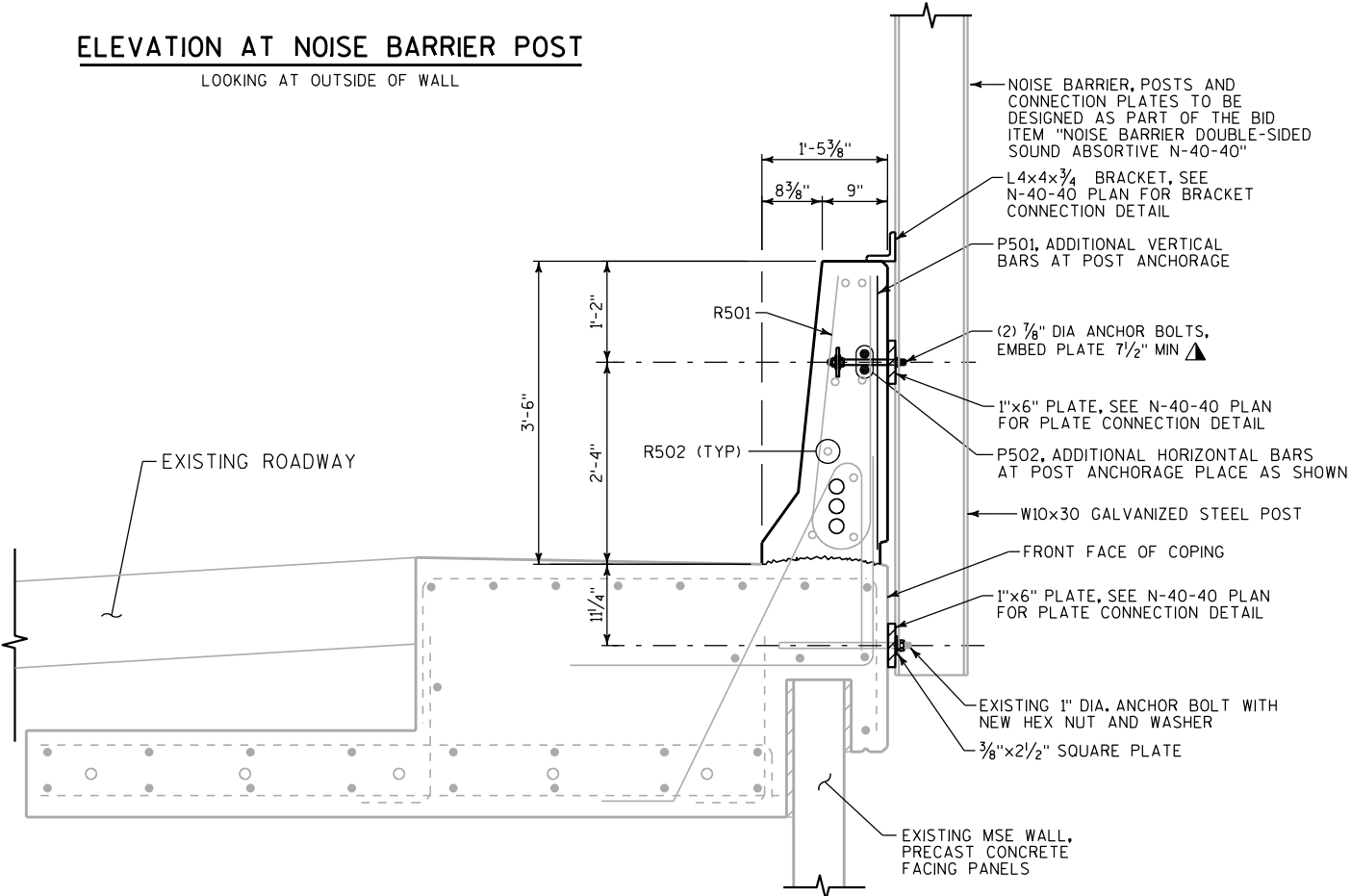
ELEVATION AT NOISE BARRIER POST

LOOKING AT OUTSIDE OF WALL

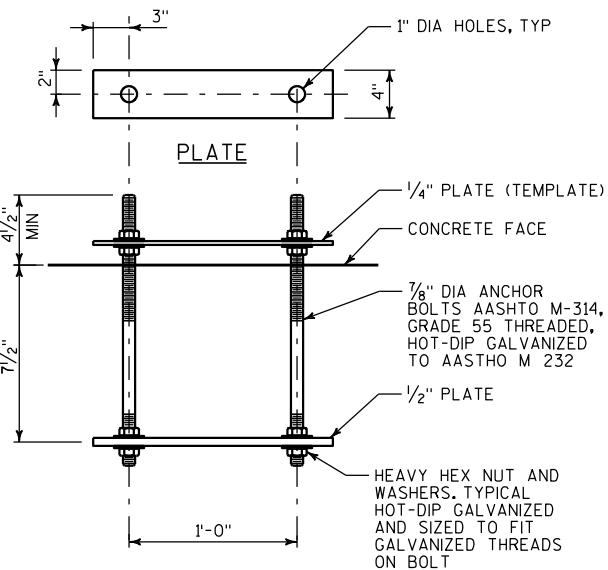


ELEVATION AT ANCHOR ASSEMBLY

(OUTSIDE FACE SHOWN)



SECTION AT ANCHOR ASSEMBLY



ANCHOR ASSEMBLY NOISE BARRIER STRUCTURES

AN INDIVIDUAL ANCHOR ASSEMBLY INCLUDES ALL ITEMS SHOWN IN DETAIL ABOVE AND OUTLINED IN THE SPECIAL PROVISION. ONE ANCHOR ASSEMBLY IS REQUIRED PER POST LOCATION.

ANCHOR ASSEMBLY LOCATION TABLE

ANCHOR NO.	WALL R/L STA
1	629+93.39
2	630+03.39

▲ EXACT LOCATION AND SPACING OF EMBEDDED ANCHOR ASSEMBLY NOISE BARRIER TO BE COORDINATED AND COINCIDE WITH NOISE BARRIER POST SPACING AND MOUNTING DETAILS SHOWN ON APPROVED NOISE BARRIER SHOP DRAWINGS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE R-40-398			
DRAWN BY		EKM	PLANS CK'D. KES
NOISE BARRIER POST CONNECTION DETAILS			SHEET 3 OF 3



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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