

WKE

FEB 14, 2023

PROJECT ID:

2010-15-70

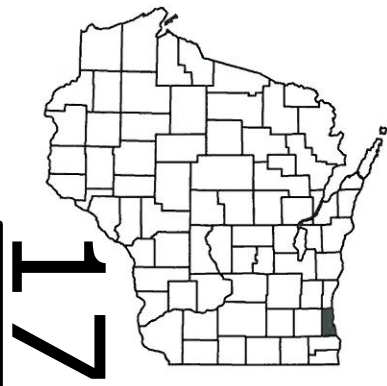
COUNTY:

MILWAUKEE

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 = 30



DESIGN DESIGNATION	HAMPTON AVE
A.A.D.T.	2020 = 19,200
A.A.D.T.	2040 = 21,000
D.H.V.	= -
D.D.	= -
T.	= -
DESIGN SPEED	= 40 MPH
ESALS	= -

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	FIBER OPTIC
PROPOSED CULVERT (Box or Pipe)	GAS
COMBUSTIBLE FLUIDS	SANITARY SEWER
MARSH AREA	STORM SEWER
WOODED OR SHRUB AREA	TELEPHONE
	WATER
	UTILITY PEDESTAL
	POWER POLE
	TELEPHONE POLE

ROCK
LABEL
95.36
CPR
M
BRONFIELD RD
WACONLAND RD
BLUF RD
MAYFAIR RD
MOLINT RD
W
T
SS
SAN
G
FO
E

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

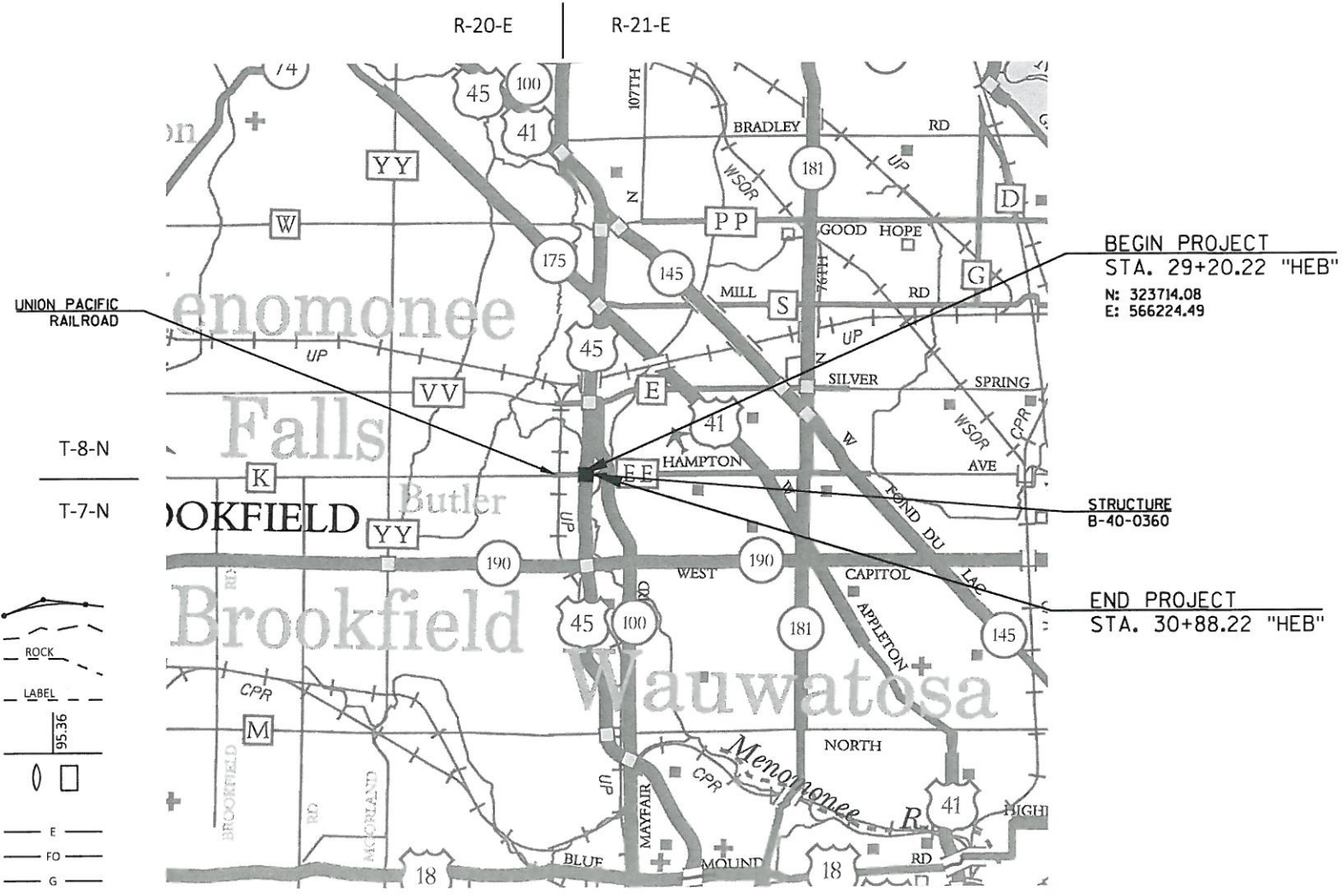
PLAN OF PROPOSED IMPROVEMENT

WAUWATOSA TO MILWAUKEE

HAMPTON AVE OVER IH41 B-40-0360

CTH EE
MILWAUKEE COUNTY

STATE PROJECT NUMBER
2010-15-70



BEGIN PROJECT
STA. 29+20.22 "HEB"
N: 323714.08
E: 566224.49

STRUCTURE B-40-0360

END PROJECT
STA. 30+88.22 "HEB"

LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.000

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM NAVD 88 (2012).

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2010-15-70		

ORIGINAL PLANS PREPARED BY

HNTB 250 E. WISCONSIN AVE
MILWAUKEE, WI 53202
(414) 359-2300

ALLAN J. PACADA
E-43053-6
MILWAUKEE, WI

PROFESSIONAL ENGINEER

10/28/22 (Date) *Ally* (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	LYNCH/AYRES/RA SMITH
Designer	HNTB, CORP.
Project Manager	CLAYTON SMITH
Regional Examiner	STEVE CHOJNACKI
Regional Supervisor	JOE GALLAMORE

APPROVED FOR THE DEPARTMENT
DATE: 11/1/2022 *Clayton L. Smith* (Signature)

E

UTILITY CONTACTS

AT&T WISCONSIN-
COMMUNICATION LINE

JAY BULANEK
435 SOUTH 95TH STREET
MILWAUKEE, WISCONSIN 53214-1226
PHONE: (414) 491-2855
jb5175@att.com

CITY OF MILWAUKEE - STREET
LIGHTING

NEAL KARWEIK
1540 CANAL STREET
MILWAUKEE, WI 53233
PHONE: (414) 286-5943
nkarwe@milwaukee.gov

EVERSTREAM –
COMMUNICATION LINE

SHAD GARCIA
324 E WISCONSIN AVE, SUITE 730
MILWAUKEE, WI 53202
PHONE: (414) 522-6685
sgarcia@everstream.net

LEVEL 3 COMMUNICATIONS LLC –
COMMUNICATION LINE

BRAHIM GADDOUR
3235 INTERTECH DRIVE, SUITE 600
BROOKFIELD, WI 53045
Brahim.Gaddour@lumen.com

SPECTRUM –
COMMUNICATION LINE

NEAL LONG
1320 N MARTIN LUTHER KING JR DR
MILWAUKEE, WI 53212
PHONE: (414) 430-7189
Neal.long@charter.com

WE ENERGIES - ELECTRICITY

GREG BOERNER
500 S 116TH ST
WEST ALLIS, WI 53214
PHONE: (618) 409-5861
DISPATCH: (800) 662-4797
Gregory.Boerner@we-energies.com

UTILITY CONTACTS

WE ENERGIES –
GAS/PETROLEUM

ALEX DANTINNE
500 S 116TH ST
WEST ALLIS, WI 53214
PHONE: (920) 621-6903
Alex.dantinne@we-energies.com

WISCONSIN DEPARTMENT OF
TRANSPORTATION –
COMMUNICATION LINE

JOHN MITTELSTADT
433 W ST PAUL AVE STE 300
MILWAUKEE, WI 53203
CELL: (608) 205-7859
John.Mittelstadt@dot.wi.gov

WISCONSIN DEPARTMENT OF
TRANSPORTATION – STREET
LIGHTING

ERIC PEREA
141 NW BARSTOW STREET
WAUKESHA, WI 53188
PHONE: (262) 574-5422
Eric.Perea@dot.wi.gov

WISCONSIN DEPARTMENT OF
TRANSPORTATION – WISCONSIN
SIGNAL

JARRETT GATES
141 NW BARSTOW STREET
WAUKESHA, WI 53188
PHONE: (262) 548-6455
Jarrett.Gates@dot.wi.gov

OTHER AGENCIES

CITY OF WAUWATOSA - STREET
LIGHTING

NICK DEMING
7725 W. NORTH AVE
WAUWATOSA, WI 53213
PHONE: (414) 479-3541
ndeming@wauwatosa.net

CITY OF MILWAUKEE – WATER

MWW CONTROL CENTER
841 N BROADWAY, 409
MILWAUKEE, WI 53202
PHONE: (414) 286-3710
jiwen@milwaukee.gov

WISDNR CONTACT

KRISTINA BETZOLD
DNR SE REGION HEADQUARTERS
1027 WEST PAUL AVE
MILWAUKEE, WI 53233
PHONE: (414) 343-9346
kristina.betzold@wisconsin.gov

STATE AGENCIES

WISCONSIN DEPARTMENT OF
TRANSPORTATION

MR. CLAYTON SMITH - PROJECT MANAGER
141 NW BARSTOW ST.
WAUKESHA, WI 53187-0798
PHONE: (262) 548-6428
Clayton.Smith@dot.wi.gov

STANDARD ABBREVIATIONS

ABUT.	ABUTMENT
A.D.T.	AVERAGE DAILY TRAFFIC
B.F.	BACK FACE
B.M.	BENCH MARK
B.O.C.	BACK OF CURB
CTR.	CENTER
C.L.	CENTERLINE
D.	LANE DISTRIBUTION
D.H.V.	DESIGN HOURLY VOLUME
DIA.	DIAMETER
DIM.	DIMENSION
EL. OR ELEV.	ELEVATION
EXC.	EXCAVATION
F.F.	FRONT FACE
MAX.	MAXIMUM
MIN.	MINIMUM
NORM.	NORMAL
O.H.	OVERHEAD POWER LINE
P.O.L.	POINT ON LINE
REQ'D	REQUIRED
RDWY.	ROADWAY
R.H.F.	RIGHT HAND FORWARD
S.E.	SUPERELEVATION
SPA.	SPACE
STA.	STATION
SYM.	SYMMETRICAL
T.	PERCENT TRUCKS
TYP.	TYPICAL
V.	DESIGN SPEED

GENERAL NOTES

1. NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. CONTACT SEPARATELY ANY MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE. CONTACT RAILROAD COMPANY SEPARATELY.
2. THE LOCATION OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
3. THE APPROXIMATE LOCATION OF SECTION CORNERS AND WITNESS CORNERS AFFECTED BY THE PROJECT IS SHOWN IN THE PLAN SHEETS. CONTRACTOR MUST CONTACT THE PROJECT ENGINEER AND SEWRPC (ROB MERRY AT RMerry@sewrpc.org); AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

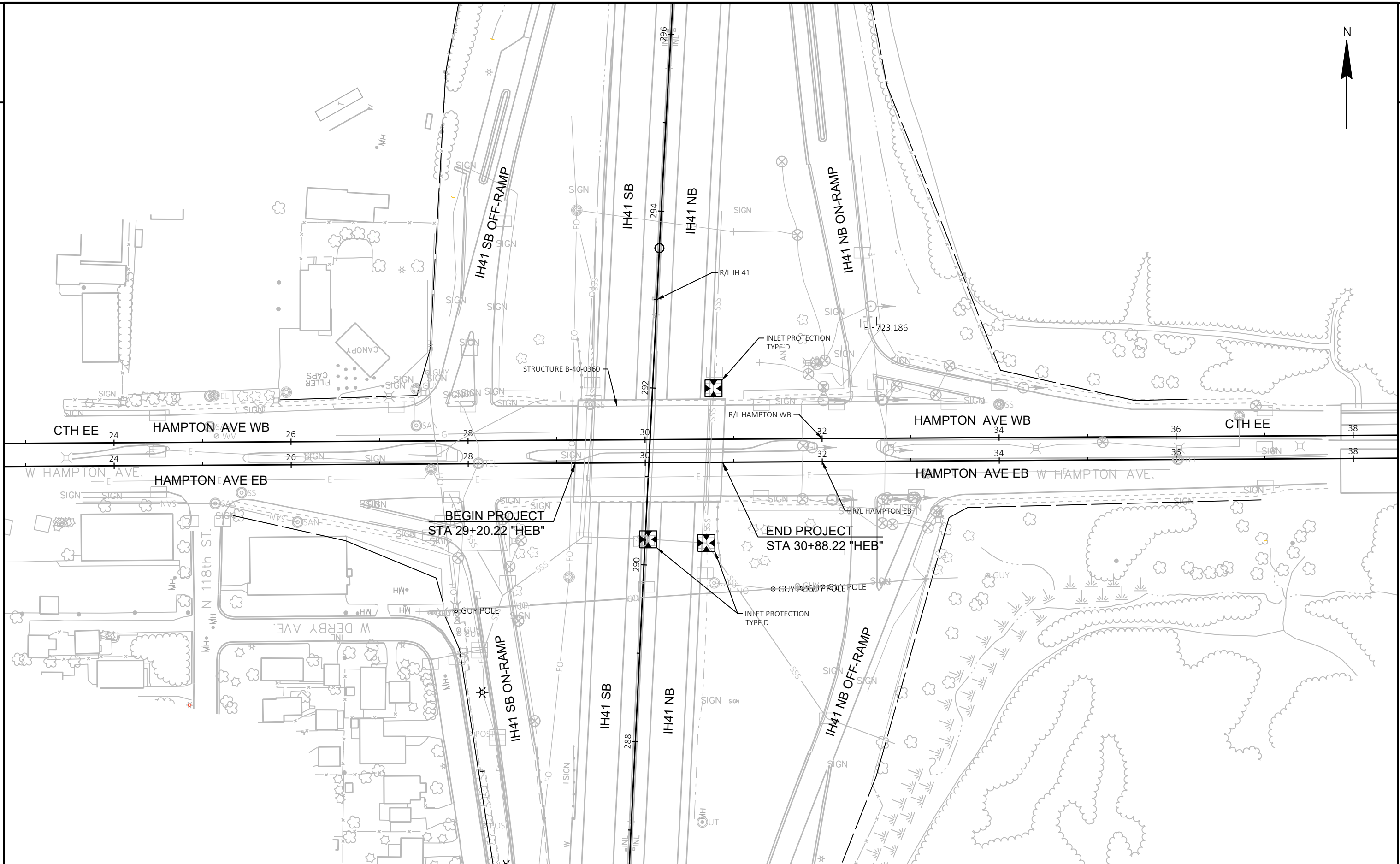
ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TRAFFIC CONTROL

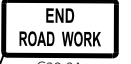
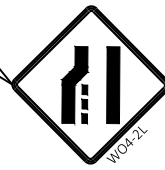
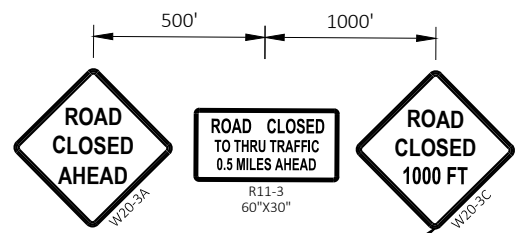


Dial 811 or (800) 242-8511

www.DiggersHotline.com



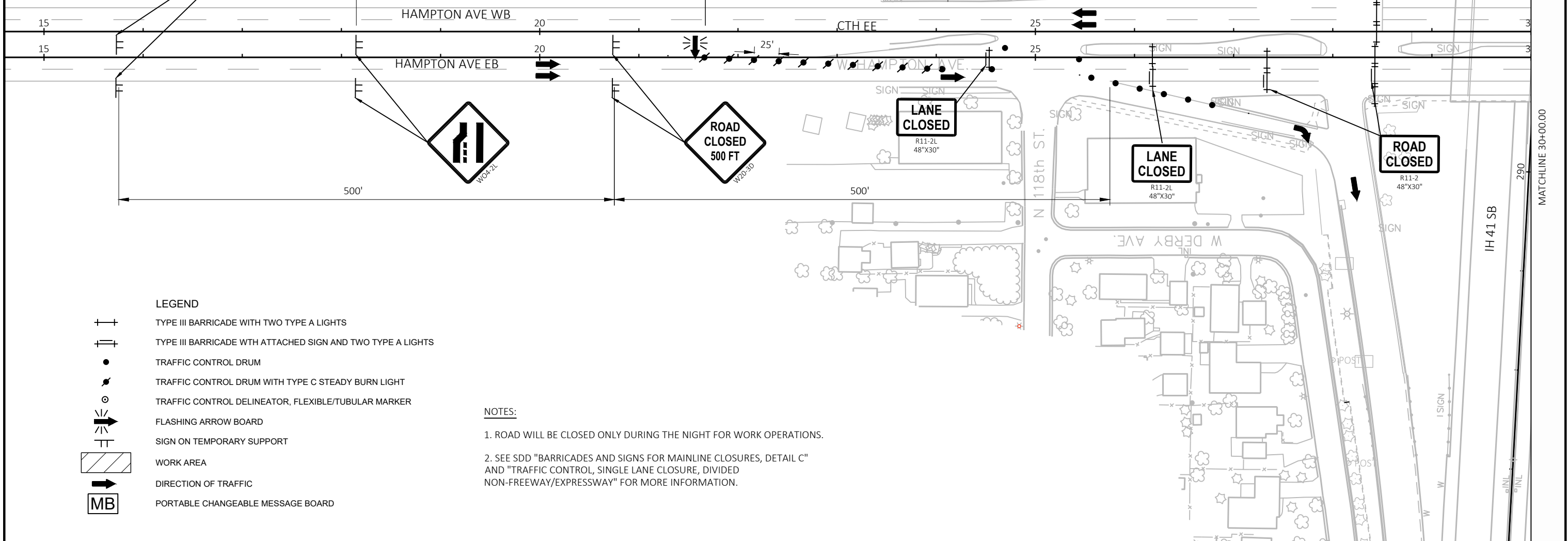
PROJECT NO: 2010-15-70	HWY: CTH EE	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET E
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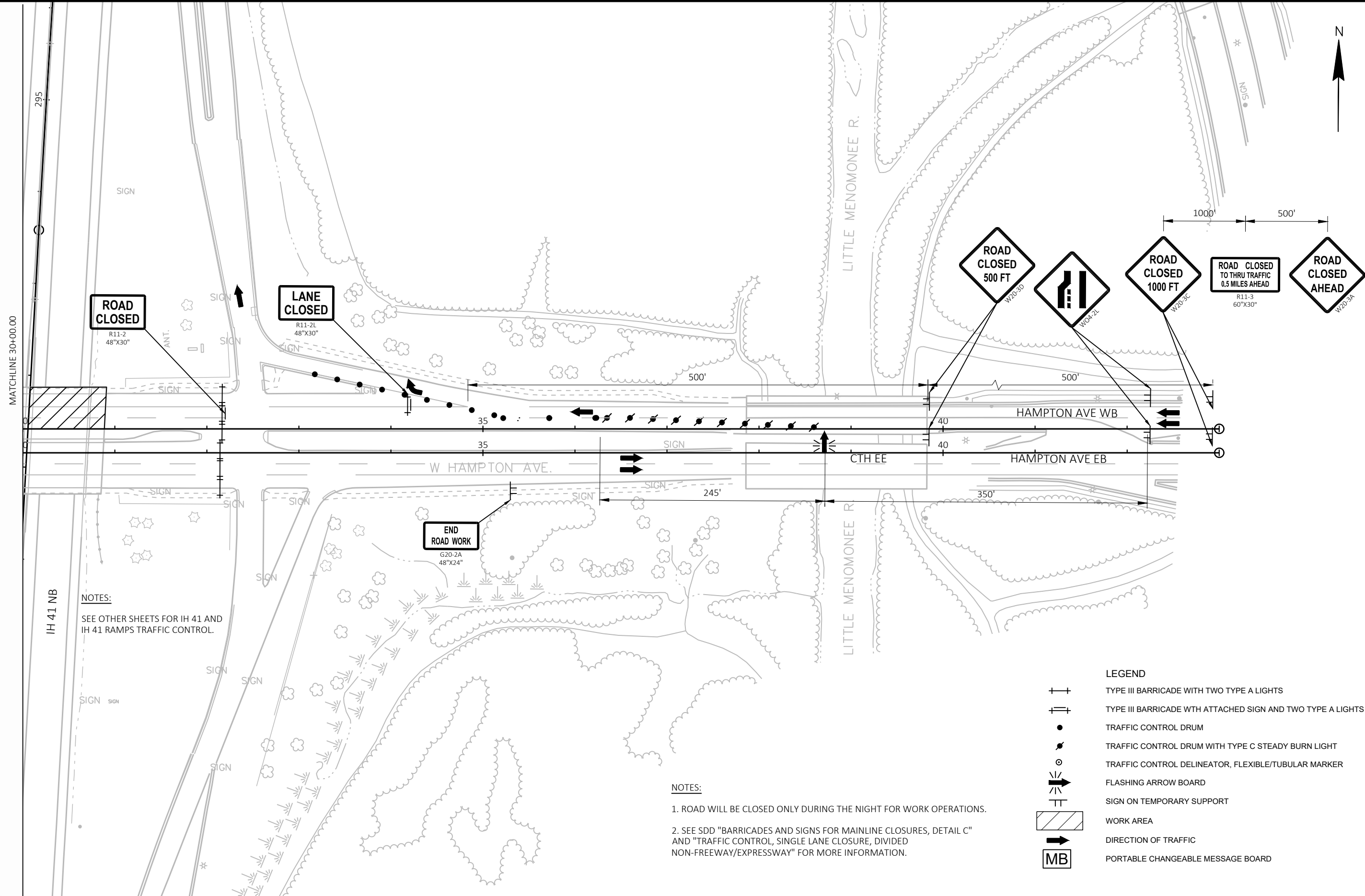


NOTES:
SEE OTHER SHEETS FOR IH 41 AND IH 41 RAMPS TRAFFIC CONTROL.

- LEGEND**
- TYPE III BARRICADE WITH TWO TYPE A LIGHTS
 - TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE A LIGHTS
 - TRAFFIC CONTROL DRUM
 - TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
 - TRAFFIC CONTROL DELINEATOR, FLEXIBLE/TUBULAR MARKER
 - FLASHING ARROW BOARD
 - SIGN ON TEMPORARY SUPPORT
 - WORK AREA
 - DIRECTION OF TRAFFIC
 - PORTABLE CHANGEABLE MESSAGE BOARD

- NOTES:**
1. ROAD WILL BE CLOSED ONLY DURING THE NIGHT FOR WORK OPERATIONS.
 2. SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAIL C" AND "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY" FOR MORE INFORMATION.





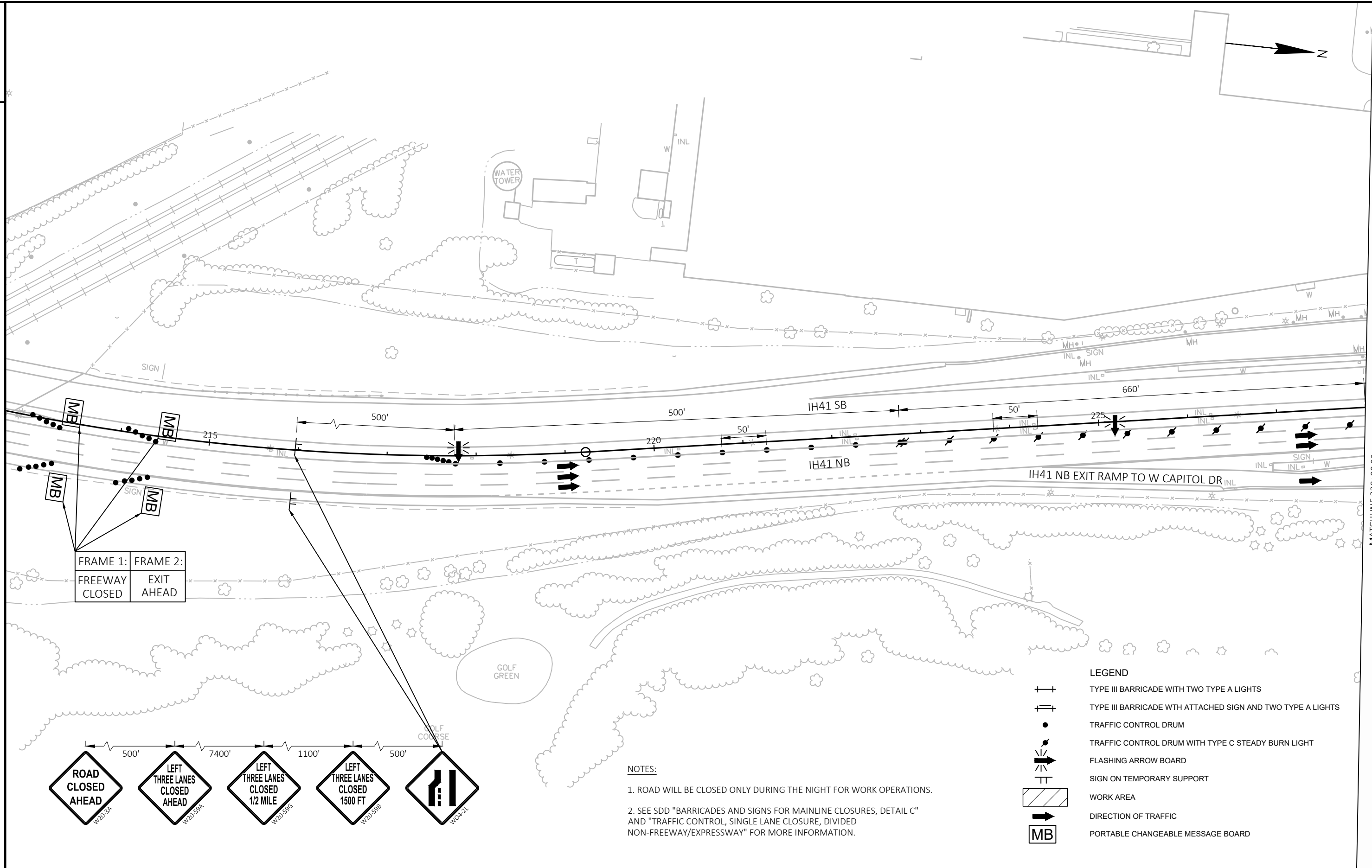
NOTES:
SEE OTHER SHEETS FOR IH 41 AND
IH 41 RAMPS TRAFFIC CONTROL.

NOTES:
1. ROAD WILL BE CLOSED ONLY DURING THE NIGHT FOR WORK OPERATIONS.
2. SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAIL C"
AND "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED
NON-FREEWAY/EXPRESSWAY" FOR MORE INFORMATION.

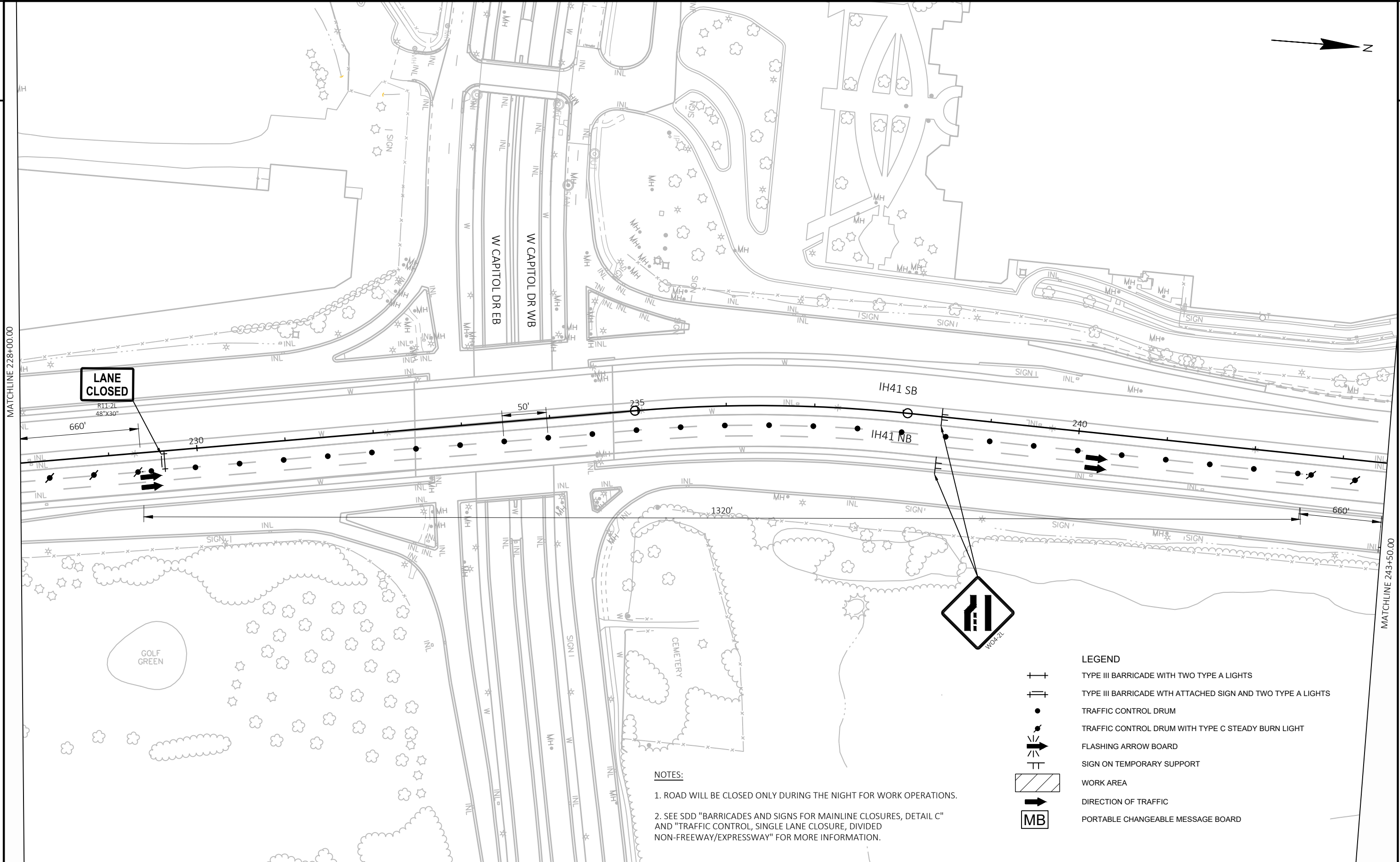
- LEGEND**
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 - TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE A LIGHTS
 - TRAFFIC CONTROL DRUM
 - TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
 - TRAFFIC CONTROL DELINEATOR, FLEXIBLE/TUBULAR MARKER
 - FLASHING ARROW BOARD
 - SIGN ON TEMPORARY SUPPORT
 - WORK AREA
 - DIRECTION OF TRAFFIC
 - PORTABLE CHANGEABLE MESSAGE BOARD



PROJECT NO: 2010-15-70	HWY: CTH EE	COUNTY: MILWAUKEE	TRAFFIC CONTROL - PEDESTRIAN ACCOMMODATIONS	SHEET	E
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MATCHLINE 228+00.00

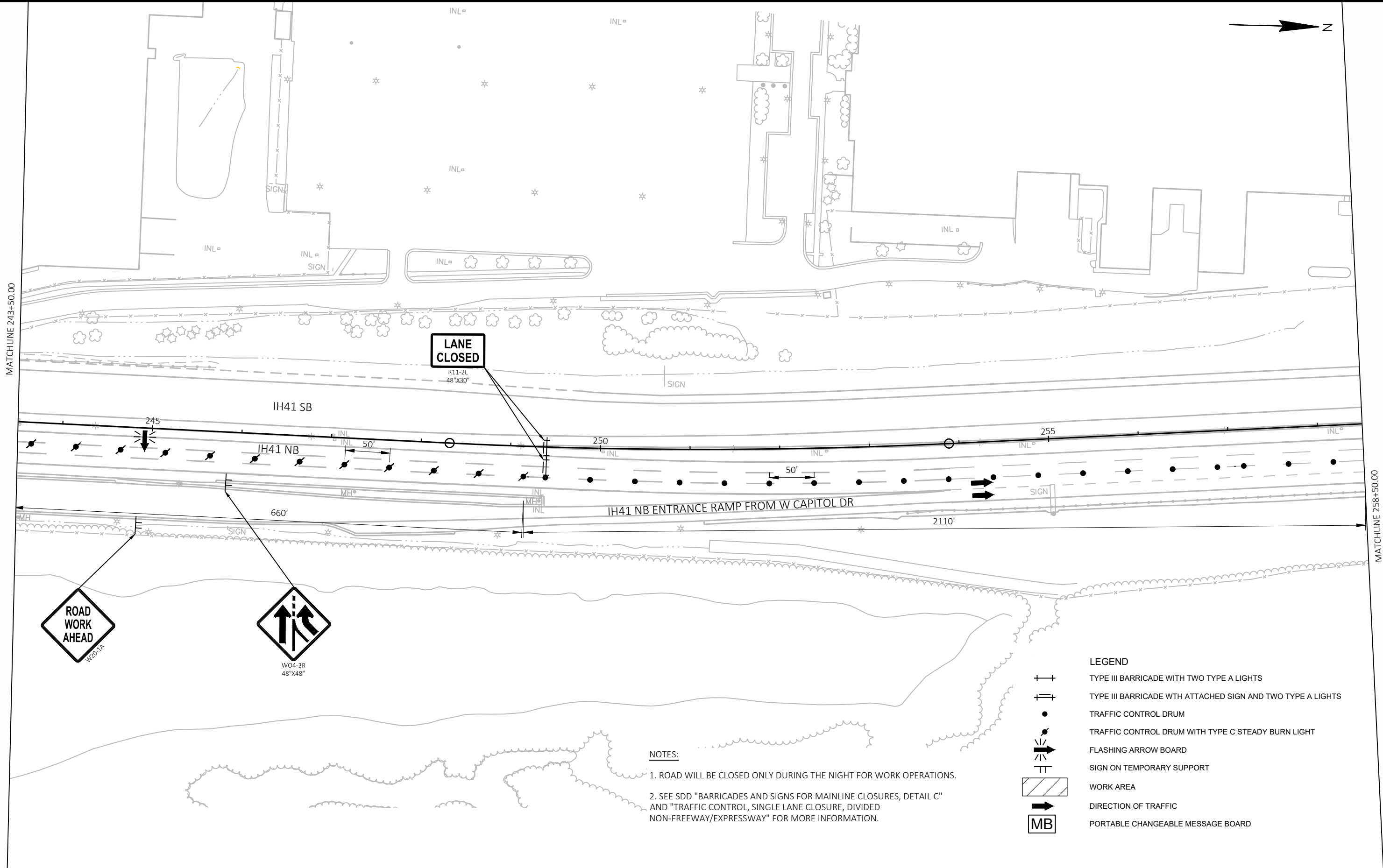


LANE CLOSED

- LEGEND**
- TYPE III BARRICADE WITH TWO TYPE A LIGHTS
 - TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE A LIGHTS
 - TRAFFIC CONTROL DRUM
 - TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
 - FLASHING ARROW BOARD
 - SIGN ON TEMPORARY SUPPORT
 - WORK AREA
 - DIRECTION OF TRAFFIC
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NOTES:

- ROAD WILL BE CLOSED ONLY DURING THE NIGHT FOR WORK OPERATIONS.
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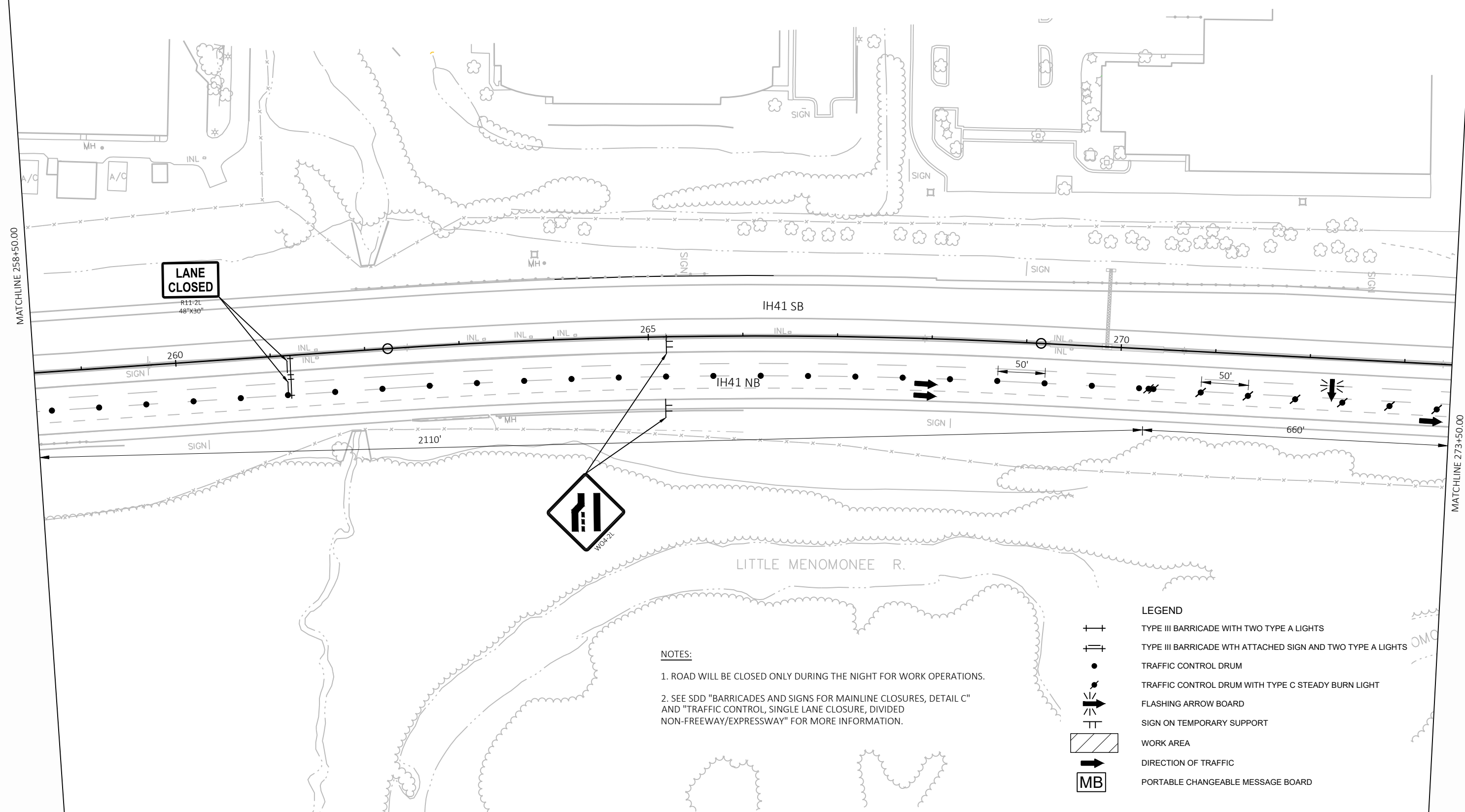


NOTES:

1. ROAD WILL BE CLOSED ONLY DURING THE NIGHT FOR WORK OPERATIONS.
2. SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAIL C" AND "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY" FOR MORE INFORMATION.

LEGEND

	TYPE III BARRICADE WITH TWO TYPE A LIGHTS
	TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE A LIGHTS
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY SUPPORT
	WORK AREA
	DIRECTION OF TRAFFIC
	PORTABLE CHANGEABLE MESSAGE BOARD



LANE CLOSED
R11-2L
48"x30"

NOTES:

- 1. ROAD WILL BE CLOSED ONLY DURING THE NIGHT FOR WORK OPERATIONS.
- 2. SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAIL C" AND "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY" FOR MORE INFORMATION.

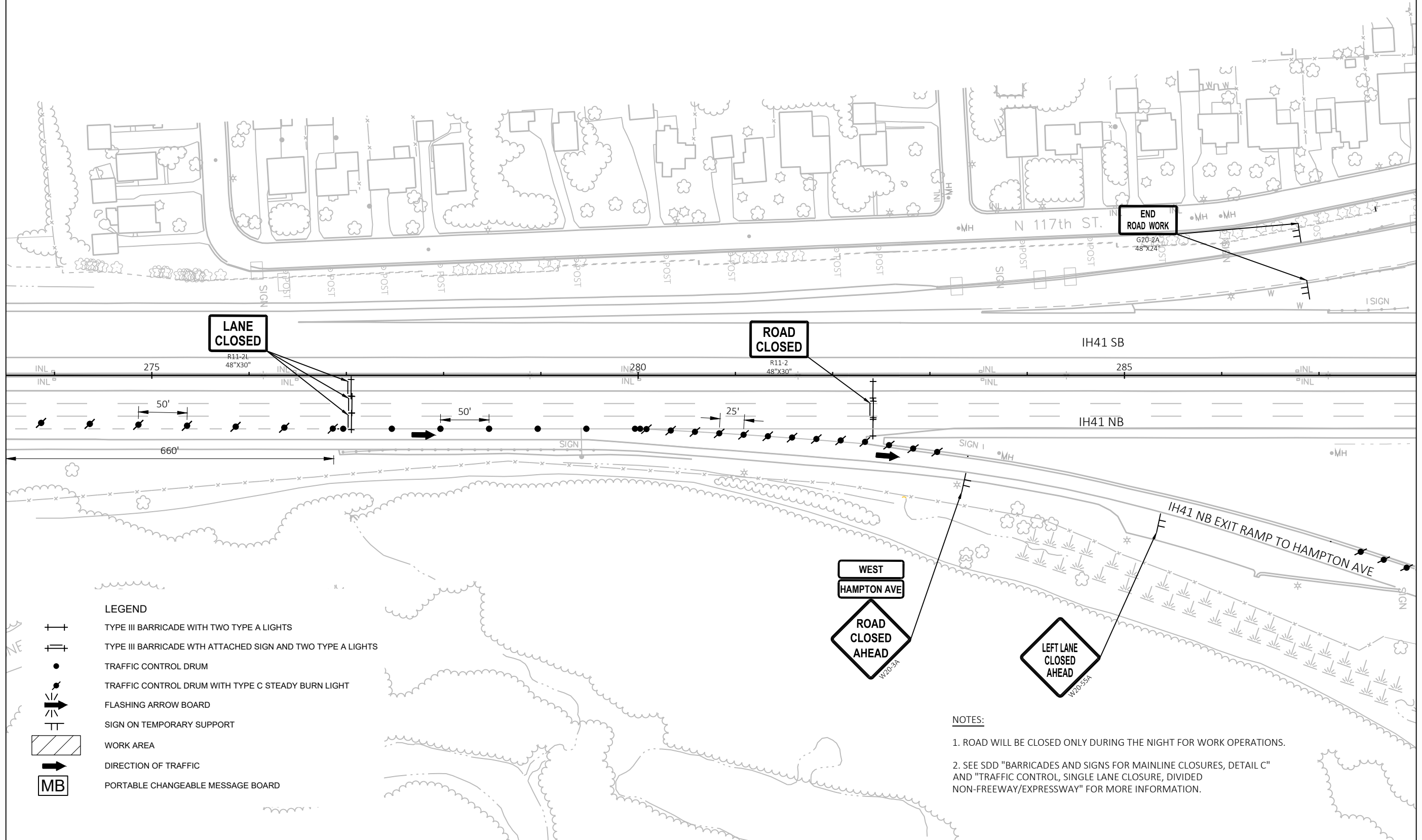
LEGEND

- TYPE III BARRICADE WITH TWO TYPE A LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE A LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD



MATCHLINE 273+50.00

MATCHLINE 288+00.00



LANE CLOSED

ROAD CLOSED

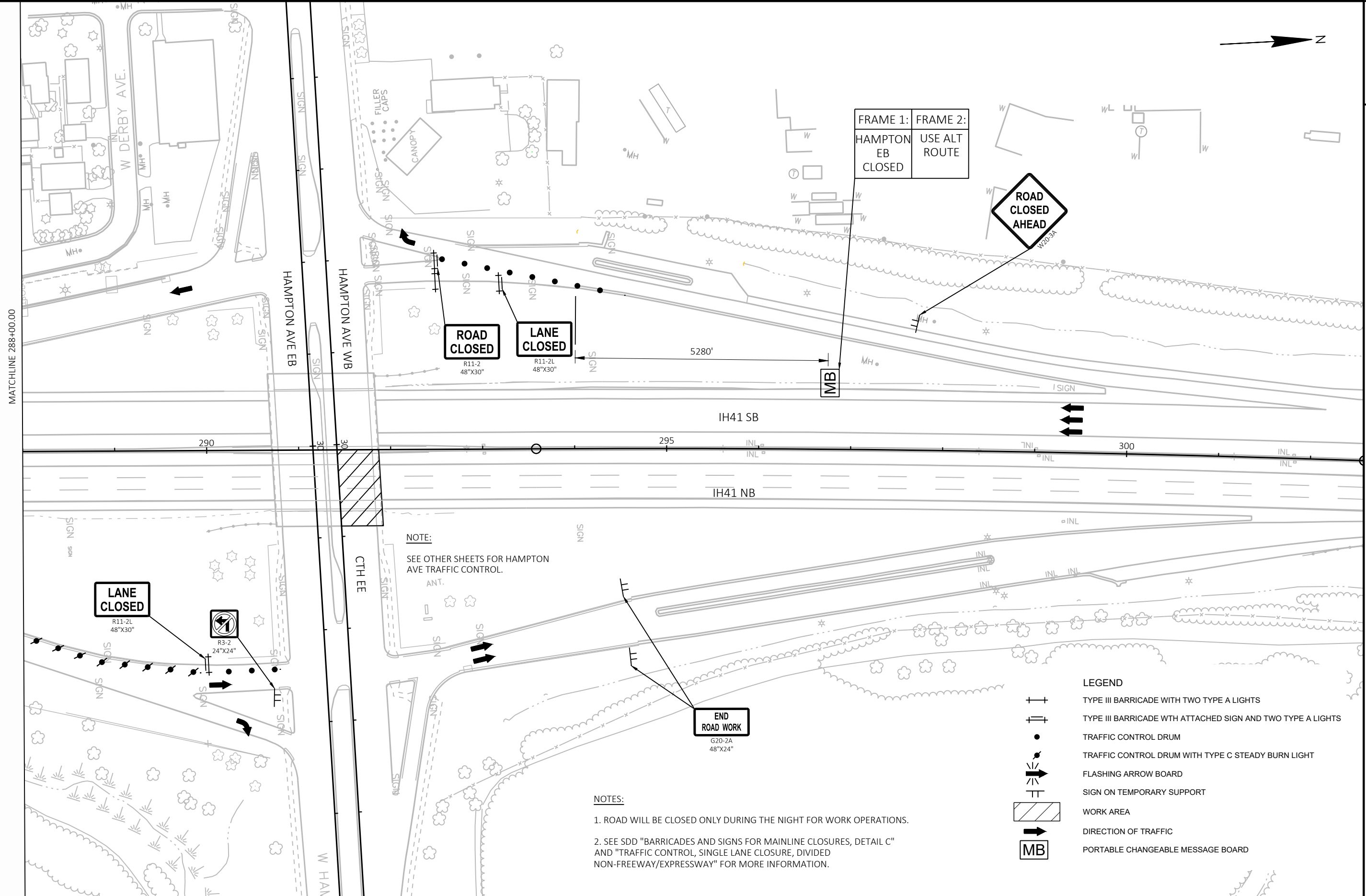
END ROAD WORK

LEGEND

- TYPE III BARRICADE WITH TWO TYPE A LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE A LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD

NOTES:

1. ROAD WILL BE CLOSED ONLY DURING THE NIGHT FOR WORK OPERATIONS.
2. SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAIL C" AND "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREWAY/EXPRESSWAY" FOR MORE INFORMATION.



FRAME 1: HAMPTON EB CLOSED	FRAME 2: USE ALT ROUTE
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ROAD CLOSED

LANE CLOSED

ROAD CLOSED AHEAD

LANE CLOSED

END ROAD WORK

NOTE:
SEE OTHER SHEETS FOR HAMPTON
AVE TRAFFIC CONTROL.

- NOTES:**
1. ROAD WILL BE CLOSED ONLY DURING THE NIGHT FOR WORK OPERATIONS.
 2. SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAIL C" AND "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREWAY/EXPRESSWAY" FOR MORE INFORMATION.

LEGEND

	TYPE III BARRICADE WITH TWO TYPE A LIGHTS
	TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE A LIGHTS
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY SUPPORT
	WORK AREA
	DIRECTION OF TRAFFIC
	PORTABLE CHANGEABLE MESSAGE BOARD

Estimate Of Quantities

2010-15-70

Line	Item	Item Description	Unit	Total	Qty
0002	213.0100	Finishing Roadway (project) 0001. 2010-15-70	EACH	1.000	1.000
0004	506.0105	Structural Steel Carbon	LB	890.000	890.000
0006	517.0601	Painting Epoxy System (structure) 0103. B-40-360	EACH	1.000	1.000
0008	517.3001.S	Structure Overcoating Cleaning and Priming (structure) 0103. B-40-360	EACH	1.000	1.000
0010	517.4001.S	Containment and Collection of Waste Materials (structure) 0103. B-40-360	EACH	1.000	1.000
0012	619.1000	Mobilization	EACH	1.000	1.000
0014	628.7020	Inlet Protection Type D	EACH	3.000	3.000
0016	642.5001	Field Office Type B	EACH	1.000	1.000
0018	643.0300	Traffic Control Drums	DAY	2,559.000	2,559.000
0020	643.0420	Traffic Control Barricades Type III	DAY	488.000	488.000
0022	643.0705	Traffic Control Warning Lights Type A	DAY	975.000	975.000
0024	643.0715	Traffic Control Warning Lights Type C	DAY	1,053.000	1,053.000
0026	643.0800	Traffic Control Arrow Boards	DAY	75.000	75.000
0028	643.0900	Traffic Control Signs	DAY	888.000	888.000
0030	643.1050	Traffic Control Signs PCMS	DAY	57.000	57.000
0032	643.5000	Traffic Control	EACH	1.000	1.000
0034	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 0001. 30+05	EACH	1.000	1.000
0036	SPV.0060	Special 4050. Heat Straightening of Damaged Girders	EACH	1.000	1.000

3

FINISHING ROADWAY

ROADWAY	213.0100 EACH
PROJECT 2010-15-70	1
PROJECT 2010-15-70 TOTAL	1

MOBILIZATION

ROADWAY	619.1000 MOBILIZATION EACH
PROJECT 2010-15-70	1
PROJECT 2010-15-70 TOTAL	1

INLET PROTECTION

ROADWAY	628.7020 TYPE D EACH
IH 41	3
PROJECT 2010-15-70 TOTAL	3

3

FIELD OFFICE TYPE B

ROADWAY	642.5001 EACH
CTH EE	1
PROJECT 2010-15-70 TOTAL	1

TRAFFIC CONTROL

	643.5000 EACH
PROJECT 2010-15-70	1
PROJECT 2010-15-70 TOTAL	1

**INSTALLING AND MAINTAINING
BIRD DETERRENT SYSTEM B-40-360**

	999.2000.S EACH
IH 41	1
PROJECT 2010-15-70 TOTAL	1

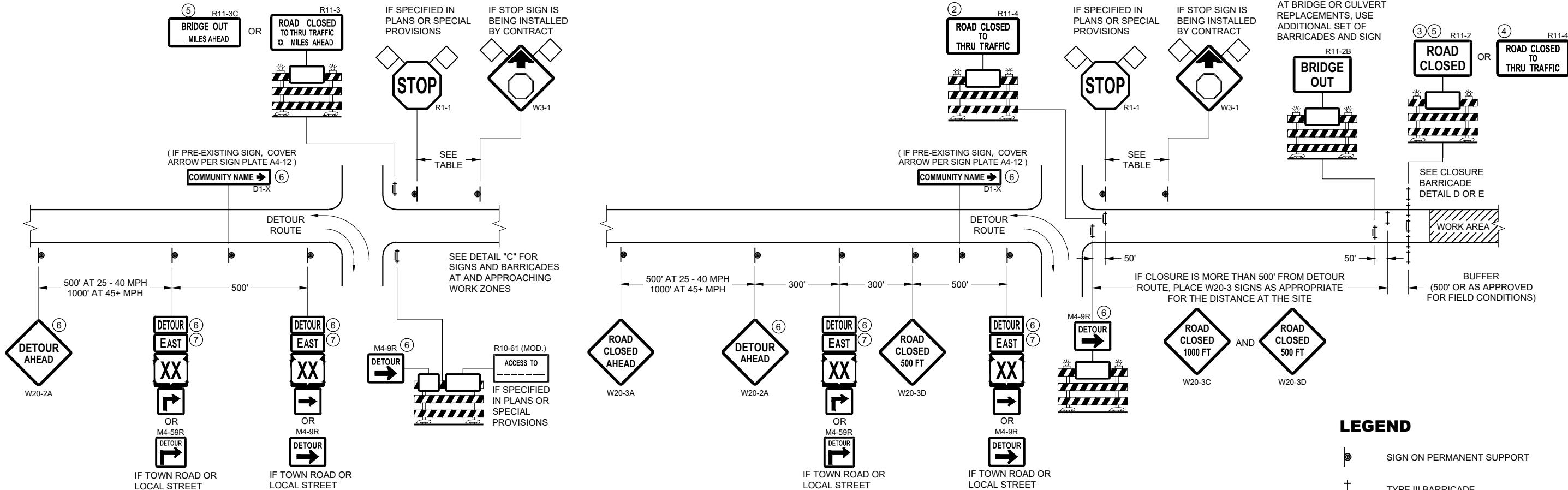
TRAFFIC CONTROL ITEMS

ROADWAY	DURATION DAYS	643.0300		643.0420		643.0705		643.0715		643.0800		643.0900		643.1050	
		TRAFFIC CONTROL DRUMS	DAYS	TRAFFIC CONTROL BARRICADES TYPE III	DAYS	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAYS	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAYS	TRAFFIC CONTROL ARROW BOARDS	DAYS	TRAFFIC CONTROL SIGNS	DAYS	TRAFFIC CONTROL SIGNS PCMS	DAYS
CTH EE	10	42	421	24	240	48	480	20	196	2	20	33	330	--	--
IH 41	10	163	1,626	15	150	30	300	65	646	4	40	38	380	5	50
UNDISTRIBUTED			512		98		195		211		15		178		7
PROJECT 2010-15-70 TOTAL			2,559		488		975		1,053		75		888		57

ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

Standard Detail Drawing List

15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D12-10A	TRAFFIC CONTROL, LANE CLOSURE
15D14-04	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D15-06D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D20-06A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D20-06B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D20-06C	TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

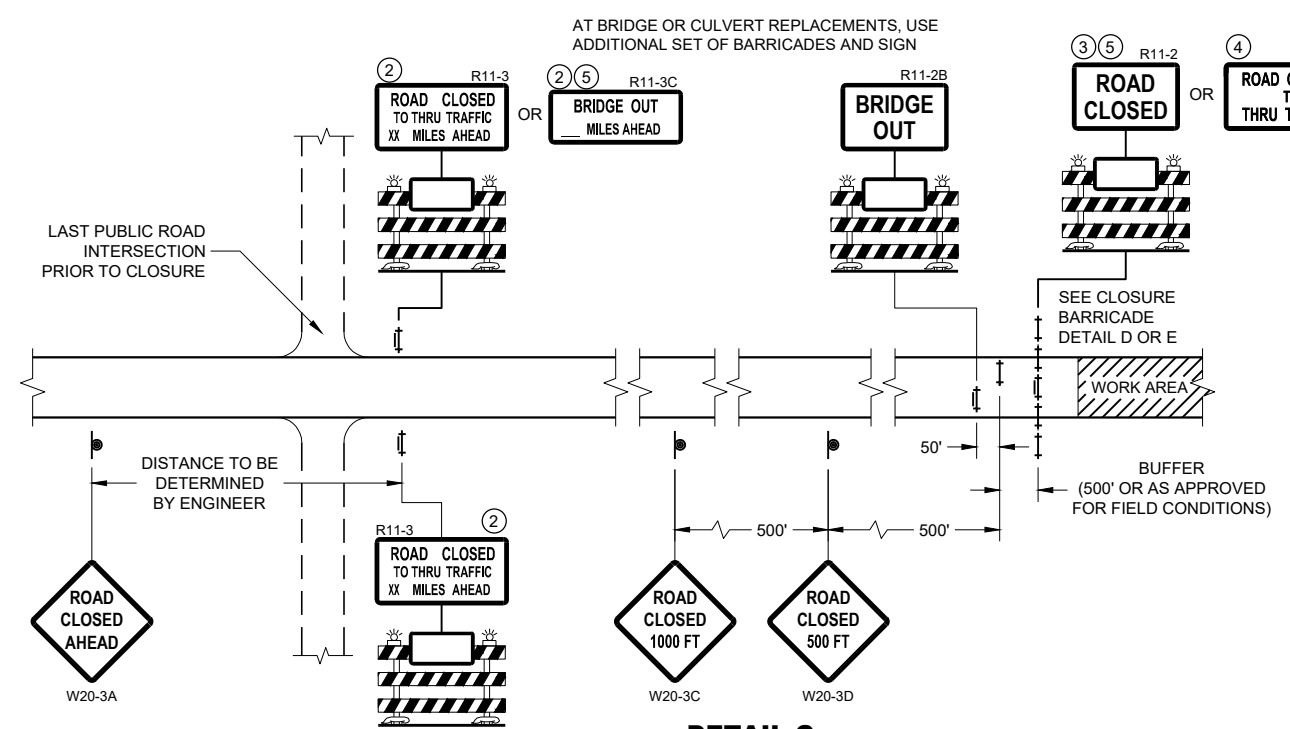
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- M4 - 8
- M3 - X
- M1 - 4 OR M1 - 6 OR M1 - 5A
- M05 - 1 OR M06 - 1

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦



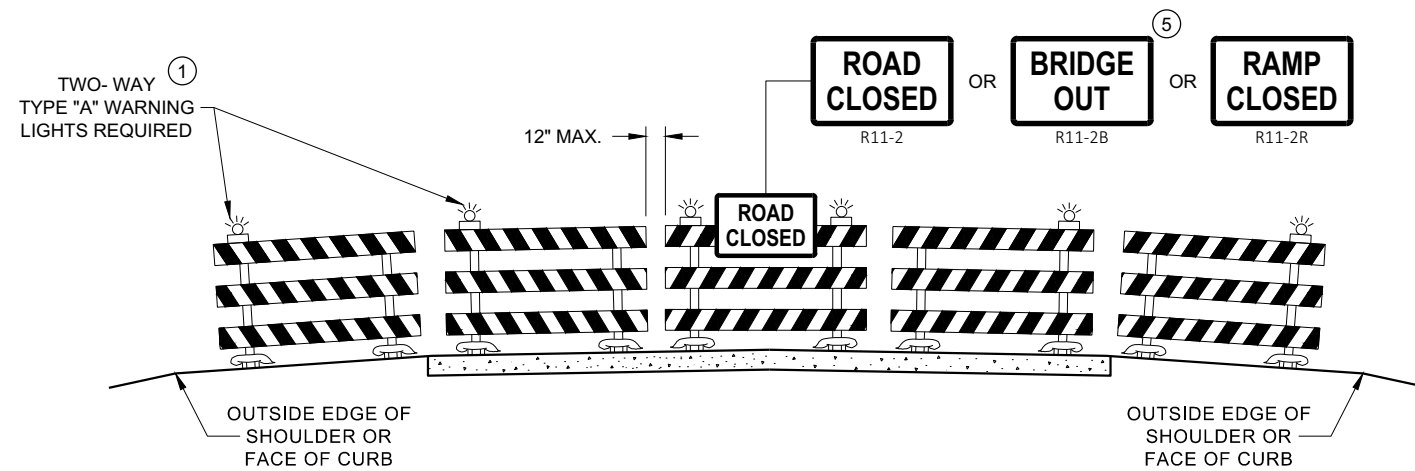
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

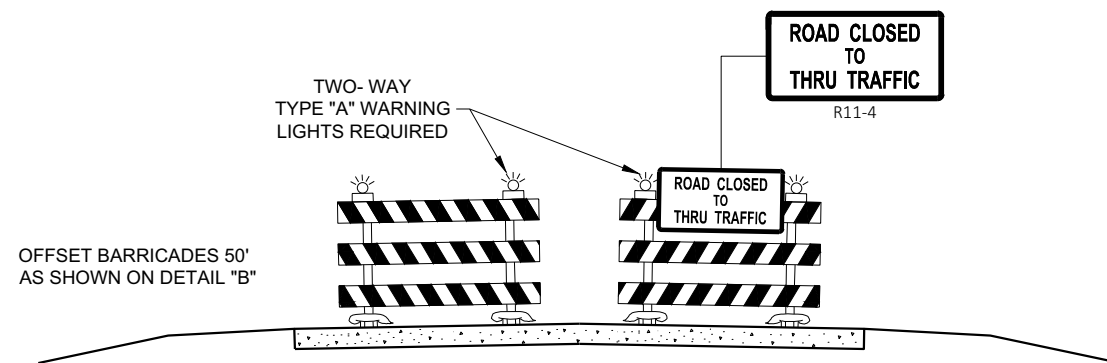
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE DATE WORK ZONE ENGINEER

FHWA



**DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW**



**DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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.

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

BARRICADES 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.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

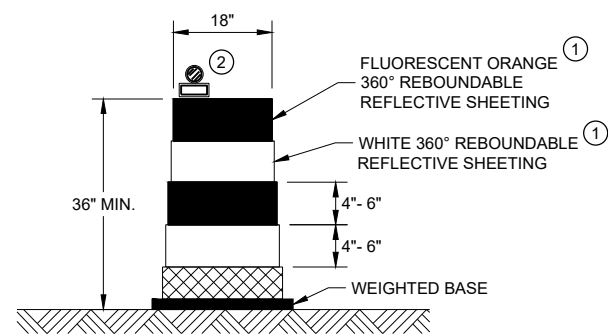
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

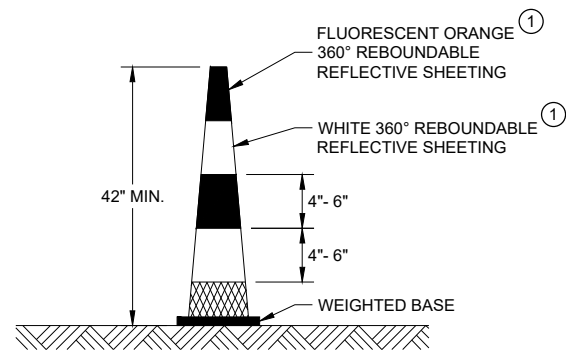
**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

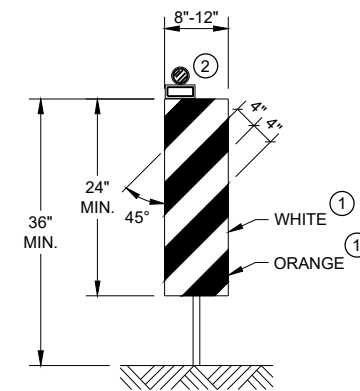


DRUM



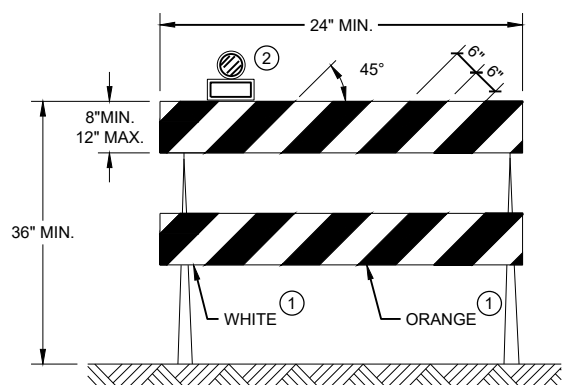
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



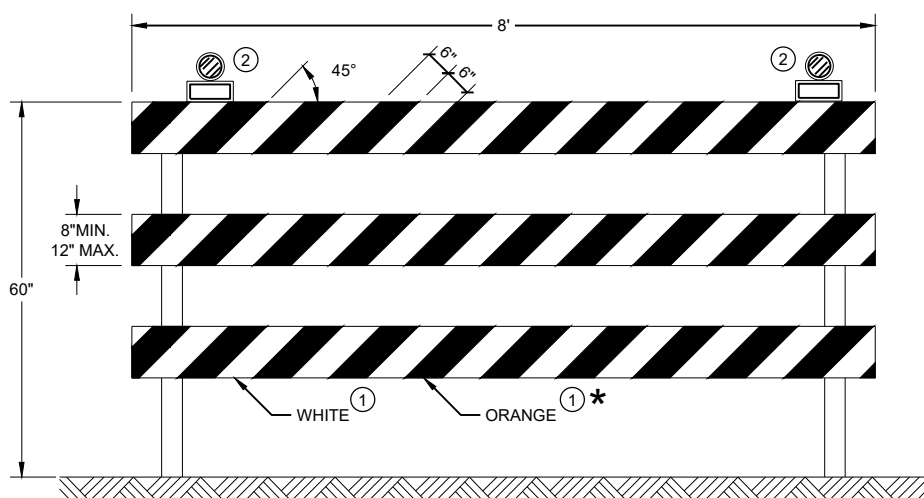
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

GENERAL NOTES

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

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

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

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

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

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

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

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

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










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

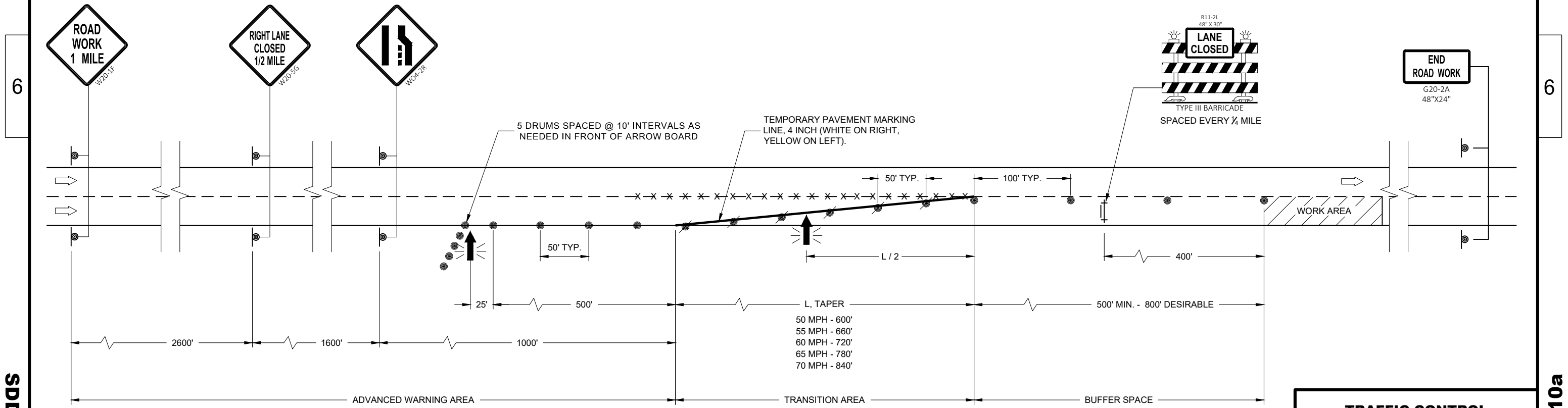
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS

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

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

LEGEND

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












TRAFFIC CONTROL LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

SDD 15D12 - 10a

SDD 15D12 - 10a

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  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.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

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 TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

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 ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE 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.

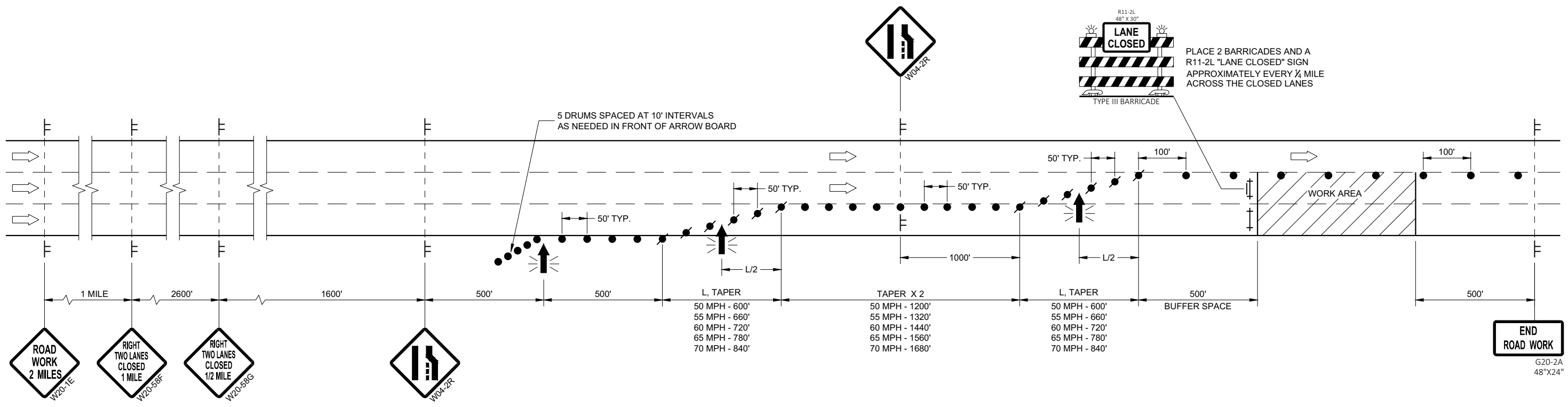
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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.

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SDD 15D14 - 04

SDD 15D14 - 04








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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 DATE /S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  FLAGS, 16" X 16" MIN., ORANGE
-  DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

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

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

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

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

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

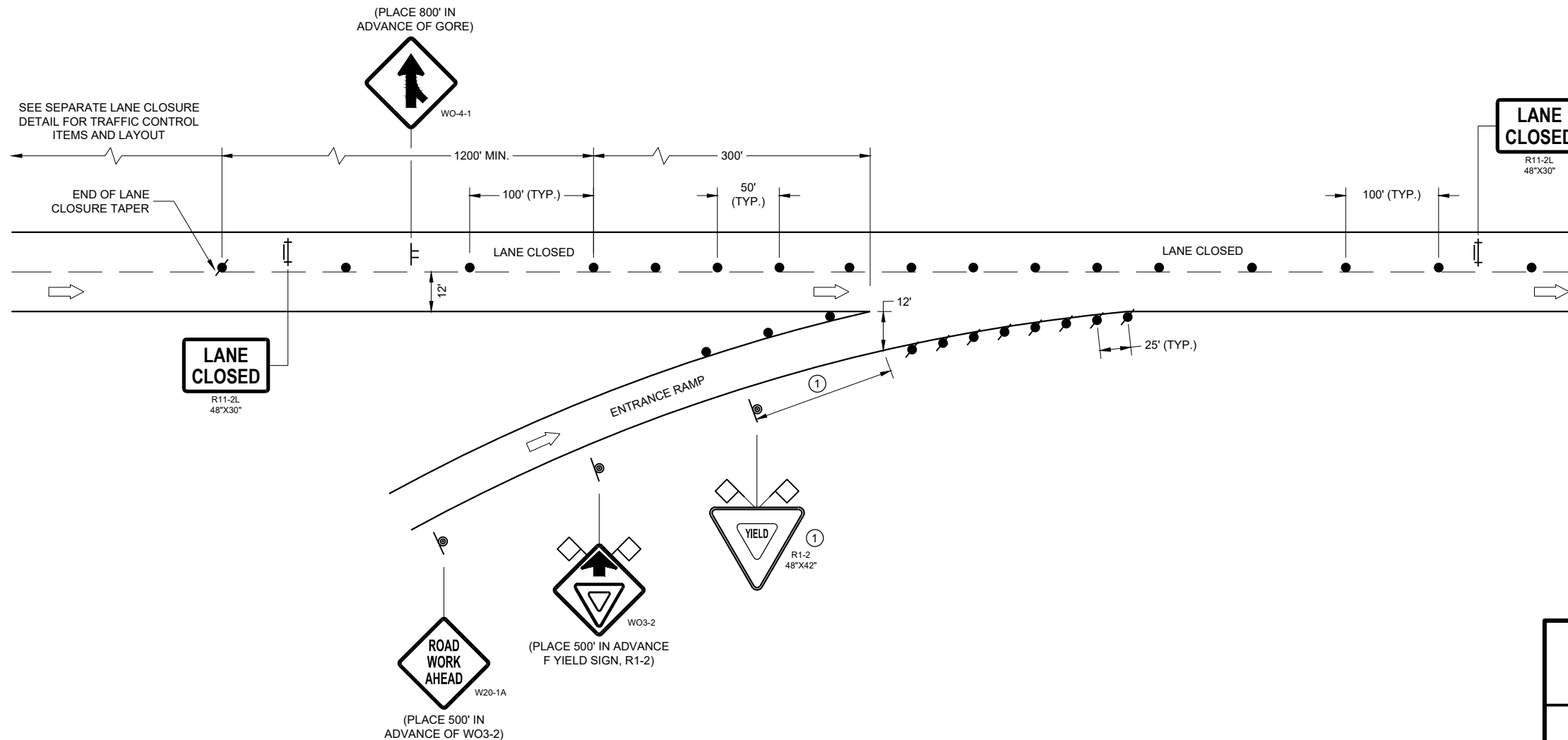
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

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

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

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

① PLACE YIELD SIGN TO PROVIDE ADEQUATE SIGHT DISTANCE AND ACCELERATION DISTANCE.



6










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SDD 15D15 - 06d

SDD 15D15 - 06d

TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

LEGEND

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

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

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

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

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

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

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

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

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 TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

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

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

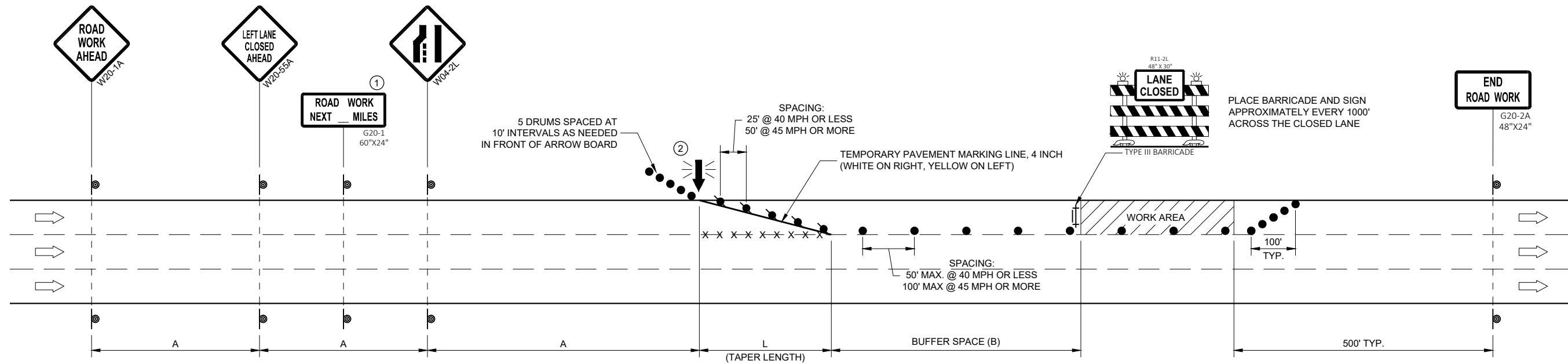
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED 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.

- ① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- ② WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'










TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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 TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

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

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

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

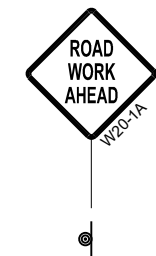
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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.

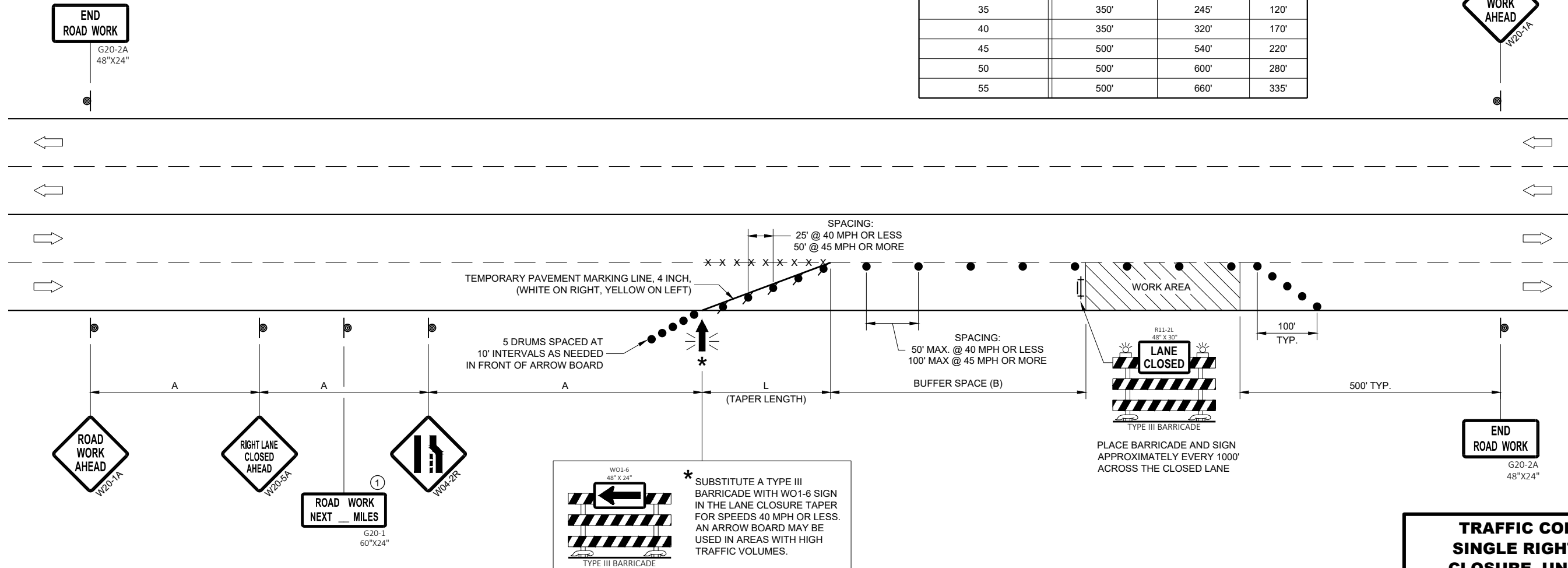
① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'



6

6



SDD 15D20 - 06b

SDD 15D20 - 06b










**TRAFFIC CONTROL,
SINGLE RIGHT LANE
CLOSURE, UNDIVIDED
NON-FREEWAY/EXPRESSWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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 TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

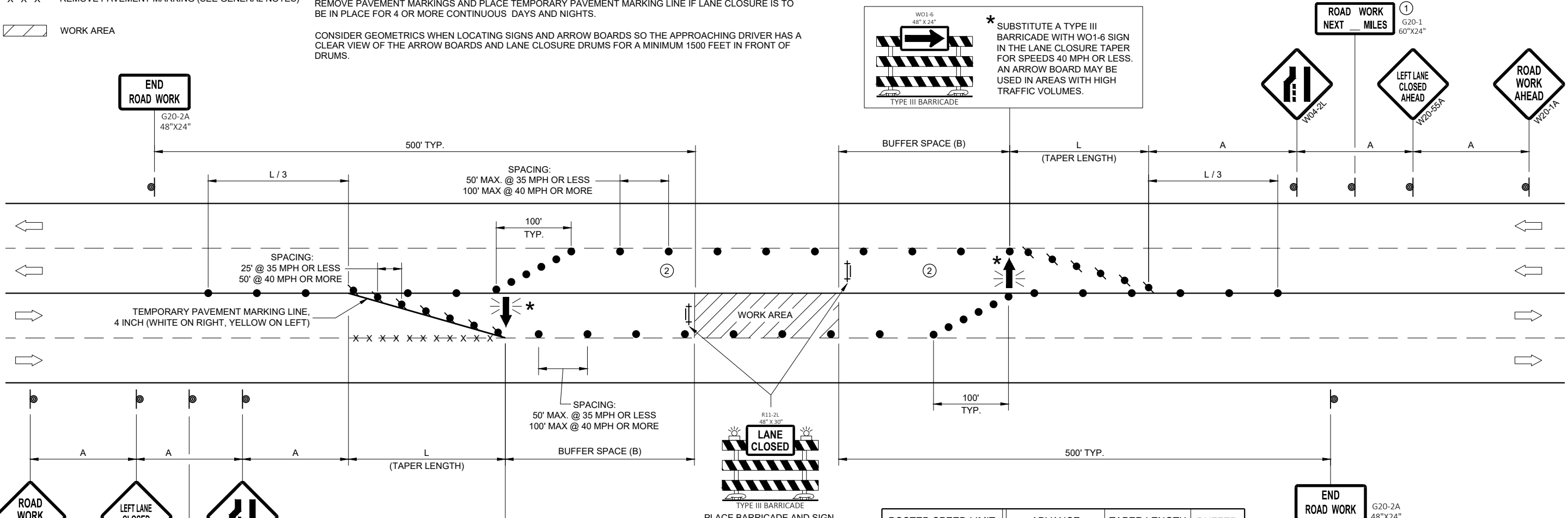
DUE TO LACK OF SHOULDER/MEDIAN, ARROW BOARD IS PLACED AT THE THE END OF THE TAPER.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED 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.

- ① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- ② LANE MAY BE OPENED WHEN WORKERS ARE NOT PRESENT IN THE WORK AREA.



*** SUBSTITUTE A TYPE III BARRICADE WITH WO1-6 SIGN IN THE LANE CLOSURE TAPER FOR SPEEDS 40 MPH OR LESS. AN ARROW BOARD MAY BE USED IN AREAS WITH HIGH TRAFFIC VOLUMES.**

*** SUBSTITUTE A TYPE III BARRICADE WITH WO1-6 SIGN IN THE LANE CLOSURE TAPER FOR SPEEDS 40 MPH OR LESS. AN ARROW BOARD MAY BE USED IN AREAS WITH HIGH TRAFFIC VOLUMES.**

R11-2L 48"X30"

PLACE BARRICADE AND SIGN APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'

**TRAFFIC CONTROL,
SINGLE LEFT LANE
CLOSURE, UNDIVIDED
NON-FREEWAY/EXPRESSWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

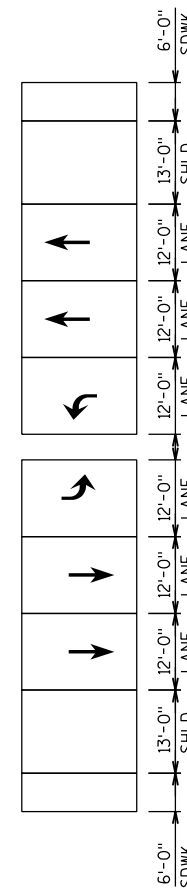
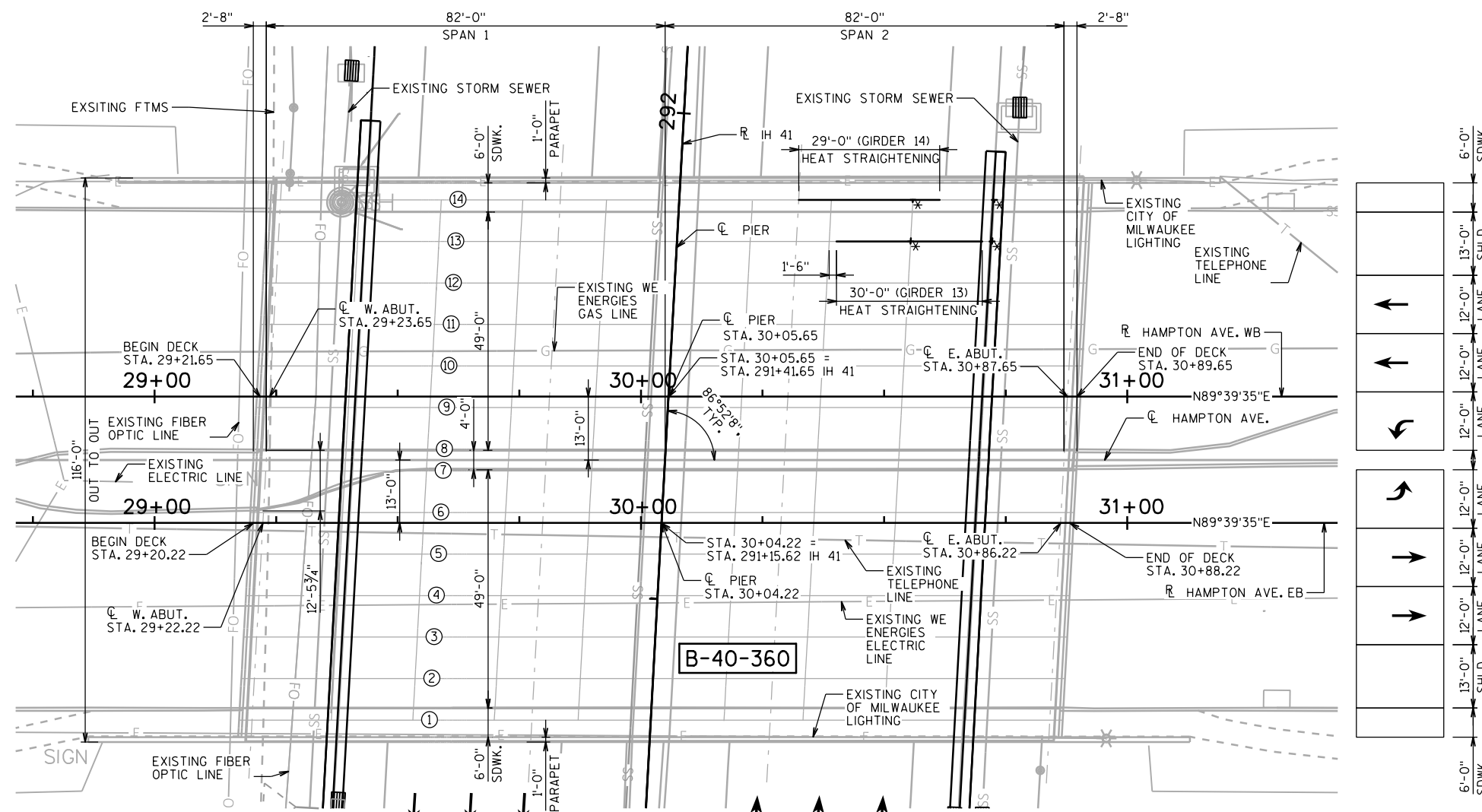
FHWA

LIST OF DRAWINGS

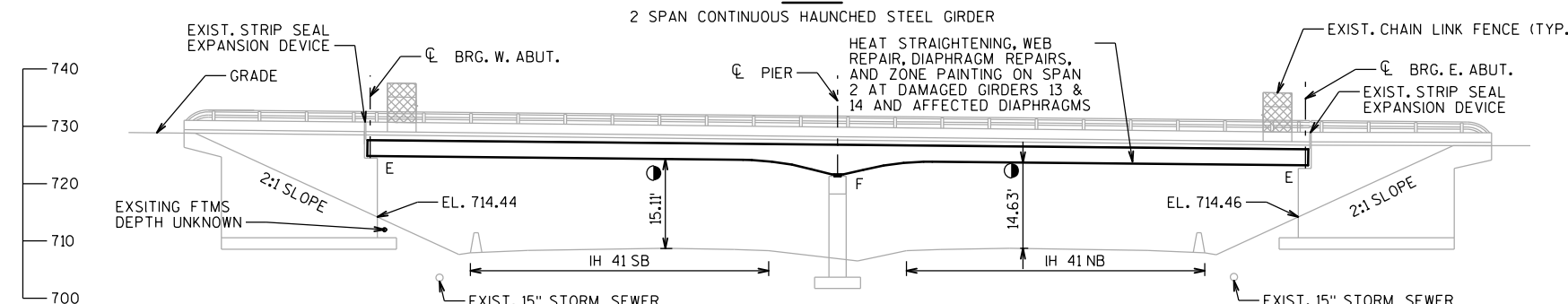
1. GENERAL PLAN AND ELEVATION
2. TYPICAL SECTION, GENERAL NOTES AND QUANTITIES
3. GIRDER 13-14 REPAIR OVERVIEW
4. GIRDER 13 WEB REPAIR
5. GIRDER 14 WEB REPAIR

LEGEND

- TRAFFIC DIRECTION
- CLEARANCE DIMENSION TAKEN FROM HGIS; MEASUREMENT TAKEN 8/20/2015. LOCATION PER EXISTING PLANS.
- * DIAPHRAGM CONNECTION RETROFIT



PLAN



ELEVATION
(LOOKING NORTH)

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
 AARON BONK (608) 261-0261
 CONSULTANT:
 PAT CASHIN (414) 359-2300

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
HNTB		250 E. WISCONSIN AVE. #2000 MILWAUKEE, WI 53202 (414) 359-2300	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>[Signature]</i> SDR		11/08/22
CHIEF STRUCTURES DESIGN ENGINEER		DATE	
STRUCTURE B-40-360			
HAMPTON AVE. OVER IH 41			
COUNTY	MILWAUKEE	CITY	MILWAUKEE
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
FEG/JWO	CK'D.	CKN	FEG/JWO
GENERAL PLAN AND ELEVATION			SHEET 1 OF 5



TRAFFIC DATA

HAMPTON AVE.
 EXISTING A.A.D.T. = 19,500 (2019)
 FUTURE A.A.D.T. = 21,000 (2040)
 R.D.S. = 40 M.P.H.
IH 41
 EXISTING A.A.D.T. = 149,000 (2019)
 FUTURE A.A.D.T. = 169,300 (2040)
 R.D.S. = 60 M.P.H.

DESIGN DATA

LIVE LOAD
 TAKEN FROM HSI, 7/24/2022
 DESIGN LOADING: HS-20
 INVENTORY RATING: HS-15
 OPERATING RATING: HS-25
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 190 KIPS

8

8

GENERAL NOTES

WORK INCLUDES GIRDER HEAT STRAIGHTENING, WEB REPAIR, DIAPHRAGM REPAIRS AND ASSOCIATED PAINTING.

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD88 (2012).

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

ALL FIELD CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER HIGH-TENSILE STRENGTH BOLTS UNLESS OTHERWISE SHOWN OR NOTED.

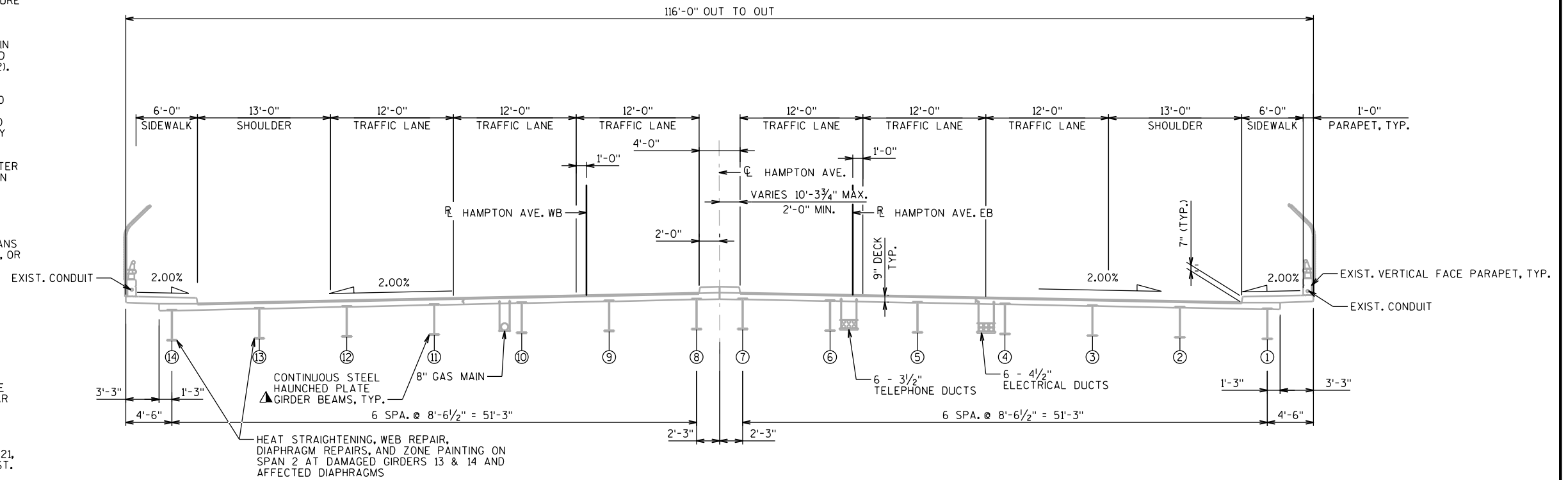
EXISTING PROTECTIVE SURFACE TREATMENTS AND/OR SURFACE CORROSION AND DEBRIS SHALL BE REMOVED AT LOCATIONS NOTED REQUIRING HEAT STRAIGHTENING. STEEL SURFACE SHALL BE POWER CLEANED BY MECHANICAL MEANS REMOVING ALL PROTECTIVE COATING, RUST, SCALE, DEBRIS, OR OTHER DELETERIOUS MATTER IN CONFORMANCE WITH SSPC-SP3.

BARE STEEL FROM PAINT REMOVALS FOR HEAT STRAIGHTENING SHALL BE PAID FOR UNDER THE BID ITEM "STRUCTURE OVERCOATING CLEANING AND PRIMING B-40-360".

NEW STEEL PIECES TO BE SHOP PAINTED AND PAID FOR UNDER BID ITEM "PAINTING EPOXY SYSTEM B-40-360".

THE COLOR OF THE FINISHED EPOXY TOP COAT SHALL BE AMS STANDARD COLOR NO. 26293 (LIGHT GRAY) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

A DAMAGE INSPECTION REPORT FOR B-40-360, INCLUDING NON-DESTRUCTIVE TESTING RESULTS, WAS PREPARED BY FICKETT STRUCTURAL SOLUTIONS DATED DECEMBER 7, 2021, AND IS AVAILABLE FROM THE DEPARTMENT UPON REQUEST.



TYPICAL SECTION

(LOOKING EAST)

▲ GIRDERS 1 & 14: 33 3/8" WEBS TYPICAL, 62" WEB MAX. AT PIER
 GIRDERS 2-13: 34" WEBS TYPICAL, 62" WEB MAX. AT PIER

DESIGN DATA

MATERIAL PROPERTIES:

EXISTING SUPERSTRUCTURE STEEL (ASTM A-36)..... Fy = 36,000 psi

STRUCTURAL CARBON STEEL:
 ASTM A709, GRADE 36 Fy = 36,000 psi

BOLTS UNLESS NOTED OTHERWISE..... ASTM F3125 GR. A325 TYPE 1

WASHERS UNLESS NOTED OTHERWISE..... ASTM F436 TYPE 1

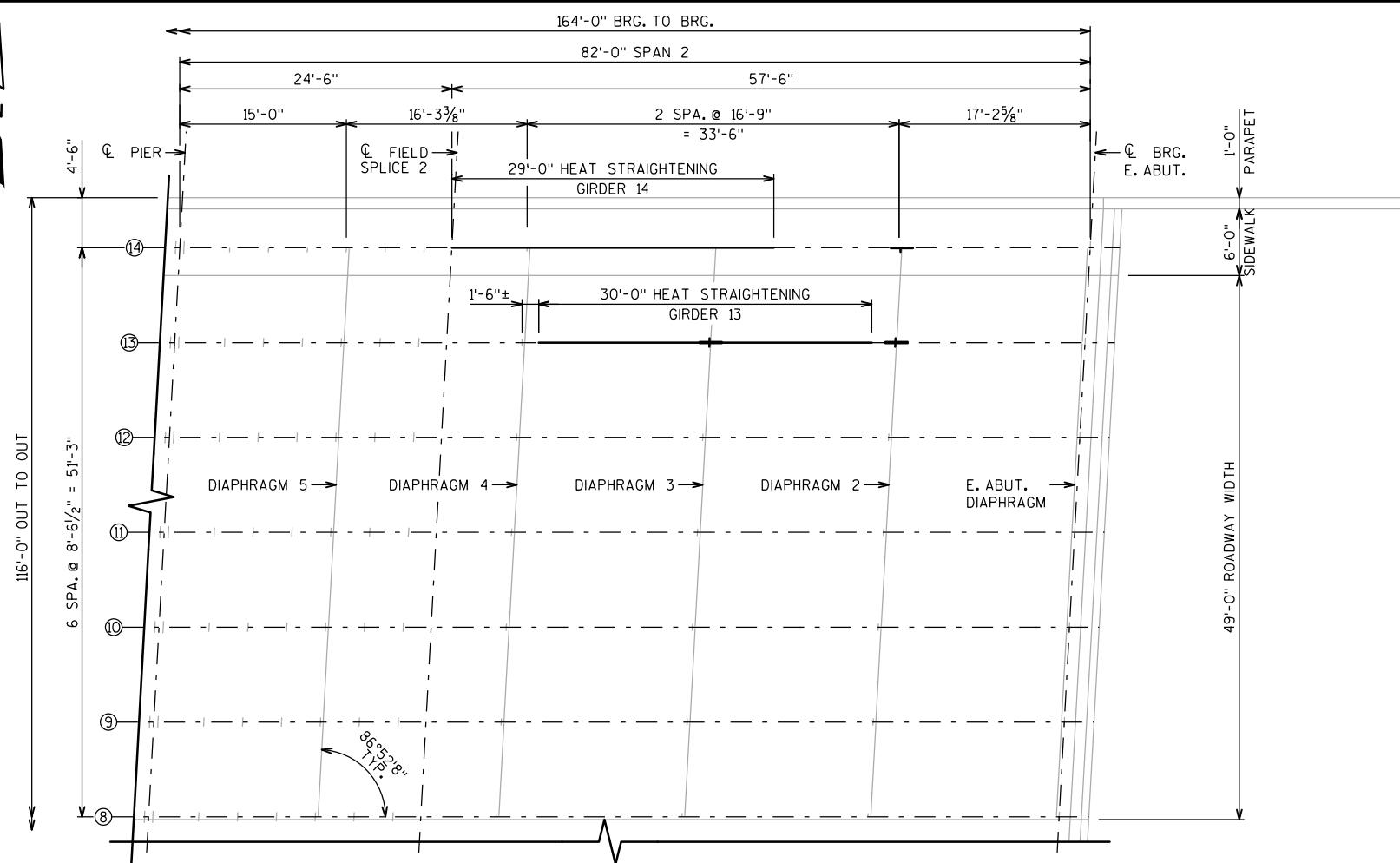
NUTS UNLESS NOTED OTHERWISE..... ASTM A563 GR. DH

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
506.0105	STRUCTURAL STEEL CARBON	LB	890
517.0601.0103	PAINTING EPOXY SYSTEM B-40-360	EACH	1
517.3001.S.0103	STRUCTURE OVERCOATING CLEANING AND PRIMING B-40-360	EACH	1
517.4001.S.0103	CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-360	EACH	1
SPV.0060.4050	HEAT STRAIGHTENING OF DAMAGED GIRDERS	EACH	1

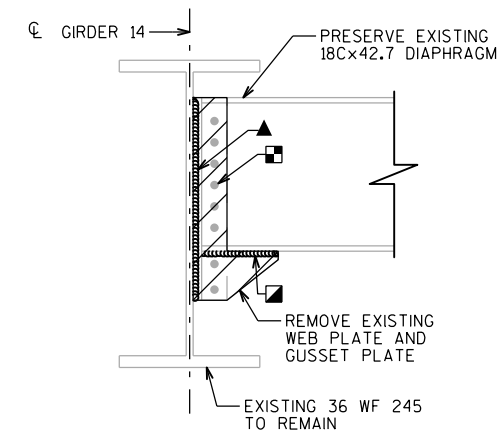
ALL ITEMS ARE CATEGORY 2000

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-40-360			
DRAWN BY		FEG	PLANS CK'D. CNK
TYPICAL SECTION, GENERAL NOTES AND QUANTITIES			SHEET 2



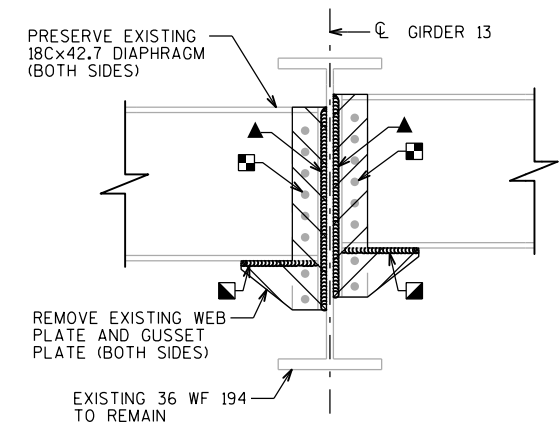
SUPERSTRUCTURE REPAIR PLAN

(SPAN 2)



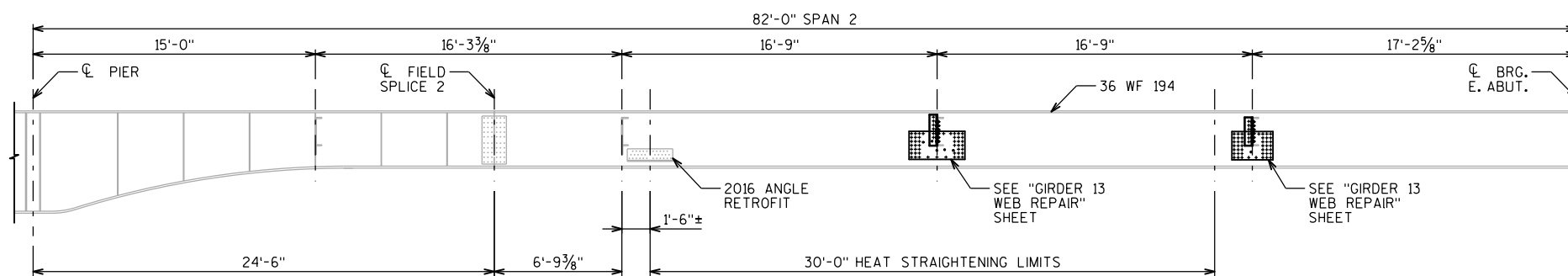
GIRDER 14 REMOVAL DETAIL

FOR DIAPHRAGM 2 AND 3 (LOOKING EAST)

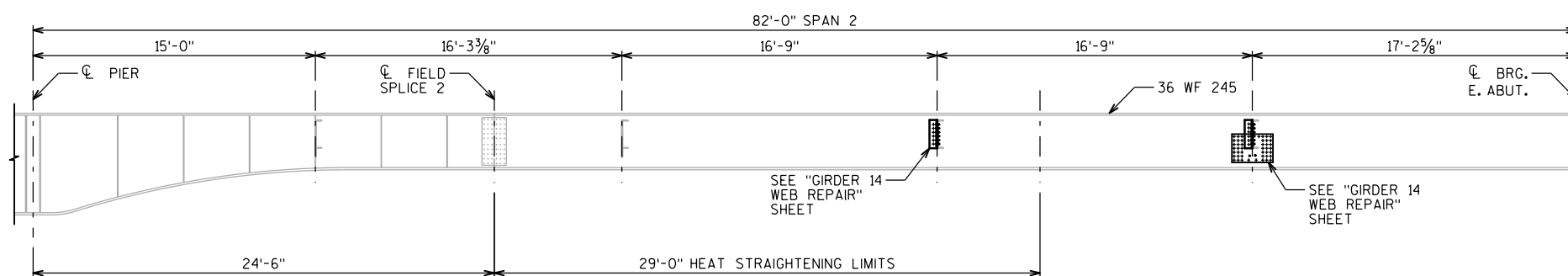


GIRDER 13 REMOVAL DETAIL

FOR DIAPHRAGM 2 AND 3 (LOOKING EAST)



GIRDER 13 ELEVATION



GIRDER 14 ELEVATION

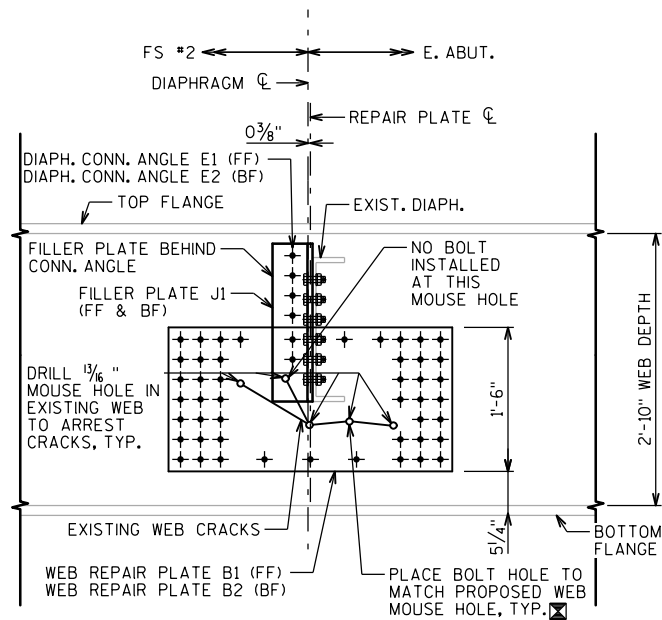
NOTES:

1. REMOVAL PROCEDURE SHALL FOLLOW THE ORDER SHOWN IN THE REMOVAL LEGEND
2. FOR DIAPHRAGMS SPANNING BETWEEN GIRDER 12 AND 13, BOLTS NEED TO BE REMOVED FROM GIRDER 12 IN ORDER TO REMOVE THE DIAPHRAGM SECTION. NEW BOLTS SHALL BE USED ON GIRDER 12 CONNECTION DURING FINAL INSTALLATION.

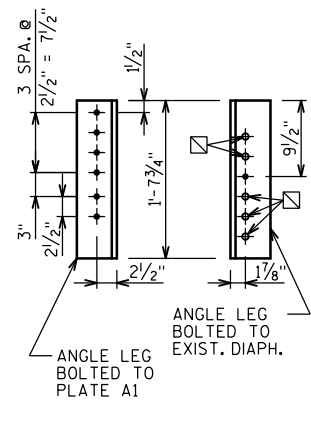
REMOVAL LEGEND:

- = REMOVE EXISTING BOLTS FROM DIAPHRAGM CONNECTION ONLY
- ▣ = AFTER BOLT REMOVAL, GRIND/AIR-ARC GOUGE TO REMOVE EXISTING WELDS FROM DIAPHRAGM TO GUSSET PLATE. GRIND ANY REMAINING WELDS ON DIAPHRAGM WHICH RESULTED FROM THE PRIOR ATTACHMENT TO THE WEB PLATE, SMOOTH/FLUSH AFTER DIAPHRAGM IS REMOVED.
- ▲ = AFTER DIAPHRAGM REMOVAL, GRIND/AIR-ARC GOUGE TO REMOVE EXISTING WELDS FROM WEB PLATE TO GIRDER WEB. GRIND ANY REMAINING WELDS ON GIRDER WEB SMOOTH/FLUSH AFTER WEB PLATE IS REMOVED.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-40-360			
DRAWN BY		JWO	PLANS CK'D. CNK
GIRDER 13-14 REPAIR OVERVIEW			SHEET 3

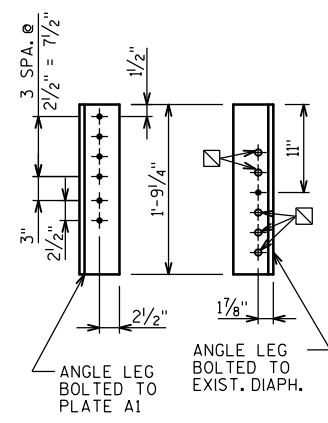


GIRDER 13 DIAPHRAGM 3 ELEVATION



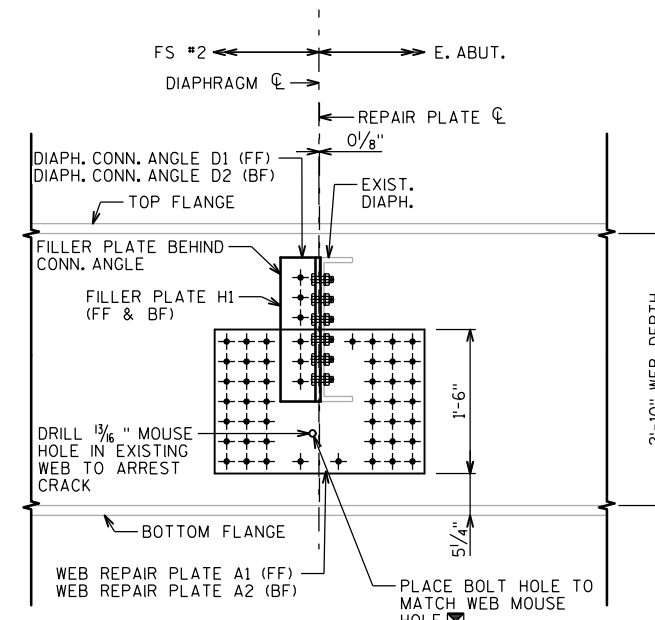
ANGLE E1 ELEVATION

(1-L5x5x5/8\"/>



ANGLE E2 ELEVATION

(1-L5x5x5/8\"/>



GIRDER 13 DIAPHRAGM 2 ELEVATION

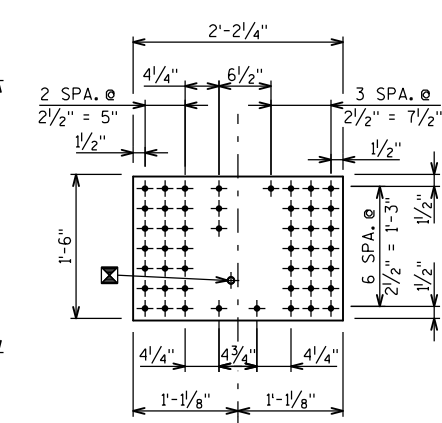
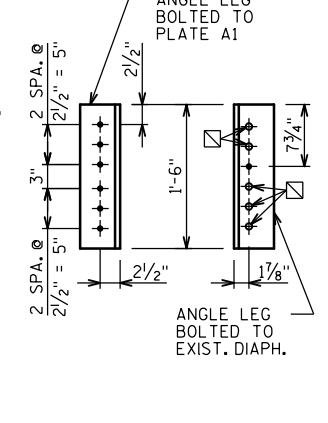


PLATE A1 ELEVATION

(1-5/8\"/>



ANGLE D1 ELEVATION

(1-L5x5x5/8\"/>

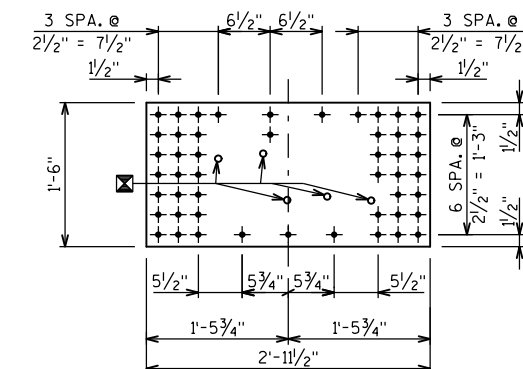


PLATE B1 ELEVATION

(1-5/8\"/>

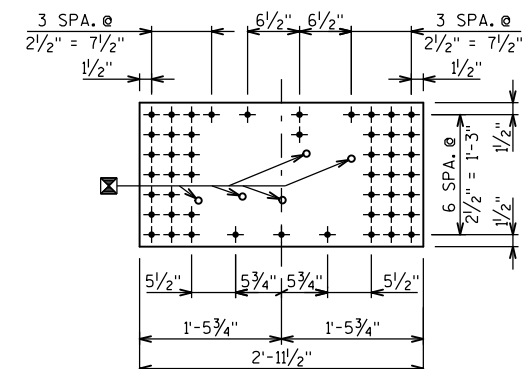


PLATE B2 ELEVATION

(1-5/8\"/>

GIRDER 13 WEB REPAIR SEQUENCE:

1. FIELD VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING WEB CRACKS, MOUSE HOLES AND PREVIOUS FIELD WEB REPAIR PATCH LIMITS.
2. LOCATE WEB REPAIR PLATE (A1 OR B1) WITH RESPECT TO EXISTING CONSTRUCTION AND FIELD DRILL 13/16\"/>
- 3. INSTALL WEB REPAIR PLATE (A2 OR B2), FILLER PLATE (H1 OR J1) AND SECOND DIAPHRAGM CONNECTION ANGLE (D2 OR E2). FIELD DRILL REMAINING 13/16\"/>
- 4. FIT EXISTING DIAPHRAGM TO DIAPHRAGM CONNECTION ANGLE (D1, D2, E1, OR E2). INSTALL 3/4\"/>

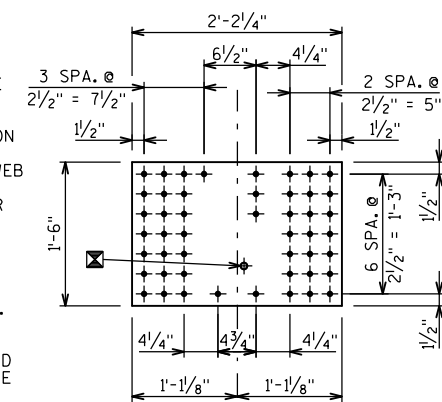
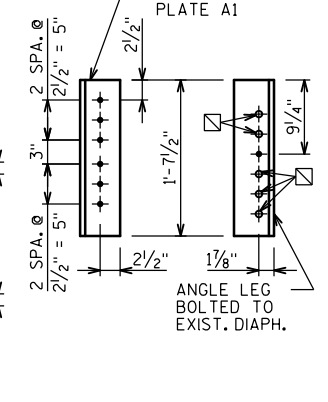


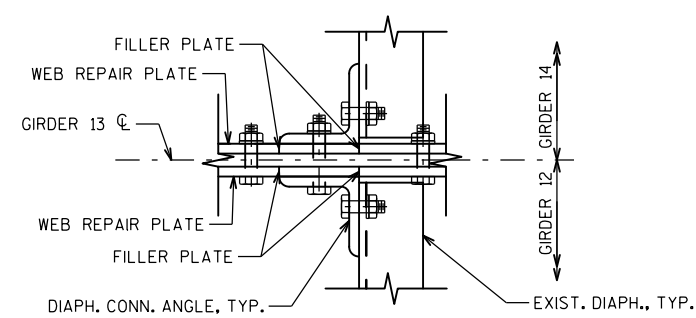
PLATE A2 ELEVATION

(1-5/8\"/>



ANGLE D2 ELEVATION

(1-L5x5x5/8\"/>



WEB REPAIR PLAN VIEW

(DIAPHRAGM 2 SHOWN, DIAPHRAGM 3 SIMILAR)

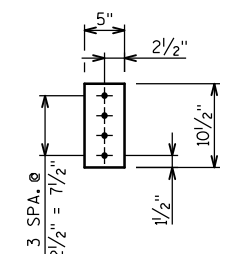


PLATE J1 ELEVATION

(2-5/8\"/>

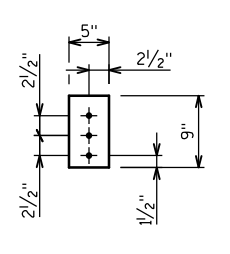


PLATE H1 ELEVATION

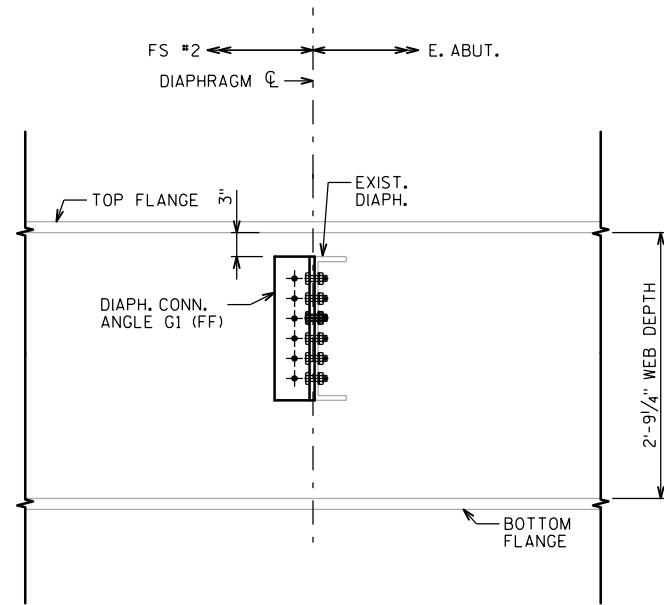
(2-5/8\"/>

NOTE:
ALL PLATES SHALL BE
ASTM A709, GRADE 36.

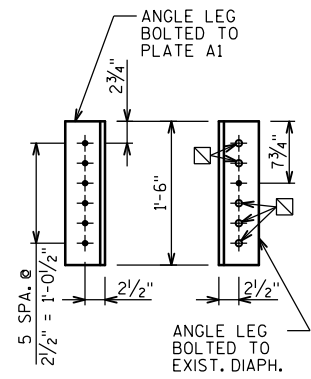
☐ - DRILL THESE HOLES USING EXISTING DIAPHRAGM AS TEMPLATE.

☒ - FIELD DRILL THESE HOLES TO CO-LOCATE WITH PROPOSED WEB MOUSE HOLE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-40-360			
DRAWN BY		JWO	PLANS CK'D. CNK
GIRDER 13 WEB REPAIR			SHEET 4

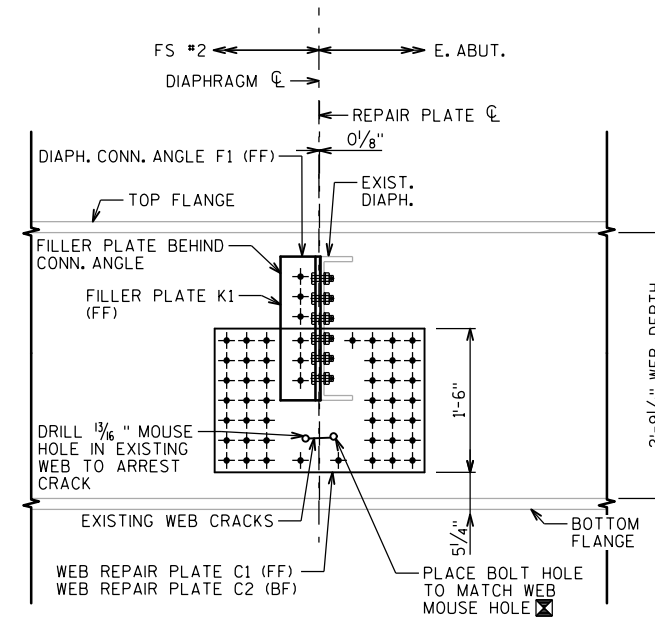


GIRDER 14 DIAPHRAGM 3 ELEVATION

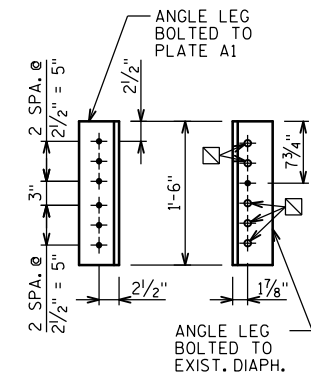


ANGLE G1 ELEVATION

(1-L5x5x5/8" ANGLE REQUIRED)
(LAY OUT HOLES AS SHOWN - 12 HOLES TOTAL)



GIRDER 14 DIAPHRAGM 2 ELEVATION



ANGLE F1 ELEVATION

(1-L5x5x5/8" ANGLE REQUIRED)
(LAY OUT HOLES AS SHOWN - 12 HOLES TOTAL)

GIRDER 14 DIAPHRAGM 3 WEB REPAIR SEQUENCE:

1. FIELD VERIFY ALL DIMENSIONS AND LOCATION OF EXISTING DIAPHRAGM.
2. LOCATE DIAPHRAGM CONNECTION ANGLE (G1) WITH RESPECT TO EXISTING CONSTRUCTION AND FIELD DRILL 1/8" BOLT HOLES IN EXISTING GIRDER WEB.
3. INSTALL AND TIGHTEN 3/4" DIAMETER BOLTS IN ALL OPEN HOLES (REGULAR BOLT PATTERN).
4. FIT EXISTING DIAPHRAGM TO DIAPHRAGM CONNECTION ANGLE (G1). INSTALL 3/4" DIAMETER BOLT IN DIAPHRAGM CONNECTION ANGLE AT SHOP DRILLED HOLE. FIELD DRILL REMAINING 1/8" BOLT HOLES IN DIAPHRAGM CONNECTION ANGLE USING EXISTING DIAPHRAGM AS TEMPLATE. INSTALL AND TIGHTEN 3/4" DIAMETER BOLTS IN ALL OPEN HOLES.

GIRDER 14 DIAPHRAGM 2 WEB REPAIR SEQUENCE:

1. FIELD VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING WEB CRACKS, MOUSE HOLES AND PREVIOUS FIELD WEB REPAIR PATCH LIMITS.
2. LOCATE WEB REPAIR PLATE (C1) WITH RESPECT TO EXISTING CONSTRUCTION AND FIELD DRILL 1/8" BOLT HOLES IN EXISTING GIRDER WEB. FIELD DRILL WEB REPAIR PLATE (C1) AT MOUSE HOLE LOCATIONS (UNLESS NOTED OTHERWISE) TO ACCEPT 3/4" DIA. BOLTS SIMILAR TO OTHERS. LOCATE DIAPHRAGM CONNECTION ANGLE (F1) AND FILLER PLATE (K1) WITH RESPECT TO WEB REPAIR PLATE (C1).
3. INSTALL WEB REPAIR PLATE (C2). FIELD DRILL REMAINING 1/8" BOLT HOLES IN WEB REPAIR PLATE (C2). INSTALL AND TIGHTEN 3/4" DIAMETER BOLTS IN ALL OPEN HOLES (REGULAR BOLT PATTERN AND OPEN MOUSE HOLES).
4. FIT EXISTING DIAPHRAGM TO DIAPHRAGM CONNECTION ANGLE (F1). INSTALL 3/4" DIAMETER BOLT IN DIAPHRAGM CONNECTION ANGLE AT SHOP DRILLED HOLE. FIELD DRILL REMAINING 1/8" BOLT HOLES IN DIAPHRAGM CONNECTION ANGLE USING EXISTING DIAPHRAGM AS TEMPLATE. INSTALL AND TIGHTEN 3/4" DIAMETER BOLTS IN ALL OPEN HOLES.

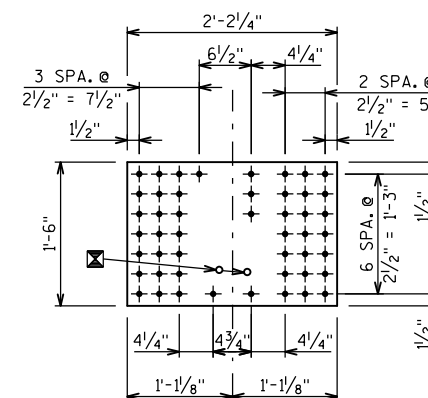


PLATE C2 ELEVATION

(1-5/8" THK. PLATE REQUIRED)
(LAY OUT HOLES AS SHOWN - 50 HOLES TOTAL)

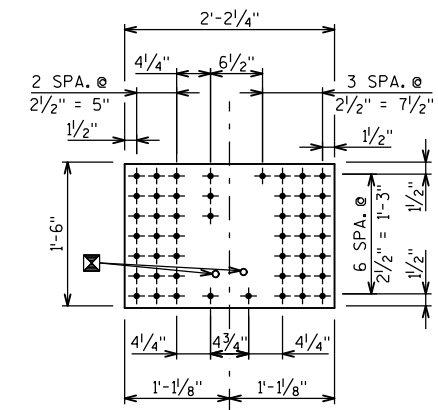
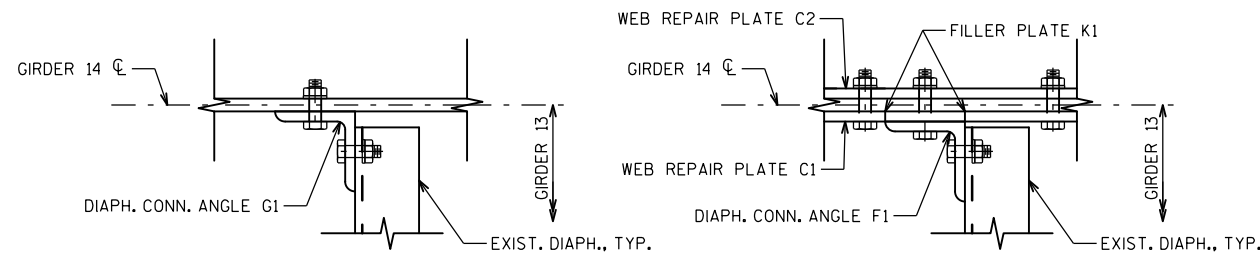


PLATE C1 ELEVATION

(1-5/8" THK. PLATE REQUIRED)
(LAY OUT HOLES AS SHOWN - 50 HOLES TOTAL)



WEB REPAIR PLAN VIEW
(DIAPHRAGM 3 SHOWN)

WEB REPAIR PLAN VIEW
(DIAPHRAGM 2 SHOWN)

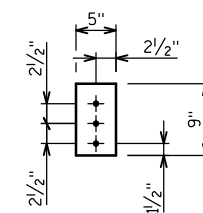


PLATE K1 ELEVATION

(1-5/8" THK. PLATE REQUIRED)
(LAY OUT HOLES AS SHOWN - 3 HOLES TOTAL)

NOTE:
ALL PLATES SHALL BE
ASTM A709, GRADE 36.

☐ - DRILL THESE HOLES USING EXISTING DIAPHRAGM AS TEMPLATE.

☒ - FIELD DRILL THESE HOLES TO CO-LOCATE WITH PROPOSED WEB MOUSE HOLE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-40-360			
DRAWN BY JWO		PLANS CK'D. CNK	
GIRDER 14 WEB REPAIR			SHEET 5



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